

# BME ASSOCIATES

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February 9, 2024

Town Board  
Town of Perinton  
1350 Turk Hill Road  
Fairport, New York 14450

Attn: Ciaran Hanna, Town Supervisor

**Re: Fellows Road Property-Aristo  
PDD Rezoning Application**  
• T.A. #140.04-1-44.1

2729

Dear Supervisor Hanna:

On behalf of Aristo Properties, Inc., we are pleased to submit the enclosed Rezoning application for the above-referenced project. We request to appear at the Town Board's next available meeting to introduce this project, and have enclosed twelve (12) copies of the following application materials for your review:

- Letter of Intent
- Rezoning Application
- PDD Project Narrative
- PDD Fact Sheet
- Full EAF, Parts 1, 2, and 3
- Property Deeds (1 copy)
- Conventional Plan (BME dwg #2729-01)
- PDD Concept Site Plan (BME dwg #2729-02)
- PDD Concept Utility Plan (BME dwg #2729-03)
- Surrounding Neighborhoods Exhibit
- Rezoning Application Fee (\$400)

This proposal is for the rezoning of one (1) tax parcel totaling ±32.2 acres, which is situated at the northeast corner of Fellows Road and Furman Road from Residential Transition (RT-1.2.5) to Residential Planned Development District (PDD). Aristo Properties proposes 57 for-sale residential units with a mix of single-family homes, patio homes and condominium units. The proposal represents a density of 1.77 units/acre.

The enclosed materials outline the proposed development. The PDD Project Narrative presents the information as required per Chapter 208-52 of the Town Code, including the project's purpose of meeting the goals of the Town of Perinton's 2021 Comprehensive Plan.

The 2021 Comprehensive Plan identifies the subject parcels as being suitable for Medium Density Residential Development. The Comprehensive Plan also states these areas, because of their access to available infrastructure, are suitable for the density which will address current housing needs within the Town of Perinton. The proposed density of 1.77 units/acre is commensurate with Residential B zoning in the Town, and consistent with medium density development standards. The proposal also provides a mix of housing to offer variety in housing types and price points; both of which are stated goals within the Comprehensive Plan

Pursuant with Town Code §208-52.E.(1)(a)[3], we respectfully request that the Town Board accept this application and schedule this matter for a public hearing. Following the public hearing we request that the Town Board refer the proposed PDD rezoning applications to the Town Planning Board and Conservation Board for review and recommendation, and also to the Monroe County Planning Board for their 239-M referral.

The proposal is a Type 1 action pursuant to SEQRA, and we request that the Town Board declare their intent to be lead agency for the coordinated review. The completed Full EAF is provided for your use. As described in the PDD Project Narrative, the EAF has been prepared for both the Aristo Properties proposal and the adjoining Pride Mark Homes proposal (application submitted separately) to allow the Town Board, as lead agency to conduct a comprehensive coordinated SEQRA process.

Please review and contact our office with any questions in advance of the next available Town Board meeting.

Thank you,

Sincerely,  
**BME Associates**

*Peter G Vars*

Peter G. Vars, P.E.

/PGV

Encl.

c: Stacey Haralambides; Aristo Properties, Inc.  
Jennifer Townsend; Aristo Properties, Inc.



**TOWN OF PERINTON**

**1350 TURK HILL ROAD. FAIRPORT, NEW YORK 14450-8796**

**(585) 223-0770, Fax: (585) 223-3629, [www.perinton.org](http://www.perinton.org)**

**NUMBER \_\_\_\_\_ FEE \$ \$400**  
**(verify fee with staff)**

**MEETING DATE \_\_\_\_\_**

**APPLICATION FORM – REZONING – TOWN BOARD**

**See attached instructions/requirements/procedures**

**1. APPLICANT**

**Name** Aristo Properties, Inc. **Phone** (585) 223-2550

**Street & Number** 339 Hogan Road **City** Fairport **Zip** 14450

**Interest in Property:**  **Owner**  **Lessee**  **Other**

**2. OWNER (if other than applicant)**

**Name** \_\_\_\_\_ **Phone** \_\_\_\_\_

**Street& Number** \_\_\_\_\_ **City** \_\_\_\_\_ **Zip** \_\_\_\_\_

**3. ATTORNEY (If represented)**

**Name** \_\_\_\_\_ **Phone** \_\_\_\_\_

**Street& Number** \_\_\_\_\_ **City** \_\_\_\_\_ **Zip** \_\_\_\_\_

**4. INTEREST:** Does any officer or employee of the State of New York, County of Monroe, or Town of Perinton

have any interest in the owner/applicant or the subject property?

**Yes** \_\_\_\_\_ **No**  **Explain INTEREST** \_\_\_\_\_

**If yes, who? Name** \_\_\_\_\_ **Address** \_\_\_\_\_

**5. LOCATION: Street Address or Legal Description (subdivision and lot number)**

Fellows Road (T.A. Number 140.04-1-44.1)

6. **SIZE OF PARCEL:** ±32.2 acres

7. **PRESENT USE OF PROPERTY:** Vacant land

8. **ZONING DISTRICT:** RT-1.2.5 **TAX ACCOUNT#** See #5 Above

9. **Describe specifically the nature of your request** Rezone the property to Planned Development District (PDD) for a proposed 57-unit, mixed used residential development. A summary of the proposed residential PDD is as follows: 19 patio homes, 10 single-family homes, 28 condominium units.

10. **Describe the location, use and size of structures and other land use within 100 feet of the boundaries of the subject property** West: single-family lots along Fellows Road

North: vacant parcel

East: single-family lots and agricultural uses along Huber Road.

South: single-family lots along Furman Road

11. The criteria used by the Town Board of the Town of Perinton are set forth in Section 265 of the Town Law.

A. You must show that your proposal will be in harmony with the general purpose and intent of the Zoning Ordinance of the Town of Perinton, considering the location, the nature and intensity of the operations involved in or conducted in connection with it, and the size of the subject property with respect to the streets giving access to the subject property.

Will your proposed use be detrimental to the neighborhood due to Location? NO  YES \_\_\_\_\_

The nature or magnitude of use? NO  YES \_\_\_\_\_

Inadequate access to property? NO  YES \_\_\_\_\_

If yes to any of above, explain how it will be detrimental. If effect can be lessened in some manner, explain how: \_\_\_\_\_

B. Will your proposed use tend to depreciate adjacent property or alter or be detrimental to the character of the neighborhood?

NO  YES \_\_\_\_\_

If yes, explain how it will be detrimental. If effect can be lessened in some manner, explain how: \_\_\_\_\_

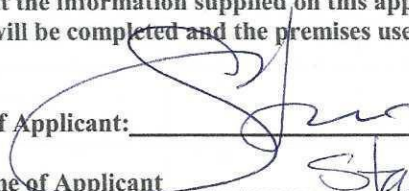
C. Will your proposed use create a hazard to health, or the general welfare of the neighborhood or significantly alter the flow of traffic? NO  YES \_\_\_\_\_

If yes, explain how. If effect can be lessened in some manner, explain how. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

12. You must show that your proposal will be in harmony with the general purpose and intent of the Comprehensive Plan of the Town of Perinton. Please provide a brief narrative that describes to relation of the proposal to the most recent update of the comprehensive plan.

See enclosed Letter of Intent and Project Narrative for the proposed residential PDD Development  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I certify that the information supplied on this application is complete and accurate, and that the project described, if approved, will be completed and the premises used as stipulated in this request.

Signature of Applicant:  Date 2/8/24  
Printed name of Applicant Stacey Haralambides

Property Owner (If other than applicant)  
I have read and familiarized myself with the contents of this application and do hereby consent to its submission and processing.  
Signature of property owner \_\_\_\_\_ Date \_\_\_\_\_  
Printed Name of property owner \_\_\_\_\_

3/23/19

**Fellows Road Properties**  
**PDD-Planned Development District**  
**Project Narrative**

**I. Introduction**

The enclosed materials constitute the re-zoning applications to the Perinton Town Board for two separate residential developments proposed for the Fellows Road corridor, north of Furman Road in the Town of Perinton. The two applicants, Aristo Properties Inc., and Pride Mark Homes are requesting the rezoning of lands from Residential Transition (RT-1.2.5) to Residential Planned Development District (PDD) under Town Code §208-52 (hereinafter, “the proposed PDD”).

The two projects are proposed by two well respected developers with a history of many successful projects being completed within the Town of Perinton community. The Pride Mark Homes project will consist of four tax parcels totaling ±63.1 acres, which are situated on the east side of Fellows Road, immediately south of the Perinton/Penfield municipal boundary. The Pride Mark properties owned or under option consist of:

- 250 Fellows Road (T.A. #140.04-1-39): ±24.59 acres
- Fellows Road (T.A. #140.04-1-40): ±0.52 acres
- 200 Fellows Road (T.A. #140.04-1-4): ±30.88 acres
- Fellows Road (T.A. #140.04-1-7): ±7.12 acres

Aristo Development, Inc. owns the southernmost parcel at the northeast corner of Fellows Road and Furman Road, known as the Peters property, a single tax parcel totaling ±32.2 acres.

- Fellows Road (T.A. #140.04-1-44.1): ±32.19 acres

Pride Mark Homes and Aristo Development will apply and develop their separate projects independent from one another. However, at the request of the Town, the developers have been mutually planning their developments to allow for these

adjoining properties to be planned via a wholistic approach for access, street layout, utility routes, and adjoining land uses between their two proposed developments. Additionally, the two applications are provided to the Town of Perinton at the same time to allow the Town to consider the merits of rezoning of this Fellows Road corridor and SEQR considerations.

This corridor of the proposed PDD is designated within the 2021 Town of Perinton Comprehensive Plan's Future Land Use goals as a Medium Density Residential use area. The proposed PDD seeks to satisfy this stated goal by building a diverse mix of medium density housing in this corridor. As such, the proposed medium density PDD complies with the Comprehensive Plan goals. In addition, it is worth noting that the subject parcels represent the totality of the tax parcels referenced in the Comprehensive Plan for consideration for Medium Density Residential development in this area of the Town.

The 2021 Comprehensive Plan Update identifies that the Town is facing a residential housing shortage:

Comprehensive Plan, page 14 (Demographics):

*“Overall, the housing market in Perinton is facing a shortage, where high occupancy rates and a limited supply keep housing costs high and act as a barrier to entry for younger families and those on a fixed income. Introducing multi-family units into the market would help expand and diversify supply by creating new housing types and price range options that can appeal to a broader range of potential residents.”*

Comprehensive Plan, page 14 (Key Findings):

*“Recent residential construction trends in Perinton show increasing construction of Ranch style houses and Townhomes. These options appeal to older residents who are looking to downsize and may also help to retain and attract new families and younger homeowners and renters.”*

Comprehensive Plan, page 14 (Key Findings):

*“The Town should continue to diversify its housing stock to ensure that Perinton is a livable community for all.”*

This application presents how the proposed PDD meets several of the goals identified in the Comprehensive Plan for the Town of Perinton. This application also identifies how the proposed PDD strictly adheres to the Future Land Use Plan recommendations identified within the Comprehensive Plan for the subject properties to be developed as a Medium Density Residential community.

## **II. Existing Conditions/Description of Site**

As mentioned above, the Fellows Road Properties represent five (5) individual parcels totaling ±95.3 acres, which are located along the east side of Fellows Road and along the north side of Furman Road. All of the parcels represent vacant, dormant properties which are currently zoned Residential Transition RT-1.2.5, which allows for residential single-family residential lots with a minimum area of 1.0 acres. The vacant lots contain wooded areas, open meadow areas, and steep slope LDD and wetland LDD areas. The proposed PDD will utilize cluster design principles to avoid the mapped LDD areas to the maximum extent practicable.

## **III. Description of Proposed Project**

The proposed PDD shows 228 residential units via a mixture of single-family homes, patio homes, townhomes and condominium units. The proposed overall density of the PDD is 2.39 units/acre, which is well within the accepted density limits for a Medium Density Residential, which as stated above, is the Comprehensive Plan's recommendation for the future land use of the subject parcels. An overall density of 2.39 units/acre is comparable to the density in the Residential B zoned development that is located in close proximity to the subject parcels, such as the Cambridge Court townhome development off Fellows Road to the south.

Refer to Section III.B. below for a breakdown of the proposed units and market demographics.



## **A. Appearance/Visibility**

The proposed PDD will maintain the existing vegetation buffers along Furman Road and Fellows Road to the maximum extent practicable. For example, Aristo's parcel on Furman Road contains a very large existing wooded/wetland buffer along the property frontage that will be left untouched and therefore will significantly reduce the visibility of the development from Furman Road, and partially from Fellows Road as well. In addition, the layout will preserve the existing road corridors along Fellows and Furman Road, with no rear yard exposure to the two road corridors. The lots along Fellows Road will be consistent with the neighboring properties, current development patterns along the road, and will be similar lot sizes.

Enclosed with this application is a Surrounding Neighborhoods Exhibit which also includes the zoning districts of the surrounding residential neighborhoods. The Surrounding Neighborhoods Exhibit shows that the scale of the proposed PDD is not out of context with the surrounding residential neighborhoods which include the townhomes off Whitney Road. As such, the scale of the proposed PDD has been designed to be consistent with the neighboring Residential B zoning densities.

Also enclosed with this application are Aristo and Pride Mark Exhibits describing the design of the residential units, demographic breakdown, amenities, and other related information specific to each project (hereinafter, Aristo Exhibit and Pride Mark Exhibit).

## **B. Unit Breakdown/Market Demographics**

The proposed unit breakdown between the Pride Mark Homes portion and the Aristo portion of the Fellows Road Properties is as follows:

Pride Mark Homes parcels (±63.1 acres):

26 Single-family homes

55 Patio homes

90 Townhome units

= 171 total residential units @ 2.71 units/acre

Aristo parcel (±32.2 acres):

10 Single-family homes

19 Patio homes

28 Condominium units

= 57 total residential units @ 1.77 units/acre

**C. Amenities**

The proposed development will be served internally via a public concrete sidewalk system to allow for pedestrian use and serve as an active amenity available for use by the residents of the community.

For project specific amenities, please reference the Aristo and Pride Mark Exhibits.

**D. Access & Parking**

Access to the Fellows Road Properties will be provided via one (1) access off Furman Road from the south and one (1) access point off Fellows Road from the west. Both access points to the development are proposed to be public roadways which will be designed per Town development standards and offered in dedication to the Town of Perinton. The Pride Mark portion of the development is proposed to be served entirely by public roadways, while the Aristo portion of the development is proposed to be served by a public road and also a combination of private roads and private driveways serving patio home lots and the condominium structures.

The Aristo condominium structures will include a combination of internal garage parking spaces as well as exterior parking spaces to meet the needs of the residents and their guests. All exterior parking spaces will meet the requirements of §208-16 “Off-street parking and loading” of the Town Code.

A Traffic Impact Report has been completed for the proposed PDD. The Traffic Impact Report has been provided to the Town under separate cover.

#### **E. Utilities**

The proposed PDD will be served by public water provided by the Monroe County Water Authority (MCWA). The properties will be served via a looped public watermain system with one (1) connection proposed to the existing 12” MCWA watermain located along Furman Road and one (1) connection proposed to the existing 8” MCWA watermain located along Fellows Road.

The proposed PDD will be served via public sanitary sewers to be offered into dedication to the Town of Perinton via an internal 8” PVC gravity sanitary sewer system with a proposed connection to the existing Town of Perinton sanitary pump station located along the north side of Furman Road.

The proposed PDD will be served by the Fairport Municipal Commission (electric) and Rochester Gas & Electric (gas).

The subject parcels were designated for Medium Density given the infrastructure that is already in place, including sewer and water. It should be noted that the proposed PDD does not require an extension of infrastructure, nor will it encourage future spread of the infrastructure.

#### **F. Drainage and Stormwater Management**

Stormwater runoff will be analyzed as part of a comprehensive stormwater management plan that will be developed per the Town of Perinton Code Design

and Construction Standards and the regulations set forth by the New York State Department of Environmental Conservation (NYSDEC) and its SPDES General Permit GP-0-20-001. Stormwater management facilities will be designed and constructed on-site to provide the required water quality and water quantity volumes and to discharge the post-development runoff at peak runoff rates below the pre-development peak runoff rates as required per Town Code and NYSDEC guidelines.

The proposed PDD will also include runoff reduction volume (RRv) or “green infrastructure” design elements to treat the first-flush or 1” rain event. It is anticipated that bio-retention area(s) and disconnection of rooftops will be utilized to provide the required green infrastructure water quality volume & RRv requirements. The final design will include calculations and a detailed analysis of the stormwater management design.

#### **G. Easements**

The proposed sanitary sewer system and storm sewer system will be offered in dedication to the Town of Perinton. Easements will be provided as necessary for the sanitary sewer and storm sewer alignments. Easements will also be provided to the Town for the proposed stormwater management areas.

#### **H. Recreation/Open Space**

As mentioned above, the proposed development will be served internally via a public concrete sidewalk system to allow for pedestrian use and serve as an active amenity available for use by the residents of the community.

The PDD has been designed to avoid the existing LDD/wetland areas to the maximum extent practicable. Open space areas are proposed to protect the LDD/wetland areas, which in turn preserve the natural habitat and wildlife

corridors. The use of open space areas is also a common clustering technique which places the residential lots on lands suitable for development. The use of open space creates internal buffers between the residential neighborhoods. The proposed open space areas also preserve the existing natural road corridors along Furman Road and Fellows Road. The proposed development along Fellows Road will mimic the existing frontage development of similar size lots, with no rear yard exposure being proposed to Fellows Road or Furman Road.

For project specific amenities, please reference the Aristo and Pride Mark Exhibits.

#### **IV. PDD Code Requirement Analysis**

##### **A. Intent**

Town Code §208-52.A(1): *“The intent of this district is to permit the development of land for specialized purposes where tracts of land suitable in location, area and character for the uses and structures proposed are to be planned and developed on a unified basis. Suitability of land proposed for such development shall be guided by the Comprehensive Plan, other plans and official policies used to guide development in the Town, and the existing and prospective character of surrounding land uses. The application of a planned development district shall result in development with certain advantages over that which would be obtained under conventional zoning; result in the preservation and enhancement of the natural, cultural or historic features of the site; result in land uses and physical site arrangements which are not contemplated under conventional zoning but which would further the development goals of the Town; reduce improvement costs through more efficient arrangement of varied land uses, buildings, circulation systems and infrastructure; and result in the promotion of the general health, safety and welfare of the Town.”*

The proposed PDD meets the Future Land Use Plan (FLUP) recommendation within the Town’s Comprehensive Plan for the Fellows Road Properties to be developed with Medium Density Residential uses. This proposal includes a walkable community with a desirable mixture of unit sizes and price points, consisting of single-family homes, patio homes, townhomes, and condo units.

Comprehensive Plan, page 53 (Medium Density Residential):

*“Over the past twenty years, the Town of Perinton has experienced an increase in demand for multi-family and higher density residential development. This was driven by several market forces including the increasing cost of land, a growing need for affordable family and senior housing options, the impacts of the Great Recession (2007 - 2009) on access to mortgages and consumer desire for lower maintenance living.”*

*“Future development should consist of well-designed, walkable apartment communities, patio homes and townhomes within close proximity to services.”*

## **B. Permitted Uses**

Town Code §208-52.B(1): *“Residential uses. In developing a balanced community, the use of a variety of housing types and densities shall be deemed most in keeping with this article.”*

The proposed PDD satisfies both the Town’s need for additional housing types per this requirement and provides the recommended density as identified in the Comprehensive Plan for the subject parcels.

## **C. Basic Requirements**

Town Code §208-52.C(3): *“The site shall be suitable for development in the manner proposed without hazards to persons or property, on or off the site, from probability of flooding, erosion, subsidence or slipping of the soil or other dangers, annoyances or inconveniences. Soil conditions, groundwater level, drainage and topography and other factors shall all be appropriate to support both the kind and pattern of the intended use.”*

The Fellows Road Properties are suitable for development in the manner proposed without hazards to persons or property. The NYSDEC EAF Mapper does not identify any floodplains or floodways on the subject properties. The majority of the site contains gentle slopes and preliminary soil testing indicates that the property is suitable for development in areas outside of the mapped steep slope LLD areas and wetland LDD areas. The development will be designed to avoid the mapped LDD areas to the maximum extent practicable.

Town Code §208-52.C(5): *“The appropriate types of uses within the Planned Development District shall be guided by the Comprehensive Plan goals and objectives.”*

The proposed PDD meets the Future Land Use Plan (FLUP) recommendation within the Town’s Comprehensive Plan for the Fellows Road Properties to be developed with Medium Density Residential uses. This proposal includes a walkable community with a desirable mixture of unit sizes and price points, consisting of single-family homes, patio homes, townhomes, and condo units.

#### **D. Design Standards**

Town Code §208-52.D(1): *“The Town of Perinton Design Criteria and Construction Specifications for land development are adopted herein by reference, and shall establish the standard for project design and construction as appropriate.”*

The proposed PDD will comply with the Town of Perinton Design Criteria and Construction Specifications for land development.

Town Code §208-52.D(2): *“Tract perimeter standards. All dimensional requirements of conventional zoning districts shall apply to the perimeter of planned development projects on the sides where said planned development project abuts a conventional zoning district; these shall include setbacks and buffering requirements.”*

The proposed PDD proposes setbacks which maintains the tract perimeter standards of the current conventional zoning district (RT-1.2.5) for the adjoining properties to the north and east. There are no buffer requirements within the underlying zoning district.

Town Code §208-52.D(3)(a): *“Maximum building coverage shall not exceed 35% of the total site or parcel area.”*

The proposed building coverage of ±5% is well below the 35% threshold of the total site as identified in the Town Code.

Town Code §208-52.D(3)(b): *“Maximum coverage by all buildings, structures, parking areas and impervious surfaces shall not exceed 65% of the total site or parcel area.”*

The proposed impervious surface coverage of ±20% is well below the 65% threshold of the total site as identified in the Town Code.

Town Code §208-52.D(3)(c): *“Maximum building height shall be 40 feet, unless the Town Board finds that some greater height is reasonable and appropriate given the location of the development, the terrain involved and the nature of the development.”*

The maximum building height for all proposed residential structures will be less than the 40’ threshold as identified in the Town Code.

Town Code §208-52.D(3)(d): *“Setbacks from public rights-of-way, private drives, structures and interior lot lines, etc., shall be proposed by the designer. The Town Board shall approve such setbacks, and these shall become binding upon the district.”*

See Section V below for the proposed lot standards.

Town Code §208-52.D(4): *“Standards for off-street parking, loading and signs for planned development district uses shall be guided by those for equivalent or similar uses in conventional zoning districts, but may be modified to better achieve site development objectives, during the site plan and subdivision approval process. If the designer proposes a variation from these conventional standards, they shall be presented as part of the district and approved by the Town Board.”*

All proposed exterior parking spaces and their associated signage will meet the requirements of §208-16 “Off-street parking and loading” of the Town Code.



## E. Application Procedure

Town Code §208-52.E(1)(a)[2][a]: *“Location and extent of all proposed land uses, with areas in acres, as well as any proposed open space, including the development guidelines proposed for setbacks, building size, lot coverage, parking, impervious surfaces and other similar land use restrictions found within the Zoning Code.”*

See the enclosed PDD rezoning concept plans for the information listed above.

The proposed development guidelines and lot standards are listed below in Section V.

Town Code §208-52.E(1)(a)[2][b]: *“All interior streets, roads, easements and their planned public or private ownership, as well as all points of ingress and egress from existing public rights-of-way.”*

See the enclosed PDD rezoning concept plans for the information listed above.

Town Code §208-52.E(1)(a)[2][c]: *“An area map showing the applicant's entire holdings and adjacent properties; that portion of the applicant's property under consideration; all properties, subdivisions, streets, easements, watercourses, LDD and other significant natural and built features within 500 feet of the applicant's property; and all uses and zoning of abutting lands.”*

See the enclosed PDD rezoning concept plans and surrounding area map for the information listed above.

Town Code §208-52.E(1)(a)[2][d]: *“If residential in nature, description of the number of residential units, their dwelling type, number of stories, the overall architectural style and the overall density of the proposal. If nonresidential in nature, the number of stories, the range of building footprints, the total impervious surface, the architectural style and guidelines and the overall density of the proposal.”*

See Section III.B, above.

Town Code §208-52.E(1)(a)[2][e]: *“The area water and sanitary sewer systems with proposed points of attachment to existing systems; the proposed stormwater drainage system and its relation to existing systems.”*

See Section III.E and Section III.F, above for a description of the proposed utilities & drainage and stormwater management design.

Town Code §208-52.E(1)(a)[2][f]: *“Description of the manner in which any common areas that are not to become publicly owned are to be maintained, including open space, streets, lighting and other considerations relevant to the proposal.”*

The lands and amenities provided around the proposed townhome units and condominium structures will be owned and maintained by a Homeowners Association (HOA) or a Condominium Owners Association (COA) accordingly.

Town Code §208-52.E(1)(a)[2][g]: *“If the development is to be phased, a description and graphic representation of the phasing of the entire proposal in terms of length of time, type and number of units or activities completed per phase.”*

The Pride Mark Homes parcels and Aristo Development parcel will ultimately be phased separately and developed independently from one another. The final phasing within each developers’ respective parcels of land is yet to be determined and will be provided as part of the future site plan applications.

Town Code §208-52.E(1)(a)[2][h]: *“A description of any covenants, easements, restrictions proposed to be imposed upon the use of the land, buildings or structures, including proposed easements for public utilities.”*

No covenants, easements or other restrictions are proposed at this time, other than the typical easements required by the Town (i.e. utility & drainage, etc.).

Town Code §208-52.E(1)(a)[2][i]: *“A written statement by the applicant setting forth the reasons why, in his or her opinion, the proposal would be in the public interest and would be consistent with the Town's goals and objectives.”*

The proposed residential PDD development meets several goals and objectives of the Town’s Comprehensive Plan; thus, highlighting how the proposal is in the public interest.

Comprehensive Plan, page 66 (Policy Area #1 Land Use/Community Character):

Goal #1: *“Protect the long-term viability of residential areas in the Town.”*

This proposal addresses the need for new residential housing options. It allows for current residents to stay within the community they currently reside in, while also providing attractive housing options for potential residents seeking to relocate to the area. The property is currently zoned residential, and the surrounding area’s predominate use is residential.

Goal #2: *“Encourage the development of a range of housing types enhancing access and choice to support a diverse and inclusive population.”*

This proposal meets this goal by providing a mixture of residential units of various uses, sizes and price points in a single area, thus providing variety in the planned neighborhood. The current availability of housing options in the Town of Perinton is minimal.

Comprehensive Plan, page 66 (Encouraging Mixed-Use Development within the Town):

*“Market forces continue to drive demand for residential and supportive commercial uses. Accommodating future development will require greater focus on design since the majority of growth will likely be in the form of infill development and redevelopment. There is a distinct opportunity to create more compact, walkable mixed-use areas, similar to a village-style aesthetic.”*

*“Through public engagement, it was apparent Perinton residents would like to see more diverse housing options at smaller scale and a range of price points. Ensuring land use regulations allow for, and facilitate, these types of housing products should be prioritized moving forward.”*

The proposed PDD meets the Comprehensive Plan's recommendation for the subject parcels to consist of Medium Density Residential use. This application includes a mix of units, on smaller lots and offers detached units, attached units and condominium style living opportunities.

Comprehensive Plan, page 82 (Policy Area #4 Environmental Stability):

*Goal # 3: "Continue to review the Town's zoning code and site plan review process to ensure regulations consider best practice standards to reduce stormwater runoff and erosion control."*

This proposal meets this goal as the project will be designed to meet the NYSDEC Stormwater Management Design Manual Guidelines as well as the Town of Perinton's Design and Construction Standards. By adhering to the NYSDEC and Town of Perinton development guidelines, the project is poised to manage the post-development stormwater runoff condition and control erosion during construction by utilizing accepted Best Management Practices.

**V. Requested Area/Design Standards**

See enclosed PDD rezoning concept plan for requested lot standards for the various residential uses proposed.

**VI. Conclusion**

As described in this narrative, the proposed PDD meets several of the goals identified in the Comprehensive Plan for the Town of Perinton. This application also identifies how the proposed PDD strictly adheres to the Future Land Use Plan identified within the Comprehensive Plan, which specifically recommends that the subject properties be developed as a Medium Density Residential community. The proposed density within the development is also consistent with the surrounding Residential B neighborhoods.

# The Grove

Refreshing Design . Rooted in Tradition

## **The Homes**

**The Estates** (single family) Starting \$700k

- Custom designs & Aristo standards
- Sitting high on the hill with expansive west-facing views
- Walk-out basements
- Lot sizes: approx. half acre +/-
- Tree-lined street with sidewalk

**The Bungalows** (single family) Starting \$450k

- Lot sizes: approx. 60' wide x 150' deep
- Aristo curated designs & standards
- Tree-lined street
- Homes ranging from 1,400 sf – 2,500 sf
- Less maintenance - HOA

**Dwell Flats** (multi-family) Starting \$390k

- Boutique condos
- Aristo curated building designs, floorplans, and standards
- Condo sizes: approx. 1,200 sf – 1,800 sf
- See [www.dwellbyaristo.com](http://www.dwellbyaristo.com) for this product on Jefferson Ave.
- Maintenance Free

## **The Site**

- Peters Pond
- Walking trails throughout The Preservation Wetlands
- Street trees in front of each home
- Pocket groves
- Sidewalk
- Streetlights
- Community Gardens with shed for tool-sharing
- Gathering vignettes throughout

## **The Environment**

- Where possible, vegetated areas will filter & direct storm water naturally in lieu of piping.
- Native vegetation throughout common areas
- No broad use of chemical pesticides in community
- No existing tree removal for developed area.
- At least 40 large trees will be planted in the developed area (where no trees currently stand).
- Almost all existing vegetation will be preserved.

**Full Environmental Assessment Form  
Part 1 - Project and Setting**

**Instructions for Completing Part 1**

**Part 1 is to be completed by the applicant or project sponsor.** Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either “Yes” or “No”. If the answer to the initial question is “Yes”, complete the sub-questions that follow. If the answer to the initial question is “No”, proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

**A. Project and Applicant/Sponsor Information.**

Name of Action or Project: Fellows Road Properties		
Project Location (describe, and attach a general location map): East side of Fellows Road & North side of Furman Road. See attached location map.		
Brief Description of Proposed Action (include purpose or need): The proposed action is for a rezoning application for two separate residential developments proposed for the Fellows Road corridor, north of Furman Road in the Town of Perinton. The two applicants, Pride Mark Homes and Aristo Properties, Inc. are requesting the rezoning of lands from Residential Transition (RT-1.2.5) to Residential Planned Development District (PDD) under Town Code §208-52. For the purpose of rezoning and SEQRA review, the EAF has been combined for the two separate proposed developments.  The Pride Mark Homes proposal (on 4 parcels of land) consists of 171 total residential units, including 55 patio homes, 26 single-family homes, and 90 townhome units on ±63.1 acres. The Aristo Properties proposal (on 1 parcel of land) consists of 57 total residential units, including 19 patio homes, 10 single-family homes, and 28 condominium units on ±32.2 acres.		
Name of Applicant/Sponsor: (1) Pride Mark Homes & (2) Aristo Properties, Inc.	Telephone: (1) 585-249-8182, (2) 585-223-2550	
	E-Mail: jpbarto@pmhomes.com, stacey@aristo.cc	
Address: (1) 1501 Pittsford-Victor Road, Suite 200 (2) 339 Hogan Road		
City/PO: (1) Victor 14564 (2) Fairport 14450	State: NY	Zip Code: See Left
Project Contact (if not same as sponsor; give name and title/role):	Telephone:	
	E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):	Telephone:	
	E-Mail:	
Address:		
City/PO:	State:	Zip Code:

**B. Government Approvals**

<b>B. Government Approvals, Funding, or Sponsorship.</b> (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)		
<b>Government Entity</b>	<b>If Yes: Identify Agency and Approval(s) Required</b>	<b>Application Date (Actual or projected)</b>
a. City Counsel, Town Board, <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No or Village Board of Trustees	Perinton Town Board: Rezoning	February 2024
b. City, Town or Village Planning Board or Commission <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Perinton Planning Board: Subdivision & Site Plan Approval	Spring 2024
c. City, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input type="checkbox"/> No		
d. Other local agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MCWA: Watermain, MCPW: Sanitary, MCDOH: Water/Sanitary, MCPD: County Planning Referral	Spring 2024
f. Regional agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYSDEC: Water quality certification-wetland crossings, NYSDOT: Highway Improvements	Spring 2024
h. Federal agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	USACE: Nationwide Permit-wetland crossings	Spring 2024
i. Coastal Resources.		
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
iii. Is the project site within a Coastal Erosion Hazard Area?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

**C. Planning and Zoning**

<b>C.1. Planning and zoning actions.</b>	
Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li>• <b>If Yes</b>, complete sections C, F and G.</li> <li>• <b>If No</b>, proceed to question C.2 and complete all remaining sections and questions in Part 1</li> </ul>	
<b>C.2. Adopted land use plans.</b>	
a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, identify the plan(s): NYS Heritage Areas:West Erie Canal Corridor _____ _____ _____	
c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes, identify the plan(s): _____ _____ _____	





f. Does the project include new residential uses?  Yes  No  
 If Yes, show numbers of units proposed.

	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	TBD	N/A	TBD	TBD
At completion of all phases	110	N/A	42	76

g. Does the proposed action include new non-residential construction (including expansions)?  Yes  No  
 If Yes,  
 i. Total number of structures \_\_\_\_\_  
 ii. Dimensions (in feet) of largest proposed structure: \_\_\_\_\_ height; \_\_\_\_\_ width; and \_\_\_\_\_ length  
 iii. Approximate extent of building space to be heated or cooled: \_\_\_\_\_ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage?  Yes  No  
 If Yes,  
 i. Purpose of the impoundment: Stormwater management  
 ii. If a water impoundment, the principal source of the water:  Ground water  Surface water streams  Other specify: Surface stormwater runoff.  
 iii. If other than water, identify the type of impounded/contained liquids and their source.  
N/A  
 iv. Approximate size of the proposed impoundment. Volume: \_\_\_\_\_ TBD million gallons; surface area: \_\_\_\_\_ TBD acres  
 v. Dimensions of the proposed dam or impounding structure: \_\_\_\_\_ TBD height; \_\_\_\_\_ TBD length  
 vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):  
Earth Fill

**D.2. Project Operations**

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both?  Yes  No  
 (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)  
 If Yes:  
 i. What is the purpose of the excavation or dredging? \_\_\_\_\_  
 ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?  
 • Volume (specify tons or cubic yards): \_\_\_\_\_  
 • Over what duration of time? \_\_\_\_\_  
 iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 iv. Will there be onsite dewatering or processing of excavated materials?  Yes  No  
 If yes, describe. \_\_\_\_\_  
 \_\_\_\_\_  
 v. What is the total area to be dredged or excavated? \_\_\_\_\_ acres  
 vi. What is the maximum area to be worked at any one time? \_\_\_\_\_ acres  
 vii. What would be the maximum depth of excavation or dredging? \_\_\_\_\_ feet  
 viii. Will the excavation require blasting?  Yes  No  
 ix. Summarize site reclamation goals and plan: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area?  Yes  No  
 If Yes:  
 i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): Proposed creek crossings for roads and utilities.  
 \_\_\_\_\_  
 \_\_\_\_\_

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:  
Fill associated with the proposed creek crossings as required for roads and utilities.  
 \_\_\_\_\_  
 \_\_\_\_\_

iii. Will the proposed action cause or result in disturbance to bottom sediments?  Yes  No  
 If Yes, describe: \_\_\_\_\_

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation?  Yes  No  
 If Yes:  
 • acres of aquatic vegetation proposed to be removed: \_\_\_\_\_  
 • expected acreage of aquatic vegetation remaining after project completion: \_\_\_\_\_  
 • purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): \_\_\_\_\_  
 • proposed method of plant removal: \_\_\_\_\_  
 • if chemical/herbicide treatment will be used, specify product(s): \_\_\_\_\_

v. Describe any proposed reclamation/mitigation following disturbance: \_\_\_\_\_  
Work to be completed per USACE Nationwide Permit (NWP) 29 for residential stream crossings.

c. Will the proposed action use, or create a new demand for water?  Yes  No  
 If Yes:  
 i. Total anticipated water usage/demand per day: \_\_\_\_\_ 71,555 gallons/day

ii. Will the proposed action obtain water from an existing public water supply?  Yes  No  
 If Yes:  
 • Name of district or service area: Monroe County Water Authority  
 • Does the existing public water supply have capacity to serve the proposal?  Yes  No  
 • Is the project site in the existing district?  Yes  No  
 • Is expansion of the district needed?  Yes  No  
 • Do existing lines serve the project site?  Yes  No

iii. Will line extension within an existing district be necessary to supply the project?  Yes  No  
 If Yes:  
 • Describe extensions or capacity expansions proposed to serve this project: \_\_\_\_\_  
Watermain extensions/connections will be incorporated from existing MCWA watermains located along Fellows Road and Furman Road  
 • Source(s) of supply for the district: Monroe County Water Authority

iv. Is a new water supply district or service area proposed to be formed to serve the project site?  Yes  No  
 If Yes:  
 • Applicant/sponsor for new district: \_\_\_\_\_  
 • Date application submitted or anticipated: \_\_\_\_\_  
 • Proposed source(s) of supply for new district: \_\_\_\_\_

v. If a public water supply will not be used, describe plans to provide water supply for the project: \_\_\_\_\_

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: \_\_\_\_\_ gallons/minute.

d. Will the proposed action generate liquid wastes?  Yes  No  
 If Yes:  
 i. Total anticipated liquid waste generation per day: \_\_\_\_\_ 71,555 gallons/day  
 ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): \_\_\_\_\_  
Sanitary wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities?  Yes  No  
 If Yes:  
 • Name of wastewater treatment plant to be used: Frank E. VanLare Wastewater Treatment Facility  
 • Name of district: Perinton Consolidated Sewer District & Irondequoit Bay Pure Waters District  
 • Does the existing wastewater treatment plant have capacity to serve the project?  Yes  No  
 • Is the project site in the existing district?  Yes  No  
 • Is expansion of the district needed?  Yes  No

• Do existing sewer lines serve the project site?  Yes  No  
 • Will a line extension within an existing district be necessary to serve the project?  Yes  No  
 If Yes:
 

- Describe extensions or capacity expansions proposed to serve this project: \_\_\_\_\_  
 Proposed gravity sanitary sewer mains will be extended to serve the property, with a connection to the existing Town of Perinton sanitary pump station located on Furman Road.

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site?  Yes  No  
 If Yes:
 

- Applicant/sponsor for new district: \_\_\_\_\_
- Date application submitted or anticipated: \_\_\_\_\_
- What is the receiving water for the wastewater discharge? \_\_\_\_\_

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction?  Yes  No  
 If Yes:
 

- How much impervious surface will the project create in relation to total size of project parcel?  
 \_\_\_\_\_ Square feet or  $\pm 19.1$  acres (impervious surface)  
 \_\_\_\_\_ Square feet or  $\pm 95.3$  acres (parcel size)
- Describe types of new point sources. Surface runoff from proposed paved driveways, paved roadways and rooftops.
- Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?  
On-site stormwater management facilities.
- If to surface waters, identify receiving water bodies or wetlands: \_\_\_\_\_  
 \_\_\_\_\_
- Will stormwater runoff flow to adjacent properties?  Yes  No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater?  Yes  No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations?  Yes  No  
 If Yes, identify:
 

- Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)  
Temporary earth moving vehicles on the site during the grading operations/use of delivery vehicles to bring supplies to the site.
- Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)  
N/A
- Stationary sources during operations (e.g., process emissions, large boilers, electric generation)  
N/A

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit?  Yes  No  
 If Yes:
 

- Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year)  Yes  No
- In addition to emissions as calculated in the application, the project will generate:
  - \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide (CO<sub>2</sub>)
  - \_\_\_\_\_ Tons/year (short tons) of Nitrous Oxide (N<sub>2</sub>O)
  - \_\_\_\_\_ Tons/year (short tons) of Perfluorocarbons (PFCs)
  - \_\_\_\_\_ Tons/year (short tons) of Sulfur Hexafluoride (SF<sub>6</sub>)
  - \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs)
  - \_\_\_\_\_ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)?  Yes  No  
 If Yes:  
 i. Estimate methane generation in tons/year (metric): \_\_\_\_\_  
 ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): \_\_\_\_\_

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i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations?  Yes  No  
 If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): \_\_\_\_\_

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j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services?  Yes  No  
 If Yes:  
 i. When is the peak traffic expected (Check all that apply):  Morning  Evening  Weekend  
 Randomly between hours of \_\_\_\_\_ to \_\_\_\_\_.  
 ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): \_\_\_\_\_  
 iii. Parking spaces: Existing 0 Proposed 28 Net increase/decrease 28  
 iv. Does the proposed action include any shared use parking?  Yes  No  
 v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: Improvements at Fellows Road/NYS Route 441; see Traffic Impact Study provided under separate cover.  
 vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site?  Yes  No  
 vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles?  Yes  No  
 viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes?  Yes  No

---

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy?  Yes  No  
 If Yes:  
 i. Estimate annual electricity demand during operation of the proposed action: \_\_\_\_\_  
 ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): \_\_\_\_\_  
 iii. Will the proposed action require a new, or an upgrade, to an existing substation?  Yes  No

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l. Hours of operation. Answer all items which apply.

<p>i. During Construction:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: <u>7:00 am - 5:00 pm (Town Code)</u></li> <li>• Saturday: <u>7:00 am - 1:00 pm (Town Code)</u></li> <li>• Sunday: <u>N/A</u></li> <li>• Holidays: <u>N/A</u></li> </ul>	<p>ii. During Operations:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: <u>Residential Use (24 hrs/day)</u></li> <li>• Saturday: <u>Residential Use (24 hrs/day)</u></li> <li>• Sunday: <u>Residential Use (24 hrs/day)</u></li> <li>• Holidays: <u>Residential Use (24 hrs/day)</u></li> </ul>
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m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both?  Yes  No  
 If yes:  
 i. Provide details including sources, time of day and duration:  
Typical temporary construction equipment activity from construction vehicles, trucks, vibratory equipment, air powered equipment, generators, etc. Post-construction noise levels are anticipated to be similar to the ambient levels.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen?  Yes  No  
 Describe: \_\_\_\_\_

---

n. Will the proposed action have outdoor lighting?  Yes  No  
 If yes:  
 i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:  
Street lighting at intersections, onsite parking area/site lighting with dark sky compliant LED fixtures.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen?  Yes  No  
 Describe: Some areas with trees and brush growth may be removed for development of the proposed lots. The existing perimeter vegetation will be retained in particular at southern and northern limits of the property.

