



Spire STL Pipeline Project

Resource Report 1
General Project Description

FERC Docket No. CP17-40-__ __

Amendment to FERC Application
April 2017

Public



| RESOURCE REPORT 1 - GENERAL PROJECT DESCRIPTION | |
|--|---|
| SUMMARY OF FILING INFORMATION | |
| Information | Found in |
| 1. Provide a detailed description and location map of the Project facilities. (§380.12(c)(1)) | Section 1.1, Figure 1.1-1, and Construction Alignment Sheets (Appendix 1-B) |
| 2. Describe non-jurisdictional facilities that would be built in association with the Project. (§380.12(c)(2)) | Section 1.8. |
| 3. Provide current original U.S. Geological Survey (USGS) 7.5-minute series topographic maps with mileposts showing the Project facilities. (§380.12(c)(3)) | Appendix 1-A. |
| 4. Provide aerial images or photographs or alignment sheets based on these sources with mileposts showing the Project facilities. (§380.12(c)(3)) | Construction Alignment Sheets (Appendix 1-B) |
| 5. Provide plot/site plans of compressor stations showing the location of the nearest noise-sensitive areas (NSA) within 1 mile. (§§380.12(c)(3) and (4)) | Not applicable. |
| 6. Describe construction and restoration methods. (§380.12(c)(6)) | Section 1.3. |
| 7. Identify the permits required for construction across surface waters. (§380.12(c)(9)) | Table 1.6-1. |
| 8. Provide the names and addresses of affected landowners and certify that affected landowners would be notified as required in §157.6(d). (§§380.12(a)(4) and (c)(10)) | Section 1.7 and Appendix 1-G. |
| INFORMATION RECOMMENDED OR OFTEN MISSING | |
| 1. Describe all authorizations required to complete the proposed action and the status of applications for such authorizations, including actual or anticipated submittal and receipt dates. | Section 1.6 and Table 1.6-1. |
| 2. Provide plot/site plans of all aboveground facilities that are not completely within the right-of-way. | Appendix 1-F |



| RESOURCE REPORT 1 - GENERAL PROJECT DESCRIPTION | |
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| INFORMATION RECOMMENDED OR OFTEN MISSING | |
| Information | Found in |
| 3. Provide detailed typical construction right-of-way cross-section diagrams for each proposed right-of-way configuration showing information such as widths and relative locations of existing rights-of-way, new permanent rights-of-way, and temporary construction rights-of-way. Clearly identify any overlap of existing rights-of-way for projects involving collocation. Identify by pipeline facility and milepost where each right-of-way configuration would apply. | Resource Report 8, Appendix 8-A. |
| 4. Summarize the total acreage of land affected by construction and operation of the project. | Section 1.2 and Tables 1.2-1 and 1.2-2. |
| 5. Describe cathodic protection system; include associated land requirements as appropriate. | Section 1.1.2 and Section 1.2.1. |
| 6. Describe construction and restoration methods for offshore facilities as well as onshore facilities. | Section 1.3. |
| 7. For proposed abandonments, describe how the right-of-way would be restored, who would own the site or right-of-way after abandonment, who would be responsible for facilities that would be abandoned in place, and whether landowners were given the opportunity to request removal. | Section 1.1.2.1. |
| 8. If Resource Report 5, Socioeconomics is not provided, provide the start and end dates of construction, the number of pipeline spreads that would be used, and the workforce per spread. | Section 1.3 |
| 9. If project includes construction in the federal offshore area, include in the discussion of required authorizations and clearances the status of consultations with the Bureau of Ocean Energy Management, Regulation and Enforcement. File with the Bureau of Ocean Energy Management, Regulation and Enforcement for right-of-way grants at the same time or before filing the Federal Energy Regulatory Commission (FERC) application. | Not applicable. |



| RESOURCE REPORT 1 - GENERAL PROJECT DESCRIPTION | |
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| INFORMATION RECOMMENDED OR OFTEN MISSING | |
| Information | Found in |
| 10. For project involving the import or export of natural gas/ liquefied natural gas and construction of liquefied natural gas facilities, include in the discussion of required authorizations and clearances the status of consultations and authorizations required from the U.S. Department of Energy, U.S. Coast Guard, and the Federal Aviation Administration, as applicable. | Not applicable. |
| 11. Send two (2) additional copies of topographic maps and aerial images/photographs directly to the environmental staff of the Office of Energy Projects. | Hardcopies submitted to FERC based on PM request. |
| 12. Provide an electronic copy of the landowner list directly to the FERC environmental staff (check with FERC staff for required format). | Appendix 1-G. |



Table of Contents

- General Project Description 1-1
 - 1.1 Proposed Facilities..... 1-1
 - 1.1.1 Purpose and Need..... 1-1
 - 1.1.2 Location and Description of Facilities 1-5
 - 1.1.3 Location Maps, Detailed Route Maps, and Plot/Site Plans..... 1-12
 - 1.2 Land Requirements 1-14
 - 1.2.1 Pipeline Facilities..... 1-14
 - 1.2.2 ATWS..... 1-16
 - 1.2.3 Aboveground Facilities..... 1-17
 - 1.2.4 Mainline Valves 1-18
 - 1.2.5 Access Roads 1-18
 - 1.2.6 Staging Areas..... 1-18
 - 1.2.7 Areas of No Access 1-18
 - 1.3 Construction Procedures..... 1-19
 - 1.3.1 Pipeline..... 1-21
 - 1.3.2 Aboveground Facilities..... 1-43
 - 1.4 Operation and Maintenance 1-44
 - 1.4.1 Pipelines 1-44
 - 1.4.2 Aboveground Facilities..... 1-46
 - 1.5 Future Plans and Abandonment..... 1-46
 - 1.6 Permits and Approvals 1-47
 - 1.7 Affected Landowners/Stakeholders..... 1-50
 - 1.7.1 Public Participation 1-50
 - 1.7.2 Landowner Notification 1-53
 - 1.7.3 Agency Outreach..... 1-53
 - 1.8 Nonjurisdictional Facilities 1-55
 - 1.9 Cumulative Impacts..... 1-55
 - 1.9.1 Scoping..... 1-57
 - 1.9.2 Potential Cumulative Impacts of the Proposed Action..... 1-58
 - 1.9.3 Conclusions 1-65
 - 1.10 References..... 1-73



Tables

1.1-1 Pipeline Facilities Associated with the Project..... 1-5

1.1-3 Cathodic Protection Areas along the Project 1-7

1.1-4 Aboveground Facilities Associated with the Project 1-9

1.2-1 Land Requirements for Pipeline Facilities 1-15

1.2-2 Land Requirements for Aboveground Facilities 1-17

1.3-1 Anticipated Construction Dates and Workforce 1-20

1.3-2 Minimum Specifications for Depth of Cover 1-23

1.3-3 Roads and Railroads Crossed by the Pipelines 1-28

1.3-4 Existing Utility Lines Crossed by the Pipelines 1-33

1.3-5 Summary of Planned HDDs 1-40

1.6-1 Environmental Permits, Approvals, and Consultations..... 1-47

1.7-1 Agency Meetings Conducted to Date..... 1-54

1.9-1 Geographic Scope for Cumulative Impact Analysis..... 1-56

1.9-2 Past, Present, and Reasonably Foreseeable Actions within the Geographic Scope 1-66

Figures

1.1-1 Project Overview Map..... 1-13

1.3-1 Typical HDD Workspace 1-42

Appendices

- 1-A Topographic Map
- 1-B Construction Alignment Sheets
- 1-C Agency Correspondence
 - United States Army Corps of Engineers
 - United States Fish and Wildlife Service
 - National Oceanic and Atmospheric Administration
 - United States Environmental Protection Agency
 - United States Department of Agriculture
 - National Park Service



- Illinois Department of Natural Resources
- Illinois Department of Agriculture
- Illinois Historic Preservation Agency
- Illinois Environmental Protection Agency
- Missouri Department of Natural Resources
- Missouri State Historic Preservation Office
- Missouri Department of Conservation
- Missouri Department of Agriculture
- Local Agencies and Governments - Scott County, Illinois
- Local Agencies and Governments - Greene County, Illinois
- Local Agencies and Governments - Jersey County, Illinois
- Local Agencies and Governments - St. Charles County, Missouri
- Local Agencies and Governments - St. Louis County, Missouri
- Native American Tribes
- Non-Governmental Organizations/Environmental Non-Governmental Organizations
- 1-D Exceptions to the FERC Plan and Procedures
- 1-E Winter Construction Plan
- 1-F Typical Facility Plot Plans
- 1-G Landowner Line List
- CONTAINS PRIVILEGED INFORMATION - DO NOT RELEASE
- 1-H Public Participation Plan
- 1-I Stakeholder Lists
- 1-J Landowner Complaint Resolution Process
- 1-K Response to Scoping Comments
- 1-L Response to Environmental Data Request



Acronyms and Abbreviations

| | |
|------------|---|
| AIMA | Agricultural Impact Mitigation Agreement |
| ATWS | additional temporary workspace |
| CFR | Code of Federal Regulations |
| Dth/d | dekatherms per day |
| E&SCs | erosion and sediment controls |
| EI | Environmental Inspector |
| EIA | Energy Information Administration |
| Enable MRT | Enable Mississippi River Transmission, LLC |
| ENGO | environmental non-governmental organization |
| ER | Environmental Report |
| ERW | electric resistance weld |
| ESA | Endangered Species Act |
| FERC | Federal Energy Regulatory Commission |
| HDD | horizontal directional drill |
| HUC | Hydrologic Unit Code |
| IDOA | Illinois Department of Agriculture |
| IDOT | Illinois Department of Transportation |
| IDNR | Illinois Department of Natural Resources |
| IHPA | Illinois Historic Preservation Agency |
| ILCS | Illinois Compiled Statutes |
| ILI | in-line inspection |
| LDC | Local Gas Distribution Company |
| LGC | Laclede Gas Company |
| M&R | metering and regulating |
| MAOP | maximum allowable operating pressure |
| MDNR | Missouri Department of Natural Resources |
| MDOC | Missouri Department of Conservation |
| MLV | mainline valve |
| MoDOT | Missouri Department of Transportation |



| | |
|------------|---|
| MO SHPO | Missouri State Historic Preservation Office |
| MP | Milepost |
| MPSC | Missouri Public Service Commission |
| NAAQS | National Ambient Air Quality Standard |
| NGO | non-governmental organization |
| NHPA | National Historic Preservation Act |
| NMSZ | New Madrid Seismic Zone |
| NPDES | National Pollutant Discharge Elimination System |
| NWP | Nationwide Permit |
| O&M | Operation & Maintenance |
| OPP | over pressure protection |
| OSHA | Occupational Safety and Health Administration |
| PHMSA | Pipeline and Hazardous Materials Safety Administration |
| Plan | FERC's Upland Erosion Control, Revegetation, and Maintenance Plan |
| Procedures | FERC's Wetland and Waterbody Construction and Mitigation Procedures |
| Project | Spire STL Pipeline Project |
| psig | pounds per square inch gauge |
| REX | Rockies Express Pipeline LLC |
| RTU | remote telemetry unit |
| SHPO | State Historic Preservation Office |
| Spire | Spire STL Pipeline LLC |
| TWS | temporary workspace |
| USACE | United States Army Corps of Engineers |
| USDOT | United States Department of Transportation |
| USEPA | United States Environmental Protection Agency |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |



Preface

The following amended Environmental Report provides supplemental information related to the Spire STL Pipeline LLC (“Spire”) Spire STL Pipeline Project (“Project”). The preferred route for the Project has been modified since the application was filed on January 26, 2017, as described in the Preliminary Notification of Preferred Route Change filed March 15, 2017. As such, Spire is no longer pursuing the proposed modifications on the existing Line 880 (and its associated facilities) and these activities are no longer considered to be part of the Project. In addition, the facility formerly named the MRT Bi-directional Station has been renamed (now referred to as the “Chain of Rocks Station”) and has been expanded.

Included within this amended Environmental Report (referred to herein as the “April 2017 Resource Reports”) are those revisions necessary to accurately reflect the current Project scope. For convenience and clarity, the April 2017 Resource Reports are marked to show changes from the original Resource Reports filed in the Certificate Application with marginal notations analogous to those used by Commission Staff to denote changes from draft to final published environmental documents. Immediately following this Preface, Spire also includes a list of the Resource Report tables with a summary of the updated information. A complete set of maps, including Construction Alignment Sheets, are included with these April 2017 Resource Reports, and the maps cover page identifies which maps have changed. With the exception of the maps, which are resubmitted in full, only those appendices that contain updated information are re-submitted with these April 2017 Resource Reports. These are noted as such in the overall table of contents for the Environmental Report.

Also included as appendices to this April 2017 Resource Report 1 are: (i) Spire’s responses to comments that have been received since the submission of its Certificate Application, included as Appendix 1-K, and (ii) a matrix showing where in the April 2017 Resource Reports Spire provides its responses to the Environmental Data Requests issued by Commission Staff on March 13, 2017, as well as the requested respondent information, included as Appendix 1-L.



Summary of Updated Tables

| Resource Report | Table/Appendix Number | Table Title | Summary of Revisions |
|-----------------|-----------------------|---|---|
| 1 | 1.1-1 | Pipeline Facilities Associated with the Project | Updated for deviations to 24-inch pipeline, addition of North County Extension and removal of Line 880. |
| 1 | 1.1-3 | Cathodic Protection Areas along the Project | Updated to include AC mitigation locations and groundbed on North County Extension. |
| 1 | 1.1-4 | Aboveground Facilities Associated with the Project | Updated for new locations/layouts for REX Receipt Station, MLV 2, and Chain of Rocks Station, and removal of Redman Delivery Station. |
| 1 | 1.2-1 | Land Requirements for Pipeline Facilities | Updated for deviations to 24-inch pipeline, addition of North County Extension and removal of Line 880. Organization structure adjusted for clarity. |
| 1 | 1.2-2 | Land Requirements for Aboveground Facilities | Updated for new locations/layouts for REX Receipt Station and Chain of Rocks Station, and removal of Redman Delivery Station. |
| 1 | 1.3-1 | Anticipated Construction Dates and Workforce | Updated for addition of North County Extension, and removal of Line 880. |
| 1 | 1.3-2 | Minimum Specifications for Depth of Cover | No changes. |
| 1 | 1.3-3 | Roads and Railroads Crossed by the Pipelines | Updated based on current Proposed Route. |
| 1 | 1.3-4 | Existing Utility Lines Crossed by the Pipelines | Updated or deviations on 24-inch pipeline, addition of North County Extension, and removal of Line 880. Missing owner information resolved. |
| 1 | 1.3-5 | Summary of Planned HDDs | Updated to address data request and include HDDs on North County Extension. |
| 1 | 1.6-1 | Environmental Permits, Approvals, and Consultations | Updated based on recent submittals/approvals and consultations. |
| 1 | 1.7-1 | Agency Meetings Conducted to Date | Updated to include recent meetings. |
| 1 | 1.9-1 | Geographic Scope for Cumulative Impact Analysis | Updated scope for Environmental Justice to include North County Extension. |
| 1 | 1.9-2 | Past, Present, and Reasonably Foreseeable Actions within the Geographic Scope | Updated for deviations on 24-inch pipeline, addition of North County Extension, and removal of Line 880. |
| 1 | Appendix 1-D | Exceptions to the FERC Plan and Procedures | Updated for deviations on 24-inch pipeline, facilities, addition of North County Extension, and removal of Line 880. All wetlands within ATWS included to address environmental data request. |
| 1 | Appendix 1-G | Landowner Line List | Updated for deviations on 24-inch pipeline, facilities, addition of North County Extension, and removal of Line 880. |
| 1 | Appendix 1-I | Stakeholder Lists | Updated to reflect recent updates to contacts. |
| 1 | Appendix 1-K | Response to Scoping Comments | Comments submitted after January 26, 2017 application filed. |
| 1 | Appendix 1-L | Response to Environmental Data Request | Responses to FERC's March 13, 2017 Environmental Data Request. |



Summary of Updated Tables (Continued)

| Resource Report | Table/Appendix Number | Table Title | Summary of Revisions |
|-----------------|-----------------------|--|---|
| 2 | 2.1-1 | Water Supply Wells and Springs within 150 Feet of the Project Construction Areas | Updated for deviations on 24-inch pipeline, addition of North County Extension, and removal of Line 880. |
| 2 | 2.2-1 | Incomplete Survey Status | Updated based on recent surveys for route revisions on 24-inch pipeline, addition of North County Extension, and removal of Line 880. |
| 2 | 2.2-2 | Waterbodies Crossed by the Project | Updated for deviations on 24-inch pipeline, addition of North County Extension, and removal of Line 880. |
| 2 | 2.2-3 | Public Water Supply Watershed Areas Crossed by the Project or in Proximity to Aboveground Facilities | Updated for deviations to 24-inch pipeline, facilities, addition of North County Extension and removal of Line 880. |
| 2 | 2.2-4 | 100-Year Flood Zones Crossed by the Project | Updated for deviations to 24-inch pipeline, facilities, addition of North County Extension and removal of Line 880. |
| 2 | 2.2-5 | Hydrostatic Test Water Segments, Volumes, Sources, and Discharge Locations | Updated for addition of North County Extension and removal of Line 880. |
| 2 | 2.3-1 | Wetlands Crossed by the Project | Updated for deviations to 24-inch pipeline, facilities, addition of North County Extension and removal of Line 880. Added a column for the breakout of wetland acreage within ATWS to address environmental data request. |
| 2 | 2.3-2 | Summary of Wetlands Affected by Construction and Operations | Updated for deviations on 24-inch pipeline, removal of Line 880, and added North County Extension. |
| 3 | 3.1-1 | Representative Fish Species in Waterbodies Crossed by the Project | No changes. |
| 3 | 3.1-2 | Fisheries of Special Concern in the Vicinity of the Project | No changes. |
| 3 | 3.2-1 | Unique Wildlife Habitat Types Affected by Construction and Operation of the Project | No changes. |
| 3 | 3.3-1 | Vegetation Communities Affected by Construction and Operation of the Project | Updated for deviations to 24-inch pipeline, facilities, addition of North County Extension and removal of Line 880. Organization structure adjusted for clarity. |
| 3 | 3.4-1 | State and Federally Listed Species Potentially Occurring in the Vicinity of the Project | Updated for addition of North County Extension and removal of Line 880, and recent consultations. |
| 3 | 3.4-2 | USFWS IPaC Report Birds of Conservation Concern Potentially Occurring in the Vicinity of the Project | Updated nesting periods and references. |
| 4 | 4.3-1 | Areas where Cultural Resources Survey is Incomplete | Updated based on most recent field surveys. |
| 4 | 4.3-2 | Previously Identified Cultural Resources within the APE | Updated for addition of North County Extension and removal of Line 880. |



Summary of Updated Tables (Continued)

| Resource Report | Table/Appendix Number | Table Title | Summary of Revisions |
|-----------------|-----------------------|--|--|
| 4 | 4.3-3 | Archaeological Resources Identified within the APE | Updated based on most recent field surveys. |
| 4 | 4.3-4 | Historic Architectural Resources Identified within the APE | Updated based on most recent field surveys. |
| 5 | 5.1-1 | Temporary Housing Units Available in the Project Area | None. |
| 5 | 5.2-1 | Race and Ethnicity in the Project Area | Updated for addition of North County Extension and removal of Line 880. |
| 5 | 5.2-2 | Minority Populations in the Affected Environment | Updated for addition of North County Extension and removal of Line 880. |
| 5 | 5.2-3 | Poverty Levels in Counties Crossed by the Project | Updated for addition of North County Extension and removal of Line 880. |
| 5 | 5.2-4 | Low Income Populations in the Affected Environment | Updated for addition of North County Extension and removal of Line 880. |
| 5 | 5.2-5 | Linguistically Isolated Populations in the Affected Environment | Updated for addition of North County Extension and removal of Line 880. |
| 6 | 6.2-1 | Locations of Proposed Blasting | Updated "utilities within blasting radius" column as a result of recent surveys. |
| 6 | 6.3-1 | Mineral Resources in the Vicinity of the Pipeline | Updated for deviations to 24-inch pipeline, addition of North County Extension, and removal of Line 880. |
| 6 | 6.4-1 | Geologic Hazard Areas | Updated for deviations to 24-inch pipeline, addition of North County Extension, and removal of Line 880. Added new field survey results. |
| 6 | 6.4-2 | Karst Features Crossed by the Project | Updated for deviations to 24-inch pipeline, addition of North County Extension, and removal of Line 880. Added new field survey results. |
| 7 | 7.1-1 | Selected Physical and Interpretive Characteristics of the Soil Map Units within the Project Area | Updated with new soil types and to remove those no longer crossed. |
| 7 | 7.3-1 | Acres of Soil Characteristics Affected by the Proposed Pipeline | Updated for deviations to 24-inch pipeline, facilities, addition of North County Extension and removal of Line 880. Organization structure adjusted for clarity. |
| 7 | 7.4-1 | Seed Mixes Associated with Conservation Program Tracts | Updated based on recent consultations. |
| 7 | 7.5-1 | Recommended Forested Upland Seed Mix | No changes. |
| 7 | 7.5-2 | Recommended Forested Lowland Seed Mix | No changes. |
| 7 | 7.5-3 | Recommended Non-Agriculture Meadow Seed Mix | Title corrected. |
| 7 | 7.5-4 | Recommended Supplemental Pollinator Seed Mix | No changes. |
| 7 | 7.5-5 | Recommend Cover Crop Seed Mix | Revised to be state-specific. |



Summary of Updated Tables (Continued)

| Resource Report | Table/Appendix Number | Table Title | Summary of Revisions |
|-----------------|-----------------------|---|---|
| 7 | Appendix 7-B | Soil Descriptions by Milepost | Updated for deviations to 24-inch pipeline, facilities, addition of North County Extension and removal of Line 880. Revisions made based on environmental data request. |
| 8 | 8.1-1 | Land Crossed by the Pipelines | Updated for deviations to 24-inch pipeline, addition of North County Extension and removal of Line 880. |
| 8 | 8.1-2 | Acreage Affected by Construction and Operation of the Project | Updated for deviations to 24-inch pipeline, facilities, addition of North County Extension and removal of Line 880. Organization structure adjusted for clarity. |
| 8 | 8.1-3 | Existing Rights-of-Way Adjacent to the Pipelines | Updated for deviations to 24-inch pipeline, addition of North County Extension and removal of Line 880. Previously pending information completed where available. |
| 8 | 8.1-4 | Access Roads Required for the Project | Updated for addition of North County Extension and removal of Line 880. |
| 8 | 8.1-5 | Staging Areas | Updated to reflect changes to SA-001. |
| 8 | 8.2-1 | Residences and Structures Within 50 Feet of Construction Work Area and Proposed Mitigation | Updated to include residences, barn, or other structures within 50 ft of construction. North County Extension added. |
| 8 | 8.3-1 | Potential Lands Enrolled in Conservation Programs | Updated based on recent consultations. |
| 8 | 8.3-2 | Public Land and Designated Recreation Areas, Scenic Areas, or Other Special Use Areas within 0.25 mile of the Project | Updated to reflect route deviations to 24-inch pipeline; Updated for addition of North County Extension and removal of Line 880. |
| 8 | Appendix 8-F | Additional Temporary Workspace | Updated for deviations to 24-inch pipeline, facilities, addition of North County Extension and removal of Line 880. Revisions made based on environmental data request. |
| 9 | 9.1-1 | Climate Data for St. Charles County Airport, Missouri (1981 to 2010) for the Project | No changes. |
| 9 | 9.1-2 | Yearly Local Ozone Data for West Alton Site | No changes. |
| 9 | 9.1-3 | Yearly Local Ozone Data for Orchard Farm Site | No changes. |
| 9 | 9.1-4 | Yearly Local Ozone Data for Illini Junior High Site | No changes. |
| 9 | 9.1-5 | Yearly Local PM2.5 Data for Illini Junior High Site | No changes. |
| 9 | 9.1-6 | Summary of Temporary Construction Emissions | Updated for addition of North County Extension and removal of Line 880. |
| 9 | 9.1-6a | Equipment Type and Fuel Consumptions | Updated for addition of North County Extension and removal of Line 880. |
| 9 | 9.1-7 | Summary of Stationary Source Emissions | No changes. |
| 9 | 9.1-8 | Methane to Carbon Dioxide Equivalent for Pipelines and Stations | Updated for addition of North County Extension and removal of Line 880. |



Summary of Updated Tables (Continued)

| Resource Report | Table/Appendix Number | Table Title | Summary of Revisions |
|------------------------|------------------------------|--|---|
| 9 | 9.1-9 | General Conformity Thresholds | No changes. |
| 9 | 9.2-1 | Measured Ambient Noise Levels | Added Coldwater Creek Locations, removed MRT Bi-directional Station. |
| 10 | 10.4-1 | Environmental Comparison of Major Route Alternatives | Line 880 removed and data for North County Extension added. |
| 10 | 10.4-2 | Environmental Comparison of Minor Route Alternatives | Data for Proposed Route updated. |
| 10 | 10.4-3 | Minor Route Deviations | Updated with deviations to 24-inch pipeline. |
| 10 | 10.4-4 | Deviation Analysis for Residences | Updated for addition of North County Extension and removal of Line 880. |
| 11 | 11.2-1 | Pipeline Class Locations | Updated for addition of North County Extension and removal of Line 880. |
| 11 | 11.2-2 | Proposed MLVs | Line 880 removed; no MLVs proposed for North County Extension. |
| 11 | 11.2-3 | Maximum Interval between Patrols | No changes. |



General Project Description

1.1 Proposed Facilities

Spire STL Pipeline LLC (“Spire”), a wholly owned subsidiary of Spire Inc.,¹ is seeking authorization from the Federal Energy Regulatory Commission (“FERC”) pursuant to Section 7(c) of the Natural Gas Act to construct and operate the proposed Spire STL Pipeline Project (“Project”) located in Scott, Greene, and Jersey Counties, Illinois, and St. Charles and St. Louis Counties, Missouri. The 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 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.

1.1.1 Purpose and Need

The Project is designed to provide approximately 400,000 Dth/d of year-round transportation service from an interconnect with REX in Scott County, Illinois to markets in the St. Louis metropolitan area, eastern Missouri and southwestern Illinois. Its purpose is to provide additional firm interstate pipeline capacity and access to additional supply basins to serve homes and businesses in the St. Louis metropolitan area and surrounding counties. The Project will enhance reliability and supply security, and will reduce reliance upon older and less favorable natural gas pipelines and propane peak-shaving infrastructure.

The Project was initially developed in response to strategic supply planning and reliability enhancement objectives of the Foundation Shipper, LGC. Spire has executed a precedent agreement with LGC as the Foundation Shipper for 350,000 Dth/d - representing a substantial amount of the Project’s total capacity. Accordingly, at present, 87.5 percent of the anticipated firm capacity from the Project is committed to the Foundation Shipper and the remaining 12.5 percent is unsubscribed.

¹ Spire Inc. is the new name of The Laclede Group, a natural gas company with over 150 years of experience providing natural gas service in the St. Louis, Missouri area, with current natural gas distribution operations serving 1.7 million customers in Missouri, Alabama, and Mississippi.



Spire held an Open Season for the Project from August 1, 2016 through August 19, 2016. Spire is negotiating with other prospective shippers that expressed interest in the Project during or after the Open Season and it is hopeful that additional precedent agreements will be executed as the Project progresses throughout the regulatory process.²

1.1.1.1 Purpose and Needs Relating to the Greater St. Louis Area and Eastern Missouri

The Project will meet the needs of the Foundation Shipper, LGC, and other shippers in the greater St. Louis area and eastern Missouri that may have a desire to convert to natural gas or diversify their pipeline capacity entitlements and associated natural gas supply by providing access to REX and the supply basins attached thereto. As the local gas distribution company (“LDC”) with responsibility to provide natural gas service to residential, commercial, and industrial customers, LGC currently serves approximately 650,000 customers in the St. Louis metropolitan area and surrounding counties in eastern Missouri.

The St. Louis market is constrained in terms of interstate natural gas pipeline capacity to LGC’s city gate and access to diverse natural gas supplies. Currently, LGC holds firm transportation service entitlements (i.e., transportation capacity) on three interstate pipelines that directly connect to its LDC system, with over 87 percent of its total firm city-gate transportation capacity under contract with Enable MRT. To supplement its flowing supply during the winter season and on peak days, LGC also holds on and off-system storage assets. In addition, LGC relies on a liquid propane facility behind its city gate that is used to enrich the British thermal unit content of natural gas received in order to meet critical peak system requirements during limited periods of highest demand when demand exceeds LGC’s flowing supply and storage withdrawal capabilities.

In addition to physical gas transportation capacity constraints, the St. Louis market currently lacks competitively-priced firm access to the supply basins that are attached to the REX pipeline system in the Rocky Mountains and Appalachian region. The prolific nature of the production connected to REX has been well documented, and the United States Department of Energy, Energy Information Administration (“EIA”) has projected substantial growth in these basins compared to other sources of domestic gas production over the next several decades.³

The older pipelines serving the St. Louis market primarily provide access to gas supply basins in Kansas, Oklahoma, Texas, and the Gulf Coast area. On the whole, those traditional supply basins have been largely static or declining in recent years. Furthermore, as a result of the geographic proximity of those supply basins to developing new markets for natural gas such as liquefied natural gas and Mexican exports, increased competition for supply out of those regions is likely to further increase gas supply price risk to the St. Louis market absent alternative sources. In addition, current transportation paths to the St. Louis area generally involve multiple pipelines and, consequently, “rate stacking” in order to access those traditional supply sources. As those basins decline over time, markets such as St. Louis need access to newer and growing supply basins located in other regions of the country to ensure affordable and reliable supply.

² Because Spire is a proposed new pipeline, without existing customers, Spire was not required, nor able, to conduct a reverse open season to solicit capacity turnback.

³ United States EIA, *Annual Energy Outlook 2016*.



Meanwhile, the REX pipeline - one of the newest and largest pipeline systems in the United States, with substantial capacity spanning supply basins in the Rocky Mountains all the way to the Appalachian region - has initiated a series of construction projects to enable its interstate pipeline system to source and deliver gas bi-directionally in order to provide firm deliveries from prolific supply basins in the eastern United States to markets as far west as central Illinois.⁴ In addition, REX will perform yard and station piping modifications at its existing Blue Mound Compressor Station in Christian County, Illinois pursuant to 18 Code of Federal Regulations (“CFR”) § 2.55(a). The project will occur entirely within the station fence line on previously approved and disturbed areas. The modifications will enable REX to provide east-to-west transportation in REX Zone 3, on a firm primary basis, to delivery locations as far west as Scott County, Illinois. The Blue Mound Compressor Station piping modifications are independent of the Rockies Express Zone 3 Capacity Enhancement Project. These modifications will enable REX to make deliveries from the east at the new Spire interconnect on a primary firm basis.

The Project’s presence as a new transportation path for gas to the greater St. Louis area will not only provide direct benefits in linking that region to prolific new supply, but will also provide critical infrastructure reliability and diversity benefits that enhance overall natural gas supply security in the region. As noted above, over 87 percent of the firm pipeline transportation capacity into the St. Louis market area is currently provided by a single pipeline. The Project will significantly enhance the overall supply security of natural gas in the St. Louis area and surrounding counties by providing an additional physical source of flowing supply to the region. In the event of a planned or unplanned service outage on the current pipelines delivering into the region, LGC will be in a substantially better position to protect its system operations. Moreover, direct access to supplies from the REX pipeline system will include supply from both the Eastern United States and Rocky Mountain production areas, thus providing LGC and other Project shippers with multiple gas sourcing options and consequently enhanced supply reliability as well as economic benefits.

Moreover, a significant portion of St. Louis’ current supply source crosses an area of seismic activity referred to as the New Madrid Seismic Zone (“NMSZ”). According to the United States Geological Survey (“USGS”),⁵ the NMSZ is the most active seismic area in the United States east of the Rocky Mountains. Due to the geologic conditions in the NMSZ, earthquakes in that region have the potential to damage an area approximately 20 times larger than earthquakes in California and most other active seismic areas.⁶

Given concerns about the potential for extended service interruptions, and the potentially devastating impacts of such service interruptions and loss of access to critical gas supplies to its service area in the event of such an incident, LGC has sought to diversify its pipeline transportation service paths and contract with an additional pipeline transporter whose geographic path to LGC’s system avoids the NMSZ. The Project fulfills this need.

⁴ See, e.g., *Rockies Express Pipeline LLC*, 154 FERC ¶ 61,139 (2016) (authorization of Zone 3 Capacity Enhancement Project); *Rockies Express Pipeline LLC*, 150 FERC ¶ 61,161 (2015), *reh’g denied*, 155 FERC ¶ 61,018 (2016) (authorization of Zone 3 East-to-West Project).

⁵ Earthquake Hazard in the New Madrid Seismic Zone Remains a Concern. <http://pubs.usgs.gov/fs/2009/3071/pdf/FS09-3071.pdf>. That publication reported that, based on its review of earthquake data in the region, the USGS estimated that the chance of having an earthquake as powerful as the historic 1811-12 earthquakes (measured at magnitude 7-8) was “about 7 to 10 percent, and the chance of having a magnitude 6 or larger earthquake in 50 years is 25 to 40 percent.”

⁶ Missouri Department of Natural Resources, *Facts About the New Madrid Seismic Zone*, <http://dnr.mo.gov/geology/geosrv/geores/techbulletin1.htm> (last visited Jan. 16, 2017).



An additional purpose of the Project for the Foundation Shipper is its ability, through the introduction of a new firm source of flowing gas supply to the St. Louis area, to eliminate LGC's current dependence on propane for peak shaving. Approximately 0.9 billion cubic feet of natural gas equivalent of liquid propane is currently stored in LGC's propane underground storage facility for potential vaporization in winter months. As noted above, LGC currently relies on propane injection to meet its system needs on the coldest days of the year. LGC's propane facilities are aged, and the use of propane is increasingly difficult from an operational standpoint given that the propane-enriched gas is not compatible with certain uses of gas, such as compressed natural gas for vehicular and other end use applications. In addition, firm transportation of propane to the St. Louis market is limited; only a single pipeline delivers propane to St. Louis and the firm capacity on that pipeline is fully committed to shippers other than LGC, making it increasingly difficult to acquire large quantities of propane on a timely basis (e.g., during an emergency like severe sustained cold weather). Thus, the Project will fulfill LGC's need to reduce reliance on, and ultimately replace, this propane peak shaving operation with greater access to firm supplies of natural gas that are available even on the coldest days of the year.

1.1.1.2 Other Purposes and Needs to be Served by the Project

Another purpose of the Project is to provide natural gas transportation infrastructure to support potential growth in demand for natural gas in the industrial and power generation sectors. As projected by EIA, the demand for natural gas is expected to rise steadily over the next several decades, and particularly so in the electric power sector. As EIA recently reported, these increases are spurred by environmental benefits of natural gas versus coal in electric generation. After experiencing significant increases in demand in recent years, EIA predicts a temporary leveling off of demand as both the price of natural gas and use of renewable energy sources increase. This trend, however, is expected to reverse:

Throughout the 2020s and 2030s, electricity generation using natural gas increases again. Because natural gas-fired electricity generation produces fewer carbon dioxide emissions than coal-fired generation, natural gas is expected to play a large role in compliance with the Clean Power Plan for existing generation from fossil fuels, which takes effect in 2022. The electric power sector's total consumption of natural gas from 2020 through 2030 is 6 Tcf greater in the AEO2016 [Annual Energy Outlook 2016] Reference case than in a case where the Clean Power Plan is not implemented (No CPP).⁷

Although the Clean Power Plan is an anticipated driver of the growth in demand for natural gas for electric generation, EIA still predicts steady growth for that sector's natural gas demand even without the Clean Power Plan. Missouri remains heavily dependent upon coal-fired power generation.⁸ Based on the above discussion, it can be expected that gas-fired generation will increasingly replace coal-fired generation in Missouri.

⁷ United States EIA, "Industrial and electric power sectors drive projected growth in natural gas use" (May 26, 2016).

⁸ See United States EIA, Missouri State Energy Profile (noting that "[c]oal fueled 83 percent of Missouri's net electricity generation in 2014 and 78 percent in 2015").



The environmental advantages of natural gas compared to other fossil fuels offer other important benefits for the region to be served by the Project. In July 2016, the U.S. Environmental Protection Agency (“USEPA”) finalized its 2010 primary National Ambient Air Quality Standard (“NAAQS”) designations for sulfur dioxide, which identified Alton Township, Illinois - a town near the Project’s proposed route - as one of several nonattainment areas for sulfur dioxide in the nation.⁹The Project will offer the opportunity for energy conversion from more environmentally impactful fuel sources to cleaner-burning natural gas, potentially resulting in significant environmental benefits to the region.

1.1.2 Location and Description of Facilities

Construction of the Project is proposed in Scott, Greene, and Jersey Counties, Illinois, and St. Charles and St. Louis Counties, Missouri, and includes approximately 65 miles of pipeline and associated ancillary facilities.

1.1.2.1 Pipeline Facilities

A summary of the proposed pipeline facilities is presented in Table 1.1-1. Mileposts (“MPs”) with “R” denote locations where route modifications have been incorporated on the 24-inch pipeline. As mileposts were not renumbered, the approximate length of pipeline is slightly greater than the end milepost (i.e., total length of 59.2 miles ending in MP 58.8). Mileposts associated with the North County Extension begin at MP 0.0 at the proposed Laclede/Lange Delivery Station and continue west to east.

Table 1.1-1. Pipeline Facilities Associated with the Project

| Facility | Pipeline Diameter (inch) and Type | MPs ¹ | County, State | Approximate Length (miles) |
|--|-----------------------------------|------------------|-----------------------|----------------------------|
| 24-Inch Pipeline | 24, New | 0.0 R - 3.5 | Scott, Illinois | 3.8 |
| | | 3.5 - 29.4 | Greene, Illinois | 25.8 |
| | | 29.4 - 45.4 | Jersey, Illinois | 16.1 |
| | | 45.4 - 58.1 | St. Charles, Missouri | 12.8 |
| | | 58.1 - 58.8 | St. Louis, Missouri | 0.7 |
| Subtotal - 24-Inch Pipeline² | | | | 59.2 |
| North County Extension | 24, New | 0.0 - 6.0 | St. Louis, Missouri | 6.0 |
| Total² | | | | 65.2 |

⁹ Air Quality Designations for the 2010 Sulfur Dioxide (SO₂) Primary National Ambient Air Quality Standard—Round 2, 81 Fed. Reg. 45,039, 45,047 (July 12, 2016). An area is designated as a “nonattainment area” if it fails to meet the NAAQS or contributes to a nearby area that does not meet the NAAQS. *Id.* at 45,039.



Table 1.1-1. Pipeline Facilities Associated with the Project (Continued)

Notes:

- ¹ MP designations begin at 0.0 for each pipeline facility and are described geographically from north to south for the 24-inch pipeline and west to east for the North County Extension. “R” denotes a milepost at which there have been route modifications.
- ² May not equal the sum of the column due to rounding. Length of pipeline differs from MP due to route modifications.

24-Inch Pipeline

The proposed 24-inch pipeline includes approximately 59.2 miles of 24-inch diameter steel pipeline and will deliver gas from the REX pipeline in Scott County, Illinois, to the proposed North County Extension and LGC’s existing facilities in St. Louis County, Missouri. The proposed 24-inch pipeline will be designed for a maximum allowable operating pressure (“MAOP”) of 1,440 pounds per square inch gauge (“psig”). The pipeline generally runs from north to south with approximately 3.8 miles in Scott County, Illinois, 25.8 miles in Greene County, Illinois, 16.1 miles in Jersey County, Illinois, 12.8 miles in St. Charles County, Missouri, and 0.7-mile in St. Louis County, Missouri. Spire proposes that the 24-inch pipeline will cross the Mississippi River and Missouri River via two horizontal directional drills (“HDDs”).

North County Extension

The proposed North County Extension includes approximately six miles of 24-inch-diameter steel pipeline and will deliver gas from the proposed 24-inch pipeline to a new M&R station and interconnect with Enable MRT and LGC in St. Louis County, Missouri. The proposed North County Extension will be designed for a MAOP of 1,440 psig. The pipeline generally runs from west to east. Spire proposes that the North County Extension will cross US-67/Highway 367 and Coldwater Creek via one HDD. A second HDD, referred to as the “Spanish Lake Park HDD”, crosses Spanish Lake Park and the Emerald Greens Golf Course.

Cathodic Protection

An impressed current cathodic protection system with remote groundbeds is proposed for the 24-inch pipeline and North County Extension. Based on field investigations, five remote groundbeds will be required on the 24-inch pipeline, and one remote groundbed will be required for the North County Extension. Locations of the remote groundbeds are included on the Construction Alignment Sheets. Approximate impacts for these facilities are included in Table 1.2-1.

Spire also proposes to implement an AC mitigation system in areas where the pipeline segments parallel high-voltage electric transmission lines as necessary to reduce stray current, to prevent possible shock to personnel during post-construction activities, and to prevent interference with the cathodic protection system. Spire will analyze the pipeline, power line, and local soil characteristics to determine the induced AC effects to the pipeline under worst-case steady-state and fault conditions on the power lines. Based upon the results of this analysis, an AC mitigation system will be designed which reduces interference levels on the pipeline to acceptable levels for pipeline integrity and personnel safety. For below-grade pipeline segments, this AC mitigation system



will consist of zinc ribbon installed parallel to the pipeline and connected to the pipeline through a decoupling device. These decoupling devices are typically installed within above-grade pedestals. For above-grade pipeline appurtenances, such as MLV and M&R sites, the AC mitigation system will consist of gradient control mats. These mats will also be connected to the pipeline through a decoupling device. Above-grade coupon test stations may also be proposed in certain areas where the monitoring of AC interference levels is recommended. Areas which may require continued monitoring include locations where the pipeline will cross wetlands, streams, or other bodies of water, as the low soil resistivity in these areas presents a significant risk for AC corrosion occurring on the pipeline.

The primary areas of concern with regards to AC interference impacts to the pipeline are locations where high voltage transmission lines will cross or parallel the pipeline route. These locations are included in Table 1.3-4 and Resource Report 8, respectively. AC mitigation systems will be installed within the permanent easement or facilities.

Proposed locations of cathodic protection and AC mitigation areas along the pipeline are provided in Table 1.1-3. Spire will seek the appropriate approvals from landowners and FERC for cathodic protection areas.

Table 1.1-3. Cathodic Protection Areas along the Project

| Facility Name | County, State | Township/Town | MP |
|--|------------------------------|---------------|-------------|
| 24-Inch Pipeline | | | |
| Remote Groundbed 1 | Greene County, Illinois | Roadhouse | 4.5 |
| Remote Groundbed 2 | Greene County, Illinois | Carrollton | 15.7 |
| Remote Groundbed 3 | Greene County, Illinois | Kane | 27.3 |
| Remote Groundbed 4 | Jersey County, Illinois | Elsah | 41.8 |
| Remote Groundbed 5 | St. Charles County, Missouri | Rivers | 56.6 |
| AC Mitigation Zinc Ribbon ¹ | Scott County, Illinois | Alsey | 0.0R - 0.2R |
| AC Mitigation Zinc Ribbon ¹ | Scott County, Illinois | Alsey | 0.7 - 0.8 |
| AC Mitigation Zinc Ribbon ¹ | Scott County, Illinois | Alsey | 1.0 - 1.1 |
| AC Mitigation Zinc Ribbon ¹ | Scott County, Illinois | Alsey | 2.1 - 2.3 |
| AC Mitigation Zinc Ribbon ¹ | Scott County, Illinois | Alsey | 3.2 - 3.3 |
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | Roadhouse | 5.3 - 5.5 |
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | Roadhouse | 7.0 - 7.2 |
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | White Hall | 8.4 - 8.6 |
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | White Hall | 9.8 - 9.9 |
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | White Hall | 10.9 - 11.1 |
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | White Hall | 11.9 - 13.0 |



Table 1.1-3. Cathodic Protection Areas along the Project (Continued)

| Facility Name | County, State | Township/Town | MP |
|--|------------------------------|---------------|---------------|
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | Carrollton | 15.2 - 15.3 |
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | Carrollton | 15.7 - 15.8 |
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | Carrollton | 16.3 - 16.5 |
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | Carrollton | 16.9 - 17.0 |
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | Carrollton | 18.7R - 19.3 |
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | Kane | 25.2R - 25.6R |
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | Kane | 26.9 - 27.3 |
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | Kane | 27.3 - 27.4 |
| AC Mitigation Zinc Ribbon ¹ | Greene County, Illinois | Kane | 28.0 - 28.1 |
| AC Mitigation Zinc Ribbon ¹ | Jersey County, Illinois | English | 29.5 - 29.6 |
| AC Mitigation Zinc Ribbon ¹ | Jersey County, Illinois | English | 29.6 - 29.8 |
| AC Mitigation Zinc Ribbon ¹ | Jersey County, Illinois | English | 31.3 - 31.4 |
| AC Mitigation Zinc Ribbon ¹ | Jersey County, Illinois | English | 31.9 - 32.1 |
| AC Mitigation Zinc Ribbon ¹ | Jersey County, Illinois | Otter Creek | 40.9 - 41.7 |
| AC Mitigation Zinc Ribbon ¹ | Jersey County, Illinois | Otter Creek | 41.7 - 41.8 |
| AC Mitigation Zinc Ribbon ¹ | Jersey County, Illinois | Elsah | 41.8 - 42.3 |
| AC Mitigation Zinc Ribbon ¹ | Jersey County, Illinois | Elsah | 42.3 - 43.3 |
| AC Mitigation Zinc Ribbon ¹ | St. Charles County, Missouri | Rivers | 47.2R - 47.6R |
| AC Mitigation Zinc Ribbon ¹ | St. Charles County, Missouri | Rivers | 47.6R - 48.0R |
| AC Mitigation Zinc Ribbon ¹ | St. Charles County, Missouri | Rivers | 49.0 - 49.4 |
| AC Mitigation Zinc Ribbon ¹ | St. Charles County, Missouri | Rivers | 49.4 - 50.3 |
| AC Mitigation Zinc Ribbon ¹ | St. Charles County, Missouri | Rivers | 50.5 - 51.1 |
| AC Mitigation Zinc Ribbon ¹ | St. Charles County, Missouri | Rivers | 51.2 - 51.3 |
| AC Mitigation Zinc Ribbon ¹ | St. Charles County, Missouri | Rivers | 51.3 - 51.8 |
| AC Mitigation Zinc Ribbon ¹ | St. Charles County, Missouri | Rivers | 51.8 - 52.6 |
| North County Extension | | | |
| Remote Groundbed 1 | St. Louis County, Missouri | St. Ferdinand | 4.9 |
| AC Mitigation Zinc Ribbon ¹ | St. Louis, Missouri | Spanish Lake | 0.0 - 0.1 |
| AC Mitigation Zinc Ribbon ¹ | St. Louis, Missouri | Spanish Lake | 1.1 - 1.7 |
| AC Mitigation Zinc Ribbon ¹ | St. Louis, Missouri | Spanish Lake | 1.8 - 1.9 |



Table 1.1-3. Cathodic Protection Areas along the Project (Continued)

| Facility Name | County, State | Township/Town | MP |
|--|---------------------|---------------|-----------|
| AC Mitigation Zinc Ribbon ¹ | St. Louis, Missouri | Spanish Lake | 2.3 - 2.4 |
| AC Mitigation Zinc Ribbon ¹ | St. Louis, Missouri | Spanish Lake | 3.1 - 3.2 |
| AC Mitigation Zinc Ribbon ¹ | St. Louis, Missouri | Spanish Lake | 3.4 - 3.5 |
| AC Mitigation Zinc Ribbon ¹ | St. Louis, Missouri | Spanish Lake | 3.8 - 3.9 |
| AC Mitigation Zinc Ribbon ¹ | St. Louis, Missouri | St. Ferdinand | 4.4 - 4.5 |
| AC Mitigation Zinc Ribbon ¹ | St. Louis, Missouri | St. Ferdinand | 4.8 - 4.9 |
| AC Mitigation Zinc Ribbon ¹ | St. Louis, Missouri | St. Ferdinand | 4.9 - 5.4 |

Note:

- ¹ AC Mitigation zinc ribbon locations are based on preliminary modeling and are subject to change. Installation will be limited to the proposed permanent easement.

1.1.2.2 Aboveground Facilities

No major aboveground facilities are proposed for the Project. Ancillary aboveground facilities on the proposed 24-inch pipeline and North County Extension include M&R stations, pig launchers/receivers, and MLVs, as described below and further detailed in Table 1.1-4.

Table 1.1-4. Aboveground Facilities Associated with the Project

| Facility Name | Approximate MP | County, State | Description |
|--------------------------------|----------------|-----------------------|---|
| 24-Inch Pipeline | | | |
| REX Receipt Station | 0.0R | Scott, Illinois | Construction of a new M&R facility at the interconnect with the REX pipeline. |
| MLV 1 | 15.7 | Greene, Illinois | Located within the proposed permanent easement. |
| MLV 2 | 34.7 | Jersey, Illinois | Located within the proposed permanent easement. |
| MLV 3 | 46.2 | St. Charles, Missouri | Located within the proposed permanent easement. |
| Laclede/Lange Delivery Station | 58.8 | St. Louis, Missouri | Construction of a new M&R facility at the interconnects between the proposed 24-inch pipeline, LGC's existing facilities (for delivery to LGC), and the North County Extension. |
| North County Extension | | | |
| Chain of Rocks Station | 6.0 | St. Louis, Missouri | Construction of a new M&R facility and interconnects with Enable MRT and LGC. |



M&R Facilities

M&R stations typically include a fenced control building and a permanent access road, along with a supply line and a discharge line from the associated pipeline, an emergency bypass line, and communication equipment for supervisory control. Launcher/receiver assemblies will be temporary, and barrel assemblies will be installed as needed by Spire operation personnel. The stations proposed to be constructed as part of the Project include:

- **REX Receipt Station**: The new M&R station is proposed to be located at the start of the proposed 24-inch pipeline in Scott County, Illinois, at the interconnect with the REX pipeline. Proposed equipment on the site will be for the measurement and control of uni-directional gas leaving the REX pipeline and entering the 24-inch pipeline. Equipment on the site will include:

- a tap into the REX pipeline;
- a filter/separator skid;
- a meter and control valve skid;
- over pressure protection (“OPP”) skid;
- a liquids storage tank and truck loading box;
- gas chromatograph, remote telemetry unit (“RTU”);
- monitoring instruments; and
- a 30-inch by 24-inch pig launcher assembly.

Skids will include skid-mounted buildings where applicable. The majority of the equipment will be owned by Spire but operated by REX.

- **Laclede/Lange Delivery Station**: The new M&R station is proposed in St. Louis County, Missouri, at the interconnects between the 24-inch pipeline, LGC’s existing facilities, and the North County Extension. This M&R Station will deliver gas to LGC’s existing facilities and also deliver gas to the proposed North County Extension, which connects to the proposed Chain of Rocks Station, which interconnects with Enable MRT and LGC. Proposed equipment at the M&R facility will be for facilitating the delivery of gas at the interconnects. Equipment on the site will include:

- a 30-inch by 24-inch pig receiver for the 24-inch pipeline;
- a bi-directional 24-inch pig launcher/receiver assembly for the North County Extension;
- heaters;
- OPP skid;
- meter and control valve skid;
- odorizer skid;



- gas chromatograph;
- RTU; and
- monitoring instruments.

Skids will include skid-mounted buildings where applicable. Equipment will be owned and operated by Spire.

- Chain of Rocks Station: This new M&R station is proposed to be located on the eastern terminus of the proposed North County Extension in St. Louis County, Missouri, and will include interconnects with Enable MRT's existing Chain of Rocks facility and LGC. Proposed equipment at this site will be for the measurement and control of bi-directional gas leaving or entering the North County Extension. . Equipment on the site will include:

- a tie-in to Enable MRT;
- a section of 24-inch-diameter pipeline between the western and eastern portions of the facility;
- a bi-directional 24-inch pig launcher/receiver assembly at the eastern portion of the facility;
- a filter/separator;
- OPP skids;
- meter skids;
- control valve skids;
- liquids storage tank and truck loading box;
- gas chromatographs;
- RTUs; and
- monitoring instruments.

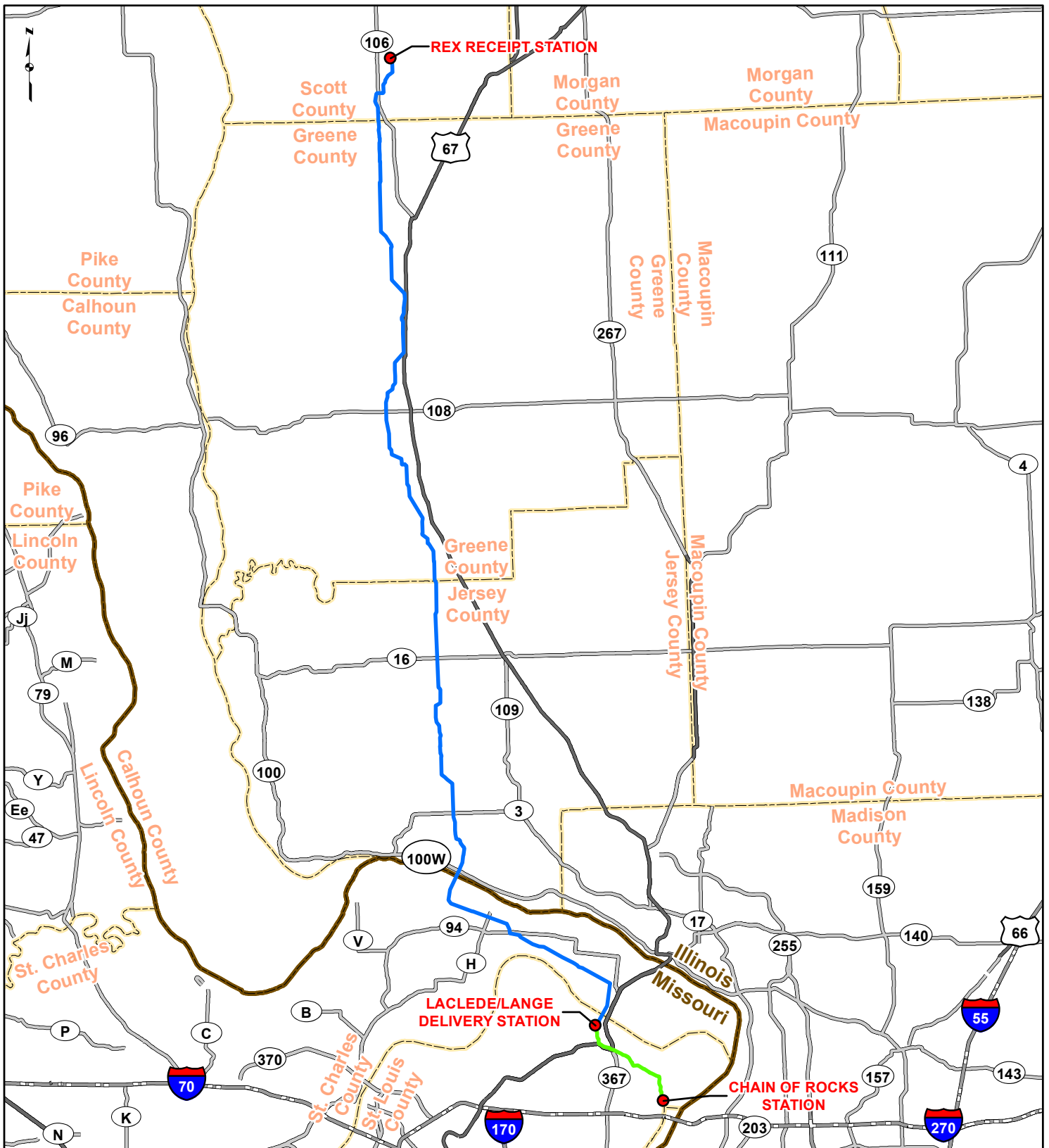
Mainline Valves

Spire also proposes to construct MLVs at three locations along the proposed 24-inch pipeline route, with spacing of the MLV facilities meeting the requirements of the United States Department of Transportation ("USDOT") Pipeline and Hazardous Materials Safety Administration ("PHMSA"). MLVs allow the associated pipeline to be segmented for safety, operations, and maintenance purposes. They are typically sited away from populated areas to allow for safe and rapid gas evacuation if needed. Permanent access roads for the MLVs on the 24-inch pipeline will be located within the permanent easement as shown on the Construction Alignment Sheets. These roads will be permanently graveled and result in the conversion of existing land use to developed land for a total of approximately 0.14-acre. No MLVs are proposed on the North County Extension; control valves will be included in the M&R stations at the start and end of the pipeline. Proposed MLVs and other ancillary facility locations are provided in Table 1.1-4.



1.1.3 Location Maps, Detailed Route Maps, and Plot/Site Plans

An overview of the Project is shown in Figure 1.1-1. Topographic mapping depicting the proposed Project area is provided in Appendix 1-A. The proposed Project footprint for the pipelines are further detailed in the Construction Alignment Sheets provided in Appendix 1-B. Detailed right-of-way cross-section drawings are provided in Resource Report 8.



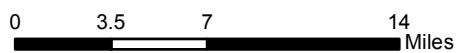
PROJECT LOCATION



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

LEGEND

- PROPOSED FACILITIES
- 24-INCH PIPELINE
- NORTH COUNTY EXTENSION
- STATE ROAD
- INTERSTATE ROAD
- U.S. HIGHWAY
- COUNTY BOUNDARY
- STATE BOUNDARY



**FIGURE 1.1-1
PROJECT OVERVIEW MAP**

DRAWN BY: PMH
CHECKED: MDO

DATE: 3/24/2017
APPROVED: LMF

REFERENCE: ROAD, US CENSUS BUREAU, 2015.



1.2 Land Requirements

Land requirements will include both temporary and permanent impacts. Temporarily impacted areas will consist of those areas necessary to facilitate construction including the construction right-of-way, ATWS, staging areas, and temporary access roads. Permanent impact areas will include the new permanent easement associated with the proposed 24-inch pipeline, North County Extension, and cathodic protection, new M&R stations, associated ancillary facilities, and new permanent access roads.

The construction right-of-way (including TWS), permanent easement, and ATWS, aboveground facilities, temporary and permanent access roads, and staging areas will total approximately 1,004.5 acres. Of this, approximately 415.2 acres will be permanently maintained for operation of the Project facilities. Tables 1.2-1 and 1.2-2 include a summary of all Project related land requirements that will be affected by the construction and operation of the Project. Land requirements for the proposed facilities are discussed in greater detail in Sections 1.2.1 through 1.2.6.

1.2.1 Pipeline Facilities

For the proposed 24-inch pipeline and the North County Extension, Spire anticipates a typical 90-foot temporary construction right-of-way width, which will include a 50-foot permanent easement. An additional 25 feet of ATWS will be required through agricultural areas, and ATWS will be required to facilitate construction in certain areas, such as crossings of roads, railroads, waterbodies, and wetlands. Sufficient workspace has been incorporated into the construction work area to accommodate topsoil segregation, therefore, Spire will not utilize Section IV.A.2 of the FERC's Plan for additional workspace. The construction right-of-way will be reduced to 75 feet at waterbodies and wetlands. Spire will not clear land between the HDD entry and exit locations for the proposed crossings of the Mississippi River, Missouri River, Coldwater Creek, and Spanish Lake Park. Further information on the HDDs is described in Resource Report 2 and Resource Report 8.



Table 1.2-1. Land Requirements for Pipeline Facilities

| Facility/County, State | Land Affected During Construction (acres) ^{1,2} | Land Affected During Operation (acres) |
|---|--|--|
| 24-Inch Pipeline | | |
| <i>Pipeline</i> | | |
| Scott, Illinois | 41.13 | 22.92 |
| Greene, Illinois | 280.87 | 156.42 |
| Jersey, Illinois | 173.82 | 97.53 |
| St. Charles, Missouri | 133.49 | 77.34 |
| St. Louis, Missouri | 6.67 | 4.47 |
| Subtotals³ | 635.97 | 358.67 |
| <i>ATWS⁴</i> | | |
| Scott, Illinois | 12.48 | 0.00 |
| Greene, Illinois | 87.46 | 0.00 |
| Jersey, Illinois | 49.28 | 0.00 |
| St. Charles, Missouri | 56.35 | 0.00 |
| St. Louis, Missouri | 3.92 | 0.00 |
| Subtotals³ | 209.49 | 0.00 |
| <i>Cathodic Protection</i> | | |
| Greene, Illinois | 1.12 | 0.76 |
| Jersey, Illinois | 0.41 | 0.27 |
| St. Charles, Missouri | 0.41 | 0.28 |
| Subtotals³ | 1.95 | 1.31 |
| <i>Access Roads</i> | | |
| Scott, Illinois | 0.73 | 0.10 |
| Greene, Illinois | 4.16 | 0.00 |
| Jersey, Illinois | 4.53 | 0.03 |
| St. Charles, Missouri | 3.06 | 2.29 |
| St. Louis, Missouri | 2.13 | 0.00 |
| Subtotals³ | 14.61 | 2.42 |
| Subtotals for 24-Inch Pipeline³ | 862.01 | 362.40 |
| North County Extension | | |
| <i>Pipeline</i> | | |
| St. Louis, Missouri | 59.41 | 36.54 |
| <i>ATWS⁴</i> | | |
| St. Louis, Missouri | 30.25 | 0.00 |



Table 1.2-1. Land Requirements for Pipeline Facilities (Continued)

| Facility/County, State | Land Affected During Construction (acres) ^{1,2} | Land Affected During Operation (acres) |
|---|--|--|
| North County Extension (continued) | | |
| <i>Cathodic Protection</i> | | |
| St. Louis, Missouri | 0.45 | 0.30 |
| <i>Access Roads</i> | | |
| St. Louis, Missouri | 2.35 | 0.00 |
| Subtotals for North County Extension⁴ | 92.47 | 36.83 |
| Staging Areas | | |
| Scott, Illinois | 27.82 | 0.00 |
| Jersey, Illinois | 2.83 | 0.00 |
| St. Charles, Missouri | 2.87 | 0.00 |
| Subtotals³ | 33.53 | 0.00 |
| Totals³ | 988.01 | 399.23 |
| Acreege Affected in Illinois³ | 686.64 | 278.03 |
| Acreege Affected in Missouri³ | 301.37 | 121.21 |

Notes:

- 1 Construction workspace through field delineated and desktop waterbodies and wetlands has been reduced to 75 feet as required and where practicable.
- 2 Land affected during construction is inclusive of operational impacts (permanent).
- 3 May not equal the sum of the column due to rounding.
- 4 ATWS consists of all workspaces denoted as ATWS on the Construction Alignment Sheets, which includes workspaces that will be temporarily utilized during construction of the associated aboveground facilities. Justifications for each ATWS are included in Resource Report 8, Appendix 8-F.

A summary of the proposed land requirements for the pipeline facilities is provided in Table 1.2-1. Typical construction right-of-way cross-section diagrams, locations where the pipelines are co-located with existing right-of-ways, and further land use requirements are included in Resource Report 8.

1.2.2 ATWS

ATWS areas typically are required at road, railroad, waterbody and wetland crossing locations and for areas requiring specialized construction techniques, including agricultural land. ATWS to facilitate the hydrostatic tests have also been identified at road crossings closest to potential municipal water sources. These workspaces are intended for use in filling the pipeline, which will likely require the storage of municipal water in tanks, as well as discharge. The configurations and sizes of ATWS areas are based on site-specific conditions and vary in accordance



with the construction methodology, crossing type, and other construction needs. Spire has identified areas where ATWS will be required to facilitate construction, as shown on the Construction Alignment Sheets in Appendix 1-B. ATWS requirements are summarized in Table 1.2-1. A complete list of ATWS locations by MP is provided in Resource Report 8.

1.2.3 Aboveground Facilities

A summary of estimated land requirements for aboveground facilities is provided in Table 1.2-2.

Table 1.2-2. Land Requirements for Aboveground Facilities

| Facility | County, State | Property Size (acres) ¹ | Land Affected During Construction (acres) ^{2, 3} | Land Affected During Operation (acres) ² |
|---|-----------------------|------------------------------------|---|---|
| 24-Inch Pipeline | | | | |
| REX Receipt Station | Scott, Illinois | 39.88 | 5.02 | 5.02 |
| MLV 1 | Greene, Illinois | N/A | N/A | N/A |
| MLV 2 | Jersey, Illinois | N/A | N/A | N/A |
| MLV 3 | St. Charles, Missouri | N/A | N/A | N/A |
| Laclede/Lange Delivery Station | St. Louis, Missouri | 39.47 | 3.99 | 3.99 |
| North County Extension | | | | |
| Chain of Rocks Station | St. Louis, Missouri | 39.03 | 7.51 | 6.97 |
| Totals⁴ | | 118.38 | 16.52 | 15.98 |
| Acreage Affected in Illinois⁴ | | | 5.02 | 5.02 |
| Acreage Affected in Missouri⁴ | | | 11.50 | 10.96 |

Notes:

N/A - not applicable.

- ¹ The land affected during operation is the portion of the tract that will be required for the permanent easement.
- ² MLVs are located within the permanent easement. The construction and operation acreage is accounted for within the operational acreages of the pipeline.
- ³ Certain ATWS included in Table 1.2-1 consist of workspaces that will be temporarily utilized during construction of the associated aboveground facilities. This acreage is not included here to avoid duplication. Justifications for each ATWS are included in Resource Report 8, Appendix 8-F.
- ⁴ May not equal the sum of the column due to rounding.



1.2.4 Mainline Valves

Spire proposes that MLVs will generally be installed and operated within the proposed permanent easement associated with the 24-inch pipeline segment. Each MLV will consist of a 50-foot by 60-foot graveled area and will be fenced within the permanent easement. Spire has located MLVs near existing public roads, and permanent access roads to these sites, where needed, are included on the plot plans in Appendix 1-F. No MLVs are proposed on the North County Extension; control valves will be included in the M&R stations at the start and end of the pipeline.

1.2.5 Access Roads

Spire proposes to use and/or modify existing access roads as well as develop new access roads to access the Project during construction and operation, as shown on the Construction Alignment Sheets in Appendix 1-B. Public roads will be used to access the right-of-way where possible. To prevent sediment from tracking onto public roads by construction traffic, Spire will adhere to the recommended best management practices as specified by the applicable state and county agencies. Such best management practices typically include installation of stabilized construction entrances and additional erosion and sediment controls (“E&SCs”) as required at locations where vehicles will access a public road from the construction right-of-way. Following construction, Spire will return public roads utilized for access to pre-construction conditions or better. Spire has identified approximately 5.6 miles of access roads for use during construction, with an anticipated width of 25 feet. Of these, approximately 4.8 miles are proposed for temporary use, and 0.8-mile will be permanently maintained for operation of the Project to provide permanent access to the REX Receipt Station and MLV sites. A summary of the land affected by access roads is included in Table 1.2-1. Further information on access roads is included in Resource Report 8.

1.2.6 Staging Areas

Spire has identified potential sites to be utilized for staging areas, as shown on the Construction Alignment Sheets in Appendix 1-B. Staging areas may be utilized for a variety of purposes including equipment and materials staging, parking, and mobilization.

Spire has identified sufficient staging areas for the purposes of contractor offices and equipment storage along the Project. Spire provides additional information regarding staging areas associated with the Project in Resource Report 8. Locations and acreages of the proposed staging areas are provided in Table 1.2-1.

1.2.7 Areas of No Access

Spire commenced notifications to affected landowners and obtaining survey permission in July 2016. Biological field surveys on properties for which Spire obtained survey access began in September 2016. Cultural resource surveys began in October 2016 in order to avoid unnecessary disruptions to crops prior to harvest. To date, biological and cultural surveys have been completed on the Project areas with the exception of limited ATWS, access roads, and no-access properties. Tables indicating the locations of remaining surveys are provided in Resource Report 2, Water Use and Quality, and Resource Report 4, Cultural Resources, respectively.



1.3 Construction Procedures

The Project will be designed, constructed, and operated in compliance with applicable federal, state, and local regulations and codes. This includes, but is not limited to, the following:

- USDOT 49 CFR Part 192, Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards, Including All References (6/6/2015) and standards, or portions thereof, incorporated by reference under 49 CFR 192.7 as of 7/7/15;
- Occupational Safety and Health Administration (“OSHA”) 29 CFR Part 1926;
- Illinois Commerce Commission - Gas Pipeline Safety Program;
- Illinois Gas Pipeline Safety Act [220 Illinois Compiled Statutes (“ILCS”) 20];
- Illinois Gas Transmission Facilities Act (220 ILCS 25);
- Missouri Title 4 CSR. Division 240, Chapter 40 Public Service Commission - Gas Utilities and Gas Safety Standards; and
- Missouri Department of Transportation (“MoDOT”) Engineering Policy Guide, Section 643.3: Policy, Standards and Regulations pertaining to utility facilities located on or across state highways.

