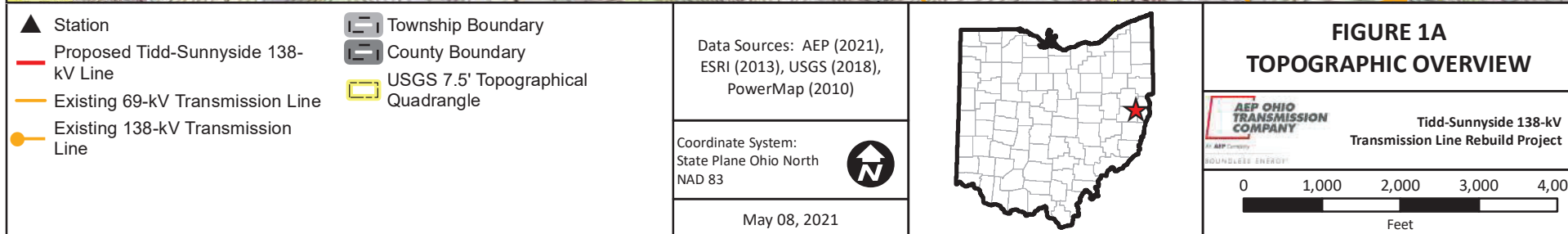
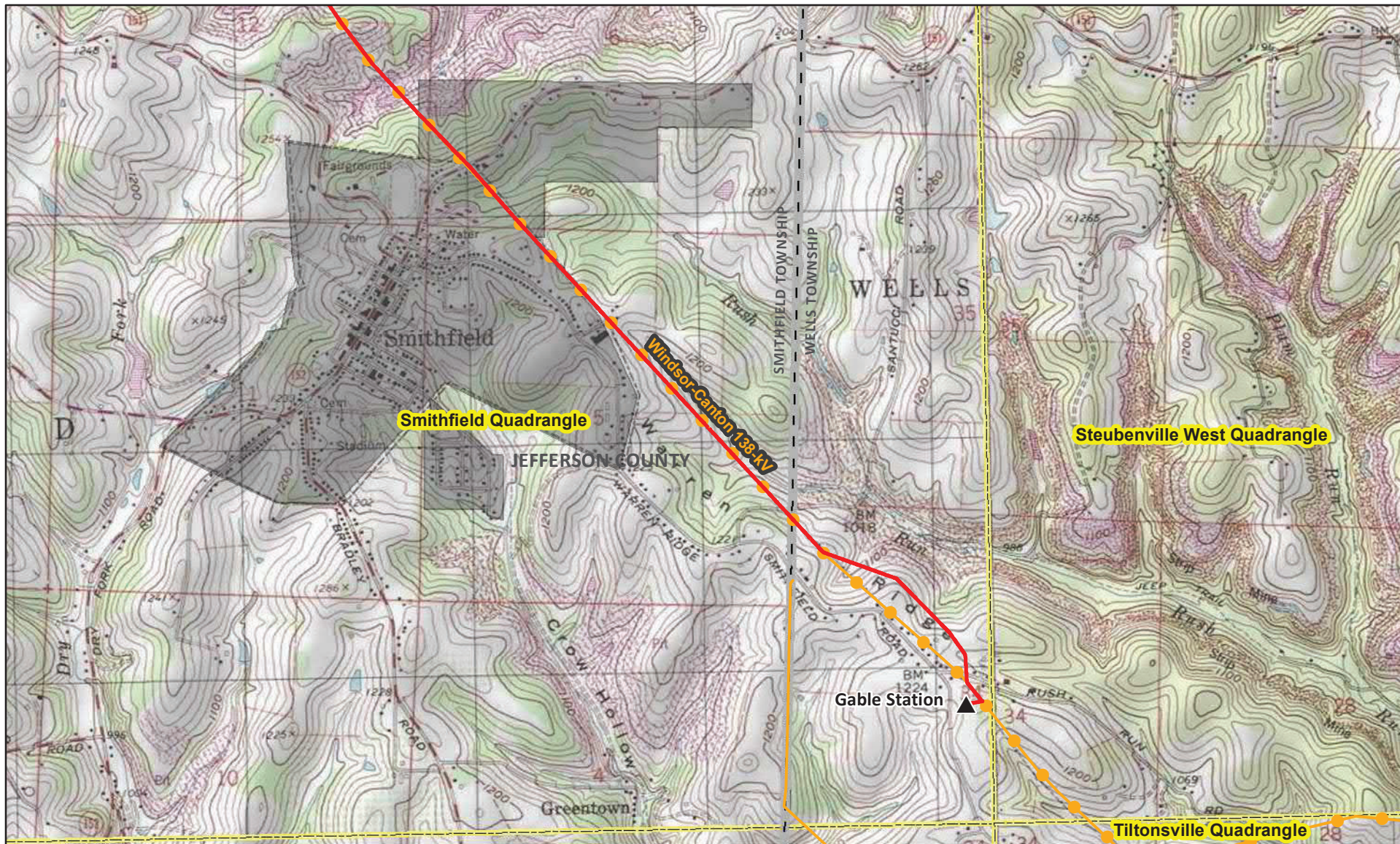
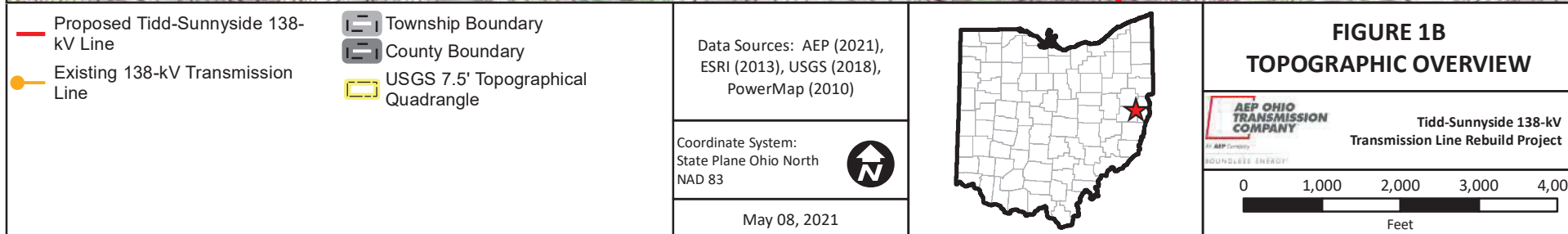
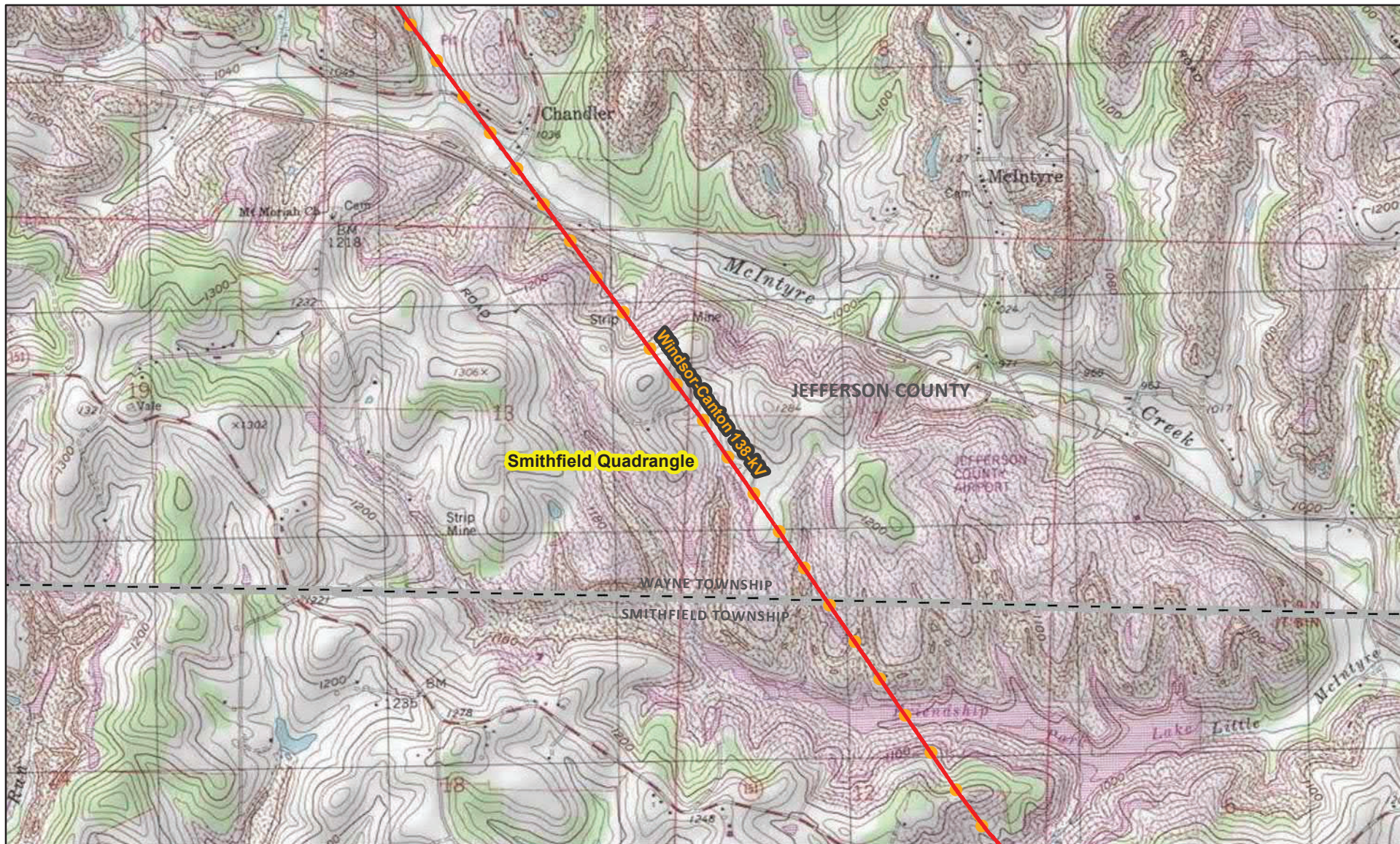


## Appendix A Project Figures

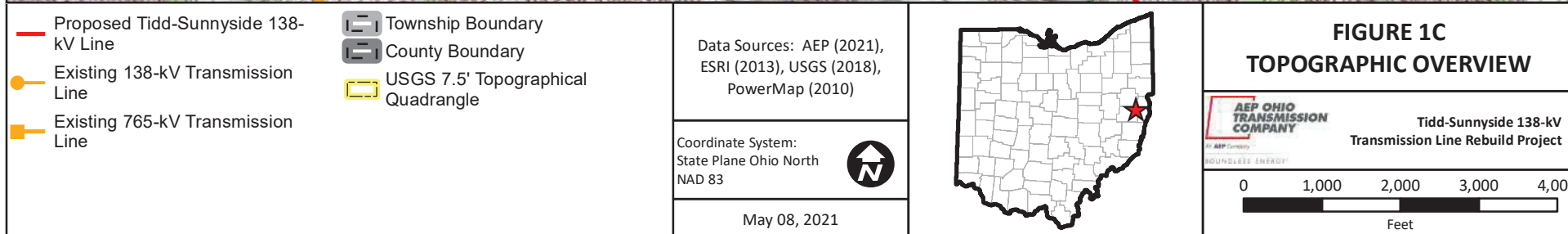
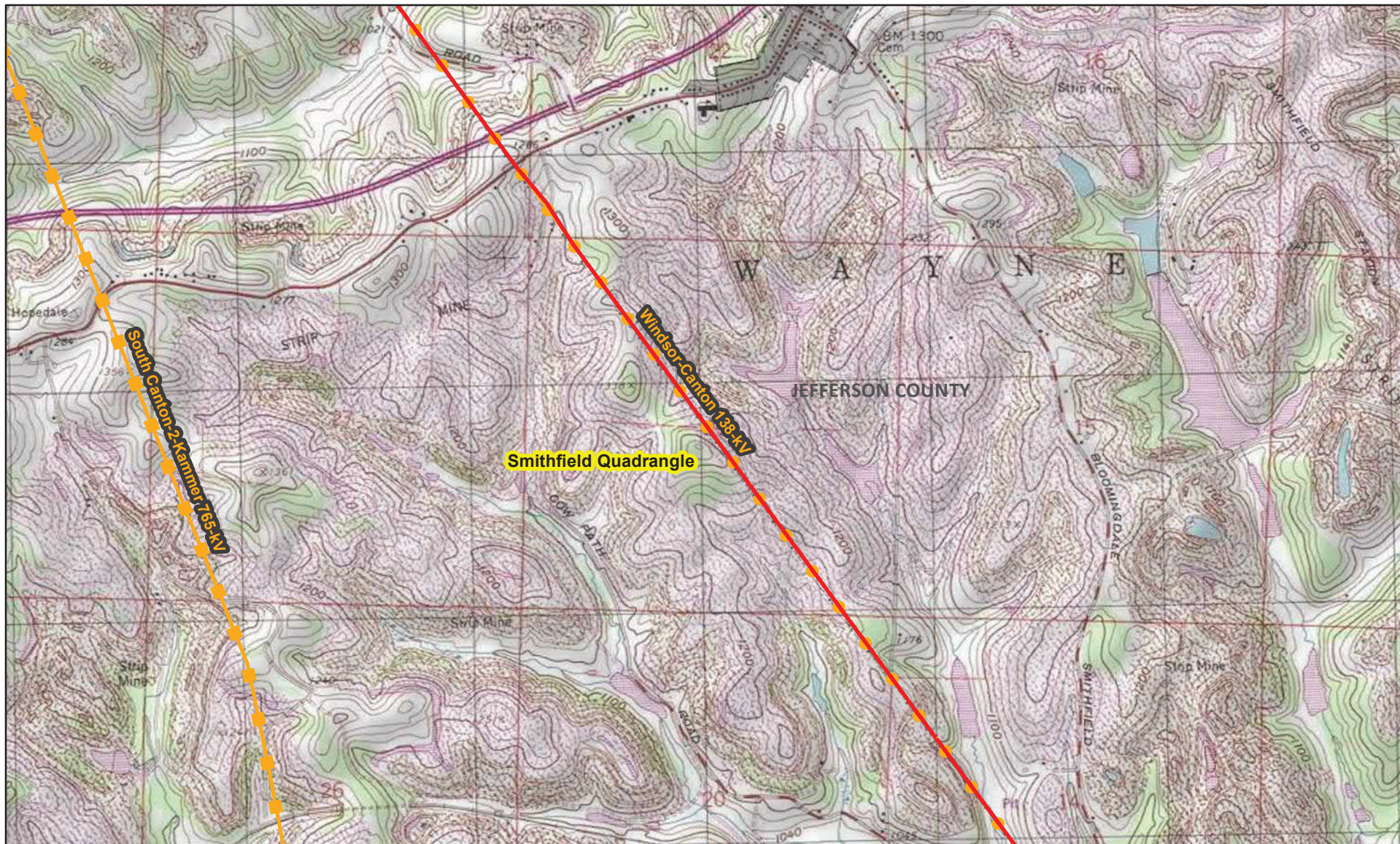




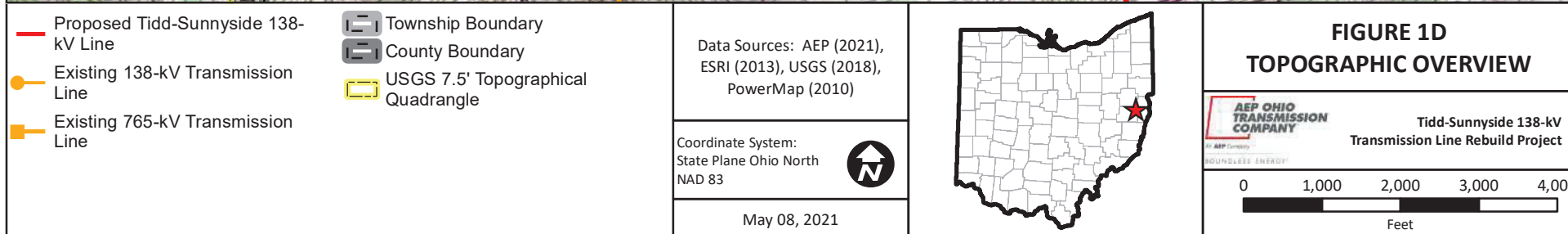
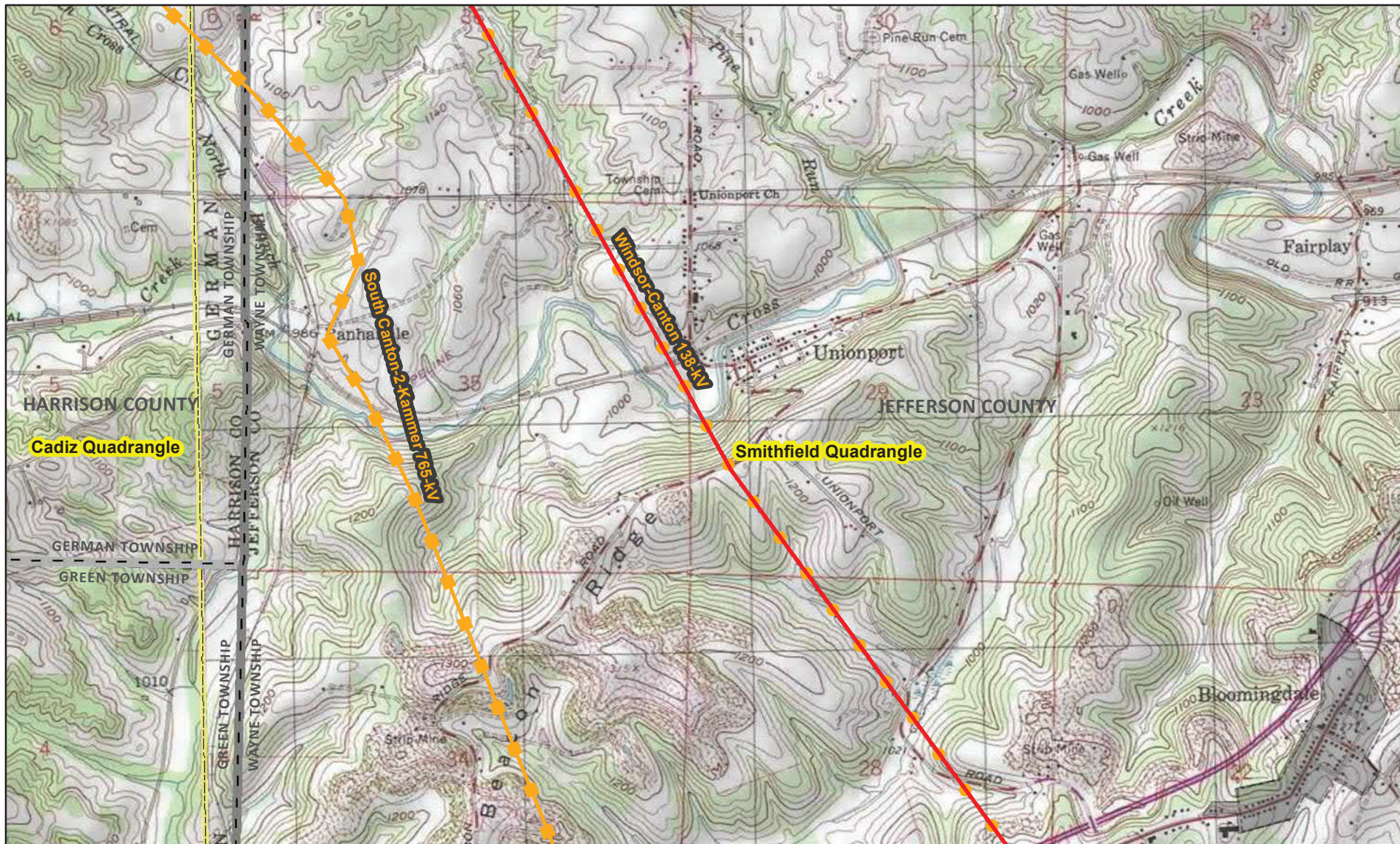




