City of Rome

WOODHAVEN AREA COMPLETE STREETS STUDY

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COMPLETE STREETS

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1.0 INTRODUCTION

1.1 Study Area Description

The Woodhaven Area Complete Streets Study Area primarily focuses on Floyd Avenue, from its intersection with Oakwood Street to State Route 825. Additionally, the Study includes assessment and visioning of the Park Drive corridor, between Floyd Avenue and Vega Drive, the interior roads of the Woodhaven Re-development Area, and Ellsworth Road. The area is largely dominated by residential development with a variety of housing types and densities, as well as a variety of commercial development and educational uses. Major traffic generators within and surrounding the Study Area include Griffiss Business & Technology Park, the Mohawk Valley Community College, the Rome Free Academy, the Jerry C. Clough Pre-K, the Mohawk River Trail, the Griffiss Sculpture Garden Trail, and the John Kost Memorial Softball and Rome Youth Baseball Association facilities. Future traffic generators include the former B-240 mixed use redevelopment, future YMCA parcel development, and the Woodhaven Development.

Project Vision

The purpose of the Woodhaven Area Complete Streets Study is to evaluate the existing conditions within the Study Area, identify mobility and safety needs and develop alternative "Complete Streets" design concepts to create a more safe and efficient transportation system that takes into consideration the needs of all travelers, including pedestrians, cyclists, transit riders and motorists.

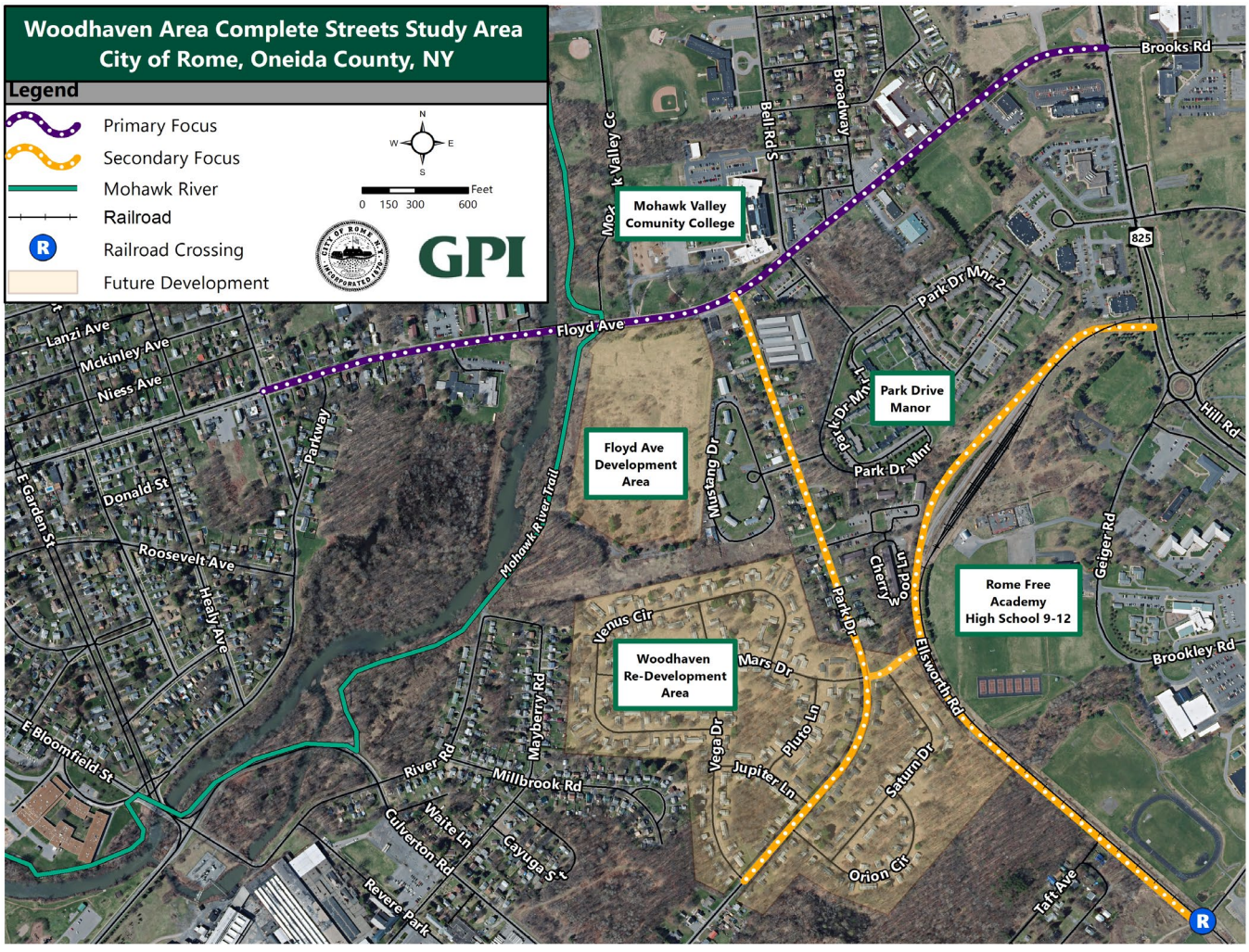


Exhibit 1.1.1: Study Area Map

1.2 Project Goals

To guide the process of this Complete Streets Study, the City developed several goals that should be satisfied at the conclusion of the project. Listed below, the following goals provided direction in the development of the concepts presented in Chapter 4.

Goals

- To improve pedestrian and alternative transportation safety and connectivity between residential areas, commercial development, and surrounding trail systems on Floyd Avenue
- To identify improvements for Park Drive such as sidewalks and improve drainage for adjacent driveways
- To identify the preferred trail connection between the Mohawk River Trail and the Griffiss Sculpture Garden Trail
- To identify alternatives to improve overall traffic conditions and driver safety
- To develop concepts that minimize impacts to adjacent property owners
- To incorporate environmentally friendly green infrastructure

1.3 Complete Streets Explained

Complete Streets are roadways designed to enable safe, attractive, and comfortable access and travel for all users of all ages and abilities. Complete Streets consider the convenient access and mobility on the road network by all including motorists, pedestrians, bicyclists, and public transportation users by incorporating complete streets design features.

Complete Streets are streets for everyone and support active living. They are designed and operated to enable safe access for all users. Motorists, pedestrians, bicyclists, and public transportation users of all ages and abilities are able to safely move along and across a complete street. Complete Streets make it easy to cross the street, walk to shopping areas, and bicycle to work by redefining the roadway, providing safe street crossing locations, shortening crossing distances, and slowing travel speeds. Complete Streets are designed to balance safety and convenience for everyone using the road as shown in **Exhibit 1.3.1**.

Exhibit 1.3.1: What is a Complete Street?

The components that go into a Complete Streets project that will be frequently mentioned throughout this report are summarized in the Tree of Complete Streets below (**Exhibit 1.3.2**). A Complete Streets design will feature many if not all of these components in an effort to support and accommodate all users regardless of age or mobility.

Exhibit 1.3.2: The Tree of Complete Streets

1.4 Complete Streets Codes

The Floyd Avenue/Park Drive corridor was identified as an area within the City that is in need of area-wide improvements as a response to future demands that will be generated by the proposed Woodhaven Development and new YMCA multi-use developments. The City of Rome recognizes the importance of creating Complete Streets that enable safe travel by all users, including pedestrians, bicyclists, and motorists, and for people of all ages and abilities. The alternatives developed within this Study are aimed to ensure compliance with an Americans with Disabilities Act (ADA) transition plan that the City is developing. The Study lays the groundwork to ensure that there are reasonable and accessible pedestrian paths within the City's right-of-way (ROW) suitable for all users including those with disabilities. The Sustainability Appendix to the Rome Comprehensive Plan, adopted in September of 2018, includes the following Transportation Policies in support of multimodal transportation improvements:

- Transportation Policy #1: As new development or redevelopment occurs, it should **promote greater connectivity utilizing a "Complete Streets" philosophy**, where rights-of-way are designed and operated to enable safe access for all users.

- Transportation Policy #2: The City must **encourage alternate modes of transportation** in order to reduce transportation costs, improve air quality, ease traffic and parking congestion, and provide accessibility for all individuals.
- Transportation Policy #4: Smart Growth and Complete Street practices must be recognized as an opportunity when maintaining existing infrastructure.

The City's Zoning Code also supports Complete Streets through the following code language:

- Sec. 80-22.3. - General right-of-way standards: All public and private rights-of-way **must** be improved as complete streets

Oneida County has similar language that is contained within their 2025-2040 Guiding Principles. Among them the County is to have a "an integrated transportation systems that considers Safety for all users and all modes." Another principle states that an "emphasis will be placed on designing capital project that routinely consider accommodations for non-motorized modes of transportation"

In addition, the Griffiss Business and Technology Park which encompasses part of Floyd Avenue has language within their development policies as follows:

- "Pedestrian ways should be paved, lighted and tree lined to provide for and encourage pedestrian movement from place to place…"
- "A comprehensive street planting and sidewalk program should be implemented within the public right-of-way and should be coordinated with site landscaping to form a continuity of greenspace and pedestrian circulation."

Together these codes and policies require that any new improvement to the Study Area evaluate the feasibility of implementing Complete Streets components.

1.5 Design Standards

Any future project within the Study Area will need to adhere to various standards and references. Any project regardless of roadway classification or jurisdiction that is funded with federal or state aid will have to meet New York State Department of Transportation (NYSDOT) standards contained within the Highway Design Manual (HDM). The HDM addresses everything from roadway design to drainage to pedestrian accommodations. With using state or federal funding the project must also follow the Right of Way Mapping Procedures Manual when addressing proposed work outside of the City's highway boundary on private property. Contrary to this process is when roadways under the City's jurisdiction are funded exclusively with local funds. In this case the City's zoning codes can act as the prevailing design standard. In either case also applicable are the following refences:

1. The Manual on Uniform Transportation Control Devices – Addresses signage layout, striping, and traffic signal design
2. American Association of State Highway and Transportation Officials (AASHTO) Green Book – Roadway and intersection design
3. AASHTO Guide for the Development of Bicycle Facilities – The design of on and off-road bicycle facilities and supporting features such as wayfinding signage and amenities.
4. Highway Capacity Manual – Analyzes the performance of signalized and unsignalized intersections for both vehicles and pedestrians.
5. National Association of City Transportation Officials Urban Street Design Guide – The design of various roadway and intersection concepts that integrate pedestrian, bicycle, and transit design elements.

2.0 EXISTING CONDITIONS

2.1 Existing Roadway Infrastructure

2.1.1. Roadway Classification and Jurisdiction

Functional classification is a well-established system utilized by the Federal Highway Administration (FHWA) for grouping streets and highways into classes based on roadway characteristics and intended services. Basic to this process is the recognition that individual roads and streets cannot serve travel independently; rather, most travel involves movement through a network of roads. Thus, it is necessary to determine how to channelize travel within the network in a logical and efficient manner. Functional classification defines the extent to which roadways provide for through travel versus the extent to which they provide access to land parcels. For example, an interstate highway provides service exclusively for through travel, while a local street is used exclusively for land access. Each roadway has a classification number based on its location, access, and capacity characteristics.

Floyd Avenue is classified by NYSDOT as an Urban Minor Arterial whereas Park Drive is classified as an Urban Major Collector. Other side streets including Oakwood Street, Ellsworth Road, Bell Road, and Broadway are considered local roads without a classification. All roadways noted above are within the City of Rome jurisdiction with the exception of Park Drive. Park Drive is unique because south of Floyd Avenue for the first 0.40 miles the road is within the City's jurisdiction. South of that the road becomes private property within the future Woodhaven Development. Similarly, the access roads off of Park Drive are also roadways within the future Woodhaven Development. Ellsworth Road is also considered private property as its ownership is divided between the City of Rome Board of Education and the Oneida County Industrial Development Agency (IDA).

Summarized in **Table 2.1.1** are various design requirements that are applicable to the roadways within the Study Area. Both Floyd Avenue and Park Drive are based on Chapter 2 of the NYSDOT Highway Design Manual whereas all the roadways classified as local roadways are based on City of Rome standards. Classifications such as an arterial or collector are assigned based on the character of service and how the individual roadway factors into the overall transportation. Also influencing the classification are the traffic volumes. The standards for a local roadway within the City are based on the guidelines provided in Rome City Code §80.22 Right-of-Way and Access Standards.

Table 2.1.1: Roadway Classification and Criteria

Roadway	Roadway Classification	Travel Lane Width (feet)	Turning Lane (feet)	Parking Lane (feet)	Shoulder Width (feet)
Floyd Avenue	Minor Arterial	11 (minimum)[1] 12 (desirable)[1]	11 (minimum)[1] 12 (desirable)[1]	8	0 (minimum)[2] 4 (desirable)[2]
Park Drive	Major Collector	10 (minimum)[3] 12 (desirable)[3]	11 (minimum)[1] 12 (desirable)[1]	7 (minimum)[4] 8 (desirable)[4]	0 (minimum)[2] 4 (desirable)[2]
Ellsworth Road	Minor Two-Lane Local Street	11	10 (minimum) 11 (desirable)	Not Specified	6[5]
Venus Circle	Minor Two-Lane Local Street	10 (minimum)	Not Specified	7 (minimum)	Not Specified
Mars Drive	Minor Two-Lane Local Street	10 (minimum)	Not Specified	7 (minimum)	Not Specified
Vega Drive	Minor Two-Lane Local Street	10 (minimum)	Not Specified	7 (minimum)	Not Specified
Jupiter Lane	Minor Two-Lane Local Street	10 (minimum)	Not Specified	7 (minimum)	Not Specified

Roadway	Roadway Classification	Travel Lane Width (feet)	Turning Lane (feet)	Parking Lane (feet)	Shoulder Width (feet)
Pluto Lane	Minor Two-Lane Local Street	10 (minimum)	Not Specified	7 (minimum)	Not Specified
Saturn Drive	Minor Two-Lane Local Street	10 (minimum)	Not Specified	7 (minimum)	Not Specified
Orion Circle	Minor Two-Lane Local Street	10 (minimum)	Not Specified	7 (minimum)	Not Specified
Floyd Ave Access Road (to future YMCA)	Neighborhood Two-Lane Divided Street	10 (minimum)	Not Specified	7 (minimum)	10 (minimum) (center median)

Source: 2020 NYS DOT Local Road Listing.
Notes:
1. Based on vehicular traffic that is comprised of more than two percent heavy vehicles (buses, box trucks etc.
2. Shoulder width is based on a roadway that is curbed and will accommodate bicycle travel in an adjacent shared use trail.
3. Assumes the roadway is curbed.
4. In residential areas only (non-commercial).
5. Based on a traffic volume that's greater than 2000 vehicles per day.

2.1.2. General Characteristics and Conditions

Floyd Avenue

Floyd Avenue is generally a 30 mile per hour (mph), two-lane roadway with 13-foot travel lanes with limited segments that also include one to two-foot striped shoulders. West of Park Drive the pavement does widen into to a total width of 30-32 feet but that eventually tapers back the closer to Oakwood Street. The only locations where additional turn lanes have been added is the right turn movement from Floyd Avenue onto Park Drive and the right turn from Floyd Avenue on to Oakwood Street.

