Eastside Industrial Connector Planning Study

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TABLE OF CONTENTS

1.0 Introduction 1-2
1.1 Executive Summary 1-2
1.2 Previous Studies 2
1.3 Summary of Planning Study 2
2.0 Purpose and Need Summary 3-20
2.1 Preliminary Purpose and Need Statement 3-20
3.0 Alternatives Considered and Dismissed 23-32
3.1 Alternative 1 23
3.2 Alternative 2A 24
3.3 Alternative 2B 25
3.4 Alternative 2C 25-26
3.5 Alternative 3A 26-27
3.6 Alternative 3B 27
3.7 Alternative 3C 27-28
3.8 Alternative 4 28-29
3.9 Alternative 5 29-30
3.10 Alternative 6 30-31
3.11 Alternative 7 31-32
3.11 No-Build Alternative 32
4.0 Key Issues 32-38
4.1 Traffic Analysis 32
4.2 Right-of-Way Impacts 33
4.3 Geometric Challenges 33-34
4.4 Railroad Coordination 34
4.5 Construction Cost 34-35
4.6 Maintenance of Traffic 35-38
4.7 Environmental Analysis 38
5.0 Comparison of Alternatives 38-39
5.1 Alternative Matrix 38-39
6.0 Conclusion 39
6.1 Summary of Preferred Corridor Recommended for Additional Study 39
7.0 Next Steps 40-41
7.1 Completion of the Feasibility Study 40
7.2 Determination of the Preferred Alternative 40
7.3 Potential Funding Sources 40-41

Appendix A - Economic Development Analysis

Appendix B - Existing Traffic Pattern Figures

Appendix C - Environmental Resources Review

Appendix D – 1” = 20' Plan and Profile Sheets

Appendix E - Construction Cost Estimates

Appendix F - Geotechnical Information

1.0 Introduction

1.1 Executive Summary

The completion of the US 33 bypass on the south side of Lancaster in 2003 created a significant reduction in traffic along Memorial Drive, and has resulted in nearly all commercial and industrial development shifted to the far west end of the City. This shift, combined with the high number of State and U.S. Routes entering and exiting the City, has resulted in an abnormally high amount of truck traffic (over 1100 trucks per day at the Broad Street intersection) passing through Main Street, the primary commercial and historical district within the City. This truck traffic results in significant delays, high noise levels, air quality impacts from diesel exhaust, and an overall undesirable corridor for the pedestrians and businesses along Main Street. In an effort to reduce truck traffic on Main Street, improve connectivity to the south and east sides of the City, spur economic development, and reduce overall travel times within the City, eleven "build" alternatives and a "no-build" alternative are analyzed within this Planning Study. In order for this new facility to be effective at achieving these goals, it must be a highly-efficient alternate route through Lancaster. Simply designating it as the truck route with signage would not be sufficient to divert truck traffic off Main Street unless there is a time and/or distance savings. Limiting drive access and cross streets, utilizing roundabouts in lieu of signals, and improving roadway geometrics for existing sections of roadway that will remain are tools that should be used to optimize the efficiency of the new route. Of these eleven alternatives, several are based upon previous studies completed for the City, and the rest were developed in collaboration with the City of Lancaster. These alternatives range from the widening of existing roadways to new alignments with lengths exceeding 10 miles. The intent of this Planning Study is to identify a "Preferred Corridor" that will be studied with different intersection types (signalized, roundabouts, stop control, etc), a refined horizontal and vertical alignment, pedestrian facilities, and proposed grading during the Feasibility Study (and Alternative Evaluation Report if required).

Truck Traffic in Historic Downtown Lancaster

This Preferred Corridor should not only reduce truck traffic and EMS response times, but also improve connectivity and spur economic development on the east side of the City. Lancaster's Eastside Industrial Area has not experienced much new development activity in recent decades. This report confirmed through in-person site analysis and interviews with key stakeholders that connectivity to the east side of Lancaster is a significant deterrent to developing these greenfield properties. In particular, stakeholders mentioned that workforce issues and shipping delays caused by trucks were major inhibitors of continued growth. Developing enhanced connections will improve emergency vehicle access and reduce employee commutes. These additional connections, along with the critical path strategies detailed in the Economic Development Analysis found in **Appendix A**, will stimulate growth and improve the overall connectivity of the City.

1.2 Previous Studies

Numerous studies relating to connectivity issues within the City of Lancaster have been completed over the years and date back to 1955. These studies include the following:

- 1955 Arterial Highway Plan completed by the City of Lancaster
- 1983 Route 22 Truck By-Pass Study completed by Woolpert Associates
- 1989 Proposed US 22 Truck Route Lancaster, Ohio (Author Unknown)
- 2003 Access Management Guidelines completed by Wilbur Smith Associates
- 2003 Thoroughfare Plan Revision completed by Wilbur Smith Associates
- 2008 Ewing Street Connector/Commerce Street Extension completed by Wilbur Smith Associates

The previous studies are available upon request from the City of Lancaster and are not included within this Planning Study.

1.3 Summary of Planning Study

This Planning Study evaluated eleven “build” alternatives as well as a “no-build” alternative and rated them based on a number of factors including construction cost, environmental impacts, right-of-way impacts, truck traffic reduction, emergency services benefits, connectivity improvement, as well as its effectiveness of meeting the primary and secondary goals of the Purpose and Need Statement. Of those twelve alternatives, six were identified as both feasible for construction and met the goals of the Purpose and Need. The other six were dismissed from consideration because they were financially unfeasible, less beneficial than similar alternatives, or did not meet the goals of the Purpose and Need. A comparison matrix for the alternatives is provided in **Section 5.0** of this document, but the alternatives were not rated on a point scale to identify a “preferred” option. A “preferred corridor” is identified in this study and recommends this corridor be the basis for the alternatives that will be studied in more depth during the Feasibility Study. The goal of the future Feasibility Study will be to identify the Preferred Alternative that will be selected for detailed design and eventually construction. **Section 3.0** of this Planning Study describes in detail each alternative, and whether they met the goals of the Purpose and Need and are considered feasible. 1” = 20’ scale plan and profile sheets are provided in **Appendix D** for the six alternatives identified as meeting this criteria. High level construction cost estimates for all eleven “build” alternatives are provided in **Appendix E**.

2.0 Purpose and Need Summary

2.1 Preliminary Purpose and Need Statement

Project History

The City of Lancaster is located in central Ohio near two regions - the Columbus Metropolitan Area (MSA) and the Ohio Southeast region. Lancaster benefits from being at the intersection of several state routes (SR) (SR 159, SR 37, SR 188, and SR 159), US 22, and is within close proximity to US 33. This network of arterial streets increases the amount of traffic passing through the City due to the majority of roads converging in downtown Lancaster, generating additional traffic to the local street network.

Several studies and plans have been completed over the past 67 years documenting the importance of the need for an improved roadway infrastructure servicing the City. In 1955, Alden E. Stilson & Associates, Limited completed the *Arterial Highway Plan* that included a recommendation for an arterial highway system for Lancaster. This study analyzed previous traffic reports, traffic surveys and available traffic data for the City's road network. Additionally, the study developed proposed alternatives to relieve traffic congestion in Lancaster and serve all local and through-traffic volumes in the design year (1975). The study identified multiple problem areas that acted as barriers to traffic flow and increased traffic congestion. For example, traffic between the eastern and western parts of Lancaster was limited to only three two-lane structures and one three-lane structure over the Hocking River. Additionally, the intersections in downtown experienced frequent traffic congestion, and the intersection capacities restricted traffic movements at the crossings of US 33 and US 22.

A study was developed by Woolpert Consultants (*Route 22 Truck By-Pass Study* 1983) that demonstrated the importance of connectivity and safety in the City. This study identified community development issues and initiated a design process for removing through truck traffic from downtown Lancaster and would reroute and connect them to the industrial portion of the city. Furthermore, high accident rates at three major intersections downtown, and a steep hill that is a highly used truck route posed as a potential safety hazard in downtown Lancaster. Interest in developing a truck by-pass has continued throughout the years. In 1989, another truck route for Route 22 was proposed for Lancaster. This truck by-pass proposal was developed so that the route had direct access to the industrial sites within the Lancaster area and would minimize truck traffic on residential streets (*Proposed US 22 Truck Route Lancaster, Ohio 1989*).

High Truck Volume on Main Street Impacts Air Quality, Traffic Flow, and Pedestrian Safety

In 2003, Lancaster completed two major pieces of transportation policy: updates to the *1973 Thoroughfare Plan* and *Access Management Guidelines*. Lancaster implemented access management as a policy to improve the City's access to land development while preserving the flow of traffic on the surrounding road system. Due to the important state routes crossing the City, an access management policy would help preserve the functionality and capacity of existing and future street systems, while also enhancing safety (Wilbur Smith Associates 2003). The city also completed a thoroughfare plan update; *Thoroughfare Plan 2003 Revision* (Wilbur Smith Associates 2004). This new plan evaluated the existing and future transportation conditions in Lancaster. Additionally, the construction of the US 33 bypass changed travel and development patterns within and around the city. The City surveyed citizens about potential corridor improvements, and citizens stated the major issues in the city included traffic congestion, narrow lanes, high growth rates, and the need for a US 22 bypass to help remove through truck traffic in downtown Lancaster. As part of the study, proposed improvement plans were recommended to reduce congestion, truck traffic within city limits, and establish local connections.

An application for financial assistance was completed by Wilbur Smith Associates in 2008 for an *Ewing Street Connector and Commerce Street Extension* (Wilbur Smith Associates 2008) to create the southeastern portion of an interim ring road around downtown Lancaster. The proposed project developed transportation solutions to address the city's long-term access and mobility problems; however, the ring road was not developed.

Furthermore, an *Ewing Street-Eastside Industrial Connector – Traffic Flows Evaluation Summary* (American Structurepoint, Inc. 2022) included a high-level traffic volume analysis to evaluate the existing transportation flow through downtown Lancaster. Major routes within and around the City of Lancaster were identified, and their traffic data was collected and evaluated.

Purpose

The purpose of the project is to improve mobility, system linkage, and access within the City of Lancaster by providing additional connectivity to support current congestion and accommodate the growth of the existing community.

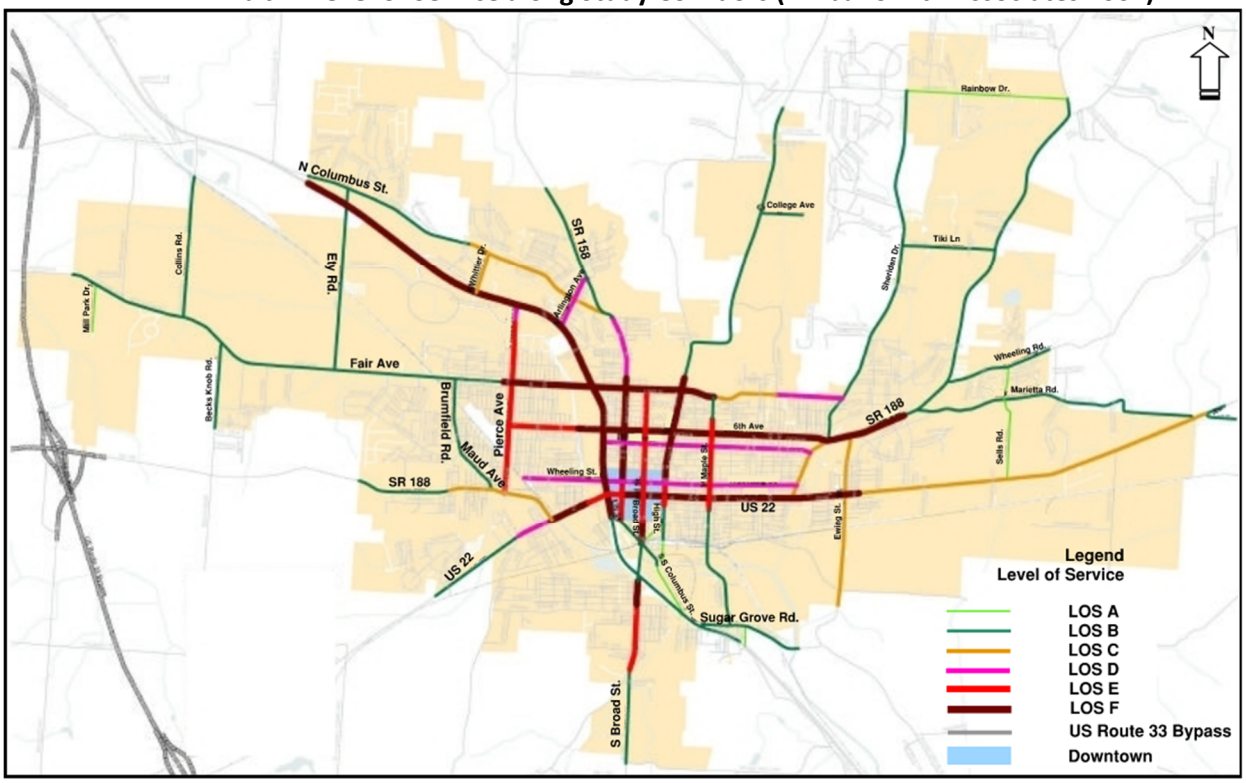
Need

Primary Needs

The primary needs of the project corridor are to improve mobility, reduce congestion, and reduce truck traffic on Main Street. Several studies have been completed since 1955 that have reinforced the need of improving the city's congested traffic. Vehicles coming from any direction of Lancaster and traveling to the east or south of the city must travel through the city center; creating congestion within the downtown area. The US 33 Bypass was completed on the west side of the city to divert through-traffic away from the city center; however, through-traffic from routes such as US 22, SR 37, SR 188 and SR 793 still continue through downtown Lancaster using local streets.

The standard parameter used to evaluate traffic operating conditions is referred to as the level of service (LOS). There are six LOS (A through F) which relate driving conditions from best to worst, respectively. LOS for intersections is defined in terms of control delay per vehicle, which is a direct correlation to driver discomfort, frustration, fuel consumption, and lost travel. For most roadway segments, an LOS of D or worse is considered unacceptable. However, for roadway segments within downtown Lancaster, LOS E or F is considered unacceptable. **Exhibit A** below includes the computed LOS for the study segments in the *Thoroughfare Plan 2003 Revision* (Wilbur Smith Associates 2004). **Exhibit A** shows that the combination of higher signal densities and higher traffic volumes, results in the streets near the central core of the city to experience worse LOS conditions when comparing to streets near the outer edge of the city limits.

2.1.1 Exhibit A. Level of Service along Study Corridors (Wilbur Smith Associates 2004)



In 1955, the total number of daily trips with their origin or destination within Lancaster was 26,000 cars and the total number of daily through trips within Lancaster were 7,500 cars (Alden E. Stilson & Associates, Limited 1955). The *Thoroughfare Plan 2003 Revision* (Wilbur Smith Associates 2004) noted traffic volumes on Main Street had grown at an average annual rate of 15.9% over the previous five years. This growth was atypical, as the average annual rate was 0.5%. Additionally, historic traffic volume data for state routes in the city revealed an average growth rate of 1.68% annually since 1992, whereas the general historic growth patterns across the state was 1.0% for state routes. The *Thoroughfare Plan 2003 Revision* (Wilbur Smith Associates 2004) also calculated through trip estimates for the year 2025, including the changes in traffic due to the US 33 Bypass. Approximately 29,500 vehicles daily would have through trips within Lancaster by the year 2025.

American Structurepoint, Inc. performed a high-level traffic volume analysis to evaluate existing transportation flows through downtown Lancaster (2022). Major routes in and around Lancaster were identified to determine traffic flow throughout the city. The entry and exit points considered for these routes are referred to as “gates”. A total of ten (10) gates on major routes through the city were identified in this study. Downtown Lancaster, being a main focus of the analysis, is identified as Zone A and traffic volumes were evaluated to determine the volumes that travel enter into and exit Zone A as well as the traffic volumes that pass through Zone A without stopping while traveling through the City. The City of Lancaster provided existing Streetlight traffic data that provided the traffic volumes traveling from on origin (O) gate to a destination (D) gate. Traffic volumes from one gate to another gate are referred to as an origin-destination (O-D). The O-D volumes from Streetlight were used to calculate the percentages of total traffic and truck traffic per route. These percentages were then applied to the existing total

and truck traffic annual average daily traffic (AADT) data found on ODOT's TIMS website. The calculated traffic volumes were then balanced utilizing "splitting the difference" methodology.

A primary need identified in the project corridor is to reduce truck traffic within the city limits. It is important that transportation connections that can accommodate heavy trucks are available to ensure the city can improve traffic mobility and reduce current congestion. Reducing the volume of trucks that travel through the city will result in higher travel speeds and lower travel times. **The truck traffic reductions shown in the following exhibits assume that the southern bypass route would extend from the west at the SR 188 and US 22 intersection to the east and intersect E. Main Street (US 22) east of Kanawha Road.**

Exhibit B below displays the total and truck traffic flow exiting downtown Lancaster (Zone A) to the various gates around the City. North and South Memorial Drive, Main Street (US-22) to the east are the most used routes for exiting downtown Lancaster.

2.1.2 Exhibit B. Total and Truck Traffic: Exiting Downtown Lancaster (American Structurepoint, Inc. 2022)

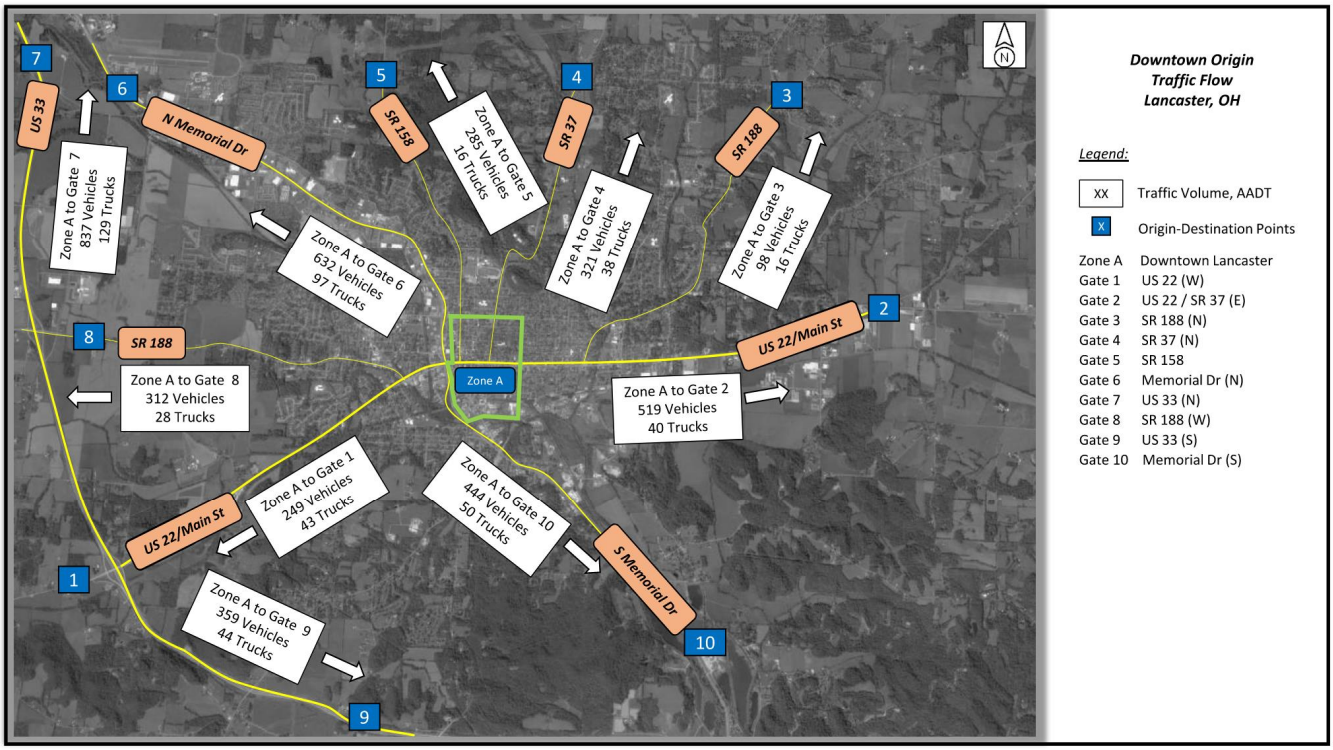


Exhibit C displays the total and truck traffic flow entering downtown Lancaster as their intended destination. North and South Memorial Drive, and US 22 from the east are the most used routes for entering downtown Lancaster.

2.1.3 Exhibit C. Total and Truck Traffic: Entering Downtown Lancaster (American Structurepoint, Inc. 2022)

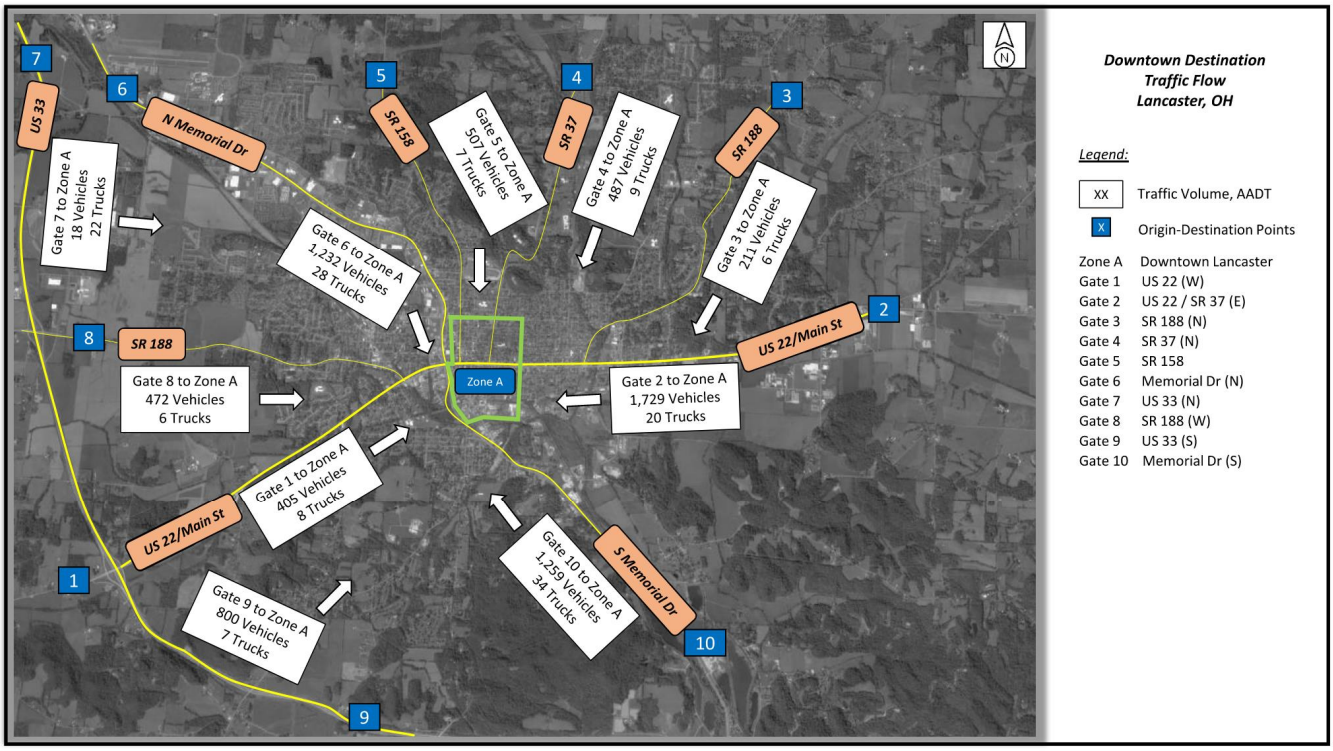


Exhibit D displays the total and truck traffic flow originating from Gate 1 located on US 22/Main Street on the west side of the City. A total of 289 trucks per day are anticipated to enter the City limits on US 22/Main Street, pass through downtown Lancaster on Main Street, and leave the City on SR 158, SR 37, SR 188, and US 22/Main Street without stopping.

2.1.4 Exhibit D. Total and Truck Traffic: Gate 1 (US 22/Main Street) Origin

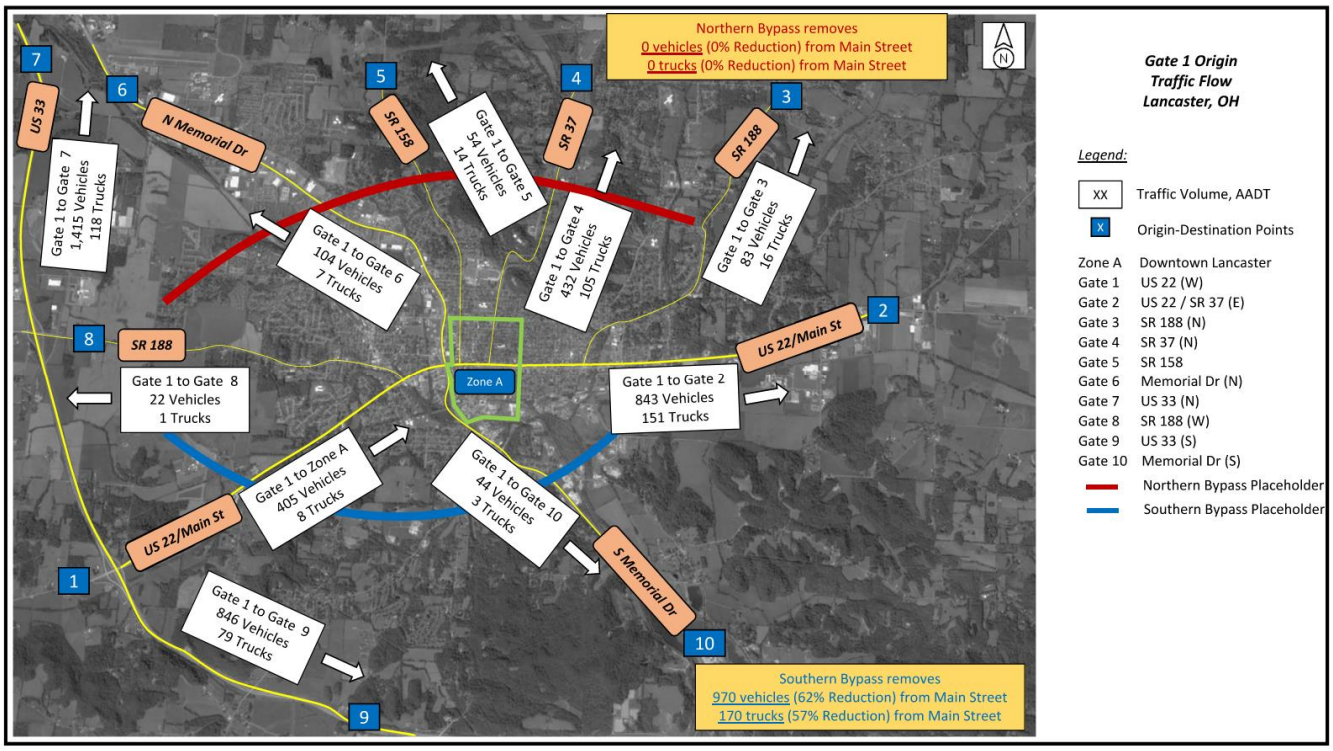


Exhibit E displays the total and truck traffic flow originating from Gate 2 located on US 22/Main Street on the east side of the City. A total of 284 trucks per day are anticipated to enter the City limits on US 22/Main Street, pass through downtown Lancaster on Main Street, and leave the City on South and North Memorial Drive, US 22/Main Street, SR 188, SR 158 and SR 37.

2.1.5 Exhibit E. Total and Truck Traffic: Gate 2 (US 22/Main Street) Origin

Exhibit F displays the total and truck traffic flow originating from Gate 3 located on SR 188 on the northeast side of the City. A total of 33 trucks per day are anticipated to enter the City limits on SR 188, pass through downtown Lancaster on Main Street, and leave the City on North and South Memorial Drive, US 22/Main Street, SR 188, SR 158, and SR 37.

2.1.6 Exhibit F. Total and Truck Traffic: Gate 3 (SR 188) Origin

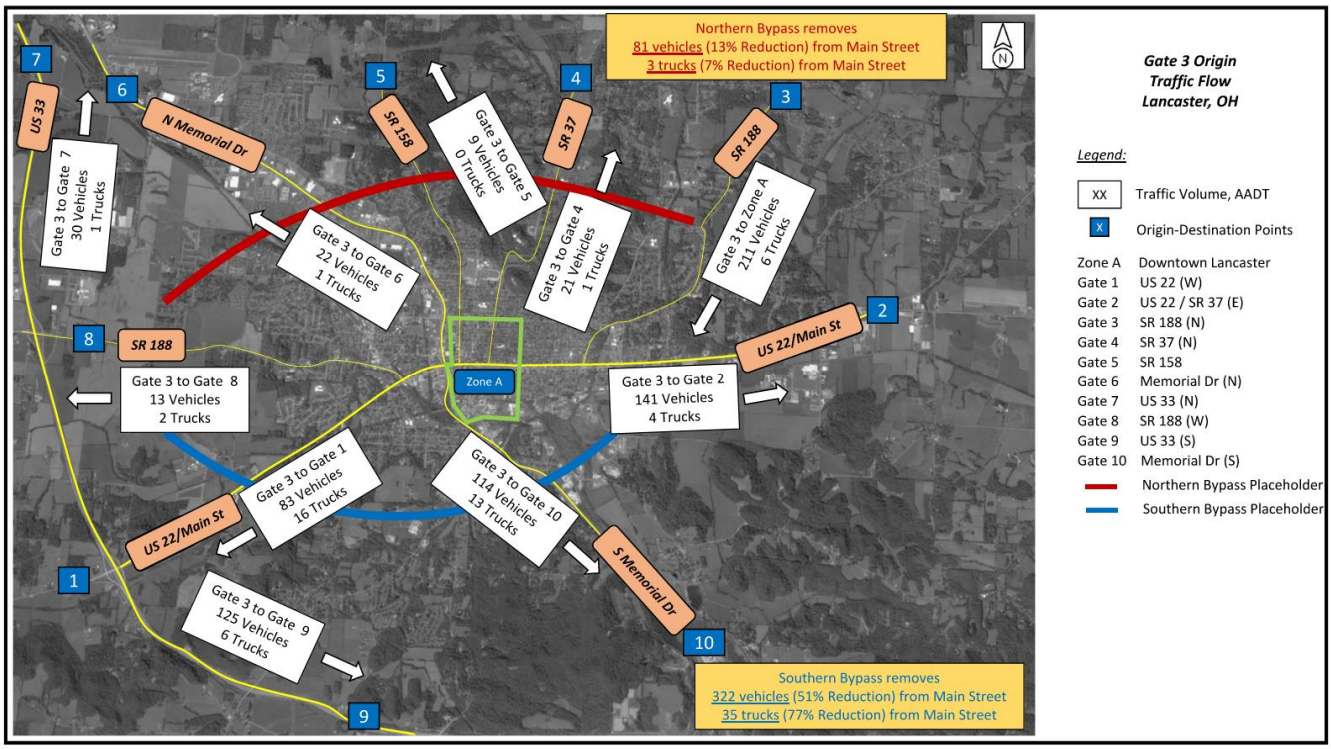


Exhibit G displays the total and truck traffic flow originating from Gate 4 located on SR 37 on the north side of the City. A total of 276 trucks per day are anticipated to enter the City limits on SR 37, pass through downtown Lancaster on Main Street, and leave the City on US 22/Main Street, North and South Memorial Drive, SR 188, and SR 158.

2.1.7 Exhibit G. Total and Truck Traffic: Gate 4 (SR 37) Origin

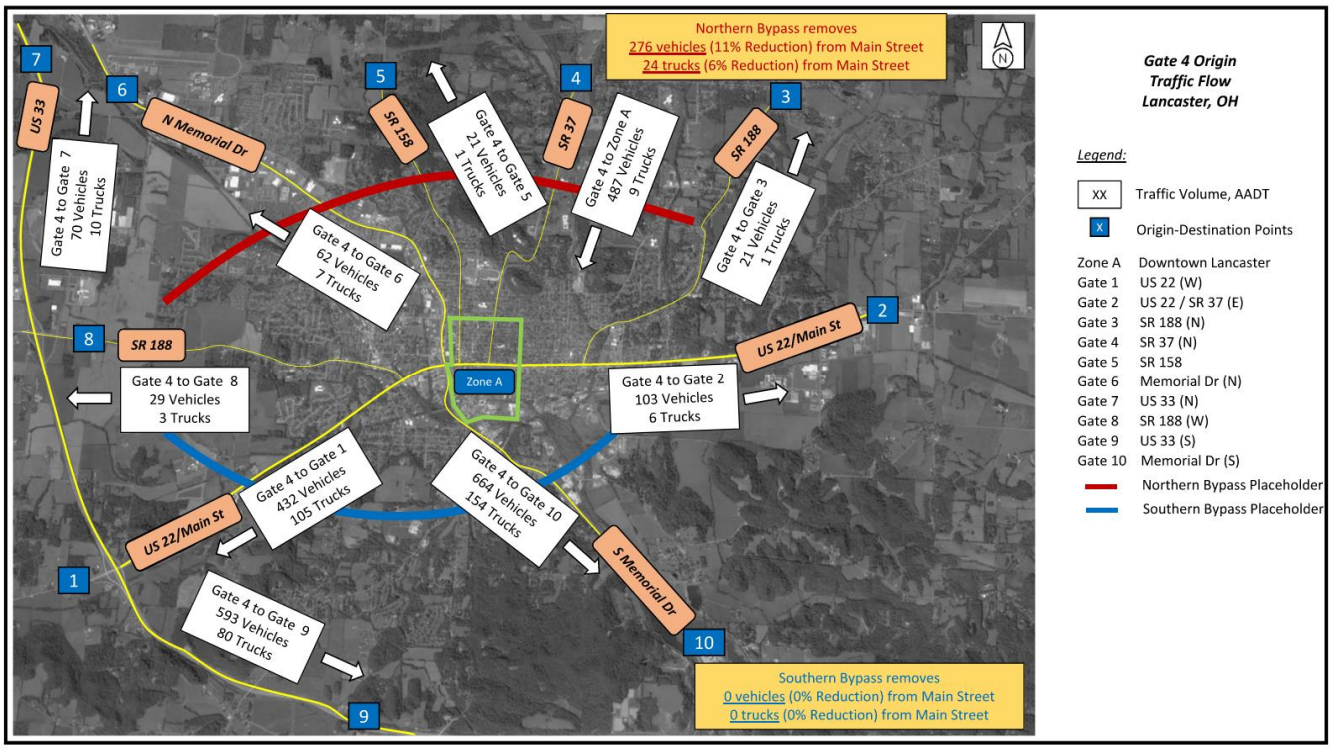


Exhibit H displays the total and truck traffic flow originating from Gate 5 located on SR 158 on the north side of the City. A total of 69 trucks per day are anticipated to enter the City limits on SR 158, pass through downtown Lancaster on Main Street, and leave the City on SR 37, SR 188, US 22/Main Street, and North and South Memorial Drive.

2.1.8 Exhibit H. Total and Truck Traffic: Gate 5 (SR 158) Origin

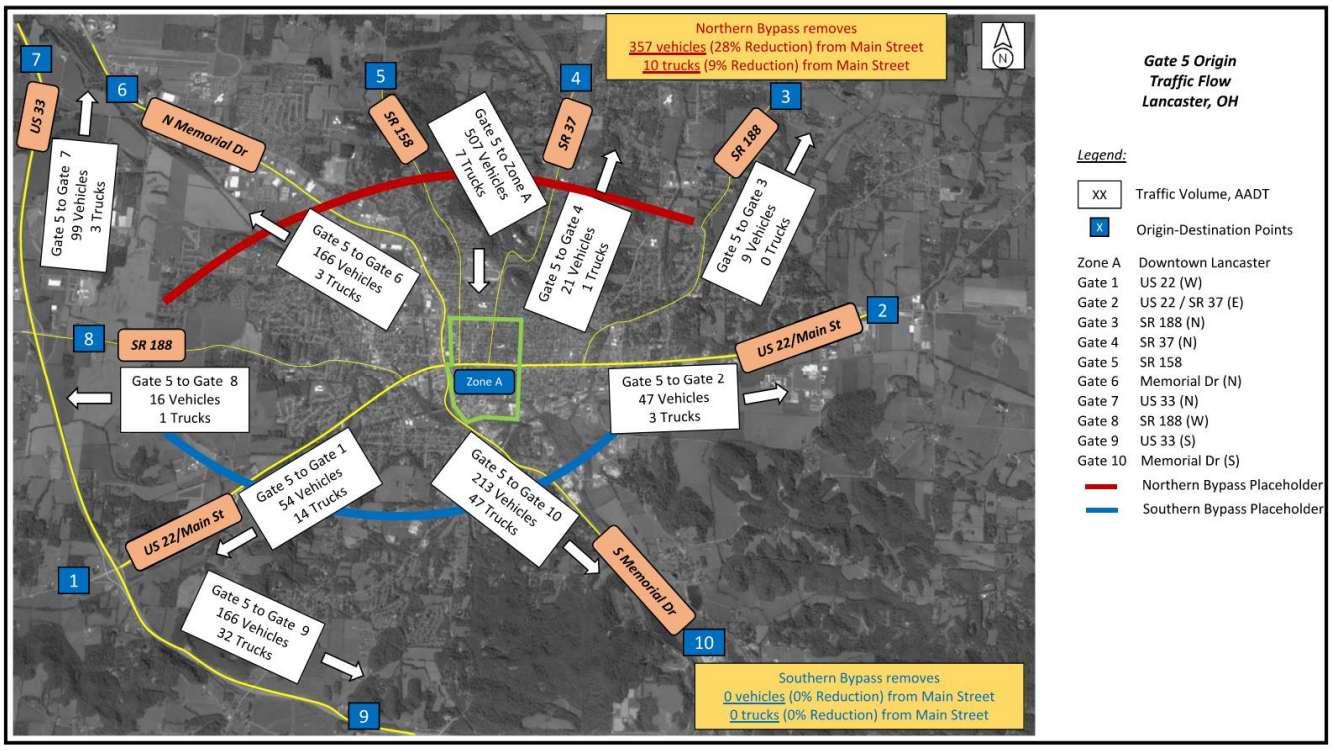


Exhibit I displays the total and truck traffic flow originating from Gate 6 located on North Memorial Drive on the northwest side of the City. A total of 96 trucks per day are anticipated to enter the City limits on SR 188, pass through downtown Lancaster on Main Street, and leave the City on SR 158, SR 37, SR 188, and US 22/Main Street.

2.1.9 Exhibit I. Total and Truck Traffic: Gate 6 (North Memorial Drive) Origin

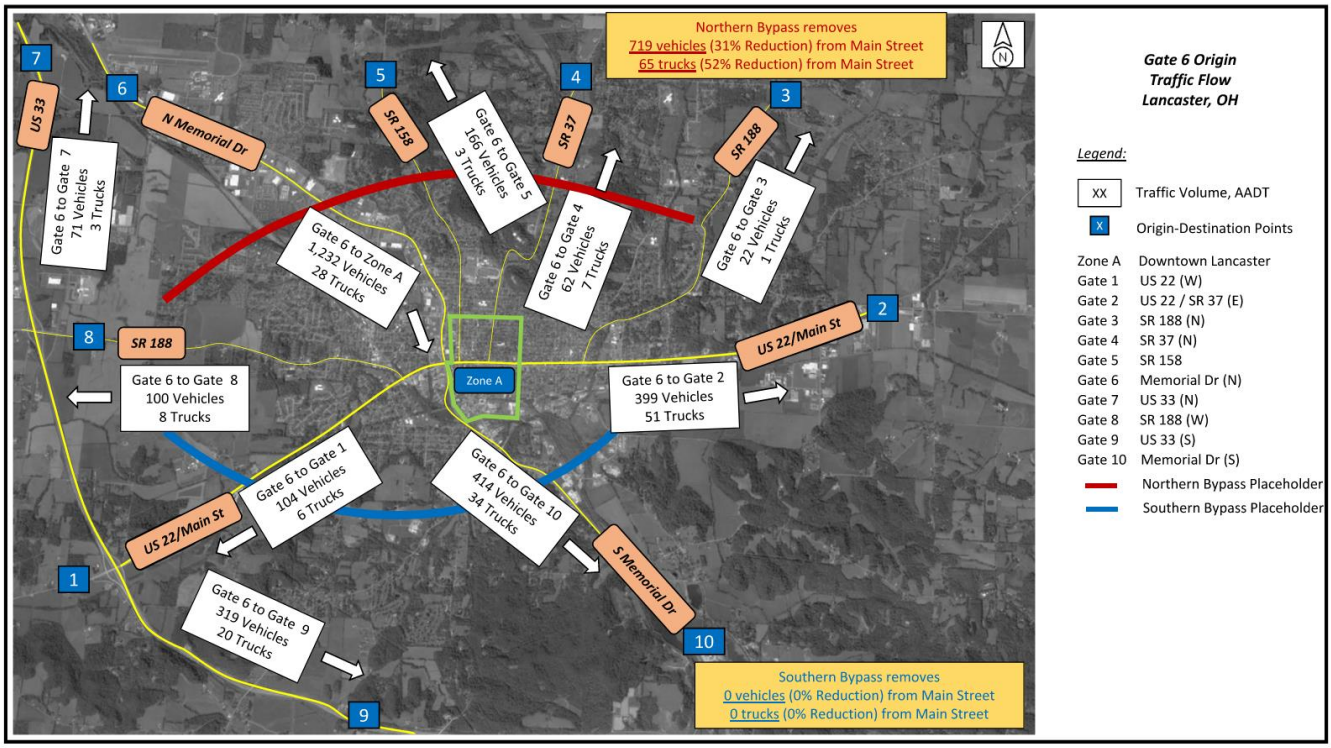


Exhibit J displays the total and truck traffic flow originating from Gate 7 located on US 33 northwest of the City. A total of 104 trucks per day are anticipated to enter the City limits from US 33, pass through downtown Lancaster on Main Street, and leave the City on North and South Memorial Drive, SR 158, SR 37, SR 188, and US 22/Main Street.

2.1.10 Exhibit J. Total and Truck Traffic: Gate 7 (US 33) Origin

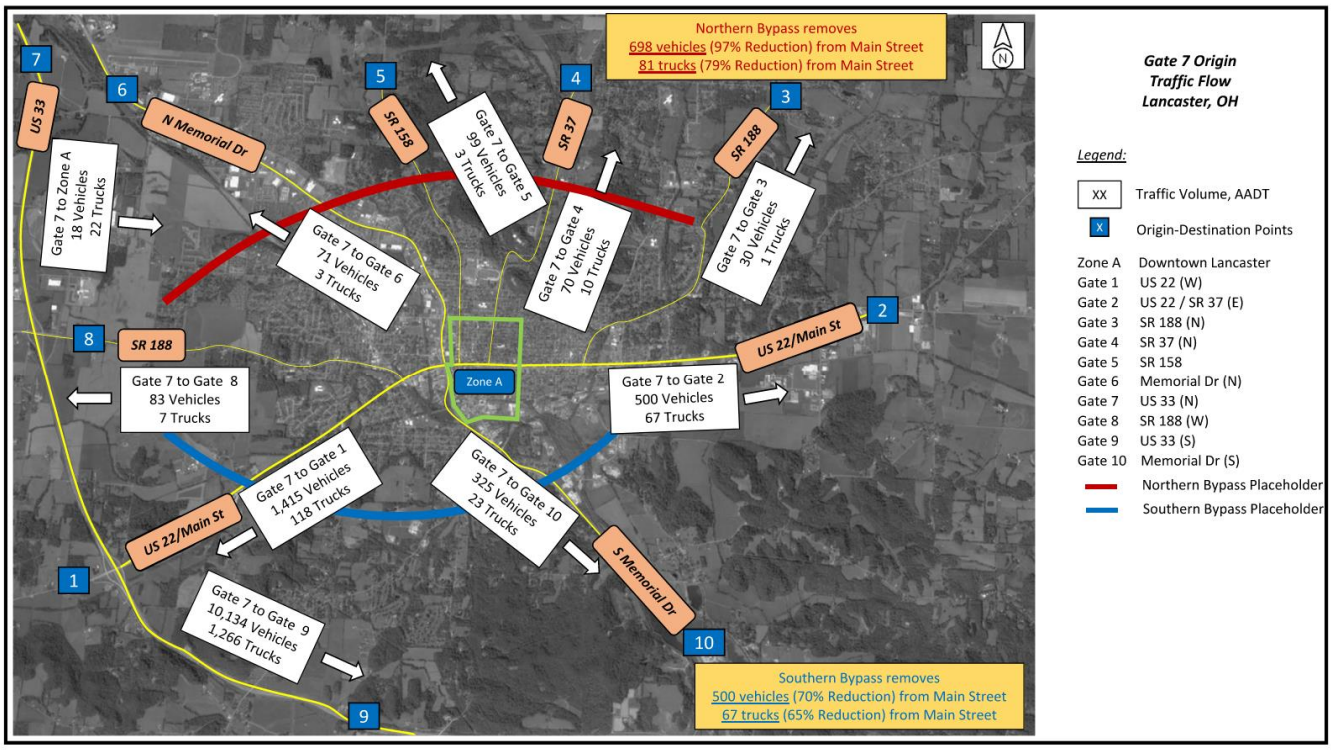


Exhibit K displays the total and truck traffic flow originating from Gate 8 located on SR 188 on the west side of the City. A total of 37 trucks per day are anticipated to enter the City limits on SR 188, pass through downtown Lancaster on Main Street, and leave the City on SR 158, SR 37, SR 188, and US 22/Main Street.

2.1.11 Exhibit K. Total and Truck Traffic: Gate 8 (SR 188) Origin

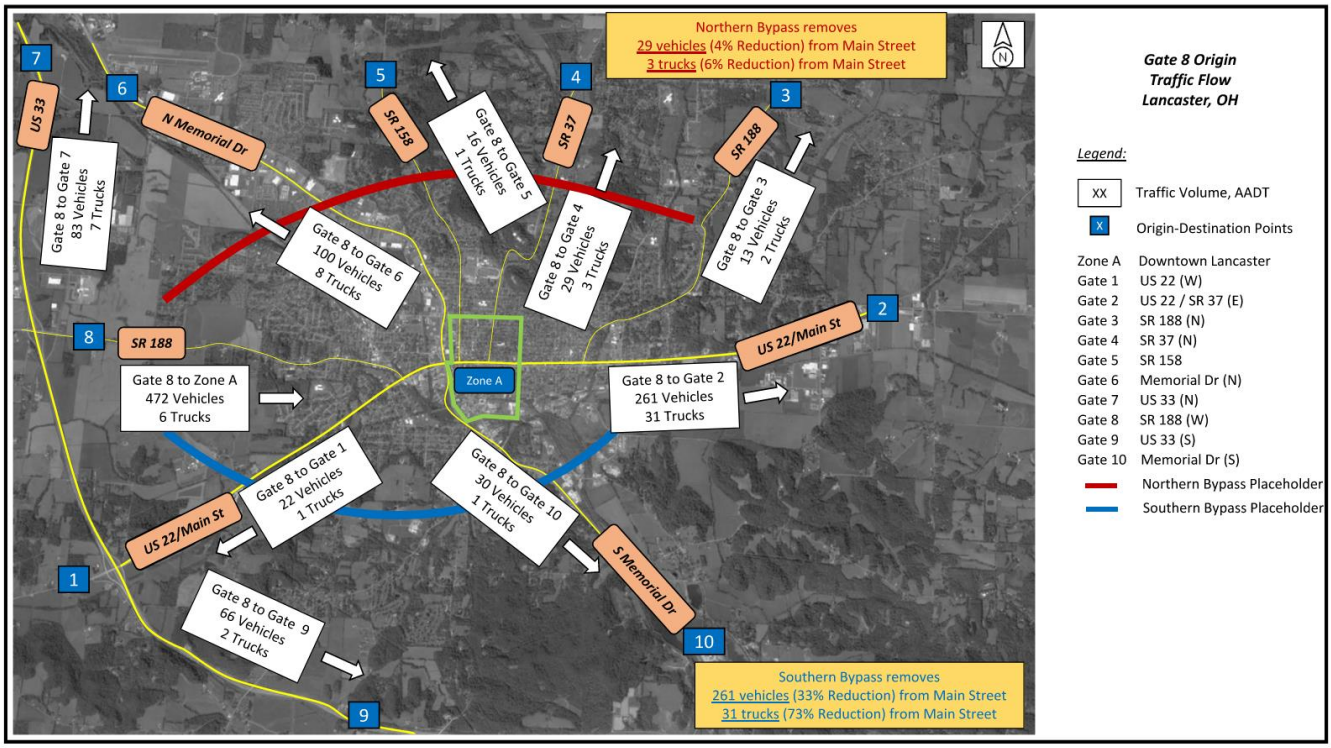


Exhibit L displays the total and truck traffic flow originating from Gate 9 located on US 33 south of the City. A total of 145 trucks per day are anticipated to enter the City limits from US 33, pass through downtown Lancaster on Main Street, and leave the City on US 22/Main Street, SR 188, SR 37, and SR 158.

2.1.12 Exhibit L. Total and Truck Traffic: Gate 9 (US 33) Origin

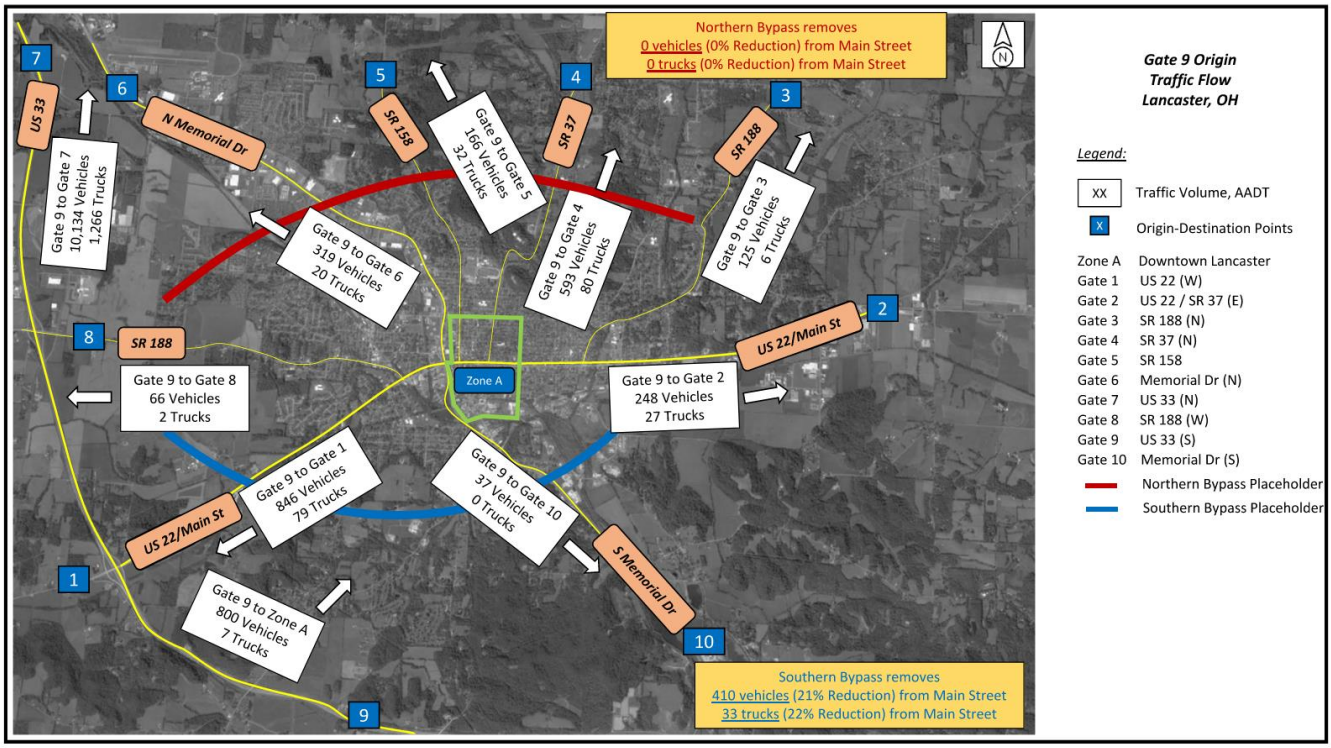


Exhibit M displays the total and truck traffic flow originating from Gate 10 located on South Memorial Drive on the south side of the City. A total of 256 trucks per day are anticipated to enter the City limits on South Memorial Drive, pass through downtown Lancaster on Main Street, and leave the City on US 22/Main Street, SR 188, SR 37, and SR 158.

2.1.13 Exhibit M. Total and Truck Traffic: Gate 10 (South Memorial Drive) Origin

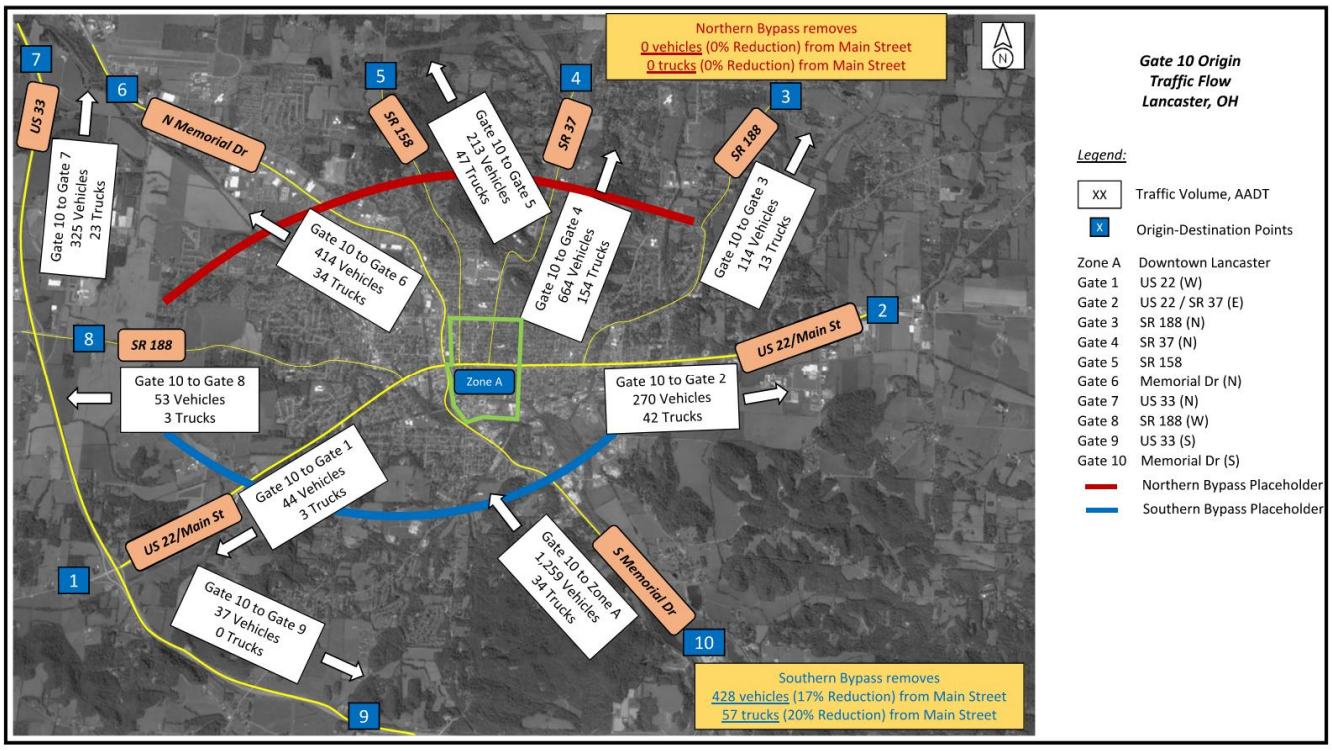
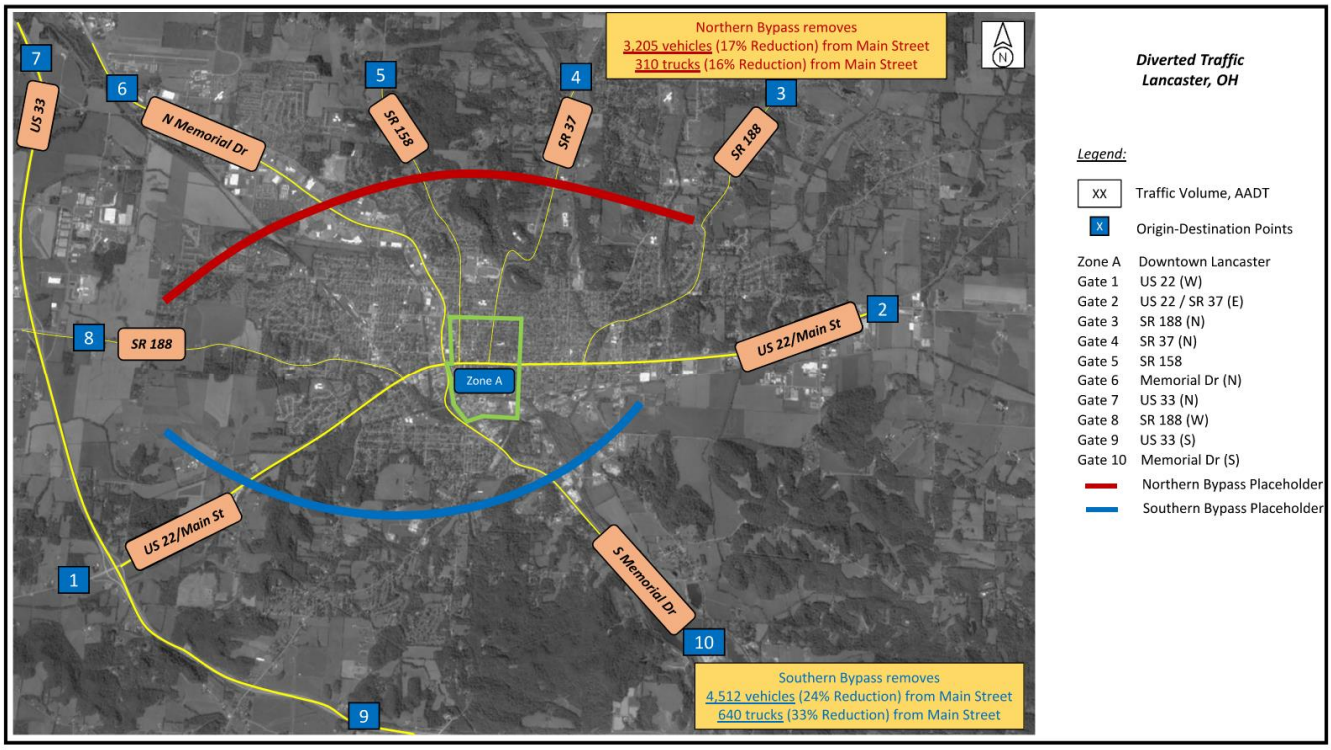
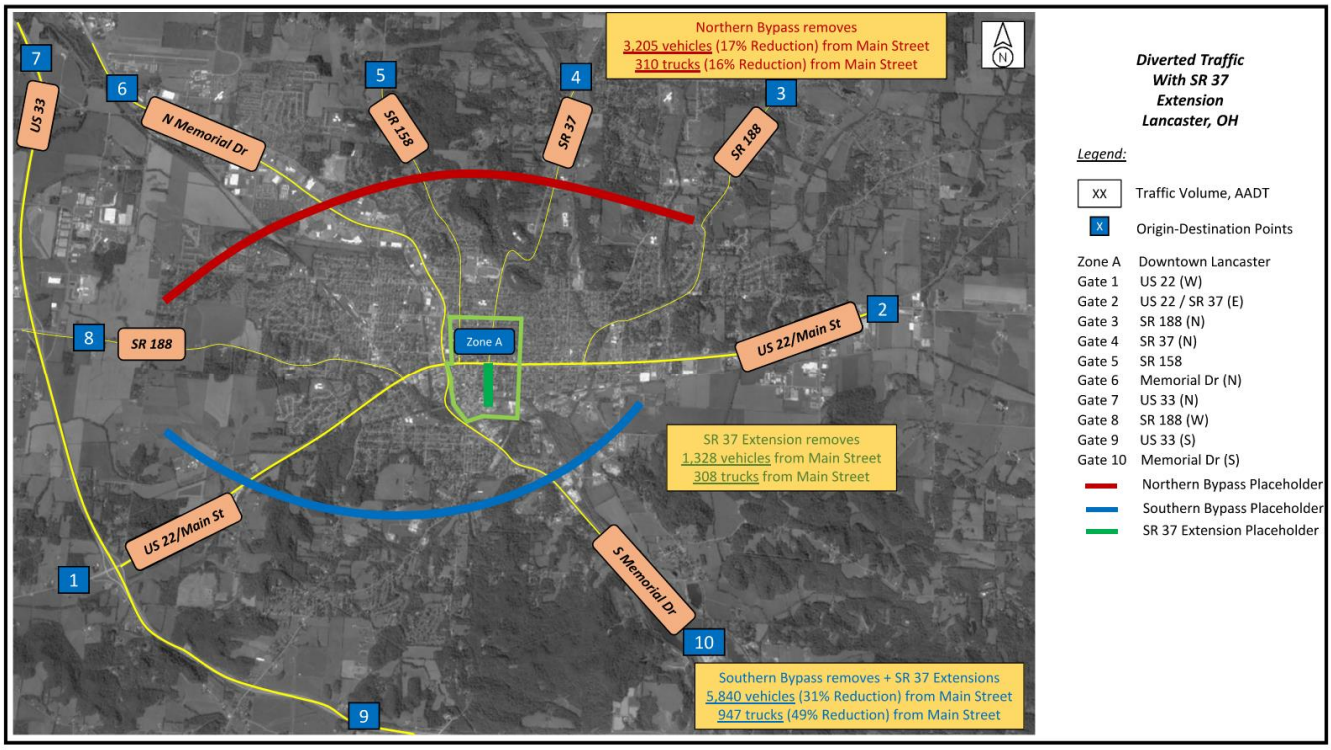


Exhibit N displays the total and truck traffic flow that can be expected to be diverted from Main Street with either a Northern Bypass or Southern Bypass. With the construction of a northern bypass, 3,205 total vehicles and 310 trucks can be removed from Main Street which represents a reduction of 17% of the total vehicles and 16% of the trucks. The construction of a southern bypass would remove 4,512 total vehicles and 640 trucks from Main Street. That represents a reduction of total vehicles by 24% and of trucks by 33% compared to the current traffic flows.

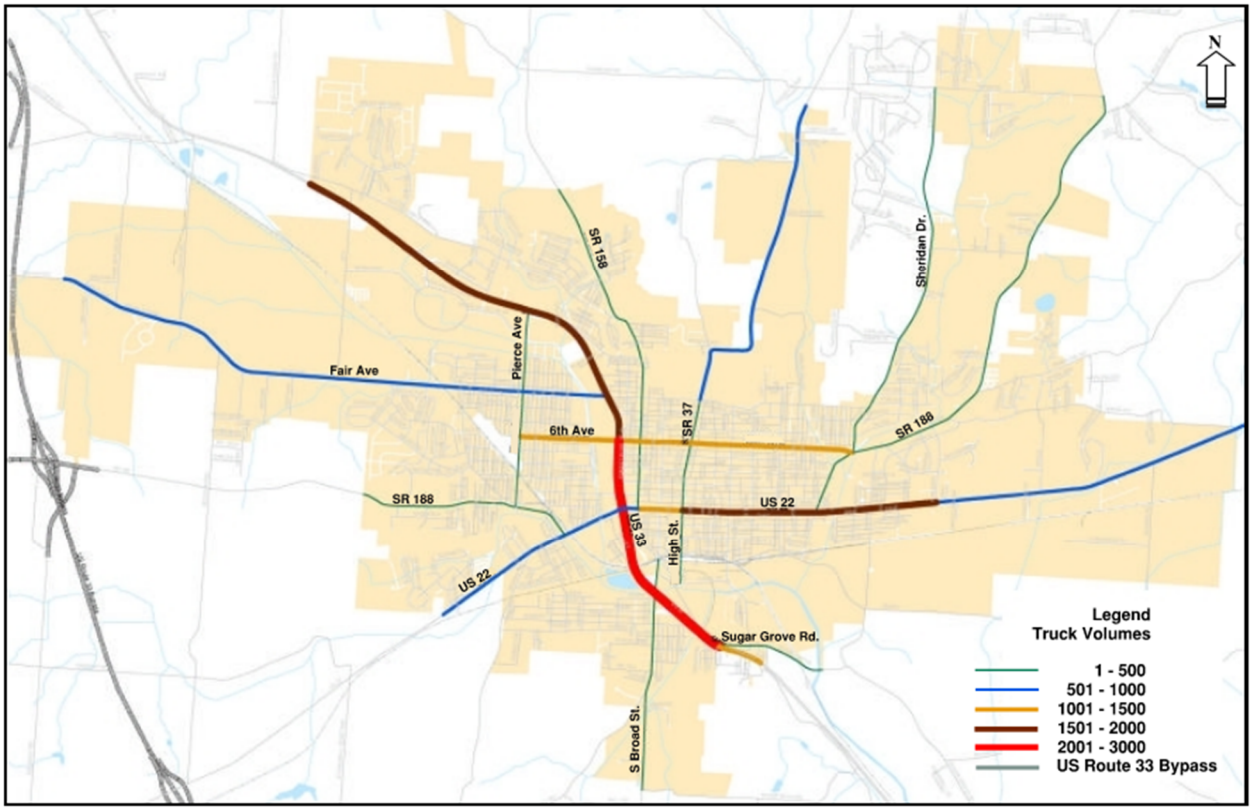


Alternates 2A and 7 include the extension and widening of SR 37 from Locust Street south to a new intersection on South Memorial Drive. **Exhibit O** displays the total and truck traffic flow that can be expected to be diverted from Main Street with the extension of SR 37. The SR 37 extension would remove 1,302 total vehicles and 308 trucks from passing through downtown Lancaster on Main Street. Combined with the traffic to be removed from Main Street by the southern bypass, the total vehicles removed increase to 5,840 total vehicles and 947 trucks. That represents a 24% reduction of total vehicles and 49% of trucks from Main Street compared to the current traffic flows.



The 2004 study completed by Wilbur Smith Associates documented per day truck volumes along different routes from the year 2000. The highest truck volumes were found along US 33 and US 22/SR 37 (Main Street). Sixth Avenue and Sugar Grove Road carried the highest truck traffic with more than 2,000 trucks per day (Wilbur Smith Associates 2004). **Exhibit N** displays the truck volumes along the study corridors for this report.

2.1.14 Exhibit N. Truck Volumes along Study Corridors (Wilbur Smith Associates 2004)

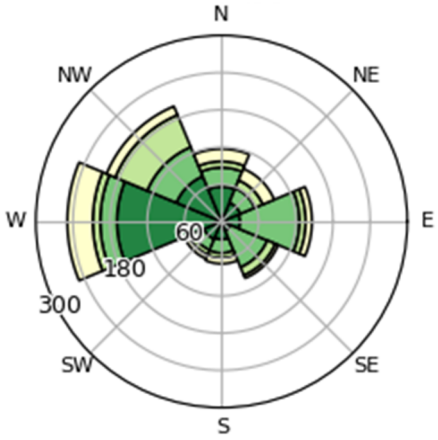


Secondary Needs

A secondary need is to improve local roadway connections within the city. Lancaster benefits from being at the intersection of several state routes. This network of arterial streets brings activity and commerce to the city. However, the majority of these roads converge downtown and create additional traffic. Additionally, many of the roads converge, or are located west of the Eastside Industrial Area, which does not share the benefits of this regional connectivity. The Eastside Industrial area is located south of US 22 from approximately Ewing Street on the west to Snoke Hill Road to the east. This lack of connectivity continues to constrain movement and development within the city. The *Ewing Street-Eastside Industrial Connector – Traffic Flows Evaluation Summary* (American Structurepoint, Inc. 2022) included communication between American Structurepoint and stakeholders (local businesses and city staff) to collect the stakeholder's primary concerns for the city. Those concerns included access and connectivity issues, congested traffic on US 22/Main Street (primarily from trucks), and the need for road upgrades such as modifications to intersections, traffic signals and crosswalks. The study revealed that 73.3 percent of employees (14,260) that work for businesses located within Lancaster commute from outside the city limits. More specifically, only two workers from all the businesses within the Eastside

Industrial Area boundary both live and work within the eastside boundary. The 2022 study also revealed that 63.9 percent of employees of the Eastside Industrial Area businesses primarily traveled from the west, northwest, north and northeast as compared to 36.5 percent that commute from the east, southeast, south, and southwest. **Exhibit O** below displays the majority of eastside workers live within the city of Lancaster. Those with longer commutes (shown in yellow), also tend to travel from the west and northwest.

2.1.15 Exhibit O. Eastside Commute Distance and Direction in 2019



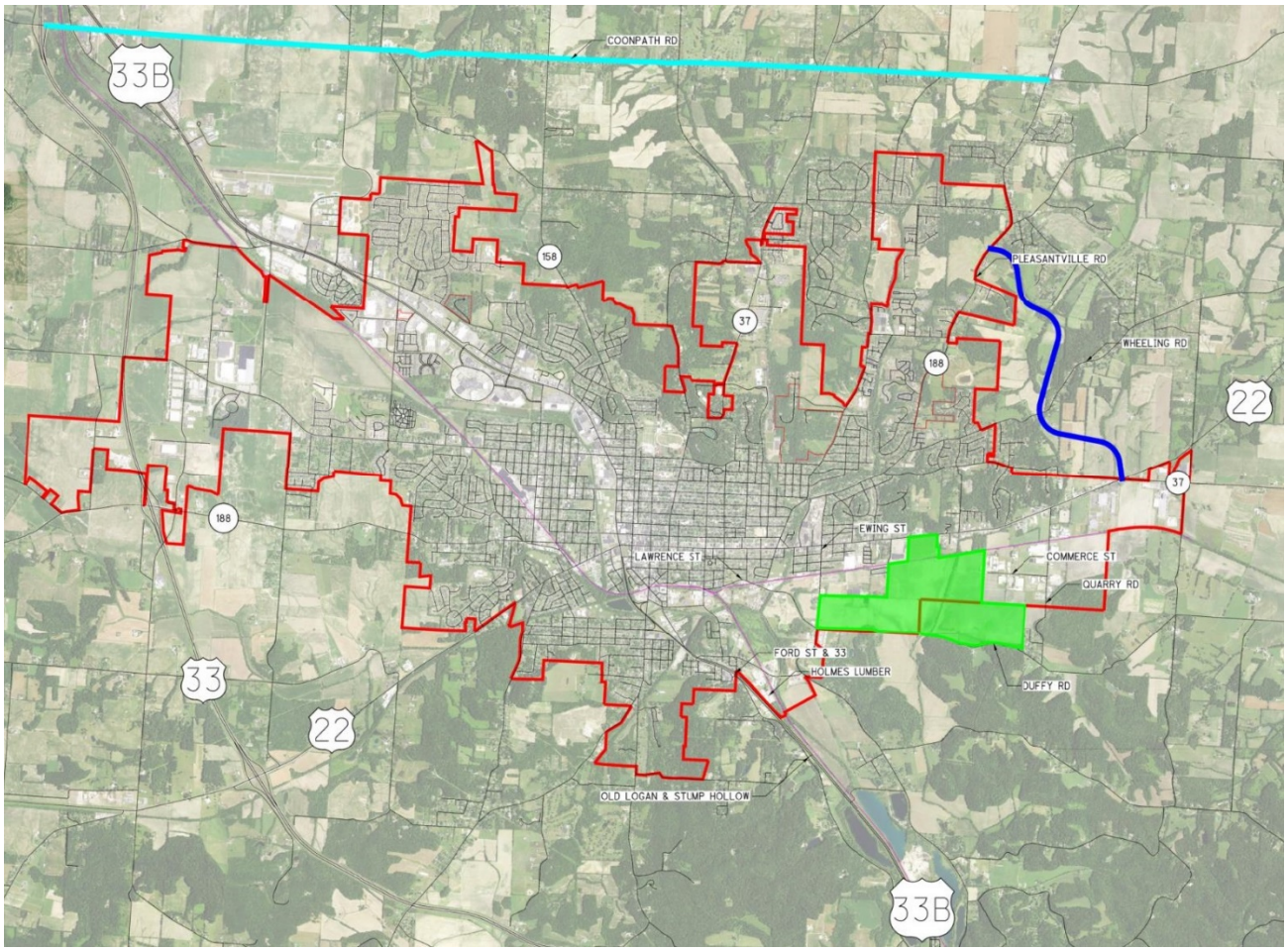
Logical Termini and Independent Utility

The logical termini were established based on existing transportation challenges within the project area, including improvements to mobility and congestion within the city of Lancaster. The proposed project is not dependent on other planned projects to meet the established purpose and need. Additionally, the proposed project can be constructed independent of any other transportation improvement in the area, does not restrict consideration of alternatives for other foreseeable improvements throughout the corridors, and does not force any other improvement project(s). Therefore, independent utility is established for this transportation improvement.

3.0 Alternatives Considered and Dismissed

3.1 Alternative 1

Alternative 1 would widen Coonpath Road from US 33 to SR 188 and would include three 12' lanes (one through lane in each direction and a two-way left turn lane). A new alignment consisting of a three lane roadway would be constructed between SR 188 and US 22/SR 37 and would require nearly 2.5 miles of new roadway. New intersections would be constructed at SR 188, Wheeling Road and at the US 22/SR 37 split.



Alternative 1 (Red lines are the corp. limit, blue is new roadway, cyan is widened existing roadway)

This alternative is not recommended for further study for several reasons. Designating Coonpath Road as the truck route between SR 188 and US 33 would add significant travel time and distance compared to the utilizing US 22 (Main Street), which is what the majority of truck traffic from SR 188 is currently doing. This would result in very little truck traffic being diverted from downtown. Additionally, the new alignment proposed between SR 188 and SR 37 would not improve connectivity or emergency services response times. Because this alternative would not achieve any of the primary or secondary goals of the Purpose and Need, it is not recommended for further study. However, there is merit in a northern bypass as an additional method to reduce truck traffic entering downtown Lancaster and it should be studied further outside of this Purpose and Need.

3.2 Alternative 2A

Alternative 2A would construct a southern bypass of the City that extends SR 188 from its current intersection with US 22, runs parallel to the existing railroad tracks, passes under Memorial Drive, utilizes the existing Canal Street alignment (Canal Street would be widened to three lanes), then connects Canal Street to Lawrence Street where the existing Lawrence Street alignment would be utilized. Lawrence Street would also be widened to three lanes, and the bypass would extend through the S. Ewing Street intersection and utilize the existing Duffy Road alignment for approximately 0.5 miles where it would turn northward and a new section of roadway constructed to US 22. Duffy Road would be realigned to connect to the new bypass, Commerce Street would be extended to the new portion of the roadway, and Sugar Grove Road realigned and extended to connect to Logan-Lancaster Road (US 33B).

Proposed Undeveloped Alternative 2A Alignment Location (West End)

S. Cherry Street would be extended approximately 450' to connect to the bypass, and a connector road constructed between Reese Avenue and S. High Street that intersects with the new bypass would be constructed. The total work length would be approximately 5.7 miles which includes the widening of the existing roadways and the construction of the new portions of road. Alternative 2A would require new at-grade railroad crossings for the extension of Canal Street, the extension of Cherry Street, and the construction of the new alignment through the Eastside Industrial Area.

This alternative would meet the primary and secondary goals of the Purpose and Need and a horizontal and vertical alignment were developed to provide a higher level of detail. Preliminary 1" = 20' scale plan and profile sheets can be found in **Appendix D.**

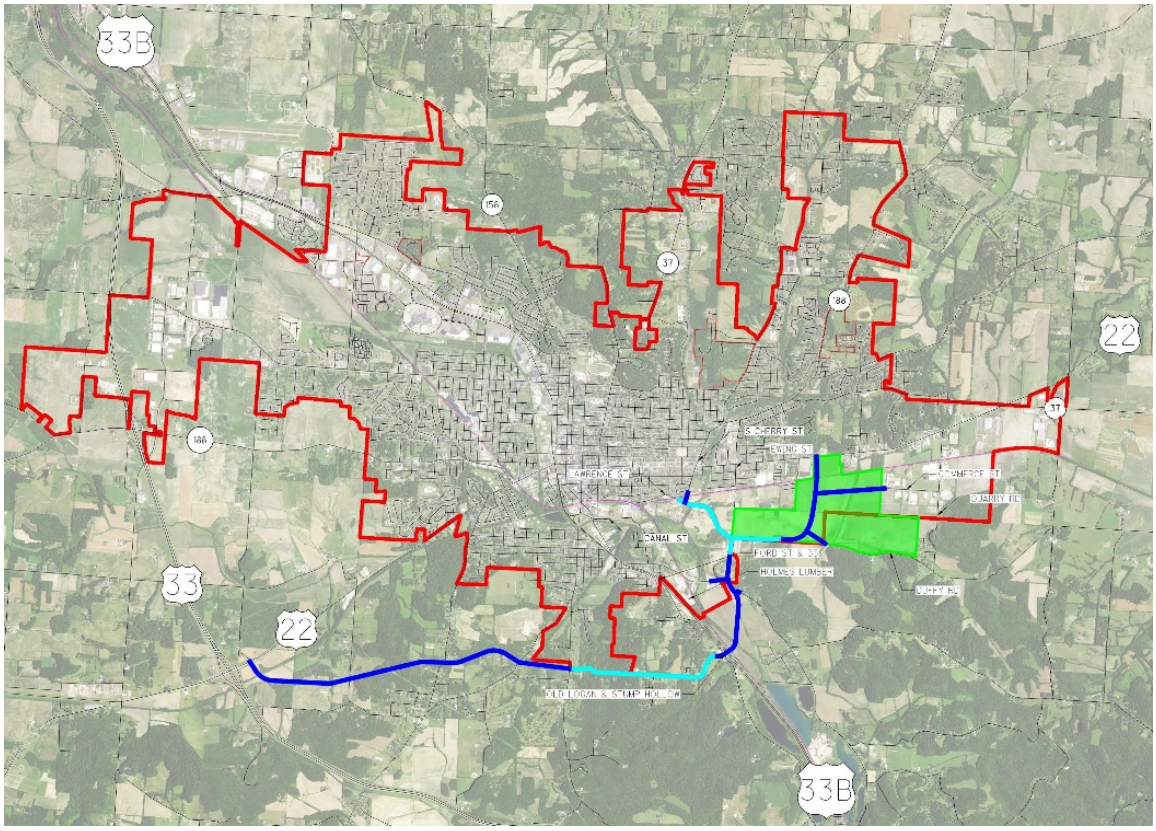
3.3 Alternative 2B

Alternative 2B would construct a southern bypass of the City that designates Memorial Drive (US 33B) as the truck route from US 22 to just south of the existing Ford Street intersection. Ford Street would be made into a cul-de-sac, and a new intersection constructed approximately 400' to the southeast. A new section of roadway would be constructed between Memorial Drive and Sugar Grove Road, and Sugar Grove Road widened to three lanes between the new section of roadway and the Lawrence Street/Duffy Road intersection. Lawrence Street would be widened to three lanes from the existing railroad tracks to the Ewing Street intersection. East of Ewing Street the proposed work would be identical to Alternative 2A with a new alignment constructed northward to US 22, Duffy Street realigned, Commerce Street extended to the new portion of roadway, and S. Cherry Street extended to Lawrence Street. Alternative 2B would require new at-grade railroad crossings for the extension of Cherry Street and the construction of the new alignment through the Eastside Industrial Area.

This alternative would meet the primary and secondary goals of the Purpose and Need and a horizontal and vertical alignment were developed to provide a higher level of detail. Preliminary 1" = 20' scale plan and profile sheets can be found in **Appendix D.**

3.4 Alternative 2C

Alternative 2C would construct a southern bypass of the City that extends Becks Knob Road from US 22 to the east to the existing S. Broad Street and Stump Hollow Road intersection. Stump Hollow Road would be widened to three lanes from S. Broad Street to Logan-Lancaster Road, and the existing offset intersection relocated to align with the Old Logan Road and Stump Hollow Road intersection. The new section of roadway between US 22 and S. Broad Street would be approximately 2.9 miles long. North of Logan-Lancaster Road a new three lane section of roadway would be constructed heading northward and would tie into S Ewing Street at the Lawrence Street/Duffy Road intersection. Lawrence Street would be widened to three lanes from the existing railroad crossing to S. Ewing Street and S. Cherry Street extended across the railroad tracks to Lawrence Street. East of Ewing Street the proposed work would be identical to Alternatives 2A and 2B, with a new alignment constructed northward to US 22, Duffy Road realigned, Commerce Street extended to the new portion of roadway, and S. Cherry Street extended to Lawrence Street. Alternative 2C would require new at-grade railroad crossings for the extension of Cherry Street, the construction of the new alignment through the Eastside Industrial Area, and the extension of Sugar Grove Road to US 33.



Alternative 2C

While this alternative would achieve the goals of the Purpose and Need, it is not recommended for further study. The construction of the bypass further west of Alternatives 2A and 2B would not divert any additional truck traffic away from the downtown area, and the additional cost related to constructing the bypass as shown makes it much less feasible than Alternatives 2A and 2B.

3.5 Alternative 3A

Alternative 3A would widen Lawrence Street and Duffy Road to three lanes, and would designate the widened roadways as the truck route/bypass through downtown Lancaster. East of Ewing Street the proposed work would be identical to Alternatives 2A, 2B and 2C with a new alignment constructed northward to US 22, Duffy Road realigned, and Commerce Street extended to the new portion of roadway. However, S. Cherry Street would not be extended to Lawrence Street to limit access points along the designated truck/bypass route.

Additionally, a new section of roadway that extends Ewing Street/Sugar Grove Road south to Logan-Lancaster Road (US 33B) and aligns with the existing Stump Hollow Road intersection would be constructed. Sugar Grove Road would be realigned to intersect with the new section of roadway and would eliminate the existing T-intersection which currently has substandard intersection sight distance. Alternative 3A would require new at-grade railroad crossings for the construction of the new alignment through the Eastside Industrial Area and the extension of Sugar Grove Road to US 33.

Poor Intersection Sight Distance at the Existing Sugar Grove Road T-Intersection

This alternative would meet the primary and secondary goals of the Purpose and Need and a horizontal and vertical alignment were developed to provide a higher level of detail. Preliminary 1" = 20' scale plan and profile sheets can be found in **Appendix D.**

3.6 Alternative 3B

Alternative 3B is nearly identical to 3A as it would widen Lawrence Street and Duffy Road to three lanes, and would designate the widened roadways as the truck route/bypass through downtown Lancaster. East of Ewing Street the proposed work would be identical to Alternatives 2A, 2B and 2C with a new alignment constructed northward to US 22, Duffy Road realigned, and Commerce Street extended to the new portion of roadway. Similar to Alternative 3A, S. Cherry Street would not be extended to Lawrence Street to limit access points along the designated truck/bypass route.

A new section of roadway that extends Ewing Street/Sugar Grove Road south to Logan-Lancaster Road (US 33B) would also be constructed, but would intersect Logan-Lancaster Road just south of Holmes Lumber. Sugar Grove Road would have a minor realignment to intersect with the new section of roadway and would eliminate the existing T-intersection mentioned under Alternative 3A. Alternative 3B would require new at-grade railroad crossings for the construction of the new alignment through the Eastside Industrial Area and the extension of Sugar Grove Road to US 33.

This alternative would meet the primary and secondary goals of the Purpose and Need and a horizontal and vertical alignment were developed to provide a higher level of detail. Preliminary 1" = 20' scale plan and profile sheets can be found in **Appendix D.**

3.7 Alternative 3C

Alternative 3C is nearly identical to 3A and 3B as it would widen Lawrence Street and Duffy Road to three lanes, and would designate the widened roadways as the truck route/bypass through downtown Lancaster. East of Ewing Street the proposed work would be identical to Alternatives 2A, 2B and 2C with a new alignment constructed northward to US 22, Duffy Road realigned, and Commerce Street extended to the new portion of

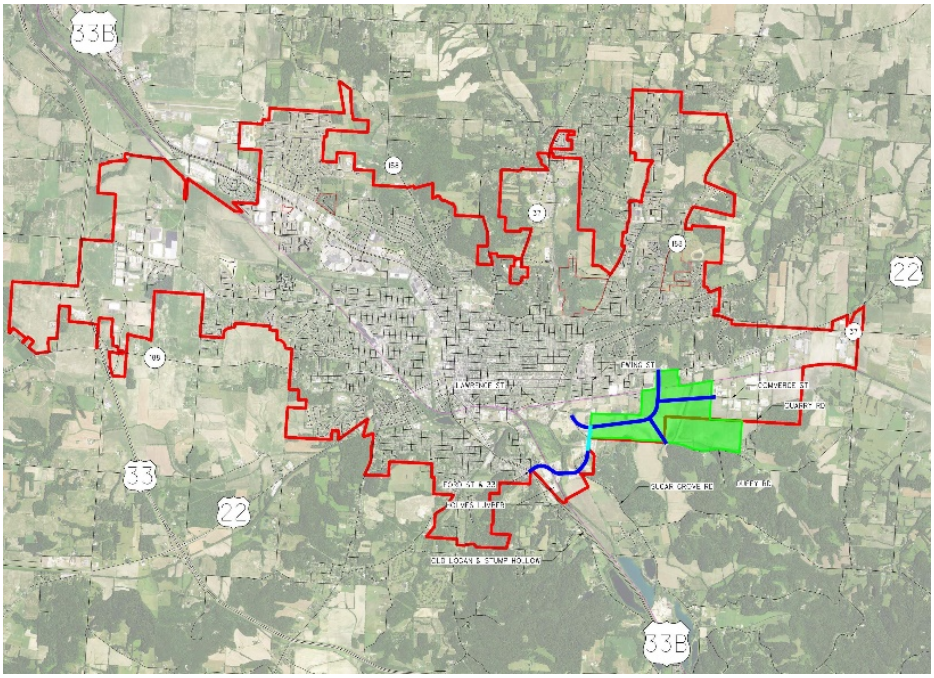
roadway. Similar to Alternatives 3A and 3B, S. Cherry Street would not be extended to Lawrence Street to limit access points along the designated truck/bypass route.

A new section of roadway that extends Ewing Street/Sugar Grove Road south to Logan-Lancaster Road (US 33B) would also be constructed, but would intersect Logan-Lancaster Road at the existing Ford Street intersection. Ford Street would be made into a cul-de-sac just south of Joyce Avenue and would access the new roadway via Sugar Grove Road. The existing curved section of Sugar Grove Road south of Duffy Road would be eliminated, and the new portion of roadway would become the through movement. Sugar Grove Road to the southeast would intersect the new roadway as a stop condition. Alternative 3C would require new at-grade railroad crossings for the construction of the new alignment through the Eastside Industrial Area and the extension of Sugar Grove Road to US 33.

This alternative would meet the primary and secondary goals of the Purpose and Need and a horizontal and vertical alignment were developed to provide a higher level of detail. Preliminary 1" = 20' scale plan and profile sheets can be found in **Appendix D.**

3.8 Alternative 4

Alternative 4 shares many similarities to Alternative 3C, but in lieu of widening Lawrence Street and Duffy Road, a new section of roadway running parallel to Duffy Road approximately 750' north of the existing intersection with Ewing Street would be constructed. Lawrence Street would be relocated to align with the new intersection with Ewing Street, and the new portion of roadway would curve to the north and intersect US 22 at the same location as alternatives 2A to 2C and 3A through 3C. The existing portion of Duffy Road from Ewing Street to the corporation line would be made into a cul-de-sac at Ewing Street, and Duffy Road would be realigned to connect to the new section of roadway. Commerce Street would be extended to the new section of roadway as well.



Alternative 4

A new section of roadway that extends Ewing Street south to Logan-Lancaster Road (US 33B), identical to Alternative 3C, would also be constructed, and would intersect Logan-Lancaster Road at the existing Ford Street intersection. As with Alternative 3C, Ford Street would be made into a cul-de-sac just south of Joyce Avenue and would access the new roadway via Sugar Grove Road. The existing curved section of Sugar Grove Road south of Duffy Road would be eliminated, and the new portion of roadway would become the through movement. Sugar Grove Road to the southeast would intersect the new roadway as a stop condition. Alternative 4 would require new at-grade railroad crossings for the construction of the new alignment through the Eastside Industrial Area and the extension of Sugar Grove Road to US 33.

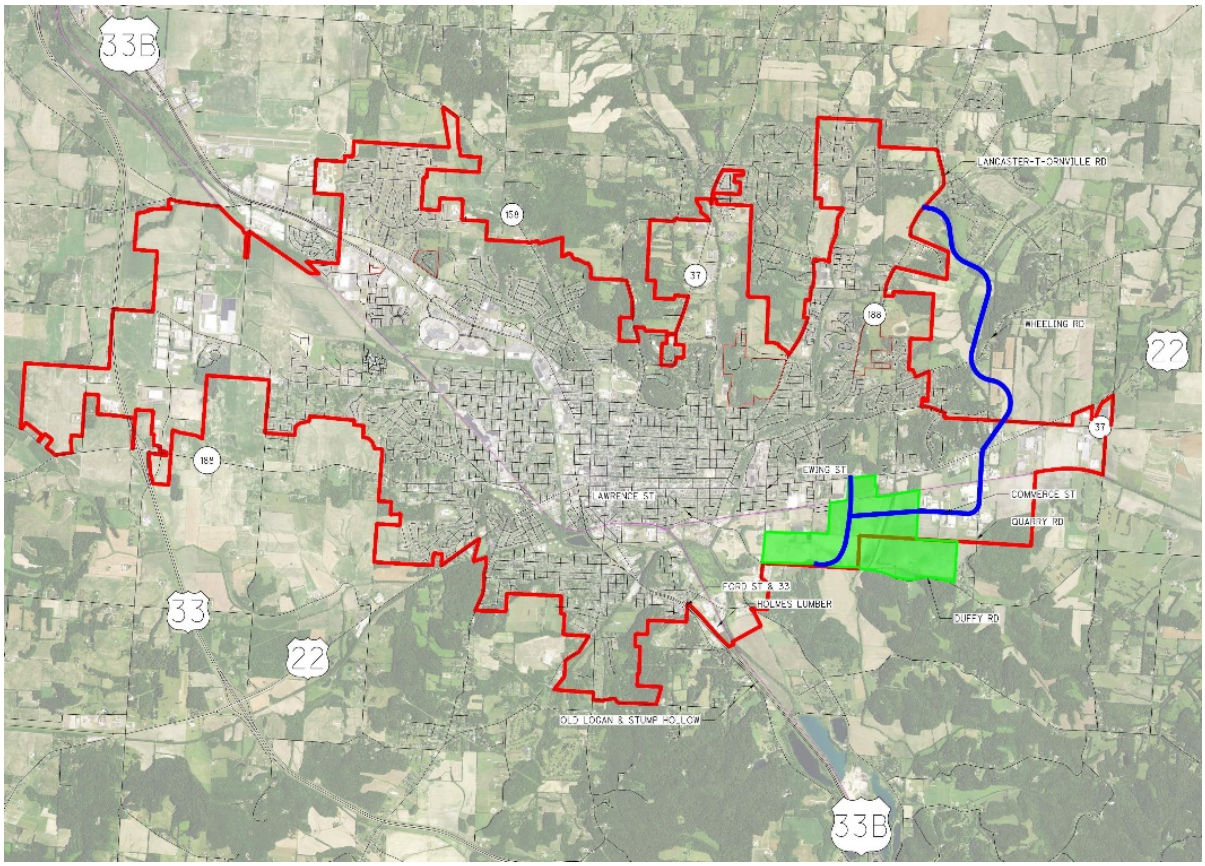
Existing Ford Street and Logan-Lancaster Road Intersection

While this alternative would meet the goals of the Purpose and Need, it essentially functions the same as Alternative 3C, but would come with higher construction and right-of-way acquisition costs. It would also leave less usable land for development in the Eastside Industrial Area, and therefore it is not recommended for further study.

3.9 Alternative 5

Alternative 5 will construct two new alignments; the first is from Duffy Road (approximately 0.5 miles east of Ewing Street) that turns northward and extends to US 22. The second will be a similar alignment to Alternative 1 that connects SR 188 to SR 37 east of downtown. The alignment of Alternative 5 will tie into SR 188 at the same location as Alternative 1, but the proposed intersection with SR 37 will be approximately 1500' west. The proposed alignment will continue south to Commerce Street, and reconstruct and extend Commerce Street to the new section of roadway between Duffy Road and US 22. The new roadway will become the through movement, and Quarry Road will intersect the new roadway as a stop condition. Both new roadways would be constructed as three lane roadways (one through lane in each direction with a two-way left turn lane). Alternative 5 would

require new at-grade railroad crossings for the construction of the new alignment through the Eastside Industrial Area and the construction of the new alignment east of downtown.

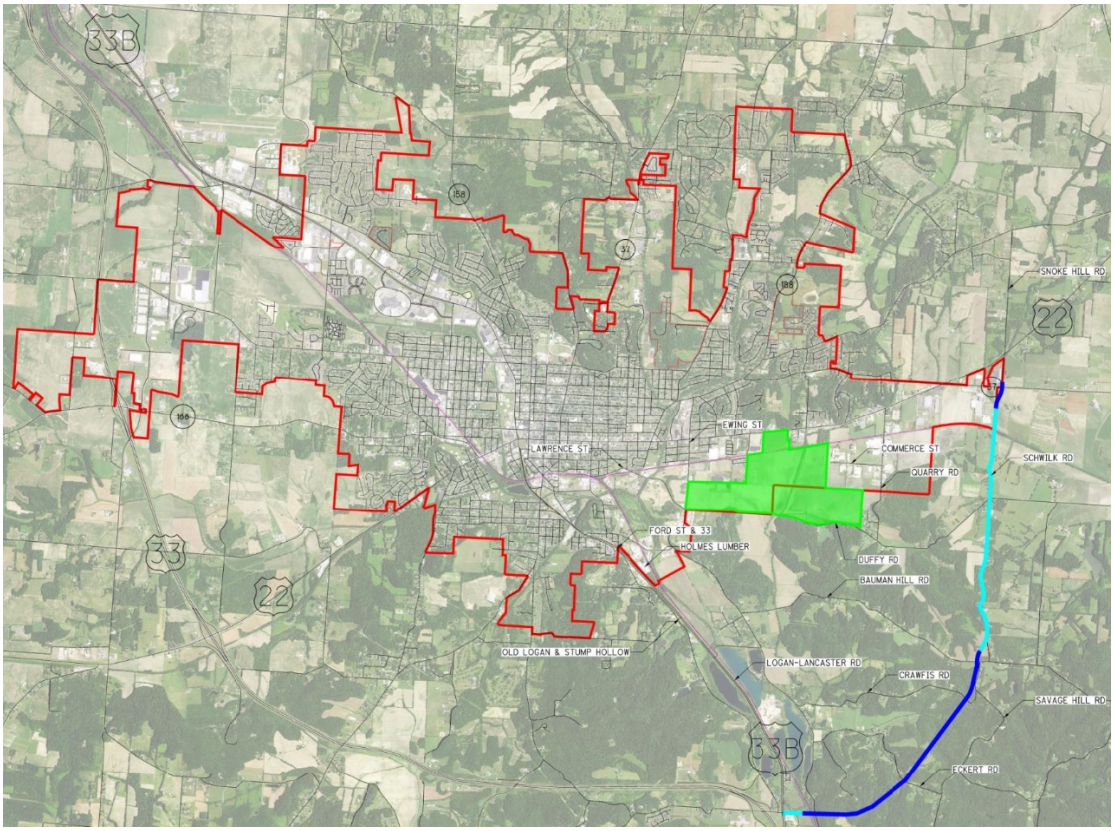


Alternative 5

This alternative is not recommended for further study for several reasons. The construction of the new alignment east of downtown would not reduce any truck traffic on Main Street from SR 158, SR 37 or US 22. Any truck traffic originating from SR 188 would likely not use the new alignment because SR 188 to US 22 would be a shorter route to US 33. Additionally, the cost associated with the right-of-way acquisition and construction of this alternative makes it much less feasible than the other options being investigated in this Planning Study. Because the goals of the Purpose and Need are not being met, combined with the high cost associated with this alternative, it is not recommended for further study.

3.10 Alternative 6

Alternative 6 would relocate Schwilk Road south of SR 37 to align with the existing Snoke Hill Road intersection. Schwilk Road would be widened to a three lane section (one through lane in each direction and a two-way left turn lane) to approximately 1500' north of Bauman Hill Road. Schwilk Road would then be relocated to the west to align with the Crawfis Road intersection. Crawfis Road would widened to three lanes and extended to the southwest to Logan-Lancaster Road (US 33B) to align with the existing Tarkiln Road intersection.



Alternative 6

This alternative is not recommended for further study for several reasons. While the new connector between SR 37 and US 33B would serve as a southern bypass for the City and divert truck traffic coming into town from the east on US 22 and SR 37, it would not provide any reduction in truck traffic generated from SR 188, SR 37, SR 158 or US 33. Additionally, there would be no connectivity benefit for the south and east sides of the City, or any improvement in emergency services response times. Because the majority of the goals of the Purpose and Need are not being met, it is not recommended for further study.

3.11 Alternative 7

Alternative 7 is very similar to Alternative 2A, and would construct a southern bypass of the City that extends SR 188 from its current intersection with US 22, run parallel to the existing railroad tracks, pass under Memorial Drive, utilize the existing Canal Street alignment (Canal Street would be widened to three lanes), then connect Canal Street to Lawrence Street where the existing Lawrence Street alignment would be utilized. Lawrence Street would also be widened to three lanes, and the bypass would extend through the S. Ewing Street intersection and utilize the existing Duffy Road alignment for approximately 0.7 mile where it would turn northward and run parallel to Pleasant Run for approximately 0.5 mile, then turn east and cross Pleasant Run with a new structure, and connect into the existing Commerce Street alignment. Commerce Street would be widened to 3 lanes to the existing intersection with Quarry Road SE. Quarry Road SE would also be widened to 3 lanes from E. Main Street to the Commerce Street intersection as it would now be the connector for the new bypass route. From the project

start point at the SR 188 and US 22 intersection to the S. Ewing Street intersection, Alternative 7 would be identical to Alternative 2A. However, with Alternative 7, no improvements to S. Ewing Street or Sugar Grove Road would be completed, and the new alignment would turn to the north several hundred feet east of where it is shown on Alternative 2A to allow for larger developable parcels in the Eastside Industrial Area. Additionally, the new bypass route would not connect directly to US 22 (E. Main Street), but would instead connect to US 22 via the improved Quarry Road SE in an effort to pull trucks away further east of downtown.

This alternative would meet the primary and secondary goals of the Purpose and Need and a horizontal and vertical alignment were developed to provide a higher level of detail. Preliminary 1" = 20' scale plan and profile sheets can be found in **Appendix D.**

3.12 No-Build Alternative

For comparison sake, a "no-build" alternative was included for evaluation. While the no-build alternative would allow the City to use available funds to focus on critical infrastructure needs, it will not meet any of the goals of the Purpose and Need for the project. The no build alternative would not solve any of the traffic related or economic impacts from the high truck volume on Main Street in the downtown area, or provide any benefits to the future development of the Eastside Industrial Area. While the current LOS along Main Street (US 22) is considered satisfactory during the AM and PM peak hours, the expected increase is traffic volumes passing through the City from the construction of the Intel plant, along with the associated region-wide development, will make the no-build alternative even less desirable.

While the no-build alternative does not meet the goals of the Purpose and Need, the NEPA process requires that the no-build option to be analyzed during the Feasibility Study.

4.0 Key Issues

4.1 Traffic Analysis

Existing Streetlight data was used to establish traffic volumes, origin-destination information, truck percentages, etc. for this Planning Study. Detailed information about the traffic volumes and patterns, and the methodology related to the traffic analysis can be found in **Appendix B** of this Planning Study. Based on the existing truck flows through downtown Lancaster, roadway network improvements on the south side of the City will provide the greatest reduction of trucks on Main Street. Of the Alternates studied, Alternates 2A and 7 provide the best opportunity to relieve the heavy pass through truck volumes in the downtown area.

During the Feasibility Study a traffic analysis of the preferred corridor will be completed at a much higher level of detail to determine lane configurations at intersections, check roadway capacity, establish intersection control (signalization, roundabouts, stop signs, etc). Having a preferred corridor on which to develop the alternatives in the Feasibility Study will limit the number of existing intersections that will require counts, improve the accuracy of the future traffic projections, more accurately measure the reduction in truck traffic through downtown, and improve the accuracy of the cost estimates for each alternative. But with the primary corridor identified, the variations to the intersection control will be the basis of the alternatives developed for the Feasibility Study.

4.2 Right-of-Way Impacts

Right-of-way costs and impacts were considered when developing all eleven of the "build" alternatives. Existing roadway alignments were utilized as much as feasible to keep proposed right-of-way take areas to an absolute minimum, while still accomplishing the goals of the Purpose and Need. Limiting parcel acquisitions and relocations will be key to minimizing the right-of-way costs and will be a major factor in the eventual selection of the Preferred Alternative. Additionally, the alignments selected for further study must comply with the NEPA process and not intentionally target low income or underserved populations as a cost savings technique. **Due to the number of alternatives being looked at in this Planning Study, and the number of total parcels that are likely to be impacted, exact right-of-way costs were not calculated.** This should be done during the Feasibility when the number of alternatives has been reduced and the grading limits have been determined through the development of cross sections and/or 3D modeling. At the Feasibility Study acquisition costs typically are determined using the County Auditor's appraised values + 30%, and an additional $5000 per owner for negotiation.

4.3 Geometric Challenges

While utilizing the existing roadway alignments wherever feasible will reduce construction costs and right-of-way impacts, many of these existing roadways are low traffic volume facilities with substandard horizontal and vertical curves. These geometric deficiencies will require correction to improve safety and drivability for the high number of trucks that are likely to be present when construction is complete. For example: Lawrence Street, Duffy Road, and Sugar Grove Road all have deficient horizontal curves that would require realignment and/or superelevation improvements.

Deficient Horizontal Curve on Lawrence Street

The City of Lancaster also serves as the unofficial "Gateway to Appalachia", with the southeast quadrant of the City having significantly more rolling terrain than the west and north. This will factor into vertical profile design,

earthwork costs, grading limits, and right-of-way impacts, and will need to be factored in during the Feasibility Study development to make a determination of the Preferred Alternative.

4.4 Railroad Coordination

Of the eleven "build" alternatives that were considered with this Planning Study, ten would require either the construction of a new railroad crossing or the modification of an existing crossing. The rail line passing just south of downtown, is owned by the Indiana and Ohio Railway and sees fewer than 10 trains per day. Railroad coordination will be a major factor regardless of what alternative is selected for detailed design. With the intent of the project to provide a southern bypass or truck route, any proposed railroad crossing would ideally be an overpass or underpass, but this may not be financially feasible. Railroad overpasses typically cost in the $10-12 million dollar range which may force any proposed crossing to be at-grade. As a rule of thumb, railroads prefer two existing at-grade crossings be removed if a new at-grade crossing is proposed, so this will need to be considered for the alternatives that are developed during the Feasibility Study. During the Feasibility Study development, any proposed railroad crossings (at-grade or grade-separated) should be presented to the railroad as early as possible to avoid future project delays. Proposed crossings require significant back-and-forth between the designer and railroad and this coordination should be started as early in the design process as possible.

Existing Ungated, At-Grade Crossing on Lawrence Street

4.5 Construction Cost

Construction cost will play a major factor in the eventual selection of the Preferred Alternative. Previous studies completed for the City of Lancaster have established northern and southern bypass routes, but the high construction cost of these facilities have prevented them from ever nearing the detailed design or construction phase. Discussions with the City made it clear the desired outcome of this Planning Study was to generate a proposed corridor that was not only beneficial to the City, but financially feasible. While meeting the goals of the Purpose and Need and providing a safe, efficient travel route are of paramount importance, methods for reducing

construction costs were considered when developing the alternatives. Methods of cost containment such as utilizing existing roadways, bridges, and at-grade railroad crossings have been implemented into the "build" alternatives to improve financial feasibility. Other methods, such as building the project in phases, public-private partnerships, and developer contributions from the Eastside Industrial Area should be explored when the Preferred Alternative is selected.

4.6 Maintenance of Traffic

The maintenance of traffic effort varies greatly between the eleven "build" alternatives. Below is a brief summary of the expected maintenance of traffic requirements for each option:

- Alternative 1: Two-way traffic would be maintained on Coonpath Road while the existing roadway is widened from two to three lanes. Temporary pavement would be installed prior to the first phase of construction, and traffic shifted onto the temporary pavement when construction begins. The widening work would be completed opposite of the temporary pavement during Phase 1. Phase 2 would shift traffic onto the newly constructed pavement, remove the temporary pavement constructed prior, and complete the additional widening work. The new connector route between SR 188 and US 22/SR 37 would require minimal maintenance of traffic effort to construct the new intersections at the north and south ends.

Lack of Existing Shoulders on Coonpath Road Would Require Temporary Pavement

- Alternative 2A: In lieu of constructing temporary pavement to maintain Canal Street and Lawrence Street during construction, these two roadways would be made one-way streets in the eastbound direction and westbound traffic detoured while the widening work is completed. Both roadways are low volume facilities, so the traffic impacts to the adjacent streets would be minimal. The new section of roadway within the Eastside Industrial Area would be constructed prior to any work being completed on Sugar Grove Road or Duffy Road. Duffy Road and Sugar Grove Road would be closed to traffic (with exception to local traffic) and two-way traffic maintained through flaggers and/or signalization. The remaining sections of roadway are new alignments that would require minimal maintenance of traffic effort to construction the new intersections.

- Alternative 2B: A minimum of one lane of traffic in each direction would be maintained on Memorial Drive at all times, and because of the existing shoulder width it is likely that two lanes of traffic in each direction can be maintained at all times without the need for temporary pavement. Any required improvements on Memorial Drive would be constructed in two phases, with traffic shifted onto the shoulder and newly constructed pavement as needed.

  Phasing and maintenance of traffic on Lawrence Street, Duffy Road, and Sugar Grove Road would be the same as Alternative 2A. The new portion of roadway between Memorial Drive and Sugar Grove Road would be constructed offline of any existing roadways and would require little to no maintenance of traffic effort.
- Alternative 2C: Traffic would be maintained on Lawrence Street and Duffy Road similar to Alternatives 2A and 2B, with the Cherry Road extension and new alignment through the Eastside Industrial Area constructed prior to any other work being completed. The new corridor from US 22 just east of the US 33 interchange to the BIS Road/Stump Hollow Road intersection would be constructed entirely offline and would require only minimal maintenance of traffic work at the intersecting roadways. Stump Hollow Road would be reconstructed/widened in sections, and traffic maintained via a signalized one-lane, two-way configuration. The new section of roadway from Logan-Lancaster Road to Sugar Grove Road will not require any maintenance of traffic effort, but a short term closure and detour of Sugar Grove Road will likely be required to complete the tie-in work.
- Alternative 3A: Traffic would be maintained on Lawrence Street and Duffy Road similar to Alternatives 2A, 2B, and 2C, with the new alignment through the Eastside Industrial Area constructed prior to any work being completed. Duffy Road will be closed to traffic (with exception to local traffic) and two-way traffic maintained via flaggers and/or signalization. Lawrence Street will be made one-way in the eastbound direction and westbound traffic detoured via Ewing Street to US 22. The new section of roadway from Logan-Lancaster Road to Sugar Grove Road will not require any maintenance of traffic effort, but a short term closure and detour of Sugar Grove Road will likely be required to complete the tie-in work. Sugar Grove Road will be detoured to Logan-Lancaster Road as needed.

Duffy Road Would Be Maintained with Flaggers and Open to Local Traffic Only

- Alternative 3B: Traffic would be maintained on Lawrence Street and Duffy Road similar to Alternatives 2A, 2B, 2C, and 3A, with the new alignment through the Eastside Industrial Area constructed prior to any work being completed. Duffy Road will be closed to traffic (with exception to local traffic) and two-way traffic maintained via flaggers and/or signalization. Lawrence Street will be made one-way in the eastbound direction and westbound traffic detoured via Ewing Street to US 22. The new section of roadway from Logan-Lancaster Road to Sugar Grove Road will not require any maintenance of traffic effort, but a short term closure and detour of Sugar Grove Road will likely be required to complete the tie-in work. Sugar Grove Road will be detoured to Logan-Lancaster Road as needed.
- Alternative 3C: Traffic would be maintained on Lawrence Street and Duffy Road similar to Alternatives 2A through 3B, with the new alignment through the Eastside Industrial Area constructed prior to any work being completed. Duffy Road will be closed to traffic (with exception to local traffic) and two-way traffic maintained via flaggers and/or signalization. Lawrence Street will be made one-way in the eastbound direction and westbound traffic detoured via Ewing Street to US 22. The existing section of Sugar Grove Road that will be widened will be made into a one-way facility, with eastbound traffic detoured to Logan-Lancaster Road. Short term closures of Sugar Grove Road just south of Duffy Road will be required to complete the tie-in work with traffic detoured as necessary.
- Alternative 4: The new section of roadway through the Eastside Industrial Area will be completed first, and no maintenance of traffic will be required. Short term closures and detouring of Lawrence Street and Duffy Road will be required to construct the tie-ins. The existing section of Sugar Grove Road that will be widened will be made into a one-way facility, with eastbound traffic detoured to Logan-Lancaster Road. Short term closures of Sugar Grove Road just south of Duffy Road will be required to complete the tie-in work with traffic detoured as necessary.
- Alternative 5: The new corridors between SR 188 and US 22, as well as between Ewing Street and Duffy Road will be constructed first, with only minimal maintenance of traffic effort required at the intersecting roadways. The widening of Quarry Road will be completed in two phases, and the installation of temporary pavement will be required prior to the first phase. Traffic on Quarry Road will be shifted onto the temporary pavement, and the widening work completed opposite. Phase 2 will shift traffic onto the newly completed pavement and the remaining widening work completed. Commerce Street will be maintained via flaggers during working hours and one-lane, two-way signalized operation during non-working hours.
- Alternative 6: Schwilk Road will be closed to traffic (with exception to local traffic) from SR 37 to Bauman Hill Road and detoured to Lutheran Church Road. Local traffic will be maintained via flaggers during working hours. South of Bauman Hill Road the new roadway will be constructed offline with no maintenance of traffic effort required with exception to the intersecting roadways. Traffic will be maintained via flaggers at the Horns Mill Road tie-in point at the US 33B intersection.
- Alternative 7: In lieu of constructing temporary pavement to maintain Canal Street and Lawrence Street during construction, these two roadways would be made one-way streets in the eastbound direction and westbound traffic detoured while the widening work is completed. Both roadways are low volume facilities, so the traffic impacts to the adjacent streets would be minimal. The new section of roadway within the Eastside Industrial Area would be constructed prior to any work being completed on Duffy

Road. Duffy Road would be closed to traffic (with exception to local traffic) and two-way traffic maintained through flaggers and/or signalization. Commerce Street would remain open to two-way traffic at all times for property access, and traffic maintained through flaggers and/or signalization. The widening of Quarry Road SE would be constructed part-width, and either Quarry Road SE made into a one-way street in the southbound direction and northbound traffic detoured, or two-way traffic maintained via flaggers and/or signalization.

4.7 Environmental Analysis

The preliminary environmental analysis was conducted through literature research. The United States Geological Survey (USGS) 7.5 Minute Quadrangle Maps, 2005 Fairfield County Soil Survey maps, the Federal Emergency Management Agency (FEMA) maps, National Wetland Inventory (NWI) and Ohio Wetland Inventory (OWI) maps were reviewed for any hydrological records found within the proposed alternatives. Additionally, a search of nationwide and local database sources was conducted through the Ohio Regulated Properties Search (ORPS) provided by the Ohio Department of Transportation (ODOT) on August 15, 2022 to determine any potential hazardous materials within the alternatives. That search was performed using the parameter limits set into place by the ORPS tool for each alternative. Also, a search of the Ohio Historic Preservation Office (OHPO) database was completed on August 15, 2022 to determine any cultural resources within the alternatives. Furthermore, ODOT Transportation Information Mapping System (TIMS) was used to investigate the following underserved populations: linguistically isolated, over age 64, low income, and minority population. The alternative maps and reviewed resources are included in **Appendix C.**

5.0 Comparison of Alternatives

5.1 Alternative Matrix

Below is an evaluation matrix that rates each of the alternatives on a number of factors including: right-of-way impacts, truck traffic reduction, emergency services benefit, connectivity improvement, maintenance of traffic effort, construction cost, environmental impacts, and an overall rating. Further refinement of the evaluation matrix is recommended during the Feasibility Study when more design details are available and construction costs are more accurately calculated.

Alternative	Evaulation Matrix								
	Criteria								
	ROW Impacts	Main Street Truck Traffic Reduction	Emergency Services Benefit	Eastside Industrial Area Connectivity Improvement	Maintenance of Traffic Effort	Construction Cost	Environmental Impacts	Overall	Cost ($Million)
No Build									$0
Alternative 1									$39.41
Alternative 2A									$19.64
Alternative 2B									$14.50
Alternative 2C									$33.05
Alternative 3A									$14.73
Alternative 3B									$13.85
Alternative 3C									$13.96
Alternative 4									$9.07
Alternative 5									$23.24
Alternative 6									$18.53
Alternative 7								PFRD	$19.29

Excellent Very Good Good Fair Poor

6.0 Conclusion

6.1 Summary of Preferred Corridor Recommended for Additional Study

Of the eleven "build" alternatives that were developed for this Planning Study, four (Alternatives 1, 4, 5, and 6) were eliminated because they did not meet the primary and secondary goals of the Purpose and Need of the project. A fifth alternative (Alternative 2C) was eliminated from consideration; while it met the goals of the Purpose and Need, it was operationally equivalent to Alternative 2B, but at a much higher construction cost. The "no build" option was also eliminated from consideration because it doesn't meet the goals of the Purpose and Need statement, and provides no safety, traffic, or economic improvements to the City. The remaining six alternatives (Alternatives 2A, 2B, 3A, 3B, 3C, and 7) all meet the goals of the Purposed and Need of the project and are considered financially feasible. 1" = 20' plan and profile sheets were established for these six alternatives in an effort to more accurately establish proposed construction costs, right-of-way impacts, and environmental impacts. Based on the rating categories, Alternatives 2A and 7 were the highest rated and provided the highest level of truck traffic reduction, connectivity improvement, and emergency services benefit. Alternatives 2A and 7 both received "very good" ratings, but Alternative 7 has a lower estimated construction cost, and pushing the bypass east of downtown will provide a higher level of truck traffic reduction in the downtown area. Because of this **Alternative 7 is the preferred corridor that should be the basis for the alternatives established during the Feasibility Study**.

7.0 Next Steps

7.1 Completion of the Feasibility Study

Because of the public support for the construction of a southern bypass/truck route, and the overall need to improve connectivity and reduce truck traffic through downtown, now is the time the City should make an aggressive commitment to determine a Preferred Alternative. This includes working with City Council to start the process of setting aside funds to complete a Feasibility Study as well as the local match that could be required with federal funding. This match can vary depending on the funding source, but is typically in the 10-20% of the total construction cost range. The City of Lancaster should begin coordination work with ODOT due to the high number of State and US Routes that will potentially be affected by the project. This coordination will ensure the design process stays on track to prevent project delays and could aid in the identification of construction funding. Since construction of the project is likely to require Federal funding, the NEPA process will need to be followed to make a determination of the Preferred Alternative. A Feasibility Study that provides additional design details such as typical sections, cross sections, refined horizontal and vertical alignments, etc. is the next step in the process. The preferred corridor established in this Planning Study will be the basis for the alternatives that will be developed in greater detail during the Feasibility Study. These alternatives will establish different intersection control, minor variations in the horizontal and vertical alignment, pedestrian facilities, and other features to make a final determination of the "Preferred Alternative". During the development of the Feasibility Study, American Structurepoint recommends, at a minimum, one public meeting to receive input on the alternatives being considered by the City. Public Involvement is a critical aspect of the NEPA process, and the public input often generates additional variants of the alternatives under consideration. This public input, combined with the additional details and refined construction cost estimates provided in the Feasibility Study, will be key in identifying the Preferred Alternative. Once the Preferred Alternative is identified, another public meeting is recommended to educate the public on what option will be carried on to detailed design and eventually construction.

7.2 Determination of the Preferred Alternative

As stated in section 7.1, the goal of the Feasibility Study will be to identify the Preferred Alternative that will be carried on to the detailed design phase. A ratings matrix, similar to what is shown in Section 5.1 of this Planning Study, will be used to identify the Preferred Alternative.

7.3 Potential Funding Sources

With the alternatives that are being considered for further study ranging in cost from $9.3 to $21.4 million, construction of the project with local funds is likely not feasible. The list below are potential options to explore for funding of the project along with a brief explanation of each:

- **Bridge Investment Program** – This $12.5 billion program over five years will assist state, local, and tribal entities in rehabilitating or replacing bridges and culverts. Minimum grant size is $40 million for large projects and $2.5 million for small projects. Administered by the Federal Highway Administration, it will require all projects to complete preliminary engineering and must reasonably be expected to begin

construction within 18 months of the initial funding award. More information about this new program is expected soon.

- **Railroad Crossing Elimination Program** – This $3 billion program provides funding for highway-rail or pathway-rail grade crossing improvement projects focusing on improving the safety and mobility of people and goods. Eligible projects include grade separation or closure, track relocations, and improvement or installation of safety measures. The minimum grant size is $1 million, although planning grants can be smaller. About 20% of funding is reserved for rural or tribal projects. Federal cost share is 80%. Application information for this program is not yet available.
- **Reconnecting Communities Pilot Program** – This new $1 billion pilot program will study, plan, and construct projects that will remove, retrofit, or mitigate highways and other community connectivity barriers. Planning grants may not exceed $2 million, and capital construction grants (available after planning activities have been completed) have a minimum grant size of $5 million. Federal cost share is 50%. Applications will open in Q2 2022
- **RAISE (formerly TIGER and BUILD GRANTS)** – The BUILD/TIGER program has been renamed to Rebuilding American Infrastructure Sustainably and Equity (RAISE) Grant. This existing $7.5 billion program is receiving an additional $7.5 billion for a grand total of $15 billion available over the next five years. For FY 2022, $1.5 billion is available; an increase of 50% (approximately $500 million) over last year. RAISE funds transportation projects with a significant local or regional impact. The minimum grant size is $1 million rural and $5 million urban, with a $25 million maximum. No more than $225 million will be awarded to a single state. At least $15 million is guaranteed for projects located in areas of persistent poverty or historically disadvantaged communities. RAISE also expands the number of communities eligible for 100% federal share of funding, specifically those in rural communities, areas of persistent poverty, and historically disadvantaged communities.
- **Infrastructure for Rebuilding America (INFRA) Grants** – This existing program is expected to receive $14 billion over the next five years. Since 2015, INFRA has awarded an average of $910 million a year. Awarding an average of $2.8 billion in INFRA grants each year over the next five years is a 300% increase. This grant program provides funding to state and local governments for highway and rail projects of regional or national significance.
- Other possible funding sources include Large City Program funds (outside an MPO), OPWC, TID, Urban Paving, Discretionary Grants, and CEAO. Descriptions for these sources can be found at: https://www.transportation.ohio.gov/working/publications/program-resource-guide

Appendix A – Economic Development Analysis

Lancaster East Side Business Park Market Analysis

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TABLE OF CONTENTS

1.0 Lancaster Eastside Business Park Market Analysis 1
1.1 Introduction 1
1.2 Study Purpose 1
1.3 Regional Location 1
1.4 Lancaster 2
2.0 Stakeholder Interviews 4
2.1 General Demographics 5
2.2 Economic Performance 6
2.3 Workforce 7
2.4 Inflow/Outflow 7
2.5 Distance Workers Travel 9
2.6 Location Quotients 14
2.7 Shift Share Eastside Specific 15
2.8 Fairfield Medical Center 16
2.9 Downtown 16
3.0 Eastside Business Park 17
3.2 Existing Conditions and Market Analysis Summary 22
4.0 Purpose and Needs Statement 23
5.0 Critical Path Strategies 23
6.0 Economic Development Metrics 30
6.1 Buildable Square Footage 30
6.2 Income Tax Generation Estimates 31
6.3 Property Tax Revenue 33
7.0 Conclusions 36

1.0 Lancaster Eastside Business Park Market Analysis

1.1 Introduction

Lancaster, Ohio, is located in central Ohio and on the edge of the Columbus Metropolitan Statistical Area (MSA) and the southeastern region of the state, known as Appalachia. This portion of the study examined the existing conditions of the eastside industrial business park and identified strategies to help encourage new development activity in conjunction with the recommendations of the associated Eastside Industrial Connector Feasibility Study.

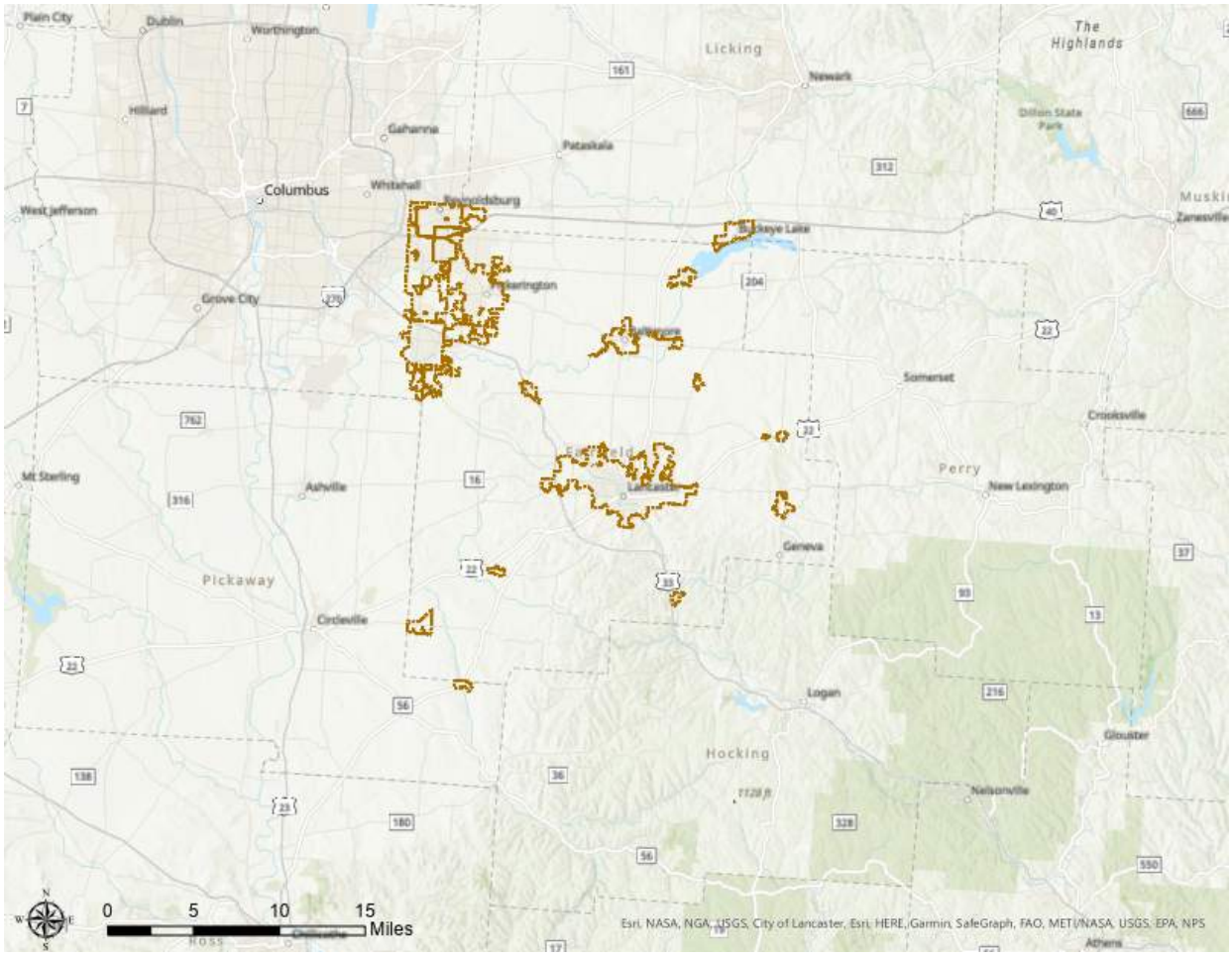
1.2 Study Purpose

The combined market analysis and feasibility studies had multiple purposes. American Structurepoint was hired to evaluate the ability to increase transportation connectivity options to the eastside of Lancaster, reduce trucks through downtown, and improve access to the Fairfield Medical Center. We are also evaluating the effects that increase its connectivity on the eastside, particularly the industrial development along US 22 and Quarry Road, which will stimulate economic development activity on buildable parcels. This Appendix A, East Side Business Park Market Analysis focused on the later.

1.3 Regional Location

Lancaster is located at the midpoint of the Columbus MSA, near the outer suburbs and Athens, Ohio. This location places Lancaster as a strategic regional focal point for future development and the "gateway to Appalachia." As the Columbus market grows, and with the announcement of the Intel Facility in Licking County, more opportunities may exist for housing and industrial growth and serve as that vital link to southeast Ohio.

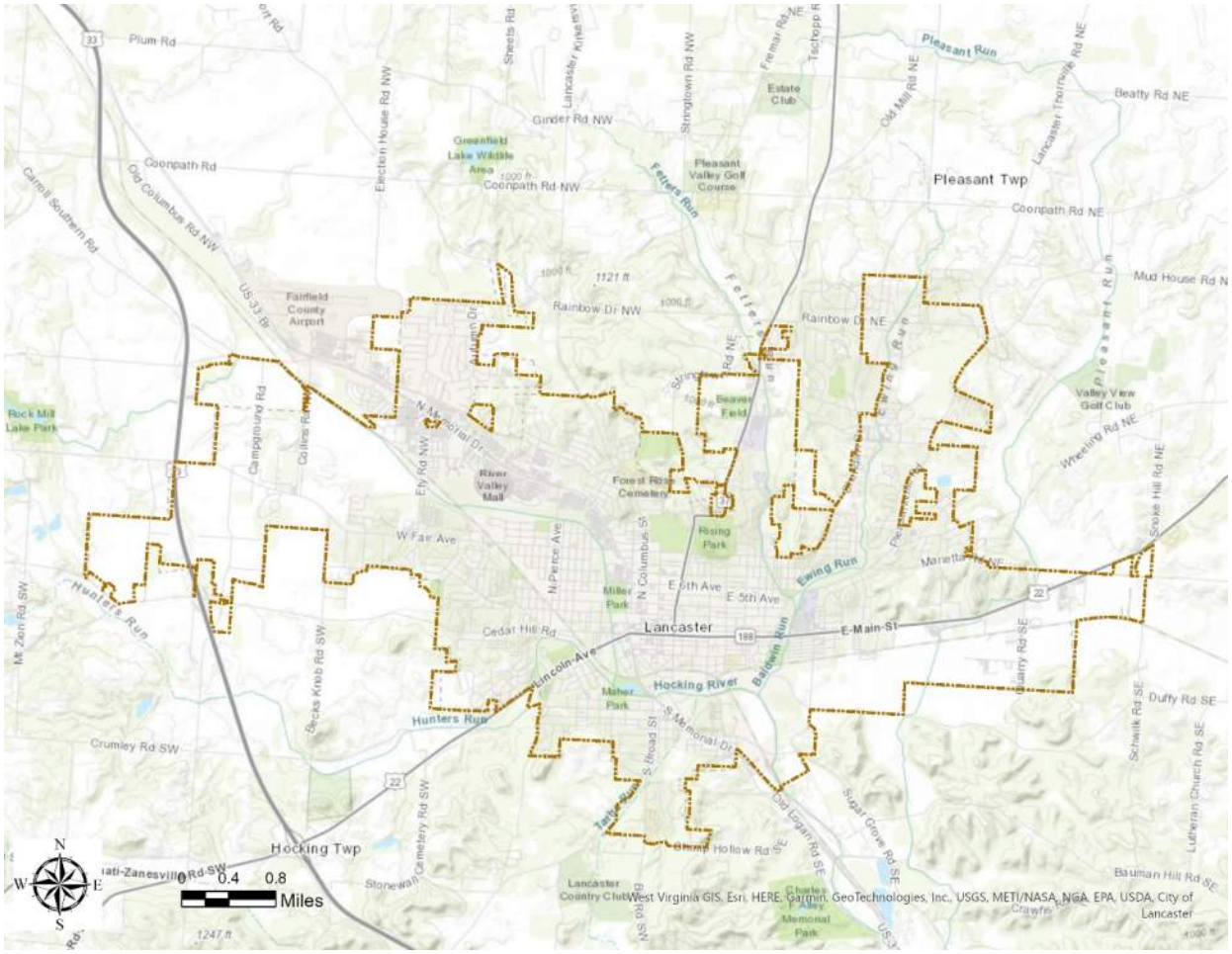
Map 1, Lancaster Regional Location Map



1.4 Lancaster

Lancaster benefits from being at the intersection of several Ohio state routes (SR) - 159, 37, 188, 159, and US 22. Lancaster also is within close proximity to US 33. This network of arterial streets brings activity and commerce to the area. However, most roads converge downtown and create additional traffic on the local street network. Some roads converge or are located west of the eastside industrial area. Unfortunately, the eastside does not share the benefits of overall regional connectivity.

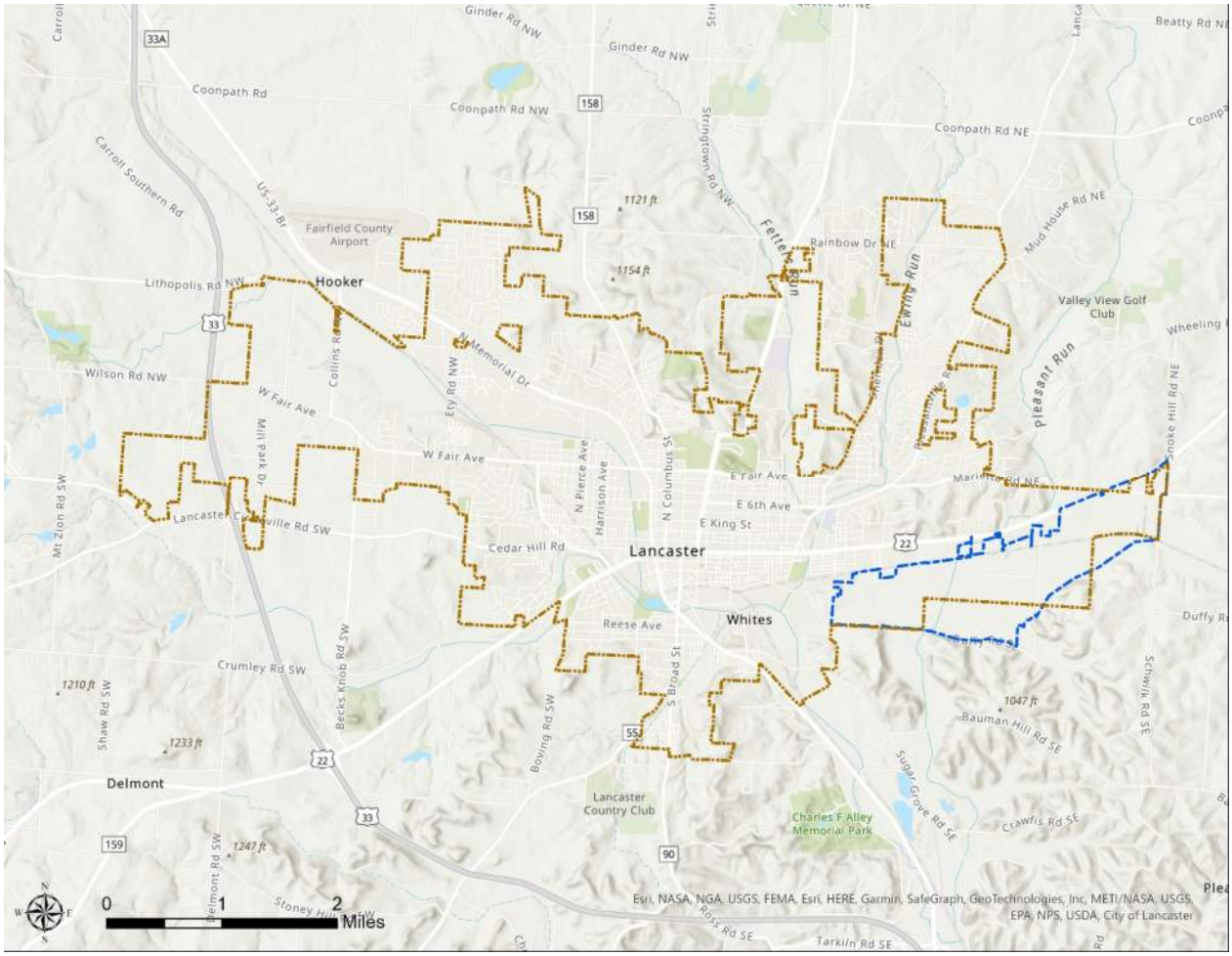
Map 2, Lancaster Corporate Limits



1.4.1 Eastside Business Park location

The eastside industrial area is located south of US 22, starting at Ewing Avenue on the east to Snoke Hill Road on the west, and is shown with a blue outline on Map 3 below. The total land area of these properties combined is approximately 1,133 acres.

Map 3, Eastside Business Park Location Map



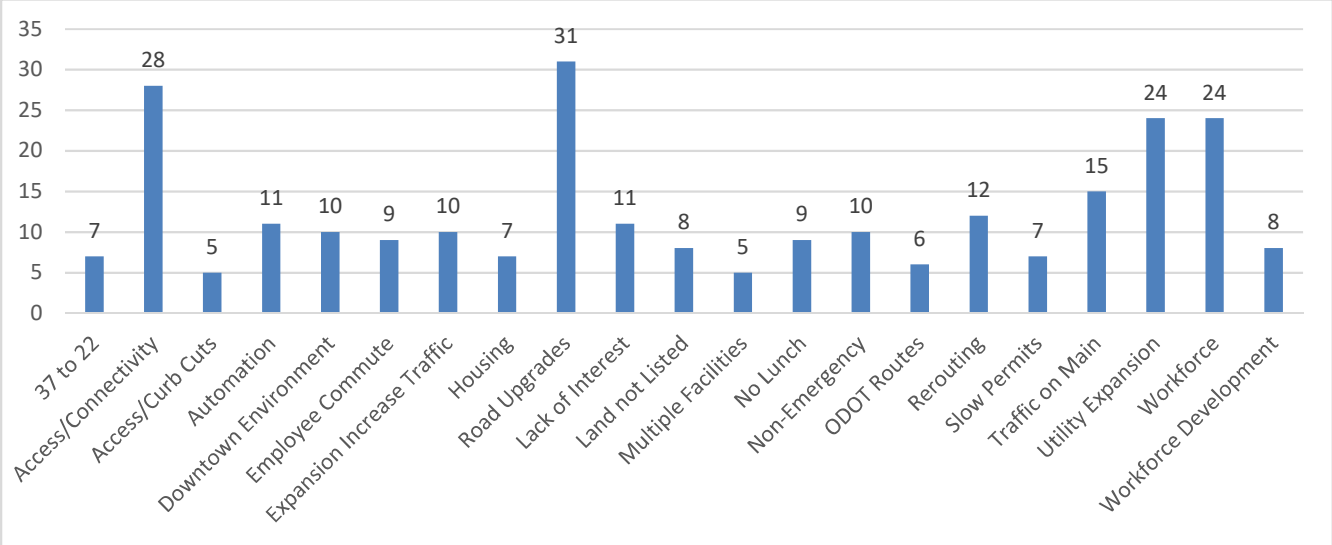
2.0 Stakeholder Interviews

We began this process with a series of stakeholder interviews to understand the assets and challenges regarding investment and business development in the eastside industrial park. The interviews were in-person from April 4, 2022, to April 7, 2022. Attendees were asked to participate in groups organized by their interest in development in Lancaster and how Main Street Traffic and development on the eastside may interact with their Business or interests. Stakeholder meetings were separated into six discussions with a total of 32 individuals organized into the following groups:

- Eastside industrial park business owners
- Commercial real estate brokers
- Fairfield Medical Center representatives
- Downtown business owners
- City staff

The participants provided several insights, summarized into the high-level categories shown in Figure 1, Stakeholder Interview Themes (comments that had only one to four mentions were not included in this figure).

Figure 1, Stakeholder Interview Themes[1]



While each stakeholder group had specific items and topics they discussed, certain topics were mentioned by all participants. Those categories were:

1. Road upgrades – (modification to streets, intersections, traffic signals, crosswalks)
2. Access/connectivity – (looking for alternatives to get trucks/cars from the eastside to the west of downtown)
3. Utility expansion – (items related to electric, water, sewer, natural gas, etc.)
4. Workforce – (the availability of workforce for local businesses and where they commute from)
5. Traffic on Main Street – (universally mentioned as an issue by all stakeholders, in particular, truck traffic)

These high-level insights feed into the viability and future development of the eastside industrial park and routing options to alleviate these concerns. Input from stakeholders was paired with the relevant data points that either confirmed or offered additional information for the remainder of this report.

2.1 General Demographics

To assess the importance and impact of this area, we established how the eastside industrial park and Lancaster fit into the larger regional economy. We compared the demographics of the eastside industrial business park and Lancaster to Fairfield County, Ohio, residents within a 50-minute drive (commuting distance based on stakeholder interviews), and the state of Ohio.

[1] American Structurepoint

Table 1, Demographic Comparison[2]

Variable	Eastside Industrial Area	Lancaster City, OH	Fairfield County, OH	50 Minute Drive	Ohio
2021 Total Population	93	42,250	162,536	1,256,840	11,839,300
2021 Median Household Income	N/A	$48,522	$70,903	$56,269	$57,725
2021 Unemployment Rate	N/A	5.3%	3.4%	5.5%	4.8%
2019 Total Business	33	1,568	3,945	38,799	374,840

Lancaster's median income was lower than the comparison regions. Fairfield County's median income was the highest. Unemployment rates in Lancaster were similar across the board, at 5.5 percent to 3.4 percent. Unemployment rates continue to be low in Lancaster at 5.3 percent. While low unemployment is welcome, it was noted that continued low unemployment increased competition for employees.

2.1.1 Stakeholder Input

Low unemployment rates coincide with the feedback received from eastside Business owners. Out of the 134 comments received, 32 percent involved employee-related issues. Twenty-four were about the lack of available workers, 11 referenced having to rely more on automation, and eight dealt with workforce development. The most significant concern was attracting local talent and recent graduates to their industries. One business owner did mention that they have increased their wages and that this has helped with employee retention and attraction efforts. Lancaster had the lowest median income, implying that local employers are not keeping up with the greater Columbus MSA in terms of wage competitiveness.

2.2 Economic Performance

2.2.1 Historic Job Growth

Table 2, Historic Job Growth

Variable	Eastside Industrial Area	Lancaster City, OH	Fairfield County, OH	50 Minute Drive	Ohio
2019 Total Employees	1,037	19,452	43,254	1,051,739	4,383,581
2002 Total Employees	1,452	17,792	34,151	883,956	4,202,090
Percent Change 2002 to 2019	-28.6%	9.3%	26.7%	19.0%	4.3%

Lancaster has seen steady job growth through the last two decades, with an increase of 9.3 percent in total jobs from 2002 through 2019. Lancaster's job increase exceeds the state of Ohio (4.3 percent). However, the city has fallen behind Fairfield County (26.7 percent) and the 50-minute drive time area (19.0 percent), which includes a portion of the Columbus MSA. When looking further into the eastside industrial area, census data shows a decrease in total jobs from 1,452 to 1,037 or -28.6 percent during this same time.

[2] Esri Commuty analyst and US Census Buerau

2.2.2 Stakeholder Input

The relative difference between job growth in the eastside industrial area and the city as a whole was something that stakeholder participants noted. In particular, the real estate broker and eastside business owners mentioned that much of the available property was not actively marketed (11 mentions). The commercial brokers also mentioned that interest in these properties was minimal, and potential businesses mostly inquired about west side listings. Both stakeholder groups noted the ease of access as the primary reason for a west side site preference. As shown in Figure 1, all groups mentioned that ease of access and connectivity was an issue on the eastside. Stakeholder comments on this topic represented 28 percent of all comments received.

Commercial brokers and eastside business owners also mentioned expansion or existing businesses as the primary driver of job and economic growth in recent years within eastside properties. All four eastside business owners mentioned the need and plans for employee expansion in the next five years.

2.3 Workforce

2.3.1 Stakeholder Input

Over ten percent of all comments received from eastside business owners were workforce related. This large volume of responses was impressive, considering no other group mentioned workforce items, and accounted for 24 percent of 134 comments received from this stakeholder group.

Additional insights from eastside business owners were that their workforce primarily commuted from the south and east of their facilities. All four business owners confirmed that their employees are looking for good wages and do not want to drive into Columbus. Eastside Lancaster businesses benefit from this pattern, being a more significant jobs center between Appalachia and the Columbus MSA.

2.4 Inflow/Outflow

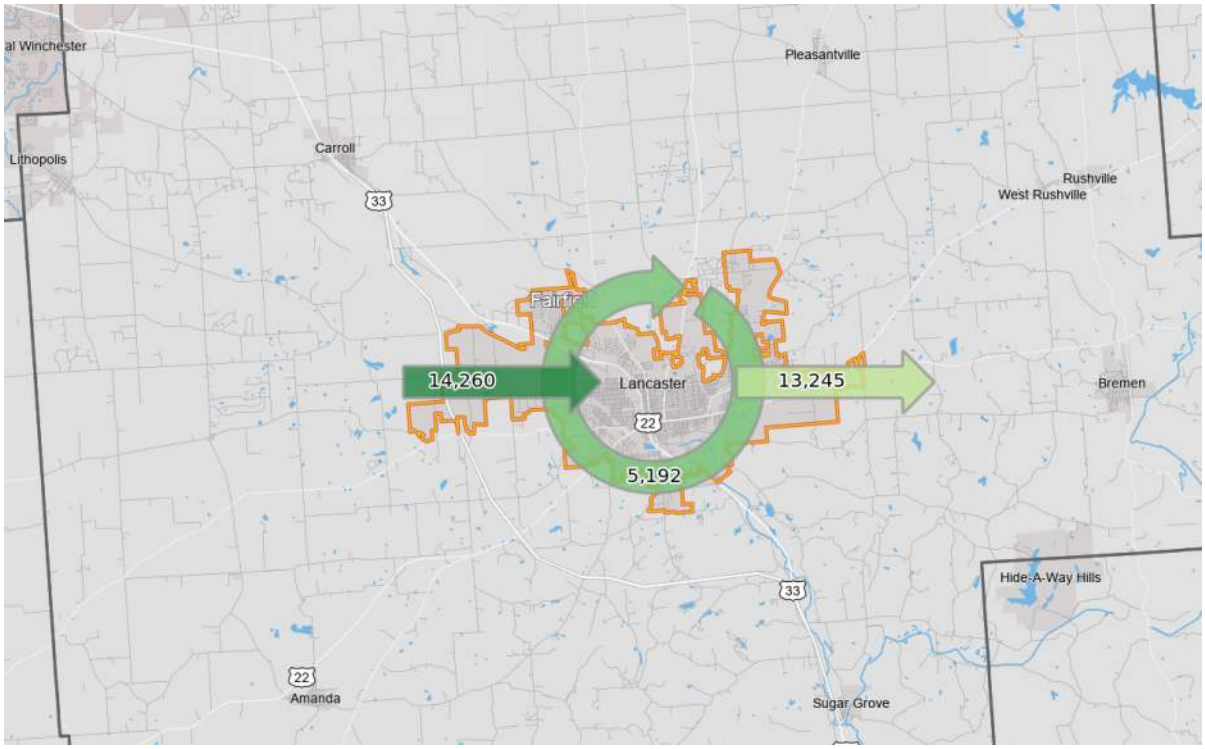
This report examined commute patterns to verify business owners' comments using the input received during the stakeholder interview.

2.4.1 City of Lancaster Commute Patterns

The inflow-outflow analysis revealed that 73.3 percent (14,260) of Lancaster businesses' employees commute from outside the city limits, and 28.2 percent of these employers work and live in Lancaster.[3]

[3] US Census, On The Map Tool

Map 4, Lancaster Commute Pattern Inflow/Outflow Map[4]

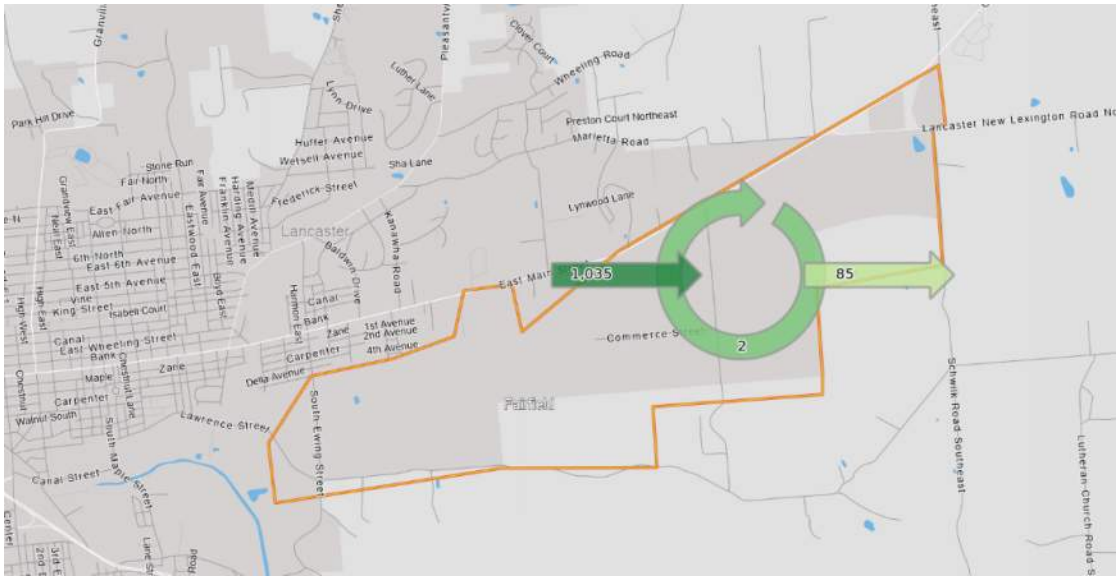


2.4.2 Eastside Businesses Inflow/flow analysis

A similar examination of the eastside business area found that only two workers live and work within that boundary. These results were not surprising considering that most of the properties within this location are either agricultural or industrial.[5]

[4] US Census, On The Map Tool
[5] US Census, On The Map Tool

Map 5, Eastside Business Park Inflow/Outflow Map[6]



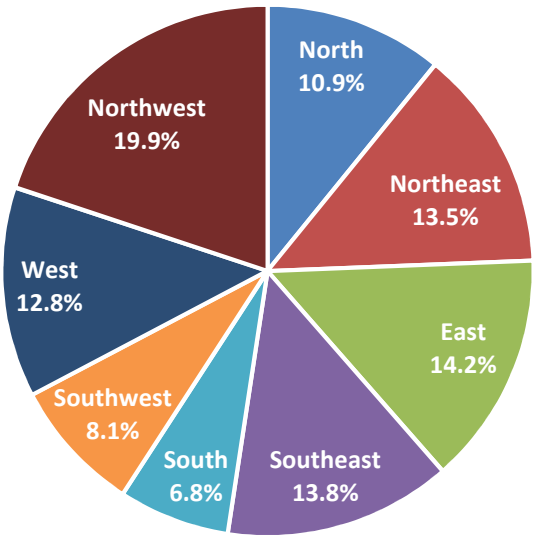
2.5 Distance Workers Travel

2.5.1 Lancaster Commute Distance

However, the distance and direction analysis revealed that most commuters came from the west and north. The combined categories of north, northwest, and west equal 43.6 percent of all Lancaster commuters driving patterns. The south, southeast, and east direction equate to 34.8 percent of the overall commute direction pattern.[7]

[6] US Census, On The Map Tool
[7] US Census, On The Map Tool

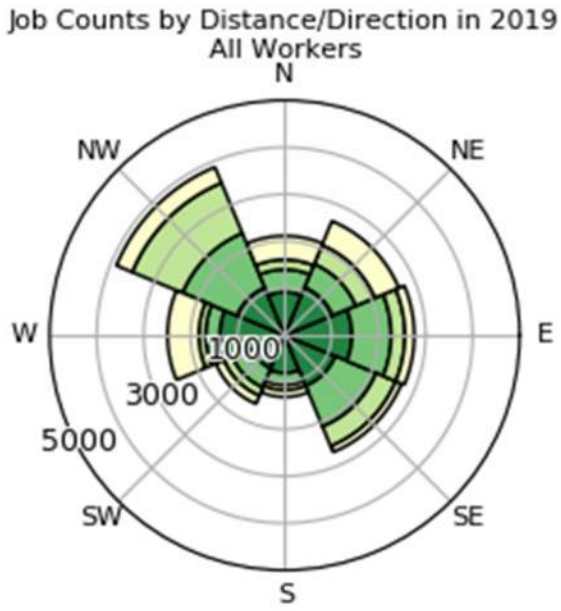
Figure 2, Total Lancaster Employee Commute Distance Breakdown by Percentage



As shown in Figure 3, those with longer commutes (the yellow color) also travel from the west, northwest, north, and northeast.

The majority of workers employed in Lancaster businesses (70.9 percent), as shown in Table 3, had a commute of 24 miles or less, demonstrating that most of the local workforce is commuting from Fairfield County and the Columbus MSA.

Figure 3, Lancaster Job Counts By Distance[8]

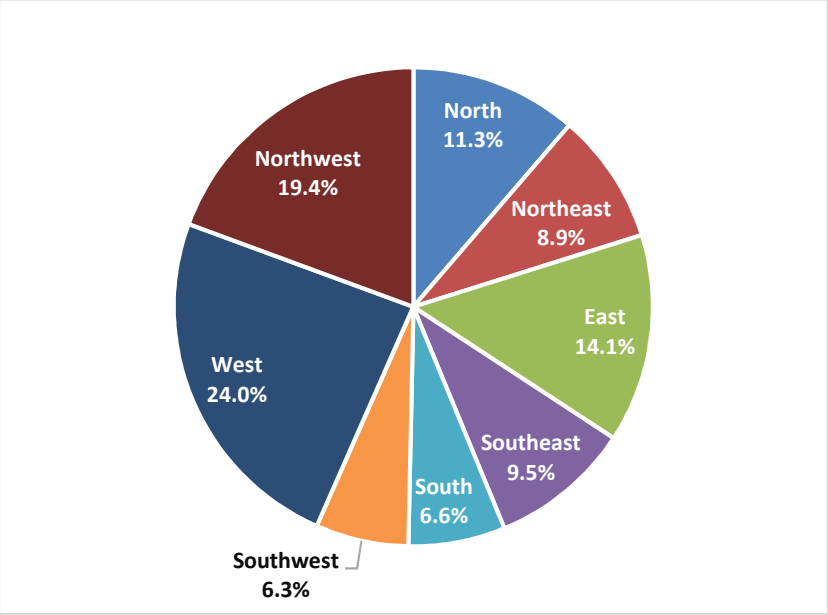


[8] US Census, On The Map Tool

Table 3, Employer Commute Distances[9]

Distance From Employee Only		
	Count	Share
Less than 10 miles	8,684	44.6%
10 to 24 miles	5,035	25.9%
25 to 50 miles	2,996	15.4%
Greater than 50 miles	2,737	14.1%

Figure 4, Eastside Employee Commute Distance Breakdown by Percentage

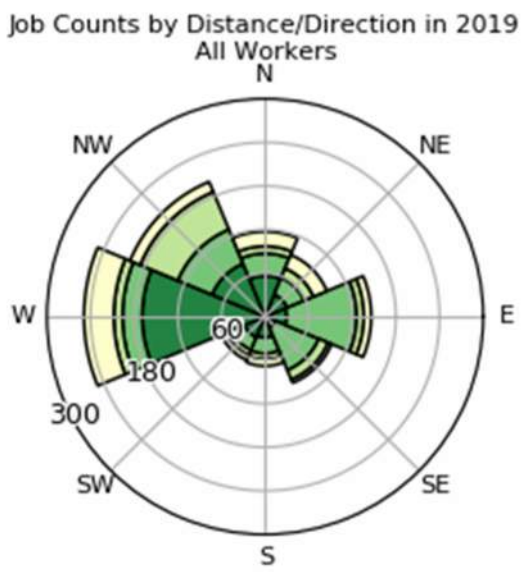


2.5.2 Eastside Commute Distance

63.9 percent of employees of eastside industrial area businesses primarily travel from the west, northwest, north, and northeast. 36.5 percent commute from the east, southeast, south, and southwest.[10]

[9] US Census, On The Map Tool
[10] US Census, On The Map Tool

Figure 5, Eastside Business Park Job Counts by Distance

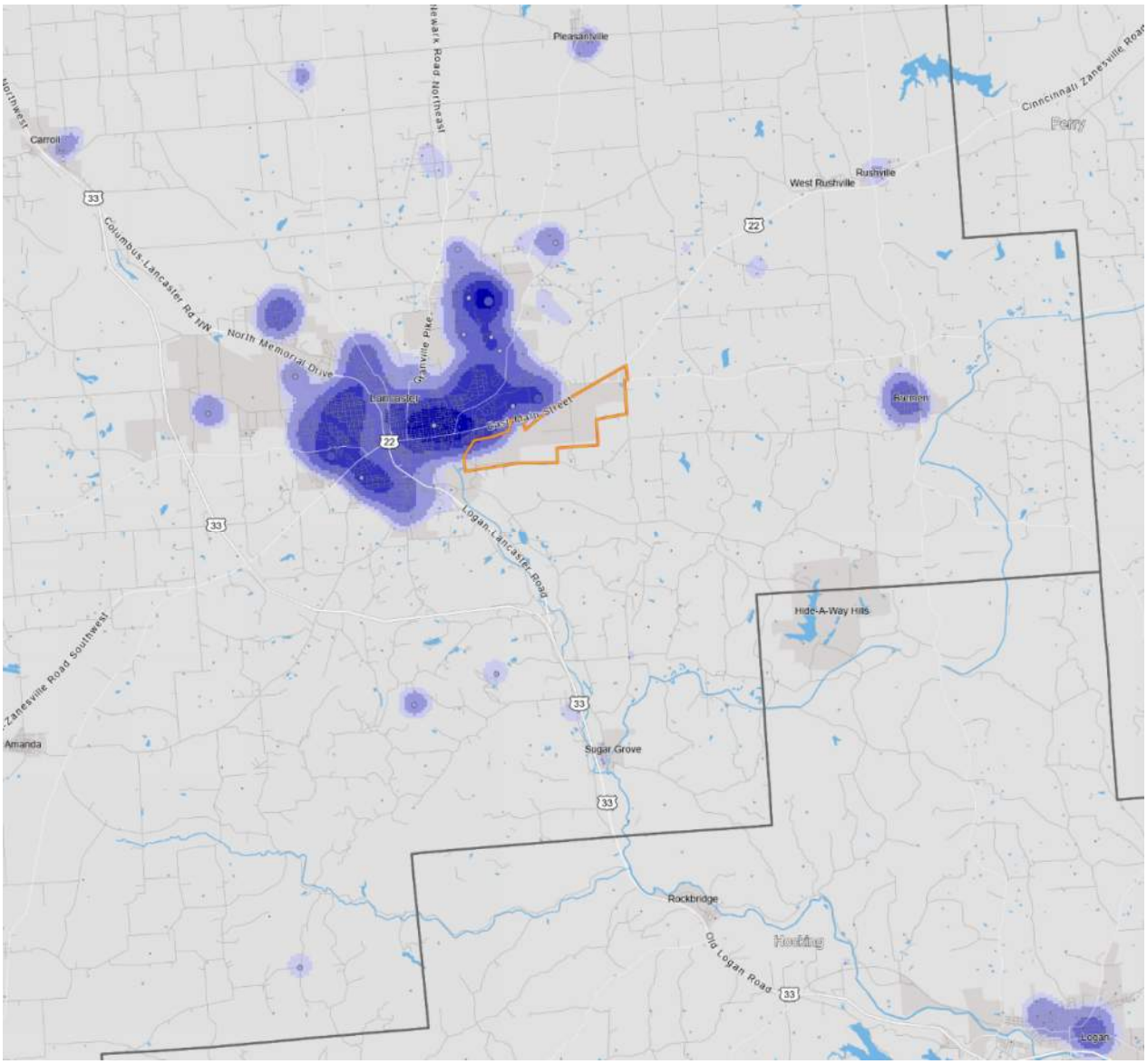


When examining workers' travel distances, a similar pattern to the larger City of Lancaster emerged in the commuting data.

Map 9 below shows that most eastside workers live within Lancaster city limits. The darker blue areas reveal higher percentages of where employees start their commutes. Logan and Bremen are other significant sources for where workers lived. [11]

[11] US Census, On The Map Tool

Map 6, Eastside Employee Place of Residence Map[12]



[12] US Census, On The Map Tool

2.6 Location Quotients

Aside from local input and on-the-ground observations, this report examined how the eastside and Lancaster businesses compared to the greater Columbus region and the state of Ohio to determine if industry strengths or clusters are ripe for expansion. Location quotient ratios indicate a higher concentration of an employment industry within a given economy (Lancaster) than in a larger economy, such as the United States. If a local industry's ratio is 1.0 or higher, this particular local economy has a competitive advantage related to these types of businesses. Also, high location quotients can indicate that a local economy has a large workforce trained in these industries, which can be used to promote industry clusters and complementary businesses.

This location quotient analysis revealed that the manufacturing and wholesale trade NAICS categories had local concentrations. However, these same concentrations were not present when comparing the City of Lancaster to all of Ohio. These two different results show that manufacturing and wholesale trade are a strength for the eastside business park and regional but that these businesses are also prevalent throughout Ohio.[13]

Table 4, Location Quotients

NAICS Category	Eastside to Lancaster LQ	Eastside to Ohio LQ	Eastside to Fairfield County	Lancaster to Ohio LQ
Agriculture, Forestry, Fishing, and Hunting	0.00	0.00	0.00	0.00
Mining, Quarrying, and Oil and Gas Extraction	0.00	0.00	0.00	0.02
Utilities	0.00	0.00	0.00	1.04
Construction	0.19	0.18	0.05	0.96
Manufacturing	4.78	4.13	2.60	0.86
Wholesale Trade	11.14	6.01	5.50	0.54
Retail Trade	0.00	0.00	0.00	1.26
Transportation and Warehousing	2.84	0.98	0.92	0.34
Information	0.00	0.00	0.00	0.47
Finance and Insurance	0.00	0.00	0.00	0.53
Real Estate and Rental and Leasing	0.24	0.16	0.09	0.66
Professional, Scientific, and Technical Services	0.07	0.04	0.03	0.54
Management of Companies and Enterprises	0.00	0.00	0.00	0.19
Administration & Support, Waste Management, and Remediation	0.04	0.03	0.01	0.83
Educational Services	0.00	0.00	0.00	0.81
Health Care and Social Assistance	0.17	0.30	0.11	1.76
Arts, Entertainment, and Recreation	1.62	0.72	0.51	0.44
Accommodation and Food Services	0.00	0.00	0.00	1.25
Other Services (excluding Public Administration)	2.20	2.48	0.95	1.13
Public Administration	0.00	0.00	0.00	1.25

[13] US Census, Bureau of Labor Statistics and American Structurepoint

2.7 Shift Share Eastside Specific

Shift share analyses compare a local economy's growth over a specified timeframe to the amount of growth in a larger economy (US) over the same period. This type of analysis is typically broken down into these calculations:

- National Growth for Industry – The national growth for the industry calculation shows the number of local jobs a business category is expected to gain or lose based on that same category's national performance. In short, how many local jobs were created or lost because of that industry's rise or decline nationally.
- Industrial Shift – This measurement provides insight into whether an industry is growing or shrinking nationwide. An industry with a negative industrial shift is declining. It may help a local economy identify if they are reliant on a shrinking industry or where not to focus recruiting efforts.
- Competitive Share – A positive competitive share value indicates that a particular industry is growing faster locally than the national economy and may indicate that the local economy has an industry-specific competitive advantage. Negative competitive share values indicate that this local industry is losing jobs faster than the national economy.
- Absolute Change – Absolute change illustrates the total number of jobs gained (positive number) or lost (negative number) in the local economy during the time period used for the shift-share analysis.

This shift-share analysis examined Lancaster's job growth from 2013 to 2020. This analysis revealed that Lancaster is keeping pace with job growth in the United States. However, no industries were growing faster than the national economy, meaning that no industry clusters on the eastside represented a particular strength or focus for business attraction.[14]

[14] US Census, Bureau of Labor Statistics and American Structurepoint

Table 5, Shift Share Analysis

NAICS Category	National Growth	Industrial Shift	Competitive Share	Absolute Change
Agriculture, Forestry, Fishing, and Hunting	0	0	0	0
Mining, Quarrying, and Oil and Gas Extraction	0	0	0	0
Utilities	0	0	0	0
Construction	4	5	-31	-22
Manufacturing	77	-31	-99	-53
Wholesale Trade	33	-21	1	13
Retail Trade	0	0	0	0
Transportation and Warehousing	6	7	-25	-11
Information	0	0	0	0
Finance and Insurance	0	0	0	0
Real Estate, Rental, and Leasing	2	0	-13	-11
Professional, Scientific, and Technical Services	0	0	0	0
Management of Companies and Enterprises	0	0	0	0
Administration & Support, Waste Management, and Remediation	3	3	-29	-23
Educational Services	0	0	0	0
Health Care and Social Assistance	0	0	50	50
Arts, Entertainment, and Recreation	1	0	3	4
Accommodation and Food Services	0	0	0	0
Other Services (excluding Public Administration)	6	-3	26	29

2.8 Fairfield Medical Center

One particular stakeholder had a unique interest in the improved connection of Lancaster's eastside to the regional transportation network. The Fairfield Medical Center, located at 401 N. Ewing Street, Lancaster, OH 43130, is responsible for in-patient and emergency healthcare services for a more significant portion of the region surrounding Lancaster and heading to the southeast. Meetings with this stakeholder revealed that improved eastside access would help the facility reduce emergency vehicle response, particularly for runs to the south and west.

While improving emergency response times is the most valuable, another item noted by members of the hospital's leadership teams was that certain employees are required to live within a 25-minute drive of the facility. Improving connectivity to the eastside of Lancaster would potentially improve the labor pool available to work at this location. In general, better connectivity and reduced truck traffic surrounding the campus would also benefit hospital employees by reducing commute times.

2.9 Downtown

Improving the marketability of the eastside business park was the key topic of discussion during our stakeholder meetings. One item brought up repeatedly throughout all the stakeholder discussions was improving access and

downtown viability by reducing the number of trucks on Main Street. Improving the downtown environment was mentioned ten times in all stakeholder meetings. Eastside business owners mentioned that they or their employees did not go downtown for lunch. The most frequently cited reason was that there is not enough time when considering traffic. Others noted that the trucks create an unpleasant pedestrian and outdoor dining environment due to the noise generated from the large semi-trucks.

Improving the downtown environment would also indirectly benefit business development efforts. Business owners and their workforce want to locate in or near attractive environments. Improving Lancaster's downtown would serve this purpose to help continue to develop this area and further the city's appeal to new businesses.

3.0 Eastside Business Park

The eastside businesses park has built-in assets that may help propel interest and spur development. However, this location has development deterrents that still reduce interest. The following section highlighted these items and supporting stakeholder input to help identify locational strengths and deterrents the City and Port Authority should consider in their efforts to develop these sites.

3.1.1 Assets

The following categories represent assets for the eastside business park that form the foundation of potential attraction efforts

A. Utilities and Infrastructure

The principal utilities (water, sewer, electric, gas, internet, etc.) are already located on the property boundary or near development sites. When trying to create "shovel-ready" opportunities, having the infrastructure in place represents a sizeable strategic advantage.

Stakeholder Input

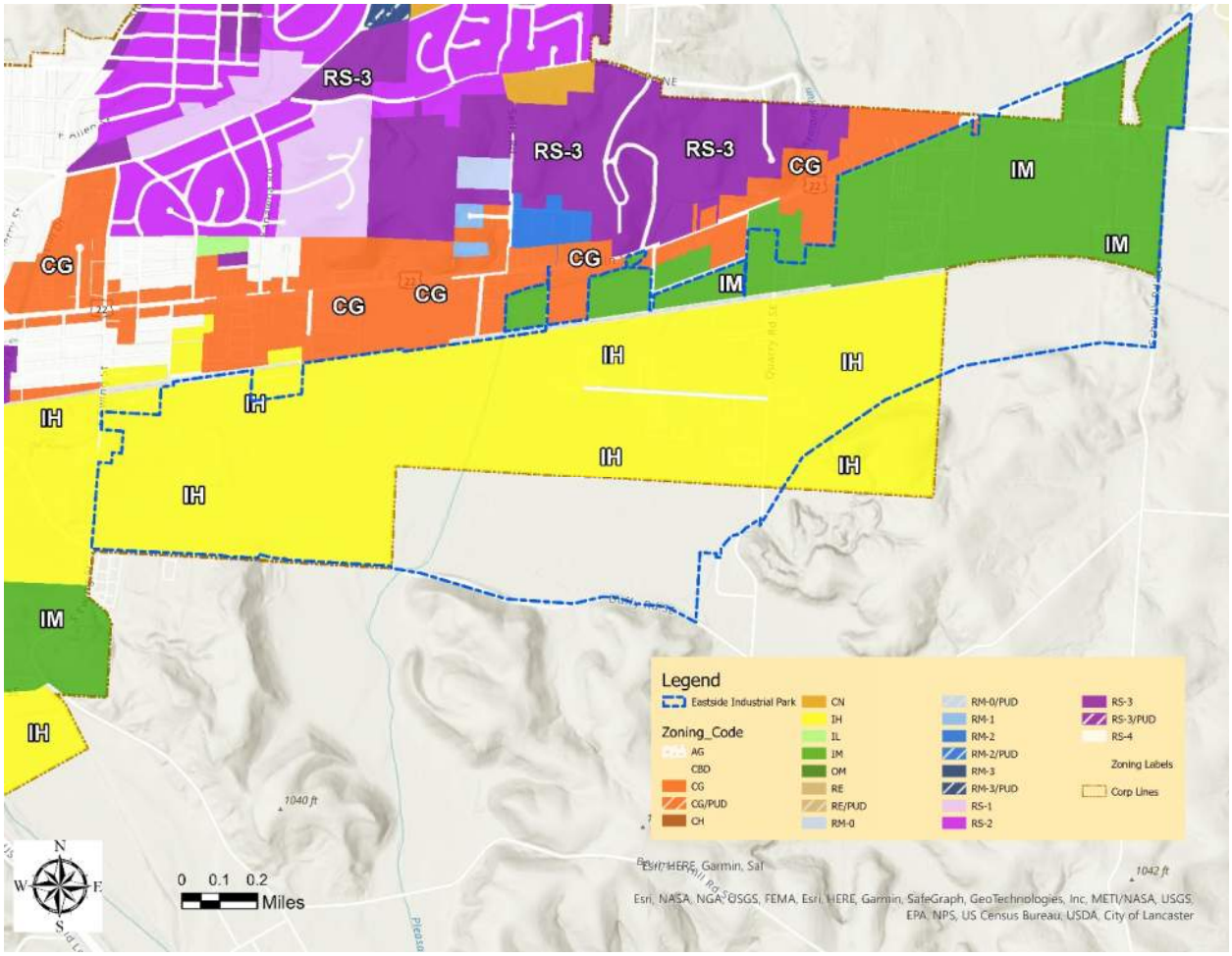
Stakeholder participants referenced the high reliability of the utility systems that service the site 24 times, which is tied for the third most responses overall. Business owners, in general, were very optimistic about the utilities. These facilities' reliability is a definite strength to help promote the viability of these properties for development.

One item to note, the City of Lancaster's staff mentioned that a substantial amount of new development might require upgrades to the natural gas, water, and sewer systems to accommodate large-scale growth.

B. Existing Zoning

All the properties are zoned for industrial and manufacturing uses, which are desired for this area. All the properties are zoned either IM – Industrial Moderate District or IH – Industrial Heavy District. Permitted uses range from self-storage and warehousing to scientific research and development facilities. These built-in entitlements represent a head start when working with potential businesses looking to develop in the region. Due to their statutory nature, zoning approvals take time, and avoiding that step is attractive to developers and/or business owners considering new development locations.

Map 7, Eastside Business Park Zoning Map[15]

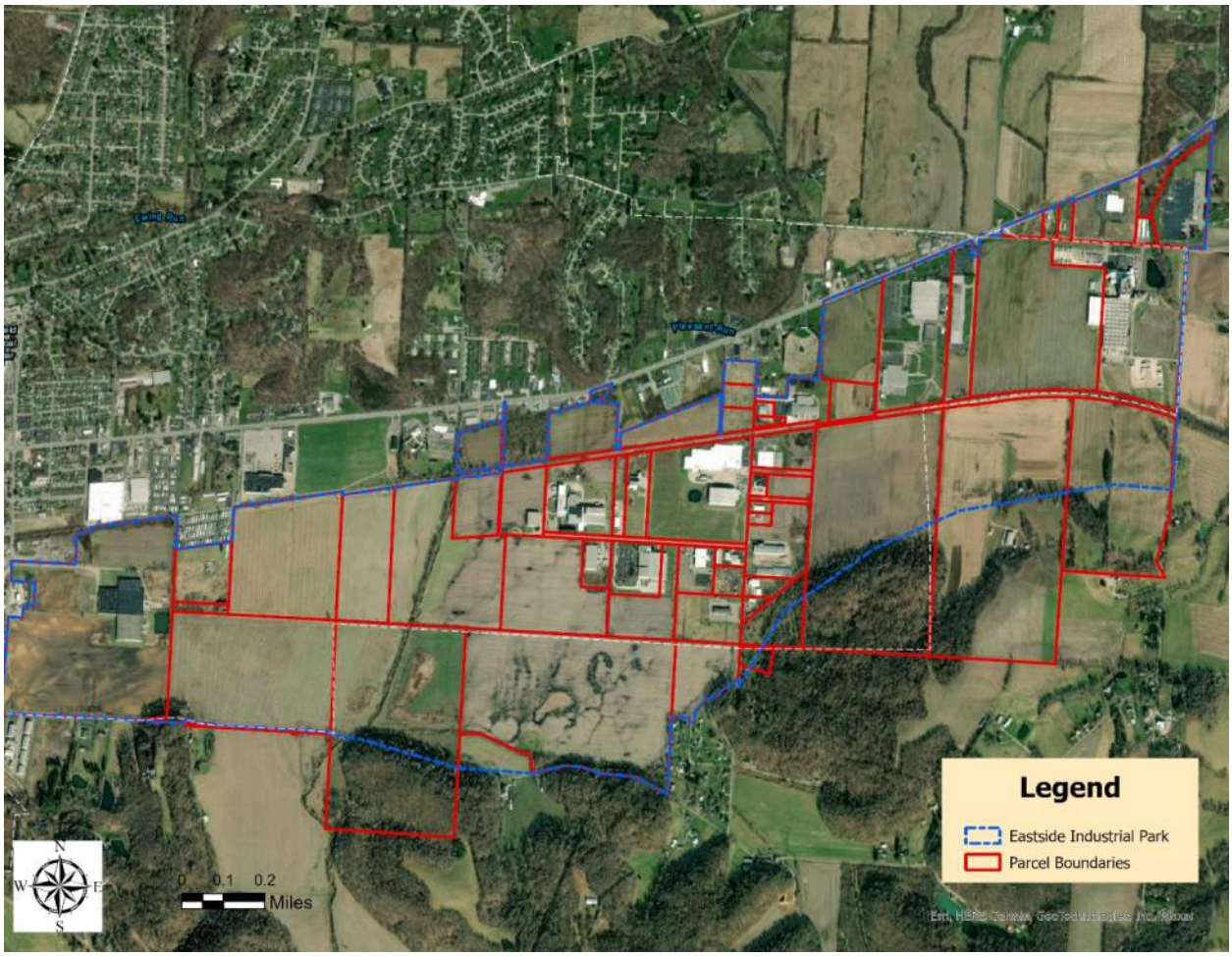


C. Land availability

Multiple greenfield sites exist within the business park with development potential and greenspace. One site is actively marketed by the Port Authority as a mega-site and is prime for development with the correct user. The greenfield sites create a combined 882 acres of potential development area. Map 8 below showcases the number of greenfield parcels within the defined study area. Undeveloped parcels range from 1.44 to approximately 113 acres and provide a wide array of opportunities for various businesses. For the right Business, the proximity of several large sites represents an opportunity for an even larger building footprint if separate parcels were combined.

[15] Fairfield County Assessors Office and American Sturctuepoint

Map 8, Eastside Business Park Parcels[16]

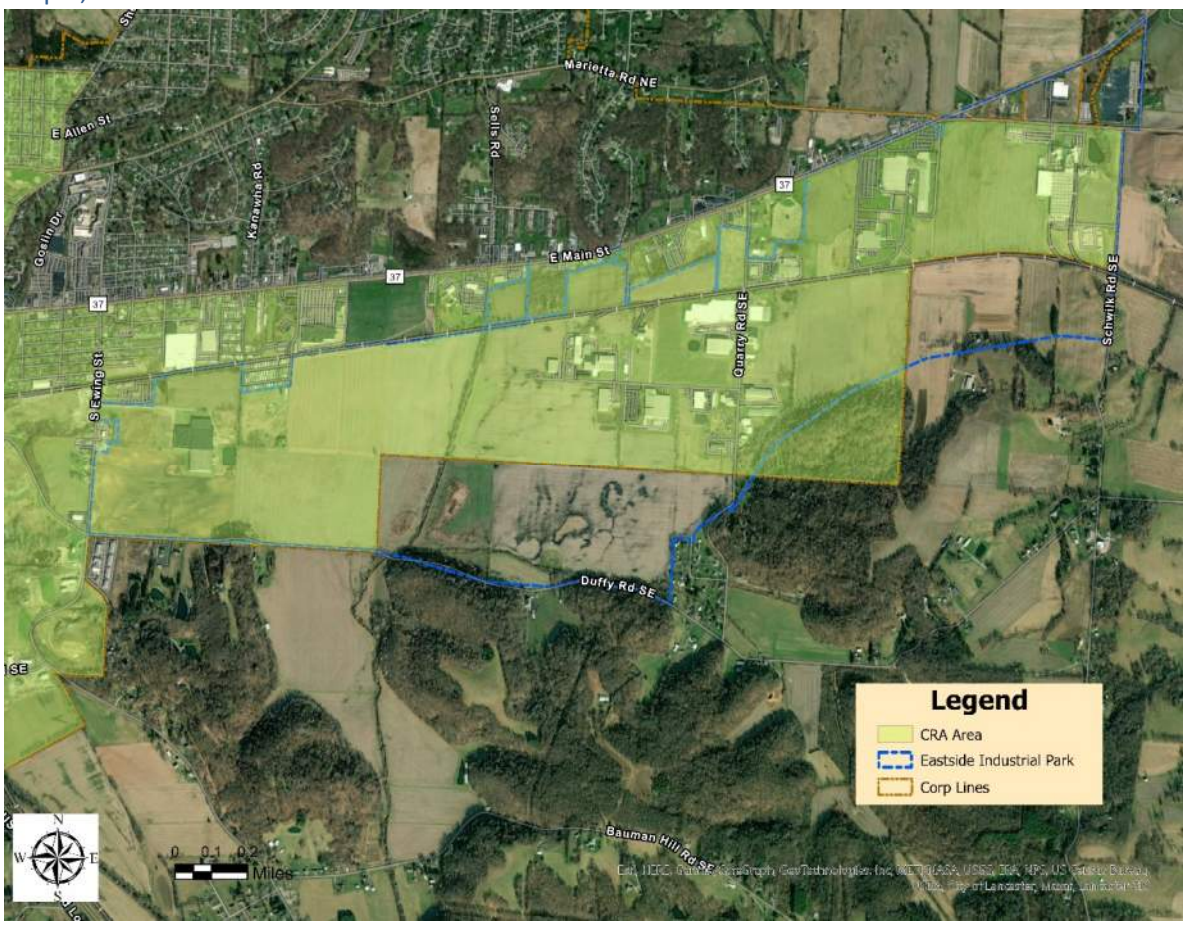


3.1.2 Community Reinvestment Area

The entirety of the eastside business park is located within a Community Reinvestment Area (CRA), as shown below in Map 9. This CRA was approved before 1994, which allows the Lancaster Port Authority to approve 100 percent property tax exemptions for new developments for 15 years. This type of CRA is no longer permitted by Ohio State law and represents a vital attraction mechanism to entice development.

[16] Fairfield County Assessors Office and American Sturctuepoint

Map 9, CRA Location on the Eastside of Lancaster[17]



3.1.3 Deterrents

While the eastside business park possesses substantial assets, as documented earlier in this report, development has stagnated, resulting in a loss of jobs. The following sub-sections review these deterrents.

A. Access to the Regional Road Network

Stakeholders stated that access to the regional road network and a lack of connectivity were the number one limiting factor for new development on the eastside. The Eastside Industrial Connector Feasibility Study detailed that the number of vehicles traveling through downtown Lancaster creates slow traffic conditions and hinders connectivity to the east. This report also demonstrated that most employees working on the eastside, and Lancaster in general, travel from the west to their place of employment. Until road network improvements are constructed, this issue will continue to reduce interest and development activity in this part of the city.

B. Competing Sites to the west

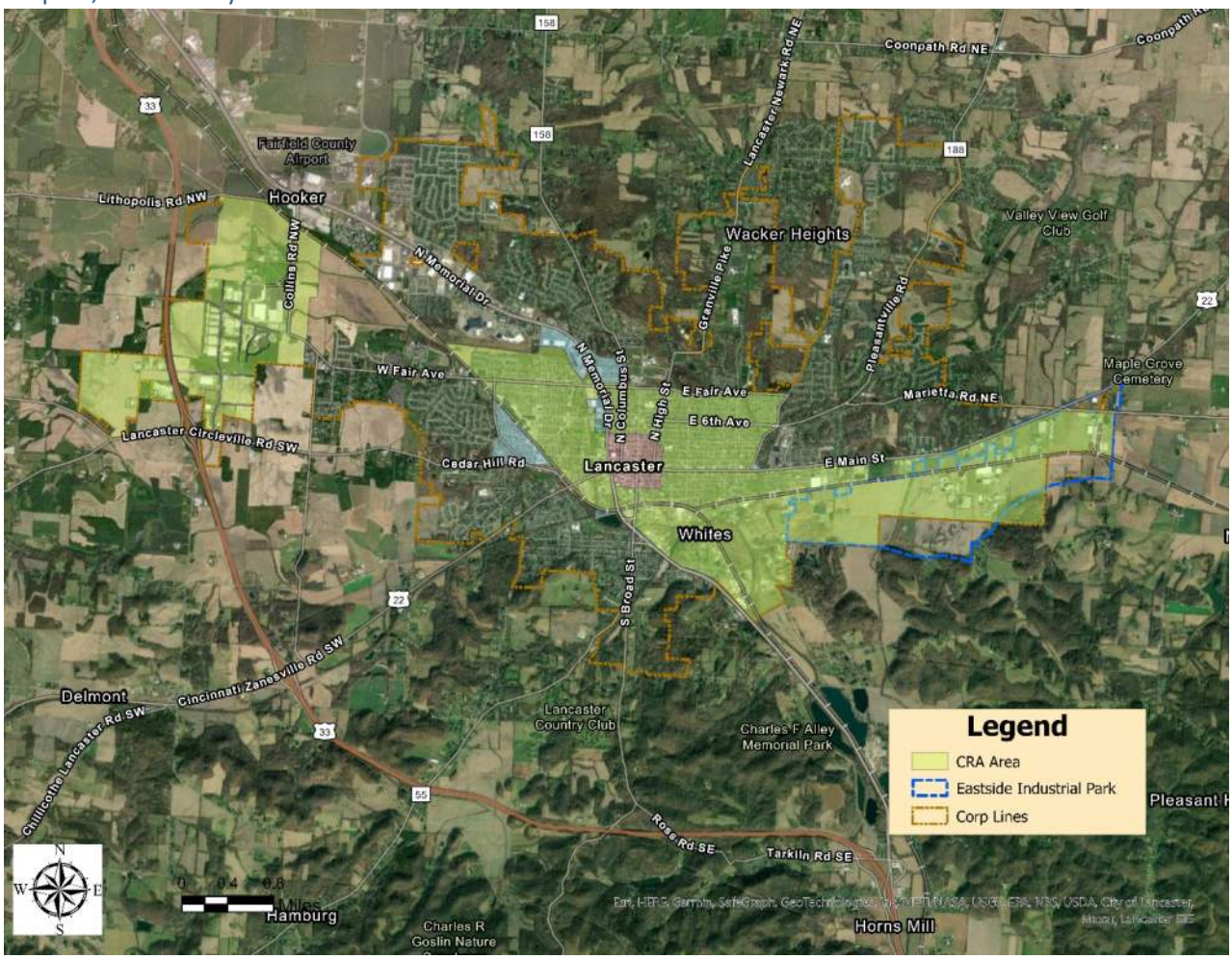
Another item reducing interest in development on the eastside was the competition from properties on the westside with better access to US 33. With the construction of US 33 west of Lancaster, greenfield sites with convenient access to this arterial road became the default for business development activity.

[17] Fairfield County Assessors Office and American Sturctuepoint

C. City-Wide Community Reinvestment Area

The previous section mentioned that the eastside business park is located in a pre-1994 CRA and that this economic development tool is a positive for the eastside. While this still holds true, it should be noted that the prime development sites near US 33 are also located in this CRA and benefit from the same tax abatements. Given that this same incentive is available to both the east and west side development sites, it does not differentiate or set apart the eastside business park.

Map 10, Community Reinvestment Area[18]

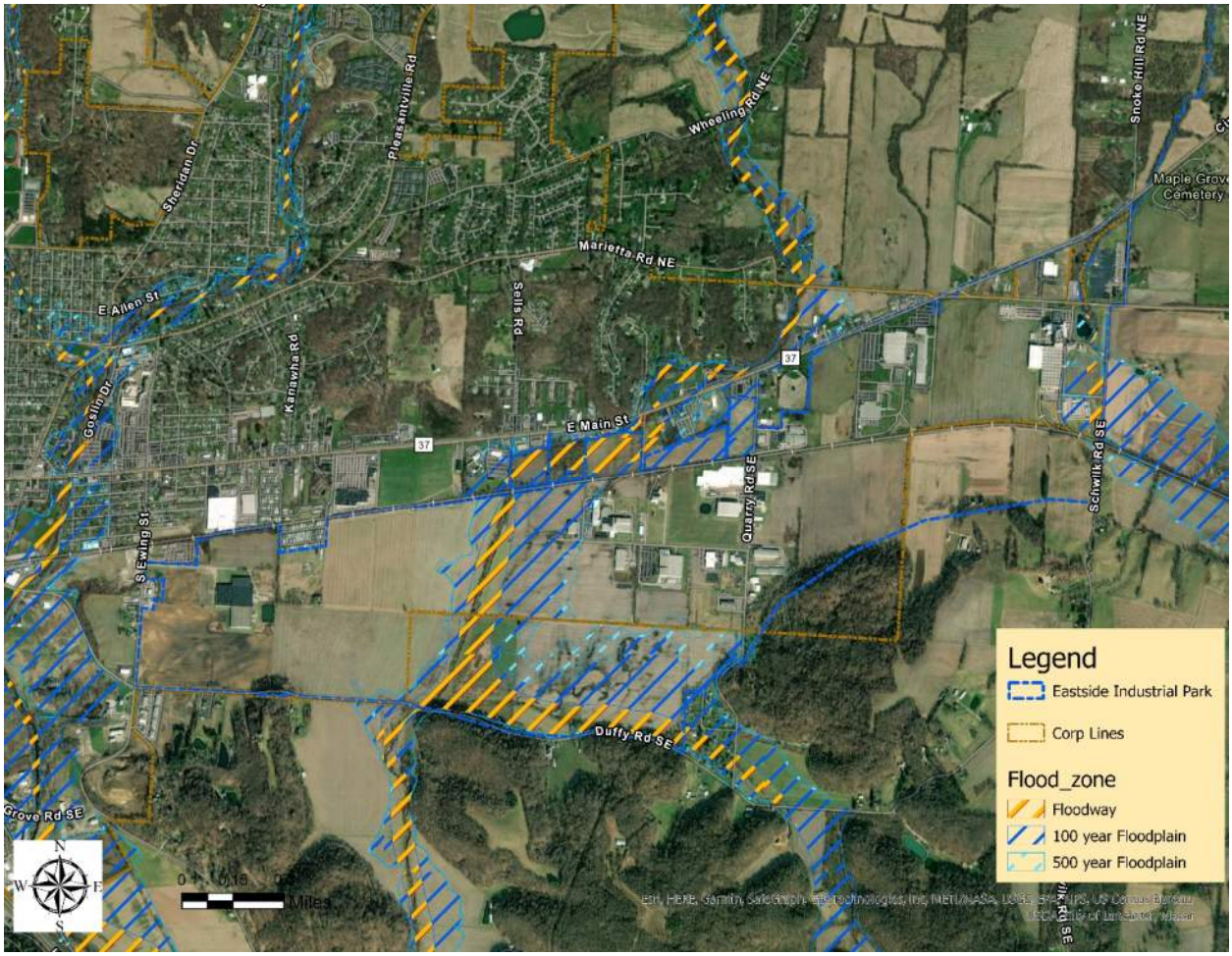


D. Floodplain

One additional item discussed during this evaluation was the presence of floodway and floodplain areas within the boundaries of the eastside businesses park. When reviewing Map 11 below, floodway, 100, and 500-year floodplain areas were noted in the vicinity. While these areas may need further delineation to verify the extent of land available for "shovel-ready" development, it should be noted that most of the business park is not shown within the floodway or floodplain areas.

[18] Fairfield County Assessors Office and American Sturctuepoint

Map 11, Eastside Business Park Floodway[19]



3.2 Existing Conditions and Market Analysis Summary

Numerous factors described in the sections above highlight the challenges and opportunities present in the eastside business park. Inherently developers are risk-averse and look for the path of least resistance. Considering the competition for investment with properties on the west side of Lancaster, improving access will directly impact and benefit business development on the eastside. Stakeholder input confirmed that connectivity was a significant challenge to recruiting new businesses to the eastside, reducing workforce availability, inhibiting emergency vehicle access, and detracting from the downtown environment.

[19] Fairfield County GIS and American Sturctuepoint

4.0 Purpose and Needs Statement

4.1.1 Purpose

The overarching purpose of this study is to determine potential improvements to Lancaster's street network that improve connectivity to the eastside.

4.1.2 Needs Statement

To encourage development on the eastside, reduce truck traffic downtown, and provide increased access for the local workforce and the Fairfield Medical Center, the City of Lancaster needs to improve the connectivity of its road network. Development activity will likely continue to stagnate without an improved road network linking US 33 to the eastside, and developers will gravitate toward properties on the westside of the city limits.

Building on the needs statement, this plan includes four goal statements to ensure that the critical path strategies outlined below are linked through a common lens.

4.1.3 Goals

- Provide expanded road network connections to foster convenient access to the eastside of Lancaster;
- Encourage workforce development strategies that focus on linking workers east of Lancaster with eastside employers;
- Improve downtown Lancaster by limiting large truck traffic on Main Street;
- Continue business retention efforts to stimulate business expansion on the eastside; and
- Maintain and enhance marketing efforts to both external and internal groups of shoppers and customers.

5.0 Critical Path Strategies

Critical path strategies represent near-term policy and program recommendations for the City to implement within the next zero to seven years to utilize this plan's findings. Each critical path strategy has a complete outline to help the implementation process. The critical path strategies are intended to assist in implementation, action items, people or organizations involved, and provide an estimated timeline and cost for each project.

5.1.1 How to use Critical Path Strategies (CPS)

Each strategy should be considered a top priority. Strategies are typically short-term projects that can create momentum and showcase immediate progress for the community. Some projects may be long-term and require extended timelines, additional budgeting, or increased staff resources.

5.1.2 Plan and Construct the Recommendations of the Feasibility Study

The accompanying feasibility study to this market analysis contains the evaluation of potential routes to improve the connectivity of Lancaster's eastside. Stakeholder input, onsite research, commute data, and analysis of the streetlight traffic data show that traffic and connectivity are significant factors limiting development in the eastside business park. Ultimately, improving the eastside business park's development potential and access to the Fairfield Medical Facility hinges on completing one or multiple roadway improvements.

CPS - 1: Determine the feasibility study's most feasible alternative(s) and implement those alternatives' planning, design, and construction.		
Overview: Ultimately, improving the eastside business park's development potential and access to the Fairfield Medical Facility hinges on completing one or multiple roadway improvements. These projects need to be evaluated and implemented for the long-term success of Lancaster's eastside.		
Action Steps: 1. Identify the first scenario to construct. 2. Budget funding for the detailed study of the preferred alternative as a line item in the City's budget. 3. Engage a consulting firm to develop details phasing and construction plans. 4. Explore options for funding the preferred alternative(s) – e.g., direct City budget, bonding, etc. 5. Apply for the following federal and state grants to assist with project funding. 6. Develop final construction documents and plans to obtain required approvals.	**Agencies Involved:** • City of Lancaster • Lancaster Port Authority • Fairfield County Economic Development • Fairfield County Department of Transportation • Ohio Department of Transportation	**Cost**: High
Timeframe: 0 - 10 years		

5.1.3 Focus on Existing Business Expansion in the Near Term

While attracting new development to the eastside business park has near-term challenges, businesses on the eastside are primed for growth. Stakeholder meetings with eastside business owners revealed that many of these businesses have recently expanded their workforce and/or facilities. Those we spoke with stated the need for future expansion in the future. Business retention and expansion represents a crucial growth opportunity for the eastside.

One business to highlight is the Fairfield Medical Center, Lancaster's largest employer. Healthcare needs continue to grow across the US. Working with community leaders, local authorities may discover that eastside business sites may suit some of their expansion needs. Alternatively, there may be supply needs or medical equipment products producers that would benefit from proximity to the hospital facility and would consider constructing a location on Lancaster's eastside.

CPS - 2: Refine a shared Business Retention and Expansion (BR&E) program between the City, Port Authority, and Fairfield Economic Development group to regularly "check in" on existing businesses, discuss ongoing challenges, and learn from recent successes.		
Overview: New business attraction efforts gain the headlines, but business expansions often create the bulk of new jobs and assessed value. The entities engaged in business retention activities should remain vigilant and expand their efforts to ensure that existing business expansion projects are promoted and encouraged.		
Action Steps: 1. Host regular (semi-annual or annual) roundtable meetings with eastside business owners and representatives of larger	**Agencies Involved:** • City of Lancaster • Lancaster Port Authority	**Cost**: Low

employers to gauge the local business climate and discover new issues. 2. Continue one-on-one meetings with business owners and regional managers. 3. Conduct regular surveys of local businesses in identified target industries. 4. Create a data-centric approach to monitoring existing business activity. (Example: look for spikes or steep reductions in water usage over time for manufacturing companies.) 5. Examine a streamlined building permit process for existing businesses for minor updates and internal improvements, such as electrical wiring, racking, or fire suppression system modifications. 6. Develop programs to help study or extend infrastructure for existing businesses. 7. Determine through continued conversations with the Fairfield Medical Center's leadership team if there is a need for expanded medical space in the eastside business park. 8. Inquire from the Fairfield Medical Center if their Business serves their supply chain that could be located in the eastside business park.	• Fairfield County Economic Development • Commercial Broker Agencies	
Timeframe: 0 year - ongoing		

A. Business Retention - Quick Facts

Business attraction efforts are an essential component of an economic development program. However, existing businesses make up a large part of the job creation equation.

According to the International Economic Development Council, it is estimated that it takes eight times the effort (staff time, marketing trips, site tours, etc.) to attract a new business than it takes to retain an existing one. Per the US Bureau of Labor Statistics, 70 percent of new jobs in the US are created by existing businesses. These facts highlight the importance of working with existing companies as an engine for job creation.[20]

[20] *Source: Congressional Research Services, Small Business Administration and Job Creation*

Existing Business in the Eastside Business Park

Image Source: American Sturcturepoint

5.1.4 Link the Workforce with Employers

Introduction: As an extension of CPS - 2, the City and Port Authority should encourage new economic growth by fostering local entrepreneurs and BR&E efforts while linking potential workforce development programs available through the Fairfield Economic Development's Workforce Center. Beyond business incubation, this center should focus on proper accelerator activities (see sidebar). Given the land available in the eastside business park, these efforts should focus on "growing" new business owners from the ground up.

CPS - 3: Provide shovel-ready sites to market to commercial brokers and developers.		
Overview: Develop an entrepreneur ecosystem focused on new manufacturers that aligns training, investor, and physical resources to encourage new business creation in the eastside industrial park.		
Action Steps: 1. Consider developing a "mini" version of the Workforce Centers' incubator space in an existing building or newly constructed facility. 2. See CPS: 4 "Build small (50,000 square foot) divisible speculative building on the City or Port Authority owned-property to encourage the development of local businesses." Create rentable spaces for entrepreneurs to lease once they have outgrown the incubator space. 3. Work with the Fairfield County Economic Development team to offer training programs at a local Lancaster facility. 4. Host regular job fair events to introduce Fairfield County Economic Development workforce resources available through Fairfield 33 jobs and their career readiness program.	**Agencies Involved:** • City of Lancaster • Lancaster Port Authority • Fairfield County Economic Development • One Columbus	**Cost**: High

5. Work with the Fairfield Medical Center to find industries that might be served by local startup businesses and create connections. 6. Create a network of angel investors and connect them with accelerator space tenants. 7. Consider a short-term (one- to two-year) income tax waiver for incubator space tenants that choose to build a new facility in the eastside business park.		
Timeframe: 3 - 7 years		

A. Incubators and Accelerators

Business incubators and accelerators are geared toward speeding up the growth and success of startup and early-stage companies. In addition to the physical space offered at a coworking facility, they include more business assistance services, such as mentoring, links to investors, and technical help. Lancaster should examine linking and potentially co-locating all related business development and growth assistance partners into one incubator/accelerator space to improve efficiencies and create a "one-stop-shop" for future business owners/entrepreneurs. An accelerator located adjacent to a leasable space will encourage successful businesses to stay on the eastside of Lancaster. Additionally, this close physical proximity may create synergies between new entrepreneurs starting the accelerator program and potential mentors who have recently succeeded and benefited from its existence.

B. Case Study

The Don Ryan Center for Innovation (DRCI), located in Bluffton, SC, was founded in 2012 as a not-for-profit organization dedicated to helping entrepreneurs succeed and innovative companies grow. The center provides innovators with space, resources, experienced guidance, and contacts/mentors to assist with successful business launches and continued growth. This accelerator and incubator space was an initiative spearheaded by the City of Bluffton and their partner economic development agencies to deliberately develop local entrepreneurs into Bluffton businesses that create jobs in locally identified target industries.

Rendering of the Don Ryan Center

Image Source: https://www.donryancenter.com/154/Don-Ryan-Center-for-Innovation

The DRCI offers local businesses these services:

- Assistance in helping businesses prioritize, reshape, communicate and maximize governmental policies and programs in preparing for the new normal of Business;
- Convenient flex space in the heart of the Bluffton business community;
- Business-building resources, including marketing/PR/ branding support; and
- Pro bono assistance to help businesses navigate through legal questions and parameters facing businesses today.[21]

5.1.5 CPS 4 - Shovel Ready Sites

Despite tremendous local government efforts, generating interest from the private market may still lag behind demand or have extra challenges. When a municipality finds itself in this situation, those small cities with known leakages should consider taking matters into their own hands.

CPS: Provide shovel-ready sites to market to commercial brokers and developers.		
Overview: Should traditional marketing and business attraction efforts not produce the desired results, the City and Port Authority can take a more proactive role in the development process.		
Action Steps:	**Agencies Involved:** • City of Lancaster	**Cost**: High

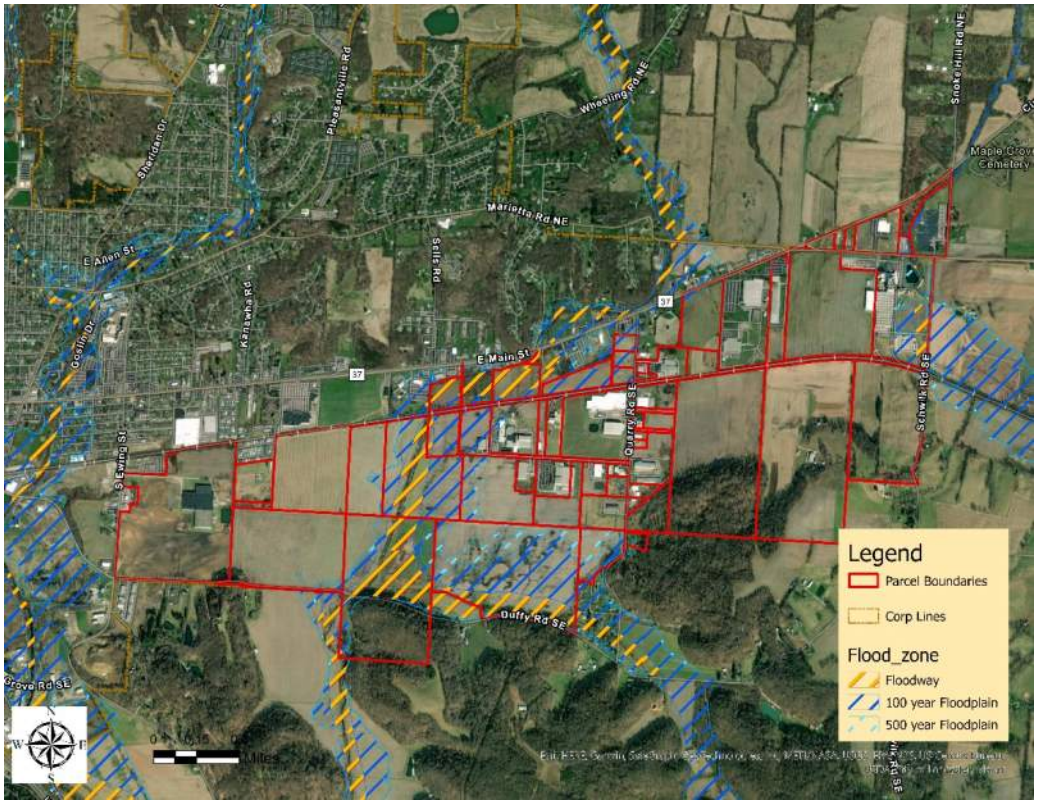
[21] Source: https://www.donryancenter.com/154/Don-Ryan-Center-for-Innovation

1. Develop a "pre-inspection" program to help potential businesses assess the code deficiencies and potential costs of locating into a Lancaster building before signing a lease or purchasing. 2. Actively meet with the owners of vacant buildings or buildable properties to help determine any issues leasing space. 3. Buy land or vacant buildings that meet the needs of desired retail category businesses and actively market them to business owners for sale/lease in the eastside business park. 4. Hire a commercial broker to market sites within the city limits or properties owned by the Port Authority. 5. Develop Tax Increment Financing Districts or other incentives to pay for infrastructure investments. 6. Subsidize or outright extend utilities to development sites to spur retail development in desired locations. 7. Build a small (50,000 square foot) divisible speculative building on the City or Port Authority owned-property to encourage the development of local businesses.	• Lancaster Port Authority • Fairfield County Economic Development • Commercial Brokers	
Timeframe: 5 - 10 years		

6.0 Economic Development Metrics

Undertaking the infrastructure projects and initiatives developed as critical path strategies will be used to provide increased awareness and stimulate activity within the eastside industrial park. To estimate the potential economic impacts of developing these parcels, we examined the full build-out of the developable parcels. This analysis will assume a complete build-out of the properties zoned (IM) Industrial Medium and (IH) Industrial Heavy in the eastside business park, as shown on Map 12 below. This build-out analysis did not include property areas with significant floodways or topographic challenges.

Map 12, Build-Out Parcels[22]



6.1 Buildable Square Footage

A baseline was necessary to formulate property and income tax revenue projections, to estimate the impact of a full build-out of the eastside business park. Given the potentially long lead time for new development and a wide range of business types that may develop on these parcels, we established a maximum building square footage for all developable sites within this business park. This analysis looked at the 28 greenfield parcels shown on Map 12, Build-Out Parcels, to create a maximum square foot projection. The total land of the parcel was used as the starting point for this analysis. If that parcel had an existing building, the square footage of the existing structures was subtracted from the total land area of the property. That resulted in a buildable land square feet calculation for each parcel. That buildable land square feet calculation was then reduced by 50 percent to account for new accessory

[22] Fairfield County GIS and American Sturctuepoint

structures (parking lots, loading areas, landscaping, etc.). The complete breakdown for each property is displayed in Table 6. This analysis resulted in an estimated 21,285,206 square feet of potential new building located in the eastside industrial area.

Table 6, Max Buildable Square Feet in the Eastside Industrial Park[23]

Pin	Acres	Existing Building Square Feet	Total Land Area Square Feet	Buildable Land Square Feet	Max Building Square Feet (50 Percent Building Coverage)
0040006500	100.33	0	4,370,375	4,370,375	2,185,187
0050149800	64.24	0	2,798,294	2,798,294	1,399,147
0050149900	125	17,650	5,445,000	5,427,350	2,713,675
0535000100	13.93	0	606,791	606,791	303,395
0535000300	63	0	2,744,280	2,744,280	1,372,140
0535000310	55.76	410,687	2,428,906	2,018,219	1,009,109
0535001500	3.9	0	169,884	169,884	84,942
0535002100	1.44	0	62,726	62,726	31,363
0535002400	113.28	0	4,934,477	4,934,477	2,467,238
0535002500	20.01	0	871,636	871,636	435,818
0535002510	6.23	0	271,379	271,379	135,689
0535002600	37.28	531,780	1,623,917	1,092,137	546,068
0535002800	32.47	0	1,414,393	1,414,393	707,197
0535002810	4.99	48,411	217,364	168,953	84,477
0535003000	7.29	17,151	317,552	300,401	150,201
0535003220	10	134,023	435,600	301,577	150,789
0535003230	10.98	28,170	478,289	450,119	225,059
0535003250	6.45	36,585	280,962	244,377	122,189
0535003260	13.96	0	608,098	608,098	304,049
0535003300	18.82	154,147	819,799	665,652	332,826
0535003800	13.21	0	575,428	575,428	287,714
0535004000	36.8	282,202	1,603,008	1,320,806	660,403
0535004409	25.68	0	1,118,621	1,118,621	559,310
0535005000	45.71	0	1,991,128	1,991,128	995,564
0535011982	13.05	67,584	568,458	500,874	250,437
0535031300	62.24	0	2,711,174	2,711,174	1,355,587
0535031400	106.05	321,774	4,619,538	4,297,764	2,148,882
0640000100	17.35	222,267	755766	533,499	266,750
Totals		2,272,431		4,370,375	21,285,206

6.2 Income Tax Generation Estimates

The study generated an average employee per square foot of built space within the existing eastside industrial park businesses to establish a new potential income tax. In 2019, businesses in the eastside business area employed 1,037 individuals within the 2,272,431 square feet of eastside facilities. Dividing the total employees by the known square footage of building space resulted in an average of one job per 2,191 square feet.

[23] Fairfield County Assessors Office and American Sturctuepoint

Table 7, Jobs Per Square Foot[24]

Existing Total Building Square Feet	Exiting Jobs in the Eastside Industrial Area	One Job Per Square Foot
2,272,431	1,037	2,191

Utilizing the assumed jobs per square foot average, the estimated max building square footage of 21,285,206 square feet was divided by 2,191 jobs per square foot estimate. This calculation resulted in an estimated 9,713 jobs that may be added to Lancaster if full build-out were achieved.

The next step toward creating a projected income tax increase was understanding the income characteristics of eastside industrial park business employees. Table 8 below shows the average weekly and annual salaries, as reported by the Bureau of Labor Statistics, for all the industries that comprise businesses in the study area. Based on this analysis, an eastside business park employee's average annual salary was $63,856.

Table 8, Average Salary by NAICS Category of Eastside Business Park Employers[25]

NAICS Category	Average Weekly Wage	Average Annual Wage
Construction	$1,312	$ 68,224
Manufacturing	$1,264	$ 65,728
Wholesale Trade	$1,621	$ 84,292
Transportation and Warehousing	$1,085	$ 56,420
Real Estate and Rental and Leasing	$1,299	$ 67,548
Professional, Scientific, and Technical Services	$1,376	$ 71,552
Administration & Support, Waste Management, and Remediation	$ 916	$ 47,632
Health Care and Social Assistance	$1,192	$ 61,984
Arts, Entertainment, and Recreation	$ 370	$ 19,240
Other Services (excluding Public Administration)	$ 850	$ 44,200
Average Salary for All Eastside Business Park Workers		$ 63,856

6.2.1 Annual Income Tax Projection

To generate the projected income taxes from the full build-out of the eastside industrial park, this analysis multiplied the average salary for eastside workers ($63,856) by the estimated number of jobs at full build-out (9,713). The resulting projection was $620,233,328 in total annual income for new employees. Lancaster's 2023 posted income tax rate was 2.3 percent, which equates to an annual Income Tax Revenue Projection of $14,265,367 or $1,469 per job created. Table 9 below summarizes these projections.

Table 9, Project Annual Income Tax[26]

Average Salary	Projected Jobs	Total Income	Lancaster Income Tax Rate	Annual Income Tax	Income Tax Per Job
$63,856	9,713	$620,233,328	2.30%	$14,265,367	$1,469

[24] Fairfield County Assessor and American Structurepoint
[25] Bureau of Labor Statistics
[26] American Structurepoint

6.3 Property Tax Revenue

The first step toward determining potential property tax revenues was establishing an average per square foot value appraisal for land area and buildings in the eastside business park. This analysis looked at the property tax records for the 28 parcels with the developable area. This examination was then used to establish a per square foot appraisal value for all properties' land area and a comparable per square foot calculation for building structures (when existing on the site). The parcel-by-parcel estimates are shown below in Table 10. The average assessed values for properties in the eastside business park were $14.50 for built structures and 0.30 for land area.

Table 10, Appraised Value Per Square Foot Calculations[27]

PIN	Appraised Value Land	Appraised Value Building	Building Square Feet	Building	Land Area Square Feet	Land Assessed Value Per Square Foot
0040006500	$553,550	$0	0	$0.00	4,370,375	$0.13
0050149800	$315,020	$0	0	$0.00	2,798,294	$0.11
0050149900	$603,180	$197,960	17,650	$11.20	5,445,000	$0.11
0535000100	$108,960	$0	0	$0.00	606,791	$0.18
0535000300	$508,590	$0	0	$0.00	2,744,280	$0.19
0535000310	$1,259,480	$5,695,500	410,687	$13.90	2,428,906	$0.52
0535001500	$39,000	$0	0	$0.00	169,884	$0.23
0535002100	$11,100	$0	0	$0.00	62,726	$0.18
0535002400	$726,240	$0	0	$0.00	4,934,477	$0.15
0535002500	$194,430	$2,390	0	$0.00	871,636	$0.22
0535002510	$62,300	$0	0	$0.00	271,379	$0.23
0535002600	$1,077,400	$4,219,220	531,780	$7.90	1,623,917	$0.66
0535002800	$258,410	$0	0	$0.00	1,414,393	$0.18
0535002810	$120,040	$1,075,100	48,411	$22.20	217,364	$0.55
0535003000	$121,400	$466,660	17,151	$27.20	317,552	$0.38
0535003220	$308,760	$1,937,830	134,023	$14.50	435,600	$0.71
0535003230	$136,920	$432,120	28,170	$15.30	478,289	$0.29
0535003250	$109,680	$746,230	36,585	$20.40	280,962	$0.39
0535003260	$111,680	$0.0	0	$0.00	608,098	$0.18
0535003300	$418,080	$2,769,140	154,147	$18.00	819,799	$0.51
0535003800	$97,250	$0.0	0	$0.00	575,428	$0.17
0535004000	$849,960	$5,356,230	282,202	$19.00	1,603,008	$0.53
0535004409	$205,440	$0.0	0	$0.00	1,118,621	$0.18
0535005000	$365,680	$0.0	0	$0.00	1,991,128	$0.18
0535011982	$209,200	$986,600	67,584	$14.60	568,458	$0.37
0535031300	$462,740	$0.0	0	$0.00	2,711,174	$0.17
0535031400	$299,550	$1,200,450	321,774	$3.70	4,619,538	$0.06
0640000100	$539,320	$3,023,210	222,267	$13.60	755,766	$0.71
		Average Building Assessment Per Square Foot		$14.50	Average Land Area Assessed Value Per Square Foot	$0.30

[27] Fairfield County Assessors Office and American Sturctuepoint

6.3.1 Annual Property Tax Revenue

The second step in this analysis was to determine an average per square foot value. The maximum building square foot calculation and total land area are property tax estimates for each parcel prepared and shown below in Table 11. The calculated maximum buildable area was multiplied by the observed average building assessment per square foot to create these projections. The assessed land value was similarly generated by multiplying the average per foot assessed value by the amount of land in the parcel. Total taxable value was then created by multiplying the assessed values by 35 percent (the exact formula used by the Fairfield County Assessor to calculate taxable value). Once total taxable values were determined, the property tax generated was projected by applying the 52.742351 effective tax rate to calculate current tax bills. This analysis shows that should the eastside business park develop, these predictions suggest this activity would generate another $5,945,164 of annual property taxes. The maximum projected buildable square footage of 21,285,206 equates to $3.58 or annual revenue per square foot of facility added.

Table 11, Project Tax[28]

PIN	Max Building Square Feet	Estimate Appraised Building Value	Estimated Appraised Land Value	Est Taxable Building Value	Estimated Taxable Value Land	Total Taxable Value	Property Tax Generated
0040006500	2,185,187	$31,739,261	$1,324,109	$11,108,741	$463,438	$11,572,180	$610,344
0050149800	1,399,147	$20,322,238	$847,810	$7,112,783	$296,734	$7,409,517	$390,795
0050149900	2,713,675	$39,415,401	$1,644,345	$13,795,391	$575,521	$14,370,911	$757,956
0535000100	303,395	$4,406,737	$183,842	$1,542,358	$64,345	$1,606,702	$84,741
0535000300	1,372,140	$19,929,965	$831,445	$6,975,488	$291,006	$7,266,494	$383,252
0535000310	1,009,109	$14,657,042	$611,467	$5,129,965	$214,014	$5,343,978	$281,854
0535001500	84,942	$1,233,760	$51,470	$431,816	$18,015	$449,831	$23,725
0535002100	31,363	$455,542	$19,004	$159,440	$6,652	$166,091	$8,760
0535002400	2,467,238	$35,835,976	$1,495,018	$12,542,592	$523,256	$13,065,848	$689,124
0535002500	435,818	$6,330,137	$264,083	$2,215,548	$92,429	$2,307,977	$121,728
0535002510	135,689	$1,970,852	$82,221	$689,798	$28,777	$718,575	$37,899
0535002600	546,068	$7,931,497	$330,889	$2,776,024	$115,811	$2,891,835	$152,522
0535002800	707,197	$10,271,841	$428,524	$3,595,144	$149,983	$3,745,128	$197,527
0535002810	84,477	$1,227,001	$51,188	$429,450	$17,916	$447,366	$23,595
0535003000	150,201	$2,181,625	$91,014	$763,569	$31,855	$795,424	$41,953
0535003220	150,789	$2,190,163	$91,370	$766,557	$31,979	$798,536	$42,117
0535003230	225,059	$3,268,927	$136,374	$1,144,125	$47,731	$1,191,856	$62,861
0535003250	122,189	$1,774,755	$74,040	$621,164	$25,914	$647,078	$34,128
0535003260	304,049	$4,416,227	$184,238	$1,545,680	$64,483	$1,610,163	$84,924
0535003300	332,826	$4,834,210	$201,675	$1,691,973	$70,586	$1,762,560	$92,962
0535003800	287,714	$4,178,966	$174,340	$1,462,638	$61,019	$1,523,657	$80,361
0535004000	660,403	$9,592,176	$400,170	$3,357,262	$140,059	$3,497,321	$184,457
0535004409	559,310	$8,123,834	$338,913	$2,843,342	$118,620	$2,961,961	$156,221
0535005000	995,564	$14,460,297	$603,260	$5,061,104	$211,141	$5,272,245	$278,071
0535011982	250,437	$3,637,530	$151,752	$1,273,136	$53,113	$1,326,249	$69,949

[28] Fairfield County Assessors Office and American Sturctuepoint

0535031300	1,355,587	$19,689,540	$821,415	$6,891,339	$287,495	$7,178,834	$378,629
0535031400	2,148,882	$31,211,935	$1,302,110	$10,924,177	$455,739	$11,379,916	$600,204
0640000100	266,750	$3,874,465	$161,636	$1,356,063	$56,573	$1,412,635	$74,506
					Total Annual Estimated Property Tax Increase		$5,945,164

6.3.2 CRA Implications

Earlier, this report noted that all developable properties are in the pre-1994 CRA, which means that significant job-creating developments would likely seek property tax abatements to choose Lancaster as the preferred development location. While this tool should be utilized, it will reduce the amount of property taxes generated for the 15 years following initial construction. To help account for this variable, this report has created an annual build-out scenario to showcase how revenue will increase over time.

6.3.3 Annual Build-Out Scenario

This report's projections show a maximum potential job and property tax revenues based on a full build-out of the eastside industrial park. However, this large area is not likely to be developed within a short timeframe. Additionally, as stated above, property tax revenues may be delayed due to potential property tax abatements.

A. Income Tax Projection 20-Year Build-Out Scenario

Assuming that five percent of the total maximum buildable square footage builds out over the next 20 years, Lancaster would see the benefit of an additional 486 jobs per year. An increase of 486 employees with an average salary of $63,856 equates to an additional $713,782 in income tax for Lancaster per year. With 486 jobs added per year, it would take the full projected 20 years to reach complete build-out and add 9,713 new jobs within the eastside industrial park. Considering the per job application of this estimate, one new job would add $1,469 of annual income tax per year.

B. Property Tax Increase Projection 20-Year Build-Out Scenario

To estimate how the pre-1994 CRA would be utilized to aid in attracting new development, Table 12 below shows how economic development incentives would incrementally generate property tax revenue. The table below assumes the same five-percent per year growth rate for new development (the same rate utilized for the jobs analysis above). A 20-year build-out scenario equates to 1,064,260 new square feet of construction per year. Given that the CRA may choose to decrease certain property taxes, this analysis considers a 15-year delay before realizing 100 percent of the annual property tax revenue for the first properties developed. This projection in Table 12, 20-Year Property Tax Scenarios below, assumes that 25 percent of the newly developed square footage is subjected to property tax. At year 15, property taxes accounted for the first developments paying a total tax bill after the CRA incentives expired. Assuming a 20-year build-out period, Lancaster would realize $17,761,176.21 ($3.58 per square foot) in new property taxes over that same 20-year period.

Table 12, 20-Year Property Tax Scenarios[29]

Year Build-Out	New Square Feet Developed Per Year	New Taxes Generated
Year 1	1,064,260	$74,314.54
Year 2	1,064,260	$148,629.09
Year 3	1,064,260	$222,943.63
Year 4	1,064,260	$297,258.18
Year 5	1,064,260	$371,572.72
Year 6	1,064,260	$445,887.27
Year 7	1,064,260	$520,201.81
Year 8	1,064,260	$594,516.36
Year 9	1,064,260	$668,830.90
Year 10	1,064,260	$743,145.45
Year 11	1,064,260	$817,459.99
Year 12	1,064,260	$891,774.54
Year 13	1,064,260	$966,089.08
Year 14	1,064,260	$1,040,403.63
Year 15	1,064,260	$1,114,718.17
Year 16	1,064,260	$1,411,976.35
Year 17	1,064,260	$1,709,234.53
Year 18	1,064,260	$2,006,492.71
Year 19	1,064,260	$2,303,750.89
Year 20	1,064,260	$2,601,009.07
	Total	$17,761,176.21

7.0 Conclusions

Lancaster's eastside business park has not experienced much new development activity in recent decades. This report confirmed through in-person site analysis and interviews with key stakeholders that connectivity to the eastside of Lancaster is a significant deterrent to developing these greenfield properties. In particular, stakeholders mentioned that workforce issues and shipping delays caused by trucks were major inhibitors of continued growth. A further review discovered that most shipping trucks and employees were heading to Lancaster's eastside from the west. One additional stakeholder comment from the Fairfield Medical Center was that certain employees must reside within a fixed drive time to the hospital campus. Developing enhanced connections will improve emergency vehicle access and reduce employee commutes.

This report also examined the features of the business park itself and found that abundant factors exist to enable new development, such as large greenfield properties, adequate existing facilities, flexible zoning standards, and rail access. Favorable property tax incentives may also help stimulate activity; however, this same incentive exists on the city's west side, where properties are located near the regional transportation system.

[29] American Stucturepoint

The critical path strategies, in tandem with the Ewing Street Connector Feasibility Study results, were designed to help stimulate growth. The recommended combination of infrastructure projects to increase connectivity to the eastside with an additional focus on workforce and business expansion and retention recommendations to encourage activity in the near term.

Once new development activity occurs, the greenfield sites possess the potential to create 9,713 new jobs and 21,285,206 square feet of new manufacturing/industrial facilities. Long-term projections show an annual income and property tax increase of $14,265,367 and $5,945,164, respectively. However, it should be noted that large properties exist, and some may not reach build-out status in the next 20 years. Or be subdivided into smaller lots. Considering these potential outcomes, we broke the estimated revenues into a per job (income) and per square foot projection, as follows:

- Every job created will result in an average of $1,469 in new income tax.
- Every square foot of new building will generate $3.58 of new property tax.

Appendix B – Existing Traffic Flow Evaluation

City of Lancaster – Existing Traffic Flow Evaluation

1.1 Introduction

As part of the Eastside Industrial Connector Feasibility Study, a high level evaluation of the existing traffic flows was needed to determine the most heavily used routes through the City and, additionally, an evaluation of the traffic volumes and general congestion on Main Street in the downtown area. American Structurepoint performed this high level traffic volume analysis utilizing existing traffic data for both passenger vehicles and truck from Streetlight data and information available online via Ohio Department of Transportation (ODOT). The amount of total vehicles and trucks that pass through the downtown area of Lancaster without stopping increase delays and general congestion throughout the corridor, the heavy truck traffic deteriorates the pavement for quickly, and, in general, creates an undesirable corridor.

1.2 Study Routes and Areas

The major routes in the City of Lancaster were identified to determine how the traffic flows into and through the City under current conditions. A 'Gate' was identified for each of these major routes. A total of ten (10) gates were located around the City on the state routes and US-33. The downtown area was defined as the area bordered by Memorial Drive and North Maple Street to the east and west and from East 6th Avenue on the north side to just south of the railroad tracks. For the purposes of this study this area was labeled as 'Zone A'. The study routes and areas evaluated for this study are shown in **Figure 1**.

Figure 1 – Study Routes

1.3 Traffic Data

Existing traffic data from Streetlight was received from the City of Lancaster and ODOT's *Transportation Data Management System* (TDMS) was the basis for this high level traffic evaluation.

Streetlight is a web application that collects and organizes anonymous location data for planning and evaluation purposes. It collects the anonymous location data by detecting the signals generated by smart phones and navigation devices found in most cars and trucks. That anonymous location data is then organized so that travel patterns can be identified and easily searchable. The processed Streetlight data provided travel patterns throughout the City of Lancaster, from the major routes identified earlier down to the local roads. This study focused on traffic volumes associated with the major routes and Zone A and disregarded the local road traffic volumes.

ODOT's TDMS is an online database that users can access for updated traffic count data. The database provides an interactive map that offers current and historical traffic volume counts, speed data, growth rates, weigh-in-motion, and annual average daily traffic (AADT) data that are collected via permanent or short term count stations. The AADT data near each of the study gates was downloaded and used as part of the analysis of the City's traffic flows discussed below.

1.4 Traffic Flow Evaluation Methodology

The traffic flow data obtained from Streetlight represents traffic volumes traveling from an origin (O) to a destination (D). Origins and destinations can be set as either a specific location on a roadway or as a geographic area. The gates on the major study routes coincide with Streetlight's data collection points and they were used to obtain the O-D total vehicle and truck traffic volumes for each gate and area. Streetlight data does not provide the exact route a vehicle took to reach each destination with vehicle only detected entering or exiting a gate. Nor does it specify any duration information for the data collection in regards to times of day or week or year, or length of the counts. Because of these limitations, the O-D volumes were used to determine the percentage of vehicles and trucks entering into the study area from a gate and travelling through the study area to reach the other gates and Zone A. Those percentage splits were then applied to the AADT obtained from ODOT's TDMS to determine the estimated daily passenger vehicle and truck traffic along the study routes. Due to the differing traffic volume capacities specific to each study route, the estimated daily traffic volumes were balanced between gates by "splitting the difference". It is assumed that the directional distribution of vehicles through the City of Lancaster is 50% over the course of a typical day, so for the purposes of this study, the average of each O-D volume pair (i.e. from Gate 1 to Gate 2 and from Gate 2 to Gate 1) was calculated and this average was then used as the traffic flow along each route in the City of Lancaster.

Additionally, the total vehicle and truck traffic volumes were calculated for traffic that had an Origin or Destination that was specifically Downtown (Zone A) and traffic that originated at one Gate and left the City via another Gate. The detailed traffic calculations and data can be found in **Attachment A**.

Each route was then evaluated to determine if the traffic where passing through Zone A. It was assumed that traffic travelling between the study gates within the City are following the most direct paths and the determination of whether the traffic passed through Zone A. A breakdown of the Gate to Gate routes that were determined to pass through the Downtown area can be seen in **Table 1**.

		Origin Gate									
		1	2	3	4	5	6	7	8	9	10
Destination Gate	1	n/a	Yes	Yes	Yes	Yes	No	No	No	No	No
	2	Yes	n/a	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	3	Yes	No	n/a	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	4	Yes	Yes	Yes	n/a	Yes	Yes	Yes	Yes	Yes	Yes
	5	Yes	Yes	Yes	Yes	n/a	Yes	Yes	Yes	Yes	Yes
	6	No	Yes	Yes	Yes	Yes	n/a	No	No	No	No
	7	No	Yes	Yes	Yes	Yes	No	n/a	No	No	No
	8	No	Yes	Yes	Yes	Yes	No	No	n/a	No	No
	9	No	Yes	Yes	Yes	Yes	No	No	No	n/a	No
	10	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	n/a

Table 1 – Study Routes Through Downtown

The study routes identified as passing through Zone A were then compared to a potential bypass on the north side of Lancaster as well as the south side. The bypasses looked at for this part of the evaluation were generic in alignment and can be seen in **Figure 2**. The routes that could remove traffic through Zone A with the addition of a bypass were then flagged and the total volumes of potentially removed traffic was calculated to determine impact that a northern bypass would have versus a southern bypass Downtown Lancaster.

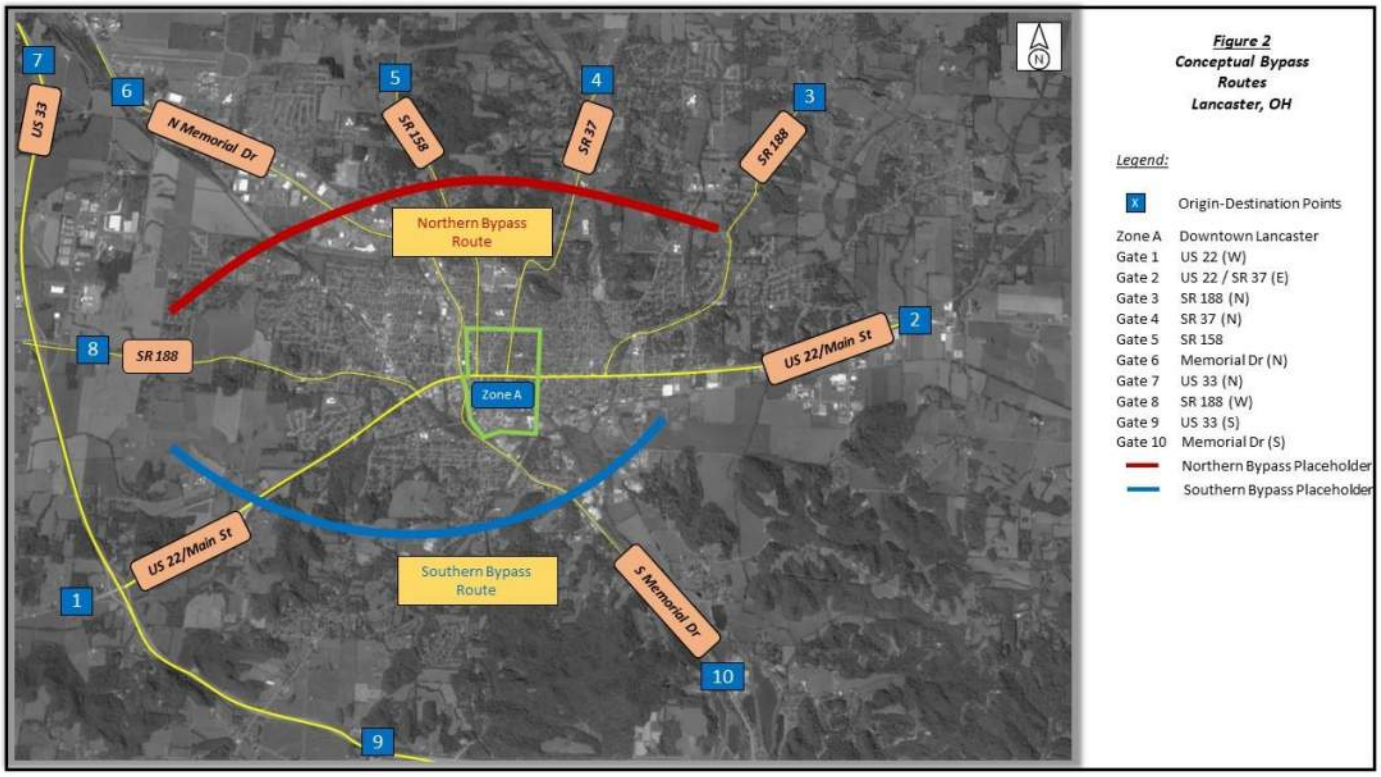


Figure 2 – Conceptual Bypass Routes

1.5 Conclusion and Recommendation

By providing a northern bypass it is estimated that 3,205 total vehicles and 310 trucks could be removed from travelling through Zone A per day. That represents a reduction of 17% in total vehicles and a reduction of 16% in trucks. By providing a southern bypass it is estimated that 4,512 total vehicles and 640 trucks could be removed from travelling through Zone A which is a 24% reduction in total vehicles and 33% reduction in trucks per day through Zone A. Figure 3 shows the total vehicles and trucks that could potentially be removed from Zone A and a detailed breakdown of the traffic reduction calculations can be found in **Attachment A**.

Figure 3 – Diverted Traffic

With the southern bypass estimated to remove a greater number of traffic from Zone A, it is recommended that the Feasibility Study focus on providing alternative routes on the south side of Lancaster to divert traffic from Zone A.

