Rochester-Genesee Regional Transportation Authority

SUBURBAN TRANSIT STATION FEASIBILITY STUDY

EXECUTIVE SUMMARY

MARCH 2012

NELSON NYGAARD

EXECUTIVE SUMMARY

Regional Transit Service (RTS) suburban transit services, including express routes, have not seen the ridership levels of its more urban routes, requiring much greater subsidy per rider to operate. In light of these and other challenges, the Rochester-Genesee Regional Transportation Authority (RGRTA) has been proactive in identifying opportunities to re-orient its suburban service in a manner that would work to the benefit of RTS riders, suburban communities, and the region as a whole.

Besides simply cutting service or reducing the length of some suburban routes that terminate at distant park & ride lots, the Authority is looking at places that would support transit hubs or centers. A critical part of making such a strategy successful will be finding the attraction that makes the new park & ride transit centers attractive to both new riders and to those who must drive further from their existing remote park & ride.

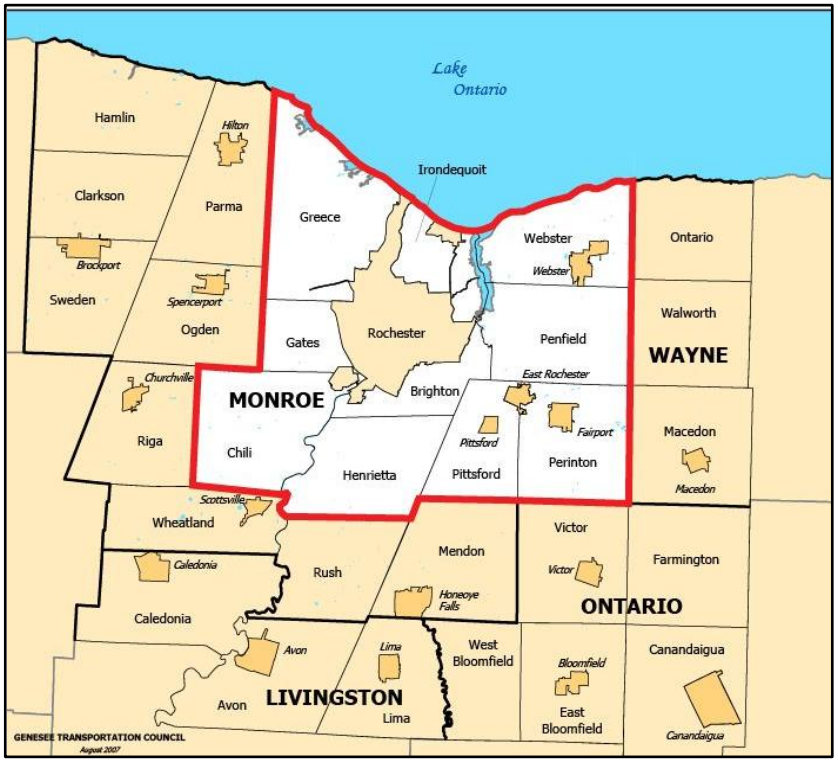
One innovative strategy being considered by the Authority in this study is the pursuit of transit-oriented development (TOD) opportunities. In support of the recommendations of a 2008 report by Genesee/Finger Lakes Regional Planning Council (G/FLRPC) called “Optimizing Transportation Infrastructure Through Effective Land Use — Opportunities for Transit Supportive Development in the Greater Rochester Area,” the RGRTA is investigating how integrating transit service into pedestrian-friendly mixed-use environments can not only enhance the commuting experience for existing transit users, but can also serve to attract new transit users at peak periods and non-transit customers throughout the day.

Transit agencies have recognized that the unique ridership profile of TOD can produce much higher daily ridership than stand-alone park and ride lots, without the peak hour capacity crunch created by commuters. The RGRTA saw the potential of TOD when it began its investment in the College Town site on Mt. Hope Avenue near the University of Rochester. This transit center will combine the advantages of significant nearby employment and housing with the joint development of new retail and housing at a point of overlapping and thereby more frequent transit service. Several development partners saw the logic of this approach and have come together to make TOD a reality. The RGRTA is now seeking to repeat this success elsewhere in Greater Rochester.

STUDY AREA

The focus of the study is on the Rochester - Genesee Regional Transportation Authority's Regional Transit Service service area in suburban locations outside of Rochester but within Monroe County. The study area encompasses the eleven-town region surrounding Rochester. Towns included in the study.

Several villages, including Fairport and Webster, within these towns have also been highlighted as being of particular interest.



RECOMMENDATIONS

While RGRTA has been proactive in identifying opportunities to make service more responsive to the changing needs of passengers, integrating cost-efficient service into the suburban markets has been a continual challenge. The Suburban Transit Station Feasibility Study identified numerous emergent opportunities for RGRTA, but they fall below the kind of large scale direct investment currently being pursued in Collegetown near the University of Rochester. A review of data, and stakeholder interviews did however uncover potential development partnerships and ways for RGRTA to pursue a re-integration of suburban service in earnest. The recommendations for development include the identification of over 20 sites with 8 specific ones highlighted and shown as follows:

- Support likely TOD Opportunities
- Begin planning for next phase TOD
- Monitor evolving TOD locations

Moreover, transit planning does not play a significant role in local municipal development efforts and the Study recommends numerous initiatives that RGRTA can begin or continue to pursue to re-orient and integrate their suburban service:

- Insert transit into regional and local planning efforts
- Directly participate in development review and permitting
- Establish a toolkit of standards/amenities for RGRTA incorporation into a Project
- Develop partnerships for service provision
- Develop suburban orientation points to terminate suburban service

SCREENING ANALYSIS

The key to developing successful public transportation services, is to understand how public transit can efficiently and effectively meet the needs of those who depend upon public transit, while offering a sufficiently attractive service to draw in individuals who have alternatives for their transportation. A demographic and transit review was conducted to provide a first layer of evaluation

that will screen locations throughout the region for development potential and transit potential that can be analyzed in greater detail.

KEY FINDINGS

Several important findings arose from this review and were pursued in greater detail.

- A review of transit propensity finds very few concentrations of traditional transit-dependent populations who might need to utilize transit more frequently outside of the boundaries of the City of Rochester. Most of these populations would be choice riders who have easy access to automobiles, suggesting that any large transit and land investments should have other benefits and attractions that appeal to choice riders.
- Sections of Greece and Irondequoit have immediate potential for limited TOD, based on current and projected household density, population density, employment density, and retail spending power, with Greece also showing higher transit propensity among transit-dependent households. Opportunities for consolidating existing transit to increase frequency are somewhat greater here than in other locations in the region.
- Parts of Brighton and Henrietta emerge as locations where larger-scale TOD has potential in the future, based on projected household and employment density. Immediate opportunities are more speculative. Analyzing the study area with a combined metric of transit propensity, TOD propensity, and a destination index, the following areas become locations of high interest for potentially locating a TOD and/or transit center/hub:
  - Northgate Plaza in Greece
  - Irondequoit Plaza,
  - Henrietta near the intersection of Jefferson Road and E. Henrietta Road in Henrietta.
- Other areas of interest worthy of further investigation include the hospital area in Greece, East Rochester, and Fairport.

SCREENING STEP 1: LAND USE AND DEMOGRAPHIC ANALYSIS

The most important factor impacting transit demand is the density of people who live or work within walking distance to transit service. Since most people walk to or from transit for at least one end of their trip, locating service within walking distance of high concentrations of residences and/or employment is a key determinant of successful service.

Service frequencies also have a strong impact on the types of riders who will use transit. The market for public transportation travelers typically consists of two primary groups:

- Choice riders who have adequate resources to operate a private vehicle but choose to use transit because public transit offers them comparable convenience and/or because of other personal lifestyle and value choices.
- Transit dependent riders who use public transportation services because they frequently or permanently lack access or are unable to operate a private vehicle.

Infrequent service is inconvenient and typically will mostly serve transit dependent residents and workers who have few transportation options. Frequent convenient service, on the other hand, can attract travelers who choose to take transit rather than other alternatives.

The Land Use and Demographic Analysis was completed for both existing conditions and for projected future conditions in the year

2035 to objectively review the Study Area and identify locations for further evaluation of potential transit or development opportunities.

KEY FINDING: A review of transit propensity finds very few concentrations of traditional transit-dependent populations outside of the boundaries of the City of Rochester. Most of these populations would be choice riders who have easy access to automobiles, suggesting that any large transit and land investments should have other benefits and attractions that appeal to choice riders.

SCREENING STEP 2: TRANSIT OPPORTUNITY ANALYSIS

With a baseline of demographic patterns established, it is possible to complete a comparative analysis of individual areas for their relative propensity to generate transit and/or development. For this analysis, three measures were developed:

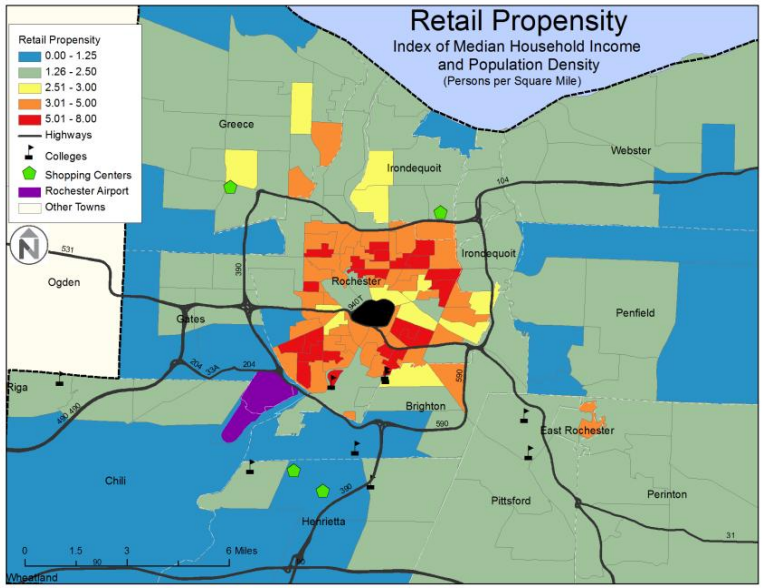
A) Transit Propensity

This analysis uses demographic information to prepare a regional comparison to indicate which areas have greater or lesser relative levels of transit propensity, according to the methodology of the Transportation Research Board in TCRP Report 28: Transit Markets of the Future.Using data from the American Community Survey 2005-2009 five-year sample, the transit propensity of each Census tract was calculated. Areas with a score below 1 have relatively less propensity to use transit compared to the rest of the region, while scores above 1 show increasing levels of population with a propensity for transit. As shown, transit propensity in the study area follows a fairly typical city pattern with greater transit-dependent populations in the more urban areas – primarily Rochester – and declining levels as distance from downtown increases.

When spatially assessing high ridership stops outside the inner core versus regional transit propensity, the density of boardings is clearly within the area of greatest transit propensity. The only exceptions are areas of Brighton, Greece, and far northern Irondequoit that have moderate propensity but lower boardings. Meanwhile, some suburban areas that do not have high transit propensity still have strong boarding counts, suggesting that some suburban travelers are choice riders. These areas include portions of Greece, Henrietta, East Rochester, Fairport, and to a lesser extent, Chili, Gates, and Pittsford.

B) Retail Propensity

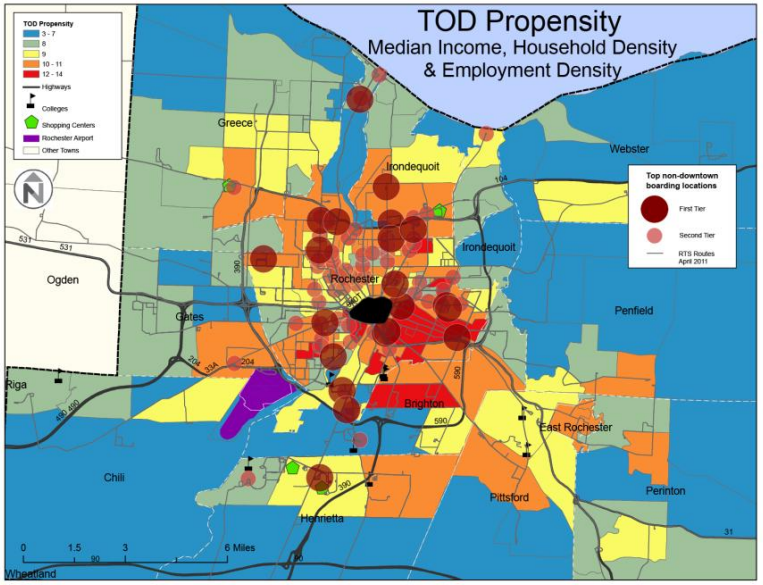
This measure looks at combining population density and income, which is essentially a review of the density of buying power. This is called "retail propensity." While transit dependent populations often have lower incomes than the regional average, this measure was reviewed to screen locations with both the density to support transit service and the income to support the retail businesses that might be co-located at an attractive transit hub or TOD. The map indicates that the central areas of Rochester again have higher retail propensity than the region, but also that the pattern broadens out, with certain other pockets emerging as well. With this analysis, areas noted previously with high household and population densities, including Dewey Avenue in Greece and the southeast corner of Brighton, as well as in Irondequoit, around the Cooper, Hudson, and Titus core area, are again emerging as areas supportive to retail activity.



C) Transit-Oriented Development Propensity

As transit-oriented projects often contain a mix or diversity of uses, the retail propensity analysis was expanded further to include employment centers. For this evaluation, employment density was added to the measures (population density and income) used in the retail propensity analysis. These measures are combined and a baseline created against which all census tracts can be measured. In this evaluation, all measures are divided into quintiles and given a weighted average between 1 and 5. All three relative weights are then simply added to determine an overall factor, between 3 and 15.

This analysis continues to evolve the initial screening methodology of the study area to show places with a density of activity and income. These "hot spots" identified locations for more detailed



evaluation, and should show places around which either a cluster of mixed uses or other individual factors are high enough to merit further attention on their own. Most of the areas with the highest transit-oriented development propensities are within the City of Rochester, but Brighton also contains an area of high TOD propensity. High TOD propensity exists in a belt north of Highway 104, from Greece to Irondequoit, as well as near the Brighton-Henrietta line. Gates, Pittsford, East Rochester, Fairport in Perinton, and Penfield all exhibit areas of higher TOD propensity as well.

When compared to high level transit boarding locations in the region, the TOD propensity map matches up better than traditional transit propensity, with suburban ridership generally showing up where TOD propensity in the suburbs is greatest.

KEY FINDING: A number of locations outside of the City of Rochester and its belt highways show a moderate potential for attracting choice riders, based on median income, job density, and housing density. These include southwestern Greece near the hospital and mall, southern Irondequoit, Southern Penfield, all of East Rochester and Fairport, most of Brighton, northern Pittsford, and the eastern edges of Gate, Chili, and Henrietta.

SCREENING STEP 3: TRANSIT ORIENTED DEVELOPMENT METRIC

The transit-oriented development propensity map shows a different pattern that adds weight to suburban locations not seen on the map of traditional transit propensity. Some of these areas happen to coincide with some of the higher boarding count locations in areas of low transit propensity outside Rochester proper, suggesting that choice riders are traveling to or from suburban areas where TOD may be viable. In order to test this hypothesis more rigorously, the team developed a TOD metric that could directly inform the real estate market analysis.

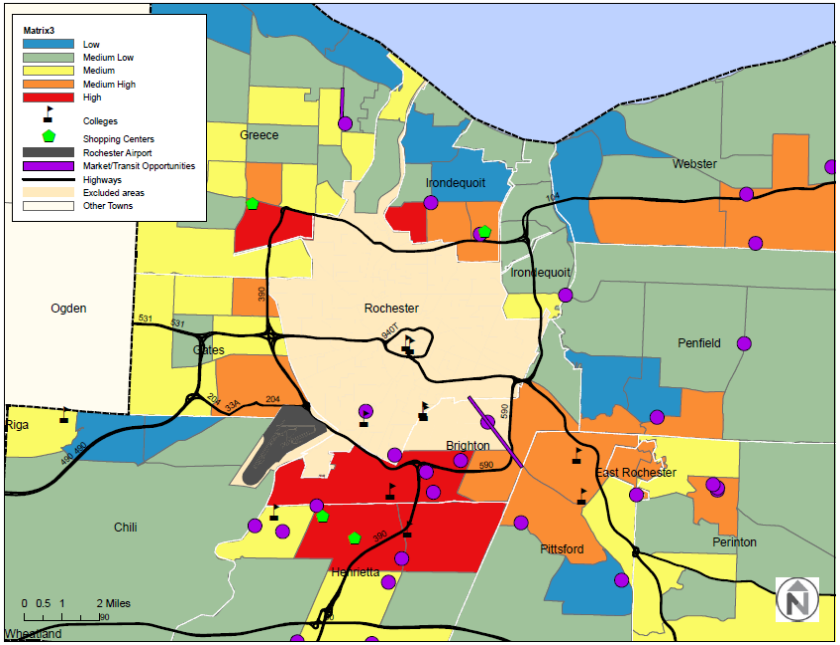
Seeking to not discount the proven value of traditional transit propensity while also exploring the potential of the TOD propensity results, the team developed a metric for identifying likely TOD sites that used a blend of these two measures while adding a third measure: a “destination index.” The team recognized that an essential part of making TOD viable in a suburban setting is ensuring that the selected site(s) are already a regional draw that brings travelers in sufficient numbers to offset the relatively lower densities of a suburban location. Given that much travel in greater Rochester is already suburb to suburb, it became clear that any suburban TOD would benefit by being a strong destination.

TOD Metric:	
TOD Propensity	Household Density
	Spending Power
	Employment Density
Transit Propensity	Household Density
	Lower Income
	Transit Dependence
Destination Index	Where People Go

KEY FINDING: When TOD propensity is weighted by the primary destinations in the region, southwestern Greece, southern and especially southwestern Irondequoit, southern Brighton, and northeastern Henrietta stand out as key areas of focus for finding the most likely choice transit ridership and TOD opportunities.

Therefore, the final TOD metric creates a blended weighting with equal significance assigned to transit propensity, TOD propensity, and destination index. As summarized in the table below, this approach uses all of the information summarized in this section to arrive at a set of factors that are most likely to coincide with high potential for TOD.

To focus the analysis more narrowly on Rochester's suburbs, data for each of these measures was evaluated only for areas outside of Rochester's "belt" highways, defined by the loop of Route 104, I-390, and I-590. The remaining records in each of these three measures were divided into quintiles and given a weighted average between 1 and 5. All three relative weights are then simply added to determine an overall factor, between 3 and 15.



STEP 4: STAKEHOLDER INTERVIEWS

The consultant team contacted town planners, development officials, Town Administrators, developers, and chambers of commerce in the towns surrounding Rochester to understand the real estate and development market of the Study Area towns and villages. The goal of the stakeholder interviews was also to uncover current or future transit and TOD plans and gauge the level of local marketplace and municipal or developer interest/cooperation in suburban transit solutions. Many locations were identified for potential transit integration:

Brighton

- The **University of Rochester** and the proposed "CityGate" site;
- **12 Corners** (at Monroe/Elmwood/Winton), which would have smaller infill development potential; and
- The **Monroe Avenue corridor**, which recently benefitted from a design charrette, which spurred some controversy on roadway narrowing/densification.

Chili

- A new development on **Beaver Road** is seeking direct transit service that is near the town center, sparking an interest in restoring service.

East Rochester

- The Town is pursuing the redevelopment of the Eyre Building at the corner of Main and Commercial Streets.

Fairport

- A former 100,000 square foot H. P. Neun cardboard box manufacturing facility, at **75 Main Street**, is well-located next to public parking lots and within the downtown core.
- **111 Parce Avenue**, site of the American Can Company facility, has attracted significant, with concepts developed for live/work space for artists and craftsmen, as well as a focus on making the future space a mixed-use development.

Gates

- There is a need for improved transit service to the **Rochester Technology Park** and surrounding new development area.
- Recent new retail and service offerings developed near the town's new library on **Elmgrove Road,** just east of the Park, are leading a new core of mixed-use development in Gatesd.

Greece

- The **Dewey Avenue Corridor** Revitalization Plan has developed a mixed-use zoning overlay, which will encourage a variety of uses, shared parking, improved pedestrian environments, and second story retail. Many sites identified as part of the Plan would be redevelopment opportunities.
- The Stone Road corridor and the intersection with Dewey are also prominent potential redevelopment locations for this kind of smaller scale, mixed-use development that would attract transit ridership.
- The **Northgate Plaza** site on Dewey has been the focus of a re-zoning change encouraging walkable transit-oriented development. One development has already worked with

the Town and the RGRTA to incorporate bus service and an enhanced stop environment on its site.

Henrietta

- A "town center" type development is envisioned by the Town along **East Henrietta Road at Calkins**, which would create a better sense of place in Henrietta and create a walkable, mixed-use place.
- The Town is also encouraging the redevelopment of the **Suburban Plaza** site, which has recently been sold.
- A Henrietta Center type development could also be supported by additional development at the **Monroe County Fairground**, just South of Calkins Road as well.

Irondequoit

- The **Cooper/Hudson/Titus (CHT) intersections near Irondequoit Plaza** has a new urbanist style development being built. This site is proximate to the significant transit node at Irondequoit Plaza.
- The Medley Centre Mall, currently closed except for anchor stores, is planned to offer high-end retailers/designers that do not have a presence in upstate New York, with additional plans for hotel, office space, apartments, and condominiums on the site.

Penfield

- The Town has been in discussion with a developer looking at a site at the intersection of **Atlantic Avenue and Route 250**, which is one of the last undeveloped parcels in Penfield, and that the proposed development would be mixed-use.
- One significant parcel may be available in 2012 just off of **Penfield Road near the Panorama shopping center** – a redevelopment of the existing quarry operation on Thomas Cove. The large quarry site is capable of accommodating a transit component and significant development in an attractive lakeside setting.

Perinton

- The town recently went through an Update of its Comprehensive Plan with a focus on greater support of transportation alternatives, including transit. While this style of development has not been written into the zoning code, the Town is trying to spur development with a new urban approach in mind.

Pittsford

- There are some development opportunities in **North Pittsford**, but no active projects.
- A Planned Unit Development zone for office/campus mixed-use at the northwest corner of the intersection of **Clover Street and Jefferson Road**, south of the Erie Canal, is available for mixed-use development.
- Both **St. John Fisher** and **Nazareth** are growing colleges within the borders of Pittsford. There is a fairly successful park & ride adjacent to St. John Fisher at I-490 which could be a site for a future parking garage.

Village of Pittsford

- The Village of Pittsford is interested in redevelopment of **land between the canal and the railroad** and has accepted an application from a developer for a mixed-use project.

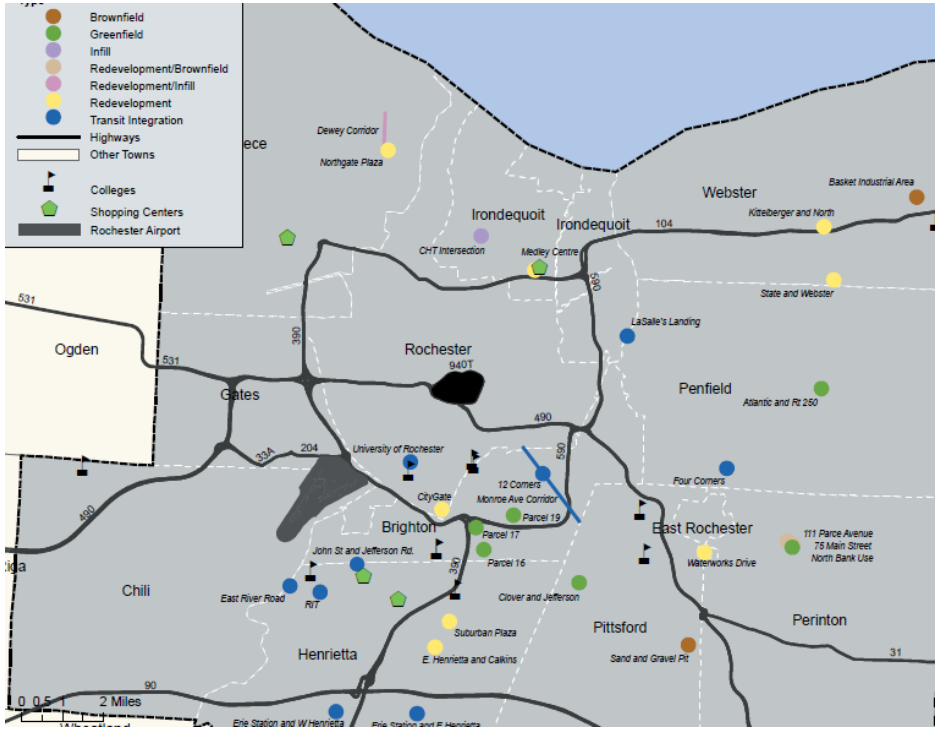
Webster

- The only area where a transit center would be allowed by current zoning in Webster is in the industrial zoned area, on **Basket Road**, north of the Expressway.

Village of Webster

- There is a 44-acre parcel available for redevelopment just outside the core of Webster Village, at the southeast corner of **State Road and Webster Road**.

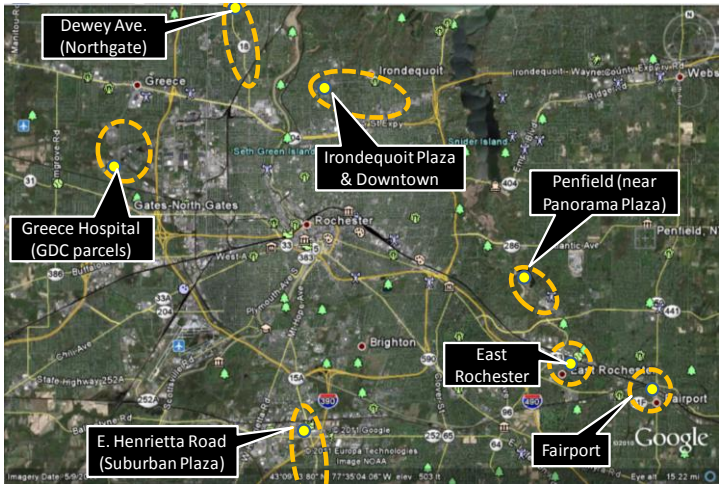
KEY FINDING: While a number of potential sites exist in Rochester's suburbs for a transit center or TOD, there is a lack of advance planning for such integration. Few towns have zoning to encourage the mix of uses that would activate a transit center and attract choice riders who travel by car. Few have incorporated serious transit-oriented planning into their master plans and comprehensive plans.



REAL ESTATE MARKET ANALYSIS

Demographic and transit analysis identified a range of locations in suburban Rochester as having potential to undergird transit supportive development and adapt suburban transit service.

OPPORTUNITY SITES



The consulting team compared the results of the TOD metric mapping with the outcomes of the stakeholder interviews to identify a list of eight opportunity sites worth detailed evaluation. Each of these sites scored well with the TOD metric and also were identified by stakeholders as available parcels or likely development opportunities in the near future – especially if the RGRTA were interested in becoming a development partner.

Each opportunity site was analyzed in the field and in the context of the Greater Rochester real estate market for its office, retail, and residential development potential. A unique set of criteria were developed to assess the strength and/or weakness of each opportunity site for each land use. The criteria are summarized in the table below.

Those areas that were strong in three or more categories and moderate in the other categories have the highest (1) development potential. Those areas that were strong in two categories and moderate in the other categories have medium (2) development potential. Those areas that are weak in two or more categories have low (3) development potential. This evaluation was conducted for each land use. Results for all available land uses at a given site were aggregated and ranked.

Opportunity Site Development Potential Criteria
Rochester Transit-Oriented Development Potential

Residential	Office	Retail
Physical Amenities	Established Office Location	Established Retail Location
Walkability	Central Location	Strong Road Access/Visibility
Surrounding Context	Services Nearby	Mixed-Use Environment
Nearby retail	Market Momentum/Interested Developer	Market Momentum/Interested Developer
Ability to do more than mf rental	Amenity/Walkability	Amenity/Walkability

TRANSIT-ORIENTED DEVELOPMENT POTENTIAL

The final results of the screening analysis and the real estate market analysis were combined to rank the eight opportunity sites. The results have identified two locations with the greatest potential for near-term transit integration and TOD in Greece in Irondequoit.

Greece Hospital Site

From the real estate development perspective, the best site for investment is the Greece Hospital site. This is a large, high-amenity site that, properly planned, could support a considerable amount of both retail and office development as well as residential. If the RGRTA could support development with the construction of structured parking, the site could evolve into a compact and walkable mixed-use, transit-oriented center. Without publicly financed structured parking, it is unlikely that this form of development will take place on this site. At current real estate values anywhere in the region, the private market cannot bear the cost of structured parking.

Coupling of Irondequoit Plaza and Irondequoit Downtown Sites

The development potential assessment treated Irondequoit Plaza and Downtown Irondequoit as two separate sites. However, these two sites are geographically very close to each other. If there was a way for RGRTA to support linking these two sites functionally, it would enhance the existing and future value of both sites.

Real Estate Market Ranking	TOD Metric Ranking	Recommended Ranking
RESIDENTIAL		
1 Greece Hospital	Low*	1
2 Penfield	Low	3
2 Fairport	Medium	2
4 East Rochester	Medium-High	3
4 Irondeqouit Downtown Area	Medium	2
6 East Henrietta Area	Medium	2
7 Irondeqouit Plaza Area	Medium*	1
8 Dewey Area	Medium-Low	3
OFFICE		
1 Greece Hospital	Low*	1
2 Fairport	Medium	2
2 East Rochester	Medium-High	3
2 Irondequoit Downtown	Medium	2
5 East Henrietta Area	Medium	2
6 Irondequoit Plaza	Medium*	1
7 Dewey	Medium-Low	3
8 Penfield	Low	3
RETAIL		
1 Fairport	Medium	2
2 East Rochester	Medium-High	3
3 Irondequoit Downtown	Medium	2
4 Dewey	Medium-Low	3
5 Irondequoit Plaza	Medium*	1
6 Greece Hospital	Low*	1
7 East Henrietta	Medium	2
8 Penfield	Low	3
TOD		
1 Greece Hospital	**Low***	**1**
2 Coupling Irondequoit Plaza and Irondequoit Downtown	**Medium***	**1**
Fairport	**Medium**	**2**
East Henrietta	**Medium**	**2**
East Rochester	**Medium-High**	**3**
Dewey	**Medium-Low**	**3**
Penfield	**Low**	**3**

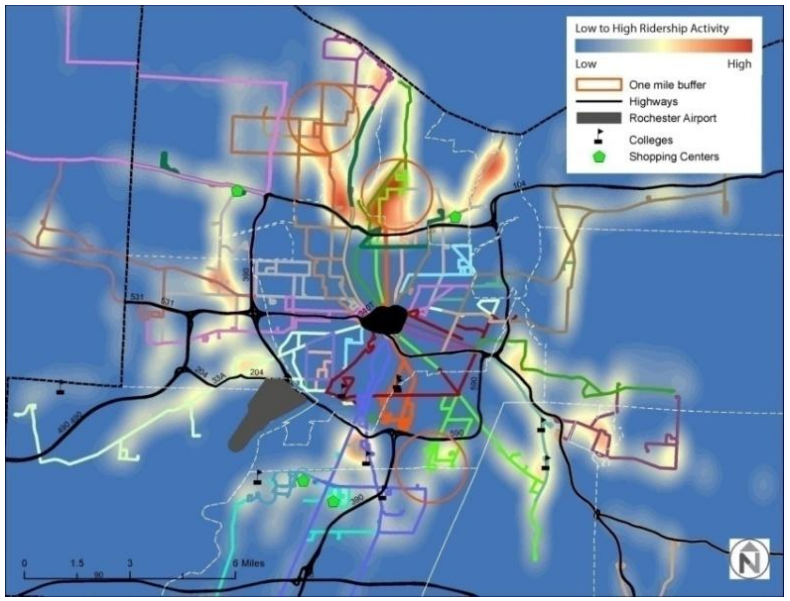
* indicated adjacency to area of higher potential

Supporting a circulator that links the two sites or providing centralized parking for both sites would be beneficial to the development of both. If the Plaza could be developed as an extension of the Downtown, its market potential could potentially change from retail center to mixed-use center. Considerable density could be accommodated on this site in mixed-use buildings. The existing transit hub could ultimately be expanded.