Exhibit 2.1.2A: Floyd Avenue (looking East)

There is evidence that part of Floyd Avenue was recently paved in a segment beginning 850 feet east of NY 825 and extending to within 350 feet of the Mohawk River Bridge. In this segment the pavement is in excellent condition while in the remainder of Floyd Avenue the pavement is in good condition with frequent signs of longitudinal and traverse cracking.

Floyd Avenue has a mix of curbed and uncurbed segments. Near the intersection of NY 825, Floyd Avenue is curbed on both sides, while just 850 feet east of NY 825 the road transitions from curbing into concrete gutters that drain into a closed drainage system. The concrete gutters end at the Bell Road intersection and convert back to curbing for the remainder of the Floyd Avenue.

Within the Study Area is a mix of residential and commercial properties with a significant number of curb cuts. A notable safety concern is between Bell Road and NY 825 where there is a concentration of business parking areas. The ingress/egress points into the properties are largely undefined with wide expanses of asphalt and no curbing (see

Exhibit 2.1.2). These features are potentially problematic for pedestrians using the existing sidewalks due to the lack of driveway definition and refuge areas.

Park Drive

Park Drive is a 30 mph, unstriped roadway with a total pavement width of approximately 24 feet. Between Floyd Avenue and Mars Drive, the roadway is uncurbed and in fair to poor condition with frequent alligator, longitudinal and traverse cracking throughout the entire pavement width. Due to the lack of pavement edge definition (curbing or shoulder) there are frequent areas of asphalt degradation along the edges that are one to two feet wide. Due to the lack of proper drainage also has led to areas of ponding visible in Google Earth Street View (see **Exhibits 2.1.2B/C**). Beginning at Mars Drive and extending south to Vega Drive the roadway narrows to a pavement width of about 20 feet and incorporates a concrete gutter on both sides of the road which empties into drywells. Also beginning at Mars Drive is a four-foot-wide sidewalk along the southbound travel lane that continues south and ends at Vega Drive. At Vega Drive Park Drive becomes Gansevoort Avenue.

Exhibits 2.1.2B/C: Park Drive (Looking South)

Ellsworth Road

Ellsworth Road is an unstriped roadway that parallels the railroad line for about 9/10th of a mile. For much of its length the roadway has little to no separation from the railroad tracks nor does it have any physical barriers to prevent access. South of its intersection with Mars Drive the road is open to traffic but its connection to the Rome Free Academy is often gated to prevent crossing of the railroad tracks (**Exhibit 2.1.2C**). The City has indicated that whenever the gates are opened in such cases as sporting events a guard is stationed at the crossing for additional safety. The total pavement width in this area ranges from 27-29 feet in width and is in fair condition.

North of Mars Drive the roadway is partially blocked by jersey barriers to prevent motorized access. The paved surface varies between 16-21 feet wide and is in fair to poor condition. The road terminates about 50 feet before it reaches NY 825. Although not signed the roadway is used as unofficial connection for pedestrians and bicyclists to access the NY 825 Trail. Near its termination the railroad tracks cross over Ellsworth Road at an approximate 20-degree skew making the crossing problematic crossing for bicyclists (**Exhibit 2.1.2D**).

Exhibit 3.1.2C/D: Ellsworth Drive

2.1.3. Traffic Volumes and Conditions

Both current and historical traffic volumes are available from the NYSDOT Traffic Data Viewer for the study area. The available data summarized in **Table 2.1.3** are the combined two-way volumes within the given segment. The totals indicate the volume on Floyd Avenue have reduced in the past seven years by about eight to eleven percent while on Park Drive volumes have remained more consistent.

Table 2.1.3A: Historical Traffic Volumes

Roadway Segment	Annual Average Daily Traffic Volumes (Year)		
Floyd Avenue - NY 825 to Park Drive	7,200 (2012)	6,950 (2015)	6,400 (2019)
Floyd Avenue – Park Drive to Garden Street	7,500 (2011)	7,000 (2016)	6,900 (2019)
Park Drive – From Floyd Avenue to Vega Drive	2,000 (2012)	2,230 (2015)	1,950 (2019)

The travel speeds recorded by NYSDOT were in two of the three Study Area segments. On Floyd Avenue in 2019 between NY 825 and Park Drive the recorded 85th percentile speed was 38-mph while on Park Drive in 2015 the speed was 37-mph.

To augment the available traffic data turning movement counts for both the AM and PM peak hour were conducted at the intersection of Floyd Avenue and Park Drive in December 2020. The volumes have been compared to the 2019 volumes from NYSDOT and adjusted to account for the drop in vehicle traffic due to travel changes induced by the Covid-19 pandemic. The AM peak hour counts were increased by a factor off 1.9 whereas the PM peak hour was adjusted by a factor if 1.6. These counts shown in the future below were done to get a baseline of how well the intersection currently functions and to evaluate the redesign concepts presented in Chapter 5 of this report. It is important to note that the existing

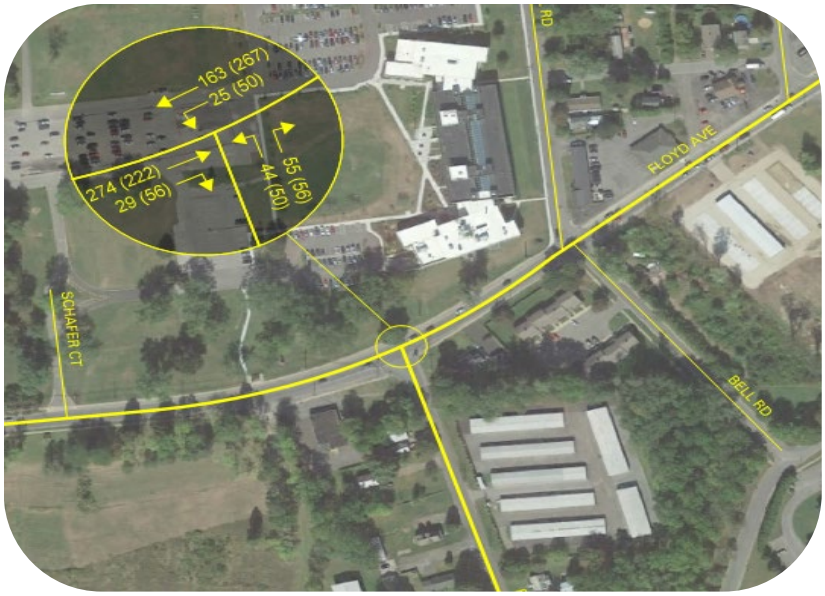


Exhibit 2.1.3A: Existing Turning Movement Volumes

traffic signal currently has coordinated phasing with both the Floyd Avenue/Park Drive and the Floyd Avenue/Bell Road intersections. For modeling purposes, the Bell Road signal was omitted as part of level of service (LOS) evaluation as the future development of the Woodhaven Development will have a much more significant impact to the Floyd Avenue/Park Drive intersection. Due to the preliminary stage of the site plans of the Woodhaven Development and future YMCA parcel, a build condition analysis was not presented in this report and may be part of a more throughout traffic impact study in the future.

The LOS service **(Table 2.1.3)** shown to the right was evaluated using Synchro 11 software which automates the procedures contained in the Highway Capacity Manual, Sixth Edition. The LOS is graded A through F, with A being optimal conditions and F being failing condition with significant congestion. The delay in table is the number seconds the average vehicle will experience while traveling through the study intersection. The peak hour counts were used to evaluate the performance of the intersection for the existing conditions and to evaluate the alternatives presented in Chapter 5 of this report. Based on the results, the intersection performs very well and would only slightly improve with additional geometry improvements. The LOS C for Park Drive is likely due to the timings of the coordination with the Bell Road intersection and not a function of the traffic volumes on that approach.

Table 2.1.3: Level of Service Table

Floyd Avenue - Park Drive Complete Streets Level of Service Table			
		AM Peak Hour	**PM Peak Hour**
Existing Condition	Eastbound	A (5.5)	A (5.8)
	Westbound	A (5.3)	A (6.6)
	Northbound	C (20.8)	C (22.7)
	Overall	**A (8.0)**	**A (8.7)**
Optimized Condition	Eastbound	A (4.9)	A (4.6)
	Westbound	A (4.6)	A (5.0)
	Northbound	B (13.7)	B (13.7)
	Overall	**A (6.7)**	**A (6.2)**
WB Left Turn Condition	Eastbound	A (4.9)	A (4.6)
	Westbound	A (4.7)	A (5.0)
	Northbound	B (13.7)	B (13.7)
	Overall	**A (6.3)**	**A (6.2)**
Roundabout Condition	Eastbound	A (5.2)	A (5.0)
	Westbound	A (4.3)	A (5.3)
	Northbound	A (4.9)	A (4.5)
	Overall	**A (4.9)**	**A (5.1)**

2.1.4. Utilities

A review of the utilities along Floyd Avenue indicated there is an existing closed drainage system whose 24-inch trunk line runs along the eastbound side of the roadway slightly off of the pavement edge. Catch basins are located on both sides of the roadway with a combination of concrete gutters and traditional curbed roadways. Also located along the eastbound side of the roadway is both a four-inch gas main and a sanitary sewer main. The gas main is located about ten feet from the pavement edge whereas the sanitary sewer is located within the eastbound trave lane. The water main that serves Floyd Avenue is located in the westbound travel as evidenced by existing valves boxes in the roadway. The overhead utility poles are located south of Floyd Avenue and are set back form the roadway about ten feet or more. Once the utility lines reach Park Drive the switch sides and are located north of the roadway to the western terminus of the Study Area on Oakwood Street.

On Park Drive the sanitary sewer that serves the residential housing is in the southbound travel lane whereas the water main is located in the northbound travel lane. It is noted that the sanitary sewer main does not connect to the Floyd Avenue sewer main, but the water main does connect at the Floyd Avenue/Park Drive intersection. There is no closed storm drainage system on Park Drive as rainfall sheet flows from the roadway into surrounding lawns. South of Mars Drive there are drywells that are fed by concrete gutters. The watermain and sanitary sewer both continue to Vega Drive

which is evident by the water hydrants and manhole covers in the roadway. The overhead utility poles are located typically within three to five feet of the northbound pavement edge until Mars Drive. South of Mars Drive the utility poles at times are located both sides of the roadway and occasionally equipped with cobra head lighting. Bisecting Park Drive is an overhead transmission line which acts as a divide between the Woodhaven Development and future YMCA parcel. The overhead lines are operated by National Grid and with proper permitting may be used to construct a trail or roadway connecting the two parcels.

On Ellsworth Road there are no overhead utility poles or underground utilities.

2.1.5. Bridges and/or Culverts

There is one bridge (BIN 2206520) in the Study Area that spans the Mohawk River that is maintained by the City. It was constructed in 1987 and last inspected in August 2018. A project to replace the bridge deck has been let by the City of Rome and will be completed in 2021. The existing sidewalk shown in **Exhibit 2.1.5** will be replaced in kind so pedestrians will continue to use the sidewalks whereas bicyclists will travel under a shared use condition on its 16-foot travel lanes.

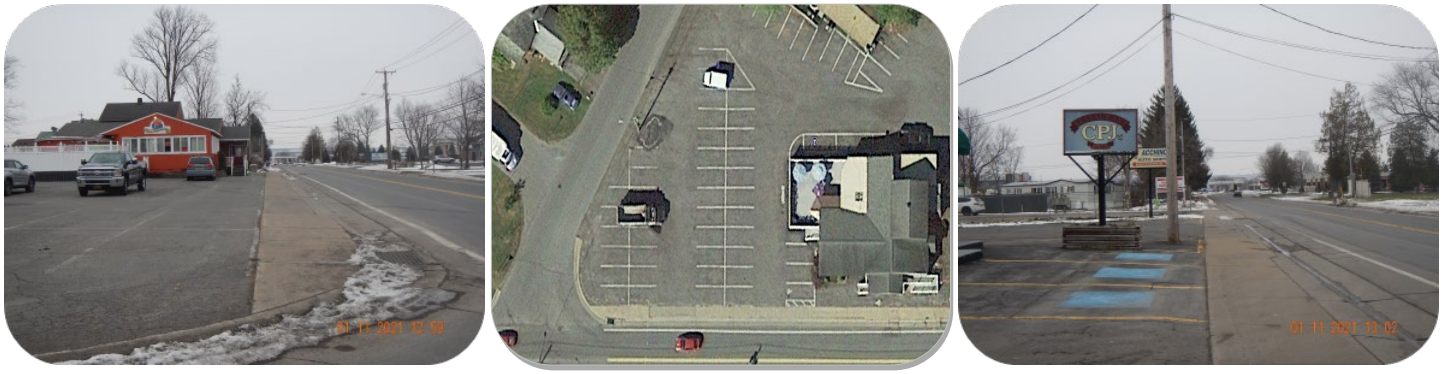
Exhibit 2.1.5: Floyd Ave Bridge (BIN 2206520)

2.1.6. Street Lighting

Within the Study Area, Floyd Avenue has existing street lighting that is provided by cobra heads that are primarily mounted to existing utility poles. Similarly, Park Drive has street lighting, but the cobra heads have a greater separation between lights than Floyd Avenue. Ellsworth Road has no existing street lighting.

2.1.7. Parking

Within the Study Area all parking for the local businesses is provided by privately-owned parking lots with no on-street parking. As part of characteristics identified in section 3.1.2 the parking is located adjacent to the existing concrete



Exhibits 2.1.7: Floyd Avenue Parking Conditions

gutter which creates a potential conflict with pedestrians and bicyclists. Some of the parking spaces as shown in **Exhibit 2.1.7A** show that are as motorists exit their vehicles the door is opened into the sidewalk putting it in direct conflict with pedestrians. Similarly, there are parking spaces located adjacent to the sidewalk where a vehicle can overhang into the sidewalks obstructing the path of pedestrians.

The existing parking in some locations also poses a risk to other motorists as shown in **Exhibit 2.1.7C**. The peripheral parking spaces allow patrons to park near the roadway but when the lot is full the only means of exiting is to back into the roadway notably on Broadway.

2.2 Multi-Modal

The area sounding Floyd Avenue and encompassing the Business and Technology Park has a variety of non-motorized alternatives. Critical to the area and the use of these facilities is the interconnectivity. **Exhibit 2.2** was developed by the Mohawk Valley EDGE (Economic Development Growth Enterprises Corporation) in an effort to evaluate the conditions of the existing pedestrian network in close proximity to Griffiss Park. The map identifies existing infrastructure as well as barriers or notable gaps in pedestrian connectivity that could be improved in the future. The Condition & Gap Analysis is updated regularly by the EDGE staff and is being utilized to identify opportunities to fill the gaps, improve pedestrian crossings, and improve travel patterns to and from existing pedestrian generators within and around the Study Area.