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o. Does the proposed action have the potential to produce odors for more than one hour per day?  Yes  No  
 If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: \_\_\_\_\_

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p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage?  Yes  No  
 If Yes:  
 i. Product(s) to be stored \_\_\_\_\_  
 ii. Volume(s) \_\_\_\_\_ per unit time \_\_\_\_\_ (e.g., month, year)  
 iii. Generally, describe the proposed storage facilities: \_\_\_\_\_

---

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation?  Yes  No  
 If Yes:  
 i. Describe proposed treatment(s): \_\_\_\_\_

ii. Will the proposed action use Integrated Pest Management Practices?  Yes  No

---

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)?  Yes  No  
 If Yes:  
 i. Describe any solid waste(s) to be generated during construction or operation of the facility:  
 • Construction: \_\_\_\_\_ tons per \_\_\_\_\_ (unit of time)  
 • Operation : \_\_\_\_\_ tons per \_\_\_\_\_ (unit of time)  
 ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:  
 • Construction: \_\_\_\_\_  
 • Operation: \_\_\_\_\_

iii. Proposed disposal methods/facilities for solid waste generated on-site:  
 • Construction: \_\_\_\_\_  
 • Operation: \_\_\_\_\_

s. Does the proposed action include construction or modification of a solid waste management facility?  Yes  No  
 If Yes:  
 i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): \_\_\_\_\_  
 ii. Anticipated rate of disposal/processing:  
 • \_\_\_\_\_ Tons/month, if transfer or other non-combustion/thermal treatment, or  
 • \_\_\_\_\_ Tons/hour, if combustion or thermal treatment  
 iii. If landfill, anticipated site life: \_\_\_\_\_ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste?  Yes  No  
 If Yes:  
 i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: \_\_\_\_\_  
 \_\_\_\_\_  
 ii. Generally describe processes or activities involving hazardous wastes or constituents: \_\_\_\_\_  
 \_\_\_\_\_  
 iii. Specify amount to be handled or generated \_\_\_\_\_ tons/month  
 iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: \_\_\_\_\_  
 \_\_\_\_\_  
 v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility?  Yes  No  
 If Yes: provide name and location of facility: \_\_\_\_\_  
 \_\_\_\_\_  
 If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:  
 \_\_\_\_\_  
 \_\_\_\_\_

**E. Site and Setting of Proposed Action**

**E.1. Land uses on and surrounding the project site**

a. Existing land uses.  
 i. Check all uses that occur on, adjoining and near the project site.  
 Urban  Industrial  Commercial  Residential (suburban)  Rural (non-farm)  
 Forest  Agriculture  Aquatic  Other (specify): Golf course  
 ii. If mix of uses, generally describe:  
 \_\_\_\_\_  
 \_\_\_\_\_

b. Land uses and covertypes on the project site.

Land use or Covertypes	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0	19.1	19.1
• Forested	51.7	10.2	-41.5
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	32.2	4.1	-28.1
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	5.3	5.3
• Wetlands (freshwater or tidal)	11.4	11.4	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: <u>Lawn/landscaped area</u>	0	45.2	45.2

c. Is the project site presently used by members of the community for public recreation?  Yes  No  
i. If Yes: explain: \_\_\_\_\_

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site?  Yes  No  
If Yes,  
i. Identify Facilities: \_\_\_\_\_

e. Does the project site contain an existing dam?  Yes  No  
If Yes:  
i. Dimensions of the dam and impoundment:  
• Dam height: \_\_\_\_\_ feet  
• Dam length: \_\_\_\_\_ feet  
• Surface area: \_\_\_\_\_ acres  
• Volume impounded: \_\_\_\_\_ gallons OR acre-feet  
ii. Dam's existing hazard classification: \_\_\_\_\_  
iii. Provide date and summarize results of last inspection: \_\_\_\_\_

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility?  Yes  No  
If Yes:  
i. Has the facility been formally closed?  Yes  No  
• If yes, cite sources/documentation: \_\_\_\_\_  
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility: \_\_\_\_\_  
iii. Describe any development constraints due to the prior solid waste activities: \_\_\_\_\_

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste?  Yes  No  
If Yes:  
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred: \_\_\_\_\_

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?  Yes  No  
If Yes:  
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:  Yes  No  
 Yes – Spills Incidents database Provide DEC ID number(s): \_\_\_\_\_  
 Yes – Environmental Site Remediation database Provide DEC ID number(s): \_\_\_\_\_  
 Neither database  
ii. If site has been subject of RCRA corrective activities, describe control measures: \_\_\_\_\_  
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database?  Yes  No  
If yes, provide DEC ID number(s): \_\_\_\_\_  
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s): \_\_\_\_\_

v. Is the project site subject to an institutional control limiting property uses?  Yes  No

- If yes, DEC site ID number: \_\_\_\_\_
- Describe the type of institutional control (e.g., deed restriction or easement): \_\_\_\_\_
- Describe any use limitations: \_\_\_\_\_
- Describe any engineering controls: \_\_\_\_\_
- Will the project affect the institutional or engineering controls in place?  Yes  No
- Explain: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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**E.2. Natural Resources On or Near Project Site**

a. What is the average depth to bedrock on the project site? \_\_\_\_\_  $\geq 12'$  feet

b. Are there bedrock outcroppings on the project site?  Yes  No  
 If Yes, what proportion of the site is comprised of bedrock outcroppings? \_\_\_\_\_ %

c. Predominant soil type(s) present on project site:

Ontario loam	_____	±35 %
Hilton Loam	_____	±23 %
Lamson very fine sandy loam	_____	±17 %

d. What is the average depth to the water table on the project site? Average: \_\_\_\_\_  $> 12'$  feet

e. Drainage status of project site soils:  Well Drained: \_\_\_\_\_ 3 % of site  
 Moderately Well Drained: \_\_\_\_\_ 50 % of site  
 Poorly Drained \_\_\_\_\_ 47 % of site

f. Approximate proportion of proposed action site with slopes:  0-10%: \_\_\_\_\_ 85 % of site  
 10-15%: \_\_\_\_\_ 10 % of site  
 15% or greater: \_\_\_\_\_ 5 % of site

g. Are there any unique geologic features on the project site?  Yes  No  
 If Yes, describe: \_\_\_\_\_  
 \_\_\_\_\_

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h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)?  Yes  No

ii. Do any wetlands or other waterbodies adjoin the project site?  Yes  No  
 If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?  Yes  No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name 846-76 Classification B
- Lakes or Ponds: Name \_\_\_\_\_ Classification \_\_\_\_\_
- Wetlands: Name Federal Waters, NYS Wetland, Federal Waters, Fe... Approximate Size NYS Wetland (in a...
- Wetland No. (if regulated by DEC) PR-32

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?  Yes  No  
 If yes, name of impaired water body/bodies and basis for listing as impaired: \_\_\_\_\_  
 Name - Pollutants - Uses: Thomas Creek/White Brook and tribs – Nutrients – Recreation;Public Bathing;Aquatic Life

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i. Is the project site in a designated Floodway?  Yes  No

j. Is the project site in the 100-year Floodplain?  Yes  No

k. Is the project site in the 500-year Floodplain?  Yes  No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?  Yes  No  
 If Yes:  
 i. Name of aquifer: Principal Aquifer, Primary Aquifer



<p>m. Identify the predominant wildlife species that occupy or use the project site: _____</p> <p>White tail deer _____</p> <p>Small mammals _____</p> <p>Birds _____</p>	
<p>n. Does the project site contain a designated significant natural community? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Describe the habitat/community (composition, function, and basis for designation): _____</p> <p style="margin-left: 20px;">ii. Source(s) of description or evaluation: _____</p> <p style="margin-left: 20px;">iii. Extent of community/habitat:</p> <ul style="list-style-type: none"> <li>• Currently: _____ acres</li> <li>• Following completion of project as proposed: _____ acres</li> <li>• Gain or loss (indicate + or -): _____ acres</li> </ul>	
<p>o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing (endangered or threatened): _____</p> <p>_____</p>	
<p>p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing: _____</p> <p>_____</p>	
<p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If yes, give a brief description of how the proposed action may affect that use: _____</p> <p>_____</p>	
<b>E.3. Designated Public Resources On or Near Project Site</b>	
<p>a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes, provide county plus district name/number: _____</p>	
<p>b. Are agricultural lands consisting of highly productive soils present? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p style="margin-left: 20px;">i. If Yes: acreage(s) on project site? _____</p> <p style="margin-left: 20px;">ii. Source(s) of soil rating(s): _____</p>	
<p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature</p> <p style="margin-left: 20px;">ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____</p> <p>_____</p>	
<p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. CEA name: _____</p> <p style="margin-left: 20px;">ii. Basis for designation: _____</p> <p style="margin-left: 20px;">iii. Designating agency and date: _____</p>	

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
<i>i.</i> Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District	
<i>ii.</i> Name: _____	
<i>iii.</i> Brief description of attributes on which listing is based: _____	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
g. Have additional archaeological or historic site(s) or resources been identified on the project site?	
If Yes:	
<i>i.</i> Describe possible resource(s): _____	
<i>ii.</i> Basis for identification: _____	
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
<i>i.</i> Identify resource: _____	
<i>ii.</i> Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____	
<i>iii.</i> Distance between project and resource: _____ miles.	
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
<i>i.</i> Identify the name of the river and its designation: _____	
<i>ii.</i> Is the activity consistent with development restrictions contained in 6NYCRR Part 666?	
<input type="checkbox"/> Yes <input type="checkbox"/> No	

**F. Additional Information**

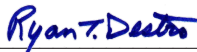
Attach any additional information which may be needed to clarify your project.

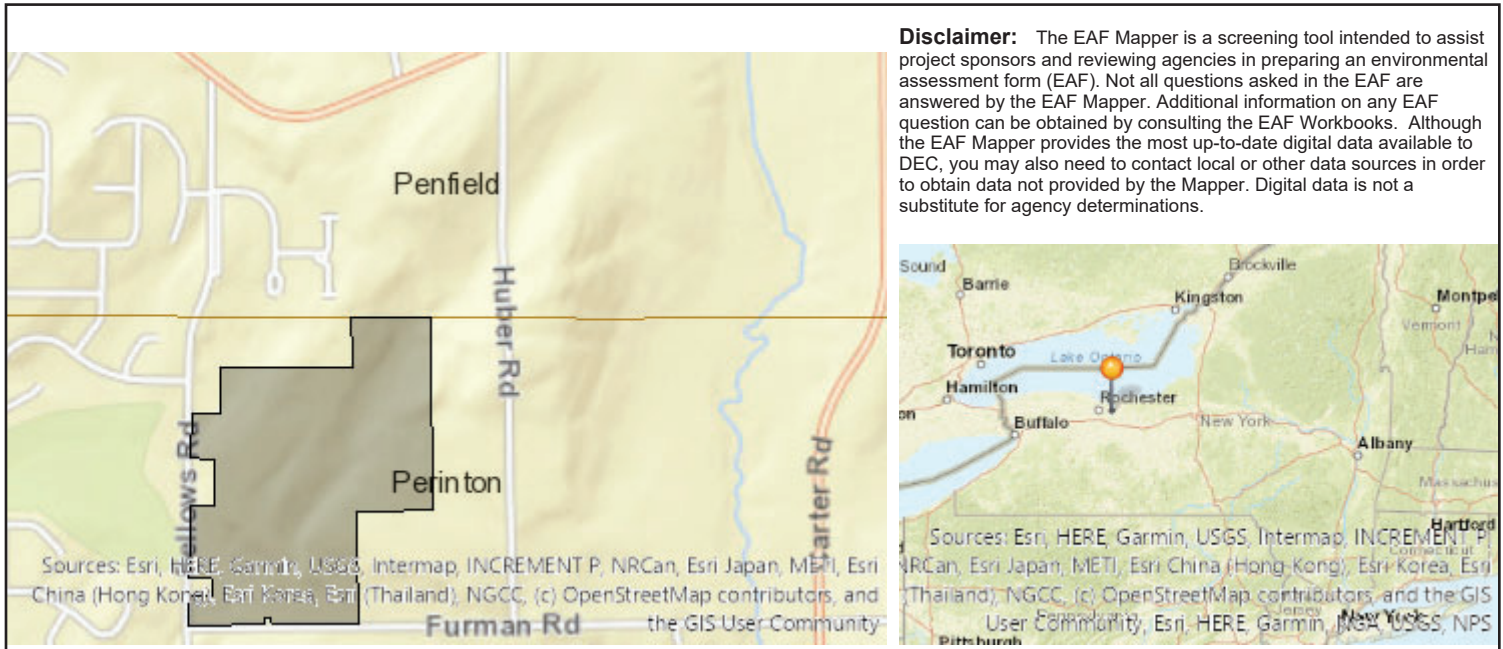
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

**G. Verification**

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Pride Mark Homes & Aristo Properties, Inc.      Date February 8, 2024

Signature  BME Associates      Title Project Engineer  
 (Agent for Pride Mark Homes & Aristo Properties, Inc.)



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYS Heritage Areas: West Erie Canal Corridor
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Stream Name]	846-76
E.2.h.iv [Surface Water Features - Stream Classification]	B
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters, NYS Wetland
E.2.h.iv [Surface Water Features - Wetlands Size]	NYS Wetland (in acres): 42.8
E.2.h.iv [Surface Water Features - DEC Wetlands Number]	PR-32

E.2.h.v [Impaired Water Bodies]	Yes
E.2.h.v [Impaired Water Bodies - Name and Basis for Listing]	Name - Pollutants - Uses:Thomas Creek/White Brook and tribs – Nutrients – Recreation;Public Bathing;Aquatic Life
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Principal Aquifer, Primary Aquifer
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No

**Full Environmental Assessment Form**  
**Part 2 - Identification of Potential Project Impacts**

Project :

Date :

**Part 2 is to be completed by the lead agency.** Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency’s reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

**Tips for completing Part 2:**

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer “**Yes**” to a numbered question, please complete all the questions that follow in that section.
- If you answer “**No**” to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box “Moderate to large impact may occur.”
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the “whole action”.
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

<b>1. Impact on Land</b>			
Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1)		<input type="checkbox"/> NO	<input type="checkbox"/> YES
<i>If “Yes”, answer questions a - j. If “No”, move on to Section 2.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	<input type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>2. Impact on Geological Features</b> The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) <span style="float: right;"><input type="checkbox"/> NO <input type="checkbox"/> YES</span> <i>If "Yes", answer questions a - c. If "No", move on to Section 3.</i>			
	<b>Relevant Part I Question(s)</b>	<b>No, or small impact may occur</b>	<b>Moderate to large impact may occur</b>
a. Identify the specific land form(s) attached: _____ _____	E2g	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	<input type="checkbox"/>	<input type="checkbox"/>
c. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>3. Impacts on Surface Water</b> The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h) <span style="float: right;"><input type="checkbox"/> NO <input type="checkbox"/> YES</span> <i>If "Yes", answer questions a - l. If "No", move on to Section 4.</i>			
	<b>Relevant Part I Question(s)</b>	<b>No, or small impact may occur</b>	<b>Moderate to large impact may occur</b>
a. The proposed action may create a new water body.	D2b, D1h	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	<input type="checkbox"/>	<input type="checkbox"/>
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	<input type="checkbox"/>	<input type="checkbox"/>
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	<input type="checkbox"/>	<input type="checkbox"/>
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	<input type="checkbox"/>	<input type="checkbox"/>
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	<input type="checkbox"/>	<input type="checkbox"/>

I. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
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**4. Impact on groundwater**  
 The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer.  NO  YES  
 (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t)  
*If “Yes”, answer questions a - h. If “No”, move on to Section 5.*

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	<input type="checkbox"/>	<input type="checkbox"/>
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	<input type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

**5. Impact on Flooding**  
 The proposed action may result in development on lands subject to flooding.  NO  YES  
 (See Part 1. E.2)  
*If “Yes”, answer questions a - g. If “No”, move on to Section 6.*

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in development within a 100 year floodplain.	E2j	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in development within a 500 year floodplain.	E2k	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	<input type="checkbox"/>	<input type="checkbox"/>
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	<input type="checkbox"/>	<input type="checkbox"/>

g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
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<b>6. Impacts on Air</b>			
The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g) <i>If "Yes", answer questions a - f. If "No", move on to Section 7.</i>		<input type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels: i. More than 1000 tons/year of carbon dioxide (CO <sub>2</sub> ) ii. More than 3.5 tons/year of nitrous oxide (N <sub>2</sub> O) iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs) iv. More than .045 tons/year of sulfur hexafluoride (SF <sub>6</sub> ) v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions vi. 43 tons/year or more of methane	D2g D2g D2g D2g D2g D2h	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>7. Impact on Plants and Animals</b>			
The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) <i>If "Yes", answer questions a - j. If "No", move on to Section 8.</i>		<input type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	<input type="checkbox"/>	<input type="checkbox"/>



e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	<input type="checkbox"/>	<input type="checkbox"/>
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____	E1b	<input type="checkbox"/>	<input type="checkbox"/>
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	<input type="checkbox"/>	<input type="checkbox"/>
j. Other impacts: _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>8. Impact on Agricultural Resources</b>			
The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.)		<input type="checkbox"/> NO	<input type="checkbox"/> YES
<i>If "Yes", answer questions a - h. If "No", move on to Section 9.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E1 a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	<input type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>9. Impact on Aesthetic Resources</b> The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.) <i>If "Yes", answer questions a - g. If "No", go to Section 10.</i>				<input type="checkbox"/> NO	<input type="checkbox"/> YES
	<b>Relevant Part I Question(s)</b>	<b>No, or small impact may occur</b>	<b>Moderate to large impact may occur</b>		
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	<input type="checkbox"/>	<input type="checkbox"/>		
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	<input type="checkbox"/>	<input type="checkbox"/>		
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	<input type="checkbox"/>	<input type="checkbox"/>		
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile 1/2 -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	<input type="checkbox"/>	<input type="checkbox"/>		
g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>		

<b>10. Impact on Historic and Archeological Resources</b> The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.) <i>If "Yes", answer questions a - e. If "No", go to Section 11.</i>				<input type="checkbox"/> NO	<input type="checkbox"/> YES
	<b>Relevant Part I Question(s)</b>	<b>No, or small impact may occur</b>	<b>Moderate to large impact may occur</b>		
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places.	E3e	<input type="checkbox"/>	<input type="checkbox"/>		
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	<input type="checkbox"/>	<input type="checkbox"/>		
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	<input type="checkbox"/>	<input type="checkbox"/>		

d. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
e. If any of the above (a-d) are answered “Moderate to large impact may occur”, continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	<input type="checkbox"/>	<input type="checkbox"/>
ii. The proposed action may result in the alteration of the property’s setting or integrity.	E3e, E3f, E3g, E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	<input type="checkbox"/>	<input type="checkbox"/>

<b>11. Impact on Open Space and Recreation</b>			
The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan. (See Part 1. C.2.c, E.1.c., E.2.q.) <i>If “Yes”, answer questions a - e. If “No”, go to Section 12.</i>		<input type="checkbox"/> NO	<input type="checkbox"/> YES
	<b>Relevant Part I Question(s)</b>	<b>No, or small impact may occur</b>	<b>Moderate to large impact may occur</b>
a. The proposed action may result in an impairment of natural functions, or “ecosystem services”, provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	<input type="checkbox"/>	<input type="checkbox"/>
e. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>12. Impact on Critical Environmental Areas</b>			
The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d) <i>If “Yes”, answer questions a - c. If “No”, go to Section 13.</i>		<input type="checkbox"/> NO	<input type="checkbox"/> YES
	<b>Relevant Part I Question(s)</b>	<b>No, or small impact may occur</b>	<b>Moderate to large impact may occur</b>
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	<input type="checkbox"/>	<input type="checkbox"/>
c. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>13. Impact on Transportation</b> The proposed action may result in a change to existing transportation systems. <input type="checkbox"/> NO <input type="checkbox"/> YES (See Part 1. D.2.j) <i>If "Yes", answer questions a - f. If "No", go to Section 14.</i>			
	<b>Relevant Part I Question(s)</b>	<b>No, or small impact may occur</b>	<b>Moderate to large impact may occur</b>
a. Projected traffic increase may exceed capacity of existing road network.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action will degrade existing transit access.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>14. Impact on Energy</b> The proposed action may cause an increase in the use of any form of energy. <input type="checkbox"/> NO <input type="checkbox"/> YES (See Part 1. D.2.k) <i>If "Yes", answer questions a - e. If "No", go to Section 15.</i>			
	<b>Relevant Part I Question(s)</b>	<b>No, or small impact may occur</b>	<b>Moderate to large impact may occur</b>
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	<input type="checkbox"/>	<input type="checkbox"/>
e. Other Impacts: _____ _____			

<b>15. Impact on Noise, Odor, and Light</b> The proposed action may result in an increase in noise, odors, or outdoor lighting. <input type="checkbox"/> NO <input type="checkbox"/> YES (See Part 1. D.2.m., n., and o.) <i>If "Yes", answer questions a - f. If "No", go to Section 16.</i>			
	<b>Relevant Part I Question(s)</b>	<b>No, or small impact may occur</b>	<b>Moderate to large impact may occur</b>
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in routine odors for more than one hour per day.	D2o	<input type="checkbox"/>	<input type="checkbox"/>

d. The proposed action may result in light shining onto adjoining properties.	D2n	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>16. Impact on Human Health</b>			
The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) <i>If "Yes", answer questions a - m. If "No", go to Section 17.</i>		<input type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	<input type="checkbox"/>	<input type="checkbox"/>
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	<input type="checkbox"/>	<input type="checkbox"/>
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	<input type="checkbox"/>	<input type="checkbox"/>
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	<input type="checkbox"/>	<input type="checkbox"/>
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	<input type="checkbox"/>	<input type="checkbox"/>
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	<input type="checkbox"/>	<input type="checkbox"/>
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	<input type="checkbox"/>	<input type="checkbox"/>
m. Other impacts: _____ _____			

<b>17. Consistency with Community Plans</b>			
The proposed action is not consistent with adopted land use plans. (See Part 1. C.1, C.2. and C.3.) <i>If “Yes”, answer questions a - h. If “No”, go to Section 18.</i>		<input type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action’s land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, E1b	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	<input type="checkbox"/>	<input type="checkbox"/>
h. Other: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>18. Consistency with Community Character</b>			
The proposed project is inconsistent with the existing community character. (See Part 1. C.2, C.3, D.2, E.3) <i>If “Yes”, answer questions a - g. If “No”, proceed to Part 3.</i>		<input type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	<input type="checkbox"/>	<input type="checkbox"/>
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	<input type="checkbox"/>	<input type="checkbox"/>
g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

Project : Date : 

***Full Environmental Assessment Form***  
***Part 3 - Evaluation of the Magnitude and Importance of Project Impacts***  
***and***  
***Determination of Significance***

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

**Reasons Supporting This Determination:**

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

**Determination of Significance - Type 1 and Unlisted Actions**

SEQR Status:  Type 1  Unlisted

Identify portions of EAF completed for this Project:  Part 1  Part 2  Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the \_\_\_\_\_ as lead agency that:

A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).

C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Fellows Road Properties

Name of Lead Agency:

Name of Responsible Officer in Lead Agency:

Title of Responsible Officer:

Signature of Responsible Officer in Lead Agency:

Date:

Signature of Preparer (if different from Responsible Officer)

*Ryan T. Deeter*

Date: 2/13/2024

**For Further Information:**

Contact Person:

Address:

Telephone Number:

E-mail:

**For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:**

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)  
Other involved agencies (if any)

Applicant (if any)

Environmental Notice Bulletin: <http://www.dec.ny.gov/enb/enb.html>



Receipt # 2602404

Book Page D 12452 0220

No. Pages: 4

Instrument: DEED

Control #: 202101151305

Ref #: TT0000012293

Date: 01/15/2021

Time: 4:27:22 PM

Return To:  
FIRST AMERICAN - ROCHESTER ABSTRACT  
16 WEST MAIN STREET  
ROCHESTER, NY 14614

PETERS FAMILY REAL ESTATE TRUST,  
PETERS, ROBERT F  
REICH, LOIS E

ARISTO PROPERTIES, INC,

Recording Fee	\$26.00	
Pages Fee	\$15.00	
State Fee Cultural Education	\$14.25	
State Fee Records	\$4.75	Employee: CT
Management		
Transfer Tax	\$2,140.00	
TP-584 Form Fee	\$5.00	
Deed Notice Fee	\$10.00	
RP-5217 County Fee	\$9.00	
RP5217 State Equal Fee	\$116.00	
<b>Total Fees Paid:</b>	<b>\$2,340.00</b>	

State of New York

MONROE COUNTY CLERK'S OFFICE  
WARNING – THIS SHEET CONSTITUTES THE CLERKS  
ENDORSEMENT, REQUIRED BY SECTION 317-a(5) &  
SECTION 319 OF THE REAL PROPERTY LAW OF THE  
STATE OF NEW YORK. DO NOT DETACH OR REMOVE.

Consideration: \$535,000.00

JAMIE ROMEO

MONROE COUNTY CLERK



*TRUSTEES DEED*

Box 93  
LMD  
11/8/15

THIS INDENTURE, made the 29<sup>th</sup> day of *December*, 2020

**BETWEEN ROBERT F. PETERS**, residing at 384 Fellows Road, Fairport, NY 14450 and  
**LOIS E. REICH**, residing at 8 Park Place, Rochester, NY 14625, as Co-Trustees of the Peters  
Family Real Estate Trust,

Grantor

**ARISTO PROPERTIES, INC.**, a New York corporation, with offices at 339 Hogan Road,  
Fairport, NY 14450

Grantee

**WITNESSETH**, that the grantor, in consideration of FIVE HUNDRED THIRTY FIVE  
THOUSAND & NO/100 DOLLARS paid by the grantee, hereby grant and releases unto the  
grantee, their heirs or successors and assigns of the grantee forever,

**ALL THAT TRACT OR PARCEL OF LAND**, situate in the Town of Perinton,  
County of Monroe and State of New York, and more particularly described as follows:

Beginning at a point in the centerline of Fellows Road (49.5' wide), said point being the  
southwest corner of lands of Pride Mark Homes per Liber 9801 of deeds, page 440 said point  
also being located N 06° 16' 20" E a distance of 1013.76' from the centerline intersection of  
Fellows Road and Furman Road, from said point, thence S 84°30' 58" E along the lands now or  
formerly of Pride Mark Homes a distance of 24.75' to the true point of beginning, thence;

1.) Continuing S 84° 30' 58" E along the lands now or formerly of Pride Mark Homes a  
distance of 1445 .66' to a point at the northwest corner of lands now or formerly of David and  
Laura Masterson per Liber 8062 of Deeds, page 611, thence;

2.) S 05 ° 02' 49" W along the lands of Masterson and lands now or formerly of Scott and  
Susan Bacher per Liber 7930 of Deeds, page 347 and lands now or formerly of Robert and  
Donna Janes (t.a.# 140.04-1-37) a distance of 983.75' to a point in the northerly line of Furman  
Road (49.5' wide), thence;

3.) N 84° 42' 56" W along the northerly line of Furman Road a distance of 751.78' to a  
point at the southeast corner of lands of the Town of Perinton per Liber 8202 of Deeds, page 359,  
thence;

4.) N 05 ° 17' 04" E along the lands of the Town of Perinton a distance of 60.00' to a  
point, thence;

5.) N 84° 42' 56" W along the lands of the Town of Perinton a distance of 65.00' to point,  
thence;

6.) S 05° 17' '04" W along the lands of the Town of Perinton a distance of 60.00' to a  
point in the northerly line of Furman Road, thence;

- 7.) N 84° 42' 56" W along the northerly line of Furman Road a distance of 650'.00 to a point in the easterly line of Fellows Road, thence;
- 8.) N 06° 16' 20" E along the easterly line of Fellows Road a distance of 254.82' to a point at the south west corner of other lands of Peters, thence;
- 9.) S 83 ° 43' 40" E along other lands of Peters a distance of 200.00' to a point, thence;
- 10.) N 06° 16' 20" E along other lands of Peters a distance of 150.00' to a point, thence;
- 11.) N 83 ° 43' 40" W along other lands of Peters a distance of 200.00' to a point in the easterly line of Fellows Road, thence;
- 12.) N 06° 16' 20" E along the easterly line of Fellows Road a distance of 584.10' to the point of beginning, containing 32.193 acres of land more or less.

This conveyance is made subject to all public utility easements, all easements, covenants, restrictions and building restrictions affecting said premises herein affecting said premises, if any.

This conveyance is made and accepted subject to covenants, easements, and restrictions of record affecting said premises, if any.

Being the same premises conveyed to the grantor by deed dated May 19, 2014, and recorded in the Monroe County Clerk's Office on May 23, 2014, in Liber 11394 of Deeds at page 293.

Tax Map No.: 140.04-1-44.1

Property Address: Fellows Road, Town of Perinton, New York 14450

Tax Mailing Address: 384 Fellows Road, Fairport, NY 14450

**TOGETHER**, with the appurtenances and all the estate and rights of the grantor in and to said premises.

**TO HAVE AND TO HOLD** the premises herein granted unto the grantee, the heirs or successors and assigns of the grantee forever **AND** the grantor covenants as follows:

**FIRST:** The Grantee shall quietly enjoy the said premises;

**SECOND:** The Grantor will forever warrant the title to said premises;

This deed is subject to the trust provisions of Section 13 of the Lien Law. The words "grantor" and "grantee" shall be construed to read in the plural whenever the sense of this deed so requires.

IN WITNESS WHEREOF, the grantor has executed this deed the day and year first above written.

In presence of:

THE PETERS FAMILY REAL ESTATE TRUST

Robert F. Peters

By: ROBERT F. PETERS, Co-Trustee

Lois E. Reich

By: LOIS E. REICH, Co-Trustee

STATE OF NEW YORK )  
COUNTY OF MONROE) ss.:

On December 29, 2020, before me, the undersigned, personally appeared ROBERT F. PETERS and LOIS E. REICH personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) subscribed to the within instrument and acknowledged to me that they executed the same in their capacities, and that by their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

[Signature]  
Notary Public

ROBERT C. GROSSMAN  
Notary Public, State of New York  
Qualified in Monroe County  
NO. 02GR6688080  
Commission Expires April 30, 2022

P:\2729 Drawings\Final\2729 Conventional Plan.dwg

N/F  
PRIDE MARK HOMES, INC  
TA. No. 140.04-1-39  
250 FELLOWS ROAD  
24.59 ACRES±

N/F  
ARISTO PROPERTIES, INC.  
TA. No. 140.04-1-44.1  
FELLOWS ROAD  
32.19 ACRES±

N/F  
DLM HUBER LLC  
TA. No. 140.04-1-38.1  
HUBER ROAD

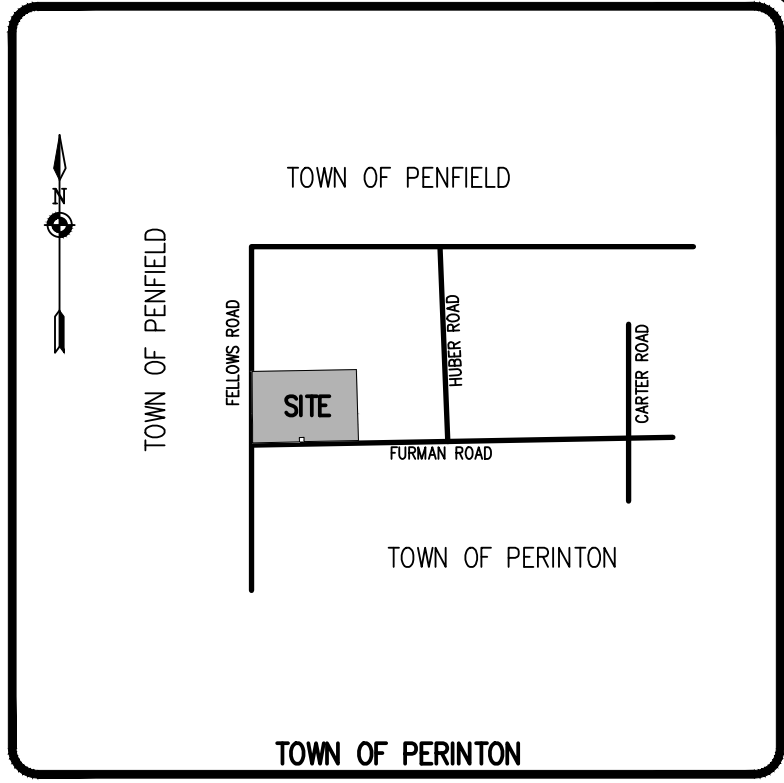
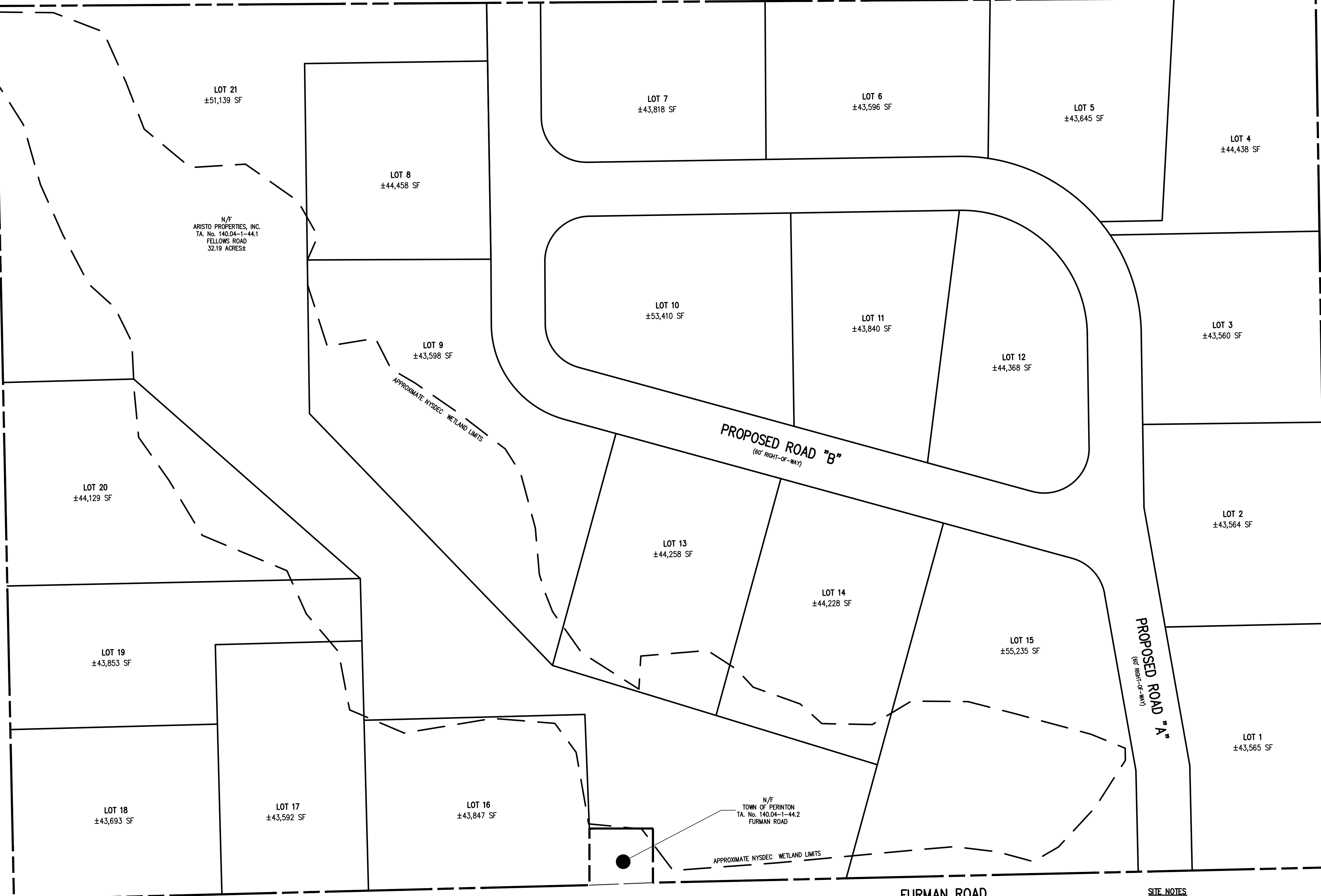
N/F  
SCOTT R. &  
SUSAN R. BACHER  
TA. No. 140.04-1-38.2  
FURMAN ROAD

N/F  
ANNE L. &  
ANTHONY J. THORNTON  
TA. No. 140.04-1-37  
130 FURMAN ROAD

N/F  
TOWN OF PERINTON  
TA. No. 140.04-1-44.2  
FURMAN ROAD

FELLOWS ROAD

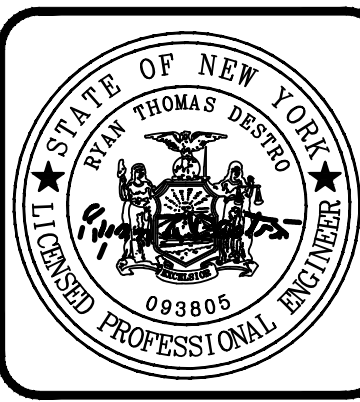
FURMAN ROAD



Drawing Alteration  
The following is an excerpt from the  
New York State Education Law Article  
145 Section 7209 and applies to this  
drawing:  
"It is a violation of this law for any  
person, unless he is acting under the  
direction of a licensed professional  
engineer or land surveyor to alter any  
item in any way. If an item bearing the  
seal of an engineer or land surveyor is  
altered, the altering engineer or land  
surveyor shall file to the item his seal  
and the notation "altered by" followed  
by his signature and the date of such  
alteration, and a specific description of  
the alteration."

REVISIONS	DATE	BY
7		
6		
5		
4		
3		
2		
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**BME ASSOCIATES**  
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565-377-7360  
10 LIFT BRIDGE LANE EAST  
FAIRPORT, NEW YORK 14450



**ARISTO-PETERS PROPERTY**  
FELLOWS ROAD  
TOWN OF PERINTON, MONROE COUNTY, NEW YORK STATE  
ARISTO PROPERTIES, INC.  
338 HOGAN ROAD  
FAIRPORT, NY 14450  
**CONVENTIONAL PLAN**

PROJECT	LOCATION	CLIENT	DRAWING TITLE

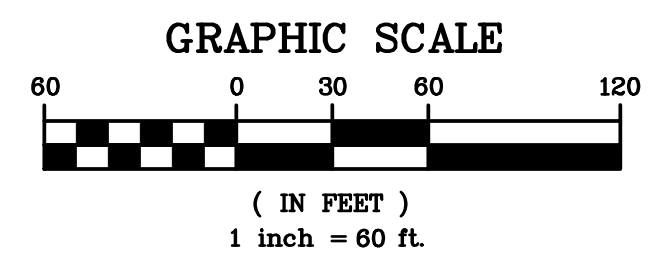
PROJECT MANAGER	DATE ISSUED
P. VARS	FEBRUARY 2024

PROJECT NO.	DRAWING NO.
2729	01

**SITE NOTES**

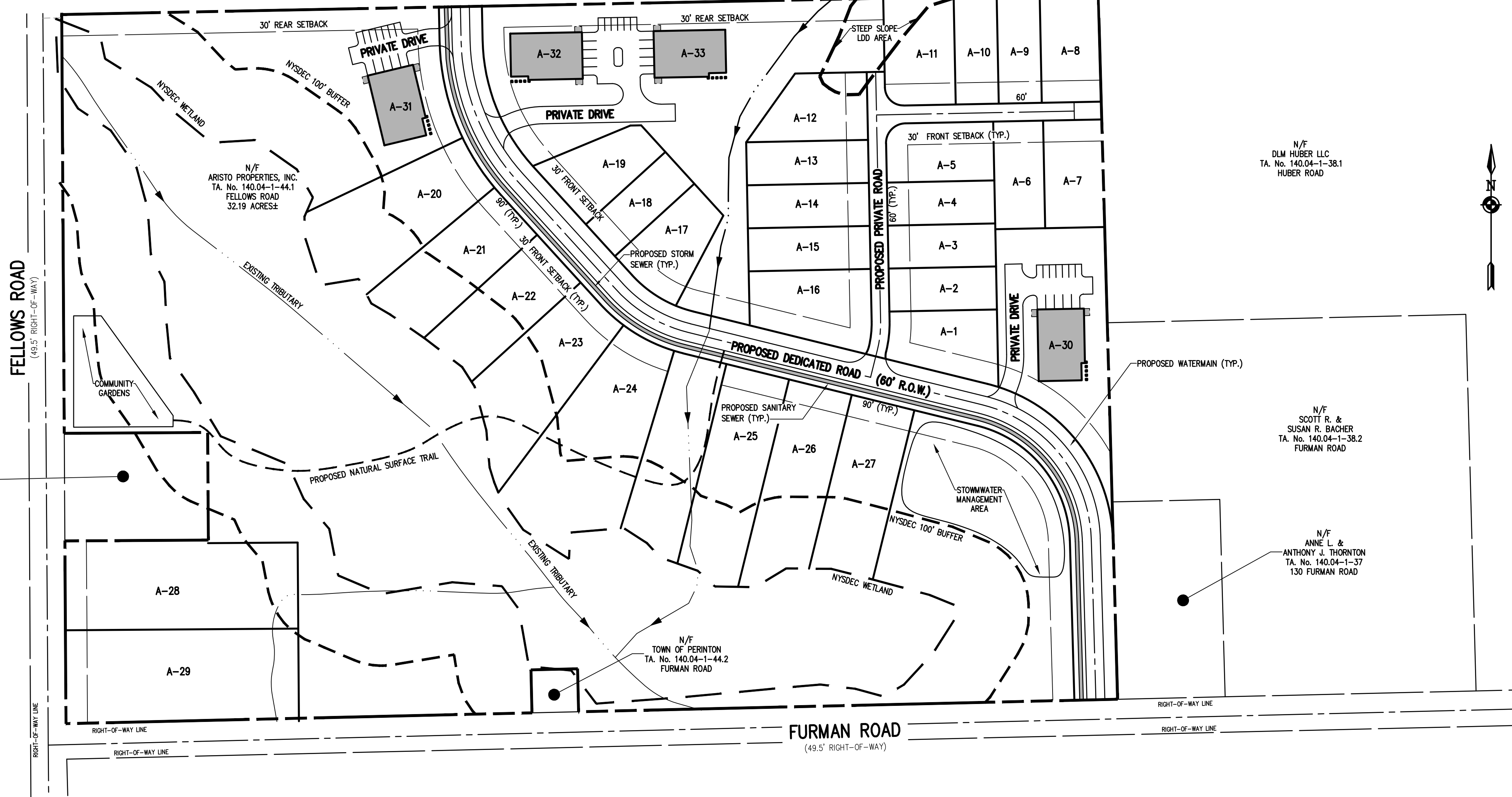
- EXISTING ZONING: RESIDENTIAL TRANSITION RT-1.2.5
- TOTAL PROJECT AREA: ±32.2 ACRES
- PROPOSED USE: RESIDENTIAL SINGLE FAMILY, 21 LOTS
- MIN. LOT SIZE: 1 ACRE (EXCLUDING LDD AREA)
- WIDTH AT LOT LINE:  
STANDARD 150'  
CORNER 180'
- SETBACKS:  
FRONT 90'  
SIDE 30'  
REAR 30'
- WIDTH AT STREET LINE 120'
- UTILITIES PROVIDED:  
A. WATERMAIN: (FROM FELLOWS ROAD)  
B. SANITARY SEWER: (FROM FURMAN ROAD)



**NOT APPROVED**  
This plan has not received final  
approval of all reviewing agencies.  
This plan is subject to revisions  
until all approvals are obtained and  
should not be used for construction  
purposes.