KEY FINDING: The transit market and real estate analyses have shown that no location scores highest on TOD integration, and no location is clearly ripe for the integration of a transit center. Two promising locations stand out for potential transit integration and should be carried forward for future consideration.

SUBURBAN TRANSIT SERVICE OPTIONS

While this study has identified that immediate opportunities for a full scale suburban transit station may not be present, RGRTA has numerous avenues that could be pursued to better integrate transit service into the suburban market. There is an obvious need to adapt suburban transit service for reasons stated previously (cost, inefficiencies, changing demographics, etc.). To represent the possibilities, a few example locations from the potential transit integration locations were identified and studied for potential opportunities to truncate service and improve the suburban service model.



ROUTE AND STOP ADJUSTMENTS

To gain a sense of where ridership is currently high and where opportunities might exist for suburban transit stations to be integrated with the opportunity sites, an analysis of boarding activity was completed for the system outside of Interstates 390, 590, and Highway 104. The purpose of removing the center city and much of Rochester was to visually screen for areas of relatively high ridership activity without the higher-ridership center-city eclipsing the results.

There are "hot spots" of relatively high ridership activity occurring throughout the region, particularly north of Rochester in Irondequoit and Greece, but also in Brighton, East Rochester and Gates. These areas may be developing strong ridership that could be further complemented with a transit center and/or activity center.

Two areas emerged as locations to investigate service changes further based on their levels of household and population density, as well as their retail and TOD propensity:

- Dewey Ave./Northgate Plaza in Greece
- Irondequoit Plaza (Intersections of Cooper, Hudson, and Titus) in Irondequoit

Additionally, based on conversations with planners in Greece and Irondequoit, these are locations of anticipated growth and development. This methodology can be applied to any other future locations of interest.

EXAMPLE 1:
Dewey Ave./Northgate Plaza in Greece

The table below details the characteristics of routes within a one-mile radius of the Northgate Plaza. The area is well-served by two main routes, 10 - Dewey and 15 - Latta, which have several variants or subsets of the routes that serve other locations. The numbers in parentheses following the route names correspond to the various branches or route variants noted on the map.

A one-mile radius surrounding Northgate Plaza has relatively high ridership, and opportunities might exist to provide more service, or route more lines through this area, particularly if a transit station is built here to accommodate more capacity and becomes more of an activity center.

Dewey Ave. Service Characteristics	10 - Dewey - F variant (1)	15 - Latta - T variant (4)	15 - Latta - DF variant (3)	15 - Latta - L variant (4)
Service Type (for variant)	Limited (Weekday); Local (Weekends)	Local AM	Local	Limited (Peak direction only)
Weekday Peak Frequency (for variant)	30 to 50 minutes (Early afternoon and early evening)	Approximately 30 minutes	Approximately 45 minutes	5 to 10 minutes
Route Modification Opportunity	10 - Dewey Service is much more frequent from Downtown to the Dewey Loop - extending the route regularly might be an option.	Functioning more as a morning circulator - maybe expand hours of service if demand warrants.	Part of 10 - Dewey route - could be combined with it.	Has commuter hours of service - could expand or perhaps become an express bus.

EXAMPLE 2:
Downtown Irondequoit and the "CHT" Intersection

Irondequoit is well-served by a variety of routes, which is why it demonstrates the highest ridership activity of the suburbs. Already a hub of activity, a transit station in this area might better meet the needs an existing high ridership, as well as attract new riders, which could encourage new routes or greater frequencies of service.

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CHT Service Characteristics	3/3X - Goodman	4/4X - Hudson	5/5X	7/7X	11	11X
Service Type	Local	Limited	Limited	Local	Local	Limited
Weekday Peak Frequency	10 to 25 minutes (Mid morning)	17 to 45 minutes (Early afternoon and early evening)	22 to 57 minutes (Late morning to early afternoon)	8 to 26 minutes (AM rush hour)	8 to 32 minutes (AM and PM rush hours)	90 to 110 minutes (Morning)
Route Modification Opportunity			There are many trips that do not serve the Plaza directly, but instead go down St. Paul Blvd., 1/2 mile away.		The 11 ends about a mile from the Plaza. It might be extended to reach the Plaza.	The 11X ends about a mile from the Plaza. It might be extended to reach the Plaza.

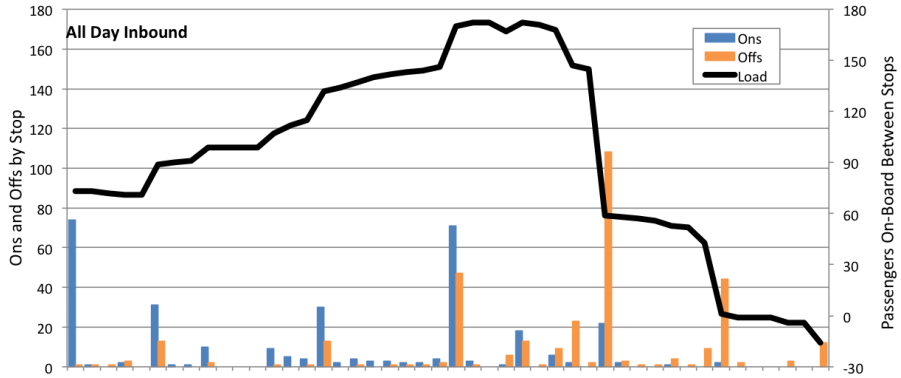
Future Levels of Analysis

Once final Opportunity Sites are advanced to the planning stage, the RGRTA can develop route profiles for every route that has the potential to be re-routed to more directly serve a site. These profiles will help measure the impact of any service modification by identifying the productivity of each route at the stop-level. Attention should also be given to the land-use and demographics along and adjacent to each route to ensure that any proposed service modification results in a transit network with high ridership-growth potential.

TRUNCATING TRANSIT SERVICE

For most transit services, there is a point of diminishing ridership return, beyond which it is difficult to justify the continued investment of resources necessary to maintain a desirable level of service. This point may be temporal, geographic, or a combination of the two. For example, in a hub-and-spoke system, both the distance and frequency of service on each "spoke" are determined, in large part, by the ability to generate sufficient ridership along the route. The challenge for a transit operator is to identify when and where to truncate service in order to maximize service productivity while minimizing any ridership loss.

The development of a visual route profile is helpful to understanding the spatial performance of a transit route. The load profile is meant to illustrate the changing on-board passenger volume throughout the length of the route. A significant drop in the load profile is an early indicator of where it may make sense to truncate service. This type of analysis can be done by the RGRTA to help determine prime locations for suburban service hubs.



If stop-level riderhip data is geo-coded (i.e. assigned geographic coordinates), then distance can be included in the analysis process. This technique can reveal other characteristics of a route and its environment (such as land-use and available roadway network) that can be useful in determining the most appropriate routing and transit center/TOD site.

Service Change Considerations

Ridership is typically the primary consideration for determining where to truncate a transit route. The specific volume of ridership that can be considered sustainable is often a matter of policy. If, for example, a transit authority sets five passengers per revenue hour as a goal for minimum sustainable ridership, the point along a route at which no more stops generate at least five passenger boardings per revenue hour would be considered a reasonable cut-off point for the route. Another similar approach is to identify the bus stop along a route that represents the 95% point of cumulative ridership. Truncating the service close to this point would preserve the vast majority of ridership. Other considerations that should be

taken into account when determining where to truncate a transit route include cycle time and service frequency. The connection to other services also is an important factor to consider when assessing the possibility of truncating a transit route. If a transit center is present near the outer reaches of a transit route, it is preferable to preserve service at least as far out as the transit center in order to preserve connections.

LOCAL SERVICE OPTIONS

While traditional fixed-route transit service may not always be the most effective approach to providing mobility in a low-density suburban environment, there are several other strategies that can be considered.

Bicycle/Pedestrian Connections

One factor that often drives transit ridership in suburban environments is incomplete or unaccommodating bicycle and pedestrian infrastructure. Good pedestrian connections can extend the "reach" of transit by at least a quarter mile, while good bicycle links can stretch the reach of transit service by up to two miles.

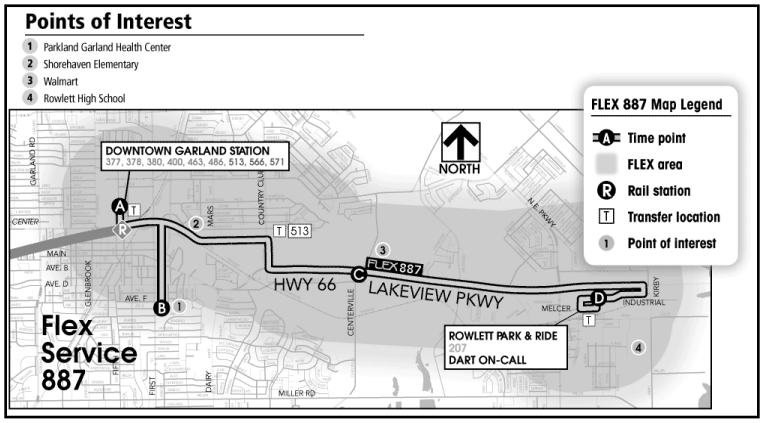
Throughout greater Rochester, the consulting team observed a clear lack of walking and biking facilities, especially near transit stops.

Park & Rides

The needs and expectations of transit users in suburban environments can be quite different than in higher-density urban environments. The availability of park & ride facilities are inherently important for attracting suburban commuters to transit and become even more important if local suburban service is scaled back. While RTS serves a broad network of park & ride lots today, few are well-designated, and most have little or no waiting areas, shelters, or amenities. Simple signing, benches, and low-cost shelters can change the appeal of riding the bus to drivers.

Site-Specific Shuttles

Major employers in Rochester's suburbs are often located in large campuses that can benefit from custom-designed "site-specific" shuttles to transport reverse-commuting and suburb-to-suburb workers from the nearest transit hub to a company campus. Some shuttles exist in greater Rochester – mostly associated with universities. Their cost-effectiveness as compared to fixed-route public transit is very high and should be promoted in many of the pedestrian-unfriendly office parks in the suburban communities.



Demand-Responsive Service

A cost-effective suburban service model where population densities do not support fixed-route RTS service is demand-responsive service such as "on-call" or "flex" routes. Without the limitations of a fixed-route, on-call vehicles can cover a relatively large geographic area with a very small fleet. In many cases, on-call services feed passengers into a fixed-route service at a near-by transit hub. Both of these concepts may be applicable in Irondequoit, where a community shuttle has been discussed. The model works well in many suburban Rochester towns and may be an ideal way to connect communities with truncated fixed-route service at transit hubs.

Vanpool Service

Vanpool programs provide another service option for residents or employees of areas that do not meet the density requirements to support traditional fixed-route transit service. A vanpool can be used as feeder service into an existing fixed-route service, or as a distributer from a fixed-route service to a final destination.

RECOMMENDATIONS

The following section summarizes the Nelson\Nygaard team's recommendations for the RGRTA's Suburban Transit Station Feasibility Study.

KEY RECOMMENDATIONS

Support Likely TOD Opportunities

Two locations in greater Rochester show the highest potential for developing a suburban TOD successfully: the **GDC lands near Unity Hospital in Greece** and the **Irondequoit Plaza "CHT" Intersection and/or Irondequoit Downtown area**. In both cases, single land owners with full control of the sites are easily accessible to the RGRTA. The CHT site is an active development site and thus has been prioritized, while the GDC lands show high promise, but are not an active site, and thus is categorized as a place to begin planning below.

RECOMMENDATION 1: The RGRTA should be willing to work with Irondequoit and the CHT developer to explore transit integration if the development actually moves forward with financing, design, and pre-construction.

Begin Planning for Next Phase TOD

Three locations in greater Rochester appear to have good potential for TOD with the right amount of coordination between landowners, municipalities, and the RGRTA. Based on current land uses, transit service and ridership at the Sites, these locations are not yet ready for sufficient transit service frequency, but development may warrant shifts in assets to these corridors.

RECOMMENDATION 2: The RGRTA should anticipate the future need for improved transit service, including a transit center as part of TOD, at the following three sites where a high degree of transit-friendly development potential exists: the GDC lands on the north bank of the Erie Canal in Greece; A parcel abutting the Regional Market immediately northwest of East Henrietta Road at Jefferson Road in Henrietta; and one of three parcels in Fairport that have immediate development potential.

Monitor Evolving TOD Opportunities

While the upside of a successful TOD in three other sub-markets is strong due to existing population and employment bases, certain site and adjacency limitations suggest a longer-term strategy for these opportunity sites.

RECOMMENDATION 3: The RGRTA should collaborate with the municipalities of: East Rochester, regarding their planned downtown redevelopment site; Greece and Rochester, regarding service changes and development along Dewey Ave.; and Penfield, regarding the potential redevelopment of the quarry site near Panorama Plaza.

OTHER RECOMMENDATIONS

With the planning successes at Collegetown, and a renewed willingness to investigate the cost-effectiveness and rationale for the provision of service in the suburbs, we recommend that RGRTA explore several processes as part of service policy and planning for the suburbs.

Transit must be integrated into regional and local planning efforts

Both stakeholder interviews with municipal planners, and a review of municipal planning documents has revealed that transit service is not incorporated in any meaningful way in local and regional planning. In fact, only recently, have plans begun to discuss transit. Where plans do discuss transit, it is typically in only a tangential fashion as part of an overall multi-modal strategy.

RECOMMENDATION 4: The RGRTA should begin to coordinate transit planning in the suburban towns, helping identify areas that should be served by transit, revealing the impacts of infrastructure and zoning changes on existing transit service, and embedding transit as part of each community's growth strategy.

Participation in development review and permitting

With a few notable exceptions, RGRTA is not often brought in to large development efforts. Many of these developments have an impact on RGRTA service, stops, access or ridership. Even during construction, these projects may impact daily service provision through roadway closures, or occupying existing stops.

RECOMMENDATION 5: As a matter of policy, RGRTA should review and if warranted submit comments on projects undergoing local and/or environmental permitting to ensure that any project designs can physically accommodate RGRTA buses and enhance transit access for riders, as well as consider incentive programs for developers to promote transit usage.

Establish a toolkit of standards/amenities for RGRTA incorporation into a Project.

The opportunities for RGRTA to participate in government infrastructure or private development projects are many. Improving the ability to provide service and the visibility thereof can be accomplished in numerous ways that may not require direct RGRTA investment.

RECOMMENDATION 6: RGRTA should create a standard set of design specifications and criteria to facilitate incorporation into ongoing projects, and could include bus facility requirements, bus operating guidelines, and roadway design treatments.

Partnerships for service provision

For suburban transit service, RGRTA should formalize standards for provision of additional service. RGRTA already enters agreements with developers and/or institutions to provide or enhance service to additional areas.

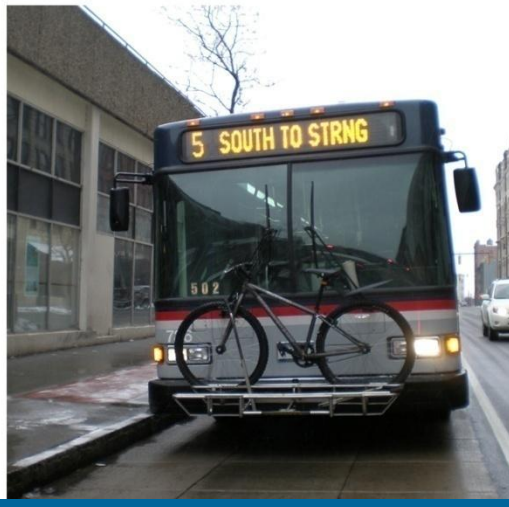
RECOMMENDATION 7: RGRTA should formalize the standards for providing its service, both for expansions as well as truncating service. Materials should provide formal costs, standard agreements, and service planning expertise for service beyond a defined level.

Develop suburban transit orientation points

These would go beyond park & rides and would be ideal local termini or orientation points for suburban service. The size, scale and integration of these would be determined by local context and development opportunities. More detailed transit analysis would enable the RGRTA to plan these transit centers.

RECOMMENDATION 8: RGRTA should assess, rank, and develop a number of suburban "orientation points" to serve as the foundation for future service changes and transit centers. Ranked per the methodology of Chapter 4 (High Priority, Development Integration & Long Term), they could:

- **Serve to organize RTS suburb to suburb and suburb to downtown service;**
- **Identify corridors ripe for transit priority treatments including possible bus rapid transit (BRT) service;**
- **Establish clear truncation points for unproductive Routes (see Chapter 6);**
- **Be the genesis for local deviated community bus services, vanpools, etc. (see Chapter 6) serving suburban communities, special users, park & rides, etc.;**
- **Justify establishment of a competitive RGRTA "endowment" for Towns providing local replacement service; and**
- **Create a model whereby RGRTA provides targeted replacement service under contract at discounted rates to communities, employers, etc. that compete for the service.**



Rochester-Genesee Regional Transportation Authority

SUBURBAN TRANSIT STATION FEASIBILITY STUDY

March 2012

NELSON NYGAARD

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1 INTRODUCTION

1.1 BACKGROUND

Regional Transit Service, Inc. (RTS), a subsidiary of Rochester-Genesee Regional Transportation Authority (RGRTA), is the primary public transportation provider in Monroe County in New York. RTS provides both local fixed-route service and a network of express routes connecting the suburbs of Rochester to major employment destinations in the urban core.

As is the case in communities around the country, the land-use, demographics, and economy of the greater Rochester region have all undergone tremendous changes over the past several decades. While the regional population is now stable, development patterns have spread urbanity outward from Rochester proper, and key regional destinations have shifted from the downtown to several emerging suburban destinations. The downtown is no longer the main hub of greater Rochester. As a result, the region has seen significant shifts in the commuting habits of residents.

In this environment, RGRTA's suburban transit services, including express routes, have not seen the ridership levels of more urban routes, requiring much greater subsidy per rider to operate. As a responsible operator, RGRTA must continually review system-wide service to ensure that scarce funds are put to the highest and best uses consistent with overall RGRTA goals.

1.2 STUDY PURPOSE

In light of these challenges, RGRTA has been proactive in identifying opportunities to make service more responsive to the changing needs of passengers, while also developing new revenue streams. To that end, the RGRTA has over the years sought to re-orient its suburban service in a manner that would work to the benefit of RTS riders, suburban communities, and the region as a whole.

The primary strategy that the Authority has considered in the past has been to reduce the length of some suburban routes that terminate at distant park & ride lots, creating new and larger park & ride destinations closer to downtown that may be able to intercept a greater number of travelers. This would allow fewer routes to serve key park & rides – possibly with more frequent service – instead of running many buses to the scattered set of park & rides in operation today. One or more of these park & rides could serve as transit hubs or centers. A critical part of making such a strategy successful will be finding the attraction that makes the new park & ride transit centers attractive to both new riders and to those who must drive further from their existing remote park & ride.

One innovative strategy being considered by the Authority in this study is the pursuit of transit-oriented development (TOD) opportunities at select park-and-ride locations served by RTS. This strategy is very much in line with the recommendations of a 2008 report by Genesee/Finger Lakes Regional Planning Council (G/FLRPC) called "Optimizing Transportation Infrastructure Through Effective Land Use — Opportunities for Transit Supportive Development in the Greater Rochester Area."

Currently, RTS express service operates from a series of parking lots shared with private retail developments and publicly-owned institutions. While these sites are shared-use, they are still overwhelmingly automobile-oriented, and although they may be sufficient in accommodating existing

suburban transit demand, they do little to stimulate the type of development patterns that reduce automobile reliance and encourage pedestrian activity and transit ridership.

As noted in the G/FLRPC report:

> "Encouraging transit-supportive, compact, mixed-use development patterns in the appropriate areas could greatly enhance the potential of the region. Land-use and development that is thoughtfully designed to integrate with existing public infrastructure, such as transit, sidewalks, and trails gives the greatest return on the public investment. Many communities already have some existing non-automotive infrastructure, but making connections between destinations and encouraging development in targeted areas will maximize the benefits of the existing resources."

Integrating transit service into pedestrian-friendly mixed-use environments can not only enhance the commuting experience for existing transit users (through the presence of complementary retail and service providers), but can also serve to fully "activate" an underutilized space by attracting transit users at peak periods, non-transit customers throughout the day, and even onsite residents interested in a low-maintenance "urban" lifestyle featuring easy access to both transit and retail.

In addition, depending on the scale of the project, TOD has the potential to become a regional destination in its own right, stimulating reverse-commute transit ridership. An increase in reverse commute ridership is essential to improving the productivity of suburban express service, which often experiences very low ridership in the non-peak direction. In fact, transit agencies have recognized that the unique ridership profile of TOD can produce much higher daily ridership than stand-alone park and ride lots, without the peak hour capacity crunch created by commuters.

The RGRTA saw the potential of TOD when it began its investment in the College Town site on Mt. Hope Avenue near the University of Rochester. This transit center will combine the advantages of significant nearby employment and housing with the joint development of new retail and housing at a point of overlapping and thereby more frequent transit service. Several development partners saw the logic of this approach and have come together to make TOD a reality.

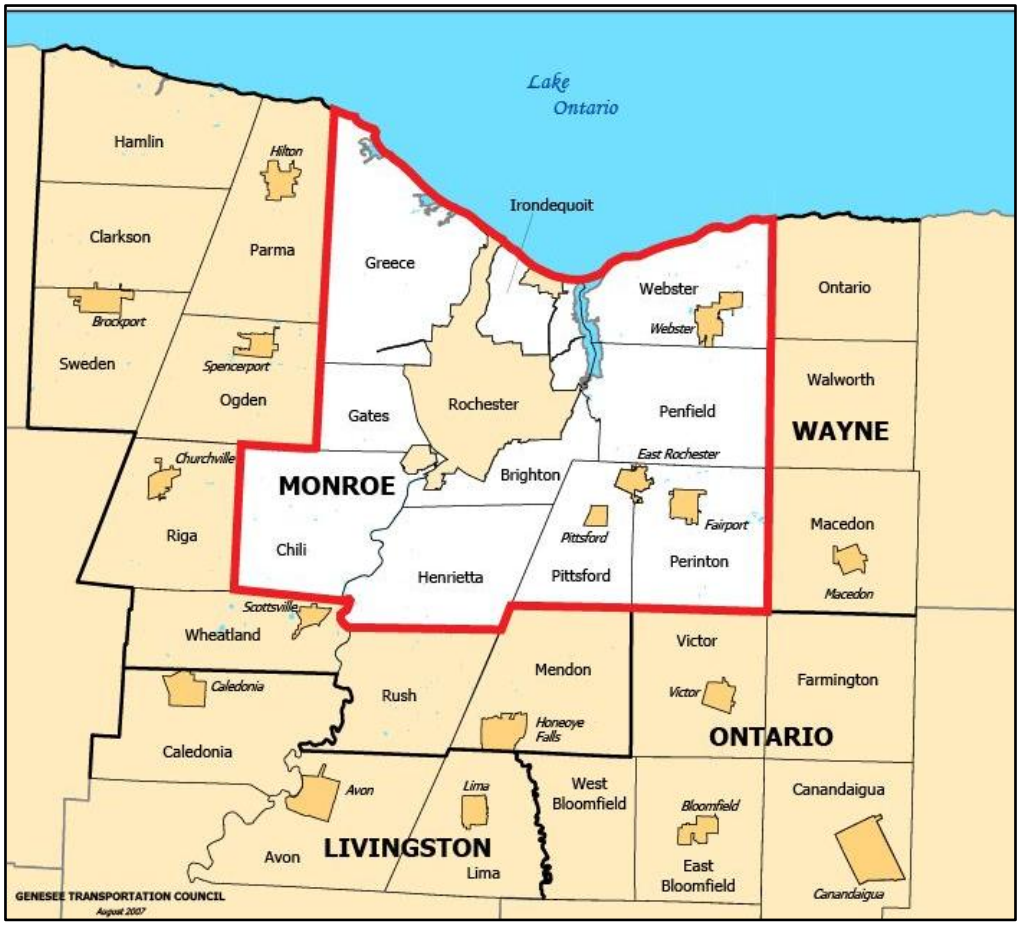
With this knowledge in mind, the Authority embarked on the 2011 Suburban Transit Center Study to not only determine whether a suburban transit center could better serve suburban travelers but also to help determine where additional TOD successes could be found outside of the core of Rochester. Unlike similar studies in the past, RGRTA leadership sought a more specialized consultant team that could focus on real estate development opportunities and identify real development sites that with RTS service would make a transit center become a successful TOD.

1.3 STUDY AREA

The focus of the study is on the Rochester - Genesee Regional Transportation Authority's Regional Transit Service service area in suburban locations outside of Rochester but within Monroe County. The study area encompasses the eleven-town region surrounding Rochester. Towns included in the study:

- Brighton
- Chili
- East Rochester
- Gates
- Greece
- Henrietta
- Irondequoit
- Penfield
- Perinton
- Pittsford
- Webster

Figure 1 – Study Area



Several villages, including Fairport and Webster, within these towns have also been highlighted as being of particular interest, especially since their government is separate from their host town.

1.4 STUDY PROCESS

In order to efficiently and thoroughly assess the potential for creating new park & ride and/or TOD sites closer to Rochester, the selected consultant team outlined a number of critical analysis steps that needed to be completed.

Screening Analysis (Chapter 3)

Without specific sites in mind, and recognizing that TOD might occur in a number of locations depending on existing and future transit and real estate dynamics, the team sought to first conduct a screening analysis of the entire study area to narrow down the number of areas where more detailed study would be needed. This screening involved a number of studies.

Land Use and Demographic Analysis

Using geospatial data available from the Genesee Transportation Council (GTC), an assessment of population and employment densities, patterns, and projected changes was conducted to determine areas where there was sufficient residential and/or job density to support transit.

Transit Opportunity Analysis

Given an understanding of population and employment, an assessment of factors driving the likelihood of people to use transit was conducted, based on national standards of the "propensity" of various populations to ride transit. This also looked at factors that influence "choice riders" that may not ride the bus unless they were attracted to it or its amenities.

Transit Oriented Development Metric

Given the somewhat opposite propensities for traditional transit ridership versus transit-oriented development, the team elected to develop a combined metric that added a destination measure to arrive at a TOD metric that could assess the best locations in greater Rochester for exploring real estate opportunities related to transit.

Stakeholder Interviews

In the summer of 2011, the consultant team contacted town planners and building officials to understand the use of transit today and what locations in their communities might be ripe for a transit center or TOD. The goal of the stakeholder interviews was also to uncover complimentary planning efforts, and gauge the level of local marketplace and municipal or developer interest/cooperation.

Real Estate Market Analysis (Chapter 4)

While clear areas for TOD seemed to be emerging from the analyses and interviews, the team needed to assess the real ability for new real estate product to be financed and absorbed in the greater Rochester marketplace. Many other site-specific factors must be considered besides just TOD potential when investing in land development.

Opportunity Sites

Based on the geospatial analyses and stakeholder interviews, the team was able to narrow its search to eight developable sites located within the greater Rochester sub-markets that demonstrated the highest potential for TOD. These were visited in person and assessed for their general site characteristics, access, adjacencies, and surrounding land uses. Many other locations identified by stakeholders also were visited, documented, and eliminated from consideration.

Development Potential Assessment

With prime locations and populations of residents and employees defined, the consultant conducted a real estate market assessment for each of the eight sites to determine the likelihood for marketable retail, residential, and commercial product to be developed.

Transit Oriented Development Potential

Combining the results of the transit market and real estate market analyses, the team merged the results of the eight site evaluations with their score on the TOD metric to arrive at a final list of recommended TOD candidates for the RGRTA to consider.

Suburban Transit Service Options (Chapter 5)

With opportunity sites in mind, the consulting team outlined several suburban transit service options that could be employed by the RGRTA in combination with or without a new TOD(s) or transit center(s) in the suburban towns.

Route and Stop Adjustments

An assessment of existing transit service in three of the sub-markets was undertaken to evaluate the quality and frequency of transit service for TOD as well as the potential to alter that service for the benefit of existing and new riders.

Truncating Service

Where long suburban routes suffer from poor ridership, they can often be truncated rather than eliminated, potentially adding greater frequency in the host community. A methodology for conducting route truncation is described.

Local Service Options

Many best practices for local transit service are explored to possibly replace the fixed-route services RTS is running with better-suited and higher-quality options for suburban communities.

Recommendations (Chapter 6)

While RGRTA has been proactive in identifying opportunities to make service more responsive to the changing needs of passengers, integrating cost-efficient service into the suburban markets has been a continual challenge. The Suburban Transit Station Feasibility Study identified numerous emergent opportunities for RGRTA, but they fall below the kind of large scale direct investment currently being pursued in Collegetown near the University of Rochester. A review of data, and stakeholder interviews did however uncover potential development partnerships and ways for RGRTA to pursue a re-integration of suburban service in earnest. The recommendations for development include the identification of over 20 sites with 8 specific ones highlighted and shown as follows:

- Support likely TOD Opportunities
- Begin planning for next phase TOD
- Monitor evolving TOD locations

Moreover, transit planning does not play a significant role in local municipal development efforts and the Study recommends numerous initiatives that RGRTA can begin or continue to pursue to re-orient and integrate their suburban service:

- Insert transit into regional and local planning efforts
- Directly participate in development review and permitting
- Establish a toolkit of standards/amenities for RGRTA incorporation into a Project
- Develop partnerships for service provision
- Develop suburban orientation points to terminate suburban service

2 SCREENING ANALYSIS

The purpose of the transit market analysis is to examine the underlying travel and socio-economic conditions in the Greater Rochester area and assess the trends as they relate to the demand for transit service and the types of services that best match the demand. At the same time, this process is providing a preliminary analysis of the real estate market and considering the opportunities for development in the region. These are the initial steps in a screening process to determine locations for more detailed analyses. Ultimately, those analyses will identify opportunities in the real estate market that intersect with potential in the transit market, indicating probable locations for suburban transit investments, including but not limited to a transit-oriented development (TOD), transit center or hub, corridor improvements, park and ride facilities, etc.

Specifically, the transit and real estate market analysis looked at:

- Population, including household density
- Employment, with both current and future projections
- Key socio-economic characteristics that impact transit use or the likelihood thereof
- Socio-economic characteristics that impact development opportunities

An important goal of the market analysis is to consider the implications of these factors on the demand for transit and development in Greater Rochester and to broadly gauge the types of opportunities that might merge transit demand and real estate activity. This information will be used to determine what locations emerge as having both strong transit ridership and good development potential, which can be explored in much greater detail through subsequent analysis. While new stand-alone transit-oriented development and associated land deals are possible almost anywhere, this approach helps to ensure that there are complementary land uses nearby to support ridership and development.

Overview

A key aspect of assessing the demand and potential for public transportation services lies in understanding community land uses, demographics, and the available transportation infrastructure. Public transportation services by definition are a shared service. Some individuals, due to economic or physical constraints, have limited access to private automobiles and consequently, rely on public transportation services to meet their daily transportation needs. Other individuals have access to an automobile and will choose public transportation only if the service offers them comparable convenience or attractive amenities. The key to developing successful public transportation services, therefore, is to understand how public transit can efficiently and effectively meet the needs of those who depend upon public transit, while offering a sufficiently attractive service to draw in individuals who have alternatives for their transportation.

In urban areas, such as the City of Rochester, public transportation can offer riders an alternative to traffic congestion and higher parking costs by providing faster or more reliable transportation at a lower cost. However, in suburban and rural areas where there is less traffic congestion and low or no parking costs, public transportation can only reasonably compete with the automobile by offering comparable service speed and reliability at a lower cost. As these locations of suburban service are considered, the team simultaneously considered their development potential. Ultimately, the purpose of this demographic and transit review is to provide a first layer of evaluation that will screen locations throughout the region for

development potential and transit potential that can be analyzed in greater detail. To take advantage of these potential opportunities, the study team has prepared the following analysis of study area's demographic characteristics and major employment locations.

