village of east rochester

Transportation Improvement Study

July 2014

FINAL REPORT

Prepared By:
SRF & Associates
Ingalls Planning & Design
Steinmetz Planning Group

A great neighborhood or community operates at human scale. It is comfortable and accessible. It creates its own identity by taking advantage of location, geography, history and local resources. People choose to live there because they see and experience qualities that reflect their own personal and social values. Great places are created by the people who live in them.

–Bob Graves, Governing

Acknowledgements

Study Advisory Committee

Michael J. Flanigan, Village Board Trustee (Former)
Herbert R. Allen, Village Planning Board
Gene Filiaci, Village Resident
John A. Levato, Business Owner
Matt Fox, Village Zoning Board
Richard Perrin, Genesee Transportation Council
Dan Hallowell, New York State Department of Transportation
Brent Penwarden, Monroe County Department of Transportation
Rob Fromberger, Town of Pittsford

Study Preparation Team / Consultants

Stephen Ferranti, Principal, SRF & Associates
Matt Ingalls, Principal, Ingalls Planning and Design
John Steinmetz, Principal, Steinmetz Planning Group

Cover Photos - ERHistory.org, SRF & Associates
Opposite Page Photo - SRF & Associates

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES/CHARTS

Executive Summary

Study Purpose/Objective

The purpose of the *East Rochester Transportation Improvement Study* is to develop feasible planning, design, and regulatory concepts that aim to improve circulation, accessibility, parking, and safety for pedestrians, bicyclists, motorists, and transit uses. This plan will aid officials in guiding future projects in such a way as to achieve a balance among modes of transportation and land uses to promote East Rochester's goals as stated in the *2003 Village of East Rochester Strategic Plan for Downtown Revitalization and Business Development*.

Study Area

The project study area is broken up into three corridors: primary, secondary, and tertiary. The primary study corridor is West Commercial Street. This is in large part because of the volume of traffic the roadway experiences on an everyday basis, the location of a majority of the Village's businesses and shops, prevalence of pedestrian traffic, and the Village's downtown. For motorists travelling to or through the Village, West Commercial Street is typically the first impression one receives. Therefore, from a gateway standpoint, the corridor is key in how the Village looks and feels. The secondary corridors are Roosevelt Road and North Washington Street. Roosevelt Road has been identified as a route for cut-through traffic as well as lacking sidewalks. North Washington Street is designated a secondary corridor due to its stark streetscape, high volumes of traffic, and its role as a key linkage between the northern and southern portions of the Village. The tertiary corridors are South Washington Street and Main Street. These roadways feature inviting streetscapes with aesthetically pleasing features (green space, enclosure, etc.), low to moderate traffic volumes, and relative quality of the built environment. The tertiary study corridors have the least amount of concerns based on discussions with the Steering Committee.

Community Engagement Process

At the beginning of the study, a Steering Committee (SC) was formed to establish Village priorities, provide continuity and oversight, and progress the goals of the *Strategic Plan* with respect to transportation and community design. The committee has guided the study process, participated in a Public Open House, and acted as liaisons to the broader community. Members of the committee include Village officials, nearby local business representatives, the New York State Department of Transportation (NYSDOT), Genesee Transportation Council (GTC), Town of Pittsford, and Monroe County Department of Transportation (MCDOT). GTC is the regional Metropolitan Planning Organization (MPO) that is overseeing and administering the *East Rochester Transportation Improvement Study*. GTC is responsible for the disbursement of

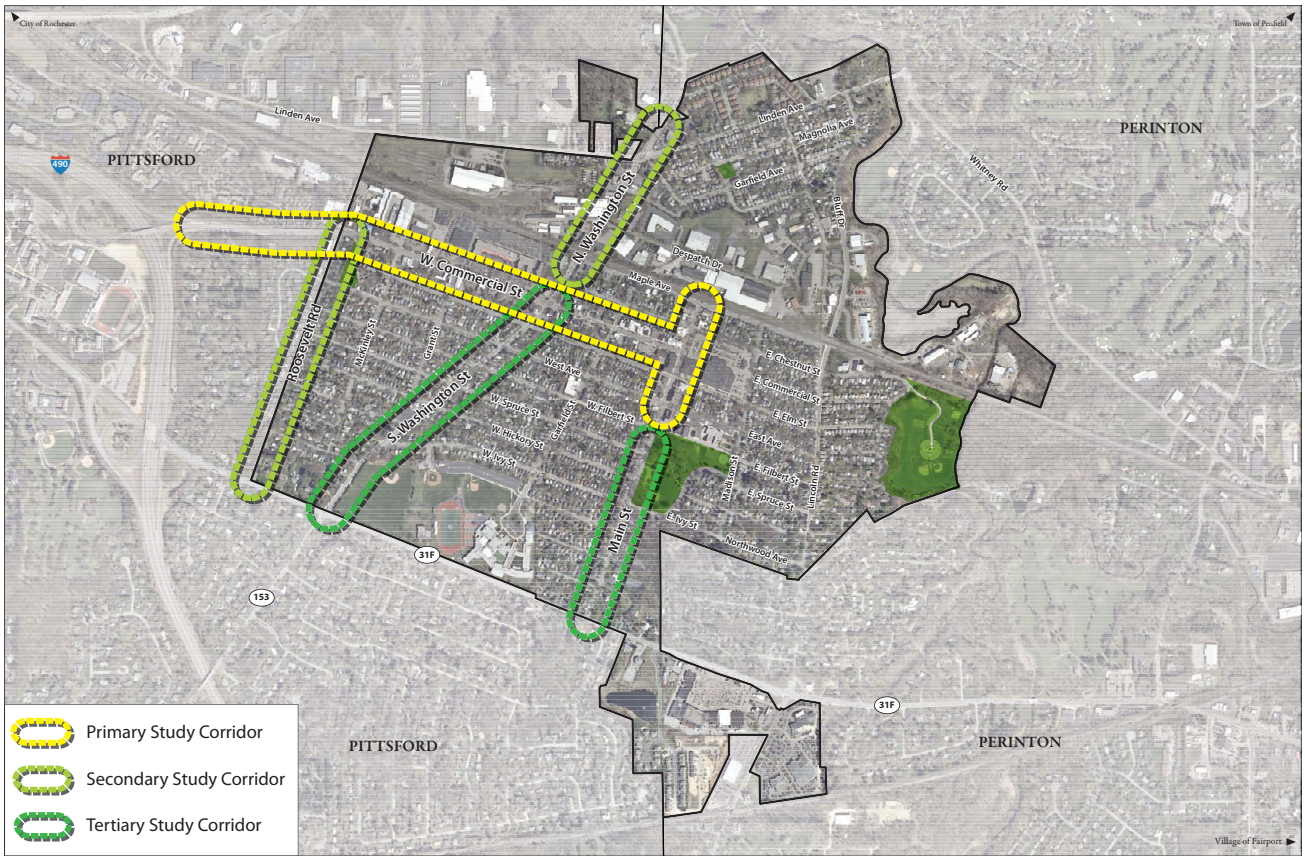


Figure 1 - Study corridors

federal aid monies for transportation-related projects, programs, and initiatives.

At the project kickoff meeting, various issues were identified. The issues discussed at the meeting include: pedestrian safety, crossings, and linkages; parking availability and accessibility; traffic calming and vehicle speeding; intersection safety; building setbacks; and community aesthetics and green space.

A Public Open House was held on November 18, 2013 to discuss the goals of the study, as well as present initial findings from the Consultant Team's detailed study of the Village's corridors. A Community Preference Survey (CPS) was administered during the Workshop to gauge local attitudes towards various types of design including architecture, landscaping, signage, and overall appearance of the streetscape. A summary of the comments received during the workshop and the results of the CPS are described in the Needs and Opportunities section of this report. In addition, the public provided feedback on "What Makes a Great

W. Commercial Street?" and "Tell Us What You Think". The latter feedback opportunity offered attendees a chance at providing insights and ideas for the corridors of Roosevelt Road, Main Street, Washington Street, and the Downtown (100 and 200 blocks of West Commercial Street). Further, residents were asked to markup large scale roadway plans of the West Commercial Street corridor where they feel there were issues or opportunities for improvement.

Community Goals

As a result of the feedback given, preliminary project goals have been established. These goals are aligned with the vision and recommendations set forth by previous plans for the Village of East Rochester, so as to develop a cohesive framework for actions to be implemented within the Village. These project goals are:

- **Improve** the appearance of the West Commercial Street corridor;
- **Enhance** the pedestrian and bicyclist environment;
- **Provide** safe and convenient linkages to parking and key destinations;
- **Improve** the livability and overall quality of life in the Village; and
- **Leverage** existing Village resources to improve upon the thriving business community and carefully manage the high traffic volumes West Commercial Street experiences.

Recommendations

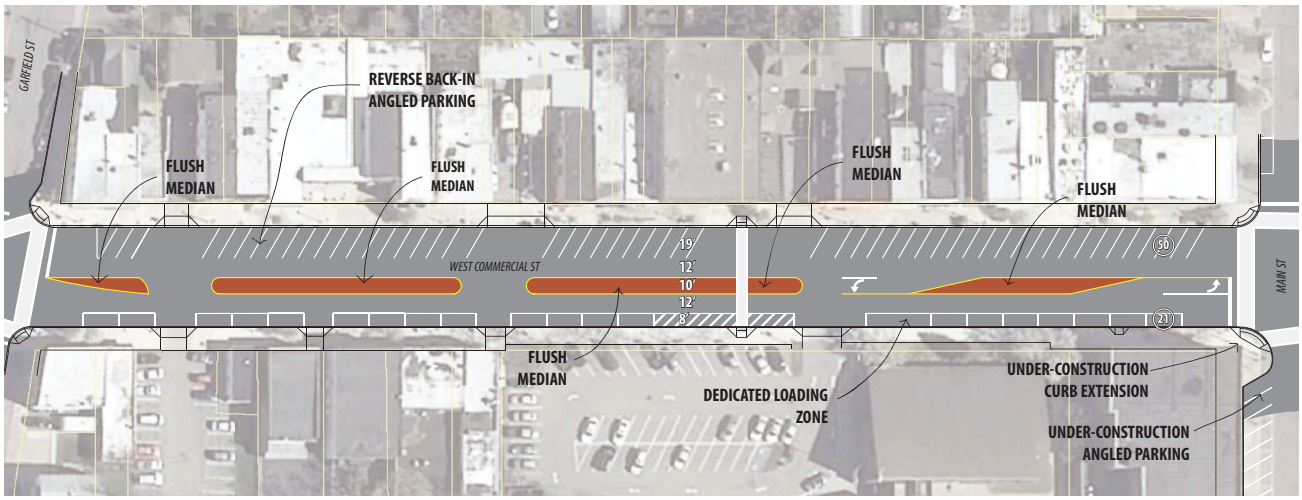
Main Street to Garfield Street - 100 Block

The downtown 100 block of East Rochester represents the historic roots and economic diversity typically found in older villages. Anchor establishments such as Village Fair, New Yorker's Pancake & Grill, Bistro 135, and Lemoncello to name a few take pride in their walkable, pedestrian-oriented location. With the nearby post-office, St. Jerome's Church, and other personal service destinations, one can park once and find what they need all within reasonable walking distance.

To improve upon the conditions downtown, an alternative was developed through close consultation with the Steering Committee. Based on a three-year accident history analysis, 13 incidents occurred while an individual was backing out of their head-in parking space. The alternative recommendation proposes shifting the parking from head-in to back-in. Back-in angle parking has been used with much success and positive reviews in communities such as Binghamton, Syracuse, Portland, and Pottstown, PA. The New York Wine and Culinary Center in Canandaigua is a specific facility that uses the design.

Another design treatment utilized in the downtown is a flush decorative median. The style should mimic the color of the existing brick buildings bringing a consistent look and feel to the downtown. The photo to the left is a similar treatment used on Lake Avenue in the City of Rochester. A raised median alternative was presented as part of this study, however, is not feasible for further consideration.

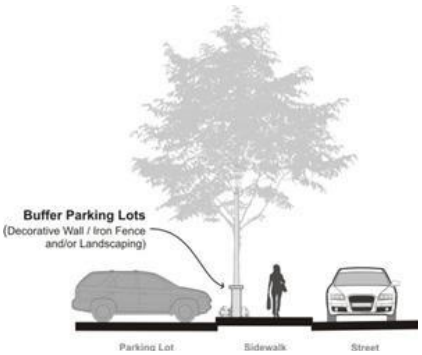
Other recommendations in the 100 block include replacing street trees, installing a consistent design palette of street furniture, and buffering the parking lots. Although a good street tree for areas with plenty of room for root growth and dense shade, such as residential streets, Lindens are not ideal trees for "Main Street."



Overtime these trees should be replaced with trees with lighter shade and higher tree canopy, such as Thornless Honeylocust. This is also true with the lower canopy ornamental trees, such as Crabapples and Cherry Trees. These trees should also be replaced.

Street furniture such as benches, trash receptacles and bike racks should be strategically installed throughout the downtown area, such as near restaurants, the library and other public buildings and waiting areas.

Parking lots that directly front the sidewalk along the street with no buffer have adverse impacts on the public realm and the pedestrian experience. Low hedges, decorative shrubs (or other plantings less than 4' high) should be used to screen parking lots. Consider decorative fences (max 4') such as steel or iron fencing with decorative brick pillars. Decorative walls (max 3') with attractive cladding also can work well.



Garfield Street to N/S Washington Street - 200 Block

Redevelopment Opportunity

The four residential structures along the north side of West Commercial Street (200 block) are inconsistent with the character of the street. If these properties are redeveloped at some point in the future they should employ traditional village commercial character in regards to both architecture and site planning. Parking should be located in the rear yard or side yard and buildings entrances should be located as to accommodate both pedestrians and motorists, preferably along the street. The sidewalk should be relocated and a tree lawn and street trees added. This will create a more comfortable environment for pedestrians and will help to improve the overall aesthetic of the area.

Restore Tree Lawn and Install Street Trees

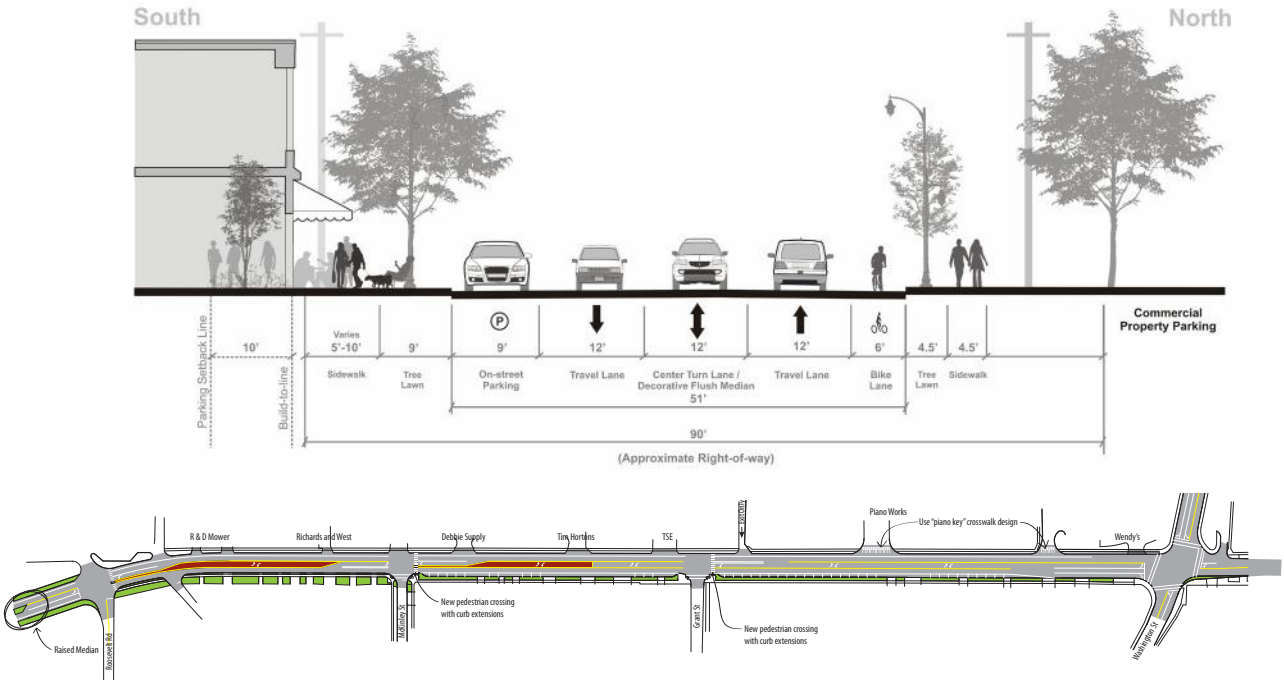
The graphic below depicts several locations where tree lawns can be improved and/or restored and street trees added. These types of improvements will not only create a more comfortable environment for pedestrians but they will also lessen the visual impact of the auto-oriented land uses along the street.

Washington Street to Roosevelt Road - 300-500 Blocks

Based on the feedback generated at the Public Open House presenting the three West Commercial Street alternatives and further discussions with the Steering Committee, Alternative 3 is recommended for installation. This alternative provides the most value for improving the conditions for pedestrians, bicyclists, and transit users, while rebalancing the needs of existing motorists. Additionally, it provides a visual enhancement, acting as a gateway for people entering the Village.

The right sizing – or completion of a road diet – of West Commercial Street within the study area provides a multitude of benefits for pedestrians, bicyclists, transit users, and motorists. Some benefits include:

- Decreases the number of travel lanes for pedestrians to cross;
- Provides space for pedestrian crossing islands;
- Provides space for bicycle lanes or wider travel lanes for shared use;
- Reduces rear-end and left-turn accidents (e.g., auxiliary lanes, two-way left-turn lanes;
- Improved speed limit compliance; and
- Improved overall safety for all users



When the three alternatives were presented at a community meeting, it was clear that Alternative 3 is the preferred design concept. People expressed the desire for a "green" street with wide tree lawns and large trees. When combined with attractive mixed-use buildings, these improvements could transform this segment of West Commercial Street into an attractive and inviting commercial corridor where all transportation users feel comfortable. Specific streetscape improvements include:

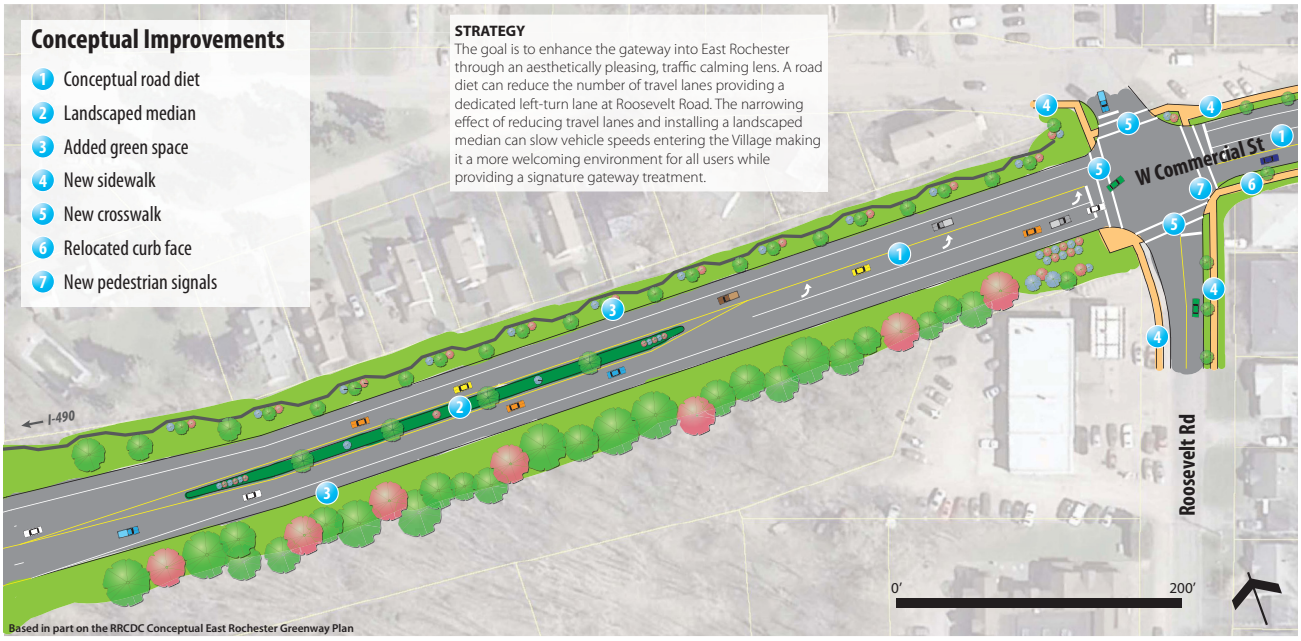
- Plant Trees on Public Property Along the North Side
- Extend the Curb and Add a Tree Lawn and Sidewalk in the 500 Block
- Extend the Curb and Add a Tree Lawn and Sidewalk in the 500 Block
- Develop a Community Supported Theme or Identity for the West Commercial Street Corridor
- Green Infrastructure

One of the primary goals for West Commercial Street, especially between N/S Washington Street and Roosevelt Road is to improve the character and aesthetics as well as the walkability. These things often go hand-in-hand. The Conceptual Plan includes transportation, land use and urban design characteristics working together to illustrate the long-term vision for this segment of West Commercial Street. It includes both short-term improvements (e.g. street trees along the north side) and long-term improvements (e.g. infill and outparcel buildings). The graphic also includes the "preferred alternative" in regards to travel lanes, on-street parking, tree lawns, and sidewalks.

The Plan is intended to provide an overview of the ideas generated during this planning process, which could take a decade or more to implement. It is not intended to be a prescription for the development of the corridor but rather a general guide of how enhancements should be placed and developed over time.

Western Gateway Treatment

A road diet is conceptually proposed for a portion of this segment of roadway between I-490 and Roosevelt Road. This will act as a traffic calming treatment for vehicles entering the Village. The installation of a landscaped median and reduced total pavement width will narrow the roadway further enhancing the desired traffic calming effect. This area should be a gateway focal point for residents and visitors. Signage, street lighting, decorative banners can be used to instill that gateway feel. Additionally, improvements to the intersection of West Commercial Street/Roosevelt Road will better connect the residents along Country Club Road and the nearby Gleason Estates to the Village from a pedestrian and bicyclist's point of view.



Traffic Control and Multi-modal Enhancements

The results of the Wikimap and public feedback noted locations throughout the study area for possible improvement. The graphic on the following page depicts locations throughout the study corridors, as well as neighborhood linkages, that offer an opportunity for enhancement.

Also noted on the map are areas where there are gaps in the existing sidewalk network. These gaps can act as barriers for residents attempting to walk throughout the Village or nearby St. John Fisher College students wishing to walk to the downtown.

The most prominent gaps are along Fairport Road and Roosevelt Road. Another critical gap is the segment between Roosevelt Road and McKinley Street on the south side of West Commercial Street. It is recommended these segments of sidewalk be installed as part of highway maintenance projects or through alternative funding sources. Increasing the walkability of East Rochester means improved safety for all users; better awareness between pedestrians and drivers; healthier transportation options; improved environmental conditions; and increased potential for economic development.

It is also recommended that the northbound left-turn lane at West Commercial Street/ N/S Washington Street be extended to provide 150' of storage capacity. This is an increase from the current 110' of storage space. Increasing the storage lane will improve intersection operation and reduces congestion on this approach.

Study Area Wide and Other General Recommendations

- Stay informed regarding potential RTS bus stop changes that could impacts stops in East Rochester
- Continue to install detectable warnings on all curb camps
- Reconstitute the Sidewalk Installation Program
- Implement a village-wide Street Tree Program / Policy

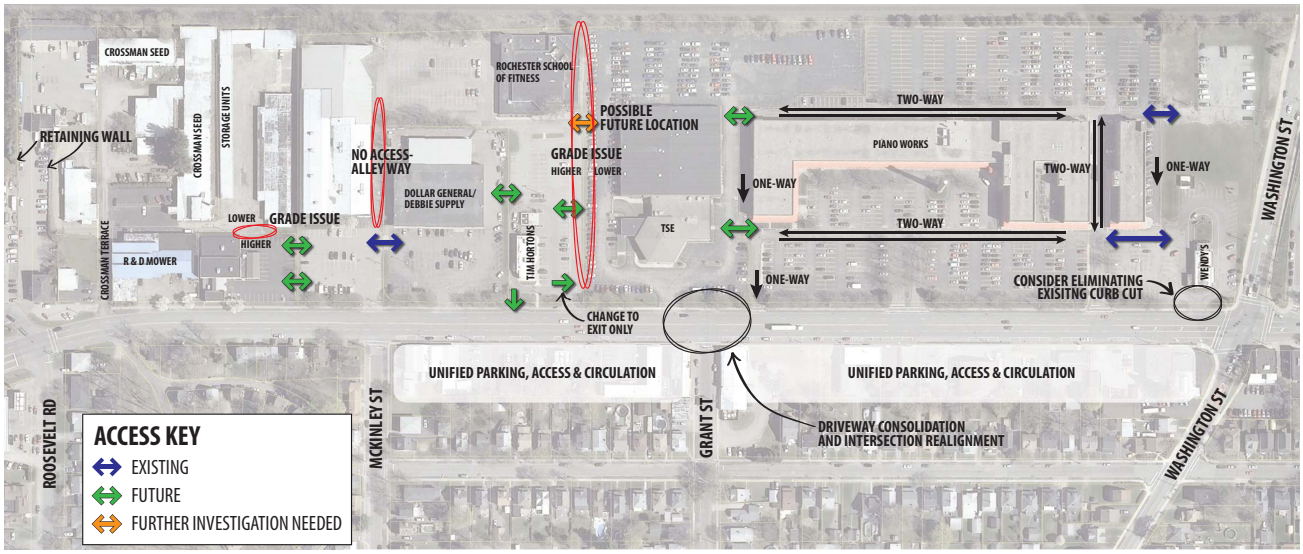
Access Management

The principal goal of the West Commercial Street access management effort is to develop a plan that East Rochester and NYSDOT can implement to make the corridor a safer and more efficient transportation facility for all users in the future. This plan shall respect the character of the Village while preserving the quality of life for residents, merchants, and visitors of the community.

The intent of the Access Management Plan is to provide NYSDOT, and the local Officials and Planning Boards, a framework for assisting with decision-making regarding access, circulation, and safety for future development along the corridor.
Specific objectives include:

- Minimize number of access locations
- Increase access spacing
- Reduce through traffic conflicts
- Provide greater accessibility and connections for all users
- Manage traffic signal and intersection control
- Provide language in local codes that supports implementation of access management techniques and strategies along the corridor

Using these core planning strategies and objectives, a detailed access management concept plan was developed, as shown below.



Planning & Regulatory Recommendations

The following land use and regulatory modifications are based upon the recommendations contained in local planning and other related regulatory documents, the results of the Community Preference Survey, input from the Steering Committee, and feedback provided at the two public meetings held as part of this project. The following zoning code recommendations should be considered a starting point for a future re-zoning discussion. The exact language, format, and level of flexibility that is appropriate for East Rochester will need to be determined through a process that would involve elected officials, Planning and Zoning Board

members, and property owners within the various zoning districts.

1997 Comprehensive Plan - As previously stated, a Comprehensive Plan forms the legal foundation for a municipality's land use policy and zoning regulations. The Village's Zoning Code and subdivision requirements contain several references to the Village's Comprehensive Plan, which currently refers to the plan adopted in 1997. It is recommended that the Village update their Comprehensive Plan document to reflect the community's existing conditions and current values.

Commercial District Framework - The Village currently has three commercial districts, Mixed Commercial/Industrial, Limited Commercial and General Commercial. The existing commercial district framework does not foster a land use pattern that is consistent with the goals and objectives outlined in previous planning efforts and the input received during this planning process. In order to strengthen the commercial district framework, consideration should be given to adopting a commercial district framework that contains the following districts:

- Village Center (VC)
- Limited Commercial (LC)
- General Commercial (GC)

The recommendations provide the minimum zoning language necessary to achieve a higher level of design, connectivity and to upgrade the streetscapes within the study area. The following list depicts the recommendations for the Village Center District as well as for all other districts.

- Building scale and location
- General building design and placement
- Facades
- Materials
- Awnings, doors, and windows
- Pedestrian and bicycle accommodations
- Off-street parking requirements
- Landscaping requirements
- Vehicular access, including access management language

Implementation & Funding

Recommendations for implementation of the proposed improvements are outlined on the following pages. They are subdivided into three categories: Immediate to Near Term (0-5 years), Medium Term (5-10 years), and Long Term (10-20 years). An emphasis was placed upon identifying Immediate to Near Term improvements that are either relatively low cost or that may have more readily available funding opportunities. Medium Term recommendations require more planning and funding to implement, and can likely be accomplished in the 5 to 10 year timeframe. The Long Term recommendations are generally more expensive and are likely to require significant planning to implement. It is noted that the longer timeframes are more typical of municipal budgeting and governmental decision-making. Specific long term improvements may be completed should other funding sources become available.

RECOMMENDATIONS		PRELIMINARY COST ESTIMATE	POTENTIAL FUNDING SOURCES
IMMEDIATE TO NEAR TERM (0-5 YEARS)			
1	Update Comprehensive Plan	$40,000 to $50,000	VB, NYSERDA
2	Adopt the following zoning code changes:		
	• Create a Village Center District and Design Requirements	$7,000 to $10,000	VB, FHWA-PL
	• Update Access Management, Parking, Landscaping, and Circulation Requirements	$5,000 to $10,000	VB, FHWA-PL
	• Create Non-Residential Design Requirements	$3,000 to $7,000	VB, FHWA-PL
	• Modify the Limited Commercial and General Commercial Districts	$3,000 to $5,000	VB, FHWA-PL
	• Complete comprehensive code update	$40,000 to $50,000	VB, FHWA-PL
3	Install Rectangular Rapid Flashing Beacon pedestrian crossing signs at Hickory St and West Av	$60,000	VB, CHIPS, CDBG
4	Install Alternative 1 (restripe and right size, "road diet") with high visibility crosswalks and curb extensions	$327,000	NYSDOT, FHWA-CAP
5	Install pedestrian countdown signals (with optional Accessible Pedestrian Signals) at Roosevelt Rd, 31F, Garfield St, Main St, Elm St	$76,000	NYSDOT, VB, FHWA-CAP, CDBG
6	Install Leading Pedestrian Interval at Commercial St/Washington St	None	NYSDOT
7	Install back-in diagonal parking in the 100 Block of Commercial St	$175,000	VB
8	Install piano key crosswalks at Piano Works	$700	VB, FHWA-CAP, NYSDOT, CDBG
9	Develop community branding/ wayfinding program	$15,000	VB, FHWA-PL

RECOMMENDATIONS		PRELIMINARY COST ESTIMATE	POTENTIAL FUNDING SOURCES
IMMEDIATE TO NEAR TERM (CON'T)			
10	Install Western Gateway Treatment on West Commercial at I-490 on/off ramp	$416,000	VB, NYSDOT, FHWA-CAP
11	Install Bike Boulevard treatments on Elm St	$2,500	VB
12	Continue to install ADA curb ramps Village-wide	$500 to $3,000 EA	VB, CHIP, NYSDOT, CDBG
13	Reconstitute Sidewalk Installation Program (e.g., Roosevelt Rd, 31F)	$40 Per Linear Foot	VB, CHIP, NYSDOT, CDBG
14	Extend northbound left-turn lane at Commercial St/Washington St	$7,000	NYSDOT
15	Complete N. Washington St urban design treatments	Varies	VB, NYSDOT, FHWA-CAP
16	Implement Street Tree Program/ Policy	Varies	VB, DECUFG
17	Install / Replace Street Trees on West Commercial Street (Washington to Roosevelt is included in Alterntive 3 below)	$27,000	NYSDOT, VB, DECUFG, CDBG*
18	Install Street Furniture and Bike Racks	$19,000	VB, PB, NYSDOT, FHWA-CAP
19	Buffer Public Parking Lot - 100 Block of West Commercial Street	$20,000	VB, PB, NEA, NYSCA, CDBG

** May be eligible for CDBG funding in conjunction with street reconstruction project*

MEDIUM TERM (5-10 YEARS)			
20	Install preferred Alternative 3	$2,700,000	NYSDOT, FHWA-CAP, VB

LONG TERM (10-20 YEARS)			
21	Update Comprehensive Plan	$40,000 to $50,000	VB, NYSERDA
22	Implement various access management and design techniques	Varies	NYSDOT, PB

Funding Source Acronyms
1. Village Budget (VB) 2. Consolidated Local Streets & Highway Improvement Program (CHIP) 3. New York State Energy Research & Development Authority (NYSERDA) 4. New York State Department of Transportation (NYSDOT) 5. Federal Highway Administration Planning Funds (FHWA-PL) 6. Federal Highway Administration Capital Improvement Funds (FHWA-CAP) 7. National Endowment For The Arts (NEA) 8. New York Council On The Arts (NYSCA) 9. Private Business (PB) 10. Department of Environmental Conservation Urban Forestry Grants (DECUFG)

This page intentionally left blank.

Introduction

SRF & Associates
Village gateway sign at 31F and Main

SRF & Associates
Village gateway sign travelling from I-490 on W. Commercial

Today's community transportation issues involve much more than moving vehicles and preserving safety and efficiency of travel. Creating walkable, bikeable, livable communities requires a balanced mix of land uses and a high degree of street and route connectivity. Public safety, economic development, the environment, and quality of life are also critically important in understanding transportation problems and solutions. There are opportunities in the Village of East Rochester to create strong, identifiable connections to activity centers (i.e., shops/businesses, recreational destinations, places of work, places of worship), while also enhancing the safety and livability. A major goal of this study is to balance the needs of motorists travelling on the roadways within the Village, while also preserving and enhancing the community's character, economic vitality, walkability and bikeability.

The quality of the public realm contributes to the overall economic and social well-being of a community. Streets and the public spaces along them must be attractive, safe, and function effectively. This study will carefully evaluate the existing streetscapes and public realm experience and develop a framework for which to make enhancements that balance the needs of all users. Developing a thriving village is complex and inextricably linked to many functions and factors. Land use and transportation components – pedestrian, bicycle, transit, and vehicular – must be coordinated with good urban design elements. This study will therefore ensure a comprehensive approach is made to listen to local stakeholders' and residents' desires and vision for the community; investigate the existing conditions of the Village; identify needs and opportunities for enhancements; provide context sensitive alternatives; and ultimately put forth recommendations based upon extensive feedback from the community and interested parties.

Community Background & Study Area Description

Despatch. *Carshops*. These terms are synonymous with East Rochester. Originally called Despatch because of its proximity to the railroad, East Rochester began as an industrial community. The Merchants Despatch Transportation Company was the first company to locate in the community going by the reference Carshops. This planned Village with north-south oriented streets named after US Presidents and east-west streets coined after names of trees was a bustling community in the late 19th and early 20th centuries.

The Foster Armstrong Piano Company (Piano Works) was the second largest business operating in the Village. In the early 20th

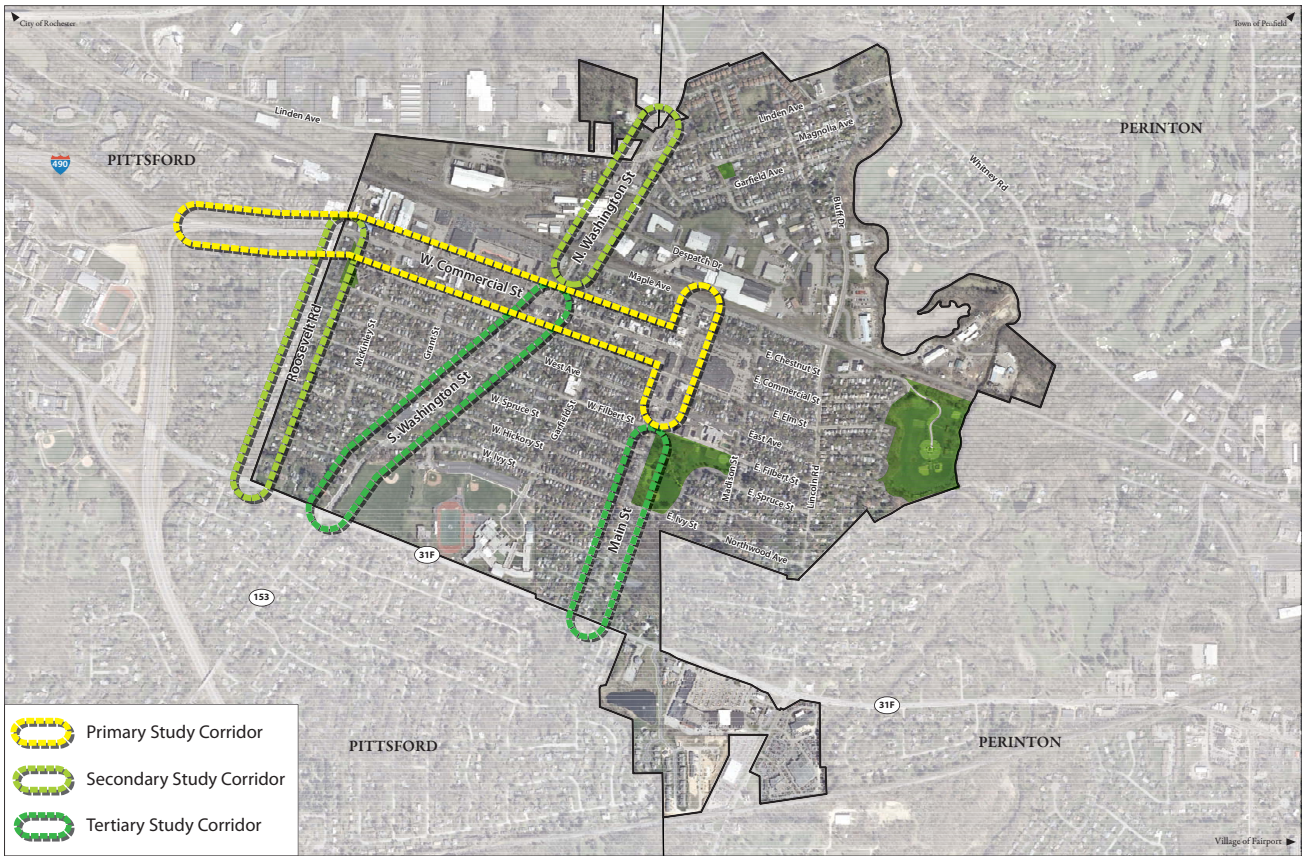


Figure 1 - Study corridors

East Rochester Municipal Historian Collection
Historic downtown East Rochester

century, the Eyer Block came to existence with the distinction of being the largest commercial structure between Rochester and Syracuse.

Along with the rapid development of the Village from a business standpoint, the Village became home to a branch of the Rochester, Syracuse and Eastern Trolley system. This trolley line ran along portions of Commercial Street. Throughout the 20th century, the Village grew in size to reach a population of over 9,500 at its height. Although, like most industrial oriented communities in the country at the time, the Village began to experience a downturn in the 1970s and 1980s. The Village withdrew from the Towns of Perinton and Pittsford to become the coterminous Town/Village of East Rochester. Piano Works and Carshops closed operations and the business district along Commercial Street between Main Street and Madison Street was razed through the use of urban renewal funds.

In recent years, the Village has experienced a rejuvenation of

SRF & Associates
I-490 sign along W Commercial facing west

business. Piano Works has been redeveloped and is home to numerous businesses. The former buildings of Carshops have been largely removed to make way for new industrial businesses. Several noted businesses operating with the Village are Richards and West, Inc., Direct to Market Sales, and Excellus Blue Cross Blue Shield. As a result of this growth, the Villages experiences transportation related challenges. The corridors facing the majority of these challenges, and the streets that make up the project study area, are W Commercial Street, Roosevelt Road, N/S Washington Street (NYS 153), and Main Street. Traffic congestion, parking availability, pedestrian and bicyclist safety, livability, and aesthetics have all been identified as categorical challenges facing East Rochester.

The West Commercial Street corridor has been faced with an increase in traffic volumes over the recent years. In addition, streets such as Roosevelt Road are used as an alternative route for cut-through traffic. This increase in traffic coupled with diverted traffic poses challenges for a balanced transportation network; pedestrians, bicyclists, motorists, and transit alike. The intersection of West Commercial Street and Roosevelt Road acts as the Village's primary gateway for traffic exiting I-490. In its current condition, the corridor lacks aesthetically pleasing elements and encourages motorists to travel through the Village without slowing down to appreciate what East Rochester has to offer.

Pedestrian safety is equally as important based on East Rochester being a bus-free school district. The density of the neighborhoods, existence of an integrated sidewalk network, and frequency of marked crossing locations, and high transit usage make East Rochester a walkable community. With school children living up to 1.5 miles away, it is key that a safe walking environment be available to those students choosing to walk.

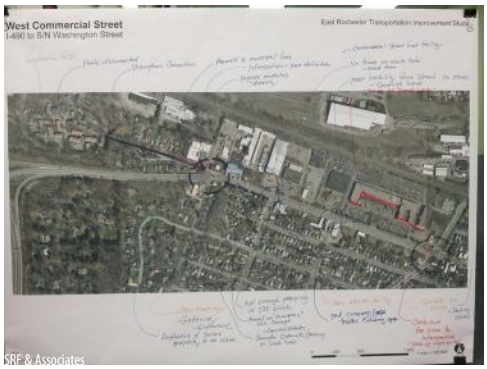

Google Maps
East Rochester Union Free School District

One common theme that has always been tied to East Rochester is its moniker of "Home of Champions". This is "not only for the many national sports awards, but for the caring, community-involved people who make the Village so special. (erhistory.com)"

Study Purpose, Process & Preliminary Goals

The purpose of the *East Rochester Transportation Improvement Study* is to develop feasible planning, design, and regulatory concepts that aim to improve circulation, accessibility, parking, and safety for pedestrians, bicyclists, motorists, and transit uses. This plan will aid officials in guiding future projects in such a way as to achieve a balance among modes of transportation and land

Public Open House



Comments made at the kickoff meeting

Public Open House - Everyone left their thoughts!

uses to promote East Rochester's goals as stated in the *2003 Village of East Rochester Strategic Plan for Downtown Revitalization and Business Development*.

At the beginning of the study, a Steering Committee (SC) was formed to establish Village priorities, provide continuity and oversight, and progress the goals of the *Strategic Plan* with respect to transportation and community design. The committee has guided the study process, participated in a Public Open House, and acted as liaisons to the broader community. Members of the committee include Village officials, nearby local business representatives, the New York State Department of Transportation (NYSDOT), Genesee Transportation Council (GTC), Town of Pittsford, and Monroe County Department of Transportation (MCDOT). GTC is the regional Metropolitan Planning Organization (MPO) that is overseeing and administering the *East Rochester Transportation Improvement Study*. GTC is responsible for the disbursement of federal aid monies for transportation-related projects, programs, and initiatives.

At the project kickoff meeting, various issues were identified. The issues discussed at the meeting include: pedestrian safety, crossings, and linkages; parking availability and accessibility; traffic calming and vehicle speeding; intersection safety; building setbacks; and community aesthetics and green space.

A Public Open House was held on November 18, 2013 to discuss the goals of the study, as well as present initial findings from the Consultant Team's detailed study of the Village's corridors. A Community Preference Survey (CPS) was administered during the Workshop to gauge local attitudes towards various types of design including architecture, landscaping, signage, and overall appearance of the streetscape. A summary of the comments received during the workshop and the results of the CPS are described in the Needs and Opportunities section of this report. In addition, the public provided feedback on "What Makes a Great W. Commercial Street?" and "Tell Us What You Think". The latter feedback opportunity offered attendees a chance at providing insights and ideas for the corridors of Roosevelt Road, Main Street, Washington Street, and the Downtown (100 and 200 blocks of West Commercial Street). Further, residents were asked to markup large scale roadway plans of the West Commercial Street corridor where they feel there were issues or opportunities for improvement.

The project study area is broken up into three corridors: primary,

secondary, and tertiary. The primary study corridor is West Commercial Street. This is in large part because of the volume of traffic the roadway experiences on an everyday basis, the location of a majority of the Village's businesses and shops, prevalence of pedestrian traffic, and the Village's downtown. For motorists travelling to or through the Village, West Commercial Street is typically the first impression one receives. Therefore, from a gateway standpoint, the corridor is key in how the Village looks and feels. The secondary corridors are Roosevelt Road and North Washington Street. Roosevelt Road has been identified as a route for cut-through traffic as well as lacking sidewalks. North Washington Street is designated a secondary corridor due to its stark streetscape, high volumes of traffic, and its role as a key linkage between the northern and southern portions of the Village. The tertiary corridors are South Washington Street and Main Street. These roadways feature inviting streetscapes with aesthetically pleasing features (green space, enclosure, etc.), low to moderate traffic volumes, and relative quality of the built environment. The tertiary study corridors have the least amount of concerns based on discussions with the Steering Committee.

As a result of the feedback given, preliminary project goals have been established. These goals are aligned with the vision and recommendations set forth by previous plans for the Village of East Rochester, so as to develop a cohesive framework for actions to be implemented within the Village. These project goals are:

- **Improve** the appearance of the West Commercial Street corridor;
- **Enhance** the pedestrian and bicyclist environment;
- **Provide** safe and convenient linkages to parking and key destinations;
- **Improve** the livability and overall quality of life in the Village; and
- **Leverage** existing Village resources to improve upon the thriving business community and carefully manage the high traffic volumes West Commercial Street experiences.

Inventory & Analysis

Downtown East Rochester

Community Assets

The Village of East Rochester is home to over 6,500 residents, and contains numerous businesses throughout the thriving CBD and along the West Commercial Street corridor. In addition, businesses line the North Washington Street corridor extending from West Commercial Street to Linden Avenue and beyond. The relative size and density of the Village makes for a walkable, livable, and sustainable community. The Village character within the CBD is apparent through the architectural appeal of early 20th century main streets.

East Rochester further encourages a walkable community atmosphere through allowing students of the school district to either walk to school or be dropped-off. All students within the Village, depending on walking speed, can walk to school in approximately 20 minutes or less. Given the layout of streets within the Village and the compact, walkable nature of the community, East Rochester promotes connectivity and social interaction.

Regarding social cohesion and intersection amongst the residents of East Rochester, the Village holds claim to nearly 15 annual events. Events include Festa Italia, held in June, where visitors can experience authentic Italian food from local eateries, as well as enjoy planned activities throughout the event. Additional events are the Fireman's Field Days Parade, Veteran's Day Ceremony, Karnocker 5K Race, Advent Craft Show, and Christmas Round-the-World, amongst others. The events help promote a sense of pride and community togetherness that speak to the history of East Rochester and the roots for which have grown throughout the community.