The Project will also be designed, constructed, and operated in accordance with numerous applicable national specifications issued by the following organizations:

- American Association of State Highway and Transportation Officials;
- American Gas Association;
- American National Standards Institute;
- American Petroleum Institute;
- American Society of Mechanical Engineers;
- American Society of Testing Materials;
- National Association of Pipe Coating Applications; and
- National Fire Protection Association.

Spire will comply with the FERC’s *Upland Erosion Control, Revegetation, and Maintenance Plan* (“Plan”) and FERC’s *Wetland and Waterbody Construction and Mitigation Procedures* (“Procedures”) (May 2013) in conjunction with the Agricultural Impact Mitigation Agreement (“AIMA”) for Illinois as a minimum standard during construction. Where deviations from the Plan and Procedures are necessary for site-specific reasons, these locations are identified in Appendix 1-D. Some ATWS for topsoil segregation in agricultural lands are located within 50 feet of wetlands where the adjacent upland consists of cultivated or rotated cropland as permitted in the FERC Procedures; these are included in Appendix 1-D and indicated as such.



To ensure construction of the proposed facilities will comply with mitigation measures identified in the Resource Reports, the FERC’s evaluation of the Project, and the requirements of other federal and state permitting agencies, Spire will include, whenever appropriate, implementation details in its construction drawings and specifications. Selected contractors will receive copies of specifications and a construction drawing package containing, among other things, plant and equipment drawings designated as being approved for construction. To solicit accurate bids for construction, specifications and advance versions of the construction drawing package will be provided to prospective contractors. For those mitigation measures that address permit conditions from federal, state, and local agencies, copies of permits and related drawings will also be added to the construction bid package. For those mitigation measures that, in part, address post-construction requirements, instructions and documentation will be provided to operating personnel following the completion of construction.

Spire will adequately train construction personnel in the environmental restrictions and/or requirements applicable to their particular job duties. Construction management personnel and environmental inspectors (“EI”) will be provided with the appropriate environmental information/materials specific to the Project. Prior to and during construction, training for field construction personnel and contractor personnel will be conducted. This training will focus on FERC’s Plan and Procedures as well as other regulatory requirements such as the AIMA, endangered species, cultural resources, and wetlands. The training will also cover Project-specific construction and mitigation plans, operator qualification and site-specific safety requirements.

Spire anticipates commencing initial construction activities in January 2018, and expects to place the pipelines and facilities into service November 1, 2018. Anticipated construction dates for each Project facility are included in Table 1.3-1.

Spire plans to employ the following construction procedures; however, deviations are possible based on actual field conditions or to comply with regulatory requirements as further identified during the consultation and permitting process.

Table 1.3-1. Anticipated Construction Dates and Workforce

| Facility | Construction Spread # | Anticipated Construction Start | Anticipated Construction End | Estimated Construction Workforce |
|---|-----------------------|--------------------------------|------------------------------|----------------------------------|
| 24-inch Pipeline ^{1, 2, 3} | 1 | January 2018 | November 2018 | 292 |
| North County Extension ^{3,4} | 2 | January 2018 | November 2018 | 77 |
| REX Receipt Station ^{3,5} | N/A | May 2018 | September 2018 | 17 |
| Laclede/Lange Delivery Station ^{3,5} | N/A | May 2018 | September 2018 | 17 |
| Chain of Rocks Station ^{3,5} | | May 2018 | September 2018 | |



Table 1.3-1. Anticipated Construction Dates and Workforce (Continued)

Notes:

- ¹ Construction at the Mississippi River, Missouri River, and federal property crossings are anticipated to begin in April 2018 and continue through September 2018.
- ² Construction of MLVs on the facilities will be completed sequentially and will require an estimated workforce of seven personnel.
- ³ Tree clearing will be completed prior to May 1, 2018, in accordance with approvals by applicable agencies.
- ⁴ Construction at the Coldwater Creek and Spanish Lake Park crossings are anticipated to begin in April 2018 and May 2018, respectively, and to continue through September 2018.
- ⁵ Construction of M&R stations will be completed sequentially by two crews.

1.3.1 Pipeline

Spire will adhere to the FERC’s Plan and Procedures during construction of the pipeline facilities, unless otherwise noted, in addition to its Design and Construction Standards that outlines safety and integrity standards, among others. In agricultural areas, Spire’s workspaces include the 90 foot construction right-of-way and the additional 25 feet of width granted in the FERC Plan, which accommodates topsoil segregation.

In accordance with the FERC’s Plan and Procedures, one EI will be employed by Spire for each construction spread during construction and restoration. Spire will provide training for its EIs as part of its Environmental Training Program. The number and experience of EIs assigned to each construction spread will be appropriate for the length of the construction spread and the number/significance of resources affected. EIs shall have peer status with all other activity inspectors. EIs shall have the authority to stop activities that violate the environmental conditions of the Certificate, state and federal environmental permit conditions, or landowner requirements; and to order appropriate corrective action.

Spire currently anticipates operating one spread on the proposed 24-inch pipeline and one spread on the North County Extension during construction of the Project. The estimated workforce for the 24-inch pipeline spread is 292 workers, and the estimated workforce for North County Extension spread is 77 workers. A summary of the anticipated construction workforce is included in Table 1.3-1. In addition, Spire anticipates hiring 5 permanent employees, to be based in the St. Louis area, for operation of the Project.

Spire will commence cleanup operations immediately following backfill operations. Final grading, topsoil replacement, and installation of permanent erosion control structures will be completed within 20 days after backfilling the trench (10 days in residential areas). If seasonal or other weather conditions prevent compliance with these timeframes, temporary erosion controls would be maintained (temporary slope breakers and sediment barriers) until conditions allow completion of cleanup.

Specific residential area mitigation measures are further described in Resource Report 8.



1.3.1.1 Typical Pipeline Construction Procedures

The procedures below will be followed for the 24-inch pipeline as well as the North County Extension.

Surveying

Prior to the commencement of ground disturbing activities, a civil survey crew will stake the outside limits of the construction right-of-way, the centerline location of the pipeline, highway and railroad crossings, and any ATWS, such as staging areas or at waterbody crossings. The "One Call" system for each state will be contacted and underground and foreign utilities will be located and flagged within the construction right-of-way.

Clearing and Grading

The construction right-of-way will be cleared of obstructions (i.e., trees and stumps, brush, logs, and large rocks) according to FERC's Plan and Procedures and Spire's Erosion and Sediment Control Plans. At no time will Spire or its contractor clear or alter any areas outside of the boundaries of the pipeline corridor as shown on the Project alignment sheets. Timber will be stacked adjacent to the right-of-way in accordance with landowner preferences. Brush and slash will be stacked or chipped. All stumps will be disposed of to the satisfaction of the property owner and/or Company representative in accordance with applicable law. When feasible, vegetation in wetlands will be cut to ground level, leaving the root systems intact. Where necessary, to contain disturbed soils during clearing and grading in upland areas, and to minimize potential impacts of waterbodies and wetlands, temporary erosion control devices will be installed prior to initial ground disturbance and will be maintained throughout construction.

Trenching

Trenching involves excavation of a ditch for pipeline placement, and is accomplished through the use of a track-mounted backhoe, or similar equipment. Most of the Project area is not expected to have shallow bedrock, therefore extensive blasting is not anticipated to be needed for construction. Large stones in the trench will be broken apart with conventional rock-trenching methods. Further discussion on the proposed locations for blasting is provided in Resource Report 6. Generally, the trench will be excavated at least 12 inches wider than the diameter of the pipe, though the width may increase depending on the stability of the native soils. Spire's intention is that the trench will be excavated to a sufficient depth to allow five feet of soil cover between the top of the pipe and the final land surface after backfilling. Pipeline cover may be greater than five feet at road, waterbody, wetland, or railroad crossings. In areas prone to flooding, the minimum depth of cover is increased to seven feet to mitigate the buoyancy effect. Per 49 CFR Part 192, depth of cover will be a minimum of two feet in areas of consolidated rock; however, Spire proposes a minimum depth of three feet of cover in these areas. Specifications for the depth of cover are included on the Construction Alignment Sheets in Appendix 1-B. Excavated soils will typically be stockpiled along the right-of-way on the side of the trench away from the construction traffic and pipe assembly area. Table 1.3-2 includes minimum specifications for depth of cover.



Table 1.3-2. Minimum Specifications for Depth of Cover

| Location | Minimum Cover ¹ (feet) |
|---|-----------------------------------|
| Cropland | 5 |
| Pasture | 3 |
| Non-Agricultural Lands | 3 |
| Railway Crossings (below base of rail) | 10 |
| Road Crossings (from top of traveled lane) | 5 |
| Undeveloped Road Allowances | 5 |
| Power Line Right-of-Way (width as per crossing agreement) | 5 |
| Waterbodies (streams, rivers, lakes) | 5 |
| Shallow Bedrock | 3 |
| Ditches (irrigation, drainage) | 5 |
| Ditches (adjacent to roads) | 5 |
| Minimum Clearance from Underground Structures | 1.5 |

Note:

- ¹ Cover shall be measured to the top of the carrier pipe, concrete coating or casing pipe, whichever is applicable.

Stringing

Following preparation of the trench, the new pipe will be strung and distributed along the construction right-of-way parallel to the trench. Depending on available workspace, steel pipe will be procured in nominal double random and/or triple random lengths, or joints, and may be fabricated off-site and transported to the right-of-way in differing lengths or configurations. The individual joints will be transported to the right-of-way by truck and placed along the excavated trench in a single, continuous line. At waterbody crossings, the amount of pipe required to span the waterbody will be stockpiled in ATWS on one or both banks of the waterbody.

Pipe Bending

Some induction bends may be used, and some bending of the pipe will be required to allow the pipeline to follow natural grade changes and direction changes of the construction right-of-way. Prior to welding, selected joints will be bent in the field by track-mounted hydraulic bending machines.

Pipe Assembly and Welding

Following stringing and bending, the joints of pipe will be placed on temporary supports, adjacent to the trench. The ends will be carefully aligned and welded together using multiple passes for a full penetration weld. Welders and welding procedures will be qualified according to the applicable standards. To ensure that the assembled pipe will meet or exceed the design strength requirements, the completed welds will be visually inspected and tested for integrity using non-destructive examination methods such as radiography or ultrasound, in accordance with



American Petroleum Institute standards. Welds displaying unacceptable slag inclusions, void spaces, or other defects will be repaired or cut and re-welded. Following welding, the joints will be epoxy coated. The coating on the completed pipe section will be inspected and any damaged areas will be repaired.

Pipe Lowering

Prior to lowering the pipe, the trench will be inspected to ensure that it is free of rocks or other debris that could damage the pipe or the coating. In rocky areas, a layer of soil or sand may be placed on the bottom of the trench to protect the pipe. Concrete-coated pipe or concrete weights will be used if required for negative buoyancy in areas of saturated soils. The completed section of pipe will be lowered into the trench by side-boom tractors or equivalent equipment.

Padding and Backfilling

Previously excavated materials will be pushed back into the trench using bladed equipment or backhoes. The coated pipe, with or without the use of protective products (e.g., rockshield), requires a minimum of six inches of clean backfill padding around all sides of the pipe. A padding bucket or similar soil sifting device will be used to obtain suitable padding material from the subsoil. Topsoil will not be used as padding material.

Where the previously excavated material contains large rocks or other materials that could damage the pipe or coating, clean fill or protective coating will be placed around the pipe prior to backfilling. Segregated topsoil, where applicable, will be placed after backfilling the trench above the subsoil. Following backfilling in agricultural land, grassland, and open land, or in specified areas, a small crown may be left to account for any future soil settling that may occur. Excess soil will be distributed evenly on the right-of-way, only in upland areas, while maintaining existing contours and will be in accordance with landowner and agency requirements.

Hydrostatic Test and Final Tie-In

Both pipeline facilities will be hydrostatically tested to ensure that it is capable of safely operating at the design pressure. Test segments of the pipeline will be capped and filled with water and pressurized to a minimum of 1.25 to 1.5 times (based on location class) the designed operating pressure for a minimum of eight hours in accordance with the PHMSA requirements prior to being placed in service. Loss of pressure that cannot be attributed to other factors, such as temperature changes, will be investigated. Leaks detected will be repaired and the segment will be retested. Upon completion of the test, the water may be pumped to the next segment for testing or the water may be discharged in accordance with state permitting requirements. Test water will be discharged through an energy-dissipating device in compliance with National Pollutant Discharge Elimination System ("NPDES") permit conditions. Spire plans to discharge hydrostatic test water onsite in accordance with state permitting requirements or to tanks for offsite disposal. Once a segment of pipe has been successfully tested and dried, the test cap and manifold will be removed, and the pipe will be connected to the remainder of the pipeline. Further information on hydrostatic testing is provided with Resource Report 2.

Cleanup and Restoration

Spire will adhere to the restoration guidelines as described in the FERC's Plan and Procedures and applicable permit authorizations. The surface of the construction right-of-way disturbed by construction will be graded to



match original contours and to be compatible with surrounding drainage patterns, except at those locations where permanent changes in drainage will be required to prevent erosion, scour and possible exposure of the pipeline. Temporary and permanent E&SC measures, including silt fencing, water bars, and vegetation will be installed at that time. Private and public property, such as fences, gates, driveways, and roads that have been disturbed by pipeline construction will be restored at minimum, to a level meeting their pre-construction condition and function. In most upland locations, excluding actively cultivated cropland, an herbaceous vegetative cover will be reestablished by spreading a grass seed and hydro/straw-mulch mixture over the disturbed surface.

Further discussion on post-construction revegetation is provided in Resource Report 7.

1.3.1.2 Special Construction Procedures

Steep Slopes/Rugged Topography

Spire does not anticipate significant areas of steep slope due to the topography of the Project area. The majority of construction will occur on relatively flat or gently rolling topography. Steep slopes may be encountered during construction in Illinois at bluffs near the Mississippi River and stream valley slopes in Scott County. In areas where steep slopes exist, the pipeline has been routed to cross slopes as perpendicular as possible to avoid or minimize side-slope construction. If necessary, the “two-tone” construction technique will be employed to provide for safe working conditions. For this technique, the uphill side of the construction right-of-way is cut during grading. The material removed from this cut is used to fill the downhill side of the construction right-of-way to provide a safe and level surface from which to operate heavy equipment. The trench is then excavated along the newly-graded right-of-way. This technique typically requires ATWS to accommodate the volume of fill material generated.

The HDD workspace on the north side of the Mississippi River has been located on a relatively flat surface at the bottom of a slope to the east of the alignment. The pipeline installation beneath the Mississippi River will be directed to the southwest in the opposite direction to the slope. Further, temporary conductor casing will be installed at the HDD entry location to help support the site soils and provide a stable open path for drilling fluid flow. This casing will serve to maintain drilling fluid flow within the HDD bore as opposed to flow of fluids into the surrounding soils. The orientation of the HDD and the presence of temporary casing pipe will protect the slope from effects of drilling fluids. During construction, the drilling fluid pressure and return volumes will be monitored for losses. The surface will also be monitored to look for signs of drilling fluids away from the HDD alignment.

E&SC, as well as revegetation, would be performed in accordance with the Plan and Procedures and applicable permits. On steep slopes, temporary erosion control measures may require closer spacing and more frequent maintenance until permanent post-construction erosion control measures can be established. Following pipeline installation and trench backfill, excavated material is placed back in the cut and compacted to restore the approximate original ground contours, and the disturbed areas are stabilized.



Residential Areas

Where residences are located in close proximity to the edge of the construction right-of-way, Spire will attempt to reduce construction workspace areas as practicable to minimize inconvenience to property owners. If construction requires the temporary removal of private property features, such as gates or fences, the landowner or tenant will be notified prior to the action. The amount of open trench in residential areas will be minimized to the extent practicable (e.g., utilize stovepipe construction or other minimization technique where conditions and/or situation allow). Stove pipe construction techniques may be used in residential areas or other congested areas where workspace is limited and/or the speed of joining pipes is critical. This technique involves installing one joint of pipe at a time. The welding, weld inspection and coating activities are all performed in the open trench. At the end of each day, after the pipe joint is installed, the trench is backfilled and/or covered with steel plates. Restoration in residential areas is to be performed in accordance with the FERC's Plan and Procedures. Residential areas crossed by the Project are identified in Resource Report 8, along with proposed mitigation measures.

Active Croplands

In order to avoid and minimize affects to topsoil, Spire proposes to perform topsoil segregation in active croplands over the entire width of the construction right-of-way as well as the subsoil stockpile areas. As described in FERC's Plan, a minimum of 12 inches of topsoil will be segregated in deep soils; and the entire topsoil layer, where possible, will be segregated in soils with less than 12 inches of topsoil. It is anticipated that Spire will encounter greater than 12 inches of topsoil in Illinois, which will be determined during construction by a qualified soil scientist. The topsoil and subsoil will be temporarily stockpiled in separate windrows on the construction right-of-way. Additional workspace for topsoil segregation may be requested as necessary.

Spire will complete work in accordance with the FERC's Plan. For the portion of the Project located in Illinois, Spire will also implement the guidelines set forth within the AIMA which has been developed in coordination with the Illinois Department of Agriculture. Spire proposes five feet of cover in agricultural lands in both Illinois and Missouri.

Spire will coordinate with landowners and local agencies, as appropriate, to identify agricultural drainage systems. Spire proposes to adhere to the FERC's Plan to avoid or minimize interference with drain tile and irrigation systems. Agricultural and related pasture areas crossed by the Project will be identified in both Resource Report 7 and Resource Report 8, along with proposed mitigation measures.

Road Crossings

The majority of road crossings will be completed using conventional boring methods. Conventional boring entails drilling a hole beneath travel arteries through which the pipe will pass. Generally, state and/or federal road crossings will be bored. Some local roads may be open-cut; however, Spire proposes to maintain one lane of access along with the appropriate safety signage and/or traffic control staff. Roads crossed by open trenching will be restored to pre-construction conditions or better. If an open-cut road requires extensive construction time and it is not feasible to maintain access, provisions will be made for temporary detours or other measures to allow



safe traffic flow during construction. The pipeline will be buried to a depth of at least five feet below the road surface, except in areas of consolidated rock. ATWS for road crossings will be shown on the construction alignment sheets. Public roads crossed by the pipelines are included in Table 1.3-3.

Railroad Crossings

Railroad crossings will be completed using conventional boring methods. Three railroads are within the limits of the Project. The Kansas City Southern Railway is crossed by the 24-inch pipeline in Greene County, Illinois, and will be crossed via conventional bore. The Burlington Northern Santa Fe Railroad is crossed by the 24-inch pipeline in St. Charles County, Missouri, and the pipeline crossing will be installed via conventional bore. The North County Extension also crosses the Burlington Northern Santa Fe Railroad (formerly Chicago Burlington and Quincy Railroad) in St. Louis County, Missouri, and the pipeline crossing will be installed via HDD. The depths of crossings under the railroads vary and will be specified in the permits. Spire plans to file permits with the railroads for these crossings, and the specific requirements of each railroad company will be considered when designing and constructing the crossings. Railroad crossings are also included in Table 1.3-3.



Table 1.3-3. Roads and Railroads Crossed by the Pipelines

| Facility/ Approximate Milepost | County, State | Road or Railroad Name | Proposed Crossing Method ¹ |
|--------------------------------------|-------------------------|----------------------------------|---------------------------------------|
| 24-Inch Pipeline | | | |
| 0.2R | Scott County, Illinois | Unknown Road | Open Cut |
| 0.2R | Scott County, Illinois | Unknown Road | Open Cut |
| 0.7R | Scott County, Illinois | Co Hwy 7 / Manchester Alsey Road | Bore |
| 1.8R | Scott County, Illinois | Havens Road | Bore |
| 2.2R | Scott County, Illinois | State Rte 106 | Bore |
| 2.5 | Scott County, Illinois | Gourley Road | Bore |
| 3.0 | Scott County, Illinois | Roodhouse Springs Road | Bore |
| 4.5 | Greene County, Illinois | Barrow Road | Bore |
| 5.7 | Greene County, Illinois | 1000 E | Bore |
| 5.8 | Greene County, Illinois | Patterson Road | Bore |
| 6.7 | Greene County, Illinois | 1000 E | Bore |
| 7.2 | Greene County, Illinois | Unknown Road | Bore |
| 7.2 | Greene County, Illinois | Kansas City Southern Railway | Bore |
| 7.3 | Greene County, Illinois | 2425 N | Bore |
| 7.8 | Greene County, Illinois | 2375 N | Bore |
| 9.1 | Greene County, Illinois | Co Hwy 10 | Bore |
| 10.3 | Greene County, Illinois | Unknown Road | Open Cut |
| 11.3 | Greene County, Illinois | Corsa Lane | Bore |
| 13.1 | Greene County, Illinois | 1900 N | Bore |
| 13.6 | Greene County, Illinois | Belltown Road | Bore |
| 15.7 | Greene County, Illinois | 1650 N | Bore |
| 17.1 | Greene County, Illinois | Cemetery Road | Bore |



Table 1.3-3. Roads and Railroads Crossed by the Pipelines (Continued)

| Facility/ Approximate Milepost | County, State | Road or Railroad Name | Proposed Crossing Method ¹ |
|--------------------------------------|-------------------------|---------------------------------------|---------------------------------------|
| 24-Inch Pipeline (Continued) | | | |
| 18.1 | Greene County, Illinois | 1400N | Bore |
| 19.5 | Greene County, Illinois | State Route 108 | Bore |
| 20.4 | Greene County, Illinois | 1175 N | Bore |
| 21.3 | Greene County, Illinois | 1025 E | Bore |
| 22.8 | Greene County, Illinois | County Highway 20 / Woody Road | Bore |
| 24.4 | Greene County, Illinois | Unknown Road | Open Cut |
| 26.1 | Greene County, Illinois | Unknown Road | Open Cut |
| 27.3 | Greene County, Illinois | County Road 17 | Bore |
| 27.4 | Greene County, Illinois | County Road 17 | Bore |
| 28.4 | Greene County, Illinois | County Road 17 / Kane Road | Bore |
| 28.9 | Greene County, Illinois | 450 N | Bore |
| 29.6 | Jersey County, Illinois | Allen Lane | Bore |
| 31.9 | Jersey County, Illinois | County Highway 10 / N Centennial Road | Bore |
| 32.9 | Jersey County, Illinois | Hollow Avenue | Bore |
| 33.4 | Jersey County, Illinois | State Highway 16 | Bore |
| 33.8 | Jersey County, Illinois | West County Road | Bore |
| 35.5R | Jersey County, Illinois | S Centennial Road | Bore |
| 37.3 | Jersey County, Illinois | Busch Lane | Bore |
| 38.0 | Jersey County, Illinois | County Highway 6 / McClusky Road | Bore |
| 38.6 | Jersey County, Illinois | Daugherty Road | Bore |
| 39.1 | Jersey County, Illinois | Godar Lane | Bore |
| 40.3 | Jersey County, Illinois | Possum Trot Lane | Bore |



Table 1.3-3. Roads and Railroads Crossed by the Pipelines (Continued)

| Facility/ Approximate Milepost | County, State | Road or Railroad Name | Proposed Crossing Method ¹ |
|--------------------------------------|-----------------------------|---|---------------------------------------|
| 24-Inch Pipeline (Continued) | | | |
| 41.8 | Jersey County, Illinois | State Highway 3 | Bore |
| 42.3 | Jersey County, Illinois | Croxford Road | Bore |
| 43.9 | Jersey County, Illinois | County Highway 11 / Chautauqua Road | Bore |
| 45.1 | Jersey County, Illinois | State Route 100 | HDD |
| 46.7 | St Charles County, Missouri | Portage Road | Bore |
| 47.6R | St Charles County, Missouri | Weber Lake Road | Bore |
| 49.0 | St Charles County, Missouri | State Highway J | Bore |
| 49.4 | St Charles County, Missouri | Payne Road | Bore |
| 50.5 | St Charles County, Missouri | State Highway 94 | Bore |
| 51.1 | St Charles County, Missouri | Burlington Northern & Santa Fe Railroad | Bore |
| 51.3 | St Charles County, Missouri | Dwiggins Road | Bore |
| 51.8 | St Charles County, Missouri | Dwiggins Road | Bore |
| 53 | St Charles County, Missouri | Saale Road | Bore |
| 54.5 | St Charles County, Missouri | Saale Road | Bore |
| 56.6 | St Charles County, Missouri | Bradshaw Road | Bore |
| 57.3 | St Charles County, Missouri | Mintert Road | Bore |
| 58.6 | St Louis County, Missouri | Fort Bellefontaine Road | Bore |
| 58.8 | St Louis County, Missouri | Blue Spruce Lane (Private) | Open Cut |
| North County Extension | | | |
| 1.1 | St Louis County, Missouri | Robbins Mill Road | Bore |
| 1.7 | St Louis County, Missouri | New Jamestown Road | HDD |
| 1.7 | St Louis County, Missouri | US 67 S | HDD |



Table 1.3-3. Roads and Railroads Crossed by the Pipelines (Continued)

| Facility/ Approximate Milepost | County, State | Road or Railroad Name | Proposed Crossing Method¹ |
|---|---------------------------|---|---|
| North County Extension (Continued) | | | |
| 1.7 | St Louis County, Missouri | 367S / Lewis & Clark Boulevard | HDD |
| 1.8 | St Louis County, Missouri | 367N / Lewis & Clark Boulevard | HDD |
| 1.8 | St Louis County, Missouri | US 67 N | HDD |
| 1.9 | St Louis County, Missouri | Lindbergh Boulevard | HDD |
| 1.9 | St Louis County, Missouri | Burlington Northern & Santa Fe Railroad | HDD |
| 2.6 | St Louis County, Missouri | Bellefontaine Road | Bore |
| 3.9 | St Louis County, Missouri | Spanish Pond Road | HDD |
| 4.9 | St Louis County, Missouri | Larimore Road | Bore |
| 6.0 | St Louis County, Missouri | Prigge Road | Bore |

Note:

Data sourced from Illinois Department of Transportation and MoDOT public datasets and maps.



Utility Crossings

During the design phase, Spire will use each state's One-Call program to identify foreign line operators. Spire has planned its construction activities based on requirements provided by those operators as well as crossing methods used for prior construction projects. These methods include, but are not limited to, the use of an air bridge, adding additional fill over the existing utility, temporarily or permanently relocating or burying the utility and at times rerouting the proposed pipeline at the operator's request. Foreign pipeline operators will be consulted regarding pipeline protection measures.

Precautions will be taken to identify existing pipelines, avoid damage, and safely cross foreign pipelines during construction, including:

- One Call will be contacted to locate known pipelines and utilities, and operators of the existing pipelines will be given adequate notice of the crossing and the opportunity to be present during work around their pipelines.
- Known existing pipelines will be precisely located prior to excavation using a hand-held magnetometer and/or by probing.
- Right-of-way edges will be scanned prior to grading with Passive Inductive Locating equipment to identify any unknown foreign pipelines.
- Mechanized excavation will not be allowed within three feet of existing pipelines; the excavations will be completed by hand shoveling.
- Existing foreign lines will be temporarily supported for the length of the span exposed by the crossing excavation.
- The pipeline trench will be excavated to provide a minimum clearance between the pipeline and the foreign line or structure as designated by officials having authority over the facilities.
- Existing pipelines will be inspected before and after installation of the Project.

In the event accidental damage occurs to a foreign pipeline during construction, appropriate measures will be implemented to minimize undesirable effects to human health and the environment. A list of existing utility lines crossed by the Project is included as Table 1.3-4.



Table 1.3-4. Existing Utility Lines Crossed by the Pipelines

| Nearest MP | Utility Type ¹ | Owner ² |
|-------------------------|---------------------------|-------------------------------|
| 24-Inch Pipeline | | |
| 0R | Natural Gas Pipeline | Tallgrass Energy |
| 0R | Natural Gas Pipeline | Panhandle Eastern Pipeline |
| 0R | Natural Gas Pipeline | Panhandle Eastern Pipeline |
| 0.1R | Natural Gas Pipeline | Panhandle Eastern Pipeline |
| 0.1R | Natural Gas Pipeline | Panhandle Eastern Pipeline |
| 0.2R | Overhead Line | Ameren |
| 0.2R | Telephone Line | Frontier |
| 0.2R | Water Line | SMG Water |
| 0.2R | Overhead Line | Ameren |
| 0.7R | Water Line | SMG Water |
| 0.7R | Telephone Line | Frontier |
| 1.0 | Overhead Line | Ameren |
| 1.0 | Overhead Line | Ameren |
| 1.8R | Overhead Line | Illinois Elec. Co-Op |
| 2.2R | Overhead Line | Ameren |
| 2.5 | Overhead Line | Illinois Elec. Co-Op |
| 3.0 | Overhead Line | Illinois Elec. Co-Op |
| 4.5 | Overhead Line | Illinois Elec. Co-Op |
| 5.7 | Overhead Line | Illinois Elec. Co-Op |
| 5.8 | Overhead Line | Illinois Elec. Co-Op |
| 6.1 | Overhead Line | Ameren |
| 6.7 | Overhead Line | Illinois Elec. Co-Op |
| 7.3 | Overhead Line | Illinois Elec. Co-Op |
| 7.8 | Overhead Line | Illinois Elec. Co-Op |
| 9.1 | Overhead Line | Illinois Elec. Co-Op |
| 9.1 | Fiber Optic Line | General Telephone Company |
| 10.1 | Overhead Line | Ameren & Illinois Elec. Co-Op |
| 10.3 | Overhead Line | Illinois Elec. Co-Op |
| 11.3 | Overhead Line | Ameren |
| 12.8 | Overhead Lines | Ameren & Illinois Elec. Co-Op |
| 13.0 | Overhead Line | Illinois Elec. Co-Op |
| 13.6 | Overhead Line | Illinois Elec. Co-Op |



Table 1.3-4. Existing Utility Lines Crossed by the Pipelines (Continued)

| Nearest MP | Utility Type ¹ | Owner ² |
|-------------------------------------|---------------------------|-------------------------------|
| 24-Inch Pipeline (continued) | | |
| 13.8 | Overhead Line | Illinois Elec. Co-Op |
| 15.0 | Overhead Line | Ameren & Illinois Elec. Co-Op |
| 15.1 | Overhead Line | Ameren & Illinois Elec. Co-Op |
| 15.7 | Overhead Line | Illinois Elec. Co-Op |
| 15.7 | Telephone Line | Frontier |
| 16.1 | Overhead Line | Ameren |
| 17.1 | Overhead Line | Ameren & Illinois Elec. Co-Op |
| 17.1 | Telephone Line | Frontier |
| 17.9 | Overhead Lines | Ameren |
| 18.1 | Overhead Line | Ameren & Illinois Elec. Co-Op |
| 19.5 | Overhead Line | Ameren |
| 19.5 | Overhead Line | Ameren |
| 21.3 | Overhead Line | Illinois Elec. Co-Op |
| 22.8 | Overhead Line | Illinois Elec. Co-Op |
| 27.3 | Overhead Line | Illinois Elec. Co-Op |
| 27.4 | Overhead Line | Illinois Elec. Co-Op |
| 27.4 | Overhead Line | Ameren |
| 28.4 | Overhead Line | Illinois Elec. Co-Op |
| 28.4 | Telephone Line | Frontier |
| 28.4 | Telephone Line | Frontier |
| 28.9 | Overhead Line | Illinois Elec. Co-Op |
| 28.9 | Water Line | SMG Water |
| 29.6 | Water Line | Jersey County Rural Water |
| 31.9 | Water Line | Jersey County Rural Water |
| 31.9 | Telephone Line | Frontier |
| 31.9 | Overhead Line | Ameren & Illinois Elec. Co-Op |
| 32.9 | Overhead Line | Ameren/MJM Elec. Co-Op |
| 33.4 | Overhead Line | Ameren/MJM Elec. Co-Op |
| 33.9 | Overhead Line | MJM Elec. Co-Op |
| 35.5R | Overhead Line | MJM Elec. Co-Op |
| 36.4R | Overhead Line | MJM Elec. Co-Op |



Table 1.3-4. Existing Utility Lines Crossed by the Pipelines (Continued)

| Nearest MP | Utility Type ¹ | Owner ² |
|-------------------------------------|---------------------------|-------------------------|
| 24-Inch Pipeline (continued) | | |
| 37.3 | Overhead Line | MJM Elec. Co-Op |
| 38.0 | Overhead Line | Ameren |
| 40.2R | Overhead Line | MJM Elec. Co-Op |
| 40.3 | Overhead Line | MJM Elec. Co-Op |
| 40.3 | Fiber Optic Line | Frontier |
| 41.8 | Overhead Line | Ameren |
| 42.3 | Water Line | Illinois American Water |
| 42.3 | Fiber Optic Line | Frontier |
| 42.4 | Overhead Line | Ameren |
| 43.8 | Overhead Line | Ameren |
| 43.9 | Ammonia Pipeline | Nustar |
| 43.9 | Overhead Line | Ameren |
| 43.9 | Fiber Optic Line | AT&T |
| 43.9 | Fiber Optic Line | GTI |
| 43.9 | Natural Gas Pipeline | Ameren |
| 45.1 | Fiber Optic Line | AT&T |
| 45.1 | Fiber Optic Line | AT&T |
| 45.1 | Fiber Optic Line | AT&T |
| 45.1 | Fiber Optic Line | AT&T |
| 45.1 | Natural Gas Pipeline | Ameren |
| 46.7 | Overhead Line | Southwestern Bell |
| 47.6R | Overhead Line | Ameren |
| 49.0 | Overhead Line | Ameren |
| 49.4 | Water Line | Missouri American Water |
| 49.4 | Overhead Line | Ameren |
| 50.0 | Overhead Line | Ameren |
| 50.0 | Overhead Line | Ameren |
| 50.0 | Overhead Line | Ameren |
| 50.0 | Overhead Line | Ameren |
| 50.5 | Water Line | Missouri American Water |
| 50.5 | Overhead Line | Ameren |



Table 1.3-4. Existing Utility Lines Crossed by the Pipelines (Continued)

| Nearest MP | Utility Type ¹ | Owner ² |
|-------------------------------------|-------------------------------------|---------------------------|
| 24-Inch Pipeline (continued) | | |
| 50.5 | Fiber Optic Line | AT&T |
| 51.0 | Non-Highly Volatile Liquid Pipeline | AMOCO |
| 51.0 | Natural Gas Pipeline | MoGas |
| 51.3 | Overhead Line | Ameren |
| 51.3 | Overhead Line | Ameren |
| 51.3 | Overhead Line | Ameren |
| 51.3 | Overhead Line | Ameren |
| 51.3 | Overhead Line | Ameren |
| 51.6 | Crude Oil Pipeline | TC Oil |
| 51.6 | Crude Oil Pipeline | Express |
| 51.8 | Overhead Line | Ameren |
| 52.3 | Overhead Line | Ameren |
| 53.0 | Overhead Line | Ameren |
| 53.0 | Overhead Line | Ameren |
| 54.0 | Oil Pipeline | Explorer Pipeline Company |
| 54.0 | Oil Pipeline | KOCE |
| 54.0 | Ammonia Pipeline | Nustar |
| 54.5 | Overhead Line | Ameren |
| 56.6 | Overhead Line | Ameren |
| 56.7 | Crude Oil Pipeline | Enbridge |
| 57.3 | Telephone Line | AT&T |
| 57.3 | Fiber Optic Line | AT&T |
| 57.3 | Overhead Line | Ameren |
| 58.5 | Overhead Line | Ameren |
| 58.6 | Overhead Line | Ameren |
| 58.6 | Overhead Line | Ameren |
| 58.6 | Overhead Line | Ameren |
| 58.7 | Overhead Line | Ameren |
| 58.8 | Overhead Line | Ameren |
| 58.8 | Natural Gas Pipeline | LGC |
| 58.8 | Propane Pipeline | Laclede Pipeline Company |
| 58.8 | Overhead Line | Ameren |



Table 1.3-4. Existing Utility Lines Crossed by the Pipelines (Continued)

| Nearest MP | Utility Type ¹ | Owner ² |
|-------------------------------|----------------------------|------------------------------|
| North County Extension | | |
| 0.1 | Propane Pipeline | Laclede Pipeline Company |
| 0.1 | Natural Gas Pipeline | LGC |
| 0.2 | Propane Pipeline | Laclede Pipeline Company |
| 0.2 | Natural Gas Pipeline | LGC |
| 1.1 | Natural Gas Pipeline | LGC |
| 1.1 | Overhead Line | Ameren |
| 1.7 | Natural Gas Pipeline | LGC |
| 1.7 | Electric Line | Ameren |
| 1.8 | Electric Line | Ameren |
| 1.8 | Fiber Optic Line | CenturyLink |
| 1.8 | Propane Pipeline | Laclede Pipeline Company |
| 1.9 | Overhead Line | Ameren |
| 1.9 | Overhead Line | Ameren |
| 2.3 | Overhead Lines | Ameren |
| 2.4 | Overhead Line | Ameren |
| 2.5 | Propane Pipeline | Laclede Pipeline Company |
| 2.6 | Overhead Line | Ameren |
| 2.6 | Overhead Line | Ameren |
| 2.6 | Propane Pipeline | Laclede Pipeline Company |
| 3.0 | Overhead Lines | Ameren |
| 3.8 | Kerosene/Jet Fuel Pipeline | Buckeye Partners, LP |
| 3.8 | Jet Fuel Pipeline | St. Louis Pipeline Operating |
| 3.9 | Propane Pipeline | Laclede Pipeline Company |
| 3.9 | Overhead Line | Ameren |
| 4.2 | Kerosene/Jet Fuel Pipeline | Buckeye Partners, LP |
| 4.7 | Kerosene/Jet Fuel Pipeline | Buckeye Partners, LP |
| 4.9 | Sewer Line | St. Louis Metropolitan Sewer |
| 4.9 | Telephone Line | AT&T |
| 4.9 | Overhead Line | Ameren |
| 4.9 | Water Line | Missouri American Water |
| 4.9 | Natural Gas Pipeline | LGC |
| 4.9 | Telephone Line | AT&T |



Table 1.3-4. Existing Utility Lines Crossed by the Pipelines (Continued)

| Nearest MP | Utility Type ¹ | Owner ² |
|---|---------------------------|------------------------|
| North County Extension (continued) | | |
| 6.0 | Telephone Line | AT&T |
| 6.0 | Fiber Optic Line | Charter Communications |
| 6.0 | Fiber Optic Line | Charter Communications |
| 6.0 | Natural Gas Pipeline | LGC |
| 6.0 | Overhead Line | Ameren |
| 6.0 | Fiber Optic Line | Charter Communications |
| 6.0 | Fiber Optic Line | Charter Communications |
| 6.0 | Telephone Line | AT&T |
| 6.0 | Overhead Line | Ameren |
| 6.0 | Natural Gas Pipeline | LGC |

Note:

- ¹ Foreign utilities crossed were determined through the combination of available field survey data and desktop analysis.

Blasting

Spire has identified locations where blasting may be required on the Project, included in Resource Report 6, Geology. To minimize blasting, large stones in the trench will generally be broken apart with conventional rock-trenching methods where possible. Further discussion on blasting, including proposed locations and a blasting plan, is included in Resource Report 6.

Wetlands

Crossing of wetlands will be done in accordance with state and federal permits and the FERC Procedures, unless variances are requested by Spire and approved by the FERC. Saturated wetlands will be crossed utilizing timber mats to avoid rutting. Tree stumps and root systems will be removed from areas directly over the trenchline. In the absence of safety-related construction or operational constraints, stumps and root systems will be left in place in the rest of the construction right-of-way. Spire will segregate the topsoil up to one-foot in depth in wetlands where hydrologic conditions permit. Segregated topsoil will be placed in the trench following subsoil backfilling.

Hydrological conditions along the construction corridor in areas proposed for conventional open ditch construction will likely dictate the use of either conventional open ditch lay or open ditch push/pull lay methods. Selection of the most appropriate method will depend on site-specific weather conditions, inundation, soil saturation, and soil stability at the time of construction. Selection of the appropriate method will be decided during construction by the construction supervisor and/or the Spire representative depending on conditions at



the time of construction. Restoration and monitoring of wetland crossings will be conducted in accordance with FERC's Procedures. In unsaturated wetlands, most vegetation will be replaced by seeding. Saturated wetlands will typically be allowed to revegetate naturally.

Waterbodies

Crossing of waterbodies will be done in accordance with state and federal permits and the FERC's Procedures, unless variances are requested by Spire and approved by the FERC. Construction methods at waterbodies will vary with the characteristics of the waterbody encountered and will be consistent with permit conditions that will be outlined in the regulatory permit approvals. Intermediate waterbodies (between 10 and 100 feet wide) and minor waterbodies (less than 10 feet wide) will be crossed by the open cut/conventional lay or dry ditch crossing (flume) methods. If waterbodies do not contain discernible flow at the time of construction, the waterbody may be crossed using the open-cut crossing method. In accordance with the FERC Procedures, the duration of construction at open cut crossings will be limited to 24 hours across minor waterbodies and 48 hours across intermediate waterbodies, unless rock-breaking measures are required. The crossing method is subject to change depending upon the actual conditions encountered at the time of construction. Crossing methods are further discussed in Resource Report 2.

For waterbodies that are greater than 100 feet wide, Spire will utilize trenchless technologies to install the pipeline. In waterbodies equal to or less than 100 feet wide, pipe will be installed to provide a minimum of five feet of cover from the waterbody bottom to the top of the pipeline, except in consolidated rock, where a minimum of three feet of cover will be utilized; in waterbodies more than 100 feet wide, pipeline depth of cover will be at least five feet with the exception of a three-foot depth of cover in consolidated rock. Trench spoil will be placed on the bank above the high water mark for use as backfill. Excavated material not required for backfill will be disposed of at an upland site within the herein described limits of disturbance or otherwise disposed of at a commercial disposal facility. Waterbody banks will be returned to pre-construction grade.

In areas where HDD is the proposed crossing method, no clearing will occur between the HDD entry and exit points. A gyroscopic guidance system is anticipated to be utilized at the HDDs of the Mississippi River, Missouri River, Coldwater Creek, and Emerald Greens Golf Course. This guidance system does not require the installation of a tracer wire along the HDD alignment on the ground surface. As such, no ground disturbance is anticipated for utilizing this guidance system. Spire's HDD contractor and inspectors will complete regular inadvertent return walks throughout the duration of the drill which would require foot traffic along the HDD alignment.

A drawing depicting the typical configuration for HDD entry and exit workspaces is included as Figure 1.3-1. A summary of the proposed HDDs is included in Table 1.3-5.



Table 1.3-5. Summary of Planned HDDs

| Facility/ Length of Pipe (feet) | Entry Location | | Exit Location | | Sensitive Resources to be Avoided | | | Approximate Duration of Drilling | Proposed Nighttime Drilling |
|--|----------------|---|---------------|--|-----------------------------------|------------------|--|--|---|
| | MP | Town/County, State | MP | Town/County, State | MP | Resource Type | Resource Name | | |
| 24-Inch Pipeline | | | | | | | | | |
| 5,900 | 45.0 | Elsah, Jersey County, Illinois | 46.2 | Rivers, St. Charles County, Missouri | 45.1 | Road | Illinois State Route 100 | Not to exceed 15 weeks | Estimated 3 shifts of night time work during pullback |
| | | | | | 45.1 | Special Land Use | Sam Vadalabene Great River Road Bike Trail | | |
| | | | | | 45.1 | Special Land Use | Meeting of the Great Rivers Scenic Route | | |
| | | | | | 45.1 | Waterbody | UNT to Mississippi River (NHD-915) | | |
| | | | | | 45.3 | Waterbody | Mississippi River (NHD-921) | | |
| | | | | | 45.6 | Special Land Use | Upper Mississippi Conservation Area | | |
| | | | | | 45.7 | Wetland | PFO1Ah (NWI-105) | | |
| | | | | | 45.9 | Waterbody | Luesse Lake (NHD-924/NWI-505) | | |
| 3,302 | 57.7 | Rivers, St. Charles County, Missouri | 58.4 | Spanish Lake, St. Louis County, Missouri | 57.1 | Special Land Use | Consolidated North County Levee | Not to exceed 15 weeks | Estimated 2 shifts of night time work during pullback |
| | | | | | 57.9 | Waterbody | UNT to Missouri River (SMO-TMA-001) | | |
| | | | | | 57.9 | Wetland | PFO/PEM (WMO-TMA-001 and WMO-TMA-001A) | | |
| | | | | | 58.0 | Waterbody | Missouri River (SMO-CDK-001) | | |
| North County Extension | | | | | | | | | |
| 3,321 | 1.6 | Spanish Lake, St. Louis County, Missouri | 2.2 | Spanish Lake, St. Louis County, Missouri | 1.7 | Road | US-67/Missouri State Route 367 (Lewis and Clark Blvd.) | Not to exceed 15 weeks | Estimated 2 shifts of night time work during pullback |
| | | | | | 1.8 | Wetland | PEM (WMO-JJP-125) | | |
| | | | | | 1.9 | Waterbody | Coldwater Creek (SMO-JJP-020) | | |
| | | | | | 1.9 | Waterbody | UNT to Coldwater Creek (SMO-JJP-032) | | |



Table 1.3-5. Summary of Planned HDDs (Continued)

| Facility/ Length of Pipe (feet) | Entry Location | | Exit Location | | Sensitive Resources to be Avoided | | | Approximate Duration of Drilling | Proposed Nighttime Drilling |
|---|----------------|---|---------------|---|-----------------------------------|------------------|--------------------------------|--|---|
| | MP | Town/County, State | MP | Town/County, State | MP | Resource Type | Resource Name | | |
| North County Extension (Continued) | | | | | | | | | |
| 3,568 | 3.8 | Spanish Lake, St. Louis County, Missouri | 4.5 | St. Ferdinand, St. Louis County, Missouri | 2.0 | Special Land Use | Fort Bellefontaine County Park | Not to exceed 15 weeks | Estimated 2 shifts of night time work during pullback |
| | | | | | 4.0 | Special Land Use | Spanish Lake Park | | |
| | | | | | 4.1 | Wetland | Sunfish Lake (NWI-185) | | |
| | | | | | 4.3 | Special Land Use | Emerald Greens Golf Course | | |
| | | | | | 4.3 | Wetland | PUBGh (NWI-186) | | |

TOOL TRAILER

TOOL TRAILER

WATER STORAGE TANK

WATER STORAGE TANK

WATER STORAGE TANK

LIGHT TOWER

OFFICE TRAILER

OFFICE TRAILER

PARKING

SPOIL BIN

DRILLING FLUID SEPARATION PLANT

LIGHT TOWER

SPOIL BIN

DRILLING FLUID PRODUCTS

MUD PUMPS

GENERATOR

DRILL PIPE

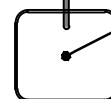
DRILL RIG

DRILL RIG POWER PACK

DRILL RIG CONTROL CABIN

CRANE OR EXCAVATOR

LIGHT TOWER



DRILLING FLUID RETURN PIT (ENTRY/EXIT LOCATION)

NOTES: THE LAYOUT DEPICTED IS FOR ILLUSTRATIVE PURPOSES. ACTUAL LAYOUT IN THE FIELD MAY VARY DUE TO SITE AND/OR DRILL CONDITIONS.

| | | |
|------------------|----|---------|
| ENG. RECORD | | DATE |
| DRAWN BY: | MM | 12/2016 |
| DRAWING APPROVAL | | |
| PROJECT APPROVAL | | |
| SURVEY DATE: | | |
| SCALE: N.T.S. | | |
| PROJECT ID: | | |
| FILE NAME: | | |

HDD TYPICAL FOR PROPOSED 24-INCH DIAMETER PIPELINE

DWG. NO. **N/A**

| NO | DATE | BY | DESCRIPTION | PROJ. ID | APPR. |
|-----------|------|----|-------------|----------|-------|
| REVISIONS | | | | | |



Asbestos-Containing Materials

Spire does not anticipate encountering asbestos-containing materials during construction of the Project.

Winter Construction

Spire has prepared a Winter Construction Plan with guidelines for stabilization and construction procedures as limited construction activities are anticipated to occur during winter months. Spire will employ snow removal, E&S, and stabilization procedures to minimize impact and provide a safe working environment. The Winter Construction Plan is provided as Appendix 1-E.

1.3.2 Aboveground Facilities

No major aboveground facilities are proposed for this Project. The proposed aboveground facilities will be designed to be constructible in accordance with DOT 192 and ASME B 31.8 standards. The duration of construction for each aboveground facility is approximately two months. Spire intends to implement the FERC's Plan and Procedures as a minimum. As with the pipeline, deviations from the Plan and Procedures are discussed in Section 1.3, Construction Procedures, and listed in Appendix 1-D.

Two teams of approximately 17 workers each will complete construction of the M&R stations, as shown in Table 1.3-1. One crew will construct the REX Receipt Station, and a second crew will construct the Laclede/Lange Delivery Station and Chain of Rocks Station. As REX Receipt Station, Laclede/Lange Delivery Station, and Chain of Rocks Station are new facilities, grading and foundation work will be required to prepare the site and skid-mounted structures will be installed.

Access roads will be installed as required to provide permanent access to each site, and gravel or stone will be installed within fenced areas. M&R facilities will utilize above grade pipeline where feasible, which will require the installation of pipe support pedestals to adequately support the pipe. Sites may require storm water retention basins or additional grading for storm water controls. Designs will be included in the Storm Water Pollution Prevention Plan in accordance with state requirements.

Surface areas disturbed will be restored in a timely manner. Components in high-pressure natural gas service will be tested prior to placing in service. Hydrostatic testing will follow applicable federal, state and local requirements. Launching and receiving facilities will be installed to meet the same standards and regulatory requirements established for the pipelines. MLVs will be installed within the Project's permanent easement or existing facilities at locations dictated by pipeline class and other requirements.

In addition to construction drawings and/or applicable environmental permits that are provided to the contractor(s), an EI will oversee the implementation of E&SC measures and advise the contractor in the upgrade and maintenance of the measures throughout construction.



1.4 Operation and Maintenance

Spire will operate and maintain the newly constructed pipeline facilities in accordance with the requirements of FERC, USDOT's PHMSA at 49 CFR Part 192, all other applicable legal requirements, and industry-proven practices and techniques. The facilities will be operated and maintained in a manner such that pipeline integrity is protected to ensure that a safe, continuous supply of natural gas reaches its ultimate destination. Maintenance activities will include regularly scheduled gas-leak surveys and measures necessary to repair any potential leaks. The latter may include repair or replacement of pipe segments. All fence posts, signs, marker posts, aerial markers, and decals will be maintained to ensure that the pipeline locations will be visible from the air and ground. The pipeline and aboveground facilities will be patrolled on a routine basis, and personnel qualified to perform both emergency and routine maintenance on interstate pipeline facilities will handle maintenance.

The Project facilities will be patrolled on a periodic basis. This will provide information on possible leaks, construction activities, erosion, exposed pipe, population density, possible encroachment, and any other potential problems that may affect the safety and operation of the pipeline. Further discussion regarding inspections is included in Resource Report 11, Reliability and Safety.

Spire will operate and maintain the Project and aboveground facilities in compliance with USDOT regulations provided at 49 CFR § 192, FERC's regulations at 18 CFR § 380.15, and maintenance provisions of FERC's Plan and Procedures. The operation of these facilities upon completion of the Project is anticipated to require the hiring of five additional personnel.

1.4.1 Pipelines

Pipeline facilities will be maintained and inspected in accordance with applicable pipeline safety regulations. Operational activity on the pipelines will be limited primarily to maintenance of the right-of-ways and inspection, repair, and cleaning of the pipelines. Vegetation maintenance will be conducted in accordance with FERC's Plan and Procedures.

Maintenance functions will include the following:

- periodic seasonal vegetation management of the Project right-of-way in accordance with the timing restrictions outlined in the FERC's Plan and Procedures;
- terrace repair, backfill replacement, and drain tile repair as necessary;
- periodic inspection of water crossings; and
- maintenance of a supply of emergency pipe, leak repair clamps, sleeves, and other equipment needed for repair activities.

Erosion problems on the pipeline right-of-way will be reported to the local operations supervisor. These reports may originate from landowners or company personnel performing routine patrols. Corrective measures will be conducted as needed.



1.4.1.1 Vegetation Maintenance

A typical post-construction permanent easement width of 50 feet will be maintained for the 24-inch pipeline and the North County Extension. Maintaining a right-of-way is necessary for the following reasons:

- access for routine pipeline patrols and corrosion surveys;
- avoid pipeline damage from large roots;
- access in the event that emergency repairs of the pipeline are needed;
- visibility during aerial patrols; and
- to serve as a visual indicator to the public of an underground pipeline utility and easement.

Operational vegetation maintenance of Spire's permanent right-of-way in uplands may be conducted on a frequency of approximately once every three years to maintain an herbaceous to low scrub-shrub cover state. Routine vegetation mowing will be completed outside of the migratory bird nesting season, which is April 15 through August 1.

Within wetlands, Spire will only maintain the 10-foot corridor centered over the pipelines, allowing the balance of Spire's permanent easement to revert to its natural, pre-construction vegetated cover state. Additionally, within wetlands, Spire reserves the right to selectively cut and remove trees located within 15 feet of the pipeline with roots that may compromise the integrity of the pipeline coating. Spire will not use herbicides or pesticides on its right-of-way unless requested by landowners. Spire will utilize herbicides or pesticides at aboveground facilities that are adjacent to agricultural lands in Illinois in accordance with the AIMA. Herbicide use will be conducted by an applicator licensed in the state of Illinois. No herbicides or pesticides will be used within 100 feet of a wetland or waterbody unless otherwise approved by applicable federal, state, and local agencies and directly affected landowners.

Post-construction management of the right-of-way will be conducted in accordance with FERC's Plan and Procedures and Spire's Noxious Weeds/Invasive Species Control and Mitigation Plan in Resource Report 3, Appendix 3-A. Vegetation maintenance (with respect to the control of invasive plant species) is detailed in these plans.

Following construction of the pipeline facilities, areas used for TWS and ATWS will be allowed to revert to their pre-construction land use/land cover with no further vegetation maintenance by Spire. Additionally, crop production will be allowed to continue in agricultural areas, immediately following construction or the following growing season.

1.4.1.2 Cathodic Protection and Alternating Current Mitigation Areas

It is currently anticipated that cathodic protection of the pipeline will be conducted with impressed current systems that employ rectifier/groundbed systems. Units will be installed at various locations perpendicular to the pipeline and aboveground test stations will be installed at various locations along the pipeline to gather accurate



information for potential current adjustments. The cathodic protection system will be regularly monitored to maintain required pipe-to-soil potential and will be achieved in accordance with the USDOT regulations.

In areas where the pipeline parallels high-voltage electric transmission lines, an AC mitigation system will be implemented as necessary to reduce stray current, to prevent possible shock to personnel during post-construction activities, and to prevent interference with the cathodic protection system.

Cathodic protection and AC mitigation systems are further discussed in Section 1.1.2.1, Pipeline Facilities.

1.4.2 Aboveground Facilities

Spire will operate and maintain the proposed aboveground facilities in accordance with standard procedures designed to ensure the integrity of the facilities and to provide its shippers and the general public with a safe and dependable natural gas supply. The facilities will be designed, constructed, and operated in accordance with requirements of FERC, USDOT, industry-proven practices and techniques, and other federal, state, and local requirements, as applicable.

Responsibilities of Spire will include the following:

- Safe operation and maintenance of pipeline and aboveground facilities to provide the required gas flow;
- Inspection and maintenance of the pipeline system;
- Regular monitoring of the right-of-way;
- Development and implementation of an ongoing program of safety and environmental compliance;
- Regulatory compliance maintenance inspections;
- Administration; and
- Landowner relations.

See Resource Report 11 for further discussion on safety procedures for aboveground facilities.

Areas within the permanent easement outside of the facility fence line will be maintained through routine vegetation maintenance or allowed to revert to preexisting conditions. This is reflected in the operation impacts reported in Section 1.2.3.

1.5 Future Plans and Abandonment

At present, Spire has no firm or immediate plans to expand upon the current Project. There are no current or future plans to abandon facilities as a result of this Project.



1.6 Permits and Approvals

A comprehensive list of the required permits, approvals and consultations, administering agencies, status, and agency contact information is provided as Table 1.6-1. Copies of correspondence are included in Appendix 1-C. Copies of outstanding approvals/consultations will be filed with the FERC upon receipt.

Table 1.6-1. Environmental Permits, Approvals, and Consultations

| Agency or Organization | Permit/Approval | Submittal Date ¹ (Anticipated) | Receipt Date ¹ (Anticipated) |
|---|--|---|--|
| Federal | | | |
| FERC | Certificate of Public Convenience and Necessity | January 2017 | (December 2017) |
| United States Fish and Wildlife Service (“USFWS”), Rock Island Field Office | Threatened and Endangered Species Consultation; Migratory Bird Treaty Act, Bald and Golden Eagle Act | June 2016 | (December 2017) |
| USFWS, Columbia Field Office | Threatened and Endangered Species Consultation; Migratory Bird Treaty Act, Bald and Golden Eagle Act | Rock Island will be the lead USFWS office | N/A |
| United States Army Corps of Engineers (“USACE”), St. Louis District | Section 404, Section 10 [Nationwide Permit (“NWP”) 12] | January 2017 April 2017 | (January 2018) |
| | Section 408 | January 2017 | (January 2018) |
| | Real Estate Agreement | January 2017 | (May 2018) |
| United States Department of Agriculture | Consultation on Lands Enrolled in Conservation Reserve Program | August 2016 | (January 2018) |
| State-Illinois | | | |
| Illinois Department of Natural Resources (“IDNR”) | Statewide Permits #6, #8, and #13 | No separate submittal required if general conditions are met. | |
| | State Species Consultation | June 2016 | (August 2017) |
| | Incidental Take Authorization | (July 2017) | (December 2017) |
| Illinois Environmental Protection Agency | 401 Water Quality Certification (separate submittal required for Section 404 and Section 10 permits; automatic authorization under NWP-12) | January 2017 April 2017 | (January 2018) |
| | State Operating Permit for Wastewater Discharges | (June 2017) | (September 2017) |



Table 1.6-1. Environmental Permits, Approvals, and Consultations (Continued)

| Agency or Organization | Permit/Approval | Submittal Date ¹ (Anticipated) | Receipt Date ¹ (Anticipated) |
|--|--|--|--|
| State-Illinois (continued) | | | |
| Illinois Environmental Protection Agency (continued) | General NPDES Permit No. ILR10 | Oil and gas activities are exempt from submitting for NPDES Construction Stormwater Permit provided that FERC Plan and Procedures and State Best Management Practices are incorporated into construction activities. | |
| Illinois Historic Preservation Agency (“IHPA”) | Section 106, National Historic Preservation Act (“NHPA”) Clearance | June 2016 | (August 2017) |
| Illinois Department of Agriculture (“IDOA”) | AIMA | September 2016 | March 2017 |
| Illinois Department of Transportation (“IDOT”) | Utility Permit and Driveway Permit | (August 2017) | (December 2017) |
| Scott County Highway Department | Utility Permit and Driveway Permit | (September 2017) | (December 2017) |
| Greene County | Floodplain Permit | (October 2017) | (December 2017) |
| Greene County Highway Department | Utility Permit and Driveway Permit | (September 2017) | (December 2017) |
| Jersey County | Floodplain Permit and Stormwater Development Permit | (October 2017) | (December 2017) |
| Jersey County Highway Department | Utility Permit and Driveway Permit | (September 2017) | (December 2017) |
| Scott County Road District #2 | Road Crossing and Road Use Agreement | (October 2017) | (December 2017) |
| Roodhouse Township | Road Crossing and Road Use Agreement | (October 2017) | (December 2017) |
| Whitehall Township | Road Crossing and Road Use Agreement | (October 2017) | (December 2017) |
| Carrollton Township | Road Crossing and Road Use Agreement | (October 2017) | (December 2017) |
| Kane Township | Road Crossing and Road Use Agreement | (October 2017) | (December 2017) |
| English Township | Road Crossing and Road Use Agreement | (October 2017) | (December 2017) |
| Otter Creek Township | Road Crossing and Road Use Agreement | (October 2017) | (December 2017) |
| Elsah Township | Road Crossing and Road Use Agreement | (October 2017) | (December 2017) |



Table 1.6-1. Environmental Permits, Approvals, and Consultations (Continued)

| Agency or Organization | Permit/Approval | Submittal Date ¹ (Anticipated) | Receipt Date ¹ (Anticipated) |
|---|---|--|--|
| State-Illinois (continued) | | | |
| Kansas City Southern Railroad | Utility Permit and Right of Entry Permit | (June 2017) | (December 2017) |
| State-Missouri | | | |
| Missouri Department of Natural Resources ("MDNR"), St. Louis Regional Office | Individual 401 Water Quality Certification | (April 2017) | (July 2017) |
| | Hydrostatic Discharge Permit | (October 2017) | (November 2017) |
| | Water Withdrawal Registration | (October 2017) | (October 2017) |
| | Land Disturbance Permit | Oil and gas activities are exempt from submitting for NPDES Construction Stormwater Permit provided that FERC Plan and Procedures and State Best Management Practices are incorporated into construction activities. | |
| Missouri Department of Conservation ("MDOC") | State listed species consultation | June 2016 | (August 2017) |
| | Special Use Permit (submit notice 30 days prior to activity) | (October 2017) | N/A |
| Missouri State Historic Preservation Office ("MO SHPO") | Section 106, NHPA clearance | June 2016 | (August 2017) |
| Consolidated North County Levee District | Letter of Endorsement | January 2017 | (August 2017) |
| MoDOT | Utility Permit | (August 2017) | (December 2017) |
| St. Louis County | Floodplain Permit and Land Disturbance Permit | (October 2017) | (December 2017) |
| | Building and Zoning Permits | (October 2017) | (December 2017) |
| St. Louis County Highway Department | Utility Permit and Driveway Permit | (September 2017) | (December 2017) |
| St. Charles County | Floodplain Permit and Land Disturbance Permit | (October 2017) | (December 2017) |
| | Building and Zoning Permits | (October 2017) | (December 2017) |
| St. Charles County Highway Department | Utility Permit and Driveway Permit | (September 2017) | (December 2017) |
| Burlington Northern & Santa Fe Railroad | Utility Permit and Right of Entry Permit and Private Road Crossing Permit | (May 2017) | (December 2017) |



Table 1.6-1. Environmental Permits, Approvals, and Consultations (Continued)

Notes:

N/A - Not Applicable.

- ¹ Submittal dates and anticipated permit receipt dates are based on schedules discussed with the regulatory agencies.

1.7 Affected Landowners/Stakeholders

Spire has developed and implemented a comprehensive Public, Stakeholder, and Agency Participation Plan that outlines a commitment to engage actively with stakeholders currently and throughout the life of the Project and identifies the following activities to be conducted by Spire to ensure successful ongoing communication with all stakeholders. These engagement activities include:

- holding Community Open Houses to provide Project information to all interested stakeholders;
- continuing to identify and hold meetings with local associations, affected public groups, and other non-governmental organizations (“NGOs”) concerning the Project;
- continuing to meet with state and local government representatives to seek input, and provide updates;
- continuing to meet frequently with state and federal agencies for guidance during permitting and development of the FERC Resource Reports and respond rapidly to any requests for information;
- providing Project information and updates via periodic newsletters sent via hardcopy and made available electronically on the Project website listed below;
- periodically updating the publicly available website providing pertinent information about the Project (<http://www.SpireSTLPipeline.com>); and
- establishing additional channels of communication including the Project Information Line (844-885-7234) and STLPipelineInfo@SpireEnergy.com.

A copy of this Plan was filed with FERC on July 22, 2016 as part of Spire’s Pre-File request letter. An updated version of the Public, Stakeholder and Agency Participation Plan is provided in in Appendix 1-H.

1.7.1 Public Participation

Spire is committed to the early identification and resolution of stakeholder issues and concerns related to the proposed Project. Spire believes that successful resolution of issues is best achieved by involving the appropriate stakeholders at the earliest possible stage of a project and prior to filing its application with FERC. As such, Spire has conducted and will continue to conduct extensive outreach to inform stakeholders about the Project and provide available updates. Early in the stakeholder outreach process, Spire established a Project website (<http://www.SpireSTLPipeline.com>) that provides information about the Project, updates on regulatory



proceedings, copies of regulatory filings, and contact information for the public to use to raise questions and concerns.

Efforts to identify stakeholders was focused on federal, state, and local elected officials; federal, state, and local regulatory agencies; Native American tribes; landowners; economic development agencies/chambers of commerce; local law enforcement agencies; local media outlets; non-governmental organizations; and the community at large. Pursuant to 18 CFR §157.21, Spire submitted a comprehensive stakeholder list concurrent with this filing in Appendix 1-I. Spire has continued to develop and maintain a contact management system to track contact with these stakeholders in a manner that assists in the identification and resolution of emerging issues and concerns.

Spire sent letters to permitting agencies and agencies that require consultation in July 2016 notifying them of its plan to use the FERC pre-filing process and invite them to participate in the pre-file process. Copies of the submitted pre-filing notices are provided in Appendix 1-C. Spire also contacted stakeholders in August 2016, including landowners, to inform them of the pre-filing process timeline and invite them to attend the Community Open Houses. Additionally, letters explaining the Project have been sent to a list of environmental non-government organizations (“ENGOS”) and other NGOs to assure an appropriate, accurate, and complete baseline of information is provided. In advance of the amendment filing, Spire mailed letters with supplemental information describing the amended Project scope to agencies and Native American tribes. Copies of the letters are provided in Appendix 1-C. Ongoing efforts to make additional contact with the ENGOS and NGOs will continue to be made.

In August 2016, Spire planned and conducted five community Open Houses in locations along the route:

- Scott County, Illinois on August 16, 2016 at the Scott County Fairgrounds, 401 North Walnut, Winchester, Illinois, 62694;
- Greene County, Illinois on August 24, 2016 at KC Hall Carrollton, US Highway 67, Carrollton, Illinois 62016;
- Jersey County, Illinois on August 17, 2016 at Jerseyville Recreation Center, 401 Mound Street, Jerseyville, Illinois 62052;
- St. Charles County, Missouri on August 23, 2016 at American Legion Post 312, 2500 Raymond Drive, St. Charles, Missouri, 63301;
- St. Louis County, Missouri on August 18, 2016 at Hazelwood Community Center East, 8969 Dunn Road, Hazelwood, Missouri 63042.

A total of 151 stakeholders attended these Open Houses. Comments were focused on preservation or remediation of drain tiles through agricultural fields; compensation for possible damages incurred during survey or construction; easement payments; depth of cover through agricultural land; construction schedule; use of local service companies and businesses during construction; and environmental concerns for crossing waterbodies. Route selection was a topic of discussion at each open house. Spire’s Project team met with each landowner or interested stakeholder to explain the proposed route and take suggestions and comments.



As part of its commitment to keeping stakeholders informed, the Project has committed to periodically creating and distributing, via traditional mail and electronic technologies, Project newsletters that inform stakeholders about the Project in general, what has recently occurred, and what to expect next. The first of these newsletters was distributed to stakeholders in December 2016.

In addition, Spire has and will continue to provide copies of the filing materials, including resource reports, to participating federal agencies, county offices, and public libraries along the proposed pipeline route and to certain state offices so the public will have the opportunity to view the materials and to provide comments. Copies will be provided to the following libraries in the Project area:

- Scott County: Winchester Public Library at 215 North Main Street, Winchester, Illinois 62694;
- Greene County: Carrollton Public Library at 509 South Main Street, Carrollton, Illinois 62016;
- Jersey County: Jerseyville Public Library at 105 North Liberty Street, Jerseyville, Illinois 62052;
- St. Charles County: St. Charles City-County Library at 1825 Common Field Street, Portage Des Sioux, Missouri 63373; and
- St. Louis County: St. Louis County Library at 4153 North Highway 67, Florissant, Missouri, 63034.

1.7.1.1 FERC Scoping Sessions

The Project supported and attended FERC-sponsored scoping sessions held in November 2016. Three meetings were held:

- St. Louis County, Missouri on November 14, 2016 at North County Recreation Complex, 2577 Redman Road, St. Louis, Missouri 63136;
- Jersey County, Illinois on November 15, 2016 at Elsay Township Community Building, 14690 Fessler Road, Dow, Illinois 62022; and
- Greene County, Illinois on November 16, 2016 at Knights of Columbus Hall Carrollton Council No. 1996, US Highway 67, Carrollton, Illinois 62016.

