4906-5-05 PROJECT DESCRIPTION

(A) PROJECT AREA DESCRIPTION

The map provided in Section 4906-5-07 (Figure 7-1) includes a description of the Project Area's geography, topography, population centers, major industries, and landmarks.

(1) Project Area Map

Figure 7-1 provides a map at 1:24,000-scale, showing the Preferred and Alternate Routes for the Project. This map includes a 1,000-foot corridor on each side of the proposed transmission centerlines (hereafter referred to as the 2,000-foot corridor). The map depicts the proposed transmission lines (Preferred and Alternate Routes), Melbourne Substation, Tie Lines, a related line extension project that will be submitted in a separate construction notice application for the Board's review, roads and railroads, major institutions, parks, and recreational areas that are publicly identified and owned, existing gas pipeline and electric transmission line corridors, named lakes, reservoirs, streams, canals, and rivers, and population centers and legal boundaries of cities, villages, townships, and counties. The map utilizes the Delta and Swanton, Ohio, U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles as a base map.

The information on the map was updated by reviewing digital, georeferenced aerial photography, property parcel data from the Fulton County Auditor's Office, and field reconnaissance conducted in June 2021.

(2) Proposed Right-of-Way, Transmission Length, and Properties Crossed

The proposed permanent ROW width is 150 feet, with 75 feet on either side of the centerline of the proposed route, except where the Preferred Route parallels the existing Fulton – North Star 345 kV Transmission Line. In the area of this shared corridor, the amount of new permanent ROW required is approximately 90 feet for a maximum 240-foot-wide permanent ROW. Table 5-1 provides information about the Preferred and Alternate Route ROW acreage, length, and properties crossed based on the proposed ROW. Table 5-2 provides information about the ROW acreage, length, and properties crossed based on the proposed centerline for the Tie Lines connecting the proposed Melbourne Substation and existing Sydney Substation.

Appendix 5-1 is ATSI's standard easement form for acquisition of the right-of-way and land rights necessary for this Project.

Table 5-1: Right-of-way Area, Length, and Number of Properties Crossed for the Preferred Route

	Preferred
Proposed ROW area (in acres)	172.6
Length (in miles)	9.46
Number of properties crossed by ROW	42

Table 5-2: Right-of-way Area, Length, and Number of Properties Crossed for the Preferred Route Tie Lines

	Preferred Route Tie Lines
Proposed ROW area (in acres)	28.0
Length (in miles)	1.02
Number of properties crossed by ROW	3

(B) ROUTE OR SITE ALTERNATIVE FACILITY LAYOUT AND INSTALLATION

(1) Site Clearing, Construction, and Reclamation

The following paragraphs provide information on the proposed site clearing, construction methods, and reclamation operations for the Project.

(a) Surveying and Soil Testing

The transmission line selected by the OPSB will be surveyed to establish the centerline location. The surveying will be completed using conventional and/or aerial methods. The location of significant topographic features and human-made structures along or near the centerline of the transmission line that may affect the design of the transmission line will be identified during the survey. Some minimal clearing of small trees and brush may be required if the surveyor's line of sight is obstructed. Offsets will be used to survey around large trees and other large obstructions. Profile measurements will also be obtained by conventional or aerial methods. Structure locations will be staked prior to construction.

Soil and/or rock tests will be performed along portions of the final approved route as necessary based on final engineering design. In the locations where steel structures on concrete foundations are necessary, geotechnical soil testing using truck-mounted drilling equipment may be utilized. These locations will be identified during the detailed engineering design phase of the Project, which will occur concurrently with the OPSB's review of the Application. A professional geotechnical contractor will be retained to coordinate and conduct the geotechnical investigation with ATSI oversight. If suitable access is available, truck-mounted drilling equipment will be utilized. Soil tests will be performed using a drop hammer to drive a sampler tube. Soil bearing capacity is tested by the number of blows required to drive the tube 12 inches into the ground. Soil samples taken with a split-spoon at 5-foot intervals will be used to determine soil type. Typically, the testing will be performed to a depth of between 20 to 40 feet. If rock is encountered,

a carbide-tipped bit will be used to drill an exploratory boring 5 to 10 feet into the rock. Once the geotechnical investigation is complete, recovered soil samples will be evaluated in a laboratory to determine soil characteristics which are then used for foundation analysis and design using an industry standard software program.

(b) Grading and Excavation

No significant grading is anticipated to construct the transmission line on either route. The existing terrain within the planned ROW for the Preferred and Alternate Routes generally provides a suitable surface for construction vehicle operation. Some minor local leveling may be necessary for designated laydown and set-up areas for construction equipment; however, any grading would be restricted to the immediate area.

Each pole installation requires a machine-drilled hole for placement of the pole foundation. The excavation for these structures will be approximately 6 to 10 feet in diameter and 20 to 40 feet deep. The excess material will be placed around the structure or hauled offsite to an approved spoils disposal facility.

(c) Construction of Temporary and Permanent Access Roads and Trenches

Construction access will be required for the stringing of the conductor cable or wire and installation of the structures. Access roads will require affected property owners' input and approval. Access roads for the Preferred and Alternate Route will extend from existing public roads in close proximity to, or crossed by, the transmission line ROW unless otherwise agreed to by the property owner during negotiations.

Proposed access roads for the Preferred Route are identified in Figures 8-2A though Figure 8-2C. The location of these access roads cannot be finalized until after a route is approved and ATSI meets with affected property owners. Where access across wetlands or streams is necessary, construction matting or equivalent will be used to minimize disturbance. If field conditions necessitate the modification of the finalized access road locations during construction, the concurrence of the affected property owner will be obtained, necessary environmental field studies will be performed, and necessary permits will be updated.

(d) Stringing of Cable

Conductor installation for the proposed transmission line will be accomplished using the tension stringing method. Lightweight guy cables or ropes will be fed through the stringing sheaves of the sections of line that require stringing. Conductors will then be pulled through under sufficient tension to keep the conductor off the ground. This protects the conductor from surface damage.

Temporary guard or clearance poles will be used as a safety precaution at locations where the conductors could create a hazard to either crewmembers or the general public. The locations and heights of clearance poles will be such that conductors are held clear of other electric distribution lines, communication cables, railroads, and roadways. The stringing operation will be observed by

transmission line construction crew members at all times. The observers will be in radio or visual contact with the operator of the stringing equipment.

(e) Installation of Electric Transmission Line Poles and Structures, Including Foundations

Generally, the Project will be constructed using steel monopoles with concrete foundations. In these locations, a machine-drilled hole for placement of the pole's concrete foundation will be necessary.

(f) Post-Construction Reclamation

After construction is complete, the Project workspace will be restored to pre-construction conditions or better. This includes the restoration of drainage ditches; repair or replacement of any pre-existing or damaged fencing or field drainage tiles (or damage thereto); the seeding and mulching of disturbed non-cultivated areas; and the removal of temporary soil erosion and sedimentation control measures after vegetative cover has been established. Disturbed areas adjacent to streams and wetlands will be re-vegetated using methods to minimize soil erosion and degradation.

Lawn or garden areas or paved areas damaged during the construction of the transmission line will be restored to original condition. Landscaping or landscape plantings damaged during construction will also be restored to original condition or replaced to the extent possible and practical as requested by the affected property owner.

Temporary and permanent seeding will be coordinated with construction activities to provide re-vegetation and soil stabilization at the earliest reasonable time. Following construction, all pole locations, material storage sites, and temporary access roads will be restored and seeded with a suitable grass seed mixture as specified in the erosion and sediment control plan.

(g) Transmission Line Route and Substation Map

Figures 8-2A through 8-2K, and 8-3A through 8-3J show maps at 1:6,000-scale of the Preferred and Alternate Routes, respectively. These maps contain the data required by Ohio Administrative Code (OAC) 4906-5-05(A)(1). Although the additional information required by OAC 4906-5-05 (B)(2)(a) (e.g., pole structure locations, temporary access roads, etc.) will not be finalized until final engineering design is complete, preliminary locations are provided for the Preferred Route, as illustrated in Figures 8-2A through 8-2K.

A new electric power substation is being proposed for this Project, which will be known as the Melbourne Substation. The graded area for this substation will be approximately 7 acres and include a fenced area of 380' x 463' as well as a retention basin. Drawings of the substation are provided in Appendix 5-2.

ATSI has not yet finalized or determined staging areas and laydown areas for the Project.

(h) Proposed Layout Rationale

A detailed description of the reasons for the proposed layout (i.e., the Preferred and Alternate Routes) is presented in Section 4906-5-04.

(i) Plans for Future Modifications

Except as otherwise described in this Application, ATSI currently has no specific plans for future modifications of the proposed Project.

(C) DESCRIPTION OF PROPOSED TRANSMISSION LINES OR PIPELINES

(1) Electric Power Transmission Lines

The majority of the Project will be installed using steel pole construction. The exact number and location of these structures will be determined during detailed engineering design, if the Board approves the Project. Preliminary structure locations for the Preferred Route are depicted on Figure 8-2.

(a) Design Voltage

The Project will be designed for and operated at 345 kV.

(B) Tower Designs, Pole Structures, Conductor Size And Number Per Phase, And Insulator Arrangement

The proposed new transmission line will be supported on multiple structure types. The general features of these structures are described in the following sections. The following structure descriptions will be utilized on both the Preferred and Alternate Routes and the Tie Lines, as shown in Figure 5-1 (A through F).

1. Figure 5-1A conceptually shows a typical single circuit suspension delta steel structure. The structure utilizes three (3) suspension insulators and is used to support the transmission line at tangent and light angle locations. A concrete foundation is utilized to support the structure.

2. Figure 5-1B conceptually shows a typical single circuit suspension delta steel structure. The structure utilizes three (3) suspension insulators and is used to support the transmission line at medium angle locations. A concrete foundation is utilized to support the structure.

3. Figure 5-1C conceptually shows a typical single circuit delta dead end structure. The structure utilizes six (6) strain insulators and is used to support the transmission line at a tangent and light angle locations. A concrete foundation is utilized to support the structure.

4. Figure 5-1D conceptually shows a typical single circuit delta dead end structure. The structure utilizes six (6) strain insulators and three (3) suspension insulators and is used

to support the transmission line at heavy angle locations. A concrete foundation is utilized to support the structure.

5. Figure 5-1E conceptually shows a typical double circuit dead end vertical tap steel structure. The structure utilizes fifteen (15) strain insulators and is used to create a tap along the transmission line. A concrete foundation is utilized to support the structure.

6. Figure 5-1F conceptually shows a typical single circuit dead end vertical steel structure. This structure is used to support the transmission line where it is desirable to terminate a section of transmission line wire at tangent or light angle locations and includes three (3) strain insulators and three (3) suspension insulators. A concrete foundation is utilized to support the structure.

At this time, engineering evaluation of the Project has not revealed the need for any types of structures other than those shown in Figures 5-1A through 5-1F. It is possible that detailed design engineering for the Project may reveal the need for other structure types to meet the needs of the Project. However, ATSI does not anticipate that any such structures will be substantially different from those depicted in the Application.

The conductor used for both the Preferred and Alternate Routes will be designed and constructed for 345 kV operation and will utilize double-bundled 954 thousand circular mils (kcmil) 45/7 aluminum conductor steel-reinforced cable (ACSR) per phase. This conductor has a maximum strength of approximately 25,900 pounds. 7#6 Alumoweld Overhead Shield Wire and Optical Ground Wire ("OPGW") will be installed above the conductor phases to provide lightning protection. The phase conductors and overhead ground wires will be installed in accordance with the latest version of the National Electrical Safety Code (NESC).

(c) Base And Foundation Design

A select number of steel structures on concrete foundations will be necessary. The excavation for each concrete foundation will be range from 6 feet to 10 feet in diameter and 25 feet to 40 feet in depth.

(d) Cable Type and Size, where Underground

No underground cables are associated with this Project; therefore, this section is not applicable.

(e) Other Major Equipment or Special Structures

No other major equipment or special structures are required for the Project.

(2) Diagram of Electric Power Transmission Substations

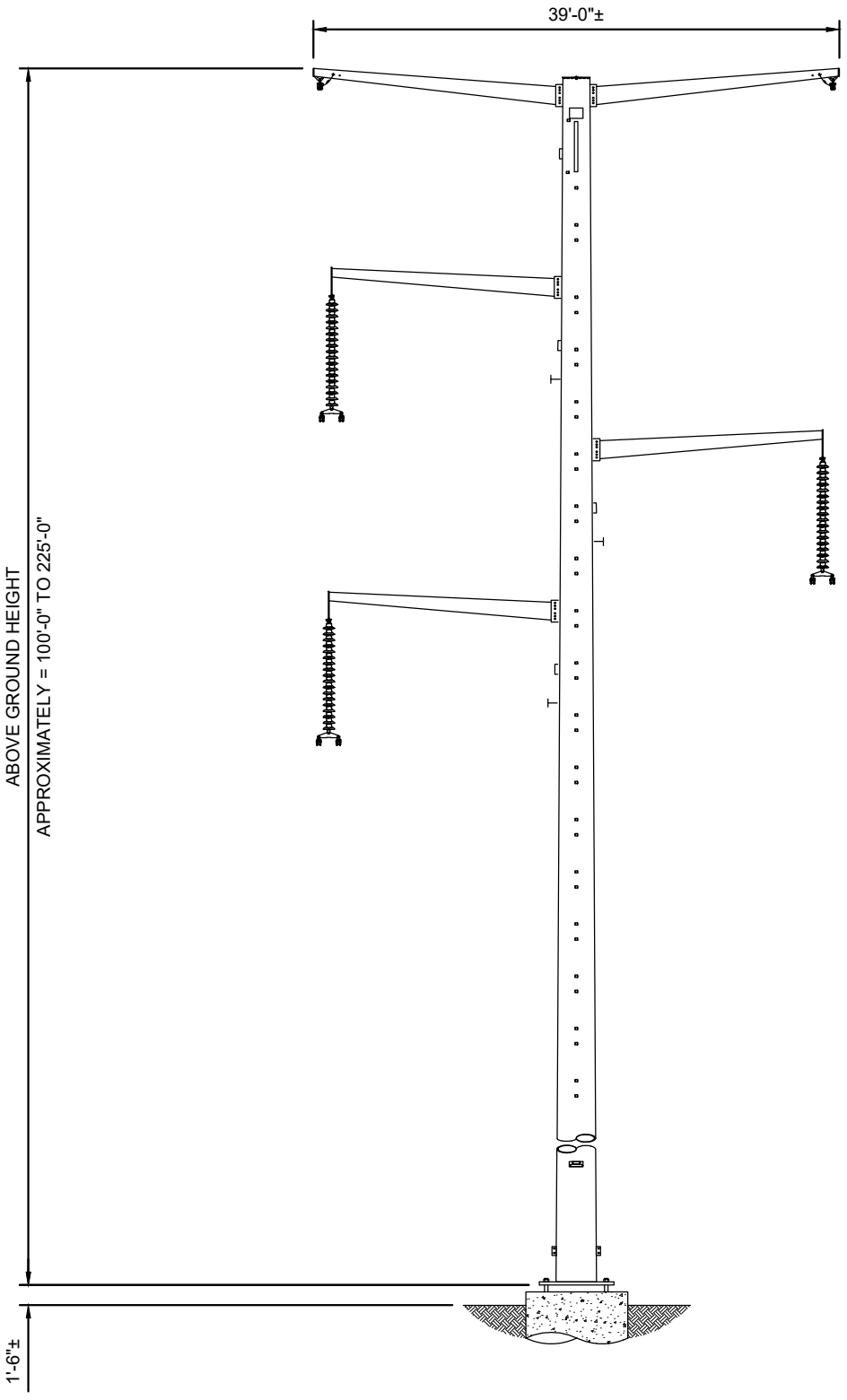
The Project includes the construction of the proposed Melbourne Substation. The graded area for the proposed substation will be approximately 7 acres and will include a fenced area of 380 feet x 463 feet as well as a retention basin. The limits of disturbance during construction will extend

outside of the proposed substation fence with an anticipated total disturbance area of approximately 7.6 acres. Drawings of the proposed substation are provided in Appendix 5-2.

The following equipment will be part of this substation installation:

- 345 kV Circuit Breakers – (4)
- 345 kV Breaker Disconnect Switches – (10) Sets of 3
- 345 kV Line Exit GOAB – (4) Sets of 3
- 345 kV Capacitive Voltage Transformer “CCVT” – (4) Sets of 3
- 345 kV Wave Trap – (4)
- Control Enclosure (23’x37’) – (1)

Figures



ATSI
American Transmission Systems, Inc.
a subsidiary of FirstEnergy Corp.

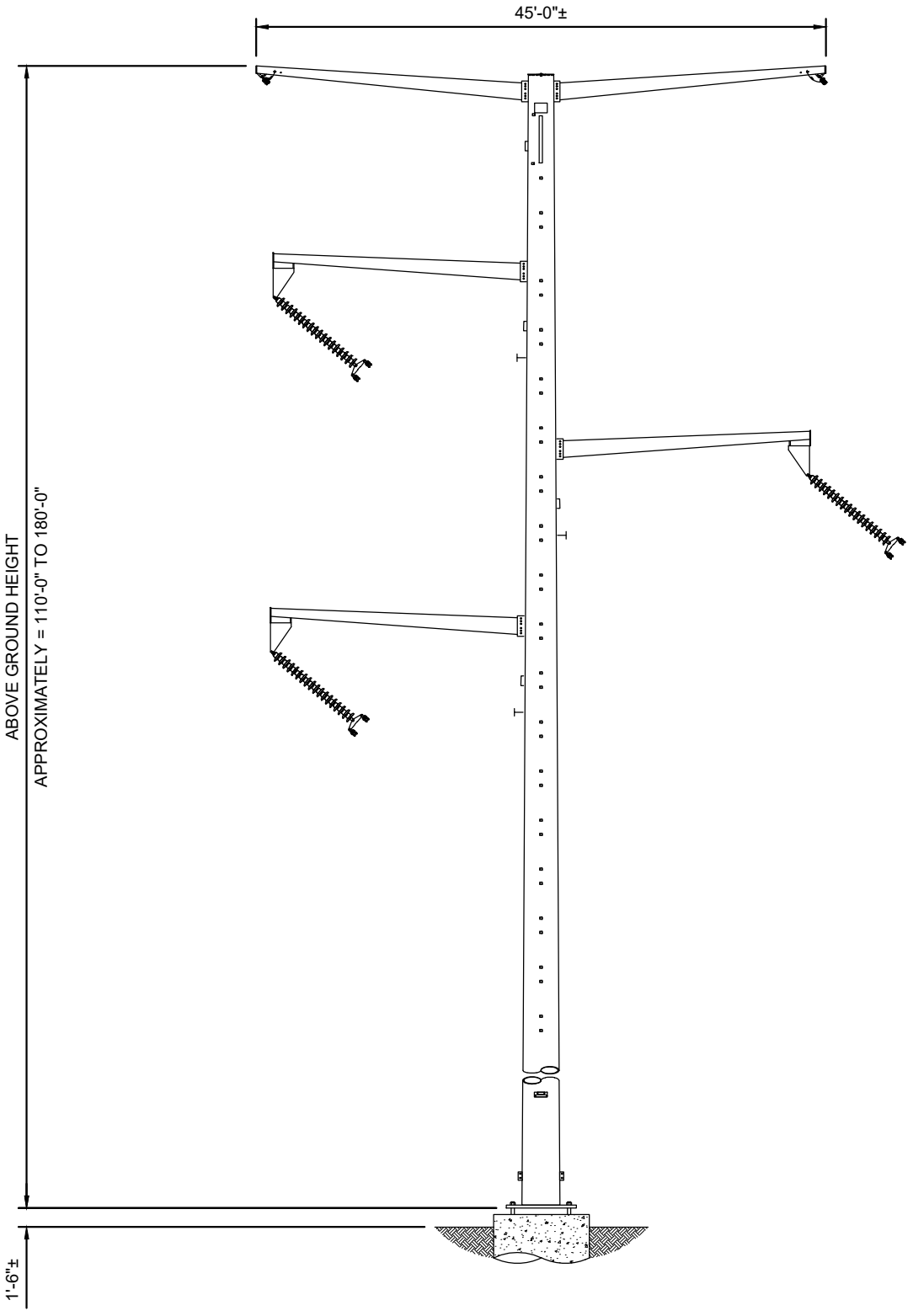
DOWLING-FULTON 345KV TRANSMISSION LINE
TAP TO MELBOURNE SUBSTATION

345KV SINGLE CIRCUIT TUBULAR STEEL STRUCTURE
SUSPENSION, ANGLES 0° TO 30°

Figure 5-1A

SCALE: N.T.S.

PAPER SIZE 8.5X11



ATSI
American Transmission Systems, Inc.
a subsidiary of FirstEnergy Corp.

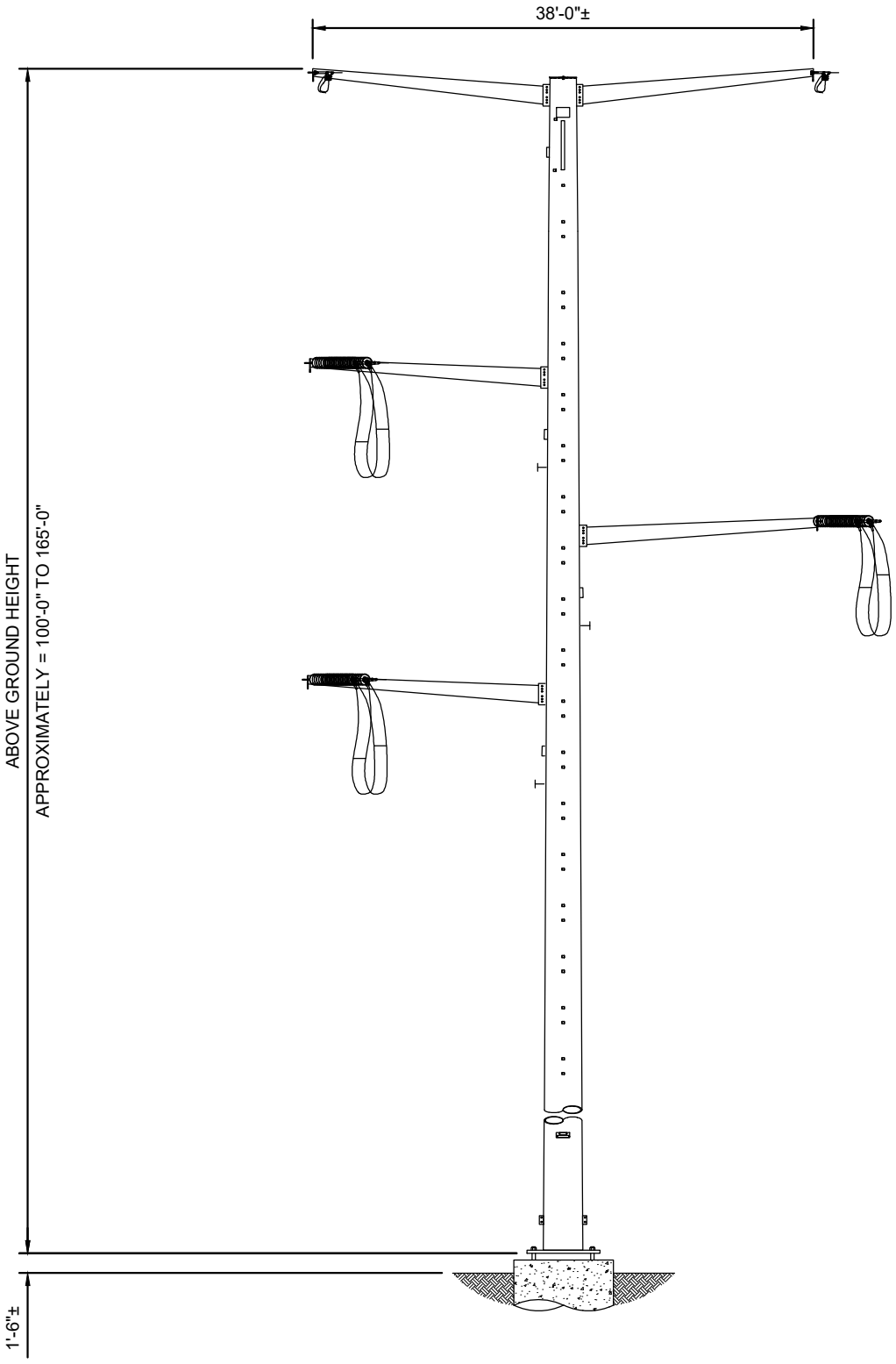
DOWLING-FULTON 345KV TRANSMISSION LINE
TAP TO MELBOURNE SUBSTATION

345KV SINGLE CIRCUIT TUBULAR STEEL STRUCTURE
SUSPENSION, ANGLES 30° TO 50°

Figure 5-1B

SCALE: N.T.S.

PAPER SIZE 8.5X11



ATSI
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DOWLING-FULTON 345KV TRANSMISSION LINE
TAP TO MELBOURNE SUBSTATION

345KV SINGLE CIRCUIT TUBULAR STEEL STRUCTURE
DEADEND, ANGLES 0° TO 50°

Figure 5-1C

SCALE: N.T.S.

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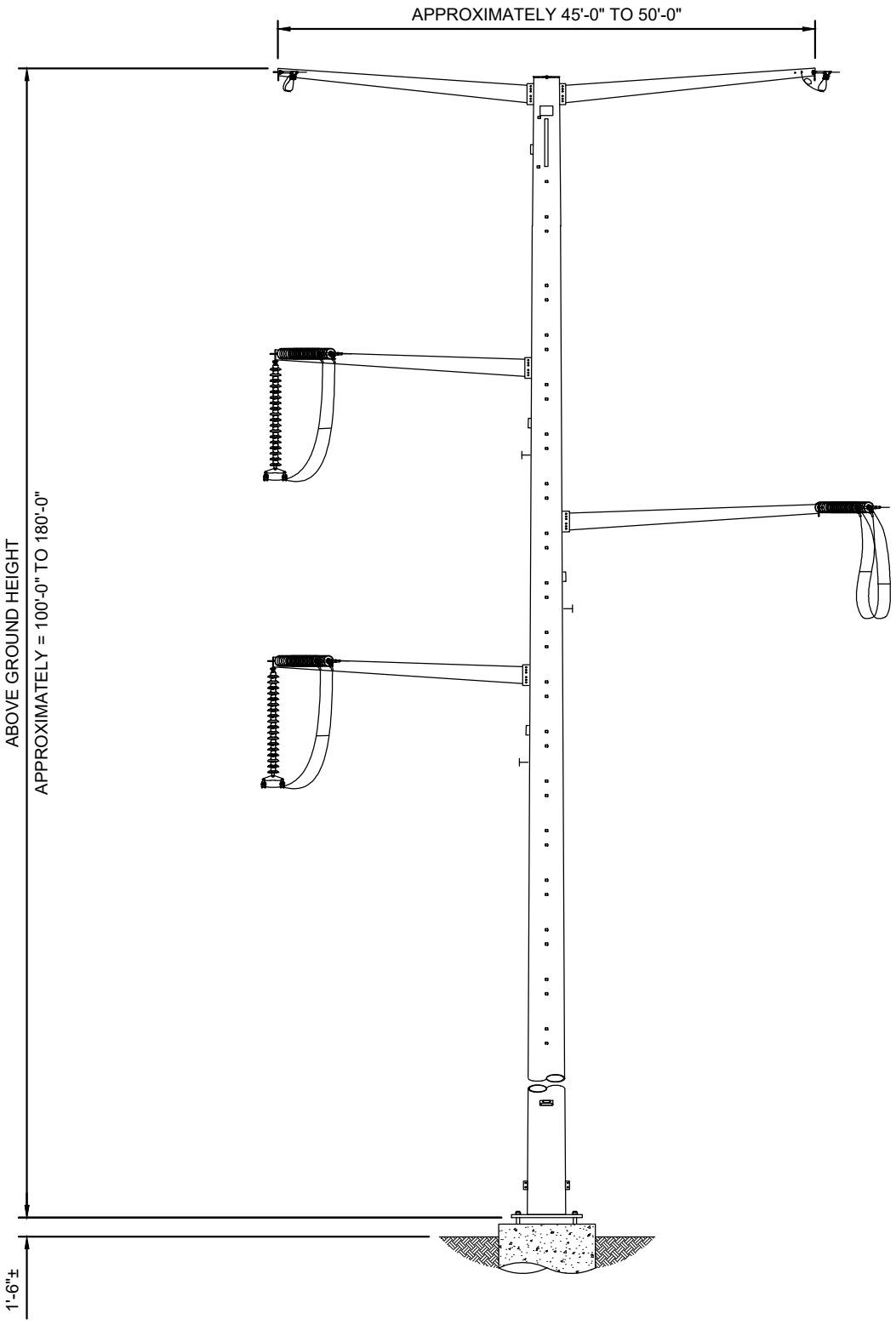

ATSI
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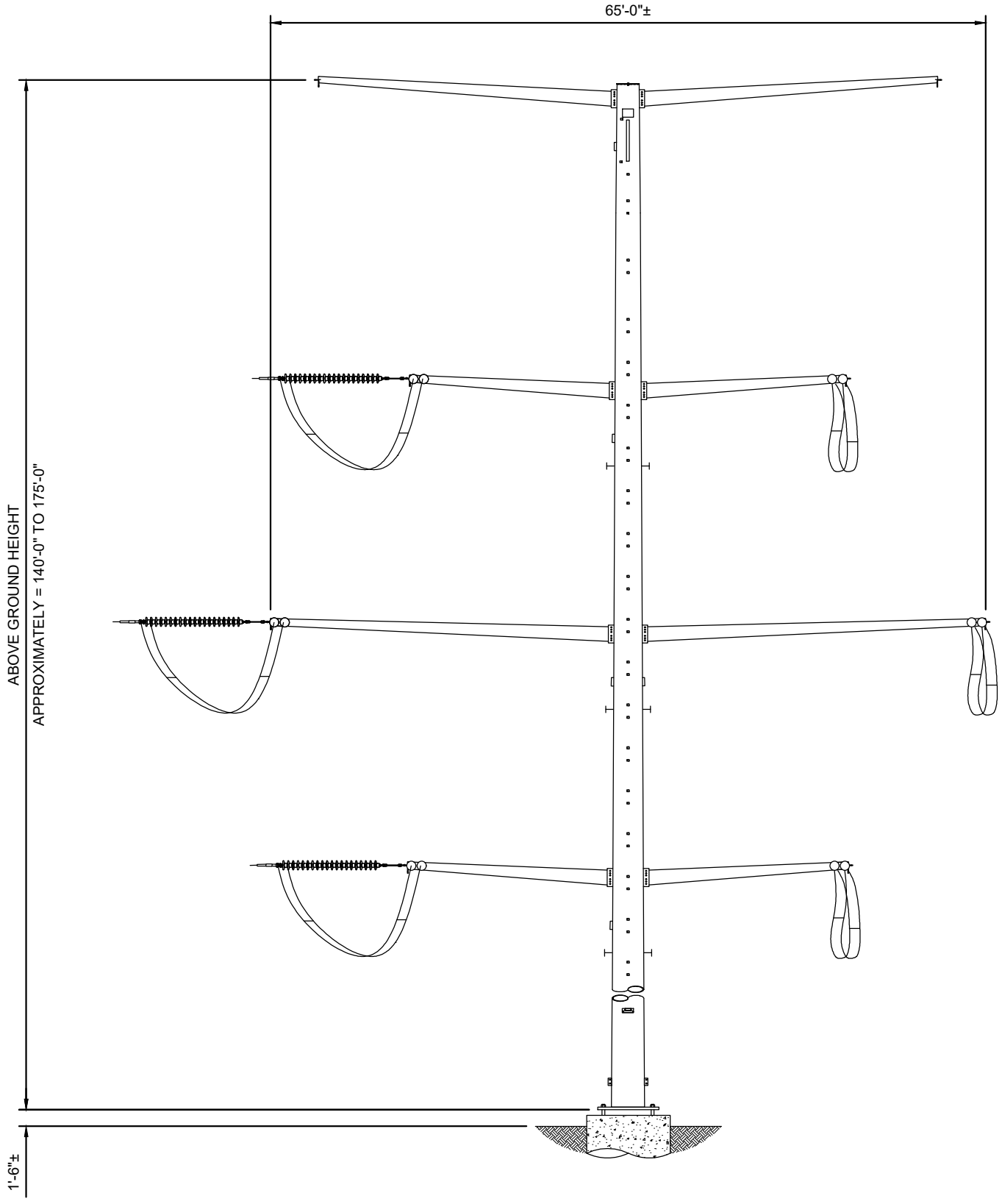
DOWLING-FULTON 345KV TRANSMISSION LINE
TAP TO MELBOURNE SUBSTATION

345KV SINGLE CIRCUIT TUBULAR STEEL STRUCTURE
DEADEND, ANGLES 50° TO 105°

Figure 5-1D

SCALE: N.T.S.

PAPER SIZE 8.5X11



ATSI
American Transmission Systems, Inc.
a subsidiary of FirstEnergy Corp.

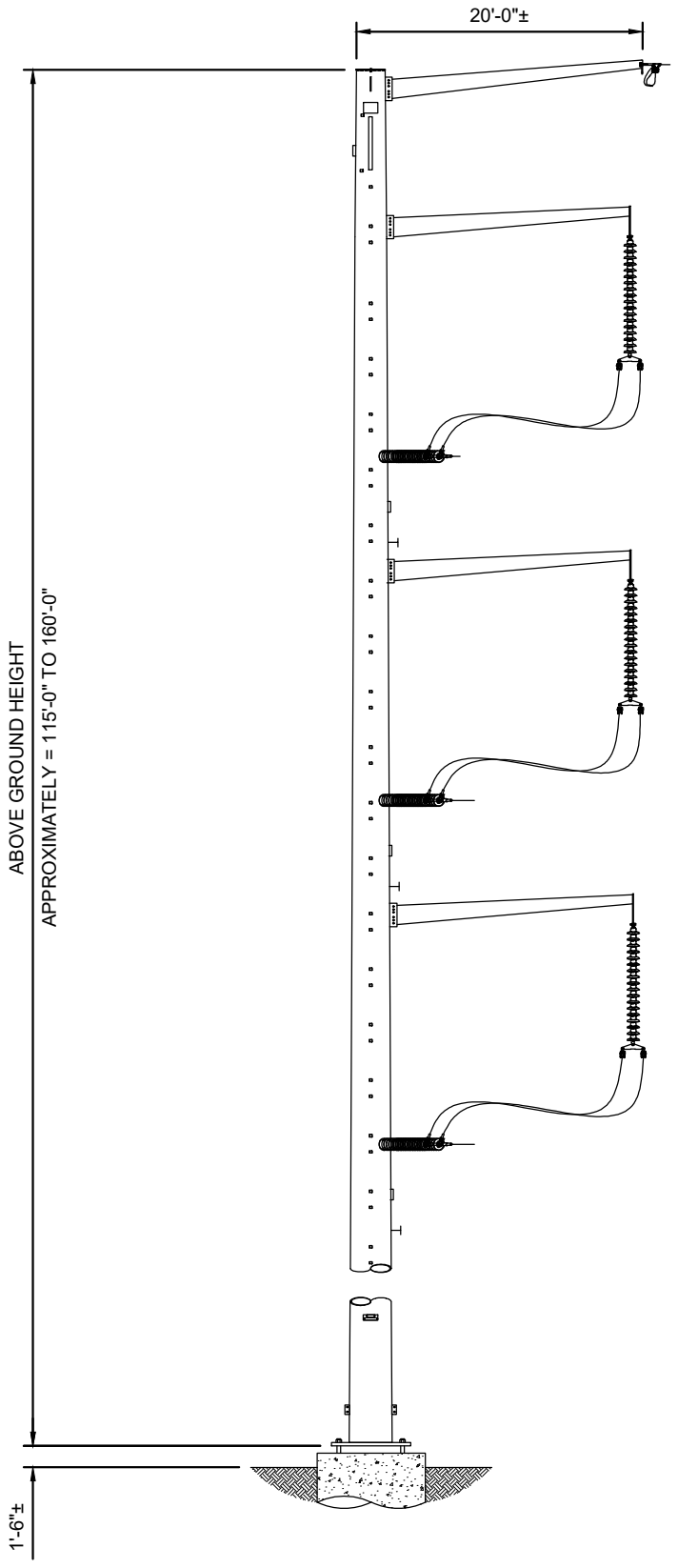
DOWLING-FULTON 345KV TRANSMISSION LINE
TAP TO MELBOURNE SUBSTATION

345KV SINGLE CIRCUIT TUBULAR STEEL STRUCTURE
IN-LINE DEADEND, TAP

Figure 5-1E

SCALE: N.T.S.

PAPER SIZE 8.5X11



ATSI
American Transmission Systems, Inc.
a subsidiary of FirstEnergy Corp.

DOWLING-FULTON 345KV TRANSMISSION LINE
TAP TO MELBOURNE SUBSTATION

345KV SINGLE CIRCUIT TUBULAR STEEL STRUCTURE
VERTICAL DEADEND, ANGLES 0° TO 60°

Figure 5-1F

SCALE: N.T.S.

PAPER SIZE 8.5X11

Appendix 5-1
Easement Form

EASEMENT

KNOW ALL MEN BY THESE PRESENTS, That **COMPANY NAME**, with a mailing address of XXX, hereinafter referred to as "GRANTOR", claiming title by virtue of instrument recorded in Volume XXX, Page XXX, as recorded in the County of XXX, for and in consideration of the sum of One Dollar ($1.00) and other valuable considerations received to my full satisfaction of **AMERICAN TRANSMISSION SYSTEMS, INCORPORATED,** an Ohio corporation, having its principal place of business at 76 South Main Street, Akron, OH 44308, hereinafter referred to as "GRANTEE", does hereby grant unto Grantee, its successors and assigns, an easement and right of way, together with the rights and privileges hereinafter set forth, for the lines for the transmission and distribution of electric current, including communication facilities, upon, over, under and across the following described premises:

Situated in the Township of XXX, County of XXX, State of Ohio; known as Permanent Parcel Number XXX.

The right of way referred to above is described on Exhibit "A", attached hereto and made a part hereof.

The easement and rights herein granted shall include the right to erect, inspect, operate, replace, remove, protect, relocate, repair, patrol, add to, and permanently maintain upon, over, under and along the above-described right of way across said premises all necessary structures, wires, cables and travel ways used for or in connection with the transmission and distribution of electric current, including communications, together with the rights to install any necessary guy wires, anchors and other usual fixtures and appurtenances within or adjacent to the right of way herein granted wherever necessary.

Grantee shall have the right of ingress and egress upon, over and across said premises for access to and from its facilities and the right of way, together with the full authority and unqualified right to trim, remove, clear, keep clear, and otherwise control (by such methods as Grantee, in its sole judgment, may deem necessary or proper, including but not limited to the use of herbicides) any and all trees, underbrush, or other vegetation located within the right of way that are not currently being used for agriculture purposes. Grantee shall also have the full authority and right, in its sole discretion, to trim, cut or remove, any or all trees adjacent to said right of way, that, in the opinion of Grantee, may interfere or threaten to interfere with the construction, operation, maintenance, or repair of Grantee's facilities ("Priority Trees"). Such Priority Trees include those that are dead, dying, diseased, structurally defective, leaning or significantly encroaching where the transmission facilities are at risk of arcing or failing should the tree or portions of the tree (i) fall near or into the transmission facilities or (ii) grow towards or into the transmission facilities.

Grantor Initials _____

Except as provided herein, Grantor reserves the right to use the lands encumbered by this Easement in any manner that is not inconsistent with the rights granted to Grantee by this Easement and provided that said use does not violate the National Electrical Safety Code clearances. Grantor agrees that no building, obstruction or impediment of any kind shall be placed within said right of way or between said structures or beneath said wires. Grantee shall have the full authority and right, in its sole discretion, to remove, or to compel the removal, of any buildings or other structures within the right of way that, in the opinion of the Grantee, may interfere or threaten to interfere with the construction, operation, maintenance, or repair of Grantee's facilities or with ingress or egress upon, over and across said premises for access to and from its facilities and the right of way. To the extent that any buildings or other structures within the right of way must be removed under the terms of the Easement, Grantors and their successors shall be solely responsible for the cost of removing said buildings or other structures from the right of way, and any damages arising therefrom.

The parties hereto acknowledge that any right of Grantee to trim, remove and/or clear any trees, underbrush, vegetation or other buildings or structures as set forth herein, does not create or place a duty upon Grantee to do so, or shift any duty that the Grantors owe to the Grantee, any third party and/or the general public.

The Grantee will repair or replace all fences, gates, lanes, driveways, drains and ditches damaged or destroyed by it on said premises or pay Grantors for all damages to fences, gates, lanes, driveways, drains and ditches, crops and stock on said premises caused by the construction or maintenance of said lines.

TO HAVE AND TO HOLD the said easement, rights and right of way and its appurtenances to said Grantee, and to its successors and assigns, forever, and the Grantor represents that he/she is the lawful owner of said premises and has full power to convey the rights and easement herein granted, that the same are free and clear of all encumbrances and that he/she will warrant and defend the same against all lawful claims and demands whatsoever, except current taxes and assessments not yet due and payable, easements, restrictions and reservations of record, and zoning ordinances, if any.

[SIGNATURE PAGE TO FOLLOW]

Acknowledged, **COMPANY NAME**, has executed this easement by its duly authorized officers as of the _____ day of _____, 20_____.

GRANTOR:

Grantor Initials _____

COMPANY NAME

By: _____
SIGNATURE

_____
PRINTED NAME

Its: _____
TITLE

STATE OF _____ §

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20_____, by _____, acting as _____ on behalf of **COMPANY NAME**, known to be the person(s) whose name(s) is/are signed to the written instrument hereto annexed and acknowledged before in my said County that he/she/they executed the same for the purposed therein contained.

_____
Notary Public

Prepared by: American Transmission Systems, Incorporated

Exhibit “A”

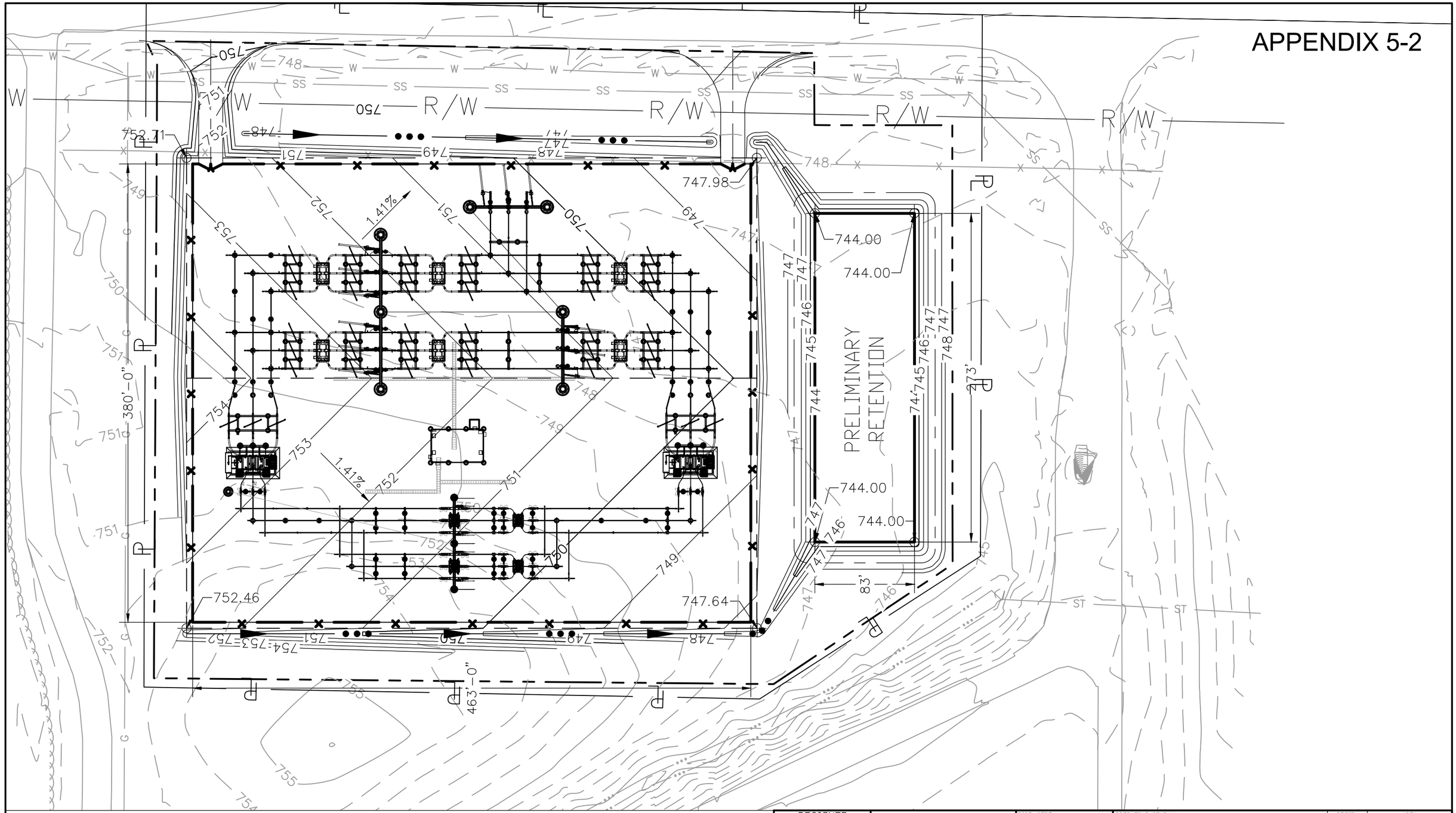
Grantor Initials _____

A description of Exhibit “A” to be created prior to easement signing, that will describe the area generally depicted in Exhibit “1” of the Option for Transmission Line Easement.