Attachment A – Existing Traffic Flow Calculations

Figure 1
Study Routes
Lancaster, OH

Legend:

X Origin-Destination Points

Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)

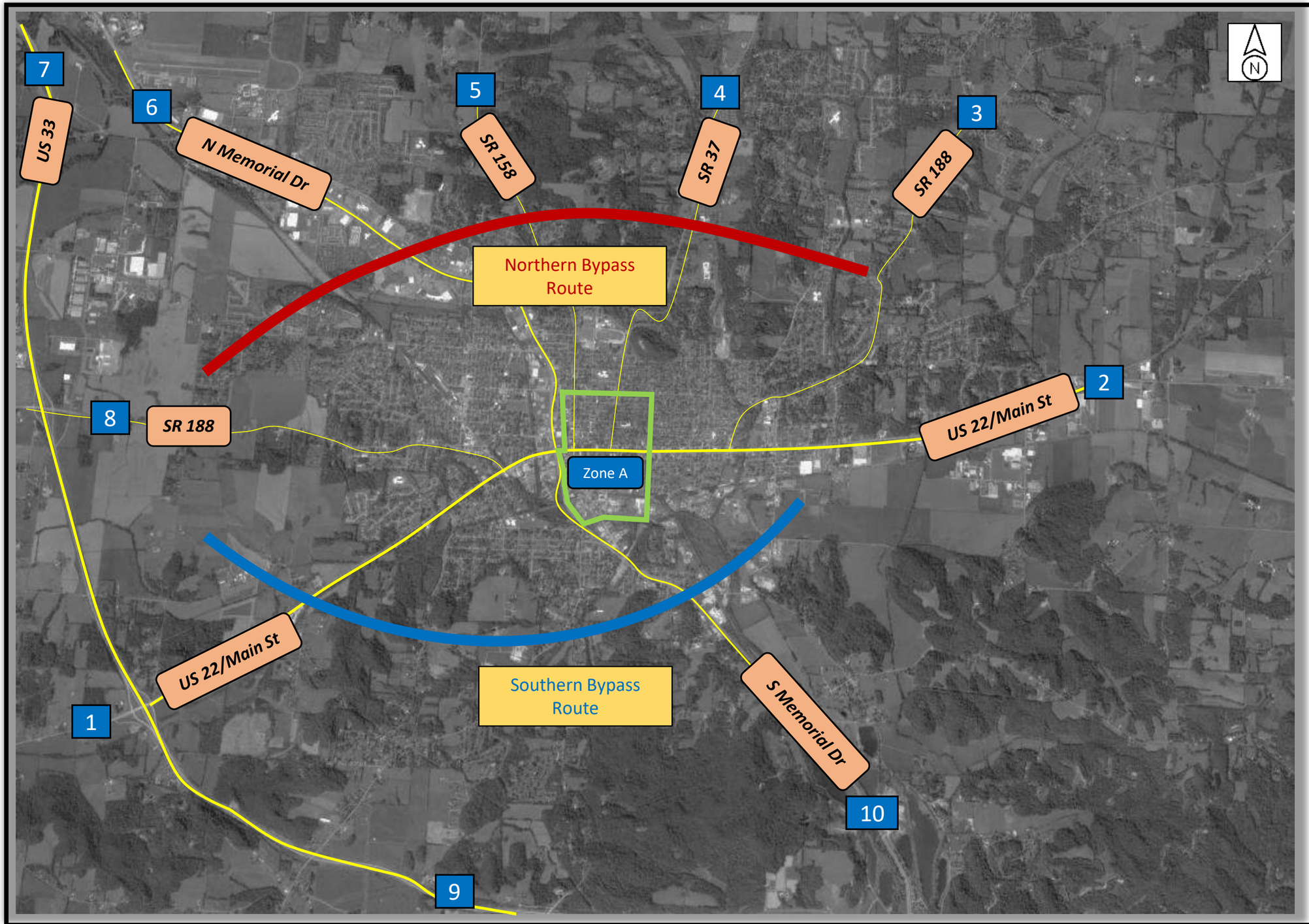


Figure 2
Conceptual Bypass Routes
Lancaster, OH

Legend:

X	Origin-Destination Points
Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)
	Northern Bypass Placeholder
	Southern Bypass Placeholder

Figure 3
Downtown Origin
Traffic Flow
Lancaster, OH

Legend:

XX	Traffic Volume, AADT
X	Origin-Destination Points

Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)

Figure 4
Downtown Destination
Traffic Flow
Lancaster, OH

Legend:

XX	Traffic Volume, AADT
X	Origin-Destination Points

Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)

Figure 5
Gate 1 Origin
Traffic Flow
Lancaster, OH

Legend:

XX	Traffic Volume, AADT
X	Origin-Destination Points

Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)

Northern Bypass Placeholder

Southern Bypass Placeholder

Figure 6
Gate 2 Origin
Traffic Flow
Lancaster, OH

Legend:

XX	Traffic Volume, AADT
X	Origin-Destination Points

Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)

Northern Bypass Placeholder

Southern Bypass Placeholder

Figure 7
Gate 3 Origin
Traffic Flow
Lancaster, OH

Legend:

XX	Traffic Volume, AADT
X	Origin-Destination Points

Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)

Northern Bypass Placeholder

Southern Bypass Placeholder

Figure 8
Gate 4 Origin
Traffic Flow
Lancaster, OH

Legend:

XX	Traffic Volume, AADT
X	Origin-Destination Points

Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)

Northern Bypass Placeholder

Southern Bypass Placeholder

Figure 9
Gate 5 Origin
Traffic Flow
Lancaster, OH

Legend:

XX	Traffic Volume, AADT
X	Origin-Destination Points

Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)

Northern Bypass Placeholder

Southern Bypass Placeholder

Figure 10
Gate 6 Origin
Traffic Flow
Lancaster, OH

Legend:

XX	Traffic Volume, AADT
X	Origin-Destination Points

Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)

Northern Bypass Placeholder

Southern Bypass Placeholder

Figure 11
Gate 7 Origin
Traffic Flow
Lancaster, OH

Legend:

XX	Traffic Volume, AADT
X	Origin-Destination Points

Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)

Northern Bypass Placeholder

Southern Bypass Placeholder

Figure 12
Gate 8 Origin
Traffic Flow
Lancaster, OH

Legend:

XX	Traffic Volume, AADT
X	Origin-Destination Points

Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)

Northern Bypass Placeholder

Southern Bypass Placeholder

Figure 13
Gate 9 Origin
Traffic Flow
Lancaster, OH

Legend:

XX	Traffic Volume, AADT
X	Origin-Destination Points

Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)

Northern Bypass Placeholder

Southern Bypass Placeholder

Figure 14
Gate 10 Origin
Traffic Flow
Lancaster, OH

Legend:

XX	Traffic Volume, AADT
X	Origin-Destination Points

Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)

Northern Bypass Placeholder

Southern Bypass Placeholder

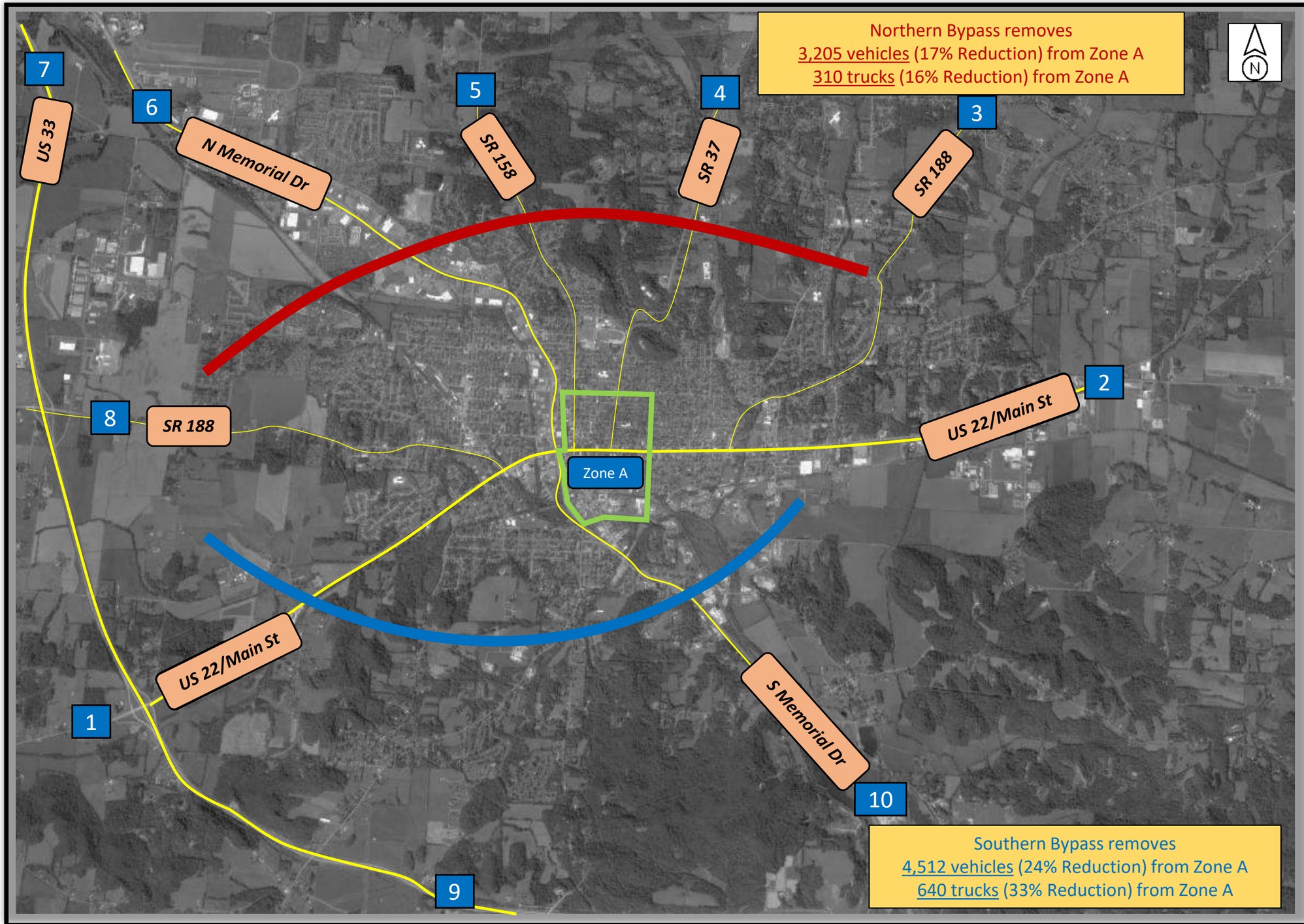


Figure 15
Diverted Traffic
Lancaster, OH

Legend:

XX	Traffic Volume, AADT
X	Origin-Destination Points

Zone A	Downtown Lancaster
Gate 1	US 22 (W)
Gate 2	US 22 / SR 37 (E)
Gate 3	SR 188 (N)
Gate 4	SR 37 (N)
Gate 5	SR 158
Gate 6	Memorial Dr (N)
Gate 7	US 33 (N)
Gate 8	SR 188 (W)
Gate 9	US 33 (S)
Gate 10	Memorial Dr (S)

Northern Bypass Placeholder

Southern Bypass Placeholder

2019.03022 - Lancaster Eastside Origin Destination Breakdown

All Vehicles

Gate 1 Origin																					
Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
										Vehicles Removed from Downtown							Vehicles Removed from Downtown				
No	Name	No	Name	At Origin	Destination	% Vehicles Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown		North Route		South Route		At Destination	Route Thru Downtown		North Route		South Route	
							ID 223		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles
1	22Cinci.wo.33IB	-	A_Downtown	5,347	244	4.6%	8,874	405	Y	405	N		N		405	Y	405	N		N	
1	22Cinci.wo.33IB	2	22.Zville.OB		203	3.8%		337	Y	337	N		Y	337	644	Y	644	N		Y	644
1	22Cinci.wo.33IB	2A	37NLex.OB		102	1.9%		169	Y	169	N		Y	169	199	Y	199	N		Y	199
1	22Cinci.wo.33IB	3	188Pvill.soCP.OB		39	0.7%		65	Y	65	N		Y	65	83	Y	83	N		Y	83
1	22Cinci.wo.33IB	4	37Gvill.soCP.OB		209	3.9%		347	Y	347	N		N		432	Y	432	N		N	
1	22Cinci.wo.33IB	5	158Balt_soCP_OB		32	0.6%		53	Y	53	N		N		54	Y	54	N		N	
1	22Cinci.wo.33IB	6	Columbus-Lancaster_OB		55	1.0%		91	N		N		N		104	N		N		N	
1	22Cinci.wo.33IB	7	33.Cbus.IB		1,005	18.8%		1,668	N		N		N		1,415	N		N		N	
1	22Cinci.wo.33IB	8	188CVill.eo33.OB		11	0.2%		18	N		N		N		22	N		N		N	
1	22Cinci.wo.33IB	9	33.south.SB		443	8.3%		735	N		N		N		846	N		N		N	
1	22Cinci.wo.33IB	10	LoganLancaster_OB		20	0.4%		33	Y	33	N		Y	33	44	Y	44	N		Y	44
				Total	2,363	44.2%	Total	3,921	Total	1,409	Total	0	Total	604	4,247	Total	1,861	Total	0	Total	970
											% Removed	0%	% Removed	43%				% Removed	0%	% Removed	52%

2019.03022 - Lancaster Eastside Origin Destination Breakdown

All Vehicles

Gate 2 Origin																				
Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT							Balanced ODOT ADT (Splitting the Difference)						
										Vehicles Removed from Downtown						Vehicles Removed from Downtown				
									Route Thru Downtown		North Route		South Route			Route Thru Downtown		North Route		South Route	
No	Name	No	Name	At Origin	Destination	% Vehicles Reaching Destination Gate	At Origin	At Destination							At Destination						
							ID 6223		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles
2	22.ZvilleIB	-	A_Downtown	2,642	222	8.4%	13,965	1,173	Y	1,173	N		N		1,173	N	1,173	N			
2	22.ZvilleIB	1	22Cinci.wo.33OB		180	6.8%		951	Y	951	N		Y	951	644	Y	644	N		Y	644
2	22.ZvilleIB	2A	37NLex.OB		64	2.4%		338	N		N		N		226	N		N		N	
2	22.ZvilleIB	3	188Pvill.soCP.OB		25	0.9%		132	N		N		N		93	N		N		N	
2	22.ZvilleIB	4	37Gvill.soCP.OB		22	0.8%		116	Y	116	Y	116	N		71	Y	71	Y	71	N	
2	22.ZvilleIB	5	158Balt_soCP_OB		7	0.3%		37	Y	37	Y	37	N		27	Y	27	Y	27	N	
2	22.ZvilleIB	6	Columbus-Lancaster_OB		42	1.6%		222	Y	222	Y	222	N		153	Y	153	Y	153	N	
2	22.ZvilleIB	7	33.Cbus.IB		59	2.2%		312	Y	312	Y	312	N		192	Y	192	Y	192	N	
2	22.ZvilleIB	8	188CVill.eo33.OB		40	1.5%		211	Y	211	N		N		140	Y	140	N		Y	140
2	22.ZvilleIB	9	33.south.SB		58	2.2%		307	Y	307	N		Y	307	215	Y	215	N		Y	215
2	22.ZvilleIB	10	LoganLancaster_OB		59	2.2%		312	Y	312	N		Y	312	225	Y	225	N		Y	225
				Total	**778**	**29.4%**	**ID 1023**	**4,111**	**Total**	**3,641**	**Total**	**687**	**Total**	**1,570**	**3,157**	**Total**	**2,838**	**Total**	**442**	**Total**	**1,223**
2A	37NLex.IB	-	A_Downtown	3,258	240	7.4%	7,550	556	Y	556	N		N		556	N	556	N			
2A	37NLex.IB	1	22Cinci.wo.33OB		99	3.0%		229	Y	229	N		Y	229	199	Y	199	N		Y	199
2A	37NLex.IB	2	22.Zville.OB		49	1.5%		114	N		N		N		226	N		N		N	
2A	37NLex.IB	3	188Pvill.soCP.OB		23	0.7%		53	N		N		N		49	N		N		N	
2A	37NLex.IB	4	37Gvill.soCP.OB		11	0.3%		25	Y	25	Y	25	N		32	Y	32	Y	32	N	
2A	37NLex.IB	5	158Balt_soCP_OB		10	0.3%		23	Y	23	Y	23	N		20	Y	20	Y	20	N	
2A	37NLex.IB	6	Columbus-Lancaster_OB		113	3.5%		262	Y	262	Y	262	N		247	Y	247	Y	247	N	
2A	37NLex.IB	7	33.Cbus.IB		176	5.4%		408	Y	408	Y	408	N		308	Y	308	Y	308	N	
2A	37NLex.IB	8	188CVill.eo33.OB		61	1.9%		141	Y	141	N		Y	141	121	Y	121	N		Y	121
2A	37NLex.IB	9	33.south.SB		15	0.5%		35	Y	35	N		Y	35	33	Y	33	N		Y	33
2A	37NLex.IB	10	LoganLancaster_OB		17	0.5%		39	Y	39	N		Y	39	46	Y	46	N		Y	46
				Total	**814**	**25.0%**	**Total**	**1,885**	**Total**	**1,718**	**Total**	**718**	**Total**	**444**	**1,835**	**Total**	**1,560**	**Total**	**606**	**Total**	**399**
				Total	**1,592**		**Total**	**5,996**	**Total**	**5,359**	**Total**	**1,405**	**Total**	**2,014**	**4,991**	**Total**	**4,398**	**Total**	**1,048**	**Total**	**1,622**
											% Removed	**26%**	**% Removed**	**38%**				**% Removed**	**24%**	**% Removed**	**37%**

2019.03022 - Lancaster Eastside Origin Destination Breakdown

All Vehicles

Gate 3 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
										Vehicles Removed from Downtown								Vehicles Removed from Downtown			
No	Name	No	Name	At Origin	Destination	% Vehicles Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown		North Route		South Route		At Destination	Route Thru Downtown		North Route		South Route	
							ID 1823		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles
3	188Pvill.soCP.IB	-	A_Downtown	2,304	92	4.0%	5,286	211	Y	211	N		N		211	Y	211	N		N	
3	188Pvill.soCP.IB	1	22Cinci.wo.33OB		44	1.9%		101	Y	101	N		Y	101	83	Y	83	N		Y	83
3	188Pvill.soCP.IB	2	22.Zville.OB		23	1.0%		53	N		N		N		93	N		N		N	
3	188Pvill.soCP.IB	2A	37NLex.OB		19	0.8%		44	N		N		N		49	N		N		N	
3	188Pvill.soCP.IB	4	37Gvill.soCP.OB		9	0.4%		21	Y	21	Y	21	N		21	Y	21	Y	21	N	
3	188Pvill.soCP.IB	5	158Balt_soCP_OB		4	0.2%		9	Y	9	Y	9	N		9	Y	9	Y	9	N	
3	188Pvill.soCP.IB	6	Columbus-Lancaster_OB		10	0.4%		23	Y	23	Y	23	N		22	Y	22	Y	22	N	
3	188Pvill.soCP.IB	7	33.Cbus.IB		16	0.7%		37	Y	37	Y	37	N		30	Y	30	Y	30	N	
3	188Pvill.soCP.IB	8	188CVill.eo33.OB		6	0.3%		14	Y	14	N		Y	14	13	Y	13	N		N	
3	188Pvill.soCP.IB	9	33.south.SB		51	2.2%		117	Y	117	N		Y	117	125	Y	125	N		Y	125
3	188Pvill.soCP.IB	10	LoganLancaster_OB		43	1.9%		99	Y	99	N		Y	99	114	Y	114	N		Y	114
				Total	**317**	**13.8%**	**Total**	**729**	**Total**	**632**	**Total**	**90**	**Total**	**331**	**767**	**Total**	**626**	**Total**	**81**	**Total**	**322**
											% Removed	**14%**	**% Removed**	**52%**				**% Removed**	**13%**	**% Removed**	**51%**

Gate 4 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
										Vehicles Removed from Downtown								Vehicles Removed from Downtown			
No	Name	No	Name	At Origin	Destination	% Vehicles Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown		North Route		South Route		At Destination	Route Thru Downtown		North Route		South Route	
							ID 6723		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles
4	37.Gvill.noCP.IB	-	A_Downtown	4,060	242	6.0%	8,168	487	Y	487	N		N		487	Y	487	N		N	
4	37.Gvill.noCP.IB	1	22Cinci.wo.33OB		257	6.3%		517	Y	517	N		N		432	Y	432	N		N	
4	37.Gvill.noCP.IB	2	22.Zville.OB		13	0.3%		26	Y	26	Y	26	N		71	Y	71	Y	71	N	
4	37.Gvill.noCP.IB	2A	37NLex.OB		19	0.5%		38	Y	38	Y	38	N		32	Y	32	Y	32	N	
4	37.Gvill.noCP.IB	3	188Pvill.soCP.OB		10	0.2%		20	Y	20	Y	20	N		21	Y	21	Y	21	N	
4	37.Gvill.noCP.IB	5	158Balt_soCP_OB		10	0.2%		20	Y	20	Y	20	N		21	Y	21	Y	21	N	
4	37.Gvill.noCP.IB	6	Columbus-Lancaster_OB		37	0.9%		74	Y	74	Y	74	N		62	Y	62	Y	62	N	
4	37.Gvill.noCP.IB	7	33.Cbus.IB		52	1.3%		105	Y	105	Y	105	N		70	Y	70	Y	70	N	
4	37.Gvill.noCP.IB	8	188CVill.eo33.OB		17	0.4%		34	Y	34	N		N		29	Y	29	N		N	
4	37.Gvill.noCP.IB	9	33.south.SB		296	7.3%		595	Y	595	N		N		593	Y	593	N		N	
4	37.Gvill.noCP.IB	10	LoganLancaster_OB		289	7.1%		581	Y	581	N		N		664	Y	664	N		N	
				Total	**1,242**	**30.6%**	**Total**	**2,497**	**Total**	**2,497**	**Total**	**283**	**Total**	**0**	**2,480**	**Total**	**2,480**	**Total**	**276**	**Total**	**0**
											% Removed	**11%**	**% Removed**	**0%**				**% Removed**	**11%**	**% Removed**	**0%**

2019.03022 - Lancaster Eastside Origin Destination Breakdown

All Vehicles

Gate 5 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
											Vehicles Removed from Downtown							Vehicles Removed from Downtown			
									Route Thru Downtown		North Route		South Route			Route Thru Downtown		North Route		South Route	
No	Name	No	Name	At Origin	Destination	% Vehicles Reaching Destination Gate	At Origin	At Destination							At Destination						
							ID 7023		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles
5	158Bal_soCP_IB	-	A_Downtown	4,509	321	7.1%	7,123	507	Y	507	N		N		507	Y	507	N		N	
5	158Bal_soCP_IB	1	22Cinci.wo.33OB		35	0.8%		55	Y	55	N		N		54	Y	54	N		N	
5	158Bal_soCP_IB	2	22.Zville.OB		10	0.2%		16	Y	16	Y	16	N		27	Y	27	Y	27	N	
5	158Bal_soCP_IB	2A	37NLex.OB		11	0.2%		17	Y	17	Y	17	N		20	Y	20	Y	20	N	
5	158Bal_soCP_IB	3	188Pvill.soCP.OB		5	0.1%		8	Y	8	Y	8	N		9	Y	9	Y	9	N	
5	158Bal_soCP_IB	4	37Gvill.soCP.OB		14	0.3%		22	Y	22	Y	22	N		21	Y	21	Y	21	N	
5	158Bal_soCP_IB	6	Columbus-Lancaster_OB		99	2.2%		156	Y	156	Y	156	N		166	Y	166	Y	166	N	
5	158Bal_soCP_IB	7	33.Cbus.IB		75	1.7%		118	Y	118	Y	118	N		99	Y	99	Y	99	N	
5	158Bal_soCP_IB	8	188CVill.eo33.OB		11	0.2%		17	Y	17	Y	17	N		16	Y	16	Y	16	N	
5	158Bal_soCP_IB	9	33.south.SB		98	2.2%		155	Y	155	N		N		166	Y	166	N		N	
5	158Bal_soCP_IB	10	LoganLancaster_OB		111	2.5%		175	Y	175	N		N		213	Y	213	N		N	
				Total	**790**	**17.5%**	**Total**	**1,246**	**Total**	**1,246**	**Total**	**354**	**Total**	**0**	**1,296**	**Total**	**1,296**	**Total**	**357**	**Total**	**0**
											% Removed	**28%**	**% Removed**	**0%**				**% Removed**	**28%**	**% Removed**	**0%**

Gate 6 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
											Vehicles Removed from Downtown							Vehicles Removed from Downtown			
									Route Thru Downtown		North Route		South Route			Route Thru Downtown		North Route		South Route	
No	Name	No	Name	At Origin	Destination	% Vehicles Reaching Destination Gate	At Origin	At Destination							At Destination						
							ID 25123		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles
6	Columbus-Lancaster_IB	-	A_Downtown	10,965	591	5.4%	22,853	1,232	Y	1,232	N		N		1,232	Y	1,232	N		N	
6	Columbus-Lancaster_IB	1	22Cinci.wo.33OB		56	0.5%		117	N		N		N		104	N		N		N	
6	Columbus-Lancaster_IB	2	22.Zville.OB		40	0.4%		83	Y	83	Y	83	N		153	Y	153	Y	153	N	
6	Columbus-Lancaster_IB	2A	37NLex.OB		111	1.0%		231	Y	231	Y	231	N		247	Y	247	Y	247	N	
6	Columbus-Lancaster_IB	3	188Pvill.soCP.OB		10	0.1%		21	Y	21	Y	21	N		22	Y	22	Y	22	N	
6	Columbus-Lancaster_IB	4	37Gvill.soCP.OB		24	0.2%		50	Y	50	Y	50	N		62	Y	62	Y	62	N	
6	Columbus-Lancaster_IB	5	158Balt_soCP_OB		84	0.8%		175	Y	175	Y	175	N		166	Y	166	Y	166	N	
6	Columbus-Lancaster_IB	7	33.Cbus.IB		21	0.2%		44	N		N	44	N		71	N		N	71	N	
6	Columbus-Lancaster_IB	8	188CVill.eo33.OB		56	0.5%		117	N		N		N		100	N		N		N	
6	Columbus-Lancaster_IB	9	33.south.SB		157	1.4%		327	N		N		N		319	N		N		N	
6	Columbus-Lancaster_IB	10	LoganLancaster_OB		187	1.7%		390	Y	390	N		N		414	Y	414	N		N	
				Total	**1,337**	**12.2%**	**Total**	**2,787**	**Total**	**2,182**	**Total**	**604**	**Total**	**0**	**2,887**	**Total**	**2,294**	**Total**	**719**	**Total**	**0**
											% Removed	**28%**	**% Removed**	**0%**				**% Removed**	**31%**	**% Removed**	**0%**

2019.03022 - Lancaster Eastside Origin Destination Breakdown

All Vehicles

Gate 7 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
									Route Thru Downtown		Vehicles Removed from Downtown					Route Thru Downtown		Vehicles Removed from Downtown			
											North Route		South Route					North Route		South Route	
No	Name	No	Name	At Origin	Destination	% Vehicles Reaching Destination Gate	At Origin	At Destination							At Destination						
							ID 23323		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles
7	33.Cbus.OB	-	A_Downtown	22,784	16	0.1%	25,175	18	Y	18	N		N		18	Y	18	N		N	
7	33.Cbus.OB	1	22Cinci.wo.33OB		1,051	4.6%		1,161	N		N		N		1,415	N		N		N	
7	33.Cbus.OB	2	22.Zville.OB		65	0.3%		72	Y	72	Y	72	Y	72	192	Y	192	Y	192	Y	192
7	33.Cbus.OB	2A	37NLex.OB		187	0.8%		207	Y	207	Y	207	Y	207	308	Y	308	Y	308	Y	308
7	33.Cbus.OB	3	188Pvill.soCP.OB		20	0.1%		22	Y	22	Y	22	N		30	Y	30	Y	30	N	
7	33.Cbus.OB	4	37Gvill.soCP.OB		31	0.1%		34	Y	34	Y	34	N		70	Y	70	Y	70	N	
7	33.Cbus.OB	5	158Balt_soCP_OB		72	0.3%		80	Y	80	Y	80	N		99	Y	99	Y	99	N	
7	33.Cbus.OB	6	Columbus-Lancaster_OB		88	0.4%		97	N		N		N		71	N		N		N	
7	33.Cbus.OB	8	188CVill.eo33.OB		43	0.2%		48	N		N		N		83	N		N		N	
7	33.Cbus.OB	9	33.south.SB		6,242	27.4%		6,897	N		N		N		10,134	N		N		N	
7	33.Cbus.OB	10	LoganLancaster_OB		197	0.9%		218	N		N		N		325	N		N		N	
				Total	8,012	35.2%	Total	8,854	Total	433	Total	415	Total	279	12,742	Total	716	Total	698	Total	500
											% Removed	96%	% Removed	64%				% Removed	97%	% Removed	70%

Gate 8 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
									Route Thru Downtown		Vehicles Removed from Downtown					Route Thru Downtown		Vehicles Removed from Downtown			
											North Route		South Route					North Route		South Route	
No	Name	No	Name	At Origin	Destination	% Vehicles Reaching Destination Gate	At Origin	At Destination							At Destination						
							ID 1723		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles
8	188CVill.eo33.IB	-	A_Downtown	3,888	307	7.9%	5,977	472	Y	472	N		N		472	Y	472	N		N	
8	188CVill.eo33.IB	1	22Cinci.wo.33OB		16	0.4%		25	N		N		N		22	N		N		N	
8	188CVill.eo33.IB	2	22.Zville.OB		45	1.2%		69	Y	69	N		Y	69	140	Y	140	N		Y	140
8	188CVill.eo33.IB	2A	37NLex.OB		66	1.7%		101	Y	101	N		Y	101	121	Y	121	N		Y	121
8	188CVill.eo33.IB	3	188Pvill.soCP.OB		7	0.2%		11	Y	11	N	11	N		13	Y	13	N	13	N	
8	188CVill.eo33.IB	4	37Gvill.soCP.OB		15	0.4%		23	Y	23	N		N		29	Y	29	N		N	
8	188CVill.eo33.IB	5	158Balt_soCP_OB		10	0.3%		15	Y	15	Y	15	N		16	Y	16	Y	16	N	
8	188CVill.eo33.IB	6	Columbus-Lancaster_OB		54	1.4%		83	N		N		N		100	N		N		N	
8	188CVill.eo33.IB	7	33.Cbus.IB		76	2.0%		117	N		N		N		83	N		N		N	
8	188CVill.eo33.IB	9	33.south.SB		44	1.1%		68	N		N		N		66	N		N		N	
8	188CVill.eo33.IB	10	LoganLancaster_OB		29	0.7%		45	N		N		N		30	N		N		N	
				Total	669	17.2%	Total	1,029	Total	691	Total	26	Total	170	1,090	Total	790	Total	29	Total	261
											% Removed	4%	% Removed	25%				% Removed	4%	% Removed	33%

2019.03022 - Lancaster Eastside Origin Destination Breakdown

All Vehicles

Gate 9 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
									Route Thru Downtown		Vehicles Removed from Downtown					Route Thru Downtown		Vehicles Removed from Downtown			
											North Route		South Route					North Route		South Route	
No	Name	No	Name	At Origin	Destination	% Vehicles Reaching Destination Gate	At Origin	At Destination	Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles	At Destination	Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles
							ID 10623														
9	33.south.NB	-	A_Downtown	12,236	361	3.0%	27,132	800	Y	800	N		N		800	Y	800	N		N	
9	33.south.NB	1	22Cinci.wo.33OB		431	3.5%		956	N		N		N		846	N		N		N	
9	33.south.NB	2	22.Zville.OB		55	0.4%		122	Y	122	N		Y	122	215	Y	215	N		Y	215
9	33.south.NB	2A	37NLex.OB		14	0.1%		31	Y	31	N		Y	31	33	Y	33	N		Y	33
9	33.south.NB	3	188Pvill.soCP.OB		60	0.5%		133	Y	133	N		Y	133	125	Y	125	N		Y	125
9	33.south.NB	4	37Gvill.soCP.OB		266	2.2%		590	Y	590	N		N		593	Y	593	N		N	
9	33.south.NB	5	158Balt_soCP_OB		80	0.7%		177	Y	177	N		N		166	Y	166	N		N	
9	33.south.NB	6	Columbus-Lancaster_OB		140	1.1%		310	N		N		N		319	N		N		N	
9	33.south.NB	7	33.Cbus.IB		6,030	49.3%		13,371	N		N		N		10,134	N		N		N	
9	33.south.NB	8	188CVill.eo33.OB		29	0.2%		64	N		N		N		66	N		N		N	
9	33.south.NB	10	LoganLancaster_OB		27	0.2%		60	N		N		Y	60	37	N		N		Y	37
				Total	7,493	61.2%	Total	16,614	Total	1,853	Total	0	Total	346	13,332	Total	1,931	Total	0	Total	410
											% Removed	0%	% Removed	19%				% Removed	0%	% Removed	21%

Gate 10 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
									Route Thru Downtown		Vehicles Removed from Downtown					Route Thru Downtown		Vehicles Removed from Downtown			
											North Route		South Route					North Route		South Route	
No	Name	No	Name	At Origin	Destination	% Vehicles Reaching Destination Gate	At Origin	At Destination	Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles	At Destination	Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles
							ID 6523														
10	LoganLancaster_IB	-	A_Downtown	5,173	458	8.9%	14,215	1,259	Y	1,259	N		N		1,259	Y	1,259	N		N	
10	LoganLancaster_IB	1	22Cinci.wo.33OB		20	0.4%		55	N		N		Y	55	44	N		N		Y	44
10	LoganLancaster_IB	2	22.Zville.OB		50	1.0%		137	Y	137	N		Y	137	225	Y	225	N		Y	225
10	LoganLancaster_IB	2A	37NLex.OB		19	0.4%		52	Y	52	N		Y	52	46	Y	46	N		Y	46
10	LoganLancaster_IB	3	188Pvill.soCP.OB		47	0.9%		129	Y	129	N		Y	129	114	Y	114	N		Y	114
10	LoganLancaster_IB	4	37Gvill.soCP.OB		272	5.3%		747	Y	747	N		N		664	Y	664	N		N	
10	LoganLancaster_IB	5	158Balt_soCP_OB		91	1.8%		250	Y	250	N		N		213	Y	213	N		N	
10	LoganLancaster_IB	6	Columbus-Lancaster_OB		159	3.1%		437	N		N		N		414	N		N		N	
10	LoganLancaster_IB	7	33.Cbus.IB		157	3.0%		431	N		N		N		325	N		N		N	
10	LoganLancaster_IB	8	188CVill.eo33.OB		22	0.4%		60	N		N		N		53	N		N		N	
10	LoganLancaster_IB	9	33.south.SB		5	0.1%		14	N		N		N		37	N		N		N	
				Total	1,300	25.1%	Total	3,571	Total	2,574	Total	0	Total	373	3,391	Total	2,520	Total	0	Total	428
											% Removed	0%	% Removed	14%				% Removed	0%	% Removed	17%

ODOT ADTs Vehicles Removed from Downtown					
Vehicles Downtown		North Route		South Route	
Total	18,876	Total	3,177	Total	4,117
		% Removed	17%	% Removed	22%

Balanced ODOT ADT (Splitting the Difference) Vehicles Removed					
Vehicles Downtown		North Route		South Route	
Total	18,911	Total	3,205	Total	4,512
		% Removed	17%	% Removed	24%

2019.03022 - Lancaster Eastside Origin Destination Breakdown

All Vehicles

Downtown Origin																							
Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)							
No	Name	No	Name	At Origin	Destination	% Vehicles Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown		Vehicles Removed from Downtown				At Destination	Route Thru Downtown		Vehicles Removed from Downtown			
											North Route		South Route					North Route		South Route	
							Varies		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles		Y or N	Vehicles	Y or N	Vehicles	Y or N	Vehicles
A	A_Downtown	1	22Cinci.wo.33OB	14,422	253	1.8%	8,874	249													
A	A_Downtown	2	22.Zville.OB		267	1.9%	13,965	263													
A	A_Downtown	2A	37NLex.OB		260	1.8%	7,550	256													
A	A_Downtown	3	188Pvill.soCP.OB		99	0.7%	5,286	98													
A	A_Downtown	4	37Gvill.soCP.OB		326	2.3%	8,168	321													
A	A_Downtown	5	158Balt_soCP_OB		289	2.0%	7,123	285													
A	A_Downtown	6	Columbus-Lancaster_OB		641	4.4%	22,853	632													
A	A_Downtown	7	33.Cbus.IB		849	5.9%	25,175	837													
A	A_Downtown	8	188CVill.eo33.OB		317	2.2%	5,977	312													
A	A_Downtown	9	33.south.SB		364	2.5%	27,132	359													
A	A_Downtown	10	LoganLancaster_OB		450	3.1%	14,215	444													
				Total	4,115	28.5%	Total	4,056	Total	0	Total	0	Total	0	0	Total	0	Total	0	Total	0
											% Removed	#DIV/0!	% Removed	#DIV/0!				% Removed	#DIV/0!	% Removed	#DIV/0!

2019.03022 - Lancaster Eastside Origin Destination Breakdown

Trucks

Gate 1 Origin																				
Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)					
											Trucks Removed from Downtown								Trucks Removed from Downtown			
No	Name	No	Name	At Origin	Destination	% Trucks Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown		North Route		South Route		At Destination	Route Thru Downtown		North Route		South Route	
							ID 223		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks
1	22Cinci.wo.33IB	-	A_Downtown	13,011	137	1.1%	731	8	Y	8	N		N		8	Y	8	N		N	
1	22Cinci.wo.33IB	2	22.Zville.OB		1,032	7.9%		58	Y	58	N		Y	58	119	Y	119	N		Y	119
1	22Cinci.wo.33IB	2A	37NLex.OB		383	2.9%		22	Y	22	N		Y	22	32	Y	32	N		Y	32
1	22Cinci.wo.33IB	3	188Pvill.soCP.OB		228	1.8%		13	Y	13	N		Y	13	16	Y	16	N		Y	16
1	22Cinci.wo.33IB	4	37Gvill.soCP.OB		1,865	14.3%		105	Y	105	N		N		105	Y	105	N		N	
1	22Cinci.wo.33IB	5	158Balt_soCP_OB		183	1.4%		10	Y	10	N		N		14	Y	14	N		N	
1	22Cinci.wo.33IB	6	Columbus-Lancaster_OB		107	0.8%		6	N		N		N		7	N		N		N	
1	22Cinci.wo.33IB	7	33.Cbus.IB		2,490	19.1%		140	N		N		N		118	N		N		N	
1	22Cinci.wo.33IB	8	188CVill.eo33.OB		25	0.2%		1	N		N		N		1	N		N		N	
1	22Cinci.wo.33IB	9	33.south.SB		1,705	13.1%		96	N		N		N		79	N		N		N	
1	22Cinci.wo.33IB	10	LoganLancaster_OB		41	0.3%		2	Y	2	N		Y	2	3	Y	3	N		Y	3
				Total	**8,196**	**63.0%**	**Total**	**461**	**Total**	**218**	**Total**	**0**	**Total**	**95**	**501**	**Total**	**296**	**Total**	**0**	**Total**	**170**
											% Removed	**0%**	**% Removed**	**44%**				**% Removed**	**0%**	**% Removed**	**57%**

2019.03022 - Lancaster Eastside Origin Destination Breakdown

Trucks

Gate 2 Origin																				
Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT							Balanced ODOT ADT (Splitting the Difference)						
No	Name	No	Name	At Origin	Destination	% Trucks Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown		Trucks Removed from Downtown				At Destination	Route Thru Downtown		Trucks Removed from Downtown			
											North Route		South Route					North Route		South Route	
							ID 6223		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks
2	22.ZvilleIB	-	A_Downtown	3,060	54	1.8%	798	14	Y	14	N		N		14	N	14	N			
2	22.ZvilleIB	1	22Cinci.wo.33OB		692	22.6%		180	Y	180	N		Y	180	119	Y	119	N		Y	119
2	22.ZvilleIB	2A	37NLex.OB		14	0.5%		4	N		N		N		3	N		N		N	
2	22.ZvilleIB	3	188Pvill.soCP.OB		13	0.4%		3	N		N		N		2	N		N		N	
2	22.ZvilleIB	4	37Gvill.soCP.OB		19	0.6%		5	Y	5	Y	5	N		3	Y	3	Y	3	N	
2	22.ZvilleIB	5	158Balt_soCP_OB		6	0.2%		2	Y	2	Y	2	N		2	Y	2	Y	2	N	
2	22.ZvilleIB	6	Columbus-Lancaster_OB		70	2.3%		18	Y	18	Y	18	N		18	Y	18	Y	18	N	
2	22.ZvilleIB	7	33.Cbus.IB		153	5.0%		40	Y	40	Y	40	N		26	Y	26	Y	26	N	
2	22.ZvilleIB	8	188CVill.eo33.OB		120	3.9%		31	Y	31	N		N		18	Y	18	N		Y	18
2	22.ZvilleIB	9	33.south.SB		155	5.1%		40	Y	40	N		Y	40	24	Y	24	N		Y	24
2	22.ZvilleIB	10	LoganLancaster_OB		166	5.4%		43	Y	43	N		Y	43	37	Y	37	N		Y	37
				Total	**1,462**	**47.8%**	**ID 1023**	**380**	**Total**	**373**	**Total**	**65**	**Total**	**263**	**264**	**Total**	**259**	**Total**	**49**	**Total**	**197**
2A	37NLex.IB	-	A_Downtown	3,758	55	1.5%	412	6	Y	6	N		N		6	N	6	N			
2A	37NLex.IB	1	22Cinci.wo.33OB		375	10.0%		41	Y	41	N		Y	41	32	Y	32	N		Y	32
2A	37NLex.IB	2	22.Zville.OB		19	0.5%		2	N		N		N		3	N		N		N	
2A	37NLex.IB	3	188Pvill.soCP.OB		15	0.4%		2	N		N		N		2	N		N		N	
2A	37NLex.IB	4	37Gvill.soCP.OB		24	0.6%		3	Y	3	Y	3	N		3	Y	3	Y	3	N	
2A	37NLex.IB	5	158Balt_soCP_OB		6	0.2%		1	Y	1	Y	1	N		1	Y	1	Y	1	N	
2A	37NLex.IB	6	Columbus-Lancaster_OB		373	9.9%		41	Y	41	Y	41	N		33	Y	33	Y	33	N	
2A	37NLex.IB	7	33.Cbus.IB		579	15.4%		63	Y	63	Y	63	N		41	Y	41	Y	41	N	
2A	37NLex.IB	8	188CVill.eo33.OB		169	4.5%		19	Y	19	N		Y	19	13	Y	13	N		Y	13
2A	37NLex.IB	9	33.south.SB		34	0.9%		4	Y	4	N		Y	4	3	Y	3	N		Y	3
2A	37NLex.IB	10	LoganLancaster_OB		33	0.9%		4	Y	4	N		Y	4	5	Y	5	N		Y	5
				Total	**1,682**	**44.8%**	**Total**	**186**	**Total**	**182**	**Total**	**108**	**Total**	**68**	**140**	**Total**	**135**	**Total**	**77**	**Total**	**53**
				Total	**3,144**		**Total**	**566**	**Total**	**555**	**Total**	**173**	**Total**	**331**	**403**	**Total**	**394**	**Total**	**125**	**Total**	**249**
									% Removed		**31%**		**% Removed**	**60%**				**% Removed**	**32%**	**% Removed**	**63%**

2019.03022 - Lancaster Eastside Origin Destination Breakdown

Trucks

Gate 3 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
											Trucks Removed from Downtown							Trucks Removed from Downtown			
											North Route		South Route					North Route		South Route	
No	Name	No	Name	At Origin	Destination	% Trucks Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown						At Destination	Route Thru Downtown					
							ID 1823		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks
3	188Pvill.soCP.IB	-	A_Downtown	2,188	70	3.2%	172	6	Y	6	N		N		6	Y	6	N		N	
3	188Pvill.soCP.IB	1	22Cinci.wo.33OB		247	11.3%		19	Y	19	N		Y	19	16	Y	16	N		Y	16
3	188Pvill.soCP.IB	2	22.Zville.OB		6	0.3%		0	N		N		N		2	N		N		N	
3	188Pvill.soCP.IB	2A	37NLex.OB		12	0.5%		1	N		N		N		2	N		N		N	
3	188Pvill.soCP.IB	4	37Gvill.soCP.OB		7	0.3%		1	Y	1	Y	1	N		1	Y	1	Y	1	N	
3	188Pvill.soCP.IB	5	158Balt_soCP_OB		2	0.1%		0	Y	0	Y	0	N		0	Y	0	Y	0	N	
3	188Pvill.soCP.IB	6	Columbus-Lancaster_OB		7	0.3%		1	Y	1	Y	1	N		1	Y	1	Y	1	N	
3	188Pvill.soCP.IB	7	33.Cbus.IB		16	0.7%		1	Y	1	Y	1	N		1	Y	1	Y	1	N	
3	188Pvill.soCP.IB	8	188CVill.eo33.OB		20	0.9%		2	Y	2	N		Y	2	2	Y	2	N		N	
3	188Pvill.soCP.IB	9	33.south.SB		83	3.8%		7	Y	7	N		Y	7	6	Y	6	N		Y	6
3	188Pvill.soCP.IB	10	LoganLancaster_OB		93	4.3%		7	Y	7	N		Y	7	13	Y	13	N		Y	13
				Total	**563**	**25.7%**	**Total**	**45**	**Total**	**44**	**Total**	**3**	**Total**	**35**	**48**	**Total**	**45**	**Total**	**3**	**Total**	**35**
											% Removed	**7%**	**% Removed**	**80%**				**% Removed**	**7%**	**% Removed**	**77%**

Gate 4 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
											Trucks Removed from Downtown							Trucks Removed from Downtown			
											North Route		South Route					North Route		South Route	
No	Name	No	Name	At Origin	Destination	% Trucks Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown						At Destination	Route Thru Downtown					
							ID 6723		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks
4	37.Gvill.noCP.IB	-	A_Downtown	11,646	205	1.8%	483	9	Y	9	N		N		9	Y	9	N		N	
4	37.Gvill.noCP.IB	1	22Cinci.wo.33OB		2,503	21.5%		104	Y	104	N		N		105	Y	105	N		N	
4	37.Gvill.noCP.IB	2	22.Zville.OB		31	0.3%		1	Y	1	Y	1	N		3	Y	3	Y	3	N	
4	37.Gvill.noCP.IB	2A	37NLex.OB		43	0.4%		2	Y	2	Y	2	N		3	Y	3	Y	3	N	
4	37.Gvill.noCP.IB	3	188Pvill.soCP.OB		13	0.1%		1	Y	1	Y	1	N		1	Y	1	Y	1	N	
4	37.Gvill.noCP.IB	5	158Balt_soCP_OB		5	0.0%		0	Y	0	Y	0	N		1	Y	1	Y	1	N	
4	37.Gvill.noCP.IB	6	Columbus-Lancaster_OB		131	1.1%		5	Y	5	Y	5	N		7	Y	7	Y	7	N	
4	37.Gvill.noCP.IB	7	33.Cbus.IB		305	2.6%		13	Y	13	Y	13	N		10	Y	10	Y	10	N	
4	37.Gvill.noCP.IB	8	188CVill.eo33.OB		74	0.6%		3	Y	3	N		N		3	Y	3	N		N	
4	37.Gvill.noCP.IB	9	33.south.SB		2,271	19.5%		94	Y	94	N		N		80	Y	80	N		N	
4	37.Gvill.noCP.IB	10	LoganLancaster_OB		1,837	15.8%		76	Y	76	N		N		154	Y	154	N		N	
				Total	**7,418**	**63.7%**	**Total**	**308**	**Total**	**308**	**Total**	**22**	**Total**	**0**	**374**	**Total**	**374**	**Total**	**24**	**Total**	**0**
											% Removed	**7%**	**% Removed**	**0%**				**% Removed**	**6%**	**% Removed**	**0%**

2019.03022 - Lancaster Eastside Origin Destination Breakdown

Trucks

Gate 5 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
											Trucks Removed from Downtown							Trucks Removed from Downtown			
											North Route		South Route					North Route		South Route	
No	Name	No	Name	At Origin	Destination	% Trucks Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown						At Destination	Route Thru Downtown					
							ID 7023		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks
5	158Bal_soCP_IB	-	A_Downtown	2,418	90	3.7%	186	7	Y	7	N		N		7	Y	7	N		N	
5	158Bal_soCP_IB	1	22Cinci.wo.33OB		218	9.0%		17	Y	17	N		N		14	Y	14	N		N	
5	158Bal_soCP_IB	2	22.Zville.OB		9	0.4%		1	Y	1	Y	1	N		2	Y	2	Y	1.5	N	
5	158Bal_soCP_IB	2A	37NLex.OB		11	0.5%		1	Y	1	Y	1	N		1	Y	1	Y	1	N	
5	158Bal_soCP_IB	3	188Pvill.soCP.OB		1	0.0%		0	Y	0	Y	0	N		0	Y	0	Y	0	N	
5	158Bal_soCP_IB	4	37Gvill.soCP.OB		7	0.3%		1	Y	1	Y	1	N		1	Y	1	Y	0.5	N	
5	158Bal_soCP_IB	6	Columbus-Lancaster_OB		43	1.8%		3	Y	3	Y	3	N		3	Y	3	Y	3	N	
5	158Bal_soCP_IB	7	33.Cbus.IB		55	2.3%		4	Y	4	Y	4	N		3	Y	3	Y	3	N	
5	158Bal_soCP_IB	8	188CVill.eo33.OB		10	0.4%		1	Y	1	Y	1	N		1	Y	1	Y	1	N	
5	158Bal_soCP_IB	9	33.south.SB		622	25.7%		48	Y	48	N		N		32	Y	32	N		N	
5	158Bal_soCP_IB	10	LoganLancaster_OB		582	24.1%		45	Y	45	N		N		47	Y	47	N		N	
				Total	**1,648**	**68.2%**	**Total**	**128**	**Total**	**128**	**Total**	**11**	**Total**	**0**	**109**	**Total**	**109**	**Total**	**10**	**Total**	**0**
											% Removed	**9%**	**% Removed**	**0%**				**% Removed**	**9%**	**% Removed**	**0%**

Gate 6 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
											Trucks Removed from Downtown							Trucks Removed from Downtown			
											North Route		South Route					North Route		South Route	
No	Name	No	Name	At Origin	Destination	% Trucks Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown						At Destination	Route Thru Downtown					
							ID 25123		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks
6	Columbus-Lancaster_IB	-	A_Downtown	16,869	355	2.1%	1,339	28	Y	28	N		N		28	Y	28	N		N	
6	Columbus-Lancaster_IB	1	22Cinci.wo.33OB		96	0.6%		8	N		N		N		7	N		N		N	
6	Columbus-Lancaster_IB	2	22.Zville.OB		225	1.3%		18	Y	18	Y	18	N		18	Y	18	Y	18	N	
6	Columbus-Lancaster_IB	2A	37NLex.OB		308	1.8%		24	Y	24	Y	24	N		33	Y	33	Y	33	N	
6	Columbus-Lancaster_IB	3	188Pvill.soCP.OB		8	0.0%		1	Y	1	Y	1	N		1	Y	1	Y	1	N	
6	Columbus-Lancaster_IB	4	37Gvill.soCP.OB		119	0.7%		9	Y	9	Y	9	N		7	Y	7	Y	7	N	
6	Columbus-Lancaster_IB	5	158Balt_soCP_OB		33	0.2%		3	Y	3	Y	3	N		3	Y	3	Y	3	N	
6	Columbus-Lancaster_IB	7	33.Cbus.IB		37	0.2%		3	N		N	3	N		3	N		N	3	N	
6	Columbus-Lancaster_IB	8	188CVill.eo33.OB		144	0.9%		11	N		N		N		8	N		N		N	
6	Columbus-Lancaster_IB	9	33.south.SB		378	2.2%		30	N		N		N		20	N		N		N	
6	Columbus-Lancaster_IB	10	LoganLancaster_OB		381	2.3%		30	Y	30	N		N		34	Y	34	N		N	
				Total	**2,084**	**12.4%**	**Total**	**165**	**Total**	**113**	**Total**	**58**	**Total**	**0**	**161**	**Total**	**123**	**Total**	**65**	**Total**	**0**
											% Removed	**51%**	**% Removed**	**0%**				**% Removed**	**52%**	**% Removed**	**0%**

2019.03022 - Lancaster Eastside Origin Destination Breakdown

Trucks

Gate 7 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
										Trucks Removed from Downtown							Trucks Removed from Downtown			
No	Name	No	Name	At Origin	Destination	% Trucks Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown		North Route		South Route		At Destination	Route Thru Downtown		North Route		South Route	
							ID 23323		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks
7	33.Cbus.OB	-	A_Downtown	64,335	599	0.9%	2,355	22	Y	22	N		N		22	Y	22	N		N	
7	33.Cbus.OB	1	22Cinci.wo.33OB		2,632	4.1%		96	N		N		N		118	N		N		N	
7	33.Cbus.OB	2	22.Zville.OB		320	0.5%		12	Y	12	Y	12	Y	12	26	Y	26	Y	26	Y	26
7	33.Cbus.OB	2A	37NLex.OB		504	0.8%		18	Y	18	Y	18	Y	18	41	Y	41	Y	41	Y	41
7	33.Cbus.OB	3	188Pvill.soCP.OB		24	0.0%		1	Y	1	Y	1	N		1	Y	1	Y	1	N	
7	33.Cbus.OB	4	37Gvill.soCP.OB		195	0.3%		7	Y	7	Y	7	N		10	Y	10	Y	10	N	
7	33.Cbus.OB	5	158Balt_soCP_OB		47	0.1%		2	Y	2	Y	2	N		3	Y	3	Y	3	N	
7	33.Cbus.OB	6	Columbus-Lancaster_OB		79	0.1%		3	N		N		N		3	N		N		N	
7	33.Cbus.OB	8	188CVill.eo33.OB		89	0.1%		3	N		N		N		7	N		N		N	
7	33.Cbus.OB	9	33.south.SB		31,962	49.7%		1,170	N		N		N		1,266	N		N		N	
7	33.Cbus.OB	10	LoganLancaster_OB		308	0.5%		11	N		N		N		23	N		N		N	
				Total	36,759	57.1%	Total	1,345	Total	62	Total	40	Total	30	1,519	Total	103	Total	81	Total	67
											% Removed	65%	% Removed	48%				% Removed	79%	% Removed	65%

Gate 8 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
										Trucks Removed from Downtown							Trucks Removed from Downtown			
No	Name	No	Name	At Origin	Destination	% Trucks Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown		North Route		South Route		At Destination	Route Thru Downtown		North Route		South Route	
							ID 1723		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks
8	188CVill.eo33.IB	-	A_Downtown	8,857	157	1.8%	352	6	Y	6	N		N		6	Y	6	N		N	
8	188CVill.eo33.IB	1	22Cinci.wo.33OB		24	0.3%		1	N		N		N		1	N		N		N	
8	188CVill.eo33.IB	2	22.Zville.OB		96	1.1%		4	Y	4	N		Y	4	18	Y	18	N		Y	18
8	188CVill.eo33.IB	2A	37NLex.OB		166	1.9%		7	Y	7	N		Y	7	13	Y	13	N		Y	13
8	188CVill.eo33.IB	3	188Pvill.soCP.OB		25	0.3%		1	Y	1	N	1	N		2	Y	2	N	2	N	
8	188CVill.eo33.IB	4	37Gvill.soCP.OB		88	1.0%		3	Y	3	N		N		3	Y	3	N		N	
8	188CVill.eo33.IB	5	158Balt_soCP_OB		16	0.2%		1	Y	1	Y	1	N		1	Y	1	Y	1	N	
8	188CVill.eo33.IB	6	Columbus-Lancaster_OB		94	1.1%		4	N		N		N		8	N		N		N	
8	188CVill.eo33.IB	7	33.Cbus.IB		258	2.9%		10	N		N		N		7	N		N		N	
8	188CVill.eo33.IB	9	33.south.SB		80	0.9%		3	N		N		N		2	N		N		N	
8	188CVill.eo33.IB	10	LoganLancaster_OB		45	0.5%		2	N		N		N		1	N		N		N	
				Total	1,049	11.8%	Total	42	Total	22	Total	2	Total	11	60	Total	42	Total	3	Total	31
											% Removed	9%	% Removed	50%				% Removed	6%	% Removed	73%

2019.03022 - Lancaster Eastside Origin Destination Breakdown

Trucks

Gate 9 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
											Trucks Removed from Downtown							Trucks Removed from Downtown			
No	Name	No	Name	At Origin	Destination	% Trucks Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown		North Route		South Route		At Destination	Route Thru Downtown		North Route		South Route	
							ID 10623		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks
9	33.south.NB	-	A_Downtown	52,891	217	0.4%	1,821	7	Y	7	N		N		7	Y	7	N		N	
9	33.south.NB	1	22Cinci.wo.33OB		1,803	3.4%		62	N		N		N		79	N		N		N	
9	33.south.NB	2	22.Zville.OB		213	0.4%		7	Y	7	N		Y	7	24	Y	24	N		Y	24
9	33.south.NB	2A	37NLex.OB		57	0.1%		2	Y	2	N		Y	2	3	Y	3	N		Y	3
9	33.south.NB	3	188Pvill.soCP.OB		135	0.3%		5	Y	5	N		Y	5	6	Y	6	N		Y	6
9	33.south.NB	4	37Gvill.soCP.OB		1,882	3.6%		65	Y	65	N		N		80	Y	80	N		N	
9	33.south.NB	5	158Balt_soCP_OB		436	0.8%		15	Y	15	N		N		32	Y	32	N		N	
9	33.south.NB	6	Columbus-Lancaster_OB		292	0.6%		10	N		N		N		20	N		N		N	
9	33.south.NB	7	33.Cbus.IB		39,562	74.8%		1,362	N		N		N		1,266	N		N		N	
9	33.south.NB	8	188CVill.eo33.OB		37	0.1%		1	N		N		N		2	N		N		N	
9	33.south.NB	10	LoganLancaster_OB		8	0.0%		0	N		N		Y	0	0	N		N		Y	0
				Total	44,642	84.4%	Total	1,536	Total	101	Total	0	Total	14	1,518	Total	151	Total	0	Total	33
											% Removed	0%	% Removed	14%				% Removed	0%	% Removed	22%

Gate 10 Origin

Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
											Trucks Removed from Downtown							Trucks Removed from Downtown			
No	Name	No	Name	At Origin	Destination	% Trucks Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown		North Route		South Route		At Destination	Route Thru Downtown		North Route		South Route	
							ID 6523		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks
10	LoganLancaster_IB	-	A_Downtown	6,441	238	3.7%	916	34	Y	34	N		N		34	Y	34	N		N	
10	LoganLancaster_IB	1	22Cinci.wo.33OB		27	0.4%		4	N		N		Y	4	3	N		N		Y	3
10	LoganLancaster_IB	2	22.Zville.OB		212	3.3%		30	Y	30	N		Y	30	37	Y	37	N		Y	37
10	LoganLancaster_IB	2A	37NLex.OB		44	0.7%		6	Y	6	N		Y	6	5	Y	5	N		Y	5
10	LoganLancaster_IB	3	188Pvill.soCP.OB		125	1.9%		18	Y	18	N		Y	18	13	Y	13	N		Y	13
10	LoganLancaster_IB	4	37Gvill.soCP.OB		1,621	25.2%		231	Y	231	N		N		154	Y	154	N		N	
10	LoganLancaster_IB	5	158Balt_soCP_OB		348	5.4%		49	Y	49	N		N		47	Y	47	N		N	
10	LoganLancaster_IB	6	Columbus-Lancaster_OB		262	4.1%		37	N		N		N		34	N		N		N	
10	LoganLancaster_IB	7	33.Cbus.IB		247	3.8%		35	N		N		N		23	N		N		N	
10	LoganLancaster_IB	8	188CVill.eo33.OB		30	0.5%		4	N		N		N		3	N		N		N	
10	LoganLancaster_IB	9	33.south.SB		3	0.0%		0	N		N		N		0	N		N		N	
				Total	3,157	49.0%	Total	448	Total	368	Total	0	Total	58	351	Total	289	Total	0	Total	57
											% Removed	0%	% Removed	16%				% Removed	0%	% Removed	20%

ODOT ADTs Trucks Removed from Downtown					
Trucks Downtown		North Route		South Route	
Total	1,919	Total	309	Total	574
		% Removed	16%	% Removed	30%

Balanced ODOT ADT (Splitting the Difference) Trucks Removed					
Trucks Downtown		North Route		South Route	
Total	1,924	Total	310	Total	640
		% Removed	16%	% Removed	33%

2019.03022 - Lancaster Eastside Origin Destination Breakdown

Trucks

Gate 10 Origin																					
Origin Gate		Destination Gate		Streetlight ADT			ODOT ADT								Balanced ODOT ADT (Splitting the Difference)						
No	Name	No	Name	At Origin	Destination	% Trucks Reaching Destination Gate	At Origin	At Destination	Route Thru Downtown		Trucks Removed from Downtown				At Destination	Route Thru Downtown		Trucks Removed from Downtown			
											North Route		South Route					North Route		South Route	
							Varies		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks		Y or N	Vehicles	Y or N	Trucks	Y or N	Trucks
A	A_Downtown	1	22Cinci.wo.33OB	3,418	161	4.7%	731	43													
A	A_Downtown	2	22.Zville.OB		71	2.1%	798	19													
A	A_Downtown	2A	37NLex.OB		77	2.3%	412	21													
A	A_Downtown	3	188Pvill.soCP.OB		56	1.6%	172	15													
A	A_Downtown	4	37Gvill.soCP.OB		142	4.2%	483	38													
A	A_Downtown	5	158Balt_soCP_OB		58	1.7%	186	16													
A	A_Downtown	6	Columbus-Lancaster_OB		361	10.6%	1339	97													
A	A_Downtown	7	33.Cbus.IB		481	14.1%	2,355	129													
A	A_Downtown	8	188CVill.eo33.OB		105	3.1%	352	28													
A	A_Downtown	9	33.south.SB		166	4.9%	1,821	44													
A	A_Downtown	10	LoganLancaster_OB		185	5.4%	916	50													
				Total	**1,863**	**54.5%**	**Total**	**500**	**Total**	**0**	**Total**	**0**	**Total**	**0**	**0**	**Total**	**0**	**Total**	**0**	**Total**	**0**
											% Removed	**#DIV/0!**	**% Removed**	**#DIV/0!**				**% Removed**	**#DIV/0!**	**% Removed**	**#DIV/0!**

Appendix C – Environmental Resources Review

Environmental Analysis

The U.S. Fish and Wildlife Service (USFWS) has identified the following species, identified in Table 1, as Federally-Listed within Fairfield County, Ohio as of September, 2021.

Table 1 – Federally Listed Species, Fairfield County, Ohio

Species	Status	Habitat
Indiana bat (*Myotis sodalis*)	Endangered	Winter habitat = Caves and mines; Summer habitat = roost under trees with loose bark, etc.; forage in forested stream corridors and upland forests.
northern long-eared bat (*Myotis septentrionalis*)	Threatened*	Winter habitat = Caves and mines; Summer habitat = roost under trees with loose bark, etc., in caves/mines and structures; forage in woods.
round hickorynut (*Obovaria subrotunda)*	Potentially Threatened	In streams and rivers in areas with sand and gravel in riffle and run habitats; may also be found in sandy mud in rivers.
Eastern Massasauga (*Sistrurus catenatus*)	Threatened	Winter habitat = low woods, bogs, fens, or marshes Summer habitat = Upland forests or areas of drier ground, typically grassy areas with low shrubs.
* USFWS recently proposed to reclassify this species as endangered and is seeking public input		

Alternative 2A

Streams and Wetlands: A review of hydrological records identified the potential presence of six drainage features, one pond, three riparian wetlands, two shallow marshes, and three shrub/scrub wetlands within the alternative. Four of the drainage features are named; the Hocking River, Hunters Run, Baldwin Run, and Pleasant Run. Additionally, three of the mapped soils within the alternative are hydric [Muskego muck (Mr); Rockmill silty clay loam, occasionally flooded (Rp); and Westland silty clay loam, Southern Ohio Till Plain (Wk)].

Floodplain: Multiple 100-year floodplains exist within the alternative.

Threatened and Endangered Species: Additionally, potential habitat for threatened and endangered species occurs within the alternative; such as areas of suitable wooded habitat for the Indiana bat and northern long-eared bat as well as stream habitat for the round hickorynut.

Hazardous Materials: A search of nationwide and local databases sources were reviewed to determine if there were any reported hazardous materials within the alternative. The resulting determination concluded the alternative is located within the buffer of two solid waste facilities. Additionally, a total of eight Resource Conservation and Recovery Act (RCRA) generators, 25 underground storage tanks (UST), five Division of Environmental Response and Revitalization (DERR) database records, and one impoundment site are located within the search limits of ORPS for this alternative. Overall, a total of 12 hazardous material properties are located within the alternative.

Cultural Resources: A search of the OHPO database showed one previously surveyed area and three archeological sites within the alternative limits. Additionally, two National Register Boundaries (Fairfield County Children's Home and Lancaster Historic District) are located adjacent to the alternative.

Underserved Populations: The ODOT TIMS identified this alternative may impact low-income, people of color and over age 64 populations in the area. The alternative will require multiple total takes, easement acquisitions from private properties, and temporary easements.

Alternative 2B

Streams and Wetlands: A review of hydrological records identified the potential presence of seven drainage features, two riparian wetlands, two shallow marshes and three shrub/scrub wetlands within the alternative. Four of the drainage features are named; the Hocking River, Tarhe Run, Baldwin Run, and Pleasant Run. Additionally, three of the mapped soils within the alternative are hydric [Muskego muck (Mr); Rockmill silty clay loam, occasionally flooded (Rp); and Westland silty clay loam, Southern Ohio Till Plain (Wk)].

Floodplain: Multiple 100-year floodplains exist within the alternative.

Threatened and Endangered Species: Additionally, potential habitat for threatened and endangered species occurs within the alternative; such as areas of suitable wooded habitat for the Indiana bat and northern long-eared bat as well as stream habitat for the round hickorynut.

Hazardous Materials: A search of nationwide and local databases sources were reviewed to determine if there were any reported hazardous materials within the alternative. The resulting determination concluded the alternative is located within the buffer of two solid waste facilities. Additionally, a total of nine RCRA generators, 10 leaking underground storage tanks (LUST), six DERR database records, and nine voluntary action program (VAP) sites are located within the search limits of ORPS for this alternative. In summary, a total of 12 hazardous material properties are located within the alternative.

Cultural Resources: A search of the OHPO database showed one previously surveyed area and three archeological sites within the alternative limits. Additionally, two historic structures, the Lancaster Heritage District, and two National Register Boundaries (Fairfield County Children's Home and Lancaster Historic District) are located adjacent to the alternative.

Underserved Populations: The ODOT TIMS identified this alternative may impact low-income, people of color and over age 64 populations in the area. The alternative will require multiple total takes, easement acquisitions from private properties, and temporary easements.

Alternative 3A

Streams and Wetlands: A review of hydrological records identified the potential presence of four drainage features, two riparian wetlands, one emergent wetland, two shallow marshes and one shrub/scrub wetland within the alternative. Three of the drainage features are named; the Hocking River, Baldwin Run, and Pleasant Run. Additionally, four of the mapped soils within the alternative are hydric [Beaucoup silty clay loam (Bb); Muskego muck (Mr); Rockmill silty clay loam, occasionally flooded (Rp); and Westland silty clay loam, Southern Ohio Till Plain (Wk)].

Floodplain: Multiple 100-year floodplains exist within the alternative.

Threatened and Endangered Species: Additionally, potential habitat for threatened and endangered species occurs within the alternative; such as areas of suitable wooded habitat for the Indiana bat and northern long-eared bat as well as stream habitat for the round hickorynut.

Hazardous Materials: A search of nationwide and local databases sources were reviewed to determine if there were any reported hazardous materials within the alternative. The resulting determination concluded the alternative is located within the buffer of three solid waste facilities. Additionally, a total of four RCRA generators, and two Ohio Environmental Protection Agency (OEPA) spills database records are located within the search limits of ORPS for this alternative. In summary, a total of six hazardous material properties are located within the alternative.

Cultural Resources: A search of the OHPO database showed five archeological sites and two previously surveyed areas within the alternative limits. Additionally, one National Register Boundary (Fairfield County Children's Home) is located adjacent to the alternative.

Underserved Populations: The ODOT TIMS identified this alternative may impact low-income, people of color, and over age 64 populations in the area. The alternative will require multiple total takes, easement acquisitions from private properties, and temporary easements.

Alternative 3B

Streams and Wetlands: A review of hydrological records identified the potential presence of four drainage features, two riparian wetlands, two shallow marshes and one shrub/scrub wetland within the alternative. Three of the drainage features are named; the Hocking River, Baldwin Run, and Pleasant Run. Additionally, three of the mapped soils within the alternative are hydric [Muskego muck (Mr); Rockmill silty clay loam, occasionally flooded (Rp); and Westland silty clay loam, Southern Ohio Till Plain (Wk)].

Floodplain: Multiple 100-year floodplains exist within the alternative.

Threatened and Endangered Species: Additionally, potential habitat for threatened and endangered species occurs within the alternative; such as areas of suitable wooded habitat for the Indiana bat and northern long-eared bat as well as stream habitat for the round hickorynut.

Hazardous Materials: A search of nationwide and local databases sources were reviewed to determine if there were any reported hazardous materials within the alternative. The resulting determination concluded the alternative is located within the buffer of two solid waste facilities. Additionally, a total of two RCRA generators, and two UST records are located within the search limits of ORPS for this alternative. In summary, a total of four hazardous material properties are located within the alternative.

Cultural Resources: A search of the OHPO database showed four archeological sites within the alternative limits. Additionally, one National Register Boundary (Fairfield County Children's Home) is located adjacent to the alternative.

Underserved Populations: The ODOT TIMS identified this alternative may impact low-income, people of color, and over age 64 populations in the area. The alternative will require multiple total takes, easement acquisitions from private properties, and temporary easements.

Alternative 3C

Streams and Wetlands: A review of hydrological records identified the potential presence of five drainage features, two riparian wetlands, two shallow marshes and three shrub/scrub wetlands within the alternative. Three of the drainage features are named; the Hocking River, Baldwin Run, and Pleasant Run. Additionally, four of the mapped soils within the alternative are hydric [Muskego muck (Mr); Rockmill silty clay loam, occasionally flooded (Rp); and Westland silty clay loam, Southern Ohio Till Plain (Wk)].

Floodplain: Multiple 100-year floodplains exist within the alternative.

Threatened and Endangered Species: Additionally, potential habitat for threatened and endangered species occurs within the alternative; such as areas of suitable wooded habitat for the Indiana bat and northern long-eared bat as well as stream habitat for the round hickorynut.

Hazardous Materials: A search of nationwide and local databases sources were reviewed to determine if there were any reported hazardous materials within the alternative. The resulting determination concluded the alternative is located within the buffer of two solid waste facilities. Additionally, a total of two RCRA generators, and two UST records are located within the search limits of ORPS for this alternative. In summary, a total of five hazardous material properties are located within the alternative.

Cultural Resources: A search of the OHPO database showed four archeological sites within the alternative limits. Additionally, one National Register Boundary (Fairfield County Children's Home) is located adjacent to the alternative.

Underserved Populations: The ODOT TIMS identified this alternative may impact low-income, people of color, and over age 64 populations in the area. The alternative will require multiple total takes, easement acquisitions from private properties, and temporary easements.

Alternative 7

Streams and Wetlands: A review of hydrological records identified the potential presence of five drainage features, two ponds, three riparian wetlands, two shallow marshes, and three shrub/scrub wetlands within the alternative. Four of the drainage features are named; the Hocking River, Hunters Run, Baldwin Run, and Pleasant Run. Additionally, four of the mapped soils within the alternative are hydric [Patton sily clay loam (Pa and Pb); Rockmill silty clay loam, occasionally flooded (Rp); and Westland silty clay loam, Southern Ohio Till Plain (Wk)].

Floodplain: Multiple 100-year floodplains exist within the alternative.

Threatened and Endangered Species: Additionally, potential habitat for threatened and endangered species occurs within the alternative; such as areas of suitable wooded habitat for the Indiana bat and northern long-eared bat as well as stream habitat for the round hickorynut.

Hazardous Materials: A search of nationwide and local databases sources were reviewed to determine if there were any reported hazardous materials within the alternative. The resulting determination concluded the alternative is located within the buffer of one solid waste facility. Additionally, a total of ten Resource Conservation and Recovery Act (RCRA) generators, nine underground storage tanks (UST), two Division of Environmental Response and Revitalization (DERR) database records, one Voluntay Action Program site, and one impoundment

site are located within the search limits of ORPS for this alternative. Overall, a total of 21 hazardous material properties are located within the alternative.

Cultural Resources: A search of the OHPO database showed three previously surveyed areas and four archeological sites within the alternative limits. Additionally, a National Register Boundary (Lancaster Historic District) is located adjacent to the alternative.

Underserved Populations: The ODOT TIMS identified this alternative may impact low-income, people of color and over age 64 populations in the area. The alternative will require multiple total takes, easement acquisitions from private properties, and temporary easements.

Resources

Federal Emergency Management Agency. 2016. 100 Year Floodplain Map. United States Department of Homeland Security.

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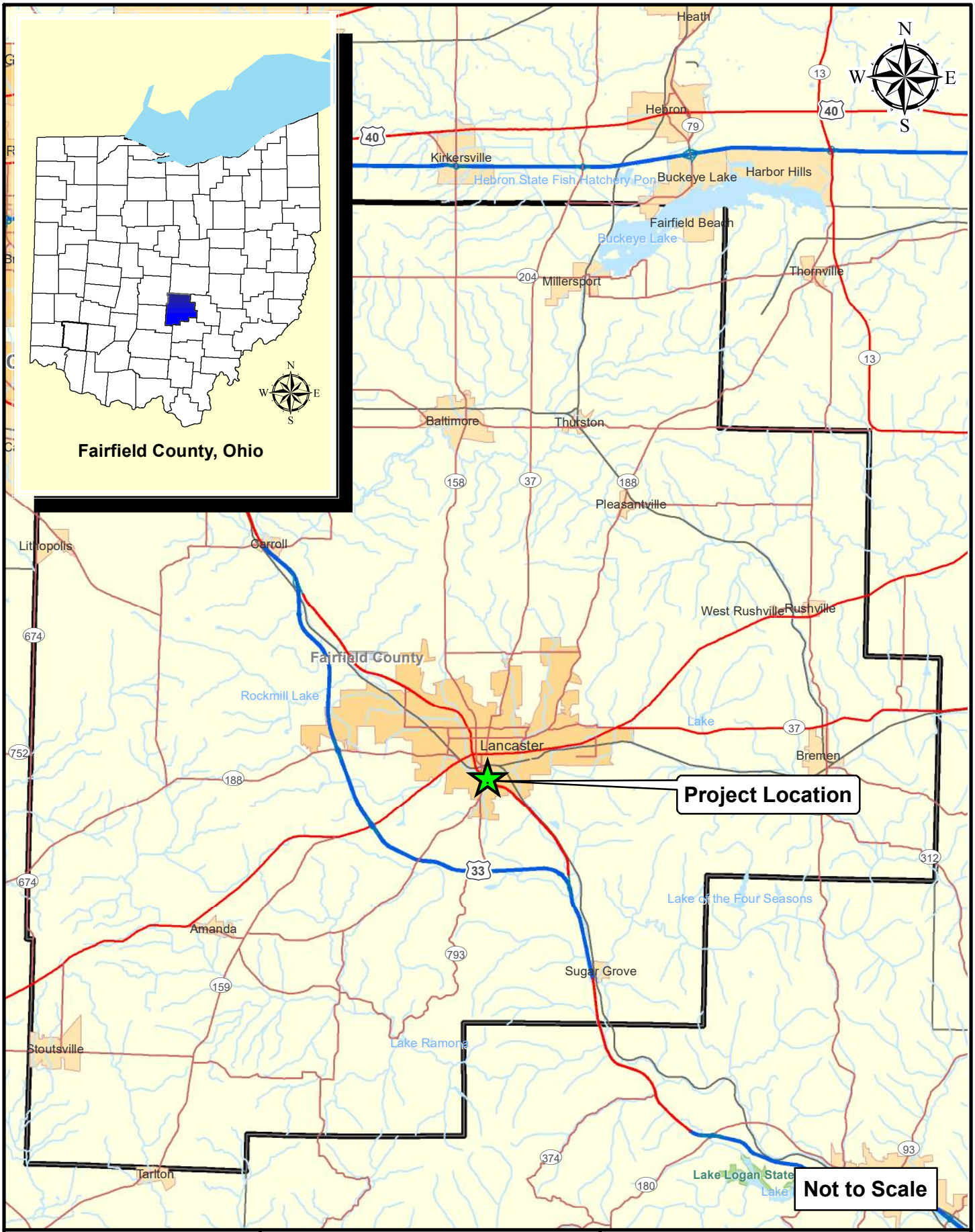
Alternative 2A

Mapping

Project Location Map
USGS Topographic Map
2022 Aerial Photography Map
2005 Fairfield County Soil Survey Map
National Wetland Inventory Map
Ohio Wetland Inventory Map
FEMA 100-Year Floodplain Map



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AMERICAN STRUCTUREPOINT INC.

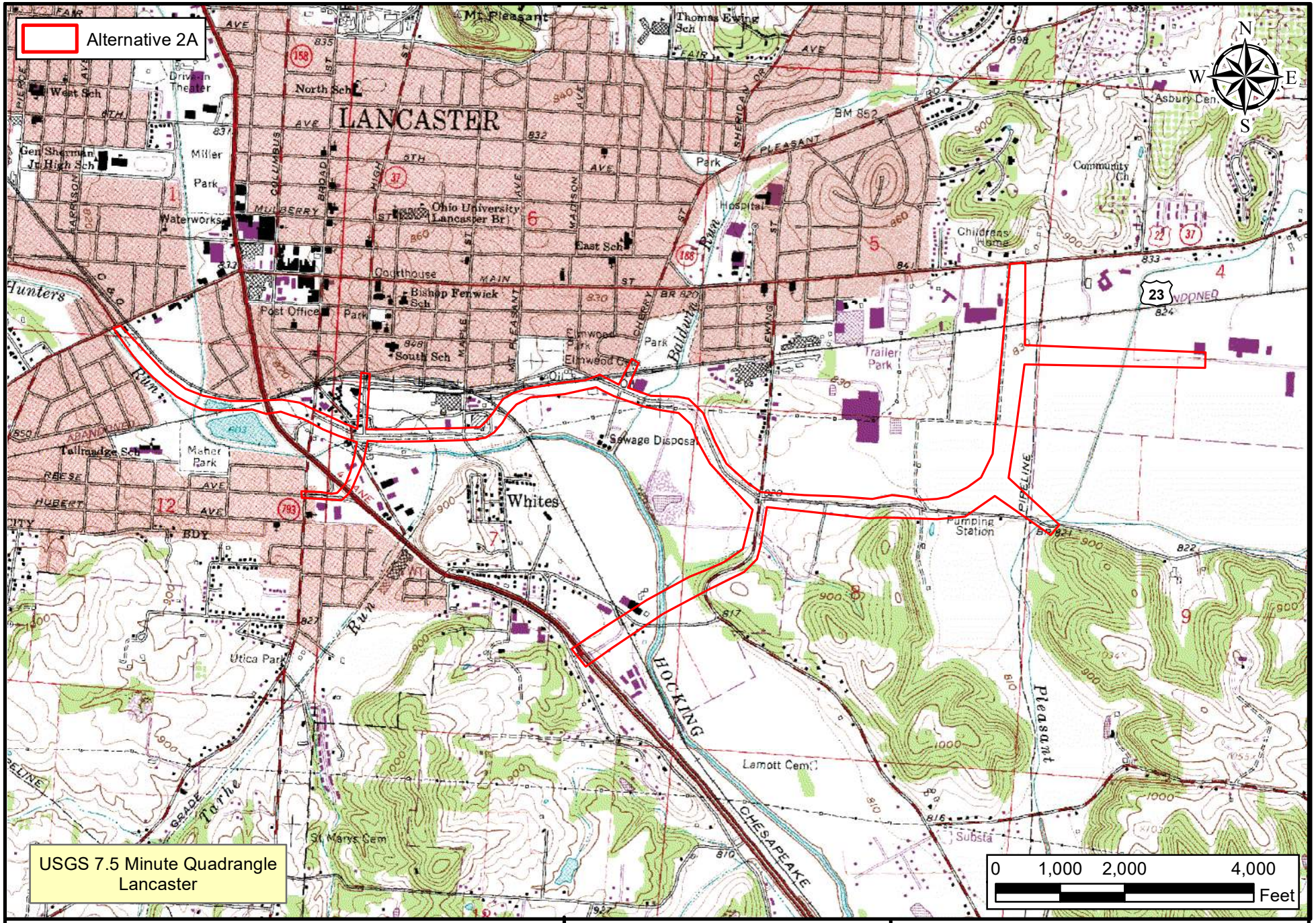
Project Location Map

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector- Alternative 2A

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



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www.structurepoint.com

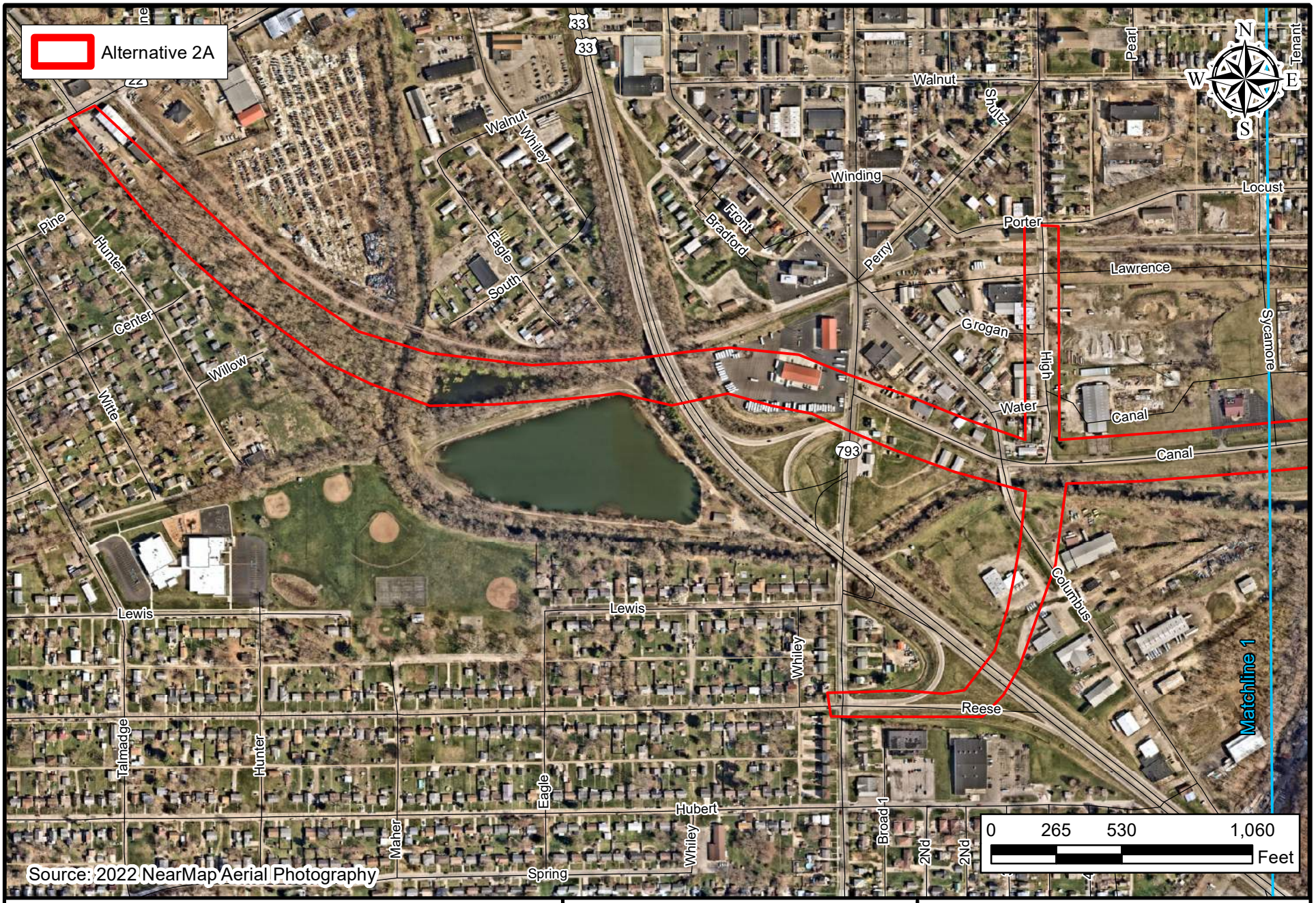
USGS Topographic Map

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2A

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/11/2022



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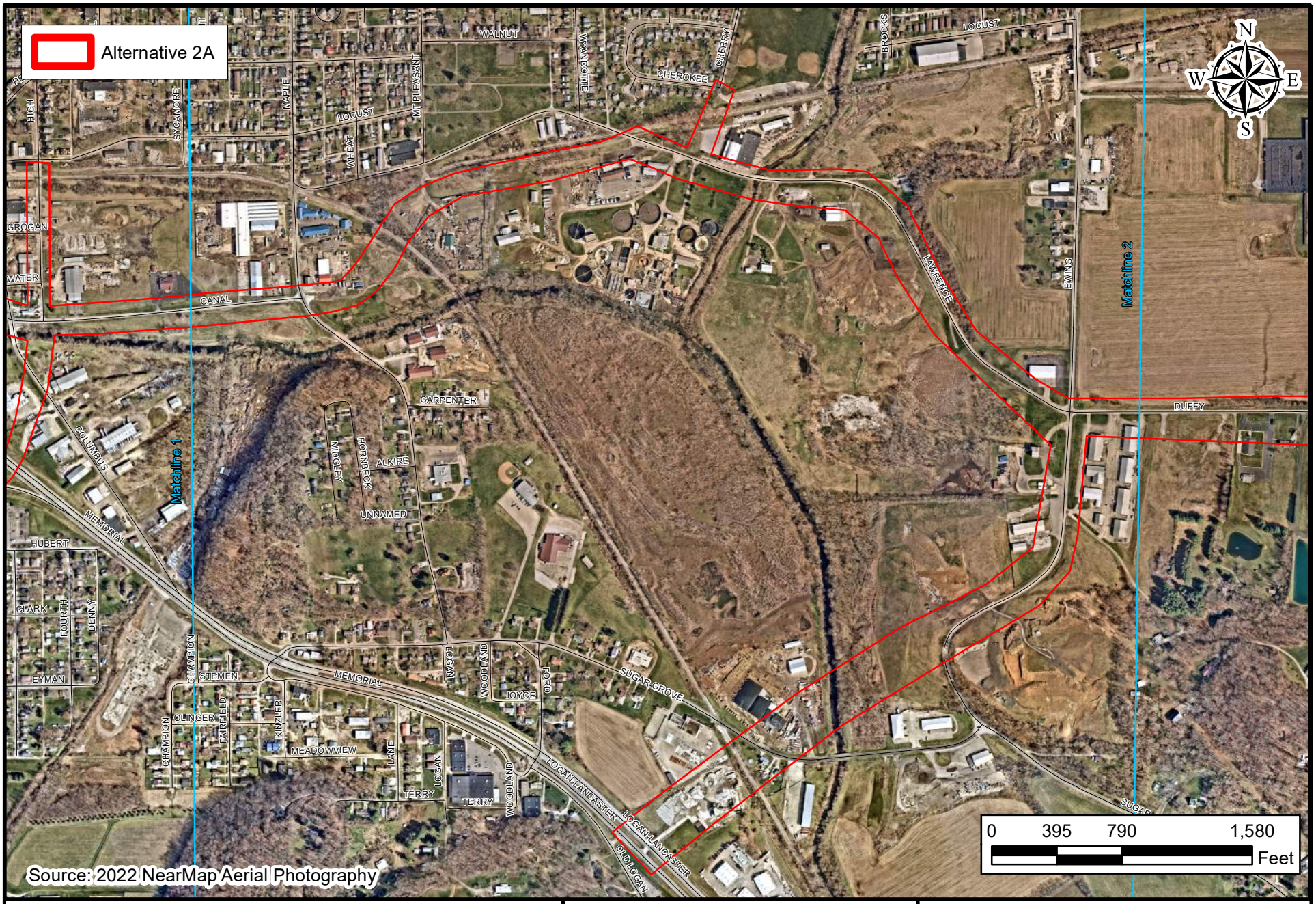
Aerial Map (1 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2A

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



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www.structurespoint.com

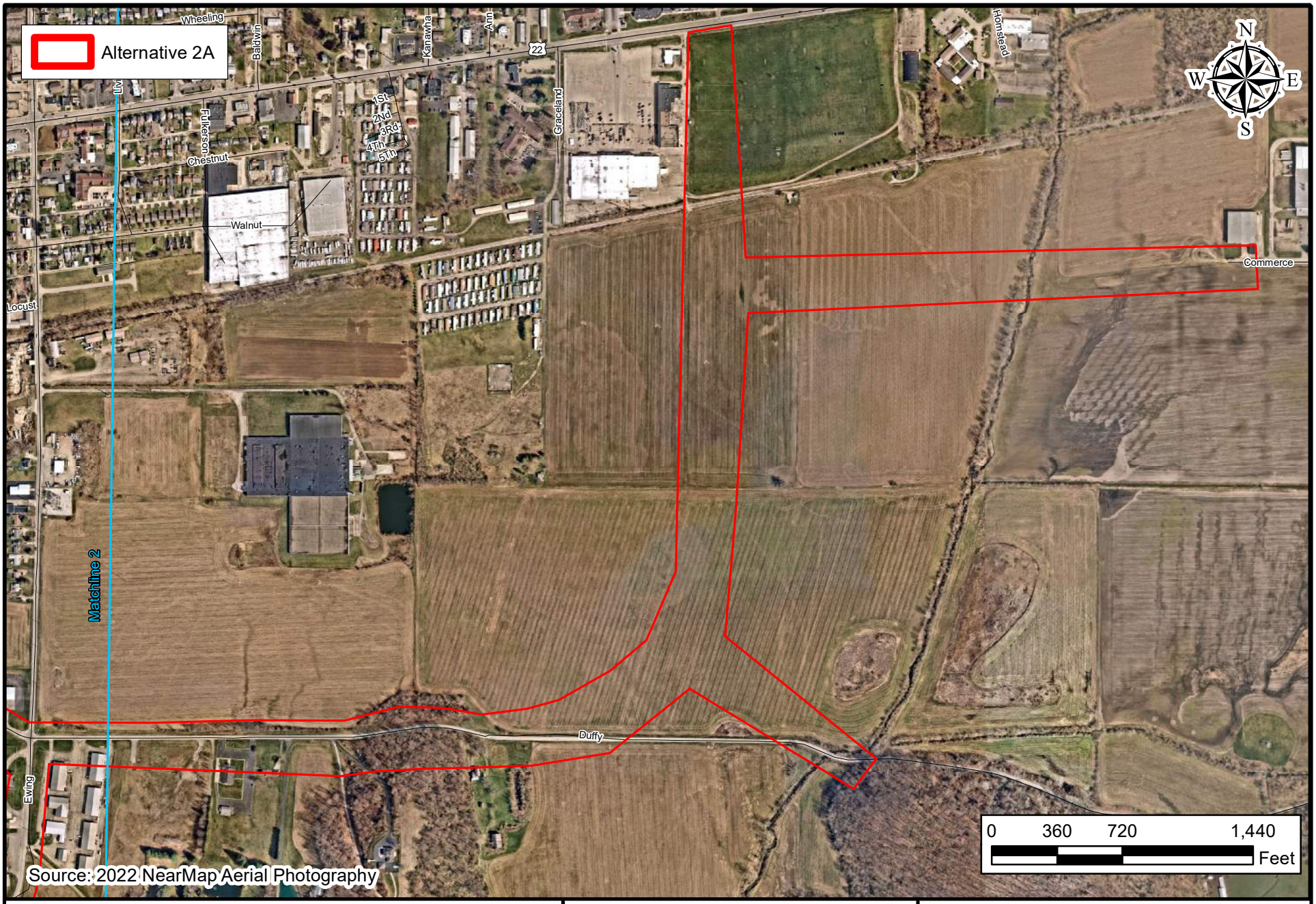
Aerial Map (2 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2A

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



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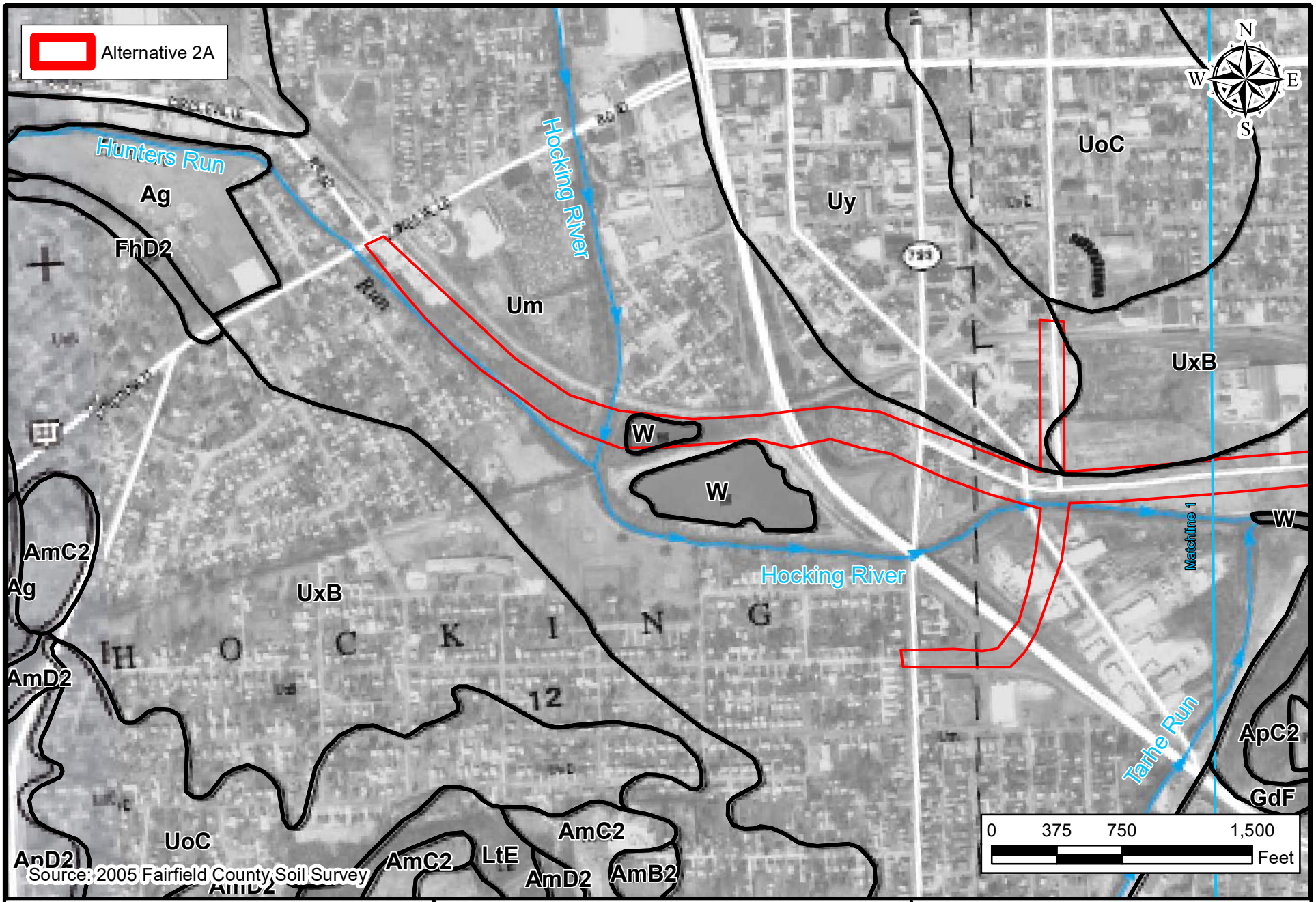
Aerial Map (3 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2A

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



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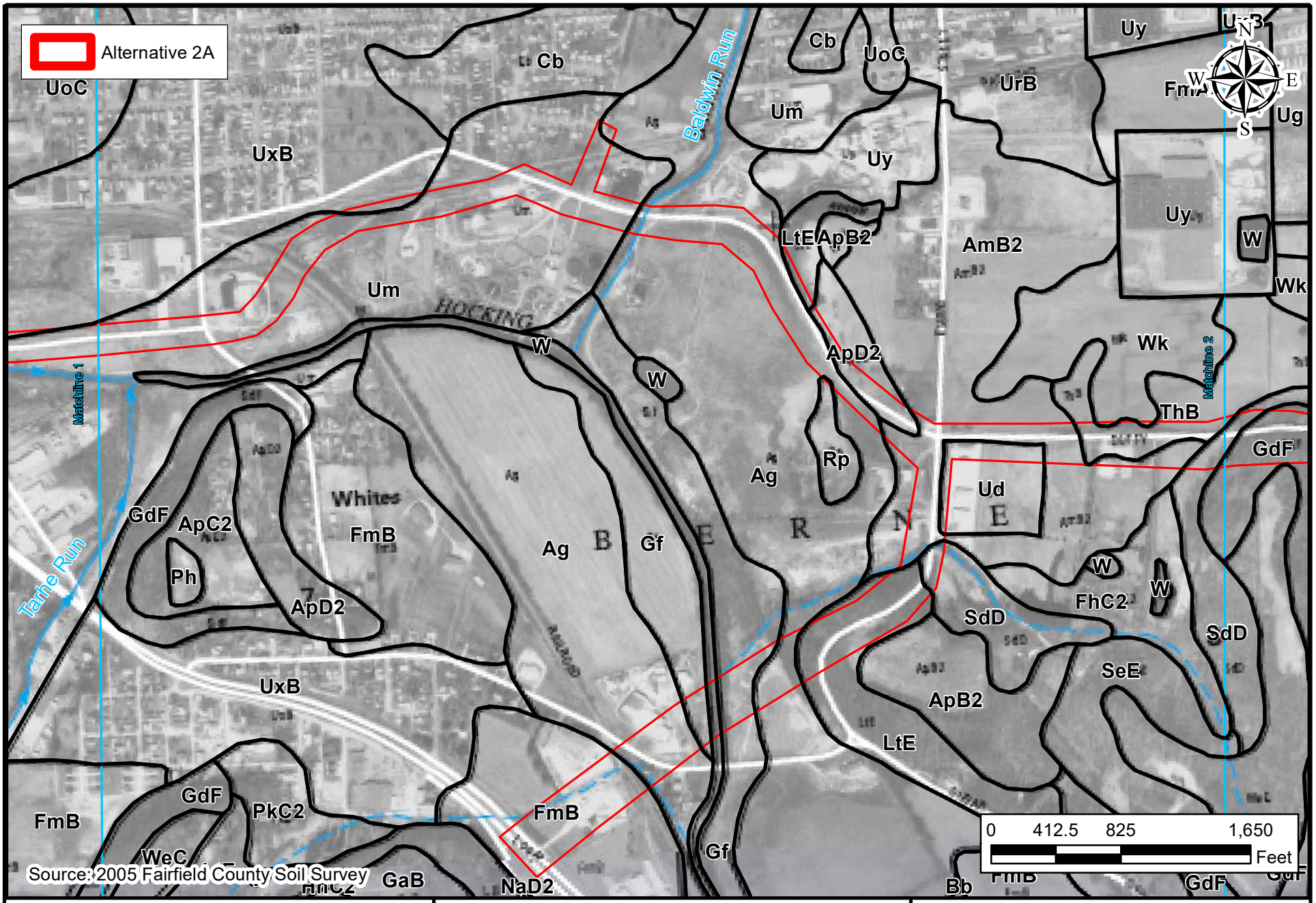
2005 Fairfield County Soil Survey Map (1 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 2A

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



Source: 2005 Fairfield County Soil Survey

AMERICAN STRUCTUREPOINT INC.
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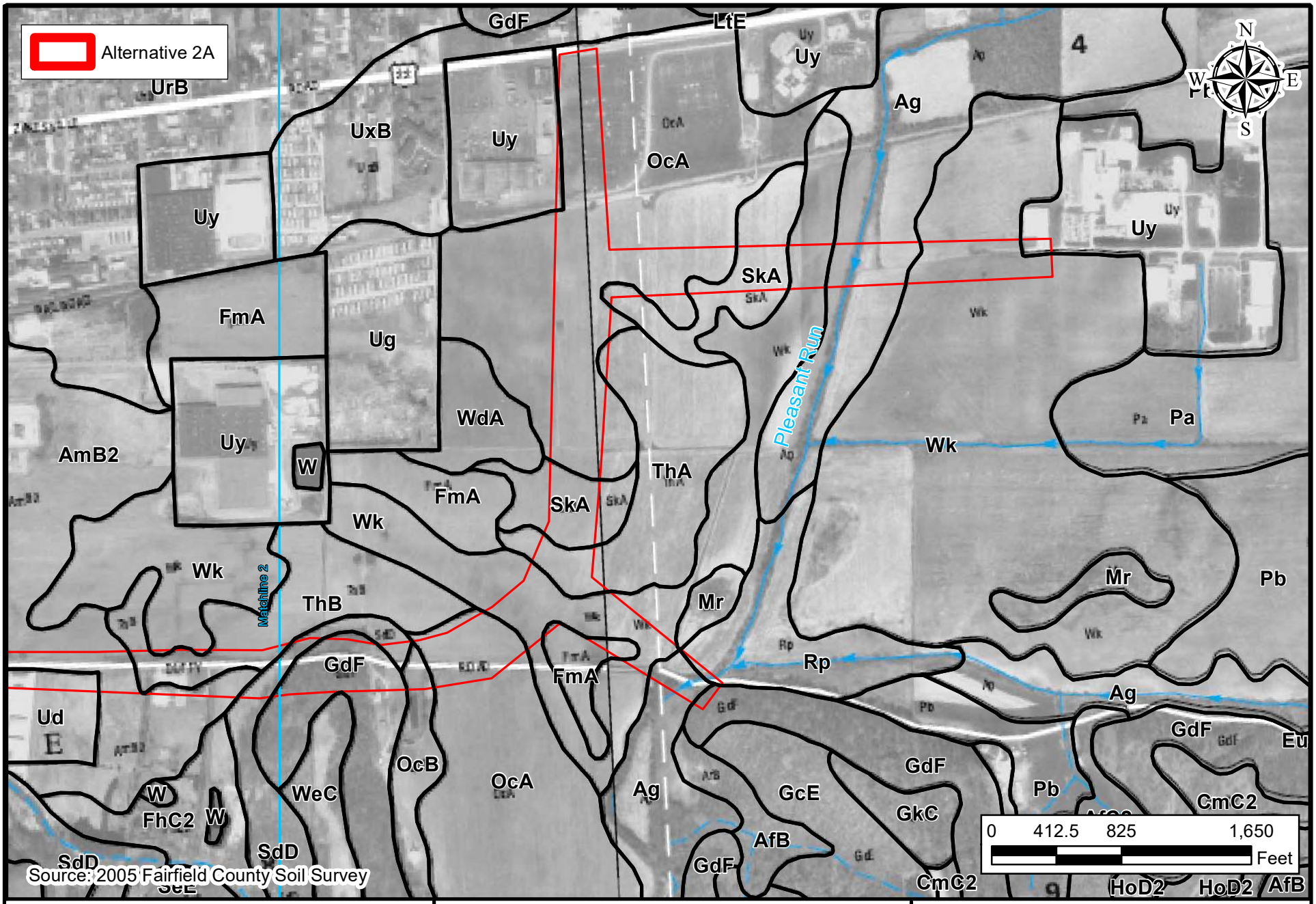
2005 Fairfield County Soil Survey Map (2 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 2A

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



Source: 2005 Fairfield County Soil Survey

AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

2005 Fairfield County Soil Survey Map (3 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 2A

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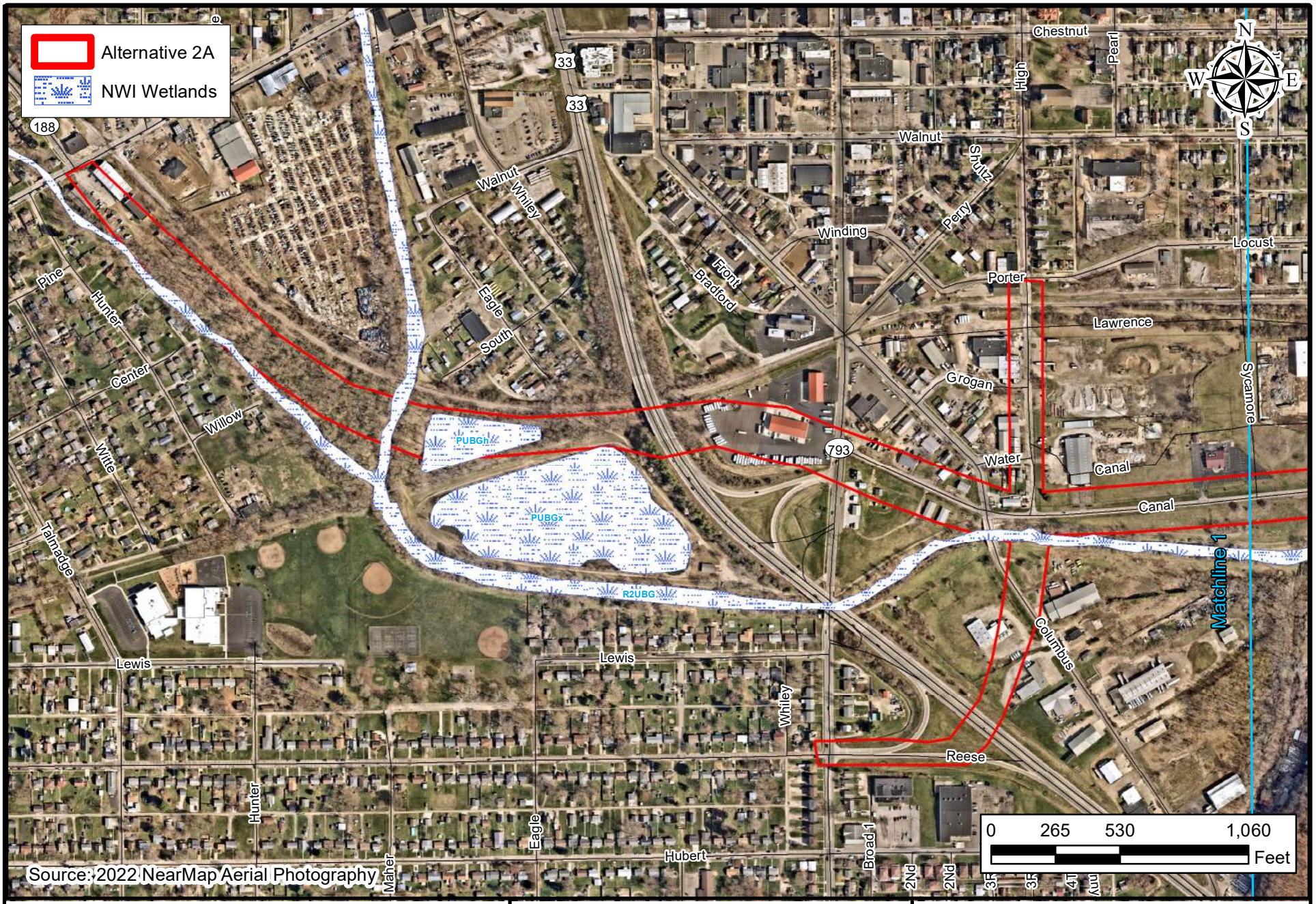

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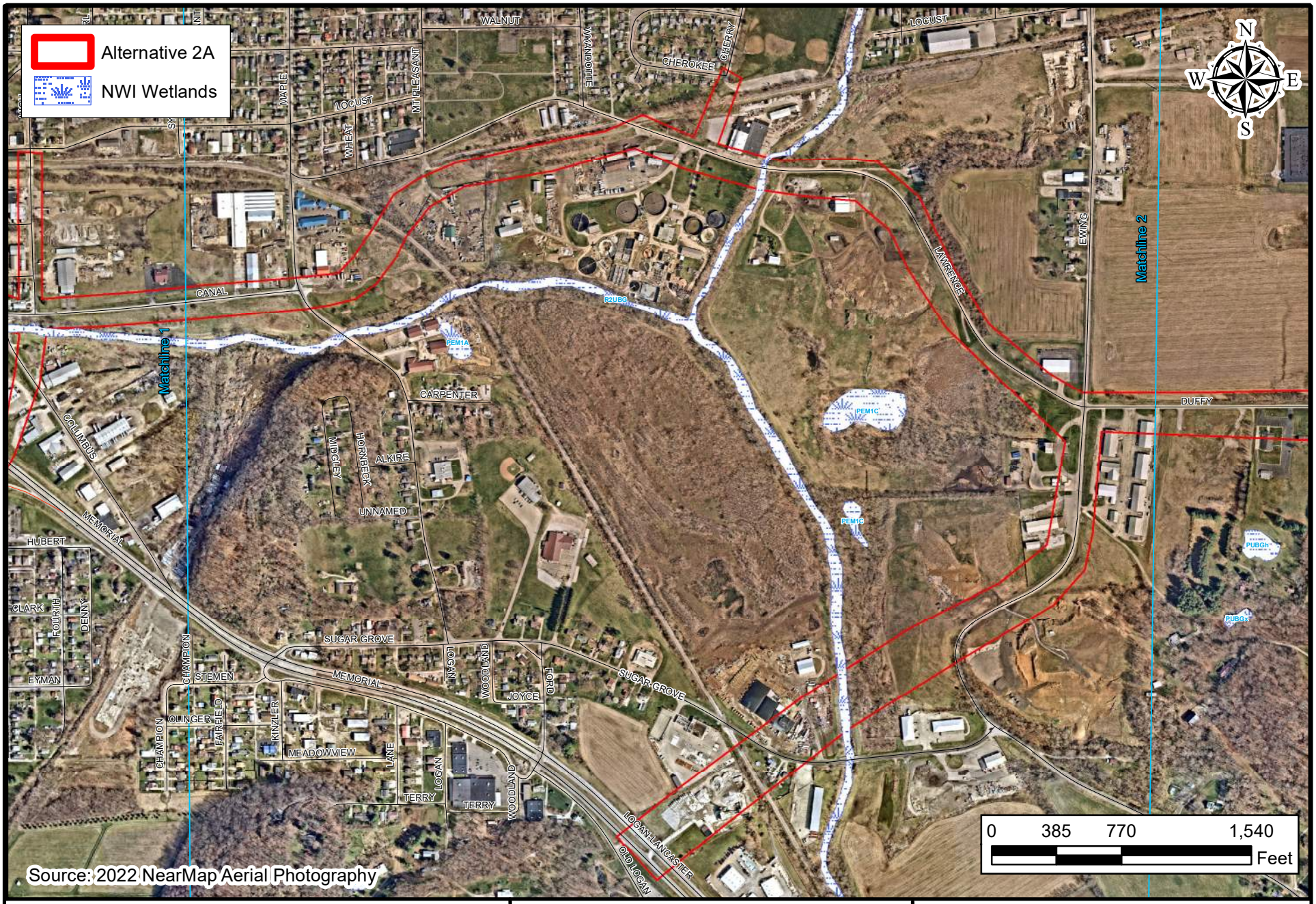
National Wetland Inventory Map (1 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2A

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



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National Wetland Inventory Map (2 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2A

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State: Ohio

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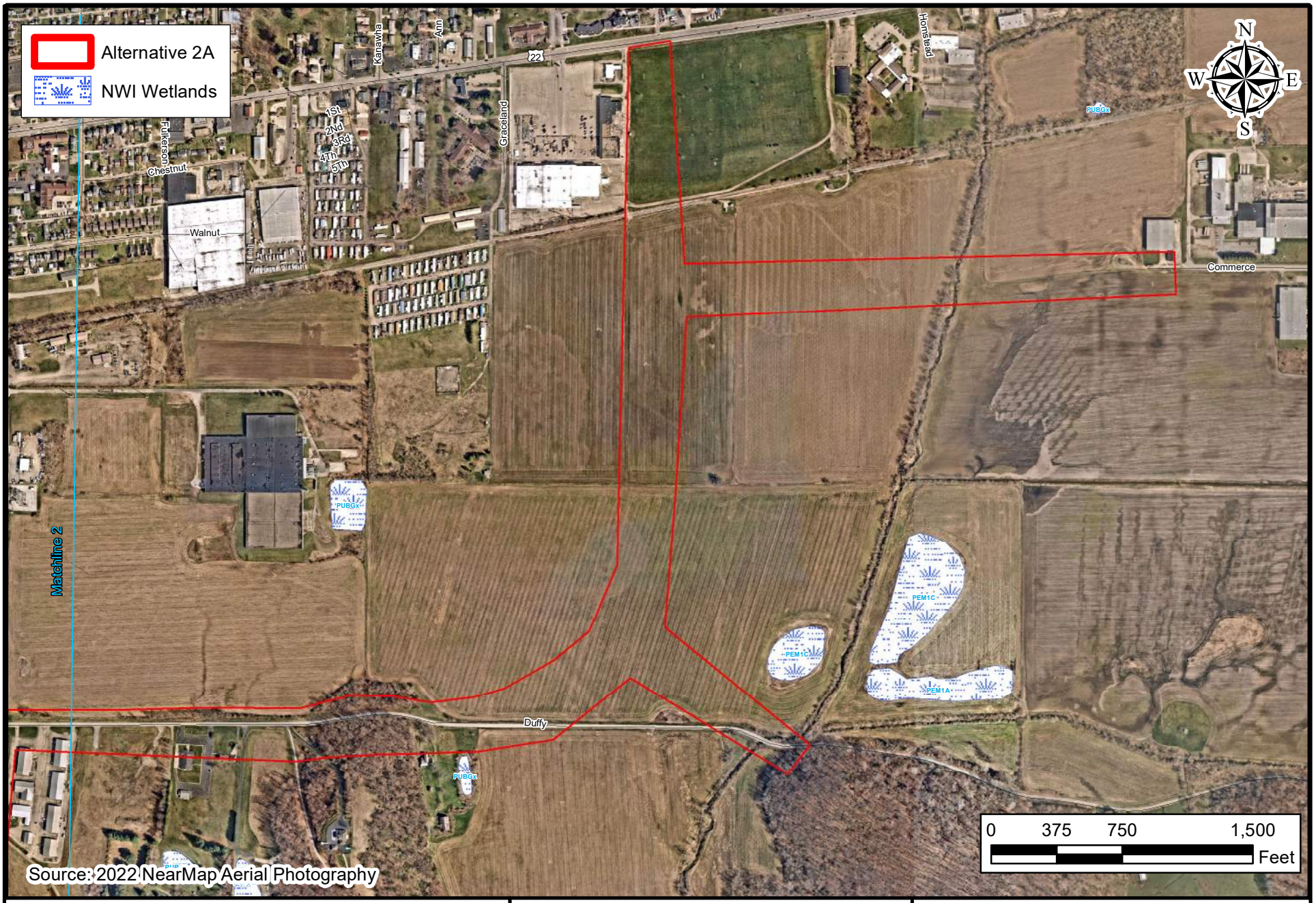

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National Wetland Inventory Map (3 of 3)

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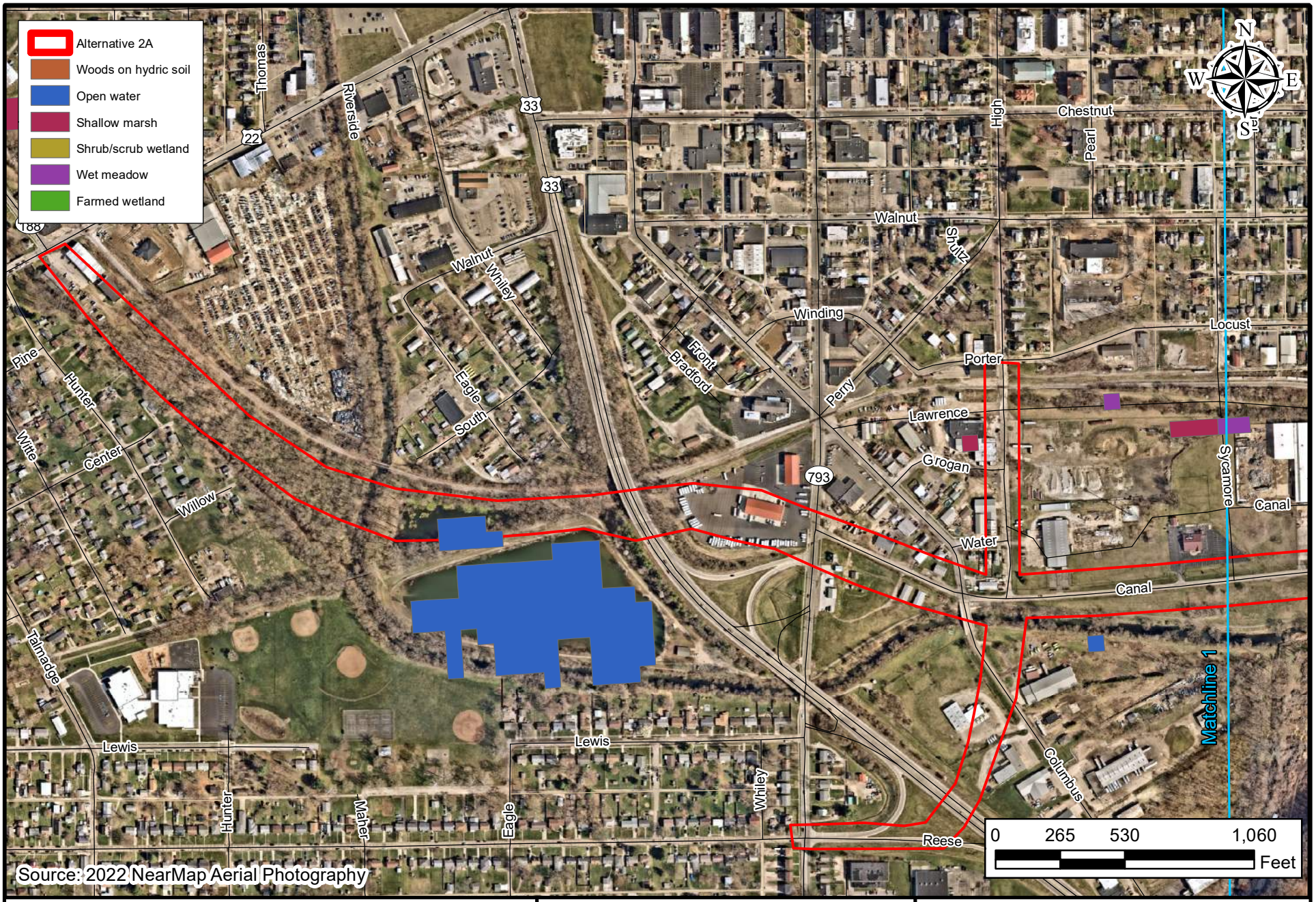

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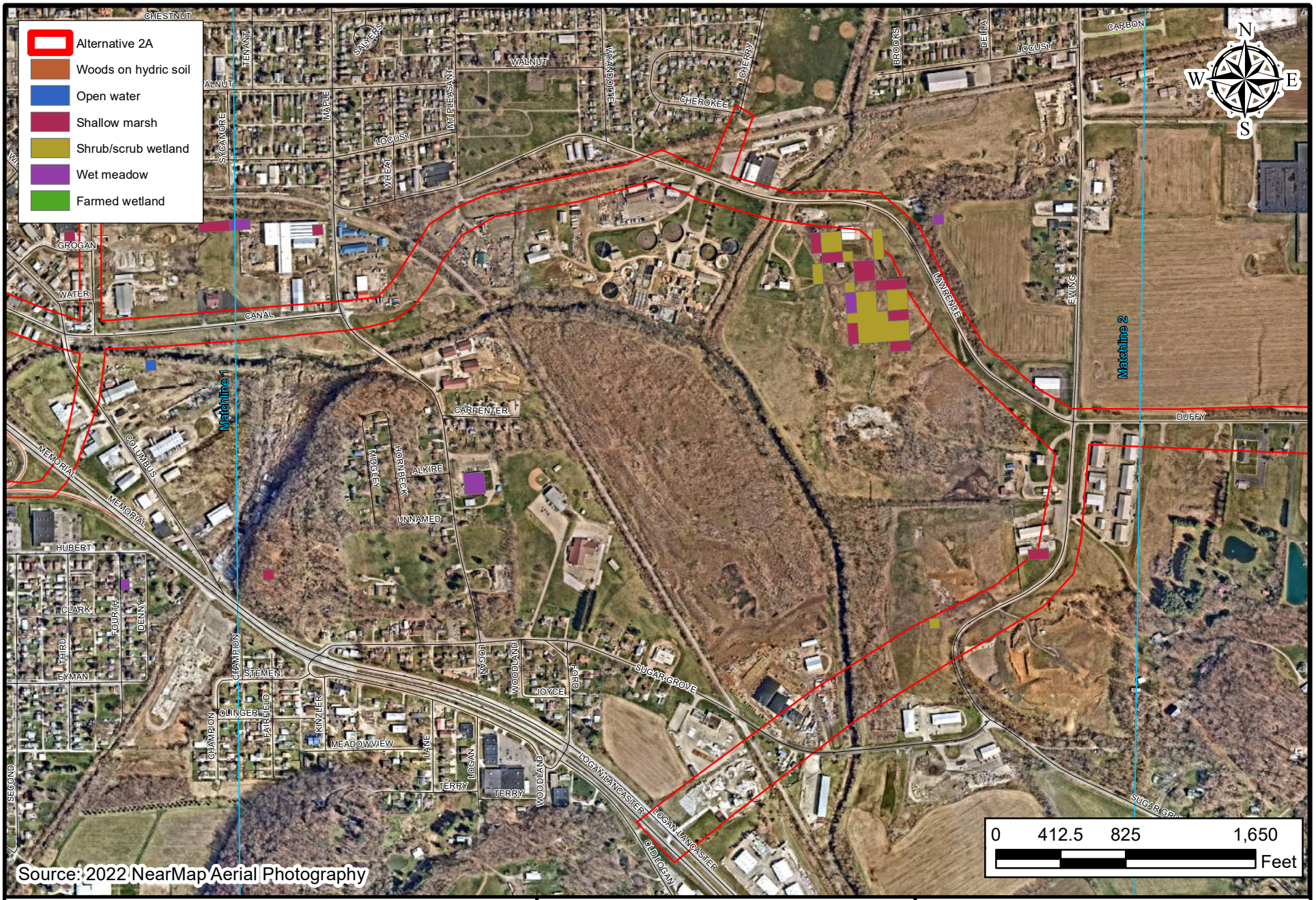
Ohio Wetland Inventory Map (1 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2A

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



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Ohio Wetland Inventory Map (2 of 3)

Client:
City of Lancaster
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Eastside Industrial Connector - Alternative 2A

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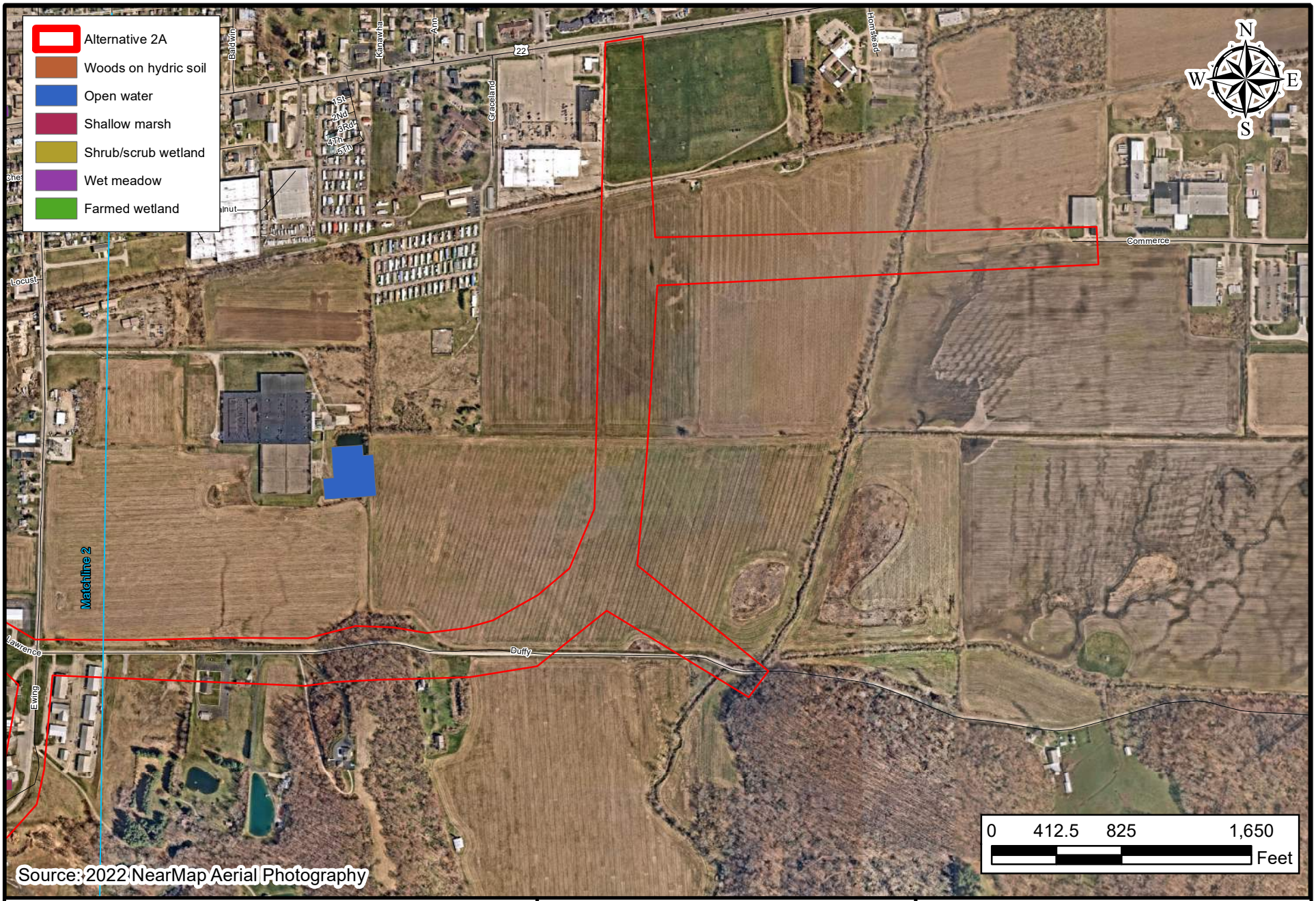

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Ohio Wetland Inventory Map (3 of 3)

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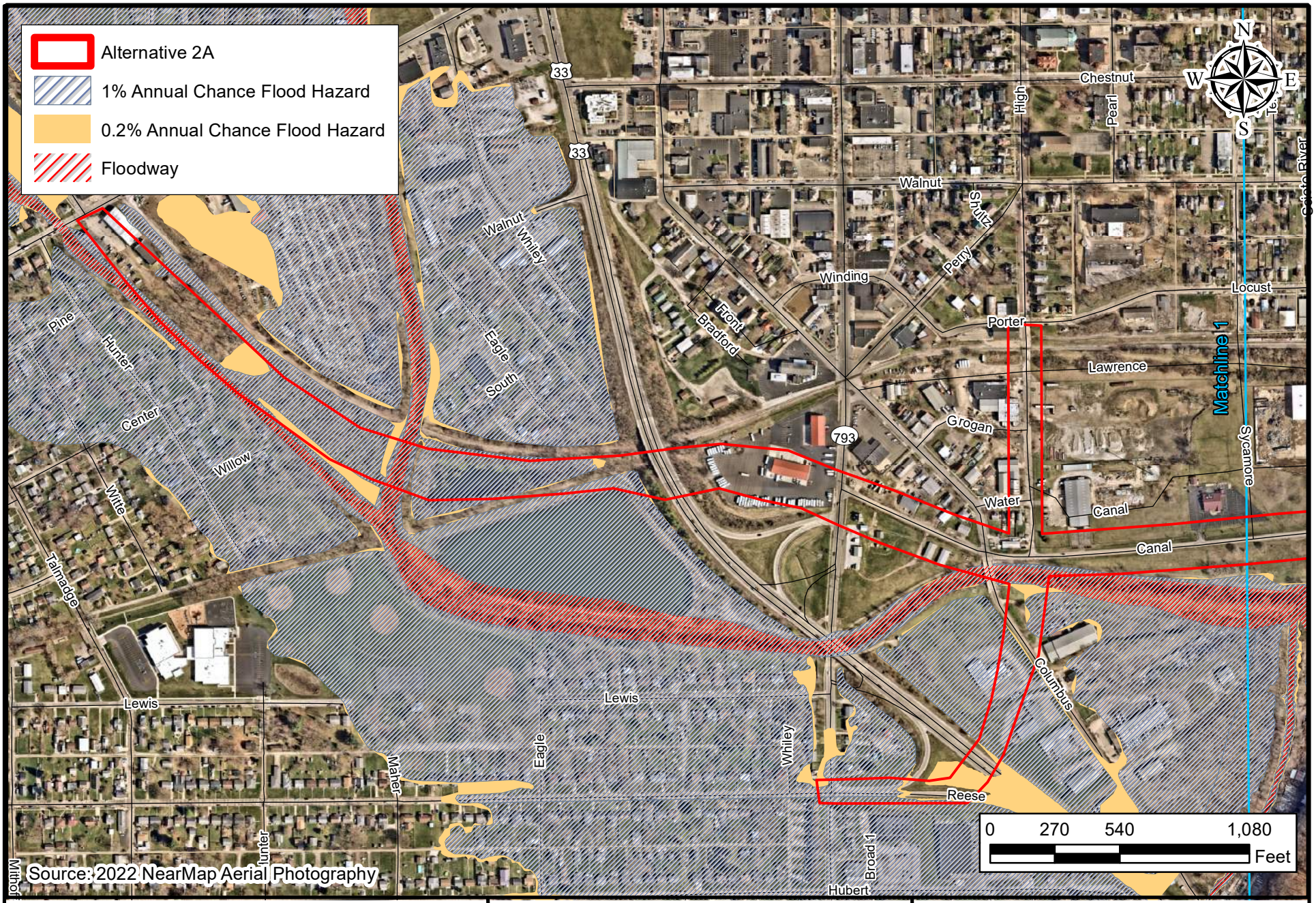

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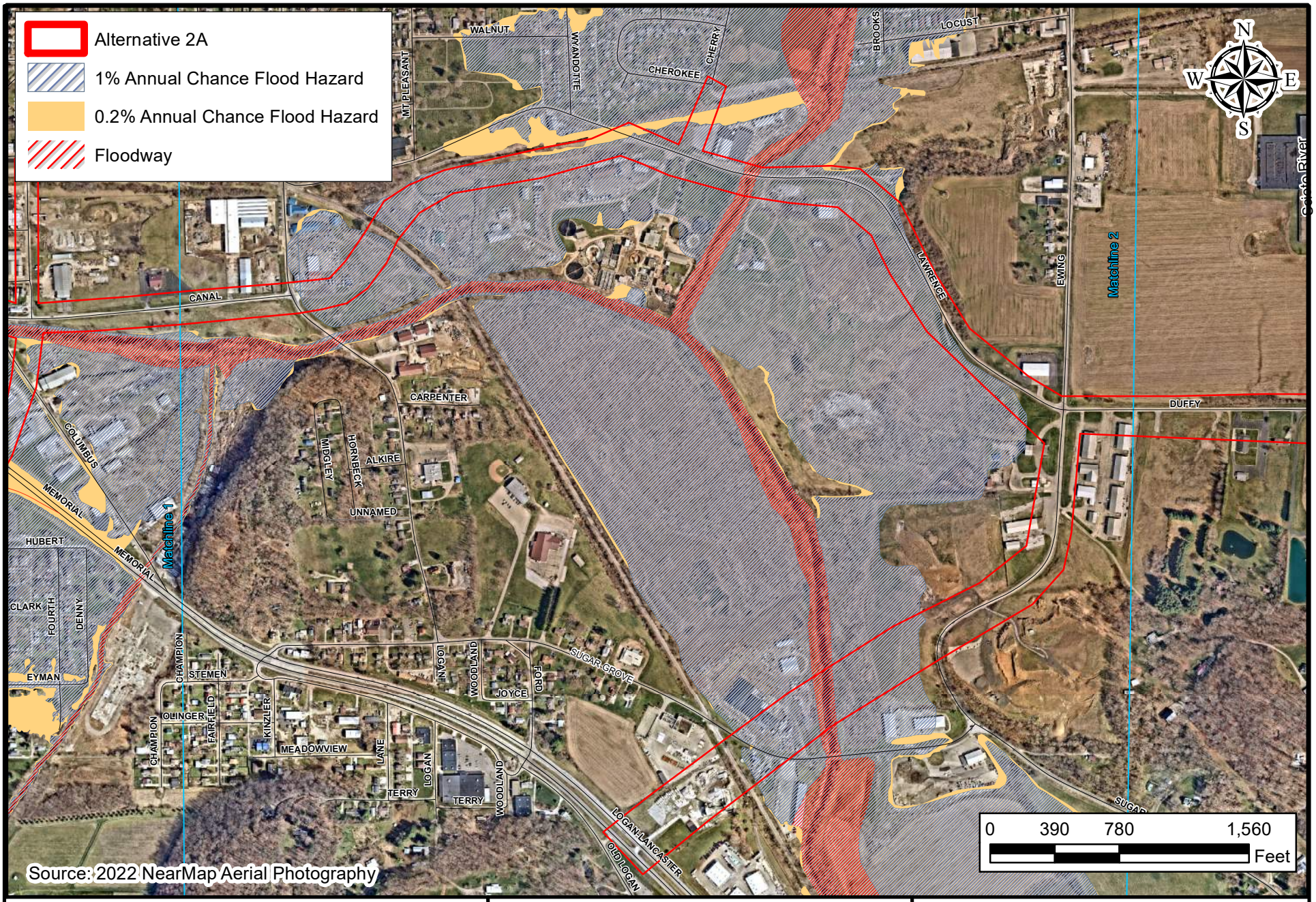
FEMA 100-Year Floodplain Map (1 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2A

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
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FEMA 100-Year Floodplain Map (2 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2A

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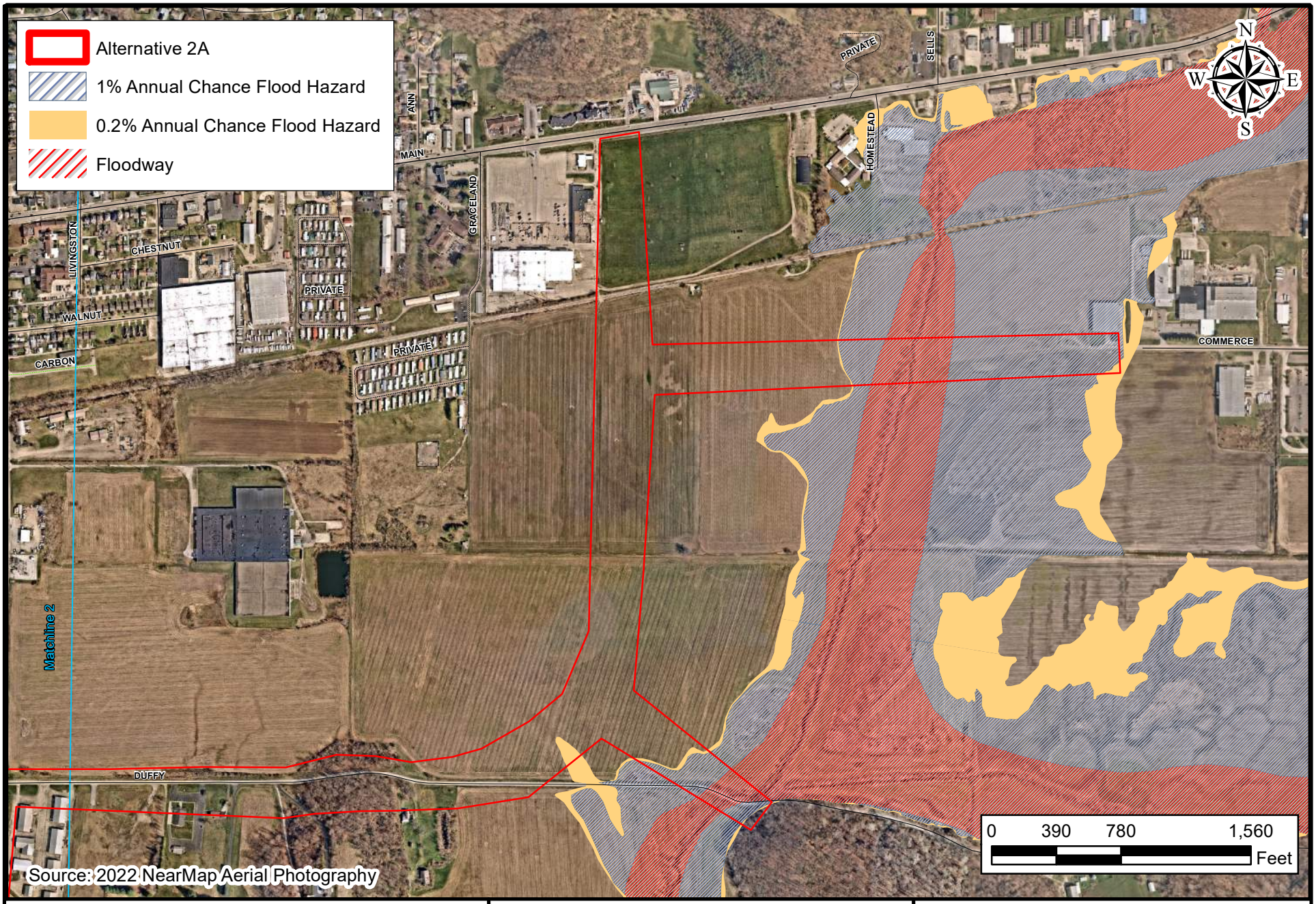
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

FEMA 100-Year Floodplain Map (3 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2A

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022

Alternative 2A

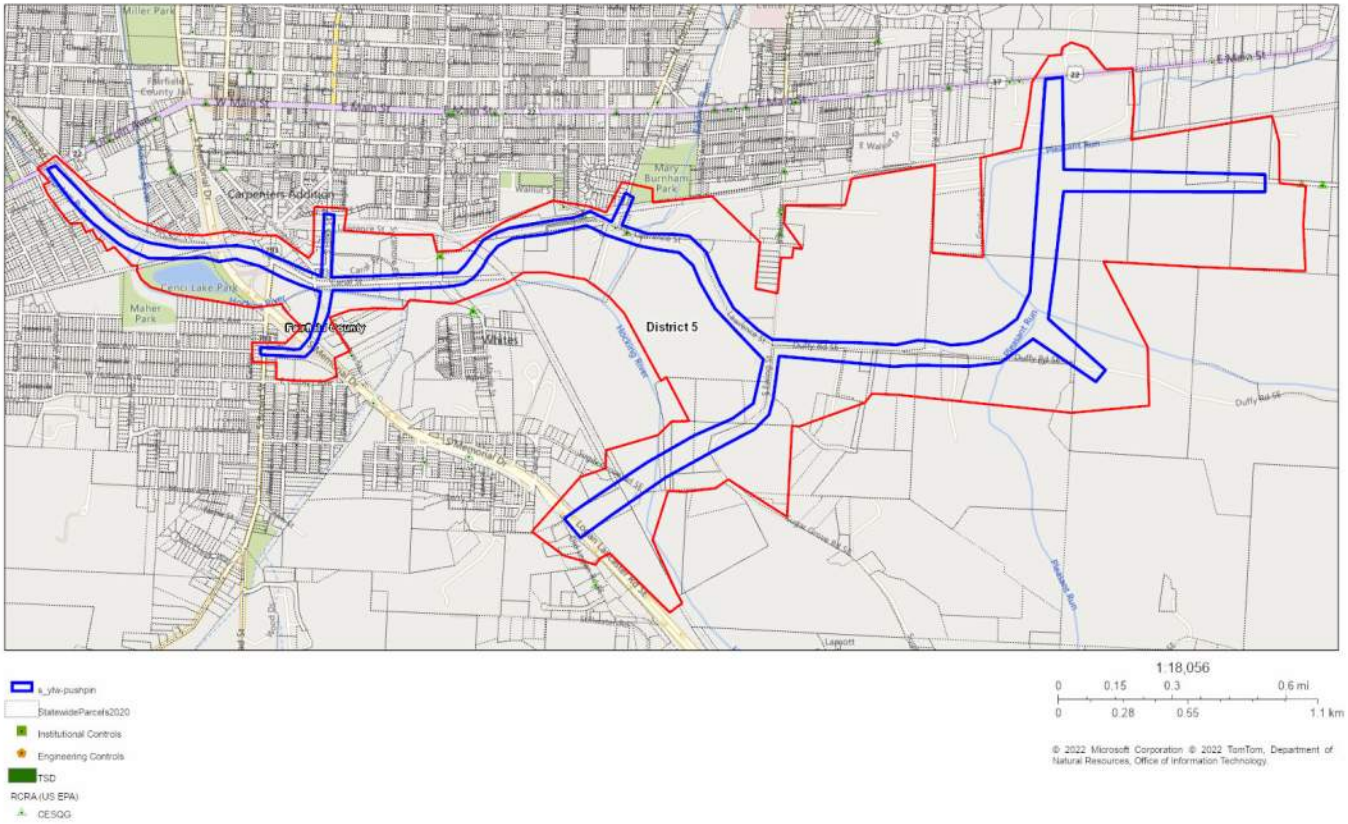
Hazardous Materials Records Summary

ORPS Summary Report Alternative 2A

Area of Interest (AOI) Information

Area : 905.69 acres

Aug 15 2022 15:19:35 Eastern Daylight Time



Summary

Name	Count	Area(acres)	Length(ft)
SEMS - Non-NPL Sites w/buffer (US EPA)	0	0	N/A
SEMS - NPL Sites w/buffer (US EPA)	0	0	N/A
RCRA (US EPA)	8	N/A	N/A
RCRA - TSD Sites w/buffer (US EPA)	0	0	N/A
Federal Engineering Controls (US EPA)	0	N/A	N/A
Federal Institutional Controls (US EPA)	0	N/A	N/A
BUSTR - UST Locations (BUSTR/OGRIP)	25	N/A	N/A
BUSTR - LUST Locations (BUSTR/OGRIP)	0	N/A	N/A
Coal Gas Generators (OEPA-DERR)	0	N/A	N/A
DERR Database (OEPA-DERR)	5	N/A	N/A
Impoundment Sites (OEPA-DERR)	1	N/A	N/A
Landfills - Active Solid Waste Facilities w/buffer (OEPA-DMWM)	0	0	N/A
Landfills - Historic/Abandoned Facilities w/buffer (OEPA-DMWM/DERR)	0	0	N/A
Landfills - Solid Waste Facility Polygons (OEPA-DMWM)	2	56.90	N/A
Projects With Engineering Controls (OEPA-DERR)	0	N/A	N/A
Projects With Institutional Controls (OEPA-DERR)	0	N/A	N/A
Spills Database (OEPA)	0	N/A	N/A
VAP Sites (OEPA-DERR)	0	N/A	N/A
Potential Areas of Concern (ODOT-OES)	0	0	N/A

RCRA (US EPA)

#	REGISTRY_ID	PRIMARY_NAME	ADDRESS	CITY	STATE	ZIP	LAST_REPORTED_DATE	URL
1	110000381970	HEXCEL COMPOSITES	815 LAWRENCE ST.	LANCASTER	OH	43130	4/28/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110000381970
2	110006326966	UNITED PARCEL SERVICE	501 S HIGH ST	LANCASTER	OH	43130	4/28/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110006326966
3	110000550458	LANCASTER WATER POLLUTION CONTROL	800 LAWRENCE ST	LANCASTER	OH	43130	10/16/2014	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110000550458
4	110004740353	J.T. TRAILERS INC	692 LAWRENCE ST	LANCASTER	OH	43130	10/16/2014	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110004740353
5	110004722694	JT TRAILERS INC	698 LAWRENCE ST	LANCASTER	OH	43130	4/14/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110004722694
6	110004577477	WESTERMAN CO	505 S MAPLE ST	LANCASTER	OH	43130	10/16/2014	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110004577477
7	110004684093	HILL FIBERGLASS	696 LAWRENCE ST	LANCASTER	OH	43130	4/28/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110004684093

8	110015667679	SPEEDWAY #3732	520 S BROAD ST	LANCASTER	OH	43130-4326	4/28/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110015667679

#	PGM_SYS_ID	PGM_SYS_ACRONYM	INTEREST_TYPE	REFERENCE_POINT_DESC	Count
1	OHD004289419	RCRAINFO	UNSPECIFIED UNIVERSE	CENTER OF A FACILITY OR STATION	1
2	OHD097546956	RCRAINFO	CESQG	CENTER OF A FACILITY OR STATION	1
3	OHD000772954	RCRAINFO	CESQG	CENTER OF A FACILITY OR STATION	1
4	OHR001000025	RCRAINFO	CESQG	CENTER OF A FACILITY OR STATION	1
5	OHR000021311	RCRAINFO	UNSPECIFIED UNIVERSE	ENTRANCE POINT OF A FACILITY OR STATION	1
6	OH0000923136	RCRAINFO	SQG	CENTER OF A FACILITY OR STATION	1
7	OHD987021250	RCRAINFO	UNSPECIFIED UNIVERSE	ENTRANCE POINT OF A FACILITY OR STATION	1
8	OHR000115477	RCRAINFO	UNSPECIFIED UNIVERSE	CENTER OF A FACILITY OR STATION	1

BUSTR - UST Locations (BUSTR/OGRIP)

#	FACILITY_ID	CURRENT_FACILITY_NAME	ADDRESS	CITY	ZIP	Status	INSPECTION_DATE	FACILITY_CO
1	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	CIU	12/04/13	No
2	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	CIU	12/04/13	No
3	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	CIU	12/04/13	No
4	23010050	SONOCO PRODUCTS CO	831 S MEMORIAL DR	LANCASTER	43130	CIU	12/30/08	Yes
5	23000112	FAIRFIELD PAINT & OIL CO.	605 LINCOLN AVE	LANCASTER	43130	REM	*No Data*	*No Data*
6	23000118	RICH OIL, INC. #3732	520 S BROAD ST	LANCASTER	43130	REM	*No Data*	*No Data*
7	23000118	RICH OIL, INC. #3732	520 S BROAD ST	LANCASTER	43130	REM	*No Data*	*No Data*
8	23000118	RICH OIL, INC. #3732	520 S BROAD ST	LANCASTER	43130	REM	*No Data*	*No Data*
9	23000118	RICH OIL, INC. #3732	520 S BROAD ST	LANCASTER	43130	REM	*No Data*	*No Data*
10	23000118	RICH OIL, INC. #3732	520 S BROAD ST	LANCASTER	43130	REM	*No Data*	*No Data*
11	23000118	RICH OIL, INC. #3732	520 S BROAD ST	LANCASTER	43130	REM	*No Data*	*No Data*
12	23000120	WESTERMAN, INC.	525 S MAPLE	LANCASTER	43130	REM	*No Data*	*No Data*
13	23000121	RYDER TRUCK RENTAL, INC.	480 S EWING ST	LANCASTER	43130	REM	*No Data*	*No Data*
14	23000587	SANITATION DEPT	700 LAWRENCE	LANCASTER	43130	REM	*No Data*	*No Data*
15	23002521	HEXCEL CORP.	815 LAWRENCE STREET	LANCASTER	43130	REM	*No Data*	*No Data*
16	23007314	UNITED PARCEL SERVICE	501 S HIGH ST	LANCASTER	43130	REM	*No Data*	*No Data*
17	23007314	UNITED PARCEL SERVICE	501 S HIGH ST	LANCASTER	43130	REM	*No Data*	*No Data*
18	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	REM	*No Data*	*No Data*
19	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	REM	*No Data*	*No Data*
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21	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	REM	*No Data*	*No Data*
22	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	REM	*No Data*	*No Data*

23	23006718	CITY OF LANCASTER FUEL DEPOT	746 LAWRENCE ST	LANCASTER	43130	CIU	*No Data*	*No Data*
24	23009460	CITY OF LANCASTER WWTP	800 LAWRENCE ST	LANCASTER	43130	CIU	*No Data*	*No Data*
25	23006718	CITY OF LANCASTER FUEL DEPOT	746 LAWRENCE ST	LANCASTER	43130	CIU	*No Data*	*No Data*

#	TANK_ID	CAPACITY	CONTENT	DATE_REMOVED	FACILITY_STATUS	Count
1	T00006	20000	Gasoline	NULL	Active	1
2	T00007	4000	Gasoline	NULL	Active	1
3	T00008	4000	Diesel	NULL	Active	1
4	T00001	10000	Diesel	NULL	Active	1
5	T00001	4000	Kerosene	06/26/92	Inactive	1
6	T00001	12000	Gasoline	07/29/03	Inactive	1
7	T00002	12000	Gasoline	07/29/03	Inactive	1
8	T00003	3000	Gasoline	07/29/03	Inactive	1
9	T00004	3000	Gasoline	07/29/03	Inactive	1
10	T00005	3000	Gasoline	07/29/03	Inactive	1
11	T00006	3000	Gasoline	07/29/03	Inactive	1
12	T00001	1000	Gasoline	11/30/93	Inactive	1
13	T00001	10000	Diesel	04/01/92	Inactive	1
14	T00001	1000	Unknown	01/25/93	Inactive	1
15	T00001	10000	Unknown	06/25/02	Inactive	1
16	T00001	4000	Gasoline	10/17/90	Inactive	1
17	T00002	4000	Gasoline	10/17/90	Inactive	1
18	T00001	8000	Gasoline	07/27/09	Inactive	1
19	T00002	6000	Gasoline	07/27/09	Inactive	1
20	T00003	6000	Diesel	07/27/09	Inactive	1
21	T00004	500	Used Oil	12/04/98	Inactive	1
22	T00005	500	Diesel	12/04/98	Inactive	1
23	T00001	12000	Diesel	*No Data*	*No Data*	1
24	T00001	1000	Diesel	*No Data*	*No Data*	1
25	T00002	12000	Gasoline	*No Data*	*No Data*	1

DERR Database (OEPA-DERR)

#	DERR_ID	NAME	ALIAS	ADDRESS	CITY	ZIP	CERCLIS_ID	ACTIVITY
1	123001649	Hexcel Corp, Lancaster	*No Data*	815 Lawrence St	Lancaster	43130	OHD004289419	SA
2	123001188	Anchor Hocking Plt No 2 Former, Lancaster	*No Data*	403 S Ewing St	Lancaster	43130	OHD042314898	COF, SA, RR, VAP
3	123001188	Anchor Hocking Plt No 2 Former, Lancaster	1390 N Bridge St, Chillicothe	403 S Ewing St	Lancaster	43130	OHD042314898	COF, SA, RR, VAP
4	123002202	East Lancaster Development Corridor USD	Muddy Crk, Cincinnati, 6125 River Rd	104 E Main St Lawarence,Ewing,Conrail,Ewing,Walnut,Fulkerson,Con	Lancaster	43130	*No Data*	*No Data*
5	123002202	East Lancaster Development Corridor USD	*No Data*	104 E Main St Lawarence,Ewing,Conrail,Ewing,Walnut,Fulkerson,Con	Lancaster	43130	*No Data*	*No Data*

#	OEPA_DISTRICT	EDOCS_LINK	Count
1	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001649	1
2	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001188	1
3	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001188	1
4	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123002202	1
5	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123002202	1

Impoundment Sites (OEPA-DERR)

#	LATITUDE	LONGITUDE	COUNTY	SIA_NO	STATE_ID	NPDES_NUMBER	SIC_CODE	CATEGORY
1	39.707222	-82.585833	Fairfield	25	CD FAI 153NE	OH0026026	4952	MUN

#	IMPOUND	REPORT_DATE	OWNER	OWNER_ADDRESS	OWNER_CITY	OWNER_STATE	OWNER_ZIP	PURPOSE
1	3	112878	CITY OF LANCASTER	MUNICIPAL BUILDING	LANCASTER	OH	43130	e

#	PURPOSE_DESCRIPTION	AGE_1980	LINER_TYPE	LINER_THICKNESS	LINER_OTHER	GW_MON_WEL	GW_CNT_POT	Count
1	SLUDGE	39	0	*No Data*	*No Data*	N	23	1

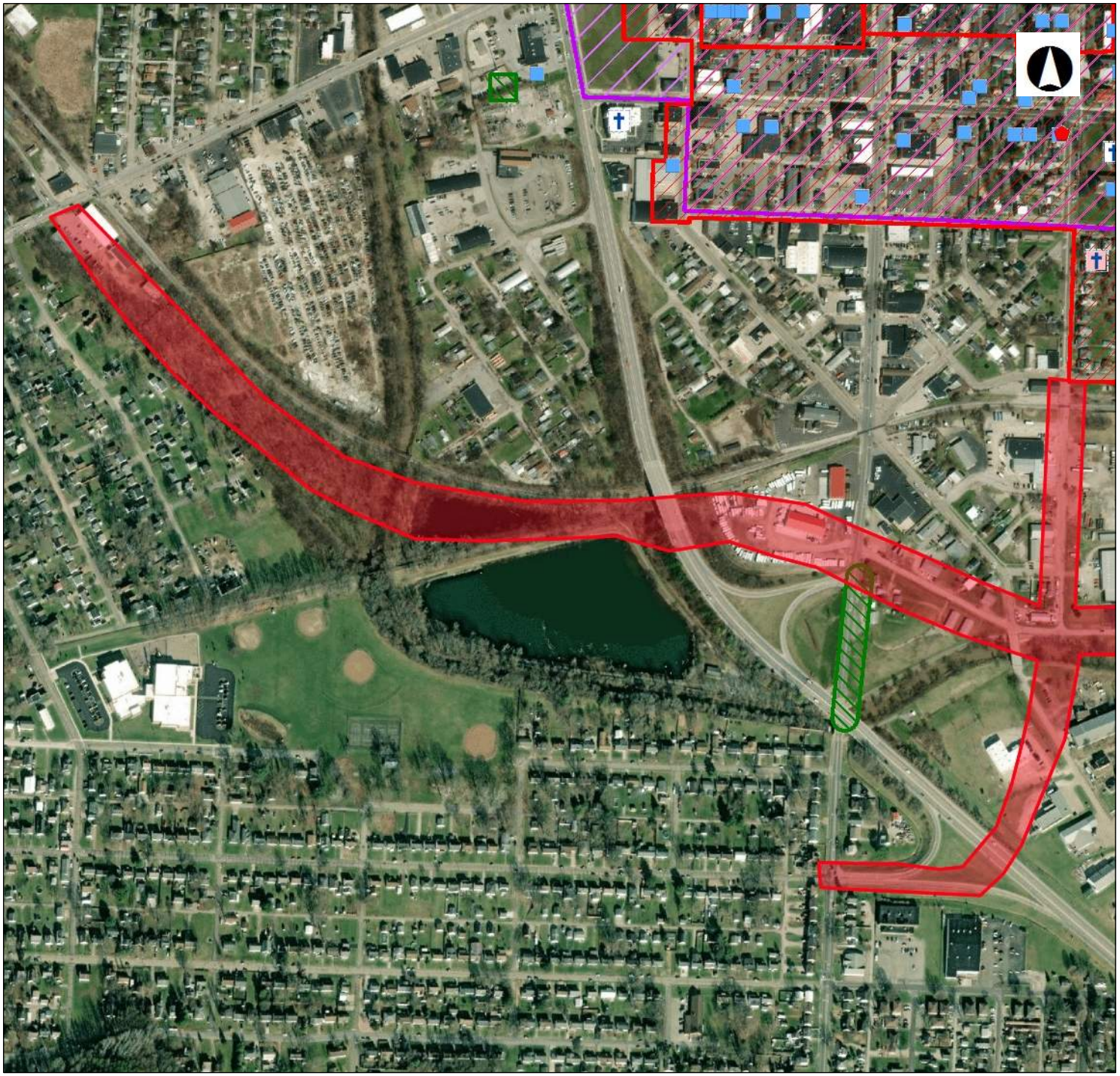
Landfills - Solid Waste Facility Polygons (OEPA-DMWM)

#	COUNTY	FACILITY	FACILITY_TYPE	COMMENT	EST_CLOSE_OR_CEASE_DATE	POLYGON_TYPE	DESCRIPTION	EDOCS_LINK	Area(acres)
1	Fairfield	M&B Demolition Disposal	CDDLF	Active 2016	0	3	50	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/00	53.70
2	Fairfield	Lancaster City Transfer facility	MSWTF	*No Data*	0	3	35	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/00	3.21

Alternative 2A

Cultural Resources and Other Environmental Resources

Alternative 2A



OHIO HISTORY CONNECTION
State Historic Preservation Office

Legend

- NR Listings
  - Listed
  - National Historic Landmark
  - Delisted
- Determinations of Eligibility
  - DOE
  - Demolished
- Archaeological Sites
- Historic Structures
- Historic Bridges
- Historic Tax Credit Projects
- Local Designations
- OGS Cemeteries
  - Confident
  - Not Confident
- Historic Markers
- Previously Surveyed Area
- National Register Boundary

0 0.11 0.22 Miles

1: 8,679

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This map is a user generated static output from an Internet mapping site and is for generalThis map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Datum: [Datum]
Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

Alternative 2A

State Historic Preservation Office

Legend

- NR Listings
  - Listed
  - National Historic Landmark
  - Delisted
- Determinations of Eligibility
  - DOE
  - Demolished
- Archaeological Sites
- Historic Structures
- Historic Bridges
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- OGS Cemeteries
  - Confident
  - Not Confident
- Historic Markers
- Previously Surveyed Area
- National Register Boundary

0 0.11 0.22 Miles

1: 8,679

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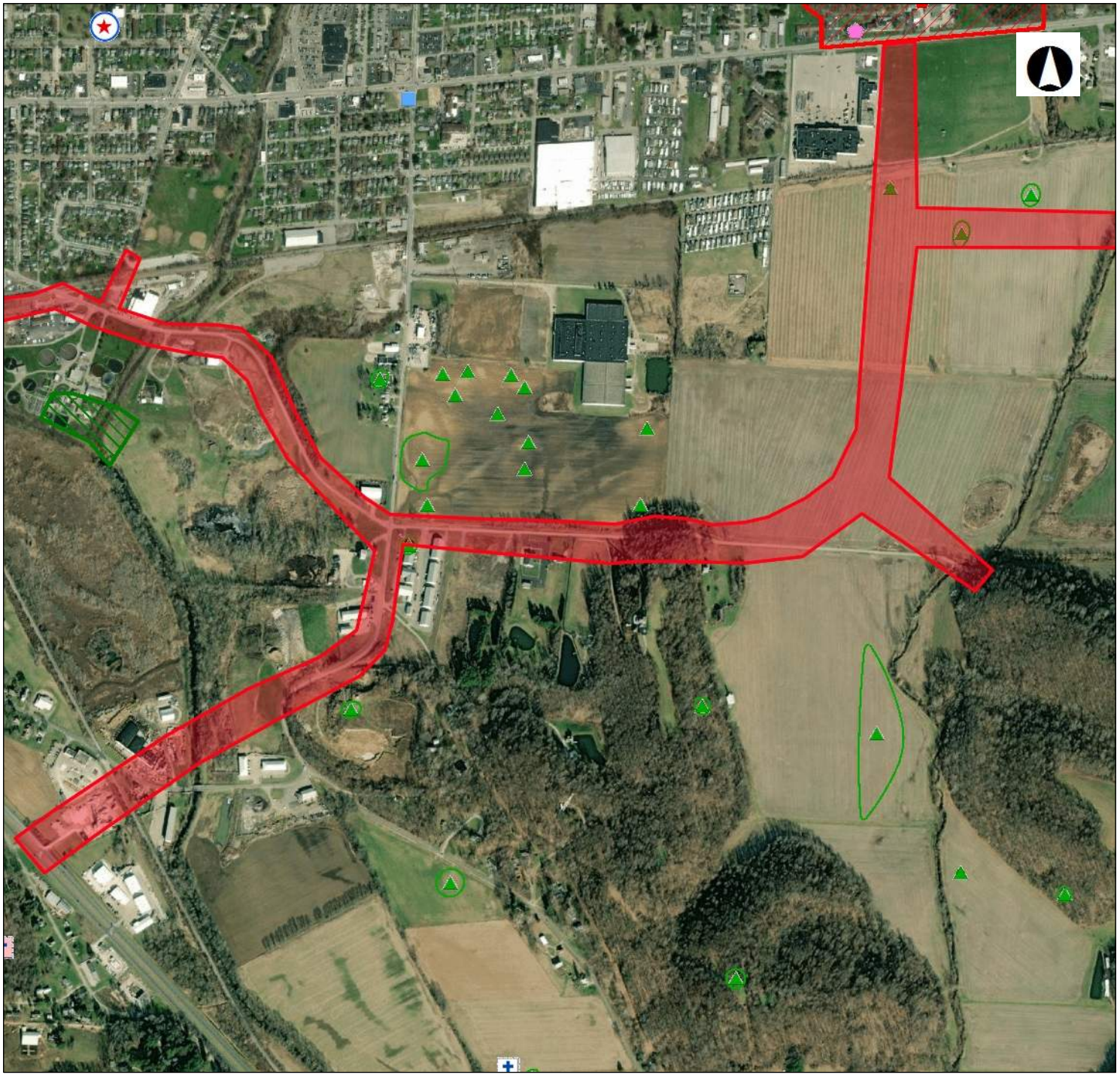
Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

Alternative 2A



OHIO HISTORY CONNECTION
State Historic Preservation Office

Legend

- NR Listings
  - Listed
  - National Historic Landmark
  - Delisted
- Determinations of Eligibility
  - DOE
  - Demolished
- Archaeological Sites
- Historic Structures
- Historic Bridges
- Historic Tax Credit Projects
- Local Designations
- OGS Cemeteries
  - Confident
  - Not Confident
- Historic Markers
- Previously Surveyed Area
- National Register Boundary

0 0.22 0.44 Miles

1: 17,358

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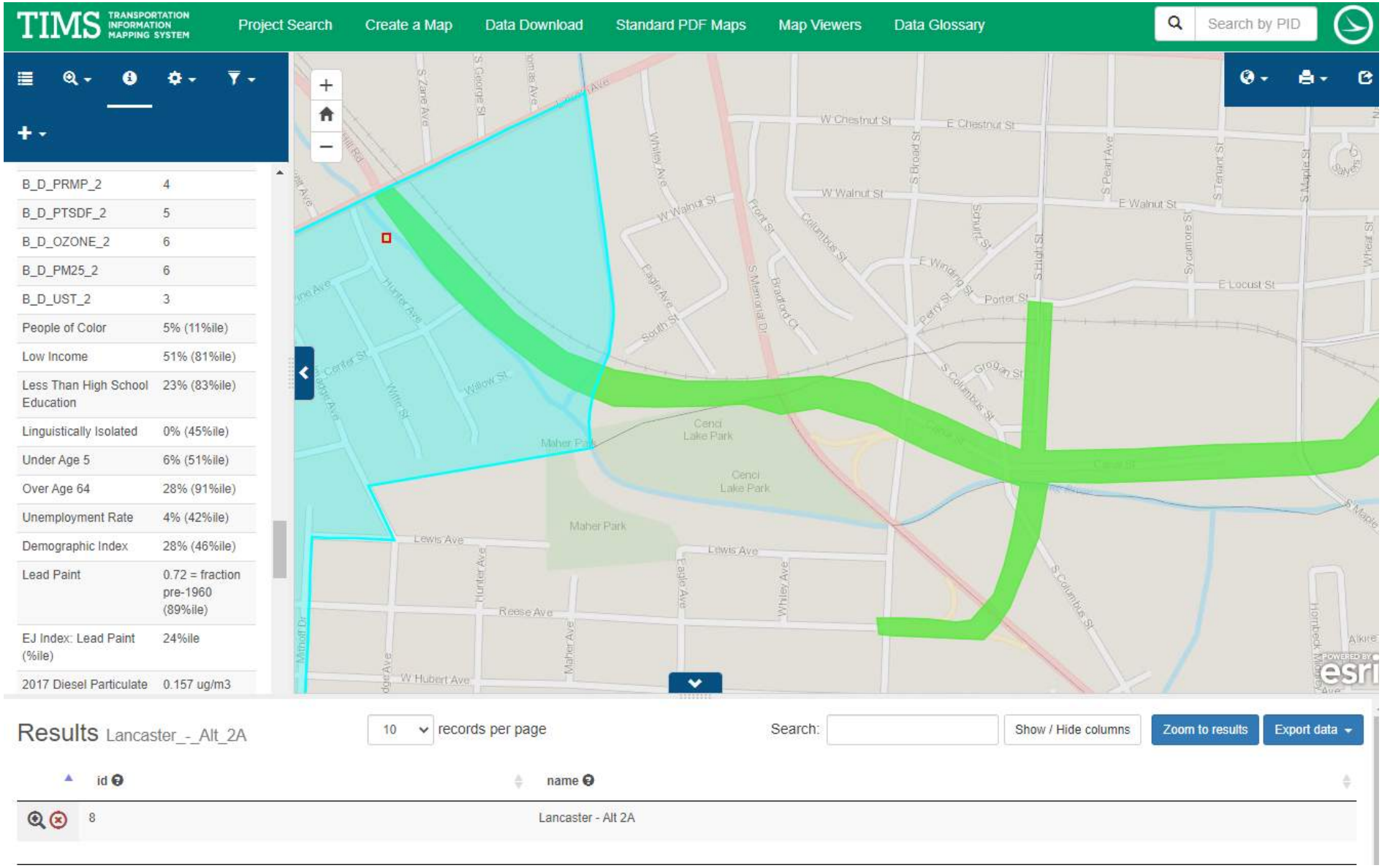
Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

Alternative 2A

TIMS Mapping

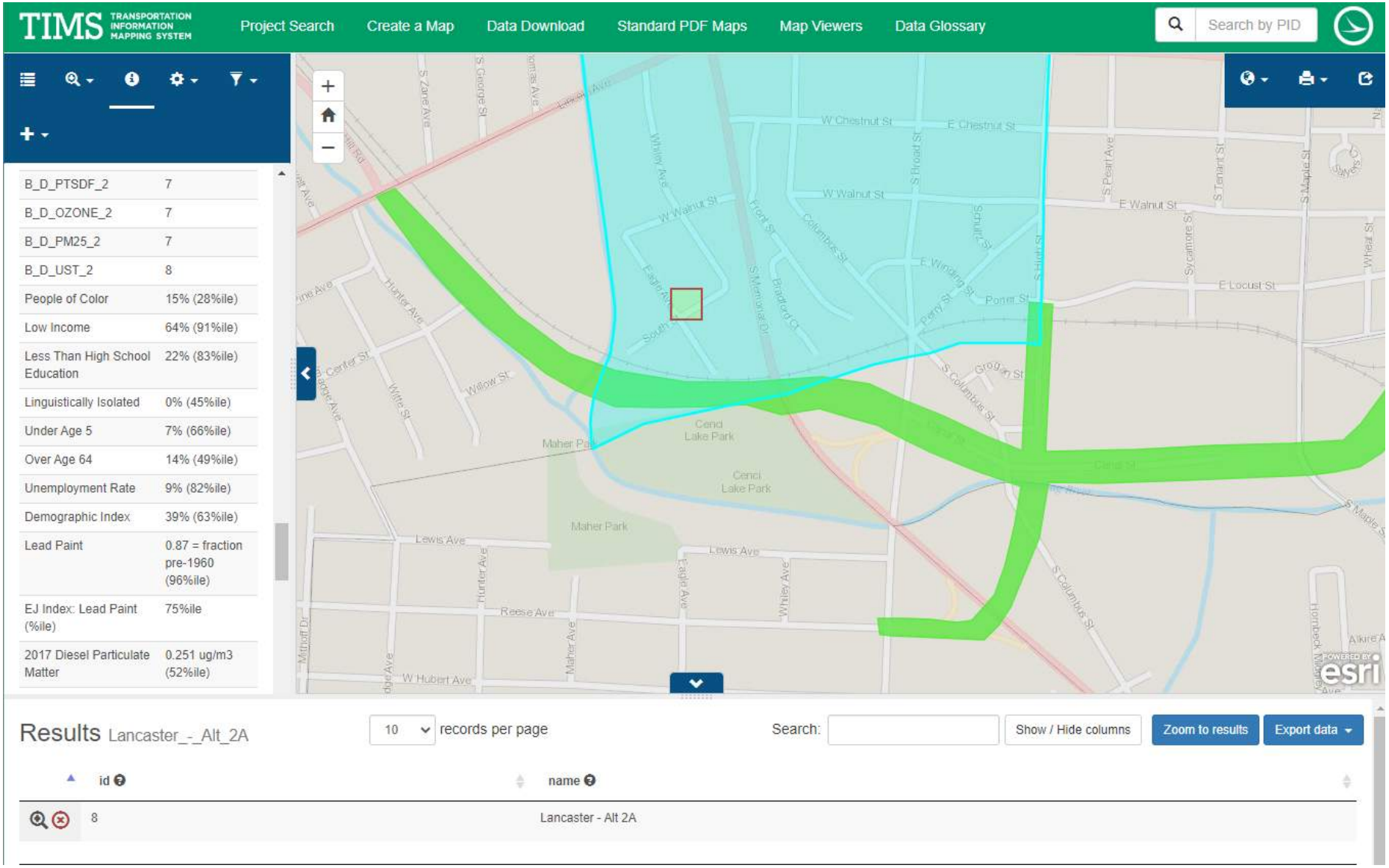
Census Block # 390450323001



Alternative 2A

TIMS Mapping

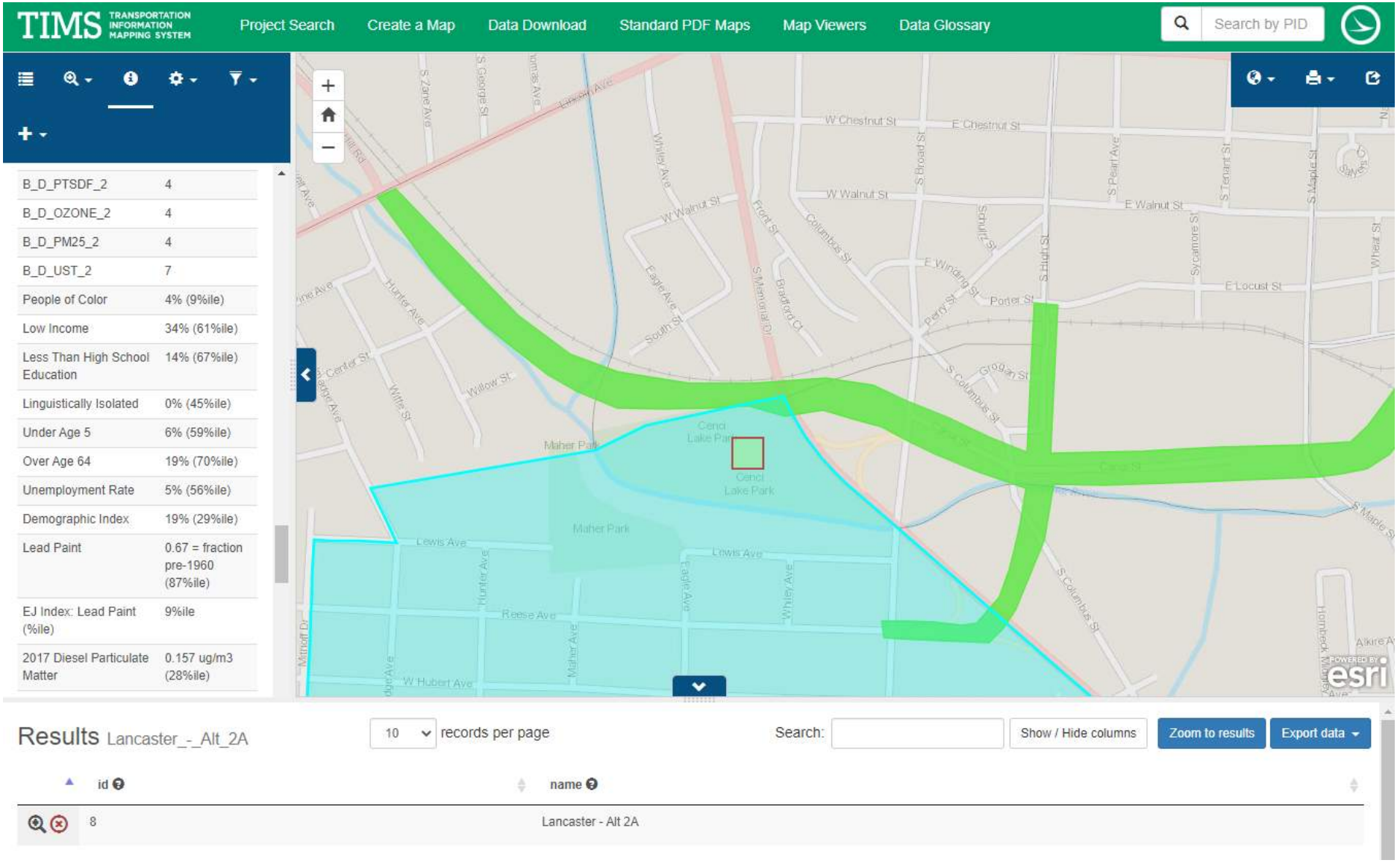
Census Block # 390450320004



Alternative 2A

TIMS Mapping

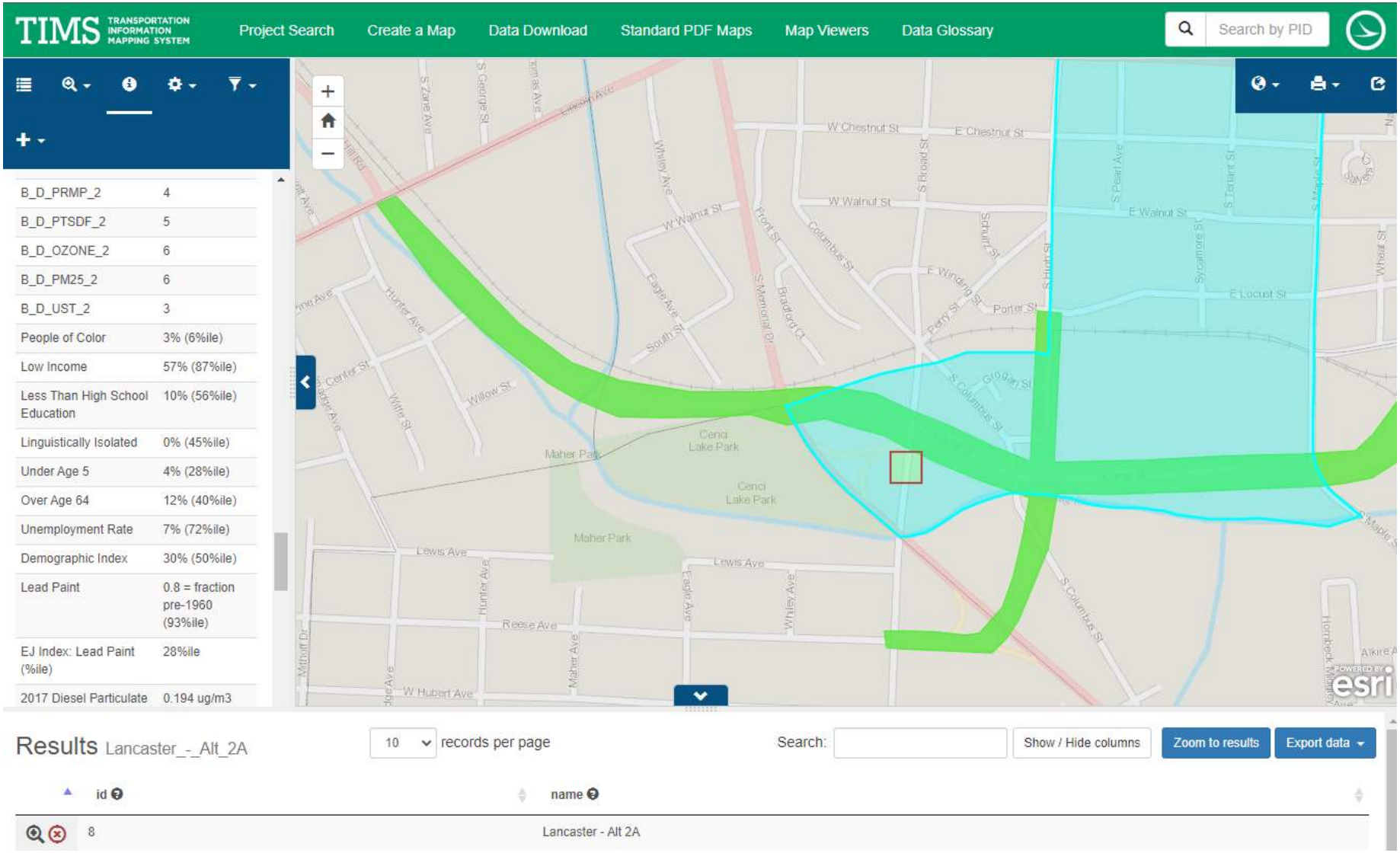
Census Block # 390450323002



Alternative 2A

TIMS Mapping

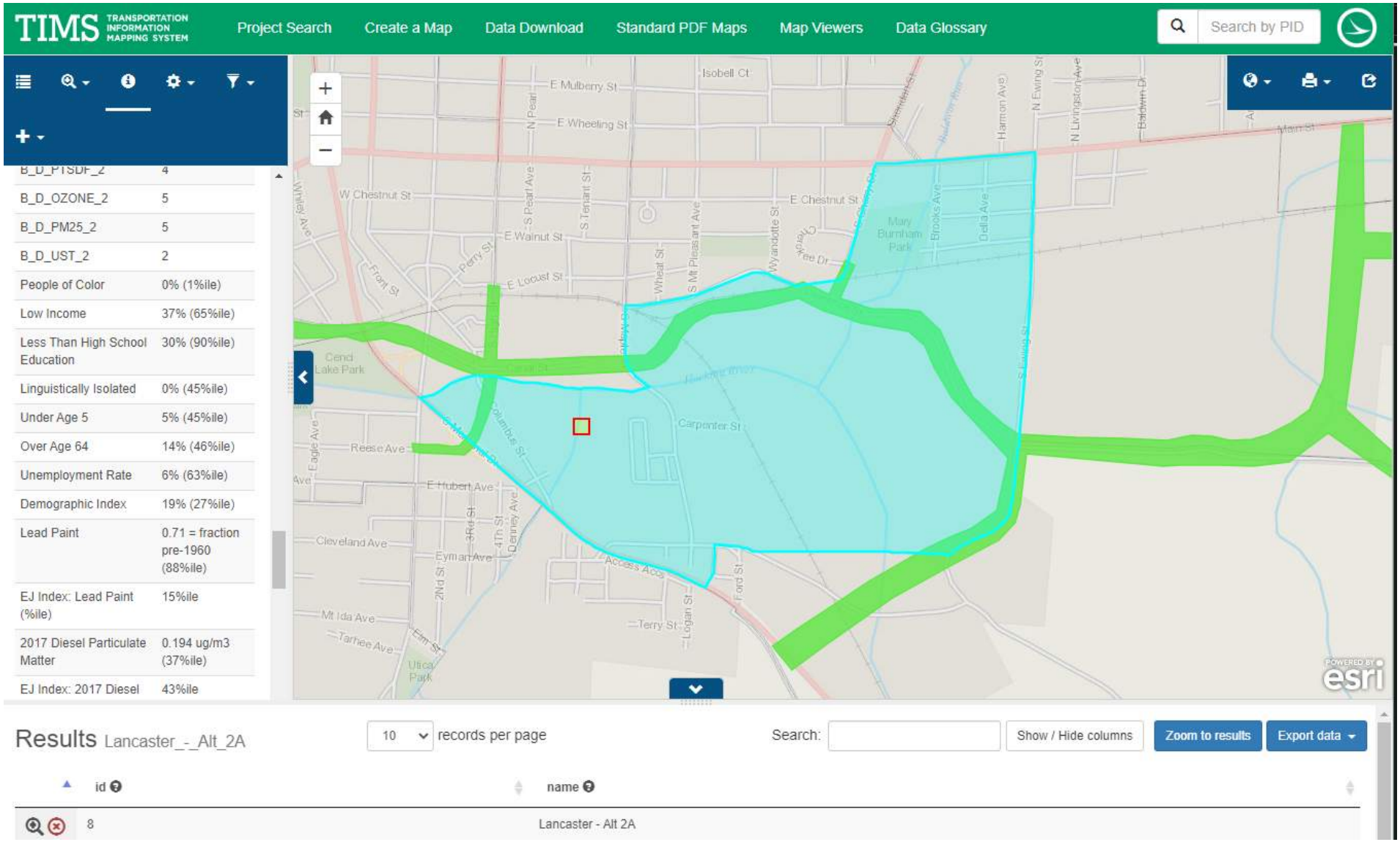
Census Block # 390450322003



Alternative 2A

TIMS Mapping

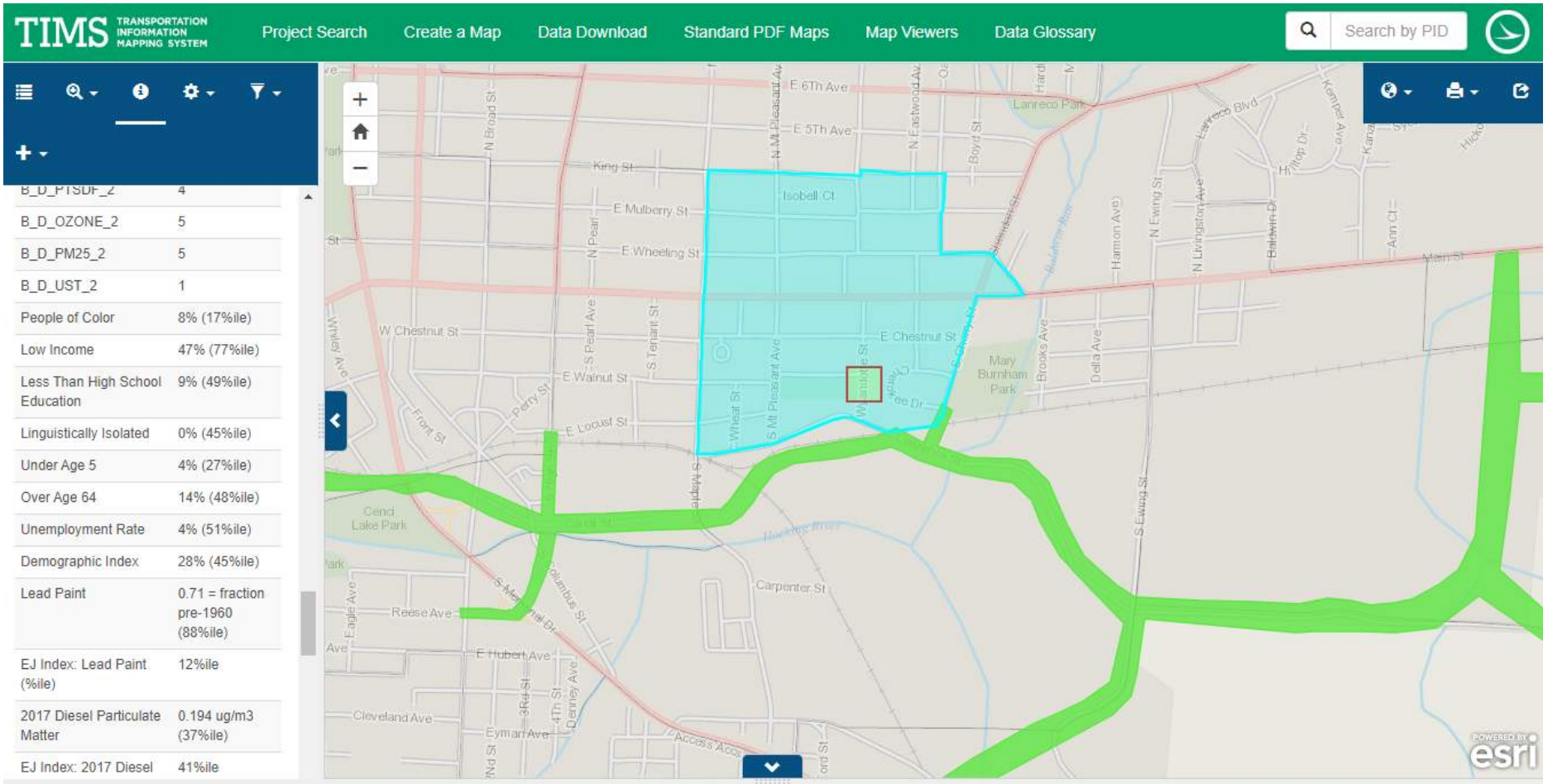
Census Block # 390450322001



Alternative 2A

TIMS Mapping

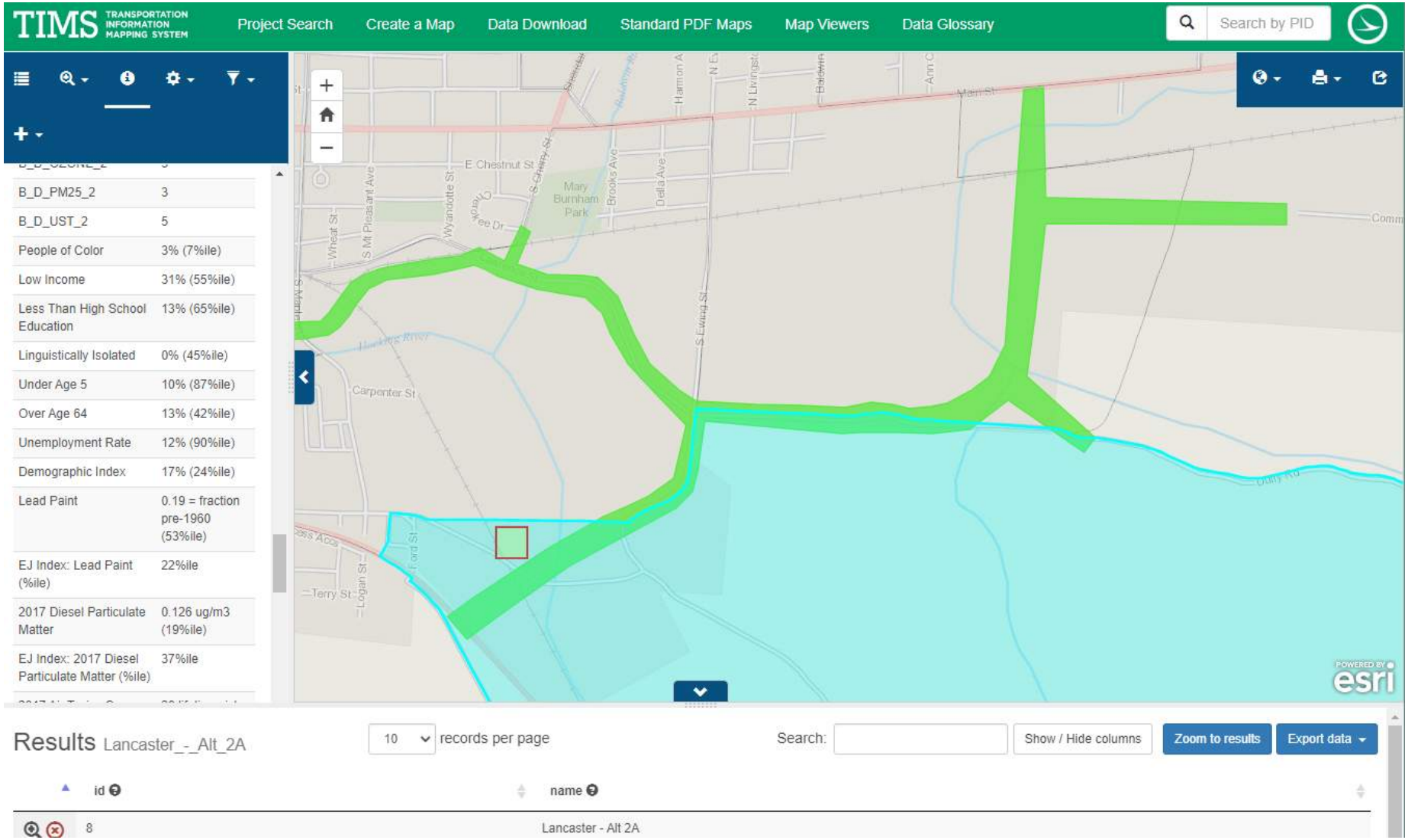
Census Block # 390450322002



Alternative 2A

TIMS Mapping

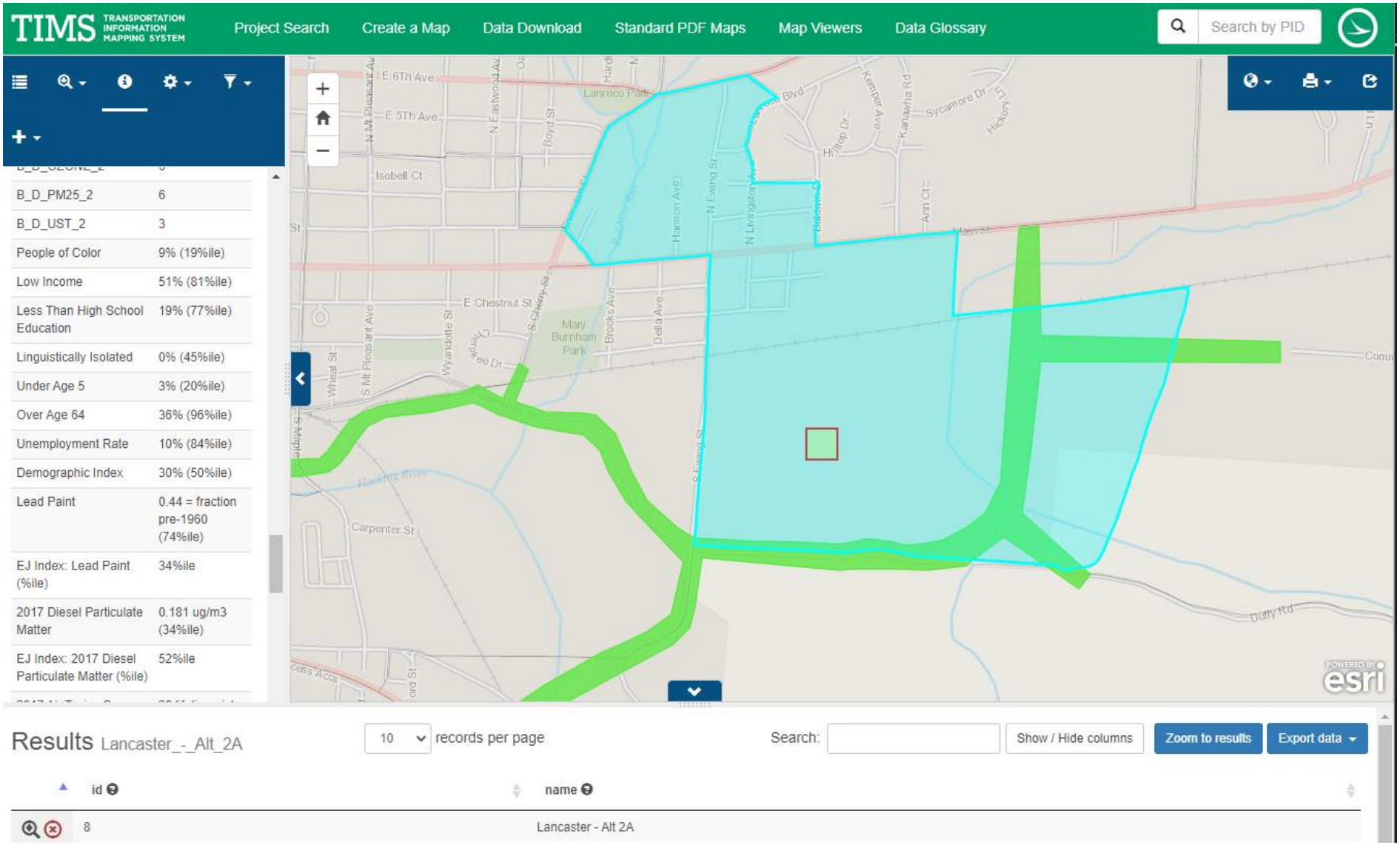
Census Block # 390450312001



Alternative 2A

TIMS Mapping

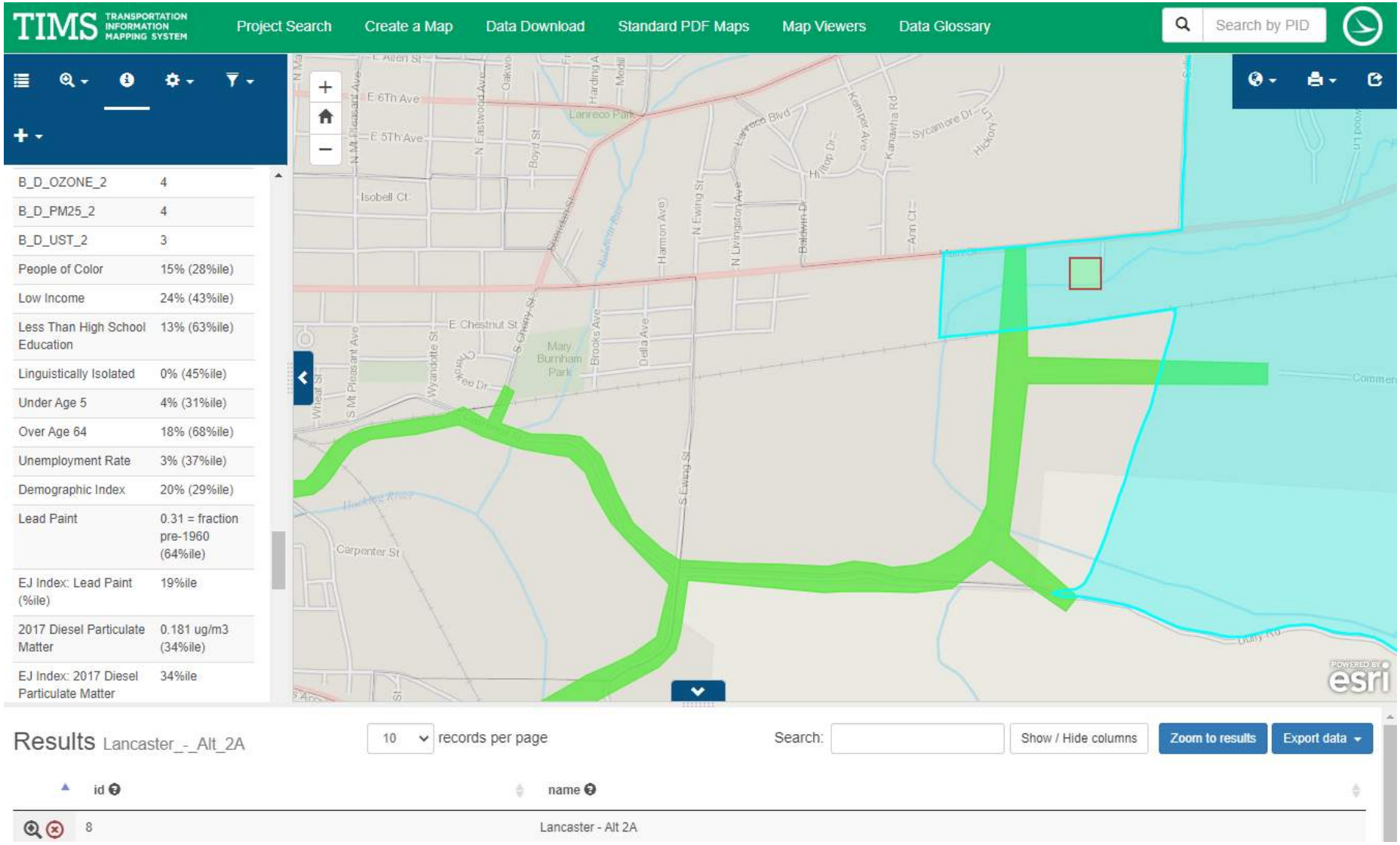
Census Block # 390450313003



Alternative 2A

TIMS Mapping

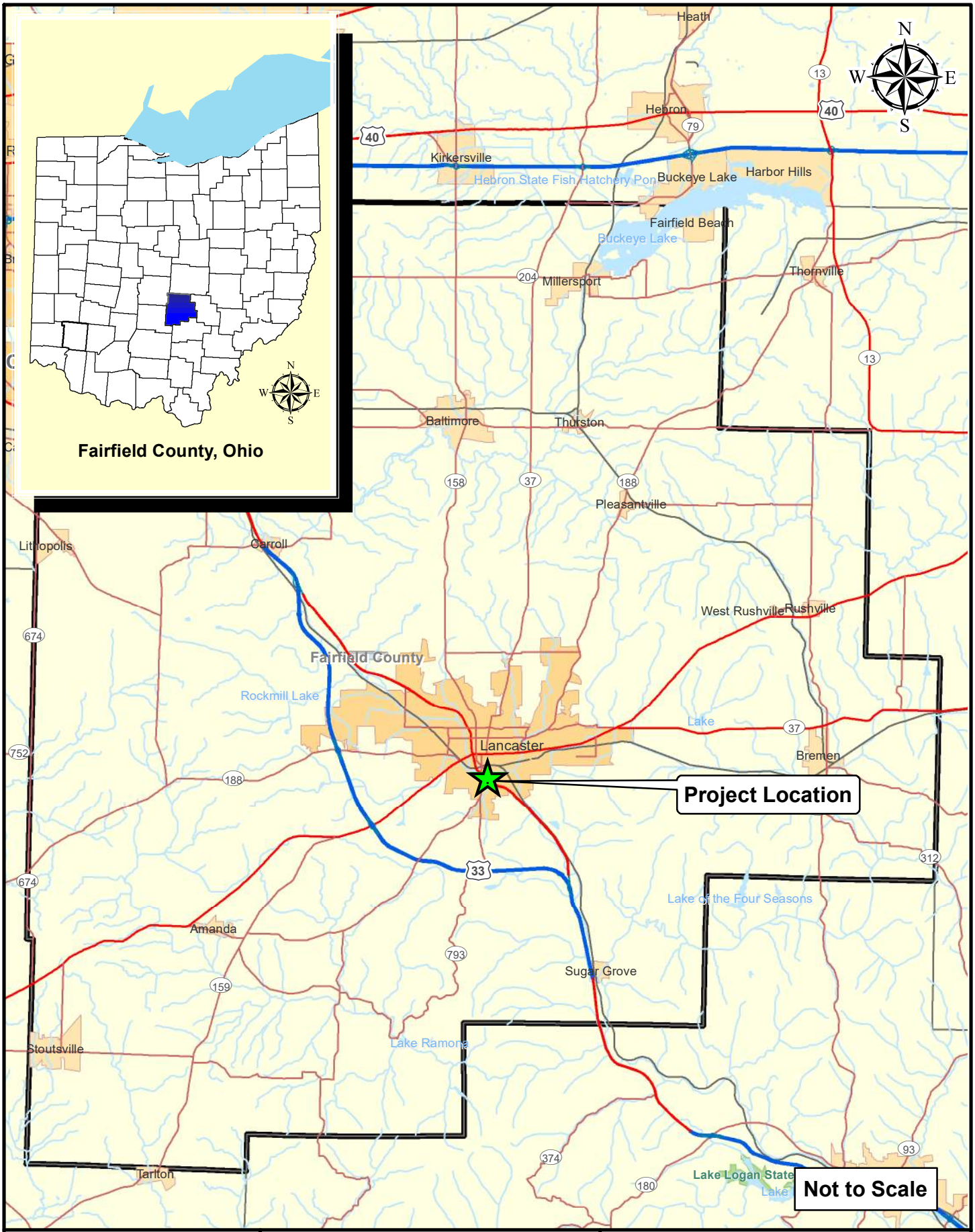
Census Block # 390450313001



Alternative 2B

Mapping

Project Location Map
USGS Topographic Map
2022 Aerial Photography Map
2005 Fairfield County Soil Survey Map
National Wetland Inventory Map
Ohio Wetland Inventory Map
FEMA 100-Year Floodplain Map



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AMERICAN STRUCTUREPOINT INC.

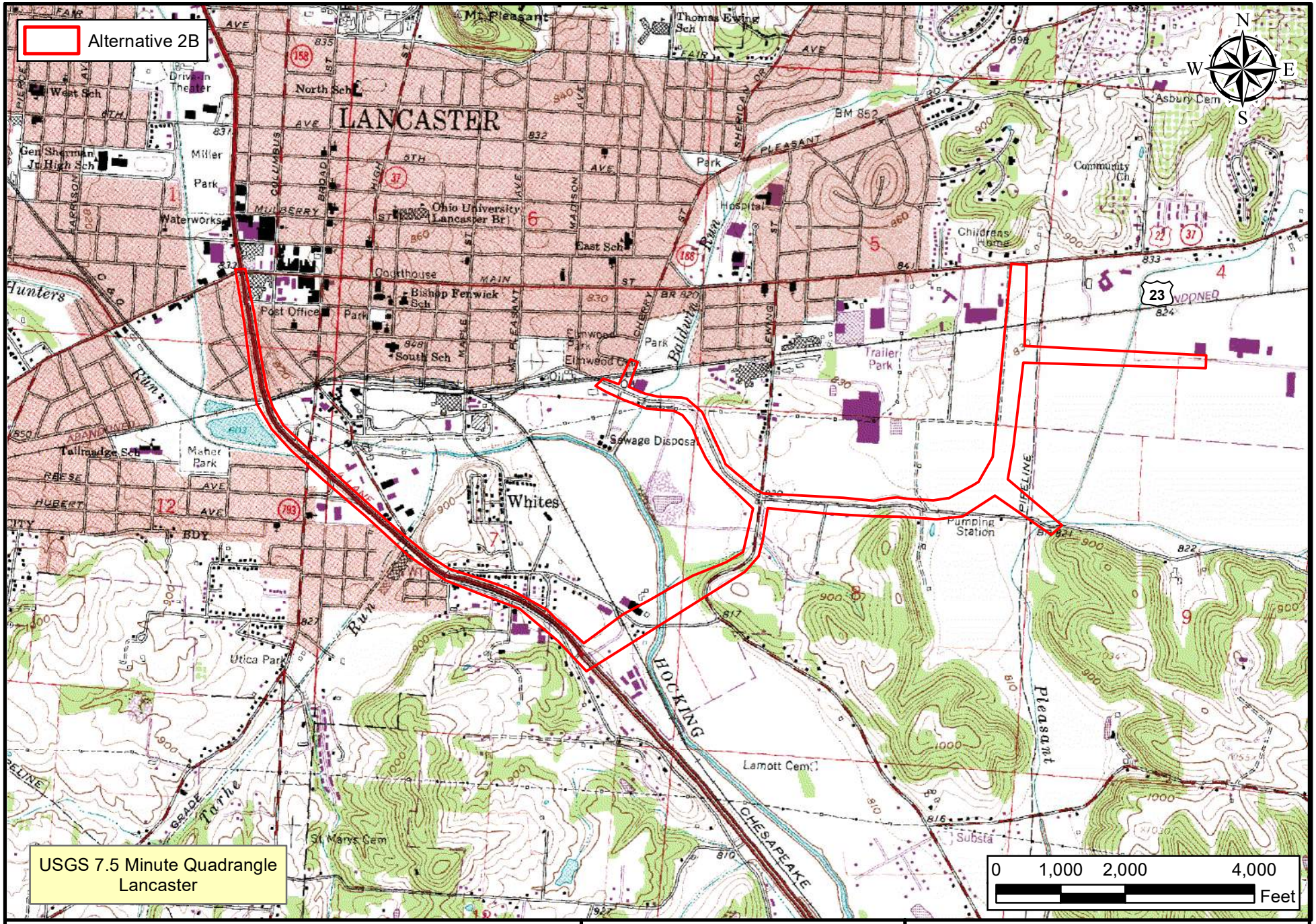
Project Location Map

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



American Structurepoint Inc.
www.structurepoint.com

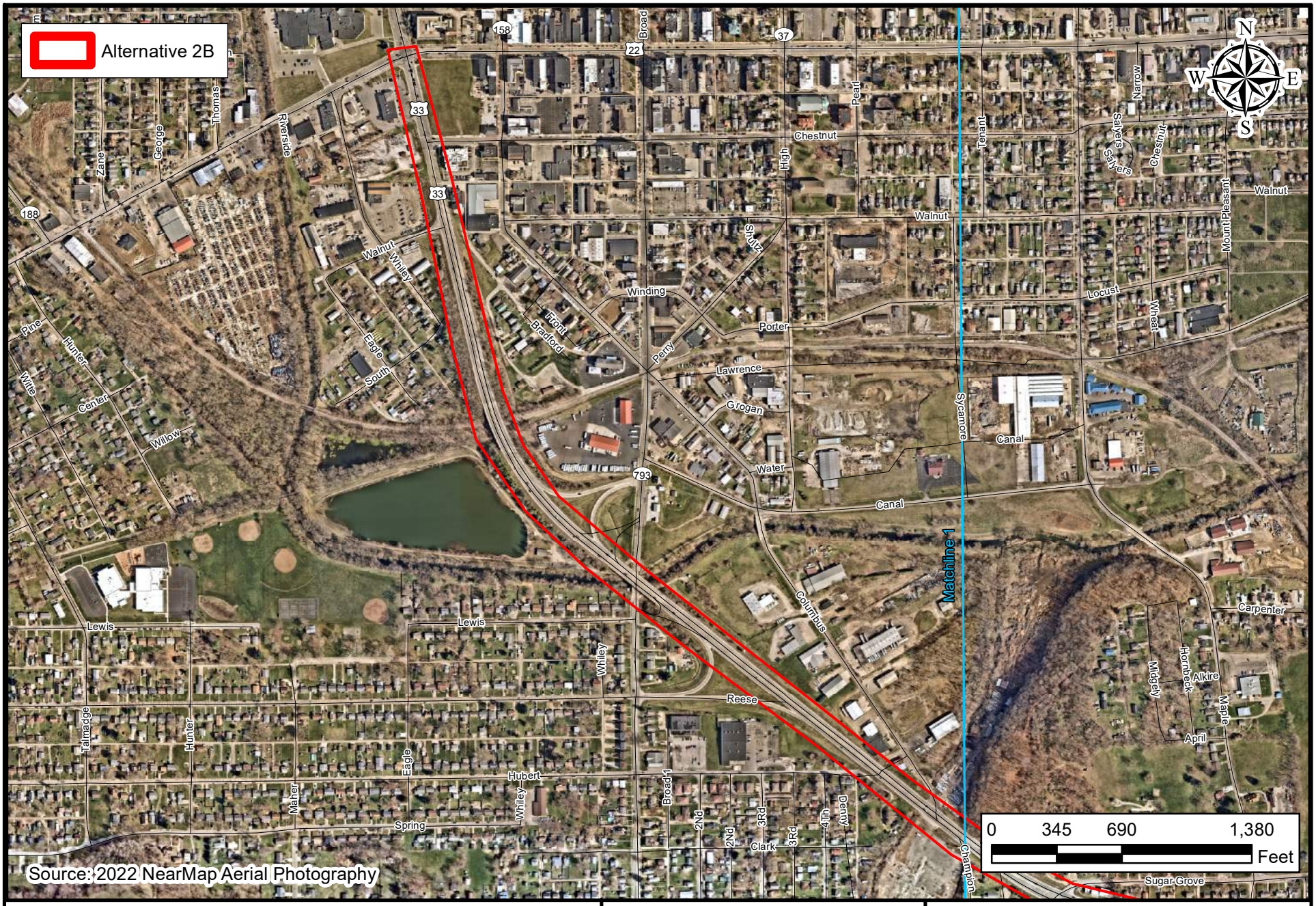
USGS Topographic Map

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/11/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

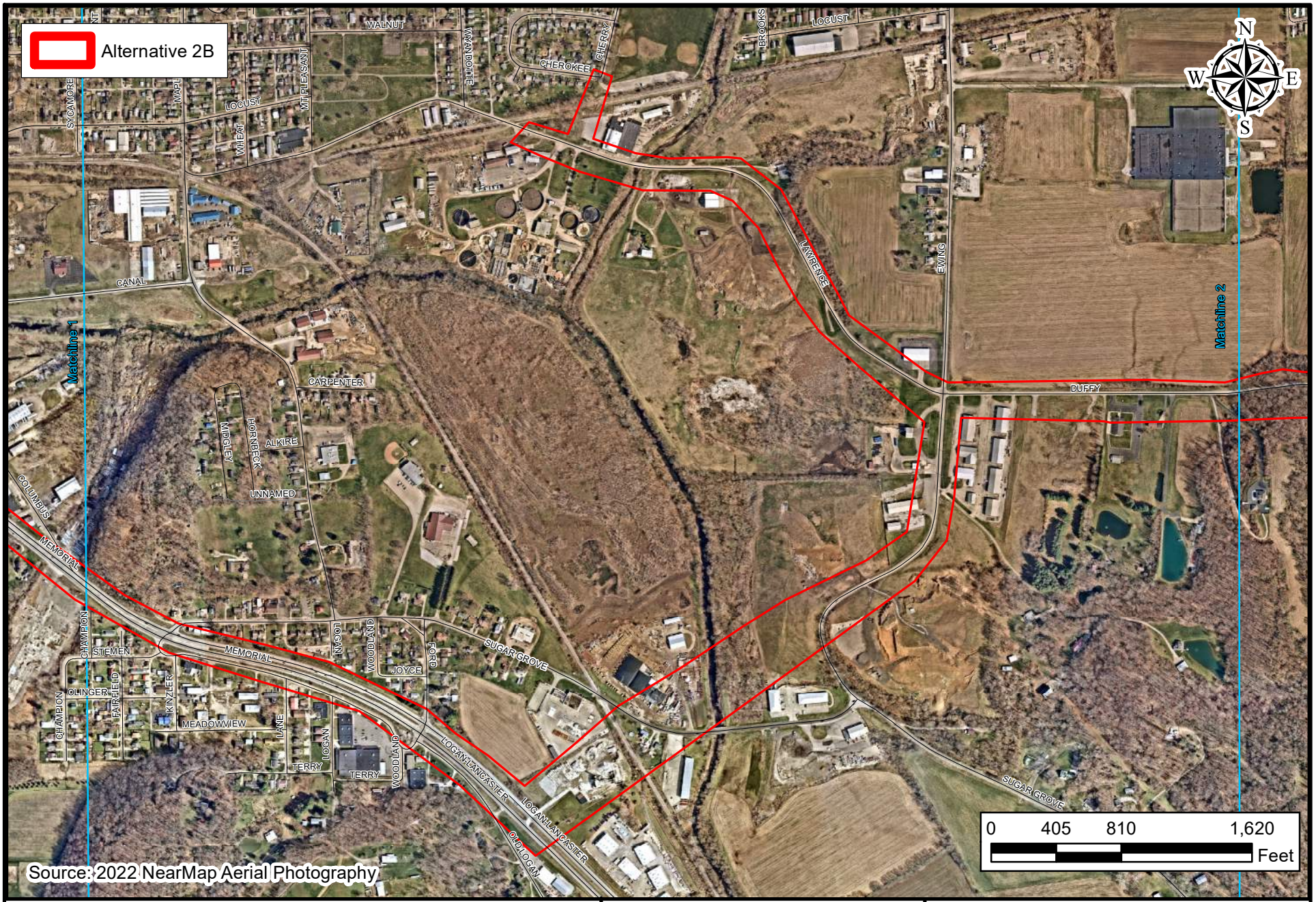
Aerial Map (1 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

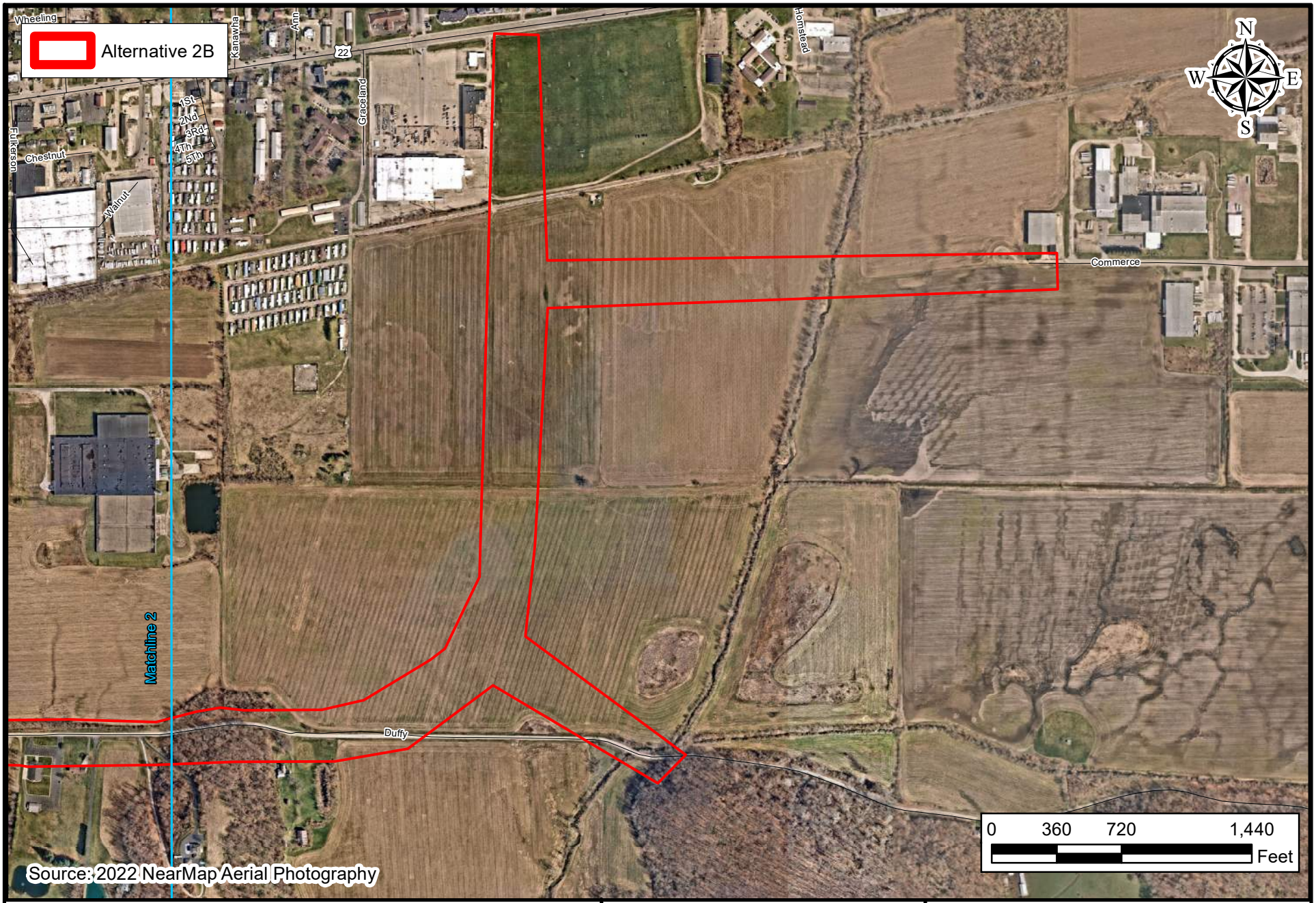
Aerial Map (2 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

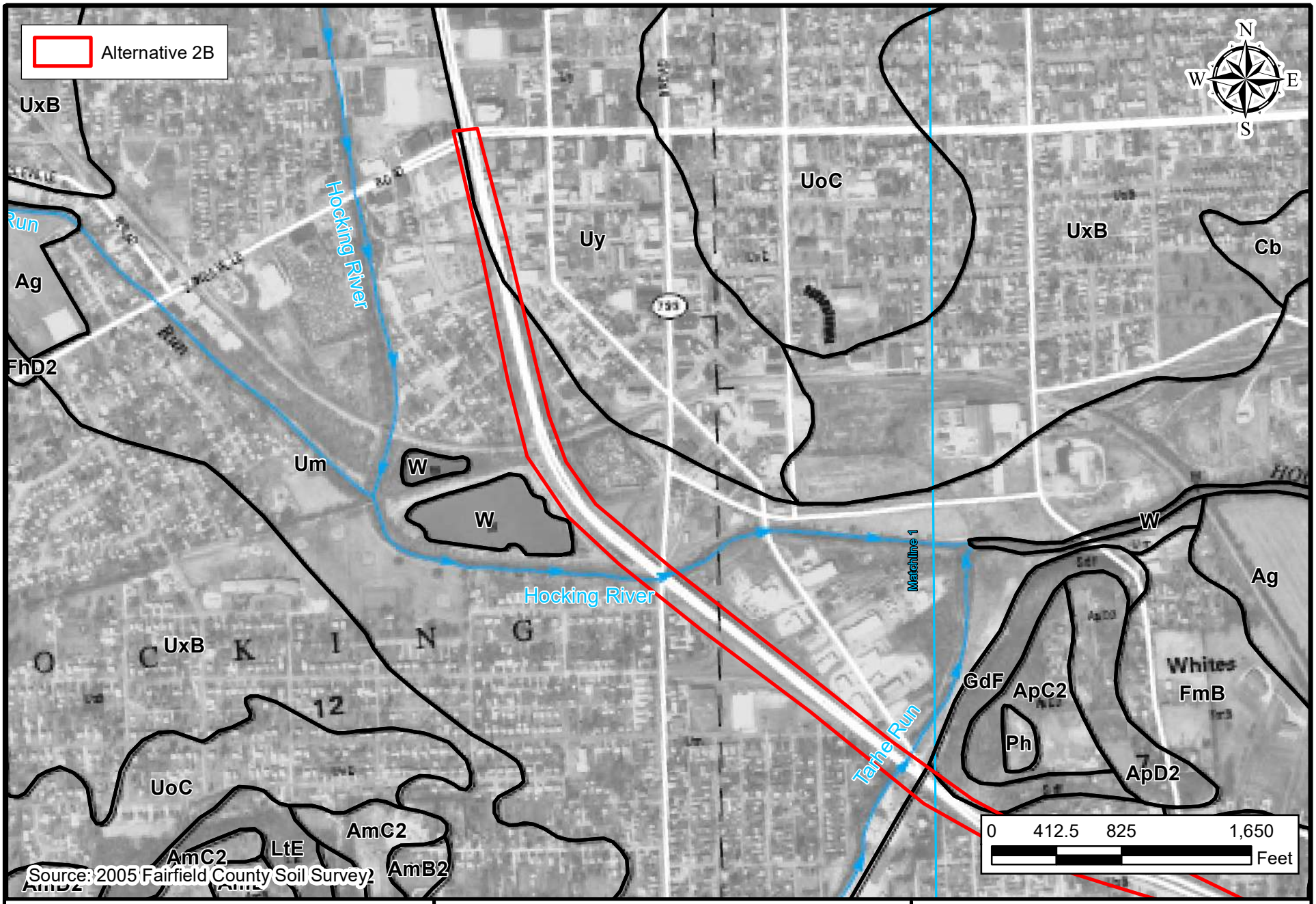
Aerial Map (3 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

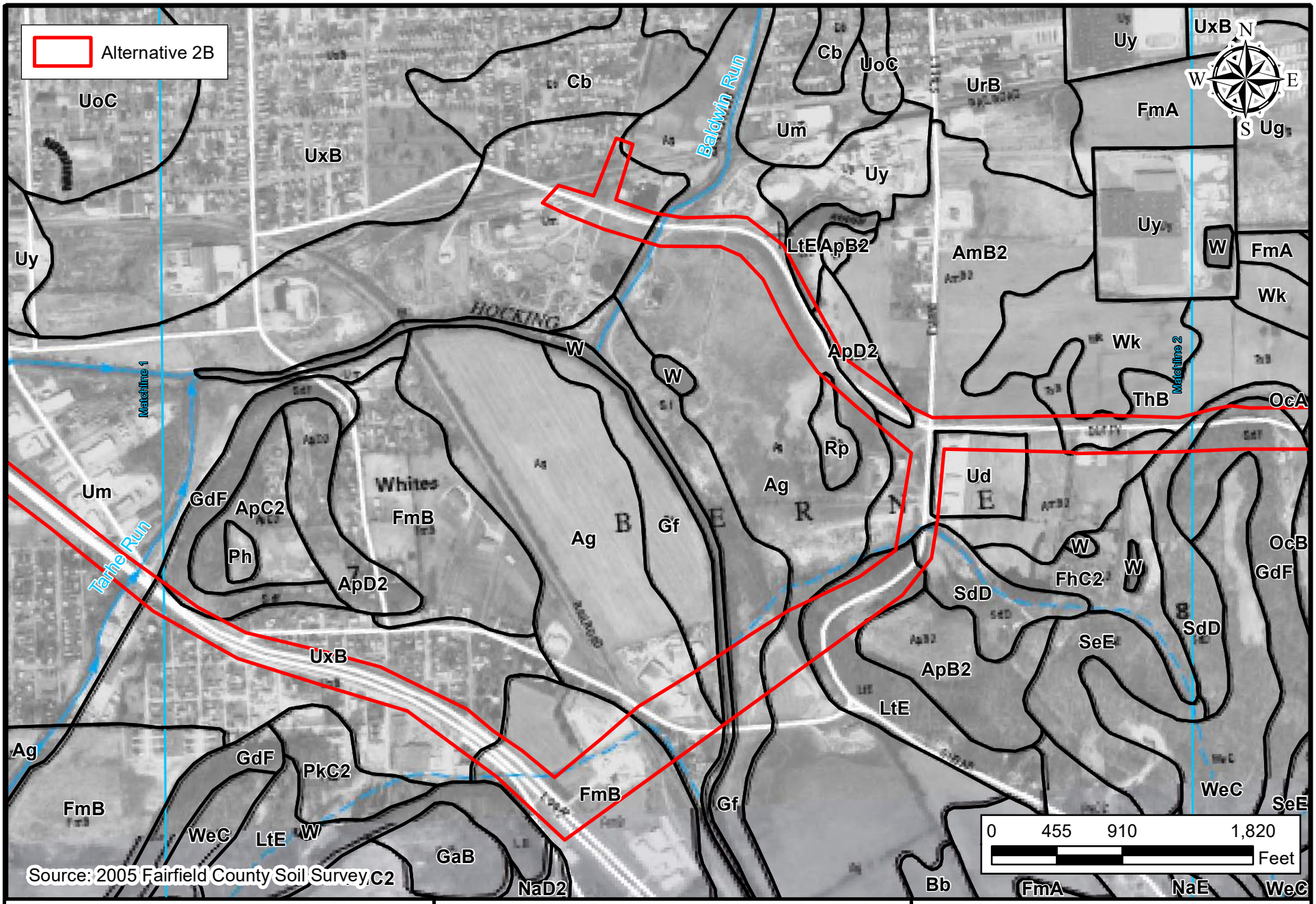
2005 Fairfield County Soil Survey Map (1 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
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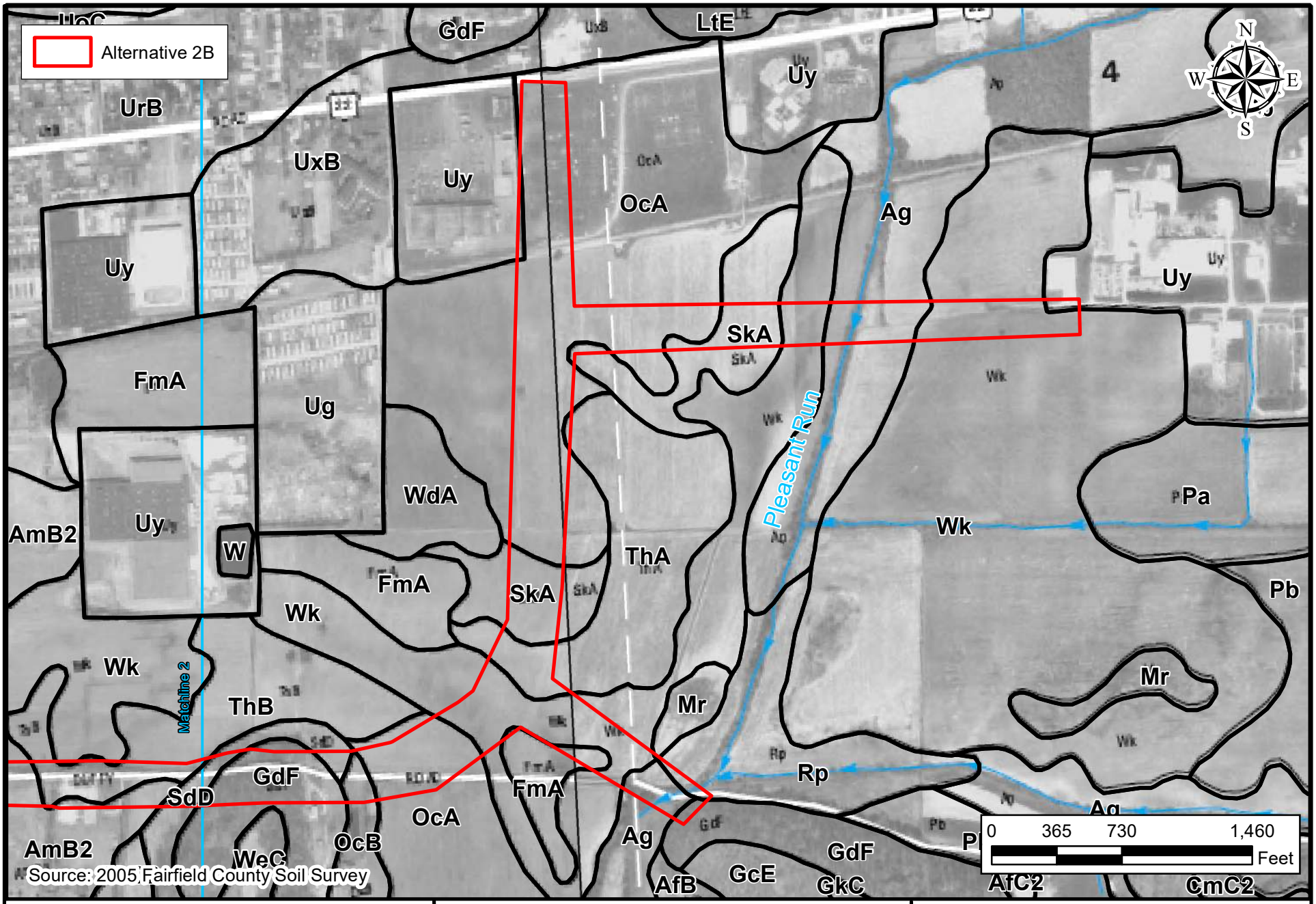
2005 Fairfield County Soil Survey Map (2 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

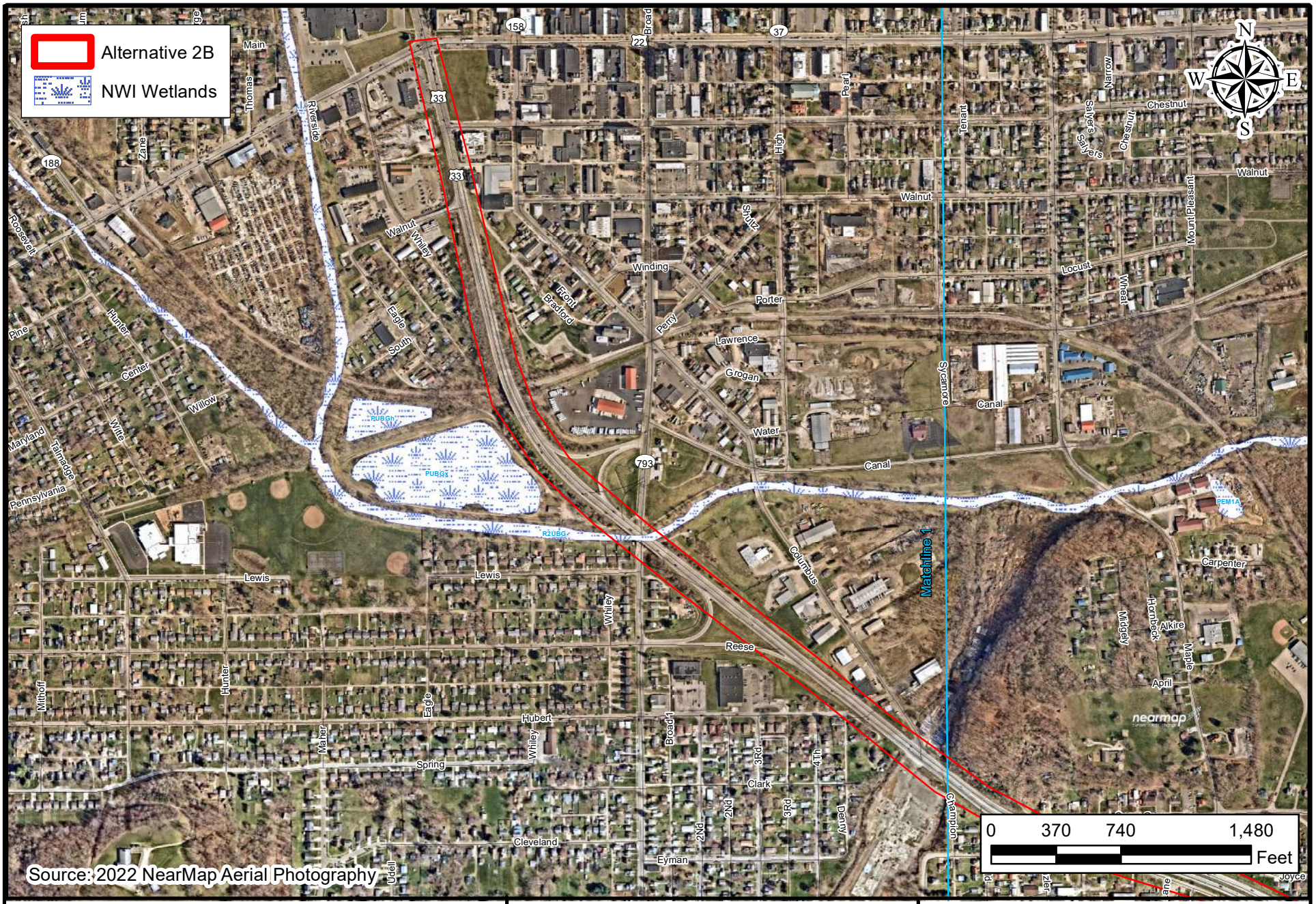
2005 Fairfield County Soil Survey Map (3 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

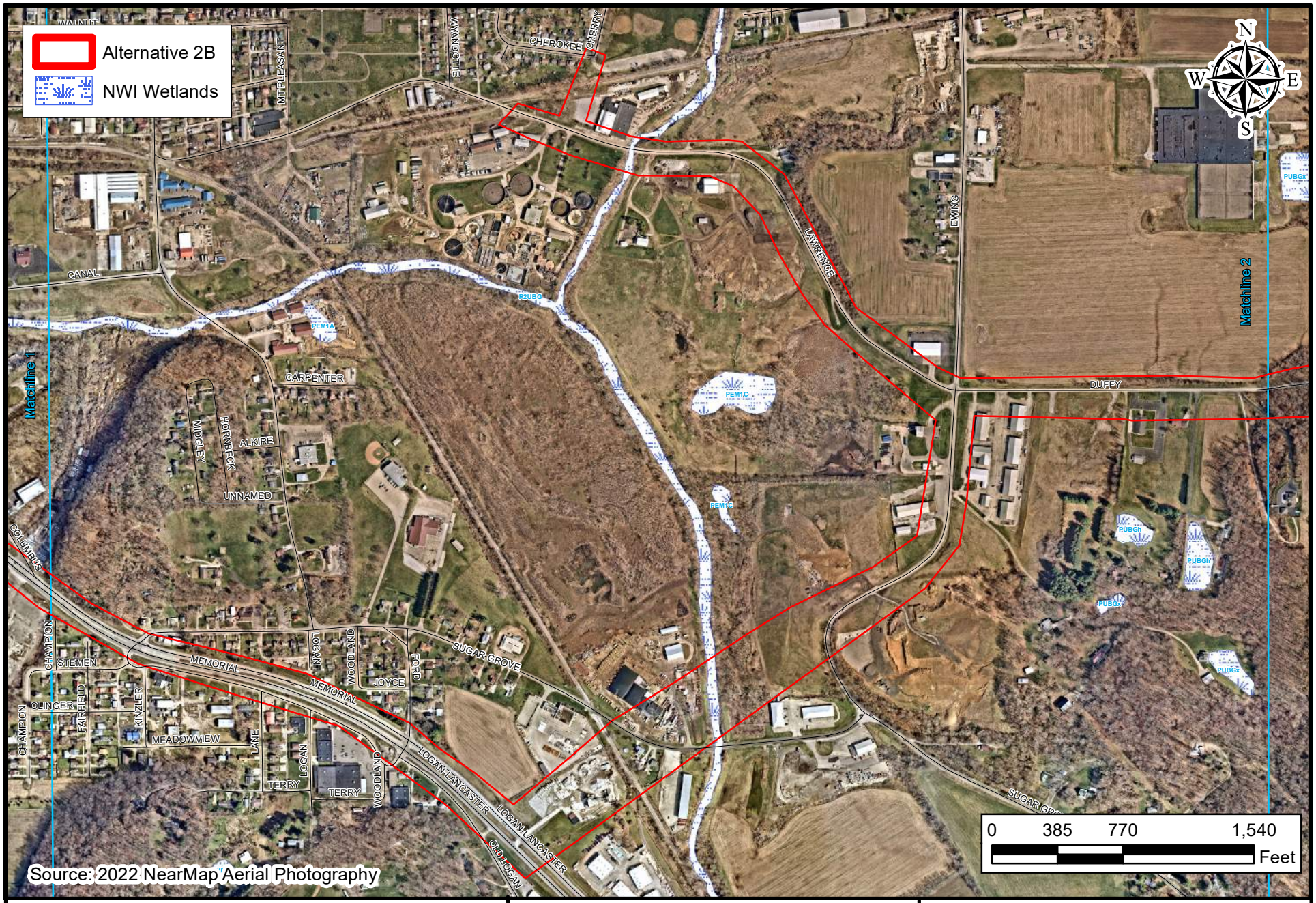
National Wetland Inventory Map (1 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