N/F  
PRIDE MARK HOMES, INC.  
TA. No. 140.04-1-39  
250 FELLOWS ROAD  
23.691 ACRES±

SEE 200 & 250 FELLOWS ROAD PDD CONCEPT SITE  
PLAN (BME DWG #2789-02) FOR CONTINUATION



N/F  
ROBERT F. PETERS  
TA. No. 140.04-1-45  
340 FELLOWS ROAD

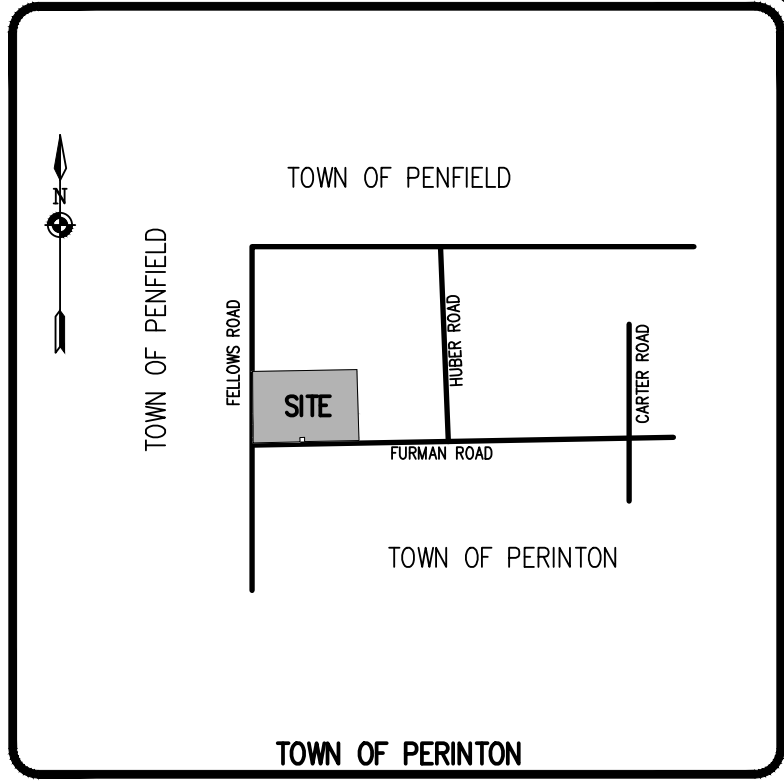
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ARISTO PROPERTIES, INC.  
TA. No. 140.04-1-44.1  
FELLOWS ROAD  
32.19 ACRES±

N/F  
DLM HUBER LLC  
TA. No. 140.04-1-38.1  
HUBER ROAD

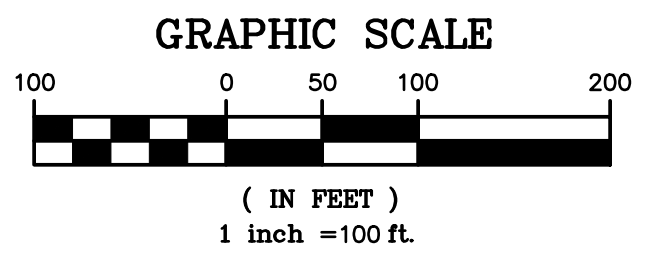
N/F  
SCOTT R. &  
SUSAN R. BACHER  
TA. No. 140.04-1-38.2  
FURMAN ROAD

N/F  
ANNE L. &  
ANTHONY J. THORNTON  
TA. No. 140.04-1-37  
130 FURMAN ROAD

N/F  
TOWN OF PERINTON  
TA. No. 140.04-1-44.2  
FURMAN ROAD



LOCATION MAP  
NOT TO SCALE



**LEGEND**

- BOUNDARY LINE
- - - PROPOSED LOT LINE
- CENTERLINE
- - - SETBACK LINE
- A-1 LOT NUMBERS

**CONCEPT SITE NOTES:**

- PROJECT AREA: ±32.2 ACRES (T.A. #140.04-1-44.1)
- EXISTING ZONING: RESIDENTIAL TRANSITION RT-1,2,5  
PROPOSED ZONING: RESIDENTIAL PLANNED DEVELOPMENT DISTRICT (PDD)
- PROPOSED DEVELOPMENT:
 

CONVENTIONAL YIELD	PROPOSED DEVELOPMENT
21 SINGLE FAMILY LOTS	A-1 - A-19: 19 PATIO HOME LOTS A-20 - A-29: 10 SINGLE FAMILY HOME LOTS A-30 - A-33: 4 2-STORY CONDOMINIUM BUILDINGS @ 7 UNITS EACH TOTAL: 57 UNITS
DENSITY 0.64 LOTS/ACRE	1.77 UNITS/ACRE
- LOT STANDARDS
 

	MIN. LOT AREA	MIN. LOT WIDTH	MIN. LOT DEPTH
PATIO LOTS (A-1 - A-19)	11,250 SF	60'	150'
SINGLE FAMILY LOTS (A-20 - A-27)	13,500 SF	90'	150'
FRONTAGE LOTS (A-28 - A-29)	37,500 SF	125'	300'
CONDOMINIUM FOOTPRINT (A-30 - A-33)	6,500 SF	100'	65'

SETBACKS:

	PROPOSED (MIN.)
FRONT SETBACK:	30'
SIDE SETBACK (PATIO HOMES):	8' (30' @ EXTERNAL PROPERTY BOUNDARY)
SIDE SETBACK (SINGLE FAMILY HOMES):	10' (30' @ EXTERNAL PROPERTY BOUNDARY)
REAR SETBACK:	20' (30' @ EXTERNAL PROPERTY BOUNDARY)

Drawing Alteration  
The following is an excerpt from the New York State Education Law Article 145 Section 7209 and applies to this drawing:  
"It is a violation of this law for any person, unless he is acting under the direction of a licensed professional engineer or land surveyor to alter any item in any way, if an item bearing the seal of an engineer or land surveyor is altered, the altering engineer or land surveyor shall affix to the item his seal and the notation "altered by" followed by his signature and the date of such alteration, and a specific description of the alteration."

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**ARISTO-PETERS PROPERTY**  
FELLOWS ROAD  
TOWN OF PERINTON, MONROE COUNTY, NEW YORK  
ARISTO PROPERTIES, INC.  
339 HOGAN ROAD  
FAIRPORT, NY 14450  
**PDD CONCEPT SITE PLAN**

PROJECT: ARISTO-PETERS PROPERTY  
LOCATION: FELLOWS ROAD  
CLIENT: ARISTO PROPERTIES, INC.  
DRAWING TITLE: PDD CONCEPT SITE PLAN

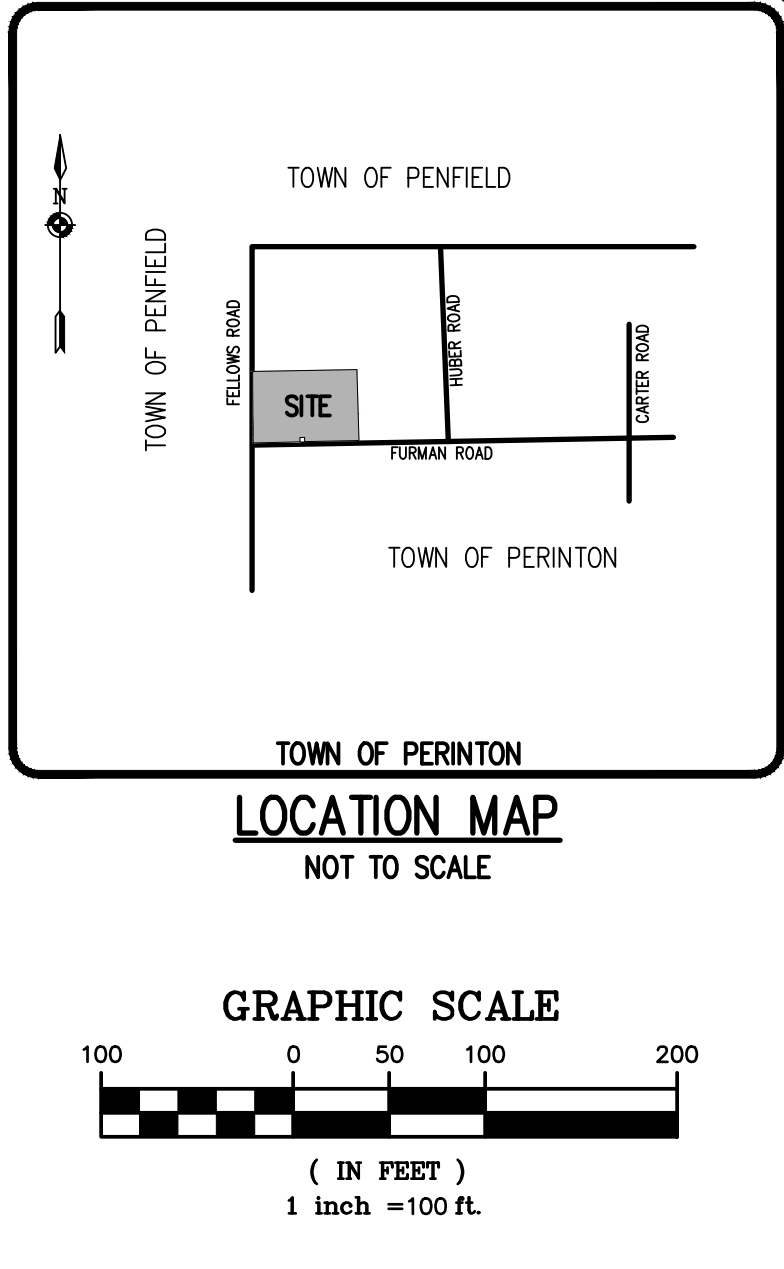
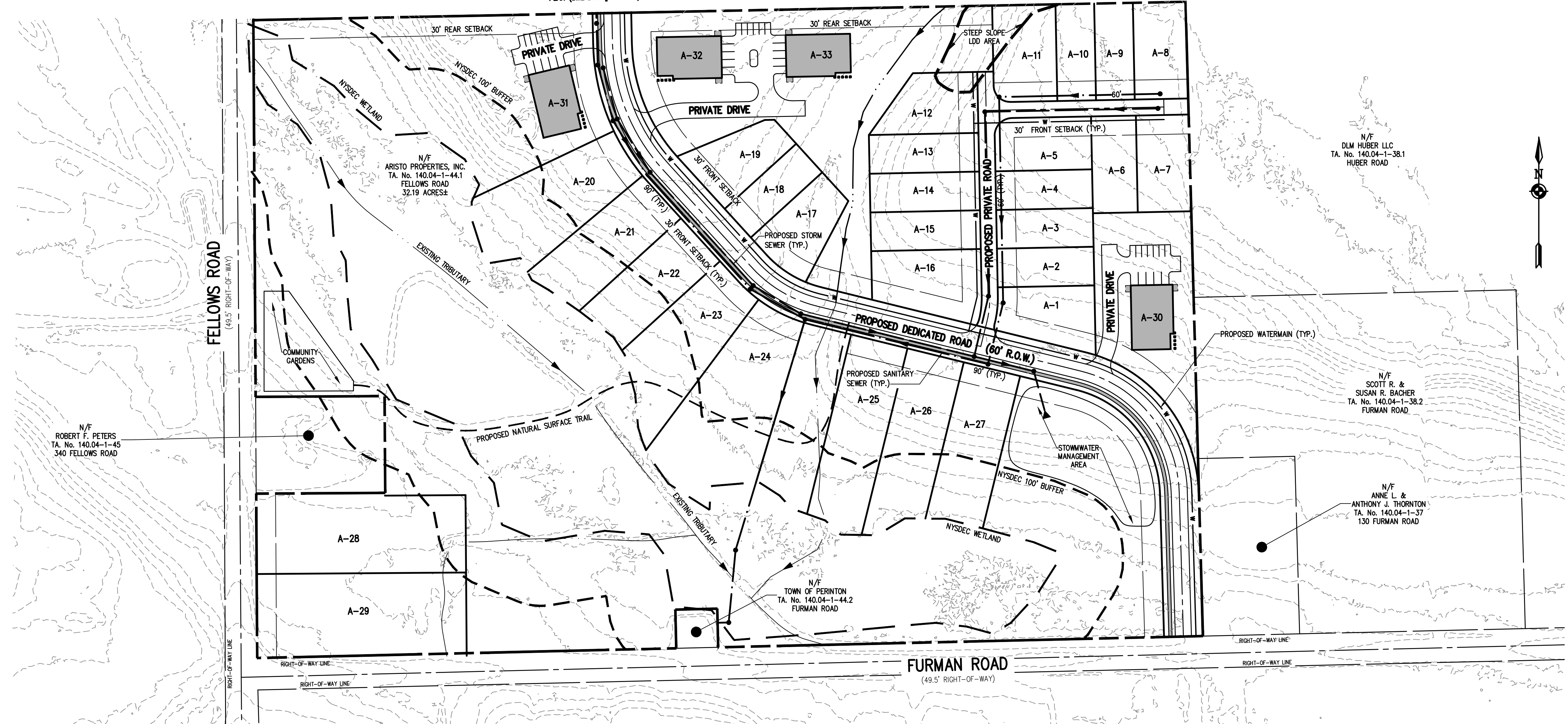
PROJECT MANAGER: P. VARS  
PROJECT ENGINEER: R. DESTRO  
DRAWN BY: J. SQUIER  
SCALE: 1" = 100'  
DATE ISSUED: FEBRUARY 2024  
PROJECT NO.: 2729  
DRAWING NO.: 02

**NOT APPROVED**  
This plan has not received final approval of all reviewing agencies. This plan is subject to revisions until all approvals are obtained and should not be used for construction purposes.

P:\2789\Drawings\Final\2789 Overall Development Concept.dwg

N/F  
PRIDE MARK HOMES, INC  
TA. No. 140.04-1-39  
250 FELLOWS ROAD  
23.691 ACRES±

SEE 200 & 250 FELLOWS ROAD PDD CONCEPT UTILITY  
PLAN (BME DWG #2789-03) FOR CONTINUATION



N/F  
ROBERT F. PETERS  
TA. No. 140.04-1-45  
340 FELLOWS ROAD

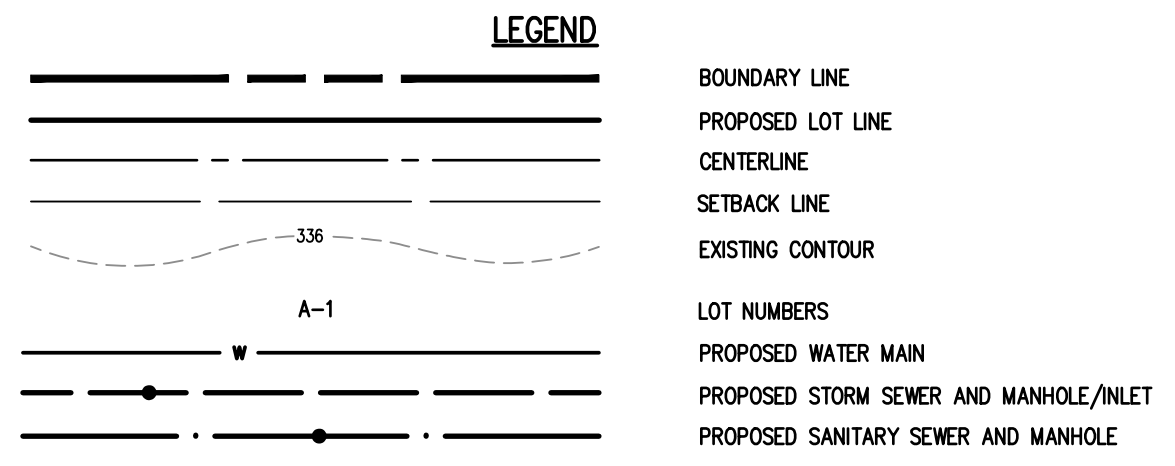
N/F  
ARISTO PROPERTIES, INC.  
TA. No. 140.04-1-44.1  
FELLOWS ROAD  
32.19 ACRES±

N/F  
DLM HUBER LLC  
TA. No. 140.04-1-38.1  
HUBER ROAD

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SCOTT R. &  
SUSAN R. BACHER  
TA. No. 140.04-1-38.2  
FURMAN ROAD

N/F  
ANNE L. &  
ANTHONY J. THORNTON  
TA. No. 140.04-1-37  
130 FURMAN ROAD

N/F  
TOWN OF PERINTON  
TA. No. 140.04-1-44.2  
FURMAN ROAD



**CONCEPT UTILITY NOTES:**

- PUBLIC WATER TO BE PROVIDED BY MCWA
- PUBLIC SANITARY TO BE PROVIDED BY THE TOWN OF PERINTON
- PUBLIC STORM SEWERS TO BE PROVIDED BY THE TOWN OF PERINTON
- ELECTRIC SERVICE TO BE PROVIDED BY THE FAIRPORT MUNICIPAL COMMISSION
- GAS SERVICE TO BE PROVIDED BY RG&E

**NOT APPROVED**  
This plan has not received final approval of all reviewing agencies. This plan is subject to revisions until all approvals are obtained and should not be used for construction purposes.

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Drawing Alteration  
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NO.	DATE	BY	REVISIONS
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6			
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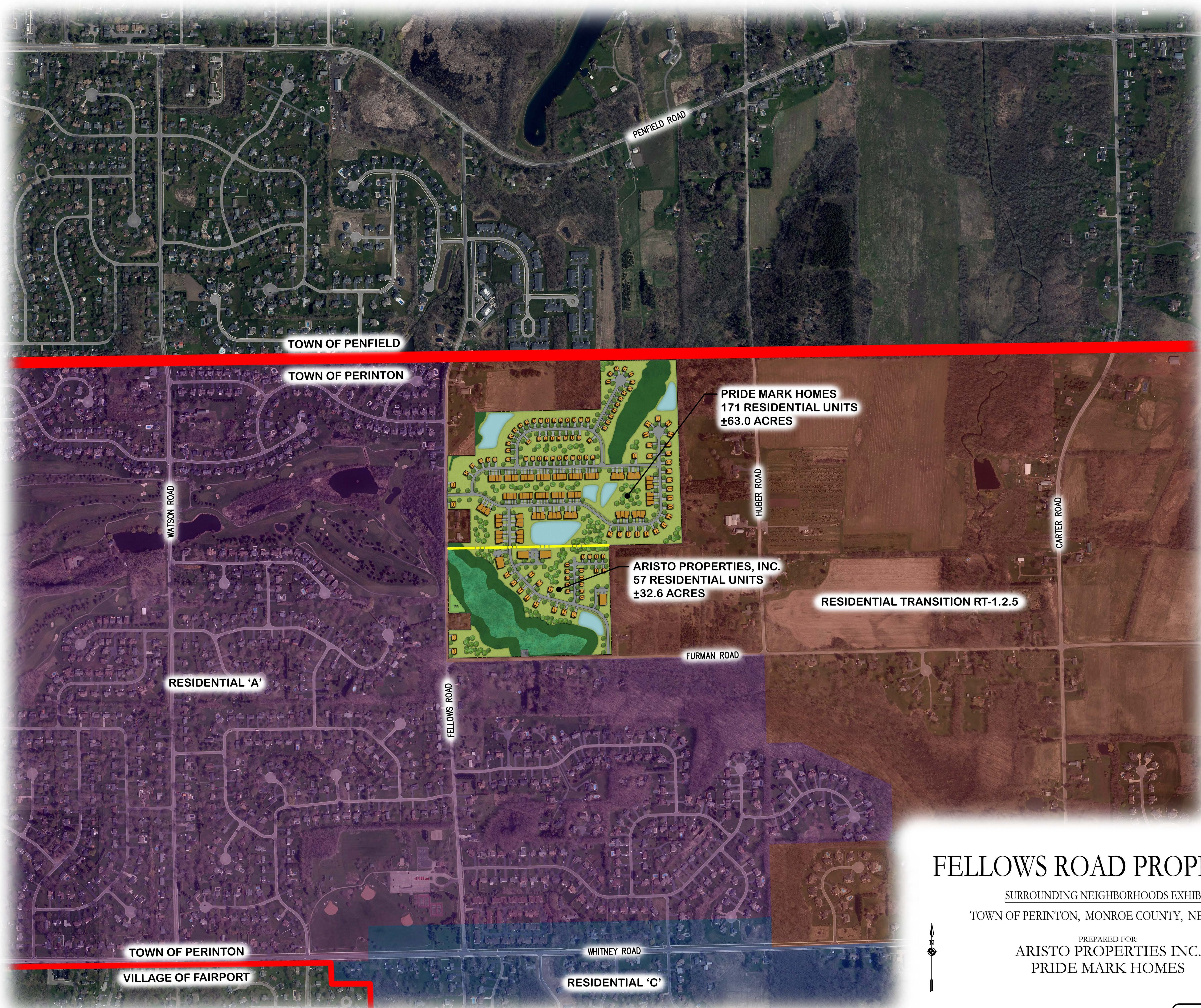
**ARISTO-PETERS PROPERTY**  
FELLOWS ROAD  
TOWN OF PERINTON, MONROE COUNTY, NEW YORK  
ARISTO PROPERTIES, INC.  
339 HOGAN ROAD  
FAIRPORT, NY 14450

**PDD CONCEPT UTILITY PLAN**

PROJECT: ARISTO-PETERS PROPERTY  
LOCATION: FELLOWS ROAD  
CLIENT: ARISTO PROPERTIES, INC.

PROJECT MANAGER: P. VARS  
PROJECT ENGINEER: R. DESTRO  
DRAWN BY: J. SQUIER  
SCALE: 1" = 100'  
DATE ISSUED: FEBRUARY 2024  
PROJECT NO.: 2729  
DRAWING NO.: 03

TAX MAP NUMBER 140.04-1-44.1



# FELLOWS ROAD PROPERTIES

SURROUNDING NEIGHBORHOODS EXHIBIT  
TOWN OF PERINTON, MONROE COUNTY, NEW YORK

PREPARED FOR:  
ARISTO PROPERTIES INC.  
PRIDE MARK HOMES



SCALE: 1"=300'  
PROJECT NUMBER: 2789  
DATE ISSUED: JANUARY, 2024

**BME ASSOCIATES**  
ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS  
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FAIRPORT, NEW YORK 14450  
PHONE 565-377-7360  
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WWW.BMEPCOM



February 13, 2024

20243756.0001

# FELLOWS ROAD PROPERTIES

TOWN OF PERINTON, NY

**PREPARED FOR:**  
BME Associates  
Attn: Mr. Peter G. Vars, P.E.  
10 Liftbridge Lane  
Fairport, NY 14450

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## **APPENDICES**

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- APPENDIX B:** MISCELLANEOUS CALCULATIONS
- APPENDIX C:** LOS CALCULATIONS – EXISTING CONDITIONS
- APPENDIX D:** LOS CALCULATIONS – BACKGROUND CONDITIONS
- APPENDIX E:** LOS CALCULATIONS – FULL BUILD CONDITIONS
- APPENDIX F:** LOS CALCULATIONS – FULL BUILD CONDITIONS WITH MITIGATION

February 13, 2024

## 1.0 EXECUTIVE SUMMARY

The purpose of this report is to evaluate the potential traffic impacts related to the proposed residential development located along Fellows Rd in the Town of Perinton, NY. Within this report, the operating characteristics of the proposed access points and impacts to the adjacent roadway network are evaluated and mitigating measures are identified (if needed) to minimize operational concerns.

To define traffic impact, this analysis establishes existing baseline traffic conditions, projects background traffic flow including area growth, and determines the traffic operations that would result from the proposed project.

### ***Project Location and Description***

The project site is located at the northeast corner of the Fellows Road/Furman Road intersection in the Town of Perinton, Monroe County, New York. The project site is bounded by St. John's Home Residential Care and undeveloped land to the north, Fellows Road to the west, Furman Rd to the south, and single family homes and farmland along Huber Rd to the east. The project site currently consists of farmland and undeveloped land. The land uses in the vicinity of the project site are primarily residential as well as some agricultural land and retail uses.

The proposed development consists of constructing 106 single family homes, 26 townhome buildings containing either 3 or 4 units each for a total of 90 townhome units, and 4 condominium buildings containing 7 units each for total of 28 condominium units. Access to the site will be provided via one new driveway along Fellows Rd and one new driveway along Furman Rd.

### ***Study Area***

To ensure a comprehensive analysis of potential traffic impacts, a study area was selected consisting of the following three (3) intersections:

1. Penfield Rd/Fellows Rd
2. Fellows Rd/Furman Rd
3. Whitney Rd East/Fellows Rd/Roxwell Ct

### ***Existing and Background Conditions***

Turning movement traffic counts were collected by Passero Associates on Thursday, January 18, 2024, at the study intersections for the weekday PM peak hour period and on Friday, January 19, 2024, at the study intersections for the weekday AM peak hour period. Traffic counts were conducted between 7:00-9:00 AM for the weekday AM peak period and 4:00-6:00 PM for the weekday PM peak period. The peak hour traffic periods generally occurred between 7:15-8:15 AM and 4:30-5:30 PM.

Construction of the proposed project is anticipated to reach full build-out within approximately five years. The widely accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. Projects that are contemplated but not yet approved are not included in a traffic analysis. Local municipal personnel were contacted to discuss any other specific projects that are currently approved or under construction that would generate additional traffic in the study area. No such projects were identified.

A review of available historical NYSDOT traffic volume data in the vicinity of the site indicates that traffic has decreased between 2010 and 2019 in the study area. To account for normal increases in background traffic growth, as well as any unforeseen developments in the study area, a growth rate of 0.5% per year was applied to the existing traffic volumes for the five-year build out period.

### ***Conclusions and Recommendations***

This Traffic Impact Study identified and evaluated the potential traffic impacts that can be expected from the proposed development located along Fellows Rd in the Town of Perinton, NY. The results of this study determined that the existing transportation network can adequately accommodate the projected traffic volumes and resulting minor impacts to study area intersections with the noted mitigation in place. The following sets forth the conclusions and recommendations based upon the results of the analyses:

#### ***Conclusions***

1. The proposed project is expected to generate approximately 38 entering/114 exiting vehicle trips during the AM peak hour and 117 entering/72 exiting vehicle trips during the PM peak hour.
2. Based on the results of the crash analysis, there are no inherent safety deficiencies at any of the study intersections.
3. The available sight distances along Fellows Rd at the existing Furman Rd intersection to the right exceed the required stopping sight distance (SSD) and desirable intersection sight distance (ISD). To the left, the available sight distance exceeds the required SSD, however, the desirable ISD is not met. There is an existing intersection warning sign located approximately  $\pm 565'$  to the south of the existing intersection which offsets the less than desirable ISD. Given that, no mitigation is required at this intersection related to existing sight distances.
4. The combination of westbound traffic volumes turning left into Fellows Rd from Penfield Rd and the design speed of Penfield Rd indicate that a left-turn treatment is warranted during the PM peak hour under background and full development conditions but not during the AM peak hour under either background or full build conditions.
5. The detailed analysis contained in this Traffic Impact Study demonstrates the proposed project will not result in any potentially significant adverse environmental impacts for the purpose of the environmental review of the project pursuant to the State Environmental Quality Review Act ("SEQRA").

#### ***Recommendations***

6. It is recommended that a westbound left-turn lane is constructed at the Penfield Rd/Fellows Rd intersection. It is also recommended that a two-way left turn storage lane is constructed opposite the westbound left turn lane to allow vehicles making a northbound left turn to clear the eastbound lane and then wait in the two-way left turn storage lane until it is safe to merge into westbound traffic. It should be noted that three of the crashes at this intersection, which were discussed in Section 4.3, can be mitigated with the construction of a westbound left turn lane and would be safety improvement for the intersection.
7. The proposed driveway along Fellows Rd should be designed to provide one enter and one exit lane.
8. The proposed driveway along Furman Rd should be designed to provide one enter and one exit lane.

## 2.0 INTRODUCTION

### 2.1 Study Purpose and Objectives

The purpose of this report is to evaluate the potential traffic impacts related to the proposed residential development located along Fellows Rd in the Town of Perinton, NY. Within this report, the operating characteristics of the proposed access points and impacts to the adjacent roadway network are evaluated and mitigating measures are identified (if needed) to minimize operational concerns.

To define traffic impact, this analysis establishes existing baseline traffic conditions, projects background traffic flow including area growth, and determines the traffic operations that would result from the proposed project.

### 2.2 Project Location

The project site is located at the northeast corner of the Fellows Road/Furman Road intersection in the Town of Perinton, Monroe County, New York. The project site is bounded by St. John's Home Residential Care and undeveloped land to the north, Fellows Road to the west, Furman Rd to the south, and single family homes and farmland along Huber Rd to the east. The project site currently consists of farmland and undeveloped land. The land uses in the vicinity of the project site are primarily residential as well as some agricultural land and retail uses.

### 2.3 Study Area

To ensure a comprehensive analysis of potential traffic impacts, a study area was selected consisting of the following three (3) intersections:

1. Penfield Rd/Fellows Rd
2. Fellows Rd/Furman Rd
3. Whitney Rd East/Fellows Rd/Roxwell Ct

The project site location and study area are illustrated in **Figure 1** (all figures are included at the end of this report).

## 3.0 TRANSPORTATION SETTING

### 3.1 Description of Study Area Roadways

The information outlined in **Table 1** provides a description of the existing roadway network within the study area. **Figure 2** illustrates the lane geometry and traffic control at each of the study intersections and the Annual Average Daily Traffic (AADT) volumes on the study roadways. The AADTs reflect the most recently collected data obtained from the NYSDOT.



**Table 1: Existing Highway System**

ROADWAY	CLASS <sup>1</sup>	AGENCY <sup>2</sup>	SPEED LIMIT <sup>3</sup>	TRAVEL LANES <sup>4</sup>	ORIENTATION OF TRAVEL	AADT <sup>5</sup>
Penfield Road (NY-441)	16	NYSDOT	45	2	Two-way/ East-West	12,162 NYSDOT (2019)
Fellows Road	19	Town of Perinton	30/35	2	Two-way/ North-South	1,705 Passero (2024)
Furman Rd	19	Town of Perinton	40	2	Two-way/ East-West	1,146 NYSDOT (2018)
Whitney Road East	16	MCDOT	35	2	Two-way/ East-West	11,596 NYSDOT (2016)

**Notes:**

1. State functional classification of roadway
2. Jurisdictional agency of roadway.
3. Posted or statewide limit in miles per hour (mph).
4. Number of travel lanes. Excludes turning/auxiliary lanes developed at intersections.
5. Estimated AADT in vehicles per day (vpd). AADT source (Year).

The Highway Functional Classification System defines the role a roadway plays in the overall road network. Functional classification of highways within the study area is determined by the NYSDOT and the Federal Highway Administration (FHWA).

**Urban Minor Arterial (Class 16)**

An urban minor arterial interconnects and augments the higher-level arterials as well as serves trips of moderate length at a somewhat lower level of travel mobility than Principal Arterials. They distribute traffic to smaller geographic areas than those served by higher-level Arterials and provide more land access than Principal Arterials without penetrating identifiable neighborhoods. They also provide urban connections for Rural Collectors.

**Urban Local (Class 19)**

According to the FHWA, this class of roadway includes all facilities not in one of the higher systems (e.g., arterial, collector, etc.). It primarily permits direct access to abutting lands and connections to the higher order systems and is not intended for use in long distance travel. As public roads, they should be accessible for public use throughout the year. Generally, the streets carry little to no through-traffic flows.

**3.2 Description of Multimodal Network**

**Table 2** summarizes the traffic controls, pedestrian, bicycle, and transit accommodations within the study area.

**Table 2: Multimodal Network**

INTERSECTION	Penfield Rd/ Fellows Rd	Fellows Rd/ Furman Rd	Whitney Rd East/Fellows Rd
Intersection Control Type	Unsignalized	Unsignalized	Unsignalized
Sidewalks	○	○	●
Crosswalks	○	○	●
Curb Ramps	○	○	●
Pedestrian Signal	○	○	○
Pedestrian Push Button	○	○	○
Pedestrian Countdown	○	○	○
Bicycle Facilities	○	○	○
Street Lighting	●	○	●
Transit Route	N/A	N/A	N/A

● Present at entire intersection  
 ● Present at portion of intersection  
 ○ Not present at intersection

### 3.3 Planned/Programmed Highway Improvements

There are no planned highway improvement projects in the study area.

## 4.0 EXISTING CONDITIONS ANALYSIS

### 4.1 Peak Intervals for Analysis

Given the functional characteristics of the corridors, adjacent land uses, and the proposed land use for the project site, the peak hours selected for analysis are the weekday AM and PM peak periods. The combination of site traffic and adjacent street traffic produces the greatest demand during these time periods.

### 4.2 Existing Traffic Volume Data

Turning movement traffic counts were collected by Passero Associates on Thursday, January 18, 2024, at the study intersections for the weekday PM peak hour period and on Friday, January 19, 2024, at the study intersections for the weekday AM peak hour period. Traffic counts were conducted between 7:00-9:00 AM for the weekday AM peak period and 4:00-6:00 PM for the weekday PM peak period. The peak hour traffic periods generally occurred between 7:30-8:30 AM and 4:15-5:15 PM. The existing peak hour traffic volumes are shown in **Figure 3A**.

All turning movement count data was collected on a typical weekday while local schools were in session. No adverse weather conditions impacted the traffic counts. The traffic volumes were reviewed for seasonality and to confirm the accuracy and relative balance of the collective traffic counts. The actual differences in traffic volumes can be attributed to temporal variations in traffic volumes as well as activity related to driveways located in the segments between the study intersections.

As a result of traffic volumes being slightly lower than normal due to the time of year that the turning movement traffic counts were collected, a seasonality factor was applied to all the collected traffic volumes. NYSDOT determines seasonality factors based on the month of the year, whether the data was taken during the week or weekend, and the factor group of the surrounding roadways, which is commuter dominated for this project. Given that the weekday AM and PM peak hour data was collected during January, a seasonality factor of 0.901 was applied to the traffic volumes. **Figure 3B** illustrates the representative 2024 weekday AM and PM peak hour base volumes used for analysis purposes in this study.

### 4.3 Existing Crash Investigation

The purpose of this crash analysis is to identify inherent safety issues by studying and quantifying historical crashes at the Penfield Rd/Fellows Rd and Fellows Rd/Furman Rd study intersections and identifying potential crash patterns and clusters.

A crash cluster is defined as an abnormal occurrence of similar crash types occurring at approximately the same location or involving the same geometric features. The severity of the crashes should also be considered. A history of crashes is an indication that further analysis is required to determine the cause(s) of the crash(es) and to identify what actions, if any, could be taken to mitigate the crashes.

A crash investigation within the study area was conducted to assess the safety history from August 31, 2018, through August 31, 2023.

Reportable (non-injury, injury, and fatal injury) type crashes are defined as damage to one person’s property in the amount of \$1,001 or more. The Non-Reportable type crashes result in property damage of \$1,000 or less. Crash rates were computed for the study intersections and compared with NYSDOT average crash rates for similar intersections, as summarized in **Table 3**. Intersection rates are listed as crashes per million entering vehicle (CR/MEV).

**Table 3: Intersection Crash Rate Analysis**

INTERSECTION	NUMBER OF CRASHES	NUMBER OF ENTERING VEHICLES	ACTUAL CRASH RATE	STATEWIDE AVERAGE CRASH RATE
Penfield Rd/Fellows Rd	5	14,958 vpd	0.18	0.19
Fellows Rd/Furman Rd	0	1,726 vpd	0.00	0.19

Notable crash clusters are approaches with three or greater identifiable consistent crash types.

#### Penfield Rd at Fellows Rd

As shown in **Table 3**, the intersection has a crash rate that is slightly lower than the statewide average crash rate for similar intersections. No discernible crash patterns exist at this study intersection. The five crashes identified consist of the following crash types:

- One westbound rear end crash occurred when a westbound vehicle rear ended a vehicle waiting to turn left onto Fellows Rd.
- One head on crash occurred as a result of a westbound vehicle swerving out of the way to avoid a vehicle waiting to turn left onto Fellows Rd. The vehicle that swerved around the left turning vehicle ended up hitting an eastbound vehicle head on upon trying to regain control of the vehicle.
- One northbound left turn crash occurred as a result of the northbound vehicle not yielding the right of way to traffic along Penfield Rd.



- The other two crashes consisted of a fixed object crash due to a high speed chase and an animal related crash.

**Fellows Rd at Furman Rd**

No crashes occurred at this intersection during the study period.

**4.4 Sight Distance Evaluation**

This study investigated existing available sight distances at the Fellows Rd/Furman Rd intersection. Sight distance is provided at intersections to allow drivers to perceive the presence of potentially conflicting vehicles. This should occur in sufficient time for a motorist to stop or adjust their speed, as appropriate, to avoid a collision at the intersection.

Sight distance is also provided at intersections to allow the drivers of stopped vehicles a sufficient view of the intersecting highway to anticipate and avoid potential incidents. If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate Stopping Sight Distance (SSD) for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions. To enhance traffic operations, Intersection Sight Distances (ISD) that exceed SSD are desirable along the major road.

*A Policy on Geometric Design of Highways and Streets 7th Edition (2018)*, published by the American Association of State Highway and Transportation Officials (AASHTO), was used as a reference to establish the required SSD and desirable ISD for the proposed access driveway location.

Required SSD and desirable ISD are based on the design speed for a given section of roadway; generally, the design speed is the posted speed limit plus 5 MPH. In this case, the posted speed limit at the intersection of Furman Rd along Fellows Rd is 30 MPH. Hence a design speed of 35 MPH was used. Stopping sight distance is dependent on the driver’s eye height above the road surface, the specified object height above the road surface, and the height and lateral position of sight obstructions within the driver’s line of sight. For design purposes, the recommended height is 3.50 feet above the road surface. The specified object height above the road surface is assumed to be 2.0 feet, representative of the shortest object at risk to drivers, including the height of automobile headlights or taillights.

The required SSD and desirable ISD based on the design speeds are shown in **Table 4** for the existing Fellows Rd/Furman Rd intersection.

**Table 4: Sight Distance Evaluation**

INTERSECTION	POSTED SPEED	DESIGN SPEED	REQUIRED SSD	DESIRABLE ISD	AVAILABLE SIGHT DISTANCE TO THE:	
					LEFT	RIGHT <sup>2</sup>
Fellows Rd/Furman Rd	30 mph	35 mph	250	390	SSD: 375 ISD: 310	SSD: 700+ ISD: 700+

Note:

1. All sight distance measurements shown in feet.
2. Sight distance is unrestricted to the adjacent intersection

The available sight distances along Fellows Rd at the existing Furman Rd intersection to the right exceed the required stopping sight distance (SSD) and desirable intersection sight distance (ISD). To the left, the available sight distance exceeds the required SSD, however, the desirable ISD is not met. There is an existing intersection warning sign located approximately ±565’ to the south of the existing intersection which offsets the less than desirable ISD. Given that, no mitigation is required at this intersection related to existing sight distances.

## 5.0 BACKGROUND (NO BUILD) CONDITIONS

Construction of the proposed project is anticipated to reach full build-out within approximately five years. The widely accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. Projects that are contemplated but not yet approved are not included in a traffic analysis. Local municipal personnel were contacted to discuss any other specific projects that are currently approved or under construction that would generate additional traffic in the study area. No such projects were identified.

A review of available historical NYSDOT traffic volume data in the vicinity of the site indicates that traffic has decreased between 2010 and 2019 in the study area. To account for normal increases in background traffic growth, as well as any unforeseen developments in the study area, a growth rate of 0.5% per year was applied to the existing traffic volumes for the five-year build out period. The background traffic volumes are depicted in **Figure 4**.

## 6.0 PROPOSED DEVELOPMENT CONDITIONS

### 6.1 Project Description

The proposed development consists of constructing 106 single family homes, 26 townhome buildings containing either 3 or 4 units each for a total of 90 townhome units, and 4 condominium buildings containing 7 units each for total of 28 condominium units. Access to the site will be provided via one new driveway along Fellows Rd and one new driveway along Furman Rd. The Overall Site Plan is included at the end of this report.

### 6.2 Proposed Traffic Generation

The volume of traffic generated by a site is dependent on the intended land use and size of the development. Trip generation is an estimate of the number of trips generated by a specific building or land use. These trips represent the volume of traffic entering and exiting the development. *Trip Generation Manual* (11<sup>th</sup> Edition) published by the Institute of Transportation Engineers (ITE) is used as a reference for this information. The trip rate for the peak hour of the generator may or may not coincide in time or volume with the trip rate for the peak hour of adjacent street traffic. Volumes generated during the peak hour of the adjacent street traffic and proposed land uses, in this case, the weekday commuter AM and PM peak hours, represent a more critical volume when analyzing the capacity of the system; those intervals will provide the basis of this analysis. **Table 5** shows the estimated site generated trips that will be added to the existing roadway system under full project development.

**Table 5: Site Generated Trips**

DESCRIPTION	ITE LUC <sup>1</sup>	SIZE	AM PEAK HOUR		PM PEAK HOUR	
			ENTER	EXIT	ENTER	EXIT
Single Family Detached Housing	210	106 units	20	59	66	39
Single Family Attached Housing	215	90 units	10	31	30	21
Multifamily Housing (Low-Rise)	220	28 units	8	24	21	12
<b>Total Site Generated Trips</b>			<b>38</b>	<b>114</b>	<b>117</b>	<b>72</b>

Note:  
1. LUC = Land Use Code.

The proposed project is expected to generate approximately 38 entering/114 exiting vehicle trips during the AM peak hour and 117 entering/72 exiting vehicle trips during the PM peak hour.

### 6.3 Trip Distribution

The cumulative effect of site-generated traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the access drives serving the site. The proposed arrival/departure distribution of traffic generated by the proposed project is considered a function of several parameters, including:

- Employment centers using U.S. Census Data
- Site layout and access locations
- Proximity and access to expressways (I-490) and other main roadways
- Existing traffic patterns
- Existing traffic conditions and controls

**Figure 5** shows the anticipated trip distribution pattern percentage for the project site. **Figure 6** illustrates the peak hour project site-generated traffic based on those percentages.

### 6.4 Full Development Volumes

The proposed design hour traffic volumes are developed for the peak hours by combining the background traffic conditions (Figure 4) and the new site-generated traffic volumes (Figure 6) to yield the traffic volumes under full development conditions. **Figure 7** illustrates the total peak hour volumes anticipated for the proposed project under full build-out conditions.

## 7.0 TRAFFIC OPERATIONS AND ANALYSIS

### 7.1 Left-Turn Warrant Investigation

This study used the Transportation Research Board's (TRB) *NCHRP Report 279 Intersection Channelization Design Guide* to evaluate the volume warrants for a left-turn treatment at the Penfield Rd/Fellows Rd intersection under background and full build conditions. Provisions for left-turn lane facilities should be established where traffic volumes are high enough and safety considerations are sufficient to warrant the additional lane. This investigation analyzed warrants

during the weekday AM and PM peak hours for the intersections under full development conditions. The warrants are based on the design speed of the major roadway.

The combination of westbound traffic volumes turning left into Fellows Rd from Penfield Rd and the design speed of Penfield Rd indicate that a left-turn treatment is warranted during the PM peak hour under background and full development conditions but not during the AM peak hour under either background or full build conditions. It should be noted that three of the crashes at this intersection, which were discussed in Section 4.3, can be mitigated with the construction of a westbound left turn lane and would be safety improvement for the intersection. Given that, it is recommended that a westbound left-turn lane is constructed at this intersection. It is also recommended that a two-way left turn storage lane is constructed opposite the westbound left turn lane to allow vehicles making a northbound left turn to clear the eastbound lane and then wait in the two-way left turn storage lane until it is safe to merge into westbound traffic. A concept drawing of this mitigation is included at the end of the report.