Grantor Initials _____

Appendix 5-2
Melbourne Substation Drawing

APPENDIX 5-2



NORTH

BY: DESIGNER APP: REVIEWER DATE: --/--/-- ISSUE: For Bid	FirstEnergy Energy Delivery Technical Services	DIST. CODE: SCALE: 1:80 SIZE: 11x17	OPERATING COMPANY: TOLEDO EDISON [TE]	REGION: XX-XX AREA: Xxxx
			FACILITY: MELBOURNE	
DRAWING BY BURNS & McDONNELL.			TITLE: GRADING PLAN SWITCHYARD	
RevisionNote			SAP NETWORK NO.: 16734273	DOC. ID: D-1256-04-02 REV.: -

4906-5-06 ECONOMIC IMPACT AND PUBLIC INTERACTION

(A) OWNERSHIP OF PROPOSED FACILITY

ATSI will construct, own, operate, and maintain the proposed Project. ATSI's purchase of a 9-acre site for the proposed Melbourne Substation is underway. The 345 kV Transmission Line and Tie Lines will be built pursuant to new easement rights that ATSI will acquire, generally through negotiation, from affected property owners. In general, ATSI will obtain any easements necessary for the ROW through negotiation with property owners (see Appendix 5-1 for copy of form Easement Agreement). Acquiring property rights by fee purchase of land or other types of agreements may also occur.

Although ATSI prefers to reach an amicable agreement with all impacted property owners, appropriation of easement rights may be necessary in some instances.

(B) CAPITAL AND INTANGIBLE COSTS ESTIMATE FOR ELECTRIC POWER TRANSMISSION FACILITY ALTERNATIVES

Table 6-1 includes estimates of applicable intangible and capital costs for both the Preferred and Alternate Routes, the 345 kV Tie Lines, the proposed Melbourne Substation, and a related line extension project that will be presented in a separate construction notice application. Project cost estimates are provided only for those items listed in the rule that are applicable to this Project.

Table 6-1: Estimates of Applicable Intangible and Capital Costs for Both the Preferred and Alternate Routes[1]

FERC Account Number	Description	Preferred Route	Alternate Route
350	Land and Land Rights	$9,766,000	$20,100,000.
352	Structures and Improvements	$9,602.000	$9,602,000.
353	Substation Equipment	$15,667,000.	$15,667,000.
354	Towers and Fixtures	0	0
355	Poles and Fixtures	$63,762,000.	$64,563,000
356	Overhead Conductors and Devices	$5,545,000.000	$5,614,000.000
357	Underground Conductors and Insulation	0	0
358	Underground-to-Overhead Conversion Equipment	0	0
359	ROW Clearing and Roads, Trails or Other Access	0	0
TOTAL		$104,342,000.00[2]	$115,546,000.00[3]

FERC = Federal Energy Regulatory Commission

(C) CAPITAL AND INTANGIBLE COSTS ESTIMATE FOR GAS TRANSMISSION FACILITY ALTERNATIVES

This Application is for an electric transmission line; therefore, this section is not applicable.

(D) PUBLIC INTERACTION AND ECONOMIC IMPACT

This section of the Application provides information regarding public interaction and the economic impact for each of the route alternatives.

(1) Counties, Townships, Villages, and Cities within 1,000 feet

The Preferred and Alternate Routes, the Melbourne Substation, and the 345 kV tie-lines from Melbourne Substation to the Sydney Substation within the North Star Steel facility are in Fulton County. Additionally, the Project lies within the Townships of Pike, Fulton, Swan Creek, and York, and the Alternate Route crosses a portion of the Village of Delta. Both the Preferred Route and Alternate Route begin within 1,000 feet of the Village of Swanton.

[1] Estimates of Applicable Intangible and Capital Costs for both the Preferred and Alternate Routes include non-jurisdictional substation and network activities at Dowling and Fulton substations.

[2] Approximately $5,150,300 is associated with a jurisdictional portion of the project that will be submitted in a future filing with the Ohio Power Siting Board should the Preferred Route be Certificated.

[3] Approximately $5,296,000 is associated with a jurisdictional portion of the project that will be submitted in a future filing with the Ohio Power Siting Board should the Alternate Route be Certificated.

(2) Public Officials Contacted

ATSI contacted several local officials to discuss the Project. Appendix 6-1 provides a list of the local public officials, including their office addresses and office telephone numbers, who have been contacted to date or will be provided a digital or hard copy of the Application, once accepted by the OPSB.

(3) Planned Public Interaction

ATSI mailed letters to residents, tenants, and elected officials, issued a public notice and a news release to the local media, and created a project website. Additionally, ATSI hosted an informal open house on August 24, 2022, and the required public informational meeting on December 7, 2022. ATSI's website for the Project included a fact sheet, a virtual open house containing similar information as presented during the in-person meetings, and an interactive map allowing the public to view details of proposed routes in relation to the viewer's property. ATSI will complete all necessary notice requirements associated with the filing of this application and the subsequent public and adjudicatory hearings as required by the OPSB's rules.

During the construction of this Project, ATSI will maintain the Project website with updates and retain ROW land agents to discuss project timelines, construction, and restoration activities with affected owners and tenants. Copies of informational materials available at the required public informational meeting and virtual open house are included in Appendix 6-2.

To access the project's website, please visit
https://www.firstenergycorp.com/about/transmission_projects/ohio/dowling-fulton.html

During this Project, the public may direct questions or comments to the FirstEnergy Transmission Projects hotline at 1-888-311-4737, or email transmissionprojects@firstenergycorp.com. ATSI requests that any communications concerning the Project include the Project name.

For copies of this Application, the public can do any of the following:

- Go to the local library, copies provided to Delta Public Library and Swanton Public Library;
- Go to http://opsb.ohio.gov/ and search for the Project's case number (22-0248-EL-BTX); or
- Access the Projects website on: https://www.firstenergycorp.com/about/transmission_projects/ohio/dowling-fulton.html and follow the directions to obtain a copy.

ATSI is logging comments and information provided through its public interaction program and this information will be shared with the OPSB staff, if requested.

At least 7 days before start of any construction activities, an ATSI ROW land agent will notify the landowner or the tenant by mail, telephone, or in person.

(4) Liability Insurance or Compensation

FirstEnergy, as the parent company of ATSI, currently self-insures against Commercial general liability and property damage exposure, as well as Commercial liability exposure in connection with its automobile operations. ATSI purchases excess Commercial General Liability insurance covering indemnity in the amount of at least $35,000,000 This insurance is on a per occurrence basis and is arranged under a broad form that includes automobile and contractual liability. Present coverage is arranged with AEGIS and is renewable on a year-to-year basis.

(5) Tax Revenues

The Preferred and Alternate Routes for the Project, as well as the 345 kV tie lines, Melbourne Substation, and a related line extension project that will be submitted in a separate construction notice, as described in 4906-5-06(A) above, are located within Fulton County. Local school districts, park districts, and fire departments will receive tax revenue from the Project. ATSI will pay property taxes on utility facilities in each jurisdiction. The approximate annual property taxes associated with the Preferred Route over the first year after the Project is completed is $5,644,572. The approximate annual property taxes associated with the Alternate Route over the first year after the Project is completed is $5,671,516.

Based on the 2022 tax rates, the following information includes preliminary estimates for these taxing authorities.

(a) Preferred Route

Fulton County	$172,060
York Township	$107.828
Pike Township	$144,923
Fulton Township	$264.228
Evergreen Local School District	$1,455,271
Pike-Delta-York Local School District	$951,472
Swanton Local School District	$2,548,788
	TOTAL $5,644,572

(b) Alternate Route

Fulton County	$190,535
York Township	$233,837
Delta Village	$42,826
Swan Creek Township	$144,648
Swanton Local School District	$2,994,660
Pike-Delta-York Local School District	$2,065,010
	TOTAL $5,671,516

Appendix 6-1
List of Public Official Points of Contact

APPENDIX 6-1

Dowling-Fulton 345 kV Transmission Line Tap to Melbourne Substation Project
Officials to Be Served a Copy of the Certified Application

Fulton County

Commissioner Jon Rupp,
President
Fulton County Commissioners
152 S. Fulton St., Suite 270
Wauseon, OH 43567

Commissioner Jeff Rupp,
Vice President
Fulton County Commissioners
152 S. Fulton St., Suite 270
Wauseon, OH 43567

Commissioner Joe Short,
Fulton County Commissioners
152 S. Fulton St., Suite 270
Wauseon, OH 43567

Frank T. Onweller
Fulton County Engineer
9120 Co. Rd. 14
Wauseon, OH 43567

Vond T. Hall
Fulton County Administrator
152 S. Fulton St., Suite 270
Wauseon, OH 43567

Christy Shadbolt, Director
Fulton County Regional Planning
Commission
152 S. Fulton St., Suite 100
Wauseon, OH 43567

Julie Brink, Director
Fulton County Visitors Bureau
8848 State Route 108, Suite 108
Wauseon, OH 43567

Delta Village

Frank Wilton
Mayor, Delta Village
401 Main Street
Delta, OH 43515

Arthur Thomas
Delta Village Council
401 Main Street
Delta, OH 43515

Brad Peebles
Delta Village Administrator
401 Main Street
Delta, OH 43515

Andy Welch
Delta Village Planning Commission
401 Main Street
Delta, OH 43515

Stephanie Mossing
Delta Village Finance Director
401 Main Street
Delta, OH 43515

Village of Swanton

Neil Toeppe
Mayor, Village of Swanton
219 Chestnut Street
Swanton, OH 43558

Shannon Shulters
Village of Swanton Administrator
219 Chestnut Street
Swanton, OH 43558

Dianne Westhoven, President Pro-Tempore
Swanton Village Council
219 Chestnut Street
Swanton, OH 43558

M. Jason Vasko
Village of Swanton Finance Director
219 Chestnut Street
Swanton, OH 43558

York Township

Mark Jones, Trustee
York Township
6955 Co. Rd. FG
Delta, OH 43515

Jeffrey Mazurowski, Trustee
York Township
6955 Co. Rd. FG
Delta, OH 43515

Robert W. Trowbridge, Trustee
York Township
6955 Co. Rd. FG
Delta, OH 43515

Karen S. Miller, Fiscal Officer
York Township
6955 Co. Rd. FG
Delta, OH 43515

Swan Creek Township

Rick Kazmierczak, Trustee
Swan Creek Township
5565 County Road D
Delta, OH 43515

Brian Meyer, Trustee
Swan Creek Township
5565 County Road D
Delta, OH 43515

Gene Wilson, Trustee
Swan Creek Township
5565 County Road D
Delta, OH 43515

Jo Stultz, Fiscal Officer
Swan Creek Township
5565 County Road D
Delta, OH 43515

Fulton Township

Scott Gillen, Trustee
Fulton Township
10555 Co. Rd. 4
Swanton, OH 43558

Bernard Wanner, Trustee
Fulton Township
10555 Co. Rd. 4
Swanton, OH 43558

Julie Szabo, Fiscal Officer
Fulton Township
10555 Co. Rd. 4
Swanton, OH 43558

Joe E. Gombash, Trustee
Fulton Township
10555 Co. Rd. 4
Swanton, OH 43558

Pike Township

Jon Ersham, Trustee
Pike Township
10810 County Road 10-2
Delta, OH 43515

Jack Wagner, Trustee
Pike Township
10810 County Road 10-2
Delta, OH 43515

Ted Howard, Trustee
Pike Township
10810 County Road 10-2
Delta, OH 43515

Dennis N. Savage, Fiscal Officer
Pike Township
10810 County Road 10-2
Delta, OH 43515

Libraries

Candy Baird, Director
Delta Public Library
402 Main Street
Delta, OH 43515

Staci Treece, Acting Director
Swanton Public Library
305 Chestnut Street
Swanton, OH 43558

Appendix 6-2
Public Information Meeting Materials

76 South Main Street
Akron, Ohio 44308

November 18, 2022

[Name]
[Address 1]
[Address 2]

[Parcel(s)]

Dowling-Fulton 345 kV Transmission Line Tap to Melbourne Substation Project
NOTICE OF PUBLIC INFORMATIONAL MEETING

Dear Property Owner/Resident:

American Transmission Systems, Incorporated ("ATSI"), a FirstEnergy company, invites you and members of your community to a local public meeting that we are hosting to provide you with an opportunity to learn more about the proposed Dowling-Fulton 345 kV Transmission Line Tap to Melbourne Substation Project ("Project"). ATSI will host this public informational meeting on Wednesday, December 7, 2022, from 6:00-8:00 p.m. in the American Legion Hall located at 5939 State Route 109, Delta, OH 43515. The purpose of this public informational meeting is to provide information about need/construction/land for the Project, to answer questions, and to solicit input concerning the Project.

In this Project, ATSI is considering the construction of a new 345 kV four-breaker ring bus substation ("Melbourne Substation") and one new 345 kV transmission line to connect the Melbourne Substation with the existing 345 kV electric transmission system. The line will extend approximately 9 miles from the existing Dowling-Fulton 345 kV Transmission Line to the Melbourne Substation. ATSI will also construct two approximately 0.5 mile long 345 kV transmission lines to connect the existing, customer-owned Sydney Substation to the proposed Melbourne Substation. The transmission lines will be constructed primarily on single steel monopoles. The Project is needed to enhance electric service reliability for existing customers, add redundancy to the network, and allow for future load growth.

ATSI has carefully studied the general area for the proposed Project to identify potentially sensitive locations and land uses. Accounting for these attributes, ATSI determined a 9-acre site for the proposed Melbourne Substation. From there, multiple potential route segments have been evaluated to develop two potential route alternatives to connect the proposed Melbourne Substation to the existing Dowling-Fulton 345 kV Transmission Line, as shown on the enclosed map. As you may recall, ATSI presented potential routes to the public at an informal open house held August 24, 2022. At that meeting, ATSI received comments and engaged in meaningful dialogue with members of the community. ATSI then considered and investigated the comments received and further adapted its route alternatives.

As a landowner within or adjacent to at least one the potential transmission line routes or substation, you are invited to attend this public informational meeting to learn more about the Project, review the proposed route alternatives, ask questions of ATSI personnel and offer your comments on the Project.

76 South Main Street
Akron, Ohio 44308

In order to construct the Project, ATSI must obtain the approval of the Ohio Power Siting Board ("OPSB"). To obtain this approval, ATSI will prepare and submit an application to the OPSB that will include information on the proposed Melbourne Substation and both a preferred and alternate route for the new transmission line component of this Project.

The OPSB is legally obligated to review the Application and, if certain legal criteria are met, it may approve the Project. OPSB approval is obtained through the issuance of a Certificate of Environmental Compatibility and Public Need. For more information on the OPSB, its composition, and the process it will follow in reviewing the application for the Project, please visit their website at www.opsb.ohio.gov. You can also contact OPSB Staff via e-mail at contactopsb@puco.ohio.gov, by phone at 866-270-6772, or by mailing correspondence to 180 East Broad Street 11th Floor, Columbus, Ohio 43215. Once ATSI has completed the application for this Project and submitted it to the OPSB, more information about how to provide the OPSB with comments will follow.

We encourage you to attend the public informational meeting, as it will be an opportune time for in-person discussion of details about the proposed Project.

Alternatively, however, a virtual presentation can be viewed at your convenience. The virtual platform contains the same information that will be available at the in-person public informational meeting. In addition, there is an interactive map and multiple ways to leave input/comments. The virtual public meeting can be found at:

https://firstenergy.consultation.ai/melbourne/

Please feel free to submit questions or comments you may have to transmissionprojects@firstenergycorp.com or by phone at 1-888-311-4737.

Up-to-date Project information also can be found online at:
https://firstenergycorp.com/content/fecorp/about/transmission_projects/ohio/dowling-fulton.html.

Sincerely,

Nataliya Bryksenkova, Engineer
Transmission Siting
FirstEnergy Service Company

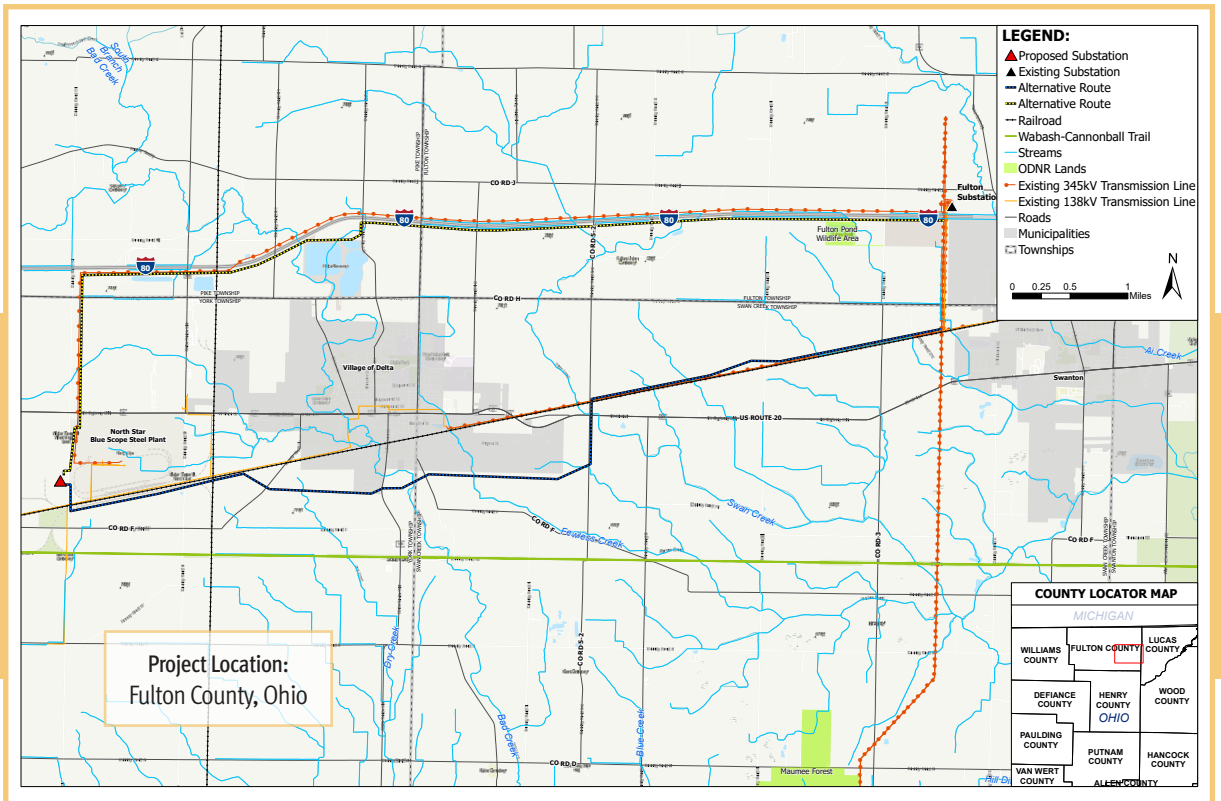
Dowling-Fulton 345-Kilovolt Transmission Line to Melbourne Substation Project

At FirstEnergy, it's our responsibility to deliver the power our customers depend on in their daily lives. American Transmission Systems, Inc. (ATSI), a FirstEnergy company, has identified a need for a new substation and 345-kilovolt (kV) transmission line in Fulton County, Ohio, to enhance electric service reliability for existing customers, add redundancy to the network and allow for future growth.

Project Overview

ATSI has completed an evaluation of the existing 345-kV transmission system in Fulton County and identified the need to build a new 345-kV transmission line that will extend nine miles from the existing Dowling-Fulton 345-kV transmission line to the proposed Melbourne Substation. The transmission line will be supported primarily by steel monopole structures. ATSI will also construct two additional 345-kV transmission lines, each approximately half a mile in length, to connect the existing Sydney Substation to the proposed Melbourne Substation.

PJM, the regional transmission system operator, and the PJM stakeholders have reviewed the proposed project, which has been assigned the supplemental upgrade identification number s2237. More information about the project can be found at www.pjm.com.



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Transmission Line Siting and Approvals

A detailed routing study was performed to identify potential routes for the project. These routes were carefully evaluated to minimize impacts to environmentally sensitive areas, property owners and communities. ATSI will seek approval from the Ohio Power Siting Board ("OPSB") for the project.

As part of the siting process, detailed wetland, stream and other environmental and cultural resource evaluations will be performed. Necessary permits will be secured from local, state and federal agencies before construction.

Easements

ATSI will negotiate with property owners to acquire necessary easements and vegetation management rights to support the new transmission line. Field agents will contact property owners to discuss transmission line easements and/or any temporary access needed during construction.

Preliminary Project Timeline

Informal Public Open House . . . . . August 2022

OPSB-Required Public Informational Meeting . . . . . December 2022

OPSB Application Filed . . . . . First Quarter 2023

Anticipated OPSB Order, Opinion and Certificate . . . . . First Quarter 2024

Anticipated Start of Construction . . . . . Second Quarter 2024

Anticipated Project Completion. . . . . Second Quarter 2025

Energizing the Future

In addition to localized transmission projects like this one, FirstEnergy is upgrading and strengthening the transmission grid through its Energizing the Future initiative to meet the existing and future needs of our customers and communities. Projects are focused on upgrading or replacing aging equipment to harden our transmission infrastructure, reduce outages and cut maintenance costs; enhancing performance by building a smarter, more secure transmission system; and adding flexibility by building in redundancy and allowing system operators to react more swiftly to changing grid conditions.

For more information about *Energizing the Future*, visit firstenergycorp.com/transmission.

Dowling-Fulton 345 Kilovolt (kV) Transmission Line Project

December 7, 2022

Name:_____

Address:_____

City: _____ State:_____ Zip code: _____

Phone: _____ Email: _____

Comments:

Name of Representative Taking Inquiry (if applicable):

Please direct questions to and share your comments on the project with a FirstEnergy representative. In addition, please add your questions or comments about the project on this form and give it to one of the representatives before leaving this meeting. If you choose to provide comments after the meeting, please send those comments to Nataliya Bryksenkova, 76 S. Main St., Akron, Ohio 44308. Providing your written questions and comments provides the best opportunity for us to identify your questions and to consider your comments. Thank you.

FirstEnergy®

Transmission

Energizing the Future

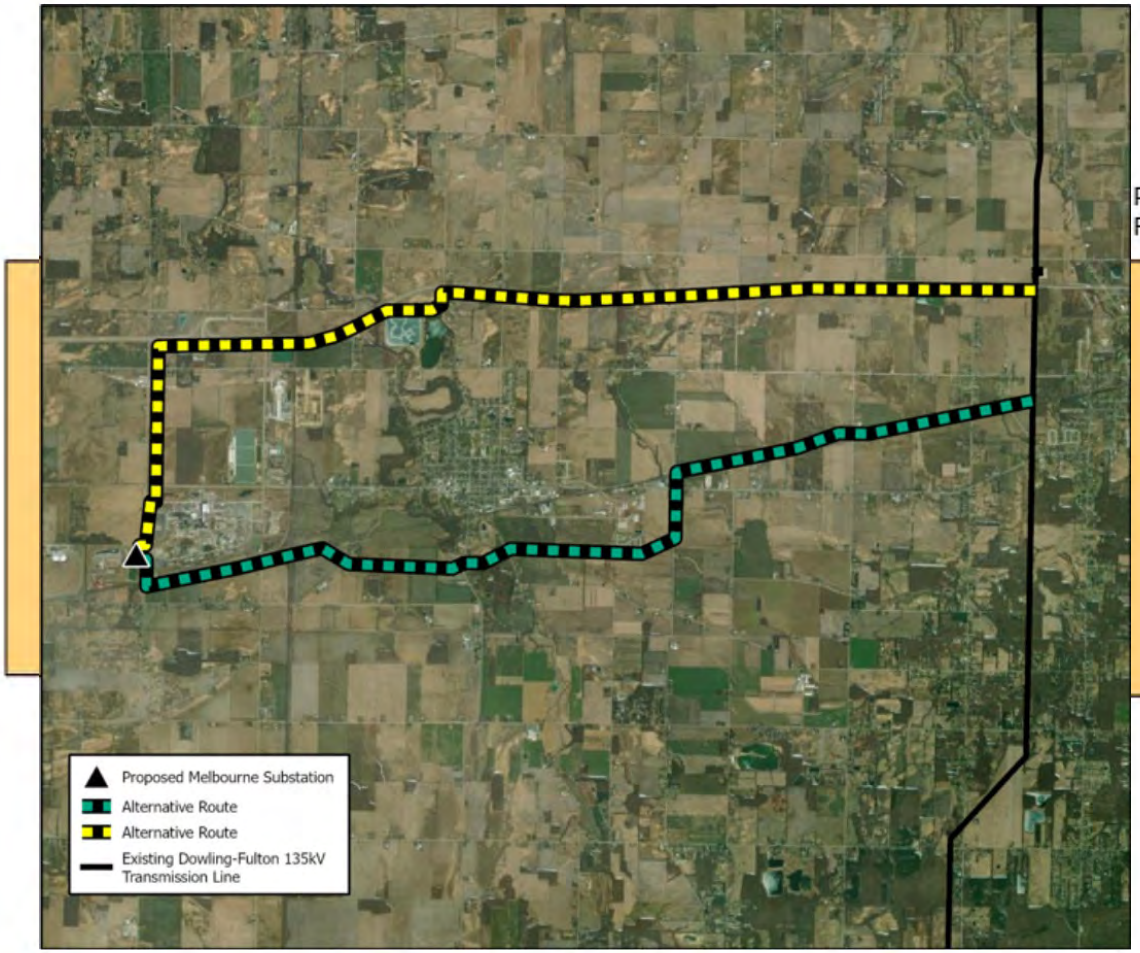
Dowling-Fulton 345 kV Transmission Line Tap to Melbourne Substation

Public Meeting

December 2022

Energizing the FUTURE

Project Overview



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Project Location:
Fulton County, Ohio

- **345 kV transmission line connecting the Dowling-Fulton 345 kV and proposed Melbourne Substation in Fulton County, OH.**

Need and Benefits

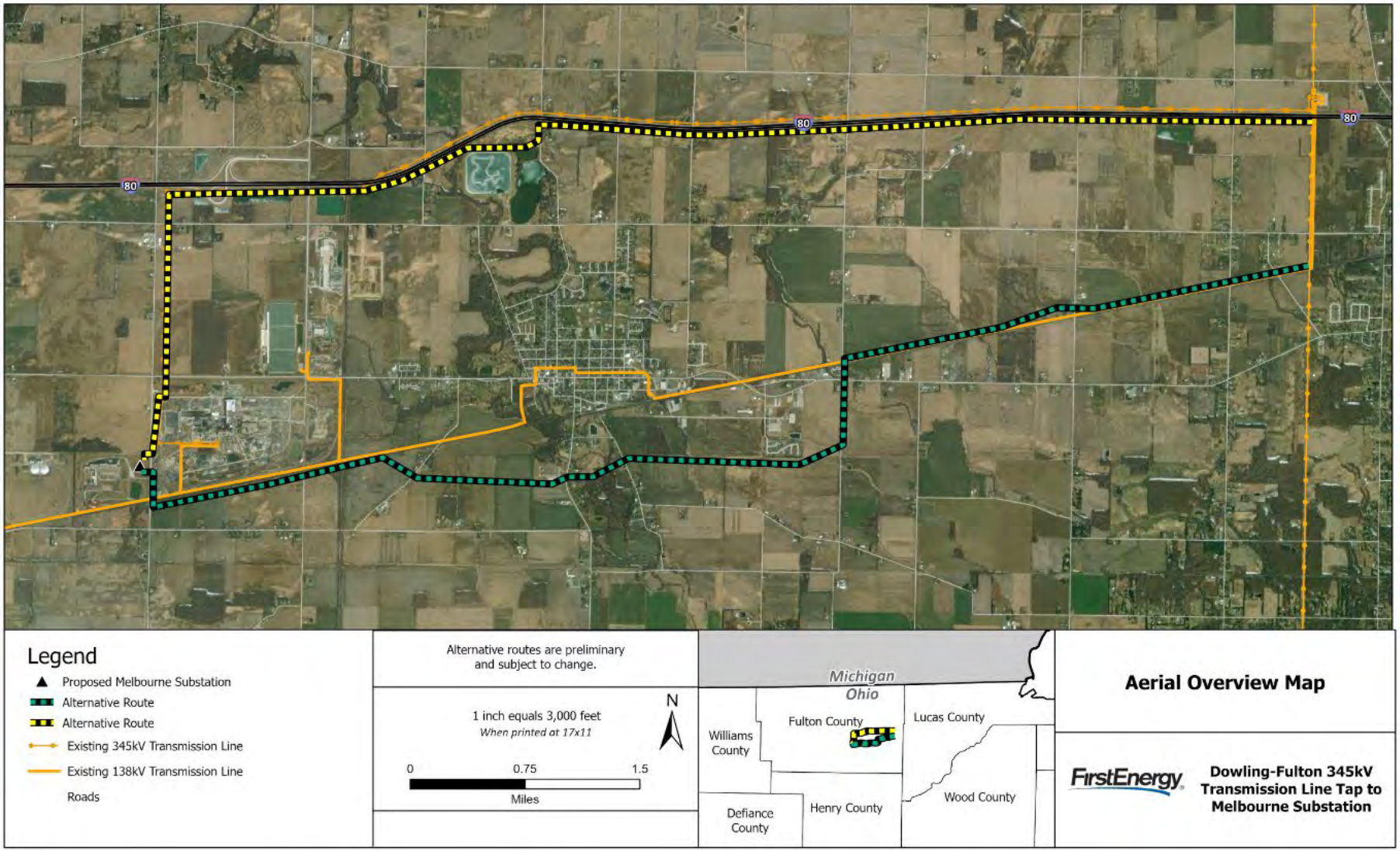
The Project's Objectives:

- **Construct a new approximately 9-mile, 345 kV transmission line from the existing Dowling-Fulton 345 kV Transmission Line to the proposed Melbourne Substation that will improve the transmission system reliability in the service area.**
- **Alleviate a potential 300-megawatt load loss, a PJM Planning Criteria Violation, as a result of increased load on the transmission system.**

These improvements will:

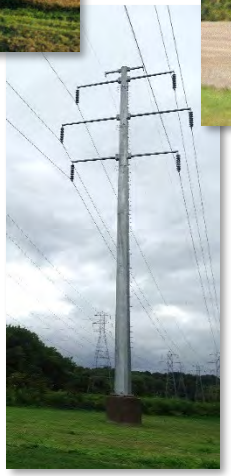
- **Allow for greater operational flexibility.**
- **Add redundancy to the network.**
- **Enhance electric service reliability for existing customers.**
- **Allow for future load growth.**

Alternate Routes



Engineering Design Structure Types

Steel Monopoles
Height: 100’-225’




Real Estate Negotiations

- **Right-of-Way width (ROW) Required for the Transmission Line is 150’**
  - ATSI will negotiate with property owners to obtain any necessary easements or vegetation management rights to support the new transmission line.

- **Examples of land rights acquisition:**
  - Easement agreements
  - Priority tree rights
  - Access roads

- **ATSI’s goal is to work with the property owners to obtain all necessary rights to construct the Dowling-Fulton 345 kV Transmission Line Tap to Melbourne Substation. However, should that not occur, ATSI may seek these rights through eminent domain as a last resort.**

Vegetation Management

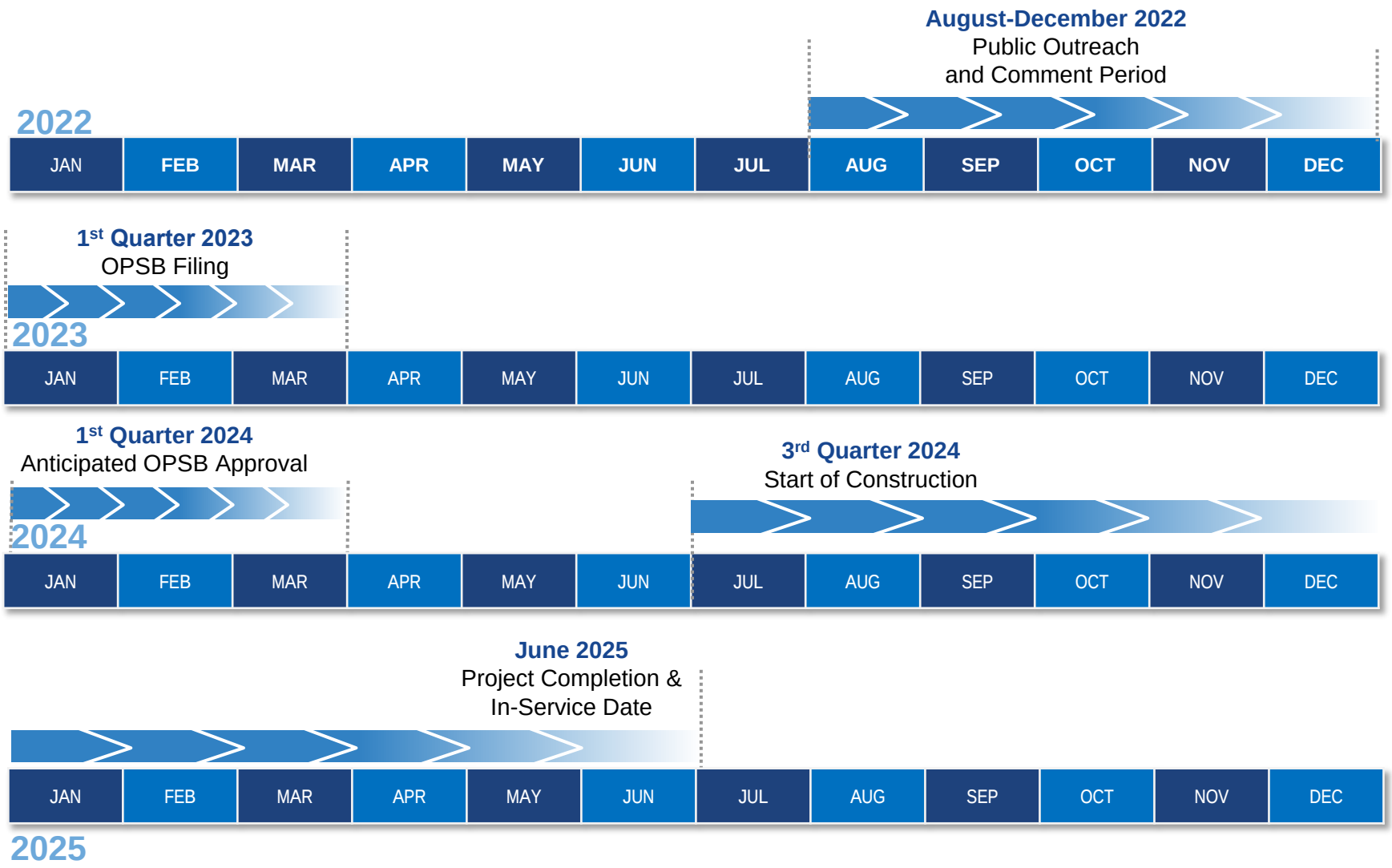
- **Proper vegetation management is an important part of ensuring electric system reliability.**
- **ATSI focuses on responsible vegetation management to create a sustainable, compatible low-growing habitat that supports reliable electric service.**

Environmental Permitting

Principal Regulatory Agencies

- U.S. Army Corps of Engineers
- U.S. Fish & Wildlife Service
- Ohio Environmental Protection Agency
- Ohio Department of Natural Resources
- State Cultural Resource Agencies
- County and Municipal Agencies

Proposed Construction Schedule



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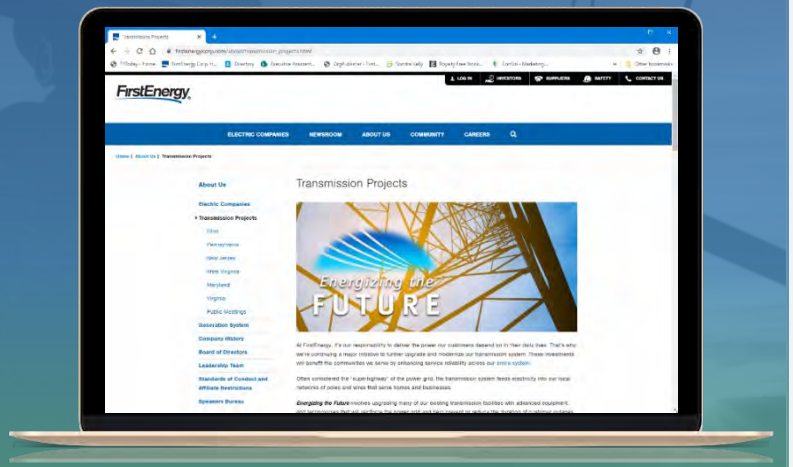


Energizing the Future

Contact Information

- **Visit the project website for additional information**
- **Contact us if you'd like to schedule an individual meeting for further discussion**

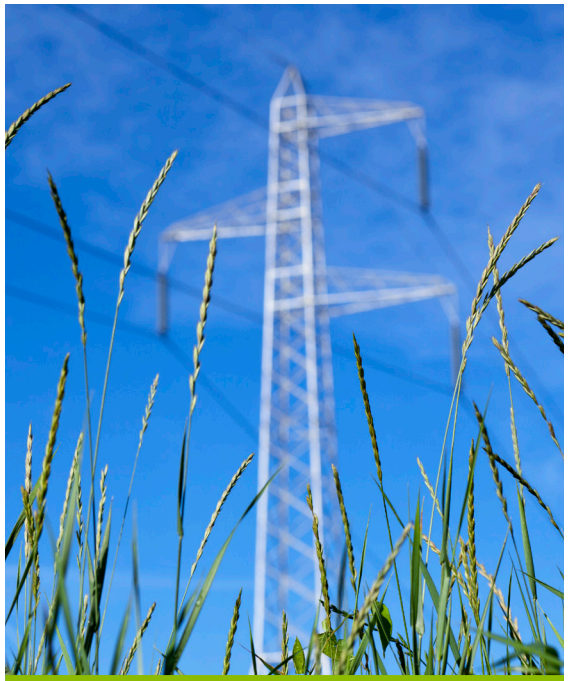
Email: transmissionprojects@firstenergycorp.com

Phone: 1-888-311-4737

Websites:
firstenergycorp.com/about/transmission_projects/ohio/dowling-fulton.html

Virtual Public Meeting Room:
firstenergy.consultation.ai/melbourne

Interactive Map:
arcg.is/1SWD9X



What Are Electric and Magnetic Fields?

Electric and magnetic fields surround anything that generates, transmits, or uses electricity. **Electric fields** result from voltage that pushes electric current through an electrical wire. **Magnetic fields** are produced when electrical current flows through wires and electrical devices. Together, these electric and magnetic fields from electric power sources are commonly referred to as EMF.

Since electricity plays an important role in modern life and in almost everything we do, EMF can be found almost everywhere. The electricity system that is used to transmit and distribute electricity (e.g., transmission lines, distribution lines, and substations) is a source of EMF. When we use electricity in our homes, offices, schools, workplaces, hospitals, and public areas to power the many appliances, devices, and equipment we use for work, leisure, and transportation, EMF also are present.

Are There Guidelines That Limit Exposure to EMF?

There are no federal exposure limits in the United States and no state agency has adopted exposure limits based on a finding that EMF causes adverse health effects. Scientific organizations, however, have recommended exposure guidelines to protect the general public and workers from very high EMF levels, that have the potential to cause nerve and muscle stimulation, which are short-term and reversible effects. EMF levels found in our environment, including those near high-voltage power lines, however, are far too low to cause these effects.

Where Can I Find More Information?

Health Canada

http://healthycanadians.gc.ca/healthy-living-vie-saine/environment-environnement/home-maison/emf-cem-eng.php

National Cancer Institute

http://www.cancer.gov/cancertopics/factsheet/Risk/magnetic-fields

World Health Organization

http://www.who.int/peh-emf/en/

National Institute of Environmental Health Sciences

http://www.niehs.nih.gov/health/materials/electric_and_magnetic_fields_associated_with_the_use_of_electric_power_questions_and_answers_english_508.pdf

European Commission – SCENIHR

http://ec.europa.eu/health/scientific_committees/consultations/public_consultations/scenihr_consultation_19_en.htm

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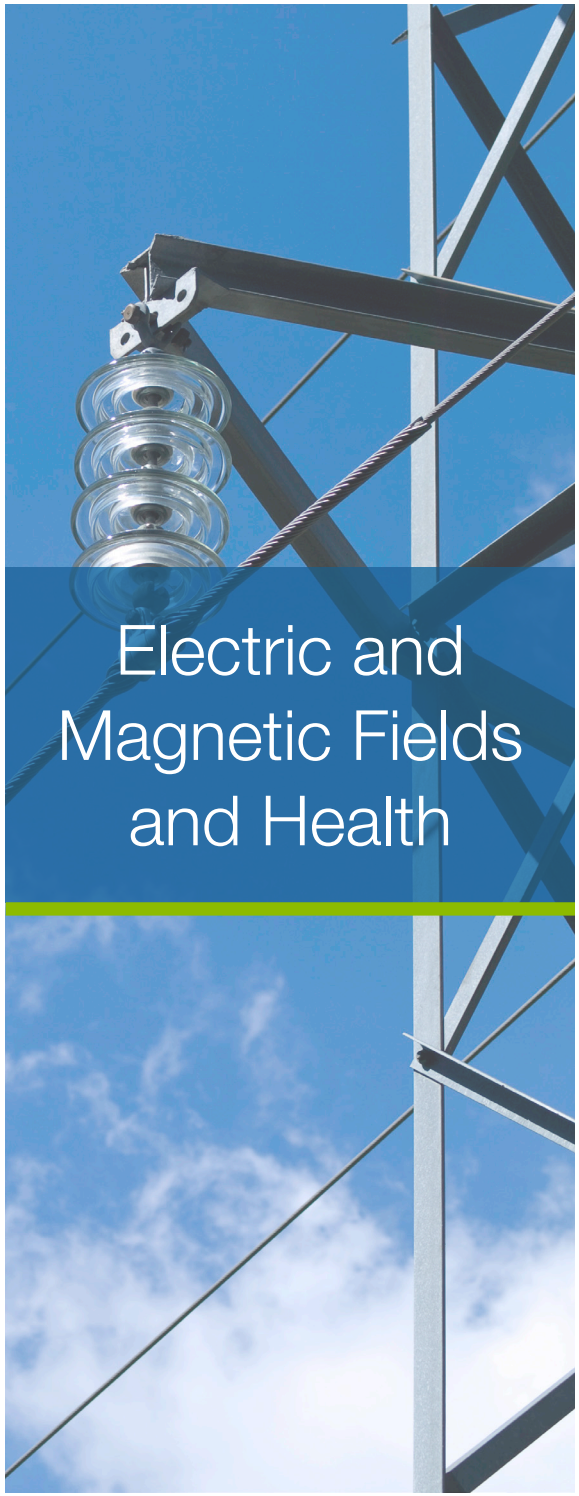
Prepared by Exponent for FirstEnergy | January 2016



Electric and Magnetic Fields and Health

How Is EMF Measured and What Are Typical Levels in the Home?