2.1 KEY FINDINGS

Several important findings arose from this review and are pursued in greater detail.

- A review of transit propensity finds very few concentrations of traditional transit-dependent populations who might need to utilize transit more frequently outside of the boundaries of the City of Rochester. Most of these populations would be choice riders who have easy access to automobiles, suggesting that any large transit and land investments should have other benefits and attractions that appeal to choice riders.
- Sections of Greece and Irondequoit have immediate potential for limited TOD, based on current and projected household density, population density, employment density, and retail spending power, with Greece also showing higher transit propensity among transit-dependent households. Opportunities for consolidating existing transit to increase frequency are somewhat greater here than in other locations in the region.
- Parts of Brighton and Henrietta emerge as locations where larger-scale TOD has potential in the future, based on projected household and employment density. Immediate opportunities are more speculative. Analyzing the study area with a combined metric of transit propensity, TOD propensity, and a destination index, the following areas become locations of high interest for potentially locating a TOD and/or transit center/hub:
  - Northgate Plaza in Greece
  - Irondequoit Plaza,
  - Henrietta near the intersection of Jefferson Road and E. Henrietta Road in Henrietta.
- Other areas of interest worthy of further investigation include the hospital area in Greece, East Rochester, and Fairport.

2.2 LAND USE AND DEMOGRAPHIC ANALYSIS

The most important factor impacting transit demand is the density of people who live or work within walking distance to transit service. Since most people walk to or from transit for at least one end of their trip, locating service within walking distance of high concentrations of residences and/or employment is a key determinant of successful service. For purposes of transit planning, walking distance is typically defined as within approximately one-quarter mile of service. Densities also help determine the level of and type of service that will best meet the demand. In densely developed areas there will be large numbers of residents and employees who will be able to easily access transit service. Thus service levels that are more frequent and serve more areas can potentially be supported. In less densely developed areas, fewer people will be able to easily use transit service; consequently, demand and service levels will be lower. Park and ride lots and feeder bus service can extend the “reach” of transit service, but almost without exception, the more people living and working within close proximately of transit, the higher the demand will be for transit.

Service frequencies also have a strong impact on the types of riders who will use transit. The market for public transportation travelers typically consists of two primary groups:

- Choice riders who have adequate resources to operate a private vehicle but choose to use transit because public transit offers them comparable convenience and/or because of other personal lifestyle and value choices.
- Transit dependent riders who use public transportation services because they frequently or permanently lack access or are unable to operate a private vehicle.

Infrequent service is inconvenient and typically will mostly serve transit dependent residents and workers who have few transportation options. Frequent convenient service, on the other hand, can attract travelers who choose to take transit rather than other alternatives. Population and employment densities can also

provide an indication whether the system is providing service with a frequency to draw in choice riders. Various studies indicate that at least five households per square acre are required to support transit service that will be frequent enough to attract choice riders. Below that level, transit will be used largely by transit dependent riders.

These factors of population and employment are also important to the development market review in considering where people are located who are trying to access stores, services, and jobs. Depending upon the form the suburban transit station takes, residents of certain locations might be the "target users" for the amenities provided by the facility, such as offices, shops, or even residential units.

The Land Use and Demographic Analysis was completed for both existing conditions and for projected future conditions in the year 2035, using information as described in the Data Sources section below. The Land Use and Demographic Analysis is an initial screening evaluation designed to objectively review the Study Area and identify locations for further evaluation of potential transit or development opportunities.

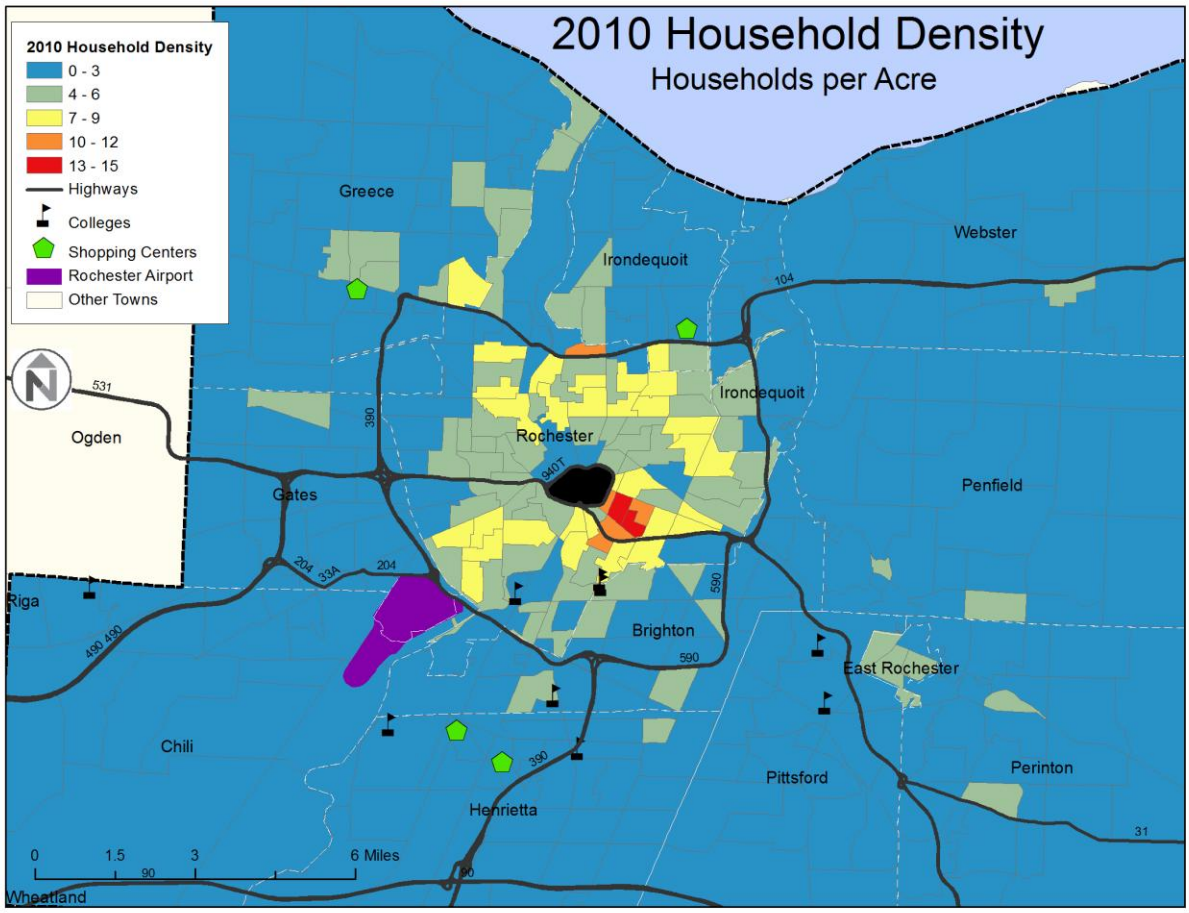
Data Sources

Most of the information for existing and projected population and employment densities for the study area were made available through the Genesee Transportation Council (GTC). The GTC is the Metropolitan Planning Organization for the Genesee-Finger Lakes Region, the repository for regional planning data, and it also maintains the regional travel demand model. The GTC's model utilizes the geographic level of Transportation Analysis Zones (TAZ) to share information. Transportation Analysis Zones are defined geographic areas for which land use and demographic information are categorized and used in the generation and review of traffic and other transportation-related data. It is important to point out that TAZs vary in size and as a result, a density calculation is impacted by this difference between small and large TAZs. Additionally, different levels of density may exist within the same zone. Therefore, because the model uses historical data from the Census and other sources to develop projections for 2010 and 2035, for comparison and accuracy, 2009 population data – provided through the American Community Survey – is also provided. The household and employment projections are locally developed and refined data, based on knowledge of the region and its anticipated changes over time. On a regional level, these resources represent the most complete and accurate dataset available for this initial screening.

Household Density - 2010

The first measure of the transit market analysis looks at household density, which is simply defined as the number of households per acre. In general, the higher the level of density of households, the more potentially transit supportive an area can be. An analysis of household density in Figure 1 shows that the majority of the study area, which is primarily the area outside the city of Rochester, has relatively low household density of three or less households per acre, but there are areas that exhibit higher densities and are initial areas of interest. Greece and Irondequoit show the largest land areas with higher density levels, which are potentially transit supportive, while portions of Gates, East Rochester, and Perinton, including the Village of Fairport, also exhibit a higher than average density for suburban locations. Higher household density can also be supportive of more commercial development, in the form of retail and office development.

Figure 1 – Household Density by TAZ – 2010



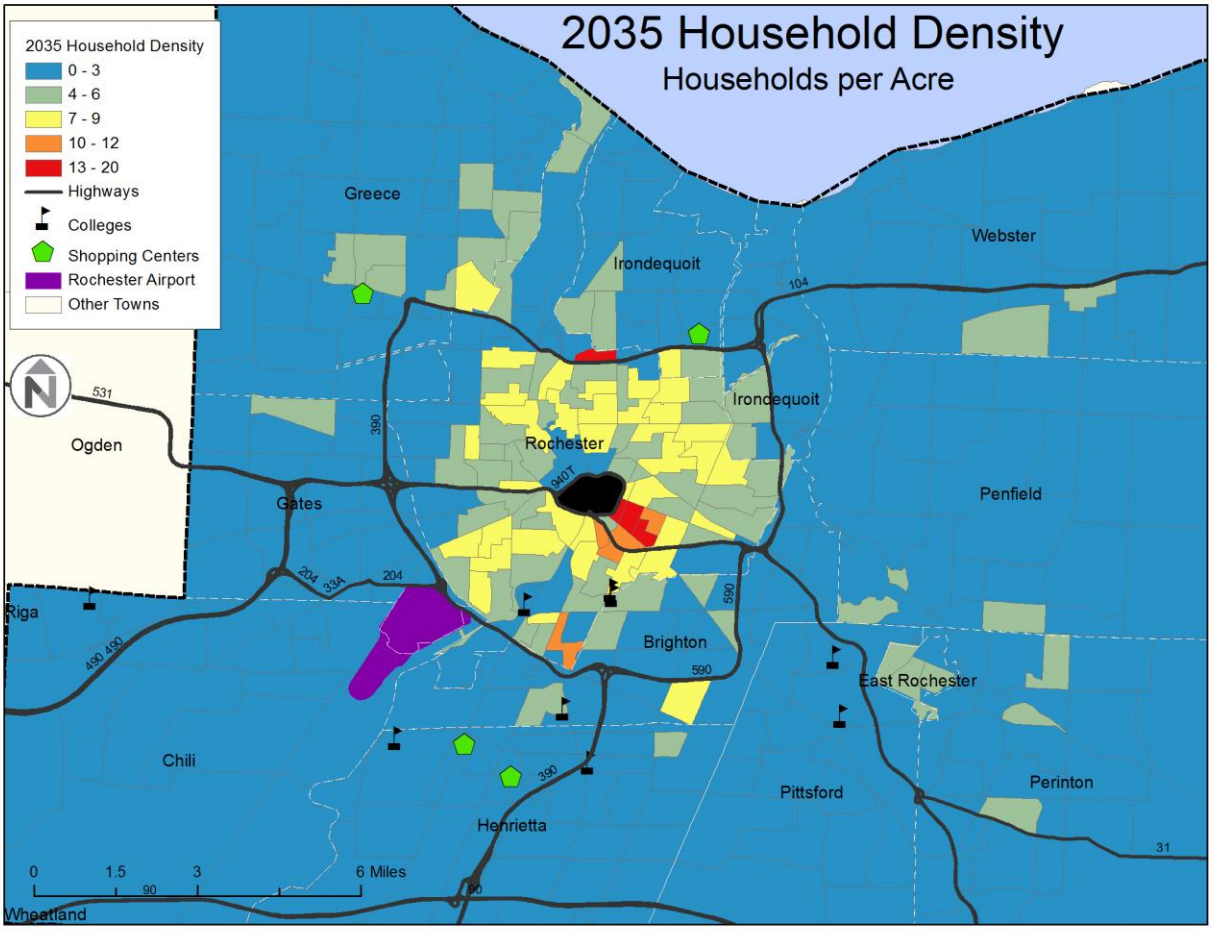
Household Density - 2035

Considering household patterns in the future, the 2035 projections shown in Figure 2, based on the Genesee Transportation Council's (GTC) Model, are generally quite consistent with the pattern from 2010. It is important to know where growth is projected, since areas of increasing household density are likely to support more frequent future transit service as well as a greater number of routes. Potentially growing residential areas may also be able to support new development, especially retail and office facilities.

Based on the mapping of projected household density from the GTC model, two locations emerge as places of interest for projected growth: eastern Greece, just north of State Highway 104, which showed higher density than the rest of the study area in 2010 and Brighton, south of 590. Additional projected locations of growth are in Gates, Henrietta, Perinton, Penfield, and Webster.

In addition to reviewing regional model projections, the team also conducted interviews with town planners and reviewed municipal plans to identify growth areas or planned development projects, as summarized in the next section.

Figure 2 – Projected Household Density by TAZ – 2035



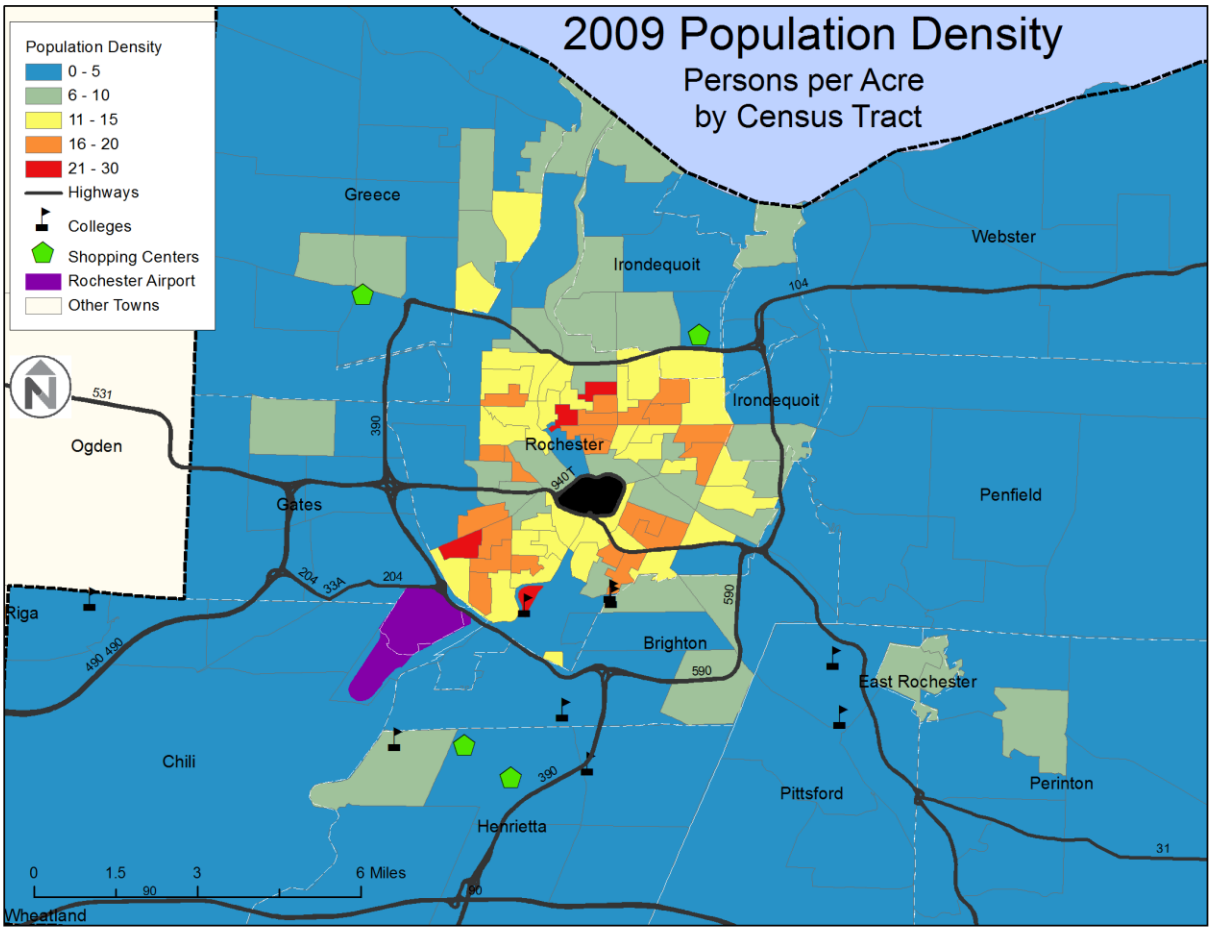
Population Density - 2009

Figure 3, showing population density, is included for comparison to the GTC's Regional Model data and is based on data from the 2009 American Community Survey. Where household density looks at the number of households per acre, population density shows the actual number of people per acre. Population density highlights areas which may not have traditional household structures but do have greater numbers of people, such as college dormitories or assisted living facilities. Like the household density maps show often, much of the study area contains a low population density, with five or fewer people per acre. However, there are areas that do emerge showing comparably higher levels of population density.

Again, emerging with characteristics supportive of transit and development are two locations in Greece: the same area with high household density in both 2010 and 2035 just outside of Route 104 and north of Ridge Road, and along Dewey Avenue south of the Northgate Plaza. A Brighton location that had high household density south of Interstate 590 also shows higher population density. In addition, Irondequoit also has a higher level of population density throughout a large portion of its land area. Based on household and population factors, Greece, Brighton, and Irondequoit show relatively higher densities than the region.

Other towns with locations of elevated population densities are: north central Gates, just south of the town line with Greece; the northwest corner of Henrietta, including the Rochester Institute of Technology; East Rochester; and the Village of Fairport.

Figure 3 – Population Density by Census Tract – 2009



Employment Density - 2010

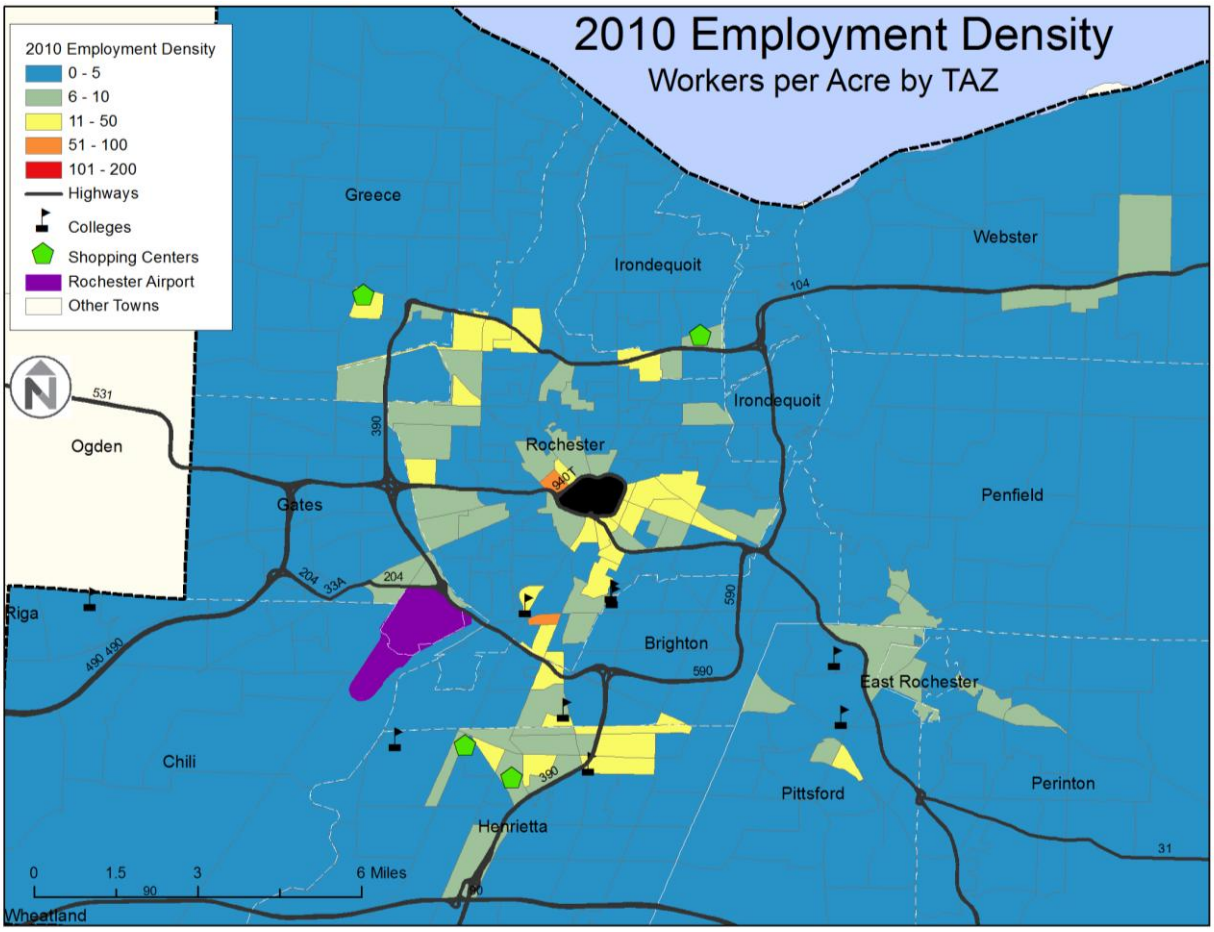
Employment density indicates the number of employees per acre and is an important metric to use when considering transit service because work trips make up a significant portion of the trips people make. Like household and population density, the greater the concentration of people, the more likely transit can meet their transportation needs. Additionally, concentration of workers in certain locations provides additional development potential for nearby retail, service, and residential land uses to serve those employment centers.

The employment picture in the study area shows the region's continued economic transition, with centers of employment moving both away from downtown and also from large scale manufacturing to a hub of hospitals and universities, focused on the health and information sectors. Figure 4 and Figure 5 show employment density, based on employment data and projections for 2010 and 2035 from the Genesee Transportation Council's Model.

When examined regionally, the primary locations of employment density are still within the City of Rochester, particularly in the downtown area that is not shown. However, Figure 4 shows that there are centers of employment density in areas outside of the City, with implications for this study. The locations of higher employment density reinforces some areas identified as having high population and/or household density, such as the southern part of Brighton near the town line with Henrietta.

The data also indicates other corridors and nodes with the levels of employment that are potentially transit and development supportive. A clear corridor of high employment emerges in the area surrounding Jefferson Road in Henrietta and Brighton. East Rochester, Pittsford, and parts of Webster also exhibit higher levels of employment density than the land surrounding them. Shopping areas, shown on the figures as pentagons, are major employers, with all in the Study Area exhibiting higher levels of employment supporting that retail activity.

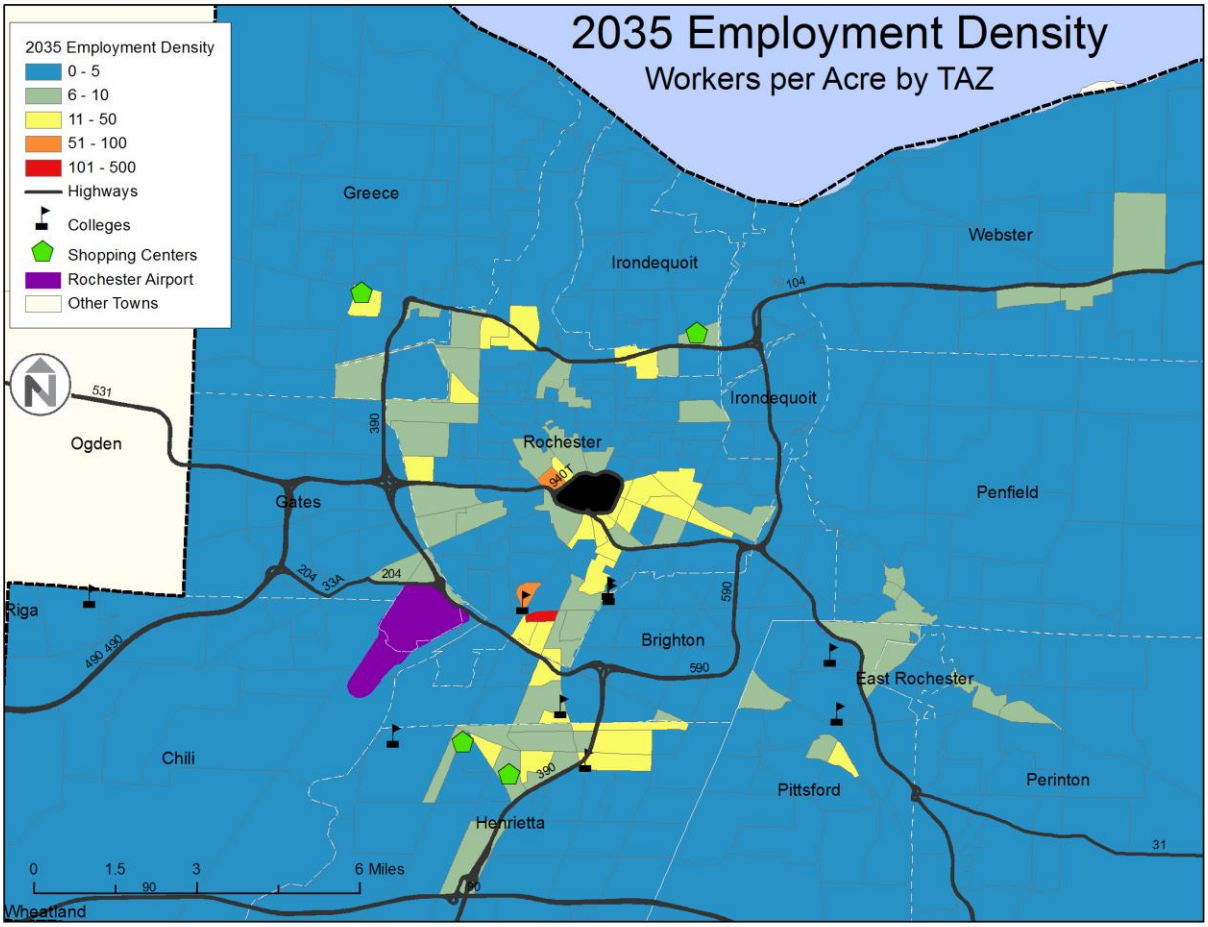
Figure 4 – Employment Density by TAZ – 2010



Employment Density - 2035

Considering employment density patterns in the future, the projected pattern for 2035 remains nearly the same as that in 2010. Figure 5 shows a map of the employment data from the Genesee Transportation Council's Model and several locations again emerge as areas of interest based on future employment density. The data indicates that Brighton and Henrietta, near Jefferson Road, will remain an employment center. East Rochester, with parts of Penfield, Pittsford, and Webster, will also continue to have relatively higher employment density.

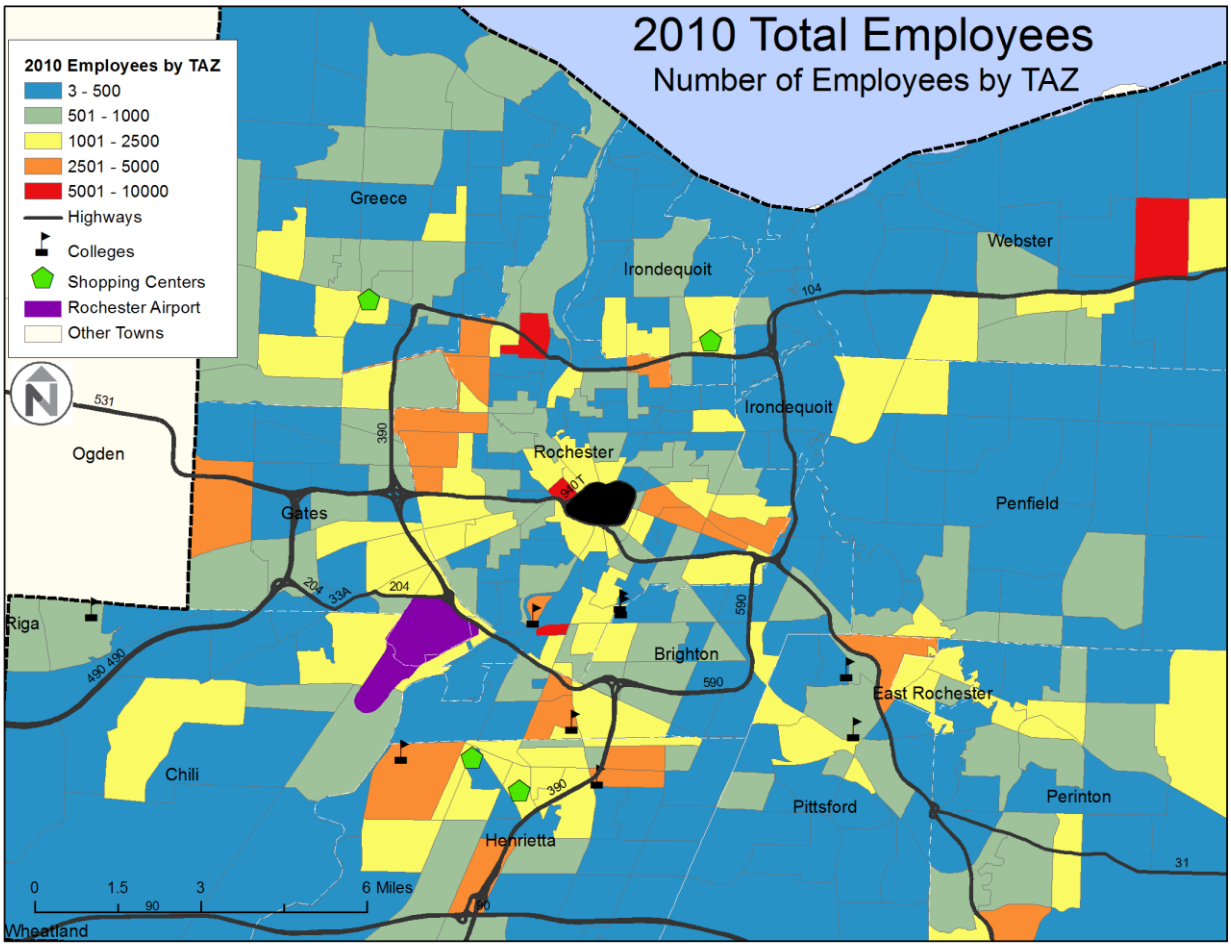
Figure 5 – Projected Employment Density by TAZ – 2035



Total Employees

For comparison, a review of the employment totals, not density, was completed. Employment numbers were again based on the Genesee Transportation Council's Model for 2010. As evident in Figure 6, this approach gives a somewhat different picture of employment, highlighting the challenges that emerge from TAZ-based density calculations. As described previously, some TAZs are quite large and others are small, so the total number of employees in a location may be large, but it is located within a large TAZ, it would appear to dilute the density calculations. This review is also useful in helping to locate large numbers of employees and thus potential for specific transit service. For example, the Rochester Technology Park in Gates shows a large concentration of employees that RTS already serves directly. However, overall employment density in this part of the region is low, making the transit solution highly-tailored to the commuting needs of Park employees only, limiting opportunities for transit service at other times of day in this area.