## 7.2 Description of Capacity Analysis

Capacity analysis is a technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. The measure of effectiveness used for the capacity analysis is referred to as a Level of Service (LOS). Levels of service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Since the most amount of delay to motorists usually occurs at intersections, capacity analysis focuses on intersections, as opposed to highway segments.

The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the *Highway Capacity Manual (HCM) 6<sup>th</sup> Edition* published by the Transportation Research Board (TRB). Traffic analysis software, Synchro 11, which is based on procedures and methodologies contained in the HCM, was used to analyze operating conditions at study area intersections. The procedure yields a level of service based on the HCM as an indicator of how well intersections operate.

Six levels of service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing the conditions with little to no delay, and LOS "F" conditions with very long delays. Suggested ranges of service capacity and an explanation of levels of service are included in the Appendices. LOS "C" or better is desirable, but LOS "D" for signalized locations and LOS "E" for unsignalized locations are generally thresholds of acceptable operation during peak periods so long as the volume to capacity ratio (v/c) is below 1.0. **Table 6** depicts level of service criteria for both signalized and unsignalized intersections.

**Table 6:** *Level of Service Criteria*

LEVEL OF SERVICE	SIGNALIZED CONTROL DELAY PER VEHICLE (seconds)	STOP CONTROL DELAY PER VEHICLE (seconds)
A	< 10	< 10
B	10 – 20	10 – 15
C	20 – 35	15 – 25
D	35 – 55	25 – 35
E	55 – 80	35 – 50
F	> 80	> 50

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LOS for signalized intersections is defined in terms of delay specifically, average total delay per vehicle for a 15-minute analysis period. LOS for unsignalized intersections, however, are different from a signalized intersection. The primary reason for this is driver expectation that a signalized intersection is designed to carry higher volumes than an unsignalized intersection. Unsignalized intersections are also associated with more uncertainty for users, as delays are less predictable than they are at signals.

The v/c ratio, also referred to as degree of saturation, represents the sufficiency of an intersection to accommodate the vehicular demand. A v/c ratio less than 0.85 generally indicates that adequate capacity is available, and vehicles are not expected to experience significant queues and delays. As the v/c ratio approaches 1.0, traffic flow may become unstable, and delay and queuing conditions may occur.

### 7.3 Capacity Analysis Results

Existing and background operating conditions during the peak study periods are evaluated to determine a basis for comparison with the projected future conditions. The future traffic conditions generated by the project were analyzed to assess the operation of the study area intersections. Capacity results for existing, background, and full development conditions are listed in **Table 7**. The discussion following the table summarizes capacity conditions. The detailed Synchro capacity analysis worksheets are contained in the Appendices.

INTERSECTION	2024 EXISTING BASE CONDITIONS				2029 BACKGROUND CONDITIONS				2029 FULL BUILD CONDITIONS				2029 FULL BUILD CONDITIONS WITH MITIGATION			
	AM		PM		AM		PM		AM		PM		AM		PM	
<b>1. Fellows Rd/Penfield Rd (U)</b>																
WB Left - Penfield Rd	A	7.8	B	10.1	A	7.8	B	10.2	A	7.9	B	10.7	A	7.9	B	10.7
NB - Fellows Rd	C	21.9	E	45.5	C	22.8	E	49.9	D	29.7	F	131.4	C	18.7	D	30.7
<b>2. Fellows Rd/Proposed Driveway (U)</b>																
WB - Propsoed Driveway	N/A	---	N/A	---	N/A	---	N/A	---	A	9.3	A	9.7	N/A	---	N/A	---
SB Left - Fellows Rd									A	7.4	A	7.6				
<b>3. Fellows Rd/Furman Rd (U)</b>																
WB - Furman Rd	A	8.9	A	9.3	A	9.0	A	9.3	A	9.1	A	9.7	N/A	---	N/A	---
SB Left - Fellows Rd	A	7.7	A	7.4	A	7.7	A	7.4	A	7.7	A	7.5				
<b>4. Furman Rd/Proposed Driveway (U)</b>																
EB Left - Furman Rd	N/A	---	N/A	---	N/A	---	N/A	---	A	7.3	A	7.3	N/A	---	N/A	---
SB - Proposed Driveway									A	8.5	A	8.5				
<b>5. Fellows Rd/Whitney Rd East/Roxwell Ct (U)</b>																
EB Left - Whitney Rd East	A	8.3	A	7.9	A	8.4	A	7.9	A	8.4	A	8.0	N/A	---	N/A	---
WB Left - Whitney Rd East	A	7.5	A	0.0	A	7.5	A	0.0	A	7.5	A	0.0				
NB - Roxwell Ct	B	14.8	C	18.3	C	15.1	C	18.8	C	16.2	C	20.9				
SB - Fellows Rd	B	13.0	B	14.1	B	13.2	B	14.5	B	14.3	C	16.2				

Notes:

1. A(2.8) = Level of Service (Delay in seconds per vehicle)
2. NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound
3. (S) = Signalized; (U) = Unsignalized
4. N/A = Approach does not exist and/or was not analyzed during this condition
5. Green shaded cells indicate low delays, yellow shaded cells indicate moderate delays, red shaded cells indicate long delays.

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### 1. Fellows Rd/Penfield Rd (Unsignalized)

All approaches operate at LOS "C" or better under existing and background conditions during both peak hours with the exception of the northbound Fellows Rd approach which operates at a LOS "E" during the PM peak hour. Between background and full build conditions the level of service for the northbound approach is projected to change from a LOS "C" to "D" during the AM peak hour and from LOS "E" to "F" during the PM peak hour. With the installation of the westbound left-turn lane and two-way left turn storage lane as noted in Section 7.1, the northbound approach is projected to operate at a LOS "C" during the AM peak hour and LOS "D" during the PM peak hour under full build conditions.

### 2. Fellows Rd/Proposed Driveway (Unsignalized)

All approaches operate at LOS "A" during both peak hours. No improvements are warranted nor recommended at this location. The proposed driveway should consist of one enter and one exit lane.

### 3. Fellows Rd/Furman Rd (Unsignalized)

All approaches operate at LOS "A" under all conditions during both peak hours. No changes in level of service are anticipated and no improvements are warranted nor recommended at this location.

### 4. Furman Rd/Proposed Driveway (Unsignalized)

All approaches operate at LOS "A" during both peak hours. No improvements are warranted nor recommended at this location. The proposed driveway should consist of one enter and one exit lane.

### 5. Fellows Rd/Whitney Rd East (Unsignalized)

All approaches operate at LOS "C" or better under all conditions during both peak hours. Between background and full build conditions the level of service for the southbound approach is projected to change from a LOS "B" to "C" during the PM peak hour, however this is considered a borderline condition as the threshold between LOS "B" and "C" is 15.0 seconds per vehicle and the actual increase in delay projected is 1.7 seconds. No other changes in levels of service are anticipated and no improvements are warranted nor recommended at this location.

## 8.0 CONCLUSIONS AND RECOMMENDATIONS

This Traffic Impact Study identified and evaluated the potential traffic impacts that can be expected from the proposed development located along Fellows Rd in the Town of Perinton, NY. The results of this study determined that the existing transportation network can adequately accommodate the projected traffic volumes and resulting minor impacts to study area intersections with the noted mitigation in place. The following sets forth the conclusions and recommendations based upon the results of the analyses:

### *Conclusions*

1. The proposed project is expected to generate approximately 38 entering/114 exiting vehicle trips during the AM peak hour and 117 entering/72 exiting vehicle trips during the PM peak hour.
2. Based on the results of the crash analysis, there are no inherent safety deficiencies at any of the study intersections.
3. The available sight distances along Fellows Rd at the existing Furman Rd intersection to the right exceed the required stopping sight distance (SSD) and desirable intersection sight distance (ISD). To the left, the available sight distance exceeds the required SSD, however, the desirable ISD is not met. There is an existing intersection

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warning sign located approximately  $\pm 565'$  to the south of the existing intersection which offsets the less than desirable ISD. Given that, no mitigation is required at this intersection related to existing sight distances.

4. The combination of westbound traffic volumes turning left into Fellows Rd from Penfield Rd and the design speed of Penfield Rd indicate that a left-turn treatment is warranted during the PM peak hour under background and full development conditions but not during the AM peak hour under either background or full build conditions.
5. The detailed analysis contained in this Traffic Impact Study demonstrates the proposed project will not result in any potentially significant adverse environmental impacts for the purpose of the environmental review of the project pursuant to the State Environmental Quality Review Act ("SEQRA").

### ***Recommendations***

6. It is recommended that a westbound left-turn lane is constructed at the Penfield Rd/Fellows Rd intersection. It is also recommended that a two-way left turn storage lane is constructed opposite the westbound left turn lane to allow vehicles making a northbound left turn to clear the eastbound lane and then wait in the two-way left turn storage lane until it is safe to merge into westbound traffic. It should be noted that three of the crashes at this intersection, which were discussed in Section 4.3, can be mitigated with the construction of a westbound left turn lane and would be safety improvement for the intersection.
7. The proposed driveway along Fellows Rd should be designed to provide one enter and one exit lane.
8. The proposed driveway along Furman Rd should be designed to provide one enter and one exit lane.

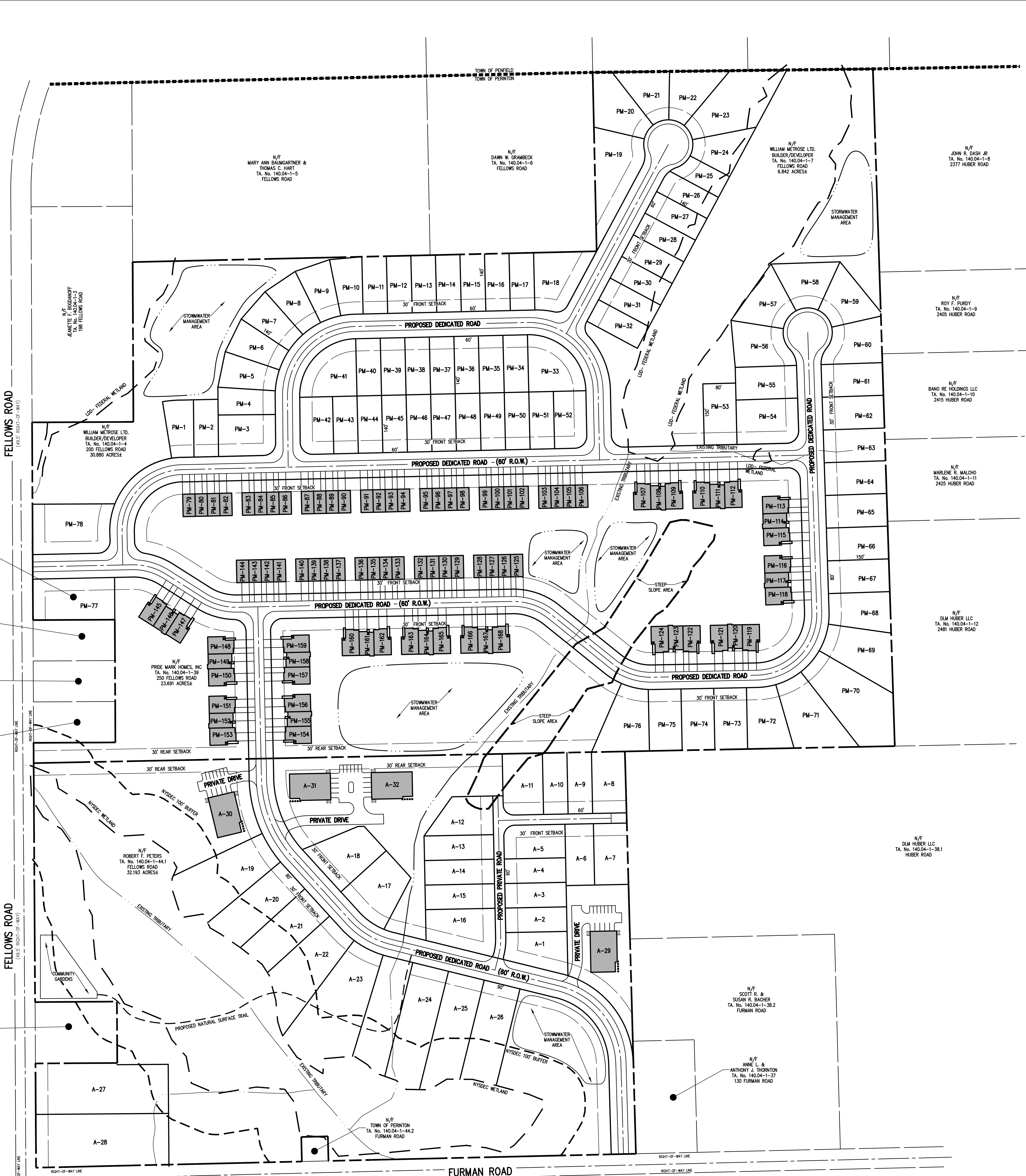
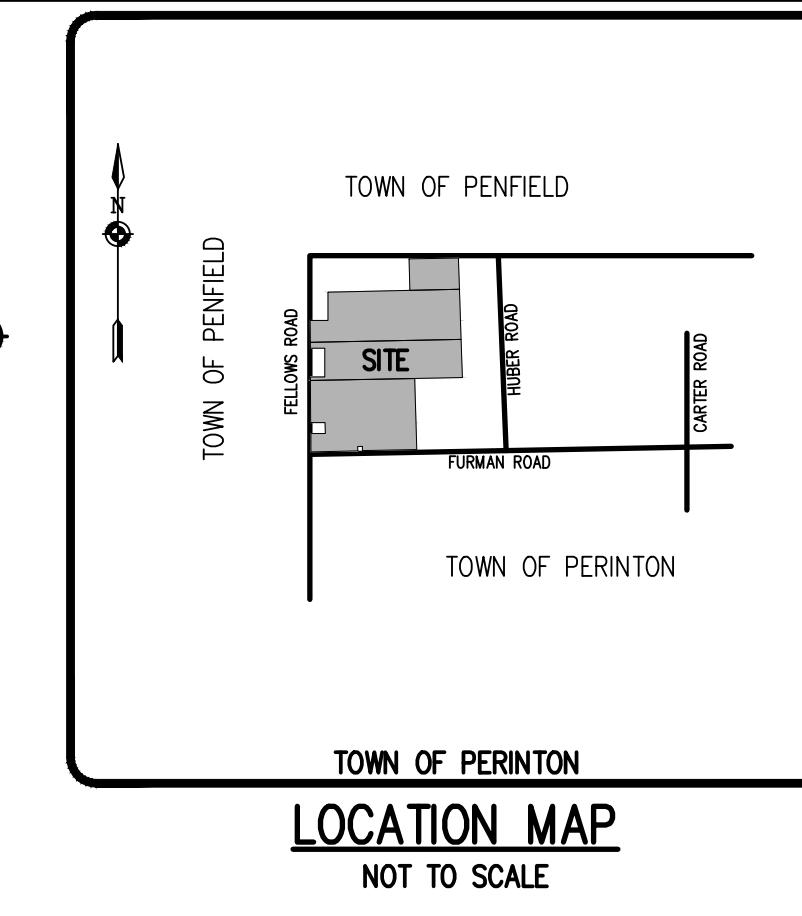


## 9.0 REFERENCES

- Synchro 11 Software. Cubic ITS.
- Highway Capacity Manual (HCM 6<sup>th</sup> Edition). Transportation Research Board (TRB). Washington, DC. 2016.
- Highway Functional Classification Concepts, Criteria, and Procedures. FHWA. 2013.
- Trip Generation (11<sup>th</sup> Edition). Institute of Transportation Engineers (ITE). Washington, DC. 2021.
- OnTheMap. US Census Bureau. 2023.
- Traffic Data Viewer. New York State Department of Transportation (NYSDOT). 2023.
- NCHRP Report 279 Intersection Channelization Design Guide. TRB. 1985.

## 10.0 FIGURES

Figures 1 through 7 are included on the following pages.



CONCEPT SITE NOTES:

- TOTAL PROJECT AREA: 494.1 ACRES
  - a. ARISTO DEVELOPMENT (T.A. #140.04-1-44.1): 432.2 ACRES
  - b. PRIDEMARK HOMES (T.A. #140.04-1-39 & 40, 140.04-1-04 & 07): 461.9 ACRES
- EXISTING ZONING: RESIDENTIAL R-1-2-5  
PROPOSED ZONING: RESIDENTIAL P0D
- PROPOSED DEVELOPMENT:
 

PROPERTY	CONVENTIONAL YIELD	PROPOSED DEVELOPMENT
ARISTO	21 SINGLE FAMILY LOTS	A-1 - A-28: 2 SINGLE FAMILY LOTS A-27 - A-30: 2-2 STORY CONDO BUILDINGS @ 7 UNITS EACH SUBTOTAL: 56 UNITS
PRIDEMARK	44 SINGLE FAMILY LOTS	PM-1 - PM-52: 4 PATIO HOME LOTS @ 60' WIDE PM-53 - PM-78: 39 SINGLE FAMILY LOTS @ 80' WIDE PM-79 - PM-188: 99 TOWNHOUSE UNITS SUBTOTAL: 168 UNITS
OVERALL	65 SINGLE FAMILY LOTS	TOTAL: 224 UNITS
DENSITY	0.70 LOTS/ACRE	2.38 UNITS/ACRE
- LOT STANDARDS
 

	MIN. LOT AREA	MIN. LOT WIDTH	MIN. LOT DEPTH
ARISTO LANDS			
PATIO LOTS (A-1 - A-16)	11,250 SF	60'	150'
SINGLE FAMILY LOTS (A-17 - A-26)	13,500 SF	90'	150'
FRONTAGE LOTS (A-27 - A-28)	37,500 SF	125'	300'
CONDOMINIUM FOOTPRINT (A-27 - A-30)	6,500 SF	100'	65'
PRIDEMARK HOMES LANDS			
PATIO LOTS (PM-1 - PM-52)	8,400 SF	60'	140'
SINGLE FAMILY LOTS (PM-53 - PM-78)	12,000 SF	80'	150'
FRONTAGE LOTS (PM-77 - PM-78)	20,000 SF	100'	200'
TOWNHOUSE UNITS (FOOTPRINT)			
PM-79 - PM-108 & PM-125 - PM-144	1,650 SF	30'	55'
PM-107 - PM-124 & PM-145 - PM-168	2,275 SF	35'	65'

Drainage information: This drawing is not a site plan for any project, unless the site plan is approved by the local planning commission or the local health officer. It is not a site plan for any project unless the local planning commission or the local health officer has approved the site plan. It is not a site plan for any project unless the local planning commission or the local health officer has approved the site plan.

NO.	REVISIONS	DATE	BY
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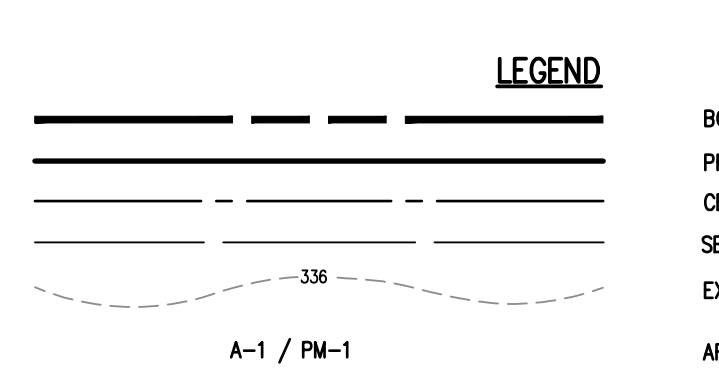
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 WWW.BMEASSOCIATES.COM

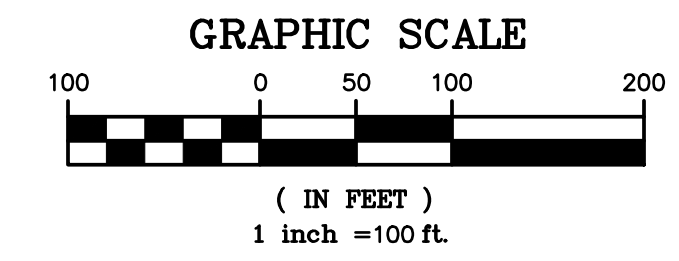
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LOCATION: TOWN OF PERINTON, MONROE COUNTY, NEW YORK STATE  
CLIENT: ARISTO DEVELOPMENT, INC. / WILSON JOHNSON ARCHITECTS  
DRAWING TITLE: OVERALL DEVELOPMENT CONCEPT PLAN

PROJECT MANAGER: FIG. VANS  
PROJECT ENGINEER: BT. DESIRO  
DRAWN BY: JR. SOUMER  
SCALE: 1" = 100'  
DATE ISSUED: DECEMBER 2023

PROJECT NO.: 2789  
DRAWING NO.: SK-1



BOUNDARY LINE  
PROPOSED LOT LINE  
CENTERLINE  
SETBACK LINE  
EXISTING CONTOUR



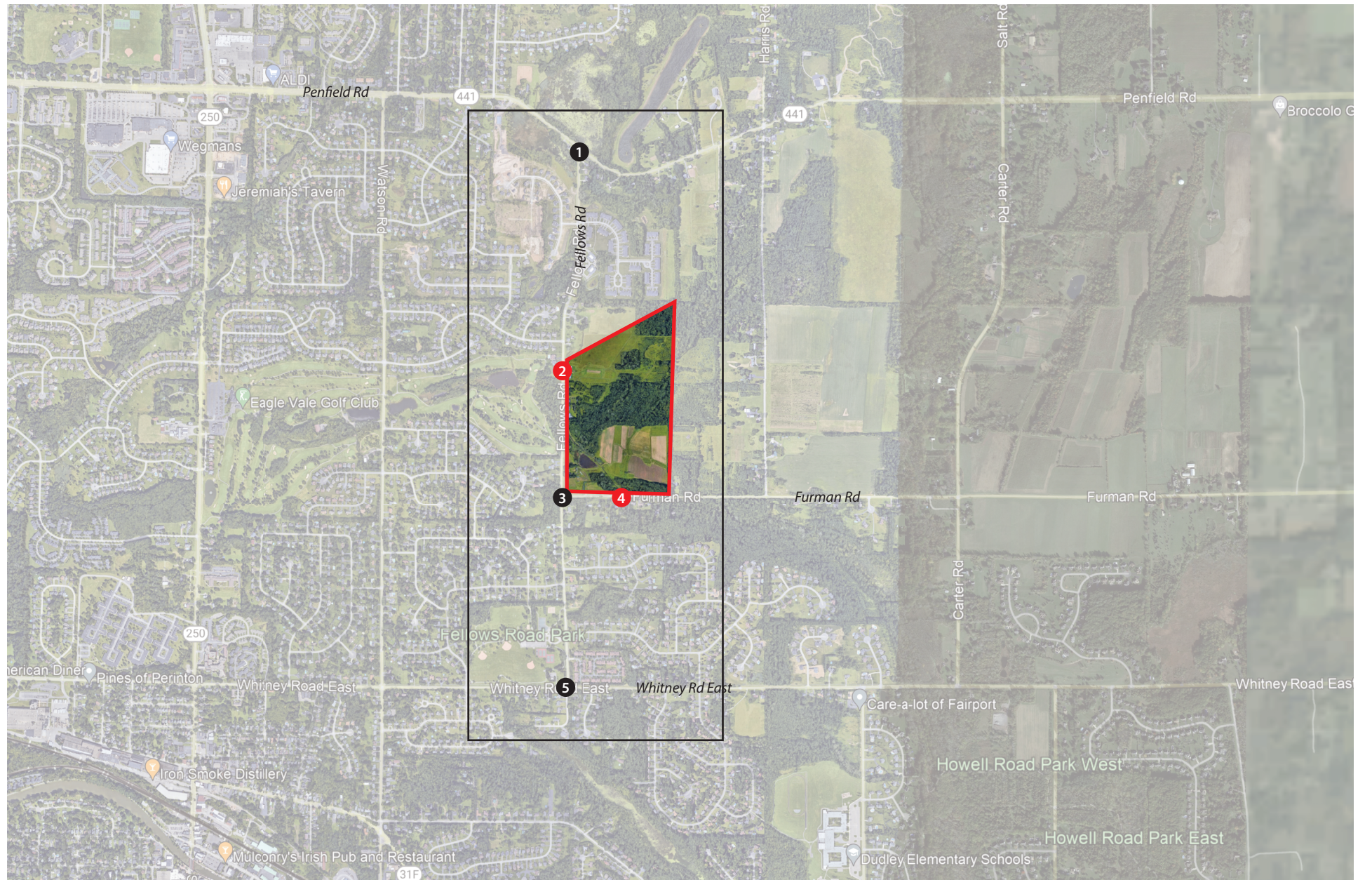
NOT APPROVED  
This plan has not received final approval of all reviewing agencies. This plan is subject to revisions until all approvals are obtained and should not be used for construction purposes.



**Fellows Road Properties** | Town of Perinton, Monroe County, NY

**Left Turn Lane Concept**

Figure 1



**Fellows Road Properties | Town of Perinton, Monroe County, NY**



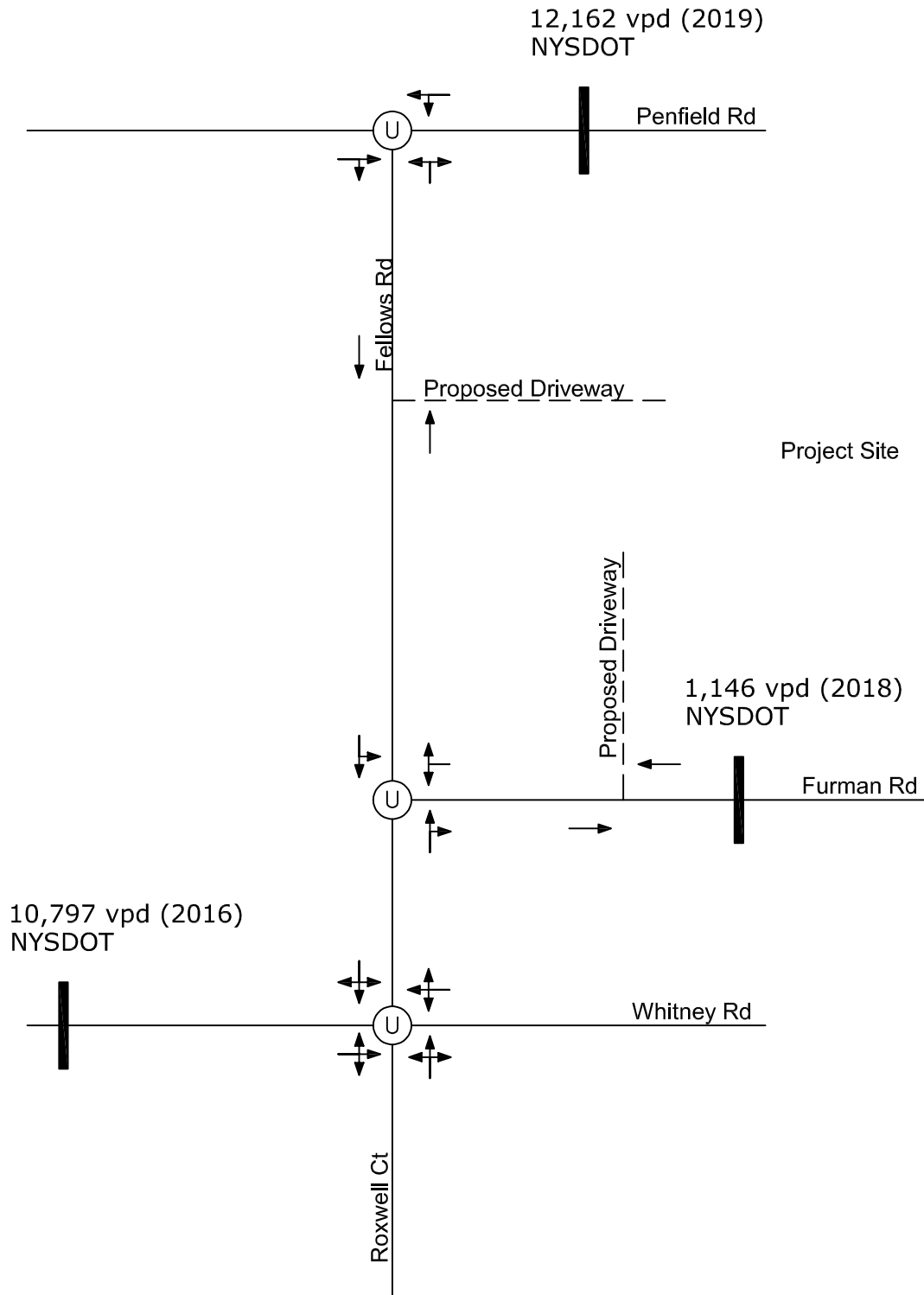
**Site Location and Study Area**

- Key:
- Study Intersection
  - Proposed Intersection
  - Study Area
  - Project Location

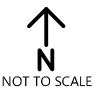
**Figure 2**

Notes:

1. All AADT volumes by those noted:
  - 1.1. NYSDOT = New York State Department of Transportation.
  - 1.2. PA = Passero Associates.
2. vpd = Vehicles per day.
3. Turn lane lengths shown include only storage.



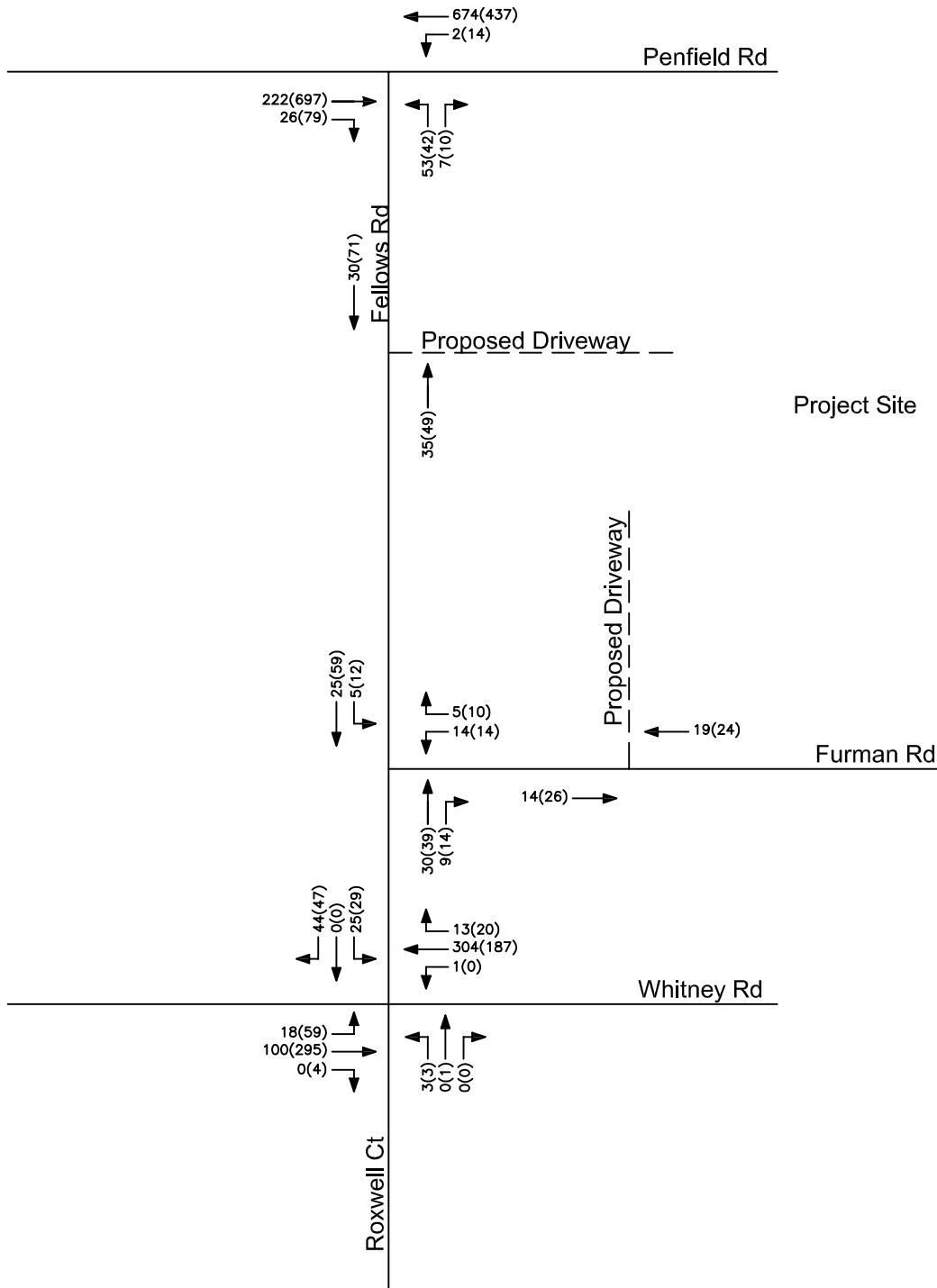
**Fellows Road Properties** | Town of Perinton, NY



**Lane Geometry and  
Average Daily Traffic**

- KEY:
- Proposed Roadway
  - U = Unsignalized
  - S = Signalized

Figure 3A



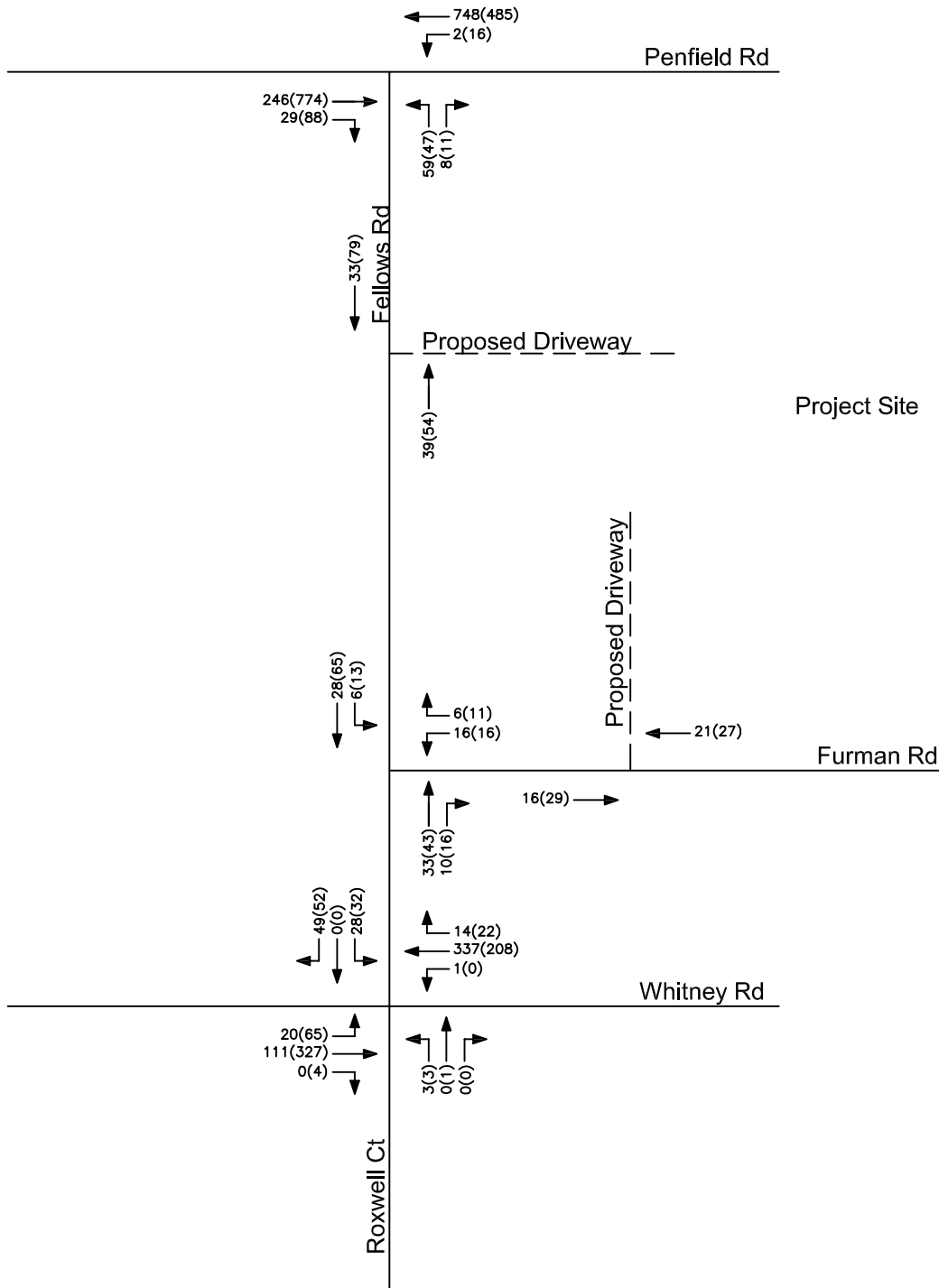
Fellows Road Properties | Town of Perinton, NY

Peak Hour Volumes  
2024 Existing Conditions

KEY:  
00(00) = AM(PM)  
--- Proposed Roadway



Figure 3B



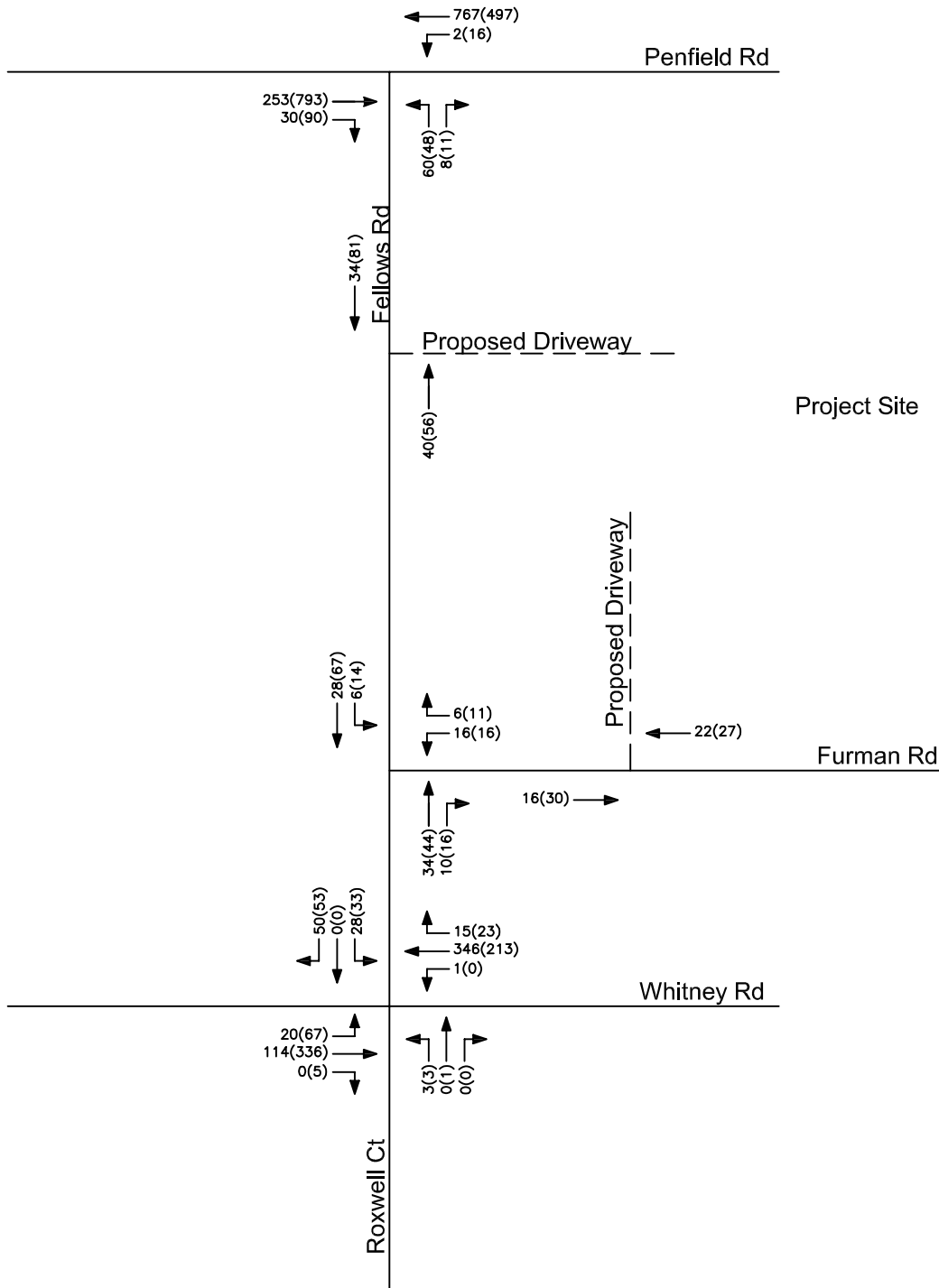
**Fellows Road Properties** | Town of Perinton, NY

**Peak Hour Volumes**  
**2024 Adjusted Base Conditions**



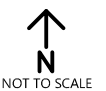
KEY:  
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--- Proposed Roadway

Figure 4



**Fellows Road Properties** | Town of Perinton, NY

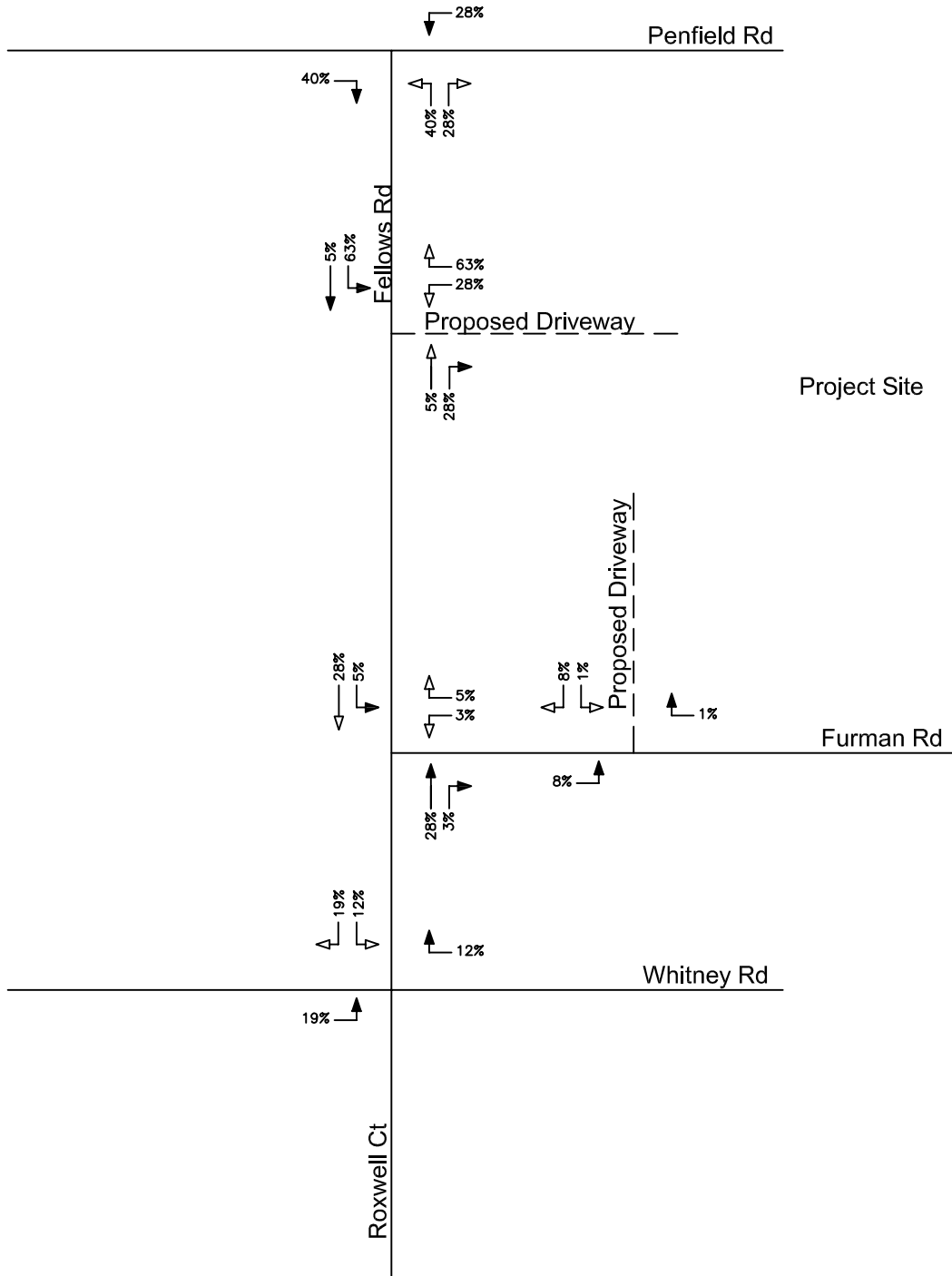
**Peak Hour Volumes  
2029 Background Conditions**