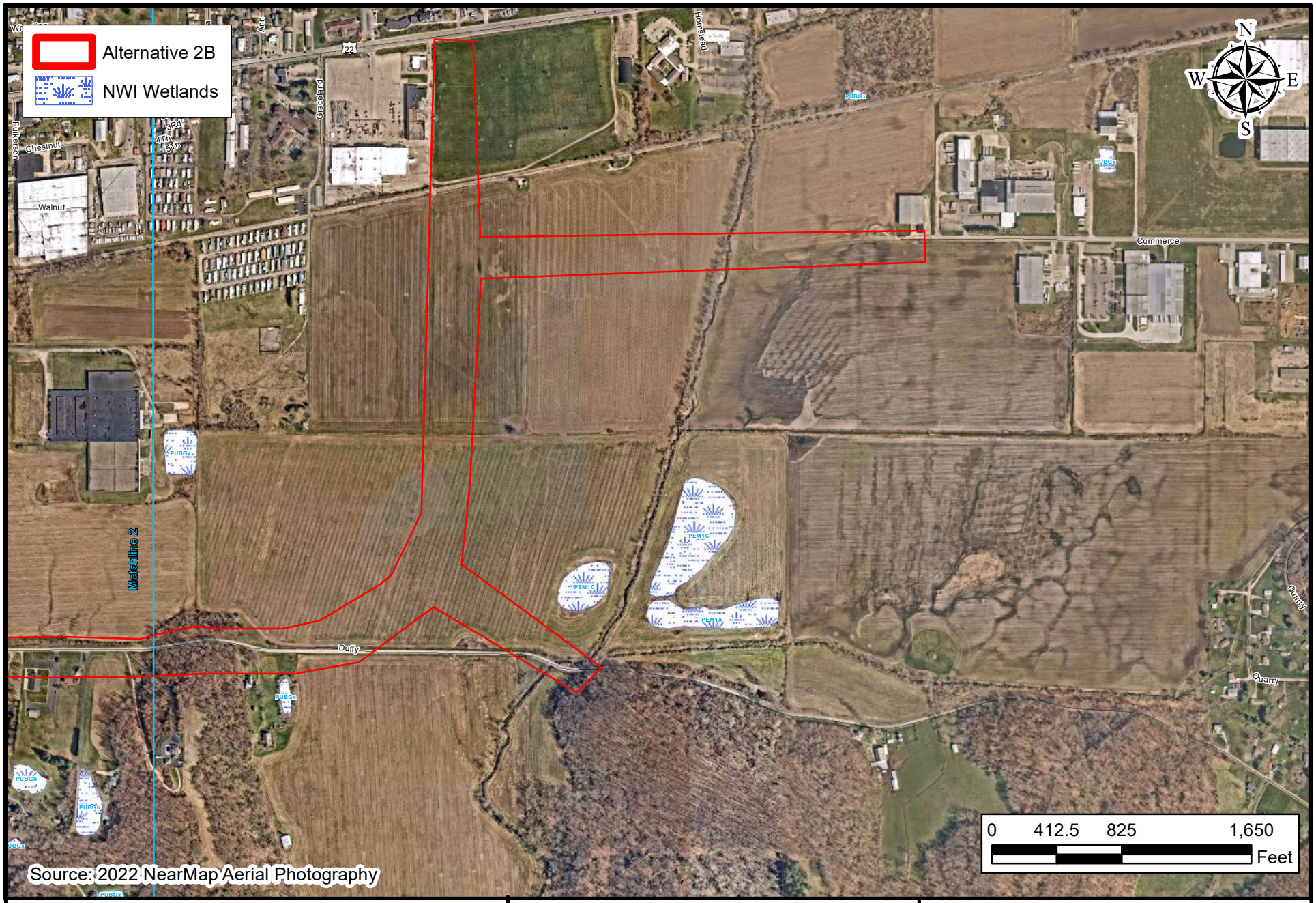
National Wetland Inventory Map (2 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



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www.structurepoint.com

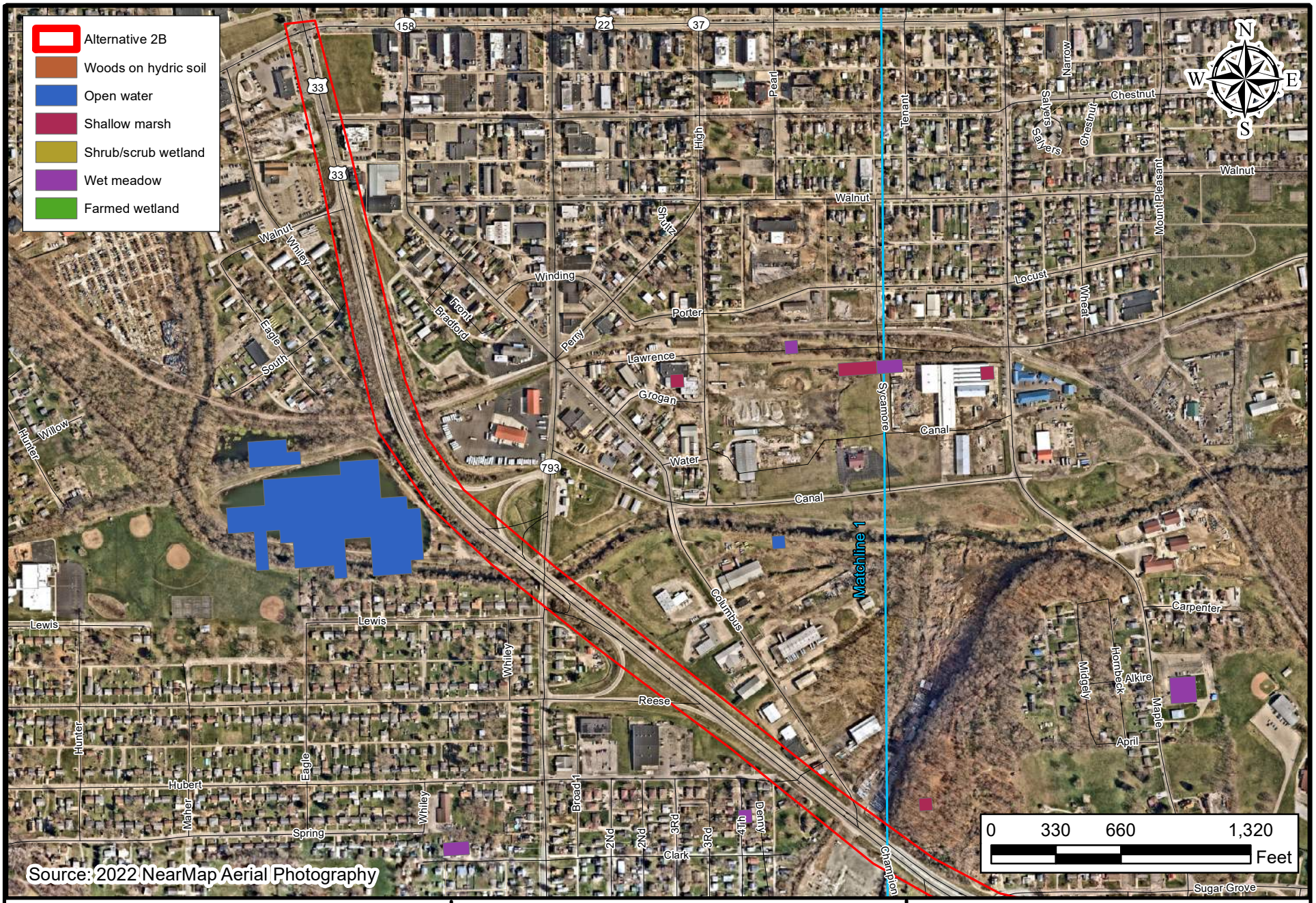
National Wetland Inventory Map (3 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

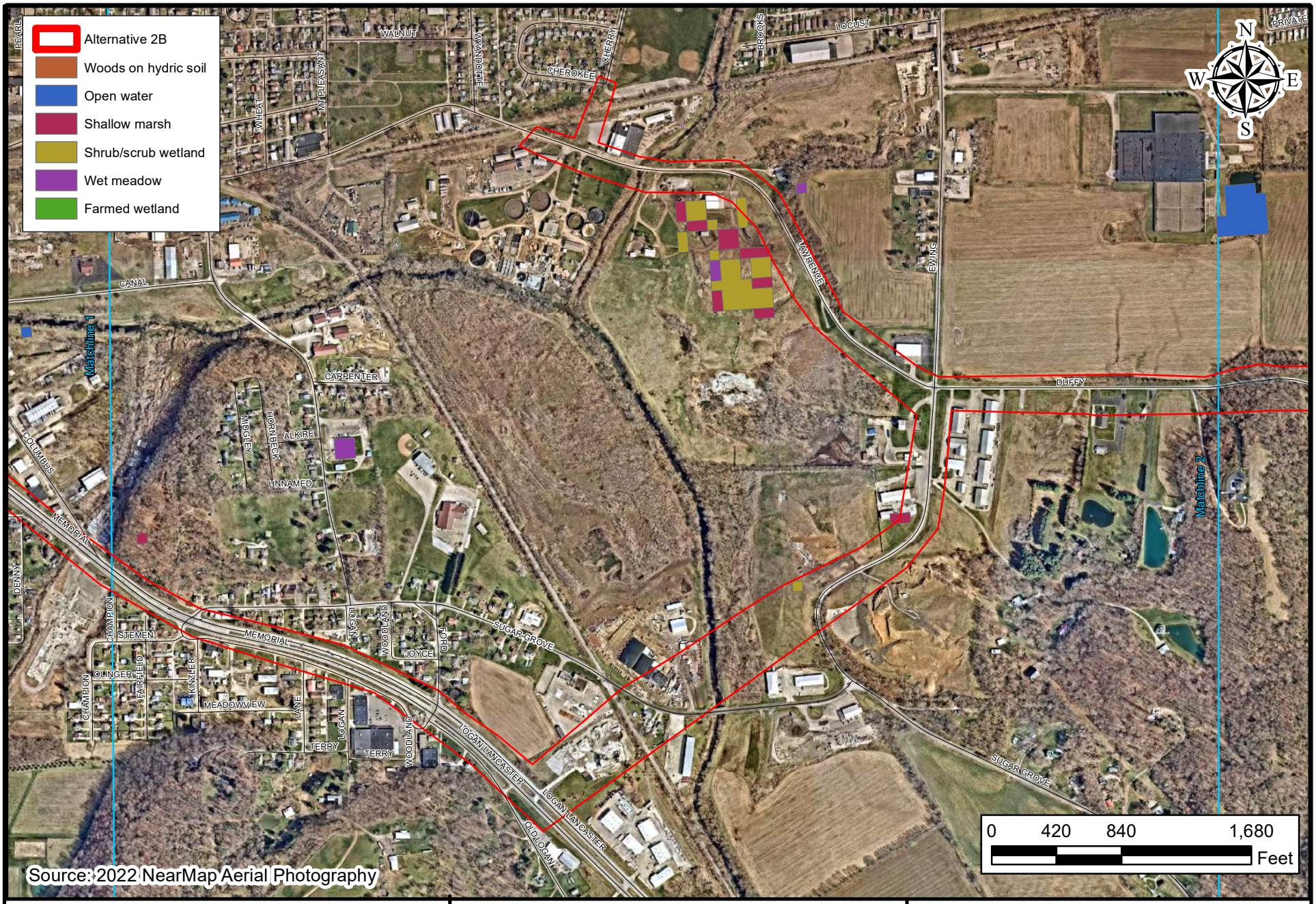
Ohio Wetland Inventory Map (1 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

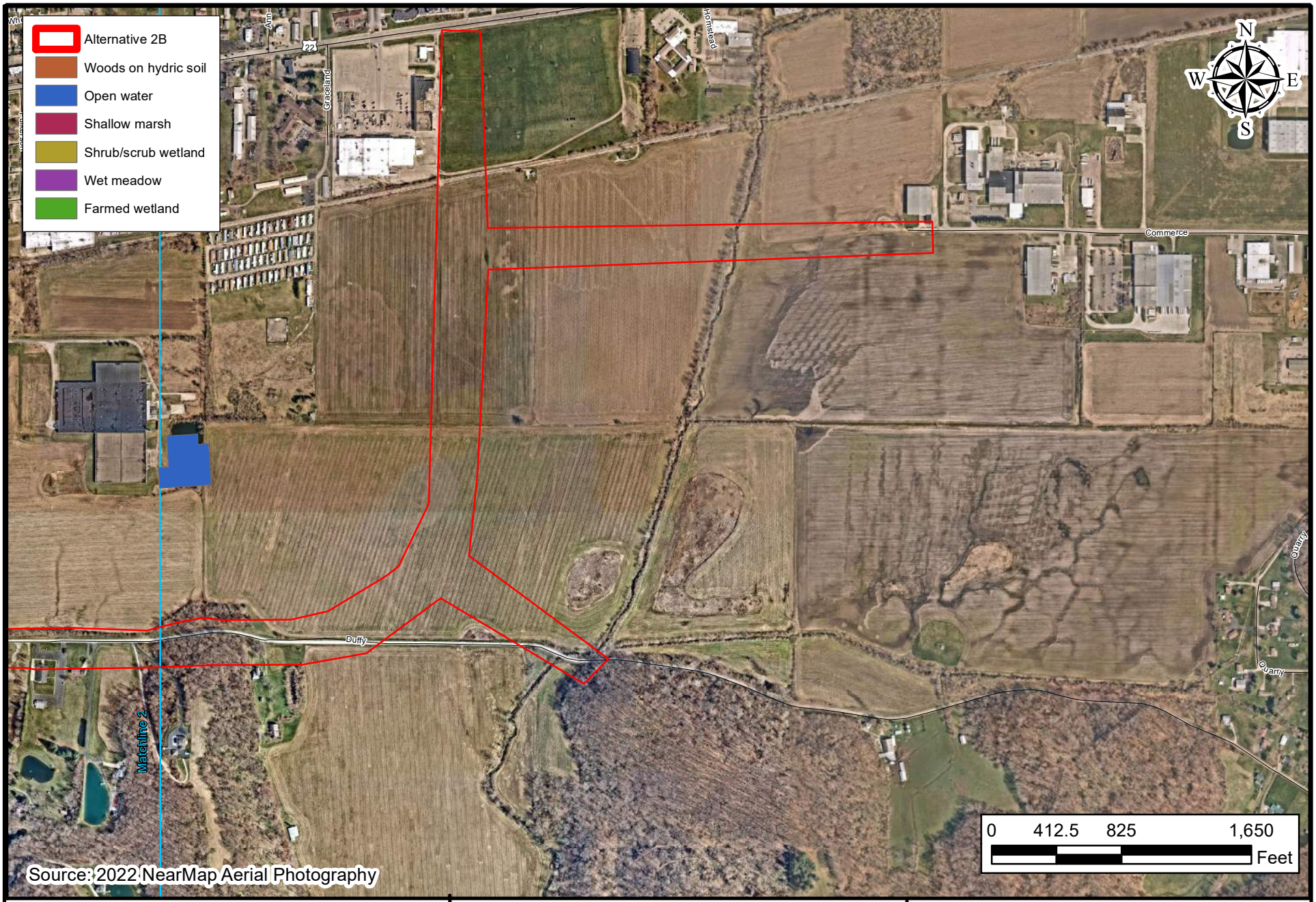
Ohio Wetland Inventory Map (2 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

Ohio Wetland Inventory Map (3 of 3)

Client:
City of Lancaster
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Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2B

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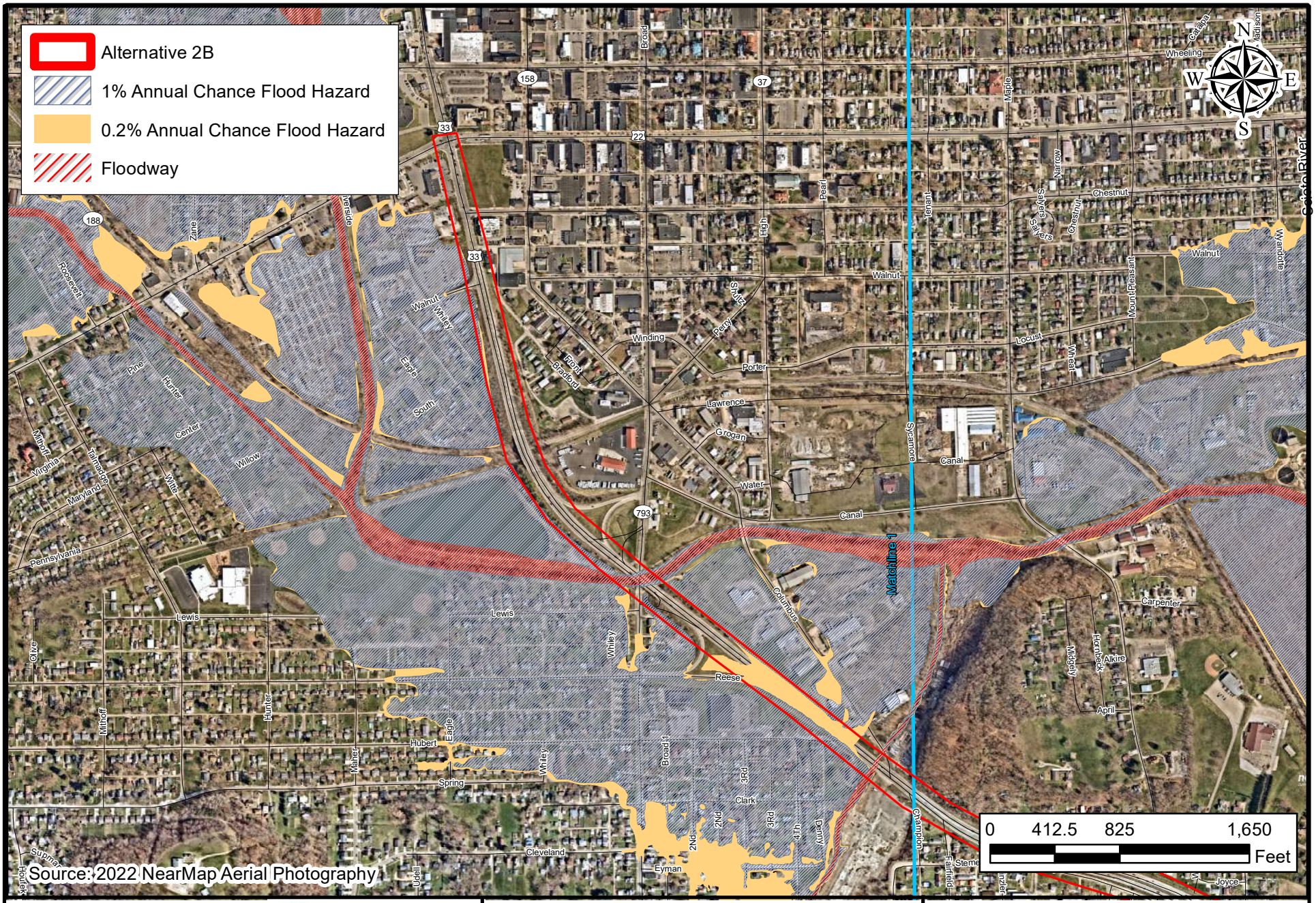
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

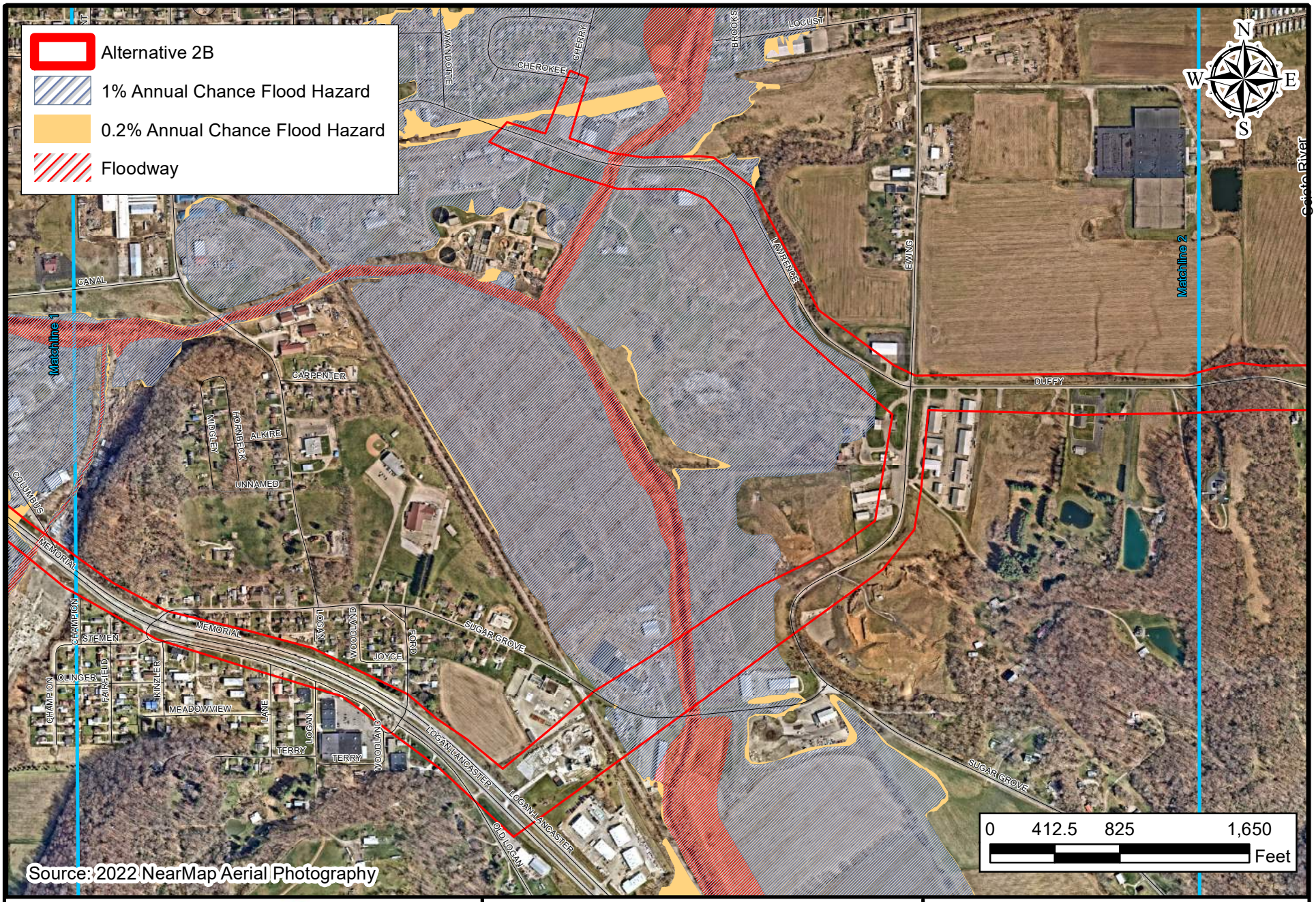
FEMA 100-Year Floodplain Map (1 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

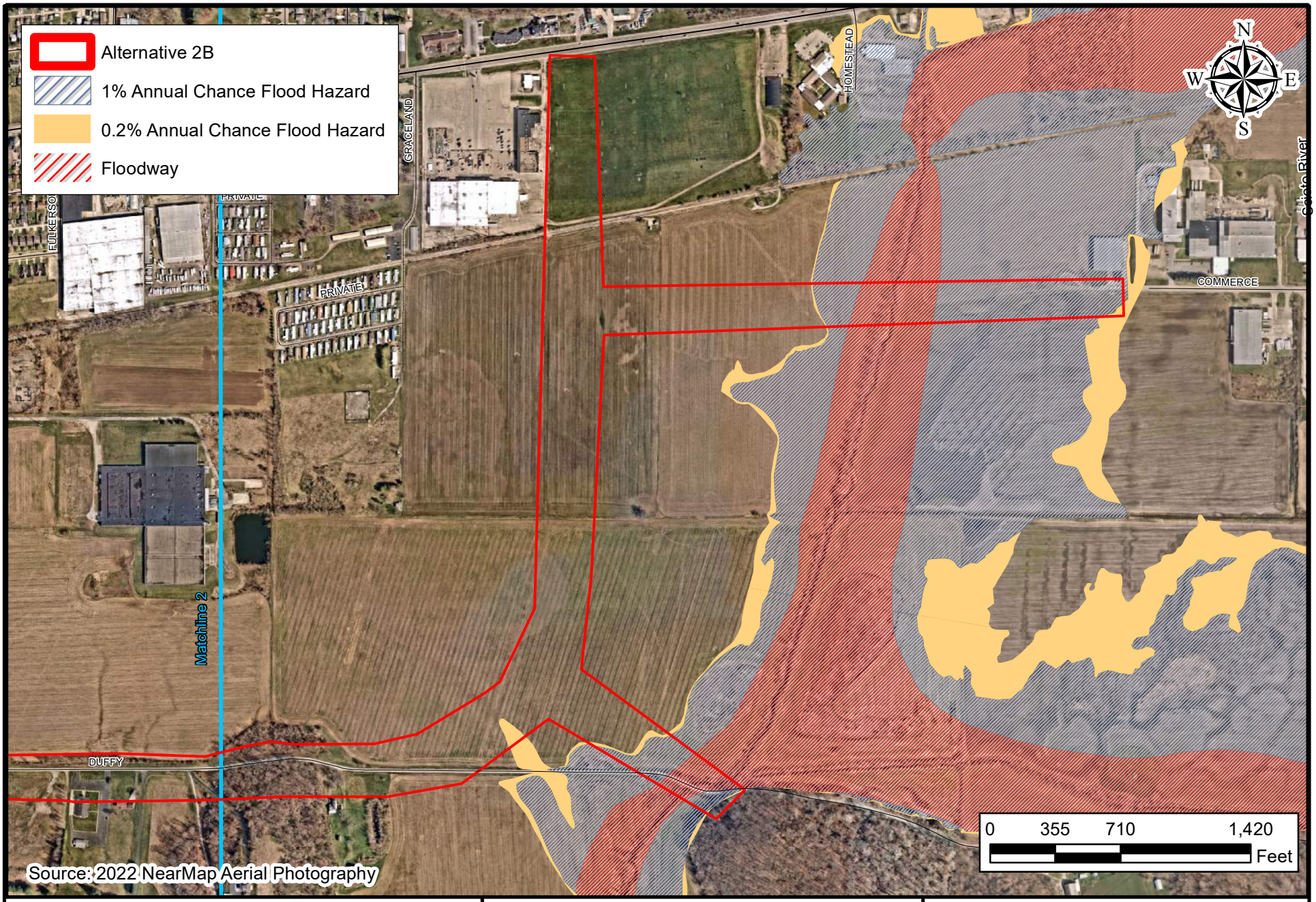
FEMA 100-Year Floodplain Map (2 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

FEMA 100-Year Floodplain Map (3 of 3)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 2B

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022

Alternative 2B

Hazardous Materials Records Summary

ORPS Summary Report Alternative 2B

Area of Interest (AOI) Information

Area : 784.45 acres

Aug 15 2022 15:41:56 Eastern Daylight Time

Summary

Name	Count	Area(acres)	Length(ft)
SEMS - Non-NPL Sites w/buffer (US EPA)	0	0	N/A
SEMS - NPL Sites w/buffer (US EPA)	0	0	N/A
RCRA (US EPA)	9	N/A	N/A
RCRA - TSD Sites w/buffer (US EPA)	0	0	N/A
Federal Engineering Controls (US EPA)	0	N/A	N/A
Federal Institutional Controls (US EPA)	0	N/A	N/A
BUSTR - UST Locations (BUSTR/OGRIP)	0	N/A	N/A
BUSTR - LUST Locations (BUSTR/OGRIP)	10	N/A	N/A
Coal Gas Generators (OEPA-DERR)	0	N/A	N/A
DERR Database (OEPA-DERR)	6	N/A	N/A
Impoundment Sites (OEPA-DERR)	0	N/A	N/A
Landfills - Active Solid Waste Facilities w/buffer (OEPA-DMWM)	0	0	N/A
Landfills - Historic/Abandoned Facilities w/buffer (OEPA-DMWM/DERR)	0	0	N/A
Landfills - Solid Waste Facility Polygons (OEPA-DMWM)	2	53.79	N/A
Projects With Engineering Controls (OEPA-DERR)	0	N/A	N/A
Projects With Institutional Controls (OEPA-DERR)	0	N/A	N/A
Spills Database (OEPA)	0	N/A	N/A
VAP Sites (OEPA-DERR)	9	N/A	N/A
Potential Areas of Concern (ODOT-OES)	0	0	N/A

RCRA (US EPA)

#	REGISTRY_ID	PRIMARY_NAME	ADDRESS	CITY	STATE	ZIP	LAST_REPORTED_DATE	URL
1	110004577618	BOYER BROS PAINT AND BODY	1058 OLD LOGAN RD	LANCASTER	OH	43130	4/14/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110004577618
2	110004577618	BOYER BROS PAINT AND BODY	1058 OLD LOGAN RD	LANCASTER	OH	43130	10/16/2014	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110004577618
3	110004620161	GRIBBLE MOTORS INC	150 WHILEY AVE	LANCASTER	OH	43130	4/14/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110004620161
4	110000381970	HEXCEL COMPOSITES	815 LAWRENCE ST.	LANCASTER	OH	43130	4/28/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110000381970
5	110001623146	SONOCO PRODUCTS CO	831 SOUTH MEMORIAL DRIVE	LANCASTER	OH	43130-4370	4/28/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110001623146
6	110000550458	LANCASTER WATER POLLUTION CONTROL	800 LAWRENCE ST	LANCASTER	OH	43130	10/16/2014	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110000550458
7	110045986689	CVS PHARMACY #6188	111 S MEMORIAL DR	LANCASTER	OH	43130	3/27/2019	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110045986689

8	110031339549	ALCO INC DBA UST ENV CONTRACTOR	233 WHILEY AVE	LANCASTER	OH	43130	4/28/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110031339549
9	110004663935	C-W AUTO BODY INC	750 S COLUMBUS ST	LANCASTER	OH	43130	4/28/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110004663935

#	PGM_SYS_ID	PGM_SYS_ACRONYM	INTEREST_TYPE	REFERENCE_POINT_DESC	Count
1	OH0000923722	RCRAINFO	UNSPECIFIED UNIVERSE	CENTER OF A FACILITY OR STATION	1
2	OHD982619801	RCRAINFO	CESQG	CENTER OF A FACILITY OR STATION	1
3	OHD069061570	RCRAINFO	UNSPECIFIED UNIVERSE	CENTER OF A FACILITY OR STATION	1
4	OHD004289419	RCRAINFO	UNSPECIFIED UNIVERSE	CENTER OF A FACILITY OR STATION	1
5	OHD980280176	RCRAINFO	CESQG	CENTER OF A FACILITY OR STATION	1
6	OHD000772954	RCRAINFO	CESQG	CENTER OF A FACILITY OR STATION	1
7	OHR000169193	RCRAINFO	CESQG	CENTER OF A FACILITY OR STATION	1
8	OHR000137539	RCRAINFO	UNSPECIFIED UNIVERSE	CENTER OF A FACILITY OR STATION	1
9	OHD986979102	RCRAINFO	CESQG	CENTER OF A FACILITY OR STATION	1

BUSTR - LUST Locations (BUSTR/OGRIP)

#	FACILITY_ID	CURRENT_FACILITY_NAME	ADDRESS	CITY	ZIP	INCIDENT_ID	LTF	STATUS	FACILITY_STATUS	Count
1	23000118	RICH OIL, INC. #3732	520 S BROAD ST	LANCASTER	43130	N00001	6 Closure of regulated UST	NFA: No Further Action	Inactive	1
2	23009761	ARROW CONCRETE	1750 LOGAN LANCASTER RD	LANCASTER	43130	N00001	6 Closure of regulated UST	NFA: No Further Action	Inactive	1
3	23010050	SONOCO PRODUCTS CO	831 S MEMORIAL DR	LANCASTER	43130	N00001	1 SUS/CON from regulated UST	NFA: No Further Action	Inactive	1
4	*No Data*	RICH OIL, INC. #3732	520 S BROAD ST	LANCASTER	43130	*No Data*	6 Closure of regulated UST	NFA: No Further Action	Inactive	1
5	*No Data*	MORRIS EXCAVATION INC	1030 OLD LOGAN RD	LANCASTER	43130	*No Data*	6 Closure of regulated UST	CLO: Closure	Active	1
6	*No Data*	ATHENS SPORTS CYCLES	1830 OLD LOGAN RD	LANCASTER	43130	*No Data*	6 Closure of regulated UST	NFA: No Further Action	Inactive	1
7	*No Data*	SONOCO PRODUCTS CO	831 S MEMORIAL DR	LANCASTER	43130	*No Data*	1 SUS/CON from regulated UST	NFA: No Further Action	Inactive	1
8	*No Data*	SUNOCO #0016-5522	1601 E MAIN ST	LANCASTER	43130	*No Data*	1 SUS/CON from regulated UST	NFA: No Further Action	Inactive	1
9	*No Data*	LANCASTER GLASS	240 W MAIN ST	LANCASTER	43130	*No Data*	1 SUS/CON from regulated UST	NFA: No Further Action	Inactive	1
10	*No Data*	LANCASTER FIRE DEPT	1596 E MAIN ST	LANCASTER	43130	*No Data*	6 Closure of regulated UST	NFA: No Further Action	Inactive	1

DERR Database (OEPA-DERR)

#	DERR_ID	NAME	ALIAS	ADDRESS	CITY	ZIP	CERCLIS_ID	ACTIVITY
1	123001649	Hexcel Corp, Lancaster	*No Data*	815 Lawrence St	Lancaster	43130	OHD004289419	SA
2	123001188	Anchor Hocking Plt No 2 Former, Lancaster	*No Data*	403 S Ewing St	Lancaster	43130	OHD042314898	COF, SA, RR, VAP
3	123001188	Anchor Hocking Plt No 2 Former, Lancaster	1390 N Bridge St, Chillicothe	403 S Ewing St	Lancaster	43130	OHD042314898	COF, SA, RR, VAP
4	123002202	East Lancaster Development Corridor USD	Muddy Crk, Cincinnati, 6125 River Rd	104 E Main St Lawarence,Ewing,Conrail,Ewing,Walnut,Fulkerson,Con	Lancaster	43130	*No Data*	*No Data*
5	123002202	East Lancaster Development Corridor USD	*No Data*	104 E Main St Lawarence,Ewing,Conrail,Ewing,Walnut,Fulkerson,Con	Lancaster	43130	*No Data*	*No Data*
6	123002832	Lancaster Glass	*No Data*	240 W Main St	Lancaster	43130-	*No Data*	COF, VAP

#	OEPA_DISTRICT	EDOCS_LINK	Count
1	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001649	1
2	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001188	1
3	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001188	1
4	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123002202	1
5	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123002202	1
6	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123002832	1

Landfills - Solid Waste Facility Polygons (OEPA-DMWM)

#	COUNTY	FACILITY	FACILITY_TYPE	COMMENT	EST_CLOSE_OR_CEASE_DATE	POLYGON_TYPE	DESCRIPTION	EDOCS_LINK	Area(acres)
1	Fairfield	M&B Demolition Disposal	CDDLF	Active 2016	0	3	50	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/00	50.59
2	Fairfield	Lancaster City Transfer facility	MSWTF	*No Data*	0	3	35	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/00	3.21

VAP Sites (OEPA-DERR)

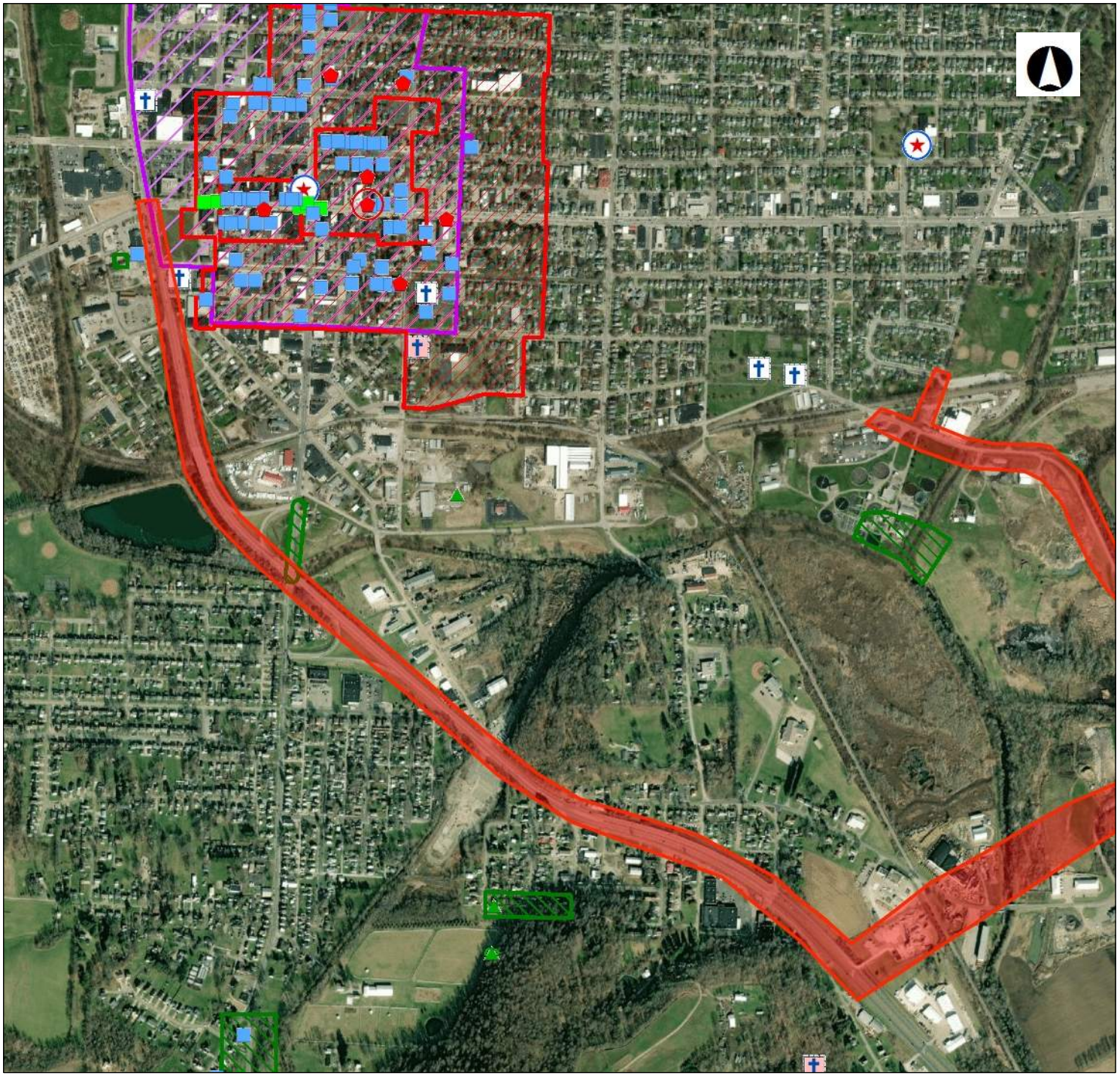
#	SITE_ID	NAME	ALIAS_NAME	ADDRESS	ADDRESS2	CITY	ZIP	PROJECT_TYPE
1	123002202	East Lancaster Development Corridor USD	*No Data*	104 E Main St	Lawarence,Ewing,Conrail,Ewing,Walnut,Fulkerson,Con	Lancaster	43130	USD Inspection
2	123001188	Anchor Hocking Plt No 2 Former, Lancaster	*No Data*	403 S Ewing St	*No Data*	Lancaster	43130	VAP Technical Assistance
3	123001188	Anchor Hocking Plt No 2 Former, Lancaster	*No Data*	403 S Ewing St	*No Data*	Lancaster	43130	NFA 90 Day
4	123001188	Anchor Hocking Plt No 2 Former, Lancaster	*No Data*	403 S Ewing St	*No Data*	Lancaster	43130	Risk Mitigation Plan Oversight
5	123001188	Anchor Hocking Plt No 2 Former, Lancaster	*No Data*	403 S Ewing St	*No Data*	Lancaster	43130	VAP Operation & Maintenance
6	123001188	Anchor Hocking Plt No 2 Former, Lancaster	*No Data*	403 S Ewing St	*No Data*	Lancaster	43130	VAP Institutional Control Inspection
7	123002202	East Lancaster Development Corridor USD	Muddy Crk, Cincinnati, 6125 River Rd	104 E Main St	Lawarence,Ewing,Conrail,Ewing,Walnut,Fulkerson,Con	Lancaster	43130	Urban Setting Designation
8	123002832	Lancaster Glass	*No Data*	240 W Main St	*No Data*	Lancaster	43130-	VAP Technical Assistance

#	OEPA_DISTRICT	EDOCS_LINK	Count
1	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123002202	2
2	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001188	1
3	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001188	1
4	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001188	1
5	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001188	1
6	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001188	1
7	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123002202	1
8	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123002832	1

Alternative 2B

Cultural Resources and Other Environmental Resources

Alternative 2B



OHIO HISTORY CONNECTION
State Historic Preservation Office

Legend

NR Listings
- Listed
- National Historic Landmark
- Delisted

Determinations of Eligibility
- DOE
- Demolished

- Archaeological Sites
- Historic Structures
- Historic Bridges
- Historic Tax Credit Projects
- Local Designations

OGS Cemeteries
- Confident
- Not Confident

- Local District Boundary
- Previously Surveyed Area
- National Register Boundary

0 0.22 0.44 Miles

1: 17,358

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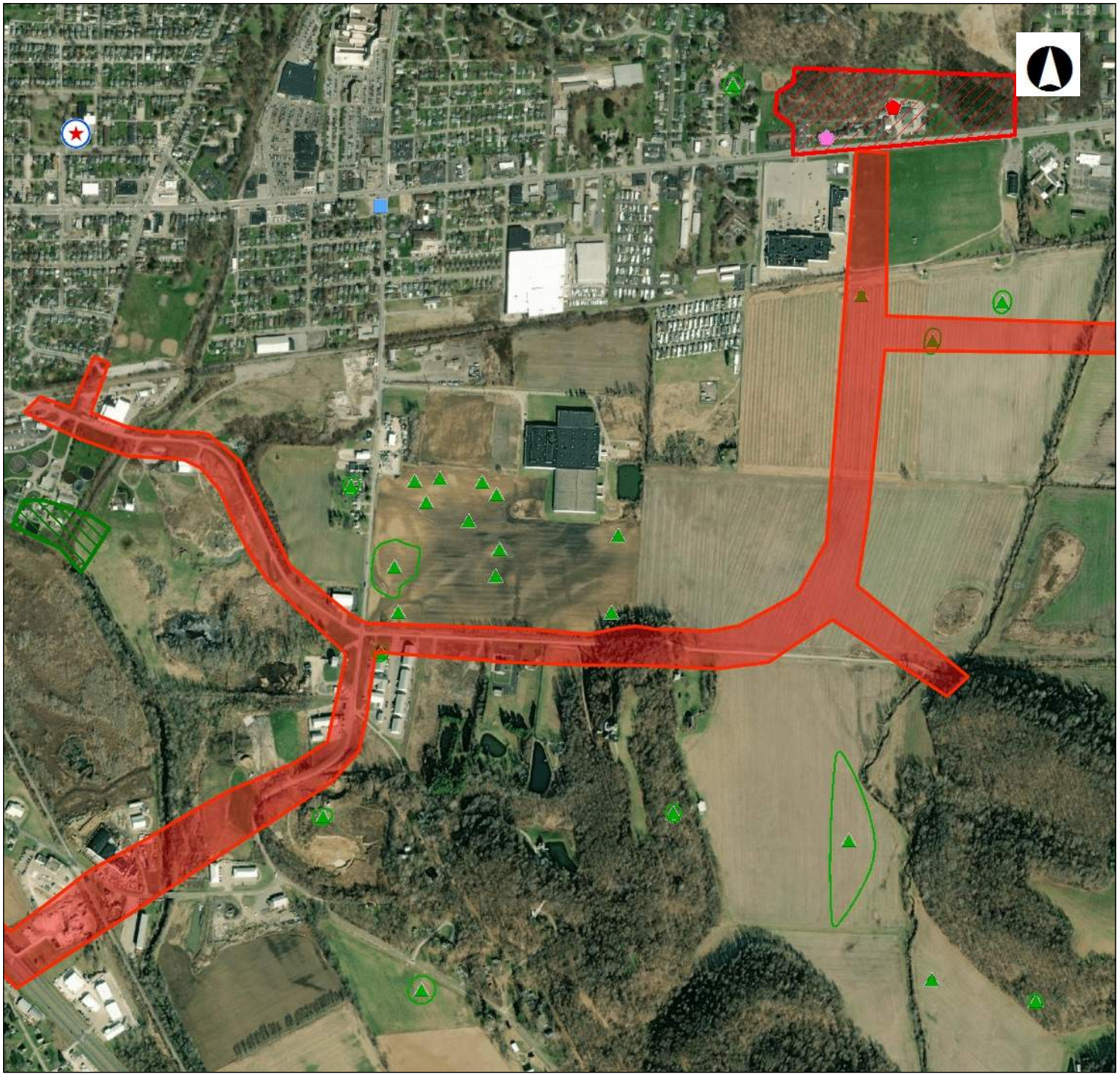
Datum: [Datum]
Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

Alternative 2B



OHIO HISTORY CONNECTION
State Historic Preservation Office

Legend

- NR Listings
  - Listed
  - National Historic Landmark
  - Delisted
- Determinations of Eligibility
  - DOE
  - Demolished
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  - Not Confident
- Local District Boundary
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0 0.22 0.44 Miles

1: 17,358

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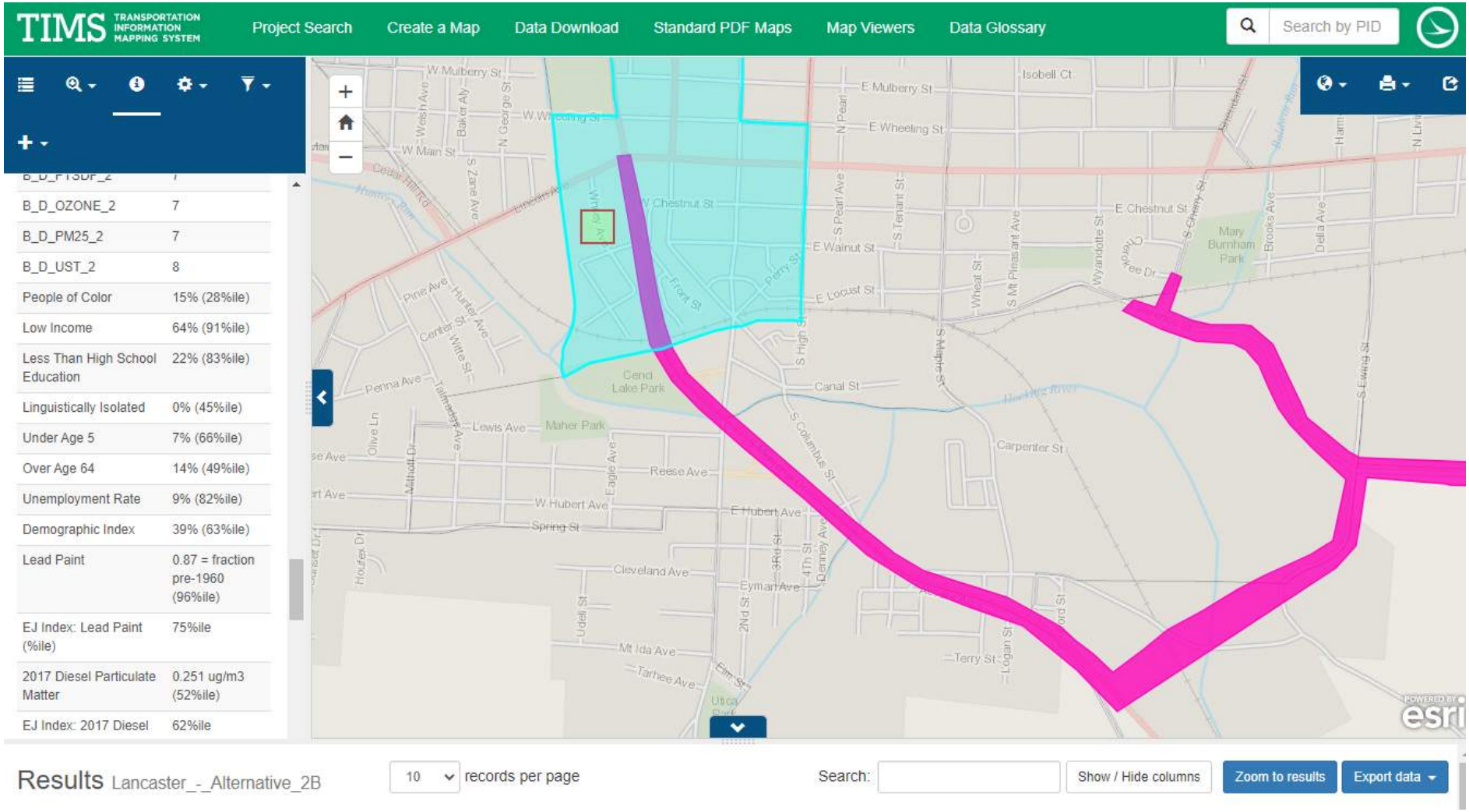
Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

Alternative 2B

TIMS Mapping

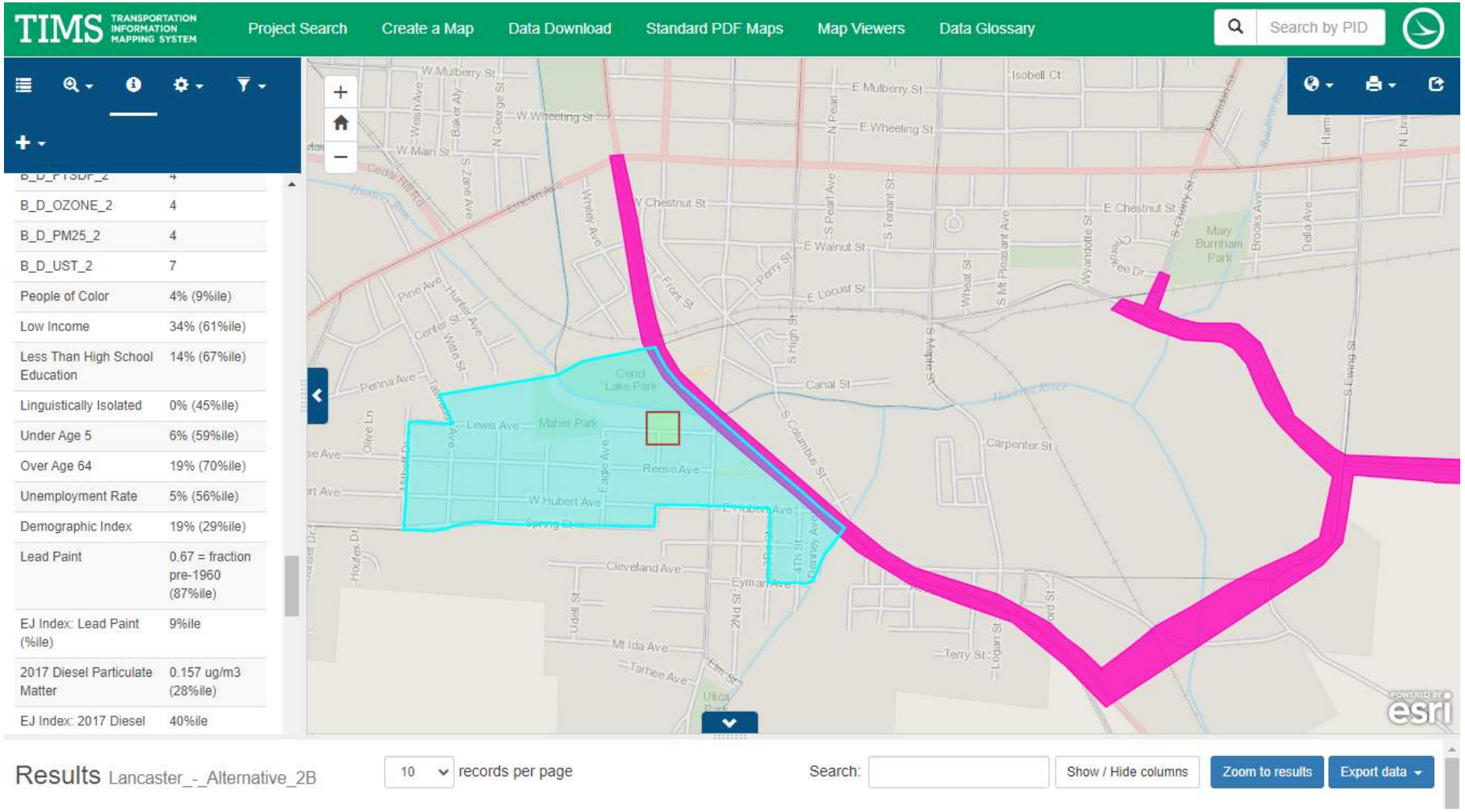
Census Block #390450320004



Alternative 2B

TIMS Mapping

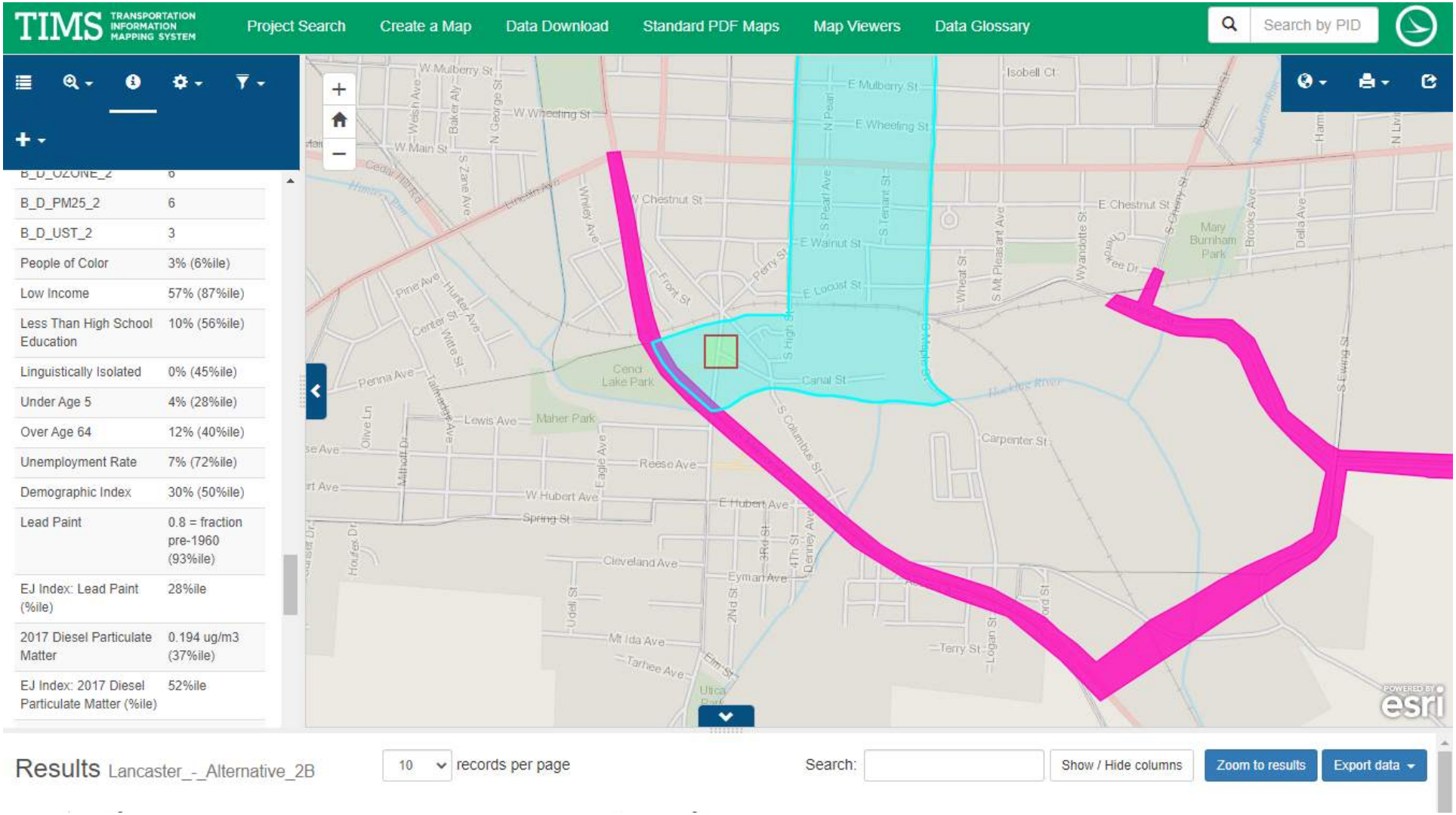
Census Block # 390450323002



Alternative 2B

TIMS Mapping

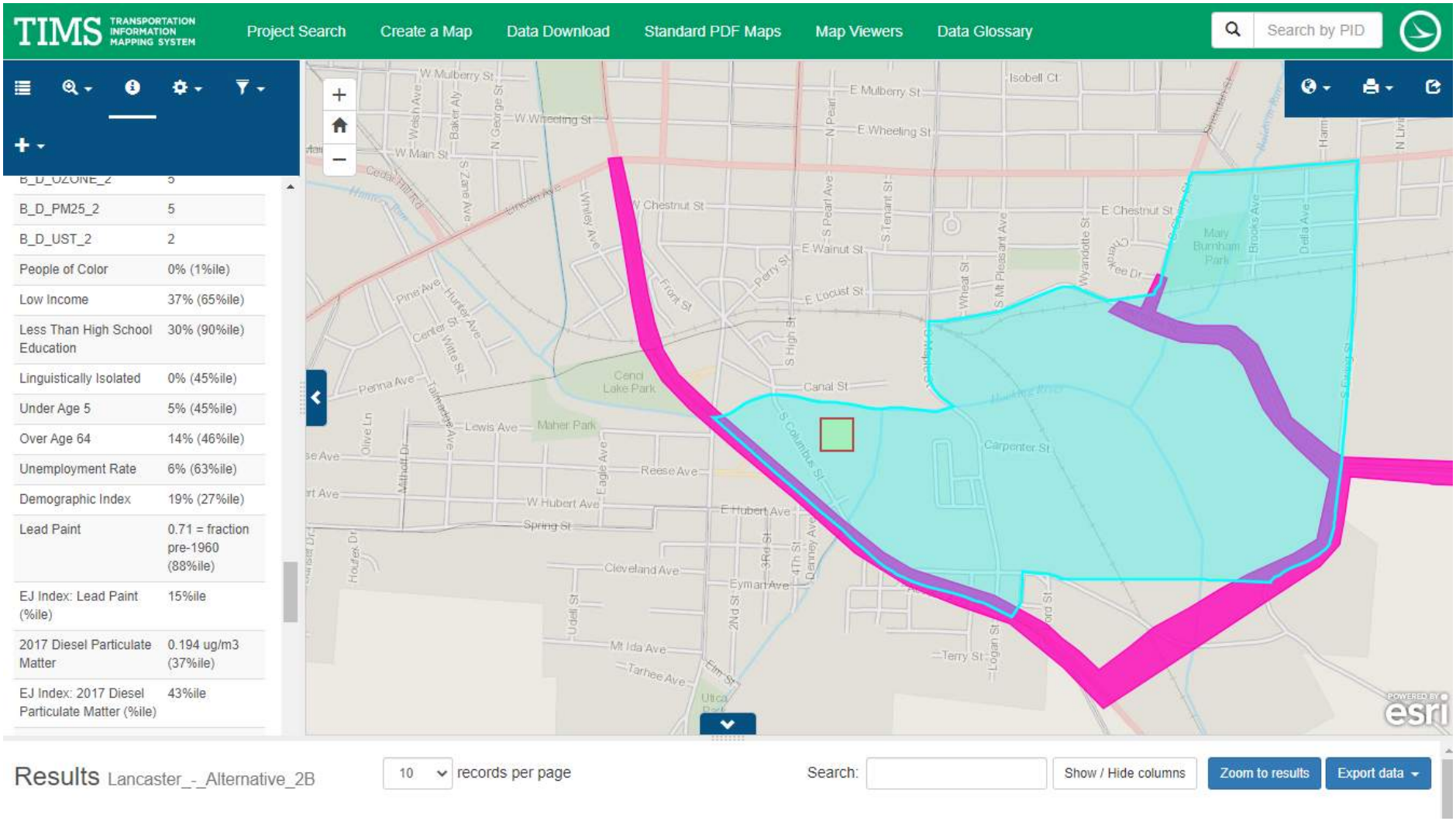
Census Block # 390450322003



Alternative 2B

TIMS Mapping

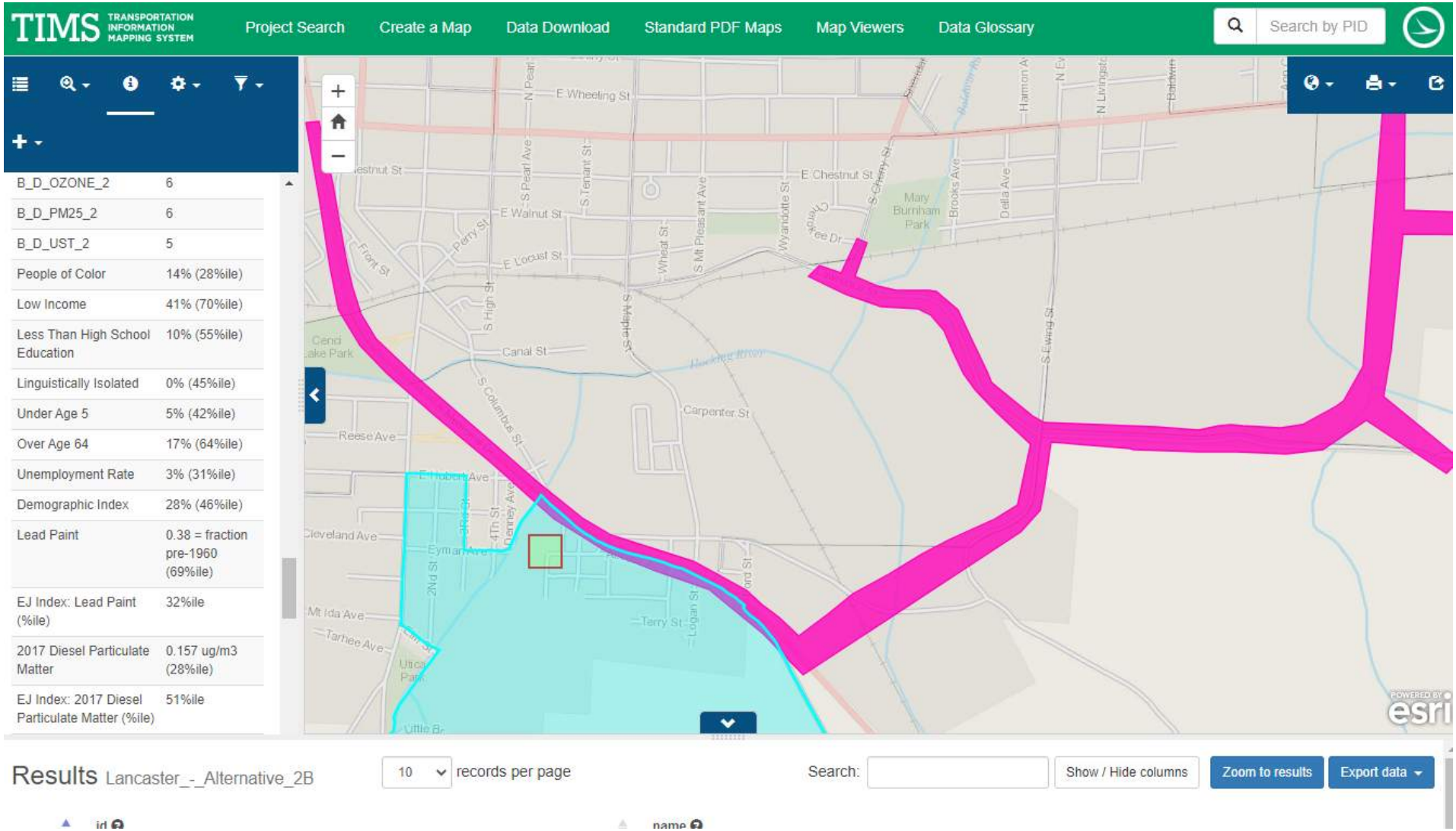
Census Block # 390450322001



Alternative 2B

TIMS Mapping

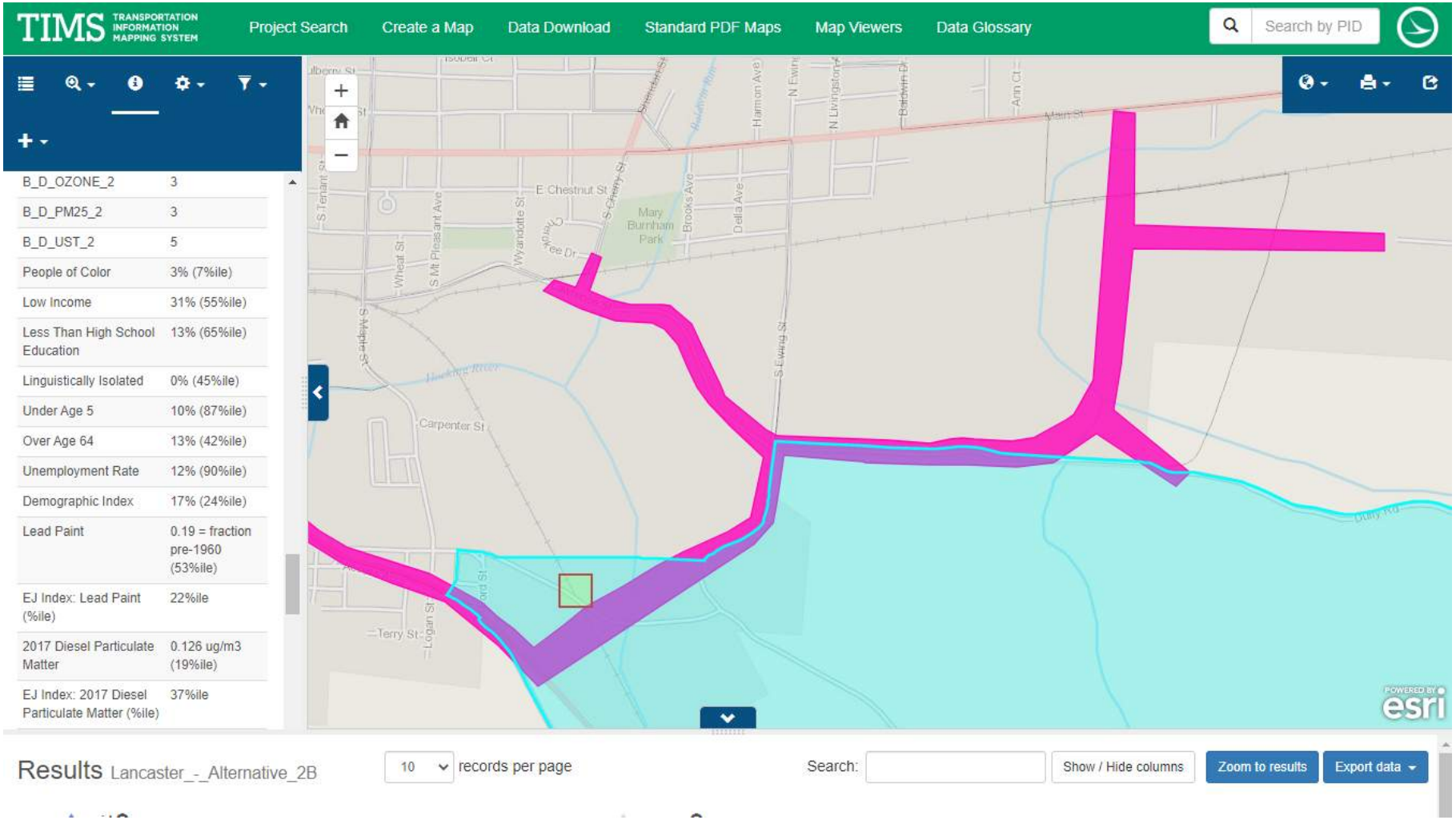
Census Block # 390450323004



Alternative 2B

TIMS Mapping

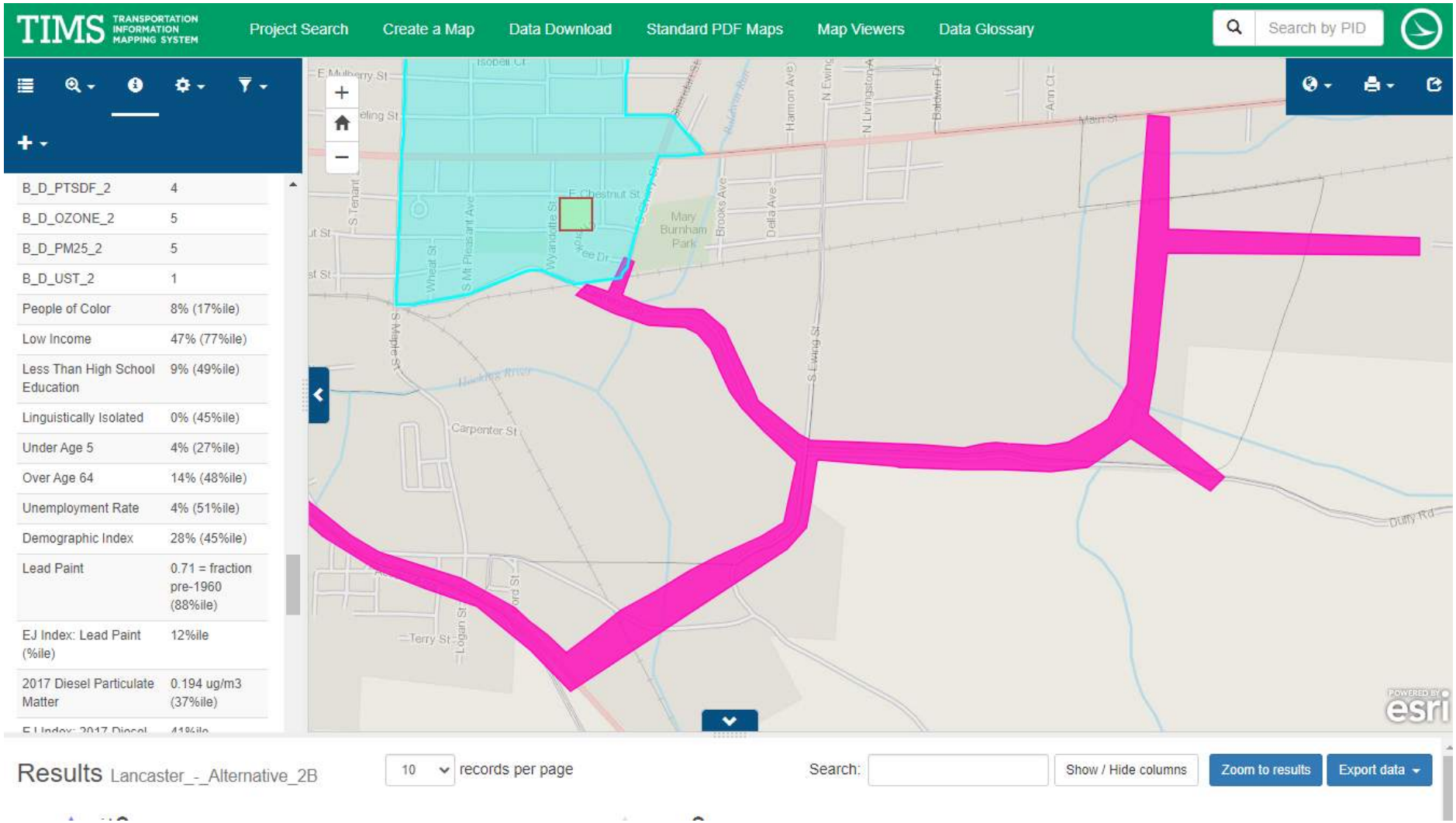
Census Block # 390450312001



Alternative 2B

TIMS Mapping

Census Block # 390450322002



Alternative 2B

TIMS Mapping

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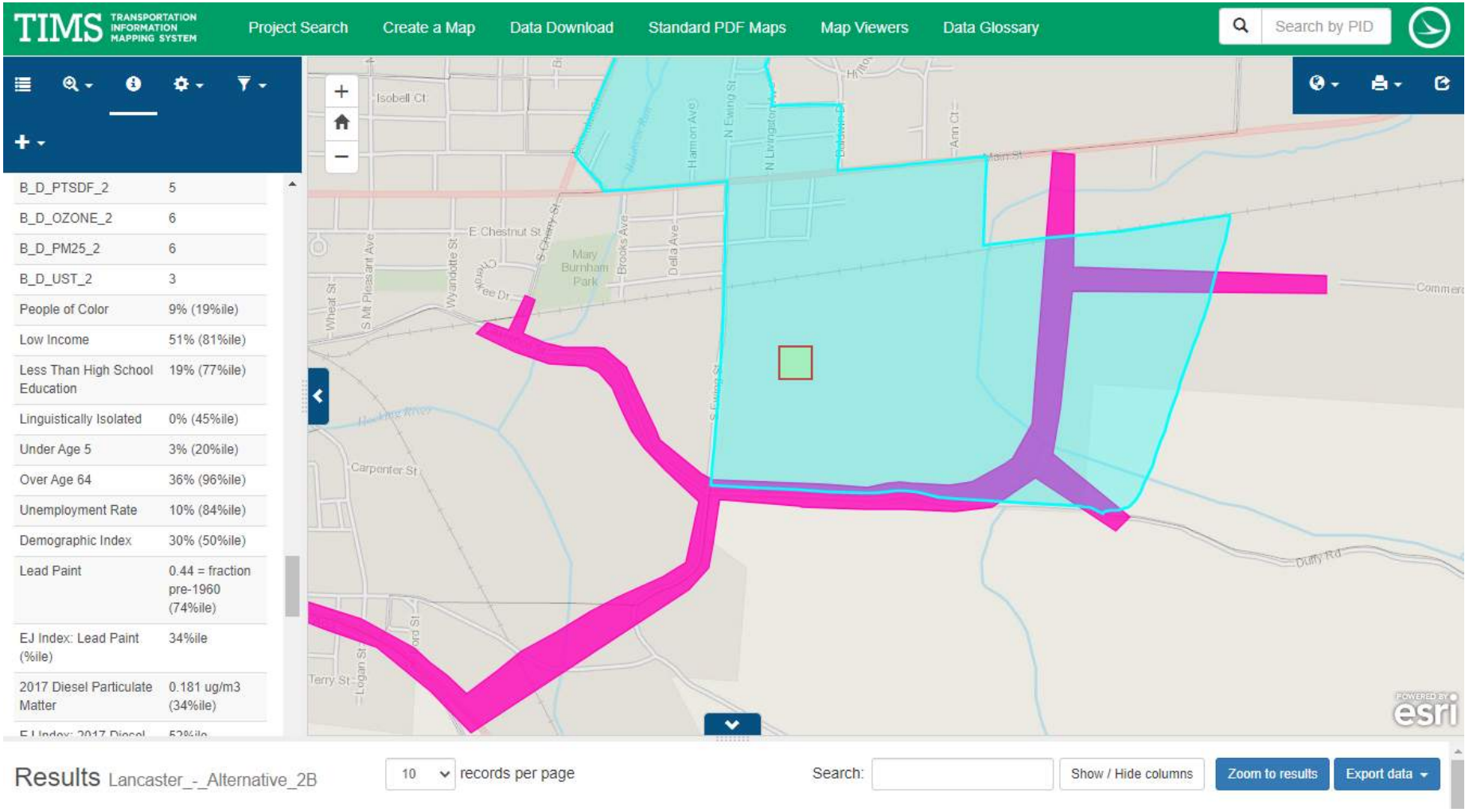

Alternative 2B

TIMS Mapping

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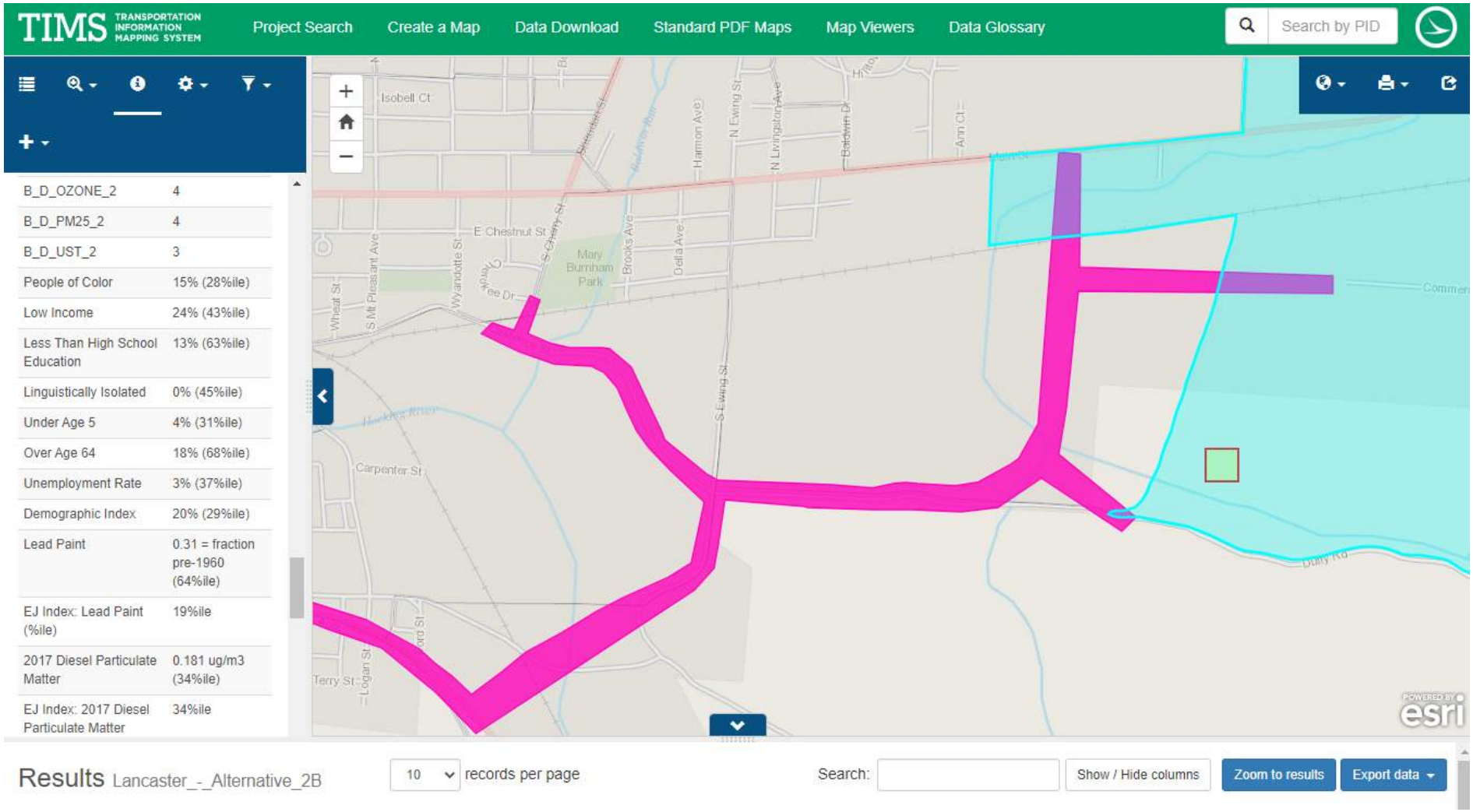
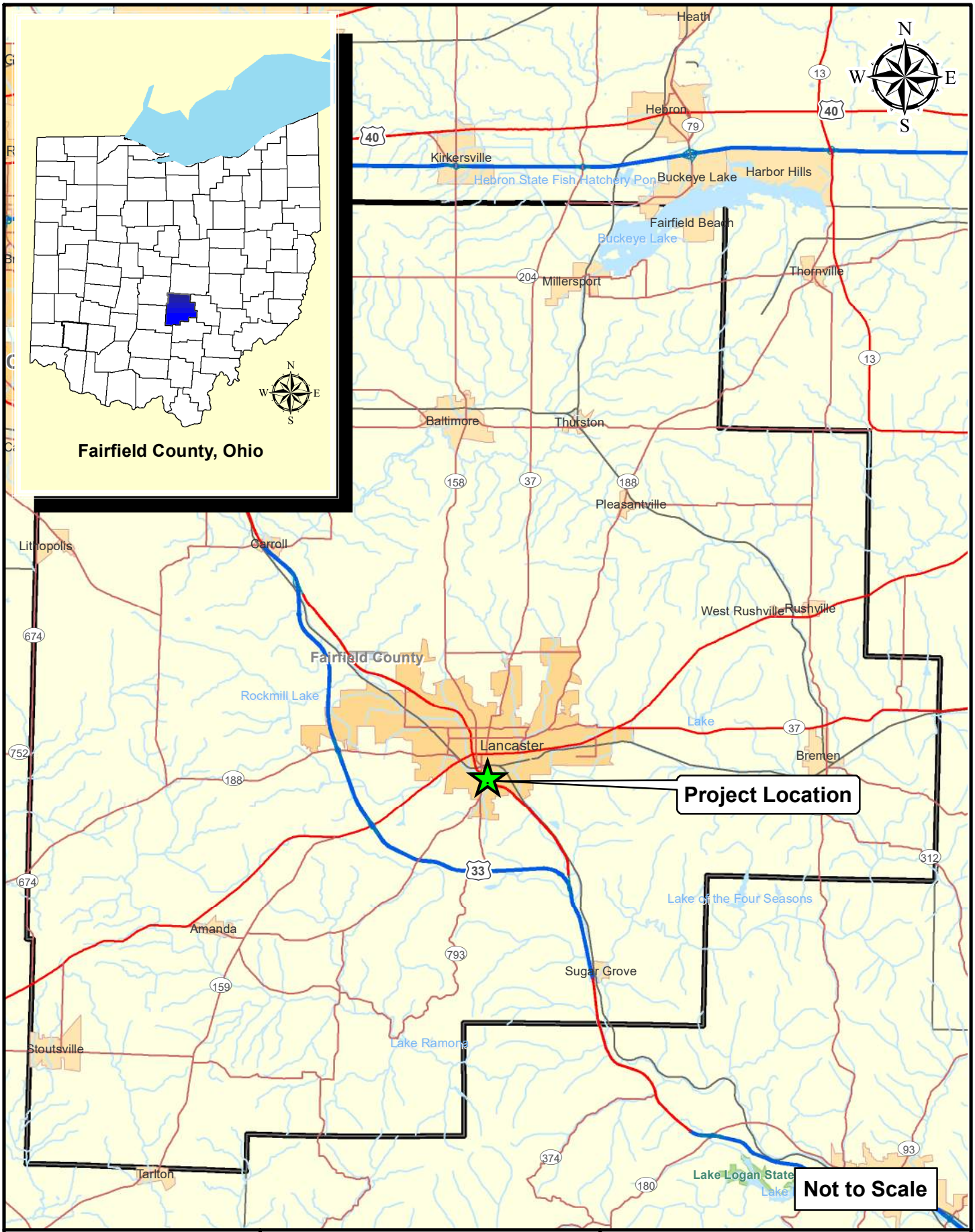


Alternative 3A

Mapping

Project Location Map
USGS Topographic Map
2022 Aerial Photography Map
2005 Fairfield County Soil Survey Map
National Wetland Inventory Map
Ohio Wetland Inventory Map
FEMA 100-Year Floodplain Map



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AMERICAN STRUCTUREPOINT INC.

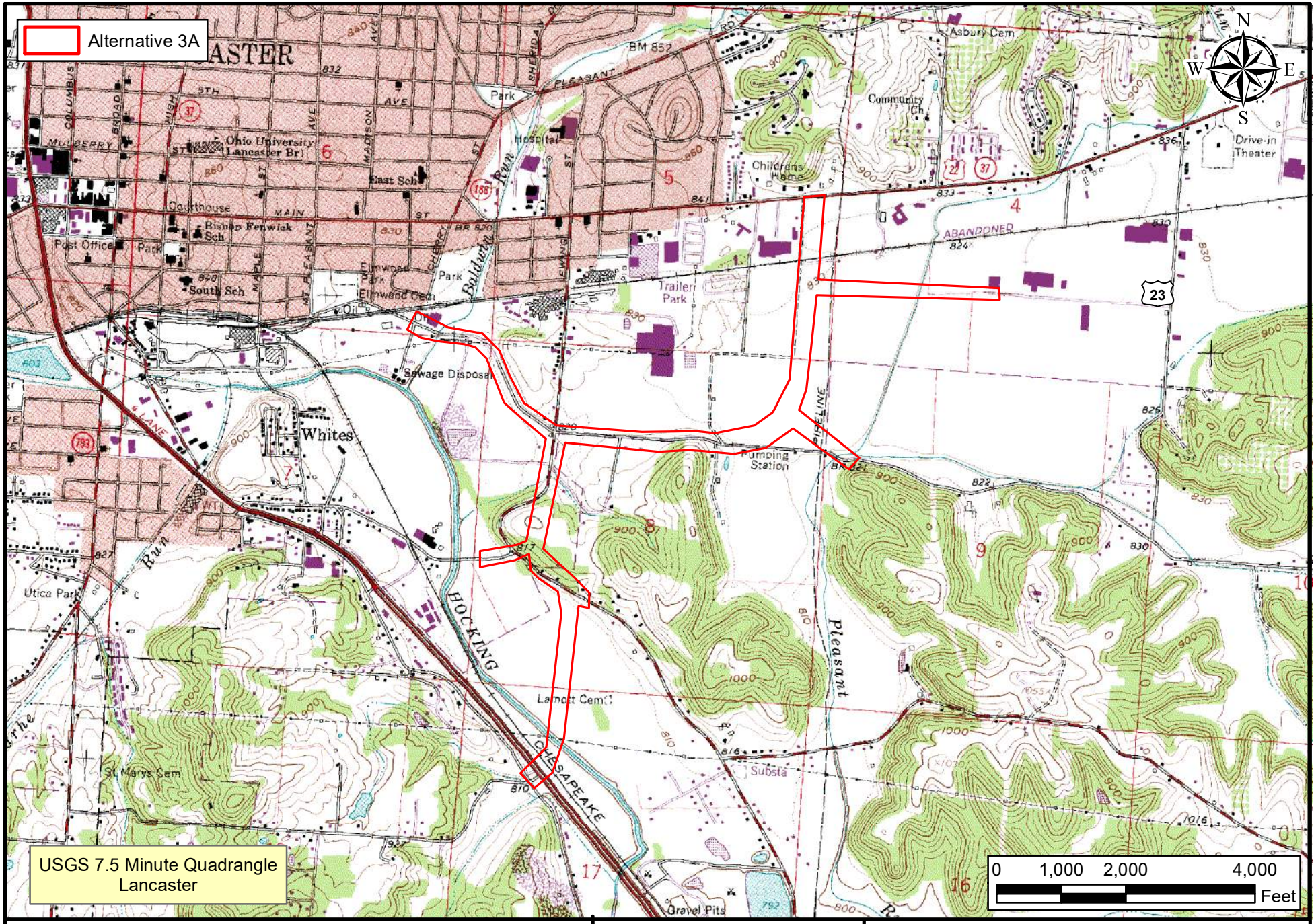
Project Location Map

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 3A

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

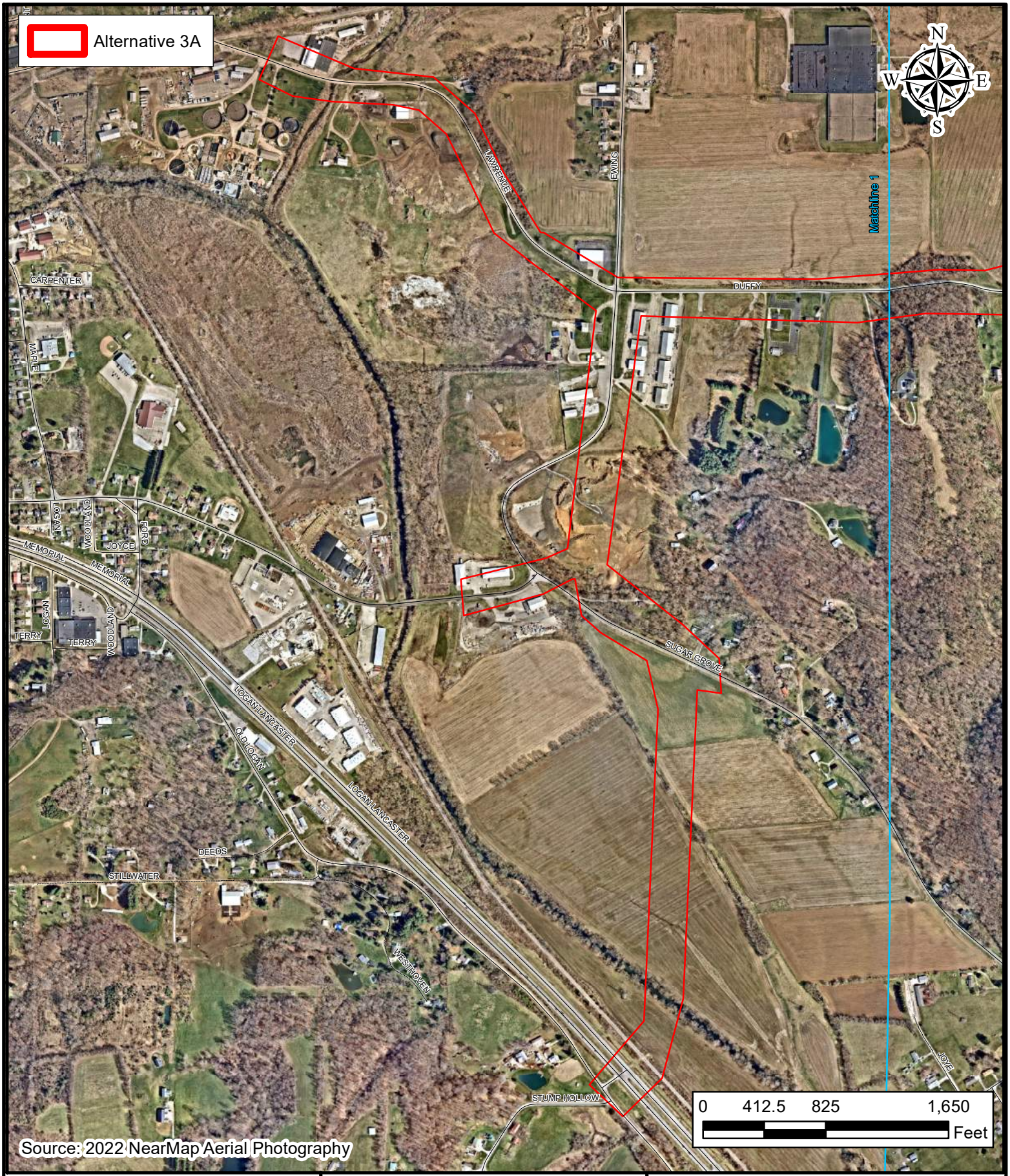
USGS Topographic Map

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 3A

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/11/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

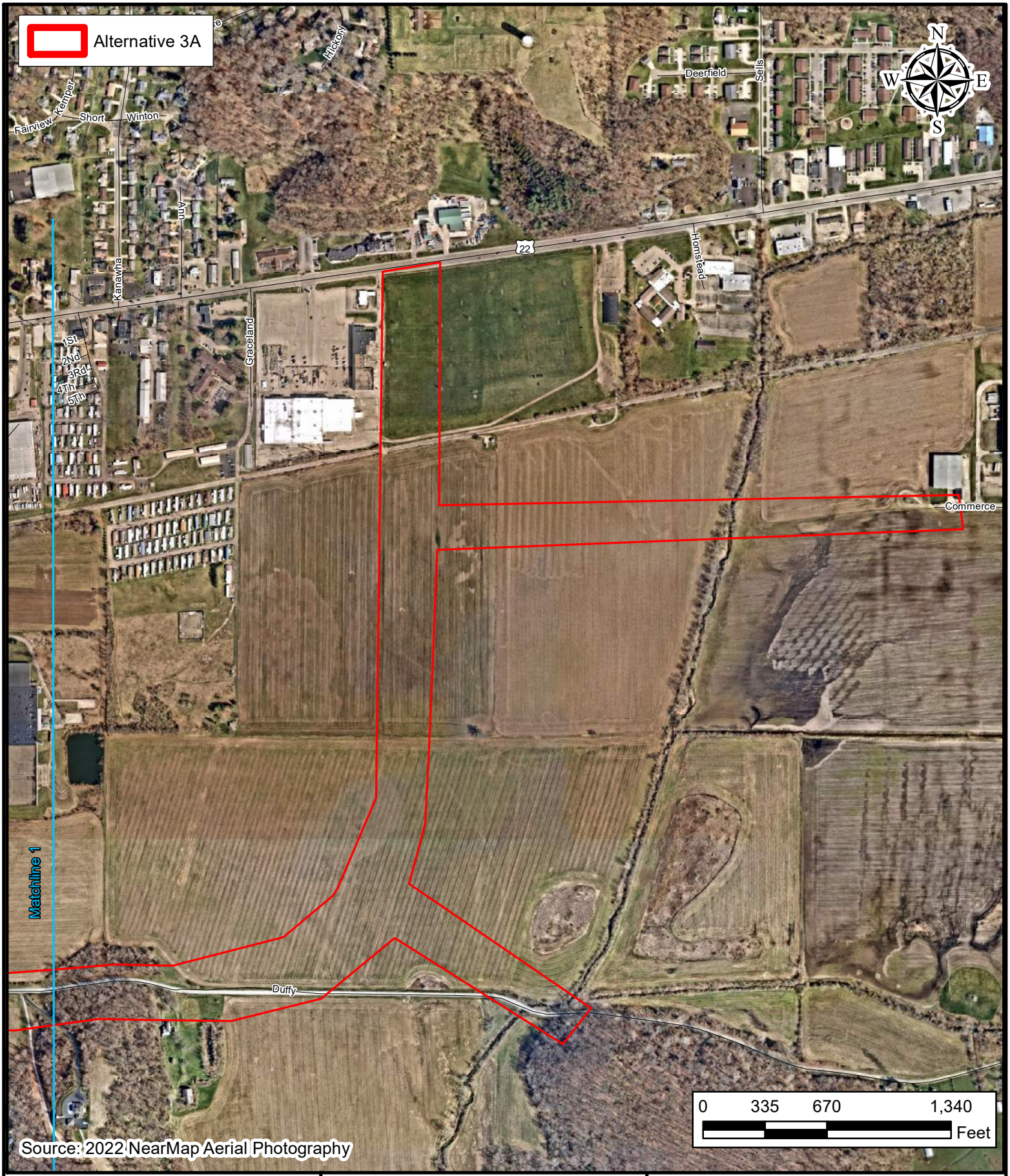
Aerial Map (1 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 3A

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

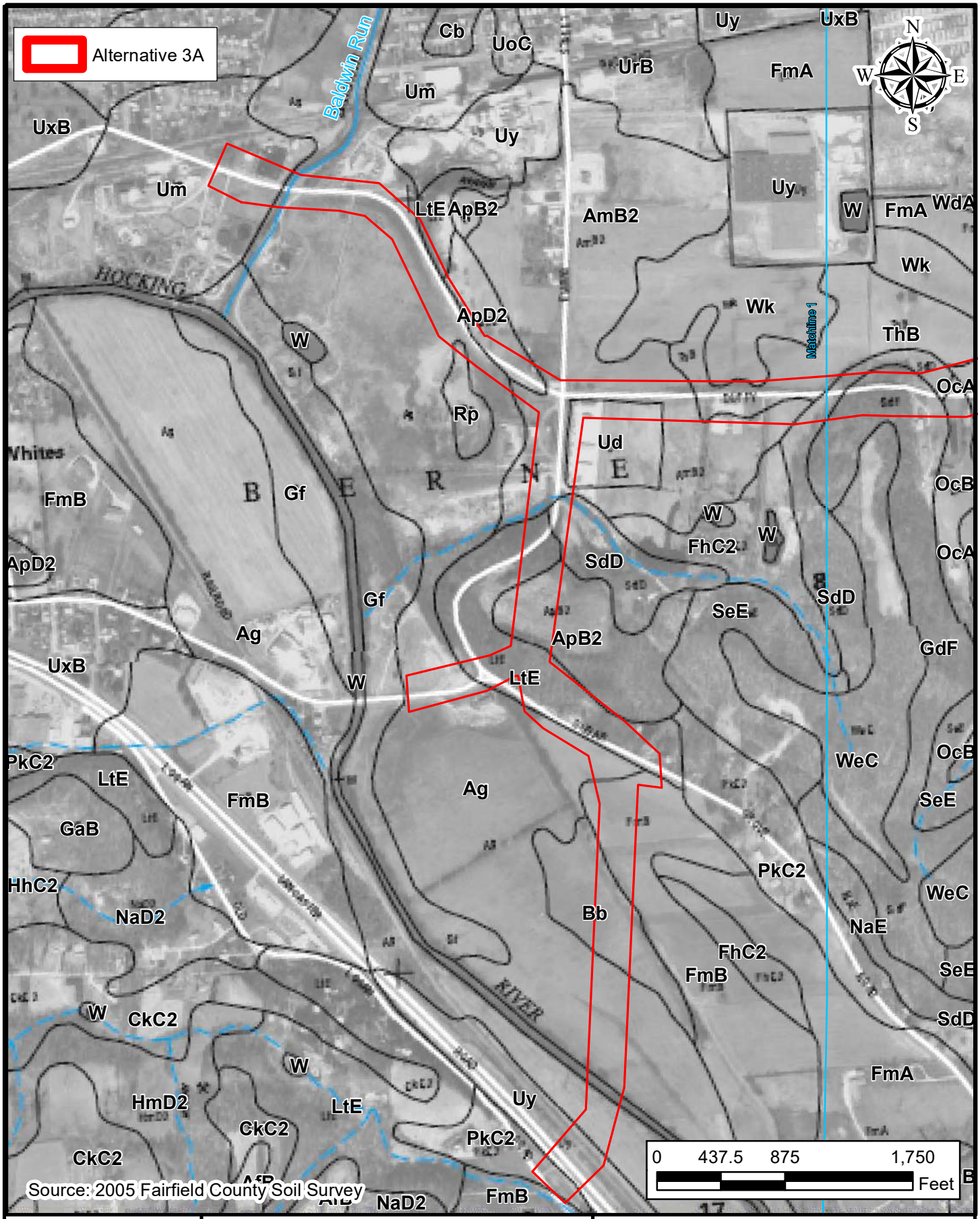
Aerial Map (2 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 3A

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



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www.structurepoint.com

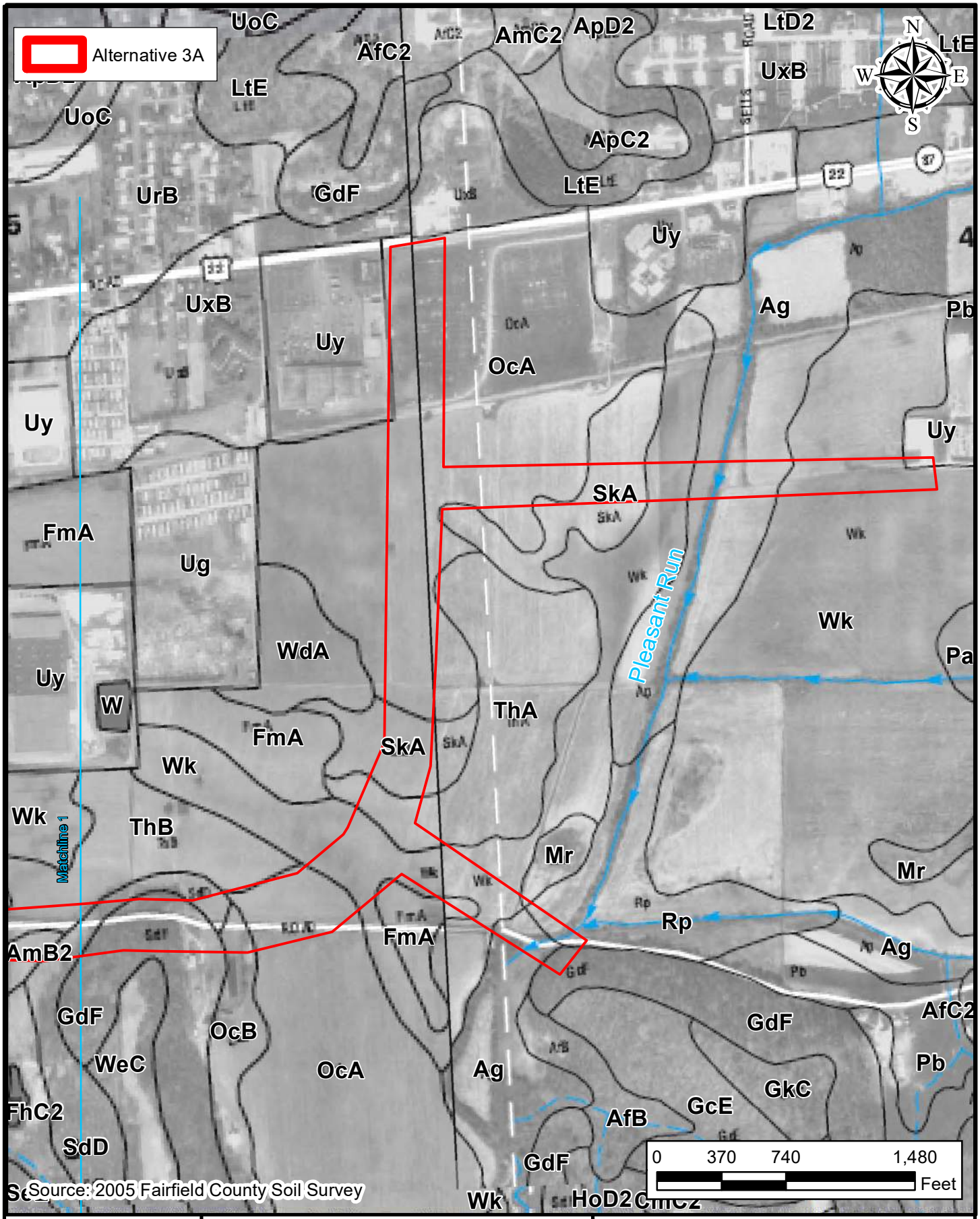
2005 Fairfield County Soil Survey Map (1 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 3A

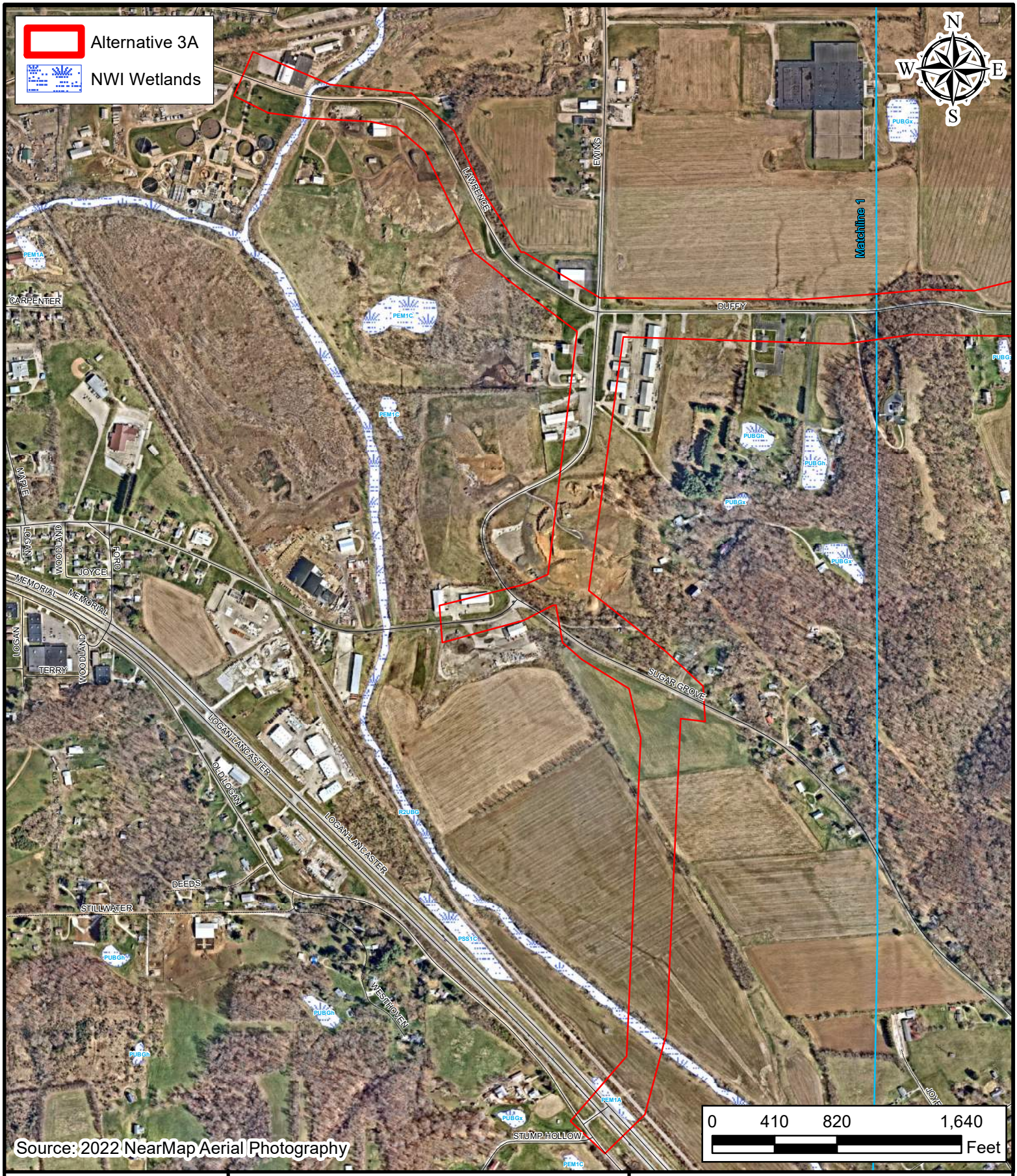
Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



Source: 2005 Fairfield County Soil Survey

AMERICAN STRUCTUREPOINT INC. www.structurepoint.com	2005 Fairfield County Soil Survey Map (2 of 2) Client: City of Lancaster 121 East Chestnut Street, Suite 100 Lancaster, Ohio 43130	Eastside Industrial Connector – Alternative 3A Location: Lancaster Township: Hocking & Berne County: Fairfield State: Ohio Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
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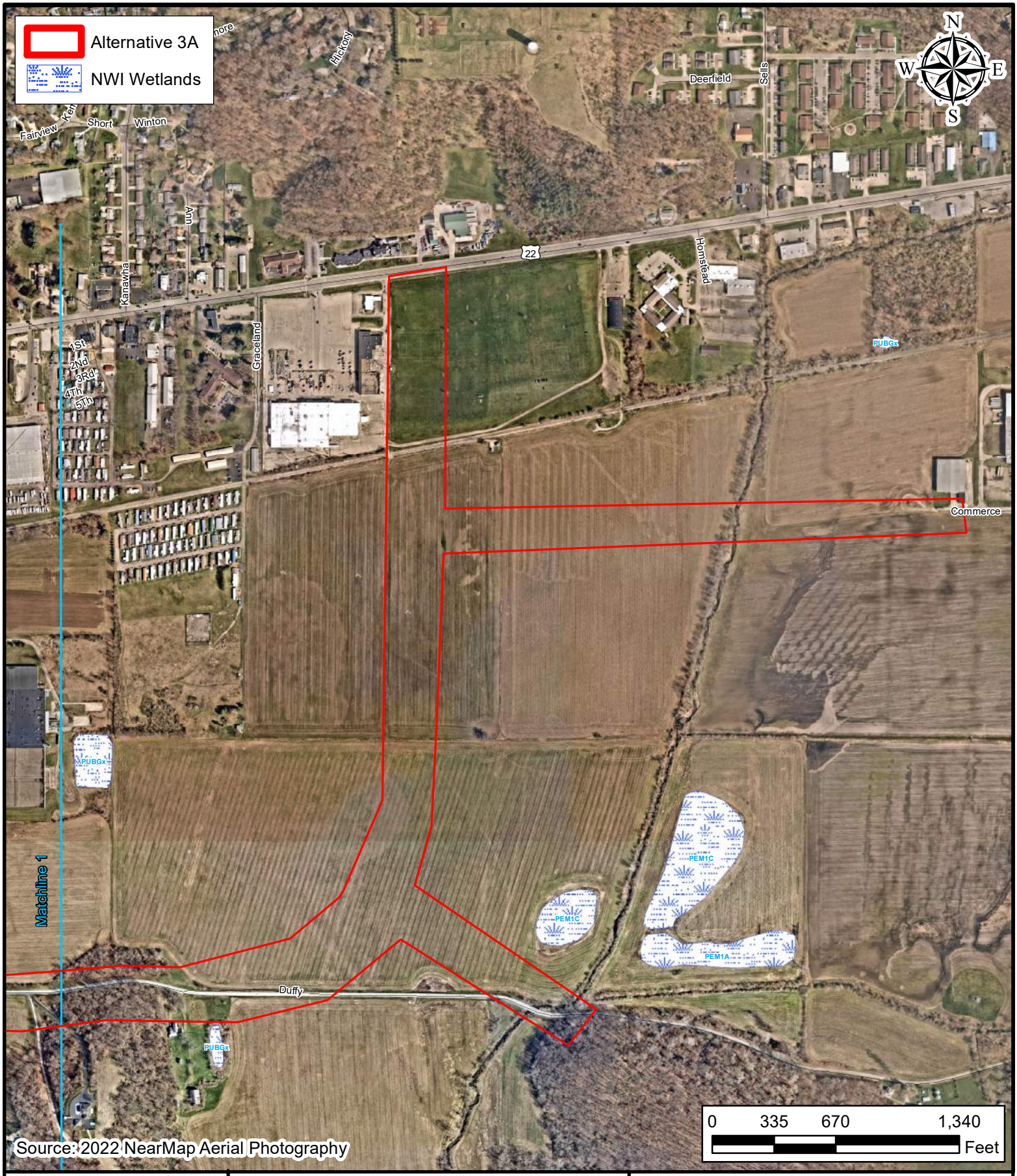
National Wetland Inventory Map (1 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 3A

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
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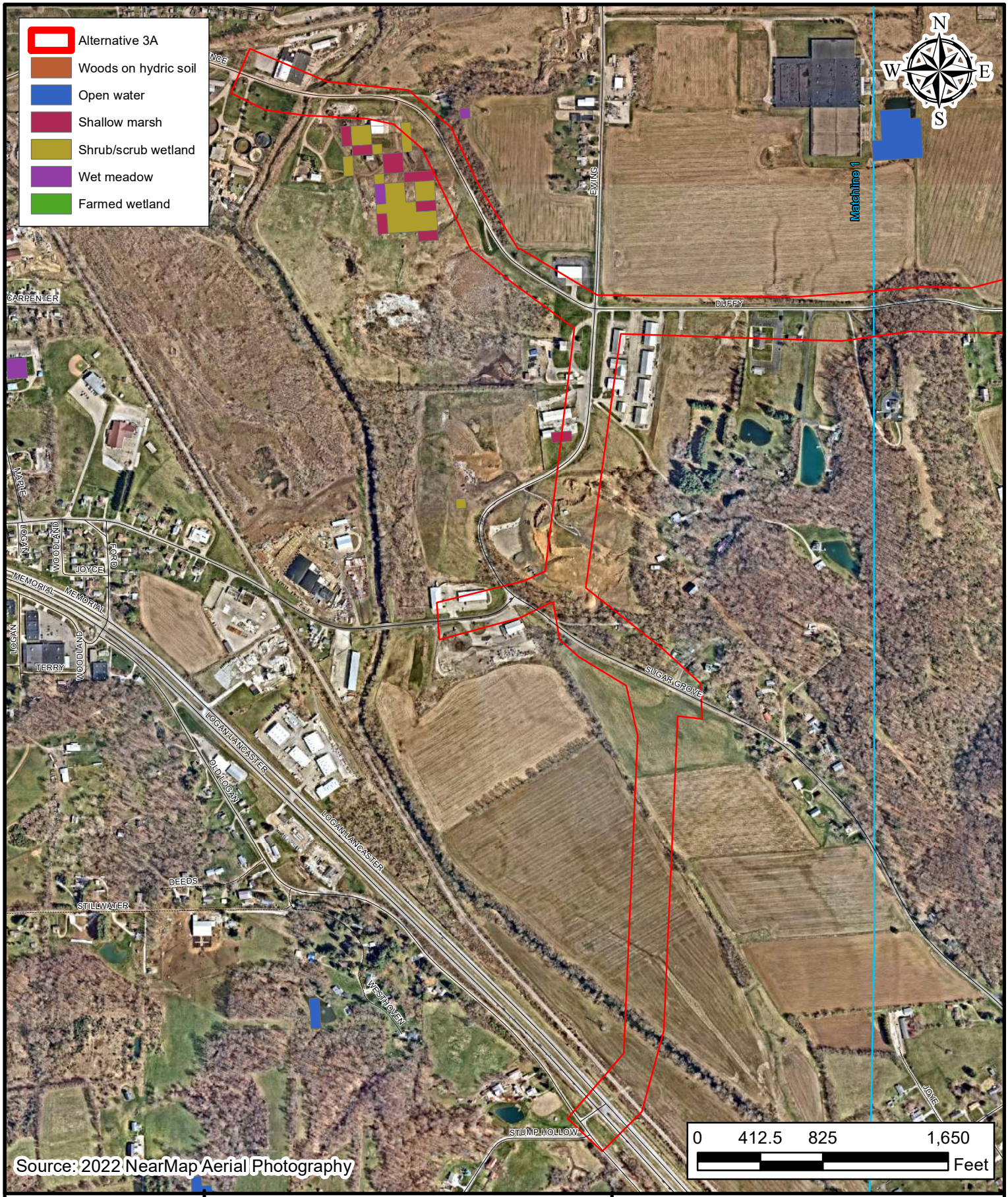
National Wetland Inventory Map (2 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 3A

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
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Ohio Wetland Inventory Map (1 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 3A

Location: Lancaster
Township: Berne
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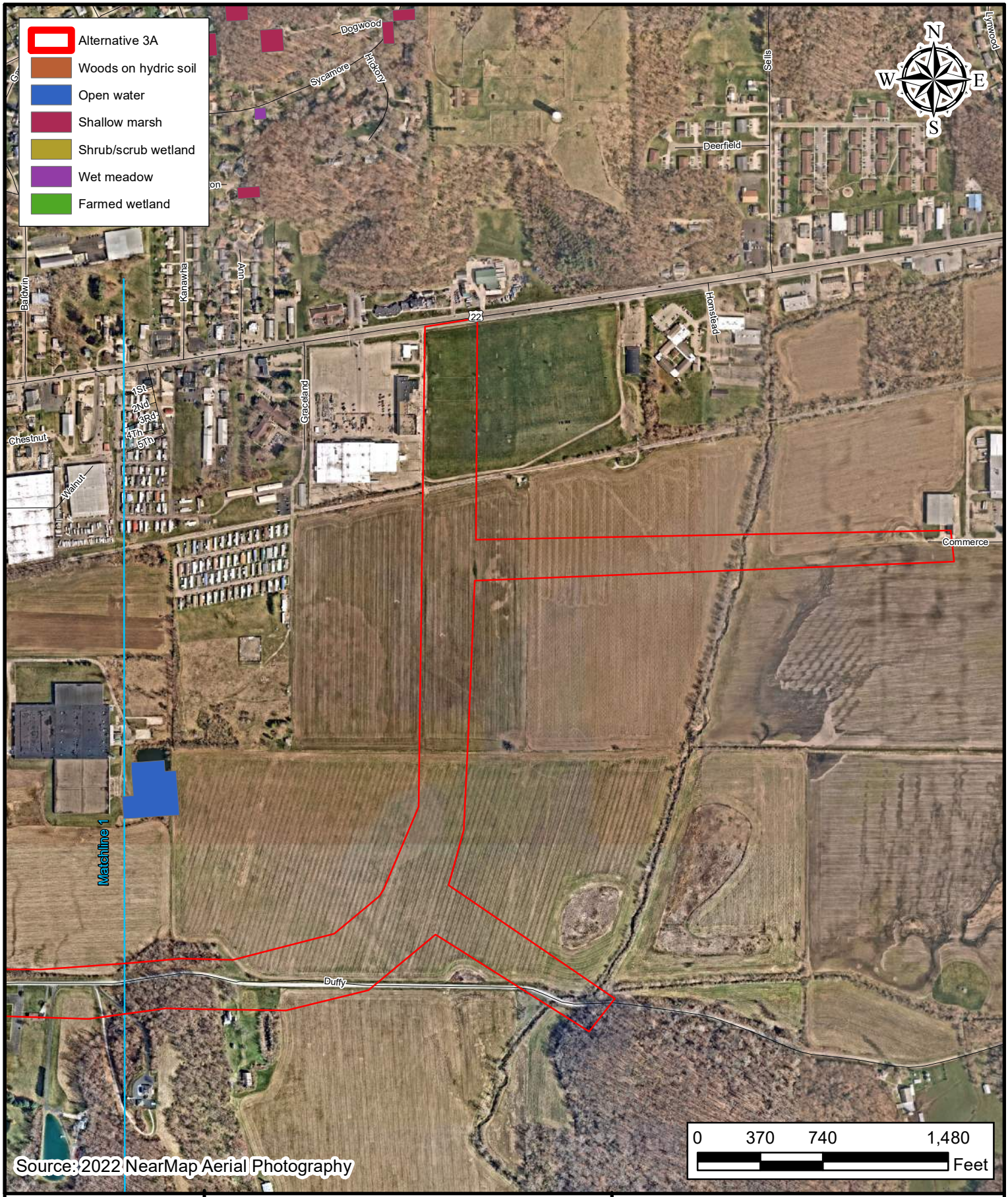
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
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Ohio Wetland Inventory Map (2 of 2)

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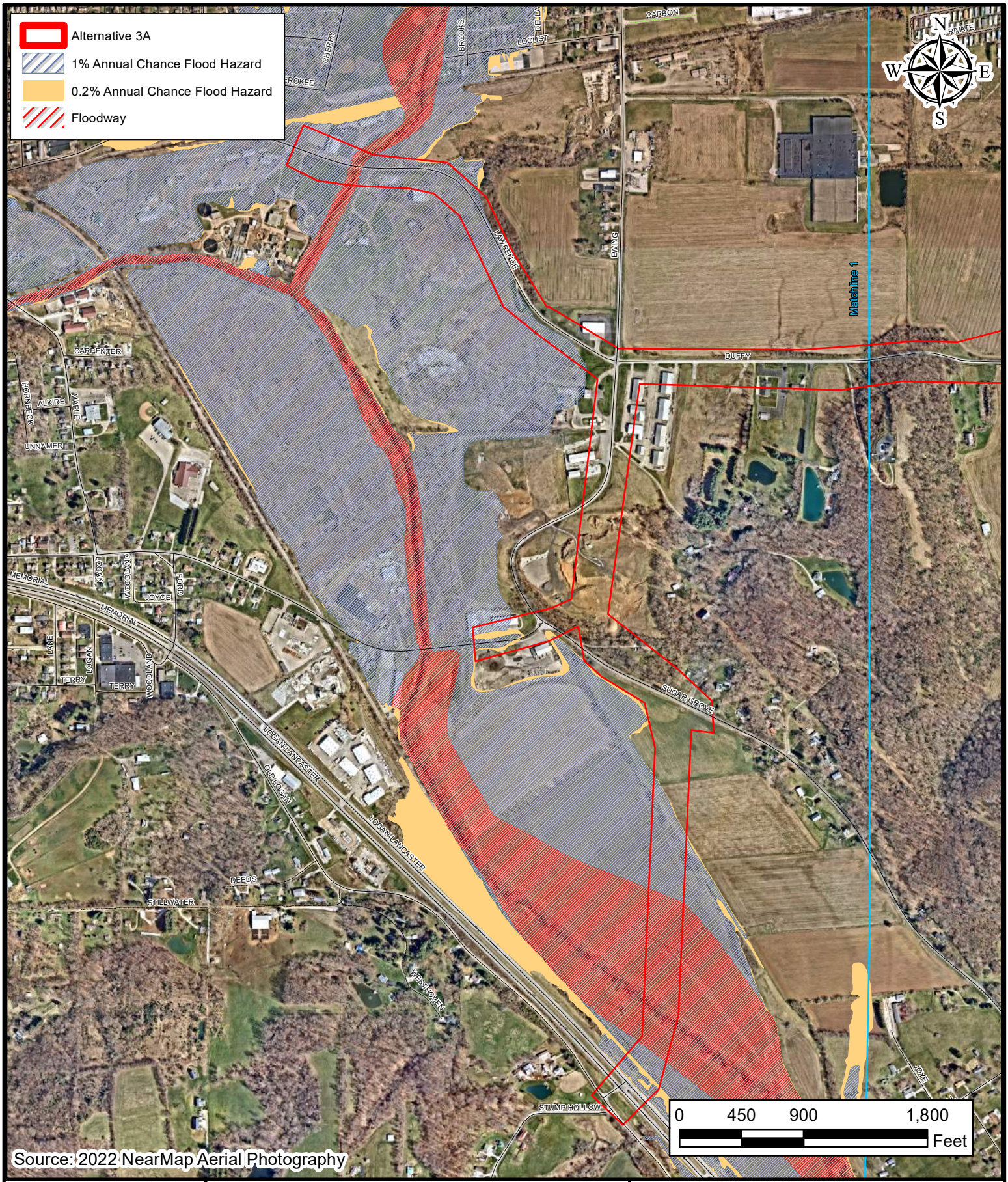

AMERICAN STRUCTUREPOINT INC.
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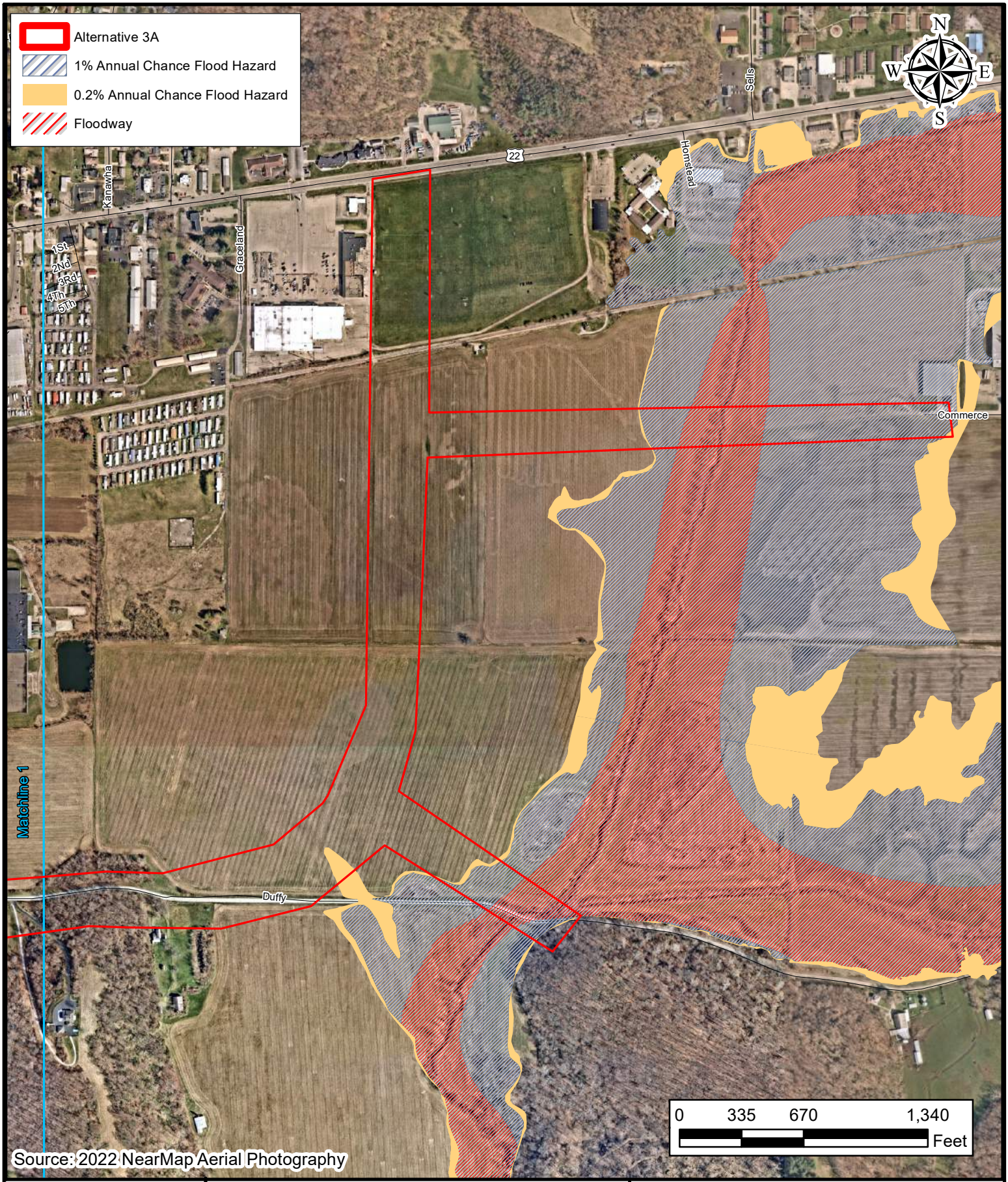
FEMA 100-Year Floodplain Map (1 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 3A

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
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FEMA 100-Year Floodplain Map (2 of 2)

Client:
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121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 3A

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022

Alternative 3A

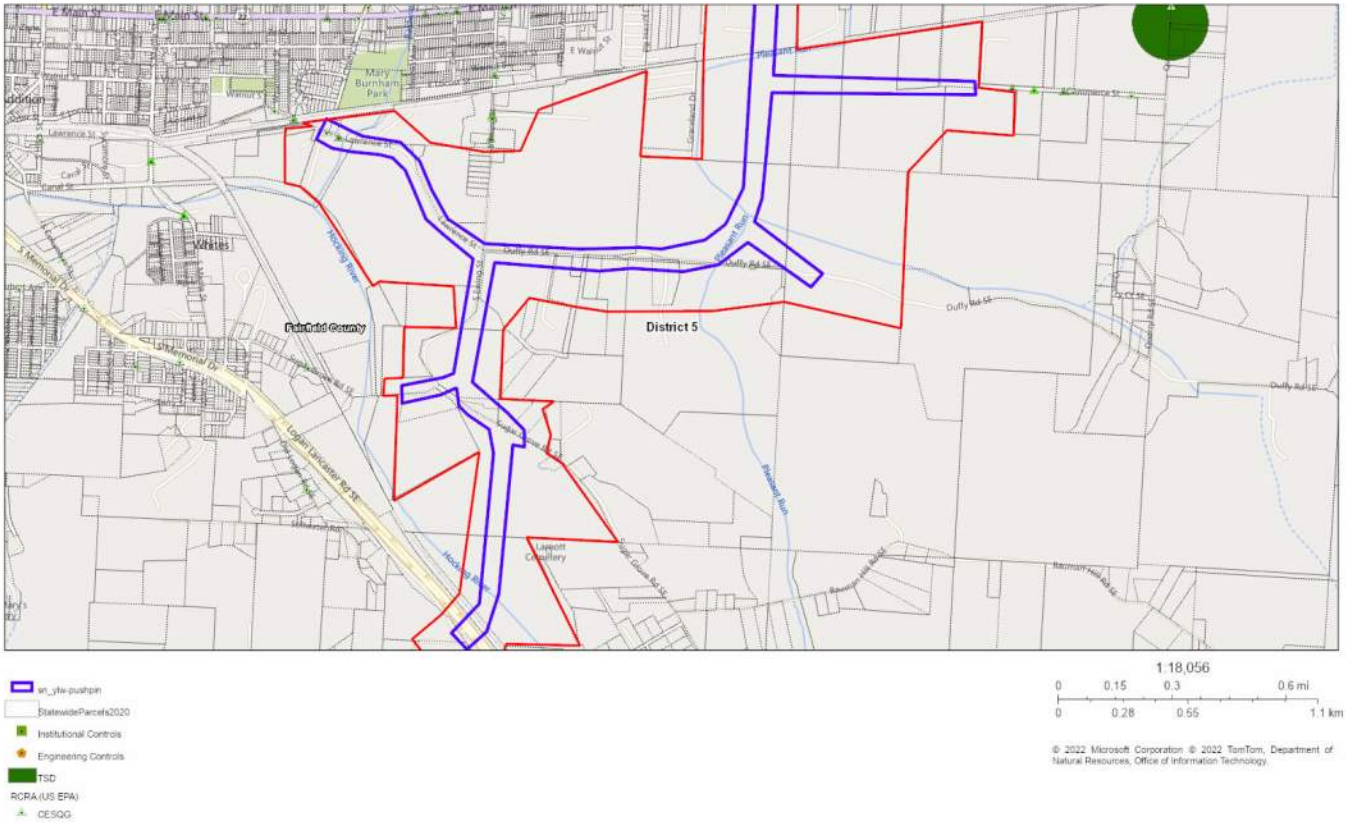
Hazardous Materials Records Summary

ORPS Summary Report Alternative 3A

Area of Interest (AOI) Information

Area : 798.86 acres

Aug 15 2022 15:50:47 Eastern Daylight Time



Summary

Name	Count	Area(acres)	Length(ft)
SEMS - Non-NPL Sites w/buffer (US EPA)	0	0	N/A
SEMS - NPL Sites w/buffer (US EPA)	0	0	N/A
RCRA (US EPA)	4	N/A	N/A
RCRA - TSD Sites w/buffer (US EPA)	0	0	N/A
Federal Engineering Controls (US EPA)	0	N/A	N/A
Federal Institutional Controls (US EPA)	0	N/A	N/A
BUSTR - UST Locations (BUSTR/OGRIP)	0	N/A	N/A
BUSTR - LUST Locations (BUSTR/OGRIP)	0	N/A	N/A
Coal Gas Generators (OEPA-DERR)	0	N/A	N/A
DERR Database (OEPA-DERR)	0	N/A	N/A
Impoundment Sites (OEPA-DERR)	0	N/A	N/A
Landfills - Active Solid Waste Facilities w/buffer (OEPA-DMWM)	3	275.19	N/A
Landfills - Historic/Abandoned Facilities w/buffer (OEPA-DMWM/DERR)	0	0	N/A
Landfills - Solid Waste Facility Polygons (OEPA-DMWM)	0	0	N/A
Projects With Engineering Controls (OEPA-DERR)	0	N/A	N/A
Projects With Institutional Controls (OEPA-DERR)	0	N/A	N/A
Spills Database (OEPA)	2	N/A	N/A
VAP Sites (OEPA-DERR)	0	N/A	N/A
Potential Areas of Concern (ODOT-OES)	0	0	N/A

RCRA (US EPA)

#	REGISTRY_ID	PRIMARY_NAME	ADDRESS	CITY	STATE	ZIP	LAST_REPORTED_DATE	URL
1	110000381970	HEXCEL COMPOSITES	815 LAWRENCE ST.	LANCASTER	OH	43130	4/28/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110000381970
2	110000550458	LANCASTER WATER POLLUTION CONTROL	800 LAWRENCE ST	LANCASTER	OH	43130	10/16/2014	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110000550458
3	110059669880	TRACTOR SUPPLY COMPANY #1799	1690 E MAIN ST	LANCASTER	OH	43130	4/23/2014	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110059669880
4	110064670814	FAMILY DOLLAR #6683	1706 E MAIN ST #12	LANCASTER	OH	43130	7/14/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110064670814

#	PGM_SYS_ID	PGM_SYS_ACRONYM	INTEREST_TYPE	REFERENCE_POINT_DESC	Count
1	OHD004289419	RCRAINFO	UNSPECIFIED UNIVERSE	CENTER OF A FACILITY OR STATION	1
2	OHD000772954	RCRAINFO	CESQG	CENTER OF A FACILITY OR STATION	1
3	OHR000183616	RCRAINFO	CESQG	ENTRANCE POINT OF A FACILITY OR STATION	1
4	OHR000196238	RCRAINFO	CESQG	ENTRANCE POINT OF A FACILITY OR STATION	1

Landfills - Active Solid Waste Facilities w/buffer (OEPA-DMWM)

#	LATITUDE	LONGITUDE	NAME	NAME2	COUNTY	TYPE	SECONDARY_TYPE	FACILITY_TYPE
1	39.703954	-82.578332	Lancaster City Transfer Station	*No Data*	Fairfield	MSWTF	*No Data*	Municipal Solid Waste Transfer Facility
2	39.703452	-82.577854	Lancaster City Transfer	*No Data*	Fairfield	SCRAPTIRE	STCL	Scrap Tire Collection Facility
3	39.70161	-82.5811	M&B Demolition	M & B Dem	Fairfield	CDDLF	*No Data*	Construction and Demolition Debris Landfill

#	COMMENT	ACTIVE	SECONDARY_ID	OEPA_DISTRICT	EDOCS_LINK	Area(acres)
1	*No Data*	YES	SWTF018392	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/SWTF018392	104.93
2	*No Data*	YES	ST018302	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/ST018302	99.72
3	*No Data*	YES	CDDL018859	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/CDDL018859	70.54

Spills Database (OEPA)

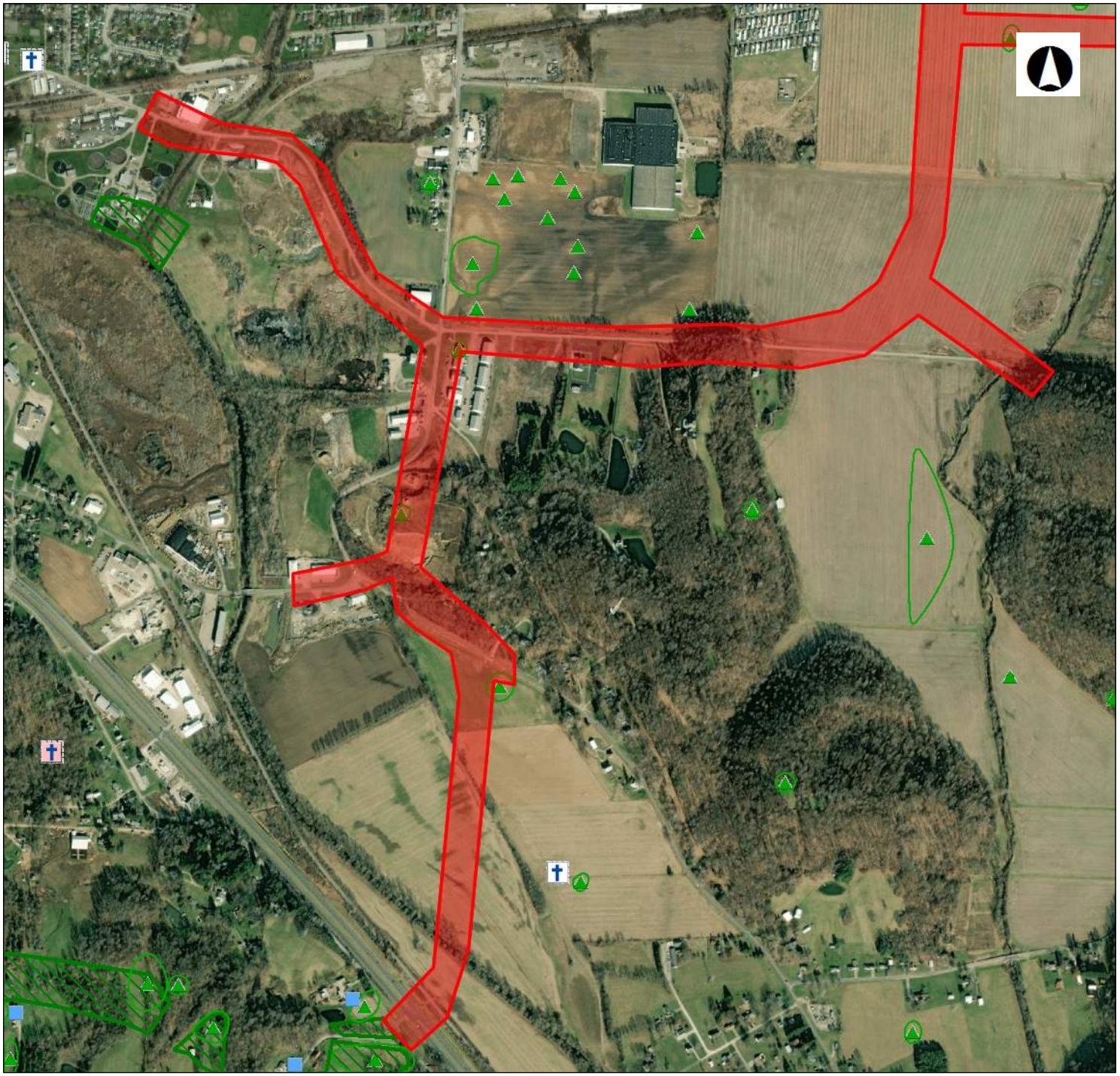
#	LATITUDE	LONGITUDE	SPILL_NUMBER	SPILL_YEAR	SPILL_LOCATION	SPILL_CITY	SPILL_COUNTY	WATERWAY
1	39.709139	-82.58425	649	2005	815 LAWRENCE ST	LANCASTER	FAIRFIELD	BALDWIN RUN
2	39.7145	-82.565611	1740	2013	1900 EAST MAIN ST	LANCASTER	FAIRFIELD	NONE

#	SPILL_AMOUNT	PRODUCT	STATUS	OEPA_DISTRICT	Count
1	150	ASPHALT EMULSION	5/17/2017	CDO	1
2	50	DIESEL FUEL	5/17/2017	CDO	1

Alternative 3A

Cultural Resources and Other Environmental Resources

Alternative 3A



OHIO HISTORY CONNECTION

State Historic Preservation Office

Legend

NR Listings
- Listed
- National Historic Landmark
- Delisted

Determinations of Eligibility
- DOE
- Demolished

- Archaeological Sites
- Historic Structures
- Historic Bridges
- Historic Tax Credit Projects
- Local Designations

OGS Cemeteries
- Confident
- Not Confident

- Local District Boundary
- Previously Surveyed Area
- National Register Boundary

0 0.22 0.44 Miles

1: 17,358

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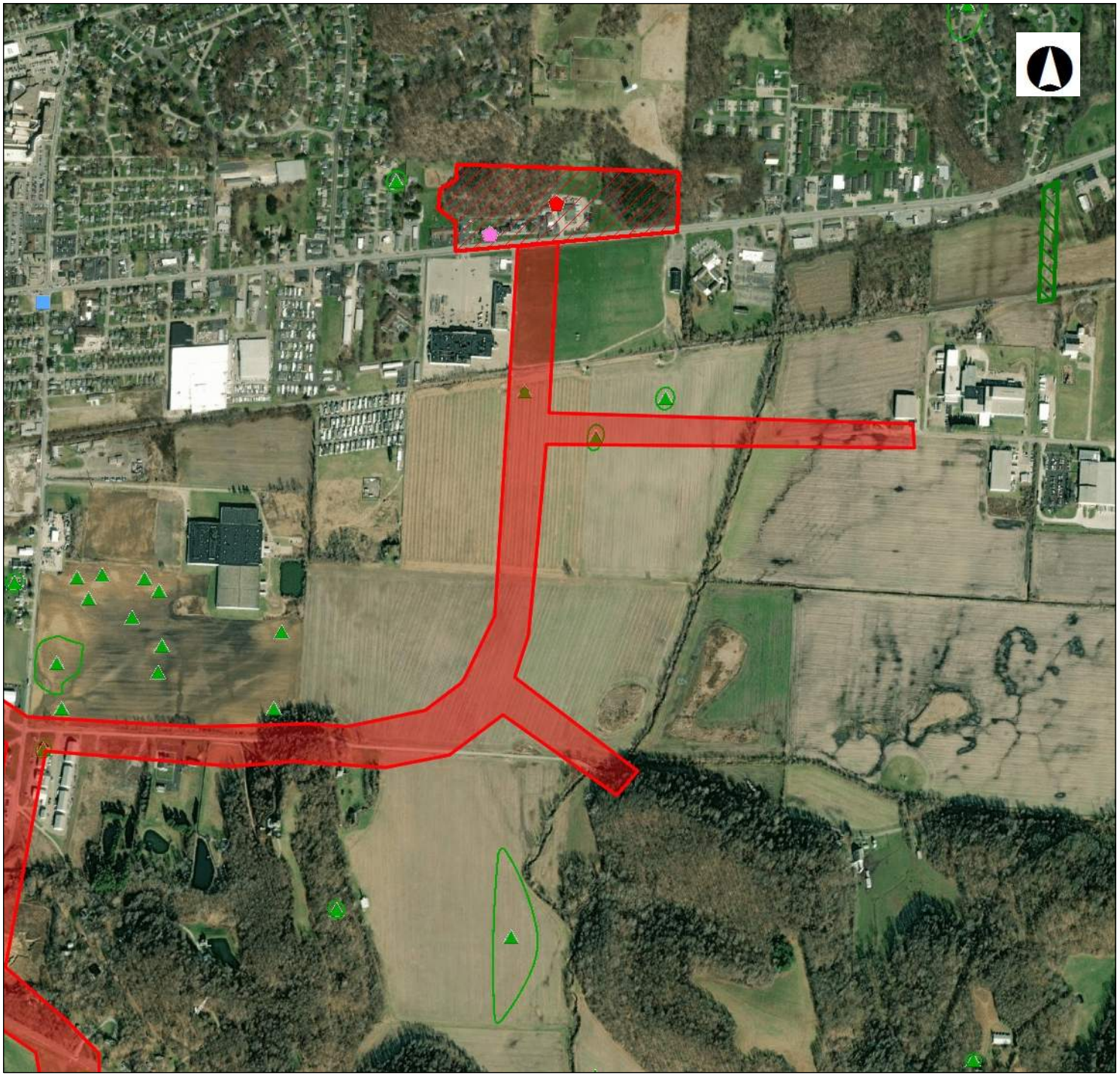
Datum: [Datum]

Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

Alternative 3A



State Historic Preservation Office

Legend

- NR Listings
  - Listed
  - National Historic Landmark
  - Delisted
- Determinations of Eligibility
  - DOE
  - Demolished
- Archaeological Sites
- Historic Structures
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  - Confident
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- Local District Boundary
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0 0.22 0.44 Miles

1: 17,358

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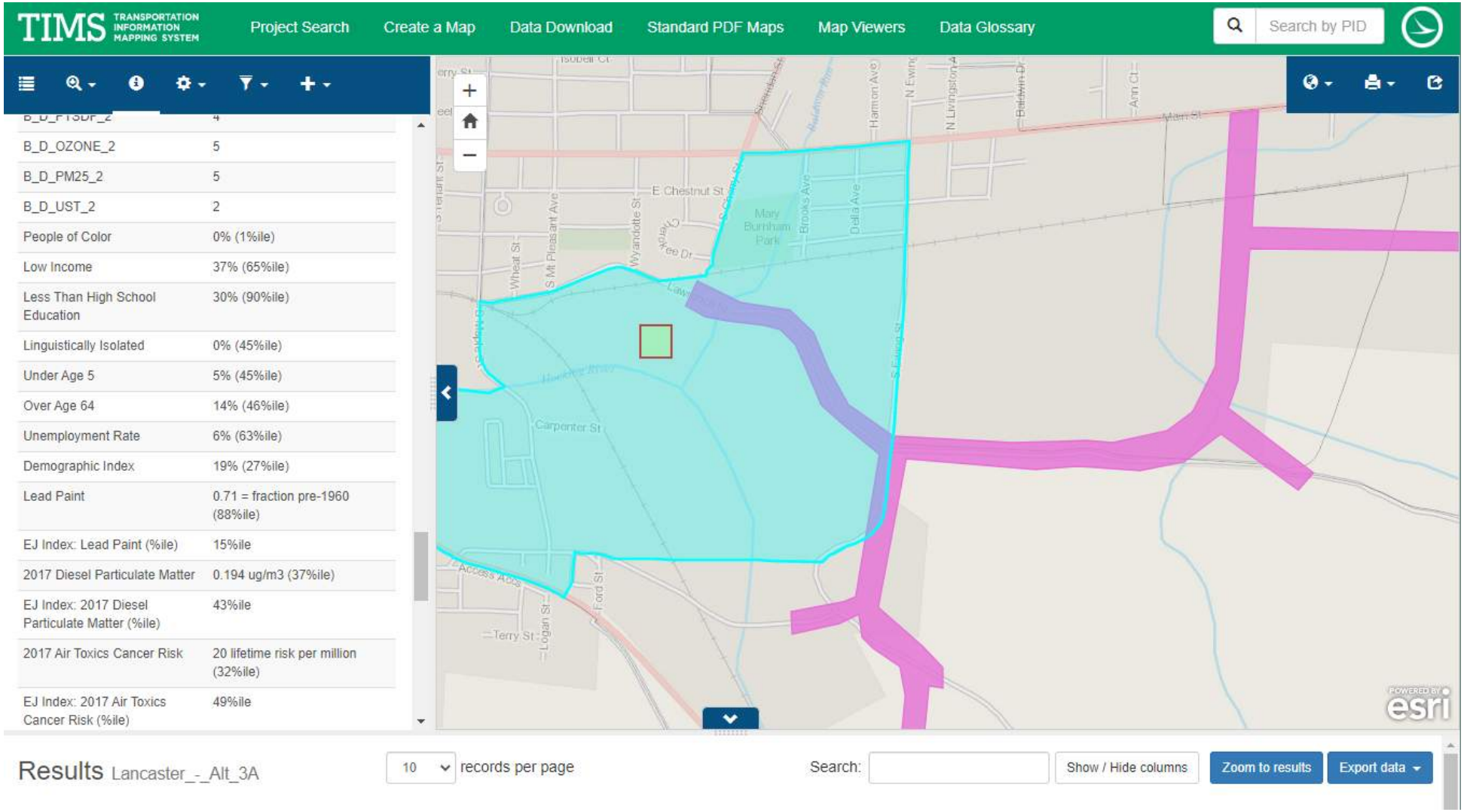
Datum: [Datum]

Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

Alternative 3A

TIMS Mapping

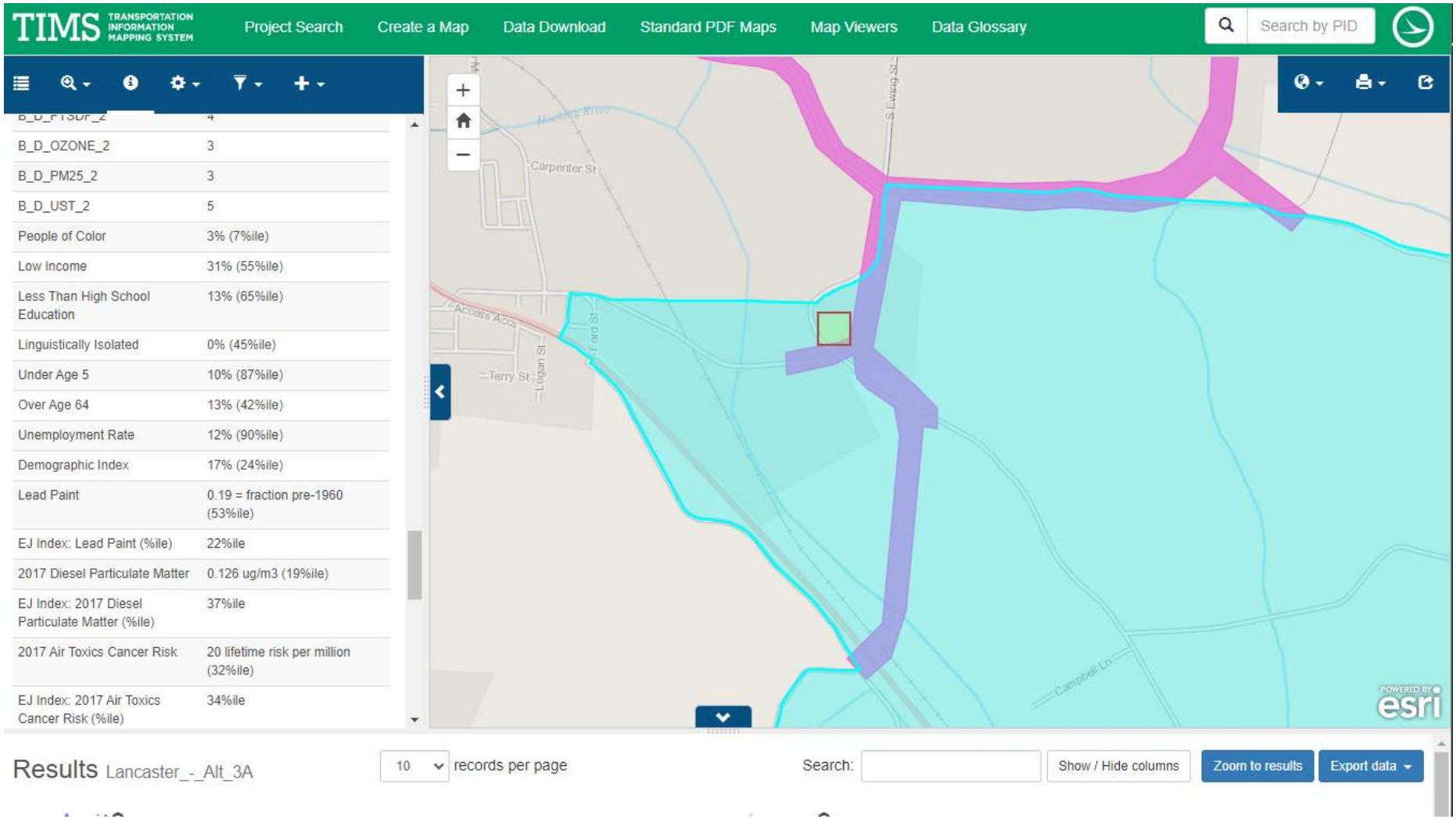
Census Block # 390450322001



Alternative 3A

TIMS Mapping

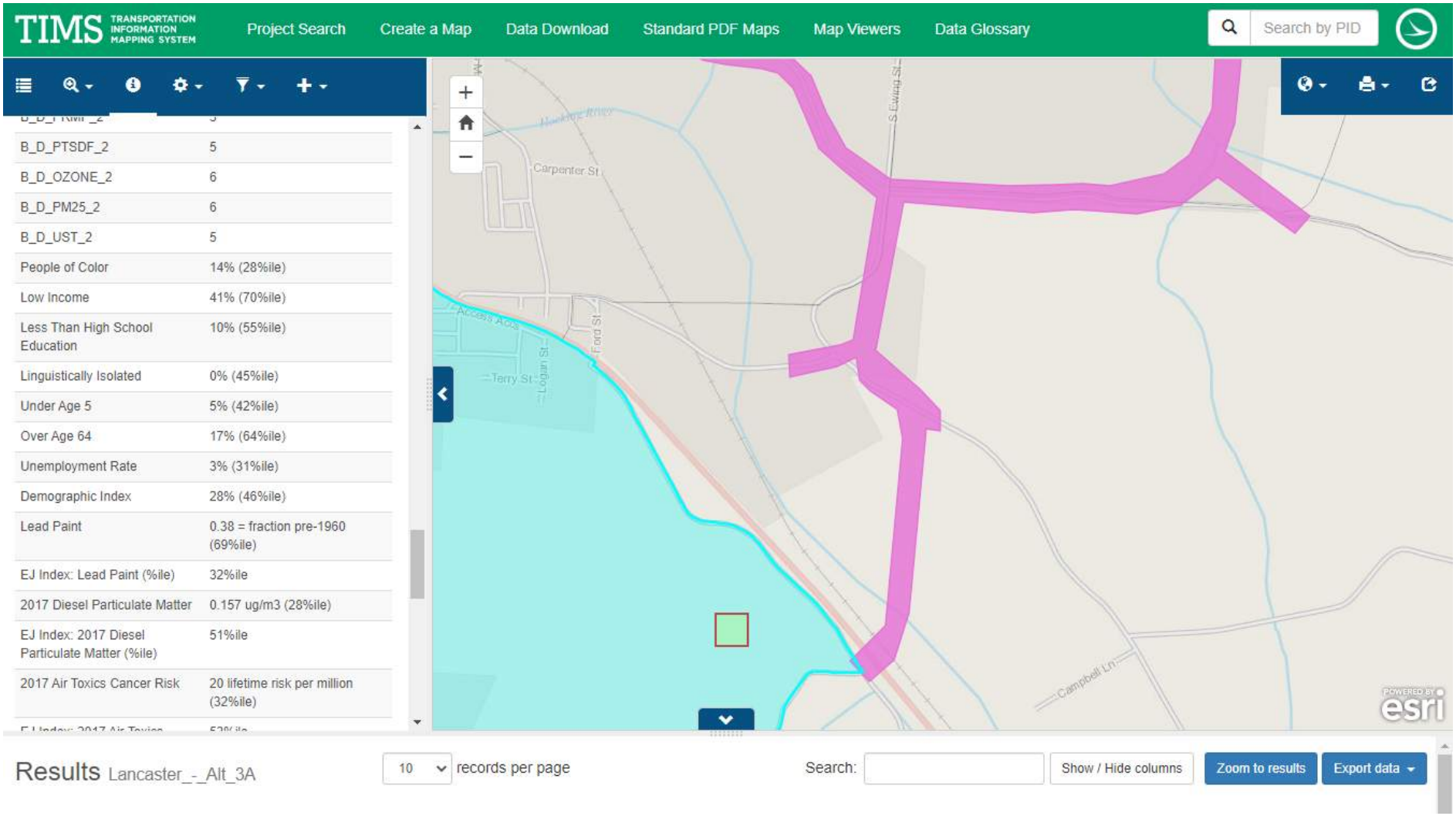
Census Block # 390450312001



Alternative 3A

TIMS Mapping

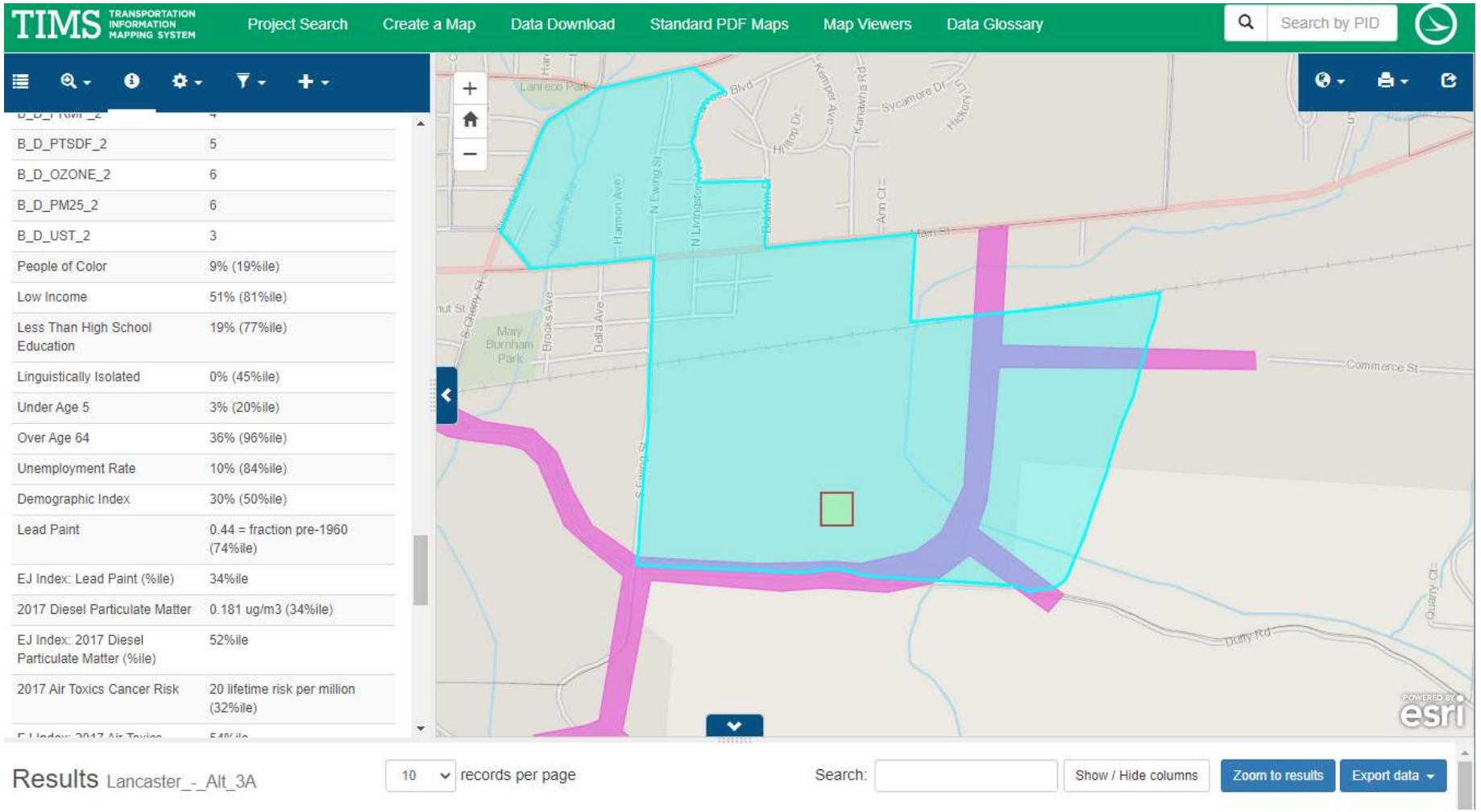
Census Block # 390450323004



Alternative 3A

TIMS Mapping

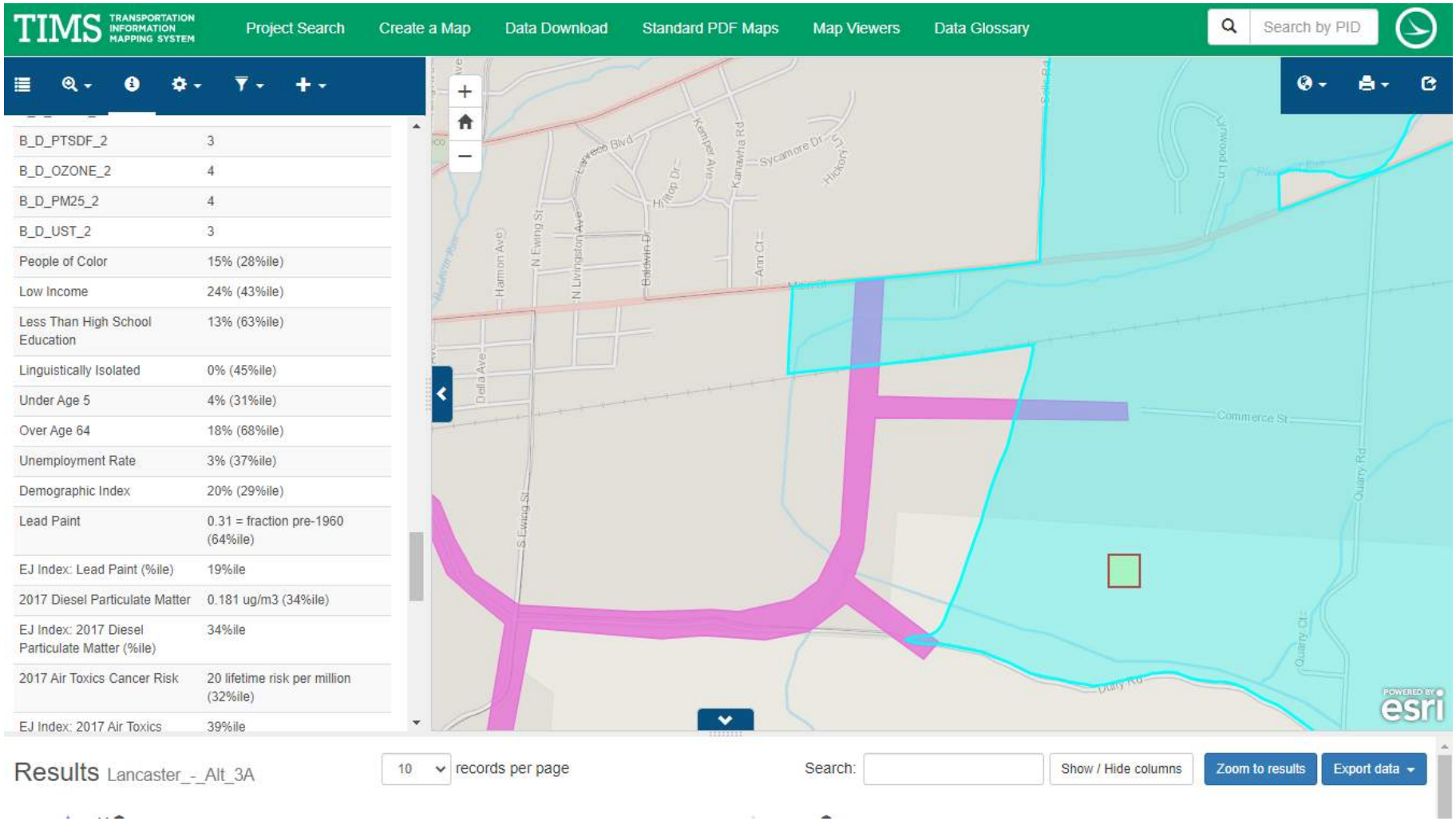
Census Block # 390450313003



Alternative 3A

TIMS Mapping

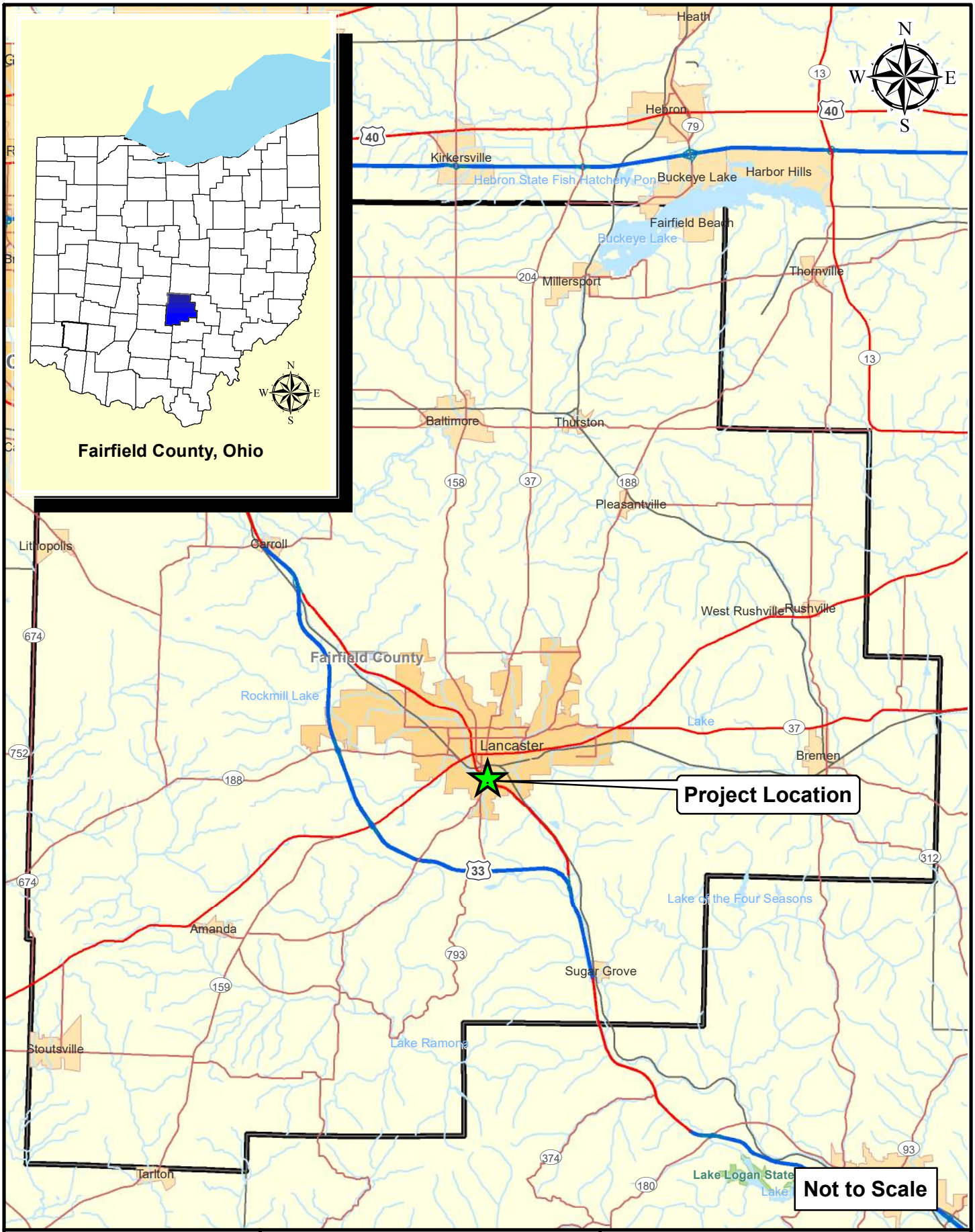
Census Block # 390450313001



Alternative 3B

Mapping

Project Location Map
USGS Topographic Map
2022 Aerial Photography Map
2005 Fairfield County Soil Survey Map
National Wetland Inventory Map
Ohio Wetland Inventory Map
FEMA 100-Year Floodplain Map



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AMERICAN STRUCTUREPOINT INC.

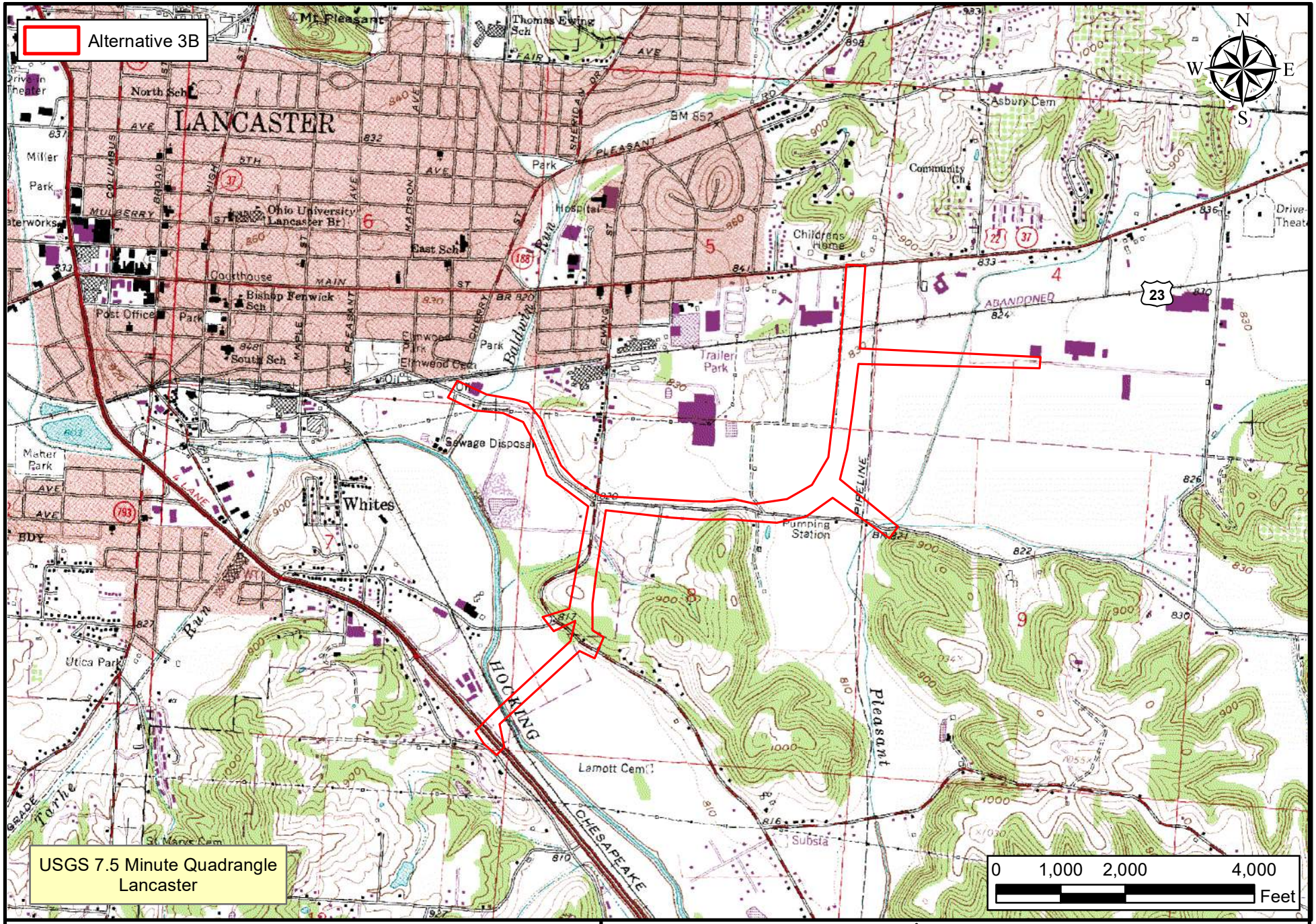
Project Location Map

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 3B

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
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USGS Topographic Map

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 3B

Location: Lancaster
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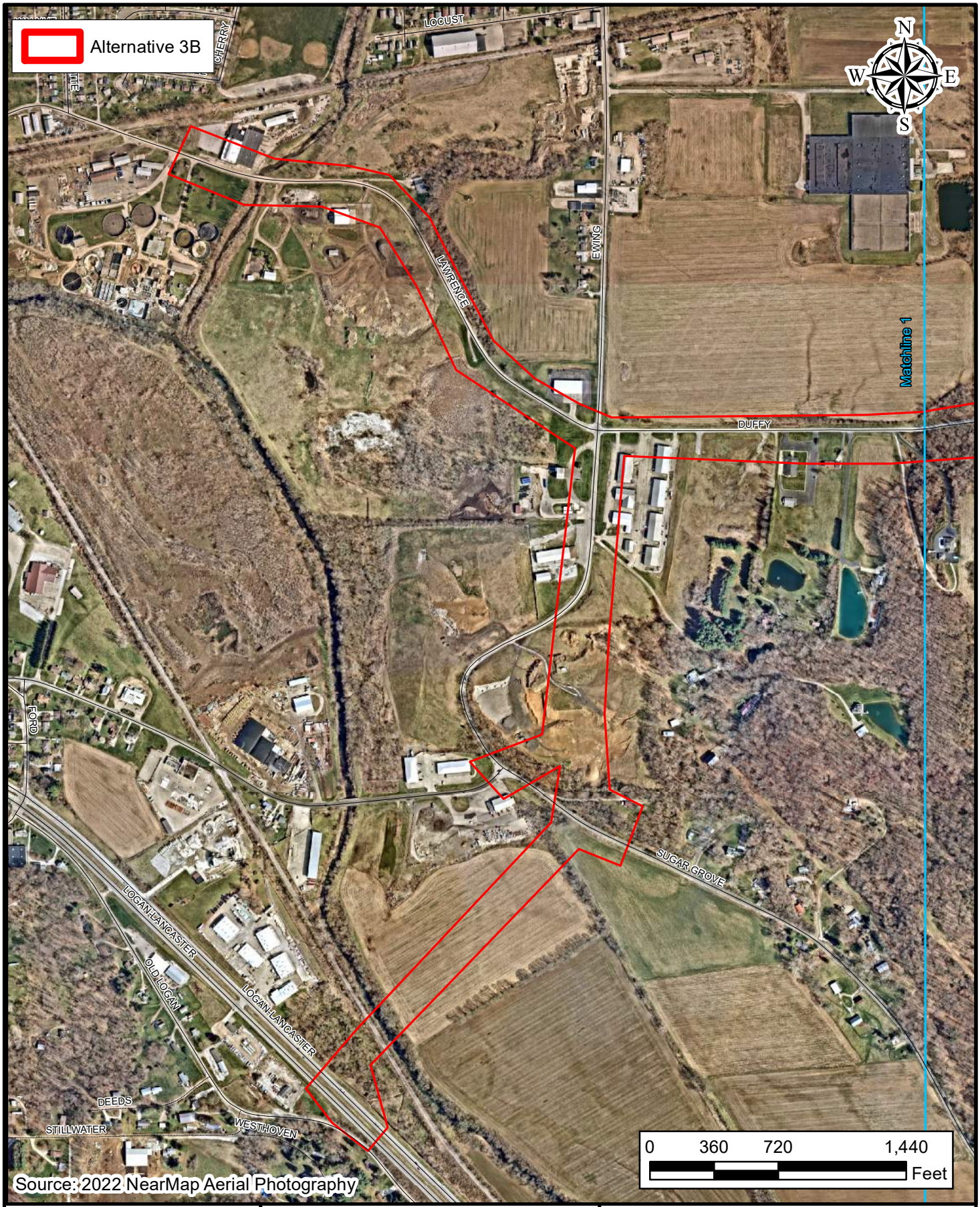
State: Ohio

Date: 08/11/2022



AMERICAN STRUCTUREPOINT INC.
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Aerial Map (1 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 3B

Location: Lancaster
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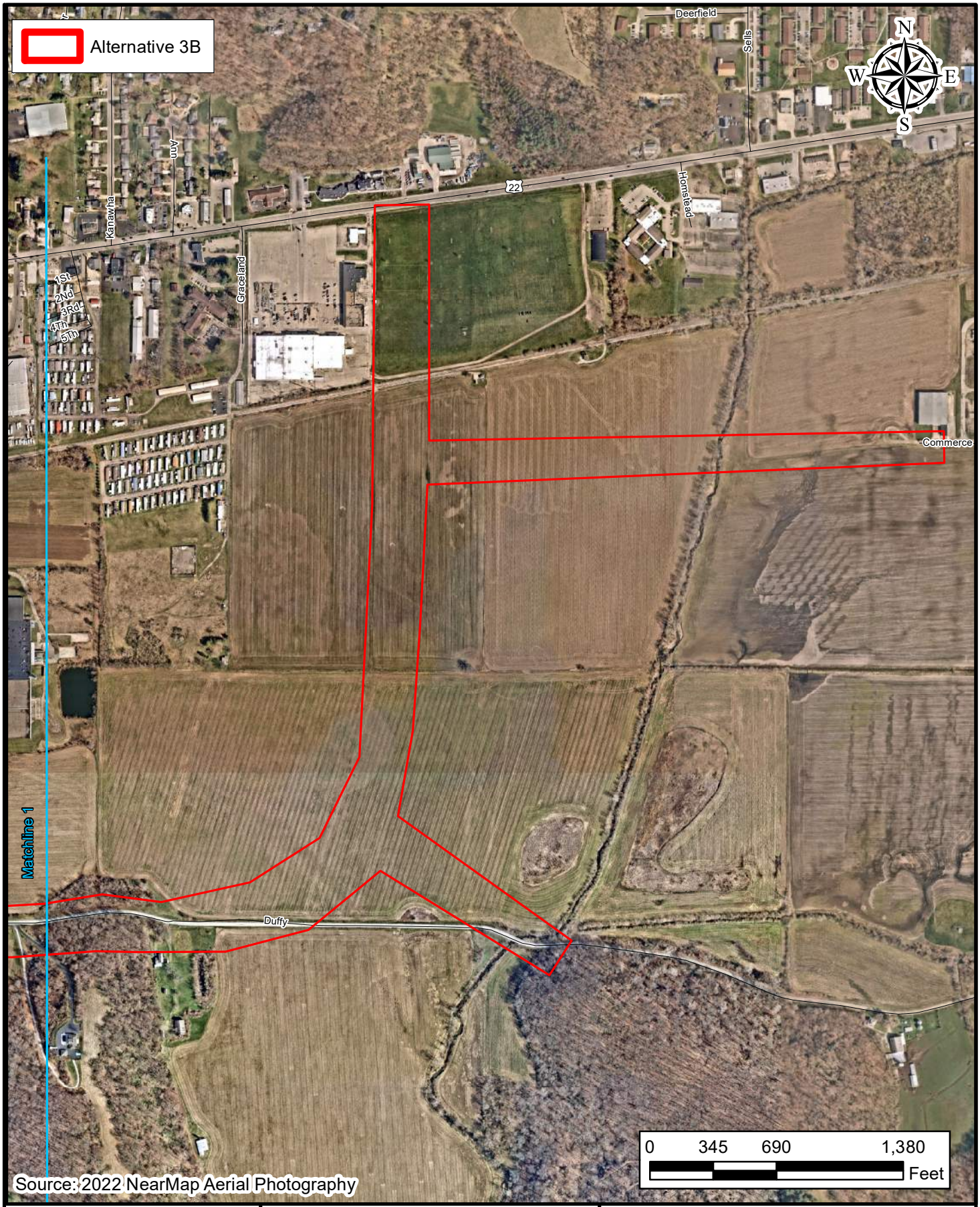
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
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Aerial Map (2 of 2)

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Eastside Industrial Connector – Alternative 3B

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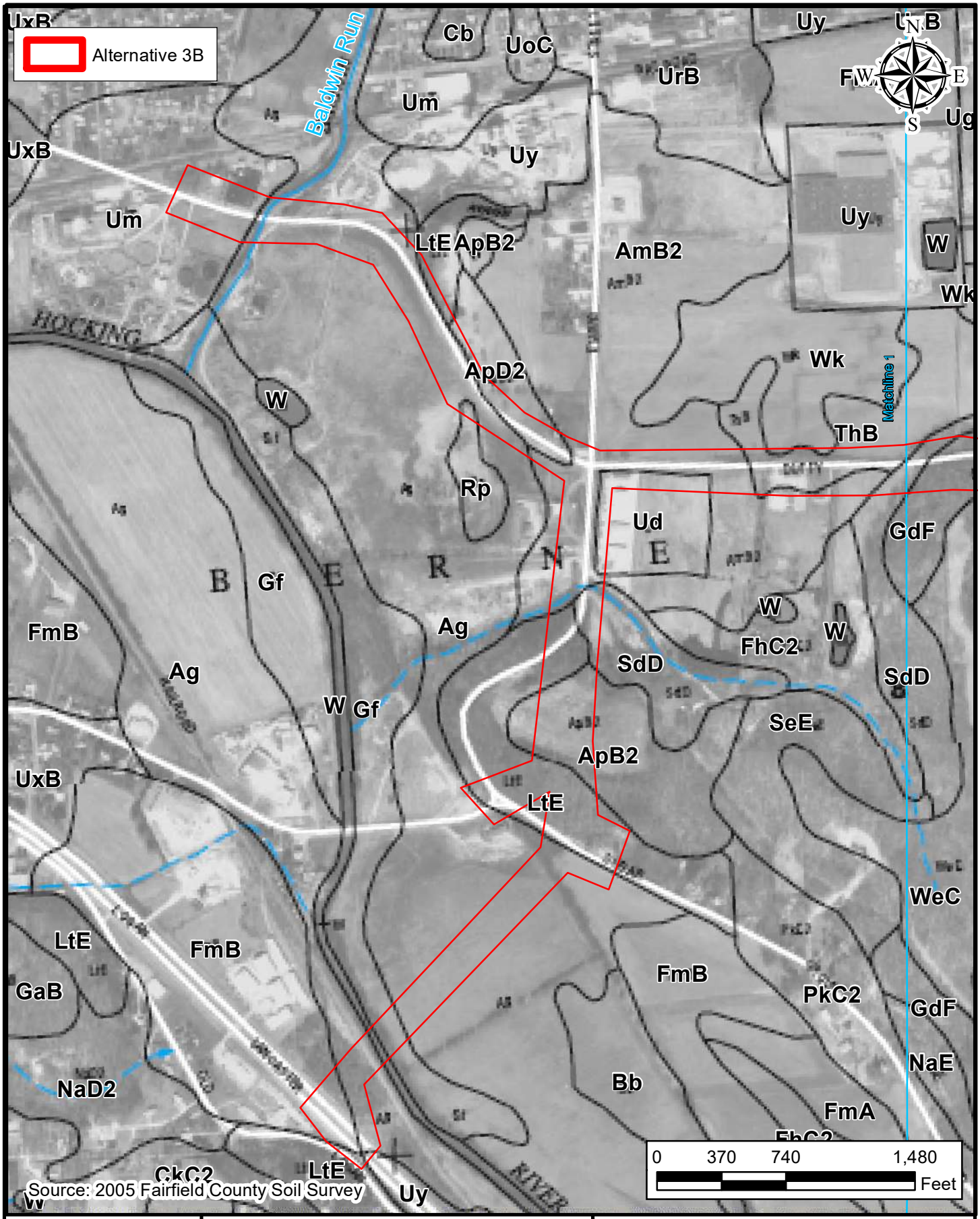
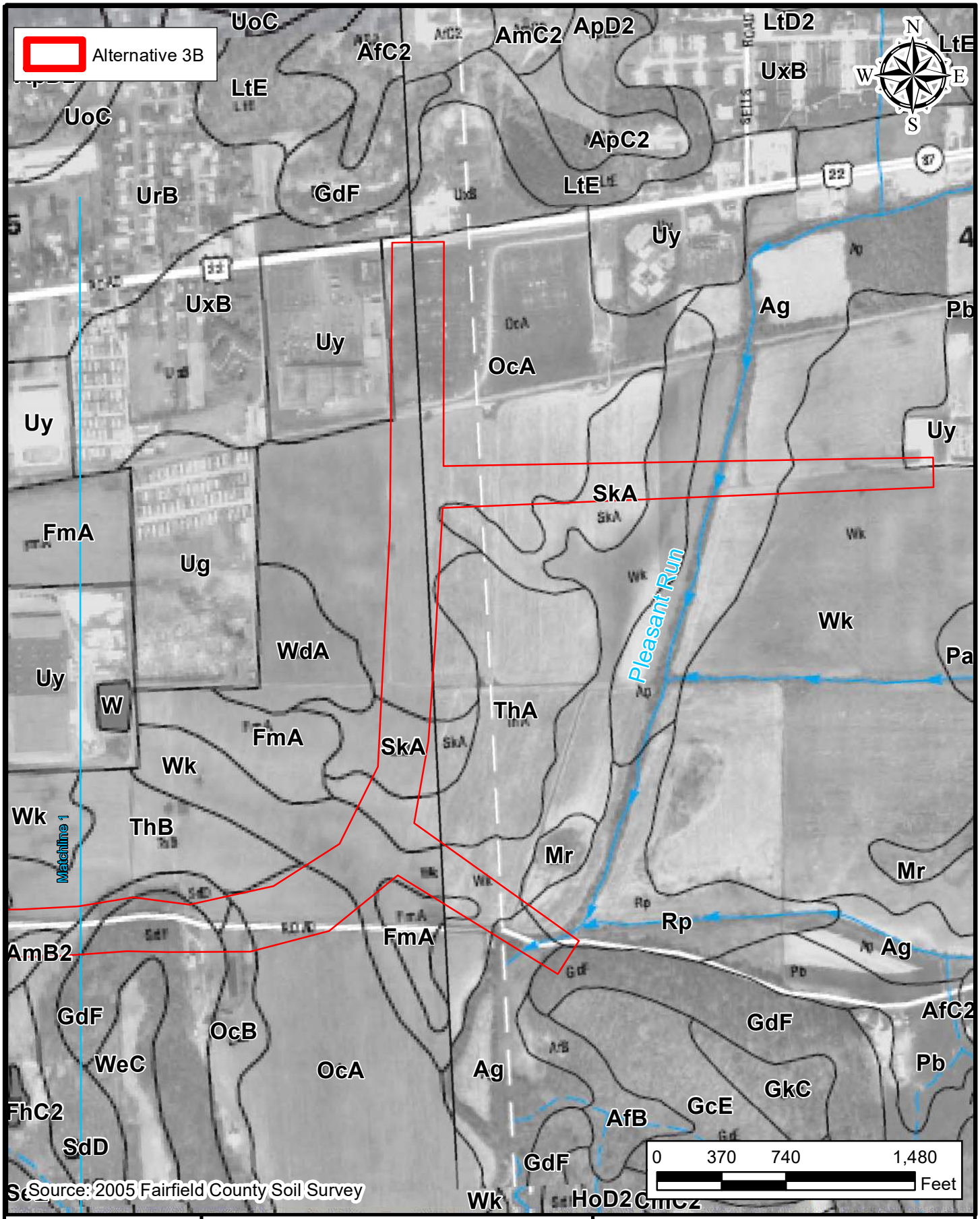
County: Fairfield
State: Ohio

Date: 08/12/2022

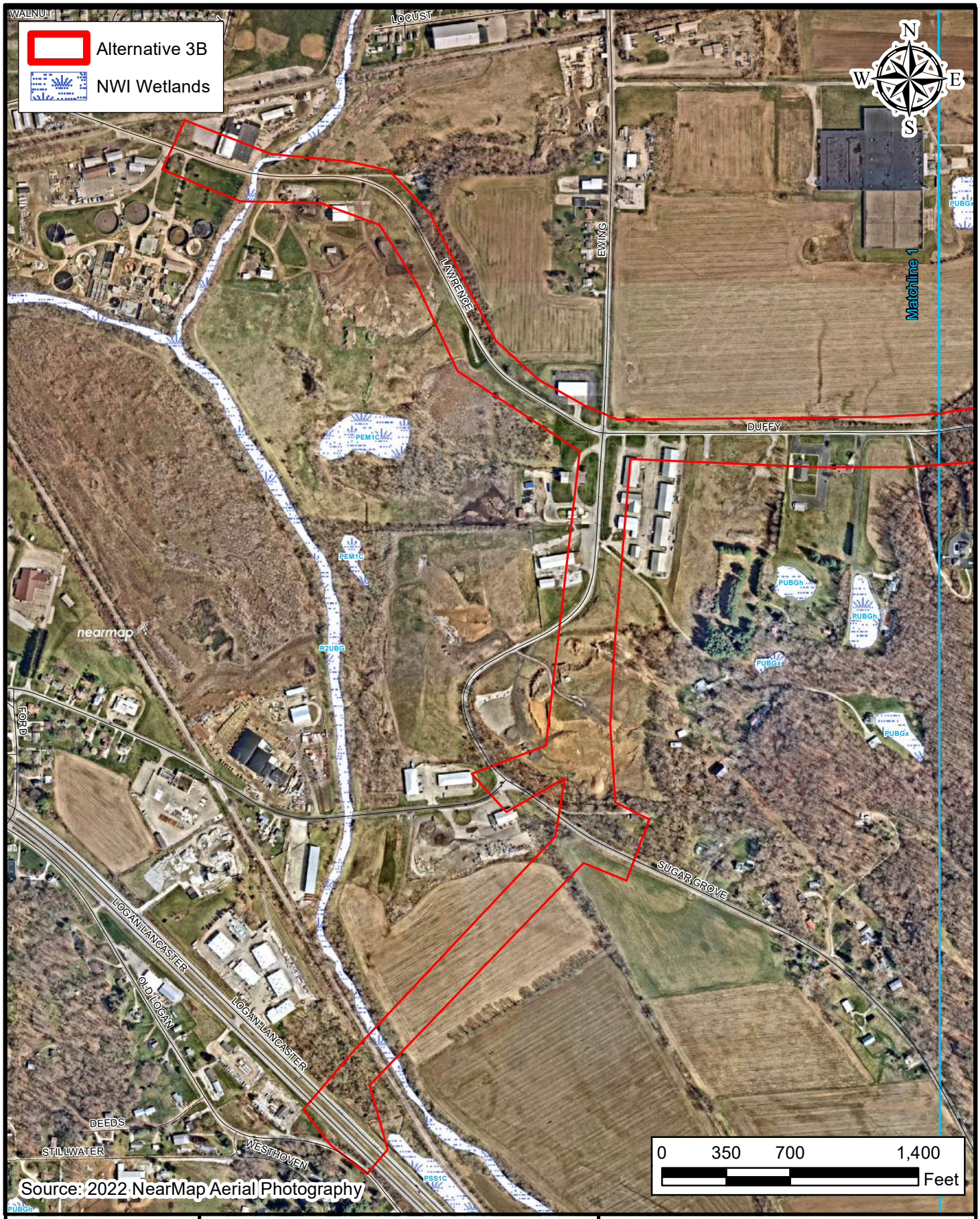


AMERICAN STRUCTUREPOINT INC. www.structurepoint.com	2005 Fairfield County Soil Survey Map (1 of 2) Client: City of Lancaster 121 East Chestnut Street, Suite 100 Lancaster, Ohio 43130	Eastside Industrial Connector – Alternative 3B Location: Lancaster Township: Berne County: Fairfield State: Ohio Date: 08/12/2022



Source: 2005 Fairfield County Soil Survey

AMERICAN STRUCTUREPOINT INC. www.structurepoint.com	2005 Fairfield County Soil Survey Map (2 of 2) Client: City of Lancaster 121 East Chestnut Street, Suite 100 Lancaster, Ohio 43130	Eastside Industrial Connector – Alternative 3B Location: Lancaster Township: Berne County: Fairfield State: Ohio Date: 08/12/2022



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National Wetland Inventory Map (1 of 2)

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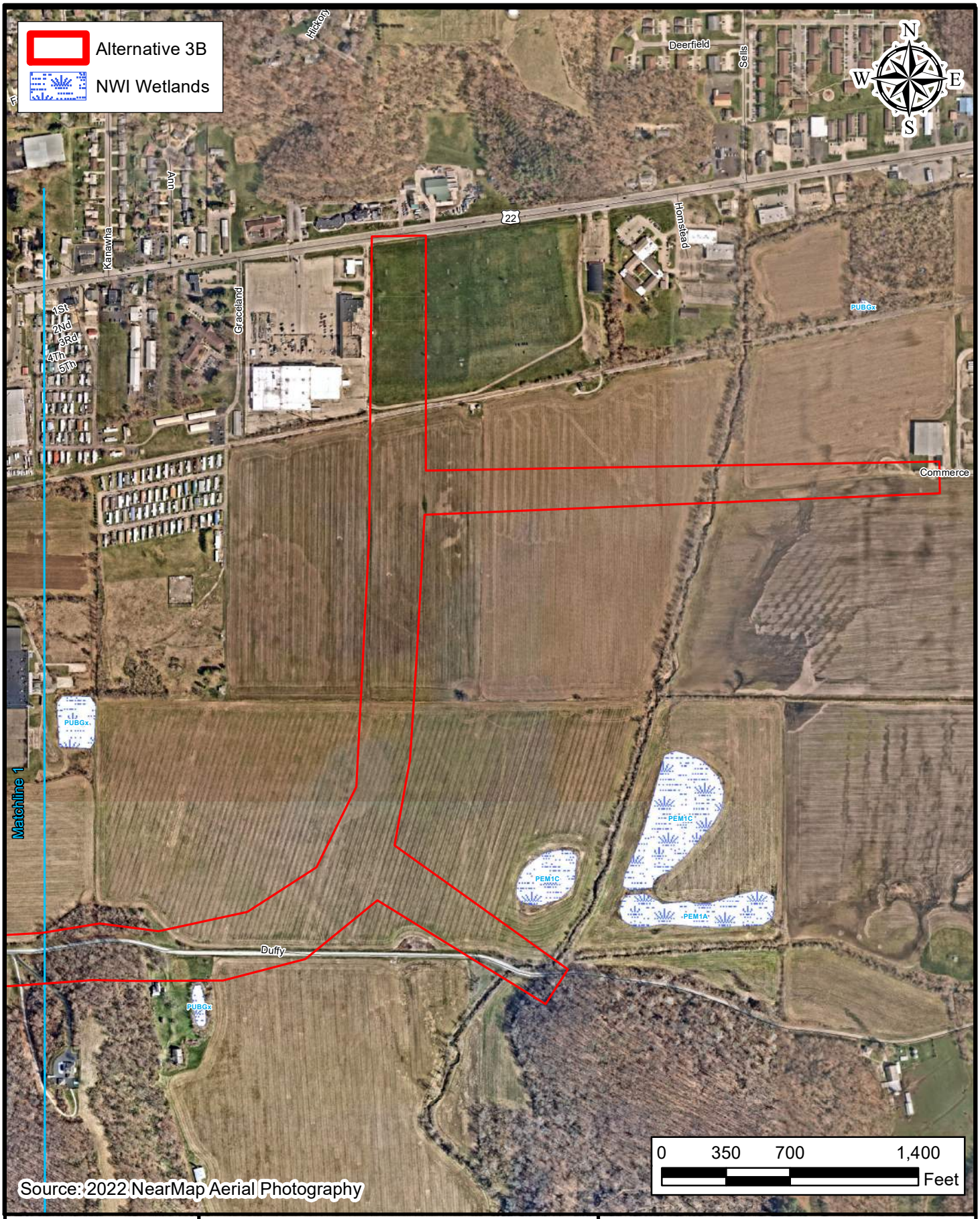

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National Wetland Inventory Map (2 of 2)

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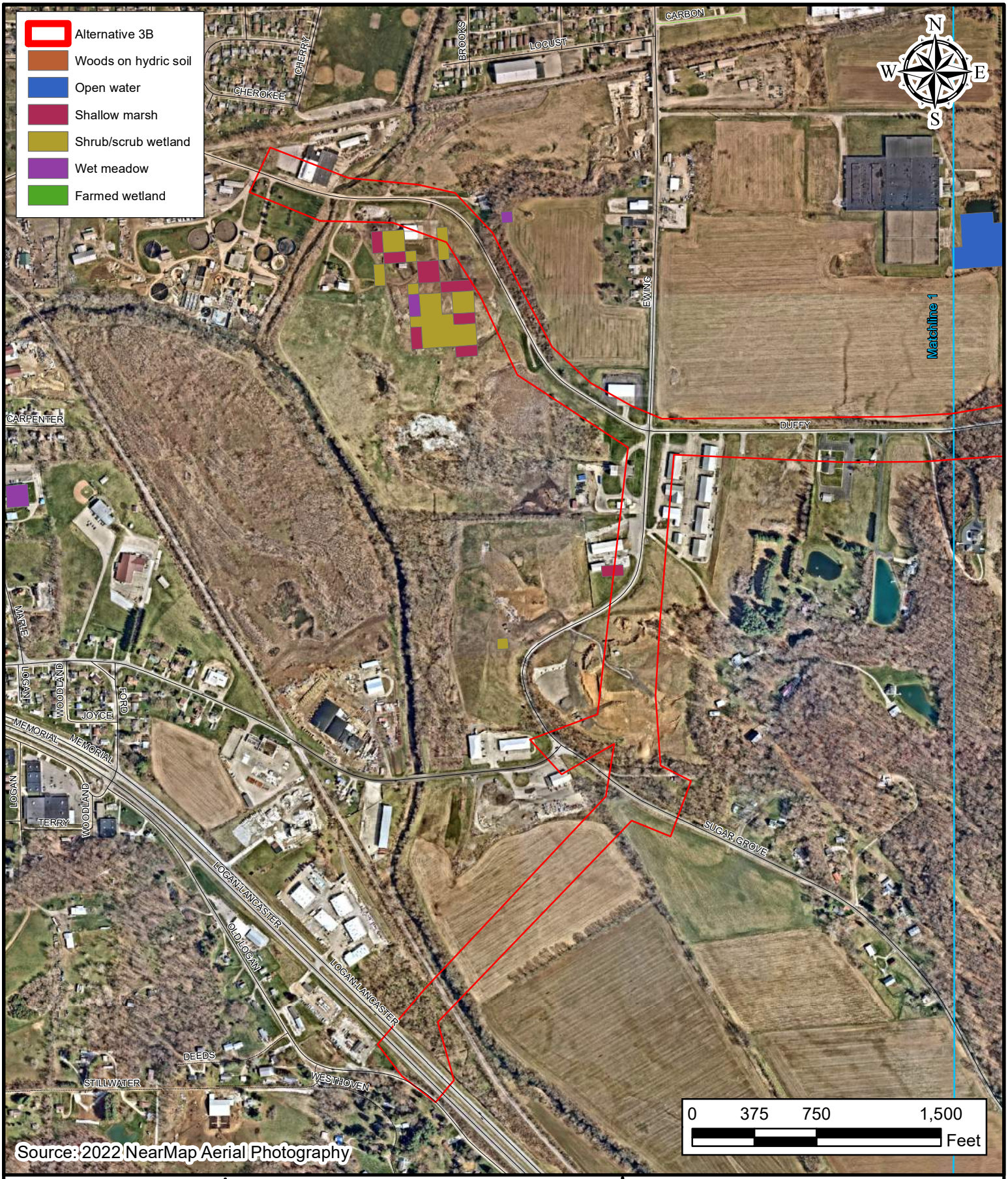

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Ohio Wetland Inventory Map (1 of 2)

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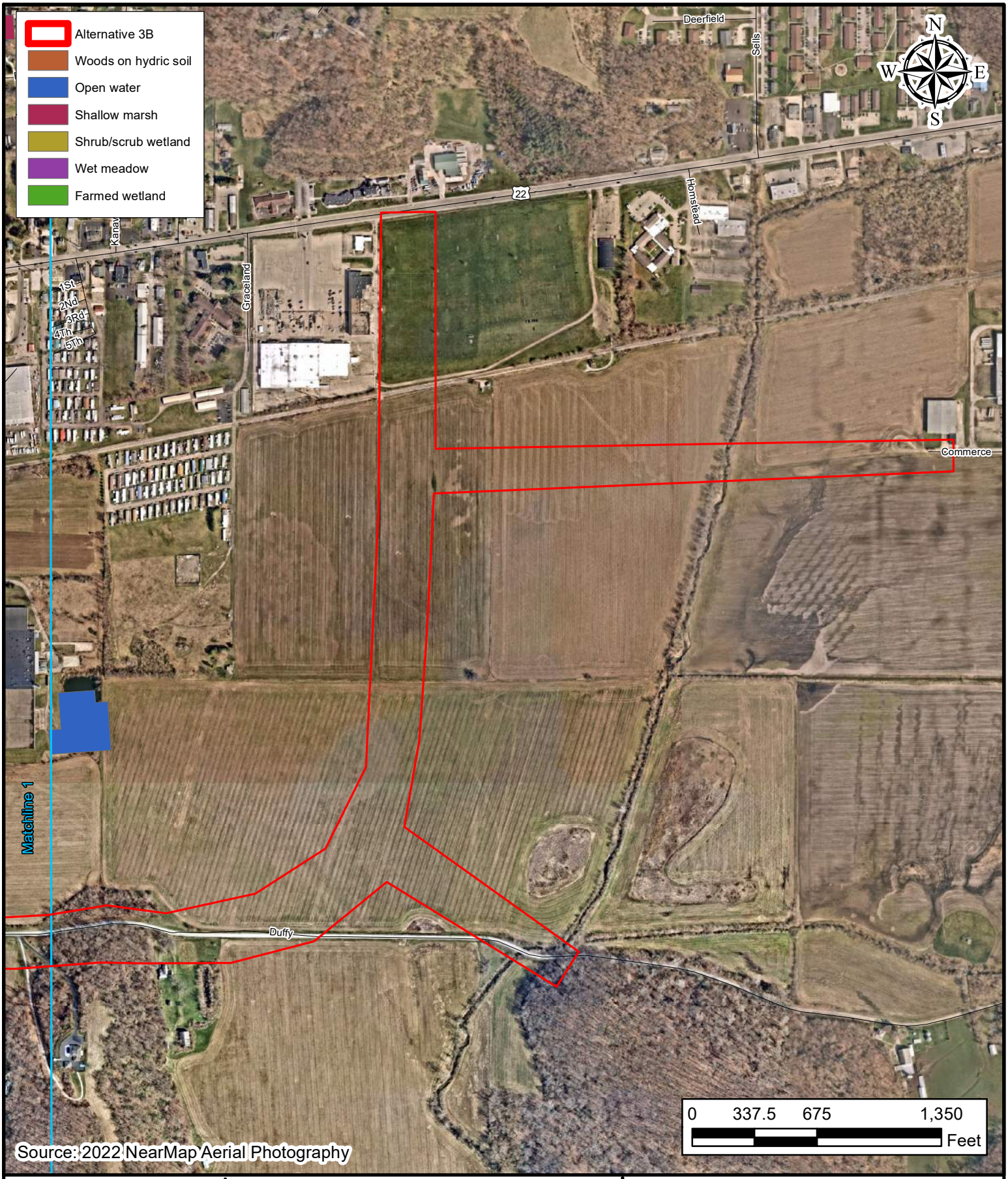

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Ohio Wetland Inventory Map (2 of 2)

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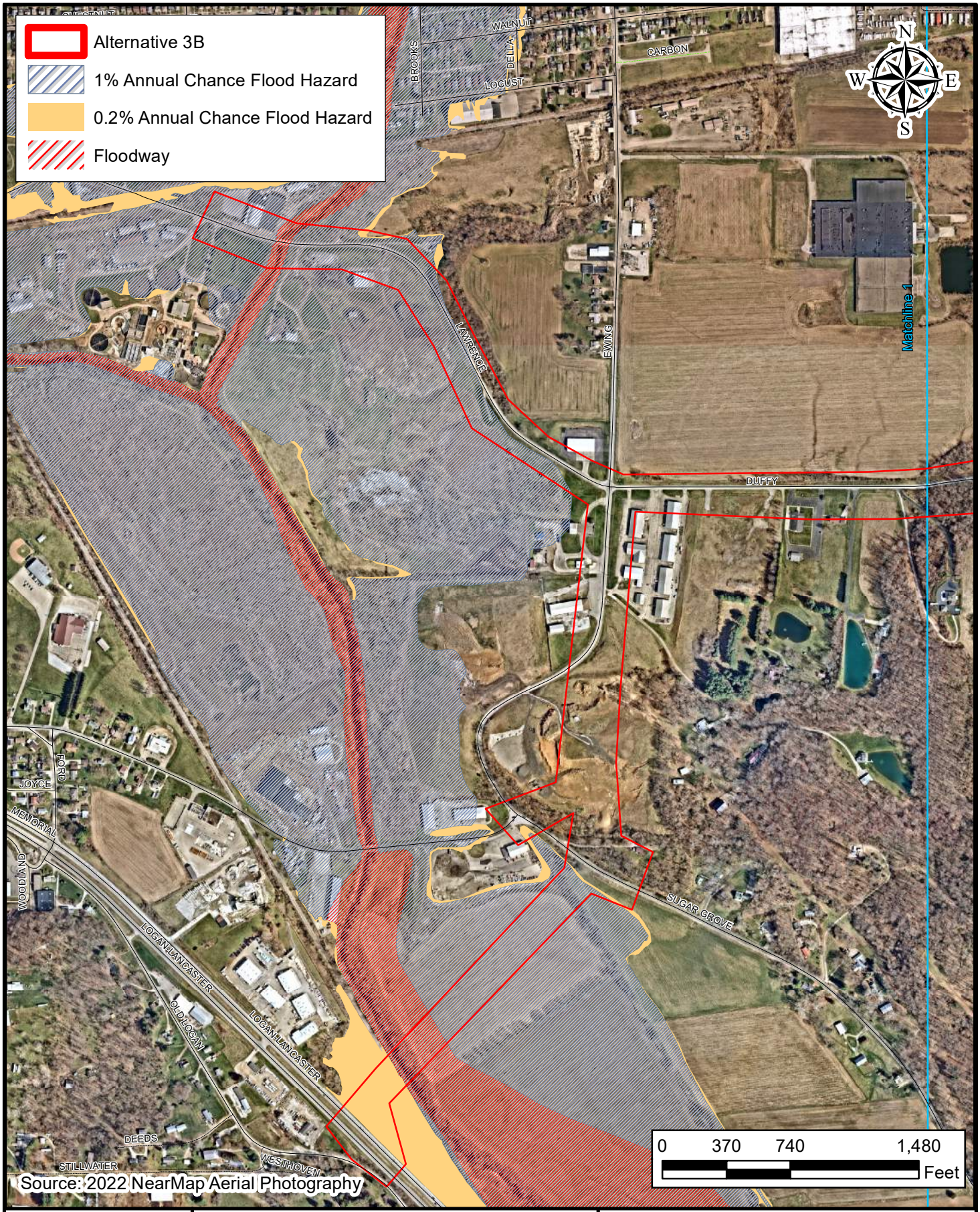

AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

FEMA 100-Year Floodplain Map (1 of 2)

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Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 3B

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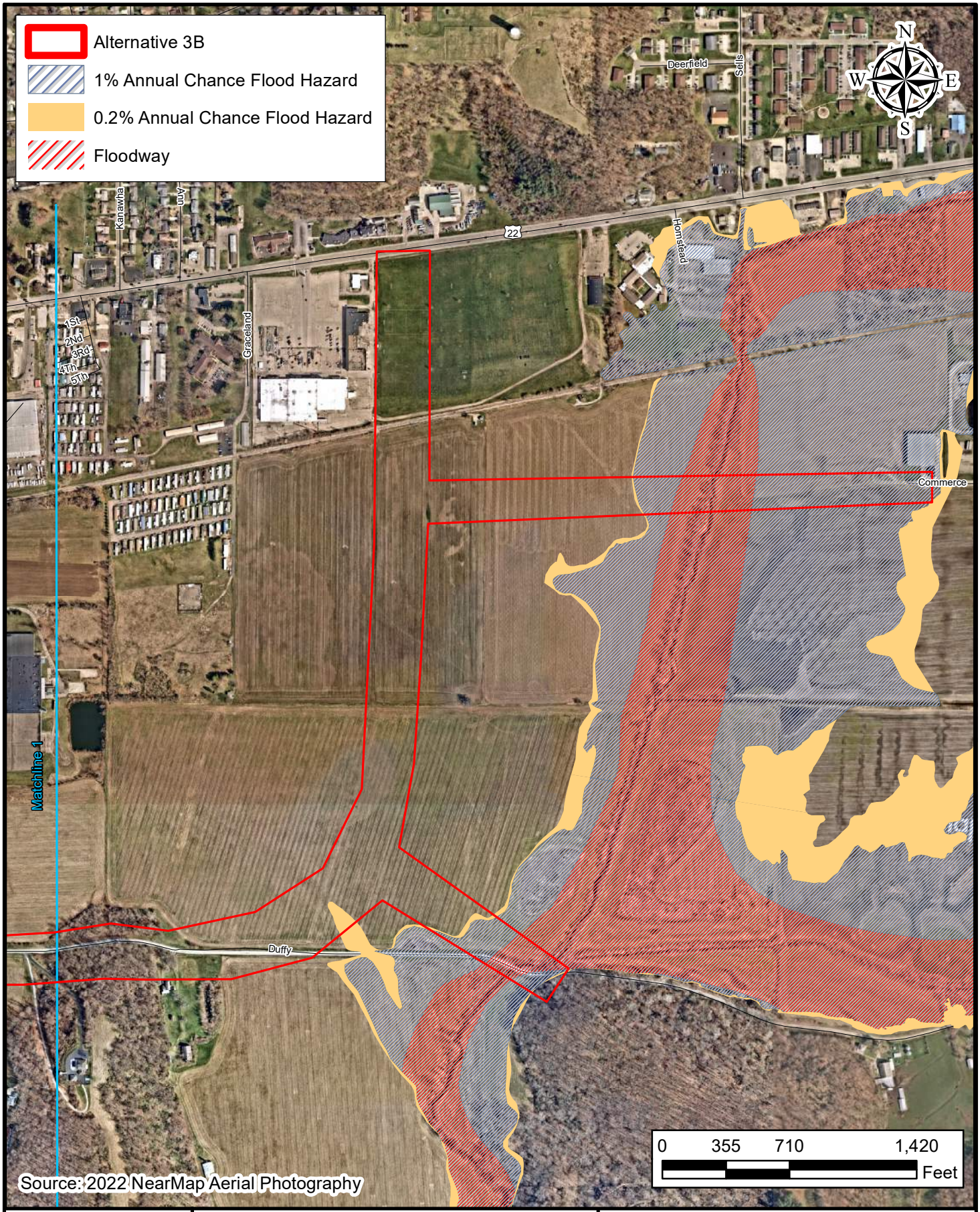
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
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FEMA 100-Year Floodplain Map (2 of 2)

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Lancaster, Ohio 43130

Eastside Industrial Connector – Alternative 3B

Location: Lancaster
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County: Fairfield
State: Ohio

Date: 08/12/2022

Alternative 3B

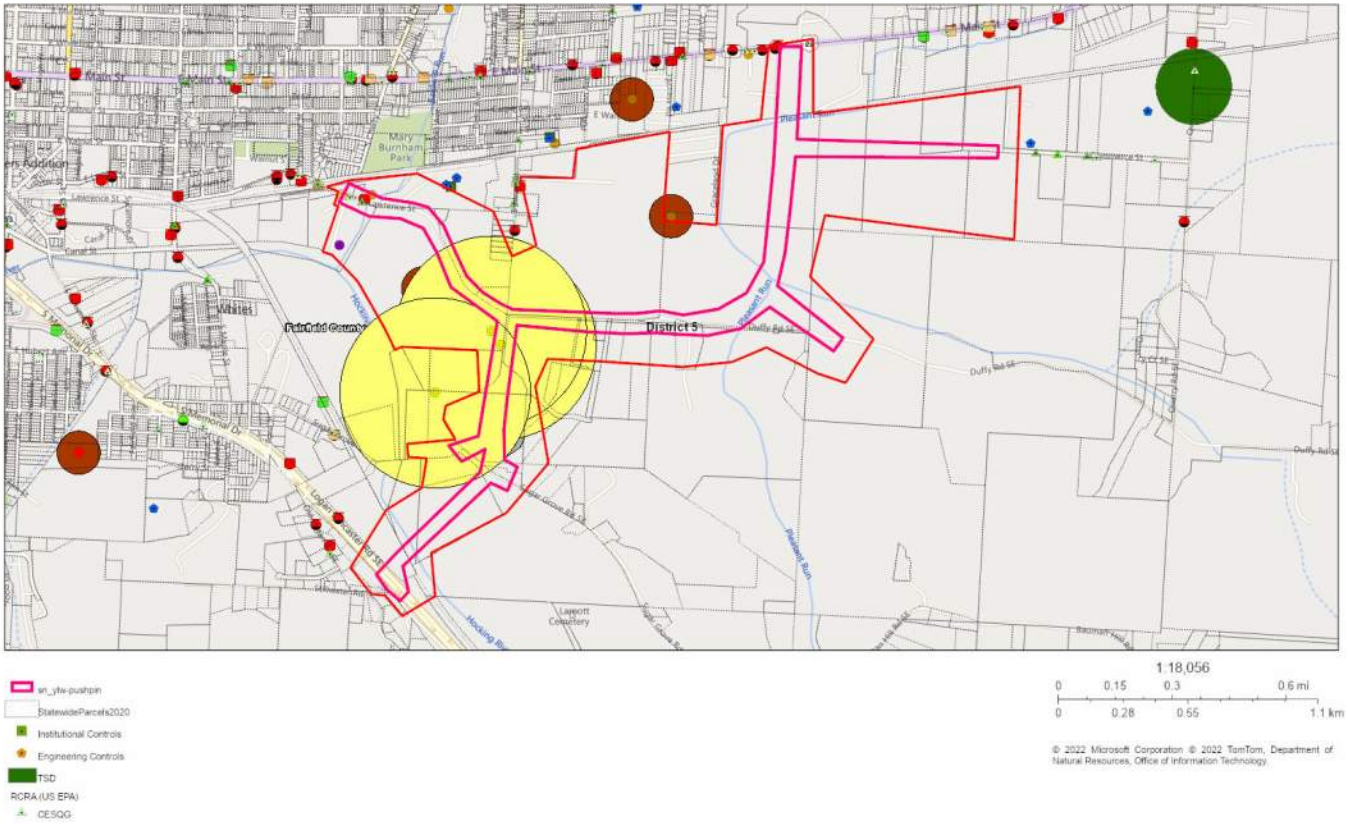
Hazardous Materials Records Summary

ORPS Summary Report Alternative 3B

Area of Interest (AOI) Information

Area : 627.99 acres

Aug 15 2022 15:56:05 Eastern Daylight Time



Summary

Name	Count	Area(acres)	Length(ft)
SEMS - Non-NPL Sites w/buffer (US EPA)	0	0	N/A
SEMS - NPL Sites w/buffer (US EPA)	0	0	N/A
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RCRA - TSD Sites w/buffer (US EPA)	0	0	N/A
Federal Engineering Controls (US EPA)	0	N/A	N/A
Federal Institutional Controls (US EPA)	0	N/A	N/A
BUSTR - UST Locations (BUSTR/OGRIP)	2	N/A	N/A
BUSTR - LUST Locations (BUSTR/OGRIP)	0	N/A	N/A
Coal Gas Generators (OEPA-DERR)	0	N/A	N/A
DERR Database (OEPA-DERR)	0	N/A	N/A
Impoundment Sites (OEPA-DERR)	0	N/A	N/A
Landfills - Active Solid Waste Facilities w/buffer (OEPA-DMWM)	0	0	N/A
Landfills - Historic/Abandoned Facilities w/buffer (OEPA-DMWM/DERR)	0	0	N/A
Landfills - Solid Waste Facility Polygons (OEPA-DMWM)	2	56.90	N/A
Projects With Engineering Controls (OEPA-DERR)	0	N/A	N/A
Projects With Institutional Controls (OEPA-DERR)	0	N/A	N/A
Spills Database (OEPA)	0	N/A	N/A
VAP Sites (OEPA-DERR)	0	N/A	N/A
Potential Areas of Concern (ODOT-OES)	0	0	N/A

RCRA (US EPA)

#	REGISTRY_ID	PRIMARY_NAME	ADDRESS	CITY	STATE	ZIP	LAST_REPORTED_DATE	URL
1	110000381970	HEXCEL COMPOSITES	815 LAWRENCE ST.	LANCASTER	OH	43130	4/28/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110000381970
2	110000550458	LANCASTER WATER POLLUTION CONTROL	800 LAWRENCE ST	LANCASTER	OH	43130	10/16/2014	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110000550458

#	PGM_SYS_ID	PGM_SYS_ACRONYM	INTEREST_TYPE	REFERENCE_POINT_DESC	Count
1	OHD004289419	RCRAINFO	UNSPECIFIED UNIVERSE	CENTER OF A FACILITY OR STATION	1
2	OHD000772954	RCRAINFO	CESQG	CENTER OF A FACILITY OR STATION	1

BUSTR - UST Locations (BUSTR/OGRIP)

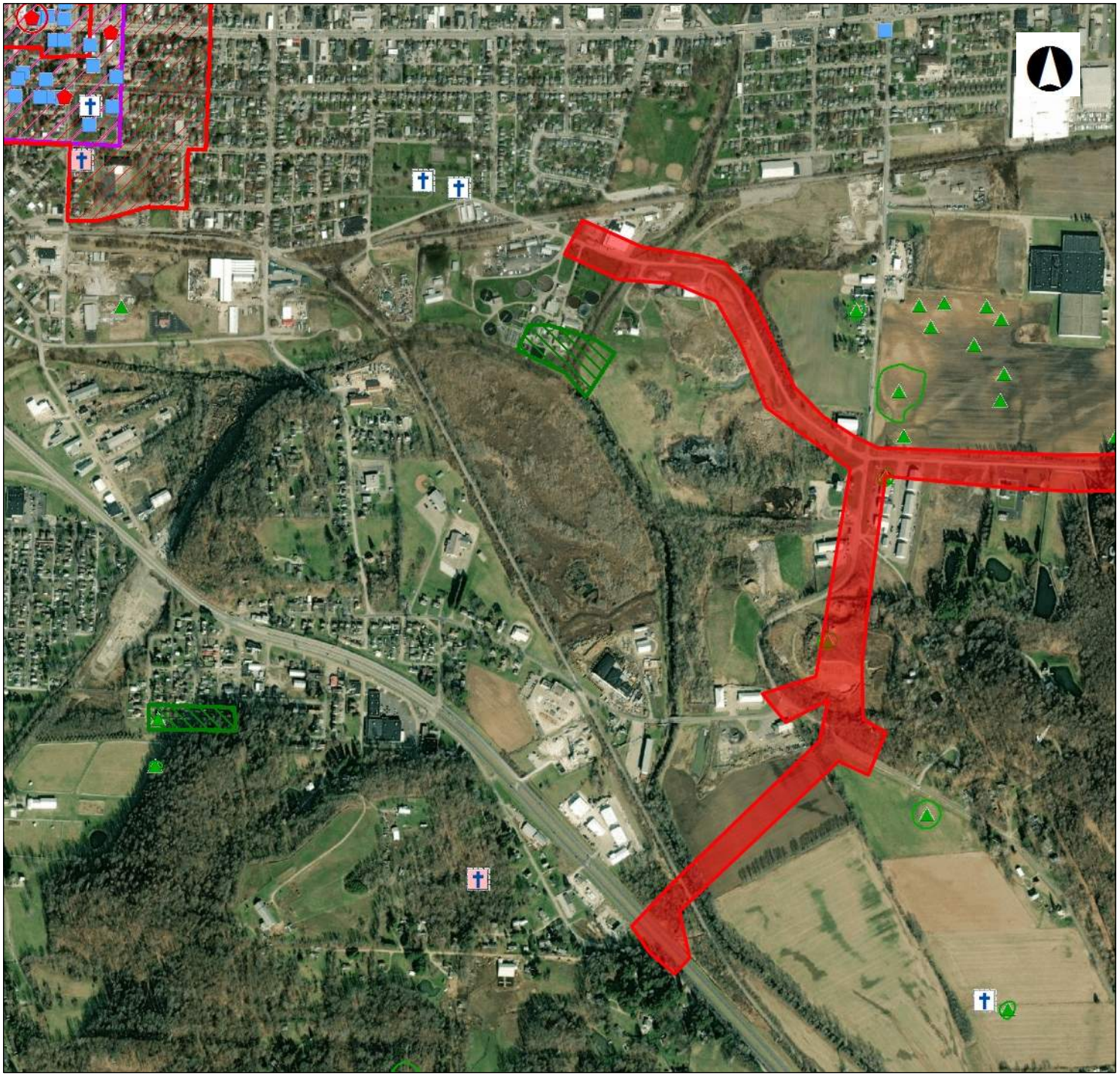
#	FACILITY_ID	CURRENT_FACILITY_NAME	ADDRESS	CITY	ZIP	Status	INSPECTION_DATE	FACILITY_CO
1	23002521	HEXCEL CORP.	815 LAWRENCE STREET	LANCASTER	43130	REM	*No Data*	*No Data*
2	23009460	CITY OF LANCASTER WWTP	800 LAWRENCE ST	LANCASTER	43130	CIU	*No Data*	*No Data*

#	TANK_ID	CAPACITY	CONTENT	DATE_REMOVED	FACILITY_STATUS	Count
1	T00001	10000	Unknown	06/25/02	Inactive	1
2	T00001	1000	Diesel	*No Data*	*No Data*	1

Alternative 3B

Cultural Resources and Other Environmental Resources

Alternative 3B



OHIO HISTORY CONNECTION

State Historic Preservation Office

Legend

- NR Listings
  - Listed
  - National Historic Landmark
  - Delisted
- Determinations of Eligibility
  - DOE
  - Demolished
- Archaeological Sites
- Historic Structures
- Historic Bridges
- Historic Tax Credit Projects
- Local Designations
- OGS Cemeteries
  - Confident
  - Not Confident
- Local District Boundary
- Previously Surveyed Area
- National Register Boundary

0 0.22 0.44 Miles

1: 17,358

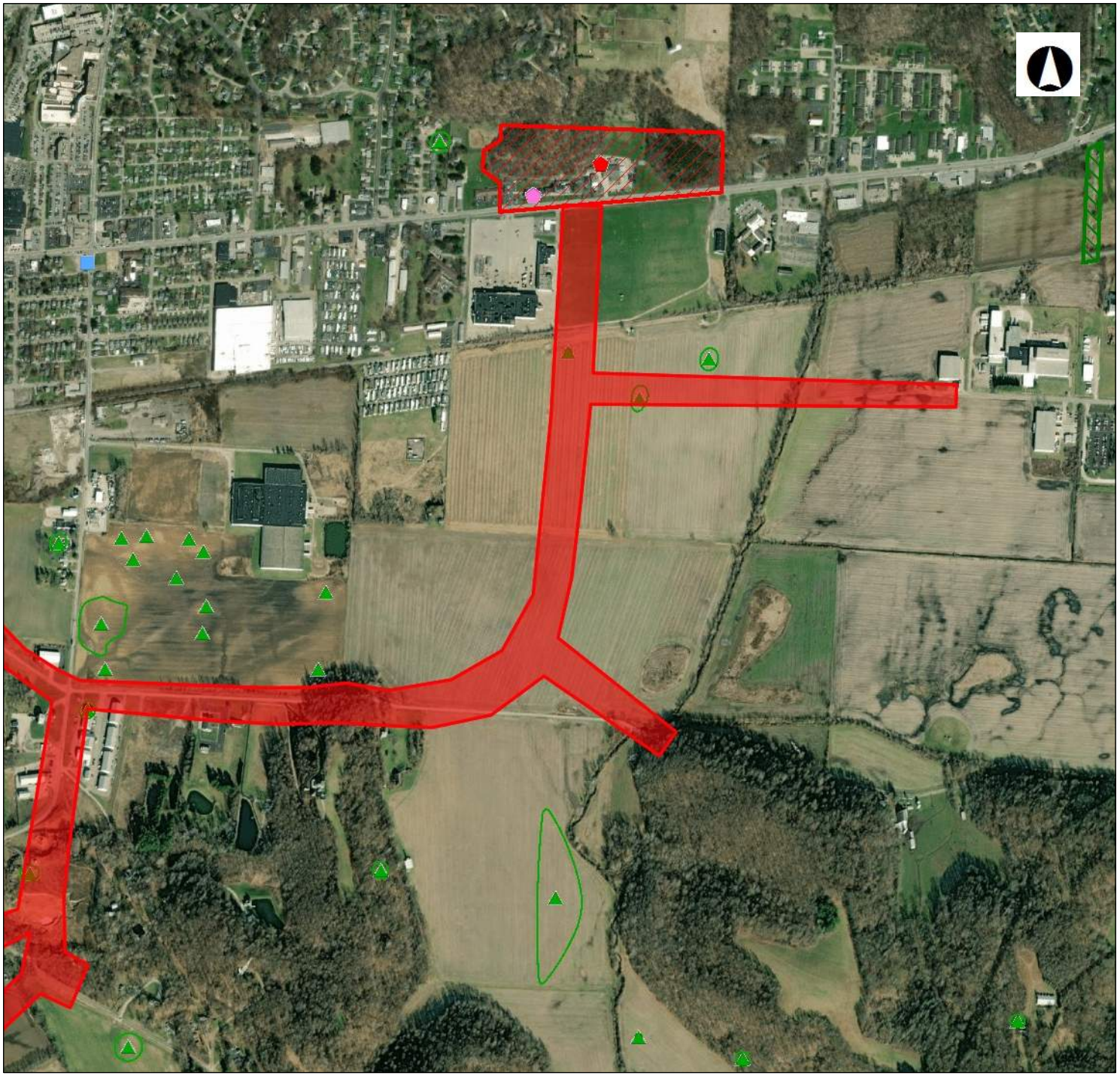
Copyright/Disclaimer

This map is a user generated static output from an Internet mapping site and is for generalThis map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Datum: [Datum]

Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

Alternative 3B



OHIO HISTORY CONNECTION
State Historic Preservation Office

Legend

- NR Listings
  - Listed
  - National Historic Landmark
  - Delisted
- Determinations of Eligibility
  - DOE
  - Demolished
- Archaeological Sites
- Historic Structures
- Historic Bridges
- Historic Tax Credit Projects
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  - Confident
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- Local District Boundary
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- National Register Boundary

0 0.22 0.44 Miles

1: 17,358

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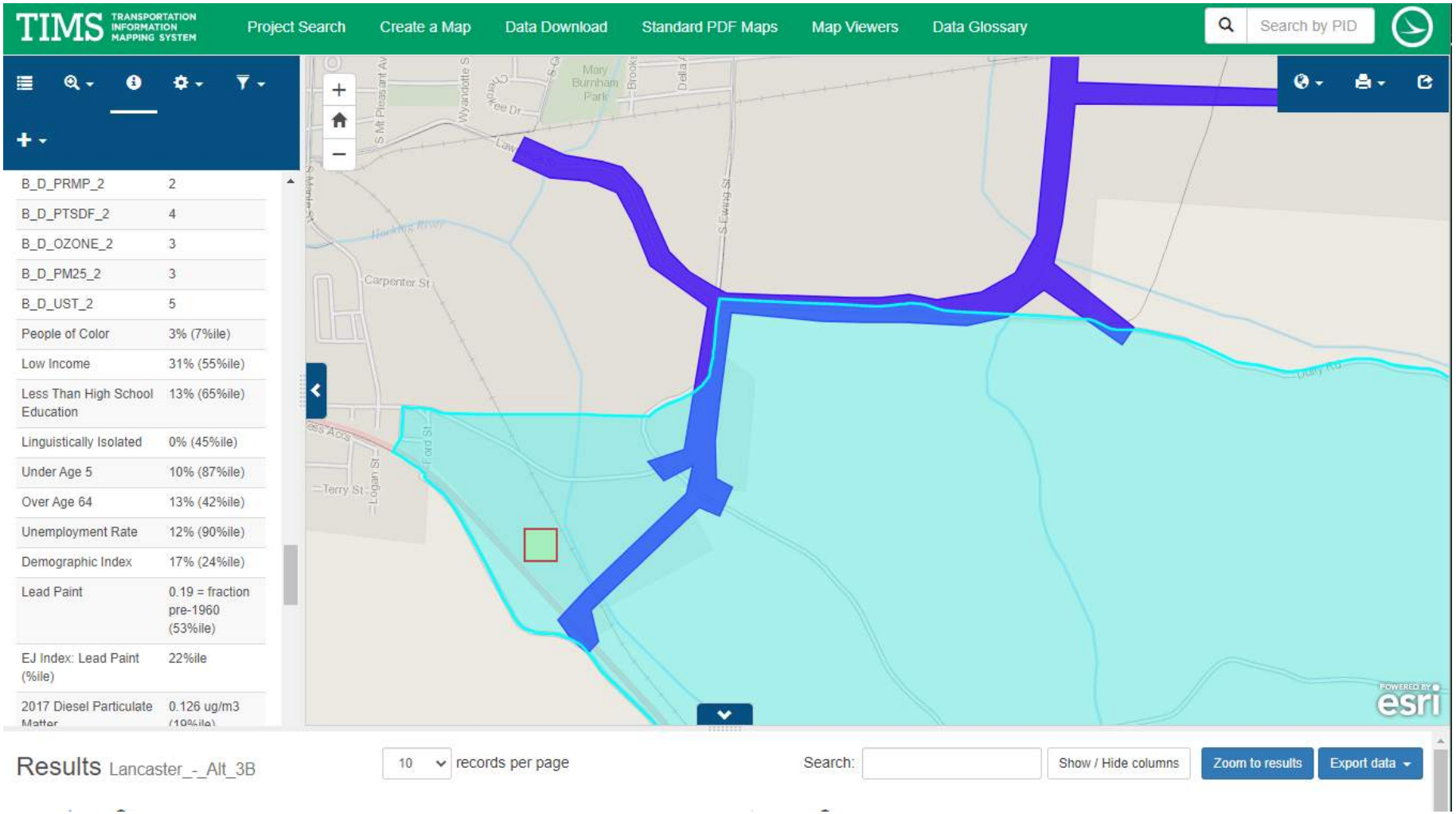
Datum: [Datum]
Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

Alternative 3B

TIMS Mapping

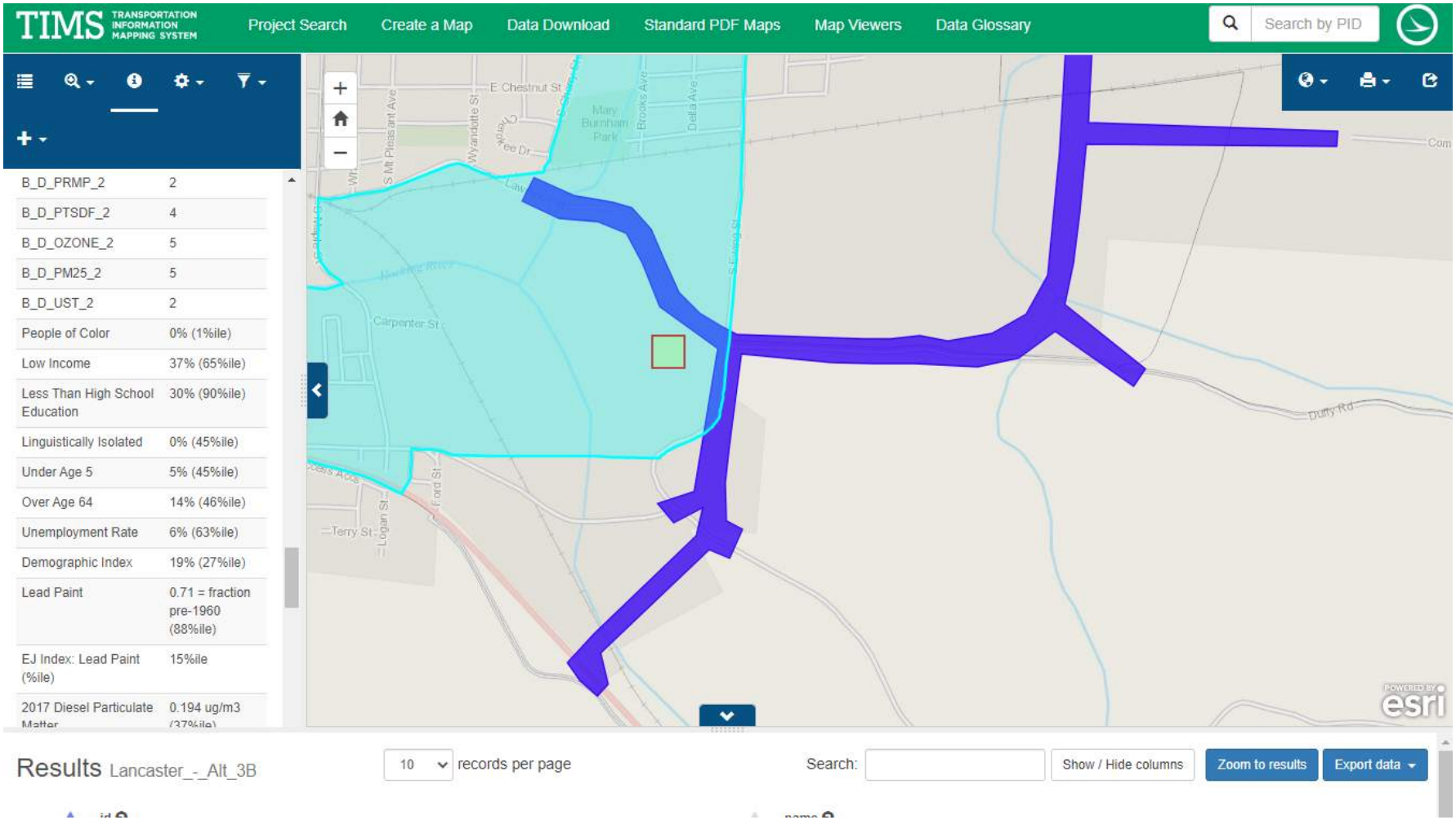
Census Block # 390450312001



Alternative 3B

TIMS Mapping

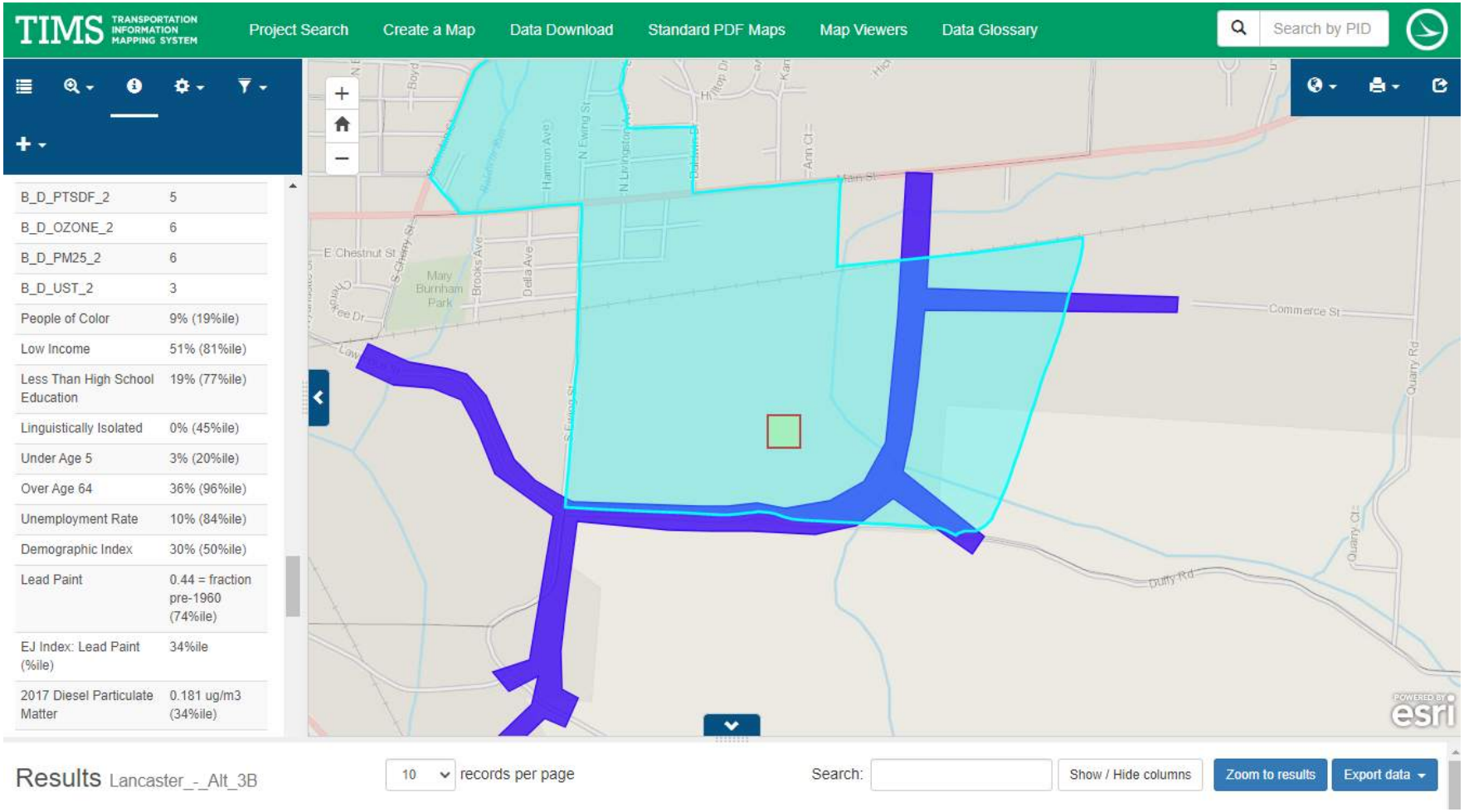
Census Block # 390450322001



Alternative 3B

TIMS Mapping

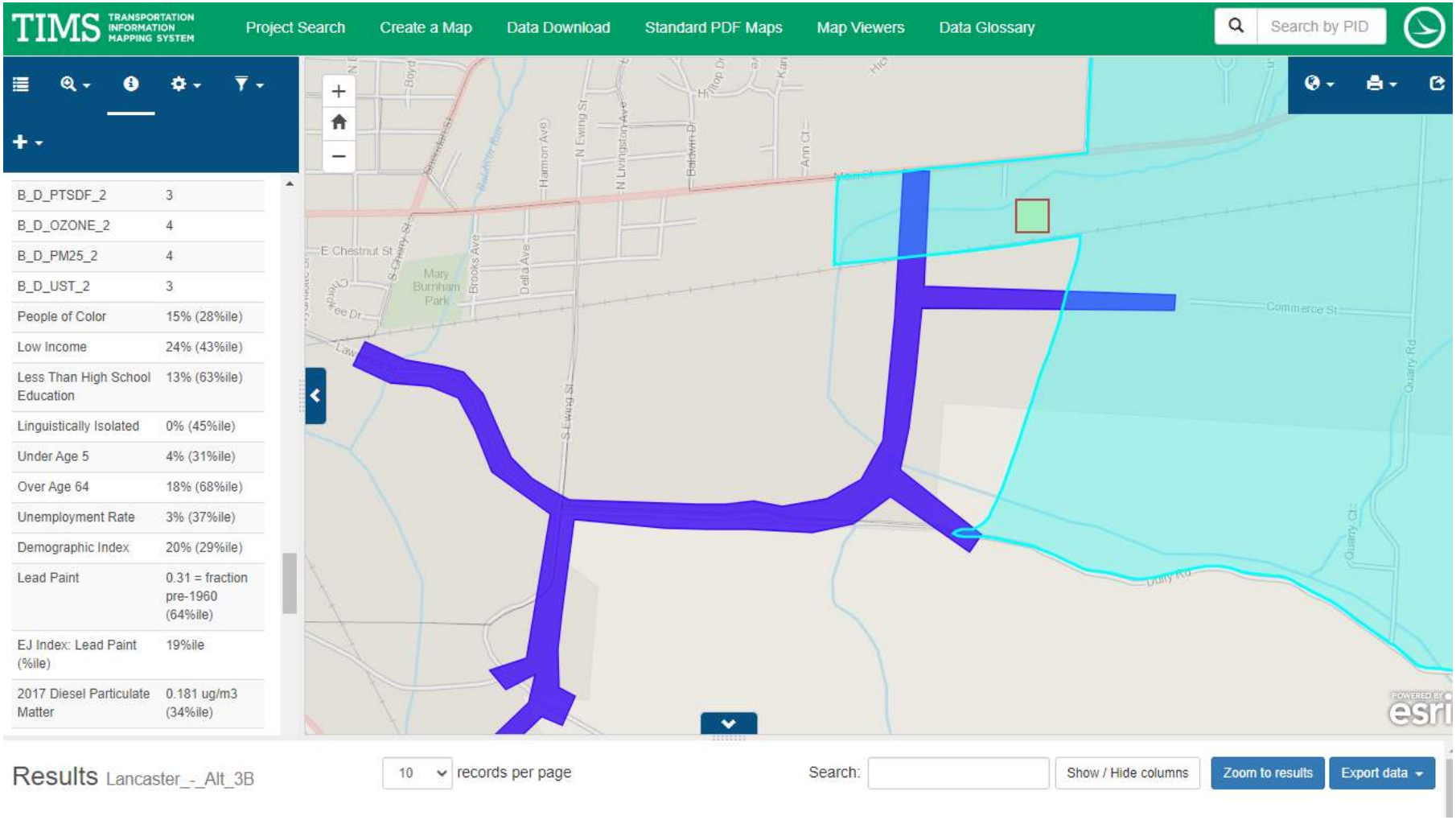
Census Block # 390450313003



Alternative 3B

TIMS Mapping

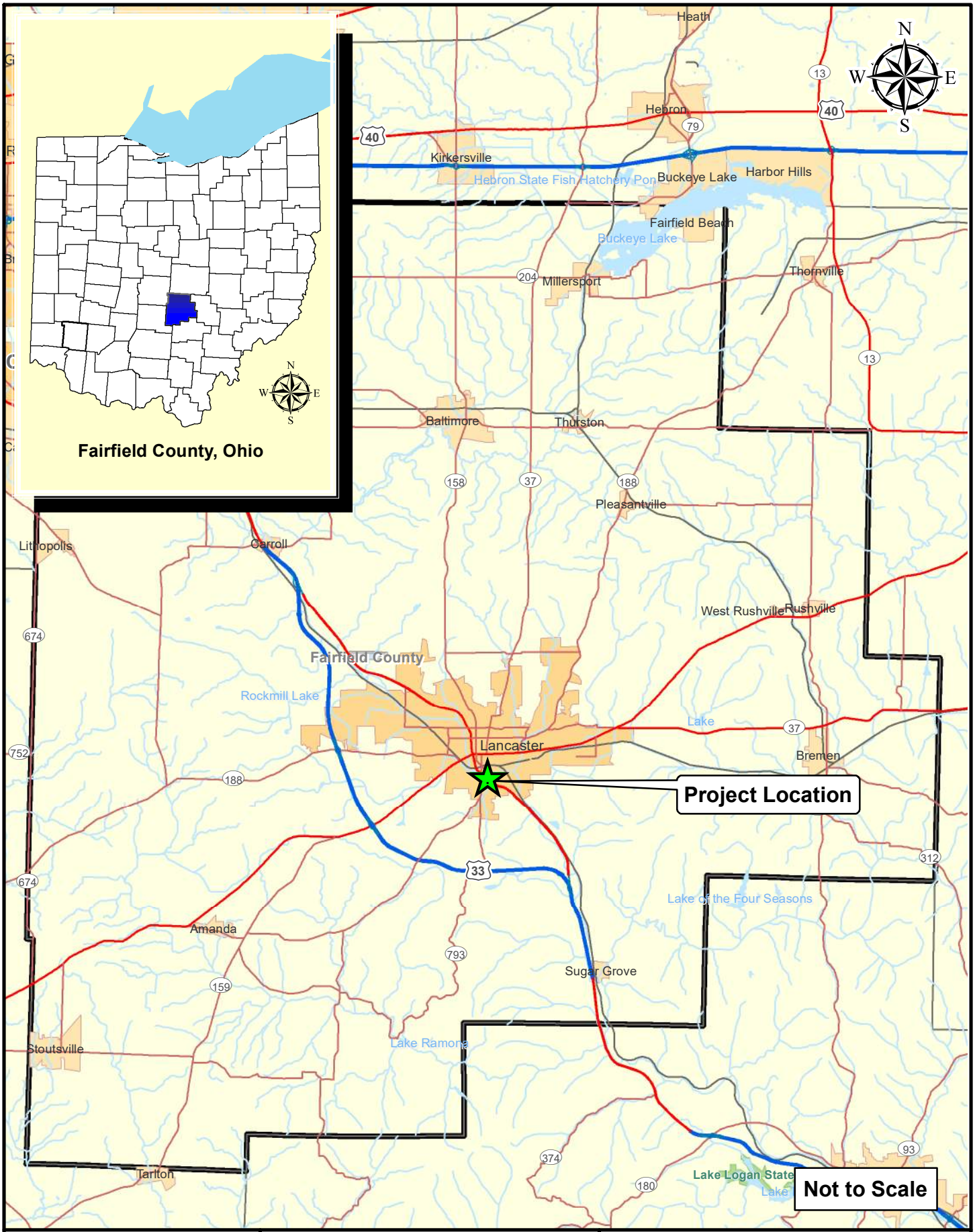
Census Block # 390450313001



Alternative 3C

Mapping

Project Location Map
USGS Topographic Map
2022 Aerial Photography Map
2005 Fairfield County Soil Survey Map
National Wetland Inventory Map
Ohio Wetland Inventory Map
FEMA 100-Year Floodplain Map



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AMERICAN STRUCTUREPOINT INC.

