

ROUTING STUDY

Grand Tower Crossing Transmission Line

April 2025

Prepared for:

Ameren Transmission Company of Illinois

By

HDR, Engineering Inc.

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1. Introduction and Project Description

The Grand Tower Crossing Transmission Line Project (the Project) is a 138-kilovolt (kV) electric transmission line that will connect the Wittenberg Substation in Perry County with the Jenkins Substation in Jackson County, Illinois.

HDR Engineering, Inc. (HDR), on behalf of Ameren Transmission, Ameren Transmission Company of Illinois (ATXI), prepared this routing study to document the process used to identify the Proposed Route for the Project. The process was undertaken by the “Routing Team,” which comprised staff from both HDR and ATXI. The Routing Team was composed of a diverse group of professionals from the following technical disciplines: environmental, stakeholder outreach, engineering, system planning, real estate, and construction.

2. Overview of Integrated Route Selection and Stakeholder Outreach Process

Starting in October 2024, the Routing Team began the integrated route selection and stakeholder outreach process for the Project. A strategic communication and outreach plan was developed in late 2024. It created a foundation for the Routing Team to pursue an open stakeholder outreach effort, providing numerous opportunities for landowners, community representatives, agencies, and non-governmental organizations to be involved in the routing process.

The integrated route selection and stakeholder outreach process was an iterative process with successive phases of routing analysis and outreach that began with a large geographic area and broad stakeholder involvement. As route development progressed, the affected geography and stakeholders were continually refined, and with each refinement, the level of analysis became more detailed.

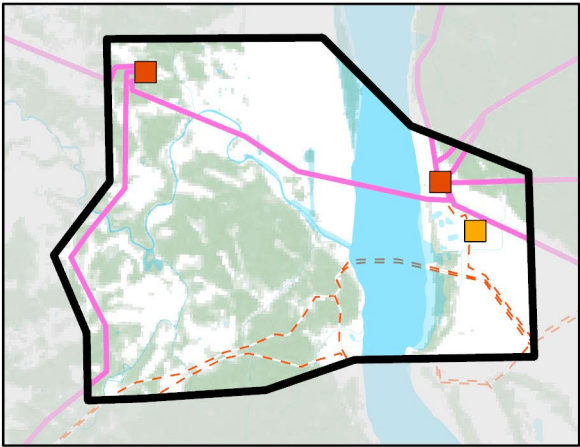
The phases of the route selection process included the following:

1. Study Area Identification,
2. Potential Route Corridor Development, Preliminary Corridors
3. Potential Route Alternative Identification, Preliminary Route Alternatives
4. Proposed Route Identification, Final Proposed Route

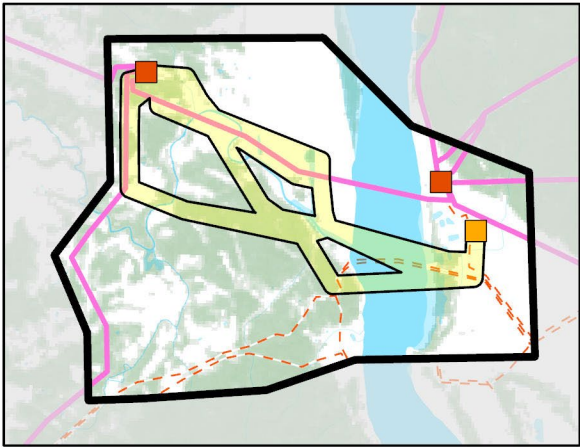
ATXI held a Community Representative Forum (CRF) to gain feedback on the Study Area and the project as whole in January 2025. Potential Route Corridors were then shown at the first round of public open houses. ATXI then held another round of Open Houses to gain feedback on the Proposed Route Alternatives. Figure 1 depicts the phases of route selection and stakeholder outreach.

The Final Proposed Route is the route that the Routing Team believes optimally meets the Routing Criteria by best minimizing potential impacts to Sensitivities, taking advantage of Opportunities, and adhering to Technical Guidelines and Statutory Requirements.

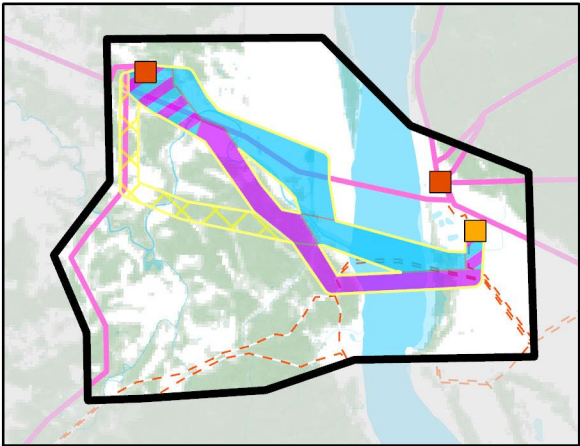
Figure 1. Integrated Route Selection and Stakeholder Outreach Process



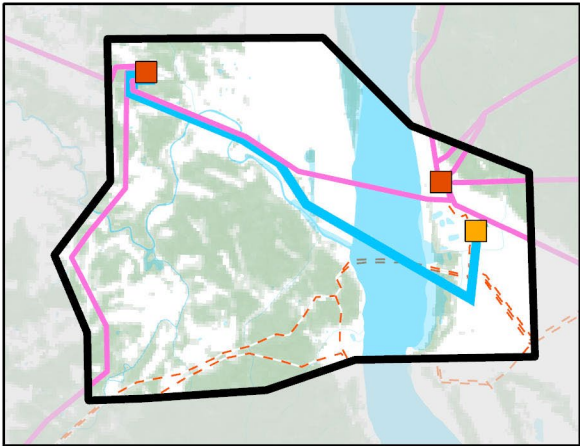
Study Area



Preliminary Corridors



Preliminary Route Alternatives



Final Proposed Route

3. Route Selection Process

3.1 Overview of Route Selection Process

The phases of the route selection process detailed in this study are as follows:

1. Study Area Identification - The Routing Team identified the Project Area through delineation of an area between the Project endpoints that would allow for a study of a geographically diverse range of potential routes. The Study Area was shared with agencies at the CRF meeting October 2024.
2. Preliminary Corridor Development – narrowed corridors were developed that utilize opportunities and removed areas where transmission line development was not feasible. These corridors were shared with agencies and public (Open House 1) in January 2025.
3. Preliminary Route Alternative Development - An extensive network of route segments was identified largely within the route corridors. One route was removed from consideration due to environmental factors. Potential Route Alternatives were identified by creating end-to-end routes from the remaining route segments. The Potential Route Alternatives were a minimum 600 feet and up to 1700ft wide. ATXI solicited feedback on the Potential Route Alternatives from community representatives, landowners, and other stakeholders at the targeted agency meetings and Open Houses in February 2025. Comments received at these meetings and through other outreach tools were considered by the Routing Team during the next stage of route development.
4. Final Route Identification - The Routing Team considered comments received; and refined and finalized the Proposed Route.

3.2 Routing Criteria

The Routing Team developed the Routing Criteria for the Project based on previous transmission line experience, ATXI standards and policies, federal and state regulations, and stakeholder feedback. The Routing Criteria guided the route selection process. The following are definitions of key terms related to the Routing Criteria.

- Sensitivities – Natural or man-made environmental resources or conditions that might limit transmission line development. Some Sensitivities are subject to licensing or permitting requirements, or regulatory restrictions (e.g., nature preserves), while others present challenges that would be very difficult or impractical to mitigate (e.g., restricted airspace around public airports). Not all Sensitivities are equally affected by the development. Sensitivities include, for example, the following: land use constraints such as residences, agriculture, religious facilities, and schools; federal, state, and local environmental areas; other environmental areas such as sensitive habitats or areas identified by private conservation organizations; cultural resources such as national landmarks and archaeological sites; and public infrastructure such as airports, and aeronautical and commercial telecom structures.
- Opportunities – Pre-existing linear infrastructure or features such as existing linear corridors (existing rights-of-way, roads, transmission lines, and public land survey system divisions of land) along which transmission line development is potentially compatible and where impacts to Sensitivities may be reduced by following these features.

- Technical Guidelines – The specific engineering, cost, and construction-related requirements and objectives of the Project (e.g., minimizing the length of the line and minimizing the number of dead-end structures, crossing Mississippi River).
- Statutory Requirements – The approvals, licenses, or permits required by law for engaging in a certain activity. An example of a permit required by law is the requirement for a permit from the U.S. Army Corps of Engineers for impacts to wetlands or waters of the U.S.
- Measures – The metrics used to assess impacts to individual Sensitivities, utilization of specific Opportunities, and assessments of impacts relevant to the Technical Guidelines. A Sensitivity, Opportunity, Technical Guideline, or Statutory Requirement may have only one or a range of Measures.
- Routing Criterion – An objective that helps to minimize impacts to a Sensitivity, maximize the use of an Opportunity, or adhere to a Technical Guideline or Statutory Requirement. A Routing Criterion is generally evaluated through the use of one or a range of Measures. For example, a Routing Criterion with the goal of minimizing impacts to residences (a Sensitivity) has Measures of the number of residences within 75 feet, 150 feet, 300 feet, 500 feet, and 1,000 feet of the potential route centerline.
- Routing Criteria – The total body of the entire Routing Criterion (goals and Measures as related to the Sensitivities, Opportunities, and Technical Guidelines) contemplated together and used for judgment in determining a preference for any route. Although the Measures of each Routing Criterion are quantitative, the evaluation of (potentially competing) criteria against each other is generally qualitative and is inherently specific to a particular project area.

The list of Sensitivities, Opportunities, and Technical Guidelines developed by the Routing Team for the Project are included in Table 1.

Not all Sensitivities listed in Table 1 are present in the Project Area. Listing a feature as a Sensitivity does not imply that it must be avoided but that minimizing impacts to a Sensitivity is a goal of the routing process. The total list of Routing Criteria was not static throughout the process; rather, the Routing Team considered additional Sensitivities throughout the process identified by stakeholders.

Opportunities were reviewed for the Project and considered in conjunction with potential Sensitivities. In some areas, existing linear infrastructure offered corridors along which a transmission line might be located with less disruption to the natural and human environment. In other areas, opportunities to parallel existing right-of-way (ROW) did not offer pathways in the direction desired, were too narrow or irregular in width and direction, or were surrounded by relatively high concentrations of other Sensitivities. For example, high concentrations of Sensitivities are typically found in urban areas.

Technical guidelines are also specific to each project. The Technical Guidelines provided the Routing Team with technical limitations related to the design, ROW requirements, or reliability concerns. The Technical Guidelines for the Project, which are listed in Table 1, were identified through 1) technical expertise of Ameren staff responsible for the reliable and economic construction, operation, and maintenance of the Project, and other electric system facilities; 2) applicable codes and standards, including the National Electrical Safety Code (NESC); 3) North American Electric Reliability Corporation (NERC) reliability standards; and 4) Ameren and industry best practices.

