

AN ORDER GRANTING TO AMEREN TRANSMISSION COMPANY OF ILLINOIS, ITS SUCCESSORS AND ASSIGNS, AN ASSENT TO USE OF THE PUBLIC ROADS OR HIGHWAYS OF LEWIS COUNTY, MISSOURI, FOR THE PURPOSE OF SUSPENDING AND MAINTAINING TRANSMISSION WIRES AND RELATED FACILITIES OVER SAID PUBLIC ROADS OR HIGHWAYS.

WHEREAS, Lewis County (the "County") is a third-class county and political subdivision duly organized and validly existing under the Constitution and laws of the State of Missouri; and

WHEREAS, Ameren Transmission Company of Illinois ("ATXI") is an Illinois corporation duly authorized to conduct business in Missouri and is engaged in the construction and operation of electric transmission lines in Missouri, including the proposed Mark Twain Transmission Line Project (the "Project"); and

WHEREAS, ATXI intends to request and obtain a Certificate of Convenience and Necessity from the Missouri Public Service Commission, recognizing that the Project is in the public interest and authorizing it to construct an electric transmission line in northeast Missouri and, specifically, in the County, utilizing existing right-of-way of Northeast Missouri Electric Power Cooperative and Union Electric Company d/b/a Ameren Missouri, for construction of the majority of the proposed Project; and

WHEREAS, ATXI anticipates utilizing the public roads and highways of the County as construction routes, as set out in *Letter of Assurance to Lewis County Commission*, attached as **Exhibit A** to this order and incorporated herein by reference; and

WHEREAS, ATXI intends to suspend the Mark Twain Transmission Line over the public roads and highways of the County as shown in *Mark Twain Transmission Project County Road Crossing Report For Lewis County, Missouri*, attached as **Exhibit B** to this order and incorporated herein by reference and, more generally, intends to locate the line within the County as indicated in *Lewis County Proposed Route*, attached as **Exhibit C** to this order and incorporated herein by reference; and

WHEREAS, the County, acting by and through its County Commission, desires to grant to ATXI its assent authorizing ATXI to suspend and maintain its transmission wires and related facilities over the public roads or highways of the County based upon the representations of ATXI stated above.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNTY COMMISSION OF LEWIS COUNTY, MISSOURI, AS FOLLOWS:

Section 1. There is hereby granted to Ameren Transmission Company of Illinois ("ATXI"), its successors and assigns, the assent of Lewis County (the "County") to the use of the public roads or highways of Lewis County, Missouri, for the suspension and maintenance of

transmission wires and related facilities over or across said public roads or highways, as shown in **Exhibit B**, in furtherance of ATXI's Mark Twain Transmission Line Project (the "Project"), subject to reasonable rules and regulations as may be prescribed and promulgated by the county highway engineer or county highway supervisor to ensure that the transmission wires and related facilities do not incommode the public's use of such public roads or highways; said reasonable rules and regulations being subject to the approval of the county commission.

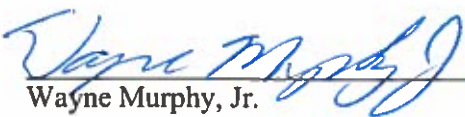
Section 2. ATXI agrees to abide by the terms and conditions, as set out in **Exhibit A**, and shall bear responsibility for the negligent acts or omissions of itself and its contractors and agents in connection with construction and maintenance activities for which this assent is given, and shall hold the County and the County Commission harmless from all expense or liability for any act or neglect of ATXI and its contractors and agents hereunder.


Section 3. This order granting assent supersedes and replaces any prior resolutions of the County Commission regarding the Project.

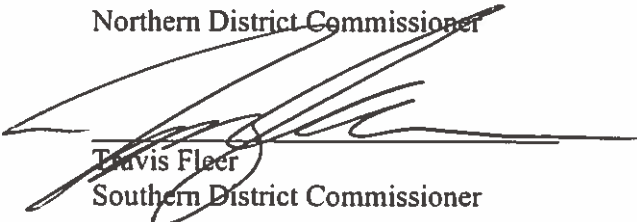
Section 4. This order shall be in force and effect from and after its passage; however, this order granting assent to ATXI for the Project is specifically conditioned upon ATXI receiving a Certificate of Convenience and Necessity ("CCN") from the Missouri Public Service Commission (the "PSC") for the proposed Project, and if such CCN is denied by the PSC, then this order will be null and void.

PASSED AND APPROVED, this 14<sup>th</sup> day of August, 2017.




  
Wayne Murphy, Jr.  
Presiding Commissioner

  
Deanne Whiston  
Northern District Commissioner

  
Travis Fleer  
Southern District Commissioner

Attest:

  
Chris Flanagan  
County Clerk



August 14, 2017

Wayne Murphy, Jr., Presiding Commissioner  
 Lewis County Commission  
 Lewis County Courthouse  
 100 E. Lafayette  
 Monticello, Missouri 63457

**RE: Letter of Assurance Regarding ATXI's Use of Lewis County Roads**

Dear Presiding Commissioner:

As you are aware, Ameren Transmission Company of Illinois (ATXI) recently announced an agreement with Northeast Missouri Electric Power Cooperative (Northeast Power) and Union Electric Company d/b/a Ameren Missouri (Ameren Missouri) to co-locate ATXI's Mark Twain Transmission Project on existing Northeast Power and Ameren Missouri transmission corridors.

In general, construction of the project will consist of removing existing Northeast Power and Ameren Missouri 161 kV transmission facilities and installing in their place steel transmission structures capable of supporting two transmission circuits – one 345 kV circuit to be owned and operated by ATXI and one 161 kV circuit to be owned and operated by Northeast Power or Ameren Missouri, as applicable. As a part of this project, we will also be performing activities such as removing vegetation, constructing points of corridor ingress and egress, and engaging in restoration and mitigation work as required. We anticipate construction beginning in the summer of 2018.