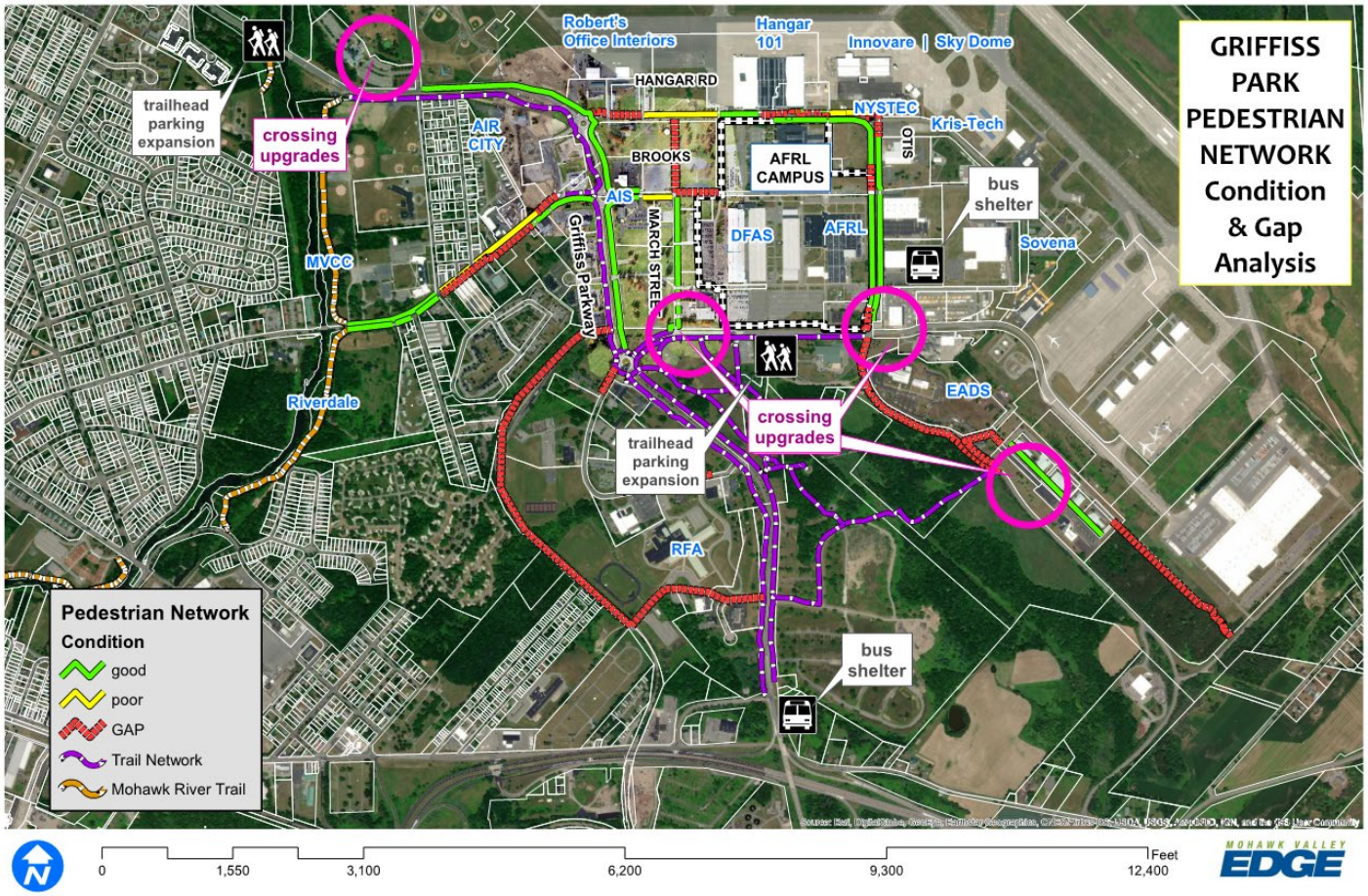


Exhibit 2.2: Griffiss Park Pedestrian Network Condition & Gap Analysis

2.2.1. Sidewalk Conditions

Floyd Avenue

Along Floyd Avenue there are sidewalks generally on both sides of the road that interconnect surrounding businesses and residences. On the north side of Floyd Avenue, the sidewalk runs continuously from NY 825 to Oakwood Street, whereas the southern side has a missing link between Bell Road and Nunn's Medical Equipment located at 1340 Floyd Avenue. The sidewalks are in varying condition with some segments that have been recently constructed and others that

are in fair condition but do not meet Public Right-of-Way Accessibility Guidelines (PROWAG) design standards. A cursory review shows areas with broken panels, widths of less than five feet, vertical discontinuities, and cross slopes that exceed two percent. One section of sidewalk between Nunn's Medical Equipment and Park Drive does not have any vertical separation from the roadway as it runs along the backside of the concrete gutter. A review of the curb ramps shows that the majority of roadway and driveway crossing either do not have ramps or have ramps that lack detectable warnings, have vertical discontinuities etc.

Park Drive

There are no existing sidewalks or pedestrian amenities on Park Drive between Floyd Avenue and Mars Drive. A section of sidewalk exists between Mars Drive and Vega Drive along the southbound travel lane; however, the sidewalk is currently in poor condition and measures less than four feet making it not compliant with PROWAG. Remnants of the same sidewalk system exist along the roadways within the demolished Woodhaven housing development. Once Park Drive transitions into Gansevoort Avenue, the sidewalk system discontinues, and pedestrians and bicyclists must share the roadway with motor vehicles.

Ellsworth Road

There are no existing sidewalks or pedestrian amenities on Ellsworth Road.

2.2.2. Bicycle Facilities

There are no dedicated bicycle facilities that can be used to travel along Floyd Avenue, Park Drive or Ellsworth Road. Bicyclists are expected to ride under a shared use condition within the Study Area.

2.2.3. Multi-use Trails

There are two multi-use trails that can be accessed from Floyd Avenue. Near NY 825 is a multi-path that is located on the western side of NY 825 and runs for approximately 2.2 miles. The trail extends from the northern terminus of the Mohawk River Trail (MRT) (as of December 2020) down to an access road off of NY 825 (Wright Drive) to NY 365 (E. Dominic Street). The other trail is the location where the MRT crosses Floyd Avenue east of the Mohawk River Bridge (**Exhibit 2.2.3**). The trail extends south to its southern terminus on River Street (total length is 4.2 miles).

There are no official trail connections on Park Drive or Ellsworth Road. There is the potential to develop connections on both roadways that are discussed in Chapter 5 of this report.

Exhibit 2.2.3: Mohawk River Trail Crossing

2.2.4. Mass - Transit

Public transportation is an important mode of transportation in the City of Rome. It provides mobility to those unable to drive, including young people, senior citizens, those with disabilities, and drivers who cannot afford to own a car. An efficient transit system also captures "choice riders" – those that choose to travel by bus. Taken together, these transit trips offer an environmental benefit compared to automobile trips through reduced fuel use and emissions and reduced congestion in heavily traveled corridors.

There are two public transit providers that serve the Study Area, Centro, and Oneida County Rural Transit (OCRT) operated by Birnie Bus Service, Inc. Public Commuter Service. Both providers offer wheelchair accessible buses. Along Floyd Avenue, OCRT Bus Route 521 services MVCC daily. Centro Bus Route 6 runs along Floyd Avenue and services stops

between Freedom Plaza and Griffiss Technology Park. Bus Route 7 runs along Floyd Avenue from Griffiss Technology Park before it turns down Park Drive and continues onto Freedom Plaza

There are 9 bus stops on Floyd Avenue between Oakwood Street and State Route 825, as follows:

1. Oakwood Street
2. Parkway Drive
3. Leffingwell Avenue
4. Lori Lane
5. MVCC – East of Schafer Ct – Exhibit 3.2.4
6. Park Drive
7. Bell Road South
8. Broadway - near Grande's restaurant
9. Hill Road (NY 825)

In addition to Floyd Avenue there are two stops on Park Drive at Cherrywood Lane and at Park Drive Manor.

Shown in **Table 2.2.4** is a summary of the ridership provided by Centro from January 1, 2019 to December 31, 2019. The three most heavily used stops are at NY 825, MVCC **(Exhibit 2.2.4A)** and at Bell Road. As the stop at MVCC already has an existing shelter and connecting sidewalk the need for improvement is minor. The stops that would benefit the most would be at the Bell Road S. stop shown in **Exhibit 2.2.4B** and at the Hill Road stops.

Table 2.2.4: Centro Ridership

2019 CENTRO RIDERSHIP SUMMARY (AVE RIDERSHIP PER DAY)								
	ROUTE #6				ROUTE #7			
	WEEKDAY		WEEKEND		WEEKDAY		WEEKEND	
FROM DOWNTOWN	B	A	B	A	B	A	B	A
Floyd Ave/Oakwood St	0.24	0.31	0.02	0.19				
Floyd Ave/Parkway Dr	0.19	0.22	0.19	0.25				
Floyd Ave/ Leffingwell Ave	2.61	1.36	0.81	0.92				
Mohawk Valley Community College	2.31	4.02	0.79	0.67				
Park Dr/ Cherrywood Lane					1.41	0.45	2.02	0.88
Park Drive Manor					2.23	1.00	1.77	0.29
Park Dr/Floyd Ave					0.05	0.10	0.10	0.02
Floyd Ave/Bell Rd S	4.36	5.88	3.85	4.54	1.66	0.42	0.88	0.17
Floyd Ave/Broadway	0.56	1.36	0.63	0.75	0.20	0.11	0.35	0.33
Floyd Ave/Hill Rd (NY 825)	0.16	0.19	0.56	0.62	0.67	0.70	0.87	0.90
TO DOWNTOWN								
Floyd Ave/Oakwood St	0.06	0.01	0.10	0.02				
Floyd Ave/Lori Ln	0.87	0.14	0.75	0.12				
Mohawk Valley Community College	5.35	0.30	1.62	0.27				
Floyd Ave/Bell Rd S	3.04	0.29	2.73	0.37				
Floyd Ave/Hill Rd (NY 825)	4.91	1.09	7.73	1.75				

Key: B = Boarding, A = Alighting

Exhibit 2.2.4A: Floyd Avenue Bus Stop

Exhibit 2.2.4B: Floyd Avenue Bus Stop

The Bell Road S. stop currently lacks any accommodations such as a shelter, bench or trash receptacle yet based on the ridership is the most consistently used stop on any of the routes. Contrary to the sign (see arrow in **Exhibit 2.2.4B**) which indicates the stop is handicapped accessible, the stop lacks a 60" x 96" level landing area for bus boarding and lacks a curb ramp for access to other sidewalk segments. Improvements to the sidewalk for improved access and would be funded and constructed as part of a larger Complete Streets project for Floyd Avenue whereas funding for a bus shelter or other amenities would need to be discussed with Centro further.

The NY 825 (Griffiss Veterans Memorial Parkway) stops are located on the eastern and western approach of the roundabout at Floyd Avenue and Brooks Road. The stops are not signed, nor do they have any amenities. The stop on Bus Route #6 that goes downtown has a strong ridership for both weekday and weekends making it logical candidate for improvements.

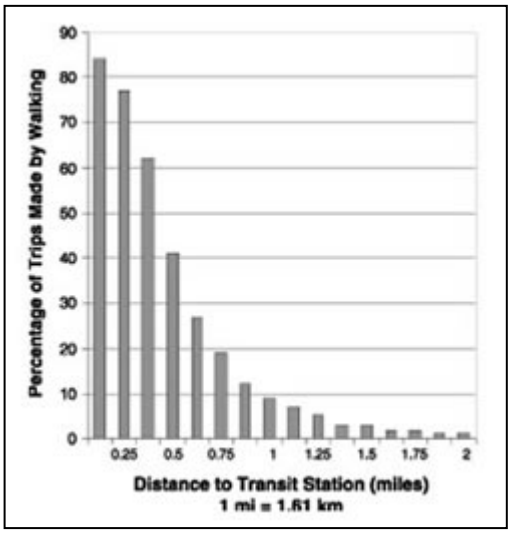


Exhibit 2.2.4C: FHWA Recommended Walking Distance to Transit Stop

To maximize the ridership potential of the Centro bus line it is critical that any Complete Streets project develop as many interconnections as possible to available bus stops. According to guidance published by the Federal Highway Administration on pedestrians accessing transit systems, a mass transit user is willing to walk only ¼ to ½ mile to a transit stop **(Exhibit 2.2.4C)**. For this reason, not only is it important to have various bus stops on Floyd Avenue and Park Drive but they also must have supporting pedestrian facilities in place. A review of the bus stops within the project area shows that the travel distance for riders is within the ½ mile threshold and is often much less. With adequate stops the next step is providing the supporting facilities to facilitate access to the bus stops.

2.2.5. Freight

There is an existing rail line that cross NY 825 (Hill Road) to access parts of the Griffiss Air Force Base and travels along Ellsworth Road before continuing south. Based on available data the rail line sees about one train per day but that varies based on fluctuations in delivery needs.

2.3 Vehicular and Pedestrian Accidents

To analyze vehicular and pedestrian safety within the Study Area accidents within a four-year period from 2017 to 2020 were obtained from the City and summarized in **Table 2.2.1** below. In total there were 13 accidents with the majority

occurring at the Floyd Avenue/Park Drive intersection. When compared to the state average for a three-leg urban, signalized intersection the accident rate for the intersection is nearly three times higher than the state average. According to the most recent accident rates published the statewide average is 0.32 accidents per million vehicles entering (MEV) the intersection. Using 2019 volumes recorded by NYSDOT the intersection sees approximately 7,500 vehicles per day which results in an accident rate of 0.91 per MEV.

A review of the MV-104 accident reports reveals no discernible pattern that is leading to this high accident rate. The reports of the seven rear end accidents are the result of driver inattention and following too closely. The two right turn accidents were caused by poor weather conditions and the fixed object was the result of reckless driving. There is nothing to indicate the existing geometry, speed or other environmental factors played a role in these accidents. The remaining three accidents are again due to poor driving or an animal strike.

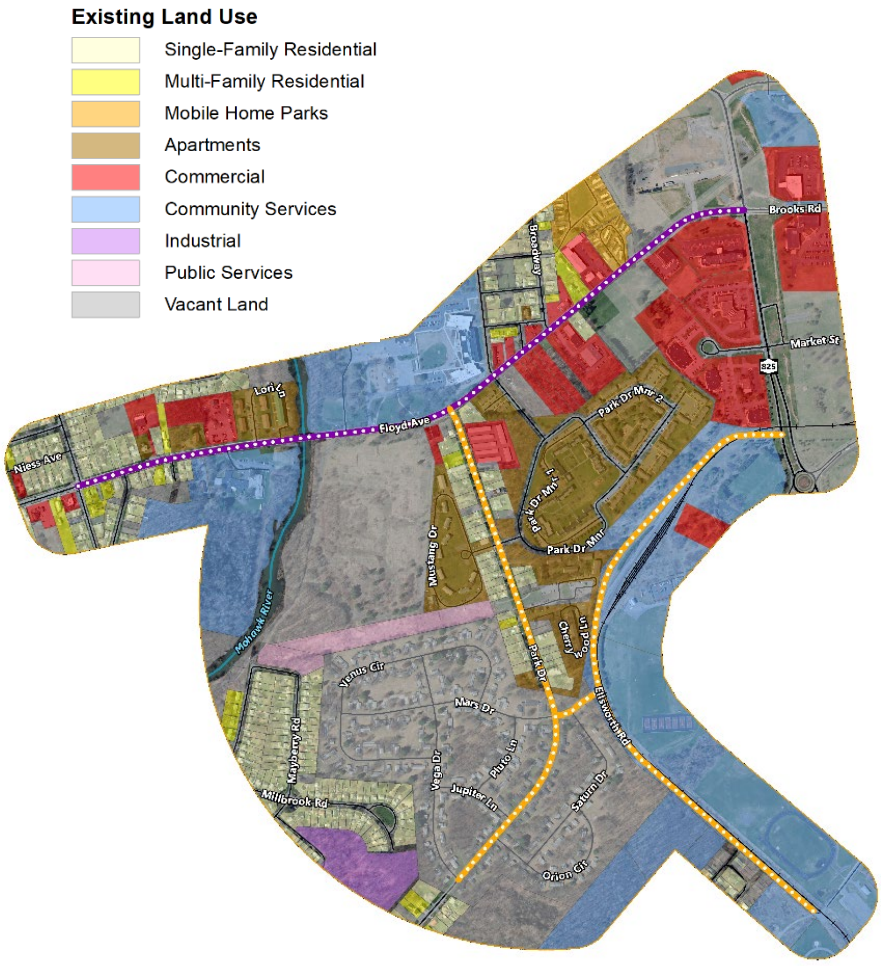
Table 2.2.1: Floyd Avenue Accident Summary

Location	Types of Collision	Number	Percentage
Floyd Ave/Bell Rd Intersection	Backing Unsafely (into vehicle)	1	8%
	Fixed Object	1	8%
Floyd Ave/ Park Dr	Right Turn	2	15%
	Rear End	7	53%
	Fixed Object	1	8%
Mohawk River Trail Crossing @ Floyd Ave	Animal Hit	1	8%

2.4. Study Area Land Use & Zoning Districts

2.4.1. Existing Land Use

As illustrated **Exhibit 2.4.1A**, based on the 2020 Oneida County Real Property Tax database, the existing land uses in the Study Area is primarily vacant land, followed by community services (educational facilities, hospitals, cemeteries, government-owned properties) single-family residential and a mix of commercial establishments located along Floyd Avenue. Example service establishments and places of employment include Colonial Park Rehabilitation & Nursing Center, Rome Pre-owned Auto Sales, Grande's Pizzeria, CPJ's Restaurant & Pub, El Jaracho Mexican Restaurant & Bar, A&L Self Storage, Eye Care Center of Rome, Acchino Auto Body, Nunn's Home Medical Equipment, the Hampton Inn and Stewarts Shops. Example educational land uses include the Mohawk Valley Community College (MVCC) Rome Campus and the Rome Free Academy. The Study Area also contains a variety of residential types including single-family, apartments near Lori Lane, and



Detailed map can be viewed in Appendix A

apartments/townhouses in Park Drive Manor. and Barile's Mobile Home Park near Floyd Avenue and Broadway. There largest area of vacant land within the Study Area is the Woodhaven Development Area, owned by the City of Rome.