Table 1. Sensitivities, Opportunities, and Technical Guidelines

Sensitivity	
General Land Use and Land Cover	
Residences	Irrigation Systems
Non-Residential Buildings and Structures	Mines / Quarries / Karsts / Caves
Parcels and Landowners	Planned Development (county / city plans)
Aerial Fertilizer and Herbicide Application Ability	Private Airports / Airstrips
Agricultural Land and Conflicts	Public Airports / Heliports
Cemeteries	Recreation Areas
Commercial / Industrial Development	Religious Facilities
Communication Towers	Safety Regulations (fireworks manufacturers, gas stations, other electrically sensitive areas)
Contaminated Areas	Scenic Byways
Daycares	Schools
Forest and Commercial Timber	Sensitive Crops (e.g., organic farms, orchards, etc.)
Grassland	USDA Classified Farmland (prime farmland)
Hospitals	VOR (aeronautic navigation facilities – clear zone)
	Wells (oil and gas, water)
Federal / State / County Lands and Resources	
Missouri Department of Conservation	National Wild and Scenic Rivers
Forest Preserves or Conservation Opportunity Areas	Prairie Restoration Areas
US Fish and Wildlife Service	Illinois Department of Natural Resources
US Army Corps of Engineers	
Non-Governmental Organization (NGO) Lands and Conservation Areas	
Conservation Areas (e.g., The Nature Conservancy, Sierra Club, local conservation organizations)	Resource Easement Lands
Sensitive Habitat, Critical Habitat, and Protected Species	
Threatened, Endangered, and Special Status Species (known occurrence areas and habitat)	Designated Critical Habitat
Water Resources	
Rivers / Streams / Creeks (impaired or otherwise)	Water Bodies (Lakes / Ponds / Reservoirs)
Flood zone	Wetlands
Cultural Resources	
National Register of Historic Places (listed)	National Natural or Historic Landmarks
Known Archaeological Sites	Traditional Cultural Properties
Historic Sites, Buildings, and Structures	Burial Areas (prehistoric or historic)
Historic Landscapes / Trails	
Opportunities	
Roads	Pipelines
Railroads	Field and Property Lines
Transmission Lines	Public Land Survey System (section lines, half section lines, etc.)
Technical Guidelines	
Minimize route length	Minimize crossing of existing transmission lines
Ensure adequate access for construction and maintenance activities	Minimize impractical construction requirements (e.g., steep slopes)
Comply with horizontal and vertical clearance requirements	Minimize non-standard designs
Maintain required or sufficient setbacks from roads and highways	Minimize underbuilds or double circuit arrangements with existing electrical infrastructure
Minimize dead-end and angle structures	Minimize and maintain sufficient setback from pipelines
Minimize Mississippi River Crossing distance	

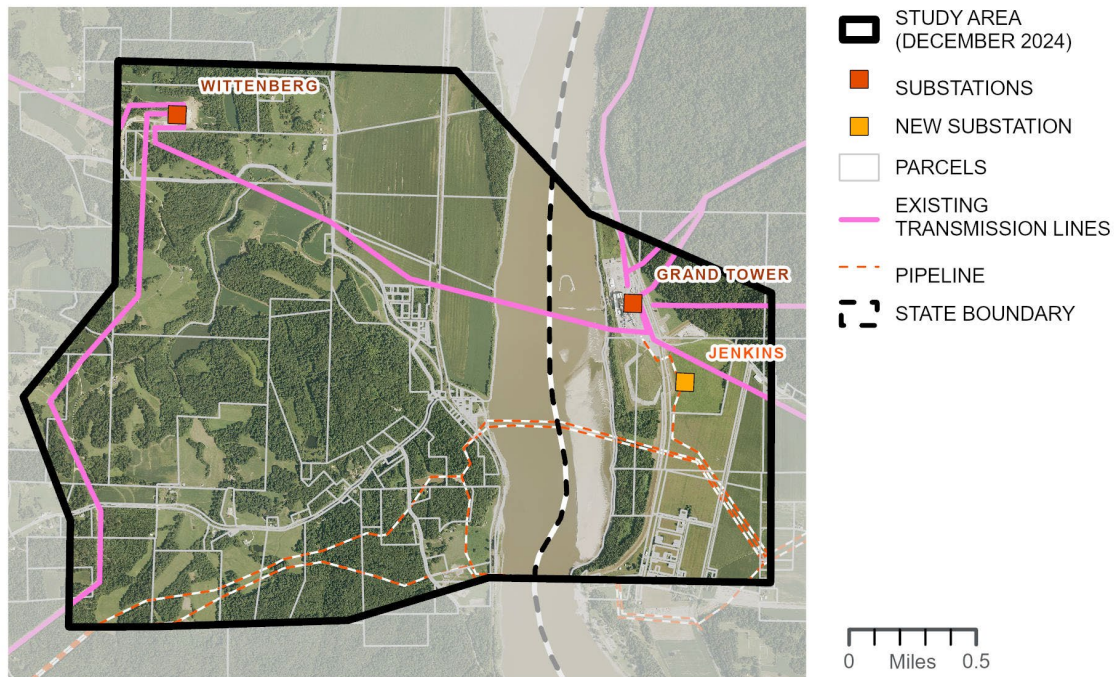
3.3 Data Collection

Data collected for previous projects in the area was initially reviewed to identify Sensitivities and Opportunities near Wittenburg, and to better understand the Project Area. Data was updated in Fall 2024 and Winter 2025. Sources included online repositories; federal, state, and local agencies; aerial photo interpretation; field reconnaissance; and stakeholder comments. Field reconnaissance was conducted from public roads throughout the route selection process. Appendix A includes a list of data collected for the Project and the data sources.

3.4 Study Area Identification

The Routing Team identified the Project Area through delineation of an area between the Project endpoints that would allow for a study of a geographically diverse range of potential routes, including engineering and construction considerations crossing the Mississippi River. The Project endpoints include the Wittenberg Substation near Wittenberg, Missouri and new substation (Jenkins) near Grand Tower, Illinois and adjacent to the recently closed Grand Tower Energy Center Power Plant in Jackson County, Illinois. The two Project endpoints generally form the west and east boundaries of the Project Area (Figure 2). The northern extent of the Project Area extends east from Wittenberg Substation to the Mississippi River and then diagonally southeast toward Jenkins Substation. The southern extent of the Project Area is south of existing pipelines and the pipeline bridge crossing the Mississippi River. The southern extent of the project is limited by the existing pipeline bridge crossing the Mississippi River. Significantly longer routes typically have a higher potential for impacts to Sensitivities and are typically more expensive to construct. Following the identification of the Study Area, ATXI held a virtual Community Representative Forum (CRF) to introduce the Project to key stakeholders and solicit information from them as it relates to the Routing Criteria and Study Area. In particular, the Routing Team sought information about Sensitivities and potential routing Opportunities in the Project Area. The CRFs are discussed in more detail in The Outreach Summary attached to Leah Dettmers' Outreach Testimony.

Figure 2. Study Area



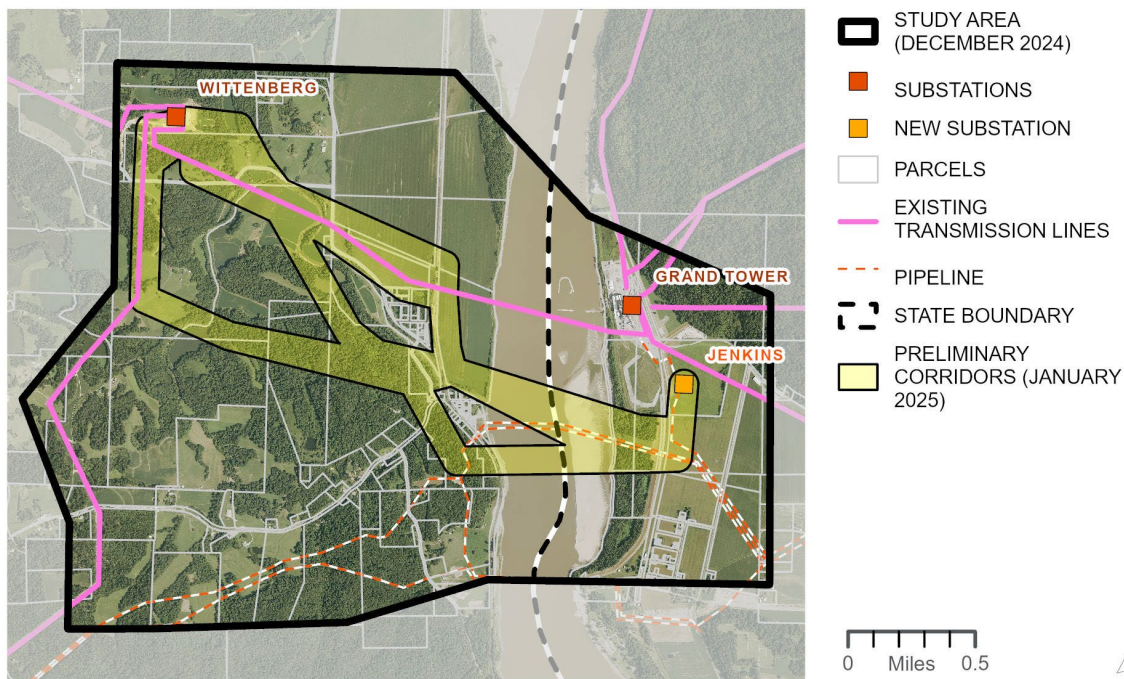
3.5 Preliminary Route Corridor Development

Preliminary Route Corridors were developed using a Geographic Information System (GIS) to overlay Opportunities (e.g., roads, transmission lines, section lines, and property lines) and Sensitivities (e.g., residences, airports, streams, and wetlands). The Routing Team focused the development of the route corridor in areas that provided Opportunities, minimized length and cost and minimized potential impacts to existing sensitivities.

Figure 3 depicts the areas that were initially considered for route corridors within the Study Area. The corridors took advantage of existing opportunities (roads, railroads, pipelines, etc..) while eliminating some areas where there was a concentration of known Sensitivities and no Opportunities. Area eliminated included:

- The northeast part of the Study Area was eliminated because of the lack of crossing options north of Jenkins Substation.
- The southwest part of the Study Area was eliminated because of extensive forested areas, rolling topography and a concentration of home sites along Hwy 4.

Figure 3. Preliminary Corridors



During Route Corridor Development, the eastern substation location in Illinois was not fixed, and the Routing team ended the routes at the approximate location of the new Jenkins Substation. The Northern Corridor would follow the existing transmission lines for approximately 1.1 miles from Wittenburg Substation provide the shortest path between the two endpoints, but to cross the Mississippi River in a preferred engineering and construction location, it will trend south 0.3-0.4 miles along the river in agricultural fields before crossing the Mississippi River town. It has the fewest residences of all the corridors

The Central corridor generally follows the existing 138 kV line east and turns southeast through upland forested areas before crossing the river. This corridor would result in impacts to heavily forested areas.