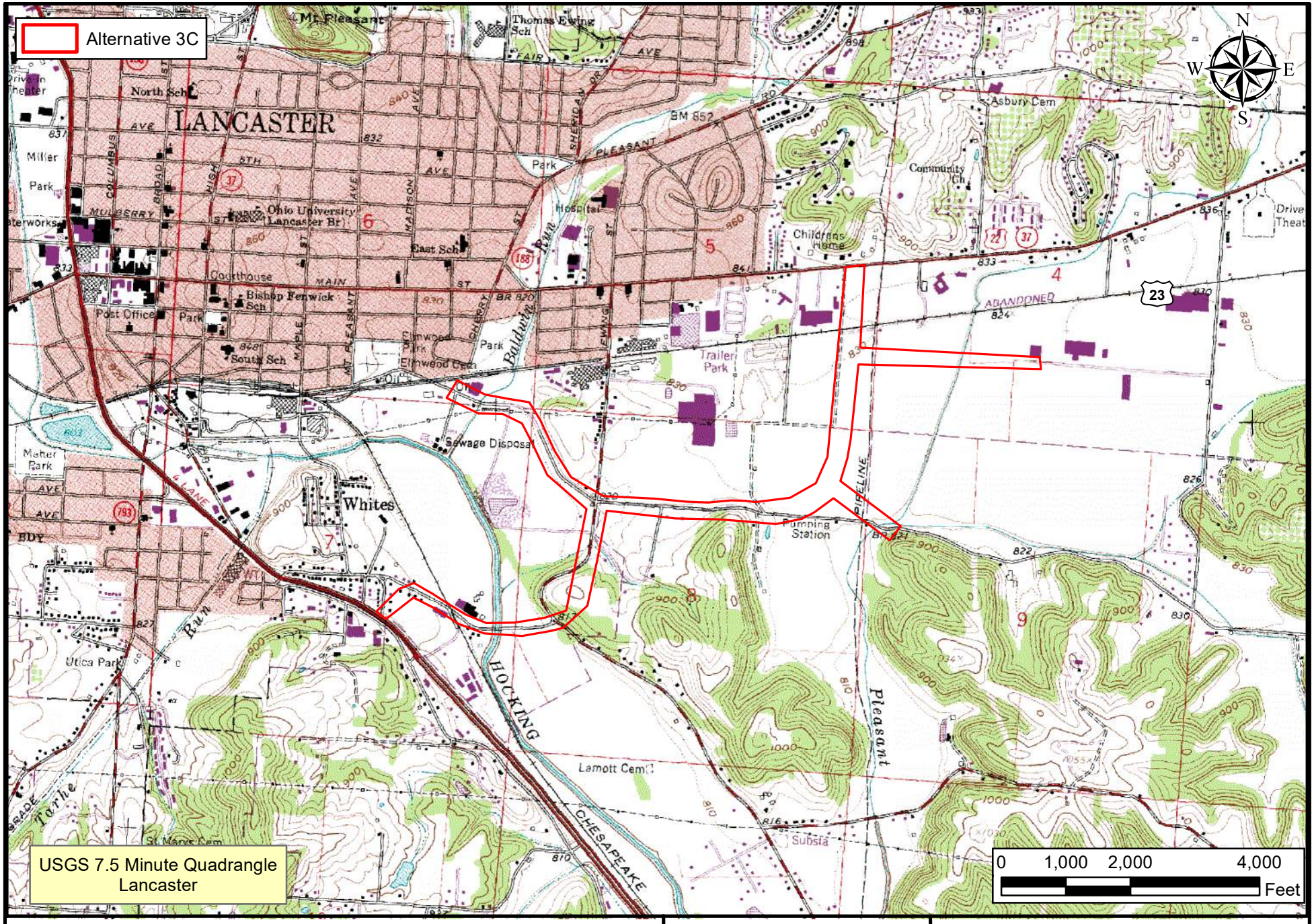
Project Location Map

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 3C

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

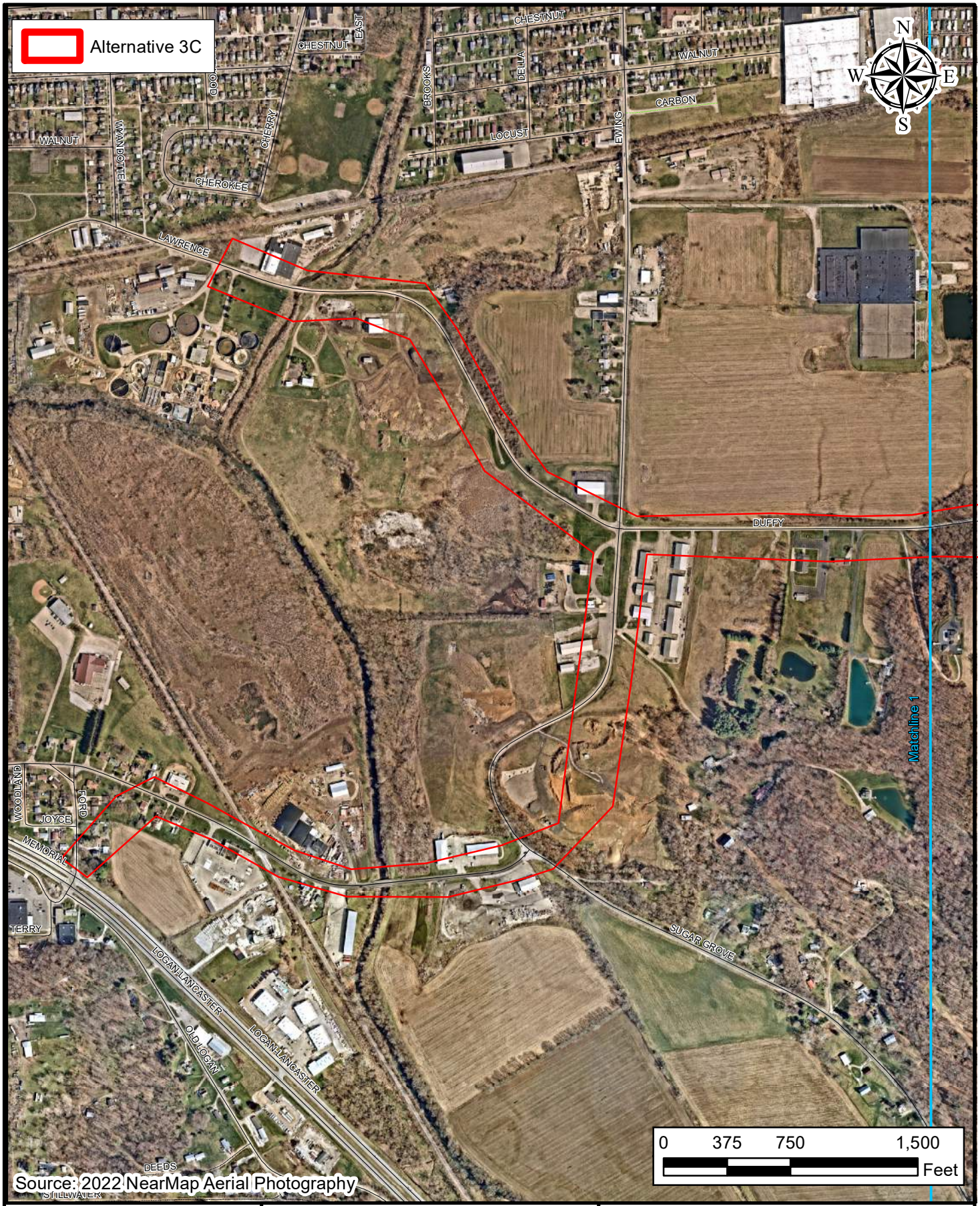
USGS Topographic Map

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 3C

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/11/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

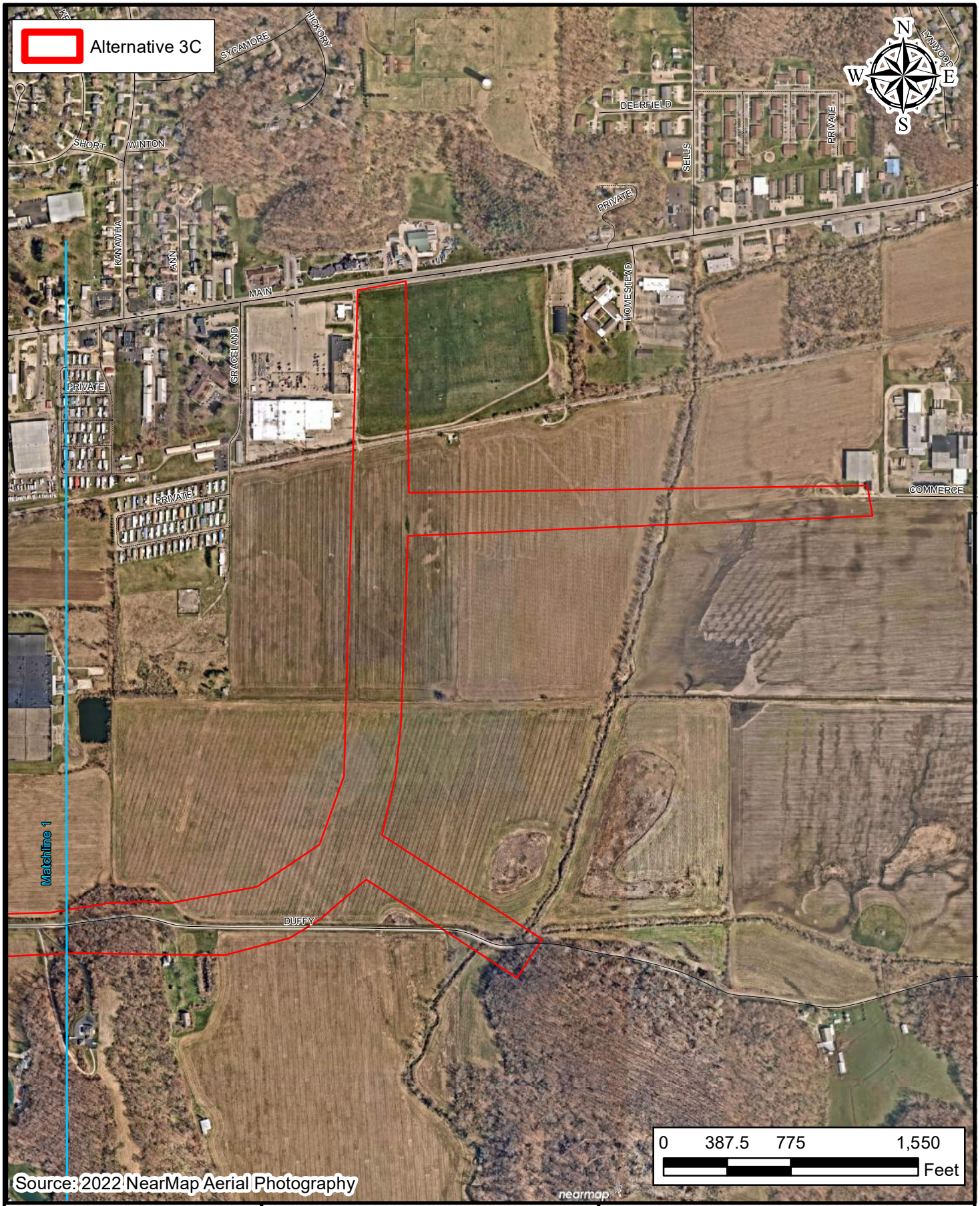
Aerial Map (1 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 3C

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

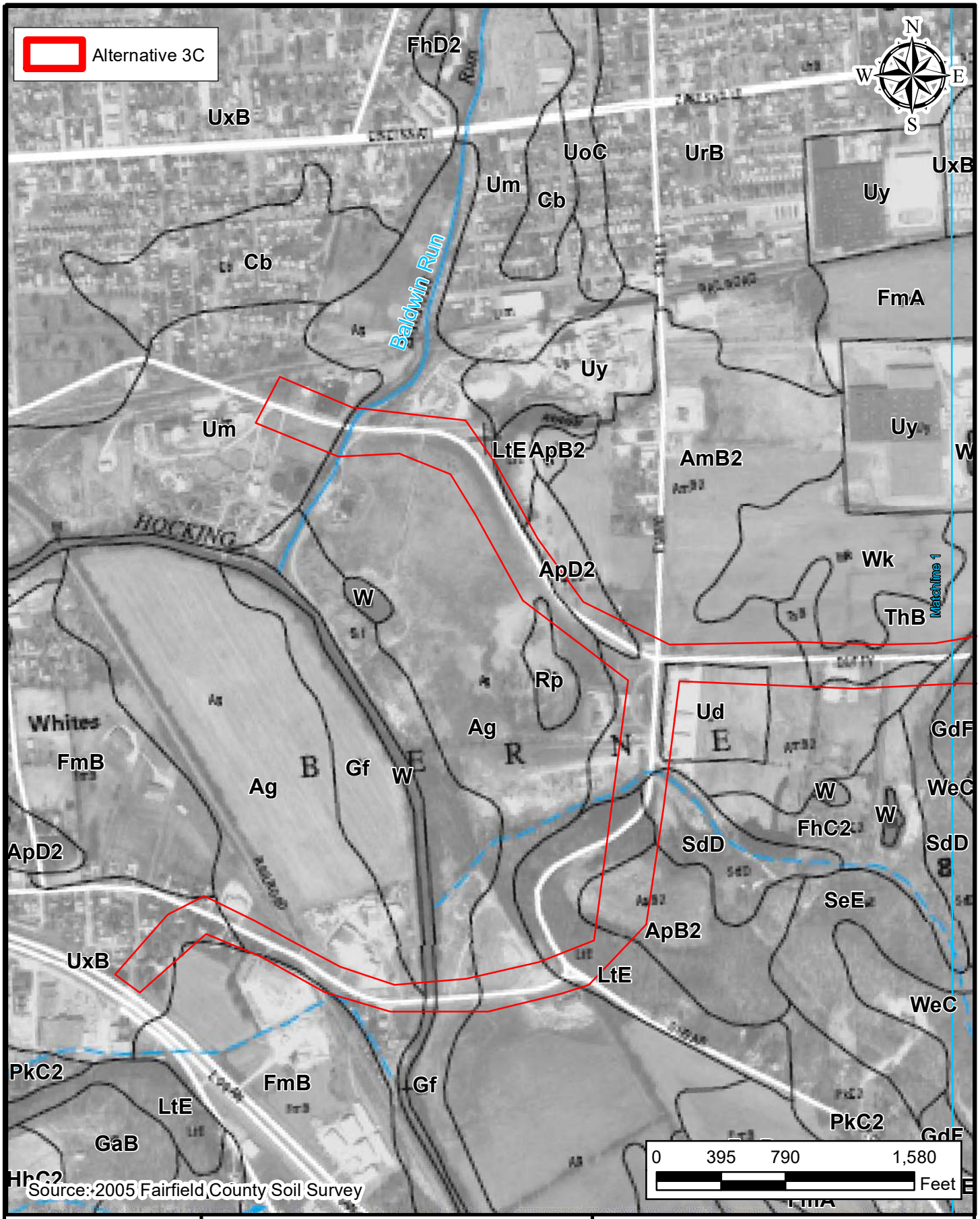
Aerial Map (2 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

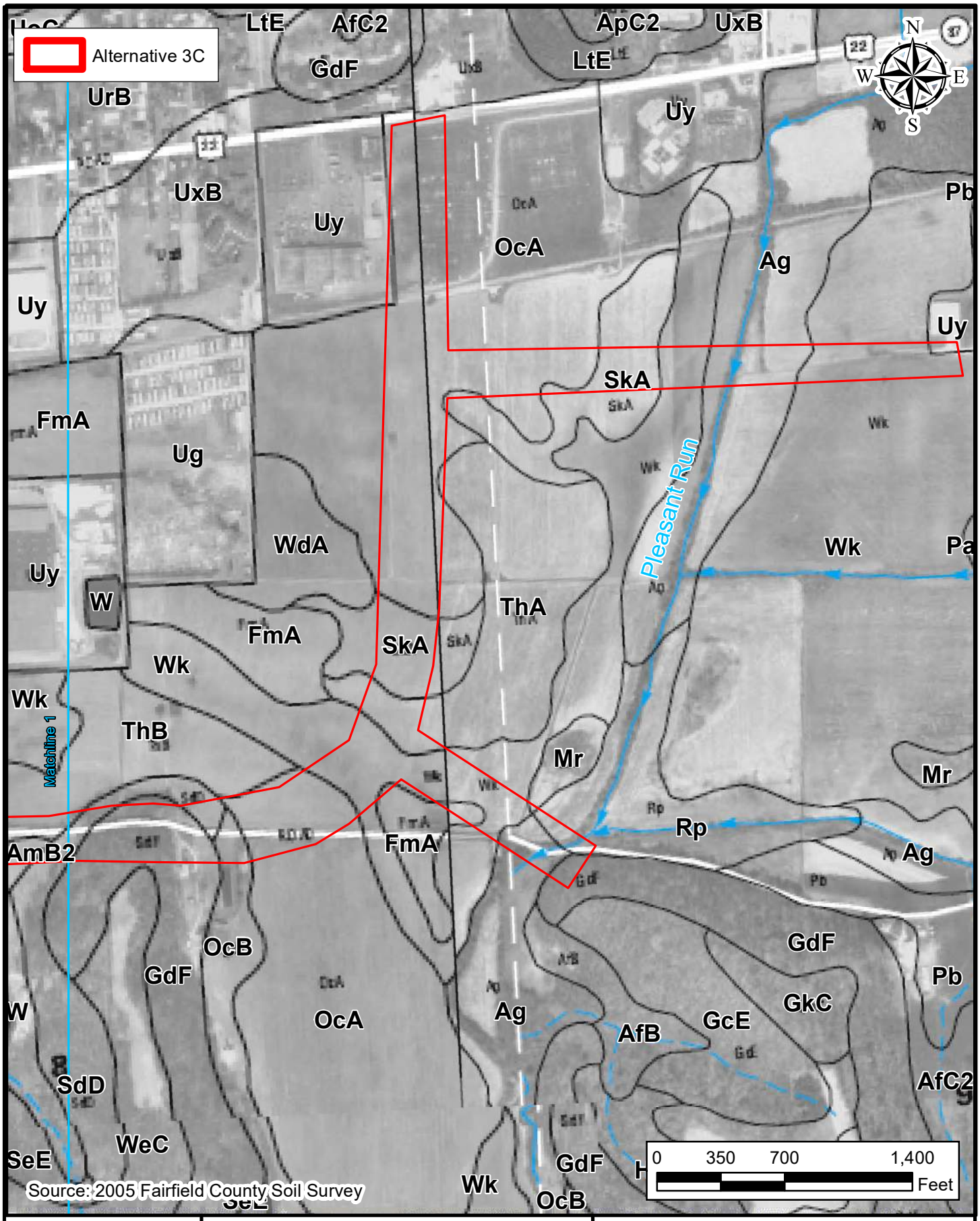
Eastside Industrial Connector - Alternative 3C

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

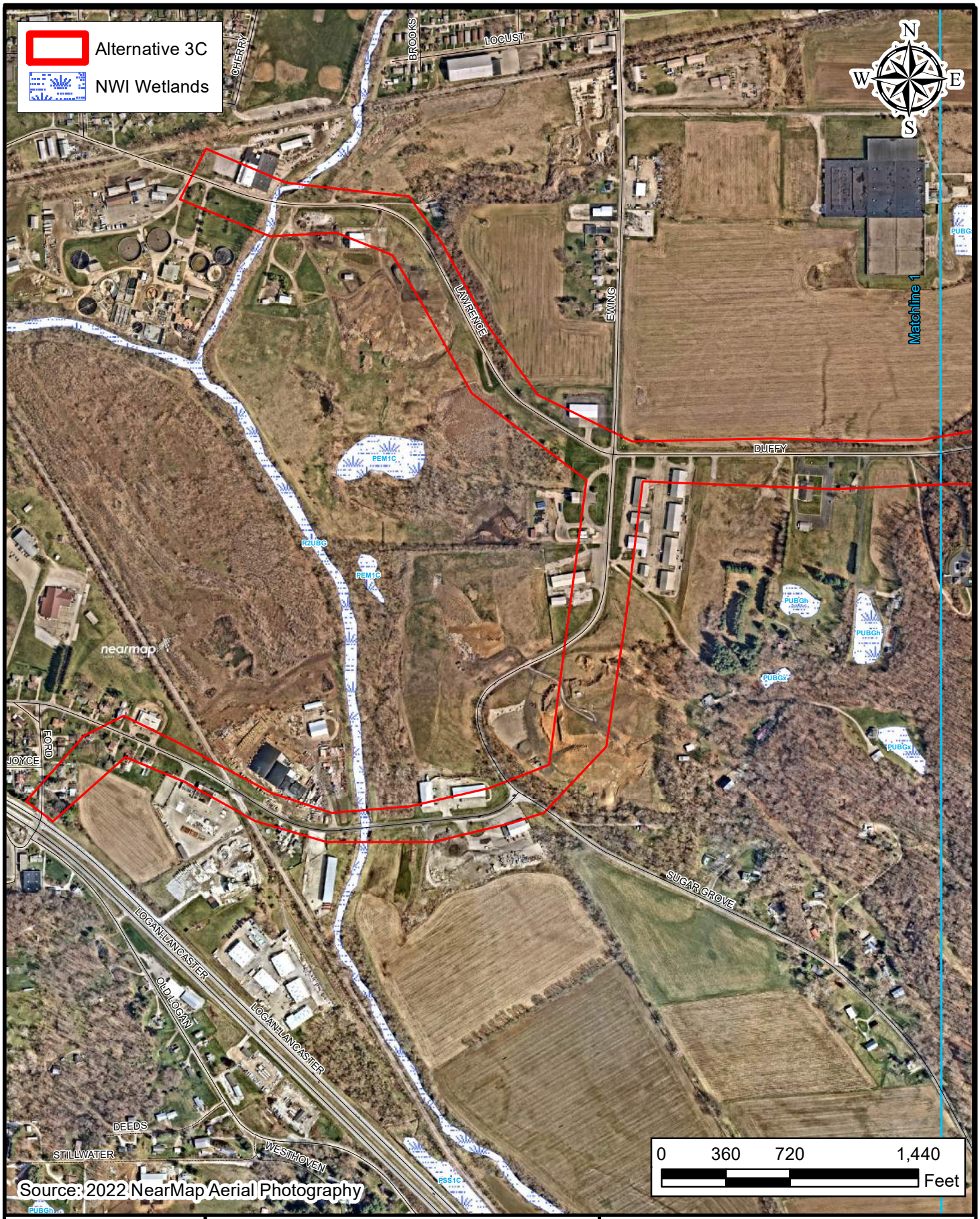
Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC. www.structurepoint.com	2005 Fairfield County Soil Survey Map (1 of 2) Client: City of Lancaster 121 East Chestnut Street, Suite 100 Lancaster, Ohio 43130	Eastside Industrial Connector – Alternative 3C Location: Lancaster Township: Berne County: Fairfield State: Ohio Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC. www.structurepoint.com	2005 Fairfield County Soil Survey Map (2 of 2) Client: City of Lancaster 121 East Chestnut Street, Suite 100 Lancaster, Ohio 43130	Eastside Industrial Connector – Alternative 3C Location: Lancaster Township: Berne County: Fairfield State: Ohio Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC
www.structurepoint.com

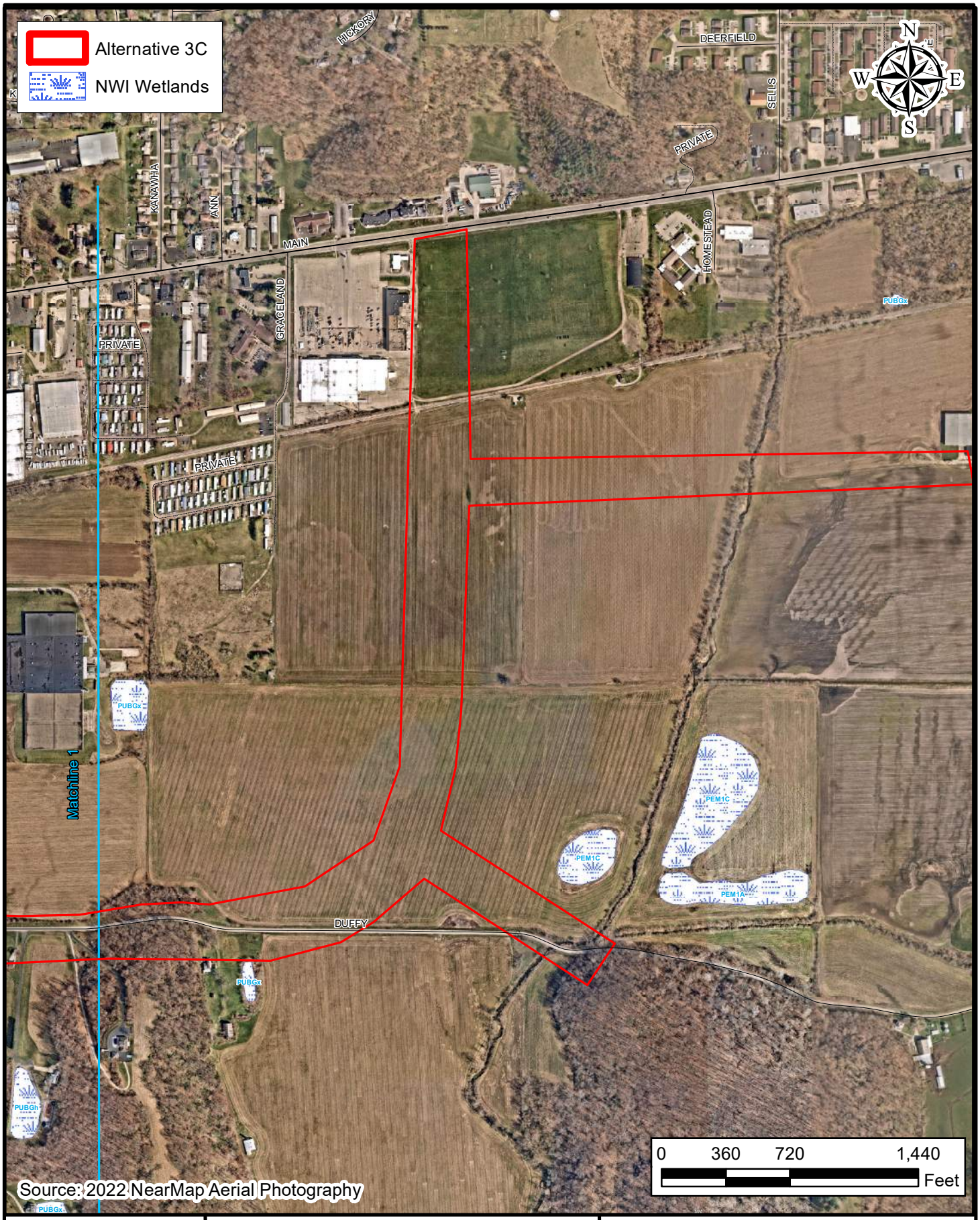
National Wetland Inventory Map (1 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 3C

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC
www.structurepoint.com

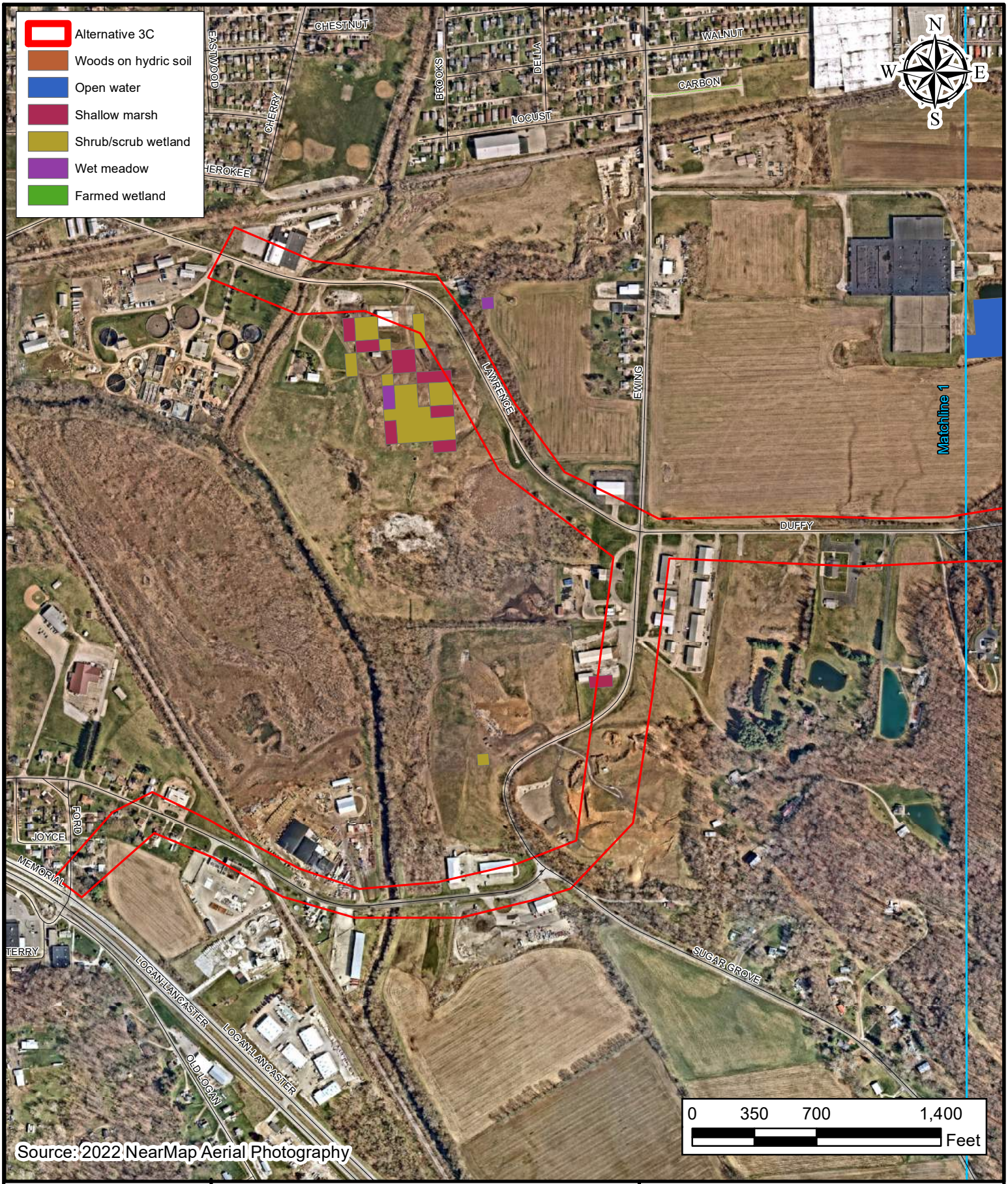
National Wetland Inventory Map (2 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 3C

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

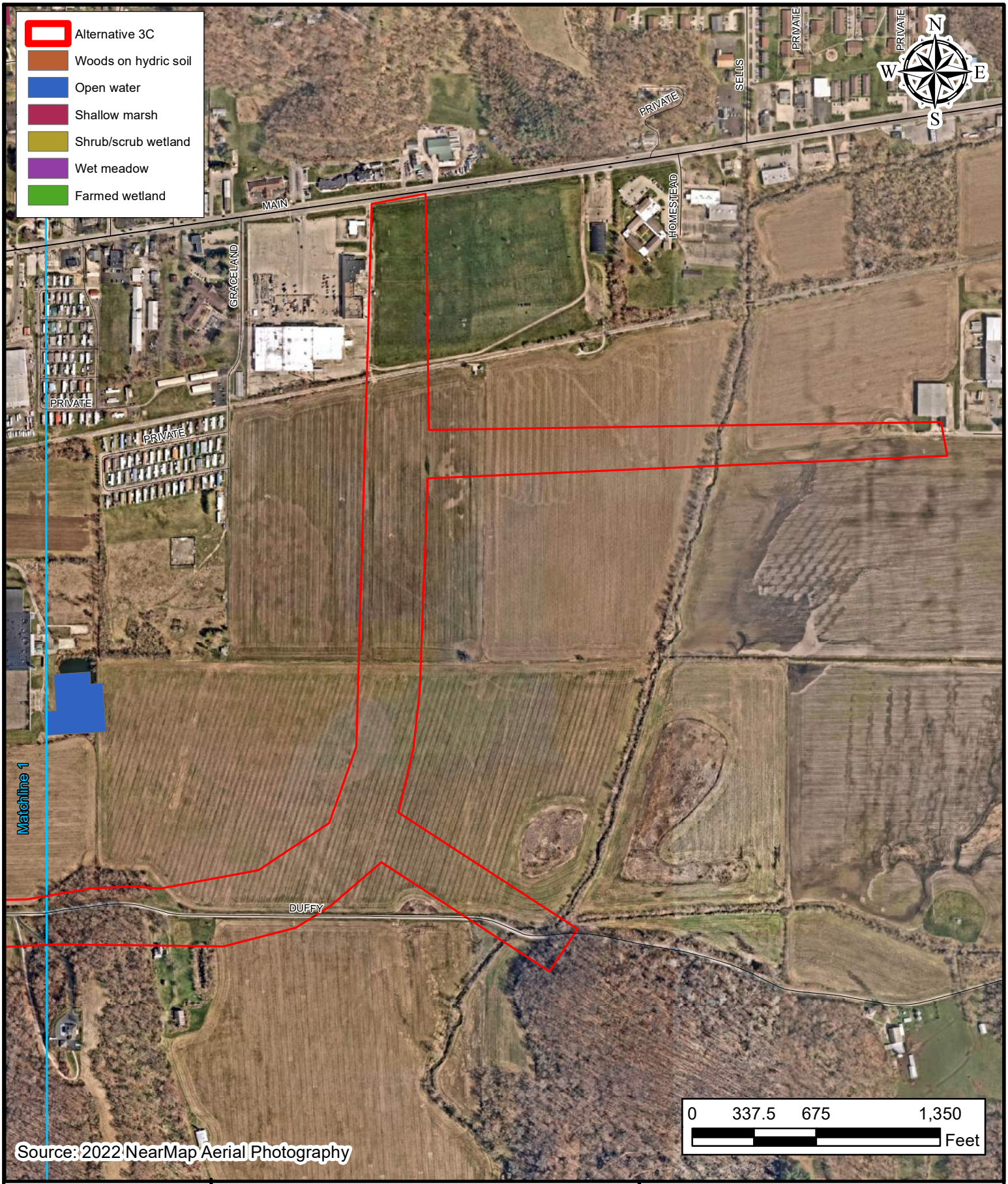
Ohio Wetland Inventory Map (1 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 3C

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

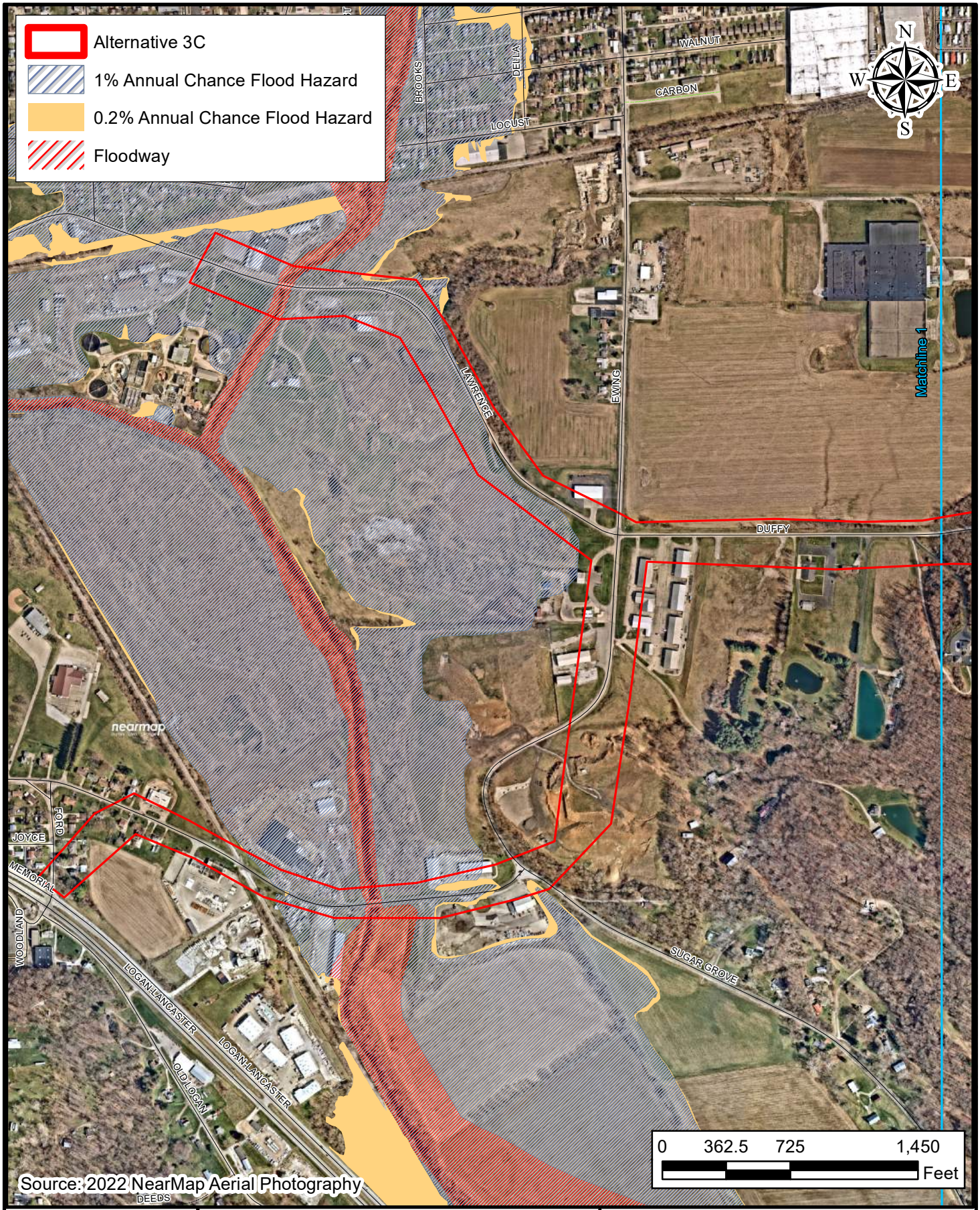
Ohio Wetland Inventory Map (2 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 3C

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

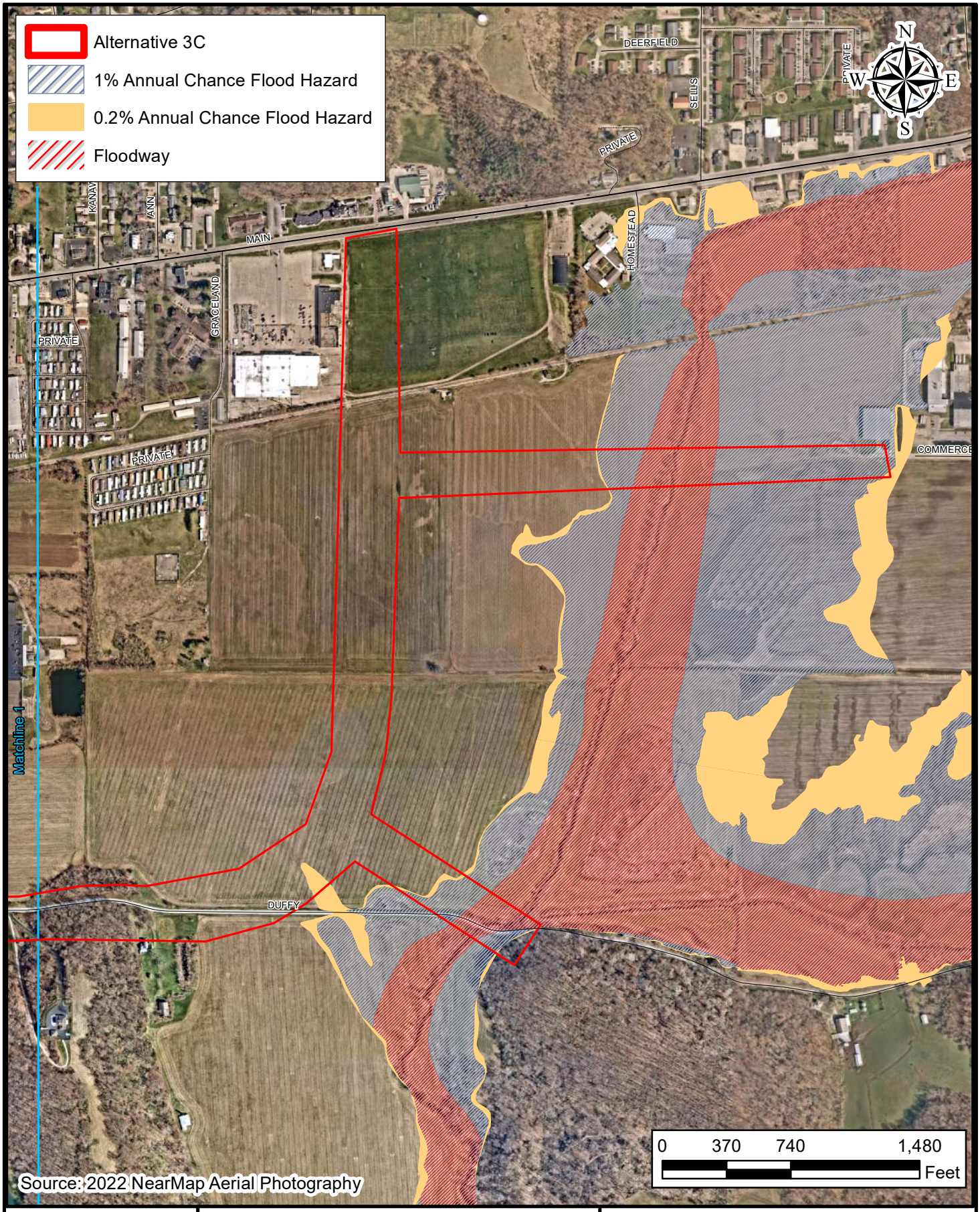
FEMA 100-Year Floodplain Map (1 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 3C

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022



AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

FEMA 100-Year Floodplain Map (2 of 2)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 3C

Location: Lancaster
Township: Berne
County: Fairfield
State: Ohio

Date: 08/12/2022

Alternative 3C

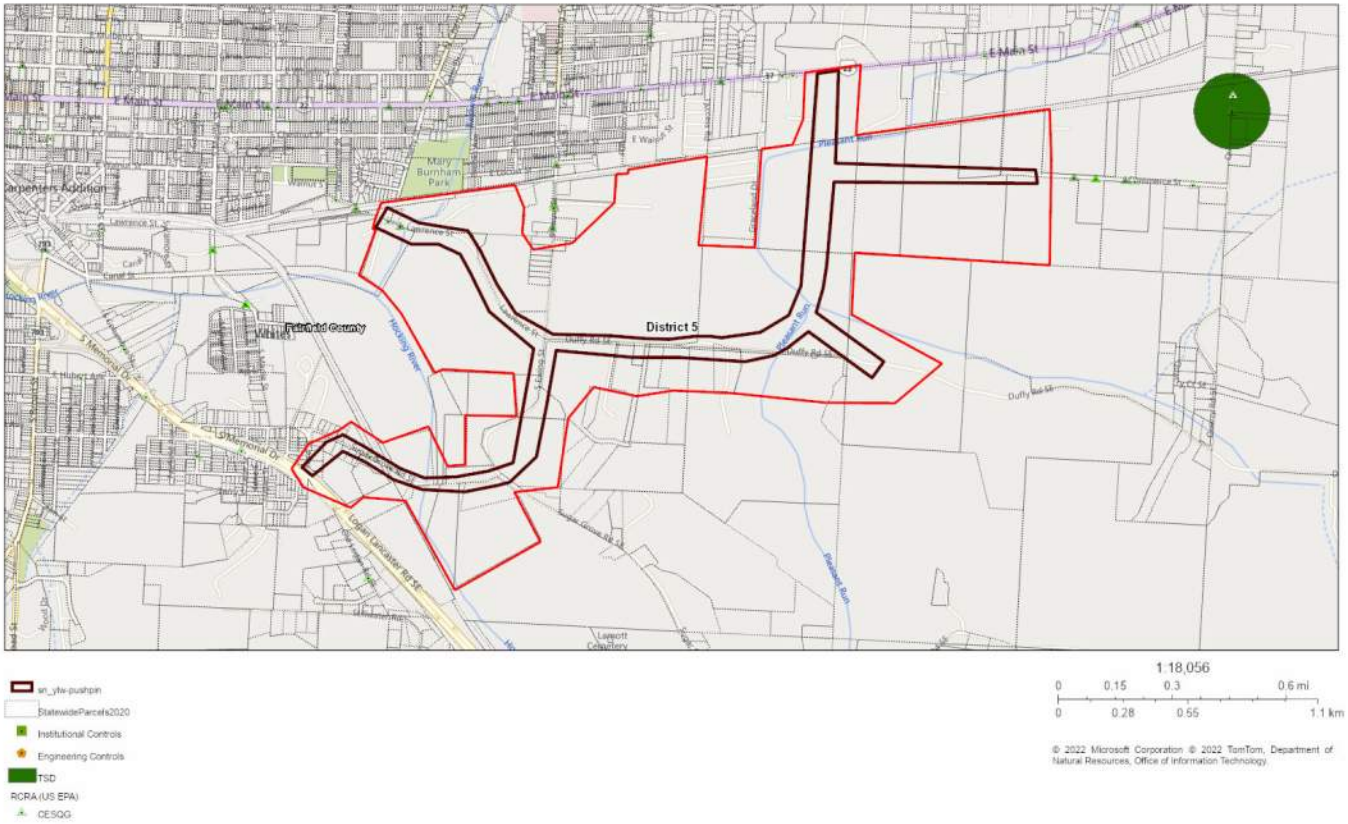
Hazardous Materials Records Summary

ORPS Summary Report Alternative 3C

Area of Interest (AOI) Information

Area : 677.95 acres

Aug 15 2022 16:00:24 Eastern Daylight Time



Summary

Name	Count	Area(acres)	Length(ft)
SEMS - Non-NPL Sites w/buffer (US EPA)	0	0	N/A
SEMS - NPL Sites w/buffer (US EPA)	0	0	N/A
RCRA (US EPA)	3	N/A	N/A
RCRA - TSD Sites w/buffer (US EPA)	0	0	N/A
Federal Engineering Controls (US EPA)	0	N/A	N/A
Federal Institutional Controls (US EPA)	0	N/A	N/A
BUSTR - UST Locations (BUSTR/OGRIP)	0	N/A	N/A
BUSTR - LUST Locations (BUSTR/OGRIP)	4	N/A	N/A
Coal Gas Generators (OEPA-DERR)	0	N/A	N/A
DERR Database (OEPA-DERR)	5	N/A	N/A
Impoundment Sites (OEPA-DERR)	0	N/A	N/A
Landfills - Active Solid Waste Facilities w/buffer (OEPA-DMWM)	0	0	N/A
Landfills - Historic/Abandoned Facilities w/buffer (OEPA-DMWM/DERR)	2	9.81	N/A
Landfills - Solid Waste Facility Polygons (OEPA-DMWM)	0	0	N/A
Projects With Engineering Controls (OEPA-DERR)	0	N/A	N/A
Projects With Institutional Controls (OEPA-DERR)	0	N/A	N/A
Spills Database (OEPA)	0	N/A	N/A
VAP Sites (OEPA-DERR)	8	N/A	N/A
Potential Areas of Concern (ODOT-OES)	0	0	N/A

RCRA (US EPA)

#	REGISTRY_ID	PRIMARY_NAME	ADDRESS	CITY	STATE	ZIP	LAST_REPORTED_DATE	URL
1	110000381970	HEXCEL COMPOSITES	815 LAWRENCE ST.	LANCASTER	OH	43130	4/28/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110000381970
2	110000550458	LANCASTER WATER POLLUTION CONTROL	800 LAWRENCE ST	LANCASTER	OH	43130	10/16/2014	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110000550458
3	110004727430	AEP LANCASTER SERVICE CENTER *	1320 SUGAR GROVE RD SE	LANCASTER	OH	43130	4/28/2015	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110004727430

#	PGM_SYS_ID	PGM_SYS_ACRONYM	INTEREST_TYPE	REFERENCE_POINT_DESC	Count
1	OHD004289419	RCRAINFO	UNSPECIFIED UNIVERSE	CENTER OF A FACILITY OR STATION	1
2	OHD000772954	RCRAINFO	CESQG	CENTER OF A FACILITY OR STATION	1
3	OHR000028191	RCRAINFO	CESQG	CENTER OF A FACILITY OR STATION	1

BUSTR - LUST Locations (BUSTR/OGRIP)

#	FACILITY_ID	CURRENT_FACILITY_NAME	ADDRESS	CITY	ZIP	INCIDENT_ID	LTF	STATUS	FACILITY_STATUS	Count
1	23009761	ARROW CONCRETE	1750 LOGAN LANCASTER RD	LANCASTER	43130	N00001	6 Closure of regulated UST	NFA: No Further Action	Inactive	1
2	*No Data*	RYDER TRUCK RENTAL, INC.	480 S EWING ST	LANCASTER	43130	*No Data*	1 SUS/CON from regulated UST	NFA: No Further Action	Inactive	1
3	*No Data*	OHIO POWER CO.	1320 SUGAR GROVE RD	LANCASTER	43130	*No Data*	6 Closure of regulated UST	NFA: No Further Action	Inactive	1
4	*No Data*	LANCASTER FIRE DEPT	1596 E MAIN ST	LANCASTER	43130	*No Data*	6 Closure of regulated UST	NFA: No Further Action	Inactive	1

DERR Database (OEPA-DERR)

#	DERR_ID	NAME	ALIAS	ADDRESS	CITY	ZIP	CERCLIS_ID	ACTIVITY
1	123001649	Hexcel Corp, Lancaster	*No Data*	815 Lawrence St	Lancaster	43130	OHD004289419	SA
2	123001188	Anchor Hocking Plt No 2 Former, Lancaster	*No Data*	403 S Ewing St	Lancaster	43130	OHD042314898	COF, SA, RR, VAP
3	123001188	Anchor Hocking Plt No 2 Former, Lancaster	1390 N Bridge St, Chillicothe	403 S Ewing St	Lancaster	43130	OHD042314898	COF, SA, RR, VAP
4	123002202	East Lancaster Development Corridor USD	Muddy Crk, Cincinnati, 6125 River Rd	104 E Main St Lawarence,Ewing,Conrail,Ewing,Walnut,Fulkerson,Con	Lancaster	43130	*No Data*	*No Data*
5	123002202	East Lancaster Development Corridor USD	*No Data*	104 E Main St Lawarence,Ewing,Conrail,Ewing,Walnut,Fulkerson,Con	Lancaster	43130	*No Data*	*No Data*

#	OEPA_DISTRICT	EDOCS_LINK	Count
1	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001649	1
2	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001188	1
3	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001188	1
4	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123002202	1
5	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123002202	1

Landfills - Historic/Abandoned Facilities w/buffer (OEPA-DMWM/DERR)

#	LATITUDE	LONGITUDE	SITE	ALT SITE NAME/LOCATION	COUNTY	WASTE_TYPE	YEAR_CLOSED	SECONDARY_ID
1	39.70559	-82.5817	Stonewall Cemetary LF	Lancaster Stonewall Cemetary Rd Lf	Fairfield	MSW	0	MSWL020051
2	39.708333	-82.569444	TAYLOR DEMOLITION & WASTE SITE AKA BILL TAYLOR LDFL	SOUTH SIDE OF MAIN STREET (US-22), 2 MILES SE OF US-22 AND SR-33.	FAIRFIELD	GLASS CULLET	*No Data*	*No Data*

#	SWLF_ID	DATABASE	OEPA_DISTRICT	EDOCS_LINK	Area(acres)
1	*No Data*	Historic	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/MSWL020051	6.51
2	230001	Abandoned	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/00	3.30

VAP Sites (OEPA-DERR)

#	SITE_ID	NAME	ALIAS_NAME	ADDRESS	ADDRESS2	CITY	ZIP	PROJECT_TYPE
1	123002202	East Lancaster Development Corridor USD	*No Data*	104 E Main St	Lawarence,Ewing,Conrail,Ewing,Walnut,Fulkerson,Con	Lancaster	43130	USD Inspection
2	123001188	Anchor Hocking Plt No 2 Former, Lancaster	*No Data*	403 S Ewing St	*No Data*	Lancaster	43130	VAP Technical Assistance
3	123001188	Anchor Hocking Plt No 2 Former, Lancaster	*No Data*	403 S Ewing St	*No Data*	Lancaster	43130	NFA 90 Day
4	123001188	Anchor Hocking Plt No 2 Former, Lancaster	*No Data*	403 S Ewing St	*No Data*	Lancaster	43130	Risk Mitigation Plan Oversight
5	123001188	Anchor Hocking Plt No 2 Former, Lancaster	*No Data*	403 S Ewing St	*No Data*	Lancaster	43130	VAP Operation & Maintenance
6	123001188	Anchor Hocking Plt No 2 Former, Lancaster	*No Data*	403 S Ewing St	*No Data*	Lancaster	43130	VAP Institutional Control Inspection
7	123002202	East Lancaster Development Corridor USD	Muddy Crk, Cincinnati, 6125 River Rd	104 E Main St	Lawarence,Ewing,Conrail,Ewing,Walnut,Fulkerson,Con	Lancaster	43130	Urban Setting Designation

#	OEPA_DISTRICT	EDOCS_LINK	Count
1	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123002202	2
2	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001188	1
3	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001188	1
4	CDO	https://edocpub.epa.ohio.gov/ODOTService/api/DocPop/123001188	1
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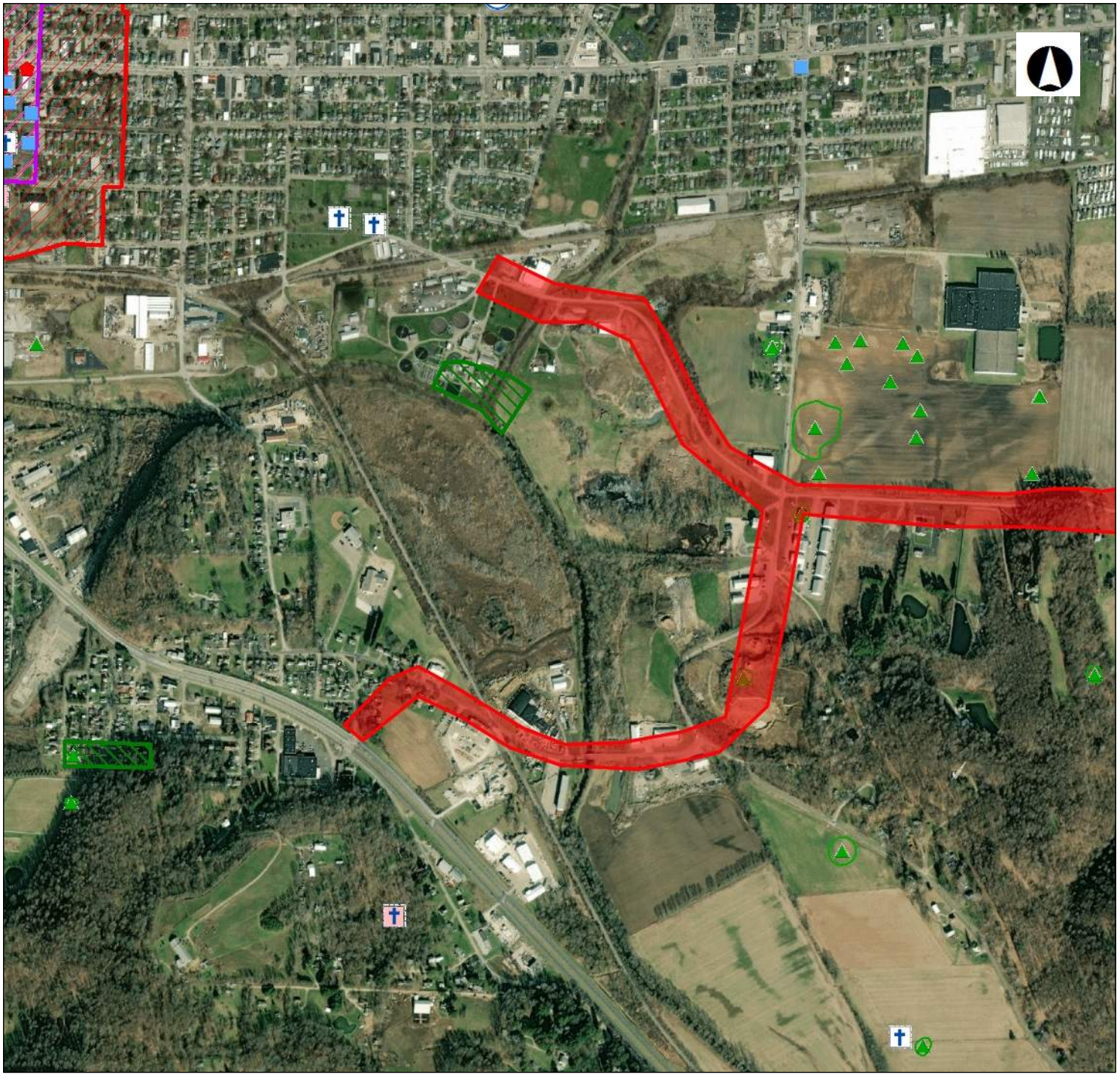
Alternative 3C

Cultural Resources and Other Environmental Resources

Alternative 3C



State Historic Preservation Office

Legend

- NR Listings
  - Listed
  - National Historic Landmark
  - Delisted
- Determinations of Eligibility
  - DOE
  - Demolished
- Archaeological Sites
- Historic Structures
- Historic Bridges
- Historic Tax Credit Projects
- Local Designations
- OGS Cemeteries
  - Confident
  - Not Confident
- Local District Boundary
- Previously Surveyed Area
- National Register Boundary

0 0.22 0.44 Miles

1: 17,358

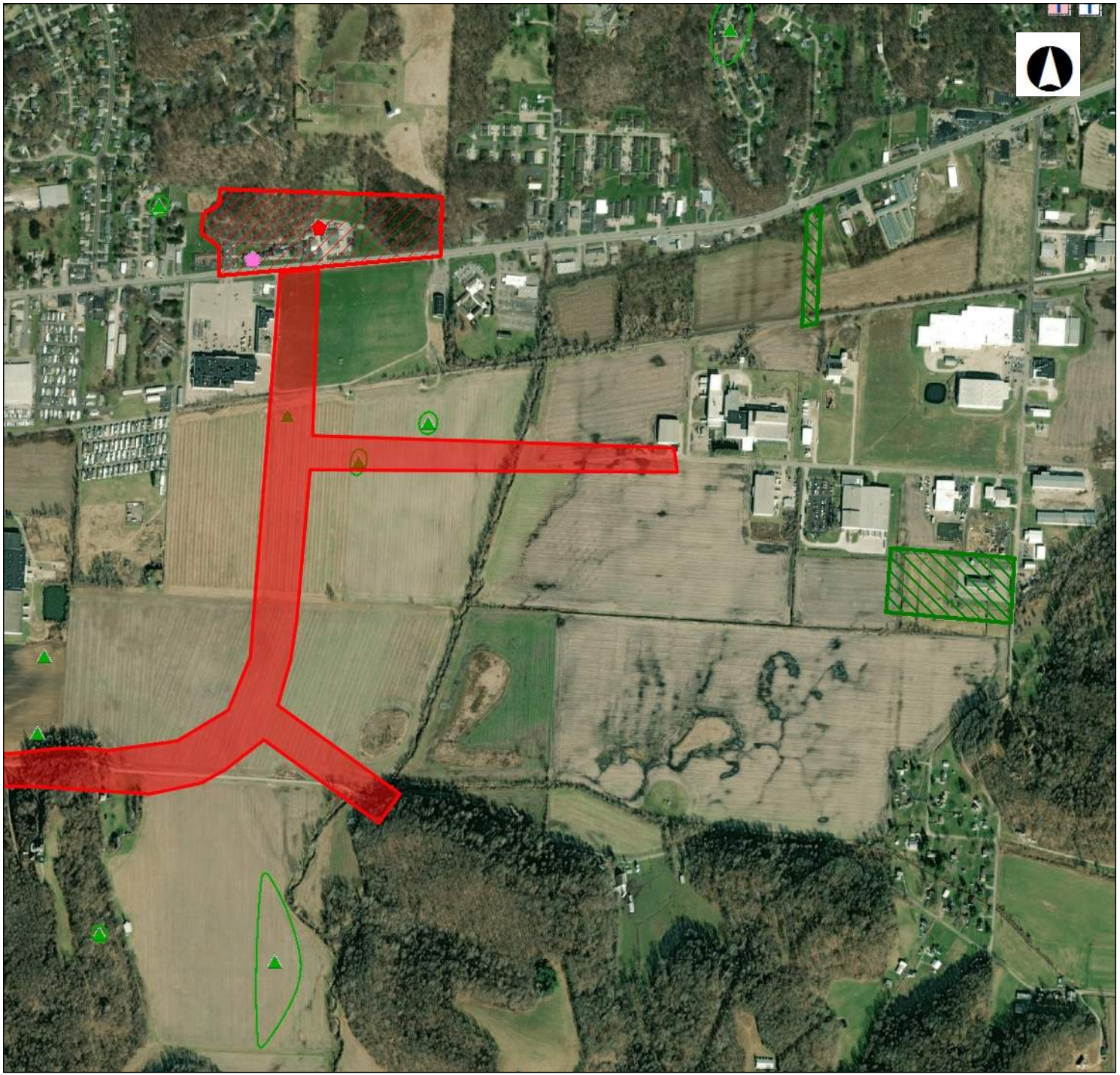
Copyright/Disclaimer

This map is a user generated static output from an Internet mapping site and is for generalThis map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Datum: [Datum]

Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

Alternative 3C



OHIO HISTORY CONNECTION
State Historic Preservation Office

Legend

- NR Listings
  - Listed
  - National Historic Landmark
  - Delisted
- Determinations of Eligibility
  - DOE
  - Demolished
- Archaeological Sites
- Historic Structures
- Historic Bridges
- Historic Tax Credit Projects
- Local Designations
- OGS Cemeteries
  - Confident
  - Not Confident
- Local District Boundary
- Previously Surveyed Area
- National Register Boundary

0 0.22 0.44 Miles

1: 17,358

Copyright/Disclaimer

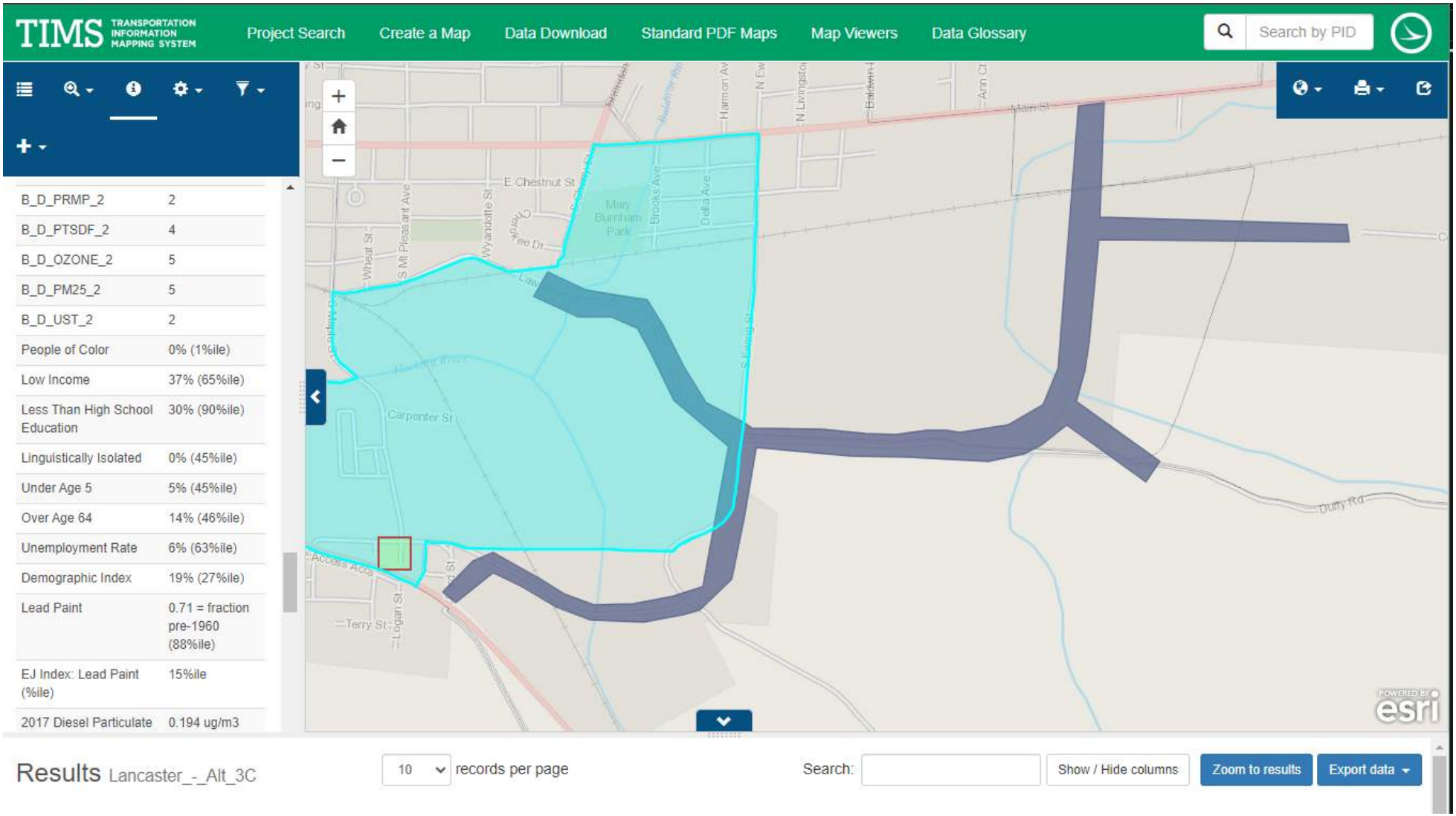
This map is a user generated static output from an Internet mapping site and is for generalThis map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Datum: [Datum]
Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

Alternative 3C

TIMS Mapping

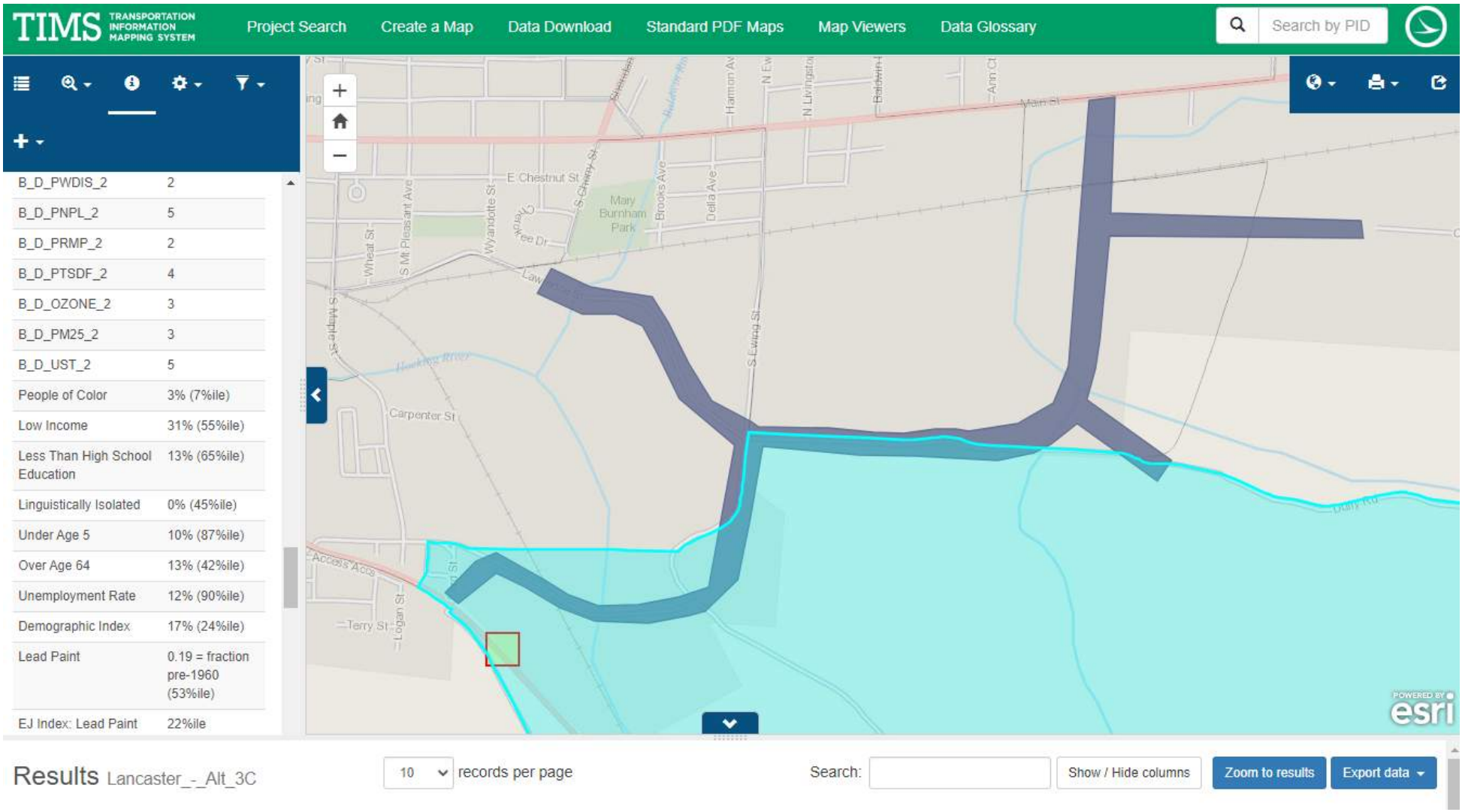
Census Block # 390450322001



Alternative 3C

TIMS Mapping

Census Block # 390450312001



Alternative 3C

TIMS Mapping

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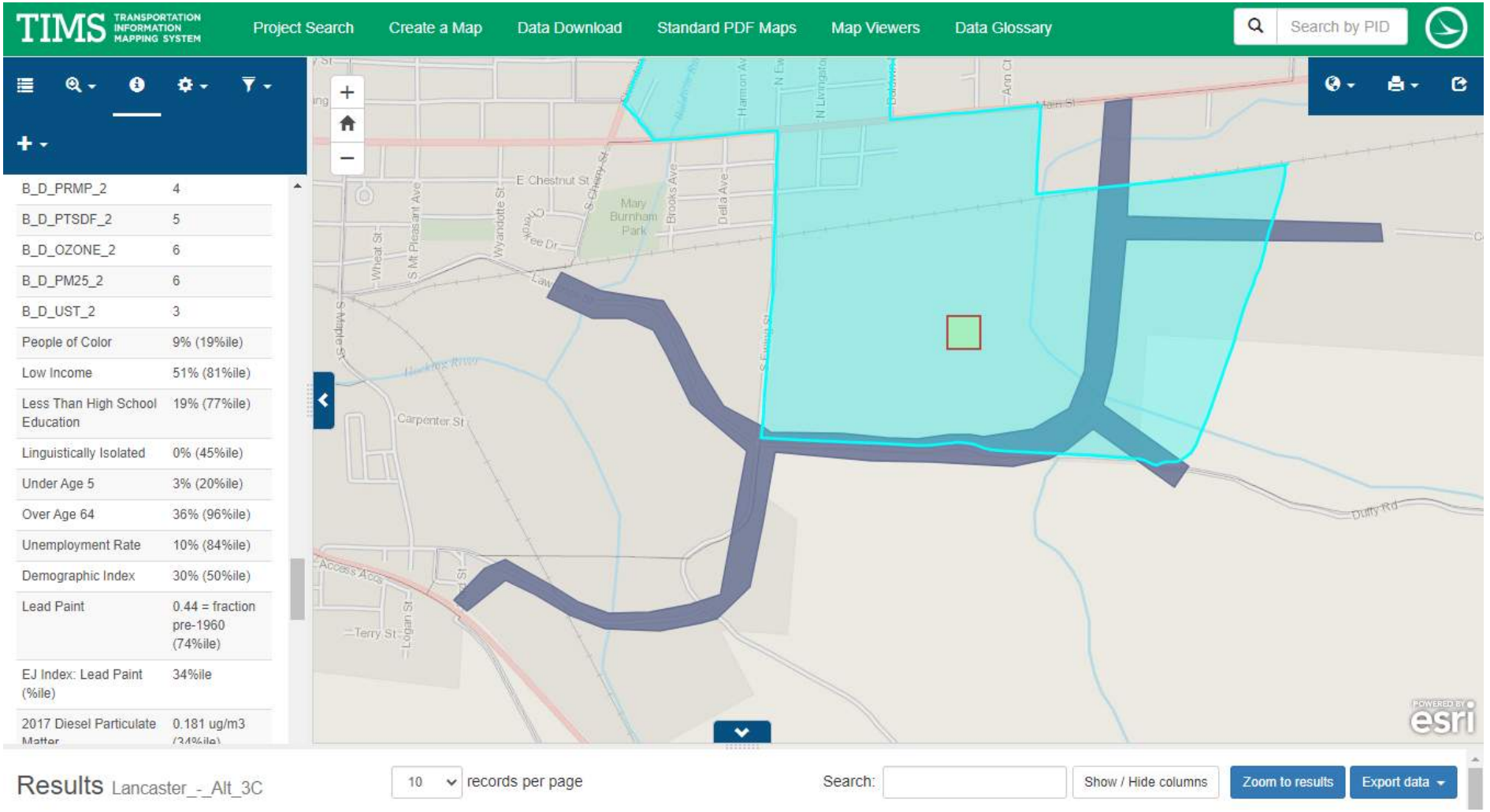

Alternative 3C

TIMS Mapping

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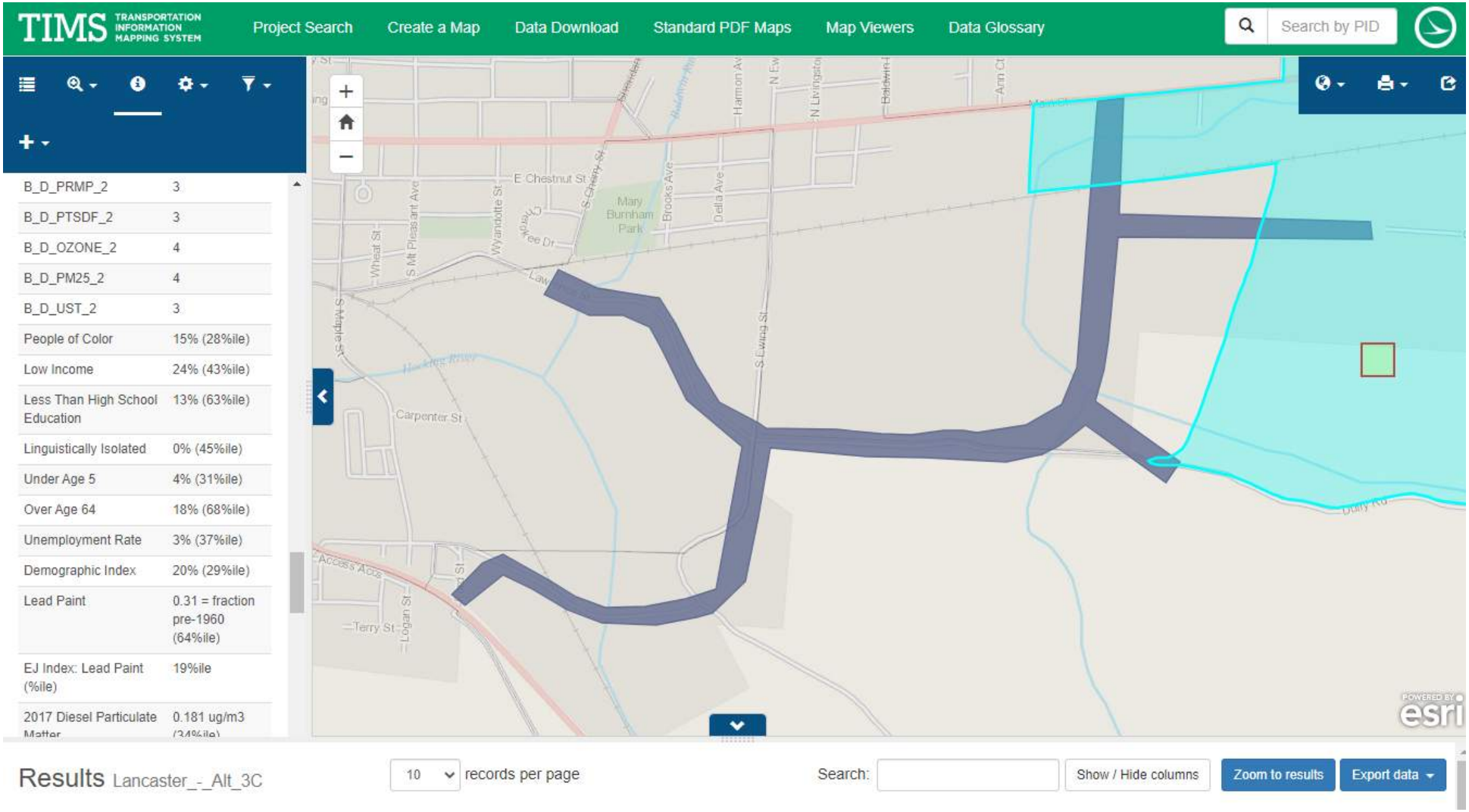
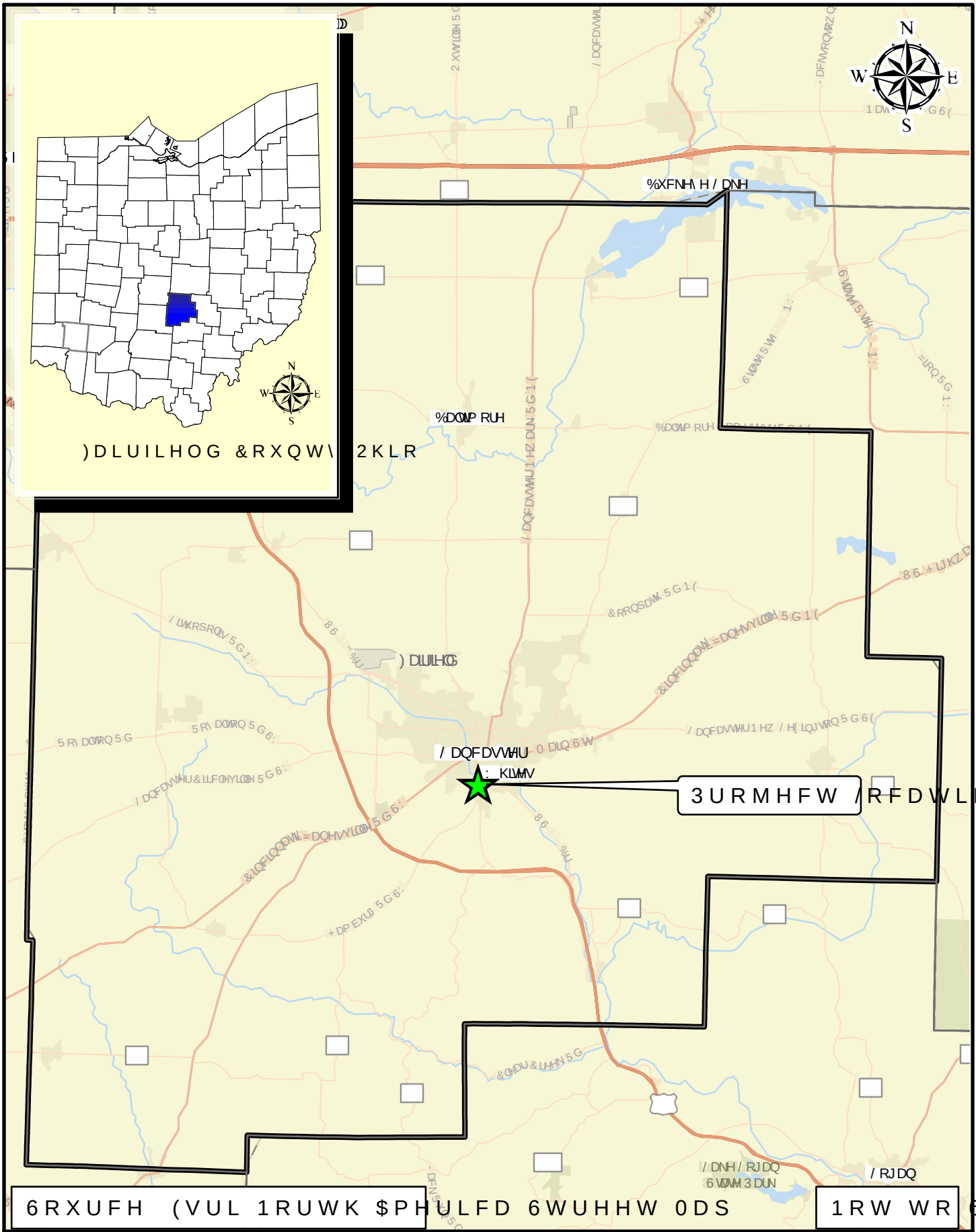


Alternative 7

Mapping

Project Location Map
USGS Topographic Map
2022 Aerial Photography Map
2005 Fairfield County Soil Survey Map
National Wetland Inventory Map
Ohio Wetland Inventory Map
FEMA 100-Year Floodplain Map



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AMERICAN STRUCTUREPOINT INC.

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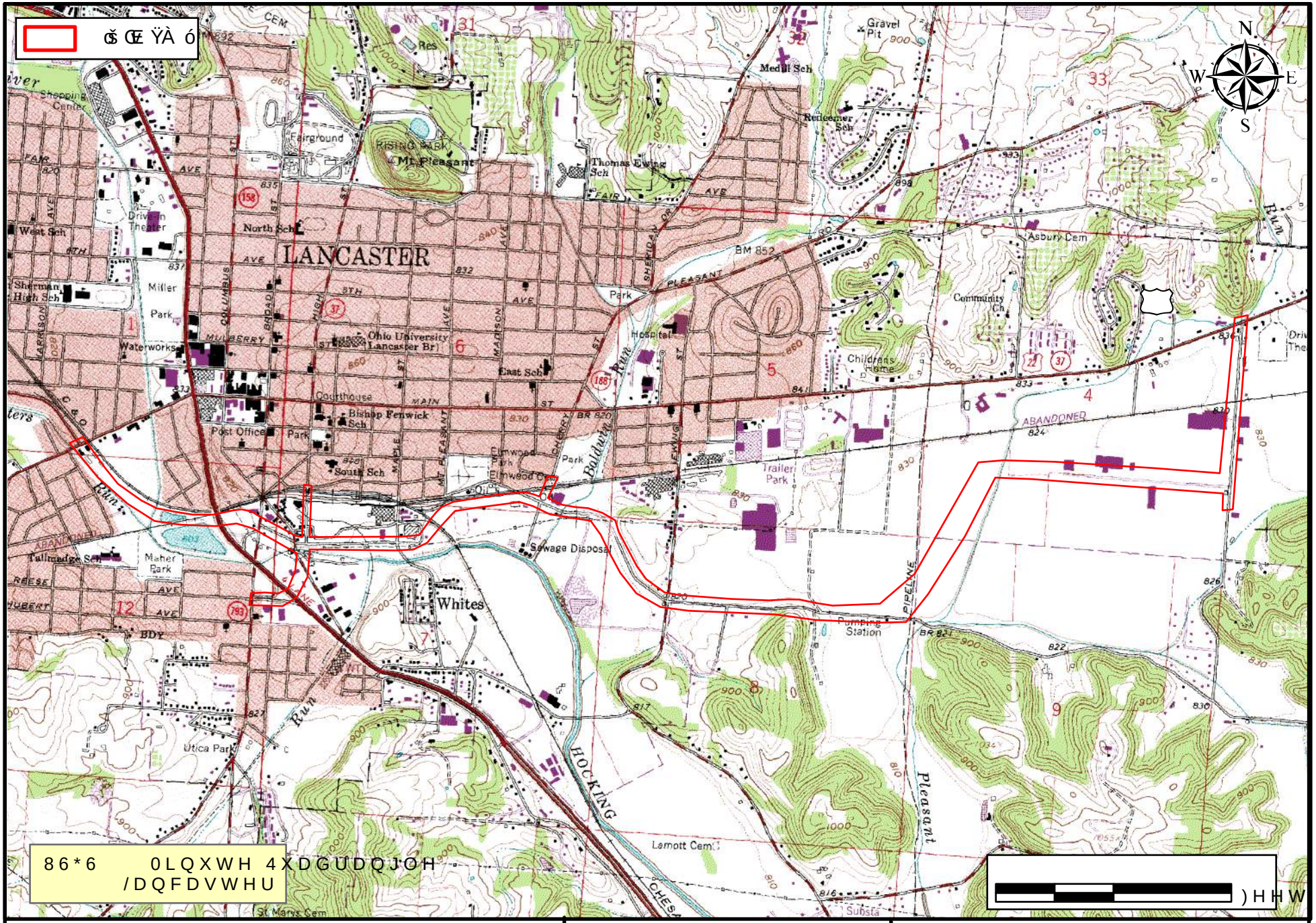

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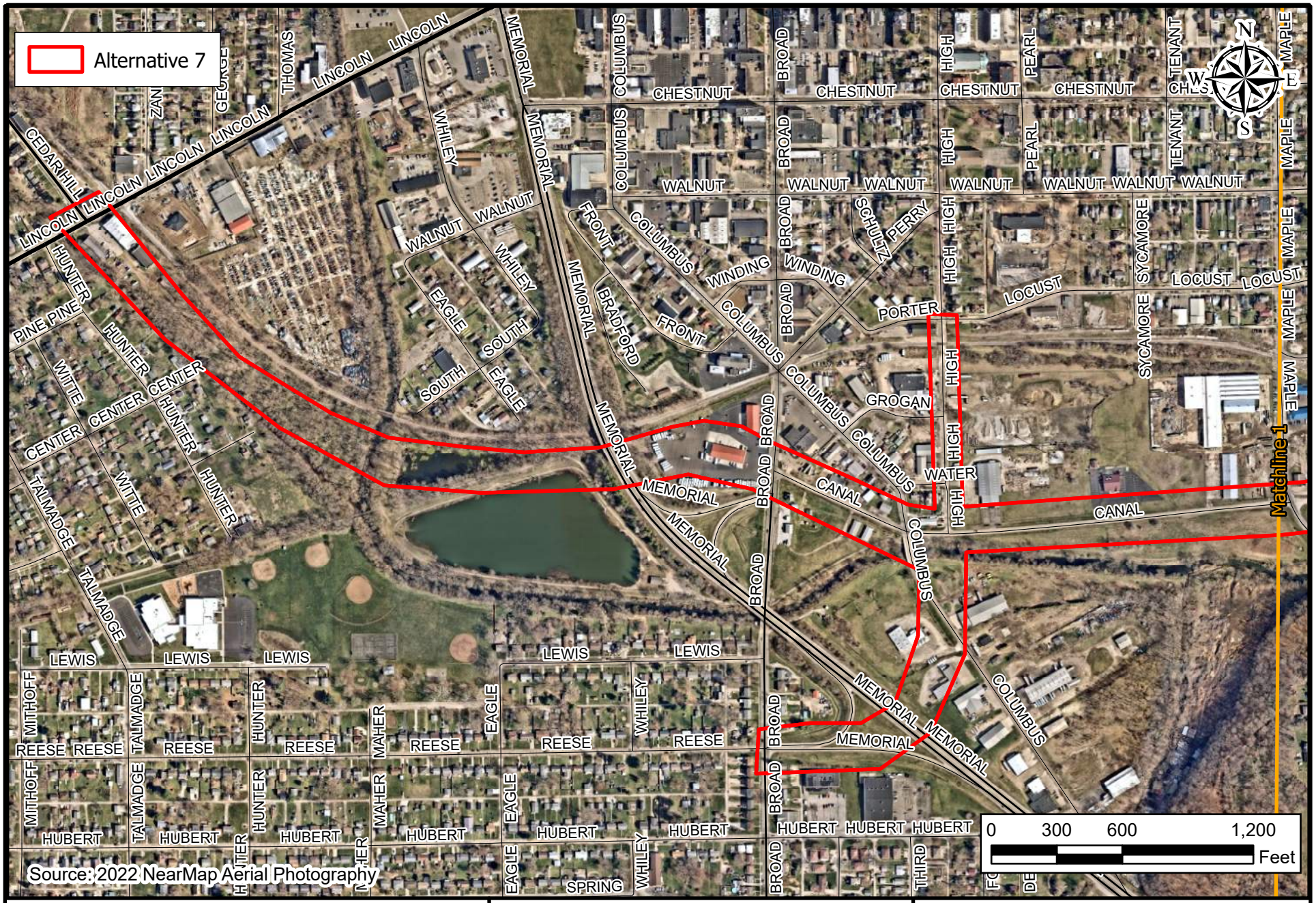

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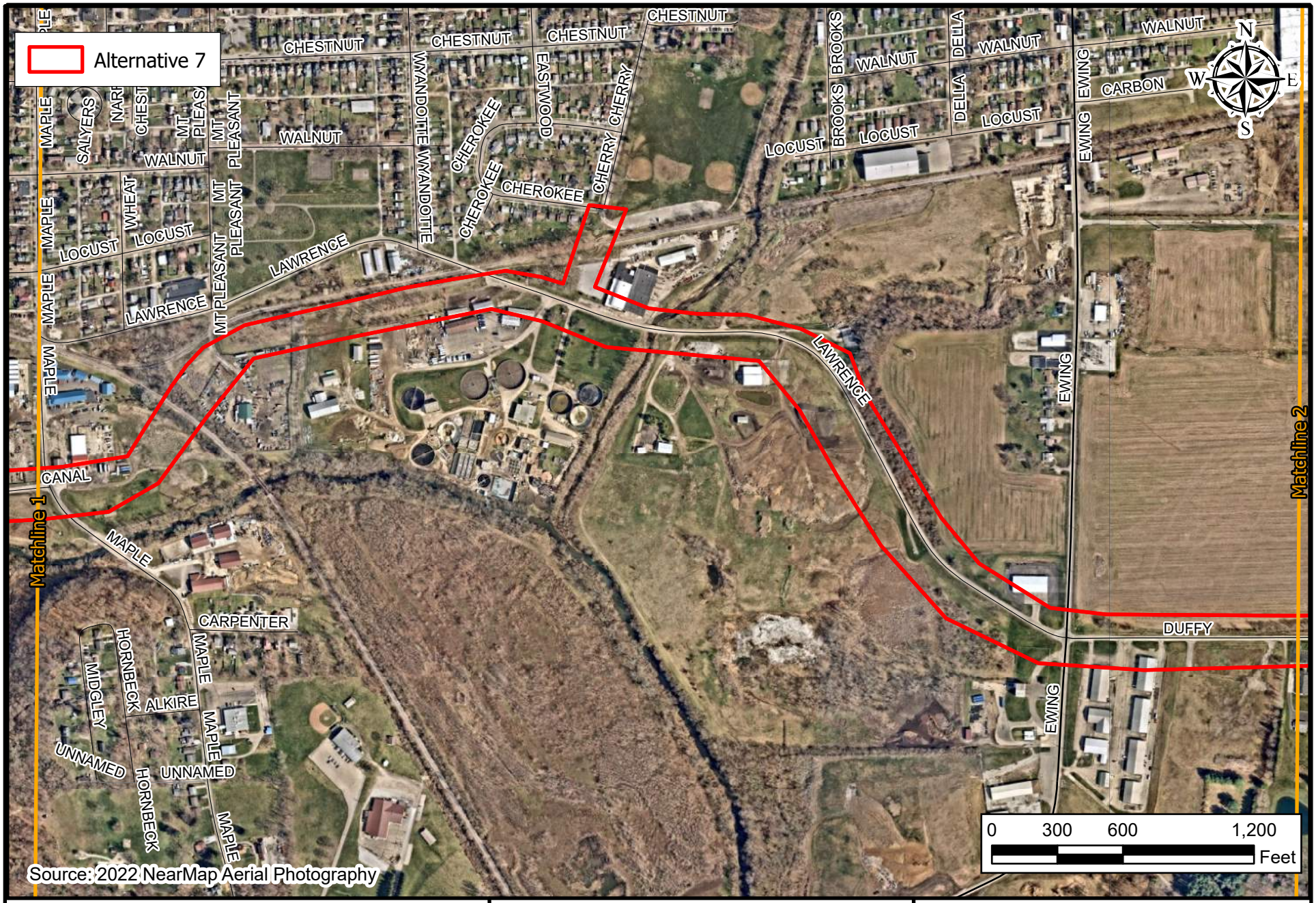
Aerial Map (1 of 4)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 7

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 03/07/2023



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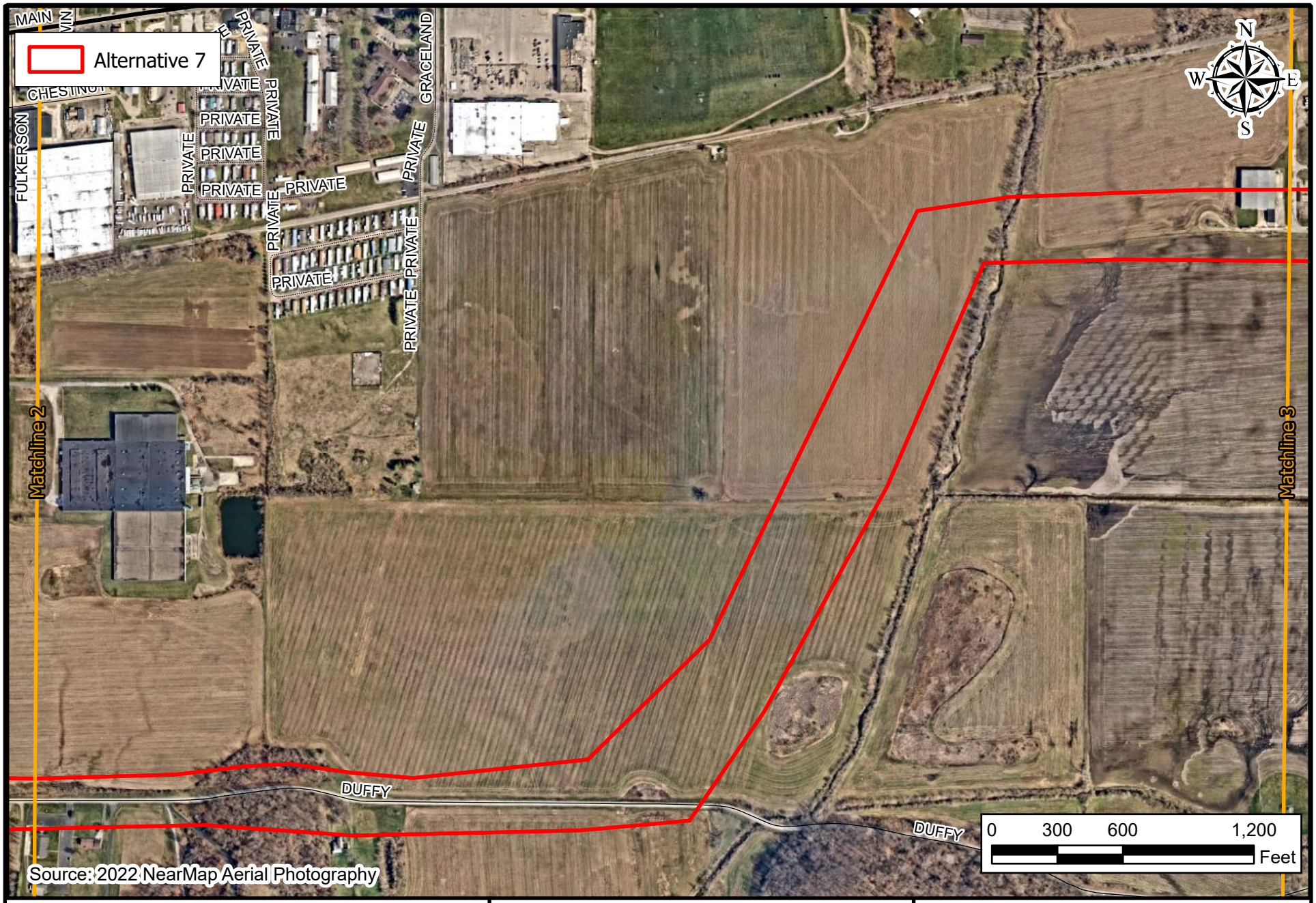
Aerial Map (2 of 4)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 7

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 03/07/2023



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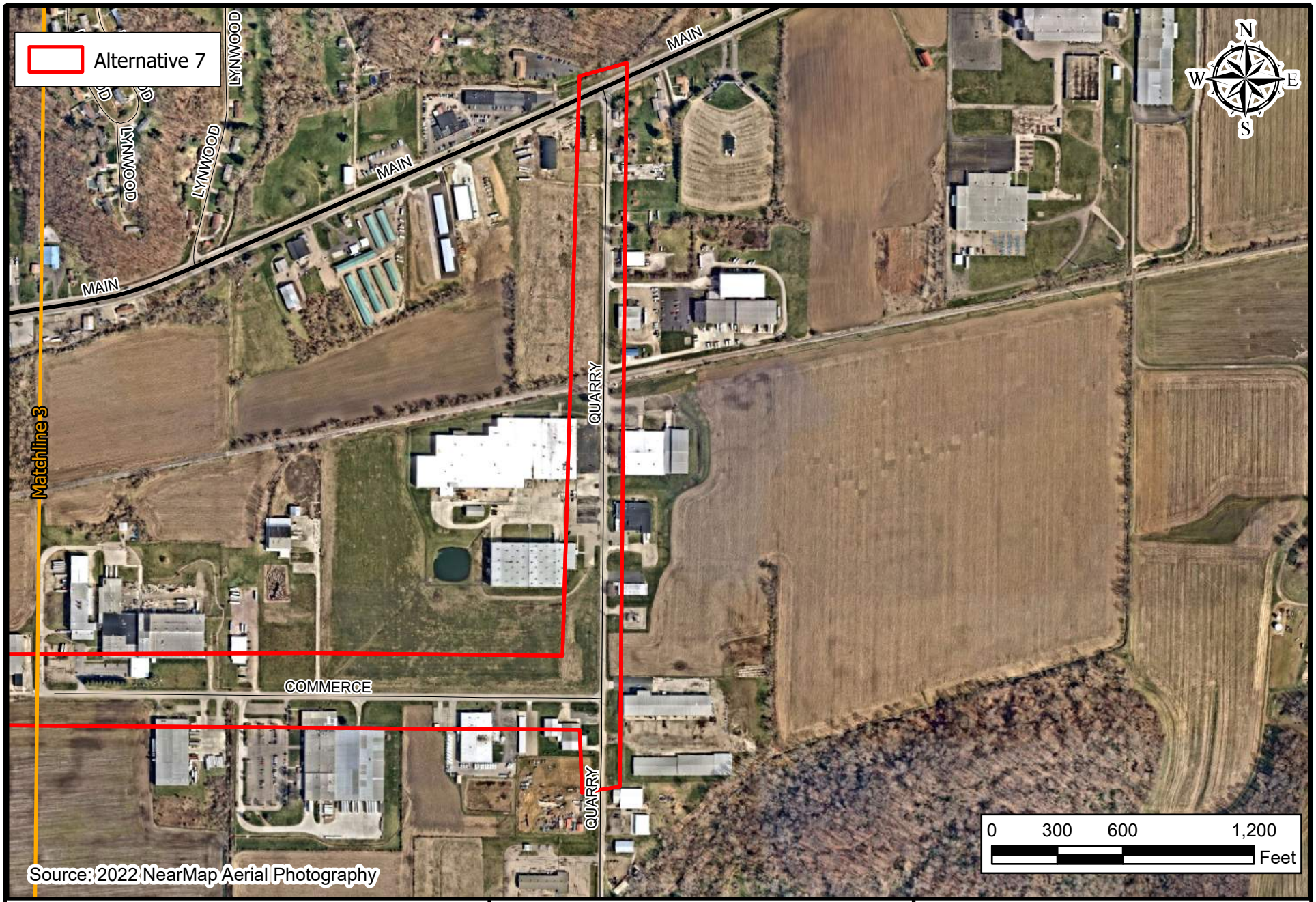
Aerial Map (3 of 4)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 7

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 03/07/2023



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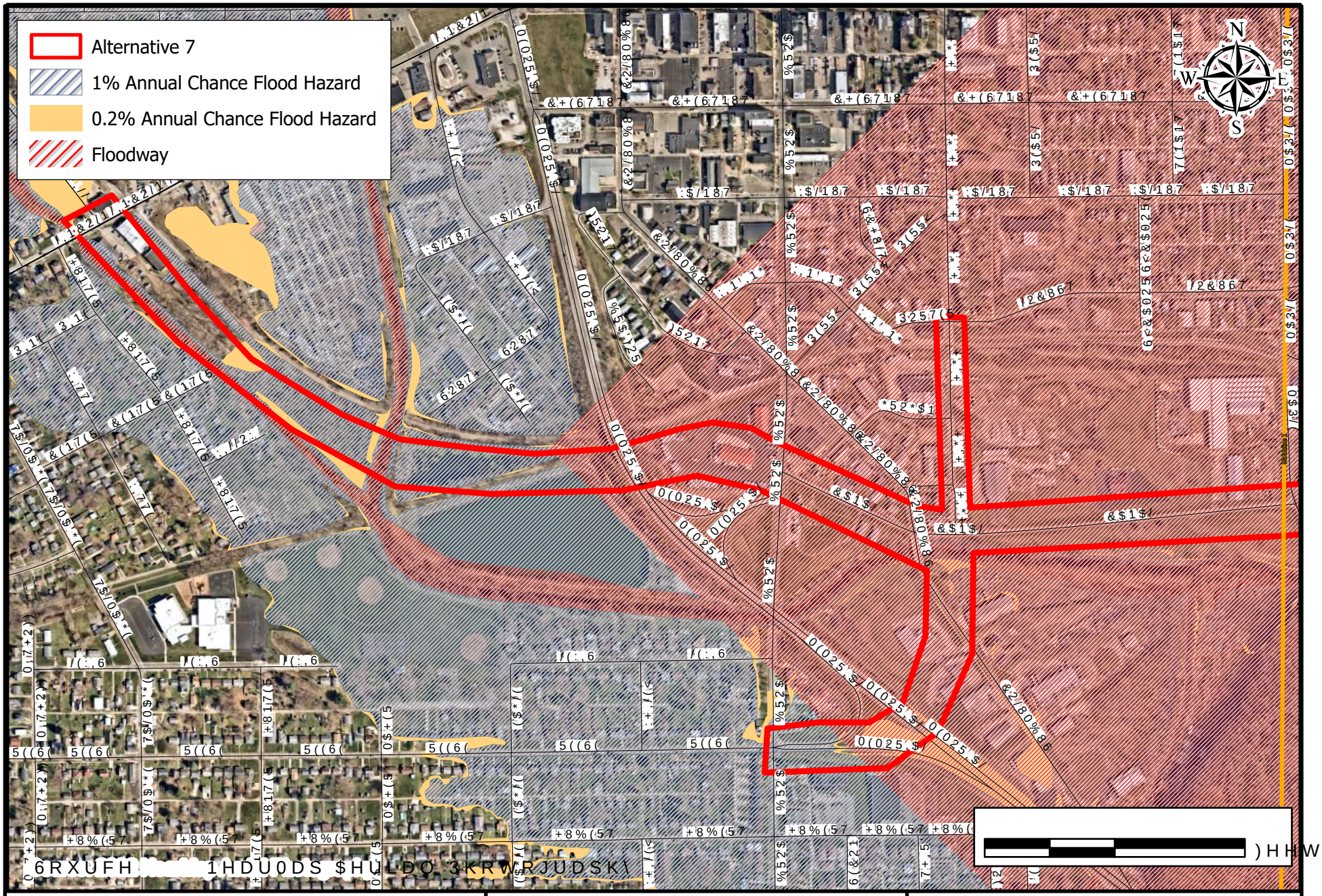
Aerial Map (4 of 4)

Client:
City of Lancaster
121 East Chestnut Street, Suite 100
Lancaster, Ohio 43130

Eastside Industrial Connector - Alternative 7

Location: Lancaster
Township: Hocking & Berne
County: Fairfield
State: Ohio

Date: 03/07/2023


Alternative 7
1% Annual Chance Flood Hazard
0.2% Annual Chance Flood Hazard
Floodway
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AMERICAN
STRUCTUREPOINT
INC.
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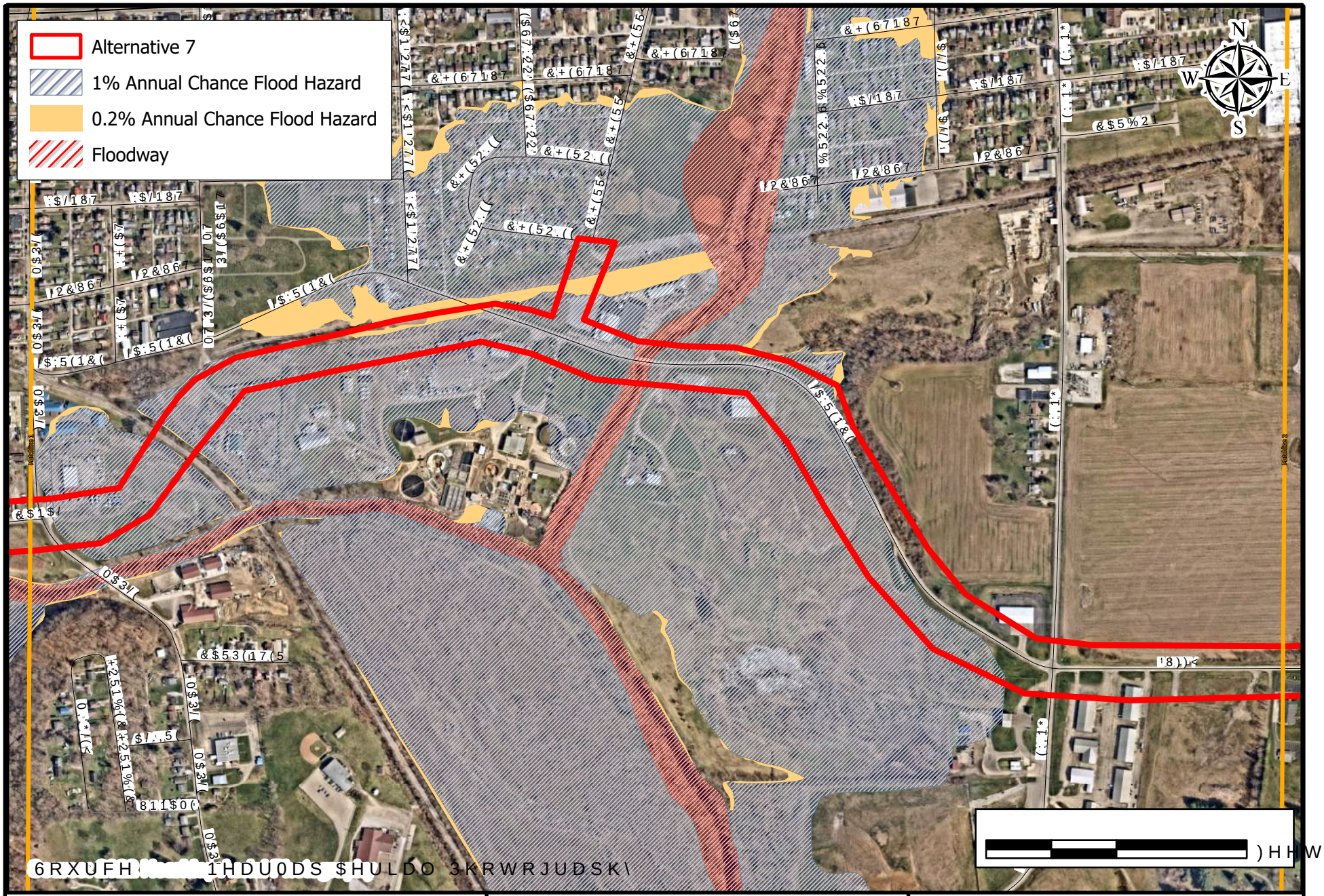

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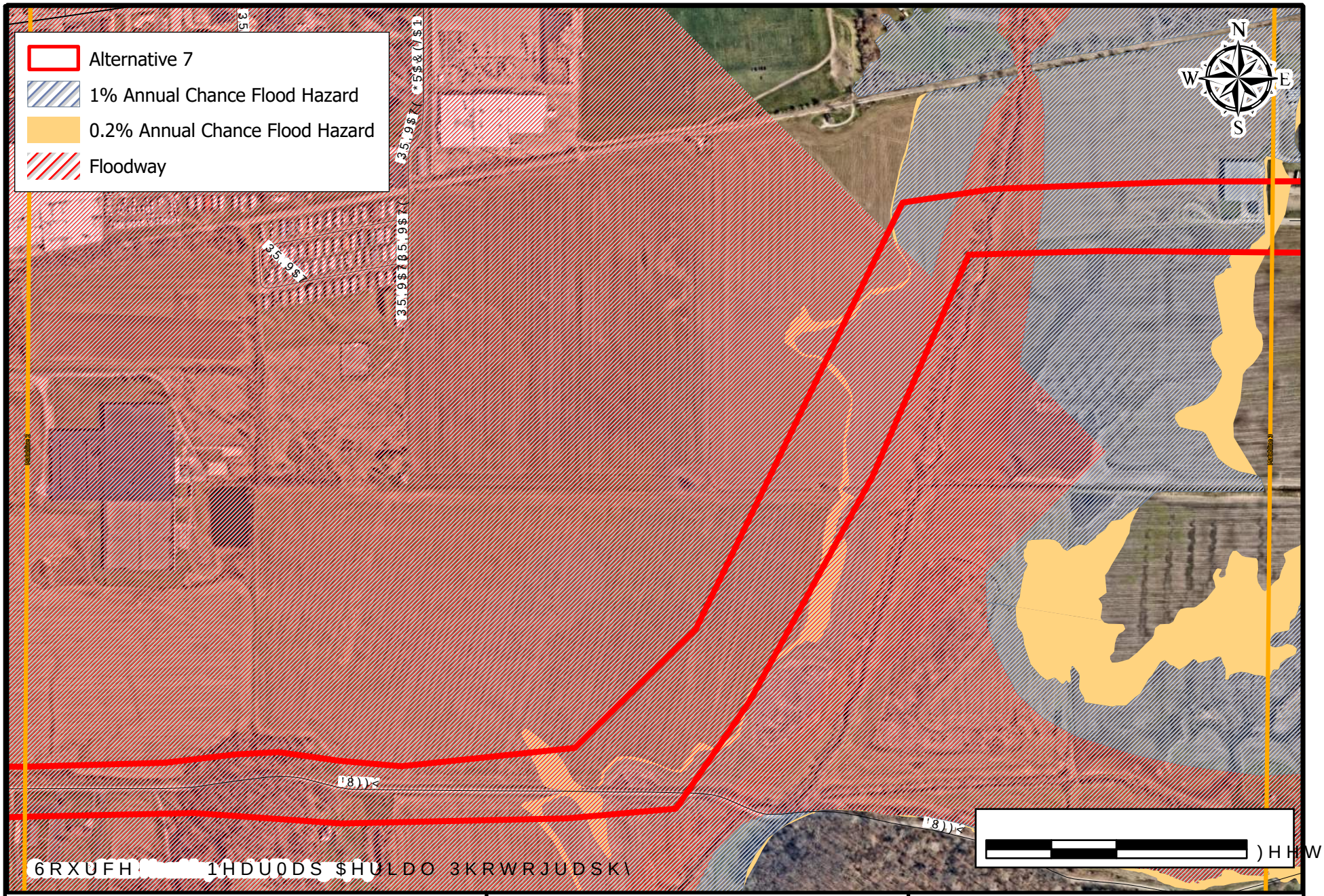

AMERICAN STRUCTUREPOINT INC.
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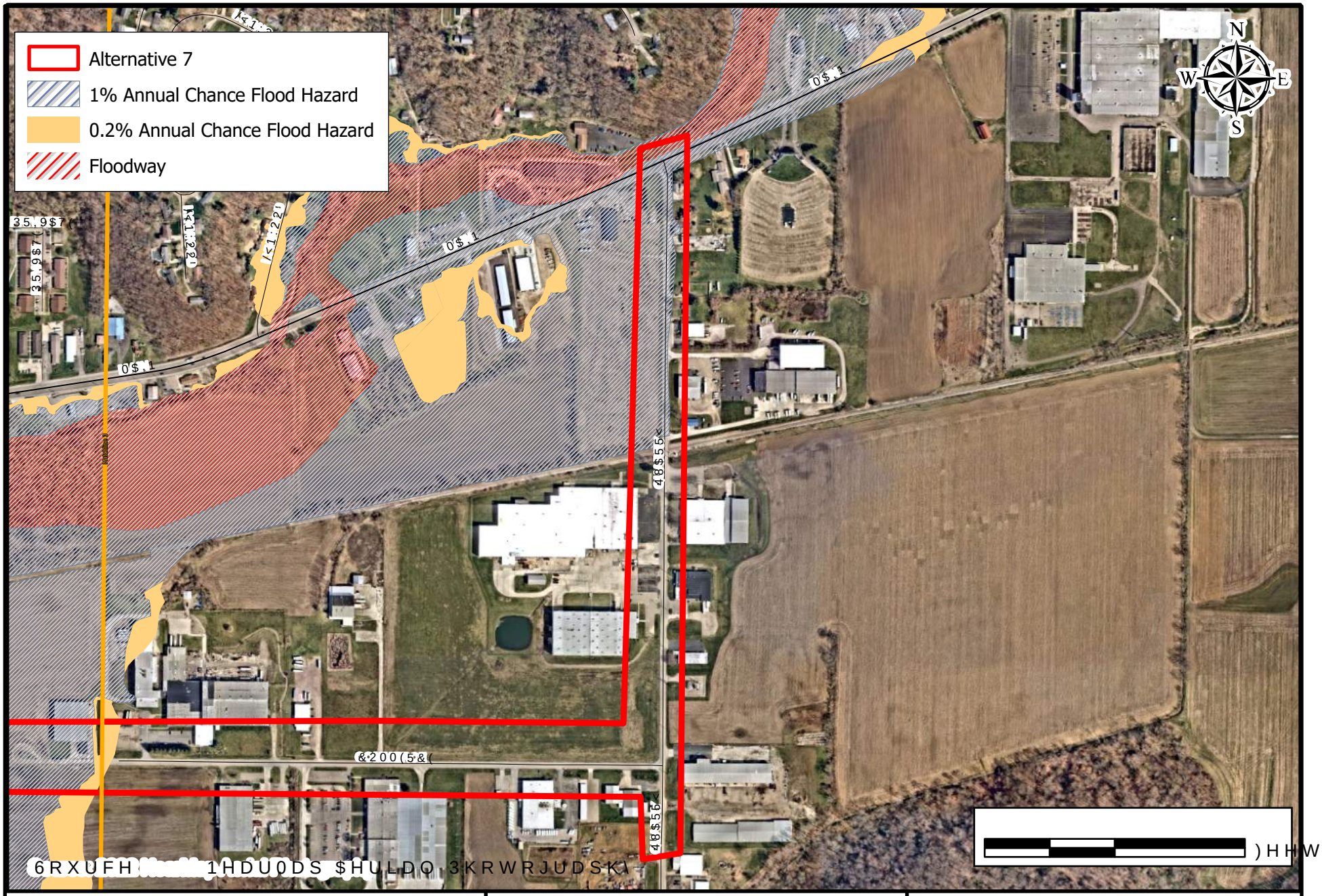

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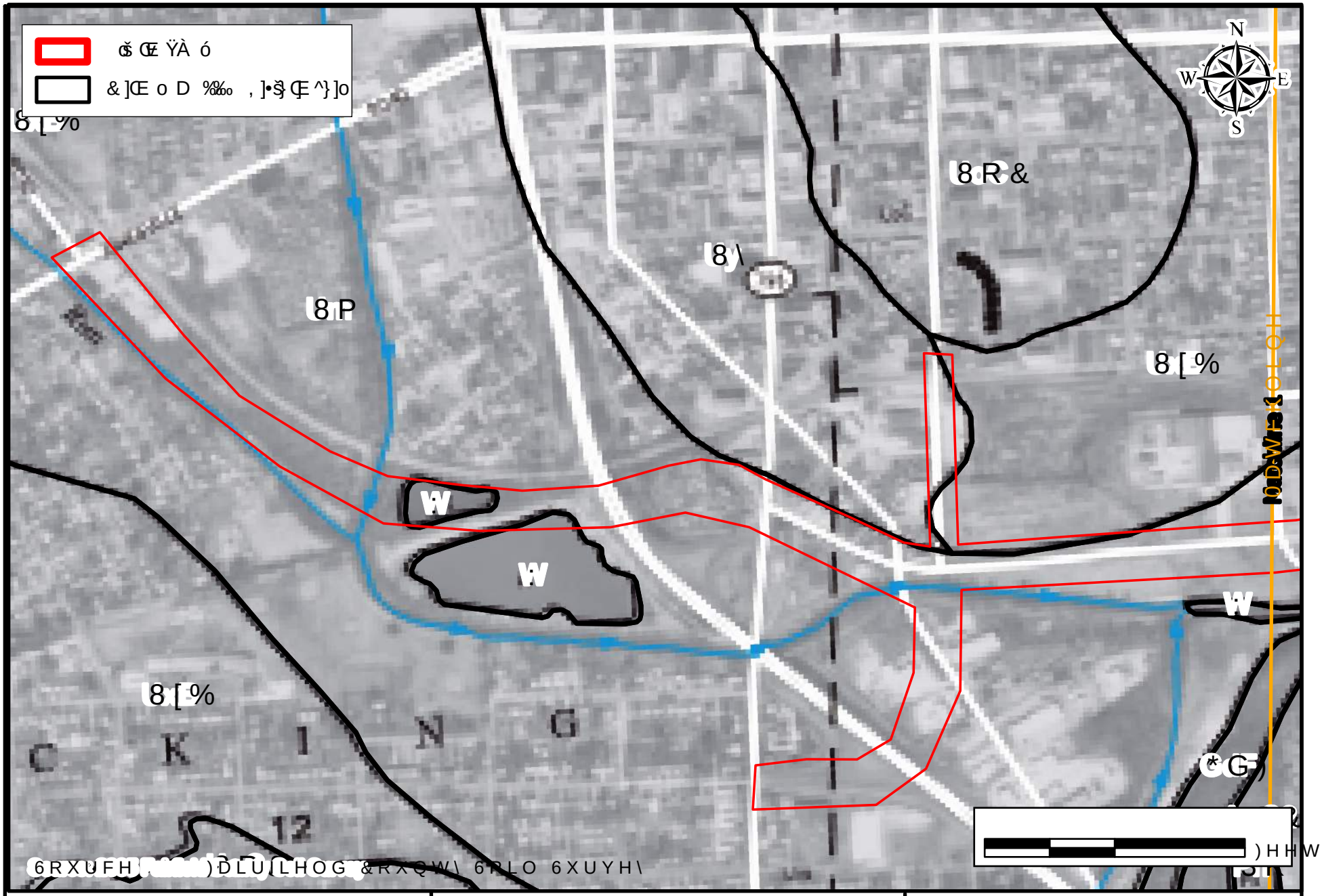

AMERICAN STRUCTUREPOINT INC.
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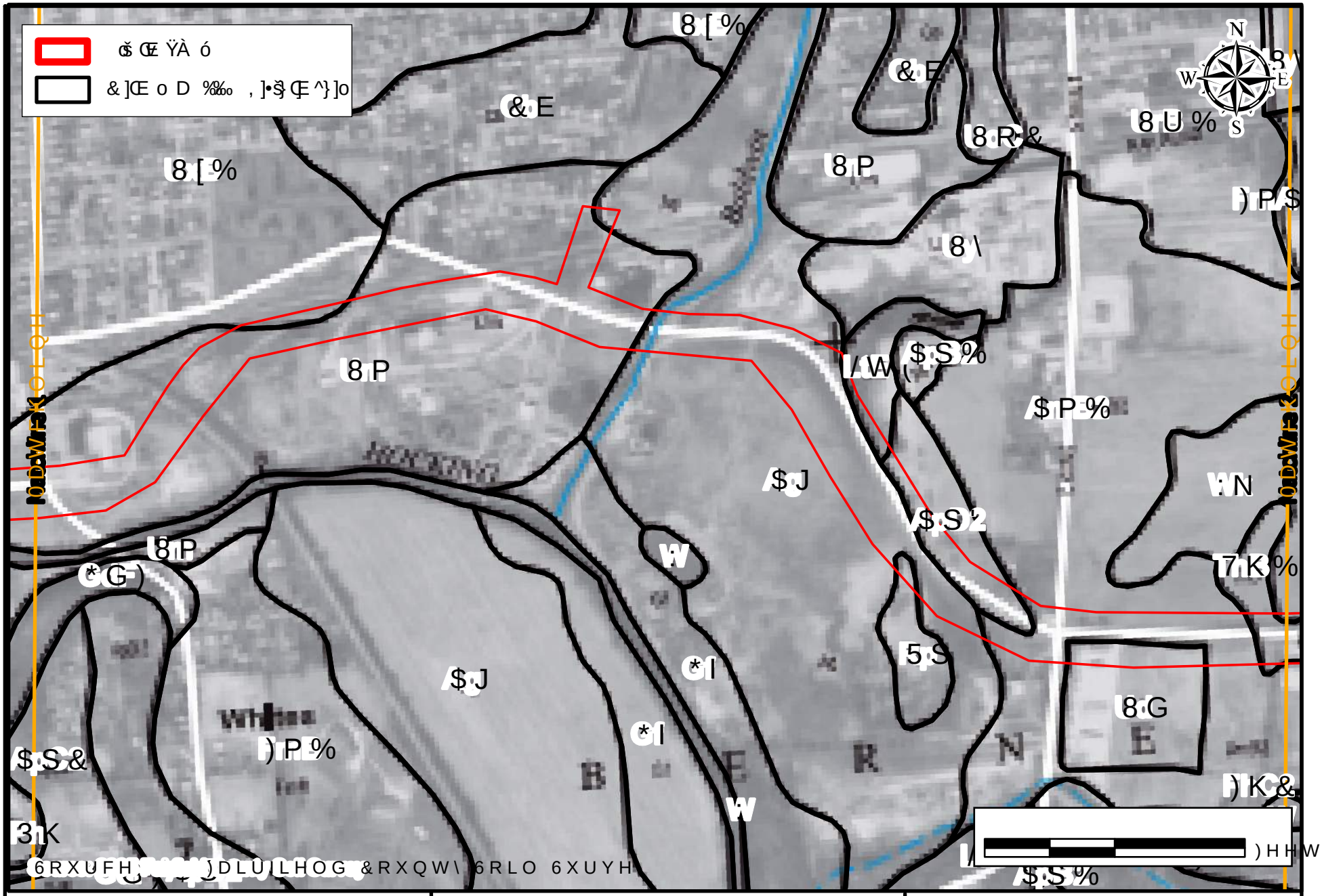

AMERICAN STRUCTUREPOINT INC.
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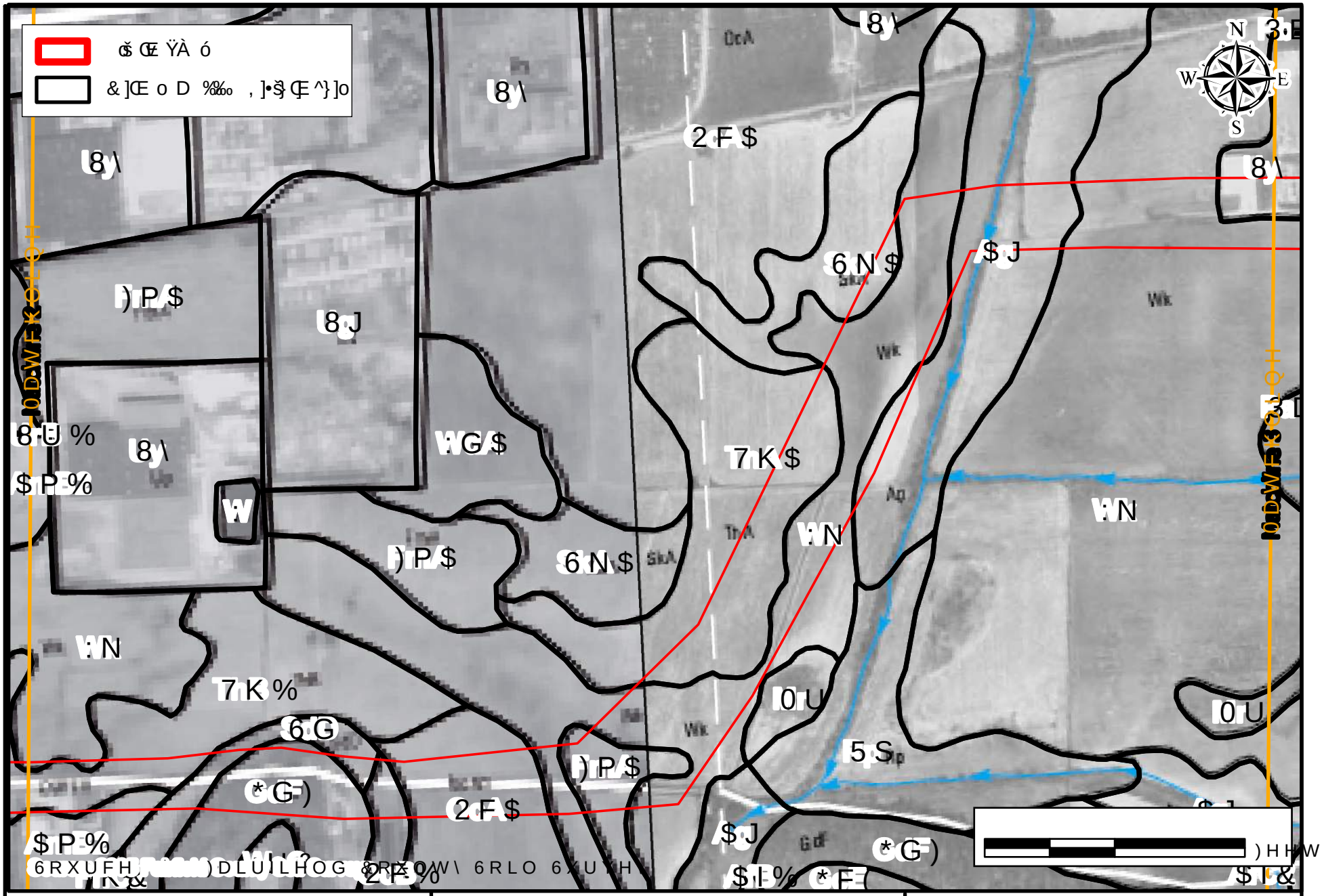

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AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

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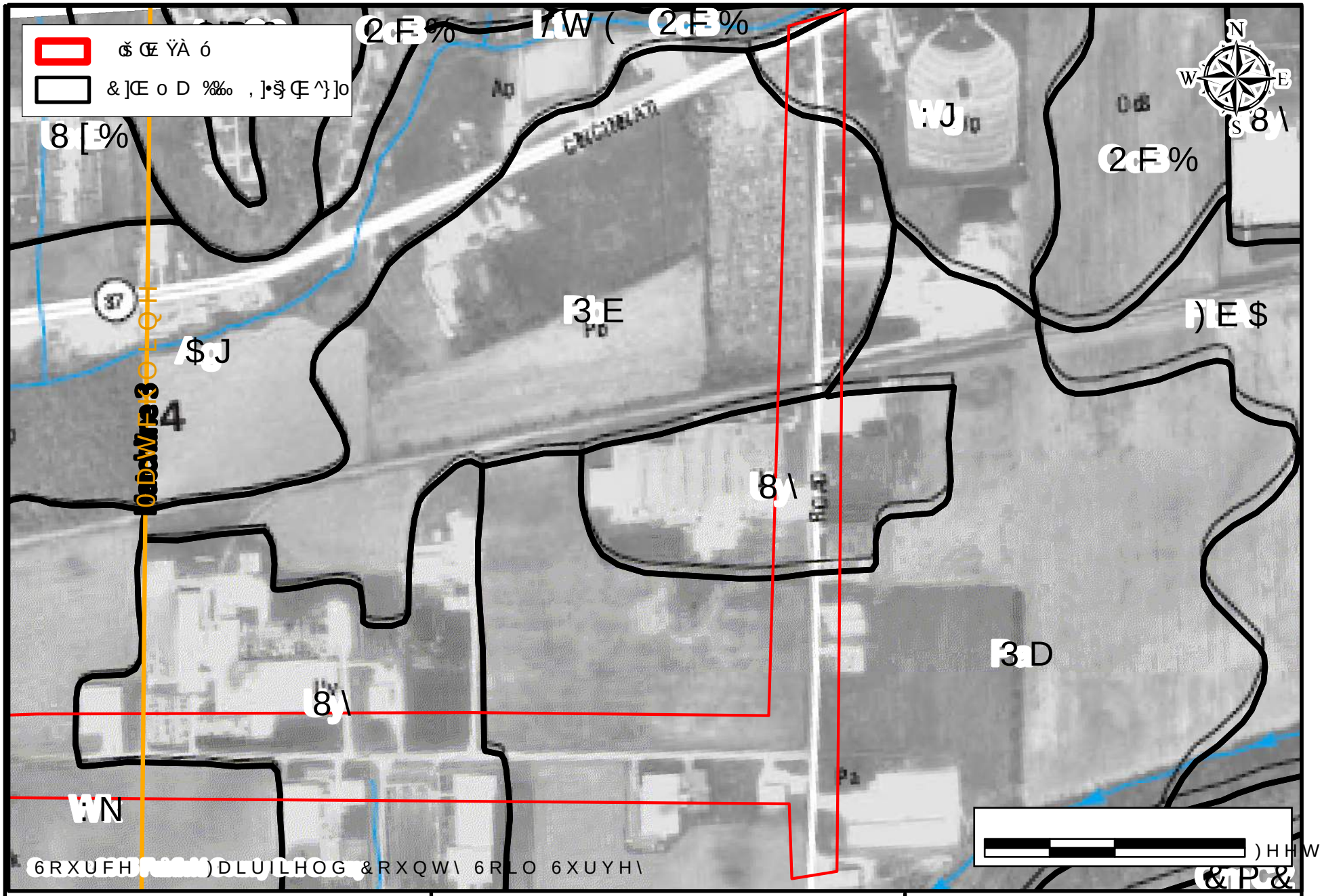

AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

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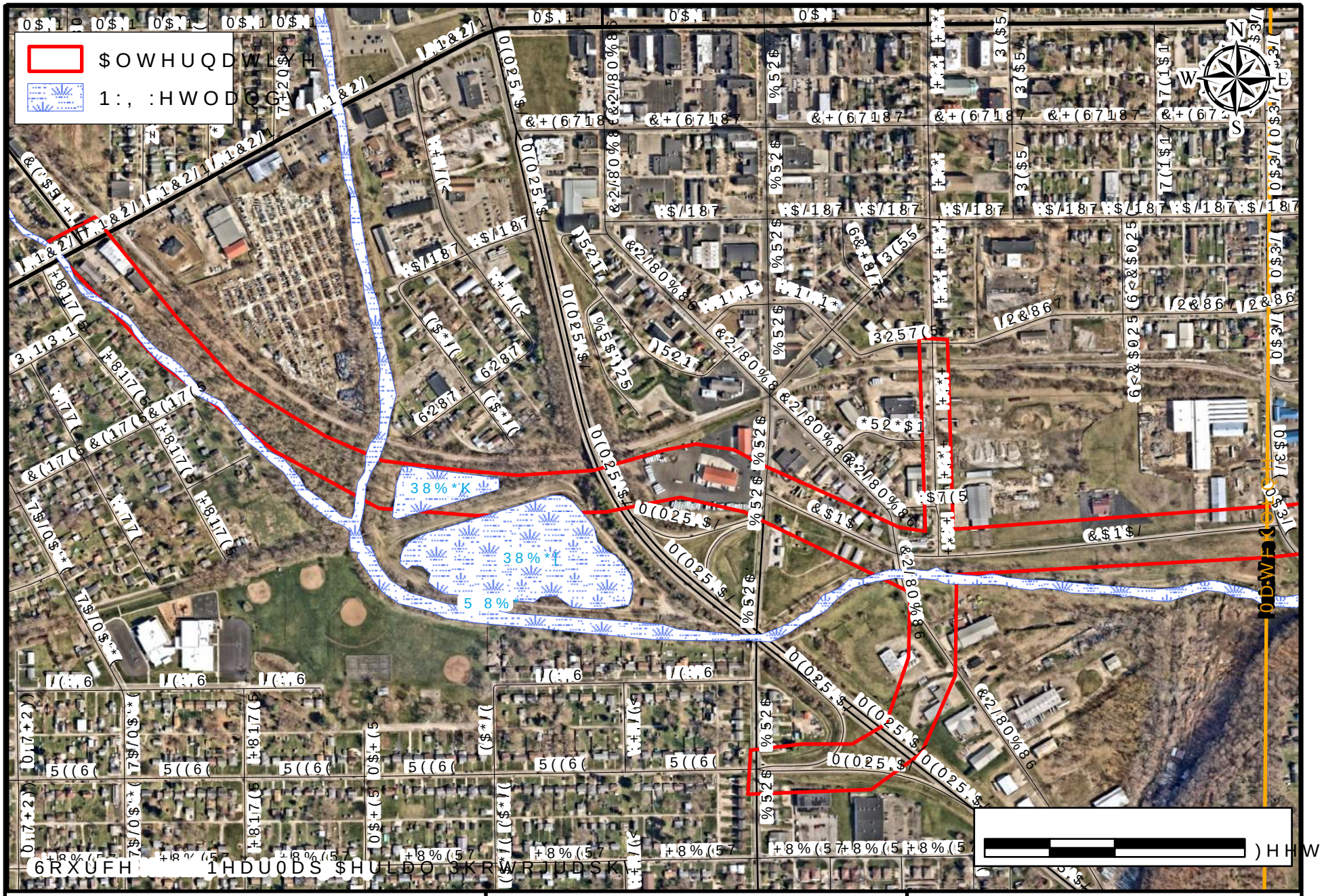

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www.structurepoint.com

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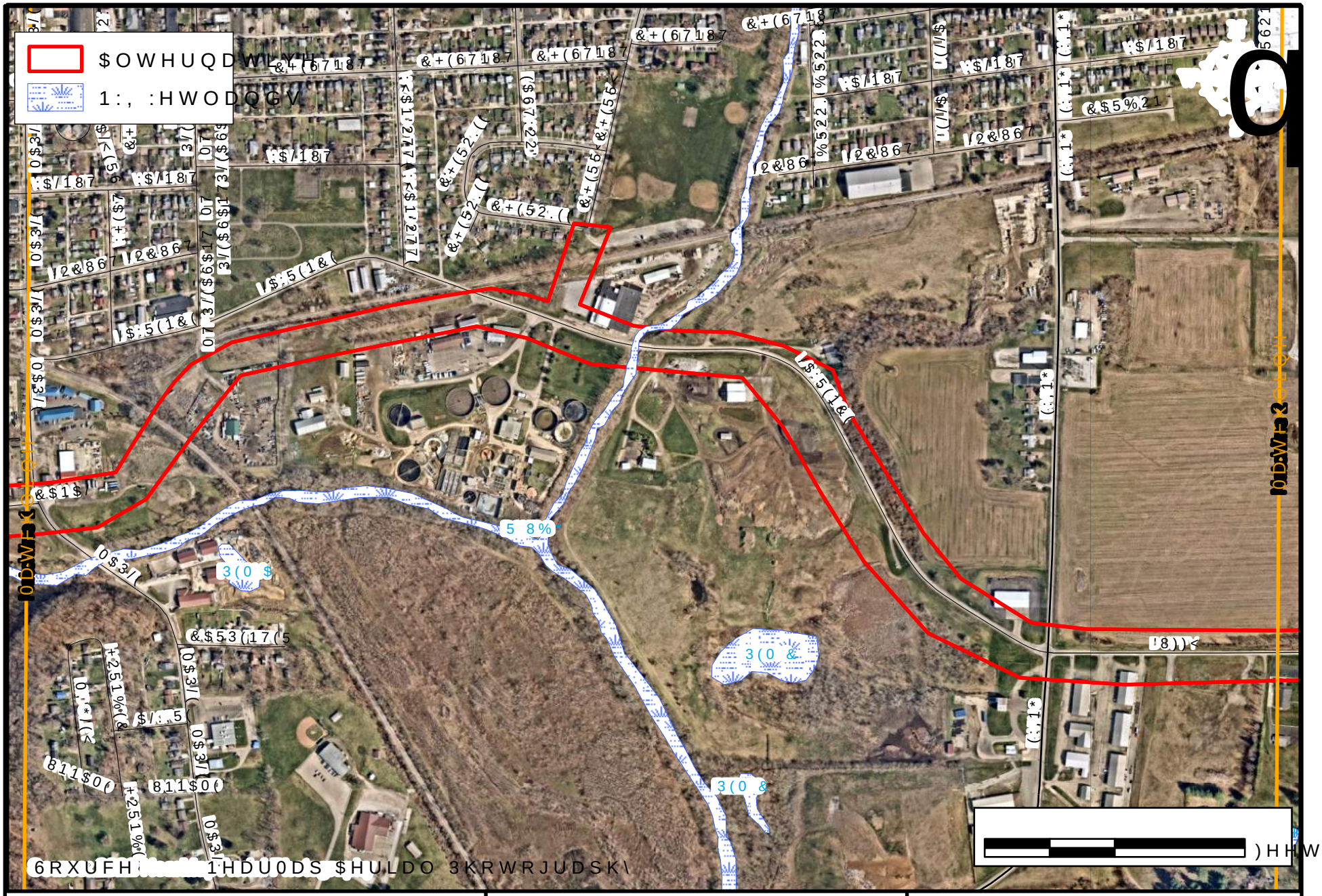

AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

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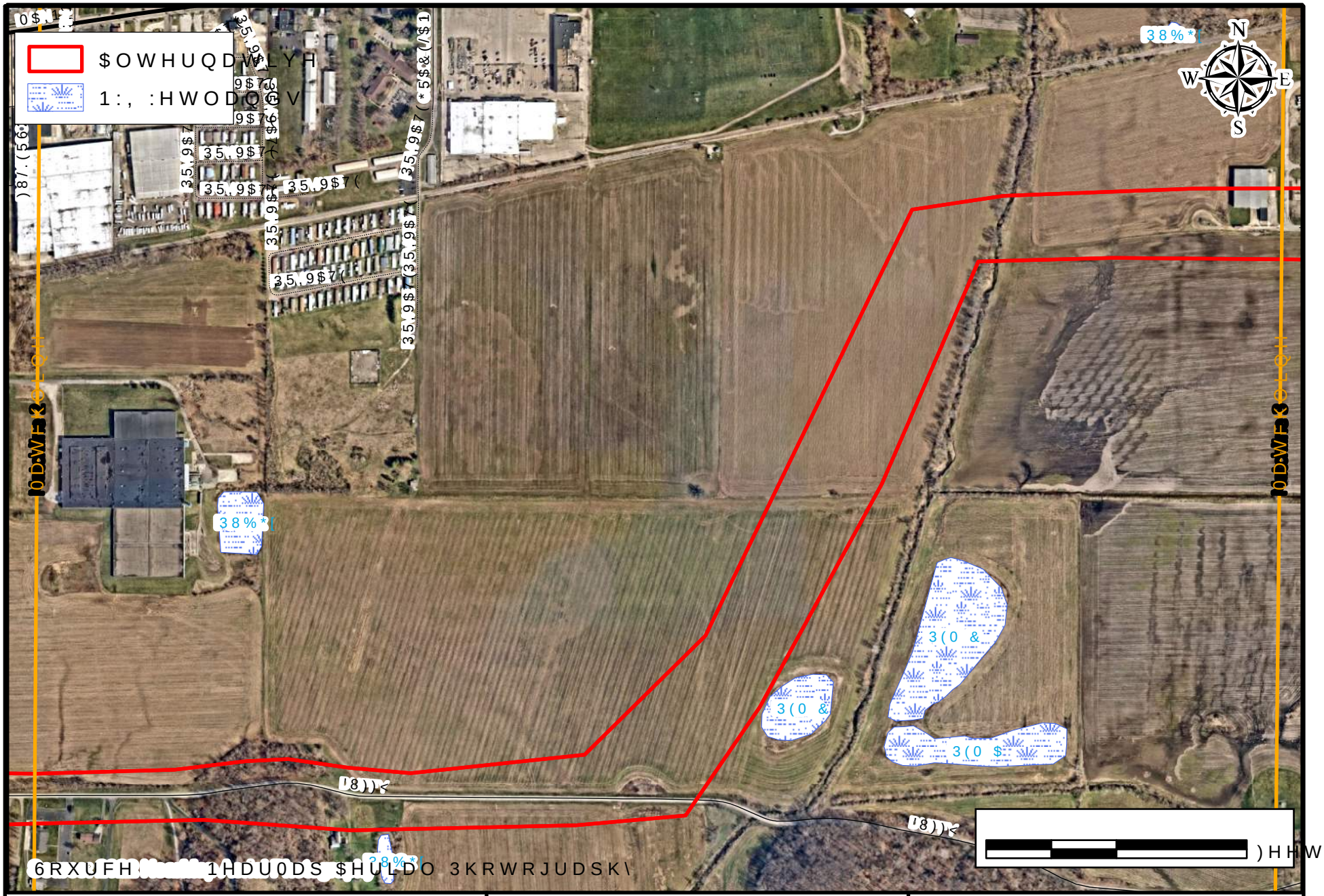

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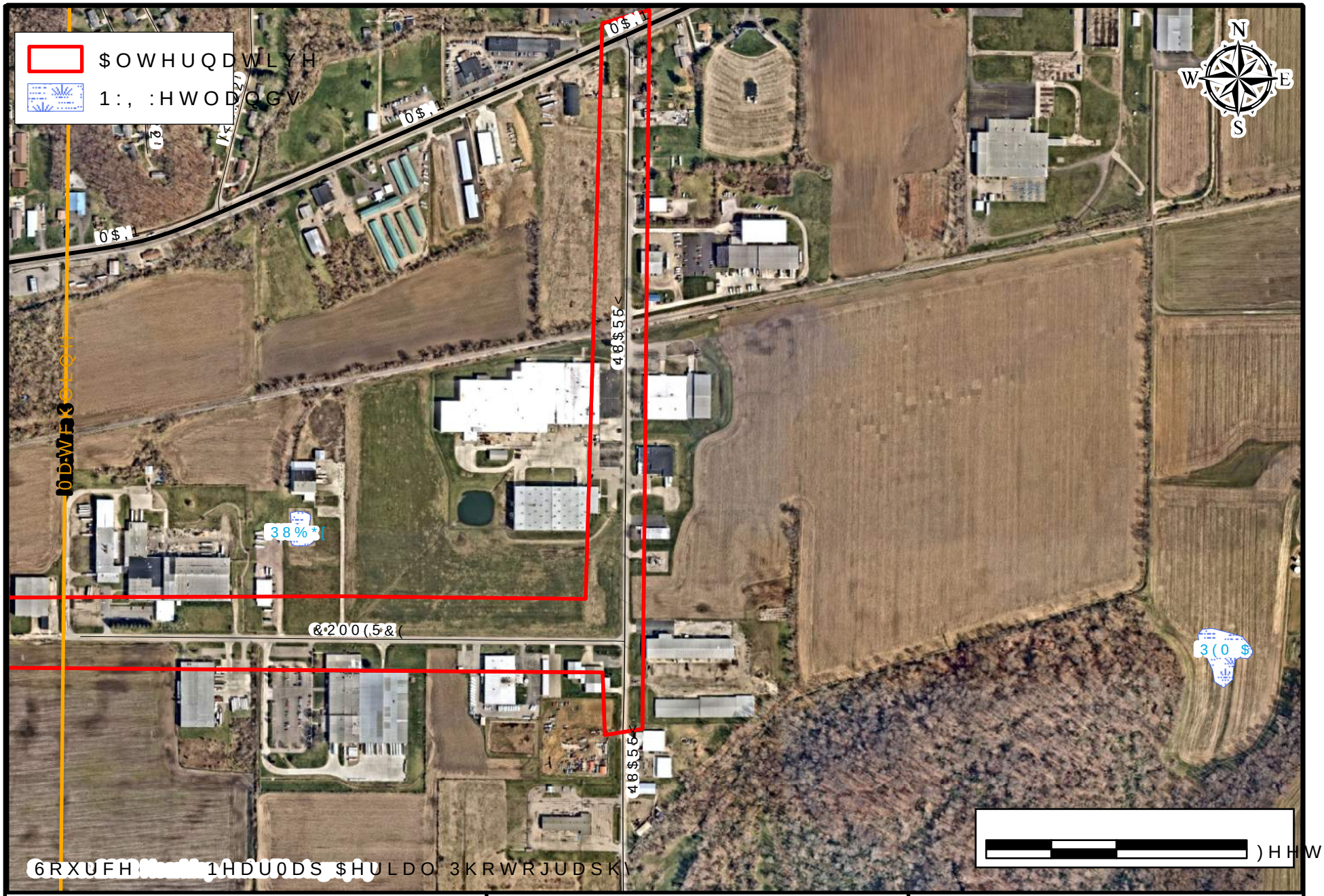

AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

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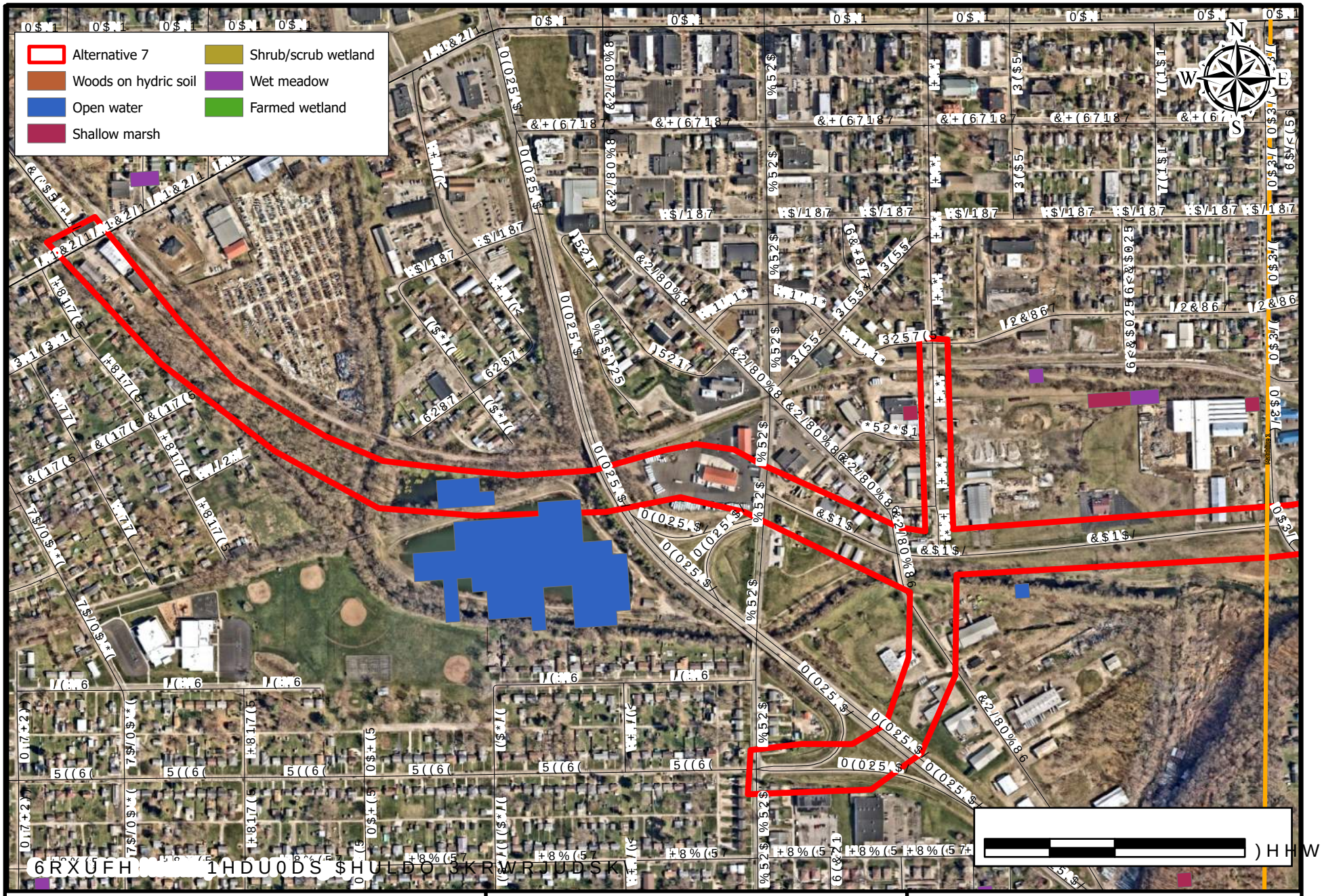

AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

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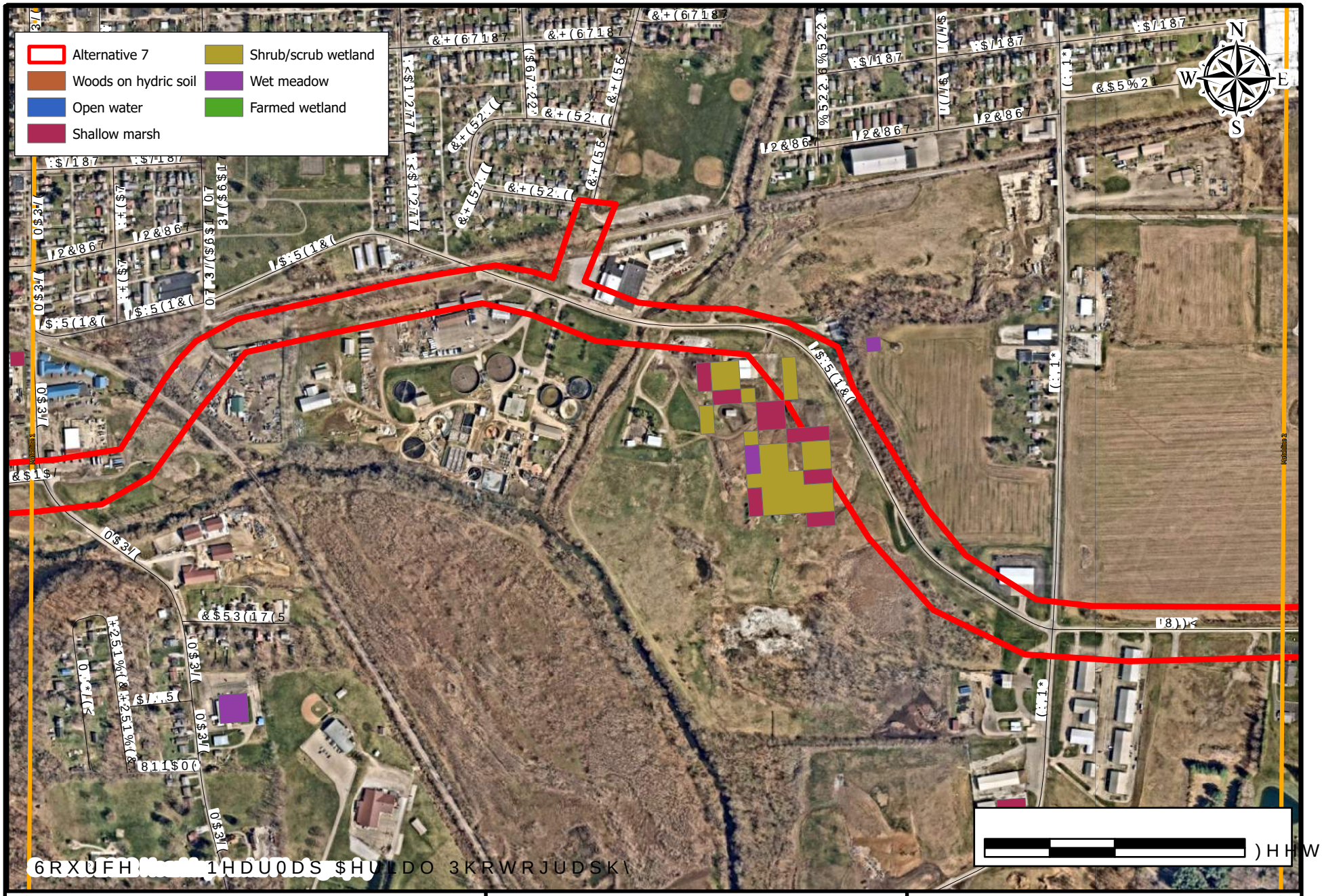

AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

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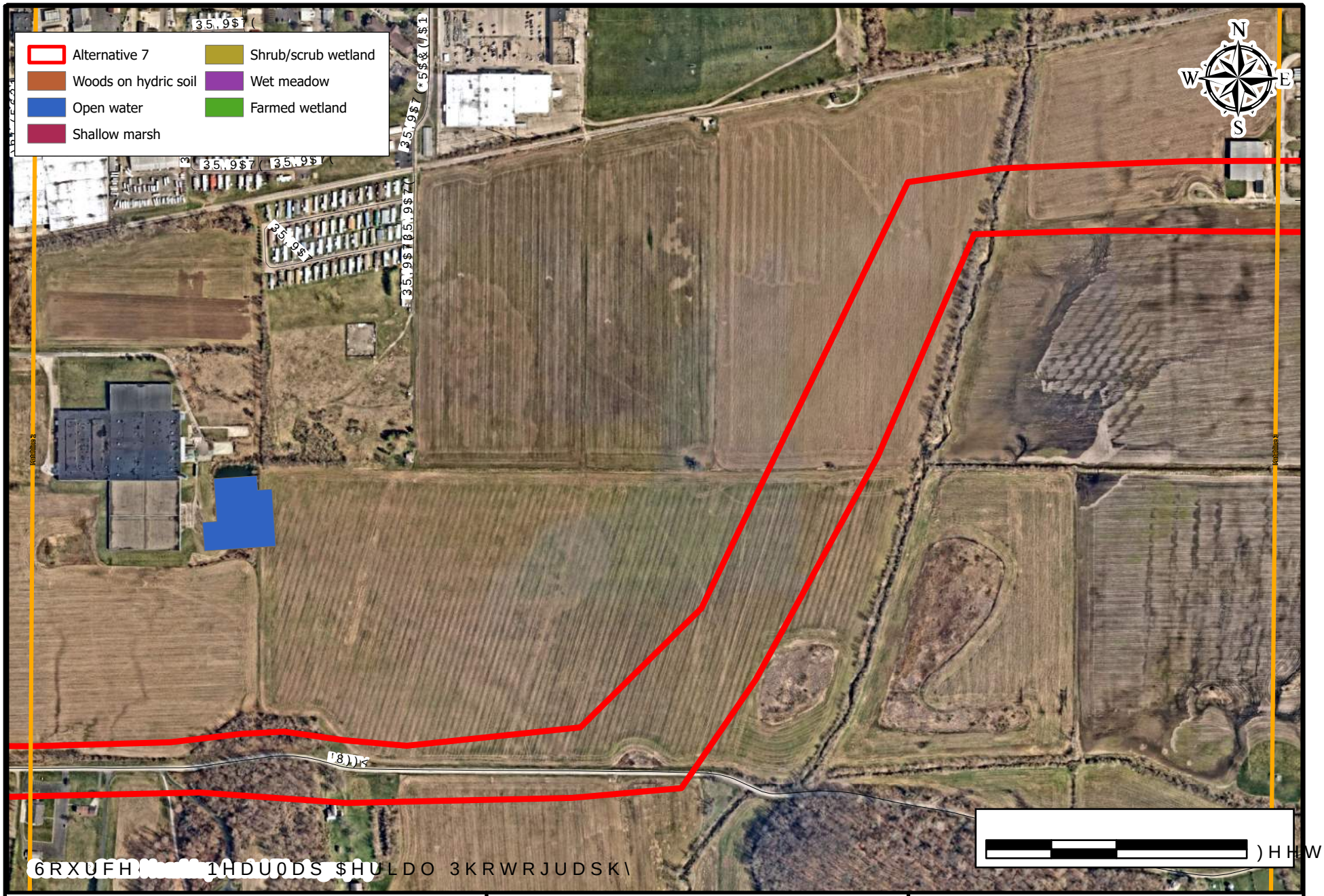

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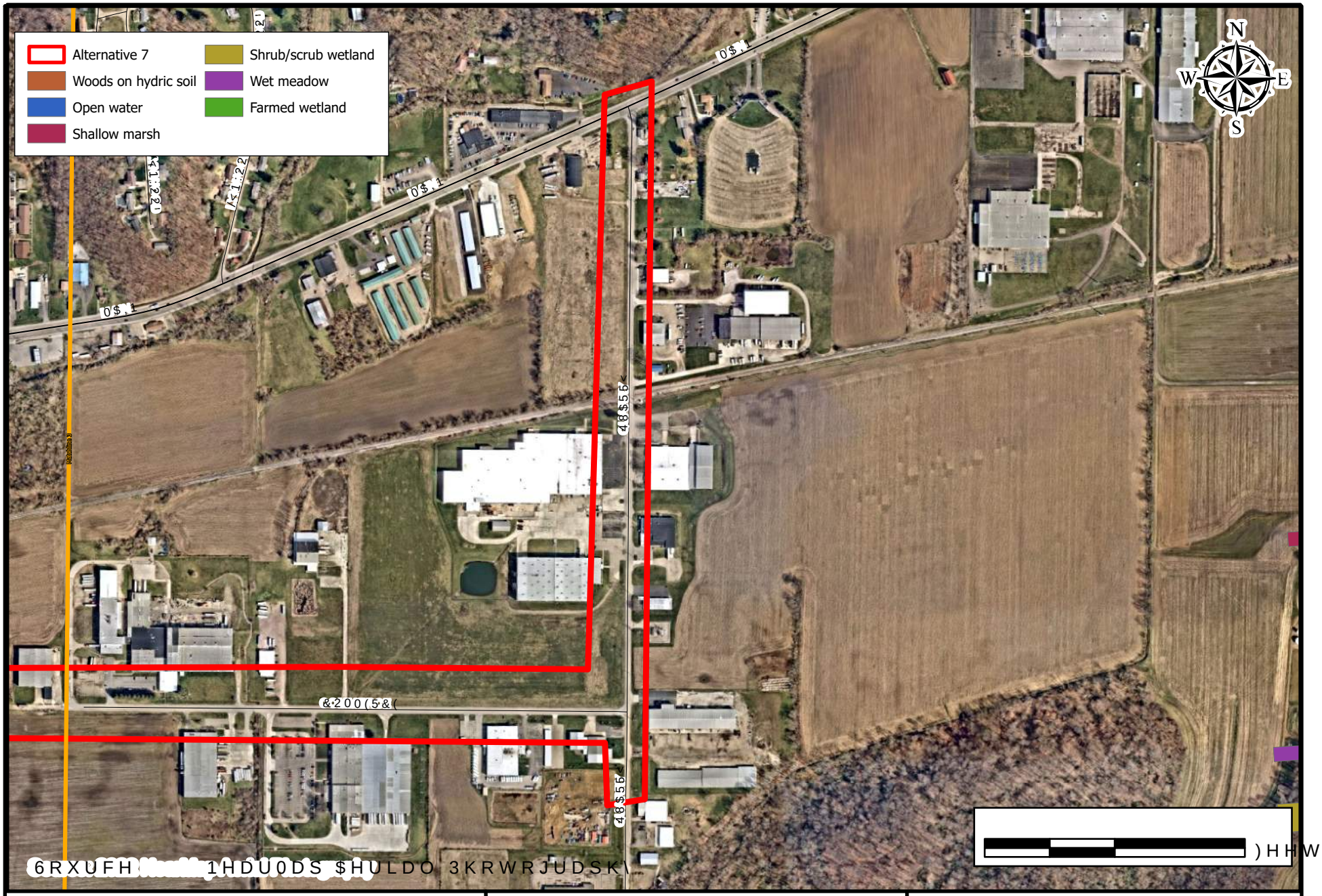

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AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com

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&OLHQW
&LW\ RI /DQFDVWHU
(DVW &KHVWQXW 6WUHHW
/DQFDVWHU 2KLR

(DVWVLGH ,QGXVWULDO &RQQH
/RFDWLRQ /DQFDVWHU
7RZQVKLS +RFNLQJ %HUHD
&RXQW\ )DLUILHOG
6WDWH 2KLR

6XLWH
'DWH 3 07 3

Alternative 7

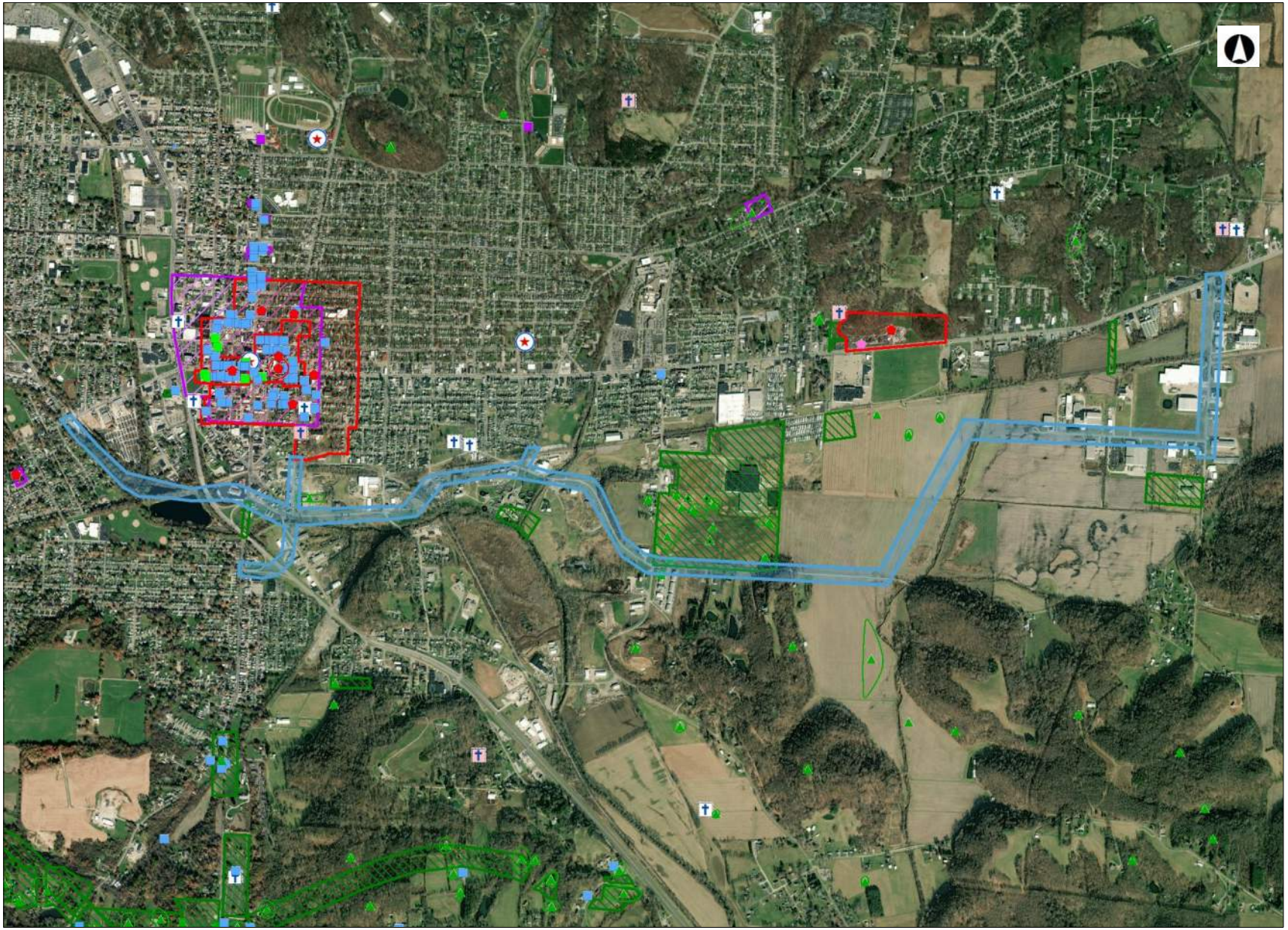
Hazardous Materials Records Summary

#	FACILITY_ID	CURRENT_FACILITY_NAME	ADDRESS	CITY	ZIP	Status	INSPECTION_DATE	FACILITY_CO
1	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	CIU	12/04/13	No
2	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	CIU	12/04/13	No
3	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	CIU	12/04/13	No
4	23000112	FAIRFIELD PAINT & OIL CO.	605 LINCOLN AVE	LANCASTER	43130	REM	*No Data*	*No Data*
5	23002521	HEXCEL CORP.	815 LAWRENCE STREET	LANCASTER	43130	REM	*No Data*	*No Data*
6	23002898	TEXAS EASTERN LANCASTER PIPELINE	471 QUARRY RD	FAIRFIELD	43130	REM	*No Data*	*No Data*
7	23002898	TEXAS EASTERN LANCASTER PIPELINE	471 QUARRY RD	FAIRFIELD	43130	REM	*No Data*	*No Data*
8	23007314	UNITED PARCEL SERVICE	501 S HIGH ST	LANCASTER	43130	REM	*No Data*	*No Data*
9	23007314	UNITED PARCEL SERVICE	501 S HIGH ST	LANCASTER	43130	REM	*No Data*	*No Data*
10	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	REM	*No Data*	*No Data*
11	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	REM	*No Data*	*No Data*
12	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	REM	*No Data*	*No Data*
13	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	REM	*No Data*	*No Data*
14	23008036	22 DRIVE THRU	602 LINCOLN AVE	LANCASTER	43130	REM	*No Data*	*No Data*
15	23006718	CITY OF LANCASTER FUEL DEPOT	746 LAWRENCE ST	LANCASTER	43130	CIU	*No Data*	*No Data*
16	23009460	CITY OF LANCASTER WWTP	800 LAWRENCE ST	LANCASTER	43130	CIU	*No Data*	*No Data*
17	23006718	CITY OF LANCASTER FUEL DEPOT	746 LAWRENCE ST	LANCASTER	43130	CIU	*No Data*	*No Data*

#	TANK_ID	CAPACITY	CONTENT	DATE_REMOVED	FACILITY_STATUS	Count
1	T00006	20000	Gasoline	NULL	Active	1
2	T00007	4000	Gasoline	NULL	Active	1
3	T00008	4000	Diesel	NULL	Active	1
4	T00001	4000	Kerosene	06/26/92	Inactive	1
5	T00001	10000	Unknown	06/25/02	Inactive	1
6	T00001	10000	Gasoline	08/31/93	Inactive	1
7	T00002	6000	Diesel	08/31/93	Inactive	1
8	T00001	4000	Gasoline	10/17/90	Inactive	1
9	T00002	4000	Gasoline	10/17/90	Inactive	1
10	T00001	8000	Gasoline	07/27/09	Inactive	1
11	T00002	6000	Gasoline	07/27/09	Inactive	1
12	T00003	6000	Diesel	07/27/09	Inactive	1
13	T00004	500	Used Oil	12/04/98	Inactive	1
14	T00005	500	Diesel	12/04/98	Inactive	1
15	T00001	12000	Diesel	*No Data*	*No Data*	1
16	T00001	1000	Diesel	*No Data*	*No Data*	1
17	T00002	12000	Gasoline	*No Data*	*No Data*	1

Alternative 7

Cultural Resources



State Historic Preservation Office

Legend

- NR Listings
  - Listed
  - National Historic Landmark
  - Delisted
- Determinations of Eligibility
  - DOE
  - Demolished
- Archaeological Sites
  - Site
  - Isolated Find
- Historic Structures
- Historic Bridges
- Historic Tax Credit Projects
- Local Designations
- OGS Cemeteries
  - Confident
  - Not Confident
- Historic Markers
- Dams
- UTM Zone Split
- NR Boundaries
- Local Districts
- OAI Site Boundaries
- Previously Surveyed Areas
  - Phase 1
  - Phase 2
  - Phase 3
- Historic Previously Surveyed

0 0.32 0.6 Miles

1: 25,000

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This map is a user generated static output from an Internet mapping site and is for generalThis map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Datum:	[Datum]
Projection:	WGS_1984_Web_Mercator_Auxiliary_Sphere

Appendix D – 1” = 20’ Scale Plan and Profile Sheets

FAI - LANCASTER INDUSTRIAL BYPASS

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
1	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A
OVERALL SITE PLAN

HORIZONTAL SCALE IN FEET

0 600

300 1200

FAI - LANCASTER INDUSTRIAL BYPASS

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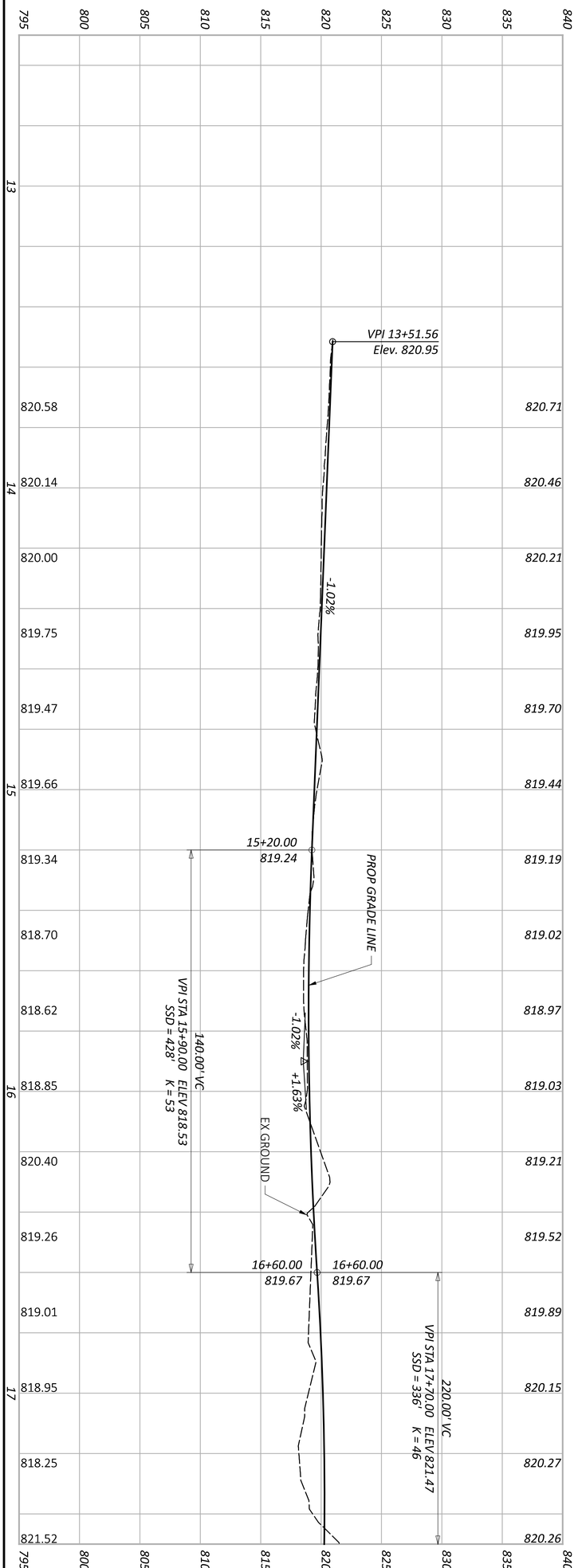

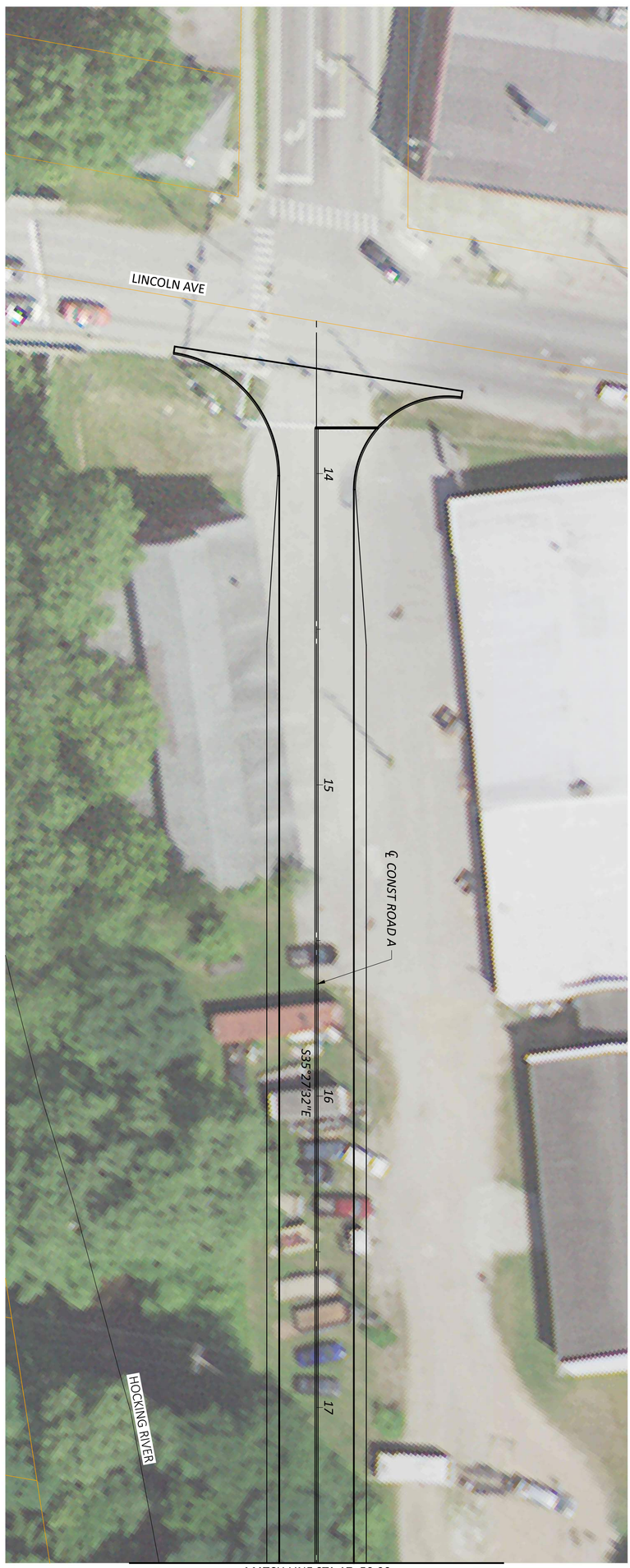

ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 12+50.00 TO STA. 17+50.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
2	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

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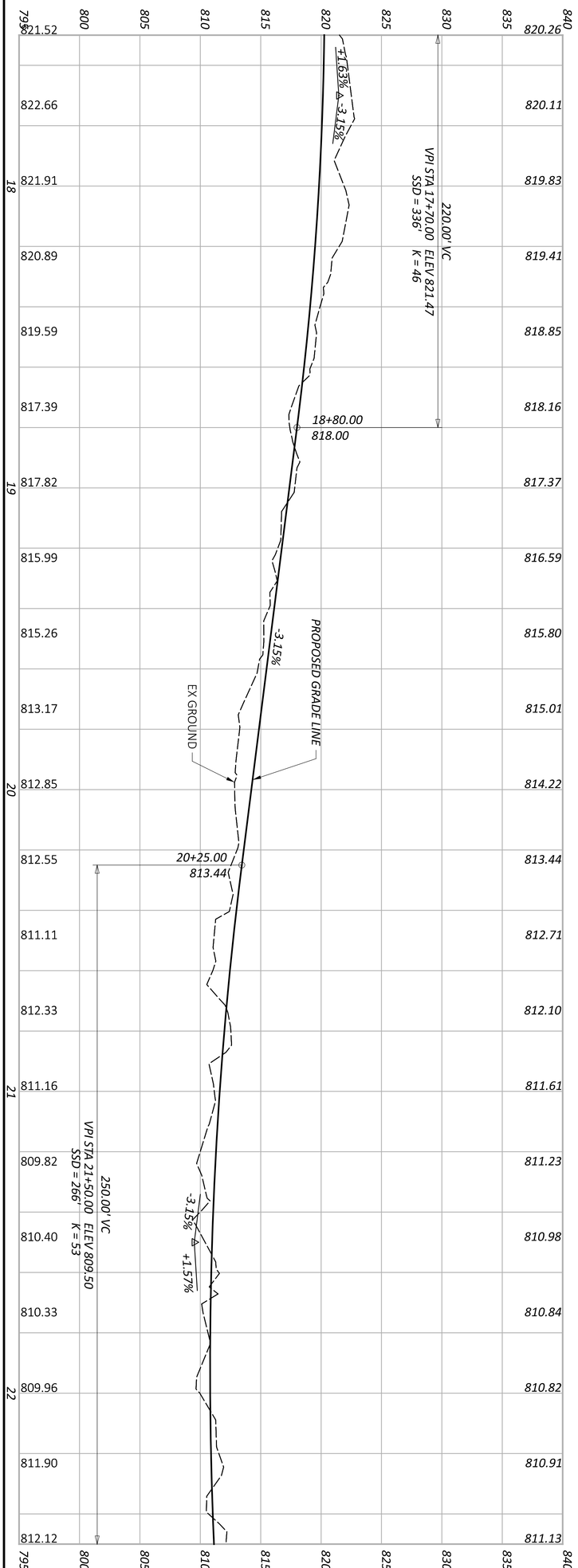

ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 17+50.00 TO STA. 23+50.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
3	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

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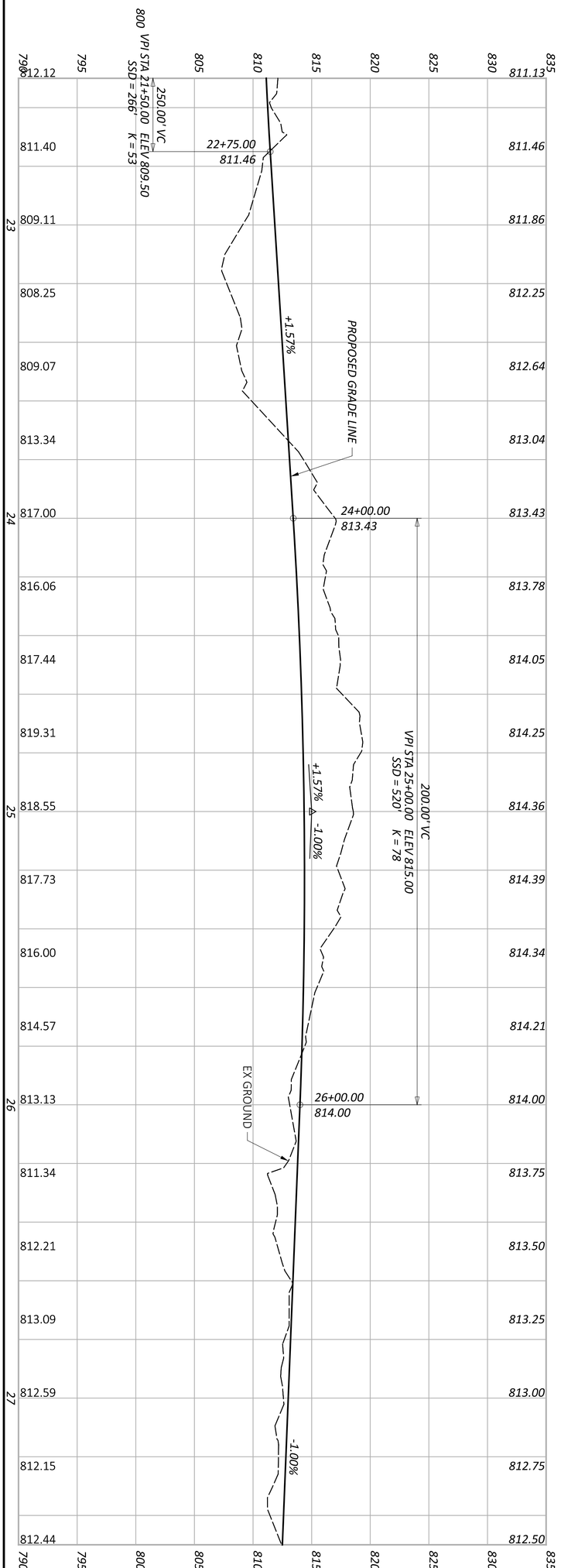

ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 23+50.00 TO STA. 28+50.00

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
4	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

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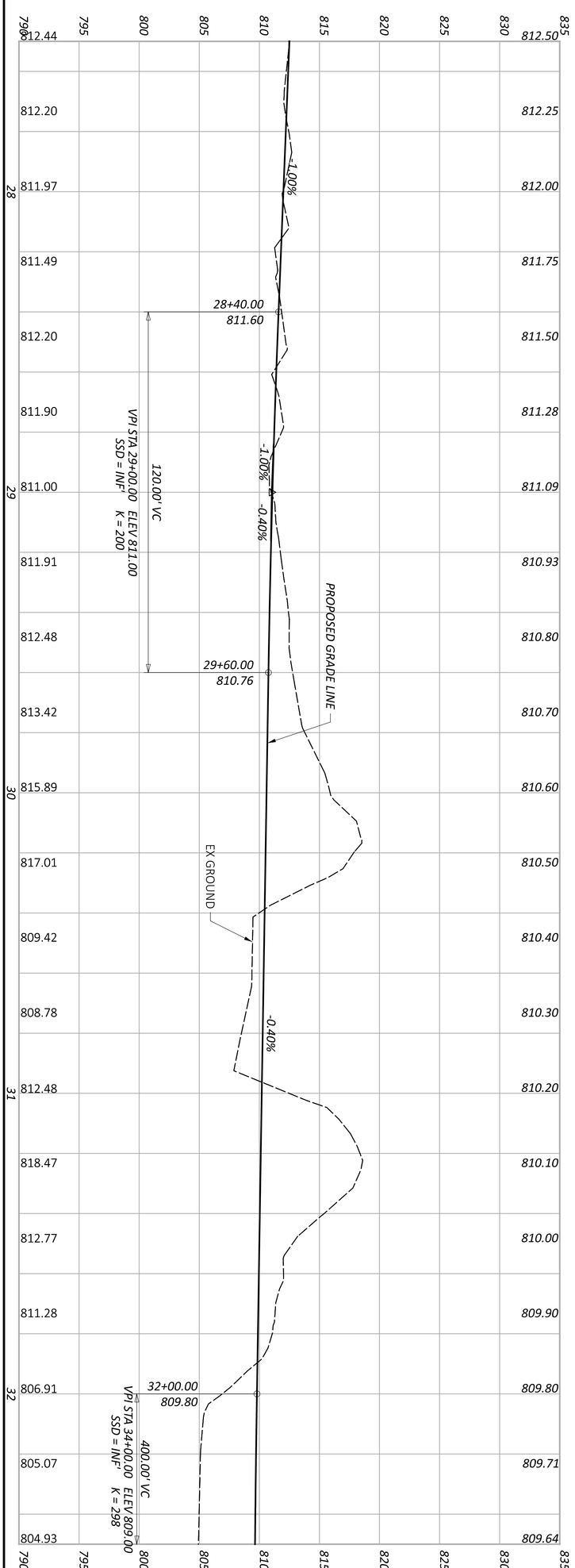

ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 28+50.00 TO STA. 32+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
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FAI - LANCASTER INDUSTRIAL BYPASS

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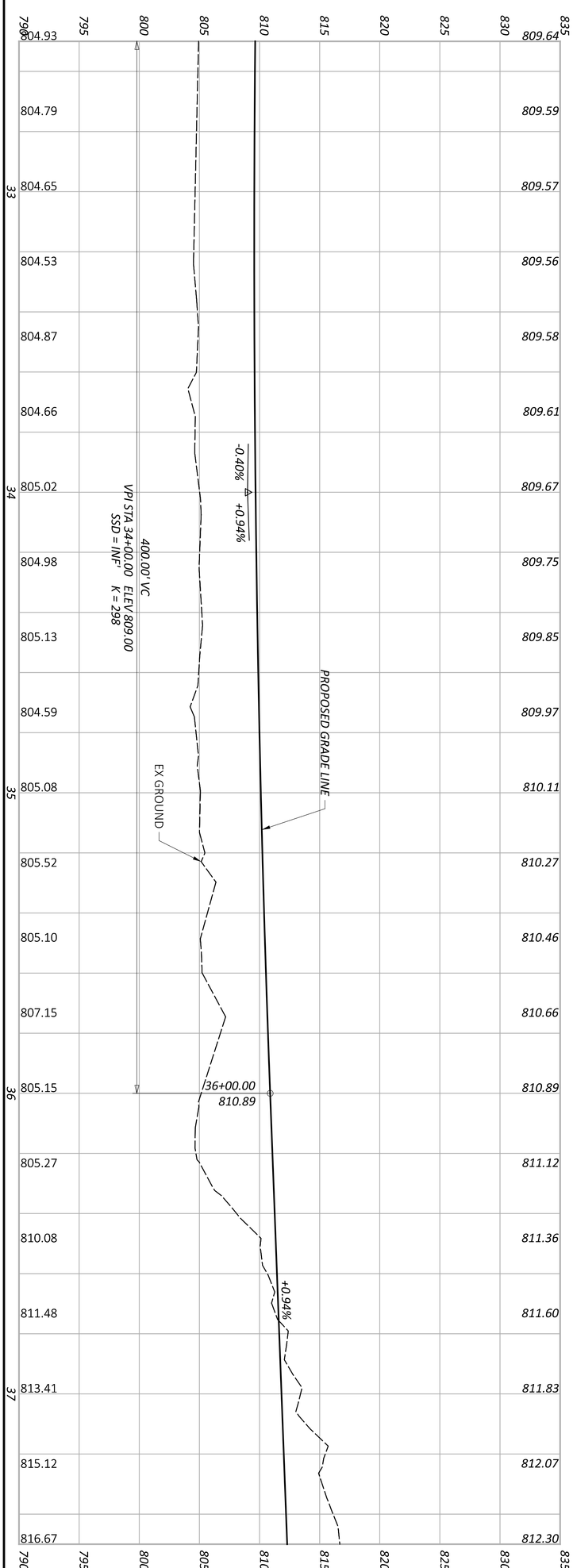

ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 32+50.00 TO STA. 37+50.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
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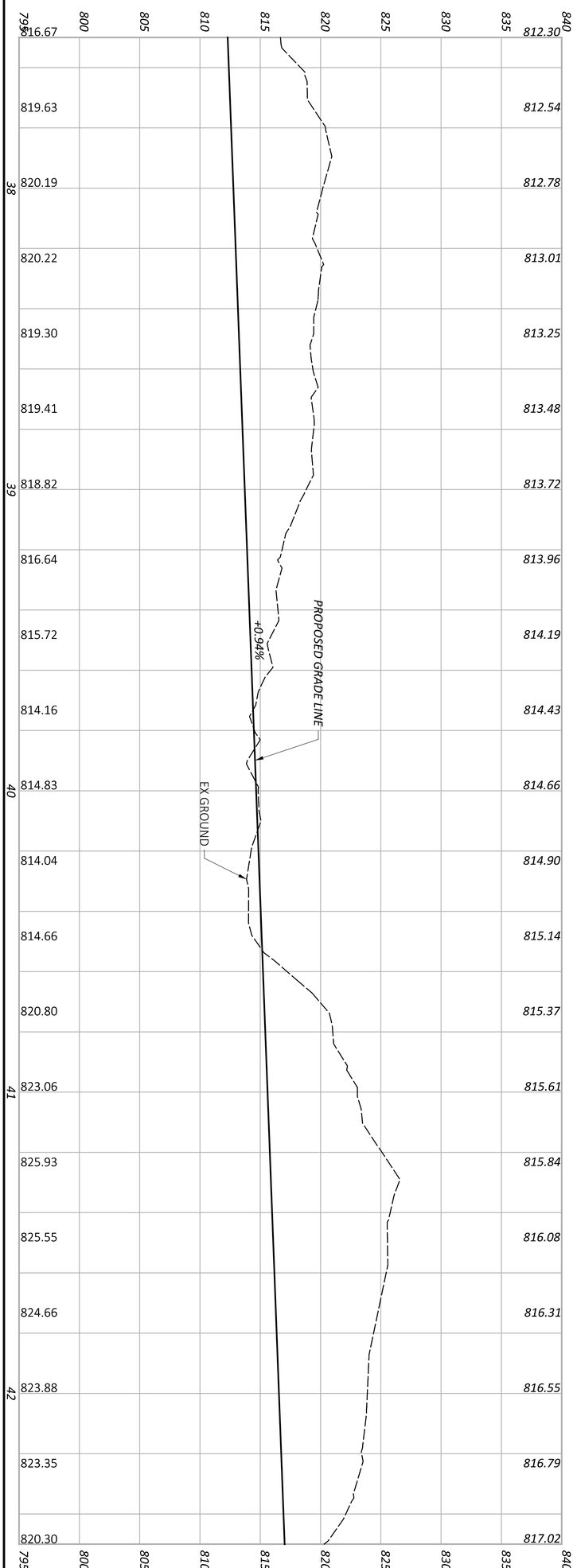

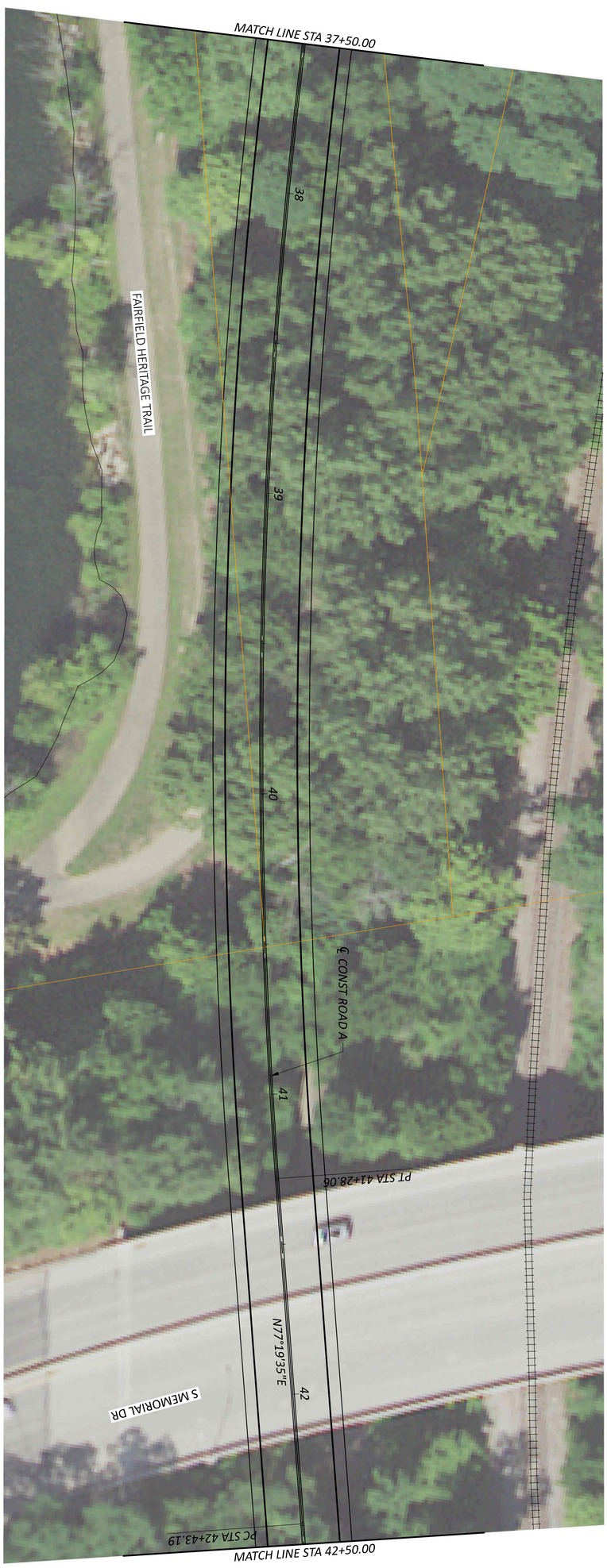

ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 37+50.00 TO STA. 42+50.00

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
7	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

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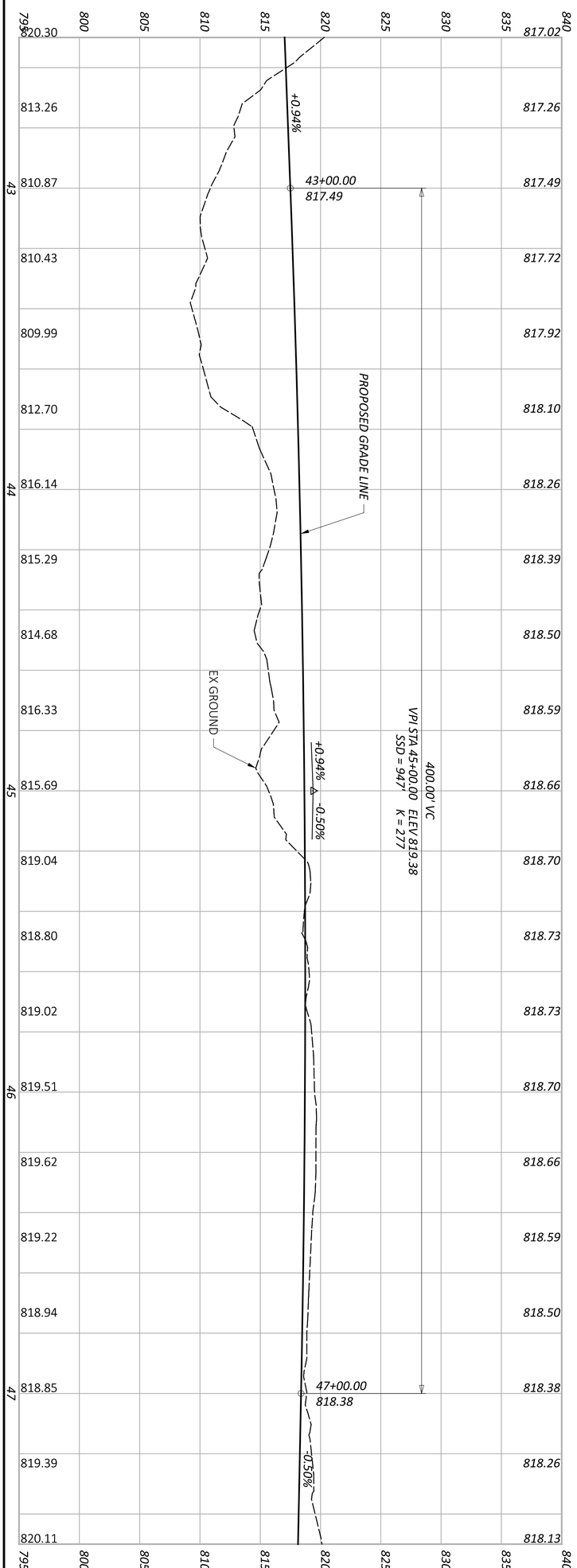
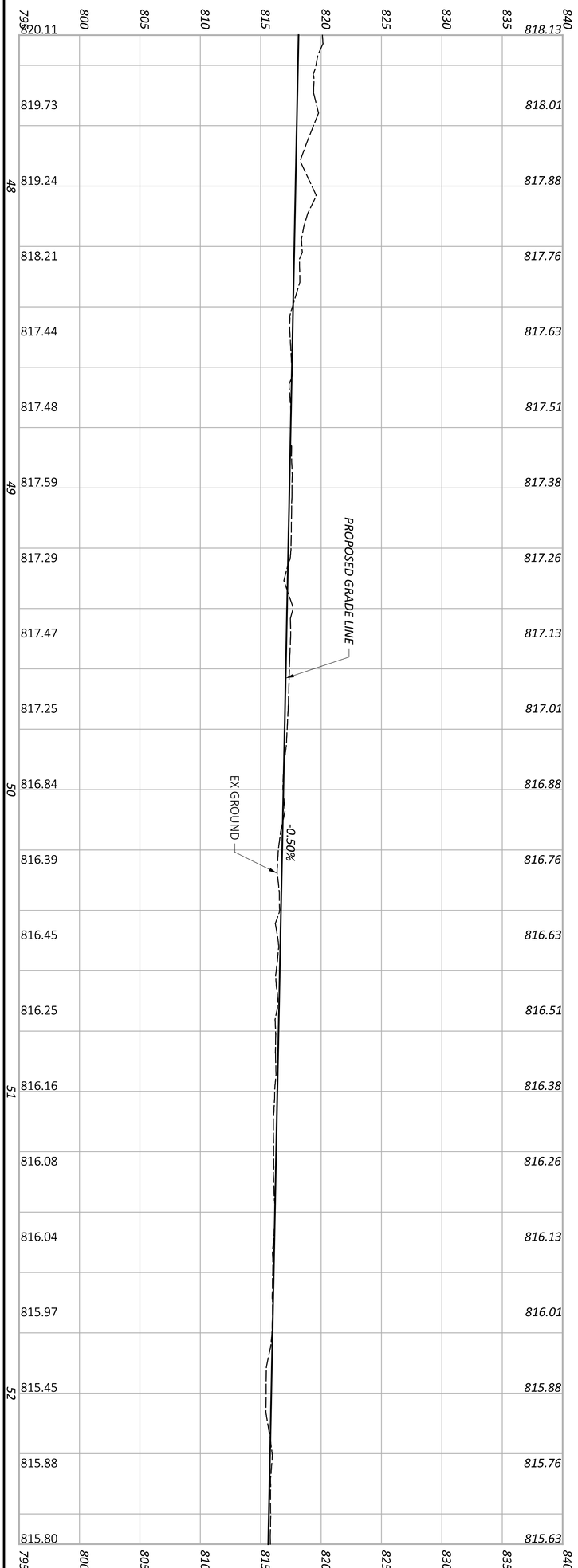
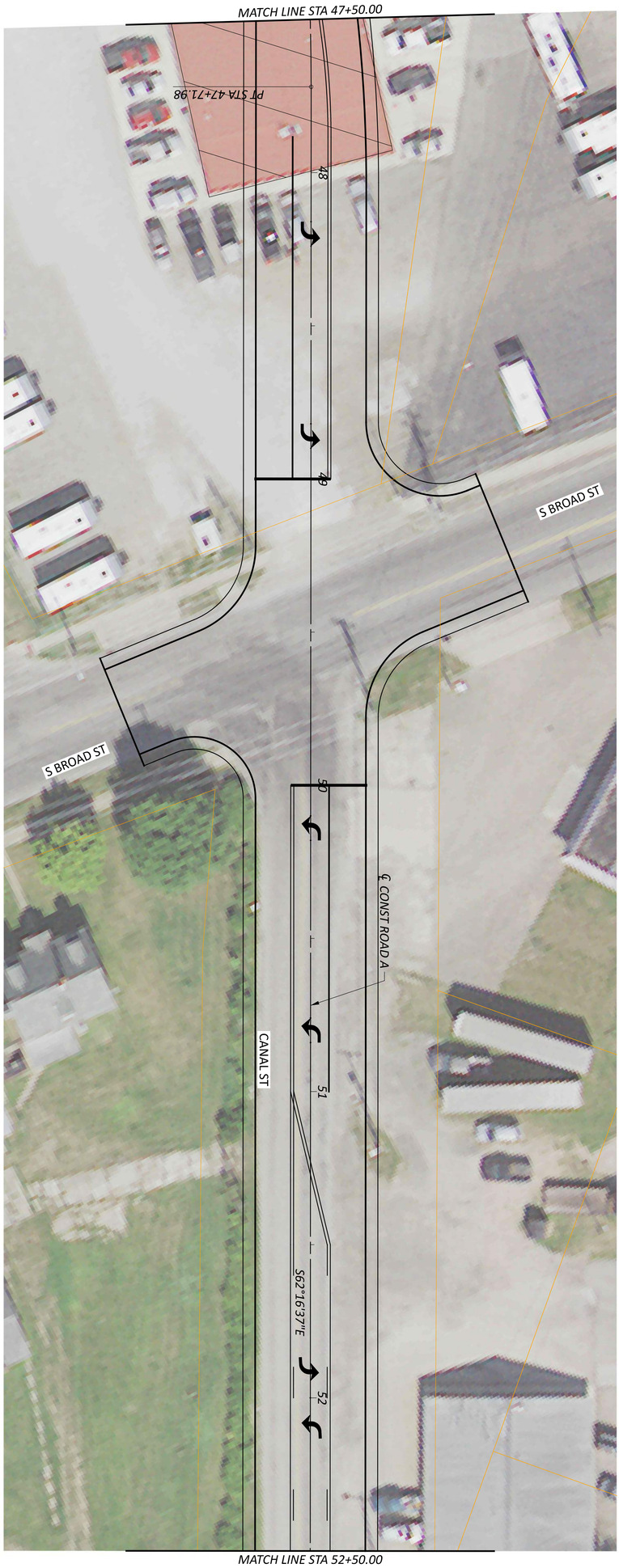


SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
8	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 42+50.00 TO STA. 47+50.00

HORIZONTAL SCALE IN FEET
0 20
10 40





ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 47+50.00 TO STA. 52+50.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
9	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

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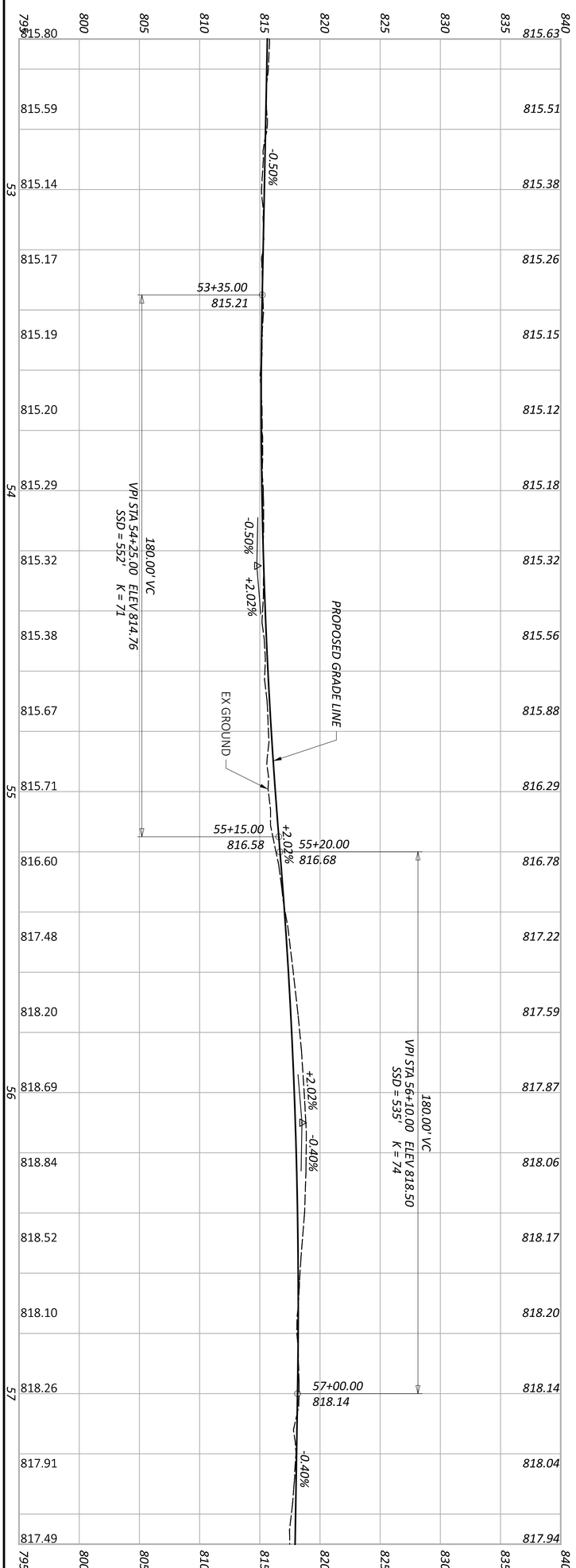

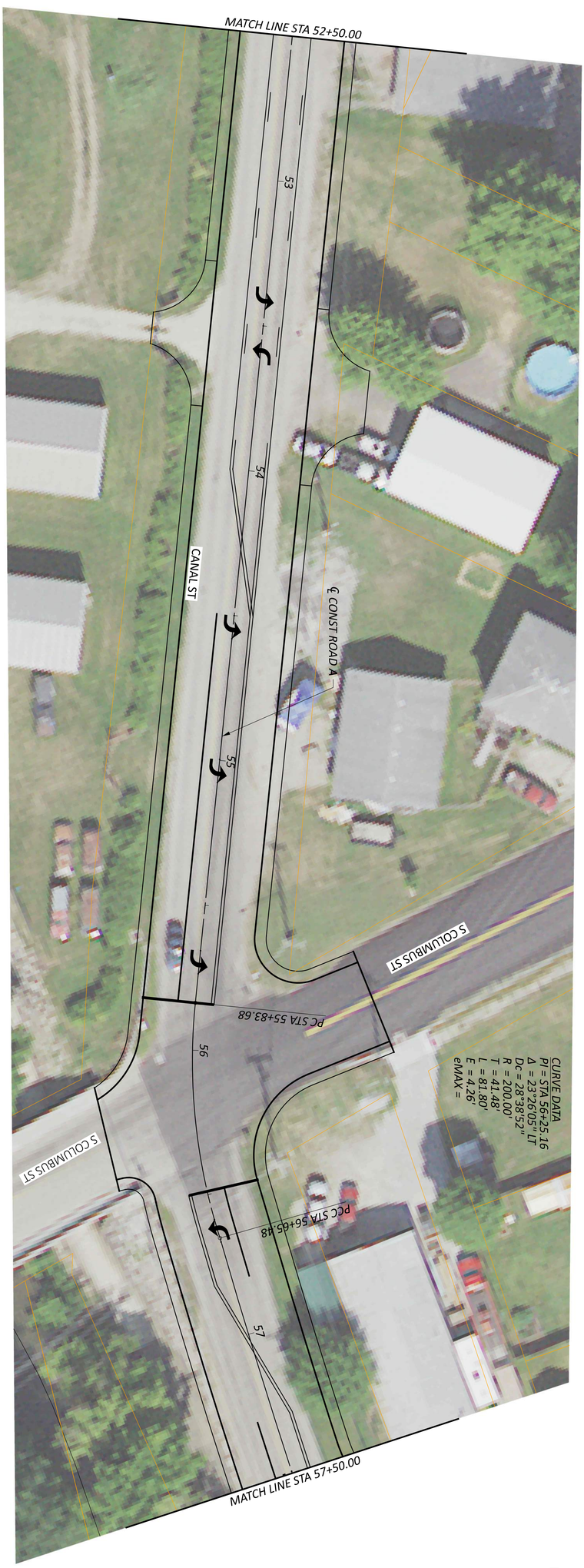

SHEET 10 TOTAL 162	PROJECT ID 03022	REVIEWER KAM 03/02/23	DESIGNER LZS	DESIGN AGENCY AMERICAN STRUCTUREPOINT INC.	ALTERNATIVE 2A, 7 PLAN AND PROFILE - ROAD A STA. 52+50.00 TO STA. 57+50.00

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

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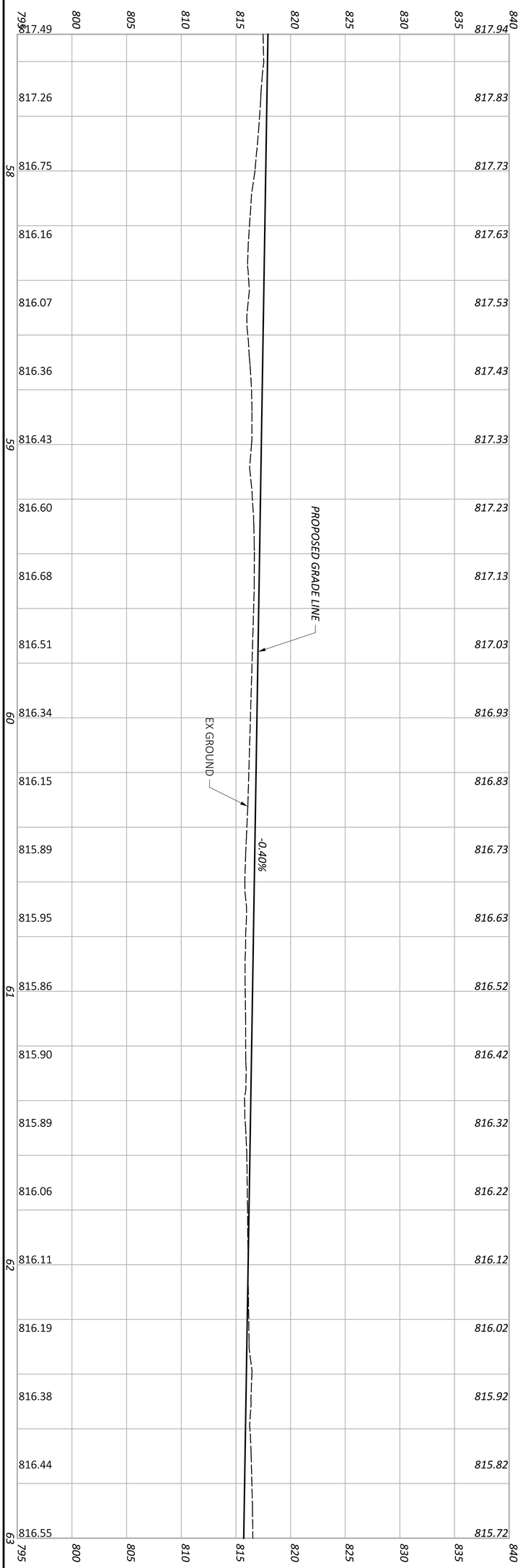

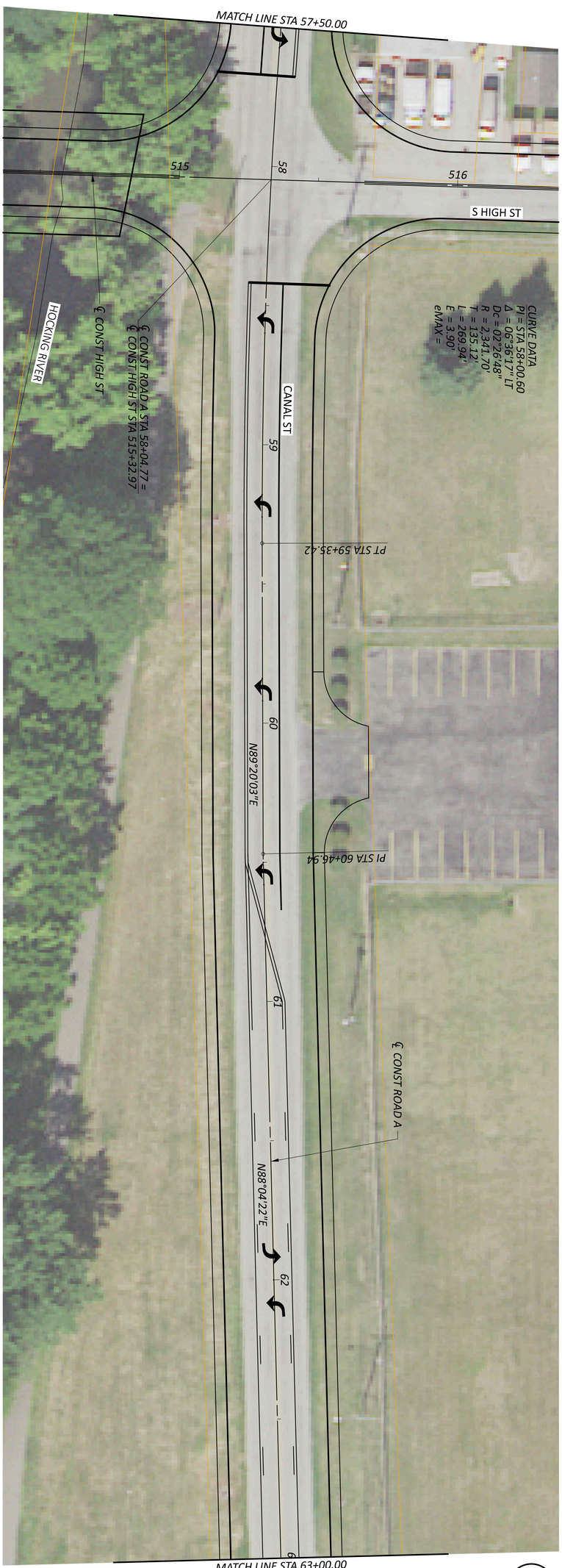

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FAI - LANCASTER INDUSTRIAL BYPASS

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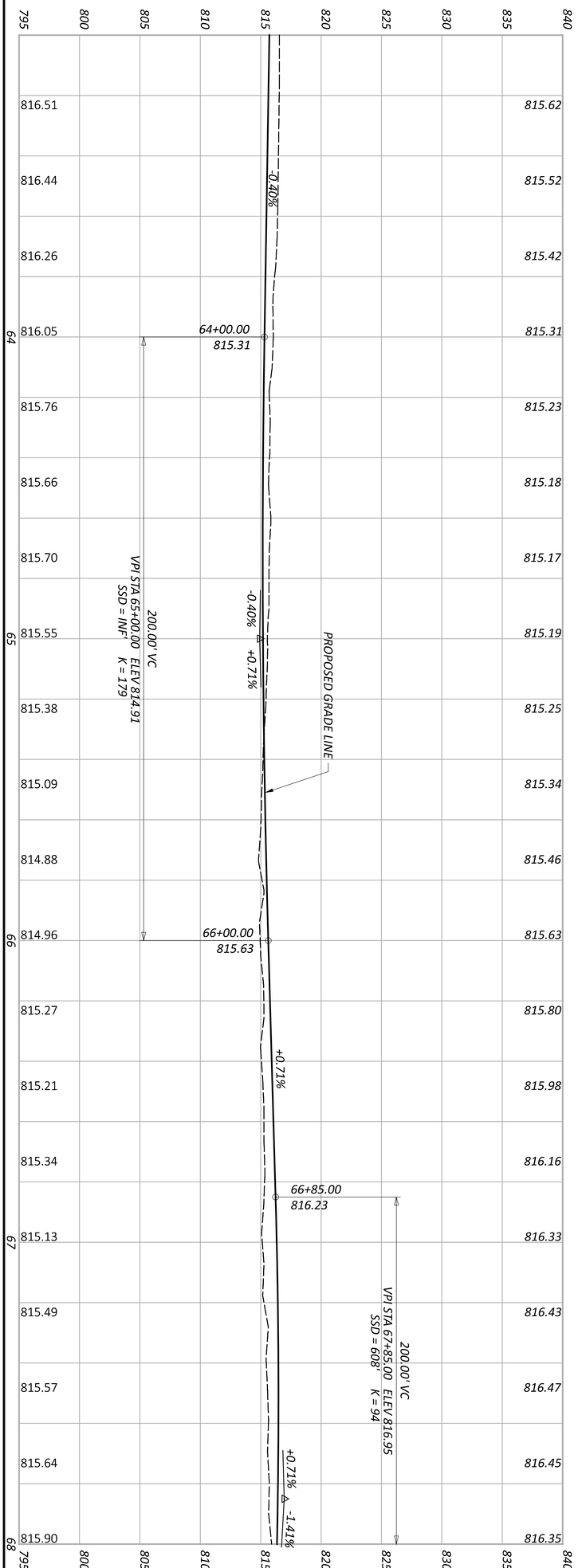

ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 63+00.00 TO STA. 68+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
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FAI - LANCASTER INDUSTRIAL BYPASS

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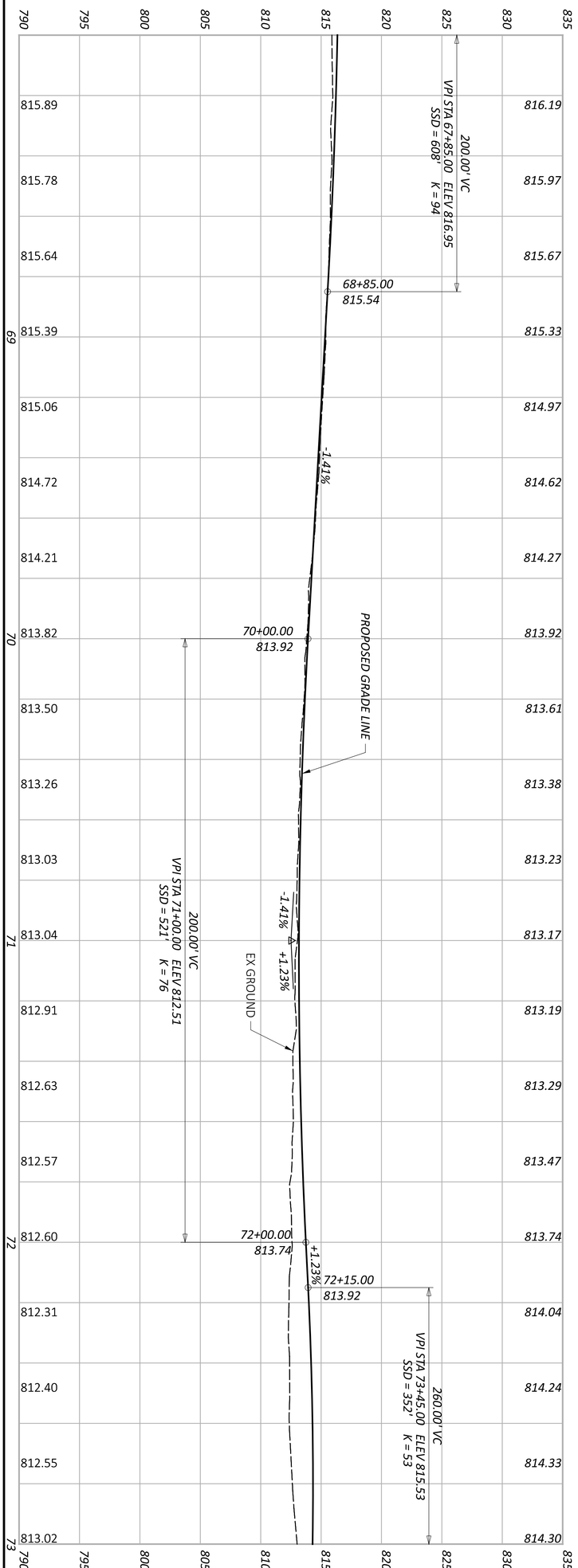

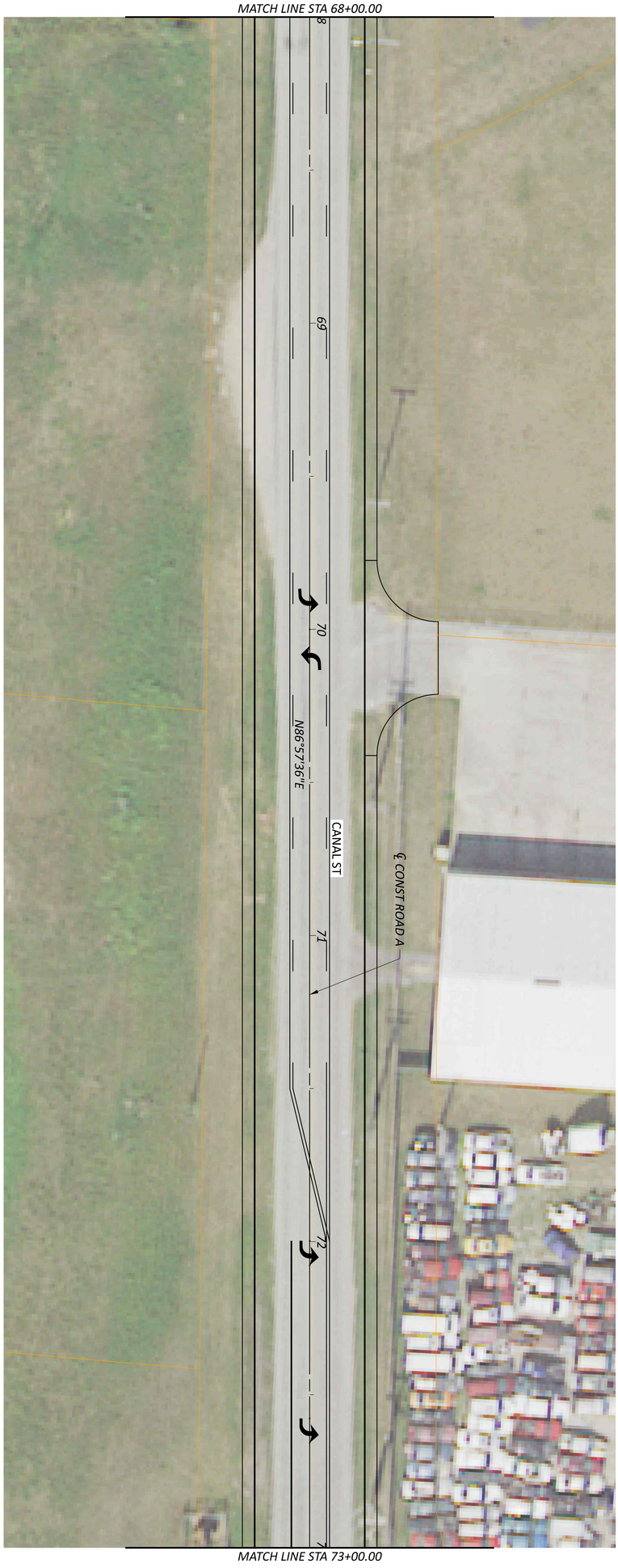

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
13	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 68+00.00 TO STA. 73+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

MODEL: MAIN - PP SHEET 13 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:21:11 PM USER: cphillips
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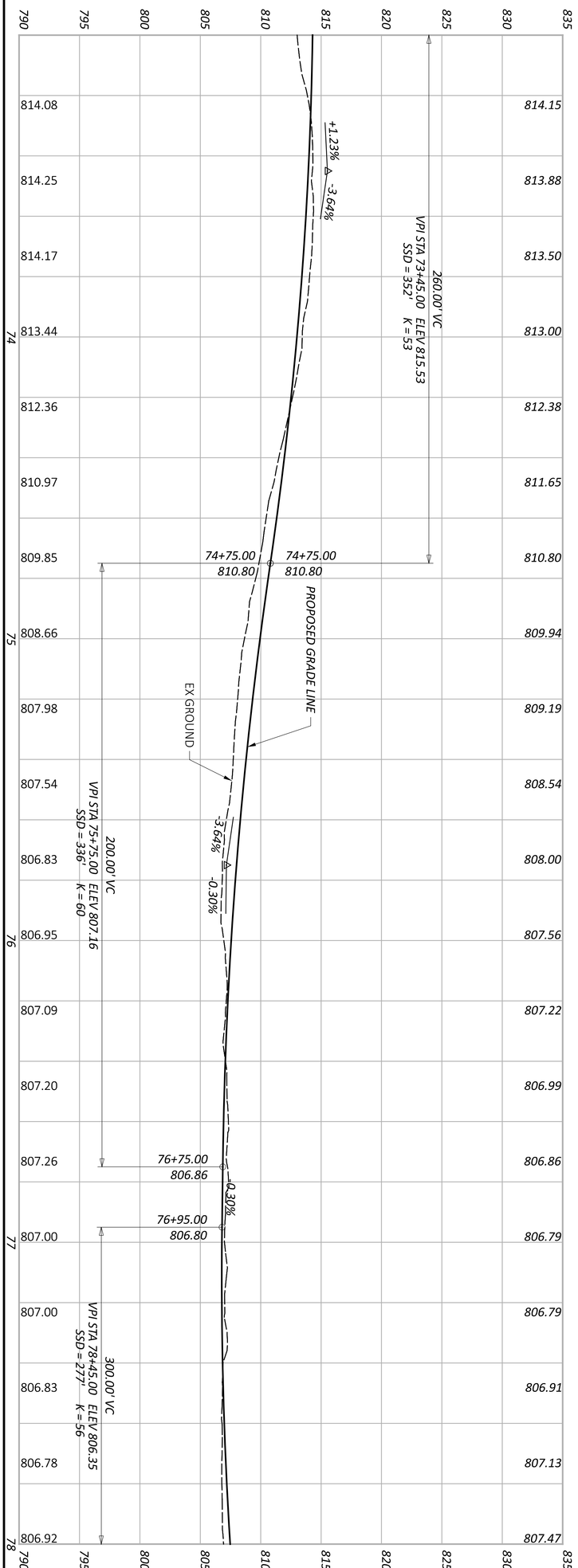

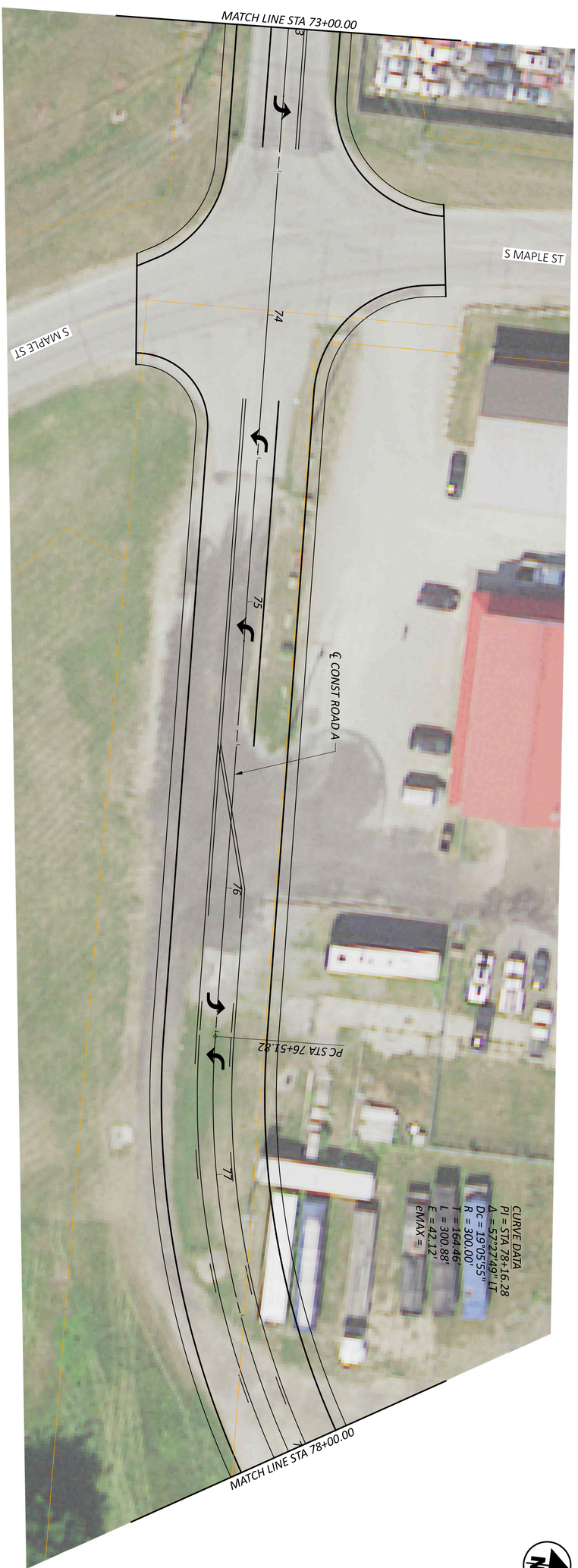

ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 73+00.00 TO STA. 78+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
14	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

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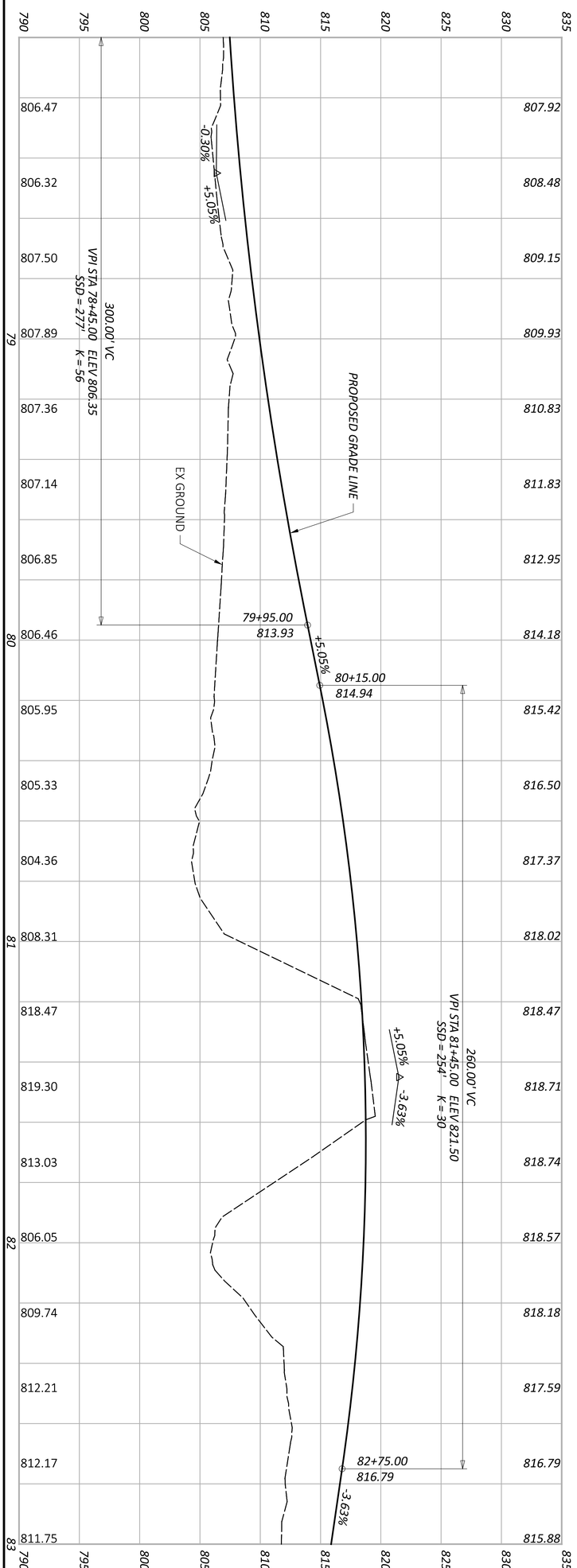

ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 78+00.00 TO STA. 83+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
15	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: MAIN - PP SHEET 15 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:21:33 PM USER: cphillips
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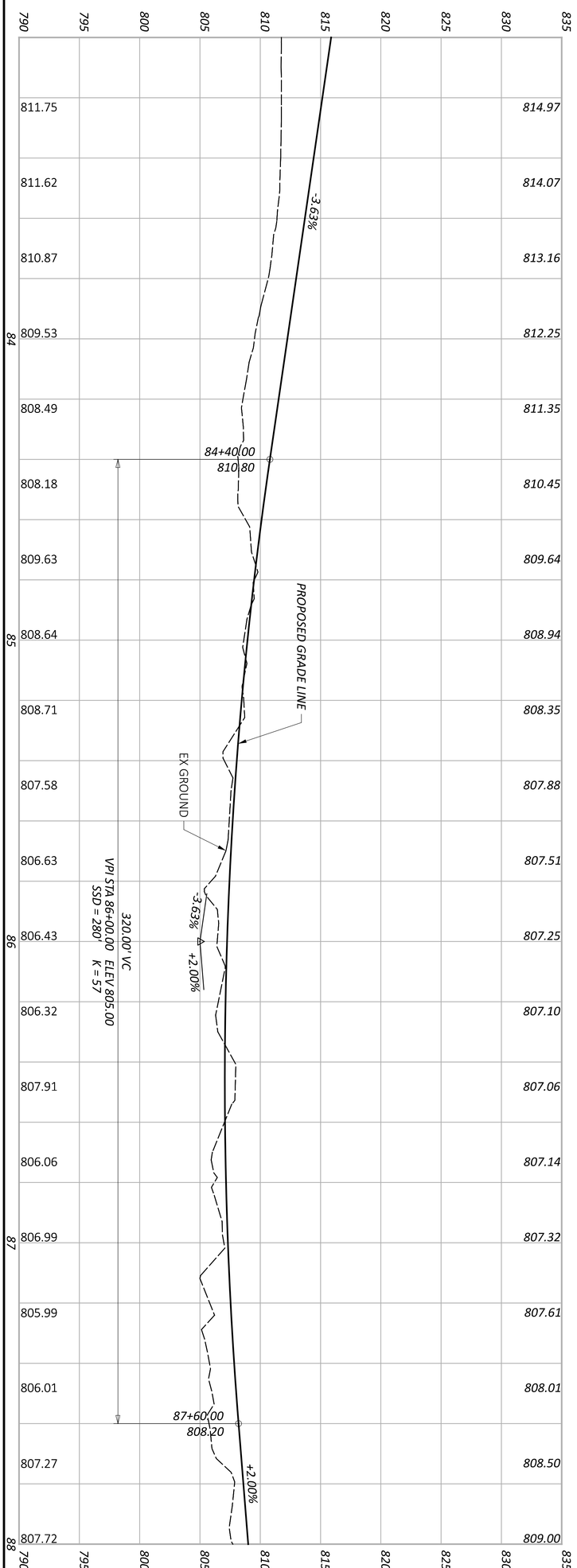
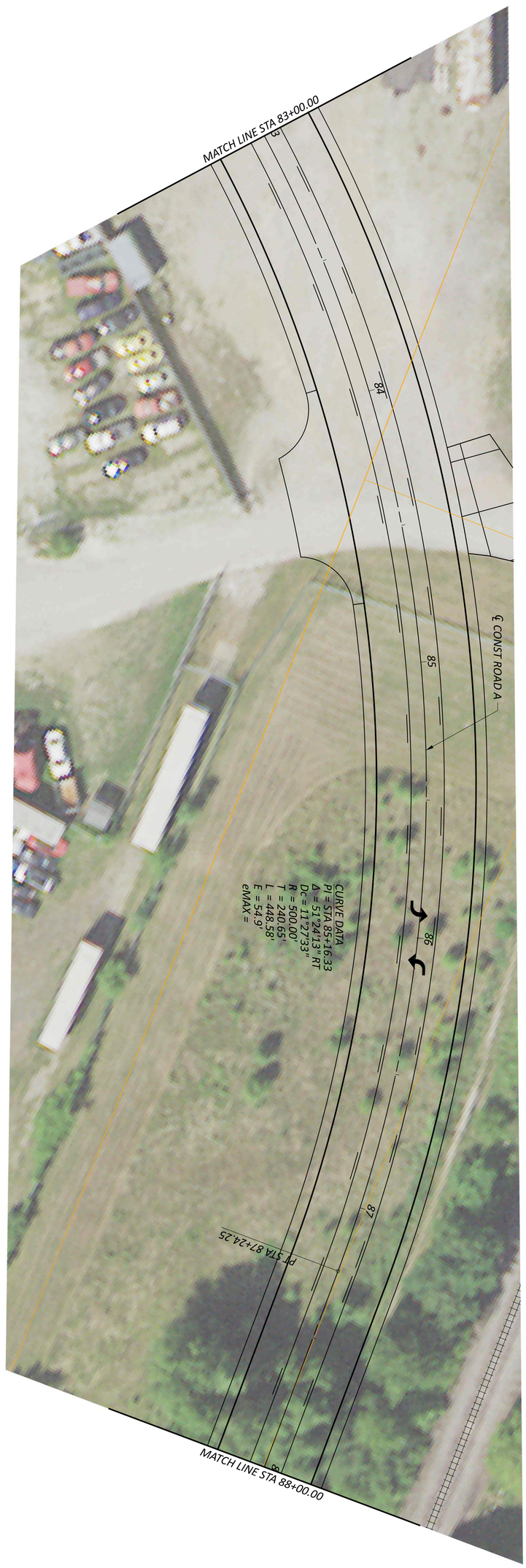
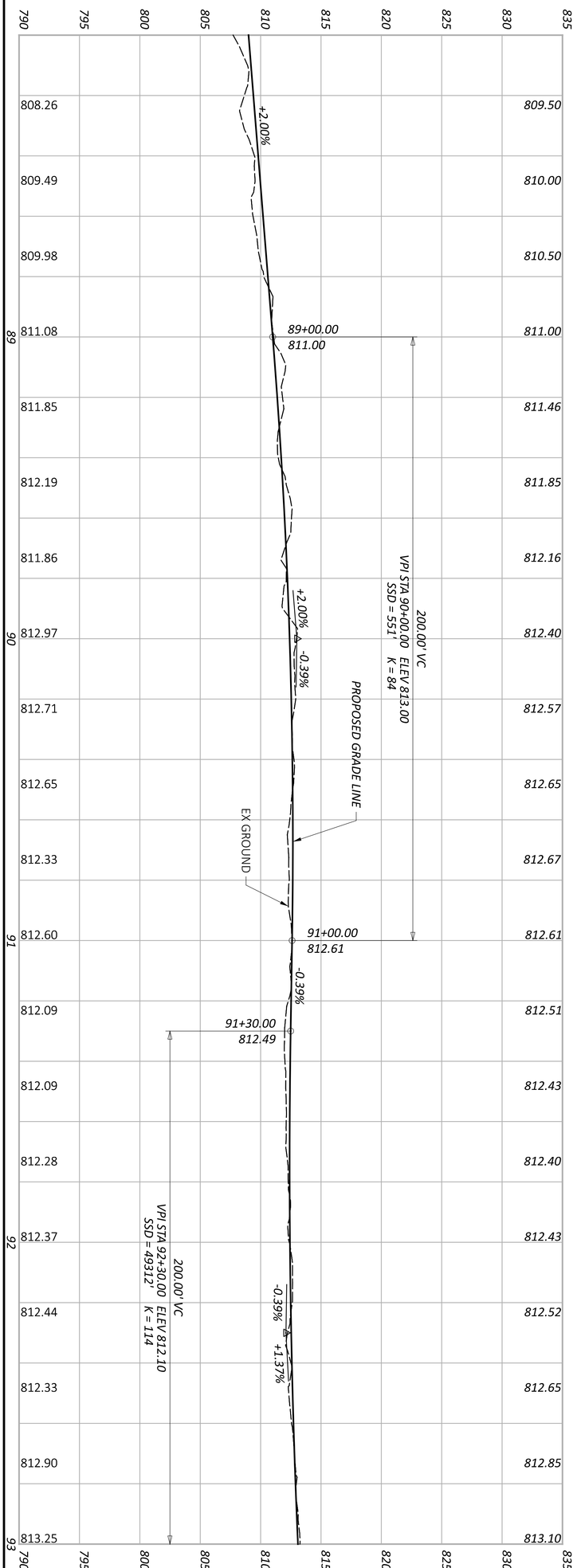




ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 83+00.00 TO STA. 88+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
16	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.



ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 88+00.00 TO STA. 93+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
17 TOTAL 162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: MAIN - PP SHEET 17 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:21:55 PM USER: cphillips
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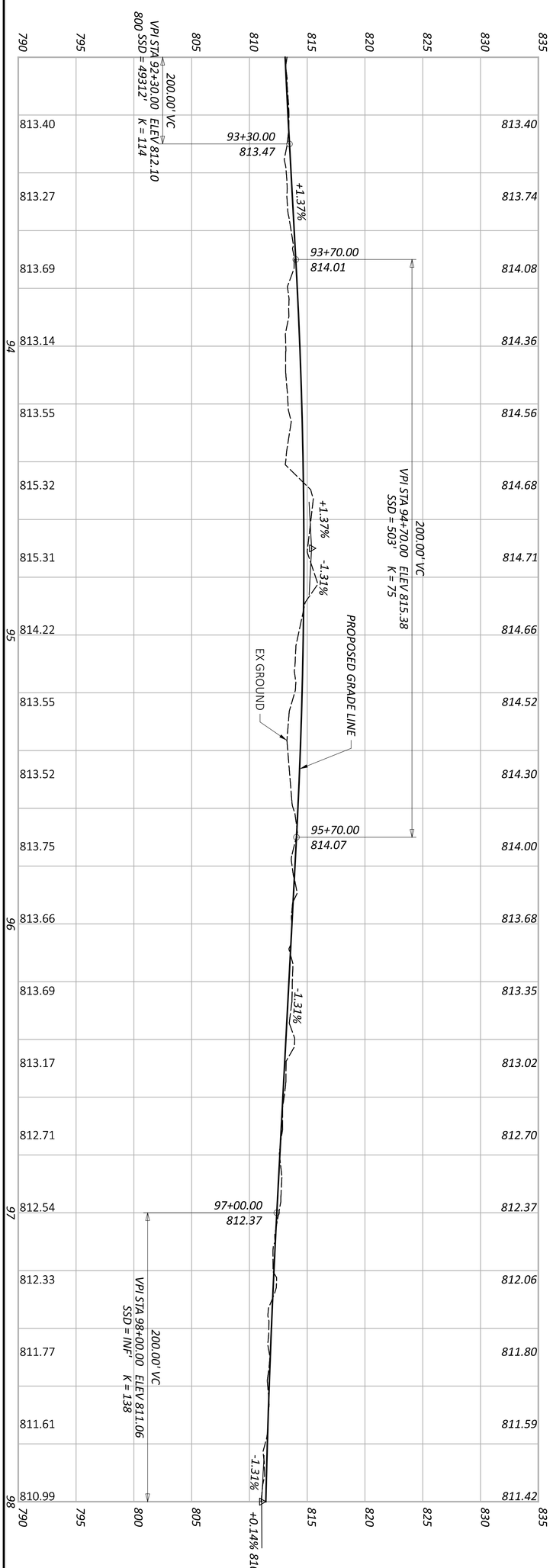

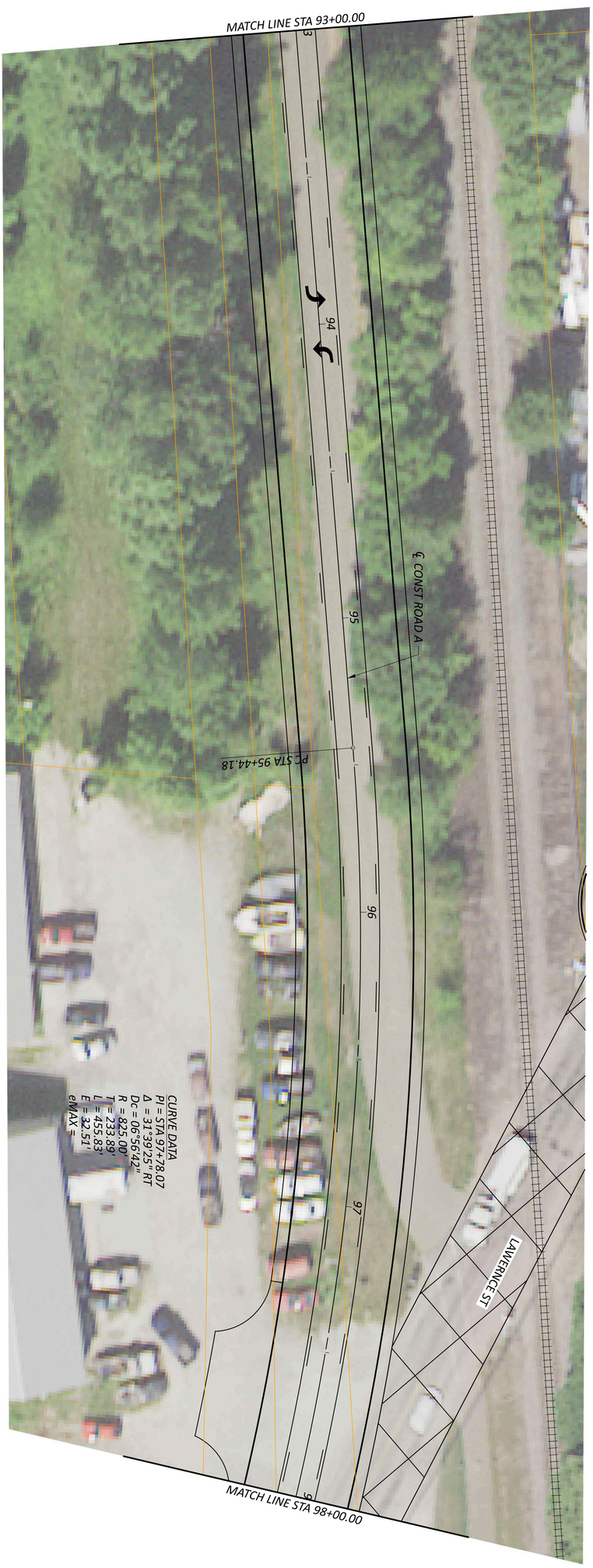

ALTERNATIVE 2A, 7
PLAN AND PROFILE - ROAD A
STA. 93+00.00 TO STA. 98+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
18	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: MAIN - PP SHEET 18 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:22:06 PM USER: cphillips
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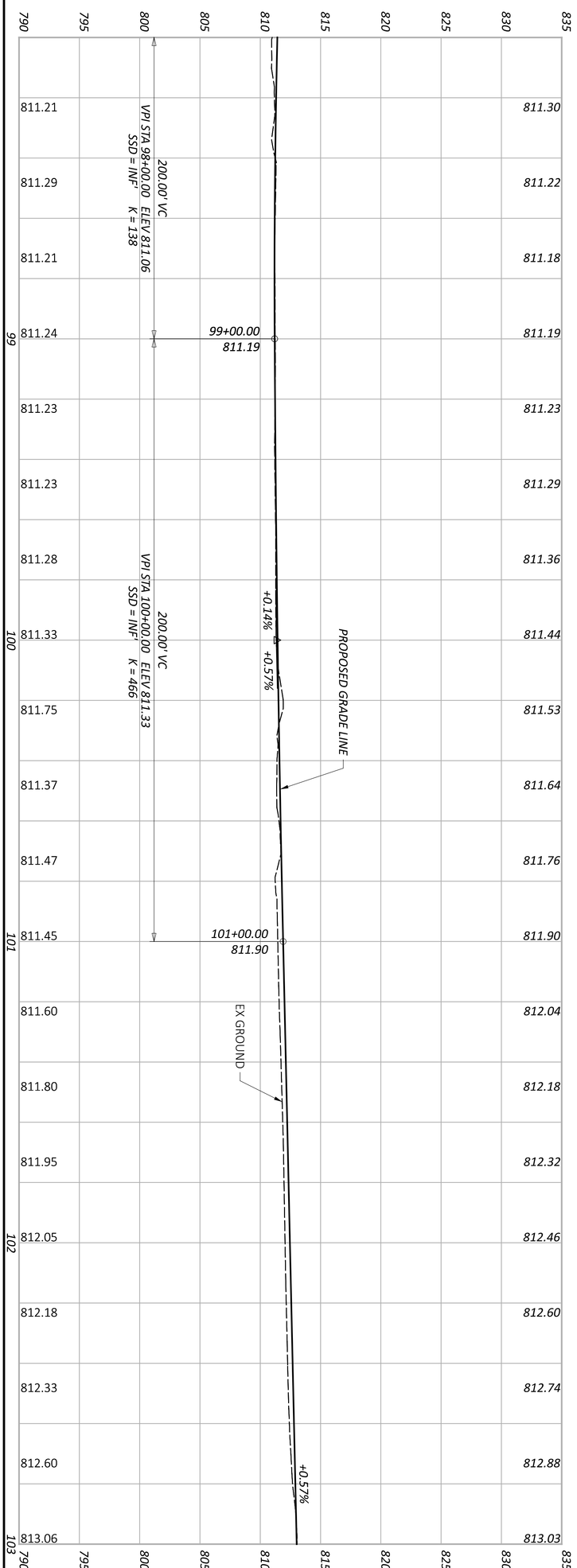
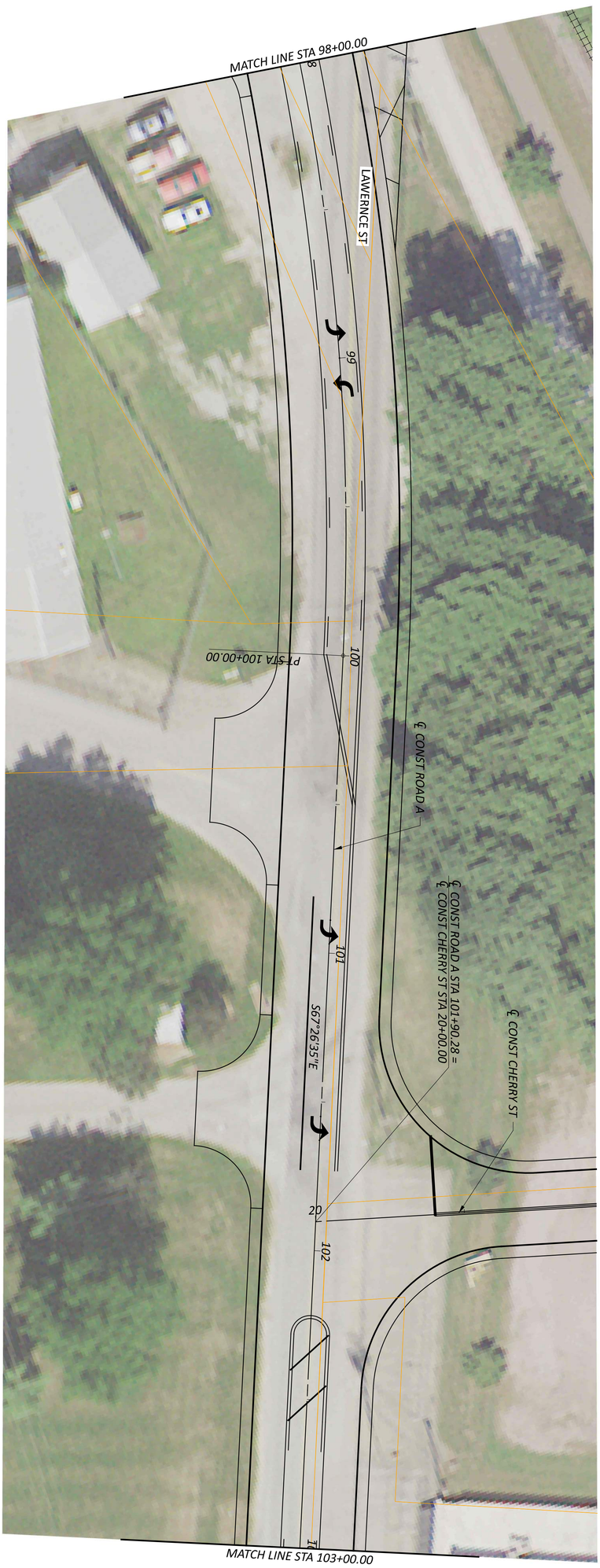




SHEET	TOTAL
19	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: LZS

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

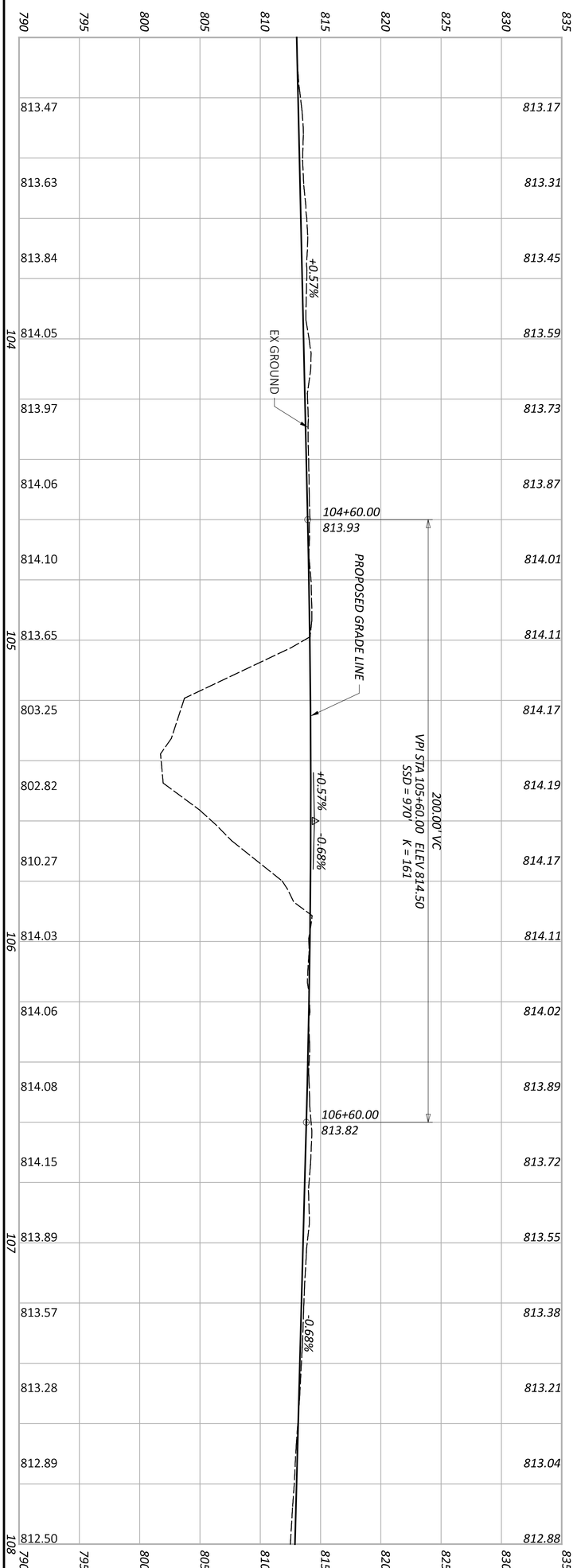
ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 98+00.00 TO STA. 103+00.00

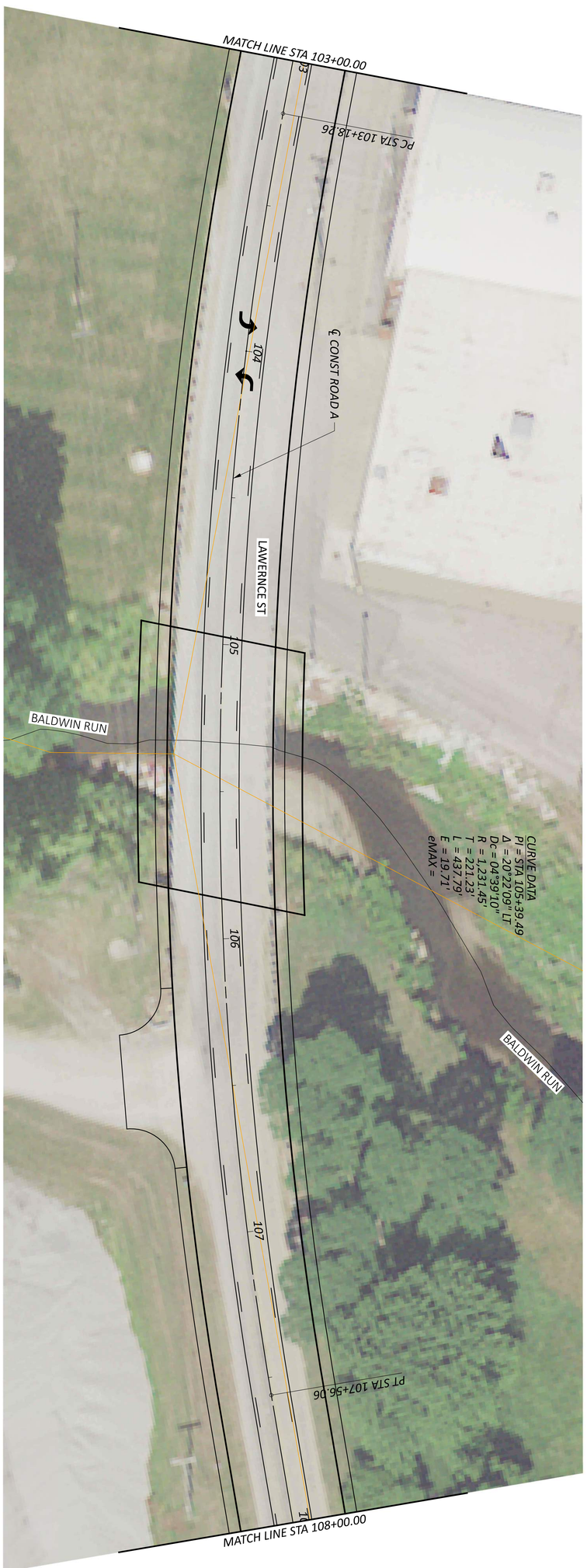
HORIZONTAL SCALE IN FEET

0 20 10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: MAIN - PP SHEET 19 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:22:16 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP119.dgn





SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
20	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 103+00.00 TO STA. 108+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: MAIN - PP SHEET 20 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:22:28 PM USER: cphillips
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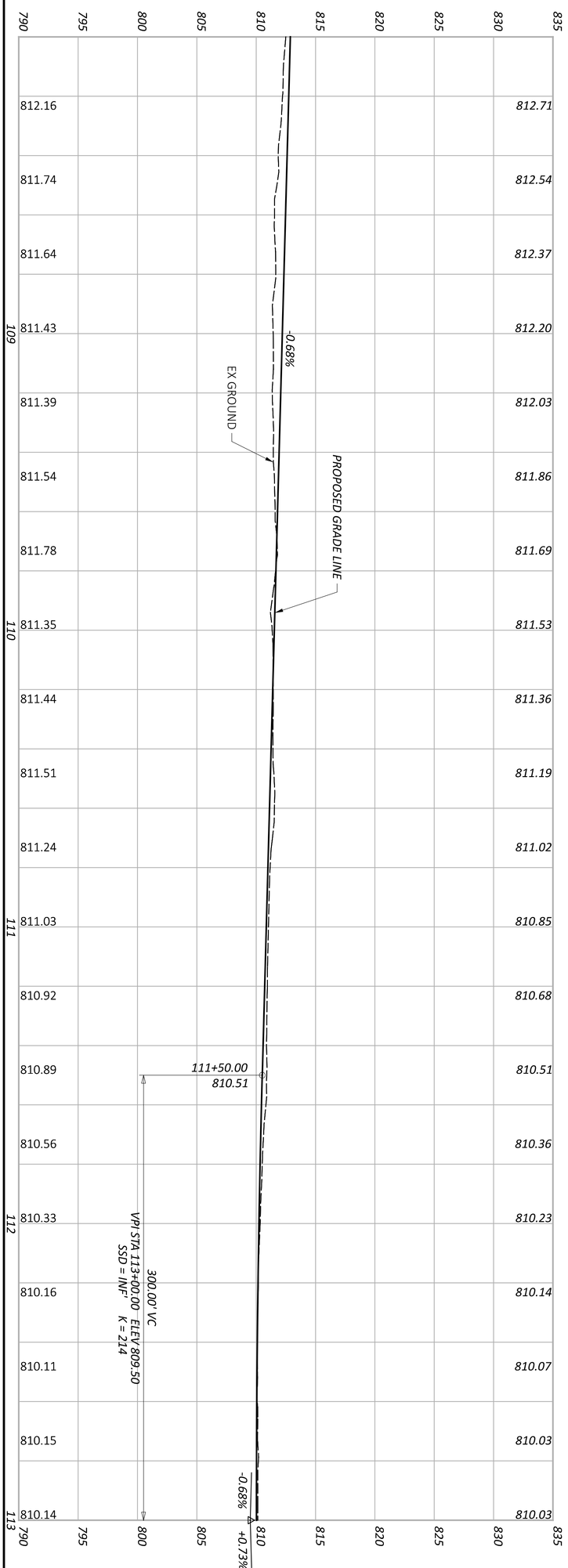

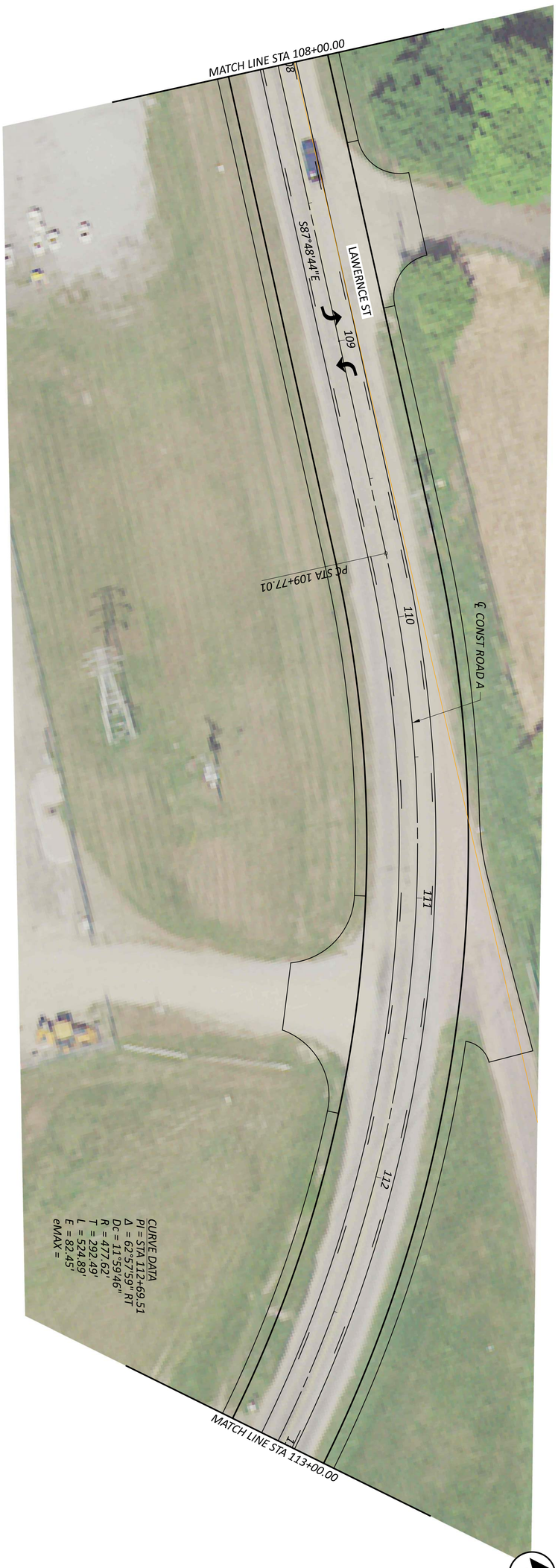

SHEET 21 TOTAL 162	PROJECT ID 03022	REVIEWER KAM 03/02/23	DESIGNER LZS	AMERICAN STRUCTUREPOINT INC. DESIGN AGENCY	ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7 PLAN AND PROFILE - ROAD A STA. 108+00.00 TO STA. 113+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: MAIN - PP SHEET 21 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:22:40 PM USER: cphillips
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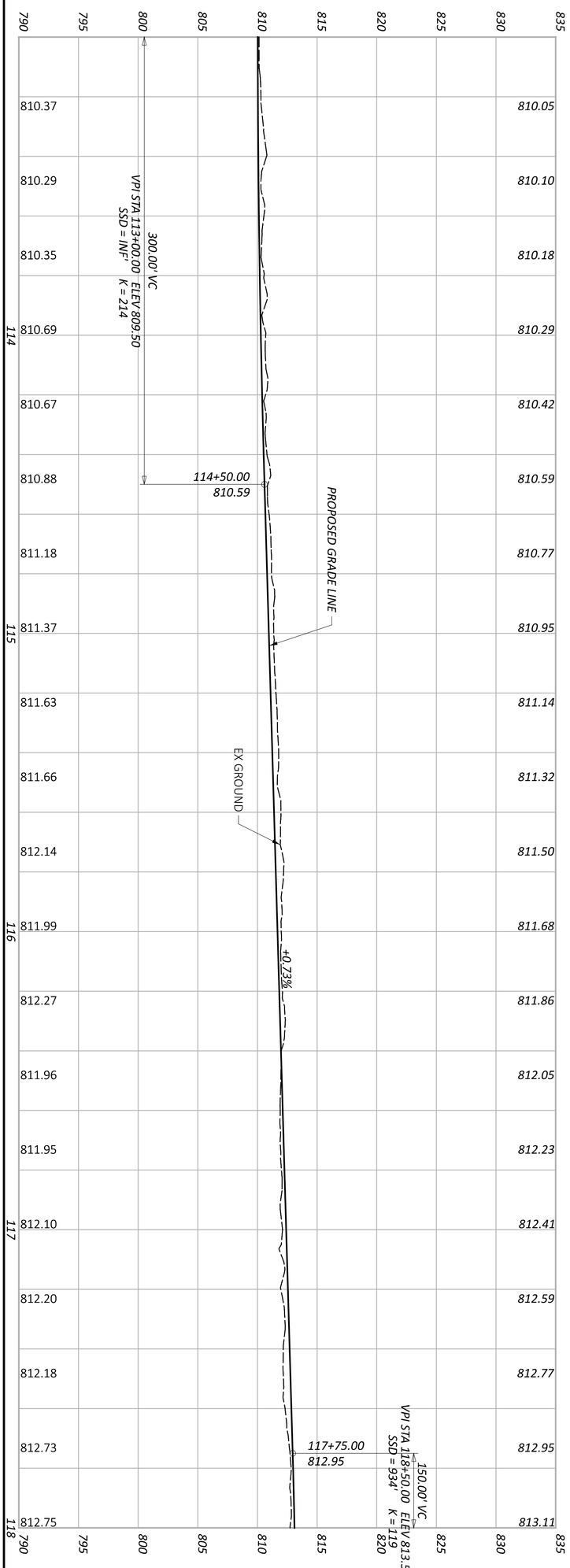

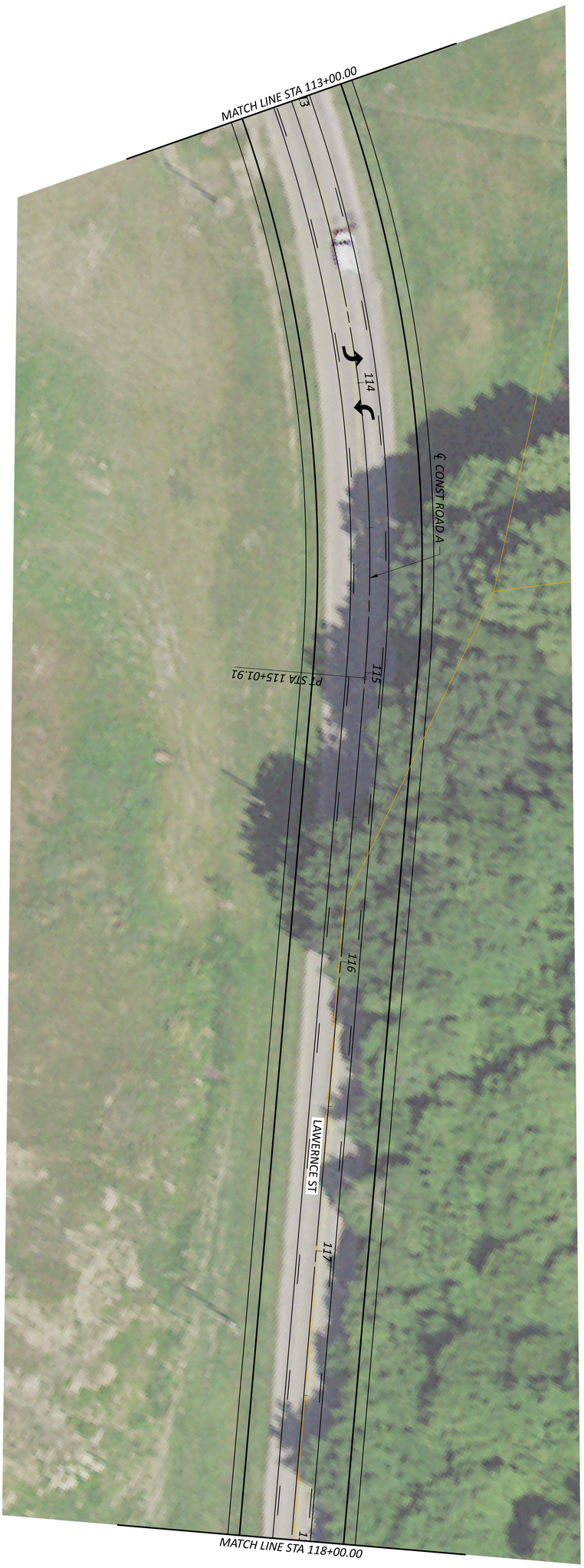

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
22	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 113+00.00 TO STA. 118+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

MODEL: MAIN - PP SHEET 22 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:22:50 PM USER: cphillips
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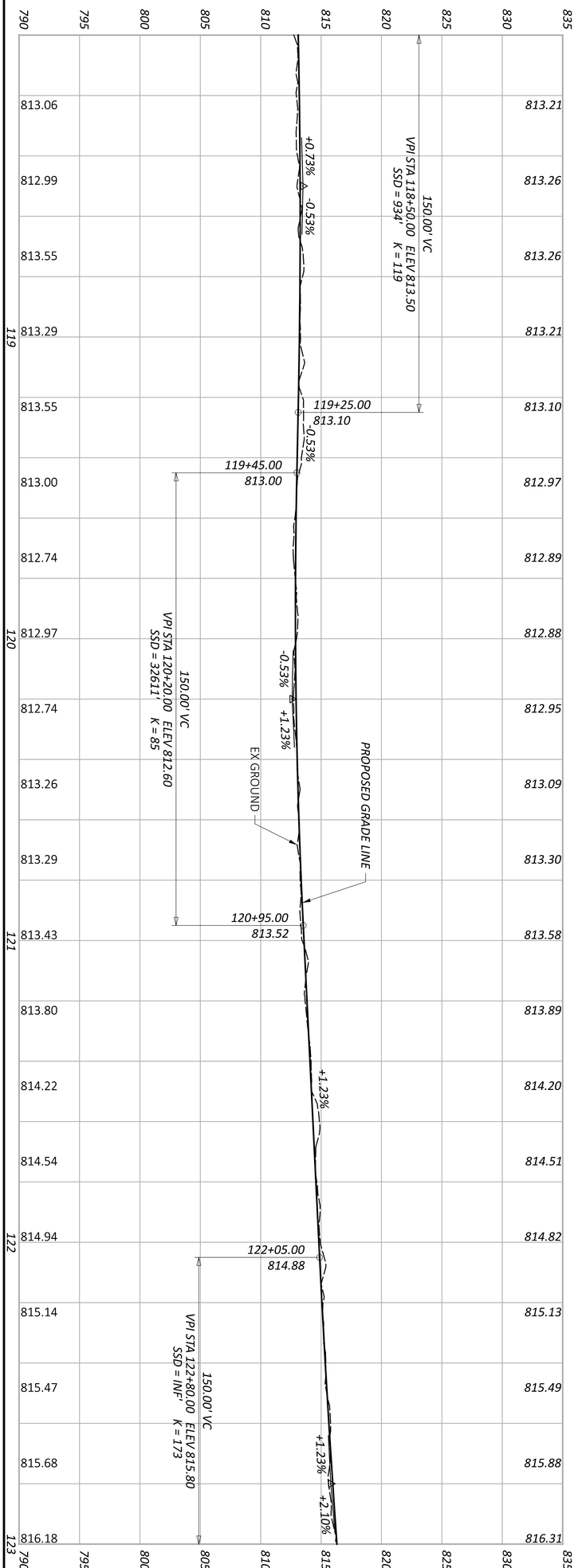

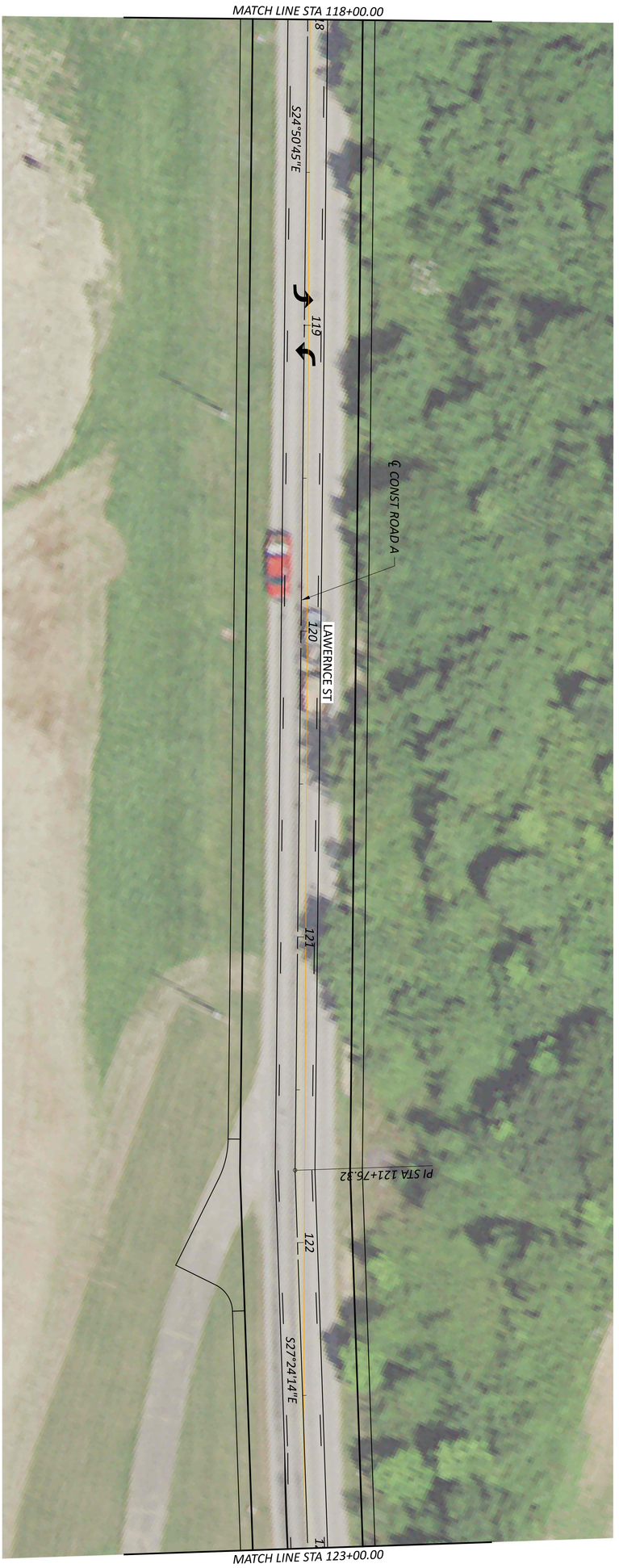

ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 118+00.00 TO STA. 123+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
23	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: MAIN - PP SHEET 23 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:23:00 PM USER: cphillips
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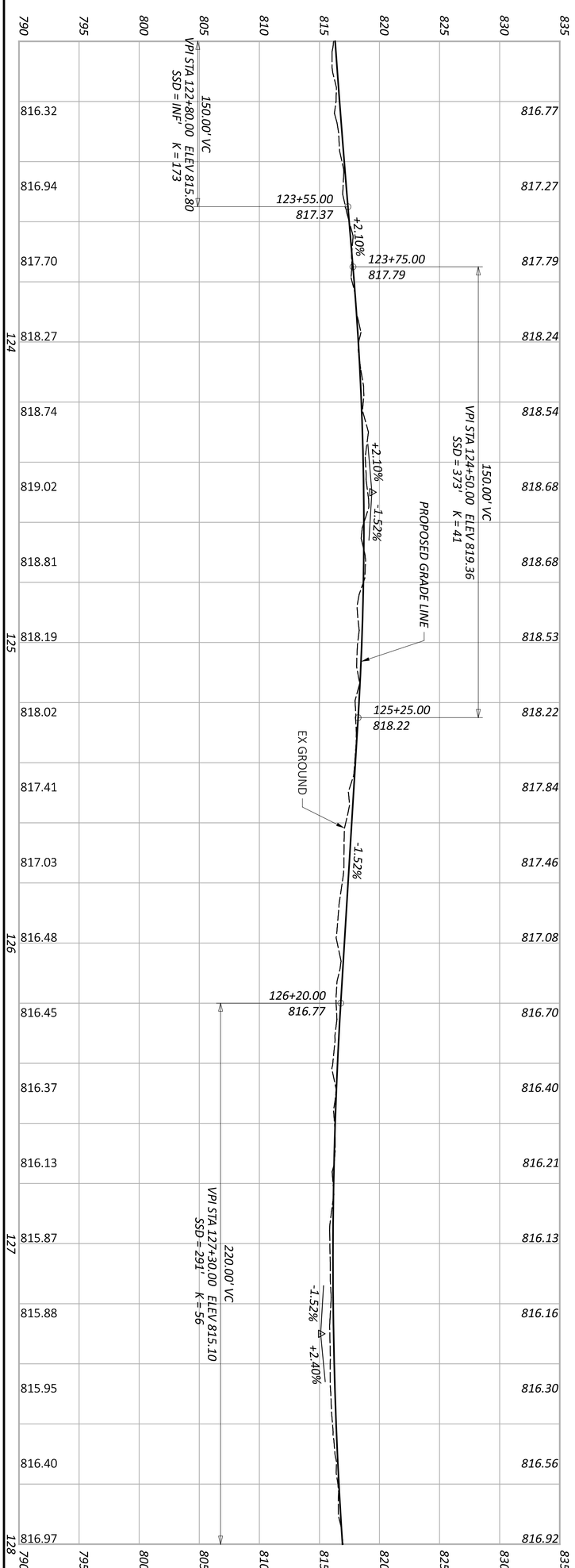

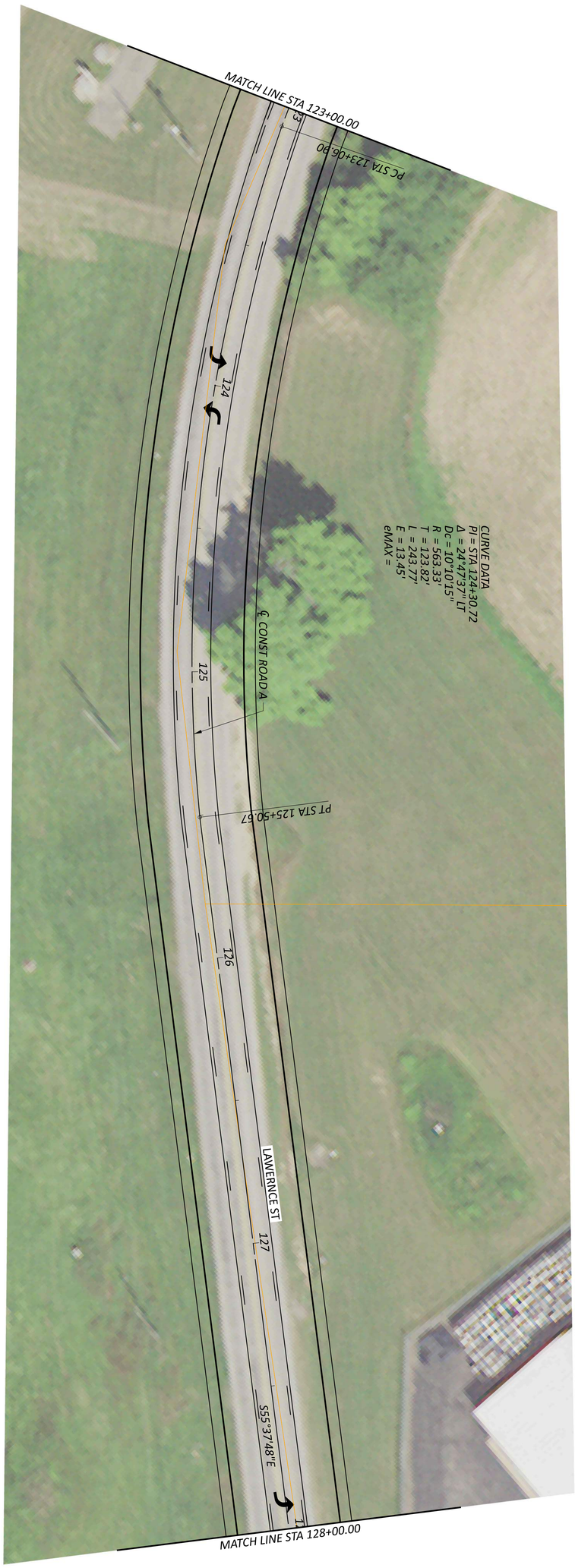

ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 123+00.00 TO STA. 128+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
24	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: MAIN - PP SHEET 24 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:23:12 PM USER: cphillips
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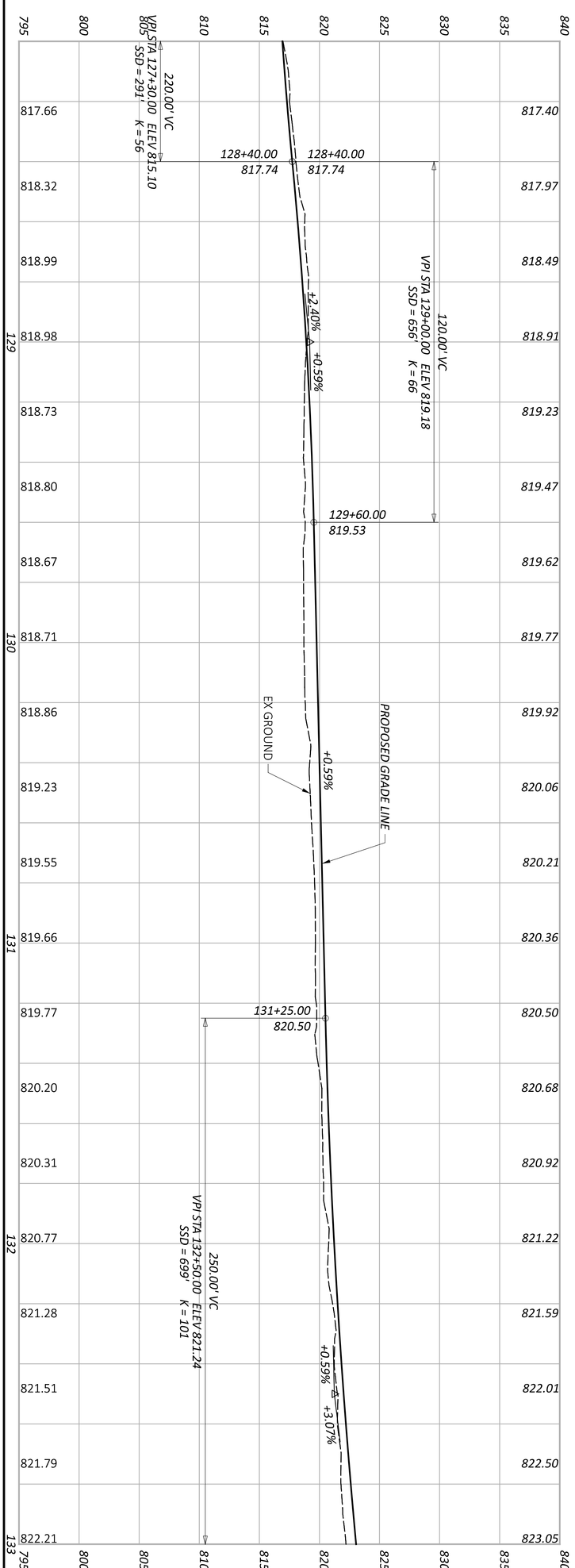
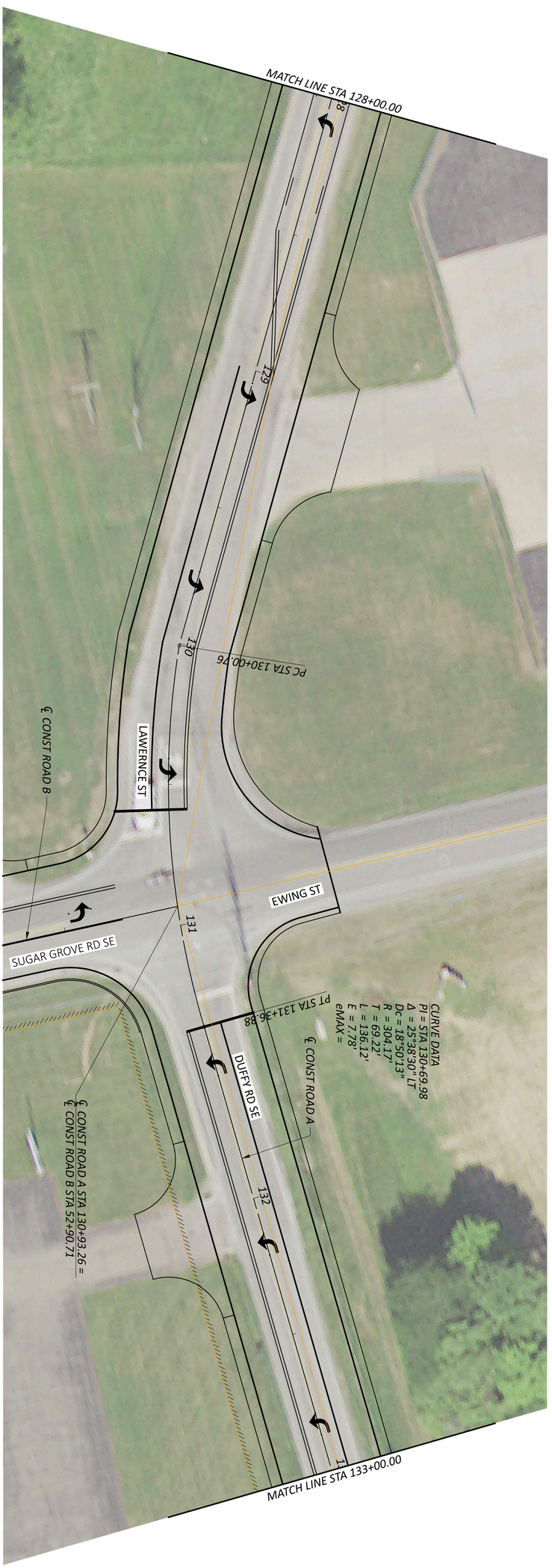


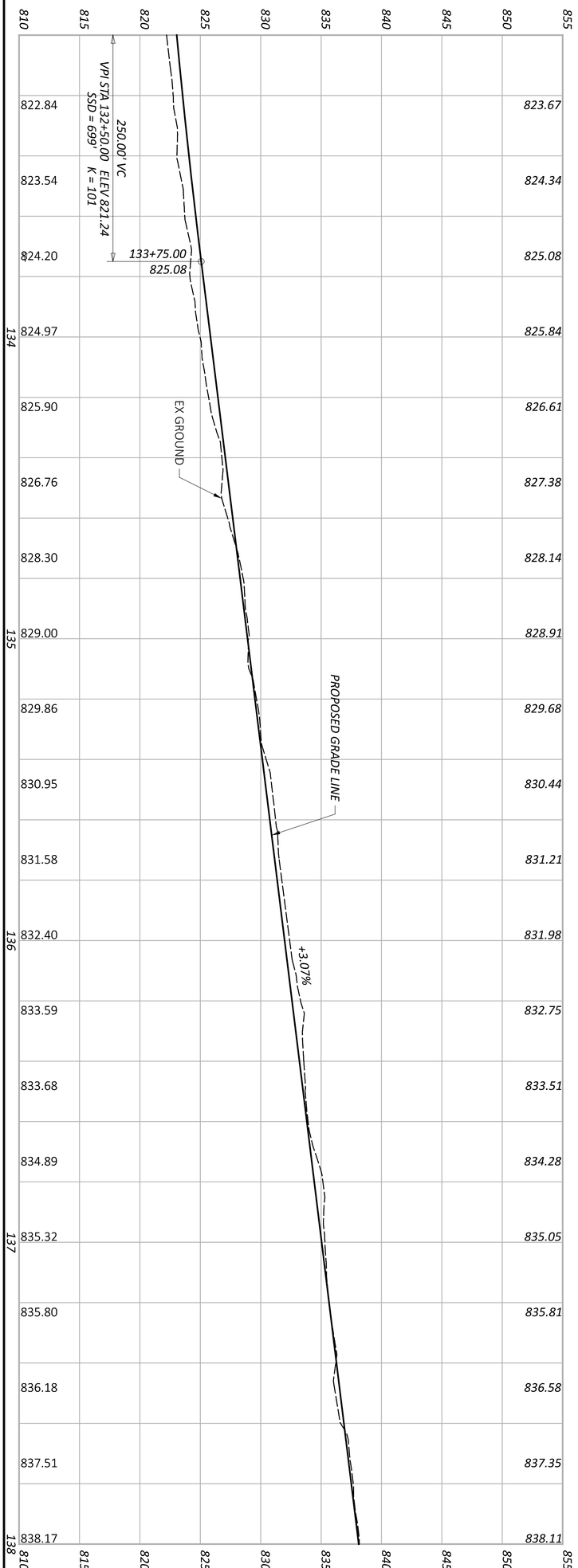


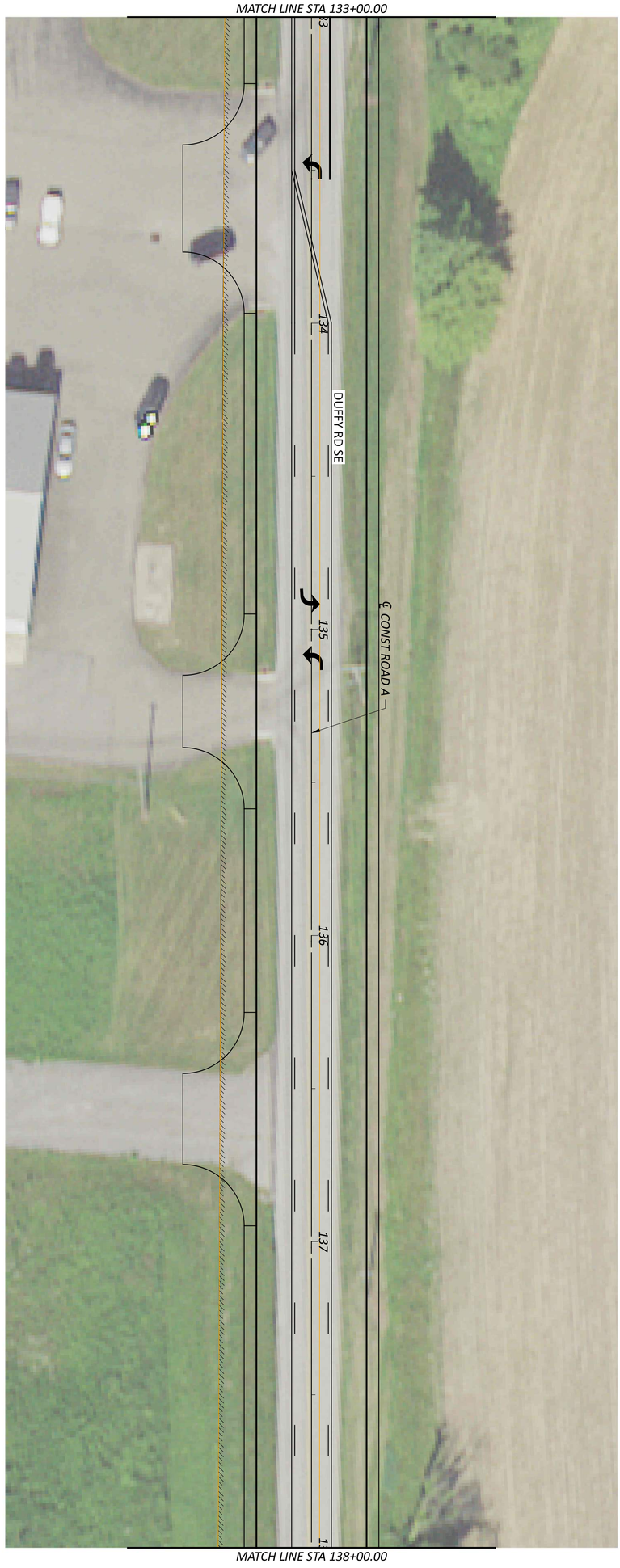
SHEET 25	TOTAL 162	PROJECT ID 03022	REVIEWER KAM 03/02/23	DESIGNER LZS	DESIGN AGENCY AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 128+00.00 TO STA. 133+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

MODEL: MAIN - PP SHEET 25 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:23:23 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP125.dgn





SHEET	TOTAL
26	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: LZS

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 133+00.00 TO STA. 138+00.00

HORIZONTAL SCALE IN FEET

0 20
10 40

MODEL: MAIN - PP SHEET 26 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:23:33 PM USER: cphillips
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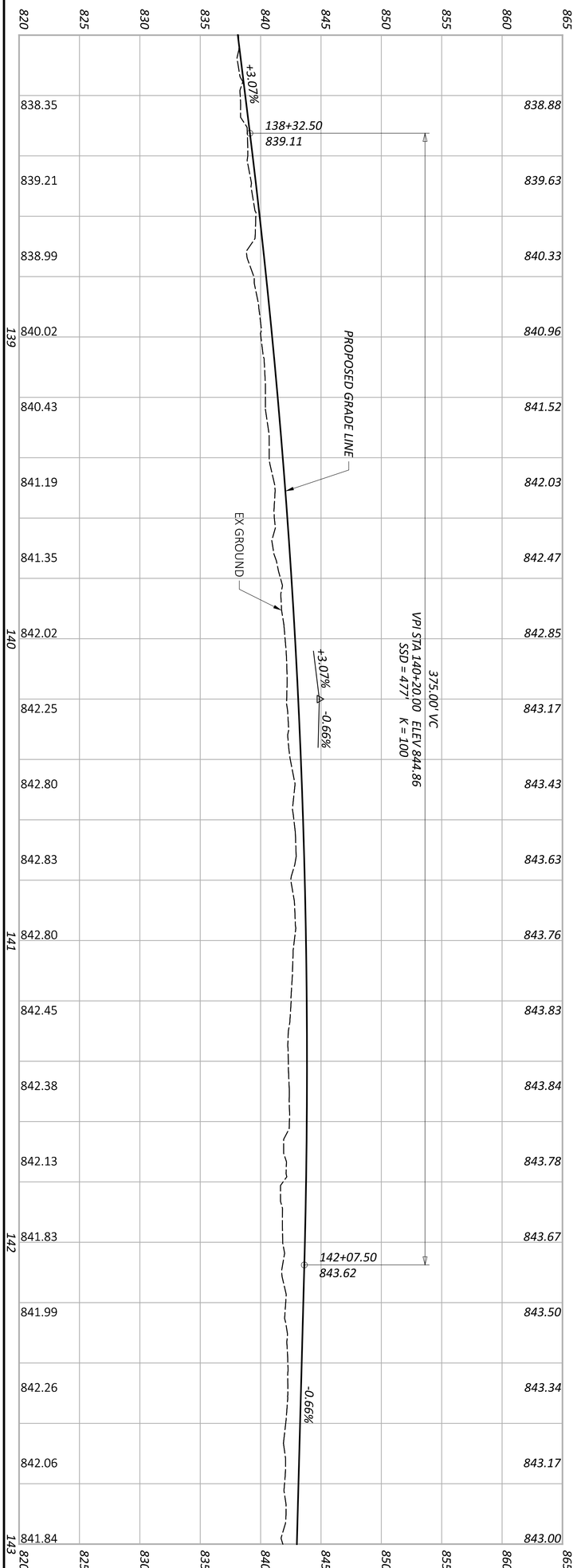
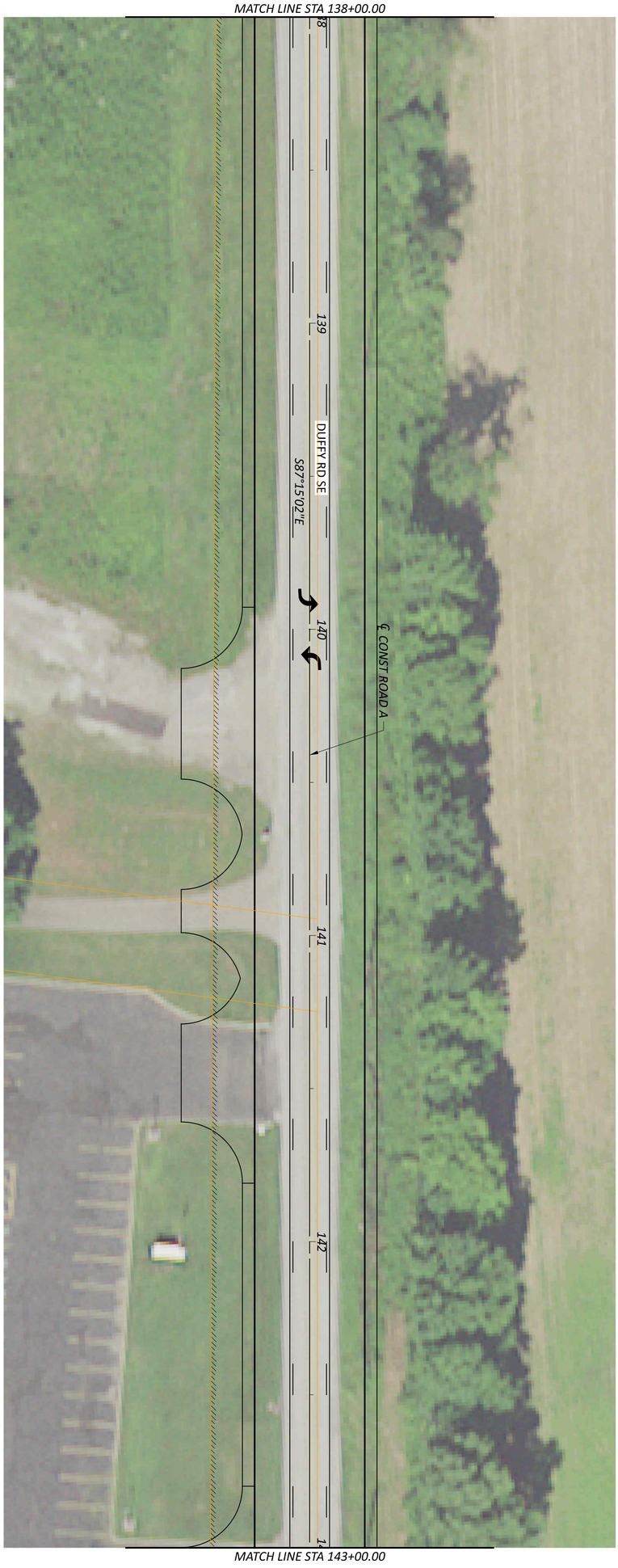
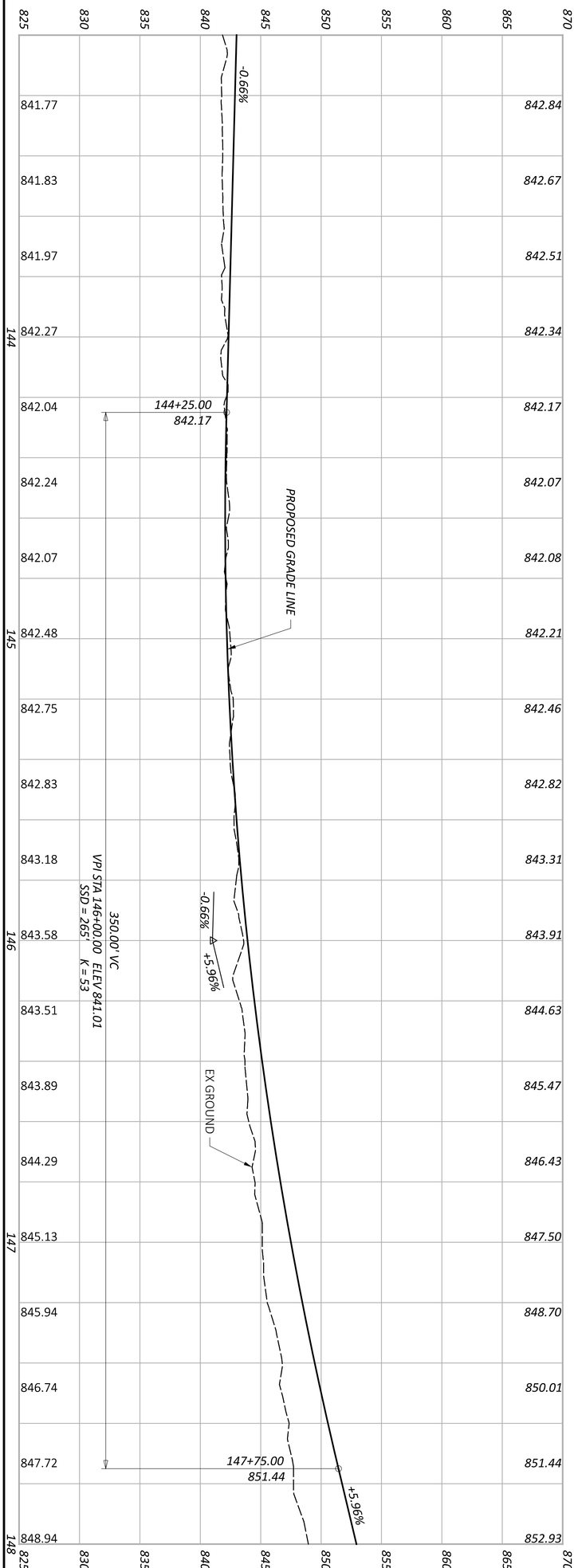


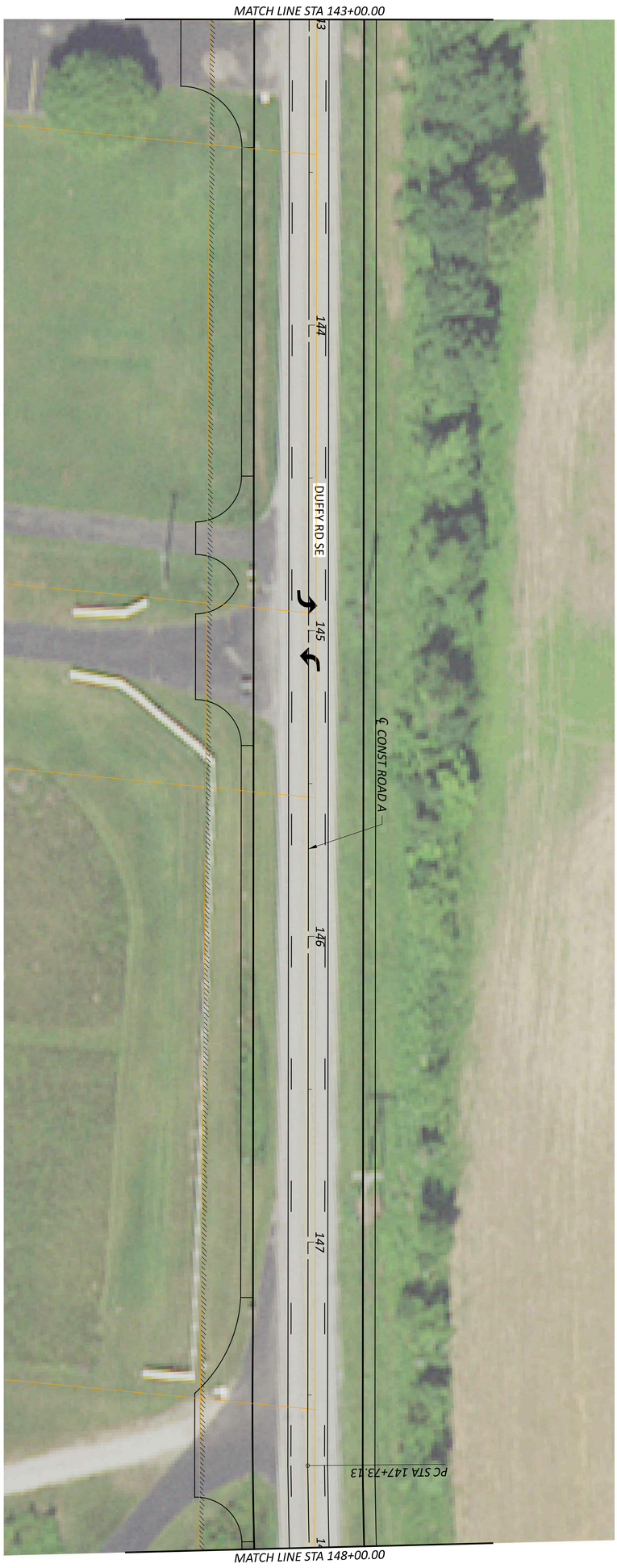


ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 138+00.00 TO STA. 143+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
27	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.



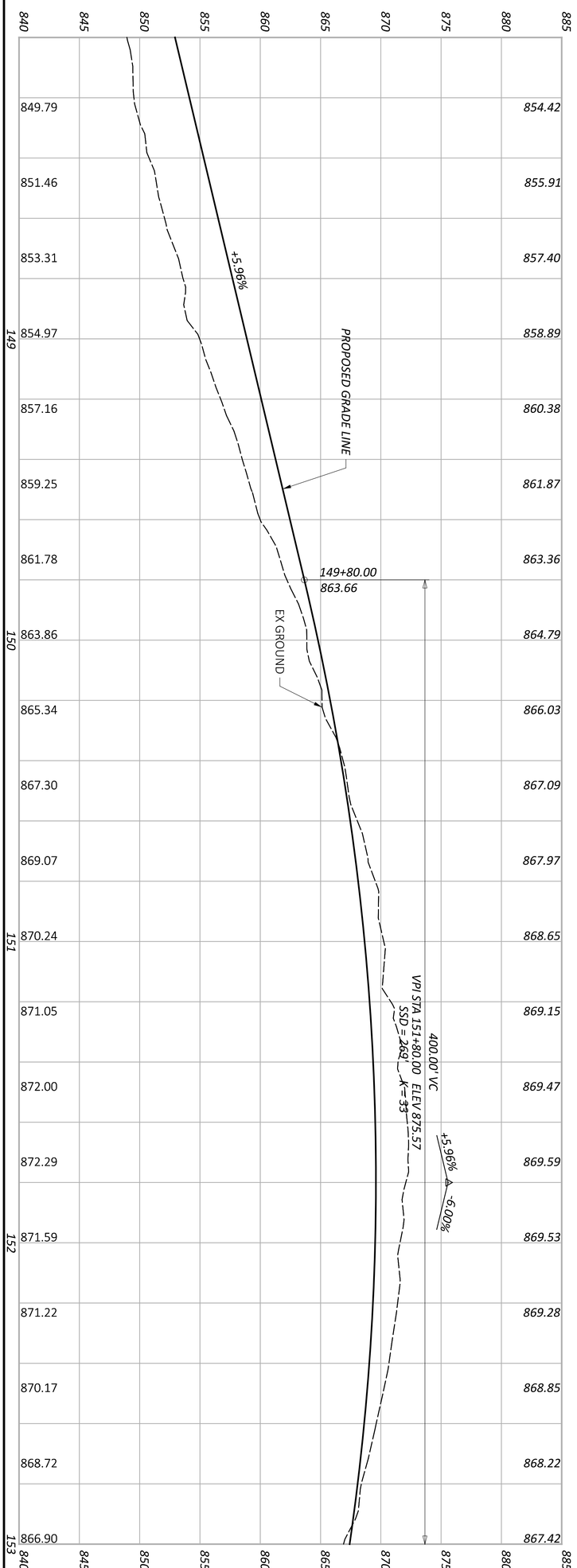


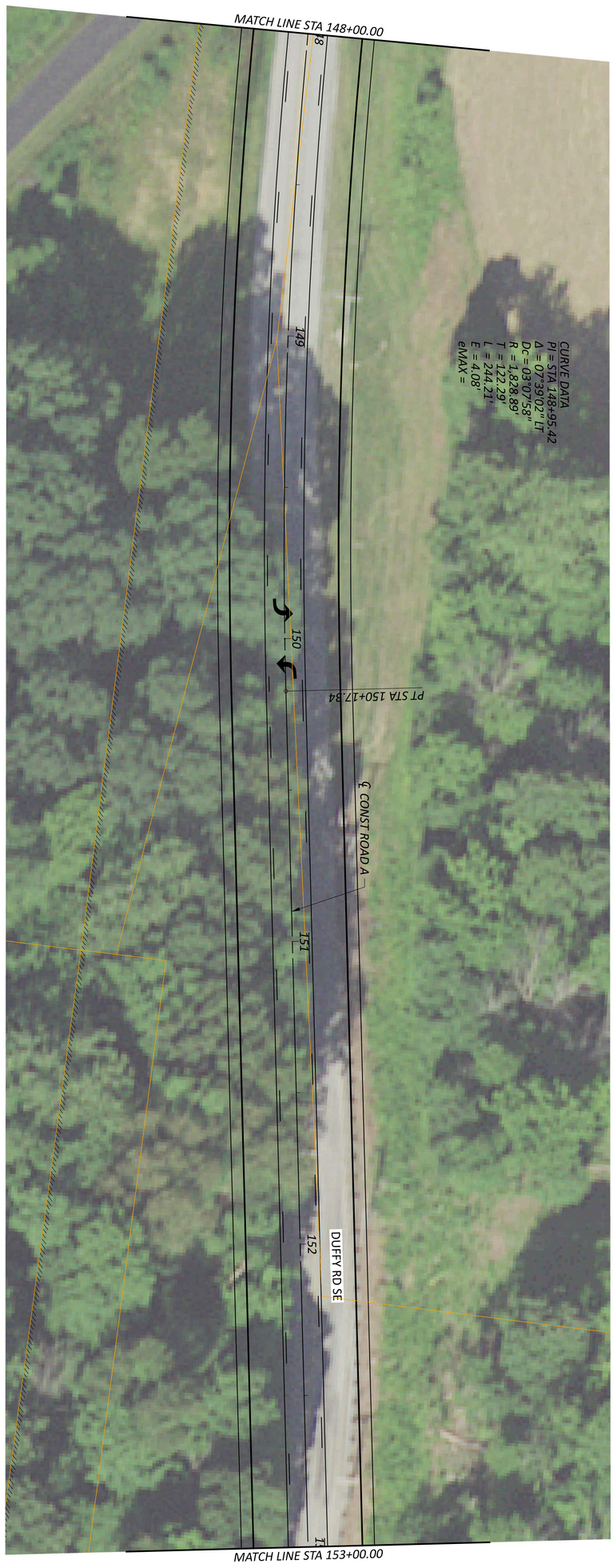
ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 143+00.00 TO STA. 148+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
28	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: MAIN - PP SHEET 28 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:23:52 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP128.dgn

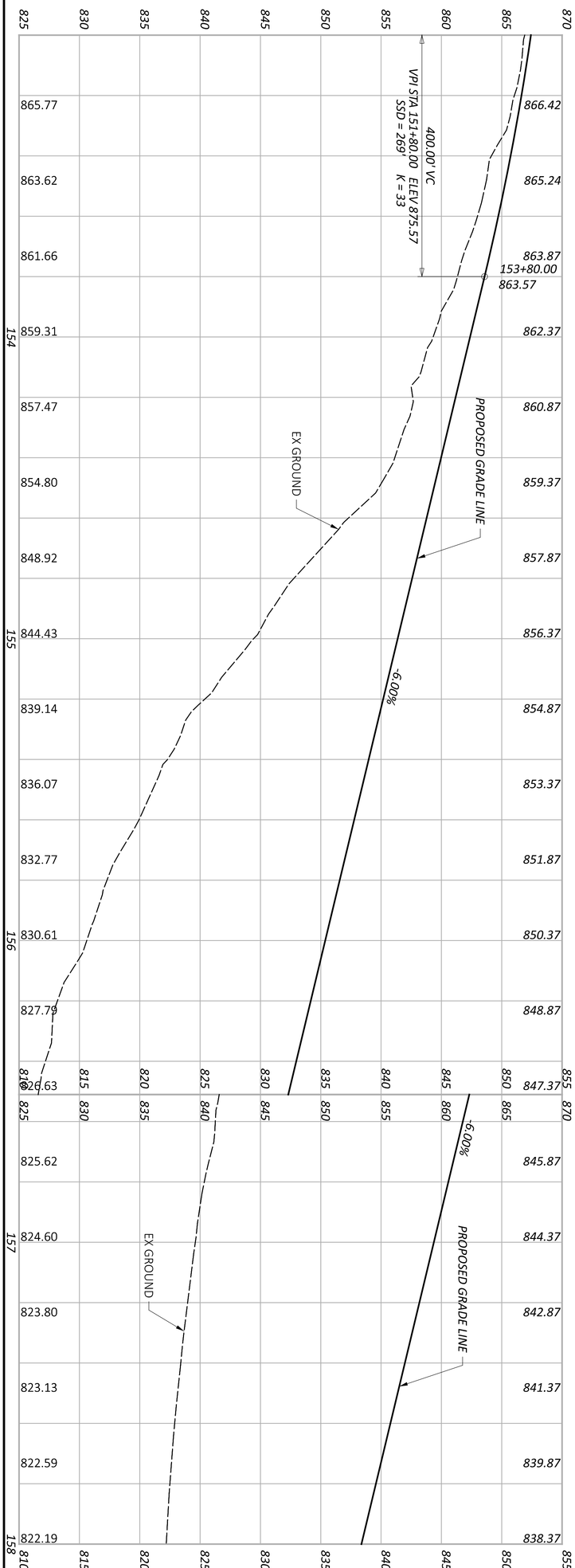




ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 148+00.00 TO STA. 153+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

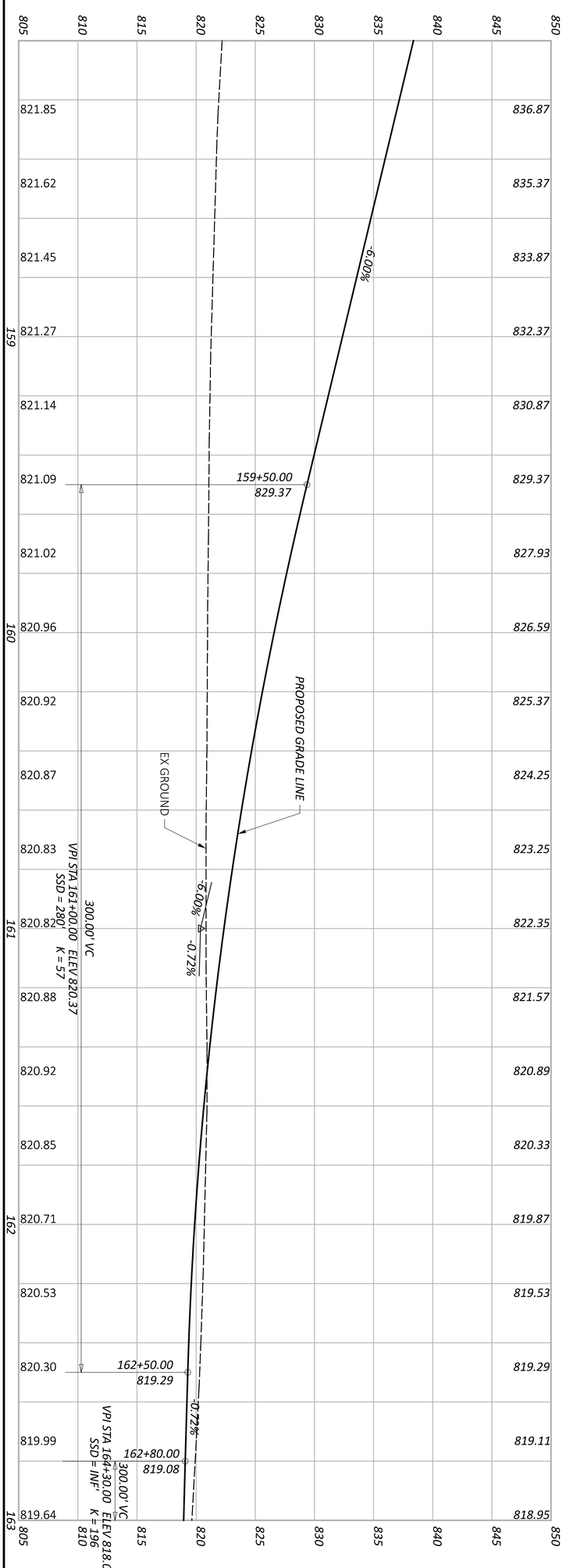
SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
29	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

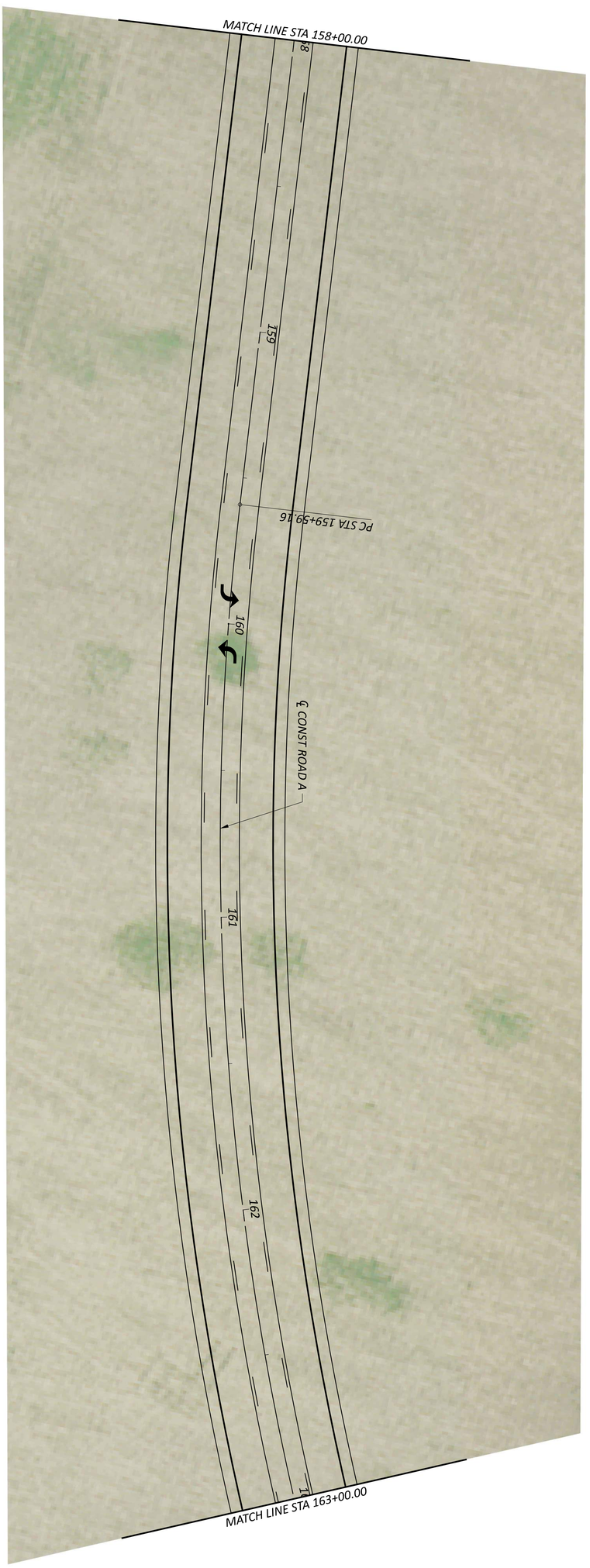


ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 153+00.00 TO STA. 158+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
30	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.





SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
31	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 158+00.00 TO STA. 163+00.00

HORIZONTAL SCALE IN FEET

0 20

10 40

MODEL: MAIN - PP SHEET 31 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:24:23 PM USER: cphillips
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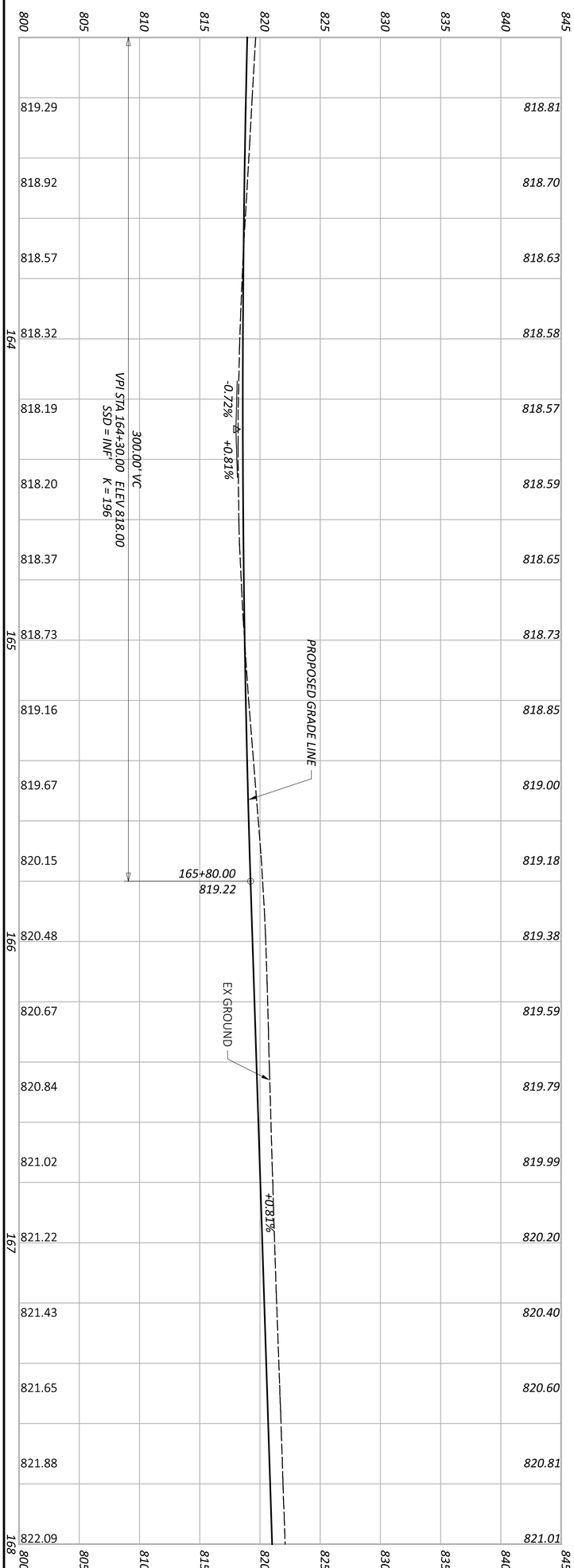

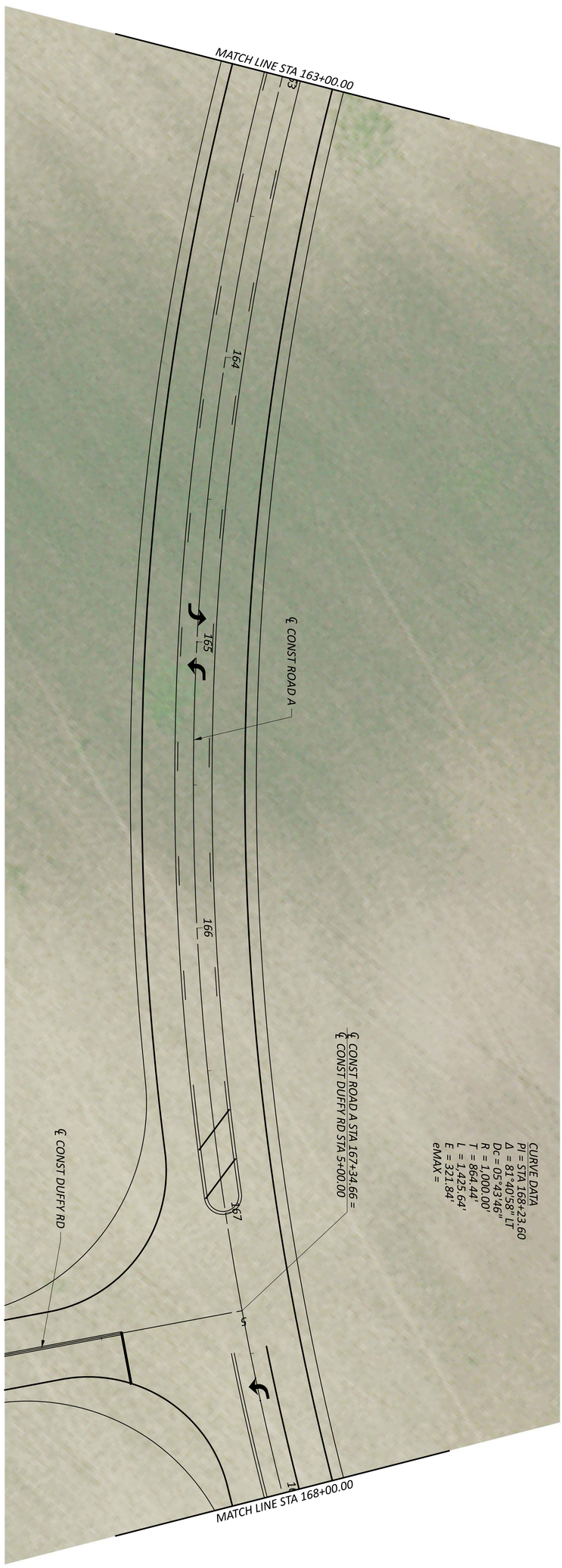

SHEET	TOTAL
32	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: LZS

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 163+00.00 TO STA. 168+00.00

HORIZONTAL SCALE IN FEET

0 20

10 40

MODEL: MAIN - PP SHEET 32 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:24:33 PM USER: cphillips
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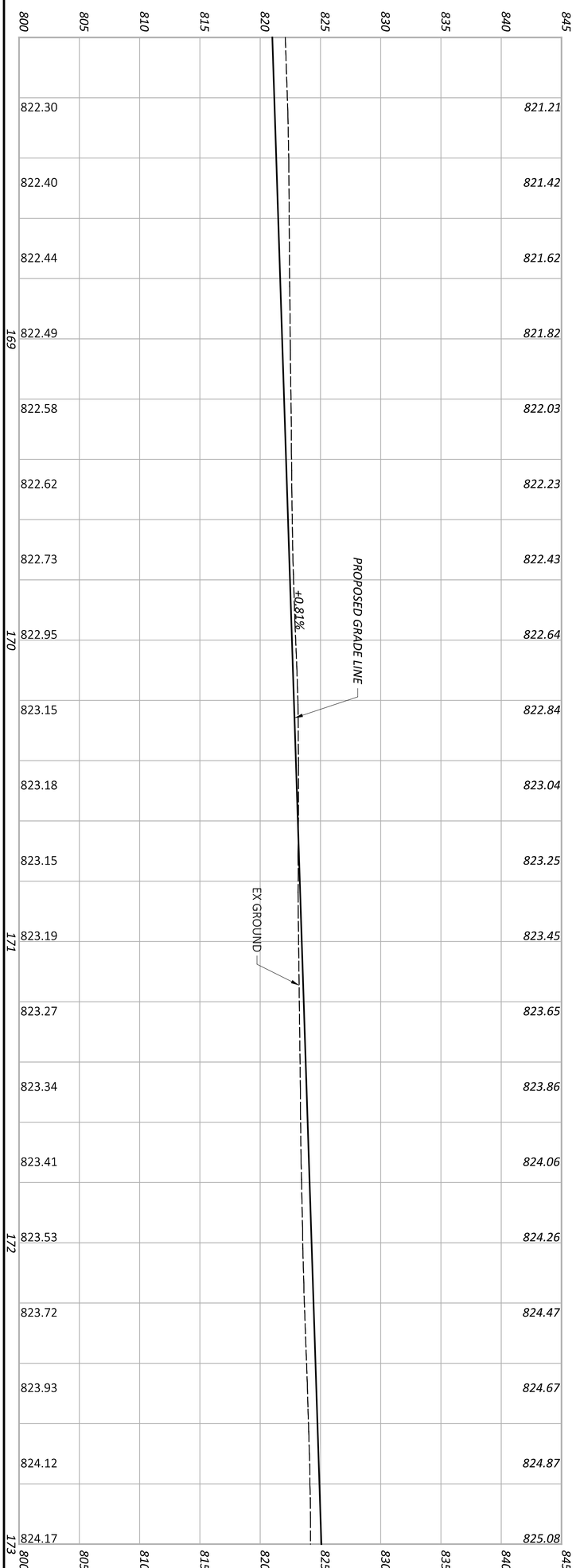

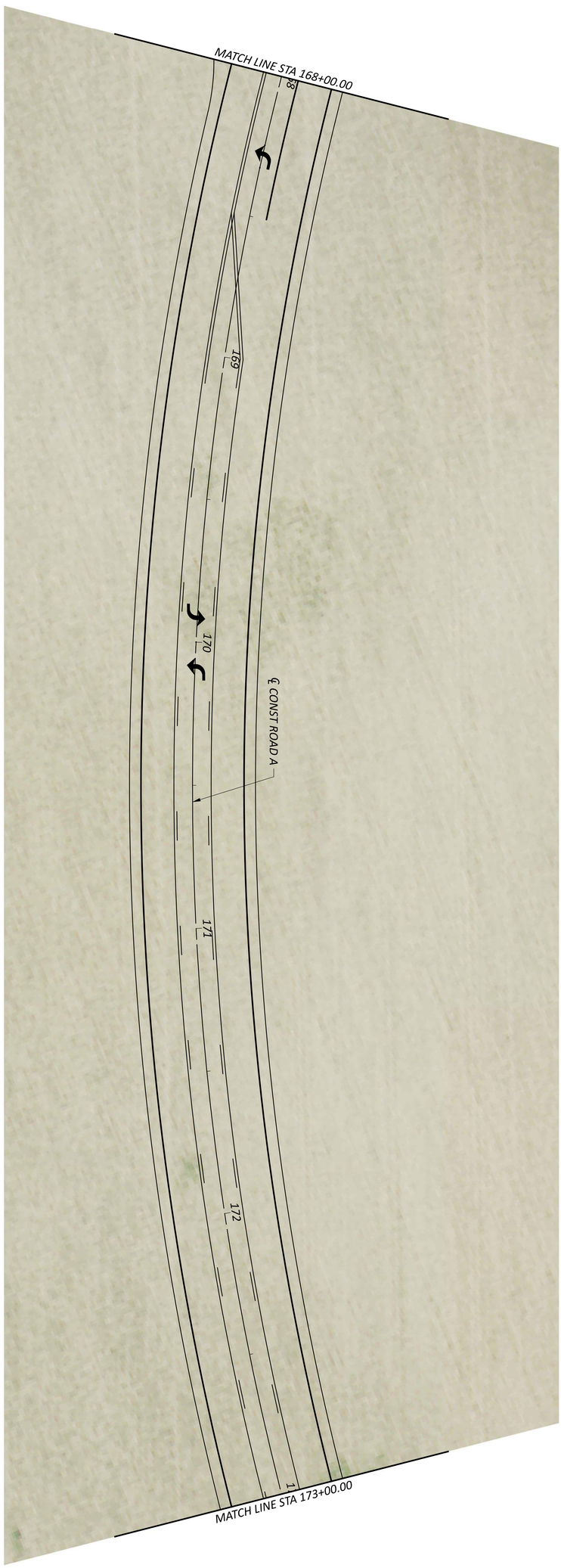

ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 168+00.00 TO STA. 173+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
33	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: MAIN - PP SHEET 33 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:24:44 PM USER: cphillips
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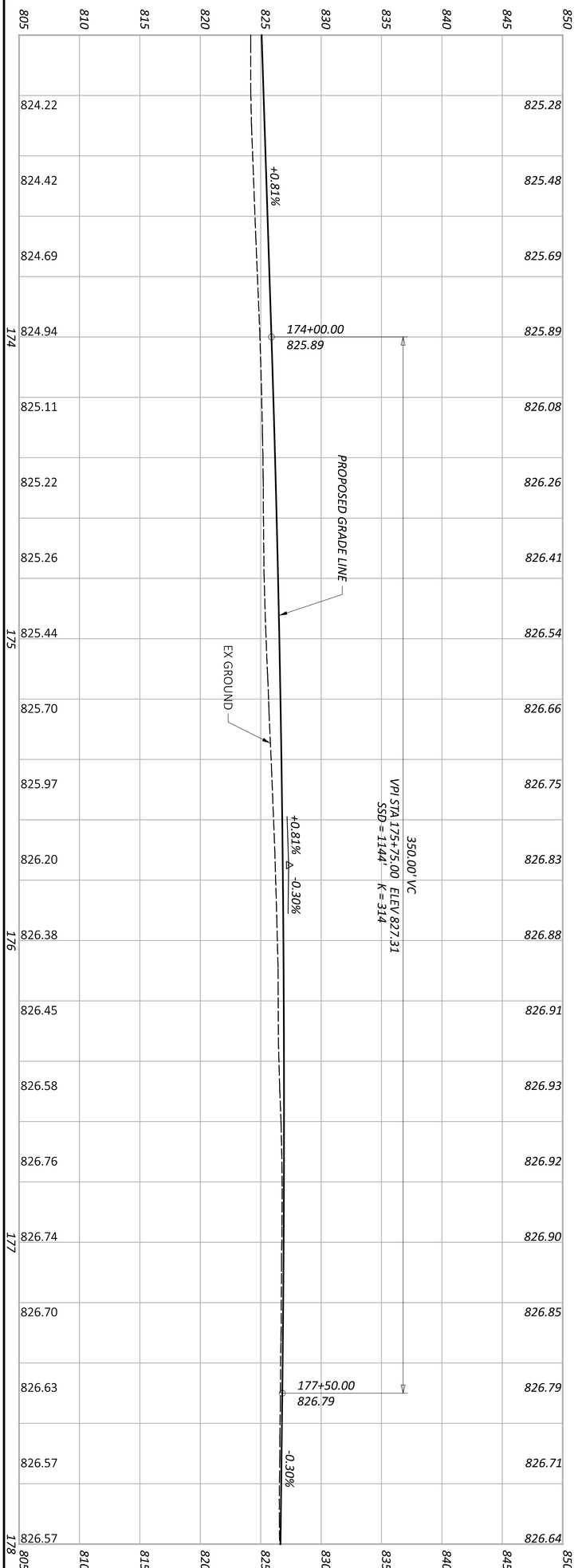

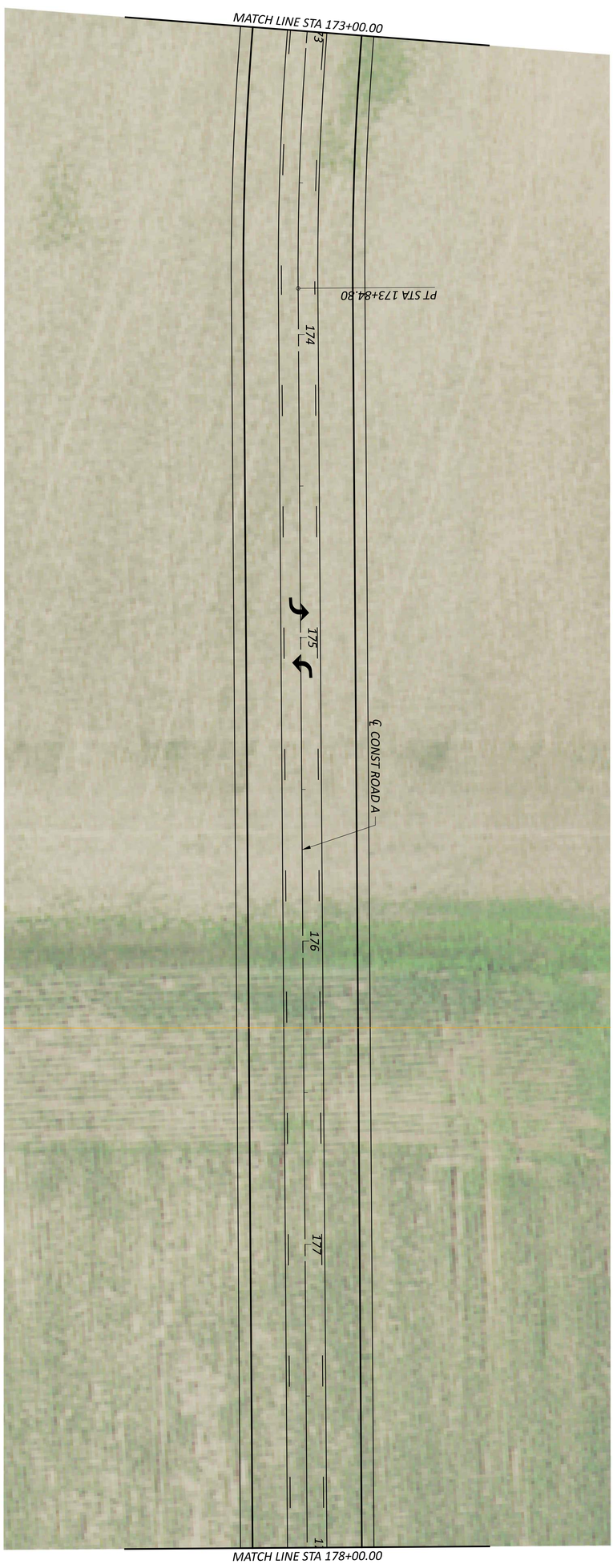

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
34	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 173+00.00 TO STA. 178+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

MODEL: MAIN - PP SHEET 34 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:24:54 PM USER: cphillips
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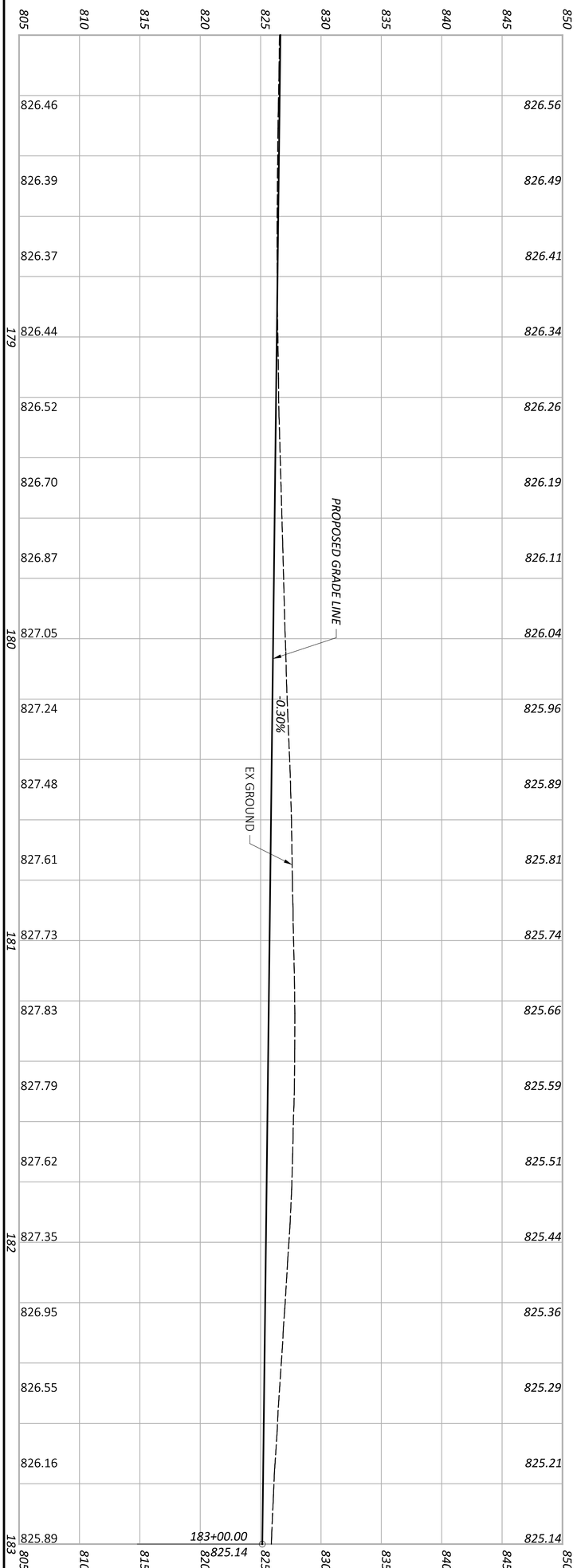

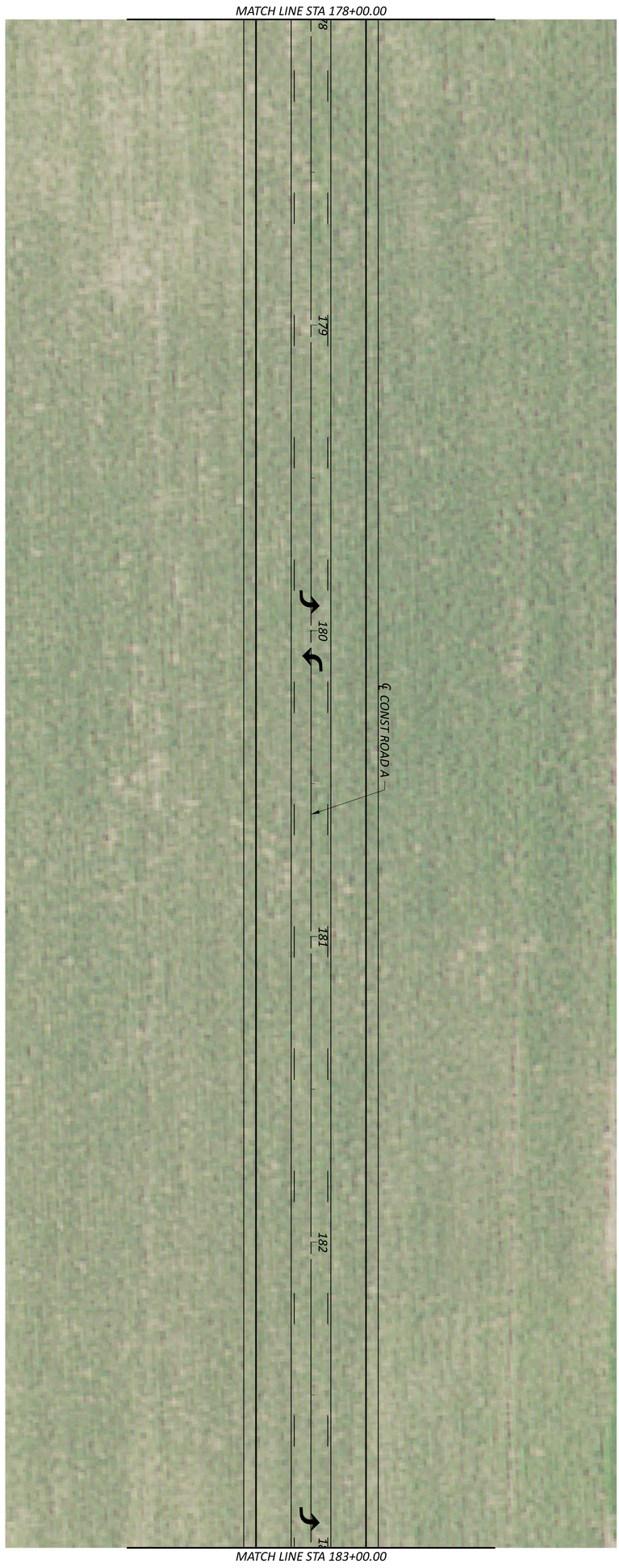

ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 178+00.00 TO STA. 183+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
35	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: MAIN - PP SHEET 35 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:25:04 PM USER: cphillips
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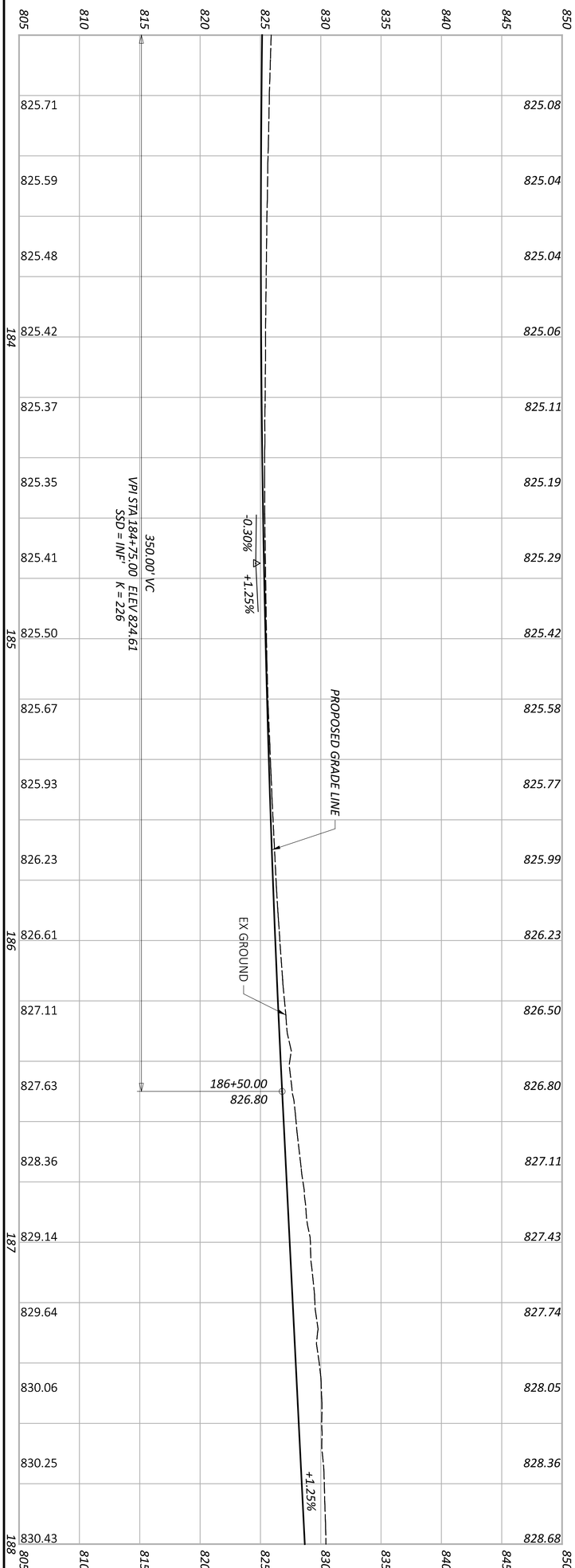

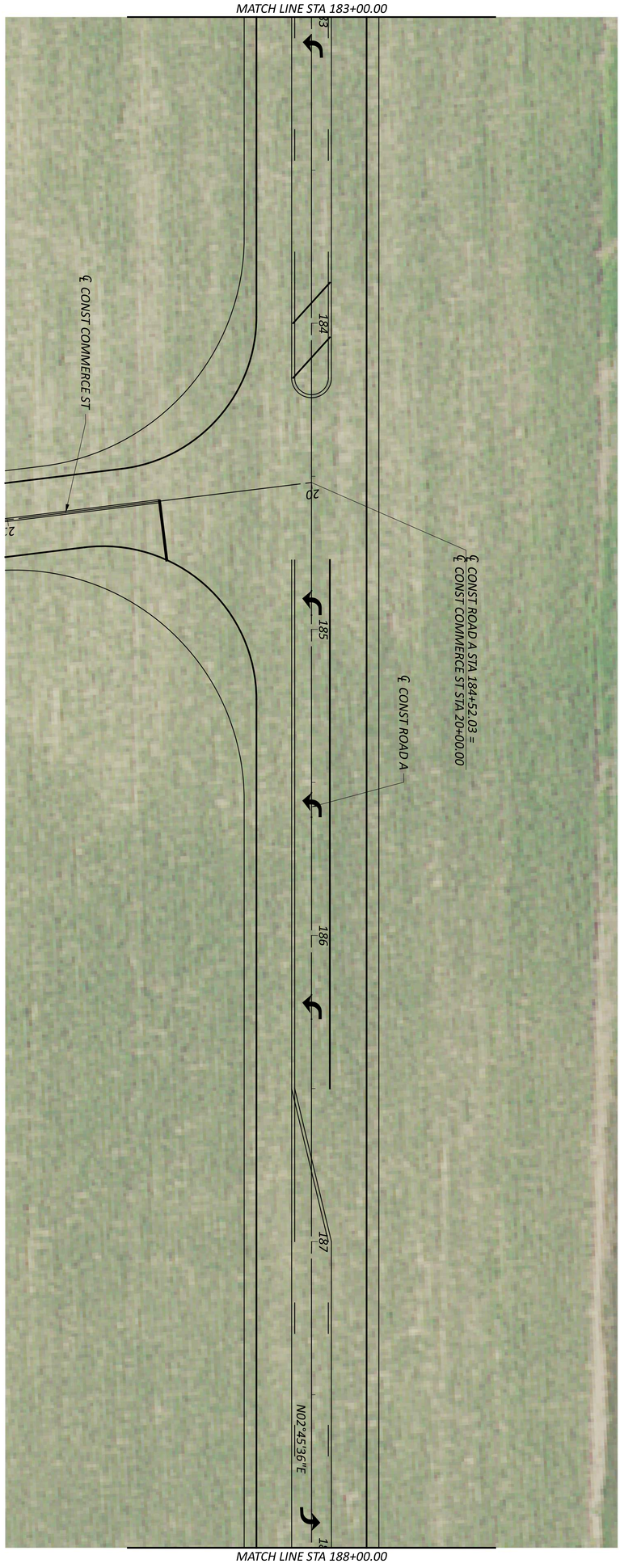

ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 183+00.00 TO STA. 188+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
36	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: MAIN - PP SHEET 36 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:25:14 PM USER: cphillips
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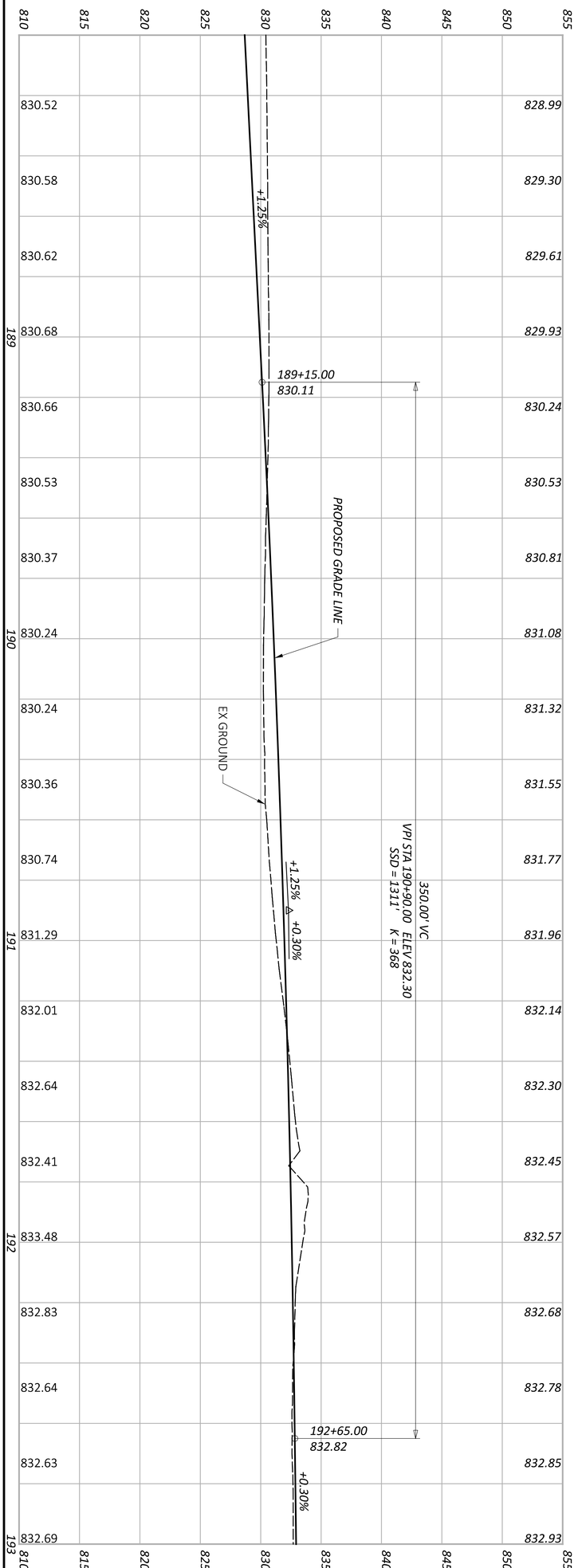

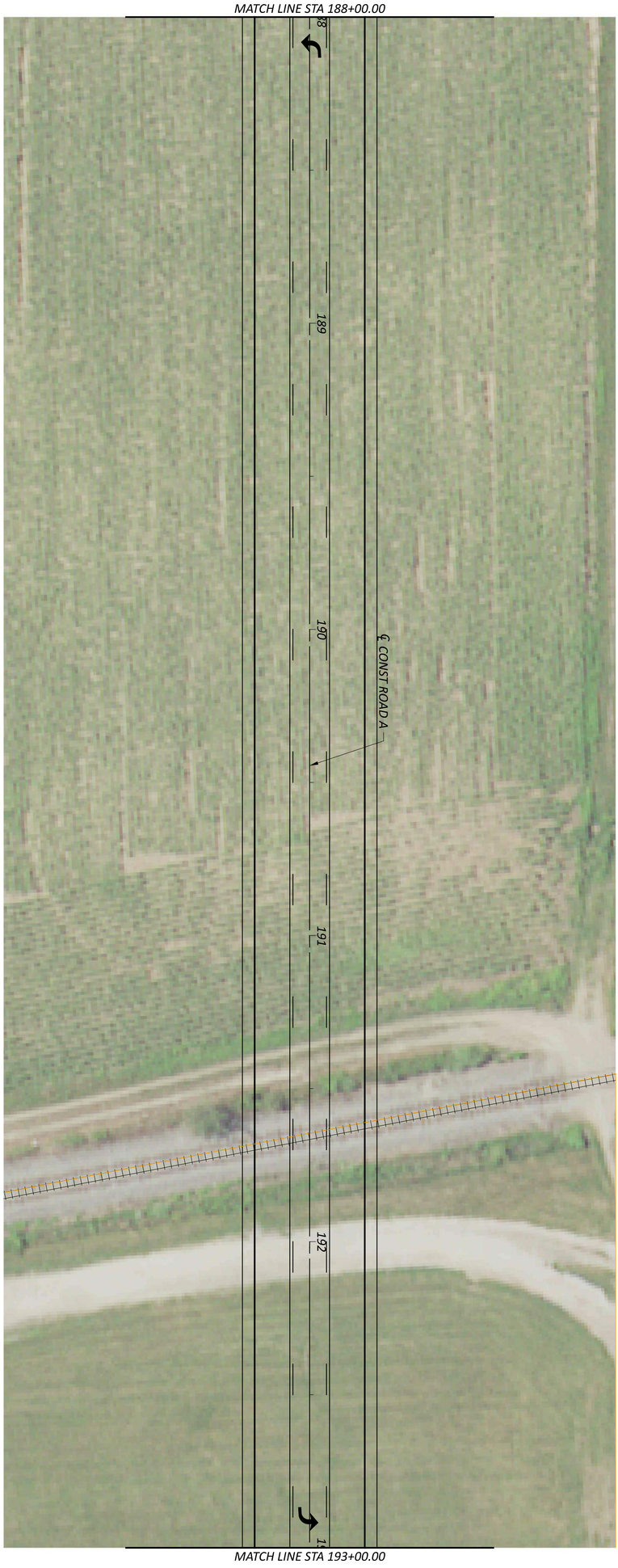

ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 188+00.00 TO STA. 193+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
37	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: MAIN - PP SHEET 37 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:25:23 PM USER: cphillips
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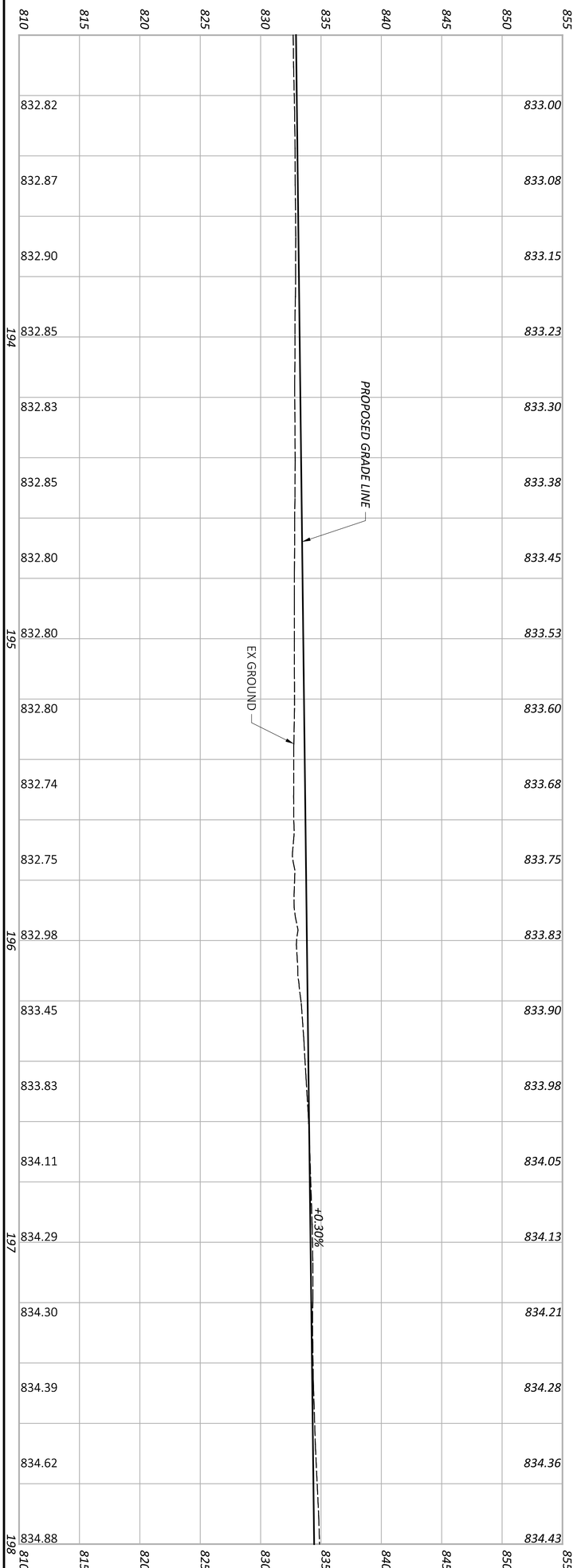

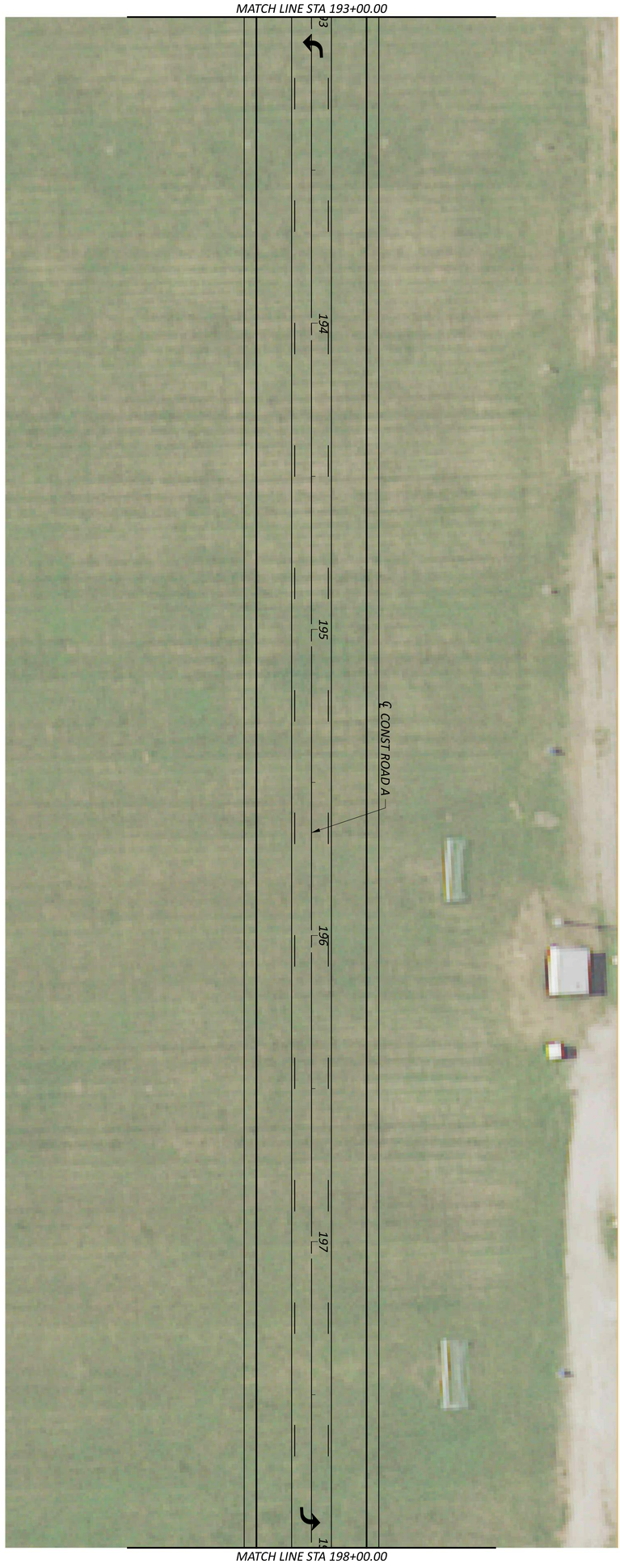

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
38	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 193+00.00 TO STA. 198+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: MAIN - PP SHEET 38 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:25:34 PM USER: cphillips
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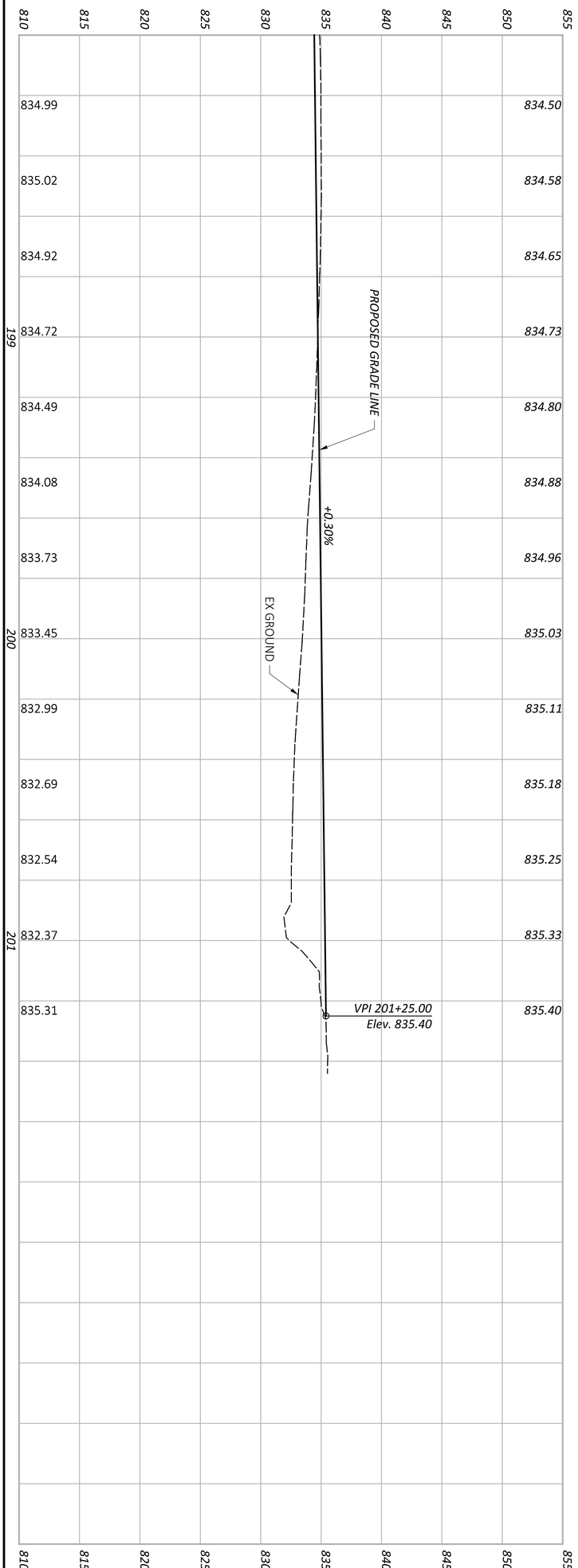
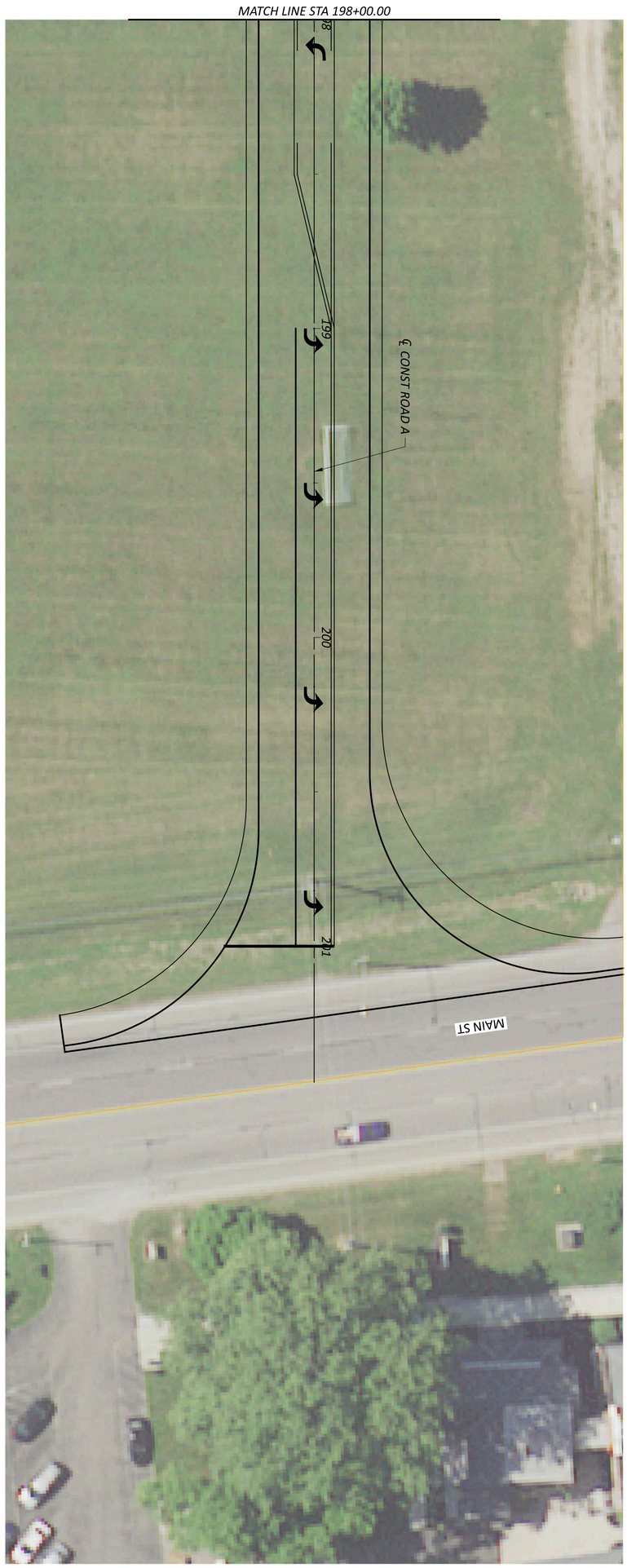




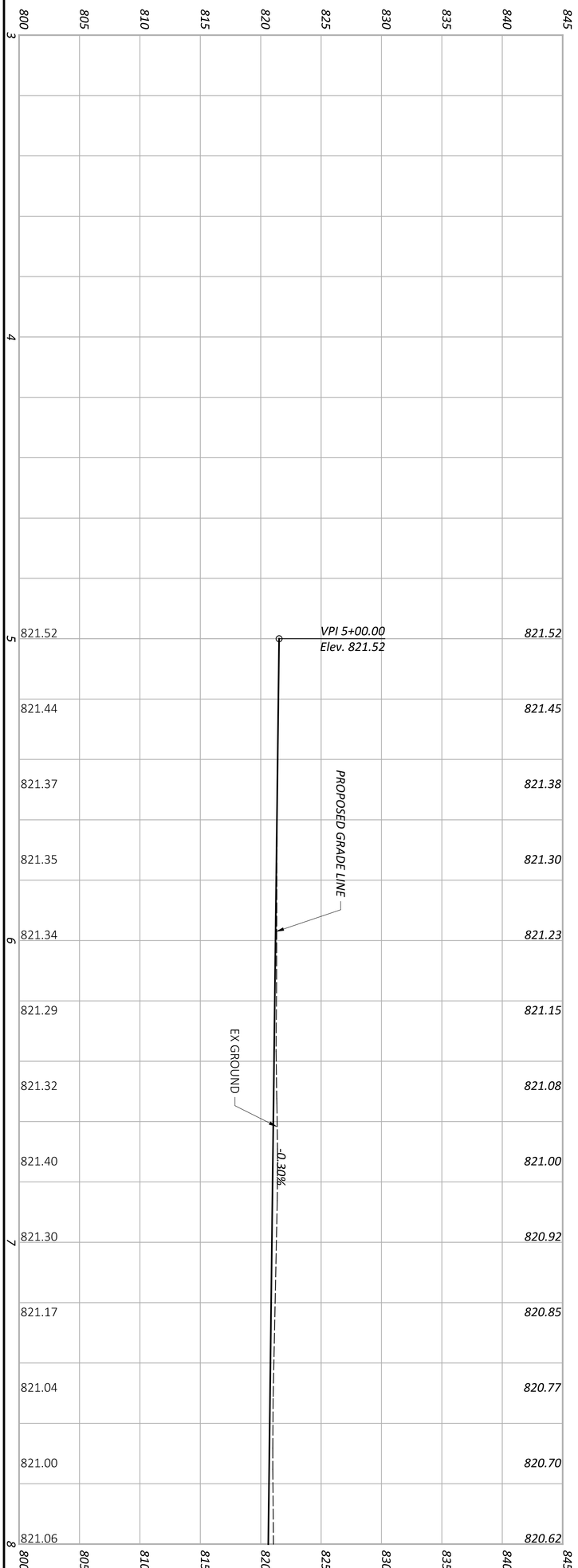
ALTERNATIVE 2A, 2B, 3A, 3B, 3C, 7
PLAN AND PROFILE - ROAD A
STA. 198+00.00 TO STA. 203+00.00

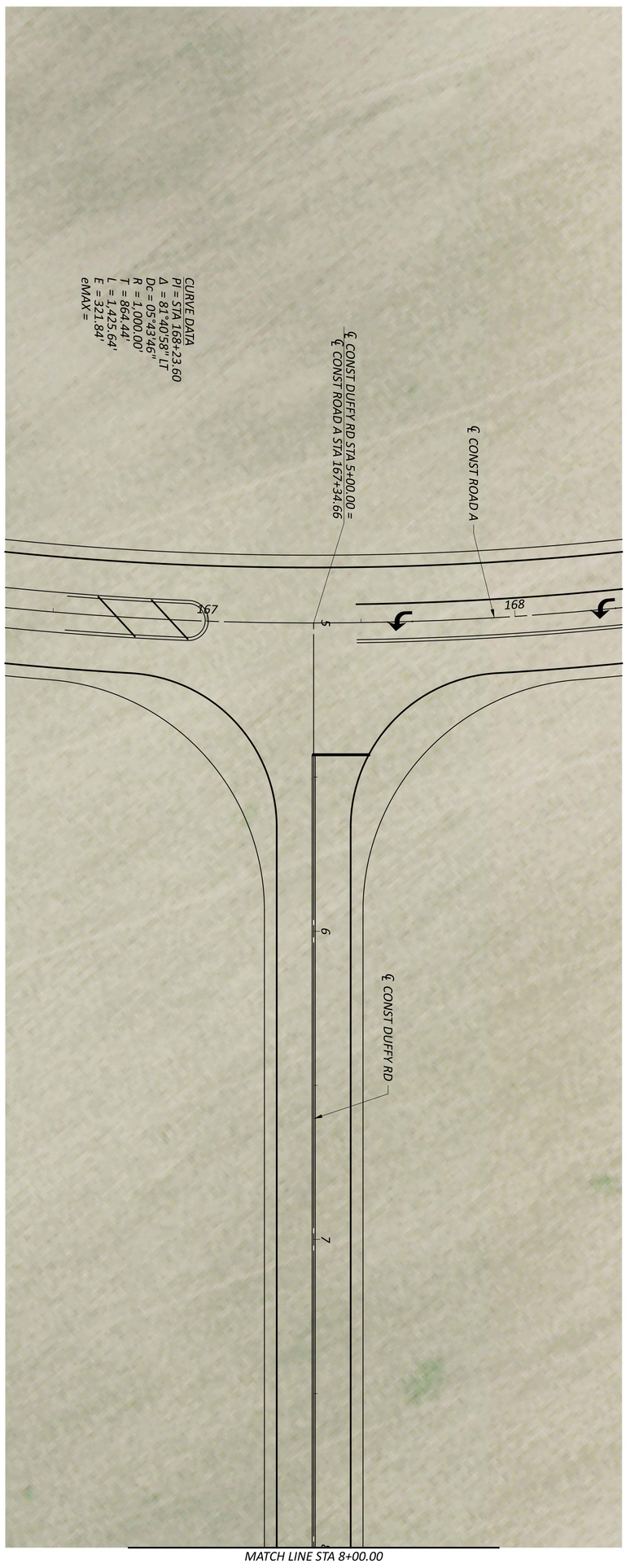
HORIZONTAL SCALE IN FEET
0 10 20 40

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.
DESIGNER: LZS
REVIEWER: KAM 03/02/23
PROJECT ID: 03022
SHEET: 39 TOTAL: 162

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: DUFFY - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:25:44 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP151.dgn





ALTERNATIVE 2A, 2B, 3A, 3B, 3C
PLAN AND PROFILE - DUFFY RD
STA. 5+00.00 TO STA. 8+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
40	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: DUFFY - PP SHEET 2 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:25:54 PM USER: cphillips
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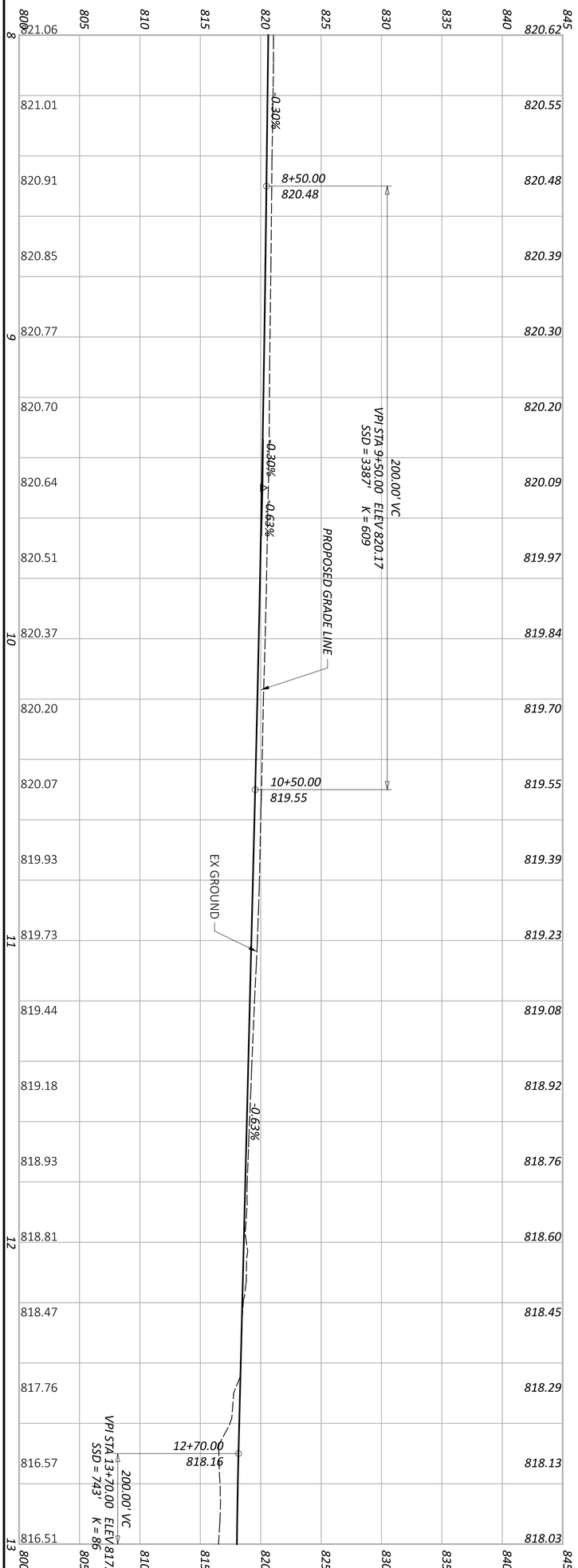
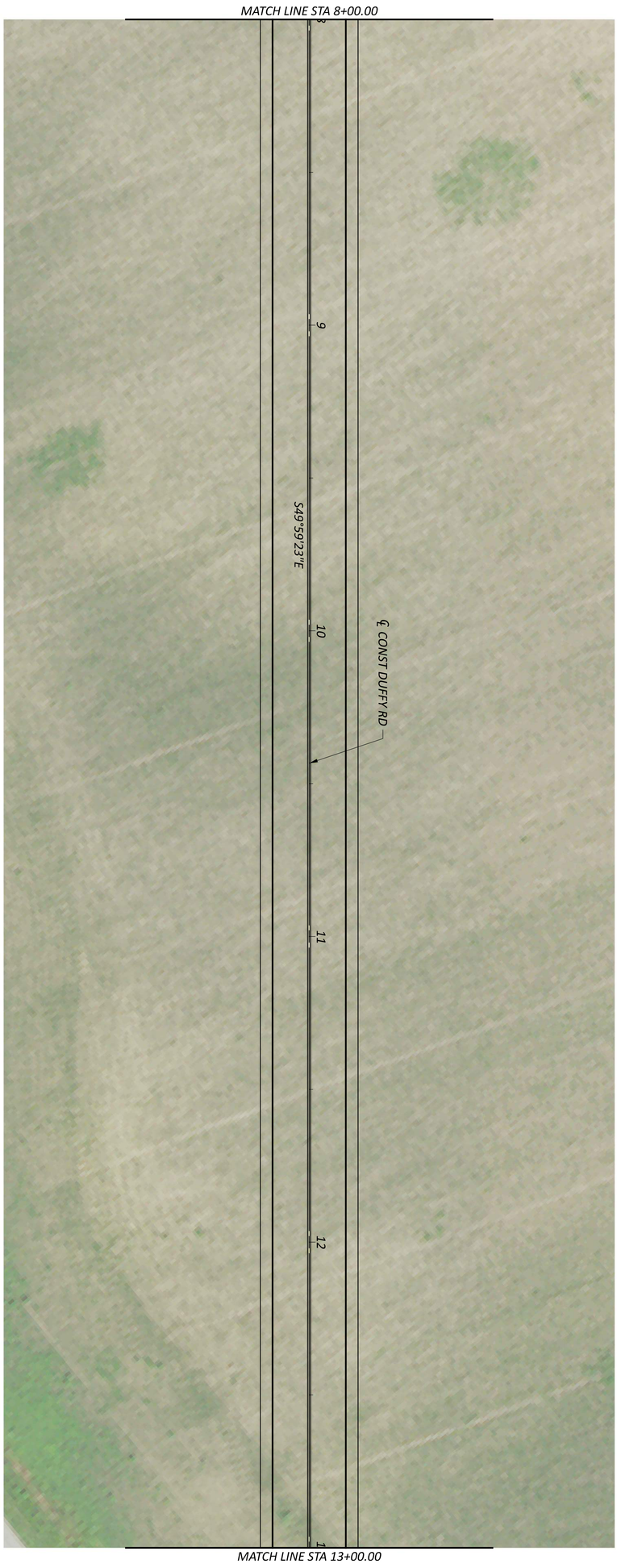
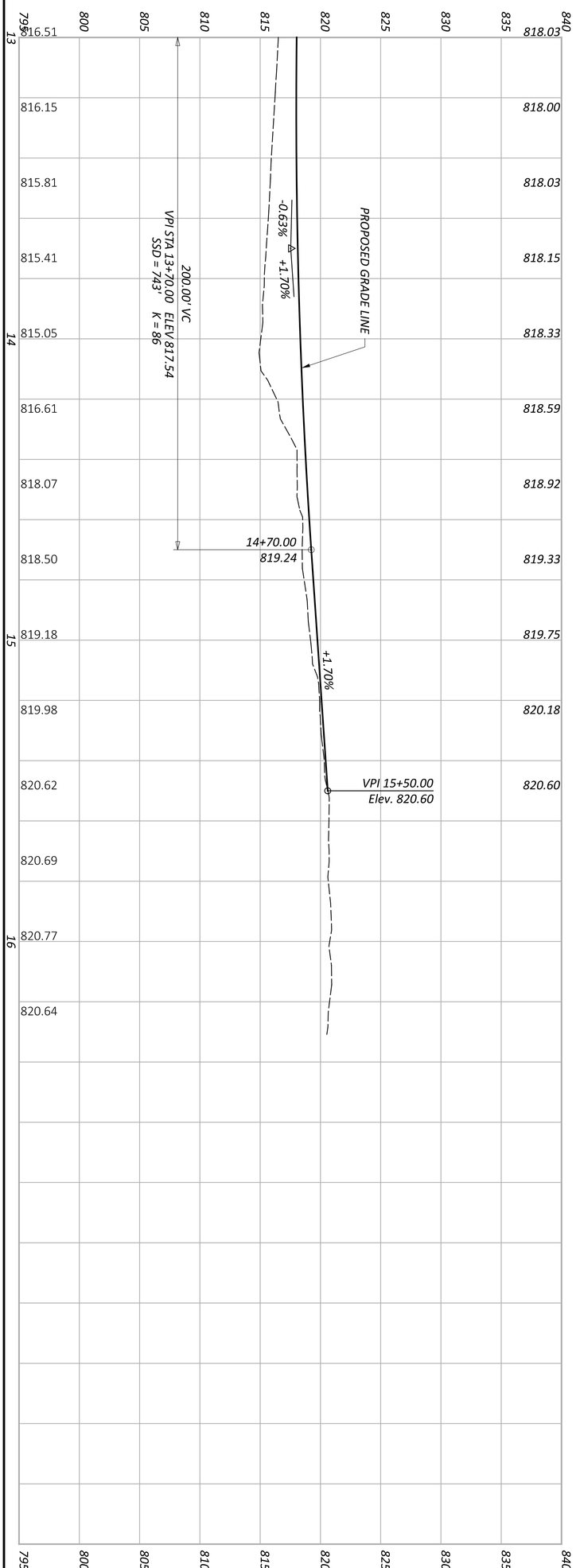
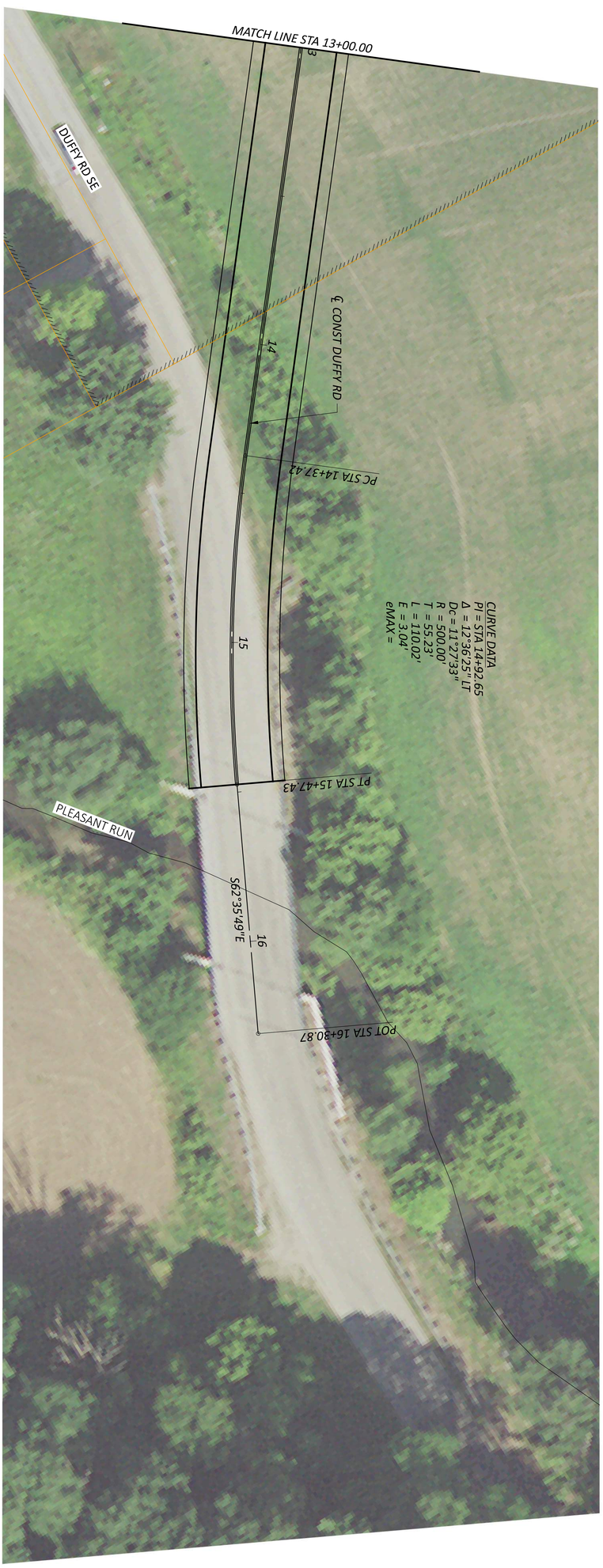




SHEET 41 / TOTAL 162	PROJECT ID 03022	REVIEWER KAM 03/02/23	DESIGNER LZS	DESIGN AGENCY AMERICAN STRUCTUREPOINT INC.	ALTERNATIVE 2A, 2B, 3A, 3B, 3C PLAN AND PROFILE - DUFFY RD STA. 8+00.00 TO STA. 13+00.00	HORIZONTAL SCALE IN FEET 0 20 10 40





ALTERNATIVE 2A, 2B, 3A, 3B, 3C
PLAN AND PROFILE - DUFFY RD
STA. 13+00.00 TO STA. 16+30.87

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
42	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: COMMERCE - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:26:14 PM USER: cphillips
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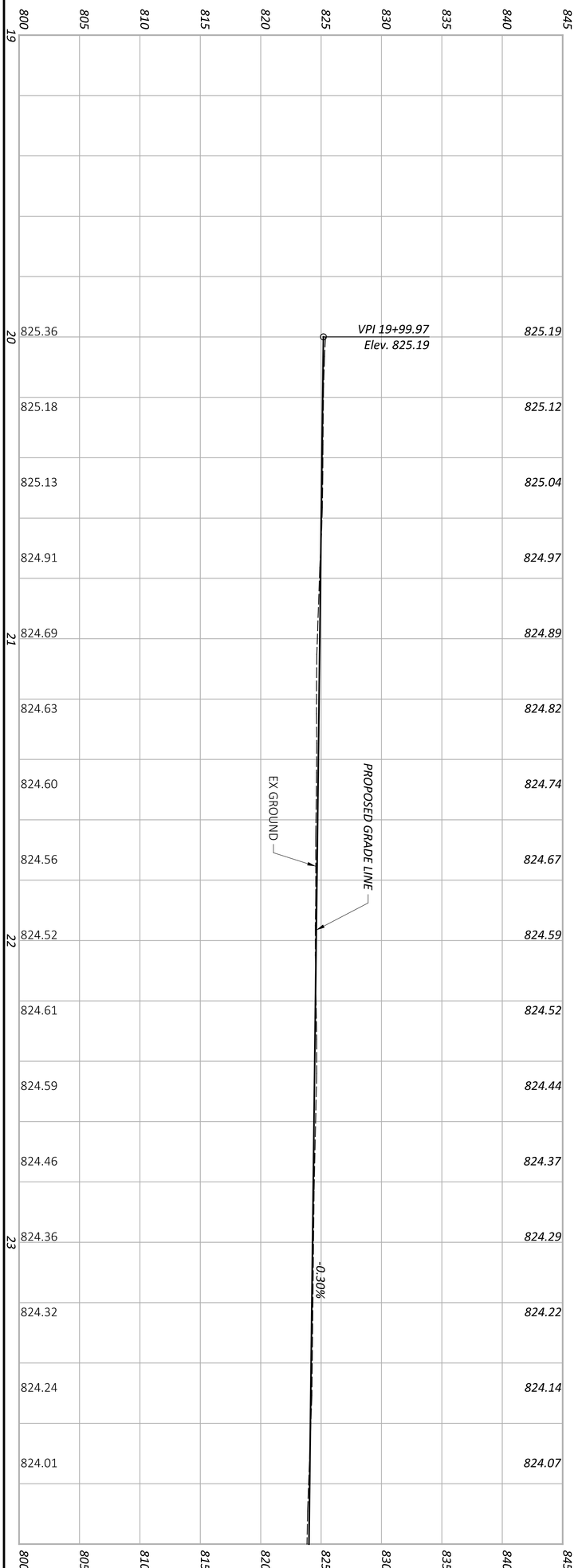

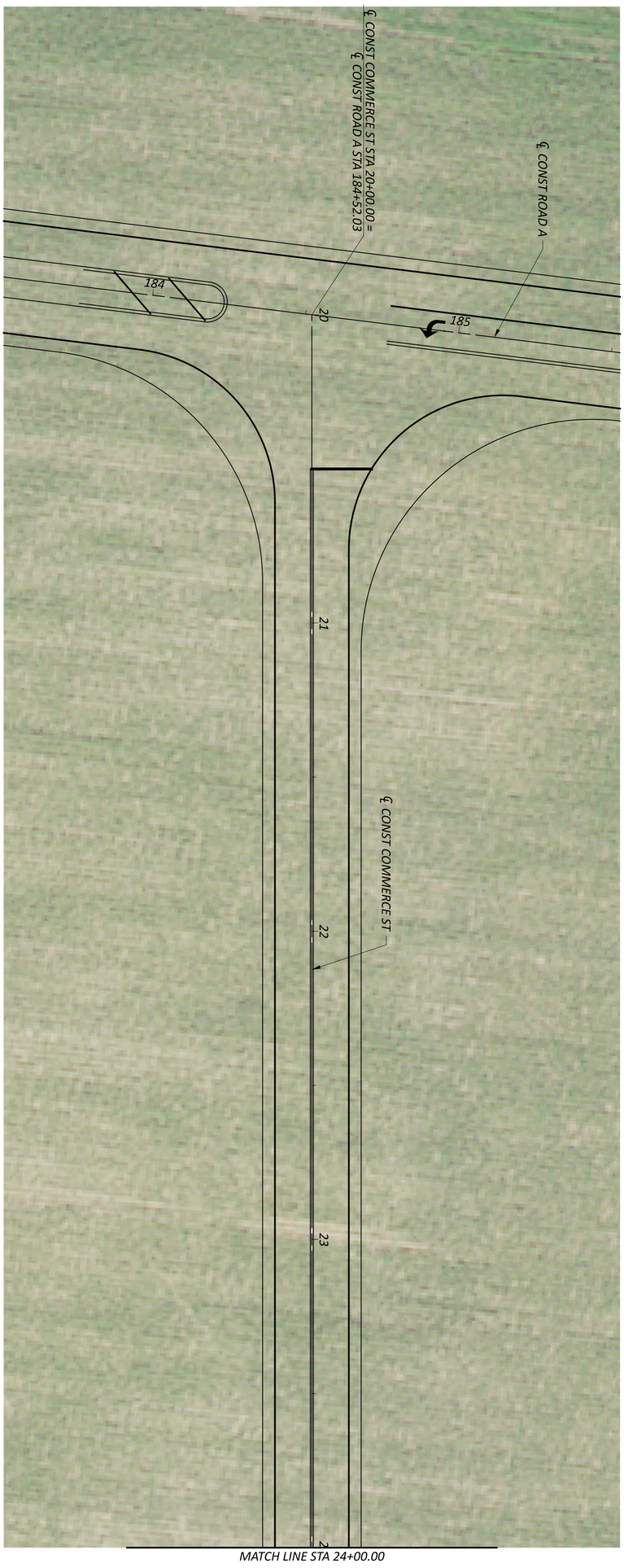

ALTERNATIVE 2A, 2B, 3A, 3B, 3C
PLAN AND PROFILE - COMMERCE ST
STA. 20+00.00 TO STA. 24+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
43	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: COMMERCE - PP SHEET 2 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:26:24 PM USER: cphillips
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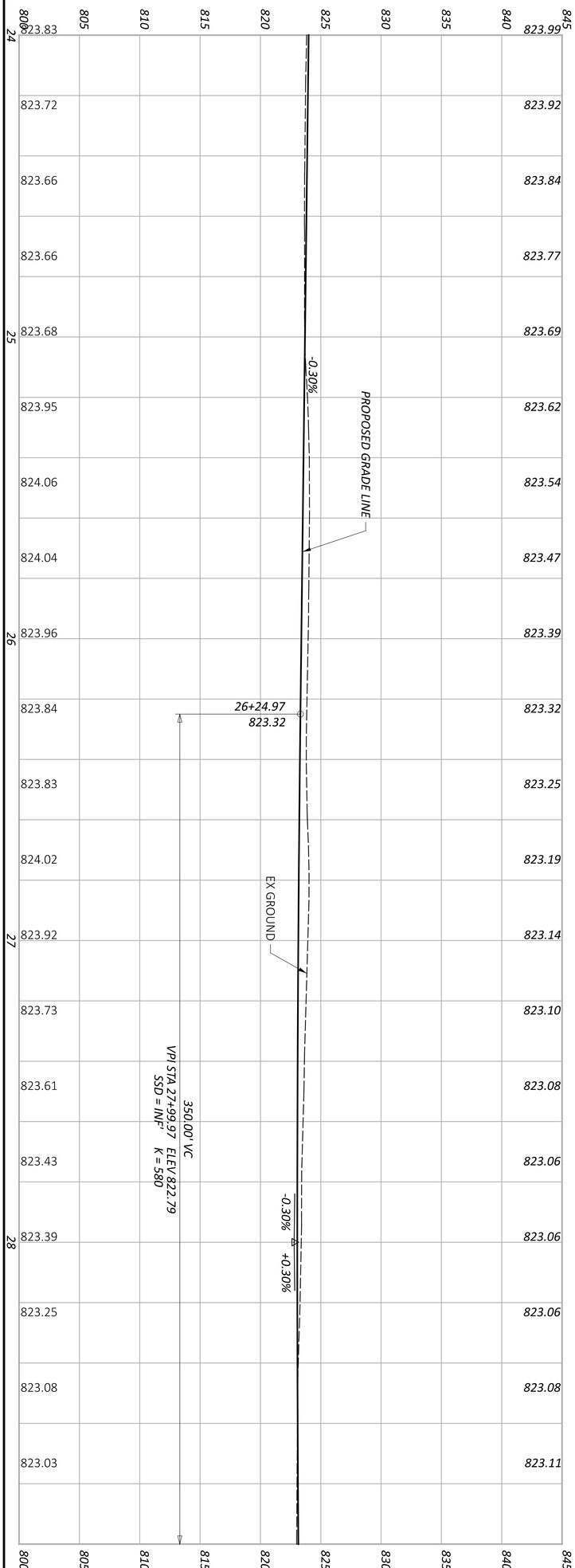

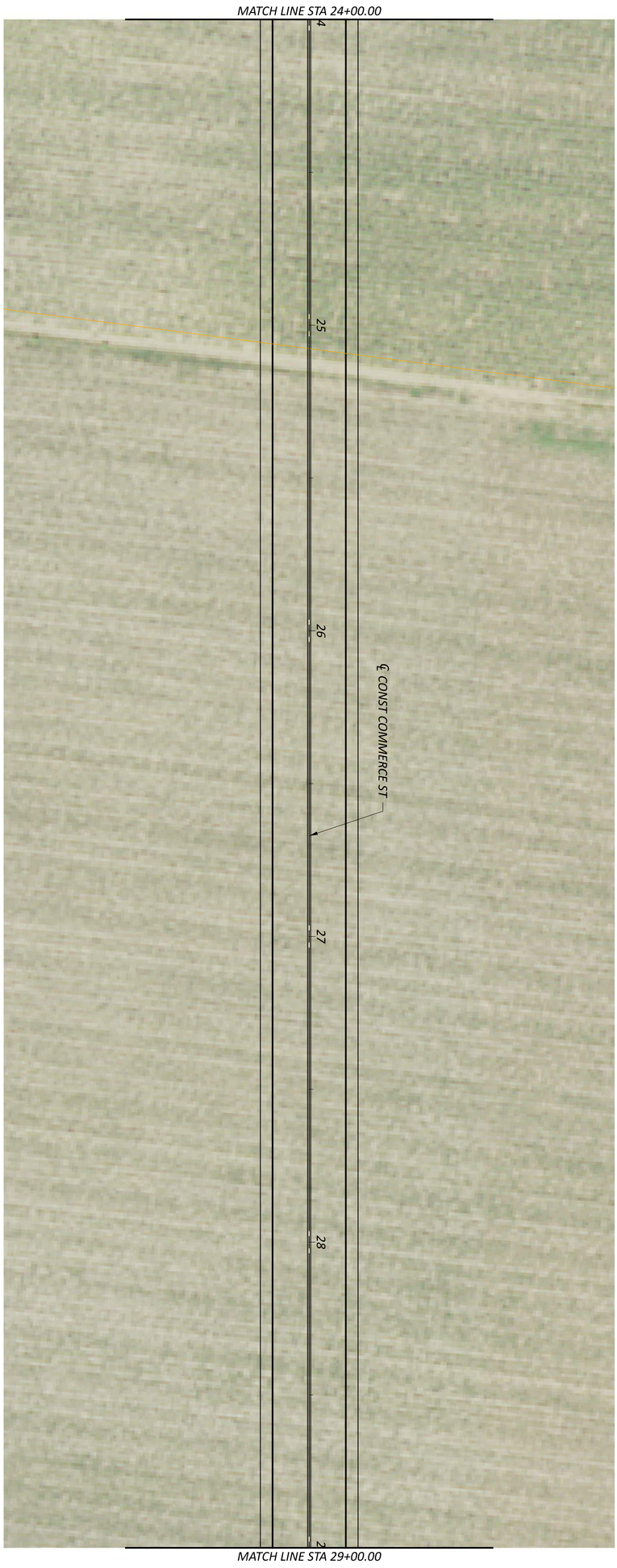

SHEET	TOTAL
44	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: LZS

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A, 2B, 3A, 3B, 3C
PLAN AND PROFILE - COMMERCE ST
STA. 24+00.00 TO STA. 29+00.00

HORIZONTAL SCALE IN FEET

0 20
10 40

MODEL: COMMERCE - PP SHEET 3 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:26:35 PM USER: cphillips
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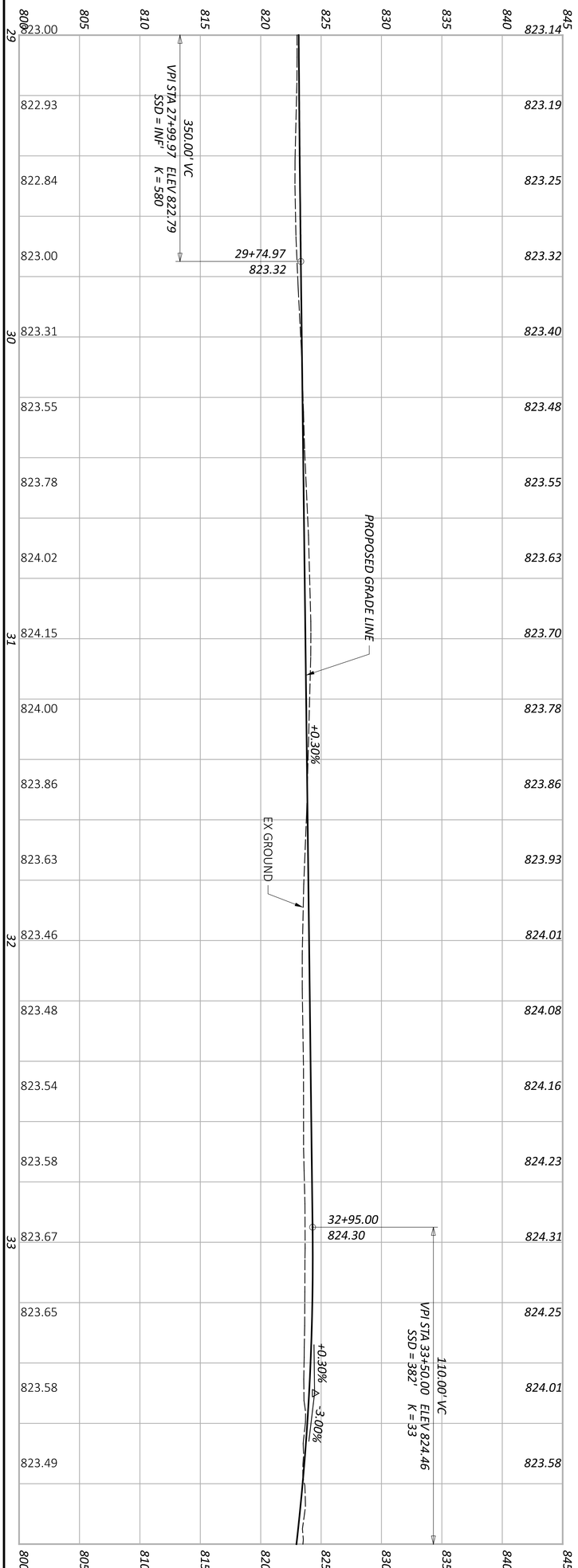

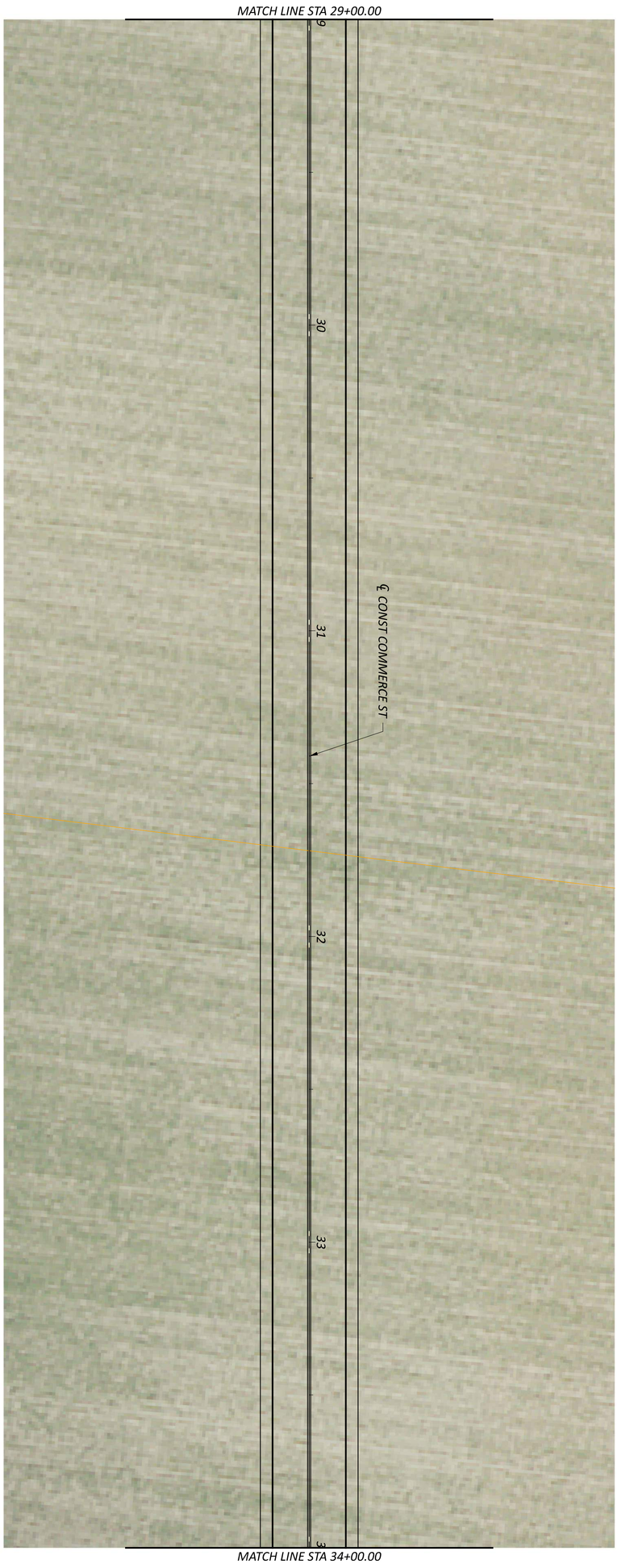

ALTERNATIVE 2A, 2B, 3A, 3B, 3C
PLAN AND PROFILE - COMMERCE ST
STA. 29+00.00 TO STA. 34+00.00

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
45	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: COMMERCE - PP SHEET 4 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:26:45 PM USER: cphillips
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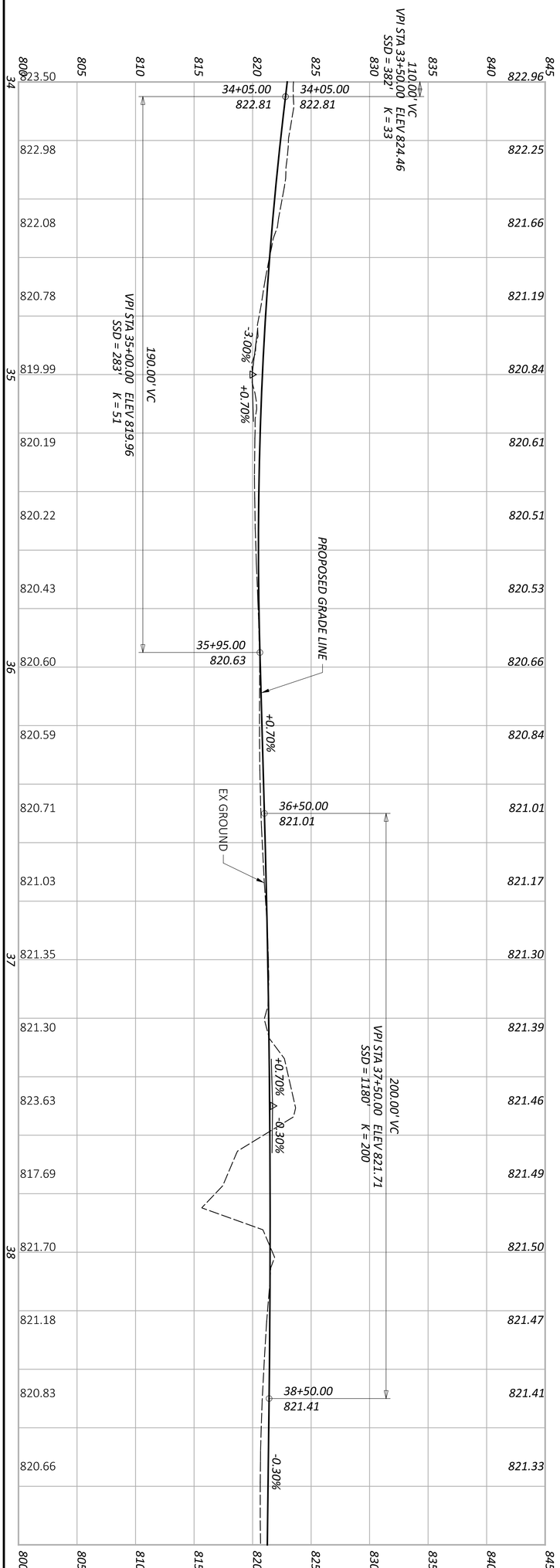

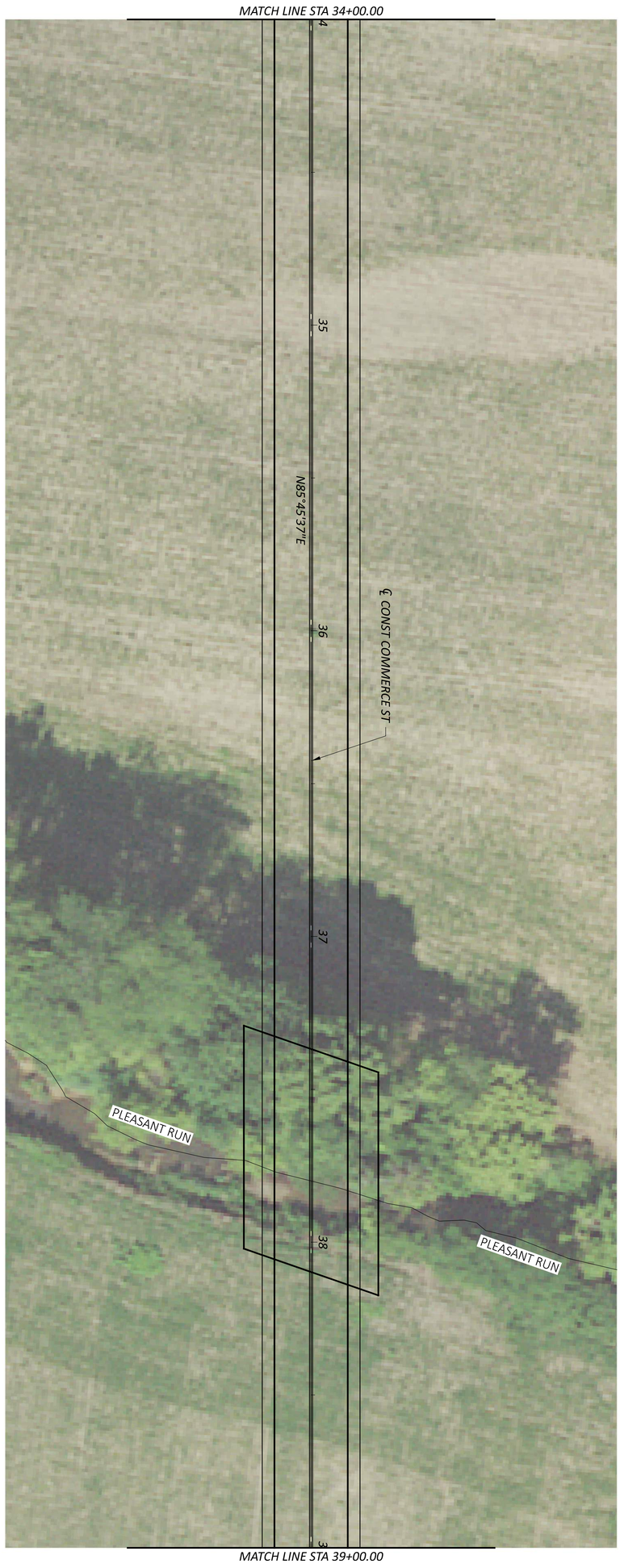

ALTERNATIVE 2A, 2B, 3A, 3B, 3C
PLAN AND PROFILE - COMMERCE ST
STA. 34+00.00 TO STA. 39+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.
DESIGNER: LZS
REVIEWER: KAM 03/02/23
PROJECT ID: 03022
SHEET 46 TOTAL 162

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: COMMERCE - PP SHEET 5 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:26:55 PM USER: cphillips
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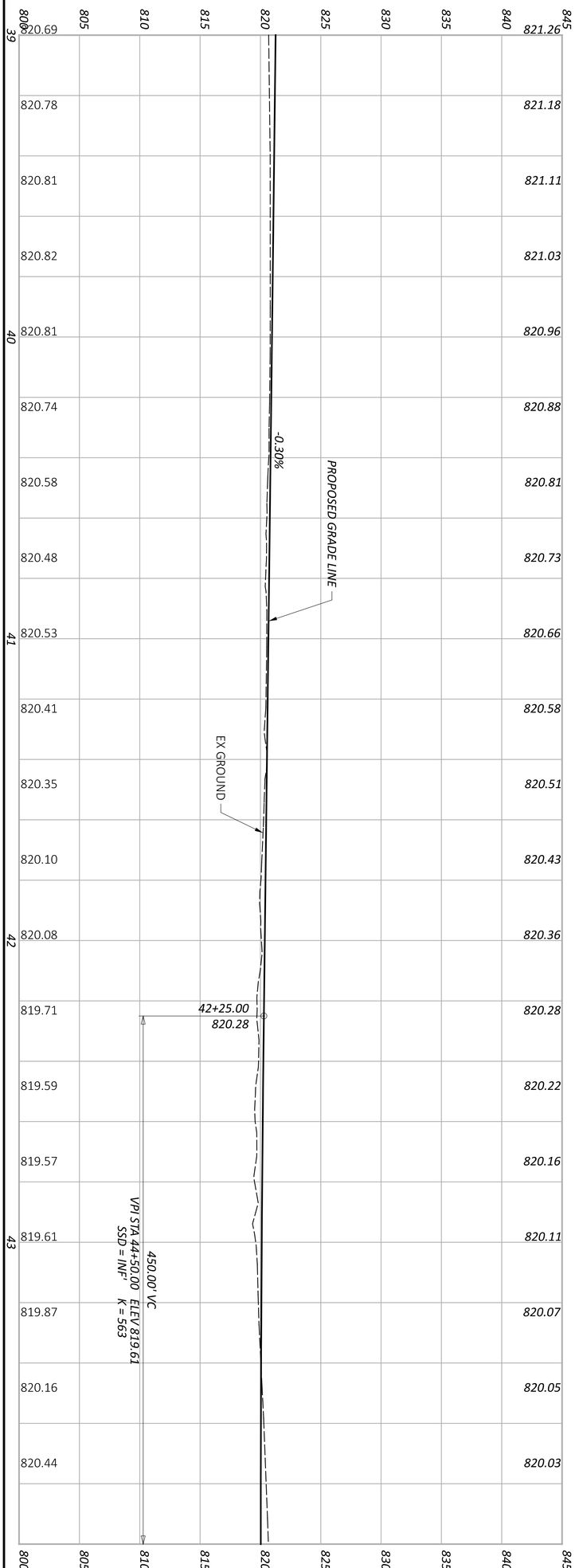

ALTERNATIVE 2A, 2B, 3A, 3B, 3C
PLAN AND PROFILE - COMMERCE ST
STA. 39+00.00 TO STA. 44+00.00

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
47	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: COMMERCE - PP SHEET 6 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:27:04 PM USER: cphillips
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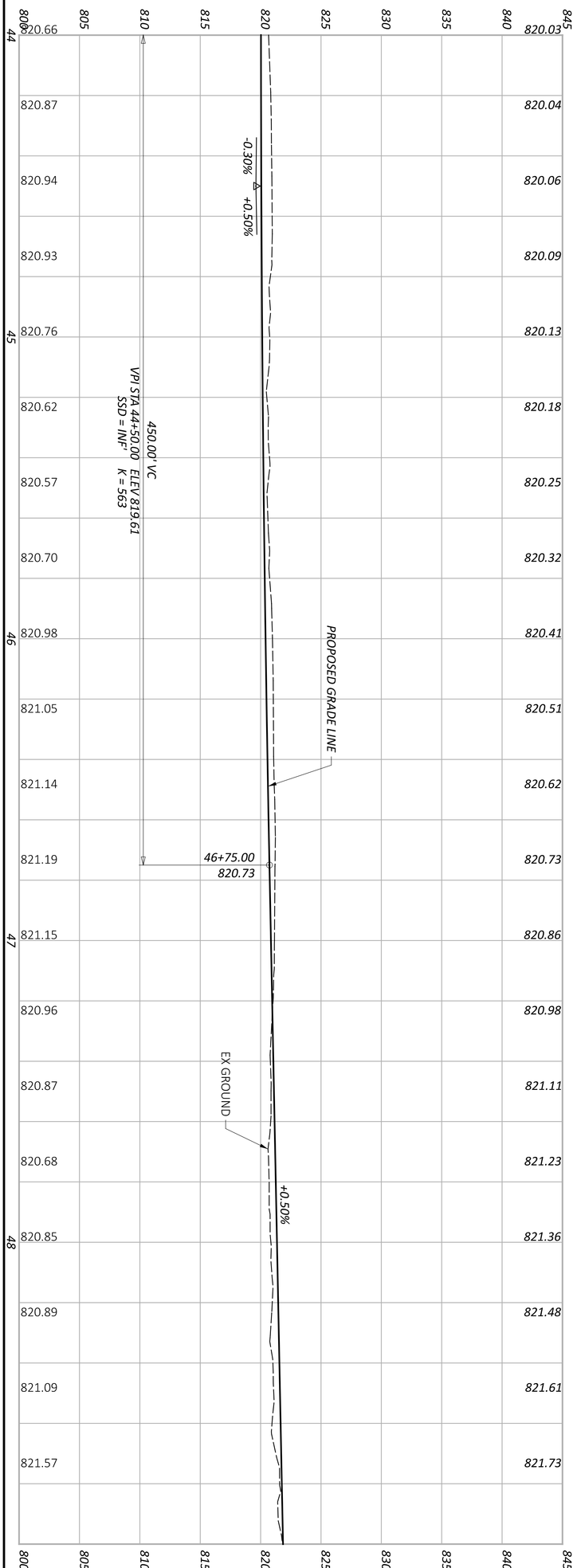
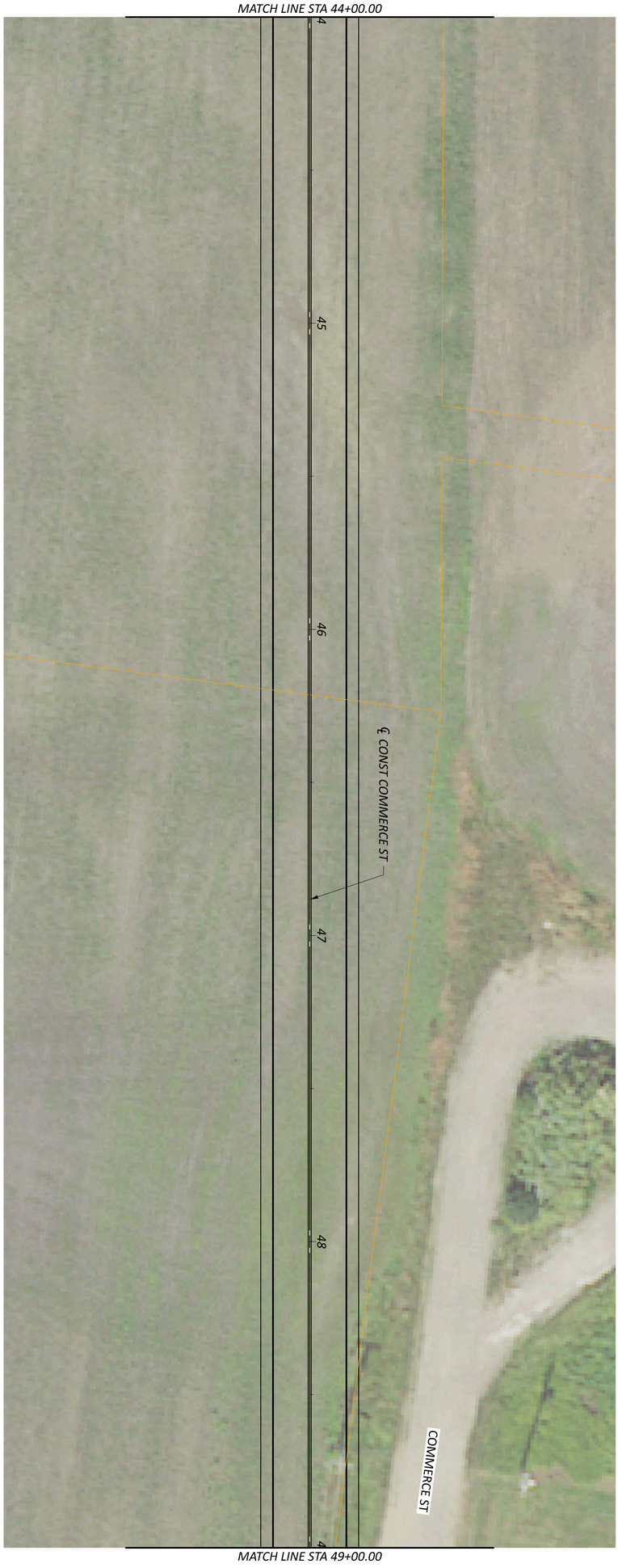
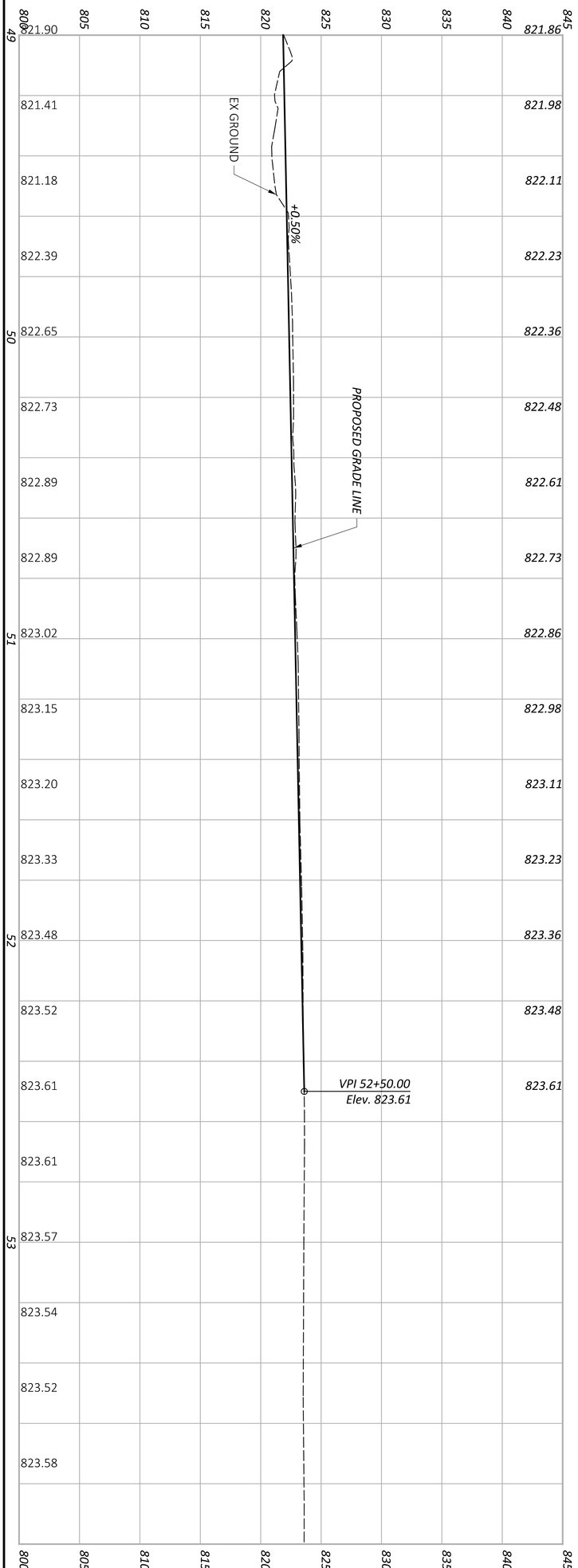


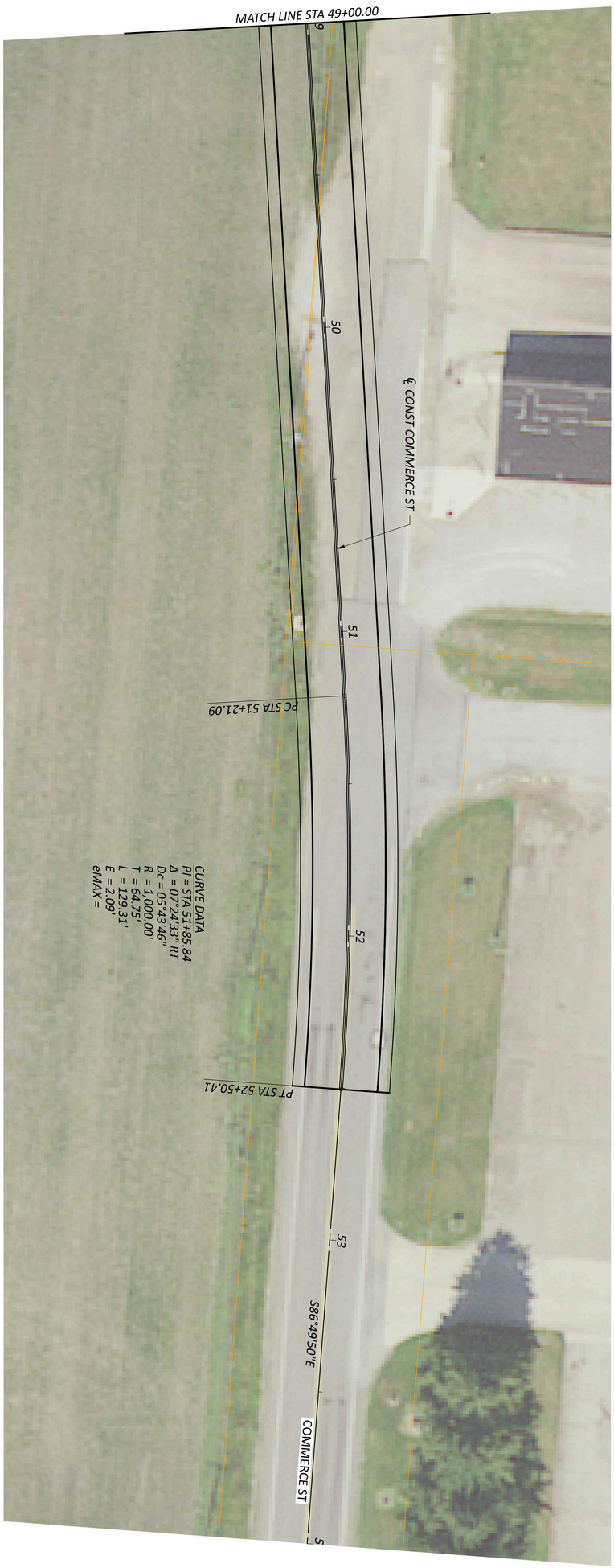


SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
48	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A, 2B, 3A, 3B, 3C
PLAN AND PROFILE - COMMERCE ST
STA. 44+00.00 TO STA. 49+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40





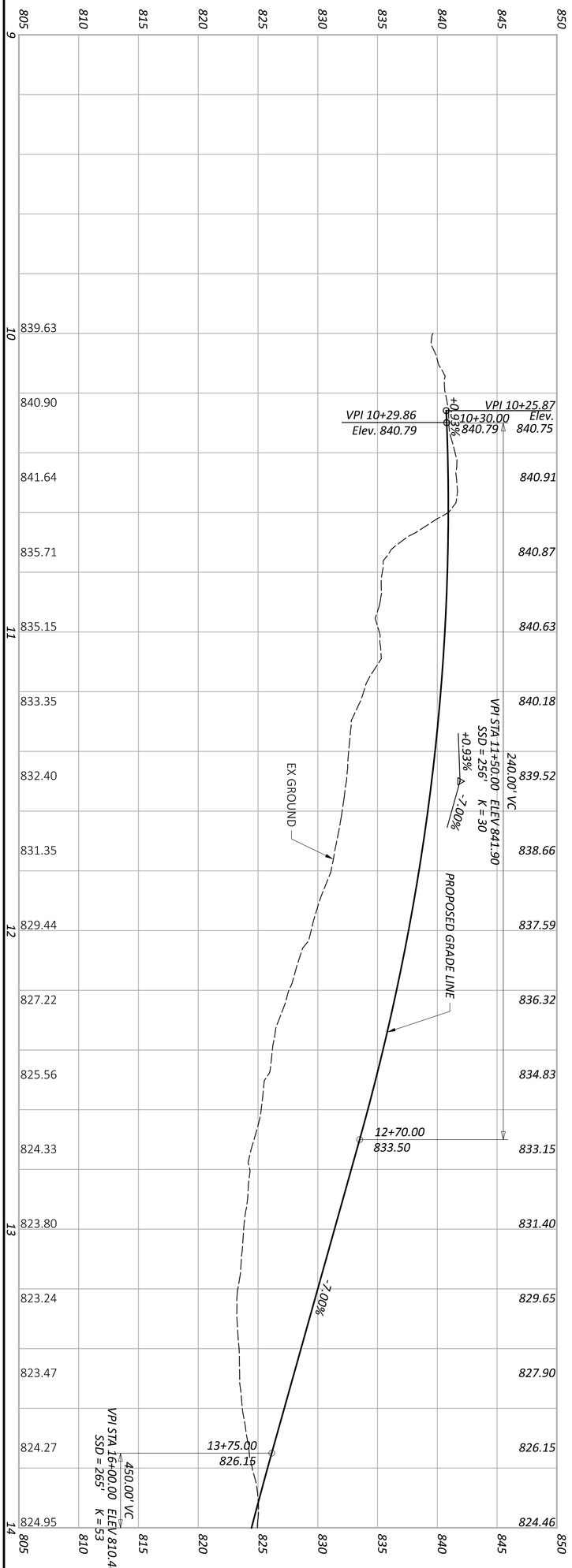
ALTERNATIVE 2A, 2B, 3A, 3B, 3C
PLAN AND PROFILE - COMMERCE ST
STA. 49+00.00 TO STA. 54+00.00

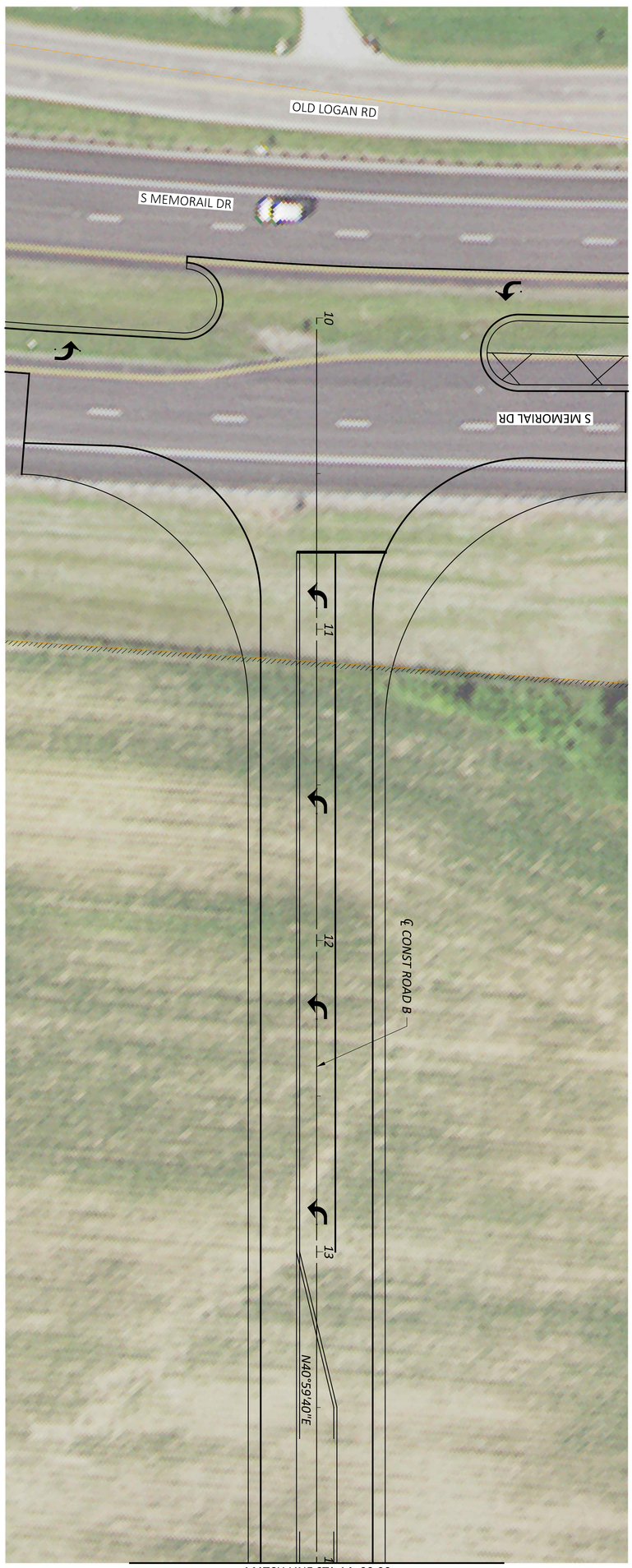
HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL
49	162

PROJECT ID: 03022
REVIEWER: KAM 03/02/23
DESIGNER: LZS
DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

MODEL: ROADB - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:27:24 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP171.dgn



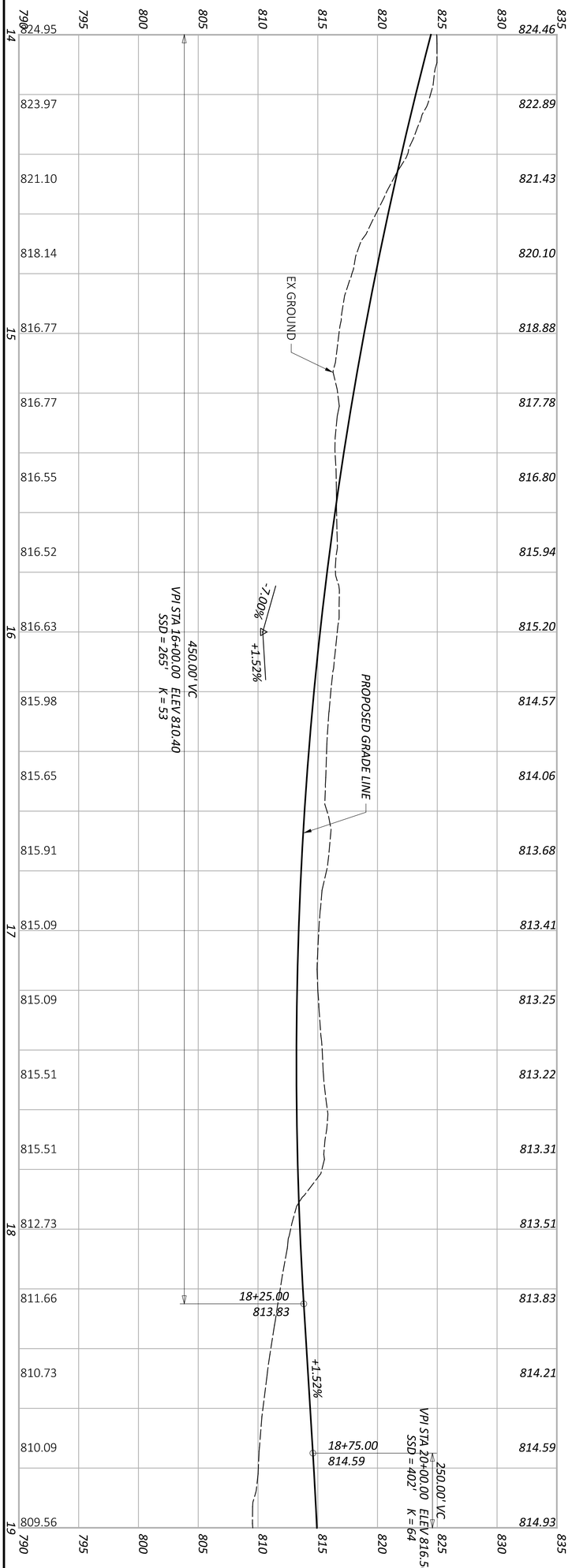


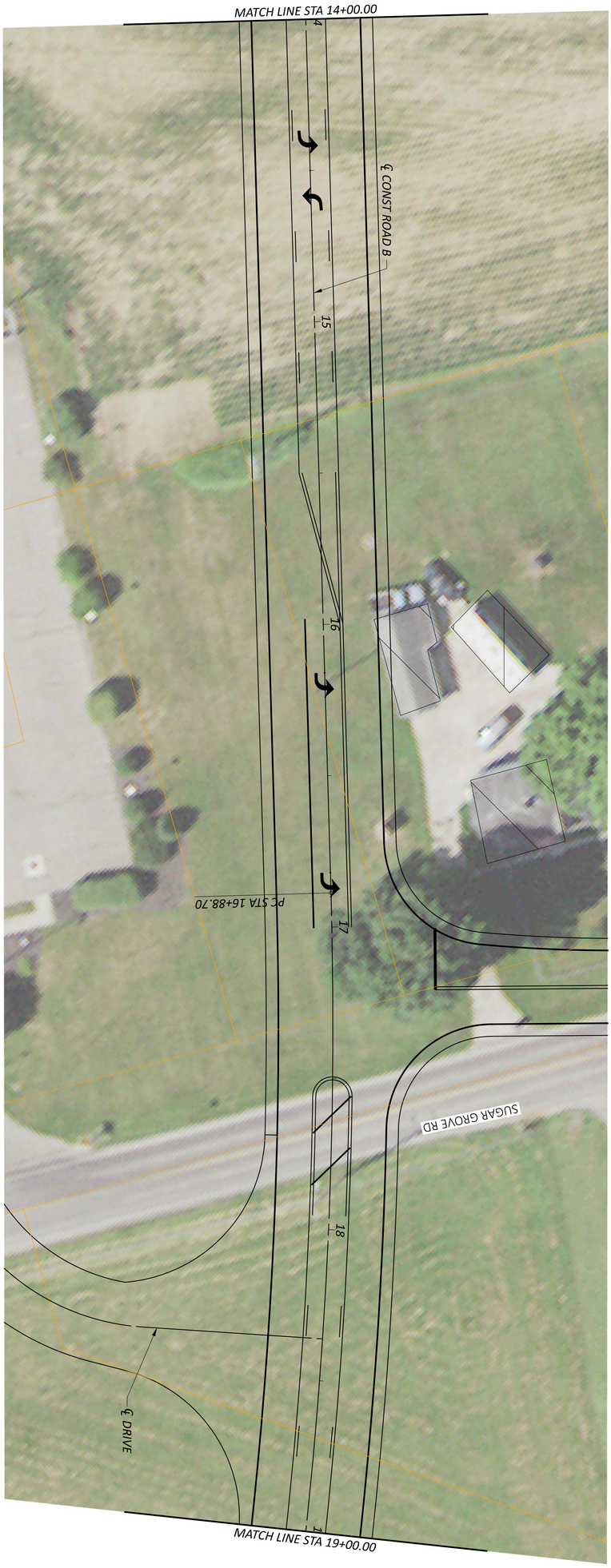
SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
50	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A
PLAN AND PROFILE - ROAD B
STA. 10+00.00 TO STA. 14+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: ROADB - PP SHEET 2 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:27:34 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP172.dgn





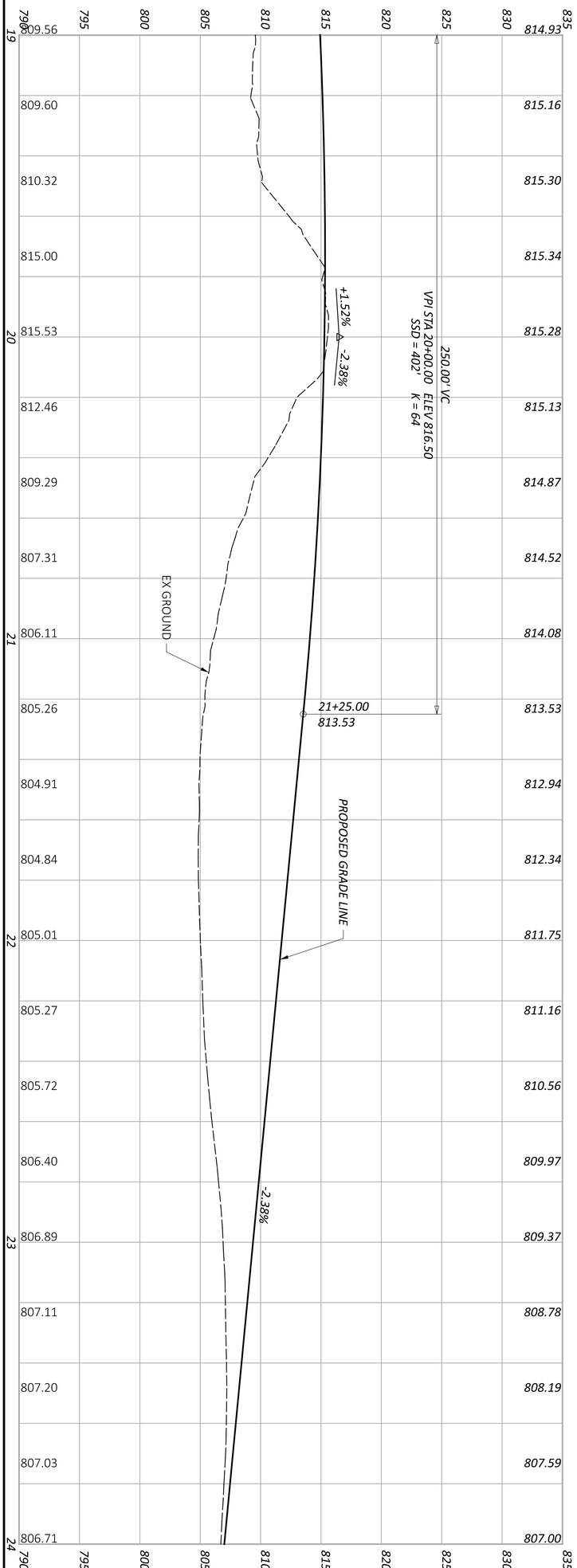
ALTERNATIVE 2A
PLAN AND PROFILE - ROAD B
STA. 14+00.00 TO STA. 19+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
51	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: ROADB - PP SHEET 3 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:27:44 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP173.dgn

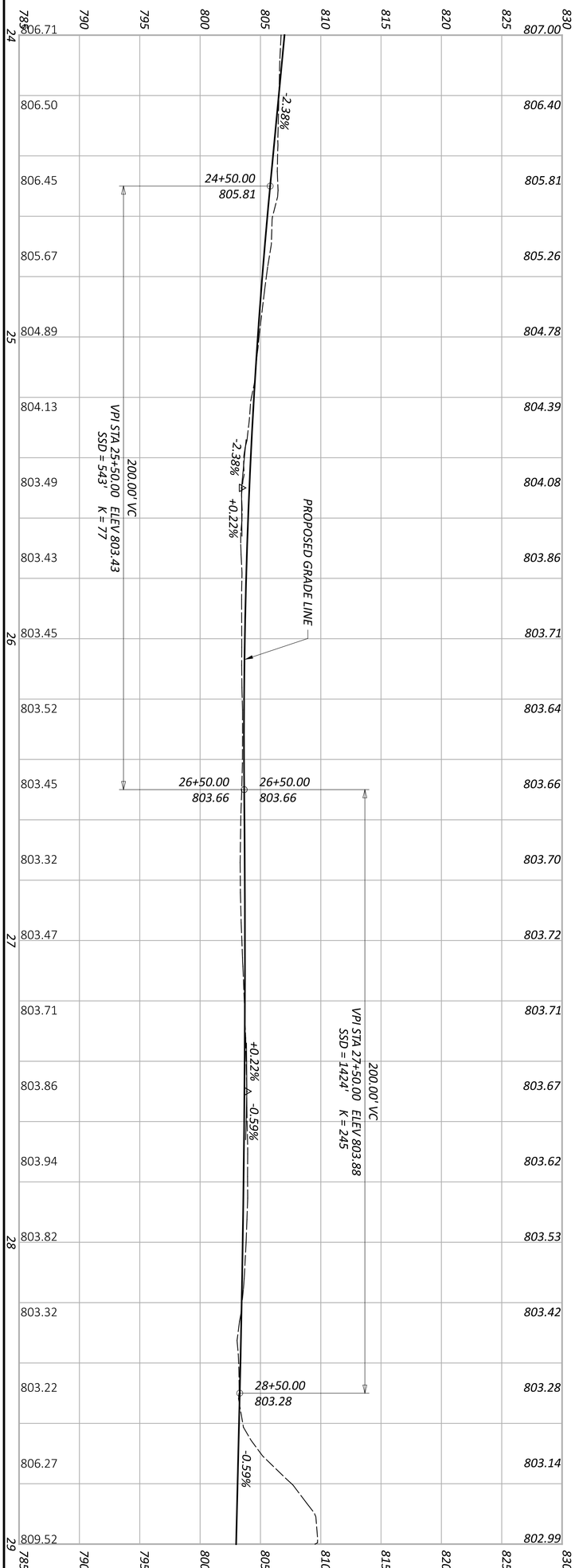


SHEET 52 / TOTAL 162	PROJECT ID 03022	REVIEWER KAM 03/02/23	DESIGNER LZS	DESIGN AGENCY AMERICAN STRUCTUREPOINT INC.	ALTERNATIVE 2A PLAN AND PROFILE - ROAD B STA. 19+00.00 TO STA. 24+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: ROADB - PP SHEET 4 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:27:53 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP174.dgn



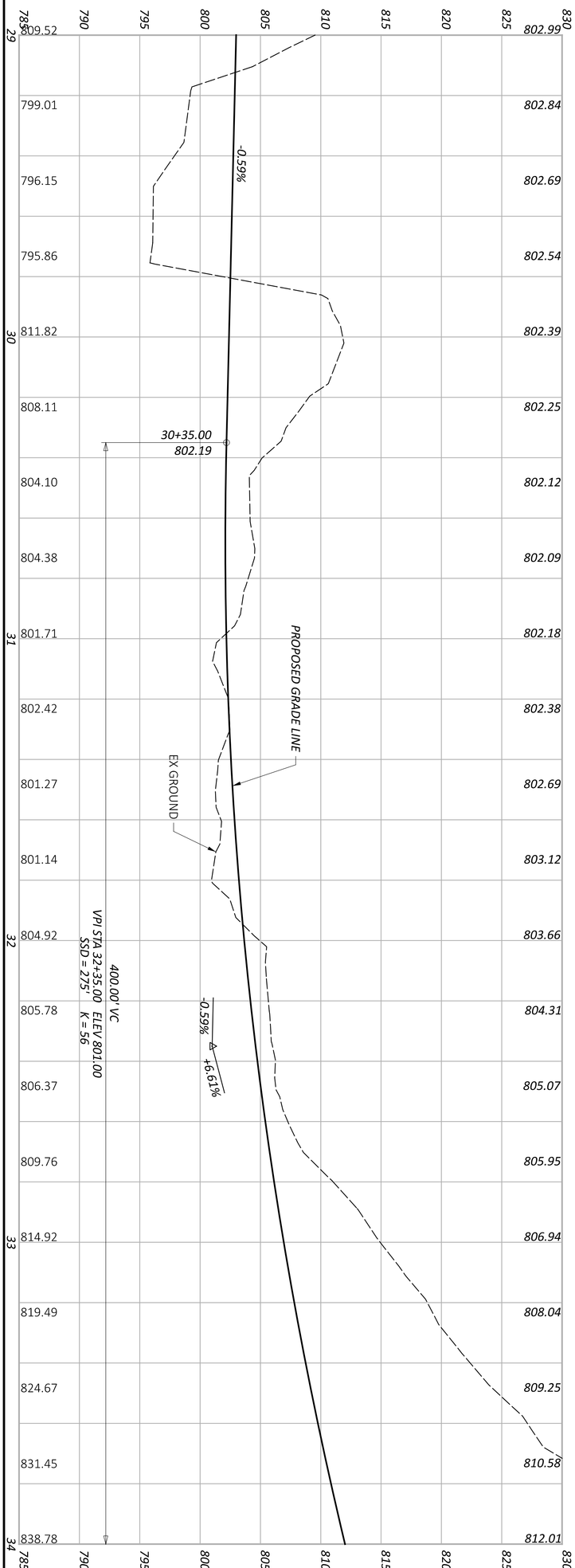
SHEET 53	TOTAL 162	PROJECT ID 03022	REVIEWER KAM 03/02/23	DESIGNER LZS	DESIGN AGENCY AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A
PLAN AND PROFILE - ROAD B
STA. 24+00.00 TO STA. 29+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: ROADB - PP SHEET 5 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:28:03 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP175.dgn

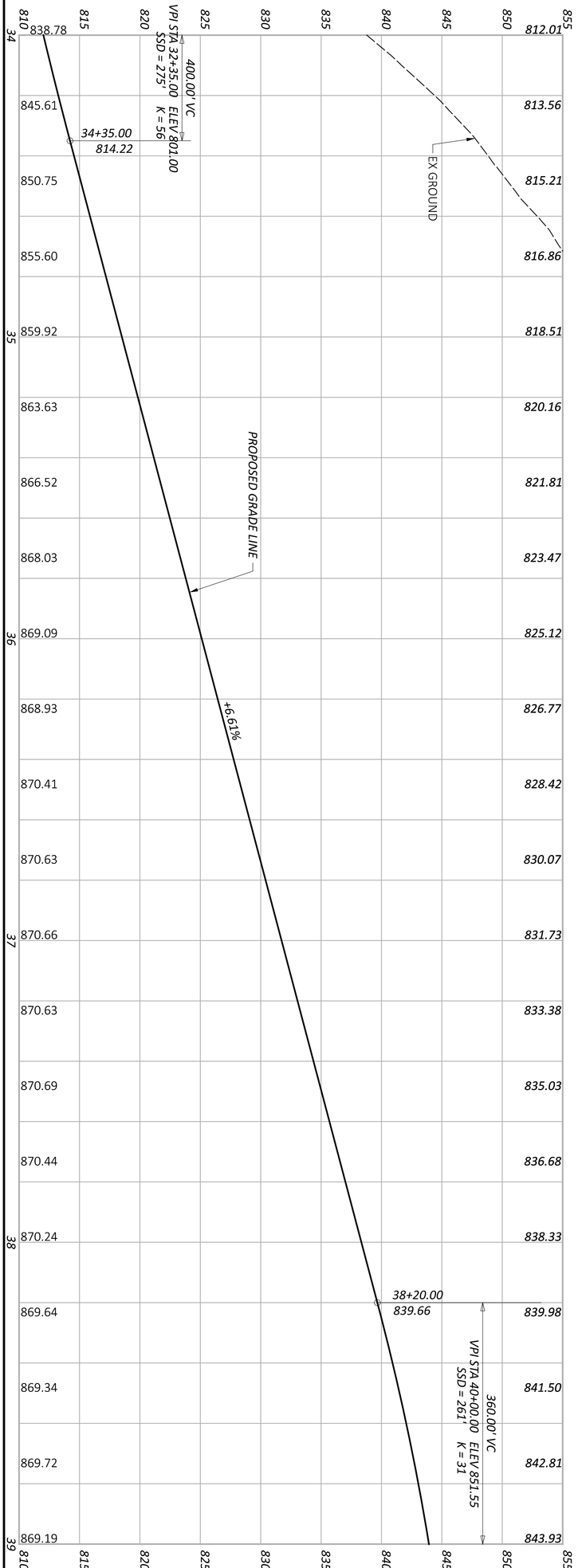


SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
54	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2A
PLAN AND PROFILE - ROAD B
STA. 29+00.00 TO STA. 34+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

MODEL: ROADB - PP SHEET 6 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:28:13 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP176.dgn