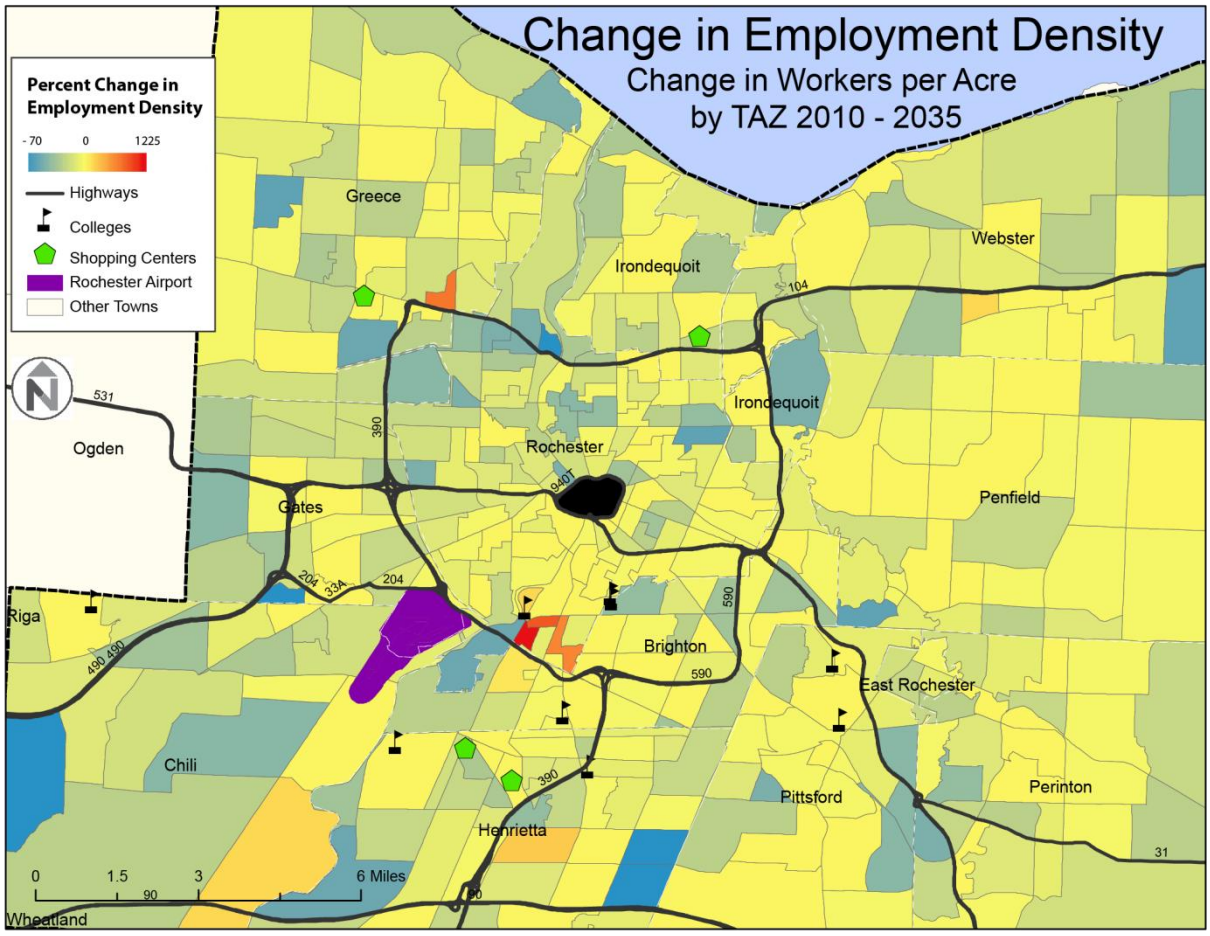
Figure 6 – 2010 Total Employees - Absolute Numbers



Change in Employment Density

Figure 7 shows the projected change in employment density between 2010 and 2035. Most of the region including the City of Rochester is projected to have little change. Areas of projected growth are spread, with only a few showing substantial changes. These include a section of northern Greece near Mt. Read Boulevard and Ridge Road West, the area around the University of Rochester and Collegetown, and parts of Henrietta.

Figure 7 – Change in Employment Density 2010 – 2035



2.3 TRANSIT OPPORTUNITY ANALYSIS

With a baseline of demographic patterns established, it is possible to complete a comparative analysis of individual areas for their relative propensity to generate transit and/or development. For this analysis, a traditional measure of transit propensity is developed, as well as two additional measures developed specifically for this study to better ascertain characteristics lending themselves towards the potential to support retail activity and transit-oriented development. These analyses are summarized in the table below. While transit propensity builds on density and demographic factors related to the traditional use of transit, retail propensity merges overall population density with retail spending power to identify consumer populations likely to take advantage of the services offered at a TOD. Finally, TOD propensity adds employment density to the mix to assess whether an existing jobs base can further support the retail and residential components of a TOD.

	Demographics	Income	Employment
Transit Propensity	X		
Retail Propensity	X	X	
TOD Propensity	X	X	X

Transit Propensity

A typically used method to measure the relative potential transit demand in study area markets is to examine which areas have high proportions of populations with a known propensity to use transit. For example, it has been demonstrated that persons from households without cars available, persons with disabilities, certain ethnic groups, women, and other groups have a higher than average rate of transit usage. This analysis uses demographic information to prepare a regional comparison to indicate which areas have greater or lesser relative levels of transit propensity and once identified, areas can be compared to existing service provision, or highlighting areas served well or disproportionately.

A report published by the Transportation Research Board, TCRP Report 28: Transit Markets of the Future, presents a methodology by which an aggregate level of transit propensity can be calculated for geographic sub-areas. For the RGRTA Study Area, analysis was conducted on the Census tract level. The analysis indicates the rate of transit usage for each of a range of population groups over the average, expressed as propensity factors. For example, women tend to use transit 1.18 times more than average, so a factor for the female population is 1.18. These individual factors are then multiplied by the proportion of population in each Census tract. The calculations are completed for other distinct population groups, with the scores summed to produce an aggregate number (transit propensity). Within the complete study area, overall transit propensity (based on population proportions for the region as a whole) is 1.94. The demographic factors used to determine transit propensity are most easily accessible using data from the most recent American Community Survey by the US Census. Figure 8 shows this methodology as applied to the overall study area.

Figure 8 – Composition of Transit Propensity Calculation for Study Area

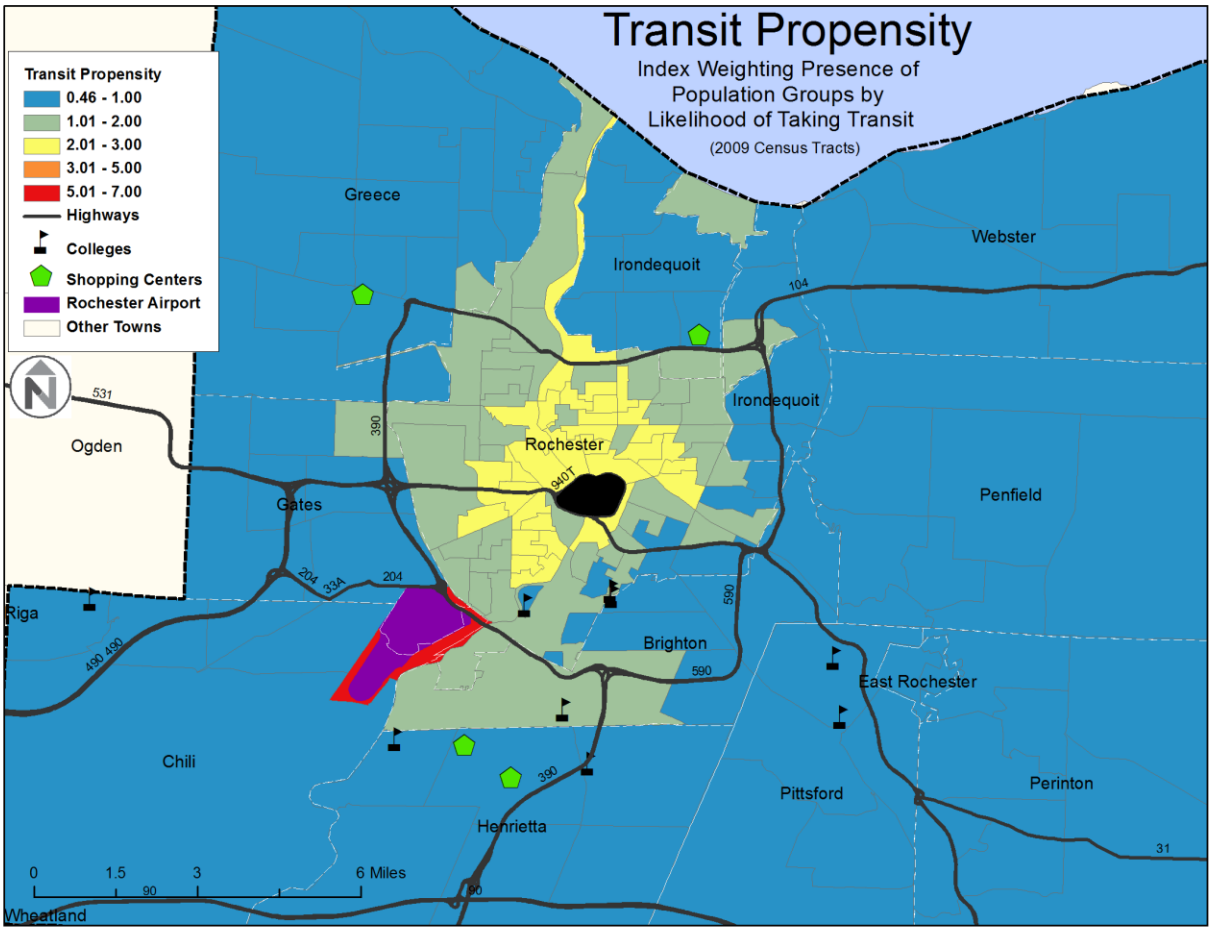
Population Sub-Group	Propensity Factor	Population	Proportion of Total Population	Contribution to Propensity (Factor x Proportion)
Total Population (Individuals)		731,621		
Females	1.18	376,898	0.52	0.61
African Americans	2.72	104,534	0.14	0.39
Asians	1.74	20,561	0.03	0.05
Hispanics	1.73	43,129	0.06	0.10
Age 65+ (In labor force)	1.10	28,382	0.04	0.04
Persons with a Physical Disability	2.41	51,705	0.07	0.17
Persons with a Work Disability	1.25	45,123	0.06	0.08
Households		286,327		
Household Income under $10K	1.24	23,636	0.03	0.04
Household Income $10-15K	1.24	14,702	0.02	0.02
Household Income $15-20K	1.08	15,390	0.02	0.02
Household Income $20-25K	1.04	15,545	0.02	0.02
Housing Units		286,327		
Housing Units without Access to Automobiles	5.76	30,818	0.04	0.24
Total				**1.94**

Source: American Community Survey 2005-2009 5-year Survey Data

Using data from the American Community Survey 2005-2009 five-year sample, the transit propensity of each Census tract was calculated but with tract-level populations only. Note that the regional average of 1.94 was indexed to 1.0, establishing a base level of transit propensity for the Rochester region. Areas with a score below 1 have relatively less propensity to use transit compared to the rest of the region, while scores above 1 show increasing levels of population with a propensity for transit.

Figure 9 maps the propensity of each Census tract relative to the regional average. As shown, transit propensity in the study area follows a fairly typical city pattern with greater transit-dependent populations in the more urban areas – primarily Rochester – and declining levels as distance from downtown increases.

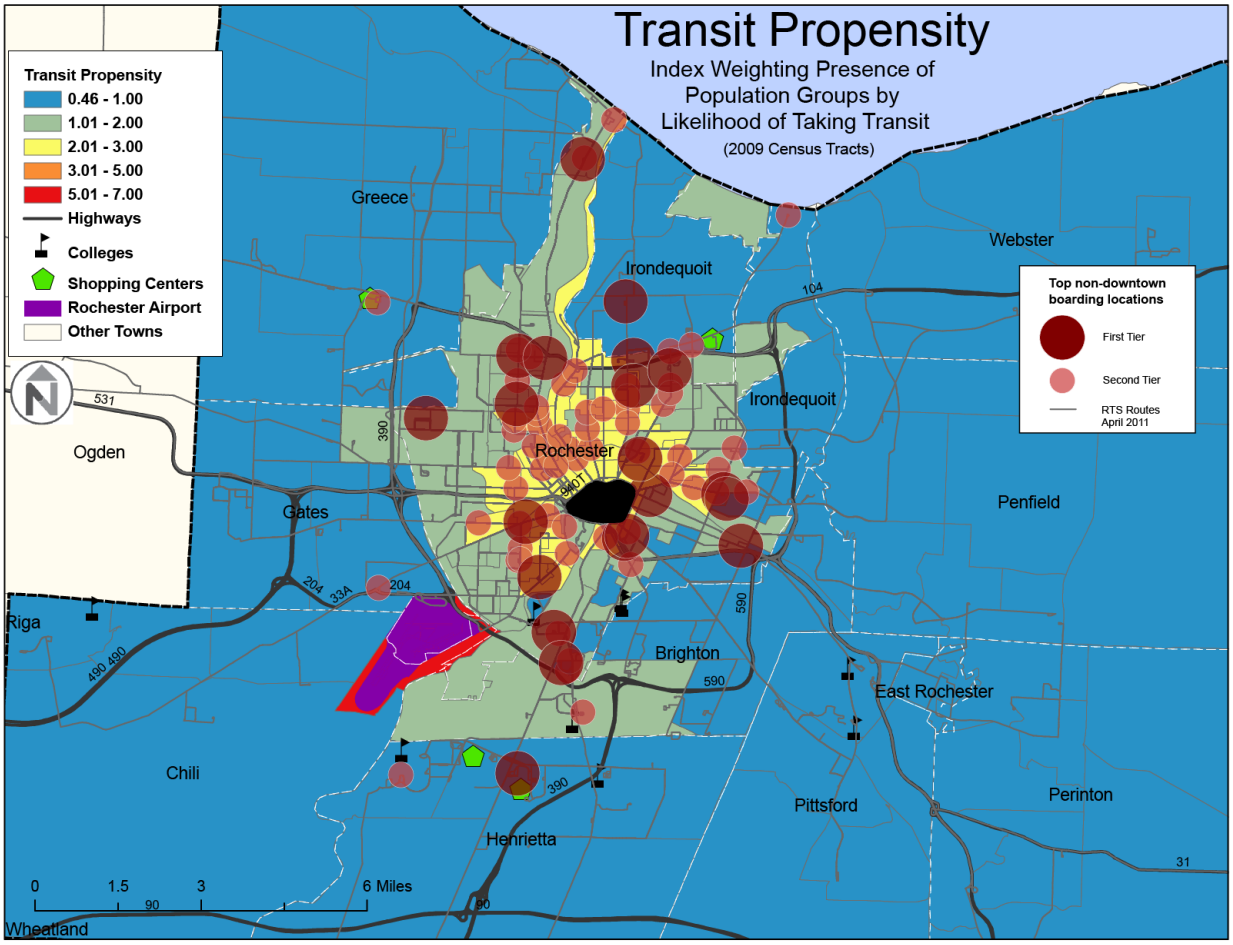
Figure 9 – Transit Propensity in Study Area



The central core of Rochester shows the highest transit propensity, and Figure 9 represents a regional comparison. Outside downtown Rochester, the blacked out area inside the inner belt in Figure 9, there are several locations that the analysis shows to have a higher likelihood of traditional transit use. The most prominent is the area surrounding the airport, in which the demographic mix of populations present there rate highly for their likelihood of utilizing transit. The other areas shown in green and yellow, such as Greece and Brighton, with the parts of Chili and Gates surrounding the airport, emerge as the towns indicating the highest propensity for transit.

Figure 10 overlays high ridership stops outside the inner core on the transit propensity evaluation , based on data provided by the RGRTA. First and second tier stops shown represent 40% of all suburban ridership. Overall, the density of boardings is clearly within the area of greatest transit propensity. The only exceptions are areas of Brighton, Greece, and far northern Irondequoit that are not served by transit. Meanwhile, some suburban areas that do not have high transit propensity still have strong boarding counts, suggesting that many suburban travelers are choice riders. These areas include portions of Greece, Henrietta, East Rochester, Fairport, and to a lesser extent, Chili, Gates, and Pittsford.

Figure 10 – Transit Propensity Versus Boardings in Study Area



Retail Propensity

As the initial propensity analysis is intended to screen the region to find transit-oriented populations, two additional non-typical measures were completed to account for areas that might be supportive of TOD, but would not necessarily emerge through the standard transit propensity measurements. The first looks at combining population density and income, which is essentially a review of the density of buying power, and which is called "retail propensity." While transit dependent populations often have lower incomes than the regional average, this measure was reviewed to screen locations with both the density to support transit service, and the income to support additional uses. A baseline was created against which all other census tracts can be measured. In this measure, household income and population density are weighted equally using 1.0 as the regional average, and factored from there. Both relative weights are then simply added to determine the overall retail propensity score, which has a baseline sum of 2.0, which is then indexed to a value of 1.0 for evaluation. This index means that areas above 1.0 have retail propensity comparably higher than the rest of the region. It is noted that there is the potential for one measure (population density or spending power) to be particularly high or low and mask the performance of the other.

Figure 11 – Retail Propensity for Study Area

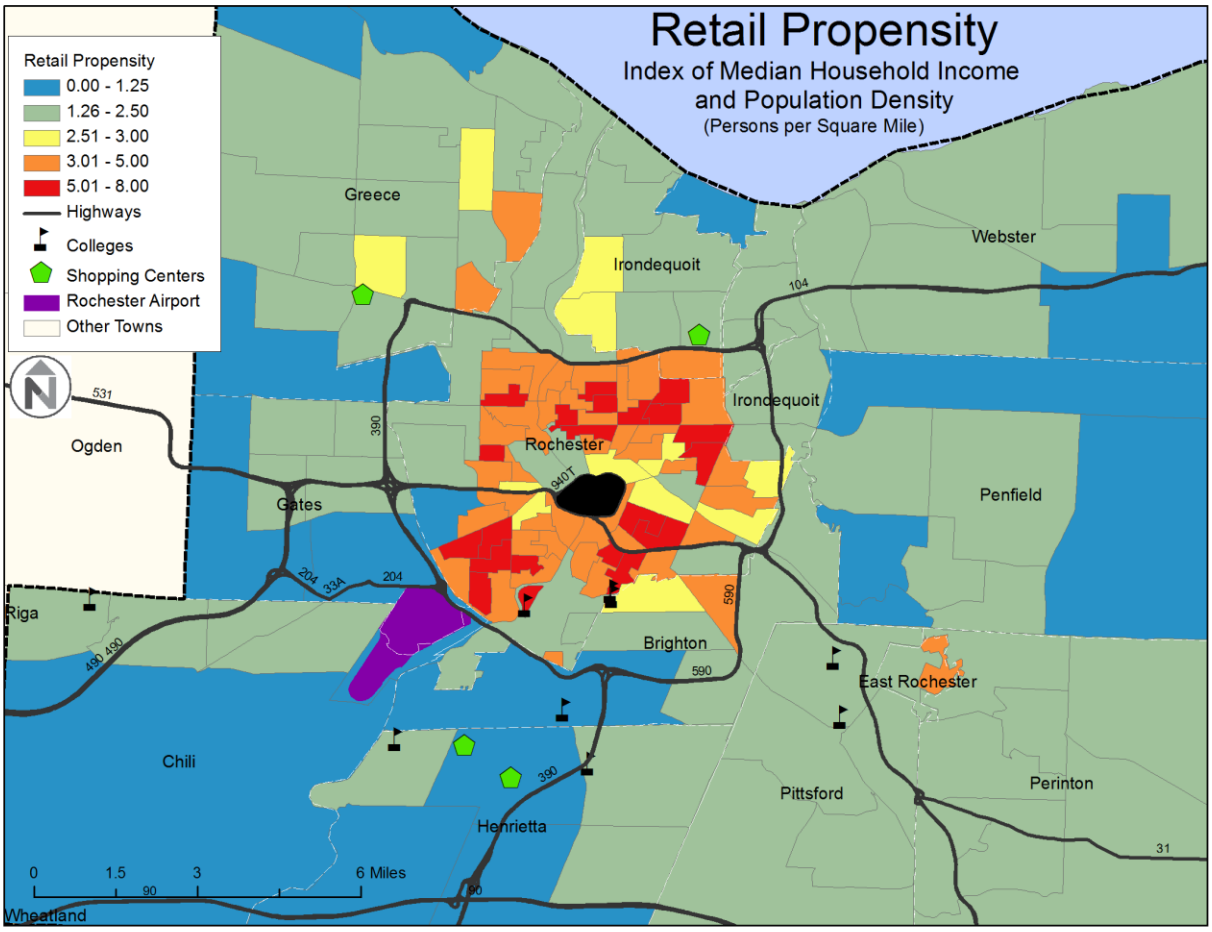


Figure 11 shows the retail propensity measure, and indicates that the central areas of Rochester again have higher retail propensity than the region, but also that the pattern broadens out, with certain other pockets emerging as well. Several important areas to note with a higher retail propensity than nearby locations include: Greece, along Dewey Avenue, both close to the Mall at Greece Ridge, as well as at Mt. Read Boulevard and Ridge Road West north of State Highway 104; and Irondequoit, near the intersection of Cooper, Hudson, and Titus, as well as just south of State Highway 104. In Brighton, the area surrounding Monroe Avenue shows a higher retail propensity. Similarly, a subsection of East Rochester also indicates a higher than average retail propensity.

With this analysis, areas noted previously with high household and population densities, including Dewey Avenue in Greece and the southeast corner of Brighton, as well as in Irondequoit, around the Cooper, Hudson, and Titus core area, are again emerging as areas supportive to retail activity.

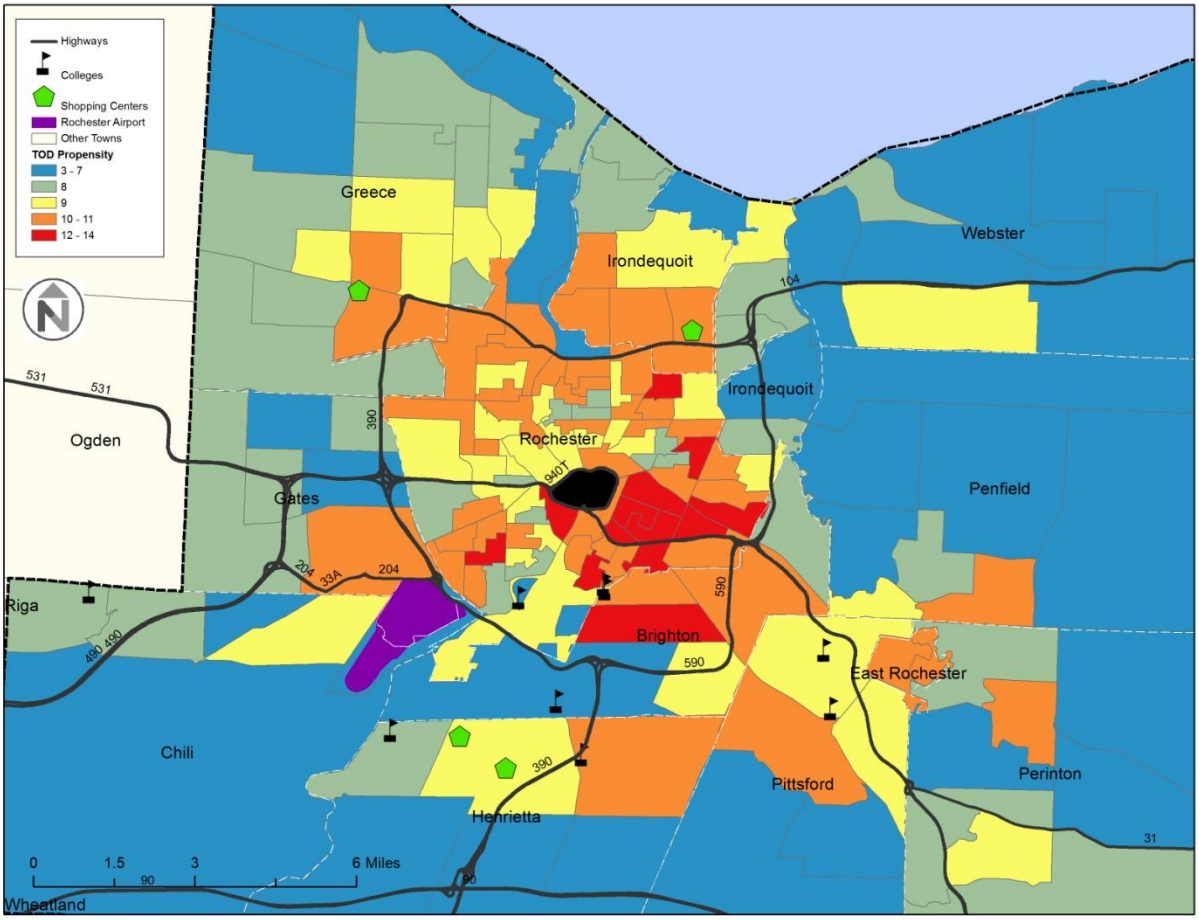
Transit-Oriented Development Propensity

As transit-oriented projects often contain a mix or diversity of uses, the retail propensity analysis was expanded further to include employment centers. For this evaluation, employment density was added to the measures (population density and income) used in the retail propensity analysis. These measures are combined and a baseline created against which all other census tracts can be measured. In this evaluation, all measures are divided into quintiles and given a weighted average between 1 and 5. All three relative weights are then simply added to determine an overall factor, between 3 and 15. It should be noted that there is the potential for one measure to be particularly high or low and mask the performance of the others.

This analysis continues to evolve the initial screening methodology of the study area to show places with a density of activity and income. These "hot spots" identified locations for more detailed evaluation, and should show places around which either a cluster of mixed uses or other individual factors are high enough to merit further attention on their own.

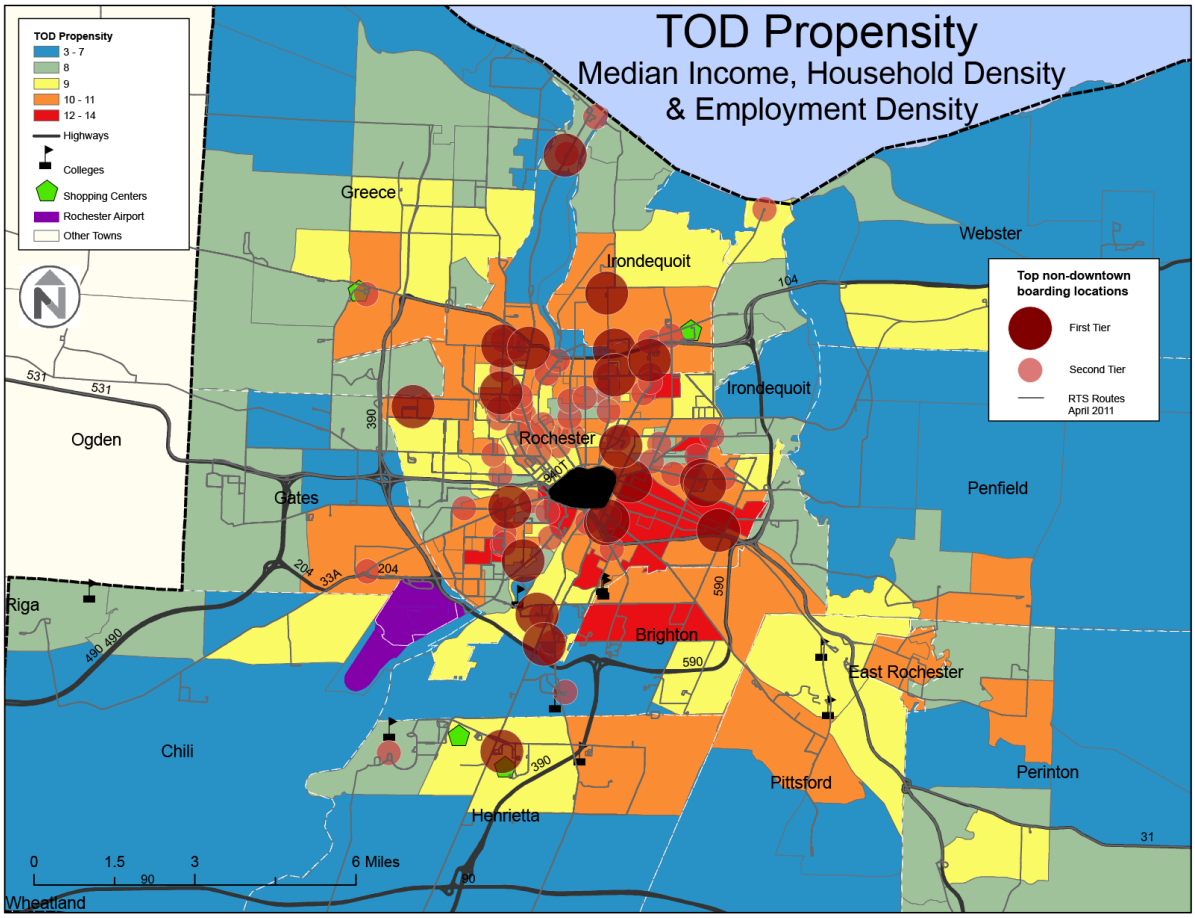
With a top possible score of 15, no location scores higher than 14. Figure 12 shows that most of the areas with the highest transit-oriented development propensities are within the City of Rochester, but Brighton also contains an area of high TOD propensity. High TOD propensity exists in a belt north of Highway 104, from Greece to Irondequoit, as well as near the Brighton-Henrietta line. Gates, Pittsford, East Rochester, Fairport in Perinton, and Penfield all exhibit areas of higher TOD propensity as well.

Figure 12 – Transit Oriented Development Propensity



When compared to high level transit boarding locations in the region, the TOD propensity map matches up better than traditional transit propensity, as shown in Figure 13, with suburban ridership generally showing up where TOD propensity in the suburbs is greatest.

Figure 13 – Transit Oriented Development Propensity Versus Boardings



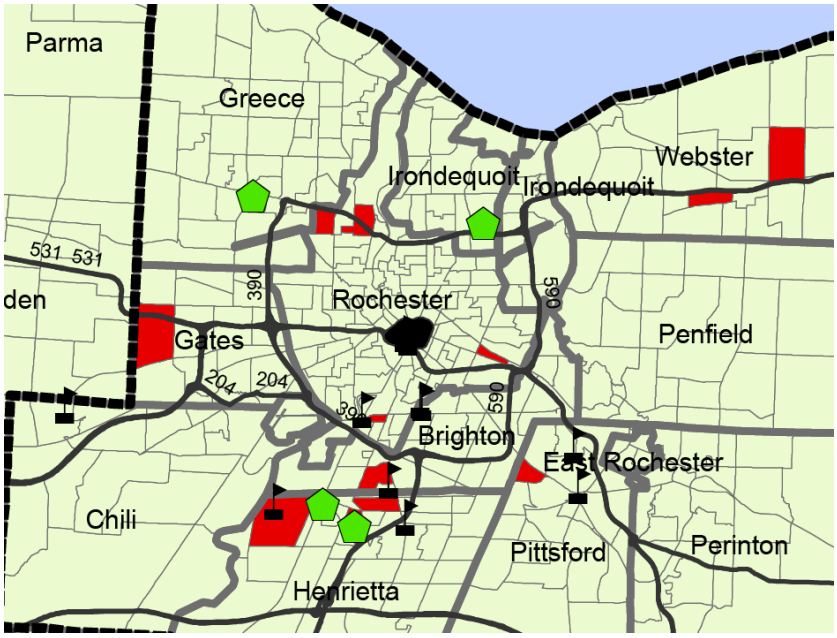
Transit Oriented Development Metric

The transit-oriented development propensity map above shows a different pattern that adds weight to suburban locations not seen on the map of traditional transit propensity. Some of these areas happen to coincide with some of the higher boarding count locations in areas of low transit propensity outside Rochester proper, suggesting that choice riders are traveling to or from suburban areas where TOD may be viable. In order to test this hypothesis more rigorously, the team developed a TOD metric that could directly inform the real estate market analysis.