The Southern Corridor goes south from Wittenburg Substation along the Limestone Ridge 138 kV before turning east through heavily forested upland areas before turning south then east across the Mississippi River. It would be the longest route, approximately 0.6 miles longer than the Northern Corridor. This corridor would have the most forest impacts and has less access from existing roads.

3.6 Proposed Route Alternative Development

3.6.1 Preliminary Route Alternative Identification

Once the route segment network was identified, the Routing Team then performed an analysis of potential impacts associated with the route segments. Measures were used to comparatively assess the potential impacts of each of the route segments. The first step at this stage was to compare groups of smaller route segments that had common start and end points.

The routes that best minimized potential impacts to Sensitivities and best met the Routing Criteria in these comparisons were carried forward, and the other(s) were removed from further consideration.

This comparative evaluation of routes continued until the route segment network was reduced to the best routes remaining across the Project Area. In general, this included three routes (Blue 1, Blue 2, and Purple) with shared areas near both substations.

These Preliminary Route Alternatives that were carried forward for further review were presented to stakeholders and landowners (as 600 ft to 1700-ft wide corridors) during the Phase 2 Open Houses and agency outreach.

Areas removed from consideration included:

- A portion of the southern corridor that went south from Wittenburg Substation and trended southeast across forested areas was removed from consideration and no preliminary route alternative was carried forward due to limited access for construction and maintenance, heavily contiguous forested habitat, and very steep terrain.

Table 2 shows general route statistics related to the defined route alternatives. Figure 4 depicts the Preliminary Route Alternatives. General characteristics of the routes are as follows:

- **Blue 1 Route (North)**
 - Shortest
 - Follows the existing transmission line
 - More agricultural impacts
 - Less forest impacts
 - Less Residences
- **Blue 2 Route (South)**
 - Shorter than purple
 - Follows the existing transmission line
 - Closer to recreational boat launch
 - Less forest impacts
 - Less Residences
- **Purple Route**
 - Longer than the Blue Route
 - Less following significant following of existing infrastructure
 - Closer to more populated areas and homes
 - More steep terrain and forested area than Blue Route

Table 2. Engineering, Setting and Construction Summary - Preliminary Route Alternatives

Routing Criterion	Measure (unit)		Blue 1	Blue 2	Purple
Length	Miles		2.8	2.6	3.0
Length Adjacent 69kV	Miles		0.2	1.1	0.4
Steep Slopes	Length Crossing Slopes > 25 deg.	(mile)	0.2	0.3	1.2
Crossings	Road	(count)	4	5	5
	Streams		5	7	9
	Pipeline		1	5	5
Land Cover	Forested	(acres (within 600ft PRA))	17.6	18.2	95.0
	Cropland		117.7	115.7	64.0
	Developed		7.6	10.9	8.0
Community Feature	Homes within 1000ft*	(count)	0	1	4
Community Feature	Non-Residences within 1000ft*	(count)	4	3	6
Soils	Prime or State Importance (within 600ft PRA)	(acres)	25.5	32.8	48.9
Angle Structures	Light (1-15 deg.)	(count)	4	2	0
	Medium (15-30 deg.)		1	2	2
	Light Heavy (30-60 deg.)		2	1	1
	Heavy (>60 deg.)		2	4	4

***1000ft distance is based upon the PRA centerline which is larger than the 600th wide route.**

Figure 4. Preliminary Route Alternatives

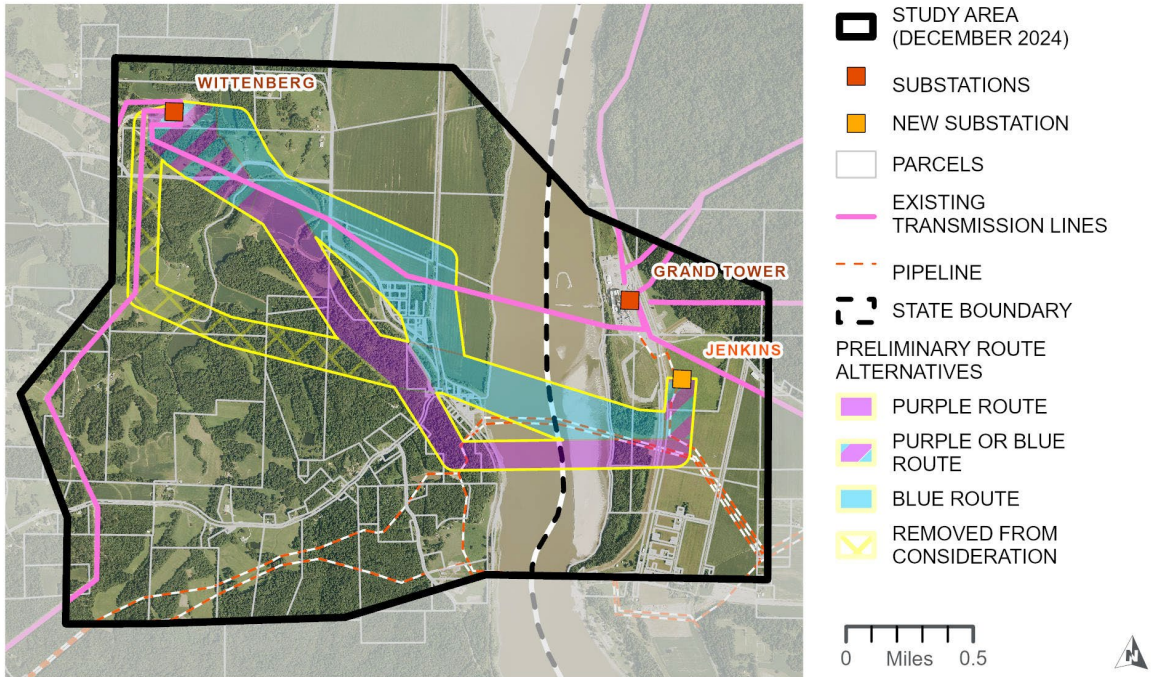
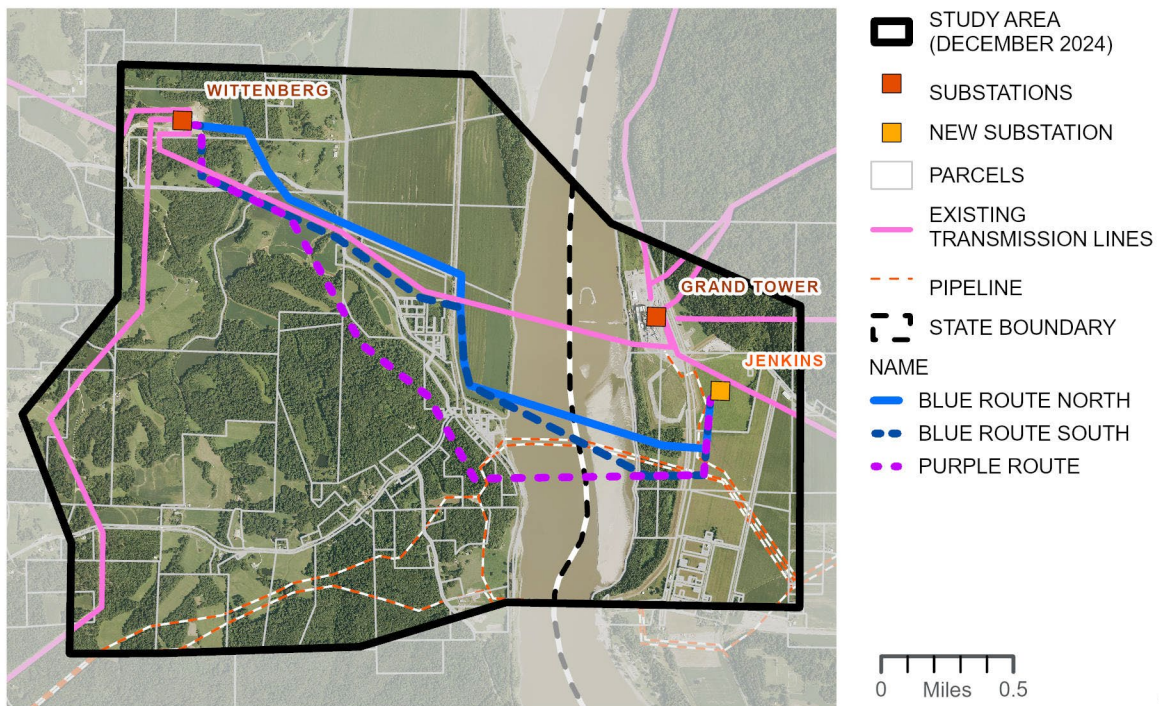


Figure 5. Preliminary Route Alternatives Centerline



3.7 Proposed Route Selection

3.7.1 Identification of Proposed Route

IDENTIFICATION OF PROPOSED ROUTE AND ROUTE OPTIONS

The next step of route selection was to identify a Final proposed Route from the Preliminary Route Alternatives. This was done through a continued comparative evaluation of the Blue and Purple Routes and from considering route related feedback from stakeholders, landowners and engineering concerns crossing the Mississippi River.

During the stakeholder engagement, additional sensitivities and engineering challenges were discovered along the Purple Alternatives especially in the area where the route crosses the ridge top to the southeast to cross south of the existing pipelines. The Purple Route alternative is longer, is closer to more homes and farmsteads and has a greater impact on forested areas.

The Blue Preliminary Route Alternative included an opportunity to follow the north or south side of the existing 138kV Transmission line. The Blue 2 Route has less agricultural impacts than Blue 1 follows the existing transmission line longer, and it crosses the former Frogtown site, which was suggested by several landowners in that area. The Final Proposed Route is a combination of the two Blue routes and a revised routing through Frogtown that will minimize impacts on agricultural lands while maximizing following existing transmission lines. The anchor structure in Illinois was shifted south to allow for more efficient and economical engineering design. The Final Proposed Route best minimized potential impacts to Sensitivities, took advantage of Opportunities, and adhered to Technical Guidelines and Statutory Requirements. Figures 6 and 7 depict the Final Proposed Route.