Electric fields are measured in units of volts per meter (V/m) and magnetic fields are measured in milligauss (mG), microtesla (μT) or millitesla (mT) (1 mG = 0.1 μT = 0.0001 mT). The highest levels of EMF are measured directly near the source, and decrease rapidly with distance. Since electric fields are easily blocked or weakened by walls or other objects, more research has been conducted on magnetic fields.

In our homes, magnetic fields are generated from appliances, the wiring that powers those appliances, the distribution lines that deliver electricity to the home, and any currents flowing on water pipes. Magnetic fields from nearby transmission lines also have the potential to contribute to the magnetic-field levels inside a home, but since magnetic fields decrease rapidly as you get farther away from the source, the contribution of transmission lines to a home's magnetic-field level may be less than from other closer sources. The typical average level of magnetic fields in homes in the United States measured away from appliances is approximately 1 mG, while in close proximity to common appliances that are in use, the magnetic-field level can range from tens to hundreds of mG (Table 1).

Table 1. Magnetic Fields Measured from Appliances

Source	Distance from Source*		
	6 inches (mG)	1 foot (mG)	2 feet (mG)
Can Opener	600	150	20
Vacuum Cleaner	300	60	10
Hair Dryer	300	1	–
Portable Heater	100	20	4
Electric Range	30	8	2
Dishwasher	20	10	4
Toaster	10	3	–
Coffee Maker	7	–	–

Source: EMF Questions and Answers (NIEHS, 2002)

* The numbers represent the median magnetic field (i.e., half of the appliances tested had higher levels and half had lower levels than those shown in the figure).

Equipment within substations also produces magnetic fields, but here too, the fields drop off quickly with distance. At the boundary of substation sites, the magnetic field from substation equipment is typically within the range of levels found inside our homes. The dominant source of magnetic fields near substation boundaries is the power lines serving the substation.

How Are Potential Health Effects Studied?

There are three main approaches that scientists use to study potential effects of exposure to any physical, chemical, or biological agent, including EMF. Over the past 35 years, thousands of studies have been published in research areas related to EMF.

Epidemiologic studies are conducted among people to observe if persons with a disease (such as cancer) experienced higher exposures to EMF than persons without that disease.

Laboratory animal studies (also called *in vivo* studies) are conducted in laboratory animals, most commonly mice and rats, to test whether extended exposures to high levels of EMF cause increased rates of disease or toxic effects.

Laboratory studies of cells and tissues (also called *in vitro* studies) are conducted to see if exposure to EMF can cause any changes in biological processes that could lead to disease.

How Are Scientific Conclusions Drawn from Health Studies?

First and foremost, no single study or a selected small group of studies can form the sole basis of a valid scientific assessment. The method that scientists use to conduct health risk assessments involves the evaluation of all relevant studies in the three main research areas discussed above. The three areas have varying strengths and limitations, thus, they contribute different information to a scientific evaluation and have to be weighed together. Because epidemiologic studies are conducted among people, the main interest of health research, they provide highly relevant scientific evidence. *In vivo* studies can be well controlled by the investigators and can expose animals to high levels of exposure for long time periods up to the entire lifetime of the animals. While animal studies require extrapolation between species, these tests form the primary basis for assessing the safety of all drugs and medicines. *In vitro* laboratory studies may contribute to better scientific understanding of biological processes and potential exposure effects on a cellular level; however, because cells and tissues may not react the same way in experimental settings as in intact organisms, no direct conclusions can be drawn from *in vitro* studies about disease and adverse health effects. In the overall evaluation, scientists look for overall patterns within and across the three research areas. Epidemiology and *in vivo* studies have primary importance, while *in vitro* studies contribute secondary information in the assessment of scientific evidence. Studies also vary greatly in their quality, thus, each study contributes different weight in the overall evaluation. Higher quality studies contribute more weight, while lower quality studies contribute less weight, and studies with very poor methods may not contribute at all.

What Have Authoritative Scientific Organizations Concluded?

Numerous scientific organizations have assembled groups of independent scientists with expertise in a variety of disciplines to perform comprehensive reviews of EMF research. These organizations include the International Agency for Research on Cancer, the International Commission on Non-Ionizing Radiation, the National Institute of Environmental Health Sciences, the World Health Organization, and most recently in 2015, a Scientific Committee of the European Commission. Overall, the conclusions of these panels are consistent and can be summarized generally, as follows:

- The research does not support the conclusion that EMF causes any long-term, adverse health effects.
- Some epidemiologic studies have reported a statistical association between high, average magnetic-field levels and childhood leukemia. No authoritative agency has concluded, however, that magnetic fields cause childhood leukemia due to the limitations of these studies and the lack of evidence from laboratory studies.
- The *in vivo* studies, overall, do not report an increase in cancer among animals exposed to high levels of EMF even after lifetime exposures.
- The *in vitro* studies provide no explanation as to how magnetic fields could cause disease.

SENIOR CENTER NEWS

The Fulton County Senior Center is now offering dine-in and take out meals. There are locations in Wauseon, Swanton, Delta, Archbold, and Fayette.

Meal reservations are required and can be made by calling 419-337-9299. Lunches are served at noon and the suggested donation is $3. Call at least one business day in advance to reserve a meal.

Menu

Tuesday, Nov. 22: Sausage and sauerkraut, smashed red potatoes, peas, mixed fresh fruit.

Wednesday, Nov. 23: Baked chicken, mashed potatoes, green bean casserole, orange cranberry Jell-O, pumpkin pie.

Thursday, Nov. 24: Closed for Thanksgiving

Friday, Nov. 25: Closed for Thanksgiving

Monday, Nov. 28: Tomato basil soup, tuna salad sandwich, three bean salad, Hawaiian fruit salad.

Tuesday, Nov. 29: Pot roast, boiled potatoes, carrots, oranges.

Honors

From page 2

Reid Moser, Alexis Myers*, Angel Myers, Emalyne Neifer, Kassidy Noonan, Aiden Oberhaus*, Lillian Parks, Brynlee Poorman, Layla Rice*, Landon Ringenberg*, Benlei Rocha*, Owen Rufenacht, Cayden Ruffer, Carly Rupp*, Maddox Schneider*, Sullivan Schuster, Zenas Siefker, Owen Smeltzer*, Jaxton Smith, Jett Smith, Hayden Stewart, Jackson Stoner, Micah Strader*, Breah Teal, Bethani Tibbs*, Liam Tripp*, Alexander Vajen, Dominic Vahanu, Clete Van Etten, Camden Vasvery, Leland Wanless, Colton Ward*, Kaiden Willeman, Parker Wilson, Nathan Wonderly*, Aiden Wood, Hallie Woodard*, Natalie Woodruff, Lamyia Wright*, Lainey Zientek*.

Grade 8

Gage Amoss, Addison Baldwin, Gabriel Bandeen, Mia Barajas, Brooklyn Binkley*, Keegan Boughton, Kenlee Bronson, Tristan Burkholder, Harold Chavez, Brody Chittenden, Luke Conrad, Alayna Corley, Kadence Croninger, Camden Custard*, Victor Dearcia, Natasha Edwards*, Addison Fisher, Lauren Foltz, Brady Fry, Kassandra Gigax, Ethan Gomez, Lucas Hanak, Caiden Heffern, Remington Heiney, Alyson Heller, Logan Henricks, Harlie Hensley, Slade Inderrieden, John James, Christopher Jarvis, Ezekiel Jimenez, Shaylyn Kessler, Abigail Kissel*, Jacob Klopfenstein*, Brynlee Knapp, Tucker Knierim, Hayden Konieczka*, Karsyn Lavinder, Gavin Ledyard, Lola Liechty, Dulce Martinez*, Jacob Miller, Liliana Molina*, Xzavier Molina, Laela Mullins, Wainani Neifer*, Sidney O'Dell*, Camryn O'Neill, Kelby Parsons, Tristan Pena*, Kyson Powers, Thad Reckner, Malachi Reeder, Riley Riegsecker*, Drew Ringenberg*, Tyler Rodriguez, Josephine Russell, Laynee Sanford, Lane Schindler, Justin Schmunk*, Caleb Shadbolt, Connor Shadbolt*, Brody Shehorn, Camden Sherman, Weston Smith*, Madyson Sommers, Kyli Spessefer, Shaun-Stasa, Hallie Stevens, Logan Stinner, Jackson Strader, Tyler Tester, Addison Thatcher*, Ella Tule*, Ricardo Vazquez, Marcus Ward, Clay Wasnich, Elizabeth Willman, Malachi Wyse*, Nathan Young, Presley Zeigler*.*

Veterans honored at NSCC

Photo provided

Northwest State Community College hosted a special Veterans Luncheon on Nov. 10 on the Archbold campus. Kerry Patrick Clark provided music and entertainment, and James Creager shared a powerful presentation titled "Freedom Is Not Free." Pictured are the veterans in attendance.

NOTICE OF PUBLIC INFORMATION MEETING FOR PROPOSED MAJOR UTILITY FACILITY

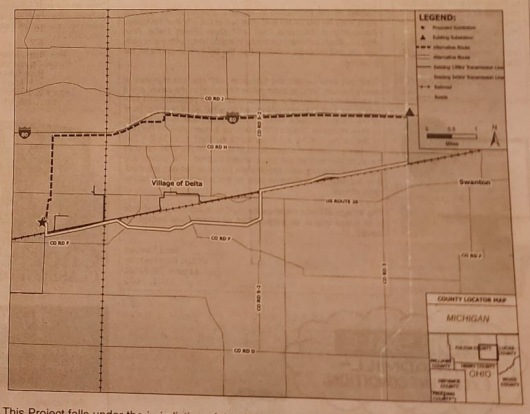
American Transmission Systems, Incorporated ("ATSI"), a FirstEnergy company, is hosting a public informational meeting to discuss ATSI's proposed electric transmission facilities, referred to as the Dowling-Fulton 345 kV Transmission Line Tap to Melbourne Substation Project ("Project"). This meeting will be held on Wednesday, December 7, 2022, from 6:00-8:00 p.m. in the American Legion Building located at 5939 State Route 109, Delta, OH 43515.

This Project, located in Fulton County, will install a new 345 kV substation ("Melbourne Substation") and one new 345 kV transmission line along either a Preferred Route or Alternate Route, which will connect the new Melbourne Substation with ATSI's existing 345 kV electric transmission system. As shown on the map accompanying this public notice, the new 345 kV transmission line will extend approximately 9 miles from the existing Dowling-Fulton 345 kV Transmission Line to the proposed Melbourne Substation. ATSI will also construct two approximately 0.5 mile long 345 kV transmission lines to connect the existing, customer-owned Sydney Substation to the proposed Melbourne Substation. The transmission lines will be constructed primarily on single steel poles.

The Project is needed to enhance electric service reliability for existing customers, add redundancy to the network, and allow for future growth.

At the public informational meeting, ATSI will provide an overview of the entire Project and will have information available related to need for the Project, construction issues/sequencing, and right-of-way acquisition.

ATSI has carefully studied the general area for the proposed Project to identify potentially sensitive locations and land uses. Accounting for these attributes, ATSI determined the optimal site for the proposed Melbourne Substation. From there, multiple potential route segments have been evaluated to develop two potential route alternatives to connect the proposed Melbourne Substation to the existing Dowling-Fulton 345 kV Transmission Line, as shown on the below map. ATSI presented potential routes to the public at an informal open house held August 24, 2022. At that meeting, ATSI received comments and engaged in meaningful dialogue with members of the community. ATSI then considered and investigated the comments received and further adapted its route alternatives.



This Project falls under the jurisdiction of the Ohio Power Siting Board (OPSB). Therefore, before construction can begin, ATSI must obtain approval from the OPSB and will therefore submit an Application for a Certificate of Environmental Compatibility and Public Need. ATSI plans to file this Application in Case No. 22-0248-EL-BTX before the end of the first quarter 2023. Copies of all filings in the proceeding can be accessed through the OPSB's website at http://www.opsb.ohio.gov. The OPSB can also be reached by phone at (866) 270-6772, by e-mail at contactOPSB@puco.ohio.gov, or by mail at 180 East Broad Street, 11th Floor, Columbus, Ohio 43215.

Contingent on receipt of Board approval and acquisition of necessary land rights, ATSI expects to begin construction on the Project in early 2024 and to place the Project in service by June 2025.

For more information about the Project, or if you are unable to attend the meeting in-person, a virtual public meeting platform can be viewed at your convenience. The virtual public meeting contains the same information that will be available at the in-person meeting. In addition, there is an interactive map and multiple ways to leave input/comments. The virtual public meeting can be found at: https://firstenergy.consultation.ai/melbourne/

Please feel free to submit questions or comments you may have to transmissionprojects@firstenergycorp.com or by phone at 1-888-311-4737.

Up-to-date Project information also can be found online at: https://firstenergycorp.com/content/fecorp/about/transmission_projects/ohio/dowling-fulton.html.

Bison spread as tribes reclaim stewardship

Once on the brink of extinction, some 20,000 now roam the U.S. in 65 herds

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BADLANDS NATIONAL PARK, S.D. — Perched atop a fence at Badlands National Park, Troy Heinert peered from beneath his wide-brimmed hat into a corral where 100 wild bison awaited transfer to the Rosebud Indian Reservation.

Descendants of bison that once roamed North America's Great Plains by the tens of millions, the animals would soon thunder up a chute, take a truck ride across South Dakota, and join one of many burgeoning herds Mr. Heinert has helped re-establish on Native American lands.

Mr. Heinert nodded in satisfaction to a park service employee as the animals stomped their hooves and kicked up dust in the cold wind. He took a brief call from Iowa about another herd being transferred to tribes in Minnesota and Oklahoma, then spoke with a fellow trucker about yet more bison destined for Wisconsin.

By nightfall, the last of the American buffalo shipped from Badlands were being unloaded at the Rosebud reservation, where Mr. Heinert also lives. The next day, he was on the road back to Badlands to load 200 bison for another tribe, the Cheyenne River Sioux.

"Buffalo, they walk in two worlds," said Mr. Heinert, 50. "Are they commercial or are they wildlife? From the tribal perspective, we've always deemed them as wildlife, or to take it a step further, as a relative."

Now 82 tribes across the U.S. have more than 20,000 bison in 65 herds — and that's been growing along with the desire among Native Americans to reclaim stewardship of an animal their ancestors depended upon for millennia.

European settlers destroyed that balance, driving bison nearly extinct until conservationists including Teddy Roosevelt intervened to re-establish a small number of herds.

The long-term dream for some Native Americans: return bison on a scale rivaling herds that roamed the continent in numbers that shaped the landscape itself. Mr. Heinert, a South Dakota state senator and director of the InterTribal Buffalo Council, views his job more practically: Get bison to tribes that want them, whether two animals or 200.

"All of these tribes relied on them at some point," he said. "Those tribes are trying to go back to that, re-establishing that connection."

Bison for centuries set rhythms of life for the Lakota and other nomadic tribes. Hides for clothing and teepees, bones for tools and weapons, horns for ladles, hair for rope — a steady supply of bison was fundamental.

At so-called "buffalo jumps," herds would be run off cliffs, then butchered over days and weeks.

European settlers brought a new level of industry to the enterprise — and bison killing dramatically increased, their parts used in machinery, fertilizer, and clothing. By 1889, only about 1,000 remained.

"We wanted to populate the western half of the United States because there were so many people in the East," U.S. Interior Secretary Deb Haaland, the first Native American cabinet member, said in an interview. "They wanted all of the Indians dead so they could take their land away."

The thinking at the time, she added, was "'if we kill off the buffalo, the Indians will die. They won't have anything to eat.'"

The day after the bison transfer from the Badlands,

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Troy Heinert, executive director of the InterTribal Buffalo Council and a South Dakota state senator, views his job practically: Get bison to tribes that want them, whether two animals or 200.

Mr. Heinert's son, T.J., had his rifle fixed on a large bull bison at the Wolakota Buffalo Range. The tribal enterprise in just two years has restored about 1,000 bison to 28,000 acres of rolling, scrub-covered hills near the Nebraska-South Dakota border.

The 28-year-old had talked all morning about the need for a perfect shot in 40 mph winds. The first bullet went into the animal's ear, but it lumbered away a couple hundred yards to join a larger group of bison, with the hunter following in an all-terrain vehicle.

After the animal finally went down, Mr. Heinert drove up close, put the rifle behind its ear for a shot that stopped its thrashing.

"We got him down," he said. "That's all that matters."

The Rosebud Sioux are intent on expanding the reservation's herds as a reliable food source.

Others have grander visions: The Blackfeet in Montana and tribes in Alberta want to establish a "transboundary herd" ranging over the Canada border near Glacier National Park. Other tribes propose a "buffalo commons" on federal lands in central Montana where the region's tribes could harvest animals.

"What would it look like to have 30 million buffalo in North America again?" said Cristina Mormorunni, a Metis Indian who's worked with the Blackfeet to restore bison.

Ms. Haaland said there's no going back completely — too many fences and houses. But her agency has emerged as a primary bison source, transferring more than 20,000 to tribes and tribal organizations over 20 years.

Transfers sometimes draw objections from cattle ranchers who worry bison carry disease and compete for grass. Yet demand from the tribes is growing, and Ms. Haaland said the transfers will continue. That includes about 1,000 bison trucked this year from Badlands, Grand Canyon National Park, and several national wildlife refuges.

Back at Wolakota range, Mr. Heinert sprinkled chewing tobacco along the back of the bison he'd just shot and prayed. Then the half-ton animal was hoisted onto a flatbed truck for the bouncy ride to ranch headquarters.

About 20 adults and children gathered as the bison was lowered onto a tarp.

"This relative gave of itself to us, for our livelihood, our way or life," said tribal elder Duane Hollow Horn Bear.

Soon the tarp was covered with bloody footprints from people butchering the animal. They quartered it, sawing through bone, then sliced meat from the legs, rump, and the animal's huge hump. Children, some only 6, were given knives to cut away skin and fat.

Katrina Fuller, who helped guide the butchering, dreams of training others so the reservation's 20 communities can come to Wolakota for their own harvest. "Maybe not now, but in my lifetime," she said. "That's what I want for everyone."

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Bison walk in a herd inside a corral at Badlands National Park. The animals were prepared for transfer to Native American tribes, part of an effort by indigenous groups working with federal officials to expand the number of bison on reservations.

4906-5-07 HEALTH AND SAFETY, LAND USE, AND REGIONAL DEVELOPMENT

(A) HEALTH AND SAFETY

(1) Compliance with Safety Regulations

The construction, operation, and maintenance of the Project will comply with the requirements of applicable state and federal statutes and regulations related to safety, including requirements specified in the NERC Mandatory Reliability Standards and the National Electrical Safety Code (NESC), as well as those adopted by PUCO. Applicant will also comply with applicable safety standards established by the Occupational Safety and Health Administration (OSHA).

(2) Electric and Magnetic Fields

In accordance with the Ohio Power Siting Board (OPSB) requirements specified in OAC 4906-5-07(A)(2), the following subsections provide an analysis of the electric and magnetic fields (EMF) associated with the Project.

(a) Calculated Electric and Magnetic Field Strength Levels

The following calculations provide an approximation of the magnetic and electric field strengths utilizing various corridor configurations along the Preferred and Alternate routes that are either within 100 feet of an occupied residence or institution or represents more than ten percent of the total line length. The calculations provide an approximation of the electric and magnetic field levels and are based on specific assumptions utilizing the Electric Power Research Institute (EPRI) EMF Workstation 2015 program software.

Factors affecting the magnetic and electric field levels that are considered in the modeling include variance in the daily and projected long-term transmission line loading, operating voltage, contingency operations, phase configuration, direction of current flows, conductor sag, ground elevation, unbalance conditions, and other nearby magnetic field sources or conductors of neutral current, including water mains, metallic fences, and railroad tracks. Electric field computations used for this modeling also assume that shrubs, trees, buildings, and other objects are not in close proximity to the facilities, as they produce significant shielding effects. Finally, other transmission or distribution facilities near the transmission line will also affect the calculated magnetic and electric fields.

The model and calculations used in this Application also include a number of assumptions including the following:

- Current flows are assumed in the direction expected under normal system operating conditions;
- The location of transmission line poles, the attached conductors and static wire, and line phasing are based on preliminary engineering layouts for tangent (Figure 5-1A) to tangent conductor configuration; and,

- The calculated field levels assume a reference point approximately 3 feet (1 meter) aboveground.

Using these assumptions, three loading conditions were modeled for the proposed transmission line: 1) the winter normal conductor rating (Latest RTEP Base Case Flow), 2) emergency line loading (N-1 from RTEP Case), and 3) normal maximum loading. The winter normal conductor rating represents the maximum current flow that the conductor can withstand during winter conditions. It is not anticipated that the transmission line would be operated at the winter normal conductor rating level of current flow. The emergency maximum loading represents the maximum current flow in the transmission line under unusual circumstances and only for a short period of times. The normal maximum loading represents the routine maximum loading at which the transmission line would be operated. Daily current load levels would fluctuate below this level.

The transmission line loadings used in the calculations are presented in Table 7-1. The conductor configurations and right-of-way width are the same over the entire lengths of the Preferred and Alternate Routes. Field strengths were modeled for all configurations under consideration for the portions of both routes that would be within 100 feet of a residential structure or would occupy more than 10% of the respective proposed route.

Table 7-1: Transmission Line Loadings

Line Name	Winter Conductor Rating (Amps)	Emergency Loading (Amps)	Normal Loading (Amps)
Dowling-Melbourne 345 kV Transmission Line (Proposed)	2922	562.9	283.9
Fulton-North Star Steel 345 kV Transmission Line	2922	532.09	232.25
Melbourne-North Star Steel #1 345 kV Transmission Line (Tie Line)	2922	506.66	254.8
Melbourne-North Star Steel #2 345 kV Transmission Line (Tie Line)	2922	506.66	254.8
Delta-Wauseon 138 kV Transmission Line	1444	177.4	104.1
Delta-Fulton 138 kV Transmission Line	1444	186.2	95.4

The first configuration modeled involves a single 345 kV line within a 150-foot-wide right of way This configuration can be found on both the Preferred and Alternate Routes. The calculated electric and magnetic fields for these configurations are shown in Table 7-2 and Exhibit 7-1

Table 7-2: EMF Calculations for a Typical Tangent - Tangent (Exhibit 7-1) Span Configuration for the Preferred and Alternate Routes of the Dowling-Fulton 345 kV Transmission Line Tap to Melbourne Substation

Line EMF Calculations		Electric Field (kV/meter)	Magnetic Field (mGauss)
Normal Loading	Under Lowest Conductors	1.849	20.89
	At Right-of-Way Edge	0.805 / 0.92	8.68 / 9.28
Emergency Loading	Under Lowest Conductors	1.849	41.42
	At Right-of-Way Edge	0.805 / 0.92	17.2 / 18.5
Winter Rating	Under Lowest Conductors	1.849	215.01
	At Right-of-Way Edge	0.805 / 0.92	89.31 / 96.15

A portion of the Preferred Route parallels the existing Fulton-North Star Steel 345 kV Transmission Line for the last 1.7 miles before entering the Melbourne Substation. The model used a shared right of way width of 240 feet. The calculated electric and magnetic fields for these configurations are shown in Table 7-3 and on Exhibit 7-2.

Table 7-3: EMF Calculations for a Typical Tangent - Tangent (Exhibit 7-2) Span Configuration within the shared right-of-way of the Fulton-North Star Steel 345 kV Transmission Line and the Preferred Route of the Dowling-Fulton 345 kV Transmission Line Tap to Melbourne Substation

Line EMF Calculations		Electric Field (kV/meter)	Magnetic Field (mGauss)
Normal Loading	Under Lowest Conductors	1.997	20.76
	At Right-of-Way Edge	0.864 / 1.06	8.78 / 11.88
Emergency Loading	Under Lowest Conductors	1.997	40.09
	At Right-of-Way Edge	0.864 / 1.06	21.15 / 22.5
Winter Rating	Under Lowest Conductors	1.997	208.78
	At Right-of-Way Edge	0.864 / 1.06	115.5 / 118.6

A portion of the Alternate Route parallels the Delta-Fulton 138 kV Transmission Line for approximately 3.1 miles before the route turns south at County Road 5-2. This model used a shared right of way width of 195 feet. The calculated electric and magnetic fields for this configuration are shown the Table 7-4 and Exhibit 7-3.

Table 7-4: EMF Calculations for a Typical Tangent - Tangent (Exhibit 7-3) Span Configuration within the shared right-of-way of the Delta-Fulton 138 kV Transmission Line and the Alternate Route of the Dowling-Fulton 345 kV Transmission Line Tap to Melbourne Substation

Line EMF Calculations		Electric Field (kV/meter)	Magnetic Field (mGauss)
Normal Loading	Under Lowest Conductors	1.847	21.35
	At Right-of-Way Edge	0.259 / 0.803	5.03 / 9.45
Emergency Loading	Under Lowest Conductors	1.847	42.33
	At Right-of-Way Edge	0.259 / 0.803	9.91 / 18.89
Winter Rating	Under Lowest Conductors	1.847	217.23
	At Right-of-Way Edge	0.259 / 0.803	63.55 / 92.25

The following calculations provide an approximation of the magnetic and electric field strengths utilizing various corridor configurations associated with the 345 kV transmission tie lines between the Melbourne Substation and North Star Bluescope Steel's Sydney Substation.

The first configuration modeled involves the Melbourne-North Star Steel #1 345 kV Transmission tie line and the Melbourne-North Star Steel #2 345 kV Transmission tie line sharing a corridor with the existing Delta-Wauseon 138kV Transmission Line as the lines enter into North Star Bluescope Steel's Sydney Substation. The model used a right of way width of 330 feet. The calculated electric and magnetic fields for this configuration are shown the Table 7-5 and Exhibit 7-4.

Table 7-5: EMF Calculations for a Typical Tangent - Tangent (Exhibit 7-4) Span Configuration within the shared right-of-way of the with the Delta-Wauseon 138 kV Transmission Line and the Melbourne-North Star Steel #1 345 kV Transmission tie line and Melbourne-North Star Steel #2 345 kV Transmission tie line

Line EMF Calculations		Electric Field (kV/meter)	Magnetic Field (mGauss)
Normal Loading	Under Lowest Conductors	1.87	17.22
	At Right-of-Way Edge	0.81 / 0.92	8.13 / 9.22
Emergency Loading	Under Lowest Conductors	1.87	33.65
	At Right-of-Way Edge	0.81 / 0.92	17.5 / 17.9
Winter Rating	Under Lowest Conductors	1.87	192.55
	At Right-of-Way Edge	0.81 / 0.92	100.01 / 102.5

A portion of the Preferred Routes for the Melbourne-North Star Steel #1 and the Melbourne-North Star Steel #2 345 kV Transmission tie-lines share a common right of way as they exit the Melbourne Substation, cross County Road 10 and enter the property of North Star BlueScope Steel. The model used a right of way width of 240 feet. The calculated electric and magnetic fields for this configuration are shown the Table 7-6 and Exhibit 7-5

Table 7-6: EMF Calculations for a Typical Tangent - Tangent (Exhibit 7-5) Span Configuration within the shared right-of-way for the Preferred Routes of the Melbourne-North Star Steel #1 345 kV Transmission Tie Line and Melbourne-North Star Steel #2 345 kV Transmission Tie Line

Line EMF Calculations		Electric Field (kV/meter)	Magnetic Field (mGauss)
Normal Loading	Under Lowest Conductors	1.99	18.57
	At Right-of-Way Edge	0.865 / 1.01	9.43 / 10.75
Emergency Loading	Under Lowest Conductors	1.99	35.70
	At Right-of-Way Edge	0.865 / 1.01	18.85 / 19.95
Winter Rating	Under Lowest Conductors	1.99	205.88
	At Right-of-Way Edge	0.865 / 1.01	112.20 / 114.12

The last configuration for the 345 kV transmission tie lines involves a single 345 kV transmission line within a 150- foot-wide right of way. The calculated electric and magnetic fields for this configuration are shown the Table 7-7 and Exhibit 7-6.

Table 7-7: EMF Calculations for a Typical Tangent - Tangent (Exhibit 7-6) Span Configuration in independent right-of-way for the Melbourne-North Star Steel #1 345 kV Transmission Tie Line and the Melbourne-North Start Steel #2 345 kV Transmission Tie Line

Line EMF Calculations		Electric Field (kV/meter)	Magnetic Field (mGauss)
Normal Loading	Under Lowest Conductors	1.849	18.82
	At Right-of-Way Edge	0.806 / 0.919	7.50 / 8.50
Emergency Loading	Under Lowest Conductors	1.849	36.61
	At Right-of-Way Edge	0.806 / 0.919	15.44 / 15.65
Winter Rating	Under Lowest Conductors	1.849	211.15
	At Right-of-Way Edge	0.806 / 0.919	89.07 / 90.12

Typical cross section profiles of the normal calculated electric fields and magnetic fields at normal loading, emergency loading and winter conductor rating for all scenarios considered are shown in Exhibits 7-1 through 7-6 (Appendix 7-1).

(b) Current State of EMF Knowledge

Electric and magnetic fields are naturally occurring in the environment and can be found in the Earth's interior and in the human body. They are generated essentially anywhere where there is a flow of electricity, including electrical appliances and power equipment. Electric fields are associated with the voltage of the source; magnetic fields are associated with the flow of current in a wire. The strength of these fields decreases rapidly with distance from the source. EMFs associated with electricity use are not disruptive to cells like x-rays or ultraviolet rays from the sun. EMF fields are thought to be too weak to break molecules or chemical bonds in cells.

Scientists have conducted extensive research over the past several decades to determine whether EMFs are associated with adverse health effects. These organizations include the International Agency for Research on Cancer, the International Commission on Non-Ionizing Radiation, the National Institutes of Environmental Health Sciences (NIEHS), the World Health Organization and most recently in 2015, a Scientific Committee of the European Commission. Overall, the conclusions of these panels are consistent and can be summarized, generally as follows:

- The research does not support the conclusion that EMF causes any long-term, adverse health effects.
- Some epidemiological studies have reported a statistical association with high, average magnetic field levels and childhood leukemia. No authoritative agency has concluded, however, that magnetic field cause childhood leukemia due to the limitations of these studies and the lack of evidence from laboratory studies.
- The *in vivo* studies (studies performed in a whole living organism), overall, do not report an increase in cancer among animals exposed to high levels of electric and magnetic field even after lifetime exposures.
- The *in vitro* studies (studies performed outside the living organism in a controlled environment) provide no explanation as to how magnetic fields could cause disease.

The following websites sponsored by federal agencies or other organizations provide additional information on EMF:

- Centers for Disease Control/National Institute for Occupational Safety and Health: http://www.cdc.gov/niosh/topics/emf/
- NIEHS: http://www.niehs.nih.gov/health/topics/agents/emf/
- World Health Organization: http://who.int/peh-emf/en/

(c) Line Design Considerations

To minimize the EMFs associated with the construction of the Project, ATSI uses design considerations to further reduce the strength of EMFs. For instance, the strength of EMFs can potentially be reduced by installing the transmission line conductors in a compact configuration.

For this Project, ATSI plans to complete final engineering of the facilities according to the requirements of the NESC. The pole heights and configuration were chosen based on NESC specifications, engineering parameters, and cost and should help minimize EMF strength.

Information on EMF was available at the informal open house and the Public Information Meeting held for the Project on August 24, 2022, and December 7, 2022, respectively. This information included a discussion of basic information on electric magnetic field theory, scientific research activities and EMF levels in everyday life. Appendix 6-2 contains copies of this information. Similar materials will be available upon request to persons along the Project routes.

(3) Estimate of Radio, Television, and Communications Interference

No radio or television interference is expected to occur from the operation of the proposed transmission line along either the Preferred or Alternate Routes. Overhead transmission lines do not generally interfere with normal radio or television reception; though, during operation, gas type discharges (corona) could result in radio frequency interference (RFI) noise or television interference (TVI) noise under certain conditions. The conductor hardware that will be used for this Project is designed to reduce corona, and therefore reduce interference. Furthermore, corona-related electrical noise decreases with distance from the transmission line and with higher frequencies. Widely used FM radio is not subject to corona-related interference as it operates at these higher frequencies. Also, due to the Digital Transition and Public Safety Act of 2005, broadcasting analog television has ceased. Interference with modern digital and cable and satellite television is unlikely. Consequently, for this Project the potential for radio or television interference is very low.

Further, although radio frequency noise level of the transmission line during heavy rain is greater than the fair-weather noise level, the quality of radio reception under typical heavy rain conditions is affected more by atmospheric conditions than by operation of transmission lines. Therefore, the construction of the Project is not expected to increase radio frequency noise levels.

Finally, the gas-type (corona) discharges that can produce RFI and TVI are typically localized effects, resulting primarily from defective hardware (ball and socket hardware in insulators, hardware-to-hardware, line to hardware, etc.) and may be easily and quickly detected. Once detected, the hardware will be repaired or replaced, thus eliminating the interference source.

(4) Noise from Construction, Operations, and Maintenance

(a) Blasting Activities

Blasting activities will not be necessary during construction of the Project.

(b) Operation of Earth Moving and Excavating Equipment

Applicant expects that excavation and earth moving will be limited to drilling auger holes for the steel poles. A vehicle-mounted auger and/or excavator will be used to bore holes for the concrete foundations that will be approximately 6 to 10 feet in diameter, and approximately 20 to 40 feet deep. This activity will result in a temporary increase in noise in the vicinity of the Project. Construction activity will generally be limited to daylight hours and will conform to OSHA noise standards. Thus, noise effects are anticipated to be localized, minimal and of short duration.

(c) Driving of Piles, Rock Breaking or Hammering, and Horizontal Directional Drilling

No driving of piles, rock breaking or hammering, or horizontal directional drilling is anticipated during construction of the Project.

(d) Erection of Structures

Pole structures will be installed by vehicle-mounted cranes or equivalent equipment. Self-supporting steel poles will require delivery of concrete for foundation construction, including excavation work for the foundation. The noise associated with these activities will be localized, temporary and generally not louder than the noise generated by earth moving equipment.

(e) Truck Traffic

An increase in truck traffic is anticipated during the construction of the Project for equipment access and equipment delivery. No other additional traffic is anticipated for the Project beyond infrequent, ongoing maintenance.

(f) Installation of Equipment

The equipment will be installed using standard practices and equipment. The noise associated with this activity will be localized, temporary and generally not louder than the noise generated by earth moving equipment.

(B) LAND USE

(1) Map of the Site and Route Alternatives

An application for a Certificate of Environmental Compatibility and Public Need for electric transmission facilities is required to evaluate both the Preferred and Alternate Routes for the transmission line within the Application. Maps at 1:24,000 scale, including the area 1,000 feet on either side of the centerline, are presented as Figures 7-1 and 7-2 and include the following information for the Preferred Route and Alternate Route, respectively:

- Proposed centerline and right-of-way (ROW)
- Proposed substation location
- Land use types, road names, structures, and incorporated areas and population centers

(2) Impacts on Identified Land Uses

Land use in the Project Area (i.e., within 1,000 feet of each transmission line) consists of commercial/industrial, residential, and existing roadway ROW. Comparisons of the various land use types and land use features for the Preferred and Alternate Routes are included in Tables 7-8 through 7-10. The estimates of each land use type being crossed by the transmission line or land uses within the 150-foot-wide permanent ROW (linear feet, acreage, and percentages) were determined using geographic information system (GIS) software and field observations.

The potential disturbance area during construction activities (vegetation clearing, pole installations, etc.) is limited to a 150-foot-wide permanent ROW. The ROW will be restored through soil grading, seeding, and mulching; thus, the permanent impact on the ROW will be limited to the removal of existing trees and other vegetation. Property owners may continue to use most of the ROW area for general uses that will not affect the safe and reliable operation of

the transmission line. These general uses include lawn maintenance, crop cultivation, and maintaining livestock.

Table 7-8: Length and Percent of Land Uses Crossed by Route Alternatives

Land Use	Preferred Route [a]		Alternate Route [a]	
	Linear Feet	Percent	Linear Feet	Percent
Agriculture	32,075	64%	35,151	77%
Commercial	0	0%	1,084	2.4%
Industrial	2,874	5.7%	995	2.2%
Institutional	0	0%	1,337	2.9%
Herbaceous (old field)	2,230	4.4%	372	0.8%
Pavement	1,701	3.4%	770	1.7%
Recreational	2,563	5.1%	0	0%
Residential	7,254	15%	4,117	9.0%
Utility ROW	169	0.3%	253	0.5%
Woodlot	192	0.4%	943	2.1%
Delineated Wetland	743	1.5%	443	0.9%
Delineated Stream	201	0.4%	165	0.3%
Delineated Pond	104	0.2%	0	0%
Open Water	0	0%	0	0%
Total[b]	50,105	100%	45,627	100%

[a] Numbers in the table are for the route centerlines.

[b] Totals may vary slightly from the sum of their parts due to rounding.

Table 7-9: Acreage and Percent of Land Uses Crossed by Route Alternatives

Land Use	Preferred Route [a]		Alternate Route [a]	
	Acreage	Percent	Acreage	Percent
Agriculture	107.4	62.2%	118.3	75.3%
Commercial	0	0%	3.7	2.4%
Industrial	9.1	5.2%	2.9	1.8%
Institutional	0	0%	3.6	2.3%
Herbaceous (old field)	6.7	3.8%	2.7	1.7%
Pavement	6.9	4.0%	4.4	2.8%
Recreational	9.3	5.4%	0	0%
Residential	23.3	13.5%	14.2	9.0%
Utility ROW	5.6	3.2%	1.1	0.7%
Woodlot	0.6	0.4%	3.3	2.1%
Delineated Wetland	2.3	1.3%	1.9	1.2%
Delineated Stream	1.0	0.6%	0.6	0.4%
Delineated Pond	0.3	0.2%	0.2	0.1%
Open Water	0	0%	0	0%
Total[b]	172.5	100%	157.1	100%

[a] Numbers in the table are for the planned potential disturbance area which is a nominal 150-foot-wide corridor centered on the route.

[b] Totals may vary slightly from the sum of their parts due to rounding.

Table 7-10: Number of Sensitive Features within or near the Potential Disturbance Area for the Route Alternatives

Sensitive Features	Route Alternatives	
	Preferred	Alternate
Length (in miles)	9.5	8.6
Features within the Potential Disturbance Area of Route Alternatives [a]		
Historic Structures (OHI)	0	0
National Register of Historic Places	0	0
Previously Identified Archaeological Sites	0	0
Residences	0	0
Commercial Buildings	0	0
Industrial Buildings	0	0
Schools and Hospitals	0	0
Churches and Civic Buildings	0	0
Recreational Lands	30	0
Airports	0	0
Features within 1,000 feet of Route Alternatives (centerline)		
Historic Structures (OHI)	5	4
National Register of Historic Places	0	0
Previously Identified Archaeological Sites	8	4
Residences	35	163
Commercial Buildings	15	16
Industrial Buildings	4	11
Schools and Hospitals	0	0
Churches and Civic Buildings	0	0
Recreational Land	4	0
Airports	0	0

Notes:

[a] The planned potential disturbance area is a nominal 150-foot-wide corridor centered on the route.

OHI = Ohio Historic Inventory

(a) Residential

No residences are located within the planned potential disturbance area. As shown on Table 7-10, there are 35 residences within 1,000 feet of the Preferred Route and 163 residences within 1,000 feet of the Alternate Route. As shown in Table 7-9, 13.5 percent of the Preferred Route ROW and 9.0 percent of the Alternate Route ROW consists of residential land.

(b) Commercial

No commercial buildings are located within the planned potential disturbance area. As shown on Table 7-10, there are 15 commercial buildings within 1,000 feet of the Preferred Route and 16 commercial buildings within 1,000 feet of the Alternate Route. As shown in Table 7-9, none of the Preferred Route ROW consists of commercial land while the Alternate Route ROW consists of 2.4% commercial land.

(c) Industrial

No industrial buildings are located within the planned potential disturbance area. As shown on Table 7-10, there are 4 industrial buildings within 1,000 feet of the Preferred Route and 11 industrial buildings within 1,000 feet of the Alternate Route. As shown in Table 7-9, 5.2 percent of the Preferred Route ROW and 1.8 percent of the Alternate Route ROW consists of industrial land.

(d) School and Hospitals

No schools or hospitals are located within the planned potential disturbance area or within 1,000 feet of the Preferred or Alternate Route.

(e) Churches and Civic Buildings

No churches or civic buildings are located within the planned potential disturbance area or within 1,000 feet of the Preferred or Alternate Route.

(f) Recreational

Three properties that contain recreational areas or recreational facilities are located within the planned potential disturbance area. These are the Delta Reservoir property, the Izaak Walton League Campground property, and the Delta Raceway property. Tree clearing will be required on all three parcels for construction of the Preferred Route. Placement of the Preferred Route on Delta Raceway property utilizes forested areas to minimize impacts to operations at that facility. No impacts to recreational usage are expected from installation of the transmission line on the Preferred Route. One additional recreational feature is present within 1,000 feet of the Preferred Route, the ODNR Fulton Pond. The Preferred Route and right-of-way are located on the parcel directly north of the ODNR parcel containing the Fulton Pond. No tree clearing is planned on the ODNR parcel and thus no impacts are expected. There are no recreational areas or facilities located within the planned disturbance area or within 1,000 feet of the Alternate Route. As shown in Table 7-9, 9.3 acres of the Preferred Route ROW consists of recreational land.

(g) Agricultural

As shown in Table 7-9, approximately 62.2 percent (107.4 acres) of the Preferred Route and 75.3 percent (118.3 acres) of the Alternate Route cross agricultural land. A discussion of agricultural land and Agricultural District Land is provided in Section (C).

(3) Impacts on Identified Nearby Structures

No agricultural structures are located within the planned potential disturbance area. There are 15 agricultural buildings or structures within 1,000 feet of the Preferred Route; there are two agricultural structures within 1,000 feet of the Alternate Route. Agricultural structures are shown on Figure 7-2.

(a) Structures within 200 Feet of Proposed Right-of-Way

There is one agricultural structure within 200 feet of the proposed ROW for the Preferred Route. There are no agricultural structures within 200 feet of the proposed ROW for the Alternate Route. Agricultural structures are shown on Figure 7-2.

(b) Mitigation Procedures

Mitigation for the prohibition of the future installation of structures within the ROW and for vegetative clearing and maintenance activities for the transmission line will be determined as part of ATSI's acquisition of the ROW for this Project (Form Easement Agreement provided in Appendix 5-1), as part of the negotiated settlement between ATSI and the property owner, or as determined in appropriation proceedings. If an existing septic system located in the transmission ROW is affected by construction, operation, or maintenance of the proposed Project, the septic system will be repaired or replaced by ATSI as necessary to meet the appropriate installation requirements.

(C) AGRICULTURAL LAND IMPACTS

The potential impacts of the Project on agricultural land use from the transmission lines are largely limited to construction and could include damage to crops, disturbance of underground field drainage systems, compaction of soils, and temporary reduction of crop productivity.

Agricultural land used for crop cultivation within the Preferred and Alternate Routes ROW is estimated at 107.4 acres and 118.3 acres, respectively. Other herbaceous land that could be used for grazing comprises 6.7 acres of the Preferred Route and 2.7 acres of the Alternate Route.