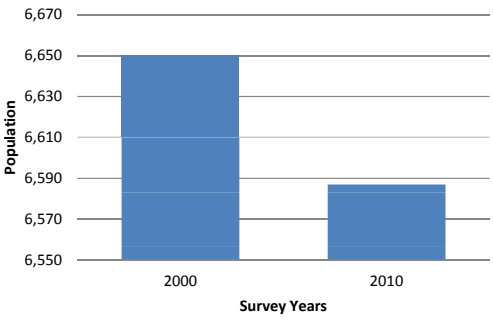


Table 1 - Population

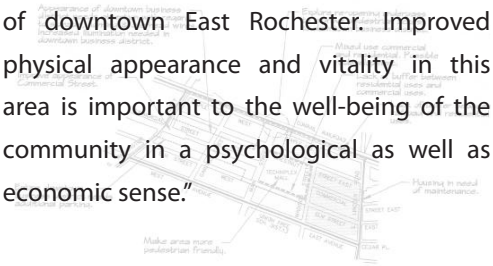
Brief Demographic Assessment

A community profile assessment reveals that between 2000 and 2010, the total population decreased by 0.95%, as shown in **Table 1**. According to the Genesee/Finger Lakes Regional Planning Council, population forecasts for East Rochester indicate a slight downward trend. Population estimates based on the 2010 Census depict a population density of 4,971 persons per square mile. This indicates a relatively compact community structure enabling residents to connect with their neighbors within short distances. In terms of age, 22.3% of the population is under the 18, while 12.1% of the population is above the age of 65. The mean travel time to work between the years of 2008 and 2012 is was 15.8 minutes. The median household income from 2008 to 2012 was $47,105.

Relevant Plans & Studies

Over the past two decades, East Rochester has completed a number of planning and community design efforts. Many of these contain recommendations that directly relate to this study and the study area. These efforts are summarized below.

"The downtown area represents the 'heart' of downtown East Rochester. Improved physical appearance and vitality in this area is important to the well-being of the community in a psychological as well as economic sense."



~ Comprehensive Plan

East Rochester Comprehensive Plan, 1997: The Comprehensive Plan for the Village of East Rochester was adopted in June, 1997. No formal updates to this document have been completed since its adoption. A significant portion of the Plan's recommendations are devoted to ensuring the vitality of the central business district or "Neighborhood 2" as it is referred to in the Plan. These recommendations include:

- Making the downtown business district more pedestrian friendly by improving crosswalk demarcations and installing benches;
- Improving the appearance of storefronts and pursuing grants for façade improvements;
- Providing better screening of the Techniplex facility from surrounding residences; and
- Implementing various parking improvements.

The Plan also provides recommendations for Commercial Street, west of Washington Street (referred to as "Neighborhood 5" in the Plan.) Key recommendations in this area include:

- Enhancing the gateway into the Village from the I-490 off-ramp;
- Continuing the redevelopment along the corridor for commercial, office and industrial uses; and
- Improving the appearance of storefronts.

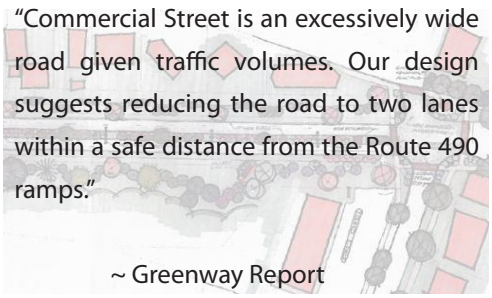
"The pedestrian character of the traditional downtown area is impacted by the presence of an auto repair shop at the intersection of Main and Chestnut Streets."

~ Downtown Revitalization Plan

Downtown Revitalization Plan, 2003: The strategic planning process used to develop this plan identified seven major goals:

- Improve the appearance of the Main Street/West Commercial Street business district;
- Improve the pedestrian environment within the traditional downtown area;
- Increase availability of parking;
- Support existing businesses;
- Encourage an appropriate mix of business uses to locate along Main Street and West Commercial Street;
- Make needed improvements to infrastructure along Main Street and West Commercial Street; and
- Improve housing conditions in the neighborhoods adjoining the business district.

The Plan also contains a detailed implementation strategy to accomplish each of these goals.



East Rochester Greenway Report, 2005: The geographic focus of this project begins at the East Rochester exit ramp from Interstate 490 and terminates at Roosevelt Road. According to the original project application form, the purpose of this design effort includes but was not limited to:

- Healing the injury inflicted by the installation of a four-lane interstate on the residential quality of life;
- Re-connecting the historic Marigold Gardens and Concrest neighborhoods that the interstate split in two;
- Creating a gateway into East Rochester for traveler's arriving via I-490;
- Increasing the pedestrian and vehicular safety; and
- Improving the opportunities for increased retail activity.

The final design recommendations incorporate a variety of traffic calming and gateway elements including a planted median, decorative streetlights, additional landscaping and enhanced crosswalks.

"The properties on the north side (of Commercial Street, west of Grant Street) are generally in good shape, but their varied setbacks jumble the overall visual impression in this area."

~ Commercial/Industrial Guidance Document

Commercial/Industrial Guidance Document, 2012: Representatives from the Village Board, Planning Board, Zoning Board of Appeals and the business community worked to identify "individual properties where improvements in appearance would enhance the overall visual effect of the commercial and industrial areas and subsequently the Village of East Rochester." The focus of their effort was to enhance the entry onto Commercial Street from I-490. Specific site improvements were recommended for individual properties along West Commercial Street, beginning at Roosevelt Road. Other general improvements for this area include but are not limited to:

- Screen garbage cans;
- Installation of flower boxes;
- Install decorative maps, hanging planters and a "Welcome to East Rochester" sign;
- Encourage upgrades to building façades and signage;
- Add landscaping and street trees;
- Demolish dilapidated residential structures; and
- Design traffic calming improvements at the western gateway to slow traffic in to the Village.

These recommendations are consistent with all of the previous planning efforts summarized in this section.

W. Commercial Street: Residential uses along the south side of the street, east of Roosevelt Road.

W. Commercial Street: Commercial uses along the south side of the street at Grant Street.

W. Commercial Street: The Piano Works Mall located along the north side of the street.

W. Commercial Street: This segment of the corridor forms the spine of downtown East Rochester.

Existing Land Use Patterns

The existing land use pattern within the Study Area is shown in **Figure 2** and is summarized below:

West Commercial Street - The dominate land use type along Commercial Street consists of commercial uses (shown in red) that generally include retail and service activity. West of N/S Washington Street, the commercial operations are designed to cater to the large number of motor vehicles that use this corridor each day. East of N/S Washington Street, the commercial uses are organized in a more traditional development pattern that serves to create a street and streetscape that caters to pedestrian activity as well as automobile traffic.

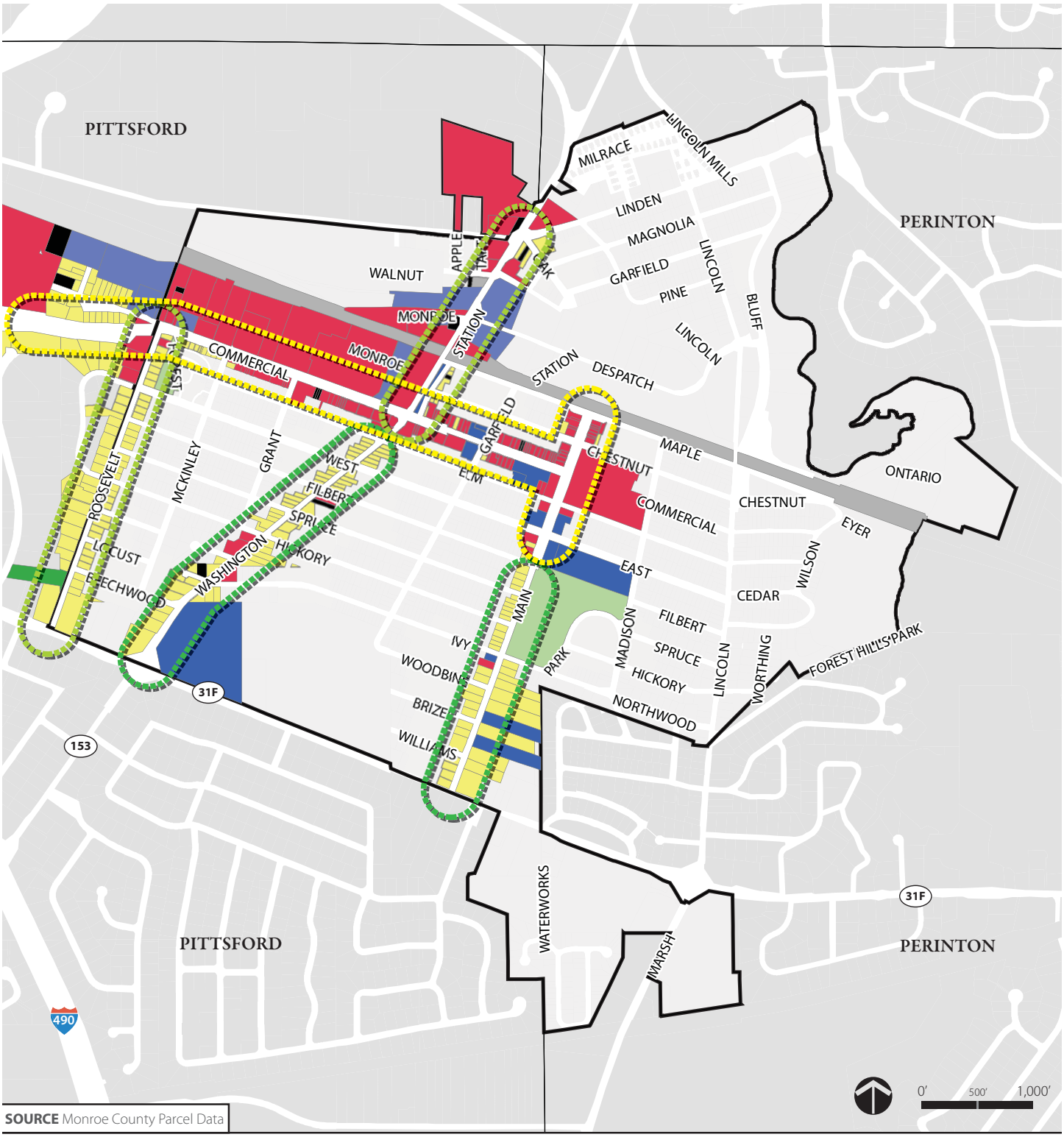
There is a concentration of residential uses (shown in yellow) on both sides of Commercial Street, west of Roosevelt Road. East of Roosevelt Road, there are residential uses on the south side of Commercial Street. Additional land uses along Commercial Street include community services such as the Town/Village Hall and a small number of industrial operations.

Roosevelt Road - Roosevelt Road is a residential street with single family homes on both sides of the street beginning at Route 31F and extending north to West Avenue. North of West Avenue there are a small number of multi-family housing units and commercial uses adjacent to Commercial Street. The multi-family housing units are classified as commercial and are shown in red in **Figure 2**.

Main Street - Within the study area, Main Street has two distinct land use patterns. South of Filbert Street, Main Street can be described as a single family residential neighborhood that includes Edmund Lyon Park. North of Filbert Street, There is a blend of commercial and community uses. Community uses include but are not limited to the Public Library and the Koinonia Fellowship Church. The largest commercial presence is the Techniplex Facility, located at the terminus of West Commercial Street.

N/S Washington Street - North Washington Street consists primarily of commercial and industrial land uses. The commercial uses are designed and oriented to cater to the needs of the motor vehicles traveling the corridor. The industrial operations are generally clustered around the Washington Street/ Monroe Street/Despatch Drive intersection. South Washington Street is a residential street with single family homes along both sides of the street. Non-residential uses in this segment include a funeral home, gas station and the East Rochester School District Campus.

Figure 2 - Generalized Land Use



Zoning Summary

This section serves to summarize the regulatory language and requirements of the zoning districts that are within the project study area. This overview will provide a foundation upon which zoning recommendations can be made to correspond with the goals and objectives developed as part of the planning process. There are a total of seven zoning districts within the project limits. All the zoning districts rely on the standard functions of use and bulk regulations. These districts are shown in **Figure 3** and summarized below. The dimensional requirements for all of the zoning districts within East Rochester is included in the appendix of this study.

The purpose of the Single Family Districts is to, "provide for single family residential development, together with such public buildings, schools, churches, public recreational facilities and accessory uses as may be necessary or are normally compatible with residential surroundings."

R-1-48 and R-1-70 - Single Family: These Districts are shown in light and dark brown in **Figure 3**. They derive their name from their respective 4,800 square foot and 7,000 square foot minimum lot size requirement for single family dwellings. These districts accommodate public and community uses as either a permitted use or with a Special Permit. These uses include but are not limited to churches, parks, schools, and libraries. There are also a limited number of commercial uses allowed by Special Permit. These include, home occupations, funeral homes and day care centers.

The purpose of the Industrial District is to, "provide for the establishment of light industrial uses essential to the development of a balanced economic base in an industrial environment and to regulate such development so that it will not be detrimental or hazardous to the surrounding community and to the general health, safety and well-being of the Town/Village of East Rochester."

I - Industrial: The Industrial District is shown in red in **Figure 3**. Permitted uses include a wide range of manufacturing and industrial activities included but not limited to: fabrication of wood or metal products, food processing and warehousing, but are not limited to offices, broadcasting studios, wholesale businesses, industrial operations, and warehousing. A limited number of commercial uses are permitted in this district as well. These include motor vehicle repair shops and animal hospitals. Both of these uses would be difficult to accommodate in the Town/Village's commercial districts due to their proximity to residential areas. For example, the placement of an animal hospital or motor vehicle repair shop in a Limited Commercial District would result in these uses being immediately adjacent to existing neighborhoods. The current code prevents this from occurring.

"The purpose of the Mixed Commercial/Industrial District is to provide for the orderly development and redevelopment of areas that have historically contained a mix of commercial and industrial uses."

C/I - Mixed Commercial/Industrial: The Mixed Commercial/Industrial District is shown in orange in **Figure 3**. Permitted uses include a wide range of commercial and industrial activities included but not limited to: retail business establishment, personal service establishments, and a mix of residential and commercial uses in the same building. Specially Permitted Uses include but are not limited to; gas stations, light manufacturing, public uses, funeral homes, motor vehicle sales and repair and warehousing.

Figure 3 - Village Zoning Map

LEGEND

R-1-70	SINGLE FAMILY	
R-1-48	SINGLE FAMILY	
TR	TOWNHOUSE RESIDENTIAL	
LC	LIMITED COMMERCIAL	
GC	GENERAL COMMERCIAL	
I	INDUSTRIAL	
PDD	PLANNED DEVELOPMENT DISTRICT	
C/I	MIXED COMMERCIAL/ INDUSTRIAL	

"The purpose of the LC Limited Commercial District is to provide for attractive and efficient retail shopping facilities of integrated design in appropriate locations. It is intended that the district shall be laid out and developed as a unit according to an approved plan so that the purpose of the district may be accomplished."

LC - Limited Commercial: The Limited Commercial District is shown in yellow in **Figure 3**. This is the predominate zoning classification within the primary study area. The permitted uses are identical to those allowed in the Mixed Commercial/Industrial (C/I) District. However, the specially permitted uses in the LC District do not include motor vehicle sales and repair, light industrial uses, as well as warehousing and distribution facilities. A more detailed comparison of the LC and C/I District requirements are provided on the following page.

The purpose of the General Commercial District is to, "provide sufficient space in appropriate locations for a wide variety of business, commercial and miscellaneous service activities, particularly along certain existing major thoroughfares where a general mixture of commercial and service activity now exists, but which uses are not characterized by extensive warehousing, frequent heavy trucking activity, open storage of material or the nuisance factors of dust, odor and noise associated with manufacturing."

GC - General Commercial: According to the existing zoning map on the previous page, there is only one parcel in the community that is currently zoned GC. This parcel is located on the northeast corner of the North Washington Street/Linden Avenue intersection and is shown in green on the zoning map. This site is currently occupied by the Acura New and Used Car Dealership. This district is the most permissive commercial zoning district in East Rochester. Permitted uses include but are not limited to those allowed in the Limited Commercial District, indoor recreation facilities, motor vehicle sales, motor vehicle repair operations less than 6,000 square feet, fast food restaurants, lodging, and self-storage units. Specially permitted uses include but are not limited to light industrial uses, car washes, gasoline and service stations, outdoor recreation facilities, public uses, funeral homes and adult uses.

The purpose of the Planned Development District is:

- To provide for new residential, commercial, industrial and/or recreational development in which the economies of scale and creative and innovative planning and architectural concepts and techniques may be utilized by the developer without departing from the spirit and intent of this chapter.
- To provide for the most appropriate, efficient and environmentally sound use of the remaining undeveloped land areas within the village.
- To ensure that the regulations of this section are so interpreted and applied that the benefits of this chapter to the residents or occupants of the Planned Development District and the residents or occupants of adjacent properties will be protected.

PDD - Planned Development: The Planned Development District is shown in blue in **Figure 3**. The exact mix of land uses that can be developed in the PD District must be authorized by the Village Board. However, the following uses may be considered by the Board for inclusion in the PD District; single and multi-family dwellings, commercial uses permitted in the LC or GC Districts, public or private recreation facilities, industrial uses permitted by right in the I District; and selected combinations of these uses.

Code Requirements	Limited Commercial	Commercial Industrial	General Commercial
Land Uses			
• Retail Businesses & Sit Down Restaurants	P	P	P
• Drive-in or Fast Food Restaurants	-	-	P
• Personal Services	P	P	P
• Trade Schools & Day Care Centers	P	P	P
• Mix of Residential & Business Uses	P	P	P
• Indoor Recreation Facilities	-	-	P
• Outdoor Recreation Facilities	-	-	SP
• Gasoline Service Stations	SP	SP	SP
• Motor Vehicle Repair*	-	SP	SP
• Motor Vehicle Sales	-	SP	P
• Car Washes	-	-	SP
• Lodging	-	-	P
• Public Utilities, Public & Semi-Public Uses	SP	SP	SP
• Funeral Homes	SP	SP	SP
• Light Industrial Uses*	-	SP	SP
• Light Assembly	SP	SP	SP
• Warehousing & Storage	-	SP	P
• Distribution Facilities	-	SP	SP
• Animal Hospitals or Clinics	-	-	P
• Adult Uses	-	-	SP
Minimum Lot Size (Square Feet)			
• Retail & Service Uses (on local roads)	1,500	2,400	10,000
• Retail & Service Uses (on state or county highways)	10,000	10,000	10,000
• Schools & Day Care Centers	1,500	2,400	10,000
• Public & Semi-Public Uses	1,500	2,400	10,000
• Light Industrial Uses	10,000	10,000	20,000
• All Other Uses	10,000	10,000	10,000
Front Setback (Feet)			
• Retail & Service Uses (on local roads)	0	20	50
• Retail & Service Uses (on state or county highways)	50	50	50
• Schools & Day Care Centers	0	50	50
• Gasoline Service Stations	40	40	40
• Motor Vehicle Sales	-	40	50
• Motor Vehicle Repair	-	40	40
• Car Wash	-	-	40
• Public Utilities	50	50	50
• Light Assembly	50	50	35
• Public & Semi-Public Uses	0	20	50
• Funeral Homes	50	50	50
• Light Industrial Uses	-	50	35
• Warehousing, Storage & Distribution Facilities	-	50	35

NOTES:
P = Permitted SP = Specially Permitted "-" = Not An Articulated Use
* Industrial Uses & Motor Vehicle Repair Operations less than 6,000 sq ft in size are a permitted use in the GC District

W Commercial between McKinley and Grant facing east

East Rochester's Transportation Characteristics

West Commercial Street is a roadway that travels in an east/west orientation and provides a major linkage between I-490 and downtown East Rochester. Between Roosevelt Road and N/S Washington Street, the roadway is under the jurisdiction of the NYSDOT. West Commercial Street is functionally classified as an urban minor arterial roadway. There are two travel lanes in each direction between Roosevelt Road and N/S Washington Street and one travel lane in each direction between N/S Washington Street and Main Street. The Village speed limit is posted at 30 miles per hour (MPH).

West Commercial Street

(between Roosevelt Road and N/S Washington Street)

- Functional Classification:
  Urban minor arterial
- Average Daily Traffic:
  13,583 vpd (NYSDOT, 2011)
- Right-of-way:
  90'
- Sidewalks:
  ~5' on both sides
- Travel-way width:
  54' between Roosevelt Road and McKinley Street; 56' east of McKinley Street
- Speed limit:
  30 MPH
- Transit:
  Rochester Regional Transit Service

West Commercial Street

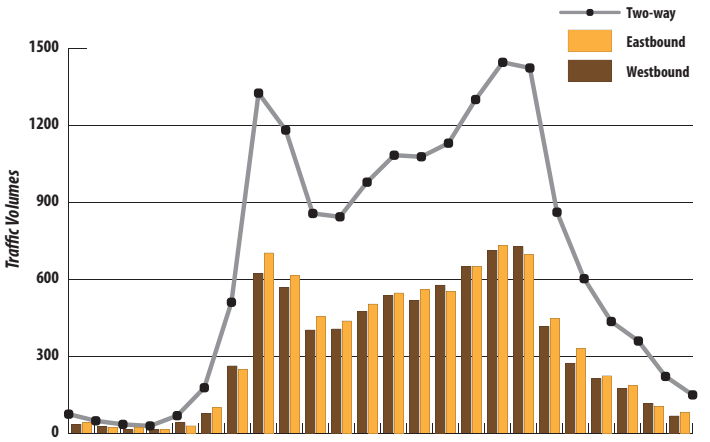
(between N/S Washington Street and Main Street)

- Functional Classification:
  Urban minor arterial
- Average Daily Traffic:
  6,212 vpd (NYSDOT, 2009)
- Right-of-way:
  50 - 90'
- Sidewalks:
  5' on both sides west of Garfield Street; >5' on both sides east of Garfield Street
- Travel-way width:
  36' west of Garfield Street; 60' east of Garfield Street
- Speed limit:
  30 MPH
- Transit:
  Rochester Regional Transit Service

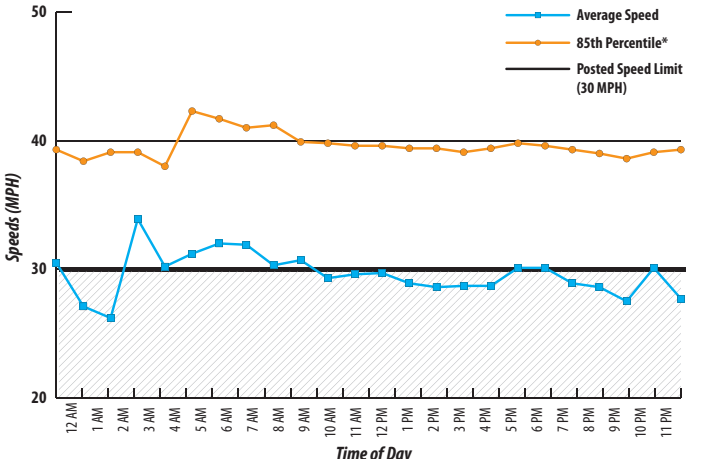
W Commercial between Roosevelt and McKinley facing east

W Commercial at Garfield facing east

W. COMMERCIAL TRAFFIC VOLUMES



W. COMMERCIAL SPEED STUDY - EASTBOUND ENTERING THE VILLAGE (FROM I-490 TO N/S WASHINGTON ST)



(Top) Chart 1 - W Commercial Traffic Volumes
(Bottom) Chart 2 - W Commercial Speed Study

An assessment of the vehicle speeds was performed along West Commercial Street between Roosevelt Road and N/S Washington Street. The data depicted in **Charts 1 & 2** were collected by the NYSDOT in 2011. The results of the speed assessment indicate that the average eastbound speed is 29.7 MPH. The 85th percentile speed (the speed at which 85% of the traffic is travelling at or below) is 39.8 MPH. The data shows that approximately 78% of the vehicle traffic travels above the posted 30 MPH limit.

Resident-driven speed enforcement sign

East Rochester Police Department radar enforcement trailer


SRF & Associates
Washington from 31F to Commercial facing north


SRF & Associates
Washington from Commercial to Linden facing north


SRF & Associates
Washington from Commercial to Linden facing south

N/S Washington Street (NY 153) is a NYSDOT highway that travels in a north/south orientation. N/S Washington Street provides a major linkage between the Village of Pittsford, Village of East Rochester, and the Town of Penfield. The highway is functionally classified as a classified as an urban minor arterial roadway. There is one travel lane in each direction within the study area.

N/S Washington Street

(between 31F and north village boundary)

- Functional Classification:
  Urban minor arterial
- Average Daily Traffic:
  8,880 vpd (NYSDOT, 2009) south of West Commercial Street; 18,664 vpd (NYSDOT, 2010) north of West Commercial Street
- Right-of-way:
  50'
- Sidewalks:
  5' on both sides; 6' – 7' adjacent the railroad underpass
- Travel-way width:
  24' south of West Commercial Street; 44' – 45' north of West Commercial Street
- Speed limit:
  30 MPH
- Transit:
  Rochester Regional Transit Service


SRF & Associates
Roosevelt facing north

SRF &Associates
Transit service along Roosevelt

Roosevelt Road is a local roadway that travels in a north/south orientation. The roadway primarily services the residential neighborhoods bordering the street. In the beginning of the study is was noted that Roosevelt Road is used as a cut-through route for traffic bypassing the other major roadways in the Village. The eastern side of the road is within the Village of East Rochester, while the western side is within the Town of Pittsford.

Roosevelt Road

(between 31F and West Commercial Street)

- Functional Classification:
  Local
- Average Daily Traffic:
  1,700 vpd (SRF, 2013)
- Right-of-way:
  ~64'
- Travel-way width:
  ~24
- Speed limit:
  30 MPH
- Transit:
  Rochester Regional Transit Service

Main facing north

Main Street is a local roadway that travels in a north/south orientation and provides a key linkage between 31F and downtown East Rochester. The roadway also services the residential neighborhoods located on either side as well as Edmund Lyon Park. There is one travel lane in each direction. The speed limit is posted at 30 MPH. However, immediately adjacent Edmund Lyon Park, the speed limit is posted at 20 MPH.

Main Street
(between 31F and West/East Avenue)

- Functional Classification:
  Local
- Average Daily Traffic:
  2,420 vpd (SRF, 2013)
- Right-of-way:
  60'
- Sidewalks:
  5' on both sides
- Travel-way width:
  30'
- Speed limit:
  30 MPH; 20 MPH with time restriction within the school zone and Edmund Lyon Park
- Transit:
  Rochester Regional Transit Service

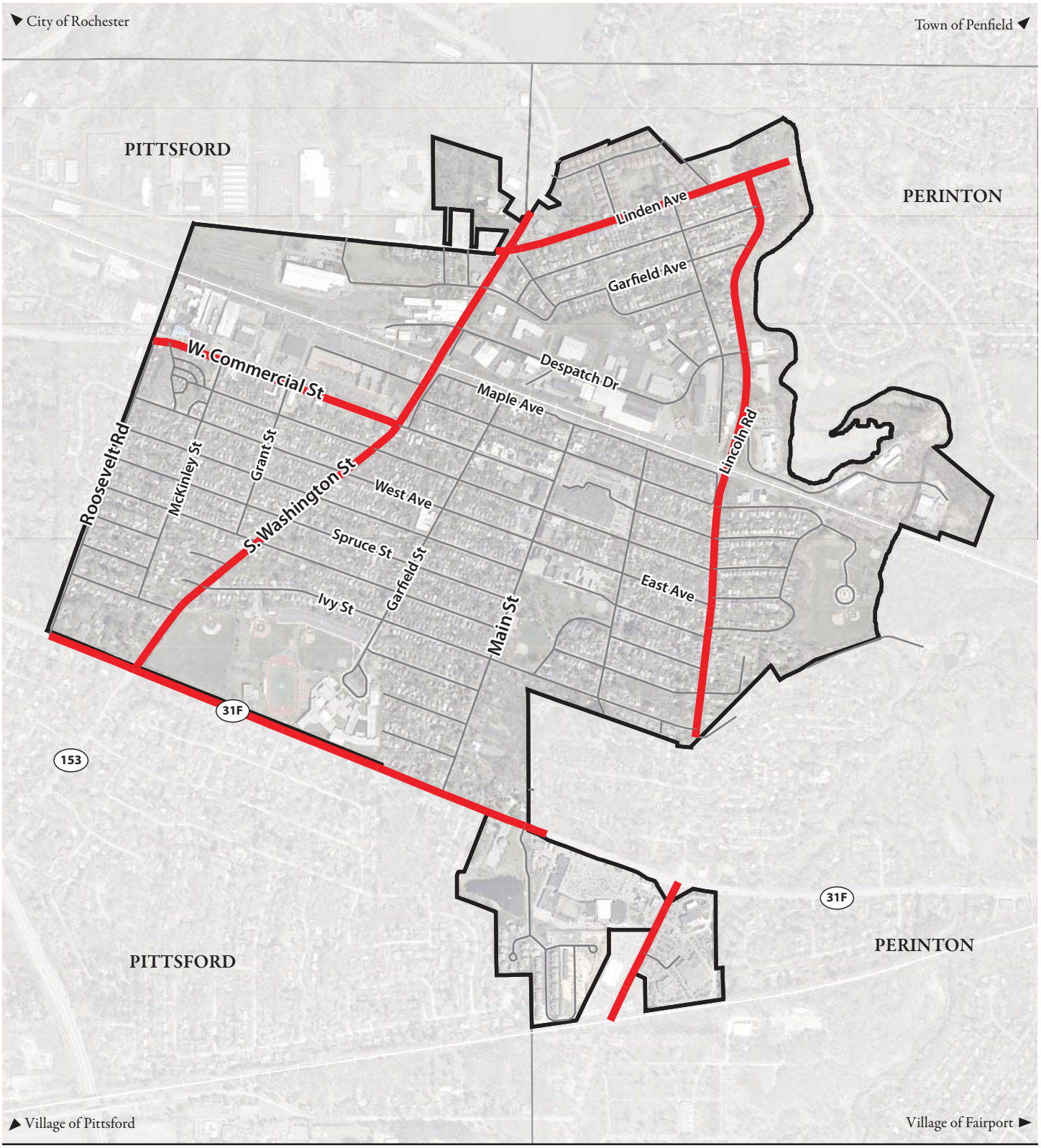
Main Street
(between West/East Avenue and Maple Avenue)

- Functional Classification:
  Local
- Average Daily Traffic:
  1,900 vpd (SRF, 2013)
- Right-of-way:
  100'
- Sidewalks:
  5' - 10; varies by location
- Travel-way width:
  50'
- Speed limit:
  30 MPH
- Transit:
  Rochester Regional Transit Service

School speed limit posting with radar enforcement

Main at West/East Ave

Figure 4 - Functional Classification



Legend

Urban Minor Arterial

Local

0' 500' 1,000'

October 1, 2013

Vehicular Data & Analyses

Weekday commuter AM (7:00-9:00AM) and PM (4:00PM-6:00PM) vehicular turning movement counts and pedestrian crossings were collected by SRF & Associates (SRF) at four intersections within the study area on November 12, 2013. The existing peak hour volumes are illustrated in **Figures 5 & 6**. The Consultant Team observed and documented traffic operations along the study area roadways during peak and off-peak hours.

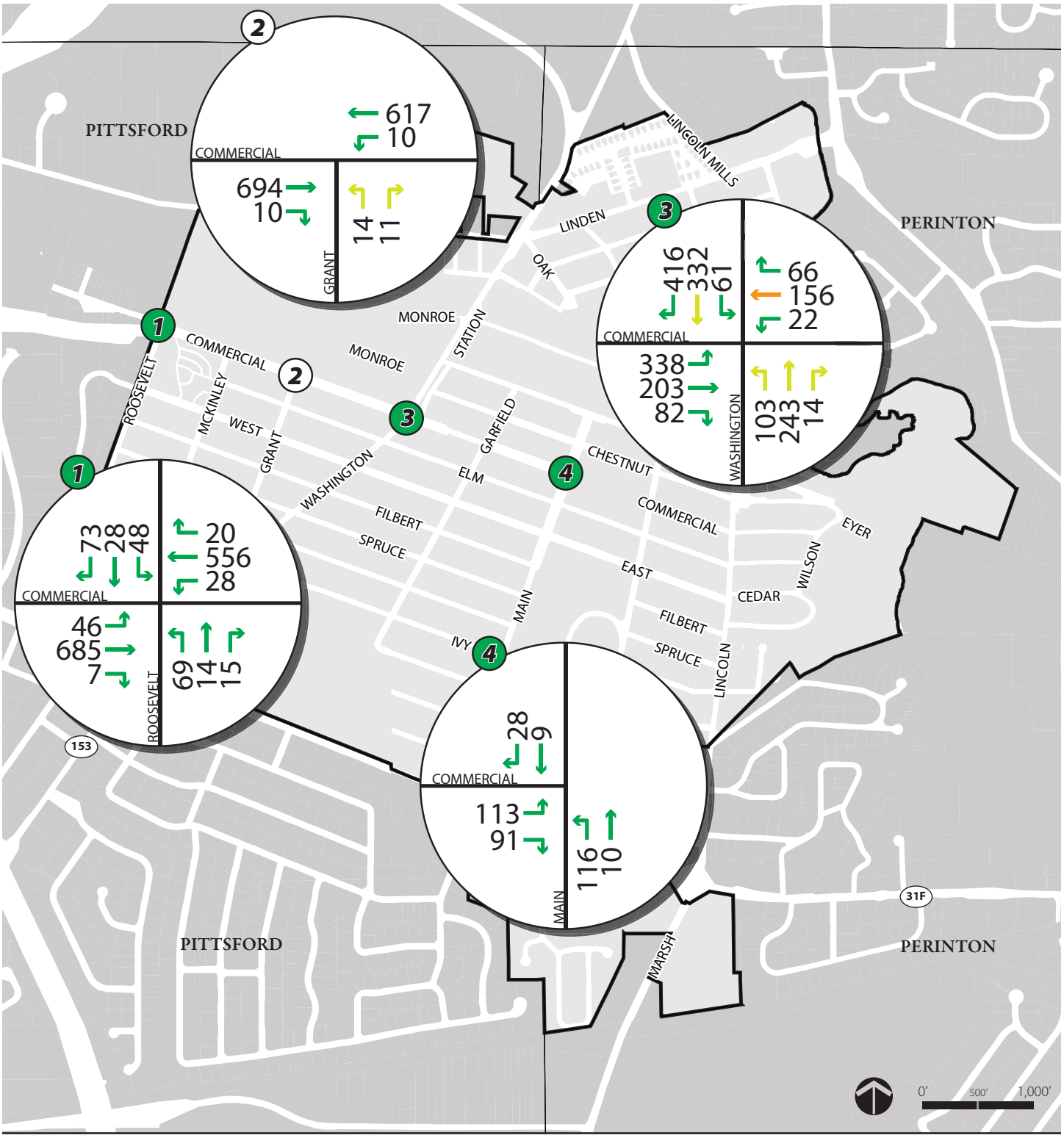
Data was collected to assess the quality of traffic flow for the existing AM and PM peak hour conditions. Capacity analysis is one technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. The measure of effectiveness used for the capacity analysis is referred to as a Level of Service (LOS). Levels of Service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Intersection capacity analyses have been performed and described in this section of the report.

Six Levels of Service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing operating conditions with the least time delay. LOS "F" is the least desirable operating condition where longer delays are experienced by motorists. The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the 2010 Highway Capacity Manual (HCM 2010). Traffic analysis software, SYNCHRO 8, which is based on procedures and methodologies contained in the HCM 2010, was used to analyze operating conditions at study area intersections. The procedure yields a Level of Service based on the HCM 2010 as an indicator of how well intersections operate. Existing operating conditions are documented in the field and modeled using traffic analysis software. The traffic analysis models are calibrated based on the actual field observations.

Existing Traffic Analysis

Existing operating conditions during the peak study periods are evaluated to determine a basis for comparison with the future no-build conditions. Capacity results for existing and future no-build conditions are depicted in **Figures 5 & 6**. All detailed capacity analysis calculations are included in the Appendices.

Figure 5 - Existing Vehicle Level of Service (AM peak hour)



MOVEMENT LEVEL OF SERVICE (LOS)

LOS A-B

LOS C

LOS D

Less Congested

More Congested

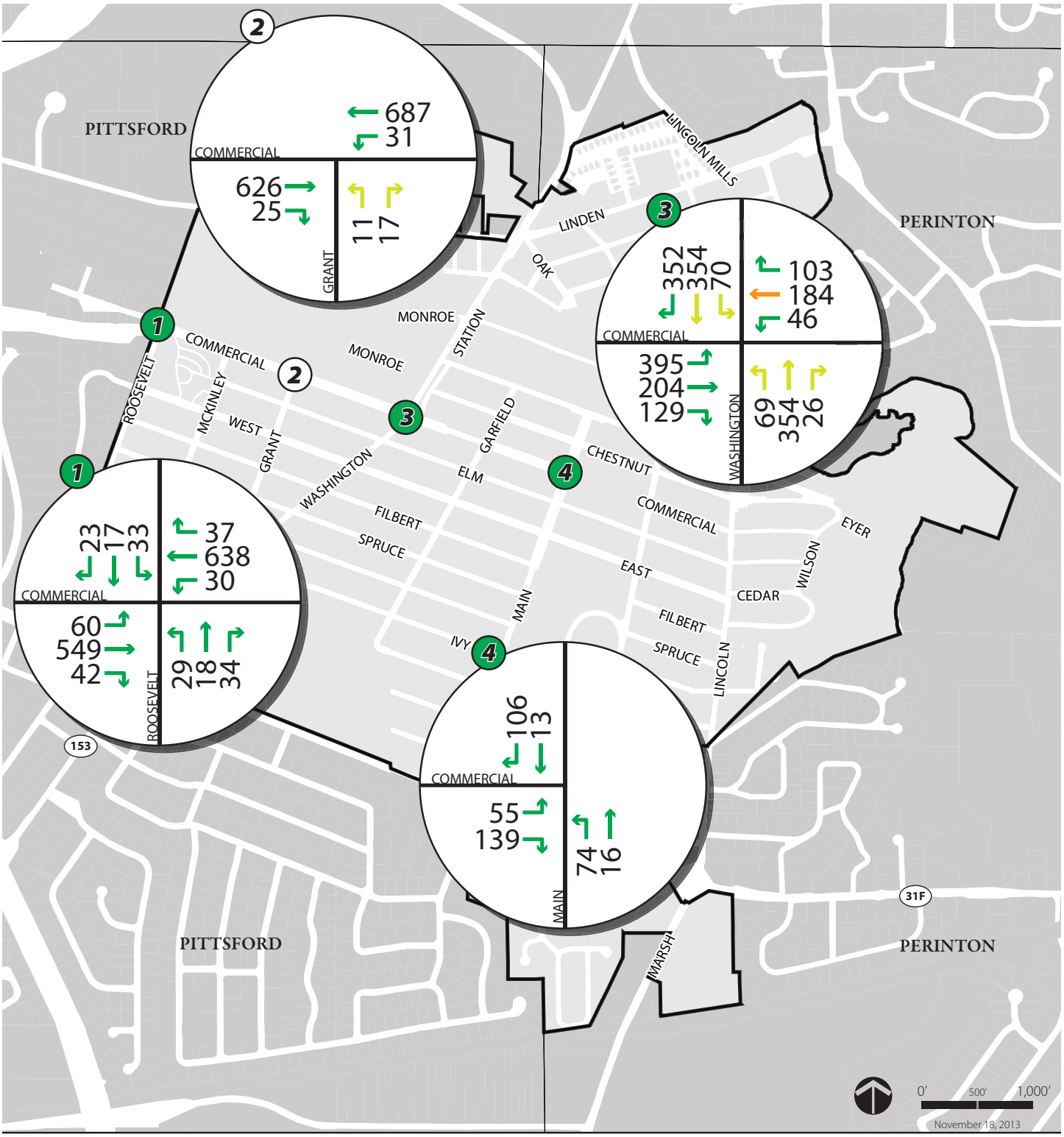
INTERSECTION LEVEL OF SERVICE

LOS A-B

Unsignalized Intersection

Note:
Number denotes corresponding intersection

Figure 6 - Existing vehicle level of service (PM peak hour)

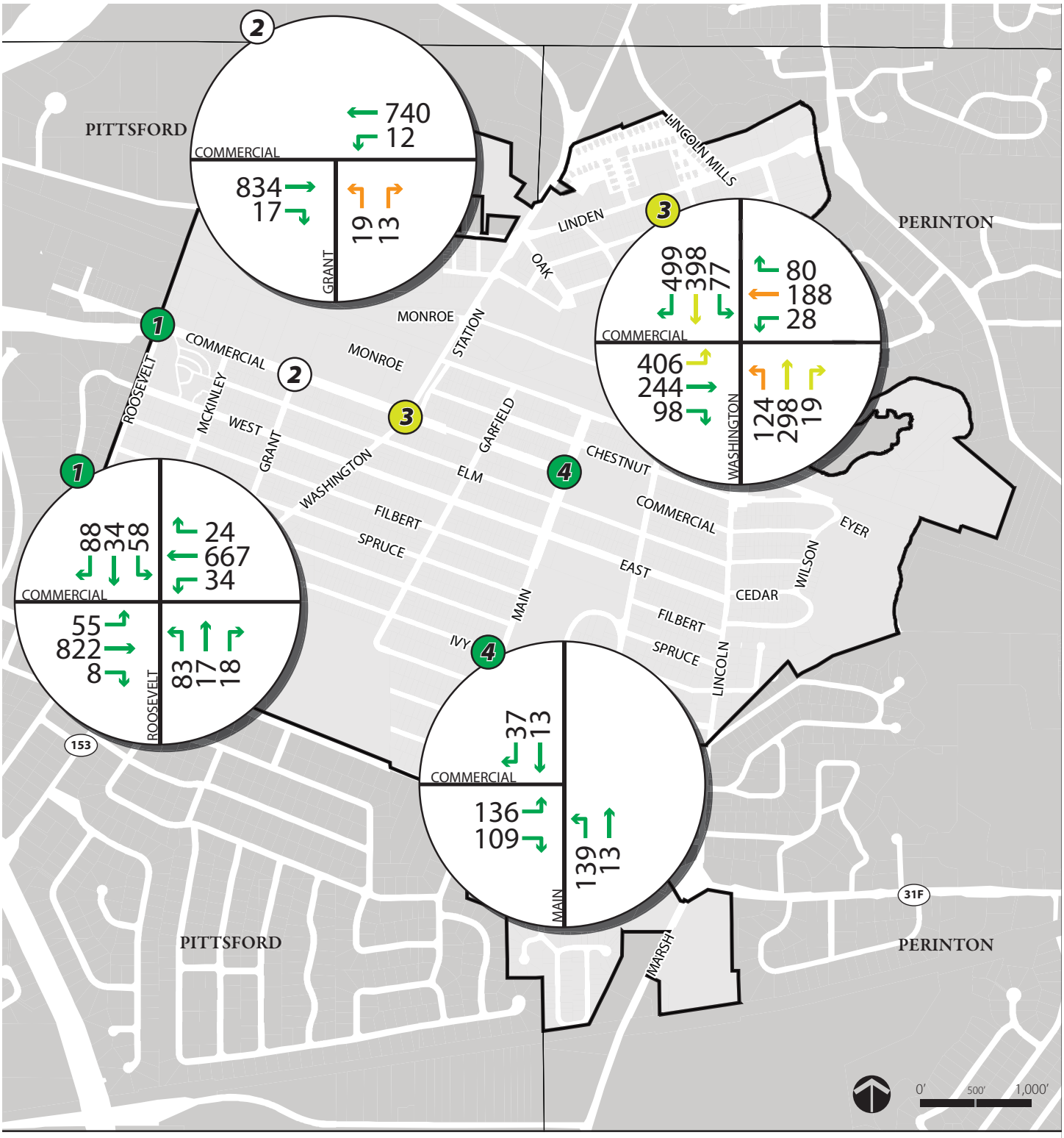


The existing capacity analysis conditions reveal that the signalized intersections operate at an overall LOS of "B" or better. The westbound through movement at the intersection of West Commercial and N/S Washington Streets operates at LOS "D" during both peak hours. Meanwhile, all other approaches throughout the study area operate at LOS "C" or better during both peak hours.

Future No-Build Traffic Analysis

To account for normal increases in area-wide growth, including any unforeseen developments in the study area, a traffic volume growth rate of 1% per year has been applied to existing traffic volumes based upon historical traffic volume growth in the study area. Although GTC traffic volume percentages on West Commercial Street depict a downward trend (other roadways within East Rochester indicate upward and downward shifts in traffic volumes), this study took a conservative approach to estimating future growth. A twenty (20) year traffic forecast is used for future traffic analyses. The results are illustrated in **Figures 7 & 8**. The intersection of West Commercial and N/S Washington Streets decreases in overall level of service from "B" to "C" during both peak hours. The northbound left approach decreases to LOS "E" during the PM peak hour.