Figure 6. Final Proposed Route

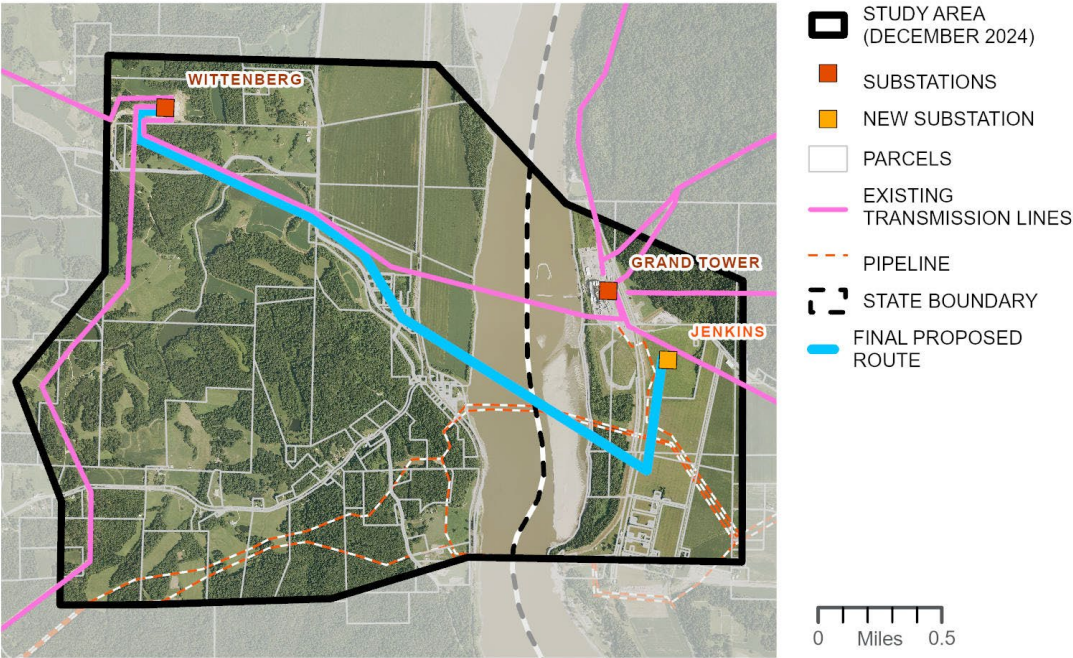
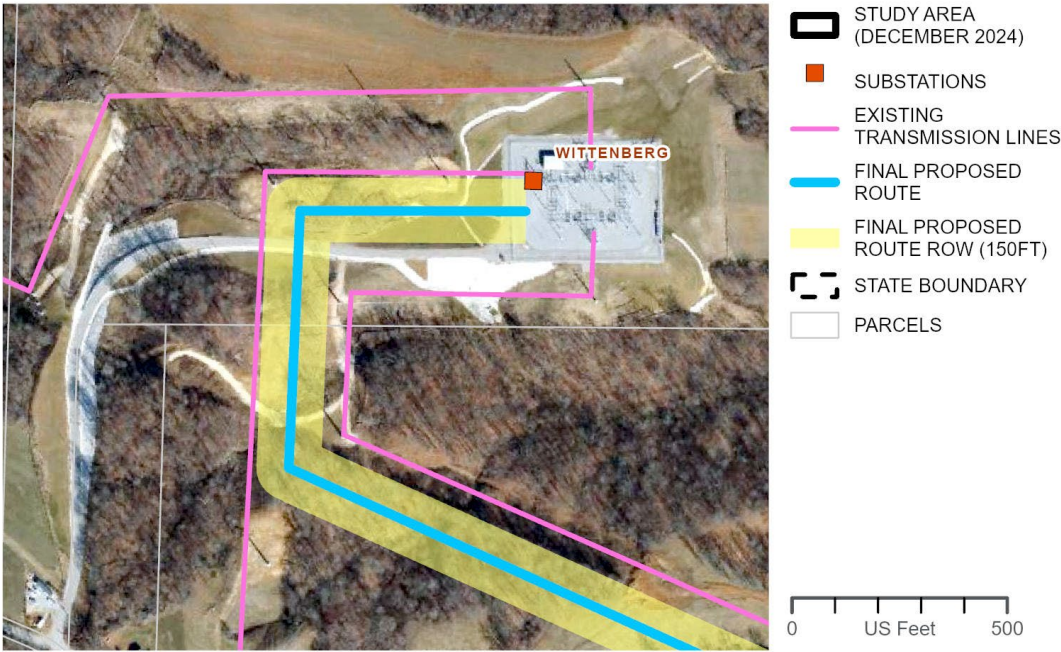


Figure 7. Proposed Route out of Wittenberg Substation



3.7.2 Evaluation of the Proposed Route

The Routing Team performed a detailed analysis of the Proposed Route to identify potential impacts to sensitivities. A permit matrix is included in Appendix B that identifies the potential federal, state and local permit and approvals that will be required for the project. Table 4 lists a summary of the engineering and construction factors for the Proposed Route.

ENGINEERING AND CONSTRUCTION SUMMARY

Length

The Proposed Route is 3.2 miles, 2.2 miles in Missouri.

Right-of-Way Required

The ROW width required for the Project is 150 feet. Generally, where the Proposed Route parallels existing infrastructure, the new ROW will be adjacent to the existing ROW.

Angle Structures

Angle structures were split into four categories: light angles (1–15 degrees), medium angles (15–35 degrees), medium angles (35–60 degrees), and heavy angles (>60 degrees). Typically, as the angle of the turn at a structure increases, a larger structure and foundation diameter will be required. Typically, a deeper foundation is also required. The Proposed Route has 1 light angle, 2 medium angles, no medium heavy angles and 6 heavy angles.

Steep Slopes

The Proposed Route crosses approximately 0.5 miles of steep slopes (>25 degrees). The crossing of steep slopes may potentially increase construction and maintenance costs; however, a final assessment cannot be made until surveys have been completed, the line designed, and access to the structure locations assessed by construction staff.

Infrastructure Crossings

Existing infrastructure crossings (e.g., pipelines, railroads, roads, and transmission lines) will require permits or agreements with the owners and may require additional engineering and construction requirements at each crossing. The Proposed Route will cross two county highways and two local roads, one railroad, no transmission lines due to the reconfiguration of the 138kV, and five pipelines.

Table 4 provides a summary of the cost, engineering and construction factors for the Proposed Route.

Table 4. Cost, Engineering, and Construction Summary

Routing Criterion	Measure (unit)		Proposed Route	Proposed Route (Missouri Only)
Length	Miles		3.2	2.2
Angle Structures	Light (1-15 deg.)	(count)	1	1
	Medium (15-30 deg.)		2	2
	Light Heavy (30-60 deg.)		0	0
	Heavy (>60 deg.)		6	2
Steep Slopes	Length Crossing Slopes > 25 deg.	(mile)	0.5	0.5
Infrastructure Crossings	Pipeline	(count)	5	0
	Railroad		1	1
	Road		5	4
	Transmission Line		0	0

EXISTING OPPORTUNITY USE

Existing Linear Infrastructure and Right-of-Way

Paralleling existing linear infrastructure typically provides an opportunity to minimize potential impacts to Sensitivities near the feature, as well as potentially minimize the amount of new ROW required. The Proposed Route parallels existing transmission infrastructure for approximately one mile and parallels a pipeline for 0.25 miles south of the proposed Jenkins Substation in Illinois. Although paralleling pipelines and transmission lines can have benefits, it may also require additional engineering and construction costs.

Existing Divisions of Land

While paralleling other divisions of land, such as property lines and field lines, does not provide an opportunity to minimize the amount of new ROW required, it may still provide an opportunity to minimize potential impacts to Sensitivities. For example, placement of transmission structures along a field line may minimize the impact to farming operations.

The total Opportunity paralleling length (roads, railroads, field lines, and property lines) is approximately 1.67 miles or 52.8% of the length.

Table 5 provides a summary of existing Opportunity use by the Proposed Route.

Table 5. Existing Opportunity Use Summary

Routing Criterion		Measure (unit)	Proposed Route	Proposed Route (Missouri Only)
Length		Miles	3.2	2.2
Existing ROW Paralleling	Railroad	Length Paralleled (miles)	0.0	0
	Road		0.18	0
	Pipeline		0.25	0
	Transmission Line		1.3	1.3
	Total ROW Paralleling	Length Paralleled (miles)	1.67	1.3
Other Opportunity Paralleling	Property Line	Length Paralleled (percentage)	52.8%	59%
	Field Line	Length Paralleled (miles)	0	0
Total Opportunity Paralleling (Road, Railroad, Property Lines, and Field Lines)		Length Paralleled (miles)	1.43	1.3
		Length Paralleled (percentage)	44%	59
Non-Opportunity Use	Cross-Country	Length (miles)	1.53	0.9

RESIDENCES, NON-RESIDENTIAL STRUCTURES, AND LANDOWNERS

Residences

Residences were identified through aerial imagery interpretation, field review from public roads and from comments from stakeholders. No residences are located within 300 feet of the Proposed Route. There are six residences within 500-1000 feet of the Proposed route, only one is in Missouri, the other five are near the Town of Grand Tower in Illinois where the Proposed Route crosses the Mississippi River.

Non-Residential Structures

Non-residences were identified through aerial imagery interpretation, field review from public roads and from comments from stakeholders. One non-residential structure, located in Illinois is located within 500 feet of the Proposed Route. There are eight non-residential structures within 500-1000 feet of the Proposed Route, three of which are in Missouri. Non-residential structures are not typically allowed to remain within the ROW of a transmission line. Non-residential structures include billboards, small sheds, and a barn.

Landowners and Parcels

The ROW for the Proposed Route crosses 19 (14 in Missouri) distinct landowners and 39 (29 in Missouri) parcels.

Table 6 provides a summary of the residences, non-residential structures, landowners, and parcels along the Proposed Route.

Table 6. Residences and Non-Residential Structures Summary

Routing Criterion	Measure (unit)		Proposed Route	Proposed Route (Missouri Only)
Residences (distance interval from route centerline)	0-75'	(count)	0	0
	75-150'		0	0
	150-300'		0	0
	300-500'		0	0
	500-1,000'		6	1
Non-Residential Structure (distance interval from route centerline)	0-75'	(count)	0	0
	75-150'		0	0
	150-300'		0	0
	300-500'		1	0
	500-1,000'		8	3
Landowners	Crossed by ROW		19	14
Parcels			39	29

MISCELLANEOUS LAND USE FEATURES

Airports and Navigational Aids

Airport and navigational aids facility initial information was obtained from the Federal Aviation Administration (FAA), AirNav, and Our Airports. The data from the FAA included public and FAA registered private airports, as well as the location of navigational aids. No public airports or navigational aids, such as Very High Frequency (VHF) Omni Directional Radio Range (VOR) facilities, are located within three miles of the Proposed Route, thus no impacts to either are anticipated. The Altenburg emergency helipad is approximately four miles to the southwest of the Proposed Route.

Scenic Byways

The Proposed Route do not cross any designated national or state scenic byways.

Cemeteries

Cemeteries were identified through parcel ownership, landmark databases and public comments. The Evangelical Lutheran Church cemetery is located within 0.5 mile of the Proposed Route.

Religious Facilities

There are no religious facilities within 0.5 miles of the Proposed Route.

Daycares

No licensed daycares are within 0.5 mile of the Proposed Route. Information was reviewed from Missouri Department of Health and Senior Services and Homeland Information Foundation Level Data (HIFLD) data based were reviewed.

Golf Courses

No golf courses are within 0.5 mile of the Proposed Route.

Hospital / Medical Care Facility

No hospitals or medical care facilities are located within 0.5 mile of the Proposed Route.

Local Park or Recreation Land

The Wittenberg Boat Club park and boat launch with within 0.5 miles of the Proposed Route in Missouri. The Devil's Backbone Campground is just over 0.5 mile of the Proposed Route, south of the natural gas pipeline bridge in Illinois.