KEY:  
00(00) = AM(PM)  
--- Proposed Roadway



Figure 5



**Fellows Road Properties** | Town of Perinton, NY

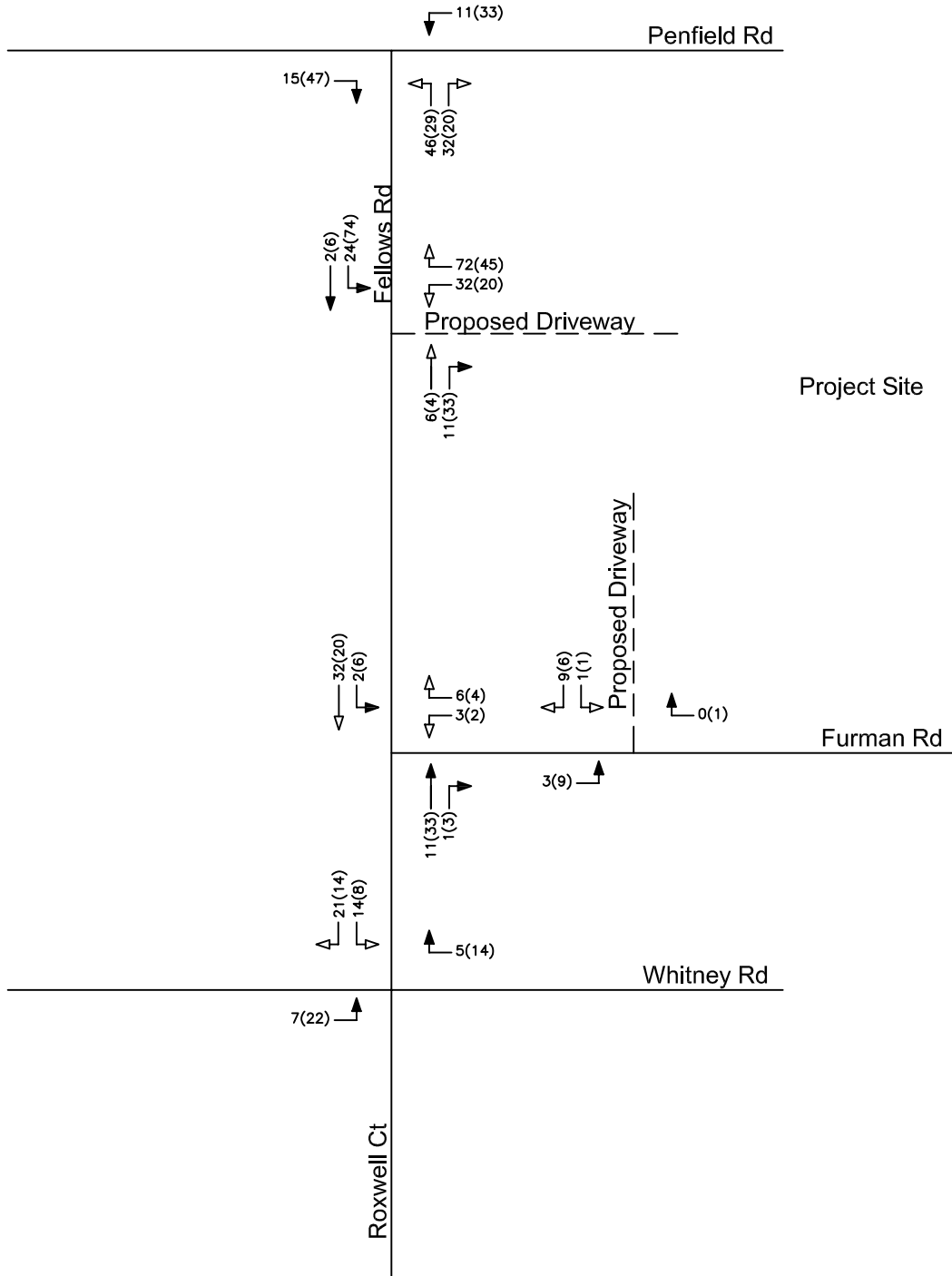
**Trip Distribution**



NOT TO SCALE

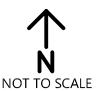
- KEY:
- 00(00) = AM(PM)
  - Entering Trip
  - ← Exiting Trip
  - Proposed Roadway

Figure 6



**Fellows Road Properties** | Town of Perinton, NY

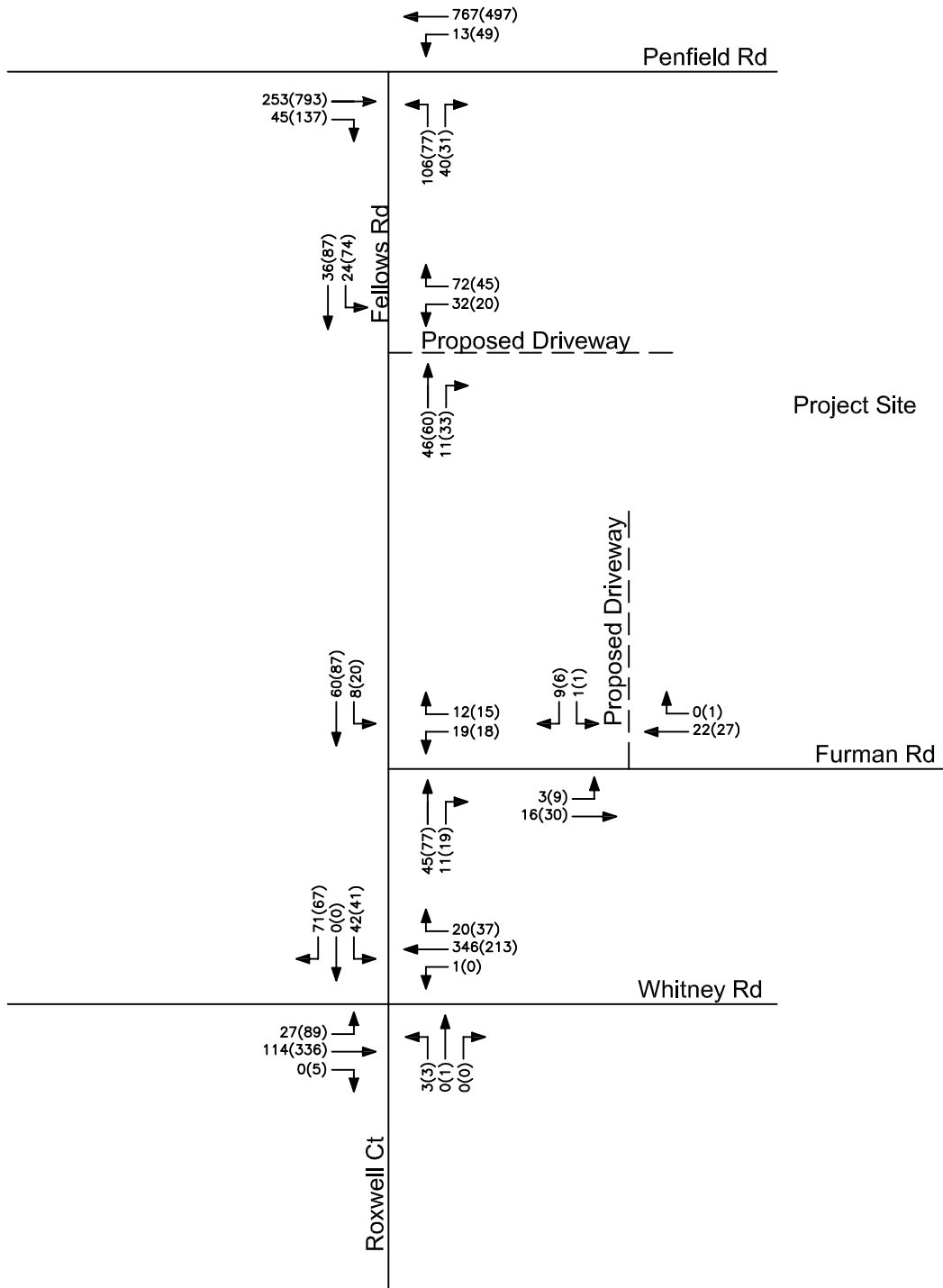
**Site Generated Trips**



NOT TO SCALE

- KEY:
- 00(00) = AM(PM)
  - Entering Trip
  - ← Exiting Trip
  - Proposed Roadway

Figure 7



**Fellows Road Properties** | Town of Perinton, NY

**Peak Hour Volumes**  
**Full Build Conditions**

KEY:  
00(00) = AM(PM)  
--- Proposed Roadway



# APPENDICES

## **APPENDIX A: EXISTING TRAFFIC COUNT DATA**

**Fellows Road and Penfield Road Perinton Week... - TMC**

Fri Jan 19, 2024

Full Length (7 AM-9 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149379, Location: 43.128582, -77.422122

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Penfield Road Northwestbound				Fellows Road Northbound				Penfield Road Southeastbound				
Time	T	HL	U	App	HR	BL	U	App	BR	T	U	App	Int
2024-01-19 7:00AM	161	0	0	161	3	17	0	20	6	48	0	54	235
7:15AM	179	0	0	179	2	12	0	14	6	53	0	59	252
7:30AM	171	0	0	171	2	15	0	17	6	58	0	64	252
7:45AM	168	1	0	169	3	14	0	17	4	53	0	57	243
Hourly Total	679	1	0	680	10	58	0	68	22	212	0	234	982
8:00AM	156	1	0	157	0	12	0	12	10	58	0	68	237
8:15AM	162	3	0	165	2	10	0	12	14	47	0	61	238
8:30AM	151	1	0	152	1	16	0	17	11	51	0	62	231
8:45AM	113	0	0	113	3	13	0	16	14	65	0	79	208
Hourly Total	582	5	0	587	6	51	0	57	49	221	0	270	914
<b>Total</b>	1261	6	0	1267	16	109	0	125	71	433	0	504	1896
<b>% Approach</b>	99.5%	0.5%	0%	-	12.8%	87.2%	0%	-	14.1%	85.9%	0%	-	-
<b>% Total</b>	66.5%	0.3%	0%	66.8%	0.8%	5.7%	0%	6.6%	3.7%	22.8%	0%	26.6%	-
<b>Lights and Motorcycles</b>	1231	5	0	1236	15	109	0	124	64	397	0	461	1821
<b>% Lights and Motorcycles</b>	97.6%	83.3%	0%	97.6%	93.8%	100%	0%	99.2%	90.1%	91.7%	0%	91.5%	96.0%
<b>Heavy</b>	30	1	0	31	1	0	0	1	7	36	0	43	75
<b>% Heavy</b>	2.4%	16.7%	0%	2.4%	6.3%	0%	0%	0.8%	9.9%	8.3%	0%	8.5%	4.0%

\*BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, T: Thru, U: U-Turn

Fellows Road and Penfield Road Perinton Week... - TMC

Fri Jan 19, 2024

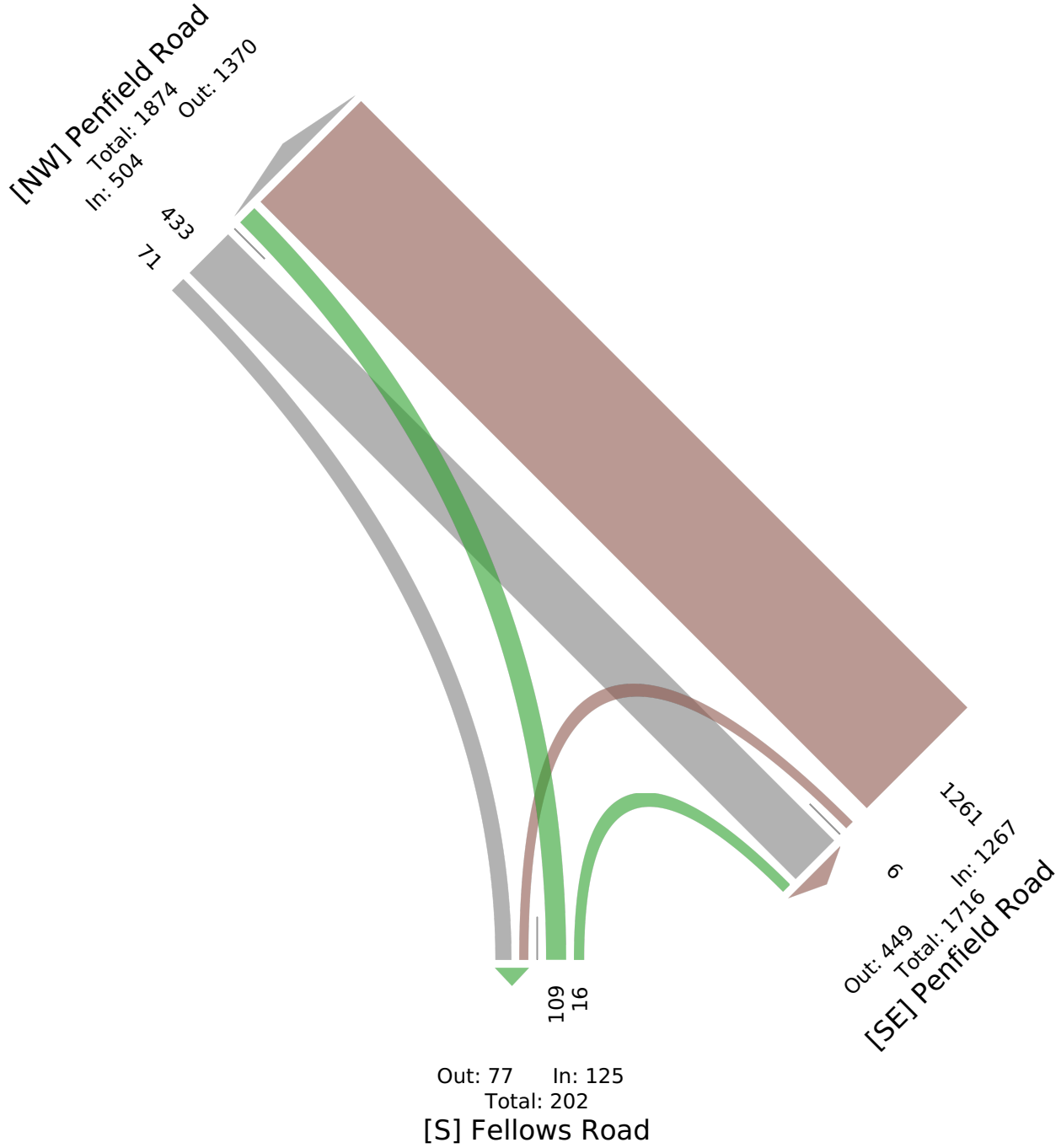
Full Length (7 AM-9 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149379, Location: 43.128582, -77.422122

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US



Fellows Road and Penfield Road Perinton Week... - TMC

Fri Jan 19, 2024

AM Peak (7:15 AM - 8:15 AM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149379, Location: 43.128582, -77.422122

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Penfield Road Northwestbound				Fellows Road Northbound				Penfield Road Southeastbound				
Time	T	HL	U	App	HR	BL	U	App	BR	T	U	App	Int
2024-01-19 7:15AM	179	0	0	179	2	12	0	14	6	53	0	59	252
7:30AM	171	0	0	171	2	15	0	17	6	58	0	64	252
7:45AM	168	1	0	169	3	14	0	17	4	53	0	57	243
8:00AM	156	1	0	157	0	12	0	12	10	58	0	68	237
<b>Total</b>	674	2	0	676	7	53	0	60	26	222	0	248	984
<b>% Approach</b>	99.7%	0.3%	0%	-	11.7%	88.3%	0%	-	10.5%	89.5%	0%	-	-
<b>% Total</b>	68.5%	0.2%	0%	68.7%	0.7%	5.4%	0%	6.1%	2.6%	22.6%	0%	25.2%	-
<b>PHF</b>	0.941	0.500	-	0.944	0.583	0.883	-	0.882	0.650	0.957	-	0.912	0.976
<b>Lights and Motorcycles</b>	663	2	0	665	7	53	0	60	23	203	0	226	951
<b>% Lights and Motorcycles</b>	98.4%	100%	0%	98.4%	100%	100%	0%	100%	88.5%	91.4%	0%	91.1%	96.6%
<b>Heavy</b>	11	0	0	11	0	0	0	0	3	19	0	22	33
<b>% Heavy</b>	1.6%	0%	0%	1.6%	0%	0%	0%	0%	11.5%	8.6%	0%	8.9%	3.4%

\*BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, T: Thru, U: U-Turn



Fellows Road and Penfield Road Perinton Week... - TMC

Fri Jan 19, 2024

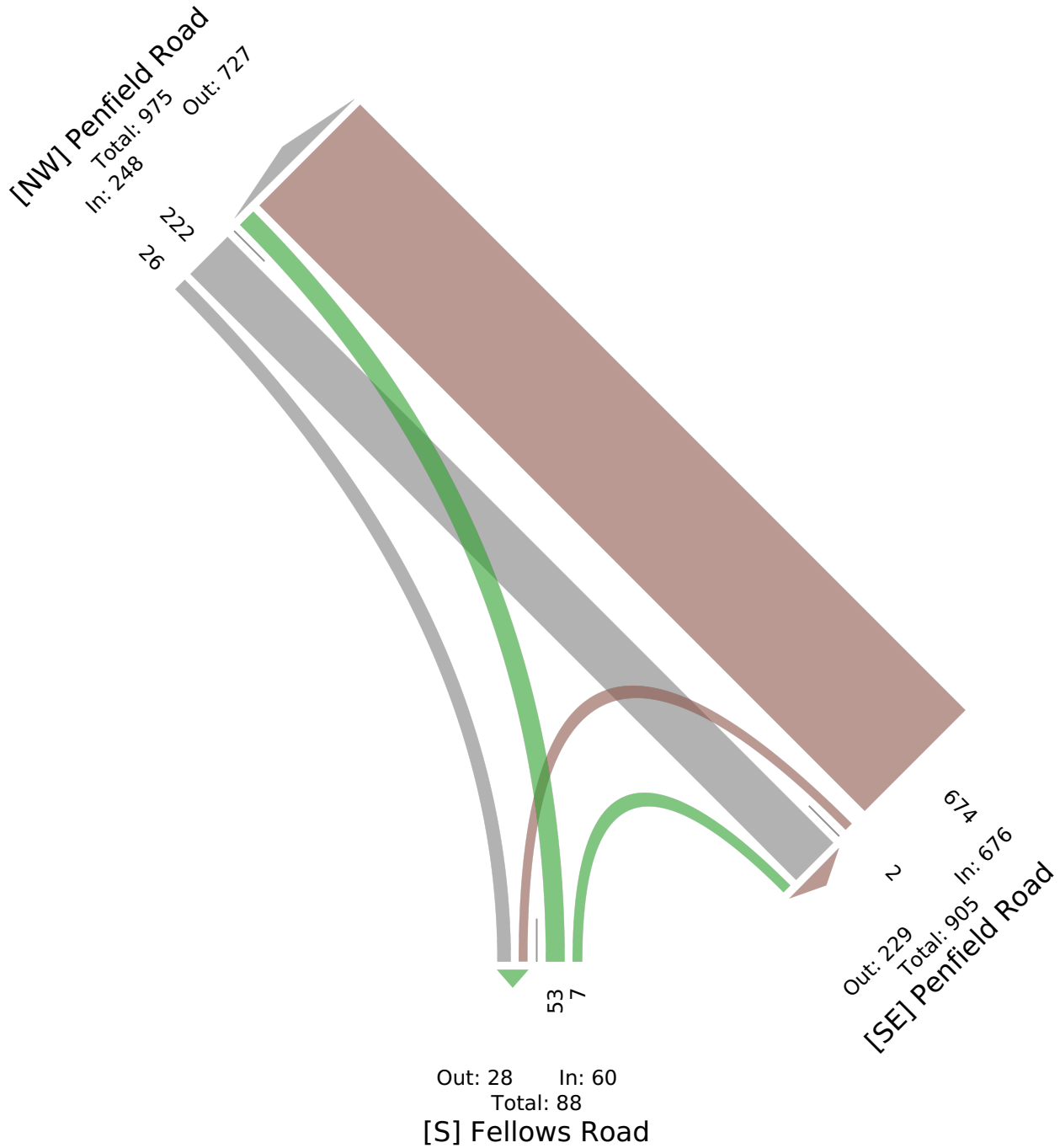
AM Peak (7:15 AM - 8:15 AM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149379, Location: 43.128582, -77.422122

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US



**Fellows Road and Penfield Road Perinton Week... - TMC**

Thu Jan 18, 2024

Full Length (4 PM-6 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149378, Location: 43.128582, -77.422122

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Penfield Road Northwestbound				Fellows Road Northbound				Penfield Road Southeastbound				
Time	T	HL	U	App	HR	BL	U	App	BR	T	U	App	Int
2024-01-18 4:00PM	87	2	0	89	4	11	0	15	15	175	0	190	294
4:15PM	111	2	0	113	5	14	0	19	19	147	0	166	298
4:30PM	123	1	0	124	2	14	0	16	19	198	0	217	357
4:45PM	96	3	0	99	3	12	0	15	24	167	0	191	305
Hourly Total	417	8	0	425	14	51	0	65	77	687	0	764	1254
5:00PM	108	4	0	112	4	8	0	12	15	175	0	190	314
5:15PM	110	6	0	116	1	8	0	9	21	157	0	178	303
5:30PM	97	1	0	98	1	11	0	12	11	182	0	193	303
5:45PM	71	0	0	71	4	5	0	9	18	161	0	179	259
Hourly Total	386	11	0	397	10	32	0	42	65	675	0	740	1179
<b>Total</b>	803	19	0	822	24	83	0	107	142	1362	0	1504	2433
<b>% Approach</b>	97.7%	2.3%	0%	-	22.4%	77.6%	0%	-	9.4%	90.6%	0%	-	-
<b>% Total</b>	33.0%	0.8%	0%	33.8%	1.0%	3.4%	0%	4.4%	5.8%	56.0%	0%	61.8%	-
<b>Lights and Motorcycles</b>	782	19	0	801	24	83	0	107	142	1348	0	1490	2398
<b>% Lights and Motorcycles</b>	97.4%	100%	0%	97.4%	100%	100%	0%	100%	100%	99.0%	0%	99.1%	98.6%
<b>Heavy</b>	21	0	0	21	0	0	0	0	0	14	0	14	35
<b>% Heavy</b>	2.6%	0%	0%	2.6%	0%	0%	0%	0%	0%	1.0%	0%	0.9%	1.4%

\*BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, T: Thru, U: U-Turn

Fellows Road and Penfield Road Perinton Week... - TMC

Thu Jan 18, 2024

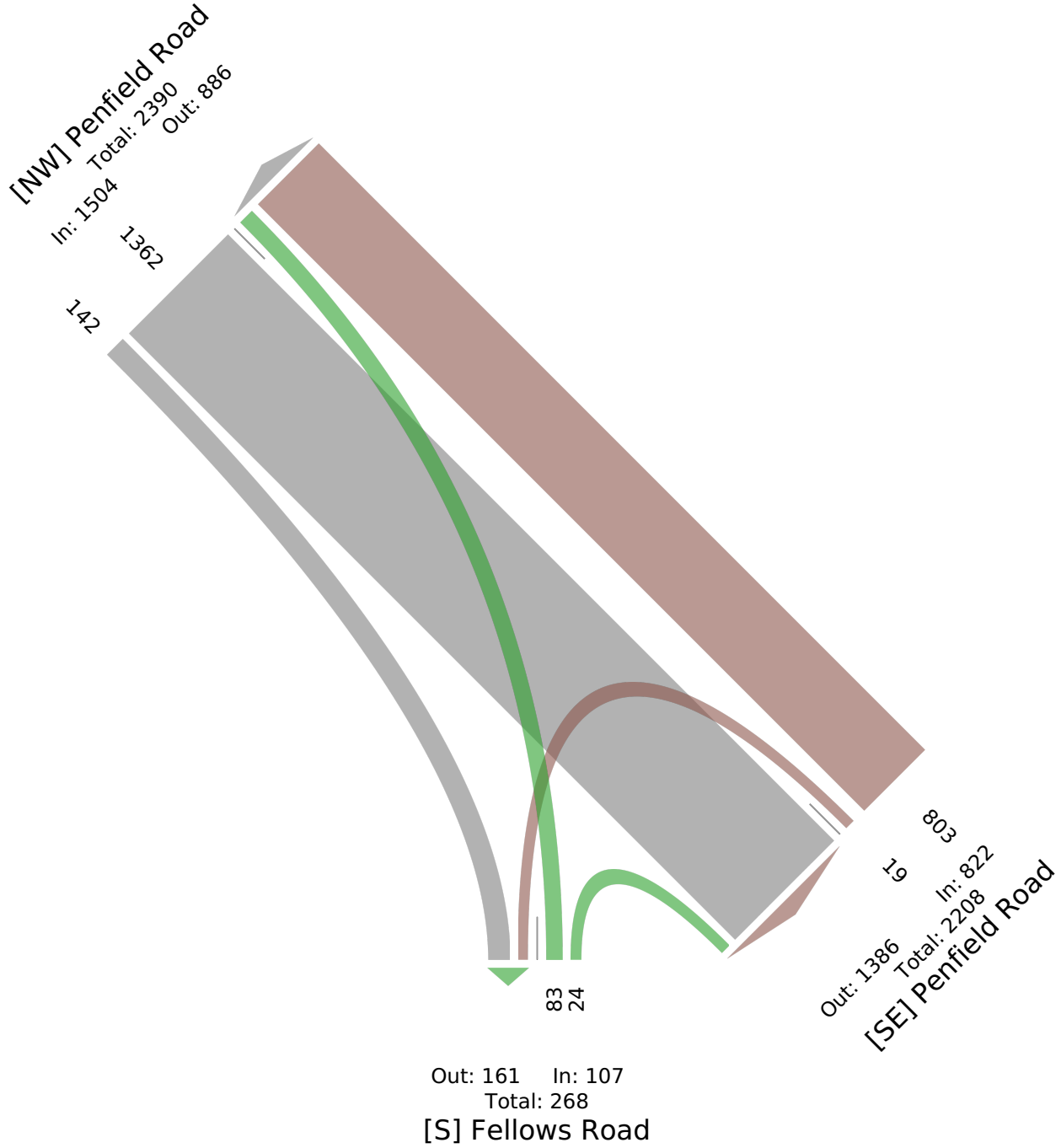
Full Length (4 PM-6 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149378, Location: 43.128582, -77.422122

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US



Fellows Road and Penfield Road Perinton Week... - TMC

Thu Jan 18, 2024

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149378, Location: 43.128582, -77.422122

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Penfield Road Northwestbound				Fellows Road Northbound				Penfield Road Southeastbound				
Time	T	HL	U	App	HR	BL	U	App	BR	T	U	App	Int
2024-01-18 4:30PM	123	1	0	124	2	14	0	16	19	198	0	217	357
4:45PM	96	3	0	99	3	12	0	15	24	167	0	191	305
5:00PM	108	4	0	112	4	8	0	12	15	175	0	190	314
5:15PM	110	6	0	116	1	8	0	9	21	157	0	178	303
<b>Total</b>	437	14	0	451	10	42	0	52	79	697	0	776	1279
<b>% Approach</b>	96.9%	3.1%	0%	-	19.2%	80.8%	0%	-	10.2%	89.8%	0%	-	-
<b>% Total</b>	34.2%	1.1%	0%	35.3%	0.8%	3.3%	0%	4.1%	6.2%	54.5%	0%	60.7%	-
<b>PHF</b>	0.888	0.583	-	0.909	0.625	0.750	-	0.813	0.823	0.880	-	0.894	0.896
<b>Lights and Motorcycles</b>	429	14	0	443	10	42	0	52	79	690	0	769	1264
<b>% Lights and Motorcycles</b>	98.2%	100%	0%	98.2%	100%	100%	0%	100%	100%	99.0%	0%	99.1%	98.8%
<b>Heavy</b>	8	0	0	8	0	0	0	0	0	7	0	7	15
<b>% Heavy</b>	1.8%	0%	0%	1.8%	0%	0%	0%	0%	0%	1.0%	0%	0.9%	1.2%

\*BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, T: Thru, U: U-Turn

Fellows Road and Penfield Road Perinton Week... - TMC

Thu Jan 18, 2024

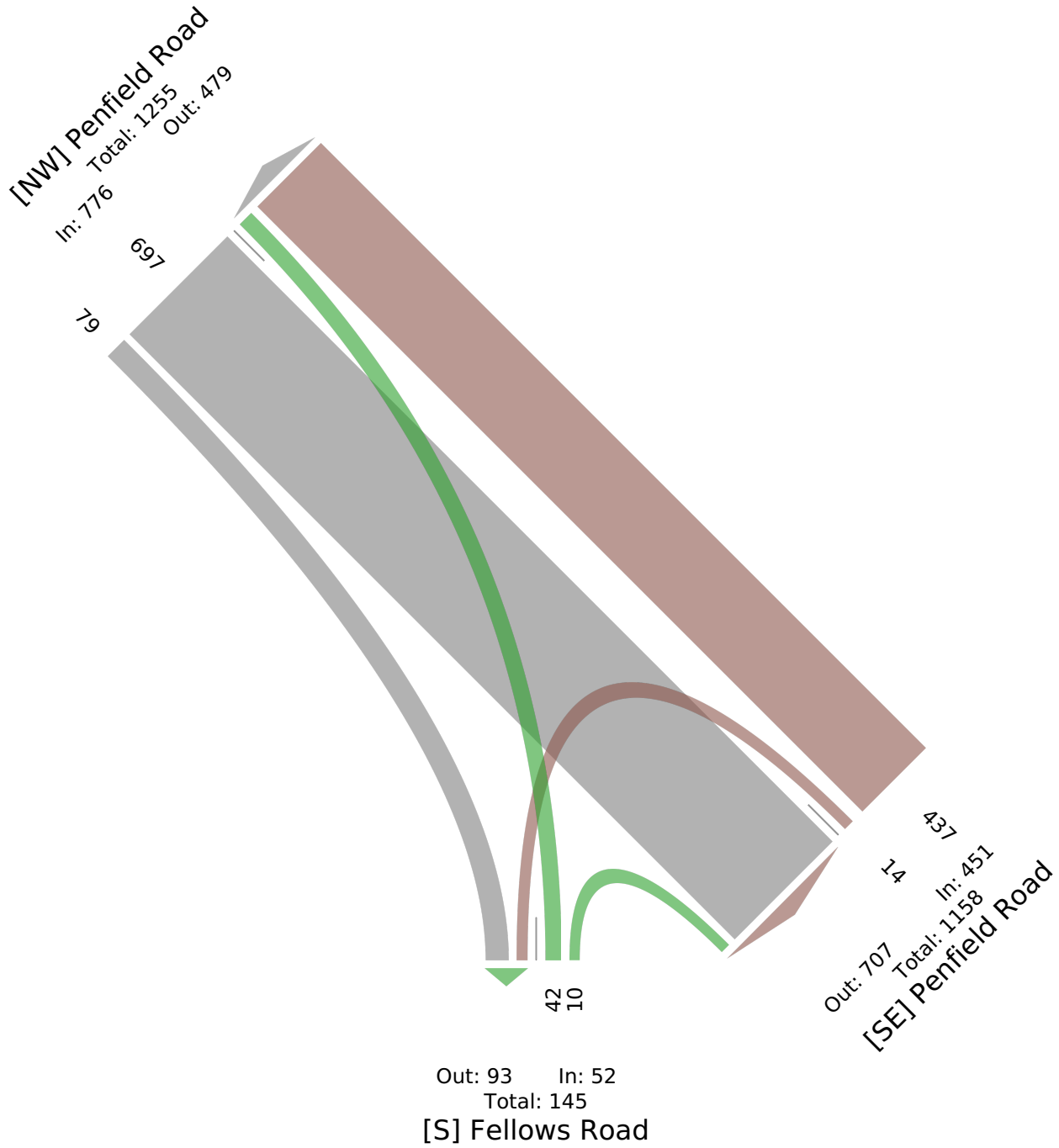
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149378, Location: 43.128582, -77.422122

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US



Fellows Road and Furman Road Perinton Weekda... - TMC

Fri Jan 19, 2024

Full Length (7 AM-9 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149375, Location: 43.115548, -77.422969

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Fellows Road Southbound				Furman Road Westbound				Fellows Road Northbound				
Time	T	L	U	App	R	L	U	App	R	T	U	App	Int
2024-01-19 7:00AM	10	0	0	10	0	4	0	4	3	11	0	14	28
7:15AM	3	2	0	5	2	3	0	5	0	12	0	12	22
7:30AM	5	1	0	6	1	3	0	4	5	8	0	13	23
7:45AM	7	1	0	8	1	4	0	5	0	7	0	7	20
Hourly Total	25	4	0	29	4	14	0	18	8	38	0	46	93
8:00AM	8	1	0	9	1	4	0	5	4	3	0	7	21
8:15AM	14	0	0	14	1	3	0	4	0	2	0	2	20
8:30AM	13	1	0	14	1	2	0	3	1	9	0	10	27
8:45AM	11	2	0	13	2	2	0	4	1	10	0	11	28
Hourly Total	46	4	0	50	5	11	0	16	6	24	0	30	96
<b>Total</b>	71	8	0	79	9	25	0	34	14	62	0	76	189
<b>% Approach</b>	89.9%	10.1%	0%	-	26.5%	73.5%	0%	-	18.4%	81.6%	0%	-	-
<b>% Total</b>	37.6%	4.2%	0%	41.8%	4.8%	13.2%	0%	18.0%	7.4%	32.8%	0%	40.2%	-
<b>Lights and Motorcycles</b>	67	6	0	73	8	23	0	31	12	62	0	74	178
<b>% Lights and Motorcycles</b>	94.4%	75.0%	0%	92.4%	88.9%	92.0%	0%	91.2%	85.7%	100%	0%	97.4%	94.2%
<b>Heavy</b>	4	2	0	6	1	2	0	3	2	0	0	2	11
<b>% Heavy</b>	5.6%	25.0%	0%	7.6%	11.1%	8.0%	0%	8.8%	14.3%	0%	0%	2.6%	5.8%

\*L: Left, R: Right, T: Thru, U: U-Turn

Fellows Road and Furman Road Perinton Weekda... - TMC

Fri Jan 19, 2024

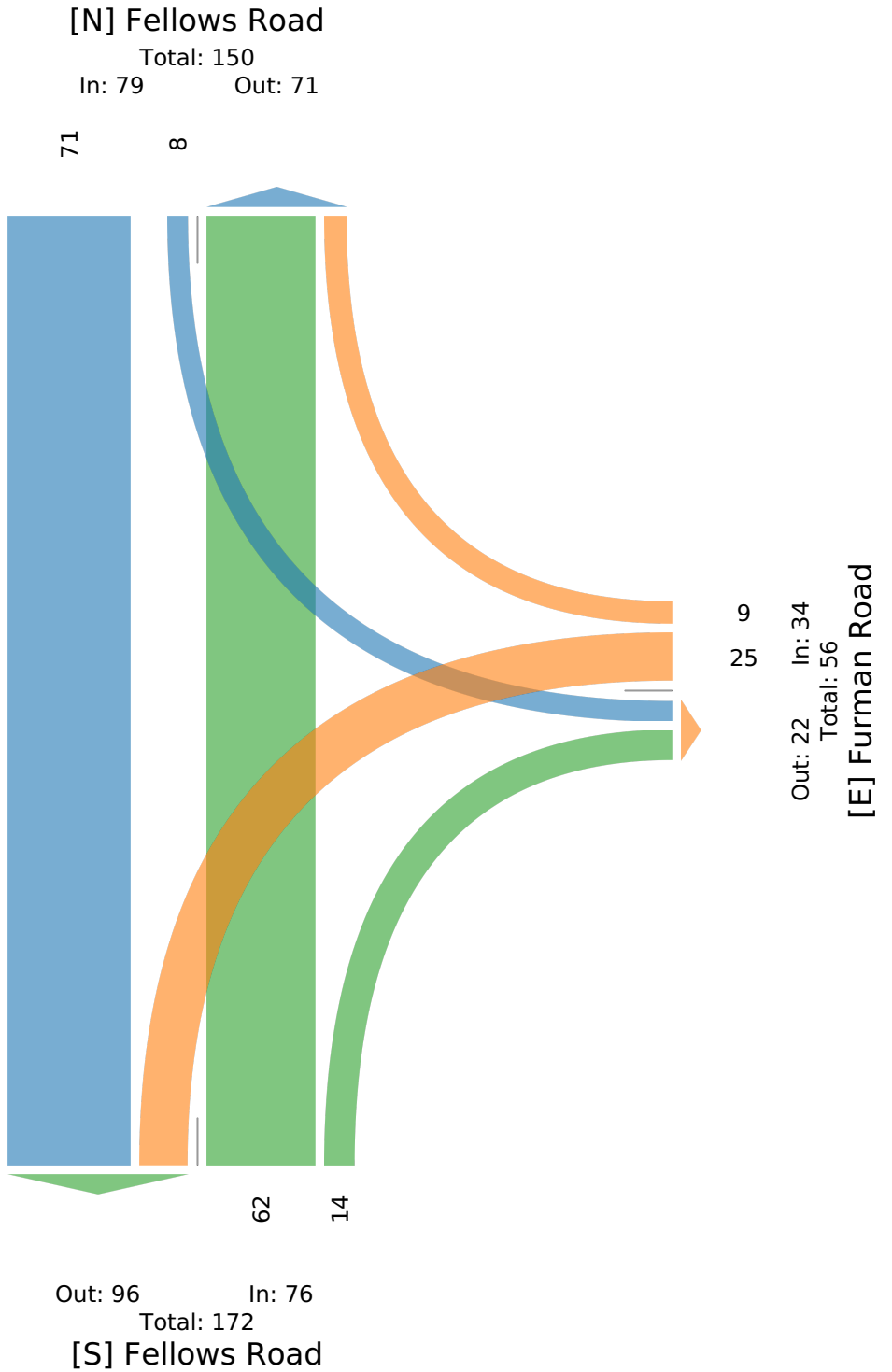
Full Length (7 AM-9 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149375, Location: 43.115548, -77.422969

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US



Fellows Road and Furman Road Perinton Weekda... - TMC

Fri Jan 19, 2024

Forced Peak (7:15 AM - 8:15 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149375, Location: 43.115548, -77.422969

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Fellows Road Southbound				Furman Road Westbound				Fellows Road Northbound				
Time	T	L	U	App	R	L	U	App	R	T	U	App	Int
2024-01-19 7:15AM	3	2	0	5	2	3	0	5	0	12	0	12	22
7:30AM	5	1	0	6	1	3	0	4	5	8	0	13	23
7:45AM	7	1	0	8	1	4	0	5	0	7	0	7	20
8:00AM	8	1	0	9	1	4	0	5	4	3	0	7	21
<b>Total</b>	23	5	0	28	5	14	0	19	9	30	0	39	86
<b>% Approach</b>	82.1%	17.9%	0%	-	26.3%	73.7%	0%	-	23.1%	76.9%	0%	-	-
<b>% Total</b>	26.7%	5.8%	0%	32.6%	5.8%	16.3%	0%	22.1%	10.5%	34.9%	0%	45.3%	-
<b>PHF</b>	0.719	0.625	-	0.778	0.625	0.875	-	0.950	0.450	0.625	-	0.750	0.935
<b>Lights and Motorcycles</b>	23	3	0	26	5	13	0	18	7	30	0	37	81
<b>% Lights and Motorcycles</b>	100%	60.0%	0%	92.9%	100%	92.9%	0%	94.7%	77.8%	100%	0%	94.9%	94.2%
<b>Heavy</b>	0	2	0	2	0	1	0	1	2	0	0	2	5
<b>% Heavy</b>	0%	40.0%	0%	7.1%	0%	7.1%	0%	5.3%	22.2%	0%	0%	5.1%	5.8%

\*L: Left, R: Right, T: Thru, U: U-Turn



Fellows Road and Furman Road Perinton Weekda... - TMC

Fri Jan 19, 2024

Forced Peak (7:15 AM - 8:15 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149375, Location: 43.115548, -77.422969

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

[N] Fellows Road

Total: 63

In: 28

Out: 35

23

5



5  
14

Out: 14 In: 19  
Total: 33  
[E] Furman Road

Out: 37

In: 39

Total: 76

[S] Fellows Road

Fellows Road and Furman Road Perinton Weekda... - TMC

Fri Jan 19, 2024

AM Peak (8 AM - 9 AM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149375, Location: 43.115548, -77.422969

Provided by: Passero Associates

242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Fellows Road Southbound				Furman Road Westbound				Fellows Road Northbound				
Time	T	L	U	App	R	L	U	App	R	T	U	App	Int
2024-01-19 8:00AM	8	1	0	9	1	4	0	5	4	3	0	7	21
8:15AM	14	0	0	14	1	3	0	4	0	2	0	2	20
8:30AM	13	1	0	14	1	2	0	3	1	9	0	10	27
8:45AM	11	2	0	13	2	2	0	4	1	10	0	11	28
<b>Total</b>	46	4	0	50	5	11	0	16	6	24	0	30	96
<b>% Approach</b>	92.0%	8.0%	0%	-	31.3%	68.8%	0%	-	20.0%	80.0%	0%	-	-
<b>% Total</b>	47.9%	4.2%	0%	52.1%	5.2%	11.5%	0%	16.7%	6.3%	25.0%	0%	31.3%	-
<b>PHF</b>	0.821	0.500	-	0.893	0.625	0.688	-	0.800	0.375	0.600	-	0.682	0.857
<b>Lights and Motorcycles</b>	42	4	0	46	4	10	0	14	5	24	0	29	89
<b>% Lights and Motorcycles</b>	91.3%	100%	0%	92.0%	80.0%	90.9%	0%	87.5%	83.3%	100%	0%	96.7%	92.7%
<b>Heavy</b>	4	0	0	4	1	1	0	2	1	0	0	1	7
<b>% Heavy</b>	8.7%	0%	0%	8.0%	20.0%	9.1%	0%	12.5%	16.7%	0%	0%	3.3%	7.3%