Figure 7 - 2033 Future no-build vehicle level of service (AM peak hour)



MOVEMENT LEVEL OF SERVICE (LOS)

- LOS A-B
- LOS C
- LOS D

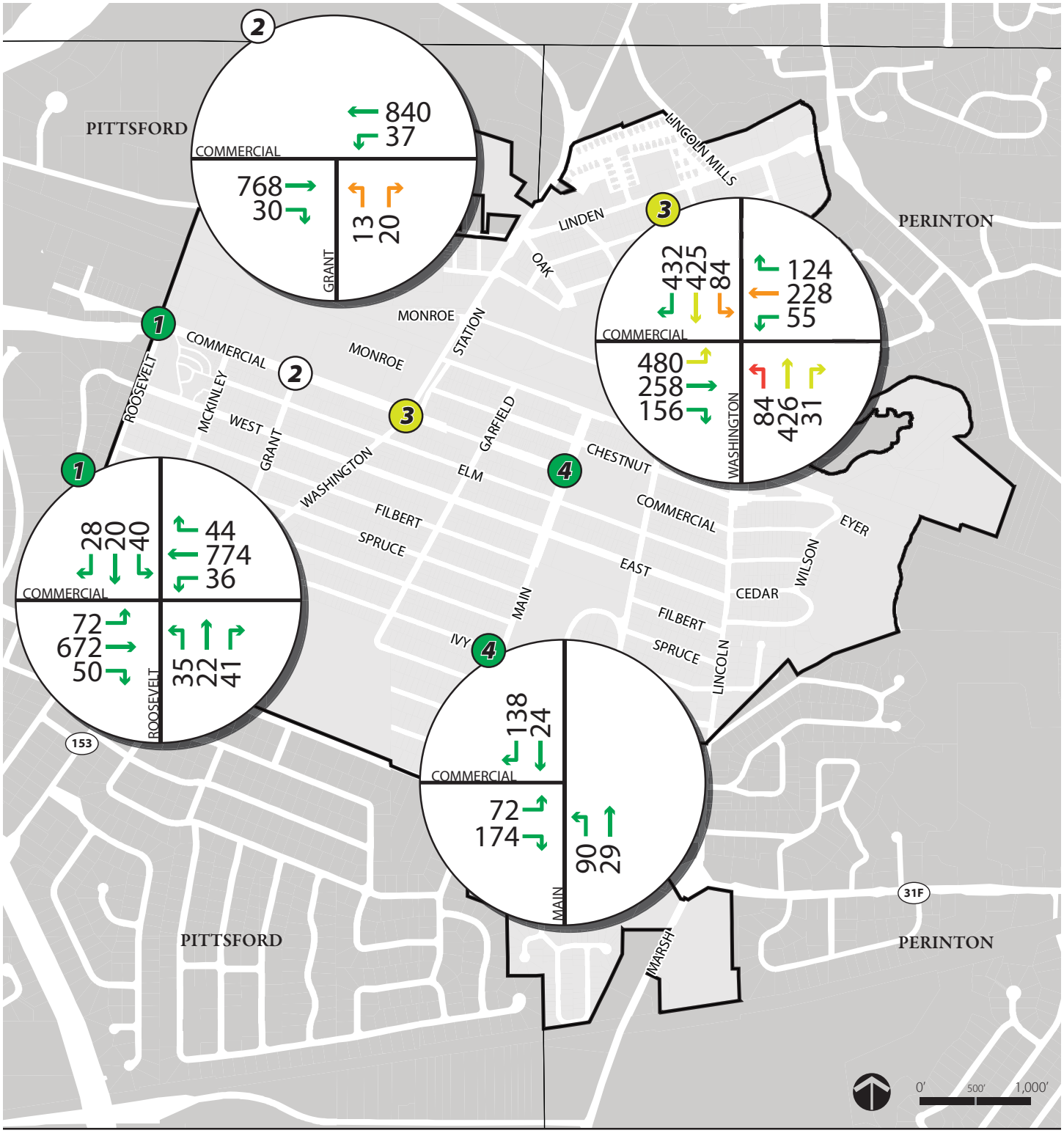
Less Congested — *More Congested*

INTERSECTION LEVEL OF SERVICE

- LOS A-B
- LOS C
- Unsignalized Intersection

Note:
Number denotes corresponding intersection

Figure 8 - 2033 Future no-build vehicle level of service (PM peak hour)



Pedestrian, Bicycle, & Transit Facilities Assessment

Transportation options are important to all villages and other urban areas. People should have the opportunity to walk, bike, take transit or drive their automobile. The Village of East Rochester generally makes accommodations for all modes of travel. However, there are opportunities to enhance and or expand these accommodations in an effort to improve safety and mobility, especially when it comes to pedestrians.

Sidewalks

East Rochester provides sidewalks throughout the community. The presence of sidewalks is fundamental to pedestrian safety and walkability. All major village corridors within the study area have sidewalks on both sides of the street with the exception of Roosevelt Road and the south side of West Commercial Street between McKinley Street and Roosevelt Road. The lack of sidewalks in these areas creates accessibility issues for people living in neighborhoods adjacent to Roosevelt – a predominantly residential area - and anyone trying to access Concrest Park. According to the superintendent of public works, a village-wide sidewalk replacement program was completed in 2004. Following the replacement program, an installation program was initiated but was never completed due to resistance by some residents living on streets where sidewalks are not present.

Width

Sidewalk width is generally consistent with the character and type of street. Residential streets, such as Main Street south of Filbert Street, generally offer sidewalks no larger than five feet. Along commercial or mixed-use streets, such as East Commercial Street between Main Street and Garfield Street, sidewalk width is nearly 15 feet.

Condition

Adequate sidewalks offer reasonably level and smooth concrete surfaces with ADA compliant ramps. Sidewalks with excessively uneven or broken surfaces can be unsafe and dangerous. Inadequate sidewalks especially impede mobility of young children, seniors, and persons with disabilities.

The sidewalks within the study area are in good condition. The Department of Public Works is diligent with sidewalk maintenance, which is evident by numerous areas where flags have been replaced. Property owners are responsible for sidewalks adjacent to their property per village law.

Curb Ramps

Most ramps along West Commercial Street and North Washington Street have "detectable warnings", which are textured surface indicators required by ADA standards to assist pedestrians who are blind or visually impaired. However, based on field observations and discussions with the DPW most village ramps do not include them. Detectable warnings are intended to function much like stop signs for pedestrians who are blind or have low vision. The warnings, which are intended to be felt with pedestrians' feet, alert blind individuals and those with low vision that they are about to enter a street or other area where cars pass. The village should continue to make all ramps ADA compliant.

Pedestrian Crossings

Pedestrian crosswalks exist at most intersections and are identified with striping. There is one mid-block crossing located near the village offices on West Commercial Street. This crossing along with other West Commercial Street crossings at the intersections with Main Street and Garfield Street are identified with decorative stamped asphalt. According to the DPW, this treatment was installed in 2006 and is holding up well.

There are no crosswalks on West Commercial Street between N/S Washington Street and Roosevelt Road, which limits pedestrian connectivity. Although there is a crosswalk at the intersection of West Commercial Street and Roosevelt Road, the pedestrian signal has been partially removed and sidewalks do not exist on either side of the roadway. This area needs special attention in regards to opportunities to improve pedestrian safety and connectivity.

There are no street trees along West Commercial Street between N/S Washington Street and Roosevelt Road. The tree lawn area along the south side has been paved with asphalt. Together, this makes the area look and feel uninviting to pedestrians, while the width of the roadway is accentuated.

Street Trees

Street trees provide shade which is not only beneficial to people but extends the life of pavement. Along with aesthetic benefits, trees can improve the function and feel on the street by creating enclosure which makes the street feel narrower, therefore slowing traffic and enhancing pedestrian friendliness.

Most streets within the study area include street trees. In areas that do not have trees, such as the south side of West Commercial Street and most of North Washington Street, there is generally a noticeable difference in the visual quality of the streetscape and the comfort for pedestrians. It is evident by the existing species and location of many existing street trees that the Village could benefit from a street tree program. At a minimum the program should include a preferred street tree list, location guidelines,

and some general education regarding the benefits of trees to the Village and its residents.

Street Furnishings

Benches, trash receptacles, bike racks, and other amenities are important furnishings. These furnishings are especially important in the Village commercial areas where pedestrian traffic is more prominent. However, furnishings are very limited in the Village. Based on field observations and discussions with the DPW the only furnishings are a few benches and trash receptacles located in front of Techniplex on Main Street and a few trash receptacles along West Commercial Street; which are removed during the winter months as to not interfere with snowplowing. In addition RGRTA offers one bus shelter near the intersection of N/S Washington Street and West Commercial Street.

West Commercial Street Character

West Commercial Street is the most heavily traveled corridor in the Village. It is also a significant gateway with a mix of land uses and transportation users. It was identified by the Steering Committee and community members at the Open House as a high priority area that needs to be improved aesthetically and functionally for all modes of travel. The street was broken down into three character areas as described below.

Main Street to Garfield Street

This segment of West Commercial Street is the heart of the Village's mixed-use core. It includes a streetwall of late 19th and early 20th century two-story buildings with many authentic storefronts. Commercial and retail uses are generally located on the first floor and apartments and offices on the upper floor. The street includes a travel lane in each direction, a center turn lane with parallel parking on the south side and diagonal parking on the north side. The streetscape includes wide sidewalks, pedestrian level lighting, and street trees; although the tree species are generally not ideal for a retail street. The shade is too dense and the canopy height interferes with pedestrian flow and views into storefronts in some areas. **Figure 9** illustrates the existing typical cross-section.

Garfield Street to North Washington Street

This section of West Commercial Street is a transition area from the traditional mixed-use "Main Street" character to more village residential. It includes a mix of modern single-story commercial buildings, some with auto-oriented uses, and residential buildings. Many of the residential buildings have been converted to

East Rochester Transportation Improvement Study

Existing Cross-section (Typical) **- West Commercial Street between Main Street & Garfield Street -** Looking West

DRAFT

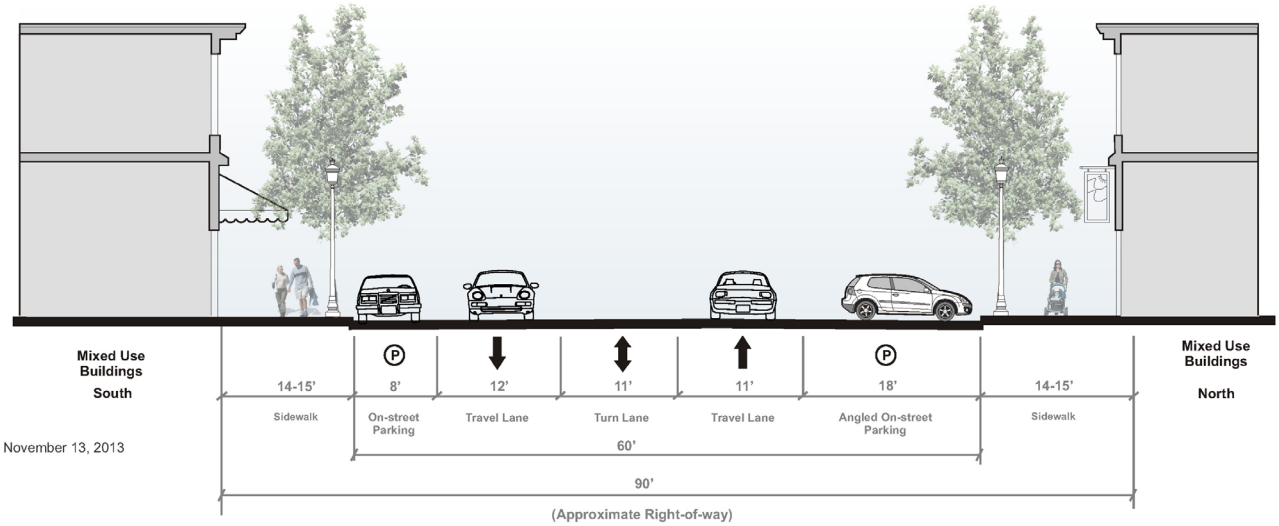


Figure 9 - Main Street to Garfield Street

East Rochester Transportation Improvement Study

Existing Cross-section (Typical) **- West Commercial Street between Garfield Street & Washington Street** - Looking West

DRAFT

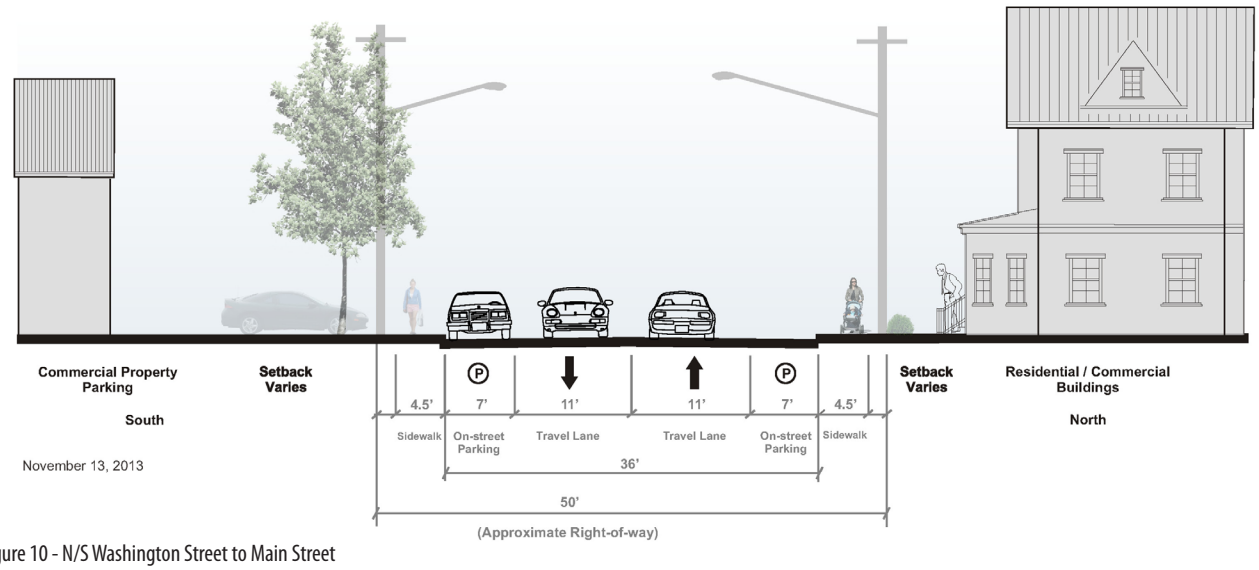


Figure 10 - N/S Washington Street to Main Street

commercial uses. The street includes a travel lane in each direction and parking on both sides. The sidewalks are generally located directly on the curb, which along with the lack of trees, makes the pedestrian realm feel stark and uninviting. **Figure 10**, on the previous page illustrates the existing typical cross-section.

The sidewalk along the south side of West Commercial Street ends at McKinley Street. Unneeded roadway space might have to be reallocated and curb extensions added in order to have room for a sidewalk and accommodate private driveways.

North Washington Street to Roosevelt Road

West Commercial Street between N/S Washington Street and Roosevelt Road includes typical suburban auto-oriented character with an abundance of front yard parking. Along the north side, land use is primarily commercial with large parcels and buildings setback with parking fronting the street. On the south side, parcels are typically narrow with one and two story mixed-use buildings generally fronting the street. However, buildings are generally spaced too far apart to create a rhythmic streetwall. Parking is typically to the side of buildings. The street section includes two travel lanes in each direction and parallel parking along the south side. Sidewalks are located on both sides of the street for most of the area. The sidewalk along the north side abruptly ends before entering the residential areas of Country Club Road and the large Woodland Estates apartment community in the Town of Pittsford. On the south side, the sidewalk ends at McKinley Street. The north

East Rochester Transportation Improvement Study

Existing Cross-section (Typical) **- West Commercial Street between Washington Street & Roosevelt Road -** Looking West

DRAFT

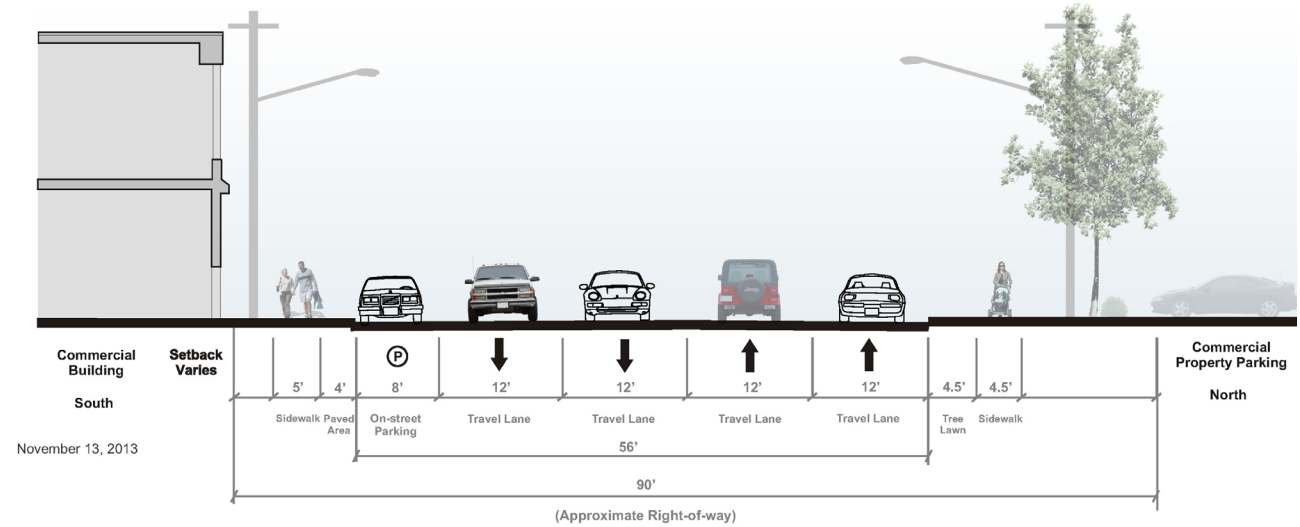


Figure 11 - Roosevelt Road to N/S Washington Street cross-section

side includes a modest grass buffer between the street and sidewalk. Unfortunately, the buffer on the south side has been paved with asphalt. Overall, due to the auto-oriented character in this section, pedestrian comfort is low relative to the other sections of West Commercial Street.


Bicycle rack in front of Salvatore's


Bicycle parked in downtown

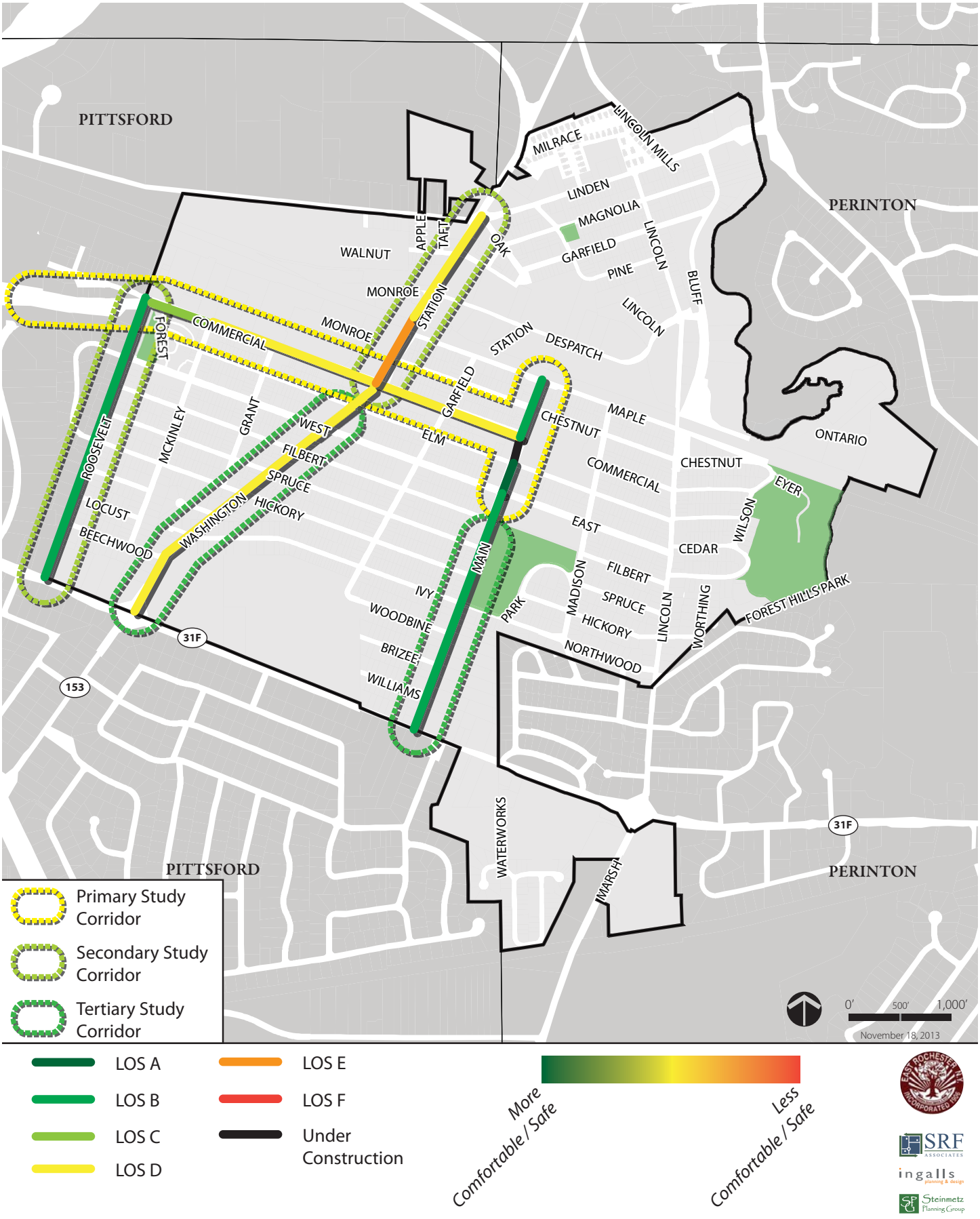
Bicycle Level of Service

Bicycle safety is judged on the presence or absence of a dedicated bicycle facility, shared lane widths including the on-street parking lane, and the amount of space a cyclist needs to safely maneuver. Other considerations which affect bicycle safety are speed limits; ADT volumes; lane width and shoulder space; and pavement conditions; percent of heavy vehicle traffic; number of driveways; and any obstructions to the public realm, including overgrown landscaping and road grates. Bicycle infrastructure and facilities were reviewed during field observations of the study area.

Highways can also be evaluated to determine their user friendliness as it relates to bicycle users as opposed to the traditional motor vehicle. As mentioned earlier in this section, the most common measure of effectiveness used for vehicular traffic, Level of Service, is based on capacity of the roadway and delay incurred by motorists. Levels of service can also be calculated for bicyclists using the same highway by considering the users' comfort level with the highway as it relates to buffer areas, sidewalk widths, vehicular volumes and speeds, landscaping, obstructions, conflicts, crossing opportunities, etc. These features are some of the factors that are used in evaluating the bicycle levels of service and compatibility levels. Levels of service for bicyclists can be compared to those used to describe intersection operating conditions where LOS "A" and "B" generally describe above average conditions, "C" and "D" describe acceptable roadway performance, and "E" and "F" describe deficient facilities. It is important to note that not all roadways in a community should be expected to rate LOS "A" or "B" which indicates a performance level well above average. LOS "A" or "B" may be expected in locations such as college campuses, downtowns, tourist centers, and activity centers. LOS ratings of "E" and "F" describe degrees of unacceptable performance.

The Bicycle Level of Service results indicate that the lowest score, "E", occurred between West Commercial Street and the underpass on North Washington Street due to travel lane width; pavement condition; and higher volumes of vehicles. Areas that received scores from "A" to "C" are indicative of more comfortable bicycling environment due to a combination of variables considering

Figure 12 - Existing bicycle level of service




Sheltered transit stop near W Commercial and Washington

Transit stop at W Commercial and McKinley

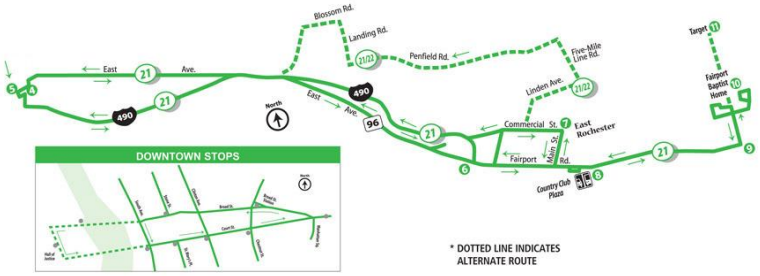
wider lane widths; little or no on-street parking; and lower traffic volumes. See **Figure 12** for the BLOS results.

Transit Service

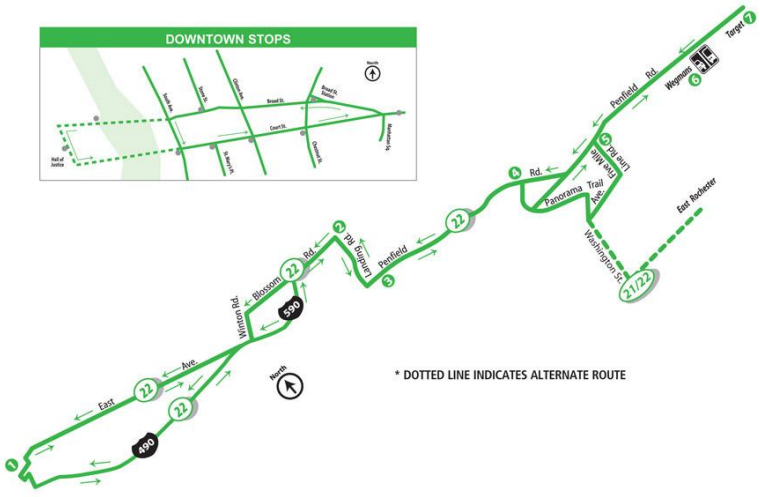
A comprehensive transportation network is able to accommodate users on multiple levels. Another component of an inclusive transportation system transportation is the availability of transit routes and stops.

Rochester Genesee Regional Transportation Authority (RGRTA) operates Regional Transit Service (RTS) routes throughout the greater Rochester region. Route numbers 21 and 22, a part of the RTS regional area service, services the East Rochester community. Stops are located along West Commercial Street, Roosevelt Road, North Washington Street, and Main Street.

RTS 21 - Fairport



RTS 22 - Penfield



Note: Maps are reproduced from RGRTA's website

SRF & Associates
Parking enforcement signs


Google Maps
Municipal parking and lot signage

Parking Supply

Conveniently located, adequate and safe parking is a key component to the success of any commercial district. Using a combination of aerial photography and field checks, the supply of both on-street and off-street public parking were compiled.

On-street Parking Supply

Daytime parking is permitted on all village streets except where prohibited by signs. None of the on-street parking is metered. No overnight parking between 3-6AM is allowed from November 15 to April 15, to allow for snow removal by DPW crews.

There are approximately 201 on-street parking spaces along West Commercial Street and Main Street within the primary study corridor, as indicated in **Figure 13**.

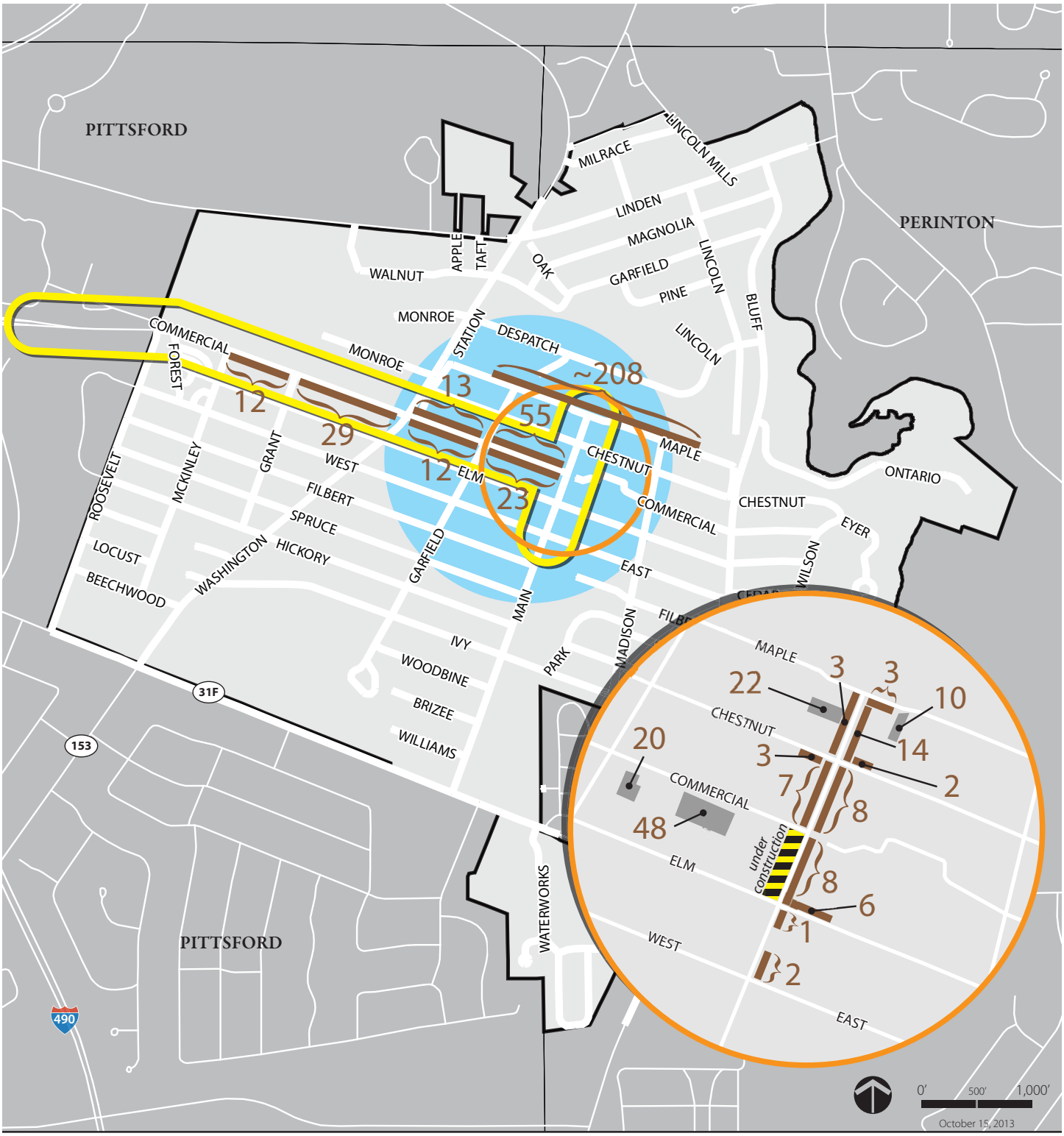
Off-street Public Parking Supply

The Village has four public surface parking lots with a total of 100 off-street spaces. All lots include public parking signs. **Figure 13** illustrates the location and quantity of parking. All off-street public parking spaces are within a 5-minute walk, as shown in **Figure 13**, from the epicenter of the Village Hall. This is important in that businesses and core Village activity centers are located within the 5-minute "walk shed" of available public parking. Regardless of the location of the public lots, the lots along Main Street appear to be underutilized during peak operating hours.

Consideration should be given to promoting these public parking areas based on a short walking distance rather than location alone. Additionally, the wayfinding attributed to the municipal lots appear to be difficult to read from a passing vehicle, as the signs are not aesthetically prominent.

Currently, there are approved plans to redevelop the Village Hall parking lot and buildings. The existing Village Hall will be deconstructed and all offices will move into the Eyer Building on the southwest corner of the West Commercial Street/Main Street intersection. The current parking lot will be redeveloped with plans to expand the total parking to approximately 120 spaces. Based on the plans, this is an increase of over 70 public spaces in downtown; for a total of 170 off-street parking spaces.

Figure 13 - Village Parking Supply



Primary Study Corridor

5-minute Walkshed (1/4-mile)

Municipal Parking Lot

Parking Totals*

201 on-street *(not including Maple)*

100 off-street (public)

* Within Primary Study Corridor

Parking is allowed on all Village streets except where prohibited by signs. No overnight parking allowed between 3am-6am, November 15th - April 15th.

Needs, Opportunities & Alternatives Assessment

Public Open House

Public Open House

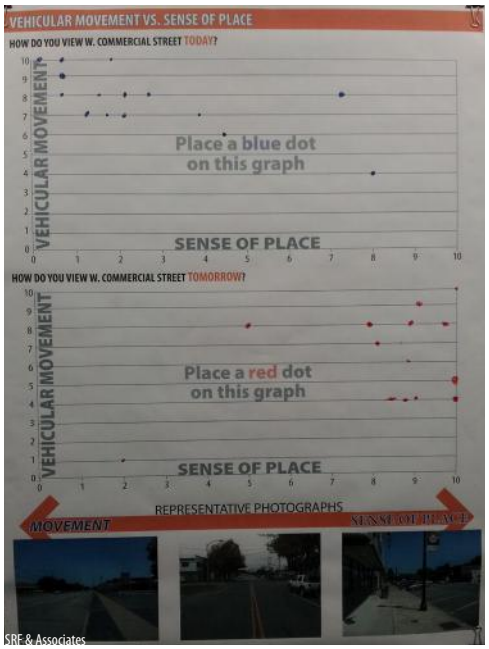
Public Open House Summary

In order to gather meaningful public input, the Steering Committee and the Consulting Team held a Public Open House at the Jean Daniel Senior Center on November 18, 2013. Approximately 30 knowledgeable and engaged citizens attended the Open House. The purpose of the Open House was to present initial inventory and analysis findings and to solicit input from residents and business owners on ideas and direction regarding East Rochester's main thoroughfares, especially the West Commercial Street corridor. In addition, the study representatives encouraged feedback regarding the overall effectiveness of the transportation system, adequacy of the parking supply and location, and the condition of the pedestrian realm as it relates to walkability and connectivity within the Village. Members of the community have shared invaluable opinions and insights regarding: aesthetics & green space; pedestrian safety & comfort; bicycle safety & comfort; parking availability and location; motorist safety & comfort; health & fitness; transit; and any other topics deemed important for discussion. The information gathered at the Open House has proven to be instrumental in identifying circulation, accessibility, parking, and overall appearance issues, opportunities, and the potential for improvements within the Village of East Rochester.

What follows is a summarized compilation of the comments received during the Open House. Six stations were available for attendees to provide feedback and offer discussions on the current state of East Rochester and visions for where the residents and business owners would like to see it in the future. The stations in no particular order were: 1) welcome table, brief project introduction; 2) background information, resource, movement versus sense of place exercise; 3) Community Preference Survey (CPS); 4) issues/ opportunities, collaborative map, community perspectives; 5) West Commercial Street roadway plan; and 6) municipal budget exercise. It should be noted that directly quoted comments are solely feedback expressed by the residents of the Village of East Rochester and do not necessarily represent opinions of the Consultant Team.

How Important is Form vs. Function?

Land uses and the built environment often create a sense of place along highways, and the most important places are usually located near the center of a settlement or built up area. The importance of movement of motor vehicles can vary along the



Movement vs sense of place completed chart

length of a highway and can change over time. Movement and place considerations are important in determining the appropriate design speeds, speed limits, and road geometry. Similarly, the form and character of the adjacent context must also be considered. As the importance of movement increases, the emphasis on place can take on less importance. Alternatively, as the importance of place and character increase, the emphasis on vehicular movement diminishes and becomes secondary to maintaining the qualities and features of a place. During the Open House each resident was asked to mark on the Movement vs. Sense of Place graph their view of the West Commercial Street's corridor role today and in the future (tomorrow). **Chart 3** illustrates results of this survey. The consensus indicates that overall, the corridor currently has more of an emphasis on vehicular movement than sense of place. Based on an analysis of the feedback expressed at the workshop, there is a desire to place more emphasis on the corridor having a sense of place than serving as a conduit for vehicular movement. The larger markers on the chart below indicate the composite scores of the exercise. Today, residents feel movement is approximately 8 on the scale. Tomorrow, residents desire a movement of 6. Conversely, residents feel that today's sense of place is less than 3 out of 10. Residents feel that tomorrow's sense of place should be over 8 on the scale. This is all to say that residents still desire an efficiently operating transportation system but also want to see an increase in the community's character and sense of place.

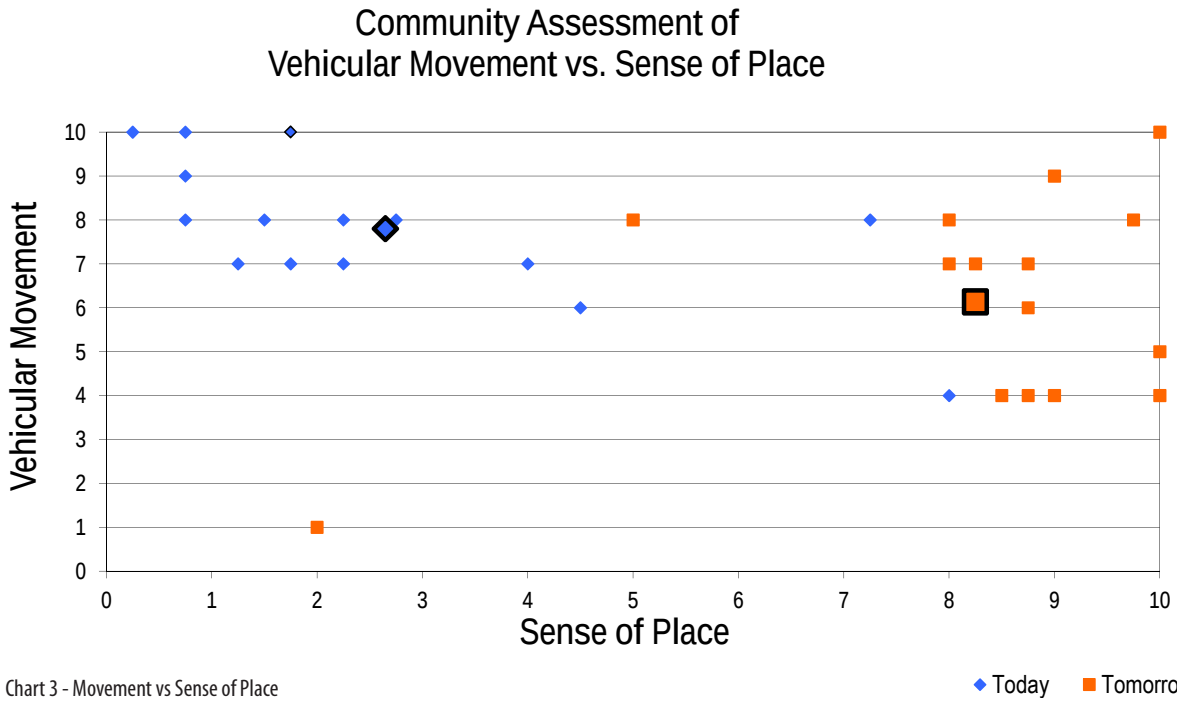


Chart 3 - Movement vs Sense of Place

Re-Envisioning Great Streets

The images below show examples of three distinct highway corridors from Arkansas, California, and Virginia. Each of these communities took the initiative to re-envision how these corridors function, look, and feel. The results of this process are illustrated in the photo-simulations on the right side. As you can see, each community desires operational enhancements and better land development practices to create a more safe and comfortable experience as you travel the corridor, while also enhancing the local "sense of place." These images were included in the Community Preference Survey (CPS) administered in East Rochester as part of this project. The responses by the community provide a very clear indication that East Rochester prefers streetscapes and corridors that provide an atmosphere comfortable for pedestrians and bicyclists as well as motor vehicles. A brief summary of the CPS results has been provided on these two pages, while a more comprehensive summary can be found in the Appendix.

Before	After
	
The average CPS score for image #12 (above) was 1.33. By comparison, the average score of image #6 (right) was 7.85.	
	
The average CPS score for image #4 (above) was 2.33. By comparison, the average score of image #11 (right) was 8.15.	
	
The average CPS score for image #14 (above) was 1.05. By comparison, the average score of image #3 (right) was 8.67.	

Community Preference Survey Results

On November 18, 2013 the project team administered a Community Preference Survey (CPS) at the Community Open House held at the Jean Daniel Senior Center. The detailed results of the survey are contained in the Appendix. The purpose of the survey was to gauge local attitudes towards various types of transportation facilities and land development practices that directly impact the overall appearance of a site, street, or corridor. This survey was completed by residents, property owners, business owners, and community leaders who ranked images of various streetscapes and land uses on a scale from 0 (unappealing) to 10 (very appealing). An example of the image results are shown on the previous page. Based upon the CPS results, the following design principles are preferred within East Rochester.

High Scoring Images had the Following Characteristics:

Building Scale & Location
- Buildings at or near the sidewalk;
- Buildings at least two stories in height; and
- Intersections that are framed with buildings rather than parking lots.

Facades
- Front facades with large amounts of transparency (e.g. windows & doors);
- Architectural details that add visual interest to the façade; and
- Primary building entrances that face the street and are clearly identified using visual cues and design details.

Parking
- Parking that is screened from view (preferably behind a building); and
- Parking lots broken up with a variety of landscaping treatments.

Streetscapes Elements
- Wide sidewalks;
- A round-a-bout, flush or raised center median with plantings; and
- Traditional streetscape elements such as textured pavement, benches, landscaping, and decorative lighting.

Low Scoring Images had the Following Characteristics:

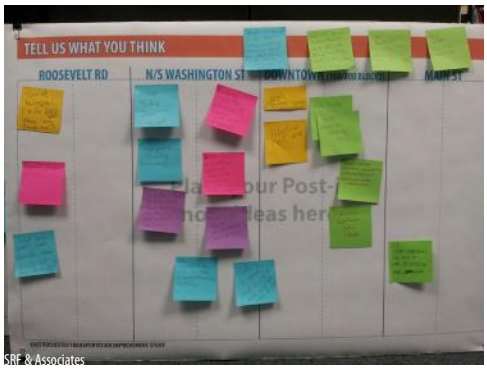
Building Scale & Location
- Buildings set far back from the sidewalk;
- Visually short, one story buildings; and
- Buildings placed behind parking lots.

Facades
- Front facades with little or no transparency (e.g. windows & doors);
- A lack of architectural details; and
- Primary building entrances that are not clearly identified using visual cues and design details.

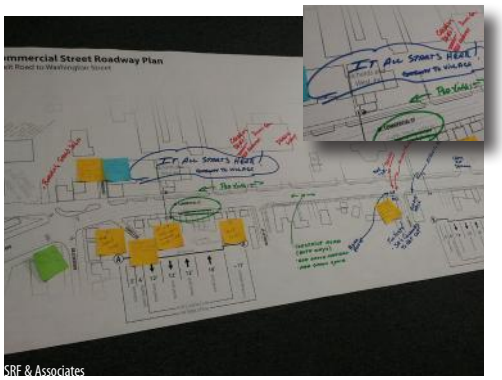
Parking
- Large expanses of parking in front of the building;
- Parking placed immediately adjacent to the sidewalk or roadway; and
- Parking that has not been screened from view or has no landscaping.

Streetscapes Elements
- Lack of sidewalks;
- Wide streets with no features or striping to break up the asphalt between the curbs; and
- A lack of traditional streetscape elements such as textured pavement, benches, landscaping, and decorative lighting.

What makes for a GREAT W. Commercial Street?



Tell us what you think



West Commercial roadway plan

Table 2 - Collaborative Map Results

Category	# of Markers	# of Comments
Issue	17	105
Opportunity	5	12

Community Perspectives

Attendees were given the ability to leave their views on "What Makes for a Great W. Commercial Street?" on a comment board using post-it notes. In addition, a separate comment board asked the public to leave their feedback on "What [They] Think" about the Roosevelt Road, N/S Washington Street, Main Street, and downtown 100 & 200 block corridors. The roadway plan of West Commercial Street offered the public a view of the primary study corridor in greater detail for more in-depth comments. Through both methods of public solicitation, general themes have emerged in terms of issues and opportunities found within the Village. The themes are:

- Aesthetics & green space
- Pedestrian safety, crossings, facilities
- Road diet
- Traffic calming, speeding, safety
- Parking availability, location
- Sidewalks
- Bicycle safety, facilities
- Truck deliveries
- Center raised/landscaped median
- Transit stops

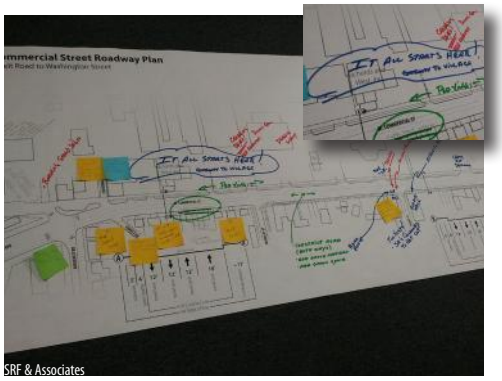
Residents noted West Commercial and North Washington Streets are used as a cut-through route for motorists travelling between I-490 and areas north of East Rochester. As a result, the Consultant Team collected additional traffic volumes to confirm this condition.

Collaborative Map

An online collaborative mapping tool was provided to the public as a way of gathering further, and more wide reaching feedback after the Public Open House. Participants were encouraged to place markers on an interactive map in two preselected categories: issues and opportunities. Between December 2, 2013 and December 31, 2013, 22 markers were added to the map along with 117 comments associated with the added markers. A screenshot of the interactive mapping tool is illustrated below. **Table 2** shows the number of makers added by category. In addition, the table depicts the number of comments made under each category. The areas receiving a high number of comments are:

- 31F / Main Street
- West Commercial Street / N/S Washington Street
- West Commercial Street / Wendy's Driveway
- West Commercial Street / Roosevelt Road
- West Commercial Street Corridor

Ingalls Planning & Design
Public Open House



SRF & Associates
West Commercial roadway plan

Interactive mapping tool

The following discussion provides a brief synopsis of the feedback gathered through the interactive map. Detailed comments are provided in the Appendix.

31F/Main Street
Respondents noted the desire for a left turn arrow for eastbound traffic turning onto Main Street. Currently the traffic signal offers no protected phasing for left-turning traffic. Additionally, residents exclaimed the red time for southbound Main Street traffic is excessively long.

West Commercial Street/ N/S Washington Street
Residents stated that this intersection is undesirable for pedestrians. Respondents feel that the time allotted for pedestrians to cross the intersection is insufficient. Additionally, there is a desire for the southbound right turn arrow to be investigated for removal as it contributes to safety and operating concerns. Furthermore residents feel left turn arrows should be installed for N/S Washington Street traffic.

West Commercial Street/Wendy's Driveway
Both in the Open House and through the collaborative map, residents feel the driveway is problematic to the operation of the West Commercial Street and N/S Washington Street intersection. Comments have been made regarding closing the driveway and directing patrons to the easterly Piano Works driveway. In addition, historical accident data as well as resident testimonials state that this intersection is prone to crashes. The driveway is approximately 50' west of the West Commercial Street/ N/S Washington Street intersection. Respondents have stated that this is a short distance for westbound drivers to avoid left turning vehicles into the driveway. Residents have stated that the operation of the southbound right turn arrow also increases the risk for collisions at the Wendy's driveway.

West Commercial Street/Roosevelt Road
The most common response at this intersection is its aesthetic (look and feel) appeal and concern for pedestrian safety. This intersection is the gateway into the Village. It's prone to higher vehicle speeds from motorists travelling from I-490. Meanwhile, the intersection is not pedestrian friendly as there are no pedestrian-oriented facilities and infrastructure (except for a marked crosswalk across West Commercial Street). This intersection will be reviewed to determine appropriate safety and streetscape improvements later in this study.

West Commercial Street Corridor

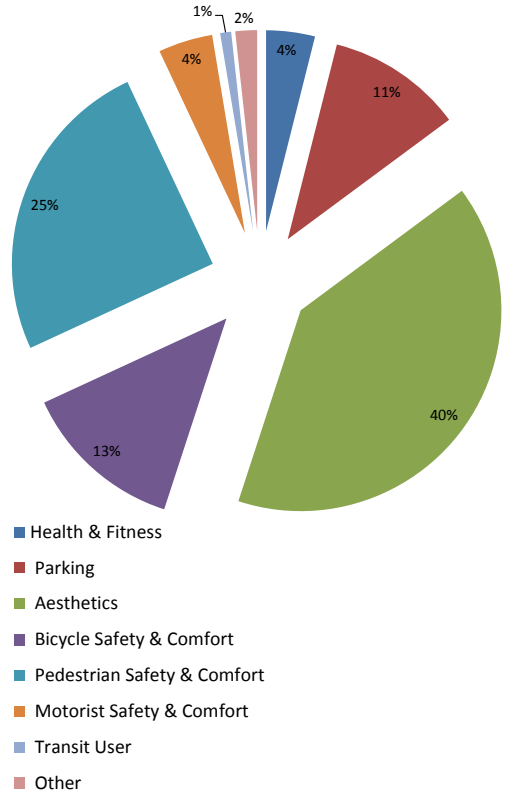
As was previously stated through the CPS and Open House, the topic of aesthetics is a major issue along the corridor. Residents desire more greenery, an improved gateway feel entering the Village, and streetscape enhancements. These streetscape enhancements are expressed in feedback geared towards pedestrian safety and providing more crossings; installation of a median (e.g. landscaped) to help calm traffic and improve the corridor's appeal; and improve the roadway condition for residents between Roosevelt Road and McKinley Street.