Table 2.4.1 below summarizes the land use types and current acreage within the Study Area. The largest landowners within the Study Area holding vacant lands are the City of Rome and Oneida County IDA.

Table 2.4.1: Study Area Land Use Summary

Land Use Category	Real Property Class Code(s)	Approximate Total Acreage	Percent Total Acres
Single-Family Residential	210	50.12	11.36%
Multi-Family Residential	220,230,280	6.51	1.48%
Mobile Home Parks	416	5.33	1.21%
Apartments	411	44.33	10.05%
Commercial (restaurants, auto dealers, storage, office, hotels)	414,421,431,432,438,449,463,464,465,482,484,486	59.47	13.48%
Community Services (schools, colleges, health offices, cemeteries)	612,613,642,652,695	108.93	24.70%
Industrial	710	6.12	1.39%
Public Services (electric substations and power generation facilities)	872,874	6.15	1.39%
Vacant (vacant residential and commercial land)	311,312,330,331,380	154.08	34.94%
	Approximate Total Acres	**441.04**	**100.00%**

Source: Oneida County Real Property Tax Parcel Information, 2020

2.4.2. Existing Zoning

The purpose of zoning is to positively influence and shape the City by regulating land use type, building size (height and width), lot coverage (placement of buildings), and building density. The Study Area zoning is shown on **Exhibit 2.4.2B** and is comprised of commercial, recreational, and residential uses. **Figure 2.4.2B** shows that zoning in the Study Area is largely dominated by the Griffiss Business Zoning District, the Woodhaven Redevelopment Zoning District, the Institutional Campus Zoning District, as well as four different residential zoning districts; R-1-5, R-1-8, R-2, and R-3, and Open Space and Natural Area zoning districts.

Floyd Avenue, west of the Mohawk River, to the intersection of Oakwood Street is dominated by residential zoning districts R-1-5 and R-1-8. The R-1-5 single-family residential district "is intended to provide for a neighborhood environment of single-family detached and attached dwellings on lots that are more compact than those found in the R-1-8 district. Limited non-residential uses that are compatible with surrounding residential neighborhoods may be permitted."[1] The R-1-8 single-family residential district "is intended to provide for a neighborhood environment of single-family detached and attached dwellings. Limited non-residential uses that are compatible with surrounding residential neighborhoods may be permitted."

The area paralleling the Mohawk River is zoned Natural Area. The NA district "is intended to protect and preserve existing natural areas such as forest areas and waterways. Natural areas are maintained in a predominantly

[1] City of Rome Zoning, Chapter 80, Sec. 80-6.1.

undeveloped state, though very limited development may be allowed for passive recreation and educational purposes but must be compatible with and cause little impact to these areas."

The Mohawk Valley Community College and the Rome Elementary School are zoned Institutional Campus. This zoning district "is intended to accommodate large institutional uses, such as healthcare institutions and schools, to allow for their expansion in a planned manner while protecting the surrounding neighborhoods."

To south side of Floyd Avenue between the Mohawk River and Park Drive is primarily dominated by the Woodhaven Redevelopment Zoning District. This district "is intended to create a dynamic, sustainable and attractive mixed-use neighborhood with a focus on recreation. The Woodhaven Redevelopment District will harmonize single-family, two-family, multiple-unit, and mixed-use structures to attract a broad spectrum of families, professionals, retirees, and students. In the context of a multiple-use, intermodal Greenbelt concept, this district will connect to existing municipal streets, sidewalk, and trails in the surrounding neighborhoods and prioritize the preservation and enhancement of natural resources, urban trees, and public greenspaces along the Mohawk River area to maximize the environmental, financial, and social benefits. The redevelopment of this area will also serve to prioritize and enhance the physical connection to the Rome Free Academy High School, and the Griffiss Business and Technology Park. The Woodhaven Redevelopment District seeks to realize the community's vision for the most dynamic, sustainable, and attractive mixed-use neighborhood in Upstate New York with a high standard for design and a practicable phased redevelopment strategy. Design objectives strive to provide a sustainable mixed-use revitalization plan to advance Smart Growth principles and include:

Exhibit 2.4-2B: Existing Zoning
Detailed map can be viewed in Appendix A

- Mix land uses.
- Compact building designs.
- Create a range of housing opportunities and choices.
- Create an accessible and multi-generational, walk-able community.
- Foster distinct, attractive communities with a strong sense of place.
- Preserve open space, natural beauty, and critical environmental areas.

- Engage the waterfront of the Mohawk River.
- Strengthen and direct development toward existing communities.
- Provide a variety of multimodal transportation choices.

The Woodhaven Redevelopment Zoning District is surrounded by an Open Space District, which creates a greenspace buffer around these future development areas. The Open Space District "is intended to provide and protect open space and public recreational facilities, both outdoor and indoor".

The area to the east of Park Drive is within the R-3 Zoning District, which is currently occupied by Park Drive Manor Apartments and Cherrywood Apartments. The R-3 multi-family residential district "is intended to provide for an environment of various dwelling types, including single-family detached and attached, two-family, and multi-family dwellings. Limited non-residential uses that are compatible with surrounding residential neighborhoods may be permitted."

The R-2 single-family residential district is located north of Floyd Avenue between Bell Road South and Broadway, and off of Ellsworth Road adjacent to St Peter's Cemetery along Taft and Brennon Avenues. The R-2 district "is intended to provide for a neighborhood environment of single-family detached and attached dwellings, and two-family dwellings. Limited non-residential uses that are compatible with surrounding residential neighborhoods may be permitted."

Finally, the Griffiss Business Zoning District is intended to encourage "high quality, state-of-the-art business and technology center, within a work environment that blends operational efficiency with a pleasing atmosphere"[2]. The Oneida County IDA currently owns approximately 90 acres of vacant land within the Study Are that are regulated within the requirements of this zoning district.

[2] City of Rome Zoning, Chapter 80, section 80-8.2.

2.4.3. Study Area Planned Development

The Study Area historically experienced a major decline in housing occupancy due to the closing of the Griffiss Air Force Base; however, as illustrated in the image below, the Study Area is now at the heart of a number of major re-development plans. While not all plans have been approved by the City, if approved, these proposed developments will transform the area with a variety of land uses, leading to an increase in traffic from patrons of local businesses, changes in the traffic circulation patterns from new residents, and a demand for Complete Streets to serve the multi-modal needs of existing and future residents, students, business patrons and business owners. Future planned developments include but are not limited to the following public and private investment that will likely transforming the area:

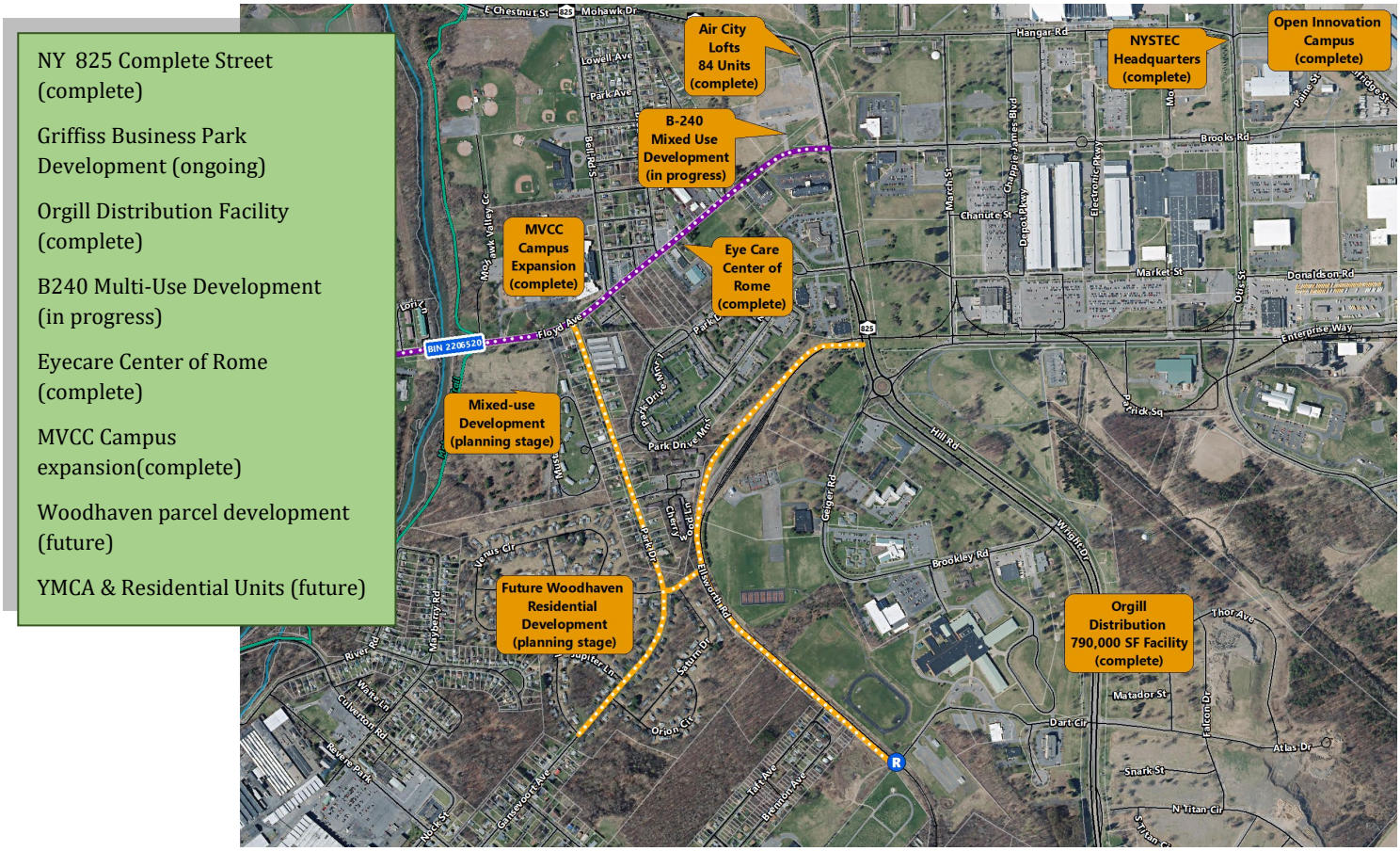


Exhibit 2.4.3: Regional Developments

3.0 PUBLIC OUTREACH & ENGAGEMENT

The City utilized a Community Outreach Process to inform the public as best as possible about the planning process and its findings, as well as to solicit public views and suggestions for recommended future improvements to the Study Area. To encourage participation the project, the methods used to solicit public input throughout the planning process were:

- Two Virtual Stakeholder Meetings
- A Community-wide on-line survey
- A Virtual Public Information Meeting

3.1. Stakeholder Meetings

The City hosted two Virtual Stakeholder Meetings were held in January and February of 2021 to identifying community priorities, views, and suggestions for recommended future improvements to the Study Area. Each session was attended by a diverse range of stakeholders including representatives from the Rome Common Council, developers (i.e., Griffiss Local Development Corporation), large landowners, Oneida County Metropolitan Planning Organization, Rome City School District, Mohawk Valley Community College, Centro, and local business owners. Participants discussed existing conditions within the Study Area, identified local challenges, provided feedback on future opportunities, and brainstormed future solutions. **Table 3.1.1** summarizes the key issues and opportunities identified by the meeting participants. Other meeting materials are contained in **Appendix B.** The feedback obtained through these outreach efforts formed the basis for the development of conceptual recommendations for the Study Area.

Table 3.1.1. Stakeholder Meeting Summary

Issues	Opportunities
Gaps in the sidewalk system along Floyd Ave between Park Dr and NY 825. Need to safely connect workers in the Griffiss Park, hotel patrons and residents to and from restaurants business on Floyd Ave	Address a longstanding connectivity and pedestrian network issues with multi-use trails in and around the neighborhoods. Work with Griffiss Park Landowners Association to develop a priority network to fill the gaps on Floyd Ave and connect to Griffiss Park
Auto and bike/ped safety issues at the Mohawk River Trail crossing at the east end of the Floyd Ave bridge	Establish an improved bike /ped crossing at this location with a raised crosswalk and/or a Rectangular Rapid Flashing Beacon
Lack of safe bike/ped connections between existing neighborhoods and business on Floyd Ave	Fill the gaps with sidewalks and/or off-road multi-use paths along Floyd Ave
Lack of landscaping and protective buffers between sidewalks and roadway between the MVCC entrance at Bell Rd S and the Bariles Mobile Home Park	Reconfigure the travel lanes of Floyd Ave and install curbing to allow for a widened buffer for landscaping
Need for more defined bus stops with ADA compliant features	Work with CENTRO to evaluate needs and determine where improvements should be made to best serve the community
Lack of snow removal on existing sidewalks	Enforce the existing City code for snow removal
Traffic movement delays between Bell Rd and Park Dr	Evaluate the feasibility of removing the Bell Rd traffic signal
Lack of pedestrian or bicycle accommodations on Park Dr	Install sidewalk or multi-use trail on one or both sides of Park Dr. Make trail connection in and around the proposed Woodhaven Development
Drainage issues on Park Dr between Floyd Ave and Mars Dr	Utilize green infrastructure to address stormwater. Potential use of infiltration practices (e.g., infiltration basins, infiltration trenches/chambers, drywells, infiltrating bioretention practices and porous pavement
Lack of pedestrian or bicycle accommodations on Ellsworth Rd	Utilize existing pavement to construct a multi-use trail along Ellsworth Rd. Existing road width would allow for the delineation of a separated pedestrian and bike path with landscape buffered on both sides

Issues	Opportunities
Need for formal connection to the multi-use path on NY 825 from both Floyd Ave and Ellsworth Rd	Construct a multi-use trail along Ellsworth Rd connect to the existing trail on NY 825. Safety improvements will be necessary for rail crossing
Lack of formal pedestrian connections between to the School and nearby neighborhoods on Taft and Brennen	Coordinate with the School District and residents to identify safety needs for students and develop alternatives to improve connections

3.2. Complete Streets Community Survey

The Complete Streets Community Survey was designed to better understand the needs and concerns of residents, property-owners, and business-owners within the Study Area. The on-line survey asked 14 multiple choice questions pertaining to the existing multi-modal transportation amenities, pedestrian and bicyclist safety, and desire for specific types of improvements within the Study Area. The survey was available electronically on the City's website between February 2021 and March 2022. The public was notified of the survey via an announcement on the City's Facebook page, a flyer distributed via email, and a post card mailed to property-owners within the Study Area. In total, 238 surveys were completed online. The survey results are summarized below.