\*L: Left, R: Right, T: Thru, U: U-Turn

Fellows Road and Furman Road Perinton Weekda... - TMC

Fri Jan 19, 2024

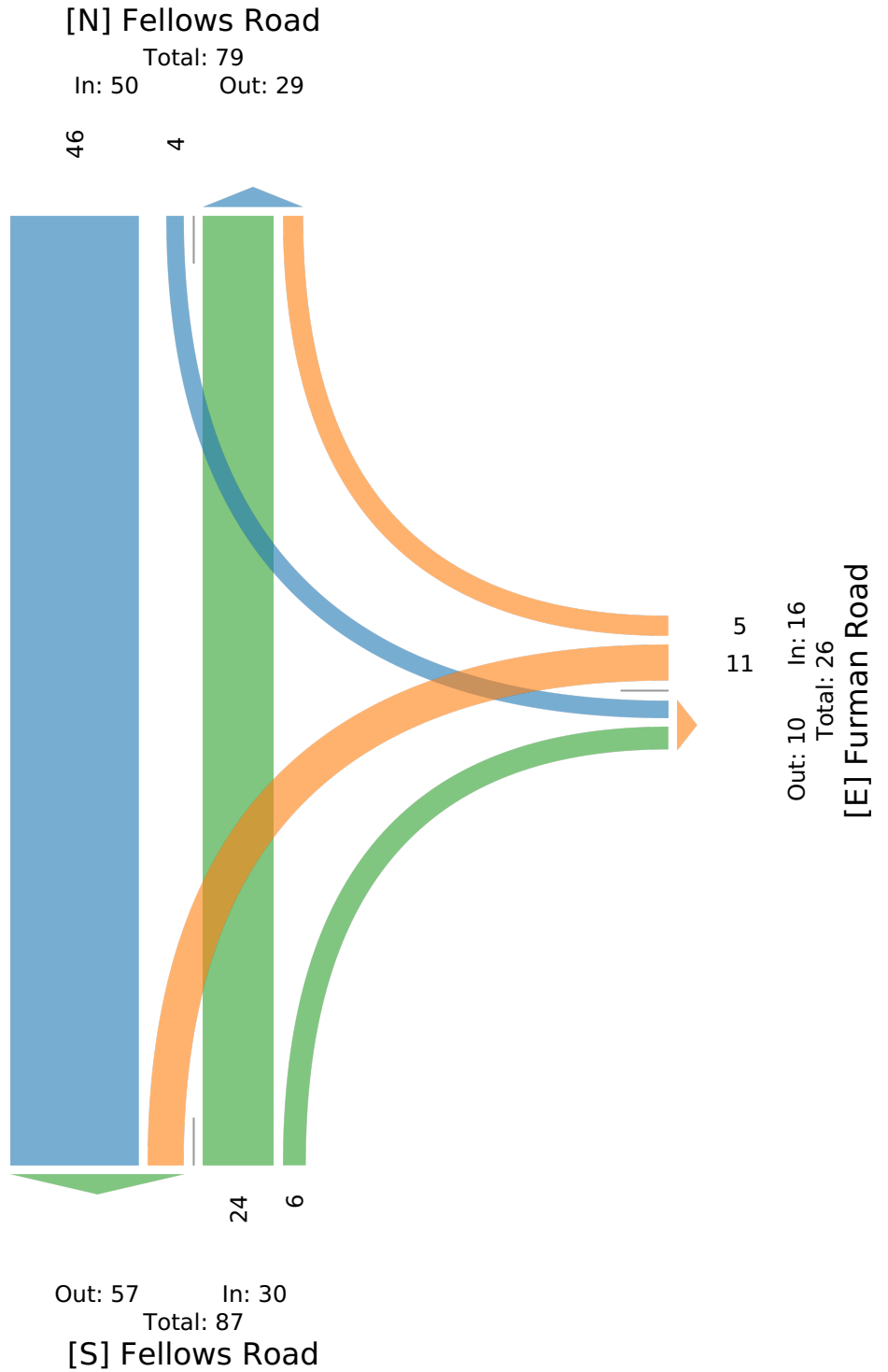
AM Peak (8 AM - 9 AM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149375, Location: 43.115548, -77.422969

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US



**Fellows Road and Furman Road Perinton Weekda... - TMC**

Thu Jan 18, 2024

Full Length (4 PM-6 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149486, Location: 43.115548, -77.422969

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Fellows Road Southbound				Furman Road Westbound				Fellows Road Northbound				
Time	T	L	U	App	R	L	U	App	R	T	U	App	Int
2024-01-18 4:00PM	8	3	0	11	3	3	0	6	6	14	0	20	37
4:15PM	15	4	0	19	1	4	1	6	4	12	0	16	41
4:30PM	12	3	0	15	4	2	0	6	2	9	0	11	32
4:45PM	19	3	0	22	2	5	0	7	3	14	0	17	46
Hourly Total	54	13	0	67	10	14	1	25	15	49	0	64	156
5:00PM	14	3	0	17	4	0	1	5	6	7	0	13	35
5:15PM	14	3	0	17	0	7	0	7	3	9	0	12	36
5:30PM	9	5	0	14	3	4	0	7	2	8	0	10	31
5:45PM	12	1	0	13	2	0	0	2	3	13	0	16	31
Hourly Total	49	12	0	61	9	11	1	21	14	37	0	51	133
<b>Total</b>	103	25	0	128	19	25	2	46	29	86	0	115	289
<b>% Approach</b>	80.5%	19.5%	0%	-	41.3%	54.3%	4.3%	-	25.2%	74.8%	0%	-	-
<b>% Total</b>	35.6%	8.7%	0%	44.3%	6.6%	8.7%	0.7%	15.9%	10.0%	29.8%	0%	39.8%	-
<b>Lights and Motorcycles</b>	103	25	0	128	19	23	0	42	29	86	0	115	285
<b>% Lights and Motorcycles</b>	100%	100%	0%	100%	100%	92.0%	0%	91.3%	100%	100%	0%	100%	98.6%
<b>Heavy</b>	0	0	0	0	0	2	2	4	0	0	0	0	4
<b>% Heavy</b>	0%	0%	0%	0%	0%	8.0%	100%	8.7%	0%	0%	0%	0%	1.4%

\*L: Left, R: Right, T: Thru, U: U-Turn

**Fellows Road and Furman Road Perinton Weekda... - TMC**

Thu Jan 18, 2024

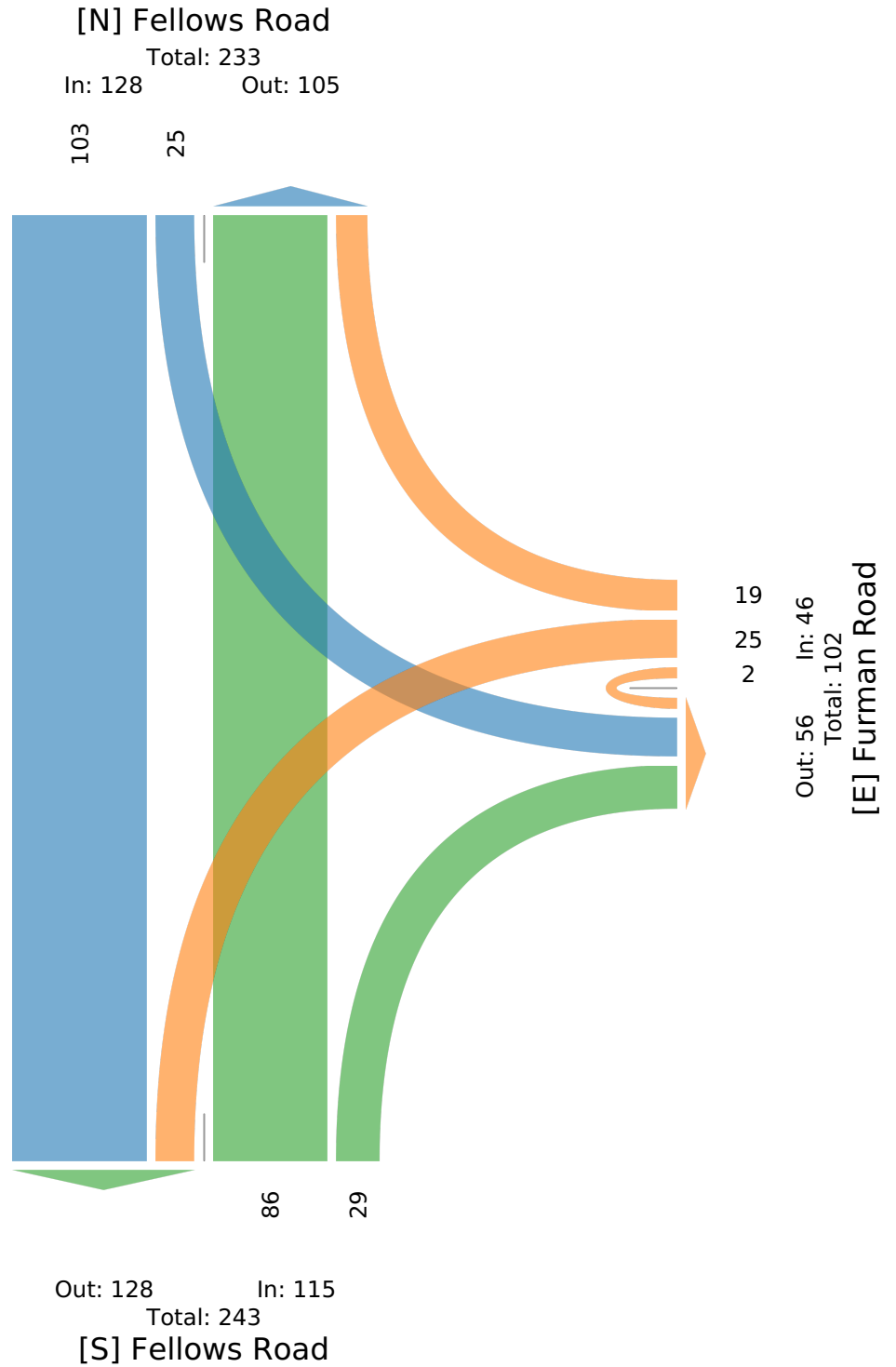
Full Length (4 PM-6 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149486, Location: 43.115548, -77.422969

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US



Fellows Road and Furman Road Perinton Weekda... - TMC

Thu Jan 18, 2024

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149486, Location: 43.115548, -77.422969

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Fellows Road Southbound				Furman Road Westbound				Fellows Road Northbound				
Time	T	L	U	App	R	L	U	App	R	T	U	App	Int
2024-01-18 4:00PM	8	3	0	11	3	3	0	6	6	14	0	20	37
4:15PM	15	4	0	19	1	4	1	6	4	12	0	16	41
4:30PM	12	3	0	15	4	2	0	6	2	9	0	11	32
4:45PM	19	3	0	22	2	5	0	7	3	14	0	17	46
<b>Total</b>	54	13	0	67	10	14	1	25	15	49	0	64	156
<b>% Approach</b>	80.6%	19.4%	0%	-	40.0%	56.0%	4.0%	-	23.4%	76.6%	0%	-	-
<b>% Total</b>	34.6%	8.3%	0%	42.9%	6.4%	9.0%	0.6%	16.0%	9.6%	31.4%	0%	41.0%	-
<b>PHF</b>	0.711	0.813	-	0.761	0.625	0.700	0.250	0.893	0.625	0.875	-	0.800	0.848
<b>Lights and Motorcycles</b>	54	13	0	67	10	12	0	22	15	49	0	64	153
<b>% Lights and Motorcycles</b>	100%	100%	0%	100%	100%	85.7%	0%	88.0%	100%	100%	0%	100%	98.1%
<b>Heavy</b>	0	0	0	0	0	2	1	3	0	0	0	0	3
<b>% Heavy</b>	0%	0%	0%	0%	0%	14.3%	100%	12.0%	0%	0%	0%	0%	1.9%

\*L: Left, R: Right, T: Thru, U: U-Turn

Fellows Road and Furman Road Perinton Weekda... - TMC

Thu Jan 18, 2024

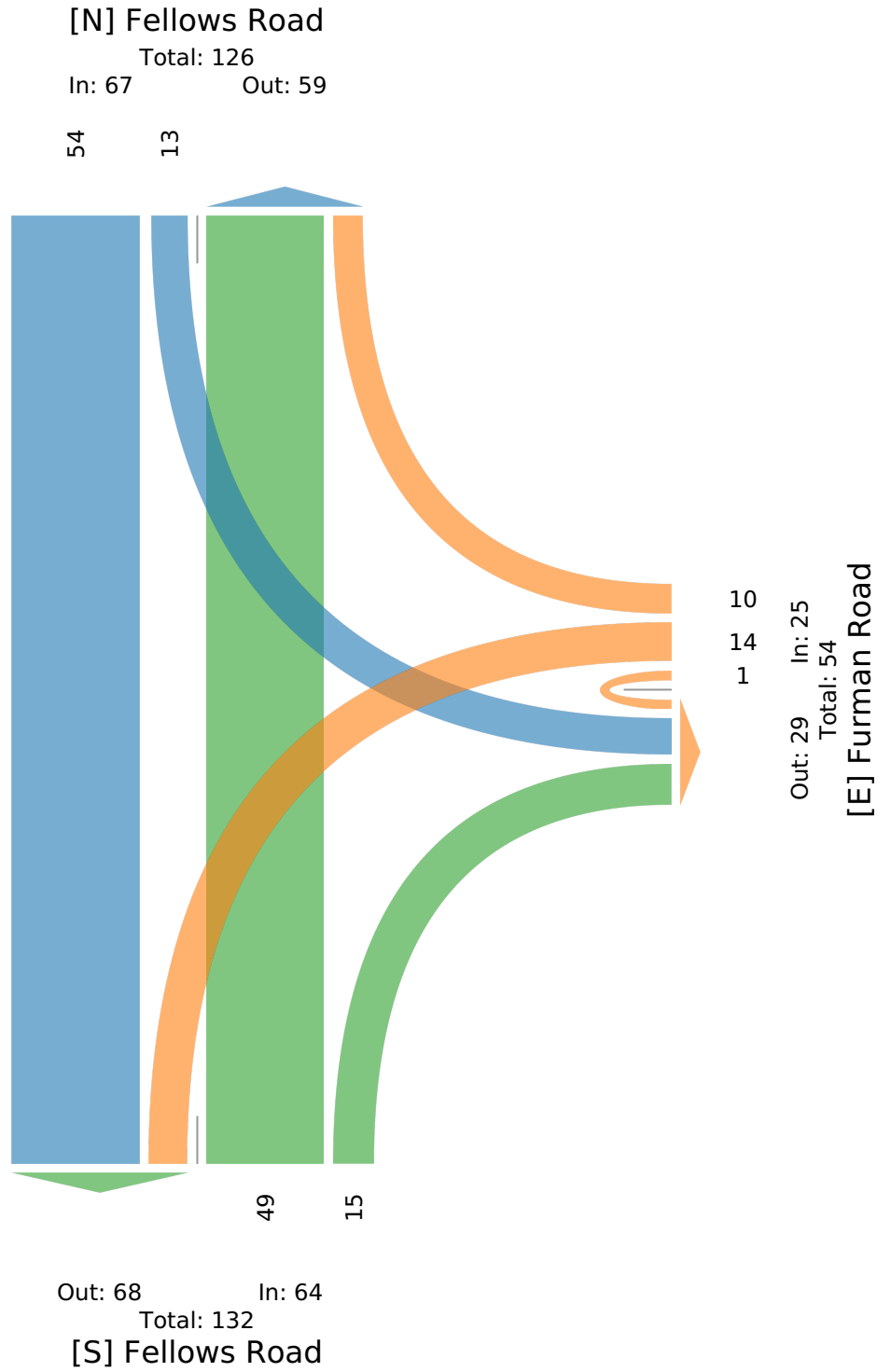
PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149486, Location: 43.115548, -77.422969

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US



Fellows Road and Furman Road Perinton Weekda... - TMC

Thu Jan 18, 2024

Forced Peak (4:30 PM - 5:30 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149486, Location: 43.115548, -77.422969

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Fellows Road Southbound				Furman Road Westbound				Fellows Road Northbound				
Time	T	L	U	App	R	L	U	App	R	T	U	App	Int
2024-01-18 4:30PM	12	3	0	15	4	2	0	6	2	9	0	11	32
4:45PM	19	3	0	22	2	5	0	7	3	14	0	17	46
5:00PM	14	3	0	17	4	0	1	5	6	7	0	13	35
5:15PM	14	3	0	17	0	7	0	7	3	9	0	12	36
<b>Total</b>	59	12	0	71	10	14	1	25	14	39	0	53	149
<b>% Approach</b>	83.1%	16.9%	0%	-	40.0%	56.0%	4.0%	-	26.4%	73.6%	0%	-	-
<b>% Total</b>	39.6%	8.1%	0%	47.7%	6.7%	9.4%	0.7%	16.8%	9.4%	26.2%	0%	35.6%	-
<b>PHF</b>	0.776	1.000	-	0.807	0.625	0.500	0.250	0.893	0.583	0.696	-	0.779	0.810
<b>Lights and Motorcycles</b>	59	12	0	71	10	14	0	24	14	39	0	53	148
<b>% Lights and Motorcycles</b>	100%	100%	0%	100%	100%	100%	0%	96.0%	100%	100%	0%	100%	99.3%
<b>Heavy</b>	0	0	0	0	0	0	1	1	0	0	0	0	1
<b>% Heavy</b>	0%	0%	0%	0%	0%	0%	100%	4.0%	0%	0%	0%	0%	0.7%

\*L: Left, R: Right, T: Thru, U: U-Turn



Fellows Road and Furman Road Perinton Weekda... - TMC

Thu Jan 18, 2024

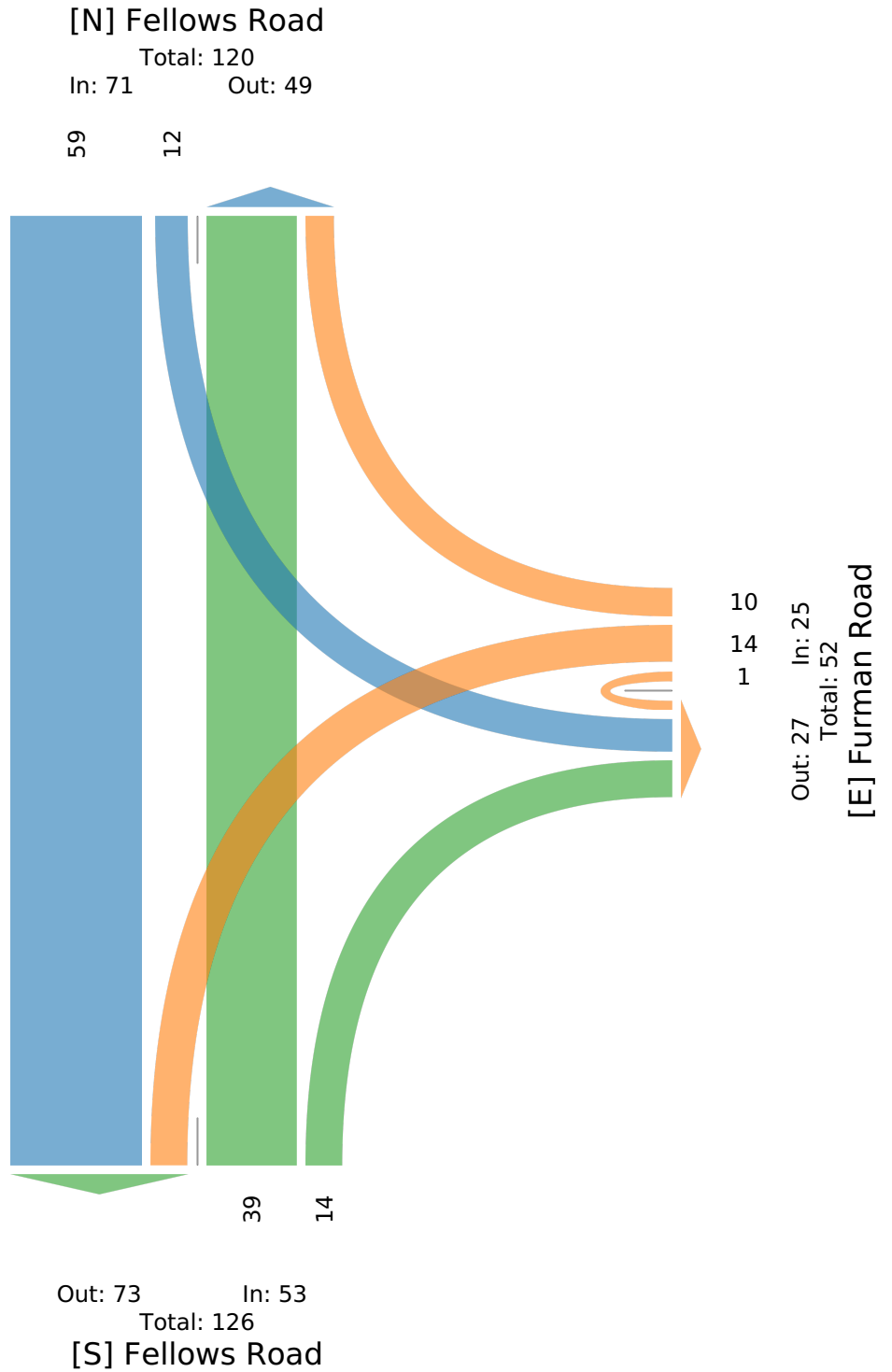
Forced Peak (4:30 PM - 5:30 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149486, Location: 43.115548, -77.422969

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US



**Fellows Road and Whitney Road/Roxwell Court ... - TMC**

Fri Jan 19, 2024

Full Length (7 AM-9 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149388, Location: 43.108373, -77.422617

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Fellows Road Southbound					Whitney Road Westbound					Roxwell Court Northbound					Whitney Road Eastbound					
Time	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	Int
2024-01-19 7:00AM	6	1	11	0	18	3	75	0	0	78	0	0	0	0	0	0	20	5	0	25	121
7:15AM	10	0	5	0	15	4	82	0	0	86	0	0	0	0	0	0	20	3	0	23	124
7:30AM	17	0	7	0	24	5	89	1	0	95	0	0	1	0	1	0	21	6	0	27	147
7:45AM	8	0	6	0	14	3	60	0	0	63	0	0	0	0	0	0	29	2	0	31	108
Hourly Total	41	1	29	0	71	15	306	1	0	322	0	0	1	0	1	0	90	16	0	106	500
8:00AM	9	0	7	0	16	1	73	0	0	74	0	0	2	0	2	0	30	7	0	37	129
8:15AM	17	1	9	0	27	1	61	0	0	62	1	0	1	0	2	0	32	2	0	34	125
8:30AM	9	0	14	0	23	3	61	0	0	64	0	0	3	0	3	1	34	4	0	39	129
8:45AM	8	0	8	0	16	3	65	0	0	68	0	0	0	0	0	0	32	5	0	37	121
Hourly Total	43	1	38	0	82	8	260	0	0	268	1	0	6	0	7	1	128	18	0	147	504
<b>Total</b>	84	2	67	0	153	23	566	1	0	590	1	0	7	0	8	1	218	34	0	253	1004
<b>% Approach</b>	54.9%	1.3%	43.8%	0%	-	3.9%	95.9%	0.2%	0%	-	12.5%	0%	87.5%	0%	-	0.4%	86.2%	13.4%	0%	-	-
<b>% Total</b>	8.4%	0.2%	6.7%	0%	15.2%	2.3%	56.4%	0.1%	0%	58.8%	0.1%	0%	0.7%	0%	0.8%	0.1%	21.7%	3.4%	0%	25.2%	-
<b>Lights and Motorcycles</b>	80	2	62	0	144	20	555	1	0	576	1	0	6	0	7	1	195	32	0	228	955
<b>% Lights and Motorcycles</b>	95.2%	100%	92.5%	0%	94.1%	87.0%	98.1%	100%	0%	97.6%	100%	0%	85.7%	0%	87.5%	100%	89.4%	94.1%	0%	90.1%	95.1%
<b>Heavy</b>	4	0	5	0	9	3	11	0	0	14	0	0	1	0	1	0	23	2	0	25	49
<b>% Heavy</b>	4.8%	0%	7.5%	0%	5.9%	13.0%	1.9%	0%	0%	2.4%	0%	0%	14.3%	0%	12.5%	0%	10.6%	5.9%	0%	9.9%	4.9%

\*L: Left, R: Right, T: Thru, U: U-Turn

Fellows Road and Whitney Road/Roxwell Court ... - TMC

Fri Jan 19, 2024

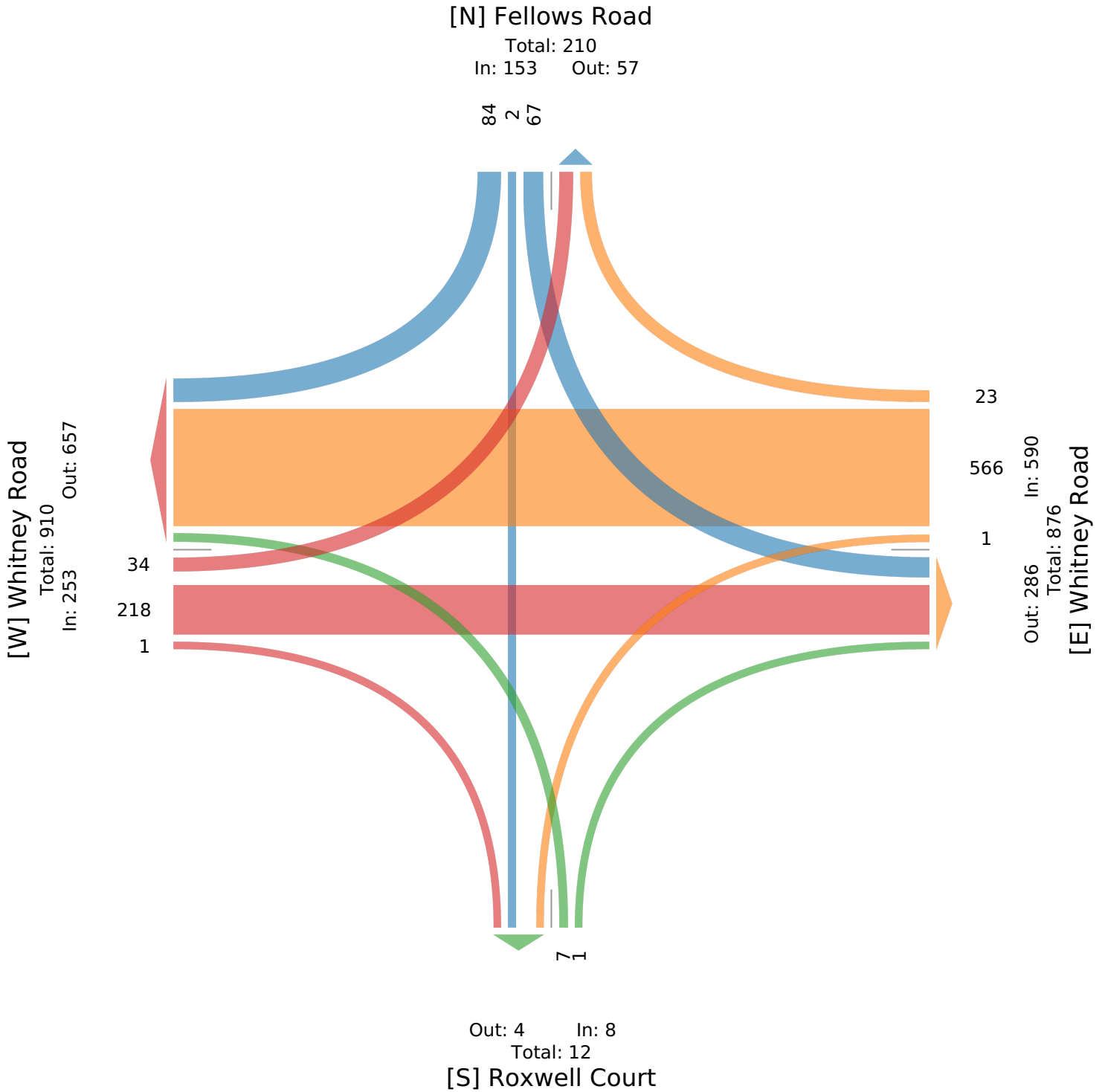
Full Length (7 AM-9 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149388, Location: 43.108373, -77.422617

Provided by: Passero Associates  
 242 West Main Street, Suite 100, Rochester, NY, 14614, US



Fellows Road and Whitney Road/Roxwell Court ... - TMC

Fri Jan 19, 2024

Forced Peak (7:15 AM - 8:15 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149388, Location: 43.108373, -77.422617

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Fellows Road Southbound					Whitney Road Westbound					Roxwell Court Northbound					Whitney Road Eastbound					
Time	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	Int
2024-01-19 7:15AM	10	0	5	0	15	4	82	0	0	86	0	0	0	0	0	0	20	3	0	23	124
7:30AM	17	0	7	0	24	5	89	1	0	95	0	0	1	0	1	0	21	6	0	27	147
7:45AM	8	0	6	0	14	3	60	0	0	63	0	0	0	0	0	0	29	2	0	31	108
8:00AM	9	0	7	0	16	1	73	0	0	74	0	0	2	0	2	0	30	7	0	37	129
<b>Total</b>	44	0	25	0	69	13	304	1	0	318	0	0	3	0	3	0	100	18	0	118	508
<b>% Approach</b>	63.8%	0%	36.2%	0%	-	4.1%	95.6%	0.3%	0%	-	0%	0%	100%	0%	-	0%	84.7%	15.3%	0%	-	-
<b>% Total</b>	8.7%	0%	4.9%	0%	13.6%	2.6%	59.8%	0.2%	0%	62.6%	0%	0%	0.6%	0%	0.6%	0%	19.7%	3.5%	0%	23.2%	-
<b>PHF</b>	0.647	-	0.893	-	0.719	0.650	0.854	0.250	-	0.837	-	-	0.375	-	0.375	-	0.833	0.643	-	0.797	0.864
<b>Lights and Motorcycles</b>	42	0	25	0	67	11	298	1	0	310	0	0	3	0	3	0	91	16	0	107	487
<b>% Lights and Motorcycles</b>	95.5%	0%	100%	0%	97.1%	84.6%	98.0%	100%	0%	97.5%	0%	0%	100%	0%	100%	0%	91.0%	88.9%	0%	90.7%	95.9%
<b>Heavy</b>	2	0	0	0	2	2	6	0	0	8	0	0	0	0	0	0	9	2	0	11	21
<b>% Heavy</b>	4.5%	0%	0%	0%	2.9%	15.4%	2.0%	0%	0%	2.5%	0%	0%	0%	0%	0%	0%	9.0%	11.1%	0%	9.3%	4.1%

\*L: Left, R: Right, T: Thru, U: U-Turn

Fellows Road and Whitney Road/Roxwell Court ... - TMC

Fri Jan 19, 2024

Forced Peak (7:15 AM - 8:15 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149388, Location: 43.108373, -77.422617

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

[N] Fellows Road

Total: 100  
In: 69 Out: 31

44 25

[W] Whitney Road

Total: 469  
In: 118 Out: 351

18  
100

13  
304

Out: 125 In: 318  
Total: 443  
[E] Whitney Road

3

Out: 1 In: 3  
Total: 4  
[S] Roxwell Court

Fellows Road and Whitney Road/Roxwell Court ... - TMC

Fri Jan 19, 2024

AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149388, Location: 43.108373, -77.422617

Provided by: Passero Associates

242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Fellows Road Southbound					Whitney Road Westbound					Roxwell Court Northbound					Whitney Road Eastbound					Int
	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	
2024-01-19 7:30AM	17	0	7	0	24	5	89	1	0	95	0	0	1	0	1	0	21	6	0	27	147
7:45AM	8	0	6	0	14	3	60	0	0	63	0	0	0	0	0	0	29	2	0	31	108
8:00AM	9	0	7	0	16	1	73	0	0	74	0	0	2	0	2	0	30	7	0	37	129
8:15AM	17	1	9	0	27	1	61	0	0	62	1	0	1	0	2	0	32	2	0	34	125
<b>Total</b>	51	1	29	0	81	10	283	1	0	294	1	0	4	0	5	0	112	17	0	129	509
<b>% Approach</b>	63.0%	1.2%	35.8%	0%	-	3.4%	96.3%	0.3%	0%	-	20.0%	0%	80.0%	0%	-	0%	86.8%	13.2%	0%	-	-
<b>% Total</b>	10.0%	0.2%	5.7%	0%	15.9%	2.0%	55.6%	0.2%	0%	57.8%	0.2%	0%	0.8%	0%	1.0%	0%	22.0%	3.3%	0%	25.3%	-
<b>PHF</b>	0.750	0.250	0.806	-	0.750	0.500	0.795	0.250	-	0.774	0.250	-	0.500	-	0.625	-	0.875	0.607	-	0.872	0.866
<b>Lights and Motorcycles</b>	48	1	28	0	77	8	277	1	0	286	1	0	4	0	5	0	101	15	0	116	484
<b>% Lights and Motorcycles</b>	94.1%	100%	96.6%	0%	95.1%	80.0%	97.9%	100%	0%	97.3%	100%	0%	100%	0%	100%	0%	90.2%	88.2%	0%	89.9%	95.1%
<b>Heavy</b>	3	0	1	0	4	2	6	0	0	8	0	0	0	0	0	0	11	2	0	13	25
<b>% Heavy</b>	5.9%	0%	3.4%	0%	4.9%	20.0%	2.1%	0%	0%	2.7%	0%	0%	0%	0%	0%	0%	9.8%	11.8%	0%	10.1%	4.9%

\*L: Left, R: Right, T: Thru, U: U-Turn

Fellows Road and Whitney Road/Roxwell Court ... - TMC

Fri Jan 19, 2024

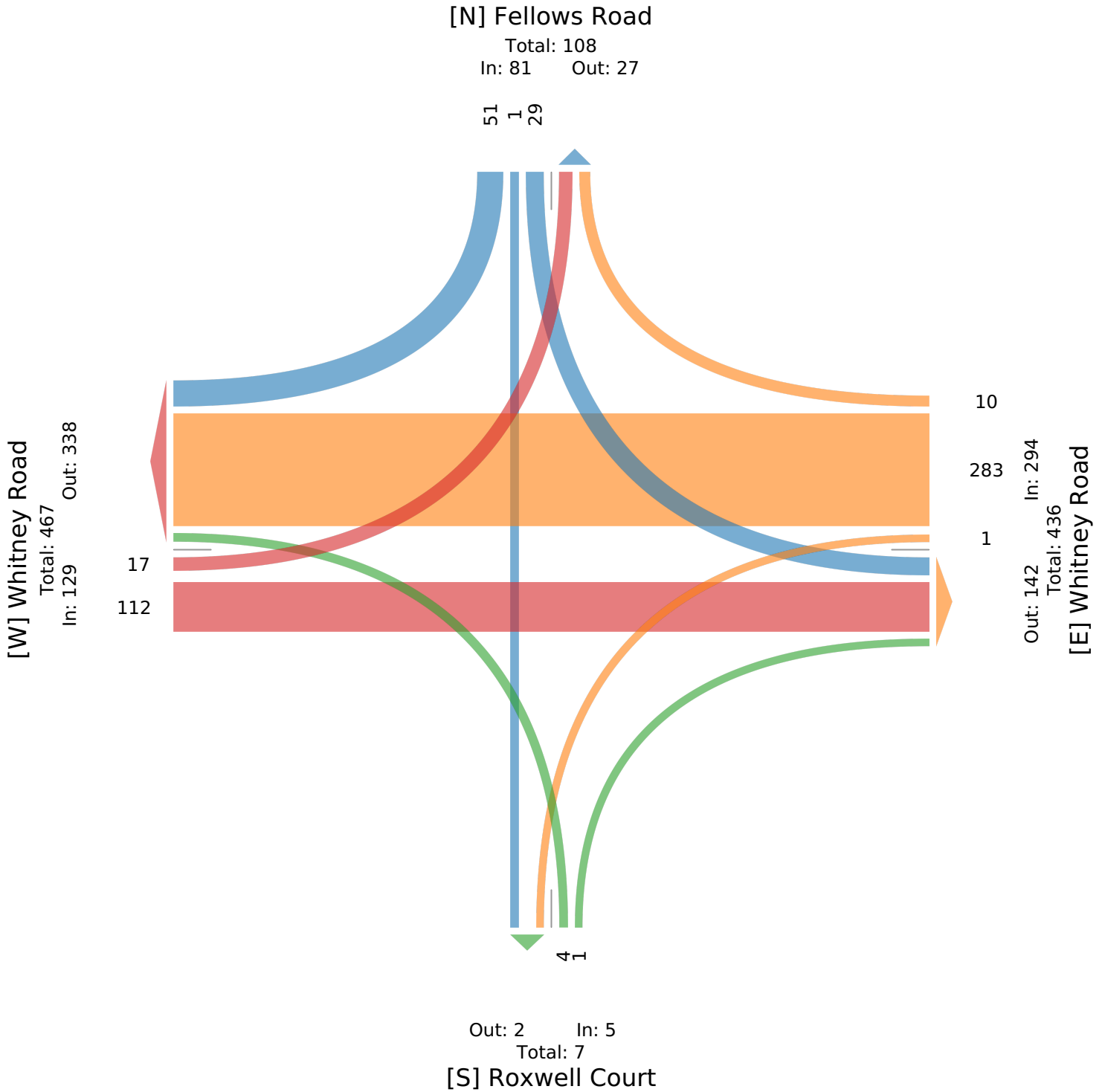
AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149388, Location: 43.108373, -77.422617

Provided by: Passero Associates  
 242 West Main Street, Suite 100, Rochester, NY, 14614, US



**Fellows Road and Whitney Road/Roxwell Court ... - TMC**

Thu Jan 18, 2024

Full Length (4 PM-6 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149384, Location: 43.108373, -77.422617

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Fellows Road Southbound					Whitney Road Westbound					Roxwell Court Northbound					Whitney Road Eastbound					
Time	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	Int
2024-01-18 4:00PM	8	0	7	0	15	10	43	0	0	53	0	0	0	0	0	0	64	16	0	80	148
4:15PM	13	0	10	0	23	7	46	0	0	53	0	0	1	0	1	0	61	14	0	75	152
4:30PM	13	0	6	0	19	5	37	0	0	42	0	1	1	0	2	1	84	10	0	95	158
4:45PM	8	0	10	0	18	9	50	0	0	59	0	0	1	0	1	0	54	17	0	71	149
Hourly Total	42	0	33	0	75	31	176	0	0	207	0	1	3	0	4	1	263	57	0	321	607
5:00PM	7	0	8	0	15	3	42	0	0	45	0	0	0	0	0	1	75	19	0	95	155
5:15PM	19	0	5	0	24	3	58	0	0	61	0	0	1	0	1	2	82	13	0	97	183
5:30PM	13	0	6	0	19	4	40	0	0	44	0	0	0	0	0	1	80	20	0	101	164
5:45PM	5	0	5	0	10	7	41	0	0	48	0	0	0	0	0	0	77	23	0	100	158
Hourly Total	44	0	24	0	68	17	181	0	0	198	0	0	1	0	1	4	314	75	0	393	660
<b>Total</b>	86	0	57	0	143	48	357	0	0	405	0	1	4	0	5	5	577	132	0	714	1267
<b>% Approach</b>	60.1%	0%	39.9%	0%	-	11.9%	88.1%	0%	0%	-	0%	20.0%	80.0%	0%	-	0.7%	80.8%	18.5%	0%	-	-
<b>% Total</b>	6.8%	0%	4.5%	0%	11.3%	3.8%	28.2%	0%	0%	32.0%	0%	0.1%	0.3%	0%	0.4%	0.4%	45.5%	10.4%	0%	56.4%	-
<b>Lights and Motorcycles</b>	85	0	56	0	141	47	352	0	0	399	0	1	4	0	5	5	574	132	0	711	1256
<b>% Lights and Motorcycles</b>	98.8%	0%	98.2%	0%	98.6%	97.9%	98.6%	0%	0%	98.5%	0%	100%	100%	0%	100%	100%	99.5%	100%	0%	99.6%	99.1%
<b>Heavy</b>	1	0	1	0	2	1	5	0	0	6	0	0	0	0	0	0	3	0	0	3	11
<b>% Heavy</b>	1.2%	0%	1.8%	0%	1.4%	2.1%	1.4%	0%	0%	1.5%	0%	0%	0%	0%	0%	0%	0.5%	0%	0%	0.4%	0.9%

\*L: Left, R: Right, T: Thru, U: U-Turn



Fellows Road and Whitney Road/Roxwell Court ... - TMC

Thu Jan 18, 2024

Full Length (4 PM-6 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149384, Location: 43.108373, -77.422617

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

[N] Fellows Road

Total: 324  
In: 143 Out: 181

86 57

[W] Whitney Road

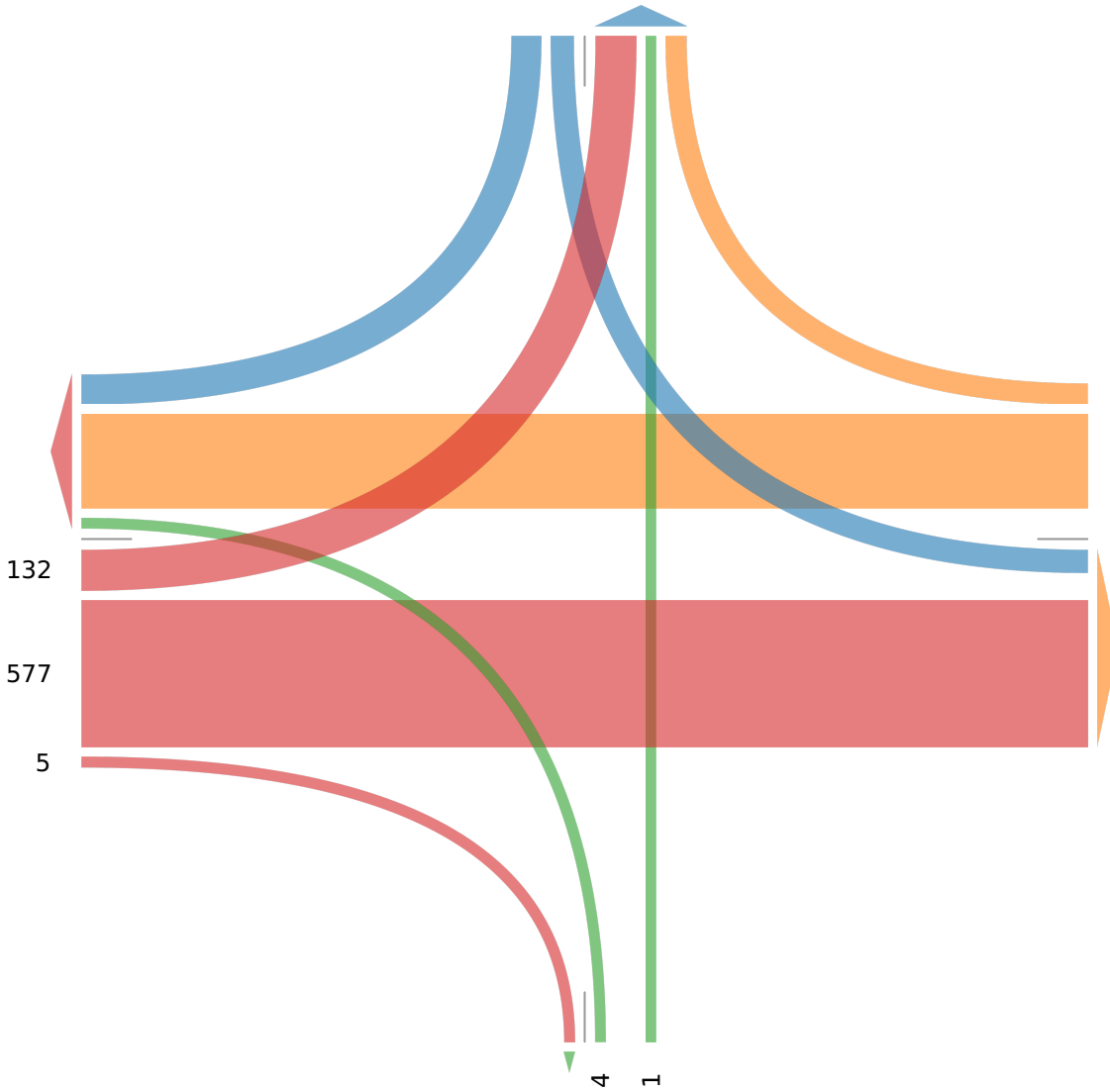
Total: 1161  
In: 714 Out: 447

132  
577  
5

48  
357

Out: 634 In: 405  
Total: 1039  
[E] Whitney Road

Out: 5 In: 5  
Total: 10  
[S] Roxwell Court



Fellows Road and Whitney Road/Roxwell Court ... - TMC

Thu Jan 18, 2024

Forced Peak (4:30 PM - 5:30 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149384, Location: 43.108373, -77.422617