How would you invest your money?

Mayor for a Day

Upon signing in for the Open House, attendees were given $1,000 in fake spending money (broken down into $100 increments). The money was used at the Municipal Budget station whereby the public could place their money in pre-determined categories: aesthetics & green space; pedestrian safety & comfort; bicycle safety & comfort; parking; motorist safety & comfort; health & fitness; transit; and other. **Chart 5** illustrates the results of the budget allocation exercise. The chart depicts 78% of the total money spent should go towards aesthetics, pedestrian/bicycle safety & comfort. 4% was given to motorist safety & comfort. Motorist safety is important; however, it shows that respondents feel the majority of improvements or enhancements made in the Village be directed towards a more balanced transportation system. **Table 3** shows a breakdown of the categories used for the budget allocation exercise, the issues gleaned from the Open House, and where the money was spent. The table reveals that the majority of the residents and business owners who participated feel there is a need for improved community appearance while also rebalancing the pedestrian and bicycle modes of transportation.

Chart 5 - Budget Allocation Exercise Results



Money Category	Open House Issues	Money Spent	Money %
Aesthetics & Green Space	Aesthetics/green space, center median, facades	$9,200	40%
Pedestrian Safety & Comfort	Pedestrian crossings/ safety/ facilities, center median, road diet, traffic calming/speeding, parking, sidewalks	$5,700	25%
Bicycle Safety & Comfort	Bike safety/facilties, road diet	$3,000	13%
Parking	Parking availability, truck deliveries	$2,500	11%
Motorist Safety & Comfort	Center median, road diet, traffic calming/speeding, access management/driveways	$1,000	4%
Health & Fitness	Pedestrian crossings/ safety/ facilities, bike safety/facilties, aesthetics/green space	$900	4%
Other		$400	2%
Transit	Transit stops	$200	1%
	Total	**$22,900**	100%

Table 3 - Budget Allocation Results by Category

Walkability & Streetscape

If pedestrian ways look and feel uninviting or are perceived to be unsafe people are less likely to use them regardless of whether they have the capacity to accommodate users. With village streets, there is often no need or it is not physically and/or financially possible to increase the capacity of the pedestrian ways. Improving walkability in these areas has more to do with the qualitative characteristics than quantitative characteristics. Therefore, rather than focusing on the relationship between pedestrian volumes, sidewalk widths, and other typical level of service attributes, the Consultant Team focused on assessing other characteristics that impact walkability.

It is well documented that urban design characteristics such as enclosure, transparency, articulated building facades, and street trees impact people's desire to walk and their enjoyment on the street. Most notably is Allan Jacobs' 1995 book, *Great Streets*, based on his research of streets and the role they play in urban life. Jacobs describes in great detail the characteristics that are needed to develop "great streets." His work has led others in countless studies involving qualitative factors and pedestrian comfort.

By carefully evaluating each pedestrian way based on these types of factors, very specific recommendations for improving walkability can be made.

Primary pedestrian routes were evaluated using the following 7 qualitative characteristics:

1. Enclosure/Definition—The degree to which the edges of the pedestrian realm are well defined. Excellent enclosure focuses pedestrian's eyes along the street and has positive impacts on safety by conveying a feeling of narrowness to motorists, which slows traffic.
2. Transparency—Transparency is the ability to see through the transition between the public space and private space.
3. Interface— The area that links the public realm to the private realm. It should add interest to the pedestrian experience through the varied application of materials, design, and color and enable pedestrians to move between the public and private realms.
4. Buffer from Street—A "buffer zone" between pedestrians and moving vehicles enhances pedestrian safety and increases the level of comfort.
5. Shade Trees—The presence of street trees improves the comfort level of pedestrians by providing protection from

harsh weather and helps to define the pedestrian realm.

6. Connectivity / Crossings – Pedestrians should generally have the opportunity to cross the street at dedicated crossings (typically every block or 300 to 500 feet).
7. Amenities—The presence of benches, trash receptacles, and other amenities.

Each route was assessed based on the factors using a scale of 1 to 5 with 1 equal to 'Very Poor' and 5 equal to 'Very Good'. Each route was scored and the map below was generated.

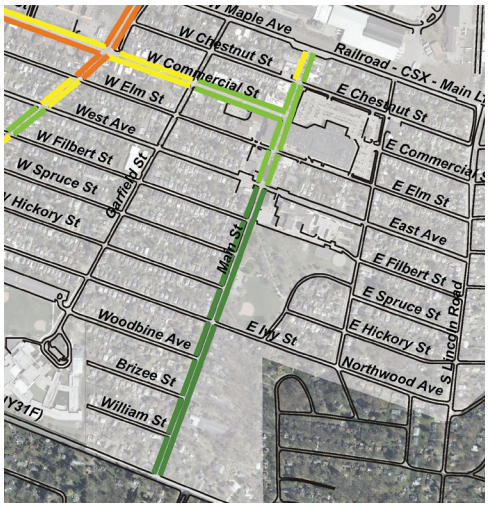
Figure 14 - Walkability Assessment Map

Based on the assessment, the most significant opportunities for improving areas that scored poorly include:

- **West Commercial Street**
  - Improve the connectivity and treatment of the area that connects the public and private realms (interface). This will likely involve coordination with local zoning, design guidelines and other land development regulations.
  - Include street trees throughout the corridor. There are

West Commercial Street walkability

N/S Washington Street walkability



Main Street walkability

opportunities to install trees in the existing tree lawn areas. Tree installation along the south side between N/S Washington Street and McKinley Street would require the removal of the asphalt area between the curb and the sidewalk. The tree planting area on both sides of the street in this segment is narrow and should be widened if curbs or sidewalks are moved.

- Provide opportunities to safely cross the street as often as possible. If a center median is deemed feasible as part of a "road diet" for the segment west of N/S Washington Street then mid-block crossings with pedestrian refuge should be considered.
- Provide pedestrian amenities such as benches and trash receptacles in key areas.
- Consider new lighting west of Garfield Street. This could include a combination of pedestrian level lighting as well as higher highway level lighting.
- Consider a sidewalk along the south side between McKinley Street and Roosevelt Road and continue the sidewalk along the north side to the Roosevelt Road intersection.

- **N/S Washington Street**
  - Install street trees throughout the corridor. The section south of West Commercial Street was recently rebuilt. Unfortunately, street trees were not included in the design which would have made a considerable difference for the look and feel of the street.
  - Create a buffer (north of West Commercial Street).
- **Main Street**
  - Main Street is the most walkable street in the study area. Street trees should be considered north of East Avenue and furnishings should be considered north of Elm Street.

Gateways

Gateways are points that provide visual cues that you are entering a place of significance. They often include landscaping with special buildings or features and signage. Special attention must be paid to these areas because they provide first impressions and a sense-of-arrival. They are typically identified at points of transition such as intersections, bridges or other edges and nodes. Several gateways to the Village of East Rochester have been identified. These include the following intersections:

- Fairport Road and Main Street;
- Fairport Road and South Washington Street;


SRF & Associates
Travelling from Roosevelt Road into the Village

- North Washington and Linden Avenue; and
- West Commercial Street and Roosevelt Road exiting Interstate 490.

The West Commercial Street and Roosevelt Road gateway is a significant gateway to the Village. It carries a high volume of traffic, is a major commuter route, and welcomes residents and visitors to the commercial / downtown district. In 2005 the Village collaborated with the Rochester Regional Community Design Center (RRCDC) along with SRF & Associates, to prepare a gateway concept for this area.

The RRCDC concept suggests reducing the road to two lanes within a safe distance from the I-490 ramps. It proposes a narrower roadway section with curbs beginning at the point where the road narrows and extending to the intersection at Roosevelt Road. It also includes a center median and raised intersection at Roosevelt Road. The median is enhanced with plantings and features decorative double-armed street lights to replace the existing davit lights in the roadside "greenway" area.

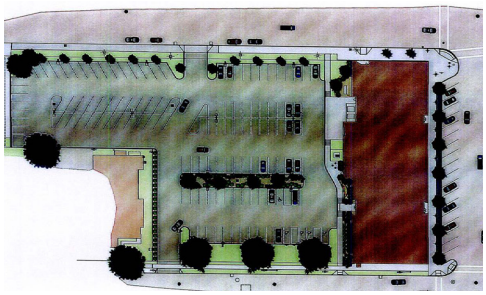
This transportation study will consider and build upon the RRCDC concept and make recommendations for its implementation to enhance this important gateway.

Design Guidelines / Standards

Based on a review of the Village's development regulations as well as discussions with the department of public works, there are no design guidelines or standards for private development or streetscape design. There are construction standards for the development of village streets but they do not address trees, furnishings, etc. The Village also has an architectural review board but there are no development standards to help guide their review. The Village should consider preparing development design guidelines or standards to include as part of their zoning and/or development review process, as well as guidelines to assist the DPW in streetscape design. These standards/guidelines will help create urban design consistency as well as certainly for residents, business owners and property owners when it comes to the built environment.

Development design guidelines or standards should be consistent with traditional village character and could address topics such as architectural design principles, building location, materials,

parking, etc. Streetscape design guidelines or standards could address street trees, benches, trash receptacles, bike racks, sidewalk materials, etc.



Rehabilitation of the Eyer Building complex. Plan originally drawn by Parrone Engineering.

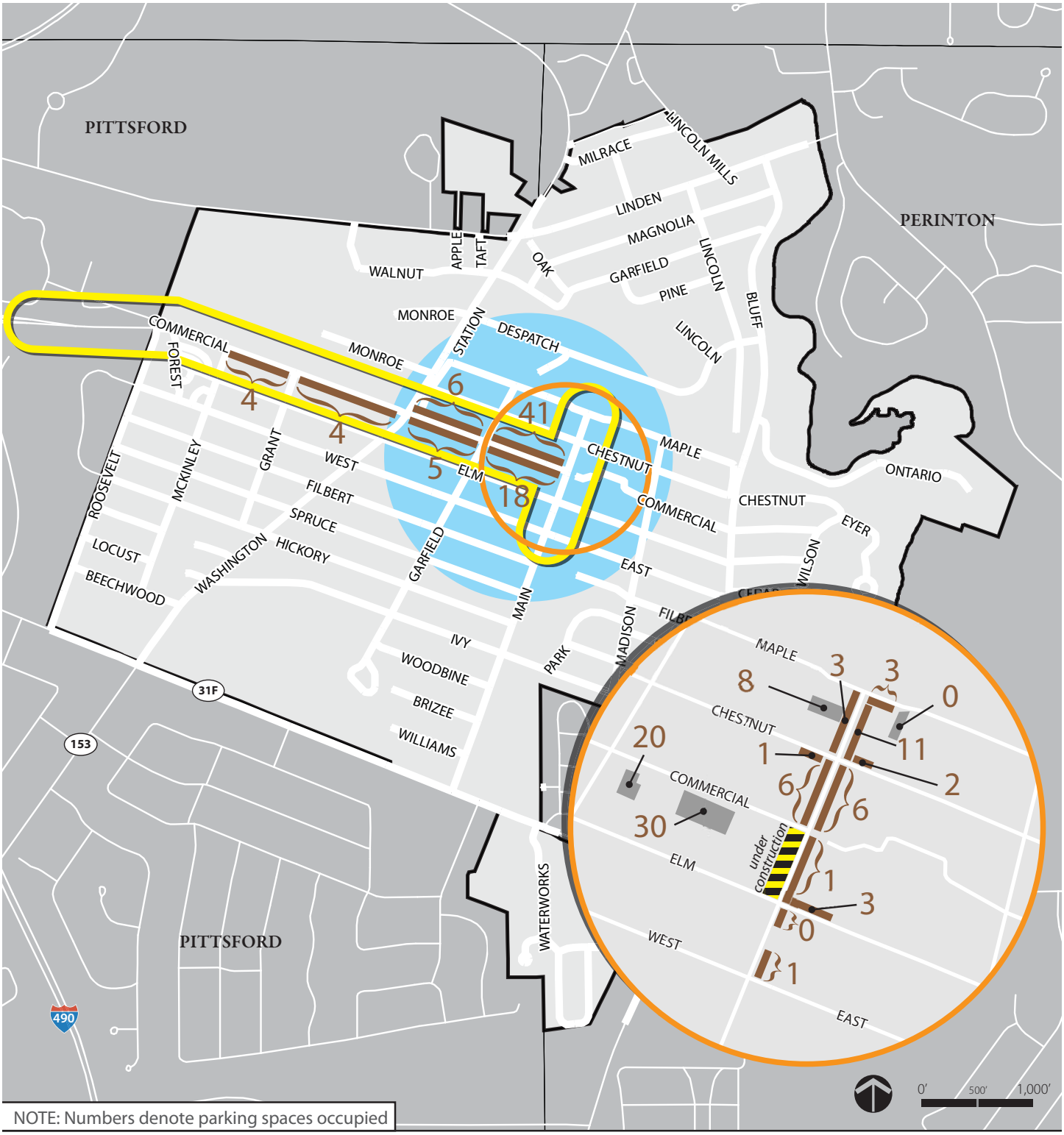
Parking Utilization

As outlined in the Inventory & Analysis section, there are approximately 160 on-street and 100 public off-street parking spaces within a five minute walk of the Village Hall. The availability and proximity of parking has been raised as an issue and should be addressed, particularly within the 100 block of West Commercial Street. As the business and shopping community has grown in recent years, the demand for parking has increased. Residents and business owners have expressed their concerns regarding parking for employees and patrons alike.

To assess the current state of the Village's parking situation, parking occupancy rates were determined at two peak time periods on a typical weeknight. The results of the assessment are illustrated in **Figures 15 & 16** on the following pages. The number of occupied spaces within the 100 block during the 7:30PM peak was 144. Of a total available 146 spaces, this leaves two spaces unused. It should be noted that during this time period, the Village Hall lot was filled beyond capacity to 53 vehicles out of an available 48 parking spots.

There are approved plans to redevelop the Village Hall parking lot and buildings. The existing Village Hall will be deconstructed and all offices will move into the Eyer Building on the southwest corner of the West Commercial Street/Main Street intersection. The current parking lot will be redeveloped with plans to expand the total parking to approximately 120 spaces. Based on the plans, this is an increase of over 70 public spaces in downtown.

Figure 15 - Parking Occupancy 4:30 PM peak



NOTE: Numbers denote parking spaces occupied

Primary Study Corridor

5-minute Walkshed (1/4-mile)

Municipal Parking Lot

Public Parking Occupancy*

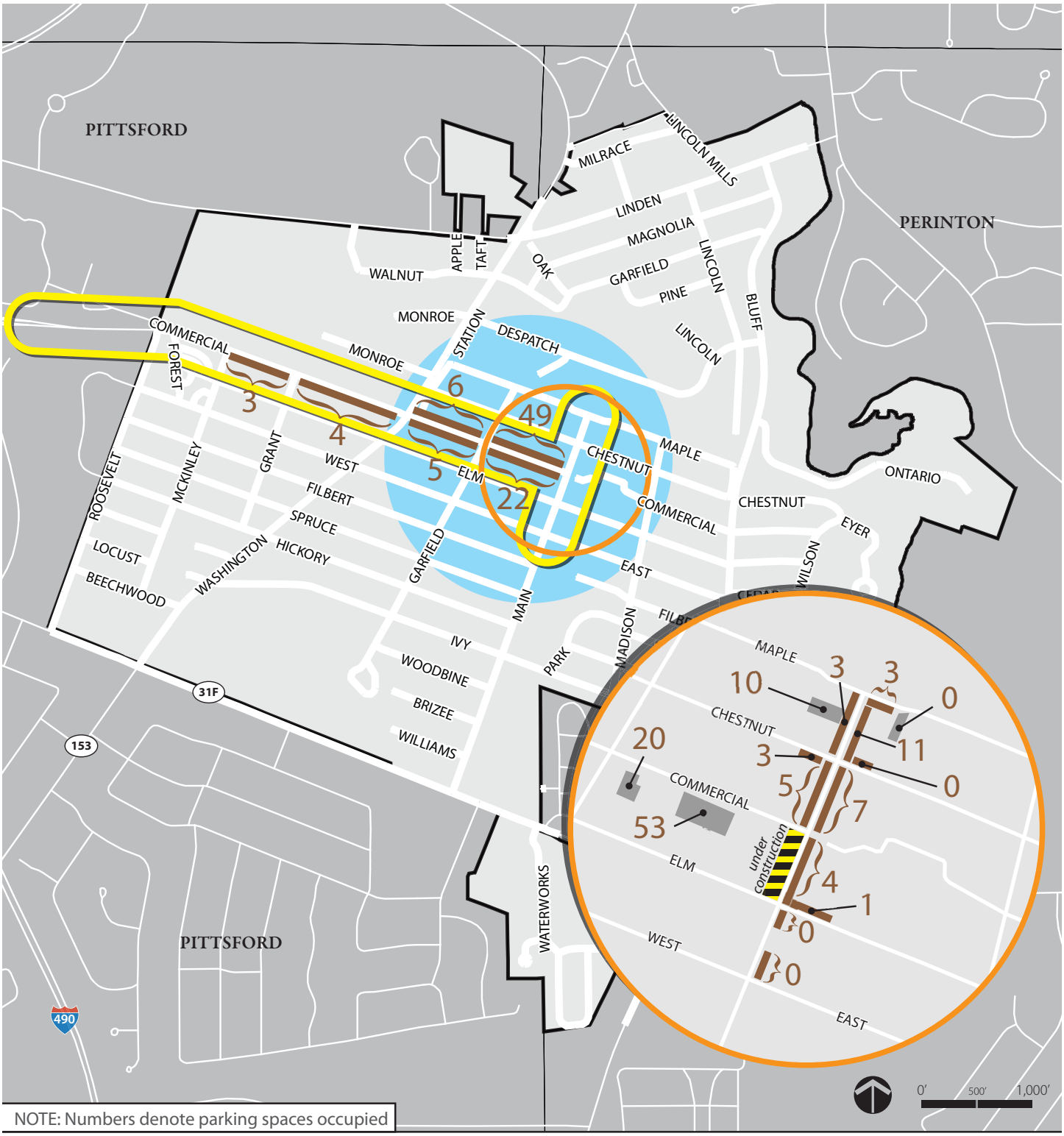
201 on-street // **115** occupied
100 off-street // **58** occupied

* Within Primary Study Corridor

Parking is allowed on all Village streets except where prohibited by signs. No overnight parking allowed between 3am-6am, November 15th - April 15th.

SRF ASSOCIATES
ingalls planning & design
Steinmetz Planning Group

Figure 16 - Parking Occupancy 7:30 PM peak



NOTE: Numbers denote parking spaces occupied

Primary Study Corridor

5-minute Walkshed (1/4-mile)

Municipal Parking Lot

Public Parking Occupancy*

201 on-street // **126** occupied
100 off-street // **83** occupied

* Within Primary Study Corridor

Parking is allowed on all Village streets except where prohibited by signs. No overnight parking allowed between 3am-6am, November 15th - April 15th.

SRF ASSOCIATES
ingalls planning & design
Steinmetz Planning Group

Regulatory Needs & Opportunities

Based upon the review of the previous plans and studies and the existing zoning documents for the Village, the following needs and opportunities have been provided for further consideration. Any code references are to Chapter 193 of the Village Code unless otherwise noted.

According to Section 193-54B(7), any Planned Development District must, "Provide a development pattern in harmony with the objectives of the Village Comprehensive Plan." Given the length of time that has passed since East Rochester has updated its Comprehensive Plan, it is unclear if the objectives that are articulated in the Comprehensive Plan reflect the community's current priorities and values.

1997 Comprehensive Plan - A Comprehensive Plan forms the legal foundation for a municipality's land use policy and zoning regulations. In other words, the preparation and adoption of a Comprehensive Plan provides the most effective basis for developing or modifying a municipality's zoning ordinance or code. The Village's Zoning Code and subdivision requirements contain several references to the Village's Comprehensive Plan, which currently refers to the plan adopted in 1997. An update to this Comprehensive Plan is an opportunity to clarify and update East Rochester's land use policy.

These before and after images illustrate the cumulative affects that building and site design standards, street trees and roadway improvements can have on a corridor. The result is a streetscape that is visually attractive and comfortable for all modes of travel.

Building & Site Design Standards - The Village has empowered the Planning Board to serve as the Architectural Review Board for East Rochester. However, the non-residential zoning districts within the study area do not contain the adequate building or site design standards necessary to achieve a high level of design. It is clear from the previous planning efforts and the public input received during this process that the community would like future investment to positively contribute to the character of the Village, enhance the public realm, and foster pedestrian activity. Incorporating appropriate design guidelines and standards into the existing zoning requirements are an effective approach to achieve this goal but would also better equip the Planning Board in conducting site plan and architectural reviews on behalf of the Village.

Street Trees - East Rochester's current landscaping requirements place a great deal of emphasis on screening and buffering adjacent land uses. However, there is little attention paid to the public realm and creating great streetscapes. Additional language could be added to the code to ensure that commercial and industrial development provide street trees, building plantings and other landscaping that positively contributes to the public realm.

Commercial District Framework - The existing commercial district framework does not foster a land use pattern that is consistent with the goals and objectives outlined in previous planning efforts and the input received during this planning process. The Village

currently has three commercial districts, Mixed Commercial/ Industrial, Limited Commercial and General Commercial. In order to strengthen the commercial district framework, consideration should be given to the following modifications:

- Combining the Mixed Commercial/Industrial District and the General Commercial District - The permitted uses and specially permitted uses in these districts are very similar in nature and the dimensional requirements are identical or nearly identical for many uses. Therefore, a single district would make administrating and enforcing of the code easier without sacrificing the intent of either the GC or the Mixed C/I Districts.
- Creating a new Village Center or Central Business Zoning District - The character of Commercial Street, west of South Washington is too different from the area east of South Washington to be regulated by a single zoning district; however, the Limited Commercial District currently regulates both of these sections. While it is the nature of the 300, 400, and 500 blocks of Commercial Street to cater to the automobile traffic, the character of the 100 and 200 blocks is significantly more oriented towards the pedestrian. Because the Limited Commercial District allows gas stations, funeral homes, and industrial operations within the CBD by special permit, the pedestrian character of the downtown is at risk of being compromised by the large setbacks these uses typically require. By creating a more traditional Village Center or Central Business Zoning District for the downtown area, the pedestrian scale and character that helps make it the "heart" of the community can better be preserved.
- Modifying the Limited Commercial District - Once a separate zoning classification has been created for the proposed central business district (CBD), the LC District can be tailored to achieve the desired vision for the southern side of Commercial Street, west of South Washington Street. A review of the previous plans and studies indicates that there is not a well-defined vision for this segment of the corridor. A revised LC District, and the process used to develop it, will serve to define that vision.

Steinmetz Planning Group

The creation of a new Central Business or Village Center Zoning District will help ensure that future investment in the 100 and 200 blocks of West Commercial Street complement the Village's traditional development pattern and foster a great streetscape.


Steinmetz Planning Group

According to the Community Preference Survey conducted at the first Public Open House, the streetscape depicted in this image was considered very undesirable by the community and should be avoided. However, Section 193-63C of the Village code states, "Parking areas may be located in any yard space for nonresidential uses." This code provision contributes to streetscapes like the one shown above; therefore consideration should be given to code amendments that limit or prohibit front yard parking in certain districts.

Front Yard Parking - According to Section 63C, front yard parking is permitted within all non-residential districts within the Village. In addition, there is no front yard setback requirements for parking within the CBD. The Village may want to restrict front yard parking in certain districts while continuing to permit parking in the side

and rear yard outside of the CBD. Within the CBD, consideration should be given to prohibiting parking lots that abut Commercial Street or require parking lots to be setback five to ten feet from the public sidewalk. This will serve to provide a more aesthetically pleasing streetscape and comfortable walking environment inside and outside of the CBD.

According to Section 193-61K, "Central business district exception. Any other provisions of this chapter to the contrary notwithstanding, no off-street parking shall be required for any use within the 100 and 200 blocks of West Commercial and Main Streets." This provision should be continued by the Village to serve as an incentive for businesses to locate in the downtown area.

Off-Street Parking Requirements - A review of the requirements contained in Section 65 of East Rochester's code indicates that the spaces required for certain uses might be too high for a traditional village setting. For example, the requirements for office related uses is 5 spaces per 1,000 square feet, while the requirements for retail uses is even higher at 7 spaces per 1,000 square feet of gross floor area. Both of these requirements could be reduced significantly, as excessive off-street parking requirements can result in unused spaces and larger paved areas than necessary to accommodate designated uses. Furthermore, consideration should be given to multimodal parking facility requirements, such as the addition of bicycle parking facilities.

Shared Parking - Section 61J of the Village Code states, "The collective provision of off-street parking areas by two or more commercial or industrial buildings or uses located on adjacent lots shall be permitted, provided that the total of such facilities shall not be less than the sum required of the various buildings or uses computed separately, and further provided that the land upon which the collective facilities are located is owned or leased by one or more of the collective users." In other words, the zoning codes does not explicitly permit uses with complimentary parking needs to share parking. A shared parking provision provides developers and business operators greater flexibility and can reduce the amount of paved area required on a given site.

Access Management - In order to increase driver safety, preserve the market area of existing businesses, and extend the operational life of the road network within the community, the Village has access management provisions in Section 68. The driveway spacing and separation standards in this section may not be adequate. For example, Section 68B(4) states, "No driveway to an off-street parking or loading area shall be located closer than 50 feet to the intersection of any two streets." This distance may need to be increased to protect the functional area of an intersection as well as motorists.


Urban Advantage

"Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work." (Source: National Complete Street Coalition). The upper image shows a transportation facility designed exclusively for the automobile. By comparison, the lower image shows a transportation facility that safely and comfortably accommodates motorists, bicyclists and pedestrians.


Smart Growth America

Complete Streets Policy - According to the National Complete Street Coalition, "By adopting a Complete Streets policy, communities direct their transportation planners and engineers to routinely design and operate the entire right of way to enable safe access for all users, regardless of age, ability, or mode of transportation. This means that every transportation project will make the street network better and safer for drivers, transit users, pedestrians, and bicyclists – making your community a better place to live." The Village should consider creating and adopting their own Complete Streets Policy to augment their existing land use policy framework.

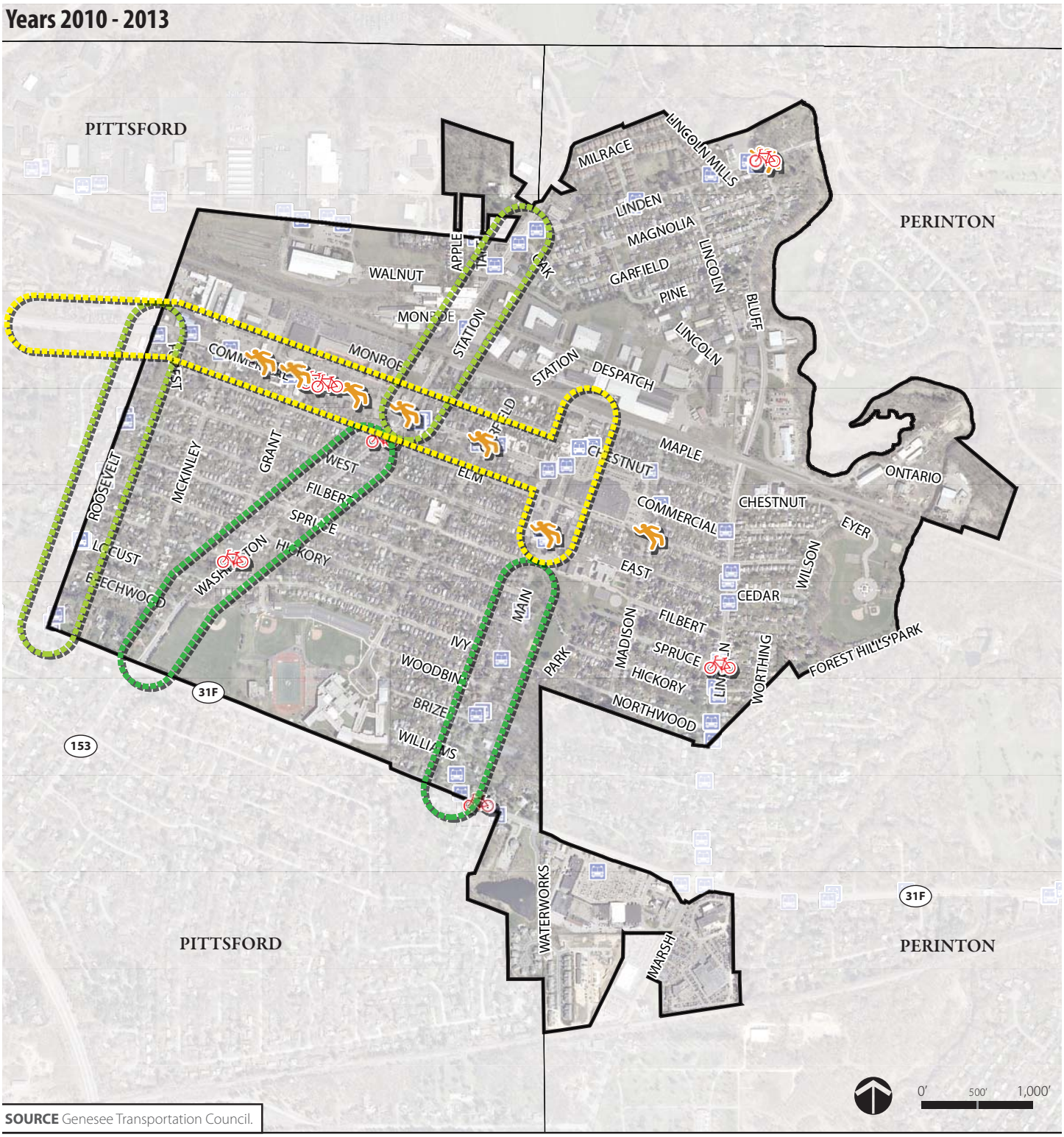
In summary, the Village's existing zoning code does not place enough emphasis on land development practices that emphasize the importance of creating great streetscapes and fostering walking and biking. The next phase of this project will identify specific recommendations that can be use to accomplish this.

Safety

Accident reports were investigated to assess the safety history within the study area. Pedestrian and bicycle related crashes included in the review collectively covered a three-year time period from 2010 through 2012; vehicular crashes were reviewed from 2010 through late 2013. During the three-year period for pedestrian and bicycle related incidents, a total of 14 crashes were reported; seven pedestrian and seven bicycle related crashes. Of the 14 crashes, five pedestrian and two bicycle crashes occurred within the primary study corridor. Accident locations are illustrated in **Figure 17**. The three accidents west of N/S Washington Street along West Commercial Street occurred as drivers were turning into the parking lots lining West Commercial Street. The incident at the intersection of West Commercial and N/S Washington Streets occurred in the crosswalk as a pedestrian was attempting to cross from the northeast to northwest corner.

Looking further into vehicle related crashes found that between N/S Washington Street and Roosevelt Road, there were a total of 20 left turn type incidents. Five of the 20 left turn crashes occurred as motorists were turning out of driveways along West Commercial Street. 10 of the accidents were intersection related accidents. The remainder took place while motorists were attempting to enter driveways along the roadway. **Figure 18** illustrates the vehicle related incidents. Within the 100 block of West Commercial Street, there were 13 crashes related to drivers backing out of the diagonal parking spaces.

Figure 17 - Pedestrian and Bicycle Crashes



SOURCE Genesee Transportation Council.

Primary Study Corridor

Secondary Study Corridor

Tertiary Study Corridor

Pedestrian Crash

Bicycle Crash

Transit Stops

Crash Totals

7 pedestrian crashes

7 bicyclist crashes

Ped/Bike Action

11 crossing

2 bicycling along roadway

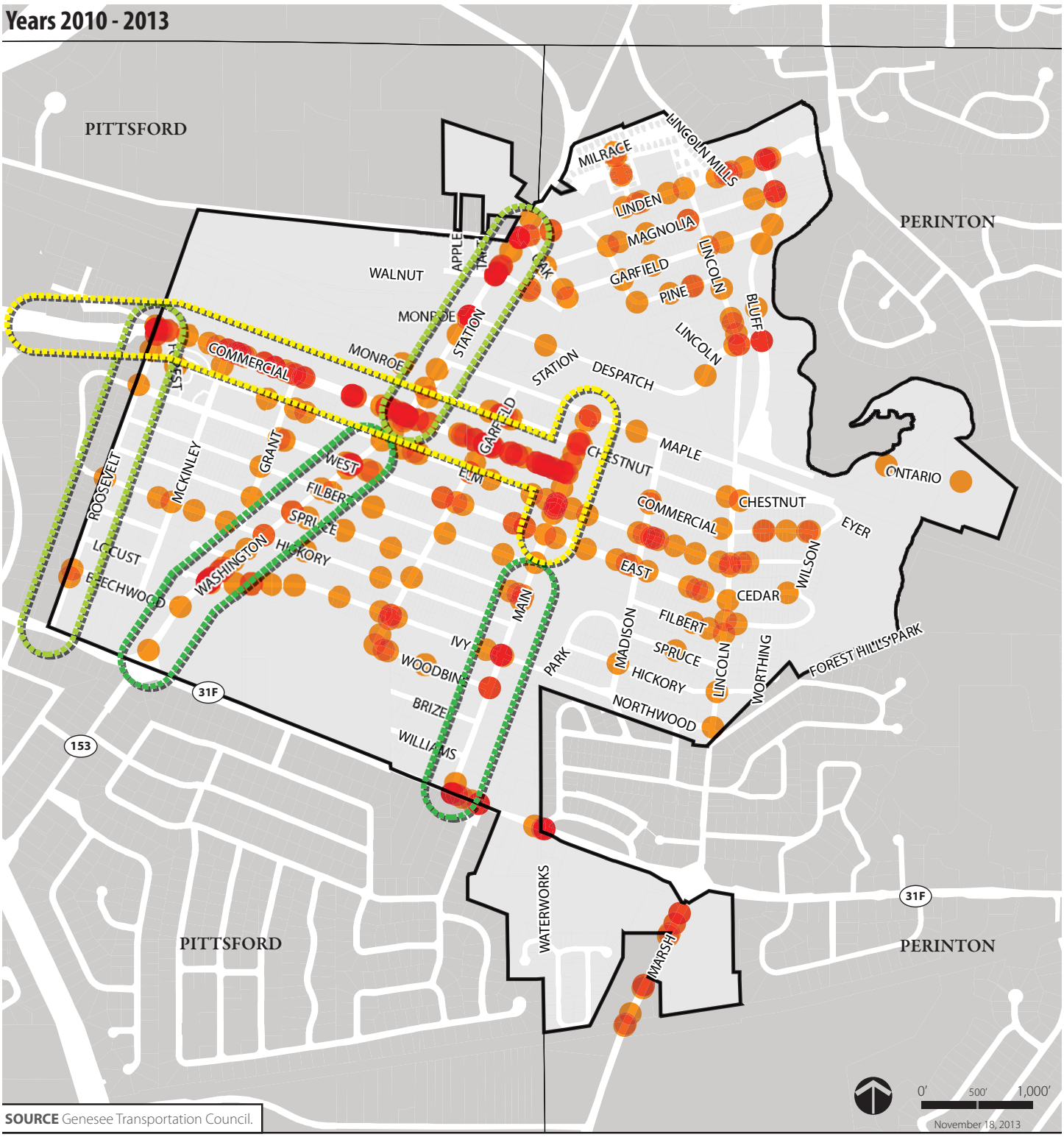
1 undetermined action

SRF ASSOCIATES

ingalls planning & design

Steinmetz Planning Group

Figure 18 - Vehicular Crashes



Primary Study Corridor

Secondary Study Corridor

Tertiary Study Corridor

Vehicle Related Crash*

*Darker areas represent higher concentrations of vehicle related crashes

The following chart depicts the accidents along West Commercial Street. Four of the rear end collisions at West Commercial/ N/S Washington Streets occurred in the southbound direction, meanwhile three occurred in the eastbound direction. Out of the six left turn collisions, three occurred in the northbound direction.

Intersection with West Commercial Street	ACCIDENT SEVERITY		
	Injury	PDO	Total
INTERSECTION RELATED			
1. Roosevelt Rd	2	3	**5**
2. McKinley St		2	**2**
3. Grant St		2	**2**
4. Washington St	8	15	**23**
5. Garfield St	1	2	**3**
6. Main St			**0**
SEGMENT RELATED			
Int. 1 to Int. 2			**0**
Int. 2 to Int. 3	1	6	**7**
Int. 3 to Int. 4	2	13	**15**
Int. 4 to Int. 5		6	**6**
Int. 5 to Int. 6		22	**22**

Chart 5 - Accident Summary

TYPE													
SideSwipe		Right Angle	Right Turn	Left Turn	Over taking	Rear End	Fixed Object	Backing Out of Diag. Parking	Unknown	Animal	Head On	Ped/ Bike	Total
Same	Opp.												
1				2						2			**5**
		1		1									**2**
		1		1									**2**
		2		6	2	10	1					2	**23**
		1				1						1	**3**
													0
													0
		2		3		1						1	**7**
		1		7		3	1		1			2	**15**
1		4				1							**6**
1		2		2		3		13	1				**22**

Alternatives & Preferred Recommendations

Top: Existing traffic on West Commercial Street

Bottom: Motorist backing out of parking space

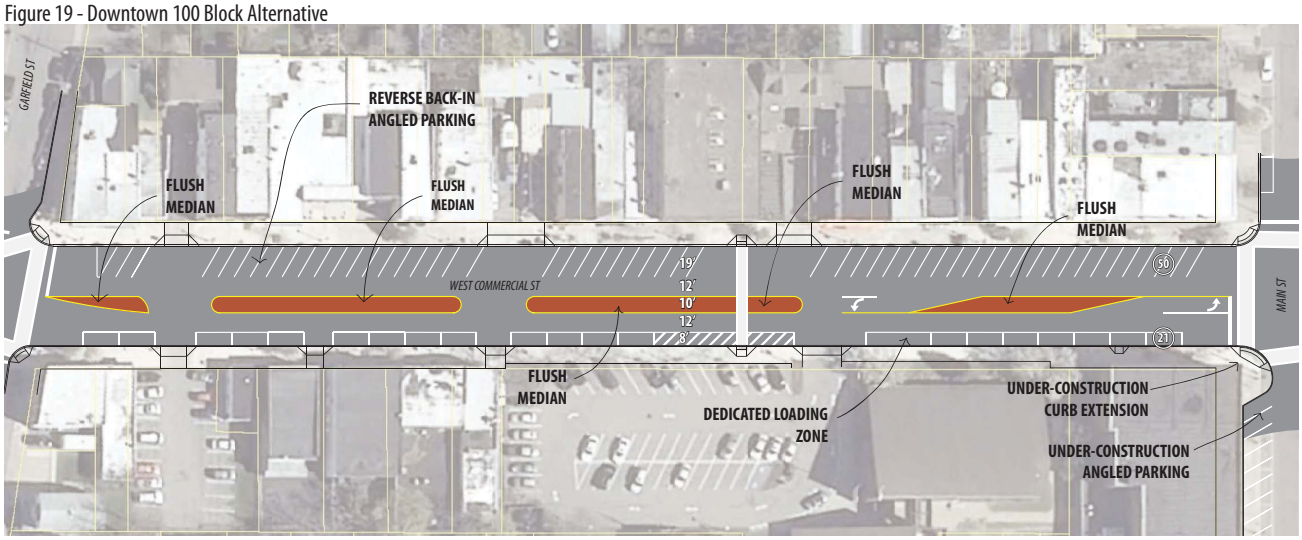
Main Street to Garfield Street - 100 Block

The downtown 100 block of East Rochester represents the historic roots and economic diversity typically found in older villages. Anchor establishments such as Village Fair, New Yorker's Pancake & Grill, Bistro 135, and Lemoncello to name a few take pride in their walkable, pedestrian-oriented location. With the nearby post-office, St. Jerome's Church, and other personal service destinations, one can park once and find what they need all within reasonable walking distance.

To improve upon the conditions downtown, an alternative was developed through close consultation with the Steering Committee. **Figure 19** illustrates the preferred alternative. Based on a three-year accident history analysis, 13 incidents occurred while an individual was backing out of their head-in parking space. These collisions happened as someone was driving westbound on West Commercial Street; stopped while waiting for traffic to continue moving; or one occasion, an individual backing into a delivery truck parked in the center of the roadway. A solution for this issue proposed in the alternative is to shift the parking from head-in to back-in. Back-in angle parking has been used with much success and positive reviews in communities such as Binghamton, Syracuse, Portland, and Pottstown, PA. The New York Wine and Culinary Center in Canandaigua is a specific facility that uses the design. Back-in parking is beneficial in that it improves:

- visibility as a driver is pulling out of a parking space
- loading/unloading as the trunk is curbside

Figure 19 - Downtown 100 Block Alternative




SRF & Associates


Google


Google


Google

Top: Binghampton, NY
Upper Middle: Pottstown, PA
Lower Middle: Wine and Culinary Center, NY
Bottom: Charlotte, NC

- safety for vehicle passengers and passing cyclists
- crash frequency

There are a few downsides to the design:

- potential vehicle overhang onto the curb
- potential congestion as drivers wait for the person to back in
- learning curve associated with the new design

The photos to the left illustrate example of back-in angle parking. It is important to properly sign the use of the parking treatment, as it may cause confusion and require a learning curve in the beginning of its usage. The image to the right illustrates a typical signage application that breaks the process down into three steps.


Google

Another design treatment utilized in the downtown is a flush median similar to the median in Alternatives 2 and 3 for West Commercial Street between Roosevelt Road and N/S Washington Street. The style should mimic the color of the the existing brick buildings bringing a consistent look and feel to the downtown. The photo to the right is a similar treatment used on Lake Avenue in the City of Rochester. A raised median alternative was presented as part of this study, however, is not feasible for further consideration.

As noted previously, the Village Hall will be relocated into the Eyer Building subsequently increasing the availability of off-street parking. The design alternative does reduce the amount of on-street parking with the addition of a dedicated loading zone and the reorientation of the angled parking. However, any spaces lost will be reallocated to the additional surface parking lot and should not adversely impact the availability of parking.

This area was explored for the possible installation of a gateway treatment within the median at the intersection with Main Street. However, discussions with the Steering Committee resulted in no further implementation of such a treatment. An example of the gateway element is illustrated to the left as interpretive trolley tracks within a landscape median.

Replace Street Trees

This section of West Commercial Street looks and functions much like a traditional village Main Street. Multistory mixed-use buildings front the street, with entrances from the sidewalk and inviting storefront windows. Sidewalks are generously large, which adequately accommodates pedestrian traffic as well as provides opportunities for outdoor seating and storefront displays. However, the streetscape needs improvement. The existing street trees are not the right species for this street. As shown in the image below, the canopy height (distance from sidewalk to bottom of canopy) is too low. It obstructs views of signs and storefronts. This sometimes causes shop owners to complain about the visibility of their business and can lead to pressure on the municipality to remove street trees. The problem is not with street trees in general but the selection of the trees. These characteristics are not caused by poor pruning practices but rather the natural growth habit and characteristics of the tree species. Although a good street tree for areas with plenty of room for root growth and dense shade, such as residential streets, Lindens are not ideal trees for "Main Street." Overtime these trees should be replaced with trees with lighter shade and higher tree canopy, such as Thornless Honeylocust. This is also true with the lower canopy ornamental trees, such as Crabapples and Cherry Trees. These trees should also be replaced.

The low canopy height and dense shade of the existing street trees make them less than ideal for a "Main Street."

Install Street Furniture and Bike Racks

Street furniture such as benches, trash receptacles and bike racks should be strategically installed throughout the downtown area,

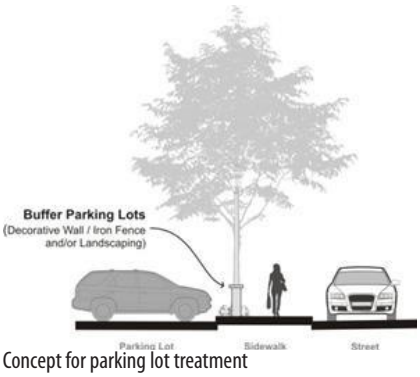
Loop style bike racks are attractive and do not take up much room

Dumor's Steel Bench (#58) and Receptacle (#102A) would be a good fit for East Rochester

such as near restaurants, the library and other public buildings and waiting areas. It is recommended that furnishings be selected from one manufacturer to ensure consistent style, color, and material. Most manufactures such as Dumor and Victor Stanley, have "series" that include coordinated benches, trash receptacles, and planters. Steel furniture with powder coat paint finishes are low in maintenance and standup well to Western New York weather.

Buffer Parking Lots

Parking lots that directly front the sidewalk along the street with no buffer have adverse impacts on the public realm and the pedestrian experience. A good example of this includes the public lot adjacent to the Village offices. As shown in the photo below, the public sidewalk is sandwiched between the hard edges of the street and parking lot. There is little to no vertical enclosure to help define the space and continue the rhythm along the street, which is typically created by buildings. This problem will be exasperated when this parking area is expanded as planned. Low hedges, decorative shrubs (or other plantings less than 4' high) should be used to screen parking lots. Consider decorative fences (max 4') such as steel or iron fencing with decorative brick pillars. Decorative walls (max 3') with attractive cladding also can work well.



Concept for parking lot treatment

A buffer between the parking lot and sidewalk would make the area more comfortable for pedestrians and help to bridge the "hole" in the building street wall created by the parking lot.