Approximately 65 stakeholders in total attended the three scoping sessions. FERC provided information on the regulatory process and provided stakeholders an opportunity to ask questions and provide comments. Spire Project staff were also available to provide general information and answer specific questions about the proposed Project. Detailed route maps and Project fact sheets were available for review.

Spire filed responses to the public comments originating at the scoping sessions, as well as other comments submitted to the docket, on December 9, 2016, and again with the certificate application on January 26, 2017. Responses to comments received after the application are included as Appendix 1-K, which references the location in the April 2017 Resource Reports where each comment is addressed.



1.7.2 Landowner Notification

The names and addresses of landowners whose property will be crossed by the Project are provided in Appendix 1-G. This list of landowners will be continually updated and maintained throughout the Project. These landowners were contacted beginning in July 2016 to request access for civil and environmental surveys for the pipeline route, access roads, staging areas and aboveground facility sites.

Throughout the course of the Project, landowners and stakeholders will be kept informed about Project permitting developments, construction, and restoration through various means, such as Project notification letters and newsletters. In February 2017 and in accordance with Section 157.6(d) of the Commission's regulations (18 CFR § 157.6(d)), Spire provided the required notification of the Project to the directly affected and abutting properties affected by the construction work areas and all stakeholders received notification of the application. The landowner notification letters also provided information regarding procedures to follow in the event that the landowner has any concerns or problems during construction. As a result of this amendment and in accordance with Section 157.6(d) of the Commission's regulations (18 CFR § 157.6(d)), Spire will provide the required notification of the Project to the directly affected and abutting properties affected by the construction work areas. All stakeholders will receive notification of the Project amendment. Spire will implement a Landowner Complaint Resolution Process which outlines these procedures. Spire has provided this plan in Appendix 1-J.

1.7.3 Agency Outreach

In addition to public outreach efforts with landowners and governmental officials described in Sections 1.7.1 and 1.7.2, Spire has been conducting an extensive planning and consultation process with federal and state regulatory agencies, resource agencies, and Native American Tribes. The consultation process has involved meetings, letter requests for resource information, and telephone discussions and emails. Project information and letters requesting environmental information have been sent to the state and local agencies in Illinois and Missouri. This section provides a brief description of the more significant agency and stakeholder consultations that have occurred. A list of agencies contacted to date, as well as correspondence materials is provided in Appendix 1-C.

1.7.3.1 Interagency and Other Review/Resource Agency Meetings

Beginning in June 2016, Spire began contacting federal and state regulatory agencies in Illinois and Missouri with respect to the relevant permitting requirements for the Project. Spire conducted several Project introduction meetings and provided the agencies with the Project Description, and advised these agencies of Spire's intent to use the FERC's National Environmental Policy Act pre-filing process.

On December 13, 2016 at the request of the Office of the Governor of Illinois, an Interagency meeting was held in Springfield, Illinois with agencies responsible for reviewing and issuing permits. The meeting was attended by Illinois agencies, the USEPA, and USFWS in person and by teleconference. The purpose of the meeting was to provide a Project overview, answer questions, and to coordinate agency input and reviews of the Project. FERC staff attended by phone and provided guidance as needed.



A list of the agency meetings conducted to date is provided in Table 1.7-1. In addition to agency meetings, Spire has continued to engage the regulatory agencies via conference calls and emails in order to address further concerns. Records of these communications are provided in Appendix 1-C. Spire filed for the federal authorizations needed for the Project concurrent with submittal of the application for the Project to FERC, consistent with Commission Order No. 687. In addition, Spire is providing a package to the federal and state agencies (where applicable) presenting updated information (e.g. survey data) as a supplement to its permit applications filed in January 2017.

Table 1.7-1. Agency Meetings Conducted to Date

| Agency | Meeting Date | Topic |
|--|--------------------|--|
| USACE, St. Louis District | June 29, 2016 | Project introduction |
| | August 3, 2016 | Review of Project design and geotechnical investigations |
| | August 23, 2016 | Review of river crossings |
| | September 16, 2016 | Coordination of Section 408 review |
| | October 18, 2016 | Project update and permitting schedule |
| | November 30, 2016 | Pre-application meeting |
| | December 13, 2016 | Illinois Interagency Meeting |
| | April 13, 2017 | Coordination of Section 408 review |
| USFWS, Rock Island Field Office | July 7, 2016 | Project introduction |
| | August 23, 2016 | Review of river crossings |
| | December 13, 2016 | Illinois Interagency Meeting |
| | January 4, 2017 | Federal listed species |
| | April 13, 2017 | Federal listed species |
| USEPA, Region 5 | December 13, 2016 | Illinois Interagency Meeting |
| IHPA | June 21, 2016 | Project introduction |
| | December 13, 2016 | Illinois Interagency Meeting |
| IDNR | June 21, 2016 | Project introduction |
| | December 13, 2016 | Illinois Interagency Meeting |
| IDOA | June 21, 2016 | Project introduction |
| | December 13, 2016 | Illinois Interagency Meeting |
| MO SHPO | July 8, 2016 | Project introduction |
| MDOC | June 29, 2016 | Project introduction |
| MDNR | August 3, 2016 | Project introduction |
| Consolidated North County Levee District | August 3, 2016 | Project introduction |



1.7.3.2 Threatened and Endangered Species Consultations

As required under Section 7 of the United States Endangered Species Act (“ESA”) and the endangered species laws in Illinois and Missouri, Spire initiated informal consultations with federal and state resource agencies to update the known locations of federal or state-listed threatened and endangered species or candidate species that could potentially be affected by construction or operation of the Project. Spire initiated consultation with the USFWS (Rock Island District) and the state agencies in Illinois and Missouri in June 2016. Spire has also provided further information on planned surveys and will coordinate with USFWS, IDNR and MODC for technical assistance. Letters with information on the amended Project scope were submitted to agencies in March 2017. A record of agency correspondence is provided in Appendix 1-C.

A list of stakeholders that Spire is coordinating with throughout the Project planning process is provided in Appendix 1-I.

1.8 Non-jurisdictional Facilities

No non-jurisdictional facilities are anticipated for this Project.

It is assumed that the REX Receipt Station, Laclede/Lange Delivery Station, and Chain of Rocks Station will need an individual single phase power drop with meter from the applicable electric utility. Since three phase power will not be needed, there are no anticipated upgrades to the existing power infrastructure in the area. Spire anticipates the need for power to amount to requesting power service from the applicable electric utility that will consist of a transformer, power pole(s), and a meter base. Spire is coordinating with the local utility company to obtain the power necessary for these facilities.

1.9 Cumulative Impacts

Spire has completed a cumulative impact analysis for the Project, including the resource-specific temporal and geographic scope within which cumulative impacts may occur from the construction and operation of the Project. Cumulative impacts associated with the Project would result from the combined effect of construction and operation of the Project facilities with other major developments occurring in the vicinity of the Project. To evaluate the potential cumulative impacts, Spire considered the “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions”, per 40 Code of Federal Regulations (CFR) § 1508.7.

This analysis generally follows the methodology set forth in relevant guidance (Council on Environmental Quality, 1997; United States Environmental Protection Agency, 1999). Under these guidelines, inclusion of other actions within the analysis is based on identifying commonalities of impacts from past, present, and potential actions to potential impacts that would result from the proposed Project. For an action to be included in the cumulative impact analysis, it must:



- impact a resource area potentially affected by the Project;
- cause this impact within the proposed Project; or
- cause this impact within the time span for the potential impact from the proposed Project.

The proposed geographic scope for the cumulative impact analysis is included as Table 1.9-1. Spire proposes to follow FERC’s standard guidance included with FERC staff’s Comments on Spire’s Initial Draft Resource Report 1 dated September 23, 2016, with the exception of Environmental Justice. Spire proposes to adjust the geographic scope to be consistent with the Affected Environment established for the Environmental Justice methodology utilized in Resource Report 5. Further justification for the identification of the Affected Environment is included in Resource Report 5.

Table 1.9-1. Geographic Scope for Cumulative Impact Analysis

| Environmental Resource | Geographic Scope |
|---|--|
| Soils and Geology | Construction workspaces |
| Groundwater, Wetlands, Vegetation, Wildlife | Hydrologic Unit Code (“HUC”) 12 Watershed |
| Surface Water Resources | HUC 12 Watershed. For direct in-water work (e.g., dredging) include potential overlapping impacts from sedimentation, turbidity, and water quality |
| Cultural Resources | Overlapping impacts within the Area of Potential Effects |
| Land Use | One-mile radius |
| Visual | For aboveground facilities, distance that the tallest feature at the planned facility would be visible from neighboring communities. For pipelines, use 0.25-mile and existing visual access points (e.g., road crossings) |
| Noise - Operations | Other facilities that would impact any noise sensitive area located within one-mile of a noise emitting permanent aboveground facility |
| Noise - Construction | 0.25-mile from pipeline or aboveground facilities. 0.5-mile from horizontal direction drill or direct pipe installation |
| Air Quality - Operation | Not applicable - No significant aboveground facilities are proposed, therefore no cumulative impacts for air quality - operation are anticipated |
| Air Quality - Construction | 0.25-mile from pipeline or aboveground facilities |
| Socioeconomics | Affected counties and municipalities |
| Environmental Justice | Affected Environment (within one-mile of 24-inch pipeline and North County Extension) |



1.9.1 Scoping

Spire has reviewed publicly available data, and received additional guidance from local governments and state agencies regarding actions within the geographic scope of the Project. A list of past, present, and reasonably foreseeable actions identified within the geographic scope of Spire's Project are provided in Table 1.9-2.

1.9.1.1 Federal and State

The FERC eLibrary and lists of approved and pending major pipeline projects were reviewed to identify approved or pending regulated actions that may be constructed during a similar timeframe in the counties crossed by the Project (FERC 2016a; FERC 2016b; FERC 2016c). Both natural gas and other FERC-regulated energy actions were evaluated. No actions within the geographic scope were identified.

Major highway or bridge actions currently underway, recently completed in 2016 or later, or planned within the counties crossed by the Project were reviewed using the IDOT and MoDOT databases (IDOT 2016a, 2016b, 2016c, and 2016d; MDOT 2016). Road infrastructure actions were included for analysis if there was potential for construction to extend significantly beyond the existing road right-of-way (i.e. expansions or new roads) or for impacts to waterbodies (i.e. bridge replacements or repairs). Several upcoming actions are planned within the counties crossed by the Project, though most have a limited disturbance footprint. The primary road infrastructure action discussed in this analysis are the proposed and potential construction and upgrades of the US-67 corridor. Several new bypasses are proposed for this existing road, and the Project has been routed to avoid potential future conflict with these preliminary design plans. Most of the US-67 corridor improvements are in the preliminary design or planning stage, and only one is included in IDOT's programmed projects for 2018-2022. Road infrastructure actions share geographic scope with the Project for Groundwater, Wetlands, Vegetation and Wildlife; Surface Water Resources; Land Use; Socioeconomics; and Environmental Justice.

Oil and gas permit trends were reviewed for counties crossed by the Project, based on records available from IDNR and MDNR. In general, Illinois and Missouri have minimal production of natural gas, though Illinois does have modest production of oil in the southern portion of the state (USEIA 2016a and 2016b). Approximately 800 drilling permits for oil, gas and injection wells are issued each year in Illinois, with most production located in the Illinois Basin province (IDNR 2016a). The Project area is located near the boundary of this formation. Weekly drill logs were reviewed for the Project area from June 2016 through December 19, 2016, with no record identified within the geographic scope. Oil and gas permit lists in Missouri, current as of May 2016, do not show prolific recent activity, as the last recorded active well in St. Charles County was drilled in 1975, and the last recorded active well in St. Louis County was drilled in 2012 (MDNR 2016). Therefore, though future production of oil and gas resources may be feasible within the geographic scope of the Project, no present, past or reasonably foreseeable development of these resources is included in this analysis. Future development would be subject to the appropriate state regulations.



Public notices from the USACE St. Louis and Kansas City Districts dated June through December 2016 were reviewed, focusing on stream disturbance and wetland permits (USACE 2016a and 2016b). Three minor actions and one 90-acre development were identified within the geographic scope for Socioeconomics. The USACE St. Louis District has also issued a public notice on the update of the 1979 Environmental Impact Statement for its Regulating Works Project on the Middle Mississippi River, which begins at the confluence of the Missouri River and extends south for approximately 195 miles. The USACE St. Louis is responsible for operating and maintaining a navigation channel on the Middle Mississippi River, and the preferred alternative is to continue with dredging and river training structure construction with the future potential addition of compensatory mitigation for unavoidable adverse effects to main channel border habitat. This portion of the Mississippi is adjacent to the North County Extension Project area. However, as this EIS does not propose a new action, it was excluded from analysis.

Other energy infrastructure developments may fall under the jurisdiction of the states; therefore, publicly available information for primary infrastructure provider Ameren was reviewed (Ameren Illinois 2016; Ameren Missouri 2016). State approved actions by CleanLine Energy Partners and Energy Transfer Partners, LP were also identified (Clean Line Energy Partners 2016; Energy Transfer Partners 2015). One electric transmission action, the Grain Belt Express Clean Line, is proposed to be constructed in the Project area as early as 2018, and crosses at approximate MP 2.6. With the exception of the CleanLine action, which intersects all geographic scopes in this analysis, energy infrastructure actions identified are within the geographic scope for only Socioeconomics.

1.9.1.2 Local Reviews

Spire contacted the county and local municipalities for information regarding planned developments within the Project area, as discussed in Resource Report 8, and several commercial or residential developments were identified (Leezer 2016; Nichols 2016; Lang 2016; Soufer 2016; and Myers 2016b). Additional online reviews were conducted to review publicly available actions online (NorthPark 2016; Rizvic 2016; Unglesbee 2015; St. Charles County 2016). Several commercial/industrial developments completed in 2016, ongoing, or planned for 2017-2018 were identified within the geographic scope for Groundwater, Wetlands, Vegetation and Wildlife; Surface Water Resources; and Socioeconomics. Two planned residential developments, which may occur during the temporal scope of the Project depending on construction start, are located within the geographic scope for Socioeconomics. Expansion of the existing New Town at St. Charles community is expected to continue over the next 20 years, with several hundred acres available for continued development of this mixed use neighborhood. This action is located within the geographic scope for Groundwater, Wetlands, Vegetation and Wildlife; Surface Water Resources; and Socioeconomics.

1.9.2 Potential Cumulative Impacts of the Proposed Action

1.9.2.1 Soils and Geology

One action, the Grain Belt Express Clean Line, is located within the geographic scope for Soils and Geology in Scott County, Illinois. Construction is proposed to begin as early as 2018. Disturbance will largely be limited to the footprint of the structures and access roads (locations to be determined). The proponent will repair damage to soil resulting from construction and maintenance and compensate landowners for crop damages. It is not known at this time if disturbance will coincide with the Project workspaces.



Spire's proposed right-of-way crosses several properties currently being used for agricultural purposes. Soil impacts will occur during the construction period and restoration. Depending on soil conditions, these impacts may include loss of excavated soil from water and wind erosion, soil compaction from construction equipment, and mixing of wetland topsoil and subsoil. Spire will follow the FERC's Plan and Procedures in conjunction with the AIMA for portions of the Project in Illinois, which includes additional measures to avoid impacts to soils, therefore cumulative impacts to soils would be minimized or avoided. The likelihood of cumulative impacts on soils is minimal.

Potential cumulative impacts associated with geologic mineral resources may include disruption or loss of access to potential resources at mining facilities or reserves. Given that no active mining is located within the area of the Project proposed to be crossed by the Grain Belt Express Clean Line, no anticipated cumulative impacts to mineral resources are expected. While no new oil and gas wells have been identified within the Project area, few new wells are being developed according to the IDNR databases. Should a new well be proposed within the Project work area, Spire will coordinate with the producer to avoid adverse impacts on production and transportation of oil and gas. In addition, blasting is not proposed for this area of the Project. Installation of any proposed electric transmission structures may require blasting depending on structure design; however these would not be expected to be located within Spire's right-of-way. Therefore, cumulative impacts are not anticipated.

1.9.2.2 Groundwater, Wetlands, Vegetation, Wildlife

Several actions were identified within the geographic scope for Groundwater, Wetlands, Vegetation and Wildlife, including three small transportation actions in St. Louis County, Missouri, and new hanger construction at Smartt Field Airport in St. Charles County, Missouri. These small road infrastructure and building actions have limited footprints primarily contained to existing developed sites and likely entail de minimus impacts to resources.

Several sections of the anticipated US-67 corridor improvements cross a HUC-12 watershed affected by the Project in Greene and Jersey Counties, Illinois, including new bypasses and improvement corridors. New bypasses could be expected to have temporary and permanent impacts. Improvement corridors would entail expansion of the existing roadway, which would minimize impacts to the resources. Detailed analysis of these actions is not publicly available. It is presumed that the loss of some vegetation habitats is likely to occur, though most impacts would be to agricultural lands. The Delhi Bypass is the only portion of the corridor improvements that has been programmed, and is expected to be constructed sometime between 2018 and 2022, which may overlap with the temporal scope of the Project. The remaining improvements are in varying stages of design, and the construction timeframes are unknown. It is improbable that improvements not yet programmed would be constructed at the same time as the Project.

For the Grain Belt Express Clean Line action, located within Scott and Greene Counties, Illinois, vegetation in the right-of-way will be maintained at less than ten feet in height. Based on aerial imagery, some forest clearing would be expected within the same HUC-12 as the Project. The proponent will implement their Avian Protection Plan to identify avoidance, minimization and mitigation measures to address avian risk. The route is collocated with existing roads where possible. The proponent will work with landowners on vegetation maintenance procedures and has requested input on best practices from local conservation organizations.



Future development at New Town at St. Charles will likely continue to utilize and construct the system of lakes and canals that is unique to the community. These structures are also utilized for storm water control; and may have effects on groundwater recharge in the area. Remaining areas that may be developed are primarily open or agricultural, therefore tree clearing would be negligible. Wetland resources may be present on the site. Wildlife common to agricultural landscapes may be displaced by development; however the surrounding land use is comparable and would provide suitable habitat.

The Project is not expected to have a significant impact on groundwater resources. Spire will adhere to the Project-specific Spill Prevention Control and Countermeasures Plan and Storm Water Pollution Prevention Plan to minimize potential impacts to groundwater. The Project will primarily consist of shallow excavation. Trenchless (HDD) crossings will exceed these trench depths; however, these activities are not expected to have an impact on groundwater quality due to the relatively narrow diameter of the boreholes. Other actions would likely employ similar erosion and sediment control measures, which would minimize risk for contamination from fuel or other sources.

Long-term aquifer recharge will not be affected by pipeline construction or subsequent operations due to the relatively narrow right-of-way width. The Project would not involve the permanent loss of wetlands and, therefore, would be expected to have primarily short-term temporary impacts on wetland quality, with limited long-term impacts such as the conversion of forested wetlands. However, routine vegetative maintenance in accordance with FERC's Plan and Procedures will maintain some Palustrine Forested and Palustrine Scrub-Shrub wetlands as Palustrine Emergent. Temporary impacts to wetlands include disturbance of the soils and removal of vegetation. Runoff from construction activities near wetlands could also result in cumulative impacts, although this effect would be relatively minor and would be controlled by the implementation of erosion and sediment control measures and by compliance with federal, state and local requirements. Spire will obtain the applicable federal and state permits, which seek to avoid and minimize individual and cumulative impacts to federally-regulated wetlands and would be required for all development actions impacting wetlands. Should development actions result in the unavoidable loss or conversions of wetlands, the permitting agencies have comprehensive mitigation processes to offset these impacts.

When actions are constructed in the same general location and timeframe, they could have a cumulative impact on local vegetation and wildlife communities. Right-of-way clearing and grading and other construction activities associated with the Project and other actions would result in the removal of vegetation; alteration of wildlife habitat; displacement of wildlife; and may contribute to other potential secondary effects such as increased population stress, predation, and the establishment of invasive plant species. Cumulative impacts to vegetation would be associated with large-scale construction or development actions that would seek to clear significant areas of upland forest contiguous to the pipeline corridor. This would result in additional habitat fragmentation and would modify the vegetation classification from forest to either scrub-shrub or herbaceous classes. However, the Project is located within a predominantly agricultural landscape. For most other actions within the geographic scope, sufficient habitat would be expected to be located adjacent to the proposed right-of-ways.



Potential impacts from the Project would be avoided or minimized by the use of both standard and specialized construction techniques, including those specified in the Spill Prevention Control and Countermeasures Plan, Noxious Weeds/Invasive Plant Species Control and Mitigation Plan, and Project-specific Storm Water Pollution Prevention Plan. In addition, Spire is consulting with the USFWS, IDNR, and MDOC regarding threatened and endangered species and migratory birds to avoid or minimize impacts to sensitive wildlife. The New Town at St. Charles development is sufficiently distant from the Project (8 miles distant near the boundary of the shared HUC-12) to minimize concerns for cumulative impacts to resources. Other actions would be subject to similar permitting requirements for impacts to wetlands, as well as state and federal regulations relating to vegetation and wildlife. Therefore, Spire does not anticipate significant cumulative impacts to these resources as a result of the proposed Project and/or other development actions in the Project area.

1.9.2.3 Surface Water Resources

As the geographic scope for Surface Water Resources is comparable to that for Groundwater, Wetlands, Vegetation, and Wildlife, the same energy and road infrastructure actions are discussed.

Smaller actions would be expected to utilize erosion and sediment controls to minimize potential impacts to surface water resources, and due to the scale no cumulative impact would be anticipated.

The new bypasses proposed on the US-67 corridor may temporarily or permanently impact streams. Use of the existing road corridor for the proposed improvements would be expected to minimize impacts to resources. The proposed route for the Grain Belt Express Clean Line crosses waterbodies, though the structures design will likely minimize direct impacts to these resources.

Future development at New Town at St. Charles will likely continue to utilize and construct the system of lakes and canals that is unique to the community. These structures are also utilized for storm water control. Natural waterbody resources may be present on the site.

The Project would not involve the construction of permanent diversions or dams and, therefore, would be expected to have only short-term temporary impacts on surface water quality. Temporary impacts on surface waters include disturbance of stream banks, removal of bank vegetation, and, in some instances, modification of flow during dry-crossing construction. The level of temporary impact of the proposed Project on surface waters would depend on precipitation events, sediment loads, stream area/velocity, channel integrity, and bed material. Runoff from construction activities near waterbodies could also result in cumulative impacts, although this effect would be relatively minor and would be controlled by implementation of erosion and sediment control measures and by compliance with federal, state, and local requirements.

Spire will obtain the permits required by the applicable federal and state permits, which seek to avoid and minimize individual and cumulative impacts to federally-regulated waters of the United States and would be required for all development actions impacting wetlands and waterbodies. Should development actions result in the unavoidable loss of wetlands or streams, the permitting agencies have comprehensive mitigation processes to offset and prevent net loss to resources. Therefore, Spire does not anticipate significant cumulative impacts to wetlands and waterbodies as a result of the proposed Project and/or other development actions in the Project area.



1.9.2.4 Cultural Resources

One action, the Grain Belt Express Clean Line, is within the geographic scope for Cultural Resources in Scott County, Illinois. Earth disturbance will largely be limited to the footprint of the structures and access roads (locations to be determined).

Spire is currently in consultation with the State Historic Preservation Offices (“SHPOs”) and has conducted archaeological testing and historic architecture studies. As discussed in Resource Report 4, Cultural Resources, one site that is potentially eligible for listing in the National Register of Historic Places is currently located within the Project’s limits of disturbance. However, Spire is coordinating with the SHPOs to conduct Phase II assessments to confirm eligibility or may avoid the sites by rerouting or constricting the disturbance limits of the Project. Therefore, no adverse effects to archaeological or architectural resources are anticipated as a result of the Project. In the event of an unanticipated discovery during construction, Spire’s ongoing compliance with Section 106 of the NHPA would effectively minimize impacts on cultural resources.

This Project, and other major actions requiring a federal authorization, are subject to NHPA Section 106 review and approval through delegated SHPOs, to avoid and/or minimize impacts and address any unavoidable impacts. Both known and unknown private and non-Federal actions/activities have the potential to result in some level of impacts to Cultural Resources. However, it is not currently expected that this Project will contribute to a cumulative or quantifiable impact to these resources.

1.9.2.5 Land Use

The Grain Belt Express Clean Line and several portions of the anticipated US-67 Corridor improvements are located within the geographic scope for Land Use.

The proposed route of the Grain Belt Express Clean Line near the Project area in Scott County, Illinois crosses a primarily agricultural landscape with some areas of forest, and is collocated with existing roads where possible. The easement will be approximately 150-200 feet wide. The proponent estimates that less than one percent of the easement will be occupied by structures; existing land use (e.g. farming, grazing, etc.) may continue provided activities do not interfere with operation of the line. The proponent will compensate landowners for crop damages and commercially marketable timber. It is not known at this time if disturbance will coincide with the Project workspaces.

The US-67 Corridor in Greene and Jersey Counties, Illinois includes both new bypasses and improvements to the existing road. Land use is primarily agricultural with some forest.

The Project and actions described above would result in both temporary disturbances and permanent conversions of land uses. Primary impacts from the Project are anticipated to be temporary in nature, with limited areas of permanent impact at aboveground facilities. Forested lands make up a small proportion of the Project. Forested areas within the construction right-of-way would be cleared during construction. Long term impacts would be minimized as the areas of work space outside of the permanent easement would be allowed to revegetate following completion of construction. Through natural succession these areas may return to forest. Landowners will be compensated for easements or other damages, and no major aboveground facilities are proposed. The



primary land use is agricultural, and areas within the permanent easement will be able to revert back to cropland. It is expected that landowners on other actions will be compensated for easements or other damages.

Based on the anticipated impacts of the Project, along with state and local regulation of proposed actions in the Project area, it is anticipated that cumulative impacts on land use would not be significant.

1.9.2.6 Visual

Permanent visual impacts are expected from the transmission line structures on the Grain Belt Express Clean Line in Scott County, Illinois. The typical span length between structures ranges from 750 feet to 1,320 feet; therefore it is likely that a structure will be within the geographic scope. Structures are typically 110 to 150 feet tall. The proponent will take landowner feedback into consideration when determining structure placements.

The improvements to the US-67 Corridor between Carrollton and White Hall, Greene County, Illinois may have a visual impact if the width of the existing road is expanded. However, this would be expected to have a fairly localized impact.

These actions may also result in temporary or permanent impacts to visual resources, including the presence of large construction vehicles and changes to the viewshed resulting from permanent buildings/structures.

Aboveground facilities for the Project are not proposed within 0.25 mile of the other actions. Temporary impacts will occur due to disturbance and clearing associated with construction; however, TWS and ATWS will be allowed to revegetate following completion of the Project. As the permanent easement is largely located within agricultural areas, minimal permanent impacts to visual resources due to permanent clearing are anticipated. Based on the anticipated impacts and the predominantly below-ground nature of the Project, along with local regulation of proposed actions in the Project area, it is not anticipated that this Project would contribute significant cumulative impacts on visual resources.

1.9.2.7 Noise - Operations

None of the actions identified during scoping are within the geographic scope for Noise - Operations, therefore no cumulative impacts are expected as a result of the Project.

1.9.2.8 Noise - Construction

Two actions were identified within the geographic scope for Noise - Construction. The Grain Belt Express Clean Line in Scott County, Illinois, and the improvements to the US-67 Corridor between Carrollton and White Hall, Greene County, Illinois will involve noise from heavy vehicles and machinery associated with clearing and construction; however this noise would be temporary annoyances to noise receptors in the vicinity of the actions.

While the US-67 Corridor improvements do not have a set construction time period, the Grain Belt Express Clean Line will likely be in construction at the same time as the Project. Noise impacts during the construction phase would be localized and would attenuate quickly as the distance from the construction increases. Cumulative impacts from noise construction are possible should construction occur during the same time period, but would be temporary and minimal as the areas where the Project and other actions are anticipated to overlap or be in close proximity are sparsely populated.



1.9.2.9 Air Quality - Operation

No significant aboveground facilities are proposed as part of the Project, therefore no cumulative impacts for Air Quality - Operation are anticipated.

1.9.2.10 Air Quality - Construction

Two actions were identified within the geographic scope for Noise - Construction: the Grain Belt Express Clean Line in Scott County, Illinois, and the improvements to the US-67 Corridor between Carrollton and White Hall, Greene County, Illinois. Temporary air quality impacts would be expected from heavy vehicles and machinery in use during construction.

Heavy equipment would generate emissions of air contaminants, fugitive dust, and noise during construction. Construction of the Project and other actions would result in temporary air emissions, but these emissions are not likely to significantly affect long-term air quality in the region. During construction, elevated levels of ambient pollutants are likely to occur in the immediate vicinity of the actions. Because pipeline construction moves through an area quickly, air emissions associated with construction of the pipeline would be intermittent and short term. The majority of these impacts would be minimized further because the construction activities would be spatially dispersed. Cumulative impacts related to construction emissions are possible should construction occur during the same time period, but air quality impacts would be localized and would attenuate quickly as the distance from the construction area increases. In addition, Spire will implement the Fugitive Dust Control Plan for the Project to control/minimize potential impacts.

1.9.2.11 Socioeconomics

All potential actions included in Table 1.9-2 are located within the geographic scope for Socioeconomics. These actions range from energy and road infrastructure to industrial and residential developments.

Larger actions such as Dakota Access Pipeline and Grain Belt Express Clean Line are projected to provide revenue to the counties crossed and create construction jobs. New or expanding industrial/commercial developments including North Park, Boeing, and the Wentzville Logistics Center are expected to generate several hundred to several thousand jobs over the life of the action and facility. Many smaller actions undertaken by IDOT, MDOT, and Ameren will likely support existing operation/maintenance positions or local workforces.

All actions would be expected to contribute to local traffic during construction for the transportation of construction equipment. As Spire will coordinate with the appropriate authorities, action proponents would be expected to be coordinate with the state/county as needed to alleviate traffic hazards or congestion. Actions that may contribute to increased local traffic during operation include the industrial/commercial and residential developments; however the majority of the actions will already have been constructed prior to construction of the Project, and these are located sufficiently distant from the Project area to minimize the likelihood of cumulative impacts at the time of the Project's construction.

The Project's impacts on employment, housing, public services, or transportation within the vicinity would be short-term (during the construction period). Other actions that are expected to be constructed during the same



timeframe as the proposed Project are either not anticipated to require a significant workforce, may likely be completed by existing workforces that support small infrastructure actions in the region, or will require non-local workers who can be accommodated by the temporary housing and infrastructure of the greater St. Louis area. Therefore, any potential strains on local temporary housing and resources should be avoided.

1.9.2.12 Environmental Justice

The Grain Belt Express Clean Line, in Scott County, Illinois, and several portions of the anticipated US-67 Corridor improvements in Greene and Jersey Counties, Illinois, are located within the geographic scope for Environmental Justice.

The portion of the Grain Belt Express Clean Line in the Project area is primarily located in agricultural areas. The proponent will site the action to minimize the overall effect on the human environment and has conducted extensive public outreach. Landowner feedback will be considered during structure placements.

Sections of the US-67 Corridor improvements, including improvements to the existing road corridor and new bypasses are located in a primarily agricultural landscape with few residences. These actions are pending and are subject to public comment.

Minority populations were not identified in the affected environment for the Project within Scott, Greene, or Jersey Counties, Illinois. Scott and Greene Counties were identified as having low income populations within the affected environment. Most impacts will be temporary during construction of the Project. Permanent negative effects on these populations would be avoided because there will be no displacements of businesses or residences. The majority of the area impacted by the 24-inch pipeline is rural, with low population density. Any economic losses from potential temporary or permanent reductions in agricultural/pasture land productivity or other potential property damage will be compensated accordingly. Best management practices used for construction in streams and wetlands will avoid potential negative impacts to persons who may rely on hunting and fishing for a portion of their subsistence. Therefore, cumulative impacts to Environmental Justice are not anticipated as a result of the Project and/or other development actions in the Project area.

1.9.3 Conclusions

Most developments or construction actions proposed, in progress, or recently constructed within the geographic scope of the Project are minor in nature and expected to have localized temporary impacts. One major action, Grain Belt Express Clean Line, is proposed within the Project area during a similar timeframe. Spire plans to implement specialized construction techniques and carefully developed resource protection and mitigation plans designed to minimize and control environmental impacts for the Project as a whole, therefore minimizing or avoiding the contribution of cumulative impacts. In addition, many of these actions would be subject to permit requirements not unlike that of the proposed Project which will further minimize impacts to the human and natural environment.



Table 1.9-2. Past, Present, and Reasonably Foreseeable Actions within the Geographic Scope

| Action Name (Sponsor/Proponent) | Location | Approximate Distance and Direction from the Project | Type | Description | Footprint/Layout and Anticipated Impacts | Permits/Authorizations Required and Description of Environmental Review required (if any) | Current Status and Schedule | Overlapping Geographic Scope(s) and Discussion on Area of Impact |
|---|--|---|----------|---|---|---|--|---|
| Regulated Energy Actions | | | | | | | | |
| None. | - | - | - | - | - | - | - | - |
| Other Regulated Energy Actions | | | | | | | | |
| Dakota Access Pipeline (Energy Transfer Partners, L.P.; Dakota Access, LLC) | Scott County, Illinois (Project extends outside of the geographic scope) | 6 miles Northeast of 24-inch Pipeline | Pipeline | The Project includes an approximate 1,172-mile, 30-inch diameter pipeline that will transport domestically produced light sweet crude oil from the rapidly expanding Bakken and Three Forks productions areas in North Dakota to terminal facilities in Patoka, Illinois. | 14.5 miles | Illinois Commerce Commission, USACE Section 404/408, IDNR Section 401 | Pending - ongoing Federal review. | <u>Socioeconomics:</u> - Estimated \$750,000 in property tax during the first year of operation. - Estimated \$16.4 million in state sales tax during construction. - Estimated \$3.0 million in local sales tax during construction. - Estimated creation of nearly 12,000 construction jobs nationally |
| Grain Belt Express Clean Line (Clean Line Energy Partners) | Scott and Greene Counties, Illinois (Project extends outside the geographic scope) | 0-mile from 24-inch Pipeline (crosses at MP 2.8) | Electric | An approximately 780-mile overhead, direct current transmission line that will deliver wind energy from western Kansas to utilities and customers in Missouri, Illinois, Indiana and neighboring states. | 20 miles Locations of structures are pending. | Illinois Commerce Commission, USACE Section 404, IDNR Section 401 | Construction as early as 2018. Approved by Illinois Commerce Commission in November 2015 (currently under appeal). | <u>Soils and Geology:</u> - Proponent will repair damage to soil. <u>Groundwater, Wetlands, Vegetation and Wildlife:</u> - Avian Protection Plan. - Wetland impacts would be permitted by state/federal agencies. <u>Surface Water Resources:</u> - Stream impacts would be permitted by state/ federal agencies. <u>Cultural Resources:</u> - APE will be determined in coordination with the SHPO. <u>Land Use:</u> - Primarily agricultural landscape. - Easement approximately 150-200 feet wide. - Existing land use would largely continue. <u>Visual:</u> - Structures typically 110 to 150 feet tall and may affect local viewshed. <u>Noise - Construction:</u> - Localized noise from heavy vehicles and machinery. <u>Air Quality - Construction:</u> - Localized emissions from heavy vehicles and machinery. <u>Socioeconomics:</u> - \$700 million investment in infrastructure in Illinois. - Around 1,500 construction/ manufacturing jobs for Illinoisans. - Coordination and mitigation for heavy road traffic. <u>Environmental Justice:</u> - Siting to minimize the overall effect on the human environment. - Proponent has conducted extensive public outreach. |
| Illinois Rivers Project (Ameren Illinois) | Scott County, Illinois | 6 miles North of 24-inch Pipeline | Electric | An approximately 330 mile overhead electric transmission line from Palmyra, Missouri, to Sugar Creek, Indiana for reliability improvements, meeting growing demands for electricity, access to renewable energy, and enhancement of market efficiency. | 14 miles | Illinois Commerce Commission, USACE Section 404, IDNR Section 401 | Approved by Illinois Commerce Commission in February 2014. In-service as early as December 2016. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| Maryland Heights Substation Rebuild (Ameren Missouri) | St. Louis County, Missouri | 12 miles Southwest of North County Extension | Electric | Replace an aging substation with new technology. | Existing substation. Footprint not available. Existing facility is approx. 0.25 acre on aerial. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Construction scheduled for March to November 2016. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Replacement of existing infrastructure, not a major facility. |



Table 1.9-2. Past, Present, and Reasonably Foreseeable Actions within the Geographic Scope (Continued)

| Action Name (Sponsor/Proponent) | Location | Approximate Distance and Direction from the Project | Type | Description | Footprint/Layout and Anticipated Impacts | Permits/Authorizations Required and Description of Environmental Review required (if any) | Current Status and Schedule | Overlapping Geographic Scope(s) and Discussion on Area of Impact |
|--|------------------------------|--|--|--|---|---|--|---|
| Glendale Substation Upgrade (Ameren Missouri) | St. Louis County, Missouri | 16 miles Southwest of North County Extension | Electric | Replace an aging substation switch house. | Existing substation. Footprint not available. Existing facility is approx. 0.25 acre on aerial. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Construction scheduled for August to December 2016. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Replacement of existing infrastructure, and not a major facility. |
| South County Substation Rebuild (Ameren Missouri) | St. Louis County, Missouri | 20 miles Southwest of North County Extension | Electric | Replace an aging substation with new technology. | Existing substation. Footprint not available. Existing facility is approx. 0.25 acre on aerial. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Construction scheduled for December 2015 to November 2016. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Replacement of existing infrastructure, and not a major facility. |
| Florissant Switchgear Replacement (Ameren Missouri) | St. Louis County, Missouri | 5 miles West of North County Extension | Electric | Replace aging switchgear to enhance service reliability from local substation. | Existing substation. Footprint not available. Existing facility is approx. 0.5 acre on aerial. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Construction scheduled for November to December 2016. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Replacement of existing infrastructure, and not a major facility. |
| River Valley Undergrounding Project (Ameren Missouri) | St. Louis County, Missouri | 18 miles Southwest of North County Extension | Electric | Underground a section of power lines to protect service reliability from tree damage. | Footprint not available. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Construction scheduled for November 2016 to December 2017. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| USACE Regulated Projects¹ | | | | | | | | |
| Sun River Village & Ferber Stormwater Improvement (City of St. Peters) | St. Charles County, Missouri | 16 miles Southwest of 24-inch Pipeline | Stormwater control for Existing Residential Development | Retrofit existing Sun River Village detention basin to increase flood storage, decrease peak flows and reduce downstream streambank erosion. | 660 feet. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Public notice issued September 2016. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Small project. - Needs and welfare of the people considered in project evaluation. |
| Channel Modification Activities (City of Frontenac) | St. Louis County, Missouri | 15 miles Southwest of North County Extension | Channel Modification activities for existing development | Replacement of existing culvert and reconstruction of stream channel, and construction of new variable width normal-flow channel. No permanent loss of stream channel. | 340 feet. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Public notice issued August 2016. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Small project. - Needs and welfare of the people considered in project evaluation. |
| Overflow Parking Facility (Reckitt Benckiser Manufacturing) | St. Charles County, Missouri | 16 miles Southwest of 24-inch Pipeline | Commercial Development | Commercial development of 8 acres of agricultural land for construction of overflow parking facility. Grading and construction will impact a 0.85-acre wetland. | 7.5 acres. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Public notice issued July 2016. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Small project. - Needs and welfare of the people considered in project evaluation. |
| P-20 Parkdale/Blackwood Channel Improvements (City of St. Peters) | St. Charles County, Missouri | 17 miles southwest of 24-inch Pipeline | Channel Improvements in existing development | Channel improvements to two reaches to relieve flooding, alleviate erosion, and improve water quality. | 2,715 feet. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Public Notice issued December 2016. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Small project. - Needs and welfare of the people considered in project evaluation. |
| Davidson Surface Air/Department of Defense (Michael T. Steiniger) | St. Louis County, Missouri | 12 miles west-southwest of 24-inch Pipeline and North County Extension | Commercial Development | Development of 800,000 square foot warehouse/distribution center. Site grading will impact approximately 4 acres of wetland, with potential impacts to levee. | 90 acres. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Public Notice issued November 2016. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Needs and welfare of the people considered in project evaluation. |
| Transportation Actions | | | | | | | | |
| Illinois River Bridge at Florence (IDOT) | Scott County, Illinois | 11 miles Northwest of 24-inch Pipeline | Road Infrastructure | Bridge rehabilitation, painting, deck overlay, joint repair, catwalk access replacement for Illinois 100/Illinois 106 Illinois River Bridge at Florence. | Existing bridge. Footprint not available. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Programmed for 2018-2022. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Small project. |
| Illinois 267 - Bridge at Lick Creek (IDOT) | Greene County, Illinois | 12 miles East of 24-inch Pipeline | Road Infrastructure | Bridge maintenance - install new bridge deck for safety and to preserve system. | Existing bridge. Footprint not available. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Programmed for 2018-2022. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Small project. |



Table 1.9-2. Past, Present, and Reasonably Foreseeable Actions within the Geographic Scope (Continued)

| Action Name (Sponsor/Proponent) | Location | Approximate Distance and Direction from the Project | Type | Description | Footprint/Layout and Anticipated Impacts | Permits/Authorizations Required and Description of Environmental Review required (if any) | Current Status and Schedule | Overlapping Geographic Scope(s) and Discussion on Area of Impact |
|---|--------------------------------------|---|---------------------|---|---|---|---|--|
| Illinois 267 - Bridge at Apple Creek (IDOT) | Greene County, Illinois | 12 miles East of 24-inch Pipeline | Road Infrastructure | Bridge maintenance - install new bridge deck for safety and to preserve system. | Existing bridge. Footprint not available. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Programmed for 2018-2022. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Small project. |
| US 67 - Delhi Bypass (IDOT) | Jersey County, Illinois | 6 miles East of 24-inch Pipeline | Road Infrastructure | New construction of four-lane expressway for bypass around Delhi including grading, paving, drainage, signing and lighting. | New bypass. Approximately 3 miles. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Programmed for 2018-2022. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| US 67 - North of Delhi Bypass to Crystal Lake Road (IDOT) | Jersey County, Illinois | 5.5 miles East of 24-inch Pipeline | Road Infrastructure | Two and/or four lane corridor improvement project. | Existing road. Approximately 2.5 miles. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Plans are 90% complete. Construction start TBD. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| US 67 - Crystal Lake Road to Jerseyville Bypass (IDOT) | Jersey County, Illinois | 4.5 miles East of 24-inch Pipeline | Road Infrastructure | Two and/or four lane corridor improvement project. | Existing road. Approximately 1-mile. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Plans are 75% complete. Construction start TBD. | <u>Groundwater, Wetlands, Vegetation and Wildlife:</u> - Wetland impacts would be permitted by state/federal agencies. <u>Surface Water Resources:</u> - Stream impacts would be permitted by state/ federal agencies. <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| US 67 - Jerseyville Bypass (IDOT) | Jersey County, Illinois | 2.6 miles East of 24-inch Pipeline | Road Infrastructure | New construction of bypass around Jerseyville, Illinois, part of two and/or four lane corridor improvement project. | New bypass. Approximately 5 miles. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Plans are 75% complete. Construction start TBD. | <u>Groundwater, Wetlands, Vegetation and Wildlife:</u> - Loss of some vegetation habitats likely to occur (new road). - Wetland impacts would be permitted by state/federal agencies. <u>Surface Water Resources:</u> - Stream impacts would be permitted by state/ federal agencies. <u>Socioeconomics:</u> - Local road traffic for construction. |
| US 67 - Jerseyville Bypass to Macoupin Creek (IDOT) | Greene and Jersey Counties, Illinois | 0.5-mile east of 24-inch Pipeline | Road Infrastructure | Two and/or four lane corridor improvement project. | Existing road. Approximately 9 miles. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Plans are 75% complete. Construction start TBD. | <u>Groundwater, Wetlands, Vegetation and Wildlife:</u> - Wetland impacts would be permitted by state/federal agencies. <u>Surface Water Resources:</u> - Stream impacts would be permitted by state/ federal agencies. <u>Land Use:</u> - Area adjacent to existing road is primarily agriculture. <u>Socioeconomics:</u> - Local road traffic for construction equipment. <u>Environmental Justice:</u> - Existing road corridor through primarily agricultural land use with few residences. |
| US 67 - Carrollton Bypass (IDOT) | Greene County, Illinois | 0.5-mile east of 24-inch Pipeline | Road Infrastructure | New construction of bypass around Carrollton, Illinois, of two and/or four lane corridor improvement projects. | New bypass. Approximately 5 miles. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Planning phase. Construction start TBD. | <u>Groundwater, Wetlands, Vegetation and Wildlife:</u> - Loss of some vegetation habitats likely to occur (new road). - Wetland impacts would be permitted by state/federal agencies. <u>Surface Water Resources:</u> - Stream impacts would be permitted by state/ federal agencies. <u>Land Use:</u> - Primarily agricultural with some forest. <u>Socioeconomics:</u> - Local road traffic for construction equipment. <u>Environmental Justice:</u> - New road proposed through primarily agricultural land use with few residences. |



Table 1.9-2. Past, Present, and Reasonably Foreseeable Actions within the Geographic Scope (Continued)

| Action Name (Sponsor/Proponent) | Location | Approximate Distance and Direction from the Project | Type | Description | Footprint/Layout and Anticipated Impacts | Permits/Authorizations Required and Description of Environmental Review required (if any) | Current Status and Schedule | Overlapping Geographic Scope(s) and Discussion on Area of Impact |
|---|------------------------------|---|---------------------|---|--|---|---|--|
| US 67 - Carrollton to White Hall (IDOT) | Greene County, Illinois | 0.1-mile east of 24-inch Pipeline | Road Infrastructure | Two and/or four lane corridor improvement project. | Existing road. Approximately 6 miles. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Planning phase. Construction start TBD. | <p><u>Groundwater, Wetlands, Vegetation and Wildlife:</u></p> <ul style="list-style-type: none"> - Wetland impacts would be permitted by state/federal agencies. <p><u>Surface Water Resources:</u></p> <ul style="list-style-type: none"> - Stream impacts would be permitted by state/ federal agencies. <p><u>Land Use:</u></p> <ul style="list-style-type: none"> - Area adjacent to existing road is primarily agriculture. <p><u>Visual:</u></p> <ul style="list-style-type: none"> - May have impact to local viewshed if road width expands. <p><u>Noise - Construction:</u></p> <ul style="list-style-type: none"> - Localized noise from heavy vehicles and machinery. <p><u>Air Quality - Construction:</u></p> <ul style="list-style-type: none"> - Localized emissions from heavy vehicles and machinery. <p><u>Socioeconomics:</u></p> <ul style="list-style-type: none"> - Local road traffic for construction equipment. <p><u>Environmental Justice:</u></p> <ul style="list-style-type: none"> - Existing road corridor through primarily agricultural land use with few residences. |
| US 67 - White Hall to Scott County (IDOT) | Greene County, Illinois | 0.7-mile east of 24-inch Pipeline | Road Infrastructure | New construction of bypass around White Hall and Roodhouse, Illinois, of two and/or four lane corridor improvement project. | New bypass. Approximately 9 miles. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Planning phase. Construction start TBD. | <p><u>Groundwater, Wetlands, Vegetation and Wildlife:</u></p> <ul style="list-style-type: none"> - Loss of some vegetation habitats likely to occur (new road). - Wetland impacts would be permitted by state/federal agencies. <p><u>Surface Water Resources:</u></p> <ul style="list-style-type: none"> - Stream impacts would be permitted by state/ federal agencies. <p><u>Land Use:</u></p> <ul style="list-style-type: none"> - Primarily agricultural with some forest. <p><u>Socioeconomics:</u></p> <ul style="list-style-type: none"> - Local road traffic for construction equipment. <p><u>Environmental Justice:</u></p> <ul style="list-style-type: none"> - New road proposed through primarily agricultural land use with few residences. |
| Route N (MoDOT) | St. Charles County, Missouri | 20 miles Southwest of 24-inch Pipeline | Road Infrastructure | Construct left turn lane and shoulder additions. | Road expansion. 1.08 miles. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Scheduled for 2016. | <p><u>Socioeconomics:</u></p> <ul style="list-style-type: none"> - Local road traffic for construction equipment. |
| US 61 (MoDOT) | St. Charles County, Missouri | 29 miles west of 24-inch Pipeline | Road Infrastructure | New interchange at Route P and Peine Road and safety improvements from north of Peine Road to north of Route A. | 2.52 miles. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Scheduled for 2017. | <p><u>Socioeconomics:</u></p> <ul style="list-style-type: none"> - Local road traffic for construction equipment. |
| Route N (MoDOT) | St. Charles County, Missouri | 34 miles west of 24-inch Pipeline | Road Infrastructure | Bridge improvement over Sam's Creek. | 0.50-mile. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Scheduled for 2018. | <p><u>Socioeconomics:</u></p> <ul style="list-style-type: none"> - Local road traffic for construction equipment. |
| Interstate 70 (MoDOT) | St. Charles County, Missouri | 20 miles west of 24-inch Pipeline | Road Infrastructure | Improve interchanges, construct outer roads and sidewalks. | 5.55 miles. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Scheduled for 2018. | <p><u>Socioeconomics:</u></p> <ul style="list-style-type: none"> - Local road traffic for construction equipment. |
| Interstate 270 (MoDOT) | St. Louis County, Missouri | 2 miles south of North County Extension | Road Infrastructure | Repair and clean out culvert at Bellefontaine Road Interchange. | Existing culvert. 0.09-mile. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Scheduled for 2016. | <p><u>Groundwater, Wetlands, Vegetation and Wildlife:</u></p> <ul style="list-style-type: none"> - Wetland impacts would be permitted by state/federal agencies. <p><u>Surface Water Resources:</u></p> <ul style="list-style-type: none"> - Stream impacts would be permitted by state/ federal agencies. <p><u>Socioeconomics:</u></p> <ul style="list-style-type: none"> - Local road traffic for construction equipment. |



Table 1.9-2. Past, Present, and Reasonably Foreseeable Actions within the Geographic Scope (Continued)

| Action Name (Sponsor/Proponent) | Location | Approximate Distance and Direction from the Project | Type | Description | Footprint/Layout and Anticipated Impacts | Permits/Authorizations Required and Description of Environmental Review required (if any) | Current Status and Schedule | Overlapping Geographic Scope(s) and Discussion on Area of Impact |
|--|----------------------------|---|---------------------|---|--|--|--|---|
| Interstate 270 - Bridge (MoDOT) | St. Louis County, Missouri | 2 miles southwest of North County Extension | Road Infrastructure | Bridge deck rehabilitation at Bellefontaine Road interchange. | Existing bridge. 0.04-mile. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Scheduled for 2016. | <u>Groundwater, Wetlands, Vegetation and Wildlife:</u> - Wetland impacts would be permitted by state/federal agencies. <u>Surface Water Resources:</u> - Stream impacts would be permitted by state/ federal agencies. <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| Interstate 70 - Bridge (MoDOT) | St. Louis County, Missouri | 4 miles southwest of North County Extension | Road Infrastructure | Bridge improvements at I-170 interchange, including bridges on I-170 over Route 115. | Existing bridges. 1.28 miles. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Scheduled for 2016. | <u>Groundwater, Wetlands, Vegetation and Wildlife:</u> - Wetland impacts would be permitted by state/federal agencies. <u>Surface Water Resources:</u> - Stream impacts would be permitted by state/ federal agencies. <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| Interstate 44 Interchange (MoDOT) | St. Louis County, Missouri | 23 miles southwest of North County Extension | Road Infrastructure | Design/build project. Interchange improvements at I-44/Route 141, intersection improvements at Vance Road/Route 141 and pavement improvements along Route 141. | Interchange improvements. 1.34 miles. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Scheduled for 2016. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| Old Route 44 - Bridge (MoDOT) | St. Louis County, Missouri | 29 miles southwest of North County Extension | Road Infrastructure | Removal of remainder of bridge over Meramec River. | 0.10-mile. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Scheduled for 2017. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| Interstate 270 - Bridge (MoDOT) | St. Louis County, Missouri | 4 miles southwest of North County Extension | Road Infrastructure | Bridge replacement at Route AC interchange. | 0.10-mile. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Scheduled for 2019-2021. | <u>Groundwater, Wetlands, Vegetation and Wildlife:</u> - Wetland impacts would be permitted by state/federal agencies. <u>Surface Water Resources:</u> - Stream impacts would be permitted by state/ federal agencies. <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| Interstate 270 - Bridge (MoDOT) | St. Louis County, Missouri | 13 miles southwest of North County Extension | Road Infrastructure | Bridge improvements over Fee Creek. | Existing bridge. 0.10-mile. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Scheduled for 2018. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| Route AB - Bridge (MoDOT) | St. Louis County, Missouri | 17 miles southwest of North County Extension | Road Infrastructure | Bridge improvements at Hibler Creek. | Existing bridge. 0.10-mile. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Scheduled for 2018. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| Missouri 340 (MoDOT) | St. Louis County, Missouri | 20 miles southwest of North County Extension | Road Infrastructure | Add dual left turn lanes and right turn lane off ramp. | 0.36-mile. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Scheduled for 2018. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| Missouri 340 (MoDOT) | St. Louis County, Missouri | 21 miles southwest of North County Extension | Road Infrastructure | Add auxiliary lane and extend left turn lane. | 0.35-mile. | Actions are subject to Section 404/401 and coordination with other agencies as appropriate. | Scheduled for 2018. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| Commercial/Industrial Actions | | | | | | | | |
| NorthPark Phase I (NorthPark Partners) | St. Louis County, Missouri | 7 miles southwest of North County Extension | Business Park | Close to 400 acres in Phase I of a business park where seven separate buildings have been constructed to date since purchase of the blighted property in 2006, with the most recent openings in 2016. | Up to 400 acres | Development would be subject to applicable federal, state, and local reviews, depending on the resources identified on site. | Ongoing. Most recent construction completed in 2016 with additional parcels available for development. | <u>Groundwater, Wetlands, Vegetation and Wildlife:</u> - Wetland impacts would be permitted by state/federal agencies. <u>Surface Water Resources:</u> - Stream impacts would be permitted by state/ federal agencies. <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Local traffic for use. - Job creation projected. - Estimated to have created 5,000 permanent jobs, 1,238 construction jobs, and 1,426 indirect jobs to date. |



Table 1.9-2. Past, Present, and Reasonably Foreseeable Actions within the Geographic Scope (Continued)

| Action Name (Sponsor/Proponent) | Location | Approximate Distance and Direction from the Project | Type | Description | Footprint/Layout and Anticipated Impacts | Permits/Authorizations Required and Description of Environmental Review required (if any) | Current Status and Schedule | Overlapping Geographic Scope(s) and Discussion on Area of Impact |
|---|------------------------------|---|-------------------|---|--|--|--|--|
| NorthPark Phase II (NorthPark Partners) | St. Louis County, Missouri | 7 miles southwest of North County Extension | Business Park | Up to 200 acres Phase II of NorthPark includes cleanup and removal of an additional 480 foundations/basements to prepare site for development. Newest site development projected opening is 2016. | Up to 200 acres | Development would be subject to applicable federal, state, and local reviews, depending on the resources identified on site. | Ongoing. Most recent construction is anticipated to be completed in 2016. | <u>Groundwater, Wetlands, Vegetation and Wildlife:</u> - Wetland impacts would be permitted by state/federal agencies. <u>Surface Water Resources:</u> - Stream impacts would be permitted by state/ federal agencies. <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Local traffic for use. - Job creation projected. |
| Boeing | St. Charles County, Missouri | 10 miles southwest of 24-inch Pipeline | Industrial | Additional 424,000 sq. ft. of warehouse space to its facility located on Little Hills Expressway. | Approximately 10 acres | Development would be subject to applicable federal, state, and local reviews, depending on the resources identified on site. | Scheduled complete in late 2016 or 2017. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Local/regional traffic for use. - Estimated to create approximately 700 jobs by 2020. |
| Fountain Lakes Commerce Center (The Millstone Company) | St. Charles County, Missouri | 10 miles southwest of 24-inch Pipeline | Industrial Park | Expansions of the Fountain Lakes Industrial Park that will include new warehouse spaces of 375,000 sq. ft. and 158,000 sq. ft. | Approximately 12 acres | Development would be subject to applicable federal, state, and local reviews, depending on the resources identified on site. | Phase I Complete. Phase II & III Ongoing 2017-2018. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Local traffic for use. - Estimated to create approximately 700 jobs by 2020. |
| General Motors Plant | St. Charles County, Missouri | 25 miles west-southwest of 24-inch Pipeline | Industrial | 42,000 sq. ft. facility expansion at the existing General Motors Plant in Wentzville, MO | Approximately 10 acres | Development would be subject to applicable federal, state, and local reviews, depending on the resources identified on site. | To be completed in 2017. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Local traffic for use. |
| Wentzville Logistics Center (North Point Development) | St. Charles County, Missouri | 26 miles west-southwest of 24-inch Pipeline | Industrial Park | New industrial park to support the General Motors Wentzville Assembly Center and other users. Initial plans include a 1.1 million square foot building. | Approximately 132 acres | Development would be subject to applicable federal, state, and local reviews, depending on the resources identified on site. | Completed in 2016. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Local traffic for use. - Estimated to create approximately 400 jobs. |
| Smartt Field Airport (Smartt Field Airport) | St. Charles County, Missouri | 2 miles west of 24-inch Pipeline | Airport | New hanger construction below flood elevations. | Estimated 12 acres at existing airport | Development would be subject to applicable federal, state, and local reviews, depending on the resources identified on site. | Construction TBD | <u>Groundwater, Wetlands, Vegetation and Wildlife:</u> - Wetland impacts would be permitted by state/federal agencies. <u>Surface Water Resources:</u> - Stream impacts would be permitted by state/ federal agencies. <u>Socioeconomics:</u> - Local road traffic for construction equipment. |
| St. Peters' Highway 370 Development (Duke Realty and Gundaker Commercial) | St. Charles County, Missouri | 12 miles southwest of 24-inch Pipeline | Industrial Park | 850-acre business park with commercial sites located south and north of Highway 370. | 688 acres of developable land available | Development would be subject to applicable federal, state, and local reviews, depending on the resources identified on site. | Facilities completed in 2016. Additional space for future builds - Construction TBD. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Local traffic for use. |
| Residential Actions | | | | | | | | |
| Cambridge Crossing Apartments | St. Charles County, Missouri | 18.5 miles southwest of 24-inch Pipeline | Apartment Complex | Approximately 255 units at a planned apartment complex at | Up to 50 acres | Development would be subject to applicable federal, state, and local reviews, depending on the resources identified on site. | Construction start 2017. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Local traffic for use. |
| Vanguard Apartment Homes | St. Charles County, Missouri | 22 miles southwest of 24-inch Pipeline | Apartment Complex | Approximately 234 units at a planned apartment complex with 2 commercial units at Weldon Springs of Highway 94. | Up to 50 acres | Development would be subject to applicable federal, state, and local reviews, depending on the resources identified on site. | Construction start 2017. | <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Local traffic for use. |



Table 1.9-2. Past, Present, and Reasonably Foreseeable Actions within the Geographic Scope (Continued)

| Action Name (Sponsor/Proponent) | Location | Approximate Distance and Direction from the Project | Type | Description | Footprint/Layout and Anticipated Impacts | Permits/Authorizations Required and Description of Environmental Review required (if any) | Current Status and Schedule | Overlapping Geographic Scope(s) and Discussion on Area of Impact |
|--|------------------------------|---|-----------------------|---|--|--|--|--|
| New Town at St. Charles (Whittaker Builders, Inc.) | St. Charles County, Missouri | 8 miles southwest of 24-inch Pipeline | Residential Community | Existing mixed use neighborhood designed in 2003 that will continue to expand over the next 20 years. | Up to 700 acres | Development would be subject to applicable federal, state, and local reviews, depending on the resources identified on site. | Construction TBD, but potential for intermittent construction through 2030s. | <u>Groundwater, Wetlands, Vegetation and Wildlife:</u> - Wetland impacts would be permitted by state/federal agencies. - Alteration of vegetation and wildlife habitats. <u>Surface Water Resources:</u> - Stream impacts would be permitted by state/ federal agencies. <u>Socioeconomics:</u> - Local road traffic for construction equipment. - Local traffic for use. |

Note:

¹ Public notices for USACE regulated projects were reviewed from June 2016 to December 22, 2016.