In this letter I outline ATXI's intent, and your agreement, for ATXI and its contractors to use county roads, bridges, and right-of-ways under your jurisdiction for purposes of completing the project, subject to the terms contained in this letter.

As part of this transmission project, ATXI and its contractors expect, subject to final review and continuing coordination with the County, to use the following roads in Lewis County for construction traffic (Construction Routes):

**SEE ATTACHED SHEETS**

The use of the Construction Routes may include travel by overweight and oversized vehicles during construction. ATXI's construction contractor will secure permits for overweight or oversized vehicles as required.

ATXI will secure a third-party road monitoring contractor to inventory, monitor, and analyze the condition of the Construction Routes throughout the construction process. An initial inventory of the Construction Routes will be completed by this contractor and used to establish a baseline condition from which to measure any project-related damages. The road monitoring contractor

will also engage in ongoing monitoring and inventory of the Construction Routes throughout the project duration. Should a road-related issue arise during the project the County is encouraged to contact the road monitoring contractor to discuss and investigate the situation.

It is ATXI's intent to maintain all affected Construction Routes in a safe, passable condition throughout the project and to settle repair claims, should any exist, with the County at the conclusion of construction. As previously stated, should any road-related issues arise during the project, all parties agree to work with the road monitoring contractor to identify the scope of any necessary repairs. Should repairs be required as a result of ATXI's use of county roads, bridges, and right-of-ways ATXI will repair the affected roads, bridges and/or right-of-ways in accordance with the industry recognized standards and to conditions comparable to those observed during our contractor's initial inventory or it will compensate the County to do the same. ATXI shall be responsible for and pay for any damages to the roads, bridges, and County right-of-ways to the County caused by the construction of the project and shall defend, indemnify, and hold the County Commission and County harmless for losses, claims, and demands made against the Commission and County related to any damages caused to roads, bridges, and right-of-ways by the construction of the project.

Should you have any further questions concerning this matter, please feel free to contact me at the number or email address listed below.

Sincerely,



Douglas J. Brown  
Real Estate Manager  
Ameren Services Company  
As Agent for ATXI  
636-925-3240  
dbrown3@ameren.com

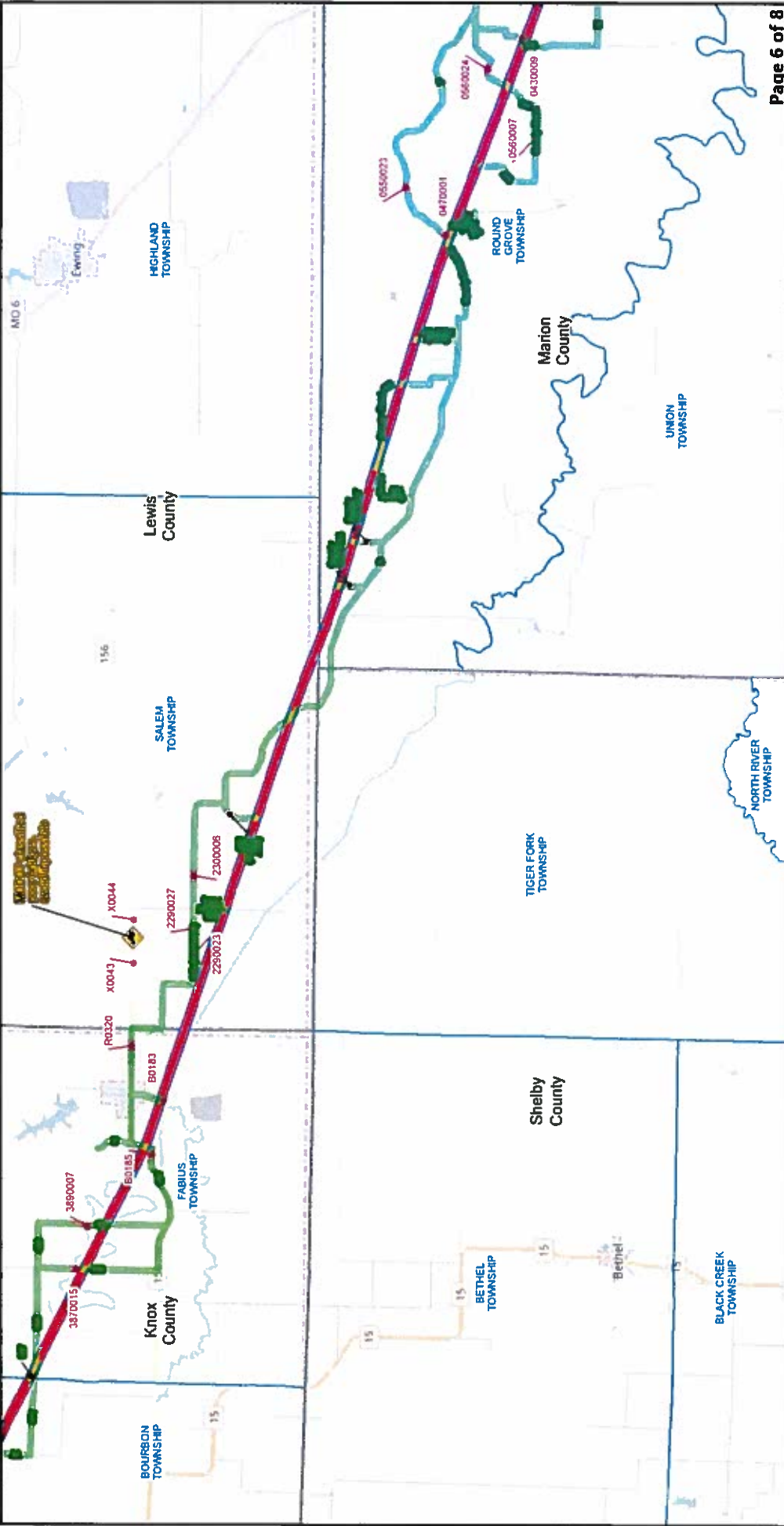
Agree to the terms above:


Lewis County Commission




**Mark Twain Transmission Project  
Map of Potential Construction Routes within  
Lewis County**

*(subject to modification based upon circumstances  
and agreement of the parties)*

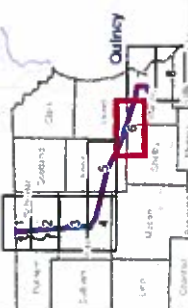













N



1 inch = 2 mile



	Laydown Yard		Haul Route
	Bridge (MODOT ID #)		Span Alignment Proposed
	Map Note		Township
			County



**Mark Twain Transmission Project  
County Road Crossing Report  
For  
Lewis County, Missouri**

**Rev. 0  
July 5, 2017**

*This document and its supporting materials contain Ameren confidential information. The information contained herein remains Ameren property and shall not be distributed without the express written consent of Ameren.*



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Revision Number	Date	Description
0	7/5/2017	Initial Issue

**County Road Crossing Report for Lewis County, MO**

**PREPARED FOR:**

AMEREN TRANSMISSION COMPANY OF ILLINOIS  
MARK TWAIN TRANSMISSION PROJECT

**PREPARED BY:**

DAVID ENDORF, P.E. – AMEREN SERVICES  
JESSICA TIMMERMANN, P.E. – AMEREN SERVICES



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  - 2 STANDARDS AND PROCEDURES**
  - 3 ROAD CROSSINGS**
  - 4 CONCLUSION**
- APPENDIX I**



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## 1 INTRODUCTION

A new route is being proposed for the Mark Twain Transmission Project (Project), a 345,000 volt transmission line, a 161,000 volt connector and substation to be built in northeast Missouri. After listening to community members, landowners, county commissioners and other local and state representatives, Ameren Transmission Company of Illinois (ATXI) is collaborating with Northeast Missouri Electric Power Cooperative (Northeast Power) and Union Electric Company d/b/a Ameren Missouri (Ameren Missouri) to use existing right-of-way (ROW) for the majority of the new approximately 100-mile line.

The proposed new route will run through Adair, Knox, Lewis, Marion and Schuyler Counties and will include construction of the Zachary Substation near Kirksville, Missouri. To minimize the potential impacts of the Project and to address concerns of property owners and local communities, the proposed route will use at least 90 percent of existing ROW. The Project will generally double circuit Northeast Power's 161,000-volt line between Palmyra and Kirksville. The Project will also double circuit Ameren Missouri's 345,000-volt line between the Maywood and Palmyra substations, a 161,000 volt line from the Palmyra Substation north to Northeast Power's line and a 161,000-volt line from Kirksville to the Iowa border. New right-of-way may be sought in Adair County to connect to the existing Ameren Missouri 161,000 volt line, the Zachary and Adair substations, and in Marion County to connect to the Maywood Substation.

Missouri Revised Statute Section 229.100 states that before electric conductors can be installed across public roads or highways of any county, the assent of the County Commission must be obtained. This report will provide information in support of the assent request as it relates to where the Project crosses county roads in Lewis County.



## 2 STANDARDS AND PROCEDURES

ATXI is using Ameren Services Company (Ameren Services) to perform engineering services for the Project. Ameren Services follows all applicable state and county regulations. Consistent with Missouri's Code of State Regulations (4 CSR 240-18.010) and the Missouri Department of Transportation's Policy, Standards and Regulations (643.3.3), the Project is designed to meet or exceed the requirements of the 2012 National Electrical Safety Code (NESC).

The NESC is approved by the Institute of Electrical and Electronics Engineers (IEEE) and American National Standards Institute (ANSI). The purpose of the NESC is "the practical safeguarding of persons, utility facilities, and affected property during the installation, operation and maintenance of electric supply and communication facilities, under specified conditions" (NESC-2012, Section 1.010.A).

Insuring that the transmission facilities, including poles and wires, are located and constructed in a manner that does not interfere with the safe use and maintenance of roads in Lewis County is paramount to ATXI. Section 232 of the NESC provides requirements for the minimum vertical clearance required from the highest point of the roadway to the maximum sag of the lowest conductor. Using Section 232 of the NESC, a minimum clearance of 25 feet is required over any roadway for the 345,000 volt transmission lines. A 161,000 volt line requires a minimum clearance of 22 feet over any roadway at the maximum sag of the lowest conductor. (NESC-2012, Section 232, including Errata issued 29 April 2013).

ATXI will generally be utilizing double circuit structures for the Project. In Lewis County, the structures will accommodate a 345,000 volt line on one side and a 161,000 volt line on the adjacent side. ATXI will follow clearance requirements associated with 345,000 volt lines, meaning that the conductors on each side of the structures will be at least 25 feet above county roadways.

Engineers with Ameren Services surveyed the new line route using Light Imaging Detection and Ranging (LiDAR) to establish elevations of road crossings and other land data. That information will be used to select and locate poles and create a center line for the transmission line. Near proposed roadway crossings, land survey teams will survey the county road ROW to establish the approximate ROW edges. Ameren Services will then verify, based upon available data, that no permanent structures would be placed within the county road ROW.

Based on the information gathered in the design phase and maps provided from public sources, the Project team determined that there are 3 locations where the double circuit 345,000 volt and 161,000 volt line crosses a roadway in Lewis County. Those locations are described in further detail below.



### 3 ROAD CROSSINGS

Each of the crossing locations identified during the preliminary design phase are listed in Table 1.