Schools

There are no schools located within 0.5 mile of the Proposed Route. The Altenburg Elementary school is over a mile away located within the city limits of Altenburg. No schools are in town of Grand Tower.

Communication Towers

No communication towers are within 500ft of the Proposed Route. However, there is a BNSF Private Land Mobile communication tower along the railroad approximately 510ft from the Proposed Route.

Mines and Quarries

There are no active mines or quarries within 0.5 mile of the Proposed Route.

Contaminated Sites

There are no known contaminated sites within 0.5 mile of the Proposed Route.

Table 7 provides a comparison of land use features along the Proposed Route.

Table 7. Miscellaneous Land Use Features Summary

Routing Criterion	Measure (unit)		Proposed Route	Proposed Route (Missouri Only)
Scenic Byways	Crossed	(count)	0	0
Cemeteries	Within ½ Mile		1	1
Religious Facilities			0	0
Daycares			0	0
Golf Courses			0	0
Hospitals / Medical Care Facilities			0	0
Schools			0	0
Local Parks or Recreation Lands	Within ½ Mile		1	1
Communication Towers	Within 500'		0	0
Mines & Quarries	Within ½ Mile		0	0
Contaminated Sites	Within ½ Mile		0	0

LAND COVER, LAND USE, AND PLANNED DEVELOPMENT

Land Cover

Land cover data from the USGS National Land Cover Dataset (NLCD) was used to assess the land cover types crossed by the Proposed Route. NLCD land cover classes were combined to form six general land cover classes, including aquatic environment, barren, cropland, developed, forested, and grassland. These classes also typically indicate the land uses crossed.

All trees will be cleared within the ROW on forested lands. Permanent direct impacts to cropland will be limited to the foundation of the transmission line structures; however, indirect impacts such as restricting aerial application of pesticides or herbicides may also occur. Direct impacts on irrigation systems from the Project are discussed later. Permanent direct impacts to grassland will be limited to the foundations of the transmission structures. An indirect impact would include potential burning restrictions that could inhibit grassland management practices. No impact on aquatic resources is expected since it is anticipated that no structures will be placed or work conducted within streams or waterbodies. Impacts to developed land cover would include the requirement for the removal of any existing structures and prohibition of the placement of any new structures within the ROW.

Table 8 provides a comparison of the acreage of each land cover type crossed by the Proposed Route.

Table 8. Land Cover Summary

Routing Criterion		Measure (unit)	Proposed Route	Proposed Route (Missouri Only)
Land Cover ¹	Aquatic Environment	Area within ROW ² (acreage)	10.69	6.17
	Barren		2.43	0
	Cropland		29.9	19.65
	Developed		4.04	3.32
	Forested		8.47	7.56
	Grassland		2.67	2.67

¹ – Land cover data was obtained from the 2023 National Use Land Cover (NLCD). Aquatic environment classes include Emergent Herbaceous Wetlands, woody wetlands and surface water classes. Cropland classes include cultivated crops and hay field or other agricultural classes. Grassland classes include herbaceous lands. Forested classes include deciduous, coniferous, upland and partial canopy, and floodplain forest. Developed classes include high density, low / medium density, and urban open space. Barren class represents barren lands.

² – The ROW width will be 150 feet for Proposed Route.

AGRICULTURE

U.S. Department of Agriculture Classified Farmland

Prime farmland is a designation by the U.S. Department of Agriculture (USDA) used to define land (soil) that has the best physical and chemical characteristics for producing food, feed, forage, fiber, and oil seed crops. “Prime farmland if drained” is soil that has the same characteristics as prime farmland if it has been drained, which is typically done through tile drainage systems. “Farmland of statewide importance” is farmland or unique farmland that is also highly productive but with physical and chemical characteristics that are not as good as prime farmland. “Unique farmland” is soil that 1) is used for a specific high-value food or fiber crop; 2) has a moisture supply that is adequate for the specific crop (the supply is from stored moisture, precipitation, or a developed-irrigation system); and 3) combines favorable factors of soil quality growing season, temperature, humidity, air drainage,

elevation, aspect, or other conditions, such as nearness to market, that favor the growth of a specific food or fiber crop.

There are 10.08 acres prime farmland and 0.13 acres of farmland of state importance within the ROW of the Proposed Route.

Table 9 provides a summary of agricultural lands within the Proposed Route.

Table 9. Agricultural Summary

Routing Criterion		Measure (unit)	Proposed Route	Proposed Route (Missouri Only)
	Prime Farmland	Area within ROW ¹ (acreage)	10.08	0
	Prime Farmland if Drained		0	0
	Farmland of State Importance		0.13	0.13
	Total of all Farmland Classes		10.2	0.13

¹ – The ROW width will be 150 feet for Proposed Route.

Resource Lands

Federal Lands

There are no federal lands within the Project Area.

Federal Easements

There are no known federal easements (e.g., United States Fish and Wildlife Service [USFWS] or USDA Wetland Reserve Program) crossed by or within 0.25 mile of the Proposed Route. The Proposed Route may cross USDA Conservation Reserve Program (CRP) easements or Healthy Forests Reserve Program (HFRP); however, the location of those easements is unknown as the information is confidential without landowners providing their consent to the USDA to have the information released. ATXI real estate agents will coordinate with landowners along the route approved by the PSC to identify whether the route crosses any CRP or HFRP easements. ATXI will also coordinate with landowners and the USDA Farm Service Agency and USDA Natural Resource Conservation Service so that the construction of the transmission line will comply with easement requirements.

Missouri Department of Conservation Lands

The Proposed Route is over a mile north of the Tower Rock Nature Area. It will not be impacted by the Proposed Route.

Missouri State Park land

There are no state park lands within 0.5 mile of the Proposed Route.

Local Conservation Land or Easements

There are no known local conservation lands or easements within 0.25 mile of the Proposed Route.

Private Conservation or Recreation Lands

The Wittenberg Boat Club park is within 0.25 mile of the Proposed Route.

SENSITIVE HABITAT, CRITICAL HABITAT, AND PROTECTED SPECIES

Designated Critical Habitat

There is no designated critical habitat within 0.5 mile of the Proposed Route.

Federal Threatened and Endangered Species

A review of the United States Fish and Wildlife (USFWS) Information for Planning and Consultation (IPaC) identified the following species have been documented within Perry County: gray bat, Indiana Bat, northern long-eared bat, pallid sturgeon, and monarch butterfly. The Proposed route minimizes tree clearing and will not require any in stream work. Once a route is approved by the Missouri Public Service Commission (PSC), ATXI will coordinate with USFWS regarding species or habitat surveys that may be required.

State Threatened and Endangered Species

There are no known occurrences of state-listed threatened or endangered species within 0.5 mile of the Proposed Route.

See Appendix C for a list of state and federally listed species occurrences near the Proposed Route.

HYDROLOGY

Wetlands

National Wetland Inventory mapped wetlands are located along creeks and streams that will be crossed by the Proposed Route. No structures are anticipated to be placed in wetlands near Brazeau Creek. A single structure on the Illinois side of the Mississippi River may be placed in a wetland. ATXI will continue to coordinate with the U.S. Army Corps of Engineers (USACE) and will acquire any necessary permits for impacts to wetlands should they occur along the route approved by the PSC.

Streams and Waterbodies

The Proposed Route crosses Brazeau Creek, Mississippi River and several unnamed tributaries. The Proposed Route will cross streams or rivers a total of six times. None of these streams are considered Outstanding State Resource Waters (rivers, lakes, watersheds) or Outstanding National Resource Watersheds, or Cold Water Fisheries. No transmission structures are anticipated to be placed in these waterbodies. The Mississippi River crossing is approximately over 3000ft from bank to bank with no structure in the river.

Impaired Waters

Impaired waters are waters that have been determined to be too degraded or polluted to meet water quality standards. Brazeau Creek is considered an impaired water for E. Coli and has been on the Missouri 303d list since 2012. Crossings of impaired waters may require additional storm water management practices during construction.

Floodplain

Floodplain data were acquired from the Federal Emergency Management Agency. Mapped floodplains are present along Brazeau Creek and the Mississippi River, and it is likely that structures may need to be placed in the floodplain along Brazeau Creek and Mississippi River. ATXI will coordinate with Missouri Emergency Management Agency (SEMA) and county floodplain administrators to determine whether floodplain permits will be required for the route approved by the

PSC. A total of 48.1 acres of the ROW is within floodplain and an estimated 14 poles may be placed in a floodplain as the route crosses the Brazeau Creek and Mississippi River.

Sink Holes

Karst areas are present in the Project Area and mapped sinkhole data from Missouri Department of Geology identified no sink holes within 500ft of the Proposed Route.

Table 10 provides a summary comparison of the hydrology along the Proposed Route.

Table 10. Hydrology Summary

Routing Criterion	Measure (unit)		Proposed Route	Proposed Route (Missouri Only)
Non-Forested Wetlands	Within ROW ¹	(acreage)	10.1	5.8
	Structures Within	(count)	0	0
Forested Wetlands	Within ROW ¹	(acreage)	3.2	1.0
	Structures Within	(count)	0	0
Streams	Crossed	(count)	6	4
Outstanding Waters	Crossed	(count)	0	0
Waterbodies	Crossed	(count)	0	0
Impaired Streams	Crossed	(count)	2	2
Impaired Waterbodies	Crossed	(count)	0	0
Floodplain	Structures Within	(count)	14	0
Floodplain	Within ROW ¹	(acreage)	48.2	29.4
Known Sink Holes	Area Within ROW ¹	(acreage)	0	0

¹ – The ROW width will be 150 feet for Proposed Route.

CULTURAL RESOURCES

National Register of Historic Properties

No National Register of Historic Places (NRHP) sites are within the ROW of the Proposed Route. ATXI will continue to consult with the Missouri SHPO to determine if additional surveys are required after the Proposed Route is approved by ATXI.

Archaeological Sites

Information regarding known archaeological sites was obtained by a qualified HDR archaeologist. This data only includes known archaeological sites identified in previous surveys, typically done for construction of other infrastructure such as roads or pipelines. Where a route crosses or parallels this infrastructure, it will likely have a higher occurrence of known sites because of the extensive survey conducted. No known archeological sites are within the Proposed Route ROW and three sites are within 1 mile of the Proposed Route. Large portions of the Proposed Route have not been surveyed. Ameren has consulted with the Missouri SHPO and Native American Tribes to better understand what resources may be present and areas with a higher probability for finding archeological sites. River terraces along the larger creeks and ridges overlooking these water features may have a higher probability for encountering sites including prehistoric sites or burial mounds. It is anticipated that placement of transmission structures within known archaeological sites can be avoided based on current design parameters. ATXI will coordinate with the Missouri SHPO and Native American Tribes on survey protocol for the route approved by the PSC.

Table 11 provides a summary of characteristics of the Proposed Route.