Garfield Street to N/S Washington Street - 200 Block

Redevelopment Opportunity

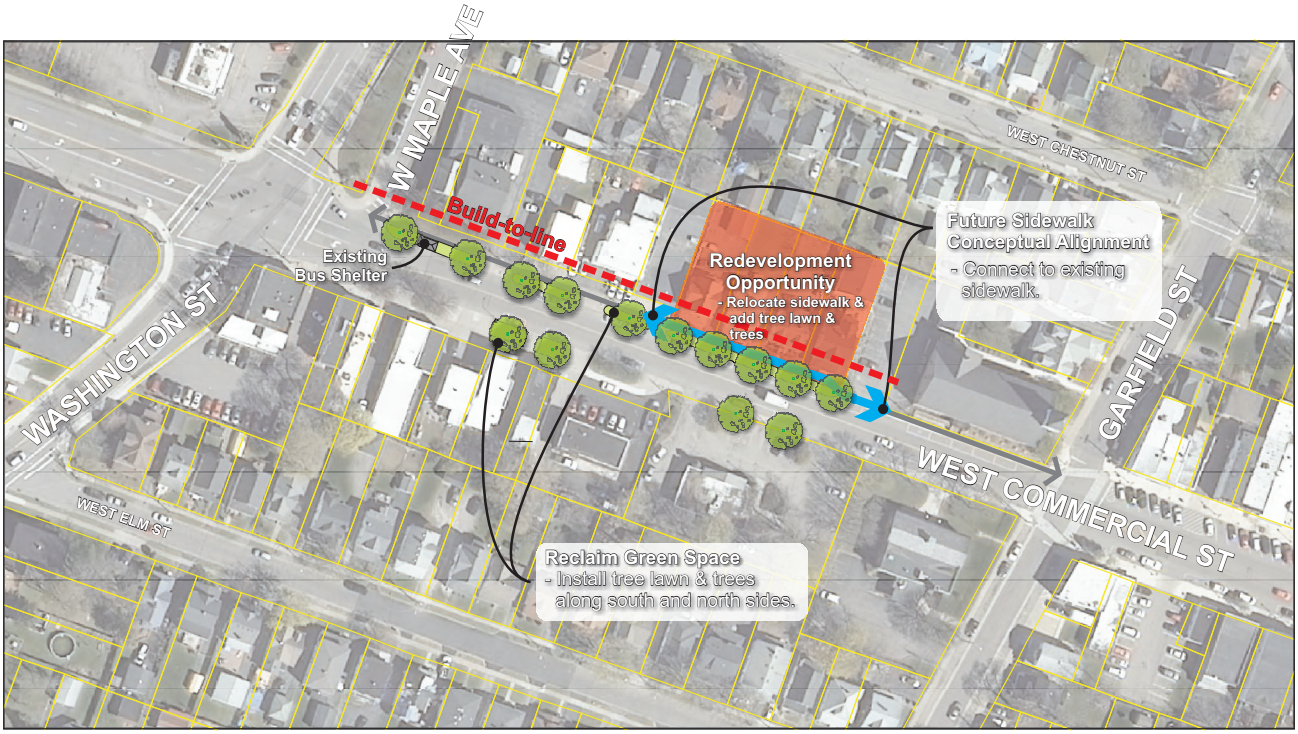
The four residential structures along the north side of West Commercial Street (200 block) are inconsistent with the character of the street. If these properties are redeveloped at some point in the future they should employ traditional village commercial character in regards to both architecture and site planning. Parking should be located in the rear yard or side yard and buildings entrances should be located as to accommodate both pedestrians and motorists, preferably along the street. The sidewalk should be relocated and a tree lawn and street trees added. This will create a more comfortable environment for pedestrians and will help to improve the overall aesthetic of the area. See the section on Planning & Regulatory Recommendations for further explanation.

Future buildings in this area should be setback and aligned with existing commercial structure so that a tree lawn with trees can be installed between the curb and the sidewalk.

Restore Tree Lawn and Install Street Trees

The graphic to the right depicts several locations where tree lawns can be improved and/or restored and street trees added. These types of improvements will not only create a more comfortable environment for pedestrians but they will also lessen the visual impact of the auto-oriented land uses along the street.

Restoring tree lawns and reclaiming public green space will improve the aesthetic character and walkability of the area.



200 Block West Commercial Street Concept Plan

Above: Existing conditions of West Commercial Street facing east
Below: Physically challenged person crossing West Commercial at McKinley Street (facing east)

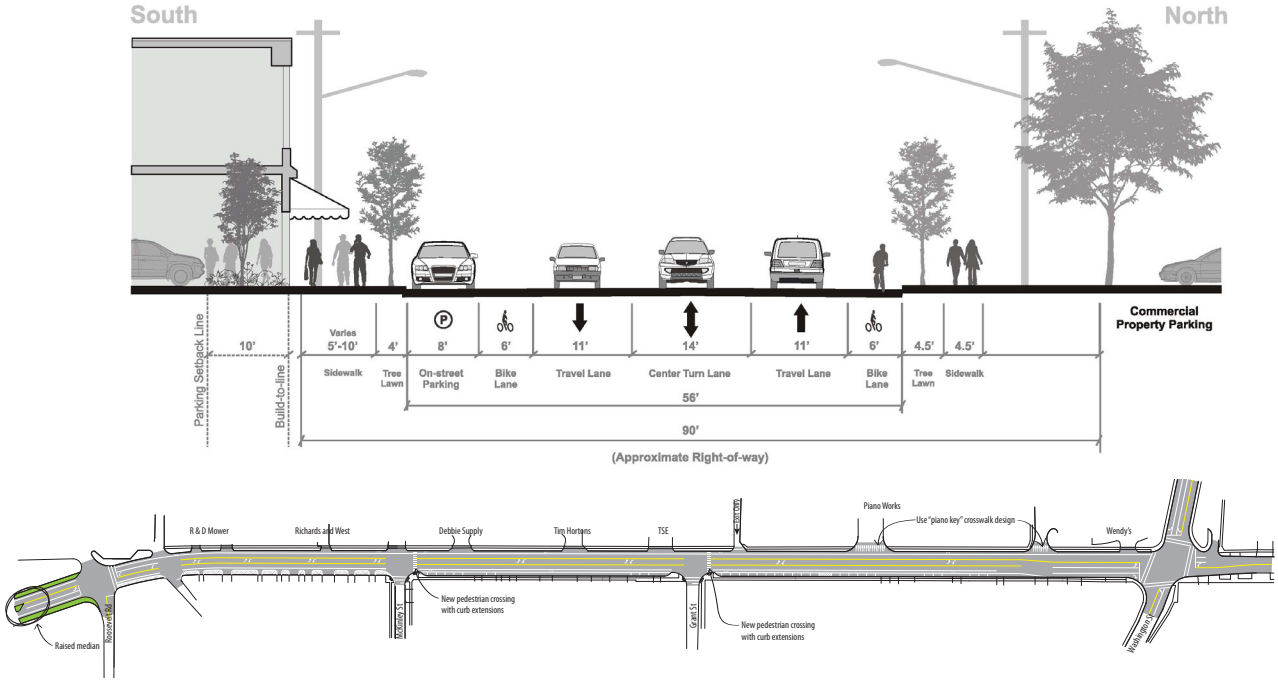
Washington Street to Roosevelt Road - 300-500 Blocks

Based on comments received through an extensive public input process via the Open House, Steering Committee meetings, and the collaborative map, the Consultant Team identified three preliminary alternatives for West Commercial Street for future consideration. The alternatives are developed to help rebalance the roadway giving more of a priority to pedestrians and bicyclists, while safely and efficiently moving vehicular traffic. Three alternatives are presented below and on the following pages. Additionally, it provides a visual enhancement, acting as a gateway for people entering the Village.

Alternative 1 - Road Diet with New Striping Changes and Pedestrian Enhancements

Alternative One rebalances the roadway by reducing the amount of travel lanes from four to two using a "road diet"; installing a two-way left-turn lane; parking on the south side; and bike lanes on both sides. The limits of the conceptual design extend from McKinley Street to N/S Washington Street. In the 500 block of West Commercial Street, striping is used to provide a larger buffer for the driveways on the southern side. This buffer space increases the available room for residents to park their vehicles in their driveways without any overhang into the roadway.

Figure 20 - Alternative 1 Cross-section and Plan View



Above: Vehicles protrude into travel lane (facing west)
Below: Lack of sidewalk (at Roosevelt Road) and shallow setback from existing buildings (facing east)

In each section of West Commercial Street, the travel lanes are reduced to 11' in width. On-street parking lanes are 8' wide. The two-way left-turn lane in the 300 and 400 blocks measures at 14' wide while it is reduced to 12' in the 500 block. The bike lanes in 300 and 400 blocks are 6' wide. The benefits of a 6' wide bike lane in this section include providing a wider buffer space for pedestrians walking on the northern side of the roadway as well as offering a wider riding area for bicyclists on the southern side given the availability of on-street parking. The bike lanes within the 500 block reduce to 5' in width. **Figure 20** illustrate the cross-section and plan view of the alternative.

Inherent in each of the alternatives are proposed curb extensions. Simply put, curb extensions - or bulb-outs - extend the sidewalk into the parking lane to offer the following benefits:

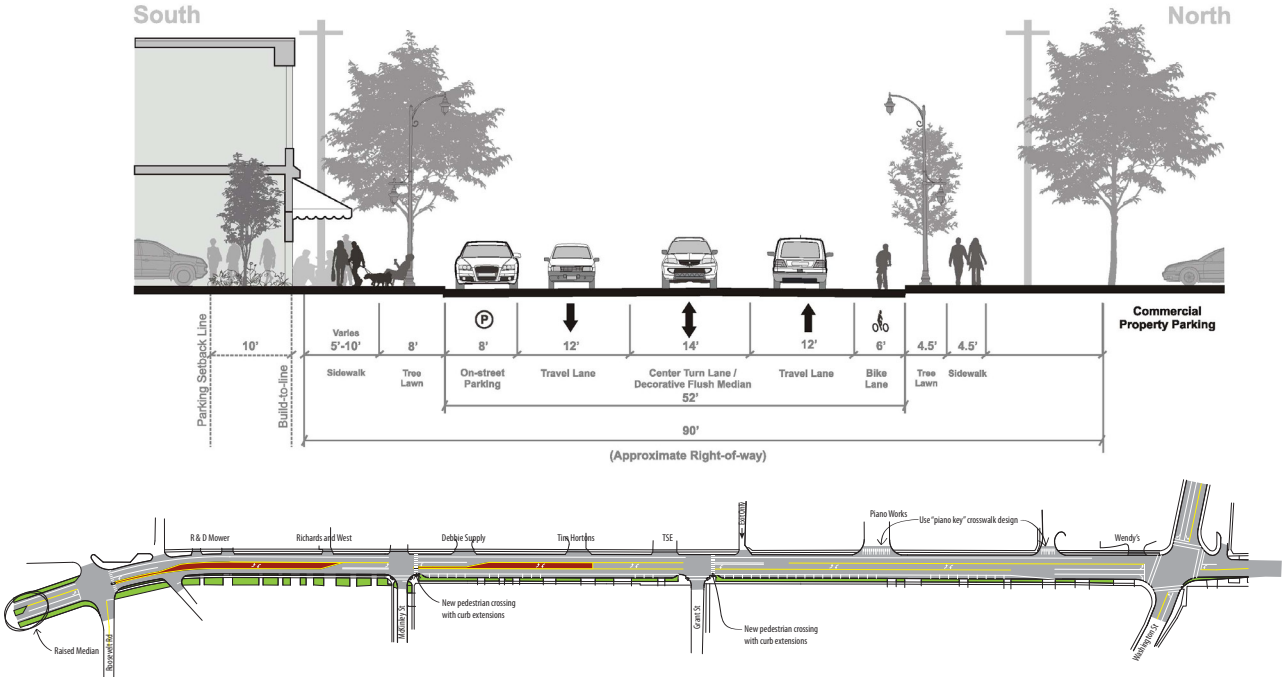
- Reduced crossing distance for pedestrians;
- Improved sight distance for pedestrian visibility;
- Reduced vehicle turning speeds;
- Increased waiting space for pedestrians; and
- Reduce illegal parking at the corners near crosswalks

These curb extensions and new pedestrian crosswalks are located at McKinley Street and Grant Street and will provide dedicated crossing locations for pedestrians.

Alternative 2 - Decorative Traffic Calming

This alternative still proposes a road diet throughout the 300, 400, and 500 blocks of West Commercial Street. However, this alternative proposes a 4' relocation of the curb face on the southern side. The curb face would shift north, narrowing the total travel-way width thereby creating a larger tree lawn and buffer space for pedestrians. As well, the tree lawn will allow for planting larger street trees than could be feasibly utilized in the existing 4' buffer space. The larger trees will provide a better sense of enclosure and shade for pedestrians using the crosswalk and help narrow the field of view for motorists on West Commercial Street; encouraging them to slow their travel speeds as a traffic calming treatment. The travel lanes would be 12' wide with a 14' two-way left-turn lane. A single 6' westbound bike lane would be installed on the northern side of the street, while an 8' parking lane will remain on the southern side. **Figure 21** illustrates the proposed alternative. Within the 500 block, the southern curb face shifts approximately 10' north to reduce the curb-to-curb width to 54'. The added green space allows for installation of a sidewalk, right sized street trees, and increased space for home owners to park their vehicles without the previously noted overhang into the street.

Figure 21 - Alternative 2 Cross-section and Plan View

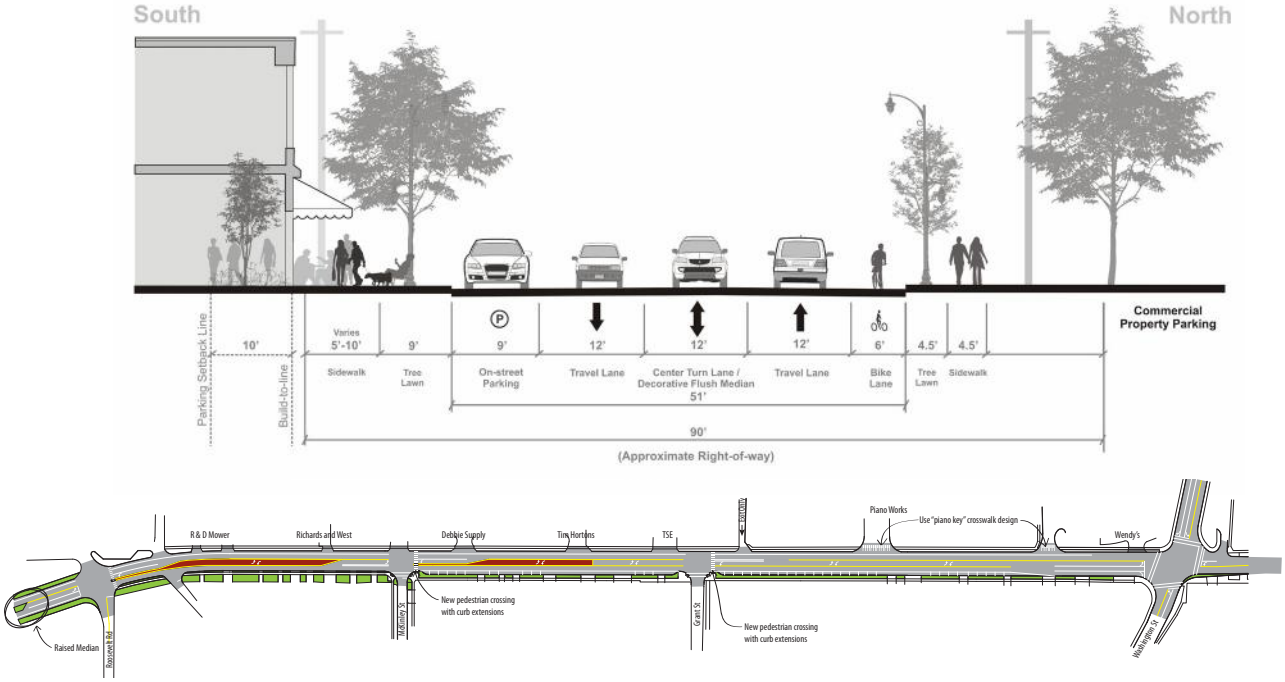


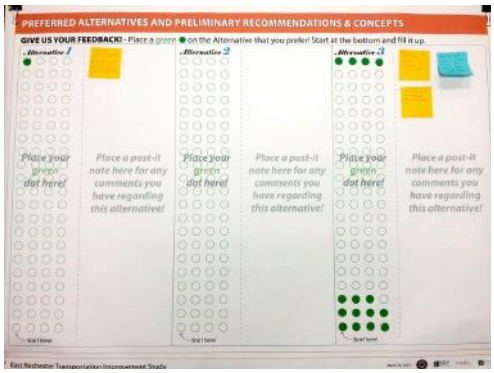
Above: Four lanes of traffic (facing west)
Below: Lack of greenery and pedestrian amenities (facing east)

Alternative 3 - Green Street

Like the previous alternatives, Alternative 3 is largely based around a road diet concept. However, what separates this alternative from that shown in Alternative 2 is the additional shift in the southern curb face. The curb-to-curb width becomes 51' and includes a larger on-street parking lane (9'), two 12' travel lanes, a 12' two-way left-turn lane, and a 6' bike lane. The shift allows for a slightly larger tree lawn, as well as a larger parking space and buffer from through traffic as people are entering or exiting their parked vehicles. **Figure 22** illustrates this alternative. It should be noted that in both Alternatives 2 and 3, decorative colored/textured pavement is used as a flush median treatment in the 400 and 500 blocks of West Commercial Street. This design adds a visual contrast to the environment and acts as an aesthetically appealing element and traffic calming tool. This alternative strives to bring the roadway into a more human-scaled place that, while it still functions as an important linkage between the Village and surround communities, it has a better sense of place and is designed with pedestrians, bicyclists, and transit users in mind.

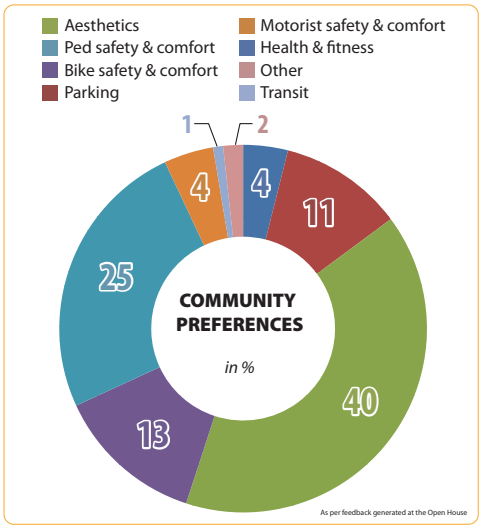
Figure 22 - Alternative 3 Cross-section and Plan View





Top: Results from 3/25/14 Public Open House

Bottom: Community preferences as determined at 11/18/13 Public Open House



Preferred Alternative

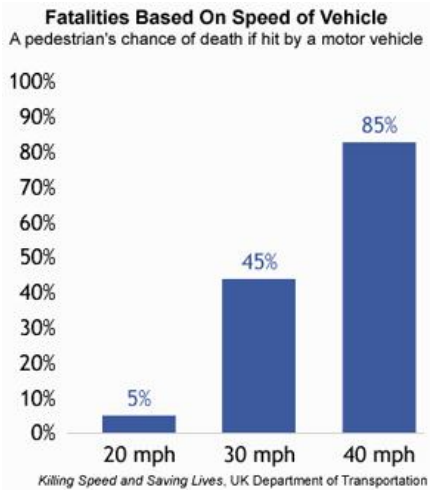
Based on the feedback generated at the Public Open House presenting the three West Commercial Street alternatives and further discussions with the Steering Committee, Alternative 3 is recommended for installation. This alternative provides the most value for improving the conditions for pedestrians, bicyclists, and transit users, while rebalancing the needs of existing motorists.

The right sizing – or completion of a road diet – of West Commercial Street within the study area provides a multitude of benefits for pedestrians, bicyclists, transit users, and motorists. Some benefits include:

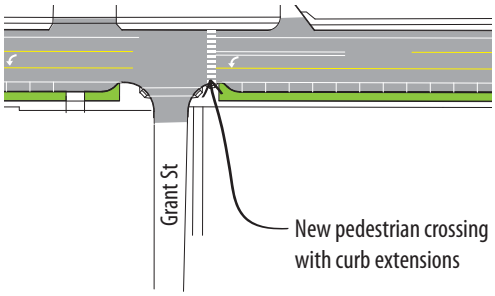
- Decreases the number of travel lanes for pedestrians to cross;
- Provides space for pedestrian crossing islands;
- Provides space for bicycle lanes or wider travel lanes for shared use;
- Reduces rear-end and left-turn accidents (e.g., auxiliary lanes, two-way left-turn lanes;
- Improved speed limit compliance; and
- Improved overall safety for all users

In terms of travel speeds, it is important to note that over 80% of pedestrians struck by vehicles travelling over 40mph are fatal incidents. The chart below depicts pedestrian fatalities based on speeds of vehicles.

Data provided by the Federal Highway Administration (FHWA) states that roadways that undergo a road diet whereby four travel lanes are reduced to two with a two-way left-turn lane are shown to reduce all roadway crashes by 29%. Pedestrian benefits mean that crossing distances are shorter and mid-block cross locations are fewer.



The conceptual plan was reviewed by RGRTA to ensure proper design standards are used when accommodating transit stops. Currently, transit stops are located on the approach side of the intersections of McKinley and Grant Streets for eastbound traffic.



The proposed curb extensions at Grant Street should be designed to provide 30' of a clear ADA compliant running path alongside the bus to accommodate the front and rear doors. Concrete landing pads should extend from the sidewalk to the curb line at all transit stop locations and be ADA accessible. Benches, lighting, and trash receptacles should be placed where appropriate.

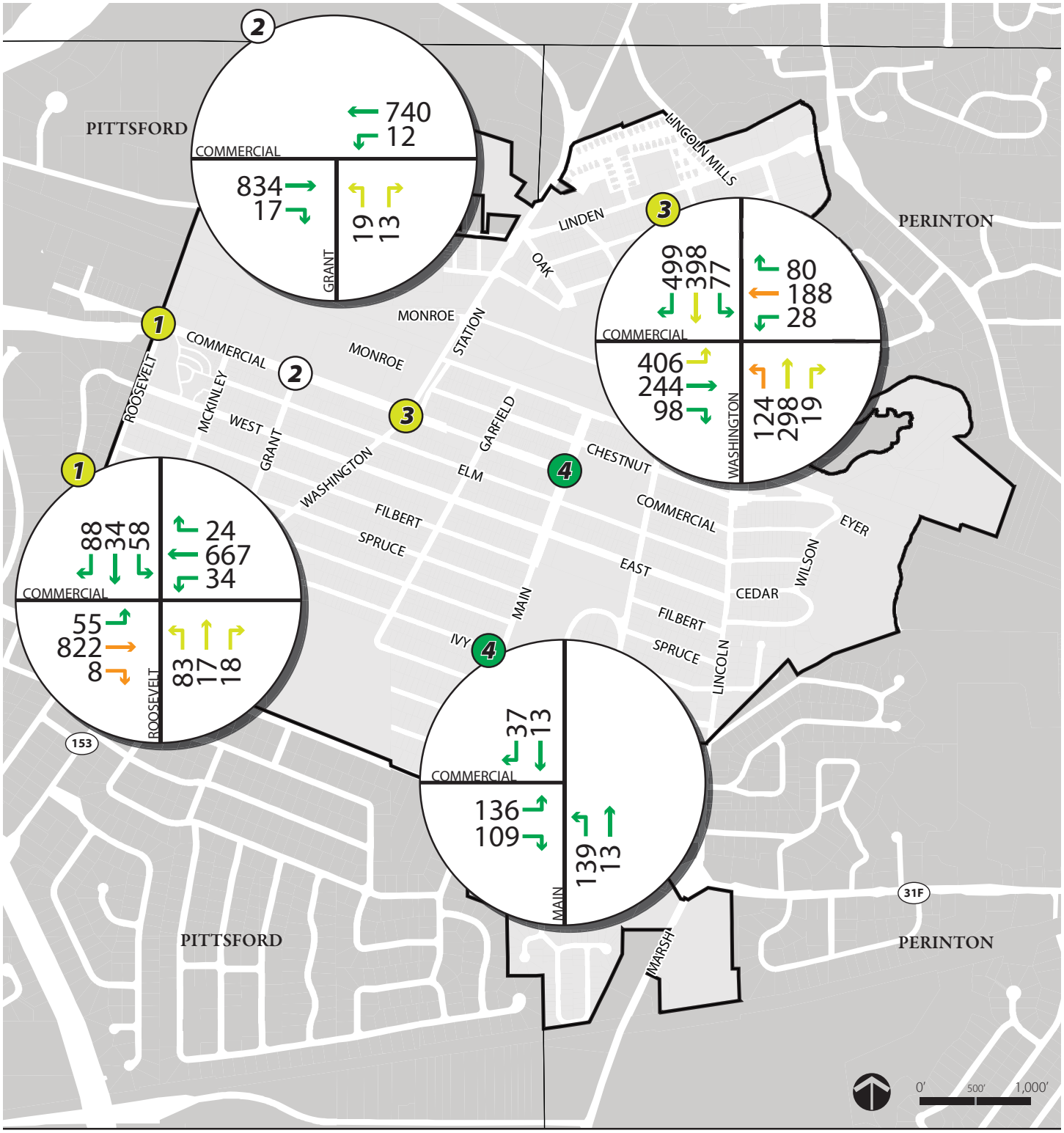
To bring in an identifying element to this area of West Commercial Street, the Piano Works building was used a source of inspiration for streetscape enhancement. Interpretive "piano key" crosswalks can bring in a whimsical feel to the area. They should be installed at the driveway openings leading into the Piano Works complex.

Future conditions with the road diet alternative in place result in no level of service changes at the Main Street and Washington Street intersections given that there are no geometric changes at these intersections. Reducing the cross section to three lanes at Grant Street provides a two-way left-turn lane to the west of intersection which allows motorists to use the two-way left-turn lane for two-stage gap maneuvers (i.e. a motorist can cross the eastbound lanes and pause in the two-way left turn lane while waiting for a gap in westbound traffic). This reduces delays for left turns exiting Grant Street and the LOS improves from "D" to "C". During the AM peak hour at Roosevelt Road, the eastbound through traffic will operate at LOS "D" and the northbound approach will operate at LOS "C". During the PM peak hour, the eastbound left turn movement and westbound through traffic will operate at LOS "D". All other approaches will operate at LOS "B" during both peak hours.

There is also an option to remove the eastbound right turn lane on West Commercial Street at Washington Street. While this results in a very small increase in delay, less than one second, there is no change in level of service as a result of removal of the eastbound right turn lane. All other approaches at this intersection remain the same.

Figures 23 and **24** illustrate the future road diet level of service conditions.

Figure 23 - 2033 Future road diet vehicle level of service (AM peak hour)



MOVEMENT LEVEL OF SERVICE (LOS)

LOS A-B

LOS C

LOS D

Less Congested

More Congested

INTERSECTION LEVEL OF SERVICE

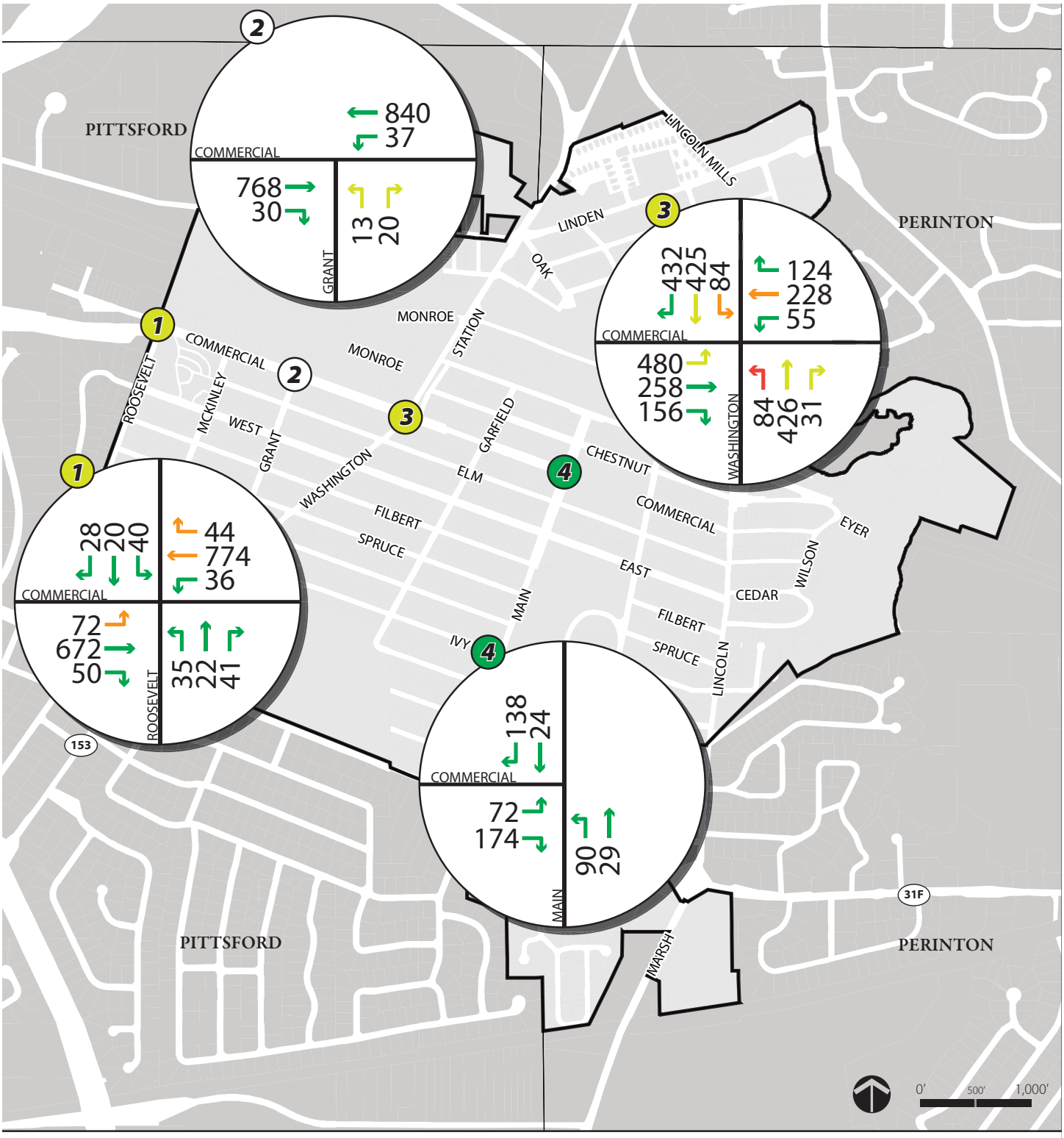
LOS A-B

LOS C

Unsignalized Intersection

Note:
Number denotes corresponding intersection

Figure 24 - 2033 Future road diet vehicle level of service (PM peak hour)



MOVEMENT LEVEL OF SERVICE (LOS)

- LOS A-B
- LOS C
- LOS D
- LOS E

Less Congested — *More Congested*

INTERSECTION LEVEL OF SERVICE

- LOS A-B
- LOS C
- Unsignalized Intersection

Note:
Number denotes corresponding intersection


Existing Conditions


Alternative 1 – Proposed Simulation with no buildings (short term)


Alternative 1 – Proposed Simulation with future buildings (long term)

Alternatives

The cross-sections (e.g. lane widths, bike lanes, etc.) of each of the alternatives are explained in detail on the previous pages. The design implications of these alternatives in regards to the streetscape vary, especially along the south side.

Alternative 1 - Road Diet with New Striping Changes and Pedestrian Enhancements

Alternative 1 maintains the existing curb locations and removes the asphalt adjacent to the curb to create a narrow tree lawn along the south side. This tree lawn area is approximately 4' wide, which significantly limits the type of trees that can be planted and their long term expected health. If trees are planted they must be small trees and would likely never grow large enough to provide the shade and enclosure that is desirable along the street. Another option explored for this alternative was to eliminate the tree lawns and extend the sidewalk to the curb and place the street trees in pits with grates. Based on the wide curb-to-curb width of this section of West Commercial Street, the highly urban feel that would be created, along with the fact that people in the community expressed the desire for greening the street, this option was dismissed. Long term, as development occurs along the south side, buildings could help to bring enclosure to the street making it more comfortable and attractive. The existing 5' wide sidewalk would be maintained.

Although this alternative is an improvement over existing conditions it was not desirable when presented at the community meeting.


Existing Conditions


Alternative 2 and 3 – Proposed Simulation with no buildings (short term)


Alternative 2 and 3 – Proposed Simulation with future buildings (long term) and mature trees

Alternative 2 - Decorative Traffic Calming and Alternative 3 - Green Street

Alternative 2 and 3 are similar in regards to the streetscape and urban design implications for the south side. Alternative 2 proposes an 8' tree lawn and Alternative 3 includes a 9' tree lawn. Whether it is 8' or 9' the additional width in the tree lawn, as compared to Alternative 1, provides the necessary space to plant larger trees as well as benches, trash receptacles and bike racks. As illustrated in the images to the left, the wider tree lawn looks and feels more inviting from a pedestrian perspective. Over time as the trees mature and buildings are developed along the sidewalk, the street itself will feel narrower for motorists, which will likely result in slower speeds as well as a more pleasant driving experience.

Preferred Alternative

When the three alternatives were presented at a community meeting, it was clear that Alternative 3 is the preferred design concept. People expressed the desire for a "green" street with wide tree lawns and large trees. When combined with attractive mixed-use buildings, these improvements could transform this segment of West Commercial Street into an attractive and inviting commercial corridor where all transportation users feel comfortable.

Plant Trees on Public Property Along the North Side

The trees along the north side, such as in front of the Piano Works Mall, are mature trees that provide enclosure, shade, and add texture and color along the street. However, they are located on private property and the owner could remove them without input from the Village. This would have a tremendous impact on the character of the area. It is recommended that the Village work with NYSDOT to plant trees within the right-of-way along the north side or implement a tree ordinance.

Extend the Curb and Add a Tree Lawn and Sidewalk in the 500 Block

As discussed previously, the current design of the 500 block along the south side is a safety concern. As shown in the existing conditions image to the right, vehicles parked in driveways in this area often encroach the right-of-way and at times the travels lanes. The roadway width should be reduced by 10' feet and the space reallocated to include a tree lawn and sidewalk. This will improve safety for pedestrians, property owners, and motorists. It will also improve aesthetics and character.


Existing Conditions

Extend the Curb and Add a Tree Lawn and Sidewalk in the 500 Block

As discussed previously, the current design of the 500 block along the south side is a safety concern. As shown in the existing conditions image to the left, vehicles parked in driveways in this area often encroach the right-of-way and at times the travel lanes. The roadway width should be reduced by 10' feet and the space reallocated to include a tree lawn and sidewalk. This will improve safety for pedestrians, property owners, and motorists. It will also improve aesthetics and character.


Proposed

Develop a Community Supported Theme or Identity for the West Commercial Street Corridor

Every community has a story to be told and there are plenty of opportunities or ways in which it can be shared. One way is to incorporate it into things like signs, kiosks, murals, gateways, and other community features. These "custom" features help to bring a sense-of-place and uniqueness to a community. The key is to find something that is representative of the community - something that resonates with people - such as a historic event or element. East Rochester, more specifically West Commercial Street, has a rich history of transportation and commerce. At one time it had a trolley running down the center of West Commercial Street. Although trolleys were once a popular form of transportation, not many local villages had one so integrated into the village fabric. This, along with more than 100 years of commerce on Commercial Street is something to be proud of and is a great story to share. The graphics below illustrate ways these historic elements can be worked into signage and steel cutout banners. These could be incorporated into gateways at each end of the Corridor. If further developed and/or modified a similar theme and design could be used as part of all Village gateways and other interpretive signs.

Bioswales often include plant-filled areas separating sidewalks and streets, which are used to filter storm water before it infiltrates into the soil.

Green Infrastructure

Green infrastructure uses natural processes such as vegetation and soils to manage water rather than traditional stormwater infrastructures, such as pipes. The Village of East Rochester should consider incorporating green infrastructure practices along streets when possible, especially if a reconstruction or enhancement project is realized for West Commercial Street. Bioswales are green infrastructure practice to consider.

There is often confusion between bioswales and rain gardens. Both are stormwater management facilities but are two different systems. A bioswale is a swaled drainage course with gently sloped sides filled with vegetation, compost and/or riprap. Unlike bioswales, rain gardens are bio-retention facilities established by creating a depression or shallow pond used for storage and infiltration of relatively small volumes of stormwater. Rain Gardens are not well suited for downtowns or urban commercial areas where there is an abundance of impervious surfaces generating large volumes of stormwater. They are most useful in residential settings.

Bioswales could be included within the tree lawn areas along West Commercial Street between Washington Street and Roosevelt Road, especially along the south side. Although there is an existing storm sewer system along the Corridor, the existing system could be supplemented with green infrastructure techniques, which could help to keep costs in check.

Strengthen Connections to Concrest Park

Concrest Park is currently not visible from West Commercial Street or Roosevelt Road and is underutilized. A visible connection should be made for pedestrians from these streets. This should be especially considered if sidewalks are installed along Roosevelt Road. In addition, if the opportunity presents itself, the Village should consider purchasing the property on the southeast corner of the West Commercial Street / Roosevelt Road intersection and make it part of the gateway and park. This would not only make the Park and gateway more visible it would provide a connection for people living southwest of the intersection.

West Commercial Street Conceptual Plan

One of the primary goals for West Commercial Street, especially between N/S Washington Street and Roosevelt Road is to improve the character and aesthetics as well as the walkability. These things often go hand-in-hand. The Conceptual Plan (**Figure 25**) includes transportation, land use and urban design characteristics working together to illustrate the long-term vision for this segment of West Commercial Street. It includes both short-term improvements (e.g. street trees along the north side) and long-term improvements (e.g. infill and outparcel buildings). The graphic also includes the "preferred alternative" in regards to travel lanes, on-street parking, tree lawns, and sidewalks as discussed on page 73 in the discussion regarding alternatives.

Figure 25: West Commercial Street Conceptual Plan

The Plan is intended to provide an overview of the ideas generated during this planning process, which could take a decade or more to implement. It is not intended to be a prescription for the development of the corridor but rather a general guide of how enhancements should be placed and developed over time. Key components include:

Potential New "Key" Buildings

These buildings are dependent on several factors including but certainly not limited to the desire of the individual property owners and market demand and conditions. The purpose of showing them is not to determine if they will be developed but rather where

buildings should be developed if they are to be built. They should have an attractive presence on the street and accommodate all modes of travel. Parking should be located to the rear or side and never on a corner. The long-term goal is to create an attractive street wall where buildings and people are the dominant features. It appears that buildings in these general locations would have limited impact on parking, circulation, or access of the parking areas.

Out-building Opportunities
Buildings in these general locations would likely impact parking, circulation, and access but if resolved, would contribute to the street wall and improve the interface between the public and private realms.

Build-to-line
The purpose of the red build-to-line along the south side is to help ensure that future buildings are not setback too far from the street. Large setbacks filled with parking and/or "dead space" have adverse impact on the public realm. In addition, lots along the south side tend to be shallow which further justifies the need to keep buildings close to the street with parking to the side or rear. This is further explained in the discussion on land use later in the report.

Parking Setback Line
This blue line depicts the minimum parking lot frontage line. It is generally located 10 feet behind the build-to-line, which will help ensure that buildings and pedestrian connections are the primary emphasis.

Bike Boulevard
A bicycle boulevard is a low-speed street that has been optimized to provide enhanced accommodation as through streets for bicyclists. They typically discourage cut-through motor-vehicle traffic but allow local motor-vehicle traffic. The proposed Boulevard includes Woodneath Crescent and West Elm and the goal is to improve bicyclist comfort and safety by providing a dedicated alternative to this segment of West Commercial Street.

Desirable Cross-access Opportunities
If realized, the points identified on the Conceptual Plan will allow for the consolidation of curb cuts which will not improve access to local businesses but will reduce motorize and non-motorize conflicts. See the section on access management, later in the report, for further details.

Special Features
These include but are certainly not limited to such things as public art, sculptures, community kiosks, fountains or any other unique sense-of-place element added to the public realm. The southeast corner of the Roosevelt Road/West Commercial Street intersection could include a special feature that functions both as a gateway element to the West Commercial Street Corridor as well as Concrest Park.

Gateway Area
The western gateway for the West Commercial Street corridor includes the Roosevelt Road/West Commercial Street intersection. This area announces and "sets the stage" as the entrance to the corridor from I-490. It should be well defined and could include landscaping, signage, lighting, special pavement and crosswalks, and other special features or treatments. A community theme/ identity feature, such as the trolley theme previously described could be incorporated.

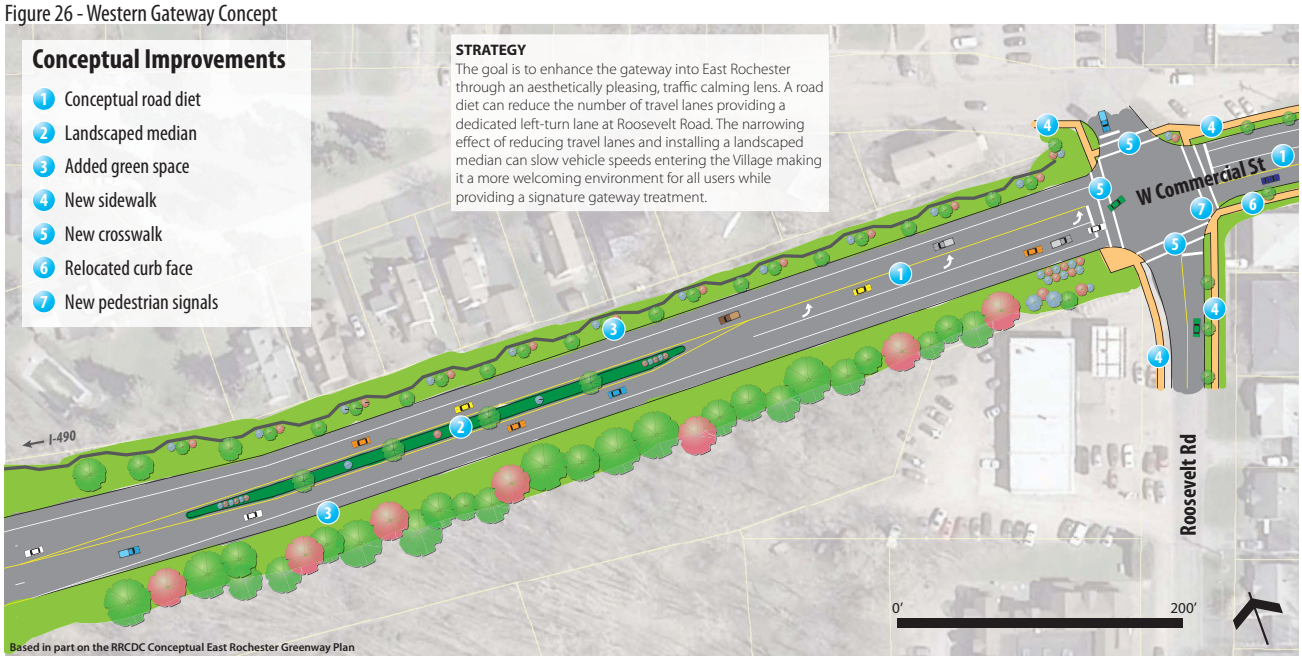
Top: Existing view facing west

Bottom: Existing view facing east

Western Gateway Treatment

As mentioned earlier, the RRCDC developed a concept for the western gateway into the Village between I-490 and Roosevelt Road. This study reviewed the concept and offered the improvements and enhancements illustrated in **Figure 26**. As seen in the previous West Commercial Street alternatives, a road diet is conceptually proposed for a portion of this segment of roadway. This will act as a traffic calming treatment for vehicles entering the Village. The installation of a landscaped median and reduced total pavement width will narrow the roadway further enhancing the desired traffic calming effect. This area should be a gateway focal point for residents and visitors. Signage, street lighting, decorative banners can be used to instill that gateway feel. Additionally, improvements to the intersection of West Commercial Street/ Roosevelt Road will better connect the residents along Country Club Road and the nearby Gleason Estates to the Village from a pedestrian and bicyclist's point of view.

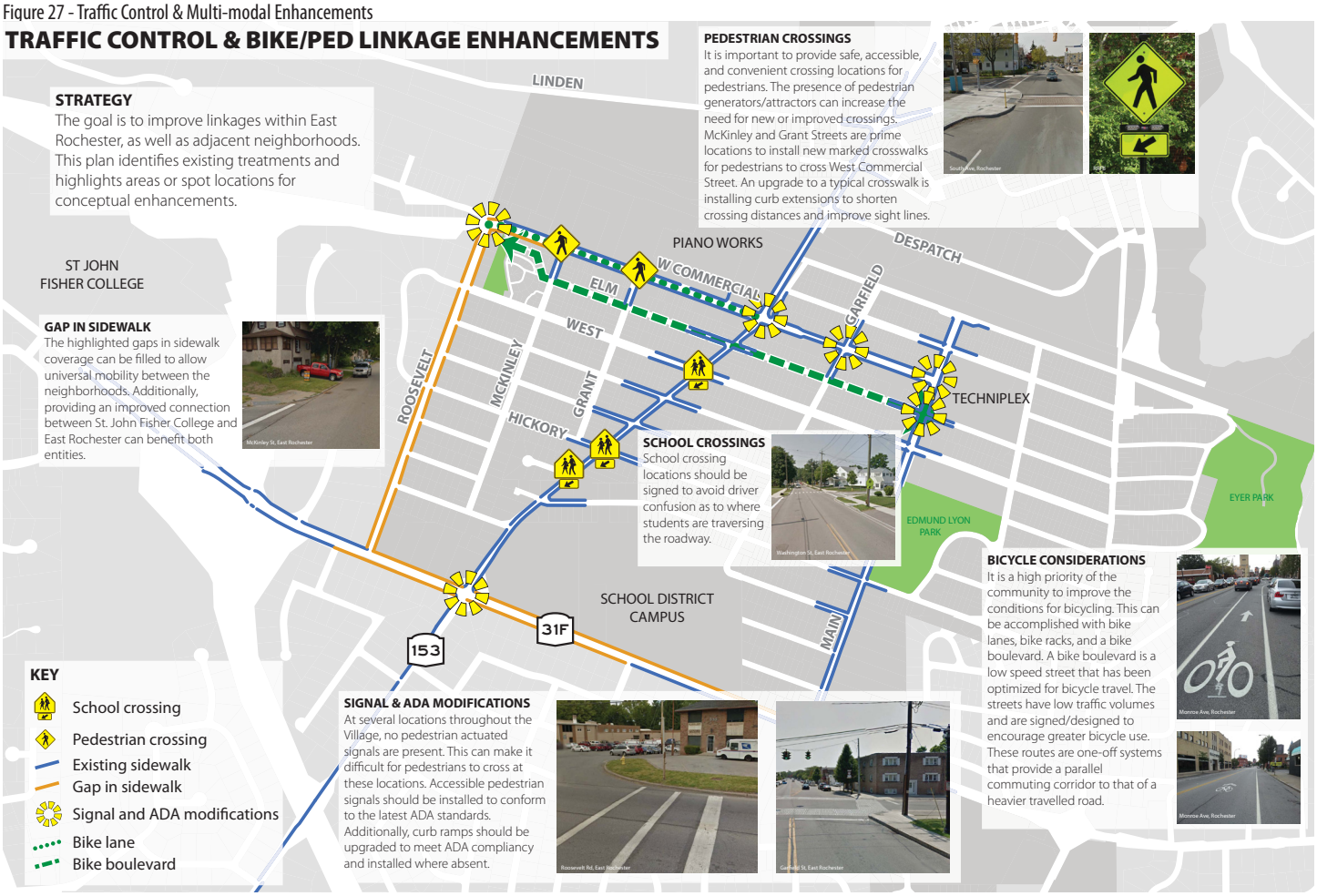
Figure 26 - Western Gateway Concept



Traffic Control and Multi-modal Enhancements

The results of the Wikimap and public feedback noted locations throughout the study area for possible improvement. **Figure 27** below depicts locations throughout the study corridors, as well as neighborhood linkages, that offer an opportunity for enhancement. For instance, it was mentioned that the intersection of West Commercial Street/ N/S Washington Street is troublesome for pedestrians to traverse. Based on a review of the existing conditions, discussions with residents, and an accident analysis, recommended treatments entail installing pedestrian countdown signals (Accessible Pedestrian Signals) and implementing a leading pedestrian interval (LPI) - an LPI signals for a pedestrian to cross the street 3-5 seconds prior to motorists getting a green light, thereby increasing the visibility of pedestrians crossing the intersection. Signalized locations that are absent of any pedestrian actuated crossing system include:

Figure 27 - Traffic Control & Multi-modal Enhancements



- West Commercial Street/Roosevelt Road
- West Commercial Street/Garfield Street
- West Commercial Street/Main Street
- West Commercial Street/East-West Avenues
- South Washington Street/Fairport Road

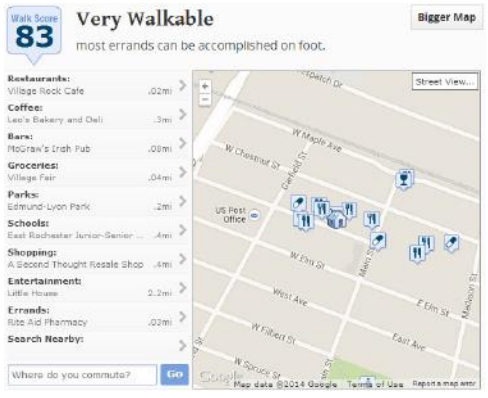

SRF & Associates
Existing view on Roosevelt Road facing north

It is recommended that these intersections be installed with APS systems.