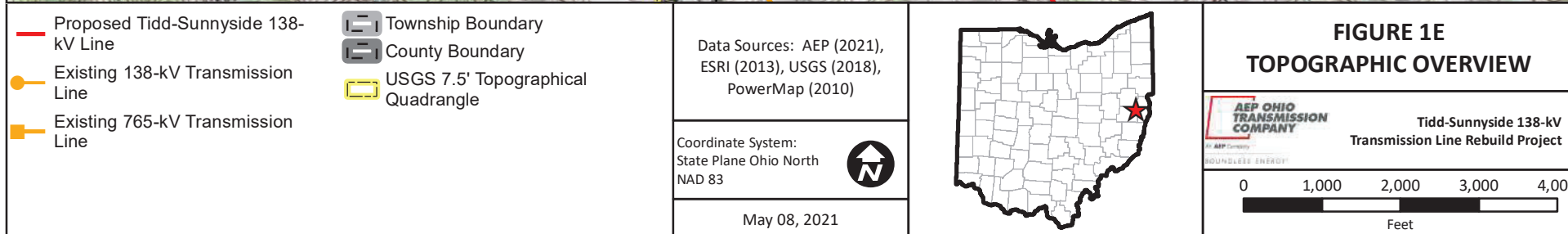
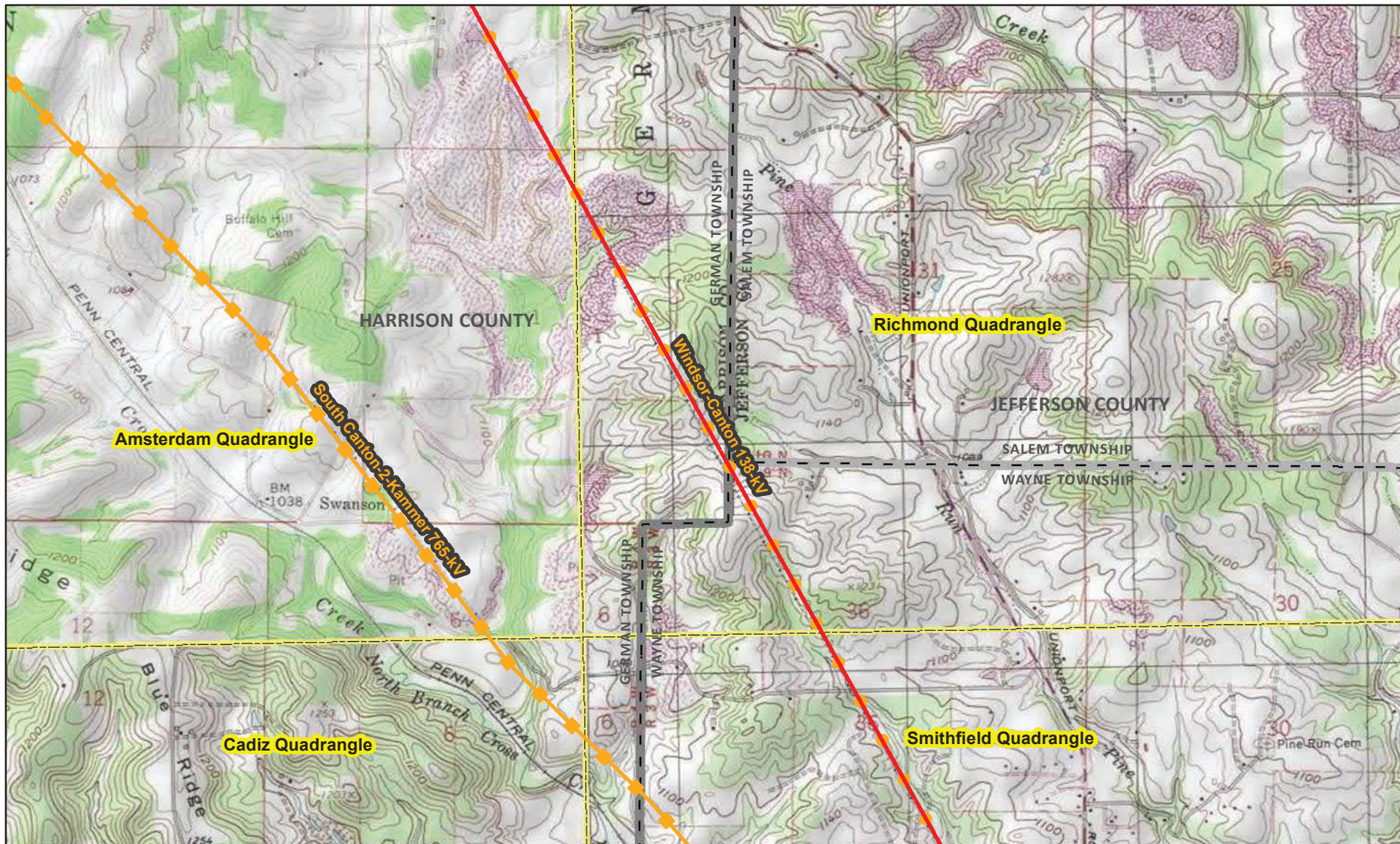




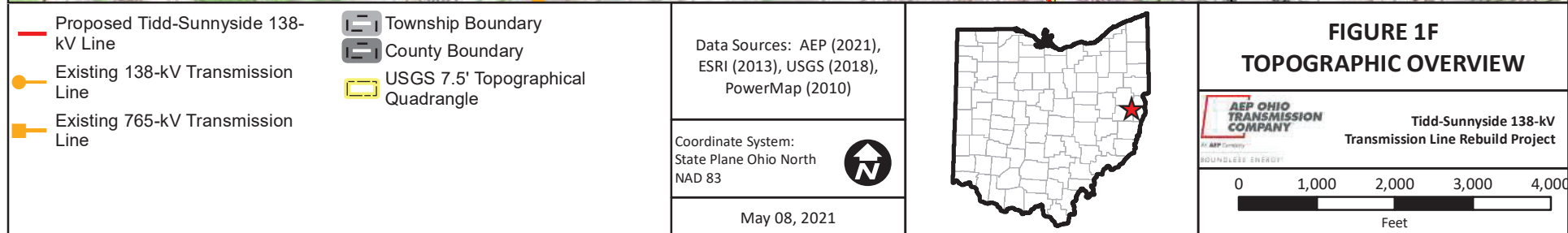










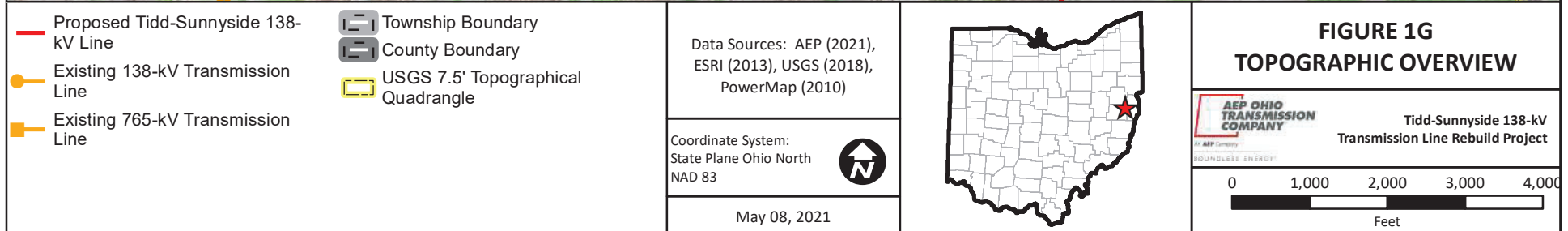
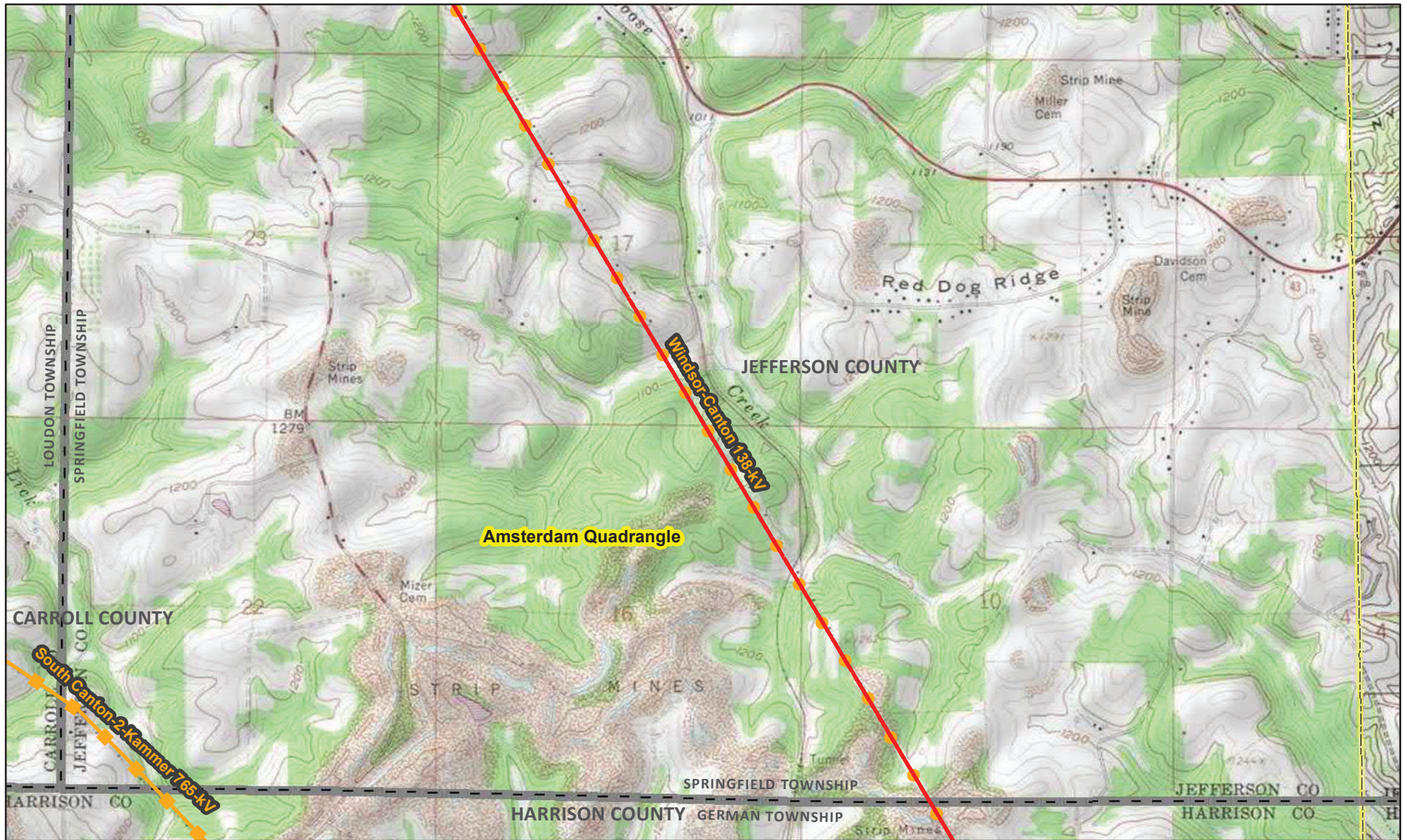


**AEP OHIO TRANSMISSION COMPANY**  
AEP Company  
**ROUNDLINE ENERGY**

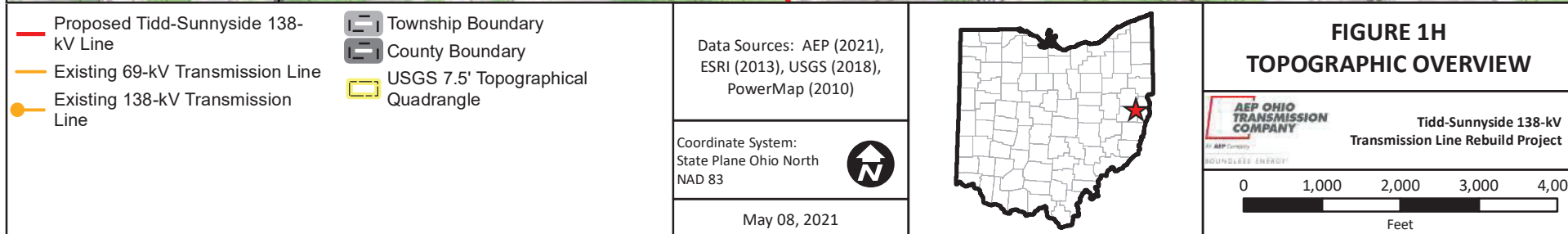
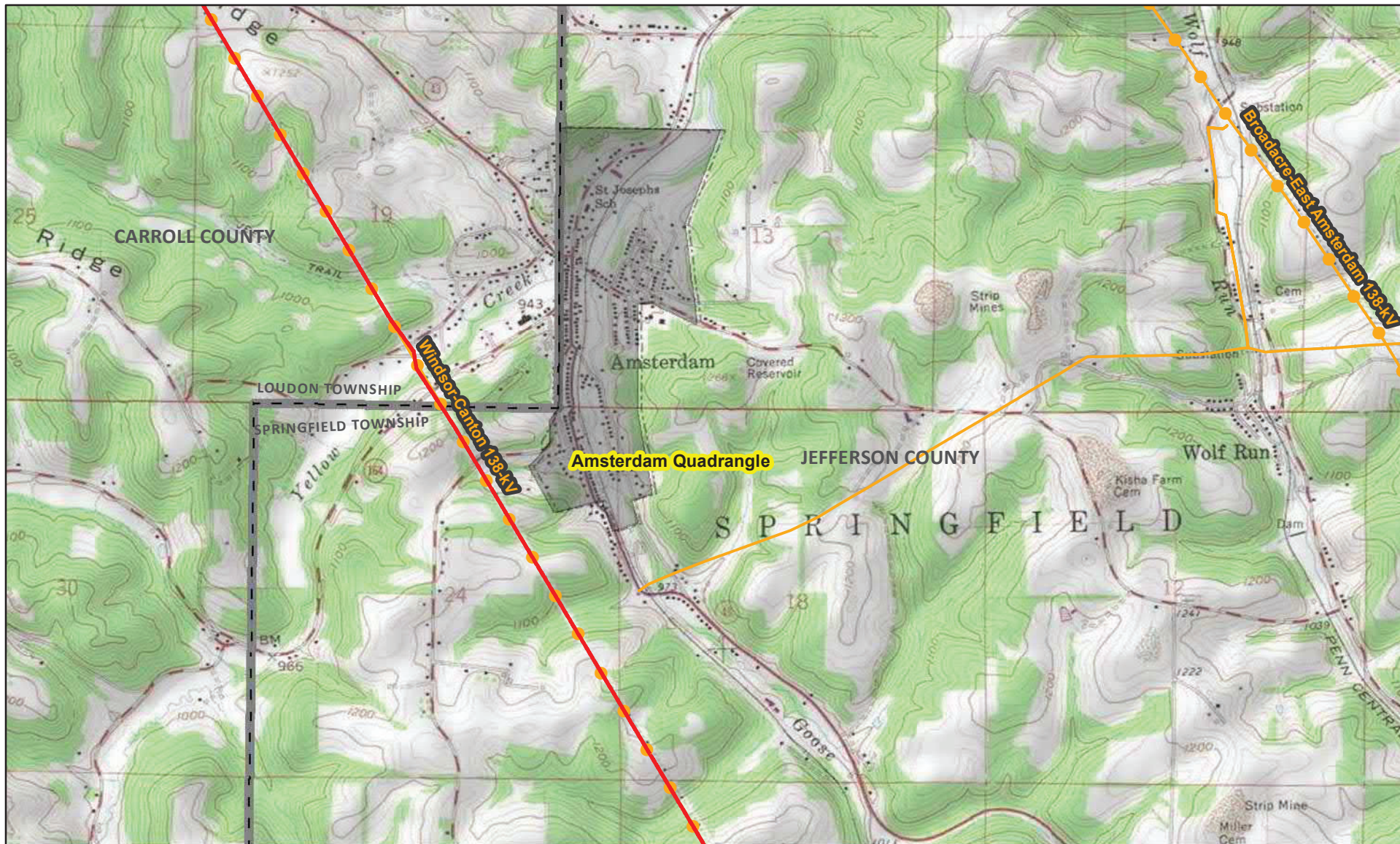
**Tidd-Sunnyside 138-kV  
Transmission Line Rebuild Project**

0 1,000 2,000 3,000 4,000  
Feet

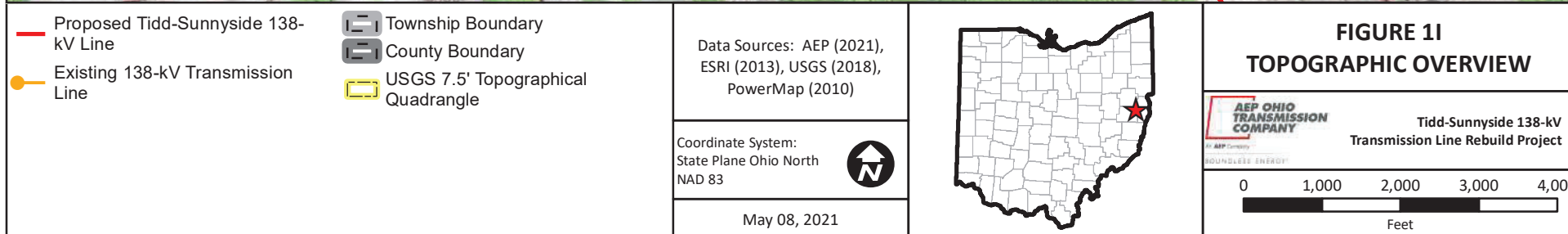
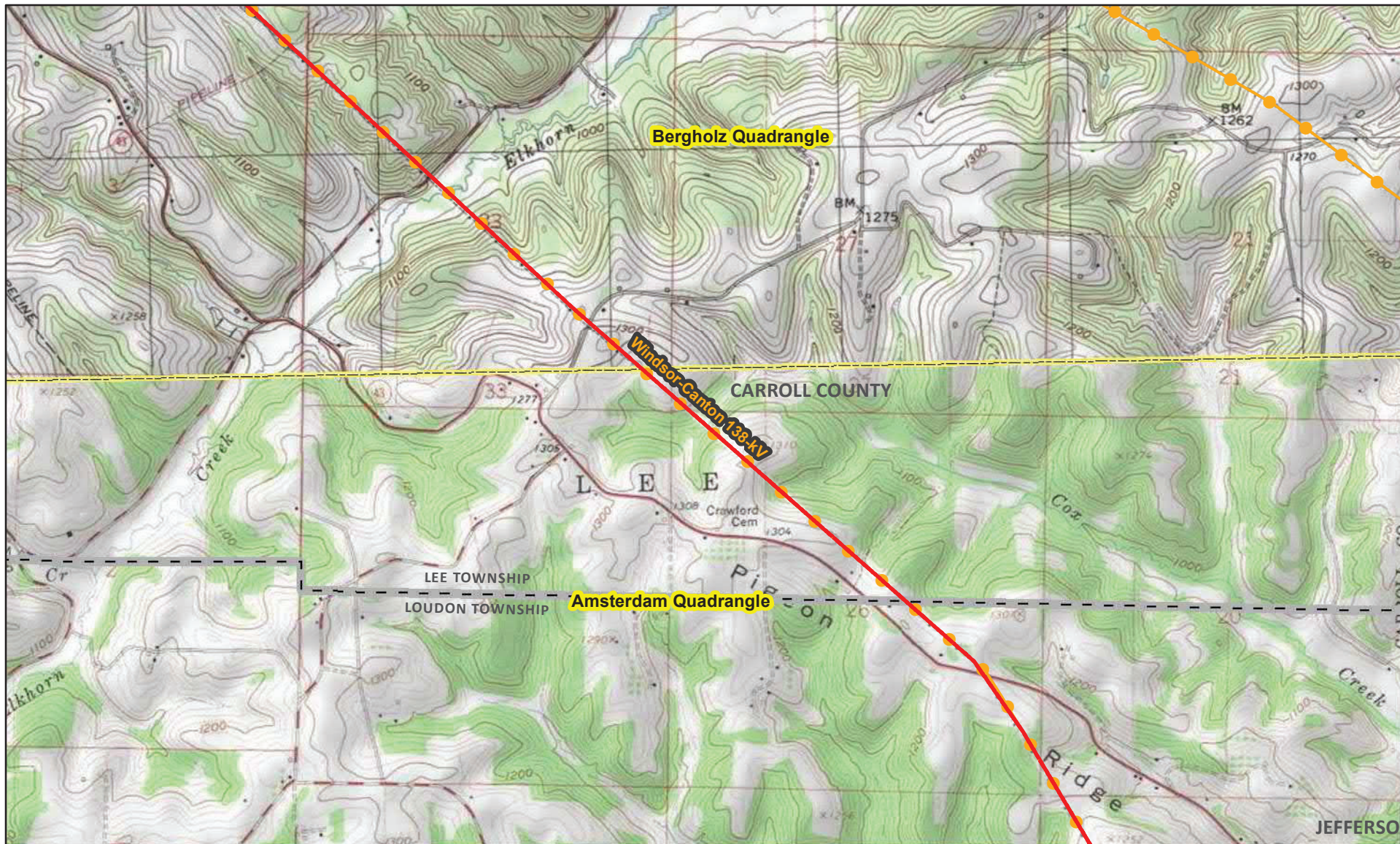