Soil compaction resulting from construction activities is typically a temporary issue and is resolved within a few seasons of plowing and tilling. ATSI will work with the agricultural landowners to resolve conflicts with drainage tiles and irrigation systems that are affected by the Project where necessary.

(1) Agricultural Land Map

The various categories of agricultural land use and Agricultural District lands are depicted on Figure 7-2 for the Preferred and Alternate Routes.

(2) Impacts on Agricultural Lands and Agricultural Districts

The Fulton County Auditor's Office was contacted to obtain information on current Agricultural District land records. The data were received from the Fulton County Auditor's Office on January 17, 2023. The provided data fulfill the requirement of OAC 4906-5-07 (C)(1)(b), which states that these data must be collected not more than 60 days prior to submittal.

The Agricultural District parcels crossed by the Preferred and Alternate Routes are primarily characterized by large fields used for row crop agriculture or pasture.

(a) Acreage Impacted

Table 7-9 provides the quantification of the acreage affected for agricultural land use (crop cultivation and herbaceous land). The agricultural land use was based on aerial imagery and field observations. There are 957 acres of Agricultural District lands within 1,000 feet of the Preferred Route and 952 acres of Agricultural District lands within 1,000 feet of the Alternate Route. Agricultural land use and agricultural district parcels are shown on Figure 7-2.

(b) Evaluation of Construction, Operation, and Maintenance Impacts

The following subsections include an evaluation of the impact of the construction, operation, and maintenance of the proposed transmission line on agricultural facilities and practices within the Project Area, where present.

(i) Field Operations

Agricultural field operations, such as plowing, planting, cultivating, spraying, and harvesting of cultivated crops may be interrupted in the area of active Project construction during construction of the Project. Property owners will be compensated for crop damages resulting from ATSI's construction activities. Additionally, no significant impacts on livestock operations or grazing areas are anticipated. Property owners may continue to use most of the ROW area for general uses after construction, such as lawn maintenance, crop cultivation, and livestock, contingent upon the use having no adverse impact on the safe and reliable operation of the transmission line.

(ii) Irrigation

No known irrigation systems are within the proposed ROW for the either route. ATSI will identify the presence of any such systems through contact with property owner once the final route is approved. ATSI will coordinate with any property owner if an irrigation system must be relocated to minimize impacts on the irrigation system's operation. ATSI will ensure that the relocation of any irrigation systems will be at no cost to the property owner.

(iii) Field Drainage Systems

Damage to field tile systems is unlikely given the process for installation of proposed steel poles, but ATSI will restore any drainage systems damaged by the construction to their pre-construction condition. ATSI will also work with the agricultural landowners to resolve problems relating to with field drainage systems that are crossed by the Project, where necessary.

(iv) Structures Used for Agricultural Operations

One structure within 200 feet of the Preferred Route ROW may be used for agriculture. Adverse impacts on the structure are not anticipated because an approximately 13-foot section of the structure is within 200 feet of the Preferred Route ROW, and access to the structure will remain unimpeded. There are no agricultural structures within 200 feet of the Alternate Route ROW.

(v) Agricultural Land Viability for Agricultural Districts

The Preferred Route ROW crosses 14 Agricultural District parcels (comprising 975 acres), and the Alternate Route ROW crosses 22 Agricultural District parcels (comprising 952 acres). Most agricultural operations (crop production) may continue within the ROW. Agricultural District parcels are shown on Figure 7-2.

(c) Mitigation Procedures

Mitigation for damage to existing crops and the compaction of soils is provided as compensation to the property owner as specified in the easement for the ROW. The specific terms of the easement regarding crop damage or soil compaction are determined as part of ATSI's acquisition of the ROW for the Project (Form Easement Agreement provided in Appendix 5-1), as part of the negotiated settlement between ATSI and the property owner, as set forth in the attached template, or as otherwise determined in a court of competent jurisdiction for appropriation. Additionally, ATSI and the contractors hired to work on the Project have extensive experience in transmission line construction. Both ATSI and the selected contractors will work to minimize agricultural impacts during construction of the Project.

(i) Avoidance or Minimization of Damage

To minimize impacts on agricultural operations, ATSI has considered pole placement where the Preferred and Alternate Routes must cross agricultural fields. Where feasible, poles will be installed at the edges of agricultural fields. Where poles are located within agricultural fields, use of steel monopoles will cause minimal disruption to agricultural activities. In instances where there is a permanent prohibition on use within the ROW, compensation for this impact will be provided to the property owner.

(ii) Field Tile System Damage Repairs

Concerns will be addressed on a case-by-case basis with the individual property owner. Generally, however, ATSI will provide mitigation for damage to underground drainage systems caused by the construction, operation, and maintenance activities by repairing or replacing damaged sections of the drainage systems as necessary.

(iii) Segregation and Restoration of Topsoil

Excavated topsoil will be segregated and stockpiled where necessary to maintain long-term agricultural uses. Topsoil will also be de-compacted and restored to original conditions, unless otherwise agreed to by the property owner.

(D) LAND USE PLANS AND REGIONAL DEVELOPMENT

This section of the Application provides information regarding land use plans and regional development.

(1) Impacts on Regional Development

This Project is expected to support regional development in Fulton County through increased reliability and availability of electric power to residential, commercial, institutional, and industrial users throughout the region. No negative impacts on regional development are foreseen for this Project. A more detailed discussion of the need for this Project and the ways in which it will affect regional development is included in Section 4906-5-03 of this Application.

(2) Compatibility of Proposed Facility with Current Regional Land Use Plans

Based on existing land use, it does not appear that construction of the Project will affect current land uses. Fulton County prepared and adopted a Comprehensive Development Plan in 1998 and adopted a natural resources amendment in 2011. Based on the robust route selection study completed for the Project, ATSI considers the alignments for the Preferred and Alternate Routes to be among the least impactful of the route alternatives and compatible with the county's land use plan.

(E) CULTURAL AND ARCHAEOLOGICAL RESOURCES

Cultural resources studies of the Preferred Route were conducted on behalf of ATSI. These studies included a background records check and literature review using data files from the Ohio Historic Preservation Office (OHPO), a Phase I archaeological reconnaissance survey, and architectural and historical resources survey for the Preferred Route. The results of the Phase I archaeological reconnaissance field investigation and architectural and historical resources surveys will be provided to the OPSB.

(1) Cultural Resources Map

Based on the cultural resources desktop study, Jacobs identified 51 Ohio Archaeological Inventory (OAI)-listed sites, 16 OHI-listed resources, and five Ohio Genealogical Society (OGS)-listed resources within the Preferred Route's one-mile study area. No resources listed on the National Register of Historic Places (NRHP) or Determination of Eligibility (DOE) list are located within the Preferred Route's one-mile study area. There are no resources located within the Area of Potential Effect (APE). Additionally, it was documented that 19 previous cultural resources surveys were performed within the Preferred Route's study area. Seven of these surveys covered portions of the current APE. Cultural resources already in the public domain (e.g., OHI-listed resources and OGS-recorded cemeteries) are identified on Figure 7-2.

Cultural resources data was also reviewed for the Alternate Route. The results of these reviews are not included within the Phase I archaeological report. The Alternate Route does not have any resources listed on the NRHP within the one-mile study area. However, there are two cultural resources on the DOE list within the Alternate Route's study area. Additionally, there are 39 previously identified OHI-listed resource, 4 (OGS)-listed resources, 17 (OAI)-listed sites and 20 instances of previous cultural survey within the study area.

(2) Cultural Resources in Study Corridor

Cultural resources studies to date have involved background research using data files from the OHPO online mapping system, a Phase I archaeological reconnaissance survey, and an architectural and historical resources survey for the Preferred Route.

Background research was conducted using the OHPO online database to locate previously recorded cultural resources and surveys within or near the APE. A 1.6-kilometer (1-mile) buffer was used to identify previously recorded cultural resources and to provide information on the probability of identifying cultural resources within the APE. The OHPO online mapping database included a review of the OAI, OHI, DOE files, the NRHP, OGS cemetery files, historic bridges, National Historic Landmarks, and previous cultural resources surveys.

Fifty-one OAI-recorded sites, 16 OHI-recorded resources, and five OGS-recorded resources are located within the study area. No resources that are listed on the NRHP or eligible for inclusion on the NRHP, and no DOE-listed resources, are located within the study area. No resources that are listed on the NRHP or DOE-listed resources are located within the APE. Additionally, 19 previous cultural resources surveys have been documented within the study area.

Prehistoric archaeological sites include lithic scatters, camps, habitations, isolates, and burials. Sites with a known temporal affiliation include Early Archaic through the Late Woodland periods. Five historic sites are within the study area and consist of artifact scatters and house sites dating from the 19th through 20th centuries.

One archaeological site, 33FU0235, is adjacent to the APE. Site 33FU0235 is a historic artifact scatter representing a residential site dating from the late 19th through 20th centuries. The site consists of a gravel driveway and eight artifacts. Artifacts recovered include stoneware, a nail, and a screw. Historic atlases from 1858 and 1888 show the property owner as Philip Boyce, and a house is mapped at the site location into the mid-20th century (Site Form 2016). The site is located along the northern side of US Route 20A, approximately 170 meters east of the intersection of US Route 20A and County Road 10, and approximately 5 meters east of the APE.

Of the 16 OHI-recorded resources, 5 resources (OHI FUL31411, FUL31511, FUL31611, FUL45411, FUL45511) are located within 1,000 feet (304.8 meters) of the Project. Three of the five resources (OHI FUL31411, FUL31511, FUL31611) are demolished, and the remaining two resources (OHI FUL45411, FUL45511) have an undetermined NRHP-eligibility. The OHI-recorded resources include late 19th and early 20th century dwellings and outbuildings. Additional historic and

architectural resources were identified within 1,000 feet (304.8 meters) of the Project, including late 19th to mid-20th century dwellings and outbuildings. The architectural and historical resources identified within 1,000 feet (304.8 meters) have not been evaluated for listing on the NRHP.

The APE was subjected to standard Phase I archaeological survey guidelines from OHPO (1994). To identify archaeological sites within the APE, Jacobs conducted a walkover of the entire APE to evaluate visible ground disturbance and to identify potential areas of undisturbed soils that could be subjected to standard Phase I archaeological survey guidelines from OHPO (1994). Visible disturbance was photo-documented, and the appropriate field forms were completed by the field crew. In areas where the visibility of surface soils was less than 50 percent and undisturbed, systematic shovel testing was conducted and consisted minimally of 50- by 50-centimeter (19.6-by 19.6-inch) test pits excavated to 50 centimeters (19.6 inches) below the surface or until sterile soil was encountered. Shovel tests were excavated at 15-meter (49-foot) intervals across the APE. In areas with eroded or anthropogenically altered soil contexts, larger-interval shovel testing (30 meters [98.4 feet]) was used to verify disturbance.

No archaeological sites were identified during the Phase I archaeological survey, and there are no adjacent affected sites. Therefore, ATSI's consultant recommends a finding of "No Historic Properties Affected" for the Project, and no adverse effects or significant impacts are expected to occur on cultural resources within the APE based on the Project's construction, implementation, or operation. If cultural resources are discovered during construction, work in the immediate area will be stopped, and a qualified archaeologist will be consulted.

The APE was also subject to an architectural and historical resources survey. Field reconnaissance involved a systematic survey of architectural and historical resources within the viewshed of the Project, resulting in the survey of the two OHI-recorded resources and an additional 12 architectural resources that required consideration. Pursuant to OHPO's 2014 architectural survey guidelines, these resources, including the primary buildings and any contributing outbuildings, were photographed and mapped where property access and full visibility were available. The field team recorded the architectural style, condition, and important features of each resource and noted any major changes or alterations.

The viewshed was assessed from the route corridor to identify any intact, aboveground resources greater than 50 years of age within a maximum of 1,000 feet (305 meters) of the Preferred Route centerline. Locations from which the proposed transmission line could be viewed (defined as the indirect APE) were photo documented to the extent practicable (based on property access or visibility from public ROWs when access was not available). Additionally, notes were taken on construction methods and materials, as well as additions and alterations that may compromise their architectural integrity. Using a combination of representative landscape photographs and digital terrain data, staff evaluated the potential for any visual impacts on any resources maintaining potential architectural and/or historical significance, with consideration given to topographic or vegetative features, as well as existing intrusions on the viewshed. The results of

this analysis were used to develop recommendations for any additional architectural and historical resources work that might be needed for the Project.

Based on the architectural and historical resources survey conducted in January 2023, 14 new architectural resources were identified within the APE, including residences, farm-related structures, and outbuildings. None of the resources were previously listed on the NRHP or determined to be eligible for inclusion on the NRHP. These resources were evaluated for their historic and/or architectural significance according to NRHP criteria, as well as their level of integrity. Based on the results of this evaluation, none of the resources are recommended eligible for listing because the resources do not reflect significant historical themes or associations, have lost integrity, or both. Based on the consultant's study results, no architectural or historical resources will be affected by the Project, and no further work is recommended. The Phase I archaeological reconnaissance survey report and the architectural and historical resources survey reports were submitted to OHPO for review and concurrence on February 28, 2023, and March 7, 2023, respectively. The OHPO's concurrence and comments letter will be provided to the OPSB upon receipt.

(3) Construction, Operation, and Maintenance Impacts on Cultural Resources

The Preferred Route will be constructed next to an existing transmission line for approximately 3 miles within mostly agricultural land. Most of the remaining route parallels the ROW for Interstate (I)-80. No archaeological sites were identified during the Phase I archaeological survey of the Preferred Route and there are no adjacent sites within the path of the proposed construction. No architectural or historical resources were identified during the reconnaissance survey that are listed on the NRHP or qualify for inclusion on the NRHP. Therefore, ATSI's consultant recommends a finding of "No Historic Properties Affected" for the Project, and no adverse effects or significant impacts are expected to occur on cultural resources within the APE as a result of Project construction, implementation, or operation.

(4) Mitigation Procedures

Based on the surveys conducted to date, no adverse impacts on known or recorded historic properties are anticipated for the Project; therefore, no mitigation is proposed at this time. Future changes to the project may require that additional cultural resource studies be conducted to identify potential impacts on significant resources, and any necessary mitigation procedures will be developed in consultation with the OHPO and OPSB.

(5) Aesthetic Impacts

(a) Visibility of the Proposed Facility

The viewsheds along the Preferred Route from residences and potentially sensitive vantage points may be altered by the presence of the transmission line. The Project Area consists of flat to gently rolling topography. Many roads in the area are paralleled by wood and steel poles supporting electric transmission lines and/or distribution lines. The addition of the proposed Project will not have a significant impact on the overall visual landscape because the Project largely parallels an

existing transmission line and interstate highway. At locations where tree clearing may be required, visual impacts will be greater because of the removal of screening provided by trees.

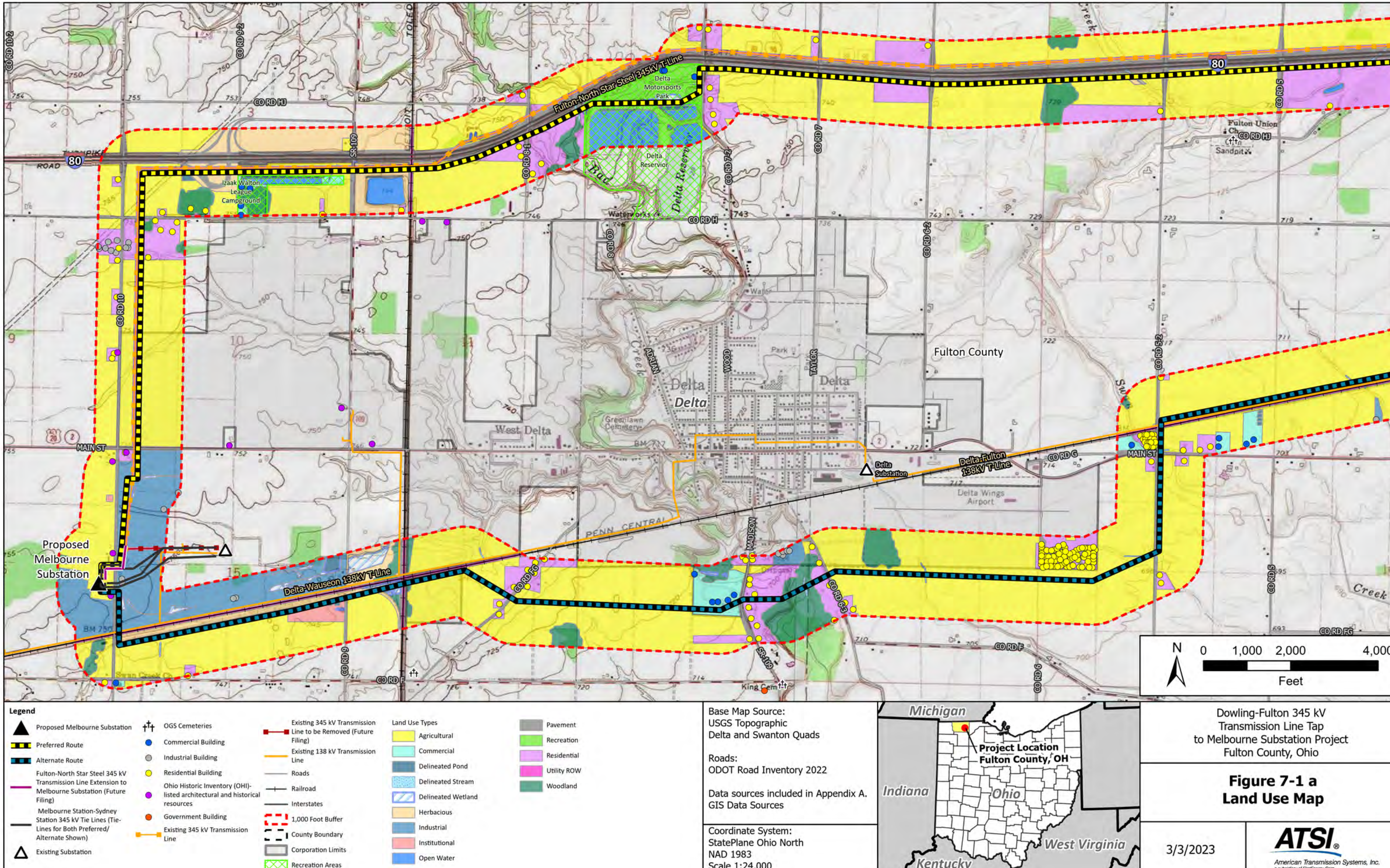
(b) Facility Effect on Site and Surrounding Area

Construction of the proposed Project has the potential to affect the existing visual aesthetics of the area through which it passes, primarily in areas where the removal of trees from the ROW may be required, but also by the introduction of a new human-made element on the landscape. The degree of visual impact of a new human-made element will vary with the setting; the impact can be evaluated by comparing the amount of contrast resulting from the construction of the new element and the existing landscape and electric transmission infrastructure. For example, if the transmission line were screened from view, then the aesthetic impact would be minimal, and if the transmission line were placed in an existing open area, it would have a comparatively higher aesthetic impact. In areas where the new transmission line parallels, or is close to, similar existing transmission lines, the aesthetic impact will be reduced because the new line will create only a minor incremental visual change to the existing visual setting.

(c) Visual Impact Minimization

The ability to minimize the visual impacts of the Preferred and Alternate Routes is constrained by engineering requirements and the fact that the existing land use is mostly agricultural. ATSI has limited the potential aesthetic impacts of the new transmission line to the extent possible through the route selection process, and where practical, by paralleling the new line with existing transmission lines and linear infrastructure, such as the I-80 corridor.

Figures



Fulton-North Star Steel 345kV T-Line
Delta Motorsports Park
Delta Reservoir
Izaak Walton League Campground
Waterworks
Fulton Union Ch
Sandpit
Fulton County
Delta
West Delta
Greenlawn Cemetery
Delta Substation
Delta-Fulton 138kV T-Line
Delta Wings Airport
PENN CENTRAL
Delta-Wauseon 138kV T-Line
Proposed Melbourne Substation
King Cem
MAIN ST
CO RD H
CO RD HJ
CO RD G
CO RD FG
CO RD F
80
N
0 1,000 2,000 4,000
Feet
Legend
Proposed Melbourne Substation
Preferred Route
Alternate Route
Fulton-North Star Steel 345 kV Transmission Line Extension to Melbourne Substation (Future Filing)
Melbourne Station-Sydney Station 345 kV Tie Lines (Tie-Lines for Both Preferred/ Alternate Shown)
Existing Substation
OGS Cemeteries
Commercial Building
Industrial Building
Residential Building
Ohio Historic Inventory (OHI)-listed architectural and historical resources
Government Building
Existing 345 kV Transmission Line
Existing 345 kV Transmission Line to be Removed (Future Filing)
Existing 138 kV Transmission Line
Roads
Railroad
Interstates
1,000 Foot Buffer
County Boundary
Corporation Limits
Recreation Areas
Land Use Types
Agricultural
Commercial
Delineated Pond
Delineated Stream
Delineated Wetland
Herbacious
Industrial
Institutional
Open Water
Pavement
Recreation
Residential
Utility ROW
Woodland
Base Map Source:
USGS Topographic
Delta and Swanton Quads
Roads:
ODOT Road Inventory 2022
Data sources included in Appendix A. GIS Data Sources
Coordinate System:
StatePlane Ohio North
NAD 1983
Scale 1:24,000
Michigan
Indiana
Ohio
West Virginia
Kentucky
Project Location
Fulton County, OH
Dowling-Fulton 345 kV
Transmission Line Tap
to Melbourne Substation Project
Fulton County, Ohio
Figure 7-1 a
Land Use Map
3/3/2023
ATSI
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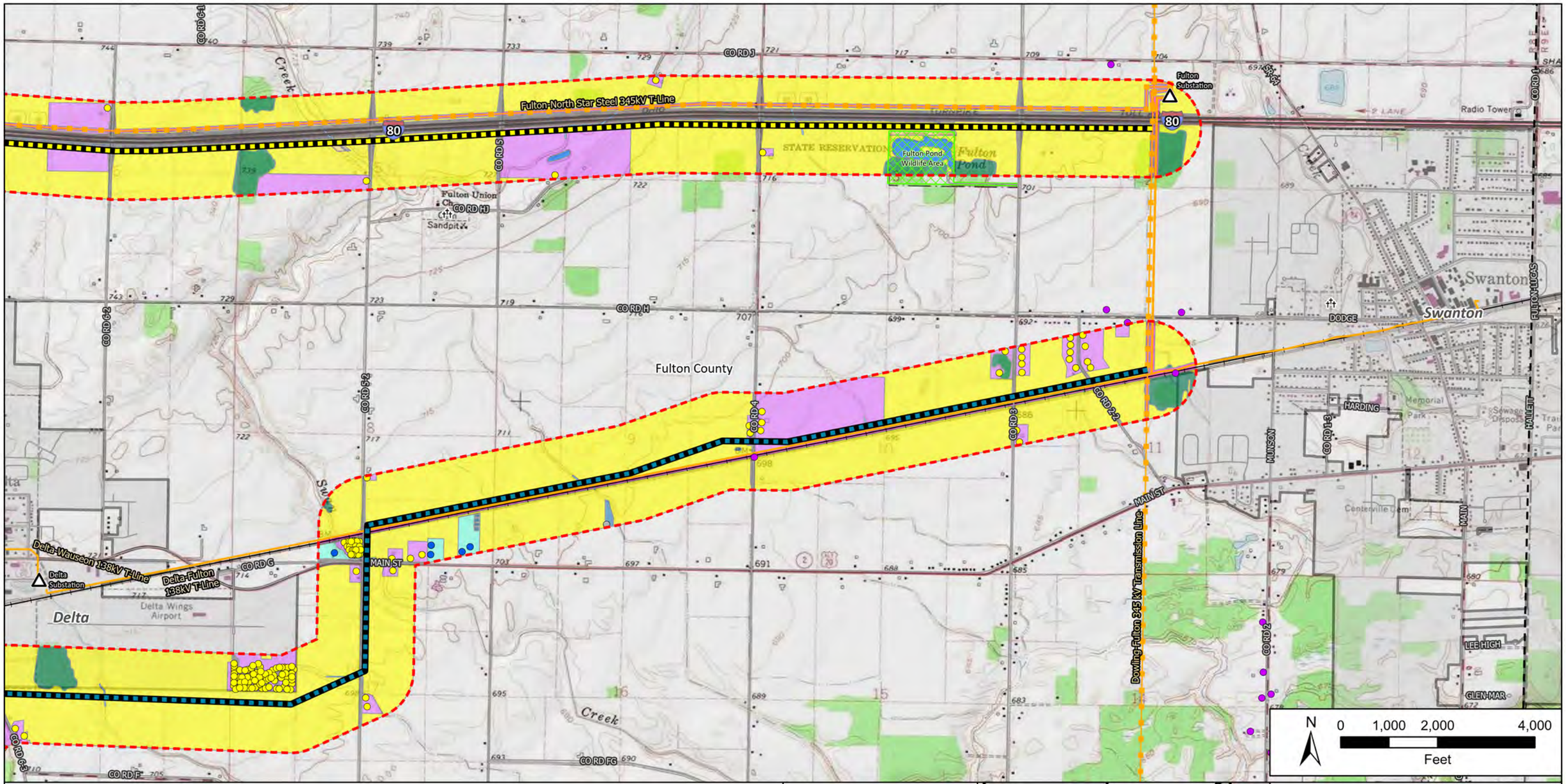

Legend

- Proposed Melbourne Substation
- Preferred Route
- Alternate Route
- Fulton-North Star Steel 345 kV Transmission Line Extension to Melbourne Substation (Future Filing)
- Melbourne Station-Sydney Station 345 kV Tie Lines (Tie-Lines for Both Preferred/ Alternate Shown)
- Existing Substation
- OGS Cemeteries
- Commercial Building
- Industrial Building
- Residential Building
- Ohio Historic Inventory (OHI)-listed architectural and historical resources
- Government Building
- Existing 345 kV Transmission Line
- Existing 345 kV Transmission Line to be Removed (Future Filing)
- Existing 138 kV Transmission Line
- Roads
- Railroad
- Interstates
- 1,000 Foot Buffer
- County Boundary
- Corporation Limits
- Recreation Areas

Land Use Types

- Agricultural
- Commercial
- Delineated Pond
- Delineated Stream
- Delineated Wetland
- Herbacious
- Industrial
- Institutional
- Open Water
- Pavement
- Recreation
- Residential
- Utility ROW
- Woodland

Base Map Source:
USGS Topographic
Delta and Swanton Quads

Roads:
ODOT Road Inventory 2022

Data sources included in Appendix A.
GIS Data Sources

Coordinate System:
StatePlane Ohio North
NAD 1983
Scale 1:24,000

Dowling-Fulton 345 kV
Transmission Line Tap
to Melbourne Substation Project
Fulton County, Ohio

Figure 7-1 b
Land Use Map

3/3/2023

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Proposed Melbourne Substation

Fulton-North Star Steel 345kV T-Line

Delta-Wauseon 138kV T-Line

Delta-Fulton 138kV T-Line

Fulton County

Delta

West Delta

Delta Substation

Delta Reservoir

Bad Creek

Swan Creek

Sandpit

Delta Wings Airport

Greenlawn Cemetery

King Cem

Waterworks

Sewage Disposal

Park

PENN CENTRAL

TURNPIKE ROAD

MAIN ST

CO RD H

CO RD HJ

CO RD F

CO RD FG

CO RD G

CO RD 10-2

CO RD 6-2

CO RD 6-1

CO RD 7

CO RD 8

CO RD 10

CO RD 9

CO RD 6-3

CO RD 5

SR-109

ADRIAN

WOOD

TAYLOR

MADISON

BM 750

N 0 1,000 2,000 4,000 Feet

Legend

- Proposed Melbourne Substation
- Preferred Route
- Alternate Route
- Fulton-North Star Steel 345 kV Transmission Line Extension to Melbourne Substation (Future Filing)
- Melbourne Station-Sydney Station 345 kV Tie Lines (Tie-Lines for Both Preferred/Alternate Shown)
- Existing Substation
- Agriculutral Building
- Agricultural Land Use
- Agricultural District
- OGS Cemeteries
- Existing 345 kV Transmission Line
- Existing 345 kV Transmission Line to be Removed (Future Filing)
- Existing 138 kV Transmission Line
- Roads
- Railroad
- Interstates
- 1,000 Foot Buffer
- County Boundary
- Corporation Limits

Base Map Source:
USGS Topographic
Delta and Swanton Quads

Roads:
ODOT Road Inventory 2022

Data sources included in Appendix A.
GIS Data Sources

Coordinate System:
StatePlane Ohio North
NAD 1983
Scale 1:24,000

Dowling-Fulton 345 kV
Transmission Line Tap
to Melbourne Substation Project
Fulton County, Ohio

Figure 7-2 a
Agricultural Land Use Map

3/3/2023

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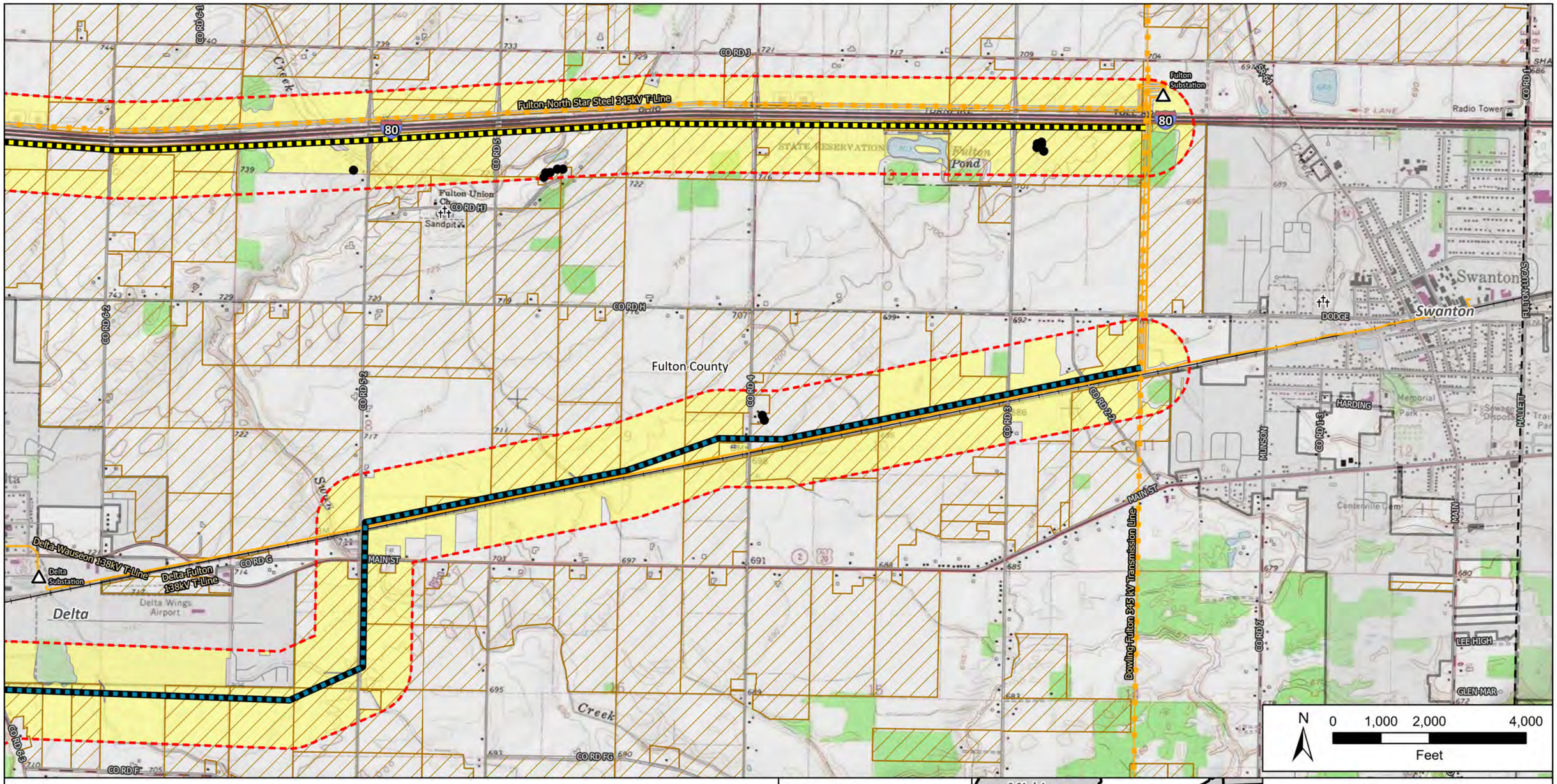

Legend

- Proposed Melbourne Substation
- Preferred Route
- Alternate Route
- Fulton-North Star Steel 345 kV Transmission Line Extension to Melbourne Substation (Future Filing)
- Melbourne Station-Sydney Station 345 kV Tie Lines (Tie-Lines for Both Preferred/Alternate Shown)
- Existing Substation
- Agricultural Building
- Agricultural Land Use
- Agricultural District
- OGS Cemeteries
- Existing 345 kV Transmission Line
- Existing 345 kV Transmission Line to be Removed (Future Filing)
- Existing 138 kV Transmission Line
- Roads
- Railroad
- Interstates
- 1,000 Foot Buffer
- County Boundary
- Corporation Limits

Base Map Source:
USGS Topographic
Delta and Swanton Quads

Roads:
ODOT Road Inventory 2022

Data sources included in Appendix A.
GIS Data Sources

Coordinate System:
StatePlane Ohio North
NAD 1983
Scale 1:24,000

Dowling-Fulton 345 kV
Transmission Line Tap
to Melbourne Substation Project
Fulton County, Ohio

Figure 7-2 b
Agricultural Land Use Map

3/3/2023

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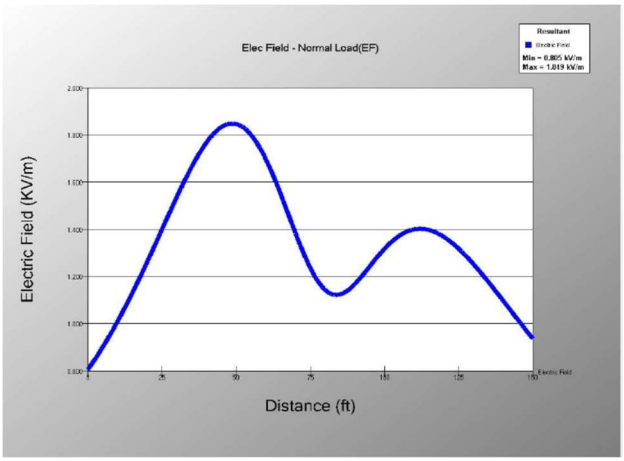
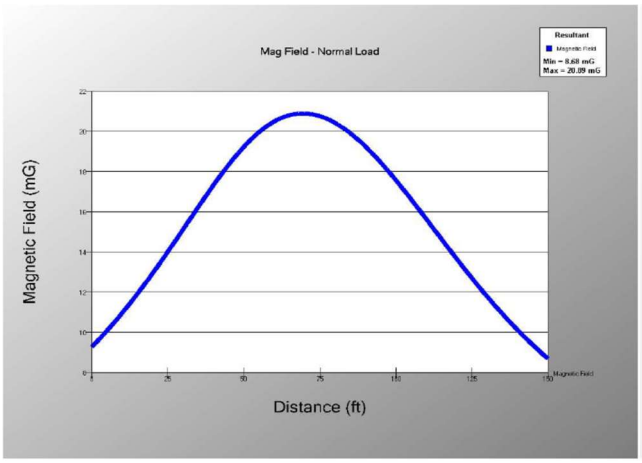
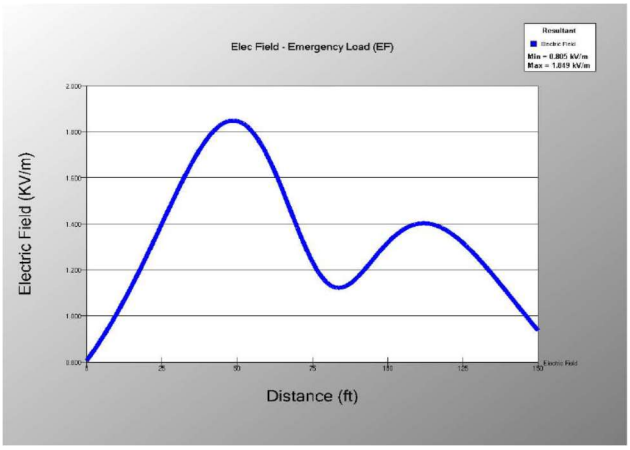
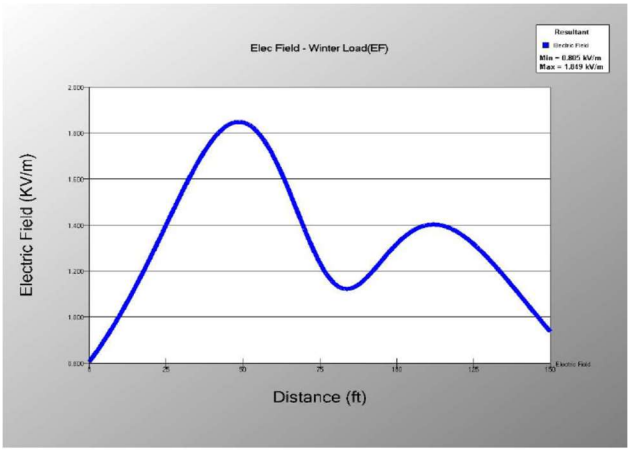
Appendix 7-1
Typical Cross Section Profiles of the Normal Calculated Electric Fields and Magnetic Fields for all Scenarios Considered (Exhibits 7-1 through 7-6)

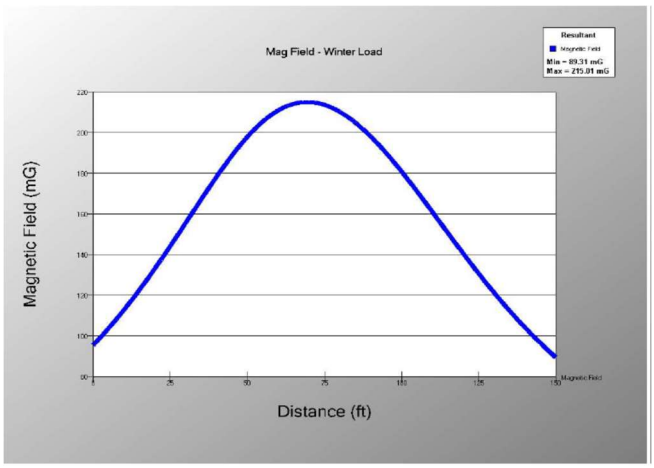
Exhibit 7-1
For Table 7-2











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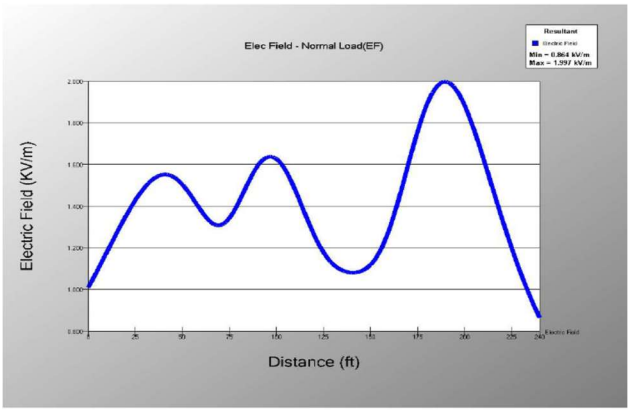

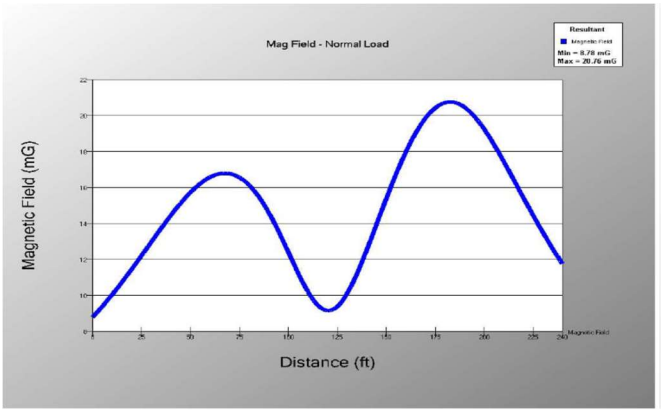

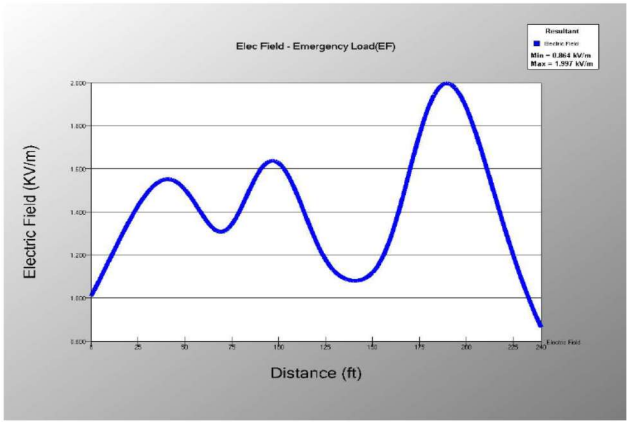

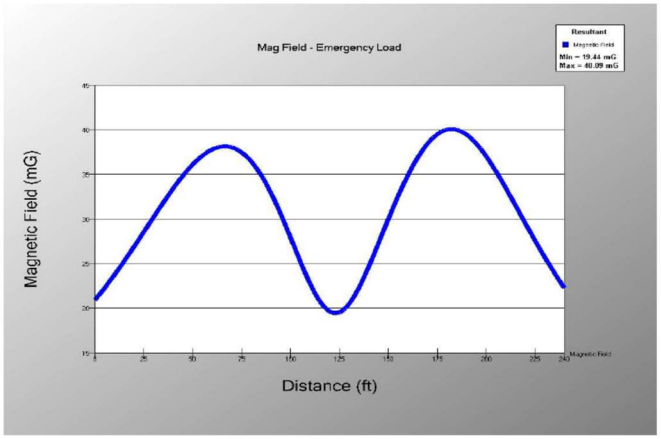

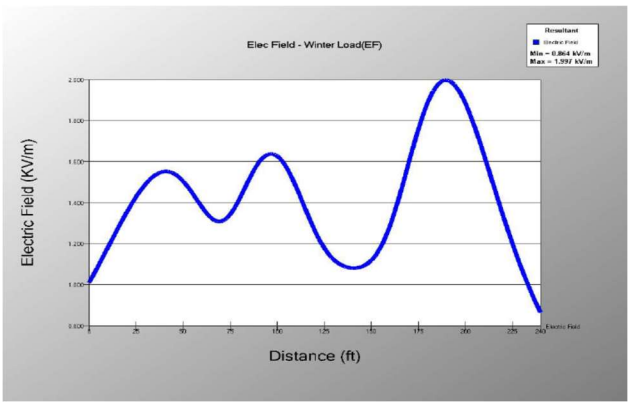

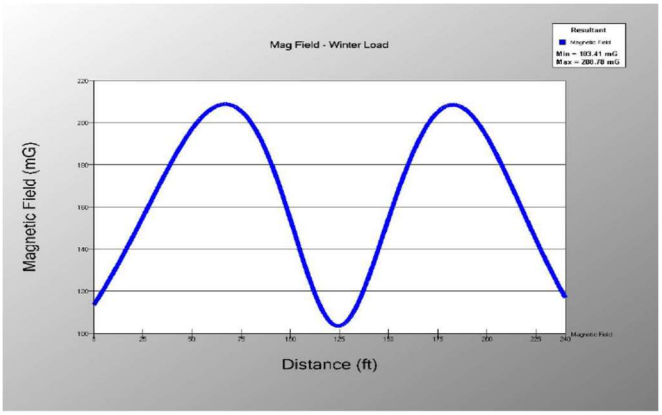

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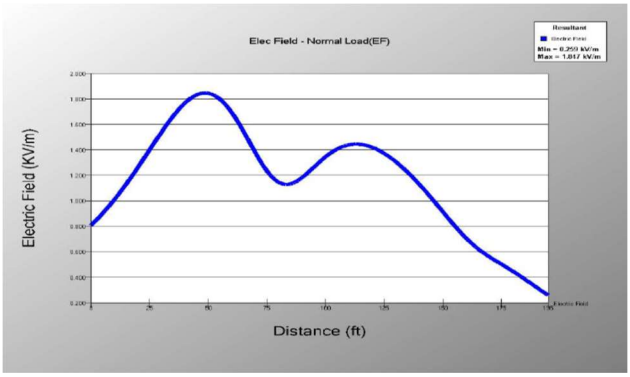