3.2.1 Survey Results

Demographics of Survey Respondents

The survey asked a few demographic questions to better understand the make-up of the survey sample. Of those who responded to the first question, more females (61%) than males (37%) participated, while 2% chose not to respond to the question. The age range of respondents varied; however, the majority (60%) were over the age of 45, with the second highest group between the ages of 35 and 44 (23%), and the remaining under the age of 34. The majority of respondents were White or Caucasian (86%).

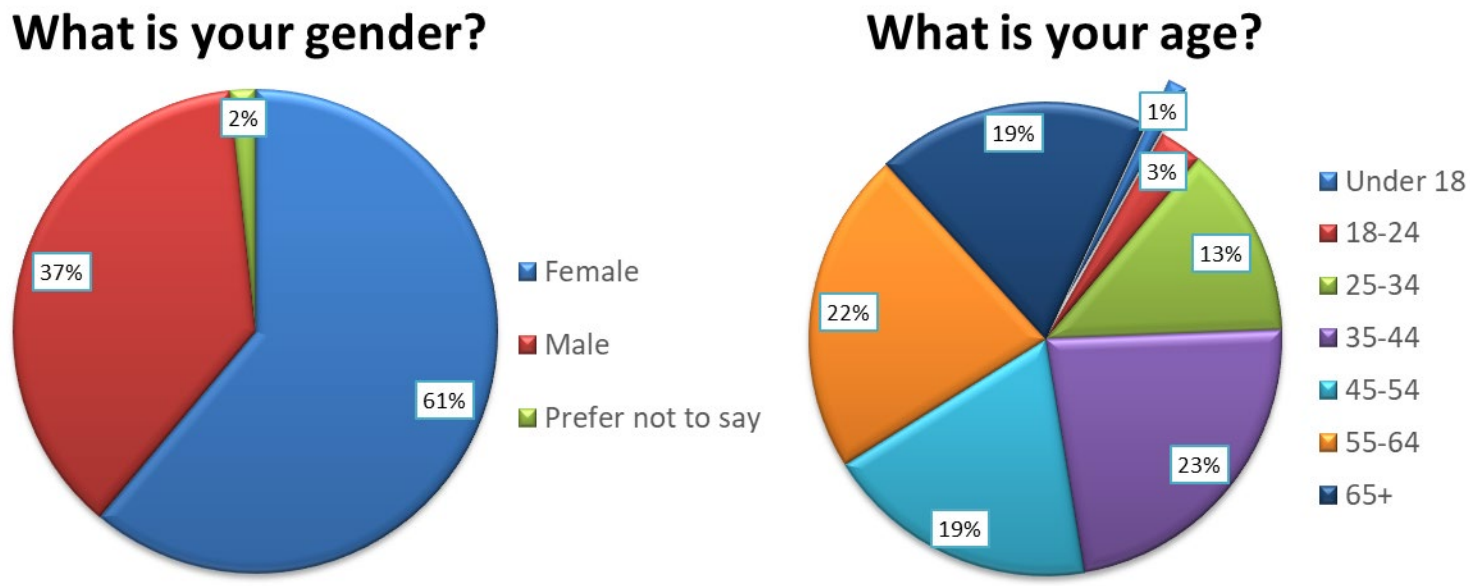


Figure 3.2.1A: Survey Respondent Demographics

Where Survey Respondents Live and Work

More than half of the respondents (68%) live within or near the Study Area, while most (61%) do not work within or near the Study Area.

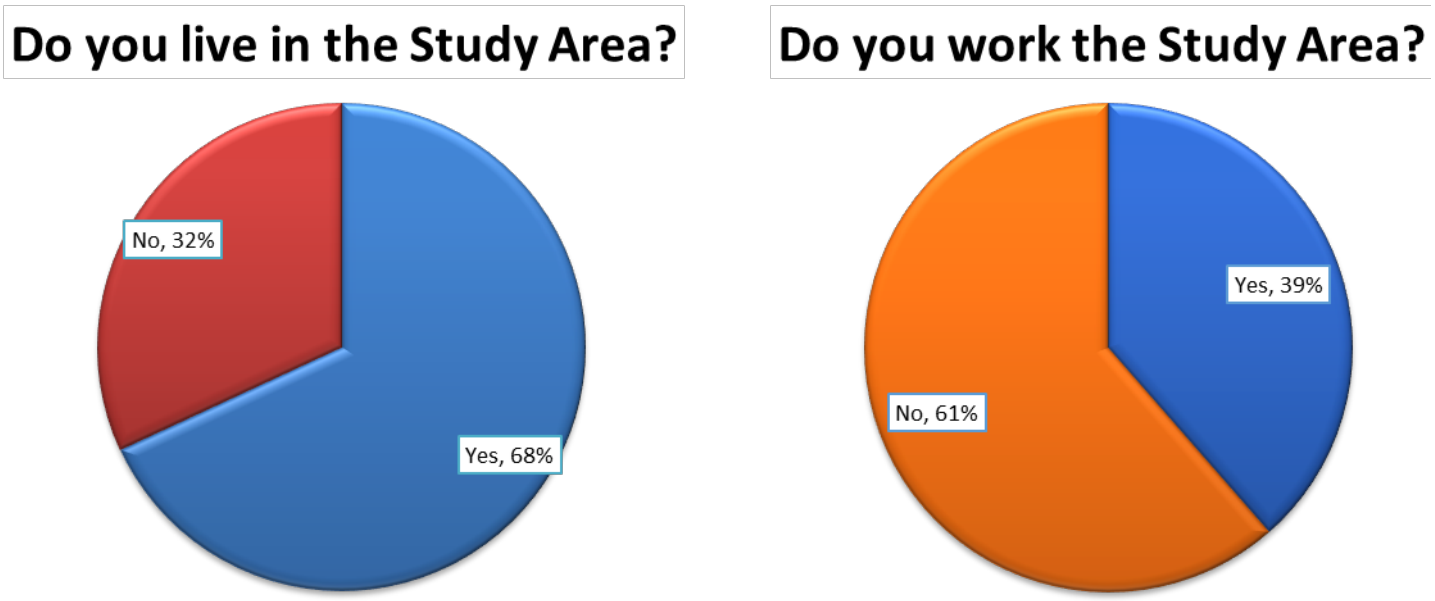


Figure 3.2.1B: Where Survey Respondents Live and Work

Forty three percent (43%) of respondents identified themselves as a resident of the Study Area, and 4% identified themselves as a business owner, and 15% were an employee of a business within the Study Area. A total of 3% identified themselves as staff or faculty of the Rome Free Academy or MVCC, and only 2% were students of the Rome Free Academy or MVCC.

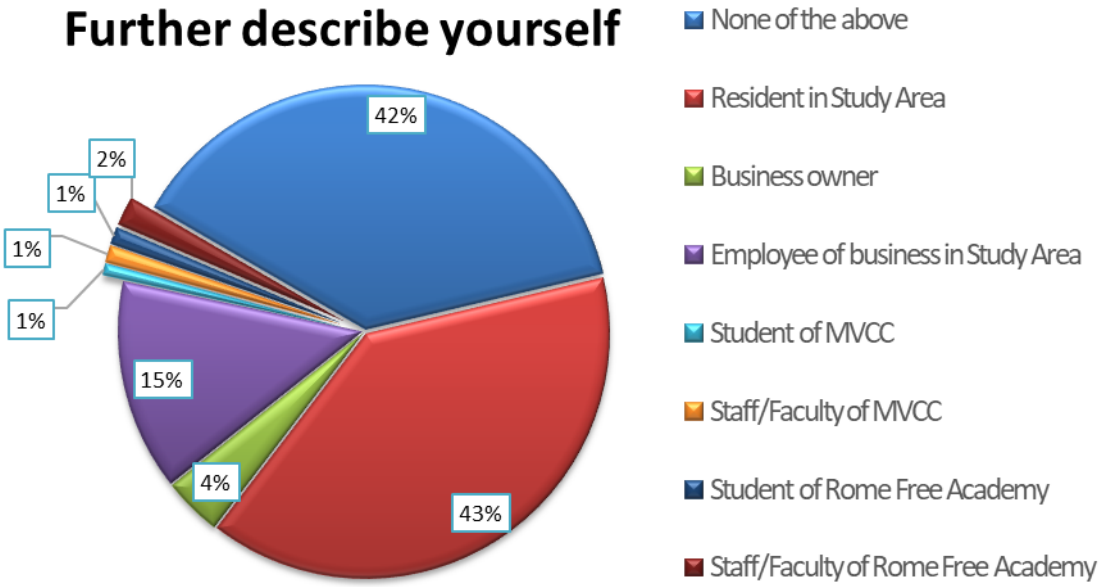


Figure 3.2.1C: Further Details About Respondents

How Survey Respondents Get Around

When asked what type of transportation they frequently use within the Study Area, the vast majority (86%) stated that they frequently drive in the Study Area and 41% stated that they frequently walk within the Study Area. Only 26% of respondents stated that they ride a bike within the study area, and only 8% use public transportation (bus) within the Study Area.

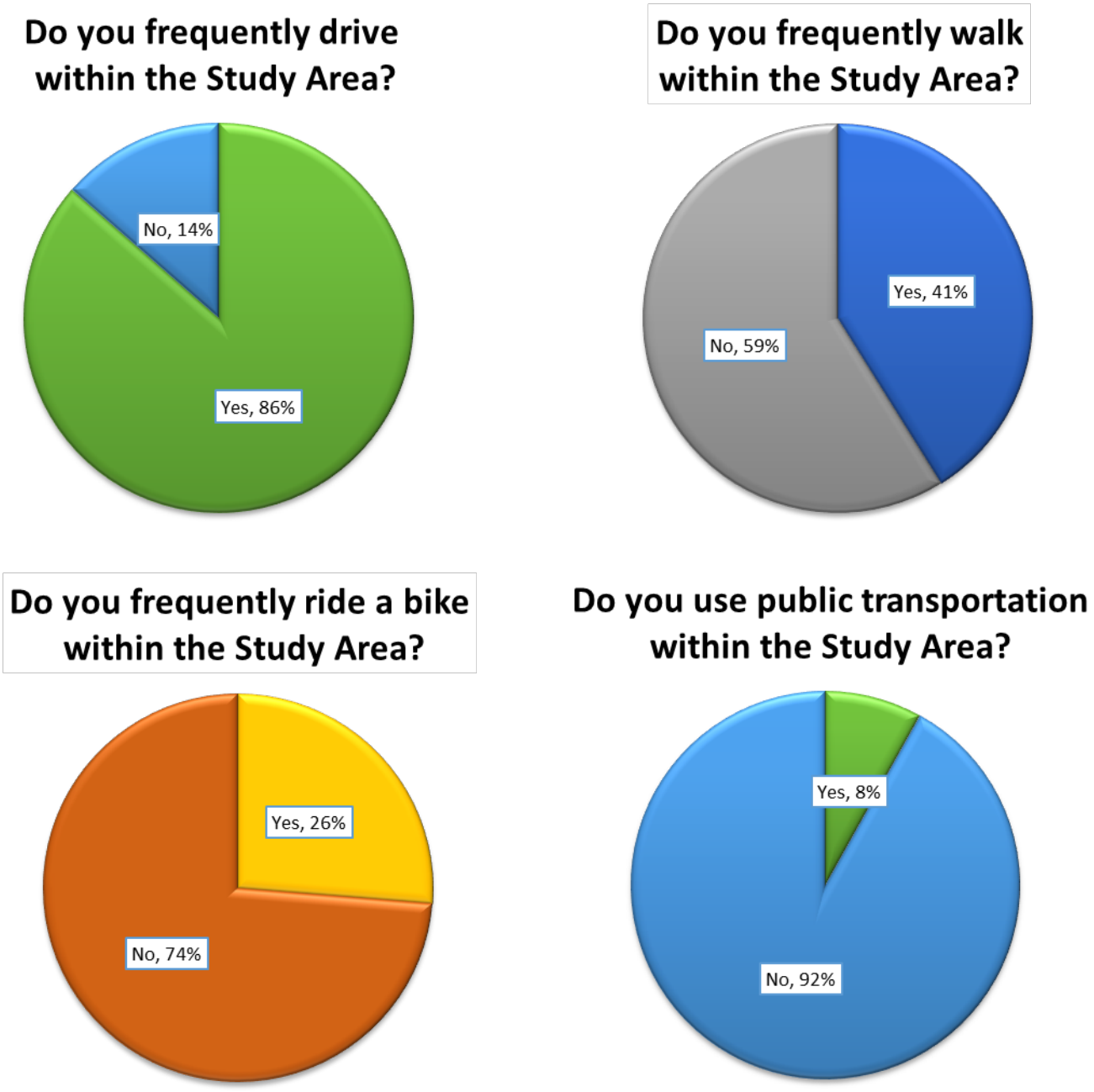


Figure 3.2.1D: How Survey Respondents Get Around

Perception of Pedestrian & Bicyclist Safety

When asked if they have experienced or witnessed unsafe conditions between motorists, pedestrians, and/or bicyclists within the Study Area, the majority of respondents (68%) said yes, while only 32% said no.

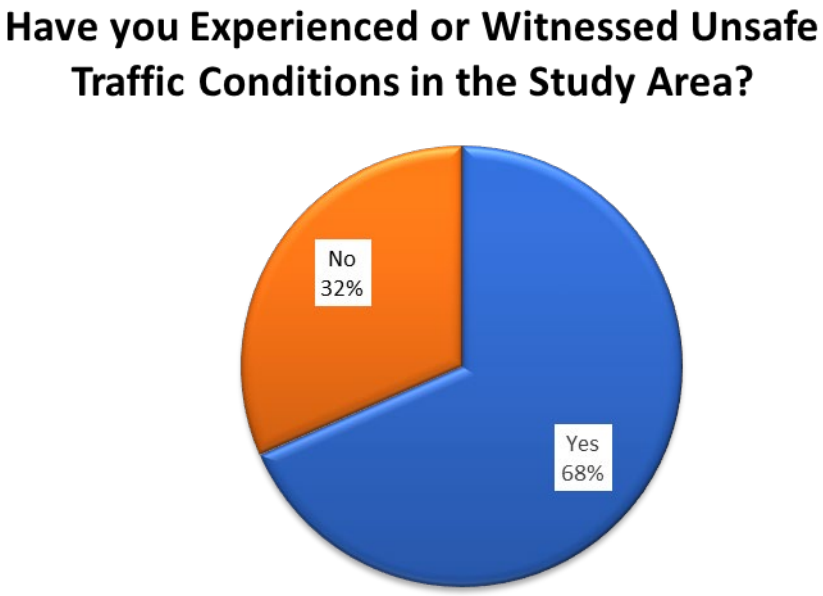


Figure 3.2.1E: General Perception of Pedestrian & Bicyclist Safety in the Study Area

When asked if they feel safe from traffic while walking within the Study Area, half of the respondents indicated that they *did not* feel safe while walking, while 39% indicated they *did* feel safe while walking, and 10% remained neutral on the subject.