Seeking to not discount the proven value of traditional transit propensity while also exploring the potential of the TOD propensity results, the team felt compelled to develop a metric for identifying likely TOD sites that used a blend of these two measures while adding a third measure: a "destination index." The team recognized that an essential part of making TOD viable in a suburban setting is ensuring that the selected site(s) are already a regional draw that brings travelers in sufficient numbers to offset the relatively lower densities of a suburban location. Given that much travel in greater Rochester is already suburb to suburb, it became clear that any suburban TOD would benefit by being a strong destination. The GTC travel model is

the best available source for travel flows in greater Rochester, and top destinations can be easily mapped, as demonstrated in Figure 14.

Figure 14 – Top 20 Travel Destinations in Greater Rochester



Therefore, the final TOD metric creates a blended weighting with equal significance assigned to transit propensity, TOD propensity, and destination index. As summarized in the table below, this approach uses all of the information summarized in this section to arrive at a set of factors that are most likely to coincide with high potential for TOD.

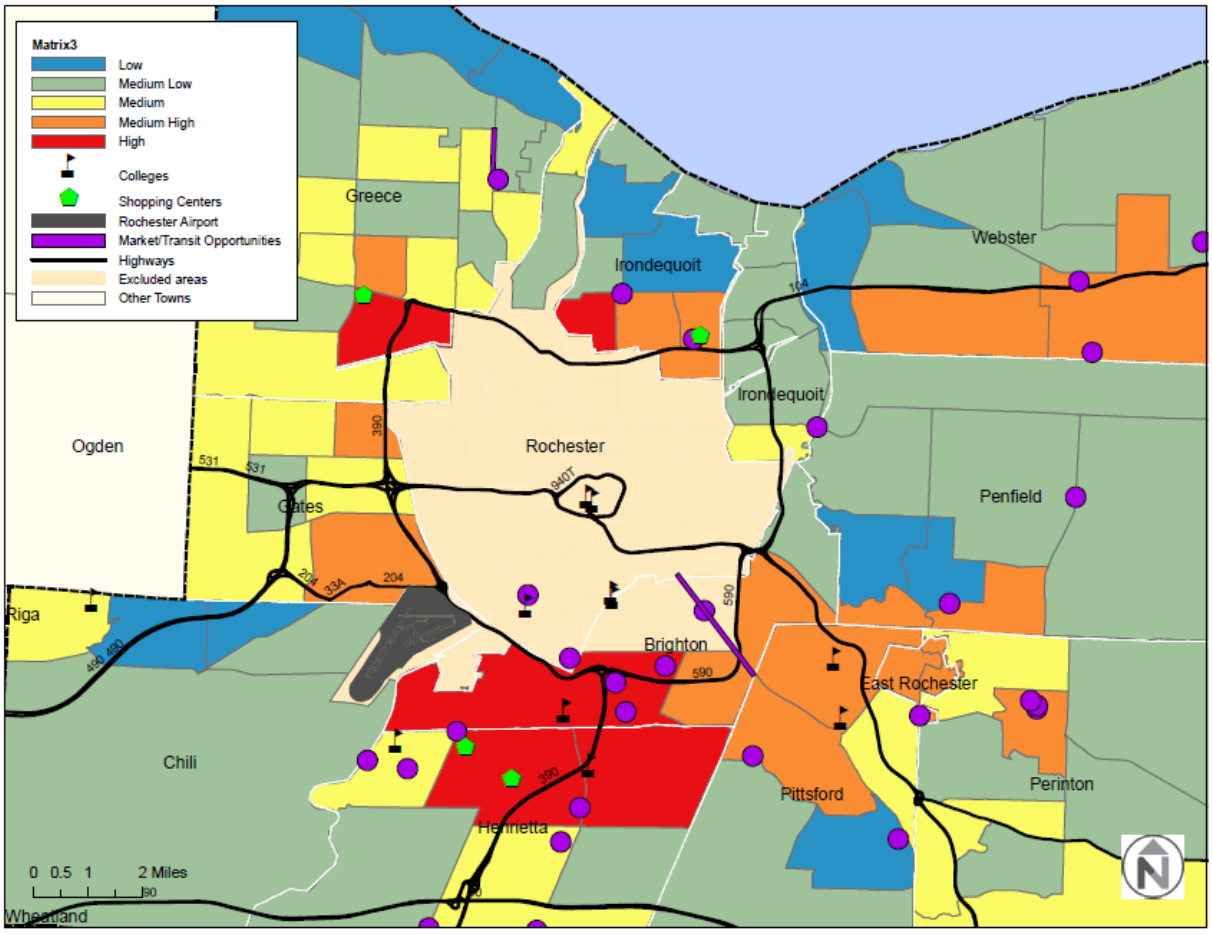
TOD Metric:	
TOD Propensity	Household Density
	Spending Power
	Employment Density
Transit Propensity	Household Density
	Lower Income
	Transit Dependence
Destination Index	Where People Go

To focus the analysis more narrowly on Rochester's suburbs, data for each of these measures was evaluated only for TAZ's outside of Rochester's "belt" highways, defined by the loop of Route 104, I-390, and I-590. The remaining records in each of these three measures were divided into quintiles and given a weighted average between 1 and 5. All three relative weights are then simply added to determine an overall factor, between 3 and 15. The resulting TOD metric "score" is shown in Figure 15. These are subsequently mapped in Figure 16.

Figure 15 – TOD Metric Scoring (outside belt highways)

TOD Propensity	Transit Propensity	Destination Index	Score	Town
4	3	5	12	Henrietta
5	3	3	11	Irondequoit
5	2	4	11	Greece
2	4	5	11	Brighton
5	3	3	11	Brighton
4	2	5	11	Henrietta
3	3	4	10	Gates
4	3	3	10	Irondequoit
4	3	3	10	Irondequoit
4	5	1	10	Irondequoit
4	3	3	10	Penfield
5	2	3	10	East Rochester
4	3	3	10	Brighton
5	1	4	10	Pittsford
5	2	3	10	Perinton
4	3	2	9	Greece
3	4	2	9	Gates
1	3	5	9	Webster
3	2	4	9	Webster
4	2	3	9	Brighton
4	2	3	9	Penfield
4	3	2	9	Brighton
4	2	3	9	Pittsford
5	3	1	9	East Rochester

Figure 16 – TOD/Transit/Destination Propensity (outside belt highways)



2.4 STAKEHOLDER INTERVIEWS

In July and August, the consultant team contacted town planners, development officials, Town Administrators, developers, and chambers of commerce in the towns surrounding Rochester to understand the real estate and development market of the Study Area towns and villages. The goal of the stakeholder interviews was also to uncover current or future transit and TOD plans and gauge the level of local marketplace and municipal or developer interest/cooperation in suburban transit solutions.

List of Stakeholders

Town Staff	Title	Town
Ramsey Boehner	Town Planner	Brighton
David Dunning	Town Supervisor	Chili
David Lindsay	Commissioner of Public Works / Superintendent of Highways	Chili
Marty D'Ambrose	Town Administrator	East Rochester
Jim Herko	Building Inspector	East Rochester
Ken Moore	Zoning Officer	Fairport
Mark Assini	Town Supervisor	Gates
Scott Copey	Planning Clerk	Greece
Michael Yudelson	Town Supervisor	Henrietta
Chris Martin	Town Consulting Engineer	Henrietta
Peter Minotti	Planning Board Chairman	Henrietta
Larry Heininger	Community Dev. Director, Planning and Zoning	Irondequoit
Tony LaFountain	Town Supervisor	Penfield
Mark Valentine	Planning Department Head	Penfield
Eric Williams	Assistant to the Commissioner, Department of Public Works	Perinton
Marty Brewster	Director, Planning, Zoning, and Development Department	Pittsford
Don Hauza	Deputy Commissioner, Planning and Zoning	Town of Webster
Will Barham	Building Inspector	Village of Webster
Peter Adams	Planning Board Chairman	Village of Webster

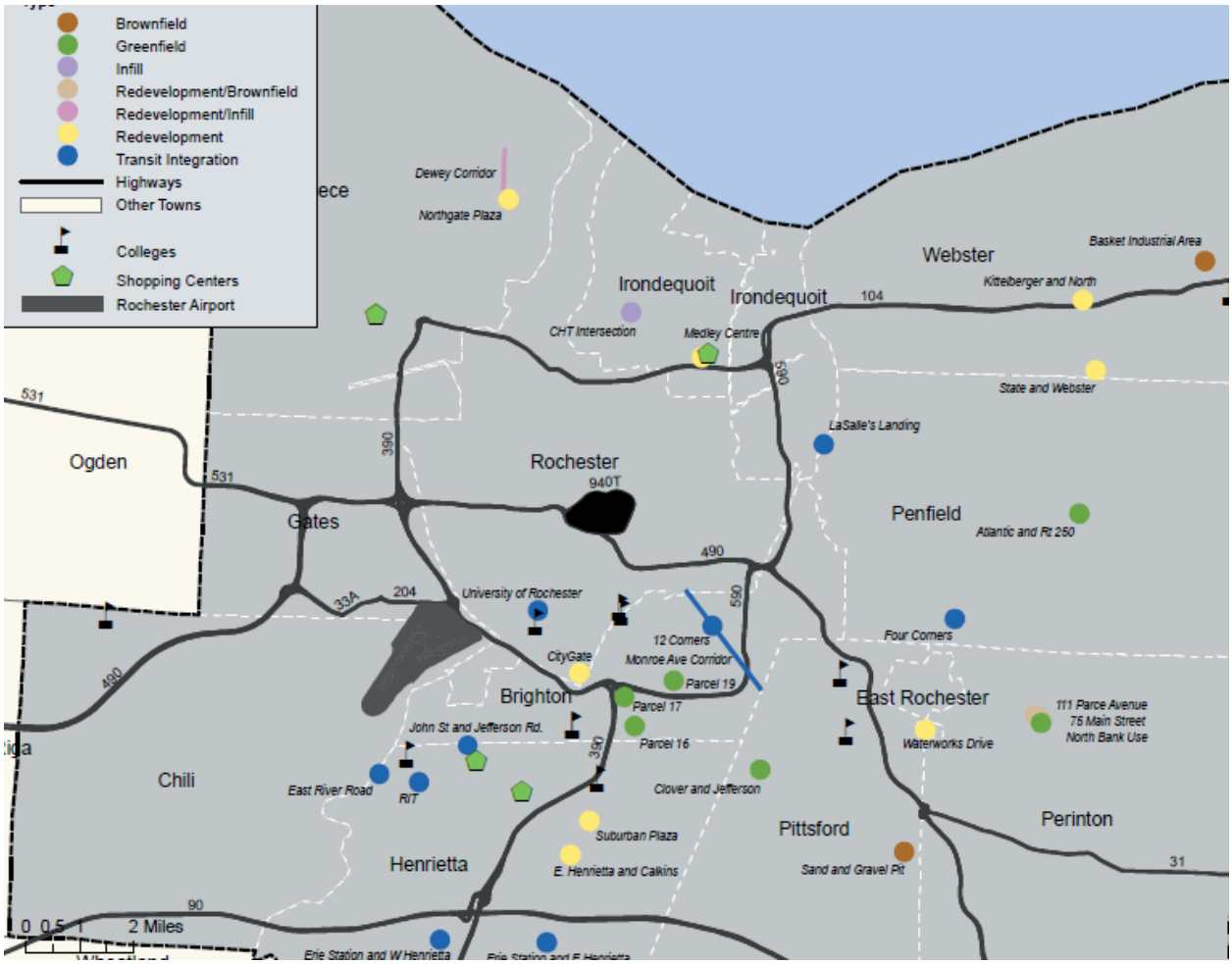
Economic Development Contacts	Title	Organization
Kal Wysokowski	Executive Director	Fairport Office of Community and Economic Development
Jim Costello	Director of Developmental Services	Penfield
Don Faso	Secretary	Gates/Chili Chamber of Commerce
Joe Cavallaro	President	East Rochester Chamber
Jodie Perry	President and CEO	Greece Chamber
Jesse McCarthy	Liaison	Henrietta Chamber
Glenn Cooke	Director	Webster Community Coalition for Economic Development

Private Sector Contacts	Title	Company
Tom George	Director of Business Development	Wilmorite
Mike Wilmot	General Manager	Wilmorite, Marketplace Mall
Mike Palumbo	Developer	Flaum Management Company
Brett Costello	President	Anthony Costello & Son
Andy Gallina	President	Gallina Development Corporation
Roger Brandt	President	Rochester Cornerstone Group, Ltd.

Summaries of Stakeholder Interviews

The narratives below paraphrase the team's phone and in-person interviews. Key development opportunities related to TOD that were mentioned in these conversations have been noted in **bold** below. These were investigated further by the consulting team during the Real Estate Market Analysis. Through stakeholder interviews, the team was able to identify numerous sites with development potential for further evaluation. These are shown in Figure 17 and listed also in the chart at the beginning of Chapter 4.

Figure 17 – Development and Transit Opportunities Identified by Study Area Stakeholders



Interviews of Town Planners and Officials

Brighton

The study team met with Ramsey Boehner, Town Planner for Brighton, who indicated that Brighton had several parcels in various stages of planning and development. These parcels were identified in the Brighton Master Plan, and include the following parcels:

- MP Parcel 16 – Town Line Road/I-590 (Glazer, developer)
  - Residential/Office

- MP Parcel 19 – Winston Road/I-590 (Costello, developer)
  - Retail/Office
- MP Parcel 17 - Clinton Avenue/I-590 (Costello, developer)
  - Approved, not permitted
  - 300+ units residential
- **CityGate** – Rochester/Brighton – West Henrietta Rd (Costello, developer)
  - Commercial/Retail/Residential

While these build upon the Master Plan, and include a potential mix of uses, there is no specific transit accommodation as part of these developments. Mr. Boehner related that transit is not often a factor in the planning or review process for developments in Brighton. Nonetheless, as an older suburb that is home to several dense neighborhoods as well as major institutions, several other areas were identified as having the potential to benefit from additional transit service or the integration of transit into the development. In addition to the sites identified above, these opportunities include the areas around:

- The **University of Rochester** and the proposed "CityGate" site;
- **12 Corners** (at Monroe/Elmwood/Winton), which would have smaller infill development potential; and
- The **Monroe Avenue corridor**, which recently benefitted from a design charrette, which spurred some controversy on roadway narrowing/densification.

Chili

David Lindsay, Commissioner of Public Works and Superintendent of Highways for the Town, indicated that Chili is not experiencing significant development pressures at this time, but they do see moderate development north of Black Creek near the airport. Chili has zoned for areas of master planning that could accommodate/support transit. While the zoning has not incorporated new urbanist design techniques, such as shorter setbacks or reductions in minimum parking requirements, those are recommended in their 2030 Comprehensive Master Plan. Chili does not have a strong demand for transit presently, as their route to the town center was eliminated in 2008 and only limited service exists today to the business center on Trade Court.

At a subsequent meeting with the Chili Town Supervisor, David Dunning, and the Gates - Chili Chamber of Commerce, a new development seeking direct transit service on **Beaver Road** was discussed and toured. Its adjacency to multi-family housing on the edge of town center suggested an opportunity to reinstate the service that was cut from Chili center, if it served the Beaver Road development area as well.

East Rochester

Marty D'Ambrose, Town Administrator, and Joe Cavallaro, President, East Rochester Chamber of Commerce, noted that East Rochester is both a Town and a Village, with the same boundary. East Rochester is centrally located to the three fairly affluent suburban towns of Penfield, Pittsford, and Perinton. East Rochester is denser, more compact than these communities, serving as both a hub of employment, and village retail with shops and restaurants, for the adjacent communities.

East Rochester is a working class community with significant major employers. Despite its industrial history and building mix, East Rochester has significant office employment, with the Piano Factory buildings occupied, and Excellus (Blue Cross) hosting over 600 employees in a call center/administrative building in the Techniplex Mall on Main Street.

East Rochester has a mix of many people, and relatively high transit ridership. Transit in East Rochester may also be fulfilling some basic mobility since no other options exist as schools are all walk to and there is no taxi service in town. Transit connects residents to regional jobs and destinations, and it also brings

employees to town. There is a need and a market for trips to Monroe Community College, Eastview Mall, and other regional destinations. The nearby park and ride by St. John Fisher (on Fairport @ I-490) is well used, and was at least half full on the day of the interview.

East Rochester is largely built out, with limited growth potential or redevelopment, mostly concentrated north of the RR tracks. However, the Town is pursuing the redevelopment of the **Eyre Building at the corner of Main and Commercial Streets**. Adjacent to Town Hall, the Town would renovate this multi-story brick and stone building to house town offices, and lease the additional space to others. The current municipal offices would be removed, and the land used for parking (along with the existing parking lot). Parking is at a premium in the Village Center, and the Town would build structured parking with ground level street fronted retail if it was financially supportable. It was noted that this could also be a location for a transit center or transit supportive development.

Jim Herko, Building Inspector for East Rochester, separately related that the town is also experiencing residential growth in the Wells Landing area – off of Fairport Road and west of the intersection with Marsh Road – at a rate of approximately six to twelve townhome units per year. The Town has not incorporated techniques such as shorter setbacks or reductions in minimum parking into its zoning code to foster a more walkable environment.

Fairport

Ken Moore, Zoning Officer for the Village of Fairport, shared that there is very little new development taking place – maybe 1 to 2 homes a year – because the village is 1.5 square miles and almost completely built-out. There is one undeveloped location in downtown Fairport. The site is zoned industrial, but includes a canal overlay that allows for more water-related tourist uses. With very limited access, the site is almost completely landlocked and is bordered by a railroad with 60 trains a day. It is close to Route 250, the main North-South arterial through the village, which connects to the rest of the region. However, even this access is difficult, and these access challenges are a primary reason why the land has been undeveloped.

Mr. Moore said that the Genesee Transportation Council previously conducted a study of Route 250, while Fairport's Industrial Development Agency had completed a study of the undeveloped parcel, called the North Bank Use Study. While the Village is implementing new urbanist design principles, it is on a more individual site plan review basis than through a comprehensive zoning approach, and any emphasis on walkability and bicycle-supportive amenities has been because the village is adjacent to a major bike/pedestrian path along the canal. In general, efforts to foster the compactness of the area and access to the canal paths have been in support of economic development purposes, rather than furthering multimodal goals. Anecdotally, Mr. Moore indicated that there is not much use of transit in the village, and the nearest park and ride is several miles away. He suggested contacting Kal Wysokowski with Fairport's Office of Community and Economic Development for additional information.

Kal Wysokowski, Executive Director Fairport's Office of Community and Economic Development, provided more detailed information about development opportunities within Fairport. Based on the challenges of the North Bank location, she said she would not recommend that site for this project, but instead described two other locations for consideration. The first is a former H. P. Neun cardboard box manufacturing facility, at **75 Main Street**. The location, which is 100,000 square feet in size, has been for sale and Ms. Wysokowski is uncertain if the sale has closed. The site is well-located next to public parking lots and within the downtown core. The site was even considered for a public library.

The second site is **111 Parce Avenue**, site of the American Can Company facility. While that company is no longer there, several tenant businesses remain in the 350,000 square foot facility. There has been significant attention given to this location and what might replace it, with concepts developed for live/work space for artists and craftsmen, as well as a focus on making the future space a mixed-use development. Ms. Wysokowski provided the names of two Fairport-based developers, John Calaruotolo of ANCO, and Stacey

Haralambides of Aristo Company, for further information. Both are single family home developers only, with less relevance for this study.

Gates

Gates Town Supervisor, Mark Assini, briefly discussed growing retail development in North Gates but spent most of his time emphasizing the need for improved transit service to the **Rochester Technology Park** and surrounding new development area. RTS already offers peak hour service between downtown and the Park, but it does not connect the Park directly with any other destinations and does not serve adjacent roadways. With recent new retail and service offerings developed near the town's new library on **Elmgrove Road** just east of the Park, a new core of mixed-use development is evolving. The study team also toured this site to evaluate the mix of uses that have cropped up here in the last few years, which include outdoor café space, a large gym, and new dining locations without front-yard parking.

Greece

In Greece, the study team met with Scott Copey, Planning Clerk for the Town. Mr. Copey said that Greece is a growing community, with population increasing since the last Census. Greece is finalizing the Dewey Avenue Corridor Revitalization Plan, which covers this major North-South corridor on the eastern side of town. The Dewey Ave. plan has developed a mixed-use zoning overlay, which is to be adopted shortly and will encourage a variety of uses, shared parking, and second story retail. The Plan, and subsequent design efforts, also focus on improving the pedestrian environment. Many sites identified as part of the Plan would be redevelopment opportunities. The Stone Road corridor and the intersection with Dewey are also prominent potential redevelopment locations for this kind of smaller scale, mixed-use development.

Additionally, Mr. Copey discussed the **Northgate Plaza** site. A Wal-Mart was recently approved for construction on this site. Greece was able to negotiate with the developer to include integrated pedestrian connections into the site. Moreover, all parties worked with RGRTA and RTS to incorporate bus service and an enhanced stop environment on the site. Adjacent to the Wal-Mart is a Wegman's Plaza, which the supermarket chain closed in July 2011, creating an additional development opportunity. Mr. Copey agreed that the Dewey Ave corridor would benefit from additional transit service and that it serves both a denser and more transit-dependent part of Greece.

Separate discussions with Jodie Perry at the Greece Chamber of Commerce confirmed that the town is overall not oriented heavily to transit. While many areas of greater density and multi-family units exist, all have free parking and no dedicated transit infrastructure. The new town center area on Long Pond Road near Latta Road is a frequent local destination with a mix of uses, but trips originate from throughout Greece, which are difficult to serve well with transit, and the center is heavily parked, emphasizing access by car almost exclusively.

Henrietta

In Henrietta, the study team spoke with Michael Yudelson, Town Supervisor, Chris Martin, Town Consulting Engineer, and Peter Minotti, the Planning Board Chairman. The Town officials were very interested in the potential of this suburban transit effort to help spur development in Henrietta. Henrietta has been extremely active and willing to work with developers. Recently completed projects in Town include mixed-use developments around the Rochester Institute of Technology, which differ from the suburban big-box retail that is successful along the rest of Jefferson Road.

Henrietta is adopting a new Master Plan, and the Town has identified several potential areas for significant development. Most prominent is the idea of creating a "town center" type development along **East Henrietta Road at Calkins**, which would create a better sense of place in Henrietta and create the kind of iconic, walkable, mixed-use place that exists in other parts of the region. The Town is also encouraging the redevelopment of the **Suburban Plaza** site, which has recently been sold. All were surprised at the relatively high volume of boardings at the park and ride in the Suburban Plaza lot. A Henrietta Center type

development could also be supported by additional development at the **Monroe County Fairground**, just South of Calkins Road as well. Henrietta is interested in increasing transit, and through the Master Plan process, residents (especially apartment dwellers) expressed a desire for additional transit service.

Other areas identified as having development potential include:

- Erie Station Road at East Henrietta Road,
- Erie Station Road at West Henrietta Road,
- Rochester Institute of Technology, especially at John Street and Jefferson Road, and
- East River Road.

Irondequoit

Irondequoit is an older suburb directly north of Rochester, with 52,000 residents in 15.5 square miles. The population has declined slightly in the last decade. Irondequoit residents are slightly older, with 22% of the population over the age of 62. Larry Heininger, Director of Community Development, Planning and Zoning for Irondequoit stated that there are two main sites with the potential to make a good fit for a transit station: the **Cooper/Hudson/Titus (CHT) intersections near Irondequoit Plaza**, and the **Medley Center** site. There is significant anticipated development taking place in both areas.
At the CHT site, a new urbanist style development is being built and demolition is expected to start in December, with the first of five buildings planned for completion in March[1]. A single developer has spent nearly $3million consolidating the land, and is working through the approval process, with the intent of beginning construction next year and transitioning many of the existing retailers into the new development. This site is proximate to the significant transit node at Irondequoit Plaza. While transit would benefit the proposed development, Mr. Heininger indicated that the adjacent community may have concerns about direct incorporation of transit into the site.

The Medley Centre Mall, currently closed, except for anchors Sears and Macy's, is owned by Pyramid, a company that owns several upstate NY malls. The developer of the site plans for it to offer high-end retailers/designers that do not have a presence in upstate New York, with additional plans for hotel, office space, apartments, and condominiums on the site. The Medley Centre developer is also in talks with Rochester-Broadway Theater League about the potential to build a theater on the site. Mr. Heininger believes that the mall will reopen within the next few months to generate cash flow, and then work will begin on the development of buildings on the perimeter to house the other uses. The zoning at both sites would be able to accommodate a transit center, but the mall site is larger and might be a better hub given the planned uses and walkable style of development anticipated.

Mr. Heininger also referenced a potential trolley circulator that is being explored. The circulator could connect about 15 major destinations within the town for six months - the Seabreeze Amusement park, the beach, CHT, the mall, the zoo just across the line in Rochester, and the municipal golf course. While not close to implementation, the City believes they have some businesses interested in supporting it, and it has the potential to turn into a feeder for the transit center. The idea came from the former RGRTA director, who recommended similar circulators throughout all the towns, that could overlap at the town borders to allow for transfers.

A subsequent conversation indicated that the Medley Centre Mall site is the Town's preferred location for consideration for a transit center, as there are concerns that the CHT is too residential and already too fully developed to be able to accommodate such a facility.

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[1] McDermott, M. "Irondequoit's Michael Nolan raises plan to remake a piece of his community," *Democrat and Chronicle*: 08/17/2011, <http://www.democratandchronicle.com/article/20110817/NEWS01/108170321/Irondequoit-s-Michael-Nolan-raises-plan-remake-piece-his-community?odyssey=tab|topnews|text|Home>.

Penfield

Mark Valentine, Planning Department Head for Penfield, stated that the Town currently does not have mixed-use zoning. However, the town does have two locations that predate the zoning, and thus currently have retail/commercial on the ground floor and residential development on upper floors. These are the Four Corners and LaSalle's Landing areas, which each have their own zoning districts. Mark is unsure if there are any undeveloped parcels or candidates for redevelopment in these locations. He said that the Town has been in discussion with a developer looking at a site at the intersection of Atlantic Avenue and Route 250, which is one of the last undeveloped parcels in Penfield, and that the proposed development would be mixed-use. He believes that when this application is received it could spark a change to the zoning code to allow it, as having such a zone was recommended in the Comprehensive Plan. The Town is also incorporating new urbanist design elements, based on green infrastructure requirements from the New York State Department of Environmental Conservation and through consideration of a form-based code. While these have not made it into the zoning, they are referenced in the Comprehensive Plan. Mr. Valentine is not sure of the demand for transit, but thinks that presently it is quite low.

A subsequent conversation with Town Supervisor, Tony LaFountain, and the Town's Director of Developmental Services, Jim Costello, also pointed to one significant parcel that would be available in 2011 just off of **Penfield Road near the Panorama shopping center**. The existing quarry operation on Thomas Cove will be sold. The location is close to Rochester and the highway system as well as the shopping plaza, where a park & ride lot was recently closed by the land owner. RTS riders have been forced to park in a Home Depot parking lot waiting for a resolution to the park & ride location. The large quarry site is capable of accommodating a transit component and significant development in an attractive lakeside setting.

Perinton

Eric Williams, Assistant to the Commissioner of the Department of Public Works for Perinton, related that the town has been experiencing a development downturn as compared to the 1980s and 1990s, particularly as much of the usable land has been developed. Current development is typically taking the form of infill and redevelopment, with smaller subdivisions of four to five houses. While the Town has targeted areas for mixed-use, there is not currently much mixed-use development in the town. Perinton is predominantly residentially developed, with three to four commercial areas located primarily along State and County roads that are generally dominated by retail and office development.

Perinton recently went through an Update of its Comprehensive Plan with a focus on greater support of transportation alternatives, including transit. They have also completed sub-area planning studies for commercial areas within the town that are lagging behind in development, which have generated concepts that include an urban village style. While this style has not been written into the zoning code as each area is different and would require different language, they are trying to spur development with a new urban approach in mind and are considering overlays for certain areas. The Town is generally supportive of transit and believes ridership is increasing. Anecdotally, Mr. Williams knows that the number of people using the town's two park and ride facilities to get to work in downtown Rochester has increased and people have expressed very positive experiences with that service. He sees quite a few people utilizing transit within the village of Fairport, despite what the planner in Fairport has found.

Pittsford

The Town of Pittsford is a separate entity from the Village. Marty Brewster, Director, Planning, Zoning, and Development Department for Pittsford, noted that Pittsford is a typical bedroom suburb community. Previous plans focused on preserving character of the town and led to much effort to purchase and conserve land in South Pittsford. The most recent plan (adopted last year) deals with infill challenges, as the town is largely built out. The current Comprehensive Plan has little specific transit information or recommendations, but identifies the need to be more pedestrian friendly.

The intensity of development in Pittsford has dropped considerably in the last few years and is unlikely to come back to previous levels. Mr. Brewster provided a zoning map and also referenced the land use map on the Town's website as reference materials for a review of the town. There are some development opportunities in North Pittsford, but no active projects. Monroe Avenue is one of the only commercial areas in town and the home of Pittsford Plaza. Some say it is over-developed and has parking problems, though it is mostly strip-mall type retail. Land along Jefferson Road, especially at Clover, has redevelopment potential and is dense, mixed, and has senior housing, but is not oriented for transit due to cul de sacs and dispersed access.

Both St. John Fisher and Nazareth are growing colleges within the borders of Pittsford. The Town has a good relationship with both and all campus additions require review and approval by the Planning Board. In the last 10 years, building and planning has really sped up. Both institutions have challenges for growth and the adequacy of parking. There is a fairly successful park & ride adjacent to St. John Fisher at I-490. Speculation exists that St. John Fisher may be interested in building a parking garage at this site.

Mr. Brewster summarized that there are very few locations available for mixed-use development in the town, and Pittsford is virtually completely built-out. Two locations in the town with some potential are owned by developers. One is a former sand and gravel pit, west of Route 96 in the southern part of town, which the developer is planning for apartments. The other is a parcel in a Planned Unit Development zone for office/campus mixed-use at the northwest corner of the intersection between **Clover Street and Jefferson Road**, south of the Erie Canal.

Village of Pittsford

Mr. Brewster noted that the Village of Pittsford, which is a separate entity, is interested in redevelopment of land between the canal and the railroad and has taken some steps towards that. It just accepted an application from a developer, Mark IV Enterprises, for a mixed-use project. This project is located at the western border of the Village, in an area that juts out into the Town. Other opportunities in the village are generally north of the canal, but are few. Giannini Developers owns land at a former gravel pit that has development potential. In the Veramark/Carriage Hill area, which is denser, there is talk of a community center.

Webster

Don Hauza, Deputy Commissioner, Planning and Zoning, Town of Webster, shared that the real estate market in Webster has become quite stagnant and that recently, the Town has only received applications for industrial and commercial development. The only area where a transit center would be allowed by current zoning is in the industrial zoned area, on Basket Road, north of the Expressway, and it is at the far east side of the town, outside the current transit coverage area. The main commercial area is about a mile and half to two miles away from that location. Commercial development is primarily located in the village of Webster – which is a separate entity from the Town and has its own planner – and west of the village center. Mr. Hauza indicated that transit use often depends upon the price of gasoline and that the route served by the park and ride often can be standing room only when gas prices get high enough. Webster does not currently have zoning for new urbanist-type development. Because the market is not currently very active, he was not able to suggest a major developer or property owner to contact.

Village of Webster

Will Barham, Building Inspector for the Village for Webster, shared that the village is almost completely built-out but is experiencing some commercial and residential development. At the corner of Kittelberger Park and North Avenue, a mixed-use development is being built with apartments above retail on a three or four acre parcel. There is a 44-acre parcel available for redevelopment just outside the core, at the southeast corner of State Road and Webster Road. A third property, owned by Xerox, might also be available, but

there is little development surrounding that area and he feels that location might lend itself to being a park and ride facility.

Mr. Barham indicated that the Village has several different commercial zones that allow for residential development as well, and in some cases – where zoning does not permit it – a special permit can allow it. The Village recently finished its Comprehensive Plan, and it reinforces the village's current development pattern as a walkable community. Mr. Barham believes the village would be interested in increasing transit use, as the primary corridor of Main Street has bus stops for several routes, but there are no hubs where transfers can be easily accommodated. While the Village has not incorporated new urbanist approaches into its zoning code, projects in the village have generally been built closer to the road with parking in the rear, as that is the preference of Village planning leaders.