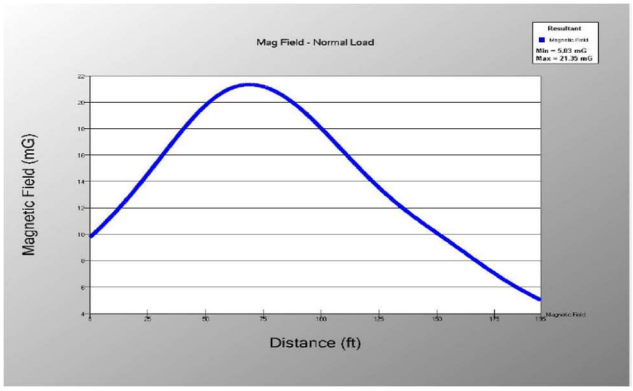

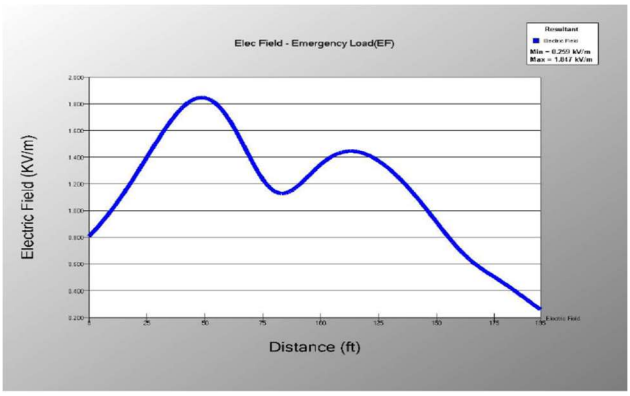

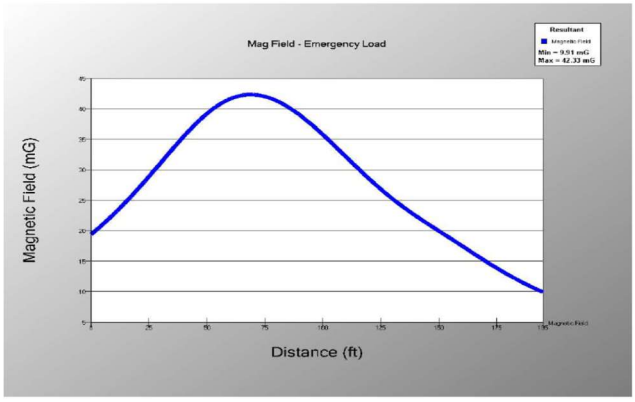

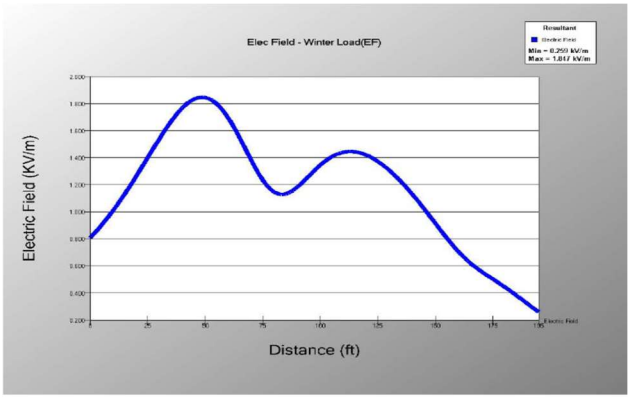

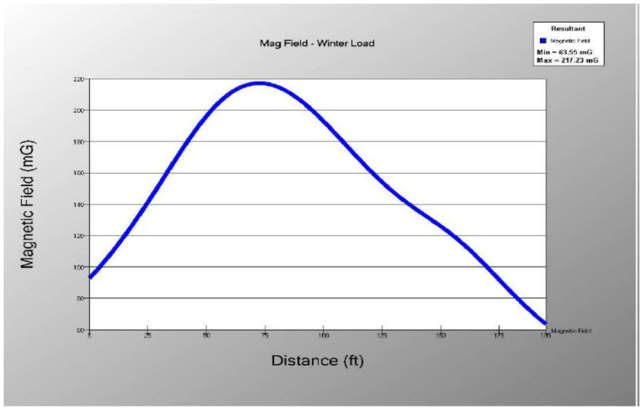

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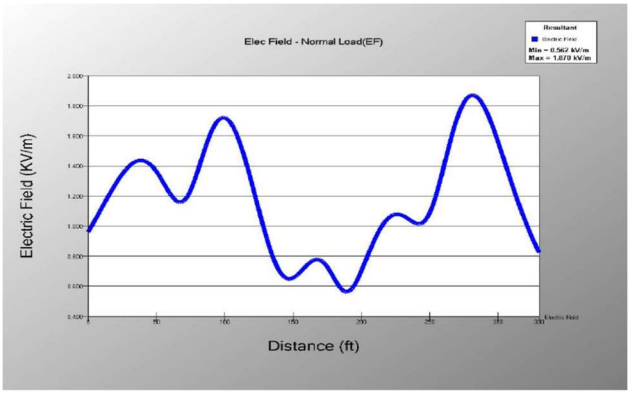

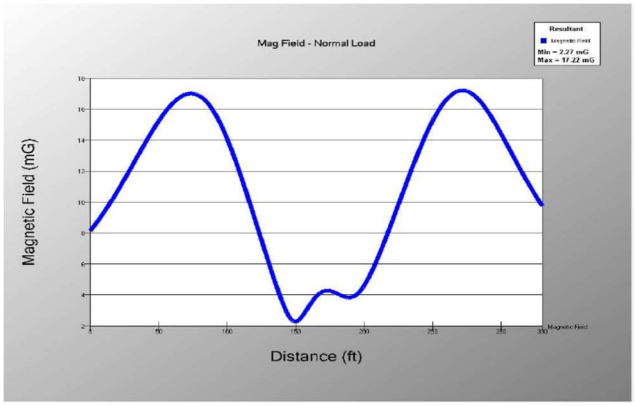

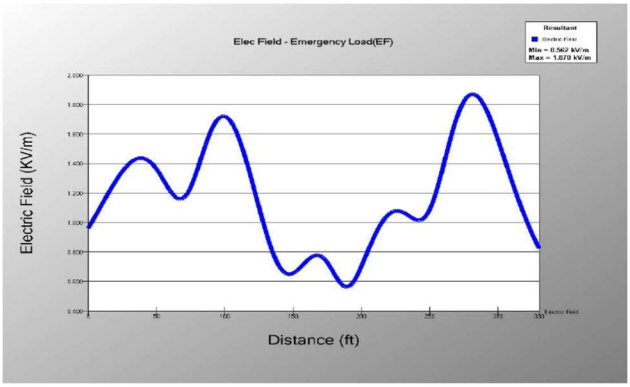

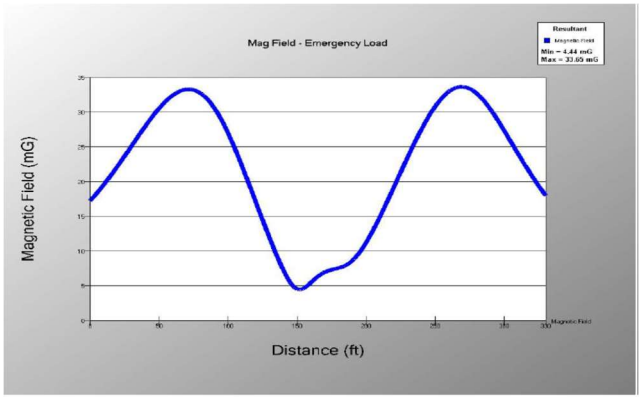

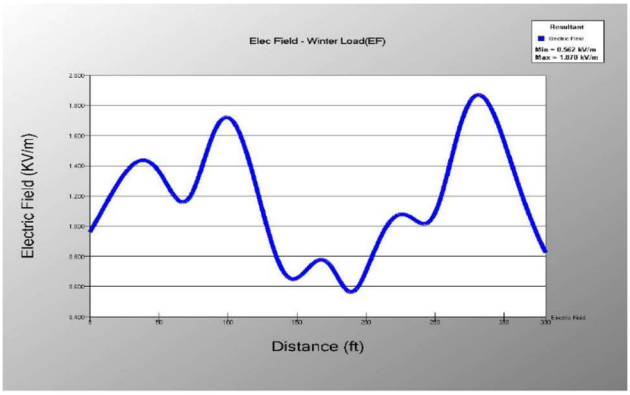

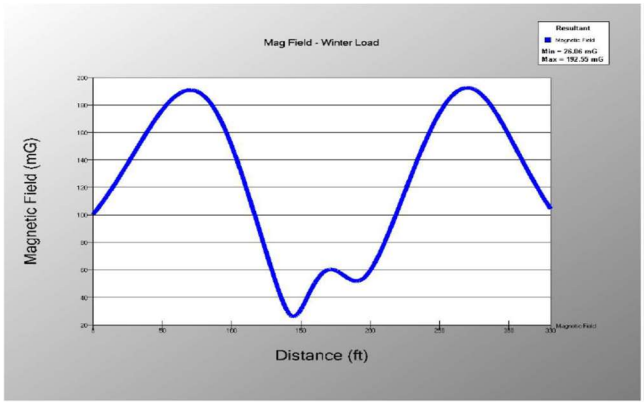

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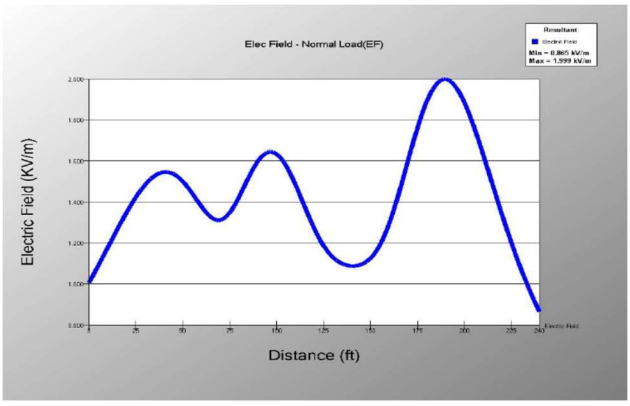

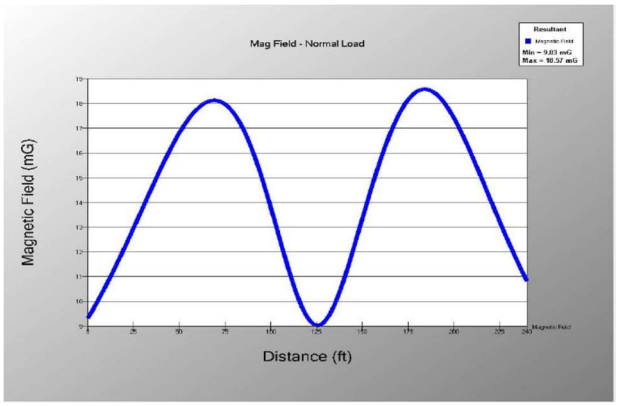

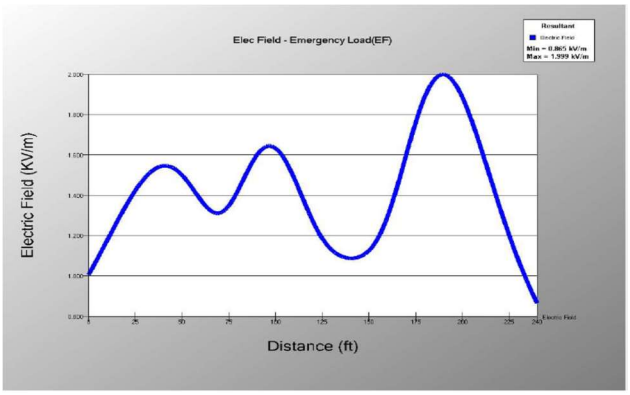

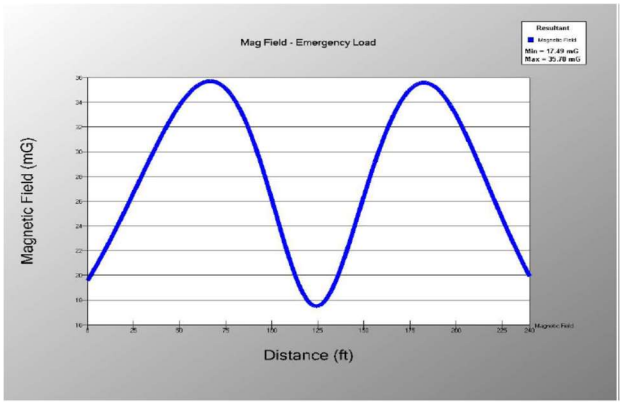

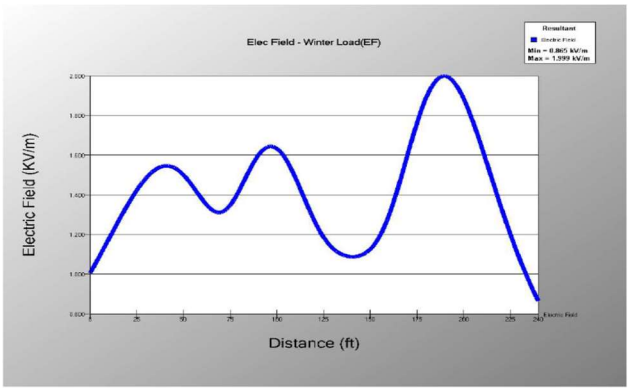

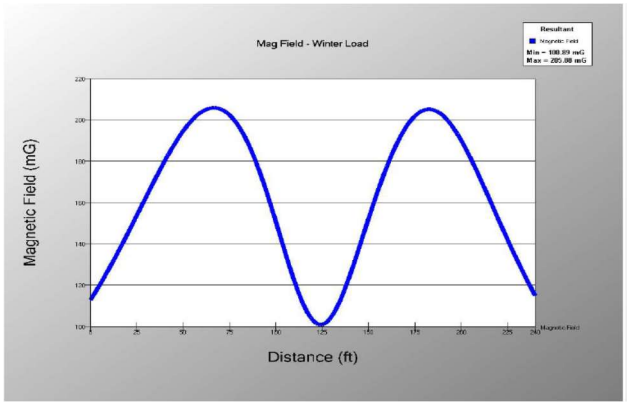

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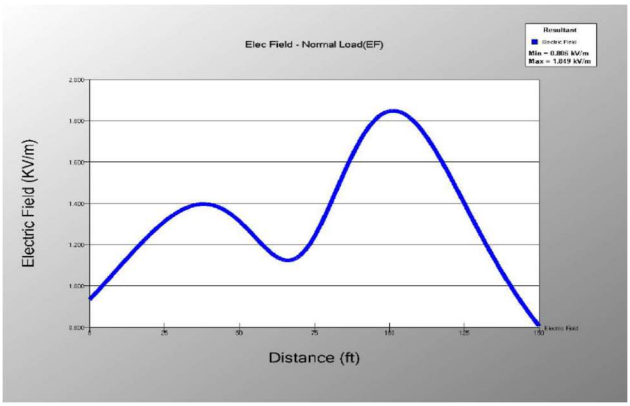

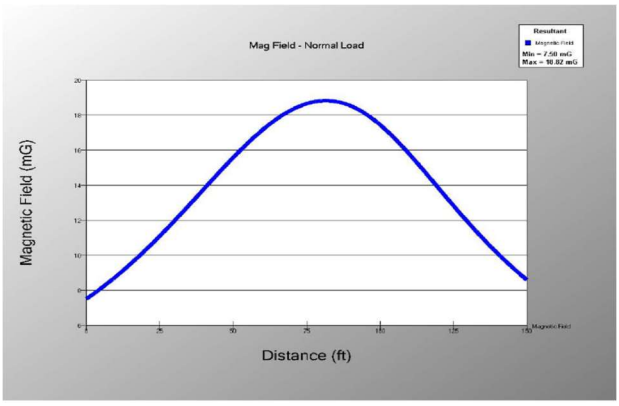

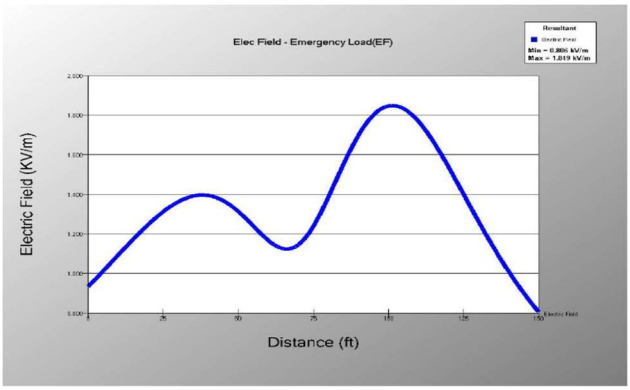

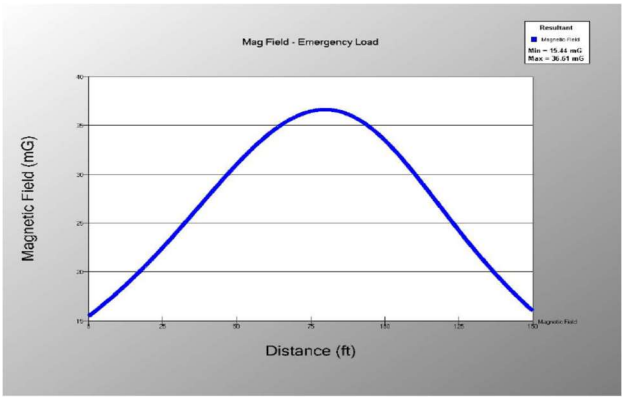

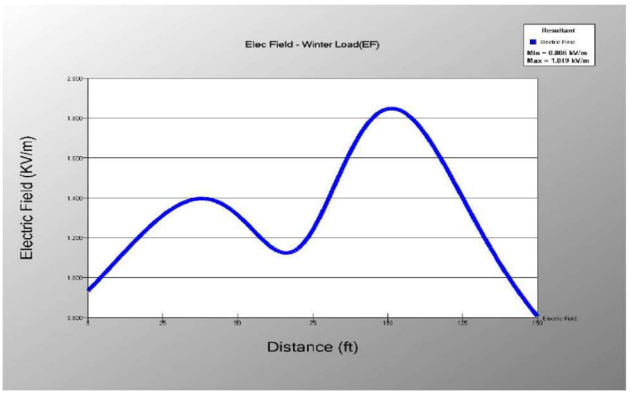

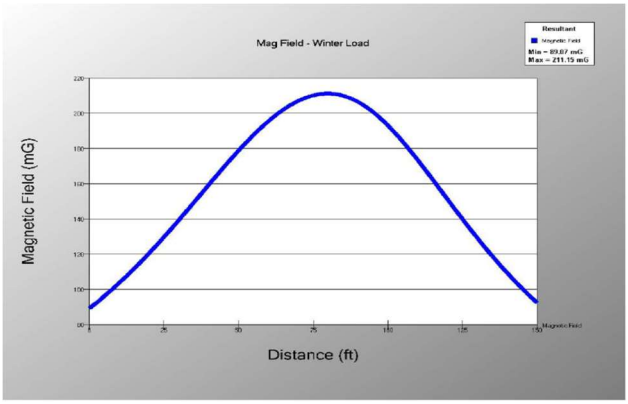

4906-5-08 ECOLOGICAL INFORMATION AND COMPLIANCE WITH PERMITTING REQUIREMENTS

ATSI conducted a study to assess the potential effects of construction and operation of the proposed Project on the ecology of the Preferred and Alternate Route transmission line corridors, the transmission tie-line corridors (from the proposed Melbourne Substation to Sydney Substation), and the proposed Melbourne Substation area. A map and literature search were conducted for a 1,000-foot corridor on either side of the Preferred and Alternate Route centerlines, the transmission tie-lines, and the Melbourne Substation. A field survey of ecological habitat and features was performed at the Melbourne Substation and within 175 feet on either side of the centerline for the Preferred and Alternate Route and the transmission tie-lines (hereafter referred to as the Field Survey Area). Field surveys were conducted in September, October, and December 2022, and January 2023. Information in the following paragraphs addresses ATSI's ecological study conducted for the Project. Information in Appendix 8-1 addresses the wetland and waterbodies delineated, and other ecological information, within the Field Survey Area of the proposed Melbourne Substation and the proposed transmission tie lines (from the proposed Melbourne Substation to Sydney Substation).

(A) ECOLOGICAL MAP

Maps at a scale of 1:24,000 (1 inch = 2,000 feet) including the corridor 1,000 feet on either side of the centerline (referred to as the 2,000-foot corridor) of the Preferred and Alternate Route are presented as Figures 7-1 and 7-2. Additionally, the proposed transmission tie lines and the proposed Melbourne Substation is depicted on Figures 7-1 and 7-2. These maps depict the transmission line alignments, substation locations, and land use classifications, including vegetative cover. Features within 1,000 feet of the proposed routes were identified from published data and, where accessible, verified by the field ecological survey.

An ecological overview map including all Project components described above is provided in Figure 8-1. More detailed maps at 1:2,400 and 1:6,000 scale depicting field-delineated waterbody and wetland features, lakes, ponds, reservoirs, slopes of 12 percent or greater, wildlife areas, nature preserves, and conservation areas within the 2,000-foot corridor are provided as Figures 8-2A through 8-2K (Preferred Route) and Figures 8-3A through 8-3J (Alternate Route). Figure 8-4 illustrates the field-delineated waterbody and wetland features.

(B) FIELD SURVEY REPORT FOR VEGETATION AND SURFACE WATERS

The ecological survey consisting of the 350-foot-wide Field Survey Area of both the Preferred and Alternate Routes were conducted in September, October, and December 2022. The field survey was preceded by review of published mapping, aerial photography, protected federal and state-listed species, and ecological information for at least 1,000 feet on either side of the Preferred Route and Alternate Route centerlines. Map sources included USGS 7.5-minute quadrangle topographic maps, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps, and U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) soil

survey maps. A copy of the wetland and waterbody delineation reports are provided as Appendix 8-2.

(1) Vegetative Communities, Wetlands, and Waterbodies in Study Area

(a) Vegetative Communities

Vegetative communities and land use types within the Field Survey Area include agricultural fields, old fields, early or second growth successional forests, commercial maintained lawns, park, palustrine emergent (PEM) wetlands, palustrine forested (PFO) wetlands, palustrine unconsolidated bottom (PUB) wetlands, identified waterbodies and residential lawns. Habitat descriptions are provided below. Details on the anticipated impacts from construction of the proposed Project are provided in Section 4906-05-08(B)(3)(a) below and in Tables 8-5.

(i) Agricultural Fields

Portions of the Preferred and Alternate Routes cross agricultural fields. Corn and soybeans were observed in most of the crop fields.

(ii) Old Field

Herbaceous cover exists in successional old field communities. Old-field plant communities are at the earliest stages of recolonization following disturbance. This community type is typically short-lived (less than 10 years), progressively giving way to shrub and forest communities unless periodically re-disturbed. Old-field areas are located within much of the Project Area, especially along railroads and in fallow fields.

Dominant plant species in the old-field communities included:

- Common ragweed (*Ambrosia artemisiifolia*)
- Queen Anne's lace (*Daucus carota*)
- Fuller's teasel (*Dipsacus fullonum*)
- Pokeweed (*Phytolacca americana*)
- Tall fescue (*Schedonorus arundinaceus*)
- Japanese bristlegrass (*Setaria faberi*)
- Canada goldenrod (*Solidago canadensis*)
- Grapevine (*Vitis* sp.)

(iii) Successional Forests

Upland, early successional or second growth forest are present across portions of the Field Survey Area within the Preferred and Alternate Routes.

Dominant canopy species within these forested areas include the following:

- Box elder (*Acer negundo*)
- Red Maple (*Acer rubrum*)

- Sugar Maple (*Acer saccharum*)
- Shagbark hickory (*Carya ovata*)
- Honey locust (*Gleditsia tricanthos*)
- Black walnut (*Juglans nigra*)
- Eastern cottonwood (*Populus deltoides*)
- Black cherry (*Prunus serotina*)
- Basswood (*Tilia americana*)
- American elm (*Ulmus americana*)

Dominant understory species include:

- Jumpseed (*Persicaria virginiana*)
- Amur honeysuckle (*Lonicera maackii*)

The understory of the various forest communities within the Project Area ranged from open to moderately dense.

(iv) Commercial Maintained Lawns

Commercial maintained lawns are present throughout the Field Survey Area including areas paralleling roads and railroads, around Delta Reservoir, the proposed Melbourne Substation area, and some non-residential parcels. These areas are dominated by grasses and forbs and are regularly mowed.

(v) Park

The Preferred Route crosses a parcel used as the Delta Raceway racetrack. Landscape in this area consists of dirt paths, gravel, constructed minor elevation changes, and regularly mowed grasses and forbs.

(vi) Wetlands

Wetlands were observed and delineated within the Field Survey Area of the proposed Preferred Route and Alternate Routes.

Dominant plant species observed within PEM wetlands include the following:

- Fox sedge (*Carex vulpinoidea*)
- Barnyard grass (*Echinochloa crus-galli*)
- Common reed (*Phragmites australis*)
- Hybrid cattail (*Typha x glauca*)

Dominant plant species observed within PFO wetlands include the following:

- Red maple (*Acer rubrum*)
- Fringed sedge (*Carex crinita*)

- Gray's sedge (*Carex grayi*)
- Red osier dogwood (*Cornus alba*)
- Silky dogwood (*Cornus amomum*)
- Green ash (*Fraxinus pennsylvanica*) saplings (high adult mortality due to Emerald Ash Borer)
- Eastern cottonwood (*Populus deltoides*)
- Black willow (*Salix nigra*)
- Dark green bulrush (*Scirpus atrovirens*)
- Eastern poison ivy (*Toxicodendron radicans*)
- American elm (*Ulmus americana*)

(vii) Residential

Residential areas exist within the Preferred and Alternate Route Field Survey Area. Vegetation identified on residential properties include a variety of herbaceous grasses and forbs typically found in new field communities, with occasional ornamental trees, shrubs, and hedges. Dominant grasses included tall fescue (*Schedonorus arundinaceus*) and bluegrasses (*Poa* spp.). The dominant forb species include common dandelion (*Taraxacum officinale*), white clover (*Trifolium repens*), red clover (*Trifolium pratense*), and broadleaf plantain (*Plantago major*). The herbaceous vegetation on the residential properties is, for the most part, regularly maintained through mowing.

(b) Wetlands

According to the U.S. Army Corps of Engineers (USACE), a wetland is defined as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation (hydrophytic) typically adapted for life in saturated (hydric) soil conditions.

ATSI's consultant used the onsite methodology described in the 1987 Technical Report Y-87-1, USACE Wetlands Delineation Manual (USACE, 1987) and subsequent guidance documents including the Regional Supplement to the USACE Wetland Delineation Manual: Northcentral and Northeast Region (USACE, 2012). Additionally, each identified wetland was evaluated in accordance with the Ohio Rapid Assessment Method (ORAM) developed by Ohio Environmental Protection Agency (Mack, 2001). Wetland categorizations were conducted in accordance with the latest quantitative score calibration procedure (Mack, 2001). To identify whether potential wetlands exist within the Field Survey Area, a desktop study of available resources was performed prior to the field wetland delineations. Additionally, USFWS NWI maps and the NRCS soil survey (USDA NRCS, 2022) and hydric soil list for Fulton County were reviewed for areas within 1,000 feet of the Preferred and Alternate Routes.

(i) Summary of National Wetland Inventory Data

USFWS NWI data, including freshwater wetlands and riverine areas, were mapped within 1,000 feet of the Preferred and Alternate Routes, and reviewed to guide the field ecological survey as one factor in identifying potential wetland locations (USFWS, 2022a). The NWI-mapped areas are shown on Figures 8-2A through 8-2K and Figures 8-3A through 8-3J for the Preferred and Alternate Routes, respectively. Tables 8-1 summarizes the NWI data by wetland classification and habitat type. The actual extent and type of field-delineated wetlands along the routes are discussed in the next section.

Table 8-1: NWI Wetlands within 1,000 Feet of the Preferred and Alternate Routes

Wetland Type	NWI Code	NWI Habitat Type*	Total Number of Each Habitat Type	
			Preferred	Alternate
Lake	L1UBH	Lacustrine limnetic, unconsolidated bottom, permanently flooded	1	0
Lake	L1UBHx	Lacustrine limnetic, unconsolidated bottom, permanently flooded, excavated	2	0
Freshwater Emergent Wetland	PEM1F	Palustrine emergent, persistent, semipermanently flooded	0	1
Freshwater Forested/Shrub Wetland	PFO1/SS1C	Palustrine forested, broad-leaved deciduous, and scrub-shrub, broad-leaved deciduous, seasonally flooded	4	0
Freshwater Emergent Wetland	PFO1C	Palustrine forested, broad-leaved deciduous, seasonally flooded	2	2
Freshwater Forested/Shrub Wetland	PSS1/EM1C	Palustrine scrub-shrub, broad-leaved deciduous, and emergent, persistent, seasonally flooded	1	0
Freshwater Forested/Shrub Wetland	PSS1/UBF	Palustrine scrub-shrub, broad-leaved deciduous, and unconsolidated bottom, semipermanently flooded	1	0
Freshwater Pond	PUBG	Palustrine unconsolidated bottom, intermittently exposed	2	1
Freshwater Pond	PUBGx	Palustrine unconsolidated bottom, intermittently exposed, excavated	18	14
Riverine	R2UBH	Riverine lower perennial, unconsolidated bottom, permanently flooded	1	1
Riverine	R4SB3C	Riverine intermittent, streambed, cobble-gravel, seasonally flooded	1	1
Riverine	R4SBC	Riverine intermittent, streambed, seasonally flooded	14	8

Table 8-1: NWI Wetlands within 1,000 Feet of the Preferred and Alternate Routes

Wetland Type	NWI Code	NWI Habitat Type*	Total Number of Each Habitat Type	
			Preferred	Alternate
Riverine	R5UBH	Riverine unknown perennial, unconsolidated bottom, permanently flooded	1	3
		Total NWI Wetlands:	48	31

Notes:

* USFWS, 2016

(ii) Field-Delineated Wetlands

Four wetlands, totaling 4.03 acres, were delineated within the Preferred Route Field Survey Area. The four wetlands, are within the 150-foot ROW of the Preferred Route, totaling 2.26 acres. Two wetlands were delineated within the Alternate Route Field Survey Area, totaling 3.49 acres. Both wetlands are within the 150-foot ROW of the Alternate Route, totaling 1.90 acres. Detailed information for each wetland is provided in Table 8-2. The wetlands where construction impacts are anticipated to be unavoidable are identified in Table 8-2 and further discussed in Section 4906-05-08(B)(3)(b). The field-delineated wetlands for both the Preferred and Alternate Routes are mapped on Figures 8-2A through 8-2K and Figures 8-3A through 8-3J, respectively.

Table 8-2: Delineated Wetlands within the Preferred and Alternate Route Field Survey Area and Potential Disturbance Area/ROW

Wetland Name	Figure	Cowardin Wetland Type[a]	ORAM Score	ORAM Category	Acreage within Field Survey Area[b]	Acreage within Potential Disturbance Area/ROW[c]	Length Crossed by Centerline (feet)
Preferred Route Wetlands							
Wetland DFN-01	8-2F, 8-2G	PFO	29	Category 1	3.31	2.01	677
Wetland DFN-02	8-2G	PEM	24	Category 1	0.05	0.05	66
Wetland DFN-03	8-2G	PFO	34.5	Category 2	0.07	0.01	0
Wetland DFN-04	8-2K	PEM	12.5	Category 1	0.60	0.19	0
				Total[d]	4.03	2.26	743
Alternate Route Wetlands							
Wetland DFS-01	8-3H, 8-3I	PFO	27.5	Category 1	2.67	1.47	443
Wetland DFS-02	8-3J	PEM	15.5	Category 1	0.82	0.43	0
				Total[d]	3.49	1.90	443

Notes:

[a] Wetland Type: PEM = palustrine emergent, PFO = palustrine forested, PUB = palustrine unconsolidated bottom.

[b] The width of the Field Survey Area was 350 feet on both the Preferred and Alternate Routes.

[c] The width of the potential disturbance area and the final maintained ROW is planned to be 150 feet.

[d] Total may vary slightly from the sum of their parts due to rounding.

(c) Waterbodies

(i) Field-Delineated Streams

Streams and drainage channels were delineated and assessed during the ecological survey of the Preferred and Alternate Routes. Streams with drainage areas greater than 1 square mile or maximum pool depths greater than 40 centimeters were assessed using the OEPA Qualitative Habitat Evaluation Index (QHEI). The QHEI is one measure that is used by OEPA, in association with biotic sampling, to determine a stream's aquatic life use designation in accordance with the Ohio water quality standards (OEPA, 2006). The QHEI method classifies streams based on their drainage area. Streams that drain greater than or equal to 20 square miles are classified as "larger streams," while those that drain less than 20 square miles are classified as "headwaters." Field personnel completed the QHEI near the proposed centerline of the transmission line crossing when possible.

No streams within the Field Survey Area are designated as outstanding state waters, outstanding national resource waters, or Superior High-Quality Waters (OEPA, 2021).

Although not a regulatory requirement, the OEPA's Headwater Habitat Evaluation Index (HHEI) can be used to evaluate streams with a drainage area less than or equal to 1 square mile, and maximum pools depths less than or equal to 40 centimeters (OEPA, 2020). The HHEI is generally used to assess Primary Headwater Habitat (PHWH) streams that typically fall under the classification of first or second-order streams. The HHEI rates a stream based on its physical habitat and uses that information to determine the biological potential of the stream. The physical habitats scored for the HHEI are substrate type, pool depth, and bank full width. Scores for Class I PHWH Streams range from 0 to 29.9; scores for Class II PHWH Streams range from 30 to 69.9; and scores for Class III PHWH Streams range from 70 to 100. A "Modified" qualifier may be added as a prefix to any of these classes if evidence of anthropogenic alterations, such as channelization and bank stabilization, are observed. A higher PHWH class corresponds with a more continuous flow regime. The flow regime determines the physical habitat of the stream and is therefore indicative of the biological communities it can support.

Within the Preferred Route Field Survey Area, 11 streams were identified; eight of those streams are crossed by the Preferred Route centerline. The total length of streams within the 350-foot-wide Preferred Route Field Survey Area is approximately 22,281 linear feet, while the total length of streams within the 150-foot-wide ROW is approximately 2,455 linear feet. Within the Preferred Route Field Survey Area, two of the streams were evaluated using the QHEI methodology, and the other nine streams were evaluated using the HHEI methodology. Streams were evaluated as close to the route centerline as possible.

Seven streams were identified within the Alternate Route Field Survey Area, six of which are crossed by the Alternate Route centerline. The total length of streams within the 350-foot wide Alternate Route Field Survey Area is approximately 7,317 linear feet, while the total length of

streams within the 150-foot-wide Alternate Route ROW is approximately 1,337 linear feet. Three of the streams within the Alternate Route Field Survey Area were evaluated using the QHEI methodology, and the other four streams were evaluated using the HHEI methodology. Streams were evaluated as close to the route centerline as possible.

Streams identified during the ecological survey on the Preferred and Alternate Routes are shown on Figures 8-2A through 8-2K and Figures 8-3A through 8-3J, respectively. Detailed information on each delineated stream is included in Table 8-3. Aquatic life use designations within the Maumee River drainage basin obtained from OAC 3745-1-11 are also provided (OEPA, 2021). Construction impacts on these features are included in Table 8-3 and further discussed in Section 4906-05-08(B)(3)(c).

Table 8-3: Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream Name Waterbody Name	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area[a]	Length (linear feet) within Potential Disturbance Area/ROW[b]
Preferred Route											
Stream DFN-01 UNT to Ai Creek	8-2A	Ephemeral	8	0	HHEI	10	N/A	Modified Class I	No	2,806	0
Stream DFN-02 UNT to Ai Creek	8-2A, 8-2B	Intermittent	10	1	HHEI	29	N/A	Modified Class I	Yes	628	301
Stream DFN-03 UNT to Ai Creek	8-2B	Intermittent	25	2	HHEI	33	N/A	Modified Class II	Yes	405	185
Stream DFN-04 UNT to Ai Creek	8-2A, 8-2B, 8-2C	Ephemeral	6	0	HHEI	10	N/A	Modified Class I	No	5,222	0
Stream DFN-05 UNT to Swan Creek	8-2C, 8-2D	Intermittent	25	4	HHEI	54	N/A	Modified Class II	Yes	1,149	857
Stream DFN-06 UNT to Swan Creek	8-2C, 8-2D	Ephemeral	6	0	HHEI	10	N/A	Modified Class I	Yes	2,799	152
Stream DFN-07 Swan Creek	8-2D, 8-2E	Perennial	25	6	QHEI	55.5	N/A	Good Warmwater	Yes	589	263
Stream DFN-08 UNT to Swan Creek	8-2D, 8-2E, 82F	Ephemeral	3	0	HHEI	12	N/A	Modified Class I	No	6,997	0
Stream DFN-09 UNT to Bad Creek	8-2F, 8-2G	Intermittent	10	12	HHEI	46	N/A	Class II	Yes	949	369
Stream DFN-10 Bad Creek	8-2G	Perennial	40	24	QHEI	47.5	N/A	Fair Warmwater	Yes	370	152

Table 8-3: Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream Name Waterbody Name	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area[a]	Length (linear feet) within Potential Disturbance Area/ROW[b]
Stream DFN-11 UNT to Bad Creek	8-2H, 8-2I	Ephemeral	14	0	HHEI	25	N/A	Modified Class I	Yes	367	175
									Total	22,281	2,455
Alternate Route											
Stream DFS-01 UNT to Ai Creek	8-3A, 8-3B	Intermittent	20	3	HHEI	45	N/A	Modified Class II	Yes	4,854	152
Stream DFS-02 UNT to Swan Creek	8-3B, 8-3C	Intermittent	20	1	HHEI	33	N/A	Modified Class II	Yes	600	368
Stream DFS-03 Swan Creek	8-3D	Perennial	25	6	QHEI	55.5	N/A	Good Warmwater	Yes	350	150
Stream DFS-04 UNT to Fewless Creek	8-3E	Intermittent	15	4	HHEI	55	N/A	Modified Class II	Yes	722	361
Stream DFS-05 Fewless Creek	8-3F	Perennial	20	4	QHEI	46.5	N/A	Fair Warmwater	Yes	367	151
Stream DFS-06 Bad Creek	8-3F, 8-3G	Perennial	40	24	QHEI	47.5	N/A	Fair Warmwater	Yes	377	155
Stream DFS-07 UNT to North Turkeyfoot Creek	8-3J	Ephemeral	30	4	HHEI	49	N/A	Modified Class II	No	47	0
									Total[c]	7,317	1,337

Table 8-3: Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream Name Waterbody Name	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area[a]	Length (linear feet) within Potential Disturbance Area/ROW[b]

Notes:

[a] The width of the Field Survey Area was 350 feet on both the Preferred and Alternate Routes.

[b] The width of the potential disturbance area and the final maintained ROW is planned to be 150 feet.

[c] Total may vary slightly from the sum of their parts due to rounding

UNT = unnamed tributary

(ii) Lakes, Ponds, and Reservoirs

One major waterbody, Delta Reservoir, was observed within the proposed Preferred Route Field Survey Area. Five ponds, including the Delta Reservoir, were identified totaling 7.27 acres within the Preferred Route Field Survey Area. Three ponds totaling 0.46 acre within the Field Survey Area were identified along the Alternate Route. Ponds within the Field Survey Area are shown on Figures 8-2A through 8-2K and Figures 8-3A through 8-3J and are summarized in Table 8-4.

Impacts to ponds from construction, operation, or maintenance of the proposed transmission line are not anticipated. Best management practices (BMPs) to control soil erosion and sedimentation (for example, using silt fencing and filter sock as appropriate during construction to minimize runoff siltation) will be implemented.

Table 8-4: Delineated Ponds within the Preferred Route and Alternate Route Environmental Field Survey Area

Pond Name	Figure	Acreage within Field Survey Area	Acreage within ROW [a]	Linear Feet Crossed by Centerline
Preferred Route Ponds				
Pond DFN-01	8-2F, 8-2G	1.38	0.00	0
Pond DFN-02 Delta Reservoir	8-2G	1.15	0.00	0
Pond DFN-03	8-2H, 8-2I	0.70	0.00	0
Pond DFN-04	8-2H, 8-2I	3.15	0.00	0
Pond DFN-05	8-2I	0.89	0.29	93
	Total	7.27	0.29	93
Alternate Route Ponds				
Pond DFS-01	8-3B, 8-3C	0.10	0.00	0
Pond DFS-02	8-3I	0.19	0.05	0
Pond DFS-03	8-3I	0.17	0.14	0
	Total[b]	0.46	0.20	0

Notes:

[a] "0" indicates the pond is not within the ROW.

[b] Total may vary slightly from the sum of their parts due to rounding

(2) Map of Facility, Right-of-Way, and Delineated Resources

Detailed maps at 1:6,000 scale depicting the delineated water features, Field Survey Area, and proposed ROW for the Preferred and Alternate Routes are provided as Figures 8-2A through 8-2K and Figures 8-3A through 8-3J, respectively.

(3) Construction Impacts on Vegetation and Surface Waters

(a) Construction Impacts on Vegetation

The construction impacts on vegetation along the Preferred and Alternate Routes will be limited to the initial clearing of vegetation within the 150-foot ROW for the proposed transmission line and access roads. Specific locations for access roads will be identified at the time of ATSI transmission line easement acquisition process. Trees within the proposed ROW, and adjacent to, that are dead, dying, diseased, leaning, significantly encroaching, or prone to failure may require clearing to allow for safe operation of the transmission line. Vegetative wastes (such as tree limbs and trunks) generated during the construction phase will be windrowed or chipped and disposed of appropriately depending on individual property owner requests. The approximate vegetation impacts, based on GIS analysis, along the Preferred and Alternate Route ROWs are provided in Table 8-5.

Table 8-5: Approximate Vegetation Impacts along the Potential Disturbance Area/ROW

Land Use Type	Length of Route (in feet)	Length of Route (in miles)	Acreage within ROW
Preferred Route			
Agricultural	38,449	7.28	130.2
Herbaceous (Old Field)	1,498	0.28	5.4
Commercial Maintained Lawn	2,277	0.43	11.1
Park	1,999	0.38	5.4
Residential	25	0.00	0.1
Industrial	2632	0.50	8.8
Scrub/shrub	60	0.01	0.2
Woodlot	1,420	0.27	4.9
Delineated Stream	201	0.04	1.0
Delineated Pond	104	0.02	0.3
Delineated Wetland	725	0.14	2.2
Alternate Route			
Agricultural	38,892	7.37	130.1
Herbaceous (Old Field)	635	0.12	1.9
Commercial Maintained Lawn	1,640	0.31	6.1
Park	0	0.00	0.0
Residential	621	0.12	2.1
Industrial	1270	0.24	3.9

Table 8-5: Approximate Vegetation Impacts along the Potential Disturbance Area/ROW

Land Use Type	Length of Route (in feet)	Length of Route (in miles)	Acreage within ROW
Scrub/shrub	273	0.05	1.6
Woodlot	1,056	0.20	5.5
Delineated Stream	165	0.03	0.7
Delineated Pond	0	0	0.2
Delineated Wetland	436	0.08	1.9

(b) Construction Impacts on Wetlands

Preferred Route: During wetland and waterbody delineations, four wetlands were identified along the Preferred Route within the proposed ROW, totaling 2.26 acres within the ROW. The delineated wetlands are shown on Figures 8-2A through 8-2K. Detailed information about each feature can be found in Table 8-2 in Section 4906-05-08(B)(1)(b)(ii). Of these wetlands, two are crossed by the Preferred Route centerline, totaling 743 linear feet. Impacts to the wetlands would be avoided by placing transmission line structures outside of wetland boundaries, where practical. Where temporary construction access through a wetland cannot be avoided, the crossing would occur during dry conditions or protective construction matting would be used to minimize impacts from construction vehicles.