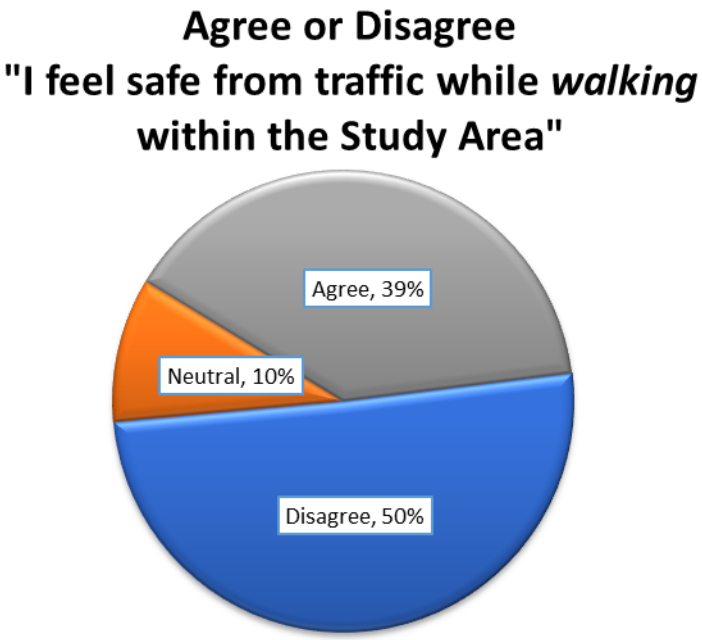


Figure 3.2.1F: Perception of Pedestrian Safety in the Study Area

When asked if they feel safe riding a bike in the Study Area, the results showed that most respondents (59%) *did not* feel safe while biking in the Study Area, 31% indicated they *did* feel safe while biking, while 10% remained neutral.

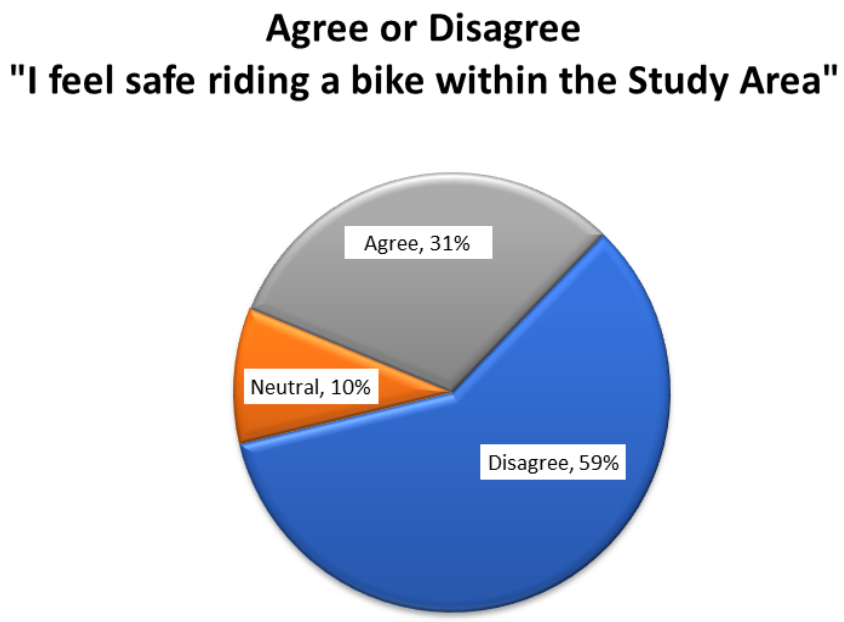


Figure 3.2.1G: Perception of Bicyclist Safety in the Study Area

Ranking Importance of Complete Streets Improvements

When asked the rank the importance of different types of Complete Streets improvements in the Study Area (with 1 being the most important, and 5 being the least important), many survey participants (34%) favored improving sidewalks, followed by building of new multi-use paths separated from traffic (33%); making street crossings more saft (18%); slowing traffic speeds (15%) and finally the least important category according to survey respondents was improving bus stops and bus shelters (4%).

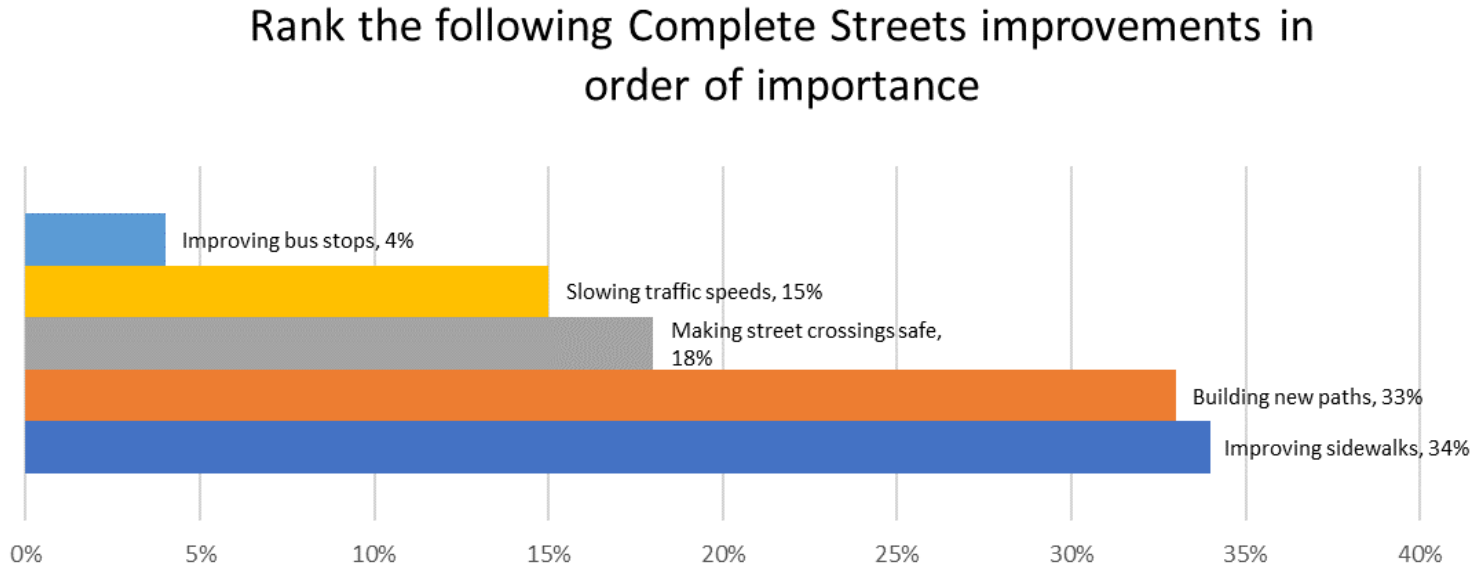


Figure 3.2.1H: Ranking of Need for Complete Streets Improvements

3.3. Public Information Meeting

The City hosted an on-line Public Informational Meeting on March 10, 2022, to provide the public with a review the Project Area's existing conditions and the overall project goals, the engineering considerations for roadway improvements, and the conceptual improvements for the Project Area. Nearly 40 people attended the meeting. The meeting provided the public with an opportunity to comment on the proposed concepts and ask questions. A copy of the PowerPoint presentation is included within Appendix B.

3.1.1 Summary of Q&A

The following is a summary of the frequently asked questions answered during the Public Informational Meeting.

Q. Are there plans to connect the new developments to existing bike paths?

A. The Mohawk River Trail is successfully providing a multimodal purpose, and the Floyd Avenue corridor is a natural fit to extend that system. The Study has proposed safe crossing improvements near the Rome Campus of the Mohawk Valley Community College and at the Griffiss International Sculpture Garden Trail. The City is seeking funding to extend the Mohawk River Trail and provide connections in various locations.

Q. Will the bike lanes be physically separated by from car traffic? Without physical separation most people won't feel very safe, as paint is not protective, and usage may not be as high as hoped.

A. Depending on the existing right of way there are options of using shared road markings and bike lanes separating vehicles from other modes of transportation on Park Drive and Floyd Avenue. Public feedback on the conceptual improvements presented in this plan is paramount to this decision-making process.

Q. Will Woodhaven be 100% residential, or is there a plan for commercial spaces (cafes, studios) within the development?

A. As part of the previously adopted Woodhaven Revitalization plan, the local zoning was updated to a form-based district. The district is very diverse in its potential uses. The initial plans for the area are envisioned to be primarily residential, with the 250-lot proposed subdivision. The YMCA parcel we know is the front 30 acres adjacent to Floyd Avenue envisioned to be more mixed use, similar to Air City Lofts, with recreational and civic opportunities, and possibly some garden style apartments with connected garages. This will give the area a little bit of a different style than just a single-family residential unit or an apartment unit, it's kind of a hybrid of both. Industrial uses have not been considered at this time, but cafes and other small commercial business unit uses would be viable for that front 30 acres, as the rest of Floyd AV is a strong commercial corridor.

Q. Are there considerations of lowering speed by way of road design rather than relying on enforcement? No biker that I know of feels protected by sharrows. More of a concern with higher pedestrian users if there is no physical separation.

A. Going back to the engineering considerations, Floyd Avenue now posted at 30 miles an hour. However, the roadway is wide, with two 13-foot lanes and a shoulder in some areas. One of the design considerations if we were to plan for a separate off road bicycle side path would be to narrow those lanes down, which has a tendency of slowing traffic. If there is no appetite for a separate off-road facility, the travel lanes do have to stay a little bit wider for an on-road bike lane. Other devices we talked about for improving safety are raised crosswalks to lower the overall speed in the corridor, and speed feedback signs which have been shown to be highly effective in reducing speeds.

Q. The opening of Taft Avenue may face resistance. Opening Taft Avenue for foot/bike traffic could be a good compromise. Residents on Taft Avenue do not want that connection for vehicles, only pedestrian connection.

A. It is very important to the City to engage the public and gather feedback regarding the Plan's conceptual recommendations. We would be remiss if we didn't include considerations for connecting Taft Avenue and Brennan Avenue to Ellsworth Road since it is adjacent to the Study Area. The City will explore these concepts further and gather more feedback from the local residents and School District representatives in the future.

Q. More commercial mixed in with the residential areas via mixed zoning would be helpful to avoid a feeling of suburban sprawl, is there any plan for that? As long as those can be accessed easily via bike or walking it will be beneficial.

A. The current zoning the Woodhaven Area is a form-based zoning district. You could have several mixed uses within the district or even in the same building as long as the building design is of a certain character that fits the criterion within the district. Building form, massing, and design in the driving factor, not necessarily the use, so long as the use would not be considered a nuisance to the overall quality of life to the residential aspect of the district.

4.0 DESIGN CONCEPTS & RECOMMENDATIONS

4.1 Overall Connectivity Plan

Based on the existing conditions analysis, stakeholder feedback, and input received from the public survey and public information meetings, a series of transportation improvement concepts were developed for each of the focus areas as shown in **Exhibit 4.1**. In many instances, concerns were related to neighborhood connectivity and traffic safety; therefore, the proposed alternatives focused on creating new multi-modal connections between each section of the study area, as well as conceptual traffic calming measures to improve pedestrian and bicycle comfort within the study area. It is noted that many of the elements identified should be incorporated into any roadway alternative to improve connectivity within the study area.

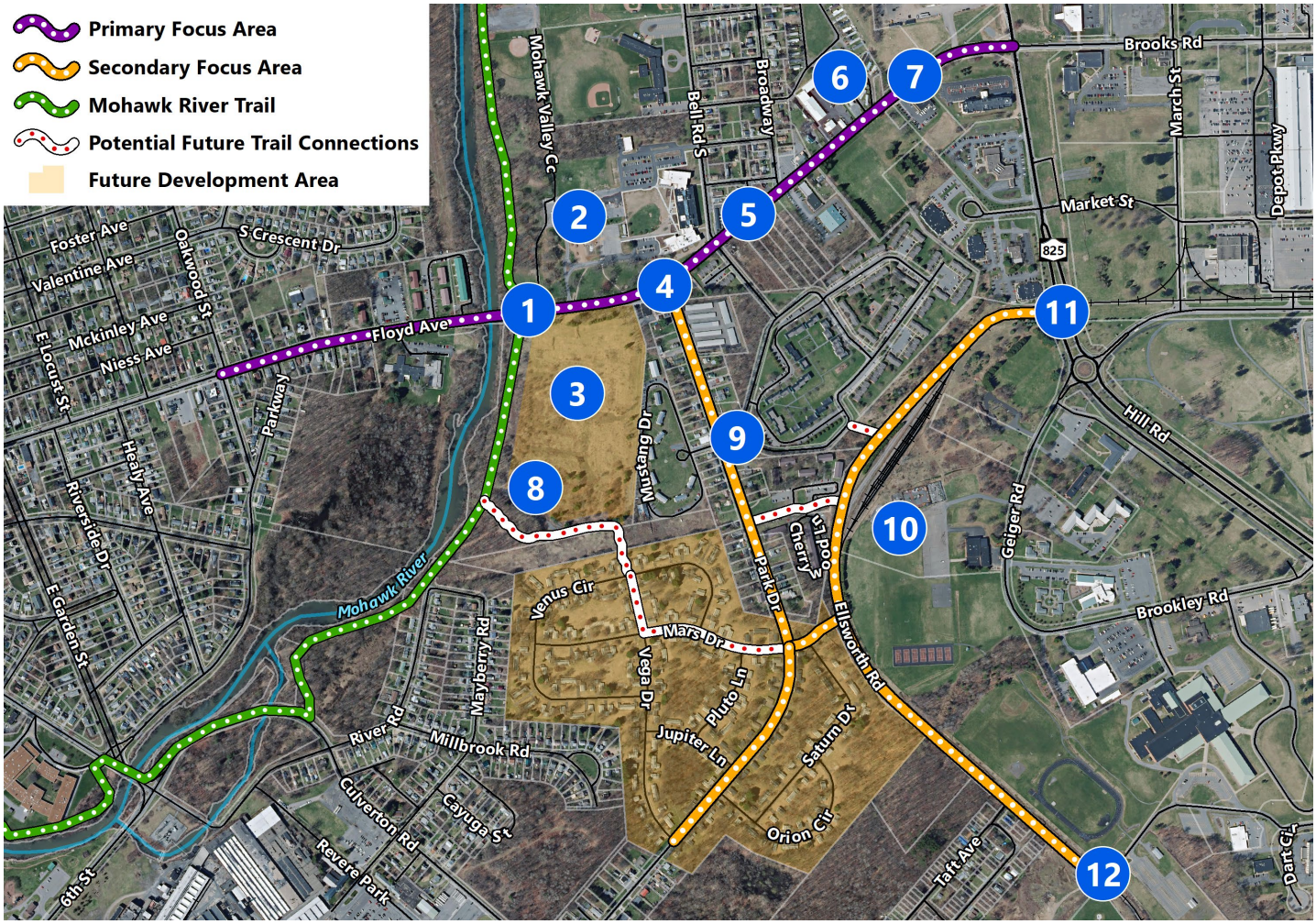


Exhibit 4.1: Study Area Concepts

1) Mohawk River Trail Crossing	7) Floyd Avenue Complete Streets Typical Sections
2) Mohawk Valley Community College Driveway Improvements	8) Future Trail Connections
3) YMCA Improvements	9) Park Drive Improvements
4) Floyd Avenue/ Park Drive Intersection	10) Ellsworth Road (northern segment)
5) Floyd Place and Broadway Re-alignment	11) Ellsworth Railroad Crossing Improvement
6) Driveway Access Management	12) Ellsworth Road (southern segment)

The overall plan identifies several bicycle and pedestrian connectivity improvements as well as traffic calming elements to improve quality of life in the Study Area. While a number of these improvements are described in further detail below, many of the traffic calming elements can be applied throughout the City beyond the Study Area boundary. As such, it is useful to think of these traffic calming elements as a "Toolbox" with many different treatments that can be incorporated into future projects to calm traffic and promote pedestrian safety and comfort.