Other features called out in the map include pedestrian crossing treatments. To enhance uncontrolled crossing locations, applications may include installing Rectangular Rapid Flashing Beacons (RRFB). The RRFB is user-actuated that can be activated manually through a push-button or a passive pedestrian detection system. Amber light emitting diodes (LEDs) flash in an irregular manner to signal drivers of a crossing pedestrian. Findings show they can increase driver yielding behavior. Units can be self-powered via a solar panel mounted on top of the sign. Signs should be installed in units of two, one for each direction of traffic. McKinley and Grant Streets are recommended for installation of RRFB signs.

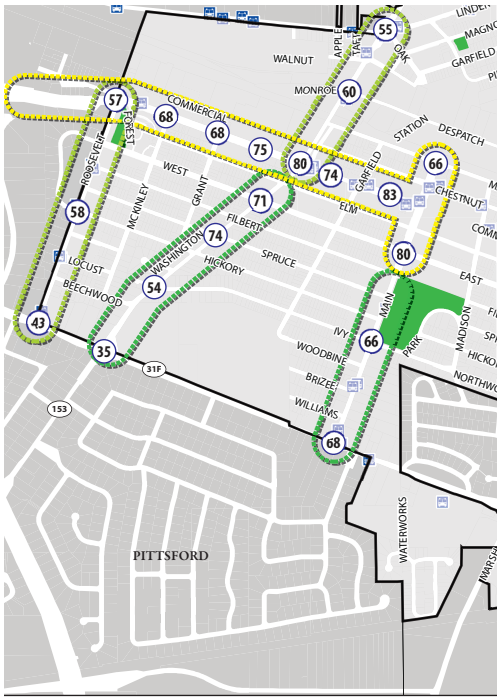

SRF & Associates
Existing view along West Commercial Street facing west

Also noted on the map are areas where there are gaps in the existing sidewalk network. These gaps can act as barriers for residents attempting to walk throughout the Village or nearby St. John Fisher College students wishing to walk to the downtown. Not capturing this group of individuals can mean decrease economic development potential as the walking crowd cannot be accommodated. As East Rochester is a walking school district, it is important that the gaps in the sidewalk network be completed. The most prominent gaps are along Fairport Road and Roosevelt Road. Another critical gap is the segment between Roosevelt Road and McKinley Street on the south side of West Commercial Street. It is recommended these segments of sidewalk be installed as part of highway maintenance projects or through alternative funding sources. Increasing the walkability of East Rochester means improved safety for all users; better awareness between pedestrians and drivers; healthier transportation options; improved environmental conditions; and increased potential for economic development.



Screenshot of Walk Score® of East Rochester

In conjunction with identifying sidewalk gaps, an online interactive tool was utilized to assess the current walkability of East Rochester, in addition to the pedestrian quality of service map shown earlier. Walk Score® is used to review how walk-friendly a neighborhood is



Walk Score*

90 - 100	Walker's Paradise
70 - 89	Very Walkable
50 - 69	Somewhat Walkable
25 - 49	Car-dependent
0 -24	Car-dependent

What is Walk Score?

Walk Score is a number between 0 and 100 that measures the walkability of a location. The point system is based on the distance to amenities such as restaurants, parks, schools, grocery stores, etc.

Walk Score® results for East Rochester

by identifying the typical services one uses frequently (e.g., parks, grocery stores, restaurants, coffee shops, schools, entertainment, etc.). It analyzes how far a particular use is from a desired location and produces a rating between 0 and 100 (0 meaning car-dependent and 100 listed as a walker's paradise). On average, an increase in one point can increase property values up to $3,000 (www.walkscore.com). A review of East Rochester's results indicate high scores in the downtown area. This is indicative of the number of destinations found in close proximity of one another. Although locations such as Fairport Road at South Washington Street and Roosevelt Road are car-dependent and have no commercial or recreational services immediately adjacent, they still represent key nodes for pedestrians travelling between St. John Fisher College, Nazareth College, and the Village of Pittsford. The results indicate an opportunity to improve upon the pedestrian environment thereby increasing the desirability and viability of East Rochester.

To illustrate the correlation between the Village's compact design as it relates to walkability, the following graphics depict "walk sheds" and "bike sheds" of varying times from a central point. The intersection of West Commercial Street and N/S Washington Street was used as the starting location. As seen in the graphics, a 15-minute walk can cover nearly all of the Village. Meanwhile, a 15-minute bike ride can extend to Pittsford, cover all of St. John Fisher College, and be well on the way to Penfield and Fairport.

Shared Lane Marking - Sharrow

Example bicycle wayfinding

Bicycle accommodations are important for the growing popularity of using two wheels as a form of utilitarian transportation and recreation. Villages such as Pittsford and Fairport have seen the economic returns of investing in bicycle infrastructure and promoting a bicycle-friendly culture. Although East Rochester does not have the Erie Canal flowing through the heart of the Village, a bicyclist is no more than 2.5 miles from the downtown to the Canalway Trail. East Rochester residents have exclaimed their desire for improved bicycle linkages between East Rochester and the surrounding communities. In a region where 40% of all trips are three miles or less, a bike is a means to quickly get from point A to B without utilizing a personal vehicle. A westbound bike lane is recommended along West Commercial Street between Roosevelt Road and N/S Washington Street. To accommodate eastbound bicycle traffic - as well as westbound - a bike boulevard is recommended along Elm Street. Signage and pavement markings (sharrows) can be used to denote the network of roadways.

The intersection of Fairport Road and Main Street was reviewed for signal operation and phasing improvements. Based on the existing roadway geometry, discussions with NYSDOT, and Synchro capacity analysis, no improvements are recommended at this time.

It is also recommended that the northbound left-turn lane at West Commerical Street/ N/S Washington Street be extended to provide 150' of storage capacity. This is an increase from the current 110' of storage space. Increasing the storage lane will improve intersection operation and reduces congestion on this approach.

Study Area Wide and Other General Recommendations

Stay informed regarding potential RTS bus stop changes that could impacts stops in East Rochester

An RGRTA study is currently underway and recommendations are anticipated in the Spring or Summer of 2014. The purpose for the study is to analyze the current bus stop locations and make recommendations to improve transit operations. These recommendations could impact East Rochester so Village officials should be certain to stay informed regarding potential impacts.

Continue to install detectable warnings on all curb camps

Detectable warnings are intended to function much like stop signs for pedestrians who are blind or have low vision. The warnings,

which are intended to be felt with pedestrians' feet, alert blind individuals and those with low vision that they are about to enter a street or other area where cars pass. The village should continue to make all ramps ADA compliant.

Reconstitute the Sidewalk Installation Program

The Village once had a sidewalk installation program where it installed sidewalks along Village streets or segments of streets that did not have them. Many streets were not completed including Roosevelt Road and the "tree" named streets adjacent to Roosevelt Road. According to discussions with Village staff, sidewalks were never installed on Roosevelt Road due to opposition by a few property owners. It is recommended that the Village again consider installing sidewalks along Roosevelt Road and adjacent streets. Most people that live in Villages expect sidewalks throughout for both recreational and transportation purposes. It is important infrastructure for many residents not living on Roosevelt Road.

Implement a village-wide Street Tree Program / Policy

Street trees are very important to East Rochester. They provide enclosure, shade, and bring life to the street. They even provide cost savings in regard to energy savings and community health. Street trees are capable of significantly lowering urban air temperatures on streets as well as in adjacent buildings. Where street trees create a continuous overhead canopy, temperature can differentiate between 5-15 degrees, which can make pedestrians more comfortable during hot days and assist in extending the life of pavement.

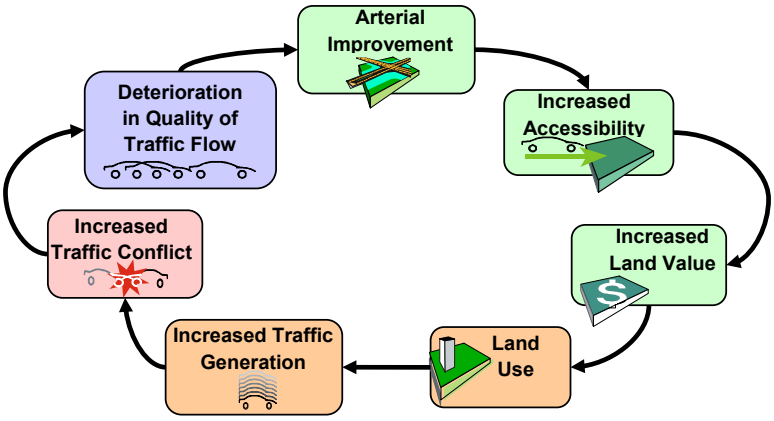
Based on discussions with the Village DPW, currently there is no policy regarding the installation or replacement of street trees. The Village should replace street trees when needed and install new trees where possible. Trees should be selected and placed based on the width or the tree lawn and other local consideration such as overhead wires, street lights, etc. The Village should ensure that a Village DPW staff member be trained on proper tree pruning and maintenance techniques and practices. Consideration should also be given to becoming Tree City USA member, which provides many benefits.

Access Management

The principal goal of the West Commercial Street access management effort is to develop a plan that East Rochester and NYSDOT can implement to make the corridor a safer and more efficient transportation facility for all users in the future. This plan shall respect the character of the Village while preserving the quality of life for residents, merchants, and visitors of the community.

According to studies conducted by the National Highway Institute, "An effective access management program can reduce crashes as much as 50 percent, increase roadway capacity by 23 to 45 percent, and reduce travel time and delay as much as 40 to 60 percent."

In order to achieve this goal, it is important to understand the connection between the transportation network and the adjacent land use that it serves. The national *Access Management Manual* refers to this relationship as the Transportation – Land Use Cycle, as shown in the following graphic.



Access management strategies delay or even halt this cycle by maintaining a balance between the Land Use Change stage and the Increased Traffic Conflict stage. As illustrated in the diagram, increased traffic generation is a direct result of Land Use change. Local municipalities have in place official planning documents such as Comprehensive Plans, Master Plans, Zoning Ordinances, and Subdivision Regulations that govern how and where land should (or should not) be developed. To effectively manage the transportation and land use cycle, both NYSDOT and the local agencies must address both the transportation system and the adjacent land development.

The intent of the Access Management Plan is to provide NYSDOT, and the local Officials and Planning Boards, a framework for assisting with decision-making regarding access, circulation, and safety for future development along the corridor.
Specific objectives include:

- Minimize number of access locations
- Increase access spacing
- Reduce through traffic conflicts
- Provide greater accessibility and connections for all users
- Manage traffic signal and intersection control
- Provide language in local codes that supports implementation of access management techniques and strategies along the corridor

Using these core planning strategies and objectives, a detailed access management concept plan was developed. **Figure 28** illustrates the concept plan developed between Roosevelt Road and N/S Washington Street.

It should be noted that all of the West Commercial Street corridor is developed, and therefore in the future, as redevelopment occurs, requires mostly retrofit strategies that eliminate multiple driveways to the same property; combines adjacent driveways into one shared driveway; and relocates the driveways to a local street rather than West Commercial Street. For undeveloped properties, direct access to West Commercial Street should follow NYSDOT's applicable access management guidelines.

Figure 28 - Access management concept plan

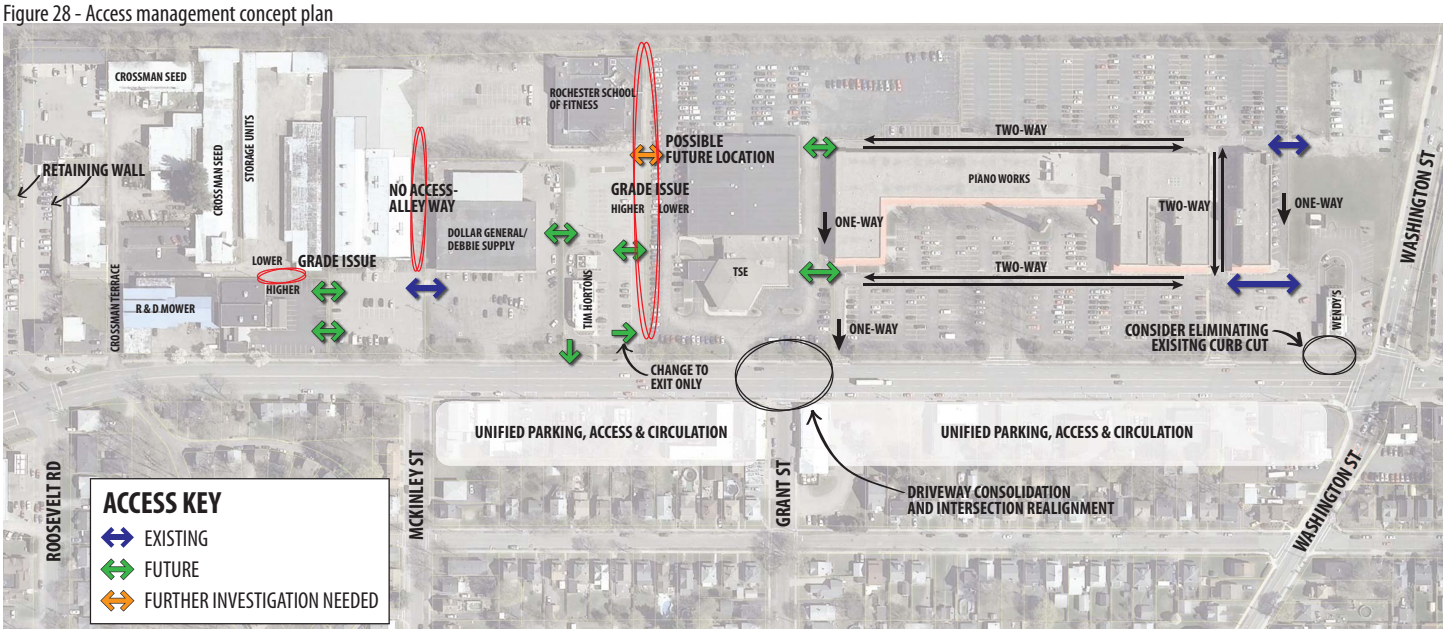


Illustration of context sensitive design utilizing access management principles
MassDOT

In order to advance and implement access management on a consistent, corridor-wide basis, local municipalities - such as East Rochester - must develop supporting access management ordinances and regulations, tailored to fit the Village, yet still provide the regional benefits, in terms of improved travel and safety for motorists along the West Commercial Street corridor. Such components that should be addressed are minimum corner clearances; minimum driveway spacing; the number of access points to a parcel of land; median treatments such as two-way left-turn lanes; exclusive turn lanes; joint and cross access; pedestrian access; and outparcels.

An example of requiring larger minimum corner clearances can be seen at the Wendy's driveway along West Commercial Street. The image below depicts the distance between the driveway opening and the edge of the travelway along North Washington Street. There is approximately 50' between the driveway opening of Wendy's and the edge. Based on NYSDOT Entrance to Highway Standards, the minimum "shall be at least twice the width of the driveway plus 15'. If practicable, strive for at least a 100' offset to a signalized side road pavement edge.

Wendys driveway spacing to North Washington Street

Planning & Regulatory Recommendations

The following land use and regulatory modifications are based upon the recommendations contained in local planning and other related regulatory documents, the results of the Community Preference Survey, input from the Steering Committee, and feedback provided at the two public meetings held as part of this project. The following zoning code recommendations should be considered a starting point for a future re-zoning discussion. The exact language, format, and level of flexibility that is appropriate for East Rochester will need to be determined through a process that would involve elected officials, Planning and Zoning Board members, and property owners within the various zoning districts.

It should be noted that a number of best practices from across the State and Nation have been incorporated into the proposed zoning techniques and language that are detailed in this section.

The planning process used to develop the Comprehensive Plan update should provide a wide array of public input opportunities to ensure that the final product reflects the values of the entire community. The Village should consider traditional methods such as administering a community survey as well as non-traditional methods such as conducting a youth workshop; like the one shown above held in Honeoye Falls.

1997 Comprehensive Plan - As previously stated, a Comprehensive Plan forms the legal foundation for a municipality's land use policy and zoning regulations. The Village's Zoning Code and subdivision requirements contain several references to the Village's Comprehensive Plan, which currently refers to the plan adopted in 1997. It is recommended that the Village update their Comprehensive Plan document to reflect the community's existing conditions and current values.

Commercial District Framework - The Village currently has three commercial districts, Mixed Commercial/Industrial, Limited Commercial and General Commercial. The existing commercial district framework does not foster a land use pattern that is consistent with the goals and objectives outlined in previous planning efforts and the input received during this planning process. In order to strengthen the commercial district framework, consideration should be given to adopting a commercial district framework that contains the following districts:

- Village Center (VC)
- Limited Commercial (LC)
- General Commercial (GC)

The layout and format of the Village's existing code could be more user friendly. It is recommended that the Village use more charts, tables, and graphics to better convey the code's requirements. In addition, these elements should be incorporated directly into the body of the document rather than placing them in a separate Schedule or an Attachment.

The following set of recommendations include preliminary purpose statements, use lists, and dimensional requirements for each of the proposed commercial districts. This information provides a complete regulatory element that can be adopted by the Village as an amendment to their existing code.

Commercial Purpose Statements:


The limits of the Village Center District would consist of the existing properties that are zoned Limited Commercial along West Commercial Street (east of Washington Street) and along Main Street.

A. Village Center. The purpose of the Village Center District is to support the goals and objectives contained in the Comprehensive Plan and the East Rochester Transportation Improvement Study. More specifically, this district is intended to foster the development of a small-scaled, mixed use area for convenient shopping and services that cater to the community in a manner that is consistent with the pedestrian-oriented and traditional character found in the core of the Village. In order to accomplish this, the VC District regulates the location, design, and use of structures and land to foster a dense concentration of activity with a high degree of amenities that create a comfortable environment for visitors arriving on foot, bicycle, or by motor vehicle.


It is recommended that the south side of West Commercial Street (west of Washington Street) remain zoned as Limited Commercial.

B. Limited Commercial. The purpose of the Limited Commercial District is to encourage a combination of appropriately scaled land uses and activities that support the goals and objectives contained in the Village's Comprehensive Plan and the East Rochester Transportation Improvement Study. The LC District is established to create a blend of retail, office, civic and residential uses within existing commercial areas that contribute to the vitality of the surrounding neighborhoods and the travelling public. Development in this District should promote the health, safety, and general welfare of residents by fostering physical activity, alternative transportation choices, and greater social interaction along major transportation corridors.


The General Commercial zoning classification is more appropriate for high volume, highway oriented uses such as Country Club Plaza and the adjacent commercial properties.

C. General Commercial. The purpose of the General Commercial District is to encourage commercial development and to support the goals and objectives contained in the Comprehensive Plan and the East Rochester Transportation Improvement Study. The GC District is established to provide areas for intensive commercial activities that primarily depend upon a large volume of vehicular traffic and serve the daily shopping needs of the community-at-large and surrounding areas. This District encourages the application of site design and buffering techniques to mitigate the impacts of commercial operations and traffic on adjacent uses and the traveling public.

Permitted & Specially Permitted Uses

The proposed list of permitted and specially permitted uses are detailed below. Uses identified with a "P" infer each district are permitted as-of-right in the subject zoning district, provided they are in compliance with all other applicable standards of the Village's zoning ordinance. Uses identified with a "SP" may be allowed if reviewed and approved in accordance with the Village's special permit procedures. Uses not listed and those identified with a "-" are expressly prohibited.

Principal Land Use	**Village Center**	**Limited Commercial**	**General Commercial**
A. Commercial Uses			
1. Professional, medical or dental office	P	P	P
2. Dance, art, or music studio	P	P	P
3. Bank or financial institution	P	P	P
4. Retail or personal service store or shop	P	P	P
5. Shopping center	-	SP	P
6. Veterinary clinic	P	SP	P
7. Trade school	P	P	P
8. Mortuary or funeral home	SP	SP	P
9. Laundromat or dry cleaning outlet	P	P	P
10. Dry cleaning facility	-	-	SP
11. Drinking establishment or tavern	P	P	P
12. Restaurant (without drive-through)	P	P	P
13. Dance hall, theater, private club	P	P	P
14. Bowling alley	P	P	P
15. Indoor recreation facility	SP	SP	P
16. Outdoor recreation facility	-	-	SP
17. Day Care Center	P	P	P
18. Lodging	P	P	P
19. Conference/meeting center	SP	SP	P
20. Gasoline station	-	SP	P
21. Car wash	-	-	SP
22. Auto sales or rental	-	-	SP
23. Auto repair establishment	-	SP	SP
24. Motor vehicle parking lot	SP	P	P
25. Outdoor sales or display	SP	SP	P
26. Stand alone drive through establishments	-	SP	SP
27. Drive-through in conjunction with a permitted use	-	SP	P
28. Mix of permitted uses	P	SP	P
B. Institutional Uses			
1. Educational institution	SP	SP	P
2. Church or religious institution	P	P	P
3. Public or municipal use	SP	SP	P
A. Residential Uses			
1. Apartment over commercial use	P	P	P
2. Multi-Family dwelling	SP	SP	P

Commercial Lot, Area, Setback & Bulk Requirements

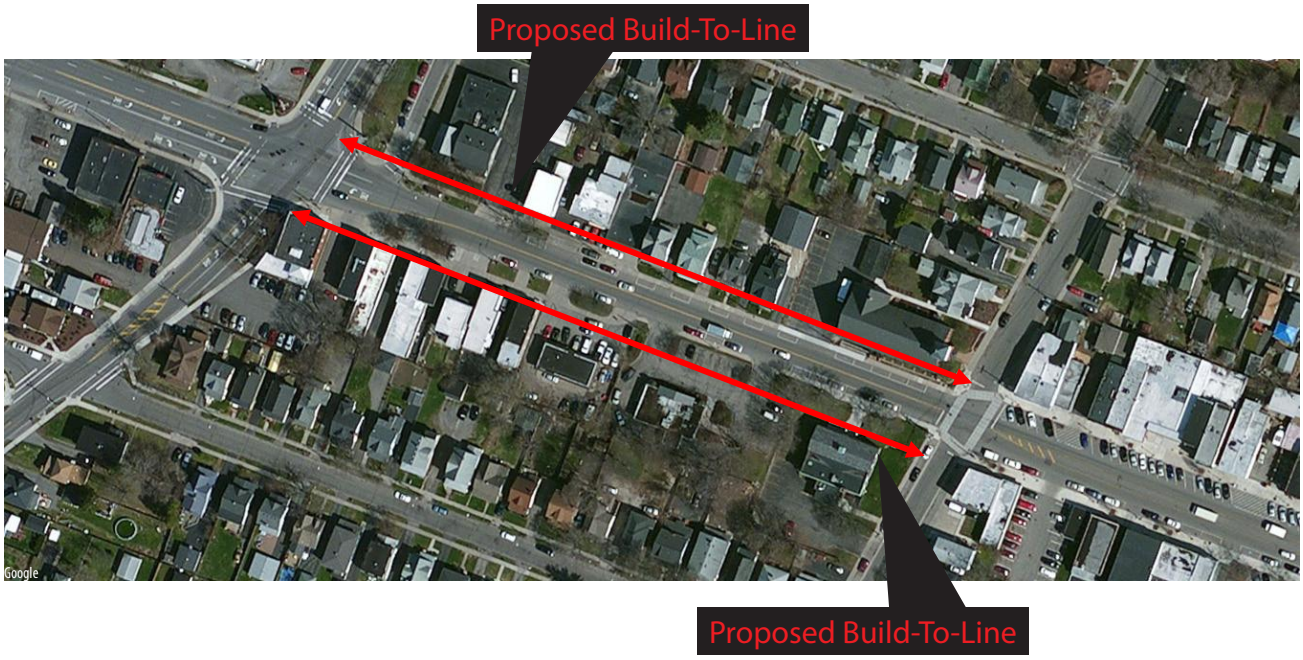
The following dimensional and bulk requirements should be considered for the commercial districts within the Village. These figures should be considered a starting point for discussions and not a singular recommendation.

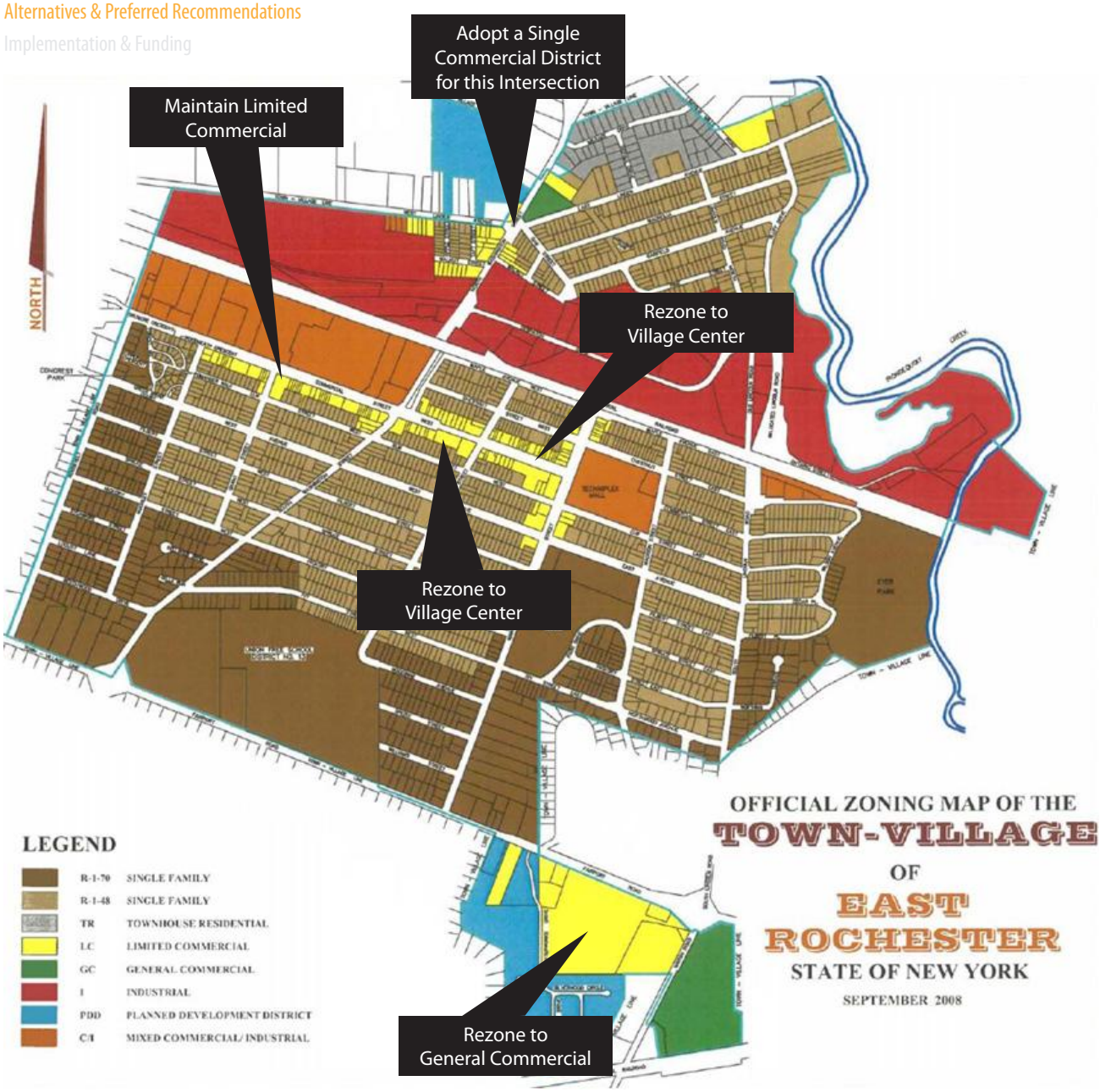
Code Requirement	Village Center	Limited Commercial	General Commercial
A. Minimum Lot Size (sq. ft.)	SPR[1]	10,000	10,000
B. Minimum Lot Width (ft.)	SPR[1]	60	60
C. Minimum Front Setback (ft.)	0	0	20
D. Maximum Front Setback (ft.)	5	5	NA
E. Minimum Side Setback (ft.)	0	0	15
F. Minimum Rear Setback (ft.)	0	10	10
G. Maximum Building Height (ft.)	45	45	45
H. Minimum Building Height (ft.)	25	25	NA
I. Maximum Lot Coverage	90%	75%	60%
J. Maximum Building Footprint (sq. ft.)	3,000	8,000	NA

Notes

1. SPR indicates that these requirements will be determined through the Site Plan Review process.

The existing public right-of-way within the 200 block of West Commercial Street transitions from a width of approximately 90 feet to 50 feet. This transition occurs abruptly in the middle of the 200 block. As a result, the use of a traditional minimum or maximum building setback requirement will not result in a consistent streetscape in this segment of the corridor. The preferred building placement within the 200 block is 25 feet from the curbline. In order to achieve this, the Village should consider adopting a Build-To-Line requirement in lieu of a maximum or minimum front setback. The location of the Build-To-Line is shown in the image below.





Zoning Map Modifications - The following zoning map modifications are recommend as part of the proposed commercial district framework amendment for the Village.

- Rezone the properties currently zoned Limited Commercial within the 100 and 200 block of Commercial Street to Village Center.
- Rezone the properties currently zoned Limited Commercial along Main Street to Village Center.
- Rezone the properties currently zoned Limited Commercial located at the southwest corner of Fairport Road and Marsh Road intersection to General Commercial.
- Consider rezoning the commercial properties that surround the intersection of Linden Avenue and N. Washington Street to either Limited or General Commercial to ensure a consistent land use pattern, character, and gateway.


Urban Advantage

"Automobiles need quantity (upper image) and pedestrians need quality (lower image)."
– Dan Burden


Steinmetz Planning

Building & Site Design Standards - The following recommendations provide the minimum zoning language necessary to achieve a higher level of design, connectivity and to upgrade the streetscapes within the study area. These standards contain design requirements for the Village Center District as well as for all other districts.

Village Center Design Standards

A. Applicability - These standards and guidelines shall be applied to non-residential development in East Rochester's Village Center District.

B. Purpose & Objectives - The purpose of these design-based criteria is to maintain the original historic and architectural character of the Village Center and to ensure future development is compatible and harmonious with its traditional character and design. The objectives of the VC District Design Standards are as follows:

1. Encourage a pedestrian-oriented and human-scaled right-of-way, public realm, and streetscape as well as promote safe pedestrian movement, access, and circulation.
2. Maintain the dense concentration of commercial, office, civic, cultural, and residential uses in a mixed-use environment that contributes to the vitality of the District and fosters pedestrian activity.
3. Promote the use of traditional building materials, architectural features, and fenestration that exist within the District when determining appropriate materials for replacement and new construction projects.
4. Require the placement and design of buildings to respect the traditional development pattern that is characterized by little-to-no front or side setbacks, common walls between buildings, and structures that are or appear to be at least two stories in height.
5. Ensure existing and newly constructed buildings have front facades that have storefronts at street level with a primary entrance on the street, large display windows with bulkheads or kickplates below, an upper façade with regularly spaced windows, and a cornice to terminate the facade.
6. Continue to provide on-street parking opportunities.
7. Minimize the visual presence of off-street parking by requiring it placed to the rear of the buildings and screened from view.

The proposed zoning modifications contained in this section typically include the word "shall" in most of the requirements. In practice, the word "shall" indicates that the requirement is a standard and relief from that standard can only be granted with an area variance from the Zoning Board of Appeals. By comparison, the use of the words "should" or "may" indicates that the requirement is a guideline and can be applied or dismissed by the Planning Board during the site plan review process. Prior to adoption of these recommendations, the Village should give careful consideration to each use of the word "shall" to determine if the requirement should be a standard or a guideline.

The best downtowns have a consistent building wall that is up to the sidewalk. The upper image illustrates how new construction can maintain the relationship between the building wall and the sidewalk. This relationship is critical to creating an inviting streetscape. By comparison, the lower image illustrates the type of development pattern that is not appropriate in the Village Center District.

C. Building Scale and Location

1. New construction shall have a maximum setback of zero (0) to five (5) feet from the public right-of-way. Relief from this provision may be provided for pedestrian amenities such as recessed entries or chamfered corners.
2. New construction shall extend to both side property lines.
3. New construction shall be or appear to be two stories in height and no greater than three stories in height.
4. New construction or remodeling shall incorporate a roof form that reflects the adjacent late 19th or early 20th century buildings. Flat roof slopes shall slope to the back and will have a decorative cornice at the top of the building. Peaked or gable roofs shall have significant overhangs and decorative brackets are encouraged.
5. Entry points shall be located to afford direct access from the sidewalk. Corner buildings may have two (2) separate entry points or a single entry point at the corner.
6. All of the facades of the building that face a public street shall be architecturally consistent (i.e. building materials, style, etc.) with each other.

D. Facades

1. Building façades shall reflect the late 19th or early 20th century style of the Village.
2. The pedestrian zone, the area two (2) to eight (8) feet above the sidewalk, shall have a minimum of 70% clear glass. Opaque or heavily tinted glass is not permitted.
3. The pedestrian zone shall not be obscured, limiting visual access to the interior of the building. Displays that allow visual access of a minimum of three (3) feet into the building and window treatments such as curtains or blinds shall be permitted.
4. A minimum of 25% percent of the façade for the upper floor shall incorporate transparent glass openings.
5. Existing windows shall not be covered up or changed in size unless the proposed change is part of an effort to restore the original appearance of the building.
6. No external security devices (coiling shutters, accordion gates, etc.) shall be utilized. Alternative security systems such as lighting, alarms, and interior barriers are to be used when necessary.
7. A visual separation shall be provided between the first and second story of a building. This element may consist

As new construction occurs or existing buildings are remodeled, attention should be paid to maximizing the amount and placement of transparency on the front façade of the building. Storefront style windows on the ground floor help to add visual interest along the street for motorists and pedestrians. The upper image shows series of well preserved storefronts along Market Street in Corning. The lower image was also taken along Market Street in Corning. However, this image illustrates how a lack of transparency can detract from the public realm.

of decorative trim, awnings, or a change of material that creates added relief in order to add a shadow line that delineates the end of the first story.

8. Large buildings, greater than forty (40) feet in width, shall be broken up into smaller visual increments.

E. Materials

1. All new construction or remodeling that is visible from the public right of way shall utilize materials that appear to be smaller in scale such as brick or clapboard. Larger scale materials, such as concrete block, shall be limited to the rear of the building.
2. Brick selected for new construction or renovation shall reflect the surrounding late 19th or early 20th century buildings.
3. Vertical siding is permissible if it reflects the late 19th or early 20th century style architecture.
4. All wood shall be finished using either stain or paint. All metal shall be colored; clear-coated aluminum or stainless steel is not permitted unless it already exists.

F. Awnings, Doors, & Windows

1. Awnings shall be consistent with materials used in the late 19th or early 20th century (i.e. no plastic awnings, etc.)
2. If awnings are placed on a façade they shall be consistent with the shape of the window that they are located over. For example, an awning placed over an arched window shall be arched and an awning placed over a rectangular window shall be a flat-topped awning.
3. Awnings shall have a triangular or curved profile.
4. Awnings may not be backlit.
5. Doors shall allow visual access to the interior of the building. If the door is solid, it shall be multi-panel. All doors shall be painted or stained to accent the building.


city-data.com

These images illustrate the types of building and site design practices that are desired by the Village outside of the Village Center District. The incorporation of some or all of the design requirements contained in this section will serve to improve the appearance of commercial development throughout the community.

Steinmetz Planning


Steinmetz Planning

Non-Residential Design Standards

A. Applicability - The following standards and guidelines shall be applied to all non-residential development occurring outside of the Village Center District. For example, if a civic building was proposed in a residential district, these requirements would apply.

B. Purpose & Objectives - The purpose of these design guidelines and standards is to preserve and promote the unique character of the Village by ensuring future development is consistent with the following objectives:

1. Create lively, pedestrian-friendly, and attractive streetscapes for the enjoyment of vehicular traffic, as well as pedestrians and bicyclists.
2. Encourage the development of retail, offices, restaurants, and other permitted uses in close proximity of each other creating dynamic activity centers for the benefit of residents and visitors alike.
3. Require the use of varied architectural design elements and features to ensure new non-residential development provides visual interest and does not detract from the overall streetscape.
4. Encourage the development of buildings consistent with the goals of the Leadership in Energy and Environmental Design (LEED) program.

The Village should reserve the right to seek the services of engineers, planners, architects, or other design professionals to aid in the consideration of all non-residential design. The applicant should reimburse all costs incurred for such professional services to the Village.

C. General Building Design & Placement

1. To the maximum extent practicable, buildings shall be oriented to the street and shall frame the corner at the intersection of two streets where applicable.
2. Street Frontage - A minimum of 50% of the street frontage shall be occupied by the site design elements described below.
   - Building frontage;
   - Decorative architectural walls no higher than 3 ft in height;

- Landscaped entryway signage or features; and/or
- Site amenities including, but not limited, to public space, art, clocks, etc.

3. Buildings shall exhibit a clearly defined base, mid-section, and crown. This can be accomplished using a combination of architectural details, materials and colors.
4. Architectural details or features such as dormers, masonry chimneys, cupolas, clock towers, and other similar elements are encouraged.


Conservation Fund

As growth and investment occurs in the Village, it should avoid the types of development and streetscapes that are unsightly and uncomfortable for all modes of travel, as depicted in these images. More specifically, the Village should not foster commercial areas that are devoid of landscaping and architectural character.

Steinmetz Planning

D. Facades

1. All buildings shall have a prominent street level entrance visible and accessible from the public sidewalk.
2. Buildings situated on corners shall "wrap" the corner by continuing certain façade elements (such as the cornice or horizontal accent bands) on all street elevations.
3. New construction should reflect the proportions of the surrounding buildings.
4. Varied building designs that avoid long, flat facades and that subdivides the facades into human scale proportions are required.
   - The vertical plane of the building facade shall be broken up with a high level of articulation (e.g., projecting entry or window features, recessed elements, transparent storefronts, identifiable retail spaces, and awning/entrance canopies) especially at ground level.
   - No facade shall exceed 60 ft. in horizontal length without a change in facade plane. Changes in facade planes shall be no less than 1.5 ft. in depth and 8 ft. in length.
   - Any changes in exterior building material shall occur at interior corners.
5. All facades shall be designed to be consistent in regard to architectural style, materials, and details.
6. Along street facades, all new industrial construction shall provide areas of transparency equal to 20% of the wall area and all new commercial and civic construction shall provide areas of transparency equal to 60% of the wall area. The use of mirrored or tinted glass with less than 40% light transmittance is prohibited.
7. First floor transparency shall be measured between 2 ft. and 10 ft. above the adjacent sidewalk.

8. Renovations to the first floor of existing buildings shall not decrease the area of transparency. Where feasible, renovations shall increase the area of transparency to that required for new construction unless historical evidence of the building's original character indicates otherwise.

The use of existing and emerging "green" technologies such as green roofs (shown above) and solar panels (shown below) should be expressly permitted by a community's zoning code to help reduce its environmental footprint.

E. Other Building Design Considerations

1. All primary buildings shall be constructed or clad with materials that are durable, economically-maintained, and of a quality that will retain their appearance over time including, but not limited to, painted wood; natural or synthetic stone; brick; stucco; integrally-colored, textured, or glazed concrete masonry units; high-quality pre-stressed concrete systems; Exterior Insulation Finish Systems (EIFS); or glass. Prohibited materials include:
   - Smooth-faced gray concrete block, smooth-faced painted or stained concrete block, smooth-faced concrete panels;
   - Unfinished wood; and
   - Corrugated metal siding.
2. To the extent practicable, air conditioning units, HVAC systems, exhaust pipes or stacks, elevator housing, and other similar mechanical equipment shall be thoroughly screened from view from the public right-of-way and from adjacent properties within 150 feet of the subject lot, measured from a point that is five (5) feet above grade.
3. Screening shall be architecturally compatible with the style, materials, colors, and details of the building.
4. Alternative energy sources, such as solar panels or shingles, are encouraged and should be incorporated into the design of the building so as not to detract from the overall appearance.
5. Developers and builders are encouraged to utilize roofing materials that reflect sunlight (i.e. lighter colors) or incorporate vegetated roofing on at least 50% of the roof area. Methods such as these decrease heating and cooling needs on a building by reflecting sunlight rather than absorbing it.


Steinmetz Planning

These images illustrate examples of pedestrian connections from the public sidewalk system, through parking areas, and to the front entrance of various commercial developments. By creating a safe, continuous network of pedestrian walkways within and between developments, pedestrians will feel more inclined to safely walk (rather than drive) between land uses.

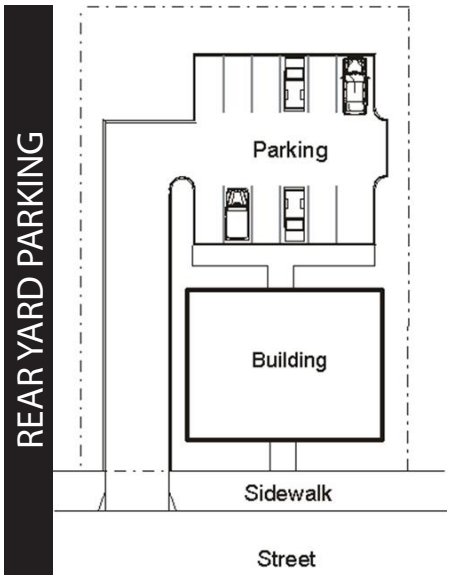

Steinmetz Planning


Conservation Fund

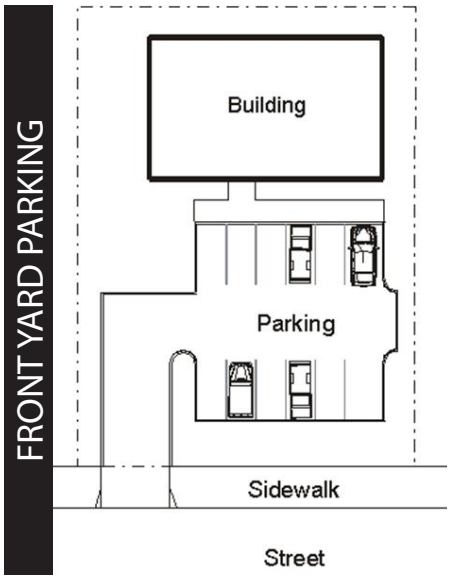
Pedestrian & Bicycle Accommodations

A. Bicycle parking requirements shall apply to new development, building expansions or occupancy changes requiring a zoning permit where motor vehicle parking is required.
B. Bicycle parking shall be provided at 10% of the motorized vehicle parking requirements but no less than 2 bicycle spaces and no more than 20 bicycle spaces for any use.
C. Bicycle parking shall be located and clearly designated in a safe and convenient location. Bicycle parking signs shall be visible from the main entrance of the structure or facility.
D. An on-site system of pedestrian walkways shall be designed to provide direct access and connections to and between the following:
    1. The primary entrance or entrances to each commercial building, including outparcels;
    2. Any sidewalks or walkways on adjacent properties that extend to the boundaries shared with non-residential development;
    3. The public sidewalk system along the perimeter streets adjacent to the commercial development;
    4. Where practicable and appropriate, adjacent land uses and developments including, but not limited to, adjacent residential developments, retail shopping centers, office buildings, or restaurants; and
    5. Where practicable and appropriate, any adjacent public park, greenway, or other public or civic use.

E. Sidewalks and/or plazas shall be provided with weather protection (e.g., shade trees, awnings/canopies) and appropriate pedestrian amenities (e.g., street tree grates, outdoor seating, trash cans, sidewalk displays, public art, etc.).



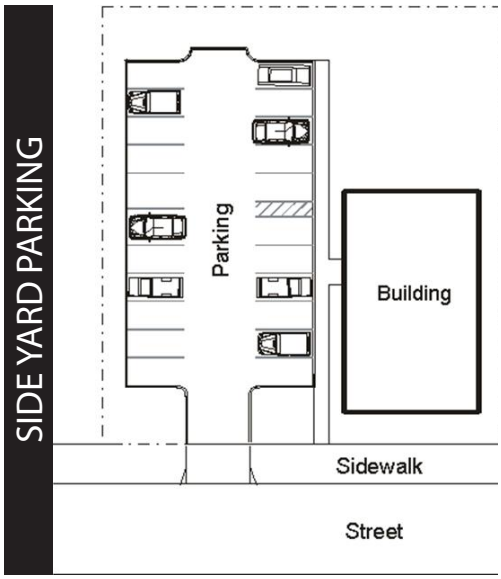
According to section 193-62 of the Village Code, "Parking areas may be located in any yard space for nonresidential uses." Based upon the input received throughout the development of this study, the preferred location for parking within the Village Center and Limited Commercial Districts is to the rear of a building (as shown above). Parking between a building and the street, also referred to as front yard parking, should be prohibited within the Village Center and Limited Commercial Districts (shown below).