Interviews of Private Developers

Rochester's Cornerstone Group

The Rochester Cornerstone Group is a developer and property owner in the greater Rochester Market. Roger Brandt is the President of RCG. RCG has developed and owns significant assets in the Chili-Gates area, west of the Airport.

A recent development in North Chili, by Roberts Wesleyan College was part of a pilot program where RCG contribute funds to RGRTA for a pilot service which extended transit service to the development. The total $7k contribution was for a 120 day program, and was sponsored by RCG and other developers (Jack Howitt, Providence Housing, Barbado, et al). In total there were about 500 units supporting this, but the trial was ended due to low ridership.

RCG also owns or is developing several other properties, including:

- Rochester International Commerce Center
- Jetview Business Park

  Development and interest has slowed here, but the planned extension of the Rte 204 highway to Jetview Road would better connect these areas.
- Penfield, Route 441 & 250
- Perinton – Churches Housing

  Currently renovating and redeveloping this affordable housing complex just north of the Fairport border.

Roger is very interested in the Study and the potential to spur different types of development in Suburban Rochester. He noted that the overall market is static, and a bit saturated as Kodak and other formerly large scale businesses divest property, with over 25 million square feet having re-entered the market since these employers peaked.

A.J. Costello & Son

Brett Costello is a progressive developer and is involved with both the Congress for New Urbanism (CNU) & the Urban Land Institute (ULI). He is bullish on Downtown, believes it is growing, and has participated heavily in the Rochester Regional Community Design Center's Reshaping Rochester series (http://www.rrcdc.org/reshapingrochester.html).

Costello & Sons is a significant property owner in the region, owning property in the Brighton area, and the area around the airport, where they also manage many properties. Mr. Costello confirmed that much of the area around the airport has been struggling, as it is surrounded by challenged neighborhoods, and rents for commercial properties are low.

Costello owns and manages the Clinton Crossing Medical Office Complex and surrounding areas in Brighton, located between I-590, Westfall & Clinton. This suburban medical office campus area is very

successful, and is served by circuitous bus service. Costello has three major developments planned in Brighton:

- The Reserve – 300+ units of housing between the Erie Canal & I-590, with access off Clinton Avenue. Prelim approvals have been received.
- Corporate Center – Mixed use plan, adjacent to Clinton Crossing to include significant development of similar character
- CityGate – located partially in Brighton and Rochester. 63 acre site proposed to include 800 units, 400 ksf retail, and additional office/commercial space. $6million earmark (down from $8 million) exists for a Transit Center. Zoning was granted last Dec.

The timeframe for construction of these efforts is fluid, and continuing conversations with Brighton are necessary. Costello also owns land in Henrietta near Lehigh Station & Middle. Transit use and/or plans are not specifically integrated into any of these proposal, but they are designed to accommodate transit. Specific coordination with RGRTA on these has not yet occurred.

Wilmorite

Tom George is the Director of Business Development at Wilmorite, Inc. Wilmorite is a development, construction management and property management firm based in Rochester, but with development and property interests throughout New York State. Wilmorite has been in business for over 40 years, has completed many substantive developments across the real estate spectrum, and currently owns (as partners) and manages the three major malls in Greater Rochester (Marketplace, Greece, and Eastview).

Tom has been focused on the University market, and has extensive relationships with the major institutions in Rochester. Wilmorite often manages the construction planning and implementation of university projects. Park Point, developed at the Rochester Institute of technology (RIT) is a recent pedestrian oriented development which includes retail and restaurant amenities. Funded, built and operated privately, this $80 million project is nonetheless 99% occupied with RIT students. However the only lease back or contribution from the university is for the book store. Park Point has been remarkably successful, with the residential uses oversubscribed, and most all the retail space occupied.

Tom & Wilmorite have seen and are taking advantage of the trend towards more pedestrian-oriented developments. Recent university products, on and off campus, have also been amenity-driven in terms of having services within walkable distances. Most of the Rochester colleges have limited market potential for another Park Point project, though Wilmorite continues to work to plan and develop on campus housing on behalf of the institutions. Tom also understands that St. John Fisher and Nazareth are both growing also, but want to grow on campus, not with joint off-campus housing. Tom indicated that local zoning requirements and controls make developing mixed-use products difficult in most towns, regardless if they are for a university or the general market.

Wilmorite – Marketplace Mall

The Marketplace Mall opened in 1982 and predated much of the subsequent retail development on Jefferson Road. Wilmorite is both an ownership partner and the operating manager of the Mall. Hylin Rockwell are also one of the partners in the Mall and own many of the out parcels currently developed as retail (Target, etc.) along with much of the undeveloped land in the immediate area. Wilmorite also owns several of the other major malls in the Rochester region, including Greece and Eastview, both of which are larger than Marketplace Mall. Mike Wilmot is the manager of the Mall.

Marketplace Mall is about 1.1 million sq. ft., with 5,842 parking spaces, and generates sales of about $350 sq. ft. which is about the industry average. The Mall was somewhat stagnant during the recession years from 2007-2009, but is now at over 90% occupancy. The mall serves primarily the southern tier of the Rochester area, as well as area workers, and the student populations of RIT, U of R and Monroe Community College.

There is a bus stop at the mall, with buses entering the parking lot and dropping off at one of the entrances. Bus service is primarily used by employees with about 70% of mall transit riders as employees, and the remaining 30%, customers. Some may also use this stop and walk across Jefferson, a somewhat inconvenient and dangerous walk. It is believed that existing bus service restricts the employee pool, either because of the span of service or lack of connections. The RIT shuttle, mostly carrying students, is busier on nights and weekends. Mike felt that downtown service is adequate, but better connections to MCC and Brighton would be helpful. It was further noted that the bus wears heavily on the mall roadway pavement. Mr. Wilmot has little regular contact with RGRTA or RTS staff.

Gallina Development Corporation

Gallina Development has for the most part developed traditional office parks in the suburban towns of Henrietta and Brighton. Andy Gallina has been involved in the greater Rochester real estate market for many years and has wisely reacted to upticks in the market to create products that are well-occupied, even now during a bear market. A couple of his more active and successful parks include:

- Summit Point, at the intersection of W. Henrietta Road and Lehigh Station Road in Henrietta
- Goodway Drive, off Winton Road in Henrietta
- Cambridge Place, home to Medaille College on Winton Road in Brighton

Gallina has recently embarked on new product that takes advantage of adjacencies of surrounding uses. Their prime example is a new development, South Pointe Landing, on Long Pond Road just south of the Unity Hospital complex in Greece. This project is mixed-use with an emphasis on medical office space related to the hospital.

Andy noted that his site in Greece is mostly surrounded by the lands of the Greece Development Corporation (GDC), which has control over a large amount of undeveloped land almost adjacent to the hospital, just south of the Greece Mall, and near the Canal Pond redevelopment, also by the GDC. With a variety of nearby employers and attractive Erie Canal-side frontage, the opportunity for notable mixed-use development is ripe on this large site.

Mike Palumbo

Currently an agent for a large commercial landowner on Jefferson Road, Mike Palumbo has been working in the greater Rochester real estate market for many years. He acknowledged that transit access was low priority for most landowners along Jefferson Road, though students and Bryant & Stratton and employees of a nearby call center did use Jefferson Road RTS service frequently. He was well aware of the potential that projects such as Park Point represent.

As part of identifying opportunities along the E. Henrietta Road corridor, Mike noted that a colleague had acquired and was holding a back parcel just off of the intersection with Jefferson Road. The mostly vacant site has great access to both roads, set-backs away from traffic, and site elevation for visibility. Adjacent to the Regional Market, it has existing restaurants, retail, hotels, and multi-family residences either abutting or within a short walk, as well as Monroe County Community College. The team investigated the site and added it to the list for consideration of TOD opportunities.

3 REAL ESTATE MARKET ANALYSIS

Demographic and transit analysis identified a range of locations in suburban Rochester as having potential to undergird transit supportive development and adapt suburban transit service. A key facet of the Suburban Transit Station Feasibility Study was to take this effort to specific sites, exploring their potential and going as far as creating profiles which would lead to the release of a Request for Proposals for each. The initial analysis was able to identify the town, and census tracts that would show this general potential having looked at demographics, income, and current transit use. Interviews with town officials, area developers, and other stakeholders were conducted to gather a more nuanced view of these areas, and also to review areas targeted already for planning and development. The stakeholder interviews, and field visits conducted by the Project Team were instrumental in translating the demographic and ridership analysis into a list of sites worth further exploration.

Utilizing a combination of the real estate market ranking results alongside a summary of the TOD metric, the team developed a final ranking of candidate locations. All areas with potential for TOD were categorized as follows:

1. **High –Potential**
   These areas showed the highest aggregate potential for substantive intervention by RGRTA to create a transit-oriented development or infrastructure opportunity.
2. **Potential Development Integration**
   Areas highlighted here represent substantive opportunities for RGRTA to capitalize/participate on existing efforts, and integrate transit service into current proposals or plans.

   Note that often the main difference between 1 & 2 may be the pre-existence of a proposal/plan/developer.
3. **Potential Long Term**
   Many of these areas, are those that showed promise through the initial demographic/land use screening, but upon more detailed review were deemed less likely to generate additional development even with direct RGRTA investment in the near term. There remain good demographic and ridership reasons to investigate these sites/corridors and to change service orientation over time, but these should not be prioritized for TOD at this time.

Site	Town	Opportunity
East Rochester	East Rochester	High-Potential
Northgate Plaza	Greece	High-Potential
Greece Hospital (GDC Parcels)	Greece	High-Potential
E. Henrietta Road (Suburban Plaza)	Henrietta	High-Potential
Irondequoit Plaza	Irondequoit	High-Potential
CHT Intersection	Irondequoit	High-Potential
Penfield (near Panorama Plaza)	Penfield	High-Potential
Fairport	Perinton	High-Potential
Parcel 16	Brighton	Development Integration
Parcel 17	Brighton	Development Integration
Parcel 19	Brighton	Development Integration
Monroe Ave Corridor	Brighton	Long-Term
12 Corners	Brighton	Long-Term
Waterworks Drive	East Rochester	Long-Term
Dewey Corridor	Greece	Long-Term
E. Henrietta and Calkins	Henrietta	Development Integration
Erie Station and E. Henrietta	Henrietta	Long-Term
Erie Station and W. Henrietta	Henrietta	Long-Term
RIT	Henrietta	Development Integration
East River Road	Henrietta	Development Integration
John St. and Jefferson Rd.	Henrietta	Development Integration
Suburban Plaza	Henrietta	Development Integration
Medley Centre	Irondequoit	Development Integration
LaSalle's Landing	Penfield	Long-Term
Atlantic and Rt. 250	Penfield	Long-Term
Four Corners	Penfield	Development Integration
1111 Parce Avenue	Perinton	Development Integration
75 Main Street	Perinton	Development Integration
North Bank Use	Perinton	Development Integration

Site	Town	Opportunity
Clover and Jefferson	Pittsford	Long-Term
Sand and Gravel Pit	Pittsford	Long-Term
St. John Fisher Park & Ride	Pittsford	Development Integration
City Gate	Rochester	Development Integration
University of Rochester	Rochester	Development Integration
Kittelberger and North	Webster	Development Integration
Basket Industrial Area	Webster	Long-Term
Sate and Webster	Webster	Long-Term

3.1 OPPORTUNITY SITES

The consulting team compared the results of the TOD metric mapping with the outcomes of the stakeholder interviews to identify a list of eight "opportunity sites" worth detailed evaluation. Each of these sites scored well with the TOD metric and also were identified by stakeholders as available parcels or likely development opportunities in the near future – especially if the RGRTA were interested in becoming a development partner. Figure 19 is a key map of the eight sites. Figure 20 and 21 show each site in greater detail.

Figure 18 – Opportunity Sites Key Map

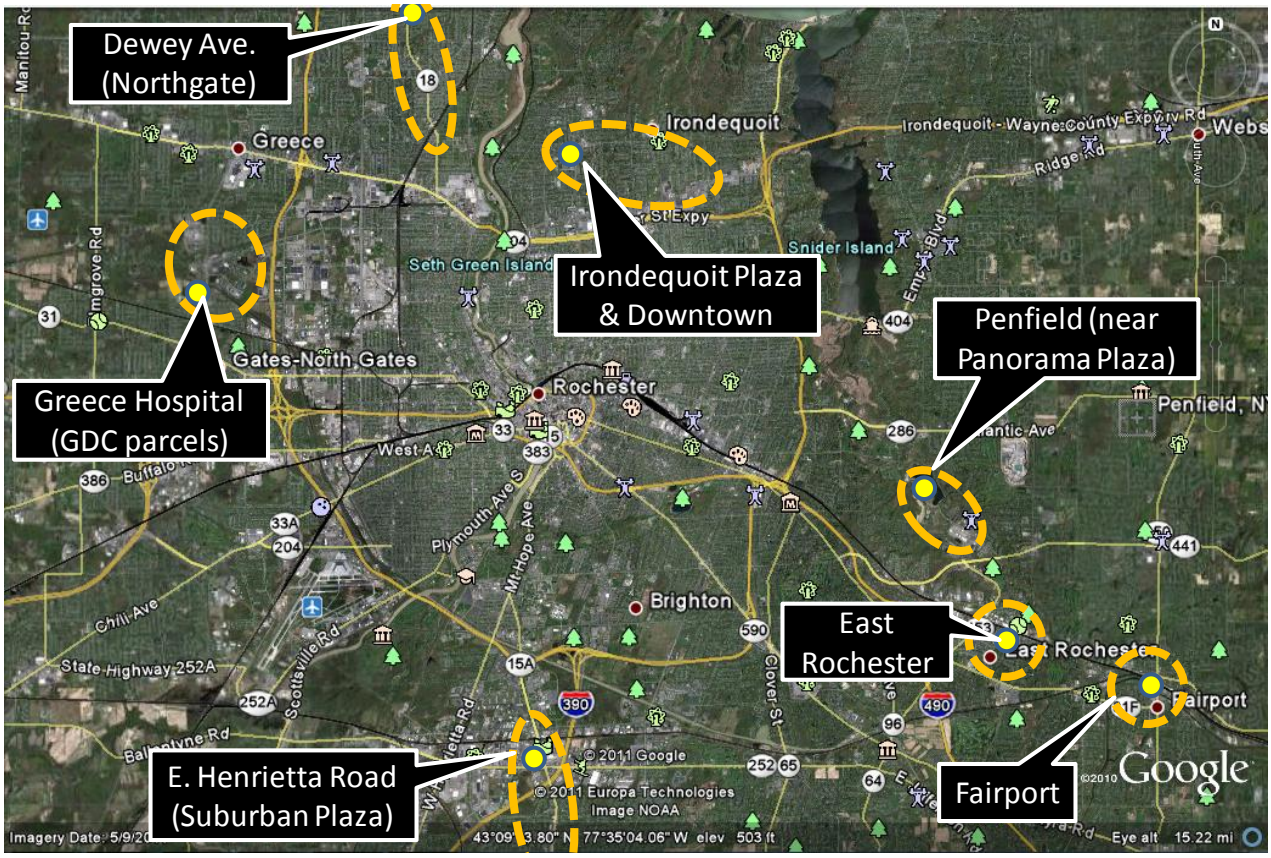


Figure 19 – Opportunity Sites in Greece, Irondequoit, and Fairport

Figure 201 – Opportunity Sites in Henrietta, East Rochester, Greece, and Penfield

Each opportunity site was analyzed for its office, retail, and residential development potential. A unique set of criteria were developed to assess the strength and/or weakness of each opportunity site for each land use. The criteria are summarized in the table below.

Figure 21 – Opportunity Site Development Potential Criteria

Opportunity Site Development Potential Criteria Rochester Transit-Oriented Development Potential		
Residential	**Office**	**Retail**
Physical Amenities	Established Office Location	Established Retail Location
Walkability	Central Location	Strong Road Access/Visibility
Surrounding Context	Services Nearby	Mixed-Use Environment
Nearby retail	Market Momentum/Interested Developer	Market Momentum/Interested Developer
Ability to do more than mf rental	Amenity/Walkability	Amenity/Walkability

Those areas that were strong in three or more categories and moderate in the other categories have the highest development potential. Those areas that were strong in two categories and moderate in the other categories have moderate development potential. Those areas that are weak in two or more categories have little development potential. This evaluation was conducted for each land use.

3.2 DEVELOPMENT POTENTIAL ASSESSMENT

Residential

Three opportunity sites were identified as having the strongest residential development potential: the Greece Hospital, Penfield, and Fairport opportunity sites. Of the three, the Greece Hospital opportunity site offers the greatest development potential because there is a considerable amount of land available for development. Highlights of the evaluation are as follows:

Greece Hospital

The Greece Hospital opportunity site received the highest average score making it the site with the greatest residential development potential. The site received the highest score in all but last category, Walkability, in which it received a moderate score, because its walkability will depend on a pedestrian-oriented land plan.

- Physical Amenities: The Erie Canal runs through the property; part of the site will remain in its natural state as it is a wetlands mitigation area.
- Surrounding Context: Unity Hospital—a health care center and a major employment center—is located within two blocks of the site; the Mall at Greece Ridge—a major shopping center—is located within four blocks of the site; other employment is located in several buildings off Long Pond Road.
- Nearby Retail: Neighborhood-serving as well as regional and national retailers are located within four blocks of the site.
- Ability to do more than MF Rental: Different housing types could be developed on the site, which broadens the market and increases absorption.
- Walkability: The site is currently not walkable; however, a pedestrian-oriented land plan would address that issue. The concern is that walkability might not be a consideration for a potential developer.

Penfield

The Penfield opportunity site received the second highest average score giving it significant residential development potential. The site received the highest score in the first three of the five categories listed below, and moderate scores in the last two.

- Physical Amenities: There is a lake adjacent to the quarry site; the Ellison County Park is very near the site; the surrounding area is heavily wooded.
- Surrounding Context: Panorama Plaza—a small-scale shopping center—is located within a couple of blocks of the site; access to Interstates 490 and 590 is a short drive from the site.
- Ability to do more than MF Rental: Different housing types could be developed on the site, which broadens the market and increases absorption.
- Nearby Retail: A variety of restaurants and neighborhood-serving retail are located at Panorama Plaza and along Penfield Road within a short distance of the site.
- Walkability: The site is currently not walkable; however, a pedestrian-oriented land plan would address that issue. The concern is that walkability might not be a consideration for a potential developer. There are also steep slopes that might constrain the site's walkability.

Fairport

The Fairport opportunity site received the same average score as Penfield, giving it significant residential development potential. The site received the highest score in the first three of the five categories listed below, and moderate scores in the last two.

- Physical Amenities: The site is located a short walk from the Erie Canal; the Heritage Trail is easily accessible from the site.
- Walkability: The site is located on Main Street, and a variety of uses are within walking distance.

- Nearby Retail: A wide variety of restaurants and neighborhood-serving retailers are located along Main Street within walking distance of the site.
- Surrounding Context: Fairport is a charming small town, which has managed to retain its historic character. The Fairport Public Library and Historical Museum are located on the other side of the canal from the site, but are still within walking distance. However, the site is directly adjacent to railroad tracks and an industrialized area of the town.
- Ability to do more than MF Rental: It is likely that due to the railroad tracks, only multi-family rental would be feasible on the site.

East Rochester

The East Rochester opportunity site received a moderate average score, giving it more limited residential development potential. The site received the highest score in the first three of the five categories listed below, and weak scores in the last two.

- Walkability: The site is located on West Commercial Street, and a variety of uses, including employment, are within walking distance.
- Nearby Retail: A number of restaurants and neighborhood-serving retailers are located along West Commercial Street within walking distance of the site.
- Surrounding Context: West Commercial Street has a small-town character with a post office. Numerous employers are located within a short distance of the site.
- Physical Amenities: The nearest park, the Edmund Lyon Park, is three blocks from the site adjacent to a middle school.
- Ability to do more than MF Rental: It is likely that due to the limited size of the site, only multi-family rental would be feasible.

Irondequoit Downtown Area

The Irondequoit Downtown opportunity site received the same moderate average score as East Rochester, giving it more limited residential development potential. The site received the highest score in the first three of the five categories listed below, and weak scores in the last two.

- Walkability: The site is located on Titus Avenue in the downtown area of Irondequoit, and a variety of uses, including restaurants and small shops, are within walking distance.
- Nearby Retail: A number of restaurants and neighborhood-serving retailers are located along Titus Avenue within walking distance of the site, and there are several retailers, including a Wegman's, located in Irondequoit Plaza one to two blocks from the site.
- Surrounding Context: In this area, Titus Avenue has a small-town character with a Rite-Aid, the House of Guitars, and other small shops and restaurants.
- Physical Amenities: The nearest park is some distance away, although there is the potential for an in-town circulator that would connect the site to Irondequoit's major park and waterfront.
- Ability to do more than MF Rental: It is likely that due to the limited size of the site, only multi-family rental would be feasible.

East Henrietta Area

The East Henrietta opportunity site received a weak average score, giving it limited residential development potential. The site received the highest score in the first of the five categories listed below, moderate scores in the second and third categories, and weak scores in the last two.

- Nearby Retail: Numerous national credit tenants, including restaurants, are situated on Jefferson Road within a short drive of the site. Marketplace Mall, a major mall with a Macy's and J.C. Penney's, is located on Jefferson Road and West Henrietta Road within driving distance of the site
- Walkability: Although the site is not currently within walking distance of many uses, its redevelopment could contain those uses in a pedestrian-oriented context.

- Surrounding Context: The surrounding context is not conducive to residential development, composed of big box and suburban retailers, and in close proximity to a variety of food-oriented warehouses.
- Physical Amenities: Several parks can be reached via automobile from the site, although none are within walking distance.
- Ability to do more than MF Rental: It is likely that, given the surrounding context, only multi-family rental would be feasible, if any housing could be done on the site at all.

Irondequoit Plaza Area

The Irondequoit Plaza opportunity site received a weak average score, giving it limited residential development potential. The site received the highest score in the first of the five categories listed below, a moderate score in the second category, and weak scores in the last three.

- Nearby Retail: In-line tenants, anchored by a Wegman's, are located within the site. The Irondequoit Downtown area is in close proximity to this site.
- Walkability: The site is a suburban strip mall in its present state; however, its redevelopment could potentially include a pedestrian-oriented context.
- Surrounding Context: The surrounding context is not conducive to residential development, composed of a dated strip mall. Unfortunately, there are limited numbers of strip mall redevelopments that have been successful in changing the surrounding context.
- Physical Amenities: The nearest park is some distance away, although there is the potential for an in-town circulator that would connect the site to Irondequoit's major park and waterfront.
- Ability to do more than MF Rental: It is likely that, given the surrounding context, only multi-family rental would be feasible, if any housing could be done on the site at all.

Dewey Avenue

The Dewey Avenue opportunity site received a weak average score, giving it limited residential development potential. The site received the highest score in the first of the five categories listed below, a moderate score in the second category, and weak scores in the last three.

- Nearby Retail: The site is a former retail site, and is surrounded by retail establishments, although few are within walking distance.
- Walkability: The site is located on an older commercial corridor; however, its redevelopment could potentially include a pedestrian-oriented context.
- Surrounding Context: The surrounding context is not conducive to residential development, composed of a Wal-Mart and other useful, but unattractive retail uses. Again, there are limited numbers of corridor redevelopments that have been successful in changing the surrounding context.
- Physical Amenities: George Badgerow Park is located several blocks to the north, too far to walk.
- Ability to do more than MF Rental: It is likely that, given the surrounding context, only multi-family rental would be feasible, if any housing could be done on the site at all.

Office

Four opportunity sites were identified as having strong office development potential:

- Greece Hospital
- Fairport
- East Rochester
- Irondequoit Downtown

The Greece Hospital opportunity site offers the greatest development potential because there is a considerable amount of land available for development and the area is an established office regional location.

Highlights of the evaluation are as follows:

Greece Hospital

The Greece Hospital opportunity site received the highest average score making it the site with the greatest office development potential. This site is well positioned to accommodate medical office buildings, build-to-suit corporate buildings and multi-tenant buildings. The Greece Hospital site is one of the few sites positioned to accommodate larger office buildings in the near-term. The site received the highest score in all but "Services Nearby," in which it received a moderate score. There are a limited number of services within walking distance of the site.

- Established Office Location: There is a new medical office building on the site. Unity Hospital is immediately north of the site and Canal Ponds Business Park is across the street.
- Central Location: The opportunity site is immediately west of Interstate 390 within a ten-minute drive to the major business centers of Downtown Rochester and the University of Rochester.
- Market Momentum/Interested Developer: The local development corporation owns this opportunity site and is pursuing development. The Gallina Development Company developed the medical office building and has a master Plan for portions of the site.
- Amenity/Walkability: Developers can capitalize on the site's rolling hills and a canal.
- Services Nearby: *Moderate*. There are limited retail services near this opportunity site.

Fairport

The Fairport opportunity site is also considered a strong office development site. Fairport is a smaller site and would likely support a small office building with retail on Main Street. The site received strong scores among the Services Nearby, Market Momentum/Interested Developer, and Amenity/Walkability. It received moderately strong scores for the Established Office Location and Central Location because it is a community-serving office location, not a regional office location.

- Services Nearby: There are a number of stores and restaurants within easy walking distance to this opportunity site.
- Market Momentum/Interested Developer: Fairport is a strong investment location due to household growth around it and Fairport's high amenity, mixed-use center. The opportunity site is being marketed for sale.
- Amenity/Walkability: Site is well located within a destination mixed-use center.
- Established Office Location: Fairport is a local office location, not a corporate office location.
- Central Location: The opportunity site is central to the community, but not close to Downtown Rochester or the University.

East Rochester

The East Rochester opportunity site received the same score as Fairport – strong office development potential. Like Fairport, East Rochester is a smaller site and would likely support a small office building with retail on Main Street. The site received strong scores among the Services Nearby, Market Momentum/Interested Developer, and Amenity/Walkability. It received moderately strong scores for the Established Office Location and Central Location because it is a community-serving office location, not a regional office location.

- Services Nearby: There are a number of stores and restaurants within easy walking distance to this opportunity site.
- Market Momentum/Interested Developer: The City is moving City hall and will make this site available for private development.
- Amenity/Walkability: The site is well located within a mixed-use center.

- Established Office Location: There are large employers in East Rochester. However, the office supply is not Class A office. Given its size, the opportunity site is best positioned for a local service company (or companies).
- Central Location: The opportunity site is central to the community, but not close to Downtown Rochester or the University.

Irondequoit Downtown

The Irondequoit Downtown opportunity site is also considered a strong office development opportunity. Because of its size this site is better positioned than East Rochester and Fairport to accommodate a mix of land uses. Irondequoit Downtown matched East Rochester and Fairport in terms of the office development potential evaluation.

- Services Nearby: There are a number of stores and restaurants within easy walking distance to this opportunity site.
- Market Momentum/Interested Developer: I-Square is a local developer with a redevelopment plan for this opportunity site.
- Amenity/Walkability: The site is well located within a mixed-use center.
- Established Office Location: Irondequoit Downtown is a local office location, not a corporate office location.
- Central Location: The opportunity site is central to the community, but not close to Downtown Rochester or the University. Three opportunity sites were identified as having moderate office development potential: East Henrietta, Irondequoit Plaza and Dewey. East Henrietta is well located to capitalize on market activity in Brighton as well as points north.

East Henrietta

East Henrietta has moderate office development potential. This is a site that could accommodate smaller scale service office. The site scored well in terms of location and services nearby. It received moderate scores for Established Office Location and Market Momentum/Interested Developer. It was considered a weak site for amenity and walkability.

- Central Location: Great location convenient to Monroe Community College, Rochester University, and Downtown.
- Services Nearby: There are a number of stores and restaurants within easy driving distance to this opportunity site.
- Established Office Location: Part of a commercial node, but mostly surrounded by light industrial and highway retail.
- Market Momentum/Interested Developer: According to interviews, the entity that has development rights on the site has an interest in redevelopment. However, it is our understanding that there may be constraints related to the Genesee Valley Regional Market Authority.
- Amenity/Walkability: The opportunity site is not in a high amenity, walkable environment.

Irondequoit Plaza

Irondequoit Plaza also possesses moderate office development potential. This is a site that could accommodate smaller scale service office. As a retail center, the site scored very well in terms of the services nearby. It was considered only moderately strong in terms of Established Office Location, Central Location, and Amenity/Walkability. Because interviews did not reveal a motivated developer or property owner, it received a weak score in Market Momentum/Interested Developer.

- Services Nearby: There are a number of stores and restaurants within easy walking distance to this opportunity site.
- Established Office Location: The site has local offices nearby.
- Central Location: The opportunity site is central to the community, but not close to Downtown Rochester or the University.

- Amenity/Walkability: The surrounding neighborhood is attractive and walkable.
- Market Momentum/Interested Developer: Interviews did not reveal that there is currently any interest in developing office at this location.

Dewey

Dewey has moderate office development potential because of Wal-Mart's introduction. This location will be re-established as a community center and there may be opportunities for smaller-scale office buildings with local service tenants. The received a strong score for Services Nearby, a moderate score for Central Location, Market Momentum/Interested Developer, and Amenity/Walkability. The site was considered weak on the Established Office Location criteria.

- Services Nearby: There are existing retail and uses and a new Wal-Mart is being developed at the Northgate Shopping Center site.
- Central Location: The opportunity site is central to the community, but not close to Downtown Rochester or the University.
- Market Momentum/Interested Developer: The new Wal-Mart will accelerate investment activity at this location.
- Amenity/Walkability: The streets have sidewalks.
- Established Office Location: There is very little office present near the site. The Penfield opportunity site was considered weak from an office development perspective. Penfield is not an established office location, nor is it centrally located. At this time there are no services nearby for employees and the team is not aware of developer interest. A master planned community may offer amenities, but there are no office amenities at this site now.

Retail

Four opportunity sites were identified as having strong retail development potential:

- Fairport
- East Rochester
- Irondequoit Downtown
- Dewey

Highlights of the evaluation are as follows:

Fairport

Fairport received strong scores on all of the retail development potential criteria. This site is best positioned for eating and drinking or "Village" retail (specialty shops, convenience stores). This site is not a shopping center site.

- Established Retail Location: Fairport is an eating and drinking and retail destination.
- Visibility: The opportunity site is on Main Street.
- Mixed-Use Environment: There are a number of stores and restaurants within easy walking distance to this opportunity site.
- Market Momentum/Interested Developer: Fairport is a strong investment location due to household growth around it and Fairport's high amenity, mixed-use center. The opportunity site is being marketed for sale.
- Amenity/Walkability: This site is within easy walking distance to Fairport's many attractions.

East Rochester

East Rochester received strong scores on all of the retail development potential criteria. This site is best positioned for eating and drinking or "Village" retail (specialty shops, convenience stores). This site is not a shopping center site.

- Established Retail Location: East Rochester's commercial core has a number of stores and restaurants.
- Visibility: The opportunity site is centrally located in East Rochester's commercial core.
- Mixed-Use Environment: There are a number of stores and restaurants within easy walking distance to this opportunity site.
- Market Momentum/Interested Developer: The City is moving City hall and will make this site available for private development.
- Amenity/Walkability: The site is well located within a mixed-use center.

Irondequoit Downtown

Irondequoit Downtown received strong scores on all of the retail development potential criteria. This site is best positioned for eating and drinking or "Village" retail (specialty shops, convenience stores). This site is not a shopping center site.

- Established Retail Location: Irondequoit Downtown has a small cluster of stores and restaurants.
- Visibility: The opportunity site is the center of Irondequoit's Village Center.
- Mixed-Use Environment: There are a number of stores and restaurants within easy walking distance to this opportunity site.
- Market Momentum/Interested Developer: I-Square is a local developer with a redevelopment plan for this opportunity site.
- Amenity/Walkability: The site is well located within a mixed-use center.

Dewey

Dewey received strong scores on all of the retail development potential criteria, except amenity and walkability. It is still considered to be strong from a retail development standpoint. Unlike many other sites, the Dewey opportunity site could be developed as a small shopping center or a large retail anchor.