Table 11. Proposed Route Summary

Criteria Type	Routing Criterion	Measure (unit)		Proposed Route	Proposed Route (Missouri Only)
Engineering and Construction	Length	Miles		3.2	2.2
	Angle Structures	Light (1-15 deg.)	(count)	1	1
		Medium (15-30 deg.)		2	2
		Light Heavy (30-60 deg.)		0	0
		Heavy (>60 deg.)		6	2
	Steep Slopes	Length Crossing Slopes > 25 deg.	(feet)	0.5	0.5
	Infrastructure Crossings	Pipeline	(count)	5	0
		Railroad		1	0
		Road		5	4
		Transmission Line		0	0
Existing Opportunity Use	Existing ROW Paralleling	Railroad	Length Paralleled (miles)	0.0	0
		Road		0.18	0
		Pipeline		0.25	0
		Transmission Line		1.3	1.3
		Total ROW Paralleling	Length Paralleled (miles)	1.67	1.3
			Length Paralleled (percentage)	52.8%	59
	Other Opportunity Paralleling	Property Line	Length Paralleled (miles)	0	00
		Field Line	0	0	
	Total Opportunity Paralleling (Road, Railroad, Property Lines, and Field Lines)		Length Paralleled (miles)	1.43	1.3
			Length Paralleled (percentage)	44%	59
	Non-Opportunity Use	Cross-Country (non-diagonal)	Length (miles)	0	0
		Cross-Country (diagonal)		1.53	0.9
	Residence and Non-Residential Structures	Residences (distance interval from route centerline)	0-75'	(count)	0
75-150'			0		0
150-300'			0		0
300-500'			0		0
500-1,000'			6		1
Non-Residential Structures		0-75'	0		0
Landowners		Crossed by ROW	19		14
Parcels			39		29
Miscellaneous Land Use Features		Religious Facilities and Cemeteries	Within ½ Mile	(count)	1
	Local Parks or Recreation Lands	1			1
	Mines & Quarries	0			0
Land Cover	Aquatic Environment	Area within ROW	(acreage)	10.69	6.17
	Cropland			2.43	0
	Grassland			29.9	19.65

Criteria Type	Routing Criterion	Measure (unit)		Proposed Route	Proposed Route (Missouri Only)
	Forested			4.04	3.32
	Non-Vegetative			8.47	7.56
Agriculture	USDA Classified Farmland	Prime Farmland	Area within ROW ¹ (acreage)	2.67	2.67
		Prime Farmland if Drained		0	0
		Farmland of State Importance		0.13	0.13
		Total of all Farmland Classes		10.2	0.13
Resource Lands	MDC or DNR Lands	Crossed by ROW ¹	(count)	0	0
		Area Crossed by ROW ¹	(acreage)	0	0
		Within ¼ Mile of Route	(count)	0	0
Hydrology	Non-Forested Wetlands	Within ROW ¹	(acreage)	10.1	5.8
		Structures Within	(count)	0	0
	Forested Wetlands	Within ROW ¹	(acreage)	3.2	1.0
		Structures Within	(count)	0	0
	Floodplain	Within ROW ¹	(acreage)	48.2	29.4
		Structures Within	(count)	14	0
	Streams	Crossed	(count)	6	4

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Appendix B

Permit Matrix

Regulatory Authority	Statute	Permit/ Approval	Description	Trigger	Fee	Application Timeline	Website
Federal Approvals							
USACE – St. Louis District	Clean Water Act	Section 404 Permit	Required for the discharge of dredged or fill material into waters of U.S. Minimal levels of fill may be covered under existing General Permits/Letters of Permission	Presence of waters of the U.S. that will be impacted by project	No fee.	Depends on level of fill and type of permit required (individual vs. nationwide)	http://www.usace.army.mil/
US Fish and Wildlife – Missouri Field Office	Section 7/9 /10 of Endangered Species Act (ESA)	Consultation pursuant to Section 7 or 10 of the Endangered Species Act - USFWS and project proponent (or federal agency) to coordinate on how to implement proposed project while avoiding impacts to federally-listed endangered species to the greatest extent feasible.	Determination that "take" is likely to occur during a proposed non-Federal activity and a decision by the landowner or project proponent to apply for an incidental take permit. Federal activities and non-Federal activities that receive Federal funding or require a Federal permit (other than a section 10 permit) typically obtain incidental take authority through the consultation process under section 7 of the ESA. Thus, the Habitat Conservation Plan (HCP) process is designed to address non-Federal land or water use or development activities that do not involve a Federal action that is subject to section 7 consultation.	Presence of endangered species near the study area and project potentially impacting the endangered species. If a federal permit or approval is required, Section 7 Consultation will be necessary.	No Fee	Prior to ground disturbing activities. Depending on project size and potential impacts to listed species – 6 to 9 months.	http://www.fws.gov/endangered/hcp/hcpbook.htm

Regulatory Authority	Statute	Permit/ Approval	Description	Trigger	Fee	Application Timeline	Website
State Approvals							
Missouri Public Service Commission	Pursuant to Missouri Revised Statute Title XXV, Chapter 393.170.1 and Missouri Code of State Regulations 4 CSR 240-2.060 and 4 CSR 240-3.105	Certificate Convenience and Necessity	For development of new transmission facilities for which	Generation of power described in previous column.		180 days prior to construction (minimum).	
Missouri Department of Conservation		Easement	Crossing Apple Creek Conservation Area	Location of transmission line in lands owned and managed by MDC.		6 – 12 months prior to construction. Application needs to provided access information, amount of proposed clearing and construction timing in into addition easement location.	
	Missouri Code of State Regulations 3 CSR 10-4.111	State Endangered Species consultation	Consultation completed as part of CCN and land crossing of Apple Creek Conservation Area		No Fee		
Missouri Department of Natural Resources	Clean Water Act, Missouri Clean Water Law and Missouri Code of State Regulations 10 CSR 20-6.060	Section 401 Certification	Verify that project construction would comply with state water quality standards.	A 401 Water Quality Certification required if a Section 404 permit is required and not covered under pre-certification	No fee.	Same as a Section 404 Permit.	https://dnr.mo.gov/env/wp/p/401/index.html
	National Pollutant Discharge Elimination System Act and Missouri Code of State Regulations 10 CSR 20-6.200	Land Disturbance Permit	For stormwater discharges from construction activities. Should be filed electronically using ePermitting.	Grading of more than 1 acre.	Dependent on the size of disturbance	Permit to be filed prior to construction with a Stormwater Pollution Prevention Plan (SWPPP).	https://dnr.mo.gov/env/wp/p/stormwater/sw-land-disturb-permits.htm

Regulatory Authority	Statute	Permit/ Approval	Description	Trigger	Fee	Application Timeline	Website
Missouri Department of Natural Resources State Historic Preservation Office (SHPO)	Section 106 of the National Historic Preservation Act	Review and Coordination	Section 106 Compliance is required if there is a federal permit or approval	Federal permit/approval	No Fee	Prior to construction	
Missouri Department of Transportation		Road Approach/ Access Permit	Required to provide driveway access to state owned right of way.	Project requires change in access to or from state right of way or change in use of property.	\$100	Prior to construction	https://www.modot.org/permits
		Permit to Perform Work on MHTC Right of Way	Required to install utilities within state owned right-of-way	Project requires a utility line crossing of DOT right-of-way		Prior to construction	https://www.modot.org/permits
Missouri Motor Carrier		Oversize/ Overweight Permit	Required to transport loads that exceed Missouri's legal weight and size requirements. Specific routes and special requirements may be applicable.	Project construction requires oversize/ overweight truck loads.	Annual Blanket Permit up to \$500	Prior to construction	https://www.modot.org/OSOW
Local Regulations							
Perry County	Missouri Revised Statutes Title XIV Section 229.100	County Assent	Required for installation electrical infrastructure over or under public county roads or highway and for using county roads during construction.	Working in or utility crossing of county road right-of-way	Contact County	Prior to construction across county roads	
	42 U.S. Code Chapter 50 and County Regulations	Floodplain Development Permit	Required for transmission infrastructure installation or grading in Federal Emergency Management Agency (FEMA) regulated floodplains	Encroachment or work in regulated 100-year floodplain	Contact County	Prior to construction	https://sema.dps.mo.gov/county/
Cape Girardeau County	Missouri Revised Statutes Title XIV Section 229.100	County Assent	Required for installation electrical infrastructure over or under public county roads or highway and for using county roads during construction.	Working in or utility crossing of county road right-of-way	Contact County	Prior to construction across county roads	

Regulatory Authority	Statute	Permit/ Approval	Description	Trigger	Fee	Application Timeline	Website
	42 U.S. Code Chapter 50 and County Regulations	Floodplain Development Permit	Required for transmission infrastructure installation or grading in Federal Emergency Management Agency (FEMA) regulated floodplains	Encroachment or work in regulated 100-year floodplain	Contact County	Prior to construction	https://sema.dps.mo.gov/county/