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APPENDIX 1-A
Topographic Map



APPENDIX 1-B
Construction Alignment Sheets



APPENDIX 1-C
Agency Correspondence

**Spire STL Pipeline
Agency Correspondence Tracking List
Appendix 1-C**

Agency Correspondence - Federal, State, Local Agencies, and Native American Tribes

| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence |
|--|---------------------|-------------------|--------------------|-----------|-------|------------|---------------|--|----------------------------------|------------|------------------------|----------------------|--|
| FEDERAL | | | | | | | | | | | | | |
| United States Army Corps of Engineers ("USACE") | | | | | | | | | | | | | |
| USACE | St. Louis District | Chuck Frerker, PM | 1222 Spruce Street | St. Louis | MO | 63103-2833 | 314-331-8583 | Charles.F.Frerker@usace.army.mil | Section 401/404, Section 10 | 6/3/2016 | 6/3/2016 | Mr. Frerker | Telephone |
| | | | | | | | | | | 6/8/2016 | 6/20/2016 | Mr. Frerker | Email |
| | | | | | | | | | | 6/24/2016 | 6/24/2016 | Mr. Frerker | Email |
| | | | | | | | | | | 8/3/2016 | 8/3/2016 | Mr. Frerker | Meeting |
| | | | | | | | | | | 6/27/2016 | 6/27/2016 | | Meeting |
| | | | | | | | | | | 6/30/2016 | 7/7/2016 | Mr. Rodriguez Robles | Email |
| | | | | | | | | | | | 7/13/2016 | | Email |
| | | | | | | | | | | 7/14/2016 | 7/14/2016 | Mr. Rodriguez Robles | Telephone |
| | | | | | | | | | | 7/22/2016 | 7/28/2016 | Mr. Rodriguez Robles | Telephone and Email |
| | | | | | | | | | | 8/2/2016 | | | Email |
| | | | | | | | | | | 8/3/2016 | 8/3/2016 | Mr. Rodriguez Robles | Meeting |
| | | | | | | | | | | 8/4/2016 | 8/4/2016 | Mr. Rodriguez Robles | Email |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 8/19/2016 | | | Letter |
| | | | | | | | | | | 9/1/2016 | | | Email |
| | | | | | | | | | | 9/15/2016 | | | Email |
| | | | | | | | | | | - | 9/21/2016 | Mr. Rodriguez Robles | Email |
| | | | | | | | | | | 11/10/2016 | | | Email |
| | | | | | | | | | | 11/29/2016 | | | Email |
| | | | | | | | | | | 1/27/2017 | | | Section 408 Application |
| | | | | | | | | | | 3/8/2017 | | | Supplemental Information |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information |
| | | | | | | | | | | 3/31/2017 | 4/5/2017 | Mr. Rodriguez Robles | Email |
| | | | | | | | | | | - | 4/12/2017 | Mr. Rodriguez Robles | Email |
| | | | | | | | | | | 4/13/2017 | 4/13/2017 | Mr. Rodriguez Robles | Meeting |
| | | | | | | | | | | 8/3/2016 | 8/3/2016 | Mr. Meyer | Meeting |
| | | | | | | | | | | 8/4/2016 | 8/8/2016 | Mr. Meyer | Email |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | - | 10/7/2016 | Mr. Meyer | Email |
| | | | | | | | | | | 11/29/2016 | | | Email |
| | | | | | | | | | | 12/13/2016 | 12/13/2016 | Mr. Meyer | Meeting |
| | | | | | | | | | | 1/27/2017 | | | Letter and NWP-12 Preconstruction Notification |
| | | | | | | | | | | 1/27/2017 | | | Letter and NWP-12 Joint Permit Application |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| USACE | St. Louis District | Keith McMullen | 1222 Spruce Street | St. Louis | MO | 63103-2833 | 314-331-8582 | Keith.A.McMullen@usace.army.mil | USACE Illinois Section Chief | 6/27/2016 | 6/27/2016 | | Meeting |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| USACE | St. Louis District | Charlie Deutsch | 1222 Spruce Street | St. Louis | MO | 63103-2833 | 636-899-0082 | charlie.deutsch@usace.army.mil | Biologist, Rivers Project Office | 6/27/2016 | 6/27/2016 | | Meeting |
| | | | | | | | | | | 8/19/2016 | 8/23/2016 | Mr. Deutsch | Email |
| | | | | | | | | | | 8/24/2016 | | | Email |
| | | | | | | | | | | 6/27/2016 | 6/27/2016 | | Meeting |
| | | | | | | | | | | 7/21/2016 | 7/21/2016 | Ms. Hoerner | Telephone |
| | | | | | | | | | | 7/20/2016 | 7/21/2016 | Ms. Hoerner | Email |
| | | | | | | | | | | 7/29/2016 | 7/29/2016 | Ms. Hoerner | Email |
| | | | | | | | | | | 8/3/2016 | 8/3/2016 | Ms. Hoerner | Meeting |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 8/11/2016 | 8/19/2016 | Ms. Hoerner | Email |
| | | | | | | | | | | 8/19/2016 | | | Letter |
| | | | | | | | | | | 9/1/2016 | | | Email |
| | | | | | | | | | | 9/20/2016 | 9/20/2016 | Ms. Hoerner | Email |
| | | | | | | | | | | 11/29/2016 | | | Email |
| | | | | | | | | | | 1/27/2017 | | | Real Estate Easement Documents |
| | | | | | | | | | | 2/27/2017 | | | Supplemental Information |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| | | | | | | | | | | 4/14/2017 | 4/17/2017 | Ms. Hoerner | Email |

**Spire STL Pipeline
Agency Correspondence Tracking List
Appendix 1-C**

Agency Correspondence - Federal, State, Local Agencies, and Native American Tribes

| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence |
|--|---|------------------|--------------------|-------------|-------|------------|------------------------|--|---------------------------------|------------|------------------------|--------------------|---------------------------------------|
| USACE | St. Louis District | Dr. Teri Allen | 1222 Spruce Street | St. Louis | MO | 63103-2833 | 614-331-8084 | Teri.C.Allen@usace.army.mil | | 8/3/2016 | 8/3/2016 | | Meeting |
| | | | | | | | | | | 11/1/2016 | | | CD of Draft Environmental Report |
| | | | | | | | | | | 11/29/2016 | | | Email |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| USACE | FUSRAP | Susan Adams | 1222 Spruce Street | St. Louis | MO | 63103-2833 | 314-422-7205 | Susan.L.Adams@usace.army.mil | FUSRAP | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| USACE | St. Louis District | Jacob Prebianca | 1222 Spruce Street | St. Louis | MO | 63103-2833 | 314-731-7661 | jacob.a.prebianca@usace.army.mil | FUSRAP | 9/8/2016 | 9/13/2016 | Mr. Prebianca | Email |
| | | | | | | | | | | 9/28/2016 | 9/28/2016 | Mr. Prebianca | Telephone |
| | | | | | | | | | | 9/29/2016 | 10/6/2016 | Mr. Prebianca | Email |
| | | | | | | | | | | - | 10/12/2016 | Mr. Prebianca | Email |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| | | | | | | | | | | 3/29/2017 | | | Email |
| USACE | St. Louis District | Jonathan Rankins | 1222 Spruce Street | St. Louis | MO | 63103-2833 | | Jonathan.E.Rankins@usace.army.mil | | 10/12/2016 | 10/12/2016 | Mr. Rankins | Email |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| | | | | | | | | | | 3/29/2017 | 3/29/2017 | Mr. Rankins | Email |
| | | | | | | | | | | 3/29/2017 | 3/29/2017 | Mr. Rankins | Email |
| USACE | St. Louis District | Matthew Hunn | 1222 Spruce Street | St. Louis | MO | 63103-2833 | | Matthew.J.Hunn@usace.army.mil | Chief, Emergency Management | 11/29/2016 | | | Email |
| USACE | St. Louis District - Missouri Section Chief | Robert S. Gramke | 1222 Spruce Street | St. Louis | MO | 63103-2833 | | | NWP for Geotech Bores | - | 10/7/2016 | Mr. Gramke | Letter |
| USACE | Kansas City District | Michael Chapman | 601 E 12th Street | Kansas City | MO | 64106 | 816-389-3310 | Michael.d.chapman@usace.army.mil | Missouri River Recovery Program | 6/30/2016 | | | Voicemail |
| | | | | | | | | | | 7/15/2016 | 7/15/2016 | Mr. Chapman | Telephone |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| United States Fish and Wildlife ("USFWS") | | | | | | | | | | | | | |
| USFWS | Marion County Sub-Office | Matthew Mangan | 8588 Route 148 | Marion | IL | 62959 | 618-997-3344, ext. 340 | matthew_mangan@fws.gov | Federal-listed species | 6/3/2016 | 6/3/2016 | Mr. Mangan | Telephone |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| USFWS | Rock Island Field Office | Kristen Lundh | 1511 47th Avenue | Moline | IL | 61265 | 309-757-5800 | kristen_lundh@fws.gov | Federal-listed species | 6/3/2016 | | | Voicemail |
| | | | | | | | | | | 11/2/2016 | | | Voicemail and Email |
| | | | | | | | | | | 11/7/2016 | 11/7/2016 | Ms. Lundh | Telephone and Email |
| | | | | | | | | | | 12/29/2016 | | | Email |
| | | | | | | | | | | 1/4/2017 | 1/4/2017 | Ms. Lundh | Teleconference with FERC |
| | | | | | | | | | | 1/20/2017 | | | Email |
| | | | | | | | | | | 1/25/2017 | | | Email |
| | | | | | | | | | | 2/7/2017 | | | Email |
| | | | | | | | | | | 3/2/2017 | 3/6/2017 | Ms. Lundh | Email |
| | | | | | | | | | | 3/8/2017 | 3/8/2017 | Ms. Lundh | Email |
| | | | | | | | | | | 3/10/2017 | | | Email |
| | | | | | | | | | | 3/22/2017 | 3/22/2017 | Ms. Lundh | Email |
| | | | | | | | | | | 3/23/2017 | 3/23/2017 | Ms. Lundh | Telephone |
| | | | | | | | | | | 3/24/2017 | | | Letter and Study Plan |
| | | | | | | | | | | 4/4/2017 | | | Email |
| | | | | | | | | | | 4/4/2017 | | | Email and Draft Biological Assessment |
| | | | | | | | | | | 4/5/2017 | | | Supplemental Information Letter |
| 4/13/2017 | 4/13/2017 | Ms. Lundh | Conference Call | | | | | | | | | | |
| 4/13/2017 | | | Email | | | | | | | | | | |

**Spire STL Pipeline
Agency Correspondence Tracking List
Appendix 1-C**

Agency Correspondence - Federal, State, Local Agencies, and Native American Tribes

| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence |
|---|--|--------------------|---|----------------|-------|-------|------------------------|----------------------------|--|------------|------------------------|--------------------|---|
| USFWS | Rock Island Field Office | Kraig McPeek | 1511 47th Avenue | Moline | IL | 61265 | 309-757-5800 ext. 202 | | Federal-listed species | 6/8/2016 | 6/8/2016 | Mr. McPeek | Telephone |
| | | | | | | | | | | 6/8/2016 | 6/8/2016 | Mr. McPeek | Email |
| | | | | | | | | | | 7/8/2016 | 7/8/2016 | Mr. McPeek | Meeting |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 8/12/2016 | 12/8/2016 | Mr. McPeek | Consultation Letter and Letter Response |
| | | | | | | | | | | 1/25/2017 | | | Letter and Plant Survey Report |
| 4/5/2017 | | | Supplemental Information Letter | | | | | | | | | | |
| USFWS | Rock Island Field Office | Chase Allred | 1511 47th Avenue | Moline | IL | 61265 | 309-757-5800, ext. 221 | chase_allred@fws.gov | Federal-listed species | 7/8/2016 | 7/8/2016 | Mr. Allred | Meeting |
| | | | | | | | | | | 8/2/2016 | 8/2/2016 | Mr. Allred | Telephone and Email |
| | | | | | | | | | | 8/8/2016 | | | Email |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 9/29/2016 | 9/30/2016 | Mr. Allred | Letter and Email |
| | | | | | | | | | | 10/11/2016 | 10/14/2016 | Mr. Allred | Email |
| | | | | | | | | | | 10/14/2016 | | | Email |
| USFWS | Two Rivers National Wildlife Refuge | Justin Sexton | HC 82, Box 107 | Brussels | IL | 62013 | 618-883-2524, ext. 24 | justin_sexton@fws.gov | Federal-listed species and migratory birds | 6/30/2016 | | | Voicemail and Email |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| USFWS | Columbia Field Office | Trisha Crabill | 101 Park De Ville Dr, Suite A | Columbia | MO | 65203 | 573-234-2132 | trisha_crabill@fws.gov | | 9/29/2016 | | | cc on Letter to Chase Allred |
| | | | | | | | | | | 1/25/2017 | | | Email |
| | | | | | | | | | | 4/5/2017 | | | Supplemental Information Letter |
| National Oceanic and Atmospheric Administration ("NOAA") | | | | | | | | | | | | | |
| NOAA Fisheries | NOAA NEPA Coordinator | | Office of General Counsel, 1315 East-West Highway, Room 15132 | Silver Springs | MD | 20910 | 301-713-9668 | noaa.nepa@noaa.gov | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| United States Environmental Protection Agency ("USEPA") | | | | | | | | | | | | | |
| USEPA | Region 5, Acting Regional Administrator | Robert Kaplan | 77 W. Jackson Blvd | Chicago | IL | 60604 | 312-353-2000 | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| USEPA | Region 5 Environmental Impact Statements Contact | Virginia Laszewski | 77 W. Jackson Blvd | Chicago | IL | 60604 | 312-886-7501 | Laszewski.virginia@epa.gov | | 9/16/2016 | 9/16/2016 | Ms. Laszewski | Telephone |
| | | | | | | | | | | 10/6/2016 | 10/6/2016 | Ms. Laszewski | Telephone |
| | | | | | | | | | | - | 10/6/2016 | Ms. Laszewski | Email |
| | | | | | | | | | | 10/12/2016 | | | Email |
| | | | | | | | | | | 11/1/2016 | | | CD and Hardcopy of Draft Environmental Report |
| | | | | | | | | | | 11/4/2016 | | | Voicemail and Email |
| | | | | | | | | | | 11/7/2016 | 11/7/2016 | Ms. Laszewski | Telephone |
| 12/29/2016 | | | Email | | | | | | | | | | |
| 3/28/2017 | | | Supplemental Information Letter | | | | | | | | | | |
| USEPA | Region 5 | Elizabeth Poole | 77 W. Jackson Blvd | Chicago | IL | 60604 | 312-353-2087 | poole.elizabeth.epa.gov | | 10/6/2016 | 10/6/2016 | Ms. Poole | Telephone |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| USEPA | Region 7, Regional Administrator | Mark J. Hague | 11201 Renner Blvd | Lenexa | KS | 66219 | 913-551-7003 | | | 8/5/2016 | | | Open House Invitation Letter |
| USEPA | Region 7 Environmental Impact Statements Contact | Joe Summerlin | 11201 Renner Blvd | Lenexa | KS | 66219 | 913-551-7029 | Summerlin.joe@epa.gov | | 9/16/2016 | 9/16/2016 | Mr. Summerlin | Telephone |
| | | | | | | | | | | 10/6/2016 | 10/6/2016 | Mr. Summerlin | Telephone |
| | | | | | | | | | | 11/1/2016 | | | CD of Draft Environmental Report |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| USEPA | Region 7 | Althea Moses | 11201 Renner Blvd | Lenexa | KS | 66219 | 913-551-7649 | Moses.Althea@epa.gov | | 9/30/2016 | 9/30/2016 | Ms. Moses | Telephone |
| | | | | | | | | | | 10/4/2016 | 10/6/2016 | Ms. Moses | Email |
| | | | | | | | | | | 10/6/2016 | 10/6/2016 | Ms. Moses | Telephone |
| USEPA | Region 7 | Tamara Freeman | | | | | | Freeman.Tamara@epa.gov | | 10/6/2016 | 10/6/2016 | Ms. Freeman | Telephone |
| United States Department of Agriculture ("USDA") | | | | | | | | | | | | | |

**Spire STL Pipeline
Agency Correspondence Tracking List
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Agency Correspondence - Federal, State, Local Agencies, and Native American Tribes

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|--|---|------------------|--|-------------|-------|-------|------------------------|--|-------------------------------|------------|---|--------------------|---|
| Natural Resources Conservation Service ("NRCS") Offices | | | | | | | | | | | | | |
| NRCS | Illinois State Office | Ivan Dozier | 2118 W. Park Court | Champaign | IL | 61821 | 217-353-6600 | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | 8/10/2016 | Mr. Dozier | Open House Invitation Letter; Letter Response |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| NRCS | Scott County/ Winchester Field Office | Johanna Fuller | 656 North Main | Winchester | IL | 62694 | 217-742-9561, ext. 3 | johanna.fuller@il.usda.gov | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 9/30/2016 | 9/30/2016 | Ms. Fuller | Telephone |
| | | | | | | | | | | 1/24/2017 | | | Email |
| | | | | | | | | | | 1/26/2017 | | | Email |
| 3/28/2017 | | | Supplemental Information Letter | | | | | | | | | | |
| NRCS | Greene County/Carrollton Field Office | Brad Behymer | R.R. 3, Box 129, Route 67 North | Carrollton | IL | 62016 | 217-942-5464, ext. 3 | Bradley.Behymer@il.usda.gov | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 10/3/2016 | 10/3/2016 | Mr. Behymer | Telephone |
| | | | | | | | | | | 10/5/2016 | 10/5/2016 | Mr. Behymer | Telephone |
| | | | | | | | | | | 10/5/2016 | | | Email |
| | | | | | | | | | | 10/12/2016 | 10/13/2016 | Mr. Behymer | Email |
| | | | | | | | | | | 1/24/2017 | 1/25/2017 | Mr. Behymer | Email |
| | | | | | | | | | | 1/26/2017 | | | Email |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| | | | | | | | | | | NRCS | Jersey County/ Jerseyville Lincoln Field Office | Brad Behymer | 604 East Franklin |
| 8/5/2016 | | | Open House Invitation Letter | | | | | | | | | | |
| 3/28/2017 | | | Supplemental Information Letter | | | | | | | | | | |
| NRCS | Missouri State Office | J.R. Flores | Parkade Center 601 Business Loop 70 West, Suite 250 | Columbia | MO | 65203 | 573-876-0901 | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| NRCS | Service Center- Office | Connie Gibson | 160 Saint Peters Centre Blvd | St. Peters | MO | 63376 | 636-952-2833, ext-105 | Connie.Gibson@mo.usda.gov | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| NRCS | Service Center Office | Renee L. Cook | 160 Saint Peters Centre Blvd | St. Peters | MO | 63376 | 636-922-2833, ext. 3 | renee.cook@mo.usda.gov | | - | 9/28/2016 | Ms. Cook | Email |
| | | | | | | | | | | - | 10/11/2016 | Ms. Cook | Email |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| Farm Service Agency ("FSA") Offices | | | | | | | | | | | | | |
| FSA | Scott County | Rebecca D. Walls | 656 North Main St | Winchester | IL | 62694 | 217-742-9561, ext. 2 | rebecca.walls@il.usda.gov | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| FSA | Carrollton Service Center | | Route 267 North | Carrollton | IL | 62016 | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| FSA | Jerseyville Service Center | | 604 E Franklin | Jerseyville | IL | 62052 | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| FSA | St. Charles County | Connie Gibson | 160 Saint Peters Centre Blvd | St. Peters | MO | 63376 | 636-922-2833, ext-105 | Connie.Gibson@mo.usda.gov | CRP | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 9/7/2016 | | | Email |
| | | | | | | | | | | 9/28/2016 | 9/28/2016 | Ms. Gibson | Email |
| | | | | | | | | | | 10/11/2016 | | | Email |
| | | | | | | | | | | 12/2/2016 | 12/2/2016 | Ms. Gibson | Voicemail and Emails |
| FSA | St. Louis County | Connie Gibson | 160 Saint Peters Centre Blvd | St. Peters | MO | 63376 | 636-922-2833, ext-105 | Connie.Gibson@mo.usda.gov | CRP | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 9/7/2016 | | | Email |
| | | | | | | | | | | 9/28/2016 | 9/28/2016 | Ms. Gibson | Email |
| | | | | | | | | | | 10/11/2016 | | | Email |
| 12/2/2016 | 12/2/2016 | Ms. Gibson | Voicemail and Emails | | | | | | | | | | |
| FSA | St. Charles and St. Louis County | Eric Niemeyer | 160 Saint Peters Centre Blvd | St. Peters | MO | 63376 | 636-922-2833, ext. 105 | eric.niemeyer@mo.usda.gov | CRP | 3/24/2017 | 3/24/2017 | Mr. Niemeyer | Telephone |
| | | | | | | | | | | 3/24/2017 | 3/31/2017 | Mr. Niemeyer | Email |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |

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| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence |
|---|---|-------------------|---------------------------|-------------|-------|----------------|---------------|--|-------------------------------|------------|------------------------|--------------------|---|
| FSA | Illinois State Office | Jamie Diebal | 3500 Wabash Ave | Springfield | IL | 62711 | 217-331-6872 | jamie.diebal@il.usda.gov | CRP | 9/21/2016 | 9/22/2016 | Ms. Diebal | Email |
| | | | | | | | | | | 9/26/2016 | | | Email |
| | | | | | | | | | | 10/12/2016 | 10/17/2016 | Ms. Diebal | Email |
| | | | | | | | | | | 10/19/2016 | 10/31/2016 | Ms. Diebal | Email |
| | | | | | | | | | | 3/24/2017 | 3/31/2017 | Ms. Diebal | Email |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| 4/4/2017 | | | Email | | | | | | | | | | |
| FSA | Illinois State Office | Kimberly Martin | 3500 Wabash Ave | Springfield | IL | 62711 | 217-241-6600 | kimberly.martin@il.usda.gov | | 3/28/2017 | | | Supplemental Information Letter |
| United States Department of the Interior National Park Service ("NPS") | | | | | | | | | | | | | |
| NPS | Lewis and Clark National Historic Trail | Dan Wiley | 601 Riverfront Drive | Omaha | NE | 68102- 4226 | 402-661-1830 | dan_wiley@nps.gov | | 3/9/2017 | 3/9/2017 | Mr. Wiley | Telephone and Email |
| | | | | | | | | | | 3/10/2017 | | | Email |
| | | | | | | | | | | 3/29/2017 | | | Supplemental Information Letter |
| NPS | Lewis and Clark National Historic Trail | Linda S. Helm, JD | 601 Riverfront Drive | Omaha | NE | 68102 | 402-661-1812 | linda_helm@nps.gov | | - | 3/15/2017 | Ms. Helm | Email |
| NPS | Lewis and Clark National Historic Trail | Mark Weekly | 601 Riverfront Drive | Omaha | NE | 68102 | | | | - | 3/13/2017 | Mr. Weekly | Letter |
| STATE - Illinois | | | | | | | | | | | | | |
| Illinois Department of Natural Resources ("IDNR") | | | | | | | | | | | | | |
| IDNR | Endangered- Species | Pat Malone | One Springfield Way | Springfield | IL | 62702- 4271 | 217-785-4991 | pat.malone@illinois.gov | State Listed Species | 6/8/2016 | 6/8/2016 | | Telephone and Email |
| | | | | | | | | | | 6/21/2016 | 6/21/2016 | Mr. Malone | Meeting |
| | | | | | | | | | | 6/16/2016 | 7/6/2016 | Mr. Malone | Email |
| | | | | | | | | | | 7/15/2016 | 7/15/2016 | Mr. Malone | Email |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 8/12/2016 | | | Consultation Letter |
| | | | | | | | | | | 8/15/2016 | 8/15/2016 | Mr. Malone | Email |
| | | | | | | | | | | 9/26/2016 | 9/26/2016 | Mr. Malone | Telephone |
| | | | | | | | | | | 9/27/2016 | 9/27/2016 | Mr. Malone | Telephone |
| | | | | | | | | | | 10/5/2016 | 10/5/2016 | Mr. Malone | Telephone |
| | | | | | | | | | | 10/5/2016 | 10/14/2016 | Mr. Malone | Email |
| | | | | | | | | | | 10/14/2016 | 10/14/2016 | Mr. Malone | Email |
| | | | | | | | | | | - | 10/26/2016 | Mr. Malone | Email |
| 12/13/2016 | 12/13/2016 | Mr. Malone | Meeting | | | | | | | | | | |
| IDNR | Impact Assessment Section | Keith Shank | One Natural Resources Way | Springfield | IL | 62702 | | Keith.Shank@illinois.gov | State Listed Species | 1/20/2017 | 1/20/2017 | Mr. Shank | Telephone |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| IDNR | Water Resources | Mike Diedrichsen | One Springfield Way | Springfield | IL | 62702- 4271 | 217-782-4426 | mike.diedrichsen@illinois.gov | | 6/8/2016 | 6/9/2016 | Mr. Diedrichsen | Telephone and Email |
| | | | | | | | | | | 6/14/2016 | 6/15/2016 | Mr. Diedrichsen | Email |
| | | | | | | | | | | 6/21/2016 | 6/21/2016 | Mr. Diedrichsen | Meeting |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 8/12/2016 | | | Consultation Letter |
| | | | | | | | | | | 9/28/2016 | 9/28/2016 | Mr. Diedrichsen | Telephone |
| IDNR | Water Resources | Steve Altman | One Natural Resources Way | Springfield | IL | 62702- 1271 | | steve.altman@illinois.gov | | 1/27/2017 | 3/17/2017 | Mr. Altman | Letter and NWP-12 Joint Permit Application; Approval for Statewide Permits 6, 8, and 13 |
| | | | | | | | | | | 3/3/2017 | | | Email |
| | | | | | | | | | | 3/1/2017 | | | Email |
| | | | | | | | | | | 3/2/2017 | | | Email |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |

**Spire STL Pipeline
Agency Correspondence Tracking List
Appendix 1-C**

Agency Correspondence - Federal, State, Local Agencies, and Native American Tribes

| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence |
|--------|---|----------------|---------------------------|-------------|-------|------------|---------------|--|-------------------------------|------------|------------------------|---------------------|---------------------------------|
| IDNR | Water Resources | Jesse Tinch | One Natural Resources Way | Springfield | IL | 62702-1271 | 217-782-4545 | jesse.tinch@illinois.gov | Statewide Permits | - | 2/3/2017 | Mr. Tinch | Email |
| | | | | | | | | | | 2/6/2017 | | | Email |
| | | | | | | | | | | 2/9/2017 | | | Email |
| | | | | | | | | | | 2/14/2017 | 2/17/2017 | Mr. Tinch | Email |
| | | | | | | | | | | 2/20/2017 | 2/21/2017 | Mr. Tinch | Email and Telephone |
| | | | | | | | | | | 3/1/2017 | 3/1/2017 | Mr. Tinch | Email |
| | | | | | | | | | | 3/2/2017 | | | Email |
| | | | | | | | | | | 3/7/2017 | | | Email |
| | | | | | | | | | | 3/16/2017 | 3/16/2017 | Mr. Tinch | Telephone |
| | | | | | | | | | | 3/17/2017 | 3/17/2017 | Mr. Tinch | Email |
| IDNR | Conservation Program | Mike Chandler | | | | | 217-785-8773 | mike.chandler@illinois.gov | | 8/4/2016 | | Voicemail and Email | |
| IDNR | CREP Program Coordinator | Luke Garver | One Natural Resources Way | Springfield | IL | 62702-1721 | 217-524-3200 | Luke.Garver@illinois.gov | CREP | - | 8/8/2016 | | Voicemail |
| | | | | | | | | | | 8/9/2016 | 8/10/2016 | Mr. Garver | Telephone and Email |
| | | | | | | | | | | 9/9/2016 | 9/9/2016 | Mr. Garver | Email |
| | | | | | | | | | | 12/2/2016 | | | Voicemail and Email |
| IDNR | CREP | Robert Bedient | One Natural Resources Way | Springfield | IL | 62702 | 217-557-6525 | DNR.CREP@illinois.gov | CREP | - | 12/6/2016 | Mr. Bedient | Email |
| IDNR | | Nathan Grider | | | | | 217-524-0501 | | | 3/23/2017 | 3/24/2017 | Mr. Bedient | Email |
| IDNR | Chief of Staff | Brent Krebs | One Natural Resources Way | Springfield | IL | 62702 | 217-785-7953 | brent.krebs@illinois.gov | | 10/7/2016 | 10/7/2016 | Mr. Grider | Telephone |
| | | | | | | | | | | 12/13/2016 | 12/13/2016 | Mr. Krebs | Meeting |
| | | | | | | | | | | 12/19/2016 | 12/19/2016 | Mr. Krebs | Telephone |
| IDNR | Heritage Database Program Manager | Tara Kieninger | One Natural Resources Way | Springfield | IL | 62702 | 217-782-2685 | tara.kieninger@illinois.gov | | 3/1/2017 | 3/1/2017 | Mr. Krebs | Telephone |
| | | | | | | | | | | 6/17/2016 | 6/20/2016 | Ms. Kieninger | Email |
| | | | | | | | | | | 6/21/2016 | 6/21/2016 | Ms. Kieninger | Email |
| | | | | | | | | | | 12/23/2016 | 12/27/2016 | Ms. Kieninger | Voicemail and Email |
| | | | | | | | | | | 12/27/2016 | 12/27/2016 | Ms. Kieninger | Telephone |
| | | | | | | | | | | 12/29/2016 | 1/5/2017 | Ms. Kieninger | Email |
| | | | | | | | | | | 12/19/2016 | 12/19/2016 | Ms. Skufca | Telephone |
| IDNR | Incidental Take Authorization Coordinator | Jenny Skufca | One Natural Resources Way | Springfield | IL | 62702 | 217-557-8243 | Jenny.Skufca@illinois.gov | | - | 12/19/2016 | Ms. Skufca | Email |
| | | | | | | | | | | 1/19/2017 | 1/19/2017 | Ms. Skufca | Telephone |
| | | | | | | | | | | 1/30/2017 | 2/1/2017 | Ms. Skufca | Voicemail and Telephone |
| | | | | | | | | | | 3/1/2017 | 3/1/2017 | Ms. Skufca | Telephone |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| | | | | | | | | | | 4/6/2017 | | | Voicemail and Email |
| | | | | | | | | | | 4/12/2017 | 4/12/2017 | Ms. Skufca | Telephone |
| IDNR | Endangered Species Program Manager | Joe Kath | | | | | | Joe.Kath@illinois.gov | | | | | |
| IDNR | Scientific Collection Permits | Nancy Rogers | | | | | | Nancy.S.Rogers@illinois.gov | | | | | |

**Spire STL Pipeline
Agency Correspondence Tracking List
Appendix 1-C**

Agency Correspondence - Federal, State, Local Agencies, and Native American Tribes

| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence |
|---|--|--------------------------|---------------------------------|-------------|-------|----------------|---------------|--|---|------------|------------------------|--------------------|--|
| Illinois Department of Agriculture ("IDOA") | | | | | | | | | | | | | |
| IDOA | Bureau of Land and Water Resources | Terry Savko | Statefairgrounds P.O. Box 19281 | Springfield | IL | 62794- 9281 | 217-785-4458 | terry.savko@illinois.gov | Agricultural Impact Mitigation Agreement | 6/9/2016 | 6/9/2016 | Ms. Savko | Telephone and Email |
| | | | | | | | | | | 6/22/2016 | 6/22/2016 | Ms. Savko | Meeting |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/15/2016 | | | Consultation Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 9/7/2016 | 9/7/2016 | Ms. Savko | Email |
| | | | | | | | | | | 9/22/2016 | 9/26/2016 | Ms. Savko | Email |
| | | | | | | | | | | 9/26/2016 | 10/6/2016 | Ms. Savko | Email |
| | | | | | | | | | | | 11/9/2016 | Ms. Savko | Email |
| | | | | | | | | | | 11/22/2016 | 11/22/2016 | Ms. Savko | Telephone |
| | | | | | | | | | | 11/29/2016 | | | Email |
| | | | | | | | | | | 12/2/2016 | | | Email |
| | | | | | | | | | | 12/13/2016 | 12/13/2016 | Ms. Savko | Meeting |
| | | | | | | | | | | 1/24/2017 | 2/23/2017 | Ms. Savko | Email |
| | | | | | | | | | | 2/28/2017 | 3/1/2017 | Ms. Savko | Email |
| | | | | | | | | | | 3/8/2017 | 3/8/2017 | Ms. Savko | Email |
| | | | | | | | | | | 3/17/2017 | 3/17/2017 | Ms. Savko | Email |
| | | | | | | | | | | 3/21/2017 | 3/21/2017 | Ms. Savko | Email |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| | | | | | | | | | | 4/5/2017 | 4/5/2017 | Ms. Savko | Email |
| 4/6/2017 | 4/7/2017 | Ms. Savko | Email | | | | | | | | | | |
| 4/7/2017 | 4/7/2017 | Ms. Savko | Telephone | | | | | | | | | | |
| IDOA | Bureau of Land and Water Resources | Steve Chard | PO Box 19281 | Springfield | IL | 62794- 9281 | 217-782-6297 | Steve.Chard@illinois.gov | Agricultural Impact Mitigation Agreement | 11/22/2016 | 11/22/2016 | Mr. Chard | Telephone |
| | | | | | | | | | | 11/29/2016 | | | Email |
| | | | | | | | | | | 12/2/2016 | | | Email |
| | | | | | | | | | | 1/24/2017 | | | Email |
| | | | | | | | | | | 2/28/2017 | | | Email |
| IDOA | General Counsel | Craig Sondgeroth | | | | | 217-558-0014 | craig.sondgeroth@illinois.gov | | 12/13/2016 | 12/13/2016 | Mr. Sondgeroth | Meeting |
| IDOA | Land and Water Resource Specialist | John Lohse | PO Box 19281 | Springfield | IL | 62794- 9281 | 217-785-4389 | john.lohse@illinois.gov | | 12/13/2016 | 12/13/2016 | Mr. Lohse | Meeting |
| IDOA | Deputy Director | Warren Goetsch | PO Box 19281 | Springfield | IL | 62794- 9281 | 217-785-4747 | warren.goetsch@illinois.gov | | 12/13/2016 | 12/13/2016 | Mr. Goetsch | Meeting |
| IDOA | COS | Grant Hammer | PO Box 19281 | Springfield | IL | 62794- 9281 | 217-782-5051 | grant.hammer@illinois.gov | | 12/13/2016 | 12/13/2016 | Mr. Hammer | Meeting |
| Illinois Historic Preservation Agency ("IHPA") | | | | | | | | | | | | | |
| IHPA | Division Manager & Deputy SHPO | Rachel Leibowitz | 1 Old State Capitol Plaza | Springfield | IL | 62701 | 217-782-7534 | rachel.leibowitz@illinois.gov | Section 106 | 6/21/2016 | 6/21/2016 | Ms. Leibowitz | Meeting |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | - | 8/4/2016 | | Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 8/29/2016 | | | Consultation Letter |
| | | | | | | | | | | 10/28/2016 | | | Letter |
| | | | | | | | | | | 11/1/2016 | | | Hardcopy of Draft RR4 |
| | | | | | | | | | | 12/13/2016 | 12/13/2016 | Ms. Leibowitz | Meeting |
| | | | | | | | | | | 1/26/2017 | | | Letter and Phase I Archaeological Survey Report with Architectural/Historical Resources Survey |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| 4/10/2017 | | | Unanticipated Discoveries Plan | | | | | | | | | | |
| 4/21/2017 | | | Phase I Addendum | | | | | | | | | | |
| IHPA | | David Halpin | 1 Old State Capitol Plaza | Springfield | IL | 62701 | 217-785-4998 | | Section 106 | 11/7/2016 | 11/7/2016 | Mr. Halpin | Telephone |
| IHPA | Deputy Director | Ryan Prehn | 313 S 6th Street | Springfield | IL | 62701 | 217-558-8950 | ryan.prehn@illinois.gov | | 12/13/2016 | 12/13/2016 | Mr. Prehn | Meeting |
| IHPA | | Tina Blankenship | 1 Old State Capitol Plaza | Springfield | IL | 62701 | | | | 2/10/2017 | | | Archaeological Survey Short Report |
| IHPA | Director | Heidi Brown- McCreery | 1 Old State Capitol Plaza | Springfield | IL | 62701 | | | | 3/28/2017 | | | Supplemental Information Letter |
| IHPA | Archaeologist | Joe Phillippe | 1 Old State Capitol Plaza | Springfield | IL | 62701 | 217-785-1279 | joe.phillippe@illinois.gov | | 3/28/2017 | | | Supplemental Information Letter |

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Agency Correspondence Tracking List
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Agency Correspondence - Federal, State, Local Agencies, and Native American Tribes

| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence |
|--|---|--------------------|---|----------------|-------|------------|---------------|--|--|---|--|--|--|
| Illinois Environmental Protection Agency ("IEPA") | | | | | | | | | | | | | |
| IEPA | Bureau of Water | Alan Keller | 1021 North Grand Avenue East P.O. Box 19276 | Springfield | IL | 62794-9276 | 217-782-0610 | al.keller@illinois.gov | | 6/9/2016 8/12/2016 | 6/9/2016 | | Telephone Consultation Letter |
| IEPA | Bureau of Water | Dan Heacock | 1021 North Grand Avenue East P.O. Box 19276 | Springfield | IL | 62794 | | dan.heacock@illinois.gov | | 1/27/2017 3/3/2017 3/28/2017 | | | Letter and NWP-12 Joint Permit Application Email Supplemental Information Letter |
| IEPA | Industrial Engineer on call | Mark Liska | | | | | 217-782-0610 | | Hydrostatic Test Withdrawals and Discharge | 7/11/2016 | 7/11/2016 | Mr. Liska | Telephone |
| IEPA | Bureau of Water - Industrial Unit Manager | Darin LeCrone | 1021 North Grand Avenue East | Springfield | IL | 62794 | 217-782-0610 | darin.lecrone@illinois.gov | | 7/29/2016 8/5/2016 12/13/2016 3/28/2017 | | | Notice of Prefiling Letter Open House Invitation Letter Meeting Supplemental Information Letter |
| IEPA | GIS | Joe Konczyk | | | | | 217-785-2271 | Joe.Konczyk@Illinois.gov | Illinois Drinking Water Resources | 9/21/2016 9/22/2016 | 9/21/2016 9/22/2016 | Mr. Konczyk Mr. Konczyk | Telephone Email |
| IEPA | | Scott Twait | 1021 North Grand Avenue East | Springfield | IL | 62794 | 217-558-2012 | Scott.Twait@Illinois.gov | | 9/28/2016 10/7/2016 10/17/2016 12/9/2016 | 9/28/2016 10/17/2016 10/17/2016 12/9/2016 | Mr. Twait Mr. Twait Mr. Twait Mr. Twait | Telephone Email Telephone Telephone and Email |
| IEPA | Public Water Supply | David Cook | | | | | 217-782-0078 | | | 10/17/2016 10/18/2016 | | | Voicemail Telephone |
| IEPA | Bow Permit Section | Darren Gove | 1021 North Grand Avenue East | Springfield | IL | 62794 | 217-524-3033 | darren.gove@illinois.gov | | 12/13/2016 | 12/13/2016 | Mr. Gove | Meeting |
| IEPA | Deputy Director | Ryan McCreery | 1021 North Grand Avenue East | Springfield | IL | 62794 | 217-782-1679 | ryan.mcCreery@illinois.gov | | 12/13/2016 | 12/13/2016 | Mr. McCreery | Meeting |
| STATE - Missouri | | | | | | | | | | | | | |
| Missouri Department of Natural Resources ("MDNR") | | | | | | | | | | | | | |
| MDNR | Water Resources Center - Surface Water, Wetlands and Planning | Steve McIntosh | PO Box 176 | Jefferson City | MO | 65102 | 573-751-7823 | steve.mcintosh@dnr.mo.gov | Major Water User Registration | 6/16/2016 8/3/2016 | 6/16/2016 8/3/2016 | Mr. McIntosh | Telephone and Email Meeting |
| MDNR | Water Resources Center | Scott Kaden | PO Box 176 | Jefferson City | MO | 65102 | 573-368-2175 | | | 7/8/2016 | 7/8/2016 | Mr. Kaden | Telephone |
| MDNR | Water Protection Program | Robert Voss | PO Box 176 | Jefferson City | MO | 65102 | 573-751-1300 | | | 7/8/2016 | 7/8/2016 | Mr. Voss | Telephone |
| MDNR | Water Protection Program | Chris Wieberg | PO Box 176 | Jefferson City | MO | 65102 | 573-526-5781 | chris.wieberg@dnr.mo.gov | Hydrostatic Discharge Permit | 7/11/2016 8/3/2016 - | 7/11/2016 8/3/2016 11/29/2016 | Mr. Wieberg Mr. Wieberg Mr. Wieberg | Telephone Meeting Letter - 401 Water Quality Certification |
| MDNR | Director | Sara Parker Pauley | PO Box 176 | Jefferson City | MO | 65102 | 573-522-6221 | | | 7/29/2016 8/5/2016 3/28/2017 | | | Notice of Prefiling Letter Open House Invitation Letter Supplemental Information Letter |
| MDNR | | Paul Mueller | PO Box 176 | Jefferson City | MO | 65102 | 314-416-2960 | | | 7/29/2016 8/5/2016 3/28/2017 | | | Notice of Prefiling Letter Open House Invitation Letter Supplemental Information Letter |

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|--------|--|----------------|------------|----------------|-------|-------|---------------------------------|--|--------------------------------------|------------|------------------------|--------------------|------------------------------|
| MDNR | | Mike Irwin | PO Box 176 | Jefferson City | MO | 65102 | 573-522-1131 | mike.irwin@dnr.mo.gov | 401 Water Quality Certification | 8/3/2016 | 8/3/2016 | Mr. Irwin | Meeting |
| | | | | | | | | | | 8/4/2016 | 8/4/2016 | Mr. Irwin | Email |
| | | | | | | | | | | 8/4/2016 | 8/5/2016 | Mr. Irwin | Email |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 12/9/2016 | 12/9/2016 | Mr. Irwin | Voicemail and Telephone |
| | | | | | | | | | | 12/9/2016 | 12/15/2016 | Mr. Irwin | Email |
| | | | | | | | | | | 12/23/2016 | | | Email |
| | | | 3/28/2017 | | | | Supplemental Information Letter | | | | | | |
| MDNR | | Lorisa Smith | PO Box 176 | Jefferson City | MO | 65102 | 573-751-7370 | Lorisa.Smith@dnr.mo.gov | Permitting Contact | 8/3/2016 | 8/3/2016 | Ms. Smith | Meeting |
| | | | | | | | | | | 8/4/2016 | | | Email |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 9/8/2016 | | | Consultation Letter |
| MDNR | Katy Trail | Denny Bopp | PO Box 176 | Jefferson City | MO | 65102 | 573-751-9392 | denny.bopp@dnr.mo.gov | Katy Trail | 8/3/2016 | 8/3/2016 | Mr. Bopp | Meeting |
| | | | | | | | | | | 9/28/2016 | | | Voicemail |
| MDNR | | Brad Harris | PO Box 176 | Jefferson City | MO | 65102 | 573-644-3226 | brad.harris@dnr.mo.gov | Env. Emergency Response Plan | 8/3/2016 | 8/3/2016 | Mr. Harris | Meeting |
| MDNR | | Robert Stout | PO Box 176 | Jefferson City | MO | 65102 | 573-751-7402 | robert.stout@dnr.mo.gov | Policy Contact | 8/3/2016 | 8/3/2016 | Mr. Stout | Meeting |
| MDNR | Geology | Peter Price | PO Box 176 | Jefferson City | MO | 65102 | 573-368-2131 | peter.price@dnr.mo.gov | Well drilling | 8/3/2016 | 8/3/2016 | Mr. Price | Meeting |
| MDNR | Geology | Peter Bachle | PO Box 176 | Jefferson City | MO | 65102 | 573-368-2472 | peter.bachle@dnr.mo.gov | | 8/3/2016 | 8/3/2016 | Mr. Bachle | Meeting |
| MDNR | Well Heads Department | Justin Davis | PO Box 176 | Jefferson City | MO | 65102 | 573-368-2167 | | Registration of Geotech | | | | |
| MDNR | GIS | David Erickson | | | | | 573-368-2332 | david.erickson@dnr.mo.gov | Missouri Drinking Water Resources | 9/21/2016 | 9/21/2016 | Mr. Erickson | Telephone |
| MDNR | Cultural Resource Management Section, State Parks | Kim Dillon | | | | | 573-526-0976 | kim.dillon@dnr.mo.gov | | 10/3/2016 | 10/3/2016 | Ms. Dillon | Email |
| MDNR | Public Drinking Water Branch | Maher Jaafari | | | | | 573-751-1127 | maher.jaafari@dnr.mo.gov | | 10/18/2016 | 10/19/2016 | Mr. Jaafari | Email |
| | | | | | | | | | | | | | Email |
| | | | | | | | | | | | | | Email |
| MDNR | Public Drinking Water Branch | Everett Baker | | | | | | Everett.Baker@dnr.mo.gov | | - | 10/24/2016 | Mr. Baker | Email |
| | | | | | | | | | | 1/17/2017 | | | Email |
| | | | | | | | | | | 1/23/2017 | 1/23/2017 | Mr. Baker | Telephone |
| | | | | | | | | | | 2/2/2017 | | | Email |
| | | | | | | | | | | 2/3/2017 | | | Email |
| MDNR | Public Drinking Water Branch | Ken Tomlin | | | | | 573-526-0269 | | | 12/22/2016 | | | Voicemail |
| | | | | | | | | | | - | 1/24/2017 | Mr. Tomlin | Email |
| | | | | | | | | | | - | 1/24/2017 | Mr. Tomlin | Email |
| | | | | | | | | | | 2/2/2017 | 2/3/2017 | Mr. Tomlin | Email |
| | | | | | | | | | | 2/3/2017 | | | Email |
| MDNR | Wellhead Protection Program Chief | Kyle Rollins | | | | | 573-368-2171 | | | 12/21/2016 | 12/22/2016 | Mr. Rollins | Voicemail and Telephone |
| MDNR | Wellhead Protection Compliance and Enforcement | Amber Steele | | | | | 573-368-2115 | | | 12/21/2016 | 12/22/2016 | Ms. Steele | Voicemail and Telephone |
| MDNR | Geological Survey | Pat Mulvany | | | | | 573-368-2370 | | | 12/14/2016 | 12/14/2016 | Mr. Mulvany | Telephone |
| MDNR | Engineering and Compliance Assistance | Eric Gilstrap | | | | | 314-416-2960 | eric.gilstrap@dnr.mo.gov | | - | 1/25/2017 | Mr. Gilstrap | Email |
| | | | | | | | | | | 2/1/2017 | 2/1/2017 | Mr. Gilstrap | Telephone |
| | | | | | | | | | | 2/3/2017 | | | Email |
| MDNR | FUSRAP Project Oversight | Daniel Carey | | | | | 314-877-3047 | daniel.carey@dnr.mo.gov | | - | 2/3/2017 | Mr. Carey | Email |
| | | | | | | | | | | 3/30/2017 | 3/30/2017 | Mr. Carey | Email |

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| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence | | | | | |
|---|--|---------------------------|------------------------------------|-----------------------------|---------------|----------------------|----------------------------|--|--|----------------|------------------------|---------------------------------------|---------------------------------|--|-------------|---|------------|---|
| Missouri State Historic Preservation Office (MO SHPO) | Compliance Coordinator | Judith Deel | PO Box 176 | Jefferson City | MO | 65102 | 573-751-7862 | judith.deel@dnr.mo.gov | Section 106 | 7/8/2016 | 7/8/2016 | Ms. Deel | Meeting | | | | | |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter | | | | | |
| | | | | | | | | | | 8/3/2016 | 8/3/2016 | Ms. Deel | Meeting | | | | | |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter | | | | | |
| | | | | | | | | | | 8/29/2016 | | | Consultation Letter | | | | | |
| | | | | | | | | | | 9/12/2016 | 9/13/2016 | Ms. Deel | Email | | | | | |
| | | | | | | | | | | 9/14/2016 | 9/14/2016 | Ms. Deel | Email | | | | | |
| | | | | | | | | | | 9/20/2016 | 9/20/2016 | Ms. Deel | Email | | | | | |
| | | | | | | | | | | 10/28/2016 | | | Letter | | | | | |
| | | | | | | | | | | 11/1/2016 | | | Hardcopy of Draft RR4 | | | | | |
| | | | | | | | | | | 11/7/2016 | | | Voicemail | | | | | |
| | | | | | | | | | | 11/14/2016 | 11/14/2016 | Ms. Deel | Telephone | | | | | |
| | | | | | | 1101 Riverside Drive | | | | Jefferson City | MO | 65101 | | | 1/26/2017 | | | Letter and Phase I Archaeological Survey Report |
| | | | | | | | | | | | | | | | 1/26/2017 | | | Letter and Architectural/Historical Resources Survey Report |
| | | | | | | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| | | | | | | | | | | | | | | | 4/10/2017 | | | Unanticipated Discoveries Plan |
| | | | | | | | | | | | | | | | 4/21/2017 | | | Phase I Addendum I Archaeological Report |
| | | | | | | | | | 4/21/2017 | | | Phase I Addendum Architectural Report | | | | | | |
| | | | | | | | | | 4/21/2017 | | | Phase II Report | | | | | | |
| MO SHPO | Archaeologist/ Records Manager | Heather Gibb | PO Box 176 | Jefferson City | MO | 65102 | 573-751-4589 | heather.gibb@dnr.mo.gov | Section 106 | 7/8/2016 | 7/8/2016 | Ms. Gibb | Meeting | | | | | |
| | | | | | | | | | | 8/3/2016 | 8/3/2016 | Ms. Gibb | Meeting | | | | | |
| | | | | | | | | | | 9/28/2016 | 9/28/2016 | Ms. Gibb | Email | | | | | |
| | | | | | | | | | | 9/29/2016 | 9/30/2016 | Ms. Gibb | Email | | | | | |
| | | | | | | | | | | 11/1/2016 | | | Hardcopy of Draft RR4 | | | | | |
| | | | | | | | | | | 3/8/2017 | | | Email | | | | | |
| | | | | | | | | | | 3/16/2017 | 3/16/2017 | Ms. Gibb | Email | | | | | |
| | | | | | | | | | | 3/16/2017 | 3/16/2017 | Ms. Gibb | Email | | | | | |
| | | | | | | | | | | 3/17/2017 | 3/22/2017 | Ms. Gibb | Email | | | | | |
| | | | | | | | | | | 3/23/2017 | 4/11/2017 | Ms. Gibb | Email | | | | | |
| | | | MO SHPO | Director and Deputy SHPO | Toni M. Prawl | 1101 Riverside Drive | | | | Jefferson City | MO | 65101 | | | Section 106 | - | 11/17/2016 | Dr. Prawl |
| MO SHPO | | Amanda Burke | 1101 Riverside Drive | Jefferson City | MO | 65101 | 573-751-7862 | | Section 106 | - | 3/23/2017 | Dr. Prawl | Letter | | | | | |
| MO SHPO | | | 1101 Riverside Drive | Jefferson City | MO | 65101 | 573-751-7862 | | Section 106 | 11/15/2016 | 11/15/2016 | Ms. Burke | Telephone | | | | | |
| Missouri Department of Conservation (MDOC) | | | | | | | | | | | | | | | | | | |
| MDOC | Wildlife | Raenhard Wesselschmidt | 2360 Hwy D | St. Charles | MO | 63304 | 636-441-4554 ext. 4132 | raenhard.wesselschmidt@mds.mo.gov | | 7/29/2016 | | | Notice of Prefiling Letter | | | | | |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter | | | | | |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter | | | | | |
| MDOC | Wildlife | Audrey Beres | 2901 West Truman Blvd | Jefferson City | MO | 65109 | 573-522-4115, ext. 3346 | audrey.beres@mdc.mo.gov | RTE | 6/17/2016 | 6/17/2016 | Ms. Beres | Telephone | | | | | |
| | | | | | | | | | | 6/27/2016 | 6/27/2016 | Ms. Beres | Meeting | | | | | |
| | | | | | | | | | | 6/17/2016 | 7/6/2016 | Ms. Beres | Email | | | | | |
| | | | | | | | | | | 8/12/2016 | | | Consultation Letter | | | | | |
| | | | | | | | | | | 11/29/2016 | | | Email | | | | | |
| | | | | | | | | | | - | 12/5/2016 | Ms. Beres | Email | | | | | |
| | | | | | | | | | | 1/10/2017 | 1/10/2017 | Ms. Beres | Telephone | | | | | |
| | | | | | | | | | | 1/11/2017 | 1/17/2017 | Ms. Beres | Email | | | | | |
| | | | | | | | | | | - | 1/17/2017 | Ms. Beres | Email | | | | | |
| | | | | | | | | | | 1/20/2017 | | | Email | | | | | |
| | | | | | | | | | | 3/10/2017 | | | Email | | | | | |
| 3/28/2017 | | | Supplemental Information Letter | | | | | | | | | | | | | | | |
| MDOC | Pools 24.25 and 26 of Upper Mississippi Conservation Area | Gary Calvert | P.O. Box 201 3333 North Highway 79 | Elsberry | MO | 63343 | 573-898-5905, ext. 1890 | Gary.Calvert@mdc.mo.gov | Migratory Bird and Setback requirements | 7/6/2016 | 7/6/2016 | Mr. Calvert | Telephone | | | | | |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter | | | | | |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter | | | | | |
| | | | | | | | | | | 3/23/2017 | 3/23/2017 | Mr. Calvert | Telephone | | | | | |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter | | | | | |

**Spire STL Pipeline
Agency Correspondence Tracking List
Appendix 1-C**

Agency Correspondence - Federal, State, Local Agencies, and Native American Tribes

| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence |
|--|--|----------------------|--|----------------|-------|-------|-------------------------|---|---|------------|------------------------|--------------------|---------------------------------|
| MDOC | Policy Coordinator | Jennifer Campbell | PO Box 176 | Jefferson City | MO | 65102 | 573-522-4115 | jennifer.campbell@mdc.mo.gov | Permitting Contact | 9/16/2016 | | | Voicemail |
| | | | | | | | | | | 9/22/2016 | | | Voicemail |
| | | | | | | | | | | 10/14/2016 | 10/17/2016 | Ms. Campbell | Voicemail and Email |
| | | | | | | | | | | 10/17/2016 | 10/17/2016 | Ms. Campbell | Email |
| | | | | | | | | | | - | 10/18/2016 | Ms. Campbell | Email |
| | | | | | | | | | | | 10/25/2016 | Ms. Campbell | Email |
| | | | | | | | | | | 10/28/2016 | 11/3/2016 | Ms. Campbell | Email |
| 11/4/2016 | 11/4/2016 | Ms. Campbell | Email | | | | | | | | | | |
| | | | | | | | | | | | | | |
| MDOC | | Nate Muenks | | | | | 573-751-4115, ext. 3371 | | Noxious Weeds | 9/30/2016 | 9/30/2016 | Mr. Muenks | Telephone |
| MDOC | Resource Scientist | Janet Haslerig | 2901 W. Truman Boulevard | Jefferson City | MO | 65109 | 573-522-4115, ext. 3198 | Janet.Haslerig@mdc.mo.gov | Bald Eagles | 12/5/2016 | 12/5/2016 | Ms. Haslerig | Telephone and Email |
| | | | | | | | | | | - | 12/12/2016 | Ms. Haslerig | Email |
| Missouri Department of Agriculture ("MDA") | | | | | | | | | | | | | |
| MDA | | Collin Wamsley | | | | | 412-399-5251 | | Noxious Weeds | 9/30/2016 | 9/30/2016 | Mr. Wamsley | Telephone |
| MDA | Legal Counsel | | | | | | | | | 6/24/2016 | 6/24/2016 | Legal Counsel | Telephone |
| LOCAL | | | | | | | | | | | | | |
| Scott County, Illinois | | | | | | | | | | | | | |
| Scott County Soil and Water Conservation District ("SWCD") | Resource Conservationist | Lance Mueller | 656 North Main | Winchester | IL | 62694 | 217-742-9561 | lance.mueller@il.nacdn.net | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 9/7/2016 | 9/28/2016 | Mr. Mueller | Email |
| | | | | | | | | | | 9/28/2016 | 9/28/2016 | Mr. Mueller | Email |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| Scott County | Chief County Assessment Officer | Lorrie Koch | 35 E Market Street | Winchester | IL | 62694 | 217-742-5751 | scottcoassessor@frontier.com | | 10/6/2016 | 10/6/2016 | Ms. Koch | Telephone |
| Greene County, Illinois | | | | | | | | | | | | | |
| Greene County SWCD | Administrative Coordinator | Annyce Winters | RR3, Box 129 | Carrollton | IL | 62016 | 217-942-5464 | annyce.winters@il.nacdn.net | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| Greene County | Floodplain Management | Stan Crusius | 519 N. Main St | Carrollton | IL | 62016 | 217-942-5443 | | Floodplain Permit | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| Greene County | Clerk | Debbie Banghart | | | | | 217-942-5443 | | | 10/12/2016 | 10/12/2016 | Ms. Banghart | Telephone |
| Roodhouse, Illinois | City Clerk | Patty Plahn | | | | | 217-589-4351 | | | 10/12/2016 | 10/12/2016 | Ms. Plahn | Telephone |
| White Hall, Illinois | City Clerk | Mona McMillan | 116 East Sherman Street | White Hall | IL | 62092 | 217-374-2345 | | | 10/12/2016 | 10/12/2016 | Ms. McMillan | Telephone |
| Carrollton, Illinois | City Clerk | Mike Schneider | | | | | 217-942-3814 | | | 10/12/2016 | 10/12/2016 | | Telephone |
| | | | | | | | | | | 10/17/2016 | 10/17/2016 | Mr. Schneider | Telephone |
| Jersey County, Illinois | | | | | | | | | | | | | |
| Jersey County SWCD | Resource Conservationist | Jeff Blackorby | 604 E. Franklin | Jerseyville | IL | 62052 | 618-498-3712 | jeff.blackorby@il.nacdn.net | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 9/7/2016 | | | Email |
| | | | | | | | | | | 9/28/2016 | 11/3/2016 | Mr. Blackorby | Email |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| Jersey County | Code Administrator | Cindy Craigmiles | 200 N. Lafayette, Suite 6 | Jerseyville | IL | 62052 | 618-498-5571 x146 | codeadmin1@jerseycounty-il.us | Floodplain and Stormwater Development Permits | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 12/12/2016 | 12/12/2016 | Ms. Craigmiles | Telephone |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| Jersey County | Planning and Zoning | Craig McGraw | | | | | 618-498-5571, ext-112 | codeadmin1@jerseycounty-il.us | | 10/6/2016 | 10/6/2016 | Mr. McGraw | Telephone |
| | | | | | | | | | | 10/6/2016 | 10/6/2016 | Mr. McGraw | Email |
| | | | | | | | | | | 12/8/2016 | 12/9/2016 | Mr. McGraw | Email |
| University of Illinois | Illinois Natural History Survey - Prairie Research Institute | Christopher Phillips | 1885 Natural Resources Bldg, 607 E. Peabody Dr | Champaign | IL | 61820 | 217-244-7077 | caphill@illinois.edu , lithasia@gmail.com | Timber Rattlesnake Survey Information | 8/26/2016 | 8/26/2016 | Mr. Phillips | Telephone |
| | | | | | | | | | | 8/29/2016 | 8/29/2016 | Mr. Phillips | Email |
| | | | | | | | | | | 9/1/2016 | 9/1/2016 | Mr. Phillips | Email |
| | | | | | | | | | | 9/1/2016 | 9/1/2016 | Mr. Phillips | Telephone |
| | | | | | | | | | | 10/17/2016 | 10/17/2016 | Mr. Phillips | Email |

**Spire STL Pipeline
Agency Correspondence Tracking List
Appendix 1-C**

Agency Correspondence - Federal, State, Local Agencies, and Native American Tribes

| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence | | | | | | | | | |
|---|--|-----------------|-----------------------------------|----------------------|-------|-------|----------------------------|--|---|---------------|------------------------|--------------------------|---------------------------------|----|-------|--------------|--|-----------------------|-----------|-----------|-----------------|------------------|
| St. Charles County, Missouri | | | | | | | | | | | | | | | | | | | | | | |
| St. Charles County SWCD | District Manager | Frankie Coleman | 160 St. Peters Centre Blvd | St. Peters | MO | 63376 | 636-922-2833 | frankie.coleman@swcd.mo.gov | | 9/7/2016 | 9/16/2016 | Mr. Coleman | Email | | | | | | | | | |
| | | | | | | | | | | 9/28/2016 | | | Email | | | | | | | | | |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter | | | | | | | | | |
| St. Charles County SWCD | | Charles Perkins | | | | | | | | 9/30/2016 | Mr. Perkins | Telephone | | | | | | | | | | |
| St. Charles County | Community Development Department | Rich Gnecco | 201 N Second St | St. Charles | MO | 63301 | 636-949-1814 x7160 | development@sccmo.org | | 7/29/2016 | | | Notice of Prefiling Letter | | | | | | | | | |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter | | | | | | | | | |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter | | | | | | | | | |
| St. Charles County | Development Review Department | John Baron | 201 N Second St | St. Charles | MO | 63301 | 636-949-1817 | jbarron@sccmo.org | Land Disturbance Permits, Natural Watercourse Permits | 8/10/2016 | 8/10/2016 | Mr. Baron | Telephone | | | | | | | | | |
| | | | | | | | | | | - | 8/12/2016 | Mr. Baron | Email | | | | | | | | | |
| | | | | | | | | | | - | 8/17/2016 | Mr. Baron | Email | | | | | | | | | |
| St. Charles County | Floodplain Vision Board | Ellie Marr | 201 N Second St | St. Charles | MO | 63301 | 636-949-7900 x7235 | emarr@sccmo.org | Floodplain Permits | 7/29/2016 | | | Notice of Prefiling Letter | | | | | | | | | |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter | | | | | | | | | |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter | | | | | | | | | |
| St. Charles County | | Mick Zerr | 201 N Second St | St. Charles | MO | 63301 | 636-234-1192 | mzerr@sccmo.org | Building Permits (if needed) | | | | | | | | | | | | | |
| St. Charles County | Highway Department | Charles Kuehler | 201 N Second St | St. Charles | MO | 63301 | 636-949-7305 | ckuehler@sccmo.org | Special Use Permits | | | | | | | | | | | | | |
| St. Charles County | Community Development Department | Robert Myers | 201 N Second St, Suite 420 | St. Charles | MO | 63301 | 636-949-7335, ext. 7225 | Rmyers@sccmo.org | Planned Developments | 9/13/2016 | 9/26/2016 | Mr. Myers | Email | | | | | | | | | |
| | | | | | | | | | | 9/28/2016 | 9/28/2016 | Mr. Myers | Email | | | | | | | | | |
| | | | | | | | | | | 12/8/2016 | 12/8/2016 | Mr. Meyers | Email | | | | | | | | | |
| City of West Alton | Planning and Zoning Commissioner | Jason Farley | P.O. Box 42, West Alton City Hall | West Alton | MO | 63386 | 314-306-4695 | | Land Use Permit | 7/29/2016 | | | Notice of Prefiling Letter | | | | | | | | | |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter | | | | | | | | | |
| | | | | | | | | | | 10/6/2016 | 10/12/2016 | Mr. Farley | Voicemail and Telephone | | | | | | | | | |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter | | | | | | | | | |
| City of West Alton | Floodplain Administrator | Janet Neustadt | P.O. Box 42, West Alton City Hall | West Alton | MO | 63386 | 636-899-0233 | | Floodplain Permit | 7/29/2016 | | | Notice of Prefiling Letter | | | | | | | | | |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter | | | | | | | | | |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter | | | | | | | | | |
| Consolidated North County Levee District | President | Kevin Machens | 135 Payne Road | Portage Des Sioux | MO | 63373 | 314-750-2519 | skmachens@live.com | Letter of Endorsement | 7/14/2016 | | | Voicemail and Email | | | | | | | | | |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter | | | | | | | | | |
| | | | | | | | | | | 8/3/2016 | 8/3/2016 | | Meeting | | | | | | | | | |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter | | | | | | | | | |
| | | | | | | | | | | 9/15/2016 | 9/15/2016 | Mr. Machens | Telephone and Email | | | | | | | | | |
| | | | | | | | | | | 9/29/2016 | 9/29/2016 | Mr. Machens | Telephone | | | | | | | | | |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter | | | | | | | | | |
| | | | | | | | | | | Legal Counsel | Kevin Wibbenmeyer | 1049 First Capitol Drive | St. Charles | MO | 63301 | 636-724-3355 | kwibbenmeyer@wibbenmeyerlaw.com | Letter of Endorsement | - | 2/15/2017 | Mr. Wibbenmeyer | Email and Letter |
| | | | | | | | | | | | | | | | | | | | 2/20/2017 | 2/20/2017 | Mr. Wibbenmeyer | Telephone |
| | | | | | | | | | | 2/23/2017 | 3/24/2017 | Mr. Wibbenmeyer | Email and Letter | | | | | | | | | |
| | | | | | | | | | - | 3/24/2017 | Mr. Wibbenmeyer | Email | | | | | | | | | | |
| | | | | | | | | | 4/14/2017 | 4/17/2017 | Mr. Wibbenmeyer | Email | | | | | | | | | | |
| City of Cottleville | Public Works Engineer | Rich Francis | | | | | 636-498-6565 | | Planned Developments | 12/12/2016 | | | Voicemail | | | | | | | | | |
| City of Dardenne Prairie | Public Works Engineer | Luke Kehoe | | | | | 636-561-1718 | | Planned Developments | 12/12/2016 | | | Voicemail | | | | | | | | | |
| City of Flint Hill | City Engineer | Tom Rothermich | | | | | 636-327-4441 | | Planned Developments | 12/12/2016 | | | Voicemail | | | | | | | | | |
| City of Foristell | City Engineer | Dale Stokes | | | | | 636-463-2123 | | Planned Developments | 12/12/2016 | | | Voicemail | | | | | | | | | |
| City of Lake Saint Louis | Community Development Manager | Brenda Qwellen | | | | | 636-463-1200 | | Planned Developments | 12/12/2016 | | | Voicemail | | | | | | | | | |
| City of New Melle | | TBD | | | | | 636-828-4807 | | Planned Developments | 12/15/2016 | | | Voicemail | | | | | | | | | |
| City of Portage des Sioux | Mayor | Mark Warner | | | | | 636-899-0640 | | Planned Developments | 12/12/2016 | 12/12/2016 | Mr. Warner | Telephone | | | | | | | | | |
| | | | | | | | | | | 2/3/2017 | 2/3/2017 | Mr. Warner | Telephone | | | | | | | | | |

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Agency Correspondence Tracking List
Appendix 1-C**

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| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence |
|---|---|-------------------|---------------------------------|------------|-------|-------|---------------|--|--------------------------------------|------------|------------------------|--------------------|---|
| City of St. Charles | Director of Economic Development | David Leezer | | | | | 636-949-3200 | | Planned Developments | 12/12/2016 | 12/12/2016 | Mr. Leezer | Voicemail and Telephone |
| City of St. Paul | | TBD | | | | | 636-980-1063 | | Planned Developments | 12/12/2016 | | | Voicemail |
| City of St. Peters | | Melissa Vullmer | | | | | 636-477-6600 | | Planned Developments | 12/12/2016 | | | Voicemail |
| City of O'Fallon | Assistant Planning and Development Director | Shannon Gerard | | | | | 636-379-5467 | | Planned Developments | 12/15/2016 | | | Voicemail |
| City of Weldon Spring | City Engineer | Joe Nichols | | | | | 636-441-2110 | | Planned Developments | 12/12/2016 | 12/13/2016 | Mr. Nichols | Voicemail and Telephone |
| City of Wentzville | City Marketing Director | Dan Lang | | | | | 636-332-5101 | | Planned Developments | 12/12/2016 | 12/12/2016 | Mr. Lang | Telephone |
| Town of Augusta | | TBD | | | | | 636-228-4689 | | Planned Developments | 12/15/2016 | | | Voicemail |
| Cadre Development, LLC | | Rowdy Montgomery | | | | | 314-608-7915 | | Planned Developments | 12/15/2016 | 12/15/2016 | Mr. Montgomery | Telephone |
| St. Louis County/City, Missouri | | | | | | | | | | | | | |
| St. Louis County | Department of Highways and Traffic | James M. Knoll | 41 South Central Ave | Clayton | MO | 63105 | 314-615-8554 | jmknoll@stouisco.com | Floodplain, Land Disturbance Permits | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/5/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | 4/4/2017 | Mr. Knoll | Supplemental Information Letter and Email |
| St. Louis County | Department of Planning | Gail Choate | | | | | 314-615-2520 | | | 10/6/2016 | 10/6/2016 | Ms. Choate | Telephone |
| Spanish Lake Community Association | | TBD | 11726 Larimore Rd | St. Louis | MO | 63138 | | | | 8/5/2016 | | | Open House Invitation Letter |
| Explore St. Louis | Senior Administrative Assistant | Linda Mattus | 701 Convention Plaza, Suite 300 | St. Louis | MO | 63101 | 314-992-0633 | lmattus@explorestlouis.com | | 12/13/2016 | 12/13/2016 | Ms. Mattus | Telephone and Email |
| City of St. Louis Water Division | Director of Public Utilities | Curtis Skouby, PE | 1640 S. Kingshighway | St. Louis | MO | 63110 | 314-633-9000 | | | 2/2/2017 | 2/2/2017 | Mr. Skouby | Telephone |
| St. Louis County SWCD | | Jennifer Fear | 160 St. Peters Centre Blvd | St. Peters | MO | 63376 | 636-922-2833 | | | 3/1/2017 | 3/1/2017 | Ms. Fear | Telephone |
| | | | | | | | | | | 3/28/2017 | | | Supplemental Information Letter |
| Native American Tribes | | | | | | | | | | | | | |
| Absentee-Shawnee Tribe of Indians of Oklahoma | Tribal Historic Preservation Officer | Leonard Longhorn | 2025 South Gordon Cooper Drive | Shawnee | OK | 74801 | 405-275-4030 | leonard.longhorn@astribe.com | Native American Coordination | 6/30/2016 | | | Telephone Message |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/24/2017 | | | Voicemail |
| | | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter |
| Cherokee Nation | Cultural Resources | Dr. Richard Allen | PO Box 948 | Tahlequah | OK | 74465 | 918-456-6485 | | Native American Coordination | 10/19/2016 | | | Voicemail |
| | | | | | | | | | | 10/27/2016 | | | Letter |
| | | | | | | | | | | 3/28/2017 | | | Attempted Telephone Call, No Response |
| | | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter |
| | | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter |
| | Chief | Bill John Baker | PO Box 948 | Tahlequah | OK | 74465 | | | | - | 4/4/2017 | | Letter |
| | Administrative Liaison | Pat Gwin | PO Box 948 | Tahlequah | OK | 74465 | 918-453-5000 | | | | | | Email |

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|-----------------------------------|--------------------------------------|--|--|---------------------------------|-------|--------------|--|-------------------------------|-------------------------------|------------|------------------------|---------------------------------|---------------------------------------|
| Delaware Nation | Director of Cultural Preservation | Ms. Nekole Alligood | P.O. Box 825 31064 State Highway 281 | Anadarko | OK | 73005 | 405-247-2448 | nalligood@delawarenation.com | Native American Coordination | 6/30/2016 | | | Telephone Message |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | 3/24/2017 | 3/24/2017 | Reception | Telephone Message and Voicemail | | | | | | | | | |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| President | Mr. Kerry Holton | PO Box 825 | Anadarko | OK | 73005 | | | | | | | | |
| Section 106 Manager | Mr. John Ross | PO Box 825 | Anadarko | OK | 73005 | | | | | | | | Supplemental Information Letter |
| Delaware Tribe of Indians | Historic Preservation Office | Dr. Brice Obermeyer | 1200 Commercial Street Roosevelt Hall, Room 212 | Emporia | KS | 66801 | 918-335-7026 | bobermeyer@delawaretribe.org | Native American Coordination | 6/30/2016 | | | Attempted Telephone Call, No Response |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | 3/24/2017 | 3/24/2017 | | Telephone | | | | | | | | | |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| Chief | Chet Brooks | 1200 Commercial Street Roosevelt Hall, Room 212 | Emporia | KS | 66801 | | | | | | | | |
| Eastern Shawnee Tribe of Oklahoma | Cultural Preservation Director | Ms. Robin Dushane | P.O. Box 350 127 West Oneida | Seneca | MO | 64865 | 918-666-2435, ext. 247 (Office) 918-801-6677 (Cell) | radushane@gmail.com | Native American Coordination | 6/30/2016 | | | Voicemail |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | 3/24/2017 | | | Voicemail | | | | | | | | | |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| Chief | Glenna J Wallace | 12755 S 705 Rd | Wyandotte | OK | 74370 | | | | | | | | |
| Ho-Chunk Nation | THPO | Bill Quackenbush | PO Box 667 | Black River Falls | WI | 54615 | 715-284-7181 x1121 | bill.quackenbush@ho-chunk.com | Native American Coordination | 10/19/2016 | 10/19/2016 | Mr. Quackenbush | Telephone |
| | | | | | | | | | | 10/27/2016 | | | Letter |
| | | | | | | | | | | 10/28/2016 | | | Email |
| | | | | | | | | | | 1/31/2017 | | | Hardcopy of Phase I Reports |
| | 3/28/2017 | 3/28/2017 | Staff | Telephone Message | | | | | | | | | |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| | 4/13/2017 | | | Email | | | | | | | | | |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| President | Mr. Wilford Cleveland | PO Box 667 | Black River Falls | WI | 54615 | | | | | | | | |
| Huron Potawatomi Nation | Council/Board | Robyn Burlingham | 1484 Mno-Bmadzewen Way | Fulton | MI | 49502 | 269-704-8373 | rburlingham@nhbpi.com | Native American Coordination | 10/19/2016 | 10/19/2016 | Ms. Burlingham | Telephone |
| | | | | | | | | | | 10/27/2016 | | | Letter |
| | | | | | | | | | | 3/28/2017 | | | Voicemail |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| | Cultural Specialist | Mon-ee Zapata | 311 State Street | Grand Rapids | MI | 49503 | | | | | | | |
| Chairman | Jamie Stuck | 2221 1 1/2 Mile Road | Fulton | MI | 49052 | | | | | | | Supplemental Information Letter | |
| Iowa Tribe of Kansas and Nebraska | Tribal Historic Preservation Officer | Mr. Lance M. Foster | 3345 B. Thrasher Road | White Cloud | KS | 66094 | 785-595-3258 | lfoster@iowas.org | Native American Coordination | 6/30/2016 | 7/6/2016 | Mr. Foster | Telephone |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | 1/31/2017 | | | Hardcopy of Phase I Reports | | | | | | | | | |
| | 3/27/2017 | 3/27/2017 | Reception | Telephone Message | | | | | | | | | |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| Chairman | Mr. Timothy Rhodd | 3345 B. Thrasher Road | White Cloud | KS | 66094 | 785-595-3347 | | | | | | Supplemental Information Letter | |
| Iowa Tribe of Oklahoma | Division Director | Patrick Durham | R.R. 1, Box 721 | Perkins | OK | 74059-9599 | 405-547-5433, ext. 350 | pdurham@iowanation.org | Native American Coordination | 6/30/2016 | 6/30/2016 | Mr. Durham | Telephone |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/27/2017 | | | Voicemail |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| Chairman/ THPO | Mr. Bobby Walkup | 335588 E. 750 Road | Perkins | OK | 74059 | | | | | | | Supplemental Information Letter | |