- Established Retail Location: This area has historically been a community shopping center. The new Wal-Mart will re-establish the area as a shopping destination.
- Visibility: The opportunity site is adjacent to the Wal-Mart site and will, thus, be highly visible to the market.
- Mixed-Use Environment: There are existing retail uses and the new Wal-Mart is being developed at the Northgate Shopping Center site.
- Market Momentum/Interested Developer: The new Wal-Mart will accelerate retail investment activity at this location.
- Amenity/Walkability: The streets have sidewalks.

Three opportunity sites were identified as having moderate retail development potential: Greece Hospital, East Henrietta and Irondequoit Plaza.

Irondequoit Plaza

The Irondequoit Plaza site is a strong retail site. It is considered, however, to be a moderately strong retail development site because there is no evidence that there is a motivated developer or property owner. This site scored the same as Dewey except for this criterion which was scored as weak.

- Established Retail Location: The opportunity site is adjacent to a community shopping center.
- Visibility: The opportunity site is visible from both Titus Avenue and Hudson Avenue.

- Mixed-Use Environment: There are a number of stores and restaurants within easy walking distance to this opportunity site.
- Amenity/Walkability: The surrounding neighborhood is attractive and walkable.
- Market Momentum/Interested Developer: Interviews did not reveal that there is currently any interest in developing office at this location.

Greece Hospital

Immediately north of the Greece Hospital opportunity site is the Mall at Greece Ridge Center and the Ridge Road commercial corridor. It is unlikely that community retail would find the Greece Hospital site a competitive location. With residential and/or office development a limited amount of service retail and restaurants may be supportable. The Greece Hospital site received a moderate score for retail. It was considered strong on the Visibility and Market Momentum/Interested Developer criteria. It received a moderate score on the Mixed-Use Environment and Amenity/Walkability criteria. It was considered weak as an Established Retail Location.

- Visibility: A development that fronted on Long Pond Road would be very visible to traffic.
- Mixed-Use Environment: There are limited retail services near this opportunity site.
- Market Momentum/Interested Developer: The local development corporation owns the opportunity site and is pursuing development. The Gallina Development Company developed the medical office building and has a master Plan for portions of the site.
- Amenity/Walkability: Opportunity site has rolling hills and a canal.
- Established Retail Location: There are few stores or restaurants near this opportunity site.

East Henrietta

The East Henrietta site scored strong on the following criteria: Established Retail Location, and Mixed-Use Environment. The site was moderately strong on the following criteria Visibility, Market Momentum/Interested Developer. The site was considered weak from an amenity and walkability perspective.

- Established Retail Location: Adjacent to a major regional retail corridor on Jefferson Road.
- Visibility: Much of this site is behind existing land uses on East Henrietta Road and Jefferson Road.
- Mixed-Use Environment: There are a number of stores and restaurants within easy driving distance to this opportunity site.
- Market Momentum/Interested Developer: According to interviews, the entity that has development rights on the site has an interest in redevelopment. However, it is our understanding that there may be constraints related to the Genesee Valley Regional Market Authority.
- Amenity/Walkability: The opportunity site is not in a high amenity, walkable environment. The Penfield opportunity site was considered weak from a retail development perspective. Penfield is not an established retail location. Retail would be developed on the hill making it not visible from the road. At this time there are no services nearby and the team is not aware of developer interest. A master planned community may offer amenities, but there are no amenities at this site now.

Transit-Oriented Development Potential

Greece Hospital Site

From the real estate development perspective, the best site for investment is the Greece Hospital site. This is a large, high-amenity site that, properly planned, could support a considerable amount of both retail and office development as well as residential. If the RGRTA could support development with the construction of structured parking, the site could evolve into a compact and walkable mixed-use, transit-oriented center.

Without publicly financed structured parking, it is unlikely that this form of development will take place on this site. At current real estate values anywhere in the region, the private market cannot bear the cost of

structured parking. Therefore, the development of a "campus" setting with surface parking and would likely evolve over time. This type of development is typically not transit-friendly.

In addition to its size and amenities, the Greece Hospital site is owned by a local development corporation that may be a willing partner in development. There may be a way to structure a joint development arrangement where the RGRTA can participate in land sale proceeds in exchange for the provision of structured parking. Properly planned and executed, a compact and walkable development plan should generate value premiums sufficient to warrant the property owner to be interested in partnering on the project.

Medical office is a likely candidate for the office component of mixed-use development. Medical office uses generate considerably more patron activity than conventional office uses. With the Hospital one block away, rental multi-family residential development is a likely near-term prospect. Assuming there is sufficient land, a variety of higher-density for-sale housing types could also be introduced to the market. It is likely that significant numbers of hospital workers would live in either the rental or for-sale units. Given typical hospital parking constraints, those who live in these units and work at the hospital would be more likely to take transit.

Coupling of Irondequoit Plaza and Irondequoit Downtown Sites

The development potential assessment treated Irondequoit Plaza and Downtown Irondequoit as two separate sites. However, these two sites are geographically very close to each other. If there was a way for RGRTA to support linking these two sites functionally, it would enhance the existing and future value of both sites.

Supporting a circulator that links the two sites or providing centralized parking for both sites would be beneficial to the development of both. If the Plaza could be developed as an extension of the Downtown, its market potential could potentially change from retail center to mixed-use center. Considerable density could be accommodated on this site if mixed-use buildings. This coupled with the I-Square development in the Village would support bus and circulator ridership.

3.3 RECOMMENDED TOD TARGET SITES

Utilizing a combination of the real estate market ranking results alongside a summary of the TOD metric, the team developed a final ranking of candidate locations. All areas with potential for TOD were categorized as follows:

1. **High –Potential**
   These areas showed the highest aggregate potential for substantive intervention by RGRTA to create a transit-oriented development or infrastructure opportunity.
2. **Potential Development Integration**
   Areas highlighted here represent substantive opportunities for RGRTA to capitalize/participate on existing efforts, and integrate transit service into current proposals or plans.
   Note that often the main difference between 1 & 2 may be the pre-existence of a proposal/plan/developer.
3. **Potential Long Term**
   Many of these areas, are those that showed promise through the initial demographic/land use screening, but upon more detailed review were deemed less likely to generate additional development even with direct RGRTA investment in the near term. There remain good demographic and ridership reasons to investigate these sites/corridors and to change service orientation over time, but these should not be prioritized for TOD at this time.

Figure 22 – TOD Opportunity Ranking

Real Estate Market Ranking	TOD Metric Ranking	Recommended Ranking
RESIDENTIAL		
1 Greece Hospital	Low*	1
2 Penfield	Low	3
2 Fairport	Medium	2
4 East Rochester	Medium-High	3
4 Irondeqouit Downtown Area	Medium	2
6 East Henrietta Area	Medium	2
7 Irondeqouit Plaza Area	Medium*	1
8 Dewey Area	Medium-Low	3
OFFICE		
1 Greece Hospital	Low*	1
2 Fairport	Medium	2
2 East Rochester	Medium-High	3
2 Irondequoit Downtown	Medium	2
5 East Henrietta Area	Medium	2
6 Irondequoit Plaza	Medium*	1
7 Dewey	Medium-Low	3
8 Penfield	Low	3
RETAIL		
1 Fairport	Medium	2
2 East Rochester	Medium-High	3
3 Irondequoit Downtown	Medium	2
4 Dewey	Medium-Low	3
5 Irondequoit Plaza	Medium*	1
6 Greece Hospital	Low*	1
7 East Henrietta	Medium	2
8 Penfield	Low	3
TOD		
1 Greece Hospital	**Low***	**1**
2 Coupling Irondequoit Plaza and Irondequoit Downtown	**Medium***	**1**
Fairport	**Medium**	**2**
East Henrietta	**Medium**	**2**
East Rochester	**Medium-High**	**3**
Dewey	**Medium-Low**	**3**
Penfield	**Low**	**3**

* indicated adjacency to area of higher potential

4 SUBURBAN TRANSIT SERVICE OPTIONS

Recognizing that the development potential at any of the identified suburban sites is largely driven by the dynamics of the real estate market and the specifics of the particular site, this chapter takes a more detailed look at the transit service side of the opportunity sites. A detailed analysis of proposed transit service changes should be conducted along with the advancement of any site. While this study has identified that immediate opportunities for a full scale suburban transit station may not be present, RGRTA has numerous avenues that could be pursued to better integrate transit service into the suburban market.

This chapter includes an analysis from the perspective of current transit service and is used to identify concepts for adjusting it to meet suburban dynamics. There is an obvious need to adapt suburban transit service for reasons stated previously (cost, inefficiencies, changing demographics, etc.). To represent the possibilities, a few key locations from the potential transit integration locations described in chapter 4 were identified. We further looked at opportunities to truncate service so that it doesn't extend beyond the point of effectiveness. This chapter identifies ways to measure that dynamic and further describes other ways in which service could continue to be provided locally beyond those suburban orientation points. Lastly, this section includes a number of recommendations that should be immediately pursued by RGRTA to pursue opportunities and integrate transit into local and regional plans, and ongoing development efforts.

4.1 ROUTE AND STOP ADJUSTMENTS

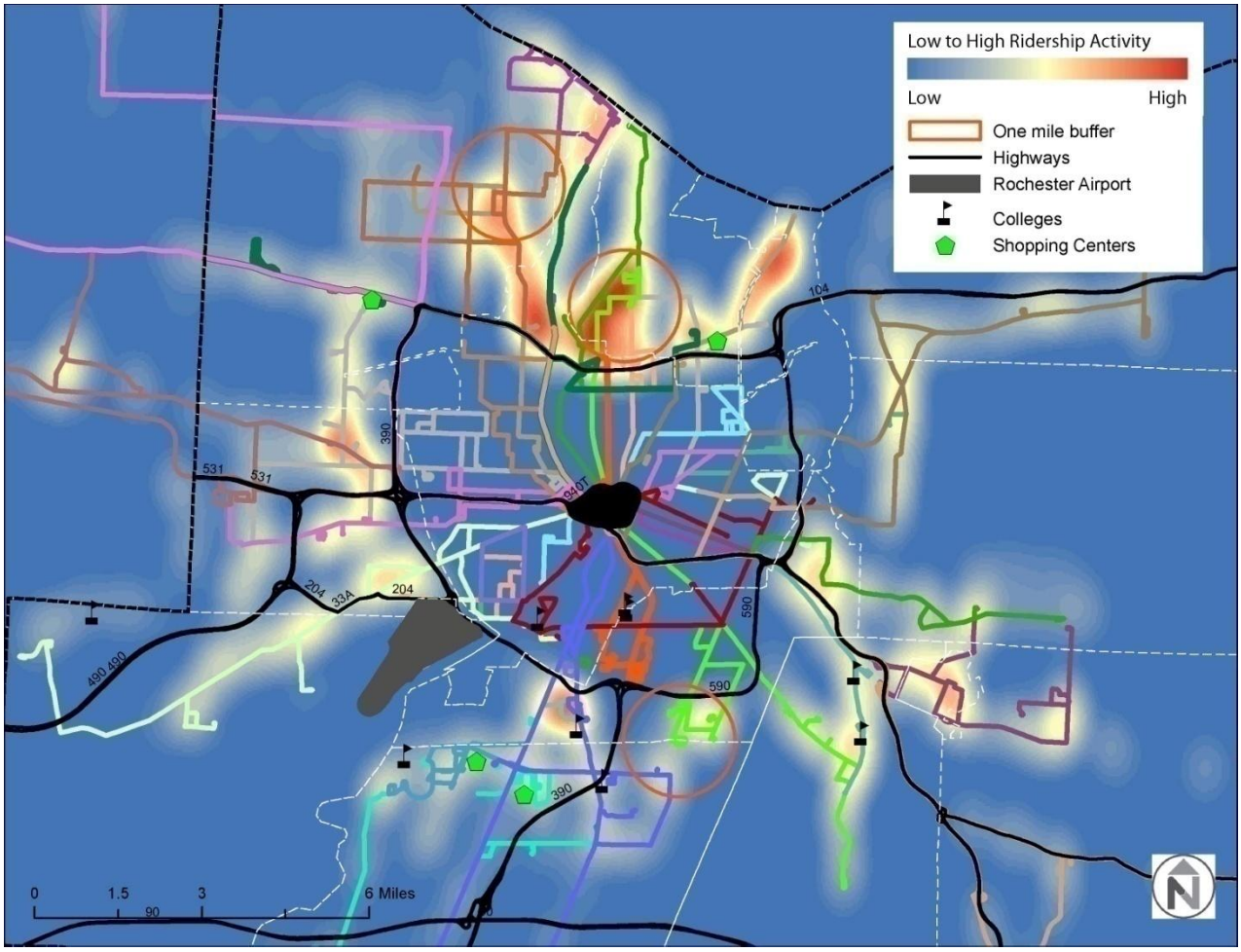
To gain a sense of where ridership is currently high and where opportunities might exist for suburban transit stations to be integrated with the recommended transit-oriented development opportunities , an analysis of boarding activity was completed for the system outside of Interstates 390, 590, and Highway 104. The purpose of removing the center city and much of Rochester was to visually screen for areas of relatively high ridership activity without the higher-ridership center-city eclipsing the results.

Figure 23 illustrates that there are "hot spots" of relatively high ridership activity occurring throughout the region, particularly north of Rochester in Irondequoit and Greece, but also in Brighton, East Rochester and Gates. It also indicates that there are nodes that may be developing strong ridership that could be further complemented with a transit center and/or activity center.

Based on the initial phases of the screening process detailed above, the consultant team began a more detailed review of three areas emerging as locations of interest:

- Dewey Ave./Northgate Plaza in Greece
- Irondequoit Plaza (Intersections of Cooper, Hudson, and Titus) in Irondequoit
- The Town Line between Brighton and Henrietta, centered on the Winton Place Design Center

Figure 23– Ridership Activity throughout Study Area



The first two areas rose to the top for consideration based on their levels of household and population density, as well as their retail and TOD propensity. The third location arose because of those factors, as well as its relatively higher employment density. Additionally, based on conversations with planners in Greece, Irondequoit, Brighton, and Henrietta, these are locations of anticipated growth and development. While subsequent analysis has concluded that other sites should move to the top of the RGRTA's list for consideration of TOD opportunities, this methodology can be applied to any other future locations of interest.

For each of these three locations, a one-mile radius provided a geographic focus to identify bus routes that serve the locations and their surroundings. A modified route evaluation, based on Nelson\Nygaard's traditional route review process and refined specifically for this project, focuses in on the main characteristics of each route, or route variant, serving each area of interest. Service type, days of service, span of service, the ridership for the full route, and peak and off-peak frequency, as well as whether or not the route goes to downtown and an initial pass at route modification opportunities are identified in this process.

Figure 24 – Site 1 - Northgate Plaza - Nearby Route Characteristics

Characteristics	10 - Dewey - F variant (1)	15 - Latta - T variant (4)	15 - Latta - DF variant (3)	15 - Latta - L variant (4)
Service Type (for variant)	Limited (Weekday); Local (Weekends)	Local AM	Local	Limited (Peak direction only)
Service Days (for variant)	Weekday, Saturday, and Sunday	Weekday	Weekday, Saturday, Sunday	Weekday
Weekday Span of Service (for variant)	8:32 AM to 12:28 PM	5:22 AM to 8:04 AM	8:32 AM to 3:20 PM; 5:45 PM to 12:15 PM	6:33 to 9: 14 AM; 3:42 to 6:02 PM
Weekday Peak Frequency (for variant)	30 to 50 minutes (Early afternoon and early evening)	Approximately 30 minutes	Approximately 45 minutes	5 to 10 minutes
Weekday Off-Peak Frequency (for variant)	60 to 70 minutes	NA	Approximately 65 minutes	25 to 50 minutes
Serves Downtown (for variant)	Yes	No	Yes (Bus operates to/from downtown as part of the Dewey Route)	Yes
APC Monthly Ridership	127,978 on all 10 service	14,903 on all 15 service	14,903 on all 15 service	14,903 on all 15 service
Route Modification Opportunity	10 - Dewey Service is much more frequent from Downtown to the Dewey Loop - extending the route regularly might be an option.	Functioning more as a morning circulator - maybe expand hours of service if demand warrants.	Part of 10 - Dewey route - could be combined with it.	Has commuter hours of service - could expand or perhaps become an express bus.

Figure 24 and Figure 25 detail the characteristics of routes within a one-mile radius of the Northgate Plaza. The area is well-served by two main routes, 10 - Dewey and 15 - Latta, which have several variants or subsets of the routes that serve other locations. The numbers in parentheses following the route names correspond to the various branches or route variants noted on the map.

As possible to see from the map, a one-mile radius surrounding Northgate Plaza has relatively high ridership, and opportunities might exist to provide more service, or route more lines through this area, particularly if a transit station is built here to accommodate more capacity and becomes more of an activity center.

Figure 25 – Ridership Activity within 1 Mile Radius of Northgate Plaza

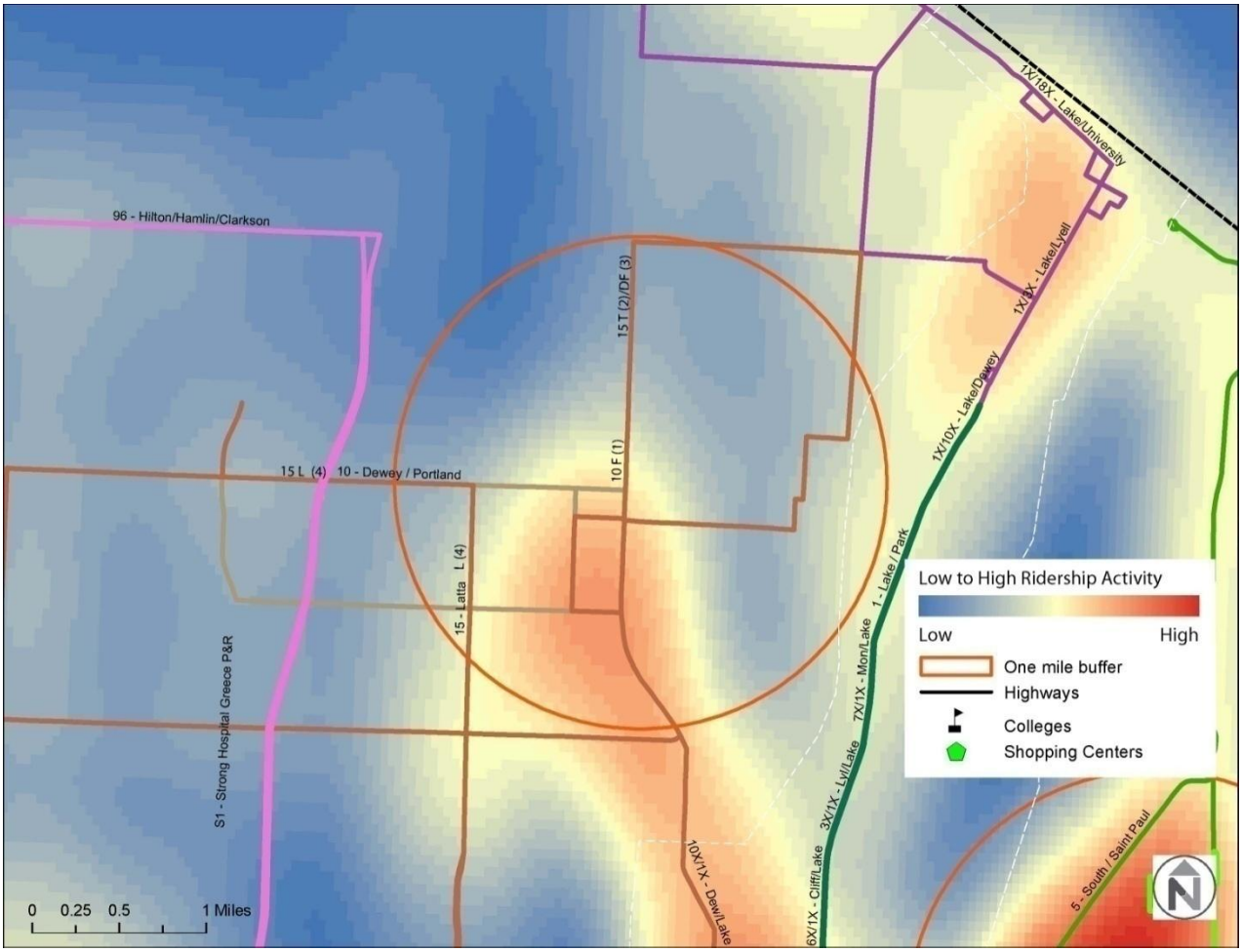


Figure 26 – Site 2 - Irondequoit Plaza - Nearby Route Characteristics

	3/3X - Goodman	4/4X - Hudson	5/5X	7/7X	11	11X
Service Type	Local	Limited	Limited	Local	Local	Limited
Service Days	Weekday	Weekday, Saturday, and Sunday	Weekday, Saturday, and Sunday	Weekday, Saturday, and Sunday	Weekday, Saturday, and Sunday	Weekday
Weekday Span of Service	5:28 AM to 6:50 PM	5:32 AM to 12:59 AM	7:04 AM to 12:34 AM	5:40 AM to 12:50 AM	5:37 AM to 11:26 PM	7:18 AM to 12:02 PM
Weekday Peak Frequency	10 to 25 minutes (Mid morning)	17 to 45 minutes (Early afternoon and early evening)	22 to 57 minutes (Late morning to early afternoon)	8 to 26 minutes (AM rush hour)	8 to 32 minutes (AM and PM rush hours)	90 to 110 minutes (Morning)
Weekday Off-Peak Frequency	15 to 41 Minutes	55 to 79 minutes	1 to 6 hours	17 to 74 minutes	44 to 67 minutes	N/A
Serves Downtown	Yes	Yes	Yes	Yes	Yes	No
APC Monthly Ridership	105,717 on all 3 service	92,974 on all 4 service	84,055 on all 5 service	98,683 on all 7 service	54,614 on all 11 service	54,614 on all 10 service
Route Modification Opportunity			There are many trips that do not serve the Plaza directly, but instead go down St. Paul Blvd., 1/2 mile away.		The 11 ends about a mile from the Plaza. It might be extended to reach the Plaza.	The 11X ends about a mile from the Plaza. It might be extended to reach the Plaza.

Irondequoit is well-served by a variety of routes, which is why it demonstrates the highest ridership activity of the study area, shown in Figure 27. Already a hub of activity, a transit station in this area might better meet the needs an existing high ridership, as well as attract new riders, which could encourage new routes or greater frequencies of service.

Figure 27– Ridership Activity within 1 Mile Radius Irondequoit Plaza

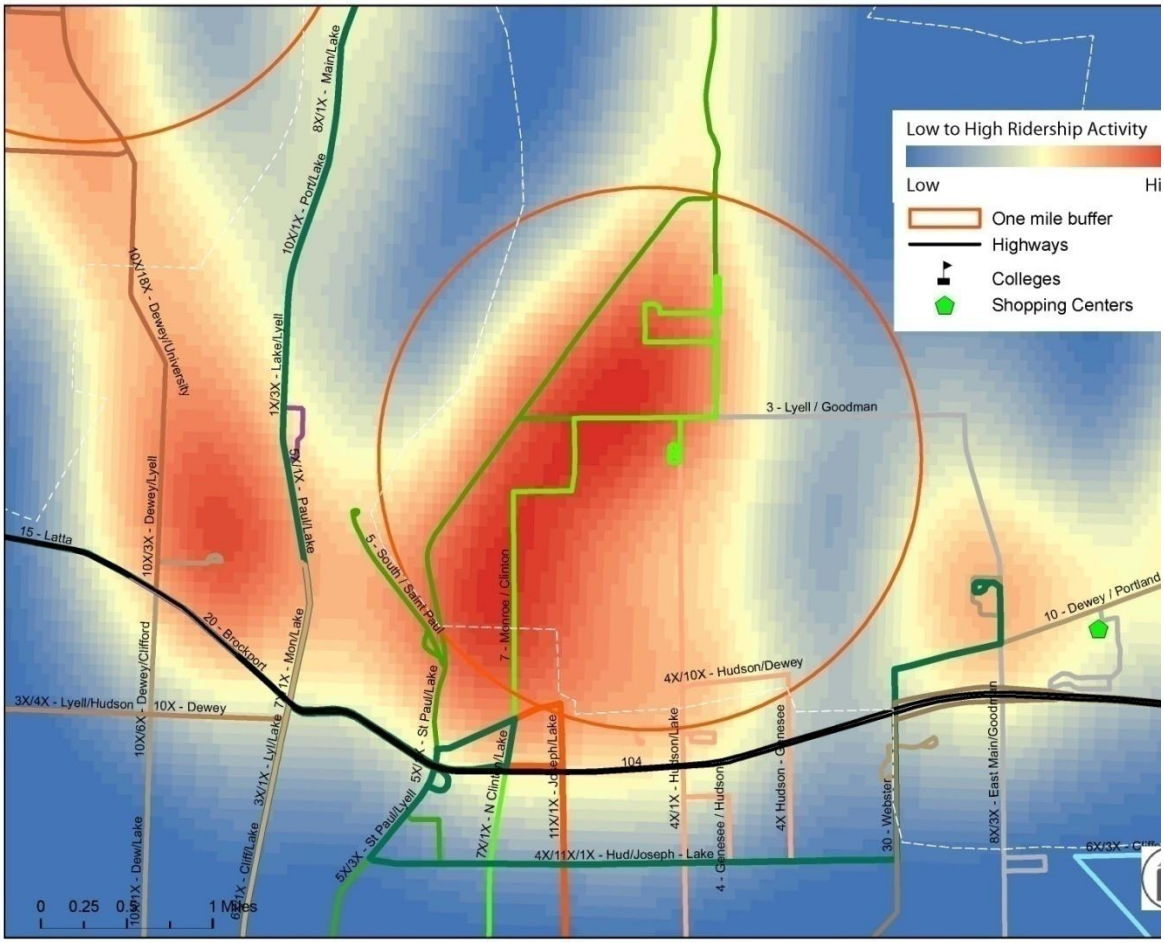
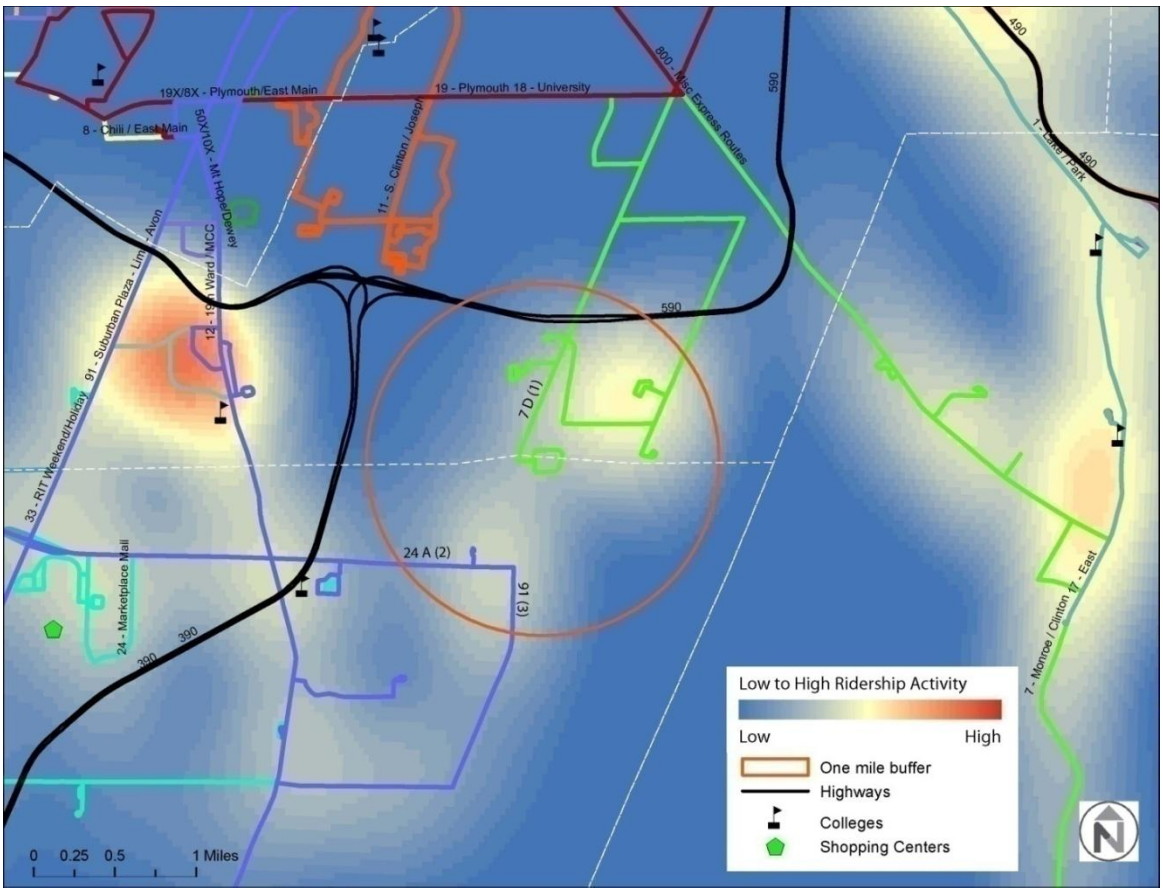


Figure 28 – Site 3 - Winton Place Design Center - Nearby Route Characteristics

	7D (1)	24A (2)	91 Suburban Plaza (3)
Service Type	Limited	Limited	Limited, peak direction only
Service Days	Weekday	Weekday	Weekday, Saturday and Sunday
Weekday Span of Service	7:28 AM to 11:28 PM	8:32 AM to 9:53 PM	6:22 AM to 6:59 PM
Weekday Peak Frequency	Three stops per day, morning, afternoon and evening.	48 to 89 minutes (late morning to early afternoon)	18 to 45 minutes
Weekday Off-Peak Frequency	N/A	Only one stop outside peak, at 8:55 PM	One stop 111 minutes before PM rush hour, one 60 minutes after PM rush hour.
Serves Downtown	Yes	Yes	Yes
APC Monthly Ridership	98,683 on all 7 service	40,137 on all 24 service	17,000 on all 91
Route Modification Opportunity	An additional 6 trips come within one mile of the design center (Winton and French).	Closest stop is .8 miles distant (Winton and Jefferson). Closest frequent service 3 miles away, at Marketplace Mall. Regular service could perhaps be extended from here.	Closest stop is .8 miles distant (Winton and Jefferson). Closest frequent service 3 miles away, at Suburban Plaza. Regular serve could perhaps be extended from here.

The final location identified for additional analysis is the border between Brighton and Henrietta, focused on a one-mile radius from the Winton Place Design Center. This location has a relatively high employment density. Compared to the two previous sites, it currently has a moderate ridership level, but "hot spots" appear nearby, and it might be a suitable location for a transit station that could provide increased service and could spark additional development, making this area an employment and potentially residential center.

Figure 29– Routes within 1 Mile Radius of Winton Place Design Center



Future Levels of Analysis

The heat-maps reveal many instances where routes that fall just beyond the one-mile analysis radius still appear to be good candidates for route modification, if such re-routes would serve to provide more synergy for a TOD site. Therefore, once final TOD opportunity sites are advanced to the planning stage, the RGRTA can develop route profiles for every route that has the potential to be re-routed to more directly serve a site. These profiles will help measure the impact of any service modification by identifying the productivity of each route at the stop-level. Attention should also be given to the land-use and demographics along and adjacent to each route to ensure that any proposed service modification results in a transit network with high ridership-growth potential.

4.2 TRUNCATING TRANSIT SERVICE

For most transit services, there is a point of diminishing ridership return, beyond which it is difficult to justify the continued investment of resources necessary to maintain a desirable level of service. This point may be temporal, geographic, or a combination of the two. For example, in a hub-and-spoke system, both the distance and frequency of service on each "spoke" are determined, in large part, by the ability to generate sufficient ridership along the route. The challenge for a transit operator is to identify when and where to truncate service in order to maximize service productivity while minimizing any ridership loss.