Provided by: Passero Associates  
242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Fellows Road Southbound					Whitney Road Westbound					Roxwell Court Northbound					Whitney Road Eastbound					
Time	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	Int
2024-01-18 4:30PM	13	0	6	0	19	5	37	0	0	42	0	1	1	0	2	1	84	10	0	95	158
4:45PM	8	0	10	0	18	9	50	0	0	59	0	0	1	0	1	0	54	17	0	71	149
5:00PM	7	0	8	0	15	3	42	0	0	45	0	0	0	0	0	1	75	19	0	95	155
5:15PM	19	0	5	0	24	3	58	0	0	61	0	0	1	0	1	2	82	13	0	97	183
<b>Total</b>	47	0	29	0	76	20	187	0	0	207	0	1	3	0	4	4	295	59	0	358	645
<b>% Approach</b>	61.8%	0%	38.2%	0%	-	9.7%	90.3%	0%	0%	-	0%	25.0%	75.0%	0%	-	1.1%	82.4%	16.5%	0%	-	-
<b>% Total</b>	7.3%	0%	4.5%	0%	11.8%	3.1%	29.0%	0%	0%	32.1%	0%	0.2%	0.5%	0%	0.6%	0.6%	45.7%	9.1%	0%	55.5%	-
<b>PHF</b>	0.618	-	0.725	-	0.792	0.556	0.806	-	-	0.848	-	0.250	0.750	-	0.500	0.500	0.878	0.776	-	0.923	0.881
<b>Lights and Motorcycles</b>	47	0	29	0	76	20	186	0	0	206	0	1	3	0	4	4	294	59	0	357	643
<b>% Lights and Motorcycles</b>	100%	0%	100%	0%	100%	100%	99.5%	0%	0%	99.5%	0%	100%	100%	0%	100%	100%	99.7%	100%	0%	99.7%	99.7%
<b>Heavy</b>	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
<b>% Heavy</b>	0%	0%	0%	0%	0%	0%	0.5%	0%	0%	0.5%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0.3%	0.3%

\*L: Left, R: Right, T: Thru, U: U-Turn

Fellows Road and Whitney Road/Roxwell Court ... - TMC

Thu Jan 18, 2024

Forced Peak (4:30 PM - 5:30 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149384, Location: 43.108373, -77.422617

Provided by: Passero Associates  
 242 West Main Street, Suite 100, Rochester, NY, 14614, US

[N] Fellows Road

Total: 156  
 In: 76 Out: 80

47 29

[W] Whitney Road

Total: 595  
 In: 358 Out: 237

59  
 295  
 4

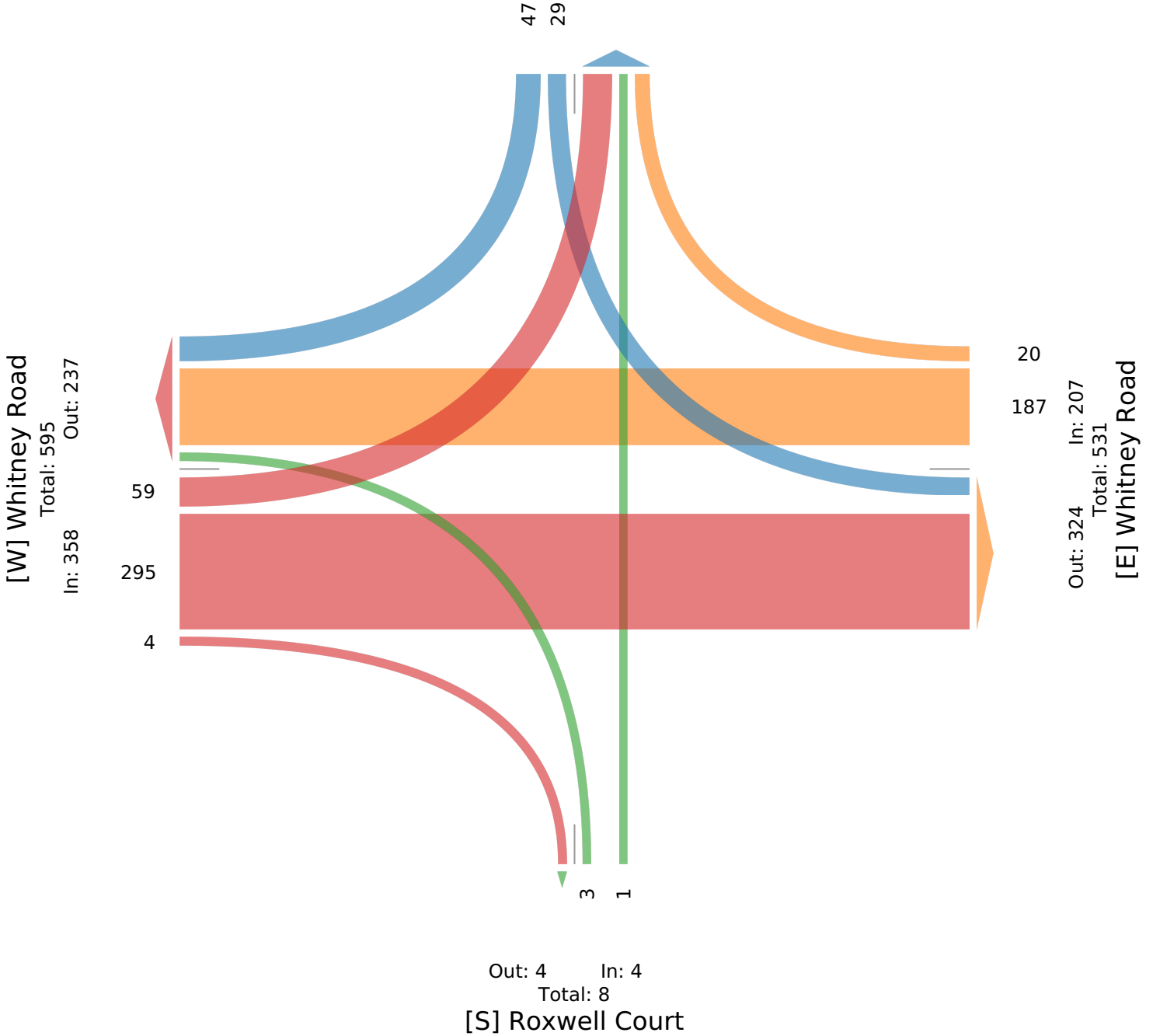
20  
 187

Out: 324 In: 207  
 Total: 531

[E] Whitney Road

Out: 4 In: 4  
 Total: 8

[S] Roxwell Court



Fellows Road and Whitney Road/Roxwell Court ... - TMC

Thu Jan 18, 2024

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149384, Location: 43.108373, -77.422617

Provided by: Passero Associates

242 West Main Street, Suite 100, Rochester, NY, 14614, US

Leg Direction	Fellows Road Southbound					Whitney Road Westbound					Roxwell Court Northbound					Whitney Road Eastbound					
Time	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	Int
2024-01-18 5:00PM	7	0	8	0	15	3	42	0	0	45	0	0	0	0	0	1	75	19	0	95	155
5:15PM	19	0	5	0	24	3	58	0	0	61	0	0	1	0	1	2	82	13	0	97	183
5:30PM	13	0	6	0	19	4	40	0	0	44	0	0	0	0	0	1	80	20	0	101	164
5:45PM	5	0	5	0	10	7	41	0	0	48	0	0	0	0	0	0	77	23	0	100	158
<b>Total</b>	44	0	24	0	68	17	181	0	0	198	0	0	1	0	1	4	314	75	0	393	660
<b>% Approach</b>	64.7%	0%	35.3%	0%	-	8.6%	91.4%	0%	0%	-	0%	0%	100%	0%	-	1.0%	79.9%	19.1%	0%	-	-
<b>% Total</b>	6.7%	0%	3.6%	0%	10.3%	2.6%	27.4%	0%	0%	30.0%	0%	0%	0.2%	0%	0.2%	0.6%	47.6%	11.4%	0%	59.5%	-
<b>PHF</b>	0.579	-	0.750	-	0.708	0.607	0.780	-	-	0.811	-	-	0.250	-	0.250	0.500	0.957	0.815	-	0.973	0.902
<b>Lights and Motorcycles</b>	44	0	24	0	68	17	179	0	0	196	0	0	1	0	1	4	313	75	0	392	657
<b>% Lights and Motorcycles</b>	100%	0%	100%	0%	100%	100%	98.9%	0%	0%	99.0%	0%	0%	100%	0%	100%	100%	99.7%	100%	0%	99.7%	99.5%
<b>Heavy</b>	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
<b>% Heavy</b>	0%	0%	0%	0%	0%	0%	1.1%	0%	0%	1.0%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0.3%	0.5%

\*L: Left, R: Right, T: Thru, U: U-Turn

Fellows Road and Whitney Road/Roxwell Court ... - TMC

Thu Jan 18, 2024

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149384, Location: 43.108373, -77.422617

Provided by: Passero Associates  
 242 West Main Street, Suite 100, Rochester, NY, 14614, US

[N] Fellows Road

Total: 160  
 In: 68 Out: 92

44 24

[W] Whitney Road

Total: 619  
 In: 393 Out: 226

75  
 314  
 4

17  
 181

Out: 338 In: 198  
 Total: 536

[E] Whitney Road

Out: 4 In: 1  
 Total: 5  
 [S] Roxwell Court

## **APPENDIX B: MISCELLANEOUS CALCULATIONS**



### Fellows Road Properties, Town of Perinton, NY

Documentation of Ambient Traffic Volume Growth

Roadway	Segment starts at	Segment end at	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Annual Growth
Penfield Rd	RT 250	Salt Rd				11,432			11,313			12,162	1.04%
Whitney Rd	CR18 PEFLD	CR 42	11,573			11,474			10,797				-1.15%
												<b>AVERAGE</b>	<b>-0.06%</b>

Intersection Crash Rate Calculations												
Fellows Road Properties												
<b>Intersection #1:</b>	Fellows Rd at Penfield Rd											
<b>Date of Count:</b>	Thursday, January 19, 2024											
<b>Number of Crashes:</b>	5											
<b>Number of Injuries:</b>	3											
<b>Number of Fatalities:</b>	0											
<b>Entering Vehicles (PM):</b>	1421											
<b>ADT:</b>	14958											
<b>Start Date:</b>	August 31, 2018											
<b>End Date:</b>	August 31, 2023											
<b>Number of Years:</b>	5											
<b>Intersection Type:</b>	3 Legged											
<b>Area Type:</b>	Urban											
<b>Control Type:</b>	Sign 1-3 Lanes											
crash rate =	$\frac{\text{Number of Crashes} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$											
crash rate =	$\frac{5}{14958} \times \frac{1,000,000}{365 \times 5}$											
	<table border="1"> <thead> <tr> <th>Crash Rate</th> <th>Fatality Rate</th> <th>Injury Rate</th> </tr> </thead> <tbody> <tr> <td><b>Study Intersection</b></td> <td><b>0.18 cr/mve</b></td> <td><b>0%</b></td> <td><b>60%</b></td> </tr> <tr> <td><b>Statewide Average*</b></td> <td><b>0.19 cr/mve</b></td> <td></td> <td></td> </tr> </tbody> </table>	Crash Rate	Fatality Rate	Injury Rate	<b>Study Intersection</b>	<b>0.18 cr/mve</b>	<b>0%</b>	<b>60%</b>	<b>Statewide Average*</b>	<b>0.19 cr/mve</b>		
Crash Rate	Fatality Rate	Injury Rate										
<b>Study Intersection</b>	<b>0.18 cr/mve</b>	<b>0%</b>	<b>60%</b>									
<b>Statewide Average*</b>	<b>0.19 cr/mve</b>											
<p>ADT = Average Daily Total vehicles entering intersection            cr/mve = crashes per million entering vehicles            * Most recent available 2019 Average Crash Rates for State Highways by Facility Type</p>												

Type	Direction					Totals
	Northbound	Southbound	Eastbound	Westbound	Unknown	
Left turn	1					1
Rear-end				1		1
Overtaking						0
Right Angle						0
Right Turn						0
Head On				1		1
Side-swipe						0
Fixed Object	1					1
Backing						0
Other						0
Bike/Ped						0
Animal				1		1
<b>Totals</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>5</b>

PDO	2
Injury	3
Injury + PDO	
Fatal	
NR	
<b>Total</b>	<b>5</b>

Intersection Crash Rate Calculations												
Fellows Road Properties												
<b>Intersection #2:</b>	Fellows Rd at Furman Rd											
<b>Date of Count:</b>	Thursday, January 19, 2024											
<b>Number of Crashes:</b>	0											
<b>Number of Injuries:</b>	0											
<b>Number of Fatalities:</b>	0											
<b>Entering Vehicles (PM):</b>	164											
<b>ADT:</b>	1726											
<b>Start Date:</b>	August 31, 2018											
<b>End Date:</b>	August 31, 2023											
<b>Number of Years:</b>	5											
<b>Intersection Type:</b>	3 Legged											
<b>Area Type:</b>	Urban											
<b>Control Type:</b>	Sign 1-3 Lanes											
crash rate =	$\frac{\text{Number of Crashes} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$											
crash rate =	$\frac{0}{1726} \times \frac{1,000,000}{365 \times 5}$											
	<table border="1"> <thead> <tr> <th>Crash Rate</th> <th>Fatality Rate</th> <th>Injury Rate</th> </tr> </thead> <tbody> <tr> <td><b>Study Intersection</b></td> <td><b>0.00 cr/mve</b></td> <td><b>#DIV/0!</b></td> <td><b>#DIV/0!</b></td> </tr> <tr> <td><b>Statewide Average*</b></td> <td><b>0.19 cr/mve</b></td> <td></td> <td></td> </tr> </tbody> </table>	Crash Rate	Fatality Rate	Injury Rate	<b>Study Intersection</b>	<b>0.00 cr/mve</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>Statewide Average*</b>	<b>0.19 cr/mve</b>		
Crash Rate	Fatality Rate	Injury Rate										
<b>Study Intersection</b>	<b>0.00 cr/mve</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>									
<b>Statewide Average*</b>	<b>0.19 cr/mve</b>											
<p>ADT = Average Daily Total vehicles entering intersection            cr/mve = crashes per million entering vehicles            * Most recent available 2019 Average Crash Rates for State Highways by Facility Type</p>												

Type	Direction					Totals
	Northbound	Southbound	Eastbound	Westbound	Unknown	
Left turn						0
Rear-end						0
Overtaking						0
Right Angle						0
Right Turn						0
Head On						0
Side-swipe						0
Fixed Object						0
Backing						0
Other						0
Bike/Ped						0
Animal						0
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

PDO	
Injury	
Injury + PDO	
Fatal	
NR	
<b>Total</b>	<b>0</b>





PROJECT: Fellows Road Properties  
 LOCATION: Town of Perinton, NY  
 PEAK HOUR: AM Peak

Num of yrs  
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	2024 Existing Volumes	Seasonality Adjustment	Bkgd Volumes 0.5%	Fellows Rd Properties				Total Site Trips	Full Build Volumes	
					Enter Dist. %	Exit Dist. %	Trips IN 38	Trips OUT 114			
1	Fellows Rd/ Perinton Rd										
	SR										
	ST										
	SL										
	WR										
	WT	674	748	767					11	767	
	WL	2	2	2	28%			11	32	13	
NR	7	8	8		28%			46	40		
NT											
NL	53	59	60		40%			46	106		
ER	26	29	30	40%		15		15	45		
ET	222	246	253						253		
EL											
2	Fellows Rd/ Proposed Driveway										
	SR										
	ST	30	33	34	5%		2		2	36	
	SL				63%		24		24	24	
	WR					63%		72	72	72	
	WT					28%		32	32	32	
	WL										
NR	35	39	40	28%		11		11	11		
NT					5%		6	6	46		
NL											
ER											
ET											
EL											
3	Fellows Rd/ Furman Rd										
	SR	25	28	28		28%		32	32	60	
	ST	5	6	6	5%		2		2	8	
	SL										
	WR	5	6	6		5%		6	6	12	
	WT										
	WL	14	16	16		3%		3	3	19	
NR	9	10	10	3%		1		1	11		
NT	30	33	34	28%		11		11	45		
NL											
ER											
ET											
EL											
4	Furman Rd/ Proposed Driveway										
	SR					8%		9	9	9	
	ST										
	SL					1%		1	1	1	
	WR										
	WT	19	21	22	1%		0		0	0	
	WL									22	
NR											
NT											
NL											
ER											
ET	14	16	16							16	
EL					8%		3	3	3	3	
5	Fellows Rd- Roxwell Ct Whitney Rd										
	SR	44	49	50		19%		21	21	71	
	ST										
	SL	25	28	28		12%		14	14	42	
	WR	13	14	15	12%		5		5	20	
	WT	304	337	346						346	
	WL	1	1	1						1	
NR											
NT											
NL	3	3	3						3		
ER											
ET	100	111	114							114	
EL	18	20	20	19%		7		7	27		



**PROJECT DETAILS**

Project Name: Fellows Rd Properties	Type of Project:
Project No:	City:
Country:	Built-up Area(Sq.ft):
Analyst Name: Amy Dake	Clients Name:
Date: 1/22/2024	ZIP/Postal Code:
State/Province:	No. of Scenarios: 2
Analysis Region:	

**SCENARIO SUMMARY**

Scenarios	Name	No. of Land Uses	Phases of Development	No. of Years to Project Traffic	User Group	Estimated New Vehicle Trips		
						Entry	Exit	Total
Scenario - 1	AM Peak	3	1	0		38	114	152
Scenario - 2	PM Peak	3	1	0		117	72	189

**Scenario - 1**

Scenario Name: AM Peak

User Group:

Dev. phase: 1

No. of Years to Project 0

Traffic :

Analyst Note:

Warning:

**VEHICLE TRIPS BEFORE REDUCTION**

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
210 - Single-Family Detached Housing	General	Dwelling Units	106	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LOG)	20	59	79
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$\ln(T) = 0.91\ln(X) + 0.12$	25%	75%	
215 - Single-Family Attached Housing	General	Dwelling Units	90	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	10	31	41
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$T = 0.52(X) - 5.70$	25%	75%	
220 - Multifamily Housing (Low-Rise) - Not Close	General	Dwelling Units	28	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	8	24	32
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$T = 0.31(X) + 22.85$	24%	76%	

**VEHICLE TO PERSON TRIP CONVERSION**

**BASELINE SITE VEHICLE CHARACTERISTICS:**

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
210 - Single-Family Detached Housing	100	100	1	1	25	75
215 - Single-Family Attached Housing	100	100	1	1	25	75
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	24	76

**ESTIMATED BASELINE SITE PERSON TRIPS:**

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
210 - Single-Family Detached Housing	20	59	0	0	20	59
	79		0		79	
215 - Single-Family Attached Housing	10	31	0	0	10	31
	41		0		41	
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	8	24	0	0	8	24
	32		0		32	

**NEW VEHICLE TRIPS**

Land Use	New Vehicle Trips		
	Entry	Exit	Total
210 - Single-Family Detached Housing	20	59	79
215 - Single-Family Attached Housing	10	31	41
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	8	24	32

**RESULTS**

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	38	114	152
External Vehicle Trips	38	114	152
New Vehicle Trips	38	114	152

**Scenario - 2**

Scenario Name: PM Peak

User Group:

Dev. phase: 1

No. of Years to Project 0

Traffic :

Analyst Note:

Warning:

**VEHICLE TRIPS BEFORE REDUCTION**

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
210 - Single-Family Detached Housing	General	Dwelling Units	106	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LOG)	66	39	105
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$\ln(T) = 0.94\ln(X) + 0.27$	63%	37%	
215 - Single-Family Attached Housing	General	Dwelling Units	90	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	30	21	51
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$T = 0.60(X) - 3.93$	59%	41%	
220 - Multifamily Housing (Low-Rise) - Not Close	General	Dwelling Units	28	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	21	12	33
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$T = 0.43(X) + 20.55$	63%	37%	

**VEHICLE TO PERSON TRIP CONVERSION**

**BASELINE SITE VEHICLE CHARACTERISTICS:**

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
210 - Single-Family Detached Housing	100	100	1	1	63	37
215 - Single-Family Attached Housing	100	100	1	1	59	41
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	63	37

**ESTIMATED BASELINE SITE PERSON TRIPS:**

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
210 - Single-Family Detached Housing	66	39	0	0	66	39
	105		0		105	
215 - Single-Family Attached Housing	30	21	0	0	30	21
	51		0		51	
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	21	12	0	0	21	12
	33		0		33	

**NEW VEHICLE TRIPS**

Land Use	New Vehicle Trips		
	Entry	Exit	Total
210 - Single-Family Detached Housing	66	39	105
215 - Single-Family Attached Housing	30	21	51
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	21	12	33

**RESULTS**

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	117	72	189
External Vehicle Trips	117	72	189
New Vehicle Trips	117	72	189

**Guideline for determining left-turn Lane at a two-way stop-controlled intersection  
TWO LANE ROADWAY**

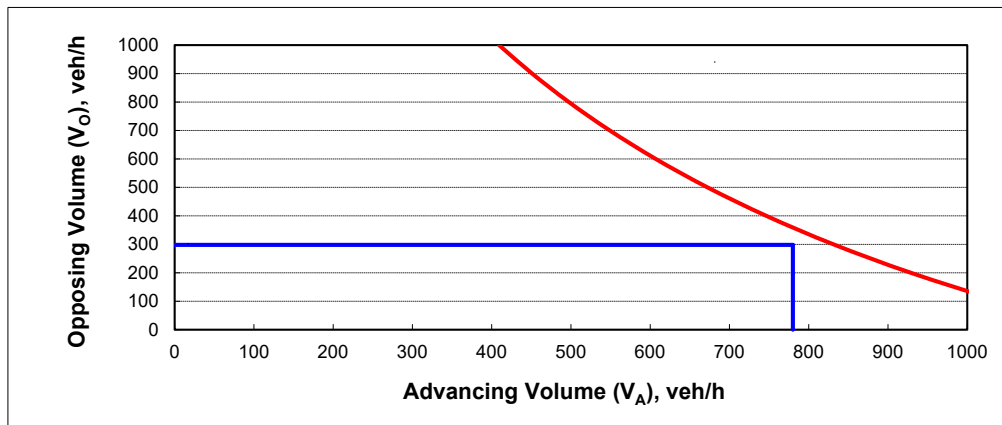
INPUT

Variable	Value
Major Approach	Penfield Rd @ Fellows Rd
Approach	Westbound (AM Peak Full Build)
Design Speed Limit - MPH	50
Percent of left-turns in advancing volume ( $V_A$ ), %:	2%
Advancing volume ( $V_A$ ), veh/h:	780
Opposing volume ( $V_O$ ), veh/h:	298

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	298	780	0
780	298	780	298



OUTPUT

Variable	Value
Limiting advancing volume ( $V_A$ ), veh/h:	833
<b>Guidance for determining the need for a major-road left-turn bay:</b>	
<b>Westbound (AM Peak Full Build) Left-turn treatment NOT warranted at Penfield Rd @ Fellows Rd Interse</b>	

$\rho$  0.015  
 $f =$  0.79  
 Wait Time 1.194 s  
 Service Rate 977 veh/h  
 Arrival Rate 833 veh/h

$V_o$	Time_tw
0	0.0
100	0.4
200	0.8
300	1.2
400	1.7
500	2.2
600	2.8
700	3.5
800	4.2
900	5.0
1000	5.8

$V_o$	Serv_rate
0	1200
100	1121
200	1046
300	976
400	910
500	848
600	789
700	735
800	683
900	635
1000	590

% LT veh.	2%	10%	15%	20%	40%
$V_o$	$V_A$	$V_A$	$V_A$	$V_A$	$V_A$
0	1178	503	422	377	308
100	1043	445	374	334	273
200	929	396	333	297	243
300	831	355	298	266	217
400	747	319	268	239	195
500	672	287	241	215	176
600	607	259	218	194	159
700	549	234	197	176	143
800	497	212	178	159	130
900	451	192	162	144	118
1000	409	175	147	131	107

**Guideline for determining left-turn Lane at a two-way stop-controlled intersection  
TWO LANE ROADWAY**

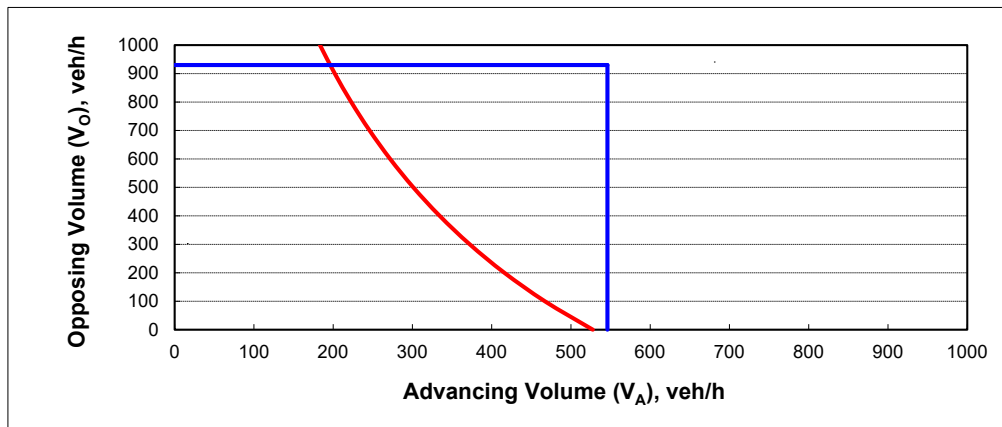
INPUT

Variable	Value
Major Approach	Penfield Rd @ Fellows Rd
Approach	Westbound (PM Peak Full Build)
Design Speed Limit - MPH	50
Percent of left-turns in advancing volume ( $V_A$ ), %:	9%
Advancing volume ( $V_A$ ), veh/h:	546
Opposing volume ( $V_O$ ), veh/h:	930

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	930	546	0
546	930	546	930



OUTPUT

Variable	Value
Limiting advancing volume ( $V_A$ ), veh/h:	196
<b>Guidance for determining the need for a major-road left-turn bay:</b>	
<b>Westbound (PM Peak Full Build) Left-turn treatment warranted at Penfield Rd @ Fellows Rd Intersection</b>	

$\rho$  0.015  
 $f =$  0.79  
 Wait Time 5.215 s  
 Service Rate 622 veh/h  
 Arrival Rate 196 veh/h

Vo	Time_tw
0	0.0
100	0.4
200	0.8
300	1.2
400	1.7
500	2.2
600	2.8
700	3.5
800	4.2
900	5.0
1000	5.8

Vo	Serv_rate
0	1200
100	1121
200	1046
300	976
400	910
500	848
600	789
700	735
800	683
900	635
1000	590

% LT veh.	9%	10%	15%	20%	40%
Vo	VA	VA	VA	VA	VA
0	528	503	422	377	308
100	467	445	374	334	273
200	416	396	333	297	243
300	372	355	298	266	217
400	334	319	268	239	195
500	301	287	241	215	176
600	272	259	218	194	159
700	246	234	197	176	143
800	223	212	178	159	130
900	202	192	162	144	118
1000	183	175	147	131	107

**Guideline for determining left-turn Lane at a two-way stop-controlled intersection  
TWO LANE ROADWAY**

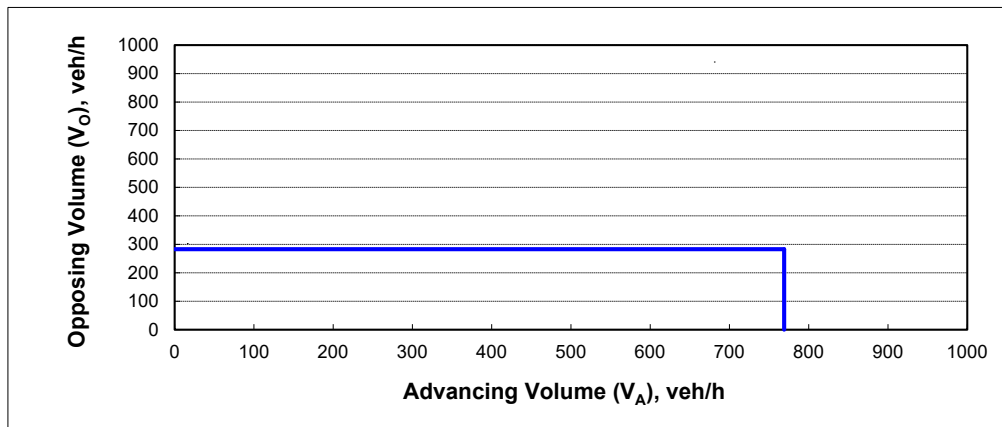
INPUT

Variable	Value
Major Approach	Penfield Rd @ Fellows Rd
Approach	Westbound (AM Peak Background)
Design Speed Limit - MPH	50
Percent of left-turns in advancing volume ( $V_A$ ), %:	0%
Advancing volume ( $V_A$ ), veh/h:	769
Opposing volume ( $V_O$ ), veh/h:	283

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	283	769	0
769	283	769	283



OUTPUT

Variable	Value
Limiting advancing volume ( $V_A$ ), veh/h:	2128
<b>Guidance for determining the need for a major-road left-turn bay:</b>	
<b>Westbound (AM Peak Background) Left-turn treatment NOT warranted at Penfield Rd @ Fellows Rd Inter</b>	

$\rho$	0.015
f =	0.79
Wait Time	1.125 s
Service Rate	987 veh/h
Arrival Rate	2128 veh/h

Vo	Time_tw
0	0.0
100	0.4
200	0.8
300	1.2
400	1.7
500	2.2
600	2.8
700	3.5
800	4.2
900	5.0
1000	5.8

Vo	Serv_rate
0	1200
100	1121
200	1046
300	976
400	910
500	848
600	789
700	735
800	683
900	635
1000	590

% LT veh.	0%	10%	15%	20%	40%
Vo	VA	VA	VA	VA	VA
0	2961	503	422	377	308
100	2621	445	374	334	273
200	2335	396	333	297	243
300	2089	355	298	266	217
400	1876	319	268	239	195
500	1690	287	241	215	176
600	1526	259	218	194	159
700	1380	234	197	176	143
800	1250	212	178	159	130
900	1134	192	162	144	118
1000	1029	175	147	131	107



**Guideline for determining left-turn Lane at a two-way stop-controlled intersection  
TWO LANE ROADWAY**

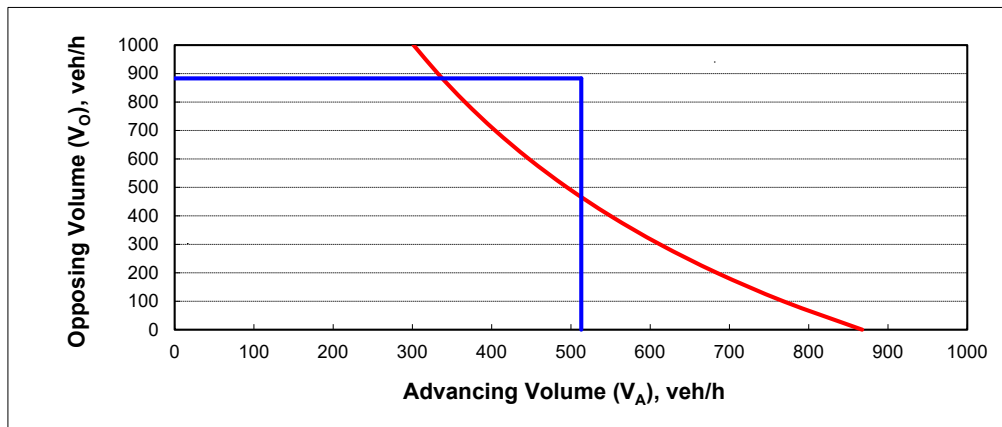
INPUT

Variable	Value
Major Approach	Penfield Rd @ Fellows Rd
Approach	Westbound (PM Peak Background)
Design Speed Limit - MPH	50
Percent of left-turns in advancing volume ( $V_A$ ), %:	3%
Advancing volume ( $V_A$ ), veh/h:	513
Opposing volume ( $V_O$ ), veh/h:	883

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	883	513	0
513	883	513	883



OUTPUT

Variable	Value
Limiting advancing volume ( $V_A$ ), veh/h:	338
<b>Guidance for determining the need for a major-road left-turn bay:</b>	
<b>Westbound (PM Peak Background) Left-turn treatment warranted at Penfield Rd @ Fellows Rd Intersecti</b>	

$\rho$  0.015  
 $f =$  0.79  
 Wait Time 4.821 s  
 Service Rate 643 veh/h  
 Arrival Rate 338 veh/h

Vo	Time_tw
0	0.0
100	0.4
200	0.8
300	1.2
400	1.7
500	2.2
600	2.8
700	3.5
800	4.2
900	5.0
1000	5.8

Vo	Serv_rate
0	1200
100	1121
200	1046
300	976
400	910
500	848
600	789
700	735
800	683
900	635
1000	590

% LT veh.	3%	10%	15%	20%	40%
Vo	VA	VA	VA	VA	VA
0	867	503	422	377	308
100	768	445	374	334	273
200	684	396	333	297	243
300	612	355	298	266	217
400	550	319	268	239	195
500	495	287	241	215	176
600	447	259	218	194	159
700	404	234	197	176	143
800	366	212	178	159	130
900	332	192	162	144	118
1000	302	175	147	131	107

**APPENDIX C: LOS CALCULATIONS – EXISTING CONDITIONS**

Lanes, Volumes, Timings  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2024 Existing AM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↘	↙	↔	↙	↘
Traffic Volume (vph)	246	29	2	748	59	8
Future Volume (vph)	246	29	2	748	59	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.986				0.984	
Flt Protected					0.958	
Satd. Flow (prot)	1714	0	0	1863	1791	0
Flt Permitted					0.958	
Satd. Flow (perm)	1714	0	0	1863	1791	0
Link Speed (mph)	45			45	35	
Link Distance (ft)	369			524	386	
Travel Time (s)	5.6			7.9	7.5	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	9%	12%	0%	2%	0%	0%
Adj. Flow (vph)	251	30	2	763	60	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	281	0	0	765	68	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	51.4%
ICU Level of Service A	
Analysis Period (min)	15

HCM 6th TWSC  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2024 Existing AM

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↘	↙	↔	↙	↘
Traffic Vol, veh/h	246	29	2	748	59	8
Future Vol, veh/h	246	29	2	748	59	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	9	12	0	2	0	0
Mvmt Flow	251	30	2	763	60	8

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	281
Stage 1	-	-	266
Stage 2	-	-	767
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1293
Stage 1	-	-	783
Stage 2	-	-	462
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1293
Mov Cap-2 Maneuver	-	-	259
Stage 1	-	-	783
Stage 2	-	-	461

Approach	EB	WB	NB
HCM Control Delay, s	0	0	21.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	281	-	-	1293	-
HCM Lane V/C Ratio	0.243	-	-	0.002	-
HCM Control Delay (s)	21.9	-	-	7.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0	-

Lanes, Volumes, Timings  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2024 Existing AM



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Volume (vph)	16	6	33	10	6	28
Future Volume (vph)	16	6	33	10	6	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.965		0.968			
Flt Protected	0.964				0.992	
Satd. Flow (prot)	1681		0		1767	
Flt Permitted	0.964				0.992	
Satd. Flow (perm)	1681		0		1767	
Link Speed (mph)	40		30		35	
Link Distance (ft)	2113		694		582	
Travel Time (s)	36.0		15.8		11.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	7%	0%	0%	22%	40%	0%
Adj. Flow (vph)	17	6	35	11	6	30
Shared Lane Traffic (%)						
Lane Group Flow (vph)	23	0	46	0	0	36
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0		0	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free		Free	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	16.6%
ICU Level of Service	A
Analysis Period (min)	15

HCM 6th TWSC  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2024 Existing AM

Intersection						
Int Delay, s/veh	2.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	16	6	33	10	6	28
Future Vol, veh/h	16	6	33	10	6	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	7	0	0	22	40	0
Mvmt Flow	17	6	35	11	6	30

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	83	41	0
Stage 1	41	-	-
Stage 2	42	-	-
Critical Hdwy	6.47	6.2	-
Critical Hdwy Stg 1	5.47	-	-
Critical Hdwy Stg 2	5.47	-	-
Follow-up Hdwy	3.563	3.3	-
Pot Cap-1 Maneuver	907	1036	-
Stage 1	969	-	-
Stage 2	968	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	902	1036	-
Mov Cap-2 Maneuver	902	-	-
Stage 1	969	-	-
Stage 2	963	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	935	1350
HCM Lane V/C Ratio	-	-	0.025	0.005
HCM Control Delay (s)	-	-	8.9	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Lanes, Volumes, Timings  
5: Roxwell Court/Fellows Road & Whitney Road

Fellows Rd Properties  
2024 Existing AM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Traffic Volume (vph)	20	111	0	1	337	14	3	0	0	28	0	49
Future Volume (vph)	20	111	0	1	337	14	3	0	0	28	0	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.995			0.950			0.914		
Flt Protected	0.992						0.950			0.982		
Satd. Flow (prot)	0	1724	0	0	1844	0	0	1805	0	0	1653	0
Flt Permitted	0.992						0.950			0.982		
Satd. Flow (perm)	0	1724	0	0	1844	0	0	1805	0	0	1653	0
Link Speed (mph)	35			35			30			30		
Link Distance (ft)	630			774			513			1914		
Travel Time (s)	12.3			15.1			11.7			43.5		
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	11%	9%	0%	0%	2%	15%	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	23	129	0	1	392	16	3	0	0	33	0	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	152	0	0	409	0	0	3	0	0	90	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free				Free		Stop				Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	32.5%
ICU Level of Service A	
Analysis Period (min)	15

HCM 6th TWSC  
5: Roxwell Court/Fellows Road & Whitney Road

Fellows Rd Properties  
2024 Existing AM

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Traffic Vol, veh/h	20	111	0	1	337	14	3	0	0	28	0	49
Future Vol, veh/h	20	111	0	1	337	14	3	0	0	28	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	11	9	0	0	2	15	0	0	0	0	0	5
Mvmt Flow	23	129	0	1	392	16	3	0	0	33	0	57

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	408	0	0	129
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.21	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.299	-	-	2.2
Pot Cap-1 Maneuver	1104	-	-	1469
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1104	-	-	1469
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	14.8	13
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	369	1104	-	-	1469	-	-	541
HCM Lane V/C Ratio	0.009	0.021	-	-	0.001	-	-	0.165
HCM Control Delay (s)	14.8	8.3	0	-	7.5	0	-	13
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.6

Lanes, Volumes, Timings  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2024 Existing PM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Traffic Volume (vph)	774	88	16	485	47	11
Future Volume (vph)	774	88	16	485	47	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.986			0.975		
Flt Protected				0.998	0.961	
Satd. Flow (prot)	1857	0	0	1860	1780	0
Flt Permitted				0.998	0.961	
Satd. Flow (perm)	1857	0	0	1860	1780	0
Link Speed (mph)	45			45	35	
Link Distance (ft)	369			524	386	
Travel Time (s)	5.6			7.9	7.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	0%	0%	2%	0%	0%
Adj. Flow (vph)	860	98	18	539	52	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	958	0	0	557	64	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	56.1%
ICU Level of Service	B
Analysis Period (min)	15

HCM 6th TWSC  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2024 Existing PM

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	774	88	16	485	47	11
Future Vol, veh/h	774	88	16	485	47	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	860	98	18	539	52	12

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	958	0
Stage 1	-	-	-	909
Stage 2	-	-	-	575
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	726	-
Stage 1	-	-	-	396
Stage 2	-	-	-	567
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	726	-
Mov Cap-2 Maneuver	-	-	-	134
Stage 1	-	-	-	396
Stage 2	-	-	-	547

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	45.5
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	151	-	-	726	-
HCM Lane V/C Ratio	0.427	-	-	0.024	-
HCM Control Delay (s)	45.5	-	-	10.1	0
HCM Lane LOS	E	-	-	B	A
HCM 95th %tile Q(veh)	1.9	-	-	0.1	-

Lanes, Volumes, Timings  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2024 Existing PM



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Volume (vph)	16	11	43	16	13	65
Future Volume (vph)	16	11	43	16	13	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.944		0.963			
Flt Protected	0.971				0.992	
Satd. Flow (prot)	1742		0 1830		0 1885	
Flt Permitted	0.971				0.992	
Satd. Flow (perm)	1742		0 1830		0 1885	
Link Speed (mph)	40		30		35	
Link Distance (ft)	2113		694		582	
Travel Time (s)	36.0		15.8		11.3	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	20	14	53	20	16	80
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	0	73	0	0	96
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0		0	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15		
Sign Control	Stop		Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	20.8%
ICU Level of Service	A
Analysis Period (min)	15

HCM 6th TWSC  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2024 Existing PM

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	16	11	43	16	13	65
Future Vol, veh/h	16	11	43	16	13	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	20	14	53	20	16	80

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	175	63	0 0 73 0
Stage 1	63	-	- - - -
Stage 2	112	-	- - - -
Critical Hdwy	6.4	6.2	- - 4.1 -
Critical Hdwy Stg 1	5.4	-	- - - -
Critical Hdwy Stg 2	5.4	-	- - - -
Follow-up Hdwy	3.5	3.3	- - 2.2 -
Pot Cap-1 Maneuver	819	1007	- - 1540 -
Stage 1	965	-	- - - -
Stage 2	918	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	810	1007	- - 1540 -
Mov Cap-2 Maneuver	810	-	- - - -
Stage 1	965	-	- - - -
Stage 2	908	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	880 1540	-
HCM Lane V/C Ratio	-	-	0.038 0.01	-
HCM Control Delay (s)	-	-	9.3 7.4	0
HCM Lane LOS	-	-	A A A	
HCM 95th %tile Q(veh)	-	-	0.1 0	-