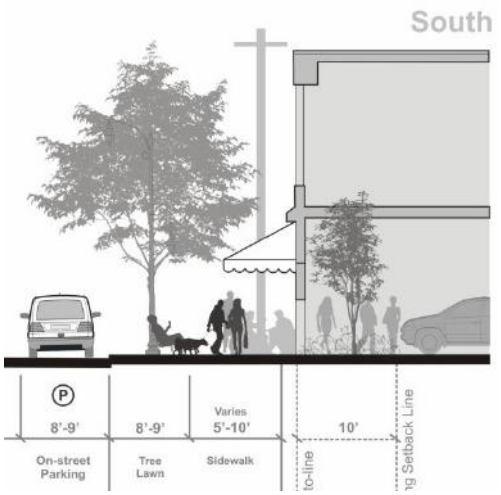
Off-Street Parking Requirements

A. The parking requirement for retail businesses and office uses can be reduced to as low as 3 spaces per 1,000 sq. ft. of gross floor area.
B. The maximum number of off-street parking spaces for any building or use shall not exceed 150% of the minimum parking requirement.
C. Shared parking is encouraged to promote efficient use of land and resources by allowing users to share off-street parking facilities for uses located within close proximity to one another and with different peak parking demands or different operating hours. The Planning Board may approve shared use of parking facilities located on the same property or on separate properties if, in the opinion of the Board:
    1. A convenient pedestrian connection between the properties exists;
    2. The properties are within 500 ft. of each other on the same side of the street or within 250 ft. of each other on opposite sides of the street; and
    3. The availability of parking for all affected properties is indicated by approved directional signs.

E. Where the uses to be served by shared parking do not have overlapping hours of operation, the property owner or owners shall provide parking stalls equal to the greater of the applicable individual parking requirements.
F. Where the uses to be served by shared parking have overlapping hours of operations, the property owner or owners shall provide parking stalls equal to the total of the individual parking requirements. If all of the following criteria are met, that total may be reduced by 10%:
    1. The parking areas share a property line;
    2. A vehicular connection between the lots exists or will be provided;
    3. A convenient, visible pedestrian connection between the lots exists; and
    4. The availability of parking for all affected properties is indicated by approved directional signs.



Side yard parking has become present along the south side of West Commercial Street, west of Washington Street. This arrangement has evolved over time due to the shallow lot sizes and topography that characterizes this section of the corridor. Although, rear yard parking in this area is desirable, side yard parking is considered acceptable. In order to reduce the visual impact of side yard parking, the Village should require that parking lots be setback a minimum of 10 feet from the front facade of the adjacent building (as shown in the upper and lower illustrations). The area between the parking lot and the sidewalk should be planted with grass and landscaped to screen the parking area.



Off-Street Parking Placement & Design

A. Parking Location
   1. Parking between a building and the street is prohibited within the LC and VC Districts.
   2. Parking to the side of a building is prohibited within the VC District.
   3. Parking is permitted in any yard within the GC District.
   4. In districts where side yard parking in permitted, it shall be located a minimum of 10 ft. behind the front façade of the principal building.

B. Parking, or access to parking, shall not exceed 40% of the lot frontage.

C. In order to reduce the scale of parking areas, the total amount of parking provided shall be broken up into parking blocks containing not more than 40 spaces.
   1. Each parking block shall be separated from other parking blocks by buildings, access drives with adjacent landscaped areas at least 10 ft. wide, a landscaped median or berm at least 10 ft. wide, or by a pedestrian walkway or sidewalk within a landscaped median at least 10 ft. wide.
   2. Each parking block or pod shall have consistent design angles for all parking within the block.
   3. Parking blocks should be oriented to buildings to allow pedestrian movement down and not across rows (typically with parking drive aisles perpendicular to customer entrances).

D. All parking blocks which contain more than 25 stalls, including access lanes and driveways, must include clearly identified pedestrian routes from the parking stalls to the main building entrance and the public sidewalk along the street. At a minimum, walkways shall be provided between every parking block and meet the following standards:
   1. Shall be designed and built in accordance to the municipality's specifications for construction of utilities and roadways;
   2. Shall be distinguishable from vehicular ways by pavement material, texture, or raised in elevation;
   3. Shall have adequate lighting for security and safety. Lights shall be non-glare and mounted no more than 20 feet above the ground; and
   4. Shall comply with the American with Disabilities Act (ADA).

Landscaping Requirements

A. Building setback areas along streets, access ways, or along private drives, shall be landscaped with a minimum of 1 shade tree per 40 ft. of linear frontage.
B. The total amount of shrubs to be used to landscape the building setbacks and building foundations shall be a minimum of 1 shrub for each 10 linear feet of the perimeter of the lot.
C. Building setback areas shall include compact massings of ornamental plant material, such as ornamental trees, flowering shrubs, perennials, and ground covers.
D. Building foundations shall be planted with ornamental plant material, such as ornamental trees, flowering shrubs, perennials, and ground covers.
E. The interior of all uncovered parking blocks containing 10 or more spaces shall be landscaped according to the provisions in this subsection.
    1. The primary landscaping materials used in parking lots shall be trees that provide shade or are capable of providing shade at maturity. Shrubbery, hedges and other planting materials may be used to complement the tree landscaping, but shall not be the sole means of landscaping. Effective use of earth berms and existing topography is also encouraged as a component of the landscaping plan.
    2. One shade tree shall be planted for every 5 parking spaces.
    3. Landscaped berms shall be at least 10 ft. wide and a maximum of 3 ft. high.

Vehicular Access

A. It is the intent of the Village to manage access to property in a manner that preserves the safety, efficiency, character, and development potential the street network within the Village limits. Specific purposes are as follows:
    1. To protect the safety of motorists traveling on the street network within the Village and preserve the efficiency of traffic flow throughout East Rochester;
    2. To protect the safety of pedestrians and bicyclists and provide for pedestrian facilities in appropriate locations;
    3. To encourage non-residential development that is compatible with or does not detract from the traditional character of the Village;
    4. To preserve and enhance development options and to promote development of unified access and circulation systems that serve more than one property; and

5. To promote cooperative planning and coordination between area property owners and the many agencies that have an interest in the transportation system within East Rochester including, but not limited to, Monroe County and the New York State Department of Transportation.

B. These regulations apply to all non-residential and mixed use sites within the Village. These regulations shall be in addition to all other existing regulations of the Village. Connections permitted prior to the adoption of these requirements shall be allowed to remain and will be considered legal and conforming until such time as there is a significant change in the use of the property (including the development of land, structures or facilities) that results in an increase in the trip generation of the property. If the principal activity on a parcel with access connections that do not meet the regulations herein is discontinued or out of service for a period of one year or more, then that parcel must comply with all applicable access requirements prior to its re-occupancy.

C. Number of Access Points
   1. Each separate use, grouping of attached buildings or grouping of permitted uses shall not have more than one accessway for every 200 feet of street frontage, except as permitted by this chapter.
   2. Where multiple parcels are developed as a single project, such as a shopping center or similar use, they shall be treated as a single parcel for the purposes of determining the permitted number of access points.

D. Minimum Driveway Spacing Requirement
   1. All direct access connections to street system located within the Village of East Rochester shall meet or exceed the minimum driveway spacing requirements listed below:
      - 125 feet for a posted speed limit of 35 mph or less;
      - 245 feet for a posted speed limit of 36 to 44 mph, and
   2. Minimum driveway spacing is to be measured from the closest edge of the driveway to the closest edge of the nearest driveway.
   3. Driveway spacing for parcels with frontage less than the minimum driveway spacing should to the extent practical optimize driveway spacing, or consolidate access with adjoining parcels.

E. Minimum Corner Clearances
   1. No driveway to an off-street parking or loading area shall be located closer than 125 feet to the intersection of any two streets.
   2. Minimum corner clearance is to be measured along the road from the closest edge of the right-of-way of the intersecting road to the closest edge of the proposed driveway.

F. Joint and Cross Access
   1. Adjacent commercial or office properties and compatible major traffic generators (i.e. shopping plazas, office parks, apartments, etc.) shall provide a cross access drive and pedestrian access way to allow circulation between sites. This requirement shall also apply to a new building site that abuts an existing developed property unless the Village finds that this would be impractical. Property owners shall record a cross access easement and a joint maintenance agreement with the public records office.
   2. Property owners that provide for joint and cross access may be granted a temporary driveway connection permit, where necessary, to provide reasonable access until such time as the joint use driveway and cross access drives are provided with adjacent properties. All necessary easements and agreements shall be recorded with the deed to the property, including:
      - An easement allowing cross access to and from the adjacent properties;
      - An agreement to close and eliminate any pre-existing driveways provided for access in the interim after construction of the joint-use driveway; and
      - A joint maintenance agreement defining maintenance responsibilities of property owners that share the joint use driveway and cross access system.

This page intentionally left blank.

Implementation & Funding

In 2012, the Village successfully obtained $500,000 from the New York State Main Street Program to improve the appearance of properties in the downtown area. The Village should continue to pursue grant opportunities in addition to those identified in this section to implement the recommendations of this study. For example, the State's Consolidated Funding Application Process may provide additional funding options for some of the programs and projects identified in the table on page 108.

Recommendations for implementation of the proposed improvements are outlined on the following pages. They are subdivided into three categories: Immediate to Near Term (0-5 years), Medium Term (5-10 years), and Long Term (10-20 years). An emphasis was placed upon identifying Immediate to Near Term improvements that are either relatively low cost or that may have more readily available funding opportunities. Medium Term recommendations require more planning and funding to implement, and can likely be accomplished in the 5 to 10 year timeframe. The Long Term recommendations are generally more expensive and are likely to require significant planning to implement. It is noted that the longer timeframes are more typical of municipal budgeting and governmental decision-making. Specific long term improvements may be completed should other funding sources become available. Opportunities for funding and a description of the funding sources that are currently available are also included on the following pages.

On July 6, 2012, President Obama signed the Moving Ahead for Progress in the 21st Century Act, commonly referred to as MAP-21. This act provides over $105 billion in funding for surface transportation programs for fiscal years 2013 and 2014. MAP-21 is the first long-term highway authorization enacted since 2005. According to the Federal Highway Administration, "MAP-21 provides needed funds and, more importantly, it transforms the policy and programmatic framework for investments to guide the growth and development of the country's vital transportation infrastructure."

The deadline for the first round of the Transportation Alternatives Program was June 11, 2014. This was the first funding opportunity available through the MAP-21 Program. The Village of East Rochester opted not to submit an application at this time.

The specific programs affecting local governments under the previous funding authorization bill (SAFETEA-LU) are now largely gone, including the Safe Routes to Schools Program, the Recreational Trails and Scenic Byways Programs, and the Transportation Enhancements Program. MAP-21 transforms those into eligible activities within the existing Highway Safety Improvement Program and a new Transportation Alternatives category. While MAP-21 requires states to spend at least 2 percent of their federal highway funds on Transportation Alternatives, the total is about $300 million less per year than the total for those programs under SAFETEA-LU.

MAP-21 expires on September 30, 2014. It is likely that it will be replaced with similar legislation; however, the exact level of funding is unknown at this time.

The Village should consider establishing a formal Capital Improvement Program (CIP) as part of its regular operations. A CIP is an ongoing financial planning tool that identifies capital projects and equipment purchases to be completed over a five year

The Village currently evaluates its transportation related expenditures on an annual basis. Each year the Superintendent of the DPW meets with the Public Works Committee to identify a list of prioritized projects that need to be accomplished. Once the Village Budget is finalized, certain items are removed from consideration due to lack of funding. The list gets recreated the following year, and considered as part of the Village budget process. A formal, five year Capital Improvement Program may improve the Village's long term decision-making process.

"On January 15, 2014, Governor Andrew M. Cuomo announced the award of approximately $67 million in funding for 63 Transportation Enhancement Program (TEP) projects. These funds are made available to New York State through the Federal Highway Administration (FHWA) and are administered by NYSDOT. The funds cover up to 80 percent of the cost of a project, with the remaining 20 percent or more coming from the project sponsor. The funds are dedicated for strategic investments in non-motorized transportation alternatives. With the 20% local match, these projects will support a total investment of $96.5 million."

~ https://www.dot.ny.gov/programs/tep

period and identifies options for financing projects and purchases. The CIP can provide a link between the municipality, its various departments, other governmental entities (NYSDOT, MCDOT, etc), the recommendations contained in local plans and studies, and the municipality's annual budget. This process may include setting aside financial resources into reserve accounts in order to help fund necessary projects in the future. The use of reserve accounts combined with municipal bonds and outside grant funding constitutes an effective mechanism for funding capital projects in New York State.

These renderings encapsulate some of the recommendations contained in the Village of Perry's Circulation, Access, and Parking Study completed in 2008. This Study was instrumental in positioning the Village for its successful Transportation Enhancement Program grant application in 2013. The Village was awarded $1,063,638 in Federal Funding to reconstruct its Main Street in a manner that will enhance the character of the community and make the downtown area more comfortable for pedestrians and bicyclists.

RECOMMENDATIONS		PRELIMINARY COST ESTIMATE	POTENTIAL FUNDING SOURCES
IMMEDIATE TO NEAR TERM (0-5 YEARS)			
1	Update Comprehensive Plan	$40,000 to $50,000	VB, NYSERDA
2	Adopt the following zoning code changes:		
	• Create a Village Center District and Design Requirements	$7,000 to $10,000	VB, FHWA-PL
	• Update Access Management, Parking, Landscaping, and Circulation Requirements	$5,000 to $10,000	VB, FHWA-PL
	• Create Non-Residential Design Requirements	$3,000 to $7,000	VB, FHWA-PL
	• Modify the Limited Commercial and General Commercial Districts	$3,000 to $5,000	VB, FHWA-PL
	• Complete comprehensive code update	$40,000 to $50,000	VB, FHWA-PL
3	Install Rectangular Rapid Flashing Beacon pedestrian crossing signs at Hickory St and West Av	$60,000	VB, CHIPS, CDBG
4	Install Alternative 1 (restripe and right size, "road diet") with high visibility crosswalks and curb extensions	$327,000	NYSDOT, FHWA-CAP
5	Install pedestrian countdown signals (with optional Accessible Pedestrian Signals) at Roosevelt Rd, 31F, Garfield St, Main St, Elm St	$76,000	NYSDOT, VB, FHWA-CAP, CDBG
6	Install Leading Pedestrian Interval at Commercial St/Washington St	None	NYSDOT
7	Install back-in diagonal parking in the 100 Block of Commercial St	$175,000	VB
8	Install piano key crosswalks at Piano Works	$700	VB, FHWA-CAP, NYSDOT, CDBG
9	Develop community branding/ wayfinding program	$15,000	VB, FHWA-PL

Table 4 - Recommendations

RECOMMENDATIONS		PRELIMINARY COST ESTIMATE	POTENTIAL FUNDING SOURCES
IMMEDIATE TO NEAR TERM (CON'T)			
10	Install Western Gateway Treatment on West Commercial at I-490 on/off ramp	$416,000	VB, NYSDOT, FHWA-CAP
11	Install Bike Boulevard treatments on Elm St	$2,500	VB
12	Continue to install ADA curb ramps Village-wide	$500 to $3,000 EA	VB, CHIP, NYSDOT, CDBG
13	Reconstitute Sidewalk Installation Program (e.g., Roosevelt Rd, 31F)	$40 Per Linear Foot	VB, CHIP, NYSDOT, CDBG
14	Extend northbound left-turn lane at Commercial St/Washington St	$7,000	NYSDOT
15	Complete N. Washington St urban design treatments	Varies	VB, NYSDOT, FHWA-CAP
16	Implement Street Tree Program/ Policy	Varies	VB, DECUFG
17	Install / Replace Street Trees on West Commercial Street (Washington to Roosevelt is included in Alterntive 3 below)	$27,000	NYSDOT, VB, DECUFG, CDBG*
18	Install Street Furniture and Bike Racks	$19,000	VB, PB, NYSDOT, FHWA-CAP
19	Buffer Public Parking Lot - 100 Block of West Commercial Street	$20,000	VB, PB, NEA, NYSCA, CDBG

** May be eligible for CDBG funding in conjunction with street reconstruction project*

MEDIUM TERM (5-10 YEARS)			
20	Install preferred Alternative 3	$2,700,000	NYSDOT, FHWA-CAP, VB

LONG TERM (10-20 YEARS)			
21	Update Comprehensive Plan	$40,000 to $50,000	VB, NYSERDA
22	Implement various access management and design techniques	Varies	NYSDOT, PB

Funding Source Acronyms
1. Village Budget (VB) 2. Consolidated Local Streets & Highway Improvement Program (CHIP) 3. New York State Energy Research & Development Authority (NYSERDA) 4. New York State Department of Transportation (NYSDOT) 5. Federal Highway Administration Planning Funds (FHWA-PL) 6. Federal Highway Administration Capital Improvement Funds (FHWA-CAP) 7. National Endowment For The Arts (NEA) 8. New York Council On The Arts (NYSCA) 9. Private Business (PB) 10. Department of Environmental Conservation Urban Forestry Grants (DECUFG)

NAME OF FUNDING SOURCE	DESCRIPTION	WEB SITE	APPLICATION DEADLINE	FUNDING AMOUNT AVAILABLE
NYS Grant Action News	Listing of Grants and Financial Assistance for NYS	http://assembly.state.ny.us/gan/		
Federal Highway Administration Planning Funds (FHWA-PL)	These funds are administered through the Unified Planning Works Program (UPWP). The UPWP is the program of federally-funded transportation planning activities to be undertaken each year by Genesee Transportation Council staff, its member agencies, and other jurisdictions in the Genesee-Finger Lakes Region.	http://www.gtcmpo.org/Docs/UPWP.htm	Most recent deadline was October 18, 2013	No set limit but the awards are typically $40K-$100K depending on the nature of the project
Federal Highway Administration Capital Improvement Funds (FHWA-CAP)	Transportation Improvement Program (TIP) - The TIP funds both highway and transit projects as well as urban and rural projects on both State and local facilities. This program is administered by the Genesee Transportation Council.	http://www.gtcmpo.org/Docs/TIP.htm	Upcoming solicitation for projects is expected in the Fall of 2015	Varies
Federal Highway Administration Capital Improvement Funds (FHWA-CAP)	Transportation Alternatives Program (TAP) - The TAP provides funding for programs and projects, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation, recreational trail program projects, and safe routes to school projects. This program is administered by the NYSDOT.	https://www.dot.ny.gov/divisions/operating/opdm/local-programs-bureau/tap/guidance	Most recent deadline was June 11, 2014	$1.6 million with a 20% local match was required
New York State Energy Research & Development Authority (NYSERDA)	This program is designed to foster more sustainable communities by funding smart growth practices, including the development of comprehensive plans and zoning codes.	https://www.nyserda.ny.gov/About/Governor-Initiatives/Cleaner-Greener-Communities.aspx	Most recent deadline was June 16, 2014	A minimum of 25% local match was required

Table 5 - Outside Funding Opportunities

NAME OF FUNDING SOURCE	DESCRIPTION	WEB SITE	APPLICATION DEADLINE	FUNDING AMOUNT AVAILABLE
Community Development Block Grant (CDBG)	Monroe County's CDBG funds are intended to be used in the suburban towns and villages that comprise the Community Development Consortium. Each Activity must meet one of the three broad national objectives: 1) To benefit low to moderate-income persons; 2) To aid in the prevention or elimination of slums or blight, and 3) To meet community development needs having a particular urgency (such as compliance with the American with Disabilities Act).	http://www2.monroecounty.gov/planning-community.php	Most recent deadline was February 14, 2014	Not set limit but the awards are typically $25K-$50K depending on the nature of the project
New York State Consolidated Local Street & Highway Improvement Program (CHIP)	The objective of the New York State Consolidated Local Street & Highway Improvement Program (CHIP) is to assist localities in financing the construction, reconstruction, or improvement of local highways, bridges, sidewalks, or other facilities that are not on the State highway system. Projects must have a useful life of at least 10 years and be located in the public right-of-way.	https://www.dot.ny.gov/programs/chips	Municipalities are typically notified of their allotment in June	The annual allocation is calculated according to the formula specified in Section 10-c of the Highway Law.
New York State Council On The Arts (NYSCA)	NYSCA believes in artistic excellence without boundaries, and its evaluation process embraces the widest variety of cultural and artistic expression being offered to the public in a broad array of settings and contexts, including classrooms and community centers, parks, open spaces, and traditional venues.	http://www.arts.ny.gov/public/grants/index.htm	June 27, 2014	Varies
National Endowment For The Arts (NEA)	This program fosters creative placemaking projects that contribute to the livability of communities and place the arts at their core.	http://arts.gov/grants	Most recent deadline was January 13, 2014	Matching grants range from $25,000 to $200,000
Department of Environmental Conservation Urban Forestry Grants (DECUFG)	DEC is committed to providing support and assistance to communities in comprehensive planning, management, and education to create healthy urban and community forests, and enhance the quality of life for urban residents through this program.	http://www.dec.ny.gov/lands/93627.html	Most recent deadline was December 5, 2013.	Up to $25,000

village of east rochester

Transportation Improvement Study

July 2014

APPENDICES

Prepared By:
SRF & Associates
Ingalls Planning & Design
Steinmetz Planning Group

Appendix A

Collected Traffic Volume Data

SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Grant.AM.Peak
Site Code : 00330451
Start Date : 11/12/2013
Page No : 1

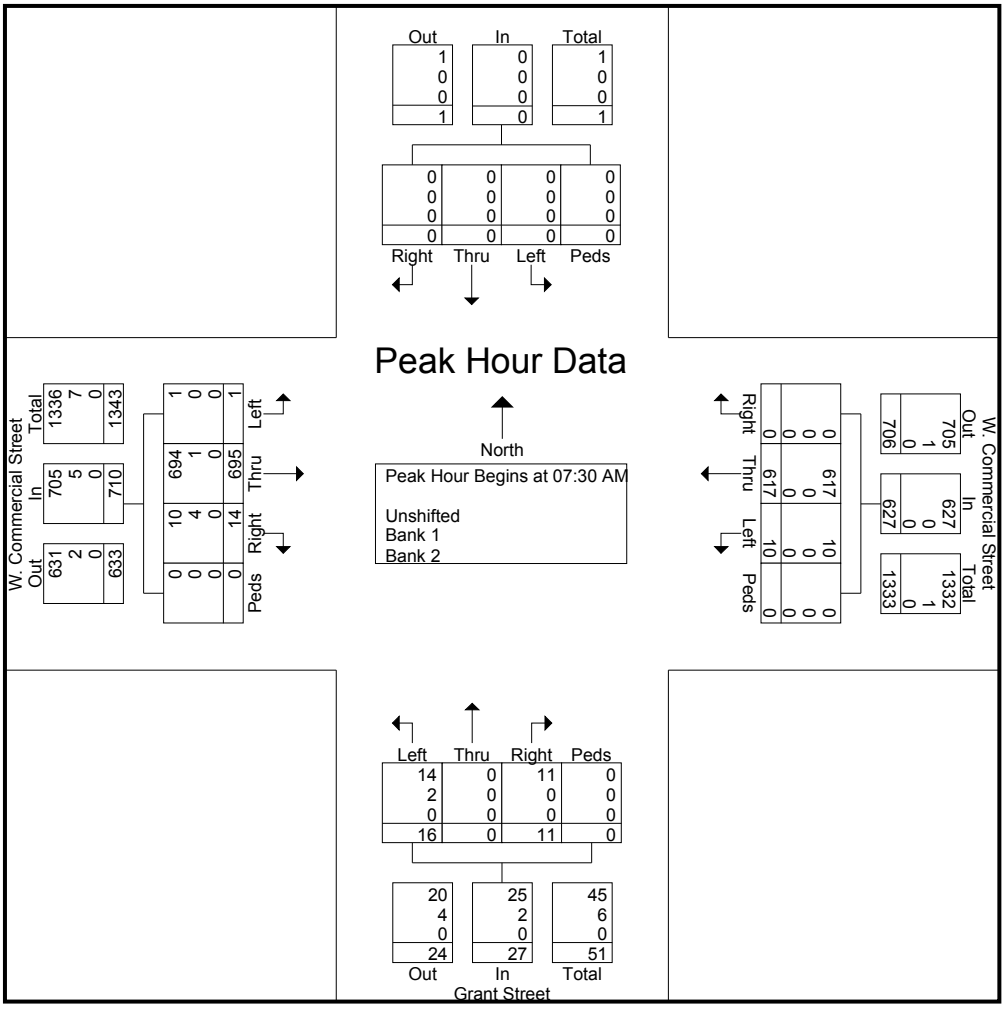
Groups Printed- Unshifted - Bank 1 - Bank 2

	From North				W. Commercial Street From East				Grant Street From South				W. Commercial Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	99	0	0	2	0	3	0	1	120	0	0	225
07:15 AM	0	0	0	0	4	100	1	0	3	0	2	0	0	117	0	0	227
07:30 AM	0	0	0	0	0	162	4	0	3	0	4	0	2	131	0	0	306
07:45 AM	0	0	0	0	0	171	4	0	3	0	2	0	3	193	0	0	376
Total	0	0	0	0	4	532	9	0	11	0	11	0	6	561	0	0	1134
08:00 AM	0	0	0	0	0	129	2	0	2	0	3	0	4	207	0	0	347
08:15 AM	0	0	0	0	0	155	0	0	3	0	7	0	5	164	1	0	335
08:30 AM	0	0	0	0	0	130	2	0	4	0	2	0	2	135	0	0	275
08:45 AM	0	0	0	0	0	115	2	0	2	0	0	0	0	121	0	0	240
Total	0	0	0	0	0	529	6	0	11	0	12	0	11	627	1	0	1197
Grand Total	0	0	0	0	4	1061	15	0	22	0	23	0	17	1188	1	0	2331
Apprch %	0	0	0	0	0.4	98.2	1.4	0	48.9	0	51.1	0	1.4	98.5	0.1	0	
Total %	0	0	0	0	0.2	45.5	0.6	0	0.9	0	1	0	0.7	51	0	0	
Unshifted	0	0	0	0	4	1060	15	0	22	0	21	0	13	1185	1	0	2321
% Unshifted	0	0	0	0	100	99.9	100	0	100	0	91.3	0	76.5	99.7	100	0	99.6
Bank 1	0	0	0	0	0	1	0	0	0	0	2	0	4	3	0	0	10
% Bank 1	0	0	0	0	0	0.1	0	0	0	0	8.7	0	23.5	0.3	0	0	0.4
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Grant.AM.Peak
Site Code : 00330451
Start Date : 11/12/2013
Page No : 2

	From North					W. Commercial Street From East					Grant Street From South					W. Commercial Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	0	162	**4**			**3**										
07:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**171**	4	0	**175**	3	0	2	0	5	3	193	0	0	196	**376**
08:00 AM	0	0	0	0	0	0	129	2	0	131	2	0	3	0	5	4	**207**	0	0	**211**	347
08:15 AM	0	0	0	0	0	0	155	0	0	155	3	0	**7**		**10**	**5**		**1**			
Total Volume	0	0	0	0	0	0	617	10	0	627	11	0	16	0	27	14	695	1	0	710	1364
% App. Total	0	0	0	0		0	98.4	1.6	0		40.7	0	59.3	0		2	97.9	0.1	0		
PHF	.000	.000	.000	.000	.000	.000	.902	.625	.000	.896	.917	.000	.571	.000	.675	.700	.839	.250	.000	.841	.907
Unshifted	0	0	0	0	0	0	617	10	0	627	11	0	14	0	25	10	694	1	0	705	1357
% Unshifted													87.5	0	92.6	71.4	99.9				
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	4	1	0	0	5	7
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	12.5	0	7.4	28.6	0.1	0	0	0.7	0.5
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Grant.PM.Peak
Site Code : 00330451
Start Date : 11/12/2013
Page No : 1

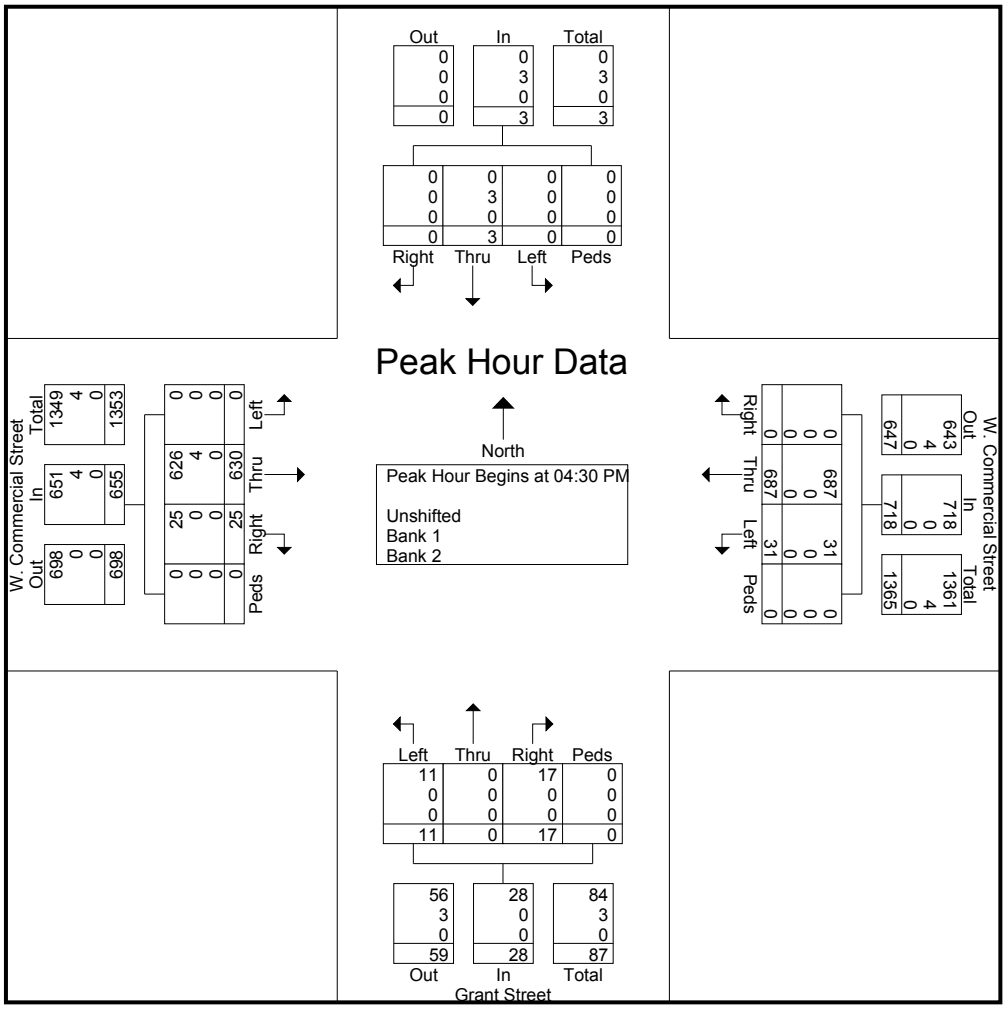
Groups Printed- Unshifted - Bank 1 - Bank 2

	From North				W. Commercial Street From East				Grant Street From South				W. Commercial Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	1	0	0	0	149	5	0	2	1	5	0	4	135	0	0	302
04:15 PM	0	0	0	0	0	133	1	0	0	0	5	0	5	159	0	0	303
04:30 PM	0	3	0	0	0	157	9	0	7	0	4	0	3	160	0	0	343
04:45 PM	0	0	0	0	0	149	5	0	3	0	2	0	6	144	0	0	309
Total	0	4	0	0	0	588	20	0	12	1	16	0	18	598	0	0	1257
05:00 PM	0	0	0	0	0	220	6	0	2	0	2	0	3	168	0	0	401
05:15 PM	0	0	0	0	0	161	11	0	5	0	3	0	13	158	0	0	351
05:30 PM	0	0	0	0	0	149	6	0	8	0	3	0	7	166	0	0	339
05:45 PM	0	0	0	0	0	119	5	0	4	0	2	0	4	139	0	0	273
Total	0	0	0	0	0	649	28	0	19	0	10	0	27	631	0	0	1364
Grand Total	0	4	0	0	0	1237	48	0	31	1	26	0	45	1229	0	0	2621
Apprch %	0	100	0	0	0	96.3	3.7	0	53.4	1.7	44.8	0	3.5	96.5	0	0	
Total %	0	0.2	0	0	0	47.2	1.8	0	1.2	0	1	0	1.7	46.9	0	0	
Unshifted	0	1	0	0	0	1229	48	0	31	0	26	0	45	1222	0	0	2602
% Unshifted	0	25	0	0	0	99.4	100	0	100	0	100	0	100	99.4	0	0	99.3
Bank 1	0	3	0	0	0	8	0	0	0	1	0	0	0	7	0	0	19
% Bank 1	0	75	0	0	0	0.6	0	0	0	100	0	0	0	0.6	0	0	0.7
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Grant.PM.Peak
Site Code : 00330451
Start Date : 11/12/2013
Page No : 2

	From North					W. Commercial Street From East					Grant Street From South					W. Commercial Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	**3**	0	0	**3**	0	157	9	0	166	**7**		**4**		**11**	3	160	0	0	163	343
04:45 PM	0	0	0	0	0	0	149	5	0	154	3	0	2	0	5	6	144	0	0	150	309
05:00 PM	0	0	0	0	0	0	**220**	6	0	**226**	2	0	2	0	4	3	**168**	0	0	**171**	**401**
05:15 PM	0	0	0	0	0	0	161	**11**								**13**					
Total Volume	0	3	0	0	3	0	687	31	0	718	17	0	11	0	28	25	630	0	0	655	1404
% App. Total	0	100	0	0		0	95.7	4.3	0		60.7	0	39.3	0		3.8	96.2	0	0		
PHF	.000	.250	.000	.000	.250	.000	.781	.705	.000	.794	.607	.000	.688	.000	.636	.481	.938	.000	.000	.958	.875
Unshifted	0	0	0	0	0	0	687	31	0	718	17	0	11	0	28	25	626	0	0	651	1397
% Unshifted																	99.4				
Bank 1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	7
% Bank 1	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0.6	0	0	0.6	0.5
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Main.AM.Peak
Site Code : 03304511
Start Date : 11/12/2013
Page No : 1

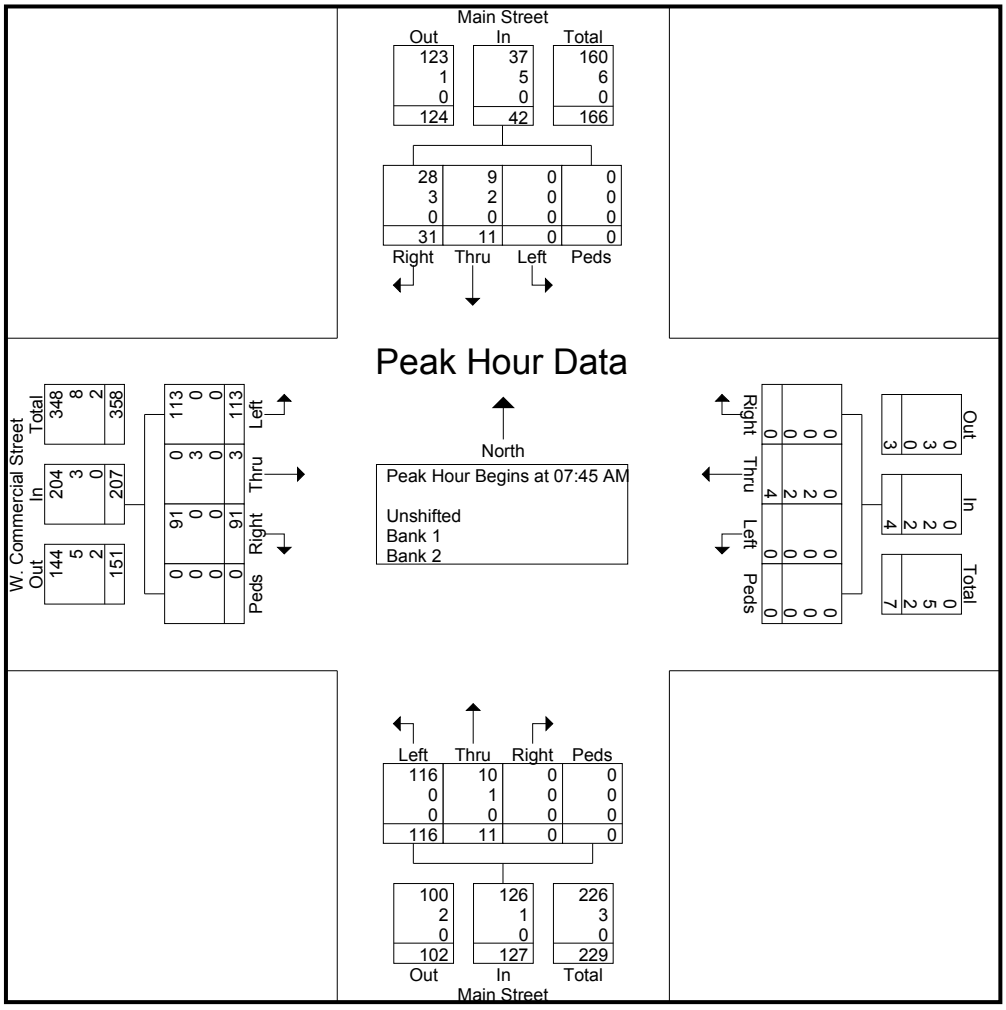
Groups Printed- Unshifted - Bank 1 - Bank 2

	Main Street From North				From East				Main Street From South				W. Commercial Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	9	2	0	0	0	0	0	0	0	2	7	0	12	0	18	0	50
07:15 AM	8	4	0	0	0	2	0	0	0	1	16	0	20	1	16	0	68
07:30 AM	8	5	0	0	0	0	0	0	0	5	13	0	17	2	15	0	65
07:45 AM	10	5	0	0	0	3	0	0	0	5	26	0	22	0	29	0	100
Total	35	16	0	0	0	5	0	0	0	13	62	0	71	3	78	0	283
08:00 AM	5	3	0	0	0	0	0	0	0	4	29	0	33	1	32	0	107
08:15 AM	7	1	0	0	0	1	0	0	0	2	32	0	18	0	32	0	93
08:30 AM	9	2	0	0	0	0	0	0	0	0	29	0	18	2	20	0	80
08:45 AM	13	2	0	0	0	0	0	0	0	5	23	0	15	0	29	0	87
Total	34	8	0	0	0	1	0	0	0	11	113	0	84	3	113	0	367
Grand Total	69	24	0	0	0	6	0	0	0	24	175	0	155	6	191	0	650
Apprch %	74.2	25.8	0	0	0	100	0	0	0	12.1	87.9	0	44	1.7	54.3	0	
Total %	10.6	3.7	0	0	0	0.9	0	0	0	3.7	26.9	0	23.8	0.9	29.4	0	
Unshifted	64	16	0	0	0	0	0	0	0	22	174	0	155	0	189	0	620
% Unshifted	92.8	66.7	0	0	0	0	0	0	0	91.7	99.4	0	100	0	99	0	95.4
Bank 1	5	8	0	0	0	4	0	0	0	2	1	0	0	6	2	0	28
% Bank 1	7.2	33.3	0	0	0	66.7	0	0	0	8.3	0.6	0	0	100	1	0	4.3
Bank 2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
% Bank 2	0	0	0	0	0	33.3	0	0	0	0	0	0	0	0	0	0	0.3

SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Main.AM.Peak
Site Code : 03304511
Start Date : 11/12/2013
Page No : 2

	Main Street From North					From East					Main Street From South					W. Commercial Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	**10**	**5**	0	0	**15**	0	**3**	0	0	**3**	0	**5**	26	0	31	22	0	29	0	51	100
08:00 AM	5	3	0	0	8	0	0	0	0	0	0	4	29	0	33	**33**		**32**		**66**	**107**
08:15 AM	7	1	0	0	8	0	1	0	0	1	0	2	**32**		**34**	18	0	32	0	50	93
08:30 AM	9	2	0	0	11	0	0	0	0	0	0	0	29	0	29	18	**2**	20	0	40	80
Total Volume	31	11	0	0	42	0	4	0	0	4	0	11	116	0	127	91	3	113	0	207	380
% App. Total	73.8	26.2	0	0		0	100	0	0		0	8.7	91.3	0		44	1.4	54.6	0		
PHF	.775	.550	.000	.000	.700	.000	.333	.000	.000	.333	.000	.550	.906	.000	.934	.689	.375	.883	.000	.784	.888
Unshifted	28	9	0	0	37	0	0	0	0	0	0	10	116	0	126	91	0	113	0	204	367
% Unshifted	90.3	81.8										90.9									
Bank 1	3	2	0	0	5	0	2	0	0	2	0	1	0	0	1	0	3	0	0	3	11
% Bank 1	9.7	18.2	0	0	11.9	0	50.0	0	0	50.0	0	9.1	0	0	0.8	0	100	0	0	1.4	2.9
Bank 2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
% Bank 2	0	0	0	0	0	0	50.0	0	0	50.0	0	0	0	0	0	0	0	0	0	0	0.5



SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Main.PM.Peak
Site Code : 03304512
Start Date : 11/12/2013
Page No : 1

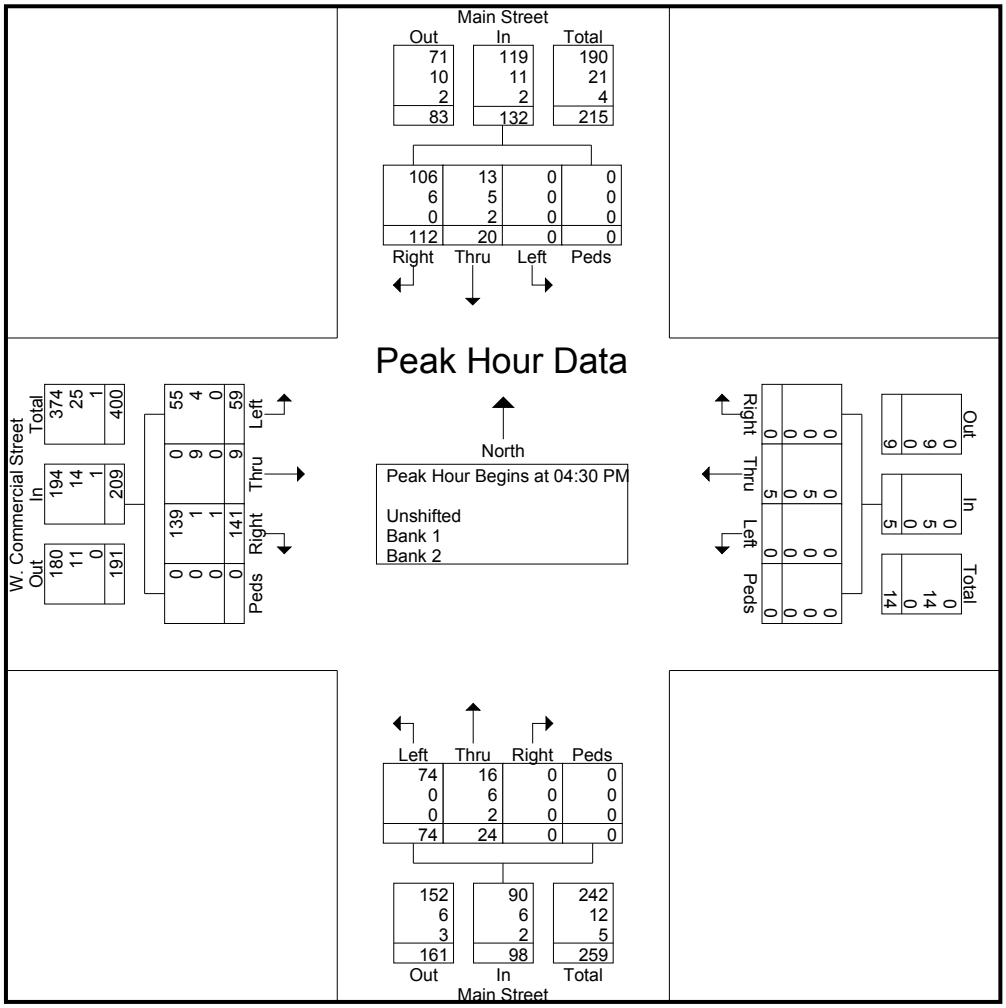
Groups Printed- Unshifted - Bank 1 - Bank 2

	Main Street From North				From East				Main Street From South				W. Commercial Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	20	2	0	0	0	2	0	0	0	6	21	0	27	0	16	0	94
04:15 PM	21	4	0	0	0	3	0	0	0	4	19	0	31	3	6	0	91
04:30 PM	36	8	0	0	0	1	0	0	0	6	18	0	29	5	16	0	119
04:45 PM	19	5	0	0	0	0	0	0	0	7	19	0	31	1	10	0	92
Total	96	19	0	0	0	6	0	0	0	23	77	0	118	9	48	0	396
05:00 PM	32	2	0	0	0	2	0	0	0	2	20	0	41	3	14	0	116
05:15 PM	25	5	0	0	0	2	0	0	0	9	17	0	40	0	19	0	117
05:30 PM	18	6	0	0	0	7	0	0	0	3	21	0	28	3	14	0	100
05:45 PM	15	6	0	0	0	1	0	0	0	9	26	0	30	4	18	2	111
Total	90	19	0	0	0	12	0	0	0	23	84	0	139	10	65	2	444
Grand Total	186	38	0	0	0	18	0	0	0	46	161	0	257	19	113	2	840
Apprch %	83	17	0	0	0	100	0	0	0	22.2	77.8	0	65.7	4.9	28.9	0.5	
Total %	22.1	4.5	0	0	0	2.1	0	0	0	5.5	19.2	0	30.6	2.3	13.5	0.2	
Unshifted	175	29	0	0	0	0	0	0	0	34	161	0	255	0	106	2	762
% Unshifted	94.1	76.3	0	0	0	0	0	0	0	73.9	100	0	99.2	0	93.8	100	90.7
Bank 1	10	7	0	0	0	18	0	0	0	9	0	0	1	19	7	0	71
% Bank 1	5.4	18.4	0	0	0	100	0	0	0	19.6	0	0	0.4	100	6.2	0	8.5
Bank 2	1	2	0	0	0	0	0	0	0	3	0	0	1	0	0	0	7
% Bank 2	0.5	5.3	0	0	0	0	0	0	0	6.5	0	0	0.4	0	0	0	0.8

SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Main.PM.Peak
Site Code : 03304512
Start Date : 11/12/2013
Page No : 2