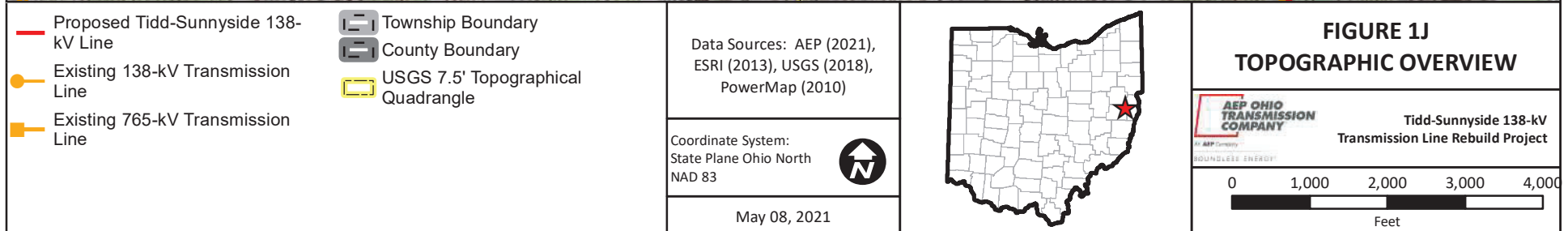
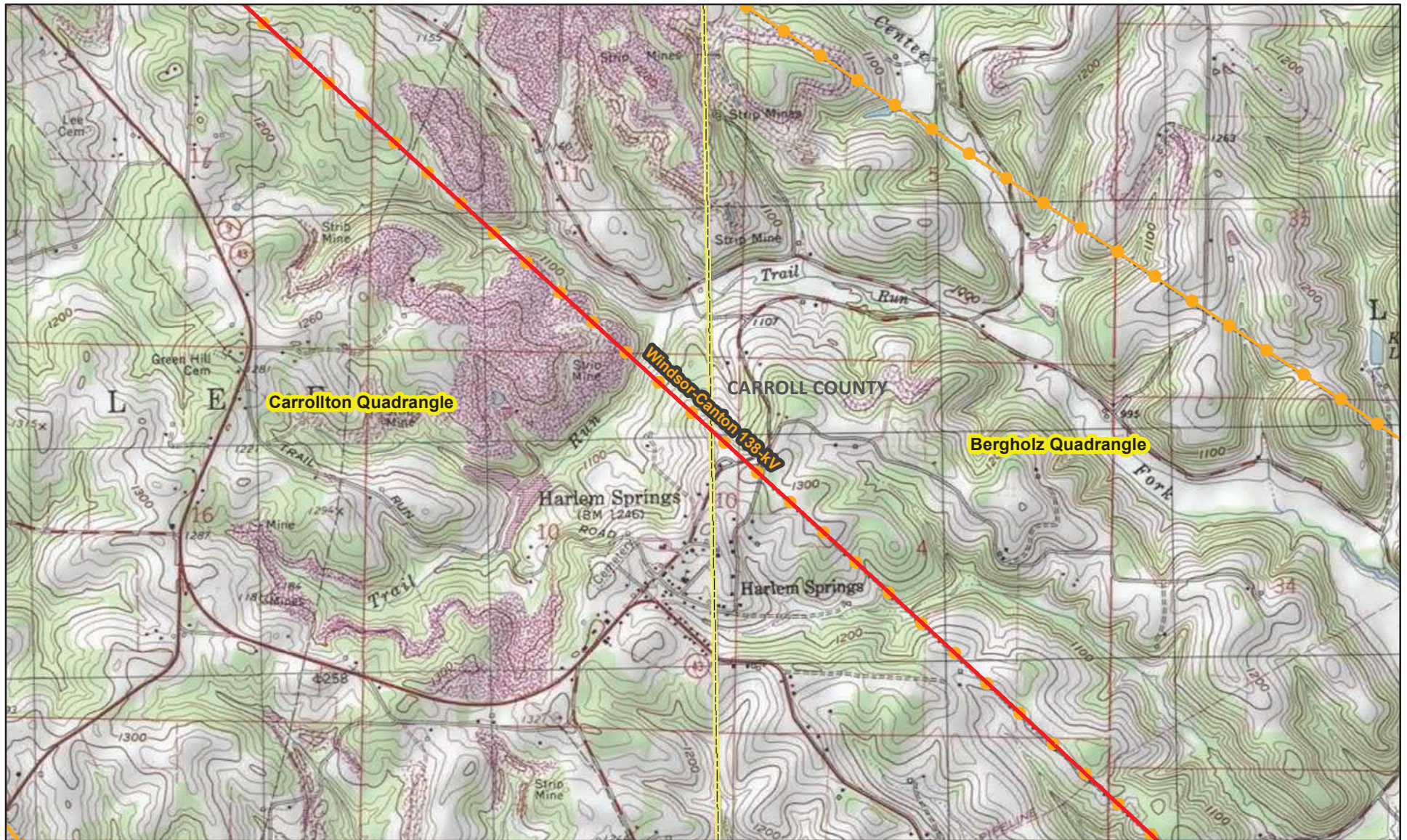




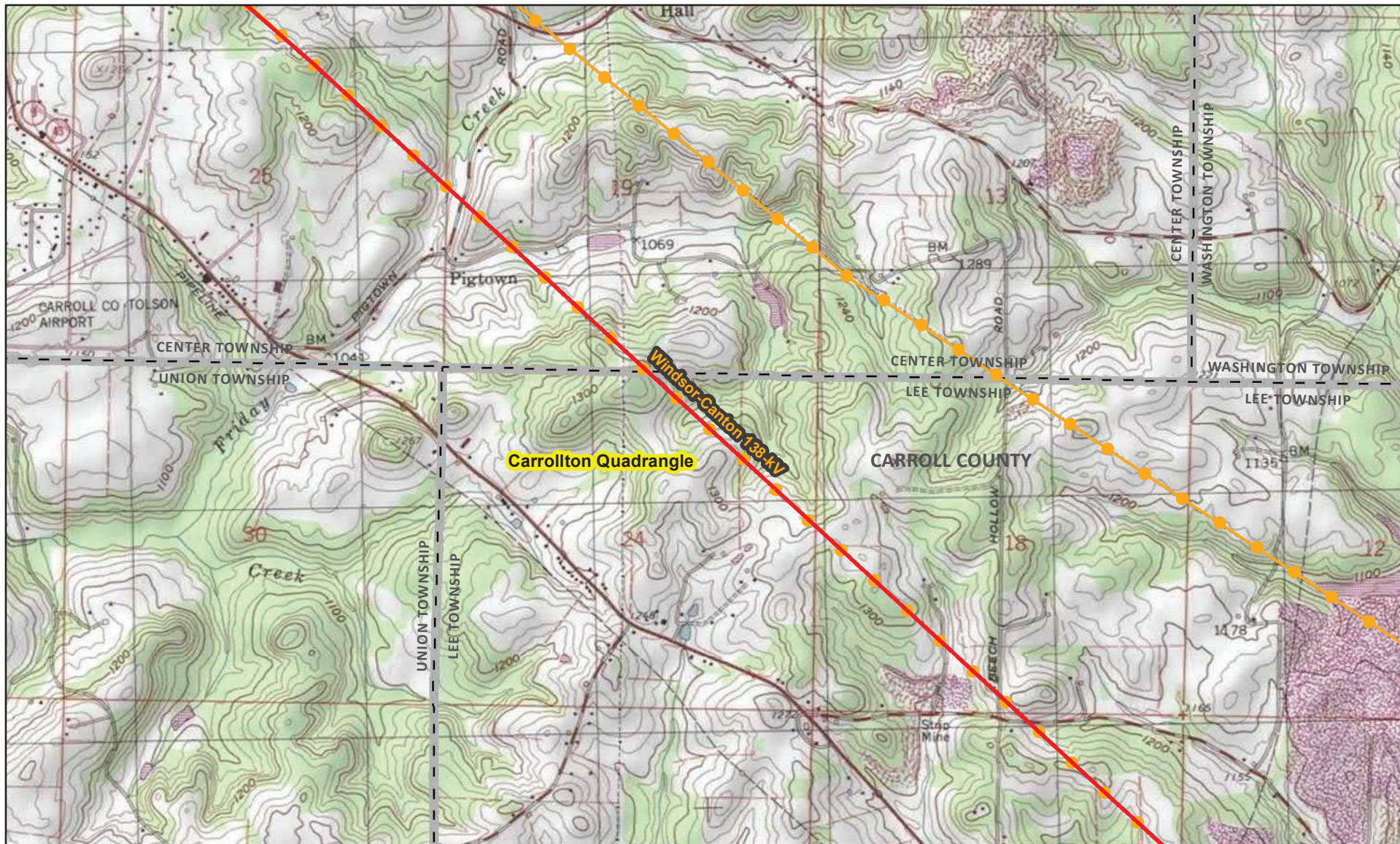






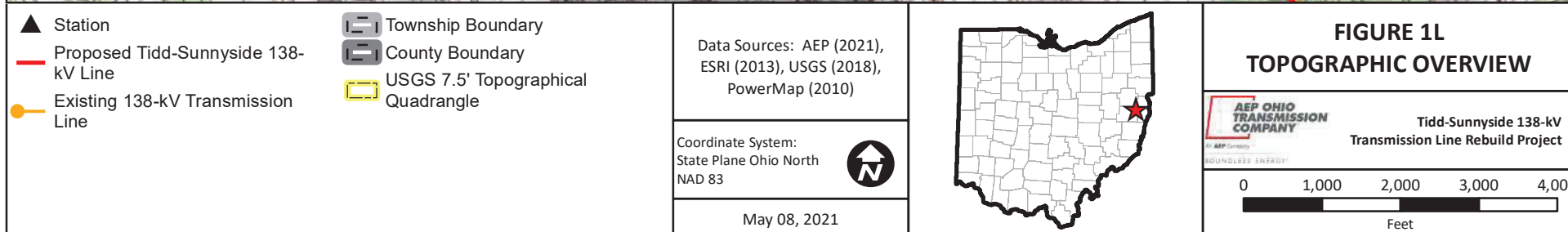
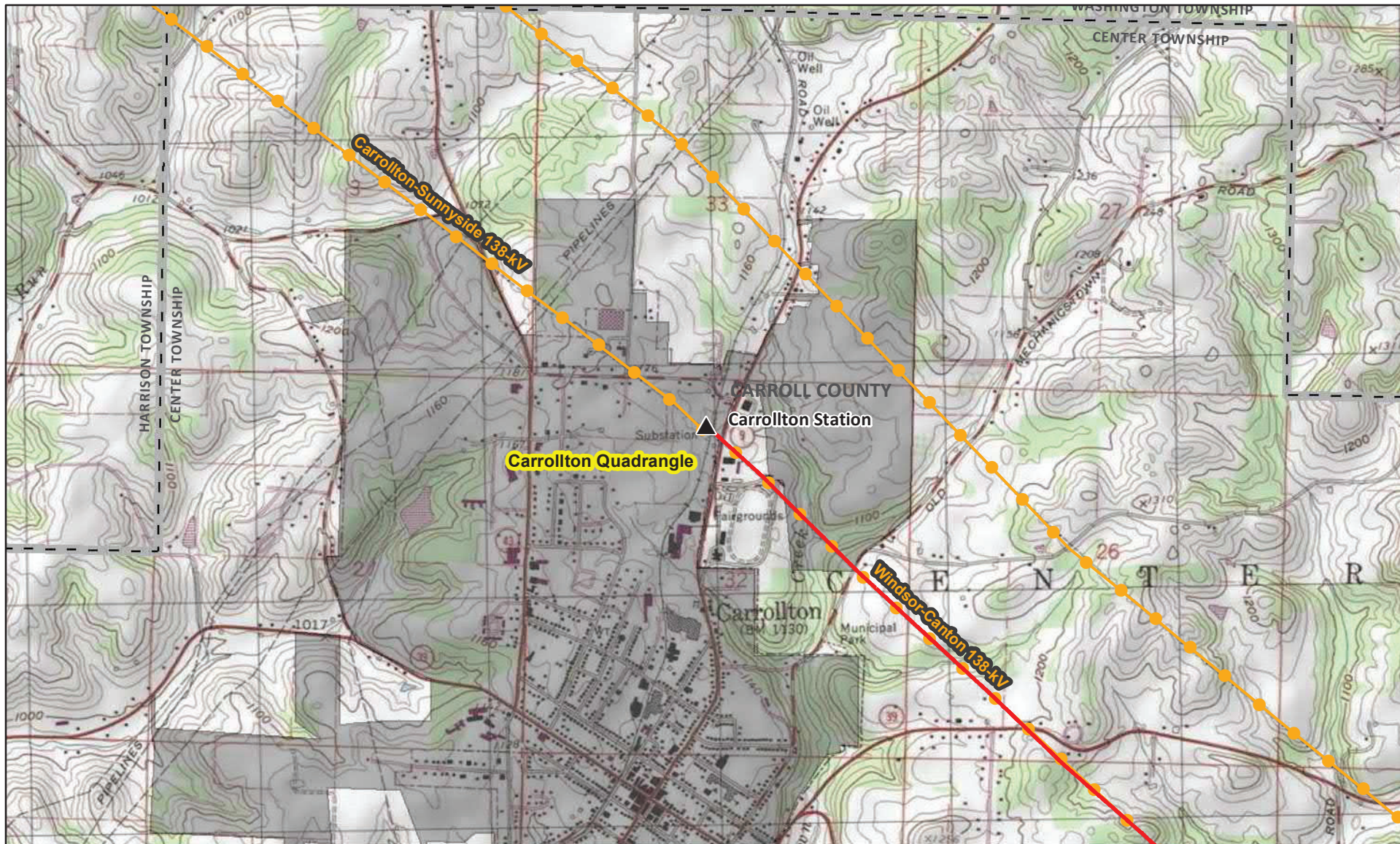




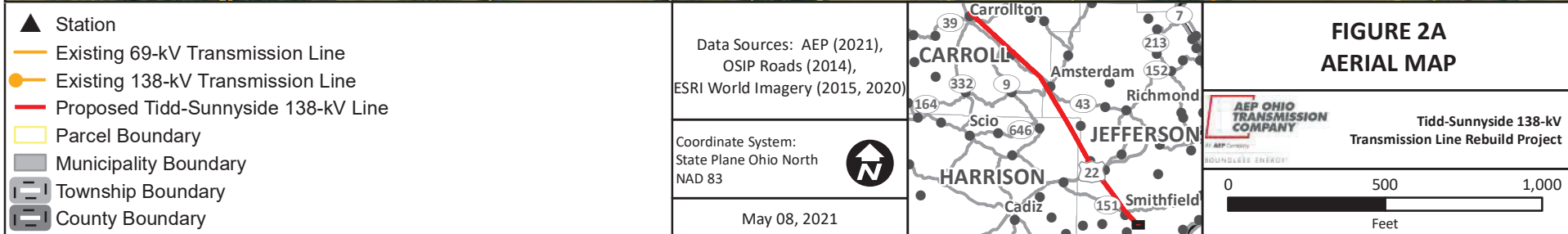
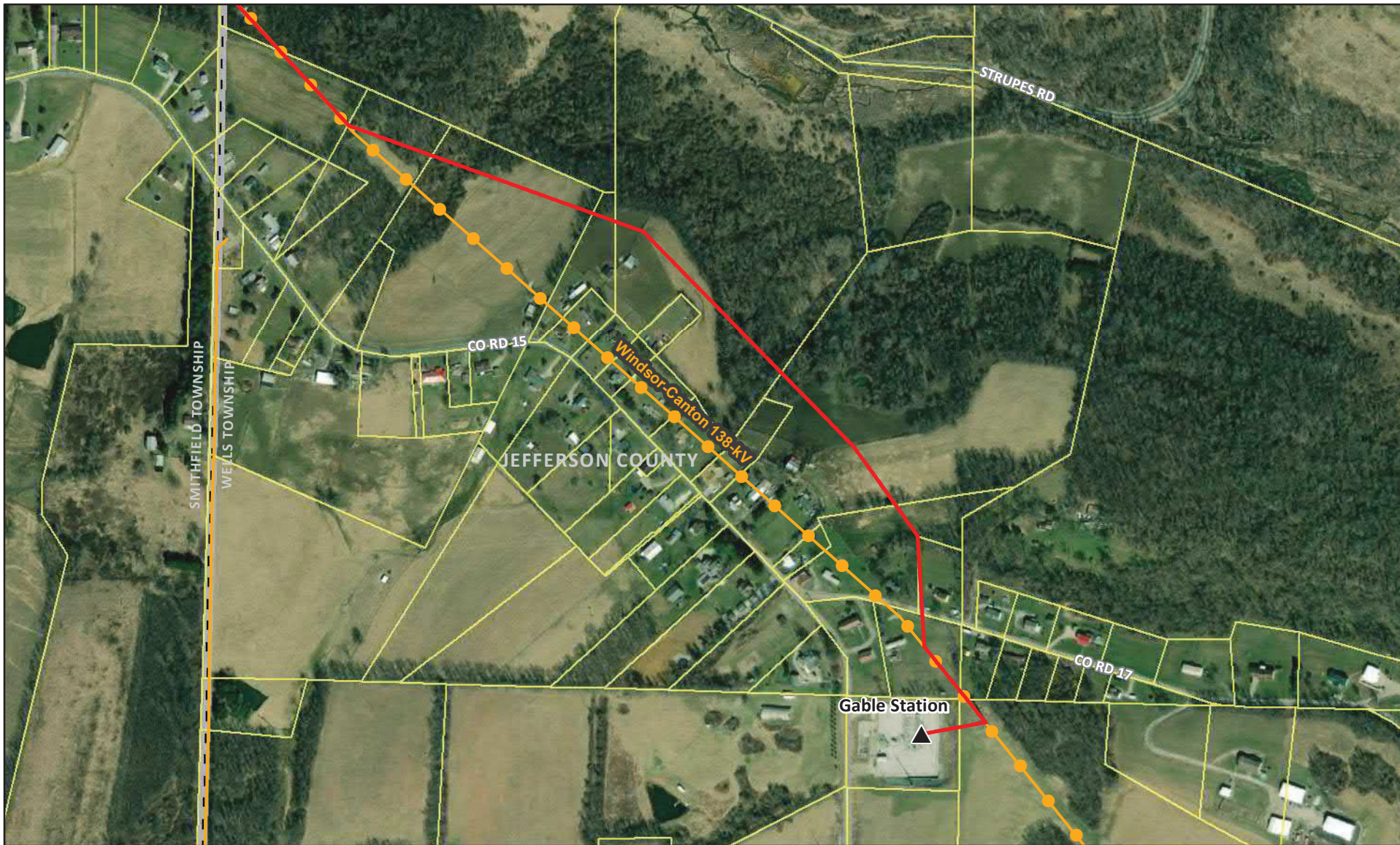


<p>Proposed Tidd-Sunnyside 138-kV Line</p> <p>Existing 138-kV Transmission Line</p>	<p>Township Boundary</p> <p>County Boundary</p> <p>USGS 7.5' Topographical Quadrangle</p>	<p>Data Sources: AEP (2021), ESRI (2013), USGS (2018), PowerMap (2010)</p> <p>Coordinate System: State Plane Ohio North NAD 83</p> <p>May 08, 2021</p>		<p><b>FIGURE 1K</b></p> <p><b>TOPOGRAPHIC OVERVIEW</b></p> <p><b>AEP OHIO TRANSMISSION COMPANY</b></p> <p><b>Tidd-Sunnyside 138-kV Transmission Line Rebuild Project</b></p> <p>0 1,000 2,000 3,000 4,000 Feet</p>
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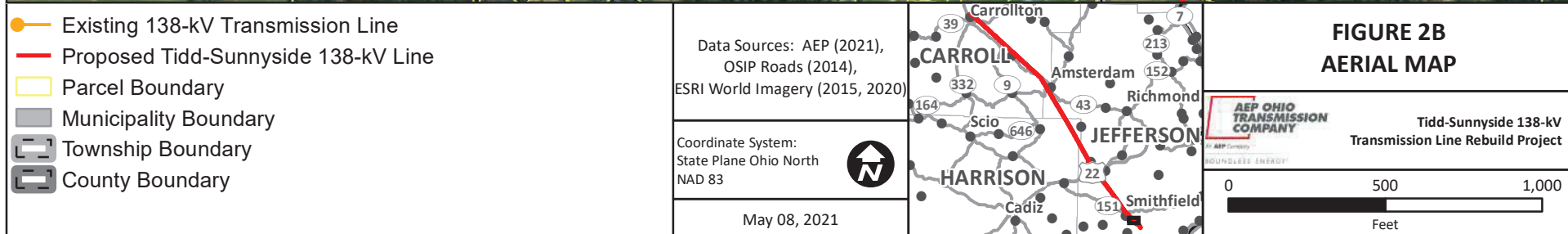