Table 1 – County Road Crossings

FIGURE # IN APPENDIX I	SECTION (N. OR S.)	ROADWAY DESIGNATION	AGENCY TYPE	COUNTY
1	SOUTH	HWY D	STATE	LEWIS
2	SOUTH	135TH AVE (RTE 275)	COUNTY	LEWIS
3	SOUTH	120TH AVE (RTE 273)	COUNTY	LEWIS

As shown in Table 1, each crossing has a corresponding figure in Appendix I. Each map displays the road designation and the approximate location of the crossing. Following the maps is a typical crossing drawing that contains an example plan and profile, showing the centerline and elevation of the road. In the profile view the maximum conductor sag is displayed with a 25 foot clearance zone.

The information contained in Table 1 and shown in Appendix I is a combination of publicly available and field collected data. Once access to the necessary private property is gained, all data will be verified in the field prior to construction.

After the Project is constructed, each crossing will be surveyed, verified and an as-built record made. This will be provided to the appropriate county authority documenting that the Project was built according to standards.



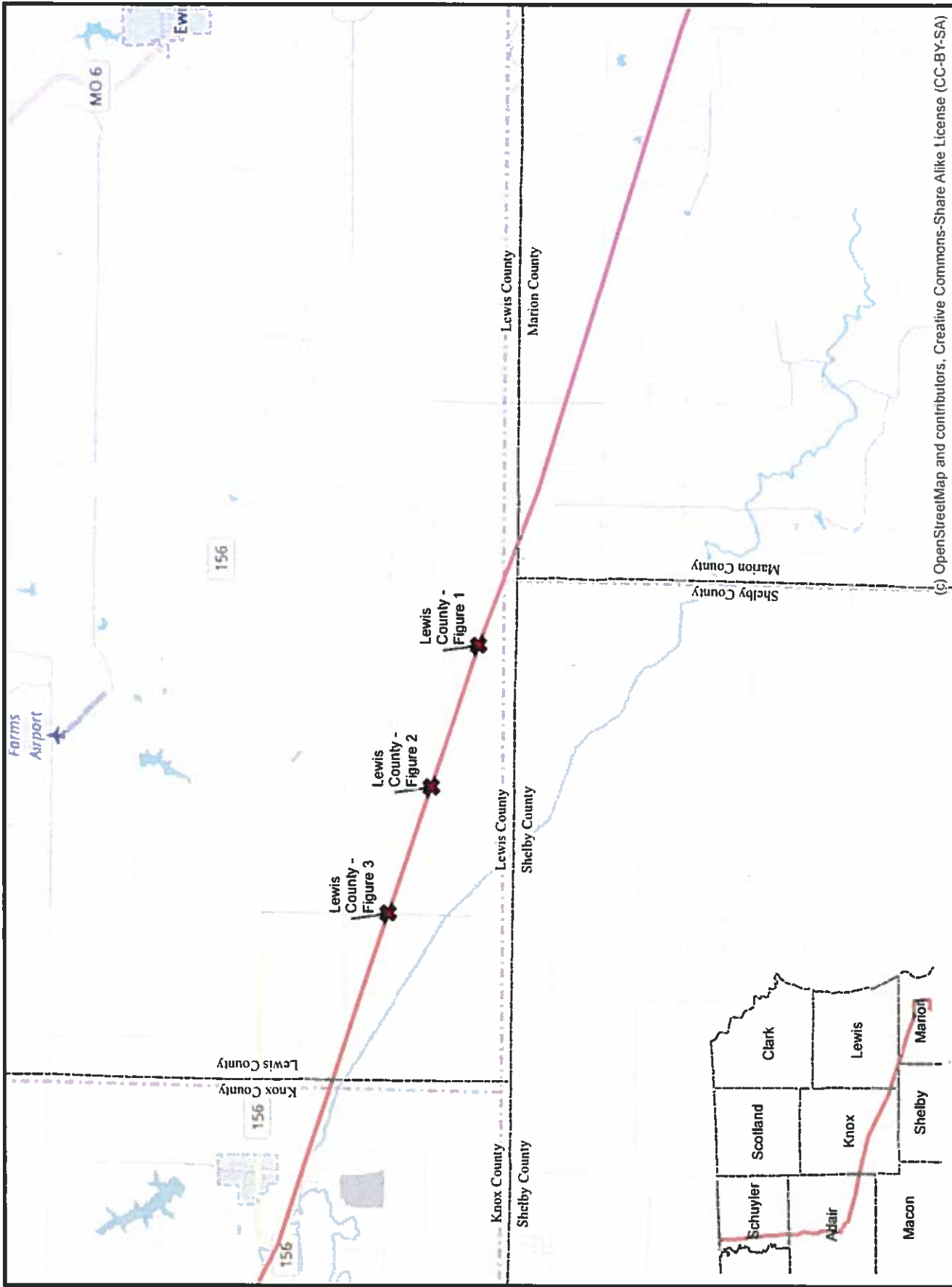
#### **4 CONCLUSION**

ATXI is committed to designing, constructing and maintaining the Project in a safe and reliable manner. We look forward to working with the County Commission and county highway engineer or county highway supervisor so that any concerns can be addressed. Although this document generally focuses on the ways in which the Project will cross Lewis County roads, please know that we are also committing to driving on your roads in a safe and responsible manner. To that end, ATXI will also be providing you with a Letter of Assurance, conveying our intent to make the Lewis County whole for any road-related damages caused by the Project.