4.2 Conceptual Design Elements and Alternatives

Below are detailed breakdowns of the different design components that have been developed and evaluated throughout this project. It is important to note that the cost of each improvement is represents the installed cost of materials whose price is based on initial layouts. The estimates were developed based on recent bid prices or the average bid prices taken from the Pay Item Catalog which is maintained by NYSDOT. They do not take into consideration costs for right-way acquisition, design services, construction inspection, inflation, or soft costs such as work zone traffic control, survey, field change payment etc.

4.2.1 Floyd Avenue Mohawk River Trail Crossing

The Mohawk River Trail crossing on Floyd Avenue sees over 6,000 vehicles per day and is located on straight section of roadway that can lead to increased travel speeds. To increase trail user safety a raised crosswalk shown in **Exhibit 4.2.1A** would be constructed in conjunction with the installation of rectangular rapid flashing beacons. The raised crosswalk provides a physical element that will slow vehicle speeds while the beacons will provide advanced warning to motorists. In **Exhibit 4.2.1B** is a rendering on a raised crosswalk along with the supporting signage that is shown in the Empire State Trail Design Guide. Based on existing drainage patterns two catch basins and supporting piping will be required to drain stormwater that would otherwise be ponded by the raised crosswalk.

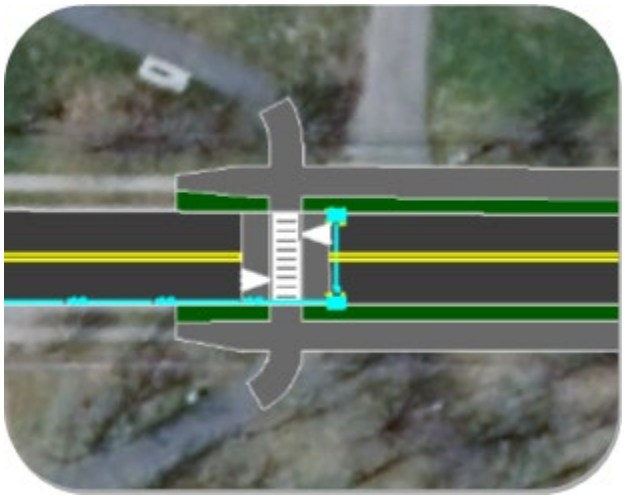


Exhibit 4.2.1A: Raised Crosswalk

Exhibit 4.2.1B: Raised Crosswalk

4.2.2 Mohawk Valley Community College Driveway Improvements

To reduce conflicts points on Floyd Avenue the access to the Mohawk Valley Community College would be limited to a single access driveway. The current entry driveway located about 420 feet from the Mohawk River bridge (dashed redline in **Exhibit 4.2.2**) would be converted to a full access driveway while the western driveway (dashed yellow) that is used for exiting vehicles would be restricted to use as a multi-use trail connection or for periodic use such as sporting events or emergency vehicles. As a trail connection the driveway could be enhanced with benches, trash receptacles, lighting etc. A second option would be the complete removal of the driveway and converting the area into a larger contiguous green space. Depending upon what happens with the YMCA this general area may benefit from a new bus stop that could be co-located with a transit stop.

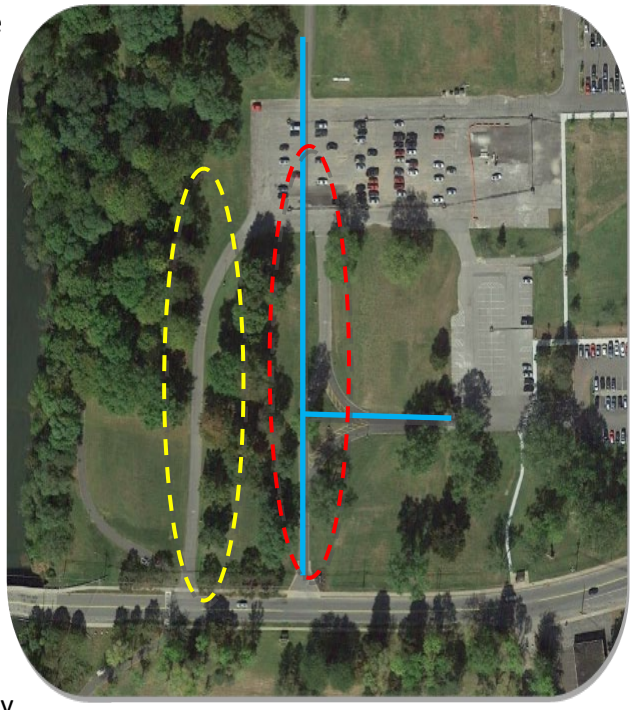


Exhibit 4.2.2: MVCC Driveway Improvements

Internally to the Mohawk Valley Community College the access road that has right turn in/right turn out access would need to be configured to a traditional tee intersection as shown in blue. Secondly the access road currently bisects the northern parking lot to access sports fields located north of **Exhibit 4.2.2**. The driveway should be aligned to the northern access which would require the parking lot be reconfigured. As part of any design effort, the realignment would be a compromise of achieving ideal traffic circulation while minimizing impacts such as tree clearing and utilizing existing paved surfaces to reduce costs.

4.2.3 Floyd Avenue Development Parcel

The property located of Floyd Avenue is in the concept development stage where initial site plans include the YMCA building, residential housing, and dining. The City has indicated that as part of the project an interior parking area with green space would remaining as City owned. This parking area then can be used in part as a signed trail head for the Mohawk River Trail.

Exhibit 4.2.3: Preliminary Floyd Ave Mixed-Use Development Site Plan

4.2.4 Floyd Avenue/Park Drive Intersection

The intersection of Floyd Avenue and Park Drive currently operates at a LOS A on Floyd Avenue and LOS C on Park Drive. The intersection will inevitably see increased traffic once the area has been developed. To accommodate the future growth three alternatives were developed with increasing benefits as well as cost. Each of the following alternatives assumes a 10-foot asphalt trail will be constructed on both sides of the roadway as shown in gray with pedestrian crosswalks on all three approaches.

Exhibit 4.2.4A: Alternative #1

Alternative #1 – Developed as a low-cost alternative the existing geometry, pavement, and curbing would be retained. The cost of new asphalt trail segments and sidewalk shown in exhibit 4.2.4A are included in the cost estimates in sections 4.2.7 and 4.2.9. This alternative retains the existing traffic signal while replacing the existing pedestrians and installing pushbuttons with new crosswalks. This alternative facilitates the movement of pedestrians and bicyclists but does not address increases in traffic volumes. To incorporate the pedestrian crossing the coordination between the signal may or may not be retained and further study would be required.

Exhibit 4.2.4B: Alternative #2

Alternative #2 (Preferred Alternative) - This alternative would construct a new left turn lane on the westbound approach of Floyd Avenue which widens the roadway enough to require a new traffic signal. Similar to Alternative #1 new pedestrian signals will be installed along with new striping. Again, the cost of any sidewalk or asphalt trail is included in other sections of this report. Due to the re-alignment of Park Drive to form a conventional T-intersection the pavement will be replaced on Park Drive to re-establish the roadway crown and replace damaged areas. The left turn lane is designed to accommodate future housing in the Woodhaven Development. The alternative may require ROW takings from the surrounding properties.

Exhibit 4.2.4C: Alternative #3

Alternative #3 – The final alternative consists of a 90-foot-wide roundabout that is suitable to handle commercial vehicles such as delivery vehicles but would not support a tractor trail. The roundabout would likely require ROW taking especially from the Mohawk Valley Community College, but the design ensures the continuous flow of traffic through

the intersection and removes any future signal maintenance. Implementation of roundabout is considered more environmentally friendly as the continuous flow of vehicles eliminates the emissions provided by idling vehicles.

4.2.5 Floyd Place/Broadway Improvements

As part of the Floyd Avenue redesign and improved access management the intersections of Floyd Place and Broadway shown in **Exhibit 4.2.5** below can be changed to provide benefits to both motorized and non-motorized users. The connection to Floyd Place would be removed and filled with new landscaping and potentially converted into a small pocket park for local residence. The removal of Floyd Place also reduces the number of conflict points along Floyd Avenue. Any vehicles using Floyd Place would be re-directed onto Emerson Avenue then to Broadway. Since Broadway would see a minor increase in vehicular traffic the intersection would be re-aligned to Floyd Avenue to remove the existing skew. The changes shown in **Exhibit 4.2.5** would likely be accomplished by utilizing existing City owned ROW. The re-alignments will impact existing drainage patterns thereby likely requiring new stormwater catch basins. As an added safety measure the parking shown to right of Broadway (red oval) would need to be adjusted or partially removed. Curbing would extend from Floyd Avenue along Broadway to prevent vehicle from backing into the roadway from the parking spaces. The cost of any such improvements is included in the cost for Floyd Avenue improvements shown in section 4.2.7.

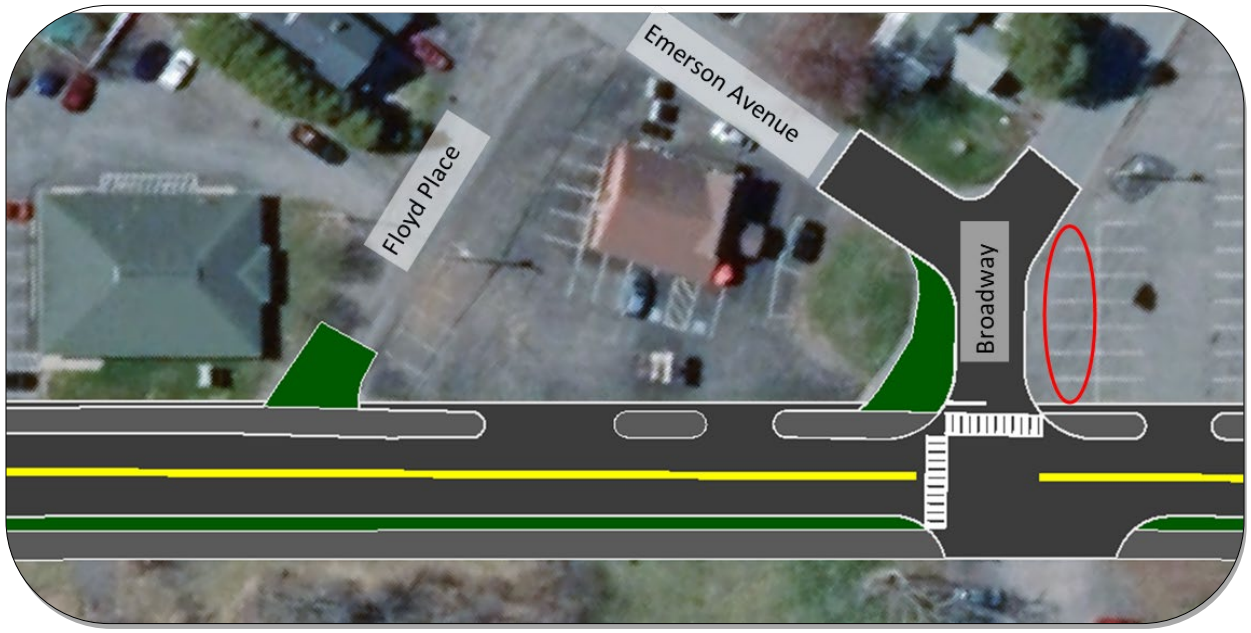


Exhibit 4.2.5: Alternative #3

4.2.6 Floyd Avenue Access Management & Drainage Improvements

The other aspect of Floyd Avenue that would benefit from improved access management are the existing driveways that are located within a 1,200-foot segment located east of Bell Road. The driveway as shown in section 2.1.7 is an example of the long expanses of concrete and asphalt with no delineation. This condition can inevitably lead to driver confusion and fail to provide safe crossings for pedestrians/bicyclists. Shown in **Exhibit 4.2.5**, new curbing and sidewalks would be constructed to define driveway openings to create protected space for pedestrians that is separated both horizontally and vertically. The sidewalk areas could consist of solely concrete or incorporate grassed areas and landscaping to "soften" the existing hardscape.

Two known issues that would have to be addressed during a design project are the limitations on existing highway boundary and drainage impacts. The highway boundary along Floyd Avenue along these businesses frontages is 50-feet wide meaning some of the improvements shown would be within private property thereby requiring easements or property acquisitions. Secondly, the implementation of curbing will create areas of ponding during storm events that have to be drained. Existing drainage patterns indicate the driveways generally slope toward the roadway meaning rainfall may become trapped along the backside of new curbing/sidewalk. This condition can be mitigated by introducing new catch basins and connecting into the existing storm sewer system. Alternatively, implementation of green infrastructure such as grassed dry swales or biofiltration as shown in **Exhibit 4.2.6A/B** can be used as collection areas that allow rainwater to infiltrate back into the soil. To provide space for green in infrastructure it is likely the travel lanes and shoulder width would have to be set near their minimum widths to retain adequate frontage along the north side of roadway. The cost of any such improvements is included in the cost for Floyd Avenue improvements shown in section 4.2.7.

Exhibit 4.2.6A/B: Example Grassed Swale & Biofiltration

4.2.7 Floyd Avenue Complete Streets Design

As part of transforming Floyd Avenue into a Complete Street, any project would need to construct sidewalks, trails, or bike lanes to provide continuity through the Study Area. The general cross section that would be developed would extend from NY 825 to Park Drive as shown in **Exhibit 4.2.7A**. Depending on ROW, utility impacts, and additional community input the roadway would be curbed with 11–12-foot travel lanes and zero-to-four-foot shoulders. On the south side of the roadway a five-foot maintenance strip would be backed with a 10-foot asphalt multi-use trail. On the north side of Floyd Avenue, a sidewalk and/or landscaping strip would be constructed. The improvements to the north side are much more flexible as the sidewalk width, landscaping, and driveway improvements can be tailored to each individual property owner. For instance, the improvements could help develop small, landscaped areas that may facilitate outdoor dining, but would come at a cost of increased ROW impacts.