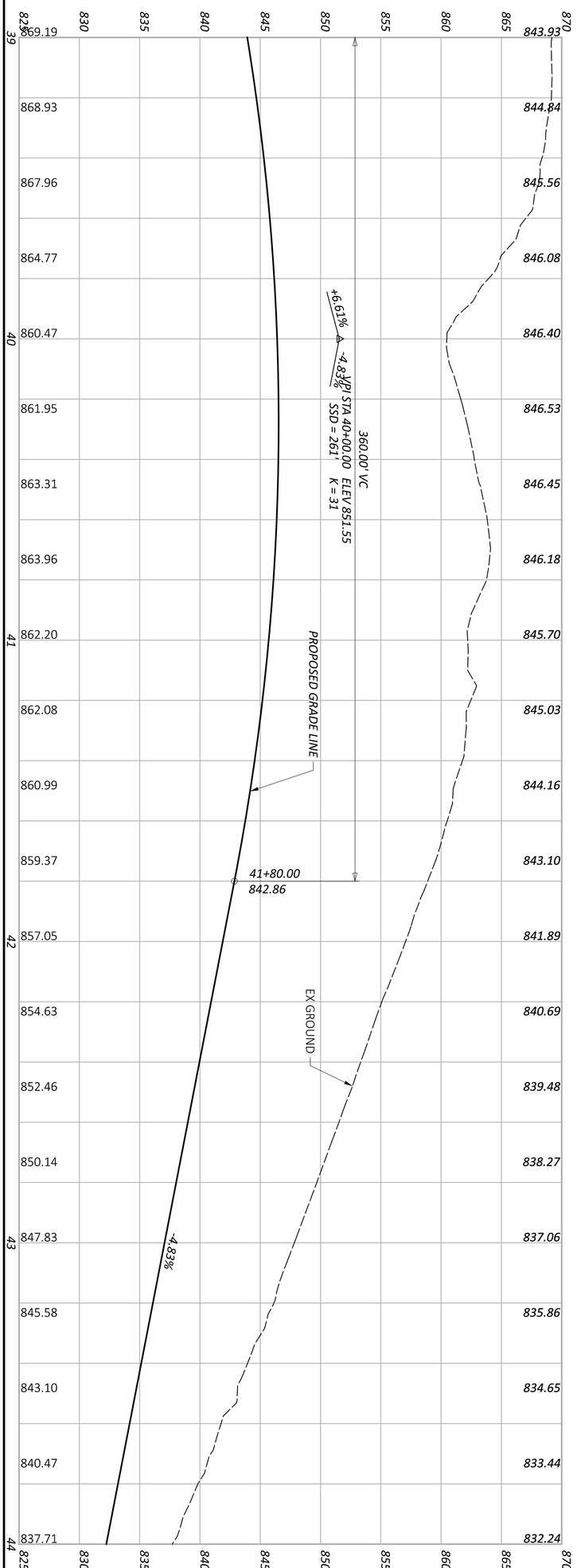
ALTERNATIVE 2A
PLAN AND PROFILE - ROAD B
STA. 34+00.00 TO STA. 39+00.00

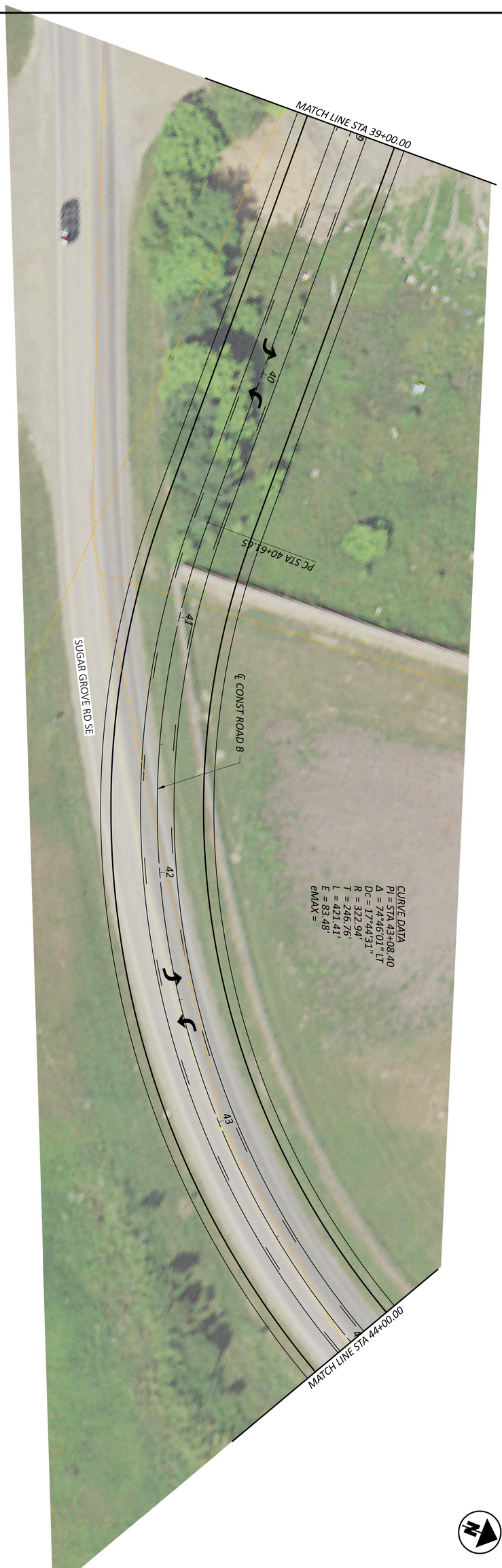
HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
55	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: ROADB - PP SHEET 7 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:28:24 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP177.dgn





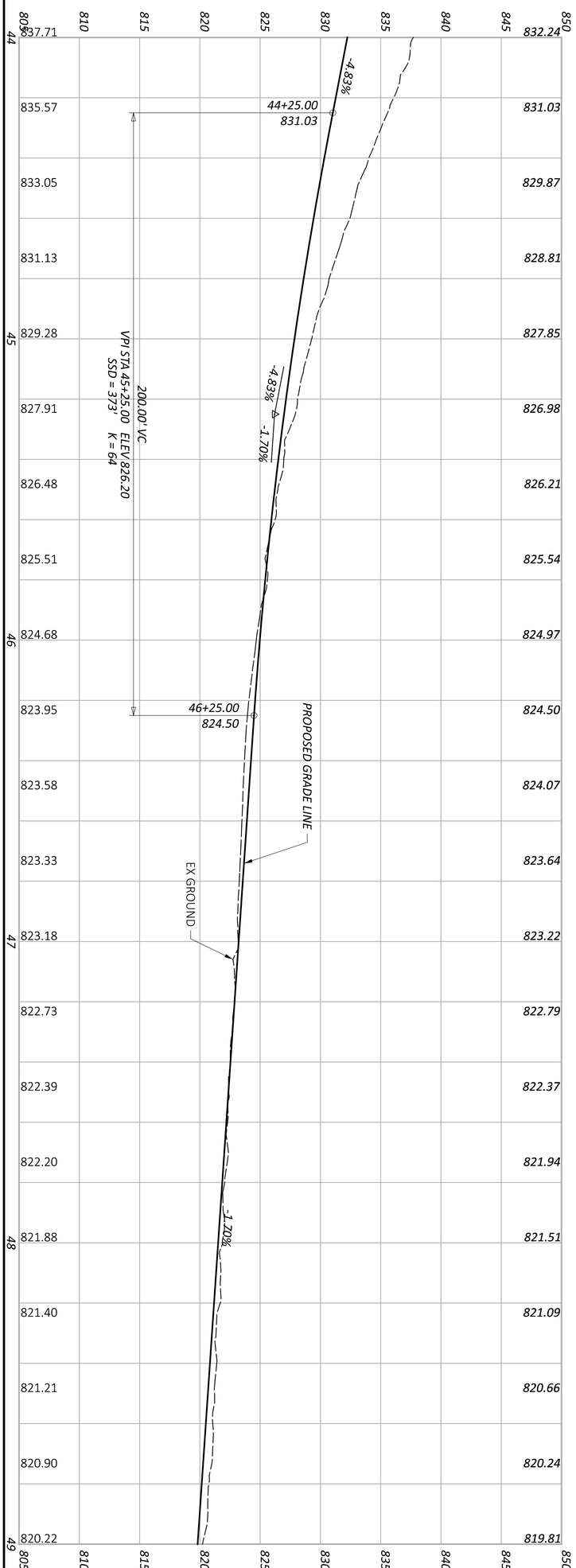
ALTERNATIVE 2A
PLAN AND PROFILE - ROAD B
STA. 39+00.00 TO STA. 44+00.00

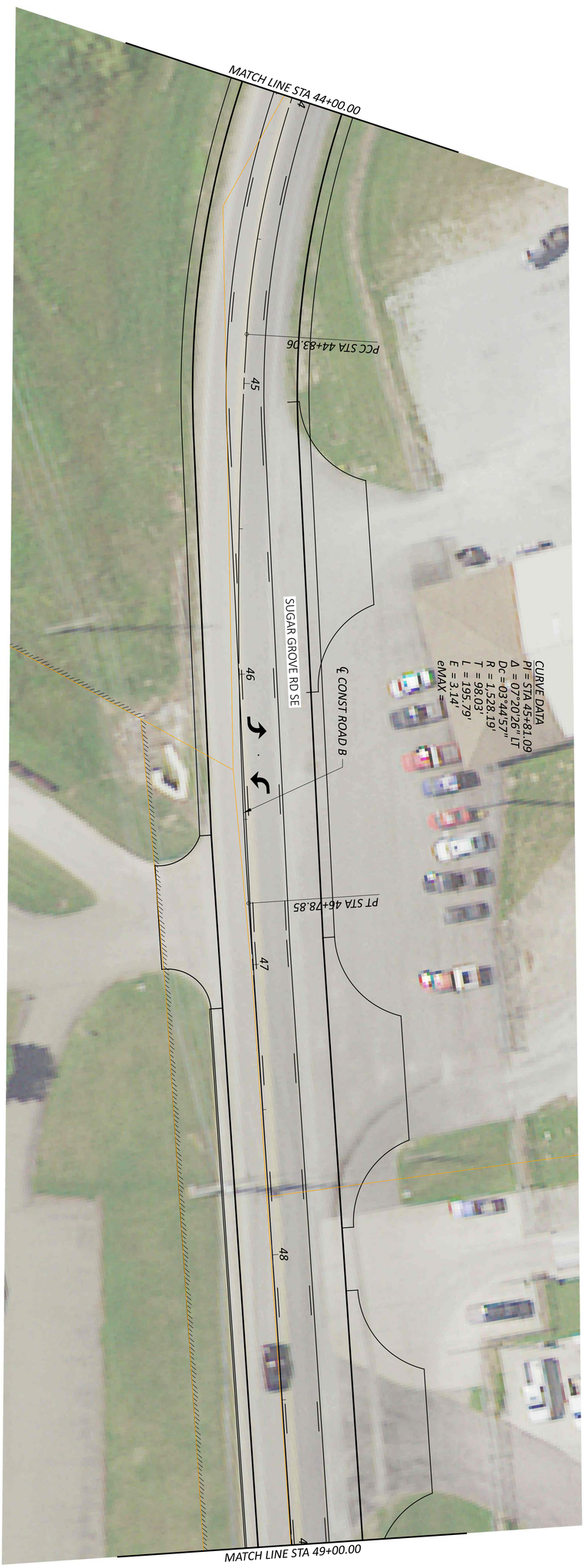
HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
56	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: ROADB - PP SHEET 8 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:28:36 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP178.dgn



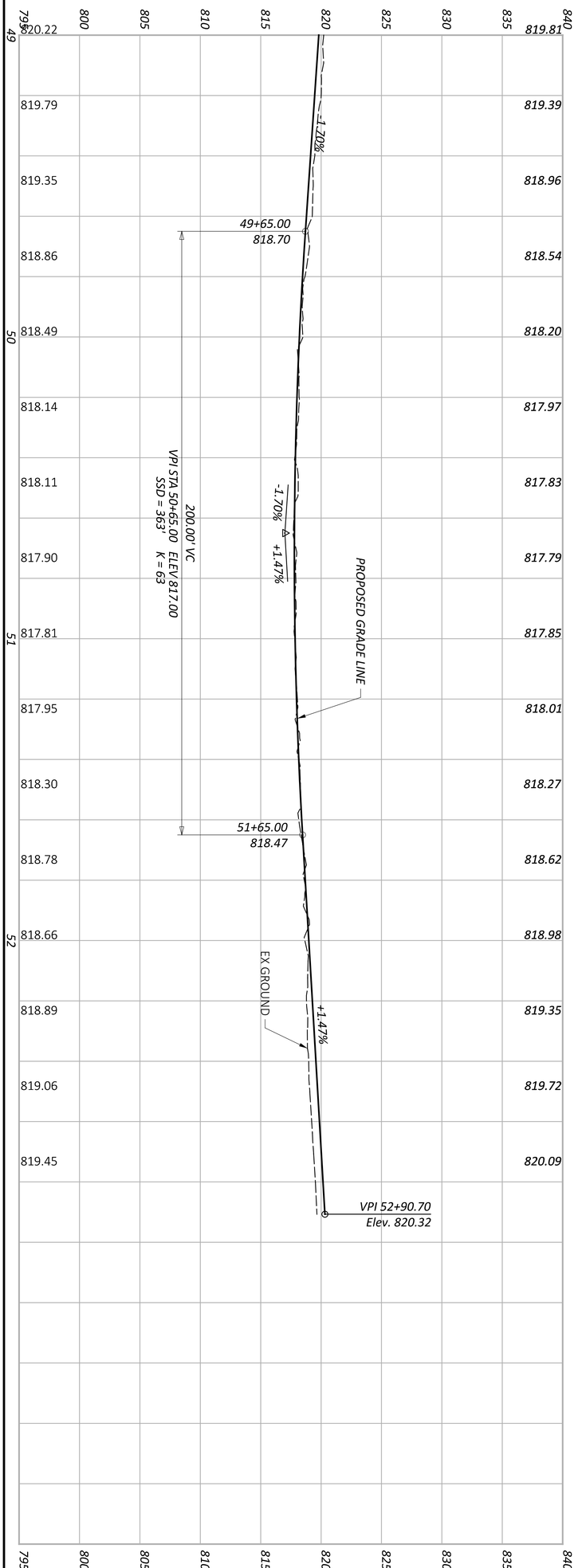


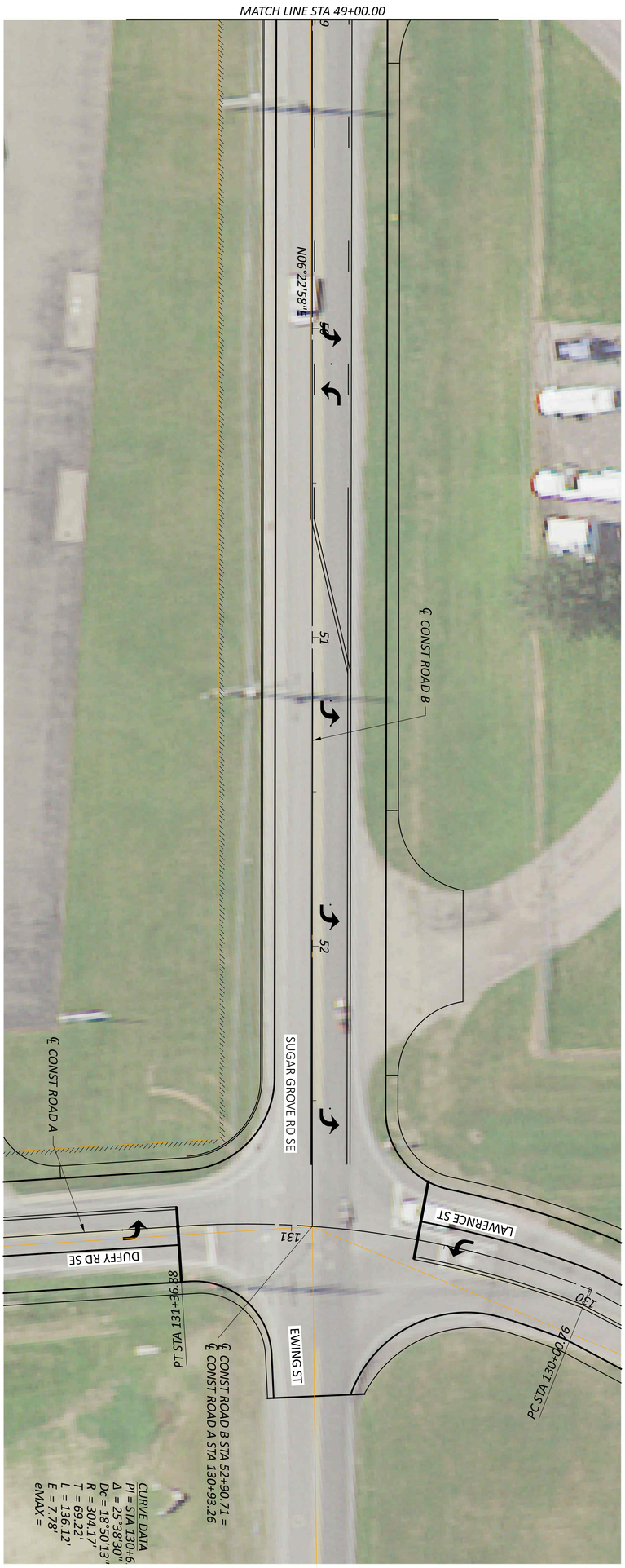
ALTERNATIVE 2A
PLAN AND PROFILE - ROAD B
STA. 44+00.00 TO STA. 49+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.
DESIGNER: LZS
REVIEWER: KAM 03/02/23
PROJECT ID: 03022
SHEET: 57 TOTAL: 162

MODEL: ROADB - PP SHEET 9 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:28:48 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP179.dgn





ALTERNATIVE 2A
PLAN AND PROFILE - ROAD B
STA. 49+00.00 TO STA. 52+90.71

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
58	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: SUGARGROVESE - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:28:58 PM USER: cphillips
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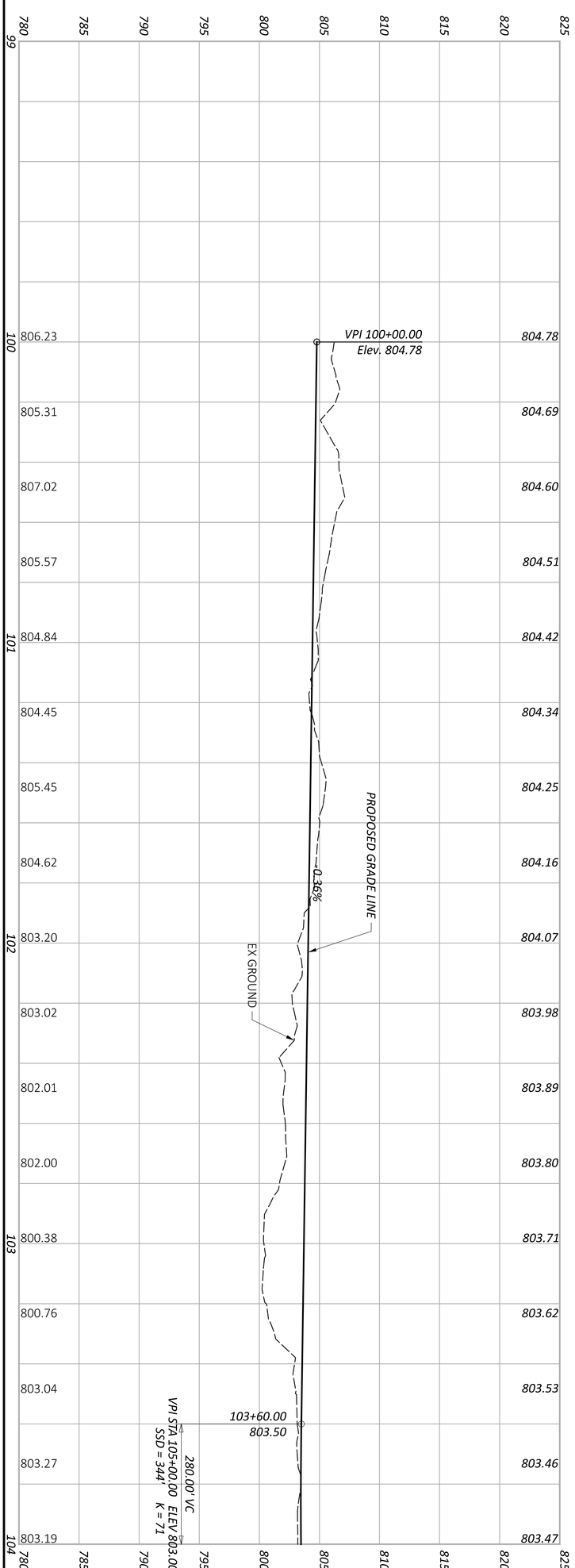
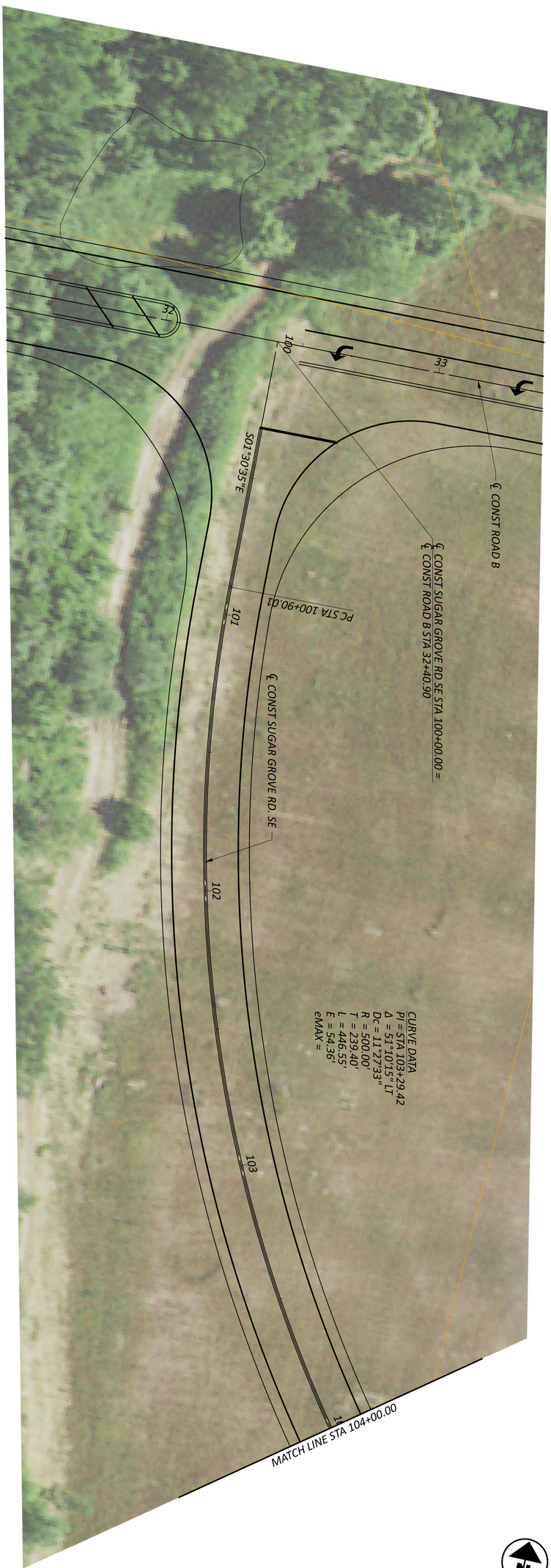


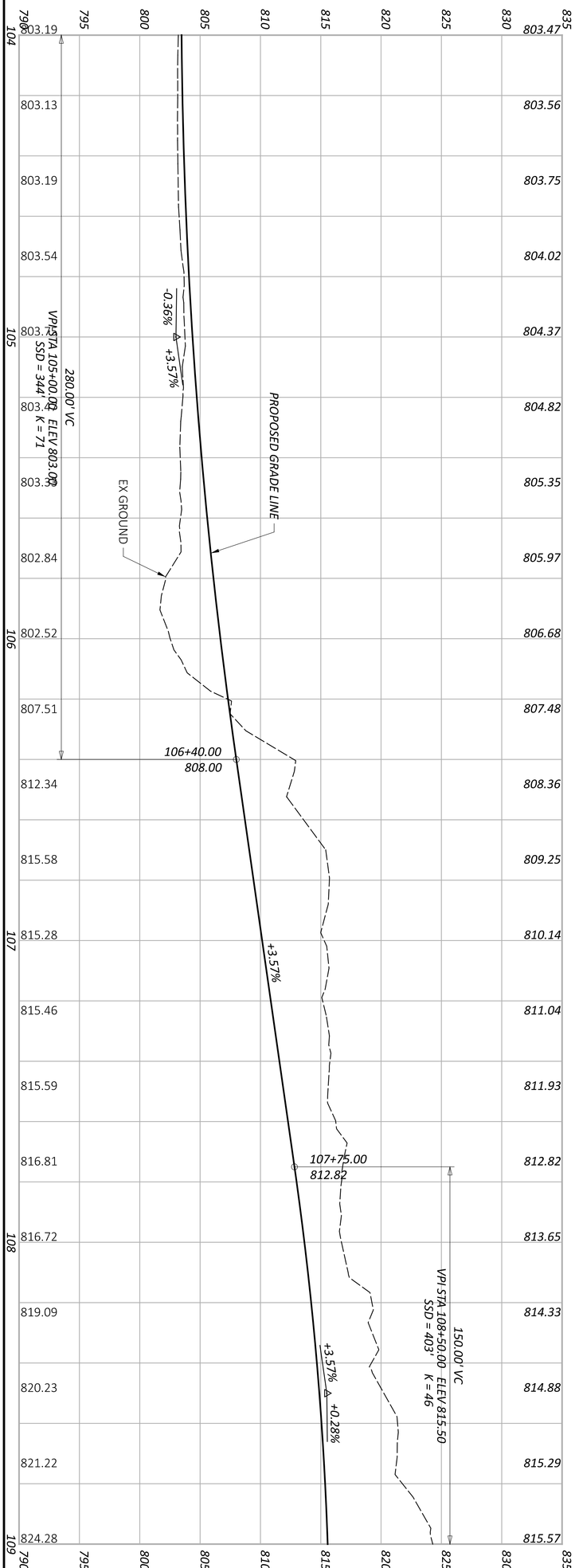


ALTERNATIVE 2A
PLAN AND PROFILE - SUGAR GROVE RD.
STA. 100+00.00 TO STA. 104+00.00

HORIZONTAL
SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
58	137	03022	KAM 08/26/22	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: SUGARGROVESE - PP SHEET 2 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:29:10 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP182.dgn



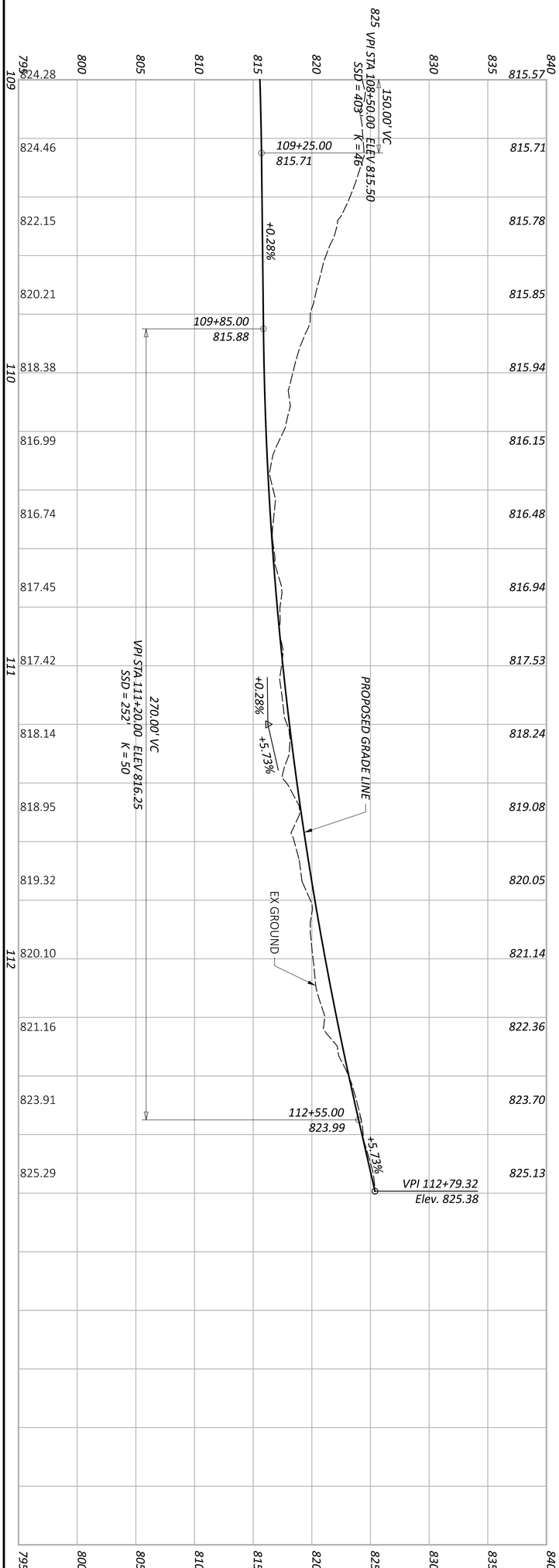
ALTERNATIVE 2A
PLAN AND PROFILE - SUGAR GROVE RD.
STA. 104+00.00 TO STA. 109+00.00

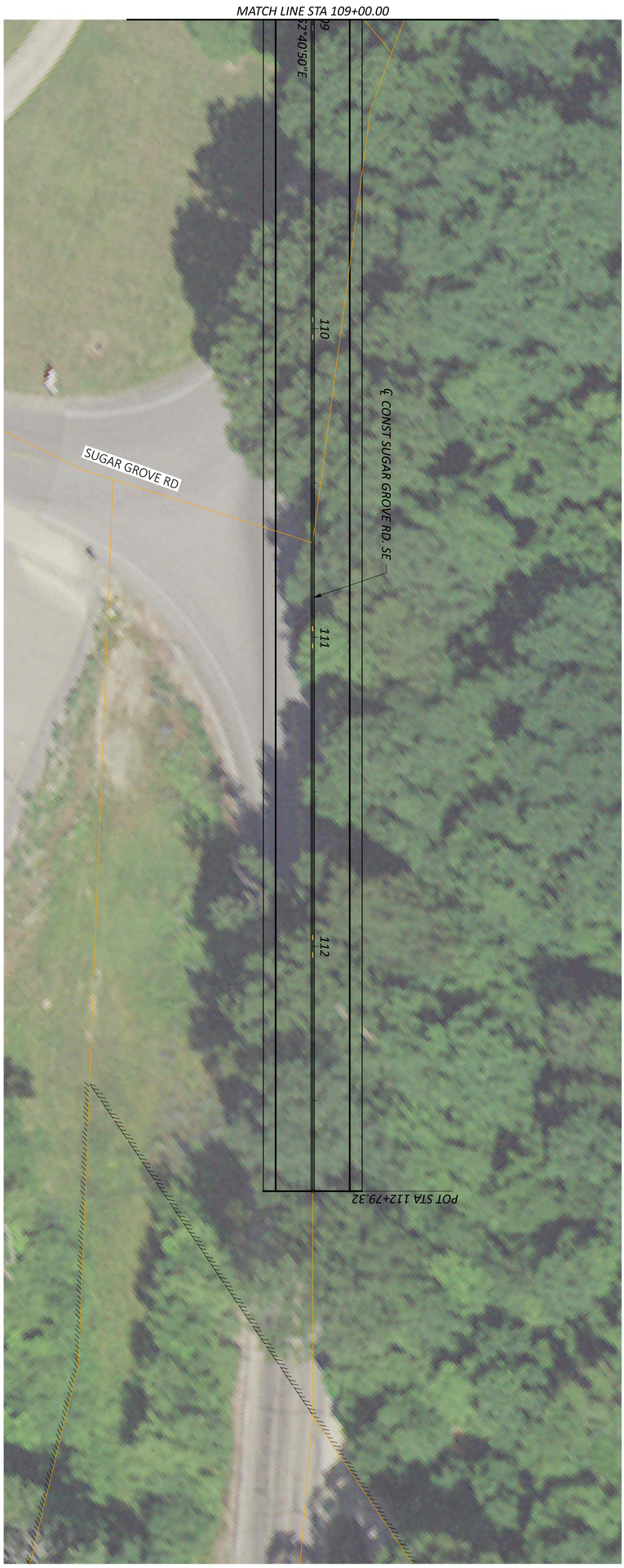
HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
59	137	03022	KAM 08/26/22	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: SUGARGROVESE - PP SHEET 3 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:29:20 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP183.dgn





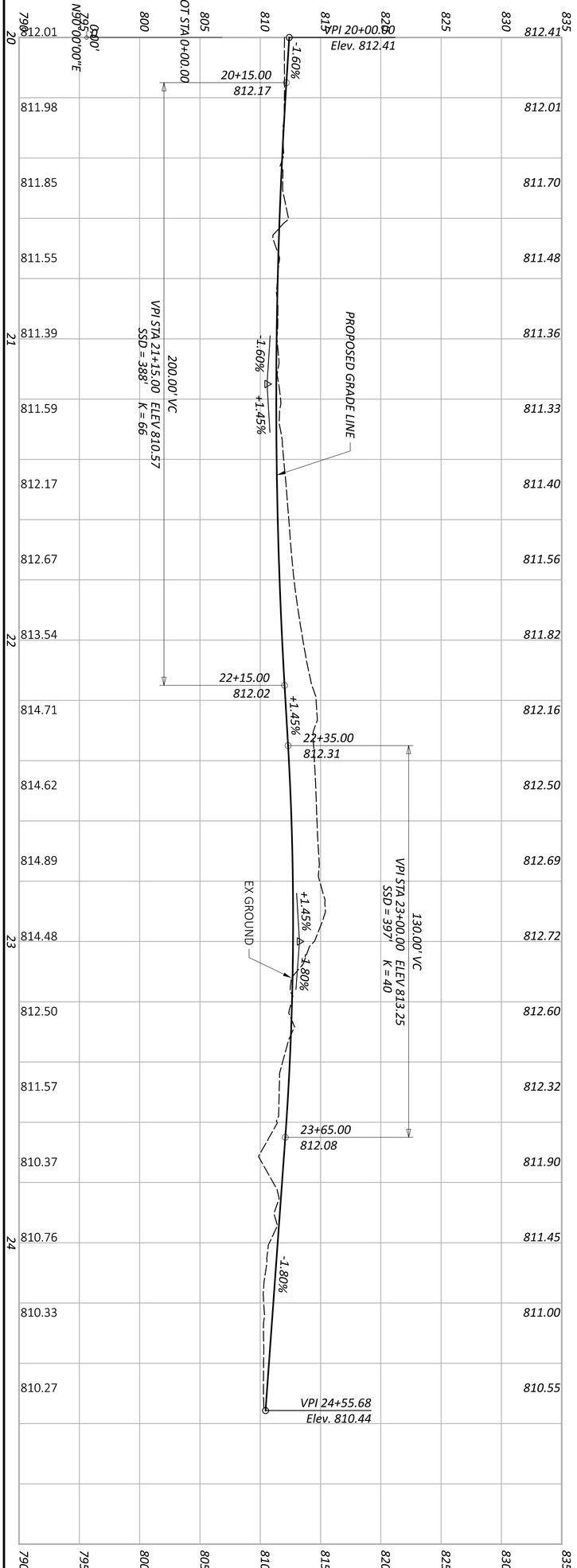
ALTERNATIVE 2A
PLAN AND PROFILE - SUGAR GROVE RD.
STA. 109+00.00 TO STA. 112+79.32

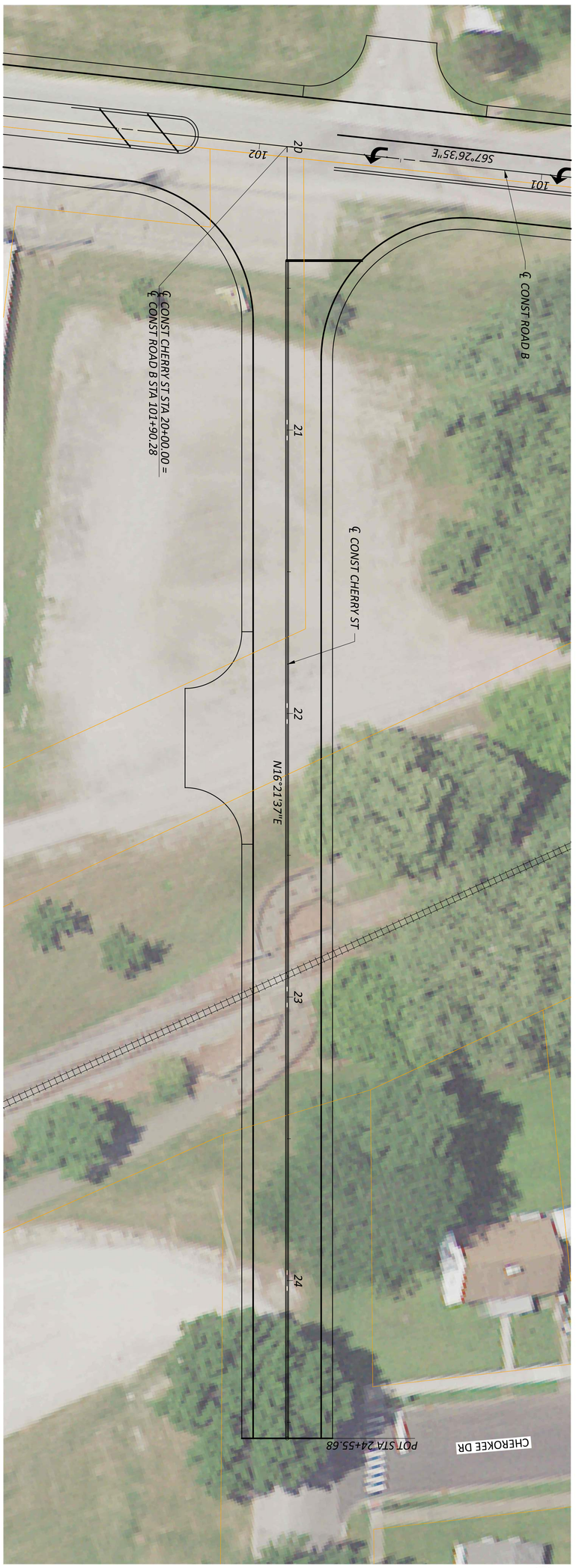
HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
60	137	03022	KAM 08/26/22	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: CHERRY - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:29:30 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP185.dgn





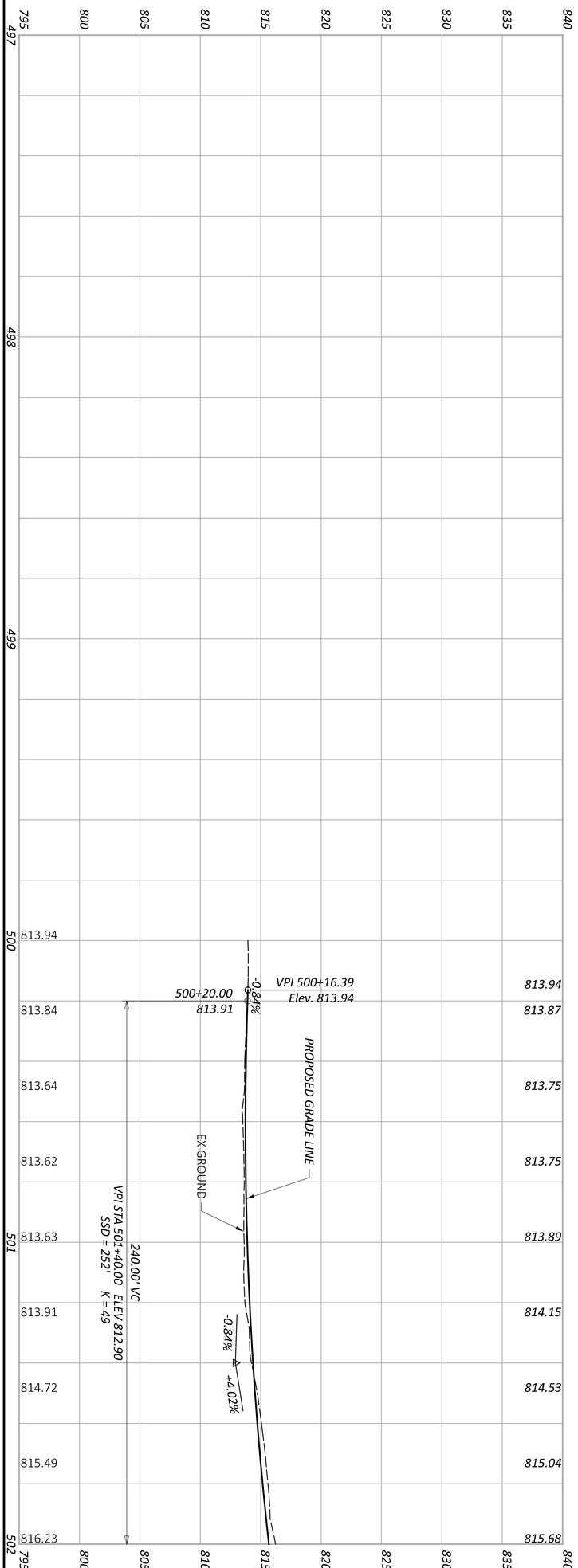
ALTERNATIVE 2A
PLAN AND PROFILE - CHERRY ST
STA. 20+00.00 TO STA. 25+00.00

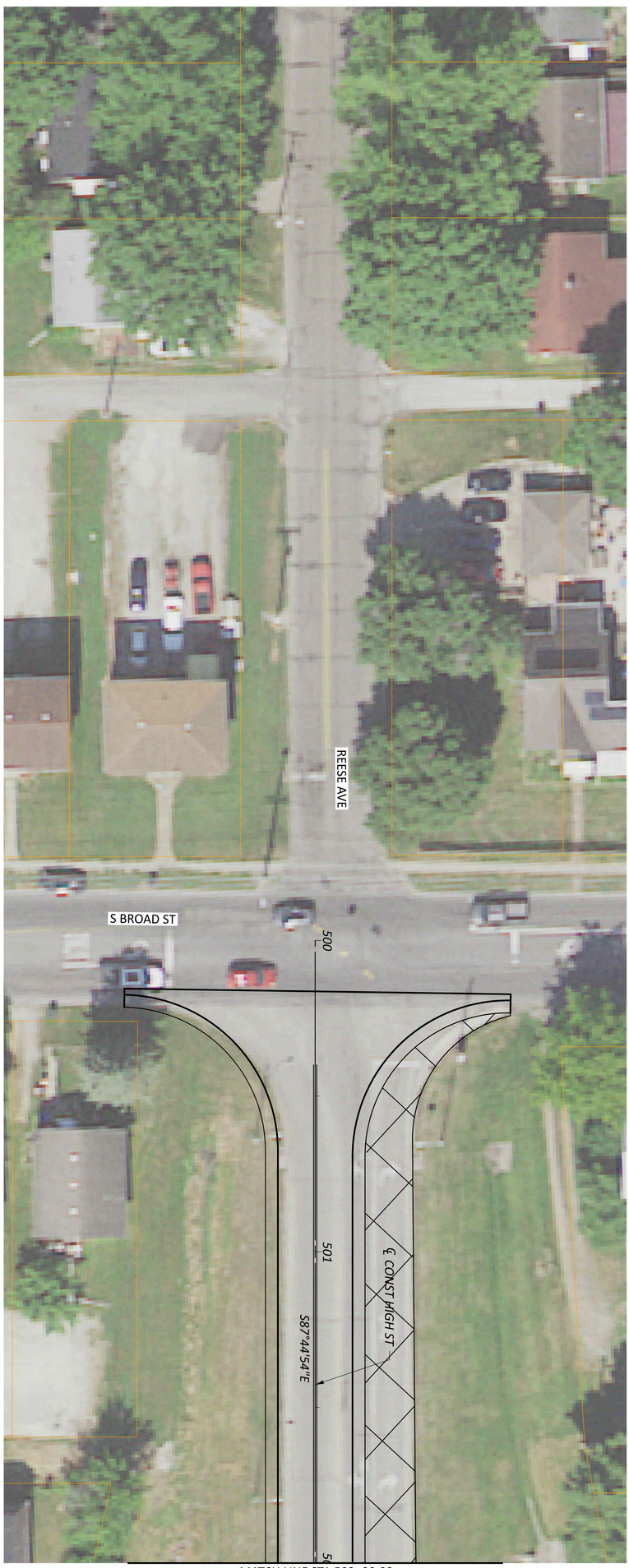
HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
62	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: HIGH - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:29:41 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP191.dgn





MATCH LINE STA 502+00.00

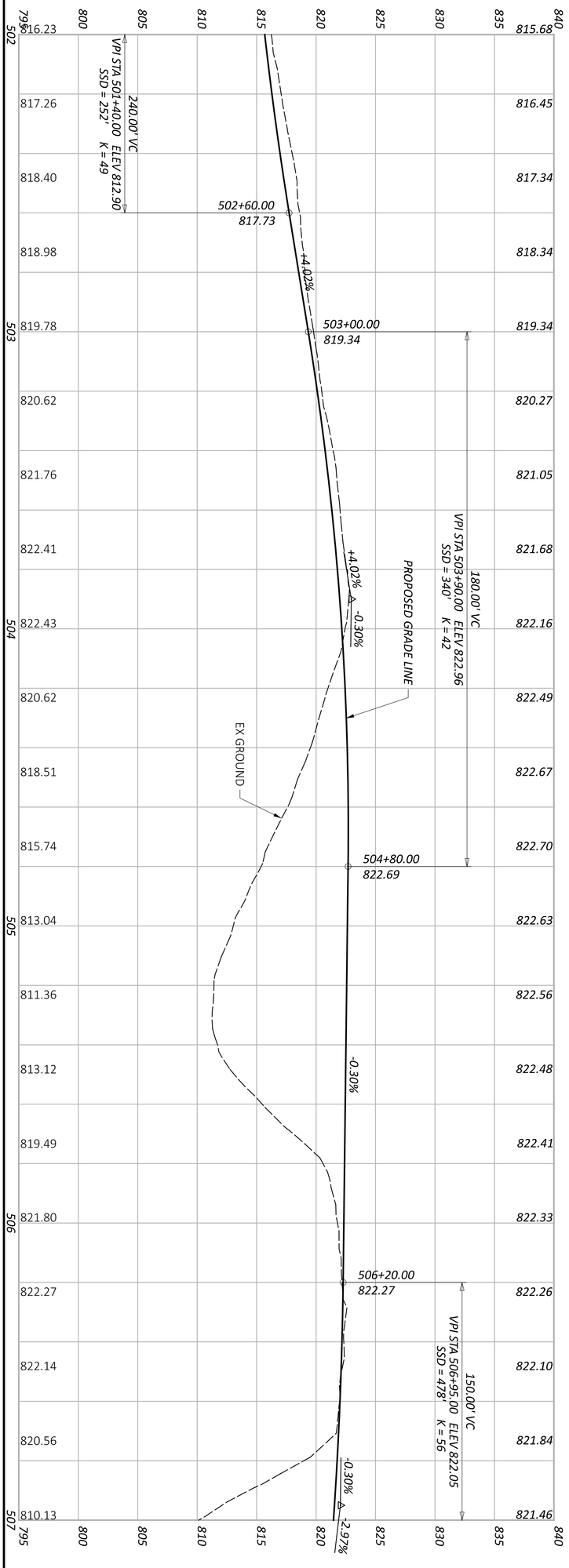
SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
63	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

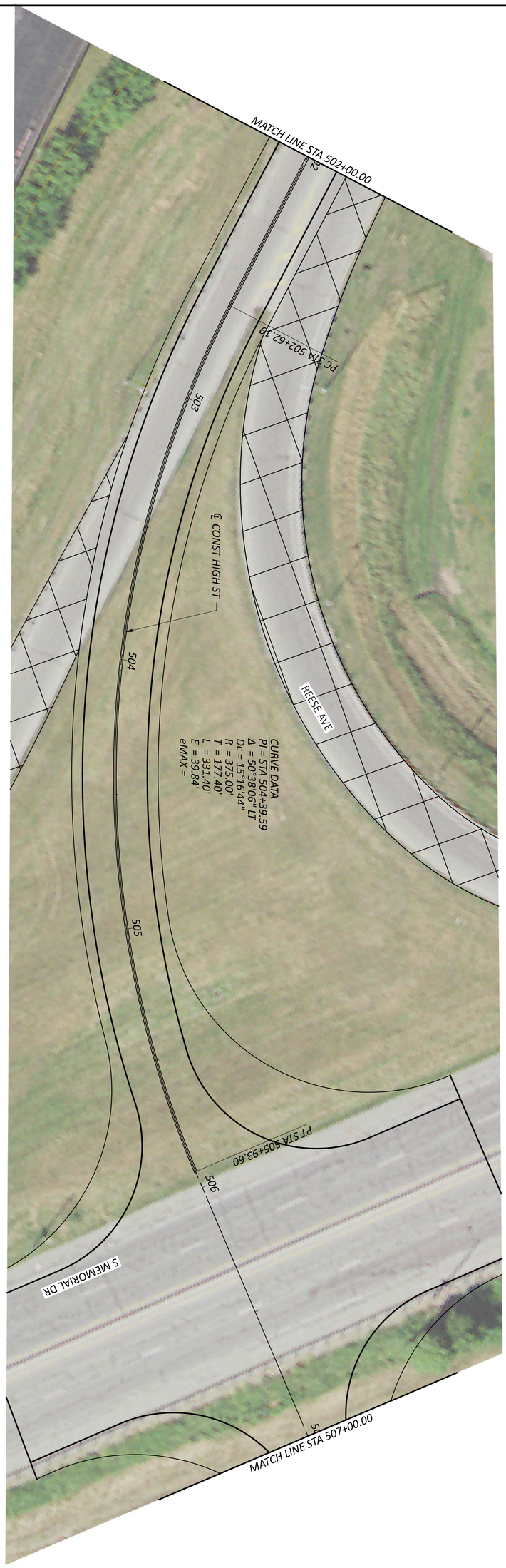
ALTERNATIVE 2A
PLAN AND PROFILE - HIGH ST
STA. 500+00.00 TO STA. 502+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: HIGH - PP SHEET 2 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:29:51 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP192.dgn



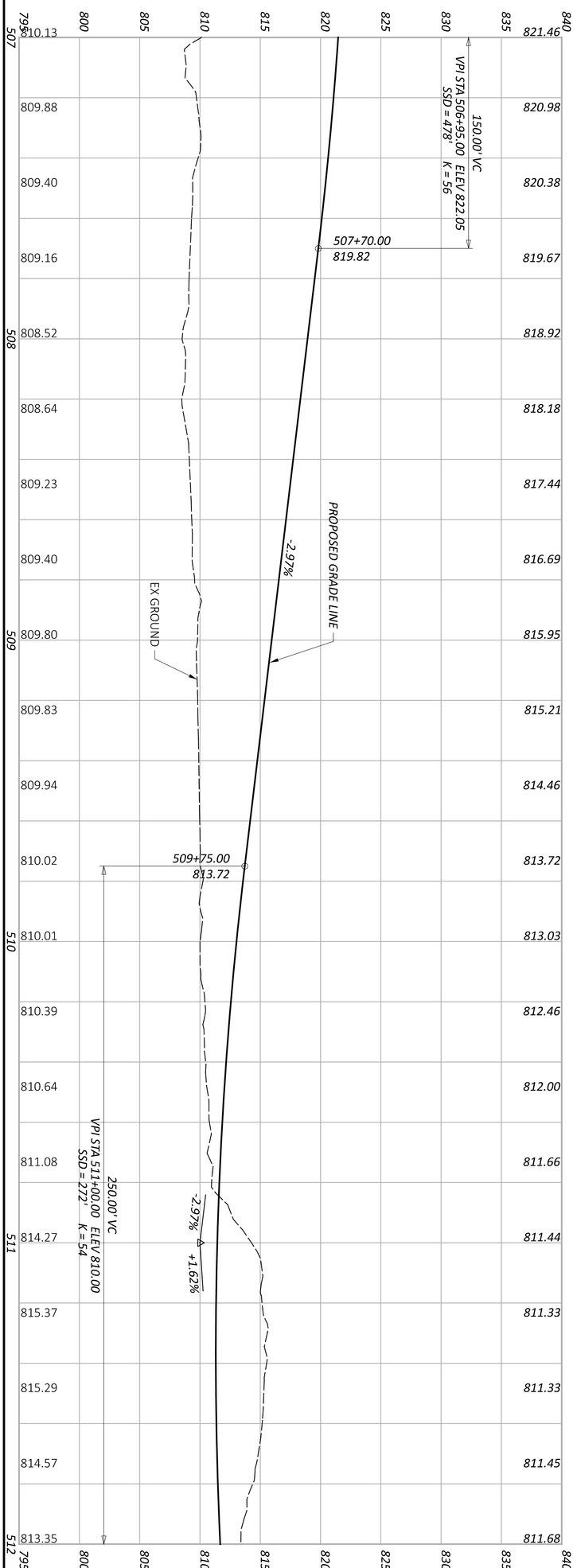


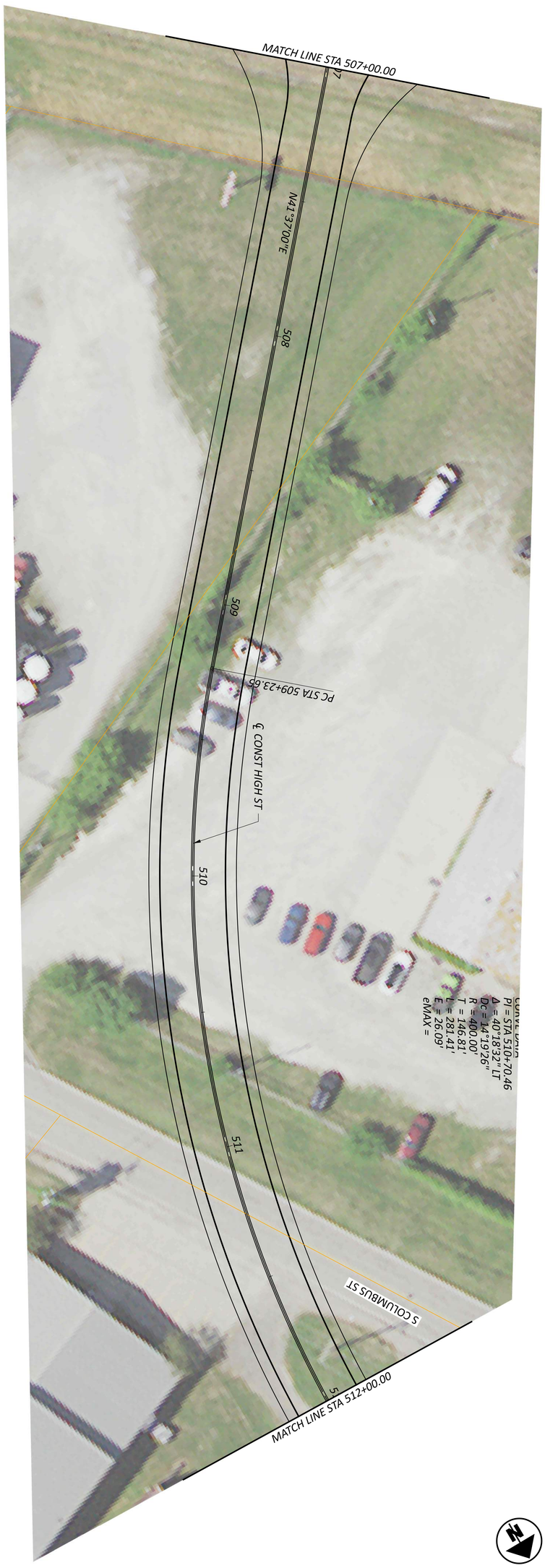
ALTERNATIVE 2A
PLAN AND PROFILE - HIGH ST
STA. 502+00.00 TO STA. 507+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
64	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: HIGH - PP SHEET 3 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:30:01 PM USER: cphillips
\\colufs2\projects\2019\03022\C. Design\03022_Lancaster_Bypass\400-Engineering\Roadway\Sheets\03022_GP193.dgn

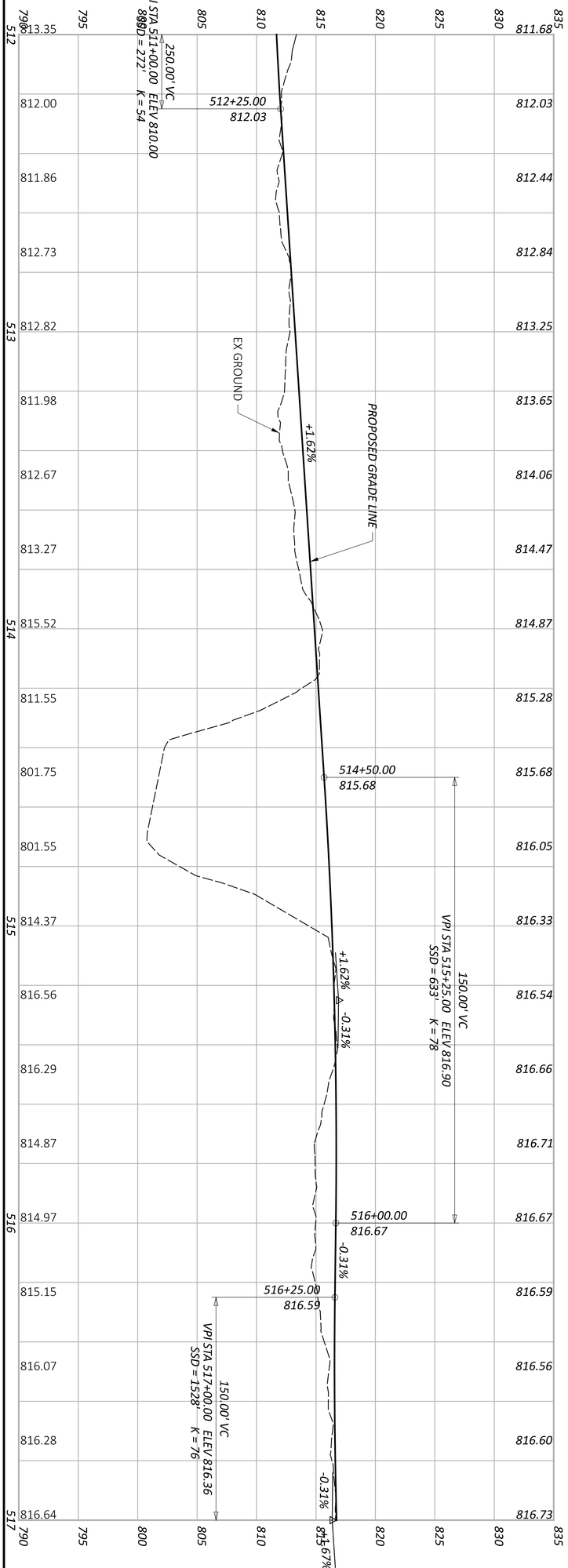


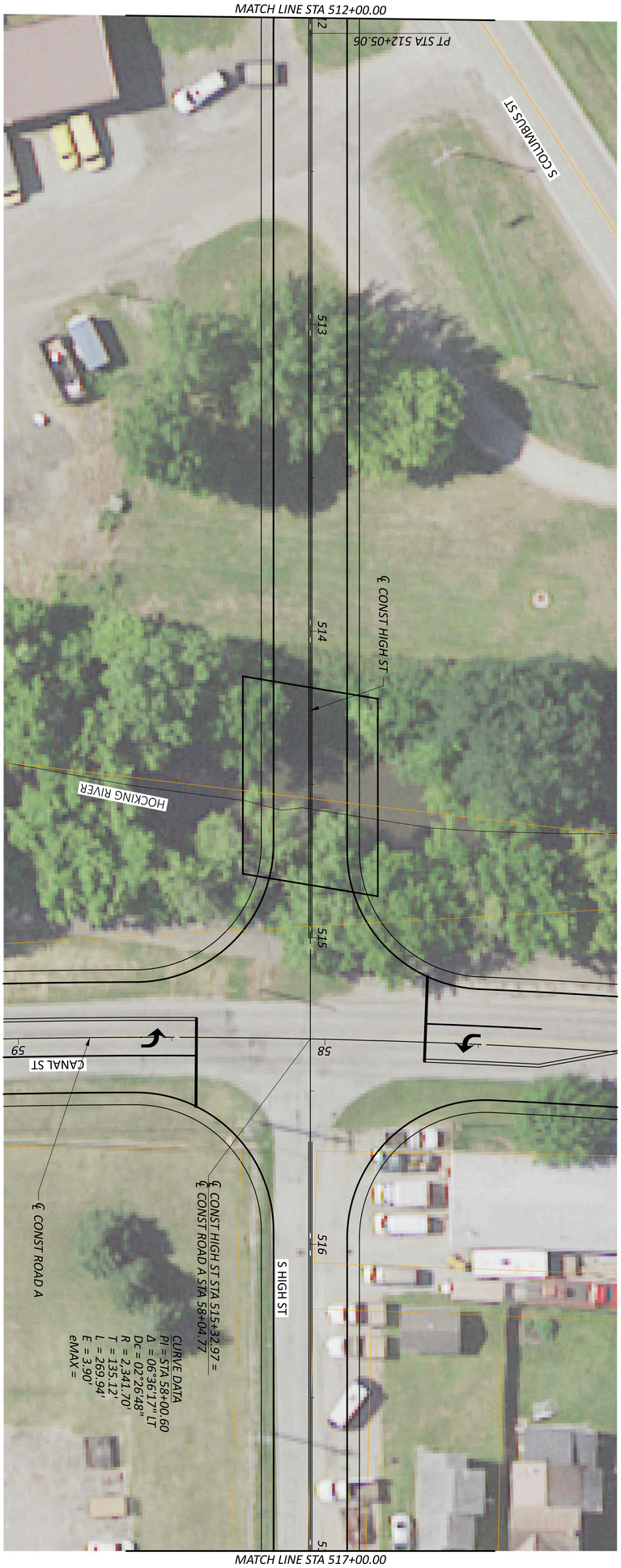


ALTERNATIVE 2A
PLAN AND PROFILE - HIGH ST
STA. 507+00.00 TO STA. 512+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
65	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.





ALTERNATIVE 2A
PLAN AND PROFILE - HIGH ST
STA. 512+00.00 TO STA. 517+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL
66	162

PROJECT ID: 03022
REVIEWER: KAM 03/02/23
DESIGNER: LZS
DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: HIGH - PP SHEET 5 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:30:24 PM USER: cphillips
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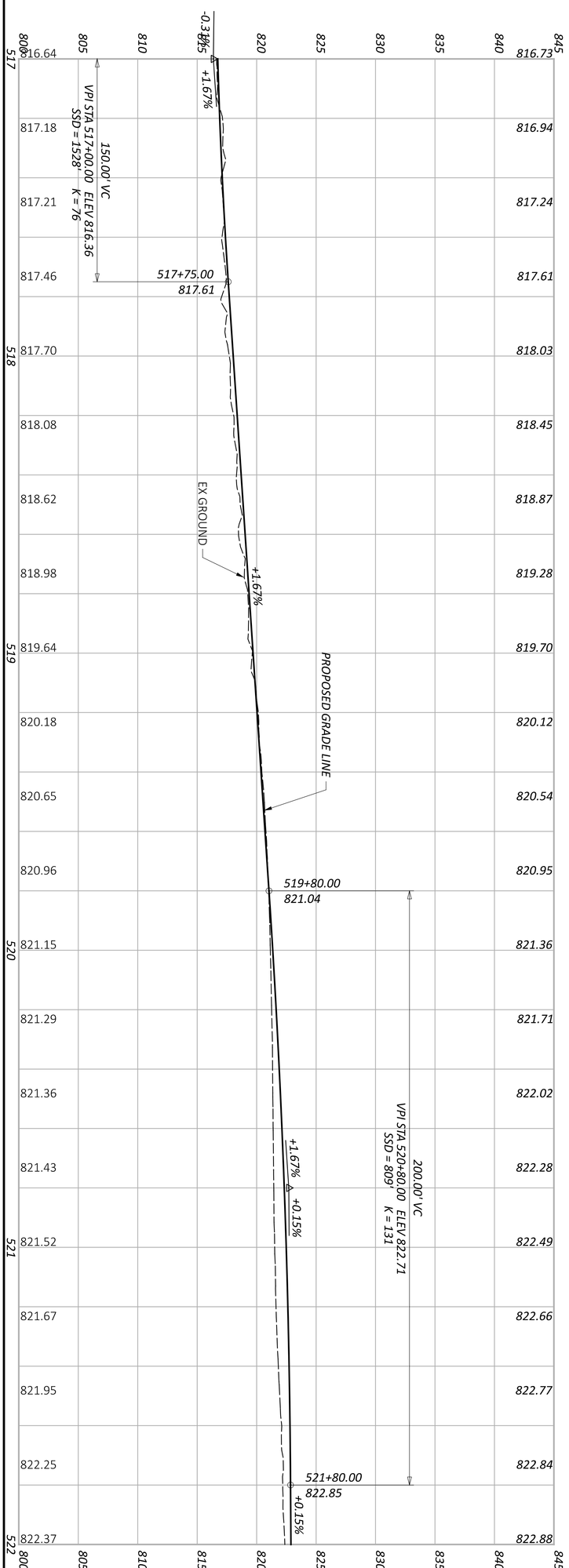

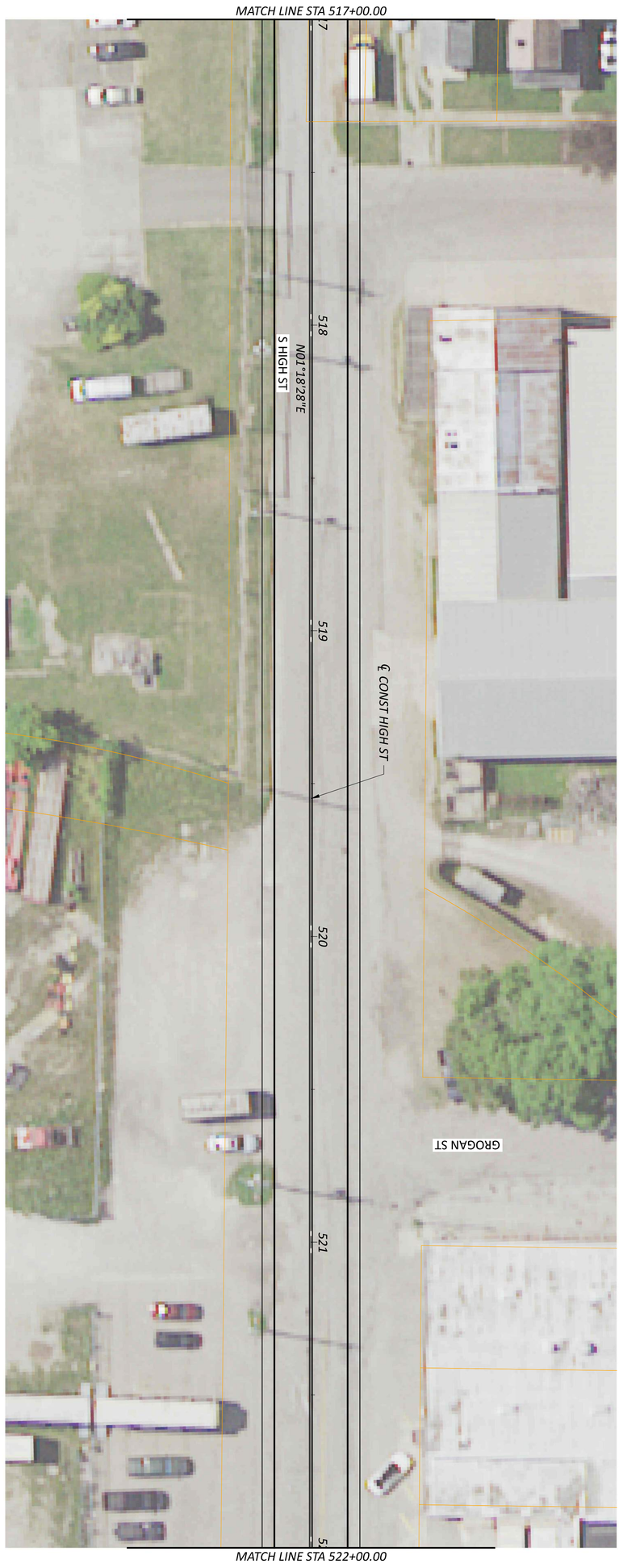

ALTERNATIVE 2A
PLAN AND PROFILE - HIGH ST
STA. 517+00.00 TO STA. 522+00.00

SHEET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
67 / TOTAL 162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: HIGH - PP SHEET 6 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:30:34 PM USER: cphillips
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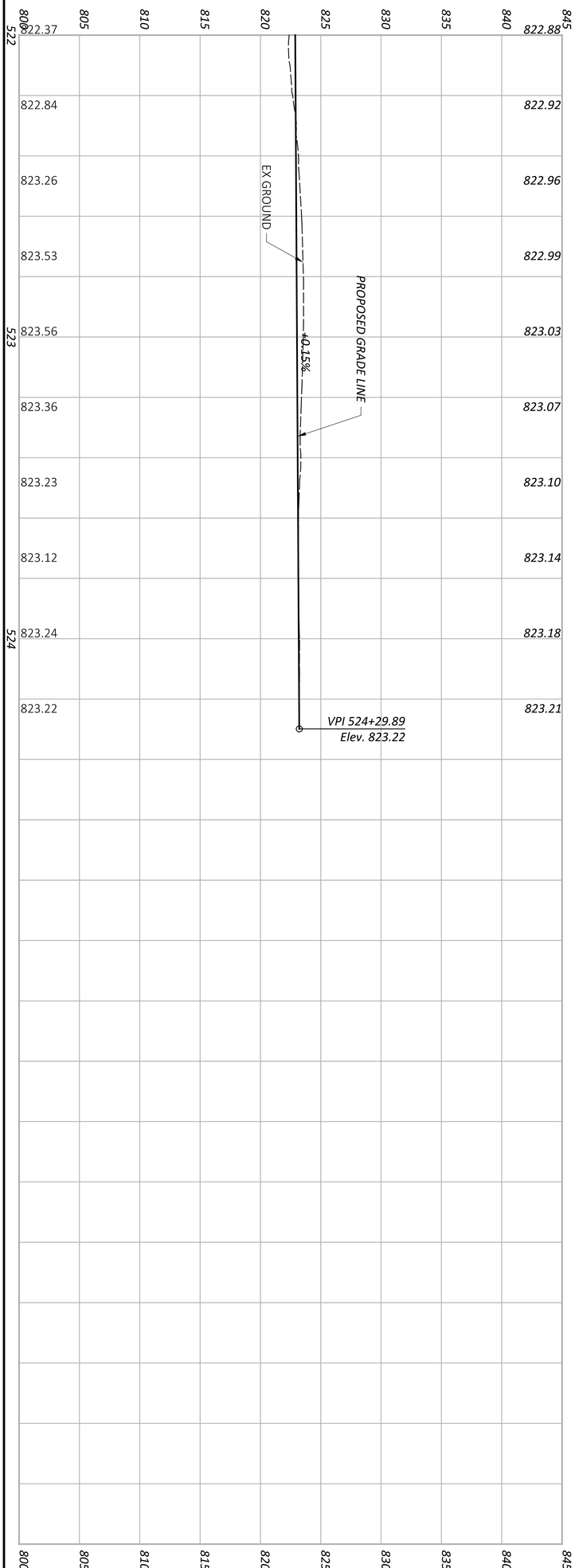

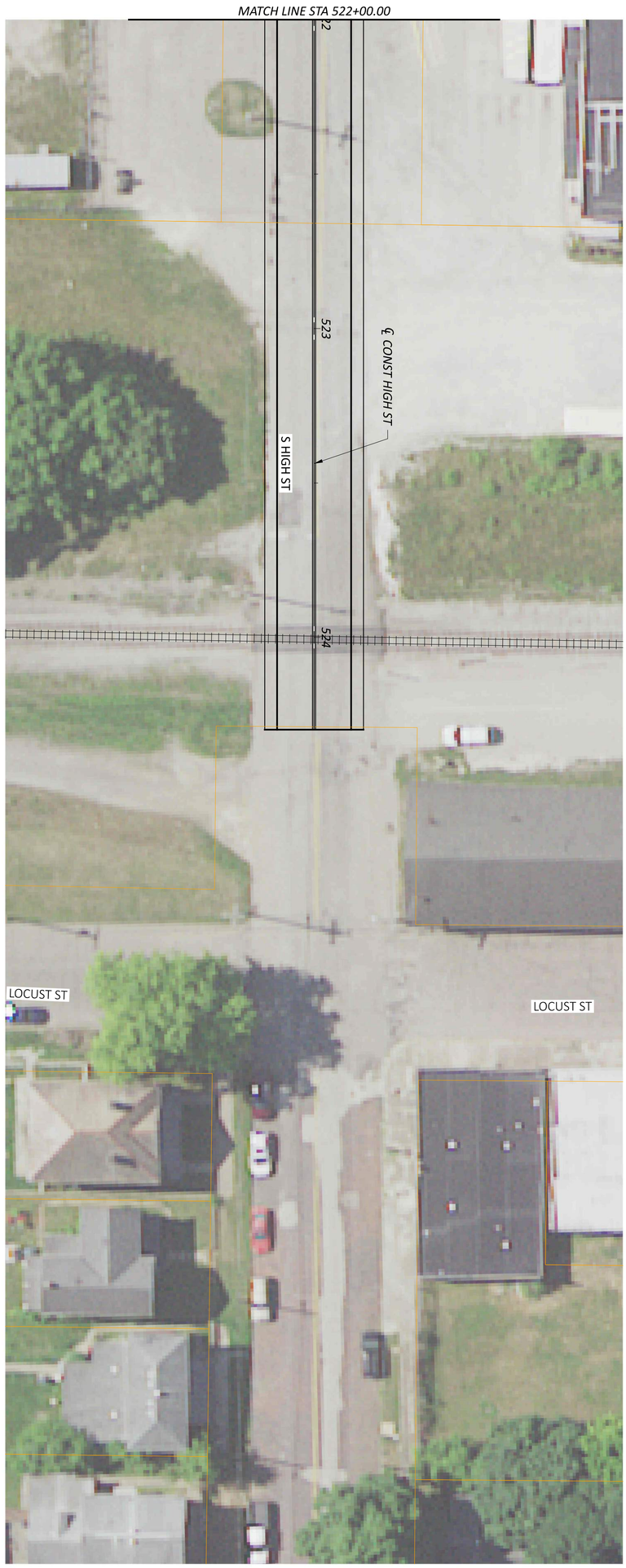

ALTERNATIVE 2A
PLAN AND PROFILE - HIGH ST
STA. 522+00.00 TO STA. 527+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
68	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
69	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2B
OVERALL SITE PLAN

HORIZONTAL SCALE IN FEET
0 600
300 1200

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: ROADB - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:31:38 PM USER: cphillips
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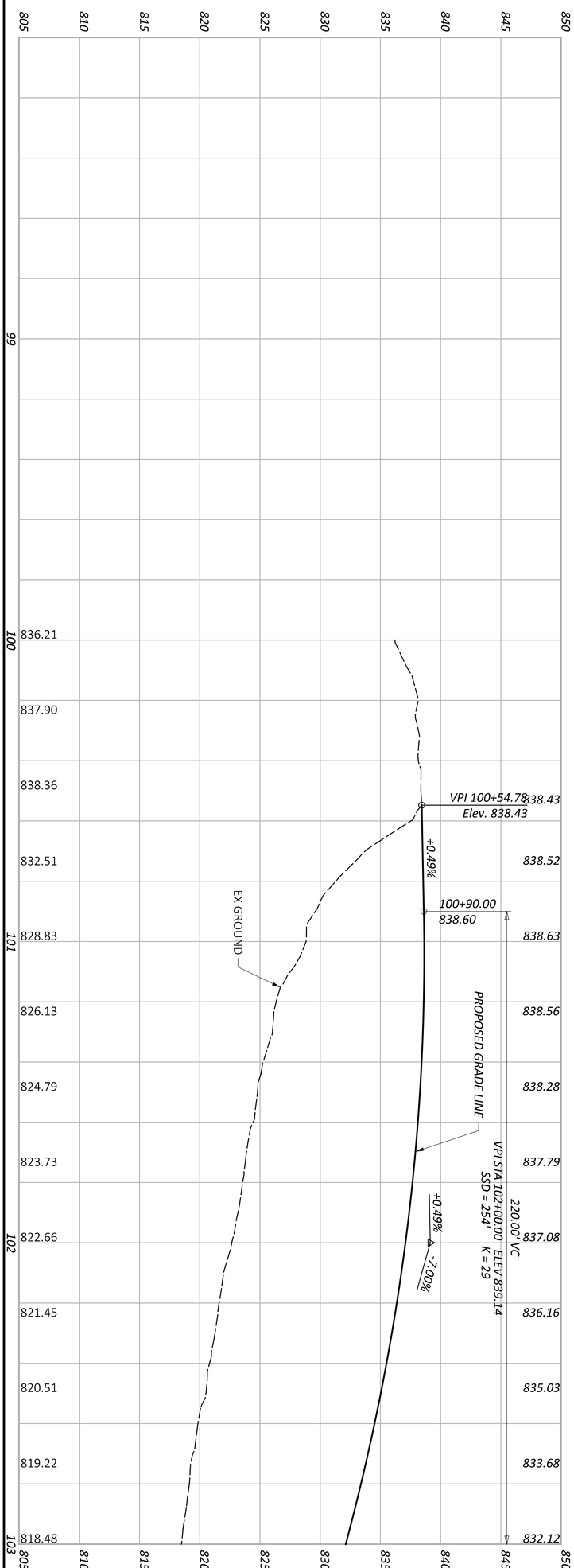

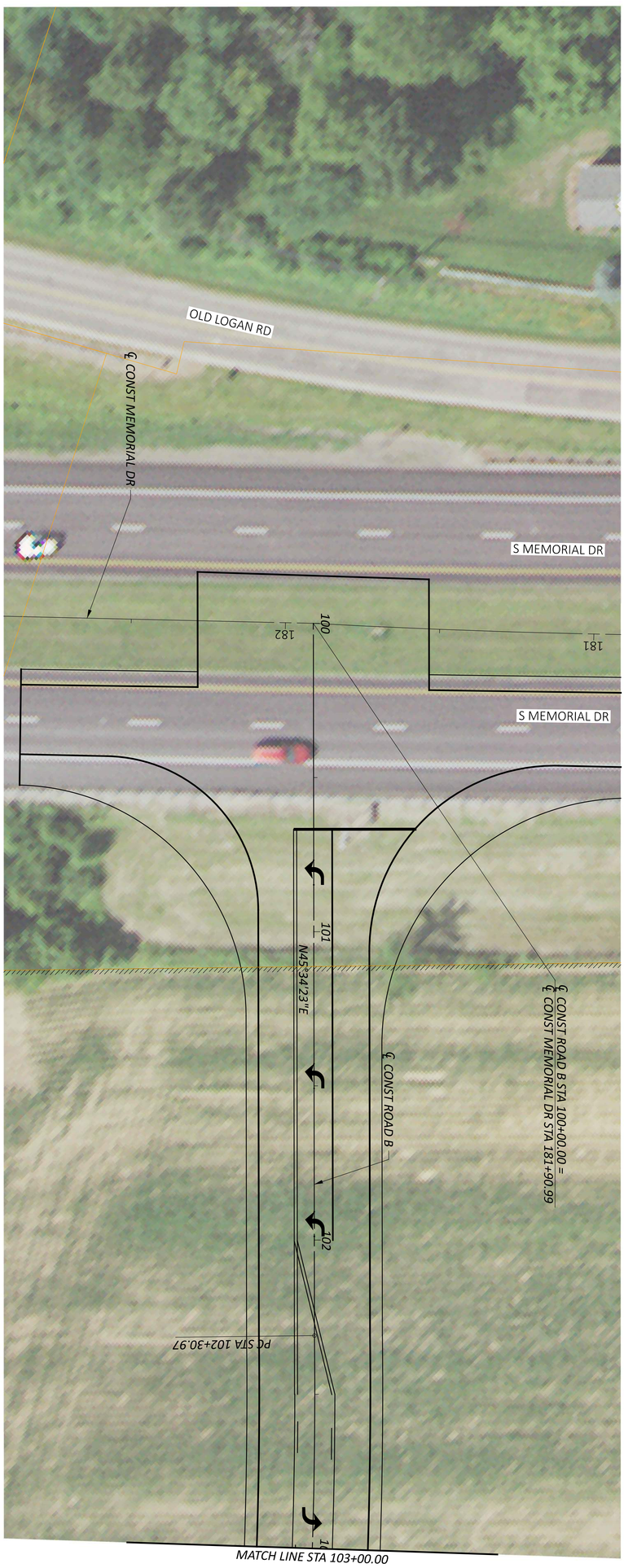

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
70	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2B
PLAN AND PROFILE - ROAD B
STA. 100+00.00 TO STA. 103+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: ROADB - PP SHEET 2 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:31:48 PM USER: cphillips
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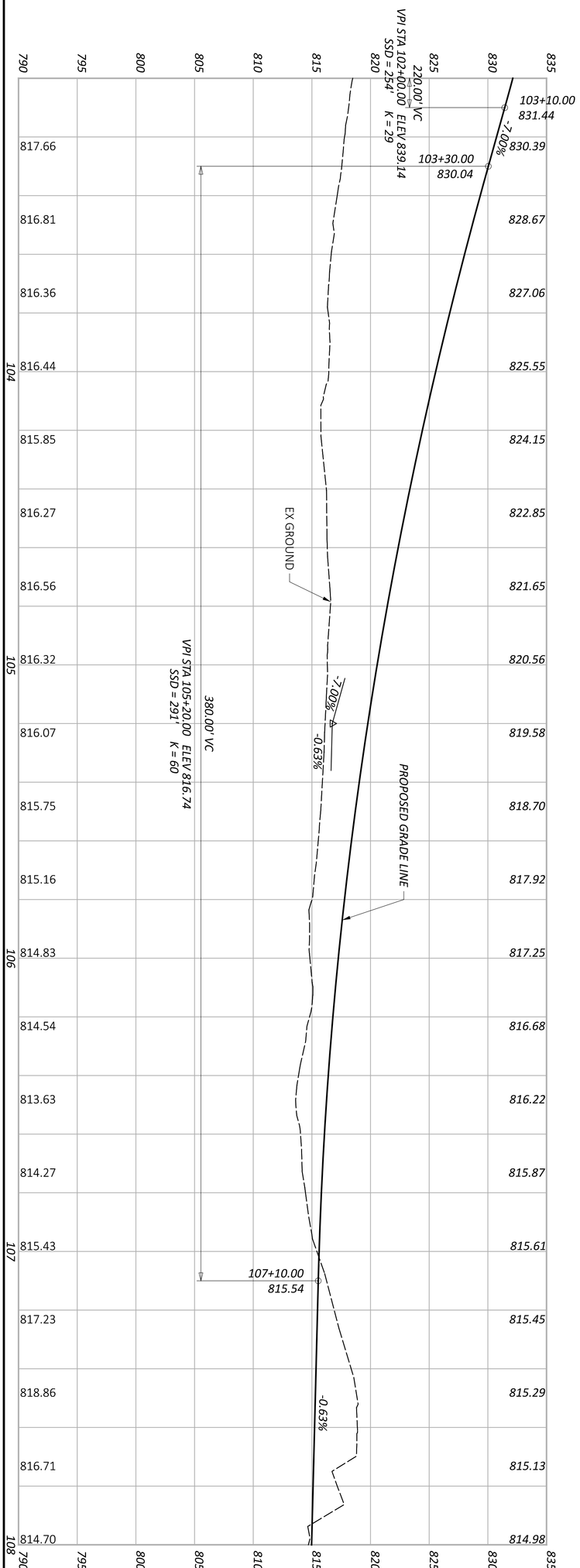

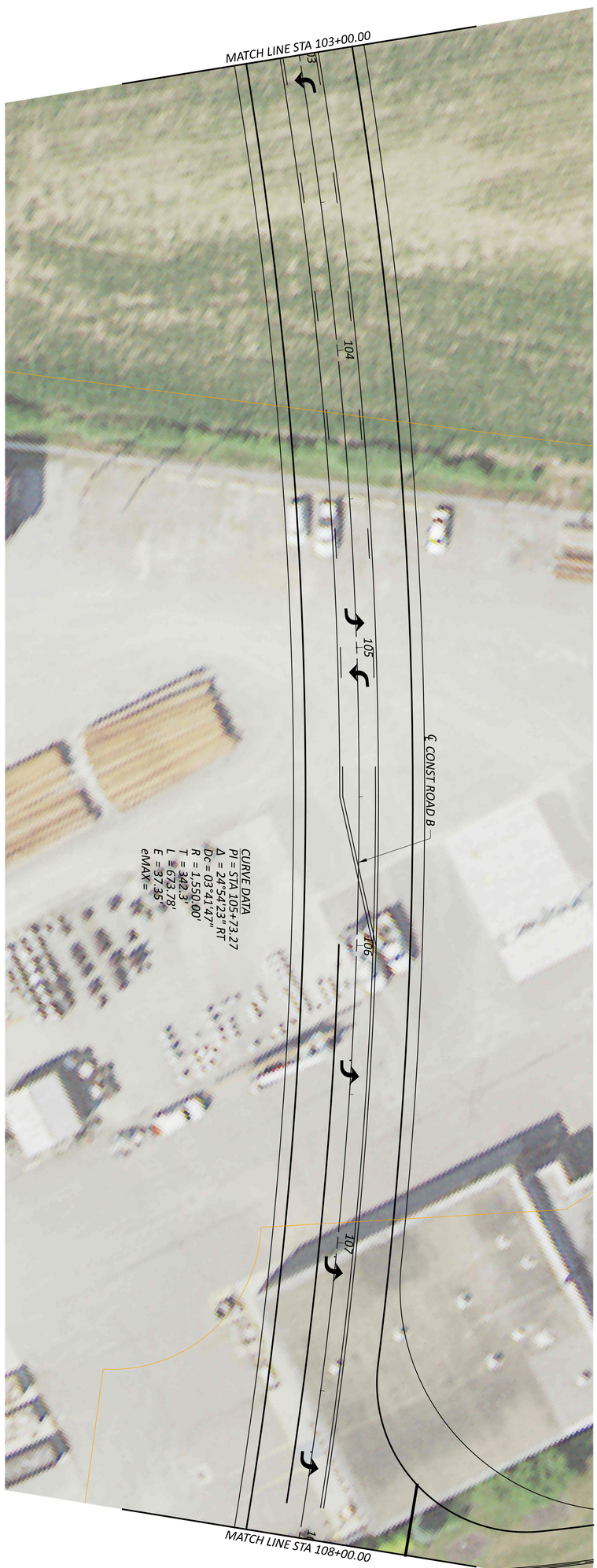

ALTERNATIVE 2B
PLAN AND PROFILE - ROAD B
STA. 103+00.00 TO STA. 108+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
71	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: ROADB - PP SHEET 3 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:31:57 PM USER: cphillips
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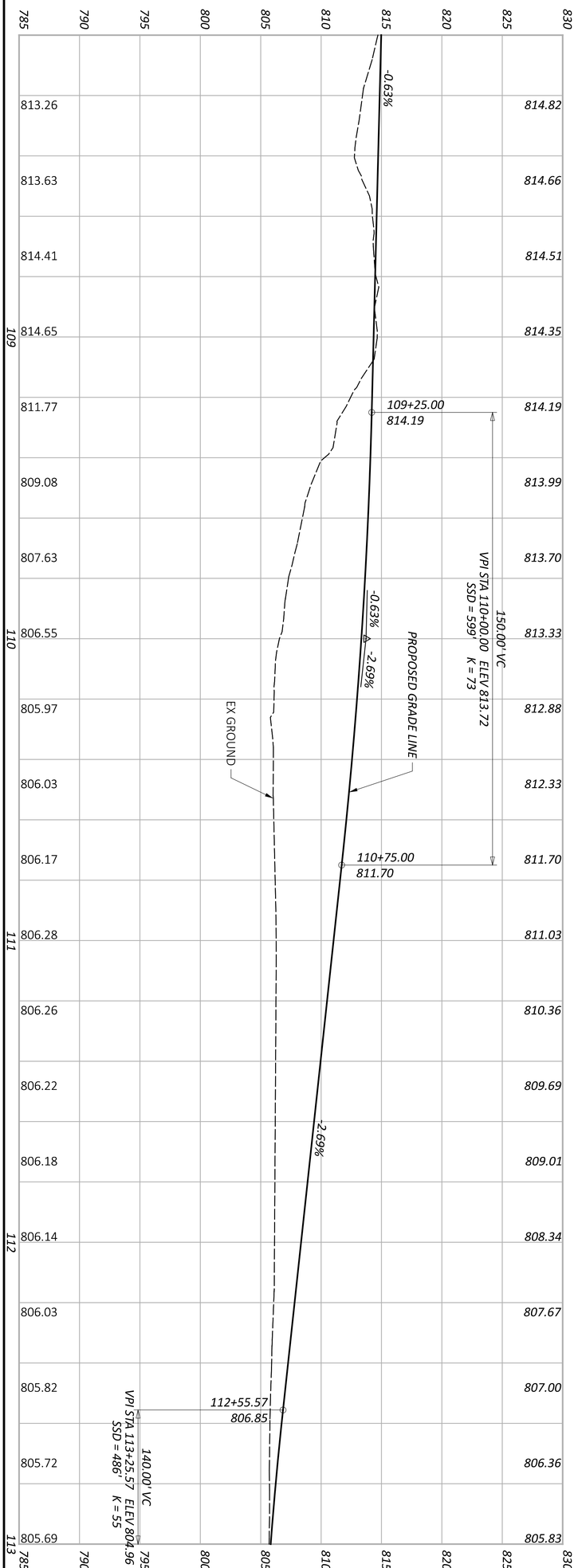

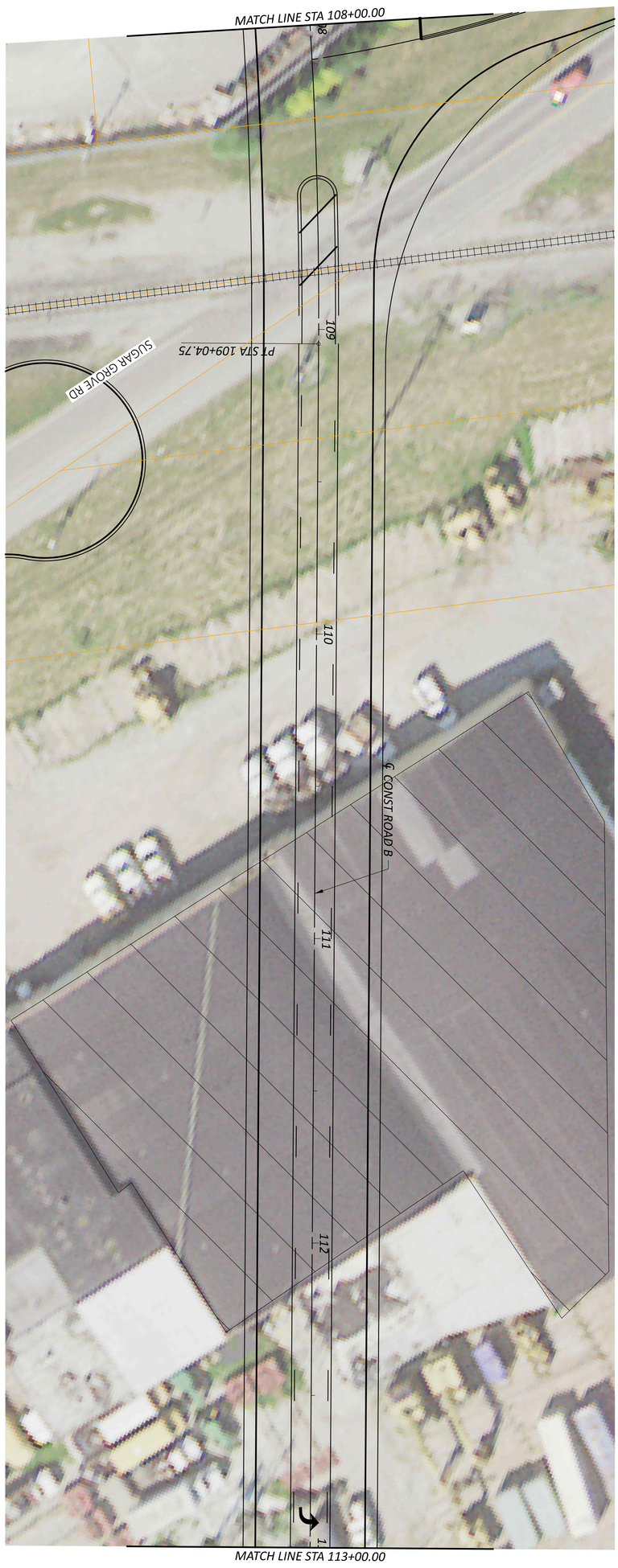

ALTERNATIVE 2B
PLAN AND PROFILE - ROAD B
STA. 108+00.00 TO STA. 113+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
72	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: ROADB - PP SHEET 4 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:32:06 PM USER: cphillips
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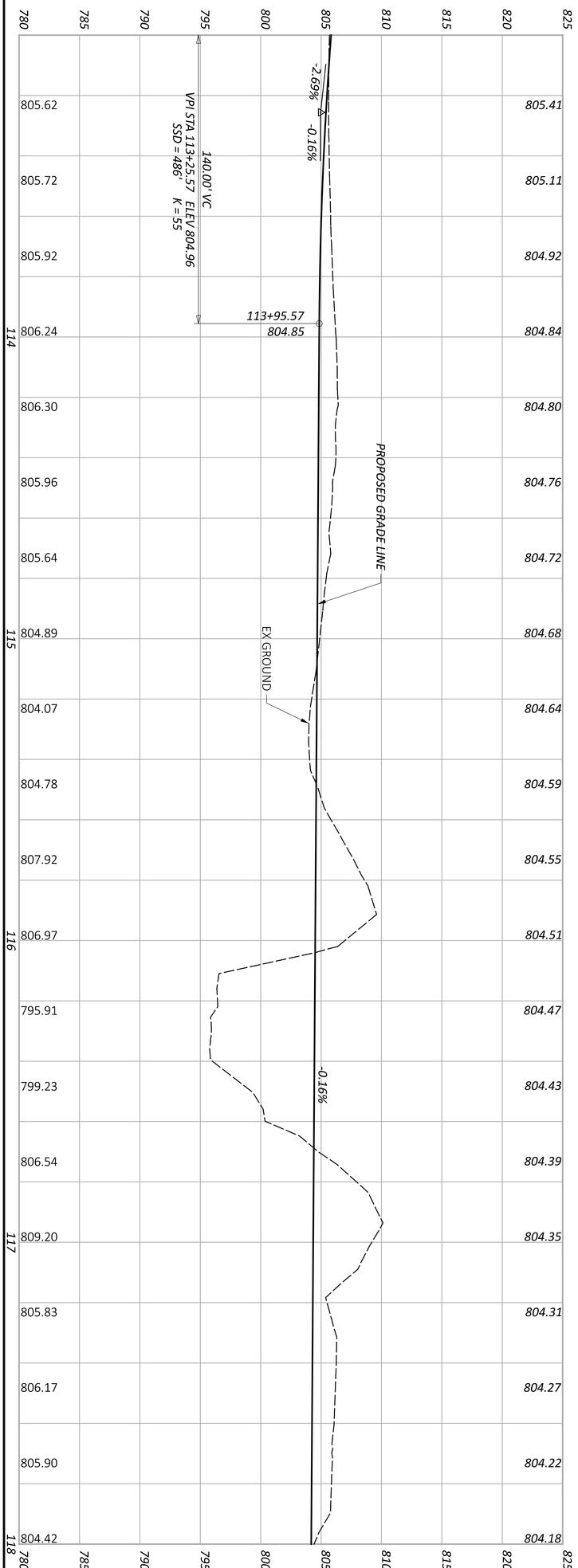
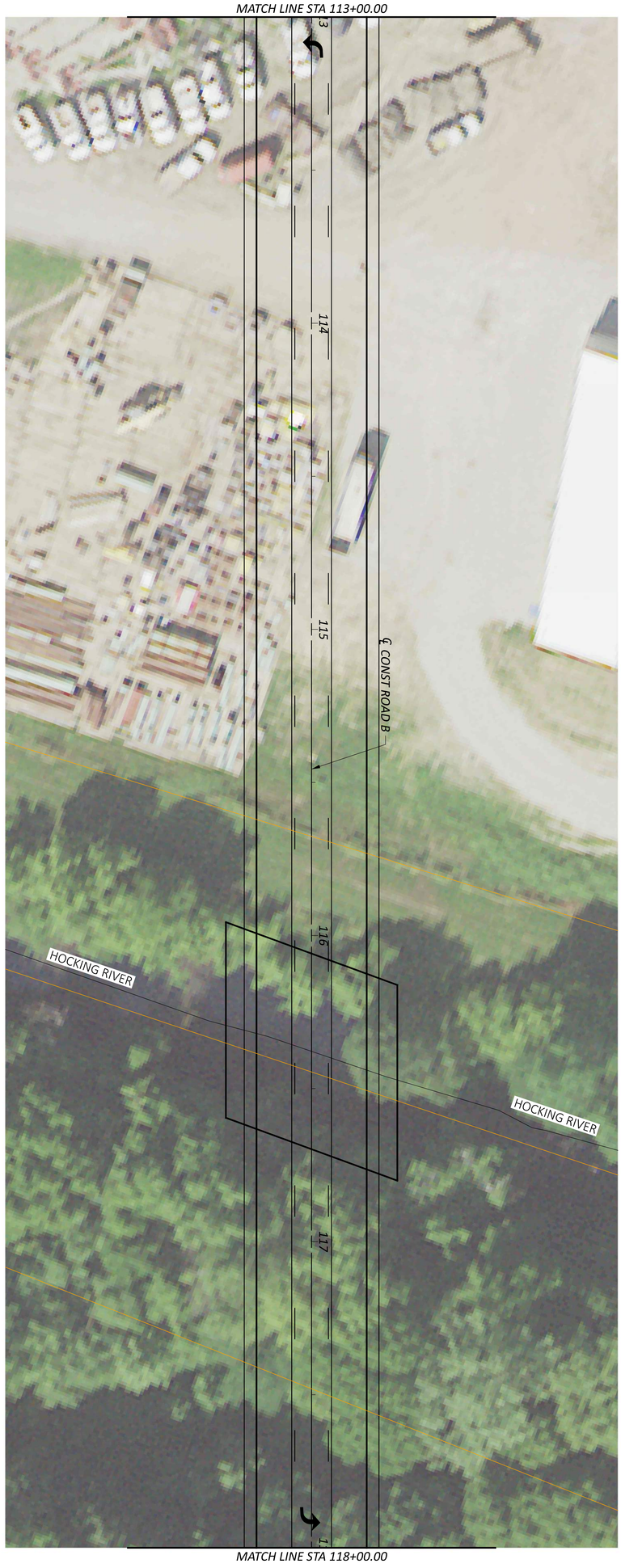
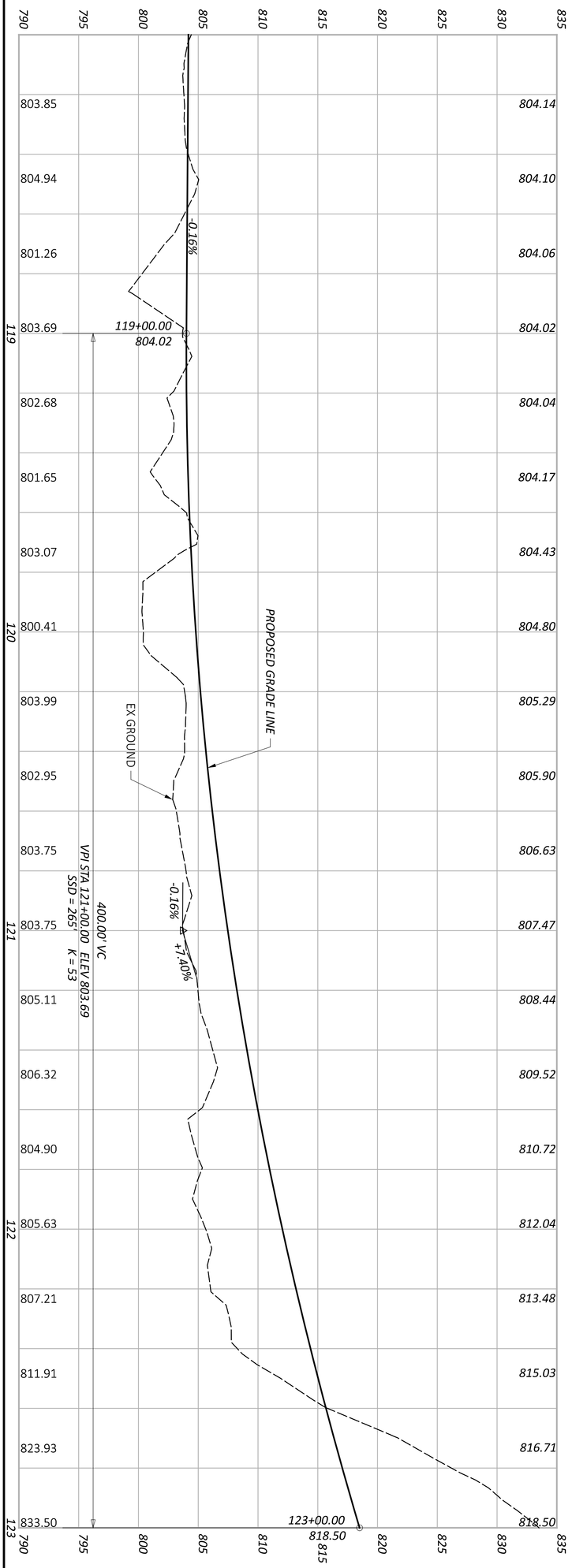


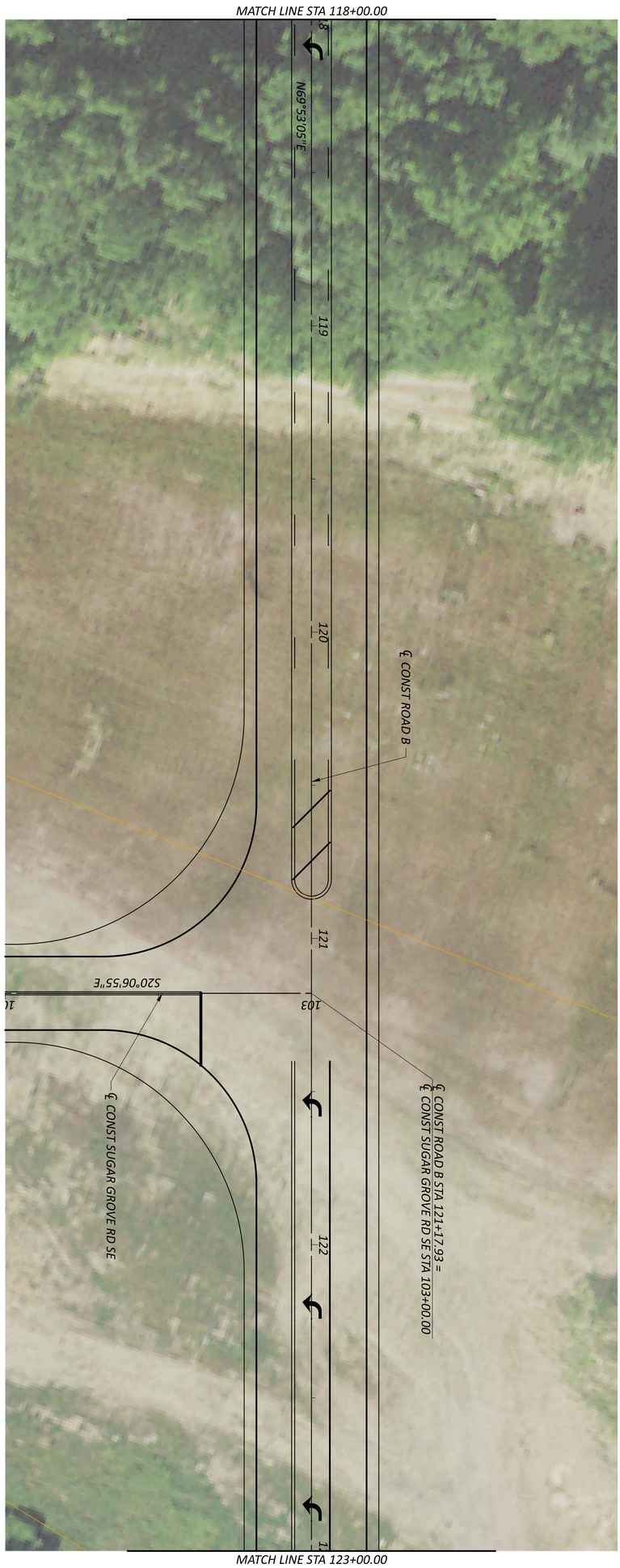


SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
73	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2B
PLAN AND PROFILE - ROAD B
STA. 113+00.00 TO STA. 118+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40





ALTERNATIVE 2B
PLAN AND PROFILE - ROAD B
STA. 118+00.00 TO STA. 123+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
74	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: ROADB - PP SHEET 6 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:32:26 PM USER: cphillips
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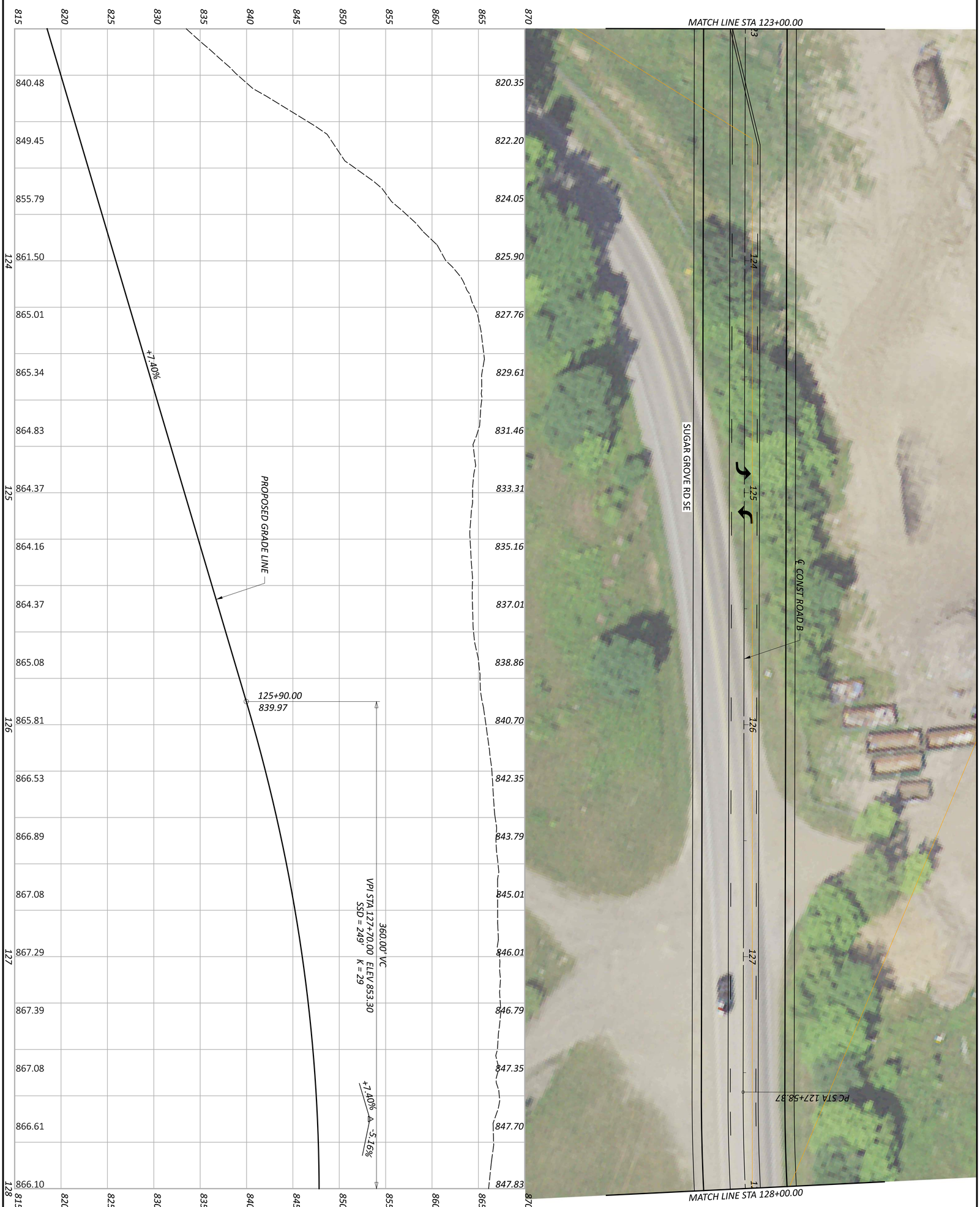

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
75	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2B
PLAN AND PROFILE - ROAD B
STA. 123+00.00 TO STA. 128+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: ROADB - PP SHEET 7 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:32:38 PM USER: cphillips
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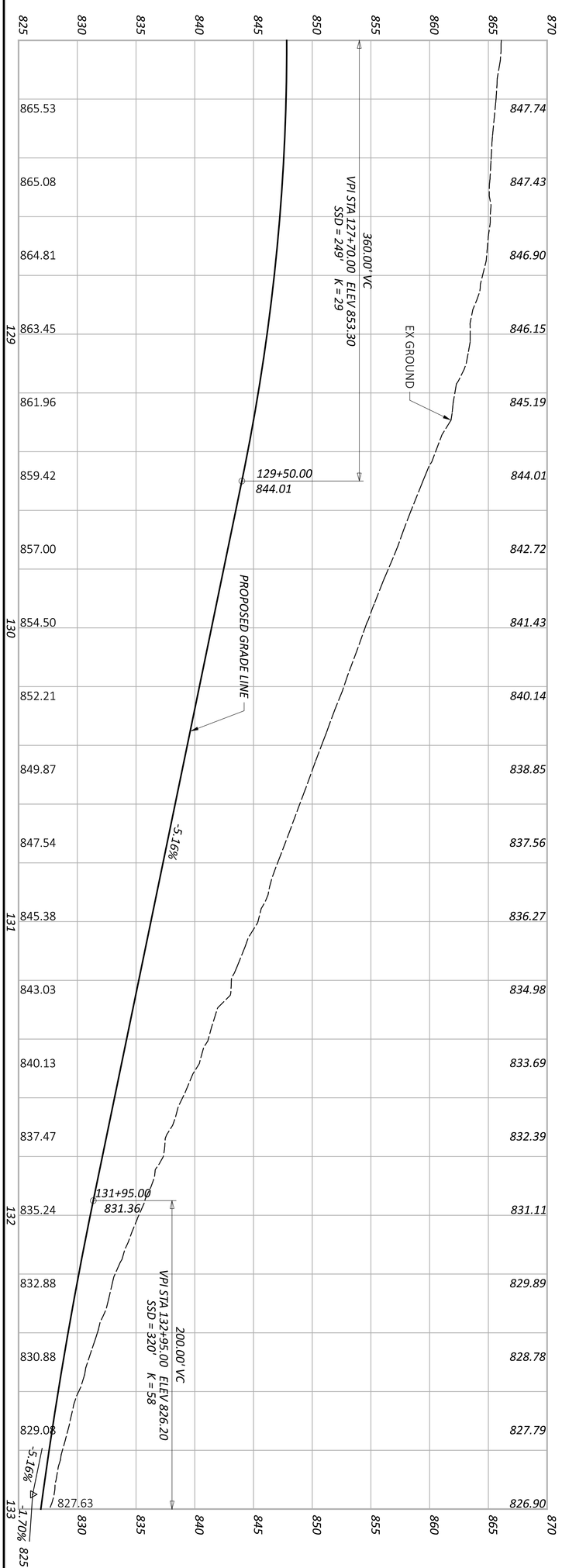

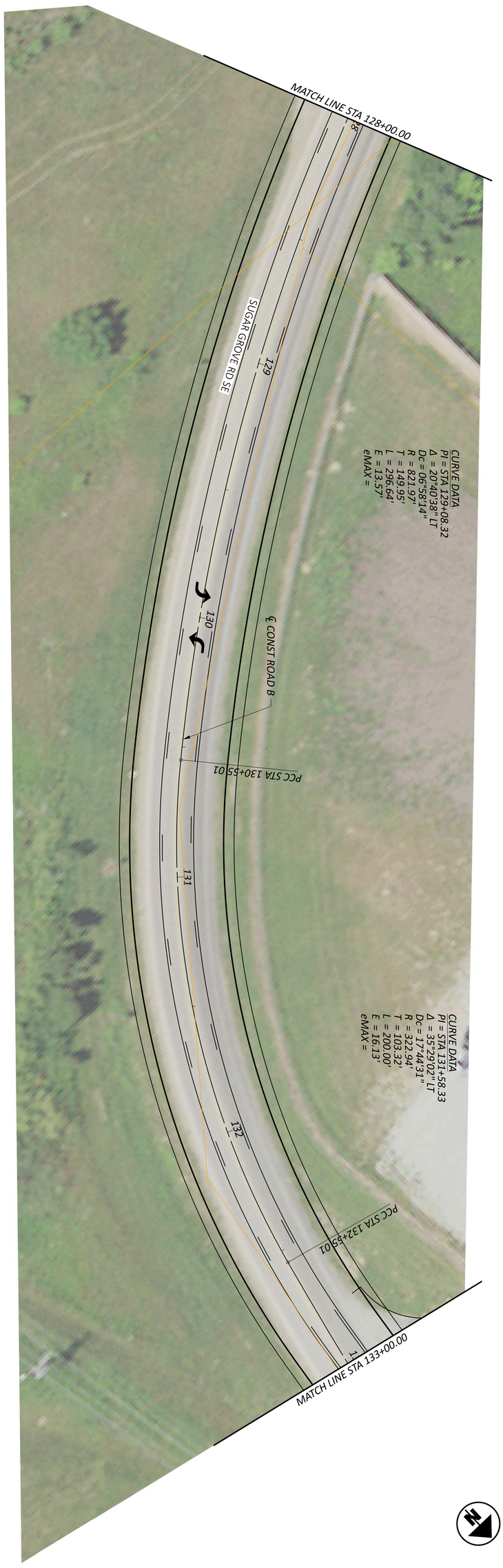

ALTERNATIVE 2B
PLAN AND PROFILE - ROAD B
STA. 128+00.00 TO STA. 133+00.00

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
76	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: ROADB - PP SHEET 8 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:32:49 PM USER: cphillips
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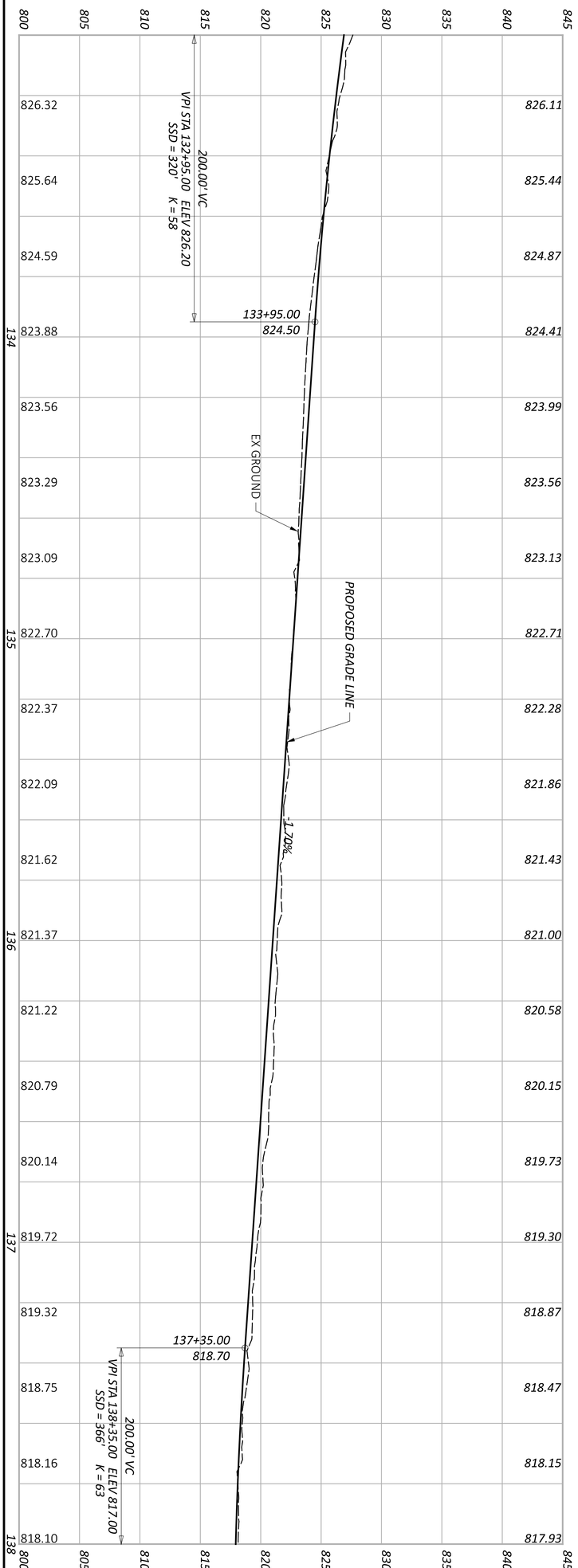

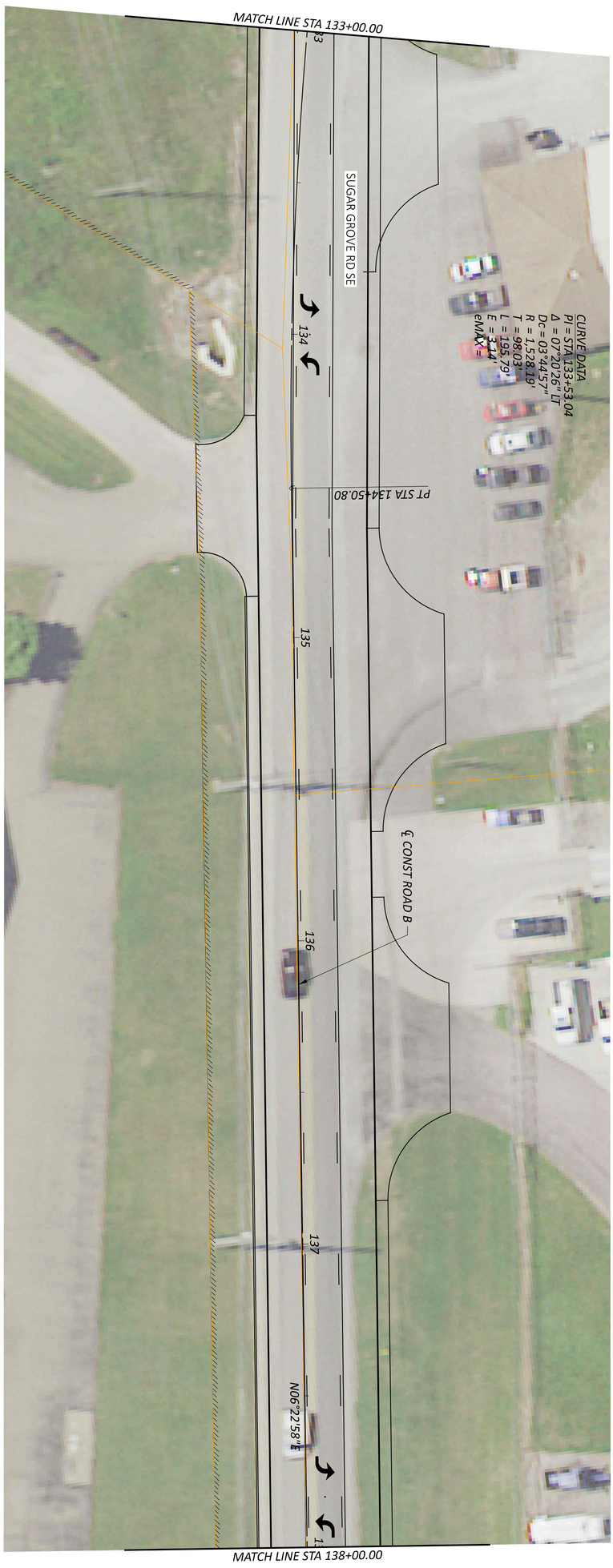

ALTERNATIVE 2B
PLAN AND PROFILE - ROAD B
STA. 133+00.00 TO STA. 138+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
77	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: ROADB - PP SHEET 9 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:32:58 PM USER: cphillips
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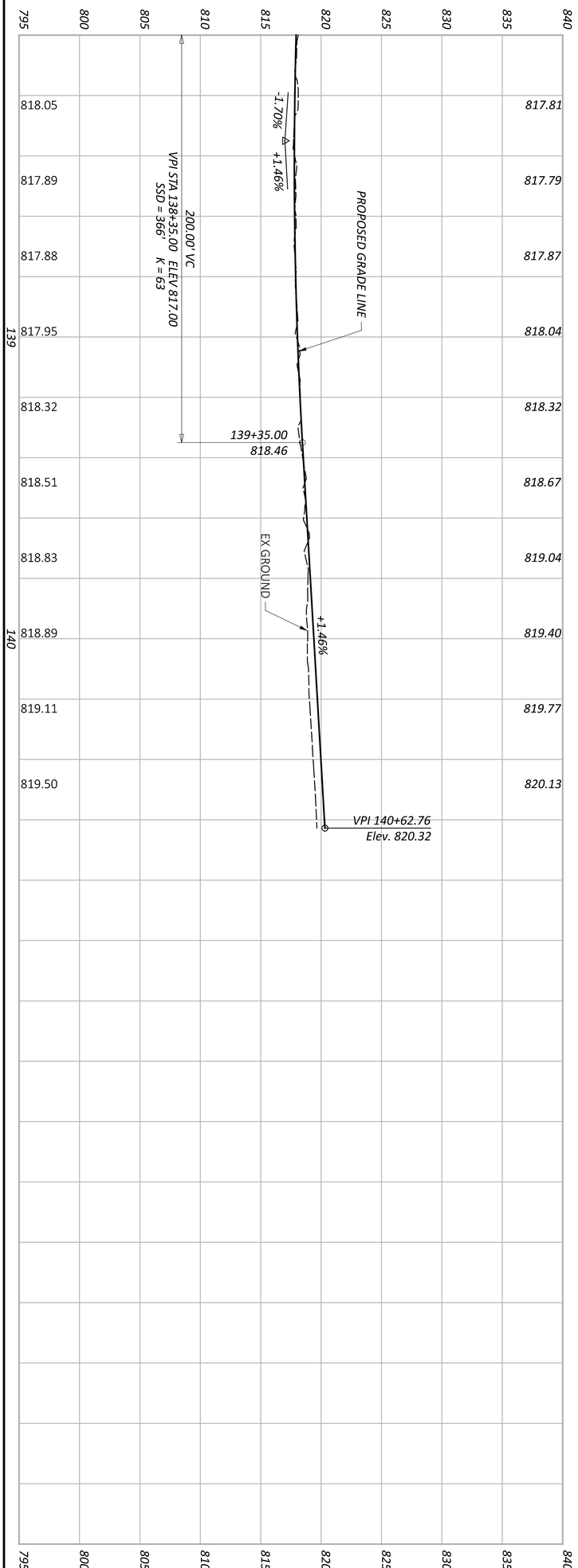

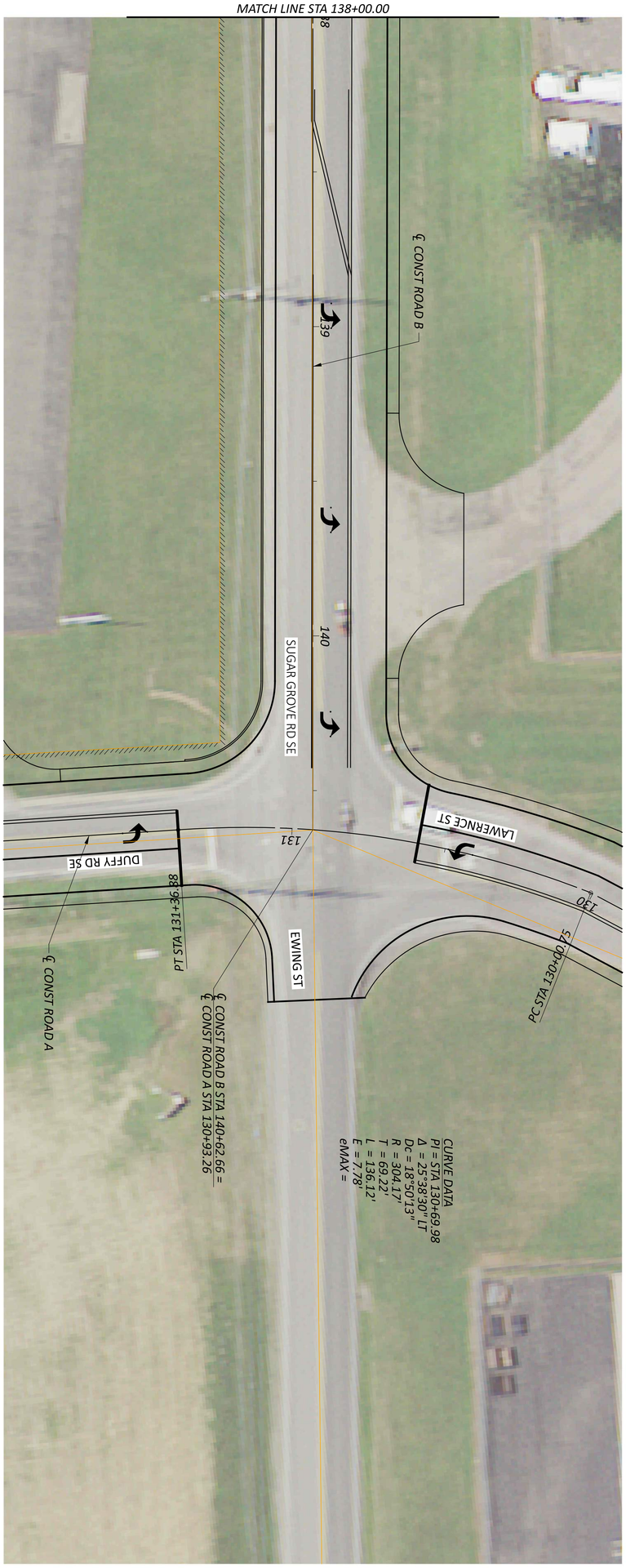

ALTERNATIVE 2B
PLAN AND PROFILE - ROAD B
STA. 138+00.00 TO STA. 140+62.76

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
78	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: SUGARGROVESE - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:33:08 PM USER: cphillips
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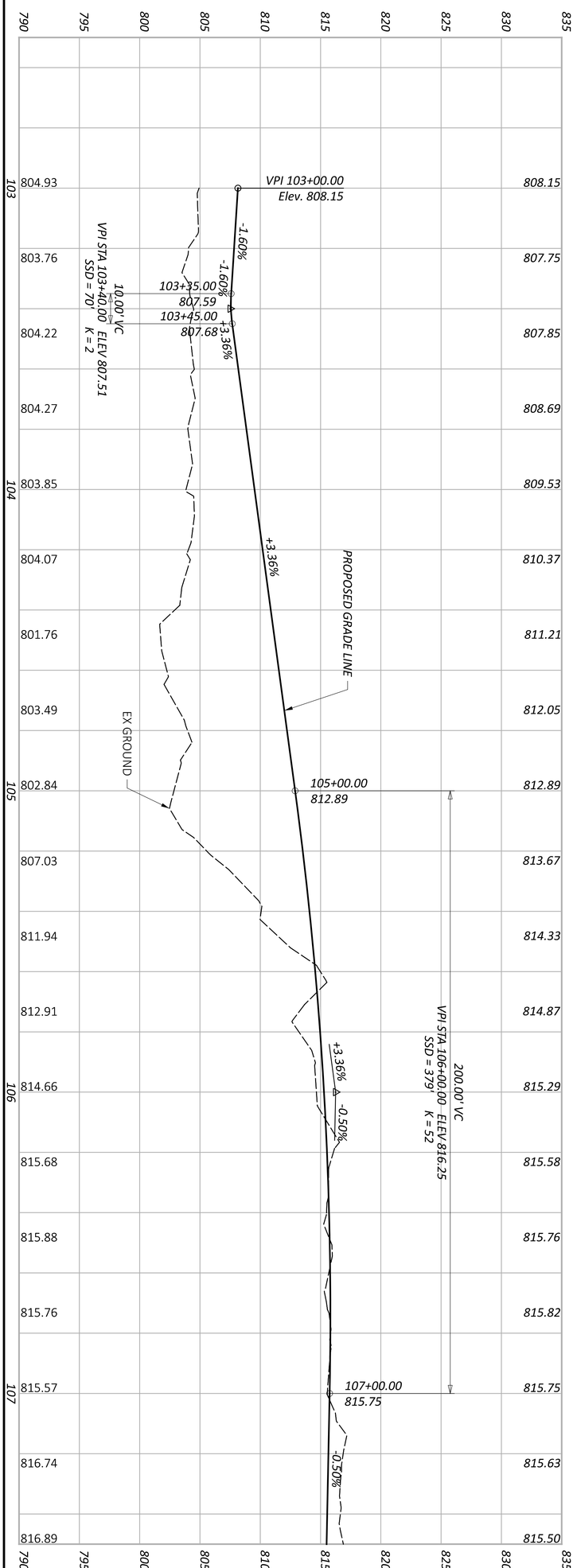

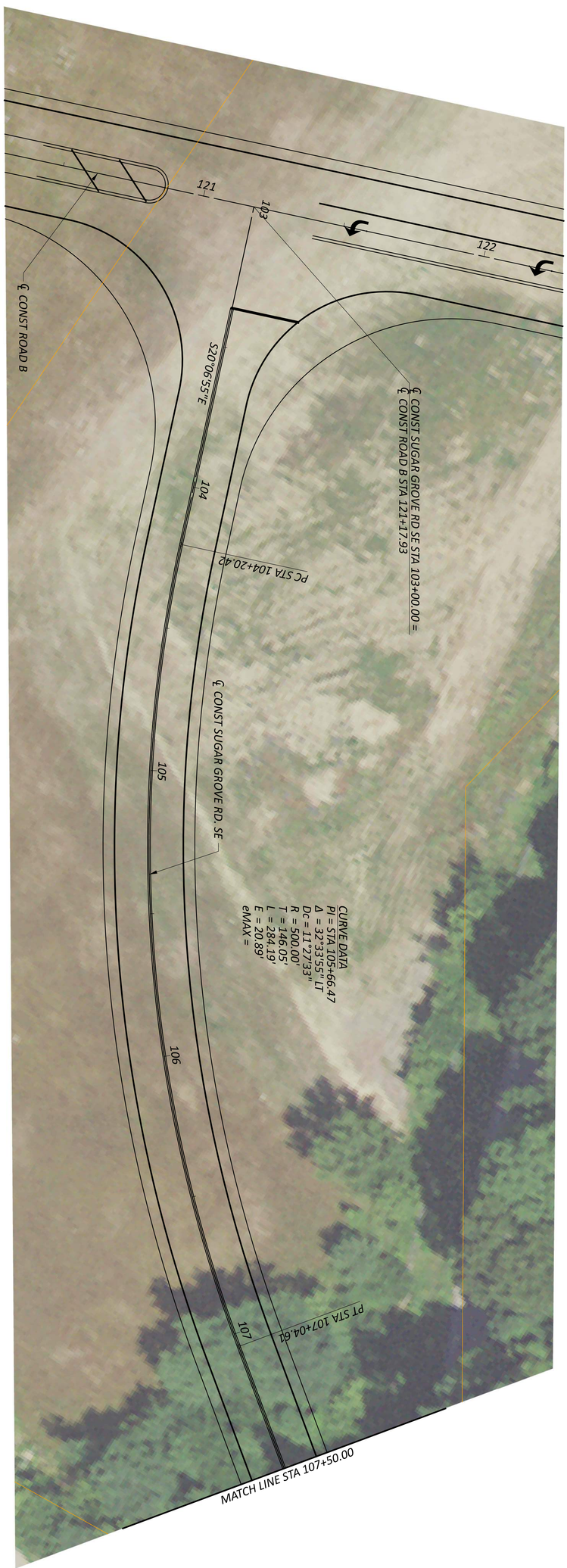

ALTERNATIVE 2B
PLAN AND PROFILE - SUGAR GROVE RD. SE
STA. 103+00.00 TO STA. 107+50.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
79	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: SUGARGROVESE - PP SHEET 2 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:33:19 PM USER: cphillips
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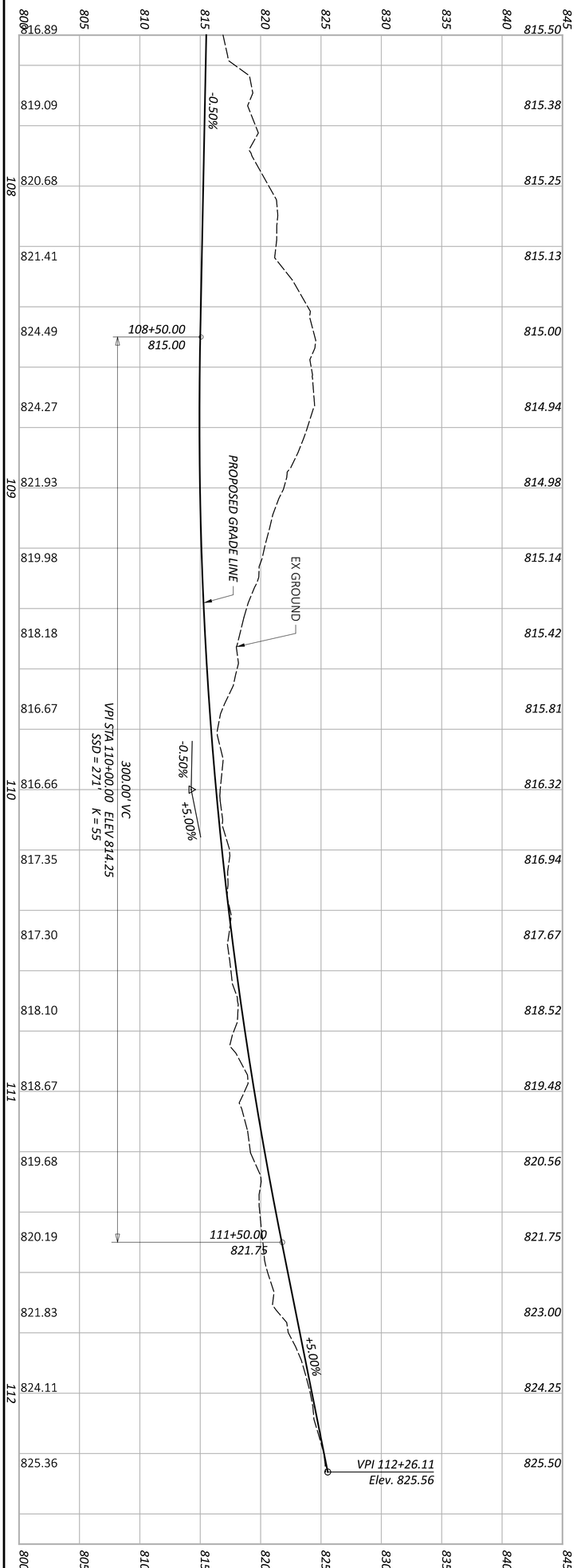

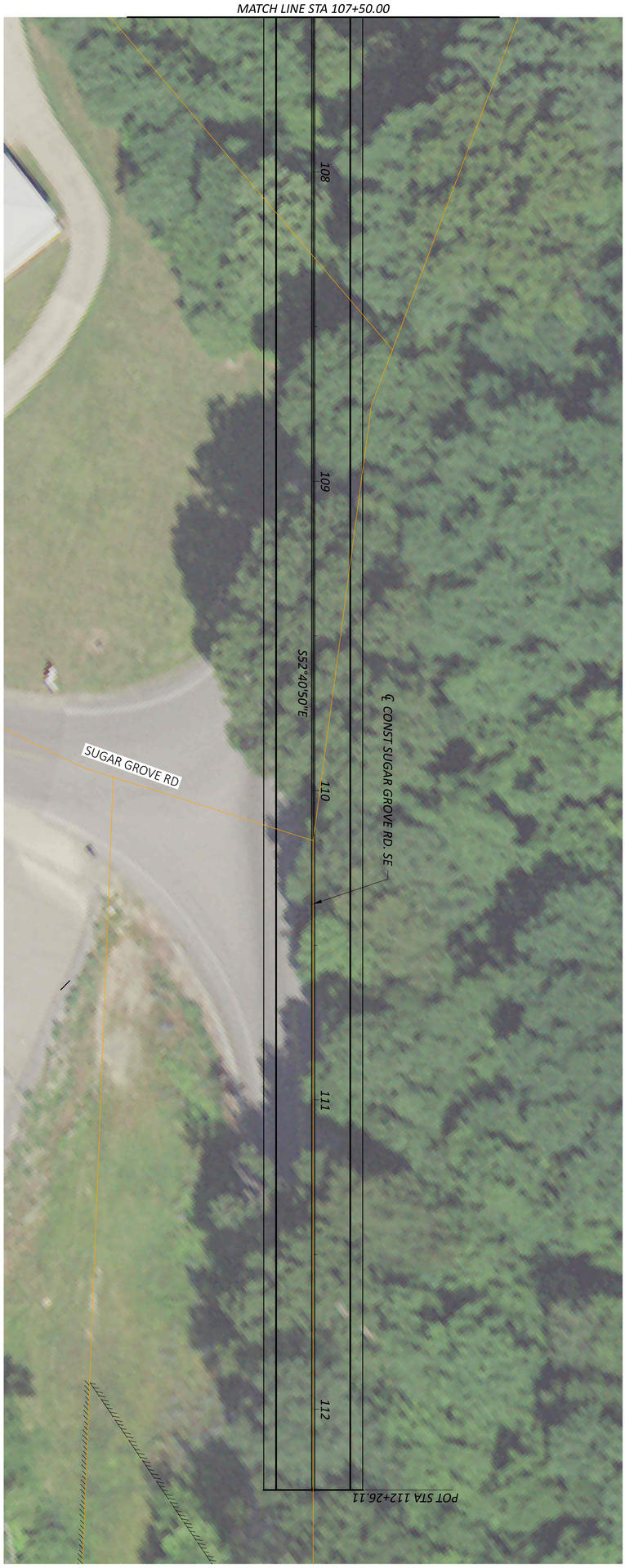

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
80	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2B
PLAN AND PROFILE - SUGAR GROVE RD. SE
STA. 107+50.00 TO STA. 112+50.00

HORIZONTAL SCALE IN FEET
0 10 20 40

MODEL: MEMORIAL - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:33:28 PM USER: cphillips
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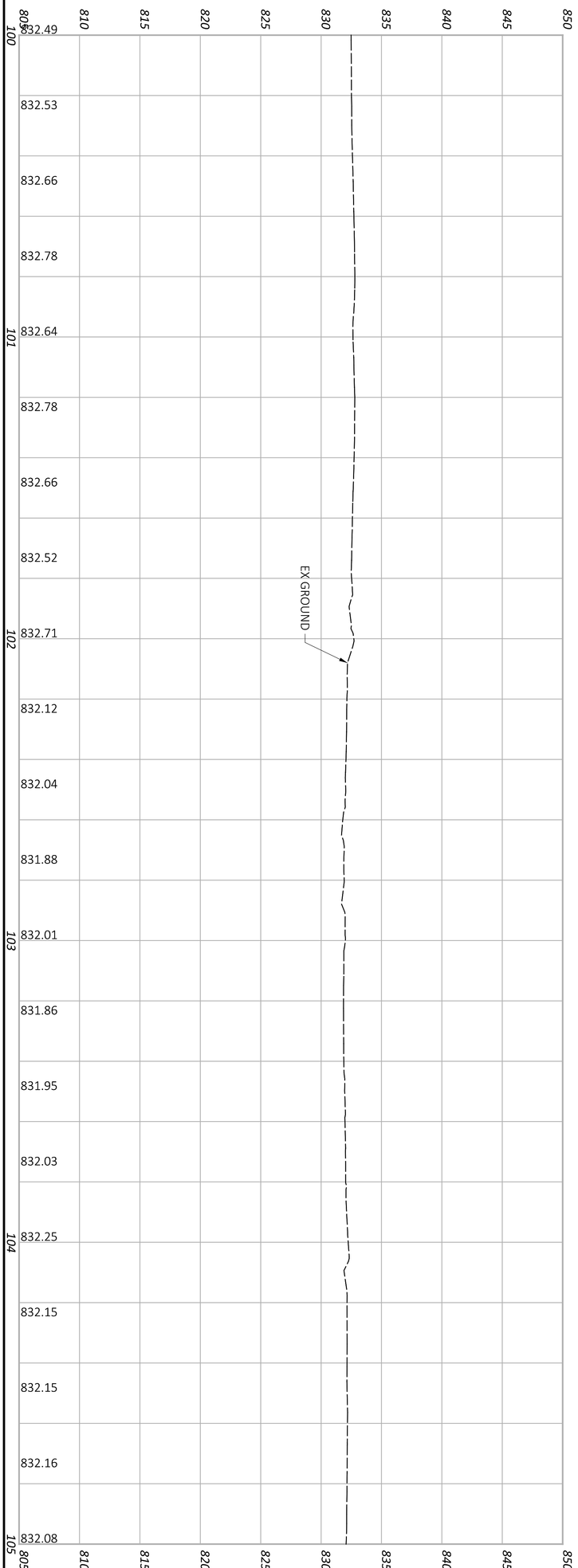

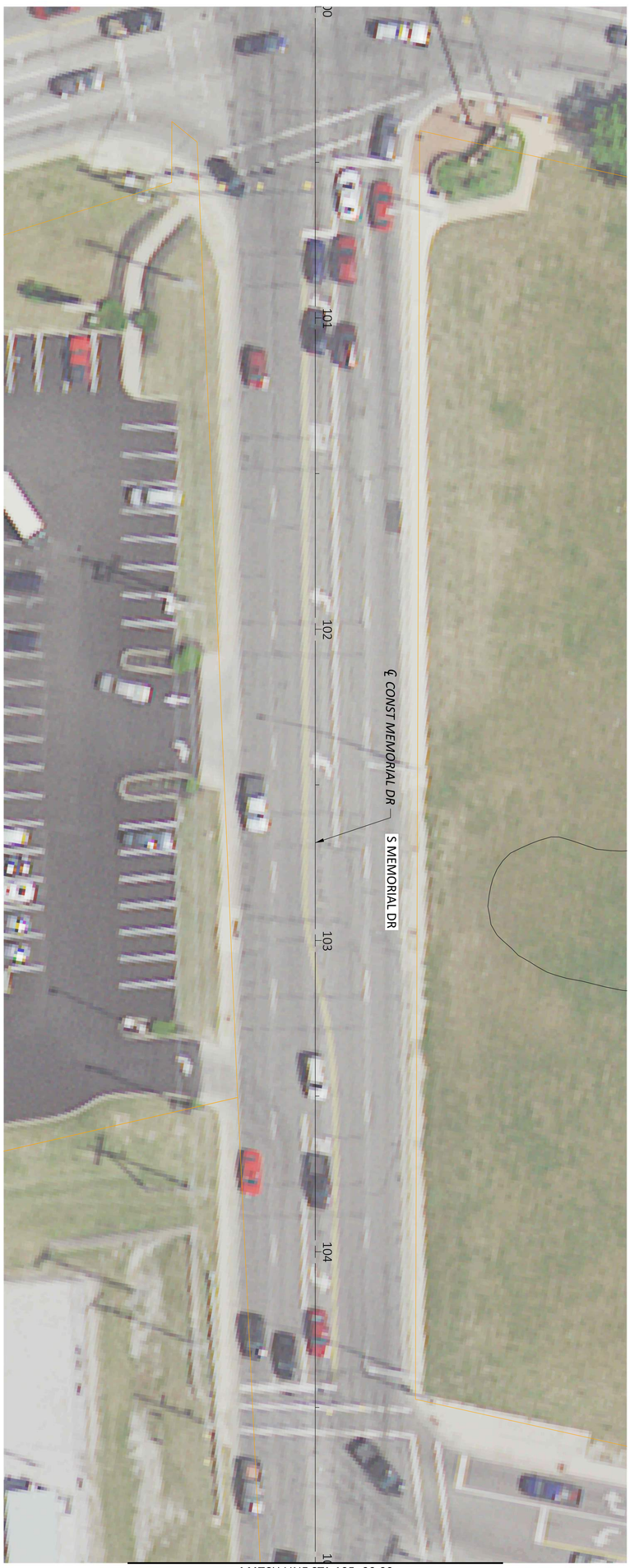

MATCH LINE STA 105+00.00

ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 100+00.00 TO STA. 105+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
81	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: MEMORIAL - PP SHEET 2 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:33:38 PM USER: cphillips
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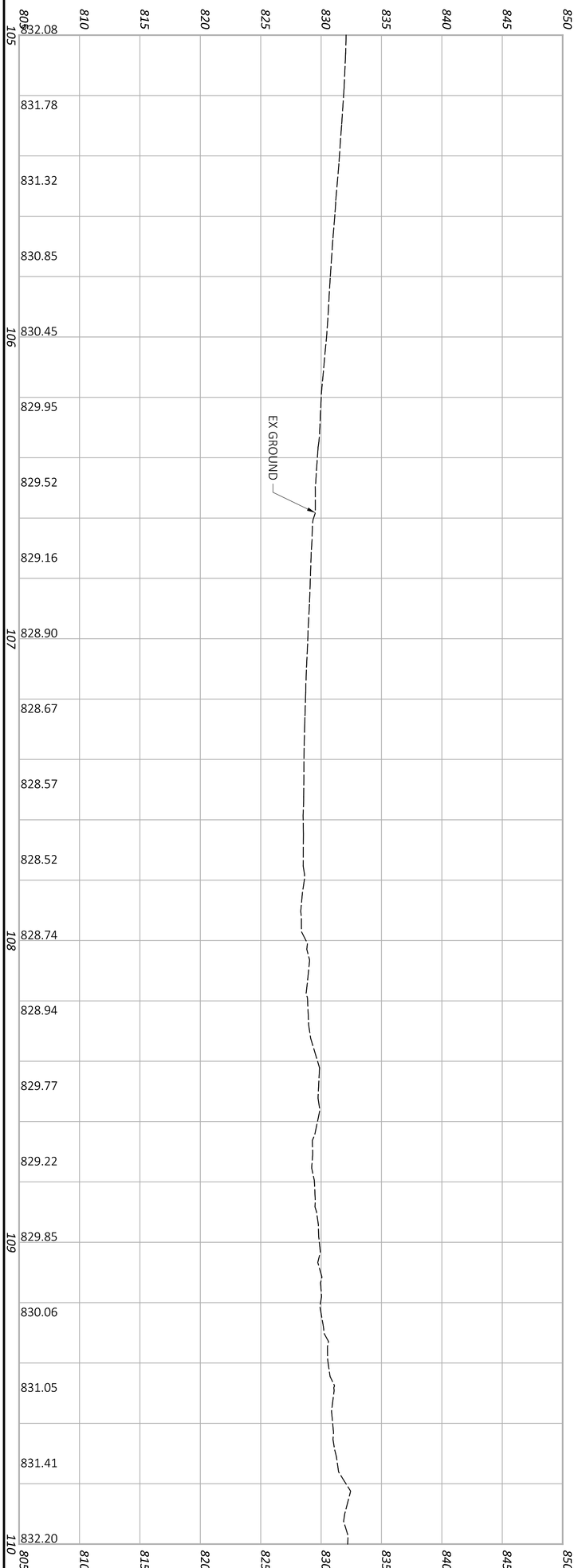

ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 105+00.00 TO STA. 110+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
82	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: MEMORIAL - PP SHEET 3 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:33:47 PM USER: cphillips
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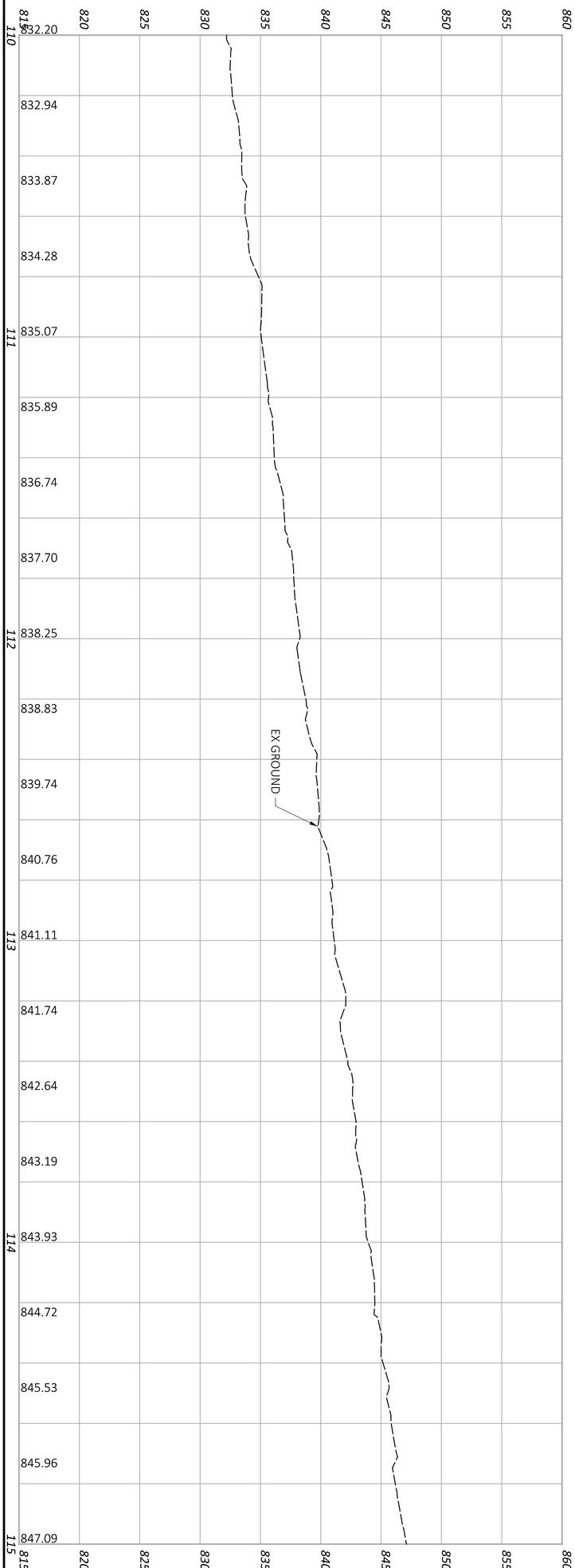

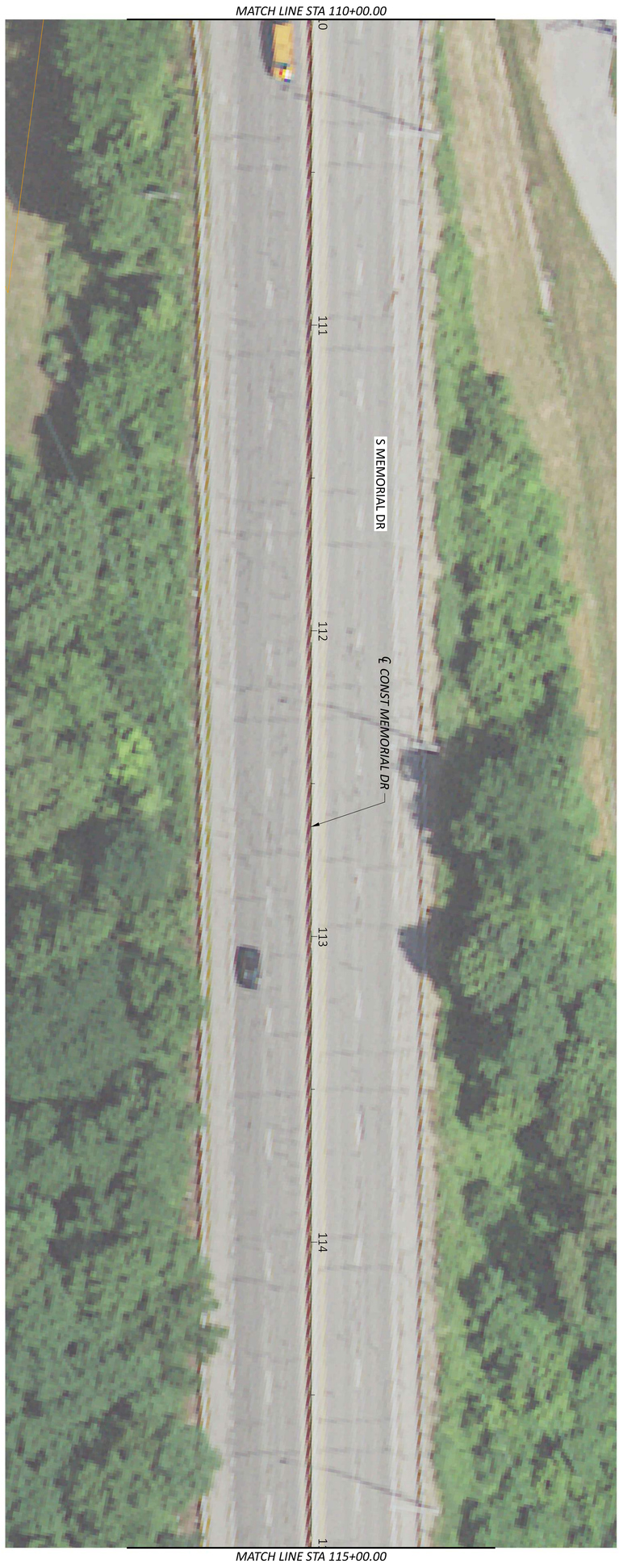

N

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
83	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 110+00.00 TO STA. 115+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

MODEL: MEMORIAL - PP SHEET 4 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:33:57 PM USER: cphillips
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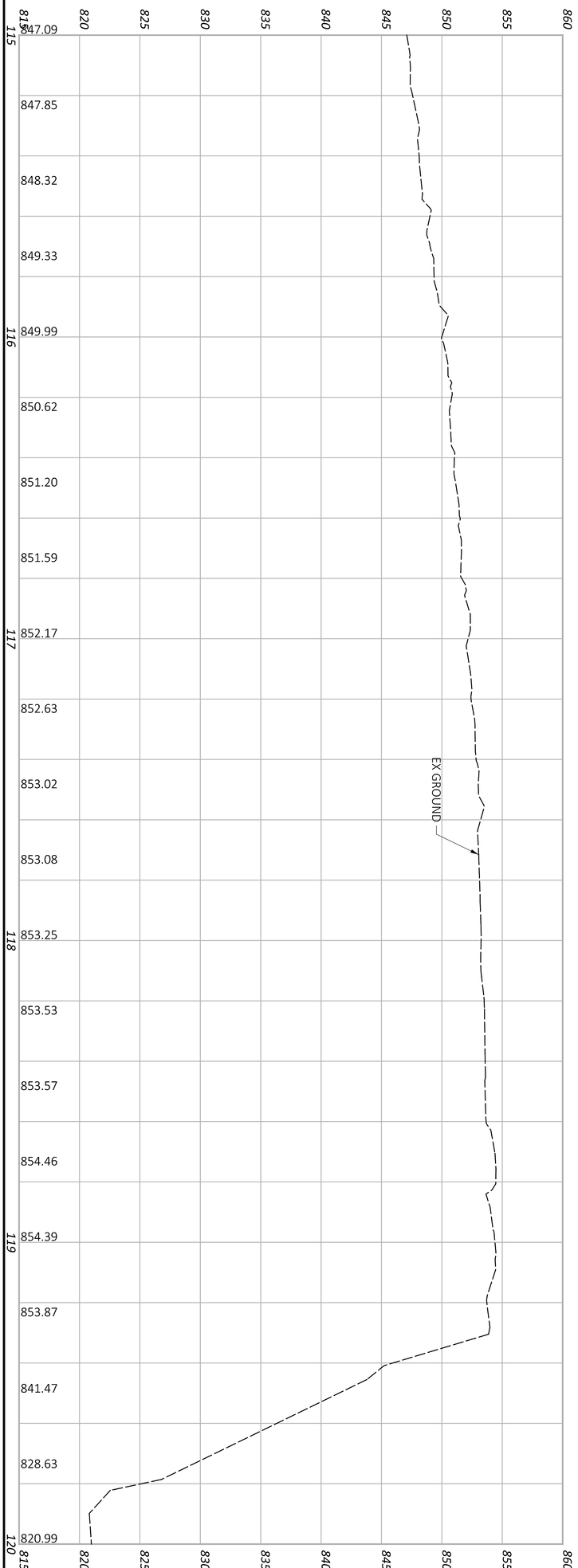

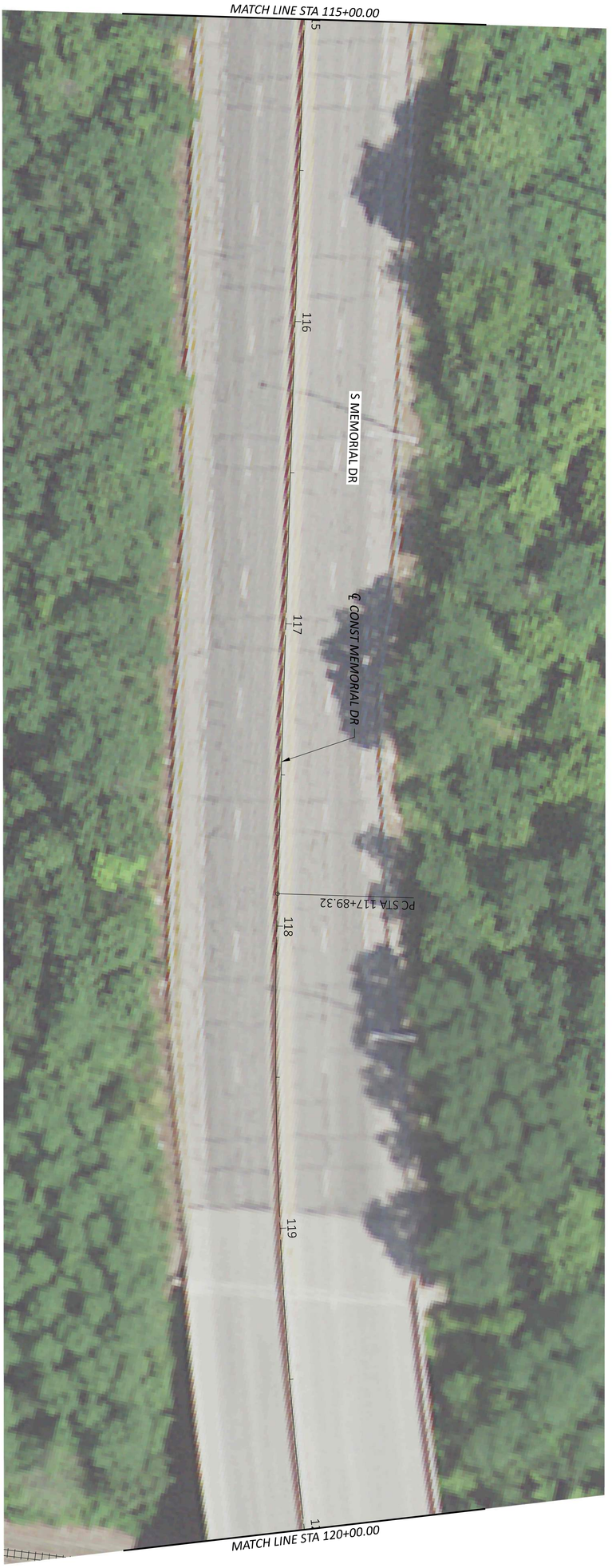

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
84	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 115+00.00 TO STA. 120+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: MEMORIAL - PP SHEET 5 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:34:07 PM USER: cphillips
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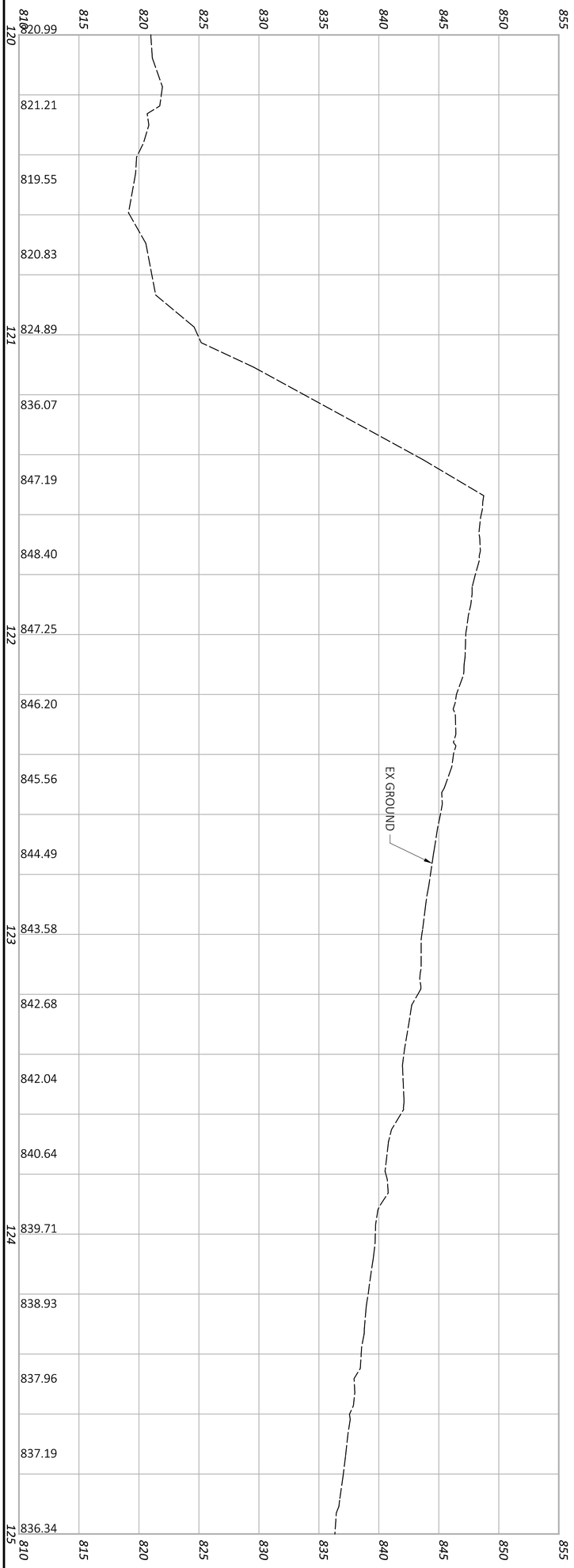

ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 120+00.00 TO STA. 125+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL
85	162

PROJECT ID: 03022
REVIEWER: KAM 03/02/23
DESIGNER: LZS
DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

MODEL: MEMORIAL - PP SHEET 6 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:34:16 PM USER: cphillips
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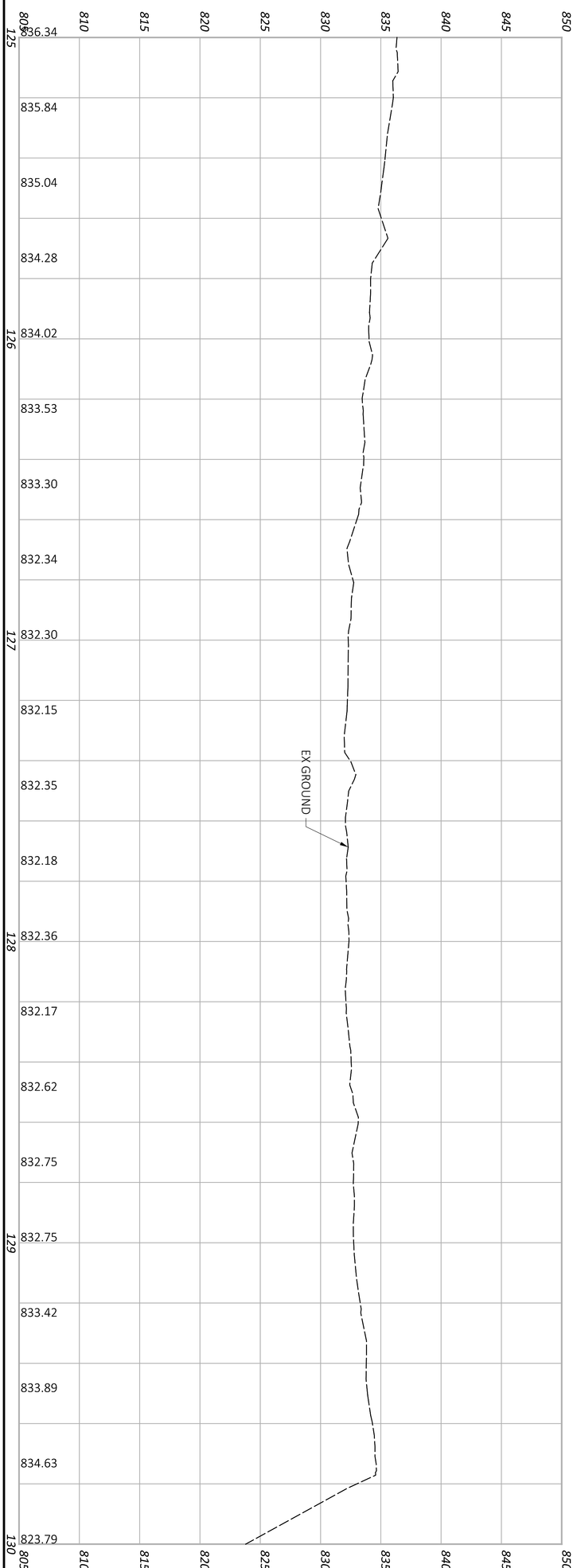

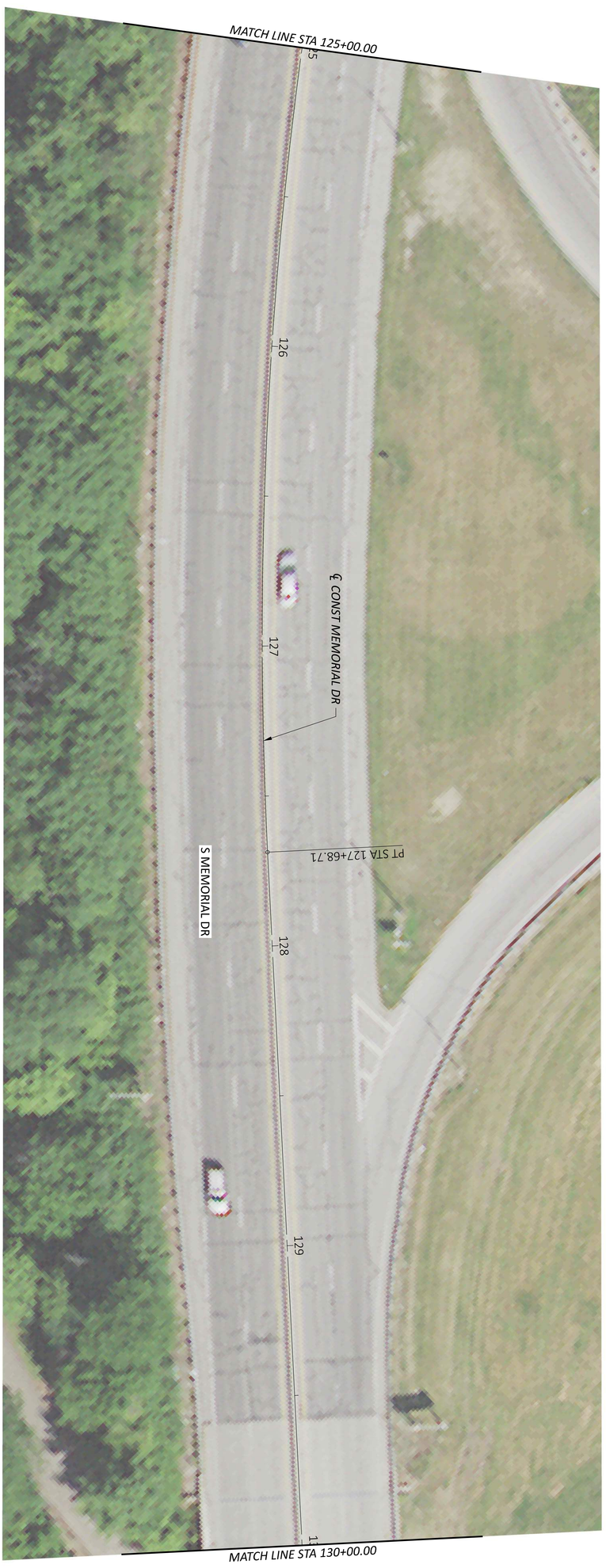

ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 125+00.00 TO STA. 130+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
86	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: MEMORIAL - PP SHEET 7 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:34:25 PM USER: cphillips
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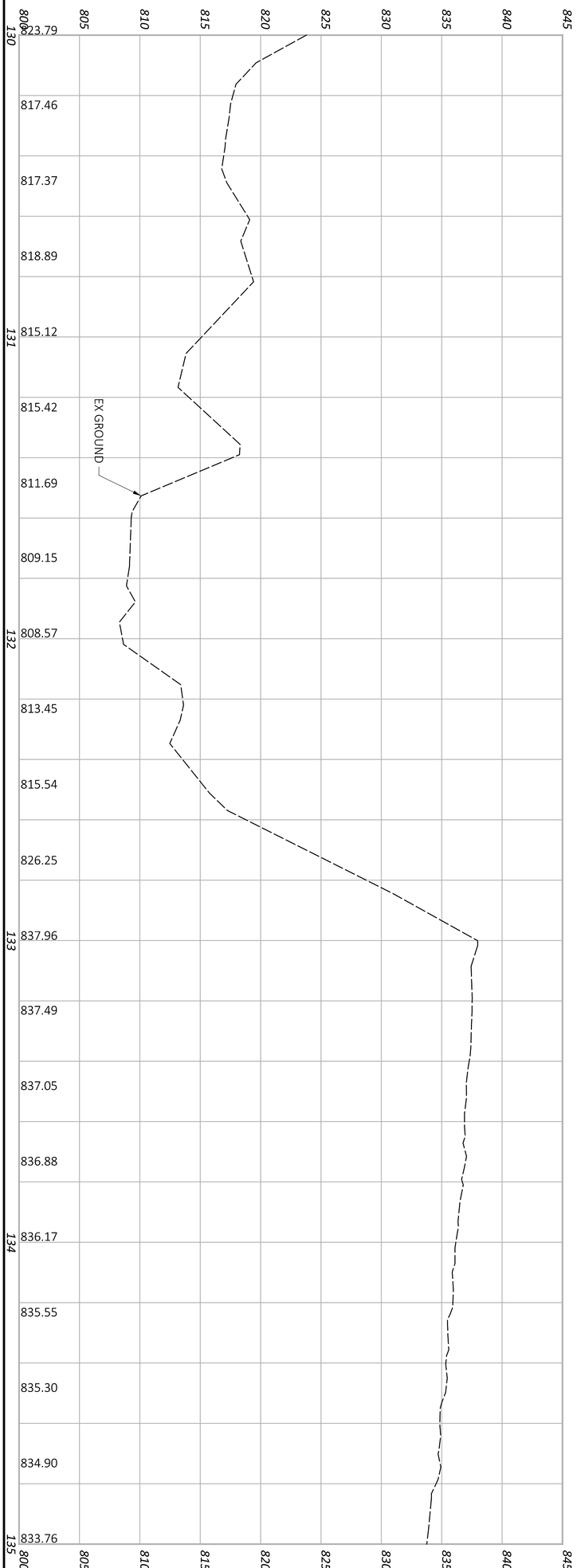

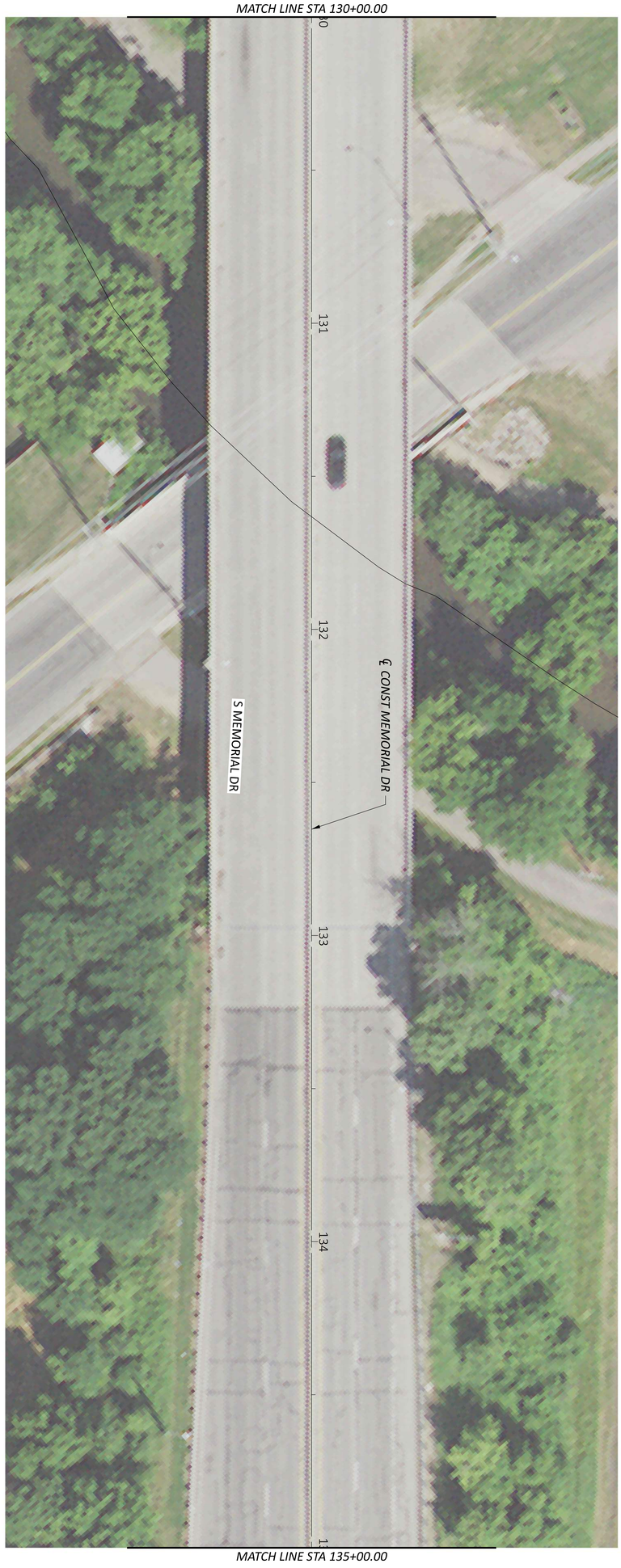

ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 130+00.00 TO STA. 135+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
87	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: MEMORIAL - PP SHEET 8 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:34:34 PM USER: cphillips
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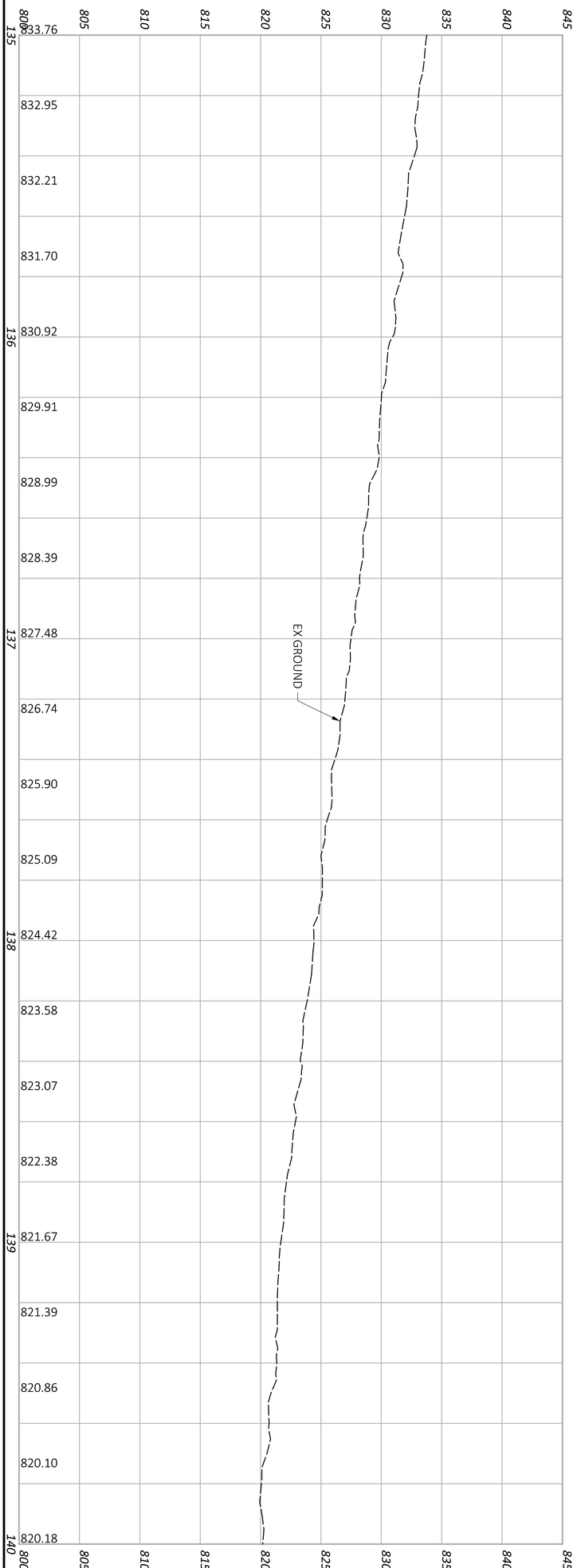

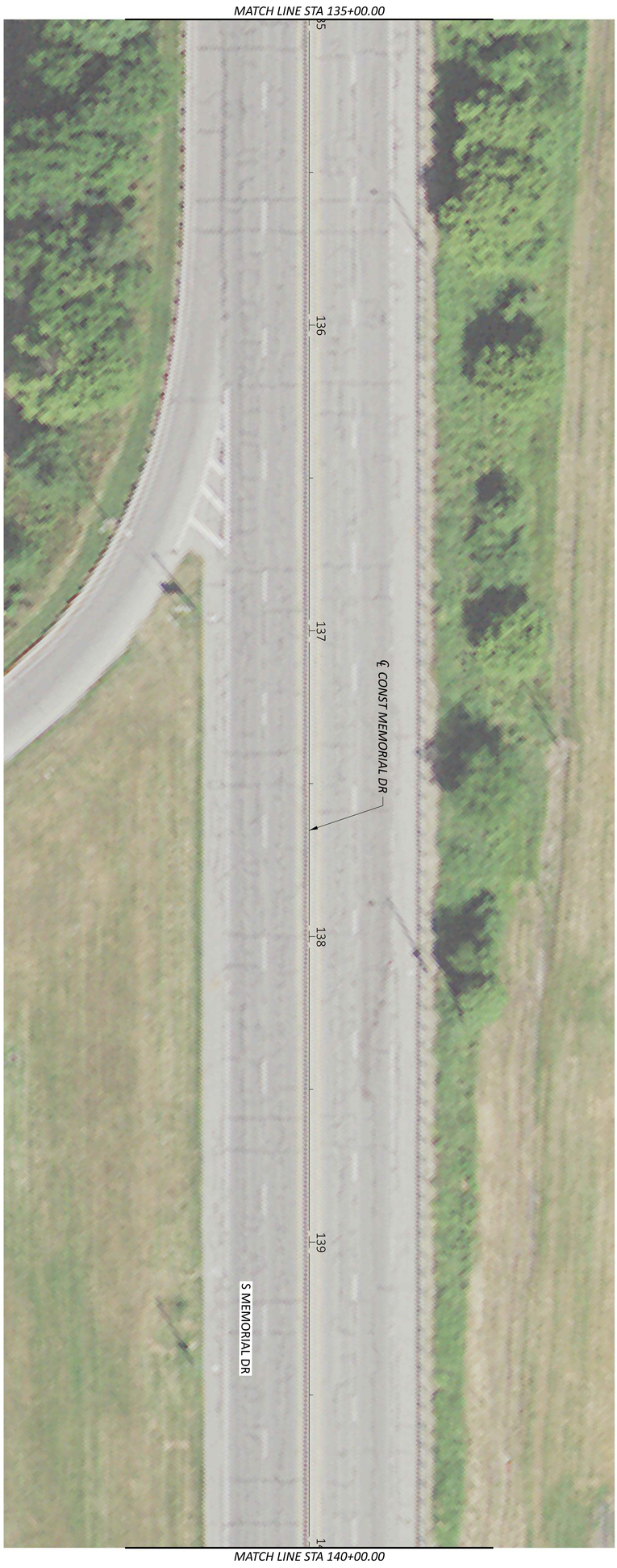

SHEET 88 / TOTAL 162	PROJECT ID 03022	REVIEWER KAM 03/02/23	DESIGNER LZS	AMERICAN STRUCTUREPOINT INC. DESIGN AGENCY	ALTERNATIVE 2B PLAN AND PROFILE - MEMORIAL RD STA. 135+00.00 TO STA. 140+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: MEMORIAL - PP SHEET 9 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:34:43 PM USER: cphillips
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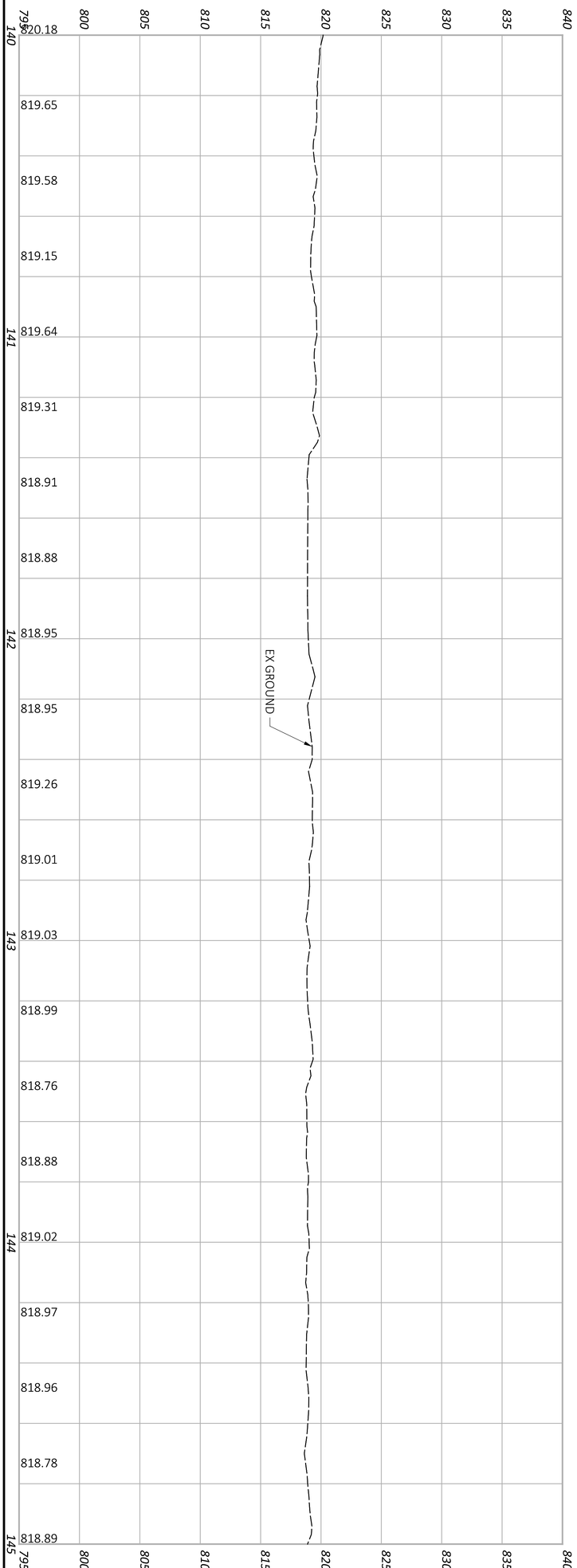

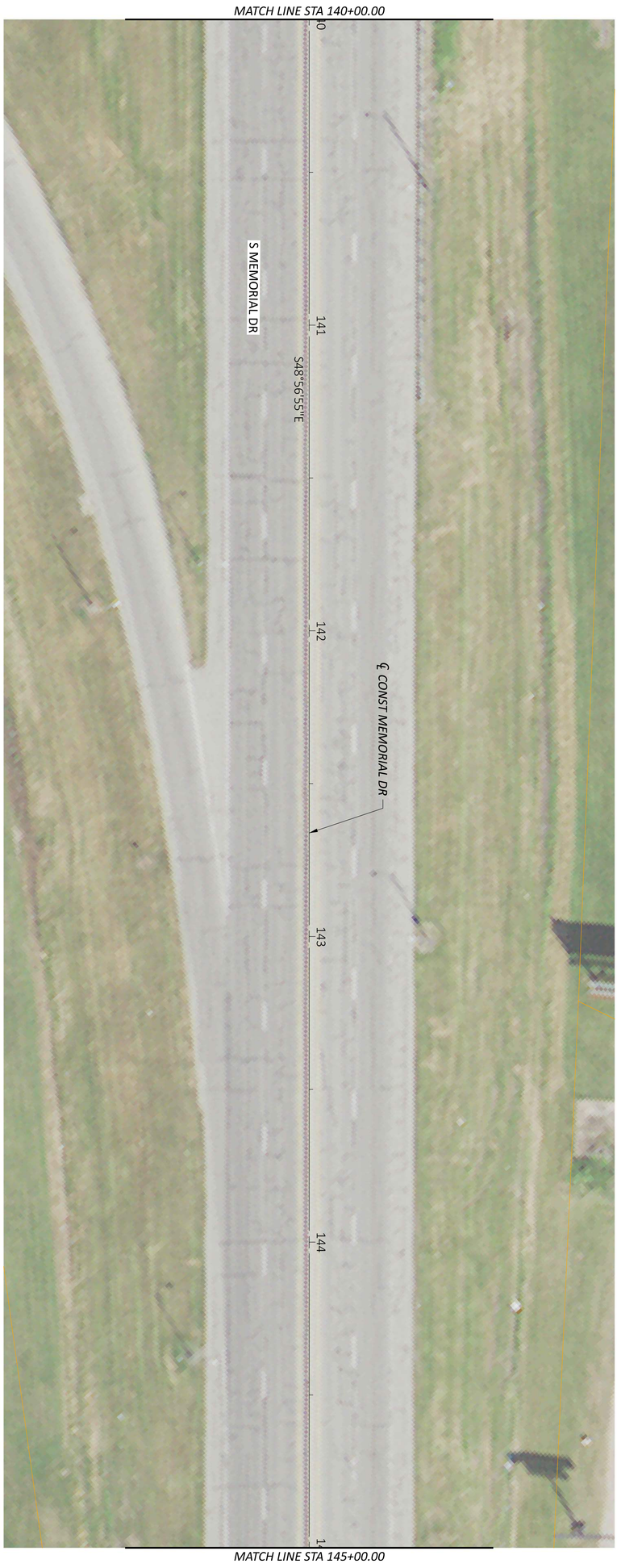

SHEET 89 / TOTAL 162	PROJECT ID 03022	REVIEWER KAM 03/02/23	DESIGNER LZS	AMERICAN STRUCTUREPOINT INC. DESIGN AGENCY	ALTERNATIVE 2B PLAN AND PROFILE - MEMORIAL RD STA. 140+00.00 TO STA. 145+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: MEMORIAL - PP SHEET 10 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:34:52 PM USER: cphillips
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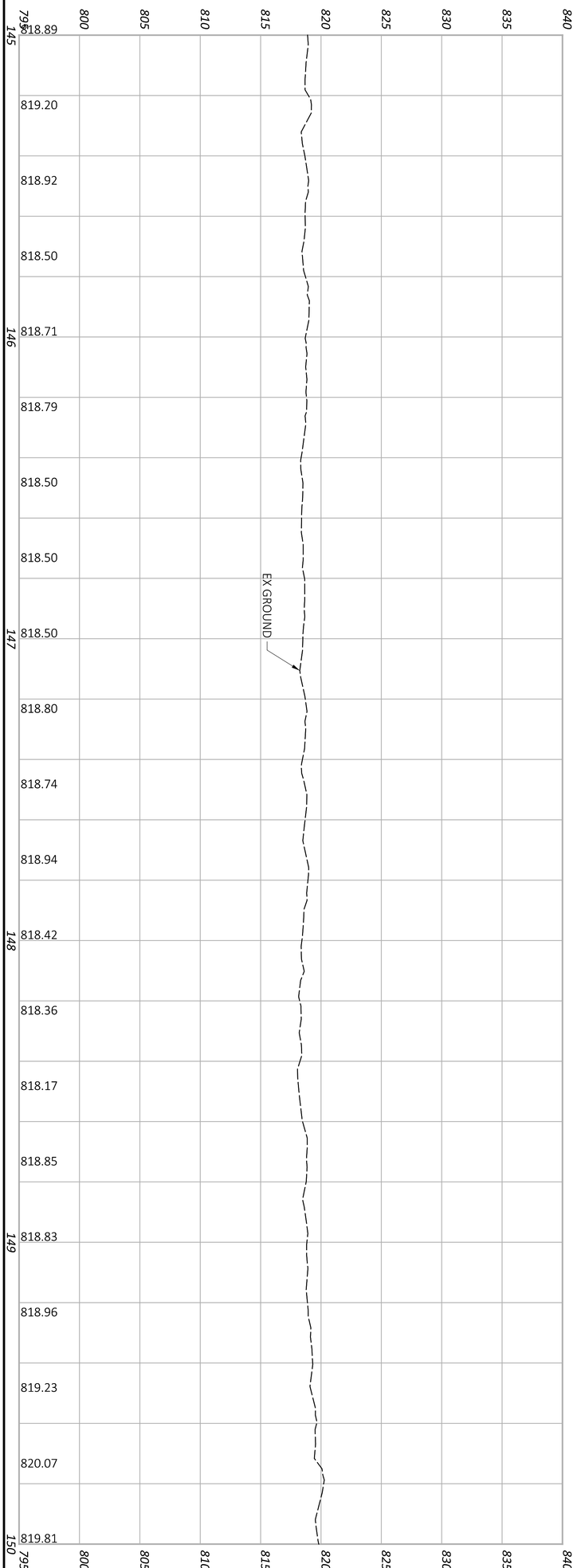

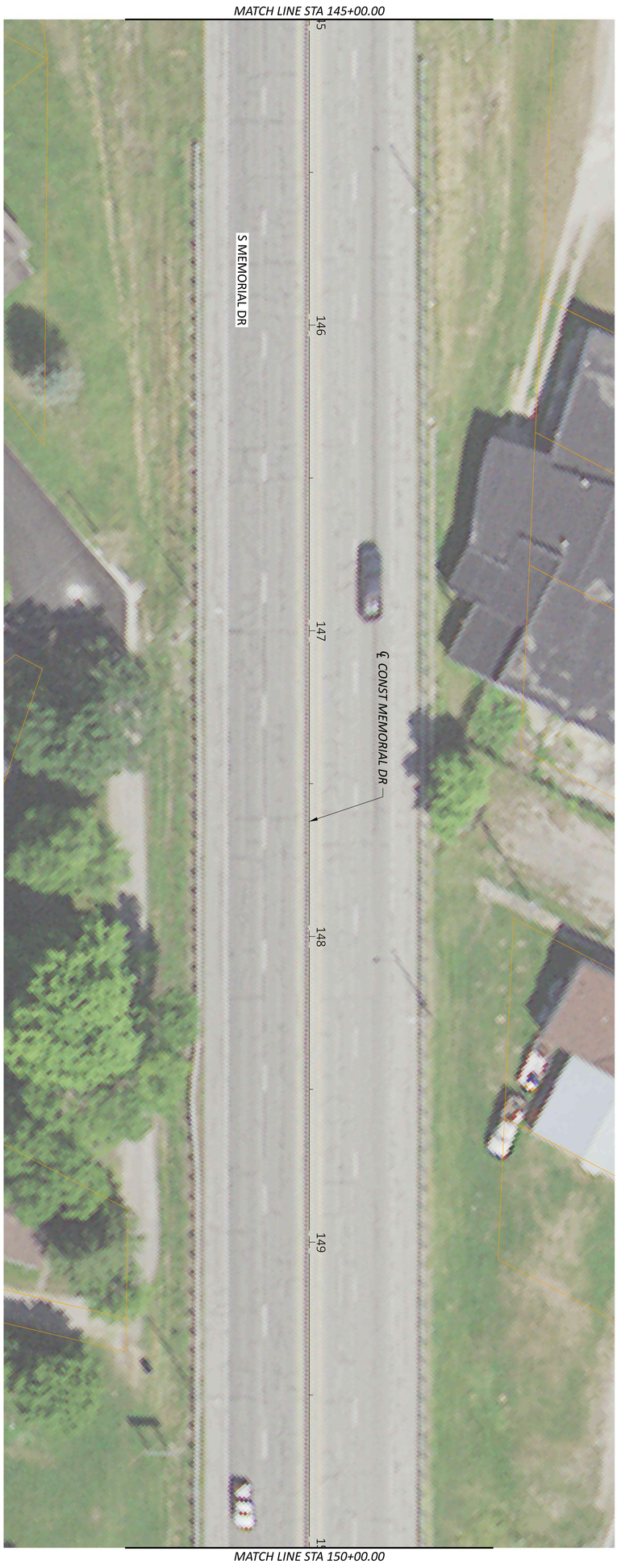

SHEET 90 / TOTAL 162	PROJECT ID 03022	REVIEWER KAM 03/02/23	DESIGNER LZS	DESIGN AGENCY AMERICAN STRUCTUREPOINT INC.	ALTERNATIVE 2B PLAN AND PROFILE - MEMORIAL RD STA. 145+00.00 TO STA. 150+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: MEMORIAL - PP SHEET 11 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:35:01 PM USER: cphillips
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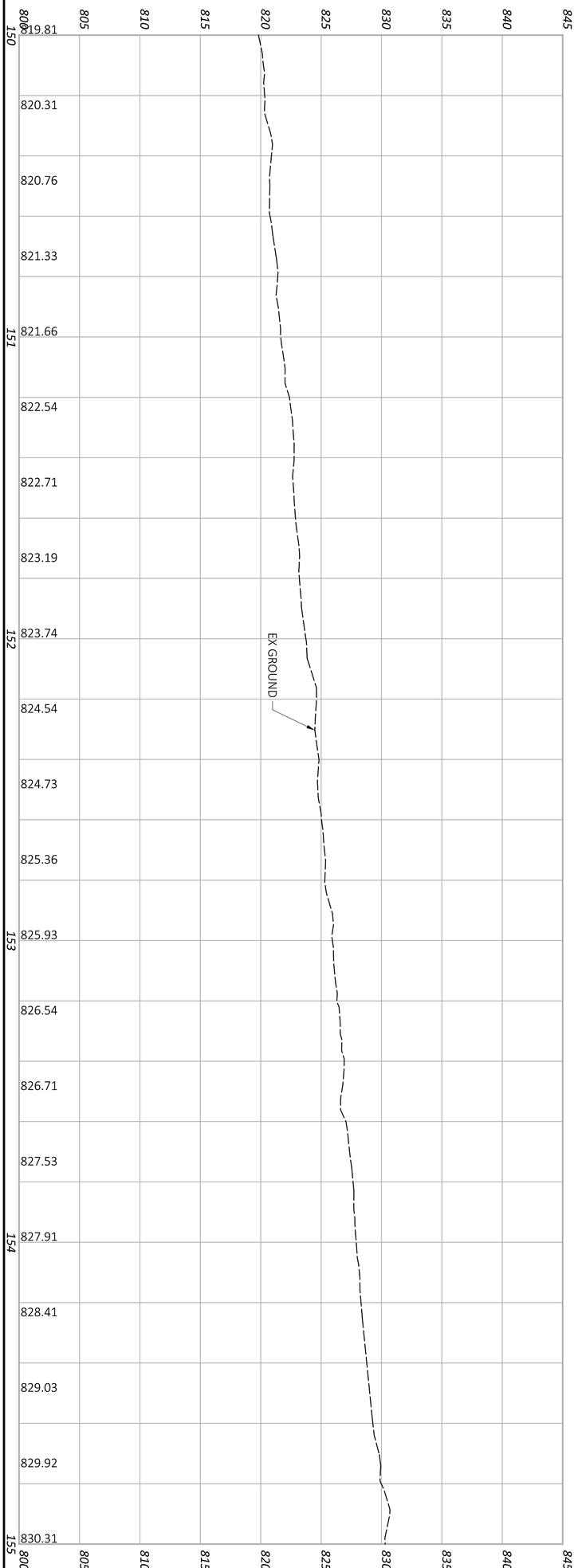
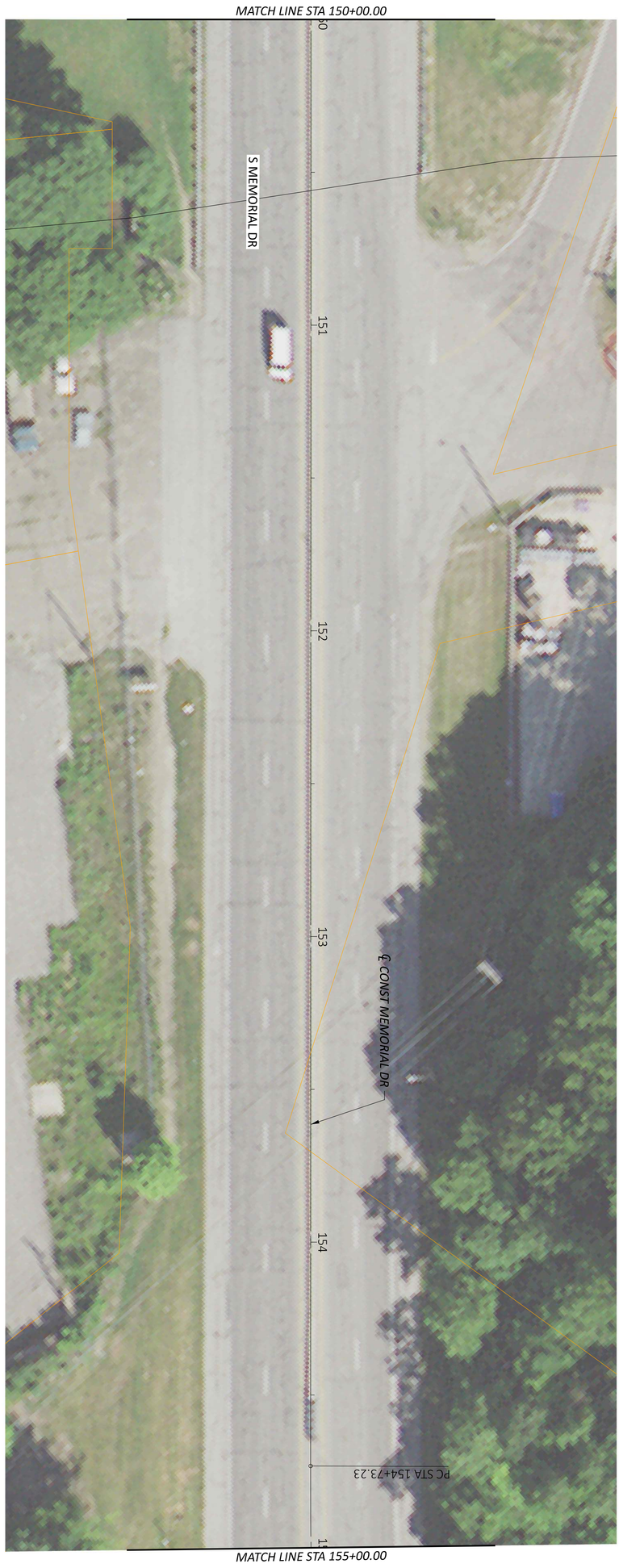
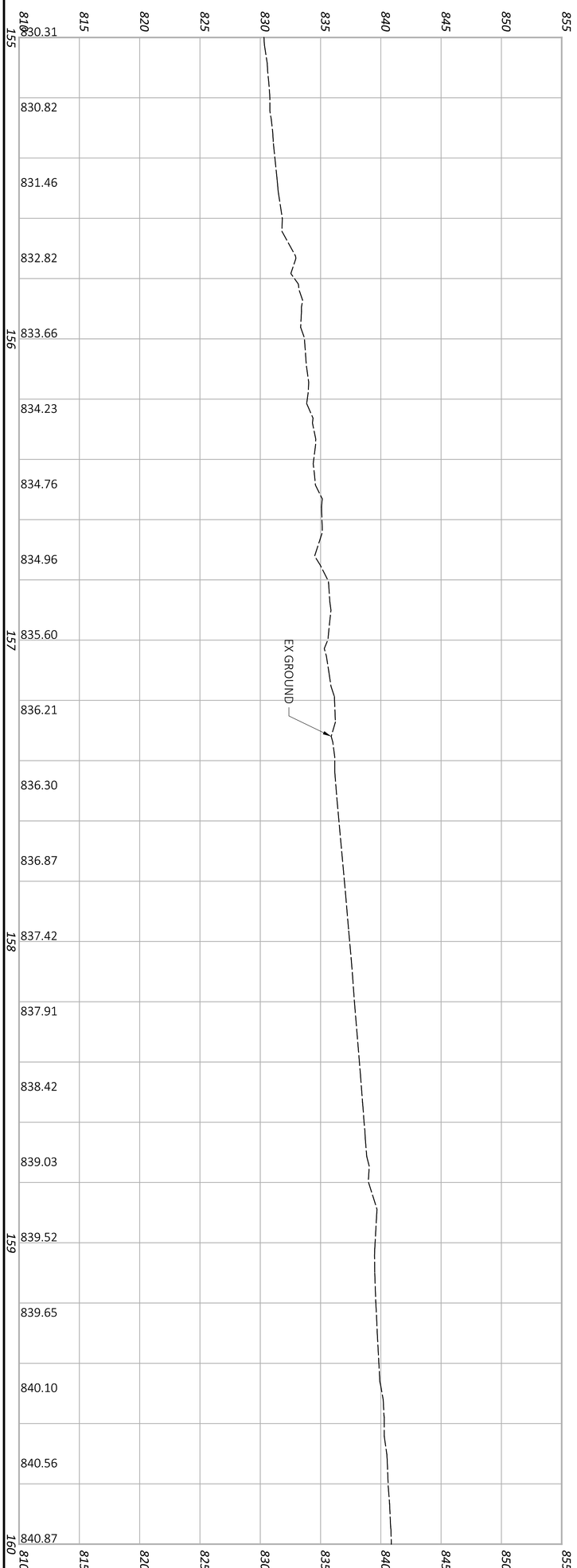


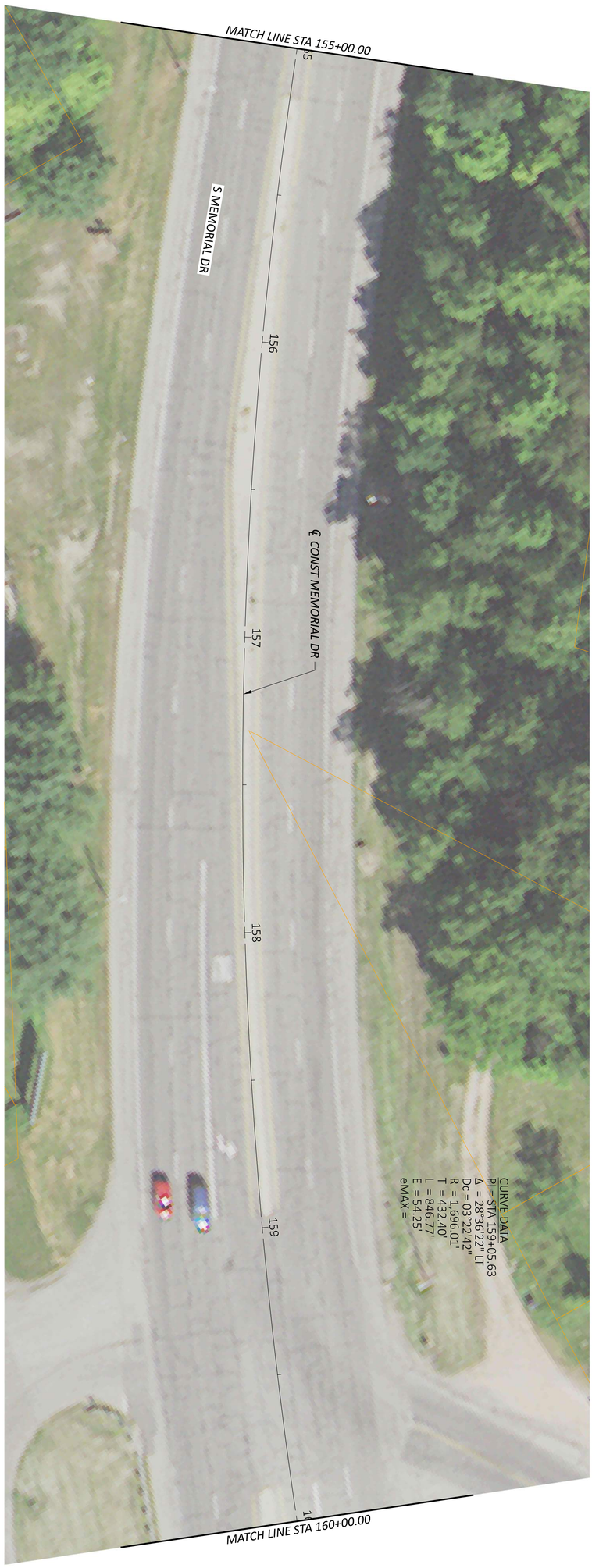


ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 150+00.00 TO STA. 155+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
91	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.





ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 155+00.00 TO STA. 160+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: MEMORIAL - PP SHEET 13 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:35:19 PM USER: cphillips
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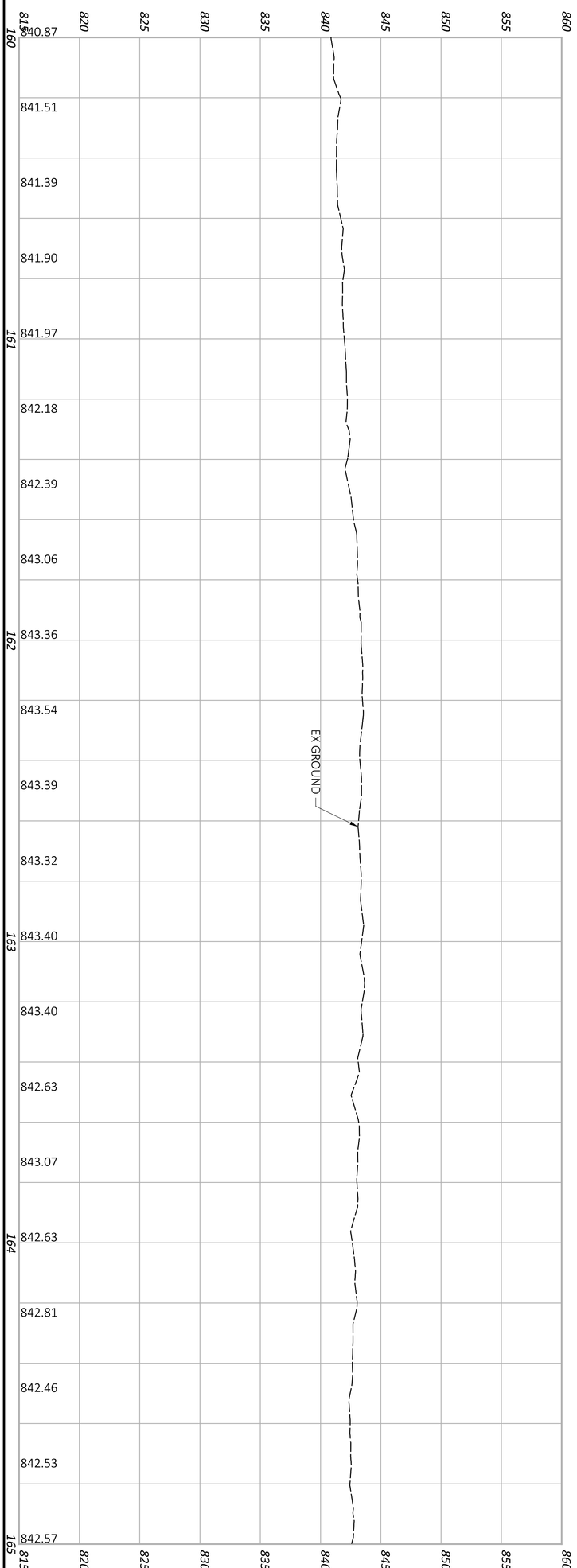

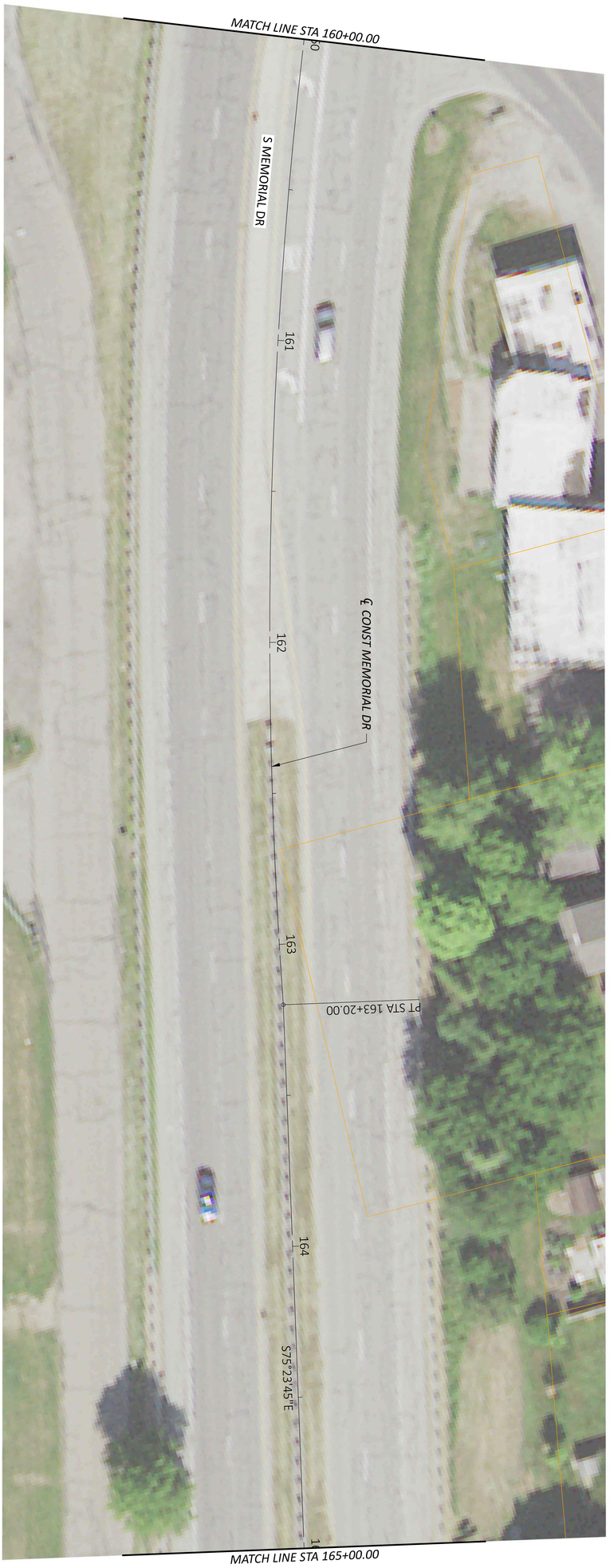

ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 160+00.00 TO STA. 165+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
93	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: MEMORIAL - PP SHEET 14 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:35:29 PM USER: cphillips
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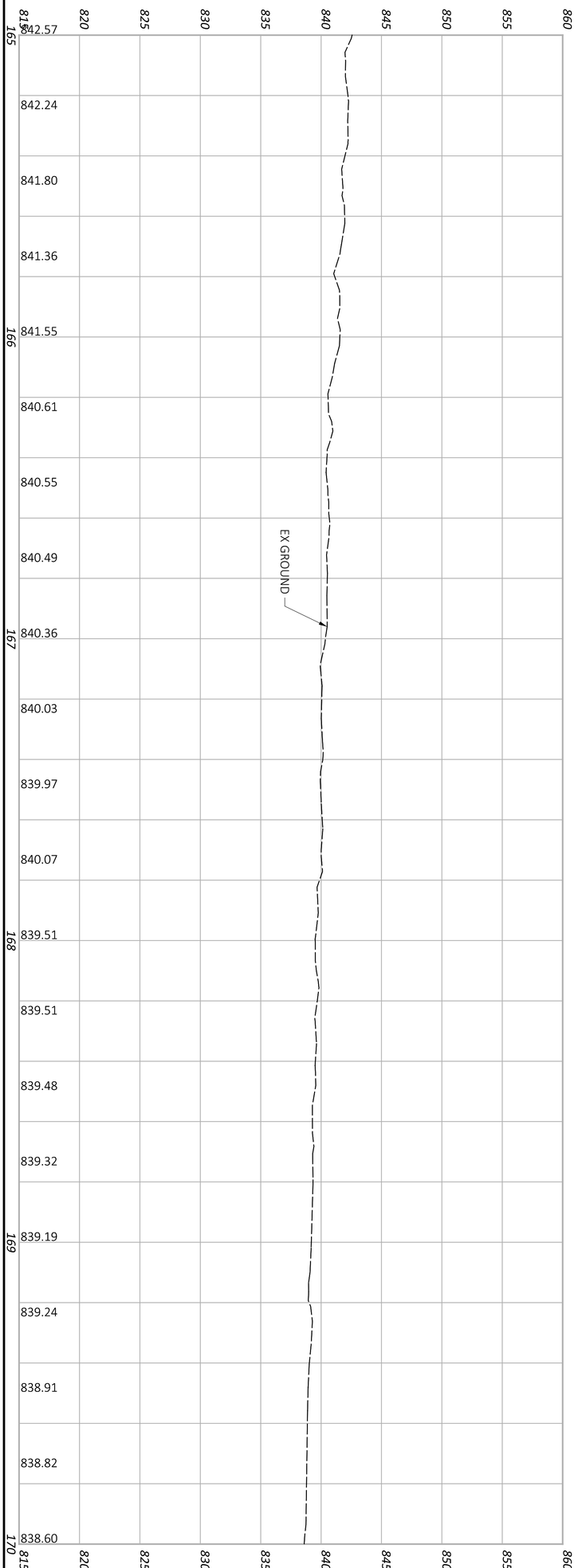

ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 165+00.00 TO STA. 170+00.00

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
94	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: MEMORIAL - PP SHEET 15 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:35:38 PM USER: cphillips
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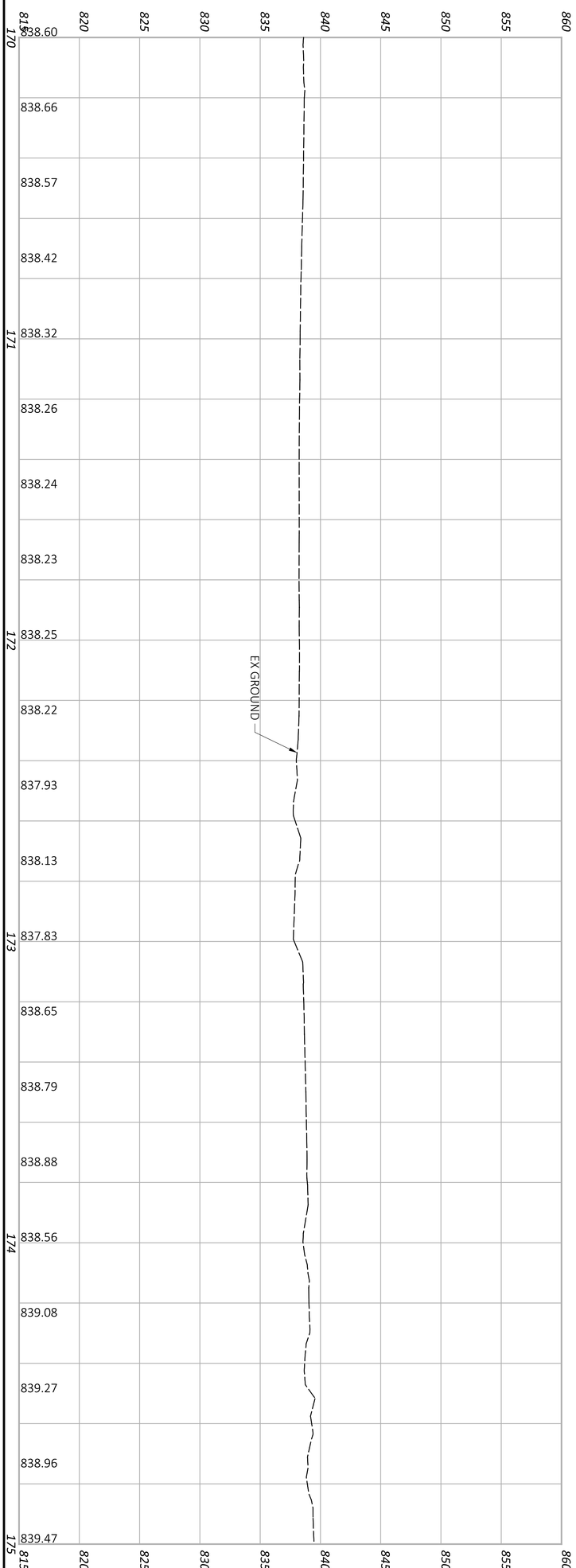

SHEET	TOTAL
95	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: LZS

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 170+00.00 TO STA. 175+00.00

HORIZONTAL SCALE IN FEET

0 20
10 40

MODEL: MEMORIAL - PP SHEET 16 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:35:47 PM USER: cphillips
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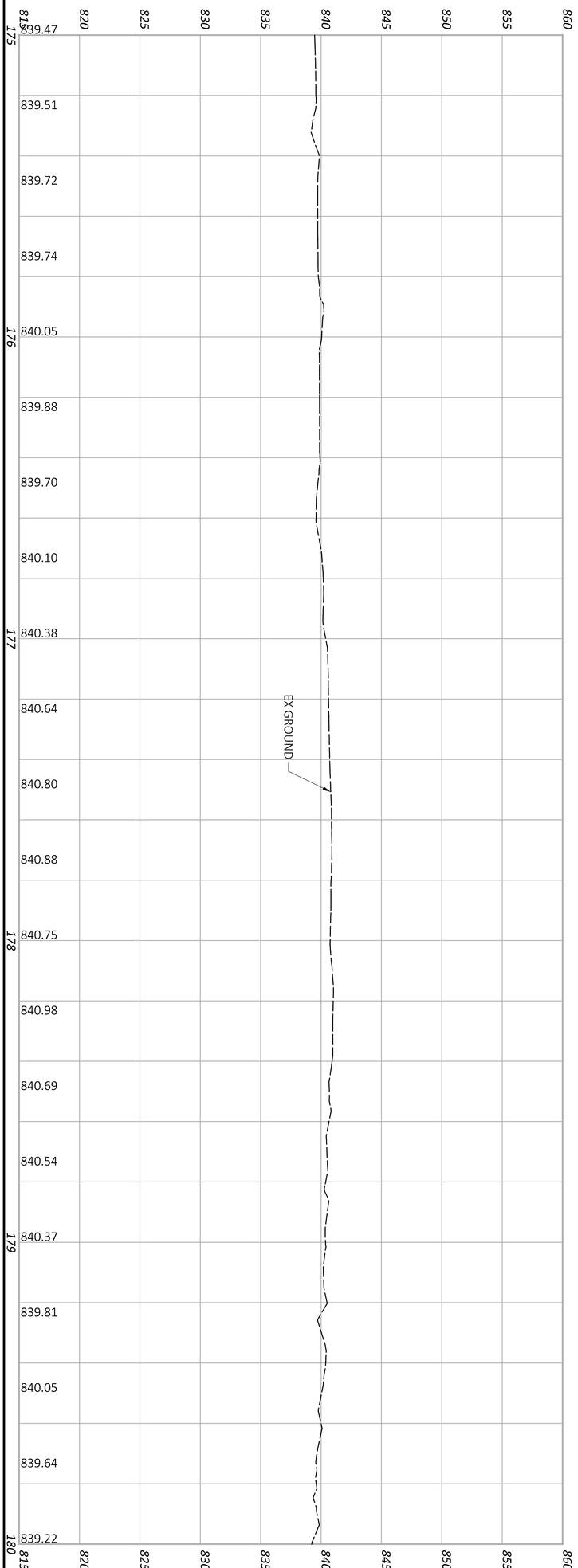

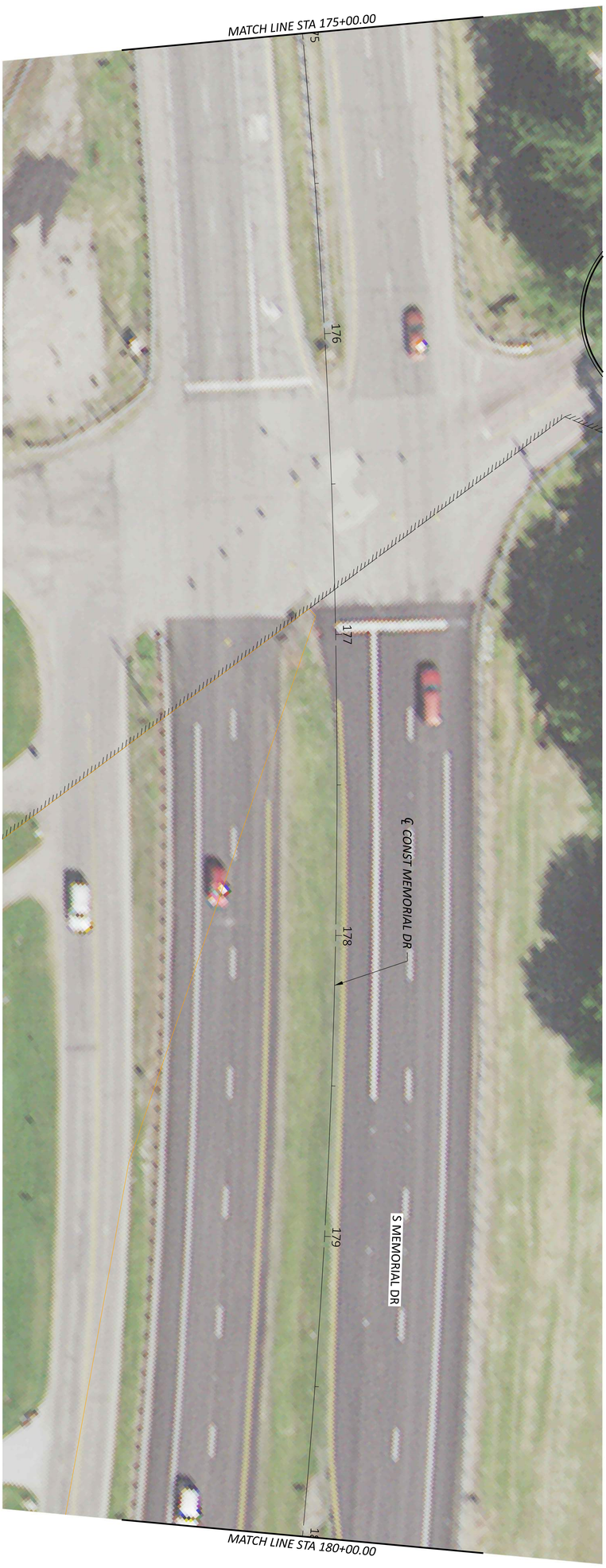

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
96	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 175+00.00 TO STA. 180+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: MEMORIAL - PP SHEET 17 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:35:56 PM USER: cphillips
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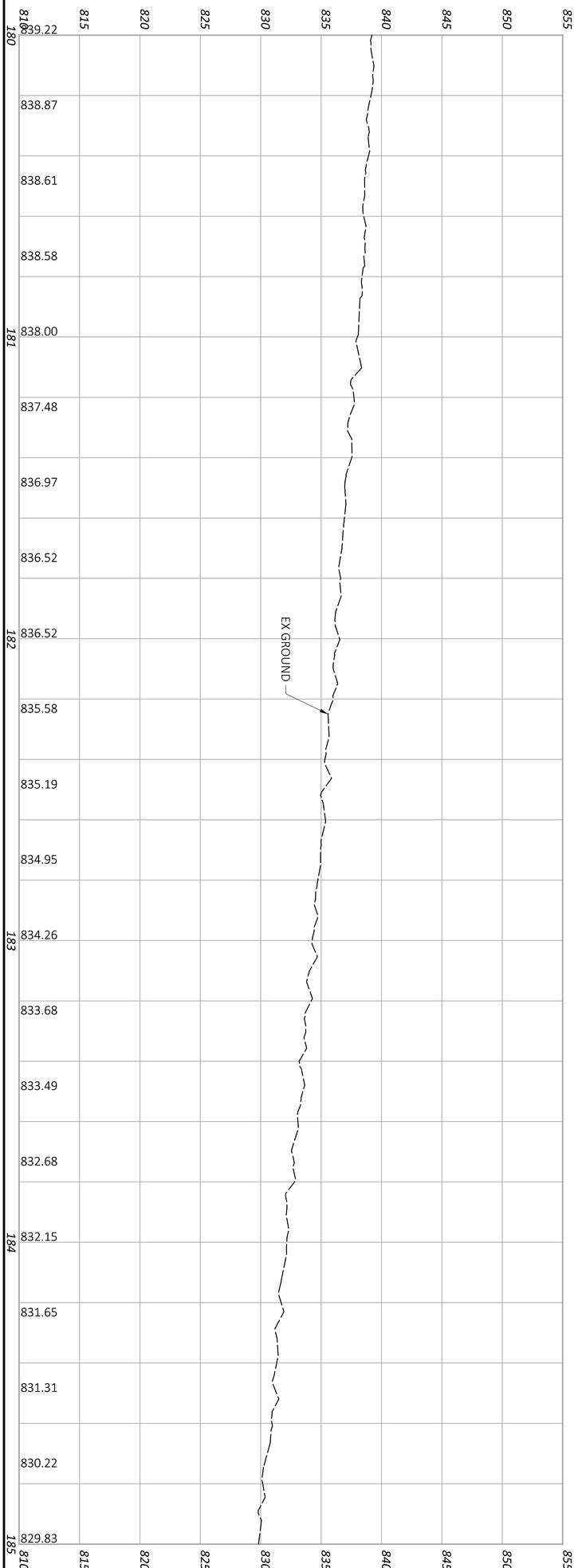

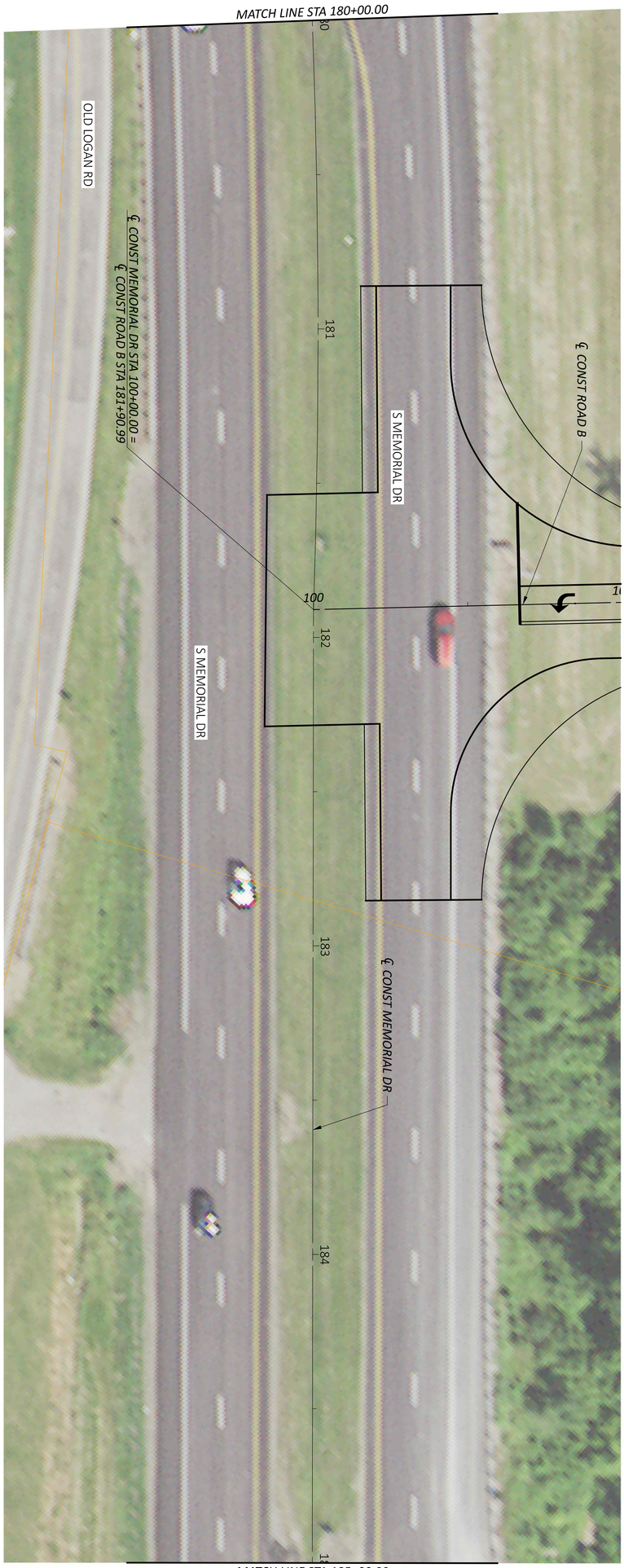

ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 180+00.00 TO STA. 185+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
97	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: MEMORIAL - PP SHEET 18 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:36:05 PM USER: cphillips
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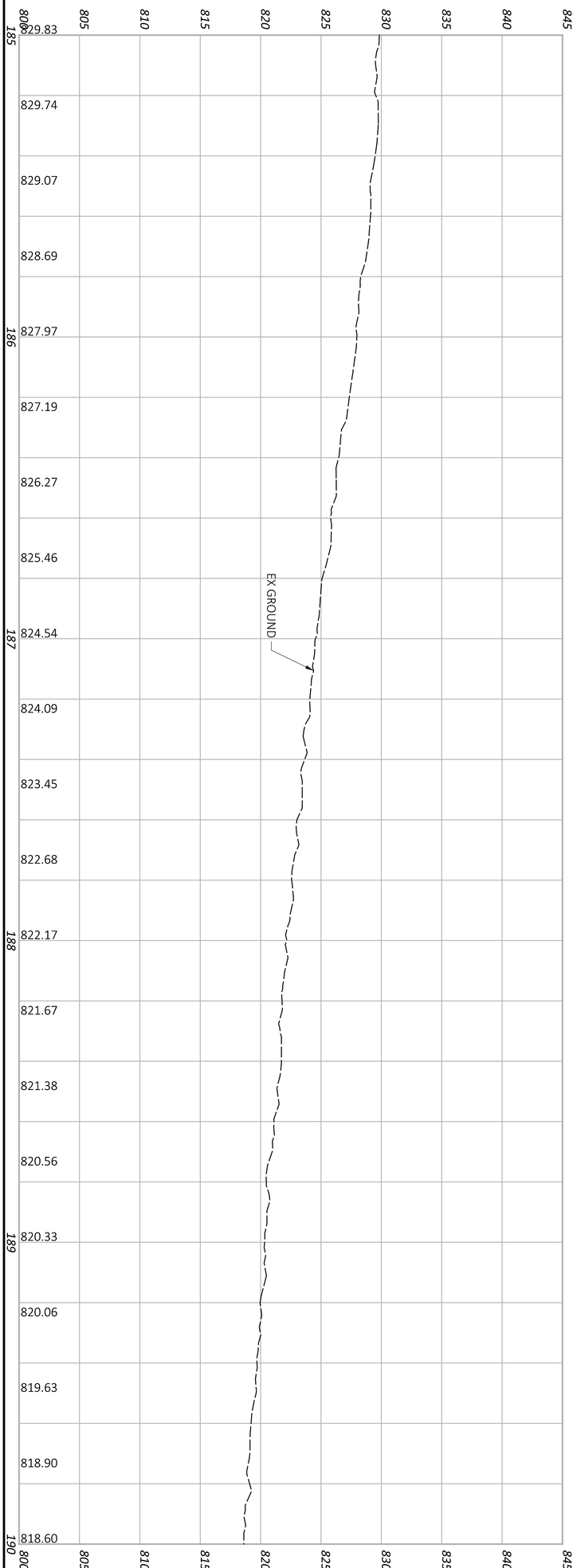

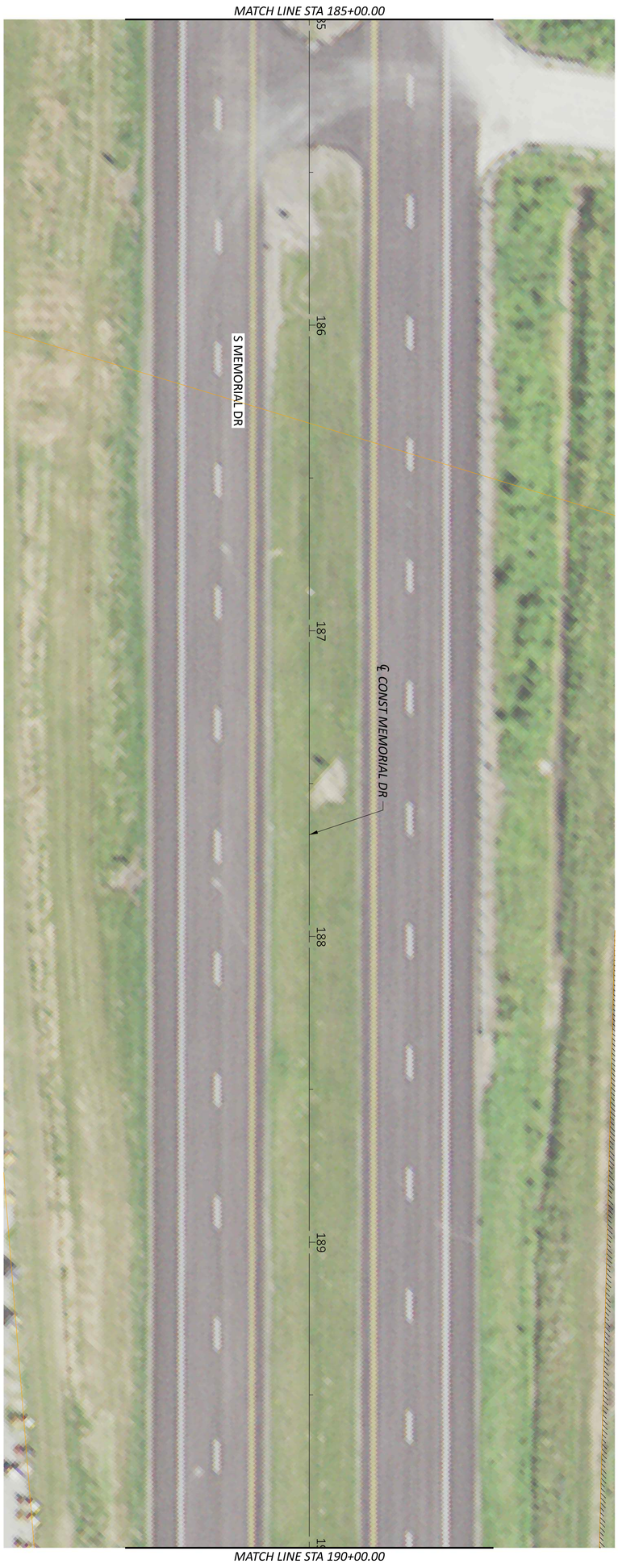

ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 185+00.00 TO STA. 190+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
98	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: MEMORIAL - PP SHEET 19 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:36:14 PM USER: cphillips
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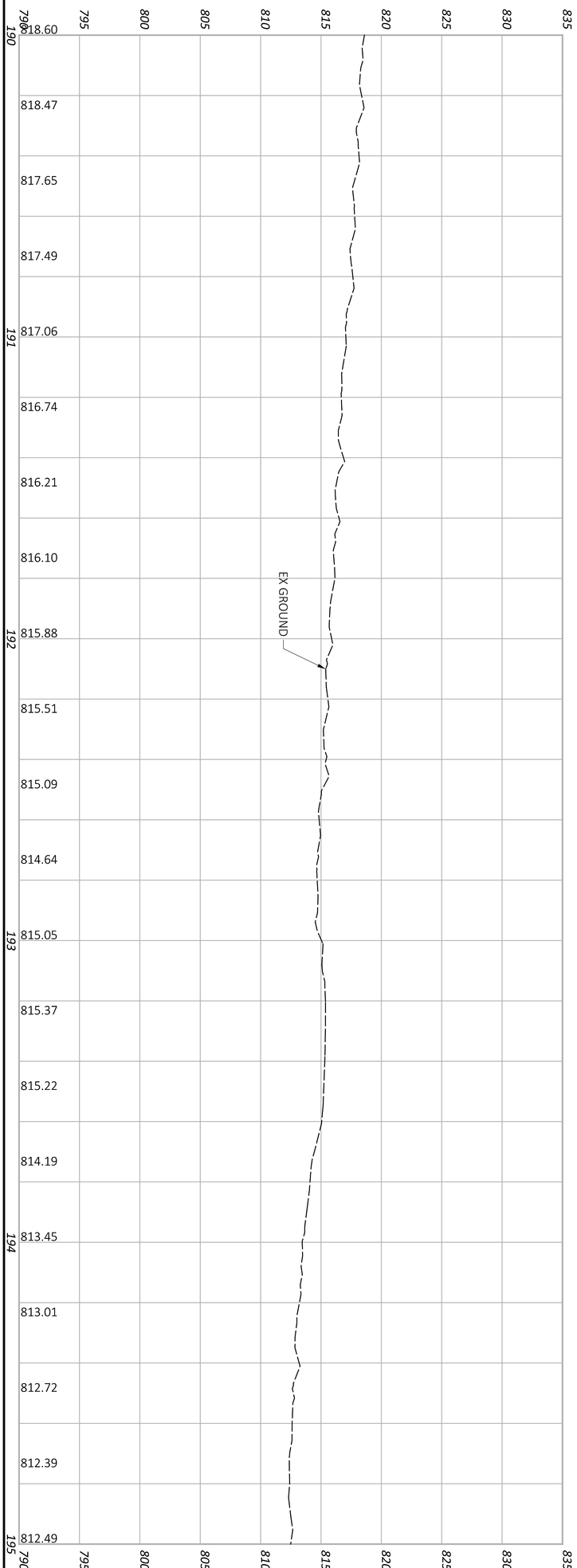

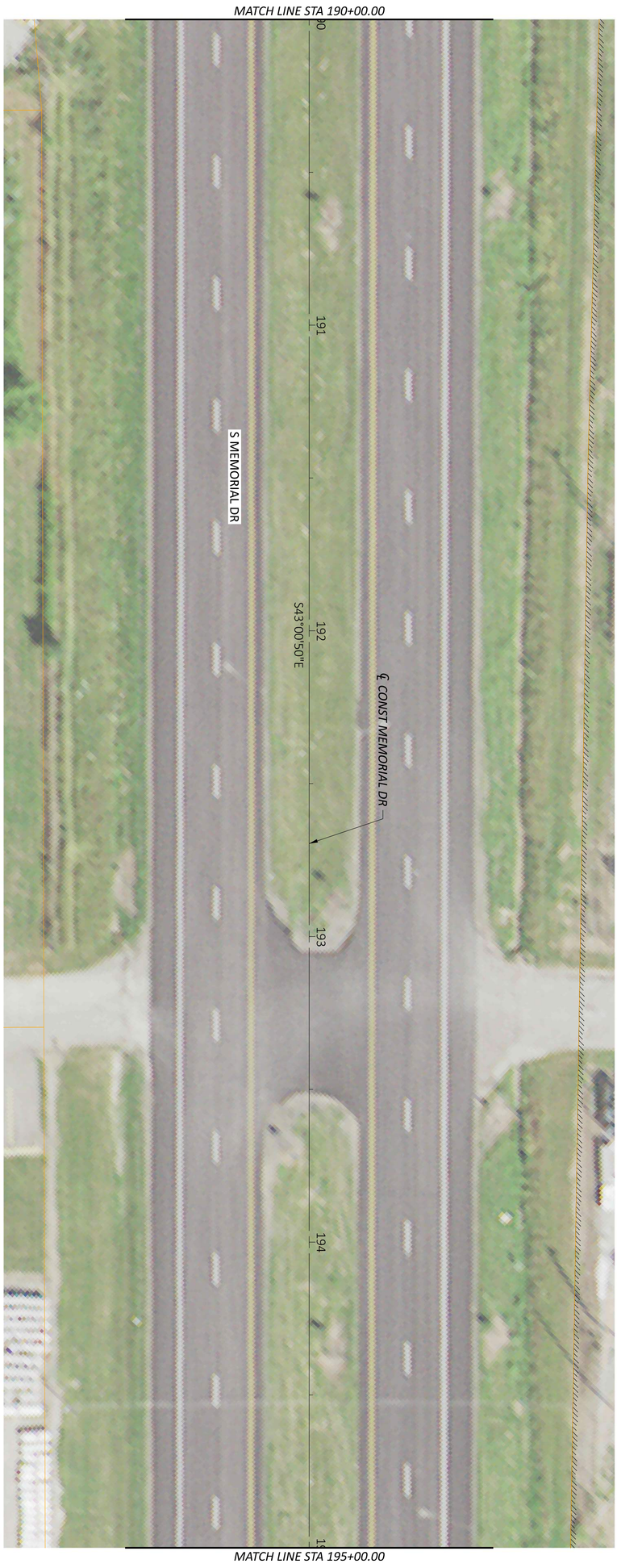

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
99	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 190+00.00 TO STA. 195+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: MEMORIAL - PP SHEET 20 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:36:23 PM USER: cphillips
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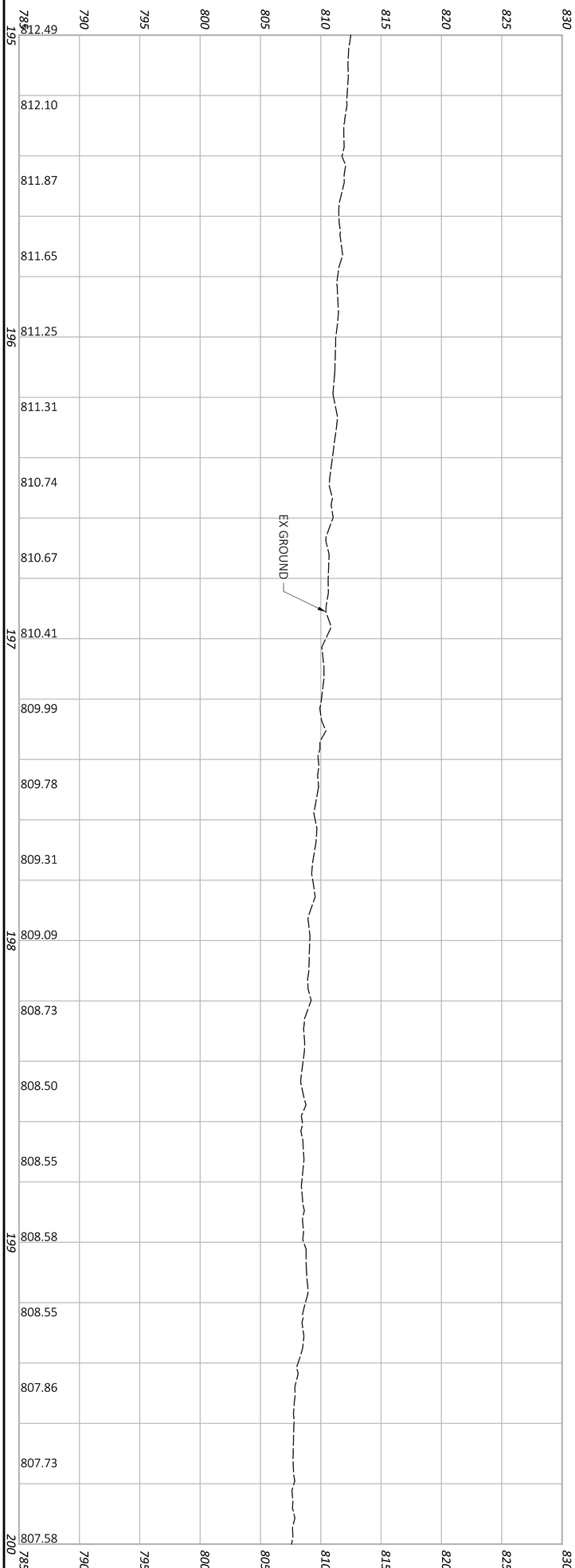
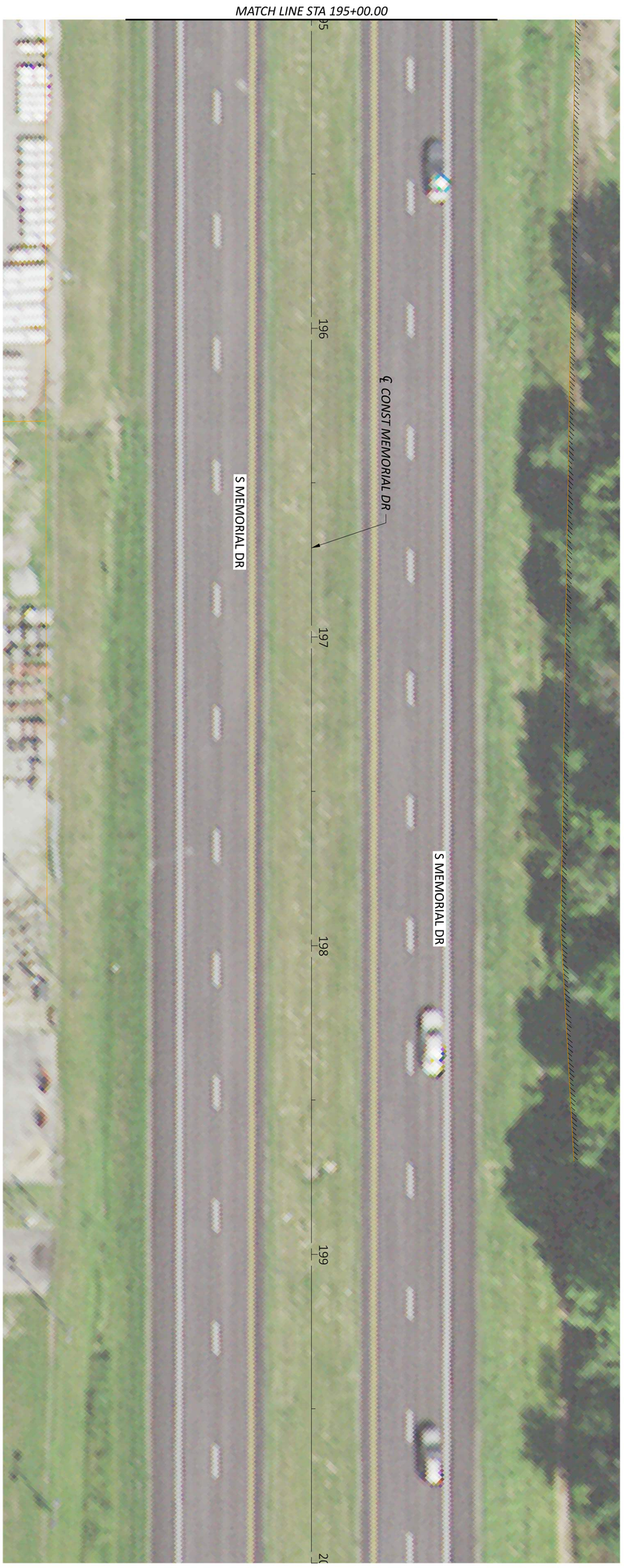




ALTERNATIVE 2B
PLAN AND PROFILE - MEMORIAL RD
STA. 195+00.00 TO STA. 200+00.00

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
100	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

SHEET	TOTAL
101	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

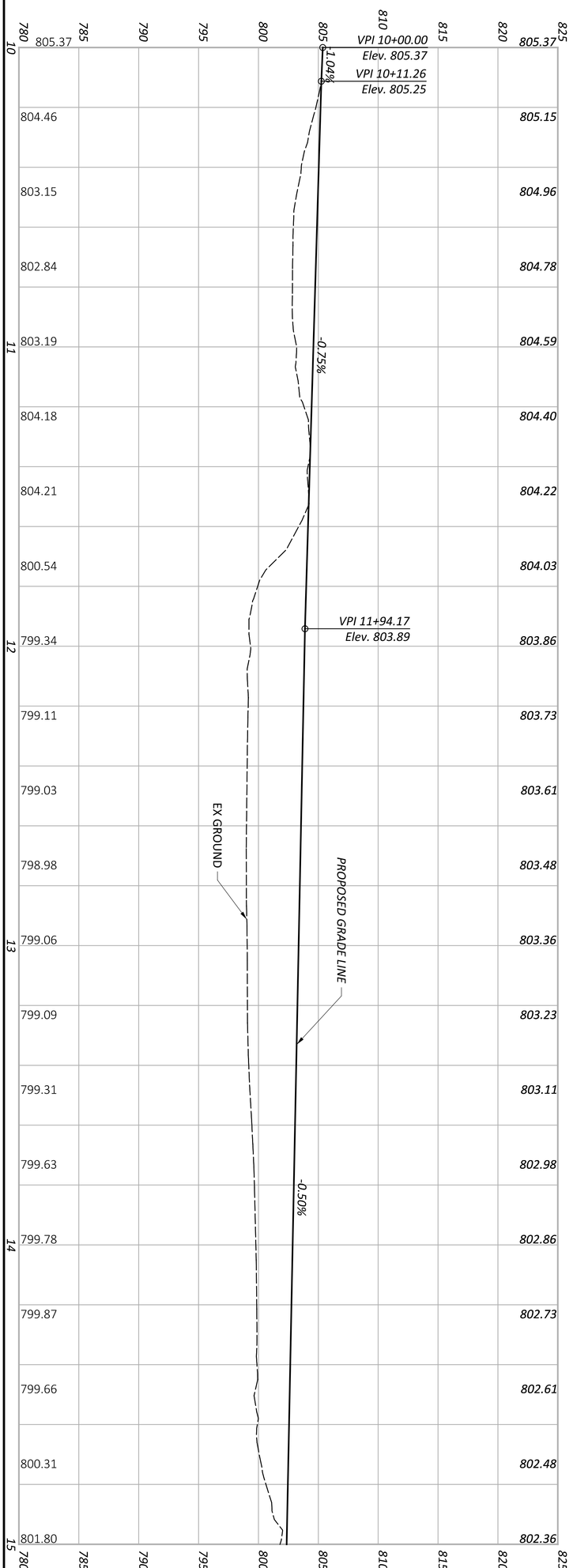
DESIGNER: LZS

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3A
OVERALL SITE PLAN

HORIZONTAL SCALE IN FEET

0 600
300 1200



SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
102	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3A
PLAN AND PROFILE - ROAD B
STA. 10+00.00 TO STA. 15+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: 3A_ROADB - PP SHEET 2 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:37:07 PM USER: cphillips
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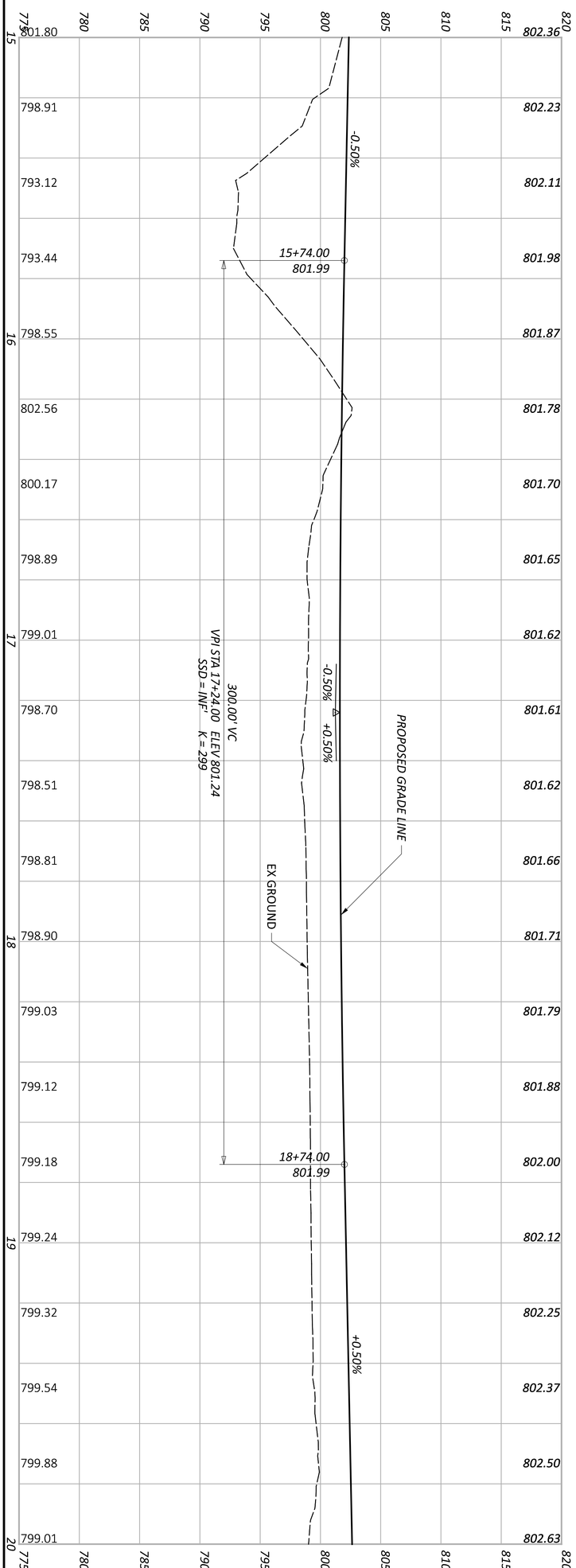

ALTERNATIVE 3A
PLAN AND PROFILE - ROAD B
STA. 15+00.00 TO STA. 20+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
103	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: 3A_ROADB - PP SHEET 3 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:37:18 PM USER: cphillips
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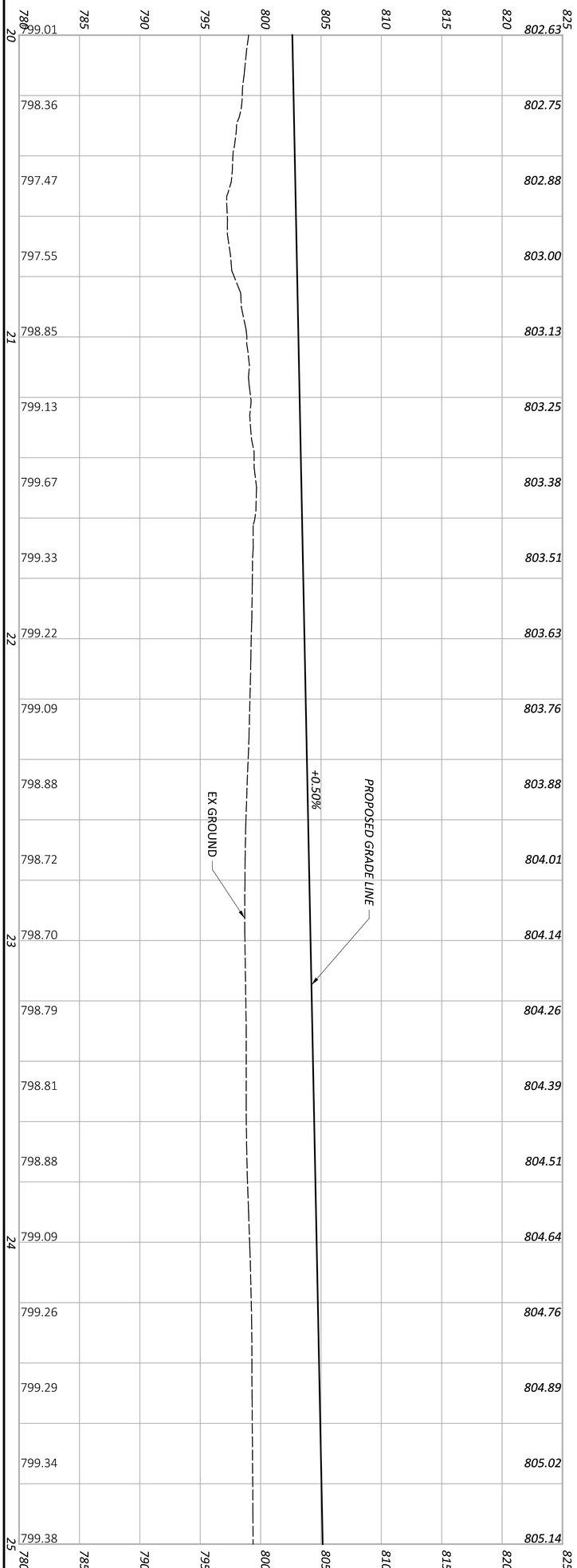

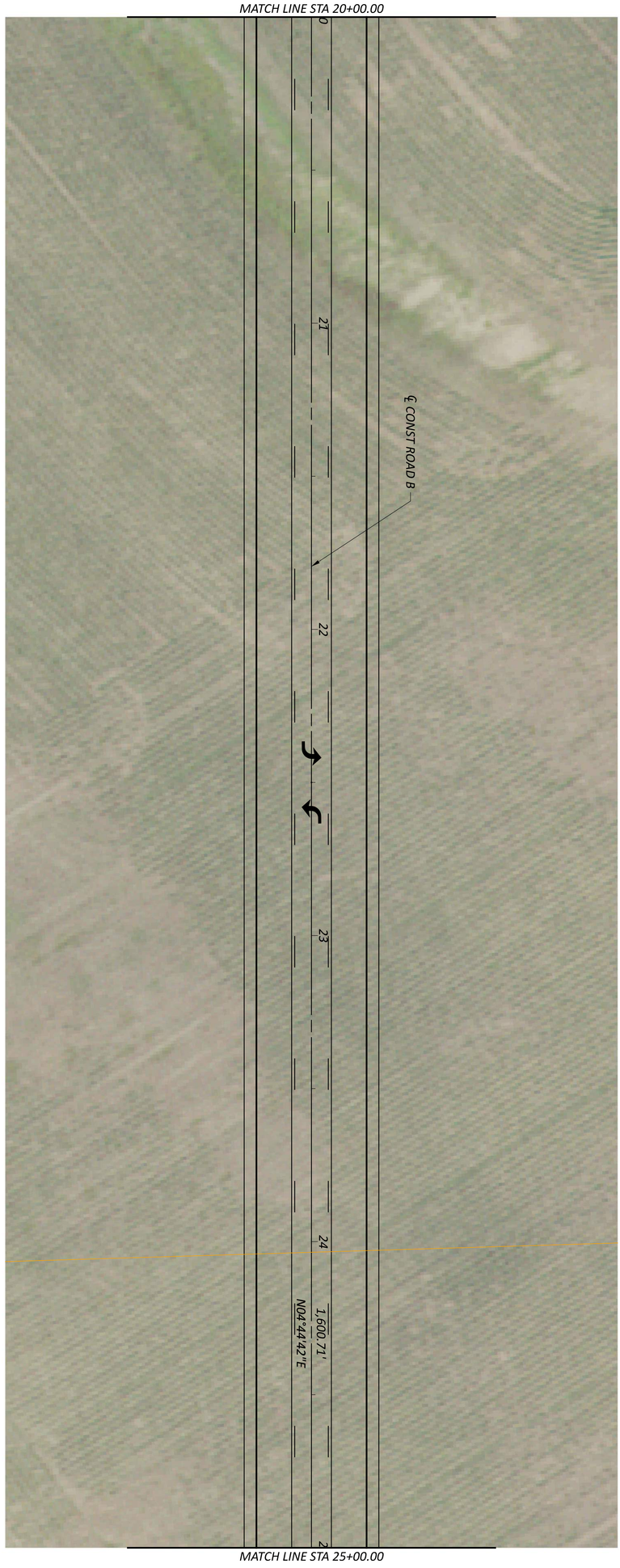

ALTERNATIVE 3A
PLAN AND PROFILE - ROAD B
STA. 20+00.00 TO STA. 25+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
104 TOTAL 162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

MODEL: 3A_ROADB - PP SHEET 4 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:37:29 PM USER: cphillips
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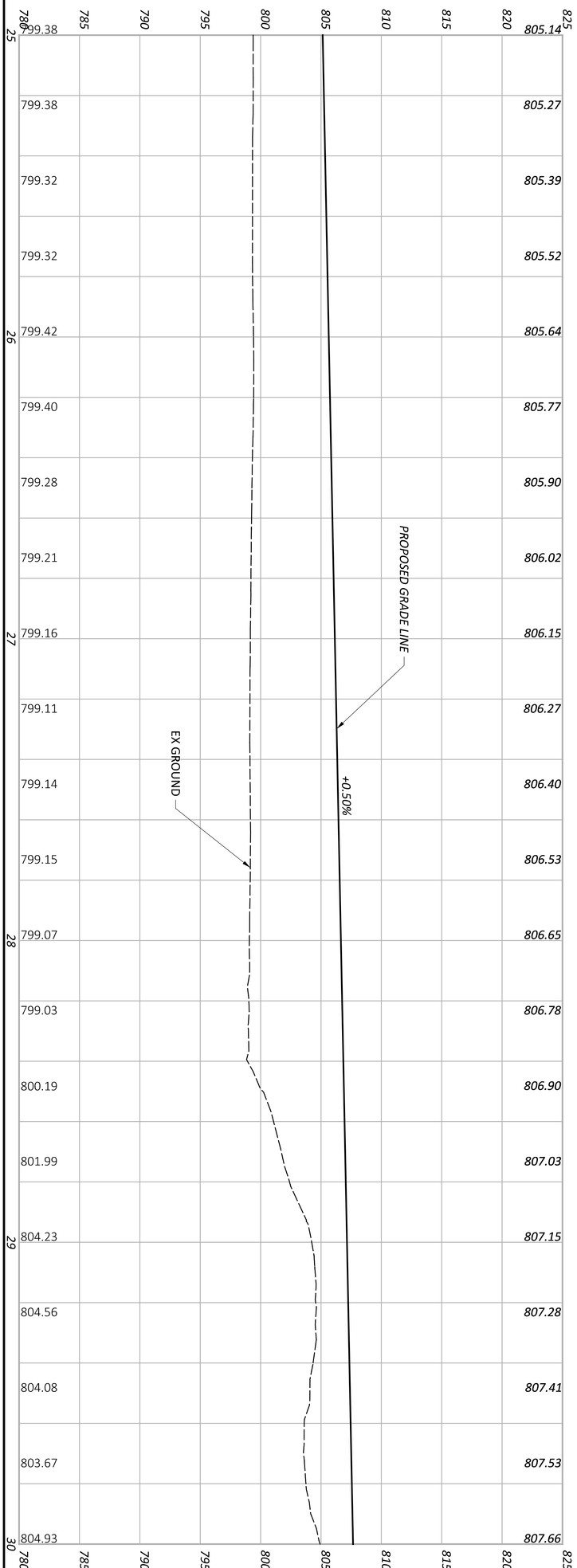

SHEET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
105 TOTAL 162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3A
PLAN AND PROFILE - ROAD B
STA. 25+00.00 TO STA. 30+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: 3A_ROADB - PP SHEET 5 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:37:40 PM USER: cphillips
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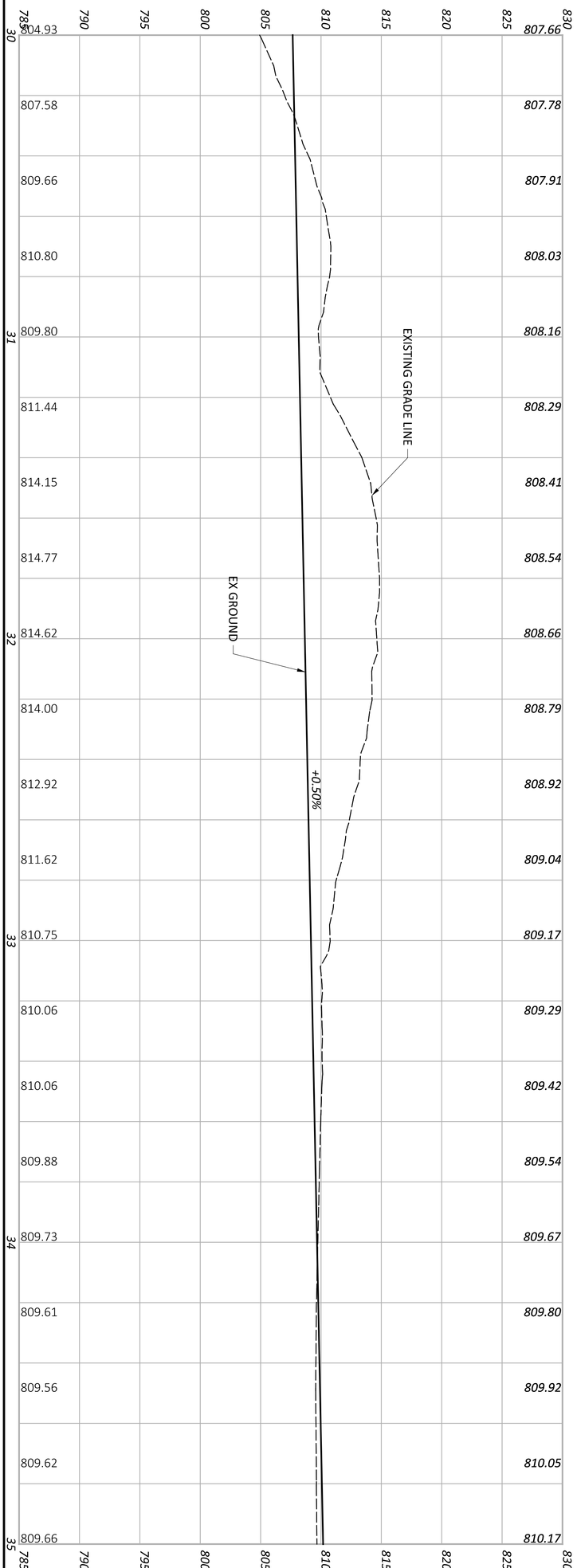
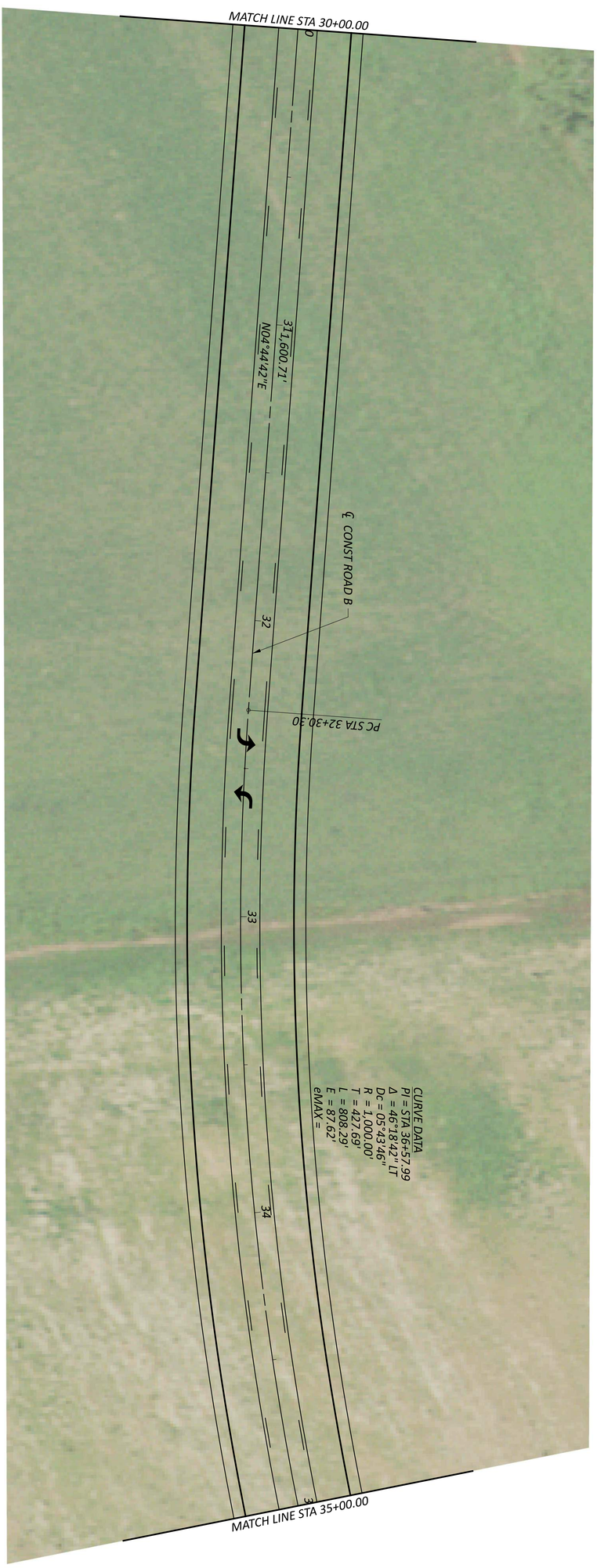
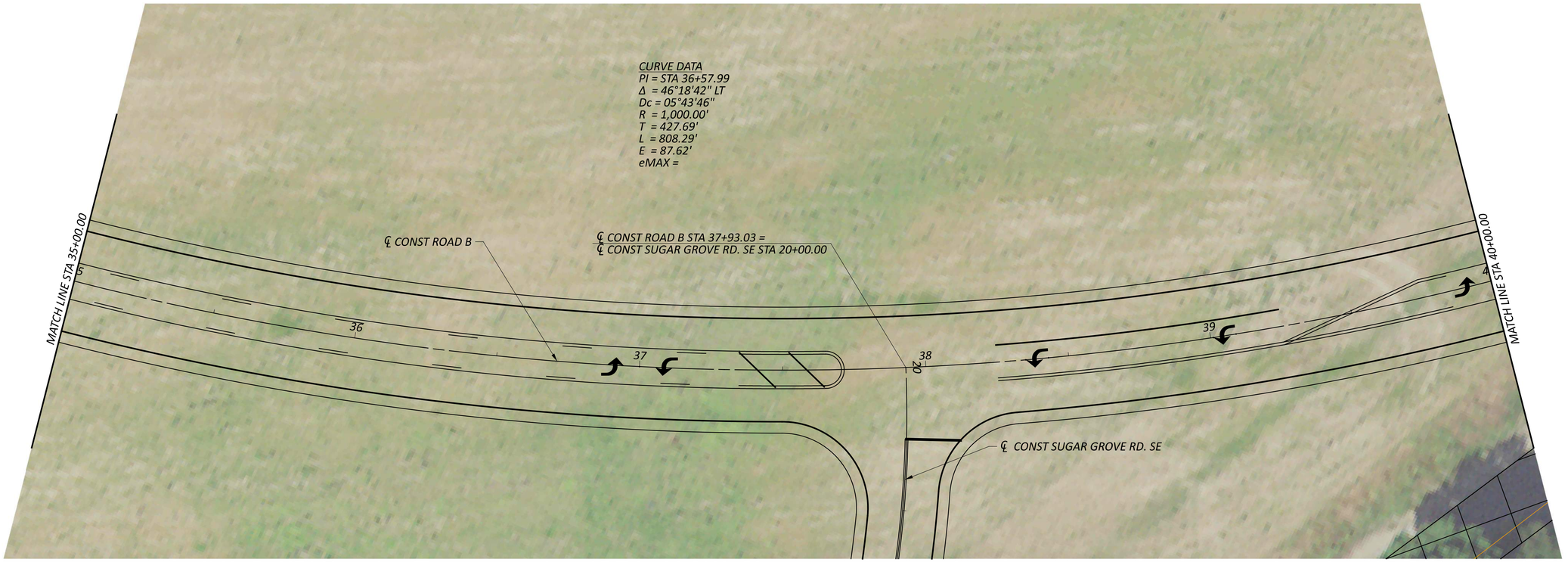


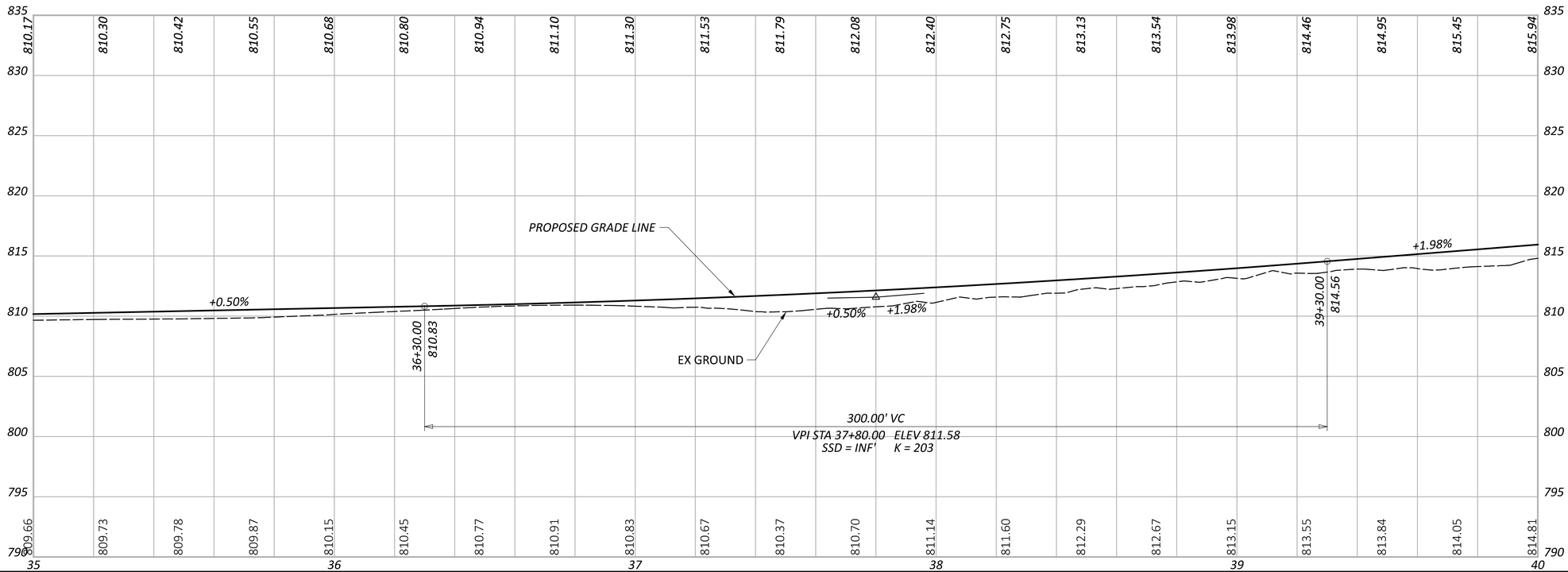


SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
106	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3A
PLAN AND PROFILE - ROAD B
STA. 30+00.00 TO STA. 35+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40





HORIZONTAL SCALE IN FEET
0 10 20 40

ALTERNATIVE 3A
PLAN AND PROFILE - ROAD B

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: 3A_ROADB - PP SHEET 6 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:37:52 PM USER: cphillips
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DESIGN AGENCY

DESIGNER LZS
REVIEWER KAM 03/02/23
PROJECT ID 03022
SHEET 107 TOTAL 162

MODEL: 3A_ROADB - PP SHEET 7 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:38:06 PM USER: cphillips
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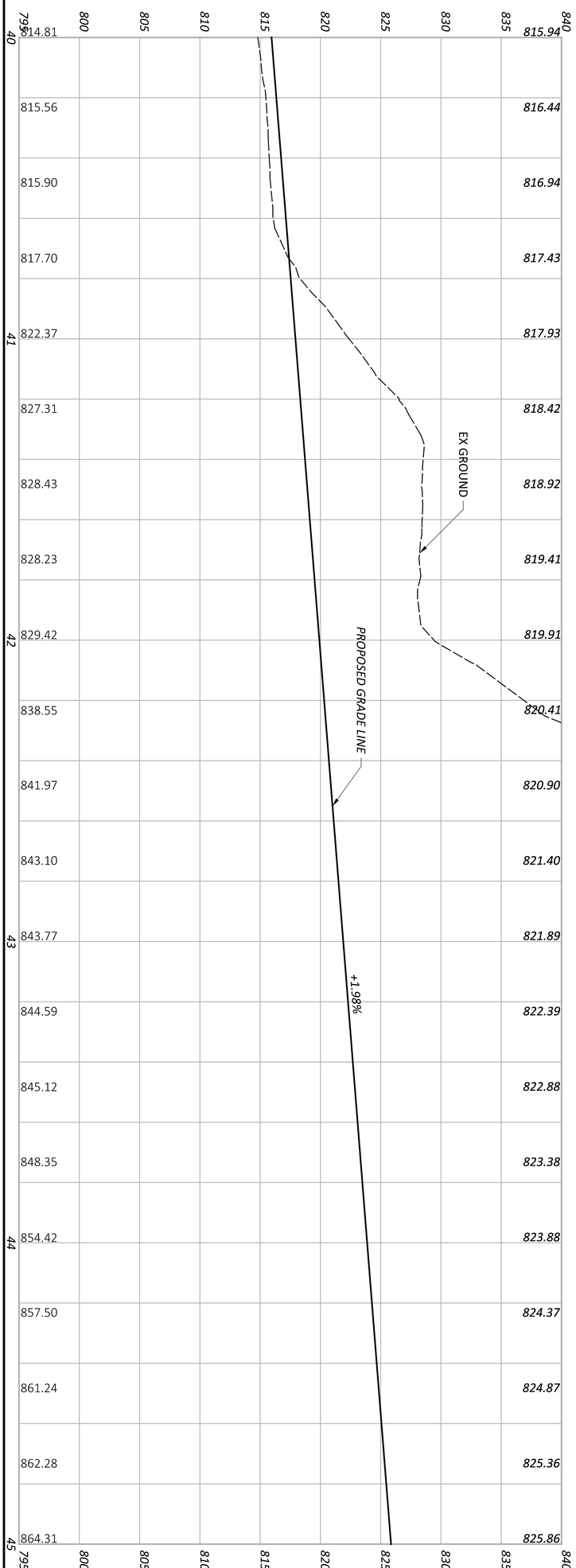

SHEET	TOTAL
108	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: LZS

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3A
PLAN AND PROFILE - ROAD B
STA. 40+00.00 TO STA. 45+00.00

HORIZONTAL SCALE IN FEET

0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: 3A_ROADB - PP SHEET 8 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:38:20 PM USER: cphillips
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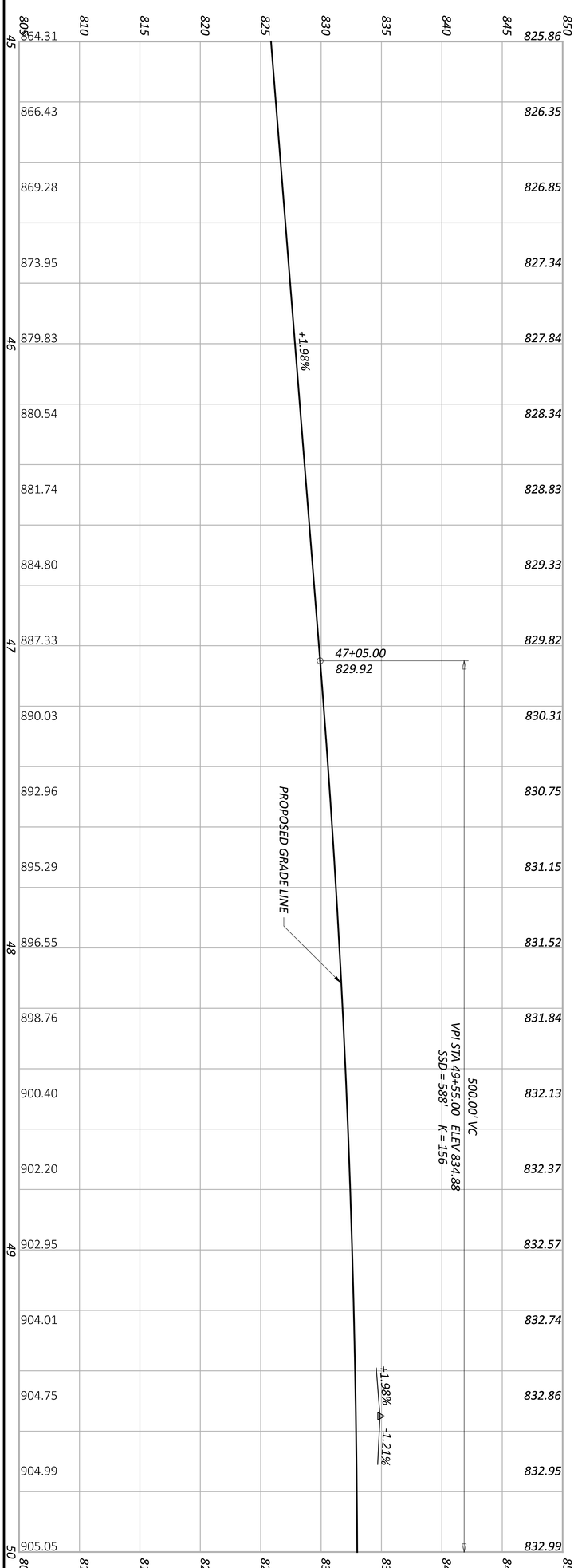

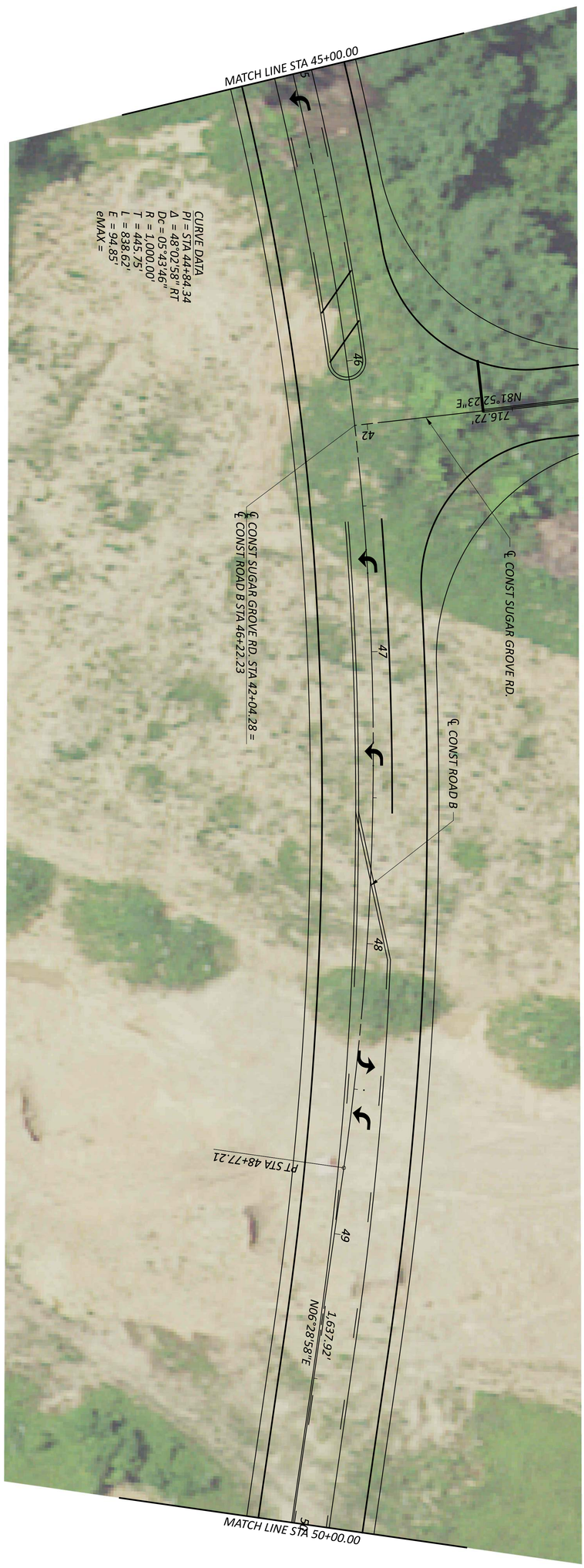

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
109	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3A
PLAN AND PROFILE - ROAD B
STA. 45+00.00 TO STA. 50+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

MODEL: 3A_ROADB - PP SHEET 9 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:38:33 PM USER: cphillips
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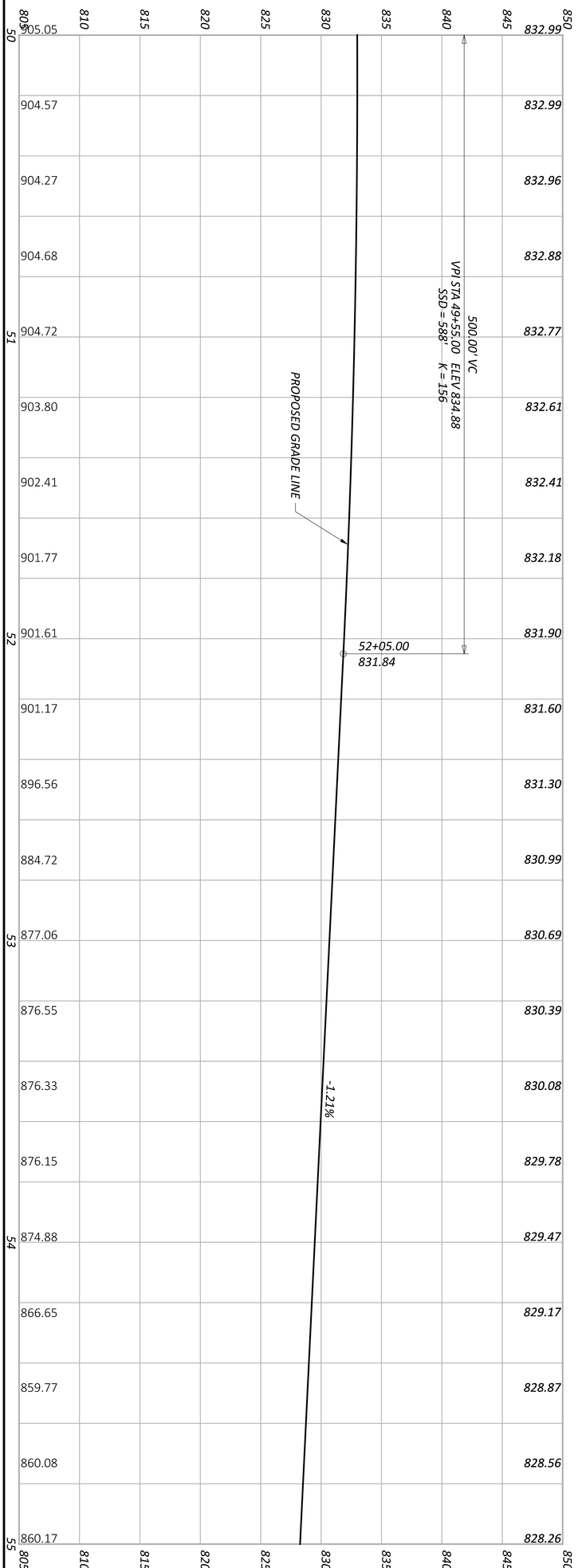

SHEET	TOTAL
110	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: LZS

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3A
PLAN AND PROFILE - ROAD B
STA. 50+00.00 TO STA. 55+00.00

HORIZONTAL SCALE IN FEET

0 20

10 40

MODEL: 3A_ROADB - PP SHEET 10 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:38:44 PM USER: cphillips
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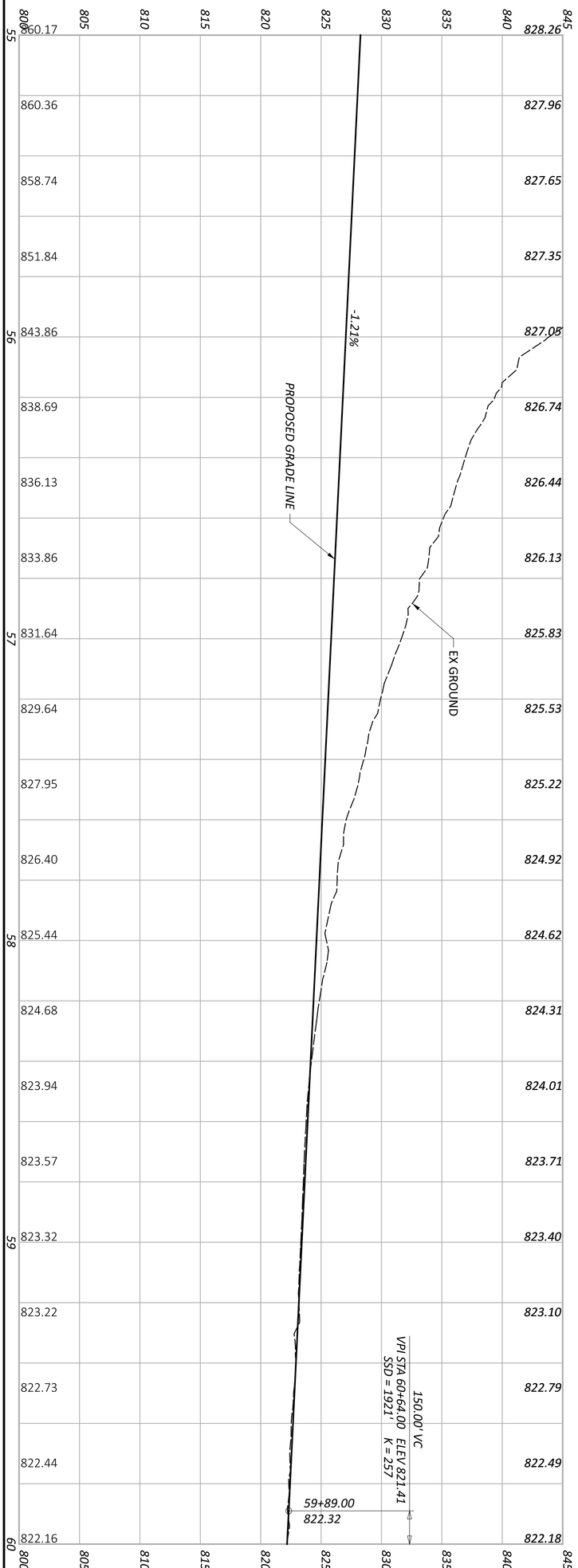

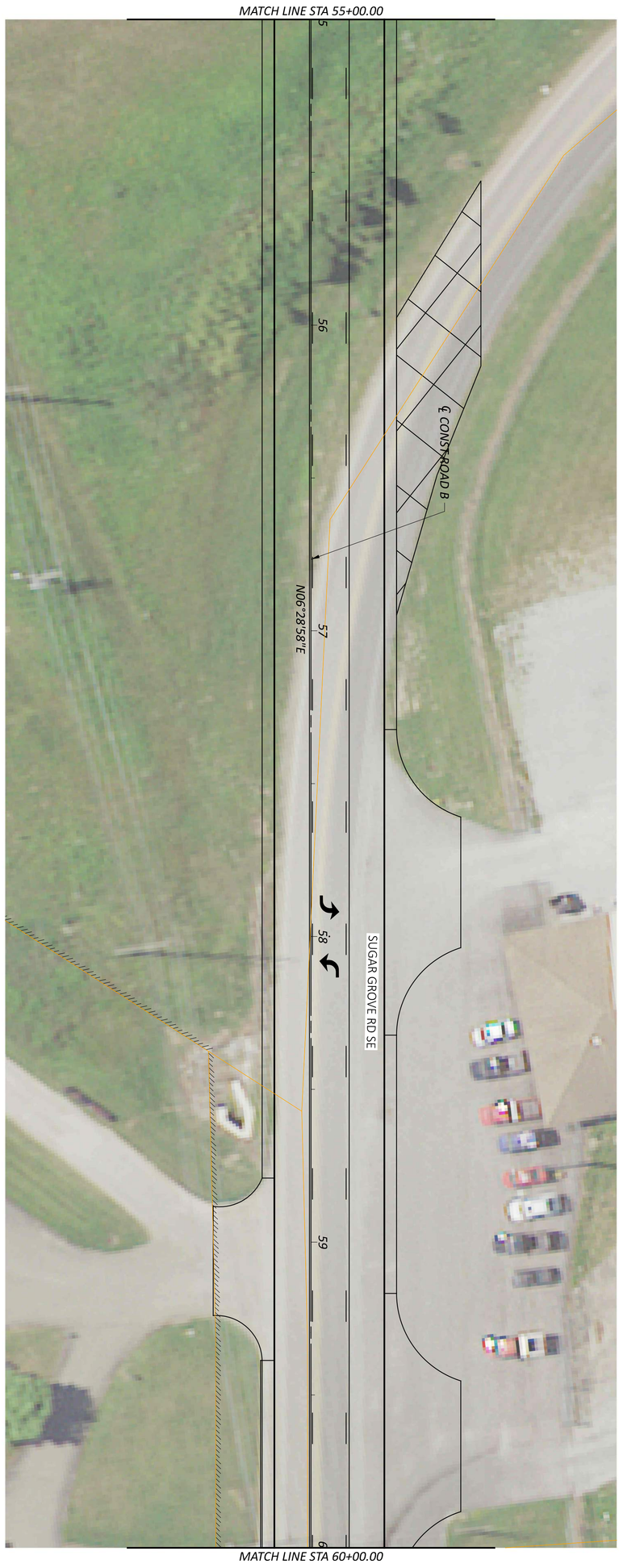

ALTERNATIVE 3A
PLAN AND PROFILE - ROAD B
STA. 55+00.00 TO STA. 60+00.00

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
111	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: 3A_ROADB - PP SHEET 11 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:38:55 PM USER: cphillips
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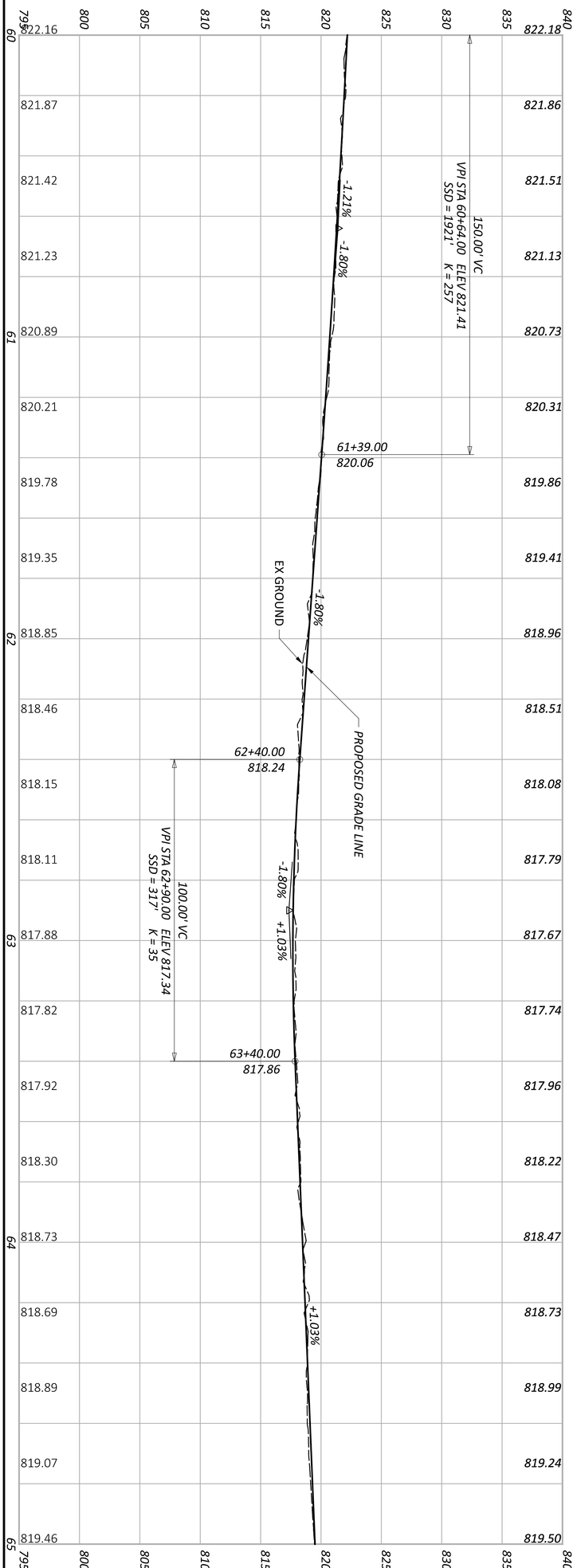

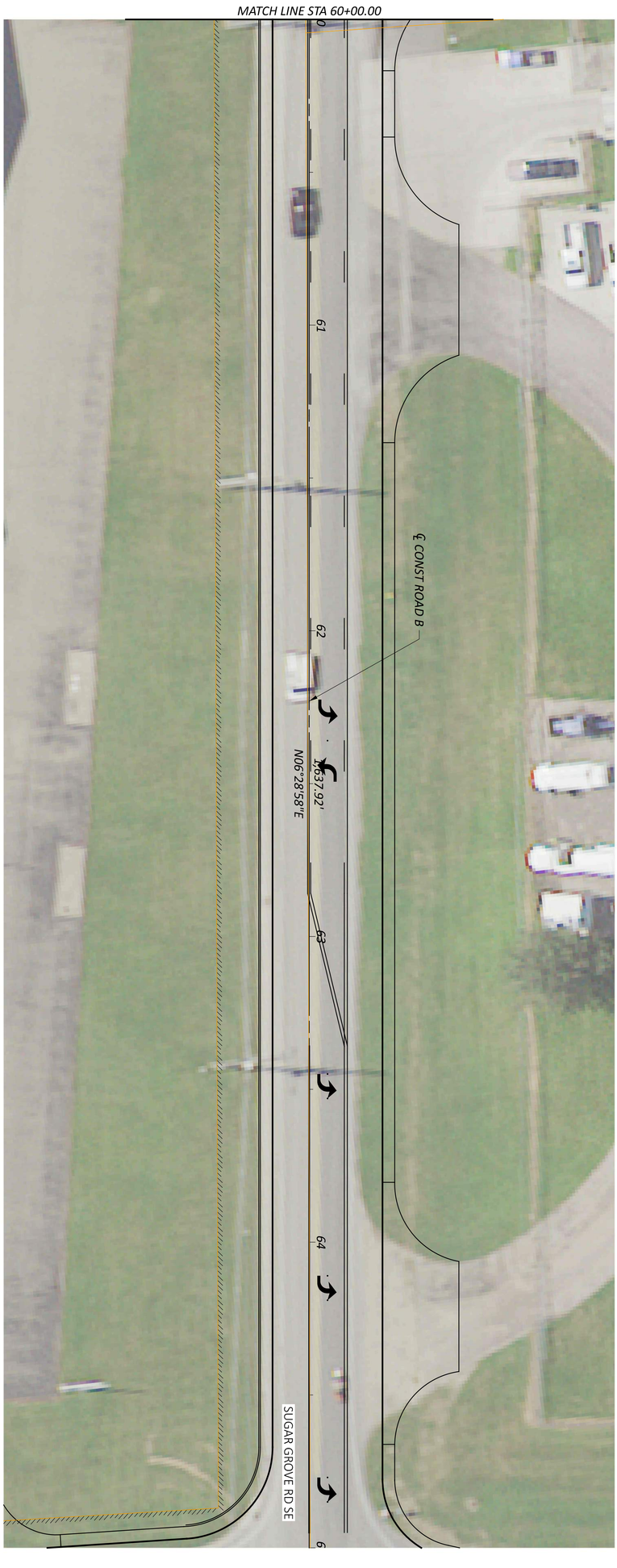

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
112	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3A
PLAN AND PROFILE - ROAD B
STA. 60+00.00 TO STA. 65+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: 3A_RSR - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:39:05 PM USER: cphillips
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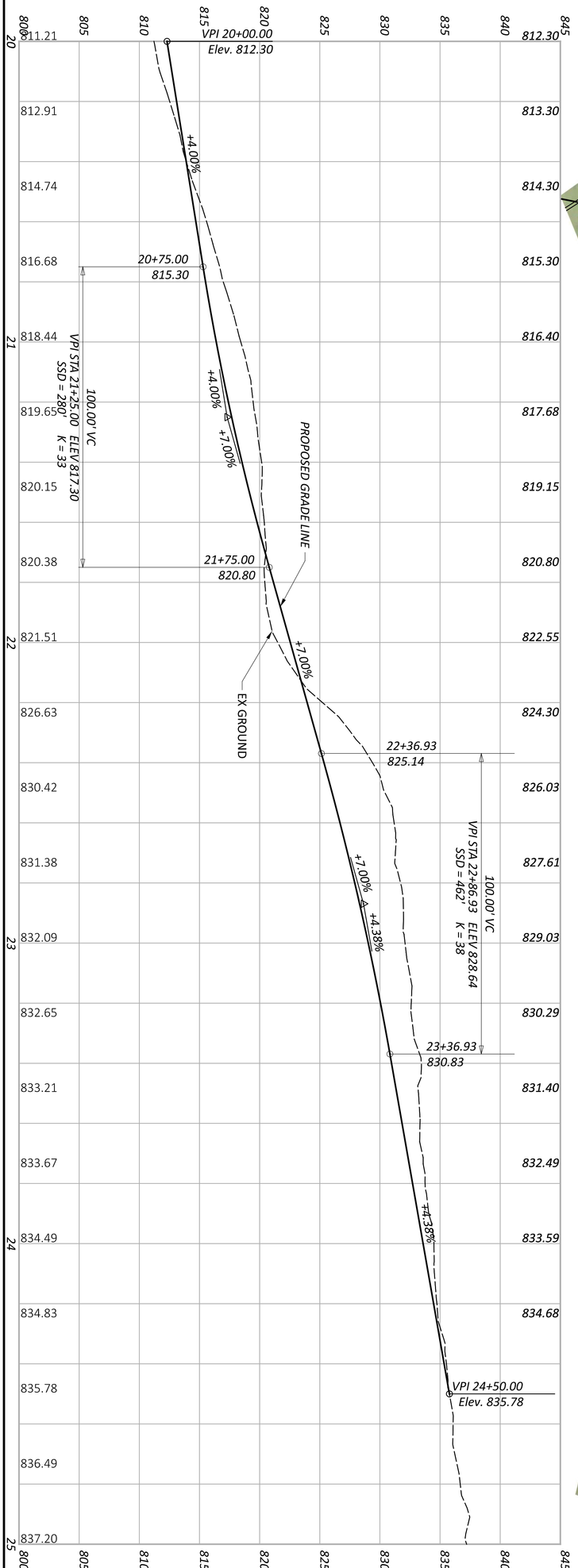

ALTERNATIVE 3A
PLAN AND PROFILE - SUGAR GROVE RD. SE
STA. 20+00.00 TO STA. 24+50.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
113	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: 3A_LSR - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:39:18 PM USER: cphillips
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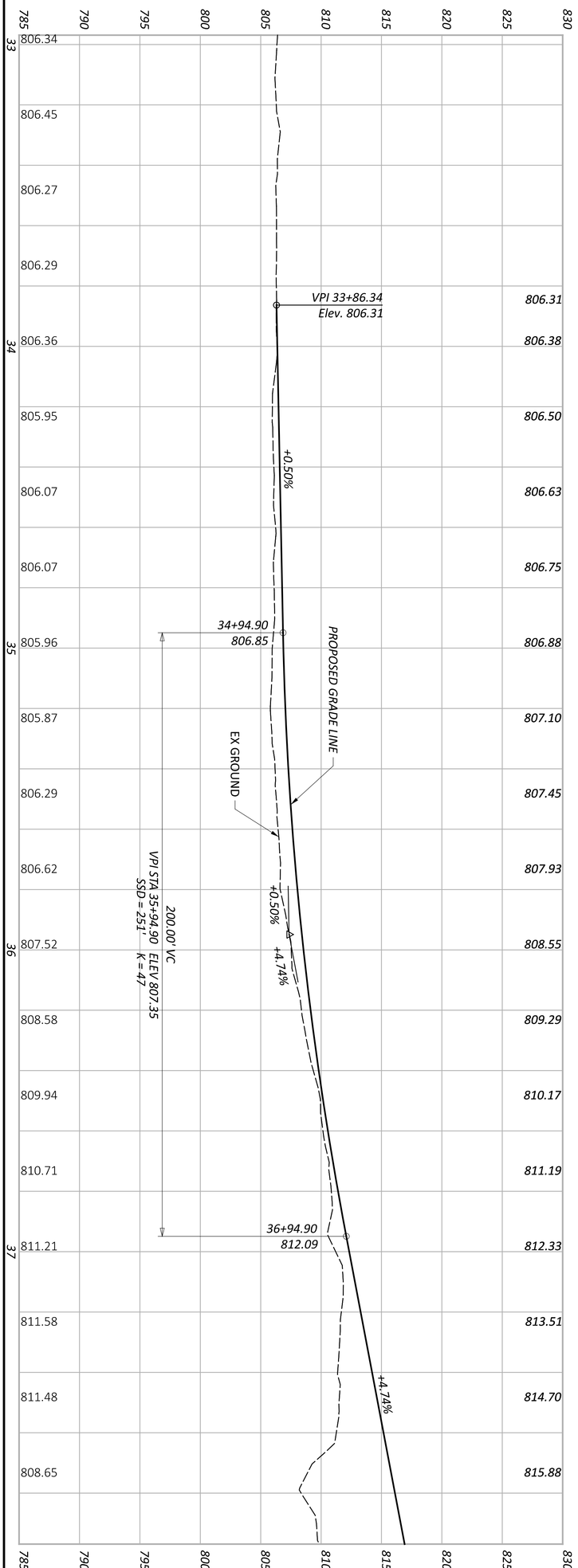
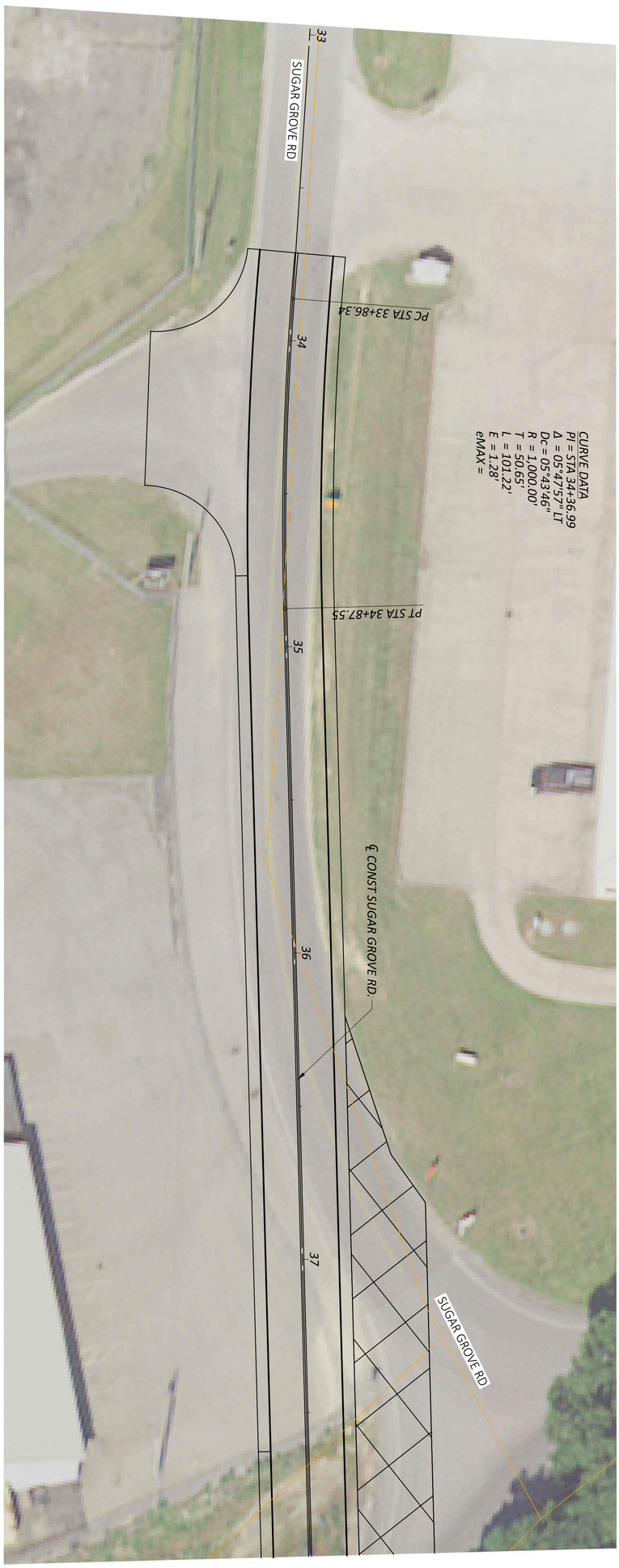
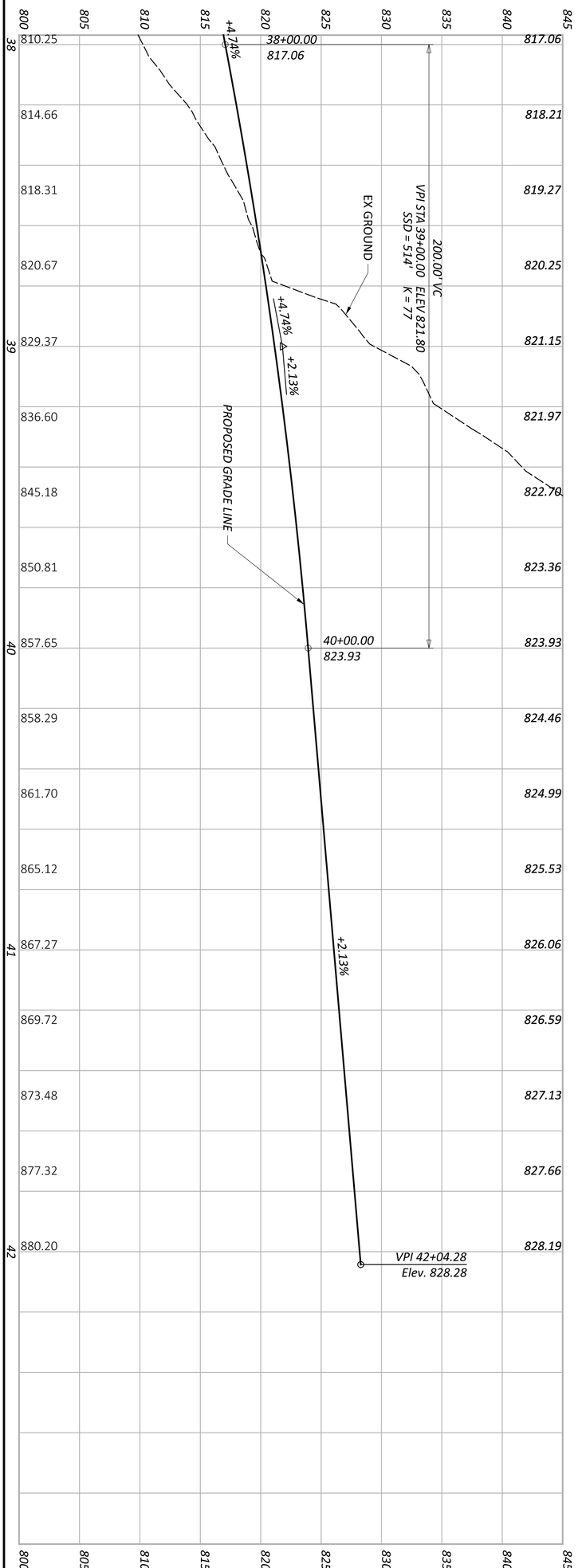


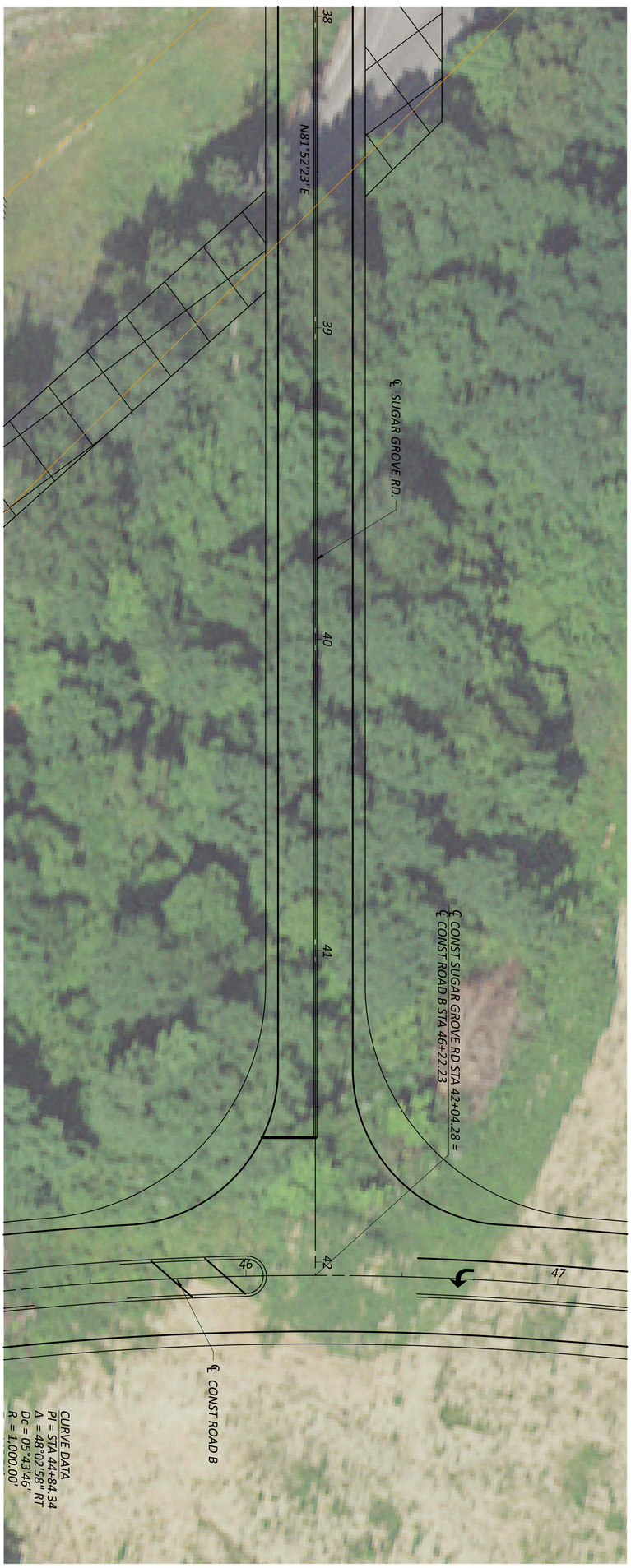


SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
114	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3A
PLAN AND PROFILE - SUGAR GROVE RD.
STA. 33+00.00 TO STA. 38+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40





SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
115	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3A
PLAN AND PROFILE - SUGAR GROVE RD.
STA. 38+00.00 TO STA.42+04.28

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

SHEET	TOTAL
116	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: LZS

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3B
OVERALL SITE PLAN

HORIZONTAL SCALE IN FEET

0 600

300 1200

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: 3B_ROADB - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:40:01 PM USER: cphillips
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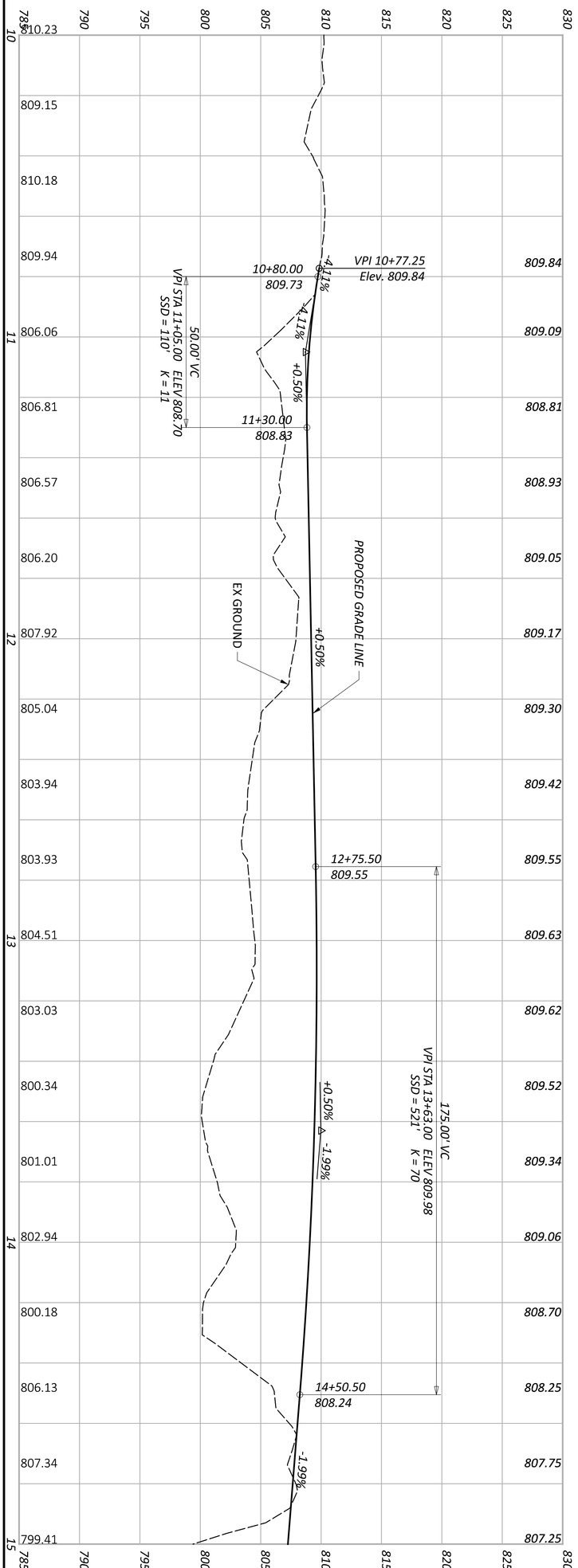

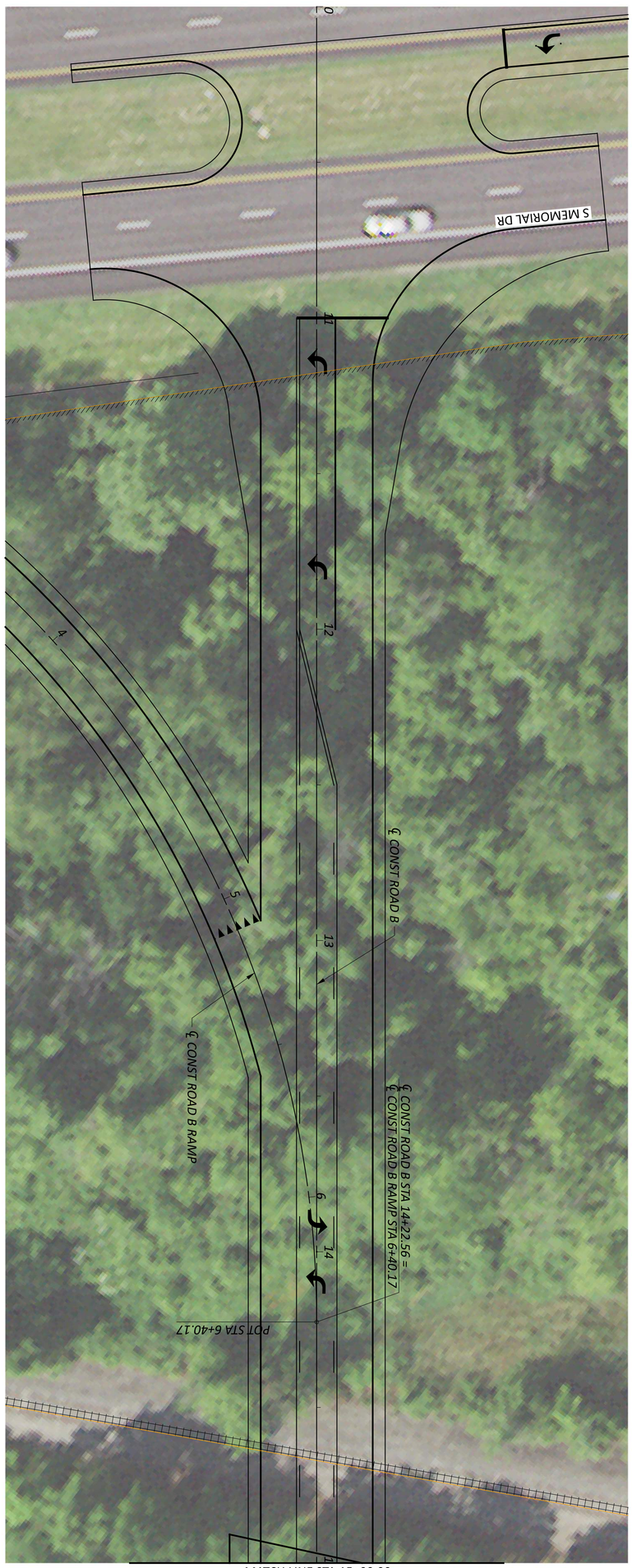

SHEET	TOTAL
117	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: CDP

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3B
PLAN AND PROFILE - ROAD B
STA. 10+00.00 TO STA. 15+00.00

HORIZONTAL SCALE IN FEET

0 20

10 40

MODEL: 3B_ROADB - PP SHEET 2 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:40:14 PM USER: cphillips
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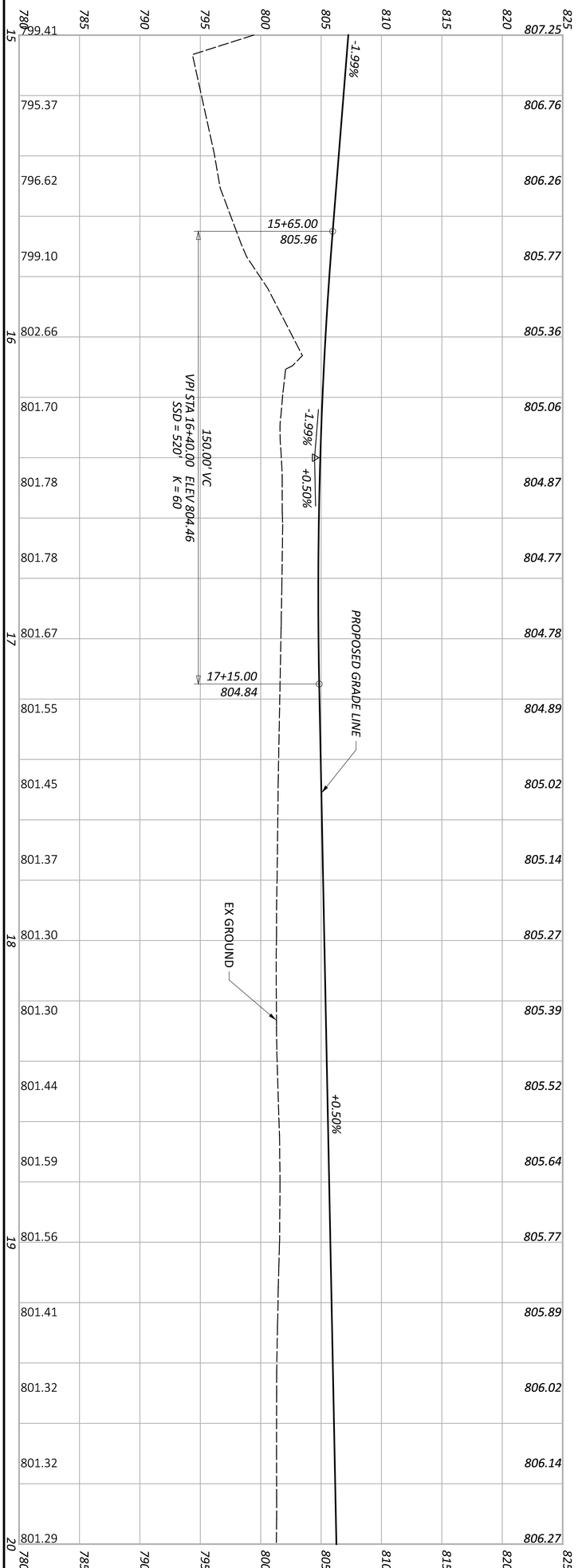

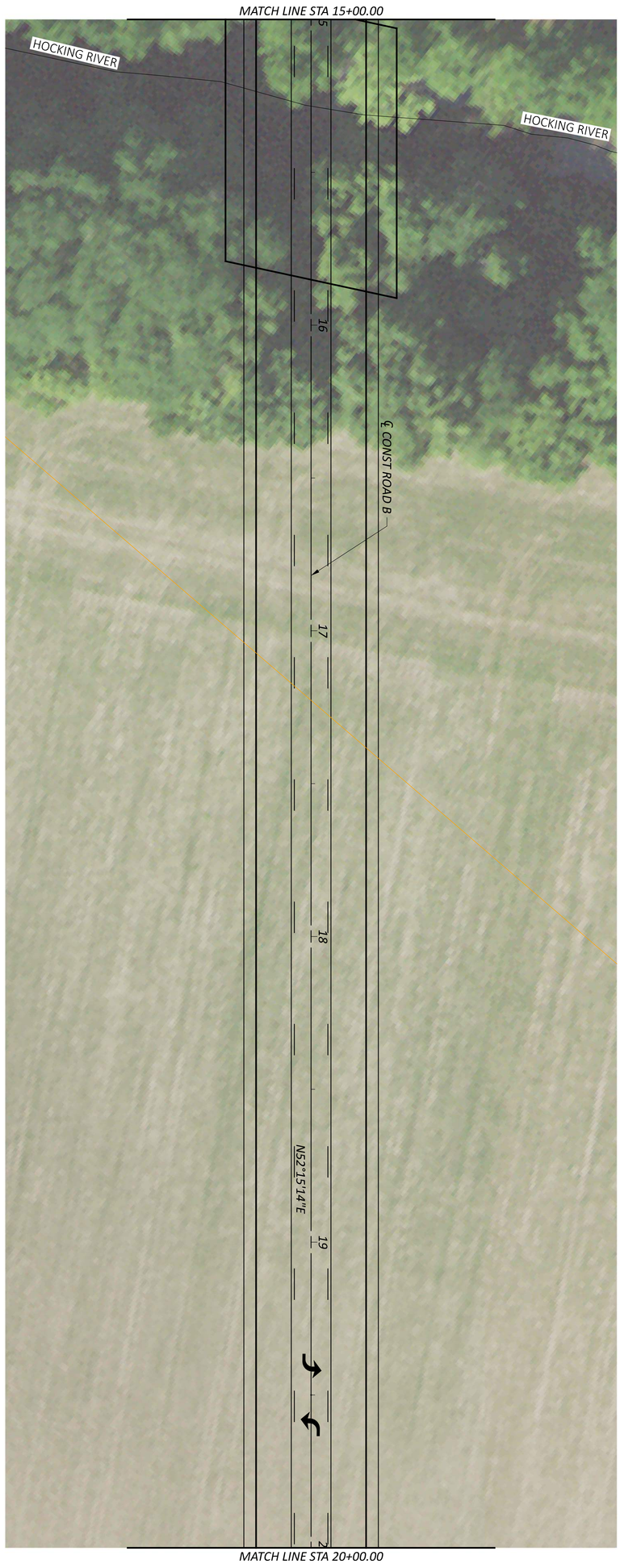

ALTERNATIVE 3B
PLAN AND PROFILE - ROAD B
STA. 15+00.00 TO STA. 20+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
118	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

MODEL: 3B_ROADB - PP SHEET 3 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:40:24 PM USER: cphillips
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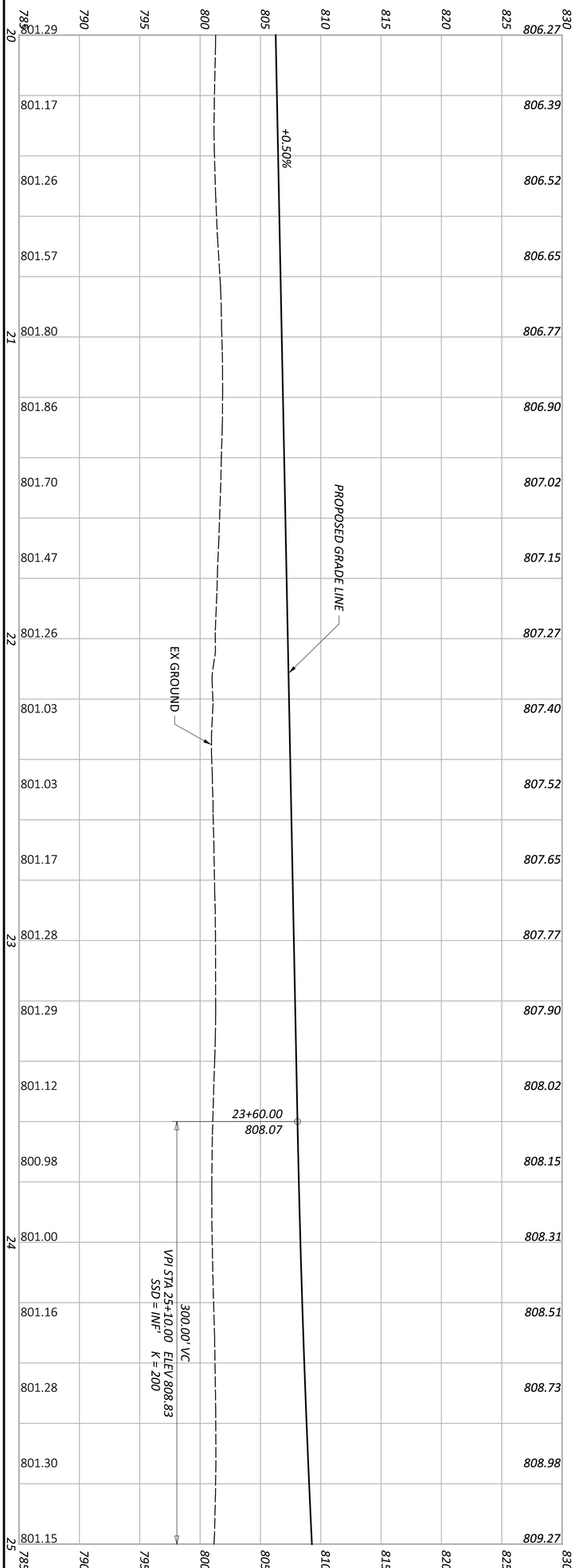

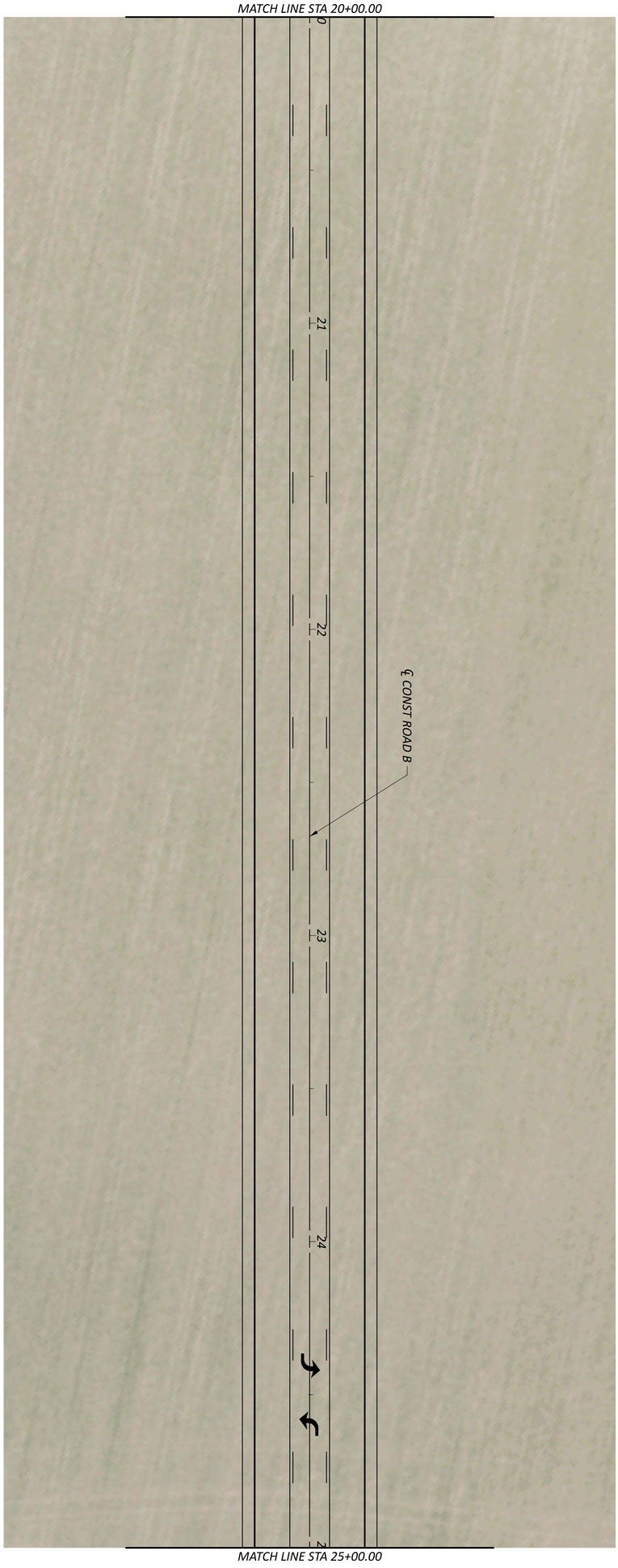

ALTERNATIVE 3B
PLAN AND PROFILE - ROAD B
STA. 20+00.00 TO STA. 25+00.00

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
119	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: 3B_ROADB - PP SHEET 4 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:40:35 PM USER: cphillips
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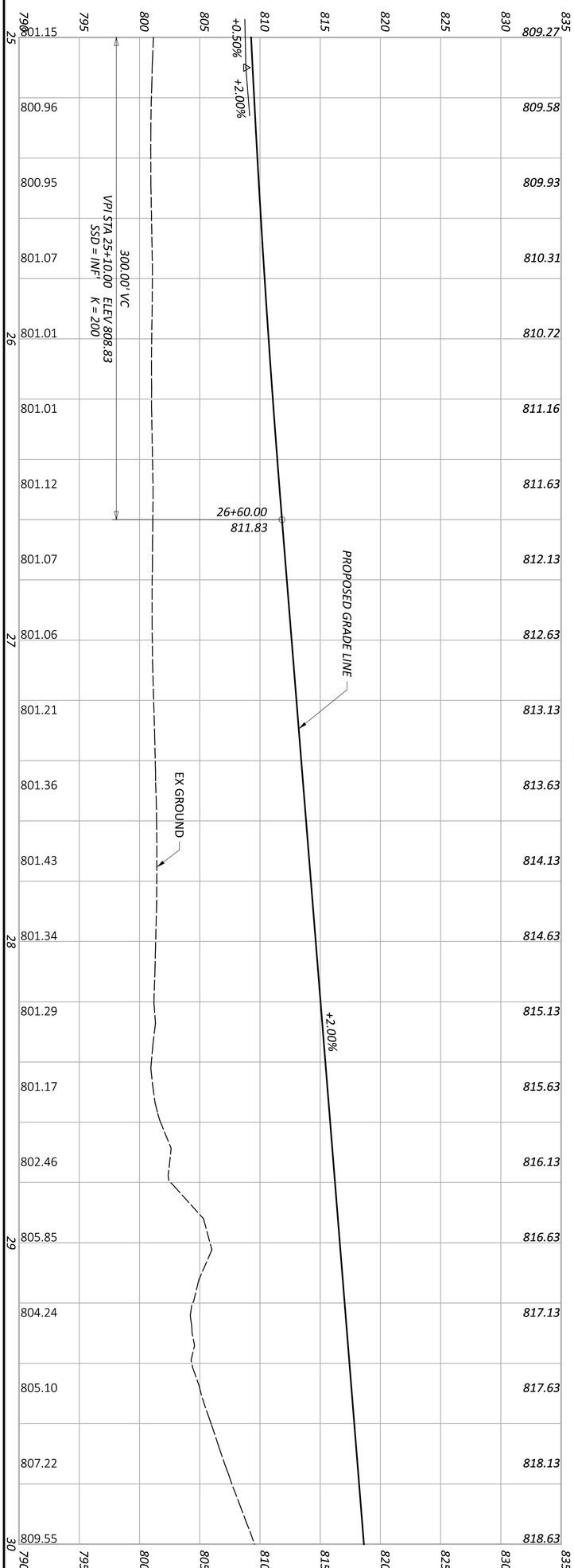
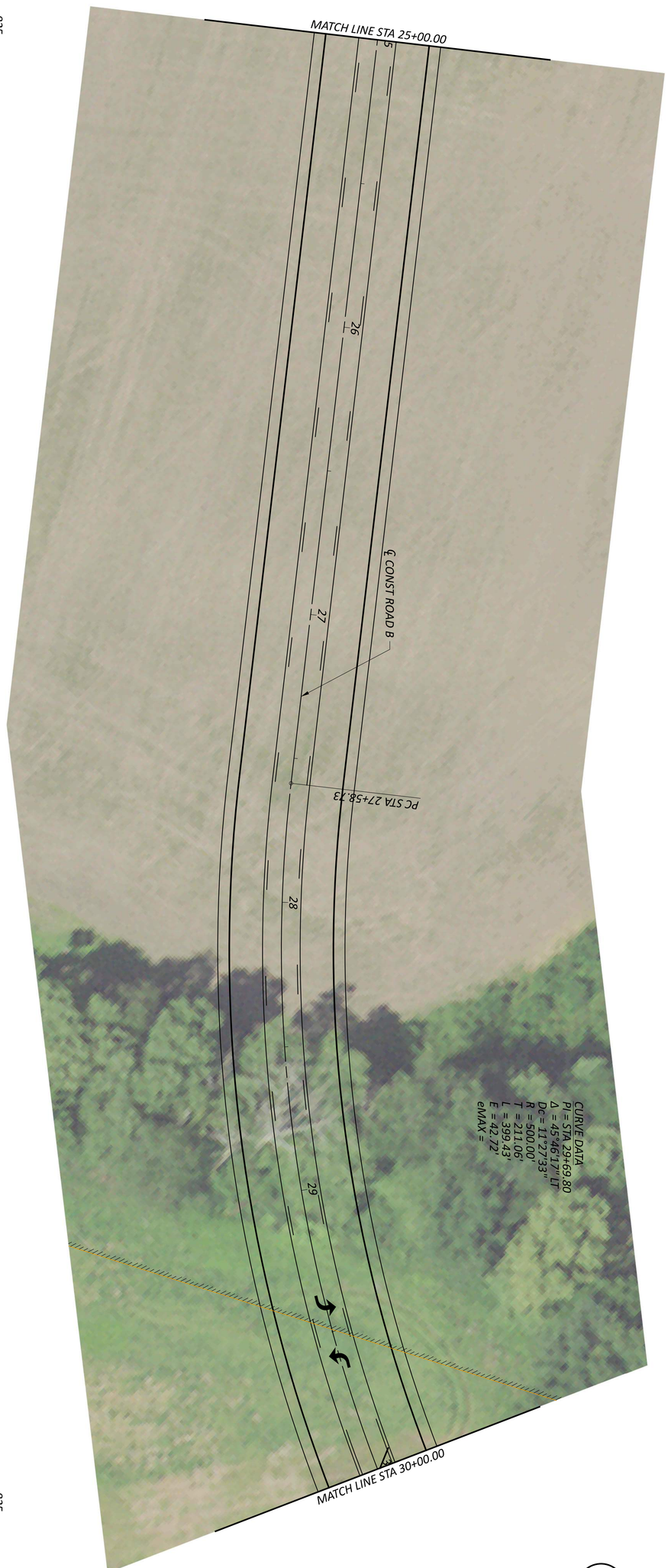


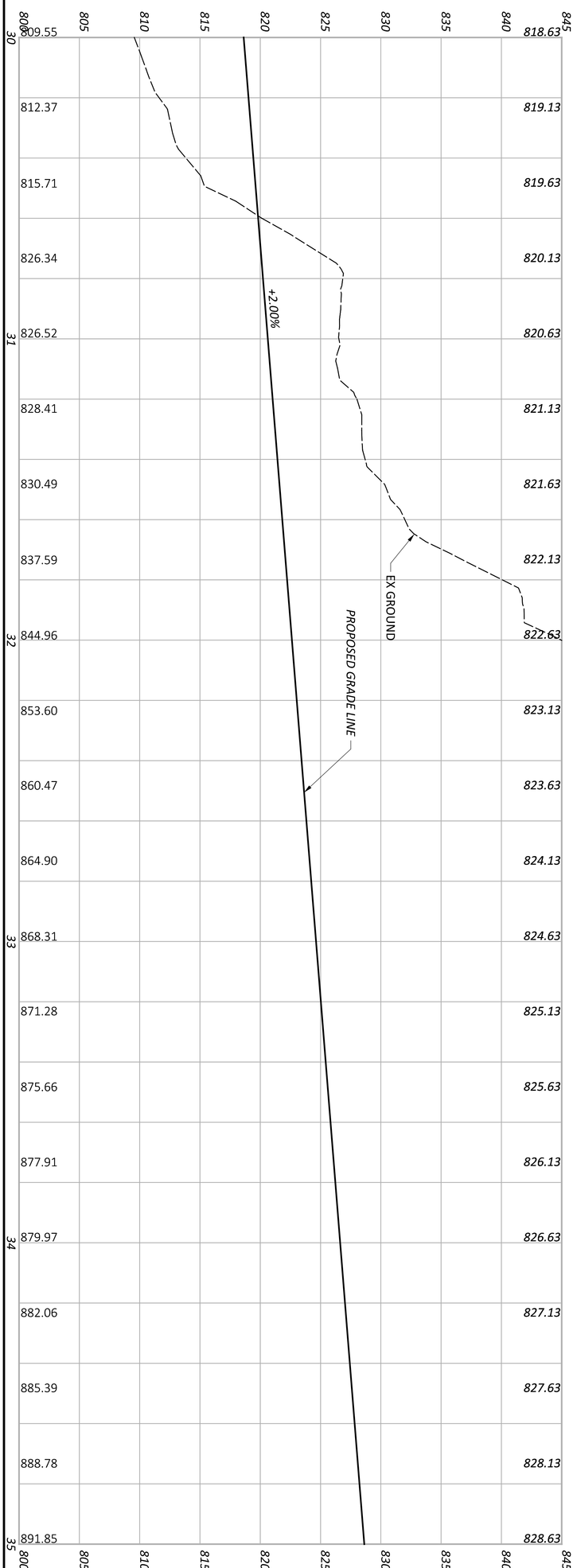


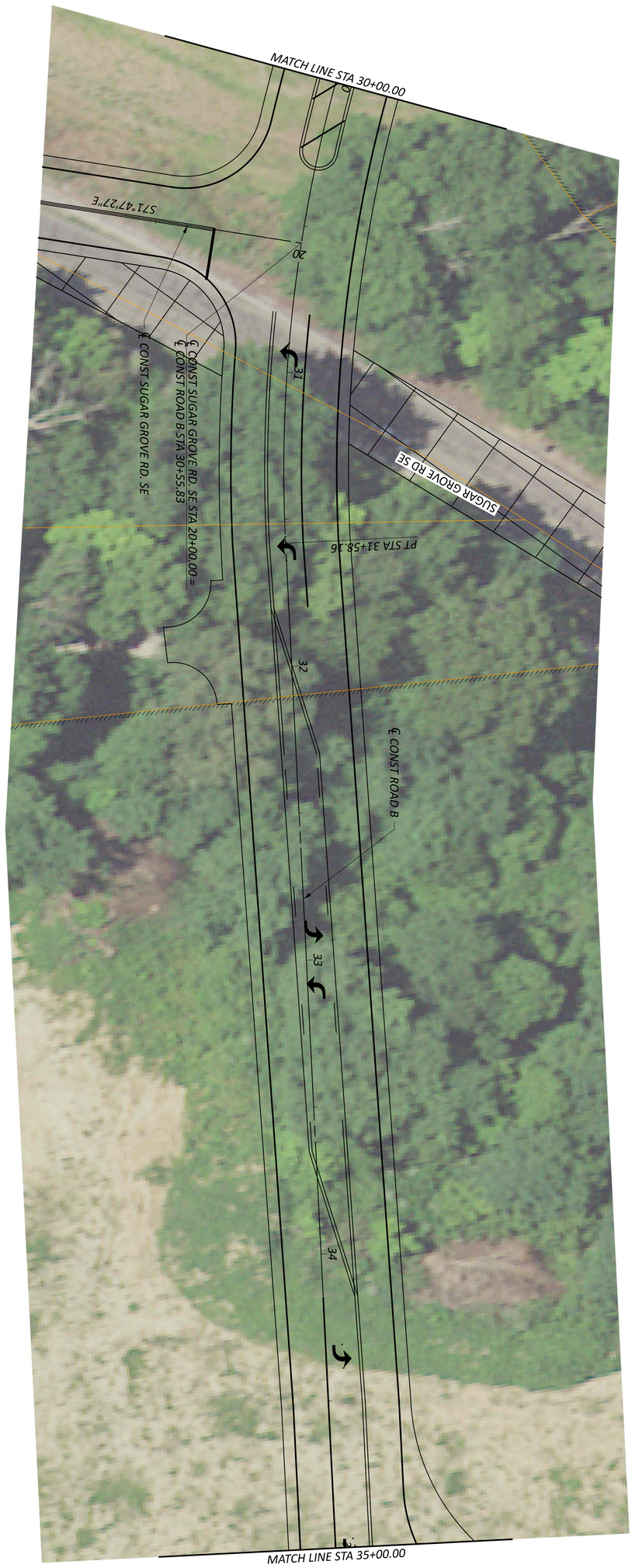
ALTERNATIVE 3B
PLAN AND PROFILE - ROAD B
STA. 25+00.00 TO STA. 30+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL
120	162

PROJECT ID: 03022
REVIEWER: KAM 03/02/23
DESIGNER: CDP
DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.





ALTERNATIVE 3B
PLAN AND PROFILE - ROAD B
STA. 30+00.00 TO STA. 35+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
121	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

MODEL: 3B_ROADB - PP SHEET 6 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:40:59 PM USER: cphillips
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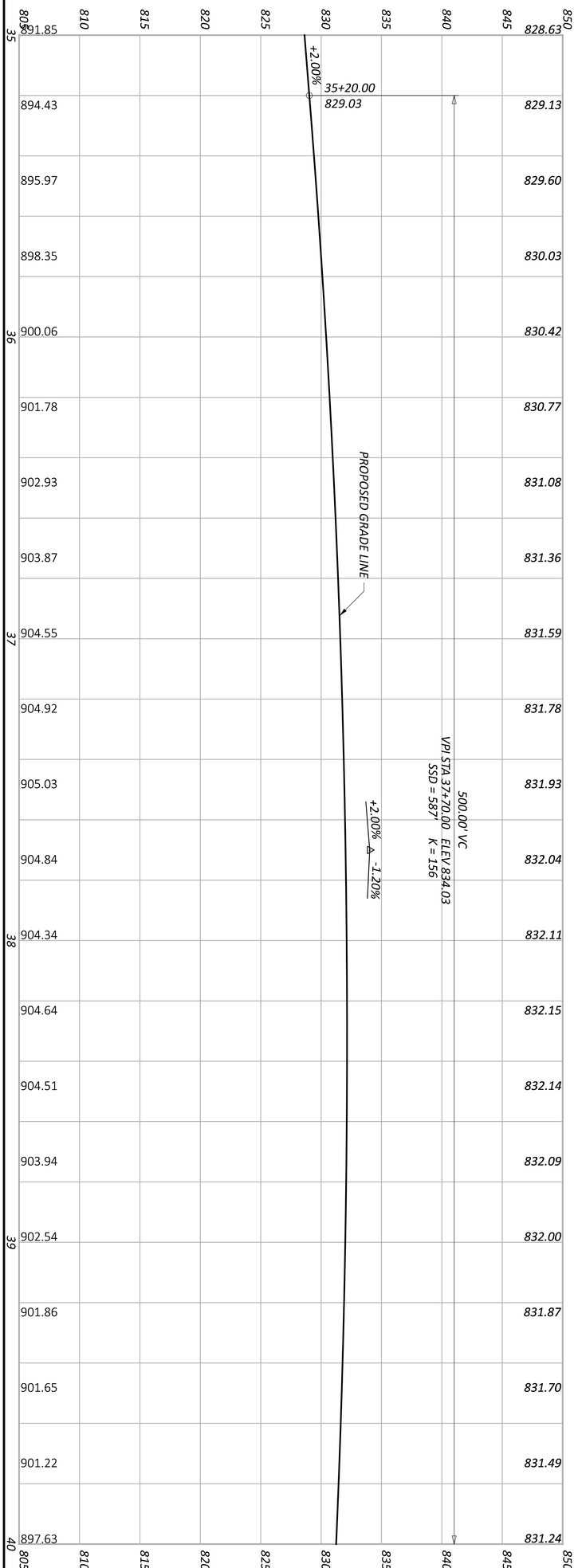

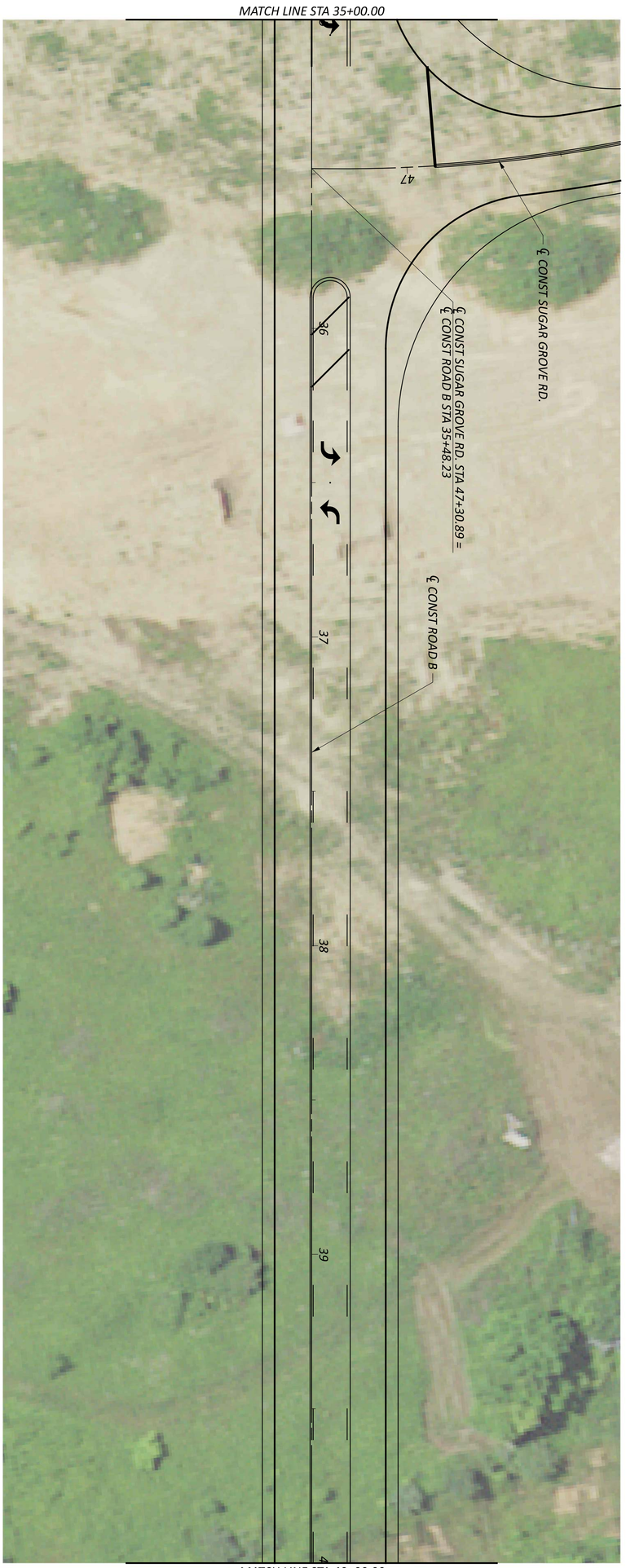

ALTERNATIVE 3B
PLAN AND PROFILE - ROAD B
STA. 35+00.00 TO STA. 40+00.00

SHEET	TOTAL
122	162

PROJECT ID: 03022
REVIEWER: KAM 03/02/23
DESIGNER: CDP
DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 20
10 40

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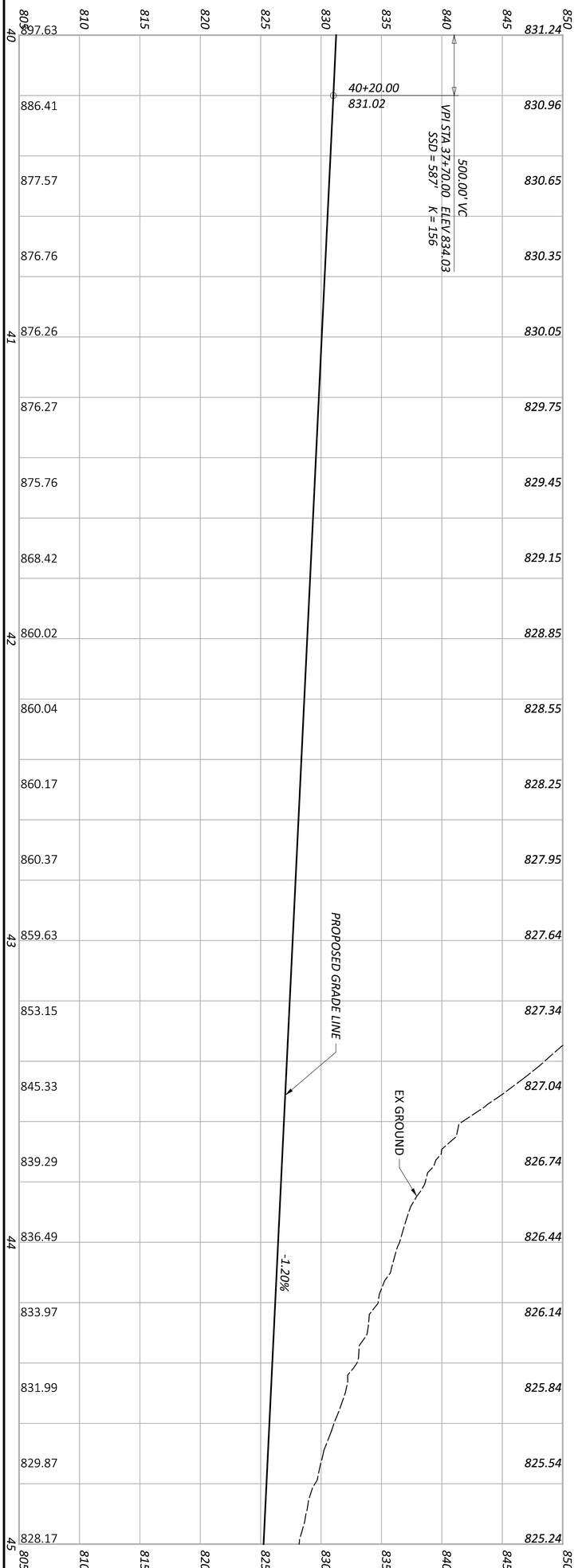

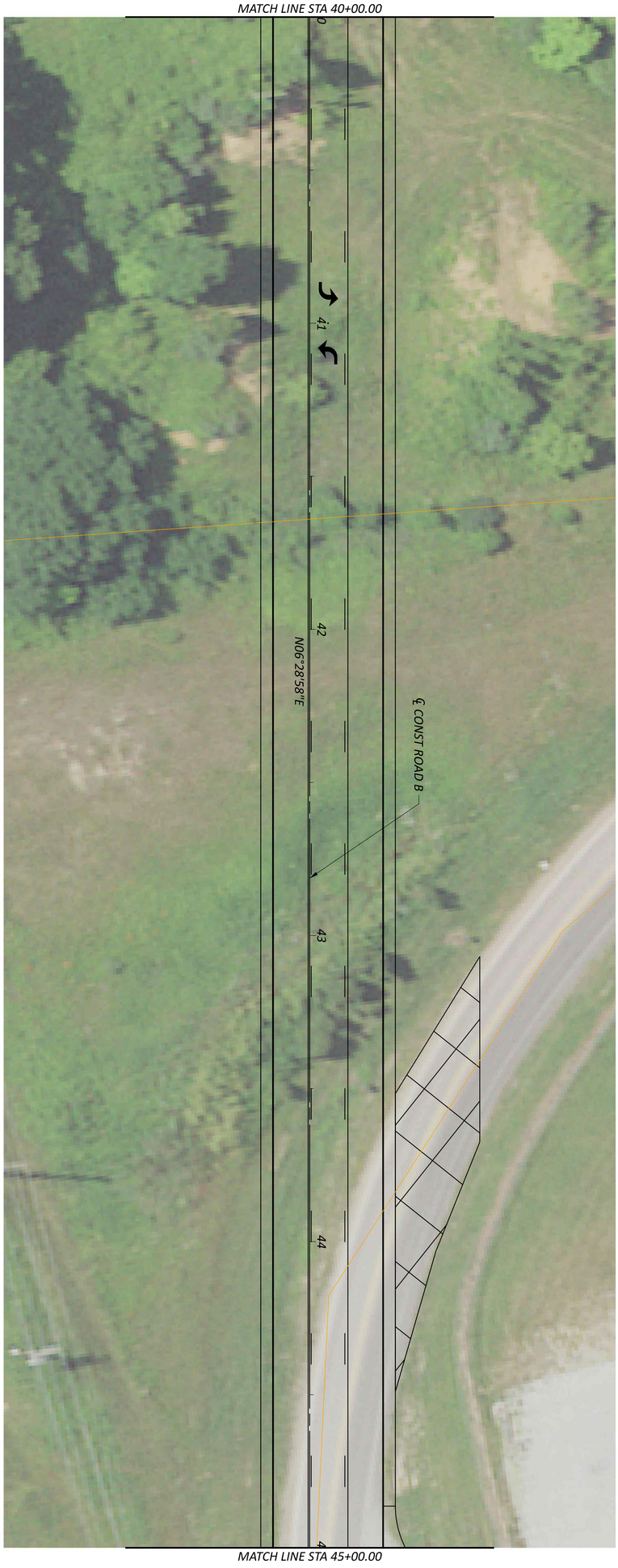

ALTERNATIVE 3B
PLAN AND PROFILE - ROAD B
STA. 40+00.00 TO STA. 45+00.00

SHEET	TOTAL
123	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: CDP

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: 3B_ROADB - PP SHEET 8 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:41:20 PM USER: cphillips
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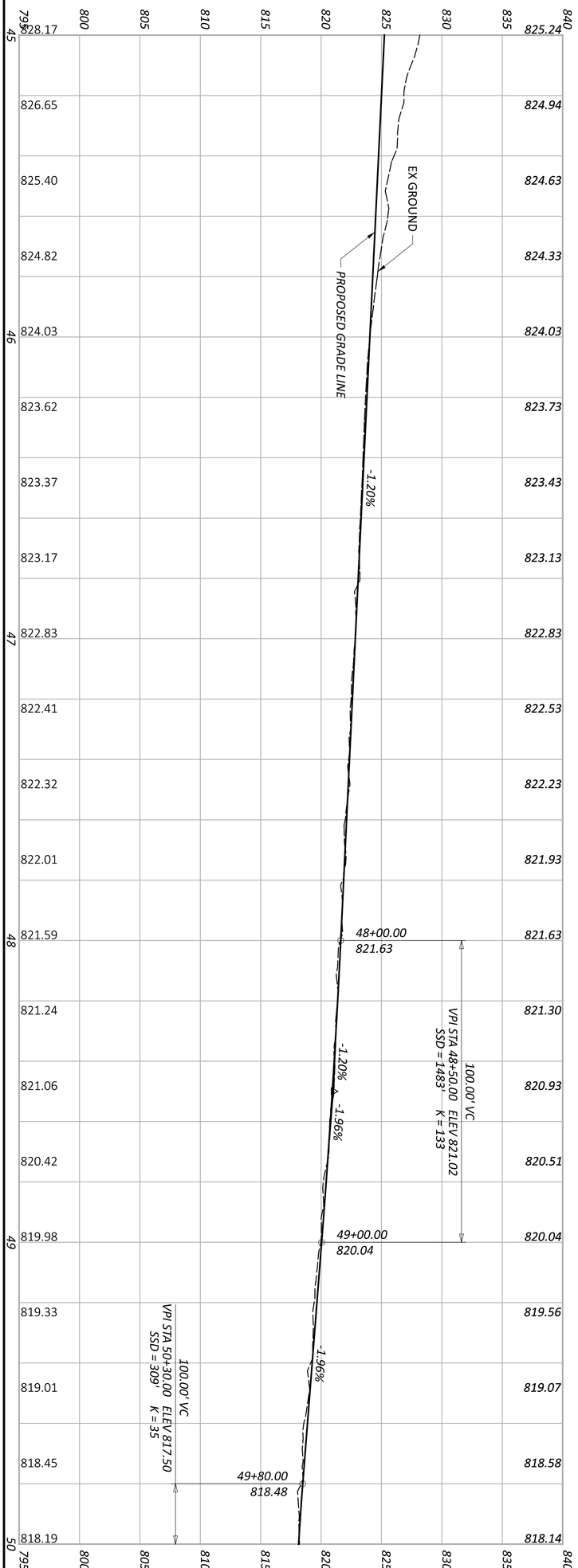

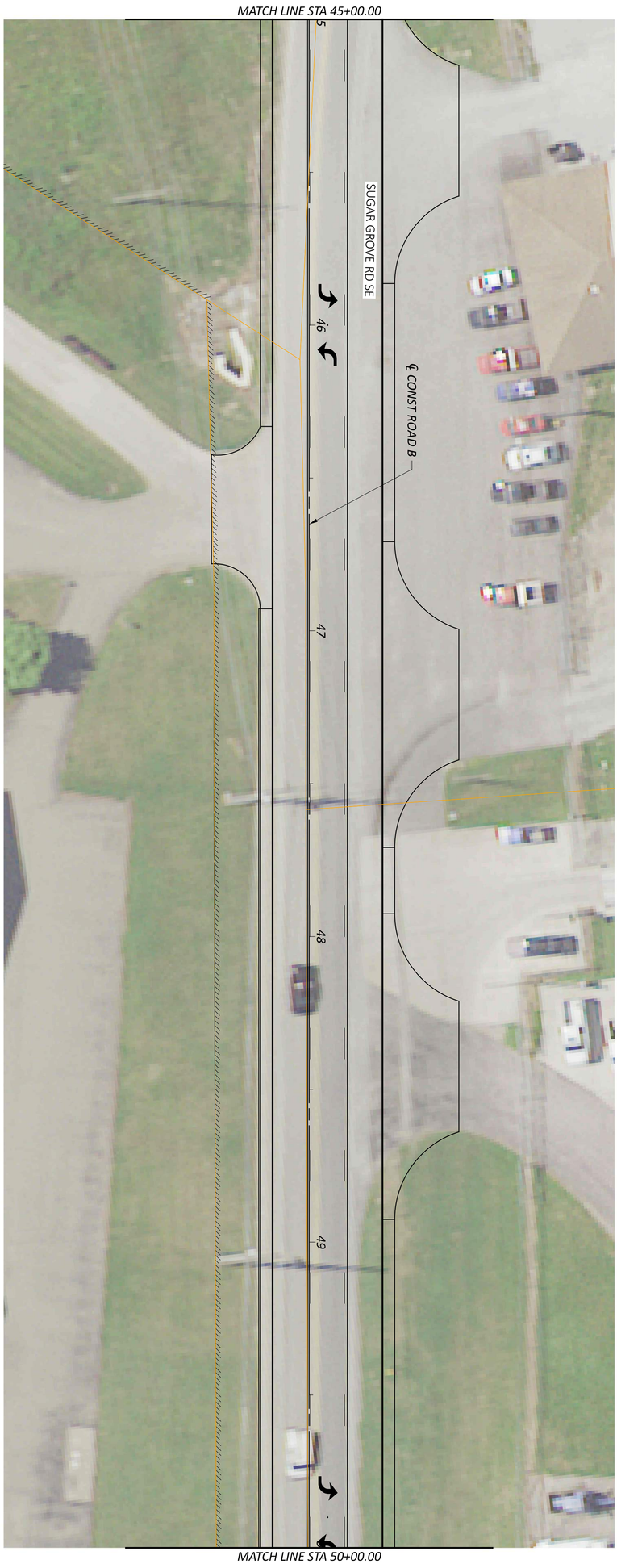

SHEET	TOTAL
124	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: CDP

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3B
PLAN AND PROFILE - ROAD B
STA. 45+00.00 TO STA. 50+00.00

HORIZONTAL SCALE IN FEET

0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: 3B_ROADB - PP SHEET 9 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:41:32 PM USER: cphillips
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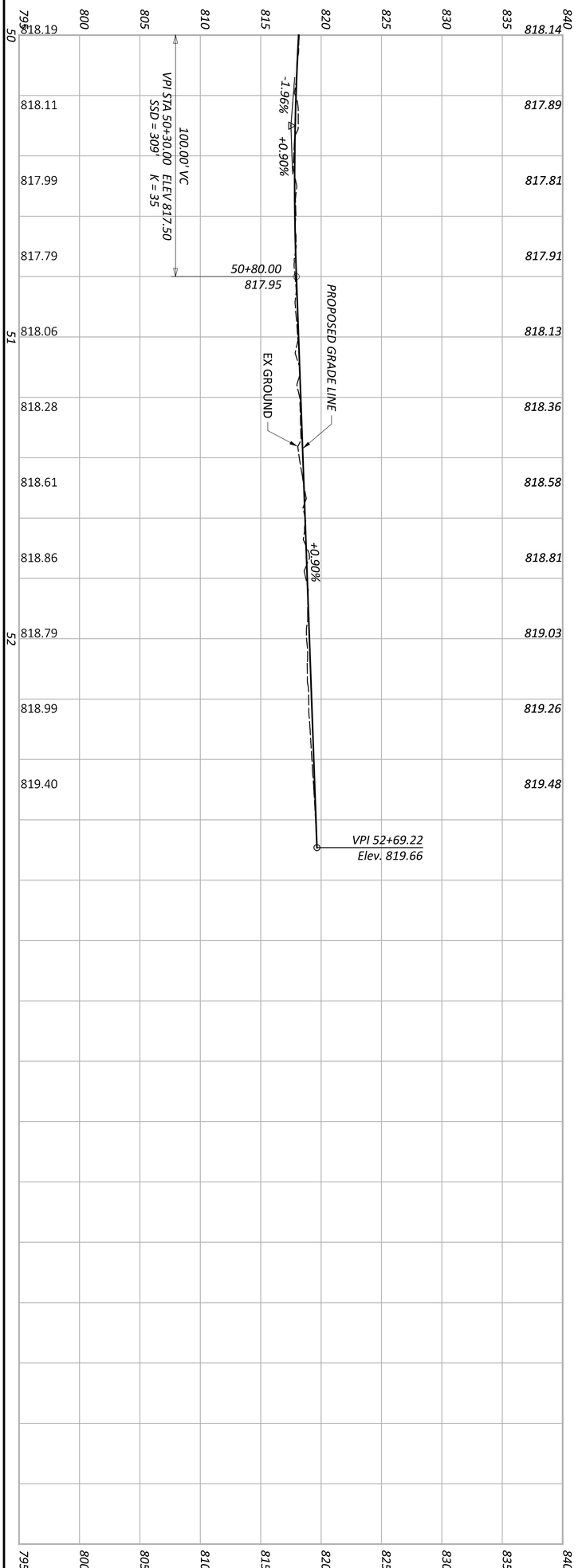

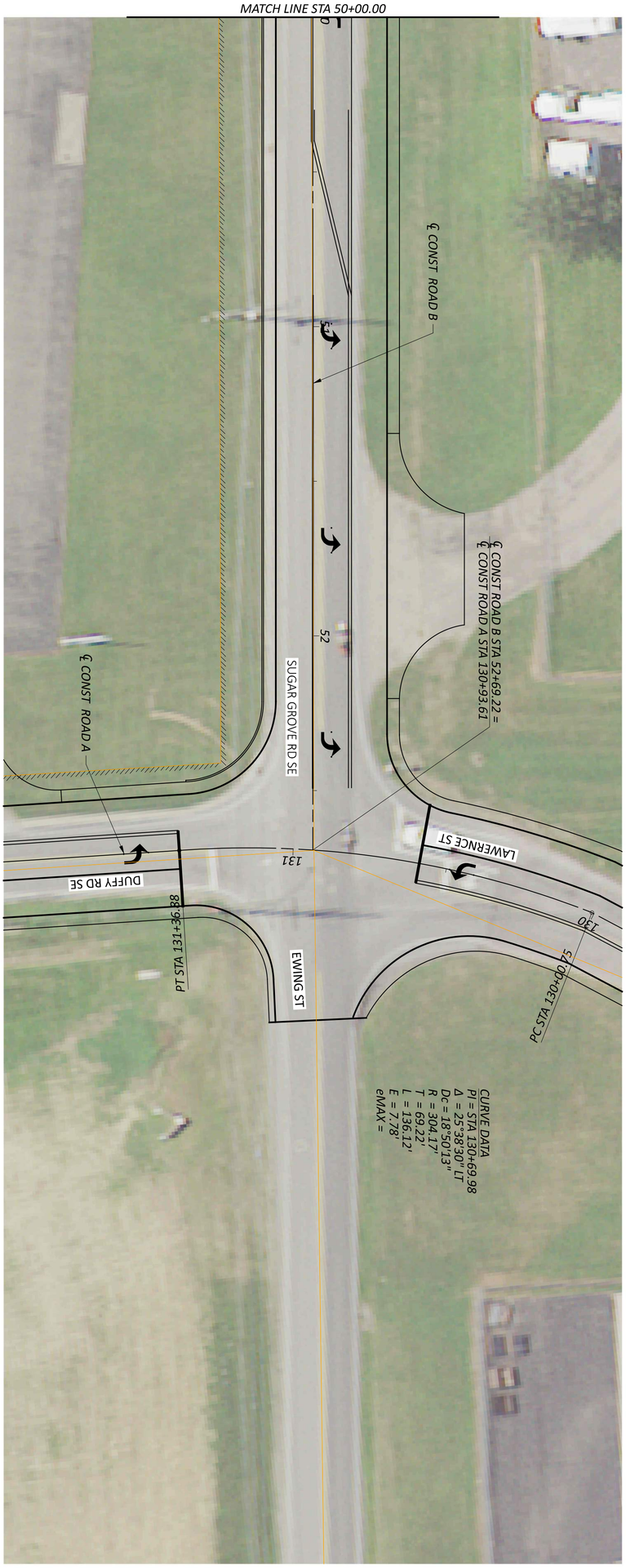

SHEET 125 TOTAL 162	PROJECT ID 03022	REVIEWER KAM 03/02/23	DESIGNER CDP	DESIGN AGENCY AMERICAN STRUCTUREPOINT INC.	ALTERNATIVE 3B PLAN AND PROFILE - ROAD B STA. 50+00.00 TO STA. 52+69.22

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: 3B_RRAMP - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:41:43 PM USER: cphillips
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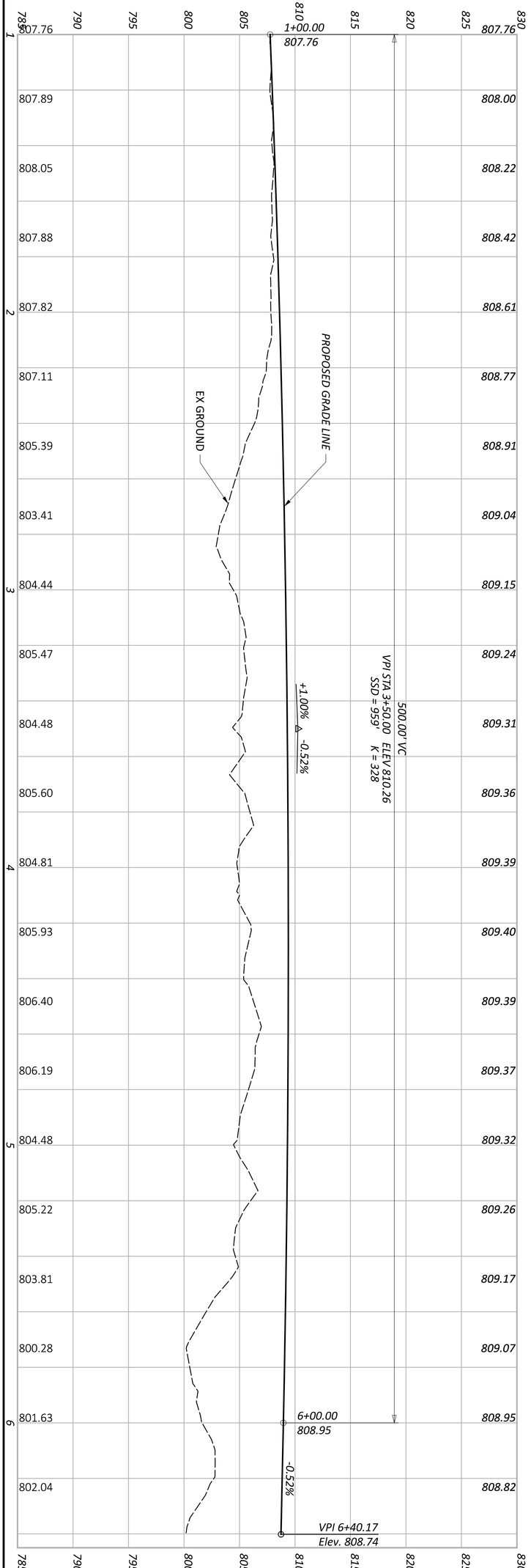

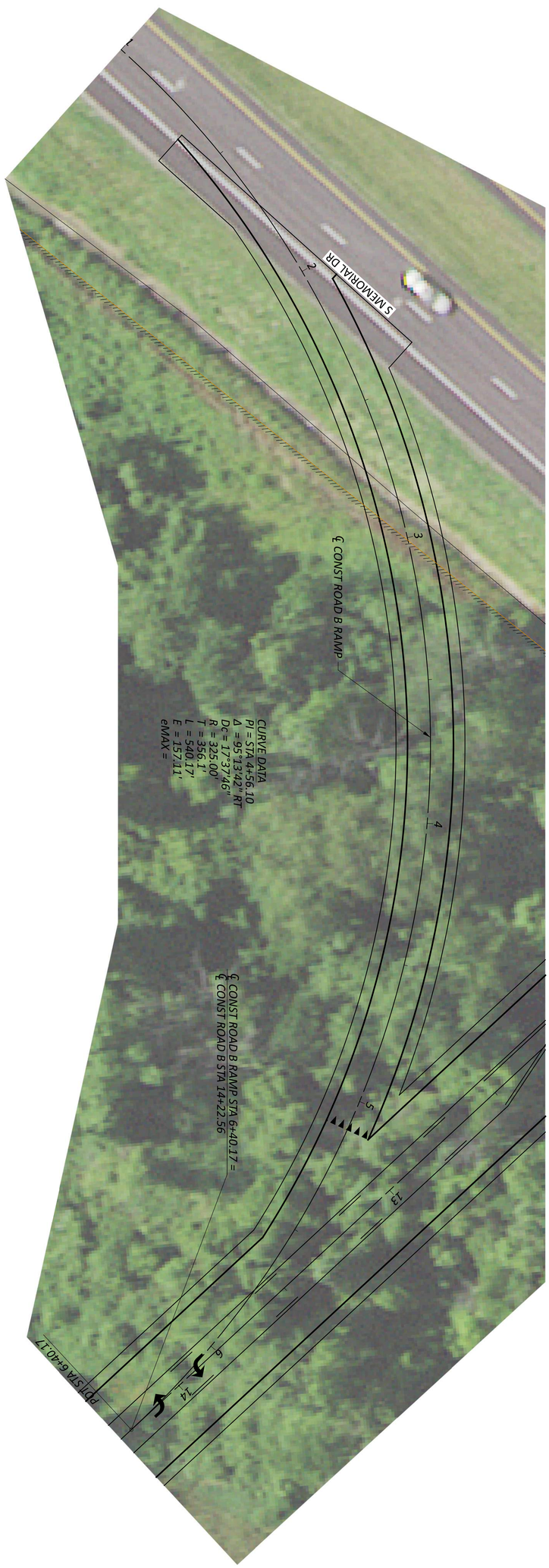

ALTERNATIVE 3B
PLAN AND PROFILE - ROAD B RAMP
STA. 1+00.00 TO STA. 6+40.17

HORIZONTAL SCALE IN FEET
0 10 20 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: 3B_RSR - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:41:55 PM USER: cphillips
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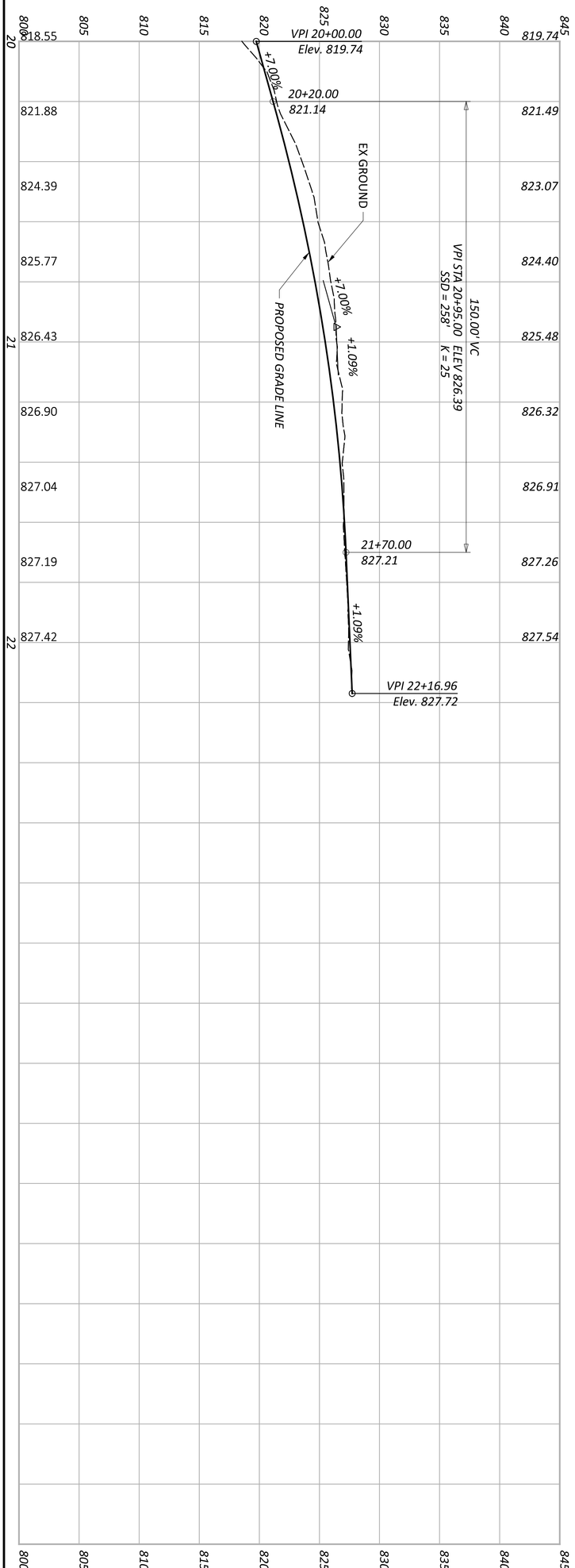

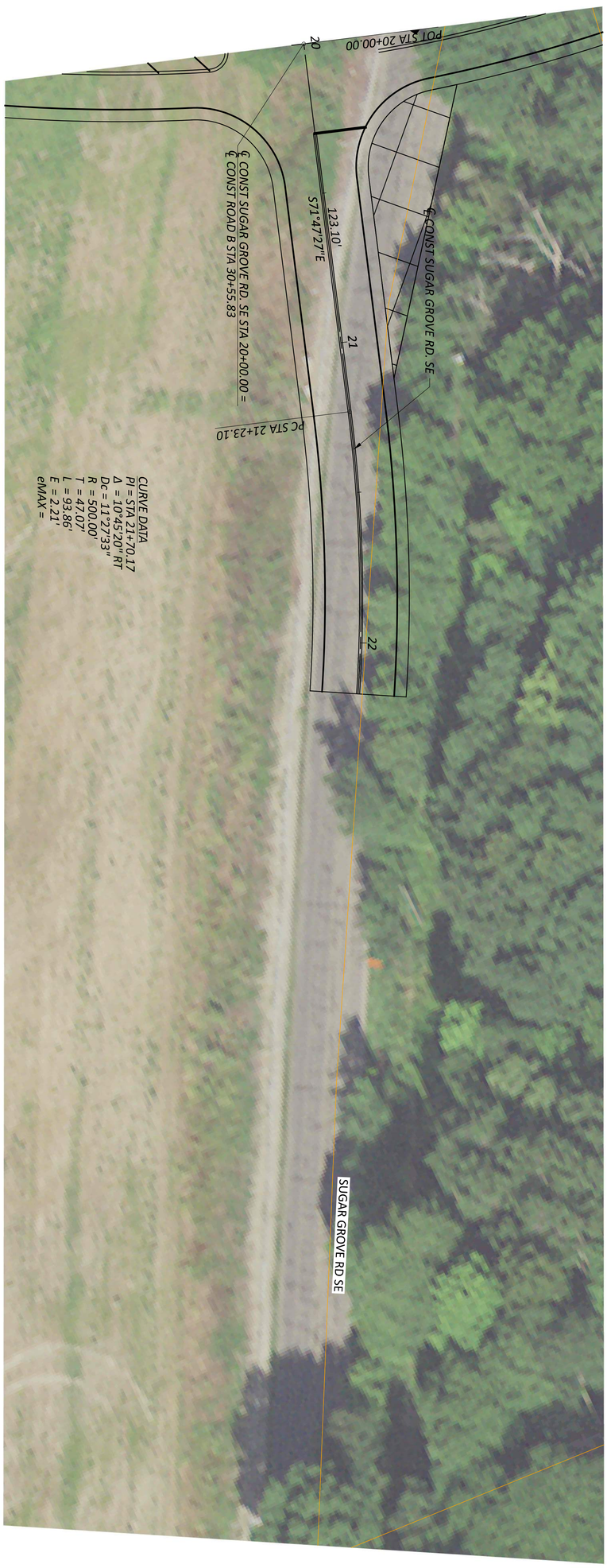

ALTERNATIVE 3B
PLAN AND PROFILE - SUGAR GROVE RD. SE
STA. 20+00.00 TO STA. 22+16.96

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
127	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: 3B_LSR - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:42:06 PM USER: cphillips
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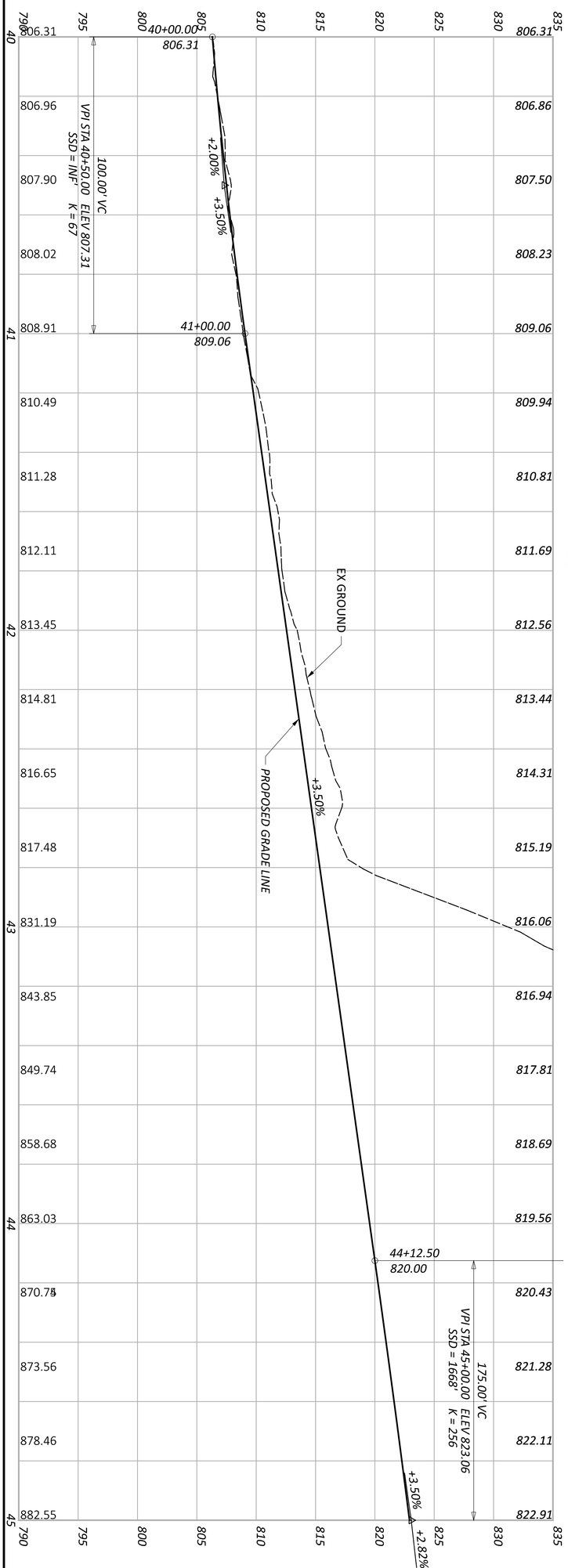

ALTERNATIVE 3B
PLAN AND PROFILE - SUGAR GROVE RD.
STA. 40+00.00 TO STA. 45+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
128	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: 3B_LSR - PP SHEET 2 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:42:19 PM USER: cphillips
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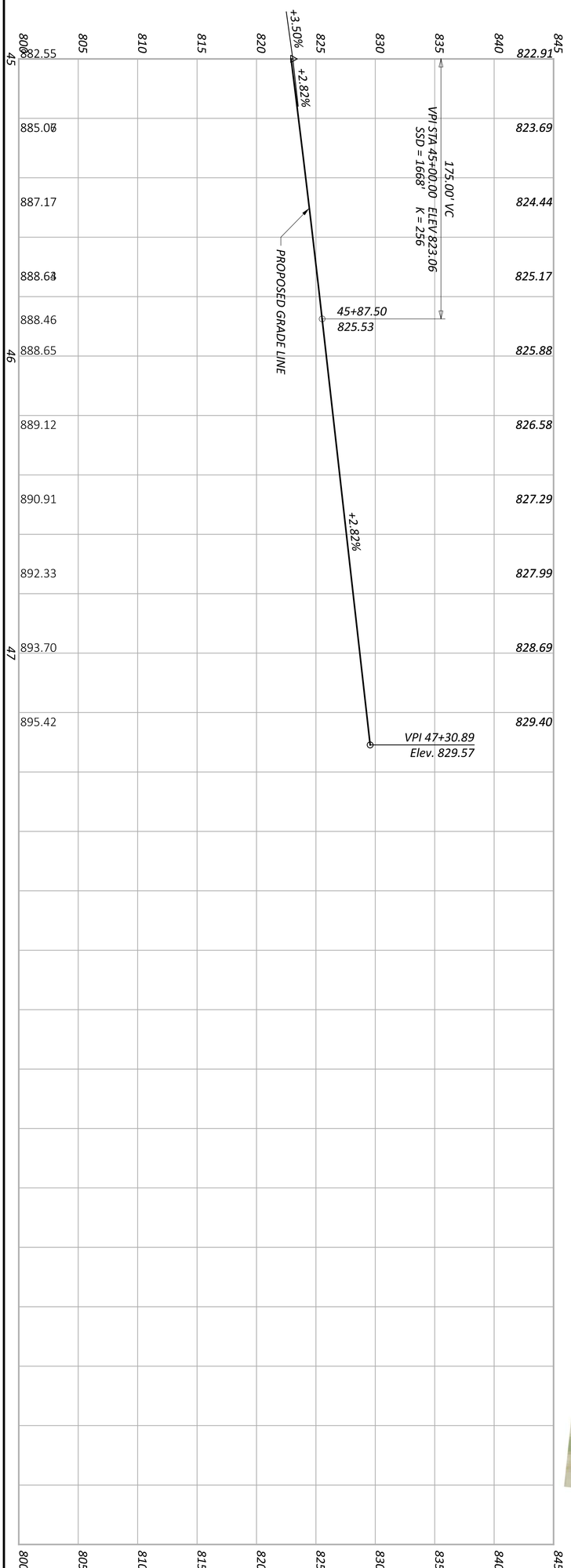
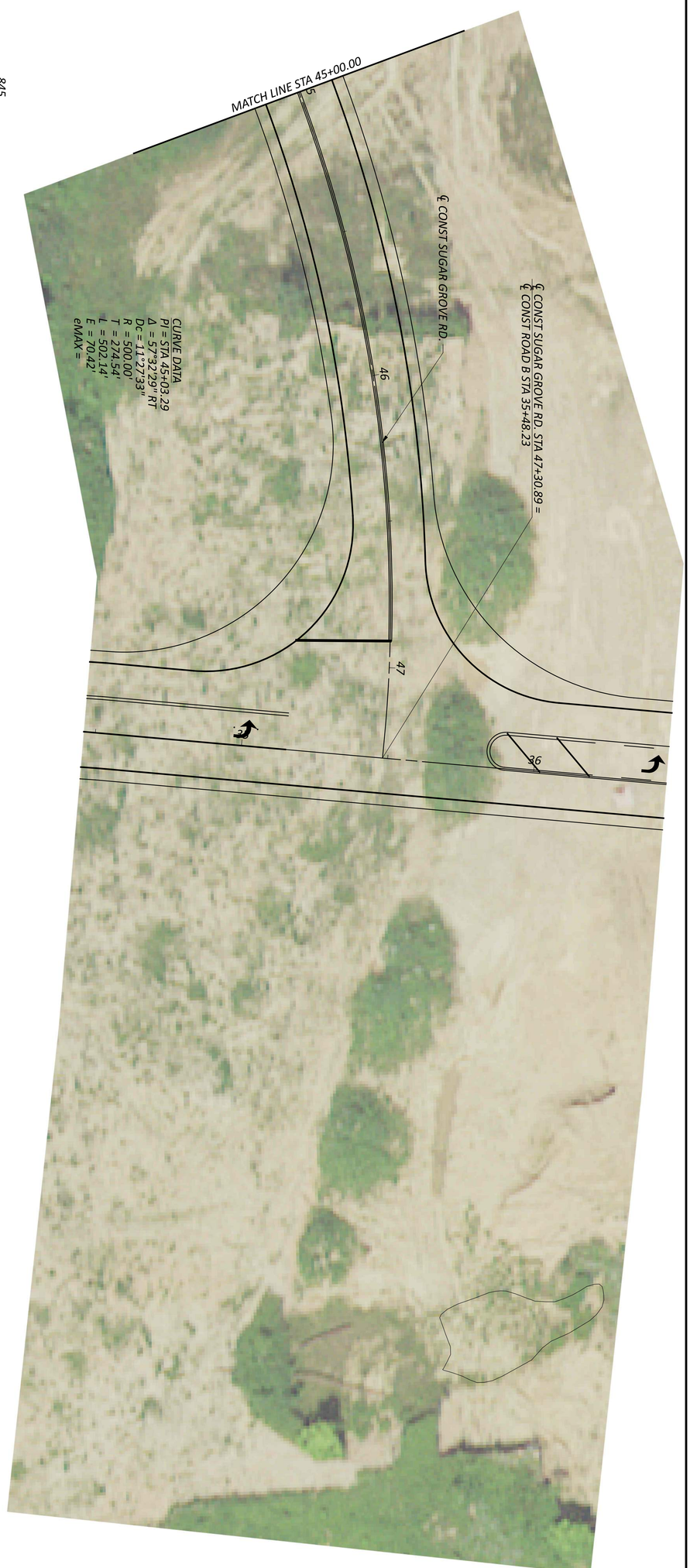




ALTERNATIVE 3B
PLAN AND PROFILE - SUGAR GROVE RD.
STA. 45+00.00 TO STA. 47+30.89

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
129	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

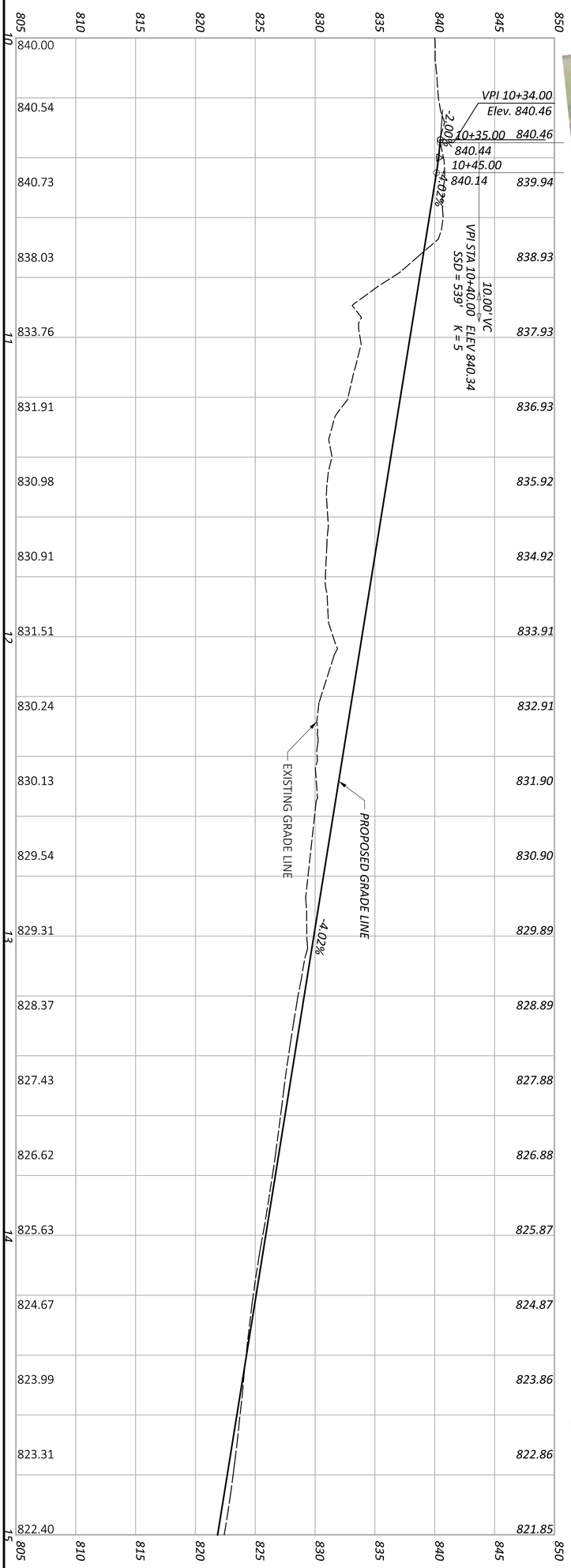
HORIZONTAL SCALE IN FEET
0 20
10 40

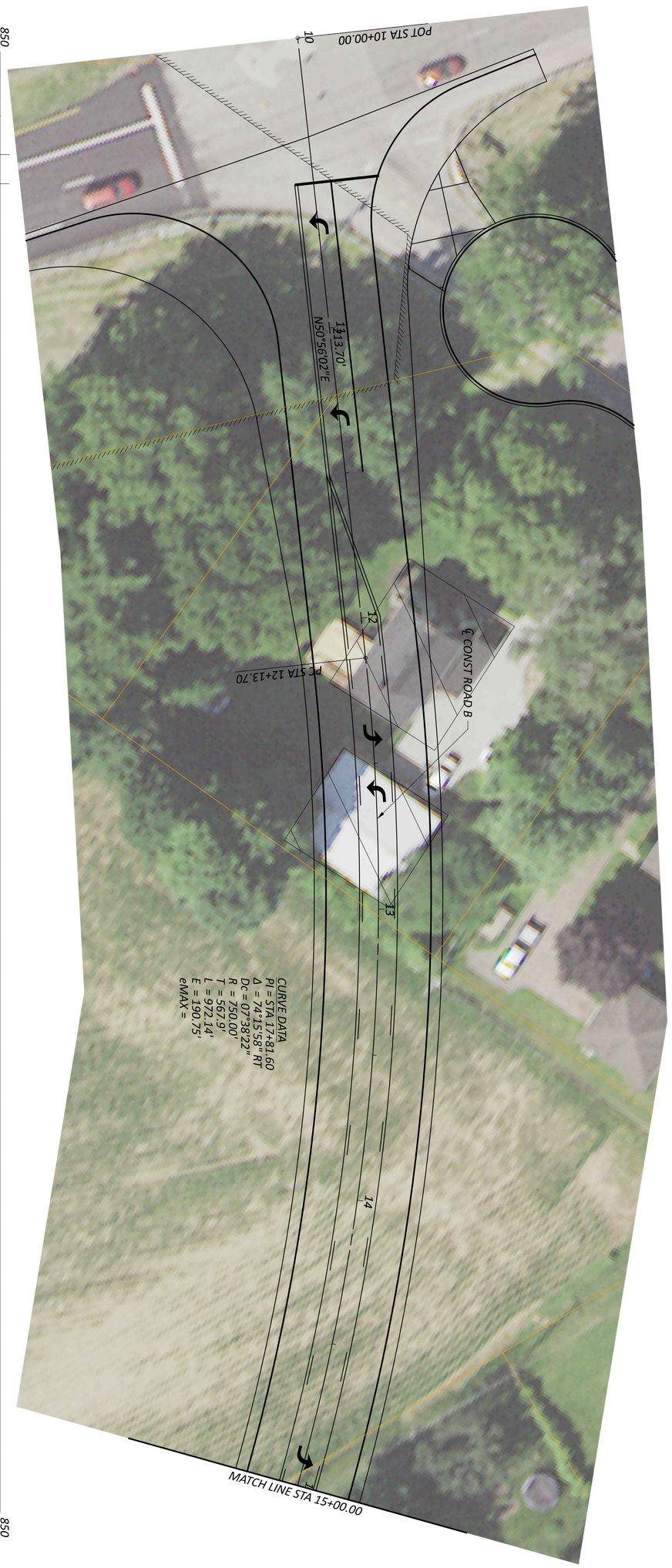
FAI - LANCASTER INDUSTRIAL BYPASS

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
130	162	03022	KAM 03/02/23	LZS	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3C
OVERALL SITE PLAN

HORIZONTAL SCALE IN FEET
0 600
300 1200





ALTERNATIVE 3C
PLAN AND PROFILE - ROAD B
STA. 10+00.00 TO STA. 15+00.00

SHEET	TOTAL
131	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: CDP

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET

0 20

10 40

MODEL: 3C_ROADB - PP SHEET 2 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:42:53 PM USER: cphillips
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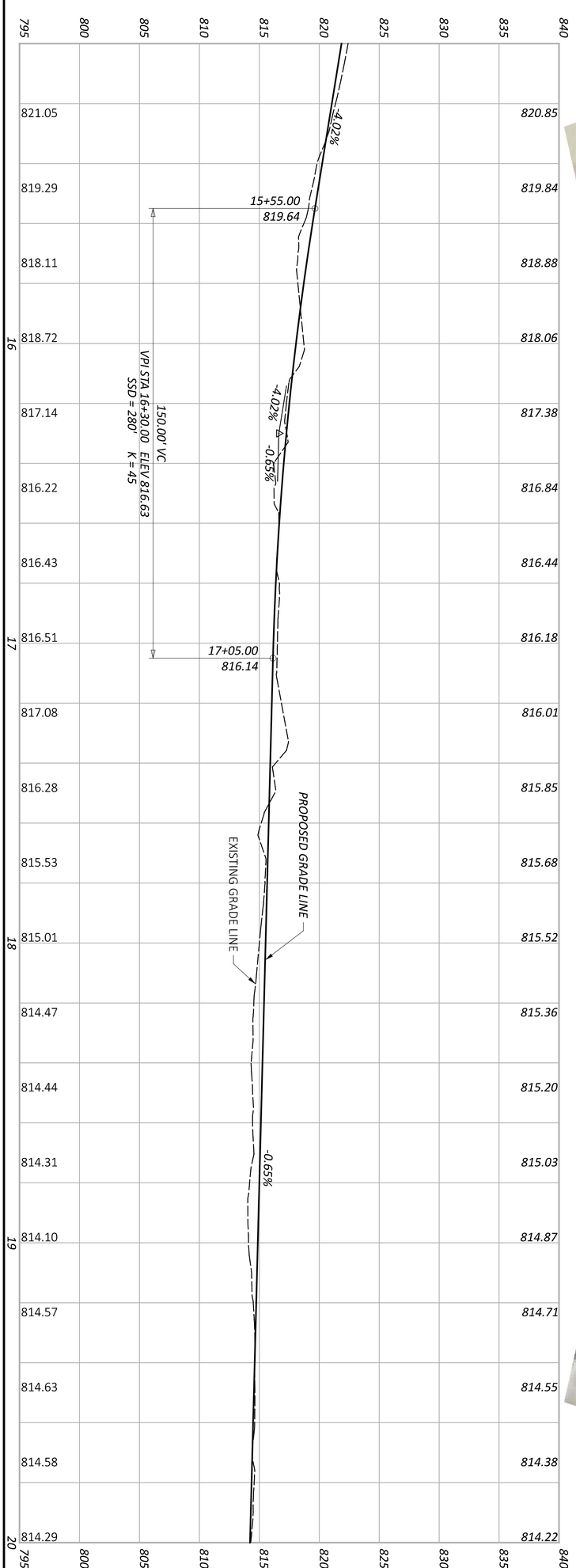

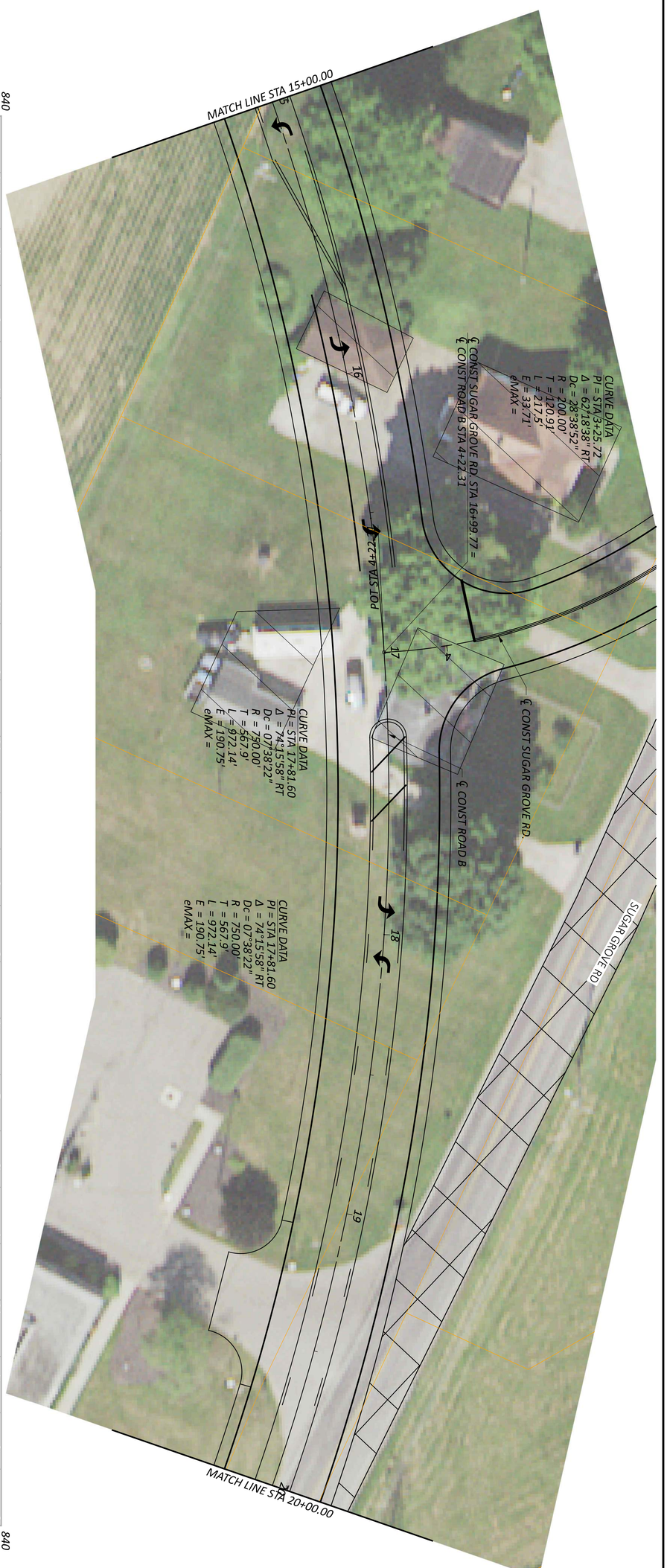

ALTERNATIVE 3C
PLAN AND PROFILE - ROAD B
STA. 15+00.00 TO STA. 20+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
132	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

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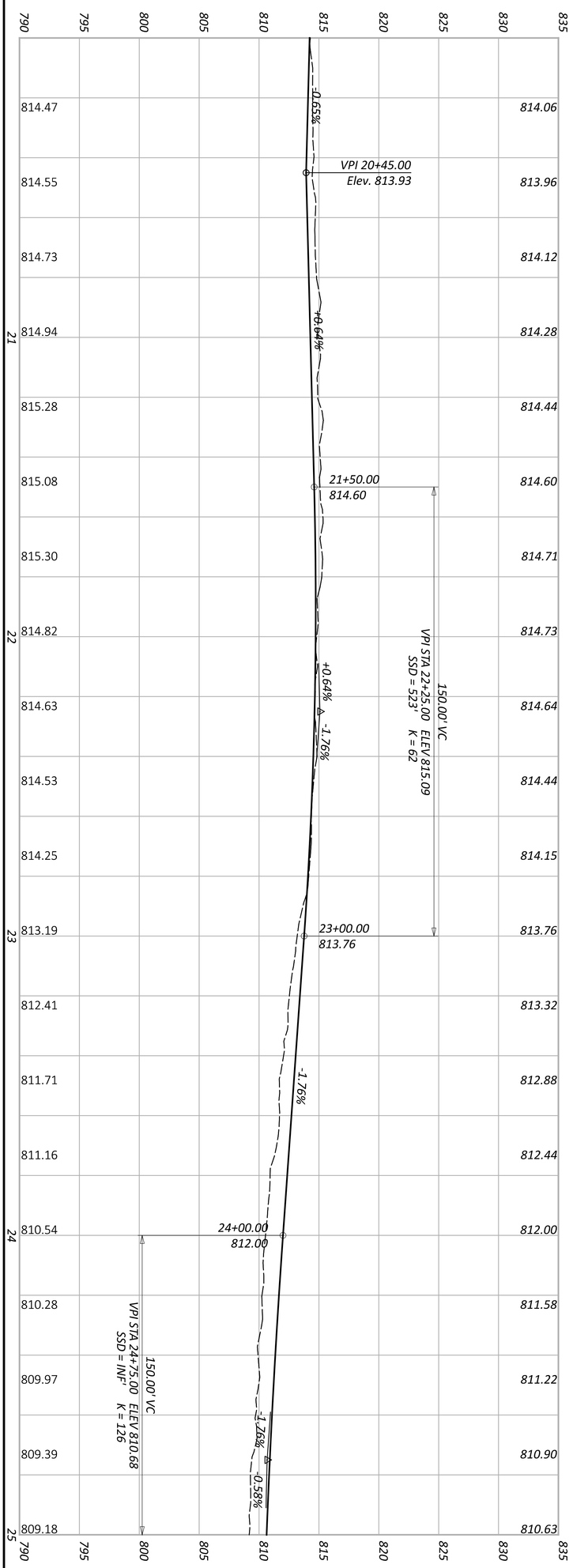

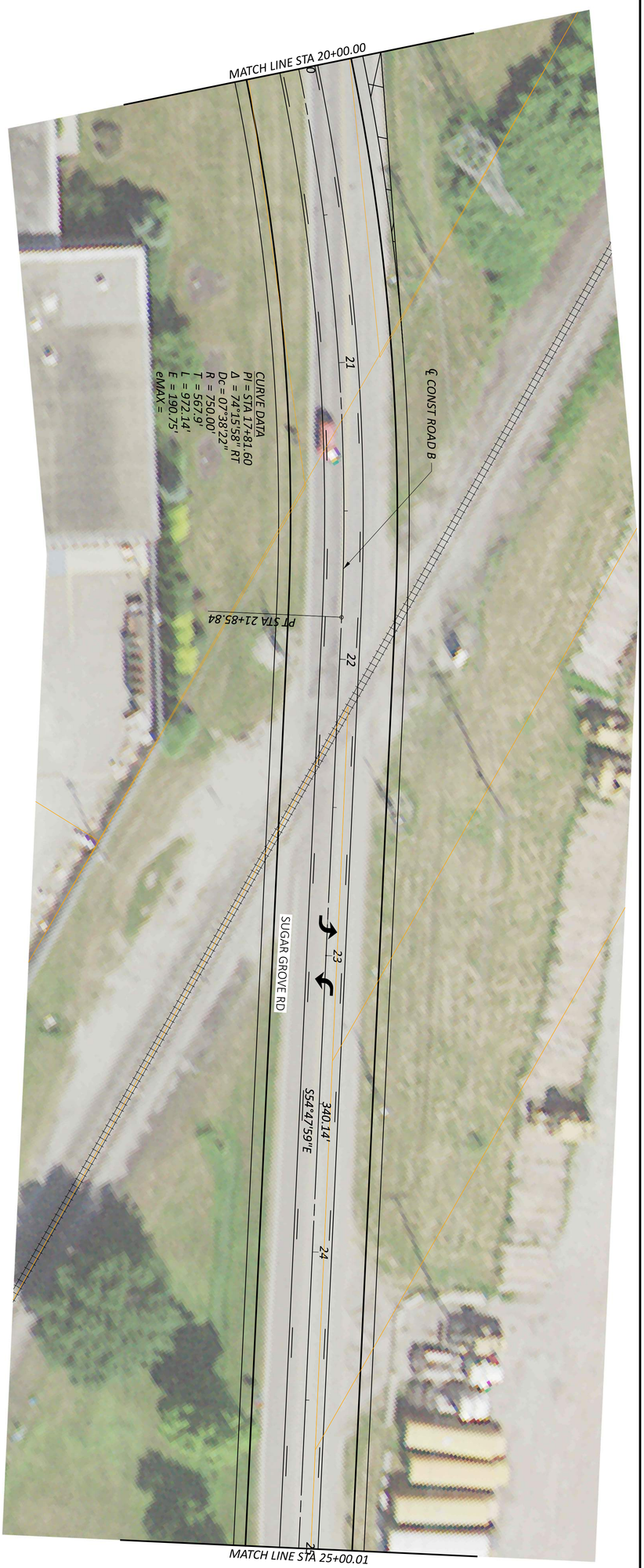

ALTERNATIVE 3C
PLAN AND PROFILE - ROAD B
STA. 20+00.00 TO STA. 25+00.00

SHEET	TOTAL
133	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: CDP

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: 3C_ROADB - PP SHEET 4 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:43:17 PM USER: cphillips
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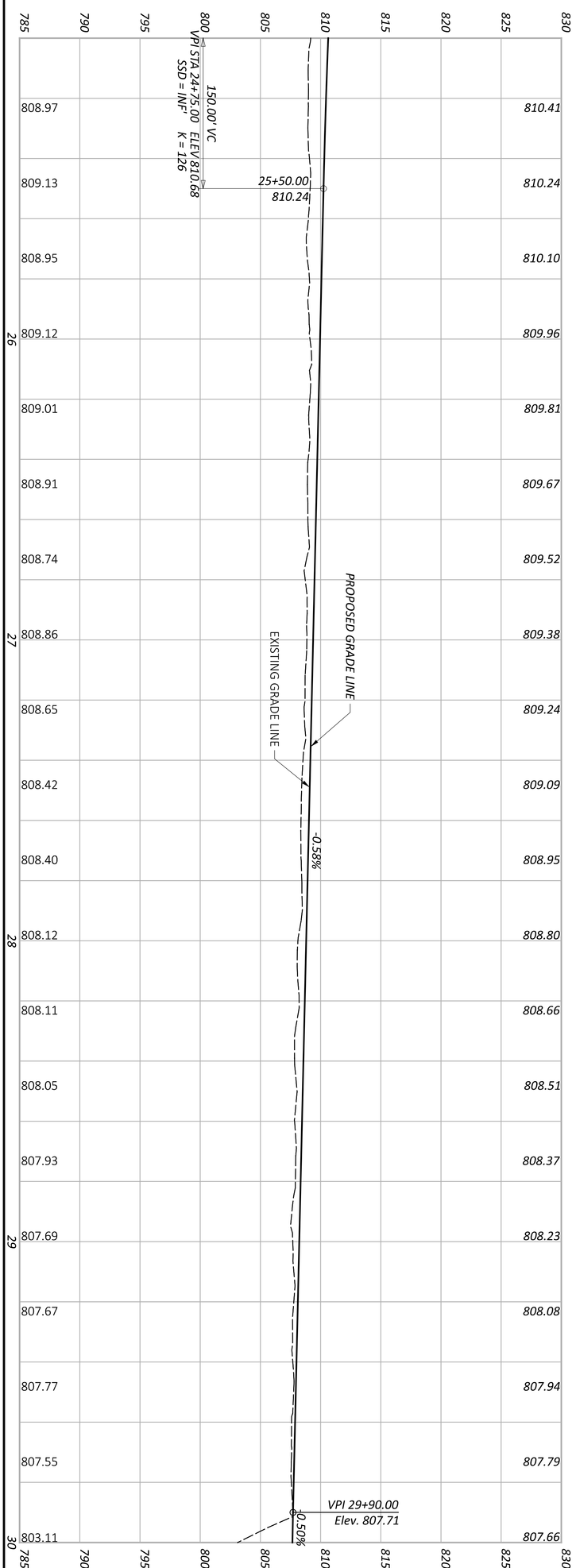

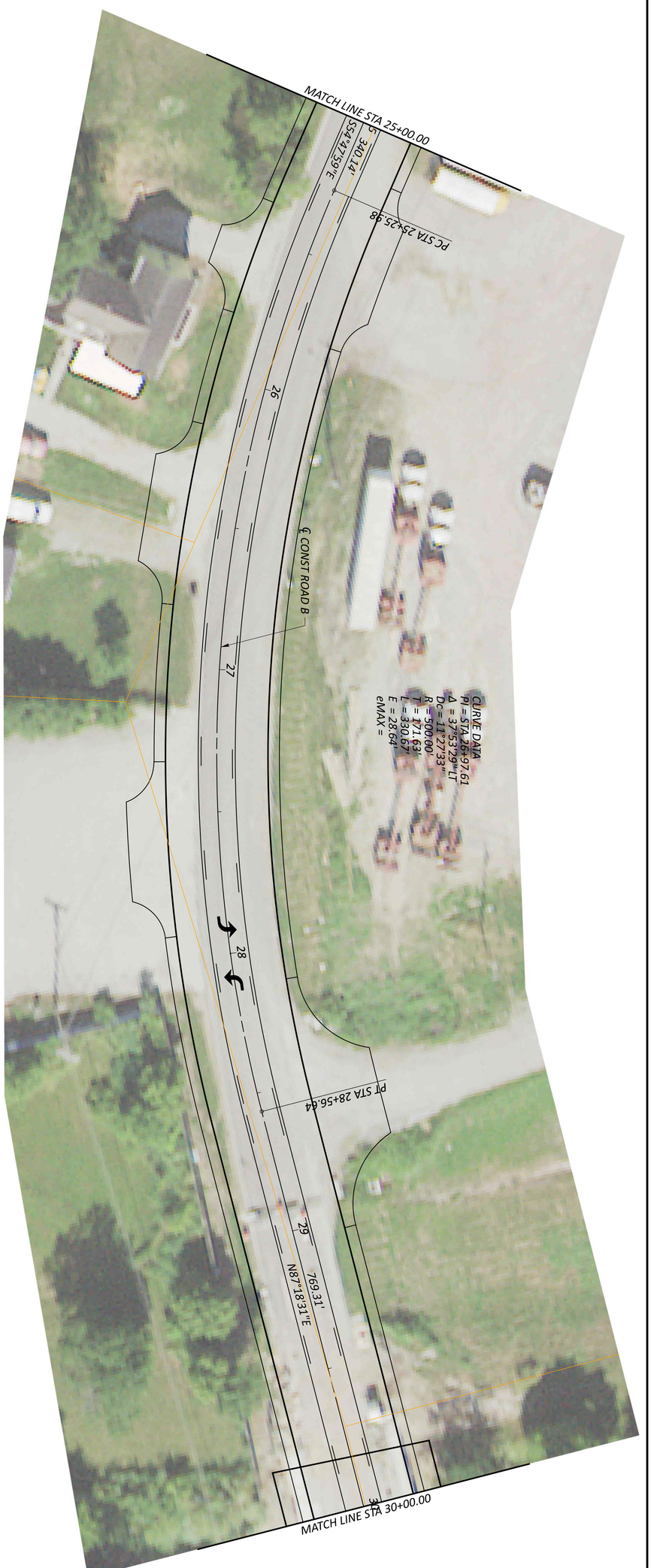

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
134	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3C
PLAN AND PROFILE - ROAD B
STA. 25+00.00 TO STA. 30+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

MODEL: 3C_ROADB - PP SHEET 5 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:43:27 PM USER: cphillips
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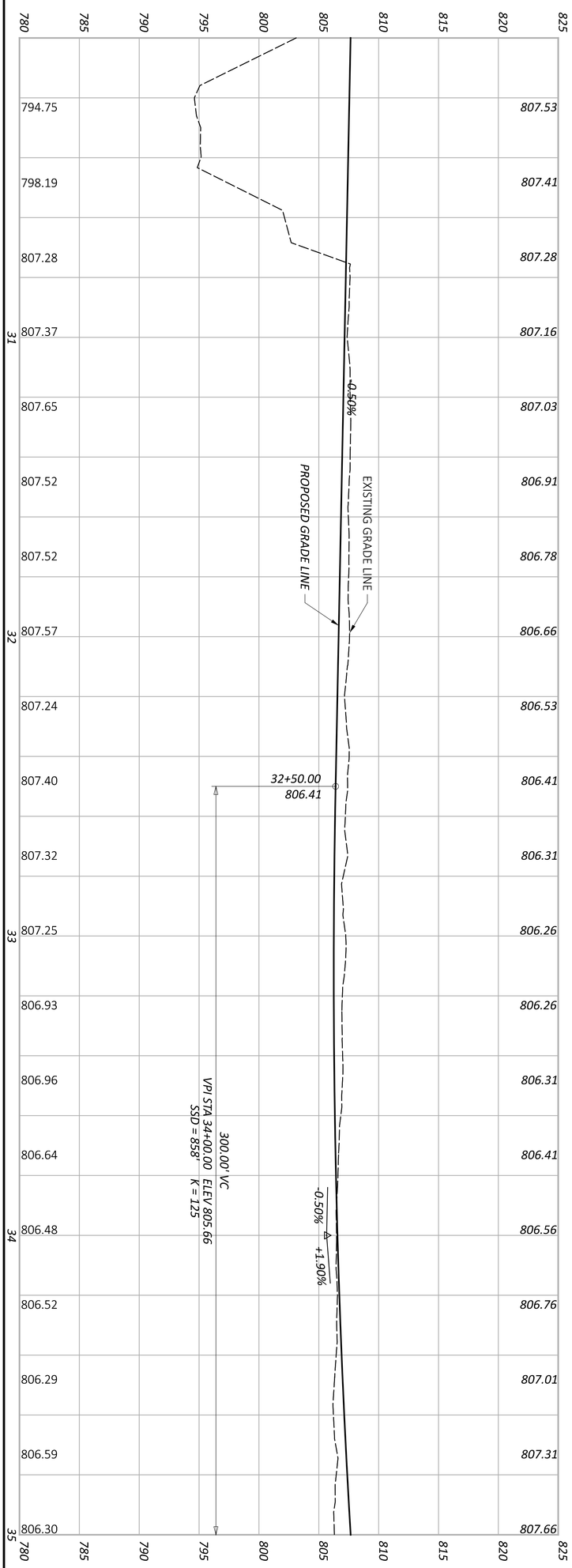

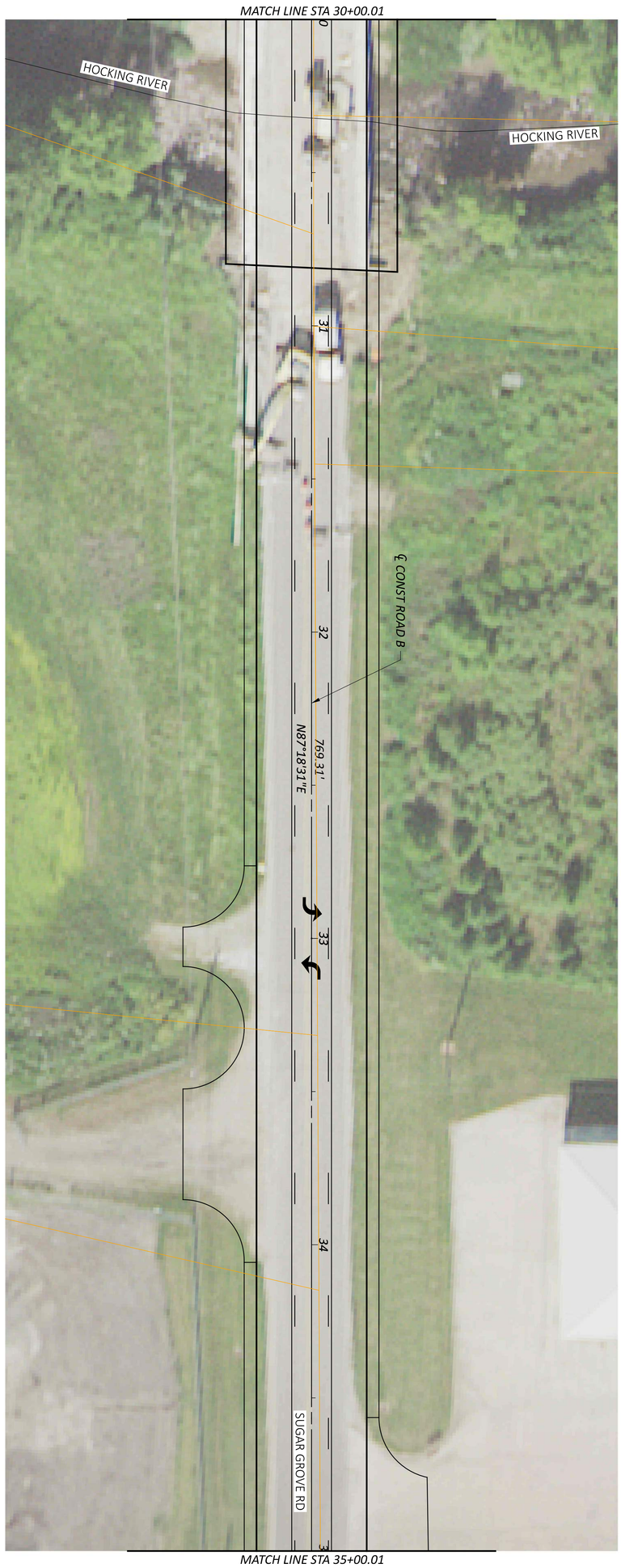

ALTERNATIVE 3C
PLAN AND PROFILE - ROAD B
STA. 30+00.00 TO STA. 35+00.00

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
135	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: 3C_ROADB - PP SHEET 6 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:43:37 PM USER: cphillips
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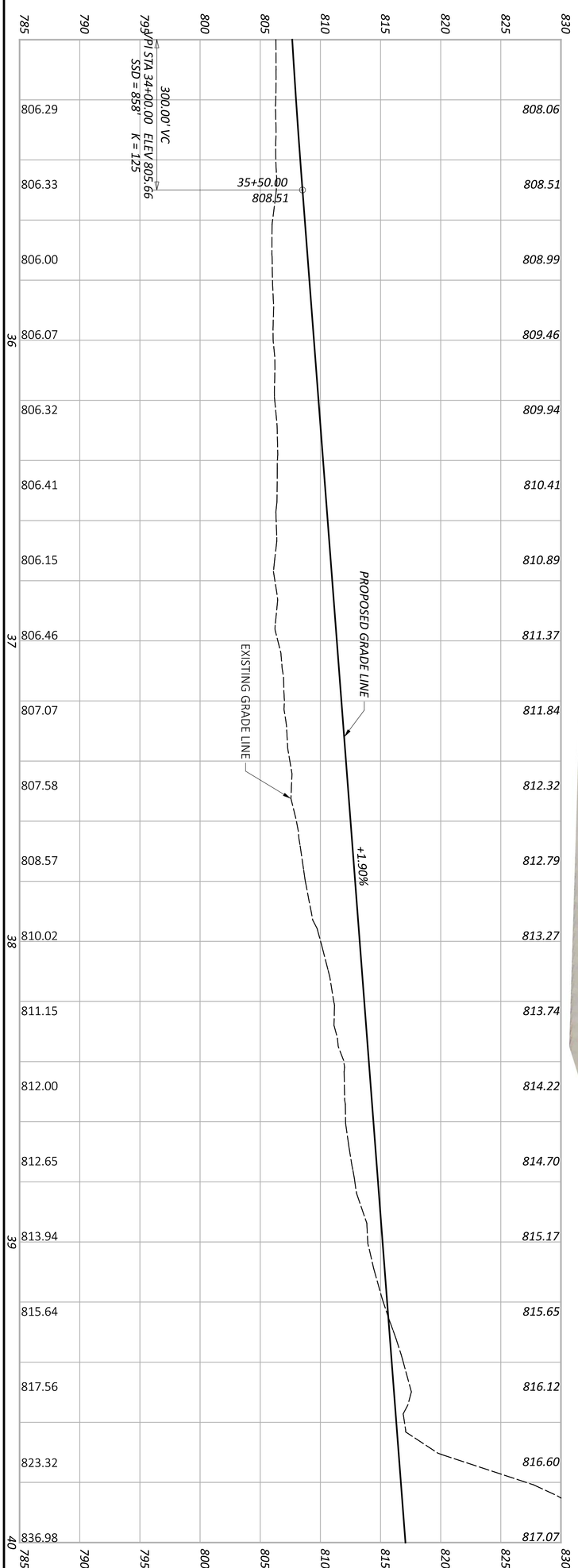

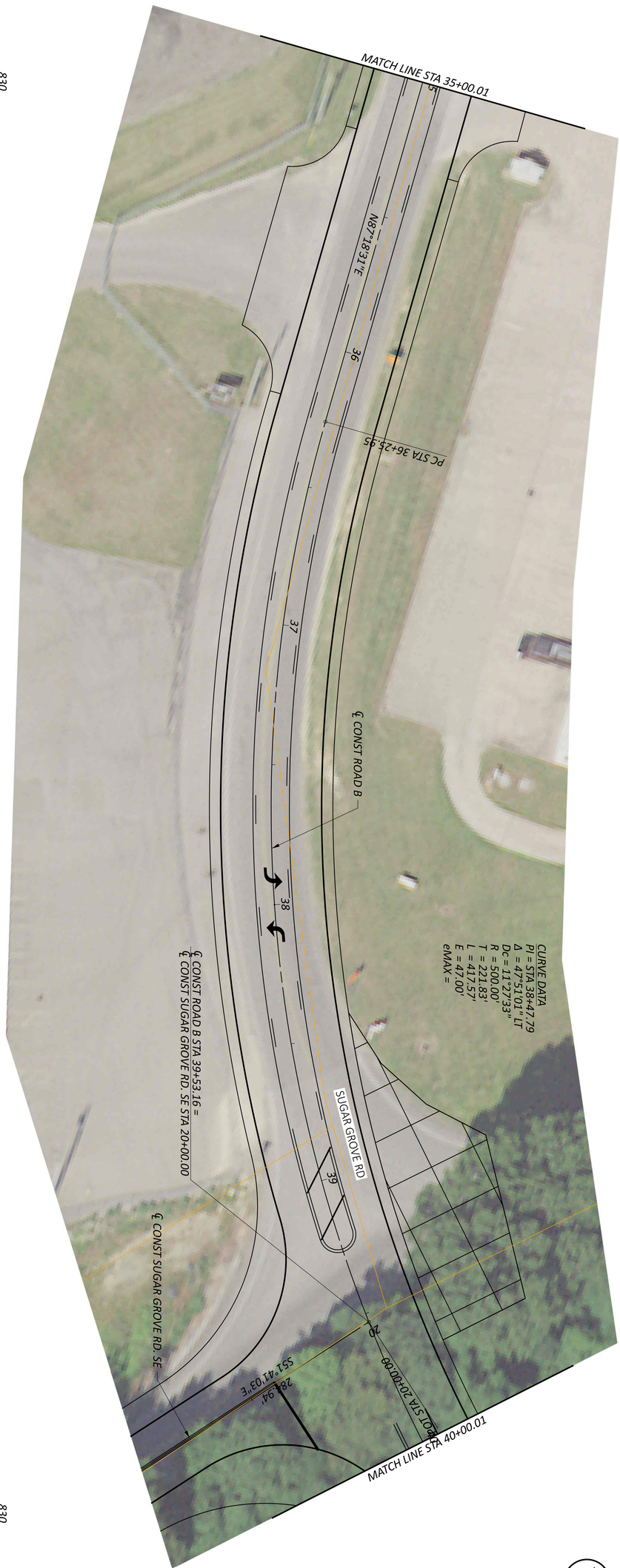

DESIGNER	PROJECT ID	SHEET	TOTAL
CDP	03022	136	162

REVIEWER: KAM 03/02/23

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3C
PLAN AND PROFILE - ROAD B
STA. 35+00.00 TO STA. 40+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: 3C_ROADB - PP SHEET 7 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:43:50 PM USER: cphillips
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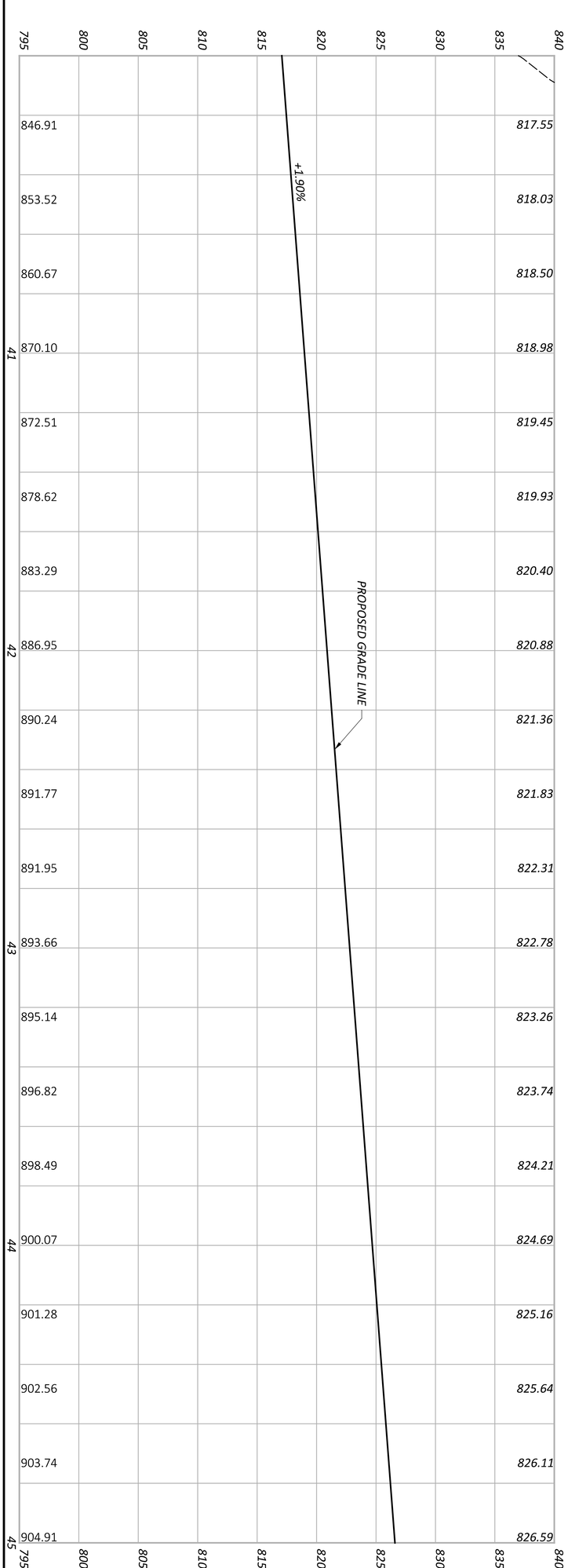

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
137	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3C
PLAN AND PROFILE - ROAD B
STA. 40+00.00 TO STA. 45+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

MODEL: 3C_ROADB - PP SHEET 8 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:44:00 PM USER: cphillips
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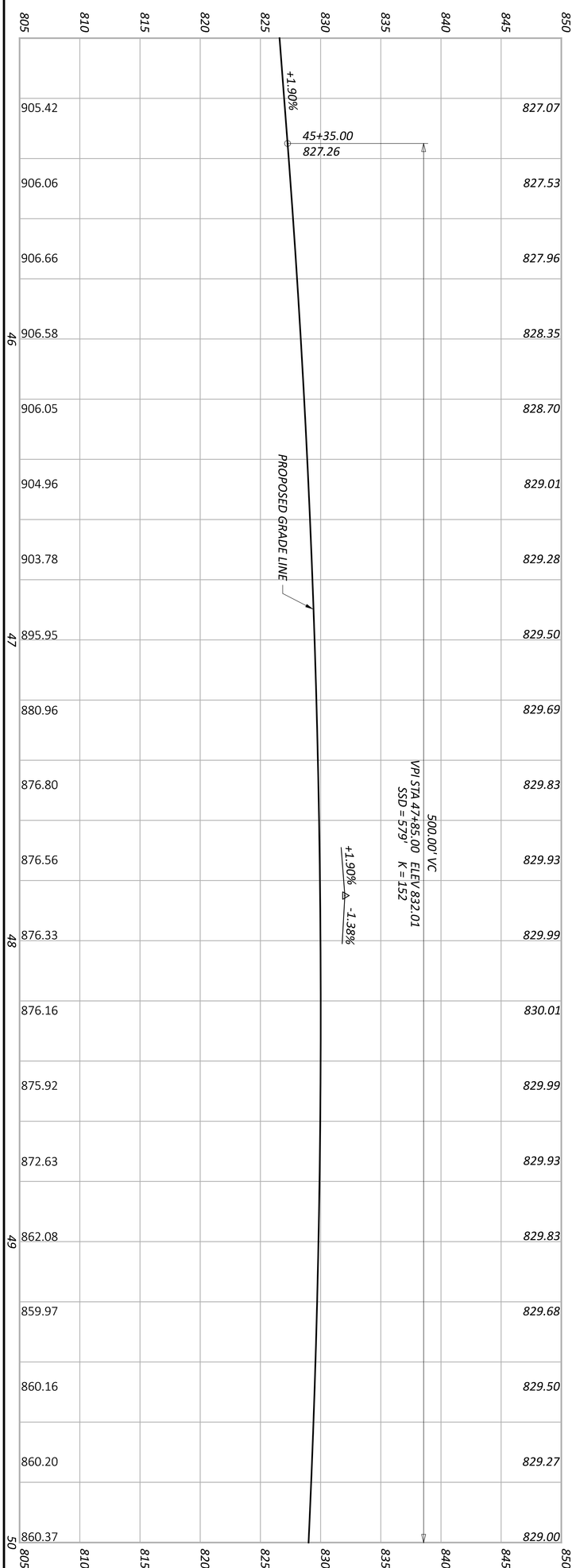

ALTERNATIVE 3C
PLAN AND PROFILE - ROAD B
STA. 45+00.00 TO STA. 50+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL
138	162

PROJECT ID: 03022
REVIEWER: KAM 03/02/23
DESIGNER: CDP
DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

MODEL: 3C_ROADB - PP SHEET 9 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:44:11 PM USER: cphillips
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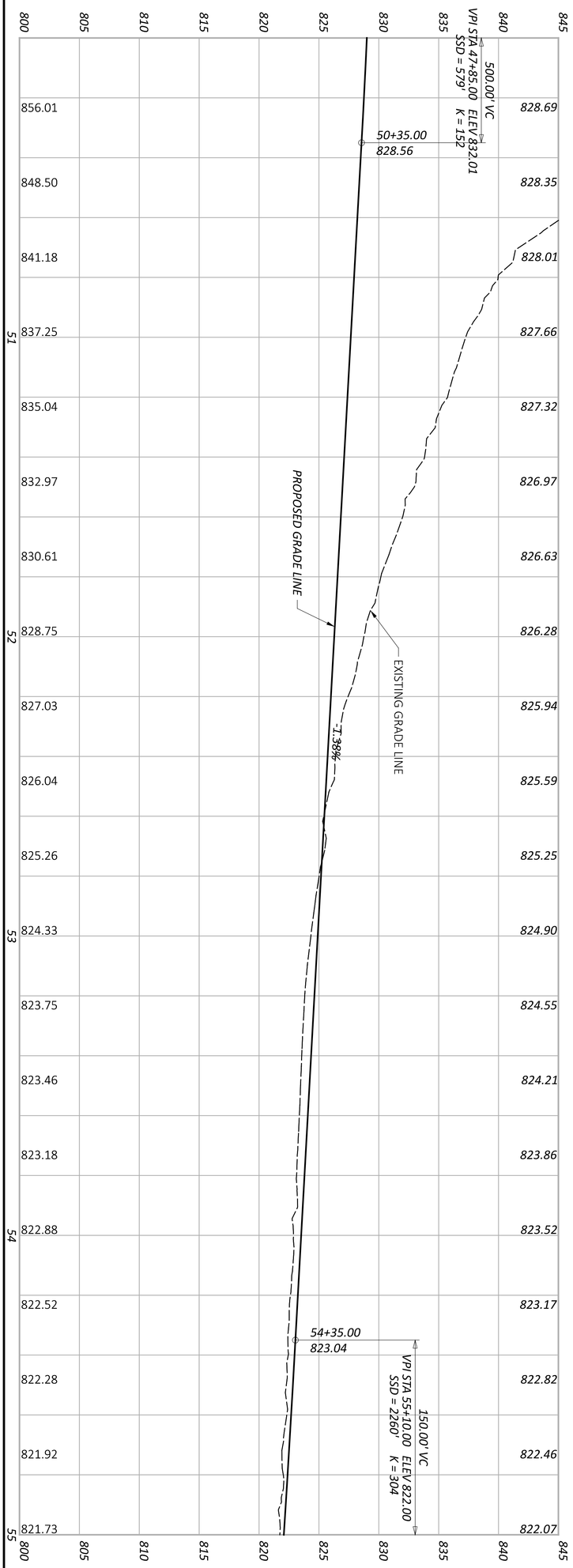
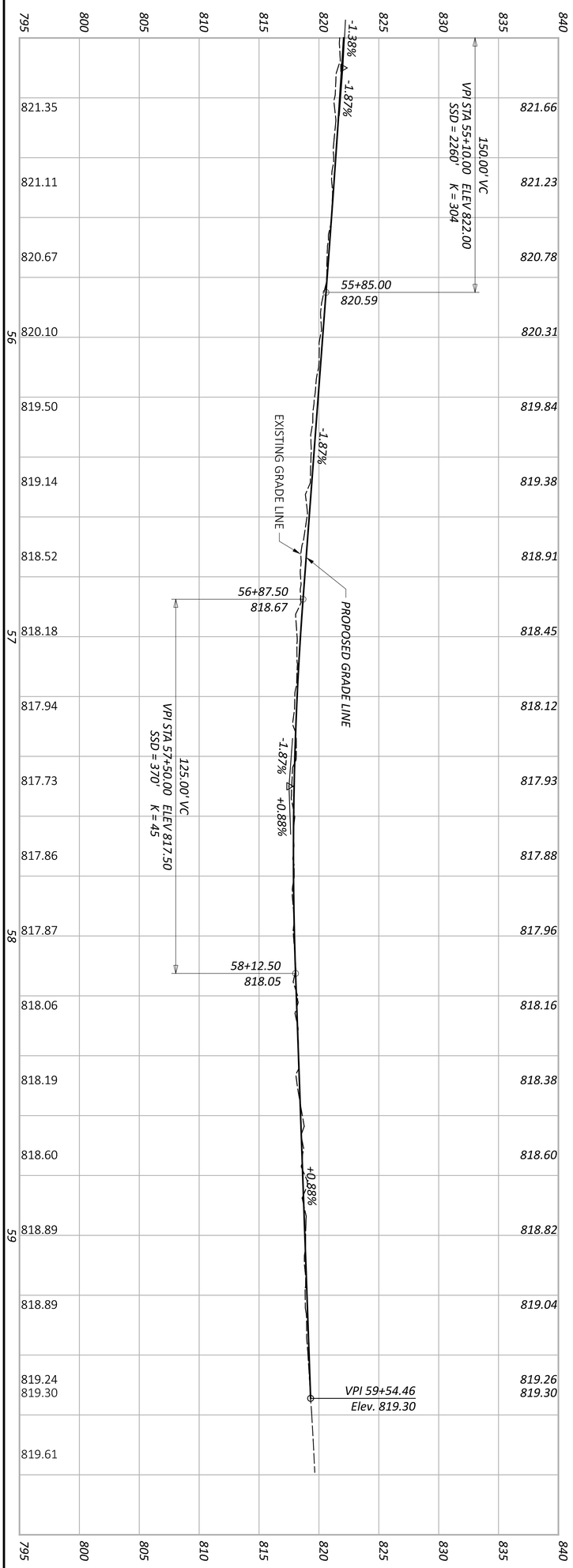
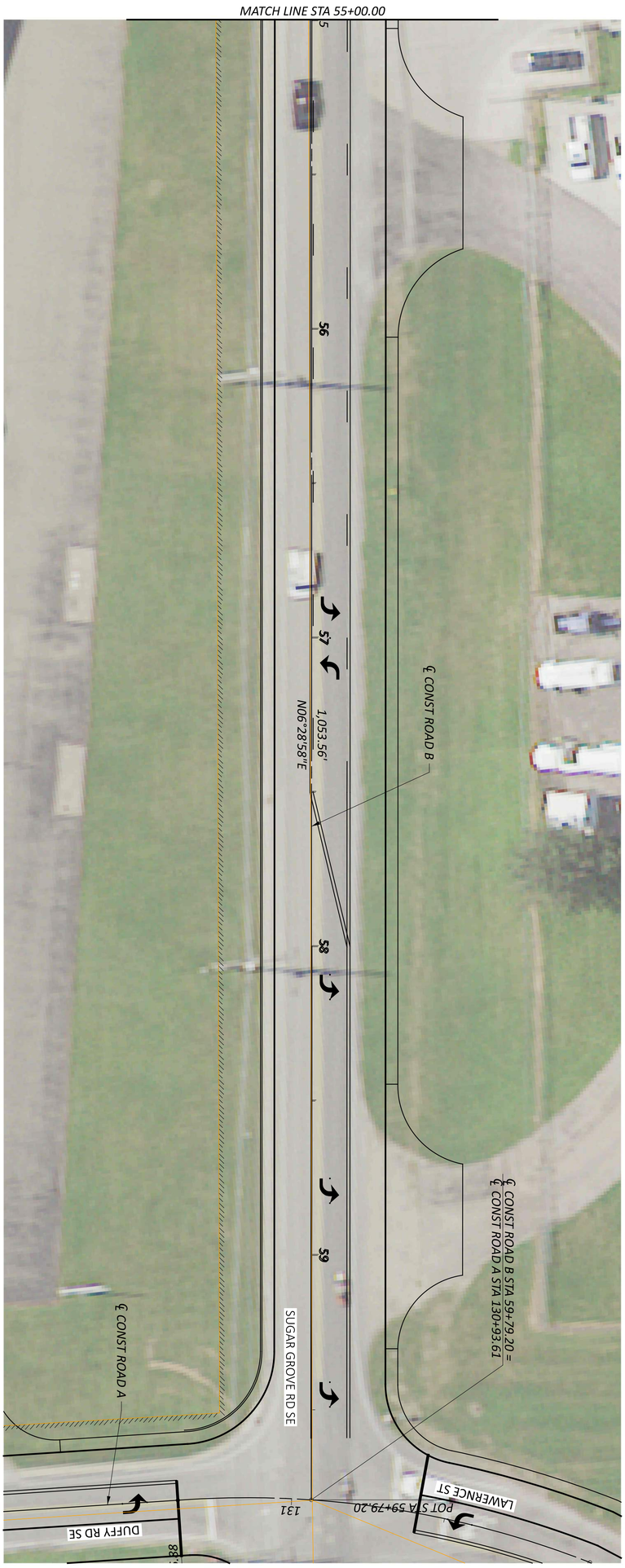


ALTERNATIVE 3C
PLAN AND PROFILE - ROAD B
STA. 50+00.00 TO STA. 55+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

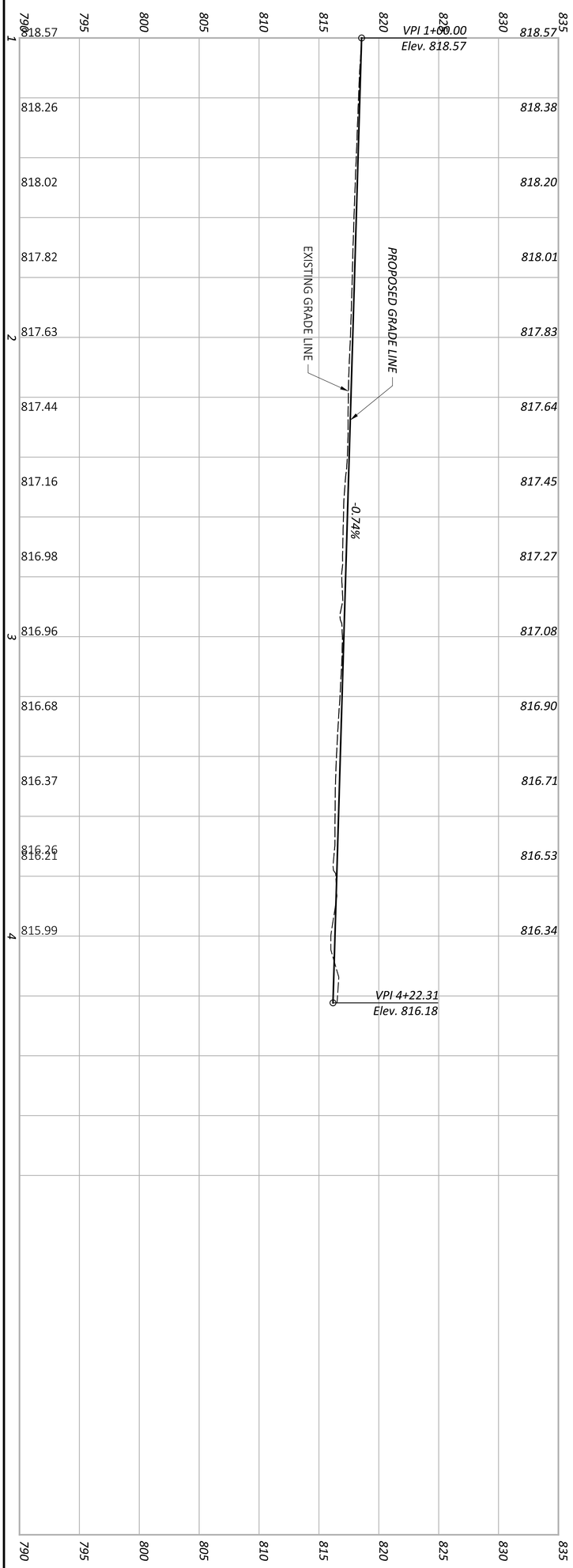
SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
139	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

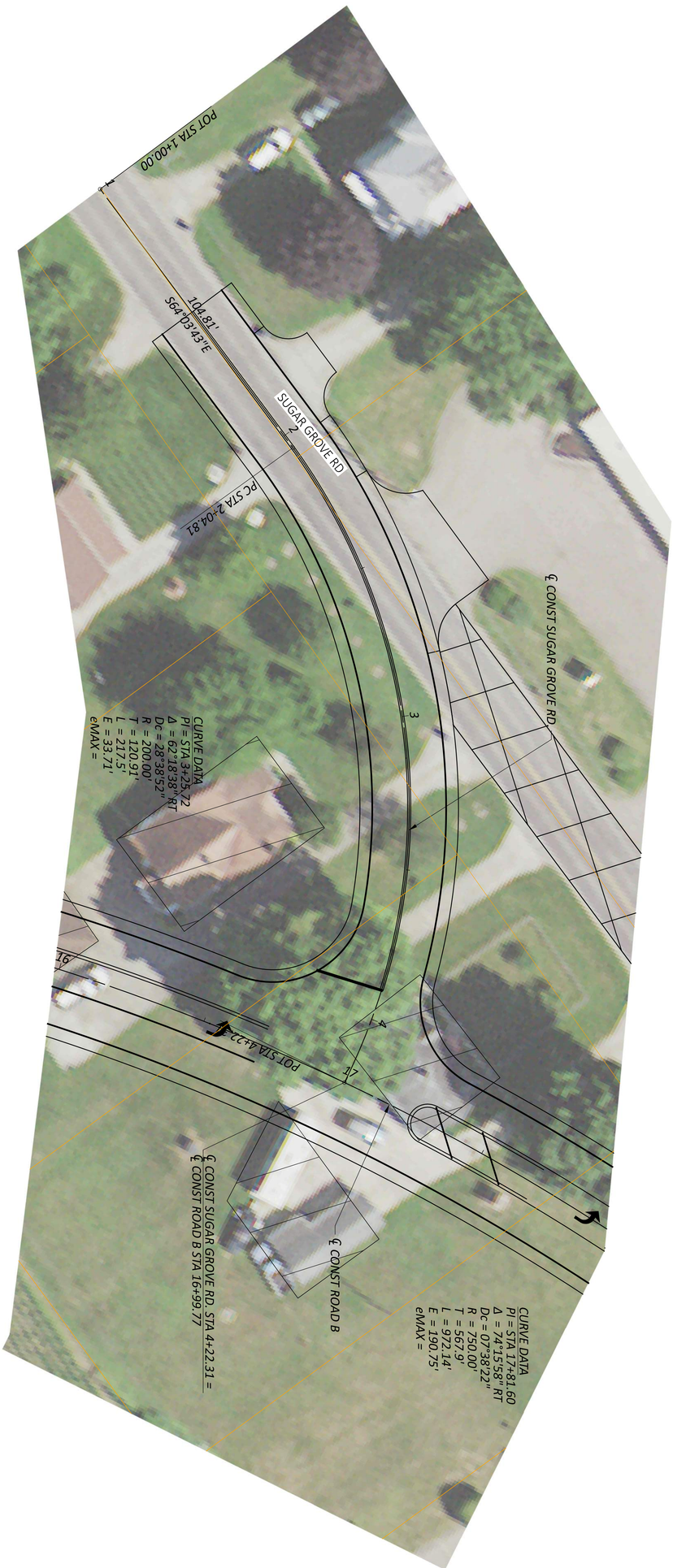




SHEET 140 / TOTAL 162	PROJECT ID 03022	REVIEWER KAM 03/02/23	DESIGNER CDP	DESIGN AGENCY AMERICAN STRUCTUREPOINT INC.	ALTERNATIVE 3C PLAN AND PROFILE - ROAD B STA. 55+00.00 TO STA. 59+79.56

HORIZONTAL SCALE IN FEET
0 20
10 40





SHEET	TOTAL
141	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: CDP

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 3C
PLAN AND PROFILE - SUGAR GROVE RD.
STA. 1+00.00 TO STA. 4+22.31

HORIZONTAL SCALE IN FEET

0 20
10 40

MODEL: 3C_RSR - PP SHEET 1 PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:44:43 PM USER: cphillips
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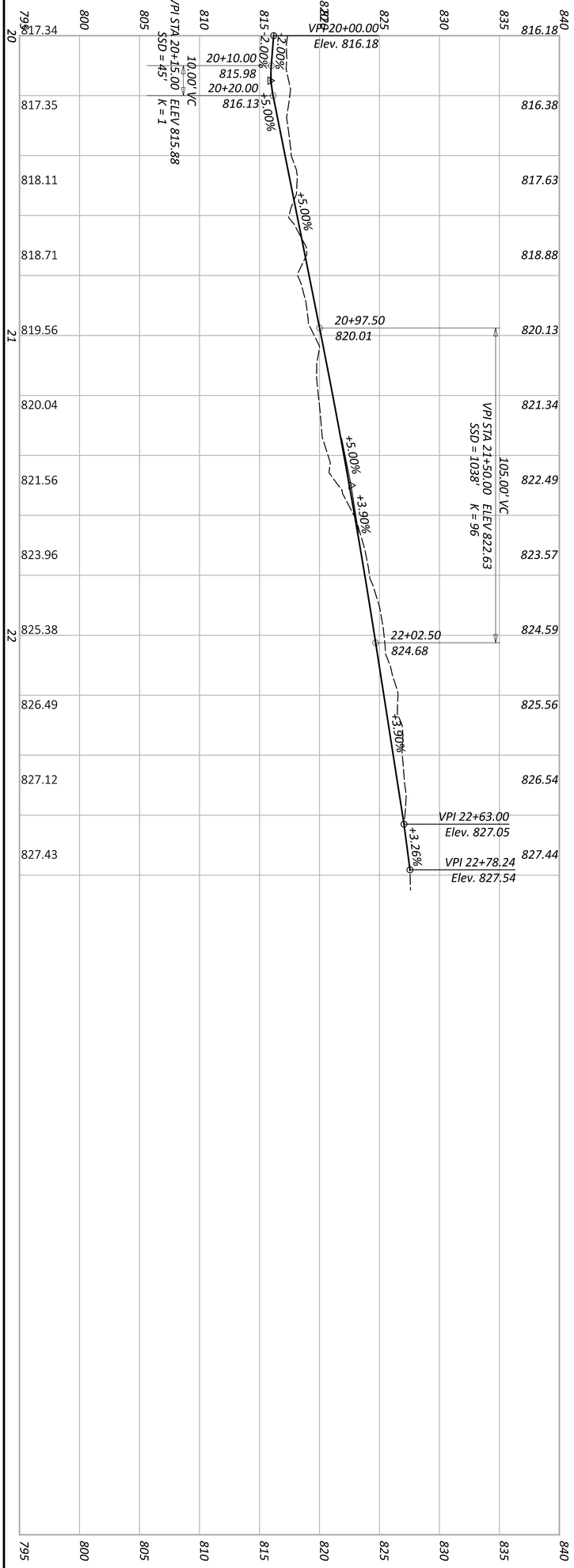


ALTERNATIVE 3C
PLAN AND PROFILE - SUGAR GROVE RD. SE
STA. 20+00.00 TO STA. 22+84.94

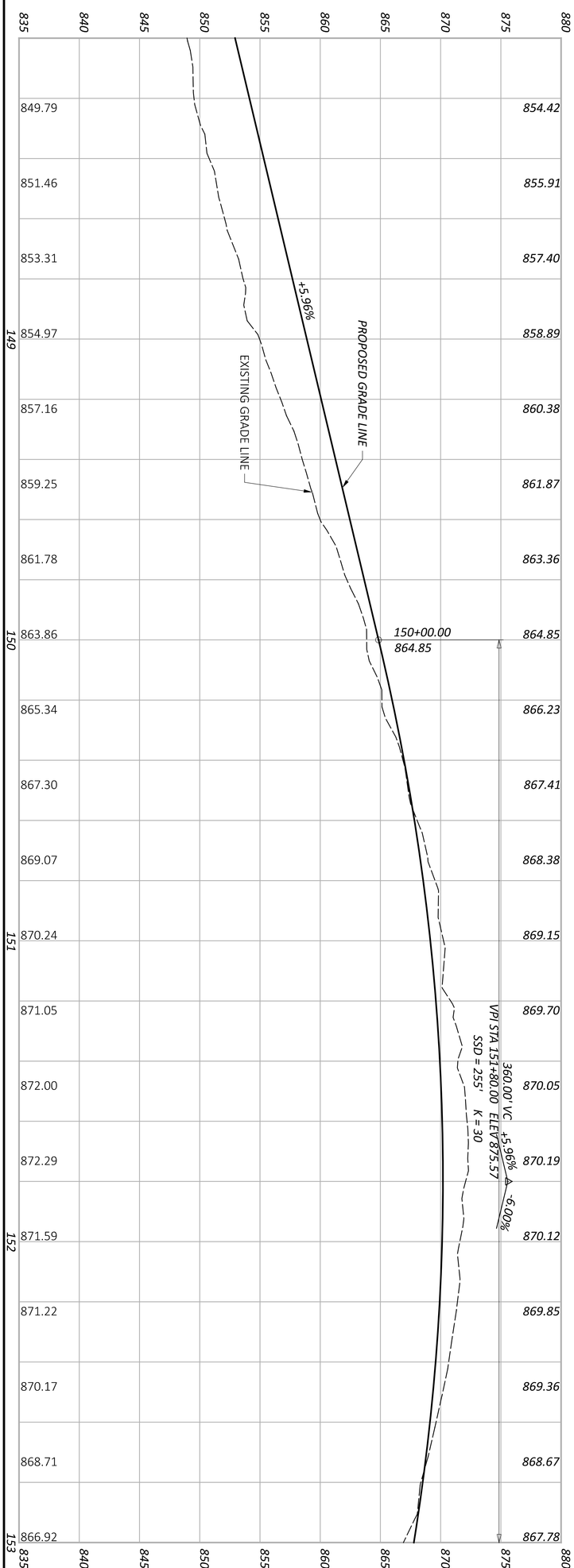
HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
142	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

FAI - LANCASTER INDUSTRIAL BYPASS

SHEET 143 / TOTAL 162	PROJECT ID 03022	REVIEWER KAM 03/02/23	DESIGNER CDP	AMERICAN STRUCTUREPOINT INC. DESIGN AGENCY	ALTERNATIVE 7 OVERALL SITE PLAN

HORIZONTAL SCALE IN FEET
0 700
350 1400



ALTERNATIVE 7
PLAN AND PROFILE - MAIN

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
144	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

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MODEL: CLP_7_MAIN-1 - SHEET PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:51:30 PM USER: cphillips
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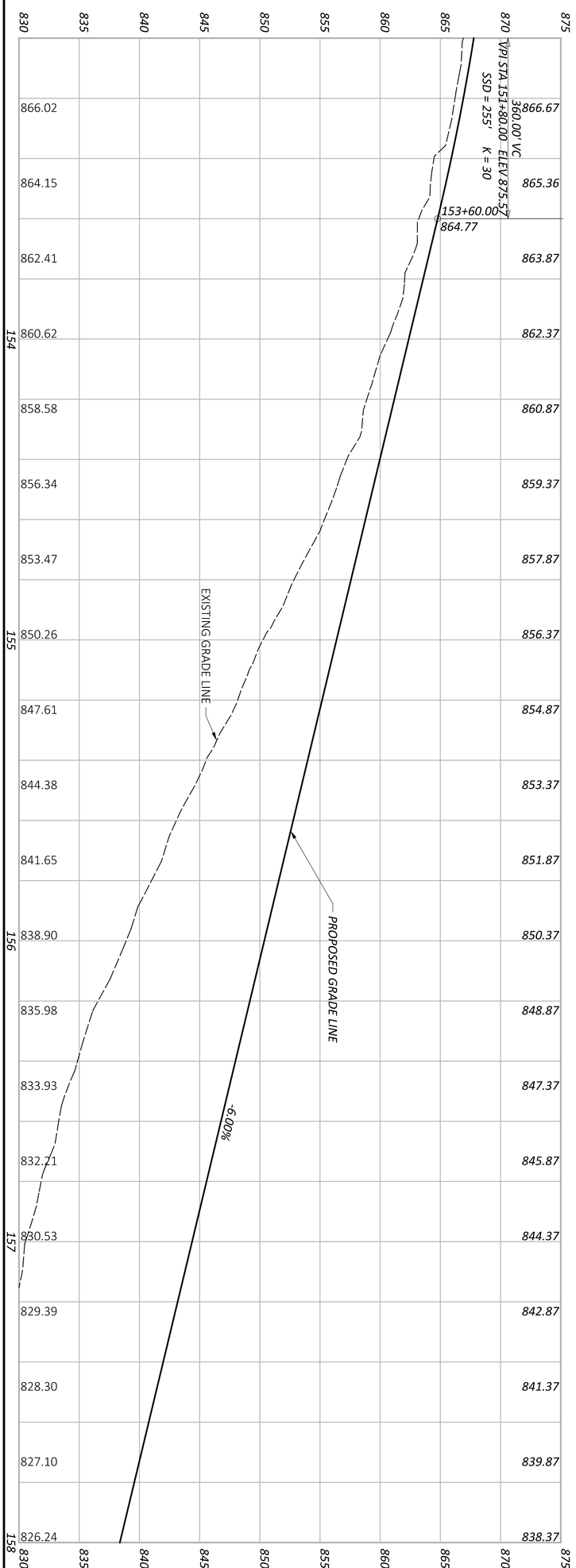

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
145	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 7
PLAN AND PROFILE - MAIN

HORIZONTAL SCALE IN FEET
0 10 20 40

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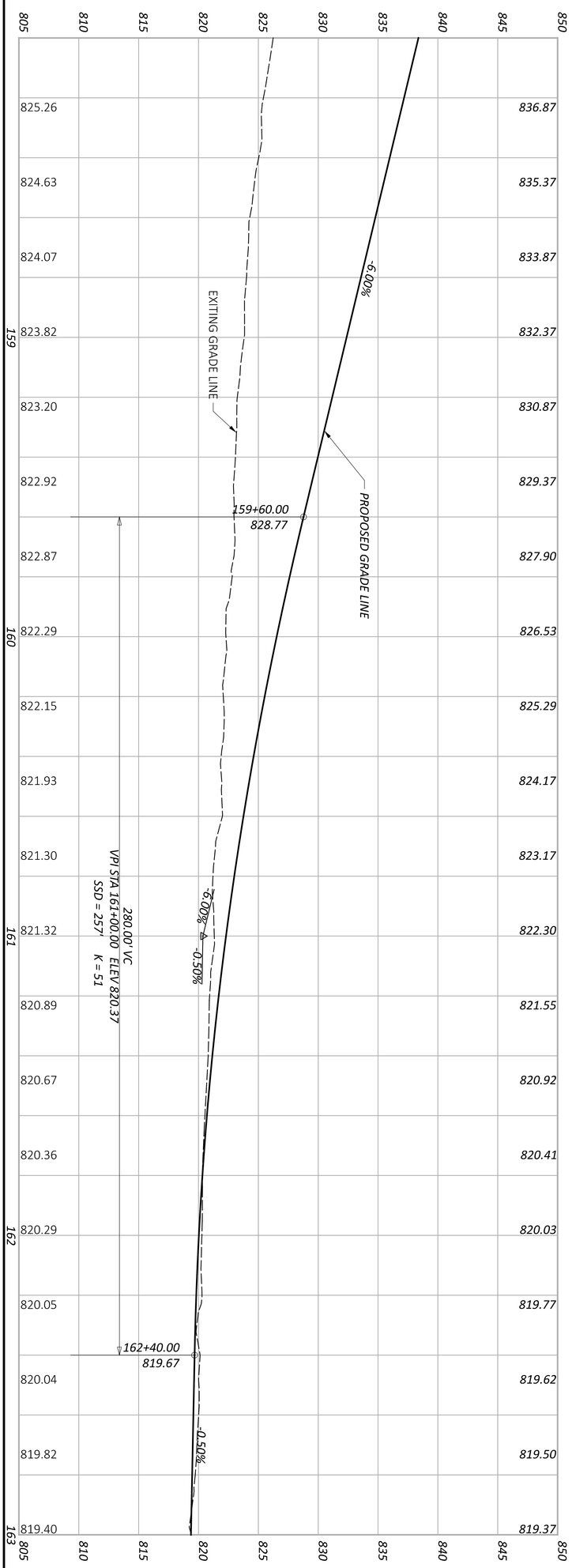

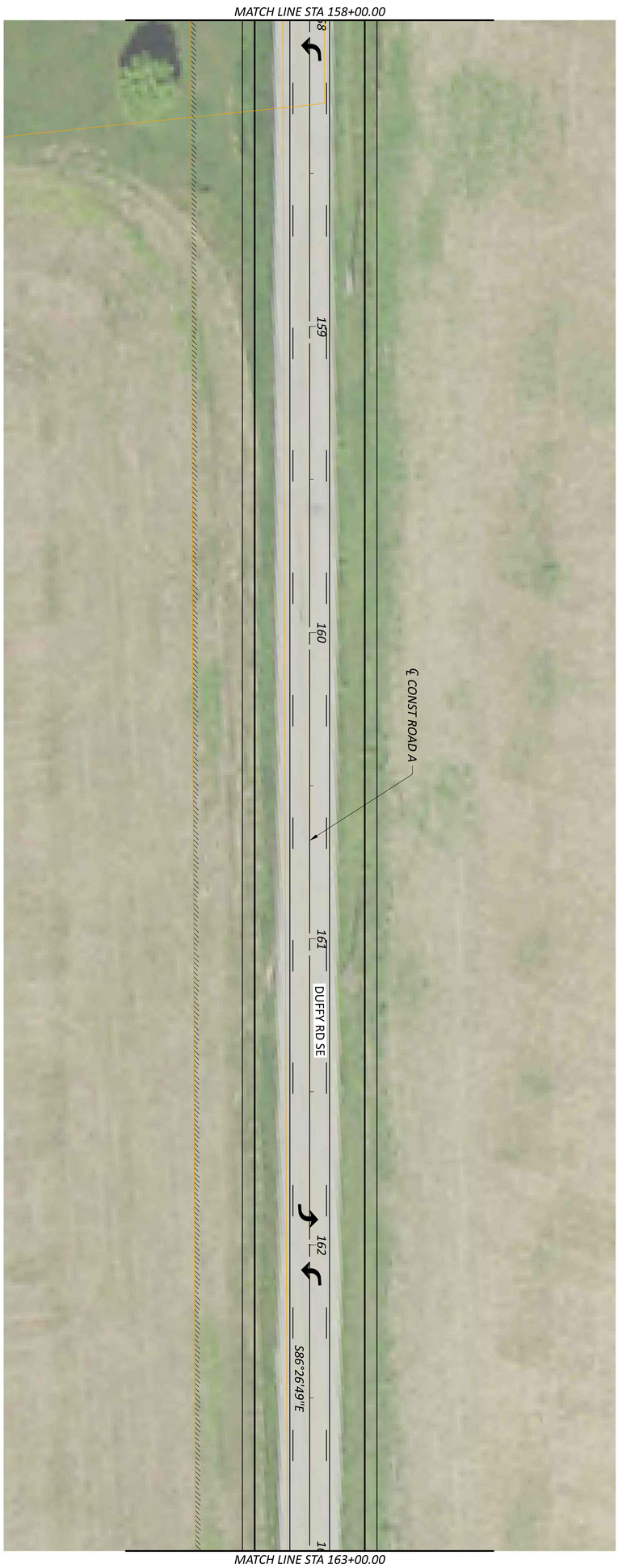

SHEET	TOTAL
146	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: CDP

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 7
PLAN AND PROFILE - MAIN

HORIZONTAL SCALE IN FEET

0 20
10 40

MODEL: CLP_7_MAIN-3 - SHEET PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:51:54 PM USER: cphillips
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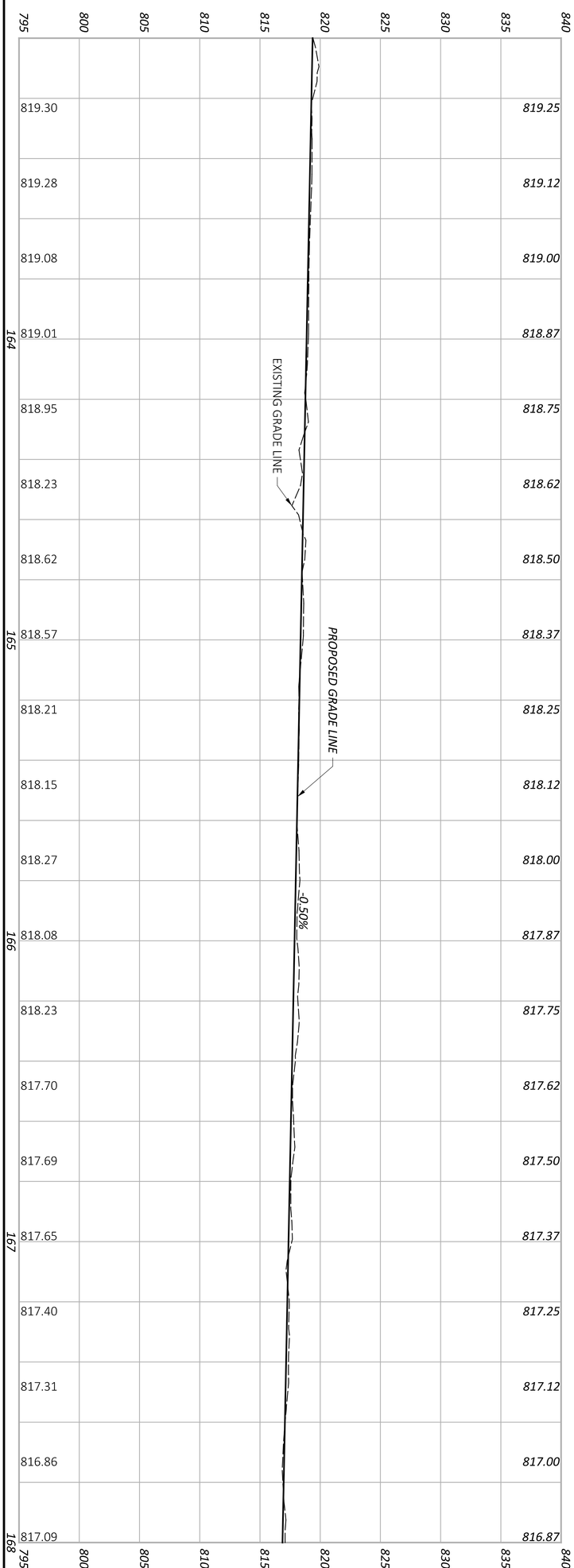

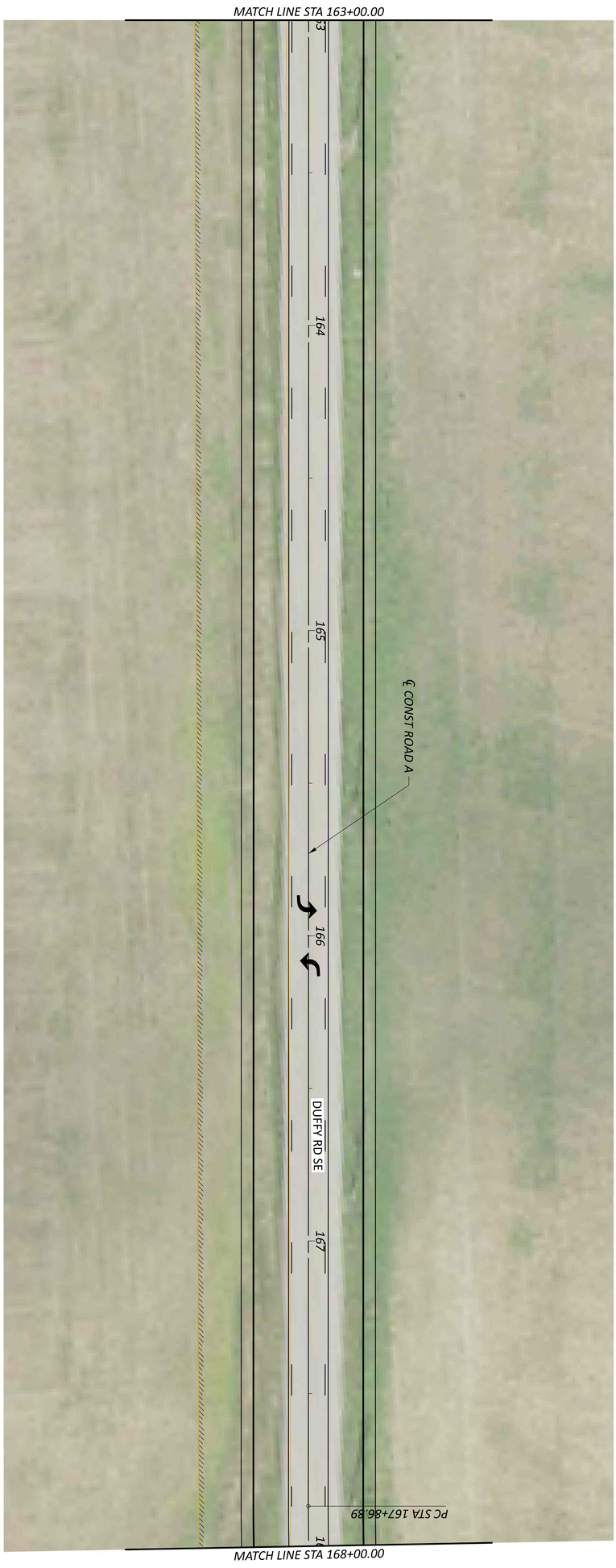

ALTERNATIVE 7
PLAN AND PROFILE - MAIN

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
147	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET
0 10 20 40

ALTERNATIVE 7
PLAN AND PROFILE - MAIN

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: CLP_7_MAIN-4 - SHEET PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:52:07 PM USER: cphillips
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DESIGN AGENCY
KIMLEY»HORN AND ASSOCIATES, INC.
STRUCTUREPOINT LLC

DESIGNER
CDP

REVIEWER
KAM 03/02/23

PROJECT ID
03022

SHEET 148 TOTAL 162

MODEL: CLP_7_MAIN-5 - SHEET PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:52:20 PM USER: cphillips
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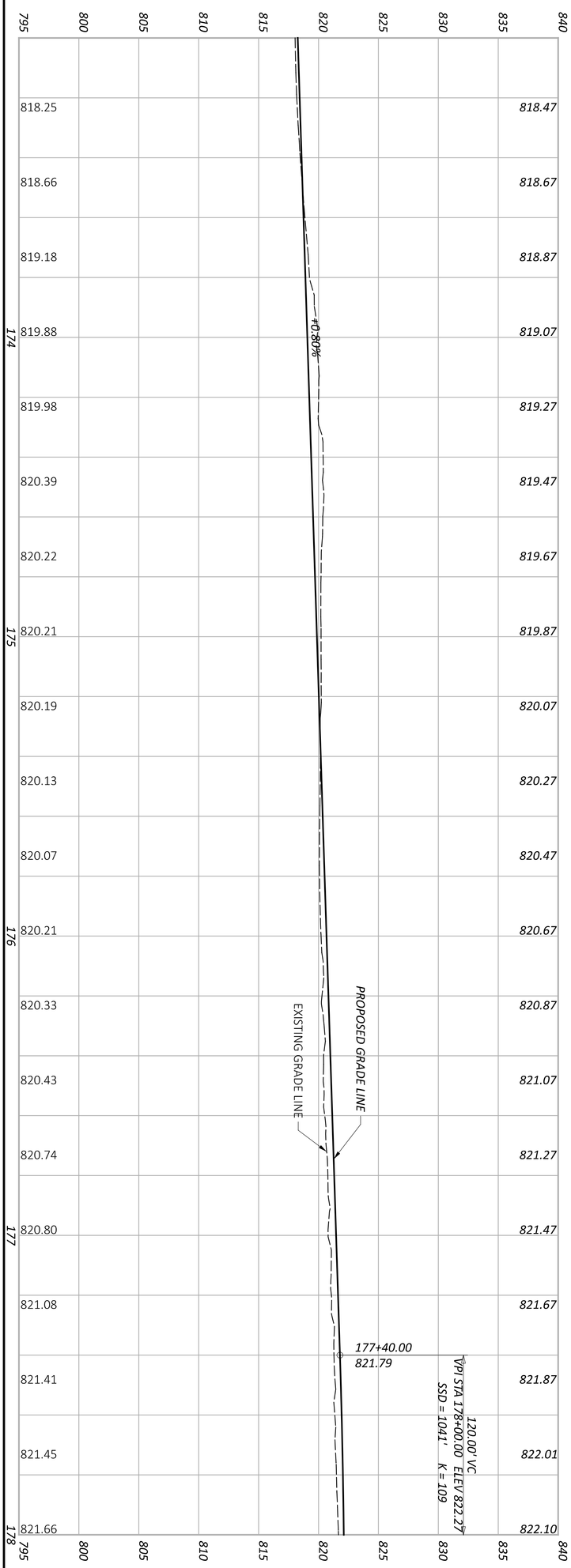

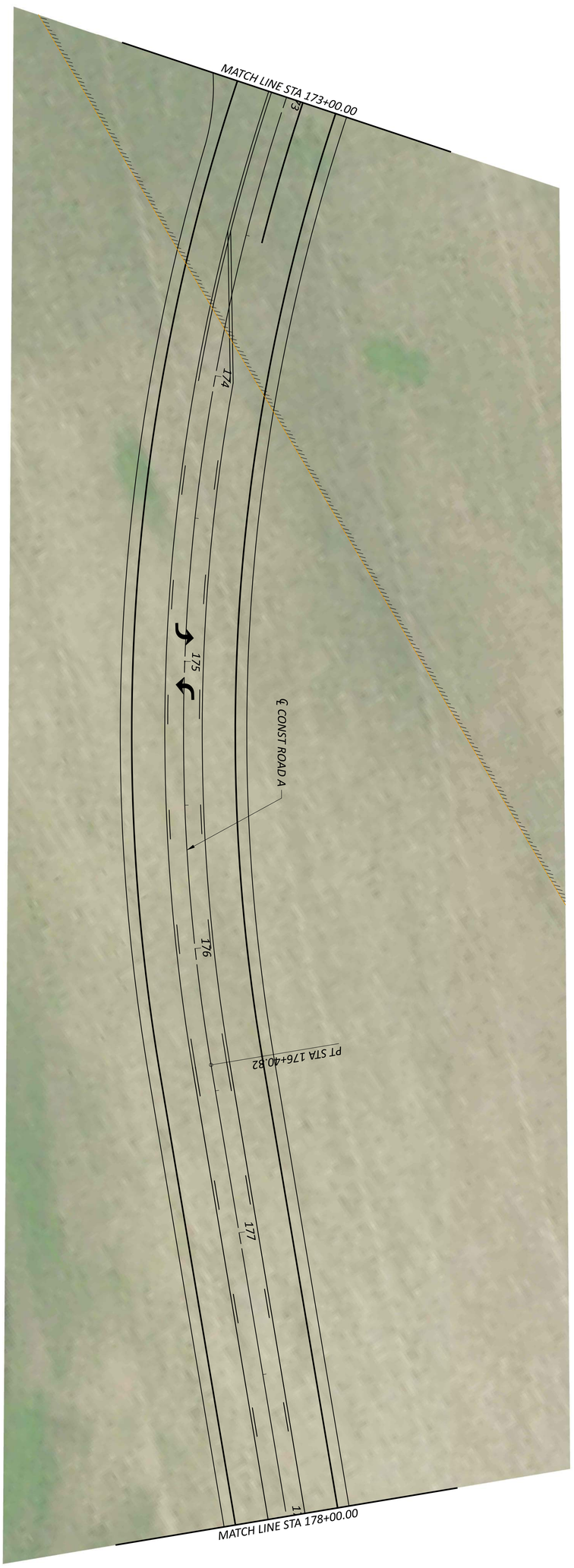

ALTERNATIVE 7
PLAN AND PROFILE - MAIN

SHEET	TOTAL
149	162

PROJECT ID: 03022

REVIEWER: KAM 03/02/23

DESIGNER: CDP

DESIGN AGENCY: AMERICAN STRUCTUREPOINT INC.