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**APPENDIX I**



(c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)



- Road
- Utility
- Railroad
- Other
- County



Mark Twain 345 KV  
Road Crossing Exhibits  
Lewis County  
Thursday, July 6, 2017





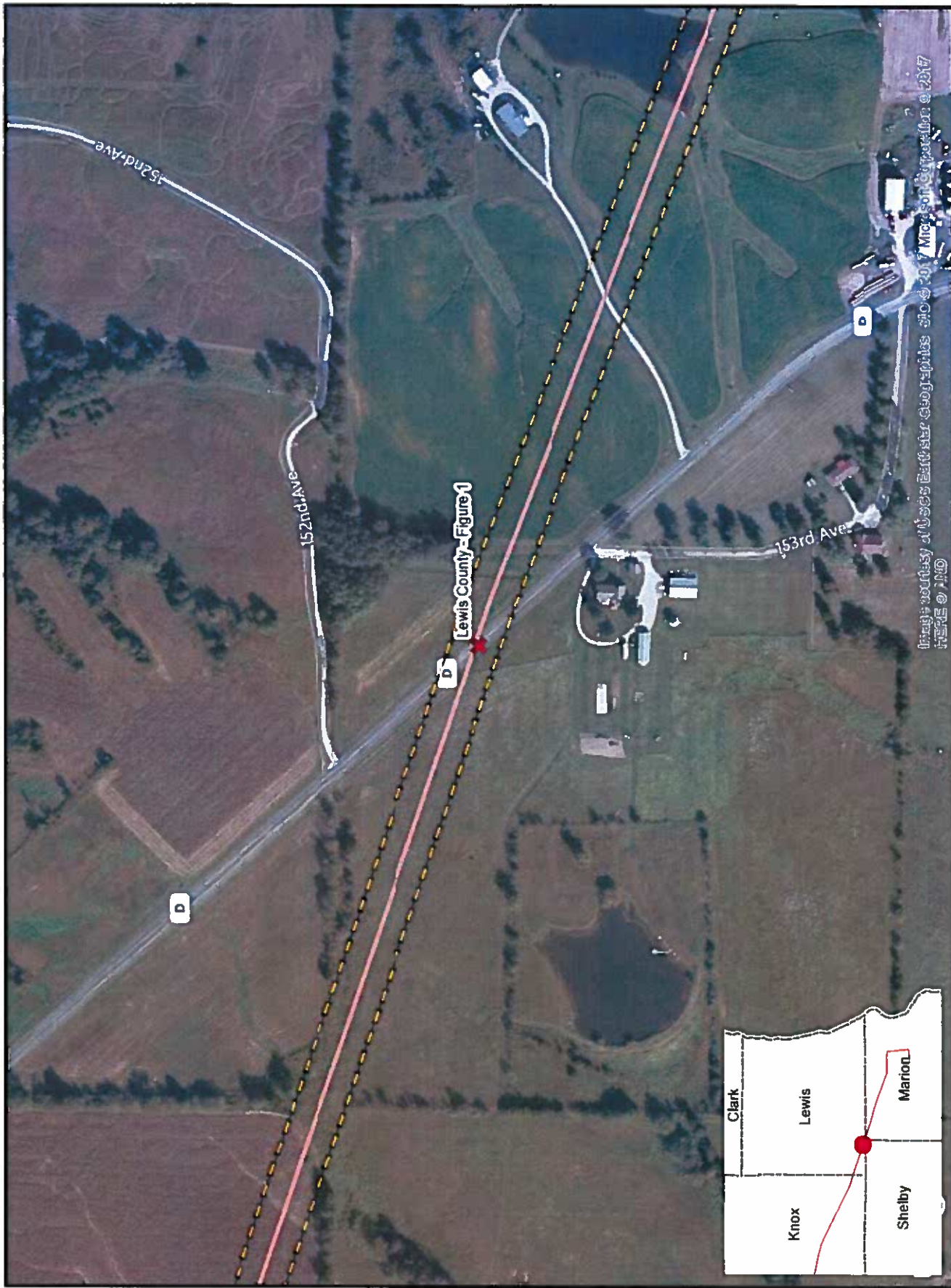


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**AMEREN**  
 FOCUSED ENERGY. For life

Mark Twain 345 KV  
 Road Crossing Exhibits  
 Lewis County  
 Wednesday, June 28, 2017