Wetland ORAM categories delineated in the Preferred Route ROW are detailed below:

- Category 1 wetlands: Three Category 1 wetlands with ORAM scores ranging from 12.5 to 29 were identified within the ROW, totaling 2.25 acres. Approximately 2.02 acres of PFO wetlands would be impacted during construction.
- Category 2 wetlands: One Category 2 wetland with an ORAM scores of 34.5 was identified within the ROW, totaling 0.01 acre. Approximately 0.01 acre of PFO wetland would be impacted during construction.
- Category 3 wetlands: No Category 3 wetlands would be crossed; therefore, no construction impacts are anticipated.

Alternate Route: During wetland and waterbody delineations, two wetlands were identified along the Alternate Route ROW, totaling 1.90 acres. The delineated wetlands are shown on Figures 8-3A through 8-3J. Detailed information about each feature can be found in Table 8-2 in Section 4906-05-08(B)(b)(ii). One of the wetlands is crossed by the centerline of the Alternate Route, totaling 443 linear feet. If this route were selected for construction, impacts to wetlands would be avoided by placing transmission line structures outside wetland boundaries where practical. Where temporary construction access through a wetland cannot be avoided, the crossing would occur during dry conditions or matting would be used to minimize impacts.

Wetland ORAM categories delineated in the Alternate Route ROW are detailed below:

- Category 1 wetlands: Two Category 1 wetlands with ORAM scores ranging from 15.5 to 27.5 were identified within the proposed ROW, totaling 1.90 acres. Approximately 1.47 acres of PFO wetland would be impacted during construction.
- Category 2 wetlands: No Category 2 wetlands would be crossed; therefore, no construction impacts are anticipated.
- Category 3 wetlands: No Category 3 wetlands would be crossed; therefore, no construction impacts are anticipated.

Through appropriate planning and permitting, care will be taken near wetlands to avoid or minimize filling and sedimentation during construction. ATSI will avoid the placement of poles within wetlands to the extent practical. Selective clearing will be required to remove specific types of woody vegetation in wetlands that might impede construction or interfere with operation of the transmission line. Where wooded or forested wetlands occur within the ROW, the trees will be removed.

To minimize soil erosion and sedimentation during construction, BMPs such as silt fences and construction matting will be implemented as required. Sedimentation potential at wetlands will be minimal as structure replacement outside of wetlands is preferred. Construction equipment will only cross wetlands if necessary and will do so using construction matting if wet conditions require.

Disturbance of soils in wetland areas during construction will be minimized. Placement of permanent fill material in wetland areas will be avoided to the extent practical. Where it is necessary to place a pole or guy wires within a wetland, they will be accessed using construction matting if wet conditions exist at the time of construction. No excavation other than the boring or excavation of a hole for pole installation will be performed within wetland areas. Where pole placement is required within a wetland, no additional fill will be placed in the wetlands beyond the placement of the pole and borehole backfill (concrete and soil).

Wetland areas will be clearly staked before the commencement of any clearing to minimize incidental vehicle impacts. Other than the possibility of pole locations within wetlands discussed above, operation of heavy mechanized equipment is not planned within any identified wetland areas, although some construction equipment may need to cross wetland areas on construction matting if wet conditions exist at the time. Woody vegetation in wetlands will be hand-cut by chain saws or other non-mechanized techniques to avoid soils being compacted. When necessary, rubber-wheeled vehicles, or vehicles equipped with tracks, will be used to remove vegetation debris. ATSI will perform all construction work in accordance with the conditions and requirements of regulatory permits obtained for the Project.

(c) Construction Impacts on Waterbodies

The Preferred Route centerline crosses eight streams, and the Alternate Route centerline crosses six streams. Detailed information about each feature can be found in Table 8-3 in Section 4906-05-08(B)(c)(i).

Approximately 2,455 linear feet of stream are within the Preferred Route ROW, while approximately 1,337 linear feet are within the Alternate Route ROW.

No streams will be filled or permanently impacted. Some streams may have to be crossed by construction vehicles. Exact pole locations have not been determined, although preliminary locations have been identified. Access paths to proposed pole locations will be evaluated when more detailed engineering is performed and property owner negotiations progress. If a new stream crossing were necessary, it would comply with one of the following three proposed methods to cross streams:

- Temporary stream ford
- Temporary culvert stream crossings
- Temporary access bridge

Temporary stream fords are proposed for crossing low quality ephemeral and intermittent streams with a drainage basin less than 1 square mile. This will involve minimum clearing necessary to gain access to the stream and for passage of construction vehicles.

- Disturbance of the stream will be kept to a minimum, stream bank vegetation will be preserved to the maximum extent practical, and the stream crossing width will be kept as narrow as possible. Clearing will be done by hand cutting rather than grubbing to promote revegetation after construction.
- Sediment-laden runoff will be prevented from flowing from the access road directly into the stream. Diversions and swales will be used to direct runoff to stormwater management devices. Silt fences will be used as needed according to local topographic conditions.
- Following completion of the work, the areas cleared for the temporary access crossing will be stabilized through plantings of woody species where appropriate. Areas of exposed soil will be stabilized in accordance with the stormwater pollution prevention plan (SWPPP) for the Project.

Culvert stream crossings may be required for crossing marginal quality perennial, ephemeral, and intermittent streams with a drainage basin of less than 1 square mile. These crossings may be removed or remain in place to provide maintenance access to the line (critical if service is to be reliable). Based on preliminary access road design, culvert stream crossings appear to be unlikely; however, if needed Section 404/401 permitting approval would be obtained from the appropriate

agencies prior to installation. The Preferred route is located within an OEPA Nationwide Permit Eligible area for stream impacts.

- Stream disturbance will be kept to a minimum, stream bank vegetation will be preserved to the maximum extent practical, and the stream crossing width will be kept as narrow as possible. Clearing will be done by hand-cutting techniques rather than grubbing. Roots and stumps will be left in place to aid stabilization and to accelerate re-vegetation.
- Sediment laden runoff will be controlled to minimize its flow from the access road directly into the stream. Diversions and swales will be used to direct runoff to stormwater management devices. Silt fence will be used as needed according to local topographic conditions.
- Culvert pipes will be placed on the existing streambed to avoid a drop or waterfall at the downstream end of the pipe, which would be a barrier to fish migration. Crossings will be placed in shallow areas rather than pools.
- Culverts will be sized to be at least three times the depth of the normal stream flow at the crossing location.
- There will be a sufficient number of culvert pipes to cross the stream completely with no more than a 12-inch space between each one.
- Stone, rock, or aggregate of ODOT number 1 as a minimum size will be placed in the channel, and between culverts. To prevent washouts, larger stone may be used with gabion mattresses. No soil will be placed in the stream channel.
- After construction is complete, some rock aggregate and structures such as culvert pipes used for the crossing will be left in place if approved by the property owner. Care will be taken so that aggregate does not create an impoundment or impede fish passage. Structures such as gabion mattresses will be removed.
- Stream banks will be stabilized, and woody species planted as appropriate.

Temporary access bridges or culvert stream crossings will be used for high quality perennial, ephemeral, and intermittent streams, and streams with a drainage basin greater than one-square mile.

- Disturbance of the stream will be kept to a minimum, stream bank vegetation will be preserved to the maximum extent practical, and the stream crossing width will be kept as narrow as possible. Clearing will be done by hand cutting rather than grubbing. Roots and stumps will be left in place to aid stabilization and to accelerate re-vegetation.
- Sediment laden runoff will be controlled to minimize flowing from the access road directly into the stream. Diversions and swales will be used to direct runoff to stormwater management locations. Silt fence will be used as needed according to local topographic conditions.

- Bridges will be constructed to span the entire channel. If the channel width exceeds 8 feet, then a floating pier or bridge support may be placed in the channel. No more than one pier, footing, or support will be allowed for every 8 feet of span width. No footings, piers, or supports will be allowed for spans of less than 8 feet.
- No fill other than clean stone, free from soil, will be placed in the stream channel.

These crossings will be addressed in the Project SWPPP. Some of the access routes may be left in place for maintenance activity. Details on the proposed access road stream crossing methods will included in the SWPPP and provided to the OPSB prior to the start of construction.

Impacts to ponds are not anticipated by the construction, operation, or maintenance of the proposed transmission line. BMPs, including silt fence or filter sock, will be used as appropriate during construction to minimize runoff siltation.

(4) Operation and Maintenance Impacts on Vegetation and Surface Water

During operation of the transmission line along either of the proposed routes, the impacts on vegetation are anticipated to be minor. Periodic selective removal of vegetation that interferes with the operation of the transmission line will be required as maintenance. No impacts to streams or wetlands are anticipated as part of operations and maintenance activities.

(5) Mitigation Procedures

The following mitigation procedures will be used during construction, operation, and maintenance of the proposed Project to minimize the impact on vegetation and surface waters. A SWPPP will also be prepared and implemented and will be made available onsite during Project construction.

(a) Site Restoration and Soil Stabilization

A SWPPP will be developed specifically for the Project and specified BMPs will be implemented during construction to control erosion and sedimentation. Areas where soil has been disturbed will be seeded and mulched to prevent soil erosion and sedimentation. Seeding in non-wetland and non-agricultural areas is advantageous to control erosion on areas disturbed by construction activities.

(b) Contingency Plan Stream and Wetland Crossings

The Project does not include a stream or wetland crossing by horizontal direction drill. Therefore, a detailed frac-out contingency plan will not be required for the Project.

(c) Demarcation and Protection Methods

Wetlands, streams, and any other environmentally sensitive areas will be clearly staked, flagged, or fenced in accordance with the SWPPP prior to any clearing to minimize incidental impacts. BMPs such as utilization of silt fences and construction matting will be implemented as required during construction.

(d) Procedures for Inspection and Repair of Erosion Control Measures

Procedures for inspection and repair of erosion control measures, especially after rainfall events will be outlined in the SWPPP.

(e) Stormwater Runoff Measures

BMPs, including silt fence or filter socks, will be used as appropriate during construction to minimize runoff and sedimentation. Measures to divert stormwater runoff away from fill slopes and other exposed surfaces will be outlined in the SWPPP.

(f) Vegetation Protection Methods

Vegetation that occurs within wetland areas may require periodic cutting. Maintenance cutting of woody vegetation in wetland areas would occur by hand with chain saws or other non-mechanized techniques. Cutting of woody vegetation in wetlands and near stream banks will be limited to removal of only the cut back required to safely perform construction and continue operation of the transmission line. ATSI will adhere to regulatory permit requirements and conditions that will be obtained or authorized for the Project, including specifying that no mechanized clearing of vegetation be performed within the prescribed distance of a wetland or waterbody as discussed below.

(g) Clearing Methods

ATSI will not conduct mechanized clearing within 25 feet of any stream and will only clear (using hand cutting techniques) those trees in this area that are tall enough to or have the potential to interfere with safe and reliable construction and operation of the transmission line. Selective clearing will be required to remove woody vegetation in wetlands that might impede construction or interfere with operation of the transmission line. Where wooded wetlands occur within the ROW, the trees will be removed. Trees adjacent to the proposed transmission line ROW that are dead, dying, diseased, leaning, significantly encroaching, or prone to failure may require clearing to allow for safe and reliable operation of the transmission line. Vegetative waste (such as tree limbs and trunks) that is generated during the construction phase will be windrowed or chipped and disposed of appropriately depending on property owner requests.

(h) Expected Use of Herbicides

Vegetation management activities may include the use of EPA-registered herbicides, in accordance with industry best management practices and property-specific easement rights. All herbicide application will be performed under the supervision of state-certified applicators according to the Manufacturer's Pesticide Label. Following tree removal, cut surfaces of stumps will have herbicide applied directly to the surface of the stump.

(C) LITERATURE SURVEY OF PLANT AND ANIMAL LIFE POTENTIALLY AFFECTED

Both the Preferred and Alternate Routes have potential habitat for wildlife species. Agency coordination has been completed for the Project. A summary of federal and state-listed species

potentially found in the Project Area can be found in Table 8-6. Details regarding protected species can be found in the next section. Details on the expected impacts of construction, operation, maintenance, and mitigation procedures can be found following the species descriptions. Lists of commercial and recreational species were created utilizing professional experience, wildlife sightings, and several field guides produced by the Ohio Department of Natural Resources - Division of Wildlife (ODNR-DOW).

(1) Project Vicinity Species Descriptions

(a) Protected Species

Separate consultation requests were submitted to the USFWS for the Preferred and Alternate Routes, and responses for both were received on September 28, 2022 (Appendix 8-2). ATSI has proposed seasonal tree clearing to be conducted between October 1 and March 31 to avoid impact to listed bat species. Based on the submitted project details and the proposed seasonal tree clearing restrictions, USFWS concluded that they do not anticipate any impact to federally endangered, threatened, proposed, or candidate species.

Separate consultation requests were submitted to ODNR for the Preferred and Alternate Routes, and responses for both were received on October 28, 2022 (Appendix 8-2). ODNR-DOW states the Project is within range of four state-listed bat species and requests conservation of trees where possible and adherence to seasonal clearing restrictions in the event trees must be cut. ATSI plans to adhere to seasonal clearing restrictions as stated above.

Based on ODNR-DOW recommendation, a desktop habitat assessment was conducted to determine if there are potential hibernaculum(a) present within 0.25-mile the Project area. Current USFWS "Range-wide Indiana Bat Survey Guidelines" were followed, and data were obtained from the ODNR Mines of Ohio Viewer, ODNR geologic maps, topographic maps, and aerial photographs. During the desktop analysis, no potential karst features were identified. The bedrock geologies in the area consist mainly of Silurian- and Devonian-age carbonate rocks and shales (ODNR DGS, 1997). Overlaying soils are generally loam or clay loam, with lesser extents of fine sand and sandy loams with some silty loams (USDA NRCS 2023). Based on the desktop habitat review, it does not appear likely that potential hibernacula exist within 0.25-mile of the Project area.

Additionally, ODNR-DOW states the Project is within range of the rayed bean and greater redhorse; ATSI will refrain from in-water work within any streams and therefore is not likely to impact these species.

The Preferred Route vicinity has record of Kirtland's snake. The DOW recommends that a habitat suitability survey be conducted by an approved herpetologist. The habitat survey will be performed in coordination with the DOW completed prior to construction and documentation will be submitted to the OPSB. Within the Alternate Route vicinity, due to the lack of observation

records for the Kirtland's snake, and the type of habitat present, this project is not likely to impact Kirtland's snake.

Both routes are within the range of the blue-spotted salamander and Blanding's turtle. ODNR states that due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact these species.

Both routes are within the range of the lark sparrow, which nests in grassland habitats with scattered shrub layers, disturbed open areas, and patches of bare soil. ODNR recommends that construction should be avoided in these habitat types during the nesting period, May 1 to July 31.

Both routes are within range of the northern harrier. ODNR states that if large marshes or grasslands will be impacted, construction should not occur in these areas from May 15 to August 1 to avoid disturbing nesting birds. Once the final route is approved, ATSI's consultant will conduct an additional review of the habitat along the route based on observations recorded during the completed ecological survey and coordinate with USFWS and ODNR-DOW for additional survey plans, if necessary.

ATSI will utilize an approximately 150-foot-wide permanent ROW for the Project, as well as approximately 25 feet temporary ROW for access roads, to allow for safe and reliable construction and operation of the transmission line and prevent encroachment. ATSI will not conduct mechanized clearing within 25 feet of any stream or wetland and will only clear (using hand cutting techniques) those trees in ecologically sensitive areas that are tall enough to have the potential to interfere with safe construction and reliable operation of the transmission line.

Table 8-6: Listed Species in the Project County (Fulton)

Common Name (Species Name) [a, b]	Federal Status [a, b]	State Status [b]	General Habitat Notes [b]	Recorded Location within Project Vicinity	Potential Habitat in Project Area
Indiana bat (*Myotis sodalis*)	Endangered	Endangered	Roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves	No records returned	Yes
Northern long-eared bat (*Myotis septentrionalis*)	Threatened	Endangered	Roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves	No records returned	Yes
Little brown bat (*Myotis lucifugus*)	NA	Endangered	Roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves	No records returned	Yes
Tricolored bat (*Perimyotis subflavus*)	NA	Endangered	Roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves	No records returned	Yes
Rayed bean (*Villosa fabalis*)	Endangered	Endangered	Perennial streams	No records returned	No unless working in streams
Greater redhorse (*Moxostoma valenciennesi*)	NA	Threatened	Perennial streams	No records returned	No unless working in streams
Kirtland's snake (*Clonophis kirtlandii*)	NA	Threatened	Wet meadows and other wetlands	Record exists within footprint of Preferred Route Field Survey Area	Yes
Lark sparrow (*Chondestes grammacus*)	NA	Endangered	Nests in grassland habitats with scattered shrub layers, disturbed open areas, and patches of bare soil. These summer residents normally migrate out of Ohio shortly after their young fledge or leave the nest.	No records returned	Potentially
Blanding's turtle (*Emydoidea blandingii*)	NA	Threatened	Marshes, ponds, lakes, streams, wet meadows, and swampy forests. Although essentially aquatic, the Blanding's turtle will travel over land as it moves from one wetland to the next.	No records returned	Potentially
Blue-spotted salamander (*Ambystoma laterale*)	NA	Endangered	Sandy soils, open breeding sites such as wet prairies, damp forested areas outside of the breeding season	No records returned	Potentially
Northern harrier (*Circus hudsonis*)	NA	Endangered	This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands.	No records returned	Potentially

a USFWS, 2022 b ODNR-DOW, 2022

(b) Commercial Species

The commercially important species along the proposed routes consist of those hunted or trapped for fur or other byproducts, including the following species. This information was obtained from ODNR-DOW Mammals of Ohio Field Guide (ODNR-DOW, 2016). No species-specific surveys were conducted during the field ecological surveys.

Beaver (*Castor canadensis*): Beavers are found in forested ponds, lakes, and rivers. In rivers, beavers make burrows with an underwater entrance in the riverbank. However, in streams, lakes, and ponds, beavers usually build dams that incorporate a lodge. Based on the habitat present along the routes, beavers could potentially inhabit only a few locations.

Coyote (*Canis latrans*): Historically, coyotes prefer open territory but in Ohio, they have adapted to most any habitat including forests, clearcuts, and woodlots in rural and urban areas. This species is likely found near or within the Project Area yet was not observed during field investigations.

Gray Fox (*Urocyon cinereoargentus*): The gray fox prefers wooded areas and partially open brush land with little human presence. Based on habitat present along the routes, this species could potentially be found near or within the Project yet was not observed during field investigations.

Long-tailed weasel (*Mustela frenata*): The long-tailed weasel is found in most land habitats near water but avoid dense forests. Based on habitat present along the routes, this species is potentially found near or within the Project Area yet was not observed during field investigations.

Mink (*Neovison vison*): Mink are usually found near streams, river, marshes, and lakes, especially in wooded or brushy areas. This species was not observed during the field investigations, yet potentially are found near or within the Project Area.

Muskrat (*Ondatra zibethicus*): The muskrat is an aquatic rodent, inhabiting marshes, ponds, lakes, and rivers. This species was not observed during the field investigations, but it could inhabit select locations within the Field Survey Area.

Raccoon (*Procyon lotor*): The raccoon is widespread in Ohio, including in suburban and urban areas. Raccoons prefer wooded areas with water nearby. This nocturnal species was not observed during the field investigations, but it is likely present throughout the area.

Red fox (*Vulpes vulpes*): The red fox inhabits a wide range of habitats, including mixed, cultivated, wooded areas, and brush lands. This species was not observed during field surveys, yet potentially is present near or within the Project Area.

River otter (*Lontra canadensis*): River otters live in aquatic habitats, such as rivers, lakes, and marshes. They prefer tributaries of large, clean drainages where there is minimal human

disturbance. This species was not observed during field surveys, but potentially desirable habitat is within the Project Area, and therefore, the river otter may be found in the Project Area.

Striped skunk (*Mephitis mephitis*): The skunk is an adaptable animal that occupies both rural and suburban areas. They are found in somewhat open areas including woods, grasslands, and agricultural clearings. Their dens may be located under buildings, in open fields, on hillsides, or under logs in the woods, which may have been self-created or formerly used by other animals. This primarily nocturnal species was not observed during the field investigations, but it likely inhabits areas within the Field Survey Area.

Virginia opossum (*Didelphis virginiana*): This marsupial's preferred habitat is an area interspersed with woods, wetlands, and farmland; however, they are an adaptable animal that can also be found in urban and suburban areas. This nocturnal species was not observed during the field investigations, but it likely exists within the Field Survey Area.

(c) Recreational Species

Recreational terrestrial species consist of those hunted as game. Recreational species expected to inhabit the Project Area include those listed below. This information was obtained from several ODNR-DOW field guides: Common Birds of Ohio (ODNR-DOW, 2013), Waterbirds of Ohio (ODNR-DOW, 2008), Mammals of Ohio Field Guide (ODNR-DOW, 2016), and Sport Fish of Ohio (ODNR-DOW, 2012).

(i) Fowl

American crow (*Corvus brachyrhynchos*): The American crow is found in all Ohio counties. They are able to exploit a variety of habitats but prefer rural areas with a mosaic of agricultural fields, meadows, and woodlots. American crows were observed within the Field Survey Area.

American woodcock (*Scolopax minor*): Woodcock are often found in brushy pastures and woodland borders, usually in damp areas. They are sometimes found in older woods and drier fields. This species was not observed during field surveys but has the potential to occur.

Geese: Several geese species can be found in Ohio, although typically during migration: snow geese (*Chen caerulescens*), greater white-fronted geese (*Anser albifrons*), cackling geese (*Branta hutchinsii*), and brant (*Branta bernicla*). The Canada goose (*Branta canadensis*) is commonly found throughout Ohio, both as residents and migrants. Habitat for Canada geese was observed in the Field Survey Area and Canada geese were the only wild goose species observed during field surveys.

Mourning dove (*Zenaida macroura*): Mourning doves occur in open countryside interspersed with agricultural fields, pastures, and open woods. Habitat for this species is present throughout the routes. This species was observed frequently during field surveys.

Mergansers: Several merganser species can be found in Ohio, such as the common merganser (*Mergus merganser*), red-breasted merganser (*Mergus serrator*), and hooded merganser (*Lophodytes cucullatus*). Habitat for these species includes deep open waters, marshes, and ponds. Habitat for these species is present along the routes in select areas. This species was not observed during field surveys.

Northern bobwhite (*Colinus virginianus*): The northern bobwhite can be found in open country interspersed with brushy thickets, scattered trees, grasslands, reverting fields, and pastures. This species could exist in select locations in the Project Area; however, it was not observed during field surveys.

Ring-necked pheasant (*Phasianus colchicus*): This species prefers open country with a mosaic of grasslands, overgrown fence rows, and agricultural fields. This species likely inhabits select locations in the Project Area; however, no pheasants were observed during field surveys.

Ruffed Grouse (*Bonasa umbellus*): Grouse habitat includes forests, particularly in young, scruffy clearcuts and brushy thickets. There is habitat present within the Project Area, therefore it is possible that the ruffed grouse occurs.

Teal: Several teal species could be found in Ohio; the cinnamon teal (*Anas cyanoptera*), green-winged teal (*Anas crecca*), and blue-winged teal (*Anas discors*). They are usually birds of shallow marshes, flooded fields, and well-vegetated shorelines. Habitat for these species is not present within the Field Survey Area, and no species were observed during field surveys.

Various duck species: Various duck species can be found in Ohio, most of which are present only during migration. The American black duck (*Anas rubripes*), redhead (*Aythya americana*), greater scaup (*Aythya marila*), lesser scaup (*Aythya affinis*), canvasback (*Aythya valisineria*), and northern pintail (*Anas acuta*) are usually only found in Ohio during migration and could be found near the proposed routes at that time. The mallard (*Anas platyrhynchos*) and wood duck (*Aix sponsa*) are two duck species that regularly reside and migrate through Ohio.

- Mallard: Most mallards occupy extensive wetlands; however, they are very adaptable. Mallards can be found inhabiting small farm ponds, ditches with flowing water, streams, lakes, and ponds in urban areas. Habitat for this species does exist throughout the Field Survey Area, but this species was not observed.
- Wood Duck: The wood duck prefers mature riparian corridors, quiet backwaters of lakes, ponds bordered by large trees, and secluded wooded swamps. Habitat for this species was not present in the Field Survey Area and this species was not observed.

Wild turkey (*Meleagris gallopavo*): Wild turkeys are adaptable animals, but they prefer deciduous forests and forage in fields near woodland borders. Habitat for this species was observed in the Project Area.

(ii) Mammals

Eastern cottontail rabbit (*Sylvilagus floridanus*): This species is found in both rural and urban areas. They prefer open areas bordered by thickets or brush areas. This species' preferred habitat was found throughout the Project Area but was not observed.

Gray, fox, and red squirrels (*Sciurus carolinensis, Sciurus niger*, and *Tamiasciurus hudsonicus,* respectively): The eastern gray squirrel inhabits large expanses of deciduous forests. The fox squirrel inhabits deciduous and mixed forests but prefers more open habitats than gray squirrels. The red squirrel prefers coniferous and mixed forests and is most commonly found around mature conifers. Squirrels were observed during the field surveys.

White-tailed deer (*Odocoileus virginianus*): White-tailed deer are found in a variety of habitats, including woods, farmland, brushy areas, dense thickets, and edges. Deer were observed during the field surveys.

Woodchuck (*Marmota monax*): Woodchucks live in open grasslands, pastures, and woodlands. This species was not observed during field surveys but is likely present throughout the Project Area.

(iii) Game Fish

Based upon the hydrologic connectivity and the nature of the surface water habitats known to occur within the Project Area, diverse game fish species could potentially inhabit the larger streams and ponds within the Project Area. A list of game fish known to occur in Ohio was obtained from ODNR-DOW's Sport Fish of Ohio Identification Guide (ODNR-DOW, 2012). The list was narrowed to fish most likely to be found within the Project Area based on professional judgment and experience, and as such, the list of species presented in this section is not an exhaustive list of all species potentially present in the Project Area. The listed species are known to be regionally common and likely to occur on a case-by-case basis, within the surface water features proposed to be crossed or encroached. Neither aquatic species nor habitat surveys were completed as part of the field surveys.

Black crappie (*Pomoxis nigromaculatus*): Black crappie are widely distributed throughout Ohio and generally prefer clear water habitats with abundant aquatic vegetation, such as streams and ponds.

Bluegill (*Lepomis macrochirus*): Bluegill are found throughout Ohio but prefer clear ponds and lakes with rooted vegetation.

Bullhead Catfish (*Ameiurus* spp.): Bullhead catfish are common throughout Ohio. Brown bullheads prefer clean, clear water with little vegetation, while black bullheads can tolerate more turbid water. Yellow bullheads prefer areas with heavy vegetation.

Common Carp (*Cyprinus carpio*): Carp can be found in throughout Ohio, preferring turbid waters rich in organic matter.

Green Sunfish (*Lepomis cyanellus*): Green sunfish are present in most lakes and streams throughout Ohio and tolerate turbid water. They are regularly associated with structure such as brush, vegetation, or rocks.

Largemouth Bass (*Micropterus salmoides*): Largemouth bass are found in ponds, lakes, and slow sluggish streams throughout Ohio.

Pumpkinseed (*Lepomis gibbosus*): Pumpkinseed sunfish are widespread in waterways that drain to Lake Erie and prefers still waters with dense submerged vegetation.

Rock bass (*Ambloplites rupestris*): Rock bass are widespread throughout Ohio and prefer clear streams with coarse gravel and boulders.

White Crappie (*Pomoxis annularis*): White crappie inhabit larger ponds, lakes, and rivers throughout Ohio and tolerate a variety of habitats and conditions including turbidity and silt. Construction Impacts on Identified Species

Based on the nature of the proposed Project activities and habitat characteristics of the surrounding vicinity, construction impacts to protected species are not anticipated. Winter tree clearing (October 1 through March 31) will avoid impacts to bat species, and no in-water work will occur in perennial streams from April 15 through June 30 to prevent impacts to indigenous aquatic species. Additionally, ATSI has proposed to minimize impacts to wetlands and other water resources to the fullest extent possible through avoidance where possible and the utilization of BMPs to minimize erosion and sedimentation. ATSI will communicate with USFWS and ODNR regarding specific construction requirements, including specific recommendations for avoiding species specific habitat impacts if specified during coordination with USFWS or ODNR. The impact on other specific identified species (recreational and commercial) is expected to be minor due to avoidance of impacts during Project planning, the utilization of BMPs during Project construction, and the mobility of the listed recreational or commercial species.

(2) Operation and Maintenance Impacts on Identified Species

Minimal impacts are anticipated to protected wildlife during operation and maintenance of the transmission line. Clearing of secondary growth vegetation will be required along some portions of the ROW for either of the proposed routes. Undeveloped land (woodlots) totals approximately 2.8 percent of the Preferred Route and approximately 3.6 percent of the Alternate Route. Operational activities and periodic maintenance of the ROW are not anticipated to impact wildlife significantly because of the minimal permanent ground disturbance and available adjacent habitat available.

(3) Mitigation Procedures

If areas are identified during the informal consultation process with USFWS and ODNR that are of special concern, ATSI will coordinate with these agencies to develop appropriate mitigation measures. The mitigation measure will be implemented if the area of special concern is located within the route approved by the OPSB.

(D) SITE GEOLOGY

(1) Site Geology

The Project is located within the Maumee Lake Plains and Maumee Sand Plains regions of the Huron-Erie Lake Plains section, within the Central Lowland province. The Maumee Lake Plains region is a flat-lying Ice Age lake basin with beach ridges, bars, dunes, deltas, and clay flats, elevations ranging from 800 to 1,400 feet, and very low relief. It contained the former Black Swamp and is now slightly dissected by modern streams. The Maumee Sand Plains region is a lacustrine plain mantled by sand with elevation ranging from 600 to 800 feet, has very low relief, and is well to poorly drained. It includes low dunes, inter-dunal plains, beach ridges, and sand sheets of glacial lakeshores (ODNR-DGS, 1998).

Soils are primarily loams and sandy loams, with minor amounts of fine sands, clay loams, silty clay loams, and silt loams (USDA NRCS, 2023). The parent materials of these soils are primarily:

- Outwash (Brady, Digby, Gilford, Millgrove, Perrin Groups, and outwash over till [Rawson])
- Till (Boyer [over outwash], Glynwood, Hoytville, Nappanee)
- Glaciolacustrine (Colwood, Ottokee, Tedrow, and Tuscola; as well as Rimer, Haskins, Wauseon, and Mermill [all over till])
- Beach Sand and/or Eolian Deposits (Colonie, Oakville, and Seward)
- Alluvium (Shoals and Sloan)
- And Glaciofluvial (Dixboro)

The most prevalent parent material in the study area is till (over 40 percent) followed by glaciolacustrine (nearly 38 percent) (USDA NRCS, 2022).

The Project is underlain by Pleistocene-age silt, clay, and wave-planed clayey till over Silurian and Devonian-age carbonate rocks and shales, and by Late Wisconsinan-age sand over clay till and lacustrine deposits with deeply buried Silurian- and Devonian-age carbonate rocks and shales (ODNR-DGS, 1998).

(2) Slopes and Foundation Soil Suitability

No slopes exceed 12 percent along the Preferred Route or the Alternate Route (USDA NRCS, 2023).

The bedrock geologies in the area consist mainly of Silurian- and Devonian-age carbonate rocks and shales (ODNR DGS, 1998). Overlaying soils are generally loam (approximately 50 percent of the Routes) or clay loam (nearly 30 percent of the Routes), with lesser extents of fine sand and sandy loams with some silty loams (USDA NRCS 2023). To obtain further site-specific details on the suitability of the soils for foundation construction, ASTI will conduct detailed engineering design and geotechnical soil borings. Engineering design and geotechnical test drilling will likely be completed soon after the Project is certificated by the OPSB, and engineering plans and boring logs will be provided to the staff shortly thereafter.

ATSI anticipates that foundations will only be required at some angle structures that will be ultimately determined during the engineering design. When required, foundations will be engineered based on the results of geotechnical soil boring and laboratory test results to ensure they are sited in locations considered suitable based on soil and rock properties and surface slope.

(E) ENVIRONMENTAL AND AVIATION REGULATION COMPLIANCE

(1) Licenses, Permits, and Authorizations Required for the Facility

ASTI anticipates submitting a Notice of Intent for coverage under the OEPA General National Pollutant Discharge Elimination System (NPDES) Permit. Coverage under USACE's Nationwide Permit 12 for wetland and waterbody impacts associated with Utility Line Activities may be required but will be determined once the construction plan is finalized and impacts to waters can be determined. It is also anticipated that multiple road crossing permits from Ohio Department of Transportation and the Ohio Turnpike Commission will be required.

(2) Construction Debris

The site will be kept clean of debris resulting from the work. Debris associated with construction of the proposed transmission line will likely include conductor scrap, construction material packaging including cartons, insulator crates, conductor reels and wrapping, and used stormwater erosion control materials. Clearance poles, conductor reels and other materials with salvage value will be removed from the construction area for reuse or salvage. Construction debris will be disposed of in accordance with state and federal requirements in an OEPA-approved landfill or other appropriately licensed and operated facility. Where vegetation must be cleared, the resulting brush will be removed or windrowed along the edge of the ROW or as requested by individual property owners. Marketable timber will generally be cut into appropriate lengths for sale or disposition by the property owner.

(3) Stormwater and Erosion Control

ATSI will prepare a SWPPP and implement BMPs to minimize soil erosion and sedimentation and other pollutant discharges; both will be available onsite during Project construction. The SWPPP will include the following General Conditions, at a minimum:

Erosion and Sediment Controls

Implementation of erosion and sediment control practices will be based on the methods and standards described in the ODNR *Rainwater and Land Development* manual (ODNR, 2018); and the OEPA NPDES Permit Program for the discharge of stormwater from construction sites.

Wetlands, streams, and other environmentally sensitive areas will be clearly marked before the start of clearing or construction. No construction or access will be permitted in these areas unless specified in the SWPPP.

No permanent impacts to streams or headwaters are anticipated. No transmission poles are anticipated to be located in streams and no permanent stream crossings are anticipated. Streams, including beds and banks, if disturbed during construction, will be re-stabilized immediately after in-channel work is completed.

Although grubbing activities are not anticipated, sediment basins, traps, and perimeter sediment controls will be implemented within 7 days of any potential grubbing activities. Sediment controls will continue to function until disturbed areas are permanently stabilized.

Silt Fence: Silt fencing or other appropriate BMPs for erosion control will be installed as needed before ground-disturbing work begins. Silt fence will be installed according to the methods recommended in the *Rainwater and Land Development* manual (ODNR, 2018) before upslope land disturbance begins. In general, silt fence will be used where there is the possibility that sheet flow will carry sediment-laden water into downstream creeks or wetlands. Other methods will be used where flow in ditches, channels, or gullies is anticipated. The following installation guidelines will be followed:

- Silt fence will be constructed before upslope land disturbance begins.
- All silt fences will be placed as close to the contour as possible so that water will not concentrate at low points in the fence and so that small swales or depressions that may carry small, concentrated flows to the silt fence are dissipated along its length.
- Ends of the silt fences will be brought upslope slightly so that water ponded by the silt fence will be prevented from flowing around the ends.
- Silt fences will be placed on the flattest area available.
- Where possible, vegetation will be preserved for 5 feet (or as much as possible) upslope from the silt fence. If vegetation is removed, it will be reestablished within 7 days from the installation of the silt fence.
- The height of the silt fence will be a minimum of 16 inches above the original ground surface.
- The silt fence will be placed in an excavated or sliced trench cut a minimum of 6 inches deep. The trench will be made with a trencher, cable laying machine, slicing machine, or other suitable device that will ensure an adequately uniform trench depth.

- The silt fence will be placed with the stakes on the downslope side of the geotextile. A minimum of 8 inches of geotextile will be below the ground surface. Excess material will lay on the bottom of the 6-inch deep trench. The trench will be backfilled and compacted on both sides of the fabric.
- Seams between sections of silt fence will be spliced together only at a support post with a minimum 6-inch overlap prior to driving into the ground.

Soil Stabilization: Disturbed areas that remain unworked for more than 21 days will be stabilized with seed and mulch no later than 14 days after the last construction in that area.

Maintenance and Inspection: Erosion and sediment control practices will be inspected at least once every 7 days and within 24 hours after any storm event greater than 0.5 inch of rain per 24-hour period.

ATSI will maintain erosion control measures in good working order. If a repair is necessary, it will be initiated within 24 hours of report. Silt fencing will be inspected for depth of sediment, for tears, for assurance fabric is securely attached to the fence posts, and to ensure that the fence posts are firmly in the ground. Seeded areas will be inspected for evidence of bare spots or washouts. Permanent records of the maintenance and inspection must be maintained throughout the construction period. Records will include, at a minimum, the name of the inspector, major observations, date of inspection, certification of compliance, and corrective measures taken.

A stormwater detention basin will be required for the proposed Melbourne Substation. This stormwater basin is currently being designed and will be included in the SWPPP.

(4) Disposition of Contaminated Soil and Hazardous Materials

All materials stored onsite will be kept in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure. Products will be kept in their original containers with the original manufacturer's label. Manufacturer's recommendations for proper use and disposal will be followed. Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS) will be retained and available onsite at all times.

The following General Conditions will also be included in the SWPPP to address disposition of contaminated soil and hazardous materials generated or encountered during construction:

The following spill prevention methods and procedures are proposed:

- All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers, which are clearly labeled.
- Secondary containment will be provided for all onsite fuel storage tanks required during construction.

- All sanitary waste will be collected in portable units and emptied regularly by a licensed sanitary waste management contractor, as required by local regulations.
- All spills will be cleaned up immediately after discovery. Manufacturer's recommended methods for spill cleanup will be followed. Materials and equipment necessary for spill cleanup will be kept in a designated storage area onsite.
- Spills will be reported to the appropriate government agency as required.
- Suspected hazardous materials encountered during construction will be reported to the regional environmental coordinator by the transmission construction representative. In addition, the Project Manager will be notified.

(5) Maximum Height of Above Ground Structures

The height of the tallest anticipated aboveground structure and construction equipment is designed to be approximately 225 feet. The nearest airport, the Fulton County Regional Airport, located northwest of Delta, Ohio, is approximately 5 miles from the western end of the Project area. The Toledo Express Airport is located approximately 3.8 miles east of the eastern end of the Project area.

The Federal Aviation Administration (FAA) Form 7460-1, "Notice of Proposed Construction or Alteration," is used for FAA notification. This can be filed electronically or by standard U.S. mail. A 7.5-minute quadrangle topographic map showing the proposed construction must be attached to the completed Form 7460-1. The Form 7460-1 must be submitted 45 days prior to the proposed start of construction.

Additionally, a permit from the Ohio Department of Transportation, Office of Aviation, must be obtained prior to the start of any construction on or near airports in Ohio that are open to the public. A duplicate of the federal filing fulfills the state permit application requirements as set forth in OAC 5501:1-10-06.

(a) Filing Criteria

The FAA Form 7460-1 must be filed for any construction or alteration of more than 200 feet in height. Additionally, any construction or alteration extending outward and upward more than specific slope angles in reference to aircraft take-off or landings on airport runways may require filing with the FAA. With the highest structure estimated at 225 feet, ATSI anticipates filing Form 7460-1 with the FAA. The FAA will subsequently determine any marking and lighting requirements.

(6) Dusty or Muddy Conditions Plan

(a) Dust Control

The site and surrounding areas will be kept as free from dust as reasonably possible for given meteorological and site conditions during construction and operation. During excessively dry

periods of active construction, dust suppression will be implemented where necessary through irrigation, mulching, or application of tackifier resins.

(b) Excessive Muddy Soil Conditions

Construction entrances will be established and maintained to a condition that will prevent tracking or flowing of sediment onto public ROW. Accumulated sediment spilled, dropped, washed, or tracked onto public ROWs will be removed as soon as practical.

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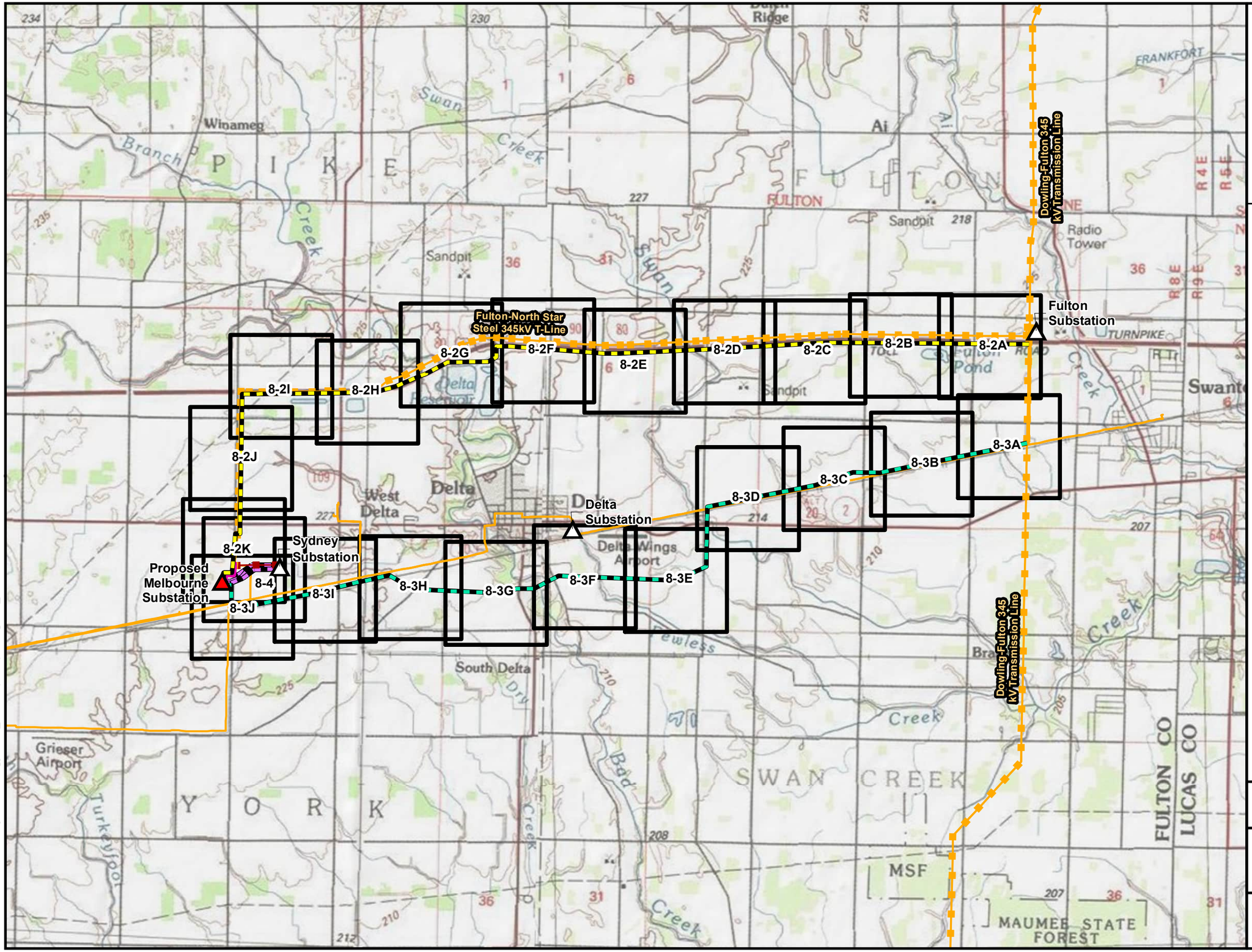
Figures



LOCATOR MAP

LEGEND:

- Existing Substation
- Proposed Melbourne Substation
- Preferred Route
- Alternate Route
- Extension Line (Future Filing)
- Tie Line (Preferred and Alternate Routes)
- Existing 345 kV Transmission Line
- Existing 345 kV Transmission Line to be Removed (Future Filing)
- Existing 138 kV T-Line
- Figure Key

BASE MAP SOURCE:
Esri USA Topo Map
USGS 7.5 Minute
Topograch Quadrangles:
Delta and Swanton

Coordinate System: State Plane
Ohio North FIPS 3401 Feet
Datum: NAD 1983
Scale: 1:24,000

3/6/2023

N

ATSI
American Transmission Systems, Inc.
a subsidiary of FirstEnergy Corp.