HORIZONTAL SCALE IN FEET

0 20

10 40

MODEL: CLP_7_MAIN-6 - SHEET PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:52:34 PM USER: cphillips
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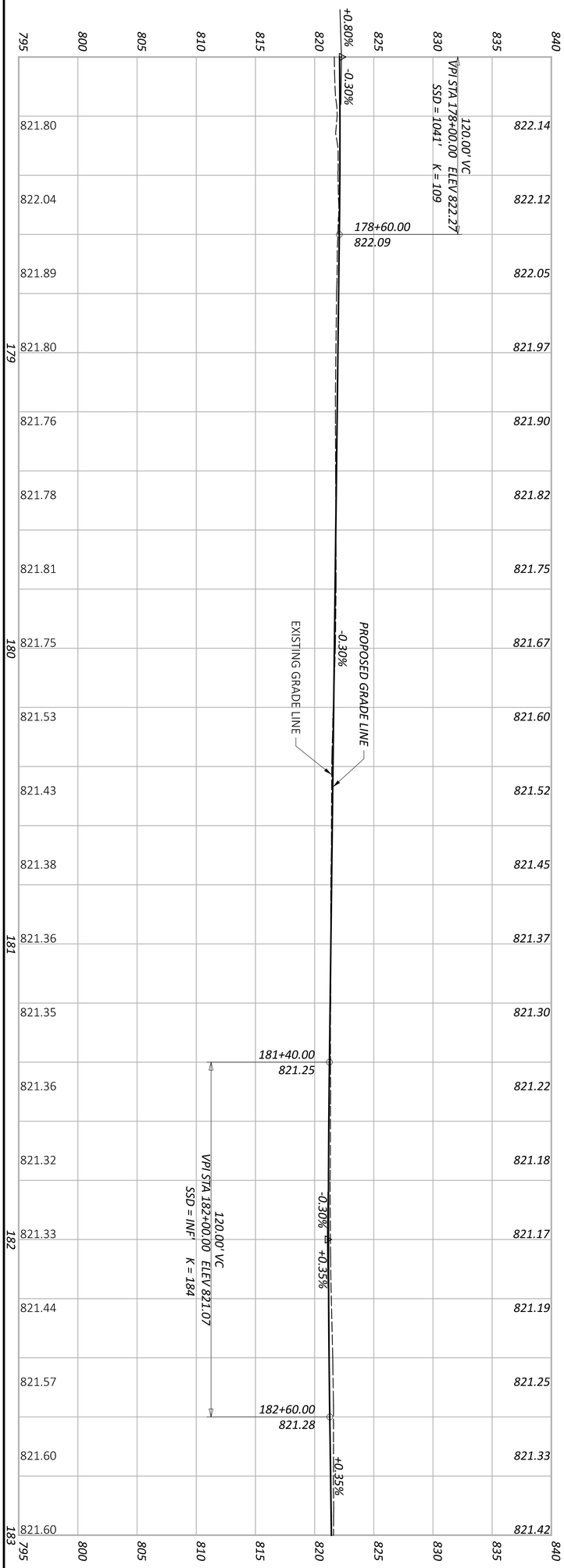

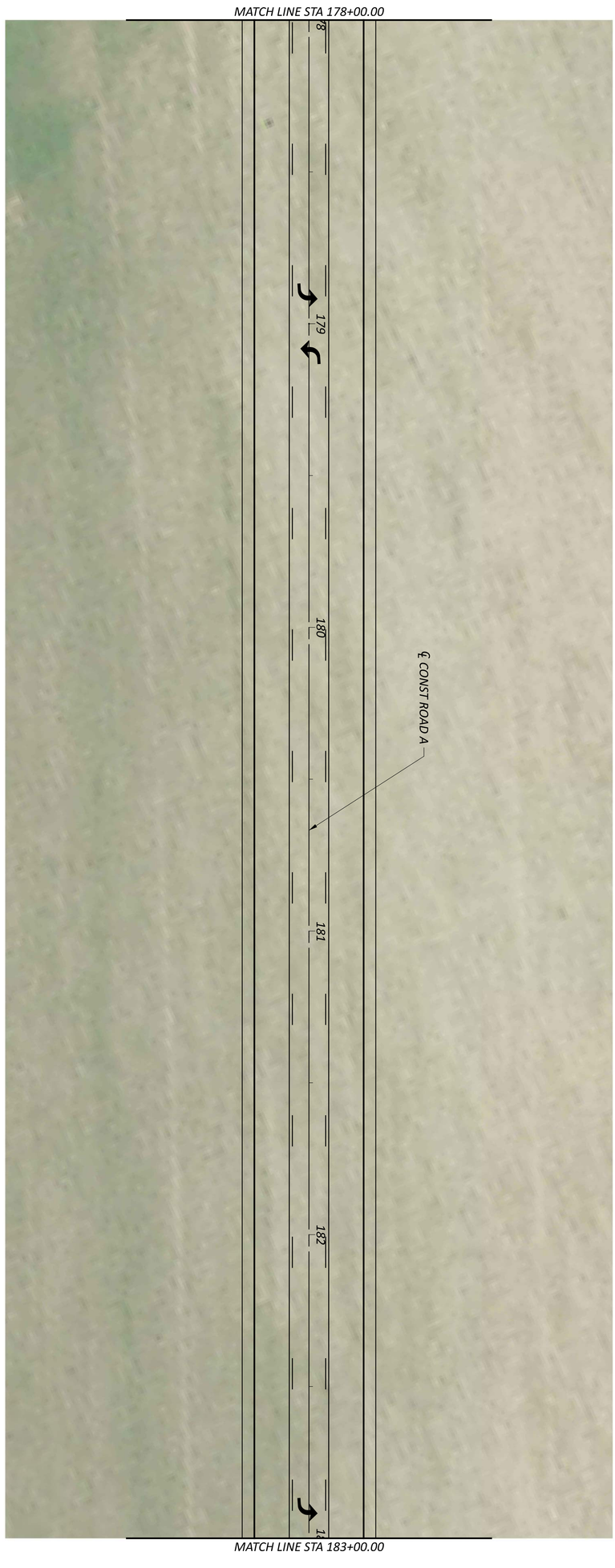

ALTERNATIVE 7
PLAN AND PLOT - MAIN

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
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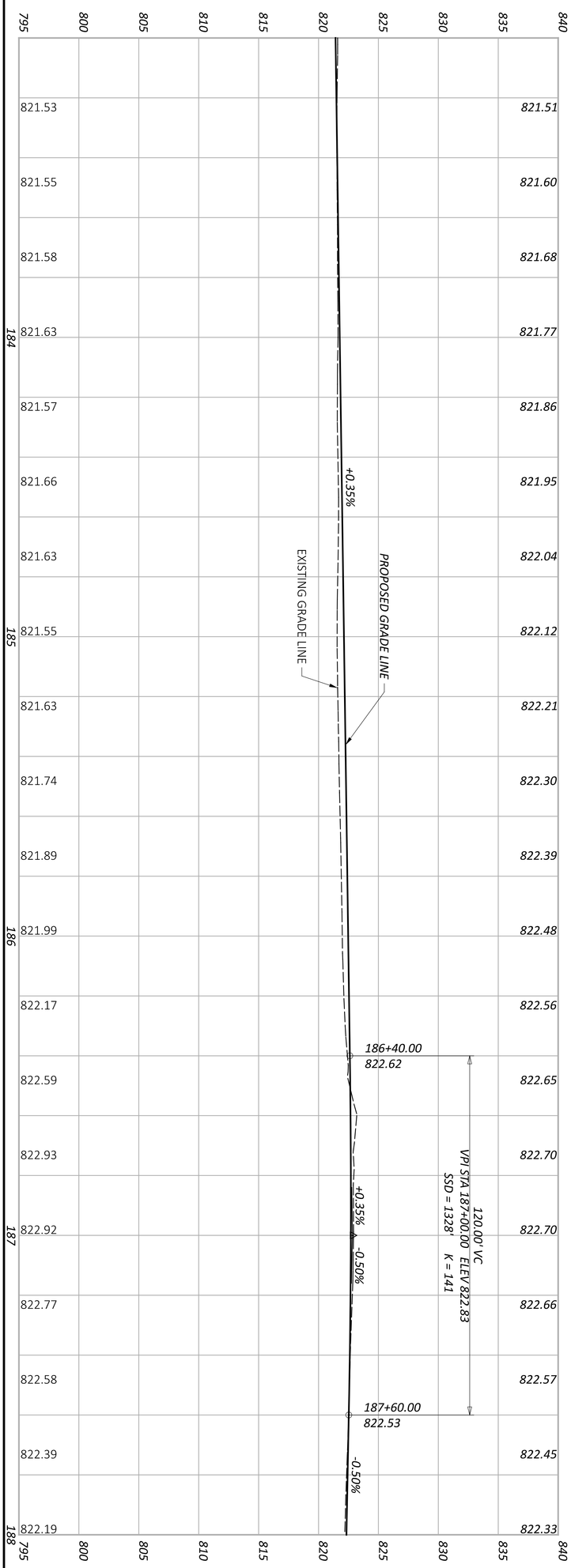
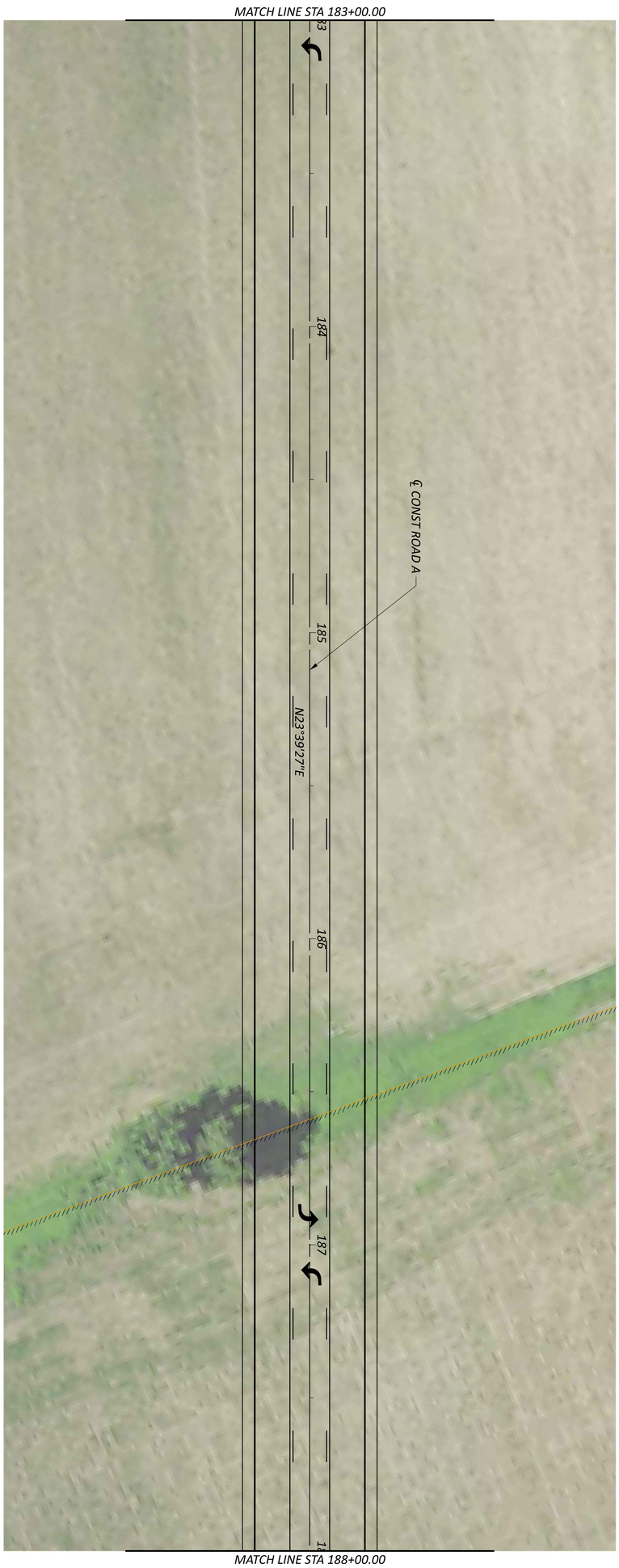
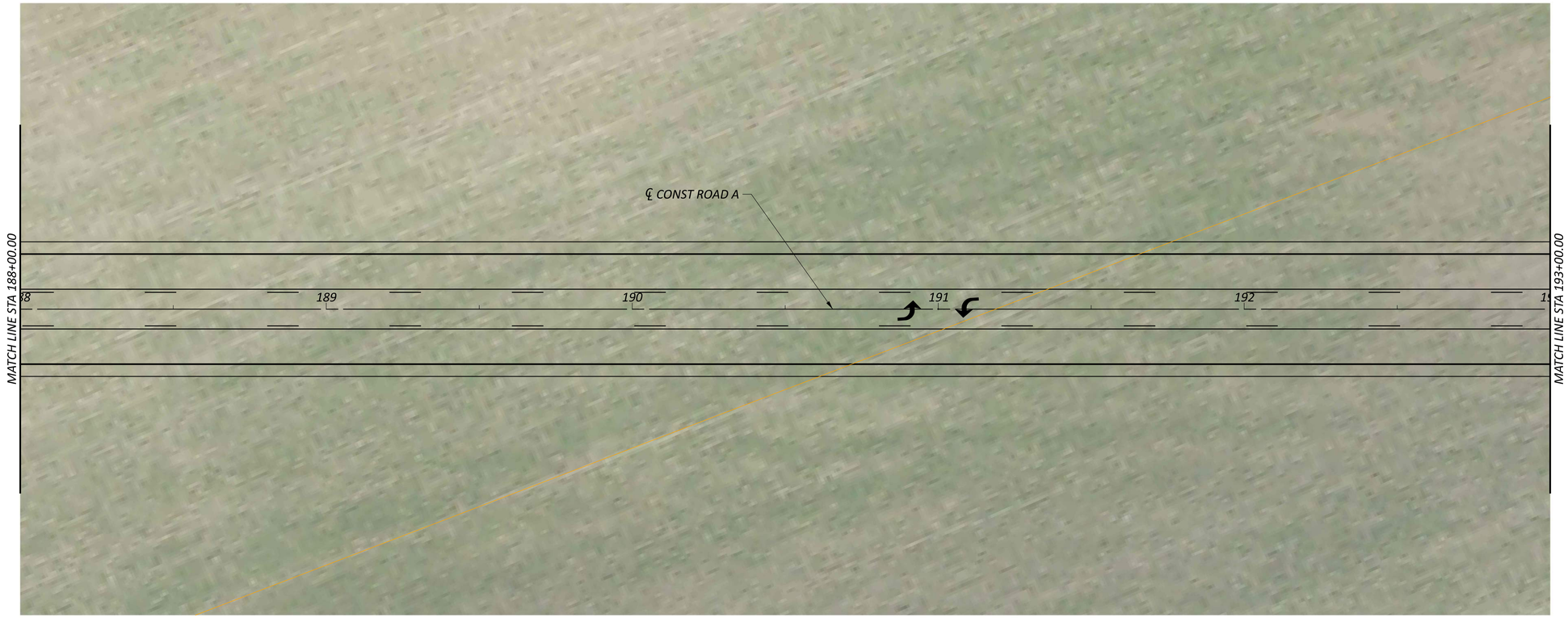


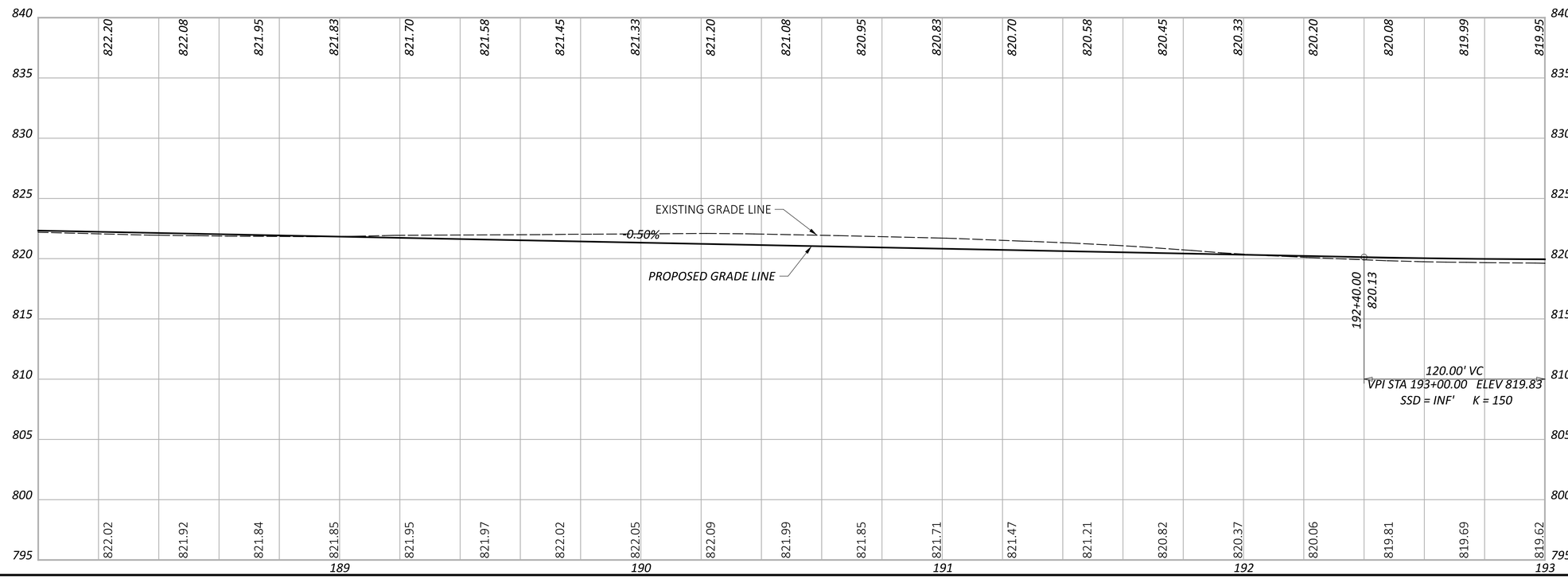


SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
151	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 7
PLAN AND PROFILE - MAIN

HORIZONTAL SCALE IN FEET
0 20
10 40





HORIZONTAL SCALE IN FEET
0 10 20 40

ALTERNATIVE 7
PLAN AND PROFILE - MAIN

DESIGN AGENCY
AMERICAN STRUCTUREPOINT INC.

DESIGNER
CDP

REVIEWER
KAM 03/02/23

PROJECT ID
03022

SHEET 152 TOTAL 162

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: CLP_7_MAIN-8 - SHEET PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:52:58 PM USER: cphillips
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FAI - LANCASTER INDUSTRIAL BYPASS

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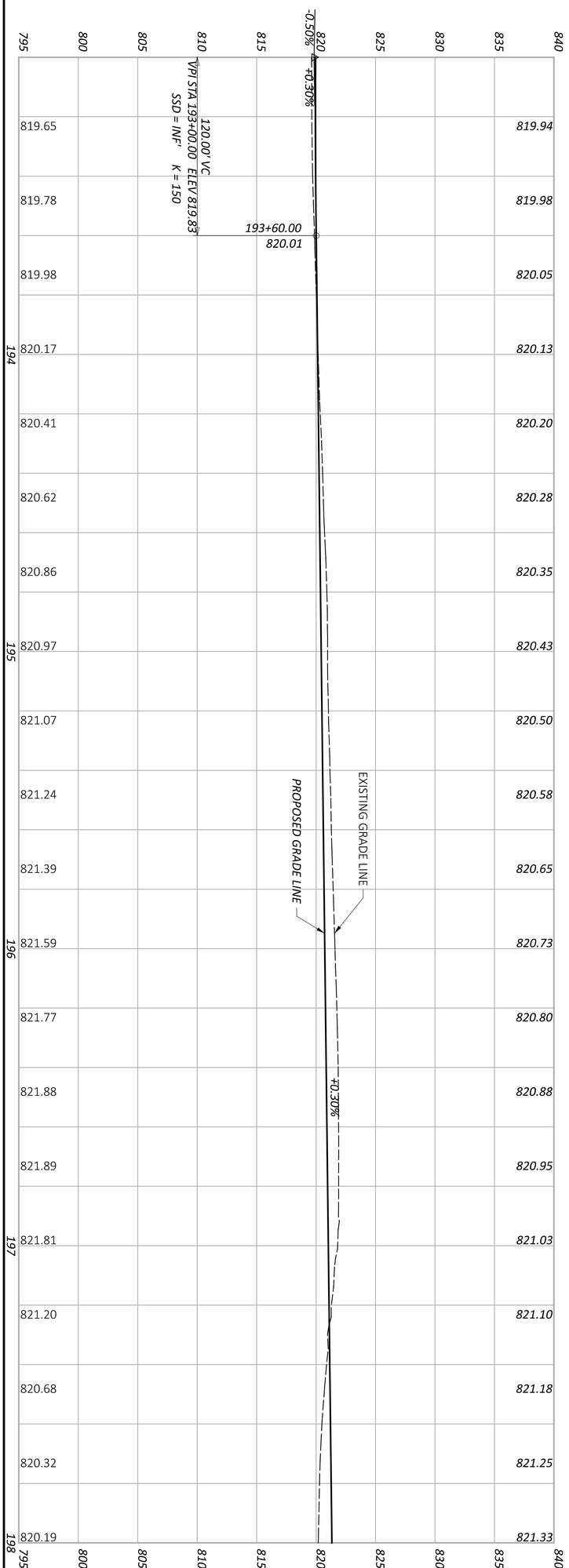

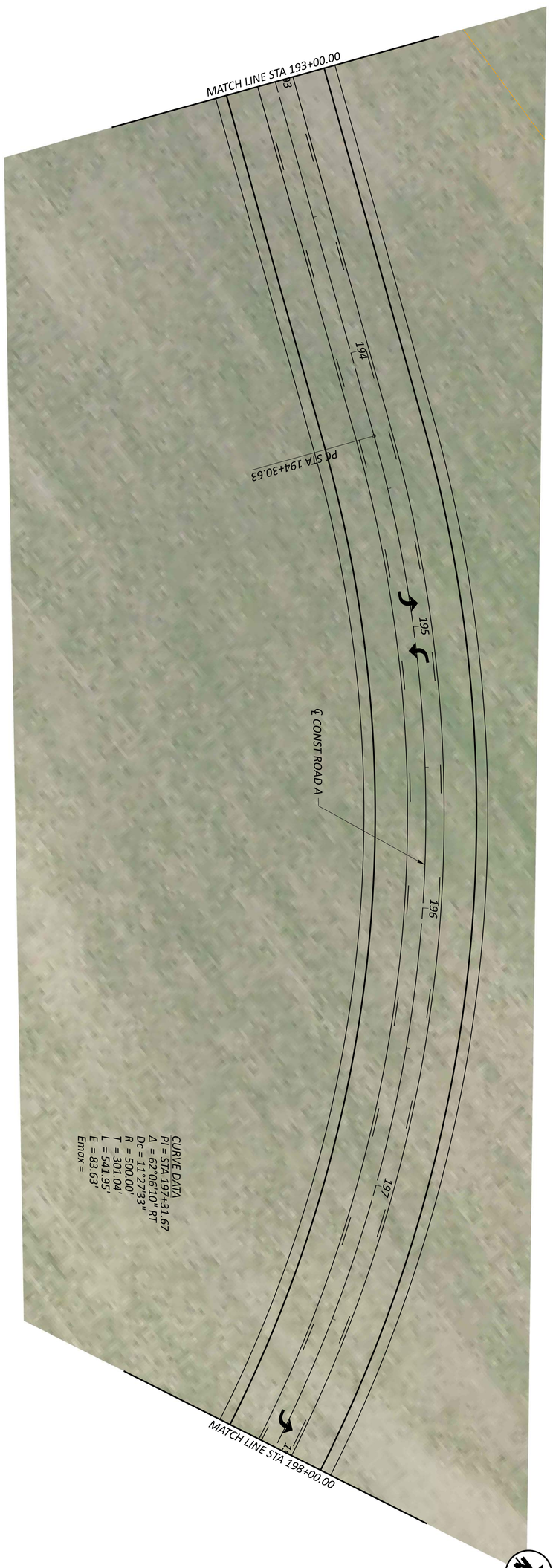

SHEET 153 | TOTAL 162	PROJECT ID 03022	REVIEWER KAM 03/02/23	DESIGNER CDP	DESIGN AGENCY AMERICAN STRUCTUREPOINT INC.	ALTERNATIVE 7 PLAN AND PROFILE - MAIN

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

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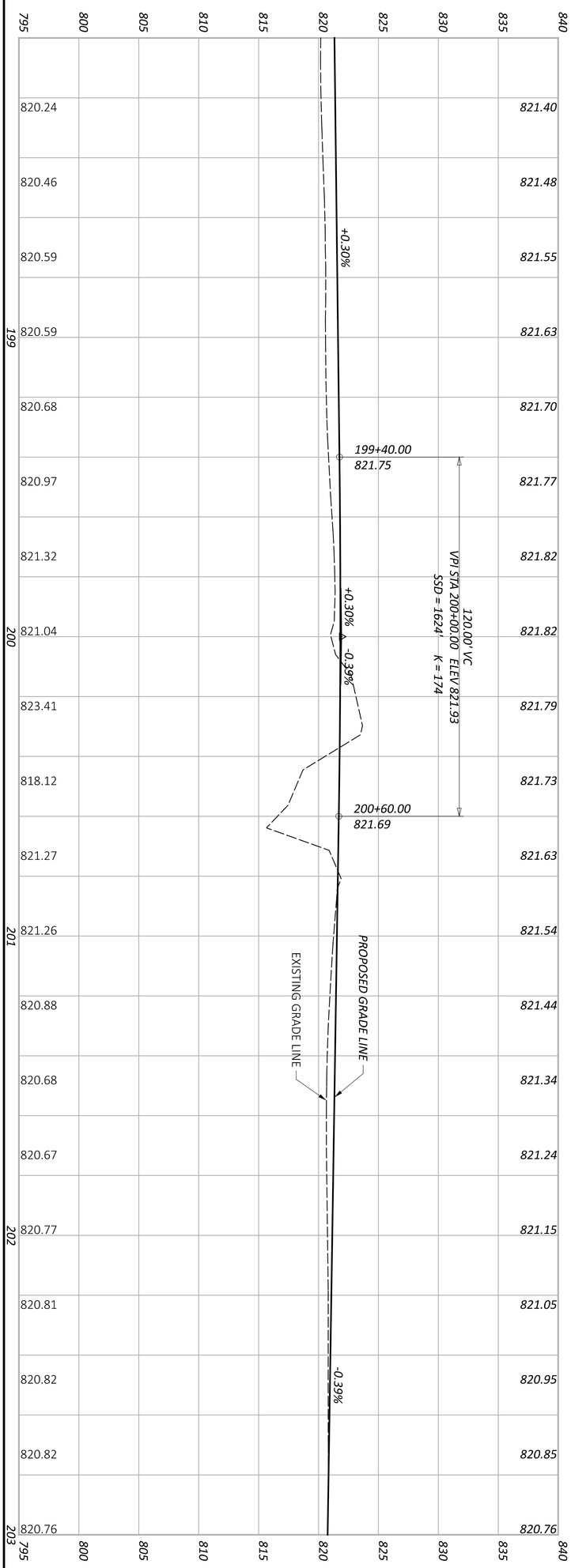

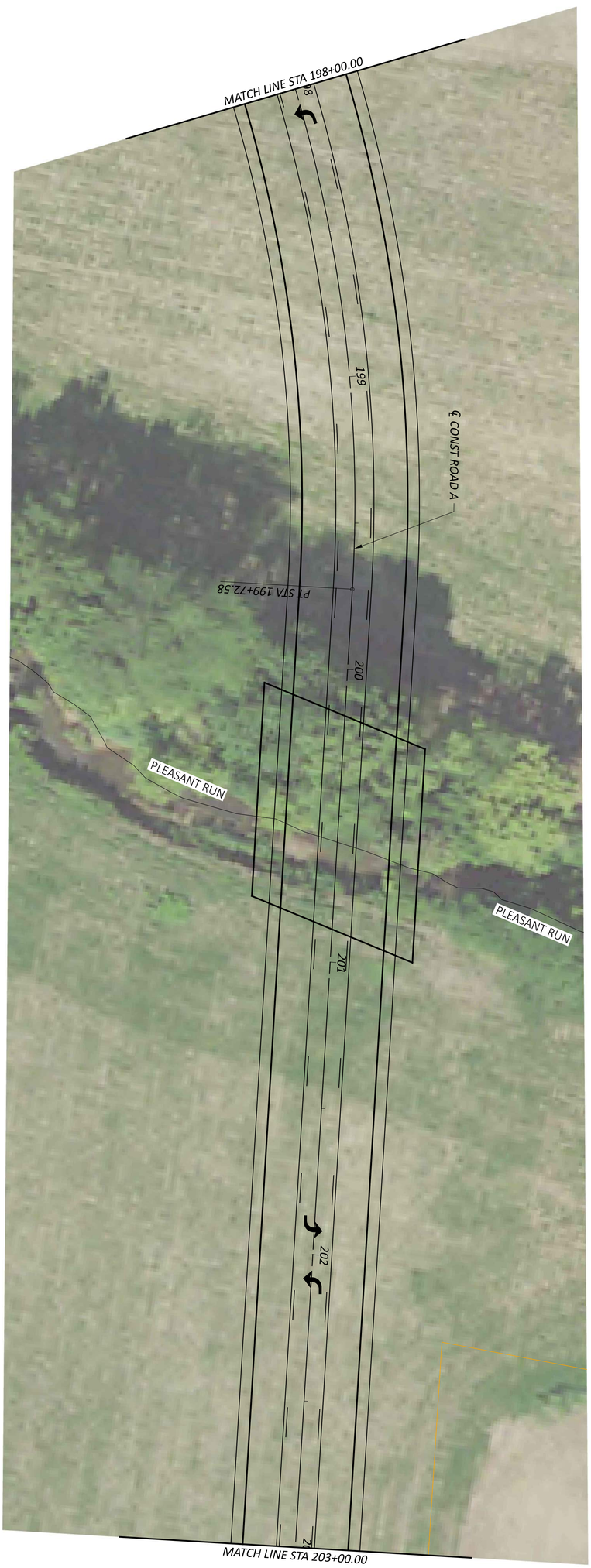

ALTERNATIVE 7
PLAN AND PROFILE - MAIN

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
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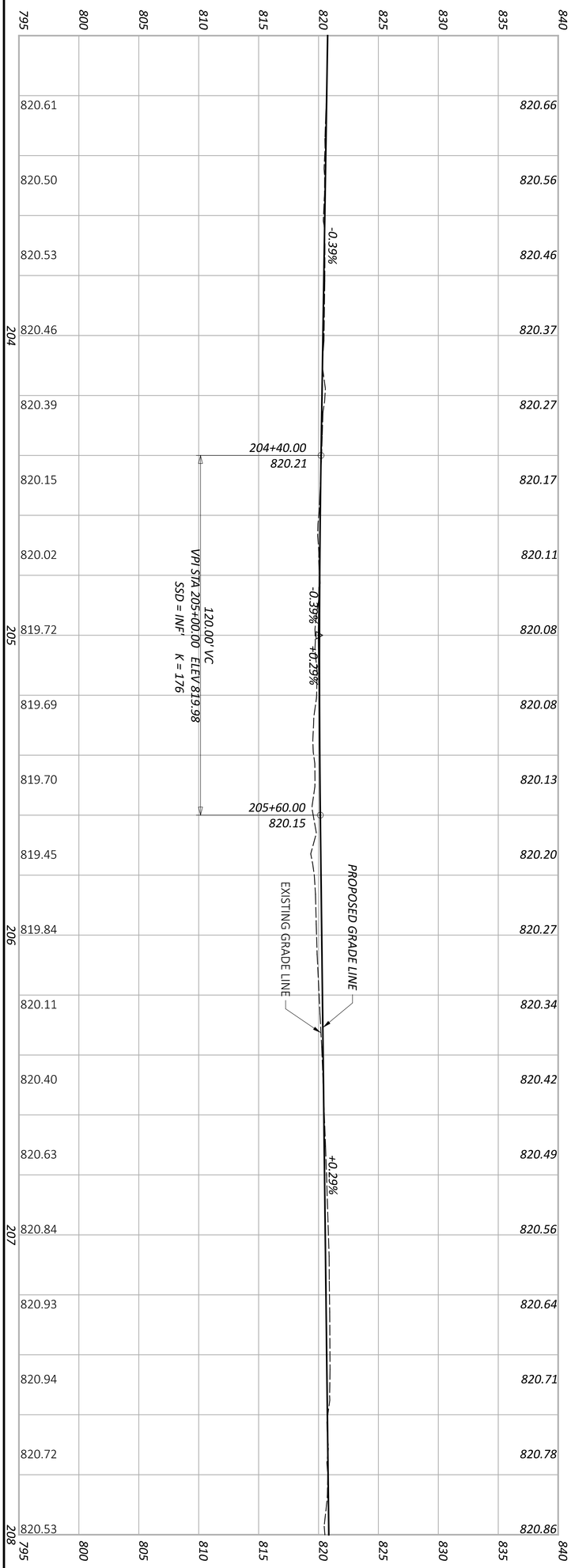
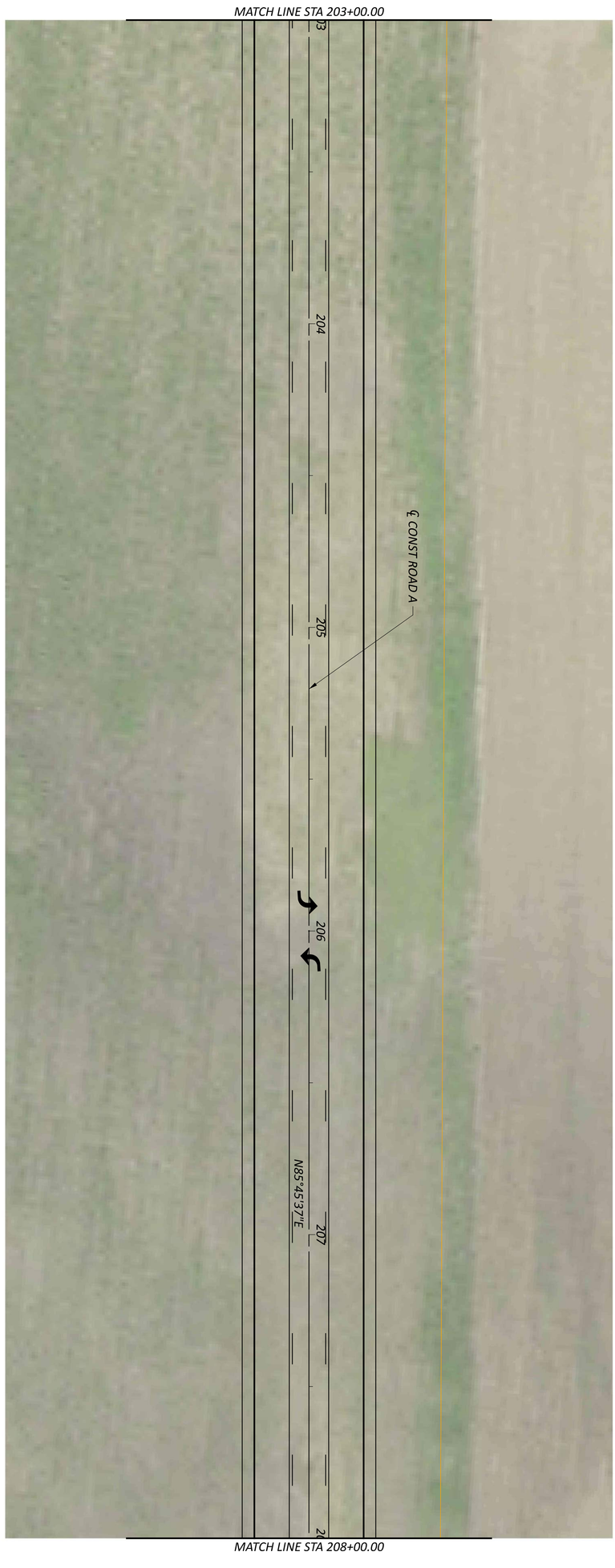
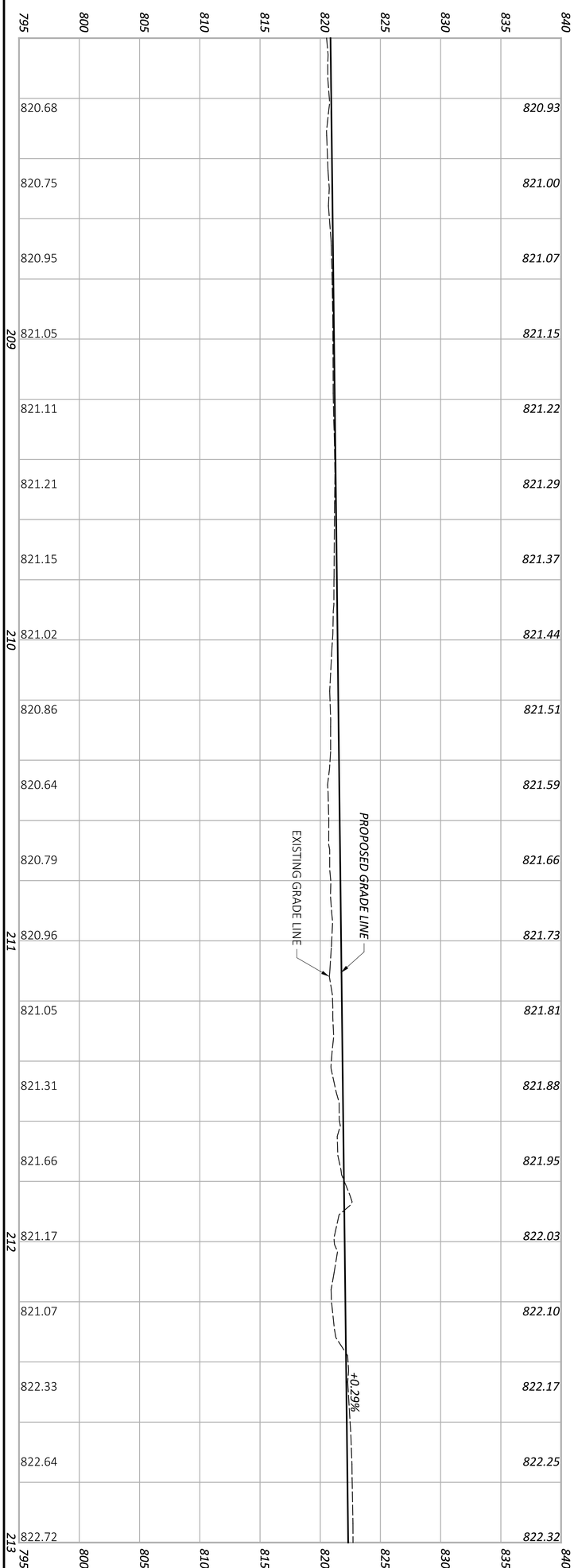


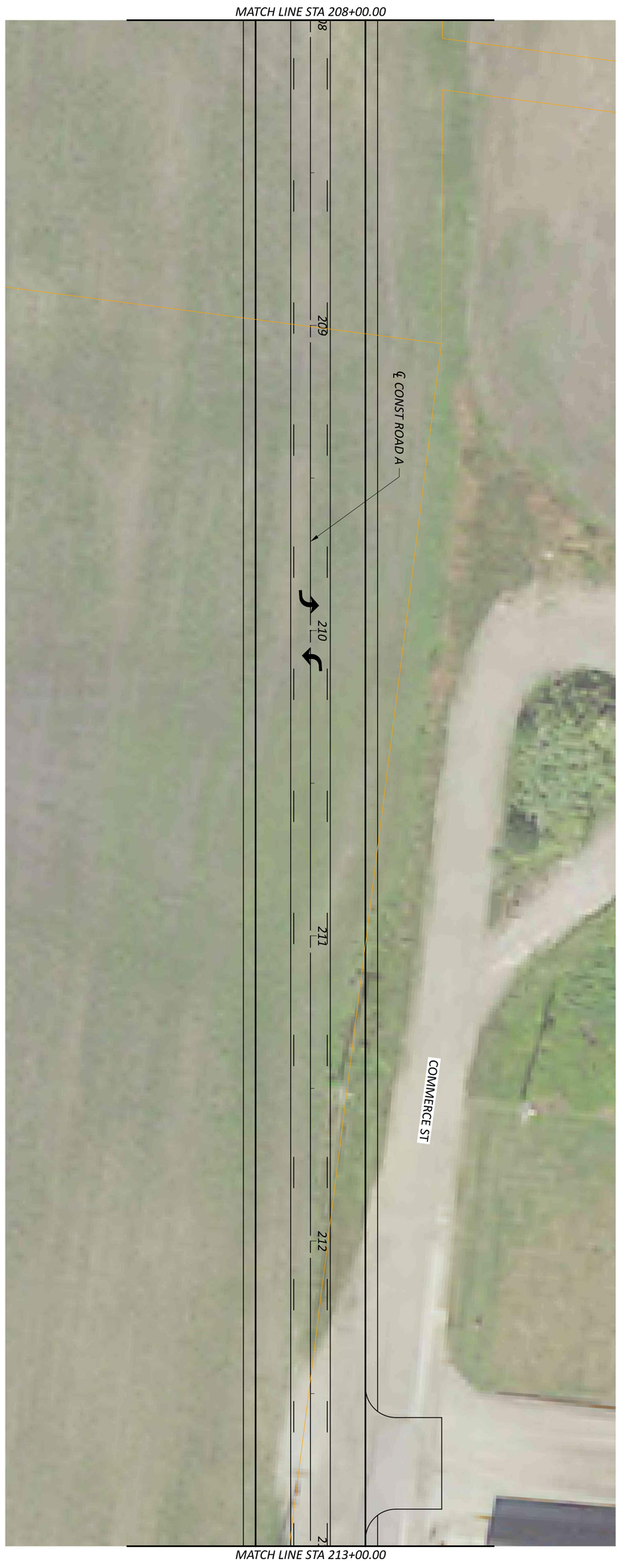


ALTERNATIVE 7
PLAN AND PROFILE - MAIN

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
155	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.





ALTERNATIVE 7
PLAN AND PROFILE - MAIN

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
156	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

MODEL: CLP_7_MAIN-13 - SHEET PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:54:00 PM USER: cphillips
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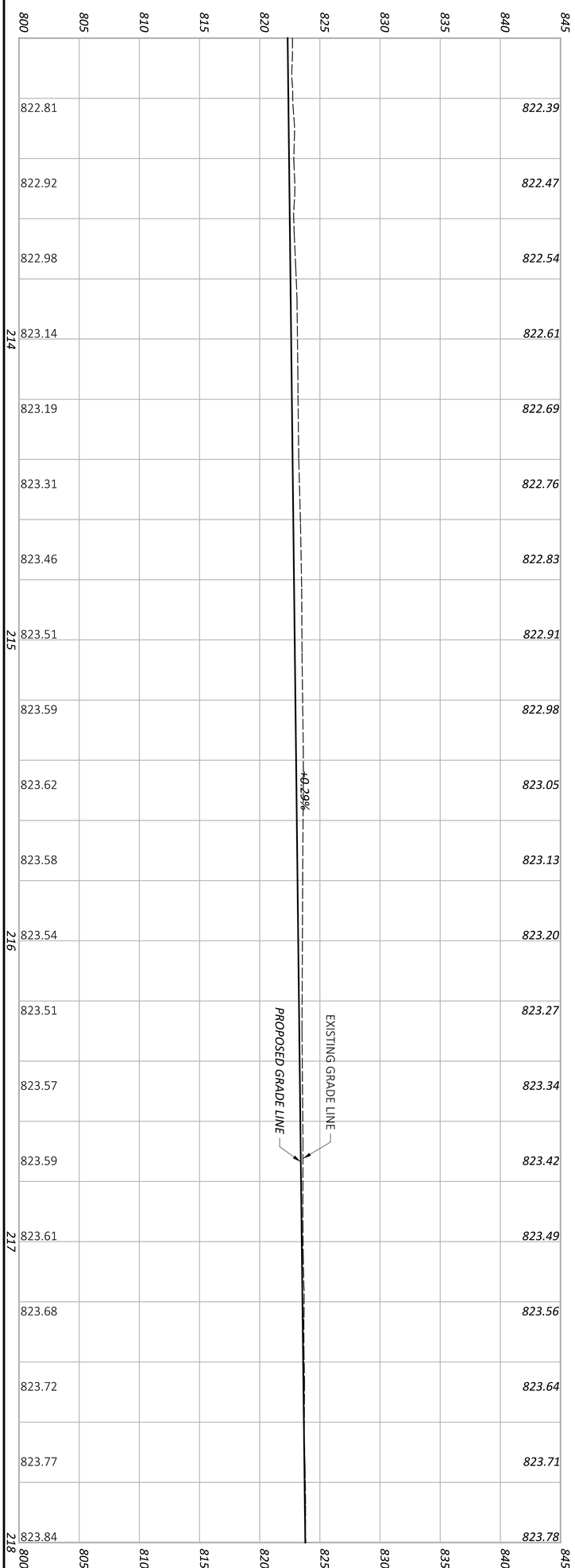

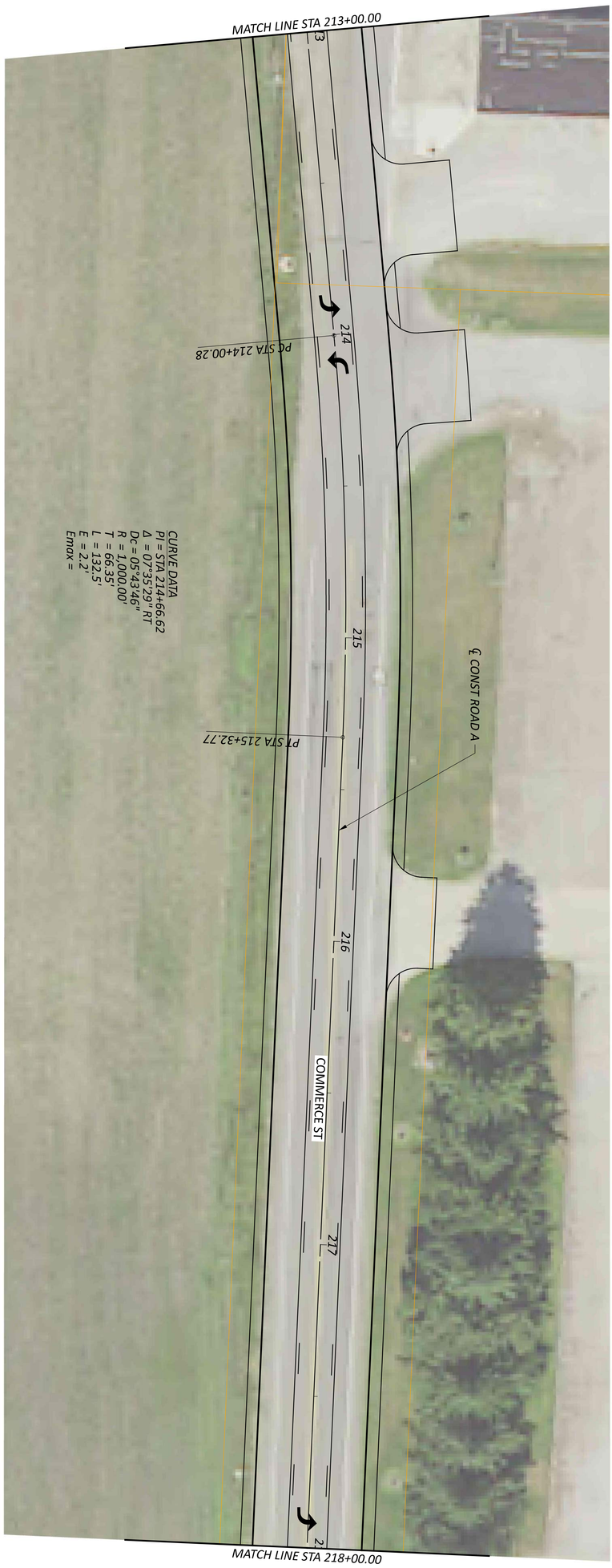

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
157	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

ALTERNATIVE 7
PLAN AND PROFILE - MAIN

HORIZONTAL SCALE IN FEET
0 20
10 40

FAI - LANCASTER INDUSTRIAL BYPASS

MODEL: CLP_7_MAIN-14 - SHEET PAPERSIZE: 34x22 (in.) DATE: 3/7/2023 TIME: 12:54:12 PM USER: cphillips
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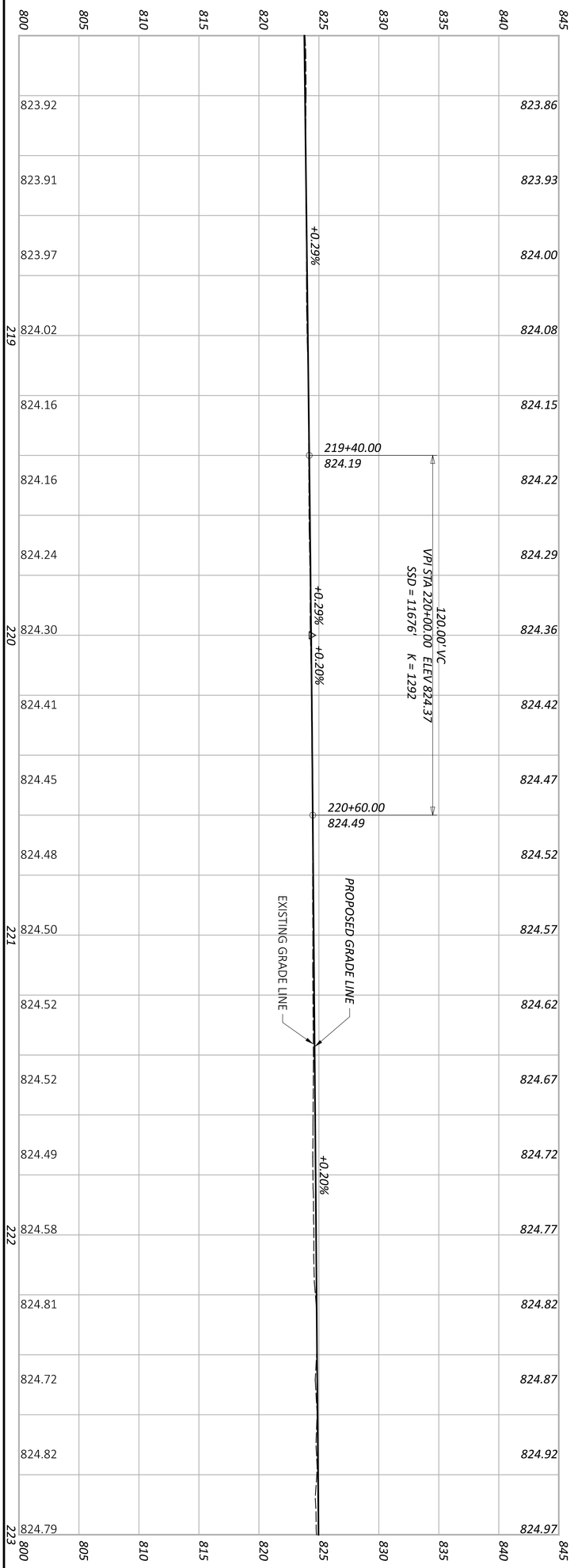
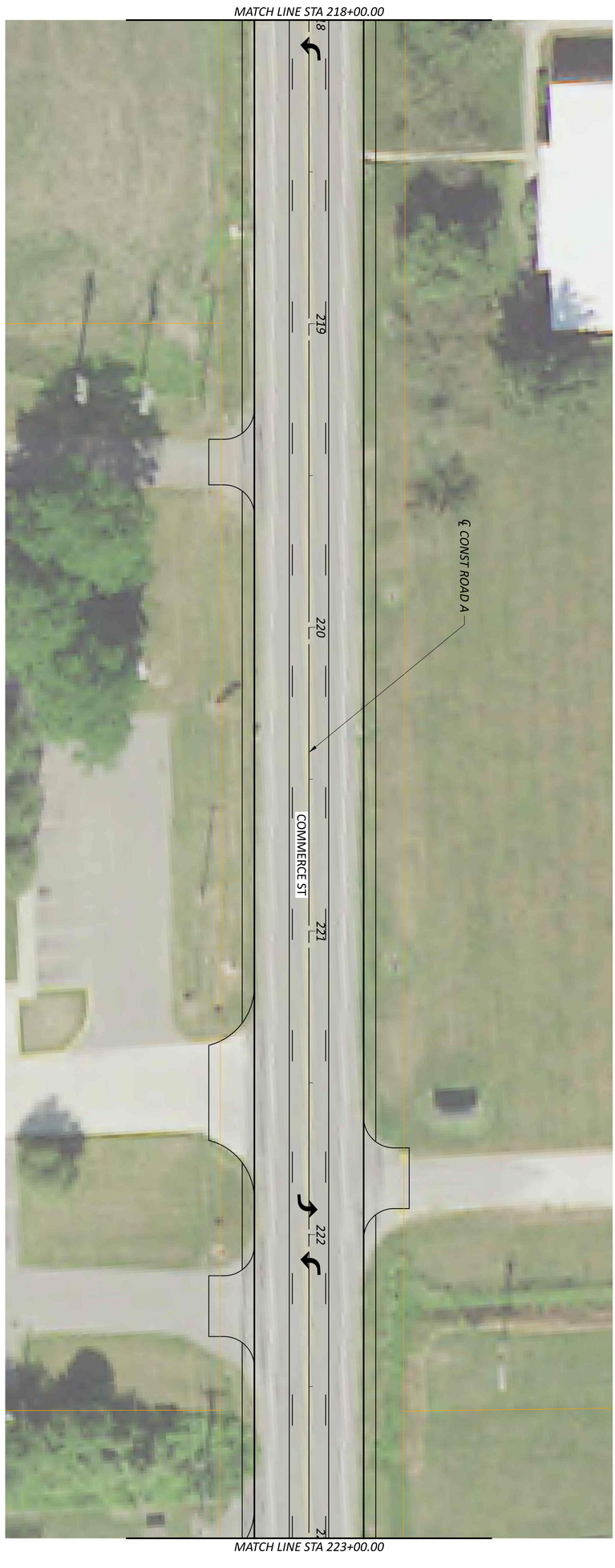
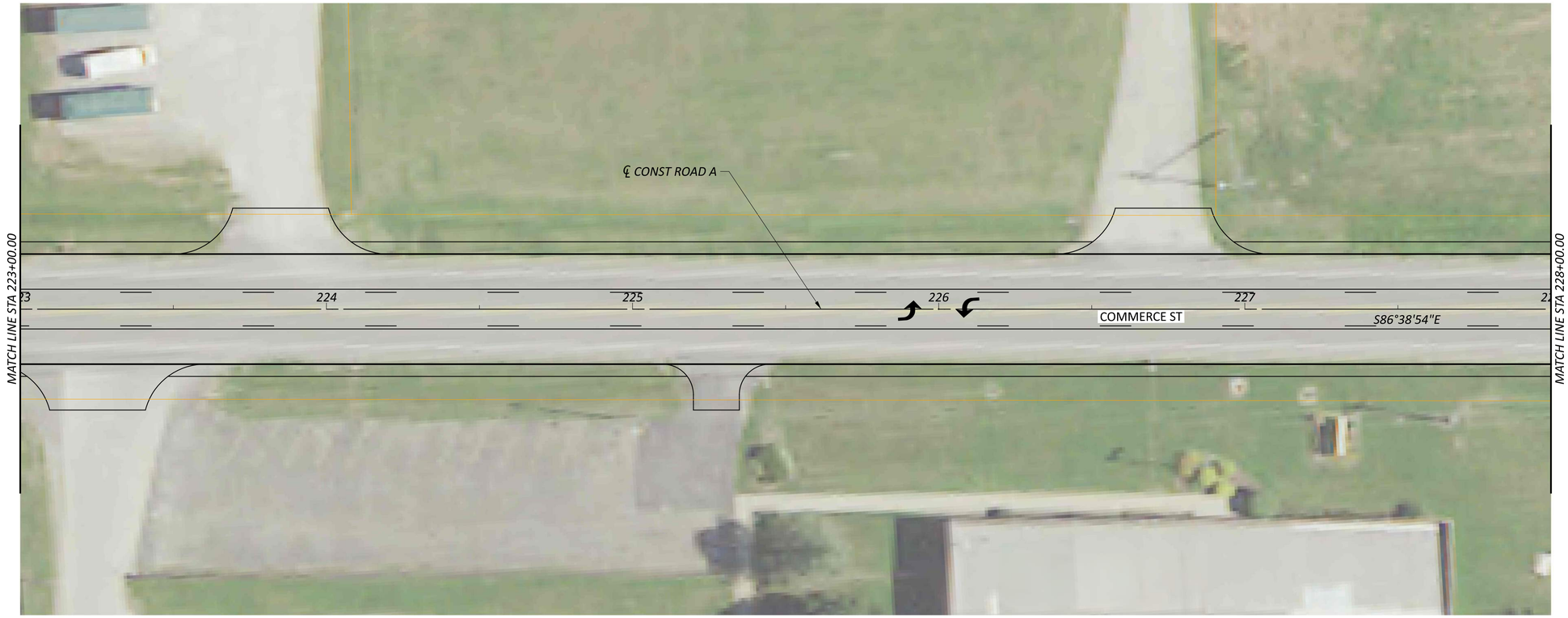




SHEET 158 / TOTAL 162	PROJECT ID 03022	REVIEWER KAM 03/02/23	DESIGNER CDP	DESIGN AGENCY AMERICAN STRUCTUREPOINT INC.	ALTERNATIVE 7 PLAN AND PROFILE - MAIN

HORIZONTAL SCALE IN FEET
0 20
10 40



HORIZONTAL SCALE IN FEET
0 10 20 40

ALTERNATIVE 7
PLAN AND PROFILE - MAIN

DESIGN AGENCY
AMERICAN STRUCTUREPOINT INC.

DESIGNER
CDP

REVIEWER
KAM 03/02/23

PROJECT ID
03022

SHEET 159 TOTAL 162

FAI - LANCASTER INDUSTRIAL BYPASS

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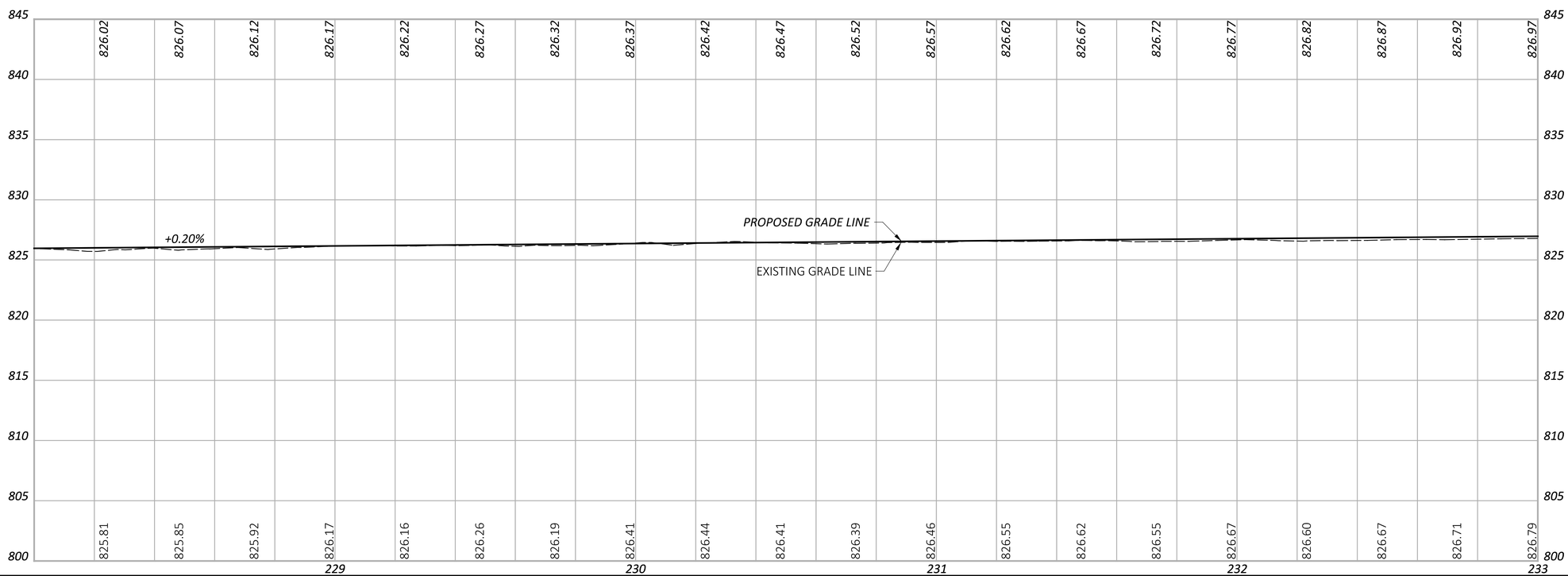

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ALTERNATIVE 7
PLAN AND PROFILE - MAIN

DESIGN AGENCY
AMERICAN STRUCTUREPOINT INC.

DESIGNER
CDP

REVIEWER
KAM 03/02/23

PROJECT ID
03022

SHEET 160 TOTAL 162

FAI - LANCASTER INDUSTRIAL BYPASS

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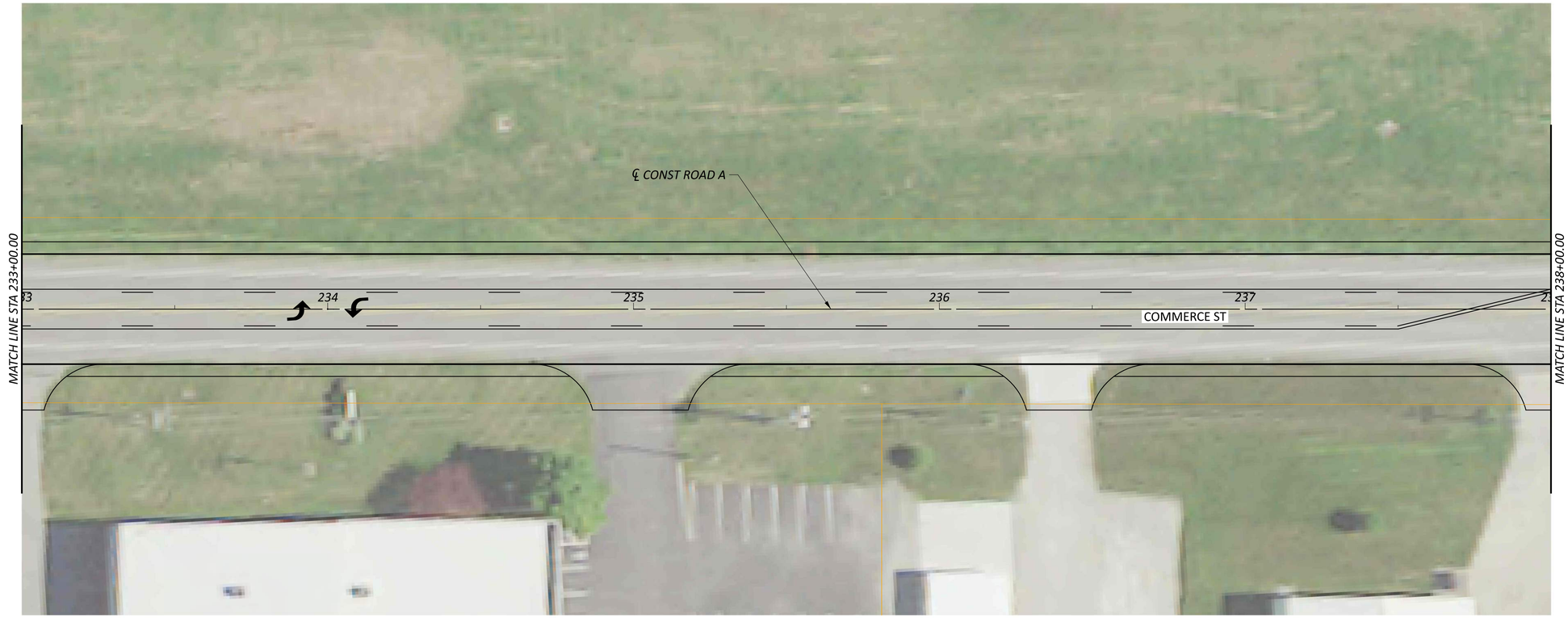

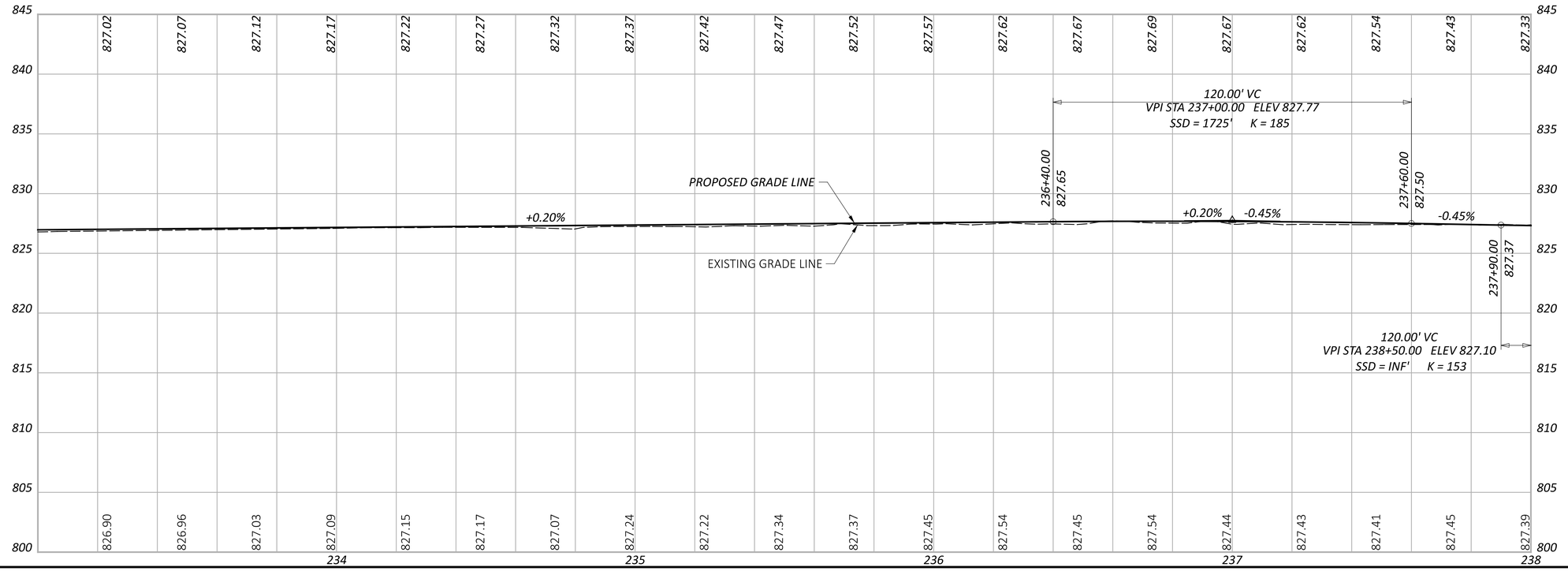

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DESIGN AGENCY
STRUCTUREPOINT LLC

DESIGNER
CDP

REVIEWER
KAM 03/02/23

PROJECT ID
03022

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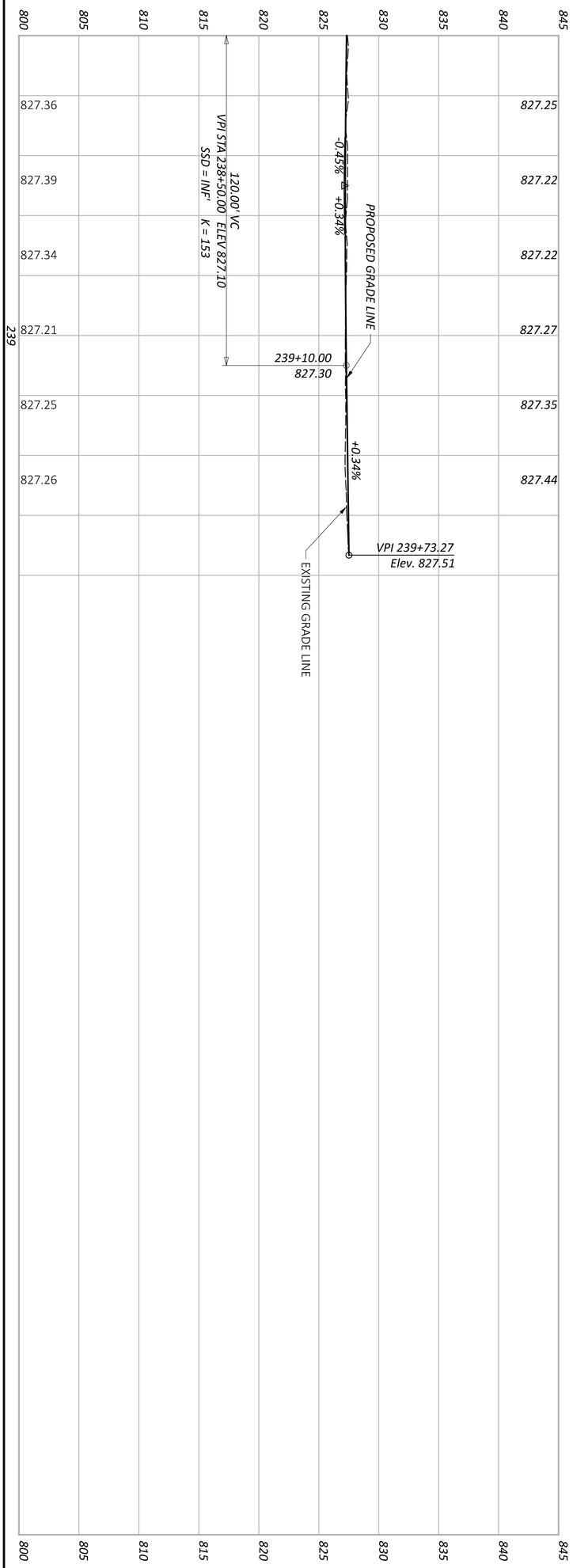

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PLAN AND PROFILE - MAIN

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SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
162	162	03022	KAM 03/02/23	CDP	AMERICAN STRUCTUREPOINT INC.

Appendix E – Construction Cost Estimates

ALTERNATIVE	1	2A	2B	2C	3A	3B	3C	4	5	6	7
ROADWAY	$ 3,891,198	$ 2,299,139	$ 1,593,928	$ 908,195	$ 1,524,154	$ 1,436,477	$ 1,429,731	$ 908,195	$ 1,905,727	$ 1,886,338	$ 2,110,150
EROSION CONTROL	$ 625,394	$ 457,471	$ 282,221	$ 545,600	$ 266,297	$ 253,845	$ 243,918	$ 84,714	$ 416,827	$ 299,149	$ 359,720
DRAINAGE	$ 1,470,036	$ 858,554	$ 598,843	$ 1,207,743	$ 573,479	$ 540,214	$ 538,559	$ 348,437	$ 712,630	$ 712,630	$ 794,077
PAVEMENT	$ 12,929,145	$ 5,991,333	$ 4,750,562	$ 10,257,308	$ 4,682,384	$ 4,367,752	$ 4,492,169	$ 3,894,495	$ 6,267,667	$ 6,267,667	$ 6,500,882
TRAFFIC CONTROL	$ 651,081	$ 380,255	$ 342,795	$ 534,911	$ 253,995	$ 239,261	$ 238,528	$ 154,323	$ 315,625	$ 315,625	$ 351,698
MOT	$ 828,619	$ 413,064	$ 304,874	$ 694,838	$ 309,692	$ 291,124	$ 293,489	$ 190,766	$ 488,741	$ 389,620	$ 405,647
BRIDGE	$ 7,500,000	$ 3,089,750	$ 2,265,743	$ 6,814,207	$ 2,695,987	$ 2,533,622	$ 2,653,979	$ 802,302	$ 6,005,798	$ 3,205,794	$ 3,110,250
INCIDENTALS	$ 2,418,187	$ 1,621,707	$ 1,014,342	$ 2,161,773	$ 1,023,576	$ 987,987	$ 992,521	$ 595,635	$ 1,766,753	$ 1,176,771	$ 1,207,490
Construction Cost	$ 30,313,660	$ 15,111,272	$ 11,153,307	$ 25,419,493	$ 11,329,564	$ 10,650,281	$ 10,736,806	$ 6,978,867	$ 17,879,767	$ 14,253,594	$ 14,839,913
Contingency (30%)	$ 9,094,098	$ 4,533,382	$ 3,345,992	$ 7,625,848	$ 3,398,869	$ 3,195,084	$ 3,221,042	$ 2,093,660	$ 5,363,930	$ 4,276,078	$ 4,451,974
Project Total	$ 39,407,758	$ 19,644,654	$ 14,499,298	$ 33,045,340	$ 14,728,434	$ 13,845,366	$ 13,957,847	$ 9,072,527	$ 23,243,697	$ 18,529,672	$ 19,291,887

The construction costs listed above are high level estimates and are for physical construction only. The pricing is in 2022 dollars and does not have any inflation percentage added because the date of construction is currently unknown. The following items will also be required in addition to the construction costs listed above:

- Design engineering
- Utility relocation
- Right-of-way acquisition
- Construction engineering/inspection

For additional estimating purposes, 15% of the construction cost should be assumed for design engineering, and 10% of the construction cost should be assumed for construction engineering/inspection. As stated in section 4.2, right-of-way costs should be determined during the Feasibility Study when the number of alternatives has been reduced, and construction limits have been determined. The development of construction limits, easement research, and coordination with the private utilities will be required to make a determination of utility relocation costs.

Appendix F – Geotechnical Information

Resource International, Inc.

EASTSIDE INDUSTRIAL CONNECTOR FEASIBILITY STUDY

LANCASTER, OHIO

GEOTECHNICAL DESKTOP STUDY

Prepared For:
American Structurepoint
2550 Corporate Exchange Drive, Suite 300
Columbus, Ohio 43231

Prepared By:
Resource International, Inc.
6350 Presidential Gateway
Columbus, Ohio 43231

Rii Project No. 21-W394

September 2022

RESOURCE INTERNATIONAL, INC.
6350 Presidential Gateway
Columbus, Ohio 43231
Ph: 614.823.4949

September 2, 2022

Mr. Kyle Messaros, P.E.
Team Leader – Road Group
American Structurepoint
2550 Corporate Exchange Drive, Suite 300
Columbus, Ohio 43231

Re: Geotechnical Desktop Study
Eastside Industrial Connector
Feasibility Study
Lancaster, Ohio

Mr. Messaros:

Resource International, Inc. (Rii) is pleased to submit this geotechnical desktop study report for the above-referenced project. This report includes a summary of the geotechnical related information obtained through a review of data form various public domains for the proposed feasibility study of the Eastside Industrial Connector in the City of Lancaster, Ohio.

We sincerely appreciate the opportunity to be of service to you on this project. If you have any questions concerning the subsurface investigation or this report, do not hesitate to contact us.

Sincerely,

RESOURCE INTERNATIONAL, INC.

Jonathan P. Sterenberg, P.E.
Vice President – Geotechnical Services

Enclosure: Geotechnical Desktop Study Report

TABLE OF CONTENTS

Section **Page**

1.0 INTRODUCTION 1

2.0 DESKTOP STUDY 1

2.1 Site Geology 1
2.2 Hydrogeological Setting 2
2.3 ODOT TIMS Historic Boring Logs 2
2.3.1 Surface Materials 2
2.3.2 Subsurface Soils 2
2.3.3 Bedrock 3
2.3.4 Groundwater 3
2.4 US Fish and Wildlife Service National Wetlands Inventory 3
2.5 ODNR Division of Mineral Resources Management 3

3.0 LIMITATIONS OF STUDY 4

APPENDICES

Appendix I **Vicinity Map**

Appendix II **ODNR Bedrock Maps and Water Well Logs**

Appendix III **ODOT Historic Boring Logs**

Appendix IV **NWI Wetland Map**

Appendix V **ODNR Abandoned Mine and Quarry Map**

1.0 INTRODUCTION

This report is a presentation of the geotechnical desktop study report for the proposed feasibility study of the Eastside Industrial Connector in the City of Lancaster, Ohio. This report includes a summary of the geotechnical related information obtained through a review of data form various public domains. Resource International (Rii) reviewed documentation from the Ohio Department of Natural Resources (ODNR) – including bedrock topography and geology mapping, and water well logs – the Ohio Department of Transportation (ODOT) online Transportation Information Mapping System (TIMS), as well as National Wetlands Inventory (NWI).

Maps depicting the location of the site are provided in Appendix I.

2.0 DESKTOP STUDY

2.1 Site Geology

Both the Illinoian and Wisconsinan glaciers advanced over two-thirds of the State of Ohio, leaving behind glacial features such as moraines, kame deposits, lacustrine deposits and outwash terraces. The glacial and non-glacial regions comprise five physiographic sections, grouped by age, depositional process and geomorphic occurrence. Physiographically, the site lies within the Killbuck-Glaciated Pittsburgh Plateau Region of the Glaciated Allegheny Plateau. The hilly area contains ridges and flat uplands covered with thin drift. Valleys range between narrow rock-walled reaches and broad drift filled areas. The soil at the site consists of silty clay till (Haysville, Lavery, Marysville, Woodington Tills) deposited as flat to gently undulating ground moraine deposits. Hummocky moraine deposits lie to the east; these deposits lie above the surrounding terrain. Ground moraines are deposited during the retreat of glacial ice, resulting in an undifferentiated mixture of clay, silt, sand and gravel. Outwash and alluvial deposits can be present along the Hocking River. Outwash deposits consist of undifferentiated sand and gravel deposited by meltwater in front of glacial ice, and often occurs as valley terraces or low plains. Alluvium and alluvial terrace deposits range in composition from silty clay size particles to cobbles, which are usually, deposited in present and former floodplain areas.

Based on bedrock geology and topography maps of the area from the Ohio Department of Natural Resources (ODNR), the underlying bedrock directly beneath the site is comprised of the Mississippian-aged Black Hand Sandstone Member of Cuyahoga Formations undivided. The Cuyahoga Formation has a prominent member identified locally as the Black Hand Sandstone, which is prevalent within the smaller valleys. The Cuyahoga Formation consists of gray to brown shale interbedded with minor sandstone and siltstone grading into a massive sandstone, which is the Black Hand Member of the formation. This formation has planar to lenticular, thin to thick bedding and the undivided unit ranges from 250 to 1050 feet thick. The bedrock surface in the vicinity of

the proposed corridor ranges in elevation from approximately 650 feet to 850 feet mean sea level (msl), corresponding to approximately 40 feet to 200 feet below existing grade.

2.2 Hydrogeological Setting

The primary aquifers, within the site area, consist of permeable sand and gravel deposits of variable thickness within moraine till and outwash deposits in and around the river valleys. Other aquifers consist of shale bedrock at deeper depths. ODNR located area water well logs within the study area, indicate static groundwater within the aquifers at depths of 15 to 78 feet below the existing ground surface. The well logs are also presented in Appendix II. The ODNR Ground Water Resources of Fairfield County, Ohio, which is compiled from more regional groundwater well log data, states the study area lies within an area with yields ranging from 100 to 500 gallons per minute (gpm) for sand and gravel aquifers within the Hocking River valley and yields of between 10 and 25 gpm for wells developed within the bedrock zones. Wells are developed from upper strata of bedrock or overlying glacial cover or valley fill containing discontinuous sand and gravel deposits.

2.3 ODOT TIMS Historic Boring Logs

Rii identified several historic borings in the vicinity of the study area, and focused on the roadway corridors, river crossing and interchanges. The borings identified were drilled between 1958 and 2003. A boring plan and selected boring logs are presented in Appendix III.

2.3.1 Surface Materials

In general, the borings performed for this investigation were drilled within the roadway lanes and shoulders, and encountered concrete and asphalt pavement overlying aggregate base. Topsoil was encountered with varying thicknesses in the areas outside the roadways.

2.3.2 Subsurface Soils

Below the surficial materials, existing fill was encountered in several of the borings. The fill contained organic matter and rock fragments. Underlying the fill, natural soils were encountered, consisting of both cohesive and granular soils. The areas within the Hocking River, Baldwin Run and Raccoon Creek valleys encountered primarily sand and gravel, while the upland areas outside of the river valleys encountered more significant layers of silt and clay. The shear strength and consistency of the cohesive soils were primarily derived from the SPT blow counts (N), which ranged from soft ($2 < N \leq 5$ blows per foot [bpf]) to hard ($N > 30$ bpf). The relative density of the granular soils were primarily derived from the SPT blow counts (N), which ranged from loose ($5 < N \leq 10$ bpf) to very dense ($N > 50$ bpf). Overall blow counts recorded from the SPT sampling

ranged from 5 bpf to sampler refusal. Sampler refusal is defined as exceeding 50 consecutive blow counts with less than 6 inches of penetration.

Natural moisture contents of the cohesive soil samples tested ranged from 8 to 36 percent.

2.3.3 Bedrock

Bedrock was encountered in the February 2000 borings US-1 through US-3 near the US-22 and US-33 interchange. Weathered shale overlying sandstone was encountered at depths ranging from 23.5 to 28.5 feet below the existing grade. The bedrock was described as indurated and argillaceous at the top, and became more massive and harder with depth.

2.3.4 Groundwater

Groundwater seepage and initial groundwater was encountered in many of the borings identified during the desktop study, particularly those at the stream crossings. The depth to groundwater observed at the completion of drilling varied widely depending on the location of the borings. All of the groundwater readings were short-term measurements, and may vary from what is encountered during construction.

2.4 US Fish and Wildlife Service National Wetlands Inventory

There are several delineated wetlands in the study area, according to the United States Fish and Wildlife Service National Wetlands Inventory (NWI) map of the area. These wetlands are identified from stereoscopic analysis of high-altitude aerial photographs based on vegetation, visible hydrology and geography and typically reflect conditions during the specific year and season when the photographs are taken. All of the wetlands are classified as a Palustrine (P), which indicates they are inland freshwater wetlands similar to marshes, swamps or small ponds with trees or shrubs present. The wetlands in the area are known to be seasonally flooded or saturated, and may contain high amounts of organic matter.

2.5 ODNR Division of Mineral Resources Management

There are no known, present-day or abandoned, underground coal mines or strip mines mapped within the site area. There several registered sand and gravel quarries located along US-33 on the southeast side as well as one quarry located on the east side of the City of Lancaster. There no known oil and gas wells within five miles of the site area.

3.0 LIMITATIONS OF STUDY

The observations herein have been based upon the available soil information and the preliminary project details furnished by a representative of the owner of the proposed project. The scope of our services does not include any environmental assessment or investigation for the presence or absence of hazardous or toxic materials in the soil, groundwater, or surface water within or beyond the site studied.

Our professional services have been performed and our findings obtained in accordance with generally accepted geotechnical engineering principles and practices. Resource International is not responsible for the conclusions, opinions or recommendations made by others based upon the data included.

APPENDIX I

ALTERNATIVE MAPS

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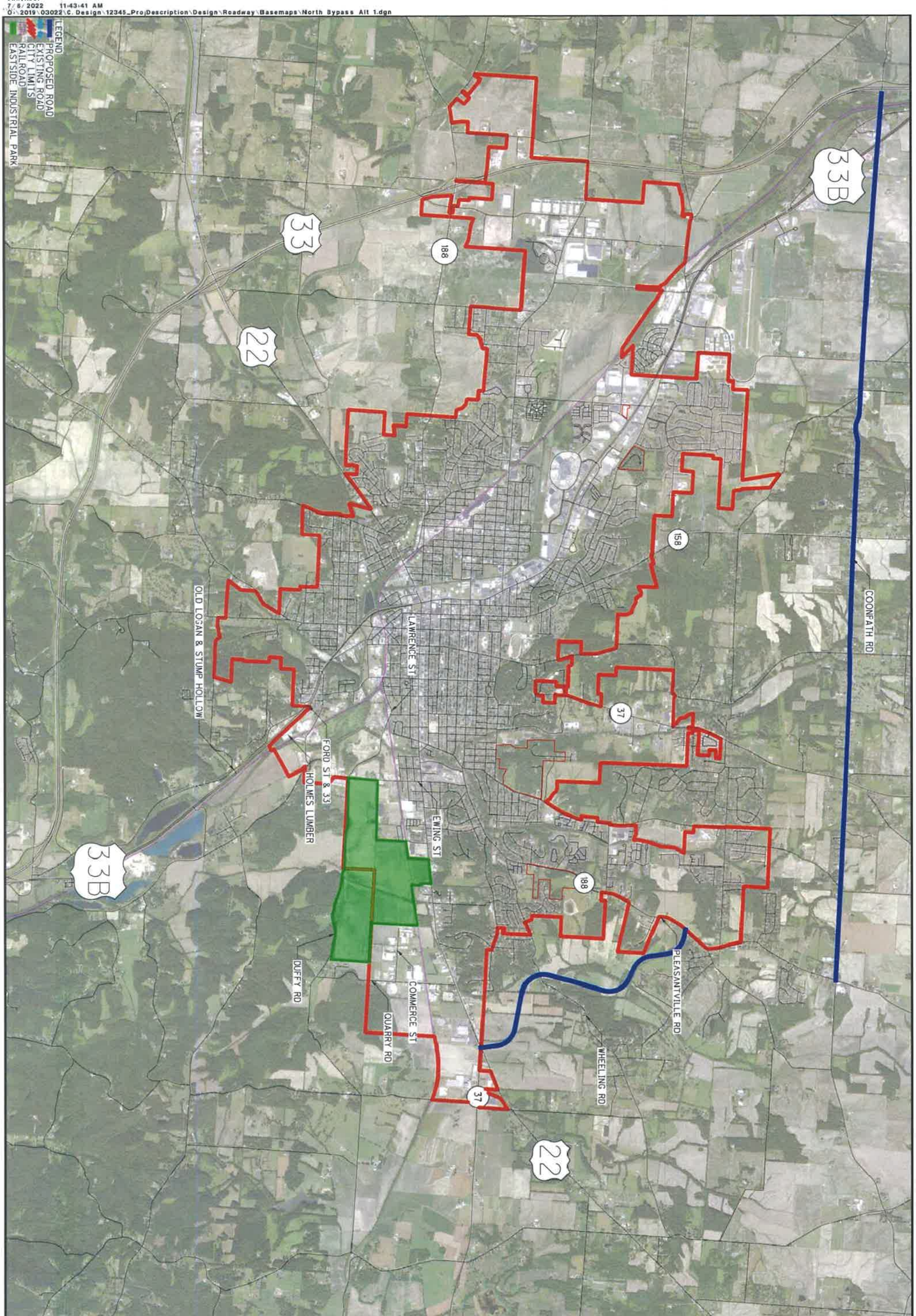

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NORTH BYPASS
ALTERNATIVE 1

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HORIZONTAL SCALE IN FEET

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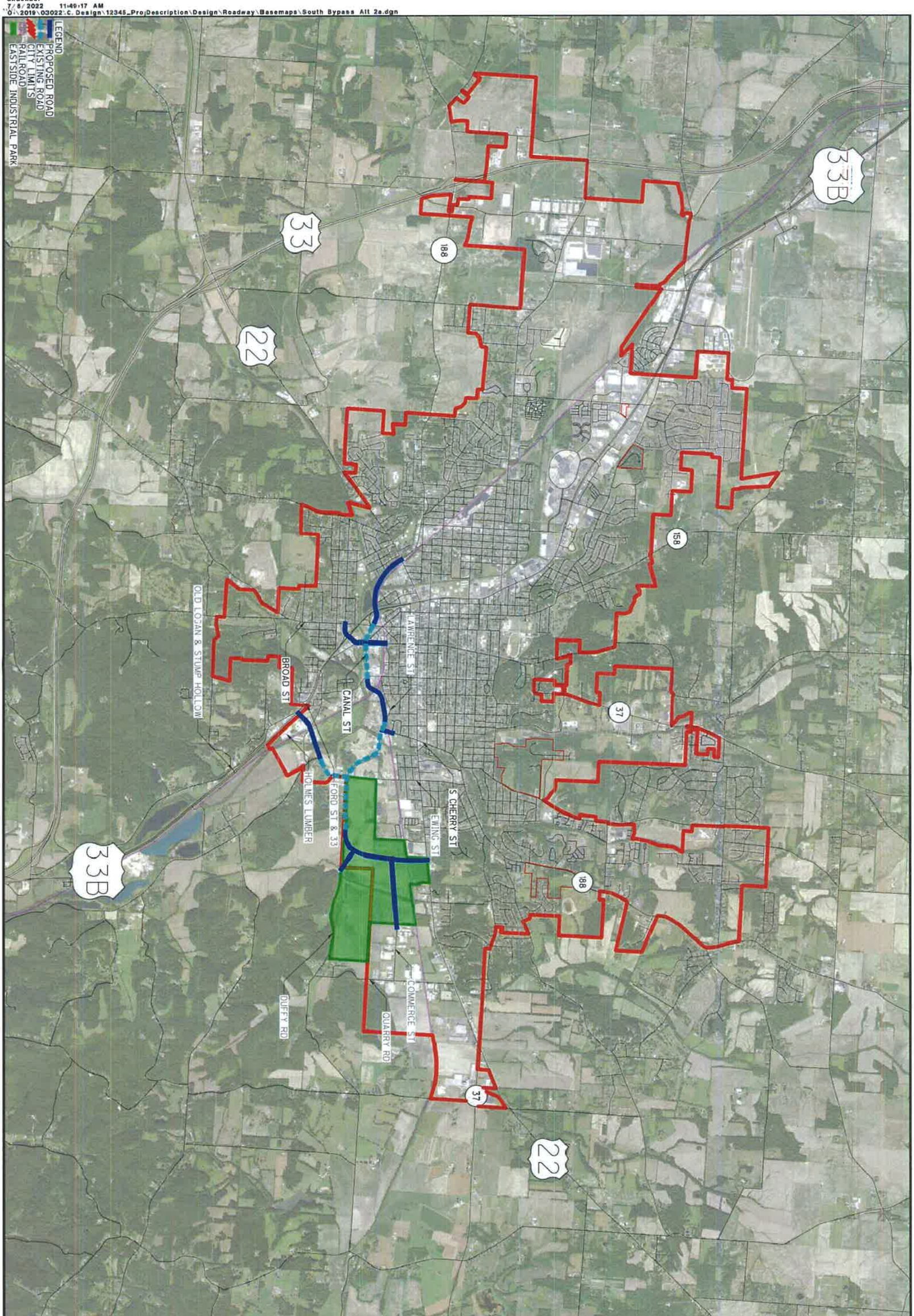

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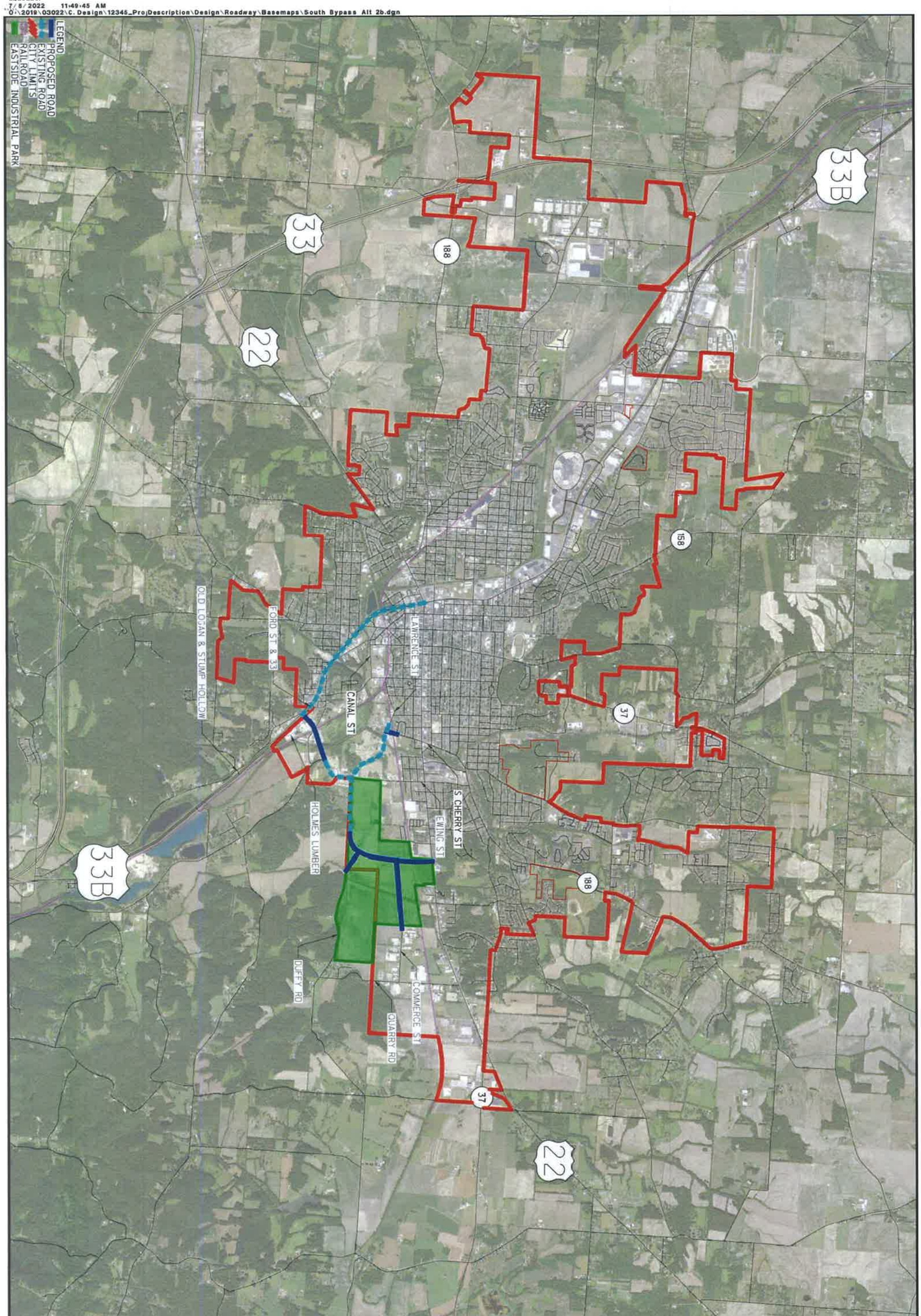

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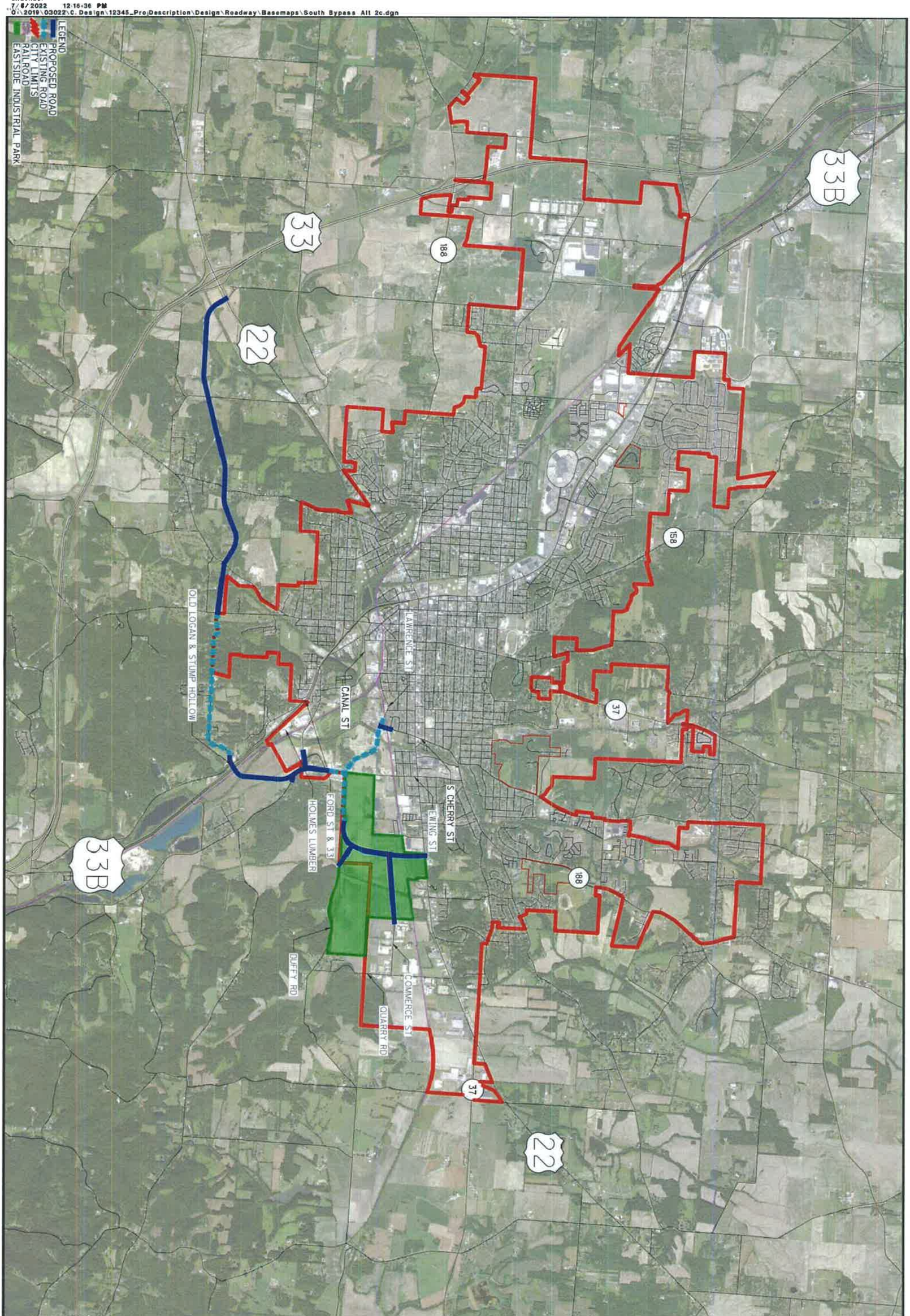

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22 TRUCK BYPASS

SOUTH BYPASS ALTERNATIVE 2C

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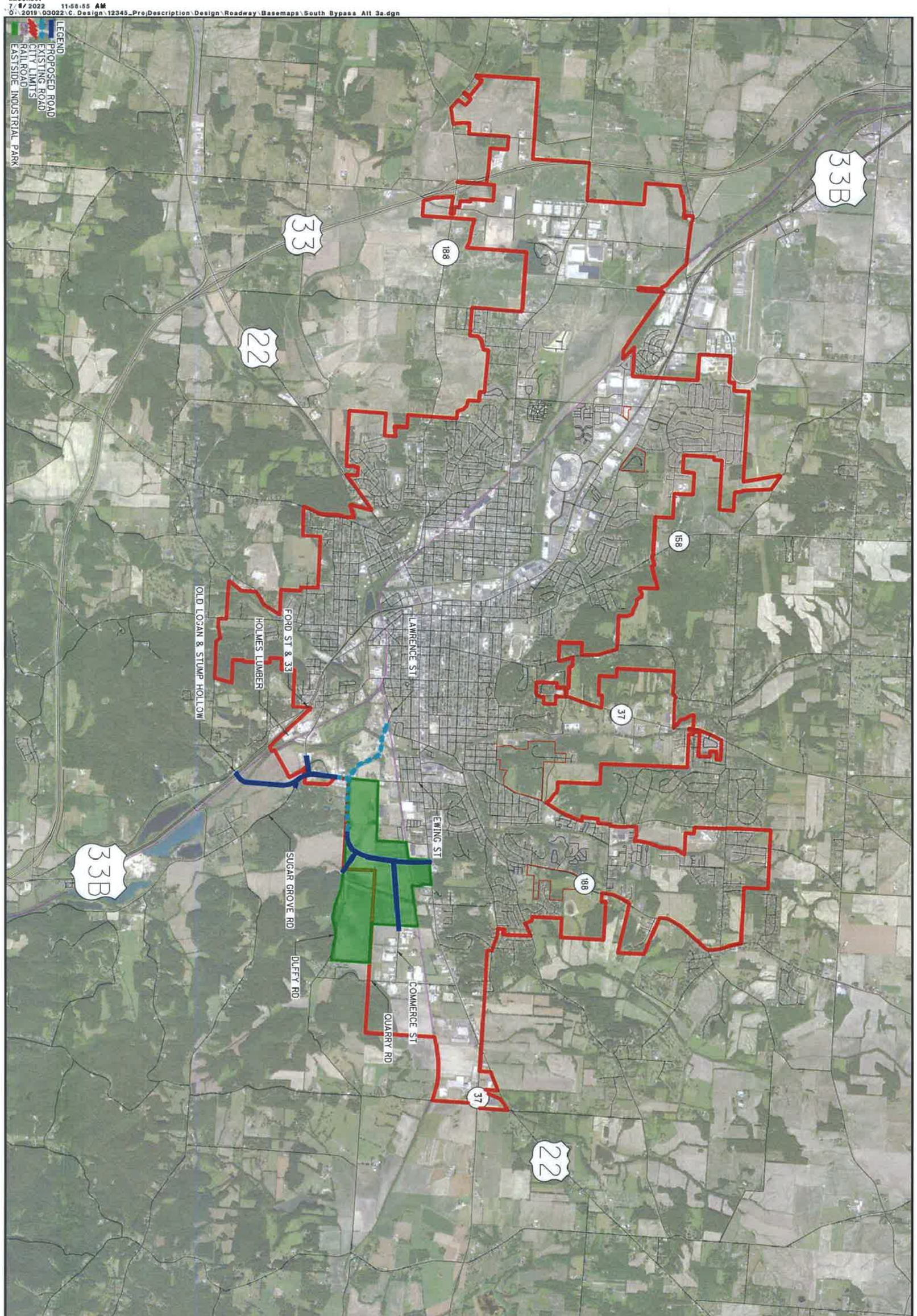

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22 TRUCK BYPASS

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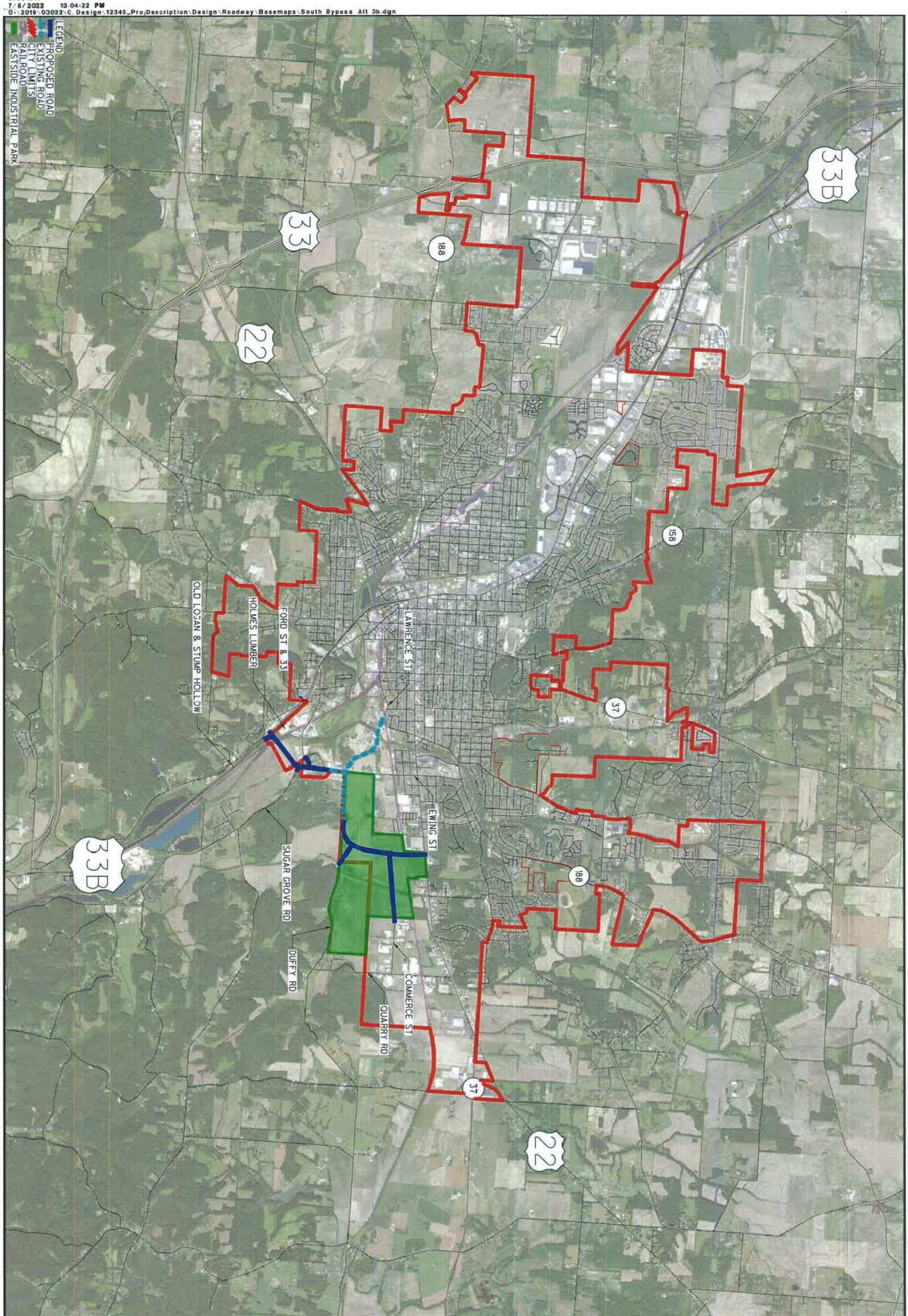

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22 TRUCK BYPASS

SOUTH BYPASS
ALTERNATIVE 3B

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HORIZONTAL SCALE IN FEET

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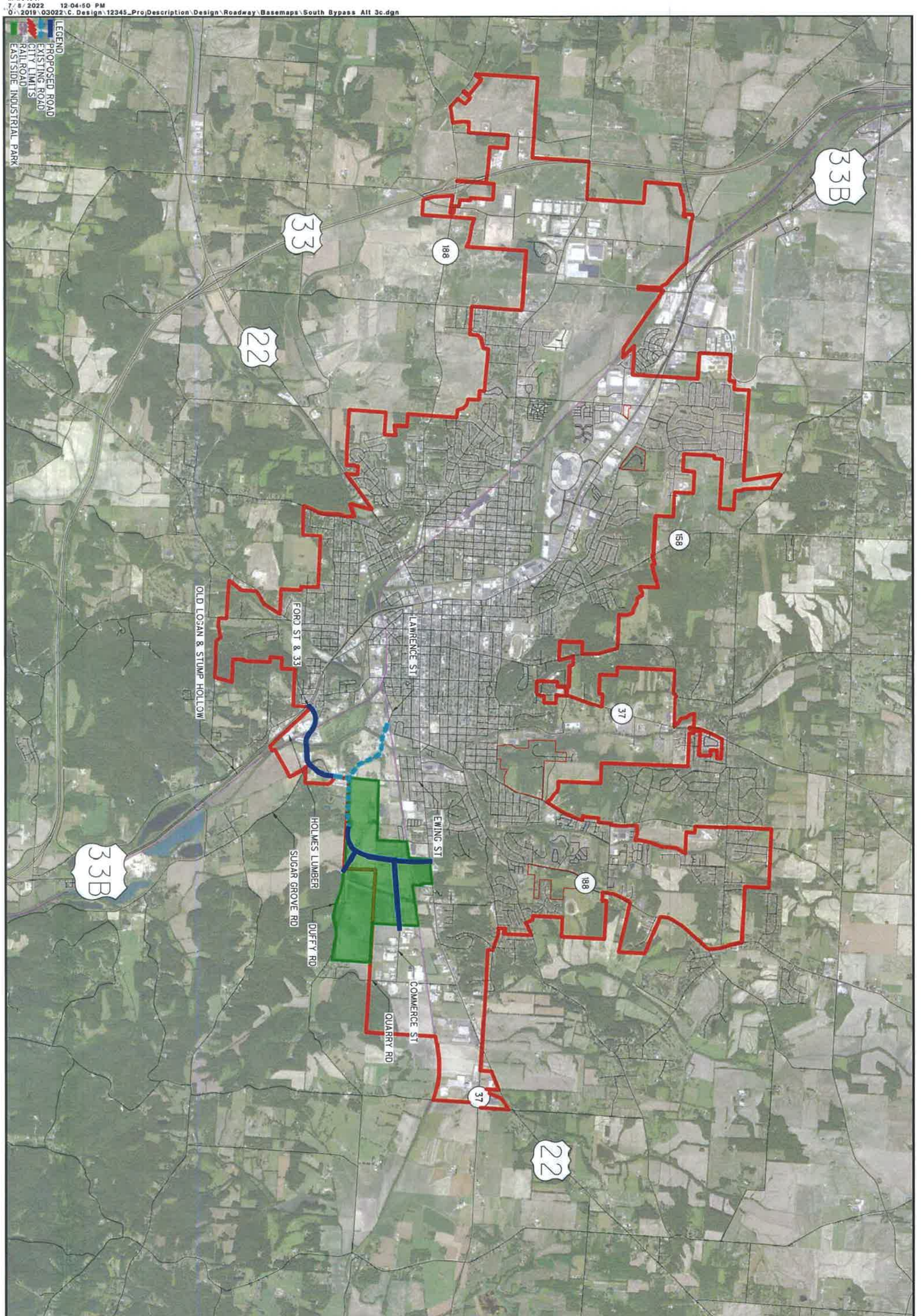

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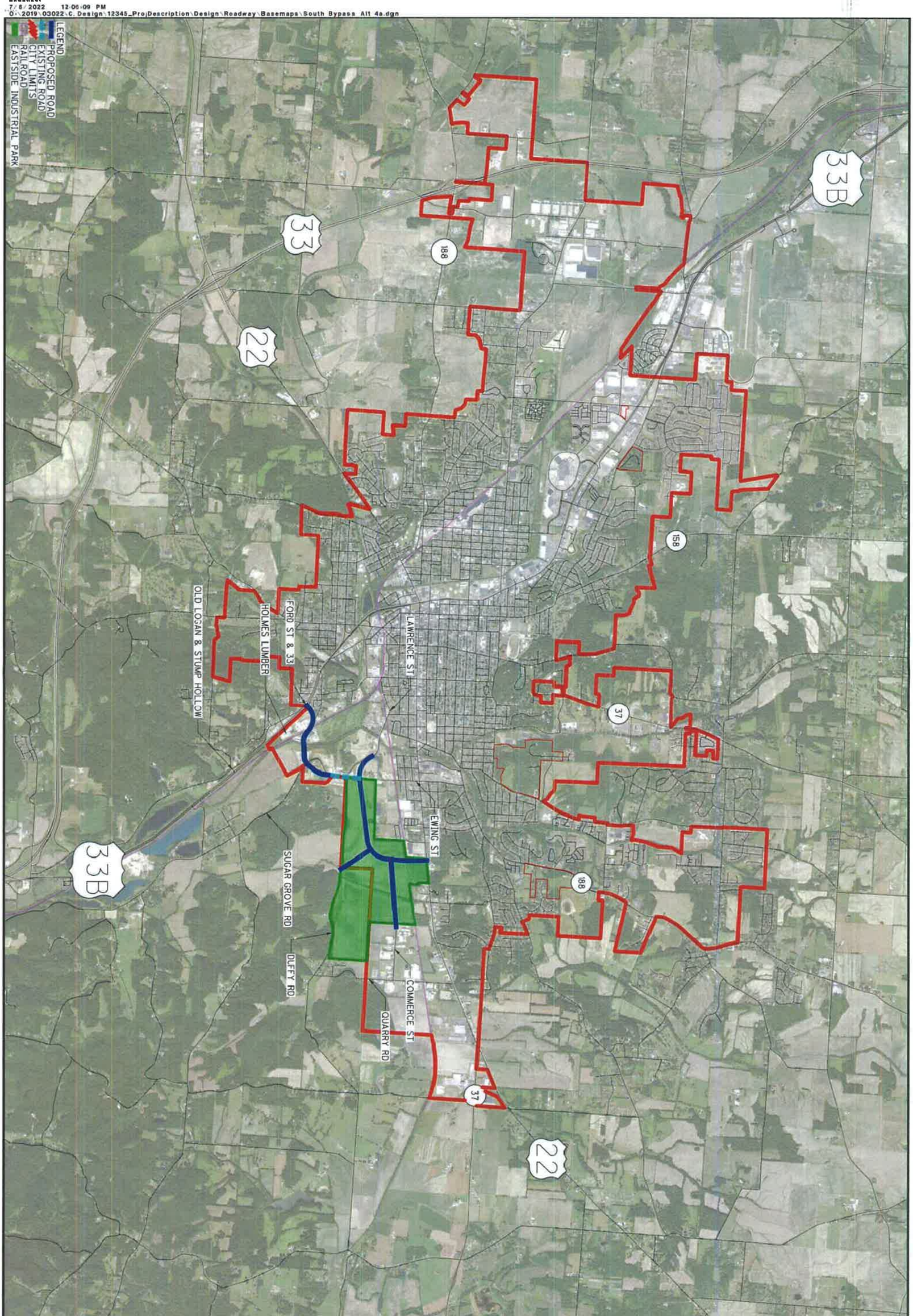

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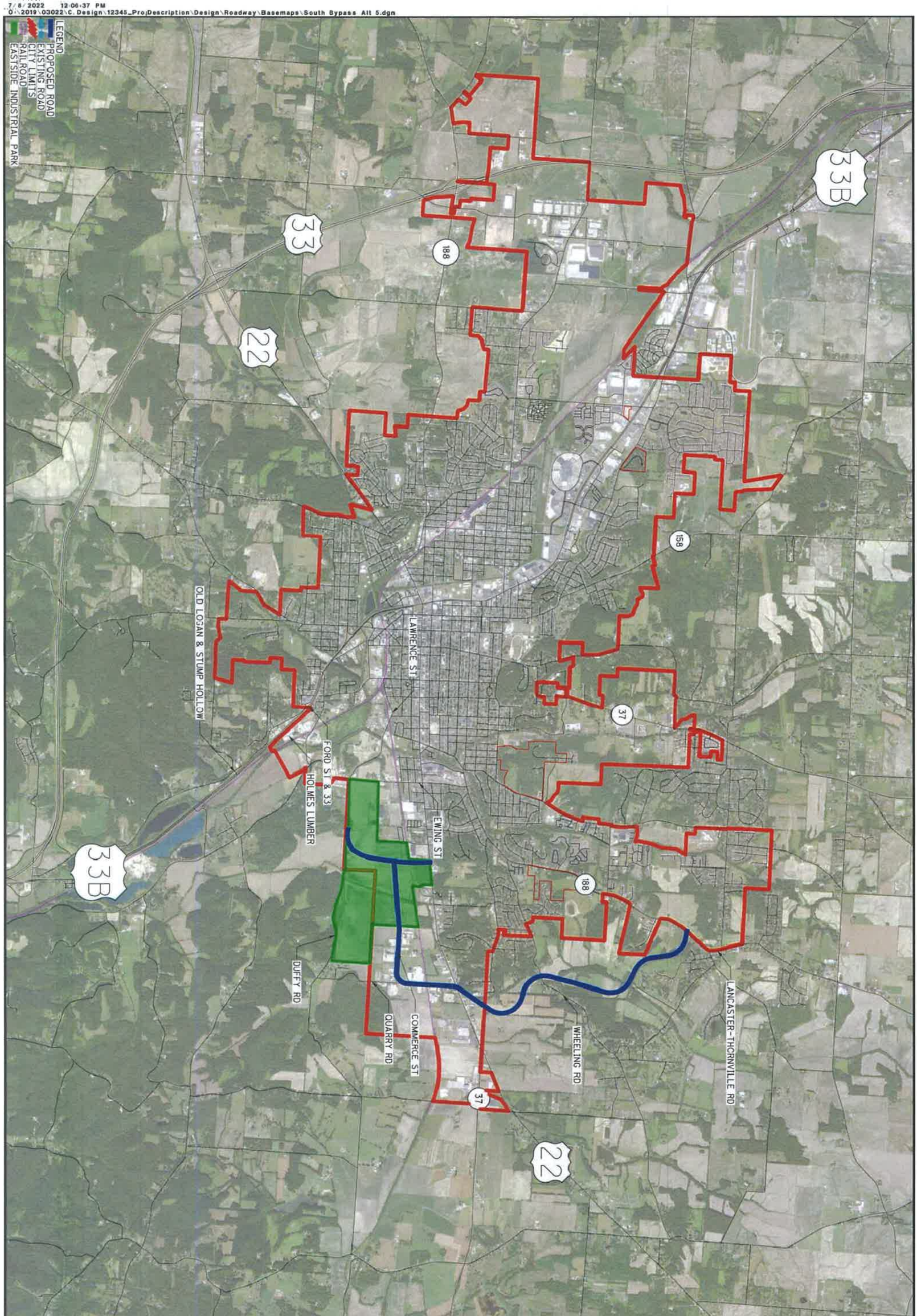

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22 TRUCK BYPASS

SOUTH BYPASS
ALTERNATIVE 5

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HORIZONTAL SCALE IN FEET

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33B
158
37
188
SNOKE HILL RD
22
188
EWING ST
LAWRENCE ST
COMMERCE ST
SCHWILK RD
QUARRY RD
FORD ST & 33
HOLMES LUMBER
DUFFY RD
BAUMAN HILL RD
33
22
OLD LOGAN & STUMP HOLLOW
LOGAN-LANCASTER RD
CRAWFIS RD
SAVAGE HILL RD
33B
ECKERT RD

LEGEND
PROPOSED ROAD
EXISTING ROAD
CITY LIMITS
RAILROAD
EASTSIDE INDUSTRIAL PARK

HORIZONTAL SCALE IN FEET
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SOUTH BYPASS
ALTERNATIVE 6

22 TRUCK BYPASS

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APPENDIX II

ODNR WATER WELL LOGS

Ground Water Resources of Fairfield County

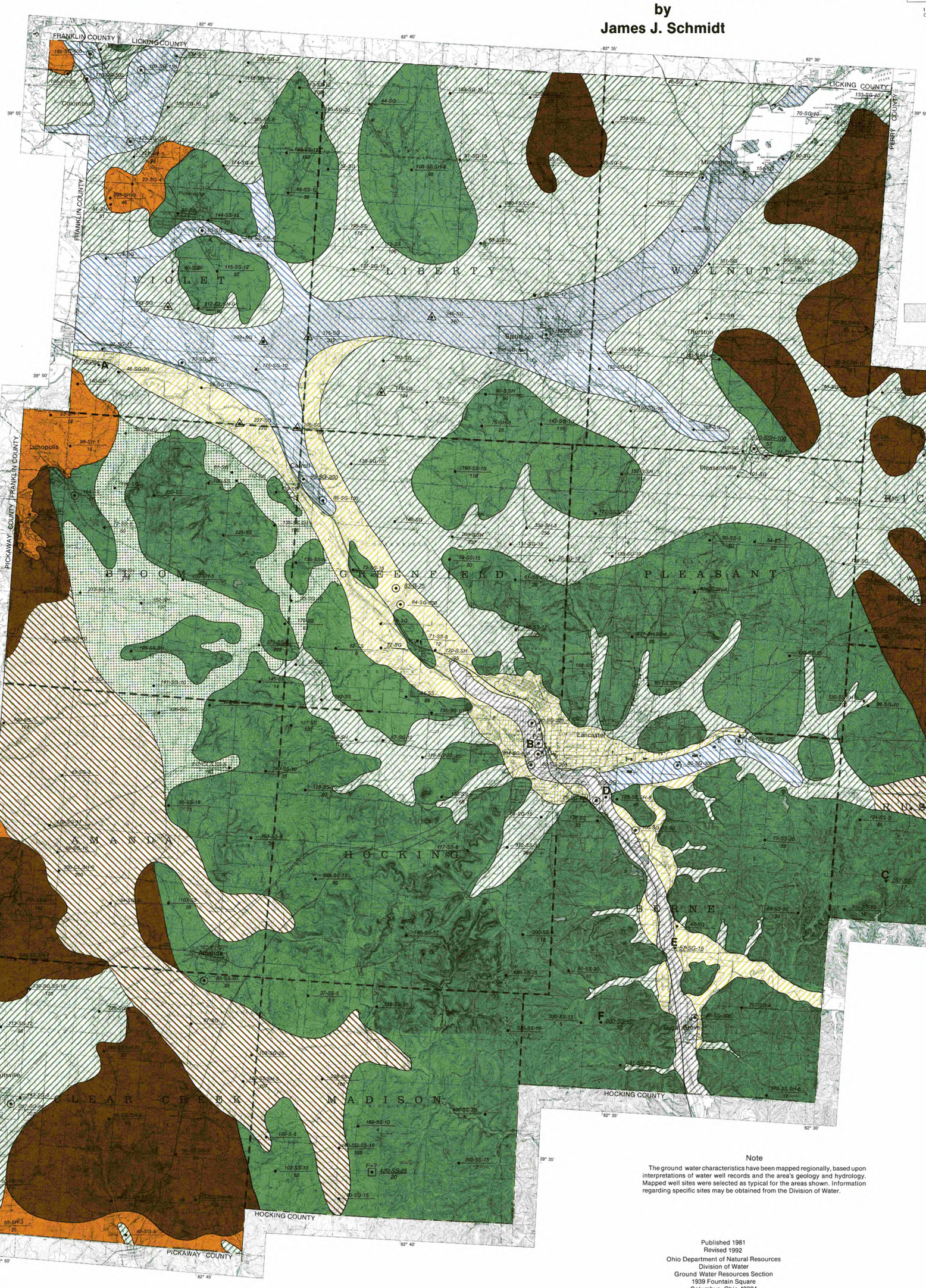
by

James J. Schmidt

County Line
Township Line
Incorporated City Limit

1 0 1 2 Miles
1 0 1 2 Kilometers

CONTOUR INTERVAL 10 FEET



Fine-grained sand and silt at various depths in deeply buried valleys. Material generally contains water but it cannot be recovered except with difficulty. Wells are usually developed in scattered sand and gravel lenses above or below this material, or in the underlying bedrock.

Well Site Symbols

AREAS IN WHICH YIELDS OF AS MUCH AS 500, OR MORE, GALLONS PER MINUTE MAY BE DEVELOPED.

Permeable sand and gravel deposits beneath the Hocking River floodplain. Yields in excess of 600 gallons per minute developed from properly constructed, large diameter wells.

AREAS IN WHICH YIELDS OF 100 TO 500 GALLONS PER MINUTE MAY BE DEVELOPED.

Sand and gravel deposits, which partially fill ancestral drainage channels, may yield as much as 500 gallons per minute at depths of 65-165 feet. Extensive test drilling is recommended to locate the coarse deposits. Test wells reveal more than 300 feet of unconsolidated deposits that fill the ancestral channel in the northern portion of the county.

AREAS IN WHICH YIELDS OF 25 TO 100 GALLONS PER MINUTE MAY BE DEVELOPED.

Relatively thin to thick layers of sand and gravel interbedded with thick clay layers deposited in ancestral valleys. Potential yields of as much as 100 gallons per minute may be developed. Isolated permeable zones are noted and test wells are necessary to locate coarse deposits for maximum yield.

AREAS IN WHICH YIELDS OF 10 TO 25 GALLONS PER MINUTE MAY BE DEVELOPED.

Berea sandstone in the northern portion and the Black Hand sandstone in the central and southern portion of the county are the principal water-bearing bedrock formations. Larger diameter wells developed in the Black Hand sandstone at depths in excess of 250 feet may yield more than 75 gallons per minute. Average depth for domestic wells seldom exceeds 140 feet.

Relatively thick clay layers interbedded with water-bearing sand and gravel and deposited in ancestral drainage channels. Wells may range in depth from 35 to more than 235 feet. Few wells are developed in sandstone-shale bedrock if coarse deposits are not encountered.

Thin lenses of sand, gravel, and clay deposited as glacial moraine may yield as much as 15 gallons per minute.

AREAS IN WHICH YIELDS OF 3 TO 10 GALLONS PER MINUTE MAY BE DEVELOPED.

Wells are developed at depths of 30 to more than 250 feet in the underlying Mississippian shaley sandstone bedrock. Average depths seldom exceed 135 feet.

Thin lenses of sand and gravel interbedded with thick layers of silty clay. Domestic water supplies may be developed at average depths of about 130 feet. Wells not encountering sand and gravel are drilled into the shale along the western edge of the county or sandy shale along the eastern edge.

AREAS IN WHICH YIELDS OF LESS THAN 3 GALLONS PER MINUTE MAY BE DEVELOPED.

Sandy shale and shale bedrock beneath thin glacial drift yields less than two gallons per minute. Supplemental storage and use of cisterns often necessary to assure adequate domestic supplies. Deeper drilling may encounter salt water in Rush Creek and Richland Townships.

Well Site Symbols

WELL INFORMATION
(SEE NOTE)

AQUIFER TYPE
Water bearing formation.

DEPTH (ft.)
Total depth of well in feet.

YIELD (gpm)
Amount of water a well produces in gallons per minute.

WELL SITE
Approximate location of a well.

75-SS-20
26

DEPTH TO BEDROCK (ft.)
Depth to bedrock in feet.

WELL TYPES

- ● Well Site
- ○ Municipal-Industrial Well
- □ Observation Well**
- △ Test Well*
- A Chemical Analyses

AQUIFER TYPES

S - Sand
G - Gravel
SG - Sand and Gravel
SS - Sandstone
SH - Shale
Cl - Clay
SSH - Sandy Shale

Chemical Analysis Table

Well Site	A	B	C	D	E	F
Depth (Ft.)	117	105	110	57	246	360
Aquifer	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand-stone	Sand-stone
Iron [Fe]	1.3	.63	3.7	2.1	6.2	1.1
Sulfate [SO_4]	58	37	138	27	68	14
Hardness as CaCO3	336	333	459	255	320	120
Dissolved Solids	427	365	563	283	381	150

Chemical constituents as milligrams per liter (mg/l)

Note

The ground water characteristics have been mapped regionally, based upon interpretations of water well records and the area's geology and hydrology. Mapped well sites were selected as typical for the areas shown. Information regarding specific sites may be obtained from the Division of Water.

* Test well sites indicate the location of a test well that was part of a regional ground water study. Detailed lithologic logs, water quality analysis and pumping test information for these wells may be available from ODNR-Division of Water.

** Observation well sites indicate the location of wells used to collect ground water level information. These wells are part of the State observation well network. Hydrographs of the water levels recorded in these and other State observation wells can be obtained through ODNR-Division of Water.

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Division of Water
Ground Water Resources Section
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David S. Orr, Cartographer

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George V. Voinovich
Governor
Frances S. Buchholzer
Director

WATER WELL LOG & DRILLING REPORT

Ohio Department of Natural Resources
Division of Geological Survey
Phone: 614-265-6740

Well Log Number: 252120

Original Owner & Location

Original Owner Name: *CHARLES EVERSOLE*
County: *FAIRFIELD* **Township:** *GREENFIELD* **Section Number:** *16*
Address: *198 CR*
City: **State:** *OH* **Zip Code:**
Location Number: *139* **Location Map Year:** *1979* **Location Area:**
Latitude: *39.771093* **Longitude:** *-82.662669*

Construction Details

Borehole Diameter 1: *in.* **Borehole Depth 1:** *29 ft.* **Depth to Bedrock:** *ft.*
Casing Diameter 1: *4.25 in.* **Casing Length 1:** *32 ft.* **Casing Thickness 1:** *in.*
Casing Height Above Ground: *ft.* **Aquifer Type:** *SAND* **Well Use:** *DOMESTIC*
Date of Completion: *10/10/1960* **Total Depth:** *29*
Drilling Company Name: *MCBRIDE DRILLING CO*

Well Test Details

Static Water Level: *16 ft.* **Test Rate:** *7 gpm*
Drawdown: *4 ft.* **Test Duration:** *1 hrs.*
Associated Documents:

Comments

Drilling Log

Formations:	From:	To:
CLAY	0	10
GRAVEL & CLAY	10	27
SAND	27	29
WATER AT	0	29
FILL MATERIAL	29	31

WATER WELL LOG & DRILLING REPORT

Ohio Department of Natural Resources
Division of Geological Survey
Phone: 614-265-6740

Well Log Number: 514658

Original Owner & Location

Original Owner Name: *VERLA LAMB*
County: *FAIRFIELD* **Township:** *GREENFIELD* **Section Number:** *22*
Address: *2835 COONPATH RD*
City: **State:** *OH* **Zip Code:**
Location Number: *207* **Location Map Year:** *1978* **Location Area:**
Latitude: *39.769454* **Longitude:** *-82.653113*

Construction Details

Borehole Diameter 1: *in.* **Borehole Depth 1:** *176 ft.* **Depth to Bedrock:** *ft.*
Casing Diameter 1: *5 in.* **Casing Length 1:** *177 ft.* **Casing Thickness 1:** *in.*
Casing Height Above Ground: *ft.* **Aquifer Type:** *SAND & GRAVEL* **Well Use:** *DOMESTIC*
Date of Completion: *04/22/1977* **Total Depth:** *176*
Drilling Company Name: *MCBRIDE DRILLING CO*

Well Test Details

Static Water Level: *40 ft.* **Test Rate:** *24 gpm*
Drawdown: *10 ft.* **Test Duration:** *1 hrs.*
Associated Documents:

Comments

Drilling Log

Formations:	From:	To:
TOP SOIL	0	2
GRAVEL & CLAY	2	7
GRAVEL & CLAY	7	24
GRAVEL & CLAY	24	104
HARDPAN	104	105
WATER AT	0	106
SAND & GRAVEL	105	106
CLAY	106	133
GRAVEL & CLAY	133	168
WATER AT	0	176
SAND & GRAVEL	168	176

WATER WELL LOG & DRILLING REPORT

Ohio Department of Natural Resources
Division of Geological Survey
Phone: 614-265-6740

Well Log Number: 678615

Original Owner & Location

Original Owner Name: *BOB HILL*
County: *FAIRFIELD* **Township:** *BLOOM* **Section Number:**
Address: *1600 COONPATH RD*
City: **State:** *OH* **Zip Code:**
Location Number: **Location Map Year:** **Location Area:**
Latitude: *39.767407* **Longitude:** *-82.566477*

Construction Details

Borehole Diameter 1: *in.* **Borehole Depth 1:** *170 ft.* **Depth to Bedrock:** *20 ft.*
Casing Diameter 1: *5 in.* **Casing Length 1:** *35 ft.* **Casing Thickness 1:** *in.*
Casing Height Above Ground: *ft.* **Aquifer Type:** *SANDSTONE* **Well Use:** *DOMESTIC*
Date of Completion: *04/01/1988* **Total Depth:** *170*
Drilling Company Name: *GOBEL WELL DRILLING*

Well Test Details

Static Water Level: *75 ft.* **Test Rate:** *25 gpm*
Drawdown: *0 ft.* **Test Duration:** *2 hrs.*
Associated Documents:

Comments

Drilling Log

Formations:	From:	To:
CLAY	0	20
SANDSTONE	20	75
SHALE	75	140
SANDSTONE	140	170

WATER WELL LOG & DRILLING REPORT

Ohio Department of Natural Resources
Division of Geological Survey
Phone: 614-265-6740

Well Log Number: 688928

Original Owner & Location

Original Owner Name: *DALE LAMB*
County: *FAIRFIELD* **Township:** *GREENFIELD* **Section Number:**
Address: *2835 COONPATH RD*
City: *CARROLL* **State:** *OH* **Zip Code:** *43112*
Location Number: **Location Map Year:** **Location Area:**
Latitude: *39.770161* **Longitude:** *-82.652856*

Construction Details

Borehole Diameter 1: *in.* **Borehole Depth 1:** *68 ft.* **Depth to Bedrock:** *ft.*
Casing Diameter 1: *5 in.* **Casing Length 1:** *68 ft.* **Casing Thickness 1:** *in.*
Casing Height Above Ground: *ft.* **Aquifer Type:** *SAND & GRAVEL* **Well Use:** *DOMESTIC*
Date of Completion: *03/15/1989* **Total Depth:** *68*
Drilling Company Name: *WARTHMAN DRILLING INC*

Well Test Details

Static Water Level: *40 ft.* **Test Rate:** *7 gpm*
Drawdown: *63.3 ft.* **Test Duration:** *2 hrs.*
Associated Documents:

Comments

Drilling Log

Formations:	From:	To:
CLAY	0	10
SAND & CLAY	10	55
GRAVEL/SAND/CLAY	55	66
SAND & GRAVEL	66	68

WATER WELL LOG & DRILLING REPORT

Ohio Department of Natural Resources
Division of Geological Survey
Phone: 614-265-6740

Well Log Number: 817809

Original Owner & Location

Original Owner Name: *RALPH RAWN*
County: *FAIRFIELD* **Township:** *GREENFIELD* **Section Number:** *13*
Address: *440 COONPATH RD*
City: **State:** *OH* **Zip Code:**
Location Number: **Location Map Year:** **Location Area:**
Latitude: *39.768642* **Longitude:** *-82.605889*

Construction Details

Borehole Diameter 1: *in.* **Borehole Depth 1:** *58 ft.* **Depth to Bedrock:** *ft.*
Casing Diameter 1: *5 in.* **Casing Length 1:** *ft.* **Casing Thickness 1:** *in.*
Casing Height Above Ground: *ft.* **Aquifer Type:** *GRAVEL* **Well Use:** *DOMESTIC*
Date of Completion: *11/14/1995* **Total Depth:** *58*
Drilling Company Name: *CASEY'S WELL DRILLING*

Well Test Details

Static Water Level: *15 ft.* **Test Rate:** *30 gpm*
Drawdown: *ft.* **Test Duration:** *1 hrs.*
Associated Documents:

Comments

Drilling Log

Formations:	From:	To:
GRAVEL & CLAY	0	3
CLAY	3	23
MUD & GRAVEL	23	45
MUD	45	52
GRAVEL	52	58

WATER WELL LOG & DRILLING REPORT

Ohio Department of Natural Resources
Division of Geological Survey
Phone: 614-265-6740

Well Log Number: 877713

Original Owner & Location

Original Owner Name: *PAT &LINDA HARRIS*
County: *FAIRFIELD* **Township:** *PLEASANT* **Section Number:**
Address: *1165 COONPATH RD*
City: *LANCASTER* **State:** *OH* **Zip Code:** *43130*
Location Number: **Location Map Year:** **Location Area:**
Latitude: *39.76775* **Longitude:** *-82.58044*

Construction Details

Borehole Diameter 1: *5 in.* **Borehole Depth 1:** *112 ft.* **Depth to Bedrock:** *45 ft.*
Casing Diameter 1: *5 in.* **Casing Length 1:** *59 ft.* **Casing Thickness 1:** *in.*
Casing Height Above Ground: *1 ft.* **Aquifer Type:** *SHALE* **Well Use:** *DOMESTIC*
Date of Completion: *04/01/1999* **Total Depth:** *112*
Drilling Company Name: *MOUNT WATER WELL DRILLING*

Well Test Details

Static Water Level: *75 ft.* **Test Rate:** *20 gpm*
Drawdown: *0 ft.* **Test Duration:** *10 hrs.*
Associated Documents:

Comments

Drilling Log

Formations:	From:	To:
TOP SOIL	0	7
GRAVEL & CLAY	7	45
SANDSTONE	45	59
SANDSTONE	59	90
SHALE	90	112

WATER WELL LOG & DRILLING REPORT

Ohio Department of Natural Resources
Division of Geological Survey
Phone: 614-265-6740

Well Log Number: 969247

Original Owner & Location

Original Owner Name: *JIMMY HURST*
County: *FAIRFIELD* **Township:** *GREENFIELD* **Section Number:**
Address: *1405 COONPATH RD NW*
City: *LANCASTER* **State:** *OH* **Zip Code:** *43130*
Location Number: **Location Map Year:** **Location Area:**
Latitude: *39.7691* **Longitude:** *-82.62666*

Construction Details

Borehole Diameter 1: *5.75 in.* **Borehole Depth 1:** *112 ft.* **Depth to Bedrock:** *27 ft.*
Casing Diameter 1: *in.* **Casing Length 1:** *29 ft.* **Casing Thickness 1:** *in.*
Casing Height Above Ground: *2 ft.* **Aquifer Type:** *SHALE* **Well Use:** *DOMESTIC*
Date of Completion: *03/01/2004* **Total Depth:** *112*
Drilling Company Name: *GOBEL WELL DRILLING*

Well Test Details

Static Water Level: *78 ft.* **Test Rate:** *10 gpm*
Drawdown: *20 ft.* **Test Duration:** *2 hrs.*
Associated Documents:

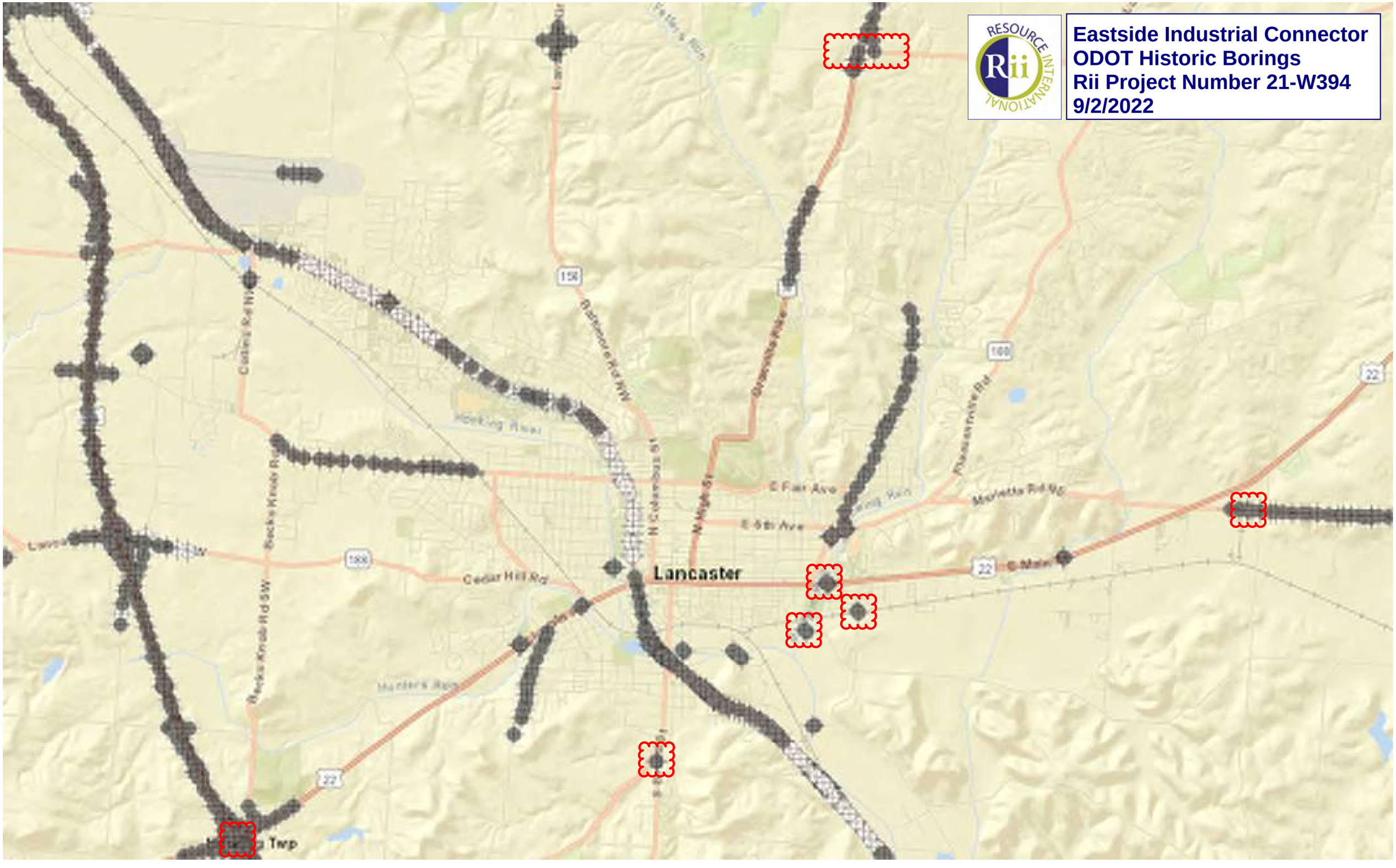
Comments

Drilling Log

Formations:	From:	To:
CLAY	0	20
CLAY	20	27
SHALE	27	112

APPENDIX III

ODOT HISTORIC BORING LOGS


Eastside Industrial Connector
ODOT Historic Borings
Rii Project Number 21-W394
9/2/2022
Lancaster
Cedar Hill Rd
E Fair Ave
E 5th Ave
Marietta Rd NE
Hocking River
Becks Knob Rd SW
Hunters Run
Twp

CLASSIFICATION OF SOILS

Ohio Department of Transportation

(The classification of a soil is found by proceeding from top to bottom of the chart.
The first classification that the test data fits is the correct classification.)

SYMBOL	DESCRIPTION	Classifcation		LL_O/LL x 100*	% Pass #40	% Pass #200	Liquid Limit (LL)	Plastic Index (PI)	Group Index Max.	REMARKS
		AASHTO	OHIO							
	Gravel and/or Stone Fragments	A-1-a			30 Max.	15 Max.		6 Max.	0	Min. of 50% combined gravel, cobble and boulder sizes
	Gravel and/or Stone Fragments with Sand	A-1-b			50 Max.	25 Max.		6 Max.	0	
	Fine Sand	A-3			51 Min.	10 Max.	NON-PLASTIC		0	
	Coarse and Fine Sand	--	A-3a			35 Max.		6 Max.	0	Min. of 50% combined coarse and fine sand sizes
	Gravel and/or Stone Fragments with Sand and Silt	A-2-4				35 Max.	40 Max.	10 Max.	0	
		A-2-5					41 Min.			
	Gravel and/or Stone Fragments with Sand, Silt and Clay	A-2-6				35 Max.	40 Max.	11 Min.	4	
		A-2-7					41 Min.			
	Sandy Silt	A-4	A-4a	76 Min.		36 Min.	40 Max.	10 Max.	8	Less than 50% silt sizes
	Silt	A-4	A-4b	76 Min.		50 Min.	40 Max.	10 Max.	8	50% or more silt sizes
	Elastic Silt and Clay	A-5		76 Min.		36 Min.	41 Min.	10 Max.	12	
	Silt and Clay	A-6	A-6a	76 Min.		36 Min.	40 Max.	11 - 15	10	
	Silty Clay	A-6	A-6b	76 Min.		36 Min.	40 Max.	16 Min.	16	
	Elastic Clay	A-7-5		76 Min.		36 Min.	41 Min.	$\leq$LL-30	20	
	Clay	A-7-6		76 Min.		36 Min.	41 Min.	>LL-30	20	
	Organic Silt	A-8	A-8a	75 Max.		36 Min.				W/o organics would classify as A-4a or A-4b
	Organic Clay	A-8	A-8b	75 Max.		36 Min.				W/o organics would classify as A-5, A-6a, A-6b, A-7-5 or A-7-6

MATERIAL CLASSIFIED BY VISUAL INSPECTION

 Sod and Topsoil

 Pavement or Base

Uncontrolled Fill (Describe)

Bouldery Zone

Peat

* Only perform the oven-dried liquid limit test and this calculation if organic material is present in the sample.

LOG OF BORING NO. B-1

COONPATH ROAD CULVERTS - FAIRFIELD COUNTY, OHIO

TYPE: 2-inch O.D. Split-barrel LOCATION: Sta. 345+82, 11' L

COMPLETION DEPTH: 6.0' ELEVATION: 974.1 DATE: 6/25/84

DEPTH, FEET	SAMPLE NO.	SAMPLES	SAMPLING EFFORT	HAND PENE-TROMETER tsf	MOISTURE CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	DESCRIPTION
0	* 1		4/9/7	4.5+	12	28	16	Fill: Med-dense gray & brown f-c sand & f-c gravel. Est. A-1-b
	2		5/5/6	2.2-4.5+				Very-stiff to hard brown silty clay, some fine to coarse sand, little fine gravel, few seams of clayey silt. A-6a (7)
								Stiff gray clayey silt & silt, partly organic. Est. A-4b
5	3		3/4/5	1.1-2.1	19	32	16	Stiff to very-stiff brown silty clay & clayey silt, some fine to coarse sand, little fine gravel, A-6a
10								

Used 4½" O.D. continuous-flight augers.

*See gradation curve.

WATER LEVEL: Dry @ 6.0'

DATE: 6/25

LOG OF BORING NO. B-2

COONPATH ROAD CULVERTS - FAIRFIELD COUNTY, OHIO

TYPE: 2-inch O.D. Split-barrel LOCATION: Sta. 347+06, 10' R

COMPLETION DEPTH: 30.0' ELEVATION: 973.9 DATE: 6/26/84

DEPTH, FEET	SAMPLE NO.	SAMPLES SAMPLING EFFORT	HAND PENETROMETER tsf	MOISTURE CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	DESCRIPTION
0							Fill: Med-dense brown & gray f-c gravel, some f-c sand, some organic clayey silt, few roots. Est. A-1-b
	1	3/3/3	2.5-4.5+	14			Fill: Very-stiff to hard brown clayey silt intermixed with silty clay, some fine to coarse sand, little to some fine to coarse gravel. Est. A-4a
5	2A	2/2/3	3.5-4.5+				
	2B		1.0-1.5	23	27	16	Fill: Stiff gray clayey silt, "and" fine to coarse sand, trace fine gravel, slightly organic. A-6a
10	3	1/2/3	0.7-1.4	21	29	17	Fill: Medium-stiff to stiff brown mottled with dark-gray silty clay, little to some fine to coarse sand, little fine to coarse gravel, partly organic. A-6a
		25					
15	*4	5/6/7	3.0-4.0	12	21	14	Very-stiff to hard gray clayey silt, some fine to coarse sand, little fine gravel, desiccated. A-4a (6)
20	5A	4/4/5	1.5-2.2	14			Loose gray fine to coarse sand, "and" fine gravel, trace silt. Est. A-1-b
	5B						Stiff to very-stiff gray clayey silt, some fine to coarse sand, trace fine gravel. Est. A-4a
25	6	3/3/6	1.8-2.5				
	7	6/10/12	4.5+				Hard gray clayey silt, some fine to coarse sand, trace fine gravel, few silt lenses & seams. Est. A-4a
30							
35							

Used 4½" O.D. continuous-flight augers.

Encountered water @ 14.5' to 30.0'.

*See gradation curve.

WATER LEVEL: 18.3'

DATE: 6/26

LOG OF BORING NO. B-3

COONPATH ROAD CULVERTS - FAIRFIELD COUNTY, OHIO

TYPE: 2 & 2½" O.D. Split-barrel LOCATION: Sta. 352+09, 10' R

COMPLETION DEPTH: 30.5' ELEVATION: 974.1 DATE: 6/26/84

DEPTH, FEET	SAMPLE NO.	SAMPLES SAMPLING EFFORT	HAND PENETROMETER tsf	MOISTURE CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	DESCRIPTION
0							Fill: Gray f-c gravel, some f-c sand, trace silt. Est. A-1-a
	* 1A	2/2/2	2.7-4.0	13	19	14	Fill: Very-stiff to hard brown mottled w/dk-gray & gray clayey silt, mixed w/fine to coarse sand, "and" clayey silt, little fine gravel. A-4a (3)
	1B		1.0-1.5	27			
5	2A	2/2/2	2.0	20			Fill: Stiff brown silty clay, little f-c sand, trace fine gravel. Est. A-6a
	* 2B		1.0-1.5	19	27	18	Fill: Stiff dk-gray mottled w/brown clayey silt, some fine to coarse sand, little fine gravel, slightly organic. A-4a (5)
10	3	2/2/3	1.0-1.5				Fill: Stiff brown mottled with dark-gray silty clay, little fine to coarse sand, trace fine gravel, partly organic. Est. A-6a
15	4A	6/4/8	0.4+0.7				Fill: Soft to med-stiff brown mottled w/dk-gray clayey silt, some f-c sand, trace f gravel, slightly organic. Est. A-4a
	4B		0.3	24			Fill: Med-dense brown f-c gravel, some organic clayey silt, little f-c sand. Est. A-2-4
20	* 5	6/8/10	4.5+	11	21	14	Very-stiff to hard gray clayey silt, some fine to coarse sand, little fine gravel. A-4a (6)
25	6	6/15/14	3.8-4.5+				
		2S					
	7	5/6/8	2.7-4.5+				
30							
35							

Used 4½" O.D. Continuous-flight augers.

Encountered water @ 16.5' to 30.5'.

*See gradation curves.

WATER LEVEL: 26.0'

DATE: 6/26

LOG OF BORING NO. B-4

COONPATH ROAD CULVERTS - FAIRFIELD COUNTY, OHIO

TYPE: 2-inch O.D. Split-barrel LOCATION: Sta. 350+17, 12' L

COMPLETION DEPTH: 6.0' ELEVATION: 972.9 DATE: 6/25/84

DEPTH, FEET	SAMPLE NO.	SAMPLED	SAMPLING EFFORT	HAND PENE-TROMETER	MOISTURE CONTENT	LIQUID LIMIT	PLASTIC LIMIT	DESCRIPTION
				tsf	%	%	%	
0	*1		7/8/11	4.5+	12	23	14	Fill: M-dense brown f-c sand & f-c gravel. Est. A-1-b
	2A		6/12/18	4.5+				Hard brown mottled w/gray clayey silt, some f-c sand, little fine gravel. A-4a (5)
	2B							
5	3		6/7/10	4.5+				Dense brown f-c sand, some f gravel, little clayey silt. Est. A-1-b
								Hard gray clayey silt, some fine to coarse sand, trace fine gravel. Est. A-4a
10								

Used 4½" O.D. continuous-flight augers.

*See gradation curve.

WATER LEVEL: Dry @ 6.0'

DATE: 6/25

PLATE 7

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
TESTING LABORATORY

LOG OF BORING

CO., RT. NO., SEC. FAIRFIELD LANCASTER — BRIDGE NO. FAI-CO. BRIDGE NO. 37 EWING ST. OVER PENNA. RR

LOCATION: T.H. 1 STA. 2+12 OFFSET 5'RT FED. NO.

ELEV.	DEPTH	NO. BLOWS	SAMPLE NO.	DESCRIPTION
844.5	0			
	2			Fill-Brown Sand & Gravel
	4			
839.5	6	4/5	99660	Brown Silty Gravelly Sand
	8			
834.5	10			
	12	5/5	99661	Brown Gravelly Sandy Silt
	14			
829.5	16	7/6	99662	Brown Silt and Clay
	18			
824.5	20			
	22	12/10	99663	Gray Sandy Gravelly Clay
	24			
819.5	26	11/14	99664	Gray Sandy Gravelly Silt
	28			
814.5	30			
	32	9/9	99665	Gray Sandy Gravelly Silt
	34			
809.5	36	31/35	99666	Gray Gravel

LOG OF BORING (CONTINUED) SHEET 3

BRIDGE NO. KAL-CO BRIDGE NO. 37 T.H. 1

ELEV.	DEPTH	NO. BLOWS	SAMPLE NO.	DESCRIPTION
	38			
804.5	40			
	42	15/17	99667	Gray Sandy Gravel
	44			
799.5	46			
	48	23/23	99668	Gray Sandy Gravel
	50			
794.5	52			
	54	50/63	99669	Gray Silty Sandy Gravel
789.5	56			
	58	33/33	99670	Gray Silty Sandy Gravel
784.5	60			
	62	26/27	99671	Gray Silty Sandy Gravel
	64			BOTTOM OF BORING
	66			
	68			
	70			
	72			
	74			
	76			
	78			
	80			
	82			

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
TESTING LABORATORY

LOG OF BORING

CO., RTE NO., SEC. FAIRFIELD LANCASTER — STRUCTURE NO. FAI-CO. BRIDGE No. 37 EWING ST. OVER PENN. RR

LOCATION: T.H. A STA. 3+15 OFFSET 28' LT. FED. NO.

ELEV.	DEPTH	NO. BLOWS	SAMPLE NO.	DESCRIPTION
936.1	0			
	2			
	4			
931.1	6	6/9	98742	Brown Sandy Gravelly Silt
	8			
926.1	10			
	12	3/2	98743	Brown Gravelly Sandy Silt
	14			
921.1	16	1/1	98744	Brown Clayey Gravelly Sand
	18			
916.1	20			
	22	6/7	98745	Brown Gravelly Sandy Silt
	24			
911.1	26	5/5	98746	Gray Silty Sandy Gravel
	28			
906.1	30			
	32	7/12	98747	Gray Silty Sandy Gravel
	34			
901.1	36	12/11	98748	Gray Silty Sandy Gravel

LOG OF BORING (CONTINUED)

BRIDGE NO. FAI-CO. BRIDGE No. 37 T.H. 4

ELEV.	DEPTH	NO. BLOWS	SAMPLE NO.	DESCRIPTION
	38			
796.1	40	25/30	98749	Gray Silty Sandy Gravel
	42			
	44			
791.1	46	15/30	98750	Brown Sandy Gravel
	48			
786.1	50	13/18	98751	Brown Silty Sandy Gravel
	52			
	54			
781.1	56	35/55	98752	Brown Silty Gravelly Sand
	58			
776.1	60			
775.1		16/35	98753	Brown Silty Gravelly Sand
				BOTTOM OF BORING
	62			
	64			
	66			
	68			
	70			
	72			
	74			
	76			
	78			
	80			
	82			

LOG OF BORING

Date Started 3/4/03
Date Completed 3/4/03
Boring No. B-1

Sampler: Type SS Dia. 1.375"
Casing: Length 65ft Dia. 3.25"
Station & Offset 838+19.17, 17.55' Rt.

Water Elev. 806.3ft
Surface Elev. 821.0ft

Elev. (ft)	Depth (ft)	Std. Pen RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics: % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
820.4	0				PORTLAND CEMENT CONCRETE(10") ASPHALT CONCRETE (2") OVER										
819.4					1.0'										
	2	6/5/6			BROWN CLAYEY SILT (FILL)	1								10	VIS.
816.9	4	7/8/7			BROWN CLAYEY SILT (FILL)	2								15	VIS.
814.4	6	5/6/5			BROWN CLAYEY SILT (FILL)	3	11	12	17	36	24	27	11	20	A-6a
	8														
811.9	10	7/7/8			BROWN CLAYEY SILT (FILL)	4								21	VIS.
809.4					11.0'										
	12	2/4/6			BROWNISH GRAY SAND	5	0	4	46	30	20	NP	NP	34	A-4a
806.9					12.7'										
	14	7/8/9			GRAY SILTY FINE TO COARSE SAND AND GRAVEL	6								14	VIS.
805.4					15.0'										
	15	8/10/10			GRAY GRAVEL	7	61	12	12	11	5	NP	NP	13	A-1-b
803.9					16.5'										
		16/17/17			GRAY GRAVEL	8	63	15	8	9	5	NP	NP	10	A-1-a
802.4	18	16/17/16			GRAY GRAVEL	9	57	14	13	9	6	NP	NP	6	A-1-a
800.9	20	15/16/18			GRAY GRAVEL	10								15	VIS.
799.4					21.0'										
	22	7/8/9			GRAY SILTY CLAY (TILL)	11	0	1	1	46	52	31	12	21	A-6a
797.9		11/15/16			GRAY SILTY CLAY (TILL)	12								13	VIS.
796.4	24	12/16/18			GRAY SILTY CLAY (TILL)	13								12	VIS.
	26														
793.9		16/16/17			GRAY SILTY CLAY (TILL)	14								11	VIS.
	28														
790.9	30	15/16/15			GRAY SILTY CLAY (TILL)	15								11	VIS.
788.9	32	14/17/16			GRAY SILTY CLAY (TILL)	16								11	VIS.
					32.5'										
786.9	34	24/25/26			GRAY SILTY FINE TO COARSE SAND AND GRAVEL	17								9	VIS.

LOG OF BORING (Continued)

Boring No. B-1

Elev. (ft)	Depth (ft)	Std. Pen RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics: % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
785.4															
	36														
	38														
781.9		17/17/19			GRAY SILTY FINE TO COARSE SAND AND GRAVEL	18								10	VIS.
	40														
	42														
778.9	44	15/15/17			GRAY SILTY FINE TO COARSE SAND AND GRAVEL	19								12	VIS.
	46														
	48														
771.9		15/18/22			GRAY SILTY FINE TO COARSE SAND AND GRAVEL	20								8	VIS.
	50														
	52														
766.9	54	19/24/29			GRAY SILTY FINE TO COARSE SAND AND GRAVEL	21								13	VIS.
	56														
	58														
761.9		29/30/29			GRAY SILTY FINE TO COARSE SAND AND GRAVEL	22								13	VIS.
	60														
	62														
756.9	64	25/31/33			GRAY SILTY FINE TO COARSE SAND AND GRAVEL	23								11	VIS.
755.4					65.0'										

BOTTOM OF BORING

D50 VALUES

BORING NUMBER	SAMPLE NUMBER	SAMPLE DEPTH (FT.)	D50 (mm)
B-1	SS-5	11.0 - 12.5	0.073
	SS-7	15.0 - 16.5	4.705
	SS-8	16.5 - 18.0	4.169
	SS-9	18.0 - 19.5	3.082
	SS-11	21.0 - 22.5	0.005

STRUCTURE FOUNDATION INVESTIGATION
FAI-22-15.88

FAI-22-15.88

3/4

LOG OF BORING

Date Started 3/7/03
Date Completed 3/7/03

Sampler: Type SS Dia. 1.375"
Casing: Length 65ft Dia. 3.25"

Boring No. B-2

Station & Offset 839+04.65, 33.40' Rt.

Water Elev. 797.9ft
Surface Elev. 820.4ft

Elev. (ft)	Depth (ft)	Std. Pen RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics: % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
821.0	0														
821.0					ASPHALT CONCRETE (3") OVER BASE COURSE (8") 0.9'										
820.0	2	4/5/5			BROWN FINE TO COARSE SAND (FILL) 2.5'	1								9	VIS.
817.5	4	5/8/10			BROWN SILT (FILL) 5.0'	2								21	VIS.
815.0	6	10/12/10			BROWN FINE TO COARSE SAND AND GRAVEL WITH SANDSTONE FRAGMENTS (FILL)	3								9	VIS.
812.5	8	18/22/25			BROWN FINE TO COARSE SAND AND GRAVEL WITH SANDSTONE FRAGMENTS (FILL)	4								8	VIS.
810.0	10	20/19/15			BROWN FINE TO COARSE SAND AND GRAVEL WITH SANDSTONE FRAGMENTS (FILL) 13.5'	5								8	VIS.
807.5	12	6/5/5			BROWN SILTY FINE TO COARSE SAND AND GRAVEL (POSSIBLE FILL) 15.0'	6								11	VIS.
805.0	14	4/5/5			GRAY SILT with Organics 17.5'	7								36	VIS.
802.5	16	12/15/16			GRAY SILTY FINE TO COARSE SAND AND GRAVEL 22.5'	8								17	VIS.
797.5	18	15/15/17			GRAY SILTY CLAY (TILL)	9								12	VIS.
792.5	20	15/16/15			GRAY SILTY CLAY (TILL) 33.0'	10								9	VIS.
787.5	22	14/20/16			GRAY SILTY FINE TO COARSE SAND AND GRAVEL	11								11	VIS.

LOG OF BORING (Continued)

Boring No. B-2

Elev. (ft)	Depth (ft)	Std. Pen RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics: % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
786.0															
	36														
	38														
782.5		17/18/16			GRAY SILTY FINE TO COARSE SAND AND GRAVEL	12								12	VIS.
	40														
	42														
777.5	44	16/20/25			GRAY SILTY FINE TO COARSE SAND AND GRAVEL	13								8	VIS.
	46														
	48														
772.5		19/21/27			GRAY SILTY FINE TO COARSE SAND AND GRAVEL	14								9	VIS.
	50														
	52														
767.5	54	30/22/27			GRAY SILTY FINE TO COARSE SAND AND GRAVEL	15								12	VIS.
	56														
	58														
762.5		35/40/39			GRAY SILTY FINE TO COARSE SAND AND GRAVEL	16								10	VIS.
	60														
	62														
757.5	64	33/37/41			GRAY SILTY FINE TO COARSE SAND AND GRAVEL 65.0'	17								10	VIS.
756.0					BOTTOM OF BORING										

STRUCTURE FOUNDATION INVESTIGATION

FAI-22-15.88

FAI-22-15.88

4/4

LOG OF BORING

Date Started 5-20-63 | Sampler Type SS | Dia. 1 3/8" | Water Elev. —
Date Completed 5-22-63 | Casing Length — | Dia. —
Boring No. B-2 | Station & Offset 89+75, 36' Lt. (REAR ABUTMENT) | Surface Elev. 821.0'

Elev.	Depth	Std. Pen. (ft)	Rec. ft	Loss ft	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SM'L Class.
821.0	0														
	2														
	4														
816.0	6	2/3			Brownish-Red & Gray Cinders, Ashes, Glass, & Stone Fragments	1		V	I	S	U	A	L		
813.5	8	1/2			Reddish-Brown Decayed Wood with Brown Clayey Silt	2		V	I	S	U	A	L		
811.0	10	4/5			Brown Gravelly Sand	3	43	32	17	8		NP	NP	15	
808.5	12	7/3			Brown & Gray Sandy Gravel	4	59	30	9	2		NP	NP	20	
806.0	14	1/2			Gray & Brown Gravelly Sandy Clay, Slightly Organic	5	20	2	35	21	22	36	18	28	
803.5	16	2/2			Gray Clayey Sand	6	15	22	27	19	17	28	8	35	
801.0	18	2/2			Gray & Brown Organic Sandy Silt	7	0	5	29	45	21	32	7	31	
798.5	20	2/3			Gray Sandy Silt, Slightly Organic	8	0	5	26	47	22	NP	NP	25	
796.0	24	8/8			Brown & Gray Silty Sandy Gravel	9	43	28	9	11	9	NP	NP	21	
791.0	28	20/18			Gray Silty Sandy Gravel	10	64	20	6	10		NP	NP	10	
786.0	32	9/13			Brown & Gray Silty Sand	11	14	42	31	13		NP	NP	15	
781.0	36	13/16			Brown & Gray Silty Sandy Gravel	12	47	10	7	20	7	NP	NP	19	
776.0	40	25/36			Brown Sandy Gravel	13	54	20	18	8		NP	NP	12	
771.0	45	20/35			Brown Sand	14	5	74	16	5		NP	NP	19	
766.0	50	23/48			Brown Silty Sandy Gravel	15	46	29	11	14		NP	NP	10	
761.0	55	22/50			Brown Sand (Wash Sample)	16		V	I	S	U	A	L		
756.0	60	25/48			Brown Silty Gravelly Sand	17	25	39	36	13	7	NP	NP	12	
751.0	70	20/32			Brown Silty Sand	18	0	26	54	11	9	NP	NP	25	
746.0	75	28/35			Brown Silty Gravelly Sand	19	25	49	13	13		NP	NP	12	
745.0					BOTTOM OF BORING										

Sand heaved 3.0' to 4.0' in casing between elevations 776.0' to 745.0'.

LOG OF BORING

Date Started 5-22-63 Sampler Type SS Dia. 1 3/8"
Date Completed 5-23-63 Casing: Length ____ Dia. ____
Boring No. B-7 Station & Offset 50+62, 32' Rt. (FORWARD ABUTMENT)

Water Elev. ____
Surface Elev. 820.3'

Elev.	Depth	Sml. Pen. (in)	Rec. ft	Loss ft	Description	Sample No.	Physical Characteristics % Agg	% C.S.	% F.S.	% Silt	% Clay	LL.	Pl.	W.C.	SHTL. Class.
820.3	0														
	2														
	4														
815.3	6	2/3			Brown Sandy Gravel with Cinders	1		V	I	S	U	A	L		
	8														
810.3	10	18/3			Brown Silty Sandy Gravel	2	61	11	10	9	9	NP	NP	31	
	12														
807.8	14	1/2			Gray Organic Clayey Gravelly Sand	3	28	11	32	13	16	27	14	29	
805.3	16	7/13			Gray and Brown Sandy Silt with Trace of Organic	4	12	7	23	40	18	NP	NP	23	
802.8	18	5/7			Gray and Black Silt.	5	0	0	17	59	24	NP	NP	24	
800.3	20	4/6			Gray Sandy Silt	6	0	2	44	30	24	NP	NP	21	
797.8	24	7/12			Gray Sandy Silt	7		V	I	S	U	A	L	21	
795.3	28	4/5			Gray Silt	8	0	0	0	57	43	NP	NP	24	
	28														
790.3	30	3/13			Gray Gravelly Silt	9	35	6	3	30	26	NP	NP	28	
	32														
	34														
785.3	36	16/15			Gray Silty Gravelly Sand	10	34	33	16	6	7	NP	NP	15	
	38														
780.3	40	18/21			Gray Silty Sandy Gravel	11	63	16	11	-10		NP	NP	10	
	42														
	44														
775.3	46	32/49			Brown Sandy Gravel	12	66	17	11	-6		NP	NP	11	
	48														
770.3	50	32/32			Brown Sandy Gravel	13	69	15	8	-8		NP	NP	11	
	52														
	54														
765.3	56	16/38			Brown Sandy Gravel	14	55	24	15	-6		NP	NP	14	
	58														
760.3	60	20/28			Brown Silty Gravelly Sand	15	23	25	36	-12		NP	NP	16	
	62														
	64														
755.3															
754.3	66	20/24			Brown Sand	16	12	22	57	-9		NP	NP	21	

BOTTOM OF BORING

State of Ohio
Department of Transportation
Division of Highways
Testing Laboratory

LOG OF BORING

Date Started 11/3/99 Sampler: Type SS Dia. 2.0" Water Elev. 830.0ft
Date Completed 11/3/99 Casing: Length ____ Dia. 4.25"

Project: Subsurface Exploration for Bridge No. FAI-793-389
Project No.: 99099
Location: Fairfield County, Ohio

Boring No. S-5 Station & Offset 206+89, 4.0' Rt. Surface Elev. 838.041

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics: % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	M.C.	ODOT Class
838.0	0														
837.4					ASPHALT PAVEMENT										
	2	5 - 15 - 9			Medium dense, brown GRAVEL AND ROCK FRAGMENTS WITH SAND, some silt, moist. (Roadbase).	1	39	21	18	---	22 *	NP	NP	6	A-1-b
	5	8 - 5 - 21			Note: Brown and black sandy silt, trace asphalt layer was approximately from 4.0 to 4.5 feet.	2	--	--	--	--	--	--	--	14	Visual
	6	14 - 13 - 9				3	--	--	--	--	--	--	--	6	Visual
831.0	8	2 - 2 - 3			Loose, light gray COARSE AND FINE SAND, little silt, trace gravel, trace roots, wet.	4	--	--	--	--	--	--	--	24	Visual
	10														
827.0	12	3 - 4 - 3			Loose, light gray GRAVEL AND ROCK FRAGMENTS WITH SAND, little silt, wet.	5	--	--	--	--	--	--	--	16	Visual
824.5	14	8 - 6 - 6			Medium dense, light gray GRAVEL AND ROCK FRAGMENTS WITH SAND AND SILT, wet.	6	--	--	--	--	--	--	--	15	Visual
	16	4 - 8 - 11				7	33	23	13	---	31 *	NP	NP	18	A-2-4
819.5	18	7 - 3 - 4			Loose to medium dense, light gray GRAVEL AND ROCK FRAGMENTS WITH SAND, little silt, wet. Note: Silt and clay layer from 19.2 to 19.9 feet.	8	--	--	--	--	--	--	--	19	Visual
	22	7 - 5 - 4				9	--	--	--	--	--	--	--	12	Visual
	24	10 - 10 - 12				10	--	--	--	--	--	--	--	12	Visual
812.0	26	12 - 16 - 15			Dense, light gray GRAVEL AND ROCK FRAGMENTS, little sand, trace silt, wet.	11	--	--	--	--	--	--	--	13	Visual
	28	17 - 30 - 14				12	--	--	--	--	--	--	--	11	Visual
	30	12 - 16 - 18			Note: No spoon recovery at 31.0 feet.	13	--	--	--	--	--	--	--		Visual
804.5	34	10 - 20 - 25			Dense, brown GRAVEL AND ROCK FRAGMENTS WITH SAND, little silt,	14	19	32	37	-	12 *	NP	NP	12	A-1-b
803.0	35	20 - 20 - 25			wet.	15	-	--	--	--	--	--	--	15	Visual
799.5	38	10 - 12 - 15			Medium dense to very dense, gray Silt, some clay, trace sand, trace gravel, moist.	16	-	--	--	--	--	--	--	20	Visual
	42														
	44	10 - 15 - 16				17	--	--	--	---	--	--	--	20	Visual
	46														
	48	10 - 14 - 15				18	1	1	8	21	69	NP	NP	21	A-4b
	52														
	54	11 - 14 - 16				19	--	--	--	--	--	--	--	17	Visual
	56														
	58	15 - 20 - 21				20	--	--	--	--	---	--	--	18	Visual
	60														
	62	17 - 17 - 21				21	--	--	--	---	--	--	--	23	Visual
	64														
	66														
	68	23 - 25 - 27				22	--	--	--	--	--	--	--	23	Visual
768.0	70				TERMINATION DEPTH = 70.0 FEET										

Particle Sizes: Agg = 2.00mm, Coarse Sand = 2.00-0.42mm, Fine Sand = 0.42-0.074mm, Silt = 0.074-0.005mm, Clay = 0.005mm, * Indicates Silt and Clay Combined

D-50 GRAIN SIZE DETERMINATION

BORING NUMBER	SAMPLE NUMBER	DEPTH (ft)	DEPTH (mm)	D50 (mm)	D50 (inches)	ODOT CLASSIFICATION
S-5	6	12.5	3.81	0.139	0.005	A - 6a
	7	14.5	4.42	1.300	0.051	A - 1 - b
	8	16.5	5.03	3.904	0.154	A - 1 - a
	9	18.5	5.64	3.692	0.145	A - 1 - a

47 / 57	FAI-793-389	STRUCTURE FOUNDATION INVESTIGATION FAI-793-389 OVER TARHE RUN	DRAWN B.M	REVIEWED S.M	DATE 4/26/00	CALCULATED W.J.N CHECKED S.S.S	PRIME ENGINEERING & ARCHITECTURE, INC.

State of Ohio
Department of Transportation
Division of Highways
Testing Laboratory

LOG OF BORING

Date Started 10/23/99 Sampler: Type SS Dia. 2.0" Water Elev. 825.0ft
Date Completed 10/23/99 Casing: Length ____ Dia. 3.25"

Project: Subsurface Exploration for Bridge No. FAI-793-389
Project No.: 99099
Location: Fairfield County, Ohio

Boring No. S-2 Station & Offset 206+34, 4.5' Lt. Surface Elev. 838.0ft

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics % Agg	% G.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
838.0	0														
837.2					ASPHALT PAVEMENT										
	2				Gray SANDY SILT, some clay, trace gravel, moist (fill) Note: Boulder encountered at 1.0 feet. Auger sample was taken.	1	7	9	18	46	21	26	9	16	A-4a
834.5	4	4 - 3 - 5			Loose, brown SANDY SILT, little clay, little to trace gravel and rock fragments, moist (fill).	2	--	--	--	--	--	--	--	11	Visual
	6	6 - 3 - 4				3	--	--	--	--	--	--	--	11	Visual
	8	2 - 3 - 6				4	--	--	--	--	--	--	--	18	Visual
	10	4 - 3 - 2				5	--	--	--	--	--	-	-	13	Visual
825.5	12	5 - 9 - 6-4			Stiff, gray SILT AND CLAY, some sand, some gravel and rock fragments, moist.	6	30	11	15	--	44 *	--	--	11	A-6a
823.5	14	4 - 5 - 9-11			Medium dense, light gray GRAVEL AND ROCK FRAGMENTS WITH SAND, little silt, wet.	7	42	18	22	--	18 *	NP	NP	16	A-1-b
821.5	16	11 - 9 - 7- 7			Medium dense, light gray GRAVEL AND ROCK FRAGMENTS, some sand, trace to little silt, wet.	8	59	16	15	--	10 *	NP	NP	11	A-1-a
	18	7 - 7 - 17-18				9	58	16	15	--	11 *	NP	NP	12	A-1-a
	20	9 - 7 - 4				10	--	-	--	--	--	--	--	10	Visual
814.5	22	5 - 7 - 4			Medium dense, light gray COARSE AND FINE SAND, some silt, trace gravel, wet.	11	--	--	--	--	--	--	--	17	Visual
812.0	24	5 - 4 - 5			Stiff, gray SILT AND CLAY, some sand, trace gravel, trace rock fragments, moist.	12	--	-	--	--	--	--	--	20	Visual
809.5	26	19 - 18 - 43			Dense to very dense, light gray GRAVEL AND ROCK FRAGMENTS WITH SAND, little silt, wet.	13	--	--	--	--	--	--	--	12	Visual
	28	13 - 19 - 25				14	43	26	19	--	11 *	NP	NA	13	A-1-b
	30	50/5 in.			Note: Boulder encountered at 33.9 feet. No spoon recovery, augered through the boulder.	15	--	--	--	--	--	--	--	--	Visual
802.0	32	54 - 50 - 50			Very dense, light gray COARSE AND FINE SAND, little silt, trace gravel, trace rock fragments, wet.	16	--	-	--	--	--	--	--	11	Visual
	34	14 - 27 - 36				17	--	--	-	--	--	--	--	9	Visual
798.1	36				Medium dense to dense, gray SILT, some clay, little sand, trace gravel, moist.										
	38	9 - 14 - 16				18	--	--	--	--	--	--	--	12	Visual
	40	9 - 15 - 25				19	1	2	15	52	25	NP	NP	18	A-4b
	42	14 - 14 - 16				20	--	--	--	--	--	--	--	15	Visual
	44	13 - 17 - 19			Note: Trace rock fragment at 58.5 feet.	21	--	--	--	--	--	--	--	20	Visual
778.0	46				TERMINATION DEPTH = 60.0 FEET										

Particle Sizes: Agg => 2.00mm, Coarse Sand = 2.00-0.42mm, Fine Sand = 0.42-0.074mm, Silt = 0.074-0.005mm, Clay =< 0.005mm. * Indicates Silt and Clay Combined

FAI-793-389	STRUCTURE FOUNDATION INVESTIGATION FAI-793-389 OVER TARHE RUN	DRAWN B.M	REVIEWED S.M	DATE 4/24/00	EXCAVATED W.J.N CHECKED S.S.S	PRIME ENGINEERING & ARCHITECTURE, INC.	

State of Ohio
Department of Highways
Testing Laboratory

LOG OF BORING

Date Started 10-26-62 Sampler: Type SS Dia. 1 3/8" Water Elev. ____
Date Completed 10-29-62 Casing: Length 60' Dia. 3 1/2"

Project Identification: FAIRFIELD
FAI-37-19.54
FAI-37-1966
OVER RACCOON CREEK

Boring No. B-1 Station & Offset 481+15, 30' Lt. (REAR ABUTMENT) Surface Elev. 850.5

Elev	Depth	Std. Pen. (N)	Description	Field No.	Lab. Nos.	Physical Characteristics								SHTL Class
						% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	Pl.	W.C.	
850.5	0													
	2													
	4													
845.5	6	5/9	Brown Clayey Sandy Gravel	1	94694	42	11	11	10	26	37	13	18	
843.0	8	4/5	Brown Silty Sandy Gravel	2	94695	41	16	12	7	24	33	10	20	
840.5	10	4/5	Brown Silty Sandy Gravel	3	94696	45	11	15	8	21	31	8	16	
838.0	12													
	14	5/5	Brown Silty Sandy Gravel	4	94697	39	15	18	11	17	NP	NP	17	
835.5	16	4/5	Brown Gravelly Silt	5			V	I	S	U	A	L		
833.0	18		No Sample Recovered (Hole Caved)											
830.5	20	4/6	Brown Silty Sandy Gravel	6	94698		V	I	S	U	A	L	24	
	22													
	24													
825.5	26	25/41	Brown Silty Gravel	7	94699	62	7	6	16	9	NP	NP	10	
	28													
820.5	30													
	32	50* (0.4')	Brown Sand (Wash Sample)	8			V	I	S	U	A	L		
	34													
815.5	36	5/6	Brown Silty Gravel	9	94700	76	6	6	1	11	NP	NP	15	

Particle Sizes: Agg. = >2.00mm, Coarse Sand = 2.00 - 0.42mm, Fine Sand = 0.42 - 0.074mm, Silt = 0.074 - 0.005mm, Clay = < 0.005mm

* Refusal

SHEET 5 of 18 sheets

Boring No. B-1 Station & Offset 481+15, 30' Lt. Surface Elev. 850.5 Project: FAI-37-1966

Elev.	Depth	Std. Pen. (N)	Description	Field No.	Lab. Nos. So.	Physical Characteristics % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL. Class.
	38													
810.5	40	17/13	Brown Silty Sandy Gravel	10	94701	50	12	15	14	9	NP	NP	14	
	42													
	44													
805.5	46	27/23	Brown Silty Sandy Gravel	11	94702	52	12	11	15	10	NP	NP	13	
	48													
800.5	50	50* (0.1')	Brown Sand (Wash Sample)	12			V	I	S	U	A	L		
	52													
	54													
795.5	56	29/31	Brown Silty Sandy Gravel	13	94703	42	24	11	9	14	NP	NP	8	
	58													
790.5	60	31/34	Brown Silty Sandy Gravel	14	94704		V	I	S	U	A	L	12	
	62													
	64													
785.5 785.2	66	50* ((0.3'))	Brown Silty Gravelly Sand BOTTOM OF BORING	15	94705	40	30	12	7	11	NP	NP	12	
	68													
	70		* Refusal											
	72													
	74													
	76													
	78													
	80													

SHEET 2 OF 18 SHEETS

State of Ohio
Department of Highways
Testing Laboratory

LOG OF BORING

Date Started 10-22-62 Sampler Type SS Dia 1 3/8" Water Elev ____
Date Completed 10-25-62 Casing Length 60' Dia 3 1/2"

Project Identification FAIRFIELD
FAI-37-19.54
FAI-37-1966
OVER RACCOON CREEK

Boring No B-8 Station & Offset 481+90, 13' Rt. (FORWARD ABUTMENT) Surface Elev. 852.7

Elev	Depth	Std Pen (N)	Description	Field No	Lab Nos. So.	Physical Characteristics % Agg	% CS	% FS	% Silt	% Clay	LL	PI	WC	SHTL Class
852.7	0													
	2													
	4													
847.7	6	3/5	Brown Sandy Gravelly Clay	1	93207	20	6	10	25	39	34	13	19	
845.2	8	3/3	Brown Gravelly Sandy Silt	2	93208	22	17	19	15	27	NP	NP	18	
842.7	10	3/2	Brown Clayey Gravelly Sand	3	93209	30	16	18	11	25	31	12	15	
840.2	12													
	14	6/5	Brown Silty Gravelly Sand	4	93210	30	14	19	17	20	NP	NP	13	
837.7	16	22/22	Brown Gravelly Sandy Silt	5	93211	27	16	14	21	22	NP	NP	9	
835.2	18	7/5	Brown Silty Sandy Gravel	6	93212	42	16	14	12	16	NP	NP	16	
832.7	20	4/5	Brown Silty Sandy Gravel	7	93213		V	I	S	U	A	L	15	
830.2	22													
	24	8/12	Brown Silty Sandy Gravel	8	93214		V	I	S	U	A	L	11	
827.7	26	6/8	Brown Silty Sandy Gravel	9	93215	46	15	10	12	17	NP	NP	16	
	28													
822.8	30													
	32	13/16	Brown Silty Sandy Gravel	10	93216		V	I	S	U	A	L	10	
	34													
817.7	36	30/50	Brown Silty Sandy Gravel	11	93217	34	23	9	16	18	NP	NP	14	

Particle Sizes: Agg = >2.00mm, Coarse Sand = 2.00 - 0.42mm, Fine Sand = 0.42-0.074mm, Silt = 0.074-0.005mm, Clay = <0.005mm

SHEET 4 of 18 sheets

Boring No. B-8 Station & Offset 481+90, 13' Rt. Surface Elev. 852.7 Project: FAI-37-1966

Elev.	Depth	Std. Pen. (N)	Description	Field No.	Lab. Nos. So.	Physical Characteristics % Adm	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL. Class.
	38													
812.7	40	28/27	Brown Silty Sandy Gravel	12	93218	64	9	9	10	8	NP	NP	9	
	42													
	44													
807.7	46	18/21	Brown Silty Sandy Gravel	13	93219	51	15	7	17	10	NP	NP	12	
	48													
802.7	50	27/27	Brown Silty Sandy Gravel	14	93220	44	16	14	13	13	NP	NP	13	
	52													
	54													
797.7	56	28/50	Brown Silty Sandy Gravel	15	93221		V	I	S	U	A	L	6	
	58													
792.7	60													
791.7		22/23	Brown Silty Sandy Gravel	16	93222	44	22	13	9	12	NP	NP	10	
	62		BOTTOM OF BORING											
	64													
	66													
	68													
	70													
	72													
	74													
	76													
	78													
	80													

SHEET 8 of 18 sheets

LOG OF BORING

Date Started 9-2-63 Sampler Type SSI Dia. 1 3/8"
Date Completed 9-10-63 Casing: Length 65' Dia. 3 1/2"
Boring No. B-2 Station & Offset 28+32, 20' Rt (REAR ABUTMENT)
Water Elev. ____
Surface Elev. 807.6*

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	Pl.	W.C.	SHTL Class.
807.6	0														
	2														
	4														
802.6	6	4/4			Brown Sandy Gravel	1	62	17	11	7	3	NP	NP	13	
800.1	8	4/6			Brown Silty Sand	2	10	12	47	16	15	NP	NP	21	
797.6	10	2/1			Brownish-Gray Sandy Silt Trace of Organic	3	0	9	44	29	19	NP	NP	83	
795.1	12	1/2			Gray Sandy Silt Slightly Organic	4	0	1	56	34	9	NP	NP	30	
792.6	14	7/5			Grayish-Brown Silty Sandy Gravel	5	53	16	20	7	4	NP	NP	23	
790.1	16	19/16			Brown Silty Sandy Gravel	6	51	17	11	15	6	NP	NP	6	
787.6	18	43/15			Brown Sandy Gravel	7		V	I	S	U	A	L	8	
785.1	20	3/5			Brown Sandy Gravel	8		V	I	S	U	A	L	22	
782.6	22	56/*			Brown Sand (Wash Sample)	9		V	I	S	U	A	L		
	24														
777.6	26	20/10			Gray Sand (Wash Sample)	10		V	I	S	U	A	L		
	28														
772.6	30	19/12			Gray Sand (Wash Sample)	11		V	I	S	U	A	L		
	32														
767.6	34	17/18			Gray Sand (Wash Sample)	12		V	I	S	U	A	L		
	36														
762.6	38	7/10			Gray Silt	13	0	1	7	56	36	NP	NP	19	
	40														
757.6	42	7/7			Gray Sand (Wash Sample)	14		V	I	S	U	A	L		
	44														
752.6	46	13/20			Gray Sand (Wash Sample)	15		V	I	S	U	A	L		
	48														
747.6	50	17/30			Gray Sand (Wash Sample)	16		V	I	S	U	A	L		
	52														
742.6	54	12/20			Gray Sand (Wash Sample)	17		V	I	S	U	A	L		
	56														
737.6	58	12/22			Gray Silt	18	0	1	8	63	28	NP	NP	23	
	60														
732.6	62	11/15			Gray Silt	19	0	0	10	66	24	NP	NP	19	
	64														
727.6	66	13/13			Gray Silt	20	0	1	16	65	18	NP	NP	17	
	68														
722.6	70	9/13			Gray Silt	21	0	1	17	54	28	NP	NP	17	
	72														
712.6	74														
716.6	76	9/16			Gray Silt	22	0	1	7	54	38	23	5	17	

BOTTOM OF BORING

*REFUSAL

LOG OF BORING

Date Started 9-4-63 Sampler Type SS Dia. 1 3/8"
Date Completed 9-5-63 Casing: Length 55' Dia. 3 1/2"
Boring No. B-7 Station & Offset 29+38, 10 Lt (FORWARD ABUTMENT)

Water Elev. ____
Surface Elev. 807.9'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg	% G.S.	% F.S.	% Silt	% Clay	L.L.	Pl.	W.C.	SHTL Class.
807.9	0														
	2														
	4														
802.9	6	1/2			Brown Silty Gravel	1	60	3	8	14	15	NP	NP	30	
	8														
797.9	10	3/3			Brownish-Gray Gravelly Sandy Silt Trace of Organic	2	18	1	21	36	24	NP	NP	29	
795.4	12	5/1			Gray Silty Sandy Gravel Trace of Organic	3	45	7	19	17	12	NP	NP	30	
792.9	14	21/22			Brown Silty Sandy Gravel	4	63	12	10	9	6	NP	NP	10	
790.4	16	16/20			Brown Gravel	5	82	8	5	5	-	NP	NP	10	
787.9	18	30/25			Brownish-Gray Silty Sandy Gravel	6	53	14	13	12	8	NP	NP	10	
785.4	20	12/19			Gray Silty Gravelly Sand	7		V	I	S	U	A	L	11	
782.9	22	22/21			Gray Silty Gravelly Sand	8		V	I	S	U	A	L	12	
	24														
777.9	26	3/3			Brown Silt	9	0	1	8	56	35	25	6	30	
	28														
772.9	30	2/4			Gray Silt	10	0	0	1	58	41	26	4	31	
	32														
767.9	34	1/1			Gray Clayey Silt	11	0	0	1	49	50	29	10	29	
	36														
762.9	38	10/12			Gray Gravelly Clayey Sand	12		V	I	S	U	A	L	20	
	40														
757.9	42	12/17			Gray Silty Sand	13	0	0	75	13	12	NP	NP	20	
	44														
752.9	46	11/12			Gray Silt	14	0	0	1	81	18	NP	NP	28	
	48														
747.9	50	6/9			Gray Silt	15	0	0	3	68	29	24	3	20	
	52														
742.9	54	7/10			Gray Silt	16	0	0	12	63	25	20	2	14	
	56														
737.9	58	6/7			Gray Silt	17	0	1	4	64	31	NP	NP	20	
	60														
732.9	62	6/8			Gray Silt	18	0	1	19	48	32	21	5	18	
	64														
727.9	66	6/8			Gray Silt	19	0	0	3	56	41	24	5	23	
	68														
722.9	70														
721.9	72	7/9			Gray Silt	20	0	1	2	65	32	21	3	22	

BOTTOM OF BORING

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614) 885-1959

REPORT OF SOIL EXPLORATION

Client: MS Consultants, Inc.
Project: FAI-33-12.91 - Lancaster Bypass
Project Number: W-9223

Boring Number: B-40
Sheet: 1 of 2
Completion Depth: 20.0'

Date Started: 04/05/00
Date Finished: 04/05/00
Drilled By: J.T.

DRILLING AND SAMPLING INFORMATION

Station: 481+00
Offset: Centerline
Elevation: 992.7 ft

Boring Method: 3.75" HSA
Hammer Weight: 140 lbs.
Hammer Drop: 30 inches

SAMPLE NO	BLOWS PER 6"	PERCENT RECOVERY	DEPTH	SOIL DESCRIPTION	MOISTURE CONTENT	ATTERBERG LL	ATTERBERG PL
SS-1	2 1 2	78		8" - Brown SILTY CLAY, little organics, trace fine to coarse sand (Topsoil). Moist. 0.7'			
				Brown to orangish brown SILTY CLAY, some coarse to fine sand, trace fine gravel. Soft to medium stiff. Very moist to moist.	22		
SS-2	3 2 2	33	2.5	-SS-1: qh = 3.5 ksf -SS-2: qh = 6.5 ksf	19		
SS-3	3 2 4	67	5.0	-SS-3: ODOT A-6b (9); qh = 7.5 ksf	19	36	18
				6.0			
SS-4	3 7 9	33	7.5	Orangish brown coarse to fine GRAVEL (sandstone fragments), some fine sand, little silt, little clay. Medium dense. Moist. 8.5'	17		
SS-5	6 5 11	56	10.0	Orangish brown coarse to fine SANDY SILT, little clay, trace fine gravel. Very stiff. Very moist. -SS-5: qh = 4.5 ksf	18		
			12.5				
				13.5			
SS-6	8 8 10	56	15.0	Brown SILTY CLAY, some coarse to fine sand, trace fine gravel. Very stiff. Moist. -SS-6: qh = 4.5 ksf	17		

NOTES:

SAMPLE TYPE
SS - Split Spoon
AS - Auger Sample
ST - Shelby Tube
RC - Rock Core
GS - Geoprobe Sample

GROUND WATER READING
At Completion: ▽ Dry
After 24 Hrs: ▼ N/A
Cave in @ 8.0'

BORING METHOD
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
MD - Mud Drilling
WD - Wash Drilling
RC - Rock Coring

RESOURCE INTERNATIONAL, INC.
261 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614) 885-1959

REPORT OF SOIL EXPLORATION

Client MS Consultants, Inc.
Project FAI-33-12.91 - Lancaster Bypass
Project Number W-9223

Boring Number B-40
Sheet 2 of 2
Completion Depth 20.0'

SAMPLE NO	BLOWS PER 6"	PERCENT RECOVERY	DEPTH	SOIL DESCRIPTION	MOISTURE CONTENT	ATTERBERG LL	ATTERBERG PL
			17.5				
SS-7	11 10 15	67		-SS-7: qh = 1.5 ksf	20		
			20.0	20.0 Bottom of Boring = 20.0 feet			
			22.5				
			25.0				
			27.5				
			30.0				
			32.5				
			35.0				
			37.5				

NOTES:

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614) 885-1959

REPORT OF SOIL EXPLORATION

Client: MS Consultants, Inc.
Project: FAI-33-12.91 - Lancaster Bypass
Project Number: W-9223

Boring Number: B-41
Sheet: 1 of 1
Completion Depth: 10.0'

Date Started: 01/13/00
Date Finished: 01/13/00
Drilled By: J.F.

DRILLING AND SAMPLING INFORMATION

Station: 484+00
Offset: Centerline
Elevation: 979.9 ft

Boring Method: Geoprobe
Hammer Weight: N/A
Hammer Drop: N/A

SAMPLE NO	BLOWS PER 6"	PERCENT RECOVERY	DEPTH	SOIL DESCRIPTION	MOISTURE CONTENT	ATTERBERG LL	ATTERBERG PL
GS-1		100		3" - Brown SILTY CLAY, some coarse to fine sand, trace fine gravel, trace organics (Topsoil). Moist. (0.3)	18	33	17
			2.5	Brown to brown and gray SILTY CLAY, some coarse to fine sand, trace fine gravel. Moist. -GS-1: ODOT A-6b (9)			
GS-2		100			18		
			5.0				
GS-3		100			18		
				(7.3)			
GS-4		100	7.5	Gray fine SANDY SILT, some clay, trace coarse sand, trace fine gravel. Moist.	15		
			10.0	(10.0) Bottom of Boring = 10.0 feet			
			12.5				
			15.0				

NOTES:

SAMPLE TYPE
2S - 2" OD Split Spoon
3S - 3" Split Spoon
ST - Shelby Tube
RC - Rock Core

GROUND WATER READING
At Completion: ▽ Dry
After 24 Hrs: ▼ N/A

BORING METHOD
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
MD - Mud Drilling
WD - Wash Drilling
RC - Rock Coring

LOG OF BORING

Date Started 2/7/00 Sampler's Type HSA Dia. 3.75 IN. Water Elev. N/A *

Date Completed 2/8/00

Boring No. US-1 Station & Offset 24+90 (U.S.R. 22), 30 FT LT. Surface Elev. 998.5 FT

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (%)	Description	Sample No.	Physical Characteristics								
						% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I.	W.C.	ODOT Class
998.5	0													
997.0		3/6/7	78	2" - TOPSOIL (SOD) 0.2	SS-1								24	VISUAL
995.5		5/6/7	56	BROWN CLAYEY SILT, SOME SAND, TRACE GRAVEL.	SS-2	8	9	17	34	32	31	17	16	A-6b
993.5	5	4/10/10	50	6.0	SS-3								14	VISUAL
991.0		5/7/8	56	BROWN CLAYEY SAND, SOME GRAVEL, LITTLE SILT.	SS-4								16	VISUAL
988.5	10	6/7/12	50		SS-5								24	VISUAL
986.0		5/8/8	50	13.5	SS-6	32	16	11	20	22			20	VISUAL
983.5	15	4/7/5	33	BROWN TO GRAY CLAYEY SILT, SOME SAND, TRACE GRAVEL.	SS-7								20	VISUAL
981.0		5/6/11	56		SS-8								16	VISUAL
978.5	20	4/5/9	67		SS-9								14	VISUAL
975.5			54		ST-10	5	7	21	37	30	26	14	13	A-6a
973.5	25	10/15/21	83		SS-11								14	VISUAL
				28.5										
969.0	30	24/50-5"	100	GRAY INDURATED CLAYEY SILT/HIGHLY WEATHERED SILTY SHALE.	SS-12									VISUAL
964.5	35	50-6"	100	AUGER REFUSAL @ 36.0'	SS-13									VISUAL
962.5			96	36.0										
	40			SANDSTONE; GRAY, SOFT, SLIGHTLY MASSIVE, SLIGHTLY JOINTED, FINE GRAINED, MICACEOUS, ARGILLACEOUS, SLIGHTLY FISSILE, SLIGHTLY WEATHERED. qr (@37') = 418 psi CORE LOSS = 5" RQD = 70%										

BOTTOM OF BORING = 41.0'

LOG OF BORING

Date Started 2/7/00 Sampler's Type HSA Dia. 3.75 IN. Water Elev. INITIALLY @ 23.5 FT*

Date Completed 2/7/00

Boring No. US-2 Station & Offset 25+84 (U.S.R. 22), ℄ Surface Elev. 990.3 FT

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (%)	Description	Sample No.	Physical Characteristics								
						% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I.	W.C.	ODOT Class
990.3	0													
988.8		4/4/6	78	2" - TOPSOIL (SOD) 0.2	SS-1								28	VISUAL
987.3		25/26/22	44	BROWN SILTY CLAY, LITTLE SAND, TRACE GRAVEL, TRACE ORGANICS. 1.5	SS-2								11	VISUAL
985.3	5	11/13/23	50		SS-3	27	11	10	23	29	30	13	16	A-6a
982.8		12/14/32	33	BROWN SAND, SOME SILT, LITTLE CLAY, LITTLE GRAVEL. 3.5	SS-4								19	VISUAL
980.8	10	11/50-5"	64	BROWN SILTY CLAY, SOME GRAVEL, SOME SAND. 8.5	SS-5	49	16	9	- 26 -				11	VISUAL
977.8		4/3/4	67	BROWN GRAVEL, SOME SAND, LITTLE CLAY, LITTLE SILT. 11.0	SS-6								20	VISUAL
975.3	15	7/7/11	67	BROWN SILTY CLAY, TRACE SAND, TRACE GRAVEL.	SS-7								10	VISUAL
972.8		5/7/8	78	13.5	SS-8	22	14	20	28	16			9	VISUAL
970.3	20	12/11/9	0	GRAY SILTY SAND, SOME GRAVEL, LITTLE CLAY.	SS-9									VISUAL
967.8		6/6/8	100	- GROUNDWATER INITIALLY ENCOUNTERED @ 23.5' 23.5	SS-10								11	A-6a
965.3	25	9/9/9	33	BROWN GRAVEL AND SAND, SOME CLAY, LITTLE SILT.	SS-11								10	VISUAL
961.3		50-6"	67	28.5	SS-12									VISUAL
	30		100	GRAY INDURATED CLAYEY SAND/HIGHLY WEATHERED ARGILLACEOUS SANDSTONE. AUGER REFUSAL @ 29.0' 29.0										
	35		100	SANDSTONE; GRAY, SOFT, SLIGHTLY BROKEN, HIGHLY JOINTED, MICACEOUS, ARGILLACEOUS, FINE GRAINED, SLIGHTLY WEATHERED. NO CORE LOSS RQD = 30%										

BOTTOM OF BORING = 39.0'

LOG OF BORING

Date Started 2/4/00 Sampler's Type HSA Dia. 3.75 IN. Water Elev. INITIALLY @ 18.5 FT*
Date Completed 2/5/00
Boring No. US-3 Station & Offset 26+75 (U.S.R. 22), 30 FT RT. Surface Elev. 979.0 FT

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (%)	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
979.0	0													
976.5		1/3/5	56	4" BROWN CLAY, SOME SILT, SOME SAND, TRACE ORGANICS (TOPSOIL). 0.3	SS-1								25	VISUAL
973.5	5		63	BROWN TO GRAYISH BROWN CLAYEY SILT, SOME SAND, TRACE GRAVEL.	ST-2								32	VISUAL
971.5		5/5/7	56		SS-3								18	VISUAL
969.0	10	4/7/9	67	11.0	SS-4	9	9	15	33	34	28	13	15	A-6a
966.5		6/7/10	44	BROWN TO GRAY SANDY SILT, SOME CLAY, TRACE GRAVEL.	SS-5								13	VISUAL
963.5	15		83		ST-6	8	7	26	31	28	22	9	13	A-4a
961.5		5/8/10	67	* GROUNDWATER INITIALLY ENCOUNTERED @ 18.5' 18.5	SS-7	12	3	12	43	30			12	VISUAL
959.0	20	36/48/41	67	GRAY CLAYEY SILT, LITTLE SAND, TRACE GRAVEL.	SS-8								11	VISUAL
956.5		36/24/50-5"	35	23.5	SS-9								11	VISUAL
955.0	25	50-5"	80	GRAY INDURATED CLAYEY SAND/HIGHLY WEATHERED ARGILLACEOUS SANDSTONE.	SS-10									VISUAL
950.0	30	50-4"	100	38.5	SS-11									VISUAL
945.0	35	50-5"	100	SANDSTONE; GRAY, SOFT, SLIGHTLY BROKEN, SLIGHTLY JOINTED, FINE GRAINED, ARGILLACEOUS, MICACEOUS, SLIGHTLY WEATHERED. NO CORE LOSS RQD = 38% 39.5	SS-12									VISUAL
940.5														
939.5	40			SHALE; GRAY, SOFT, MASSIVE, HIGHLY JOINTED, MICACEOUS, FISSILE, INTERLAMINATED HARD FINE GRAINED SANDSTONE, SLIGHTLY WEATHERED. NO CORE LOSS RQD = 38%										

BOTTOM OF BORING = 43.5'

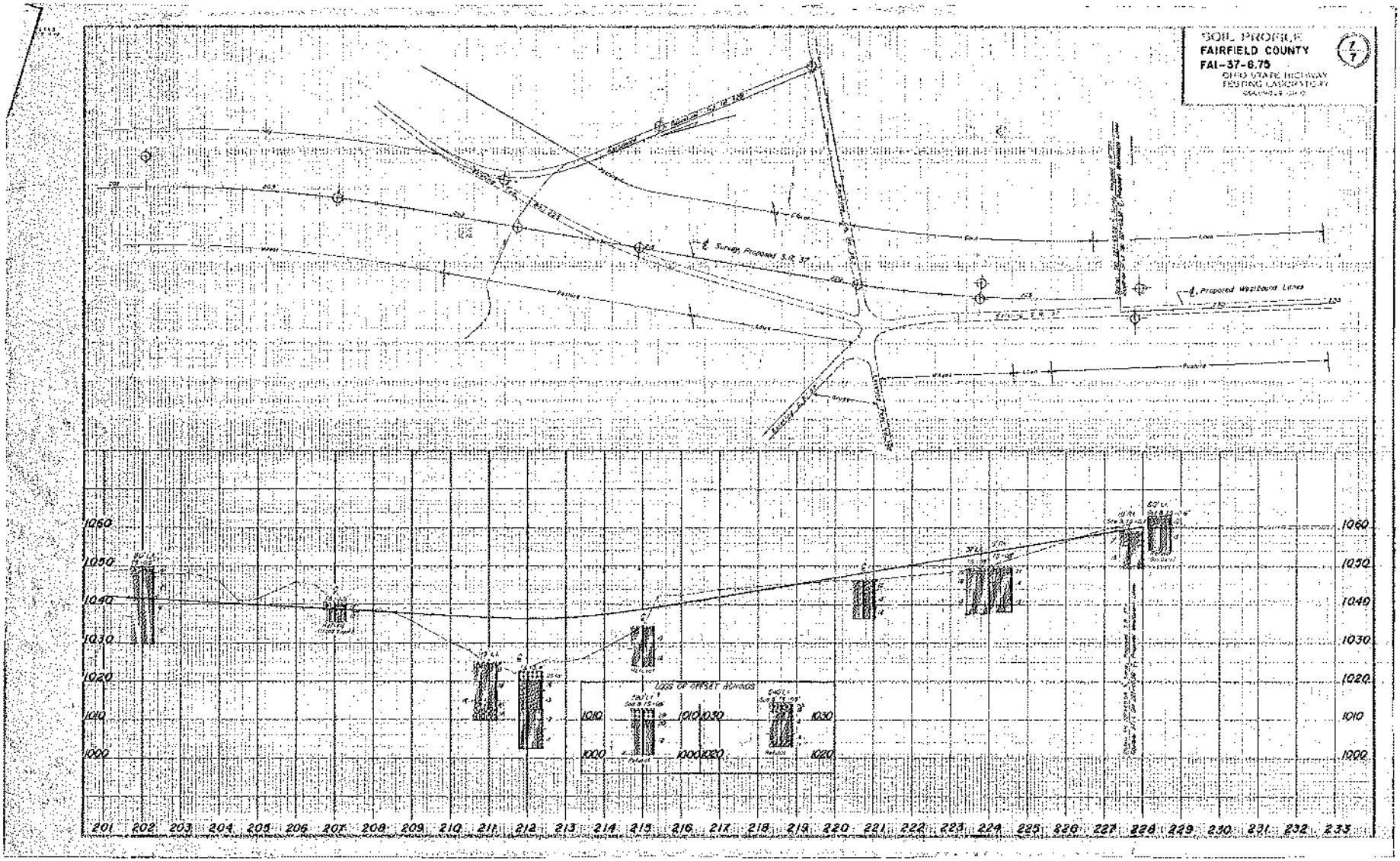
* AN ACCURATE DETERMINATION OF THE GROUNDWATER LEVEL UPON COMPLETION COULD NOT BE DETERMINED DUE TO THE USE OF WASH WATER DURING THE CORING PROCESS.

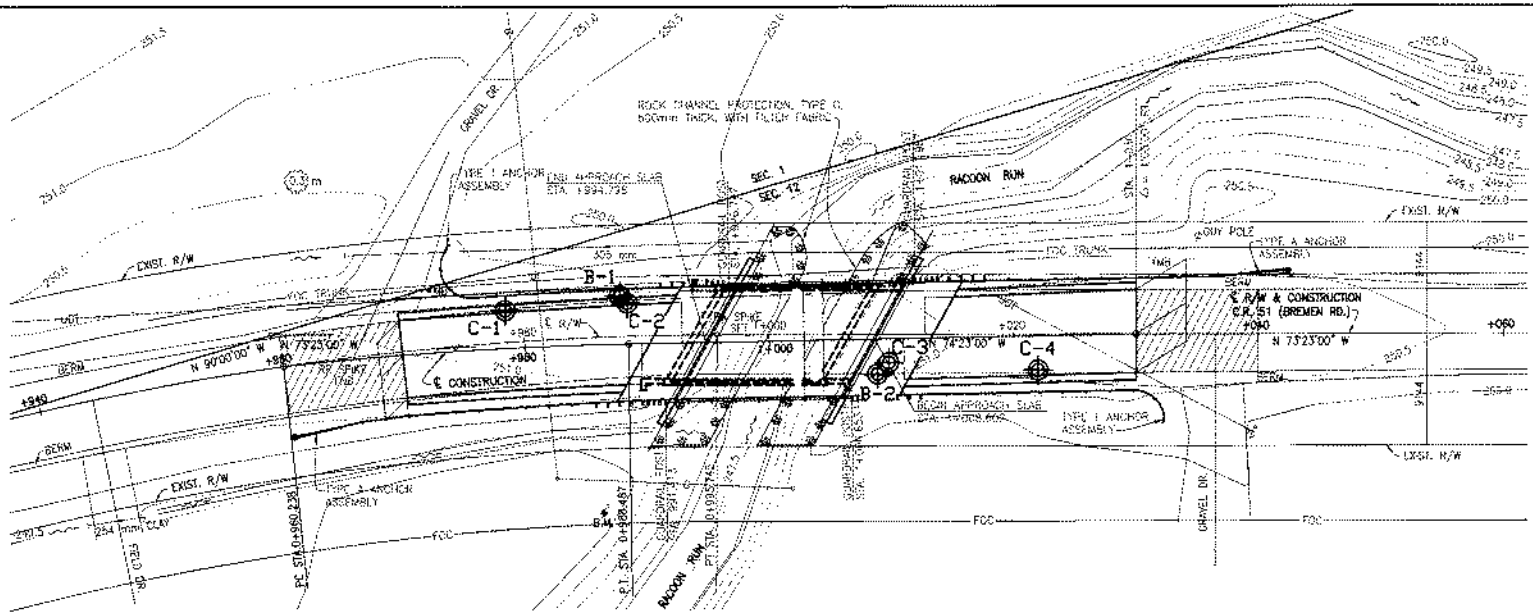
RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081 (614)895-1955

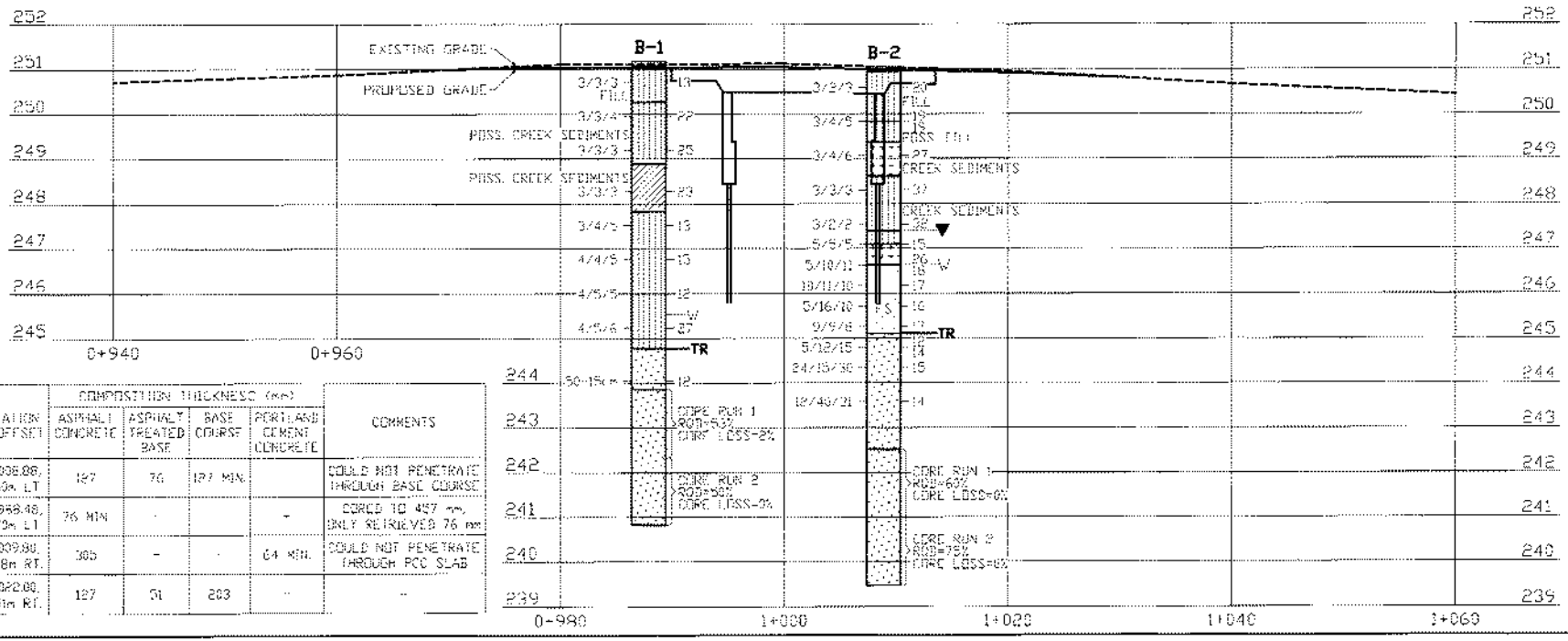
STRUCTURE FOUNDATION INVESTIGATION
U.S.R. 22 OVER U.S. 33

FAI-33-12.91

4/4


SOIL PROFILE
FAIRFIELD COUNTY
FAI-37-6.75
OHIO STATE HIGHWAY
TESTING LABORATORY
7
7
Survey Proposed S.R. 37
Proposed Westbound Lines
LOSS OF OFFSET HOLES
1060
1050
1040
1030
1020
1010
1000
201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233





CORE NO.	STATION & OFFSET	COMPOSITION THICKNESS (mm) ASPHALT CONCRETE	ASPHALT TREATED BASE	BASE COURSE	PORTLAND CEMENT CONCRETE	COMMENTS
C-1	0+908.88, 2.60m LT	127	76	127 MIN.		COULD NOT PENETRATE THROUGH BASE COURSE
C-2	0+958.48, 2.73m LT	76 MIN	-		-	CORED TO 457 mm, ONLY RETRIEVED 76 mm
C-3	1+039.80, 2.28m RT.	305	-	-	64 MIN.	COULD NOT PENETRATE THROUGH PCC SLAB
C-4	1+022.00, 2.91m RT.	127	51	203	-	-

STRUCTURE FOUNDATION INVESTIGATION
FAI-CR51-4487 OVER RACOON RUN (BER-43)

FAI-C.R.51-4.487

HORIZONTAL SCALE IN METERS

2/3

9805263a.DWG 2/5/99

APPENDIX IV

NWI WETLAND MAP

U.S. Fish and Wildlife Service
National Wetlands Inventory

Eastside Industrial Connector

September 2, 2022

Wetlands

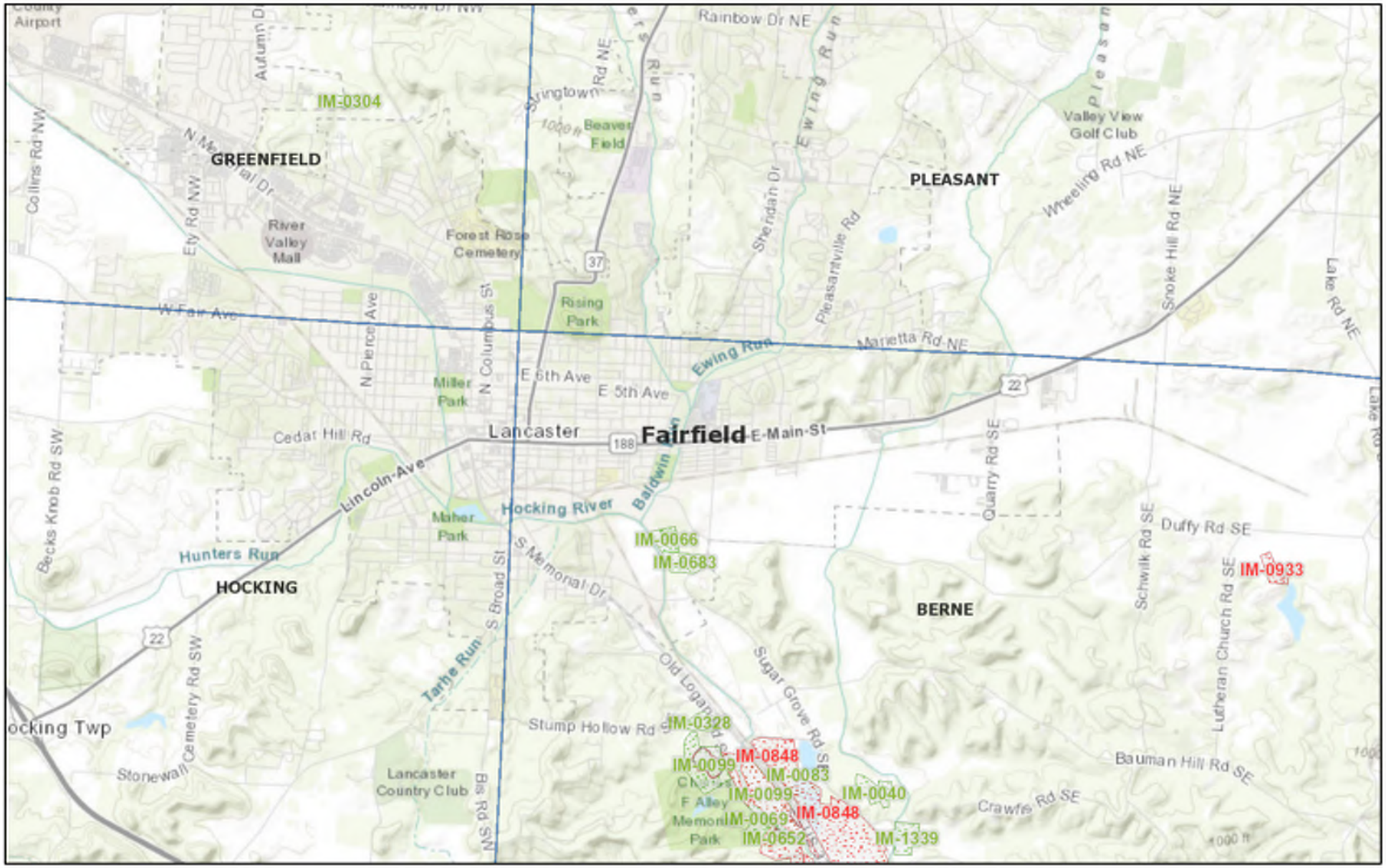
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

APPENDIX V

ODNR ABANDONED MINE AND QUARRY MAP

Eastside Industrial Connector



September 2, 2022

1:72,224

0 0.47 0.95 1.9 mi

0 0.75 1.5 3 km

West Virginia GIS, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Abandoned before 1977

Past

Current

Proposed

Original Application

Adjacent Area Application

Historic - From Geology Maps

Past

Current

Proposed

Original Application

Adjacent Area Application

Ohio Dept. of Natural Resources