  
 N  
 W E S

0 0.025 0.05 0.1  
 Miles  
 1 in = 400 feet

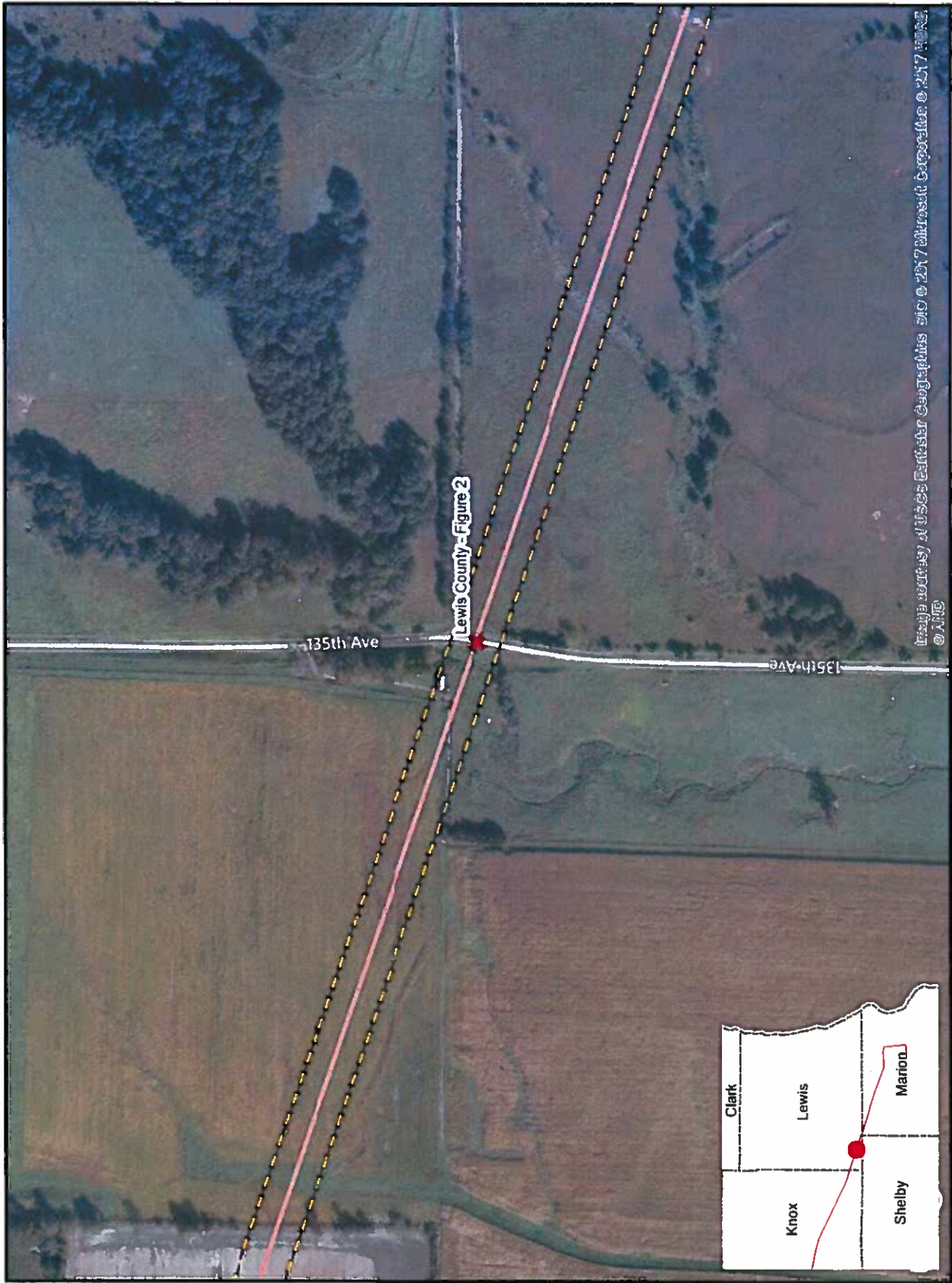

  
 Road    Utility    Railroad    Other


  
**VolKERT**

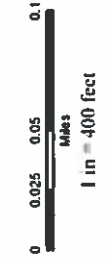
Lewis County - Figure 1  

**Ameren**

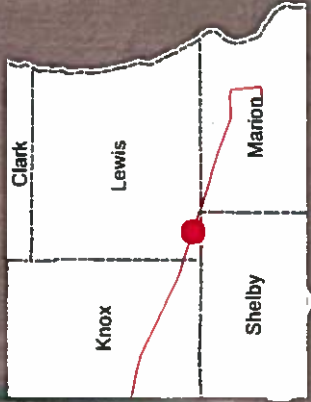




- Road
- Railroad
- Utility
- Other



Mark Twain 345 KV  
 Road Crossing Exhibits  
 Lewis County  
 Wednesday, June 28, 2017





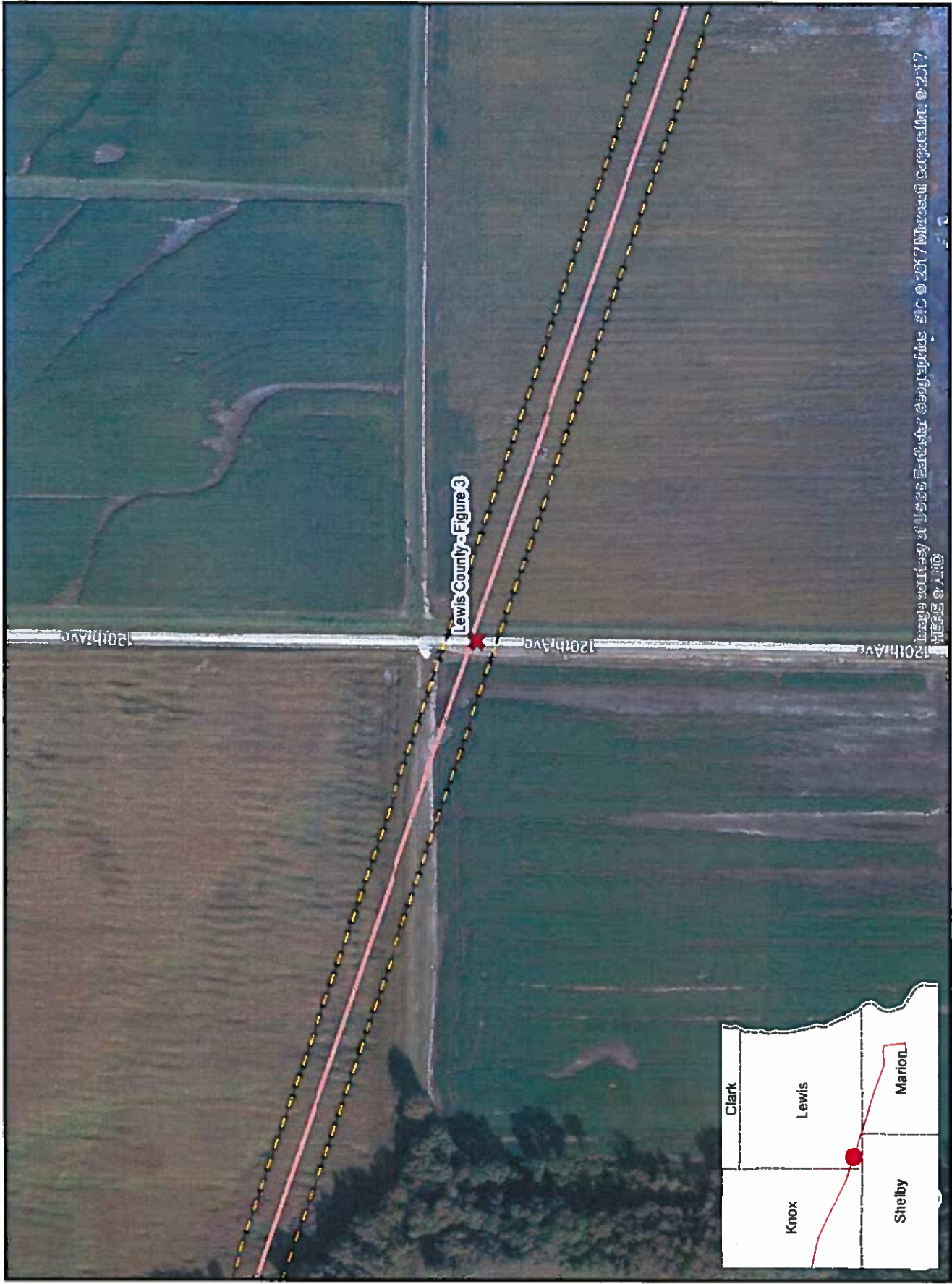
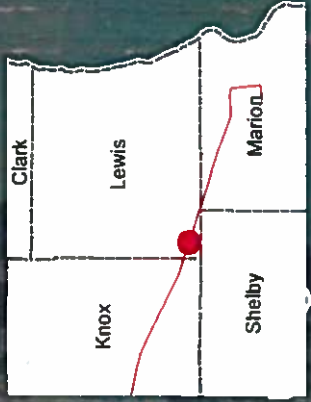