**Spire STL Pipeline
Agency Correspondence Tracking List
Appendix 1-C**

Agency Correspondence - Federal, State, Local Agencies, and Native American Tribes

| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence | |
|---|--|-------------------------------|--------------------------------------|---------------------------------|-------|------------|---------------------|--|--|------------------------------|---------------------------------|--------------------|--|--|
| Kaw Indian Nation of Oklahoma | Museum Director | Ms. Crystal Douglas | Drawer 50 | Kaw City | OK | 74641 | 580-269-2552 | Crystal_douglas@kawnation.com | Native American Coordination | 6/30/2016 | 6/30/2016 | Ms. Douglas | Telephone | |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter | |
| | | | | | | | | | | 8/30/2016 | | | Voicemail | |
| | | | | | | | | | | 9/6/2016 | | | Email | |
| | | | | | | | | | | 9/21/2016 | 9/21/2016 | Ms. Douglas | Telephone | |
| | | | | | | | | | | 12/19/2016 | 12/19/2016 | Ms. Douglas | Telephone | |
| | | | | | | | | | | 1/31/2017 | | | Hardcopy of Phase I Reports | |
| | | | | | | | | | | 3/27/2017 | 3/27/2017 | Ms. Douglas | Telephone | |
| | 3/29/2017 | | | Email | | | | | | | | | | |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | | |
| | - | 4/4/2017 | Ms. Douglas | Voicemail | | | | | | | | | | |
| | 4/7/2017 | 4/7/2017 | Ms. Douglas | Telephone | | | | | | | | | | |
| | Chairman | Ms. Jacqlyn Secondine Hensley | Drawer 50 | Kaw City | OK | 74641 | | | execsec@kawnation.com | Native American Coordination | 7/29/2016, 8/9/16 | | | Notice of Prefiling Letter, courtesy follow up copy by email |
| | | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| 9/6/2016 | | | | | | | | | | | | | Email | |
| 1/31/2017 | | | | | | | | | | | | | Hardcopy of Phase I Reports | |
| 3/29/2017 | | | | | | | | | | | | | Email | |
| 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | | | |
| Kickapoo Tribe in Kansas | NAGPRA Director | Ms. Nellie Cadue | 1107 Gold Finch Road P.O. Box 271 | Horton | KS | 64439 | 785-486-2601, ext-5 | | Native American Coordination | 6/30/2016 | | | Voicemail | |
| | Legal | Eric Sheets | | | | | 785-748-4281 | | | 3/27/2017 | 3/27/2017 | Mr. Sheets | Telephone | |
| | Section 106 | Ms. Bernadette Thomas | 1107 Gold Finch Road | Horton | KS | 64439-9537 | 785-486-3404 | | | 3/31/2017 | | | Supplemental Information Letter | |
| | Chairman | Lester Randall | 1107 Gold Finch Road | Horton | KS | 64439-9537 | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Kickapoo Traditional Tribe of Texas | Director | Mr. Juan Garza, Jr. | HCR 1, Box 9700 | Eagle Pass | TX | 78852 | 830-758-1936 | juangarza73@yahoo.com | Native American Coordination | 6/30/2016 | | | Voicemail | |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter | |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter | |
| | | | | | | | | | | 3/27/2017 | | | Voicemail | |
| 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | | | |
| Kickapoo Tribe of Oklahoma | Attorney/ Preservation Rep | Kent Collier | PO Box 70 | McCloud | OK | 74851 | 405-964-4227 | kcollier@kickapootribeofoklahoma.com | Native American Coordination | 6/30/2016 | | | Attempted Telephone Call, No Response | |
| | | | | | | | | | | 7/29/2016 | Delivery Refused | | Notice of Prefiling Letter | |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter | |
| | 3/27/2017 | 3/27/2017 | Staff | Telephone Message | | | | | | | | | | |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | | |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | | |
| Match-e-be-nash-she-wish Band of Potawatomi Indians of Michigan | THPO | DJ Hoffman | PO Box 218 | Dorr | MI | 49323 | 906-632-6896 | | Native American Coordination | 10/19/2016 | | | Telephone, Voicemail | |
| | | | | | | | | | | 10/27/2016 | Unable to Forward | | Letter | |
| | 3/28/2017 | | | Voicemail | | | | | | | | | | |
| | 3/31/2017 | | Returned | Supplemental Information Letter | | | | | | | | | | |
| THPO | Sydney Martin | 3556 26th Street | Hopkins | MI | 49328 | | | 3/31/2017 | | | Supplemental Information Letter | | | |
| Chairman | Mr. Scott Sprague | 2872 Mission Drive | Shelbyville | MI | 49344 | | | 3/31/2017 | | | Supplemental Information Letter | | | |
| Miami Tribe of Oklahoma | Acting Tribal Historic Preservation Officer | Ms. Diane Hunter | P.O. Box 1326 | Miami | OK | 74355 | 918-541-8966 | dhunter@miamination.com | Native American Coordination | 6/30/2016 | 6/30/2016 | Ms. Hunter | Telephone | |
| | | | | | | | | | | 7/29/2016, 8/9/16 | | | Notice of Prefiling Letter, courtesy follow up copy by email | |
| | | | | | | | | | | - | 8/12/2016 | Ms. Hunter | Email | |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter | |
| | | | | | | | | | | 3/7/2017 | 3/7/2017 | Ms. Hunter | Voicemail and Telephone | |
| | | | | | | | | | | 3/7/2017 | | | Hardcopy of Phase I Reports | |
| | | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter | |
| | Chief | Douglas Lankford | PO Box 1326 | Miami | OK | 74355 | | | | 3/31/2017 | | | Supplemental Information Letter | |

**Spire STL Pipeline
Agency Correspondence Tracking List
Appendix 1-C**

Agency Correspondence - Federal, State, Local Agencies, and Native American Tribes

| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence |
|---|--|-----------------------------|--|------------|-------|--------------|--|--|---------------------------------|------------|------------------------|---------------------------------|--|
| Osage Nation | Archaeologist | John Fox | P.O. Box 779 627 Grandview | Pawhuska | OK | 74056 | 918-287-5328 | ahunter@osagetribe.org | Native American Coordination | 6/30/2016 | 6/30/2016 | Mr. Fox | Telephone |
| | | | | | | | | | | 7/29/2016 | 8/16/2016 | Mr. Fox | Notice of Prefiling Letter; Email Response |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 8/18/2016 | 8/18/2016 | Mr. Fox | Telephone |
| | | | | | | | | | | 9/6/2016 | | | Email |
| | | | | | | | | | | 12/19/2016 | 12/19/2016 | Mr. Fox | Telephone |
| | | | | | | | | | | 1/31/2017 | | Rejected | Hardcopy of Phase I Reports |
| | | | | | | | | | | 3/3/2017 | 3/3/2017 | Mr. Fox | Telephone |
| | | | | | | | | | | 3/6/2017 | 3/6/2017 | Reception | Resend Hardcopy of Phase I Reports and Telephone Message |
| | | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter |
| Director/THPO | Andrea Hunter | 627 Grandview Avenue | Pawhuska | OK | 74056 | 918-287-5328 | ahunter@osagetribe.org | | - | 3/1/2017 | Dr. Hunter | Email | |
| Chief | Geoffrey Standing Bear | 627 Grandview Avenue | Pawhuska | OK | 74056 | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Peoria Tribe of Indians of Oklahoma | | Logan Pappenfort | PO Box 1527 118 S. Eight Tribes Trails | Miami | OK | 74355 | 918-540-2535 | lpappenfort@peoriatribes.com | Native American Coordination | 7/1/2016 | | | Voicemail |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | 3/28/2017 | Mr. Pappenfort | Telephone |
| | | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter |
| | | | | | | | | | | 4/13/2017 | | | CD of Phase I Reports |
| Chief | John P Froman | PO Box 1527 | Miami | OK | 74355 | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Repatiation/ NAGPRA Committee, Chairperson | Mr. Jason Dollarhide | 118 S Eight Tribes Trails | Miami | OK | 74355 | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Ponca Tribe of Nebraska | Tribal Historic Preservation Officer | Mr. Shannon Wright | P.O. Box 288 | Niobrara | NE | 68760 | 402-857-3519 | swright@poncatribes-ne.org | Native American Coordination | 7/1/2016 | 7/1/2016 | Mr. Wright | Telephone |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 1/31/2017 | | | Hardcopy of Phase I Reports |
| | | | | | | | | | | 3/28/2017 | 3/28/2017 | Mr. Wright | Telephone |
| | | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter |
| THPO | Randy Teboe | P.O. Box 288 | Niobrara | NE | 68760 | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Chairman | Larry Wright, Jr. | P.O. Box 288 | Niobrara | NE | 68760 | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Ponca Tribe of Oklahoma | Tribal Historic Preservation Officer | Ms. Halona Clawson | 20 White Eagle Drive | Ponca City | OK | 74601 | 580-762-8104 | halona.clawson@ponca.com | Native American Coordination | 7/1/2016 | | | Attempted Telephone Call, No Response |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | | | Voicemail |
| | | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter |
| Chairman | Mr. Earl S. Howe III | 20 White Eagle Drive | Ponca City | OK | 74601 | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Citizen Potawatomi Nation | | Andrew Gourd | 1601 S. Gordon Cooper Drive | Shawnee | OK | 74801 | 405-878-5830 | andrew.gourd@potawatomi.org | Native American Coordination | 7/1/2016 | | | Voicemail |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | | | Voicemail |
| | | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter |
| | | | | | | | | | | THPO | Dr. Kelli Mosteller | 1601 S. Gordon Cooper Drive | Shawnee |
| Chairman | Mr. John Barrett, Jr. | 1601 S. Gordon Cooper Drive | Shawnee | OK | 74801 | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Forest County Potawatomi | Tribal Historic Preservation Officer | Ms. Melissa Cook | Cultural Center, Library & Museum PO Box 340 8130 Mishkoswen Drive | Crandon | WI | 54520 | 800-960-5479 | melissa.cook@fcpotawatomi-nsn.gov | Native American Coordination | 7/1/2016 | | | Attempted Telephone Call, No Response |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | | | Voicemail |
| | | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter |
| | | | | | | | | | | Chairman | Mr. Harold Frank | PO Box 340 | Crandon |

**Spire STL Pipeline
Agency Correspondence Tracking List
Appendix 1-C**

Agency Correspondence - Federal, State, Local Agencies, and Native American Tribes

| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence |
|--|--|------------------------------|--------------------------------|---------------------------------|-------|-------|--|---|---------------------------------|----------------------|------------------------|---------------------------------|---|
| Potawatomi Nation- Hannahville Indian Community (Hannahville Indian Community of Michigan) | Council/Board | Mr. Kenneth Meshigaud | N14911 Hannahville B-1 Road | Wilson | MI | 49896 | 906-466-9933 | kennethmechiguad@hannahville.org | Native American Coordination | 7/1/2016 | | | Attempted Telephone Call, No Response |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 10/19/2016 | | | Voicemail |
| | | | | | | | | | | 3/28/2017 | | | Voicemail |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| THPO | Mr. Earl Meshigaud | N14911 Hannahville B-1 Road | Wilson | MI | 49896 | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Pokagon Band of Potawatomi Indians | Tribal Historic Preservation Officer | Mr. Marcus Winchester | PO Box 180 58620 Sink Road, | Dowagiac | MI | 49047 | 269-462-4224 | marcus.winchester@pokagonband- nsn.gov | Native American Coordination | 7/1/2016 | | | Voicemail |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | 3/28/2017 | | | Voicemail | | | | | | | | | |
| Chairman | Mr. John Warren | PO Box 180 | Dowagiac | MI | 49047 | | | | 3/31/2017 | | | Supplemental Information Letter | |
| THPO | Mr Jason Scott Wesaw | PO Box 180 | Dowagiac | MI | 49047 | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Prairie Band Potawatomi Nation | | Ms. Hattie Mitchell | 16281 Q Road | Mayetta | KS | 66509 | 785-966-4000 | hattiem@pbnation.org | Native American Coordination | 7/1/2016 | | | Voicemail |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| Chairperson | Ms. Liana Onnen | 16281 Q Road | Mayetta | KS | 66509 | | | | 3/28/2017 | | | Voicemail | |
| | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Quapaw Tribe of Oklahoma | Chairman | Mr. John Berrey | P.O. Box 765 | Quapaw | OK | 74363 | 888-641-4724 | | Native American Coordination | 7/1/2016 | | | Attempted Telephone Call, No Response |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | 3/28/2017 | | | Voicemail | | | | | | | | | |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| THPO | Mr. Everett Bandy | P.O. Box 765 | Quapaw | OK | 74363 | | ebandy@quapawtribe.com | | - | 8/24/2016 | Mr. Bandy | Letter | |
| | | | | | | | | | 1/31/2017 | | | Hardcopy of Phase I Reports | |
| | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Sac and Fox Tribe of the Missouri in Kansas and Nebraska | Chair | Mr. Edmore Green | 305 North Main | Reserve | KS | 66434 | 785-742-7471 | egreen@sacandfoxcasino.com | Native American Coordination | 7/1/2016 | | | Voicemail |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 3/28/2017 | 3/28/2017 | Reception | Voicemail and Telephone Message |
| | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Sac and Fox Tribe of the Mississippi in Iowa | Historic Preservation Director | Mr. Johnathan L. Buffalo | 349 Meskwaki Road | Tama | IA | 52339 | 641-484-3185 | Director.historic@meskwaki-nsn.gov | Native American Coordination | 7/1/2016 | 7/1/2016 | Mr. Buffalo | Telephone |
| | | | | | | | | | | 7/29/2016, 8/9/16 | | | Notice of Prefiling Letter, courtesy follow up copy by email |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | | | | | | | | | | 1/31/2017 | | | Hardcopy of Phase I Reports |
| | | | | | | | | | | 3/28/2017 | 3/28/2017 | Mr. Buffalo | Telephone |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| Chief | Troy Wanatee | 349 Meskwaki Road | Tama | IA | 52339 | | | | 4/13/2017 | | | Email | |
| | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Sac and Fox Nation of Oklahoma | Cultural Resources | Ms. Sandra Kaye Massey | 920883 S. Hwy 99, Building A | Stroud | OK | 74079 | 918-968-3526 | smassey@sacandfoxnation-nsn.gov | Native American Coordination | 7/1/2016 | | | Voicemail |
| | | | | | | | | | | 7/29/2016 | | | Notice of Prefiling Letter |
| | | | | | | | | | | 8/16/2016 | | | Open House Invitation Letter |
| | 3/28/2017 | 3/28/2017 | Ms. Carol Butler | Telephone | | | | | | | | | |
| | 3/31/2017 | | | Supplemental Information Letter | | | | | | | | | |
| Chief | Elizabeth Kay Rhoads | 920883 S. Hwy 99, Building A | Stroud | OK | 74079 | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Repatiation/ NAGPRA Committee, Chairperson | Mr. Elvis E. Ellis | 920883 S. Hwy 99, Building A | Stroud | OK | 74079 | | | | 3/31/2017 | | | Supplemental Information Letter | |

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Agency Correspondence Tracking List
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| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence |
|---|--|------------------------|-----------------------------------|----------------|-------|-------|----------------------|--|---------------------------------|------------|------------------------|---------------------------------|---------------------------------|
| Shawnee Tribe | Cultural Resources | Jodi Hayes | PO Box 189 | Miami | OK | 74355 | 918-542-2441 | | Native American Coordination | 10/19/2016 | | | Telephone, Voicemail |
| | | | | | | | | | | 10/27/2016 | | | Letter |
| | Chief | Ron Sparkman | PO Box 189 | Miami | OK | 74355 | | | | 3/28/2017 | | | Voicemail |
| | | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter |
| | | | | | | | | | | | | Supplemental Information Letter | |
| United Keetoowah Band of Cherokee Indians of Oklahoma | THPO | Eric Oosahwee- Voss | PO Box 746 | Tahlequah | OK | 74465 | 918-456-8698 | | Native American Coordination | 10/19/2016 | | | Voicemail |
| | | | | | | | | | | 10/27/2016 | | | Letter |
| | | | | | | | | | | 1/31/2017 | | | Hardcopy of Phase I Reports |
| | | | | | | | | 3/28/2017 | | | | Voicemail | |
| | | | | | | | | 3/31/2017 | | | | Supplemental Information Letter | |
| Chief | Joe Bunch | PO Box 746 | Tahlequah | OK | 74465 | | | | 3/31/2017 | | | Supplemental Information Letter | |
| Winnnebago Tribe of Nebraska | THPO/ Chairman | John Blackhawk | PO Box 687 | Winnnebago | NE | 68071 | 402-878-3103 | jblackhawk@aol.com | Native American Coordination | 10/19/2016 | | | Telephone, Voicemail |
| | | | | | | | | | | 10/27/2016 | | | Letter |
| | | | | | | | | | | 3/28/2017 | 3/28/2017 | Staff | Telephone Message |
| | | | | | | | | | | 3/31/2017 | | | Supplemental Information Letter |
| | THPO | Mr. Henry Payer | PO Box 687 | Winnnebago | NE | 68071 | | | | | 3/31/2017 | | |
| | | | | | | | | | 4/10/2017 | | | Voicemail | |
| Non-Governmental Organizations ("NGOs") and Environmental NGOs | | | | | | | | | | | | | |
| Alton Fire Department | Chief | Bernie Sebold | 333 E 20th Street | Alton | IL | 62002 | 618-463-3565 | | | 10/6/2016 | | | Letter |
| Alton Volunteer Emergency Corps | President | Harold Waggoner | 2400 Bloomer Dr | Alton | IL | 62002 | 618-462-2202 | | | 10/6/2016 | | | Letter |
| American Bottomlands Conservancy | | TBD | 527 Washington Place | East St. Louis | IL | 62205 | | | | 10/6/2016 | | | Letter |
| Audubon Missouri | VP and Executive Director | Patricia Hagen | 301 Riverlands Way | West Alton | MO | 63386 | 636-899-0090 | phagen@audubon.org | | 10/6/2016 | | | Letter |
| Audubon Society-Illinois | Executive Director | Tom Clay | 2315 Clear Lake Ave | Springfield | IL | 62706 | 217-544-2473 | tclay@illinoisaudubon.org | | 10/6/2016 | | | Letter |
| Audubon Society-Missouri | President | Shari Harden | 2101 W Broadway PMB 122 | Columbia | MO | 65203 | | | | 10/6/2016 | | | Letter |
| Center for American Archaeology | | TBD | P.O. Box 366 | Kampsville | IL | 62053 | 618-653-4316 | caa@caa-archeology.org | | 10/6/2016 | | | Letter |
| Chicago 350 | Executive Director | May Boeve | 20 Jay Street Suite 732 | Brooklyn | NY | 11201 | | may@350.org | | 10/6/2016 | | | Letter |
| City of Jerseyville Economic Development | Director of Building & Zoning and Director of Economic Development | Jeff Soer | 115 East Prarie Street | Jerseyville | IL | 62052 | 618-498-3312 | jeffsoer@jerseyville-il.us | | 10/6/2016 | | | Letter |
| Ducks Unlimited - Illinois | Manager of Conservation | Mark Flaspohler | 101 Park De Ville Dr, Suite B | Columbia | MO | 65203 | 573-234-2132 EX: 178 | mflaspohler@ducks.org | | 10/6/2016 | | | Letter |
| Ducks Unlimited -Missouri | Manager of Conservation | Mark Flaspohler | 101 Park De Ville Dr, Suite B | Columbia | MO | 65203 | 573-234-2132 EX: 178 | mflaspohler@ducks.org | | 10/6/2016 | | | Letter |
| Earthjustice | President | Trip Van Noppen | 50 California Street Suite 500 | San Francisco | CA | 94111 | 800-584-6460 | headquarters@earthjustice.org | | 10/6/2016 | | | Letter |
| Environment Illinois | Energy Program Director | Rob Sargent | 328 S. Jefferson St Suite 620 | Chicago | IL | 60661 | 617-747-4317 | | | 10/6/2016 | | | Letter |
| Great Rivers Greenway | Executive Director | Susan Trautman | 6178 Delmar Boulevard | St. Louis | MO | 63112 | 314-436-7009 | trautman@grgstl.org | | 10/6/2016 | | | Letter |
| Great Rivers Habitat Alliance | Executive Director | David Stokes | P.O. Box 50014 | St. Louis | MO | 63150 | 314-918-1351 | info@grha.org | | 10/6/2016 | | | Letter |
| Great Rivers Land Trust | President | John Williams | P.O. Box 821 | Alton | IL | 62002 | 618-467-2265 | | | 10/6/2016 | | | Letter |
| Greene County Economic Development Group | Director | Jim Mager | 314 5th St | Carrollton | IL | 62016 | 618-980-5036 | gcedginc@gmail.com | | 10/6/2016 | | | Letter |
| Heartwood | Heartwood Coordinator, Illinois | Tabatha Tripp | P.O. Box 1926 | Bloomington | IN | 47402 | 740-591-8166 | info@heartwood.org | | 10/6/2016 | | | Letter |

**Spire STL Pipeline
Agency Correspondence Tracking List
Appendix 1-C**

Agency Correspondence - Federal, State, Local Agencies, and Native American Tribes

| Agency | Region/ Division | Contact Name | Address | City | State | Zip | Contact Phone | Contact Email | Permit/Clearance/ Approval | Date Sent | Response Type/ Date | Responding Contact | Correspondence |
|--|----------------------|------------------|--------------------------------------|----------------|-------|-------|-----------------------|--|-------------------------------|-----------|---------------------------|--------------------|----------------|
| Illinois Chamber of Commerce | President and CEO | Todd Maisch | 215 E Adams St | Springfield | IL | 62701 | 217-522-5512 EX: 233 | tmaisch@ilchamber.org | | 10/6/2016 | | | Letter |
| Illinois Energy Council | | Katie Stonewater | 215 E Adams St | Springfield | IL | 62701 | | | | 10/6/2016 | | | Letter |
| Jacksonville Regional Economic Development Council | Vice President | Bonni Waters | 221 E State St | Jacksonville | IL | 62650 | 217.479.4627 | bonni@iredc.org | | 10/6/2016 | | | Letter |
| Missouri Caves and Karst Conservancy | President | Alicia Wallace | P.O. Box 190456 | St. Louis | MO | 63119 | | president@mocavesandkarst.org | | 10/6/2016 | | | Letter |
| Missouri Chamber of Commerce | President and CEO | Daniel Mehan | 428 East Capitol Ave | Jefferson City | MO | 65101 | 573-634-3511 | | | 10/6/2016 | | | Letter |
| Missouri Coalition for the Environment | Executive Director | Heather Navarro | 3115 S Grand Blvd Suite 650 | St. Louis | MO | 63118 | 314-727-0600 | hnavarro@moenviron.org | | 10/6/2016 | | | Letter |
| Nature Conservancy - Missouri | State Director | Adam McLane | 2800 S Brentwood Blvd | St. Louis | MO | 63144 | 314-968-1105 | missouri@tnc.org | | 10/6/2016 | | | Letter |
| Nature Conservancy - Illinois | State Director | Michelle Carr | 8 S Michigan Ave Suite 900 | Chicago | IL | 60603 | 312-580-2100 | illinois@tnc.org | | 10/6/2016 | | | Letter |
| Old Jamestown Association | President | Ellen Lutzow | P.O. Box 2223 | Florissant | MO | 63032 | 314-550-0184 | | | 10/6/2016 | | | Letter |
| One Mississippi Campaign | Campaign Coordinator | Brooke Thureau | 14 N Peoria St Suite 4F | Chicago | IL | 60607 | 312-754-0402 | bthurau@bluestemcommunications.org | | 10/6/2016 | | | Letter |
| Rivers Pointe Fire Department | Chief | Richard Pender | 100 Firehouse Drive | West Alton | MO | 63386 | 636-899-1122 | info@rpfpd.com | | 10/6/2016 | | | Letter |
| Scott County Development Corporation | President | Pat Van DeVelde | 35 E Market Street | Winchester | IL | 62694 | | pat@peakinsuragency.net | | 10/6/2016 | | | Letter |
| Sierra Club - Illinois Chapter | Chapter Director | Jack Darin | 70 E Lake Street Suite 1500 | Chicago | IL | 60601 | 312-251-1680 ext. 112 | jack.darin@sierraclub.org | | 10/6/2016 | | | Letter |
| Sierra Club - Missouri Chapter | Chapter Director | John Hickey | 2818 Sutton Blvd | St. Louis | MO | 63143 | 314-644-1011 | missouri.chapter@sierraclub.org | | 10/6/2016 | | | Letter |
| St. Charles County Economic Development Center | President and CEO | Greg Prestemon | 5988 Mid Rivers Mall Drive | St. Charles | MO | 63304 | 636-441-6880 | gprestemon@edcscc.com | | 10/6/2016 | | | Letter |
| St. Louis Economic Development Partnership | Staff Contact | Kelly Applegate | 7733 Forsyth Blvd Suites 2200 & 2300 | St. Louis | MO | 63105 | 314.615.7688 | info@stpartnership.com | | 10/6/2016 | | | Letter |
| Trout Unlimited Mid-Missouri | President | Ryan Verkamp | 1777 N Kent Street Suite 100 | Arlington | VA | 22209 | 573-817-0631 | Ryan.Verkamp@gmail.com | | 10/6/2016 | | | Letter |

Note:

Yellow highlighting indicates correspondence that was sent/received after Spire filed its Environmental Report on January 26, 2017.



United States Army Corps of Engineers



United States Fish and Wildlife Service



National Oceanic and Atmospheric Administration



United States Environmental Protection Agency



United States Department of Agriculture



National Park Service



Illinois Department of Natural Resources



Illinois Department of Agriculture



Illinois Historic Preservation Agency



Illinois Environmental Protection Agency



Missouri Department of Natural Resources



Missouri State Historic Preservation Office



Missouri Department of Conservation



Missouri Department of Agriculture



Local Agencies and Governments - Scott County, Illinois



Local Agencies and Governments - Greene County, Illinois



Local Agencies and Governments - Jersey County, Illinois



Local Agencies and Governments - St. Charles County, Missouri



Local Agencies and Governments - St. Louis County, Missouri



Native American Tribes



**Non-Governmental Organizations/
Environmental Non-Governmental Organizations**



APPENDIX 1-D

Exceptions to the FERC Plan and Procedures



Appendix 1-D. Exceptions to the FERC Plan and Procedures

| Approximate MP ¹ | ATWS ID | Feature ID (Type) | Description of Modification | Justification | Approx. Distance (feet) ² |
|-----------------------------|----------|--------------------------------|--|--|--------------------------------------|
| 24-Inch Pipeline | | | | | |
| 14.1 | ATWS-544 | WIL-TMA-006 (PEM) | ATWS within 50 feet of Wetland | Wetland Crossing | 49 |
| 14.5 | ATWS-548 | WIL-TMA-007 (PEM) ³ | ATWS within 50 feet of Wetland | Topsoil Segregation | 2 |
| 24.6R | ATWS-828 | WIL-TMA-017 (PEM) | ATWS within 50 feet of Wetland | Topsoil Segregation | 50 |
| 25.7R | ATWS-841 | WIL-TMA-021 (PEM) | ATWS within 50 feet of Wetland | Wetland Crossing | 29 |
| 25.7R | - | WIL-TMA-021 (PEM) ³ | Construction right-of-way greater than 75 feet | Wetland in an active agricultural field. Space needed for topsoil segregation. | - |
| 25.7R | ATWS-841 | SIL-JJP-104 (Perennial) | ATWS within 50 feet of Stream | Waterbody Crossing | 35 |
| 28.6 | ATWS-620 | WIL-JJP-102 (PEM) | ATWS within 50 feet of Wetland | Topsoil Segregation | 5 |
| 35.2R | ATWS-634 | WIL-CDK-007 (PUB) | ATWS within 50 feet of Wetland | Topsoil Segregation | 49 |
| 45.0 | ATWS-368 | NHD-913 (Intermittent) | ATWS within 50 feet of Stream | HDD Crossing | 39 |
| 45.0 | ATWS-369 | NHD-915 (Intermittent) | ATWS within 50 feet of Stream | HDD Crossing | 0 |
| 45.0 | ATWS-369 | NHD-913 (Intermittent) | ATWS within 50 feet of Stream | HDD Crossing | 2 |
| 45.1 | ATWS-920 | NHD-916 (N/A) | ATWS within 50 feet of Stream | HDD Crossing | 0 |
| 45.1 | ATWS-920 | NHD-913 (Intermittent) | ATWS within 50 feet of Stream | HDD Crossing | 0 |
| 45.1 | ATWS-920 | NHD-915 (Intermittent) | ATWS within 50 feet of Stream | HDD Crossing | 39 |
| 45.1 | ATWS-920 | NHD-917(N/A) | ATWS within 50 feet of Stream | HDD Crossing | 39 |
| 46.3 | ATWS-372 | SMO-TMA-008 (Ephemeral) | ATWS within 50 feet of Stream | HDD Crossing | 0 |
| 46.6 | ATWS-372 | SMO-JJP-030 (Ephemeral) | ATWS within 50 feet of Stream | HDD Crossing | 0 |
| 46.7 | ATWS-372 | SMO-TMA-011 (Ephemeral) | ATWS within 50 feet of Stream | HDD Crossing | 0 |
| 46.9 | ATWS-378 | SMO-JJP-002 (Ephemeral) | ATWS within 50 feet of Stream | Access Road Entrance / Equipment | 0 |
| 46.9 | ATWS-919 | SMO-JJP-002 (Ephemeral) | ATWS within 50 feet of Stream | Access Road Entrance / Equipment | 31 |
| 49.6 | ATWS-774 | WMO-JJP-012 (PEM) ³ | ATWS within 50 feet of Wetland | Topsoil Segregation | 0 |



Appendix 1-D. Exceptions to the FERC Plan and Procedures (Continued)

| Approximate MP ¹ | ATWS ID | Feature ID (Type) | Description of Modification | Justification | Approx. Distance (feet) ² |
|-------------------------------------|----------|---------------------------------|--|--|--------------------------------------|
| 24-Inch Pipeline (Continued) | | | | | |
| 49.7 | - | WMO-JJP-012 (PEM) ³ | Construction right-of-way greater than 75 feet | Wetland in an active agricultural field. Space needed for topsoil segregation. | |
| 49.9 | ATWS-774 | WMO-TMA-010 (PEM) ³ | ATWS within 50 feet of Wetland | Topsoil Segregation | 0 |
| 53.9 | ATWS-795 | WMO-JJP-007 (PEM) ³ | ATWS within 50 feet of Wetland | Topsoil Segregation | 0 |
| 53.9 | - | WMO-JJP-007 (PEM) ³ | Construction right-of-way greater than 75 feet | Wetland in an active agricultural field. Space needed for topsoil segregation. | 0 |
| 54.8 | ATWS-800 | WMO-TMA-006 (PEM) ³ | ATWS within 50 feet of Wetland | Topsoil Segregation | 0 |
| 54.8 | - | WMO-TMA-006 (PEM) ³ | Construction right-of-way greater than 75 feet | Wetland in an active agricultural field. Space needed for topsoil segregation. | 0 |
| 57.2 | ATWS-449 | WMO-TMA-003A (PEM) ³ | ATWS within 50 feet of Wetland | HDD Crossing | 0 |
| 57.2 | ATWS-449 | WMO-TMA-003 (PUB) ³ | ATWS within 50 feet of Wetland | HDD Crossing | 0 |
| 57.4 | ATWS-449 | WMO-TMA-002 (PEM) ³ | ATWS within 50 feet of Wetland | HDD Crossing | 0 |
| 58.3 | ATWS-463 | WMO-CDK-004 (PEM) | ATWS within 50 feet of Wetland | HDD Crossing | 36 |
| 58.3 | ATWS-464 | WMO-CDK-005 (PEM) ³ | ATWS within 50 feet of Wetland | HDD Crossing | 0 |
| 58.3 | ATWS-464 | WMO-CDK-004 (PEM) | ATWS within 50 feet of Wetland | HDD Crossing | 19 |
| North County Extension | | | | | |
| 1.2 | ATWS-885 | SMO-JJP-022 (Perennial) | ATWS within 50 feet of Stream | Waterbody Crossing | 40 |
| 2.6 | ATWS-895 | WMO-JJP-124 (PFO) | ATWS within 50 feet of Wetland | Road Crossing | 44 |
| 2.7 | ATWS-894 | NHD-959 (Intermittent) | ATWS within 50 feet of Stream | Topsoil Segregation | 13 |
| 3.4 | ATWS-899 | NHD-962 (Intermittent) | ATWS within 50 feet of Stream | HDD Crossing | 0 |
| 3.8 | - | NWI-204 (PFO1C) | Construction right-of-way greater than 75 feet | HDD Crossing | - |
| 3.8 | ATWS-899 | NWI-204 (PFO1C) | ATWS within 50 feet of Wetland | HDD Crossing | 0 |
| 3.8 | ATWS-900 | NWI-204 (PFO1C) | ATWS within 50 feet of Wetland | HDD Crossing | 2 |



Appendix 1-D. Exceptions to the FERC Plan and Procedures (Continued)

Note:

- 1 Milepost based on nearest point between ATWS and pipeline where encroachment within 50' buffer or construction right-of-way occurs.
- 2 Approximate distance rounded to nearest foot. ATWS within 50' approximate distance fall between 49.5' and 49.9' and are intended to maintain the 50' buffer from an environmental feature.
- 3 Wetland crossed by ATWS or greater than 75-foot wide construction right-of-way is within areas consisting of cultivated or rotated cropland.



APPENDIX 1-E
Winter Construction Plan



APPENDIX 1-F
Typical Facility Plot Plans

SPANISH LAKE TOWNSHIP, ST. LOUIS COUNTY, MISSOURI

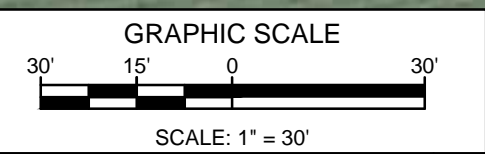


LOCATION MAP
N.T.S.



LEGEND

- PROPOSED PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- PROPOSED STAGING AREA
- ACCESS ROAD
- PROPOSED 24-INCH DIAMETER PIPELINE
- PROPOSED 24-INCH DIAMETER NORTH COUNTY EXTENSION
- EXISTING GAS PIPELINE
- EXISTING FOREIGN PIPELINE
- OVERHEAD POWER LINE
- EXISTING FIBER OPTIC LINE
- 6434.0000 MMID
- PROPERTY LINE
- MUNICIPAL LINE
- WETLAND (DESKTOP)
- WETLAND (DELINEATED)
- ̵ OF STREAM (DESKTOP)
- ̵ OF STREAM (DELINEATED)
- PROPOSED FENCE
- UTILITY POLE
- STORM SEWER



| DWG. NO. | TITLE |
|----------------|---------------------------------------|
| STLP-A-068 | ALIGNMENT SHEET |
| STLP-A-1001 | NCE ALIGNMENT SHEET |
| STL-M-200-0200 | LACLEDE/LANGE DELIVERY STATION LAYOUT |

| DWG. NO. | TITLE |
|----------|-------|
| | |

| REVISIONS | | REVISIONS | | | | REVISIONS | | | | | |
|-----------|-------------------|-----------|-------|-----|------|-----------|-----------|------|-------|----|------|
| NO. | REVISIONS | DATE | DRAWN | CK | APPR | NO. | REVISIONS | DATE | DRAWN | CK | APPR |
| 1 | ISSUE FOR FERC | 01/2017 | GJH | EB | DGG | | | | | | |
| 2 | AMENDMENT TO FERC | 04/2017 | KSS | RJP | DGG | | | | | | |

| APPROVALS | | | | | |
|------------|---------|---------------|---------|-----------------|------|
| DRAWN BY | DATE | ENG. APPROVAL | DATE | CLIENT APPROVAL | DATE |
| GG | 03/2017 | DGG | 04/2017 | | |
| CHECKED BY | DATE | P.M. APPROVAL | DATE | SCALE: 1" = 30' | |
| RJP | 04/2017 | JEV | 04/2017 | STLP-SS-002 | |

PREPARED FOR
Spire STL Pipeline

PREPARED BY
MOTT MACDONALD

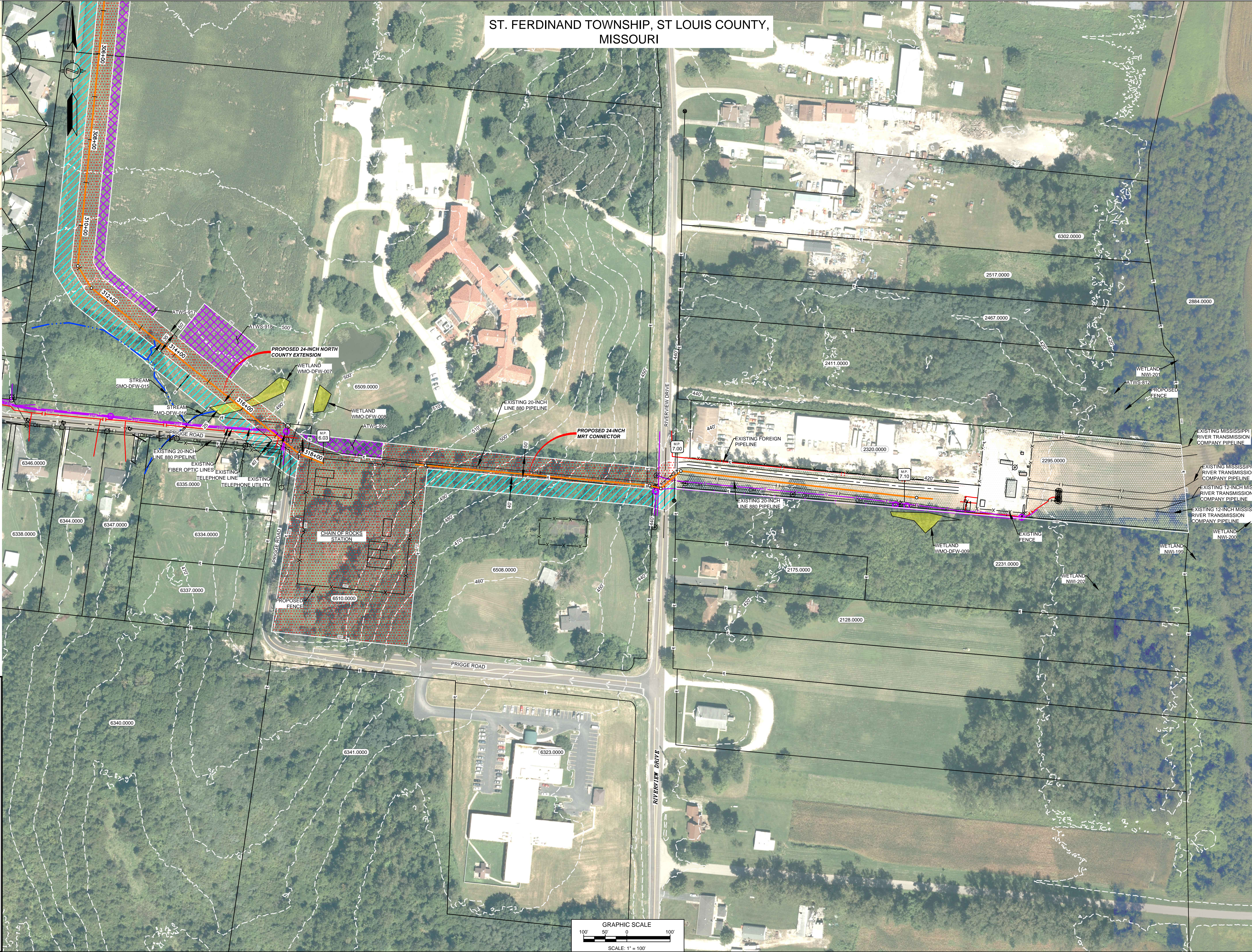
SPIRE STL PIPELINE PROJECT
LACLEDE/LANGE DELIVERY STATION
SITE LAYOUT
ST LOUIS COUNTY, MISSOURI

CLIENTS SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND JURISDICTIONS.

ST. FERDINAND TOWNSHIP, ST LOUIS COUNTY,
MISSOURI

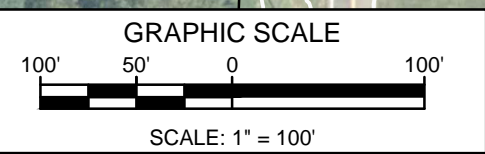


LOCATION MAP
N.T.S.



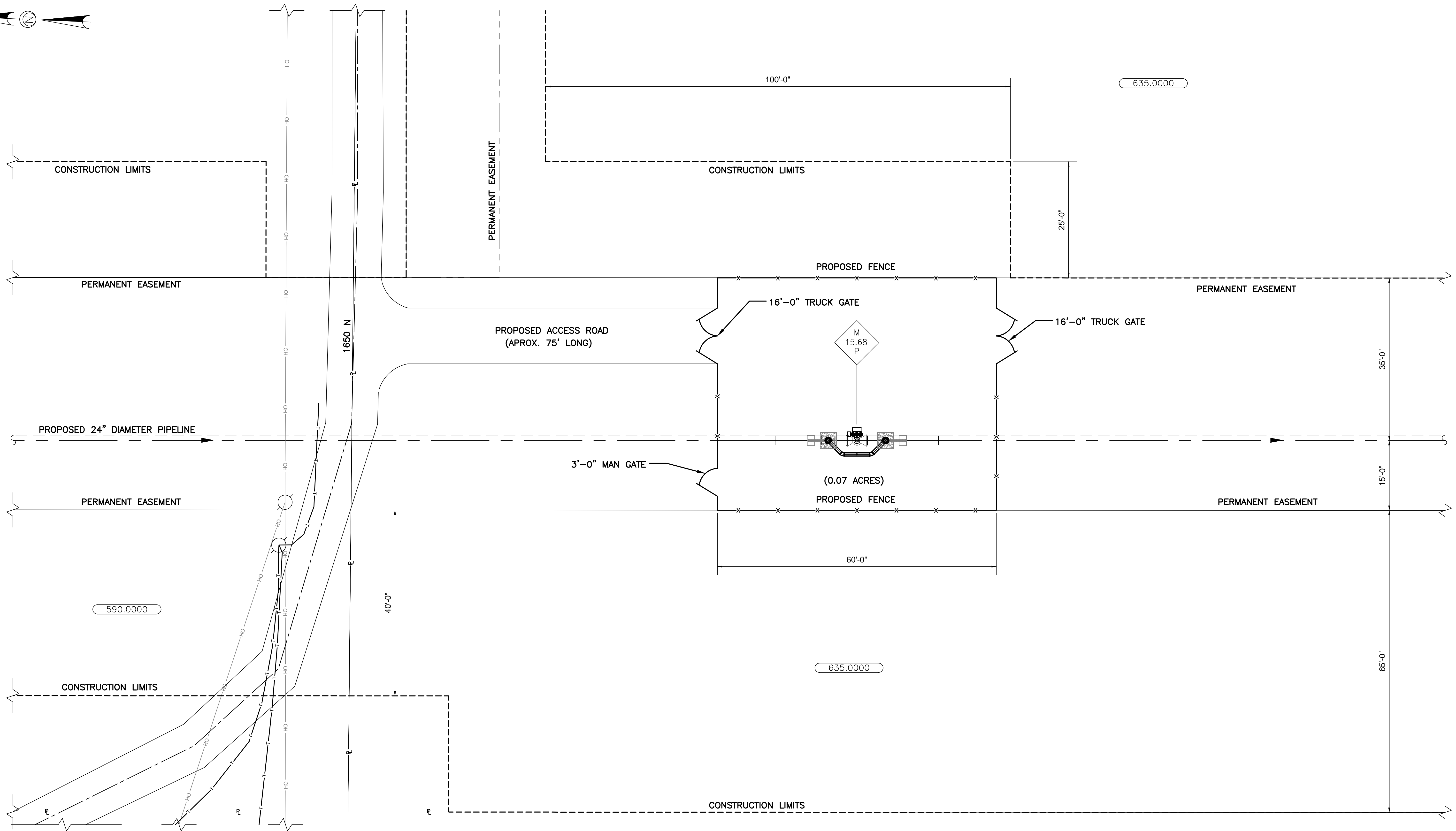
LEGEND

- EXISTING PERMANENT EASEMENT
- PROPOSED PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- PROPOSED STAGING AREA
- ACCESS ROAD
- PROPOSED 24-INCH DIAMETER NORTH COUNTY EXTENSION
- EXISTING GAS PIPELINE
- EXISTING FOREIGN PIPELINE
- OVERHEAD POWER LINE
- EXISTING FIBER OPTIC LINE
- MMID
- PROPERTY LINE
- MUNICIPAL LINE
- WETLAND (DESKTOP)
- WETLAND (DELINEATED)
- CENTER OF STREAM (DESKTOP)
- CENTER OF STREAM (DELINEATED)
- PROPOSED FENCE
- UTILITY POLE
- STORM SEWER



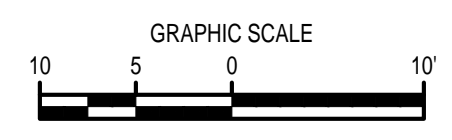
| REFERENCE DRAWINGS | | REFERENCE DRAWINGS | | REVISIONS | | | | REVISIONS | | | | APPROVALS | | | | PREPARED FOR Spire STL Pipeline | PREPARED BY MOTT MACDONALD | PROJECT SPIRE STL PIPELINE PROJECT CHAIN OF ROCKS STATION SITE LAYOUT ST LOUIS COUNTY, MISSOURI | | | | |
|--------------------|-----------------|--------------------|-------|-----------|-------------------|---------|-------|-----------|------|-----|-----------|-----------|-------|----|------|---|--------------------------------------|---|----------|---------|---------------|------|
| DWG. NO. | TITLE | DWG. NO. | TITLE | NO. | REVISIONS | DATE | DRAWN | CK | APPR | NO. | REVISIONS | DATE | DRAWN | CK | APPR | | | | DRAWN BY | DATE | ENG. APPROVAL | DATE |
| STLP-A-1007 | ALIGNMENT SHEET | | | 1 | ISSUE FOR FERC | 01/2017 | GJH | EB | DCG | | | | | | | | KSS | 10/2016 | DGG | 04/2017 | | |
| | | | | 2 | AMENDMENT TO FERC | 04/2017 | KSS | RJP | DGG | | | | | | | | RJP | 03/2017 | JEV | 04/2017 | | |

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 DATE PLOTTED: 04/11/2017 10:00 AM
 PLOTTER: HP DesignJet T1100e
 SCALE: 1" = 100'
 SHEET: 1 OF 1



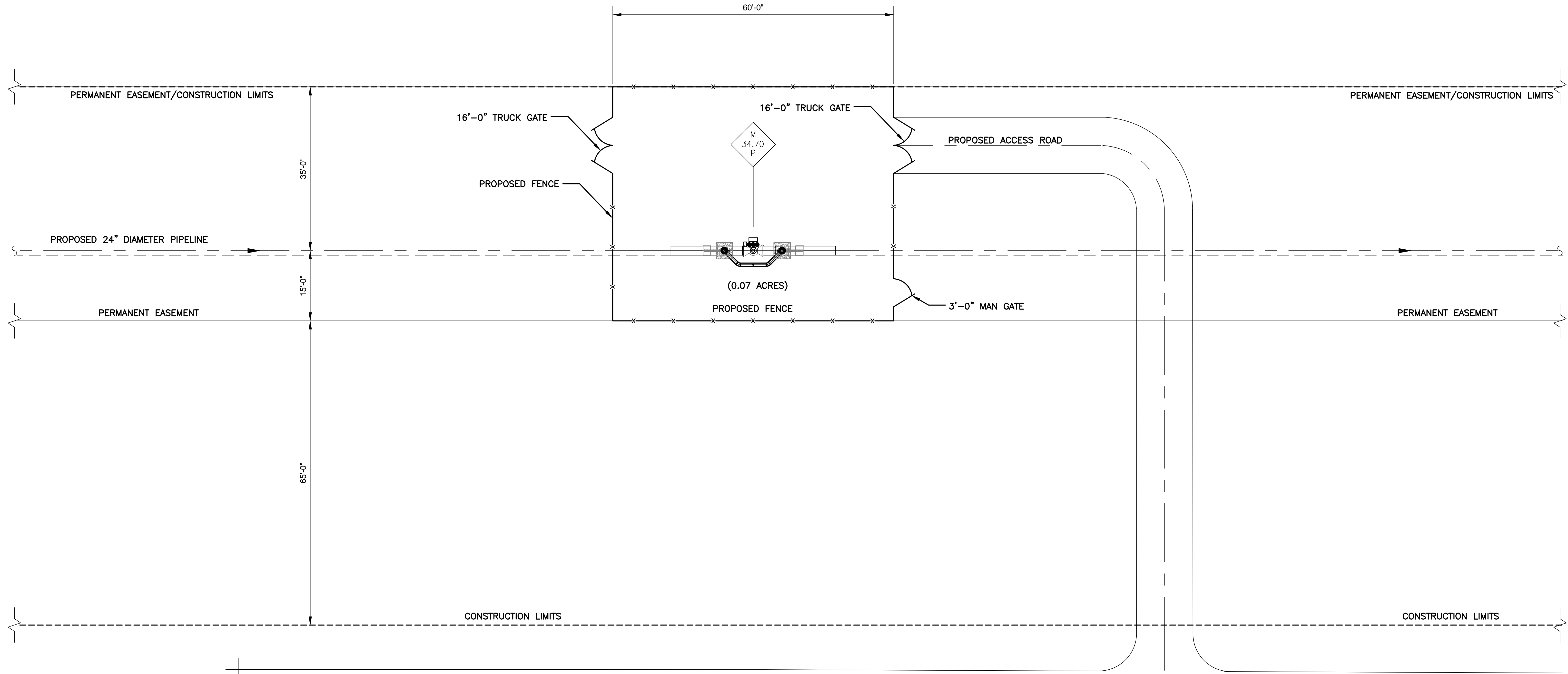
SITE PLAN-MLV SITE 1

SCALE: 1" = 10'-0"

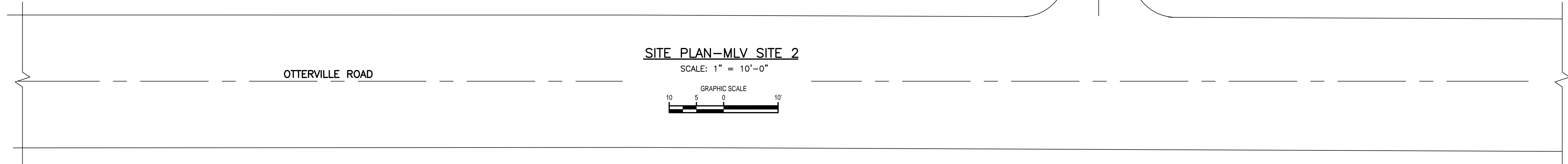


- LEGEND:**
- PERMANENT EASEMENT
 - - - CONSTRUCTION LIMITS
 - OH OH POWER LINE
 - P - PROPERTY LINE
 - xxx.0000 MMID
 - x - PROPOSED FENCE
 - UTILITY POLE

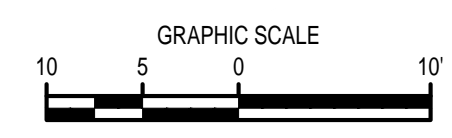
| REFERENCE DRAWINGS | | REFERENCE DRAWINGS | | REVISIONS | | | | REVISIONS | | | | APPROVALS | | | | | PREPARED FOR Spire STL Pipeline | PREPARED BY MOTT MACDONALD | SPIRE STL PIPELINE PROJECT | | | | |
|--------------------|-----------------|--------------------|-------|-----------|-----------------------|---------|-------|-----------|------|-----|-----------|-----------|-------|----|------|----------|---|--|----------------------------|---------------|-----------------|-----------------|------|
| DWG. NO. | TITLE | DWG. NO. | TITLE | NO. | REVISIONS | DATE | DRAWN | CK | APPR | NO. | REVISIONS | DATE | DRAWN | CK | APPR | DRAWN BY | | | DATE | ENG. APPROVAL | DATE | CLIENT APPROVAL | DATE |
| STLP-A-017 | ALIGNMENT SHEET | | | 1 | ISSUE FOR FERC | 01/2017 | MM | JJG | WRM | | | | | | | | BDP | 01/2017 | DGG | 01/2017 | | | |
| | | | | 2 | AMENDMENT FERF FILING | 04/2017 | MM | JJG | WRM | | | | | | | | EB | 01/2017 | P.M. APPROVAL | DATE | SCALE: AS SHOWN | | |



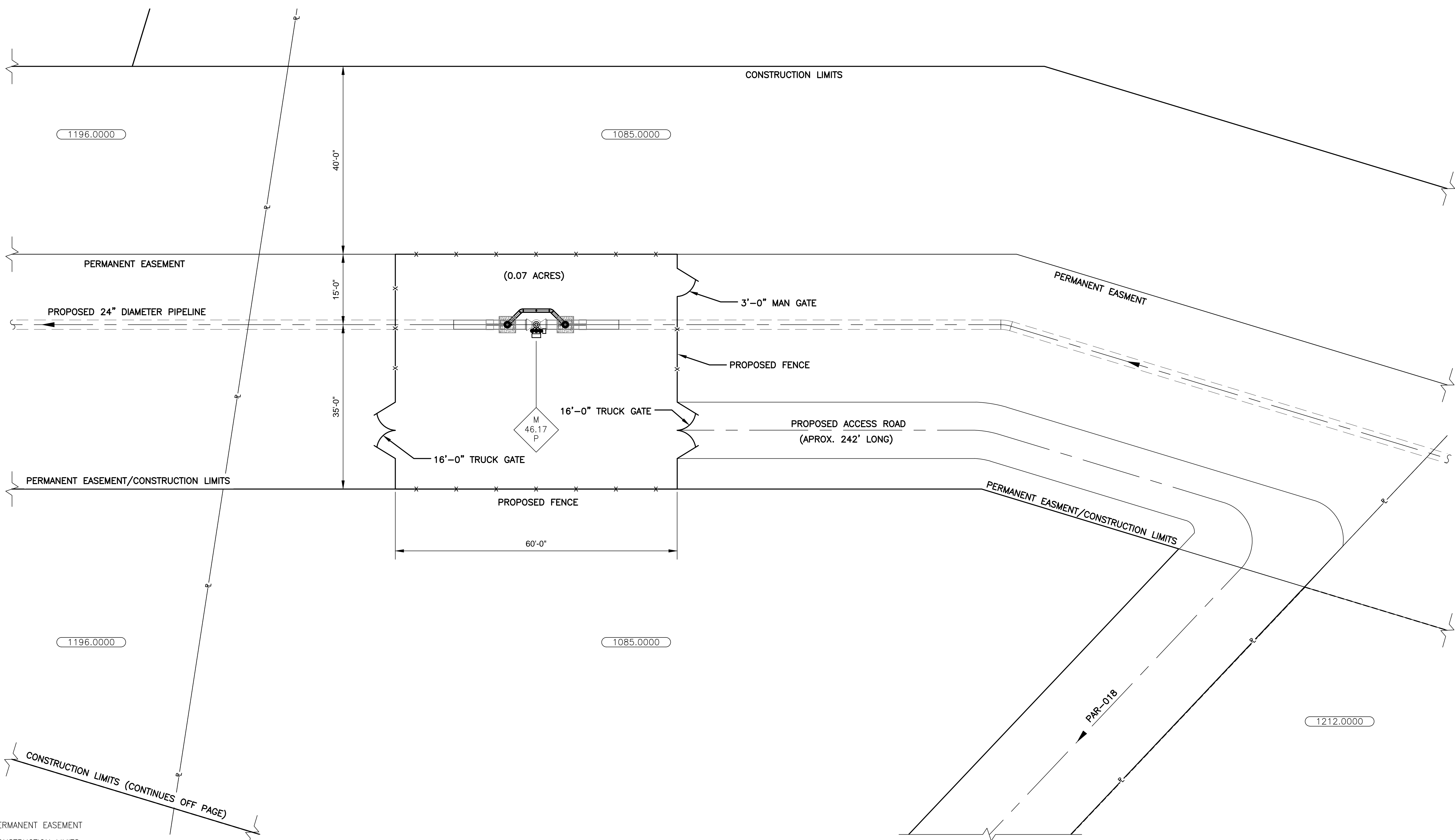
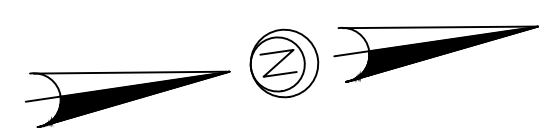
- LEGEND:**
- PERMANENT EASEMENT
 - CONSTRUCTION LIMITS
 - OH --- OH POWER LINE
 - P — PROPERTY LINE
 - xxx.0000 MMID
 - x- PROPOSED FENCE
 - UTILITY POLE



SITE PLAN—MLV SITE 2
SCALE: 1" = 10'-0"



| REFERENCE DRAWINGS | | REFERENCE DRAWINGS | | REVISIONS | | | | | REVISIONS | | | | | APPROVALS | | | | | PREPARED FOR Spire STL Pipeline | PREPARED BY M MOTT MACDONALD | SPIRE STL PIPELINE PROJECT PROPOSED 24" DIAMETER PIPELINE MLV SITE 2 SITE PLAN | |
|--------------------|-----------------|--------------------|-------|-----------|-----------------------|---------|-------|-----|-----------|-----|-----------|------|-------|-----------|------|----------|------|---------------|---|--|---|------|
| DWG. NO. | TITLE | DWG. NO. | TITLE | NO. | REVISIONS | DATE | DRAWN | CK | APPR | NO. | REVISIONS | DATE | DRAWN | CK | APPR | DRAWN BY | DATE | ENG. APPROVAL | | | | DATE |
| STLP-A-039 | ALIGNMENT SHEET | | | 1 | ISSUE FOR FERC | 03/2017 | MM | JJG | WRM | | | | | | | | BDP | 03/2017 | DGG | 03/2017 | | |
| | | | | 2 | AMENDMENT FERF FILING | 04/2017 | MM | JJG | WRM | | | | | | | | EB | 03/2017 | JEV | 03/2017 | | |

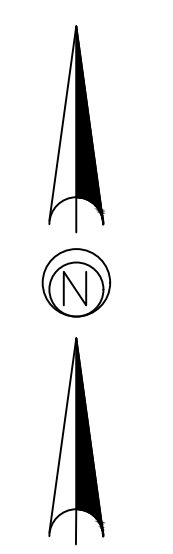
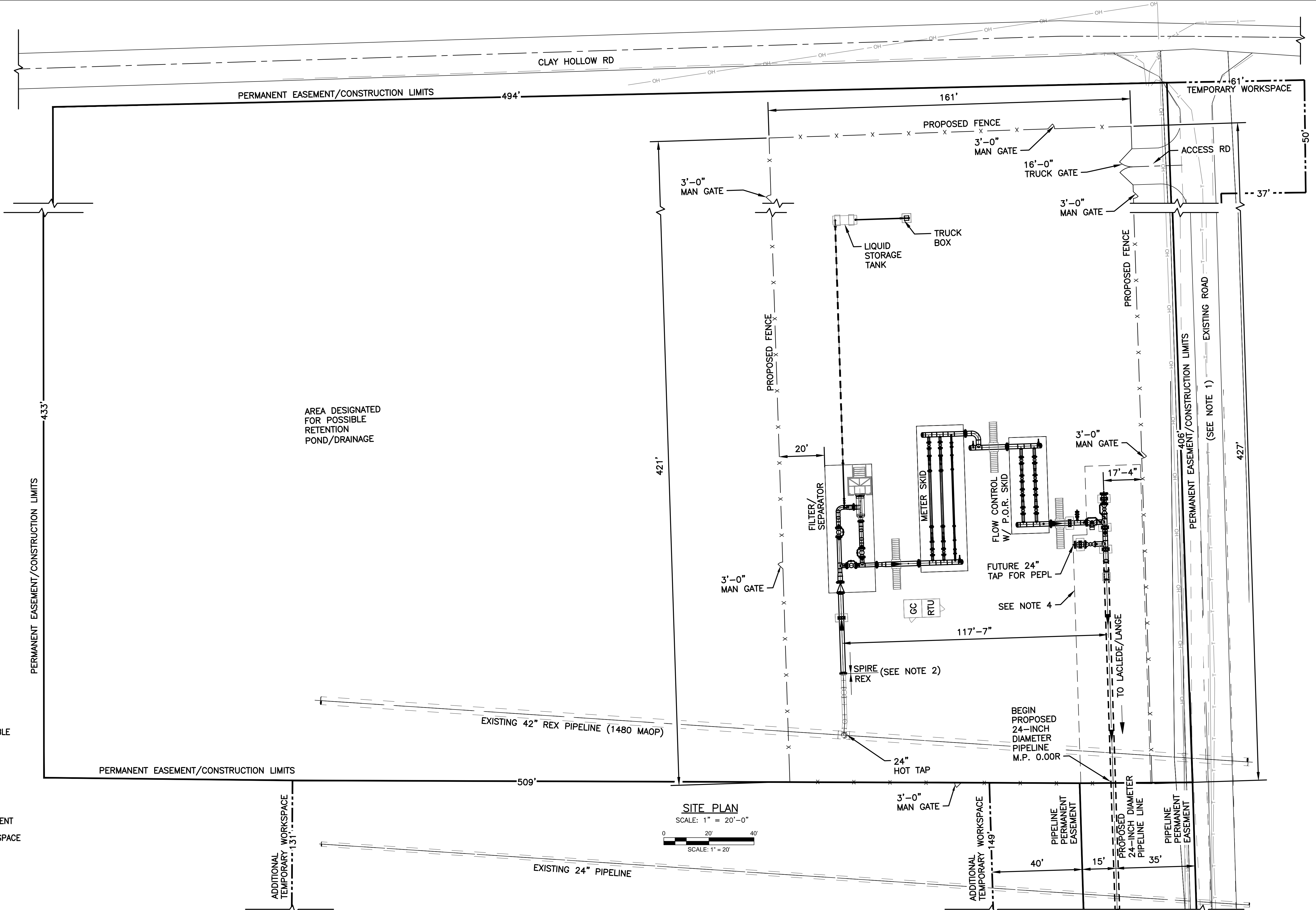


- LEGEND:**
- PERMANENT EASEMENT
 - CONSTRUCTION LIMITS
 - OH POWER LINE
 - PROPERTY LINE
 - MMID
 - PROPOSED FENCE
 - UTILITY POLE

SITE PLAN-MLV SITE 3
 SCALE: 1" = 10'-0"
 GRAPHIC SCALE

CONSTRUCTION LIMITS (CONTINUES OFF PAGE)

| REFERENCE DRAWINGS | | REFERENCE DRAWINGS | | REVISIONS | | | | REVISIONS | | | | APPROVALS | | | | PREPARED FOR Spire STL Pipeline | PREPARED BY MOTT MACDONALD | SPIRE STL PIPELINE PROJECT PROPOSED 24" DIAMETER PIPELINE MLV SITE 3 SITE PLAN | | | | |
|--------------------|-------------------------------|--------------------|-------|-----------|-----------------------|---------|-------|-----------|------|-----|-----------|-----------|-------|----|------|---|--------------------------------------|---|-------------|---------|---------------|------|
| DWG. NO. | TITLE | DWG. NO. | TITLE | NO. | REVISIONS | DATE | DRAWN | CK | APPR | NO. | REVISIONS | DATE | DRAWN | CK | APPR | | | | DRAWN BY | DATE | ENG. APPROVAL | DATE |
| STLP-A-053 | ALIGNMENT SHEET | | | 1 | ISSUE FOR FERC | 01/2017 | MM | JJG | WRM | | | | | | | | BOP | 01/2017 | DGG | 01/2017 | | |
| STLP-AR-006 | ACCESS ROAD SITE PLAN-PAR-018 | | | 2 | AMENDMENT FERC FILING | 04/2017 | MM | JJG | WRM | | | | | | | | EB | 01/2017 | JEV | 01/2017 | | |
| | | | | | | | | | | | | | | | | | SCALE: AS SHOWN | | STLP-SS-007 | | | |



- NOTES:**
- GRAVEL/STONE SHALL BE ADDED AS REQUIRED FOR PERMANENT ACCESS ROAD.
 - THE SPIRE/REX OWNERSHIP DEMARCATION IS LOCATED AT FLANGE AS SHOWN, ALSO SEE P.F.D. DWG # STL-M-100-0102.
 - DETAILED DESIGN, DRAFTING AND FINAL ENGINEERING WILL BE BY ENGINEER/FABRICATOR.
 - PIPELINE CONTRACTOR RESPONSIBLE FOR INSTALLING ALL PIPE INCLUDING VALVES AND OTHER POINTS UP TO METER STATION VALVE.

- LEGEND:**
- PERMANENT EASEMENT
 - TEMPORARY WORKSPACE
 - OH POWER LINE
 - TELEPHONE LINE
 - PROPERTY LINE
 - PROPOSED FENCE

SITE PLAN
SCALE: 1" = 20'-0"
SCALE: 1" = 20'

G:\Spire\372453_STL\SitePlan\Drawings\Site_Layouts\STL-M-200-0100.dwg, Apr 18, 2017, 1:08PM, p071604

ENGINEERING FIRM

M M
MOTT
MACDONALD

CLIENT

**Spire
STL Pipeline**

| Rev | Date | Drawn | Description | Ch'k'd | App'd |
|-----|---------|-------|-------------------|--------|-------|
| 2 | 04/2017 | BDP | AMENDMENT TO FERC | JJG | WRM |

| | | | |
|----------------|-----------|-----|-------|
| Project Number | MM-372453 | B/O | Total |
|----------------|-----------|-----|-------|

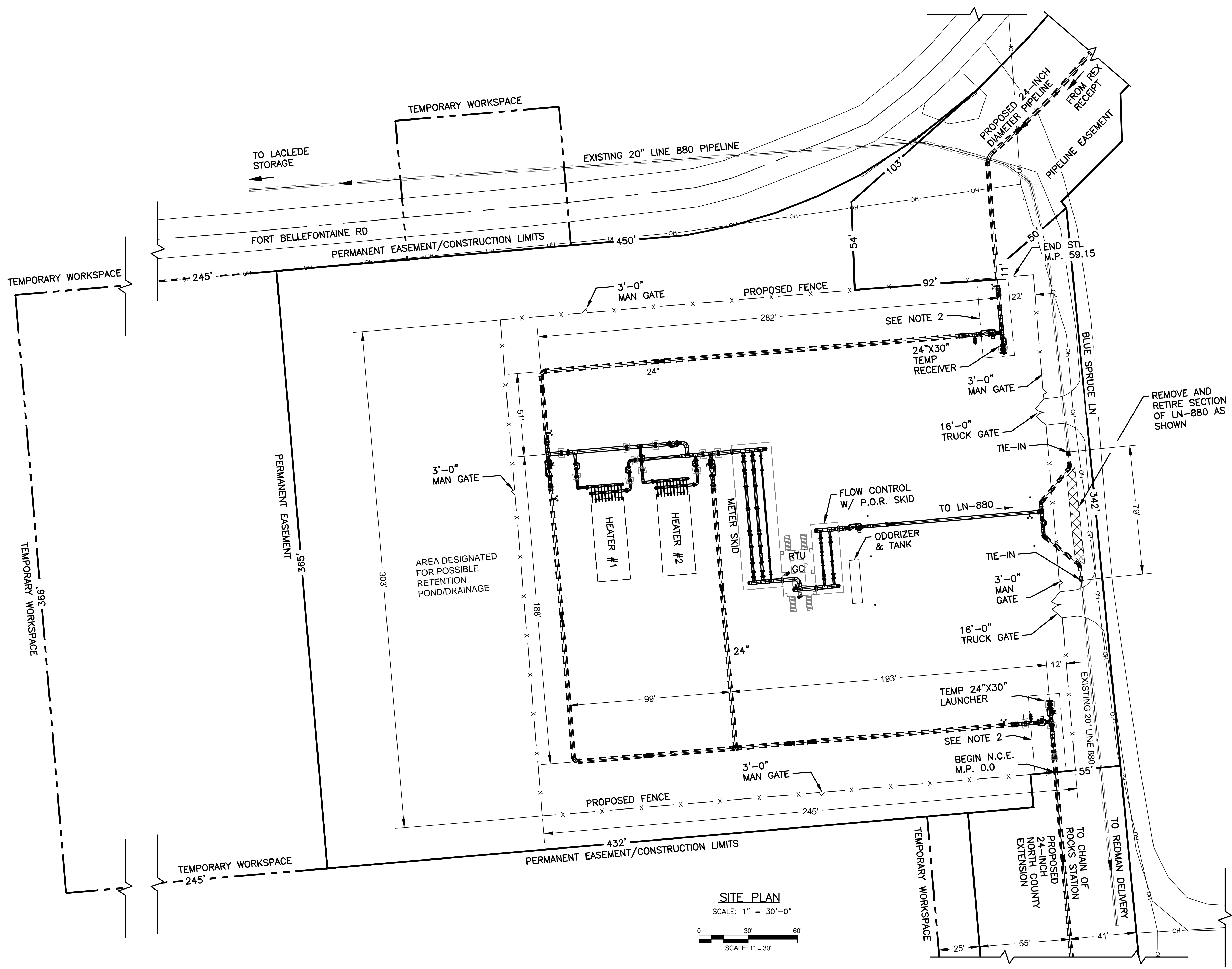
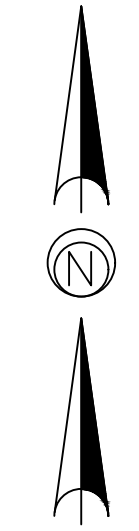
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| Designed | BDP | Eng check | WRM |
| Drawn | BDP | Coordination | BWW |
| Dwg check | JJG | Approved | BWW |
| Scale at ARCH D | Status | Rev | Security |
| AS NOTED | | FERC | |
| Drawing Number | STL-M-200-0100 | | |

SPIRE STL PIPELINE PROJECT

REX RECEIPT STATION

SCOTT COUNTY, IL.