State and Federally Listed Species

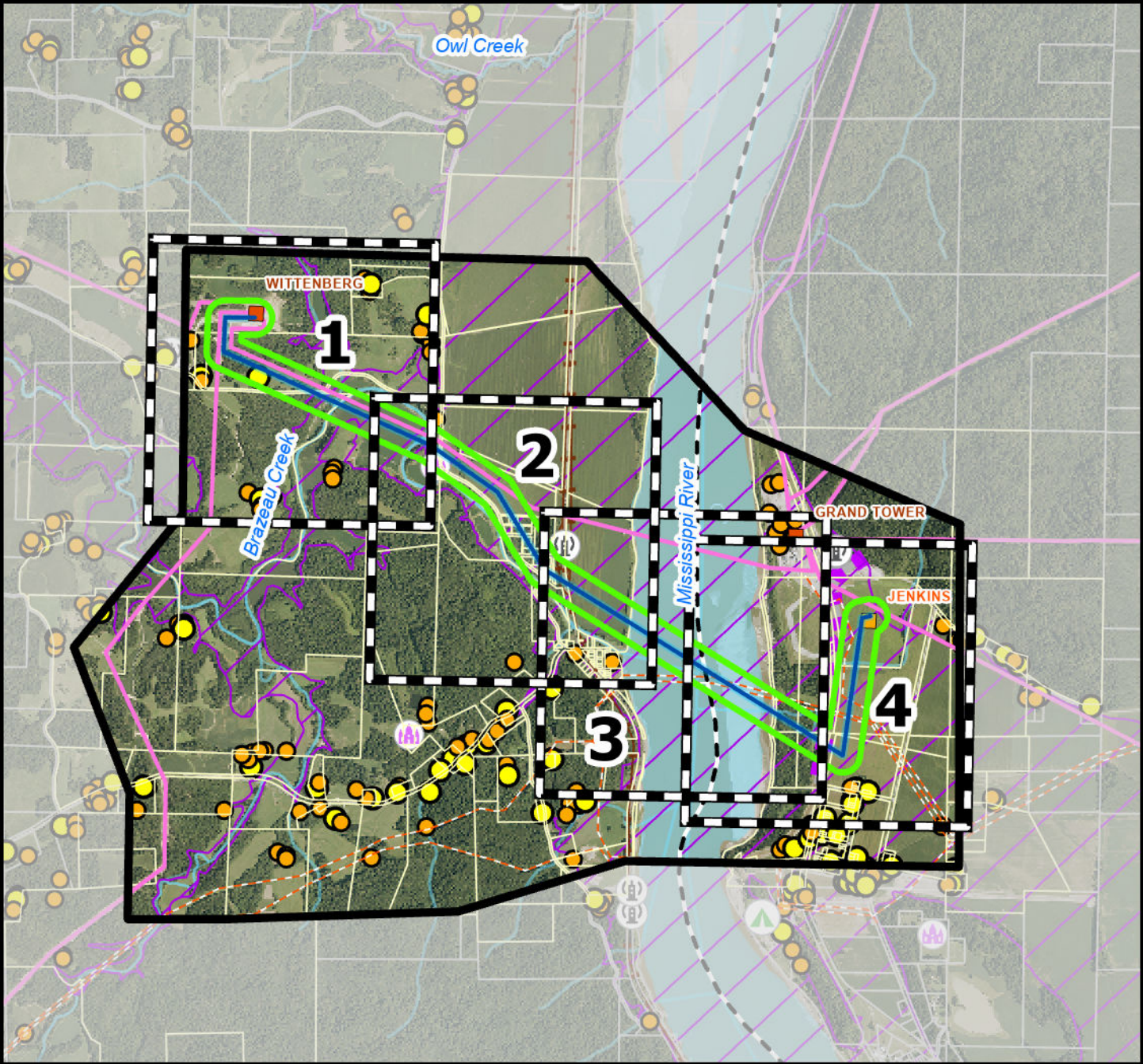
Species Scientific Name	Status	Suitable Habitat/Designated Critical Habitat Description	Recorded Occurrence in the Study Area	Recorded with half mile of the route
Bald Eagle <i>Haliaeetus leucocephalus</i>	Protected under Bald and Golden Eagle Act	Migrate along the Mississippi River and nest near streams or water bodies.	No	No
Indiana Bat <i>Myotis sodalis</i>	Federal/State Endangered	During winter months hibernate in caves and mines. During the summer months, they roost and raise young under the bark of trees in riparian forests and upland forests near perennial streams. Designated Critical habitat is located west of Perry County.	No	No
Northern Long-eared Bat <i>Myotis septentrionalis</i>	Federal/State Threatened	During winter months hibernate in caves and mines. During the summer months, they roost and raise young under the bark of trees in riparian forests and upland forests near perennial streams.	No	No
Gray Bat <i>Myotis grisescens</i>	Federal/State Endangered	Gray bats live in caves year-round. During winter, gray bats hibernate in deep, vertical caves. In summer, they roost and form maternity colonies in caves which are scattered along streams, rivers and reservoirs.	No	No
Pallid Sturgeon <i>Scaphirhynchus albus</i>	Federal / State Endangered	Mississippi River and confluence streams	No	No
Interior Least Tern <i>Sterna antillarum athalassos</i>	State Endangered	Historically found on sandbar islands in the Missouri and Mississippi River valleys but are now restricted to riverine sites on the Mississippi River south of Cape Girardeau.	No	No
Once a route is approved and survey permission obtained from landowners, ATXI will perform any necessary field surveys. ATXI will continue to coordinate with United State Fish and Wildlife Service and the Missouri Department of Conservation and will obtain any approvals and implement appropriate mitigation measures.				

Detailed Proposed Route Maps

GRAND TOWER CROSSING PROJECT



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- | | | | |
|----------------------------------|-----------------------------|---------------------|------------|
| FINAL PROPOSED ROUTE | NEW SUBSTATION | NOT A HOME | RAILROAD |
| FINAL PROPOSED ROUTE ROW (150FT) | EXISTING TRANSMISSION LINES | CAMPGROUND | PARCEL |
| NOTIFICATION AREA (600FT) | PIPELINE | CHURCH OR CEMETERY | WETLANDS |
| STUDY AREA (DECEMBER 2024) | STATE BOUNDARY | COMMUNICATION TOWER | STREAM |
| SUBSTATIONS | RESIDENCE | | LEVEE |
| | | | FLOOD ZONE |

1:32,000

0 1 Miles

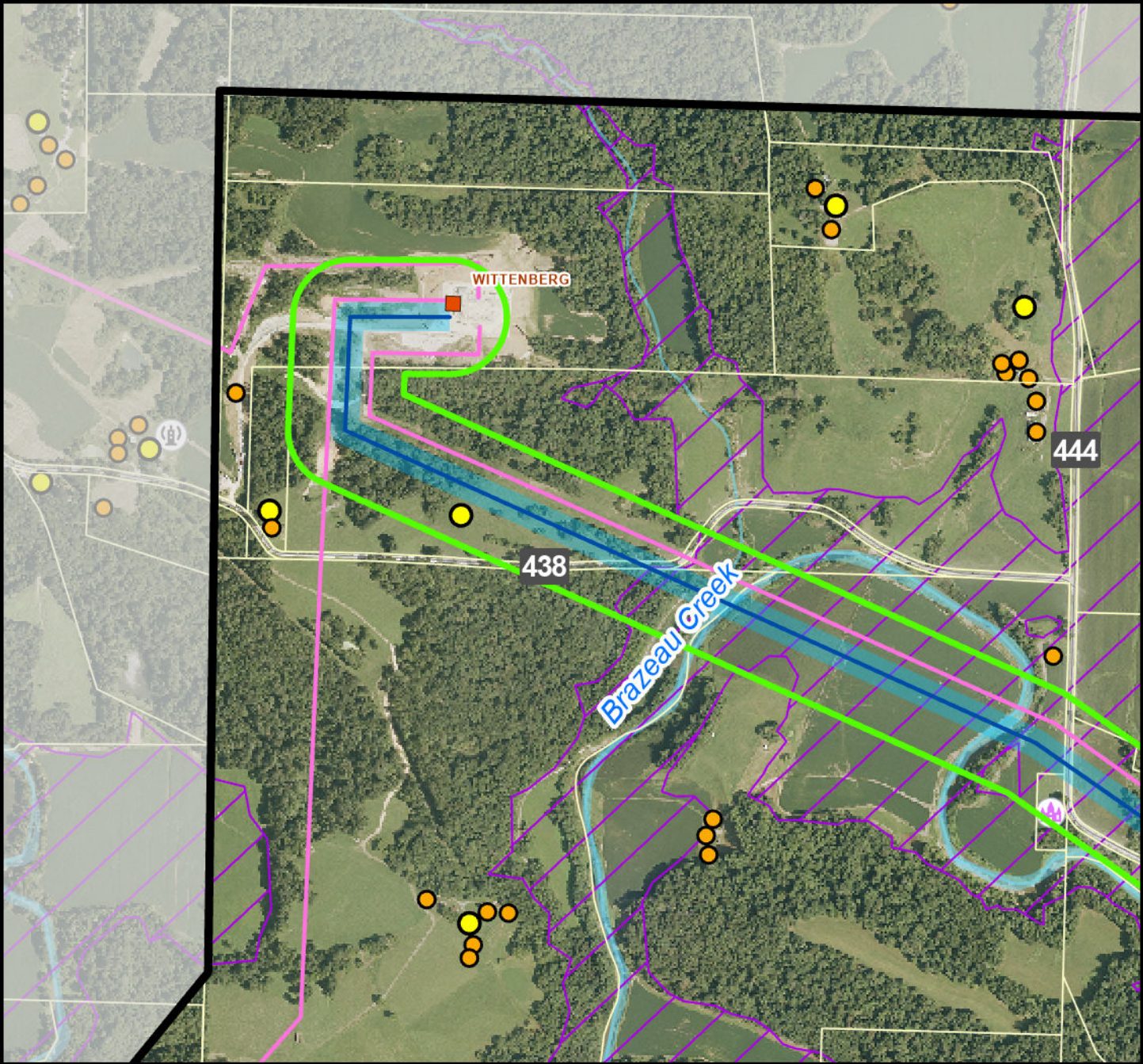
The proposed transmission line requires a 150 feet ROW easement.

Schedule DS-01

GRAND TOWER CROSSING PROJECT



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- | | | |
|----------------------------------|---------------------|------------|
| FINAL PROPOSED ROUTE | PIPELINE | RAILROAD |
| FINAL PROPOSED ROUTE ROW (150FT) | RESIDENCE | PARCEL |
| NOTIFICATION AREA (600FT) | NOT A HOME | WETLANDS |
| STUDY AREA (DECEMBER 2024) | CHURCH OR CEMETERY | STREAM |
| SUBSTATIONS | CAMPGROUND | LEVEE |
| EXISTING TRANSMISSION LINES | COMMUNICATION TOWER | FLOOD ZONE |

1:9,600

0 1,000 Feet

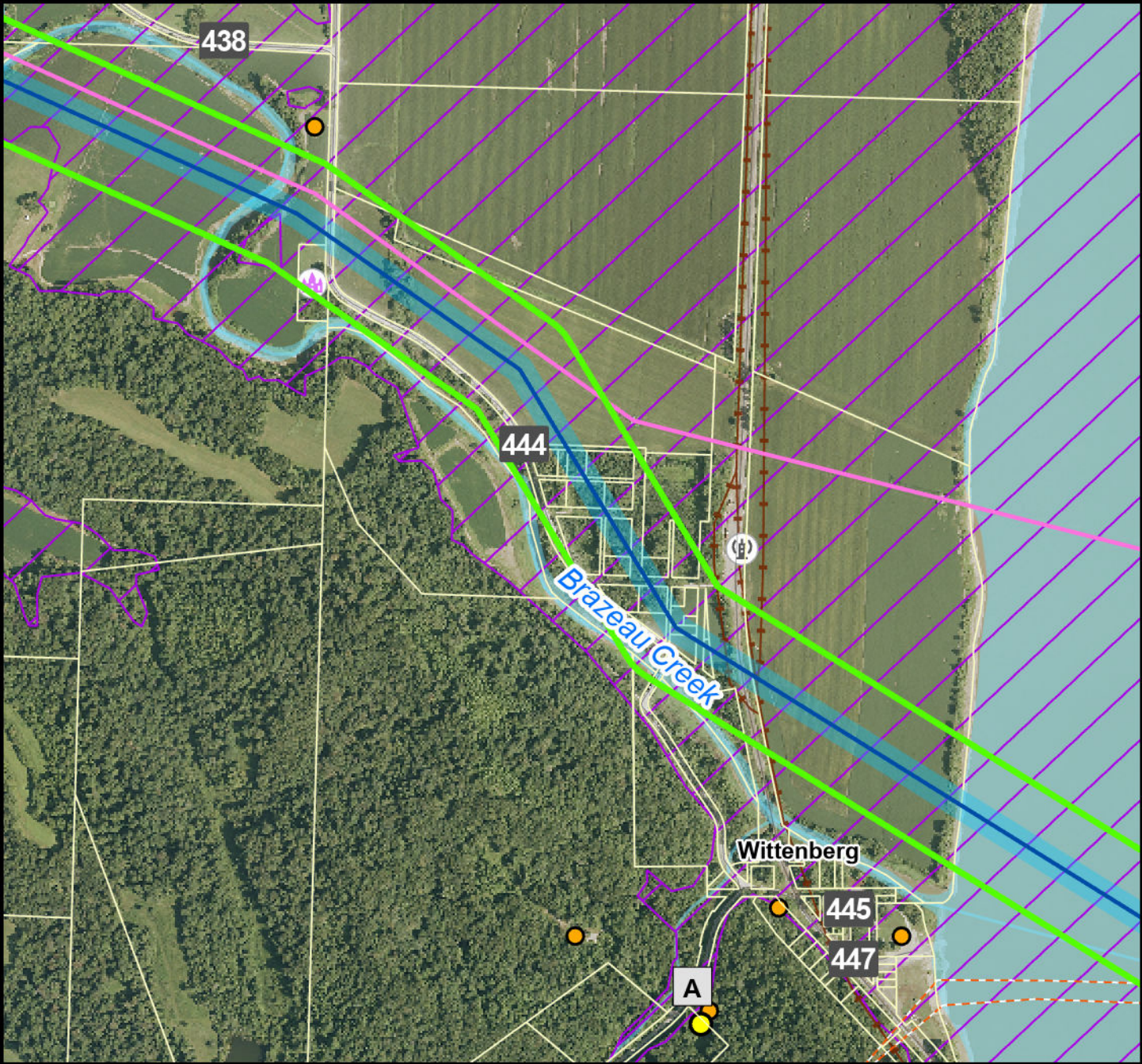
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Schedule DS-01