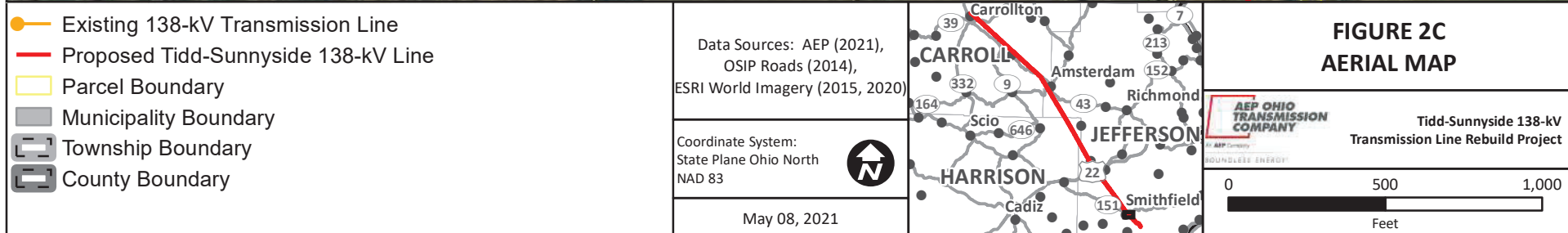
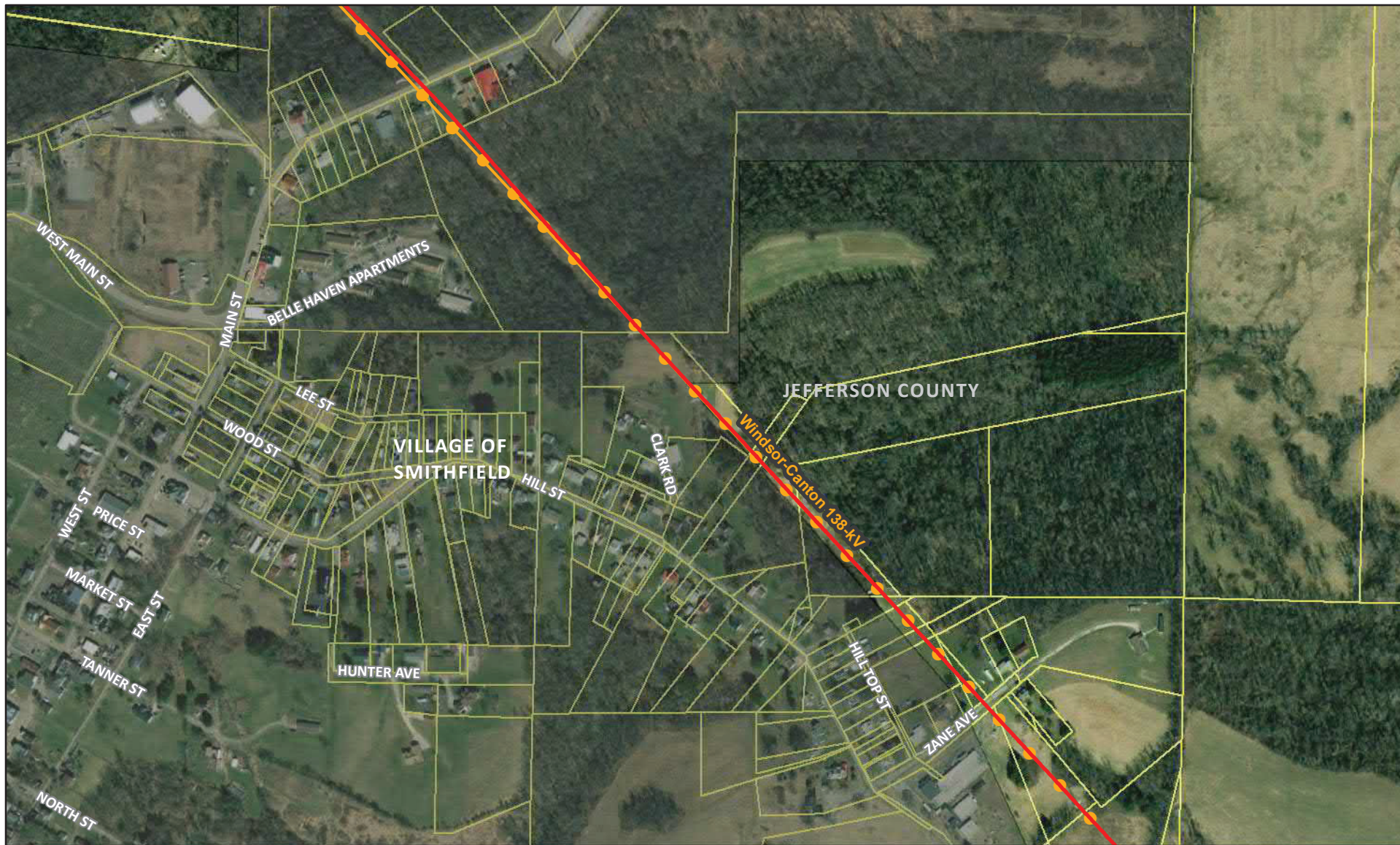




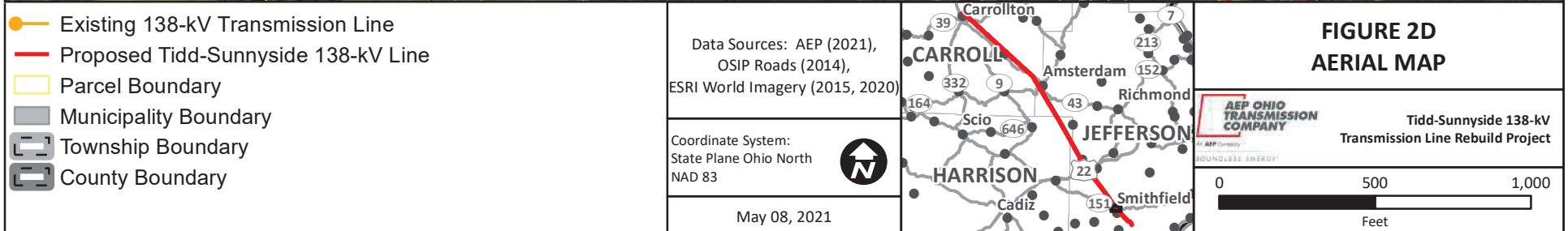




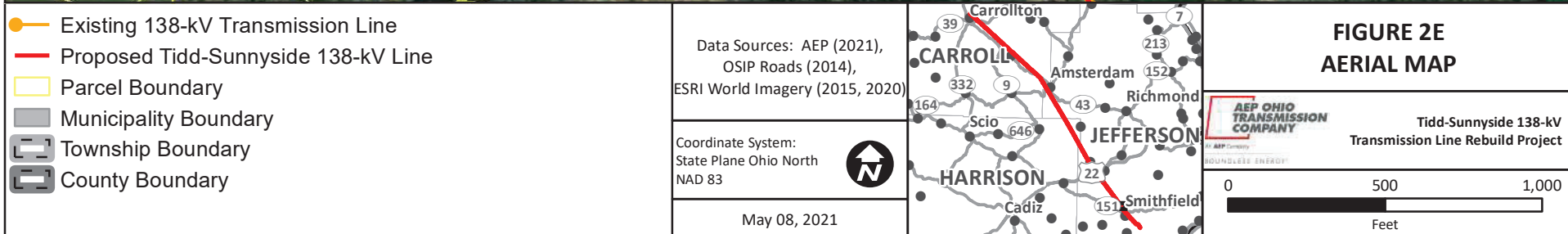








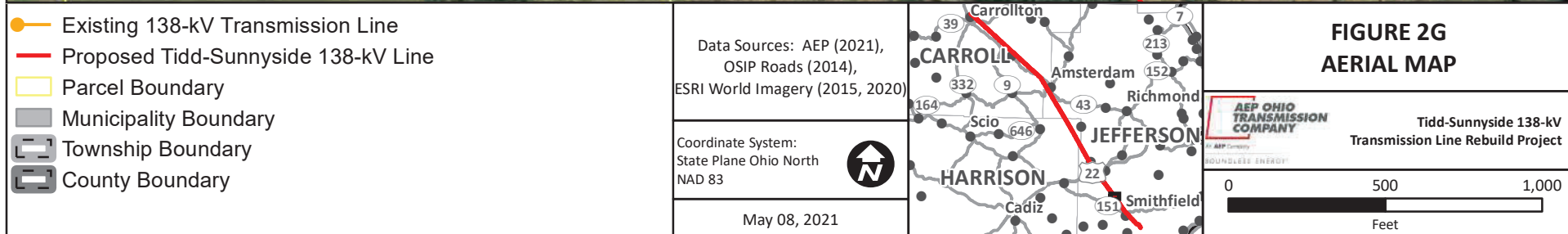




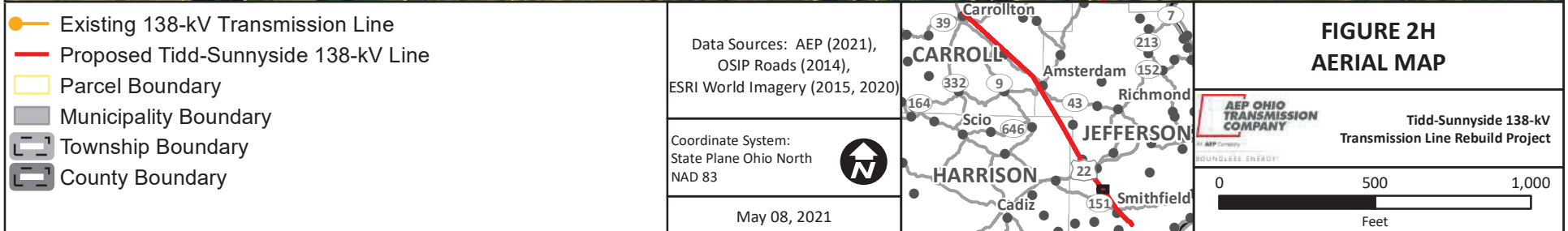
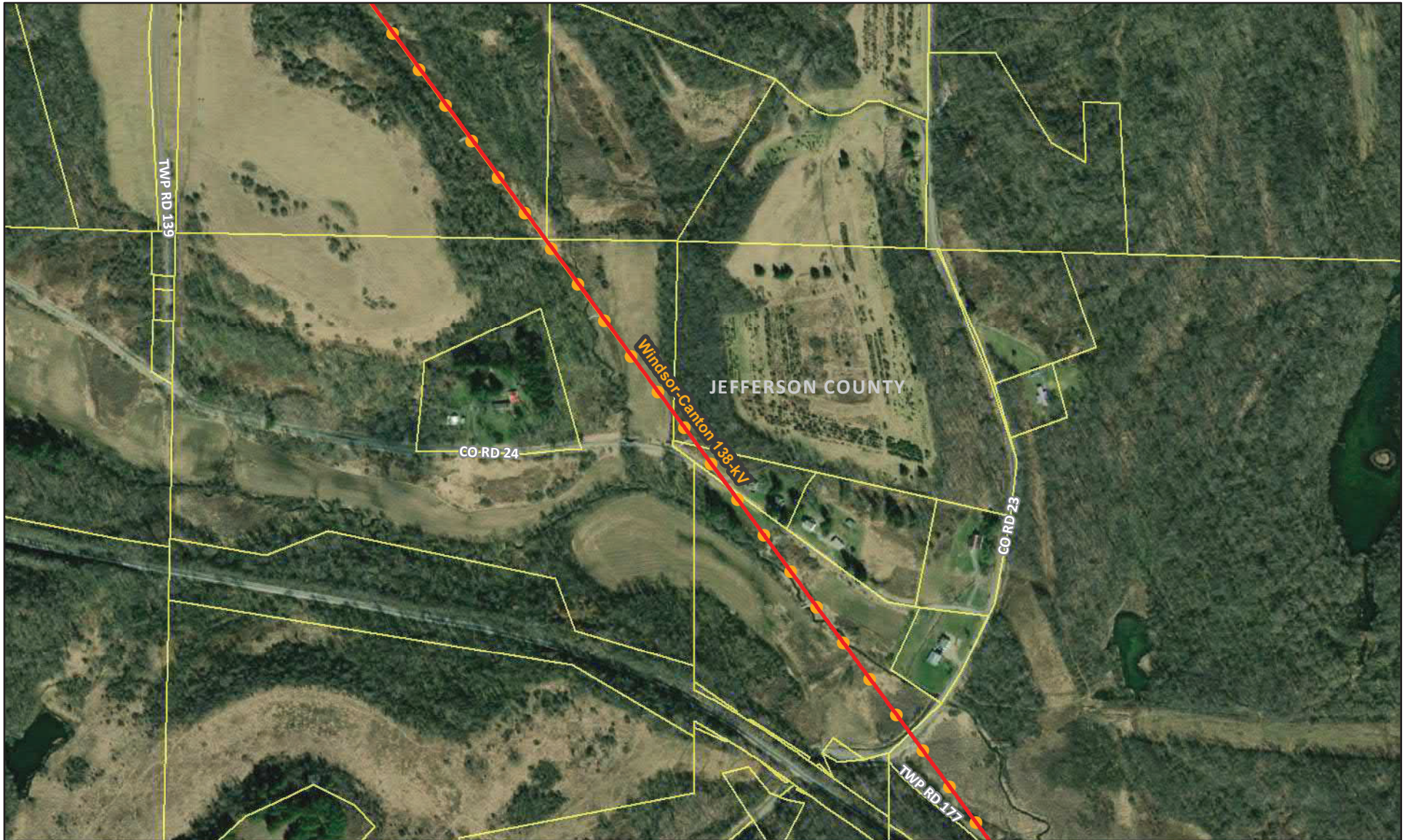




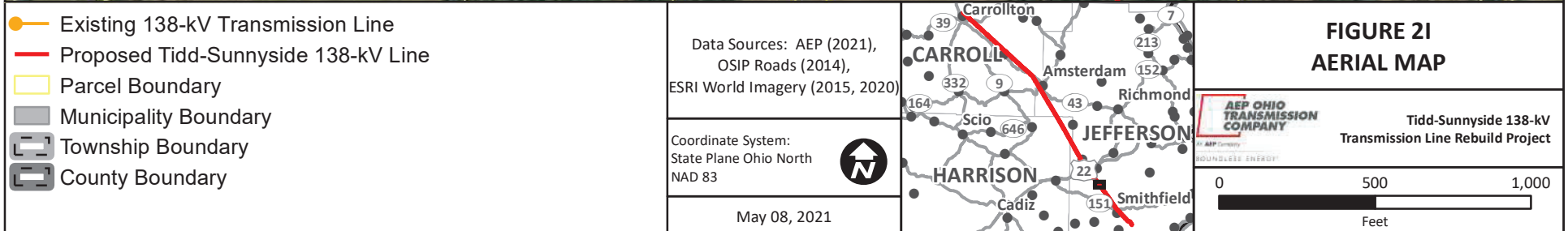








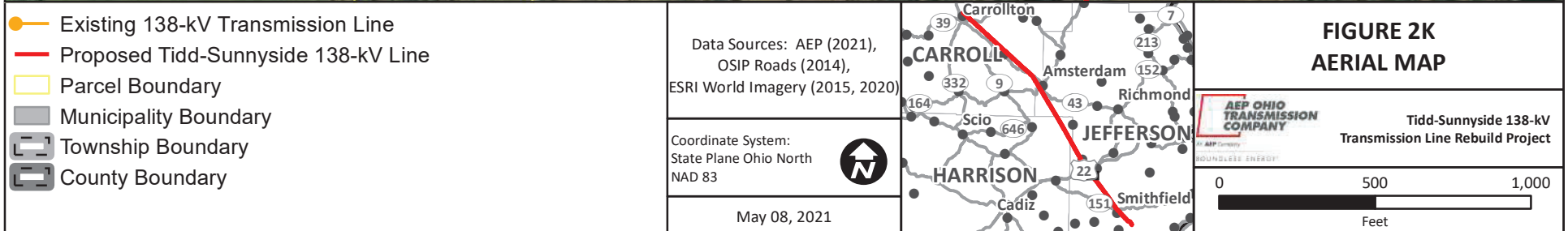




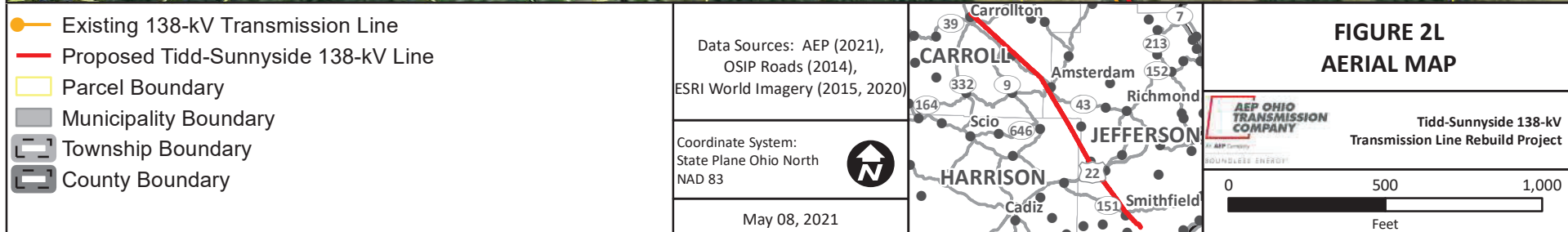




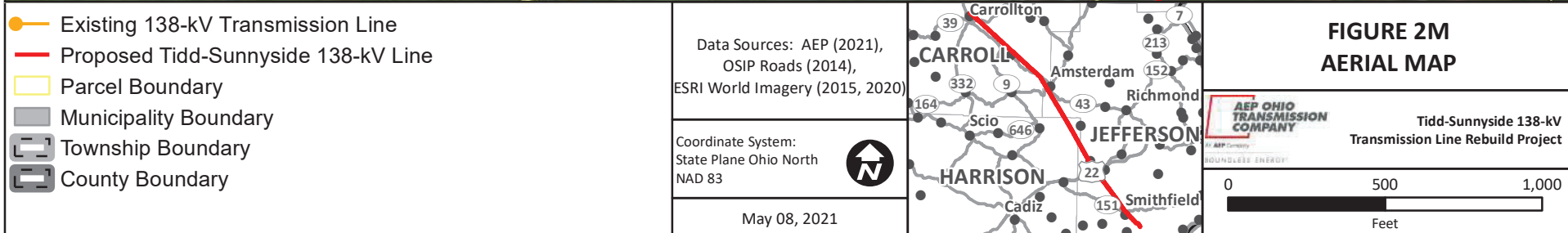
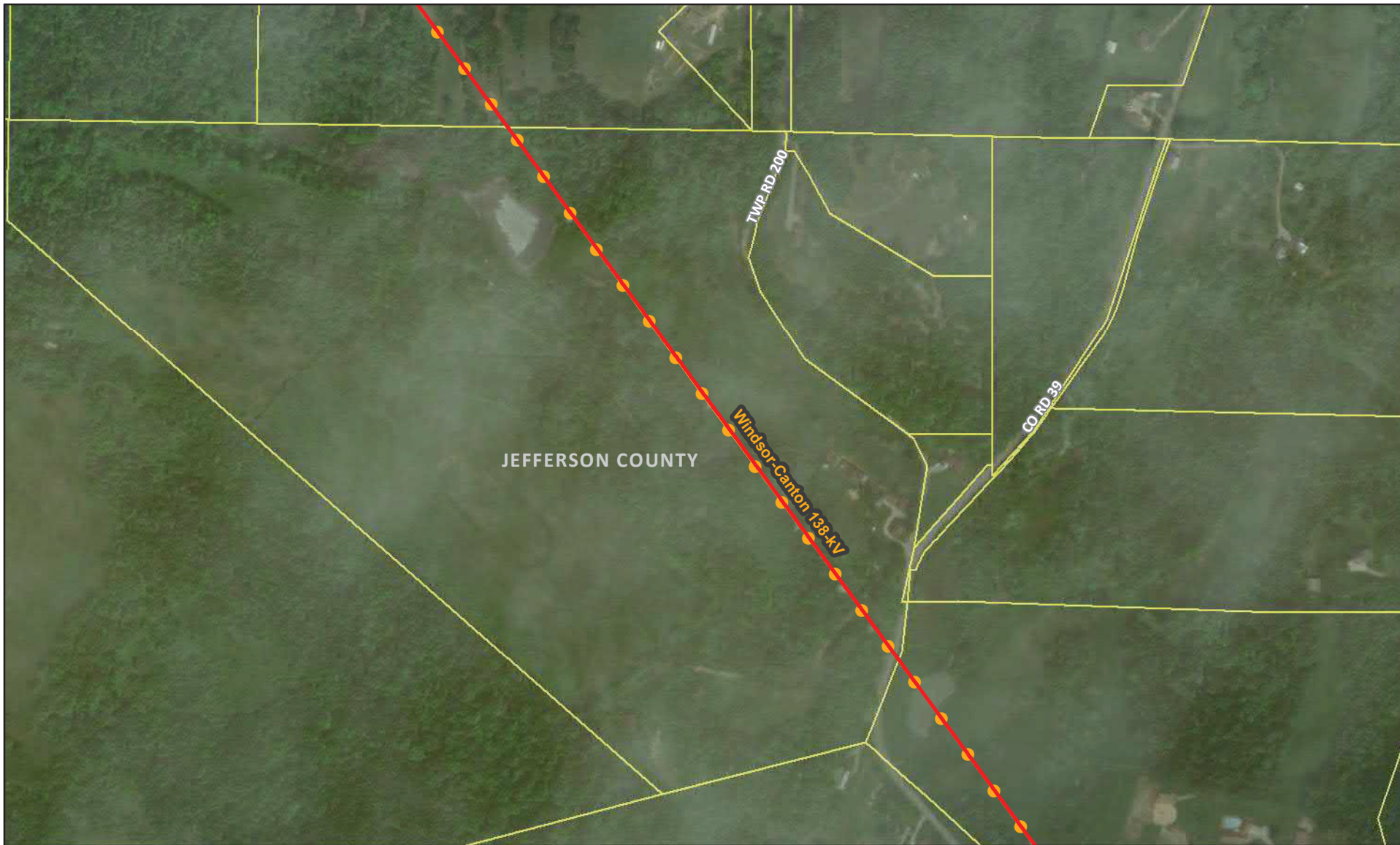