SITE PLAN



- NOTES:**
- 1) DETAILED DESIGN, DRAFTING AND FINAL ENGINEERING WILL BE BY ENGINEER/FABRICATOR.
 - 2) PIPELINE CONTRACTOR RESPONSIBLE FOR INSTALLING ALL PIPE INCLUDING VALVES AND OTHER POINTS UP TO METER STATION VALVE.

- LEGEND:**
- PERMANENT EASEMENT
 - TEMPORARY WORKSPACE
 - OH OH POWER LINE
 - P PROPERTY LINE
 - X X X PROPOSED FENCE
 - REMOVE & RETIRE

SITE PLAN
SCALE: 1" = 30'-0"
0 30' 60'
SCALE: 1" = 30'

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ENGINEERING FIRM

M M
MOTT
MACDONALD

CLIENT

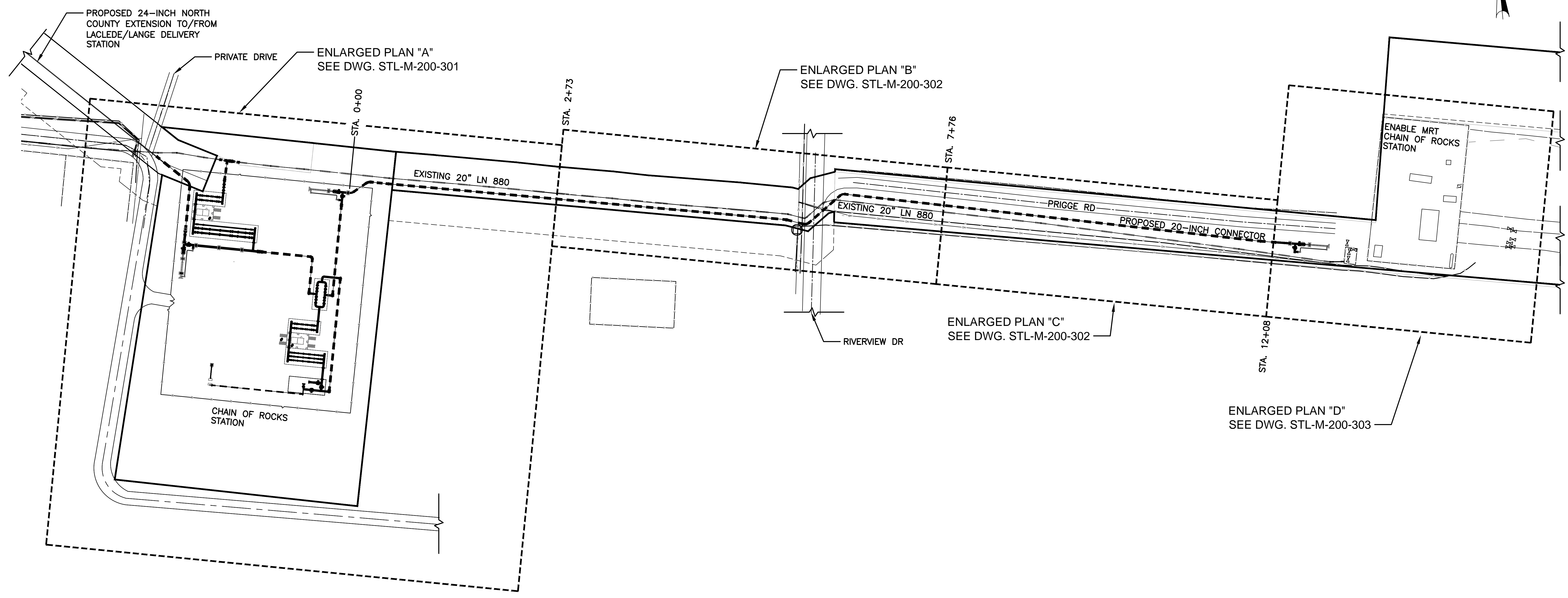
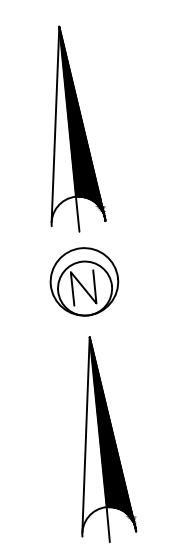
**Spire
STL Pipeline**

| Rev | Date | Drawn | Description | Ch'k'd | App'd |
|-----|---------|-------|-------------------|--------|-------|
| 2 | 04/2017 | BDP | AMENDMENT TO FERC | JJG | WRM |

| | | | |
|----------------|-----------|-----|-------|
| Project Number | MM-372453 | B/O | Total |
|----------------|-----------|-----|-------|

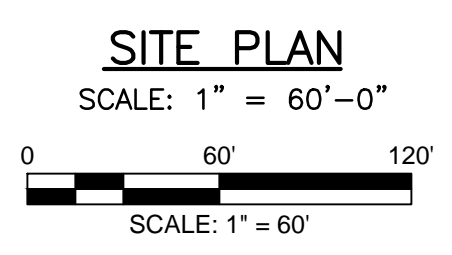
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| Designed | BDP | Eng check | WRM |
| Drawn | BDP | Coordination | BWW |
| Dwg check | JJG | Approved | BWW |
| Scale at ARCH D | Status | Rev | Security |
| AS NOTED | | FERC | |
| Drawing Number | STL-M-200-0200 | | |

SPIRE STL PIPELINE PROJECT
LACLEDE/LANGE DELIVERY STATION
ST. LOUIS COUNTY, MO
SITE PLAN



NOTE:
 1. DETAILED DESIGN, DRAFTING AND FINAL ENGINEERING WILL BE BY ENGINEER/FABRICATOR.

- LEGEND:**
- ENLARGED PLAN LIMITS
 - PERMANENT EASEMENT/CONSTRUCTION LIMITS
 - OH POWER LINE
 - TELEPHONE LINE
 - x-x-x- PROPOSED FENCE



G:\Spire\STL Pipeline\Drawings\Site Layouts\STL-M-200-0300.dwg, Apr 16, 2017, 1:24PM, p071604

ENGINEERING FIRM

M M
 MOTT
 MACDONALD

CLIENT

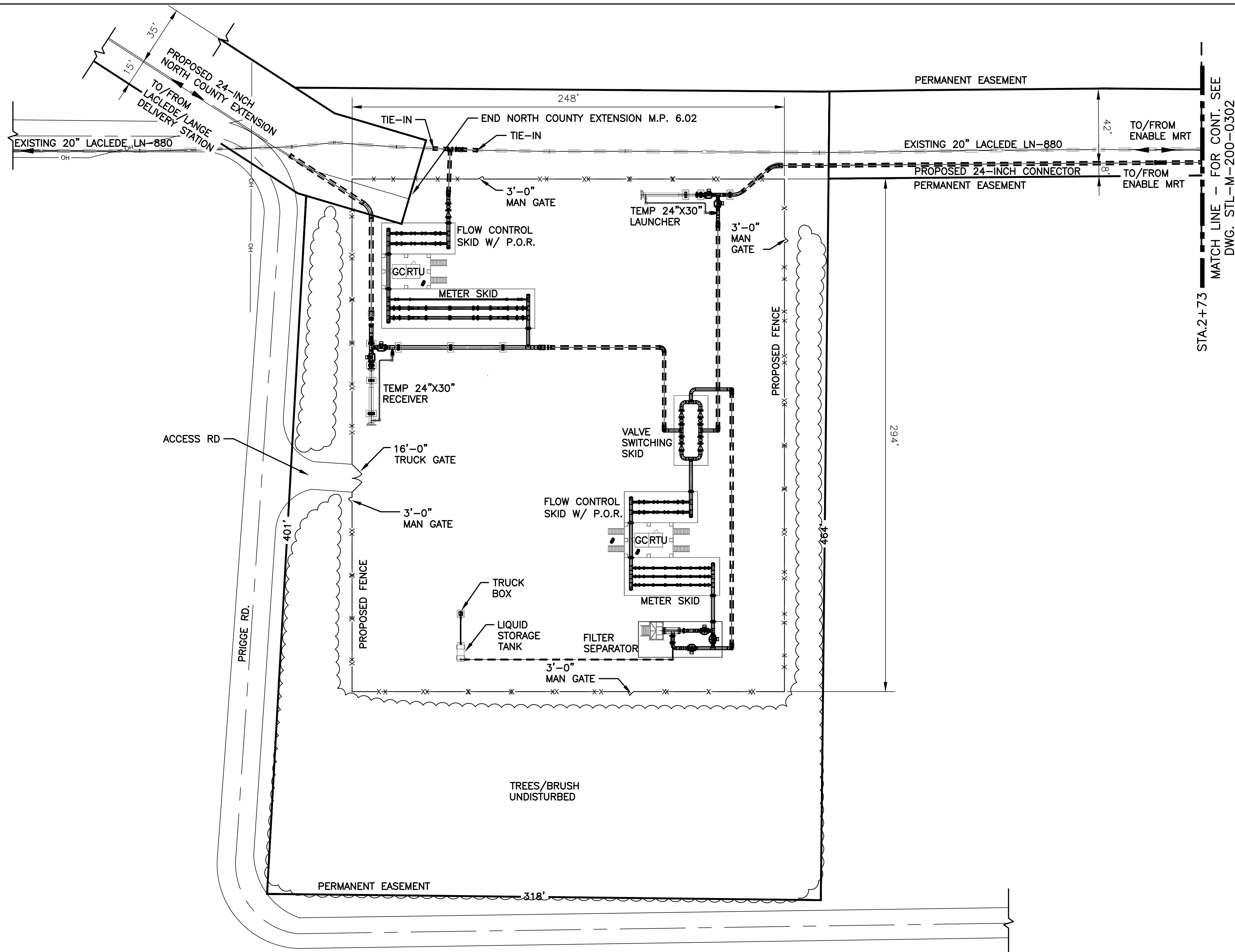
**Spire
 STL Pipeline**

| Rev | Date | Drawn | Description | Ch'k'd | App'd |
|-----|--------|-------|-------------------|--------|-------|
| 2 | 4/2017 | BDP | AMENDMENT TO FERC | JJG | WRM |

| | | | |
|----------------|-----------|-----|-------|
| Project Number | MM-372453 | B/O | Total |
|----------------|-----------|-----|-------|

| | | | |
|-----------------|--------|----------------|----------|
| Designed | MM | Eng check | WRM |
| Drawn | BDP | Coordination | BWW |
| Dwg check | WRM | Approved | BWW |
| Scale at ARCH D | Status | Rev | Security |
| AS NOTED | | FERC | |
| Drawing Number | | STL-M-200-0300 | |

SPIRE STL PIPELINE PROJECT
CHAIN OF ROCKS STATION
 ST. LOUIS COUNTY, MO.
 SITE PLAN



STA.2+73
MATCH LINE - FOR CONT. SEE
DWG. STL-M-200-0302

NOTE:

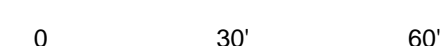
1. DETAILED DESIGN, DRAFTING AND FINAL ENGINEERING WILL BE BY ENGINEER/FABRICATOR.

LEGEND:

- PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- x-x-x- PROPOSED FENCE
- ~~~~~ TREE LINE

ENLARGED PLAN "A"

SCALE: 1" = 30'-0"



SCALE: 1" = 30'

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ENGINEERING FIRM

M M
MOTT
MACDONALD

CLIENT

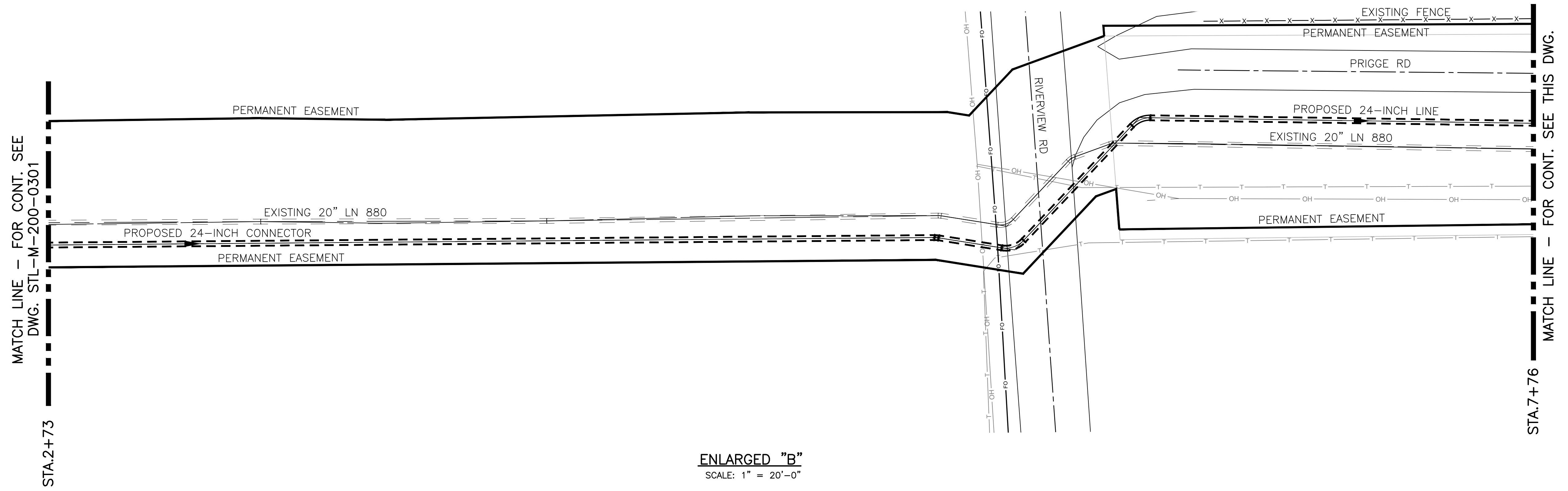
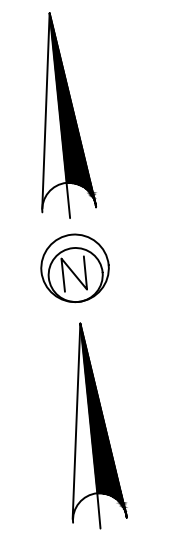
**Spire
STL Pipeline**

| Rev | Date | Drawn | Description | Ch'k'd | App'd |
|-----|---------|-------|------------------|--------|-------|
| 2 | 04/2017 | BDP | AMENDMENT TO FER | JJG | WRM |

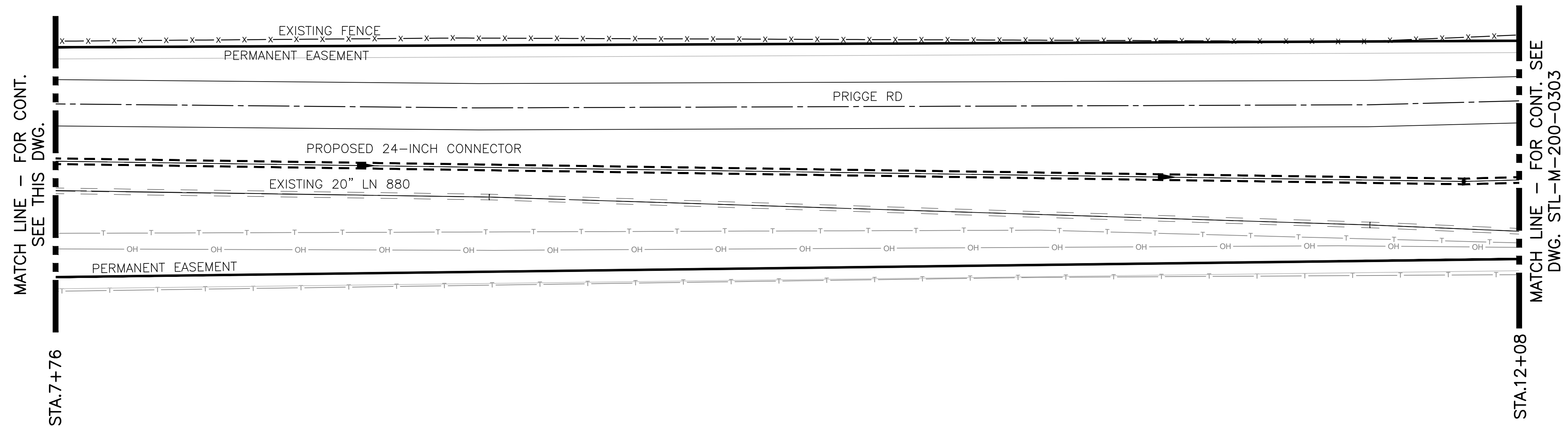
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|----------------|-----------|-----|-------|
| Project Number | MM-372453 | B/O | Total |
|----------------|-----------|-----|-------|

| | | | |
|-----------------|--------|----------------|----------|
| Designed | MM | Eng check | WRM |
| Drawn | BDP | Coordination | BWW |
| Dwg check | WRM | Approved | BWW |
| Scale at ARCH D | Status | Rev | Security |
| AS NOTED | | FERC | |
| Drawing Number | | STL-M-200-0301 | |

SPIRE STL PIPELINE PROJECT
CHAIN OF ROCKS STATION (WEST)
ST. LOUIS COUNTY, MO.
ENLARGED PLAN "A"



ENLARGED "B"
SCALE: 1" = 20'-0"



ENLARGED "C"
SCALE: 1" = 20'-0"

NOTE:

1. DETAILED DESIGN, DRAFTING AND FINAL ENGINEERING WILL BE BY ENGINEER/FABRICATOR.

LEGEND:

- PERMANENT EASEMENT
- - - - - TEMPORARY WORKSPACE
- OH — OH POWER LINE
- T — TELEPHONE LINE
- P — PROPERTY LINE
- x-x-x- PROPOSED FENCE

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ENGINEERING FIRM

M M
MOTT
MACDONALD

CLIENT

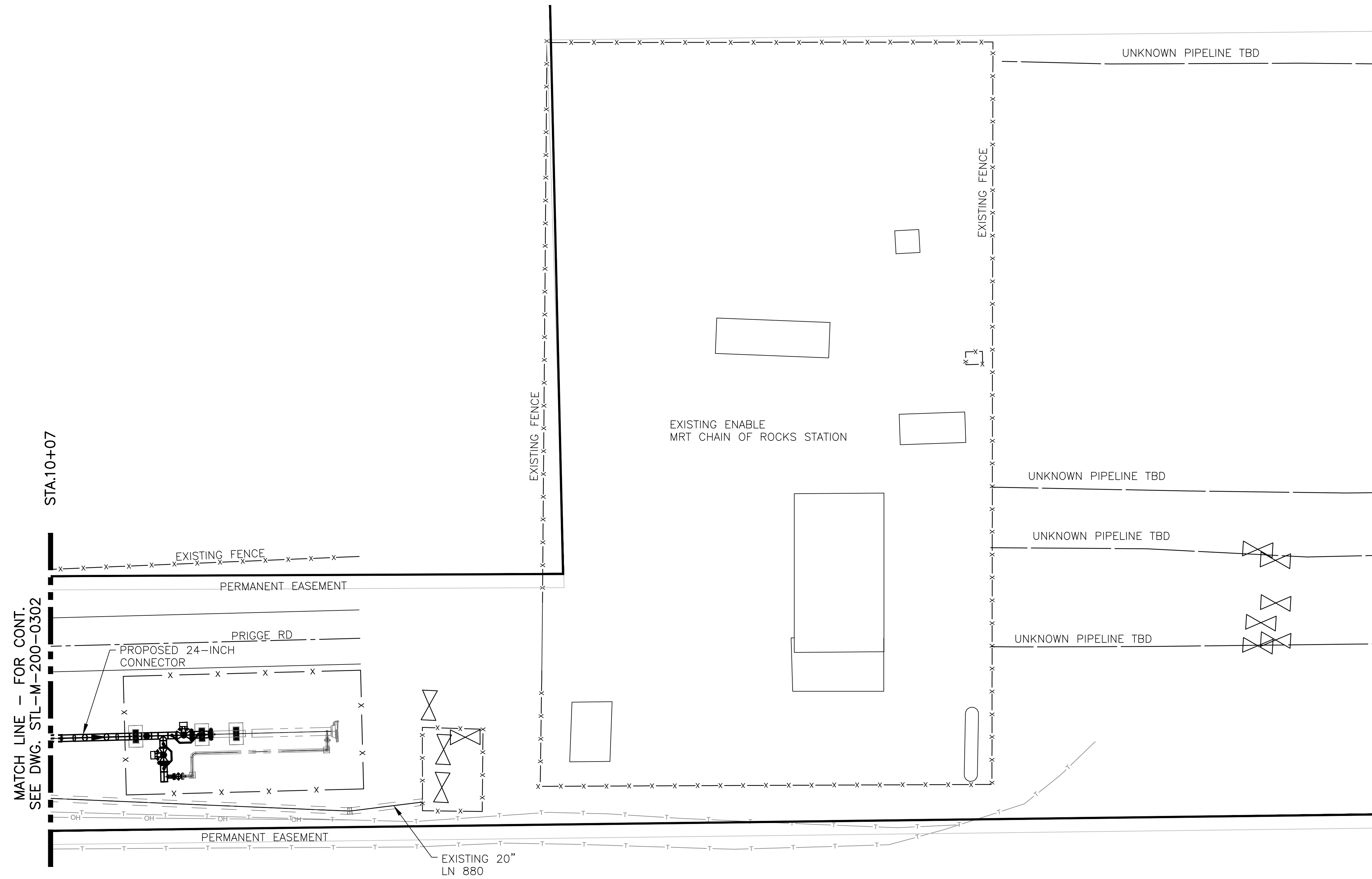
**Spire
STL Pipeline**

| Rev | Date | Drawn | Description | Ch'k'd | App'd |
|-----|---------|-------|-------------------|--------|-------|
| 2 | 04/2017 | BDP | AMENDMENT TO FERC | JJG | WRM |

| | | | |
|----------------|-----------|-----|-------|
| Project Number | MM-372453 | B/O | Total |
|----------------|-----------|-----|-------|

| | | | |
|-----------------|--------|--------------|----------|
| Designed | MM | Eng check | WRM |
| Drawn | BDP | Coordination | BWW |
| Dwg check | WRM | Approved | BWW |
| Scale at ARCH D | Status | Rev | Security |
| AS NOTED | | FERC | |
| Drawing Number | | | |
| STL-M-200-0302 | | | |

**SPIRE STL PIPELINE PROJECT
CHAIN OF ROCKS CONNECTOR
ST. LOUIS COUNTY, MO.
ENLARGED PLANS "B" & "C"**



- NOTE:
1. FACILITY TIE-IN TO BE DETERMINED.
 2. DETAILED DESIGN, DRAFTING AND FINAL ENGINEERING WILL BE BY ENGINEER/FABRICATOR.

LEGEND:

| | |
|--|---------------------|
| | PERMANENT EASEMENT |
| | TEMPORARY WORKSPACE |
| | OH POWER LINE |
| | TELEPHONE LINE |
| | PROPERTY LINE |
| | EXISTING FENCE |

ENLARGED PLAN "D"
SCALE: 1" = 15'-0"
0 15' 30'
SCALE: 1" = 15'

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ENGINEERING FIRM

CLIENT

Spire STL Pipeline

| Rev | Date | Drawn | Description | Ch'k'd | App'd |
|-----|---------|-------|-------------------|--------|-------|
| 2 | 04/2017 | BDP | AMENDMENT TO FERC | JJG | WRM |

| | | | |
|----------------|-----------|-----|-------|
| Project Number | MM-372453 | B/O | Total |
|----------------|-----------|-----|-------|

| | | | |
|-----------------|--------|--------------|----------|
| Designed | MM | Eng check | WRM |
| Drawn | BDP | Coordination | BWW |
| Dwg check | WRM | Approved | BWW |
| Scale at ARCH D | Status | Rev | Security |
| AS NOTED | | FERC | |
| Drawing Number | | | |
| STL-M-200-0303 | | | |

SPIRE STL PIPELINE PROJECT
ENABLE MRT CHAIN OF ROCKS
STATION (EAST)
ST. LOUIS COUNTY, MO.
ENLARGED PLAN "D"



APPENDIX 1-G

Landowner Line List

CONTAINS PRIVILEGED INFORMATION - DO NOT RELEASE



APPENDIX 1-H
Public Participation Plan



APPENDIX 1-I

Stakeholder Lists

Appendix 1-1
 Spire STL Pipeline
 Federal Stakeholder Contact List

| Contact Name | Blank | Contact Title | Contact Organization | Phone | Email | P.O. Box | Address Line 1 | Address Line 2 | City | Zip 1 | Zip 2 | State | Docket |
|--------------------------|-------|---------------------------------|-------------------------------|-----------------------------|--|----------|--------------------------------------|----------------|----------------|-------|-------|-------|----------|
| Andrew Lock | | Legislative Correspondent | U.S. Senate | 202-224-5721 | Andrew.Lock@Blunt.senate.gov | | 260 Russell Senate Office Building | | Washington | 20510 | | DC | CP17-40- |
| Ashley Antoskiewicz | | Legislative Director | U.S. House of Representatives | 202-225-6201 | Ashley.Antoskiewicz@mail.house.gov | | 2462 Rayburn House Office Building | | Washington | 20515 | | DC | CP17-40- |
| Barbara J. Baker | | Constituent Services Specialist | U.S. House of Representatives | 217-245-1431 | barb.barker@mail.house.gov | | 201 W. Morgan | | Jacksonville | 62650 | | IL | CP17-40- |
| Blaine Luetkemeyer | | U.S. Representative | U.S. House of Representatives | 202-225-2956 | | | 2440 Rayburn House Office Building | | Washington | 20515 | | DC | CP17-40- |
| Blaine Luetkemeyer | | U.S. Representative | U.S. House of Representatives | 573-635-7232 | | | 2117 Missouri Boulevard | | Jefferson City | 65109 | | MO | CP17-40- |
| Brad Stotler | | State Director | U.S. House of Representatives | 309-671-7027 | Brad.Stotler@mail.house.gov | | 100 NE Monroe Street | Room 100 | Peoria | 61602 | | IL | CP17-40- |
| Claire McCaskill | | U.S. Senator | U.S. Senate | 202-224-6154 | | | 730 Hart Senate Office Building | | Washington | 20510 | | DC | CP17-40- |
| Claire McCaskill | | U.S. Senator | U.S. Senate | 314-367-8649 | | | 5850 Delmar Blvd. | Ste. A | St. Louis | 63112 | | MO | CP17-40- |
| Darin LaHood | | U.S. Representative | U.S. House of Representatives | 202-225-6201 | | | 2464 Rayburn House Office Building | | Washington | 20515 | | DC | CP17-40- |
| Darin LaHood | | U.S. Representative | U.S. House of Representatives | 309-671-7027 | | | 100 NE Monroe Street | Room 100 | Peoria | 61602 | | IL | CP17-40- |
| Dick Durbin | | U.S. Senator | U.S. Senate | 202-224-2152 | | | 711 Hart Senate Building | | Washington | 20510 | | DC | CP17-40- |
| Dick Durbin | | U.S. Senator | U.S. Senate | 217-492-4062 | | | 525 S. 8th Street | | Springfield | 62703 | | IL | CP17-40- |
| Divine W. Shelton | | Field Representative | U.S. Senate | 314-361-8649 | Divine_Shelton@McCaskill.Senate.Gov | | 5850 Delmar Blvd. | Ste. A | St. Louis | 63112 | | MO | CP17-40- |
| Downey Palmer Magallanes | | Counsel | U.S. Senate | 202-224-5721 202-2248148 | Magallanes@B.unt.senate.gov | | 260 Russell Senate Office Building | | Washington | 20510 | | DC | CP17-40- |
| Emily Romines | | Senate Staffer | U.S. Senate | | | | 7700 Bonhomme Ave. | #315 | Clayton | 63105 | | MO | CP17-40- |
| Heather M. Majors | | Legislative Policy Advisor | U.S. Senate | 202-224-6154 | Heather.Majors@McCaskill.Senate.Gov | | 730 Hart Senate Office Building | | Washington | 20510 | | DC | CP17-40- |
| John Scates | | Community Liaison | U.S. Senate | 314-725-4484 | John_Scates@Blunt.Senate.gov | | 7700 Bonhomme Ave. | #315 | Clayton | 63105 | | MO | CP17-40- |
| Karla A. Hagan | | Legislative Fellow | U.S. Senate | 201-224-2152 | Karla_Hagan@Durbin.Senate.gov | | 711 Hart Senate Building | | Washington | 20510 | | DC | CP17-40- |
| Mary Beth Wolf | | District Office Director | U.S. Senate | 314-725-4484 | marybeth_wolf@Blunt.Senate.gov | | 7700 Bonhomme Ave | #315 | Clayton | 63105 | | MO | CP17-40- |
| Miles Chiotti | | Legislative Assistant | U.S. House of Representatives | 202-225-2371 | Miles.Chiotti@mail.house.gov | | 1740 Longworth House Office Building | | Washington | 20515 | | DC | CP17-40- |
| Patrick T. Bond | | Legislative Assistant | U.S. Senate | 202-224-6154 | Patrick_Bond@McCaskill.Senate.Gov | | 730 Hart Senate Office Building | | Washington | 20510 | | DC | CP17-40- |
| Phillip Lasseigne | | Projects and Grants Director | U.S. House of Representatives | 618-205-8660 | Phillip.Lasseigne@mail.house.gov | | 15 Professional Park Drive | | Maryville | 62062 | | IL | CP17-40- |
| Rodney L. Davis | | U.S. Representative | U.S. House of Representatives | 202-225-2371 | | | 1740 Longworth House Office Building | | Washington | 20515 | | DC | CP17-40- |
| Rodney L. Davis | | U.S. Representative | U.S. House of Representatives | 217-791-6224 | | | 2833 S Grand Ave. East | | Springfield | 62703 | | IL | CP17-40- |
| Roy Blunt | | U.S. Senator | U.S. Senate | 202-224-5721 | | | 260 Russell Senate Office Building | | Washington | 20510 | | DC | CP17-40- |
| Roy Blunt | | U.S. Senator | U.S. Senate | 314-725-4484 | | | 7700 Bonhomme | #315 | Clayton | 63105 | | MO | CP17-40- |
| Tammy Duckworth | | U.S. Senator | U.S. Senate | 202-224-3854 | | | 612 Dirksen Senate Office Building | | Washington | 20510 | | DC | CP17-40- |
| Tammy Duckworth | | U.S. Senator | U.S. Senate | 312-886-3506 | | | 230 S. Dearborn | Suite 3900 | Chicago | 60604 | | IL | CP17-40- |
| Tony Grandison | | Congressional Staffer | U.S. House of Representatives | | | | 1281 Graham Rd | Suite 202 | Florissant | 63031 | | MO | CP17-40- |
| William P. Houlihan | | State Director | U.S. Senate | 217-492-4062 | Bill_Houlihan@Durbin.Senate.Gov | | 525 S. 8th Street | | Springfield | 62703 | | IL | CP17-40- |
| Wm. Lacy Clay | | U.S. Representative | U.S. House of Representatives | 202-225-2406 | | | 2428 Rayburn House Office Building | | Washington | 20515 | | DC | CP17-40- |
| Wm. Lacy Clay | | U.S. Representative | U.S. House of Representatives | 314-367-1970 | | | 111 S. 10th Street | Suite 24.344 | St. Louis | 63102 | | MO | CP17-40- |
| Wm. Lacy Clay | | U.S. Representative | U.S. House of Representatives | 314-383-5240 | | | 1281 Graham Rd | Suite 202 | Florissant | 63031 | | MO | CP17-40- |

Appendix 1-1
Spire STL Pipeline
State Stakeholder Contact List

| Contact Name | Blank | Contact Title | Contact Organization | Phone | Email | P.O. Box | Address Line 1 | Address Line 2 | City | Zip 1 | Zip 2 | State | Docket |
|-----------------------|-------|--|---|----------------|--|----------------|---|------------------------------------|----------------|-------|-------|-------|----------|
| Bruce Rauner | | Governor | Office of the Governor, State of Illinois | 217-782-0244 | | | 207 State House | | Springfield | 62706 | | IL | CP17-40- |
| Alan Green | | State Representative | Missouri House of Representatives | 573-751-2135 | | | 201 W Capitol Ave. | Rm. 102-BA | Jefferson City | 65101 | | MO | CP17-40- |
| Alec Messina | | Illinois Environmental Protection Agency | Office of the Governor, State of Illinois | 217-782-3397 | Alec.Messina@illinois.gov | | 207 State1021 North Grand Ave. East Springfield, IL 62794-9276 House | | Springfield | 62794 | | IL | CP17-40- |
| Ann McCabe | | Commissioner | Illinois Commerce Commission | 312-814-2850 | | | 160 N. LaSalle | FL 008 | Chicago | 60601 | | IL | CP17-40- |
| Bill Eigel | | State Senator | Missouri Senate | 573-751-1141 | | | 201 W Capitol Ave. | Rm. 226 | Jefferson City | 65101 | | MO | CP17-40- |
| Bill P. Houlihan | | State Director | Office of US Senator Richard J. Durbin | 217-492-4062 | bill_houlihan@durbin.senate.gov | | 525 S. 8th Street | | Springfield | 62703 | | IL | CP17-40- |
| Brad Stotler | | District Director | Peoria Office, Office of Representative Darin LaHood | 309-671-7027 | brad.scotler@mail.house.gov | | 100 NE Monroe Street | Room 100 | Peoria | 62602 | | IL | CP17-40- |
| Brandon W. Phelps | | State Representative | Illinois General Assembly | 217-782-5131 | | | 200-95 Stratton Office Building | | Springfield | 62706 | | IL | CP17-40- |
| Brien Sheahan | | Chairman | Illinois Commerce Commission | 217-782-7701 | | | 527 E. Capitol Ave. | FL 007 | Springfield | 62701 | | IL | CP17-40- |
| Bruce Rauner | | Governor | Office of the Governor, State of Illinois | 312-814-2121 | | | 100 W. Randolph | JRTC - STE 16-100 | Chicago | 60601 | | IL | CP17-40- |
| C. D. Davidsmeyer | | State Representative | Illinois General Assembly | 217-782-1840 | repccdavidsmeyer@gmail.com | | 220 - N Stratton Office Building | | Springfield | 62706 | | IL | CP17-40- |
| C. D. Davidsmeyer | | State Representative | Illinois General Assembly | 217-243-6221 | | | 325 W. State St. | | Jacksonville | 62650 | | IL | CP17-40- |
| Chris Kostner | | Attorney General | State of Missouri | 573-751-3321 | | | Supreme Court Building | 207 W. High | Jefferson City | 65102 | | MO | CP17-40- |
| Daniel Hall | | Chairman | Missouri Public Service Commission | 573-751-3234 | | PO Box 360 | 200 Madison Street | | Jefferson City | 65102 | | MO | CP17-40- |
| Daniel V. Beiser | | State Representative | Illinois General Assembly | 217-782-5996 | | | 269-5 Stratton Office Building | | Springfield | 62706 | | IL | CP17-40- |
| Eric Greitens | | Governor | State of Missouri | 573-751-3222 | | P.O. Box 720 | Office of Governor Eric Greitens | | Jefferson City | 65102 | | MO | CP17-40- |
| Evelyn Sanguinetti | | Lieutenant Governor | State of Illinois | 217-558-3085 | | | 214 State House | | Springfield | 62706 | | IL | CP17-40- |
| Evelyn Sanguinetti | | Lieutenant Governor | State of Illinois | 312-814-5240 | | | 100 W. Randolph | JRTC - STE 15-200 | Chicago | 60601 | | IL | CP17-40- |
| Gina Walsh | | State Senator | Missouri Senate | 573-751-2420 | | | 201 W Capitol Ave. | Rm. 427 | Jefferson City | 65101 | | MO | CP17-40- |
| Jason Heffley | | Policy Advisor for Environment & Energy | Office of the Governor, State of Illinois | 217-685-9867 | jason.heffley@illinois.gov | | 207 State House | | Springfield | 62706 | | IL | CP17-40- |
| Jim Watson | | Executive Director | Illinois Petroleum Council | 217-544-7404 | | | 400 W Monroe St | #205 | Springfield | 62704 | | IL | CP17-40- |
| Joan Gummels | | General Counsel | Attorney Generals Office of Missouri | 573-751-3321 | | | P.O. Box 899 | | Jefferson City | 65101 | | MO | CP17-40- |
| John J. Cullerton | | President of the Senate | Illinois State Senate | 217-782-2728 | | | 327 Capital Building | | Springfield | 62706 | | IL | CP17-40- |
| John R. Ashcroft | | Secretary of State | State of Missouri | 573-751-4936 | | | 600 West Main Street | | Jefferson City | 65101 | | MO | CP17-40- |
| John Rosales | | Commissioner | Illinois Commerce Commission | 312-814-2850 | | | 160 N. LaSalle | FL 008 | Chicago | 60601 | | IL | CP17-40- |
| Katie Stonewater | | Executive Director | Illinois Chamber of Commerce | 618-540-8381 C | kstonewater@ilchamber.org | | 300 S. Wacker Dr. | Suite 1600 | Chicago | 60606 | | IL | CP17-40- |
| Kim Tribbet | | Permit Supervisor | Illinois Dept. of Transportation | 217-524-7765 | Michael.p.irwin@illinois.gov | | 126 E. Ash St. | | Springfield | 62702 | | IL | CP17-40- |
| Linda Chapa Lavia | | State Representative | Illinois General Assembly | 217-558-1002 | | | 229-E Stratton Office Building | | Springfield | 62706 | | IL | CP17-40- |
| Lisa Madigan | | Attorney General | State of Illinois | 217-782-1090 | | | 500 S. Second St. | | Springfield | 62706 | | IL | CP17-40- |
| Maida Coleman | | Commissioner | Missouri Public Service Commission | 573-751-3234 | | PO Box 360 | 200 Madison Street | | Jefferson City | 65102 | | MO | CP17-40- |
| Mark Hughes | | PSC Advisor | Missouri Public Service Commission | 573-751-7434 | | PO Box 360 | 200 Madison Street | | Jefferson City | 65102 | | MO | CP17-40- |
| Michael J. Madigan | | State Representative | Illinois General Assembly | 217-782-5350 | | | 300 Capital Building | | Springfield | 62706 | | IL | CP17-40- |
| Michael P. Irwin | | Plans & Design Engineer | Illinois Dept. of Transportation | 217-782-7745 | kim.tribbet@illinois.gov | | 126 E. Ash St. | | Springfield | 62702 | | IL | CP17-40- |
| Miguel del Valle | | Commissioner | Illinois Commerce Commission | 312-814-2850 | | | 160 N. LaSalle | FL 008 | Chicago | 60601 | | IL | CP17-40- |
| Mike Parson | | Lieutenant Governor | State of Missouri | 573-751-4727 | | | Office of the Lieutenant Governor | State Capitol Building Room 224 | Jefferson City | 65101 | | MO | CP17-40- |
| Nick Williams | | Associate Director | Illinois Petroleum Council | 217-544-7404 | | | 400 W Monroe St | #205 | Springfield | 62704 | | IL | CP17-40- |
| Patrick J. Verschoore | | State Representative | Illinois General Assembly | 217-782-5970 | | | 263-5 Stratton Office Building | | Springfield | 62706 | | IL | CP17-40- |
| Patrick McGuire | | State Senator | Illinois State Senate | 217-782-8800 | | | 311B Capital Building | | Springfield | 62706 | | IL | CP17-40- |
| Raymond Poe | | Director | Illinois Department of Agriculture | 217-782-2172 | | P.O. Box 19281 | State Fair Grounds | | Springfield | 62794 | | IL | CP17-40- |
| Ron Richard | | State Senator | Missouri Senate | 573-751-2173 | | | 201 W Capitol Ave. | Rm. 326 | Jefferson City | 65101 | | MO | CP17-40- |
| Scott Rupp | | Commissioner | Missouri Public Service Commission | 573-751-3234 | | PO Box 360 | 200 Madison Street | | Jefferson City | 65102 | | MO | CP17-40- |
| Sean McCarthy | | Acting Director | Illinois Department of Commerce and Economic Development | 217-782-7500 | | | 500 E. Monroe | | Springfield | 62701 | | IL | CP17-40- |
| Shelley Burggemann | | General Counsel | Missouri Public Service Commission | 573-751-3234 | | PO Box 360 | 200 Madison Street | | Jefferson City | 65102 | | MO | CP17-40- |
| Sherina Maye Edwards | | Commissioner | Illinois Commerce Commission | 312-814-2850 | | | 160 N. LaSalle | FL 008 | Chicago | 60601 | | IL | CP17-40- |
| Stephen Stoll | | Commissioner | Missouri Public Service Commission | 573-751-3234 | | PO Box 360 | 200 Madison Street | | Jefferson City | 65102 | | MO | CP17-40- |
| Sue Rezin | | State Senator | Illinois State Senate | 217-782-3840 | | | 309J Capital Building | | Springfield | 62706 | | IL | CP17-40- |
| Todd Richardson | | Mr. Speaker | Missouri House of Representatives | 573-751-4039 | | | 201 W Capitol Ave. | Rm. 308 | Jefferson City | 65101 | | MO | CP17-40- |
| Tom Hannegan | | State Representative | Missouri House of Representatives | 573-751-3717 | Tom.Hannegan@house.mo.gov | | 201 W Capitol Ave. | Room 201-G | Jefferson City | 65101 | | MO | CP17-40- |
| Tommie Pierson | | State Representative | Missouri House of Representatives | 573-751-6845 | | | 201 W Capitol Ave. | Rm. 101-H | Jefferson City | 65101 | | MO | CP17-40- |
| Warren D. Goetsch | | Deputy Director | Illinois Department of Agriculture | 217-785-4747 | warren.goetsch@illinois.gov | P.O. Box 19281 | State Fair Grounds | | Springfield | 62794 | | IL | CP17-40- |
| Wayne Rosenthal | | Director | Illinois Department of Natural Resources | 217-785-0075 | dnr.director@illinois.gov | | One Natural Way | | Springfield | 62702 | | IL | CP17-40- |
| William R. Haine | | State Senator | Illinois State Senate | 217-782-5247 | | | 311C Capital Building | | Springfield | 62706 | | IL | CP17-40- |
| William Kenny | | Commissioner | Missouri Public Service Commission | 573-751-3234 | | PO Box 360 | 200 Madison Street | | Jefferson City | 65102 | | MO | CP17-40- |
| Wm. Sam McCann | | State Senator | Illinois State Senate | 217-782-8206 | SenatorMcCann@gmail.com | | 108 E. State Capital Building | | Springfield | 62706 | | IL | CP17-40- |
| Wm. Sam McCann | | State Senator | Illinois State Senate | 217-245-0021 | | | 221 Dunlap Ct. | | Jacksonville | 62650 | | IL | CP17-40- |

Appendix 1-1
 Spire STL Pipeline
 County Stakeholder Contact List

| Contact Name | Blank | Contact Title | Contact Organization | Phone | Email | P.O. Box | Address Line 1 | Address Line 2 | City | Zip 1 | Zip 2 | State | Docket |
|----------------------------------|-------|------------------------------------|--|-----------------------------------|--|---------------|-------------------------|-----------------------------|-------------|-------|-------|-------|----------|
| Bob Schafer | | Commissioner | Scott County | 217-742-5217 | scha4@irtc.net | | 273 Harts School Rd | | Murrayville | 62694 | | IL | CP17-40- |
| Brian Kanallakan | | Board Member | Jersey County | 618-781-6759 | bkallakan@jerseycounty-il.us | | 200 N. Lafayette St | | Jerseyville | 62052 | | IL | CP17-40- |
| Cindy Cregmiles | | Code Administrator | Jersey County | 618-498-5571 x146 | codeadm1@jerseycounty-il.us | | 200 N. Lafayette St | Suite 6 | Jerseyville | 62052 | | IL | CP17-40- |
| Colleen Wasinger | | County Council | Saint Louis County | 314-615-5438 | CWasinger@stlouisco.com | | 41 South Central Ave | | Clayton | 63105 | | MO | CP17-40- |
| Craig Lashmett | | Commissioner | Scott County | 217-742-3178 | clash@irtc.net | PO Box 106 | 989 Old Rt 36, | | Winchester | 62694 | | IL | CP17-40- |
| Crystal Perry | | County Assessor | Jersey County | 618-498-5571 x126 | countyassessor@jerseycounty-il.us | | 200 N. Lafayette St | Suite 4 | Jerseyville | 62052 | | IL | CP17-40- |
| Daniel W. Drisewerd, P.E., PTOE | | Division Manager, Code Enforcement | Saint Louis County Transportation & Public Works | 314-615-8190 | Ddrisewerd@stlouisco.com | | 41 South Central Avenue | | St. Louis | 63105 | | MO | CP17-40- |
| Danny Hatcher | | Commissioner | Scott County | 217-742-5532 | | | 35 E Market | | Winchester | 62694 | | IL | CP17-40- |
| Dave Hammond | | Councilmember | St. Charles County | 636-949-7530 | dhammond@sccmo.org | | 100 N. 3rd Street | Suite 124 | St. Charles | 63301 | | MO | CP17-40- |
| David King | | Sheriff | Scott County | 217-742-3141 | | | 35 E Market | | Winchester | 62694 | | IL | CP17-40- |
| David Maruth | | County Engineer | Greene County | 217-942-5124 | | | IL-108 | | Carrollton | 62016 | | IL | CP17-40- |
| Deborah Banghart | | County Clerk | Greene County | 217-942-5443 | grctyck@hotmail.com | | 519 North Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Donald Little | | County Board Chairman | Jersey County | 618-203-3662 | boardchairman@jerseycounty-il.us | | 200 N. Lafayette St | Suite 3 | Jerseyville | 62052 | | IL | CP17-40- |
| Ed Koenig | | Board Member | Jersey County | 618-885-5415 | ekoenig@jerseycounty-il.us | | 200 N. Lafayette St | | Jerseyville | 62052 | | IL | CP17-40- |
| Gary Krueger | | Board Member | Jersey County | 618-535-5419 | gkrueger@jerseycounty-il.us | | 200 N. Lafayette St | | Jerseyville | 62052 | | IL | CP17-40- |
| Genevieve Frank | | County Clerk | Saint Louis County | 314-615-5440 | gfrank@stlouisco.com | | 41 South Central Ave | | Clayton | 63105 | | MO | CP17-40- |
| Gilbert Ashlock | | County Treasurer | Jersey County | 618-498-5571 ex: 109, 110, 111 | treasurer@jerseycounty-il.us | | 200 N. Lafayette St | Suite 5 | Jerseyville | 62052 | | IL | CP17-40- |
| Glenn A. Powers | | Chief of Operations | Saint Louis County | 314-615-2515 | gpowers@stlouisco.com | | 41 South Central Avenue | 9th Floor | St. Louis | 63105 | | MO | CP17-40- |
| Hazel Erby | | County Council | Saint Louis County | 314-615-5436 | HErby@stlouisco.com | | 41 South Central Ave | | St. Louis | 63105 | | MO | CP17-40- |
| Ina McCaine-Obenland | | Operations and Public Outreach | St. Charles County | 636-949-3023 314-267-6908 C | imcaine@sccmo.org | | 301 N. Second Street | Room 280 | St. Charles | 63301 | | MO | CP17-40- |
| Jake Zimmerman | | County Assessor | Saint Louis County | 314-615-5500 | zimmerman@stlouisco.com | | 41 South Central Avenue | | Clayton | 63105 | | MO | CP17-40- |
| Jeff Wagner | | Chief of Policy | Saint Louis County | 314-615-7020 | hwagner@stlouisco.com | | 41 South Central Ave | 9th Floor | Clayton | 63105 | | MO | CP17-40- |
| Jerry Whittman | | Board Member | Jersey County | 618-954-0846 | jwhittman@jerseycounty-il.us | | 200 N. Lafayette St | | Jerseyville | 62052 | | IL | CP17-40- |
| Jill Waldheuser | | County Assessor | Greene County | 217-942-6412 | | | 519 North Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Joe Brazil | | Councilmember | St. Charles County | 636-949-7530 | jbrazil@sccmo.org | | 100 N. 3rd Street | Suite 124 | St. Charles | 63301 | | MO | CP17-40- |
| Joe Cronin | | Councilmember | St. Charles County | 636-949-7530 | jcronin@sccmo.org | | 100 N. 3rd Street | Suite 124 | St. Charles | 63301 | | MO | CP17-40- |
| Joe Nord | | Chairman | Greene County | 217-942-5443 | | | 519 North Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| John Goode | | Board Member | Greene County | 217-942-5443 | | | 519 North Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| John White | | Councilmember | St. Charles County | 636-949-7530 | jwhite@sccmo.org | | 100 N. 3rd Street | Suite 124 | St. Charles | 63301 | | MO | CP17-40- |
| Joyce Clark | | Board Member | Greene County | 217-942-5443 | | | 519 North Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Lorrie Koch | | County Assessor | Scott County | | scottcoassessor@frontier.com | | 35 E Market | | Winchester | 62694 | | IL | CP17-40- |
| Luke Lamb | | Board Member | Greene County | 217-942-5443 | | | 519 North Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Mark Devore | | Collector of Revenue | Saint Louis County | 314-615-7191 | mdevore@stlouisco.com | | 41 South Central Ave | | Clayton | 63105 | | MO | CP17-40- |
| Mark Diedrich | | Director of Emergency Management | Saint Louis County | 314-615-9500 | mdiedrich@stlouisco.com | | 1150 Hanna Road | | Ballwin | 63021 | | MO | CP17-40- |
| Mark Ford | | County Treasurer | Scott County | | scottcotreasurer@frontier.com | | 35 E Market | | Winchester | 62694 | | IL | CP17-40- |
| Mark Harder | | County Council | Saint Louis County | 314-615-5443 | mharder@stlouisco.com | | 41 South Central Ave | | Clayton | 63105 | | MO | CP17-40- |
| Mark Strang | | Vice Chair/Board Member | Greene County | 217-370-6830 | strang55@yahoo.com | | 519 North Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Mary Kirbach | | Board Member | Jersey County | 618-946-5407 | mkirbach@jerseycounty-il.us | | 200 N. Lafayette St | | Jerseyville | 62052 | | IL | CP17-40- |
| Matthew J. Gruendler, P.E | | Construction Division Manager | Saint Louis County Transportation & Public Works | 314-615-1159 | Mgruendler@stlouisco.com | | 1050 N. Lindbergh | | St. Louis | 63132 | | MO | CP17-40- |
| Michael McNear | | Board Member | Greene County | 217-942-5443 | | | 519 North Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Michelle McBride | | Collector of Revenue | St. Charles County | 636-949-7470 | collector@sccmo.org | | 201 N. Second Street | Suite 134 | St. Charles | 63301 | | MO | CP17-40- |
| Mike Elam | | Councilmember | St. Charles County | 636-949-7530 | melam@sccmo.org | | 100 N. 3rd Street | Suite 124 | St. Charles | 63301 | | MO | CP17-40- |
| Mike Klinghammer | | Councilmember | St. Charles County | 636-949-7530 | mkinghammer@sccmo.org | | 100 N. 3rd Street | Suite 124 | St. Charles | 63301 | | MO | CP17-40- |
| Nicholas D. Gardner, Ph.D., P.E. | | Director | Saint Louis County Transportation & Public Works | 314-615-8501 | Ngardner@stlouisco.com | | 1050 N. Lindbergh | | St. Louis | 63132 | | MO | CP17-40- |
| Pam Heitzig | | Vice Chairman | Jersey County | 618-498-5572 | pheitzig@jerseycounty-il.us | | 200 N. Lafayette St | Suite 4 | Jerseyville | 62052 | | IL | CP17-40- |
| Pam Warford | | County Clerk & Recorder | Jersey County | 618-498-5571 | countyclerk@jerseycounty-il.us | P. O. Box 216 | | | Jerseyville | 62052 | | IL | CP17-40- |
| Pat Dolan | | County Council | Saint Louis County | 314-615-5441 | PDolan@stlouisco.com | | 41 South Central Ave | | Clayton | 63105 | | MO | CP17-40- |
| Randy Custer | | Board Member | Greene County | 217-942-5443 | | | 519 North Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Rhonda Linders | | Board Member | Jersey County | 618-709-6667 | rlinders@jerseycounty-il.us | | 200 N. Lafayette St | | Jerseyville | 62052 | | IL | CP17-40- |
| Roger Newberry | | Board Member | Jersey County | 618-946-4991 | rnewberry@jerseycounty-il.us | | 200 N. Lafayette St | | Jerseyville | 62052 | | IL | CP17-40- |
| Ron Henerfouth | | Board Member | Jersey County | 618-560-1585 | rhenefouth@jerseycounty-il.us | | 200 N. Lafayette St | | Jerseyville | 62052 | | IL | CP17-40- |
| Ruth Miller | | County Clerk/Registrar | St. Charles County | 636-949-7560 | registrar@sccmo.org | | 201 N. Second Street | Suite 541 | St. Charles | 63301 | | MO | CP17-40- |
| Sam Page | | County Council | Saint Louis County | 314-615-5437 | SPage@stlouisco.com | | 41 South Central Ave | | Clayton | 63105 | | MO | CP17-40- |
| Sandy Hankins | | County Clerk | Scott County | 217-742-3173 | scottcoclerk@frontier.com | | 35 E Market | | Winchester | 62694 | | IL | CP17-40- |
| Sandy Hefner | | Board Member | Jersey County | 618-954-8650 | shefner@jerseycounty-il.us | | 200 N. Lafayette St | | Jerseyville | 62052 | | IL | CP17-40- |
| Scott Shipman | | County Assessor | St. Charles County | 636-949-7425 | cvassess@sccmo.org | | 201 N. Second Street | | St. Charles | 63301 | | MO | CP17-40- |
| Stephanie Leon Streeter, P.E. | | Deputy Director | Saint Louis County Transportation & Public Works | 314-615-8501 | SLeonStreeter@Stlouisco.com | | 1050 N. Lindbergh | | St. Louis | 63132 | | MO | CP17-40- |
| Steve Ehlmann | | County Executive | St. Charles County | 636-949-7520 | executive@sccmo.org | | 100 N. 3rd Street | | St. Charles | 63301 | | MO | CP17-40- |
| Steve Stenger | | County Executive | Saint Louis County | 314-615-7016 | ststenger@stlouisco.com | | 41 South Central Ave | 9th Floor | Clayton | 63105 | | MO | CP17-40- |
| Terry Hollander | | Councilmember | St. Charles County | 636-949-7530 | thollander@sccmo.org | | 100 N. 3rd Street | Suite 124 | St. Charles | 63301 | | MO | CP17-40- |
| Tom Klasner, P.E. | | County Engineer | Jersey County | 618-535-7969 | tklasner@jerseycounty-il.us | | 722 State Hwy 16 | Jersey County Highway Dept. | Jerseyville | 62052 | | IL | CP17-40- |
| Tom Koch | | Emergency Management Director | St. Charles County | 636-949-3023 | ema@sccmo.org | | 301 N. Second Street | Room 280 | St. Charles | 63301 | | MO | CP17-40- |
| Wayne Schell | | Board Member | Jersey County | 618-946-1143 | wshell@jerseycounty-il.us | | 200 N. Lafayette St | | Jerseyville | 62052 | | IL | CP17-40- |

Appendix I-1
Spire STL Pipeline
City Stakeholder Contact List

| Contact Name | Blank | Contact Title | Contact Organization | Phone | Email | P.O. Box | Address Line 1 | Address Line 2 | City | Zip 1 | Zip 2 | State | Docket |
|------------------------|-------|---------------------------------|------------------------------------|-----------------------|--|-----------|-------------------------|--------------------------|-------------|-------|-------|-------|----------|
| A. J. White | | City Council | City of Black Jack | | | | City Hall | 12500 Old Jamestown Road | Black Jack | 63033 | | MO | CP17-40- |
| Al Schroeder | | City Council | City of Black Jack | | | | City Hall | 12500 Old Jamestown Road | Black Jack | 63033 | | MO | CP17-40- |
| Alan Gowin | | Fire Chief | City of Jerseyville | 618-498-3312 | jerseyvillefd@jerseyville-il.us | | 115 East Prairie Street | | Jerseyville | 62052 | | IL | CP17-40- |
| Amy Browner | | Treasurer | City of Winchester | 217-742-3191 | | | 121 S. Hill Street | | Winchester | 62694 | | IL | CP17-40- |
| Amita Moore | | Deputy City Clerk | City of Florissant | 314-839-7631 | amoore@florissantmo.com | | 955 Rue St Francois | | Florissant | 63031 | | MO | CP17-40- |
| Arnold Hinkle | | City Council | City of Black Jack | | | | City Hall | 12500 Old Jamestown Road | Black Jack | 63033 | | MO | CP17-40- |
| Barb Nash | | Alderman | City of Winchester | 217-742-3191 | | | 121 S. Hill Street | | Winchester | 62694 | | IL | CP17-40- |
| Benjamin T. Allen | | City Council | City of Black Jack | | | | City Hall | 12500 Old Jamestown Road | Black Jack | 63033 | | MO | CP17-40- |
| Beth Machens | | City Clerk | West Alton | 0 | | | City Hall | | Black Jack | 63033 | | MO | CP17-40- |
| Bill Jacquot | | Alderman | City of Winchester | 217-742-3191 | | | 121 S. Hill Street | | Winchester | 62694 | | IL | CP17-40- |
| Brad Staats | | Alderman | City of White Hall | 217-374-2345 | bstaats@whitehallcitygov.com | | 116 East Sherman | | White Hall | 62092 | | IL | CP17-40- |
| Brenda Robinson | | City Clerk | City of Winchester | 217-742-3191 | | | 121 S. Hill Street | | Winchester | 62694 | | IL | CP17-40- |
| Cathie Ward | | City Clerk | City of Jerseyville | 618-498-3312 | cathieward@jerseyville-il.us | | 115 East Prairie Street | | Jerseyville | 62052 | | IL | CP17-40- |
| Charlie Huffine | | Alderman | City of Roodhouse | 217-589-4355 | | | 137 West Palm St | | Roodhouse | 62082 | | IL | CP17-40- |
| Cheryl Day | | Alderwoman | City of Winchester | 217-742-3191 | | | 121 S. Hill Street | | Winchester | 62694 | | IL | CP17-40- |
| Chris Renner | | Alderwoman | City of Winchester | 217-742-3191 | | | 121 S. Hill Street | | Winchester | 62694 | | IL | CP17-40- |
| David R. King | | Sheriff | City of Winchester | 217-742-3141 | | | 101 East Market Street | | Winchester | 62694 | | IL | CP17-40- |
| Denise Hayes | | Deputy City Clerk | City of Jerseyville | 618-498-3312 | denisehayes@jerseyville-il.us | | 115 East Prairie Street | | Jerseyville | 62052 | | IL | CP17-40- |
| Dennis Cumby | | Alderman | City of Roodhouse | 217-589-4352 | | | 137 West Palm St | | Roodhouse | 62082 | | IL | CP17-40- |
| Dewain Freund | | Alderman | City of Carrollton | | | | 621 South Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Donald Krank | | City Council | City of Black Jack | | | | City Hall | 12500 Old Jamestown Road | Black Jack | 63033 | | MO | CP17-40- |
| Earl "Joe" Harness Jr. | | Mayor Pro Tempore | City of Carrollton | 217-942-5517 | | | 621 South Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Ed Foley | | Alderman | City of White Hall | 217-374-2345 | efoley@whitehallcitygov.com | | 116 East Sherman | | White Hall | 62092 | | IL | CP17-40- |
| Edward Shaub | | Alderman | West Alton | 636-448-4075 | | | 116 East Sherman | | White Hall | 62092 | | IL | CP17-40- |
| Francis "Gene" Baker | | Alderman | City of Carrollton | | | | 621 South Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Fred Andrews | | Alderman | City of Winchester | 217-742-3191 | | | 121 S. Hill Street | | Winchester | 62694 | | IL | CP17-40- |
| Garrett Rogers | | Alderman | City of Roodhouse | 217-589-4354 | | | 137 West Palm St | | Roodhouse | 62082 | | IL | CP17-40- |
| Gary Goetten | | City Council | City of Jerseyville | 618-498-3312 | rgarygoetten@jerseyville-il.us | | 115 East Prairie Street | | Jerseyville | 62052 | | IL | CP17-40- |
| Gary Sheppard | | Fire Chief | City of White Hall | 217-374-2134 | gshppard@whitehallcitygov.com | | 116 East Sherman | | White Hall | 62092 | | IL | CP17-40- |
| Gerald Henke | | City Council | City of Florissant | 314-839-7631 | ward6@florissantmo.com | | 955 Rue St Francois | | Florissant | 63031 | | MO | CP17-40- |
| Gladys "Patty" Plahn | | City Clerk | City of Roodhouse | 217-589-4351 | | | 137 West Palm St | | Roodhouse | 62082 | | IL | CP17-40- |
| Jackie Pagano | | City Council | City of Florissant | 314-839-7631 | ward7@florissantmo.com | | 955 Rue St Francois | | Florissant | 63031 | | MO | CP17-40- |
| Janet Neustadt | | Alderman | West Alton | 636-899-0233 | | | 955 Rue St Francois | | Florissant | 63031 | | MO | CP17-40- |
| Jeff Caputa | | City Council | City of Florissant | 314-839-7631 | ward4@florissantmo.com | | 955 Rue St Francois | | Florissant | 63031 | | MO | CP17-40- |
| Jeffery S. Soer | | Director of Building and Zoning | City of Jerseyville | 618-498-3312 | jeffsoer@jerseyville-il.us | | 115 East Prairie Street | | Jerseyville | 62052 | | IL | CP17-40- |
| Jim Knox | | Alderman | City of Roodhouse | 217-589-4353 | | | 137 West Palm St | | Roodhouse | 62082 | | IL | CP17-40- |
| Joe Starnes | | Fire Chief | City of Roodhouse | 217-589-4141 | | | 1140 S. State St | | Roodhouse | 62082 | | IL | CP17-40- |
| Joe Starnes | | Fire Chief | City of Winchester | 217-742-3191 | | | 121 S. Hill Street | | Winchester | 62694 | | IL | CP17-40- |
| John Coonrod | | City Attorney | City of Winchester | 217-742-3191 | | | 121 S. Hill Street | | Winchester | 62694 | | IL | CP17-40- |
| John Taylor | | City Council | City of Black Jack | | | | City Hall | 12500 Old Jamestown Road | Black Jack | 63033 | | MO | CP17-40- |
| Joseph Eagan | | City Council | City of Florissant | 314-839-7631 | ward3@florissantmo.com | | 955 Rue St Francois | | Florissant | 63031 | | MO | CP17-40- |
| Julie Griffith | | President | Spanish Lake Community Association | 314-791-8083 | rjgriffy@stcglobal.net | | 8969 Dunn Road | | Hazelwood | 63042 | | MO | CP17-40- |
| Karen Goodwin | | City Clerk | City of Florissant | 314-839-7630 | kgoodwin@florissantmo.com | | 955 Rue St Francois | | Florissant | 63031 | | MO | CP17-40- |
| Keith Schildroth | | City Council | City of Florissant | 314-839-7631 | ward5@florissantmo.com | | 955 Rue St Francois | | Florissant | 63031 | | MO | CP17-40- |
| Kevin Stork | | City Council | City of Jerseyville | 618-498-3312 | kstork@jerseyville-il.us | | 115 East Prairie Street | | Jerseyville | 62052 | | IL | CP17-40- |
| Mark Schmidt | | City Council | City of Florissant | 314-839-7631 | ward8@florissantmo.com | | 955 Rue St Francois | | Florissant | 63031 | | MO | CP17-40- |
| Mike Kleidon | | Alderman | City of White Hall | 217-374-2345 | mkleidon@whitehallcitygov.com | | 116 East Sherman | | White Hall | 62092 | | IL | CP17-40- |
| Nick Wunderlich | | Alderman | West Alton | 636-233-1583 | | | 116 East Sherman | | White Hall | 62092 | | IL | CP17-40- |
| Norman C. McCourt | | Mayor | City of Black Jack | 314-355-0400 | mayor@cityofblackjack.com | | City Hall | 12500 Old Jamestown Road | Black Jack | 63033 | | MO | CP17-40- |
| Norman Coad | | Alderman | City of White Hall | 217-374-2345 | ncoad@whitehallcitygov.com | | 116 East Sherman | | White Hall | 62092 | | IL | CP17-40- |
| Rex McIntire | | Mayor | City of Winchester | 217-742-3191 | | | 121 S. Hill Street | | Winchester | 62694 | | IL | CP17-40- |
| Richard Perdun | | City Council | City of Jerseyville | 618-498-3312 | rperdun@jerseyville-il.us | | 115 East Prairie Street | | Jerseyville | 62052 | | IL | CP17-40- |
| Rick Cox | | Alderman | City of White Hall | 217-374-2345 | rcox@whitehallcitygov.com | | 116 East Sherman | | White Hall | 62092 | | IL | CP17-40- |
| Rick Steigenwald | | City Council | City of Black Jack | | | | City Hall | 12500 Old Jamestown Road | Black Jack | 63033 | | MO | CP17-40- |
| Rodney Grady | | Treasurer | City of Black Jack | | | | City Hall | 12500 Old Jamestown Road | Black Jack | 63033 | | MO | CP17-40- |
| Ryan Scott | | City Clerk | City of Carrollton | 217-942-5517 | ryanscott.cityclerk@gmail.com | | 621 South Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Sandra Muller | | City Council | City of Black Jack | | | | City Hall | 12500 Old Jamestown Road | Black Jack | 63033 | | MO | CP17-40- |
| Sharon Butler | | Alderman | City of Carrollton | | | | 621 South Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Steve Hoots | | Alderman | City of Winchester | 217-742-3191 | | | 121 S. Hill Street | | Winchester | 62694 | | IL | CP17-40- |
| Steve Pohlman | | City Council | City of Jerseyville | 618-498-3312 | spohlman@jerseyville-il.us | | 115 East Prairie Street | | Jerseyville | 62052 | | IL | CP17-40- |
| Sue Reno | | City Clerk | City of White Hall | 217-374-2345 | sreno@whitehallcitygov.com | | 116 East Sherman | | White Hall | 62092 | | IL | CP17-40- |
| Susie Keller | | Alderman | City of Carrollton | | | | 621 South Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Tamra Winters | | Alderwoman | City of White Hall | 217-374-2345 | twinters@whitehallcitygov.com | | 116 East Sherman | | White Hall | 62092 | | IL | CP17-40- |
| Terry Gross | | Chief of Police | City of Carrollton | 217-942-3135 | carrolltonpd1@gmail.com | | 621 South Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Thomas P. Schneider | | Mayor | City of Florissant | 314-839-7601 | | | 955 Rue St Francois | | Florissant | 63031 | | MO | CP17-40- |
| Tim Lee | | City Council | City of Florissant | 314-839-7631 | ward1@florissantmo.com | | 955 Rue St Francois | | Florissant | 63031 | | MO | CP17-40- |
| Timothy Jones | | City Council | City of Florissant | 314-839-7631 | ward2@florissantmo.com | | 955 Rue St Francois | | Florissant | 63031 | | MO | CP17-40- |
| Tom Lakin | | Mayor | City of White Hall | 217-374-2481 | tlakin@whitehallcitygov.com | | 116 East Sherman | | White Hall | 62092 | | IL | CP17-40- |
| Tom Wilson | | Alderman | City of Carrollton | | | | 621 South Main Street | | Carrollton | 62016 | | IL | CP17-40- |
| Tommy Martin | | Mayor | City of Roodhouse | 217-589-4351 | | | 137 West Palm St | | Roodhouse | 62082 | | IL | CP17-40- |
| Tommy Siam | | City Council | City of Florissant | 314-839-7631 | ward9@florissantmo.com | | 955 Rue St Francois | | Florissant | 63031 | | MO | CP17-40- |
| Vijay K. Bhasin, P.E. | | City Engineer | City of Black Jack | 314-355-0400 ext. 110 | cityengineer@cityofblackjack.com | | 955 Rue St Francois | | Florissant | 63031 | | MO | CP17-40- |
| William Brass | | Alderman | West Alton | 636-899-1546 | | | City Hall | | Black Jack | 63033 | | MO | CP17-40- |
| William Richter | | Mayor | West Alton | 636-899-0808 | | PO Box 42 | 14068 N State Route 94 | | West Alton | 63386 | | MO | CP17-40- |
| William Russel | | Mayor | City of Jerseyville | 618-498-2400 | brussell@jerseyville-il.us | | 115 East Prairie Street | | Jerseyville | 62052 | | IL | CP17-40- |
| William Strang | | City Council | City of Jerseyville | 618-498-6821 | bstrang@jerseyville-il.us | | 115 East Prairie Street | | Jerseyville | 62052 | | IL | CP17-40- |

Appendix 1-I
 Spire STL Pipeline
 ENGO Contact List

| Contact Name | Blank | Contact Title | Contact Organization | Phone | Email | P.O. Box | Address Line 1 | Address Line 2 | City | Zip 1 | Zip 2 | State | Docket |
|---------------------------|-------|---------------------------------|--|----------------------|--|-----------------|------------------------|----------------|----------------|-------|-------|-------|----------|
| Adam McLane | | State Director | Nature Conservancy-Missouri | 314-968-1105 | missouri@tnc.org | P.O. Box 440400 | | | Saint Louis | 63143 | | MO | CP17-40- |
| Alicia Wallace | | President | Missouri Caves & Karst Conservancy | | president@mocavesandkarst.org | P.O. Box 190456 | | | St. Louis | 63119 | | MO | CP17-40- |
| Brooke Thurau | | Campaign Coordinator | Bluestem Communications - 1 Mississippi Campaign | 312-754-0402 | bthurau@bluestemcommunications.org | | 14 N. Peoria Street | Suite 4F | Chicago | 60607 | | IL | CP17-40- |
| David Stokes | | Executive Director | Great Rivers Habitat Alliance | | | P.O. Box 50014 | | | St. Louis | 63105 | | MO | CP17-40- |
| David Stokes | | Executive Director | Great Rivers Habitat Alliance | 314-918-1351 | info@grha.org | P.O. Box 50014 | | | St. Louis | 63150 | | MO | CP17-40- |
| Heather Brouillet Navarro | | Executive Director | Missouri Coalition for the Environment | 314-727-0600 | hnavarro@moenviron.org | | 3115 S. Grand Blvd | Suite 650 | St. Louis | 63118 | | MO | CP17-40- |
| Jack Darin | | Chapter Director | Sierra Club - Illinois Chapter | 312-251-1680 EX: 112 | jack.darin@sierraclub.org | | 70 E Lake Street | Suite 1500 | Chicago | 60601 | | IL | CP17-40- |
| John Hickey | | Chapter Director | Sierra Club - Missouri Chapter | 314-644-1011 | missouri.chapter@sierraclub.org | | 2818 Sutton Blvd | | St. Louis | 63143 | | MO | CP17-40- |
| John Williams | | President | Great Rivers Land Trust | 618-467-2265 | | P. O. Box 821 | | | Alton | 62002 | | IL | CP17-40- |
| Mark Flaspohler | | Manager of Conservation | Ducks Unlimited-Missouri | 573-234-2132 EX: 178 | mflaspohler@ducks.org | | 101 Park DeVille Drive | Suite B | Columbia | 65203 | | MO | CP17-40- |
| Mark Flaspohler | | Manager of Conservation | Ducks Unlimited-Illinois | 573-234-2132 EX: 178 | mflaspohler@ducks.org | | 101 Park DeVille Drive | Suite B | Columbia | 65203 | | MO | CP17-40- |
| May Boeve | | Executive Director | Chicago 350 | | may@350.org | | 20 Jay Street | Suite 732 | Brooklyn | 11201 | | NY | CP17-40- |
| Michelle Carr | | State Director | Nature Conservancy-Illinois | 312-580-2100 | illinois@tnc.org | | 8 S. Michigan Ave | Suite 900 | Chicago | 60603 | | IL | CP17-40- |
| Patricia Hagen | | VP and Executive Director | Audubon Missouri | 636-899-0090 | phagen@audubon.org | | 301 Riverlands Way | | West Alton | 63386 | | MO | CP17-40- |
| Rob Sargent | | Energy Program Director | Environment Illinois | 617-747-4317 | | | 328 S. Jefferson St. | Suite 620 | Chicago | 60661 | | IL | CP17-40- |
| Ryan Verkamp | | President | Trout Unlimited Mid-Missouri | 573-817-0631 | Ryan.Verkamp@gmail.com | | 1777 N. Kent Street | Suite 100 | Arlington | 22209 | | VA | CP17-40- |
| Shari Harden | | President | Audubon Society-Missouri | | | | 2101 W. Broadway | PMB 122 | Columbia | 65203 | 1261 | MO | CP17-40- |
| Susan Trautman | | Executive Director | Great Rivers Greenway | 314-436-7009 | strautman@grgstl.org | | 6178 Delmar Boulevard | | St. Louis | 63112 | | MO | CP17-40- |
| Tabitha Tripp | | Heartwood Coordinator, Illinois | Heartwood | 740-591-8166 | info@hearwood.org | P.O. Box 543 | | | Tell City | 47586 | | IN | CP17-40- |
| TBD | | | American Bottomlands Conservancy | N/A | N/A | | 527 Washington Place | | East St. Louis | 62205 | | IL | CP17-40- |
| TBD | | | Center for American Archeology | 618-653-4316 | caa@caa-archeology.org | P.O. Box 366 | | | Kampsville | 62053 | | IL | CP17-40- |
| Tom Clay | | Executive Director | Audubon Society-Illinois | 217-544-2473 | tclay@illinoisaudubon.org | | 2315 Clear Lake Avenue | | Springfield | 62709 | | IL | CP17-40- |
| Trip Van Noppen | | President | Earthjustice | 800-584-6460 | headquarters@earthjustice.org | | 50 California Street | Suite 500 | San Francisco | 94111 | | CA | CP17-40- |

Appendix 14
 Spire STL Pipeline
 Non-Governmental Organizations Contact List

| Contact Name | Blank | Contact Title | Contact Organization | Phone | Email | P.O. Box | Address Line 1 | Address Line 2 | City | Zip 1 | Zip 2 | State | Docket |
|-----------------|-------|--|--|----------------------|--|---------------|----------------------------|--------------------|----------------|-------|-------|-------|----------|
| Bernie Sebold | | Chief | Alton Fire Department | 618-463-3565 | | | 333 E. 20th Street | | Alton | 62002 | | IL | CP17-40- |
| Bonni L. Waters | | Vice President | Jacksonville Regional Economic Development Council | 217-479-4627 | bonni@iredc.org | | 221 E. State St | | Jacksonville | 62650 | | IL | CP17-40- |
| Daniel Mehan | | President and CEO | Missouri Chamber of Commerce | 573-634-3511 | | | 428 East Capitol Ave | | Jefferson City | 65101 | | MO | CP17-40- |
| Ellen Lutzow | | President | Old Jamestown Association | 314-550-0184 | N/A | P.O. Box 2223 | | | Florissant | 63032 | | MO | CP17-40- |
| Greg Prestemon | | President and CEO | St. Charles County Economic Development Center | 636-441-6880 | gprestemon@edcsc.com | | 5988 Mid Rivers Mall Drive | | St. Charles | 63304 | | MO | CP17-40- |
| Harold Waggoner | | President | Alton Volunteer Emergency Corps | 618-462-2202 | | | 2400 Bloomer Dr | | Alton | 62002 | | IL | CP17-40- |
| Jaime Aslin | | Manager | Two Rivers Marina | 217-437-2321 | jaime@tworiversmarina.com | | 13495 U.S. Hwy 54 | | Rockport | 62370 | | IL | CP17-40- |
| Jeff Soer | | Director of Building & Zoning and Director of Economic | City of Jerseyville Economic Development | 618-498-3312 | jsoer@jerseyville-il.us | | 115 East Prairie Street | | Jerseyville | 62052 | | IL | CP17-40- |
| Jim Manger | | Director | Greene County Economic Development Group, Inc. | 618-980-5036 | gooddine@gmail.com | | 314 5th Street | | Carrollton | 62016 | | IL | CP17-40- |
| Kelly Applegate | | Staff Contact | St. Louis Economic Development Partnership | 314-615-7688 | info@stlpartnership.com | | 7733 Forsyth Blvd | Suites 2200 & 2300 | St. Louis | 63105 | | MO | CP17-40- |
| Pat Van DeVelde | | President | Scott County Development Corporation | N/A | pat@peaktinsurancagency.net | | 35 E. Market Street | | Winchester | 62694 | | IL | CP17-40- |
| Richard Pender | | Chief | Rivers Pointe Fire Department | 636-899-1122 | info@rpfpd.com | | 100 Firehouse Drive | | West Alton | 63386 | | MO | CP17-40- |
| Shari Albrecht | | CEO | Jersey County Business Association | | | | 209 N. State Street | | Jerseyville | 62052 | | IL | CP17-40- |
| Todd Maisch | | President and CEO | Illinois Chamber of Commerce | 217-522-5512 EX: 233 | tmaisch@ilchamber.org | | 215 E. Adams St. | | Springfield | 62701 | | IL | CP17-40- |

Appendix 1-1
Spire STL Pipeline
Agency Contact List

| Contact Name | Blank | Contact Title | Contact Organization | Phone | Email | P.O. Box | Address Line 1 | Address Line 2 | City | Zip 1 | Zip 2 | State | Docket |
|-------------------------|-------|--|---|-------------------------|--|-------------|---|-----------------|-------------------|-------|-------|-------|----------|
| Annyce Winters | | Administrative Coordinator | Greene County Soil and Water Conservation District | 217-942-5464 | annyce.winters@il.nacdnet.net | | RR3, Box 129 | | Carrollton | 62016 | | IL | CP17-40- |
| Audrey Beres | | Policy Coordinator | Missouri Department of Conservation | 573-522-4115 ext. 3346 | audrey.beres@mdc.mo.gov | | 2901 West Truman Blvd. | | Jefferson City | 65109 | | MO | CP17-40- |
| Brad Behyner | | District Conservationist | USDA-Natural Resources Conservation Service - Jersey County/Jerseyville Lincoln Field Office | 217-942-5464, ext. 3 | bradley.behyner@il.usda.gov | | 604 East Franklin | | Jerseyville | 62052 | | IL | CP17-40- |
| Brent Krebs | | Chief of Staff | Illinois Department of Natural Resources | | Brent.krebs@illinois.com | | One Natural Resources Way | | Springfield | 62702 | 1271 | IL | CP17-40- |
| Cindy Craigmiles | | Jersey County Code Administrator | Jersey County | 618-498-5571 ext. 146 | codeadmin1@jerseycounty-il.us | | 200 N. Lafayette | Suite 6 | Jerseyville | 62052 | | IL | CP17-40- |
| Connie Gibson | | County Executive Director | USDA-Farm Service Agency - St. Charles County/St. Louis County | 636-952-2283, ext. 105 | Connie.Gibson@mo.usda.gov | | 160 Saint Peters Centre Blvd | | St. Peters | 63376 | | MO | CP17-40- |
| Dan Heacock | | Facility Evaluation Manager | Illinois Environmental Protection Agency - Bureau of Water | 217-782-0610 | dan.heacock@illinois.gov | | 1021 North Grand Avenue East | | Springfield | 62794 | 9276 | IL | CP17-40- |
| Darin LeCrone | | Industrial Unit Manager | Illinois Environmental Protection Agency - Bureau of Water | 217-782-0610 | darin.lecron@illinois.gov | | 1021 North Grand Avenue East | | Springfield | 62794 | 9276 | IL | CP17-40- |
| David Meyer | | Regulatory Branch | United States Army Corps of Engineers - St. Louis District | 314-331-8810 | david.p.meyer@usace.army.mil | | 1222 Spruce Street | #4 | St. Louis | 63103 | 2833 | MO | CP17-40- |
| Edward Rodriguez Robles | | ICW Program Manager | United States Army Corps of Engineers - St. Louis District | 314-331-8568 | edward.c.rodriguezrobles@usace.army.mil | | 1222 Spruce Street | #4 | St. Louis | 63103 | 2833 | MO | CP17-40- |
| Ellie Marr | | Board Liaison | St. Charles County - Floodplain Vision Board | 636-949-7900 ext. 7235 | emarr@scsmo.org | | 201 N Second St | | St. Charles | 63301 | | MO | CP17-40- |
| Frankie Coleman | | District Manager | St. Charles County Soil and Water Conservation District | 636-922-2833 ext. 3 | frankie.coleman@swcdi.mo.gov | | 160 St. Peters Centre Blvd | | St. Peters | 63376 | | MO | CP17-40- |
| Gary Calvert | | Manager of Pools 24, 25 and 26 - Upper Mississippi Conservation Area | Missouri Department of Conservation | 573-898-5905 ext. 1890 | gary.calvert@mdc.mo.gov | | 3333 North Highway 79 | | Elsberry | 63343 | 201 | MO | CP17-40- |
| Heidi Brown-McCreery | | Director of Illinois Historic Preservation Agency | Illinois Historic Preservation Agency | 217-785-1512 | | | 1 Old State Capitol Plaza | | Springfield | 62701 | 1507 | IL | CP17-40- |
| Ivan Dozier | | State Conservationist | USDA-Natural Resources Conservation Service - Illinois State Office | 217-353-6600 | NA | | 2118 W. Park Court | | Champaign | 61821 | | IL | CP17-40- |
| J. Flores | | State Conservationist | USDA-Natural Resources Conservation Service - Missouri State Office | 573-876-0901 | N/A | | Parkade Center 601 Business Loop 70 West | Suite 250 | Columbia | 65203 | 2546 | MO | CP17-40- |
| Jacki Wittenborn | | Formerly Utilized Sites Remedial Action Program | United States Army Corps of Engineers - St. Louis District | 314-331-8183 | jackyn.c.wittenborn@usace.army.mil | | 1222 Spruce Street | #4 | St. Louis | 63103 | 2833 | MO | CP17-40- |
| Jacob Prebianca | | Formerly Utilized Sites Remedial Action Program | United States Army Corps of Engineers - St. Louis District | | Jacob.A.Prebianca@usace.army.mil | | 1222 Spruce Street | #4 | St. Louis | 63103 | 2833 | MO | CP17-40- |
| James M. Knoll | | Supervisor | St. Louis County Department of Highways and Traffic | 314-615-8554 | jmknoll@stlouisco.com | | 41 South Central Ave | | Clayton | 63105 | | MO | CP17-40- |
| Jamie Diebal | | Conservation and Environmental Programs | United States Department of Agriculture-IL State Farm Service Agency Office | 217-241-6600 | jamie.diebal@il.usda.gov | | 3500 Wabash Avenue | | Springfield | 62711 | | IL | CP17-40- |
| Janet Neustadt | | Floodplain Administrator | City of West Alton | 636-899-0333 | N/A | | West Alton City Hall | | West Alton | 63386 | | MO | CP17-40- |
| Jason Farley | | Planning and Zoning Commissioner | City of West Alton | 314-306-4695 | N/A | | West Alton City Hall | | West Alton | 63386 | | MO | CP17-40- |
| Jeff Blackorby | | Resource Conservationist | Jersey County Soil and Water Conservation District | 618-498-3712 | jeff.blackorby@il.nacdnet.net | | 604 E. Franklin | | Jerseyville | 62052 | | IL | CP17-40- |
| Jenn Fear | | District Manager | St. Louis County Soil and Water Conservation District | 636-922-2833 ext. 111 | jenn.fear@swcdi.mo.gov | | 160 St. Peters Centre Blvd | | St. Peters | 63376 | | MO | CP17-40- |
| Jenny Skufka | | Incidental Take Authorization Coordinator | Illinois Department of Natural Resources - Endangered Species | 217-557-8243 | jenny.skufka@illinois.gov | | One Natural Resources Way | | Springfield | 62702 | 1271 | IL | CP17-40- |
| Joe Phillippe | | Environmental Impact Statements Contact | Illinois Historic Preservation Agency | | joe.phillippe@illinois.gov | | 1 Old State Capitol Plaza | | Springfield | 62701 | 1507 | IL | CP17-40- |
| Joe Summerlin | | Environmental Impact Statements Contact | United States Environmental Protection Agency - Region 7 | 913-551-7029 | Summerlin.joe@epa.gov | | 11201 Renner Blvd | | Lenexa | 66219 | | KS | CP17-40- |
| Johanna Fuller | | District Conservationist | USDA-Natural Resources Conservation Service - Scott County/Winchester Field Office | 217-742-9561, ext. 3 | johanna.fuller@il.usda.gov | | 656 North Main | | Winchester | 62694 | | IL | CP17-40- |
| Jon Rankins | | Radiation Safety Officer | United States Army Corps of Engineers - St. Louis District | 314-260-3933 | jonathan.e.rankins@usace.army.mil | | 1222 Spruce Street | #4 | St. Louis | 63103 | 2833 | MO | CP17-40- |
| Judith Deel | | Compliance Coordinator | Missouri State Historic Preservation Office | 573-751-7862 | N/A | | Jefferson City | | Jefferson City | 65102 | | MO | CP17-40- |
| Keith McMullen | | Illinois Section Chief | United States Army Corps of Engineers - St. Louis District | 314-331-8582 | Keith.A.McMullen@usace.army.mil | | 1222 Spruce Street | #4 | St. Louis | 63103 | 2833 | MO | CP17-40- |
| Keith Shank | | Impact Assessment | Illinois Department of Natural Resources - Endangered Species | | keith.shank@illinois.gov | | One Natural Resources Way | | Springfield | 62702 | 1271 | IL | CP17-40- |
| Kevin Maches | | President | Consolidated North County Levee District | 314-750-2519 | skmaches@live.com | | 135 Payne Road | | Portage Des Sioux | 63373 | | MO | CP17-40- |
| Kimberly Martin | | Conservation and Environmental Programs | United States Department of Agriculture-IL State Farm Service Agency Office | 217-241-6600 | kimberly.martin@il.usda.gov | | 3500 Wabash Avenue | | Springfield | 62711 | | IL | CP17-40- |
| Kraig McPeck | | Director | United States Fish and Wildlife - Rock Island Field Office | 309-757-5800 ext. 202 | kraig_mcpeck@fws.gov | | 1511 47th Avenue | | Moine | 61265 | | IL | CP17-40- |
| Kristen Lundh | | Fish and Wildlife Biologist | United States Fish and Wildlife - Rock Island Field Office | 309-757-5800 ext. 215 | kristen_lundh@fws.gov | | 1511 47th Avenue | | Moine | 61265 | | IL | CP17-40- |
| Lance Mueller | | Resource Conservationist | Scott County Soil and Water Conservation District | 217-742-9561 | lance.mueller@il.nacdnet.net | | 656 North Main | | Winchester | 62694 | | IL | CP17-40- |
| Lynn Hoerner | | Real Estate Division | United States Army Corps of Engineers - St. Louis District | 314-331-8157 | melissa.l.hoerner@usace.army.mil | | 1222 Spruce Street | #4 | St. Louis | 63103 | 2833 | MO | CP17-40- |
| Matthew Mangam | | Ecological Services | United States Fish and Wildlife - Marion County Sub-Office | 618) 997-3344, ext. 340 | matthew_mangam@fws.gov | | 8588 Route 148 | | Marion | 62959 | | IL | CP17-40- |
| Michael Chapman | | Implementation Manager - Missouri River Recovery Program | United States Army Corps of Engineers - Kansas City District | 816-389-3310 | Michael.d.chapman@usace.army.mil | | 601 E. 12th Street | | Kansas City | 64106 | | MO | CP17-40- |
| Mike Irwin | | Water Protection Program Section 401 | Missouri Department of Natural Resources | 573-522-1131 | mike.irwin@dnr.mo.gov | | Jefferson City | | Jefferson City | 65102 | | MO | CP17-40- |
| Paul Mueller | | | Missouri Department of Natural Resources | 314-416-2960 | N/A | | Jefferson City | | Jefferson City | 65102 | | MO | CP17-40- |
| Rachel Leibowitz | | Division Manager & Deputy SHPO | Illinois Historic Preservation Agency | 217-785-5031 | rachel.leibowitz@illinois.gov | | 1 Old State Capitol Plaza | | Springfield | 62701 | 1507 | IL | CP17-40- |
| Raenhard Wesselschmidt | | Wildlife Management Biologist | Missouri Department of Conservation - Wildlife | 636-441-4554 ext. 4132 | raenhard.wesselschmidt@mds.mo.gov | | 2360 Hwy D | | St. Charles | 63304 | | MO | CP17-40- |
| Rebecca D. Walls | | County Executive Director | USDA - Farm Service Agency - Scott County | 217-742-9561, ext. 2 | rebecca.walls@il.usda.gov | | 656 North Main St | | Winchester | 63694 | 3611 | IL | CP17-40- |
| Renee Cook | | District Conservationist | USDA-Natural Resources Conservation Service - Missouri County Service Center-St. Charles and St. Louis Counties | 636-952-2283, ext. 105 | renee.cook@mo.usda.gov | | 160 Saint Peters Centre Blvd | | St. Peters | 63376 | | MO | CP17-40- |
| Rich Gnecco | | Director Development Review | St. Charles County - Community Development Department | 636-949-1814 ext. 7160 | development@scsmo.org | | 201 N Second St | | St. Charles | 63301 | | MO | CP17-40- |
| Sara Parker Pauley | | Director | Missouri Department of Natural Resources | 573-522-6221 | N/A | | Jefferson City | | Jefferson City | 65102 | | MO | CP17-40- |
| Stan Crusius | | | Greene County - Floodplain Management | 217-942-5443 | N/A | | 519 N. Main St | | Carrollton | 62016 | | IL | CP17-40- |
| TBD | | NOAA NEPA Coordinator | NOAA National Marine Fisheries Services | 301-713-9668 | noaa.nepa@noaa.gov | | Office of General Counsel 1315 East-West Highway | Room 15132 | Silver Springs | 20910 | | MD | CP17-40- |
| TBD | | | USDA-Farm Service Agency - Carrollton Service Center | 217-942-5402 | | RR Box 129A | Route 267 North | | Carrollton | 62016 | 9545 | IL | CP17-40- |
| TBD | | | USDA - Farm Service Agency - Jerseyville Service Center | 618-498-6836 | | | 604 E Franklin | | Jerseyville | 62052 | 2400 | IL | CP17-40- |
| Terry Savko | | | Illinois Department of Agriculture - Bureau of Land and Water Resources | 217-785-4458 | terry.savko@illinois.gov | | One Natural Resources Way | | Springfield | 62794 | 9281 | IL | CP17-40- |
| Trisha Crabill | | Fish and Wildlife Biologist | United States Fish and Wildlife - Columbia Field Office | 573-234-2132 | trisha_crabill@fws.gov | | 101 Park De Ville Dr | Suite A | Columbia | 65203 | | MO | CP17-40- |
| Virginia Laszewski | | Environmental Impact Statements Contact | United States Environmental Protection Agency - Region 5 | 312-886-7501 | Laszewski.virginia@epa.gov | | 77 W. Jackson Blvd | Mail Code R-19J | Chicago | 60604 | 3590 | IL | CP17-40- |
| Stephen Altman | | P.E. Downstate Regulatory Program | Illinois Department of Natural Resources | (217) 524-1028 | | | One Natural Resources Way | 2nd Floor | Springfield | 62702 | 1271 | IL | CP17-40- |
| Eric Niemeyer | | County Executive Director | USDA-Farm Service Agency - St. Charles County/St. Louis County | 636-922-2833, ext. 105 | eric.niemeyer@mo.usda.gov | | 160 Saint Peters Centre Blvd | | St. Peters | 63376 | | MO | CP17-40- |
| Dan Wiley | | Chief Integrated Resources Stewardship | National Park Service - Lewis and Clark National Historic Trail | 402-661-1830 | dan_wiley@nps.gov | | 601 Riverfront Drive | | Omaha | 68102 | 4226 | NE | CP17-40- |

| Contact Name | Blank | Contact Title | Contact Organization | Phone | Email | P.O. Box | Address Line 1 | Address Line 2 | City | Zip 1 | Zip 2 | State | Docket |
|--------------------------|-------|--|---|-------------------------|--|--------------|--|-----------------------------------|-------------------|-------|-------|-------|----------|
| Andrea A. Hunter | | Tribal Historic Preservation Officer | Osage Nation | 918-287-5328 | | | 627 Grandview | | Pawhuska | 74056 | 4201 | OK | CP17-40- |
| Andrew Gourd | | Asst. Tribal Historic Preservation Officer | Citizen Potawatomi Nation | 405-878-5830 | andrew.gourd@potawatomi.org | | 1601 S. Gordon Cooper Drive | | Shawnee | 74801 | | OK | CP17-40- |
| Bernadette Thomas | | Tribal Councilmember | Kickapoo Tribe in Kansas | 785-486-2601, ext. 5 | | | 1107 Gold Finch Road | | Horton | 66439 | 9537 | KS | CP17-40- |
| Bill John Baker | | Principal Chief and Tribal Historic Preservation Officer | Cherokee Nation | | | | P.O. Box 948 | | Tahlequah | 74465 | | OK | CP17-40- |
| Bill Quackenbush | | Tribal Historic Preservation Officer | Ho-Chunk Nation | 715-284-7181, ext. 1121 | bill.quackenbush@ho-chunk.com | PO Box 667 | P.O. Box 667 | | Black River Falls | 54615 | | WI | CP17-40- |
| Bobby Walkup | | Chairman and THPO | Iowa Tribe of Oklahoma | 405-547-2402 | BWalkup@iowanation.org | | 33588 E. 750 Road | | Perkins | 74059 | | OK | CP17-40- |
| Brice Obermeyer | | Director, Historic Preservation Office | Delaware Tribe of Indians | 918-335-7026 | bricemeyer@delawaretribe.org | | 1200 Commercial St | Roosevelt Hall, Rm 212 | Emporia | 66801 | | KS | CP17-40- |
| Chet Brooks | | Chief | Delaware Tribe of Indians | 918-337-6527 | cbrooks@delawaretribe.org | | 1200 Commercial St | Roosevelt Hall, Rm 212 | Emporia | 66801 | | KS | CP17-40- |
| Crystal Douglas | | Museum Director | Kaw Indian Nation of Oklahoma | 580-269-2552 | cxdcc@kawnation.com Crystal.douglas@kawnation.com | Drawer 50 | Drawer 50 | | Kaw City | 74641 | | OK | CP17-40- |
| Diane Hunter | | Acting Tribal Historic Preservation Officer | Miami Tribe of Oklahoma | 918-541-8966 | dhunter@miamination.com | | 3410 P Street NW | | Miami | 74354 | | OK | CP17-40- |
| Di Hoffman | | Tribal Historic Preservation Officer | Match-e-be-nash-she-wish Band of Potawatomi Indians of Michigan | 906-632-6896 | | | P.O. Box 218 | | Dorr | 49233 | | MI | CP17-40- |
| Douglas Lankford | | Chief | Miami Tribe of Oklahoma | | | | P.O. Box 1326 | | Miami | 74355 | | OK | CP17-40- |
| Earl Meshigaud | | Tribal Historic Preservation Officer | Potawatomi Nation-Hannahville Indian Community | 906-466-9933 | | | 114911 Hannahville B-1 Road | | Wilson | 49896 | | MI | CP17-40- |
| Earl S. Howe III | | Chairman | Ponca Tribe of Oklahoma | 580-762-8104 | | | 20 White Eagle Drive | | Ponca City | 74601 | | OK | CP17-40- |
| Edmore Green | | Chief | Sac and Fox Tribe of the Missouri in Kansas and Nebraska | 785-742-7471 | egreen@sacandfoxcasino.com | | 305 North Main | | Reserve | 66434 | | KS | CP17-40- |
| Edwina Butler-Wofle | | Governor | Absentee-Shawnee Tribe of Indians of Oklahoma | 405-275-4030 | | | 2025 South Gordon Cooper Drive | | Shawnee | 74801 | | OK | CP17-40- |
| Elizabeth Kay Rhoads | | Principal Chief | Sac and Fox Nation of Oklahoma | 918-968-3526 | elizabeth@foxnation-nsn.gov | | 920883 S. Hwy 99 | Bldg A | Stroud | 74079 | 5178 | OK | CP17-40- |
| Elvis E. Ellis | | Repatriation/NAGPRA Committee, Chairman | Sac and Fox Nation of Oklahoma | | | | 920883 S. Hwy 99 | Bldg A | Stroud | 74079 | 5178 | OK | CP17-40- |
| Eric Osohwee-Voss | | Acting Tribal Historic Preservation Officer | United Keetoowah Band of Cherokee Indians of Oklahoma | 918-456-8698 | | PO Box 746 | P.O. Box 746 | | Tahlequah | 74465 | | OK | CP17-40- |
| Everett Bandy | | THPO | Quapaw Tribe of Oklahoma | 888-641-4724 | ebandy@quapawtribe.com | | P.O. Box 765 | | Quapaw | 74363 | | OK | CP17-40- |
| Geoffrey Standing Bear | | Principle Chief | Osage Nation | 918-287-5555 | | | 627 Grandview | | Pawhuska | 74056 | 4201 | OK | CP17-40- |
| Gilbert Salazar | | Chairman | Kickapoo Tribe of Oklahoma | | | | P.O. Box 70 | | McCloud | 74851 | | OK | CP17-40- |
| Glenna J. Wallace | | Chief | Eastern Shawnee Tribe of Oklahoma | 918-666-2435 | | | 12755 S 705 Rd | | Wyandotte | 74370 | 3148 | OK | CP17-40- |
| Halona Clawson | | Tribal Historic Preservation Officer | Ponca Tribe of Oklahoma | 580-762-8104 | halona.clawson@ponca.com | | 20 White Eagle Drive | | Ponca City | 74601 | | OK | CP17-40- |
| Harold Frank | | Chairman | Forest County Potawatomi | | | | P.O. Box 340 | | Crandon | 54520 | 0340 | WI | CP17-40- |
| Hattie Mitchell | | Chairman | Prairie Band Potawatomi Nation | 785-966-4000 | hattiem@pbnation.org | | 16281 Q Road | | Mayetta | 66509 | 8970 | KS | CP17-40- |
| Henry Payer | | Tribal Historic Preservation Officer | Winnebago of Nebraska | | | | P.O. Box 687 | | Winnebago | 68071 | 687 | NE | CP17-40- |
| Jacqyn Secundine Hensley | | Chairman | Kaw Indian Nation of Oklahoma | 580-269-2552 | jacqyn@kawnation.com Crystal.douglas@kawnation.com | Drawer 50 | Drawer 50 | | Kaw City | 74641 | | OK | CP17-40- |
| Jamie Stuck | | Chairman | Nottawaseppi Huron Band of the Potawatomi | 269-729-5151 | jstuck@nhbpi.com | | 2221 1 1/2 Mile Road | | Fulton | 49052 | 9602 | MI | CP17-40- |
| Jason Dollarhide | | Repatriation/NAGPRA Committee, Chairperson | Peoria Tribe of Indians of Oklahoma | 918-540-2535 | | | 118 S. Eight Tribes Trails | | Miami | 74355 | | OK | CP17-40- |
| Jason Scott Wesaw | | Tribal Historic Preservation Officer | Potagon Band of Potawatomi Indians | | | | P.O. Box 180 | | Dowagiac | 49047 | | MI | CP17-40- |
| Jodi Hayes | | Archaeologist | Shawnee Tribe | 918-542-2441 | | | P.O. Box 189 | | Miami | 74355 | 0189 | OK | CP17-40- |
| Joe Bunch | | Chief | United Keetoowah (Band of Cherokee Indians in Oklahoma) | | | | P.O. Box 746 | | Tahlequah | 74465 | | OK | CP17-40- |
| John Barrett, Jr. | | Chairman | Citizen Potawatomi Nation | 405-275-3121 | jbarrett@potawatomi.org | | 1601 S. Gordon Cooper Drive | | Shawnee | 74801 | | OK | CP17-40- |
| John Berrey | | Chairman | Quapaw Tribe of Oklahoma | 888-641-4724 | ebandy@quapawtribe.com | P.O. Box 765 | P.O. Box 765 | | Quapaw | 74363 | | OK | CP17-40- |
| John Blackhawk | | Chairman | Winnebago Tribe of Nebraska | 402-878-3103 | jblackhawk@paol.com | PO Box 687 | P.O. Box 687 | | Winnebago | 68071 | 687 | NE | CP17-40- |
| John Fox | | Archaeologist | Osage Nation | 918-287-5328 | jfox@osagetribe.org | P.O. Box 779 | 627 Grandview | | Pawhuska | 74056 | 4201 | OK | CP17-40- |
| John P. Froman | | Chief | Peoria Tribe of Indians of Oklahoma | 918-540-4155 | | | P.O. Box 1527 | | Miami | 74355 | | OK | CP17-40- |
| John Ross | | Section 106 Manager | Delaware Nation | | | | P.O. Box 825 | | Anadarko | 73005 | | OK | CP17-40- |
| John Warren | | Chairman | Potagon Band of Potawatomi Indians | | | | P.O. Box 180 | | Dowagiac | 49047 | | OK | CP17-40- |
| Johnathan L. Buffalo | | Historic Preservation Director | Sac and Fox Tribe of the Mississippi in Iowa | 641-484-3185 | director_historic@mskhwaki-nsn.org | | 349 Meshwaki Road | | Tama | 52339 | | IA | CP17-40- |
| Juan Garza, Jr. | | Chairman | Kickapoo Traditional Tribe of Texas | 830-758-1936 | juangarza73@yahoo.com | | HCR 1, Box 9700 | | Eagle Pass | 78852 | | TX | CP17-40- |
| Kelli Mosteller | | Tribal Historic Preservation Officer | Citizen Potawatomi Nation | (405) 878-5830 | | | 1601 S. Gordon Cooper Drive | | Shawnee | 74801 | | OK | CP17-40- |
| Kenneth Meshigaud | | Chairperson | Potawatomi Nation-Hannahville Indian Community | 906-466-9933 | kennethmeshigaud@hannahville.org | | 114911 Hannahville B-1 Road | | Wilson | 49896 | | MI | CP17-40- |
| Kent Collier | | Attorney/Preservation Rep | Kickapoo Tribe of Oklahoma | 405-964-7053 | kcollier@kickapootribeofoklahoma.com | | P.O. Box 70 | | McCloud | 74851 | | OK | CP17-40- |
| Kerry Holton | | President | Delaware Nation | (405) 247-2448 | | | P.O. Box 825 | | Anadarko | 73005 | | OK | CP17-40- |
| Lance M. Foster | | Tribal Historic Preservation Officer | Iowa Tribe of Kansas and Nebraska | 785-595-3258 | lfoster@iowas.org | | 3345 B. Thrasher Road | | White Cloud | 66094 | 4028 | KS | CP17-40- |
| Larry Wright, Jr. | | Chairman | Ponca Tribe of Nebraska | | | | P.O. Box 288 | | Niobrara | 68760 | | NE | CP17-40- |
| Leonard Longhorn | | Tribal Historic Preservation Officer | Absentee-Shawnee Tribe of Indians of Oklahoma | 405-275-4030 | leonard.longhorn@astrbe.com | | 2025 South Gordon Cooper Drive | | Shawnee | 74801 | | OK | CP17-40- |
| Lester Randall | | Chairman | Kickapoo Tribe in Kansas | (785) 486-2131 | | | 1107 Gold Finch Road | | Horton | 66439 | 9537 | KS | CP17-40- |
| Liana Onnen | | Chairperson | Prairie Band Potawatomi Nation | (785) 966-4000 | | | 16281 Q Road | | Mayetta | 66509 | 8970 | KS | CP17-40- |
| Logan Pappenfort | | Historic Preservation Officer | Peoria Tribe of Indians of Oklahoma | 918-540-2535 | lpappenfort@peoriatribes.com | | P.O. Box 1527 | | Miami | 74355 | | OK | CP17-40- |
| Marcus Winchester | | Tribal Historic Preservation Officer | Potagon Band of Potawatomi Indians | 269-462-4224 | marcus.winchester@potagonband-nsn.gov | P.O. Box 180 | P.O. Box 180 | | Dowagiac | 49047 | | MI | CP17-40- |
| Melissa Cook | | Tribal Historic Preservation Officer | Forest County Potawatomi | 800-960-5479 | melissa.cook@fcpotawatomi-nsn.gov | | P.O. Box 340 | Cultural Center, Library & Museum | Crandon | 54520 | | WI | CP17-40- |
| Mon-ee Zapata | | Cultural Specialist | Nottawaseppi Huron Band of the Potawatomi | 269-704-8353 | mzapata@nhbpi.com | | 311 State Street | | Grand Rapids | 49503 | | MI | CP17-40- |
| Nekole Allgood | | Director of Cultural Preservation | Delaware Nation | 405-247-2448 | nallgood@delawarenation.com | P.O. Box 825 | 31064 State Highway 281 R.R. 1, Box 721 | | Anadarko | 73005 | | OK | CP17-40- |
| Patrick Durham | | Division Director | Iowa Tribe of Oklahoma | 405-547-5433, ext. 350 | pdurham@iowanation.org | | P.O. Box 288 | | Perkins | 74059 | 9599 | OK | CP17-40- |
| Randy Teboe | | Tribal Historic Preservation Officer | Ponca Tribe of Nebraska | | | | P.O. Box 948 | | Niobrara | 68760 | | NE | CP17-40- |
| Richard Allen | | Archaeologist | Cherokee Nation | 918-456-6485 | | | P.O. Box 948 | | Tahlequah | 74465 | | OK | CP17-40- |
| Robin Dushane | | Cultural Preservation Director | Eastern Shawnee Tribe of Oklahoma | 918-666-2435, ext. 247 | rdushane@gmail.com | P.O. Box 350 | 127 West Oneida | | Seneca | 64865 | | MO | CP17-40- |
| Robyn Burlingham | | Council Board | Citizen Potawatomi Nation | 269-704-8373 | rburlingham@nhbpi.com | | 1484 Mno-Bmadzewen Way | | Fulton | 49052 | | MI | CP17-40- |
| Ron Sparkman | | Chief | Shawnee Tribe | | | | P.O. Box 189 | | Miami | 74355 | 0189 | OK | CP17-40- |
| Sandra Kaye Massey | | Cultural Resources | Sac and Fox Nation of Oklahoma | 918-968-3526 | samassey@sacandfoxnation-nsn.gov | | 920883 S. Hwy 99 | Bldg A | Stroud | 74079 | 5178 | OK | CP17-40- |
| Scott Sprague | | Chairman | Match-e-be-nash-She-Wish Band of Pottawatomi Indians (Gun Lake Tribe) | | | | 2872 Mission Drive | | Shelbyville | 49344 | | MI | CP17-40- |
| Shannon Wright | | Tribal Historic Preservation Officer | Ponca Tribe of Nebraska | 402-857-3519 | N/A | P.O. Box 288 | P.O. Box 288 | | Niobrara | 68760 | | NE | CP17-40- |
| Sydney Martin | | Tribal Historic Preservation Officer | Match-e-be-nash-she-wish Band of Pottawatomi Indians | 616-896-7576 | | | 3556 26th Street | | Hopkins | 49328 | | MI | CP17-40- |
| Timothy Rhoad | | Chairman | Iowa Tribe of Kansas and Nebraska | 785-595-3347 | | | 3345 B. Thrasher Road | | White Cloud | 66094 | 4028 | KS | CP17-40- |

Appendix 1-1
Spire STL Pipeline
Additional Contacts List

| Contact Name | Blank | Contact Title | Contact Organization | Phone | Email | P.O. Box | Address Line 1 | Address Line 2 | City | Zip 1 | Zip 2 | State | Docket |
|------------------------|-------|---|---------------------------|------------------|--|-----------------------|--|----------------|-------------------|-------|-------|-------|----------|
| Alan Poggemoeller | | | | 636-899-0634 | | | 6565 Portage Rd | | Portage Des Sioux | 63373 | | MO | CP17-40- |
| Andrea Ahearn | | Account Manager | Aerotek | 314-801-5245 | aahearn@aerotek.com | | Two City Place Drive | Suite 100 | St. Louis | 63141 | | MO | CP17-40- |
| Bernie Dang | | | | 217-788-4306 | | | 25265 Bethany Ch. Rd. | | Springfield | 62701 | | IL | CP17-40- |
| Bill & Suzanne O'Brien | | | | 314-831-4233 | billysueob@att.net | | 2265 Wedgewood Dr. | | Florissant | 63037 | | MO | CP17-40- |
| Blake Hurst | | Board of Directors President | MO Farm Bureau | 573-893-1400 | | | 701 S. Country Club Drive | | Jefferson City | 65109 | | MO | CP17-40- |
| Blake Roderick | | Executive Director | IL Farm Bureau | 217-473-1600 C | blake@pkecfb.org | | 7 E Market St. | | Winchester | 62694 | | IL | CP17-40- |
| Bob Manns | | | | 618-498-6418 | | | 1004 State Hwy. 16 | | Jerseyville | 62052 | | IL | CP17-40- |
| Bob McDonald | | | | 618-304-2447 | | | 23783 Rangeline Rd | | Jerseyville | 62052 | | IL | CP17-40- |
| Bonnie Diaz | | | | 314-615-7116 | bdiaz@stlouisco.com | | 41 S. Central Ave | | St. Louis | 63105 | | MO | CP17-40- |
| Brad Behymer | | | | 942-5402 ex. 112 | bradley.behymer@il.usda.gov | | RR #3 Box 129A | | Carrollton | 62016 | | IL | CP17-40- |
| Brad Wilson | | | | 217-245-9071 | bwilson@rblawyers.net | | 6 Rosemary Lane | | Jacksonville | 62650 | | IL | CP17-40- |
| Charlie Rives | | | Greene County Rural Water | 217-248-6292 | | | 323A 6th Street | | Carrollton | 62016 | | IL | CP17-40- |
| Chauncey Granger | | Principal of Hazelwood Southeast Middle School | Hazelwood School District | 314-953-5000 | CGranger@hazelwoodschoools.org | | 15955 New Halls Ferry Road | | Florissant | 63031 | | MO | CP17-40- |
| Dan Drescher | | | | | cdandrescher@aol.com | | PO Box 73 | | Elsah | 62028 | | IL | CP17-40- |
| Danny R. Miller | | | | | | Box 15 | | | Fieldon | 62031 | | IL | CP17-40- |
| Daryl Knobbe | | | | 314-486-6042 | dknobbe@orcolan.com | | 4 Westbury | | St. Charles | 63303 | | MO | CP17-40- |
| David Bonderer | | | | 636-899-0933 | saalef@ao.com | | 535 Saale Rd. | | West Alton | 63301 | | MO | CP17-40- |
| Dee Damm | | | | | | | RR #3 Box 14 | | Roodhouse | 62082 | | IL | CP17-40- |
| Emma Crathis | | | | | | | 1901 Chocteau Ave | | St. Louis | 63103 | | MO | CP17-40- |
| Eric Arbetter | | Assistant Superintendent for Curriculum and Instruction | Hazelwood School District | 314-953-5000 | earbetr@hazelwoodschoools.org | | 15955 New Halls Ferry Road | | Florissant | 63031 | | MO | CP17-40- |
| Fred Marshall | | | | 618-498-2949 | | | 26810 Old Fidelity Road | | Jerseyville | 62052 | | IL | CP17-40- |
| Fred Randolph | | | | 217-248-1893 | randolphfarms@yahoo.com | | RR #1 Box 7A | | Carrollton | 62016 | | IL | CP17-40- |
| Greg Bates | | | | 618-779-2417 | | | 1009 State HWY 16 | | Jerseyville | 62052 | | IL | CP17-40- |
| Henry Kallal | | | | 618-498-9534 | | | 20398 Lax Cemetery Rd. | | Jerseyville | 62052 | | IL | CP17-40- |
| Jeanne Clanton | | | | 314-331-8810 | wille@richterfarms.com | | RR1 Box 12A | | Carrollton | 62016 | | IL | CP17-40- |
| Jeff Haug | | Assistant Superintendent for Middle School Education | Hazelwood School District | 314-953-5000 | jhaug@hazelwoodschoools.org | | 15955 New Halls Ferry Road | | Florissant | 63031 | | MO | CP17-40- |
| Jeff Naville | | | | 217-381-8100 | jnaville@midwestlaborers.org | | RR 1 Box 40 B | | Rockbridge | 62081 | | IL | CP17-40- |
| Jerry Harris | | | | 314-355-0369 | | | 1008 Prigge Road | | St. Louis | 63138 | | MO | CP17-40- |
| Jim Boerding | | | | 636-634-1779 | | | 5520 N. HWY 94 | | St. Charles | 63301 | | MO | CP17-40- |
| Jim Massmann | | | | 314-560-2244 | jmassmann@sbrglobal.net | | 1130 Shadowoak Dr. | | Ballwin | 63021 | | MO | CP17-40- |
| Joey Naville | | | | 217-204-3895 | | | RR1 Box10B | | Rockbridge | 62081 | | IL | CP17-40- |
| John Coonrod | | | | 217-370-3593 | john.p.coonrod@coonrodlawoffice.com | | PO Box 197 | | Winchester | 62694 | | IL | CP17-40- |
| John Reed | | | | 618-303-4856 | | PO Box 14 18 Mill St. | | | Elsah | 62028 | | IL | CP17-40- |
| John Spencer | | | | | spencerib1@yahoo.com | | 67 Spencer Rd | | Roodhouse | 62082 | | IL | CP17-40- |
| Laef Lorton | | | | | | | 123 W. Pearl | | Jerseyville | 62052 | | IL | CP17-40- |
| Larry Gowrley | | | | 314-575-1910 | | | RR3 Box 233 | | Carrollton | 62016 | | IL | CP17-40- |
| Larry Mead | | | | 618-498-2998 | | | 23336 Beach Ct. | | Jerseyville | 62052 | | IL | CP17-40- |
| Laura Duckett | | | | 217-341-5084 | lduckett@gmail.com | | RR 1 Box 98A | | Roodhouse | 62082 | | IL | CP17-40- |
| Linda Dislehorst | | | | 217-787-3920 | linddis@aol.com | | 2232 W Laurel St | | Springfield | 62704 | | IL | CP17-40- |
| Marcelyn Love | | | | | marcelynlove@yahoo.com | | 3117 LaConner Dr | | Springfield | 62704 | | IL | CP17-40- |
| Mark Poggemoeller | | | | 636-899-0634 | | | 6565 Portage Rd | | Portage Des Sioux | 63373 | | MO | CP17-40- |
| Melissa McKenna | | | | 618-304-2447 | bluesfarmlm@frontier.net | | 404 Short St. | | Jerseyville | 62052 | | IL | CP17-40- |
| Michael Morgan | | | | | | | 34120 Canoe Ct. | | Brighton | 62012 | | IL | CP17-40- |
| Michael Thelen | | Director of Maintenance | Hazelwood School District | 314-953-5000 | mthelen@hazelwoodschoools.org | | 15955 New Halls Ferry Road | | Florissant | 63031 | | MO | CP17-40- |
| Mike Gourley | | | | 217-371-9661 | Gourley03@frontier.com | | RR#3 Box 124 | | Carrollton | 62016 | | IL | CP17-40- |
| Monty Sade | | | | 314-393-6515 | | | 1290 Sade Dr | | West Alton | 63386 | | IL | CP17-40- |
| Nick W. Graham | | | | 217-942-6966 | nick@gustinelaw.com | | 620 North Main St. | | Carrollton | 62016 | | IL | CP17-40- |
| Norman Sacks | | | | 636-561-0993 | | | 111 Wake Forest Pl | | O'Fallon | 63368 | | MO | CP17-40- |
| Rachel Cooper | | | | 217-320-2492 | starcoop@frontier.com | | 1247 Clay Hollow Rd | | Winchester | 62694 | | IL | CP17-40- |
| Randall Henson | | | | 217-204-3193 | | | 1107 Hawkland Dr. | | Carrollton | 62016 | | IL | CP17-40- |
| Randy Harris | | | | 217-782-4306 | rharris@midwestlaborers.org | | 1 NW, Old State Capital Plaza Ste. 525 | | Springfield | 62701 | | IL | CP17-40- |
| Ray Sinclair | | | | 618-535-5642 | rsinclair62052@gmail.com | | 20306 Otterville Rd | | Jerseyville | 62052 | | IL | CP17-40- |
| Rich Georgy | | | | | | | RR 1 Box 136 | | Roodhouse | 62082 | | IL | CP17-40- |
| Rob Hedger | | | | 618-304-7090 | | | 1210 Eagle Ln | | Grafton | 62037 | | IL | CP17-40- |
| Robert Ginness | | | | 636-947-7711 | guinness@ste.legal.com | | 50 Hill Pointe Ct. Ste 200 | | St. Charles | 63303 | | MO | CP17-40- |
| Shawn Saale | | | | 636-397-4500 | shawns@saalebailey.com | | 220 Salt Lick Road | | St. Peters | 63376 | | MO | CP17-40- |
| Shirley VanMeter | | | | 217-371-8268 | | | 514 Grant St | | White Hall | 62092 | | IL | CP17-40- |
| Stephanie Knittel | | Manager | IL Farm Bureau | 618-498-9576 | | | 402 S Jefferson St | | Jerseyville | 62052 | | IL | CP17-40- |
| Thomas Mangoena | | Director of Facilities | Hazelwood School District | 314-953-5000 | tjmango@hazelwoodschoools.org | | 15955 New Halls Ferry Road | | Florissant | 63031 | | MO | CP17-40- |
| Tim Eggers | | | | | tegers1@yahoo.com | | 2339 Stoncrest | | Washington | 63090 | | IL | CP17-40- |
| Tony Lucia | | Assistant Director of Custodial Services | Hazelwood School District | 314-953-5000 | alucia@hazelwoodschoools.org | | 15955 New Halls Ferry Road | | Florissant | 63031 | | MO | CP17-40- |
| Vonda Seckler | | | | 618-791-6016 | | | 212 Willow Dr | | Collinsville | 62234 | | IL | CP17-40- |

Appendix 1-1
 Spire STL Pipeline
 Newspaper and Library Contact List

| Contact Name | Blank | Contact Title | Contact Organization | Phone | Email | P.O. Box | Address Line 1 | Address Line 2 | City | Zip 1 | Zip 2 | State | Docket |
|---------------|-------|---------------------------------------|---|--------------|--|----------|------------------------------------|----------------|-------------------|-------|-------|-------|----------|
| Angie Custer | | Branch Manager | Carrollton Public Library | 217-942-6715 | | | 509 S Main St | | Carrollton | 62016 | | IL | CP17-40- |
| Anita Driver | | Director | Jerseyville Public Library | 618-498-9514 | anitad@jerseyvillelibrary.org | | 105 N Liberty St | | Jerseyville | 62052 | | IL | CP17-40- |
| Ann King | | Branch Manager | St Charles City-County Library | 636-753-3070 | aking@stchlibrary.org | | 1825 Common Field St | | Portage Des Sioux | 63373 | | MO | CP17-40- |
| Bob Botelho | | Account Manager, Strategic Media | Gas Daily | 720-264-6618 | Robert.Botelho@spglobal.com | | 1800 Larimer St. | Suite 2000 | Denver | 80202 | | CO | CP17-40- |
| Bob Huneke | | Publisher | O'Fallon Community News | 636-379-1780 | bhuneke@mycnews.com | | 2139 Bryan Valley Commercial Drive | | O'Fallon | 63366 | | MO | CP17-40- |
| Bob Lindsey | | Publisher | FloValley News | 314-831-4645 | independentnws@aol.com | | 25 St. Anthony Lane | | Florissant | 63031 | | MO | CP17-40- |
| Darlene Smith | | Branch Manager | Winchester Public Library | 217-742-3150 | winplibrary@irtc.net | | 215 N Main St | | Winchester | 62694 | | IL | CP17-40- |
| Kristen Sorth | | Director | St Louis County Library (Jamestown Bluffs Branch) | 314-994-3300 | | | 4153 N Hwy 67 | | Florissant | 63034 | | MO | CP17-40- |
| Matt Ceresia | | Advertising | St. Louis Business Journal | 314-421-8343 | mceresia@bizjournals.com | | 815 Olive St. | Suite 100 | St. Louis | 63101 | | MO | CP17-40- |
| Nichole Liehr | | Advertising Director, General Manager | Scott County Times | 217-285-2345 | nliehr@campbellpublications.net | | 115 W. Jefferson | | Pittsfield | 62363 | | IL | CP17-40- |
| Nichole Liehr | | Advertising Director, General Manager | Greene Prairie Press | 217-285-2345 | nliehr@campbellpublications.net | | 115 W. Jefferson | | Pittsfield | 62363 | | IL | CP17-40- |
| Nichole Liehr | | Advertising Director, General Manager | Jersey County Journal | 217-285-2345 | nliehr@campbellpublications.net | | 115 W. Jefferson | | Pittsfield | 62363 | | IL | CP17-40- |



APPENDIX 1-J

Landowner Complaint Resolution Process



APPENDIX 1-K
Response to Scoping Comments

**Appendix 1-K
Spire STL Pipeline
Comment Letters and Scoping Comments (received since January 2017)**

| Agency and/or Individual | Date | Type | Comment | Response | Location Where Comment is Addressed | | |
|--|-----------|------------------------|--|---|-------------------------------------|----------------|------------|
| | | | | | Resource Report | Section | Page |
| Eastern Missouri Laborers' District Council (Gary Elliott) | 1/4/2017 | Comment Letter to FERC | [Filed in Docket No. PF17-9-000]. I am writing to urge approval of the Spire STL Pipeline Project, which will not only create good jobs and bring affordable domestic energy to Missouri and Illinois' residents but will also improve and expand on existing infrastructure. As the Business Manager of the Eastern Missouri Laborers' District Council (EMLDC), I am proud to represent LIUNA members in the construction industry throughout 62 counties in the State of Missouri including both St. Charles and St. Louis Counties. Our workers are trained and ready to build this pipeline, and, as members of LIUNA, belong to an organization with more than a century of experience safely building pipelines in virtually every state and province of the U.S. and Canada. In just the last year, members across the nation worked 15 million hours safely building pipelines. LIUNA workers, many of whom live in communities along the route, build to the highest standards, including making sure property is returned to its original state, if not better. The Spire Pipeline will also benefit Illinois and Missouri residents by creating good jobs, sparking economic activity in towns along the route and adding to public coffers through increased tax revenue. I urge you to consider the thousands of hard-working Americans who will have access to lower energy costs and quality careers because of the pipeline. | Spire acknowledges the Eastern Missouri Laborers' District Council comments in support of the Project. Additional information regarding potential employment is provided in Resource Report 5 of Spire's Amendment to Application filing in April 2017. | 5 | 5.1.1 | 5-1 |
| Enable Mississippi River Transmission, LLC | 2/2/2017 | Motion to Intervene | No comments included. | - | NA | NA | NA |
| Missouri Public Service Commission | 2/3/2017 | Motion to Intervene | No comments included. | - | NA | NA | NA |
| Panhandle Eastern Pipe Line Company, LP | 2/7/2017 | Motion to Intervene | No comments included. | - | NA | NA | NA |
| Southern Star Central Gas Pipeline, Inc. | 2/10/2017 | Motion to Intervene | No comments included. | - | NA | NA | NA |
| Industrial Energy Consumers of America | 2/14/2017 | Comment Letter to FERC | <p>On behalf of the Industrial Energy Consumers of America (IECA) we urge approval of the Spire STL Pipeline, LLC. IECA member companies are natural gas and electricity-intensive consuming companies from every major industrial sector. We are an important stakeholder because our ability to maintain and increase manufacturing jobs is completely dependent upon an increase in the deliverability of the supply of natural gas. If we do not have sufficient deliverability capabilities to move natural gas to operate our facilities, we have no choice but to relocate to other states or offshore. Manufacturing companies do not have an alternative for natural gas. Major manufacturing production processes and equipment are designed to specifically use natural gas. Nothing else can be substituted for natural gas. We cannot operate manufacturing facilities on electricity, especially solar or wind power. Coal and oil are also not an alternative for a variety of reasons, including EPA air regulations that limit their use.</p> <p>IECA is a nonpartisan association of leading manufacturing companies with over \$1.0 trillion in annual sales, and with more than 1.6 million employees. It is an organization created to promote the interests of manufacturing companies through advocacy and collaboration for which the availability, use and cost of energy, power or feedstock play a significant role in their ability to compete in domestic and world markets. IECA membership represents a diverse set of industries including: chemicals, plastics, steel, iron ore, aluminum, paper, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, automotive, brewing, independent oil refining, and cement.</p> <p>There are entities that oppose building this pipeline, and the motives vary. There is a significant environmental activist movement who call for and support the "keep it in the ground" mantra. Their objective is to force their will upon consumers of natural gas in order to stop the use of fossil fuels for other alternatives, such as the exclusive production of electricity from solar or wind. These activists do not represent consumers in the states and they are not accountable for millions of employees who work in our factories in order to sustain their families and lifestyles. They represent an ideology that is not realistic when it comes to commerce or the wellbeing and safety of consumers who need the natural gas from this pipeline to heat their homes. For the record, IECA and its member companies support cost-effective production of renewable energy and its many environmental benefits. However, renewable energy is not a viable alternative to replace natural gas in manufacturing. Manufacturing companies cannot operate facilities on electricity alone, whether it is produced from renewable energy, natural gas, nuclear, hydro, or coal. Our equipment will only operate on natural gas. And, natural gas on a Btu basis costs substantially less than a Btu of electricity. This is important because manufacturers compete globally and the competition is very tough. Business orders can be won or lost based on pennies on the dollar. If costs are not kept low, our products will be displaced by foreign imports. Due to technical limitations of manufacturers, if we were forced to stop using natural gas, we would have no choice but to shutdown.</p> <p>Also, renewable energy from solar and wind are variable and provide little capacity value to the grid. Supply is determined by when the wind blows and when the sun shines. Most manufacturing facilities operate 24/7, so consistency of supply is crucial. If we have an electricity isruption, it can result in the shutdown of the entire facility, causing product losses and damage to equipment. The disruption in supply of electricity can cost a single manufacturer millions of dollars, depending on size. Gas-fired power generation is low-cost in and of itself, but it also fills the void when renewable power is not available. It assumes the vitally important role of stabilizing the power grid as more intermittent renewables are added to the system, driven by increased state renewable portfolio standards. Therefore, activists should not be able to deny this fundamental service of natural gas supply to consumers in the states. Activists' motives are impractical and dangerous to the safety of people living in the states. Imagine forcing homeowners to be solely dependent upon renewable energy during severe weather conditions. If this pipeline is not built, activists will not be held accountable for the results. However, the FERC's mandate does include acting in support of the public interest, and FERC should act upon it.</p> <p>FERC has the responsibility to approve this pipeline to prevent commerce from slowing or stopping at great costs to the U.S. economy. Manufacturing companies buy raw materials from other manufacturing companies and sell their products to other manufacturers. This fully integrated network of suppliers, called the supply chain includes facility locations all over the country. This is called the supply chain and it is very integrated. Disruptions to the supply chain are costly. Of course, the ultimate consumer of these products is the retail consumer.</p> <p>For example, let us assume that Company A will be supplied by the pipeline. Company A purchases raw material inputs to produce its products. Its suppliers may also be dependent upon the pipeline. Company A is also a supplier to other manufacturing companies who may or may not be supplied by the pipeline. If U.S. manufacturers cannot supply the goods others need, they will be imported. Although importing products may be the best solution, it does not preserve U.S.-based jobs or job-related economic growth.</p> | <p>Spire acknowledges Industrial Energy Consumers of America's comments in support of the Project. Additional information regarding the Project's purpose and need is provided in Resource Report 1 and potential employment is provided in Resource Report 5 of Spire's Amendment to Application filing in April 2017.</p> | 1 5 | 1.1.1 5.1.1 | 1-1 5-1 |

**Appendix 1-K
Spire STL Pipeline
Comment Letters and Scoping Comments (received since January 2017)**

| Agency and/or Individual | Date | Type | Comment | Response | Location Where Comment is Addressed | | |
|--|-----------|---|---|--|-------------------------------------|----------------|-------------|
| | | | | | Resource Report | Section | Page |
| | | | The Spire STL Pipeline, LLC will traverse Illinois and Missouri and supply needed natural gas to allow manufacturing companies in these states to produce their products. According to the U.S. Energy Information Administration (EIA), natural gas demand by manufacturing companies in these states has increased by 6.6 percent since 2006. Adding new pipeline capacity relieves congestion in the overall geographic area and helps to avoid pipeline transportation costs that are due to congestion. The following information makes it clear that manufacturing companies are vital to the economy of these states. [See Table] It is taking too long for the Commission to review and make a determination on whether a natural gas pipeline is approved. According to research conducted by Bloomberg Intelligence, "since the end of 2013, it takes almost 70 days longer to go from an initial FERC filing to notice of construction. Overall, the average approval time was 429 days." Manufacturing companies cannot make capital investment decisions without knowing there is new available pipeline capacity. We urge the Commission to fully understand that the U.S. is in competition with the world for economic growth. Every day of delay in approving a pipeline cascades into delays of other very significant capital investments. Manufacturing sector growth is largely dependent upon access to affordable natural gas and feedstocks that can only be delivered by pipeline. IECA urges the FERC to approve the pipeline and to reject the claims of the environmental "keep it in the ground" movement. We also ask that the decision is not delayed. It is in the public interest to approve the pipeline and ensure the absolute necessity of natural gas supply to manufacturers in these states. | | | | |