GRAND TOWER CROSSING PROJECT



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- | | | |
|------------------------------------|-----------------------|--------------|
| — FINAL PROPOSED ROUTE | ● RESIDENCE | — RAILROAD |
| — FINAL PROPOSED ROUTE ROW (150FT) | ● NOT A HOME | — PARCEL |
| — NOTIFICATION AREA (600FT) | ● CHURCH OR CEMETERY | — WETLANDS |
| — STUDY AREA (DECEMBER 2024) | ● CAMPGROUND | — STREAM |
| — EXISTING TRANSMISSION LINES | ● COMMUNICATION TOWER | — LEVEE |
| — PIPELINE | | — FLOOD ZONE |

1:9,600

0 1,000 Feet

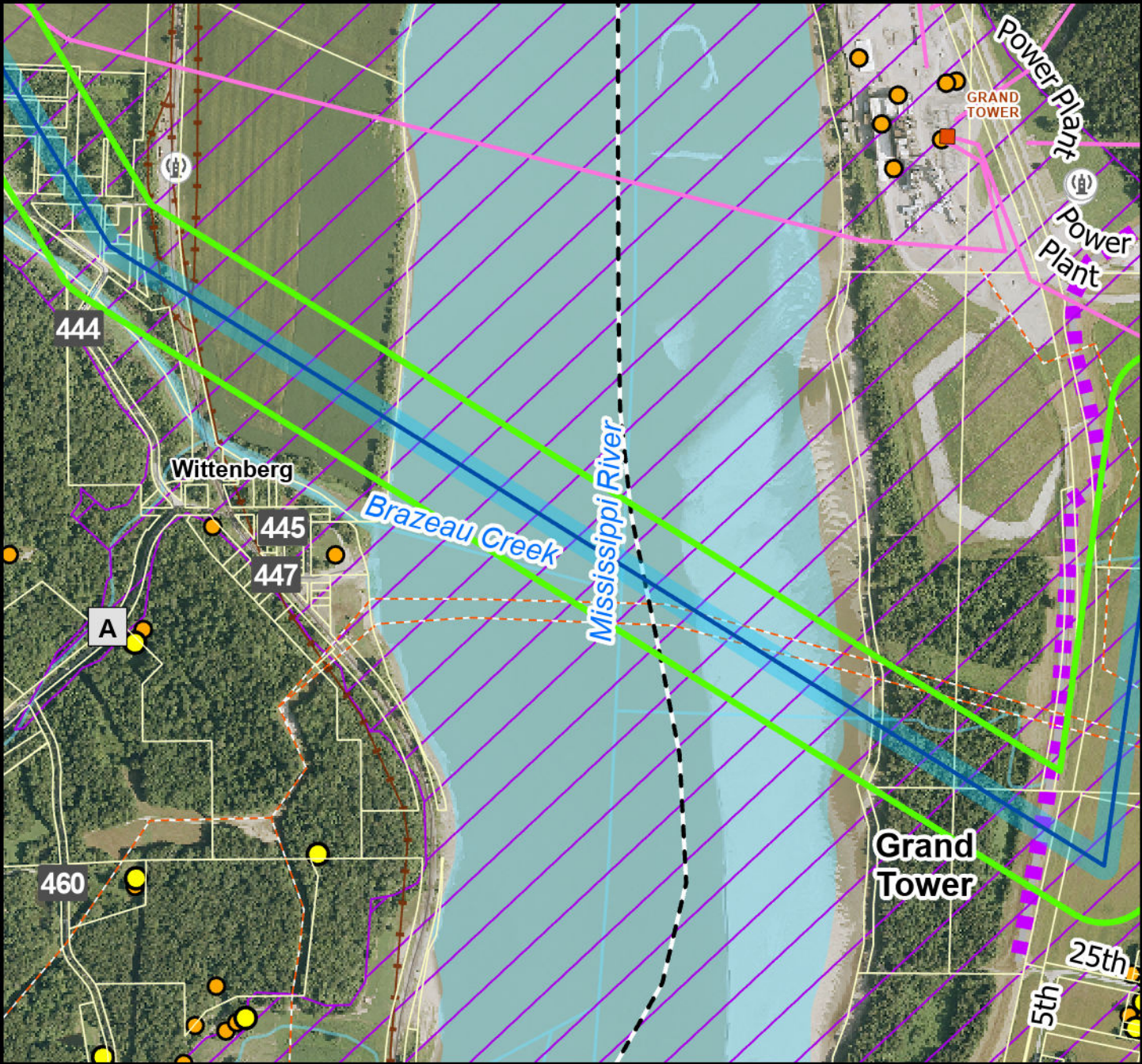
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Schedule DS-01

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- | | | |
|------------------------------------|-----------------------|--------------|
| — FINAL PROPOSED ROUTE | — STATE BOUNDARY | — RAILROAD |
| — FINAL PROPOSED ROUTE ROW (150FT) | ● RESIDENCE | — PARCEL |
| — NOTIFICATION AREA (600FT) | ● NOT A HOME | — WETLANDS |
| — STUDY AREA (DECEMBER 2024) | — CHURCH OR CEMETERY | — STREAM |
| — SUBSTATIONS | — CAMPGROUND | — LEVEE |
| — EXISTING TRANSMISSION LINES | — COMMUNICATION TOWER | — FLOOD ZONE |
| — PIPELINE | | |

0 1,000 Feet

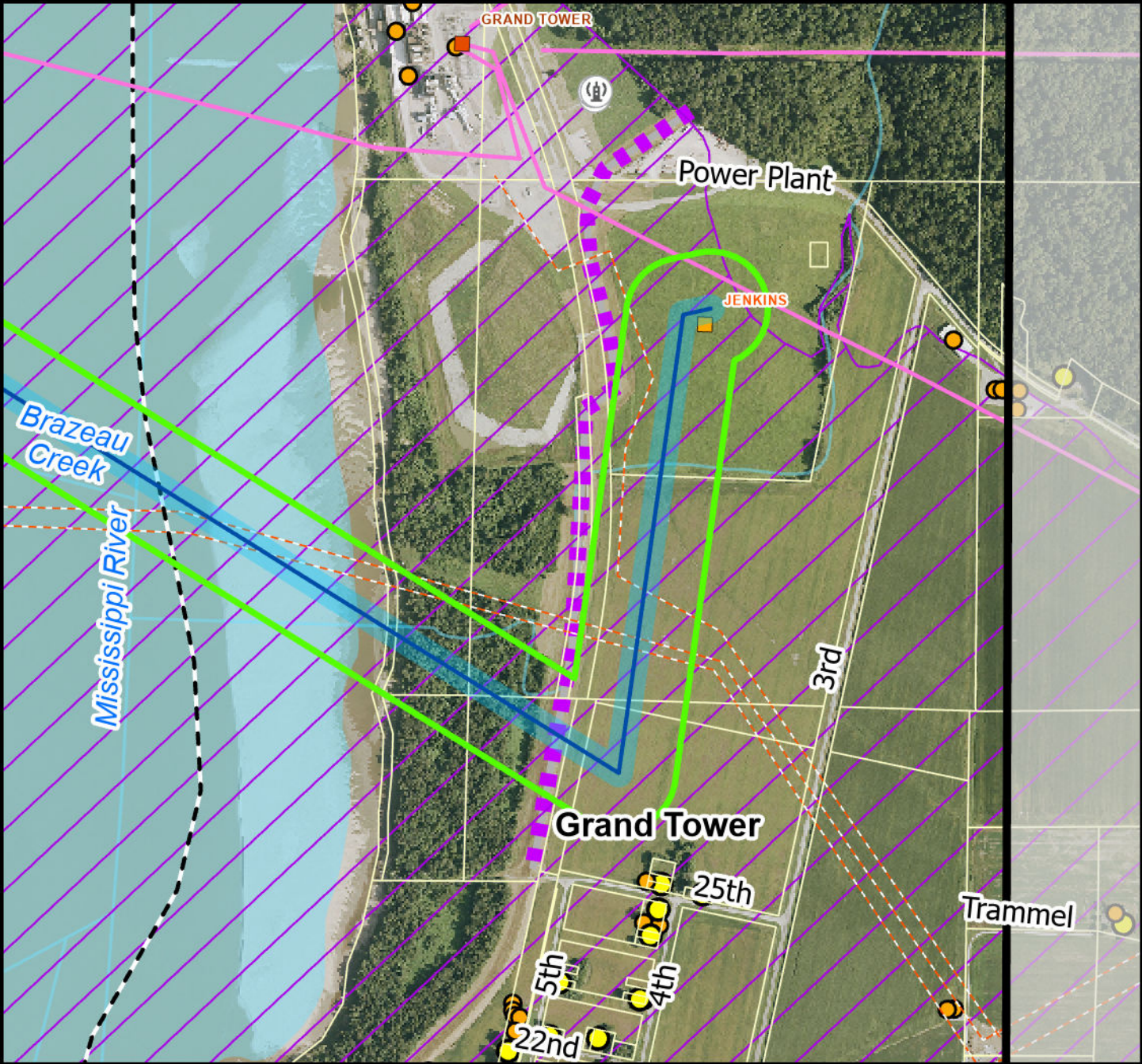
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Schedule DS-01

GRAND TOWER CROSSING PROJECT



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- FINAL PROPOSED ROUTE
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- SUBSTATIONS
- NEW SUBSTATION
- EXISTING TRANSMISSION LINES

- PIPELINE
- STATE BOUNDARY
- RESIDENCE
- NOT A HOME
- CHURCH OR CEMETERY
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1:9,600

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The proposed transmission line requires a 150 feet ROW easement.

Schedule DS-01