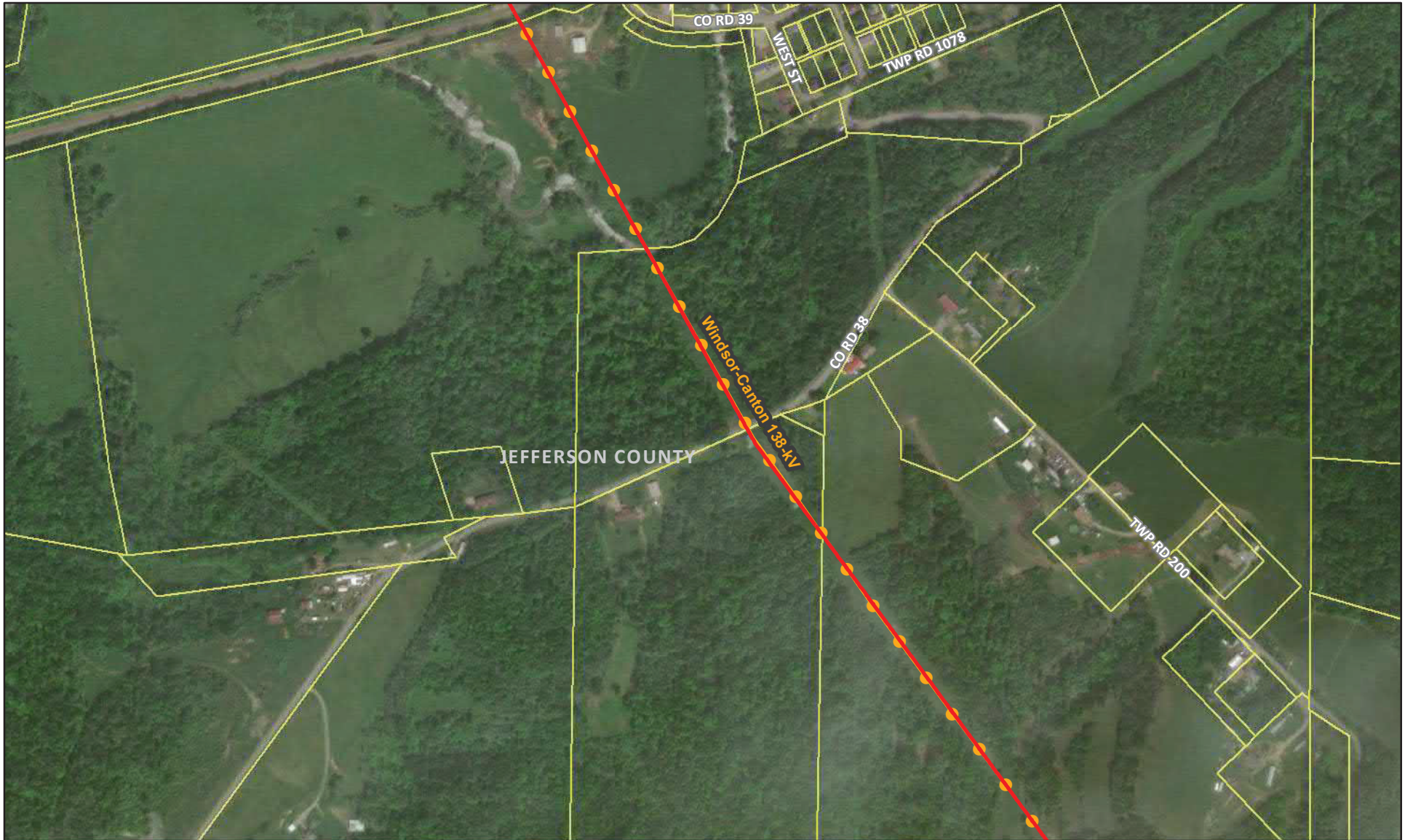




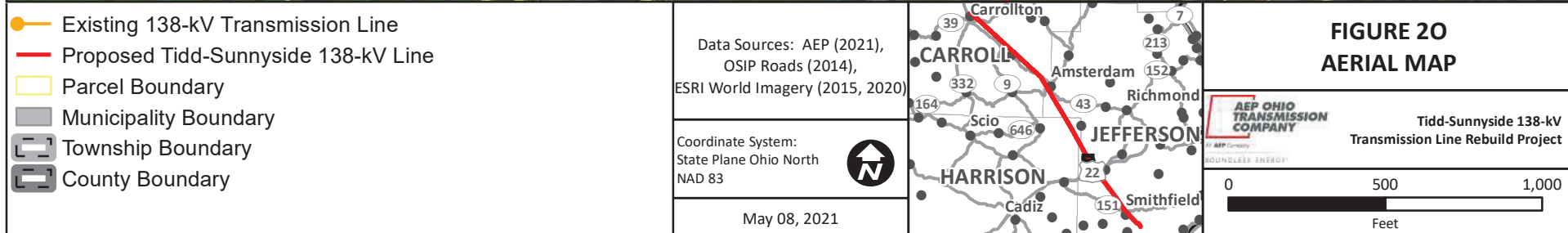




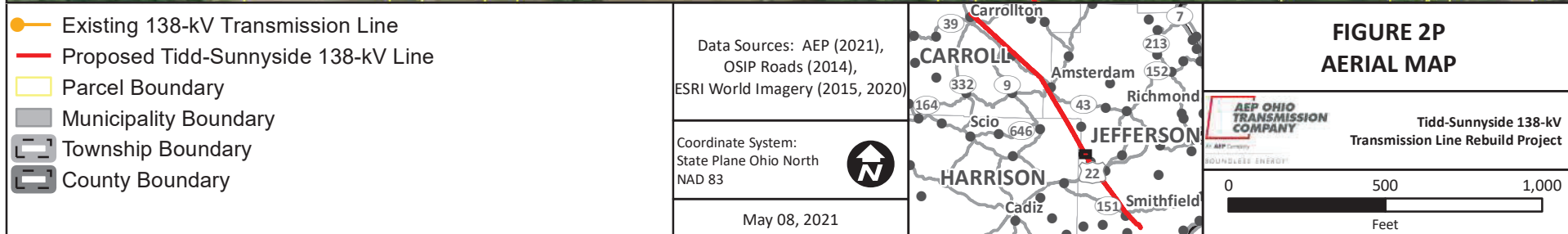




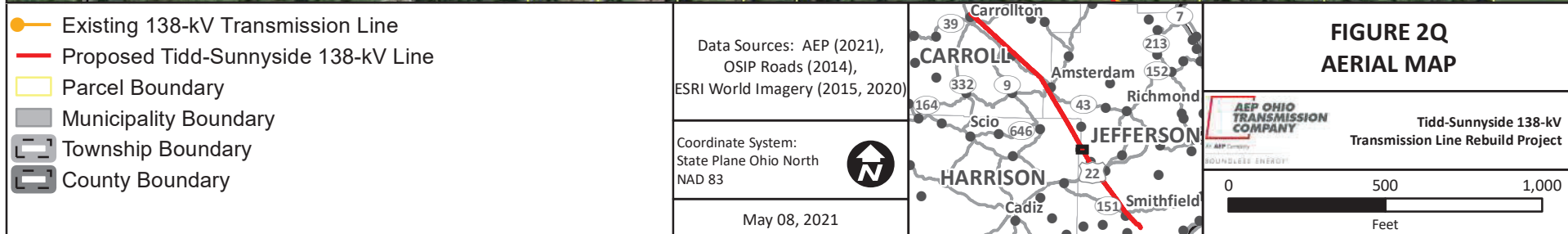




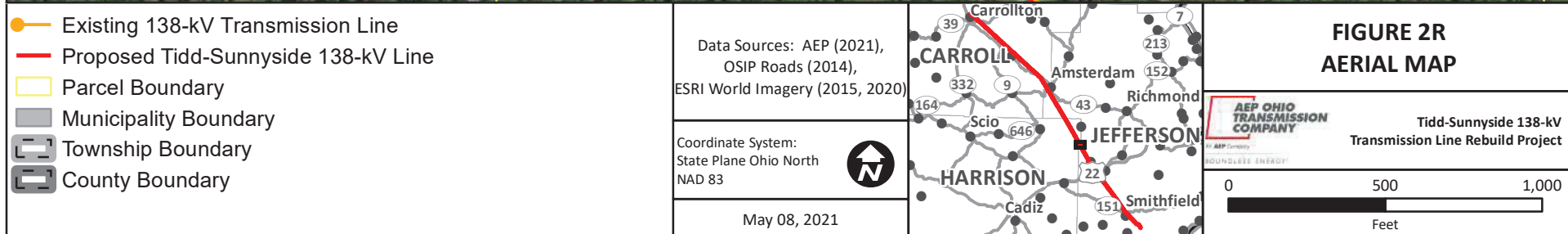




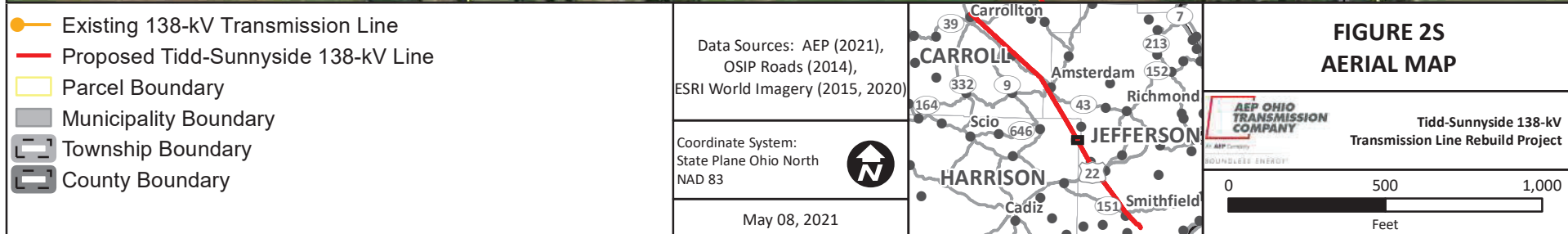




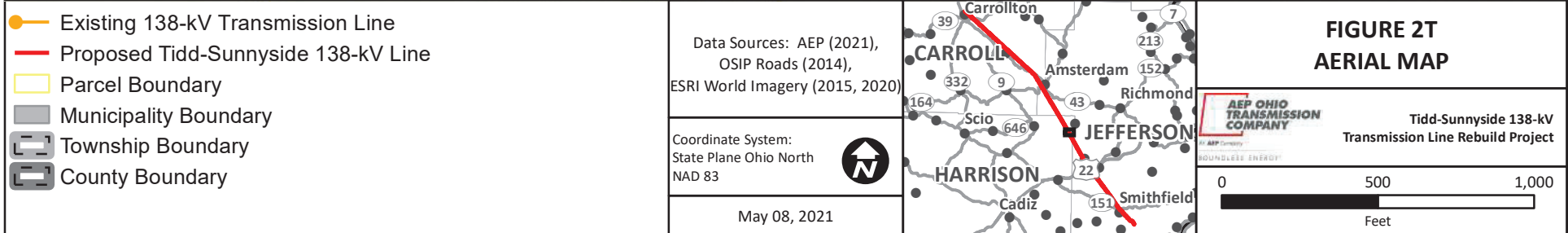




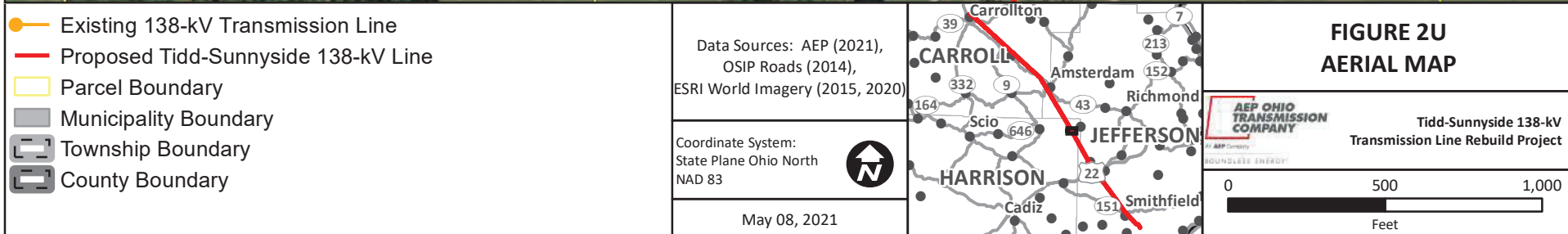




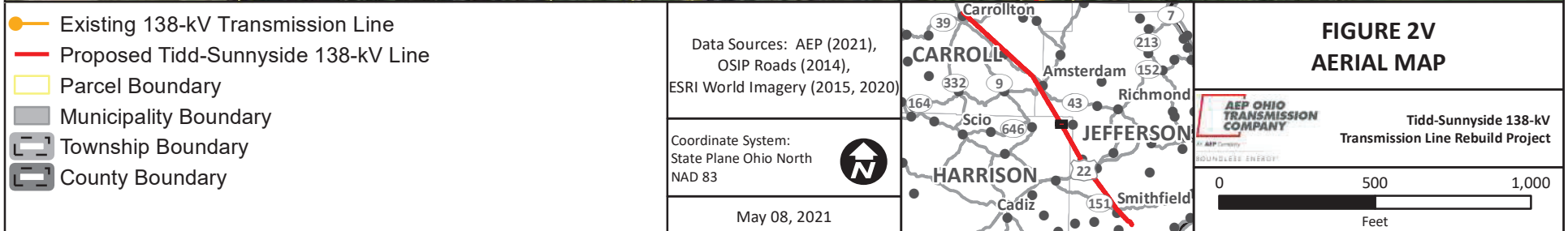




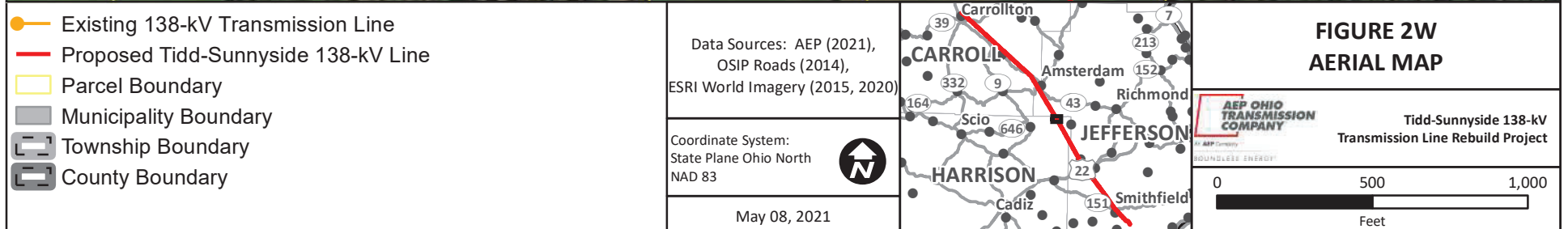










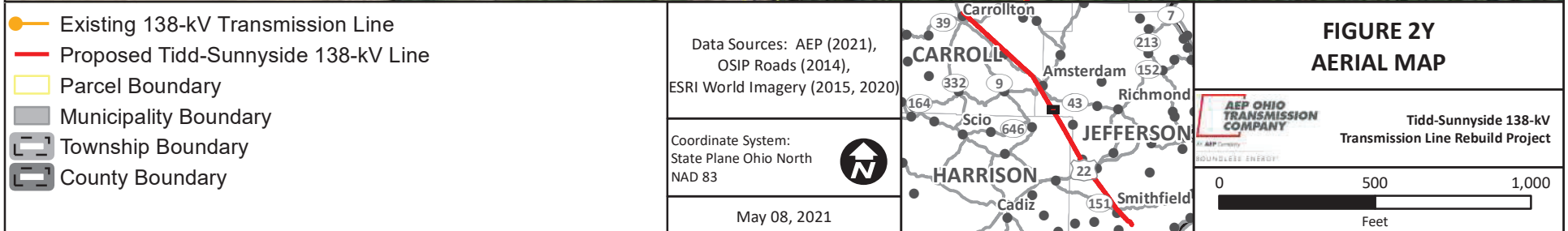






<ul style="list-style-type: none"> <li>Existing 138-kV Transmission Line</li> <li>Proposed Tidd-Sunnyside 138-kV Line</li> <li>Parcel Boundary</li> <li>Municipality Boundary</li> <li>Township Boundary</li> <li>County Boundary</li> </ul>	<p>Data Sources: AEP (2021), OSIP Roads (2014), ESRI World Imagery (2015, 2020)</p> <p>Coordinate System: State Plane Ohio North NAD 83</p> <p>May 08, 2021</p>		<p><b>FIGURE 2X AERIAL MAP</b></p> <p><b>AEP OHIO TRANSMISSION COMPANY</b></p> <p>Tidd-Sunnyside 138-kV Transmission Line Rebuild Project</p> <p>0 500 1,000 Feet</p>
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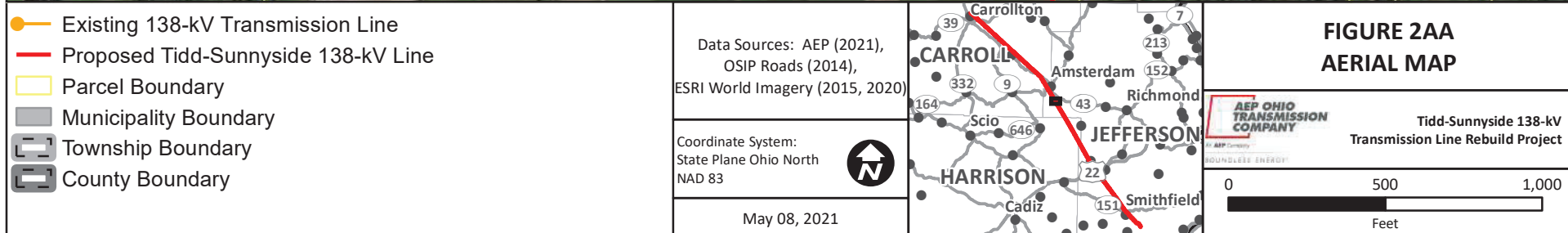




















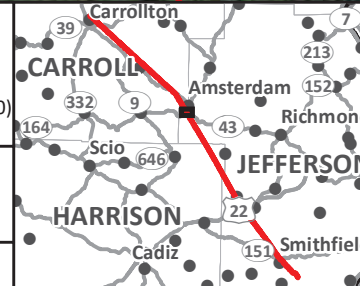
- Existing 69-kV Transmission Line
- Existing 138-kV Transmission Line
- Proposed Tidd-Sunnyside 138-kV Line
- Parcel Boundary
- Municipality Boundary
- Township Boundary
- County Boundary

Data Sources: AEP (2021),  
OSIP Roads (2014),  
ESRI World Imagery (2015, 2020)