Image courtesy of USGS Earthstar Geographics. SIO © 2017 Blackwell Corporation. © 2017  
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Mark Twain 345 KV  
Road Crossing Exhibits  
Lewis County  
Wednesday, June 28, 2017

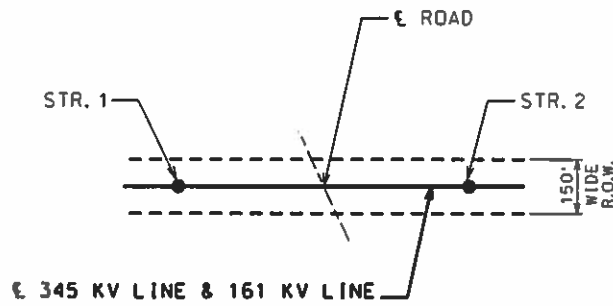


- Road
- Railroad
- Utility
- Other



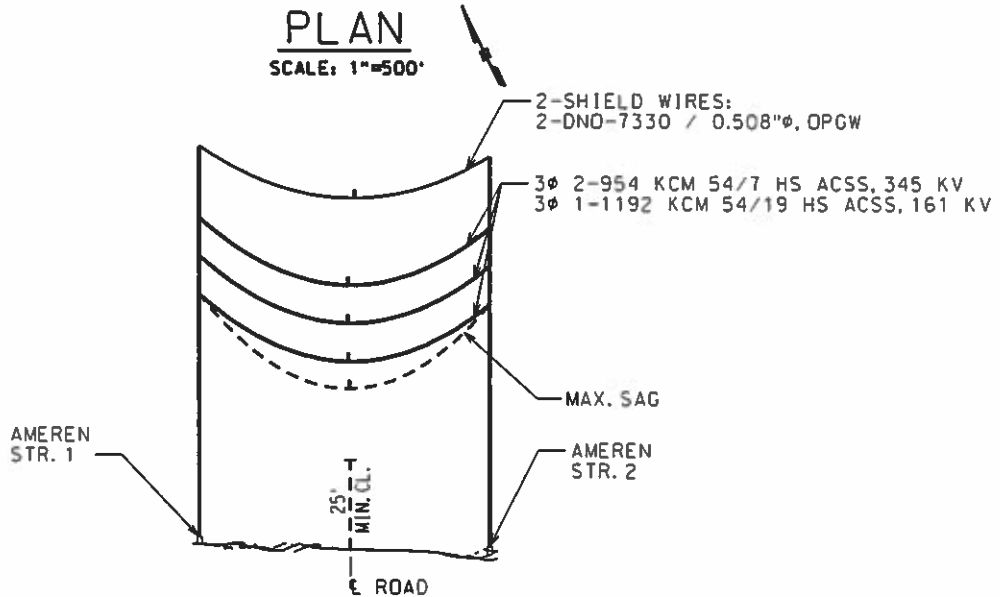
# LEGEND

● PROPOSED STRUCTURE



## PLAN

SCALE: 1"=500'



## PROFILE

SCALE:  
HORIZONTAL: 1"=500'  
VERTICAL: 1"=50'

### NOTES:

1. THIS CONSTRUCTION HAS BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE MISSOURI DOT ENGINEERING POLICY GUIDE, ARTICLE 643.3.4 & 643.3.9.
2. 25' CLEARANCE SHOWN IS BASED ON NATIONAL ELECTRIC SAFETY CODE (NESC) REQUIREMENTS FOR 345,000-VOLTS. AMEREN WILL MEET OR EXCEED NESC CLEARANCES AT ALL ROAD CROSSINGS AT THE MAXIMUM OPERATING TEMPERATURE (MAX SAG).
3. A 22' CLEARANCE, BASED ON NATIONAL ELECTRIC SAFETY CODE (NESC) IS REQUIRED FOR 161,000-VOLTS. AMEREN WILL MEET OR EXCEED NESC CLEARANCES AT ALL ROAD CROSSINGS AT THE MAXIMUM OPERATING TEMPERATURE (MAX SAG).