Dowling-Fulton 345 kV Transmission Line Tap to Melbourne Substation Project

FIGURE 8-1
WETLAND AND WATERBODY OVERVIEW MAP

0 4,500 9,000
FEET

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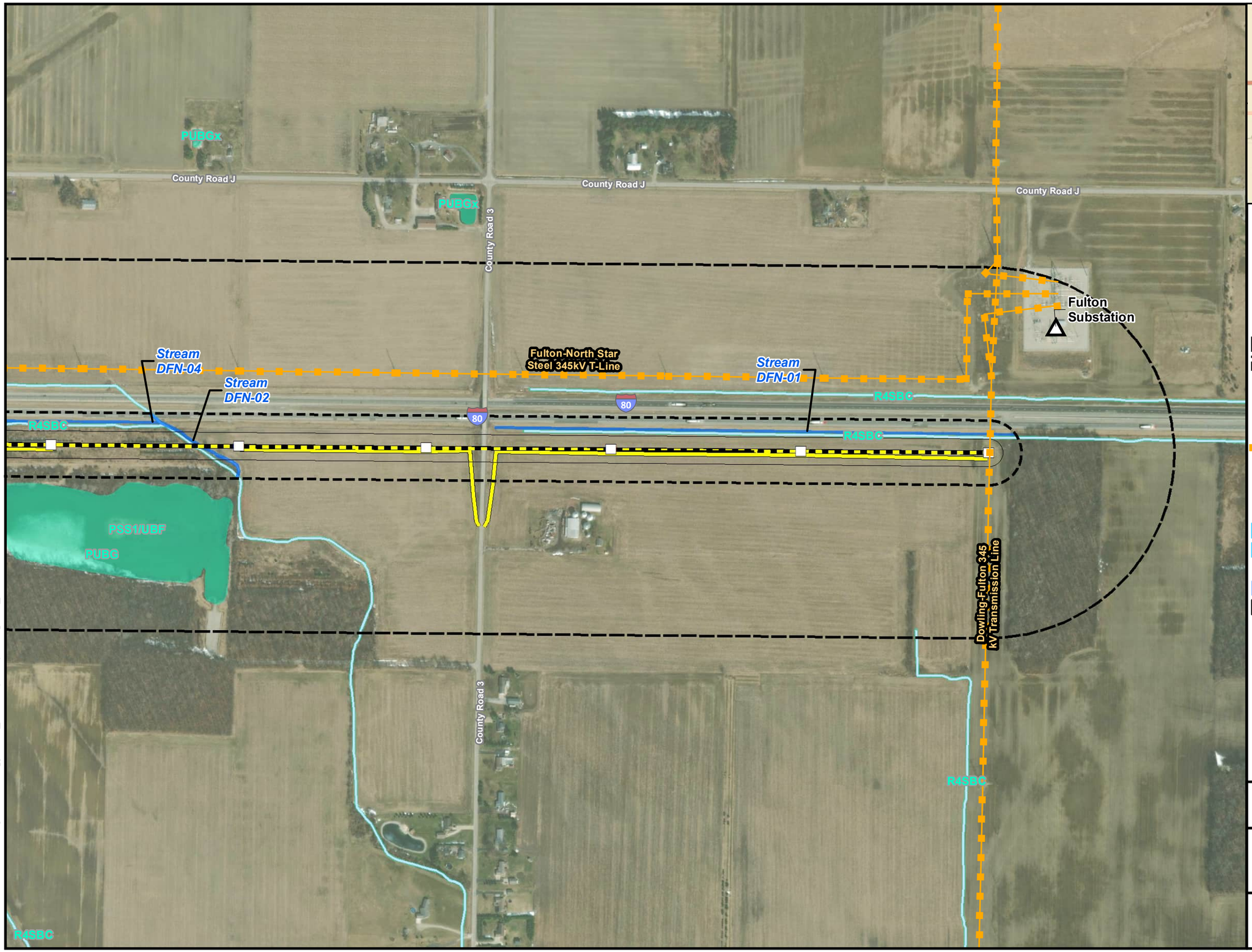

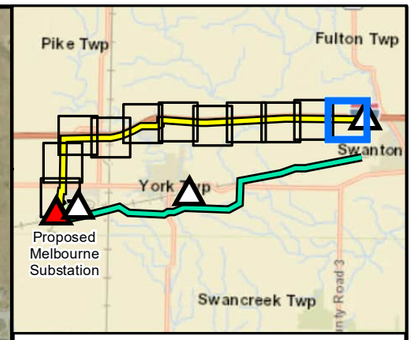

LEGEND:

- Existing Substation
- Preliminary Proposed Structure
- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Existing 345 kV Transmission Line
- Proposed Access Road
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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Dowling-Fulton 345 kV Transmission Line Tap to Melbourne Substation Project

FIGURE 8-2A
PREFERRED ROUTE DELINEATED WETLAND AND WATERBODIES MAP

0 500 1,000
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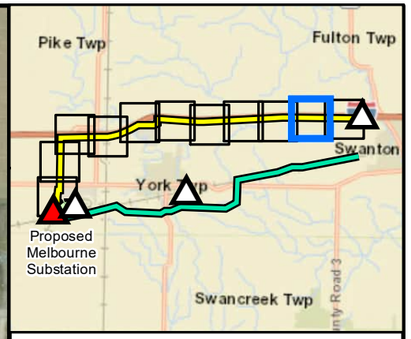

LEGEND:

- Preliminary Proposed Structure
- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Existing 345 kV Transmission Line
- Proposed Access Road
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-2B
PREFERRED ROUTE DELINEATED WETLAND AND WATERBODIES MAP

0 500 1,000
FEET

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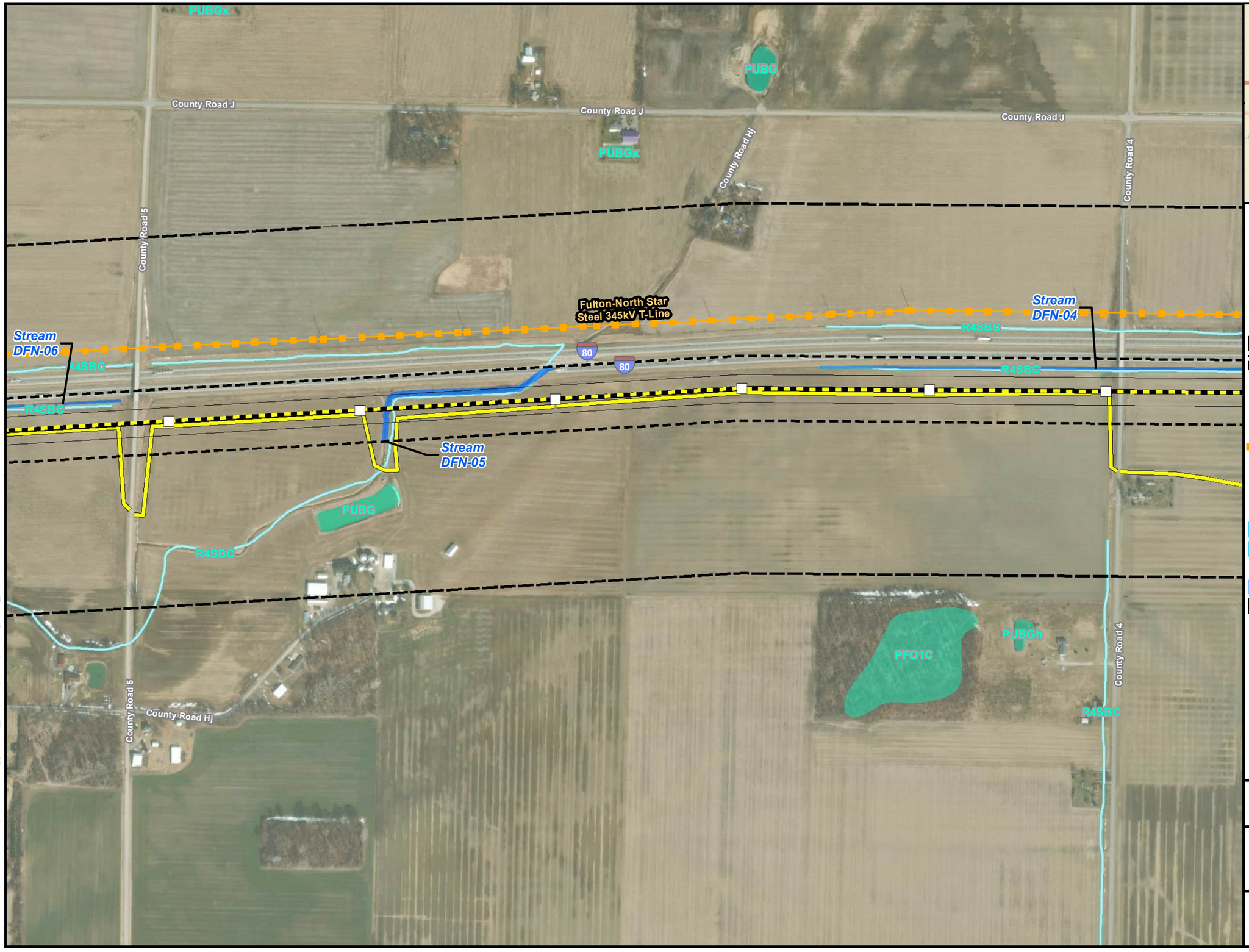

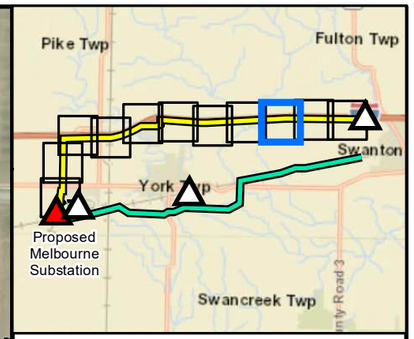

LEGEND:

- Preliminary Proposed Structure
- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Existing 345 kV Transmission Line
- Proposed Access Road
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-2C
PREFERRED ROUTE DELINEATED WETLAND AND WATERBODIES MAP

0 500 1,000
FEET

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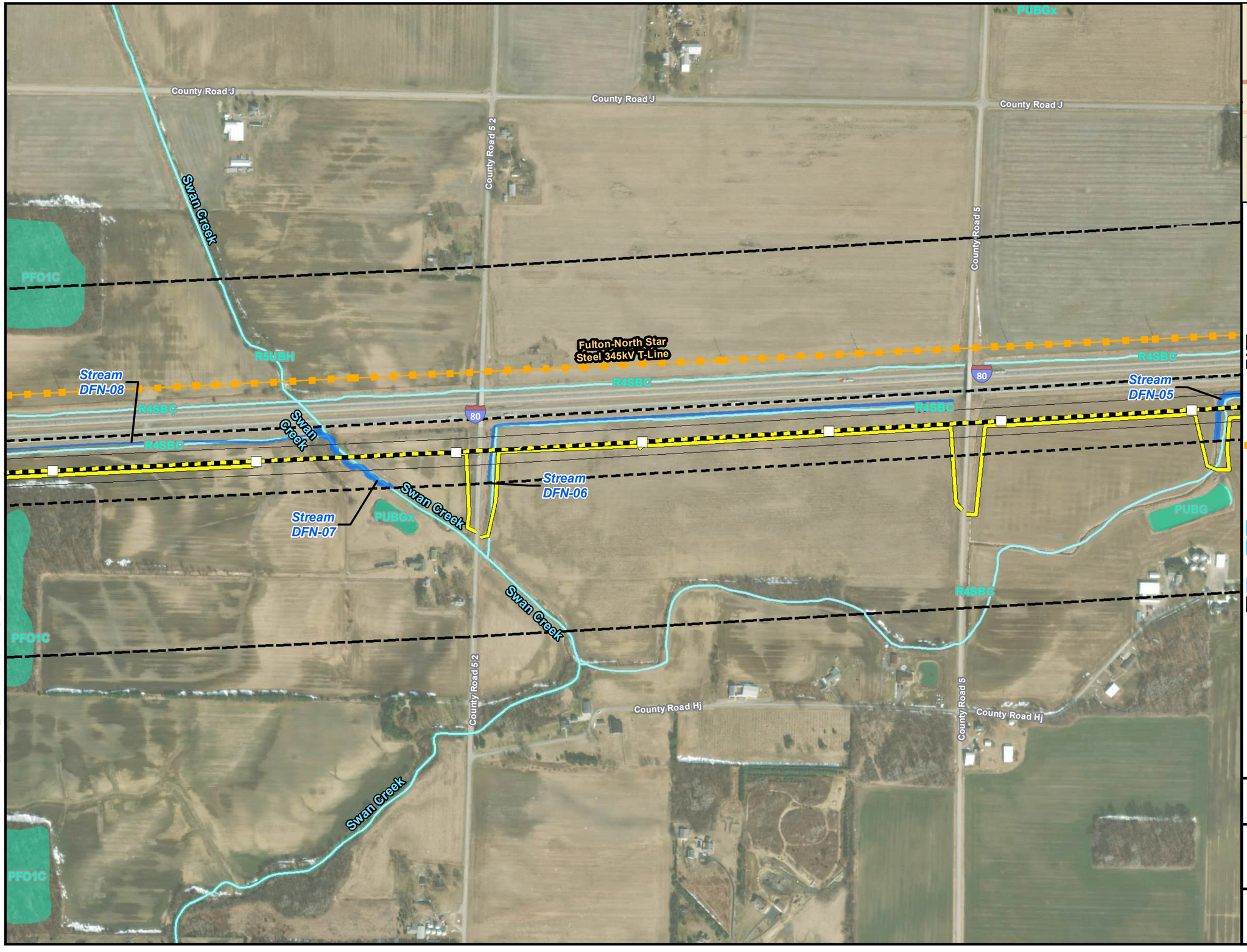

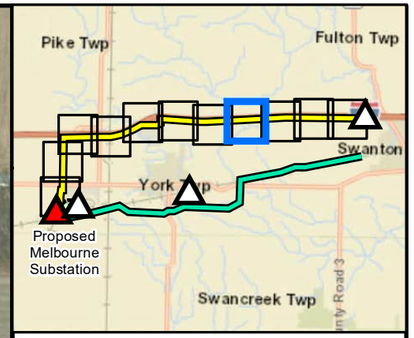

LEGEND:

- Preliminary Proposed Structure
- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Existing 345 kV Transmission Line
- Proposed Access Road
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-2D
PREFERRED ROUTE DELINEATED WETLAND AND WATERBODIES MAP

0 500 1,000
FEET

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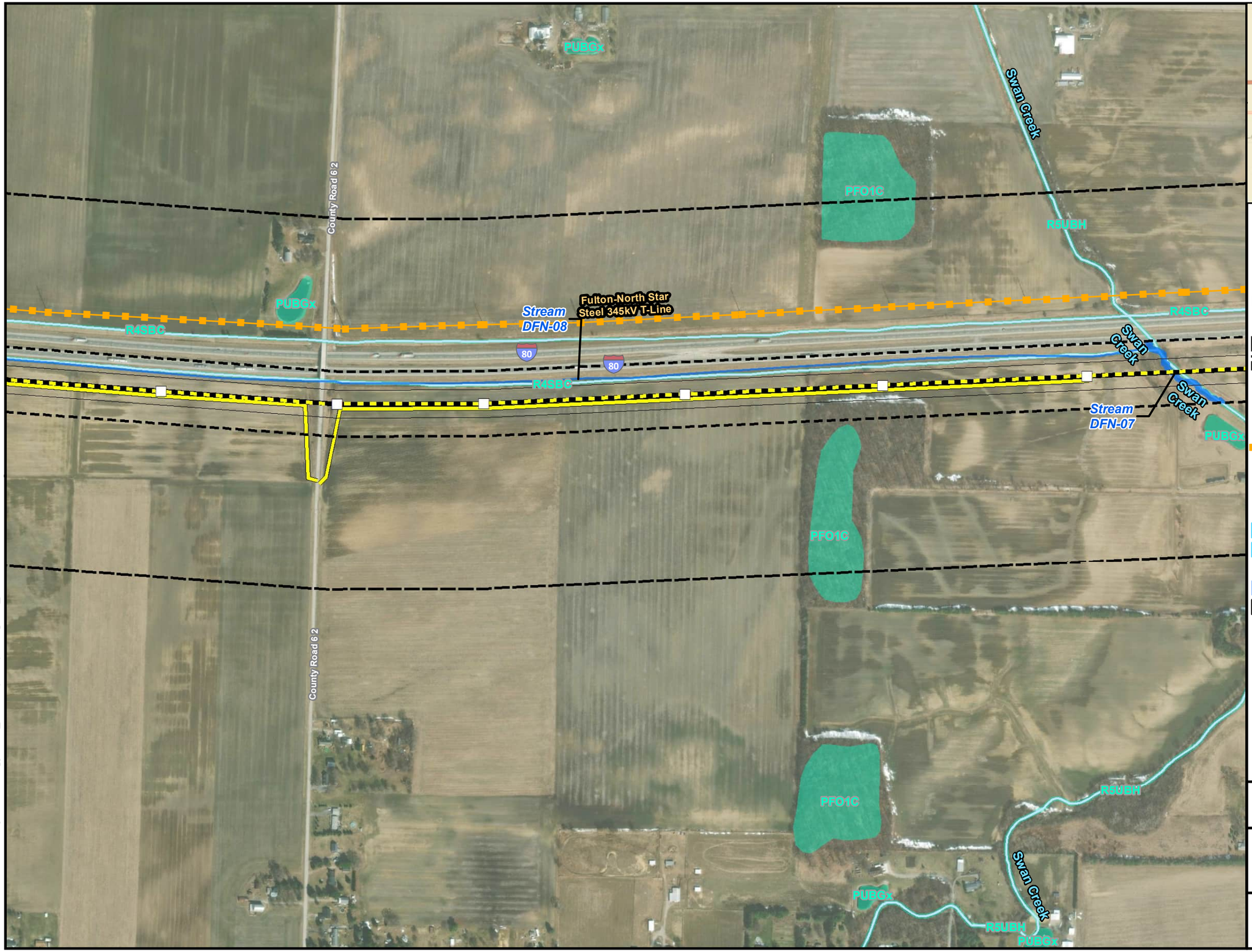

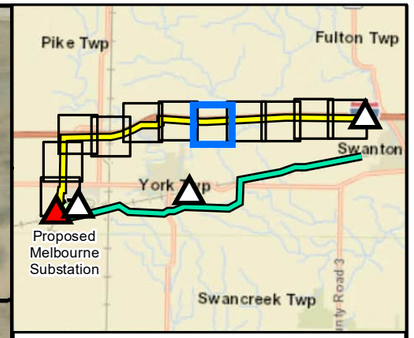

LEGEND:

- Preliminary Proposed Structure
- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Existing 345 kV Transmission Line
- Proposed Access Road
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
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Coordinate System:
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Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-2E
PREFERRED ROUTE DELINEATED WETLAND AND WATERBODIES MAP

0 500 1,000
FEET

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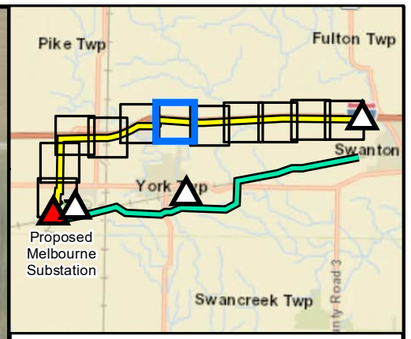

LEGEND:

- Preliminary Proposed Structure
- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Existing 345 kV Transmission Line
- Proposed Access Road
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-2F
PREFERRED ROUTE DELINEATED WETLAND AND WATERBODIES MAP

0 500 1,000
FEET

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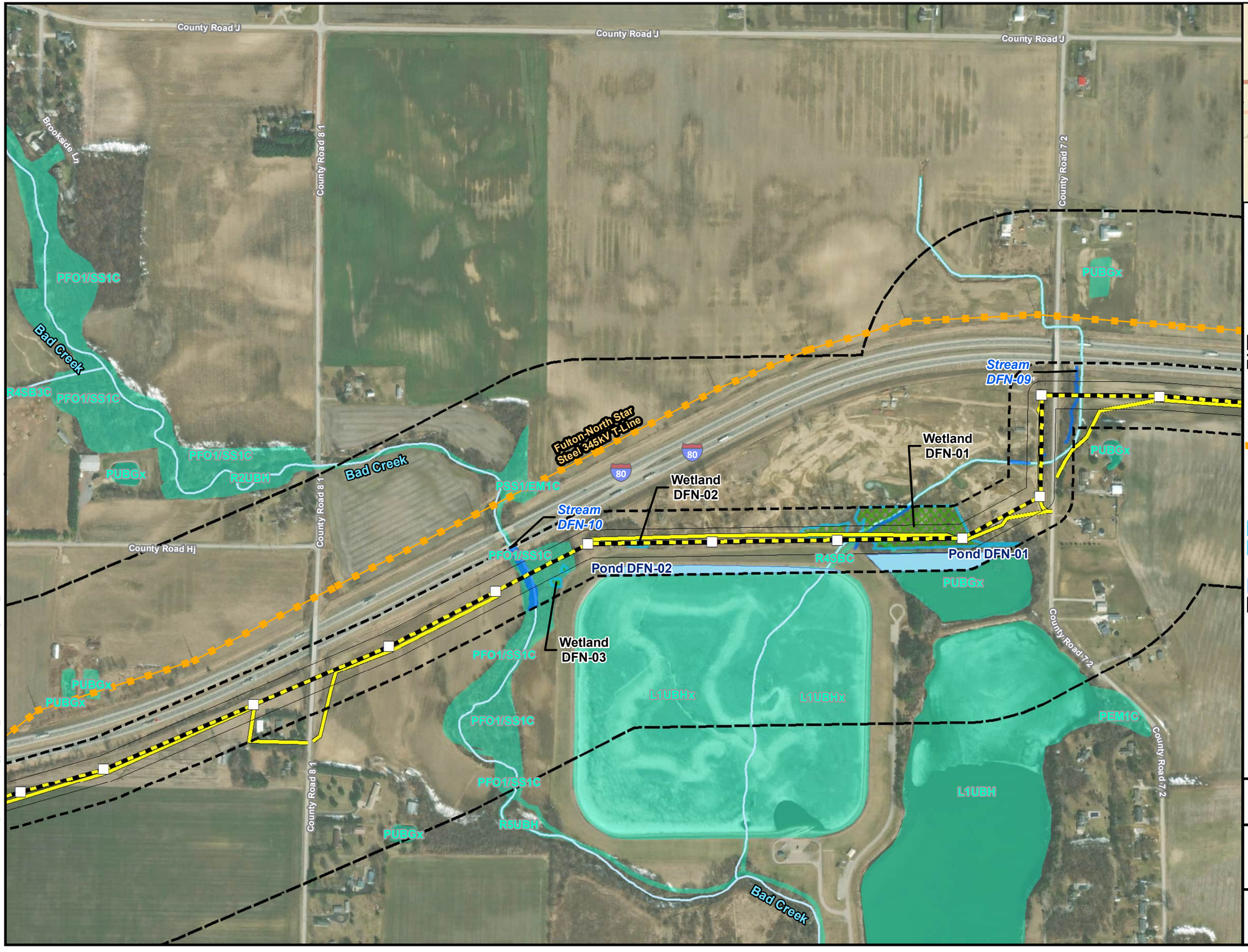

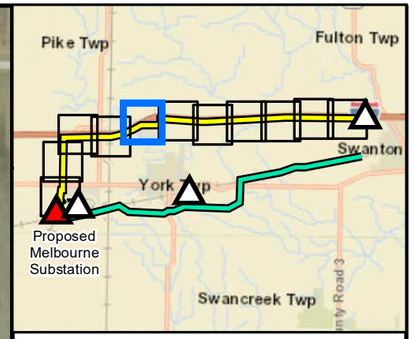

LEGEND:

- Preliminary Proposed Structure
- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Existing 345 kV Transmission Line
- Proposed Access Road
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-2G
PREFERRED ROUTE DELINEATED WETLAND AND WATERBODIES MAP

0 500 1,000
FEET

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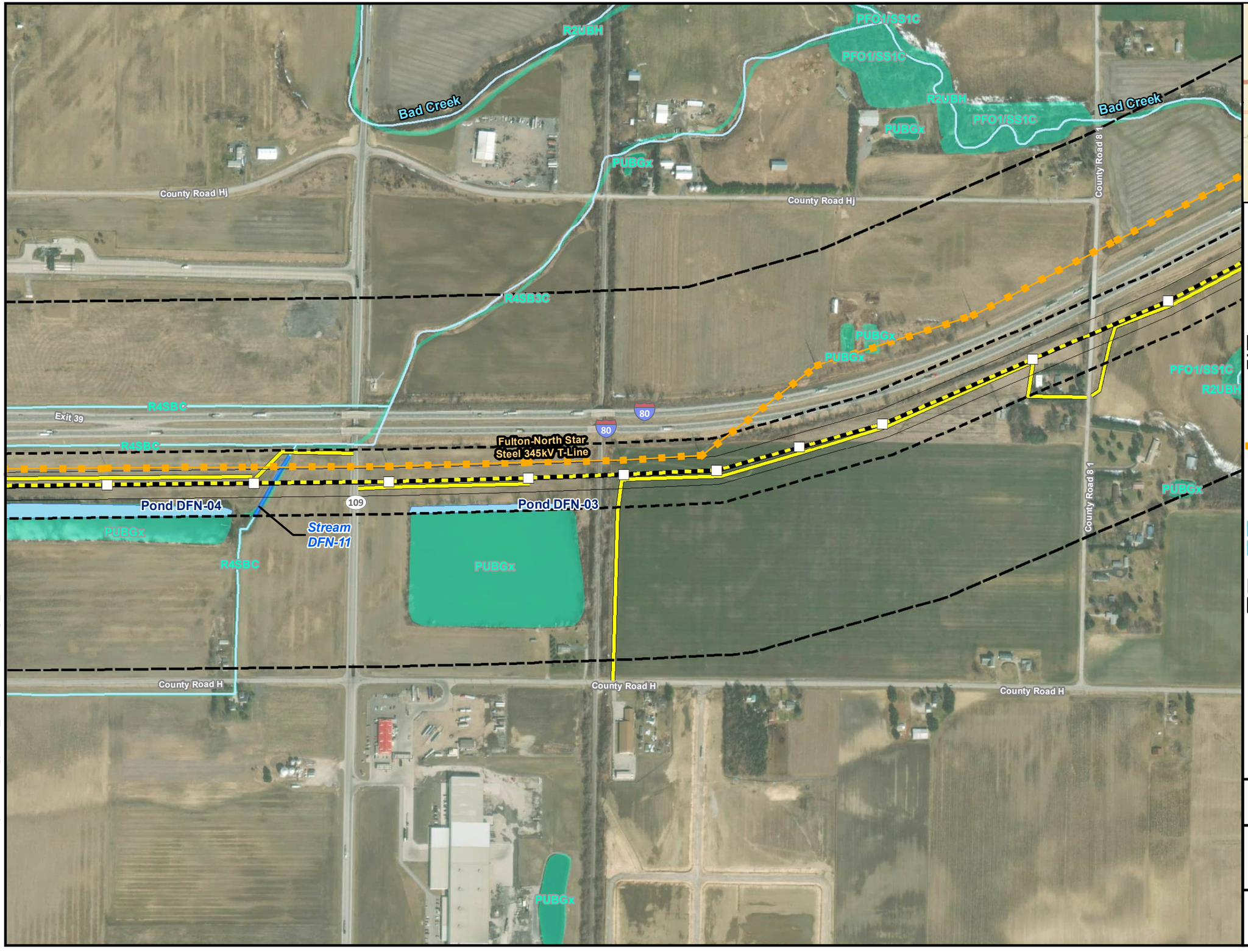

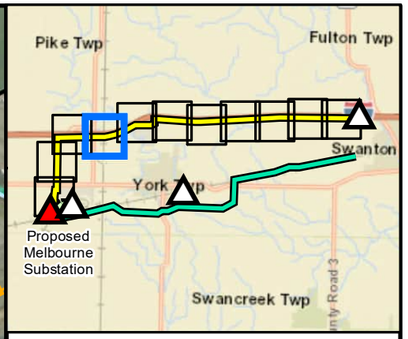

LEGEND:

- Preliminary Proposed Structure
- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Existing 345 kV Transmission Line
- Proposed Access Road
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-2H
PREFERRED ROUTE DELINEATED WETLAND AND WATERBODIES MAP

0 500 1,000
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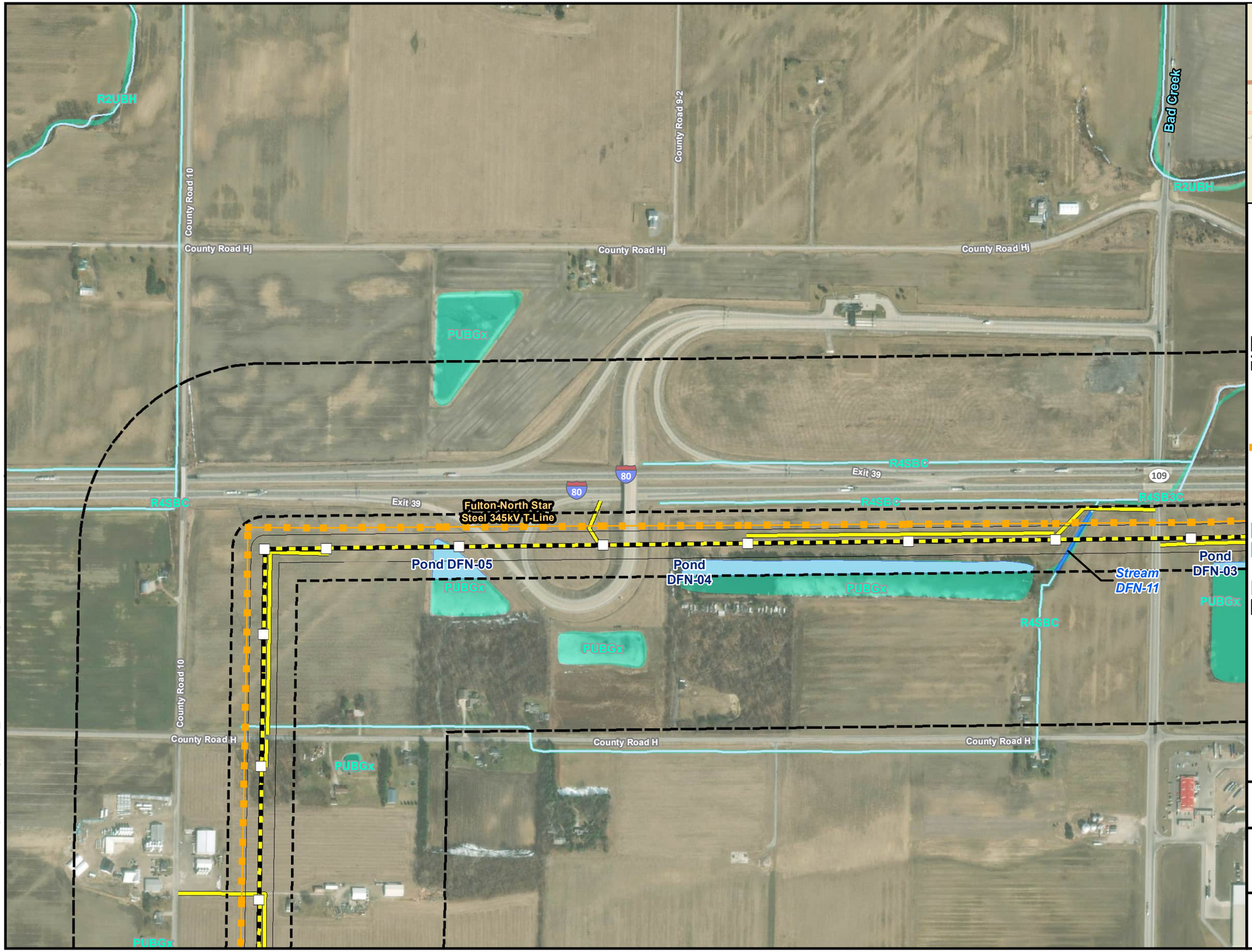

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LEGEND:

- Preliminary Proposed Structure
- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Existing 345 kV Transmission Line
- Proposed Access Road
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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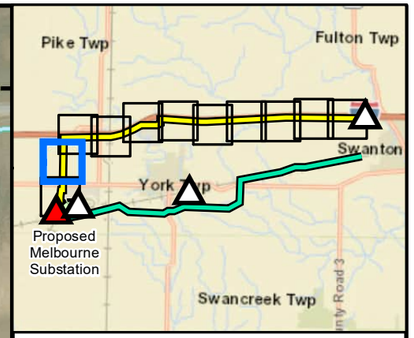
FIGURE 8-2I
PREFERRED ROUTE DELINEATED WETLAND AND WATERBODIES MAP

0 500 1,000
FEET



LEGEND:

- Preliminary Proposed Structure
- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Existing 345 kV Transmission Line
- Proposed Access Road
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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Dowling-Fulton 345 kV Transmission Line Tap to Melbourne Substation Project

FIGURE 8-2J
PREFERRED ROUTE DELINEATED WETLAND AND WATERBODIES MAP

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FEET

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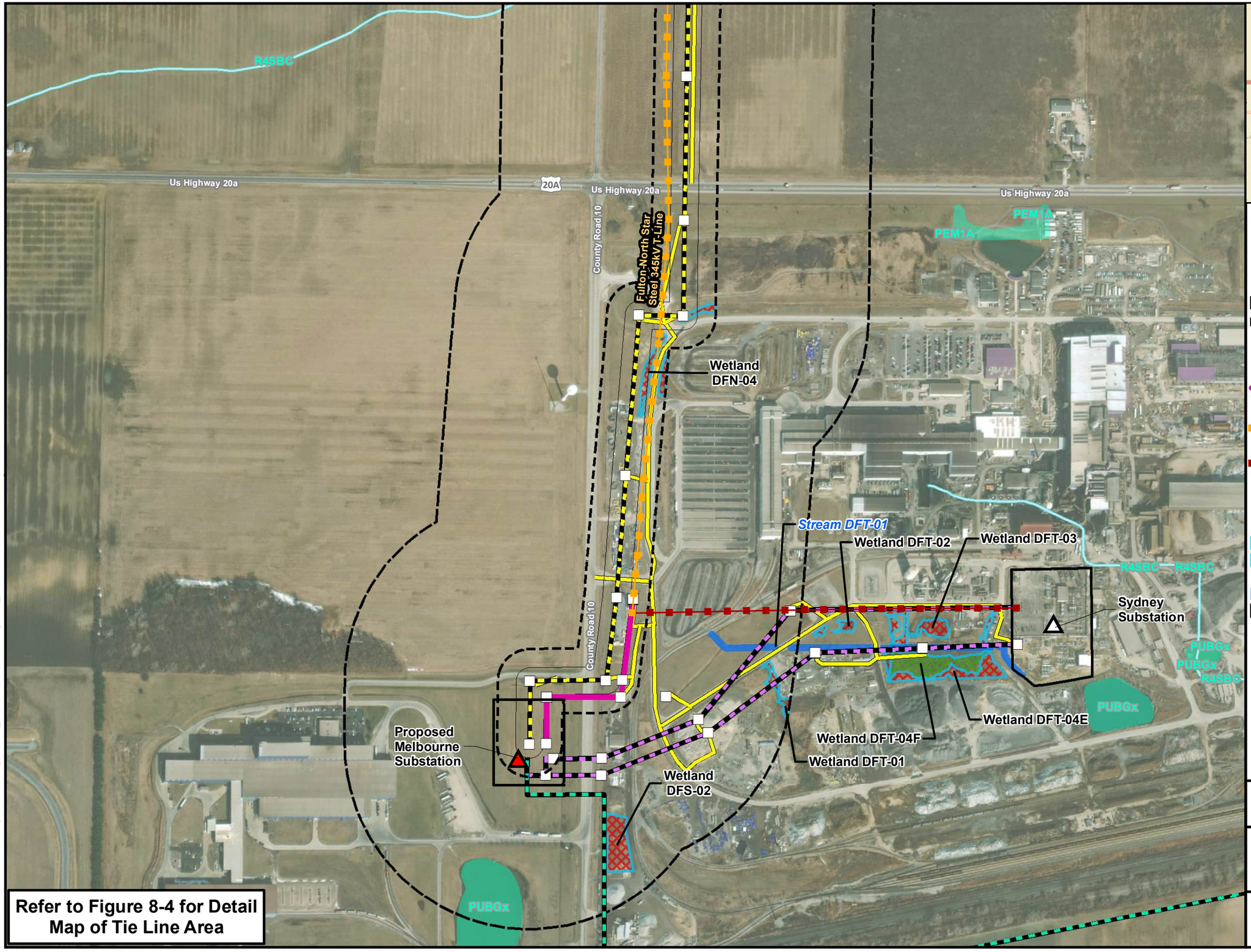

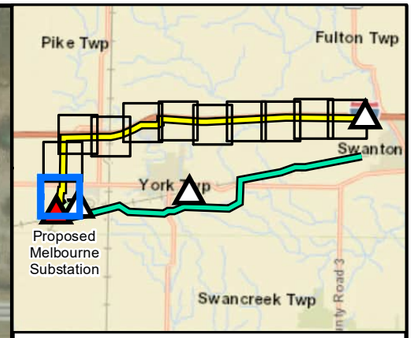

LEGEND:

- Existing Substation
- Proposed Melbourne Substation
- Preliminary Proposed Structure
- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Extension Line (Future Filing)
- Tie Line (Preferred Route)
- Existing 345 kV Transmission Line
- Existing 345 kV Transmission Line to be Removed (Future Filing)
- Proposed Access Road
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-2K
PREFERRED ROUTE DELINEATED WETLAND AND WATERBODIES MAP

0 500 1,000
FEET

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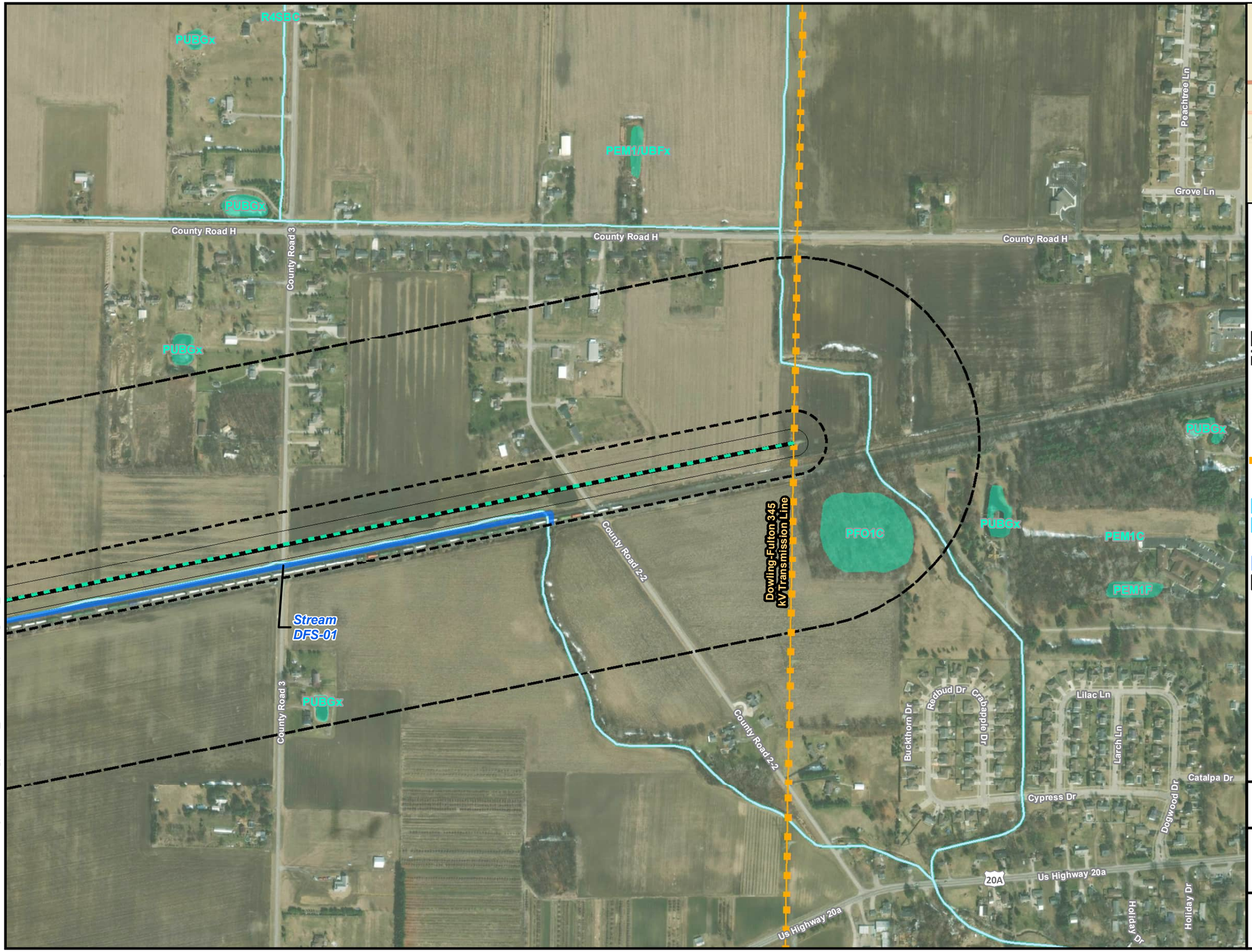

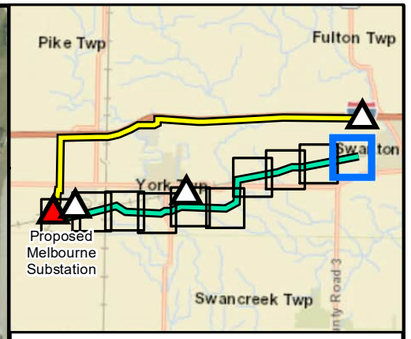

LEGEND:

- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Stream (NHD)
- Existing 345 kV Transmission Line
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-3A
ALTERNATE ROUTE DELINEATED WETLAND AND WATERBODIES MAP