Coordinate System:  
State Plane Ohio North  
NAD 83



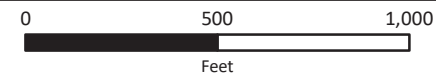
May 08, 2021



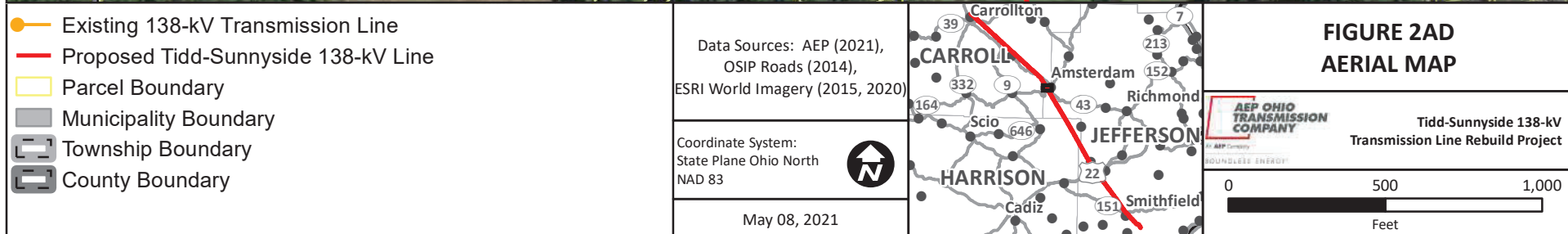
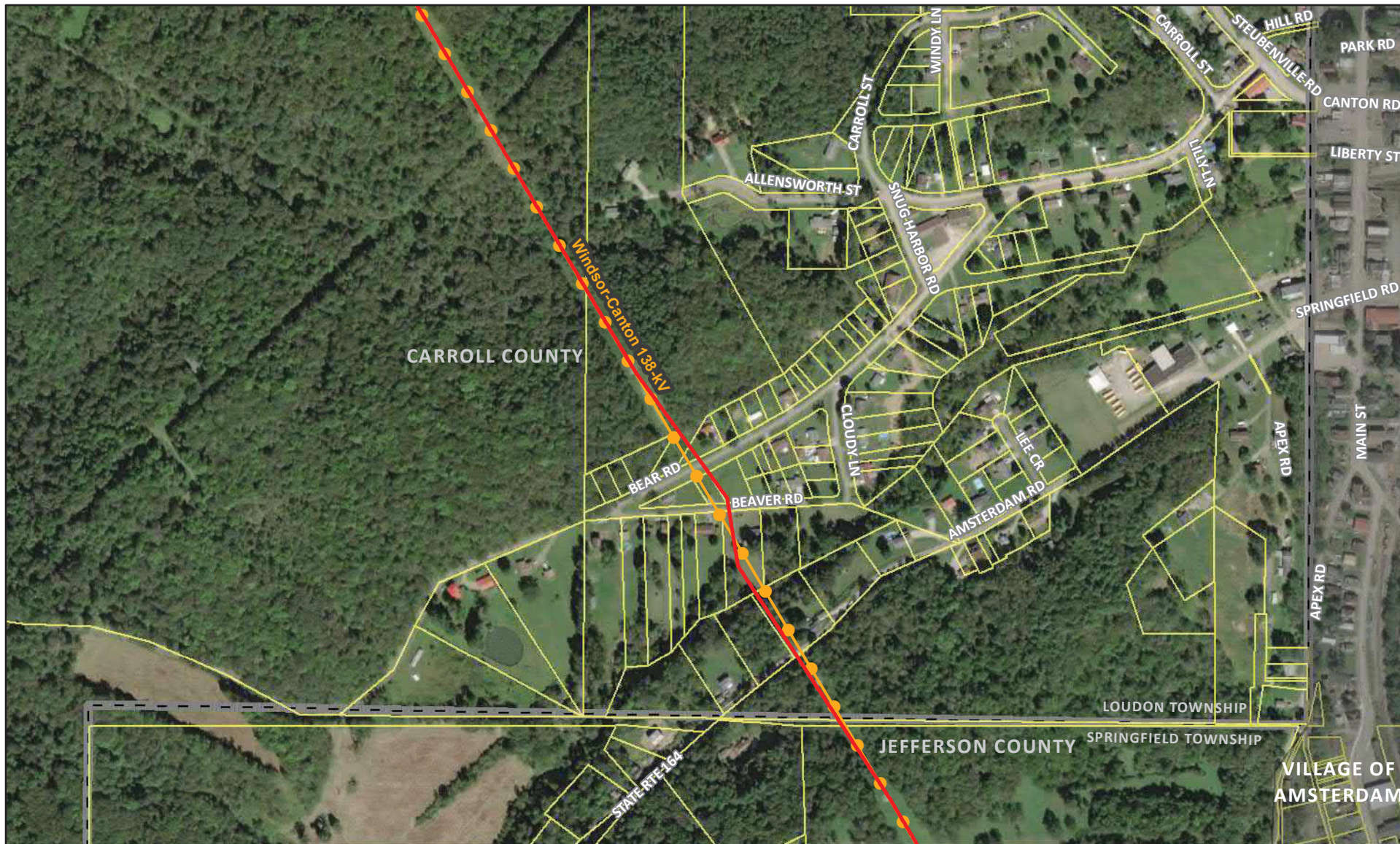
**FIGURE 2AC  
AERIAL MAP**



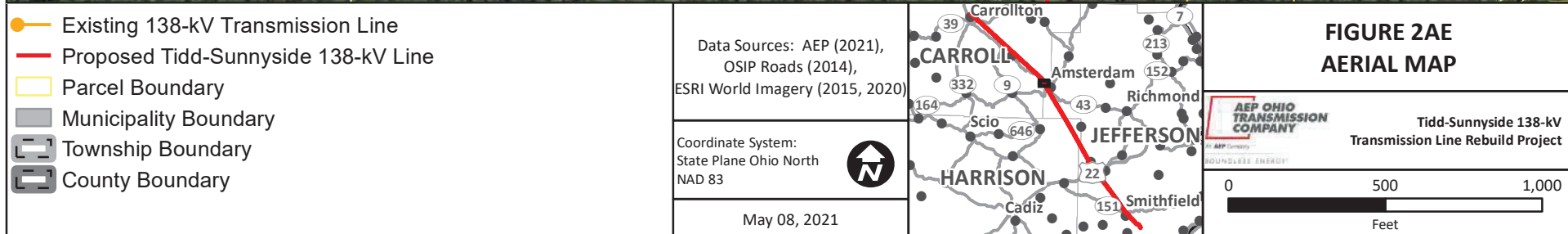
**Tidd-Sunnyside 138-kV  
Transmission Line Rebuild Project**



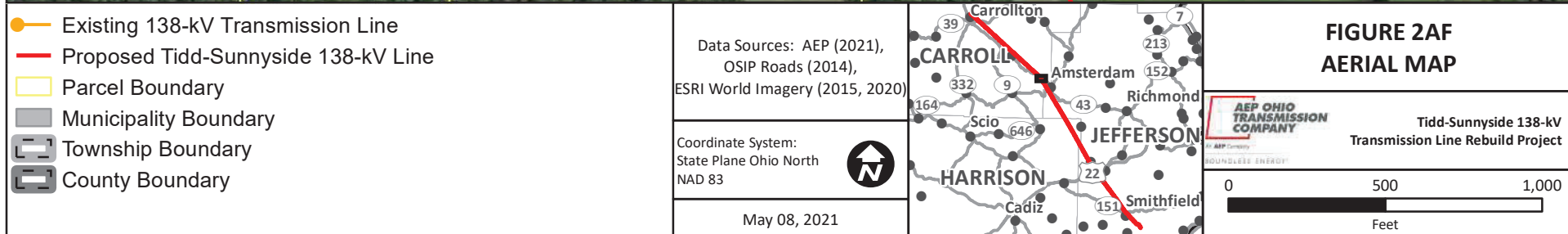




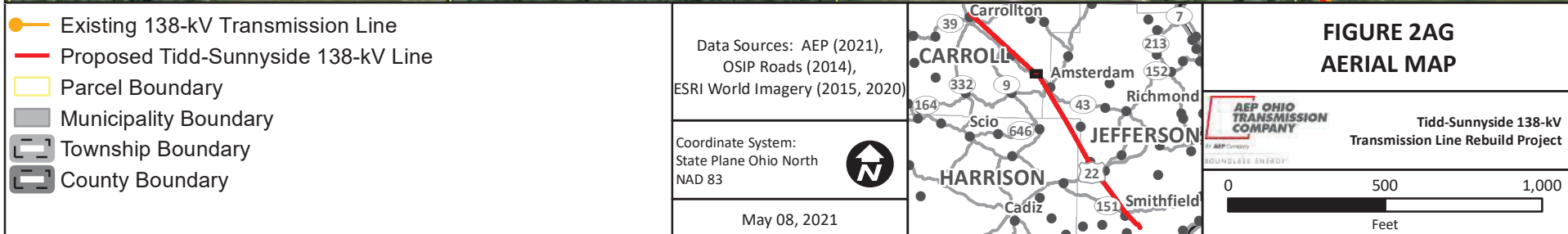








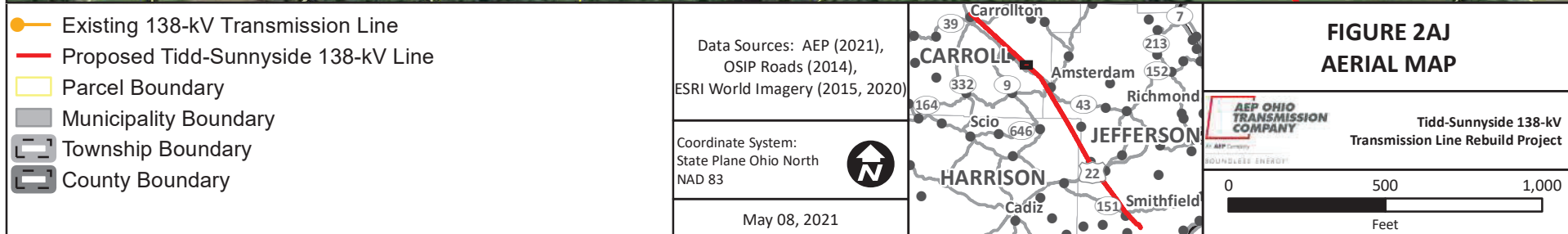




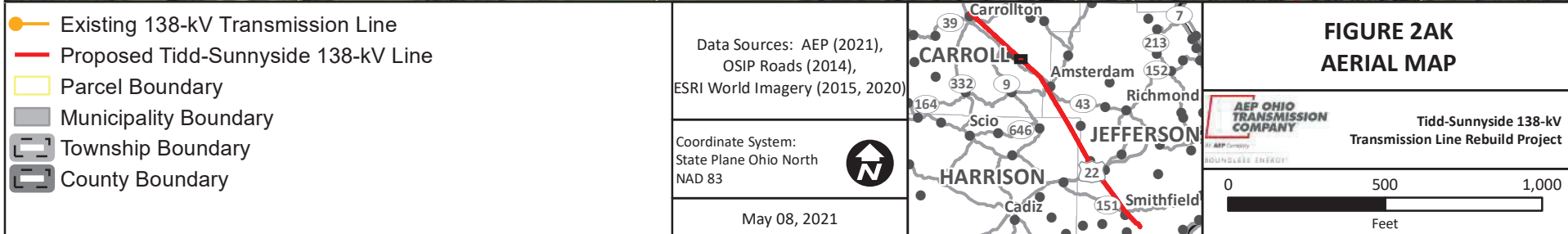
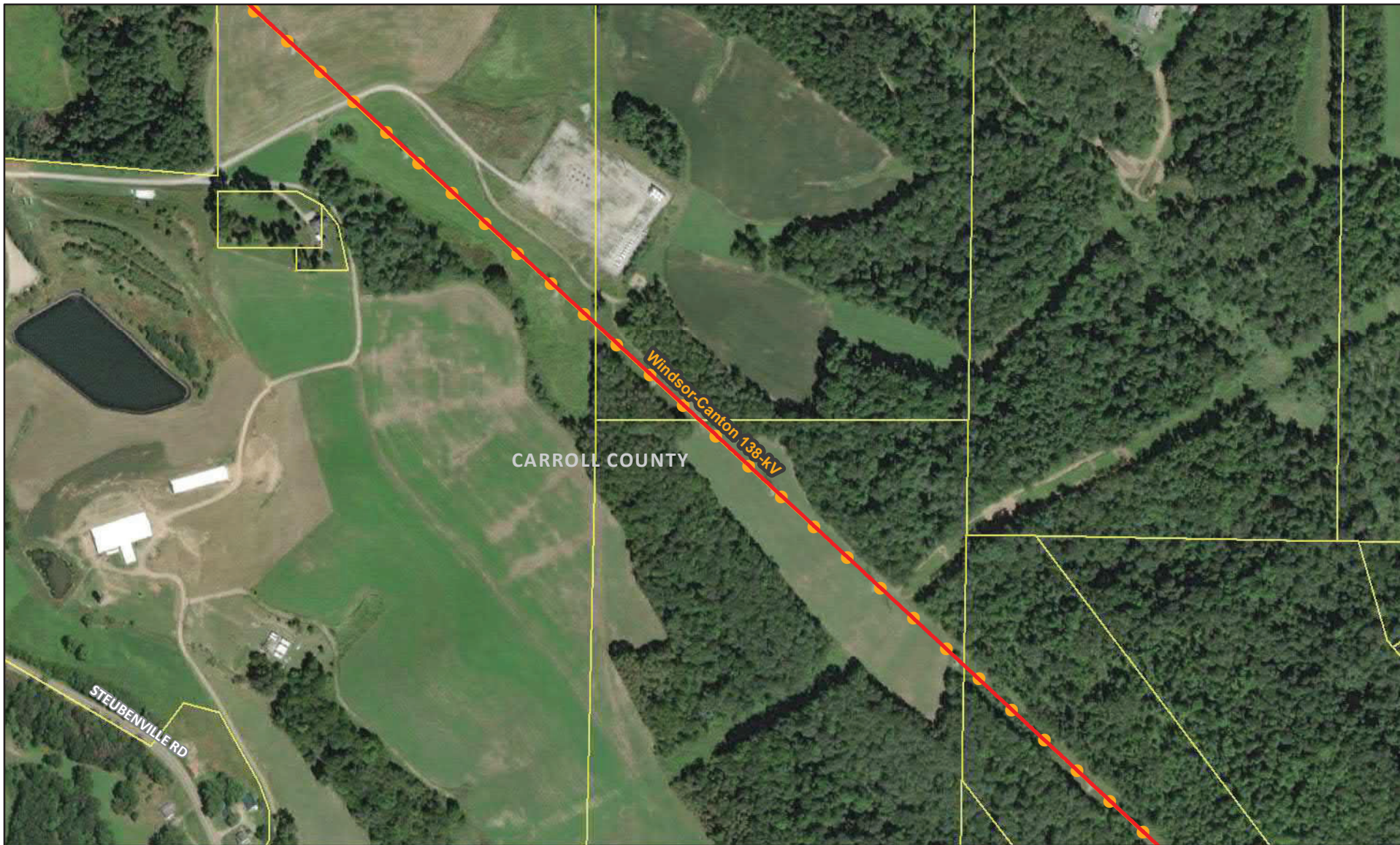