The following steps outline the decision-making process that may lead to the truncation of transit service. It is followed by descriptions of alternatives to traditional fixed route service when truncation is necessary.

Data Collection

Any discussion on the truncation of transit service must be done carefully, and be based in a thorough review of ridership data, in conjunction with an analysis of transit operations and the demographic and political context of proposed changes. Ridership data can often show the points at which provision of service becomes less sustainable, but must be looked at by stop. Historically, transit operators have found it much easier to track ridership by trip than by stop. Until very recently, collecting stop-level ridership data required very labor-intensive boarding and alighting studies which were thus only occasionally performed. On the other hand, simple tally sheets allowed bus drivers to collect ridership numbers trip by trip, day by day. Consequently, the practice of adjusting transit schedules to reflect actual ridership demand has long been an industry standard. Greater service frequencies are common during peak times, and many transit systems operate little or no service on weekends.

Today, with the proliferation of new technologies such as GPS-enabled fareboxes and automated passenger counters, many transit operators are able to track virtually every boarding and alighting occurrence and aggregate the data by stop as well as by trip.

An analysis of stop-level ridership data can reveal individual stops or even entire route segments that are underperforming relative to other stops. This information can help inform routing decisions, just as trip-level data has influenced scheduling decisions.

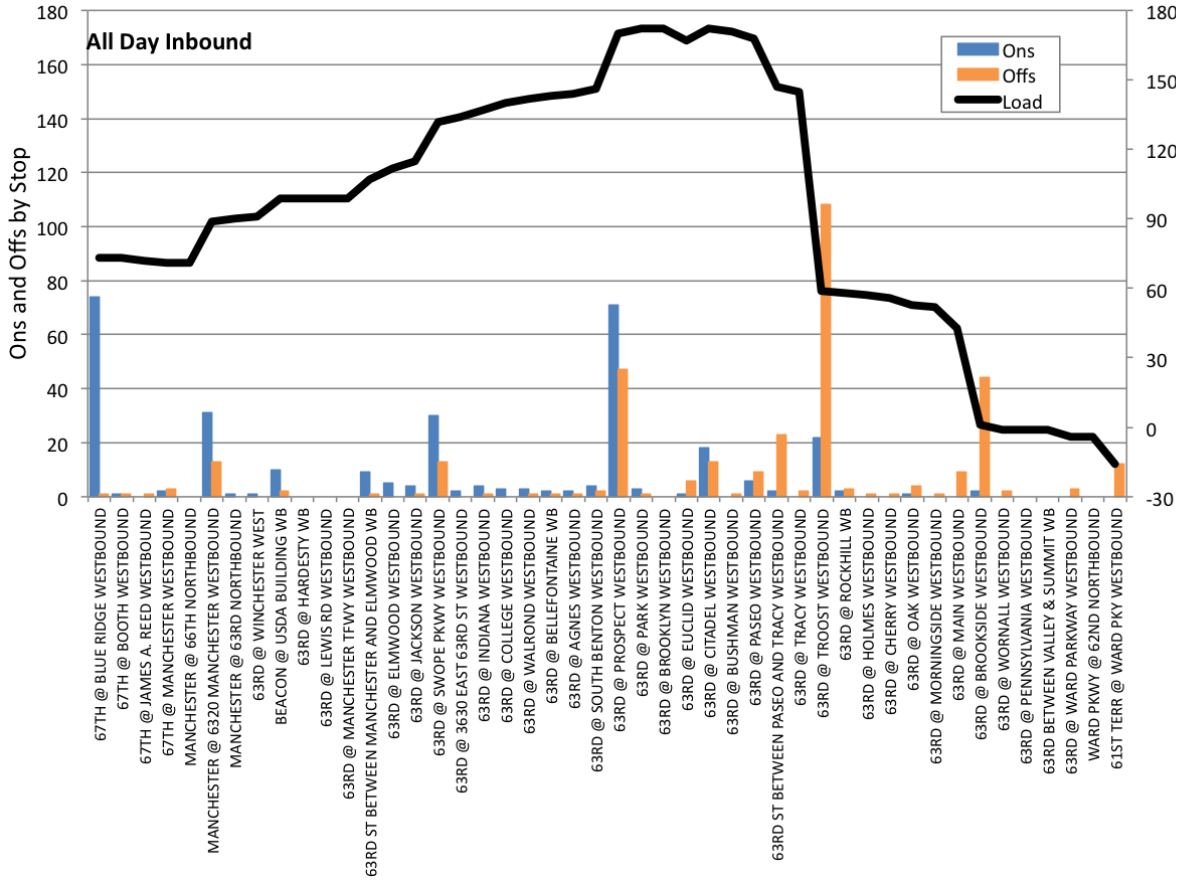
Data Analysis

The development of a visual route profile is helpful to understanding the spatial performance of a transit route. Figure 30 and Figure 31 below are two examples of visual route profiles, but other approaches may be taken as well.

In Figure 30, a graphical representation is used to show weekday boardings and alightings by stop. A load profile (i.e. "ons" minus "offs") is shown as well. The load profile is meant to illustrate the changing on-board passenger volume throughout the length of the route. A significant drop in the load profile is an early indicator of where it may make sense to truncate service.

The type of analysis shown in Figure 30 can be done for an actual day of service or a virtual day that is a summation of average boardings or alightings per trip for each stop. A virtual day that is compiled from data collected over a long period of time is generally a more accurate representation of stop-level ridership activity for a route than a one-day snapshot of ridership.

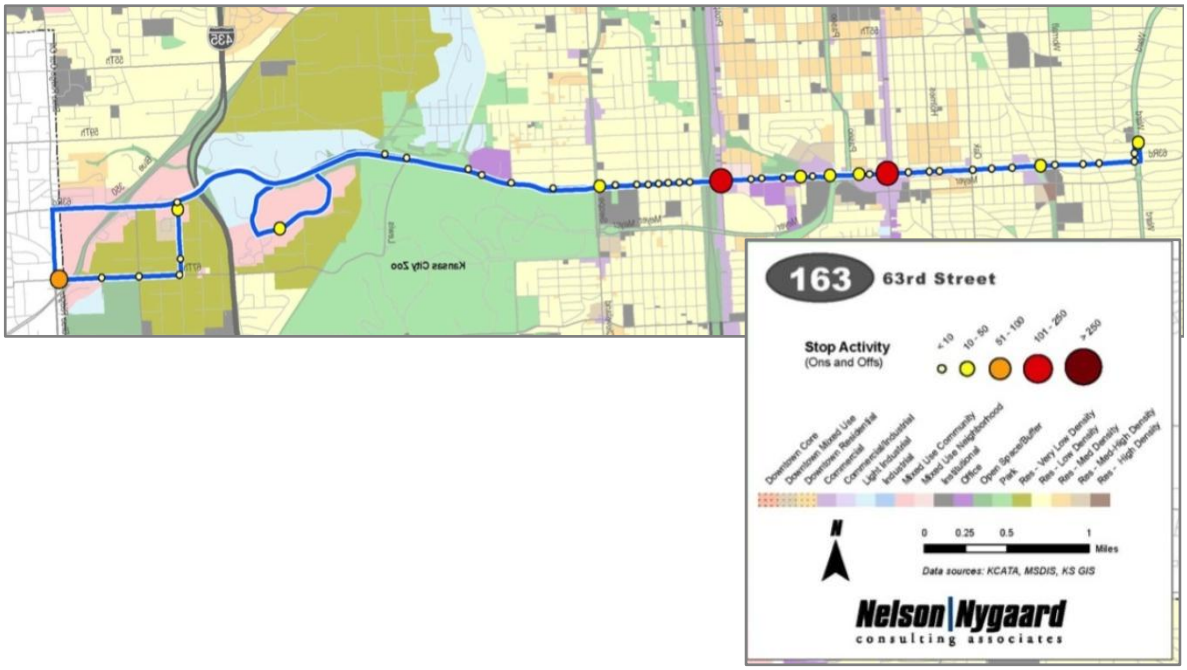
Figure 30 – Graphical Representation of Boardings and Alighting by Stop



While Figure 31 shows how ridership activity rises and falls along the route, it does not include any information about how far the respective bus stops are from one another. This is a key piece of information that can help determine where a route should be truncated. For example, it may make sense to continue serving an underperforming bus stop if it is in close proximity to a higher performing stop, as opposed to a similarly underperforming bus stop that is a significant distance away.

If stop-level ridership data is geo-coded (i.e. assigned geographic coordinates), then distance can be included in the analysis process. Figure 31 shows a geo-spatial representation of the same route that is analyzed in Figure 30 above. Besides showing distance, this technique can reveal other characteristics of a route and its environment (such as land-use and available roadway network) that can be useful in determining the most appropriate routing.

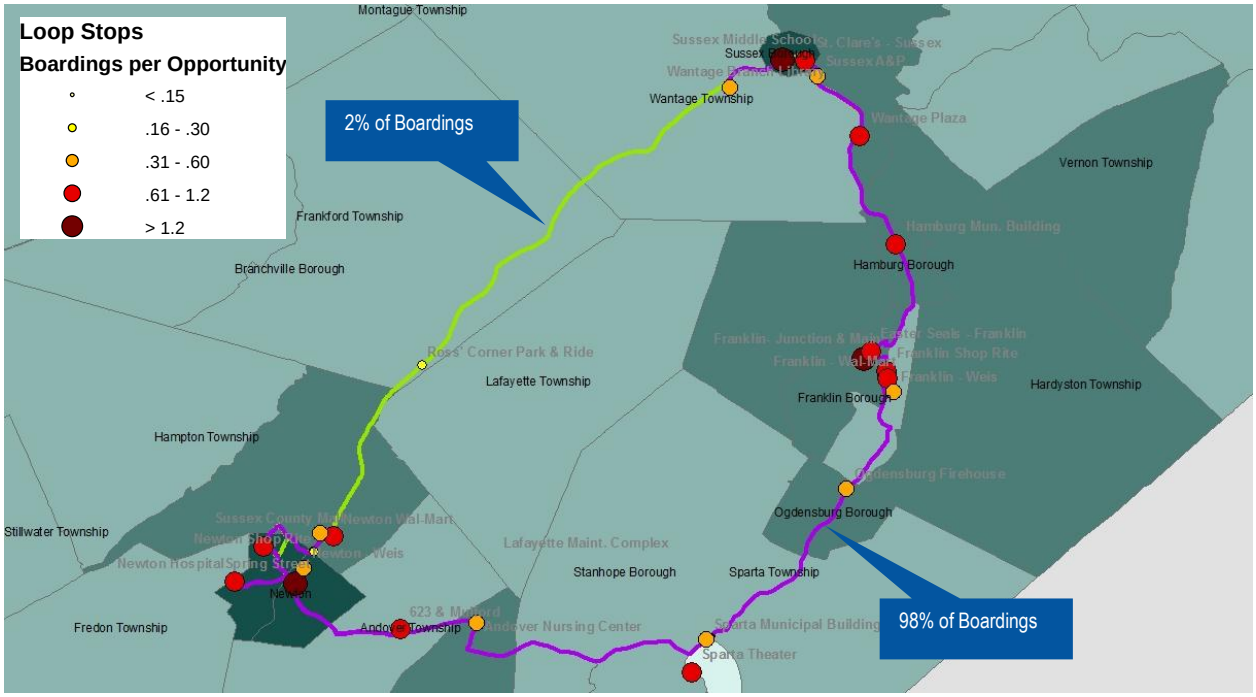
Figure 31 – Geo-Spatial Representation of Boardings and Alighting by Stop



Service Change Considerations

Ridership is typically the primary consideration for determining where to truncate a transit route. The specific volume of ridership that can be considered sustainable is often a matter of authority policy. If, for example, a transit authority sets five passengers per revenue hour as a goal for minimum sustainable ridership, the point along a route at which no more stops generate at least five passenger boardings per revenue hour would be considered a reasonable cut-off point for the route. Another similar approach is to identify the bus stop along a route that represents the 95% point of cumulative ridership (see Figure 32). Truncating the service close to this point would preserve the vast majority of ridership.

Figure 32 – Geo-Spatial Representation of Boardings and Alighting by Stop



Other considerations that should be taken into account when determining where to truncate a transit route include cycle time and service frequency. The cycle time is the time required for a transit vehicle to complete one round-trip. Service frequency is a function of the cycle time and the number of vehicles assigned to the route. For example, a route with a 60-minute cycle time and three vehicles running simultaneously, would provide passengers with 20-minute frequency of service. If the same route can be shortened by 7.5 minutes in each direction, the same 3 vehicles would be able to provide 15-minute frequency of service. Alternatively, shortening the route by 10 minutes in each direction, would allow for 20-minute service frequency with only two vehicles.

Finally, the connection to other services is an important factor to consider when assessing the possibility of truncating a transit route. If a transit center is present near the outer reaches of a transit route, it is preferable to preserve service at least as far out as the transit center in order to preserve connections.

4.3 LOCAL SERVICE OPTIONS

While traditional fixed-route transit service may not always be the most effective approach to providing mobility in a low-density suburban environment, there are several other strategies that can be considered.

Bicycle/Pedestrian Connections

One factor that often drives transit ridership in suburban environments is incomplete or unaccommodating bicycle and pedestrian infrastructure (see Figure 33). In such an environment, the perceived safety of transit is preferable, even for very short trips, to walking or cycling. Good pedestrian connections can extend the "reach" of transit by at least a quarter mile, while good

bicycle links can stretch the reach of transit service by up to two miles. This extended capture area can help minimize the impact of eliminating unproductive transit service.

Throughout greater Rochester, the consulting team observed a clear lack of walking and biking facilities, especially near transit stops.

Figure 33 – Incomplete Pedestrian Infrastructure

Park & Rides

The needs and expectations of transit users in suburban environments can be quite different than in higher-density urban environments. The automobile-oriented land-uses that are common in most suburban communities make car ownership a near-necessity. There are, however, certain trip types, including commuting trips to regional employment hubs or universities, where transit is still an appealing option for suburban residents. These trips are served well by transit because the destinations are usually highly concentrated and compact environments where commuters can easily get to their final destination by foot. The opposite is true for the trip origins, and thus many suburban commuters tend to rely on their personal automobiles for at least part of their trip (driving to a transit access point). The availability of park & ride facilities (see Figure 34) are inherently important for attracting suburban commuters to transit and become even more important if local suburban service is scaled back.

While RTS serves a broad network of park & ride lots today, few are well-designated, and most have little or no waiting areas, shelters, or amenities. Simple signing, benches, and low-cost shelters can change the appeal of riding the bus to drivers. Such improvements are complicated by private ownership of most park & rides, which forces the RGRTA and local communities to work with stakeholders to embrace transit improvements.

Figure 34 – Suburban Plaza Park and Ride Facility, Henrietta NY

Site-Specific Shuttles

While it is still more common for commuters to travel from a suburb to a central city, the prevalence of "reverse commutes" is growing nation-wide. As suburbs transform from bedroom communities to employment bases in their own right, this trend can be expected to grow. In greater Rochester, much of this suburban commute is between suburbs exclusively.

Major employers in suburban environments are often located in large campuses that are difficult to serve with traditional fixed-route transit service. As an alternative, custom-designed "site-specific" shuttles are sometime employed to transport reverse-commuting and suburb-to-suburb workers from the nearest transit hub to (and around) a company campus. Site-specific shuttles are often specially branded (see Figure 35), and in some cases jointly funded by a transit provider and a major employer. The model can be used to transport shoppers to malls or students to colleges, as well as employees to work, if these other facilities are located within relatively close proximity of a transit hub.

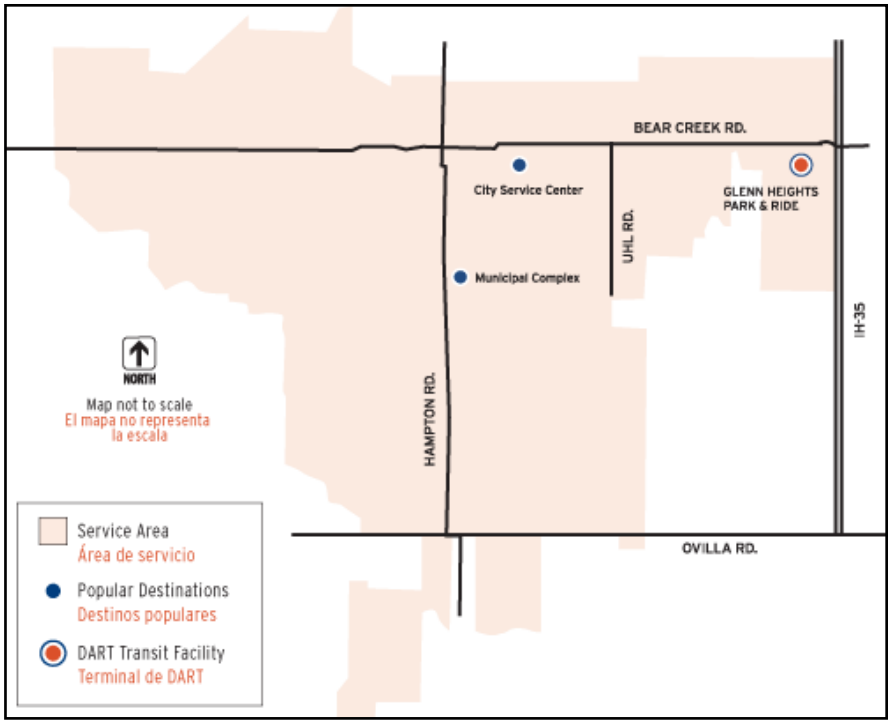
Some shuttles exist in greater Rochester – mostly associated with universities. Their cost-effectiveness as compared to fixed-route public transit is very high and should be promoted in many of the pedestrian-unfriendly office parks in the suburban communities.

Figure 35 – Branded Site-Specific Shuttle

Demand-Responsive Service

As suburbs change and mature, a need for community-wide transit service may develop. However, this demand for service is unlikely to be concentrated enough to support regular fixed-route bus service. A more cost-effective suburban service model is demand-responsive service such as “on-call” or “flex” routes. On-call service refers to curb-to-curb reservation-based service that is offered in a specific geographic area (see Figure 36). Passengers are typically asked to book their trips at least an hour in advance or to “subscribe” to a specific recurring trip. Without the limitations of a fixed-route, on-call vehicles can cover a relatively large geographic area with a very small fleet. In many cases, on-call services feed passengers into a fixed-route service at a near-by transit hub.

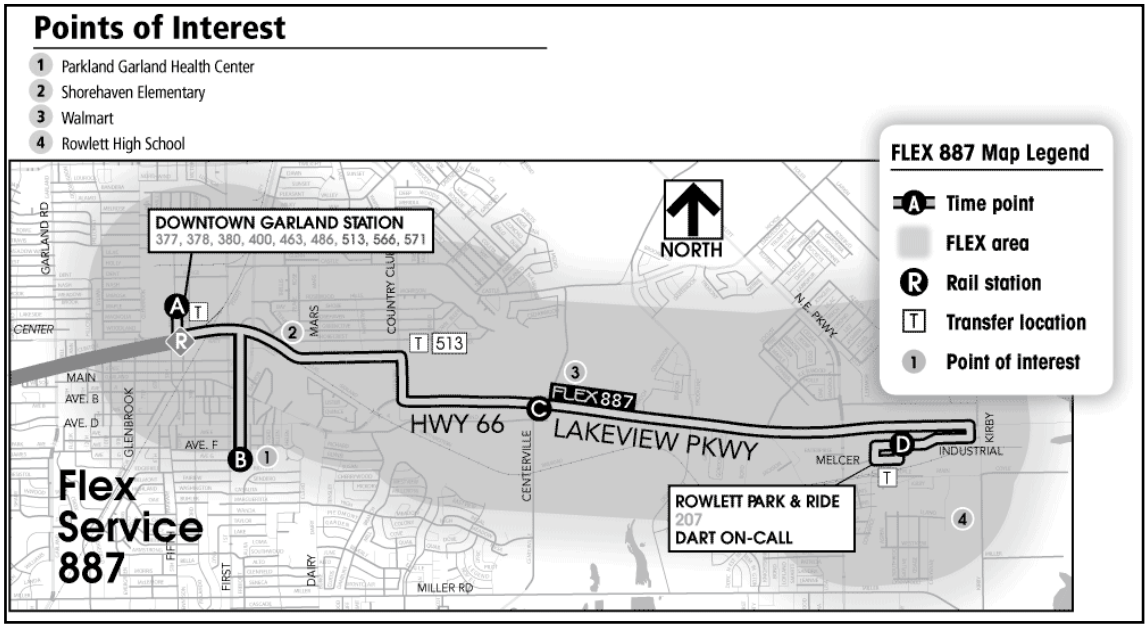
Figure 36 – On-Call Service



Flex routes are a hybrid of fixed-route and on-call service. Vehicles travel along a set route, but may deviate, or "flex", from the route upon request, only to return to the set route afterwards (see Figure 37). No designated bus stops are missed in the process. Flex pick-ups must be reserved in advance, while flex drop-offs can be requested on the vehicle. In order to somewhat limit the number of flex-requests, an additional fare charge is usually applied to flex trips. As with on-call service, flex service is often designed to feed passengers into a fixed-route service at a near-by transit hub.

Both of these concepts may be applicable in Irondequoit, where a community shuttle has been discussed. The model works well in many suburban Rochester towns and may be an ideal way to connect communities with truncated fixed-route service at transit hubs.

Figure 37 – Flex Route



Vanpool Service

Vanpool programs provide another service option for residents or employees of areas that do not meet the density requirements to support traditional fixed-route transit service. Vanpools can typically be started with just five participants (see Figure 38), and routes and schedules are customized by the participants themselves to serve their specific destinations and shift times. However, vanpools can also provide invaluable insight for transit agencies into where there is demand for more traditional transit services. If demand for vanpool service is strong between a particular origin/destination pair, fixed-route service could eventually be introduced in its place. Vanpools can also be used in combination with other service types. For example, a vanpool can be used as feeder service into an existing fixed-route service, or as a distributer from a fixed-route service to a final destination. In these cases, the van is typically parked at a park & ride facility while not in use.

Figure 38 – Vanpool

5 RECOMMENDATIONS

The following section summarizes the Nelson\Nygaard team's recommendations for the RGRTA's Suburban Transit Station Feasibility Study.

5.1 KEY RECOMMENDATIONS

1. Support Likely TOD Opportunities

Two locations in greater Rochester show the highest potential for developing a suburban TOD successfully: the GDC lands near Unity Hospital in Greece and the Irondequoit Plaza and/or Irondequoit Downtown area. In both cases, single land owners with full control of the sites are easily accessible to the RGRTA. The CHT site is an active development site and thus has been prioritized below, while the GDC lands show high promise, but are not an active site, and thus is categorized as a place to begin planning below:

- **The "CHT" site** is in the final stages of initial design and permitting for a new urbanist, walkable, and transit-oriented mixed-use development. With Irondequoit Plaza already serving as a hub location, RTS services here could be reorganized to improve frequency as well as provide transfers to a local community circulator serving Irondequoit's downtown, which also shows potential for new development. RGRTA has the ability to bring substantial Federal dollars to the table for construction of a joint parking structure and transit hub. However, the transit and real estate market studies did not reveal a very high market potential at this or any other location in the region outside of the belt highways of Rochester proper. Therefore, **the RGRTA should be willing to work with Irondequoit and the CHT developer if the development actually moves forward with financing, design, and pre-construction.**

2. Begin Planning for Next Phase TOD

Three locations in greater Rochester appear to have good potential for TOD with the right amount of coordination between landowners, municipalities, and the RGRTA. Based on current land uses, transit service and ridership at the sites, these locations are not yet ready for sufficient transit service frequency, but development may warrant shifts in assets to these corridors:

- **The GDC lands** on the north bank of the Erie Canal are strategically located to take advantage of nearby commercial activity in North Gates and the Greece Mall; employment densities at the Unity Hospital and Canal Ponds; and existing residential development along Long Pond Road. This site can be a transit center serving truncated local routes and suburban express routes.
- A parcel abutting the Regional Market immediately northwest of **East Henrietta Road at Jefferson Road** has the potential to catalyze an area that includes local retail, restaurants, employment, hotels, multi-family housing, and Monroe County Community College. Mostly vacant, smart redevelopment can knit these uses together in a walkable fashion, creating a significant change in the nature of the Jefferson Road corridor, as well

as a natural truncation point for suburban service and transfer point to local and RIT shuttles.

- Three parcels in **Fairport** have immediate development potential with the right amount of coordination with Village professionals. RTS service here is infrequent but gets good ridership in the village proper. The RGRTA would have to consider a notable service change in Perinton and possibly Penfield to add sufficient frequency here, however the opportunity for this to be the terminus of a high-quality transit spine serving Fairport, East Rochester, St. John Fisher College, and points west is notable.

3. Monitor Evolving TOD Opportunities

While the upside of a successful TOD in three other sub-markets is strong due to existing population and employment bases, certain site and adjacency limitations suggest a longer-term strategy for these opportunity sites:

- The opportunity to collaborate with the municipality of **East Rochester** on their planned downtown redevelopment site would bring new development that further intensifies walkability, density, and transit ridership in this welcoming downtown environment. However, the site is not large and somewhat complicated, limiting the scale of intervention by the RGRTA.
- **Dewey Avenue** will see notable changes in the future with its "road diet" streetscape project, making the corridor more transit-friendly and walkable. Already, zoning changes at Northgate Plaza will stimulate new urbanist development, where RTS has already partnered with a landowner. However, there is a limit on the amount of development that can happen here given that surrounding areas are mostly built out. Furthermore, RTS service must be redesigned in this part of Greece to serve choice riders well.
- The potential redevelopment of the **quarry site in Penfield** can create notable transit synergies given the proximity of Panorama Plaza and existing transit demand. Even though this site would have plenty of space, a large transit center may not make sense given the lack of existing routes in Penfield and the site's adjacency to existing ridership generators. Nonetheless, the right stand-alone mixed-use development could generate significant ridership.

5.2 OTHER RECOMMENDATIONS

With the planning successes at Collegetown, and a renewed willingness to investigate the cost-effectiveness and rationale for the provision of service in the suburbs, we recommend that RGRTA explore several processes as part of service policy and planning for the suburbs.

4. Transit must be integrated into regional and local planning efforts

Both stakeholder interviews with municipal planners, and a review of municipal planning documents has revealed that transit service is not incorporated in any meaningful way in local and regional planning (Chapter 3). In fact, only recently, have plans begun to discuss transit. Where plans do discuss transit, it is typically in only a tangential fashion as part of an overall multi-modal strategy. Local and regional plans should begin to address:

- Areas that should be served by transit
- Identify transit dependent populations
- Highlight local and regional destinations (employment centers, shopping areas, medical campuses, schools, social services) that should be served by public transportation
- Impacts of infrastructure and zoning changes on existing transit service
- Transit as part of the community's growth strategy

- Transit's role in the achievement of local/regional environmental and mobility goals

5. Participation in development review and permitting

With a few notable exceptions, RGRTA is not often brought in to large development efforts (see Chapter 3). Many of these developments have an impact on RGRTA service, stops, access or ridership. Even during construction, these projects may impact daily service provision through roadway closures, or occupying existing stops. As a matter of policy RGRTA should review and if warranted submit comments on projects undergoing local and/or environmental permitting. Potential benefits of review and comment could include:

- Requiring construction coordination/notification with identified RGRTA staff
- Review to ensure that any project designs can physically accommodate RGRTA buses where currently serviced
- Identify opportunities to enhance transit access and amenities, through provision of sidewalks, shelters, location of stops near front doors.
- Explore transit routing and roadway improvement options through new connections, traffic signal improvements, queue jumps, transit lanes or other physical improvements
- Work with developers, property owners to directly or indirectly fund current, new or expanded service.
- Work with developers to promote transit usage through provision of information, transit passes or other programs as determined.

6. Establish a toolkit of standards/amenities for RGRTA incorporation into a Project.

The opportunities for RGRTA to participate in government infrastructure or private development projects are many. Improving the ability to provide service and the visibility thereof can be accomplished in numerous ways that may not require direct RGRTA investment. RGRTA should create a standard set of design specifications and criteria to facilitate incorporation into ongoing projects, and could include:

- Bus shelter installations
- Bus stop requirements
- Roadway widths and turning radii
- Signal priority treatments
- Layover and terminal facilities
- On-site bus hubs/integrated site service

7. Partnerships for service provision

For suburban transit service, RGRTA should formalize standards for provision of additional service. RGRTA already enters agreements with developers and/or institutions to provide or enhance service to additional areas. RGRTA should provide formal costs, standard agreements, and service planning expertise for service beyond a defined level. Additional service would then be per agreement.

8. Develop suburban transit orientation points

These would go beyond park & rides and would be ideal local termini or orientation points for suburban service. The size, scale and integration of these would be determined by local context

and development opportunities. More detailed transit analysis would enable the RGRTA to plan these transit centers in a manner suggested below:

- Orientation points can be identified in a manner like those identified and categorized above in Chapter 4 (High Priority, Development Integration & Long Term)
- RGRTA can organize its service between these orientation points (suburb to suburb service) and to downtown.
- Identified corridors on which service would be run should receive transit priority treatment up to and including rapid bus or bus rapid transit (BRT) service
- RGRTA should review and potentially eliminate provision of service beyond orientation points and along circuitous routes (see Chapter 6).
- Investigate a new pattern of service provision past these points to serve adjacent communities, special users, park & rides, etc. Consider local deviated community bus services, vanpools, etc. (see Chapter 6).
- RGRTA can consider paying some portion of service currently provided to these towns as an "endowment" of service and allow the towns/other to direct or provide the new local service(s).

RGRTA could even provide service under contract. This would allow Irondequoit, the University of Rochester, or others to provide service as needed, keeping existing demand response services available for other coverage as needed. This could even be a competitive model as communities struggle for the RGRTA to orient this new suburban offering in their communities – or by their indifference show that they do not want local service.

6 CONCLUSIONS

The RGRTA, much like most transit agencies in the United States, is faced with new challenges that make providing attractive transit service difficult. Rising fuel costs, the increasing price of healthcare, flat per capita incomes, limited Federal subsidies, and a host of other factors that go beyond the scope of this analysis have forced the Authority to reduce operating costs and consider cutting service at a time when U.S. transit ridership is at an all-time high and continuing to grow. RGRTA is forced to become more efficient while trying to deliver its services in a manner that attracts even more riders.

The 2011 Suburban Transit Station Feasibility Study was focused on finding solutions in the part of the RTS service area that requires the greatest subsidy to operate. While many individual stops and park & rides in Rochester's suburbs see good ridership, the net cost of running buses largely empty over such long routes is very high. However, rather than simply cutting routes, the RGRTA has sought to devise smart strategies that can reduce its operating costs while creating services that actually attract more suburban riders than they do today.

Besides simply reorganizing transit routes to serve "orientation points" where transit stations can be erected at new termini, the RGRTA recognized that part of what has made transit successful in the U.S. is TOD. With attractive services, jobs, and even residences at a transit center, TOD would not only serve park & ride suburban commuters, but it could produce new riders attracted to walkable conveniences connected to downtown and other points with convenient bus service. As a stepping-off point for innovative new local suburban service, these transit centers would see a high degree of revenue capture, spawn economic development, and increase transit ridership in Greater Rochester.

While a thorough assessment of the region's propensity for a transit-oriented lifestyle and new TOD has revealed that this transit center concept is still evolving outside of Rochester proper, the Study has identified a number of opportunities for future TOD, transit integration, service changes, and – most importantly – new partnerships with the region's stakeholders. By studying the region not just from afar but in direct contact with other agencies, business owners, developers, chambers of commerce, town planners, local politicians, and others, the RGRTA has begun a new dialogue about how the region should evolve in the coming years. It is this kind of consensus-building that attracts Federal dollars and builds livable communities. With potential opportunities evolving in 2012 in a number of suburban communities, the RGRTA is already planning a new course that seeks to support and help create attractive transit-oriented neighborhoods which the residents of Greater Rochester can embrace.