0 500 1,000
FEET

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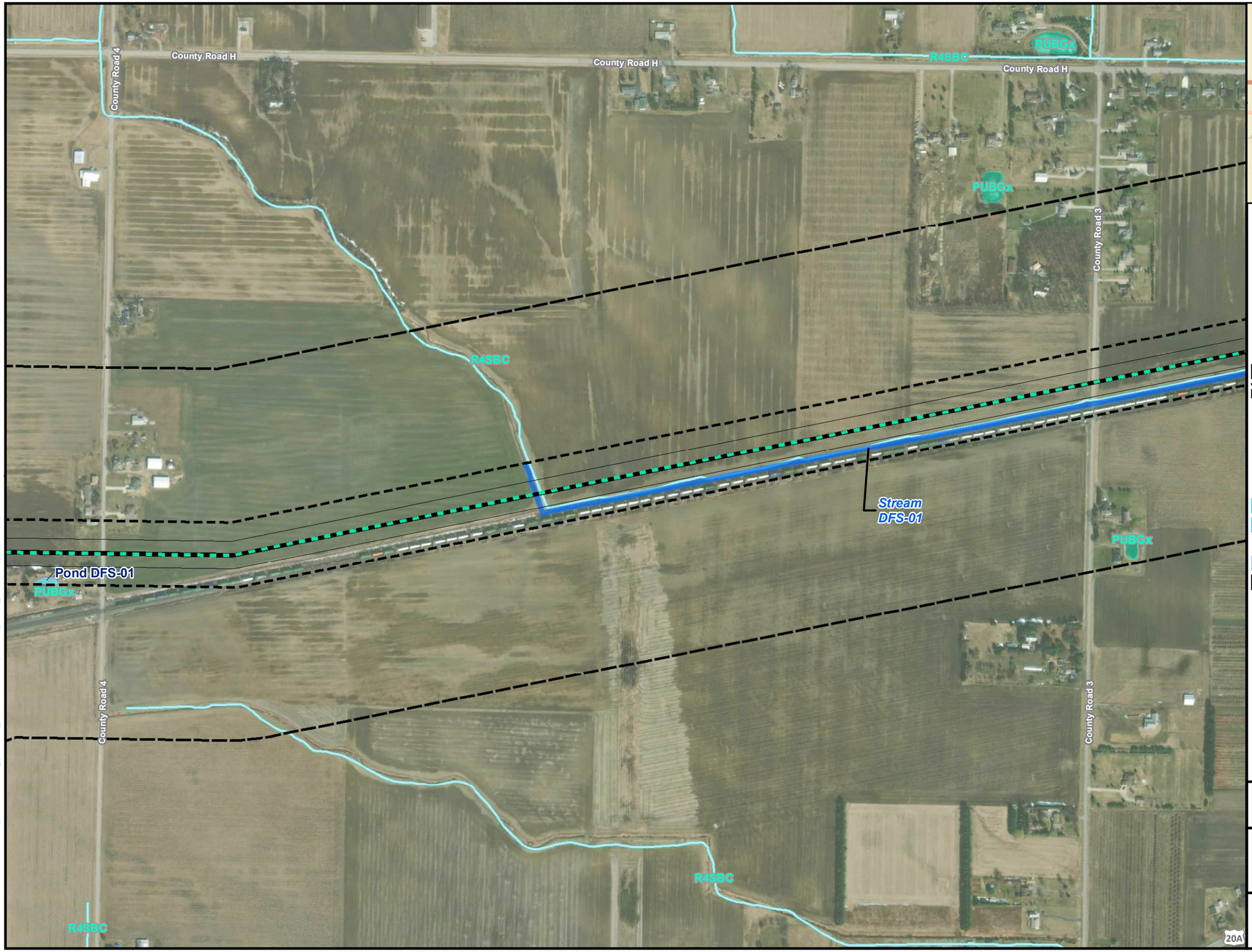

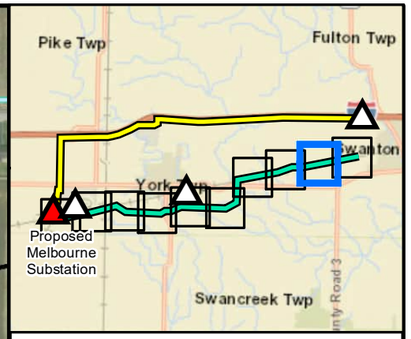

LEGEND:

- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-3B
ALTERNATE ROUTE DELINEATED WETLAND AND WATERBODIES MAP

0 500 1,000
FEET

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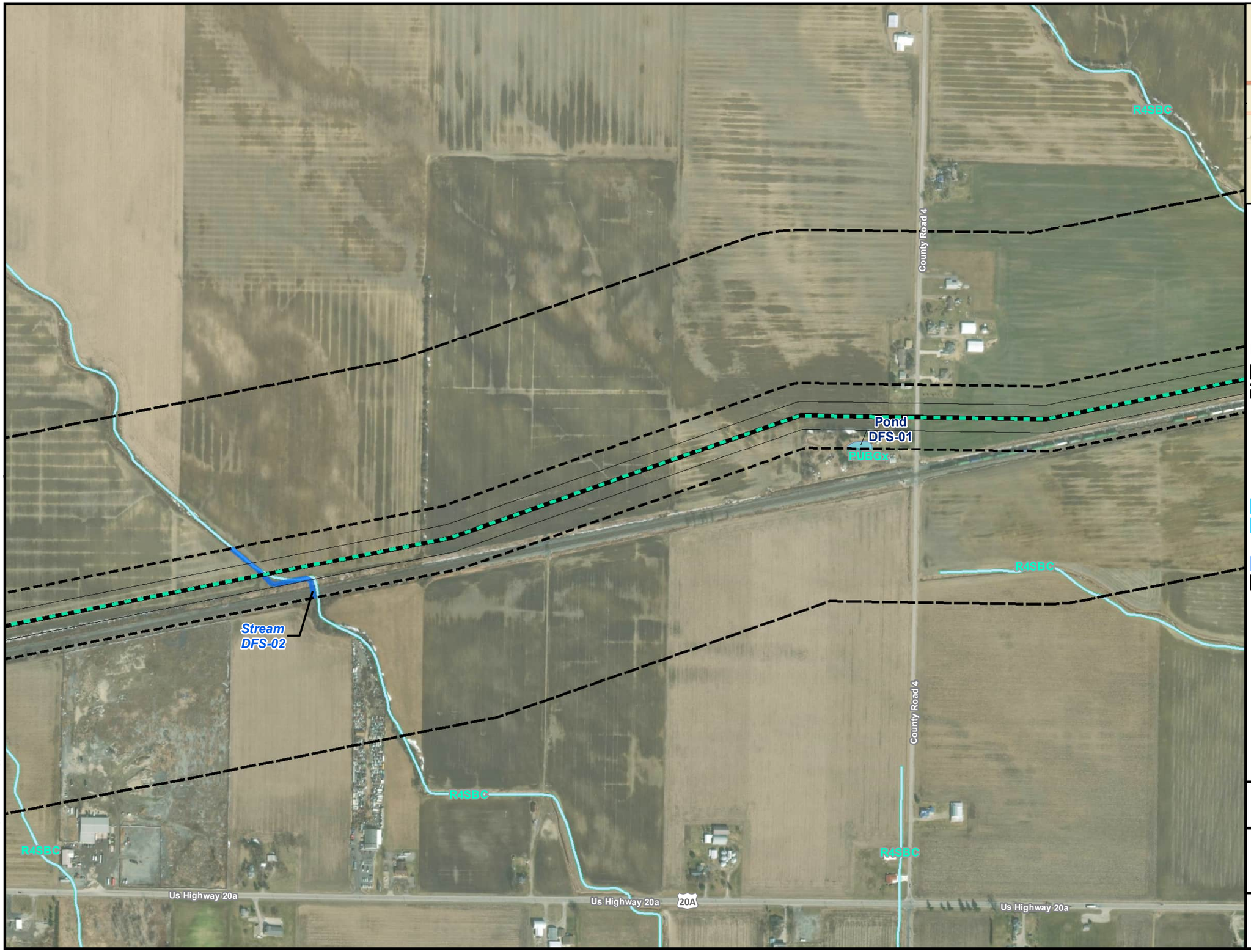

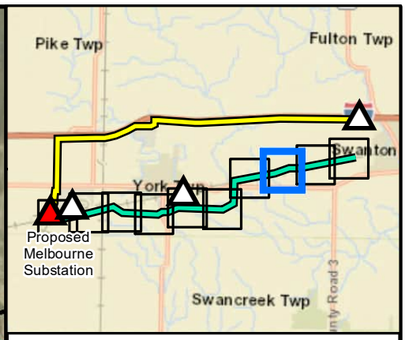

LEGEND:

- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-3C
ALTERNATE ROUTE DELINEATED WETLAND AND WATERBODIES MAP

0 500 1,000
FEET

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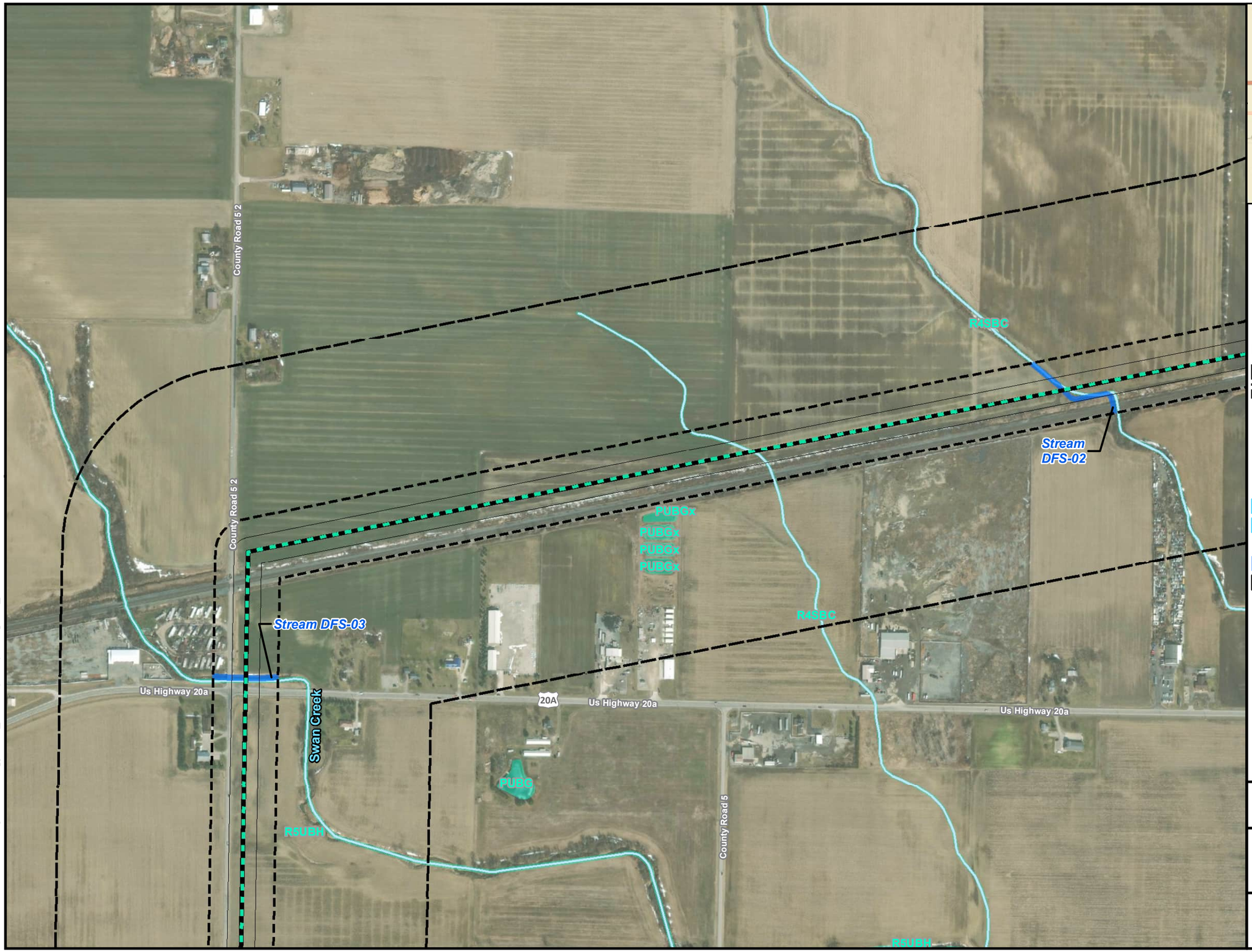

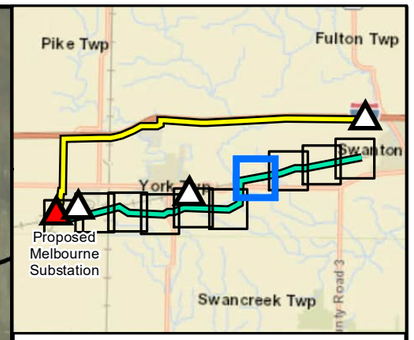

LEGEND:

- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-3D
ALTERNATE ROUTE DELINEATED WETLAND AND WATERBODIES MAP

0 500 1,000
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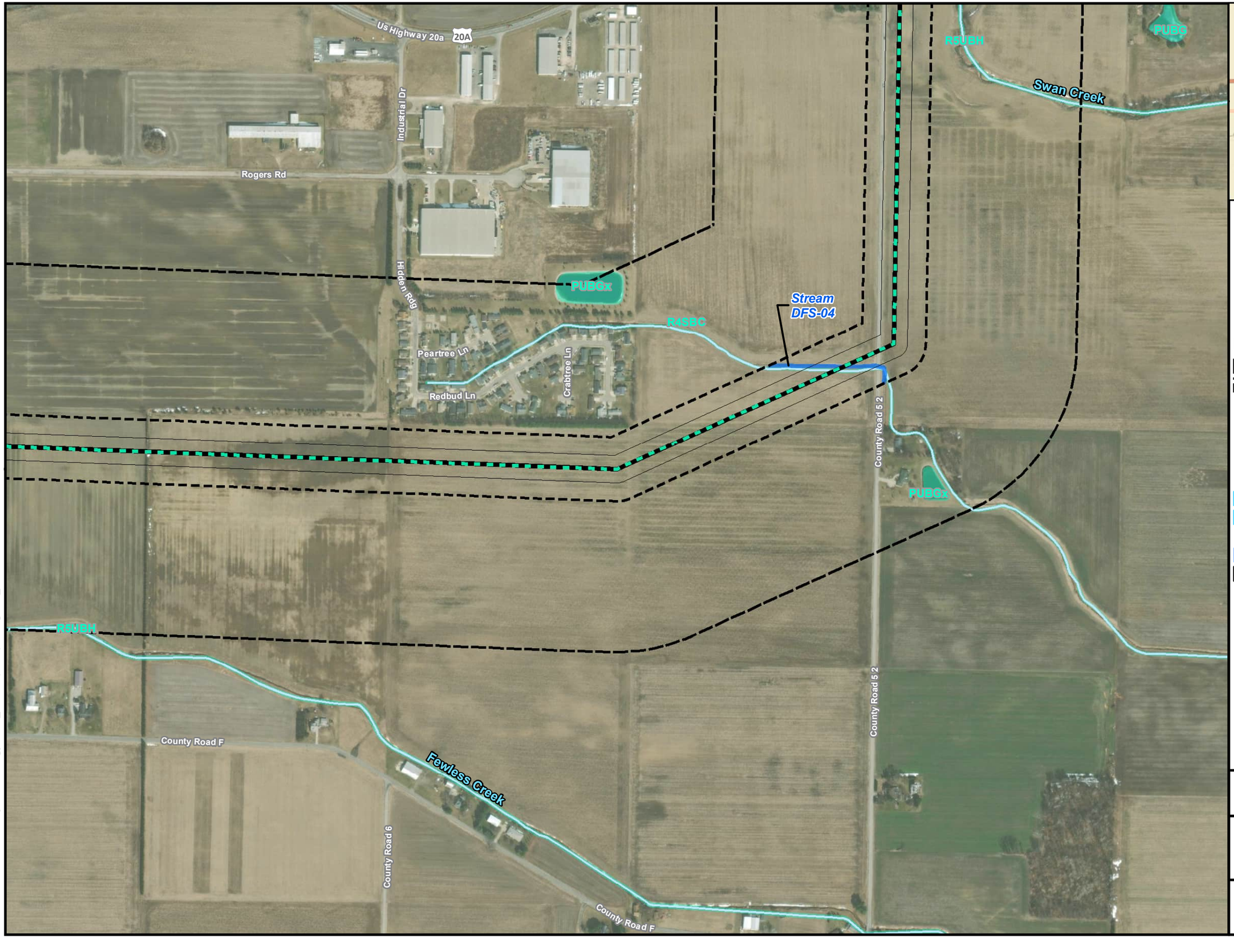

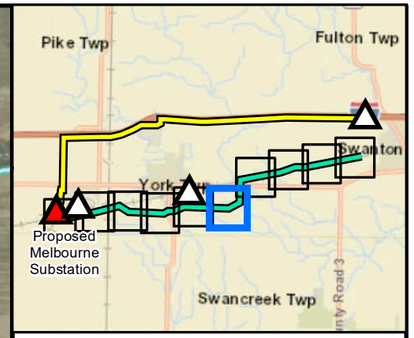

LEGEND:

- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-3E
ALTERNATE ROUTE DELINEATED WETLAND AND WATERBODIES MAP

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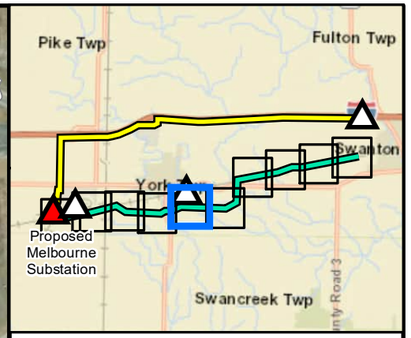

LEGEND:

- Existing Substation
- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-3F
ALTERNATE ROUTE DELINEATED WETLAND AND WATERBODIES MAP

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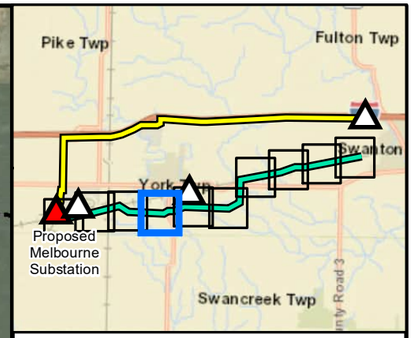

LEGEND:

- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-3G
ALTERNATE ROUTE DELINEATED WETLAND AND WATERBODIES MAP

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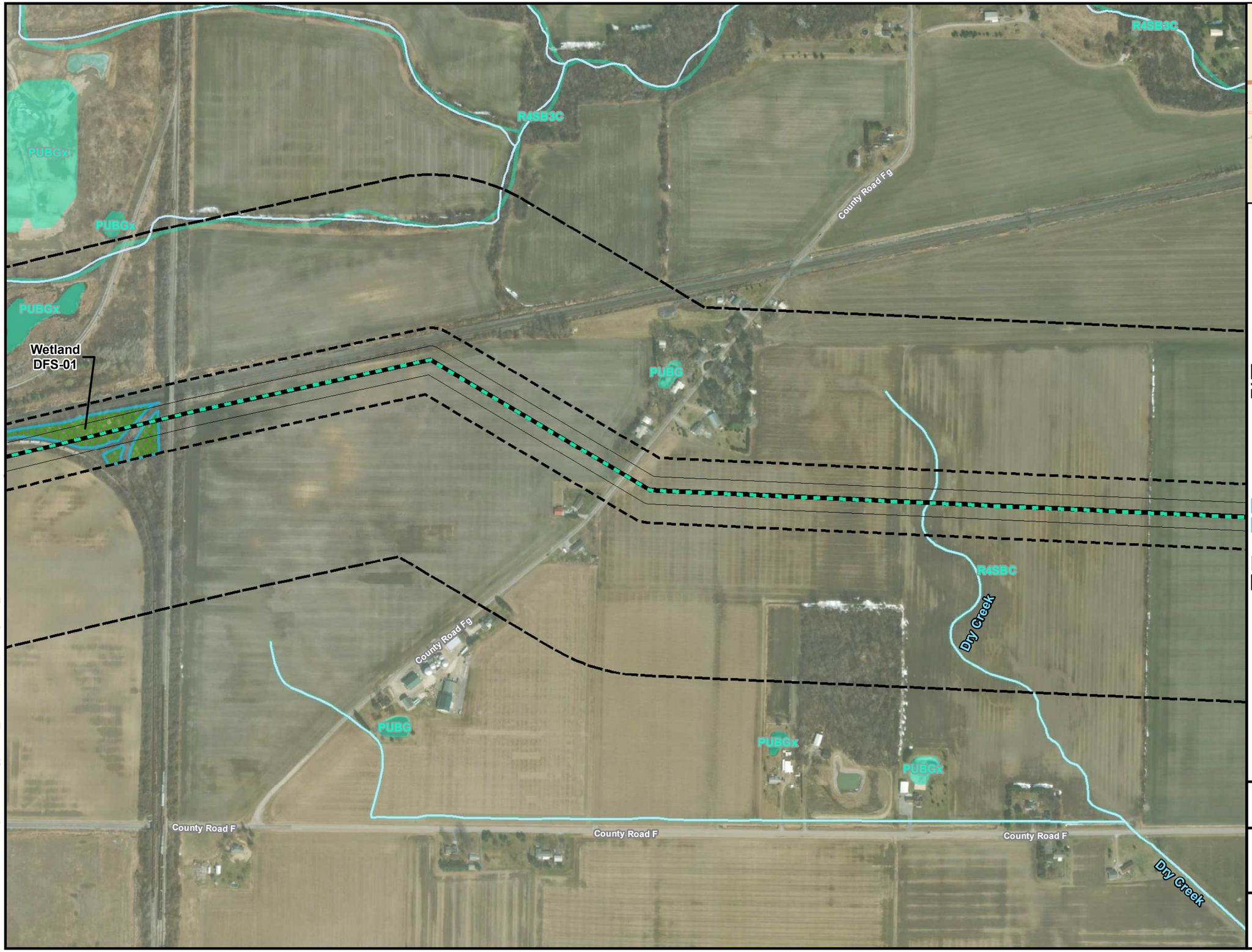

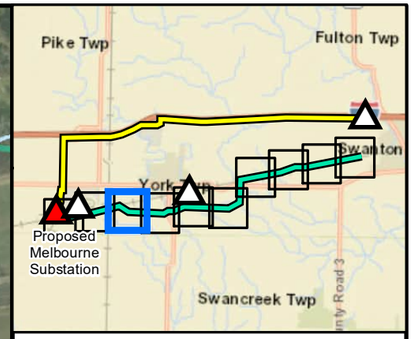

LEGEND:

- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-3H
ALTERNATE ROUTE DELINEATED WETLAND AND WATERBODIES MAP

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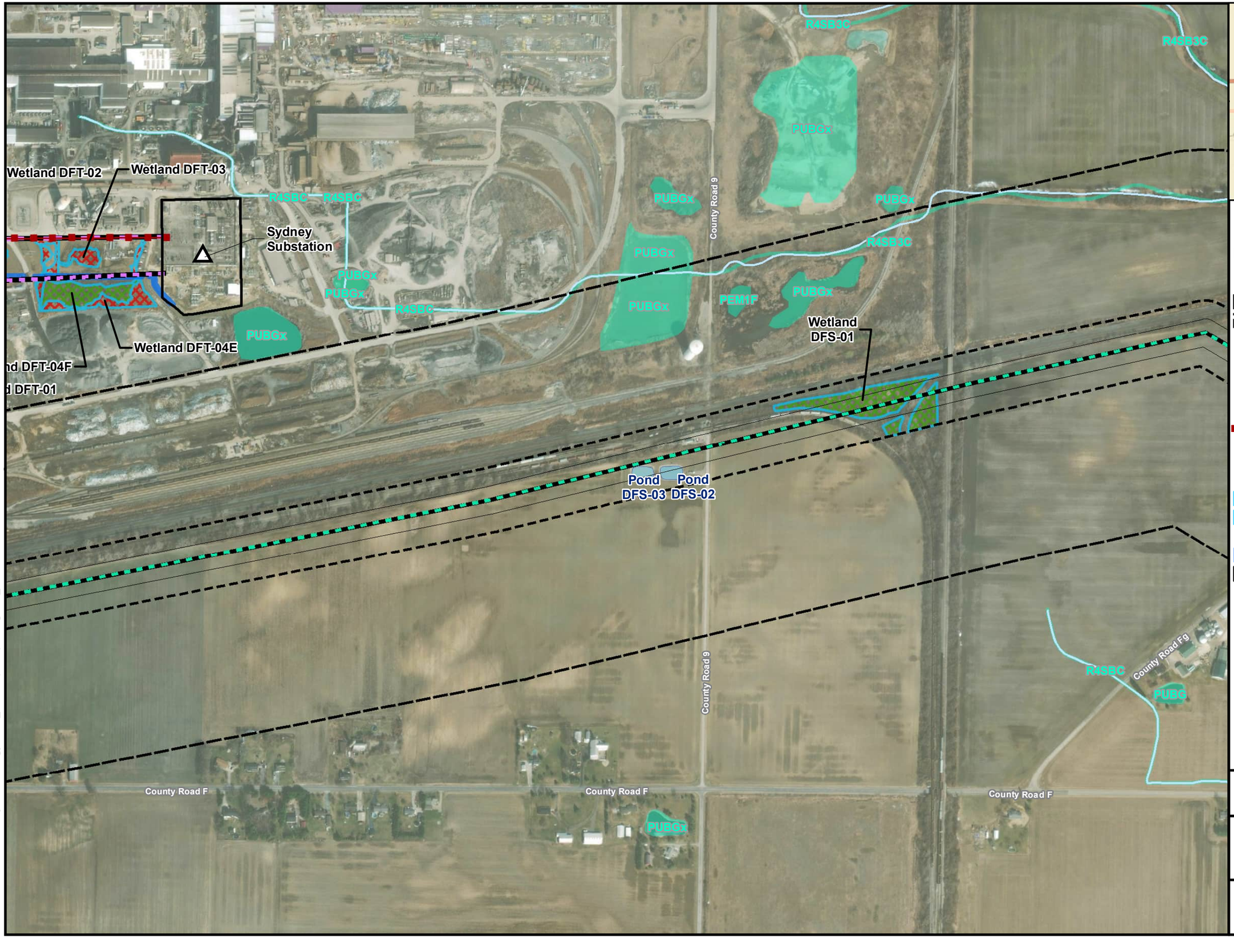

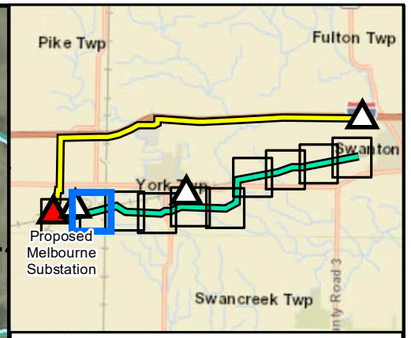

LEGEND:

- Existing Substation
- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Tie Line (Alternate Route)
- Existing 345 kV Transmission Line to be Removed (Future Filing)
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-3I
ALTERNATE ROUTE DELINEATED WETLAND AND WATERBODIES MAP

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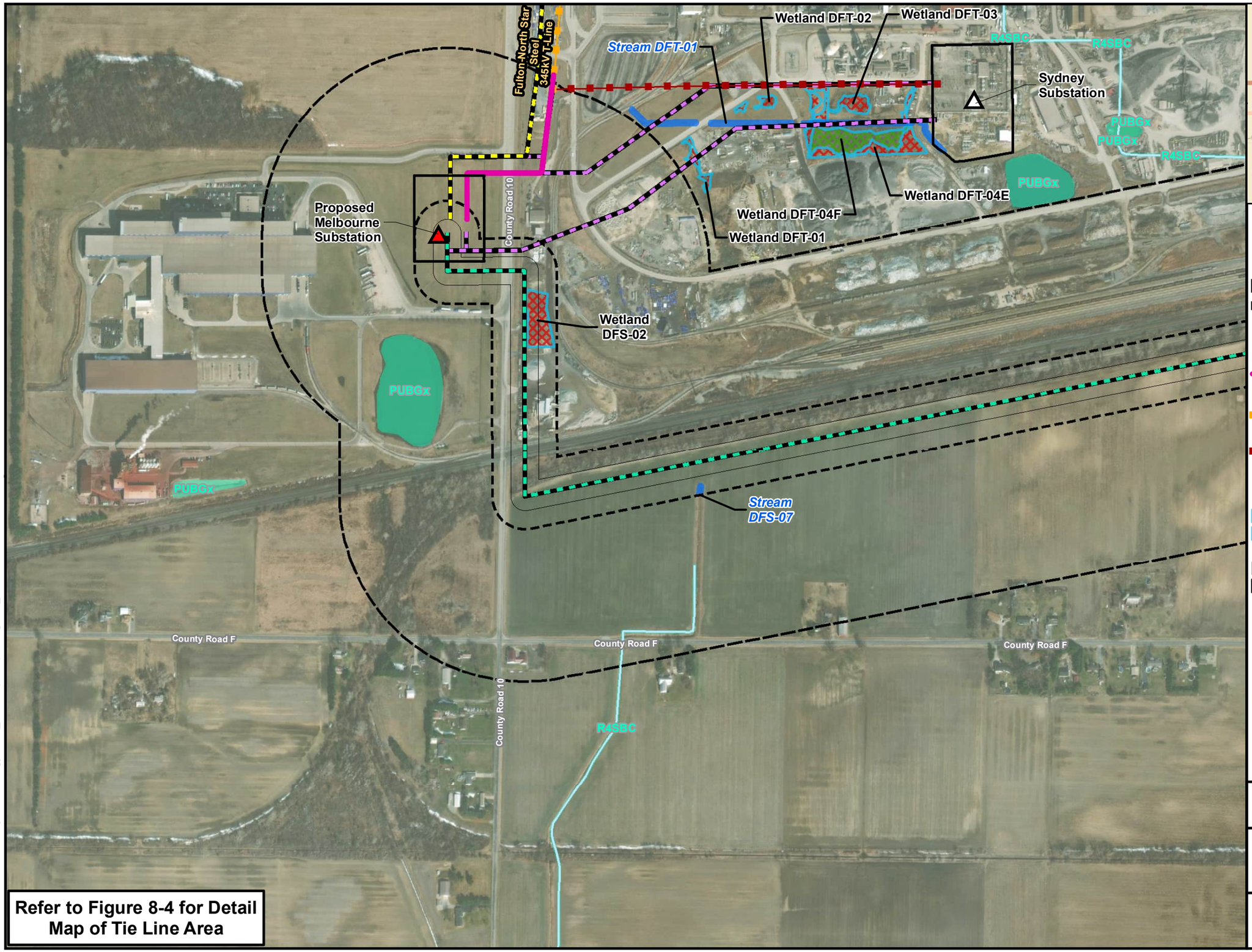

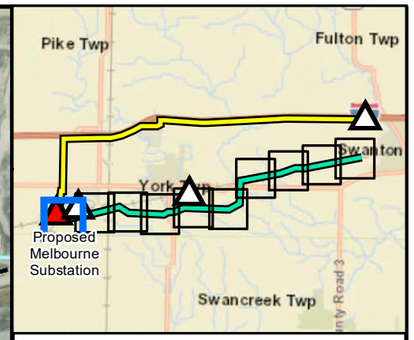

LEGEND:

- Existing Substation
- Proposed Melbourne Substation
- 1,000 ft. Buffer
- Environmental Survey Corridor
- 150 ft. Right-of-Way
- Preferred Route
- Alternate Route
- Extension Line (Future Filing)
- Tie Line (Alternate Route)
- Existing 345 kV Transmission Line
- Existing 345 kV Transmission Line to be Removed (Future Filing)
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated Pond
- Delineated Stream
- Substation Boundary

Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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FIGURE 8-3J
ALTERNATE ROUTE DELINEATED WETLAND AND WATERBODIES MAP

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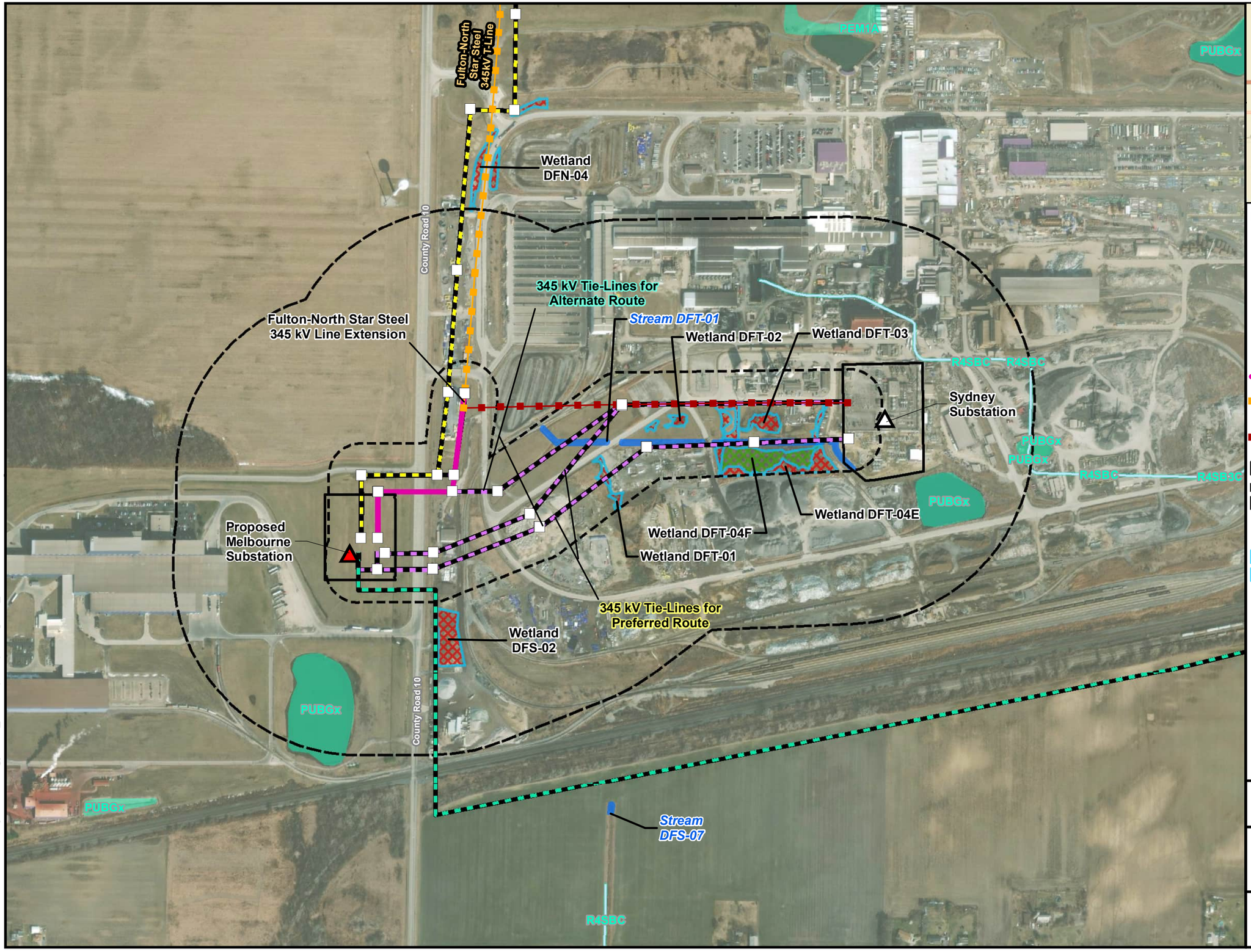

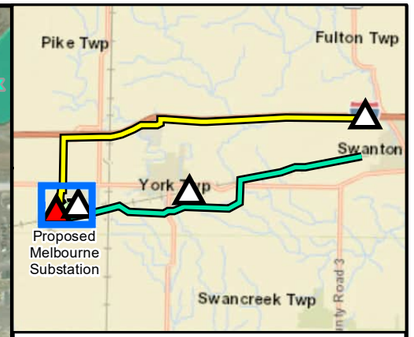

LEGEND:

- Preliminary Proposed Structure
- Existing Substation
- Proposed Melbourne Substation
- Preferred Route
- Alternate Route
- Tie Line (Preferred and Alternate Routes)
- Extension Line (Future Filing)
- Existing 345 kV Transmission Line
- Existing 345 kV Transmission Line to be Removed (Future Filing)
- Substation Boundary
- Environmental Survey Corridor
- 1,000 ft. Buffer
- Stream (NHD)
- Wetland (NWI)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Note: No Soils In Map Frame Exceeding 12% slope

N

BASE MAP SOURCE:
Esri World Imagery
Coordinate System:
State Plane Ohio North FIPS 3402 Feet
Datum: NAD 1983
Scale: 1:6,000

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Dowling-Fulton 345 kV Transmission Line Tap to Melbourne Substation Project

FIGURE 8-4
AREA OF TIE LINES & EXTENSION LINE -- DELINEATED WETLAND AND WATERBODIES MAP

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Appendix 8-1
Ecological Information for the Proposed Melbourne Substation and the Proposed 345 kV Tie Lines (Melbourne Substation to Sydney Substation)

Appendix 8-1

Ecological Information for the Proposed Melbourne Substation and the Proposed 345 kV Tie Lines (Melbourne Substation to Sydney Substation)

This appendix includes ecological information for only the Project area relevant to the proposed Melbourne Substation and 345 kV tie lines from the proposed Melbourne Substation to North Star Bluescope Steel's Sydney Substation.

Summary of National Wetland Inventory Data

USFWS NWI data, including freshwater ponds and riverine areas, were mapped within 1,000 feet of the tie-lines, and reviewed to guide the field ecological survey as one factor in identifying potential wetland locations (USFWS, 2022a). The NWI-mapped areas are shown on Figure 8-4. Table 8A-1 summarizes the NWI data by wetland classification and habitat type. The actual extent and type of field-delineated wetlands along the routes are discussed in the next section.

Table 8A-1: NWI Wetlands within 1,000 Feet of the Proposed 345 kV Transmission Tie Lines (Melbourne Substation to Sydney Substation)

Wetland Type	NWI Code	NWI Habitat Type*	Number of Habitat Type
Freshwater Pond	PUBGx	Palustrine unconsolidated bottom, intermittently exposed, excavated	3
Riverine	R4SBC	Riverine intermittent, streambed, seasonally flooded	1
		Total NWI Wetlands:	4

Notes:
* USFWS, 2016

(i) Field-Delineated Wetlands

Proposed Melbourne Substation

No wetlands were delineated within the Proposed Melbourne Substation Field Survey Area as illustrated in Figure 8-4.

Proposed 345 kV Transmission Tie Lines (Melbourne Substation to Sydney Substation)

Four wetlands, totaling 2.97 acres, were delineated within the tie lines (Melbourne Substation to Sydney Substation) Field Survey Area. Detailed information for each wetland is provided in Table 8A-2. The wetlands where temporary construction impacts are anticipated to be unavoidable are identified in Table 8A-2 and further discussed in Section 4906-05-08(B)(3)(b). The field-delineated wetlands for the tie-lines are mapped on Figure 8-4.

Table 8A-2: Delineated Wetlands within the Proposed 345 kV Tie-Lines (Melbourne Substation to Sydney Substation) Field Survey Area and Potential Disturbance Area/ROW

Wetland Name	Figure	Cowardin Wetland Type[a]	ORAM Score	ORAM Category	Acreage within Field Survey Area[b]	Acreage within Potential Disturbance Area/ROW[c]	Length Crossed by Centerline (feet)
Wetland DFT-01	8-4	PEM	16.5	Category 1	0.21	0.10	41
Wetland DFT-02	8-4	PEM	21.5	Category 1	0.16	0.03	0
Wetland DFT-03	8-4	PEM	17	Category 1	0.62	0.30	120
Wetland DFT-04	8-4	PEM	28	Category 1	0.84	0.16	3
		PFO			1.15	0.43	0
				Total[d]	**2.97**	**1.03**	**164**

Notes:

a Wetland Type: PEM = palustrine emergent, PFO = palustrine forested

b The width of the Field Survey Area was 570 feet.

c The width of the potential disturbance area and the final maintained ROW is planned to be 150 feet for each of the tie-lines.

d Total may vary slightly from the sum of their parts due to rounding

(b) Waterbodies

(i) Field-Delineated Streams

Proposed Melbourne Substation

No streams were identified within the Proposed Melbourne Substation Field Survey Area.

Proposed 345 kV Tie Lines (Melbourne Substation to Sydney Substation)

Within the tie-lines (Melbourne Substation to Sydney Substation) Field Survey Area, one stream was identified and was evaluated using HHEI methodology.

Streams identified during the ecological survey of the 345 kV tie lines (Melbourne Substation to Sydney Substation) Field Survey Area are shown on Figure 8-4. Detailed information on the delineated stream is included in Table 8A-3. Construction impacts are included in Table 8A-3 and further discussed in Section 4906-05-08(B)(3)(c).

Table 8A-3: Streams within the Tie-Lines (Melbourne Substation to Sydney Substation) Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream Name Waterbody Name	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area[a]	Length (linear feet) within Potential Disturbance Area/ROW[b]
Stream DFT-01 UNT to Bad Creek	8-4	Intermittent	30	12	HHEI	54	N/A	Modified Class II	Yes	1,607	1,372
									Total	**1,607**	**1,372**

Notes:

a The width of the Field Survey Area was 570 feet.

b The width of the potential disturbance area and the final maintained ROW is planned to be 150 feet for each of the tie-lines.

UNT = unnamed tributary

(ii) Lakes, Ponds, and Reservoirs

No ponds were identified within the proposed Melbourne Substation or the 345 kV tie lines (Melbourne Substation to Sydney Substation) Field Survey Areas.

(2) Construction Impacts on Vegetation and Surface Waters

(a) Construction Impacts on Vegetation

Proposed Melbourne Substation

Construction impacts on vegetation for the proposed Melbourne Substation will consist of impacts to the commercial maintained lawn within the boundary of substation as reported in Table 8A-4.

Table 8A-4: Approximate Vegetation Impacts for the Proposed Melbourne Substation Potential Disturbance Area

Land Use Type	Acreage within Substation Boundary
Commercial Maintained Lawn	7.7

Proposed 345 kV Tie Lines (Melbourne Substation to Sydney Substation)

The construction impacts on vegetation along the tie-lines (Melbourne Substation to Sydney Substation) route will be limited to the initial clearing of vegetation within the 150-foot ROW for the proposed transmission lines and access roads. Specific locations for access roads will be identified at the time of ATSI transmission line easement acquisition process. Trees within proposed ROW and adjacent that are dead, dying, diseased, leaning, significantly encroaching, or prone to failure may require clearing to allow for safe operation of the transmission line. Vegetative wastes (such as tree limbs and trunks) generated during the construction phase will be windrowed or chipped and disposed of appropriately depending on individual landowner requests. The approximate vegetation impacts, based on GIS analysis, along the tie-line ROWs are provided in Table 8A-5.

Table 8A-5: Approximate Vegetation Impacts along the Proposed 345 kV Tie Lines (Melbourne Substation to Sydney Substation) Potential Disturbance Area/ROW

Land Use Type	Length of Route (in feet)	Length of Route (in miles)	Acreage within ROW
Commercial Maintained Lawn	380	0.07	1.2
Woodlot	0	0.00	<0.1
Delineated Wetland	244	0.05	0.9

(b) Construction Impacts on Wetlands

During wetland and waterbody delineations, four wetlands were identified along the tie-lines (Melbourne Substation to Sydney Substation) within the proposed ROWs, totaling 1.03 acres. The delineated wetlands are shown on Figure 8-4. Detailed information about each feature can be found in Table 8A-2. Of these wetlands, three are crossed by the tie line centerlines, totaling 164 linear feet. Impacts to the wetlands would be avoided by placing transmission line structures outside of wetland boundaries, where practical. Where temporary construction access through a wetland cannot be avoided, the crossing would occur during dry conditions or protective construction matting would be used to minimize impacts from construction vehicles.

Wetland ORAM categories delineated in the tie-line ROWs are detailed below:

- Category 1 wetlands: Four Category 1 wetlands with ORAM scores ranging from 16.5 to 28 were identified within the ROW, totaling 1.03 acres. Approximately 0.43 acres of PFO wetlands would be impacted during construction.
- Category 2 wetlands: No Category 2 wetlands would be crossed; therefore, no construction impacts are anticipated.
- Category 3 wetlands: No Category 3 wetlands would be crossed; therefore, no construction impacts are anticipated.