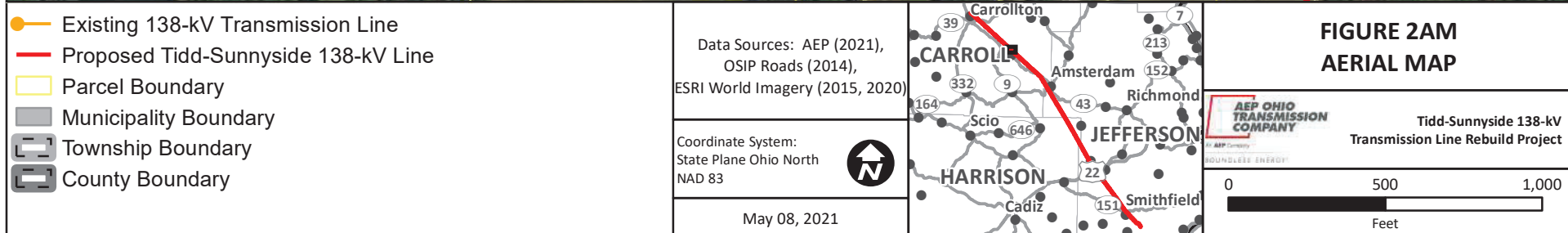




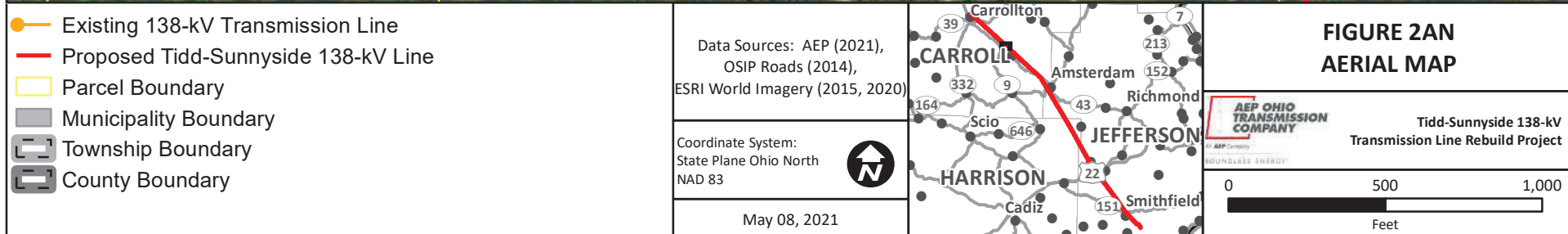




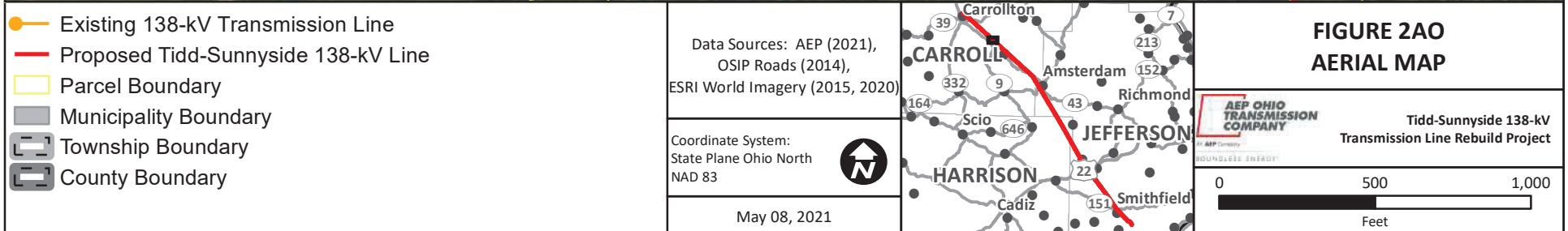




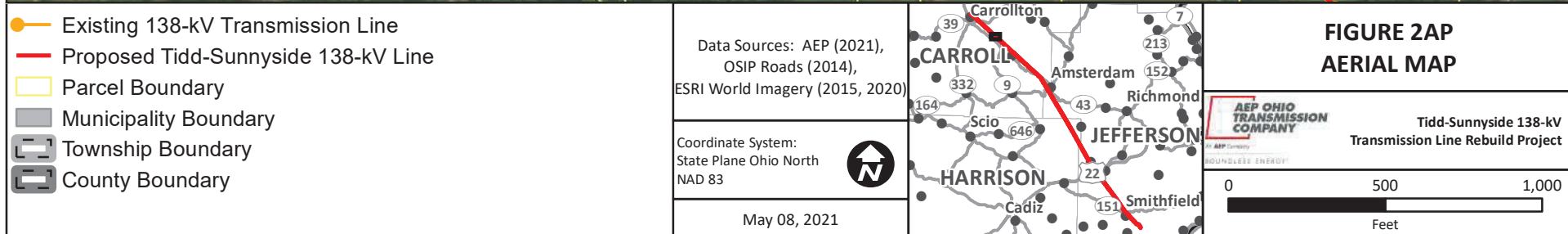




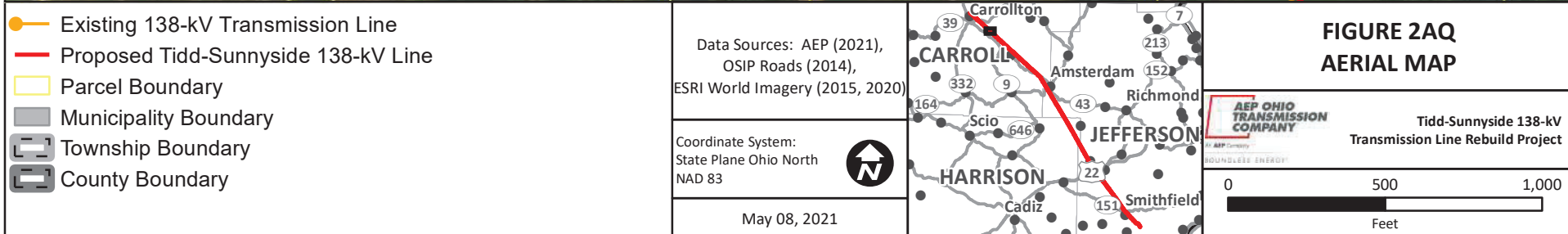








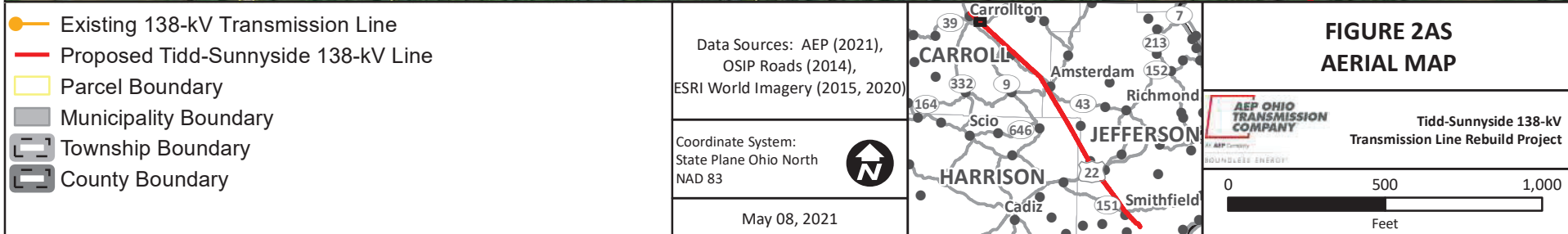
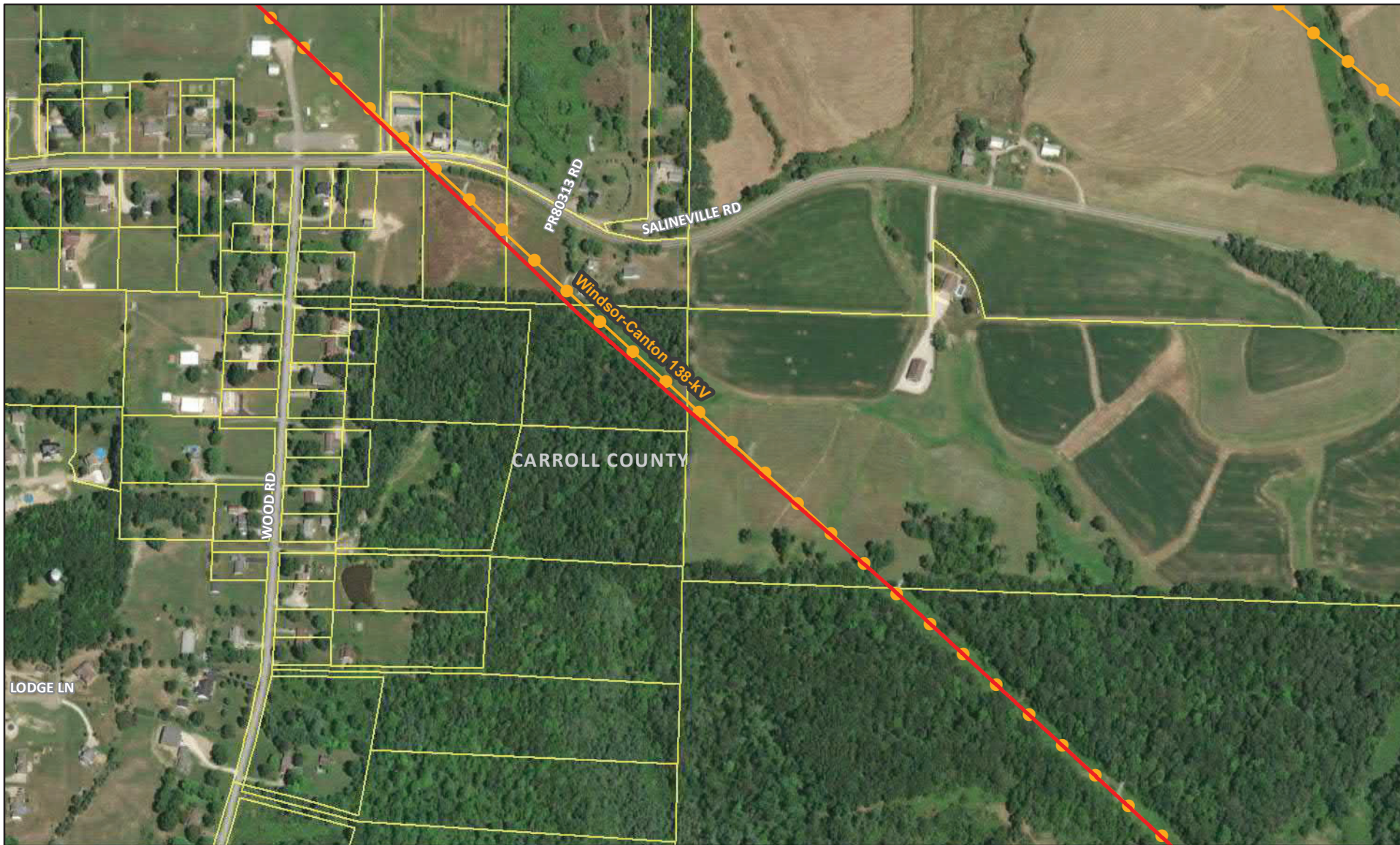




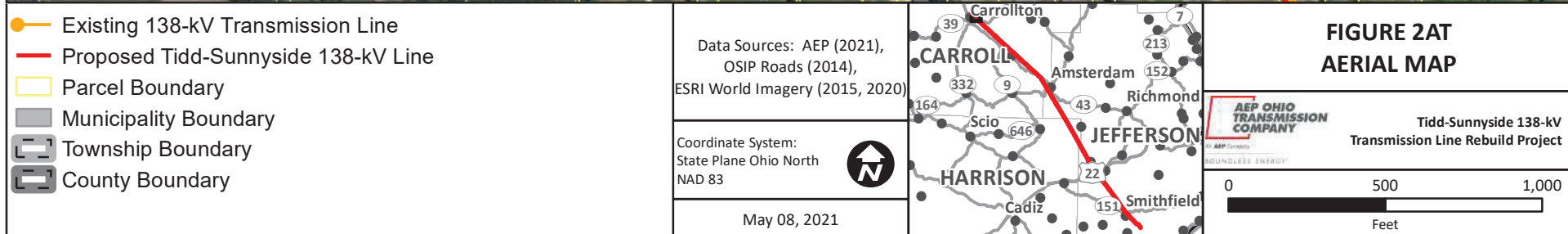
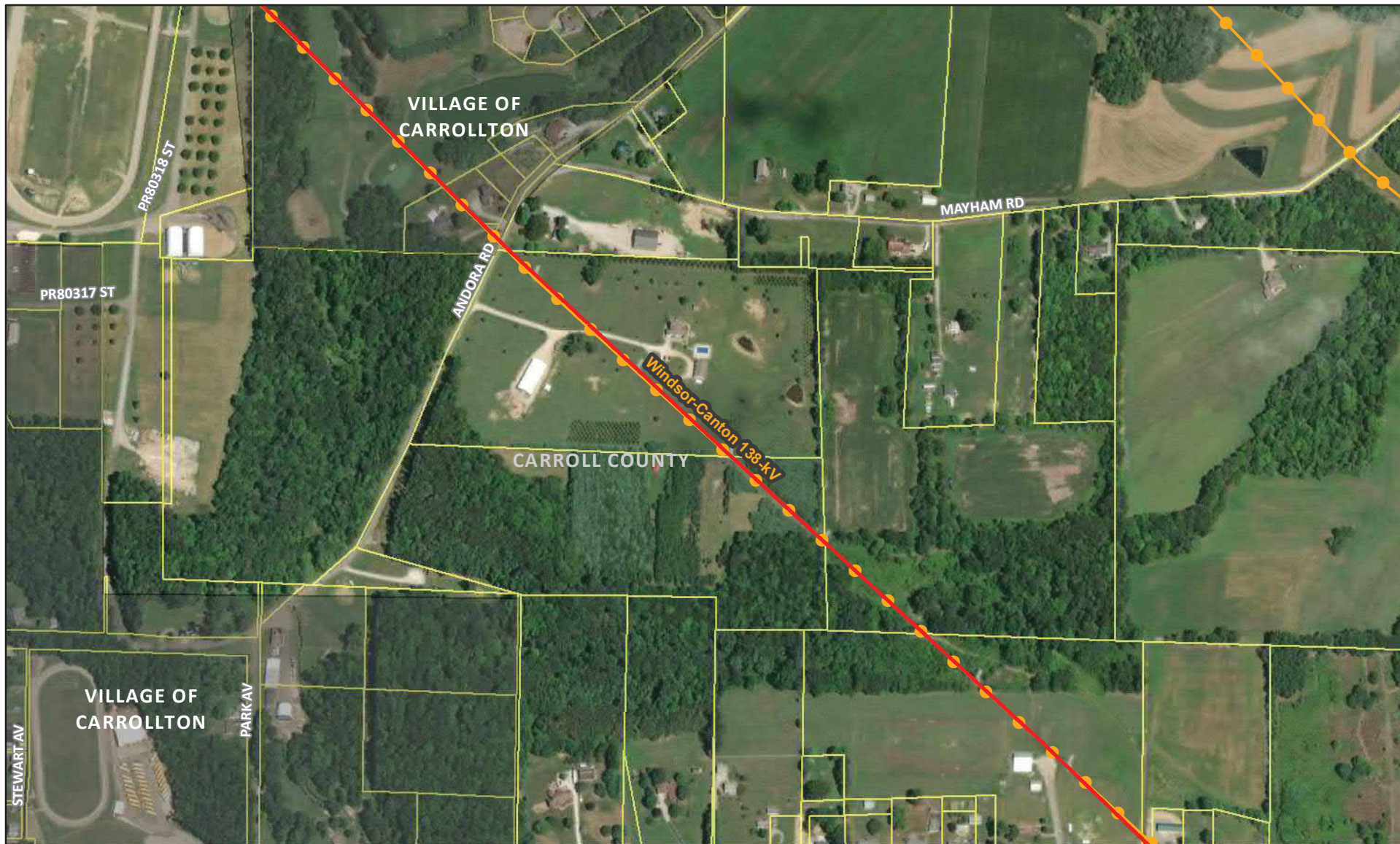




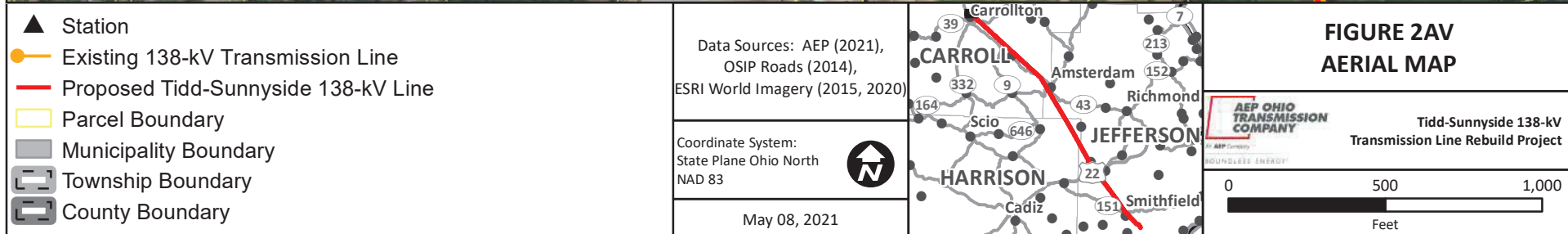














## **Appendix B PJM Submittal and Long Term Forecast Report**



PUCO Form FE-T9  
AEP Ohio Transmission Company  
Specifications of Planned Transmission Lines

<b>LINE NAME AND NUMBER:</b>	Gable-Carrollton 138kV (s1859)
<b>POINTS OF ORIGIN AND TERMINATION</b>	Gable / Carrollton; INTERMEDIATE STATION - N/A
<b>RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS</b>	29 mi / 100 ft / 1 circuit
<b>VOLTAGE: DESIGN / OPERATE</b>	138kV
<b>APPLICATION FOR CERTIFICATE:</b>	LON anticipated in 2019
<b>CONSTRUCTION:</b>	Estimated completion in 2021-2022
<b>CAPITAL INVESTMENT:</b>	\$42.1M
<b>PLANNED SUBSTATION:</b>	NAME - N/A; TRANSMISSION VOLTAGE - N/A; ACREAGE - N/A; LOCATION - N/A
<b>SUPPORTING STRUCTURES:</b>	6-wire double-circuit steel poles
<b>PARTICIPATION WITH OTHER UTILITIES</b>	N/A
<b>PURPOSE OF THE PLANNED TRANSMISSION LINE</b>	Rebuild of 100-year old line which has deteriorated
<b>CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION</b>	Potential reliability issues with 100-yr old T-Line (Tidd-Carrollton)
<b>MISCELLANEOUS:</b>	N/A





## AEP Transmission Zone: Supplemental Carrollton, Ohio

**Need Number:** AEP-2018-OH011

**Process Stage:** Solution Meeting 1/11/19

**Needs Presented:** 10/26/18

**Supplemental Project Driver:** Equipment Material/Condition/  
Performance/Risk

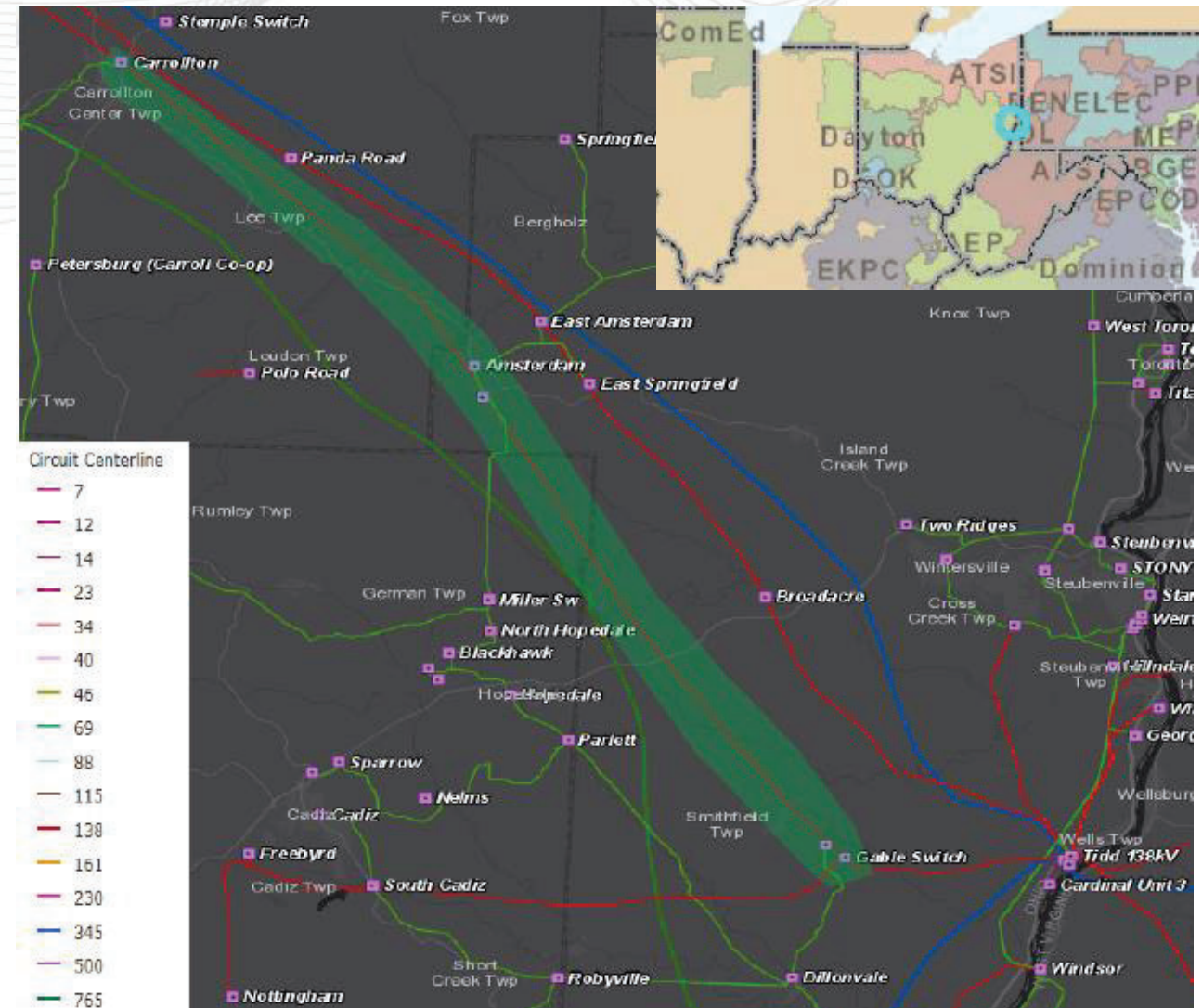
**Specific Assumptions Reference:** AEP Guidelines for Transmission Owner  
Identified Needs (AEP Assumptions Slide 8)

### Problem Statement:

The 29-mile Gable-Carrollton 138kV circuit (vintage 1917) is in poor condition and is a reliability risk to the transmission system. The circuit consists of lattice towers and 6-wired 200 kcmil copper conductor. After a century in the field, the lattice towers have degraded significantly, with heavy rusting and broken tower legs. The copper conductor has become very brittle and is difficult for crews to repair. Some towers are sitting in water. The suspension insulators and hardware are also heavily worn.

The circuit has 39 open conditions, with the majority being structural issues (e.g., degraded tower parts & broken insulators). The circuit has experienced 5 outages in the last 3 years (2016-2018 YTD), including a 50-hour outage due to broken conductor.

This circuit spans the center of the Ohio Utica shale gas region in Carroll/Harrison Counties, with major activity from existing industrial customers and frequent economic development inquiries for future loads (e.g., pipeline compressor stations & midstream processing plants).







## AEP Transmission Zone: Supplemental Carrollton, Ohio

**Need Number:** AEP-2018-OH011

**Proposed Solution:**

Rebuild the 29-mile Gable-Carrollton 138kV circuit. Remove double-circuit lattice towers with 6-wired 200 kcmil CU. Install double-circuit steel poles with 6-wired 1234 ACSS/TW Yukon conductor.

Note that the other 2 segments of this 138kV pathway are already being rebuilt similarly: Tidd-Gable 138kV (in-service, S1067) and Carrollton-Sunnyside 138kV (in-construction, S1425).

Rebuilding the circuit as 6-wired permits AEP to maximize the use of its right-of-way in this region, which has major activity from oil & gas pipeline expansion competing for right-of-way. Installing a larger conductor permits future customer expansion in this area in the heart of the Utica shale gas play. In addition, this option permits the circuit to be split into two 138kV circuits when the need arises.

**Alternatives:**

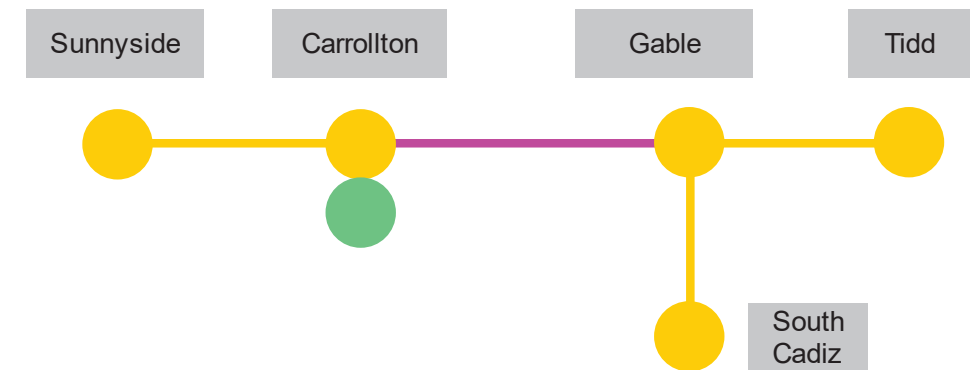
No viable cost-effective transmission alternative was identified. The problematic transmission line could not be retired in place, due to serving as an important power pathway on the AEP transmission grid. Retiring it would have left the Carrollton 138-69-12kV station radial from Sunnyside station, and removed a strong 138kV power source to the Canton area. Carrollton serves as a source to the local 69kV sub-transmission system and also serves AEP Ohio distribution customers at 12kV.

Retiring the circuit would have resulted in a less reliable transmission system and could have an adverse impact on customers. In addition, removing the circuit would have left the load pocket between Gable and Freebyrd served by only two sources (from Tidd & Nottingham), which places it at risk for load shed under N-1-1 contingency scenarios. This 3rd source into Gable mitigates the situation.

**Total Estimated Transmission Cost: \$42.1M**

**Projected IS Date: 11/01/2021**

**Project Status: Engineering**



Legend	
500 kV	
345 kV	
138 kV	
69 kV	
34.5 kV	
23 kV	
New	



## Appendix C Property Agreements



Parcel ID	Property Agreement Type (Yes/No)
090000008000	Yes
090000012000	Yes
090000013000	Blanket Easement-Yes, Supplemental Easement-No
0900000217000	Yes
0900000242000	Yes
0900000243000	Yes
0900000245000	Yes
0900000246000	Yes
0900000282000	Yes
0900000509000	Yes
0900000509001	Yes
0900000515000	Yes
0900000597000	Yes
0900000597002	Yes
0900000612000	Yes
0900000612000	Yes
0900000793000	Yes
0900000794000	Yes
0900000806000	Yes
0900000807000	Yes
0900000884001	Yes
0900000965000	Yes
0900000975000	Yes
0900000976000	Yes
090001046000	Yes
090001047008	Yes
090060002000	Yes
090060005000	Yes
090060014000	Blanket Easement-Yes, Supplemental Easement-No
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100001664002	Yes
100001730001	Yes
100001740000	Yes
100001740045	Yes
100001740046	Yes
100001740047	Yes
100001740049	Yes
100060005000	Yes
100060006000	Yes
100090012001	Yes
170000042000	Yes
170000177000	Blanket Easement-Yes, Supplemental Easement-No
170000194000	Yes
170000200000	Yes
170000215004	Yes
170000215005	Yes
170000215006	Yes
170000215007	Yes

\* The Company may supplement existing rights under all blanket and defined easement identified above.