REV	PROJ ID	DATE	DRWN	RVW	APPD
REV	PROJ ID	DATE	DRWN	RVW	APPD
0	JS466832	07/05/17	ACW		
FIRST ISSUE					

LINE CONSTRUCTION  
PROPOSED 3φ DOUBLE CIRCUIT  
345 KV & 161 KV CROSSING

MARK TWAIN



SK-T-170705

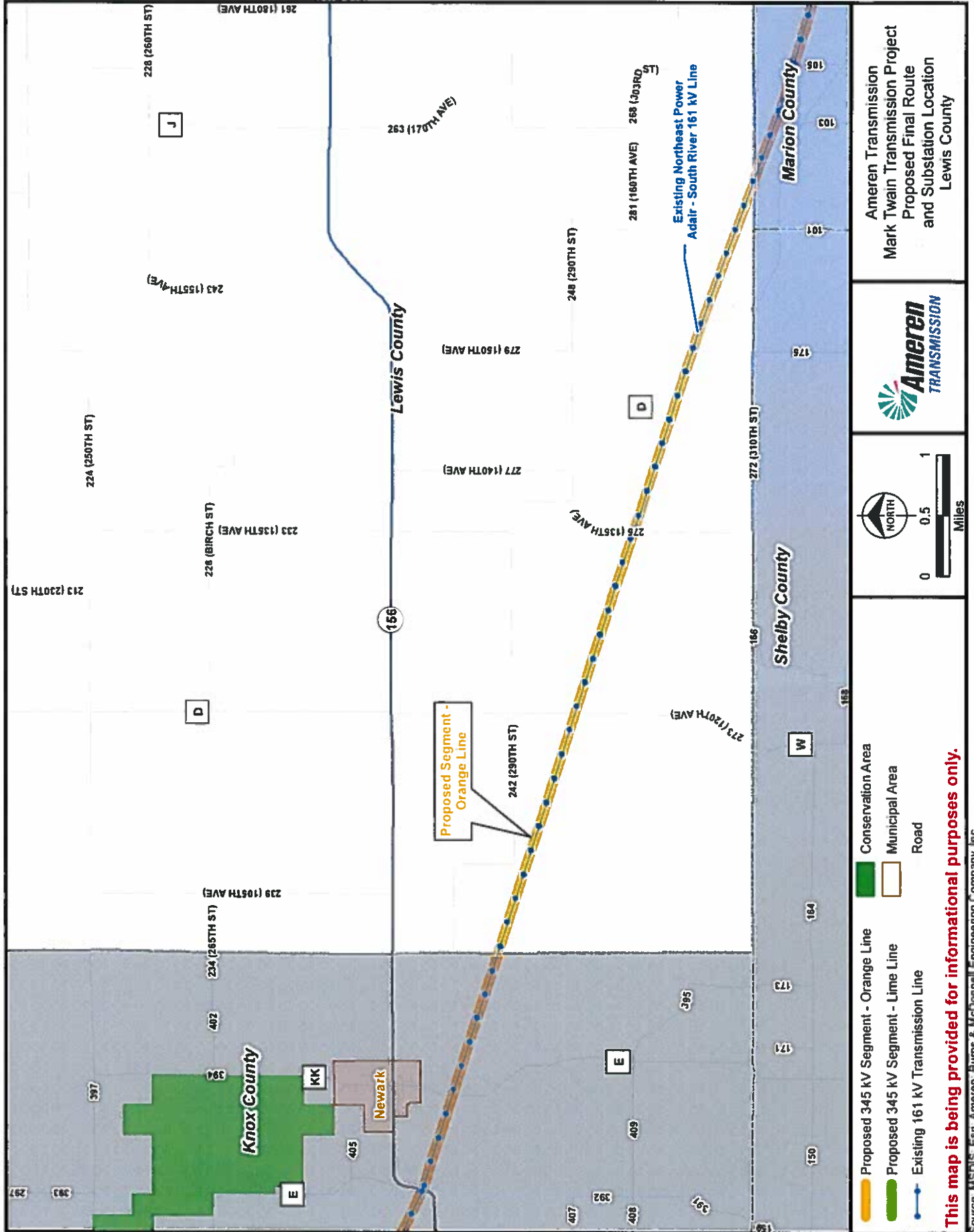
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NOTICE OF LIMITED RESPONSIBILITY  
THE RESPONSIBILITY OF THE UNDERSIGNED ENGINEER IS LIMITED TO THE DESIGN WORK SHOWN ON PROJECT DRAWINGS AND DOCUMENTS BEARING HIS/HER SEAL, SIGNATURE OR INITIALS. HE/SHE DOES NOT HAVE AUTHORITY OVER THE PROJECT AS A WHOLE. THE UNDERSIGNED DISCLAIMS ANY RESPONSIBILITY FOR WORK DONE UNDER SUBSEQUENT REVISIONS AND ANY OTHER DOCUMENTS ASSOCIATED WITH THE PROJECT WHICH DO NOT BEAR HIS/HER SEAL, SIGNATURE OR INITIALS.

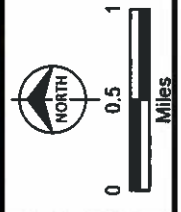
SCALE RATIO = 1"=500'

APPENDIX F

8.5X11



Ameren Transmission  
 Mark Twin Transmission Project  
 Proposed Final Route  
 and Substation Location  
 Lewis County



Proposed 345 kV Segment - Orange Line  
 Proposed 345 kV Segment - Lime Line  
 Existing 161 kV Transmission Line  
 Conservation Area  
 Municipal Area  
 Road

**This map is being provided for informational purposes only.**

Source: MSDIS, Esri, Ameren, Burns & McDonnell Engineering Company, Inc.