Lanes, Volumes, Timings  
5: Roxwell Court/Fellows Road & Whitney Road

Fellows Rd Properties  
2024 Existing PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Traffic Volume (vph)	65	327	4	0	208	22	3	1	0	32	0	52
Future Volume (vph)	65	327	4	0	208	22	3	1	0	32	0	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999		0.987				0.964				0.916	
Flt Protected	0.992						0.964				0.981	
Satd. Flow (prot)	0	1883	0	0	1858	0	0	1832	0	0	1707	0
Flt Permitted	0.992						0.964				0.981	
Satd. Flow (perm)	0	1883	0	0	1858	0	0	1832	0	0	1707	0
Link Speed (mph)	35				35		30				30	
Link Distance (ft)	630				774		513				1914	
Travel Time (s)	12.3				15.1		11.7				43.5	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	74	372	5	0	236	25	3	1	0	36	0	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	451	0	0	261	0	0	4	0	0	95	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0		0				0	
Link Offset(ft)	0				0		0				0	
Crosswalk Width(ft)	16				16		16				16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free				Free		Stop				Stop	

Intersection Summary		
Area Type:	Other	
Control Type:	Unsignalized	
Intersection Capacity Utilization	48.2%	ICU Level of Service A
Analysis Period (min)	15	

HCM 6th TWSC  
5: Roxwell Court/Fellows Road & Whitney Road

Fellows Rd Properties  
2024 Existing PM

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Traffic Vol, veh/h	65	327	4	0	208	22	3	1	0	32	0	52
Future Vol, veh/h	65	327	4	0	208	22	3	1	0	32	0	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	74	372	5	0	236	25	3	1	0	36	0	59

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	261	0	0	377
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1315	-	-	1193
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1315	-	-	1193
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	18.3	14.1
HCM LOS			C	B

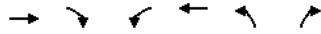
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	275	1315	-	-	1193	-	-	489
HCM Lane V/C Ratio	0.017	0.056	-	-	-	-	-	0.195
HCM Control Delay (s)	18.3	7.9	0	-	0	-	-	14.1
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.7



**APPENDIX D: LOS CALCULATIONS – BACKGROUND CONDITIONS**

Lanes, Volumes, Timings  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2029 Background AM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↘	↙	↔	↙	↘
Traffic Volume (vph)	253	30	2	767	60	8
Future Volume (vph)	253	30	2	767	60	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.986			0.984		
Flt Protected				0.958		
Satd. Flow (prot)	1714	0	0	1863	1791	0
Flt Permitted				0.958		
Satd. Flow (perm)	1714	0	0	1863	1791	0
Link Speed (mph)	45		45		35	
Link Distance (ft)	369		524		386	
Travel Time (s)	5.6		7.9		7.5	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	9%	12%	0%	2%	0%	0%
Adj. Flow (vph)	258	31	2	783	61	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	289	0	0	785	69	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0		0		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15		15	
Sign Control	Free		Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	52.4%
ICU Level of Service A	
Analysis Period (min)	15

HCM 6th TWSC  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2029 Background AM

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↘	↙	↔	↙	↘
Traffic Vol, veh/h	253	30	2	767	60	8
Future Vol, veh/h	253	30	2	767	60	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	9	12	0	2	0	0
Mvmt Flow	258	31	2	783	61	8

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	289	0
Stage 1	-	-	-	274
Stage 2	-	-	-	787
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	1284	-
Stage 1	-	-	-	777
Stage 2	-	-	-	452
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1284	-
Mov Cap-2 Maneuver	-	-	-	249
Stage 1	-	-	-	777
Stage 2	-	-	-	451

Approach	EB	WB	NB
HCM Control Delay, s	0	0	22.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	271	-	-	1284	-
HCM Lane V/C Ratio	0.256	-	-	0.002	-
HCM Control Delay (s)	22.8	-	-	7.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0	-

Lanes, Volumes, Timings  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2029 Background AM



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Volume (vph)	16	6	34	10	6	28
Future Volume (vph)	16	6	34	10	6	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.965		0.968			
Flt Protected	0.964				0.992	
Satd. Flow (prot)	1681		0		1767	
Flt Permitted	0.964				0.992	
Satd. Flow (perm)	1681		0		1767	
Link Speed (mph)	40		30		35	
Link Distance (ft)	2113		694		582	
Travel Time (s)	36.0		15.8		11.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	7%	0%	0%	22%	40%	0%
Adj. Flow (vph)	17	6	36	11	6	30
Shared Lane Traffic (%)						
Lane Group Flow (vph)	23	0	47	0	0	36
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0		0	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	16.6%
ICU Level of Service	A
Analysis Period (min)	15

HCM 6th TWSC  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2029 Background AM

Intersection						
Int Delay, s/veh	2.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	16	6	34	10	6	28
Future Vol, veh/h	16	6	34	10	6	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	7	0	0	22	40	0
Mvmt Flow	17	6	36	11	6	30

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	84	42	0	0	47
Stage 1	42	-	-	-	-
Stage 2	42	-	-	-	-
Critical Hdwy	6.47	6.2	-	-	4.5
Critical Hdwy Stg 1	5.47	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-
Follow-up Hdwy	3.563	3.3	-	-	2.56
Pot Cap-1 Maneuver	905	1034	-	-	1348
Stage 1	968	-	-	-	-
Stage 2	968	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	900	1034	-	-	1348
Mov Cap-2 Maneuver	900	-	-	-	-
Stage 1	968	-	-	-	-
Stage 2	963	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	933	1348
HCM Lane V/C Ratio	-	-	0.025	0.005
HCM Control Delay (s)	-	-	9	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Lanes, Volumes, Timings  
5: Roxwell Court/Fellows Road & Whitney Road

Fellows Rd Properties  
2029 Background AM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Traffic Volume (vph)	20	114	0	1	346	15	3	0	0	28	0	50
Future Volume (vph)	20	114	0	1	346	15	3	0	0	28	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.995			0.950			0.914		
Flt Protected	0.993						0.950			0.982		
Satd. Flow (prot)	0	1726	0	0	1844	0	0	1805	0	0	1653	0
Flt Permitted	0.993						0.950			0.982		
Satd. Flow (perm)	0	1726	0	0	1844	0	0	1805	0	0	1653	0
Link Speed (mph)	35			35			30			30		
Link Distance (ft)	630			774			513			1914		
Travel Time (s)	12.3			15.1			11.7			43.5		
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	11%	9%	0%	0%	2%	15%	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	23	133	0	1	402	17	3	0	0	33	0	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	156	0	0	420	0	0	3	0	0	91	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free				Free				Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	32.7%
ICU Level of Service A	
Analysis Period (min)	15

HCM 6th TWSC  
5: Roxwell Court/Fellows Road & Whitney Road

Fellows Rd Properties  
2029 Background AM

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Traffic Vol, veh/h	20	114	0	1	346	15	3	0	0	28	0	50
Future Vol, veh/h	20	114	0	1	346	15	3	0	0	28	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	11	9	0	0	2	15	0	0	0	0	0	5
Mvmt Flow	23	133	0	1	402	17	3	0	0	33	0	58

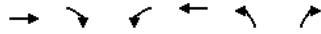
Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	419	0	0	133
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.21	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.299	-	-	2.2
Pot Cap-1 Maneuver	1093	-	-	1464
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1093	-	-	1464
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0	15.1	13.2
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	359	1093	-	-	1464	-	-	532
HCM Lane V/C Ratio	0.01	0.021	-	-	0.001	-	-	0.17
HCM Control Delay (s)	15.1	8.4	0	-	7.5	0	-	13.2
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.6

Lanes, Volumes, Timings  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2029 Background PM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Traffic Volume (vph)	793	90	16	497	48	11
Future Volume (vph)	793	90	16	497	48	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.986			0.975		
Flt Protected				0.998	0.961	
Satd. Flow (prot)	1857	0	0	1860	1780	0
Flt Permitted				0.998	0.961	
Satd. Flow (perm)	1857	0	0	1860	1780	0
Link Speed (mph)	45			45	35	
Link Distance (ft)	369			524	386	
Travel Time (s)	5.6			7.9	7.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	0%	0%	2%	0%	0%
Adj. Flow (vph)	881	100	18	552	53	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	981	0	0	570	65	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	57.2%
ICU Level of Service	B
Analysis Period (min)	15

HCM 6th TWSC  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2029 Background PM

Intersection						
Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	793	90	16	497	48	11
Future Vol, veh/h	793	90	16	497	48	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	881	100	18	552	53	12

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	981
Stage 1	-	-	931
Stage 2	-	-	588
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	712
Stage 1	-	-	387
Stage 2	-	-	559
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	712
Mov Cap-2 Maneuver	-	-	127
Stage 1	-	-	387
Stage 2	-	-	539

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	49.9
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	143	-	-	712	-
HCM Lane V/C Ratio	0.458	-	-	0.025	-
HCM Control Delay (s)	49.9	-	-	10.2	0
HCM Lane LOS	E	-	-	B	A
HCM 95th %tile Q(veh)	2.1	-	-	0.1	-

Lanes, Volumes, Timings  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2029 Background PM



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Volume (vph)	16	11	44	16	14	67
Future Volume (vph)	16	11	44	16	14	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.944		0.964			
Flt Protected	0.971					0.992
Satd. Flow (prot)	1742	0	1832	0	0	1885
Flt Permitted	0.971					0.992
Satd. Flow (perm)	1742	0	1832	0	0	1885
Link Speed (mph)	40		30			35
Link Distance (ft)	2113		694			582
Travel Time (s)	36.0		15.8			11.3
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	20	14	54	20	17	83
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	0	74	0	0	100
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	21.0%
ICU Level of Service	A
Analysis Period (min)	15

HCM 6th TWSC  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2029 Background PM

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	16	11	44	16	14	67
Future Vol, veh/h	16	11	44	16	14	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	20	14	54	20	17	83

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	181	64	0
Stage 1	64	-	-
Stage 2	117	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	813	1006	-
Stage 1	964	-	-
Stage 2	913	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	803	1006	-
Mov Cap-2 Maneuver	803	-	-
Stage 1	964	-	-
Stage 2	902	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	1.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	875	1538
HCM Lane V/C Ratio	-	-	0.038	0.011
HCM Control Delay (s)	-	-	9.3	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Lanes, Volumes, Timings

Fellows Rd Properties

5: Roxwell Court/Fellows Road & Whitney Road

2029 Background PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (vph)	67	336	5	0	213	23	3	1	0	33	0	53
Future Volume (vph)	67	336	5	0	213	23	3	1	0	33	0	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.987						0.917	
Flt Protected		0.992						0.964			0.981	
Satd. Flow (prot)	0	1881	0	0	1859	0	0	1832	0	0	1709	0
Flt Permitted		0.992						0.964			0.981	
Satd. Flow (perm)	0	1881	0	0	1859	0	0	1832	0	0	1709	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		630			774			513			1914	
Travel Time (s)		12.3			15.1			11.7			43.5	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	76	382	6	0	242	26	3	1	0	38	0	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	464	0	0	268	0	0	4	0	0	98	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	49.3%
ICU Level of Service A	
Analysis Period (min)	15

HCM 6th TWSC

Fellows Rd Properties

5: Roxwell Court/Fellows Road & Whitney Road

2029 Background PM

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	67	336	5	0	213	23	3	1	0	33	0	53
Future Vol, veh/h	67	336	5	0	213	23	3	1	0	33	0	53
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	76	382	6	0	242	26	3	1	0	38	0	60

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	268	0	0	388
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1307	-	-	1182
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1307	-	-	1182
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	18.8	14.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	265	1307	-	-	1182	-	-	476
HCM Lane V/C Ratio	0.017	0.058	-	-	-	-	-	0.205
HCM Control Delay (s)	18.8	7.9	0	-	0	-	-	14.5
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.8

**APPENDIX E: LOS CALCULATIONS – FULL BUILD CONDITIONS**



Lanes, Volumes, Timings  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2029 Full Build AM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↘	↙	↔	↙	↘
Traffic Volume (vph)	253	45	13	767	106	40
Future Volume (vph)	253	45	13	767	106	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980			0.963		
Flt Protected				0.999	0.965	
Satd. Flow (prot)	1701	0	0	1861	1766	0
Flt Permitted				0.999	0.965	
Satd. Flow (perm)	1701	0	0	1861	1766	0
Link Speed (mph)	45			45	35	
Link Distance (ft)	369			524	386	
Travel Time (s)	5.6			7.9	7.5	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	9%	12%	0%	2%	0%	0%
Adj. Flow (vph)	258	46	13	783	108	41
Shared Lane Traffic (%)						
Lane Group Flow (vph)	304	0	0	796	149	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	65.8%
ICU Level of Service	C
Analysis Period (min)	15

HCM 6th TWSC  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2029 Full Build AM

Intersection						
Int Delay, s/veh	3.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↘	↙	↔	↙	↘
Traffic Vol, veh/h	253	45	13	767	106	40
Future Vol, veh/h	253	45	13	767	106	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	9	12	0	2	0	0
Mvmt Flow	258	46	13	783	108	41

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	304	1090
Stage 1	-	-	-	281
Stage 2	-	-	-	809
Critical Hdwy	-	-	4.1	6.4
Critical Hdwy Stg 1	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	3.5
Pot Cap-1 Maneuver	-	-	1268	240
Stage 1	-	-	-	771
Stage 2	-	-	-	441
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1268	236
Mov Cap-2 Maneuver	-	-	-	236
Stage 1	-	-	-	771
Stage 2	-	-	-	433

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	29.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	291	-	-	1268	-
HCM Lane V/C Ratio	0.512	-	-	0.01	-
HCM Control Delay (s)	29.7	-	-	7.9	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	2.7	-	-	0	-

Lanes, Volumes, Timings

Fellows Rd Properties

2: Fellows Road & Proposed Driveway

2029 Full Build AM



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Volume (vph)	32	72	46	11	24	36
Future Volume (vph)	32	72	46	11	24	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.907		0.974			
Flt Protected	0.985					0.980
Satd. Flow (prot)	1664	0	1814	0	0	1825
Flt Permitted	0.985					0.980
Satd. Flow (perm)	1664	0	1814	0	0	1825
Link Speed (mph)	30		30			30
Link Distance (ft)	822		1480			908
Travel Time (s)	18.7		33.6			20.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	78	50	12	26	39
Shared Lane Traffic (%)						
Lane Group Flow (vph)	113	0	62	0	0	65
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.8%
ICU Level of Service	A
Analysis Period (min)	15

HCM 6th TWSC

Fellows Rd Properties

2: Fellows Road & Proposed Driveway

2029 Full Build AM

Intersection						
Int Delay, s/veh	5.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	32	72	46	11	24	36
Future Vol, veh/h	32	72	46	11	24	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	78	50	12	26	39

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	147	56	0
Stage 1	56	-	-
Stage 2	91	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	845	1011	-
Stage 1	967	-	-
Stage 2	933	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	831	1011	-
Mov Cap-2 Maneuver	831	-	-
Stage 1	967	-	-
Stage 2	917	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	948	1541
HCM Lane V/C Ratio	-	-	0.119	0.017
HCM Control Delay (s)	-	-	9.3	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1

Lanes, Volumes, Timings  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2029 Full Build AM



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Volume (vph)	19	12	45	11	8	60
Future Volume (vph)	19	12	45	11	8	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.947		0.973			
Flt Protected	0.971					0.994
Satd. Flow (prot)	1676	0	1771	0	0	1800
Flt Permitted	0.971					0.994
Satd. Flow (perm)	1676	0	1771	0	0	1800
Link Speed (mph)	40		30			35
Link Distance (ft)	1350		694			1480
Travel Time (s)	23.0		15.8			28.8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	7%	0%	0%	22%	40%	0%
Adj. Flow (vph)	20	13	48	12	9	64
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	0	60	0	0	73
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	19.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM 6th TWSC  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2029 Full Build AM

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	19	12	45	11	8	60
Future Vol, veh/h	19	12	45	11	8	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	7	0	0	22	40	0
Mvmt Flow	20	13	48	12	9	64

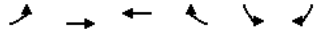
Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	136	54	0
Stage 1	54	-	-
Stage 2	82	-	-
Critical Hdwy	6.47	6.2	-
Critical Hdwy Stg 1	5.47	-	-
Critical Hdwy Stg 2	5.47	-	-
Follow-up Hdwy	3.563	3.3	-
Pot Cap-1 Maneuver	846	1019	-
Stage 1	956	-	-
Stage 2	929	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	840	1019	-
Mov Cap-2 Maneuver	840	-	-
Stage 1	956	-	-
Stage 2	922	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	901	1333
HCM Lane V/C Ratio	-	-	0.037	0.006
HCM Control Delay (s)	-	-	9.1	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Lanes, Volumes, Timings  
4: Furman Road & Proposed Driveway

Fellows Rd Properties  
2029 Full Build AM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	
Traffic Volume (vph)	3	16	22	0	1	9
Future Volume (vph)	3	16	22	0	1	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.877	
Flt Protected		0.993			0.995	
Satd. Flow (prot)	0	1850	1863	0	1625	0
Flt Permitted		0.993			0.995	
Satd. Flow (perm)	0	1850	1863	0	1625	0
Link Speed (mph)		30	40		30	
Link Distance (ft)		1350	763		478	
Travel Time (s)		30.7	13.0		10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	17	24	0	1	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	20	24	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM 6th TWSC  
4: Furman Road & Proposed Driveway

Fellows Rd Properties  
2029 Full Build AM

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	
Traffic Vol, veh/h	3	16	22	0	1	9
Future Vol, veh/h	3	16	22	0	1	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length		-	-	-	0	-
Veh in Median Storage, #		-	0	0	-	0
Grade, %		-	0	0	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	17	24	0	1	10

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	24	0	47
Stage 1	-	-	24
Stage 2	-	-	23
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1591	-	963
Stage 1	-	-	999
Stage 2	-	-	1000
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1591	-	961
Mov Cap-2 Maneuver	-	-	961
Stage 1	-	-	997
Stage 2	-	-	1000

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1591	-	-	-	1042
HCM Lane V/C Ratio	0.002	-	-	-	0.01
HCM Control Delay (s)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Lanes, Volumes, Timings  
5: Roxwell Court/Fellows Road & Whitney Road

Fellows Rd Properties  
2029 Full Build AM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Traffic Volume (vph)	27	114	0	1	346	20	3	0	0	42	0	71
Future Volume (vph)	27	114	0	1	346	20	3	0	0	42	0	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.993			0.950			0.915		
Flt Protected	0.991						0.950			0.982		
Satd. Flow (prot)	0	1721	0	0	1837	0	0	1805	0	0	1655	0
Flt Permitted	0.991						0.950			0.982		
Satd. Flow (perm)	0	1721	0	0	1837	0	0	1805	0	0	1655	0
Link Speed (mph)	35			35			30			30		
Link Distance (ft)	630			774			513			1914		
Travel Time (s)	12.3			15.1			11.7			43.5		
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	11%	9%	0%	0%	2%	15%	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	31	133	0	1	402	23	3	0	0	49	0	83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	164	0	0	426	0	0	3	0	0	132	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free				Free				Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.4%
ICU Level of Service A	
Analysis Period (min)	15

HCM 6th TWSC  
5: Roxwell Court/Fellows Road & Whitney Road

Fellows Rd Properties  
2029 Full Build AM

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Traffic Vol, veh/h	27	114	0	1	346	20	3	0	0	42	0	71
Future Vol, veh/h	27	114	0	1	346	20	3	0	0	42	0	71
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	11	9	0	0	2	15	0	0	0	0	0	5
Mvmt Flow	31	133	0	1	402	23	3	0	0	49	0	83

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	425	0	0	133
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.21	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.299	-	-	2.2
Pot Cap-1 Maneuver	1088	-	-	1464
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1088	-	-	1464
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.6	0	16.2	14.3
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	326	1088	-	-	1464	-	-	519
HCM Lane V/C Ratio	0.011	0.029	-	-	0.001	-	-	0.253
HCM Control Delay (s)	16.2	8.4	0	-	7.5	0	-	14.3
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	1

Lanes, Volumes, Timings  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2029 Full Build PM

	→	↖	↗	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖			↖	↗	↗
Traffic Volume (vph)	793	137	49	497	77	31
Future Volume (vph)	793	137	49	497	77	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980			0.962		
Flt Protected				0.996	0.965	
Satd. Flow (prot)	1846	0	0	1859	1764	0
Flt Permitted				0.996	0.965	
Satd. Flow (perm)	1846	0	0	1859	1764	0
Link Speed (mph)	45			45	35	
Link Distance (ft)	369			524	386	
Travel Time (s)	5.6			7.9	7.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	0%	0%	2%	0%	0%
Adj. Flow (vph)	881	152	54	552	86	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1033	0	0	606	120	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	79.7%
ICU Level of Service	D
Analysis Period (min)	15

HCM 6th TWSC  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2029 Full Build PM

Intersection						
Int Delay, s/veh	9.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖			↖	↗	↗
Traffic Vol, veh/h	793	137	49	497	77	31
Future Vol, veh/h	793	137	49	497	77	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	881	152	54	552	86	34

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1033
Stage 1	-	-	957
Stage 2	-	-	660
Critical Hdwy	-	4.1	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	-	2.2	3.5
Pot Cap-1 Maneuver	-	681	115
Stage 1	-	-	376
Stage 2	-	-	518
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	681	102
Mov Cap-2 Maneuver	-	-	102
Stage 1	-	-	376
Stage 2	-	-	459

Approach	EB	WB	NB
HCM Control Delay, s	0	1	131.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	127	-	-	681	-
HCM Lane V/C Ratio	0.945	-	-	0.08	-
HCM Control Delay (s)	131.4	-	-	10.7	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	6.3	-	-	0.3	-

Lanes, Volumes, Timings

Fellows Rd Properties

2: Fellows Road & Proposed Driveway

2029 Full Build PM



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Volume (vph)	20	45	60	33	74	87
Future Volume (vph)	20	45	60	33	74	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.907		0.952			
Flt Protected	0.985					0.978
Satd. Flow (prot)	1664	0	1773	0	0	1822
Flt Permitted	0.985					0.978
Satd. Flow (perm)	1664	0	1773	0	0	1822
Link Speed (mph)	30		35			35
Link Distance (ft)	822		1480			908
Travel Time (s)	18.7		28.8			17.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	49	65	36	80	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	71	0	101	0	0	175
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM 6th TWSC

Fellows Rd Properties

2: Fellows Road & Proposed Driveway

2029 Full Build PM

Intersection						
Int Delay, s/veh	3.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	20	45	60	33	74	87
Future Vol, veh/h	20	45	60	33	74	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	49	65	36	80	95

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	338	83	0
Stage 1	83	-	-
Stage 2	255	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	658	976	-
Stage 1	940	-	-
Stage 2	788	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	620	976	-
Mov Cap-2 Maneuver	620	-	-
Stage 1	940	-	-
Stage 2	743	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	3.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	829	1491
HCM Lane V/C Ratio	-	-	0.085	0.054
HCM Control Delay (s)	-	-	9.7	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

Lanes, Volumes, Timings  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2029 Full Build PM



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Volume (vph)	18	15	77	19	20	87
Future Volume (vph)	18	15	77	19	20	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.937		0.974			
Flt Protected	0.974					0.991
Satd. Flow (prot)	1734	0	1851	0	0	1883
Flt Permitted	0.974					0.991
Satd. Flow (perm)	1734	0	1851	0	0	1883
Link Speed (mph)	40		30			35
Link Distance (ft)	1350		694			1480
Travel Time (s)	23.0		15.8			28.8
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	22	19	95	23	25	107
Shared Lane Traffic (%)						
Lane Group Flow (vph)	41	0	118	0	0	132
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.4%
ICU Level of Service A	
Analysis Period (min)	15

HCM 6th TWSC  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2029 Full Build PM

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	18	15	77	19	20	87
Future Vol, veh/h	18	15	77	19	20	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	22	19	95	23	25	107

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	264	107	0
Stage 1	107	-	-
Stage 2	157	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	729	953	-
Stage 1	922	-	-
Stage 2	876	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	716	953	-
Mov Cap-2 Maneuver	716	-	-
Stage 1	922	-	-
Stage 2	860	-	-

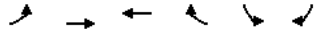
Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	807	1483
HCM Lane V/C Ratio	-	-	0.05	0.017
HCM Control Delay (s)	-	-	9.7	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1



Lanes, Volumes, Timings  
4: Furman Road & Proposed Driveway

Fellows Rd Properties  
2029 Full Build PM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Volume (vph)	9	30	27	1	1	6
Future Volume (vph)	9	30	27	1	1	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995		0.882		
Flt Protected		0.989		0.994		
Satd. Flow (prot)	0	1842	1853	0	1633	0
Flt Permitted		0.989		0.994		
Satd. Flow (perm)	0	1842	1853	0	1633	0
Link Speed (mph)		30		30		
Link Distance (ft)		1350		763		
Travel Time (s)		30.7		17.3		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	33	29	1	1	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	30	0	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0		12		
Link Offset(ft)		0		0		
Crosswalk Width(ft)		16		16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60			60	60	60
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	18.7%
ICU Level of Service	A
Analysis Period (min)	15

HCM 6th TWSC  
4: Furman Road & Proposed Driveway

Fellows Rd Properties  
2029 Full Build PM

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	9	30	27	1	1	6
Future Vol, veh/h	9	30	27	1	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	33	29	1	1	7

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	30	0	83
Stage 1	-	-	30
Stage 2	-	-	53
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1583	-	919
Stage 1	-	-	993
Stage 2	-	-	970
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1583	-	913
Mov Cap-2 Maneuver	-	-	913
Stage 1	-	-	987
Stage 2	-	-	970

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1583	-	-	-	1023
HCM Lane V/C Ratio	0.006	-	-	-	0.007
HCM Control Delay (s)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Lanes, Volumes, Timings

5: Roxwell Court/Fellows Road & Whitney Road

Fellows Rd Properties

2029 Full Build PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	89	336	5	0	213	37	3	1	0	41	0	67
Future Volume (vph)	89	336	5	0	213	37	3	1	0	41	0	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998		0.980		0.964		0.981					
Flt Protected	0.990						0.964		0.981			
Satd. Flow (prot)	0	1877	0	0	1846	0	0	1832	0	0	1709	0
Flt Permitted	0.990						0.964		0.981			
Satd. Flow (perm)	0	1877	0	0	1846	0	0	1832	0	0	1709	0
Link Speed (mph)	35		35		30		30		30			
Link Distance (ft)	630		774		513		1914					
Travel Time (s)	12.3		15.1		11.7		43.5					
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	101	382	6	0	242	42	3	1	0	47	0	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	489	0	0	284	0	0	4	0	0	123	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0		0		0		0		0			
Link Offset(ft)	0		0		0		0		0			
Crosswalk Width(ft)	16		16		16		16		16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free		Free		Stop		Stop					

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	52.6%
ICU Level of Service A	
Analysis Period (min)	15

HCM 6th TWSC

5: Roxwell Court/Fellows Road & Whitney Road

Fellows Rd Properties

2029 Full Build PM

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	89	336	5	0	213	37	3	1	0	41	0	67
Future Vol, veh/h	89	336	5	0	213	37	3	1	0	41	0	67
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	101	382	6	0	242	42	3	1	0	47	0	76

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	284	0	0	388
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1290	-	-	1182
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1290	-	-	1182
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	0	20.9	16.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	231	1290	-	-	1182	-	-	442
HCM Lane V/C Ratio	0.02	0.078	-	-	-	-	-	0.278
HCM Control Delay (s)	20.9	8	0	0	-	-	-	16.2
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0	-	-	1.1

**APPENDIX F:** LOS CALCULATIONS – FULL BUILD CONDITIONS WITH  
MITIGATION

Lanes, Volumes, Timings  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2029 Full Build AM - MIT

	→	↖	↗	←	↙	↘
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖		↗	↖	↗	
Traffic Volume (vph)	253	45	13	767	106	40
Future Volume (vph)	253	45	13	767	106	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	150		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980				0.963	
Fit Protected			0.950		0.965	
Satd. Flow (prot)	1701	0	1805	1863	1766	0
Fit Permitted			0.950		0.965	
Satd. Flow (perm)	1701	0	1805	1863	1766	0
Link Speed (mph)	45			45	35	
Link Distance (ft)	369			524	386	
Travel Time (s)	5.6			7.9	7.5	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	9%	12%	0%	2%	0%	0%
Adj. Flow (vph)	258	46	13	783	108	41
Shared Lane Traffic (%)						
Lane Group Flow (vph)	304	0	13	783	149	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	55.4%
ICU Level of Service	B
Analysis Period (min)	15

HCM 2010 TWSC  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2029 Full Build AM - MIT

Intersection						
Int Delay, s/veh	2.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖		↗	↖	↗	
Traffic Vol, veh/h	253	45	13	767	106	40
Future Vol, veh/h	253	45	13	767	106	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	9	12	0	2	0	0
Mvmt Flow	258	46	13	783	108	41

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	304
Stage 1	-	-	281
Stage 2	-	-	809
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1268
Stage 1	-	-	771
Stage 2	-	-	441
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1268
Mov Cap-2 Maneuver	-	-	350
Stage 1	-	-	771
Stage 2	-	-	437

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	18.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	411	-	-	1268	-
HCM Lane V/C Ratio	0.362	-	-	0.01	-
HCM Control Delay (s)	18.7	-	-	7.9	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	1.6	-	-	0	-

Lanes, Volumes, Timings  
2: Fellows Road & Proposed Driveway

Fellows Rd Properties  
2029 Full Build AM - MIT



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Volume (vph)	32	72	46	11	24	36
Future Volume (vph)	32	72	46	11	24	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.907		0.974			
Flt Protected	0.985					0.980
Satd. Flow (prot)	1664	0	1814	0	0	1825
Flt Permitted	0.985					0.980
Satd. Flow (perm)	1664	0	1814	0	0	1825
Link Speed (mph)	30		30			30
Link Distance (ft)	822		1480			908
Travel Time (s)	18.7		33.6			20.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	78	50	12	26	39
Shared Lane Traffic (%)						
Lane Group Flow (vph)	113	0	62	0	0	65
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.8%
ICU Level of Service	A
Analysis Period (min)	15

HCM 2010 TWSC  
2: Fellows Road & Proposed Driveway

Fellows Rd Properties  
2029 Full Build AM - MIT

Intersection						
Int Delay, s/veh	5.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	32	72	46	11	24	36
Future Vol, veh/h	32	72	46	11	24	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	78	50	12	26	39

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	147	56	0
Stage 1	56	-	-
Stage 2	91	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	845	1011	-
Stage 1	967	-	-
Stage 2	933	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	831	1011	-
Mov Cap-2 Maneuver	831	-	-
Stage 1	967	-	-
Stage 2	917	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	948	1541
HCM Lane V/C Ratio	-	-	0.119	0.017
HCM Control Delay (s)	-	-	9.3	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1

Lanes, Volumes, Timings  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2029 Full Build AM - MIT



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Volume (vph)	19	12	45	11	8	60
Future Volume (vph)	19	12	45	11	8	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.947		0.973			
Flt Protected	0.971				0.994	
Satd. Flow (prot)	1676		0		1800	
Flt Permitted	0.971				0.994	
Satd. Flow (perm)	1676		0		1800	
Link Speed (mph)	40		30		35	
Link Distance (ft)	1350		694		1480	
Travel Time (s)	23.0		15.8		28.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	7%	0%	0%	22%	40%	0%
Adj. Flow (vph)	20	13	48	12	9	64
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	0	60	0	0	73
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0		0	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	19.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM 2010 TWSC  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2029 Full Build AM - MIT

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	19	12	45	11	8	60
Future Vol, veh/h	19	12	45	11	8	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	7	0	0	22	40	0
Mvmt Flow	20	13	48	12	9	64

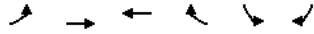
Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	136	54	0	0	60
Stage 1	54	-	-	-	-
Stage 2	82	-	-	-	-
Critical Hdwy	6.47	6.2	-	-	4.5
Critical Hdwy Stg 1	5.47	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-
Follow-up Hdwy	3.563	3.3	-	-	2.56
Pot Cap-1 Maneuver	846	1019	-	-	1333
Stage 1	956	-	-	-	-
Stage 2	929	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	840	1019	-	-	1333
Mov Cap-2 Maneuver	840	-	-	-	-
Stage 1	956	-	-	-	-
Stage 2	922	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	901	1333
HCM Lane V/C Ratio	-	-	0.037	0.006
HCM Control Delay (s)	-	-	9.1	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Lanes, Volumes, Timings  
4: Furman Road & Proposed Driveway

Fellows Rd Properties  
2029 Full Build AM - MIT



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	
Traffic Volume (vph)	3	16	22	0	1	9
Future Volume (vph)	3	16	22	0	1	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.877	
Flt Protected		0.993			0.995	
Satd. Flow (prot)	0	1850	1863	0	1625	0
Flt Permitted		0.993			0.995	
Satd. Flow (perm)	0	1850	1863	0	1625	0
Link Speed (mph)		30	40		30	
Link Distance (ft)		1350	763		478	
Travel Time (s)		30.7	13.0		10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	17	24	0	1	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	20	24	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM 2010 TWSC  
4: Furman Road & Proposed Driveway

Fellows Rd Properties  
2029 Full Build AM - MIT

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	
Traffic Vol, veh/h	3	16	22	0	1	9
Future Vol, veh/h	3	16	22	0	1	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	17	24	0	1	10

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	24	0	47
Stage 1	-	-	24
Stage 2	-	-	23
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1591	-	963
Stage 1	-	-	999
Stage 2	-	-	1000
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1591	-	961
Mov Cap-2 Maneuver	-	-	961
Stage 1	-	-	997
Stage 2	-	-	1000

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1591	-	-	-	1042
HCM Lane V/C Ratio	0.002	-	-	-	0.01
HCM Control Delay (s)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Lanes, Volumes, Timings  
5: Roxwell Court/Fellows Road & Whitney Road

Fellows Rd Properties  
2029 Full Build AM - MIT



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Volume (vph)	27	114	0	1	346	20	3	0	0	42	0	71
Future Volume (vph)	27	114	0	1	346	20	3	0	0	42	0	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.993				0.915			0.982	
Flt Protected		0.991						0.950			0.982	
Satd. Flow (prot)	0	1721	0	0	1837	0	0	1805	0	0	1655	0
Flt Permitted		0.991						0.950			0.982	
Satd. Flow (perm)	0	1721	0	0	1837	0	0	1805	0	0	1655	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		630			774			513			1914	
Travel Time (s)		12.3			15.1			11.7			43.5	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	11%	9%	0%	0%	2%	15%	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	31	133	0	1	402	23	3	0	0	49	0	83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	164	0	0	426	0	0	3	0	0	132	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM 2010 TWSC  
5: Roxwell Court/Fellows Road & Whitney Road

Fellows Rd Properties  
2029 Full Build AM - MIT

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	27	114	0	1	346	20	3	0	0	42	0	71
Future Vol, veh/h	27	114	0	1	346	20	3	0	0	42	0	71
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	11	9	0	0	2	15	0	0	0	0	0	5
Mvmt Flow	31	133	0	1	402	23	3	0	0	49	0	83

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	425	0	0	133
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.21	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.299	-	-	2.2
Pot Cap-1 Maneuver	1088	-	-	1464
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1088	-	-	1464
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.6	0	16.2	14.3
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	326	1088	-	-	1464	-	-	519
HCM Lane V/C Ratio	0.011	0.029	-	-	0.001	-	-	0.253
HCM Control Delay (s)	16.2	8.4	0	-	7.5	0	-	14.3
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	1



Lanes, Volumes, Timings  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2029 Full Build PM - MIT

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↘		↙	↗	↘	↙
Traffic Volume (vph)	793	137	49	497	77	31
Future Volume (vph)	793	137	49	497	77	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	150		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980				0.962	
Fit Protected			0.950		0.965	
Satd. Flow (prot)	1846	0	1805	1863	1764	0
Fit Permitted			0.950		0.965	
Satd. Flow (perm)	1846	0	1805	1863	1764	0
Link Speed (mph)	45			45	35	
Link Distance (ft)	369			524	386	
Travel Time (s)	5.6			7.9	7.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	0%	0%	2%	0%	0%
Adj. Flow (vph)	881	152	54	552	86	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1033	0	54	552	120	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	62.9%
Analysis Period (min)	15
	ICU Level of Service B

HCM 2010 TWSC  
1: Fellows Rd & Penfield Rd

Fellows Rd Properties  
2029 Full Build PM - MIT

Intersection						
Int Delay, s/veh	2.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↘		↙	↗	↘	↙
Traffic Vol, veh/h	793	137	49	497	77	31
Future Vol, veh/h	793	137	49	497	77	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	881	152	54	552	86	34

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1033
Stage 1	-	-	957
Stage 2	-	-	660
Critical Hdwy	-	4.1	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	-	2.2	3.5
Pot Cap-1 Maneuver	-	681	115
Stage 1	-	-	376
Stage 2	-	-	518
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	681	106
Mov Cap-2 Maneuver	-	-	239
Stage 1	-	-	376
Stage 2	-	-	477

Approach	EB	WB	NB
HCM Control Delay, s	0	1	30.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	257	-	-	681	-
HCM Lane V/C Ratio	0.467	-	-	0.08	-
HCM Control Delay (s)	30.7	-	-	10.7	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	2.3	-	-	0.3	-

Lanes, Volumes, Timings  
2: Fellows Road & Proposed Driveway

Fellows Rd Properties  
2029 Full Build PM - MIT



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Volume (vph)	20	45	60	33	74	87
Future Volume (vph)	20	45	60	33	74	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.907		0.952			
Flt Protected	0.985					0.978
Satd. Flow (prot)	1664	0	1773	0	0	1822
Flt Permitted	0.985					0.978
Satd. Flow (perm)	1664	0	1773	0	0	1822
Link Speed (mph)	30		35			35
Link Distance (ft)	822		1480			908
Travel Time (s)	18.7		28.8			17.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	49	65	36	80	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	71	0	101	0	0	175
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM 2010 TWSC  
2: Fellows Road & Proposed Driveway

Fellows Rd Properties  
2029 Full Build PM - MIT

Intersection						
Int Delay, s/veh	3.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	20	45	60	33	74	87
Future Vol, veh/h	20	45	60	33	74	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	49	65	36	80	95

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	338	83	0
Stage 1	83	-	-
Stage 2	255	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	658	976	-
Stage 1	940	-	-
Stage 2	788	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	620	976	-
Mov Cap-2 Maneuver	620	-	-
Stage 1	940	-	-
Stage 2	743	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	3.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	829	1491
HCM Lane V/C Ratio	-	-	0.085	0.054
HCM Control Delay (s)	-	-	9.7	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

Lanes, Volumes, Timings  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2029 Full Build PM - MIT



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Volume (vph)	18	15	77	19	20	87
Future Volume (vph)	18	15	77	19	20	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.937		0.974			
Flt Protected	0.974					0.991
Satd. Flow (prot)	1734	0	1851	0	0	1883
Flt Permitted	0.974					0.991
Satd. Flow (perm)	1734	0	1851	0	0	1883
Link Speed (mph)	40		30			35
Link Distance (ft)	1350		694			1480
Travel Time (s)	23.0		15.8			28.8
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	22	19	95	23	25	107
Shared Lane Traffic (%)						
Lane Group Flow (vph)	41	0	118	0	0	132
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.4%
ICU Level of Service A	
Analysis Period (min)	15

HCM 2010 TWSC  
3: Fellows Road & Furman Road

Fellows Rd Properties  
2029 Full Build PM - MIT

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	18	15	77	19	20	87
Future Vol, veh/h	18	15	77	19	20	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	22	19	95	23	25	107

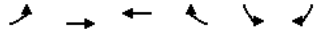
Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	264	107	0
Stage 1	107	-	-
Stage 2	157	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	729	953	-
Stage 1	922	-	-
Stage 2	876	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	716	953	-
Mov Cap-2 Maneuver	716	-	-
Stage 1	922	-	-
Stage 2	860	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	807	1483
HCM Lane V/C Ratio	-	-	0.05	0.017
HCM Control Delay (s)	-	-	9.7	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

Lanes, Volumes, Timings  
4: Furman Road & Proposed Driveway

Fellows Rd Properties  
2029 Full Build PM - MIT



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Volume (vph)	9	30	27	1	1	6
Future Volume (vph)	9	30	27	1	1	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995		0.882		
Flt Protected		0.989		0.994		
Satd. Flow (prot)	0	1842	1853	0	1633	0
Flt Permitted		0.989		0.994		
Satd. Flow (perm)	0	1842	1853	0	1633	0
Link Speed (mph)		30		30		
Link Distance (ft)		1350		763		
Travel Time (s)		30.7		17.3		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	33	29	1	1	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	30	0	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0		12		
Link Offset(ft)		0		0		
Crosswalk Width(ft)		16		16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60			60	60	60
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 18.7%      ICU Level of Service A  
Analysis Period (min) 15

HCM 2010 TWSC  
4: Furman Road & Proposed Driveway

Fellows Rd Properties  
2029 Full Build PM - MIT

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	9	30	27	1	1	6
Future Vol, veh/h	9	30	27	1	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	33	29	1	1	7

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	30	0	83
Stage 1	-	-	30
Stage 2	-	-	53
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1583	-	919
Stage 1	-	-	993
Stage 2	-	-	970
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1583	-	913
Mov Cap-2 Maneuver	-	-	913
Stage 1	-	-	987
Stage 2	-	-	970

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1583	-	-	-	1023
HCM Lane V/C Ratio	0.006	-	-	-	0.007
HCM Control Delay (s)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Lanes, Volumes, Timings  
5: Roxwell Court/Fellows Road & Whitney Road

Fellows Rd Properties  
2029 Full Build PM - MIT



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	89	336	5	0	213	37	3	1	0	41	0	67
Future Volume (vph)	89	336	5	0	213	37	3	1	0	41	0	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.980						0.917	
Flt Protected		0.990						0.964			0.981	
Satd. Flow (prot)	0	1877	0	0	1846	0	0	1832	0	0	1709	0
Flt Permitted		0.990						0.964			0.981	
Satd. Flow (perm)	0	1877	0	0	1846	0	0	1832	0	0	1709	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		630			774			513			1914	
Travel Time (s)		12.3			15.1			11.7			43.5	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	101	382	6	0	242	42	3	1	0	47	0	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	489	0	0	284	0	0	4	0	0	123	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	52.6%
ICU Level of Service A	
Analysis Period (min)	15

HCM 2010 TWSC  
5: Roxwell Court/Fellows Road & Whitney Road

Fellows Rd Properties  
2029 Full Build PM - MIT

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	89	336	5	0	213	37	3	1	0	41	0	67
Future Vol, veh/h	89	336	5	0	213	37	3	1	0	41	0	67
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	1	0	0	0	0	0	0
Mvmt Flow	101	382	6	0	242	42	3	1	0	47	0	76

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	284	0	0	388
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1290	-	-	1182
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1290	-	-	1182
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	0	20.9	16.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	231	1290	-	-	1182	-	-	442
HCM Lane V/C Ratio	0.02	0.078	-	-	-	-	-	0.278
HCM Control Delay (s)	20.9	8	0	0	0	-	-	16.2
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0	-	-	1.1