Parcel ID	Property Agreement Type (Yes/No)
1700000249000	Yes
1700000287000	Yes
1700000288000	Yes
1700000294000	Yes
1700000435002	Yes
1700000435002	Yes
1700000441000	Yes
1700000449000	Yes
1700000474000	Yes
1700000476000	Yes
1700000480000	Yes
1700000504000	Yes
1700000521005	Yes
1700000521006	Yes
1700000524000	Blanket Easement-Yes, Supplemental Easement-No
1700000525000	Blanket Easement-Yes, Supplemental Easement-No
1700000530000	Yes
1700000530001	Yes
1700000541000	Blanket Easement-Yes, Supplemental Easement-No
1700000542001	Yes
1700000561000	Yes
1700000636000	Blanket Easement-Yes, Supplemental Easement-No
1700000640000	Yes
1700000664000	Yes
1700000664000	Yes
1700000675000	Yes
1700000676000	Yes
1700000726000	Yes
1700000742000	Yes
1700000755000	Yes
1700000804000	Blanket Easement-Yes, Right of Entry
1700000840000	Blanket Easement-Yes, Right of Entry
1700000868000	Yes
1700000893000	Yes
2100000002000	Yes
2100000002001	Yes
2100000002002	Blanket Easement-Yes, Supplemental Easement-No
2100000002003	Yes
2100000002004	Yes
2100000006004	Yes
2100000027000	Yes
2100000074000	Yes
2100000075000	Yes
2100000108000	Yes
2100000176000	Yes
2100000233000	Yes
2100000246000	Yes
2100000258000	Yes

\* The Company may supplement existing rights under all blanket and defined easement identified above.



Parcel ID	Property Agreement Type (Yes/No)
210000311000	Blanket Easement-Yes, Supplemental Easement-No
210000328000	Yes
210000329000	Yes
210000340000	Yes
210000354000	Yes
11-0000040003	Blanket Easement-Yes, Supplemental Easement-No
11-0000040004	Blanket Easement-Yes, Supplemental Easement-No
11-0000078000	Yes
11-0000091000	Blanket Easement-Yes, Supplemental Easement-No
11-0000091000	Blanket Easement-Yes, Supplemental Easement-No
11-0000099002	Yes
11-0000115000	Yes
11-0000126000	Blanket Easement-Yes, Supplemental Easement-No
11-0000129000	Blanket Easement-Yes, Supplemental Easement-No
11-0000129000	Blanket Easement-Yes, Supplemental Easement-No
11-0000274000	Blanket Easement-Yes, Supplemental Easement-No
11-0000280003	Yes
11-0000617000	Blanket Easement-Yes, Supplemental Easement-No
11-0000619000	Blanket Easement-Yes, Supplemental Easement-No
11-0000626000	Yes
11-0000626005	Yes
30-00082-000	Yes
30-00368-000	Blanket Easement-Yes, Supplemental Easement-No
30-00749-000	Yes
30-00750-000	Yes
30-00752-000	Yes
30-01024-000	Blanket Easement-Yes, Supplemental Easement-No
30-01149-000	Yes
30-01150-000	Yes
30-01580-000	Yes
30-02170-000	Blanket Easement-Yes, Supplemental Easement-No
30-02188-000	Yes
30-02188-003	Yes
30-02345-000	Yes
30-02419-000	Yes
30-02582-000	Blanket Easement-Yes, Supplemental Easement-No
30-02608-000	Yes
30-02634-000	Yes
30-03651-000	Blanket Easement-Yes, Supplemental Easement-No
33-02857-000	Yes
33-02883-000	Yes
33-02949-000	Yes
33-03125-000	Yes
33-03126-000	Yes
33-03128-000	Yes
33-03163-000	Yes
33-03495-000	Yes
33-03646-000	Blanket Easement-Yes, Supplemental Easement-No
33-03684-000	Yes

\* The Company may supplement existing rights under all blanket and defined easement identified above.

Parcel ID	Property Agreement Type (Yes/No)
33-03744-000	Blanket Easement-Yes, Supplemental Easement-No
33-03746-000	Yes
33-03755-000	Yes
33-03757-003	Blanket Easement-Yes, Supplemental Easement-No
33-03758-000	Yes
33-03774-000	Yes
33-03775-000	Blanket Easement-Yes, Supplemental Easement-No
33-03775-008	Blanket Easement-Yes, Supplemental Easement-No
33-03777-000	Yes
33-03837-000	Blanket Easement-Yes, Supplemental Easement-No
34-00007-001	Yes
34-00192-000	Yes
34-00212-000	Yes
34-00214-000	Yes
34-00214-000	Yes
34-00215-000	Yes
34-00307-000	Yes
34-00309-000	Yes
34-00340-000	Yes
34-00346-000	Yes
34-00483-000	Blanket Easement-Yes, Supplemental Easement-No
34-00491-000	Blanket Easement-Yes, Supplemental Easement-No
34-00977-000	Yes
34-01014-000	Yes
34-01223-000	Yes
34-01261-002	Yes
34-01263-000	Yes
34-01338-003	Yes
34-01338-004	Yes
34-01338-009	Yes
34-01338-010	Yes
45-00046-000	Yes
45-00084-000	Yes
45-00084-001	Yes
45-00085-000	Yes
45-00156-000	Yes
45-00164-000	Blanket Easement-Yes, Supplemental Easement-No
45-00263-000	Yes
45-00414-000	Yes
45-00730-000	Yes
45-00791-000	Yes
45-00894-000	Yes
45-00896-000	Yes
45-00906-000	Yes
45-00964-000	Blanket Easement-Yes, Supplemental Easement-No
45-00964-001	Yes
45-01038-000	Yes
45-01097-000	Yes
45-01097-000	Yes

\* The Company may supplement existing rights under all blanket and defined easement identified above.



<b>Parcel ID</b>	<b>Property Agreement Type (Yes/No)</b>
45-01109-000	Yes
45-01135-000	Yes
45-01186-001	Yes
45-01212-000	Blanket Easement-Yes, Supplemental Easement-No
45-01213-000	Blanket Easement-Yes, Supplemental Easement-No
45-01231-000	Blanket Easement-Yes, Supplemental Easement-No
45-01244-000	Yes
45-01363-000	Blanket Easement-Yes, Supplemental Easement-No
45-01507-001	Yes
45-01535-000	Yes
45-01543-000	Blanket Easement-Yes, Supplemental Easement-No
45-01565-001	Blanket Easement-Yes, Supplemental Easement-No
45-01571-000	Yes
45-01612-000	Yes
45-01613-001	Yes
45-01615-001	Yes
50-00148-000	Yes
50-00220-000	No
50-00222-000	Blanket Easement-Yes, Supplemental Easement-No
50-00222-001	No
50-00224-000	No
50-00516-000	Yes
50-00645-000	No
50-00673-000	No
50-00710-000	Yes
50-00926-000	No
50-00978-003	No
50-01227-001	Yes
170000187000	Yes

\* The Company may supplement existing rights under all blanket and defined easement identified above.



## Appendix D Agency Coordination





In reply, refer to  
2020-CAR-49361

September 25, 2020

Mr. Ryan J. Weller  
Weller & Associates, Inc.  
1395 West Fifth Avenue  
Columbus, Ohio 43212

**RE: Carrollton-Gable 138kV Line Rebuild Project in Carroll, Jefferson, and Harrison Counties, Ohio**

Dear Mr. Weller:

This letter is in response to the correspondence received electronically on August 27, 2020 regarding the proposed Carrollton-Gable 138kV Line Rebuild Project in Carroll, Jefferson, and Harrison Counties, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *Phase I Archaeological Investigations for 46.8 km (29.1 mi) Carrollton-Gable 138kV Line Rebuild Project in Carroll, Jefferson, and Harrison Counties, Ohio* by Ryan J. Weller (Weller & Associates, Inc., 2020).

A literature review, visual inspection, surface collection, shovel probe and shovel test unit excavation was completed as part of the investigations. One (1) previously identified archaeological site is located within the project area, Ohio Archaeological Inventory (OAI) #33JE0062, a historic farmstead site, however, only a small portion of the site is located within the project area and the site will not be affected by the proposed project. Four (4) new archaeological sites were identified during survey. OAI#33CA0506-33CA0508 and 33JE0297 are all small prehistoric scatters or isolated finds. The sites are not recommended eligible for listing in the National Register of Historic Places (NRHP). Our office agrees with this recommendations and no further archaeological survey is necessary.

The following comments pertain to the *History/Architecture Investigations for the 46.8 km (29.1 mi) Carrollton-Gable 138kV Line Rebuild Project in Carroll, Jefferson, and Harrison Counties, Ohio* by Austin White and Scott McIntosh (Weller & Associates, Inc., 2020).

A literature review and field survey were completed as part of the investigations. The field survey identified 213 resources fifty years of age or older, which includes seven (7) extant Ohio Historic Inventory (OHI) properties. It is Weller's recommendation that the identified properties are not eligible for inclusion in the NRHP. Our office agrees with Weller's recommendations of eligibility.

Based on the information provided, we agree that the project as proposed will have no effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional historic properties are discovered during implementation of this project. In such a situation, this office should be contacted. If you have any questions, please contact me at (614) 298-2022, or by e-mail at [khorrocks@ohiohistory.org](mailto:khorrocks@ohiohistory.org), or Joy Williams at [jwilliams@ohiohistory.org](mailto:jwilliams@ohiohistory.org). Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink, appearing to read "Krista Horrocks".

Krista Horrocks, Project Reviews Manager  
Resource Protection and Review

RPR Serial No: 1085334-1085335





In reply, refer to  
2020-CAR-49361

May 26, 2021

Mr. Ryan J. Weller  
Weller & Associates, Inc.  
1395 West Fifth Avenue  
Columbus, Ohio 43212

**RE: Carrollton-Gable 138kV Line Rebuild Project in Carroll, Jefferson, and Harrison Counties, Ohio – Addendum Report**

Dear Mr. Weller:

This letter is in response to the correspondence received May 24, 2021 regarding the proposed Carrollton-Gable 138kV Line Rebuild Project in Carroll, Jefferson, and Harrison Counties, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *Addendum Archaeological Investigations for the Carrollton-Gable 138kV Line Rebuild Project in Carroll, Jefferson, and Harrison Counties, Ohio (PO 80162689; BPID A11012332)* by Ryan J. Weller (Weller & Associates, Inc., 2021).

A literature review, visual inspection, surface collection, and shovel test unit excavation was completed as part of the investigations. No previously identified archaeological sites are located within the access roads and reroutes investigated in this addendum report. No new archaeological sites were identified. No additional history/architecture structures were identified due to the nature of the proposed work.

Based on the information provided, we continue to agree that the proposed project will have no effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional historic properties are discovered during implementation of this project. In such a situation, this office should be contacted. If you have any questions, please contact me at (614) 298-2022, or by e-mail at [khorrocks@ohiohistory.org](mailto:khorrocks@ohiohistory.org). Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink, appearing to read "Krista Horrocks".

Krista Horrocks, Project Reviews Manager  
Resource Protection and Review

RPR Serial No: 1088712



## Mueller, Stacey

---

**From:** susan\_zimmermann@fws.gov on behalf of Ohio, FW3 <ohio@fws.gov>  
**Sent:** Thursday, August 9, 2018 1:59 PM  
**To:** Lipp, Thomas  
**Cc:** nathan.reardon@dnr.state.oh.us; kate.parsons@dnr.state.oh.us  
**Subject:** Carrollton-Gable 138 kV Transmission Line Rebuild, Carroll, Harrison, and Jefferson Co.



UNITED STATES DEPARTMENT OF THE INTERIOR  
U.S. Fish and Wildlife Service  
Ecological Services Office  
4625 Morse Road, Suite 104  
Columbus, Ohio 43230  
(614) 416-8993 / Fax (614) 416-8994



TAILS# 03E15000-2018-TA-1759

Dear Mr. Lipp,

We have received your recent correspondence requesting information about the subject proposal. There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. The following comments and recommendations will assist you in fulfilling the requirements for consultation under section 7 of the Endangered Species Act of 1973, as amended (ESA).

The U.S. Fish and Wildlife Service (Service) recommends that proposed developments avoid and minimize water quality impacts and impacts to high quality fish and wildlife habitat (e.g., forests, streams, wetlands). Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. All disturbed areas should be mulched and revegetated with native plant species. Prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

**FEDERALLY LISTED SPECIES COMMENTS:** All projects in the State of Ohio lie within the range of the federally endangered **Indiana bat** (*Myotis sodalis*) and the federally threatened **northern long-eared bat** (*Myotis septentrionalis*). In Ohio, presence of the Indiana bat and northern long-eared bat is assumed wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags  $\geq 3$  inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves and abandoned mines.

Should the proposed site contain trees  $\geq 3$  inches dbh, we recommend that trees be saved wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees  $\geq 3$  inches dbh cannot be avoided, we recommend that removal of any trees  $\geq 3$  inches dbh only occur between October 1 and March 31. Seasonal clearing is being recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see <http://www.fws.gov/midwest/endangered/mammals/nleb/index.html>), incidental take of Indiana bats is still prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.

If implementation of this seasonal tree cutting recommendation is not possible, summer surveys may be conducted to document the presence or probable absence of Indiana bats within the project area during the summer. If a summer survey documents probable absence of Indiana bats, the 4(d) rule for the northern long-eared bat could be applied. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Endangered Species Coordinator for this office. Surveyors must have a valid federal permit. Please note that summer surveys may only be conducted between June 1 and August 15.

If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is



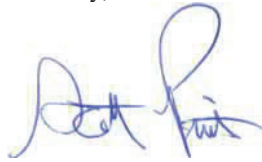
completed. We recommend that the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the Service should be initiated to assess any potential impacts.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at [john.kessler@dnr.state.oh.us](mailto:john.kessler@dnr.state.oh.us).

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or [ohio@fws.gov](mailto:ohio@fws.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Scott Pruitt", is positioned above the printed name.

Scott Pruitt  
Acting Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW  
Kate Parsons, ODNR-DOW





# Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

**Office of Real Estate**  
*Paul R. Baldridge, Chief*  
2045 Morse Road – Bldg. E-2  
Columbus, OH 43229  
Phone: (614) 265-6649  
Fax: (614) 267-4764

September 20, 2018

Thomas Lipp  
AECOM  
525 Vine Street, Suite 1800  
Cincinnati, Ohio 45202

**Re:** 18-875; Carrollton-Gable 138-kV Transmission Line Rebuild

**Project:** The proposed project involves rebuilding the approximately 30-mile long transmission line.

**Location:** The proposed project is located in Carroll, Harrison, and Jefferson Counties, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

**Natural Heritage Database:** The Natural Heritage Database has the following records at or within a one-mile radius of the project area:

Shale barren pussy-toes (*Antennaria virginica*), T  
Bowman's-root (*Gillenia trifoliata*), T  
Narrow-leaved blue-eyed-grass (*Sisyrinchium mucronatum*), T  
Drummond's aster (*Symphotrichum drummondii*), T  
Sharp-shinned hawk (*Accipiter striatus*), SC  
Henslow's sparrow (*Ammodramus henslowii*), SC, FSC  
Buffalo Hill Pioneer Cemetery Prairie Conservation Site

The review was performed on the project area you specified in your request as well as an additional one-mile radius. Records searched date from 1980. This information is provided to inform you of features present within your project area and vicinity. Additional comments on some of the features may be found in pertinent sections below.

A Conservation Site is an area deemed by the Natural Heritage Database to be a high quality natural area not currently under formal protection. It may, for example, harbor one or more rare species, be an outstanding example of a plant community or have geologically significant



features, etc. These sites may be in private ownership and our listing of them does not imply permission for access.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

Statuses are defined as: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; A = species recently added to state inventory, status not yet determined; X = presumed extirpated in Ohio; FE = federal endangered, FT = federal threatened, FSC = federal species of concern, FC = federal candidate species.

**Fish and Wildlife:** The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that best management practices be utilized to minimize erosion and sedimentation.

The project is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees to include: shagbark hickory (*Carya ovata*), shellbark hickory (*Carya laciniosa*), bitternut hickory (*Carya cordiformis*), black ash (*Fraxinus nigra*), green ash (*Fraxinus pennsylvanica*), white ash (*Fraxinus americana*), shingle oak (*Quercus imbricaria*), northern red oak (*Quercus rubra*), slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), eastern cottonwood (*Populus deltoides*), silver maple (*Acer saccharinum*), sassafras (*Sassafras albidum*), post oak (*Quercus stellata*), and white oak (*Quercus alba*). Indiana bat roost trees consists of trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. However, Indiana bats are also dependent on the forest structure surrounding roost trees. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between June 1 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of the black sandshell (*Ligumia recta*), a state threatened mussel, and the threehorn wartyback (*Obliquaria reflexa*), a state threatened mussel. This project must not have an impact on freshwater native mussels at the project site. This applies to both listed and non-listed species. Per the Ohio Mussel Survey Protocol (2018), all Group 2, 3, and 4 streams (Appendix A) require a mussel survey. Per the Ohio Mussel Survey Protocol, Group 1 streams (Appendix A) and unlisted streams with a watershed of 10 square miles or larger above the point of impact should be assessed using the Reconnaissance Survey for Unionid Mussels (Appendix B) to determine if mussels are present. Mussel surveys may be recommended for these streams as well. This is further explained within the Ohio Mussel Survey Protocol. Therefore, if in-water work is planned in any stream that meets any of the above criteria, the DOW recommends the applicant provide information to indicate no mussel impacts will occur. If this is not possible, the DOW recommends a professional malacologist conduct a mussel survey in the project area. If mussels that cannot be avoided are found in the project area, as a last resort, the DOW



recommends a professional malacologist collect and relocate the mussels to suitable and similar habitat upstream of the project site. Mussel surveys and any subsequent mussel relocation should be done in accordance with the Ohio Mussel Survey Protocol. The Ohio Mussel Survey Protocol (2018) can be found at:

<http://wildlife.ohiodnr.gov/portals/wildlife/pdfs/licenses%20&%20permits/OH%20Mussel%20Survey%20Protocol.pdf>

The project is within the range of the river darter (*Percina shumardi*) a state threatened fish, the paddlefish (*Polyodon spathula*) a state threatened fish, the channel darter (*Percina copelandi*), a state threatened fish, and the Tippecanoe darter (*Etheostoma tippecanoe*), a state threatened fish. The DOW recommends no in-water work in perennial streams from April 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered species and a federal species of concern. This long-lived, entirely aquatic salamander inhabits perennial streams with large flat rocks. In-water work in hellbender streams can reduce availability of large cover rocks and can destroy hellbender nests and/or kill adults and juveniles. The contribution of additional sediment to hellbender streams can smother large cover rocks and gravel/cobble substrate (used by juveniles), making them unsuitable for refuge and nesting. Projects that contribute to altered flow regimes (e.g., by increasing areas of impervious surfaces or modifying the floodplain) can also adversely affect hellbender habitat. If in-water work is proposed in Yellow Creek or Cross Creek, the DOW recommends that a habitat suitability survey be conducted to determine if suitable habitat exists in the area for the eastern hellbender. If suitable habitat is determined to be present, the DOW recommends that the area be avoided, or a presence/absence survey be conducted. If there is no in-water work proposed in either of these streams, this project is not likely to impact this species.

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird. This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the U.S. Fish & Wildlife Service.

**Water Resources:** The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project. Your local floodplain administrator contact information can be found at the website below.



[http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List\\_8\\_16.pdf](http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf)

ODNR appreciates the opportunity to provide these comments. Please contact John Kessler at (614) 265-6621 if you have questions about these comments or need additional information.

John Kessler  
ODNR Office of Real Estate  
2045 Morse Road, Building E-2  
Columbus, Ohio 43229-6693  
John.Kessler@dnr.state.oh.us



## Appendix E Ecological Resources Inventory Report



**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**9/2/2021 4:45:37 PM**

**in**

**Case No(s). 21-0900-EL-BLN**

Summary: Letter of Notification LON application for the Tidd-Sunnyside 138 kV Transmission Line Rebuild Project Appendix A thru D electronically filed by Hector Garcia-Santana on behalf of AEP Ohio Transmission Company, Inc.