| Enable Mississippi River Transmission, LLC | 2/17/2017 | Motion to Stay Proceeding or Reject Application | Enable Mississippi River Transmission, LLC argues that the proceeding should be stayed, or the application rejected, based on comments submitted by the Foundation Shipper in its related Missouri Public Service Commission regulatory proceeding involving Line 880. | Spire filed an answer in Opposition to Motion to Reject or Stay on February 21, 2017. | NA | NA | NA |
| Individual (Chloe Jackson) | 2/22/2017 | Comment Letter to FERC | I am writing to express my opposition to the proposed Spire STL Pipeline Project. As a resident of St. Louis, I am concerned about our community's continued use of fossil fuels and their impacts on the health of our city and our planet. Natural gas has been touted as a "clean" energy source, but it is far from it. I do not want our city to be supporting fuels that require the destruction of the environment. Natural gas often requires hydraulic fracturing (fracking), which even the Environmental Protection Agency (EPA) has warned threatens our drinking water. Furthermore, I am concerned about climate change. I am 22 years old and currently work as a Climate Justice Organizer at a local nonprofit. I studied Environmental Studies in college, and decided to dedicate my life to fighting for a better future for me and the children I hope to have someday, as well as the children who are already living on this beautiful planet that we all call home. Natural gas production, while it may emit less carbon, emits methane, an even more potent greenhouse gas. As climate change's impacts become ever more clear (I am writing this on a 60 degree February day in Missouri), it should be increasingly obvious that we must stop fossil fuel extraction and make a rapid transition to wind and solar energy. I'm also concerned about the route of this pipeline. It is proposed to go through environmental justice communities, which the EPA has already mentioned in their comments to FERC. A pipeline going through these areas will not do anything to alleviate these injustices. All pipelines leak, and the construction process has the potential to cause extreme noise and air pollution. I also question why this pipeline is proposed to go in front of a school. Children are the most susceptible population to any sort of pollution, and they should be kept far from any hazardous fossil fuel infrastructure. I spend a lot of time researching and acting on environmental issues in the St. Louis region, and did not hear about this pipeline project until six weeks ago. Supposedly Spire has already had "open houses," but I question how public these events were. Many people that I work with as an organizer did not find out about this project until recently and are looking for opportunities to voice their opposition in a public setting. There needs to be another series of public hearings so that impacted residents and community members can voice their concerns. The indigenous nations who have a connection to the land along the proposed pipeline route should also be adequately consulted. This pipeline, like others being proposed and constructed across the nation, perpetuates the belief that companies and governments have the right to do whatever they want with stolen land. It would be a disgrace for a pipeline coming to my own community to join the ranks of the Dakota Access and Sabal Trail Pipelines and their blatant disregard for the desires of indigenous peoples and their allies. I hope the comments FERC receives from citizens like myself are given great thought and time, and not simply explained away with quotes from Spire's biased research. People should come before the interests of oil and gas pipelines, and our government should do a better job of listening to us. | Spire has discussed water quality issues and greenhouse gas issues as part of Resource Report 2, and Resource Report 9 of its FERC Application (submitted in January 2017) and Amendment to Application (submitted in April 2017). As outlined in the Amendment to Application, Spire is no longer pursuing the modifications associated with the existing Line 880. In the early stages of the Project, beginning in June 2016, Spire coordinated with landowners directly affected and abutting the proposed Project areas. In addition, other federal, state and local government officials, non-governmental entities, regulatory agencies and Native American entities were contacted about the Project and communicated with throughout the development of the Project. All the above-mentioned stakeholders were invited to participate in the Project-sponsored Open Houses which were held in August 2016. Notices of these Open Houses were also published in local circulating newspapers per federal requirements. | 2 9 | 2.2.2 9.1.3 | 2-19 9-6 |
| MoGas Pipeline LLC | 2/24/2017 | Motion to Intervene | No comments included. | - | NA | NA | NA |
| Natural Gas Supply Association (Dena E. Wiggins) | 2/27/2017 | Comment Letter to FERC | The Natural Gas Supply Association (NGSA), representing major integrated and independent producers and marketers of domestic natural gas, supports the pipeline industry in its efforts to build much-needed natural gas pipeline infrastructure. Our member companies supply trillions of cubic feet of natural gas each year to a growing number of power plants, local gas utilities, factories and other industrial users. Our commitment to our customers is why we are deeply invested in ensuring that there is adequate infrastructure in place for them to transport their natural gas. Fortunately, our nation has abundant natural gas resources that enable our industry to satisfy all of our customers' needs. In only a few years' time, the United States has become the biggest producer of natural gas in the world. Indeed, estimates of the gas resource base have more than doubled in the last decade. And just since 2010, production has grown almost 30%, with government forecasts calling for production to reach a record-setting near 75 billion cubic feet per day this year. Consumer demand for our commodity has been steadily growing since 2009, and for all the right reasons: it is abundant, American, burns clean and it is affordable. Access to abundant domestic natural gas has given U.S. industrial companies a competitive advantage over their global competition, leading to the resurgence of gas-intensive manufacturing in the United States and the creation of more jobs to construct and fill the resulting new and expanded industrial facilities. At the same time, demand from the power sector has also increased, driven by natural gas' low carbon emissions, retirements of older coal-fired plants, and the comparatively low cost and small footprint of natural gas-fired power plants. In recent years, greater use of natural gas has produced significant reductions in U.S. carbon emissions because, over its lifecycle, natural gas emits only about half the carbon of other fossil fuels when combusted, whether to make electricity, forge steel or provide heat. ⁴ Because of these advantages, along with its lack of sulfur dioxide (SO ₂) or mercury, very little nitrogen oxide (NO _x) and no soot or volatile organic compounds, natural gas is poised to become an even more important part of states' energy portfolios as they seek cleaner energy alternatives in anticipation of compliance with the Environmental Protection Agency's Clean Power Plan (CPP), as well as their own individual state clean energy objectives. | Spire acknowledges the Natural Gas Supply Association comments in support of the Project. Additional information regarding the Project's purpose and need is provided in Resource Report 1 and potential employment is provided in Resource Report 5 of Spire's Amendment to Application filing in April 2017. | 1 5 | 1.1.1 5.1.1 | 1-1 5-1 |

**Appendix 1-K
Spire STL Pipeline
Comment Letters and Scoping Comments (received since January 2017)**

| Agency and/or Individual | Date | Type | Comment | Response | Location Where Comment is Addressed | | |
|---|-----------|------------------------|--|--|-------------------------------------|----------------|------------|
| | | | | | Resource Report | Section | Page |
| | | | In fact, natural gas can help states meet their CPP and other carbon reduction initiative objectives in a reliable manner as greater levels of renewable forms of energy are included in their portfolios. We anticipate that the CPP will likely bring more intermittent renewable energy sources into the generating mix, which could require more available natural gas capacity, particularly when the sun doesn't shine or the wind doesn't blow. Natural gas generating capacity is competitive, flexible and reliable, allowing it to play a fundamental role in ensuring that electricity is available for consumers whenever it is needed -- as long as the needed infrastructure is in place. Adequate infrastructure enhances the resiliency of the energy delivery system, alleviates bottlenecks and provides market liquidity that leads to a more stable pricing environment. The forecasted growth in demand illustrates the need for increased flexibility in our pipeline systems to meet the anticipated variation in demand from the power sector. This flexibility can be achieved through the addition of new pipeline capacity, such as the Spire STL Pipeline Project. The power sector will benefit from a more resilient natural gas delivery system in times of system stress, such as severe weather events. The natural gas industry is committed to environmental stewardship and has a track record of reducing methane emissions. Government data show that natural gas producers successfully reduced their methane emissions by 24% percent while shale gas production almost tripled over the same 2009-2013 timeframe. Our industry is committed to further reductions. | | | | |
| | | | Clearly, plentiful natural gas is good news for consumers however, consumers cannot benefit from this abundance of natural gas if infrastructure is not developed to connect supply with demand. Plentiful natural gas means lower household energy bills; lower overhead costs for businesses and lower costs for products as diverse as pantyhose and fertilizer. Of course, that's in addition to the enormous tax and revenue base generated by natural gas production, which directly employs nearly 1.5 million people in the United States, and indirectly supports the jobs of millions more. Natural gas was one of the few industries that expanded during the recent recession, providing a rare bright light for job-seekers. Over the past decade, natural gas production has become increasingly diversified across the country bringing supply closer to the market area and end-users. Yet insufficient infrastructure can limit users' ability to tap into supplies that are close to their market areas. Natural gas producers are doing our part, making enormous investments in exploration and production of natural gas, while also financially committing to the pipeline projects that provide the capacity needed to bring gas from supply areas to market hubs. But more is needed. The path ahead seems straightforward: in order for Americans to take full advantage of the benefits offered by abundant natural gas supplies, additional natural gas infrastructure must be in place to transport natural gas from the wellhead to consumers. Unnecessary delays in building needed pipelines and related facilities will only hurt the American businesses and households. For these reasons, we encourage the Commission to give this project and all pipeline applications serious consideration to ensure that natural gas infrastructure is built that will allow us to continue to provide natural gas to our customers and to help meet the country's need for reliable and clean energy. | | | | |
| St. Louis County Soil and Water Conservation District (Jennifer Fear) | 2/27/2017 | Comment Letter to FERC | The St. Louis County Soil & Water Conservation District (STL-SWCD) received a Notice of Application on behalf of Spire STL Pipeline, LLC, proposing modifications to seven miles of a 20-inch pipeline in St. Louis County. STL-SWCD has some questions and concerns regarding the expansion to a 24-inch pipe and rerouting of the pipeline. Specifically, the pipeline will now make multiple creek crossings and traverse through more densely populated areas rather than going through existing easements that are much more sparsely populated. If possible, STL-SWCD would prefer the pipeline stay within its original footprint. | Spire coordinated with the SWCD who indicated that their letter was based on the comments from a board member that lives near the Project. The comments were related to the location of the newly proposed North County Extension. Spire is currently working with landowners directly affected by the construction of this portion of the Project. Specific environmental impacts related to the construction and operation of the North County Extension are addressed in Spire's Amendment to Application filing in April 2017. | NA | NA | NA |
| Independent Petroleum Association of America (Susan W Ginsberg) | 2/27/2017 | Comment Letter to FERC | The Independent Petroleum Association of America ("IPAA") submits the following comments in support of the Application by Spire STL Pipeline LLC ("Spire") for Certificates of Public Convenience and Necessity to construct, own, and operate a new interstate natural gas pipeline and to provide interstate natural gas transportation and transportation-related services subject to the jurisdiction of the Federal Energy Regulatory Commission ("FERC" or "Commission"). IPAA represents the thousands of companies that drill 95 percent of America's onshore and offshore oil and natural gas wells. America's independents produce 54 percent of American oil and produce 85 percent of American natural gas. IPAA members rely on a strong, safe network of pipelines to transport natural gas and its associated products to consumers. Spire's application is an excellent example of the flexibility of the U.S. interstate natural gas system. The project will improve upon some existing pipeline yet construct a relatively short 59 miles of greenfield pipeline to access supplies that will bring new sources of natural gas to residential, commercial, and industrial consumers in the St. Louis market, served by Laclede Gas Company. These customers cannot rely exclusively on renewable energy. The natural gas from Spire will allow for integration of renewables, yet still providing a clean, abundant, and affordable energy source. While American natural gas production recently has risen to its highest levels, carbon emissions have dropped dramatically to historic 20-year lows. With the growth in American energy production—and its attendant benefits in creating new jobs, providing consumers with affordable energy, lowering manufacturing costs, and improving air quality—comes the need for infrastructure to move the commodity to markets. The Spire Project creates an opportunity to better utilize existing infrastructure, along with construction of new pipeline to better meet the needs of St. Louis consumers and American producers serving this market. As such, IPAA supports Spire's application and urges prompt FERC consideration to allow Spire to commence construction by January 2018, with service commencement on November 1, 2018. | Spire acknowledges the Independent Petroleum Association of America comments in support of the Project. Additional information regarding the Project's purpose and need is provided in Resource Report 1 and potential employment is provided in Resource Report 5 of Spire's Amendment to Application filing in April 2017. | 1 5 | 1.1.1 5.1.1 | 1-1 5-1 |
| Ameren Services Company | 2/27/2017 | Comments and Protest | In its Comments and Protest, Ameren Service Company, Inc. questions the need for the Project and sufficiency of support, and alleges negative economic impacts to competing pipelines and their customers. | Spire filed a motion for leave to file an answer and answer to protests on March 22, 2017. | NA | NA | NA |
| Enable Mississippi River Transmission, LLC | 2/27/2017 | Protest | In its Comments and Protest, Enable Mississippi River Transmission, LLC questions the need for the Project and sufficiency of support, and alleges negative economic impacts to competing pipelines and their customers. | Spire filed a motion for leave to file an answer and answer to protests on March 22, 2017. | NA | NA | NA |
| Missouri Public Service Commission | 2/27/2017 | Protest | In its Conditional Protest, the Missouri Public Service Commission questions the need for the project and expresses concern about potential economic impacts and reasonableness of certain commitments made by the Foundation Shipper. | Spire filed a motion for leave to file an answer and answer to protests on March 22, 2017. | NA | NA | NA |
| Laclede Gas Company | 2/27/2017 | Motion to Intervene | As the Foundation Shipper, Laclede expresses support for the Project and expands on the Project's purpose and need. | - | NA | NA | NA |
| Rockies Express Pipeline LLC | 2/27/2017 | Motion to Intervene | Rockies Express Pipeline, LLC, the interstate pipeline with which the Project will interconnect and which will be a source of the gas transported on the Project, expresses its support for the Project. | - | NA | NA | NA |
| Ameren Services Company | 2/27/2017 | Motion to Intervene | No comments included. | - | NA | NA | NA |

**Appendix 1-K
Spire STL Pipeline
Comment Letters and Scoping Comments (received since January 2017)**

| Agency and/or Individual | Date | Type | Comment | Response | Location Where Comment is Addressed | | |
|---|-----------|---------------------------------------|---|---|-------------------------------------|---------|------|
| | | | | | Resource Report | Section | Page |
| Miami Tribe of Oklahoma (Diane Hunter, THPO) | 3/6/2017 | Comment Letter to FERC | Aya, kikwehsitoole – I show you respect. My name is Diane Hunter, and I am the Tribal Historic Preservation Officer for the Federally Recognized Miami Tribe of Oklahoma. In this capacity, I am the Miami Tribe's point of contact for all Section 106 issues. The Miami Tribe offers no objection to the above-mentioned project at this time, as we are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project site. However, as this site is within the aboriginal homelands of the Miami Tribe, we request a copy of the SHPOs' reports and any archaeological surveys performed as the project moves forward. Please email all documentation to dhunter@miamination.com. If any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project, the Miami Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery. In such a case, please contact me at 918-541-8966 or by email at dhunter@miamination.com to initiate consultation. The Miami Tribe accepts the invitation to serve as a consulting party to the proposed project. In my capacity as Tribal Historic Preservation Officer I am the point of contact for consultation. | Spire provided a copy of the Phase I Cultural Survey Reports to the Miami Tribe of Oklahoma on March 7, 2017. Spire will continue to coordinate with the Miami Tribe of Oklahoma as additional surveys are completed. Information regarding cultural resources is provided in Resource Report 4 of Spire's Amendment to Application filing in April 2017. | 4 | 4.2.2 | 4-3 |
| USDOI National Park Service - Lewis and Clark National Historic Trail (Dan Wiley) | 3/7/2017 | Comment Letter to FERC | The Lewis and Clark National Historic Trail ("the Trail" was among the interested parties initially notified by your agency with regard to Spire STL Pipeline's application for a permit to construct, extend, and modify and underground gas pipeline in the vicinity of St. Louis, Missouri. The Lewis and Clark National Historic Trail (the Trail) was established by Congress in 1978 and is defined as a trail following the outbound and return routes of the 1804-1806 Lewis and Clark Expedition. The Trail is approximately 3,700 miles long, extending from Wood River, Illinois, to the mouth of the Columbia River in Oregon. The National Park Service administers the Trail and is charged with the identification and protection of the historic route, remnants, and artifacts for public use and enjoyment. The NPS identifies the historic route as a corridor based on the activities and observations of the Expedition as documented in the journals and maps. We have concerns regarding the pipeline's potential impacts to visual resources associated with the Historic Route and the Auto Tour Route. The proposed 66 mile pipeline crosses the Missouri River in north St. Louis, running roughly perpendicular to the Trail. The NPS recommends and analysis of visual resources and impacts in the project area be completed. Such analysis may include a viewshed map indicating areas the pipeline and associated infrastructure will be visible from and visual simulations or renderings of the project from representative viewpoints. In addition, consideration should be given to cumulative impacts from other reasonably foreseeable development in the area related to the project. Finally, we would encourage the utilization of best management practices related to project construction. | Spire reviewed the Trail route (essentially the Missouri River) as well as Lewis and Clark historic destinations in the vicinity of the Project area, including those in St. Louis and St. Charles Counties, Missouri, and those just east of the Missouri River in Illinois. Spire's proposed crossing of the Missouri River will be completed by horizontal directional drill ("HDD"). HDD workspaces are located north and south of the river, and temporary construction within these workspaces would be partially visible from the river for the duration of construction activities at the river crossing. The Project's proposed Laclede/Lange Delivery Station is the nearest aboveground facility to the Trail/Missouri River. The station is 0.5 mile (2,600 feet) from the river and the view is obstructed by forest and the large quarry site. Historic destinations along the Trail nearest the Project were reviewed for viewshed potential, with the closest site over 7 miles distant from the Project. Spire provided the National Park Service with the requested information on March 10, 2017, including viewshed examples. In a letter dated March 13, 2017, the National Park Service confirmed they had no further comments. Further discussion of this trail is included in Resource Report 8 of Spire's Amendment to Application filing in April 2017. | 8 | 8.3.2 | 8-31 |
| EQT Energy, LLC | 3/8/2017 | Motion to Intervene Out of Time | EQT Energy, LLC seeks late intervenor status, arguing that it has a substantial interest because, as a natural gas marketing company with contracts on Rockies Express for transportation service, markets proposed to be served by the Project represent new markets for EQT Energy's volumes. | - | NA | NA | NA |
| Individual (Carolyn S. Boester) | 3/9/2017 | Comment Letter to FERC | We were contacted by letter from Spire STL Pipeline July 1, 2016 of their intent to put a natural gas pipeline on our farm northeast of Asey, IL on Clay Hollow Road. We allowed surveys on our land. Upon attending pipeline meetings in Winchester and Carrollton we learned that they also planned to put a building on our land. We asked for a paper copy of the building dimensions but did not receive one. Our lawyer, John Coonrod, has tried to set up meetings with the Spire engineers. Only Brad Stoelk has met with our lawyer Dec 21, 2016. Mr. Stoelk notified my husband, Kenneth, by phone March 2, 2017 that the route has changed after they have sent in their application due to my concerns for the safety of people living near where they will weld on to the Rockies Express Pipeline and bore under 4 older Panhandle pipelines. Enclosed is a copy of the new map and a letter from our lawyer, John Coonrod. The new building site is over the Rockies Express Line and also two Panhandle lines. It is our understanding that we were never able to build over a pipeline. We have asked them if this would be a compression station on our land. We never got a straight answer. The Spire engineers and also Brad Stoelk have not been honest or cooperative with us. We are glad they have moved their proposed facility off of our land. Information notebooks Spire has posted at Winchester Public Library say that Spire is a new company and has not previously provided natural gas pipeline transportation service in interstate commerce and also that Spire has no existing customers. We also did not receive copies of the archeological studies done on our land as we asked Brad Stoelk to provide. He said all studies were done. We were concerned of land compaction. We were told 5 yr crop damages should be paid by our lawyer. A Spire engineer said 2 yr crop damages. Brad Stoelk said 3 yr. They had planned to park all this equipment on our farm for the 10 months of construction of the pipeline. We have tried to work with them but were not given information we asked for. We were told by U.S. Congressman LaHood's secretary Dec 2, 2016 to talk to Farm Bureau - which we have done. She was sure that all of our safety concerns would be met and this is a very big company. Our land has been in our family over 150 years. We have farmed it for five generations. Thank you, Sara McKinley, at FERC for the information by phone on Dec 16, 2016 and Feb 23, 2017. | Taking into account the ongoing concerns of this landowner, Spire has relocated its proposed REX Receipt Station to an adjacent property. No buildings will be placed over existing pipelines as safety is always first and foremost in Spire's planning decisions. The 24-inch pipeline is still partially located on the southeast corner of the property. Spire has met with Mr. Boester and/or his attorney and has updated these landowners as Project plans changed. Spire will continue to work with the property owner regarding proper restoration of the land impacted by the pipeline. | NA | NA | NA |
| Individual (Selong and Charlotte Smith) | 3/10/2017 | Comment Letter to FERC | Our concerns are with this pipeland and the effect it will have on our property. We don't understand if this is really necessary and out of hands. All this paper work still does not clarify on how big of impact this will be to us as homeowners. It seems like this work will be done no matter what the homeowner think about it. Just please send us a more uncomplicated map route overview. How soon will this project start anyway. | The Smith property is located approximately 1 block south of the previously proposed Line 880 Modifications ("Line 880"). Spire is no longer pursuing the proposed modifications on the existing Line 880 and these activities are no longer considered to be part of the Project. Therefore, impacts to this property are not proposed. | NA | NA | NA |
| Enable Mississippi River Transmission, LLC | 4/3/2017 | Motion for Leave to Answer and Answer | Motion for leave to answer and answers Spire STL Pipeline LLC's Motion for Leave to Answer and Answer to Comments and Protests. | - | NA | NA | NA |

**Appendix 1-K
Spire STL Pipeline
Comment Letters and Scoping Comments (received since January 2017)**

| Agency and/or Individual | Date | Type | Comment | Response | Location Where Comment is Addressed | | |
|--|----------|--|--|---|-------------------------------------|---------|------|
| | | | | | Resource Report | Section | Page |
| Missouri Department of Natural Resources | 4/3/2017 | Scoping Comments | The proposed alignment change will possibly impact three classified streams. The original alignment had potential to impact two of these streams, including Coldwater Creek, a metropolitan no-discharge stream. The other two streams are not listed as impaired, Total Maximum Daily Load, or outstanding resource waters, so no specific water Quality Certification (WQC) will be required for each crossing. Based on 2012 WQC general conditions, a WQC was issued by the department on November 29, 2017, for the original alignment's crossing of Coldwater Creek because it is a metropolitan no-discharge stream. However, all Nationwide Permits (NWP) and associated WQC conditions were recently reissued by the U.S. Army Corps of Engineers and the department. Of note is the removal of the WQC general condition requiring individual WQC review for metropolitan no-discharge streams. However, a new WQC specific condition was added for NWP 12 requiring individual WQC for new utility lines when the project crosses more than one stream and result in greater than 500 linear feet and/or 0.50 acres of impact, except crossings utilizing directional boring. | Spire acknowledges the Missouri Department of Natural Resources comments on the Project. Spire is continuing to coordinate with the MDNR regarding the submittal of its permit application in January 2017 and the supplemental permit package submitted in April 2017. | 6 | 6.1 | 6-2 |
| | | | The uppermost bedrock in the project area is the Mississippian-age Ste. Genevieve Limestone. There are numerous recorded sinkholes in the vicinity of the project area. Therefore, the project area lies in a karst setting. | | | | |
| | | | The project area does not lie within a former mining district and there are no recorded mines within the project area. Therefore, there is no likely collapse potential due to former mining activities. | | | | |
| Ameren Services Company | 4/4/2017 | Motion for Leave to Reply and Reply to Answers | This reply is filed to clarify the record regarding the scope and nature of Ameren's protest and request for a market study, and to re-emphasize the need for the Commission to address in this proceeding the potential cost-shift by Enable Mississippi River Transmission, LLC ("MRT") to Ameren and MRT's captive customers should LaCade de-contract a significant portion of its MRT capacity in conjunction with its acquisition of 350,000 Dth/d of firm capacity on Spire. | - | NA | NA | NA |
| Winnebago Tribe of Nebraska | 4/4/2017 | Scoping Comments | We have had a chance to review the documentation for the referenced project. Based on the information provided, we would like to notify you the Winnebago Tribe of Nebraska has religious and culturally significant ties to the historic property that may be affected by the proposed area of construction. Although the land where the pipeline proposes to go is not the site of Winnebago trust land or the Winnebago Reservation, one needs only to learn the history of the Ho-Chunk people and their countless removals to understand that Illinois and the St. Louis area are filled with the sites of Ho-Chunk graves from those that died during the removal from Minnesota to South Dakota around 1862. Many Ho-Chunk people were moved by boat, down the Mississippi River to St. Louis before heading to South Dakota via the Missouri River. Further, many Winnebago used that same route in reverse in attempts to return to their aboriginal land in Wisconsin. [Citations omitted.] | Spire acknowledges the Winnebago Tribe of Nebraska comments on the Project. Spire initiated consultation with Native American entities in June 2016. The Winnebago Tribe of Nebraska is included as part of Spire's list of tribal entities with potential interest in the Project area. Spire has been unable to reach the Winnebago Tribe of Nebraska. Contact was made via phone calls and letters. Spire will continue to consult with the Winnebago Tribe of Nebraska. Information regarding Native American communications is provided in Resource Report 4 of Spire's Amendment to Application filing in April 2017. | 4 | 4.2.2 | 4-3 |
| | | | The Winnebago Tribe was also militant members of the Tecumseh Confederacy and many Winnebago joined Tecumseh on his travels through Illinois and the St. Louis area, while others maintained a camp near Prophetstown, Illinois. A Winnebago Tribal Historian has stated that Tecumseh and many of his followers made a well-known trip through Southern Illinois and St. Louis to meet with and encourage the Five Civilized Tribes to join the Confederacy. These travels took Tecumseh and many of his followers which included the Winnebago through Illinois, Missouri, Arkansas and Oklahoma. The Ho-Chunk people have a connection to the lands where ceremonies/burials were conducted during their time with Tecumseh. [Citations omitted.] | | | | |
| | | | Based on the history, summarized above, the Winnebago Tribe has sites along the proposed routes that are historical and religious significant to the Tribe. Burial sites are considered sacred sites to the Ho-Chunk people. | | | | |
| | | | The Winnebago Tribe is aware that during the history described previously that there were graves dug and ceremonies performed but does not necessarily know the exact locations of such sites. If the Project moves forward after the Environmental Assessment is completed the Winnebago Tribe asks that if any cultural artifacts or burial remains/sites are uncovered, that the Project will stop and the Winnebago Tribe will be contacted immediately. | | | | |



APPENDIX 1-L
Response to Environmental Data Request

**Appendix 1-L
Spire STL Pipeline
Responses to Environmental Data Request (dated March 13, 2017)**

| Data Request No. | Comment | Responsible Party; Name, Position, Phone Number | Response | Location Where Comment is Addressed | | |
|------------------|--|--|--|---|--|--|
| | | | | Resource Report | Section | Page |
| General | | | | | | |
| 1 | Provide all outstanding information noted as pending or to be determined (TBD) in the resource reports (RRs) or provide the anticipated date of submission. This includes updated versions of all tables that contain TBDs, as well as TBDs reported within the main body text of RRs 1 through 12 and including but not limited to: a. the location and associated details for contractor yards; b. the location of proposed AC mitigation; c. final soils maps (appendix 7-A, labeled as draft); d. Agricultural Impact Mitigation Agreement (fully executed version); and e. Project-specific Erosion and Sediment Control Plan and Stormwater Pollution Prevention Plan (identified in draft RR 2 as appendix 2-D that was to be filed with the FERC Application). | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | a. Spire is not currently proposing to utilize any contractor yards for the construction of the Project. Contractor staging and equipment will occur with the identified "staging areas." b. The location of the AC mitigation facilities are provided in Table 1.1-3. c. Final soils maps are provided in Appendix 7-A in Resource Report 7. d. A copy of the fully executed Agricultural Impact Mitigation Agreement is provided in Appendix 7-C in Resource Report 7. e. As part of the oil and gas exemption under the General NPDES Permit No. ILR10 for Illinois and the NPDES Construction Stormwater Permit for Missouri, Spire is no longer required to submit state authorizing construction stormwater permits. Spire does anticipate applying for county level land disturbance permits in fall 2017. | a. 1 b. 1 c. 7 d. 7 e. 1 | a. 1.2.6 b. 1.1.2.1 c. Appendix 7-A d. Appendix 7-C e. 1.6 | a. 1-18 b. 1-5 c. Appendix 7-A d. Appendix 7-C e. 1-49 |
| 2 | We identified several inconsistencies in reported acreages as noted below. Provide updated tables as appropriate: a. construction and operational impacts for the proposed 24-inch pipeline (639.99 and 356.96 acres, respectively, per table 1.2-1 and 631.99 and 355.58 acres, respectively, per table 8.1-2); b. construction wetland impacts reported in tables 2.3-2 (10.10 acres) and 2.3-1 (sums to 10.18 acres) are not consistent with those reported in tables 3.3-1 and 8.1-2 (11.11 acres); c. table 7.3-1 does not sum to the totals (note row for the Scott County, IL (24-inch-diameter pipeline) and St. Louis County, MO (Line 880) report the same acres of impacts by soil type); and d. additional temporary workspace (ATWS) acreages: i. Scott and St. Louis Counties, tables 1.2-1 and 8.1-2 (22.04 and 1.66, respectively) and appendix 8-F (23.47 and 3.91, respectively); and ii. subtotals by state in appendix 8-F, reported as 160.16 and 57.67, respectively, but sum to 161.76 and 60.00. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | a. The referenced subtotals are not comparable. The sums referenced for Table 1.2-1 (639.99 acres and 356.96 acres), were the sum of impacts for the 24-inch pipeline and the Line 880 modifications. As such, they are not comparable to the sums for the 24-inch pipeline-only as reported in Table 8.1-2 (631.99 and 355.58 acres). Updated acreage impacts are provided for the 24-inch pipeline and North County Extension. b. Wetland impacts will not occur in areas proposed for HDD. Table 3.3-1 and Table 8.1-2 report acreages within vegetative cover and land use types along the entire pipeline routes, including the permanent easement along the areas crossed by HDD. However, as no disturbance is planned between HDDs, Tables 2.3-2 and 2.3-1 reflect zero for wetland impacts. Tables have been footnoted to clarify. c. Table 7.3-1 has been updated for consistency and to remove the duplication of the values for Scott County, Illinois. d. Area considered as ATWS and temporary workspace for facilities was inadvertently duplicated; the construction acreage has been updated such that all ATWS are included as ATWS-only. This corrects the subtotals reported in Tables 1.2-2 and 8.1-2. | a. 1 and 8 b. 2, 3 and 8 c. 7 d. 1 and 8 | a. 1.2 and 8.1 b. 2.3, 3.3, and 8.1 c. 7.3 d. 1.2 and 8.1 | a. 1-14, 8-1 b. 2-36, 3-16, and 8-7 c. 7-10 d. 1-14, 8-1 |

**Appendix 1-L
Spire STL Pipeline
Responses to Environmental Data Request (dated March 13, 2017)**

| Data Request No. | Comment | Responsible Party; Name, Position, Phone Number | Response | Location Where Comment is Addressed | | |
|--|--|--|--|-------------------------------------|---------|--------------|
| | | | | Resource Report | Section | Page |
| 3 | <p>Consider realignment, reconfiguration, or provide justification for Spire's alignment of construction spaces as follows:</p> <p>a. for ATWS identified as required for unexpected topsoil segregation within forest lands (examples include but are not limited to ATWS between milepost [MP] 1.2 and 1.3, MP 2.5 and 3.5, MP 4.2 and 4.3);</p> <p>b. at MP 23.5, where tree-clearing and a waterbody crossing may be avoided by deviating the pipeline westward;</p> <p>c. at MP 34.2, the excessive size of ATWS-632 described in appendix 8-F for hydrostatic testing;</p> <p>d. at locations along the pipeline (examples include MP 23.5 and MP 35.2) where it appears that tree-clearing could be avoided by increasing the setback of ATWSs from the waterbody; and</p> <p>e. for the isolated temporary workspace (TWS) along Line 880 from MP 0.2-0.4.</p> | <p>Russ English Director, Pipeline Projects (Spire) 844-885-7234</p> | <p>a. ATWS at MP 1.2 and 3.5 are proposed for waterbody crossings. At MP 1.3, there is no ATWS identified for topsoil segregation within forested lands. At MP 2.5, 4.2 and 4.3, Spire based the limitations of ATWS on imagery and field surveyed the treeline.</p> <p>b. Shifting the pipe alignment to the west would reintroduce the line into a parcel where impacts have been minimized to accommodate landowner preference.</p> <p>c. ATWS workspace is proposed to accommodate equipment necessary for the fill and discharge of hydrostatic pressure test water for a portion of the line.</p> <p>d. Shifting ATWS outside of riparian areas in some areas is not practical when considering the materials being excavated in and around the waterbody crossings.</p> <p>e. Line 880 (and its associated facilities) are no longer part of the Project. Please refer to the North County Extension route.</p> | 1 | | Appendix 1-B |
| Resource Report 1 - Project Description | | | | | | |
| 4 | <p>Update the Construction Alignment Sheets (appendix 1-B) as follows:</p> <p>a. provide a replacement sheet for STLP-A-055 which contains the photo-based background;</p> <p>b. if possible, provide the crossed land use types in the "land use" band;</p> <p>c. ensure all utilities or pipelines (for example Tallgrass Energy at MP 0.0), waterbodies, and roads proposed to be crossed are identified in the cross-sectional view;</p> <p>d. identify the existing easement limits for existing Line 880;</p> <p>e. ensure all ATWS are labeled, including on supplemental sheets for access roads that extend off ROW and at MP 5.2;</p> <p>f. ensure all ATWS are depicted in the alignment sheets (examples of ATWS not found on alignment sheets include but are not limited to: ATWS-487, ATWS-479, ATWS-541, ATWS-163, ATWS-222, ATWS-237, and ATWS-243); and</p> <p>g. ensure ATWS have unique IDs; examples include but are not limited to:</p> <p>i. at MP 1.9 there are three ATWS labeled as ATWS-477;</p> <p>ii. two ATWS are labeled as ATWS-146, one on the east side of the ROW at station ID 700+00 and a second on the west side of the ROW at station ID 702+00; and</p> <p>iii. two ATWS are labeled as ATWS-159, one associated with TAR-009 and a second associated with TAR-010.</p> | <p>Russ English Director, Pipeline Projects (Spire) 844-885-7234</p> | <p>a. STLP-A-055 has been updated with aerial imagery.</p> <p>b. The land use band has been updated to include land use types crossed.</p> <p>c. Pipelines, roads, and waterbodies have been identified in the profile view of the alignment sheets. The overhead power lines are not located in the profile view but are included in the plan view.</p> <p>d. Line 880 has been removed from the Project. Existing easement varied along the pipeline.</p> <p>e. ATWS labels have been included on the pipeline alignment drawings at MP 5.2 and on the supplemental sheets.</p> <p>f. Drawings have been revised and all ATWS should appear on the pipeline alignments or supplemental drawings.</p> <p>g. ATWS have been renumbered where necessary to create unique IDs.</p> | 1 | | Appendix 1-B |

**Appendix 1-L
Spire STL Pipeline
Responses to Environmental Data Request (dated March 13, 2017)**

| Data Request No. | Comment | Responsible Party; Name, Position, Phone Number | Response | Location Where Comment is Addressed | | |
|--|--|---|--|-------------------------------------|---|--|
| | | | | Resource Report | Section | Page |
| 5 | Address the following inconsistencies between appendix 1-B and subsequent tables as noted below: a. table 1.1-2 identifies the proposed modification “remove 16-inch valve and associated appurtenances; replace with line pipe” at MP 4.2, while the Line 880 alignment sheets depict this modification at MP 4.35; b. table 1.3-3 does not list the roads crossed at MPs 40.3, 43.5, and 52.0; c. table 1.3-4 does not list the overhead utility line at MP 45.5; and d. table 1.3-5 identifies wetlands WMO-WJW-011 and WMO-TMA-001A as being avoided by proposed HDDs, while the wetlands labeled on the corresponding alignment sheets are WMO-WJW-001 (MP 46.1) and WMO-TMA-001 (MP 57.9). | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | a. Due to the revision of the Project components, modifications to the existing Line 880 (and its associated facilities) are no longer considered to be part of the Project. Table 1.1-2 has subsequently been removed from Resource Report 1. b. The road at MP 40.3 (Possum Trot Lane) was included in the Resource Report table. Features at MP 43.5 and MP 52.0 are not identified as roads in publically available data from the Illinois and Missouri Departments of Transportation, and appear to be a driveway and stream, respectively. c. Features at MP 45.5 is in the Mississippi River. No overhead utility lines were identified based on publically available navigation charts or aerial imagery. d. Wetland names in Table 1.3-5 have been revised for consistency. | 1 | a. Not Applicable b. 1.3.1.2 c. 1.3.1.2 d. 1.3.1.2 | a. Not Applicable b. 1-25 c. 1-25 d. 1-25 |
| 6 | Provide a rationale for the frequent transitions of pipeline depth of cover from 3 feet to 5 and/or 7 feet described in appendix 1-B. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire's intention is to have a depth of cover of five feet of cover for the pipelines. In areas prone to flooding, the minimum depth of cover will be increased to seven feet so that the additional depth will help mitigate the buoyancy effect. Crossing locations such as roads, railroads and river/streams also impact the depth of cover for the proposed pipelines. The depth of cover in these areas is also proposed to be five feet or greater. | 1 | 1.3.1.1 | 1-23 |
| 7 | Provide a site-specific plan to describe proposed monitoring and mitigation measures to address steep slope construction and landslide hazards for the HDD entry site north of the Mississippi River at approximately MP 45 and any other areas susceptible to slope instability. Describe any permanent methods that would be utilized to minimize the long-term effects of landslides in areas with steep slopes. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | A site-specific plan has not been developed due to denied landowner permission in this area. The potential for landslides and areas susceptible to slope instability will be evaluated in this area once landowner permission has been obtained. The HDD pad on the north side of the Mississippi River has been located on a relatively flat surface at the bottom of a slope to the east of the alignment. Permanent trench plugs, slope breakers and waterbars will be installed in accordance with FERC's Plan. Once survey permission has been obtained, additional site-specific measures may be implemented based on site conditions or landowner request. | 1 | 1.3.1.2 | 1-26 |
| Resource Report 2 - Water Use and Quality | | | | | | |
| <i>Water Resources</i> | | | | | | |
| 8 | Coordinate with the appropriate land owner(s) to determine the use of the two wells located at MP 9.0 in table 2.1-1. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire has coordinated with the landowner for the two wells at MP 9.0. The landowner was able to confirm that the wells are both private water wells, of which, only one well is in use. The landowner was not able to confirm which water well was in use. Spire will offer to landowners to conduct a pre-construction evaluation on active wells within 150 feet of the proposed Project workspaces. If requested by the landowner and feasible at the time of sampling, the well may be tested for yield and water quality. Upon request by a landowner who had a pre construction test, a post-construction test may be performed. Spire will document any landowner choosing to opt out of pre-construction evaluation. Landowners participating in the testing program will be contacted by a Spire representative, and a qualified independent contractor will perform the testing. To maintain responsiveness to the concerns of affected landowners, Spire will evaluate landowner complaints or damage associated with construction. | 2 | Table 2.1-1 | 2-10 |
| 9 | Clarify whether table 2.2-5 includes volume, source, and discharge location (milepost) for the proposed pre-washing of Line 880 described in section 1.3.1.1. Also, provided updated tables 2.2-5 and 2.2-6 to include the estimated discharge volumes (in gallons) for all water usages, including the pre-washing of Line 880. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire is no longer pursuing the proposed modifications on the existing Line 880 (and its associated facilities) and these activities are no longer considered to be part of the Project. Therefore, the identification of water sources and discharges associated with the pre-washing of Line 880 is no longer applicable. | NA | NA | NA |

**Appendix 1-L
Spire STL Pipeline
Responses to Environmental Data Request (dated March 13, 2017)**

| Data Request No. | Comment | Responsible Party; Name, Position, Phone Number | Response | Location Where Comment is Addressed | | |
|------------------|---|---|--|-------------------------------------|----------------------------|------|
| | | | | Resource Report | Section | Page |
| 10 | Describe the criteria for identifying a HDD failure, discuss how the drill hole would be abandoned and plugged in the event of such a failure, and identify applicable state regulations or requirements. Update appendix 2B (HDD Contingency Plan) as applicable. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Potential causes of HDD failures have been updated in Appendix 2-B. Failure of the proposed HDD installation is not anticipated, as HDD installations of similar length and diameter in similar geotechnical materials are common within the HDD industry. If an open HDD bore could not be advanced and abandonment were required, the bore would be grouted with a cement based material to fill the excavation and minimize risks of a potential ground water flow pathway. If an HDD installation were completed and the installed pipe was damaged to the point it could not be used for its intend purpose, the inside of the steel product pipe would be grouted with a cement based grout and the annular space around the pipe would be grouted for a distance of approximately 200 feet at each HDD entry and exit location. The above approach is identical to what is provided in the US Army Corps of Engineers' "Guidelines for Installation of Utilities Beneath Corps of Engineers Levees Using Horizontal Directional Drilling" (2002) that requires backfilling with grout or bentonite. In addition, any additional requirements set forth in permits acquired for a specific HDD installation will be met in terms of abandonment. | 2 | Appendix 2-B | |
| 11 | For each HDD waterbody crossing, describe the depth to groundwater as well as each individual aquifer(s), (water table and/or confined aquifers and confining layers) crossed. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | A new section (2.1.1.3 Groundwater Resources at HDD Crossings) has been added to address the topics of groundwater, individual aquifers, and confining layers for each HDD waterbody crossing. Recorded groundwater data is located in geotechnical reports, and MDNR data suggests groundwater ranges from 20 to 70 feet below ground surface depending at which HDD location, although groundwater fluctuates depending on weather and/or seasonal influences. As displayed in Figure 2.1-1 and 2.1-2, surficial aquifers systems (stream and valley alluvium and glacial drift aquifers) are located at the Project's Mississippi River and Missouri River HDD crossings. The groundwater in the surficial aquifer systems may be either locally unconfined, semi-confined, or confined in locations, due to variability in sediment size distribution and associated permeability. The surficial geology at the Coldwater Creek and Spanish Lake Park HDD crossings along the North County Extension consist of loess, which due to its fine-grained composition would not be anticipated to act as a productive aquifer, in comparison to the stream and valley alluvium and glacial drift deposits. The Mississippian aquifer, located below the surficial aquifers and loess layer, may be overlain by a Pennsylvanian shale confining unit and is underlain by a Mississippian shale and/or dolomite confining unit. (Miller et al. 1997). | 2 | 2.1.1.3 | 2-5 |
| 12 | Provide a site-specific plan for the proposed dry ditch flume crossing of Macoupin Creek and discuss the expected volume of water during construction. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire has provided an updated site-specific flume plan for Macoupin Creek as part of Appendix 2-D. | 2 | Appendix 2-D | |
| Wetlands | | | | | | |
| 13 | Table 2.3-2 and appendix 8-F indicate that multiple ATWS would affect wetlands; however, those wetlands do not appear to be included in table 2.3-1. Provide a revised table 2.3-1 that includes a line item for each wetland that would be impacted by the proposed Project, and specifically identify the Project component that would impact each wetland. In addition, provide a revised version of appendix 1-D that includes each wetland affected by ATWS, or otherwise requires a deviation from our Wetland and Waterbody Construction and Mitigation Procedures (Procedures), and specify the additional mitigation that would be implemented to adequately protect the wetland, as required by Section VI.B.1.b of our Procedures. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Table 2.3-1 has been updated to include specify wetland acreages within additional temporary workspaces ("Area Affected by ATWS"). These acreages are also included in the "Area Affected by Construction" acreages. | 2 | Section 2.3.1, Table 2.3-1 | 2-36 |

**Appendix 1-L
Spire STL Pipeline
Responses to Environmental Data Request (dated March 13, 2017)**

| Data Request No. | Comment | Responsible Party; Name, Position, Phone Number | Response | Location Where Comment is Addressed | | |
|---|--|---|---|-------------------------------------|---|--------------------------|
| | | | | Resource Report | Section | Page |
| 14 | ATWS 774 (near MP 49.6) and ATWS 800 (near MP 54.8), both located in wetlands, are noted in appendix 8-F as being required for topsoil segregation; however, full right-of-way topsoil stripping does not typically occur in wetlands. Justify both the use of these ATWS in wetlands and the 90-foot-wide construction right-of-way proposed at that location. In addition, add the requested deviation to appendix 1-D, as applicable. Similarly, ATWS 449 passes through wetlands and should be included in appendix 1-D as applicable. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Appendices 1-D and 8-F have been updated. To clarify, ATWS 774 and 800 are located in actively cultivated cropland, thus topsoil segregation is required and thus no deviation would be required per FERC's Procedures Section I.B.2 and Section VI.b.1.a. However, Spire has included these locations in Appendix 1-D per this data request question. ATWS 449 is identified in Appendix 1-D. | 1 8 | Appendix 1-D Appendix 8-F | |
| 15 | Discuss the ability to reduce the right-of-way to 75 feet for the entire crossing lengths of WIL-JJP-012A (MP 5.6), WIL-DFW-002 (MP 43.8), WIL-TMA-006 (MP 14.1), WIL-JJP-116 (MP 37.2), WIL-DFW-002 (MP 43.8), for additional protection of the wetlands crossed. In addition, consider minor neck downs in wetlands encroaching on the 90-foot-wide construction right-of-way, where the entire wetland could possibly be avoided (e.g., WIL-JJP-100/100A at MP 13.8). | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | MP 5.6: The workspace in this location has been adjusted to avoid the wetland WIL-JJP-012A. MP 13.8: The workspace in this location has been adjusted to avoid the wetland WIL-JJP-100A. MP 14.1: The workspace in this location has been adjusted to minimize the impact to wetland WIL-TMA-006. MP 37.2: The workspace in this location has been adjusted to minimize the impact to wetland WIL-JJP-116. MP 43.8: The workspace in this location has been adjusted to minimize the impact to wetland WIL-DFW-002. | 1 | Appendix 1-B | |
| 16 | Section 1.3.1.2 states that "Spire will segregate the topsoil up to one-foot in depth in wetlands where hydrologic conditions permit." Verify that Spire intends to limit topsoil segregation to the trenchline in wetlands, as indicated in Section VI.B.2.h of our Procedures. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire will limit topsoil segregation to the trenchline in wetlands. | 2 | 2.3.2.1 | 2-40 |
| Resource Report 3 - Biological Resources | | | | | | |
| <i>Vegetation</i> | | | | | | |
| 17 | Section 3.3.2.7 indicates that neither herbicides nor pesticides would be used during vegetative maintenance activities along the Project right-of-way, indicating noxious weeds would be controlled by mechanical means; however, Spire's Agricultural Impact Mitigation Agreement for Illinois indicates use of spraying for weed control. Clarify the discrepancy. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire will utilize herbicides and/or pesticides as necessary to provide weed control at aboveground facilities in Illinois which are located adjacent to agricultural lands in accordance with the Project-specific Agricultural Impact Mitigation Agreement for Illinois. Herbicide use will be conducted by an applicator licensed in the State of Illinois. Spire does not propose to utilize herbicides on its pipeline right-of-way. Measures will be taken (as described above) to control the spread of noxious weeds during construction. Spire will monitor the disturbed areas to address the success of revegetation in accordance with FERC's Plan. If species or colonies are found in numbers which are significantly different from the existing nearby off right-of-way locations, Spire will conduct mowing and/or hand cutting/removal of the species in these areas. | 3 | 3.3.2.7 | 3-23 |
| 18 | Further discuss the reduced weed management options and control effectiveness that would occur should pollinator seed mixes be used in revegetation, as noted in section 7.5.4. Update the Noxious Weed/Invasive Plant Control and Mitigation Plan, as applicable. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire does not anticipate the use of herbicides along the proposed pipeline permanent easement. If noxious weeds are found in numbers which are significantly different from the existing nearby off right-of-way locations, Spire will conduct mowing and/or hand clearing to remove the species. The use of these methods would preserve any areas which may have been seeded with pollinator species per landowner request. Appendix 3-A has also been updated accordingly. | 3, 7 | 3.3.2.7, Appendix 3-A, Resource Report 7, Section 7.5.4 | 3-23, Appendix 3-A, 7-21 |

**Appendix 1-L
Spire STL Pipeline
Responses to Environmental Data Request (dated March 13, 2017)**

| Data Request No. | Comment | Responsible Party; Name, Position, Phone Number | Response | Location Where Comment is Addressed | | |
|---|--|---|--|-------------------------------------|------------------------|------|
| | | | | Resource Report | Section | Page |
| <i>Endangered, Threatened, and Special Status Species</i> | | | | | | |
| 19 | Although portal surveys have been completed for the majority of Project workspaces, provide correspondence with the U.S Fish and Wildlife Service (USFWS) that documents USFWS approval of the survey methodology for portals that would be applied in future surveys, where survey access is currently precluded, as requested in the USFWS' December 2016 correspondence. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire submitted information related to its methodologies for the conducted portal searches to the USFWS in the Project-specific Bat Survey Study Plan, submitted on March 24, 2017. Spire is awaiting written comments related to its Plan, however, in recent consultation with the USFWS, the USFWS indicated that Spire's methodologies for portal searches should be sufficient (Lundh 2017). Additional portal searches will be conducted in areas previously unstudied as landowner permission is obtained. | 3 | 3.4.1.5 | 3-31 |
| 20 | Consult with the USFWS to determine appropriate avoidance, minimization, or mitigation for the proposed clearing in non-forested areas, which Spire acknowledges may result in a take of ground nesters during the nesting period. In addition, provide written concurrence from the USFWS regarding the proposed tree-clearing window (no clearing between May 1 and August 1), as it pertains to migratory birds, as well as any non-forested vegetation clearing window identified by Spire. If any vegetation clearing (either forested or non-forested) would occur outside of clearing windows recommended by the USFWS, provide a Migratory Bird Conservation Plan, developed in coordination with the USFWS that addresses potential impacts and mitigation. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | To date, no recommended clearing windows have been provided for migratory birds. Spire consulted with the USFWS regarding the Project's requested clearing windows. Since the majority of the MBTA species evaluated in the Project area have a typical breeding season from May-July, the USFWS agreed that Spire could conduct clearing between April 1, 2018 and May 1, 2018 if needed without significantly impacting migratory bird species (Lundh 2017). Spire will further consult with USFWS regarding this potential clearing timeframe as it relates to listed bat species. | 3 | 3.4.2.3 | 3-37 |
| 21 | Provide further discussion of the proposed right-of-way monitoring that would be conducted during construction north of the Mississippi River for the protection of timber rattlesnakes. Clarify whether a qualified biological monitor would be dedicated to these surveys, provide the area(s) by milepost that would be monitored, and provide any additional mitigation that Spire would implement to avoid direct or indirect take adjacent to the 90-foot-wide construction right-of-way, specifically in areas adjacent to proposed blasting activities. Provide records of consultation with the Illinois Department of Natural Resources regarding any recommended mitigation for this species. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire has provided further information regarding the right-of-way monitoring that is proposed to be implemented in the area north of the Mississippi River (with state agency approval) in Section 3.4.2.7. No blasting in this location is proposed to occur within 100 feet of known timber rattlesnake dens. Spire is continuing to coordinate with the Illinois Department of Natural Resources (IDNR) on its submittal of an Incidental Take Authorization. Throughout the development of the Incidental Take Authorization, Spire will coordinate on agreeable mitigation options with the IDNR. | 3 | 3.4.2.7 | 3-40 |
| Resource Report 4 – Cultural Resources | | | | | | |
| 22 | Given the Project's proximity to the previously recorded Belltown Community Cemetery (ID #3918/GAI-11) in Illinois, clarify whether the direct Area of Potential Effect between MPs 13.5 and 14.0 was surveyed for unmarked graves. If not, provide information/additional archival research including, as appropriate, historic topographic maps, aerial images, and cemetery records that illustrate the unlikelihood of the cemetery to have extended beyond its current western fence line. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | During Spire's initial Phase I survey, there was no evidence of non-native species or depressions that would indicate the Belltown Community Cemetery extends beyond the existing fence line towards the Project right-of-way, which is also supported by a review of historical maps and aerial photographs. | 4 | 4.3.3 | 4-30 |
| 23 | Provide any concurrences from the Illinois and Missouri State Historic Preservation Offices (SHPO) regarding the revised (as per the FERC's December 2, 2016 comments) Unanticipated Discoveries Plans (appendix 4-C of RR 4). | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | A revised Unanticipated Discoveries Plan was submitted to IHPA and MO SHPO on April 7, 2017. | 4 | 4.2.1 | 4-3 |
| 24 | Provide all previously unfiled correspondence with the Native American tribes contacted, including the transmittal letters of the initial cultural resources survey reports (appendices 4-A and 4-B of RR 4) to those tribes that requested the reports. Also provide any resulting comments on the reports. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Updated correspondence since Spire's January 2017 filing is provided in Appendix 1-C, and a summary of all Native American correspondence is provided in Section 4.2.2. | 4 | Appendix 1-C and 4.2.2 | 4-3 |

**Appendix 1-L
Spire STL Pipeline
Responses to Environmental Data Request (dated March 13, 2017)**

| Data Request No. | Comment | Responsible Party; Name, Position, Phone Number | Response | Location Where Comment is Addressed | | |
|---|--|---|--|-------------------------------------|------------------------|------|
| | | | | Resource Report | Section | Page |
| 25 | Provide all previously unfiled correspondence with the SHPOs, including the Illinois SHPO's comments on appendix 4-A (Illinois Phase I Archaeological Survey and Architectural and Historical Resources Reconnaissance Survey report); and the Missouri SHPO's comments on appendices 4-B(1) (Missouri Phase I Archaeological Survey report) and 4-B(2) (Missouri Architectural and Historical Resources Reconnaissance Report). | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Updated correspondence is provided in Appendix 1-C, and a summary of all SHPO correspondence is provided in Section 4.2.1. | 4 | Appendix 1-C and 4.2.1 | 4-3 |
| 26 | Provide supplemental survey reports for all outstanding surveys (both archaeological and architectural), and the SHPOs' comments on the supplemental reports. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Addendum Phase I reports for previously unsurveyed areas is included in Appendices 4-A and 4-B. Comments from the MO SHPO were received on March 23, 2017. Comments will be incorporated into the initial Phase I report and resubmitted to FERC and the MO SHPO in April 2017. | 4 | Appendices 4-A and 4-B | |
| 27 | Identify which of the following 12 potentially eligible archaeological resources Spire would avoid, and which would be subject to Phase II testing. Please note avoidance is the preferred option: 11ST613, 11GE757, 11GE758, 11JY700, 11JY698, 11JY699, 11JY661, 11JY680, 23SC2219, 23SC2218, 23SC2215, and 23SC2216. Provide the Phase II report(s) and/or avoidance plans to the FERC and the SHPOs. Provide the SHPOs' comments on the reports/plans. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | A list of potentially eligible archaeological resources is provided in Table 4.3-3 in Section 4.3.2. This list has been updated to include the North County Extension. This list includes the recommended NRHP status and Spire's anticipated treatment of each site. Phase II testing was completed at one site. Results of this testing is provided in Appendix 4-D in Volume IV-Privileged Information. | 4 | 4.3.2 | 4-21 |
| 28 | Add mileposts to the figure 8.1 mapping in the Illinois survey report, and appendix A mapping of the Missouri architectural report. Provide the revised mapping. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Mileposts have been added to Figure 8.1 in the Illinois Addendum Phase I Archaeological Report and Appendix A of the Missouri Architectural Report provided in Appendix 4-A and Appendix 4-B in Volume IV-Privileged Information. | 4 | Appendices 4-A and 4-B | |
| 29 | Identify the location of the Nottawaseppi Huron Band of the Potawatomi historic Removal Trail in proximity to the project, and verify that Spire would avoid the trail. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Obtained records indicate that the Removal Trail is located between four and eight miles to the north of the 24-inch pipeline's northern terminus and will therefore not be impacted by the proposed Project. | 4 | 4.2.2 | 4-3 |
| Resource Report 5 – Socioeconomics | | | | | | |
| 30 | Section 5.1.4 states that the anticipated 90 construction workers may carpool to the Project area and Spire would designate parking areas, as needed. Since the locations of the proposed modifications to Line 880 would occur within a suburban residential area, identify the proposed locations of these designated parking areas. In addition, provide a description of how workers would be transported to/from the Project area from the parking areas. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire is no longer pursuing the proposed modifications on the existing Line 880 (and its associated facilities) and these activities are no longer considered to be part of the Project. However, portions of the proposed North County Extension are located within suburban residential areas. Parking will be available at the staging areas included on the Project, and workers will typically be transported via school buses to the right-of-way. | 5 | 5.1.4 | 5-5 |
| Resource Report 6 – Geology | | | | | | |
| 31 | Clarify whether planned mines or expansion of existing mines were taken into consideration in table 6.3-1. Otherwise, provide an updated table that includes planned mines or expansion of existing mines within the Project area. Also include information on any buffer zones planned around current and future mine areas. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Based on Spire's review of publically available databases and maps, no known planned mines or expansion of planned mines were located in the Project areas. Based on consultations with the Central Stone quarry at MP 58.8, no expansion plans of their facility are planned in the foreseeable future. Additionally, Spire conducted a review of the IDNR (2017) Illinois Coal Mine Permits viewer, which displays spatial data such as permit boundaries, National Pollutant Discharge Elimination System points for mine permits, affected areas, surface mine areas, underground mine areas, mine shaft and facilities, aggregate sites, and abandon mined lands. No planned, current, or abandoned mine locations are located in the vicinity of the Project. Spire also reviewed the USACE St. Louis District public notices to see if any planned mining projects were located in the vicinity of the Project area and none were identified. | 6 | 6.3.3 | 6-4 |

**Appendix 1-L
Spire STL Pipeline
Responses to Environmental Data Request (dated March 13, 2017)**

| Data Request No. | Comment | Responsible Party; Name, Position, Phone Number | Response | Location Where Comment is Addressed | | |
|------------------|--|---|--|-------------------------------------|----------------|------|
| | | | | Resource Report | Section | Page |
| 32 | If an unknown well (orphan well) is uncovered within the Project area, describe how would Spire address this situation in the field. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Depending on the distance from the work area, a pre-inspection would be performed by a professional on the well condition. After the pipe is installed, another post-inspection would be conducted to verify if any damage has occurred. During the work in this area, precautions could be used to minimize the equipment traffic and vibration as well as maximizing the offset distance. | 6 | 6.3.3 | 6-4 |
| 33 | Note, the USGS maps of 2% and 10% Probability of Exceedance in 50 Years is measured in a fraction of standard gravity, not a percent of standard gravity. Therefore, a 0.2 reading on the map is equivalent to 20% gravity. Update the seismic risk section to incorporate these data. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Section 6.4.1 has been updated with the corrected units. | 6 | 6.4.1, 6.4.1.2 | 6-9 |
| 34 | Verify that all pipeline and aboveground facilities would be constructed to withstand anticipated seismic risks. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | The pipeline and associated facilities will be designed and constructed in accordance with applicable USDOT regulations (49 CFR 192) and constructed to standards that will allow them to withstand seismic events and the potential ground shaking caused from natural earthquakes should they occur. | 6 | 6.4.1 | 6-13 |
| 35 | Note, the (Pearce, Baldwin and Hoeft 2008) document concludes that "Liquefaction potential at the 2% in 50 years probability level is overall high, and sufficient to anticipate liquefaction throughout much of the study area." Please detail why it is stated in 6.4.1.2 that soil liquefaction is unexpected for the conservative probability level. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | <u>To clarify liquefaction potential at the 10 percent probability of exceedance in 50 years:</u> Pearce et. al. (2008) notes this probability level is commonly utilized for building codes, and complements the suspected recurrence interval for earthquakes in the NMSZ, which are estimated at 500 years. The study concluded that within the focus area, "the potential for liquefaction based on this probability and magnitude of seismic ground shaking is very low to none", and would be insufficient to cause soil liquefaction. The estimated trigger PGA values are 40% or greater than PGA values that would be seen with this probability. Therefore, liquefaction within the Project area encompassed by this study would not be anticipated for an earthquake of this probability and magnitude. <u>To clarify, liquefaction potential at the 2 percent probability of exceedance in 50 years:</u> Pearce et. al. (2008) notes that liquefaction is "not unexpected at this conservative probability level." Loess deposits crossed primarily by the North County Extension have characteristics that are not susceptible to liquefaction, even under this model. Within the study area, Project facilities in areas susceptible to liquefaction at this probability and magnitude are located between the Mississippi and Missouri Rivers, and at tributary crossings such as Coldwater Creek. Potential for liquefaction generally decreases as you move north, increasing in proximity from the NMSZ, and these areas crossed may have 10% to 30% potential to exceed the PGA that would trigger liquefaction. See Pearce et. al. (2008): pages 34, 38, Plate 4 | 6 | 6.4.1.2 | 6-13 |
| 36 | Provide an updated table 6.4-1 to include all areas along the Project that are identified as susceptible to landslides. Two areas (one less than a 1-mile area and one 5-mile area) are discussed in section 6.4.3 and only one area is listed in table 6.4-1. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Table 6.4-1 and Section 6.4.3 have been updated to reflect the estimated landslide susceptibilities according to the Godt 1997 reference. | 6 | 6.4, 6.4.3 | 6-7 |

**Appendix 1-L
Spire STL Pipeline
Responses to Environmental Data Request (dated March 13, 2017)**

| Data Request No. | Comment | Responsible Party; Name, Position, Phone Number | Response | Location Where Comment is Addressed | | |
|-------------------------------------|---|---|---|-------------------------------------|--------------|------|
| | | | | Resource Report | Section | Page |
| 37 | Table 6.4-1 shows four locations in which a geologic hazard is zero feet from the construction work area, but the notes state "work areas associated with the project are not anticipated to occur at this location." Please clarify. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Table 6.4-1 has been updated; footnote (no. 3) has been updated appropriately to indicate that geological hazards at the construction work area are not anticipated to be a concern to Project activities due to a combination of field reconnaissance and review of aerial imagery. Field surveys have been conducted at MP 43.1-43.9 and did not locate karst or sinkholes; aerials at MP 43.9-44.1 do not appear to have karst/sinkholes and will be field verified during surveys once landowner permissions has been obtained. No sinkholes were identified along the North County Extension at mileposts 2.5, 2.6, and 4.5 during field surveys; wetland/depressions were located North County Extensions MPs 2.5 and 2.7. | 6 | 6.4 | 6-8 |
| 38 | Clarify if table 6.4-2 includes karst features for aboveground facilities and other components of the Project (not just main line). Otherwise, provide an updated version of the table that includes karst features crossed by all Project components. For areas within the project corridor and with surficial karst features in the vicinity, perform a subsurface geophysical investigation to determine the extent of karst occurrence and summarize the results. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Table 6.4-2 includes karst features associated with the construction limits of the Project, including facilities and other components of the Project. With regards to subsurface investigation, geotechnical investigations were conducted at HDD crossings (where landowner permission was obtained) and proposed metering and regulating station locations. Geotechnical investigations were also completed in St. Charles County, Missouri for buoyancy evaluation which gave no indication of karst. Further geotechnical results related to recent investigations conducted at the North County Extension HDDs will be provided to FERC in a supplemental filing. No further subsurface investigations are planned at this time. | 6 | 6.4.4 | 6-15 |
| 39 | Section 6.4.4 states if karst is encountered during construction it can be avoided by small adjustments to the Project right-of-way. Describe the threshold for which Spire would move the route and to what degree. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Reviewing the information collected, Spire anticipates the impact of karst to the depth of the trench will likely not occur. If encountered, the limits of the karst feature will be determined utilizing excavation equipment along the proposed route. The pipe selected for the Project has the ability to safely span over 25 feet of karst features. If the karst feature is 25 feet or less, the line can be constructed with no adjustment to the route. If a karst feature is greater than 25 feet, other engineering and/or route options would be considered. Engineering options may be considered to remediate/stabilize the void such as aggregate stowing, grouting or a geotextile reinforced plug depending on the characteristics of the void and surrounding site conditions. In general, the pipeline may be installed near the proposed route utilizing an engineered technique. When an engineering solution could cause schedule delays thus impacting the surrounding areas, typically a route can be found within the 300-ft study corridor where the void can be safely spanned. | 6 | 6.4.4 | 6-16 |
| Resource Report 7 – Soils | | | | | | |
| 40 | Provide a statement clarifying if cathodic protection areas are included in appendix 7-B. If not, provide an updated appendix 7-B with these areas included. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Cathodic protection areas have been added to the table in Appendix 7-B. Note that while soils crossed by remote groundbeds are listed separately, AC mitigation are encompassed by the pipeline. | 7 | Appendix 7-B | |
| Resource Report 8 – Land Use | | | | | | |
| 41 | Provide an updated table 8.2-1 that identifies all structures (including garages, barns, sheds, pools, outbuildings, etc.) and residences within 50 feet of the Project (for example, the residence at MP 38.6 that appears to be within 5 feet of the proposed centerline). | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Table 8.2-1 has been updated to include residences and other structures located within 50 feet of the Project's construction work areas. | 8 | Table 8.2-1 | 8-19 |

**Appendix 1-L
Spire STL Pipeline
Responses to Environmental Data Request (dated March 13, 2017)**

| Data Request No. | Comment | Responsible Party; Name, Position, Phone Number | Response | Location Where Comment is Addressed | | |
|------------------|--|---|---|-------------------------------------|---------|------|
| | | | | Resource Report | Section | Page |
| 42 | Provide the Site Specific Residential Construction Details (appendix 8-C) for the residences identified within 50 feet of the proposed 24-inch pipeline at MPs 38.6, 46.4, 46.6, and 58.3 and within 50 feet of Line 880 at MPs 0.0, 1.1, 1.3, 2.6, 5.3, 6.9, and 7.0. For each plan, provide details on existing mature trees, landscaping, and fencing, noting where each would be preserved, removed, and/or restored. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire has provided an updated set of Site-specific Residential Construction Details as part of Appendix 8-C. The residence identified at MP 38.6 has been demolished based on recent aerial imagery provided. The structure at MP 58.3 is a commercial building, and therefore a site-specific residential drawing was not provided. Site-specific plans for the residences at MP 46.4 and 46.6 have been included in Appendix 8-C. Due to the revision of the Project components, modifications to the existing Line 880 (and its associated facilities) are no longer considered to be part of the Project and therefore, no additional residential drawings associated with Line 880 have been provided. Site-specific Residential Construction Details have been included for the residences within 50 feet of the North County Extension pipeline. | 8 | 8.2.2 | 8-18 |
| 43 | Explain what measures Spire would implement for maintaining driveway access to residences within 50 feet of the construction workspace during construction. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | For residences located within 50 feet, Spire will allow the driveways to remain intact until the construction tie-in crew comes through to cut and install the pipe (in one day or less). Alternatively, the Contractor may install a steel plate to serve as a temporary bridge until the pipe is lowered in and backfilled. | 8 | 8.2.2 | 8-21 |
| 44 | Describe the anticipated length of time landowners would be restricted from crossing the pipeline construction spread and whether Spire proposes any mitigation measures to facilitate landowner access, particularly in actively farmed plots. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | In cultivated areas and land with livestock, after digging the ditch, a crossing will be made available to allow for cattle and/or equipment to cross. | 8 | 8.2.2 | 8-21 |
| 45 | Provide an anticipated timeframe for coordinating with An Apple a Day Learning Center to determine an appropriate construction timeframe and mitigation and safety measures regarding the Line 880 modifications adjacent to this facility (MP 2.5). Provide a discussion of site-specific mitigation measures to reduce construction noise, and clarify whether open excavations would be covered at the end of the work day. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Due to the revision of the Project components, modifications to the existing Line 880 (and its associated facilities) are no longer considered to be part of the Project. Therefore, coordination with An Apple a Day Learning Center is no longer applicable. | NA | NA | NA |
| 46 | Estimate the duration of construction activity (in days or weeks) for modifications in proximity to An Apple a Day Learning Center, Arrowpoint Elementary School, and Hazelwood Southeast Middle School. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Due to the revision of the Project components, modifications to the existing Line 880 (and its associated facilities) are no longer considered to be part of the Project. Therefore, coordination with An Apple a Day Learning Center, Arrowpoint Elementary School, and Hazelwood Southeast Middle School are no longer applicable. | NA | NA | NA |

**Appendix 1-L
Spire STL Pipeline
Responses to Environmental Data Request (dated March 13, 2017)**

| Data Request No. | Comment | Responsible Party; Name, Position, Phone Number | Response | Location Where Comment is Addressed | | |
|--|--|---|---|-------------------------------------|-----------------------------|------------|
| | | | | Resource Report | Section | Page |
| 47 | Provide an updated table 8.3-2 to include the areas "reserved for hunting", as stated in section 3.2.1 and the Lewis and Clark National Historic Trail and associated auto tour route identified by the National Park Service (accession no. 20170307-0129. In addition provide: a. the applicable hunting season dates and any mitigation that would be implemented during construction for the protection of workers and to minimize impacts on hunting; and b. a discussion of the potential visual impacts from construction and operation of the Project on trail users and how these impacts would be mitigated. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Section 8.3.2 and Table 8.3-2 have been updated to address the Lewis and Clark National Historic Trail. Only one public area has been identified for potential hunting (the Upper Mississippi River Conservation Area) and this area was already addressed as part of Resource Report 8. a. Spire is aware of typical hunting seasons in Illinois and Missouri and has identified land parcels along the routes with public and private hunting leases. Construction is generally planned outside deer seasons. In the event hunting seasons cannot be avoided during Project construction, Spire will work with private landowners and leaseholders during easement negotiations to determine potential hunting restrictions on all directly affected parcels. Spire will accommodate landowner requests regarding hunting or negotiate compensation for interruptions to private hunting as a result of the construction of the Project. Spire will reiterate personnel safety and visibility to its contractors during hunting seasons and/or at parcels identified with hunting. Personnel safety (i.e., high visibility safety vests) and communications with lease owners in these areas will ensure safe working conditions. b. A discussion of potential visual impacts related to the Lewis and Clark National Historic Trail is discussed in Section 8.6. | 8 | 8.3.2, 8.6 | 8-31, 8-36 |
| 48 | Verify that Spire would use similar mitigation measures as those described for public land, recreation, and other designated use areas in proximity to Line 880 (e.g., install safety fencing, cover open excavations at the end of the work day, and initiate restoration immediately following construction), for similar areas in Illinois, as reported in table 8.3-2. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire will implement similar mitigation measures (e.g., install safety fencing, cover open excavations at the end of the work day, and initiate restoration immediately following construction) for the public areas crossed by the Project as identified in Table 8.3-2. The exception to this is the crossing of Spanish Lake Park as this area will be crossed via HDD and workspaces associated with the HDD will be located outside the Spanish Lake Park property. | 8 | 8.3.4 | 8-33 |
| 49 | Update appendix 8-A (Typical Right-of-Way Cross-Section Drawings) to include the following: a. cross-sections where the proposed greenfield pipe is collocated with existing rights-of-way; and b. typical road/railroad crossing drawings for each crossing method. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire has provided updated Typical Right-of-Way Cross Section Drawings in Appendix 8-A. These drawings now include cross sections of where the greenfield pipelines are collocated with existing rights-of-ways and typical road crossings. Site-specific crossing drawings have been provided for each of the railroads crossed on the Project. | 8 | Appendix 8-A | |
| Resource Report 9 – Air and Noise Quality | | | | | | |
| 50 | Reconcile the discrepancies in pipeline lengths reported in RR 1 (58.8-mile 24-inch pipeline and 7.0-mile Line 880) and those used for calculations reported in table 9A-5 (57.4-mile 24-inch pipeline and 7.6-mile Line 880), and provide an updated table 9A-5 as necessary. Provide updates to any of the other tables in appendix 9-A that would change as a result of any changes in pipeline lengths. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Appendix 9-A has been updated to incorporate the most recent pipeline segment lengths. In addition, Section 9.1.1 has also been updated to incorporate these corrected lengths. | 9 | Appendix 9-A, Section 9.1.1 | 9-1 |
| 51 | Summarize horizontal directional drill (HDD) construction noise and operational noise analyses in tables that contains the following: a. each noise sensitive area (NSA) within a half-mile; b. distance between the closest NSAs and the source of sound; c. existing estimated ambient Day-Night Level (Ldn) at each NSA; d. estimated duration of HDD construction; e. estimated Ldn due to HDD or site operation, as appropriate, with and without potential noise reduction; and f. total expected Ldn, considering ambient Ldn and construction or operation noise, as appropriate. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | A summary of HDD construction and operational noise has been provided in Section 9.2.3.2 under each appropriate subheading for each HDD. Tables have also been included to reflect this information and the Ldn at nearby noise sensitive areas. | 9 | 9.2.3.2 | 9-20 |

**Appendix 1-L
Spire STL Pipeline
Responses to Environmental Data Request (dated March 13, 2017)**

| Data Request No. | Comment | Responsible Party; Name, Position, Phone Number | Response | Location Where Comment is Addressed | | |
|--|---|---|--|-------------------------------------|---------|-------|
| | | | | Resource Report | Section | Page |
| 52 | For HDD pull-back activities, which are described as occurring at night, indicate whether the thresholds of 55 dBA Ldn or 10dBA over ambient would be exceeded. Confirm whether Spire commits to conducting all other drilling activities during daytime hours only. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | A summary of HDD construction and operational noise has been provided in Section 9.2.3.2 under each appropriate subheading for each HDD. Tables have also been included to reflect this information and the Ldn at nearby noise sensitive areas. | 9 | 9.2.3.2 | 9-20 |
| Resource Report 10 – Alternatives | | | | | | |
| 53 | Discuss the potential to minimize impacts on the forested land north of the Mississippi River by use of the HDD method. In addition to the currently proposed route, Spire should assess the feasibility of a HDD drill path such that the HDD entry/exit pit for the Mississippi River crossing would accommodate a second drill extending east to one of two agricultural/open land areas just west of the proposed route (near MP 44.2 or 43.8). | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire has evaluated the potential to minimize impacts to forested land through the utilization of the HDD method. Based on the length of drill required, there would be significant risks with this method, and additional tree clearing may be required for pull-back operations. Further discussion is provided in Resource Report 8, Section 8.3.1.1. | 8 | 8.3.1.1 | 8-24 |
| 54 | Report on the current status of Spire’s easement negotiations for all parcels where new aboveground facilities (e.g., meter stations and mainline block valves) are currently proposed and the alternative site for the proposed MRT Bi-Directional Station described in section 10.5. If Spire has been unable to obtain access to these parcels or negotiate an acceptable easement agreement for these aboveground facilities, please identify when access and/or an acceptable easement agreement is expected. Alternatively, provide an analysis of alternative sites for each aboveground facility which includes any relevant environmental, engineering, or economic factors associated with use of the alternative site. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire has purchased the western portion of the Chain of Rocks Station and will acquire an easement for the eastern portion of the facility. Easement negotiations for REX Receipt Station, Laclede/Lange Delivery Station, and the mainline valve sites are ongoing. No issues are anticipated and easement negotiations are expected to conclude by November 2017. Environmental surveys have been completed at all facilities. | 10 | 10.5 | 10-22 |
| Resource Report 11 – Reliability and Safety | | | | | | |
| 55 | Clarify the discrepancy between table 11.2-1 and the text within section 11.2.1. Table 11.2-1 identifies all of Line 880 as Class 3; therefore, by the definition of high consequence area (HCA), Line 880 should be considered within a HCA. Section 11.2.1 states that only 4 miles of Line 880 is within a HCA. Provide an updated table 11.2-1 if modifications are needed to the Class descriptions by milepost. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | A high consequence area (HCA) analysis has been completed for the North County Extension as determined by the potential impact circle method and the following areas have been identified as HCA's: MP's (2.3 to 2.7), (4.8 to 5.0), and (5.7 to 6.0). In these areas the potential impact radius (638 feet) contains 20 or more structures. | 11 | 11.2.1 | 11-4 |
| 56 | Confirm, as reported in appendix 7-C, that depth of cover over consolidated rock in Illinois would be 30 inches. | Russ English Director, Pipeline Projects (Spire) 844-885-7234 | Spire intends to provide a minimum depth of cover of 36 inches in consolidated rock. Therefore, Spire will be in compliance with the project-specific Agricultural Impact Mitigation Agreement with Illinois which requires a minimum of 30 inches of cover in consolidated rock. | 11 | 11.2 | 11-3 |

NA-Not Applicable to the proposed Project