Exhibit 4.2.7A: Floyd Avenue Potential Cross Section
Looking East Near the Broadway and Floyd Avenue Intersection

Exhibit 4.2.7B: Floyd Avenue Potential Cross Section, between the Mohawk River Trail Crossing and Park Drive - Looking East Near MVCC and Floyd Ave Re-Development Area

West of Park Drive, the cross section of Floyd Avenue would look similar with the same travel lane and shoulder widths. The major difference is the sidewalk on the northern side would be replaced by a ten-foot asphalt multi-use trail that is separated from the roadway by a five-foot maintenance strip (see **Exhibit 4.2.7B**). The area is currently mostly grassed or undeveloped providing additional space for an asphalt trail on both sides of the roadway. The trails would terminate when they reach the Mohawk River Trail but could transition into bicycle lanes that could be used to cross the bridge over the Mohawk River (see **Exhibit 4.2.7C**). The proposed bridge design has 16-foot travel lanes which can be converted to 11-foot vehicle lanes with five-foot bicycle lanes. It is important to note that to ensure the safety of bicycle riders as they transition from the sidepath to the bicycle lane the raised crosswalk should be built in concert. This is especially important in the westbound direction to slow drivers as the bicycle lane begins. To accomplish this the roadway would require modifications to the existing curb line with new striping and signage.

To provide additional traffic calming, various elements notable on-street parking and bump-outs were considered and ultimately not pursued. The proximately of the buildings to Floyd Avenue do not provide enough space for on-street parking without significantly impacting the adjacent parking lots. The only potentially viable alternative would be to install parking on the southern side of the roadway, but this may not be feasible due to ROW limitations and utilities. This design also forces motorists to walk across the roadway to access nearby businesses which is not desirable from a safety standpoint and would likely be underutilized given the number of parking lot spaces available.

As part of the complete street design, it is recommended that a lighting analysis be performed for the area especially given the anticipated increase in pedestrian and bicycle activity. The current overhead lighting is mounted to existing

utility poles and spaced infrequently. Additionally, a study could identify the areas darkness that not only make non-motorized uses more comfortable during low light conditions but helps illuminate them to turning motorists.

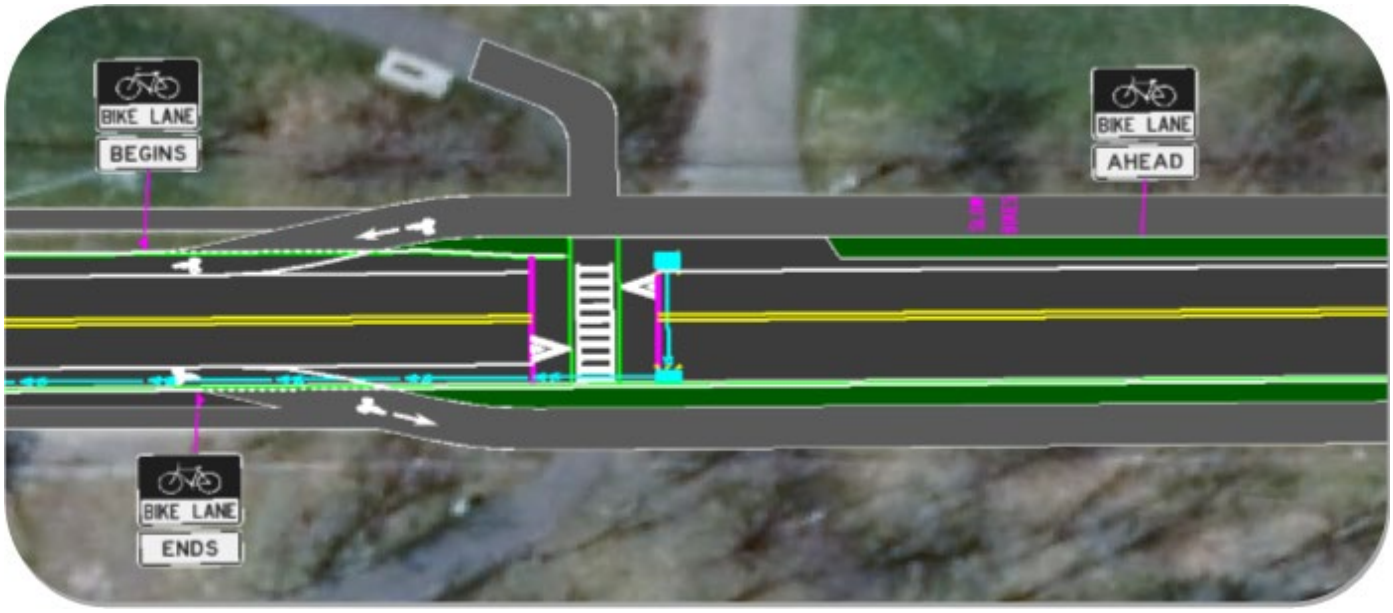


Exhibit 4.2.7C: Floyd Avenue Bicycle Lanes

4.2.8 Future Trail Connections

In an effort to increase the interconnectivity of the various trails, businesses, and residential areas the City has indicated that the site plans for the future Woodhaven Development will maintain a 50-foot buffer around the existing property. This buffer will be used to construct future trails that join the Mohawk River Trail to Park Drive and Ellsworth Road. The construction of a trail will require a Use and Occupancy Agreement with National Grid as sections of the trail will travel along their existing pole line. After exiting the Woodhaven Development, the future trail would intersect onto Park Drive where several options exist for its connection to Ellsworth Road. Depending upon ROW, utility impacts, site constraints as trail could be constructed along Park Drive down it the Ellsworth Road intersection or could be constructed along Cherrywood Lane to make a connection midway along Ellsworth Road as shown in **Exhibit 4.2.8** in the dashed circle. It is noted that Cherrywood Lane is private and would require an easement or acquisition for construction.

Exhibit 4.2.8: Ellsworth Rd Connections

The second connection would be a short spur that would join the Ellsworth Road to Park Drive Manor one or more locations in the oval above. The connection would be constructed through the existing forested area to provide an easy access for the local residents to the trail system.

4.2.9 Park Drive Complete Streets Design

The segment of Park Drive between Floyd Avenue and Mars Drive is comprised generally of single-family residences but has connections to nearby apartment buildings. The current roadway is devoid of any non-motorized amenities so a complete street cross section as shown in **Exhibit 4.2.9A** would incorporate, at minimum, a five-foot sidewalk on both sides of the roadway. Within the sidewalks would be curbed 11-foot travel lanes and shoulders varying between zero and four feet depending upon final alignment. Ideally the shoulders should be wider but can be narrowed if that facilitates the construction of pedestrian amenities. The existing ROW on Park Drive is about 80 feet wide which provides the necessary width for these improvements. Depending upon utility impacts and green infrastructure layouts there is also the potential to install an asphalt trail on the northbound side of the roadway.

Exhibit 4.2.9A: Conceptual Improvements for Park Drive Alternative #2

South of Mars Drive and extending down to Vega Drive the City intends to maintain an 80-foot ROW which coupled with the Woodhaven Development being proposed on an empty parcel allows for flexibility in a complete street layout. At a minimum the City would like to see a layout similar to **Exhibit 4.2.9B** where an asphalt sidepath is constructed along the northbound side with a five-foot sidewalk along the southbound side. Ideally the Woodhaven site plans would incorporate a second ten-foot sidepath on the southbound side (not shown) to remove bicycles entirely from the roadway. The pedestrian amenities are separated from the roadway by a five-foot buffer. The travel lanes would be 11 feet with three-foot shoulders. The City has also indicated that the overhead electric lines within the Woodhaven Development will be placed below grade.

Exhibit 4.2.9B: South of Mars Drive

The impact of this transformation is the additional need for storm drainage. The road currently lacks any drainage infrastructure to collect the concentrated runoff caused by the installation of curbing. Based on available soil maps the area is comprised of Type A soils that are well draining meaning the area is suitable for various types of green infrastructure similar to those covered in section 4.2.6. If desired segments of Park Drive could be constructed with permeable pavement or with curb cuts designed to channel storm runoff into adjacent green infrastructure as shown in **Exhibits 4.2.9C and 4.2.9D**. As another alternative, the City has indicated they utilize drywells which could also be used as an infiltration practice.

Exhibit 4.2.9C: Tree Pits

Exhibit 4.2.9D: Bioswale Curb Cut

The City has indicated that they are concerned about the potential for high vehicle speeds on Park Drive notably nears Mars Drive. As the parcel develops the unregulated access that existing today in the project area will be replaced with buildings, signage, and striping that all contribute to a developed roadway that reduces speed. If speed remains a reoccurring issue the City could opt to construct a raised crosswalk as shown in **Exhibit 4.2.9E.**

Exhibit 4.2.9E: Park Drive & Mars Drive Raised Crosswalk Conceptual Improvements

4.2.10 Ellsworth Road (Northern Segment)

The northern segment of Ellsworth Road between Mars Drive and NY 825 is a paved surface in fair condition. It provides access only for railroad track maintenance which makes it ideal as a transformative trail area dedicated for non-motorized users. In discussions with the Mohawk Valley Economic Development Growth Enterprises (MVEDGE), a concept similar to the rendering shown in **Exhibit 4.2.10A** was considered in the past. Using the paved surface, separate spaces would be striped for both pedestrians and bicyclists. A physical barrier would also be installed such as timber fencing, landscaping, or raised berms to discourage trail users from accessing the railroad track. Depending upon condition at the time of installation, the roadway may require a mill and inlay of the asphalt to provide a smooth walking surface suitable for ADA compliance. As part of the improvements solar lighting could be installed to provide additional visibility and safety in low light conditions well as landscaping amenities such as benches or waste receptacles. The improvements would terminate at the southern end at Mars Drive and at northern end of Ellsworth Road where they would intersect the existing trail system that parallels NY 825.

Exhibit 4.2.10A: Conceptual Improvements for Ellsworth Rd (Mars Dr. to NYS 825)

At Mars Drive the existing roadway will be reconfigured with striping, signage, and landscaping to guide traffic especially the vehicles traveling north on Ellsworth Road. The travel lanes would be 10-11 feet wide but would be widened at the corner to facilitate travel due to the radii. If desired new sidepaths or sidewalks could be constructed linking Park Drive to both segment of Ellsworth Road as shown in Exhibit **4.2.10B**. It is important to note that between the existing roadway and forested area there is a 40 to 50-foot swath that is available to reconstruct the area that serves both motorists and non-motorists alike. This allows the City to be very creative and flexible in final layout.

4.2.11 Ellsworth Railroad Crossing Improvement

One concern that the City has indicated about Ellsworth Road is the skew angle of the railroad crossing. The angle is less than 20 degrees which for bicycles can cause the rear wheels to lose traction and potentially bind within the crossing itself. To address this the proposed bicycle trail alignment will introduce a sharp curve on the western side of the track to force riders to cross the tracks at a perpendicular angle. The bike lanes can be striped or physically defined with landscaping to guide bicyclists into the sharp turns. Additional signing would be required to warn of the sharp corners as well as the railroad crossing itself. Shown in the **Exhibit 4.2.11**, the crossing can be constructed within the existing parcel owned by the Oneida County IDA. The cost of the crossing improvement is including in the cost of the northern segment of Ellsworth Road in section 4.2.10.

4.2.12 Ellsworth Road (Southern Segment)

Ellsworth Road south of Mars Drive is periodically opened to vehicular traffic so the transformative approach that could be taken with the northern segment is not applicable. To support trail users, a section of the paved surface could be striped or physically delineated from the remaining travel lanes. Striping would be a low-cost option compared to the installation of timber fencing or other permanent separation. To further split motorized versus non-motorized users a section of the asphalt could be removed thereby creating a grassed or vegetated strip about five feet wide that captures stormwater runoff. The intent is to provide a clear divide of the roadway which in turn will provide a level of traffic calming by narrowing the existing pavement. In discussions with the City there are no immediate plans to improve the railroad crossing nor remove the gate preventing access to the Rome Free Academy so any trail improvement would likely terminate at this location. The potential for a trail connection onto Taft Avenue or Brennon Avenue has been discussed in the past and always met with resistance by the homeowners in that area; however, this opportunity could be revisited in the future.

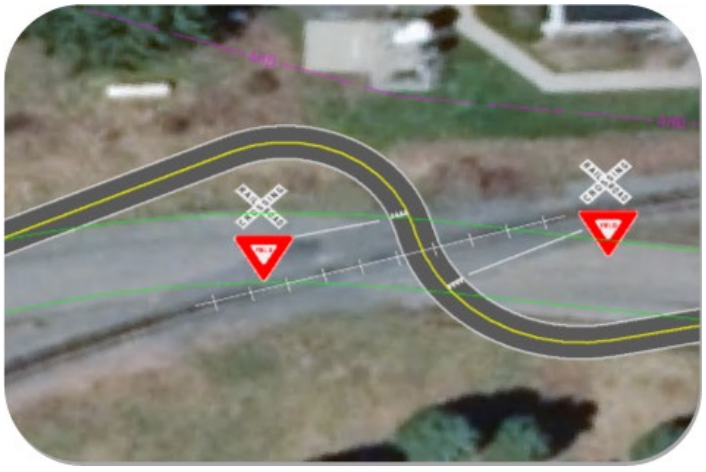


Exhibit 4.2.11: Ellsworth Rd Rail Crossing Near NYS 825

4.2.13 Alternatives Summary

Concluding this report is **Table 4.2.13** below. The table is intended to act as a high-level summary of the various segments of the project area that have been evaluated and provide an overall assessment of their complexity for design and construction moving forward.

Table 4.2.13: Alternatives Summary

Alternatives Summary Table			
Segment	**Design Requirements**	**Constructability**	**Key Takeaways**
Mohawk River Trail Crossing	NYSDOT Standard Sheet 608-07	Simple – Standardized Layout	Low-Cost Safety Improvement.
MVCC Driveway	Requires survey/ coordination with MVCC	Simple to Moderate	Many possibilities but lower priority in overall project.
Floyd Avenue Development Parcel	Depends upon final site design and follows City design standards.	Complex	Includes new access driveway, sidewalks, water, sanitary/ storm sewer, lighting, electric and landscaping.
Floyd Avenue/Park Drive Intersection	Requires survey/ ROW acquisition	Moderate to Complex	Requires additional study to establish geometry needs which will be based on Woodhaven site plan and YMCA parcel buildout/ final layout influenced by surveyed highway boundary.
Floyd Avenue Access Management	Part of a Floyd Avenue Complete Streets project.	Moderate	Requires coordination with property owners and if federally funded will require following ROW acquisition process.
Future Trail Connections	Depends on location.	Simple	Lower priority until other alternatives have been constructed.
Park Drive Complete Streets Layout	Likely part of a federally funded application – requires survey, highway boundary determination.	Moderate to Complex	Requires full depth pavement construction and new pedestrian accommodations. Green infrastructure will be used extensively to treat stormwater runoff.
Ellsworth Road (northern segment)	Requires survey	Simple to Complex	This segment can be used as a blank slate so funding is the one major limiting factor as to what can be constructed.
Ellsworth Road Railroad Crossing	Part of an Ellsworth Road reconstruction project.	Simple	The railroad crossing has very low daily volumes but is required to improve safety for bicyclists crossing over the tracks.
Ellsworth Road (southern segment)	Requires survey	Simple to Moderate	Low priority for the project.