	Main Street From North					From East					Main Street From South					W. Commercial Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**36**	**8**	0	0	**44**	0	1	0	0	1	0	6	18	0	24	29	**5**	16	0	50	**119**
04:45 PM	19	5	0	0	24	0	0	0	0	0	0	7	19	0	**26**	31	1	10	0	42	92
05:00 PM	32	2	0	0	34	0	**2**	0	0	**2**	0	2	**20**			**41**					
05:15 PM	**25**	**5**	**0**	**0**	**30**	**0**	**2**	**0**	**0**	**2**	**0**	**9**	17	0	26	40	0	**19**	**0**	**59**	117
Total Volume	112	20	0	0	132	0	5	0	0	5	0	24	74	0	98	141	9	59	0	209	444
% App. Total	84.8	15.2	0	0		0	100	0	0		0	24.5	75.5	0		67.5	4.3	28.2	0		
PHF	.778	.625	.000	.000	.750	.000	.625	.000	.000	.625	.000	.667	.925	.000	.942	.860	.450	.776	.000	.886	.933
Unshifted	106	13	0	0	119	0	0	0	0	0	0	16	74	0	90	139	0	55	0	194	403
% Unshifted	94.6	65.0										66.7				98.6	0	93.2	0	92.8	90.8
Bank 1	6	5	0	0	11	0	5	0	0	5	0	6	0	0	6	1	9	4	0	14	36
% Bank 1	5.4	25.0										25.0									
Bank 2	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	5
% Bank 2	0	10.0	0	0	1.5	0	0	0	0	0	0	8.3	0	0	2.0	0.7	0	0	0	0.5	1.1



SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Roosevelt.AM.Peak
Site Code : 12121212
Start Date : 11/12/2013
Page No : 1

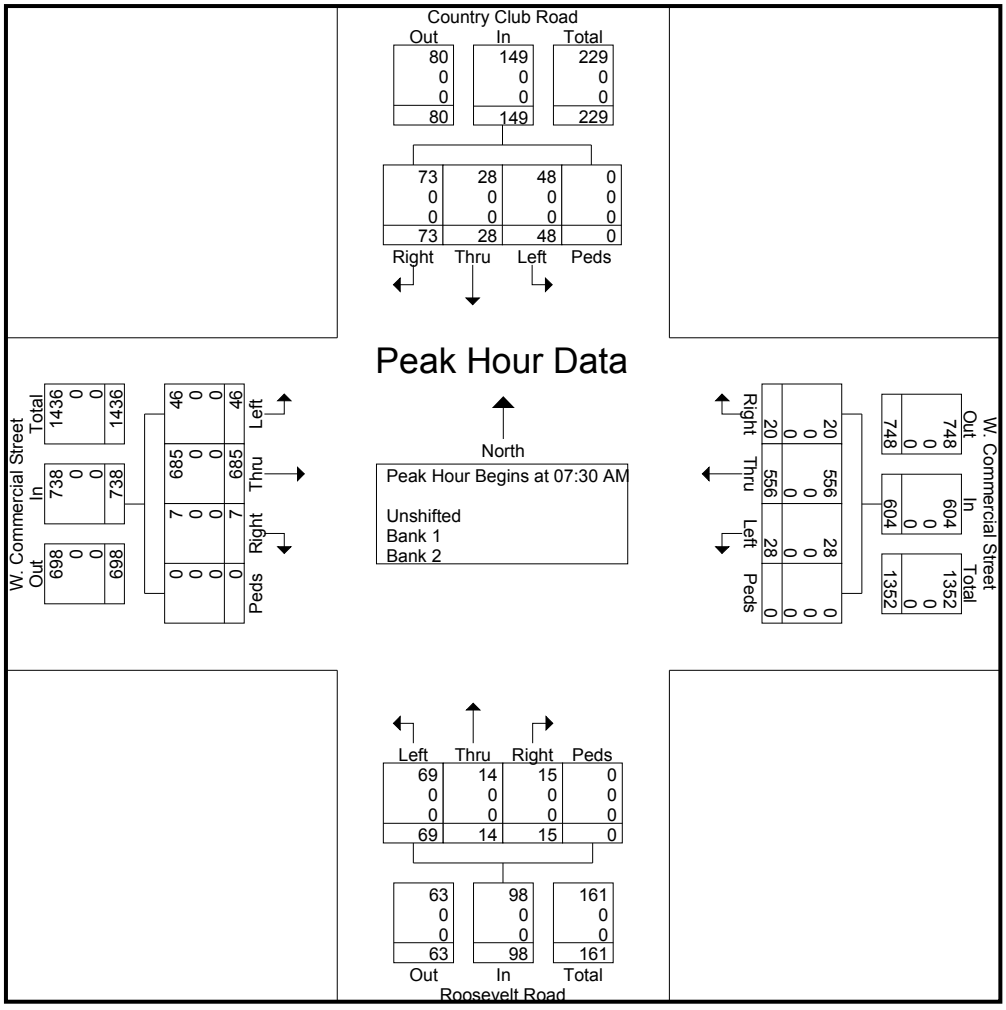
Groups Printed- Unshifted - Bank 1 - Bank 2

	Country Club Road From North				W. Commercial Street From East				Roosevelt Road From South				W. Commercial Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	16	1	6	0	7	102	3	0	3	0	16	0	2	109	2	0	267
07:15 AM	18	7	22	0	4	118	7	0	3	3	13	0	0	112	2	0	309
07:30 AM	24	7	11	0	2	162	5	0	2	4	26	0	1	142	13	0	399
07:45 AM	22	8	16	0	9	134	3	0	3	1	16	0	4	212	13	0	441
Total	80	23	55	0	22	516	18	0	11	8	71	0	7	575	30	0	1416
08:00 AM	11	5	14	0	3	126	10	0	6	8	11	0	1	187	12	0	394
08:15 AM	16	8	7	0	6	134	10	0	4	1	16	0	1	144	8	0	355
08:30 AM	12	10	9	0	5	106	5	0	4	0	8	0	3	110	2	0	274
08:45 AM	14	5	12	0	5	82	4	0	6	3	14	0	3	96	4	0	248
Total	53	28	42	0	19	448	29	0	20	12	49	0	8	537	26	0	1271
Grand Total	133	51	97	0	41	964	47	0	31	20	120	0	15	1112	56	0	2687
Apprch %	47.3	18.1	34.5	0	3.9	91.6	4.5	0	18.1	11.7	70.2	0	1.3	94	4.7	0	
Total %	4.9	1.9	3.6	0	1.5	35.9	1.7	0	1.2	0.7	4.5	0	0.6	41.4	2.1	0	
Unshifted	133	51	97	0	41	964	47	0	31	20	120	0	15	1112	56	0	2687
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Roosevelt.AM.Peak
Site Code : 12121212
Start Date : 11/12/2013
Page No : 2

	Country Club Road From North					W. Commercial Street From East					Roosevelt Road From South					W. Commercial Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	**24**						**162**	5	0	**169**	2	4	**26**		**32**	1	142	**13**			
07:45 AM	**22**	**8**	**16**	**0**	**46**	**9**	**134**	**3**	**0**	**146**	**3**	**1**	**16**	**0**	**20**	**4**	**212**	13	0	**229**	**441**
08:00 AM	11	5	14	0	30	3	126	**10**			**6**	**8**	11	0	25	1	187	12	0	200	394
08:15 AM	16	8	7	0	31	6	134	10	0	150	4	1	16	0	21	1	144	8	0	153	355
Total Volume	73	28	48	0	149	20	556	28	0	604	15	14	69	0	98	7	685	46	0	738	1589
% App. Total	49	18.8	32.2	0		3.3	92.1	4.6	0		15.3	14.3	70.4	0		0.9	92.8	6.2	0		
PHF	.760	.875	.750	.000	.810	.556	.858	.700	.000	.893	.625	.438	.663	.000	.766	.438	.808	.885	.000	.806	.901
Unshifted	73	28	48	0	149	20	556	28	0	604	15	14	69	0	98	7	685	46	0	738	1589
% Unshifted																					
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Roosevelt.PM.Peak
Site Code : 12121212
Start Date : 11/12/2013
Page No : 1

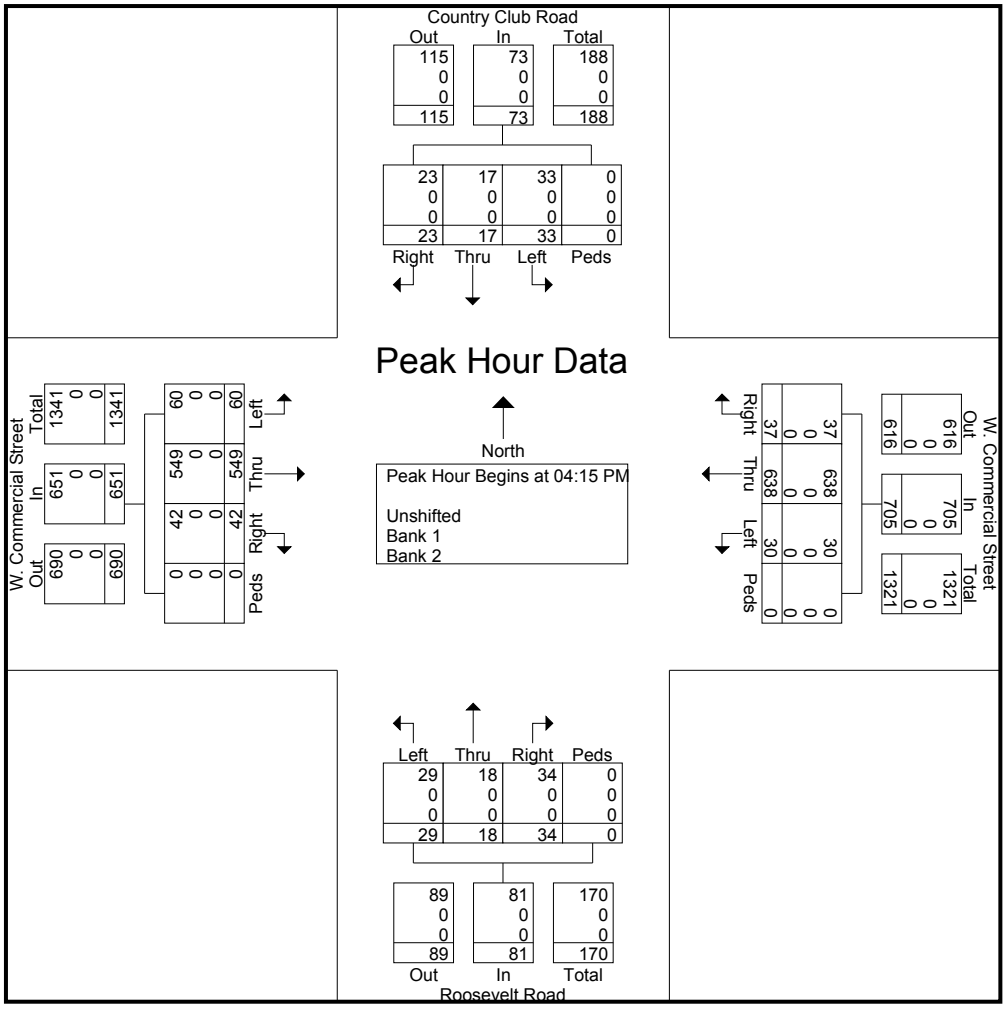
Groups Printed- Unshifted - Bank 1 - Bank 2

	Country Club Road From North				W. Commercial Street From East				Roosevelt Road From South				W. Commercial Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	14	2	11	0	4	132	6	0	10	6	1	0	8	111	13	0	318
04:15 PM	1	5	10	0	8	118	8	0	6	6	11	0	9	159	19	0	360
04:30 PM	7	3	7	0	6	178	6	0	10	4	8	0	5	118	13	0	365
04:45 PM	8	3	8	0	13	141	7	0	5	6	4	0	13	139	11	0	358
Total	30	13	36	0	31	569	27	0	31	22	24	0	35	527	56	0	1401
05:00 PM	7	6	8	0	10	201	9	0	13	2	6	0	15	133	17	0	427
05:15 PM	4	3	9	0	12	124	13	0	8	6	4	0	8	146	11	0	348
05:30 PM	10	2	7	0	14	137	6	0	7	2	5	0	14	109	23	1	337
05:45 PM	9	6	10	0	14	90	11	0	7	6	6	0	9	153	25	0	346
Total	30	17	34	0	50	552	39	0	35	16	21	0	46	541	76	1	1458
Grand Total	60	30	70	0	81	1121	66	0	66	38	45	0	81	1068	132	1	2859
Apprch %	37.5	18.8	43.8	0	6.4	88.4	5.2	0	44.3	25.5	30.2	0	6.3	83.3	10.3	0.1	
Total %	2.1	1	2.4	0	2.8	39.2	2.3	0	2.3	1.3	1.6	0	2.8	37.4	4.6	0	
Unshifted	60	30	70	0	81	1121	66	0	66	38	45	0	81	1068	132	1	2859
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Roosevelt.PM.Peak
Site Code : 12121212
Start Date : 11/12/2013
Page No : 2

	Country Club Road From North					W. Commercial Street From East					Roosevelt Road From South					W. Commercial Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	1	5	**10**									**6**	**11**		**23**	9	**159**	**19**		**187**	360
04:30 PM	7	3	7	0	17	6	178	6	0	190	10	4	8	0	22	5	118	13	0	136	365
04:45 PM	**8**					**13**															
05:00 PM	**7**	**6**	8	0	**21**	10	**201**	**9**	**0**	**220**	**13**	**2**	**6**	**0**	**21**	**15**	**133**	**17**	**0**	**165**	**427**
Total Volume	23	17	33	0	73	37	638	30	0	705	34	18	29	0	81	42	549	60	0	651	1510
% App. Total	31.5	23.3	45.2	0		5.2	90.5	4.3	0		42	22.2	35.8	0		6.5	84.3	9.2	0		
PHF	.719	.708	.825	.000	.869	.712	.794	.833	.000	.801	.654	.750	.659	.000	.880	.700	.863	.789	.000	.870	.884
Unshifted	23	17	33	0	73	37	638	30	0	705	34	18	29	0	81	42	549	60	0	651	1510
% Unshifted																					
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Washington.AM.Peak
Site Code : 00033045
Start Date : 11/12/2013
Page No : 1

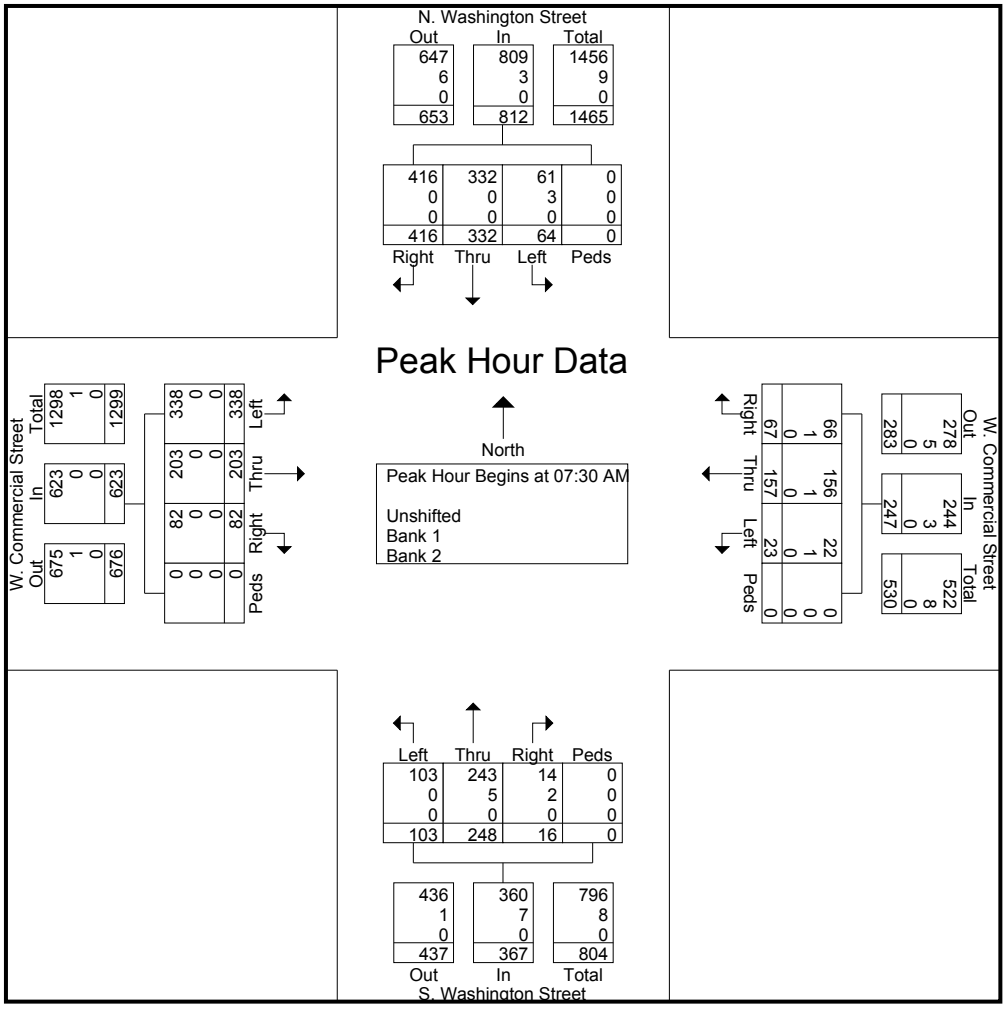
Groups Printed- Unshifted - Bank 1 - Bank 2

	N. Washington Street From North				W. Commercial Street From East				S. Washington Street From South				W. Commercial Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	70	20	6	0	7	19	2	0	2	39	13	0	22	38	67	0	305
07:15 AM	79	73	17	0	6	16	4	0	3	28	22	0	17	26	57	0	348
07:30 AM	114	78	21	0	14	27	6	0	6	52	20	0	18	41	77	0	474
07:45 AM	117	80	9	0	14	53	3	0	3	70	30	0	17	50	91	0	537
Total	380	251	53	0	41	115	15	0	14	189	85	0	74	155	292	0	1664
08:00 AM	98	96	22	0	29	41	3	0	3	73	19	0	23	64	88	0	559
08:15 AM	87	78	12	0	10	36	11	0	4	53	34	0	24	48	82	0	479
08:30 AM	79	81	8	0	8	54	4	0	10	61	28	0	12	48	63	1	457
08:45 AM	83	62	11	0	13	25	4	0	3	53	19	0	16	30	66	0	385
Total	347	317	53	0	60	156	22	0	20	240	100	0	75	190	299	1	1880
Grand Total	727	568	106	0	101	271	37	0	34	429	185	0	149	345	591	1	3544
Apprch %	51.9	40.5	7.6	0	24.7	66.3	9	0	5.2	66.2	28.5	0	13.7	31.8	54.4	0.1	
Total %	20.5	16	3	0	2.8	7.6	1	0	1	12.1	5.2	0	4.2	9.7	16.7	0	
Unshifted	726	566	101	0	100	268	36	0	32	424	185	0	149	343	590	1	3521
% Unshifted	99.9	99.6	95.3	0	99	98.9	97.3	0	94.1	98.8	100	0	100	99.4	99.8	100	99.4
Bank 1	1	2	5	0	1	3	1	0	2	5	0	0	0	2	1	0	23
% Bank 1	0.1	0.4	4.7	0	1	1.1	2.7	0	5.9	1.2	0	0	0	0.6	0.2	0	0.6
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Washington.AM.Peak
Site Code : 00033045
Start Date : 11/12/2013
Page No : 2

	N. Washington Street From North					W. Commercial Street From East					S. Washington Street From South					W. Commercial Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	114	78	21	0	213	14	27	6	0	47	**6**										
07:45 AM	**117**	**80**	**9**	**0**	**206**	**14**	**53**	3	0	70	3	70	30	0	**103**	17	50	**91**	**0**	**158**	**537**
08:00 AM	**98**	**96**	**22**	**0**	**216**	**29**	**41**	**3**	**0**	**73**	3	**73**	19	0	95	23	**64**	88	0	**175**	**559**
08:15 AM	87	78	12	0	177	10	36	**11**					**34**			**24**					
Total Volume	416	332	64	0	812	67	157	23	0	247	16	248	103	0	367	82	203	338	0	623	2049
% App. Total	51.2	40.9	7.9	0		27.1	63.6	9.3	0		4.4	67.6	28.1	0		13.2	32.6	54.3	0		
PHF	.889	.865	.727	.000	.940	.578	.741	.523	.000	.846	.667	.849	.757	.000	.891	.854	.793	.929	.000	.890	.916
Unshifted	416	332	61	0	809	66	156	22	0	244	14	243	103	0	360	82	203	338	0	623	2036
% Unshifted			95.3	0	99.6	98.5	99.4	95.7	0	98.8	87.5	98.0									
Bank 1	0	0	3	0	3	1	1	1	0	3	2	5	0	0	7	0	0	0	0	0	13
% Bank 1	0	0	4.7	0	0.4	1.5	0.6	4.3	0	1.2	12.5	2.0	0	0	1.9	0	0	0	0	0	0.6
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Washington.PM.Peak
Site Code : 00033045
Start Date : 11/12/2013
Page No : 1

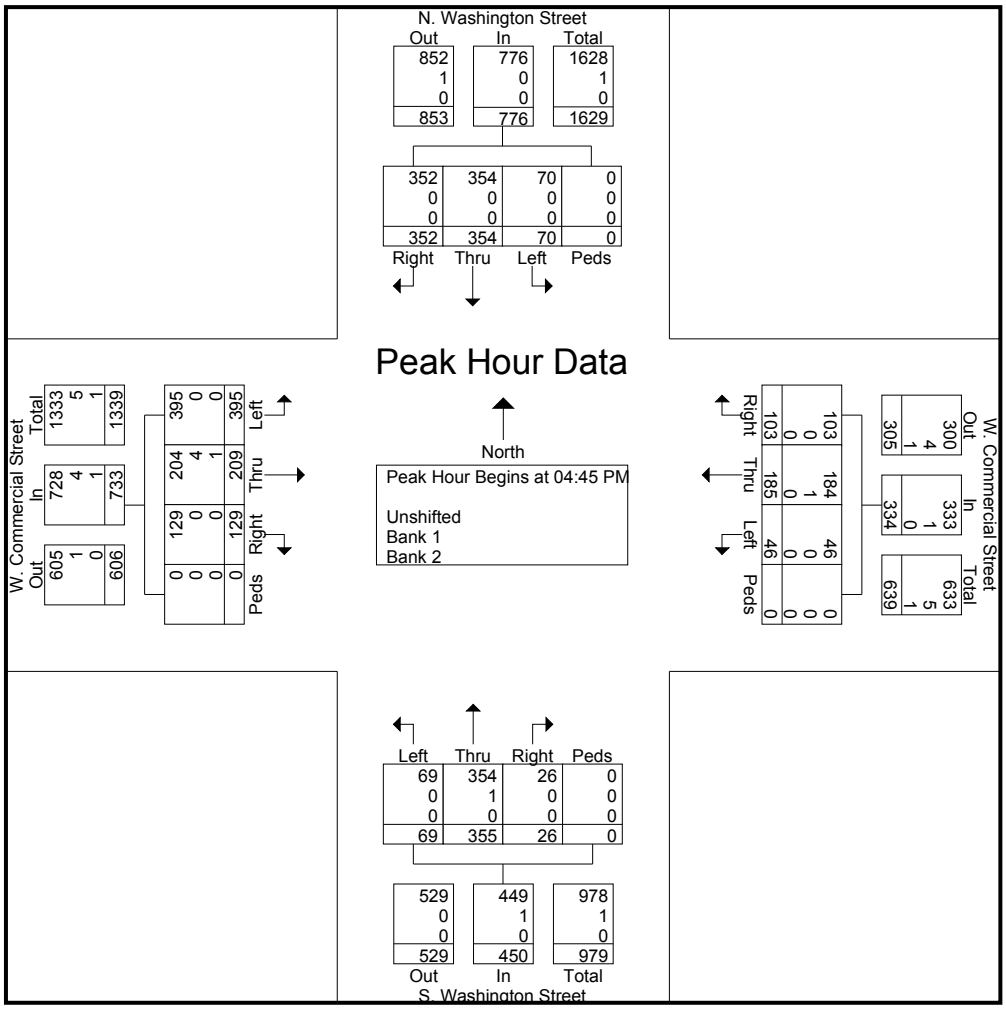
Groups Printed- Unshifted - Bank 1 - Bank 2

	N. Washington Street From North				W. Commercial Street From East				S. Washington Street From South				W. Commercial Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	82	74	10	0	23	40	5	0	5	70	22	0	34	39	96	0	500
04:15 PM	83	74	16	0	13	55	4	0	3	88	15	0	27	44	88	0	510
04:30 PM	69	81	10	0	19	42	12	0	6	69	20	0	40	36	116	0	520
04:45 PM	96	69	17	0	22	60	12	0	6	79	15	0	32	47	109	0	564
Total	330	298	53	0	77	197	33	0	20	306	72	0	133	166	409	0	2094
05:00 PM	83	79	22	0	31	33	8	0	8	86	19	0	37	53	87	0	546
05:15 PM	108	120	22	0	28	46	14	0	4	89	19	0	34	44	105	0	633
05:30 PM	65	86	9	0	22	46	12	0	8	101	16	0	26	65	94	0	550
05:45 PM	81	75	14	0	18	32	4	0	4	95	24	0	27	45	92	0	511
Total	337	360	67	0	99	157	38	0	24	371	78	0	124	207	378	0	2240
Grand Total	667	658	120	0	176	354	71	0	44	677	150	0	257	373	787	0	4334
Apprch %	46.2	45.5	8.3	0	29.3	58.9	11.8	0	5.1	77.7	17.2	0	18.1	26.3	55.5	0	
Total %	15.4	15.2	2.8	0	4.1	8.2	1.6	0	1	15.6	3.5	0	5.9	8.6	18.2	0	
Unshifted	667	657	120	0	176	345	71	0	44	672	150	0	257	364	787	0	4310
% Unshifted	100	99.8	100	0	100	97.5	100	0	100	99.3	100	0	100	97.6	100	0	99.4
Bank 1	0	1	0	0	0	8	0	0	0	5	0	0	0	8	0	0	22
% Bank 1	0	0.2	0	0	0	2.3	0	0	0	0.7	0	0	0	2.1	0	0	0.5
Bank 2	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
% Bank 2	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0.3	0	0	0

SRF & Associates
3495 Winton Place, Bldg E-110
Rochester, NY, 14623

File Name : Commercial.Washington.PM.Peak
Site Code : 00033045
Start Date : 11/12/2013
Page No : 2

	N. Washington Street From North					W. Commercial Street From East					S. Washington Street From South					W. Commercial Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	96	69	17	0	182	22	**60**	12	0	**94**	6	79	15	0	100	32	47	**109**		**188**	564
05:00 PM	83	79	**22**			**31**					**8**		**19**			**37**					
05:15 PM	**108**	**120**	22	0	**250**	28	46	**14**	**0**	**88**	**4**	**89**	**19**	**0**	**112**	**34**	**44**	**105**	**0**	**183**	**633**
05:30 PM	65	86	9	0	160	22	46	12	0	80	8	**101**	16	0	**125**	26	**65**	94	0	185	550
Total Volume	352	354	70	0	776	103	185	46	0	334	26	355	69	0	450	129	209	395	0	733	2293
% App. Total	45.4	45.6	9	0		30.8	55.4	13.8	0		5.8	78.9	15.3	0		17.6	28.5	53.9	0		
PHF	.815	.738	.795	.000	.776	.831	.771	.821	.000	.888	.813	.879	.908	.000	.900	.872	.804	.906	.000	.975	.906
Unshifted	352	354	70	0	776	103	184	46	0	333	26	354	69	0	449	129	204	395	0	728	2286
% Unshifted							99.5					99.7					97.6				
Bank 1	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	4	0	0	4	6
% Bank 1	0	0	0	0	0	0	0.5	0	0	0.3	0	0.3	0	0	0.2	0	1.9	0	0	0.5	0.3
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0.1	0.0



Appendix B

Miscellaneous Traffic Data and Calculations

Village of East Rochester: DRAFT Level of Service Analysis Results

Seg_ID	Road Name	From	To	Len-gth (Ls)	Dir. of Sur.	Lanes (L)		ADT	Post. Spd. (SP_p)	Width of Pavement			Occ. Park. (OSPA)	Pavecon		Bike Lane Mark	Cross Sec.	Bicycle LOS	
						Th	Con			W_t	W_l	W_{ps}		PC_t	PC_l			Score	Grade
				(mi)		#			mph	(ft)	(ft)	(ft)	(%)	(1..5)	(1..5)	(Y/N)	(C/S)	(1..6)	(A..F)
1.0	Roosevelt Rd	Route 31	W Commercial St	0.54	NB	2	U	1,700	30	11.5	0.0	0	0	3.0	-	N	S	2.31	B
1.0				0.54	SB	2	U	1,700	30	11.5	0.0	0	0	3.0	-	N	S	2.31	B
2.0	W Commercial St	Roosevelt Rd	McKinley St	0.13	EB	4	U	13,583	30	18.5	0.0	0	0	4.0	-	N	C	3.12	C
2.0				0.13	WB	4	U	13,583	30	12.0	0.0	0	0	4.0	-	N	C	4.11	D
3.0	W Commercial St	McKinley St	Washington St	0.33	EB	4	U	13,583	30	12.0	0.0	8	25	4.0	-	N	C	4.13	D
3.0				0.33	WB	4	U	13,583	30	12.0	0.0	8	25	4.0	-	N	C	4.13	D
4.0	W Commercial St	Washington St	Garfield St	0.14	EB	2	U	6,390	30	11.0	0.0	7	75	4.0	-	N	C	4.23	D
4.0				0.14	WB	2	U	6,390	30	11.0	0.0	7	75	4.0	-	N	C	4.23	D
5.0	W Commercial St	Garfield St	Main St	0.15	EB	2	U	3,940	30	12.0	0.0	8	75	4.0	-	N	C	3.87	D
5.0				0.15	WB	2	U	3,940	30	12.0	0.0	18	75	4.0	-	N	C	3.87	D

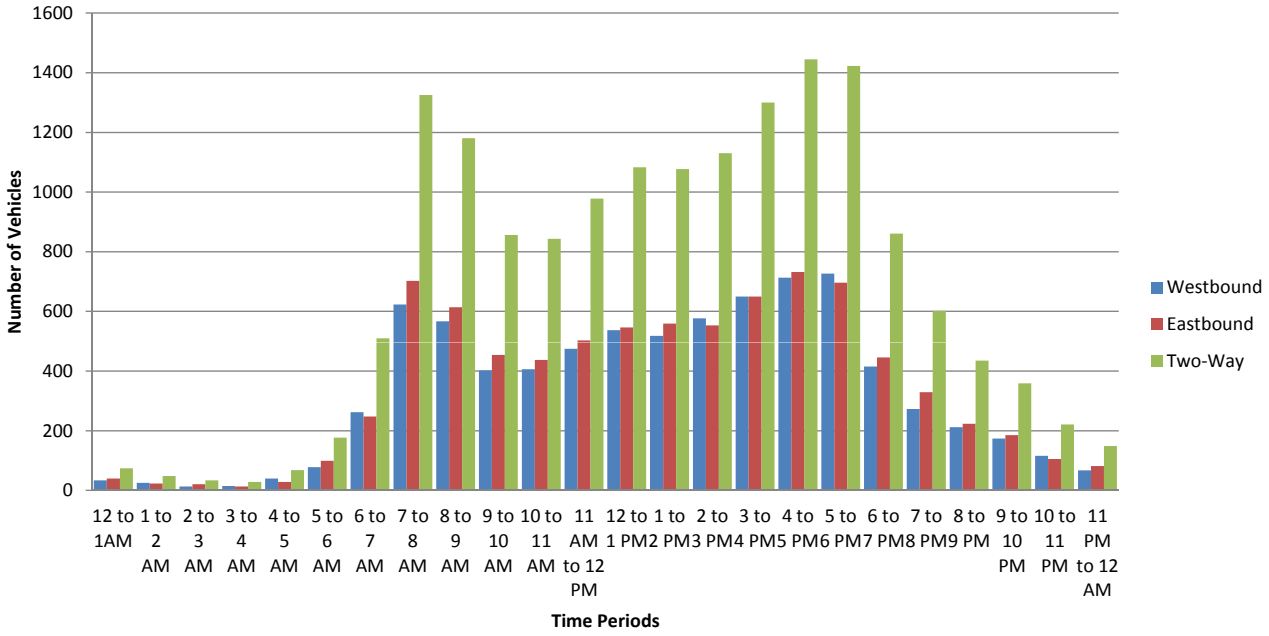
Transportation Improvement Study, Village of East Rochester, NY

Documentation of Ambient Traffic Volume Growth (AADT Volumes)

Roadway	Segment	1999	2003	2004	2006	2007	2009	2010	2011	Annual Growth
W Commercial St (RT 940)	I-490 to Washington St (NY 153)	14,330		12,900		13,580			15,790	0.8%
Washington St	31F to W Commercial St		10,910		9,940		8,880			-3.4%
Washington St	W Commercial St to Linden Ave		18,000		15,410			18,660		0.5%
									Average	-0.7%

November 2011 24-Hour NYSDOT Traffic Data

West Commercial from I-490 to Washington Street



Appendix C

Public Comments & Meeting Minutes

Project: East Rochester Transportation Improvement Study
Subject: Steering Committee #1 Kick-off Meeting
Meeting Date: Tuesday, October 15th 2013, 5PM – Village Hall Meeting Room

MEETING MINUTES/KEY ISSUES SUMMARY

Attendees:

- Village Board – Mike Flanigan
- Planning Board – Herbert R. Allen
- Zoning Board – Matt Fox
- Town of Pittsford – Rob Fromberger
- Genesee Transportation Council – Richard Perrin
- Village Residents – John Levato, Gene Giliaci
- Consultant Team - Stephen Ferranti, Matt Ingalls, John Steinmetz, David Kruse

Meeting Summary – Stephen Ferranti opened the meeting with team introductions and the team's approach to the project. Stephen transitioned into discussing the background materials used as a basis for early discovery and priority/goal setting for the project. Stephen turned the presentation over to Matt Ingalls to discuss the issues regarding the streetscape and public realm along W. Commercial Street primarily from I-490 to S/N Washington Street. David Kruse then discussed issues and points of discussion throughout the entire Town/Village. John Steinmetz spoke next regarding the project timeline and setting up the public workshop, how/where to advertise and the format of the meeting. David then briefly spoke about several inventory items performed. Stephen then finished the meeting addressing the next steps to be taken and adjoined the meeting at approximately 6:30pm.

- The intersections of Roosevelt Road and S/N Washington Street along W. Commercial Street intersection area high priority areas (especially for pedestrian crossings).
- The topic of safe crossings across W. Commercial Street was mentioned as the first item of discussion. In particular, it was noted that there are safety issues with individuals (school children, etc.) attempting to cross at the intersection of Roosevelt Road and Washington Street.
- The focus of the effort should be on the corridors that are used the most (e.g., W. Commercial Street).
- The currently under-construction multi-use athletic facility was mentioned immediately after the topic of pedestrian crossings. The facility is to house athletic fields (soccer, lacrosse), along with a fitness center, and will be in operation during nighttime hours.
- It was noted drivers travelling eastbound from I-490 are generally observed using the inside travel lane, leaving the outside lane largely underutilized. Ideas regarding solutions to enhance the streetscape fronting the residences between Roosevelt Road and McKinley Street were briefly discussed.
- The homes between Roosevelt Road and McKinley Street on the south side of W. Commercial Street are too close to the road.
    - There are no sidewalks along this stretch of roadway on the south side.
    - There is no tree lawn; leaving the environment unappealing.
    - Southernmost lane not formally marked as parking but could be used as such.
- Roosevelt Road acts as the dividing municipal line between East Rochester and the Town of Pittsford.
    - The Town of Pittsford does not allow – under current zoning regulations – new gasoline service stations within the Town.

  - The gasoline service station on the southwest corner is an eyesore and detracts from the aesthetics of the intersection. The lack of defined curb cuts entering the service station was mentioned.
- The 200 block of W. Commercial Street was noted as not having enough parking.
- There is a need to strengthen the connection between Woodland Estates and the intersection of Roosevelt Road and W. Commercial Street. There is a feeling of an orphaned community.
- Midblock crossing issues were mentioned, particularly at McKinley and Grant Streets.
- The growth of the mature trees along the northern side of W. Commercial Street in front of Piano Works has limited the visibility of the businesses. Therefore, businesses have placed sandwich board signs along W. Commercial to advertise.
- The setbacks of the buildings along W. Commercial Street between Roosevelt Road and S/N Washington Street were mentioned as a topic of interest. There is an inconsistent placement of structures along the northern and southern sides of W. Commercial Street.
  - Zoning will be discussed at a later date, but to what extent will be decided later.
  - The zoning code will be reviewed at minimum to assess the existing conditions and look for opportunities for solutions.
  - A figure ground illustration of the corridor will help assess the setbacks. These setbacks may be an opportunity (zoning can capitalize on this).
  - Generally there is an inconsistent streetscape between the north and south sides of W. Commercial Street.
- There was a trolley that ran the length of W. Commercial Street.
- Several of the attendees mentioned there is an increasing demand for walkable/urban environments.
- The side of Piano Works facing W. Commercial Street is actually the backside of the building; as the facility once fronted the rail road line.
- The entrance to Wendy's immediately west of the W. Commercial Street / S/N Washington Street intersection has been noted as being too close to the intersection.
  - Drivers making the southbound right movement quickly encounter customers entering the Wendy's driveway.
- The RTORs (Right Turn on Red) were noted as a cause for concern at the W. Commercial Street / S/N Washington Street intersection.
- N. Washington Street is not walkable.
- The segmentation of study corridors by priorities/needs were discussed and affirmed as a suitable course of action for the remainder of the project.
- The northern and southern neighborhoods of the Village are cut off from one another due to certain barriers (e.g., the rail road, sidewalk conditions along N. Washington Street at the rail road underpass).
  - There is a noted difficulty of walking to/from the northwestern section of the Village to the area near Wendy's.
- Parking within the 100 block (near Village offices) is critical.
- There are numerous annual events in the Village (e.g., Wednesday night summer concert series).
- There is a public open house scheduled for Monday, November 18th from 5-7/7:30PM
  - There will be a station with a revolving presentation and general project description materials
  - The Village can advertise through several outlets, such as Channel 12, website, Facebook, etc.

Re: East Rochester Transportation Improvement Study *October 15, 2013*
Steering Committee #1 Kick-off Meeting

Meeting adjourned at approximately 6:30 PM.

East Rochester Roadway Plan Comments

Washington Street to Main Street

- Commercial St/Washington St is an eye sore
- The area around Wendy's is confusing for pedestrians
- Commercial St/Washington St is dangerous to cross
    - The pedestrian signals do not operate correctly
    - The green left turn arrows are difficult for pedestrians
- The Wendy's driveway is unsafe due to its close proximity to the intersection
- People park in front of Salvatore's and the Youth Center on the south side of Commercial St (even though they shouldn't)
- Commercial St/West Maple Ave intersection is an accident area due to the one-way traffic flow exiting the minor roadway
    - Drivers have attempted to drive onto the road from Commercial St
- Parking on sidewalk in front of Northside Foreign Auto Repair
- Commercial St/Garfield St is an eye sore
- "Lighting is very good in town near most businesses"
- Optional delivery zone in front of western most municipal parking lot
- 100 block median is used for deliveries
    - Can be problematic
    - Trucks have blocked traffic
    - 3:30-4PM
    - "Why can't deliveries be made before 9AM each day?"
    - Delivery opt. to 5PM
    - "Truck delivery issues – less predominate parking"
- The parking area/building immediately west of Limoncello's is an issue
- Seniors may have difficulty with back-in parking (x2 – comments)
- People park in hatched spaces
- The area lacks adequate parking

Roosevelt Road to Washington Street

- "Image is everything in 2013"
- "It all starts here! Gateway to Village" [500 block]
- "ER is a walking school district. Would you let your walk from Woodland Estates down Commercial to the campus [ER Union Free School District]? Kid safety is necessary."
- Flashing speed sign near Commercial St/Roosevelt Rd intersection
- EB left-turn only lane with a thru/right turn lane
- Need speed humps in 500 block
- There is no sidewalk here [in 500 block]
- Speeds coming off the expressway run the traffic light
- Highlight Crossman more & historic businesses
- Concrest neighborhood is unique – improve and highlight?
- Put in median in 500 block and eliminate two lanes of traffic
- Green space needed in 500 block
- People have difficulty using their driveways in the 500 block on the south side of Commercial St
- "Increased pride/image"
- Desire for pedestrian crossings (x2)
- A changing demographic requires pedestrian orientation
- Constrict the roadway in both ways
    - Add a landscape median
    - Add more green space
- Commercial St/Grant St
    - Speeds are too fast – seniors concerned about exiting Grant St
    - Afraid to park in from of Antique Mall
    - "Accident prone"
    - "Pedestrian crossing"
    - "Red light"
    - "Corner parking spots block view of people trying to left turn - They're too close to the corner"
    - One-way only into Grant St?
- Lefts out of Piano Works is difficult
- Need another entrance to Piano Works
- Difficult to exit the two eastern-most driveways on the north side of Commercial St
- Wendy's driveway "Should be closed"
    - "Very awkward – agreed"
- Commercial St/Washington St
    - "Left green light on timer for peak"
    - "Most dangerous intersection [in my honest opinion]"
        - "Agreed"

East Rochester Tell Us What You Think Makes A Great Commercial Street

- High visibility crosswalk
- Pedestrian crosswalks
- Traffic calming
- Enforce speed limit
- Enforce speed limit
- Oasis for pedestrians
- Do you need 4 lanes from Washington to Roosevelt. How about 2
- Not pedestrian friendly
- Bus pull off. Better bus stops
- Stop light
- Bike lanes
- Right side visibility coming into village bad from cars parked behind homes. Slower speeds needed
- Too many empty parking spots on most days and nights Downtown
- Eliminate lane and add bump out and sidewalk
- Eliminate a lane and give people on Woodneath Cres more yard, parking area.
- Cross light in front of Suraces
- Extend sidewalk to Roosevelt from Crossmans (on commercial)
- Landscape median from Washington to Roosevelt
- Constrict road off 490 into Village, add more green. Add center median and do add more stop lights.
- Get rid of wendys driveway closest to Washington
- Better patrolling of speeders
- Dangerous intersection for pedestrian (Commercial @ Washington)
- Make this southern Entrance more green at Main @ West
- Raised crosswalks on commercial and green median
- Entire Entry from 490 onto commercial is uninviting and depressing to visitors
- Not safe for pedestrians to cross at Commercial @ Washington
- Removed pavement on South side of commercial between road and sidewalks
- Eliminate house on corner of Roosevelt @ Commercial and extend park to road and install gateway feature
- Add landscaped median
- Not easy for bikes or pedestrians to cross
- Less predominate parking downtown
- Not safe for pedestrians to cross Commercial @ Washington
- Needs green left arrow to N. Washington from Commercial
- Wendy’s entrance too close

East Rochester Tell Us What You Think Comments

Roosevelt Rd

- Speed bumps!!! Kids race there, very dangerous
- Speed bumps
- Create more green, better facades, cleaner sidewalks but starts with tenants/landlords

N/S Washington St

- Slow Traffic Down (S. Washington)
- Not pedestrian friendly (intersection)
- Unsafe to turn left from W. Ivy also turning left onto W. Ivy
- Flashing light for pedestrian to cross (push button at spruce)
- Better timing on traffic lights at Washington & Commercial. I can't run that fast!
- Signs in the street for pedestrian crossing
- Unsafe to turn left. Not safe for bike & pedestrians to cross
- Speed in town is too fast. Village needs to advertise that we WALK here – school kids & residents, we are green
- Traffic is good, create a way to make out of town workers to stay

Downtown

- More green space
- Pedestrian rest areas
- More trees
- More attractive parking lot
- Add more green space to downtown! Add center meridian
- Parking, pedestrian, bike, park

Main St.

- Create pedestrian/bike lane on park for access to park/pool

Outside Corridor Study

- Entire village create a transportation master plan with biking and walking as part of this plan
- Updated pedestrian crossings

Community Preference Survey (CPS) Results
East Rochester, NY
Transportation Improvement Study

These images summarize the CPS results from the November 2013, Community Open House. The images are presented based upon the results of the surveys beginning with the Least Desirable images (with a lowest possible score of 0) to the Most Desirable images (with a highest possible score of 10).

Image #1

Average Score:	0.62
Median Score:	0.00
% of Scores Less Than 4:	95%
% of Scores Greater Than 6:	0%

Image #14

Average Score:	1.05
Median Score:	1.00
% of Scores Less Than 4:	100%
% of Scores Greater Than 6:	0%

Image #12

Average Score:	1.33
Median Score:	1.00
% of Scores Less Than 4:	86%
% of Scores Greater Than 6:	0%

Image #18

Average Score:	1.48
Median Score:	1.00
% of Scores Less Than 4:	90%
% of Scores Greater Than 6:	0%

Image #17

Average Score:	1.76
Median:	1.00
% of Scores Less Than 4:	95%
% of Scores Greater Than 6:	5%

Image #10

Average Score:	1.76
Median Score:	2.00
% of Scores Less Than 4:	95%
% of Scores Greater Than 6:	0%

Image #8

Average Score:	2.05
Median Score:	2.00
% of Scores Less Than 4:	81%
% of Scores Greater Than 6:	10%

Community Preference Survey Results
East Rochester - Transportation Improvement Study

Steinmetz Planning Group
Page 2

Image #4	
Average Score:	2.33
Median Score:	2.00
% of Scores Less Than 4:	76%
% of Scores Greater Than 6:	0%

Image #16	
Average Score:	2.60
Median Score:	2.50
% of Scores Less Than 4:	75%
% of Scores Greater Than 6:	10%

Image #13	
Average Score:	3.70
Median Score:	4.00
% of Scores Less Than 4:	45%
% of Scores Greater Than 6:	15%

Image #15	
Average Score:	5.00
Median Score:	5.00
% of Scores Less Than 4:	25%
% of Scores Greater Than 6:	45%

Image #7

Average Score:	6.00
Median Score:	7.00
% of Scores Less Than 4:	19%
% of Scores Greater Than 6:	52%

Image #5

Average Score:	6.95
Median Score:	8.00
% of Scores Less Than 4:	19%
% of Scores Greater Than 6:	76%

Image #20

Average Score:	7.81
Median Score:	8.00
% of Scores Less Than 4:	0%
% of Scores Greater Than 6:	81%

Image #6

Average Score:	7.85
Median Score:	8.00
% of Scores Less Than 4:	0%
% of Scores Greater Than 6:	70%

Image #19

Average Score:	8.10
Median Score:	9.00
% of Scores Less Than 4:	0%
% of Scores Greater Than 6:	81%

Image #11

Average Score:	8.15
Median Score:	9.00
% of Scores Less Than 4:	5%
% of Scores Greater Than 6:	85%

Image #9

Average Score:	8.29
Median Score:	8.00
% of Scores Less Than 4:	0%
% of Scores Greater Than 6:	90%

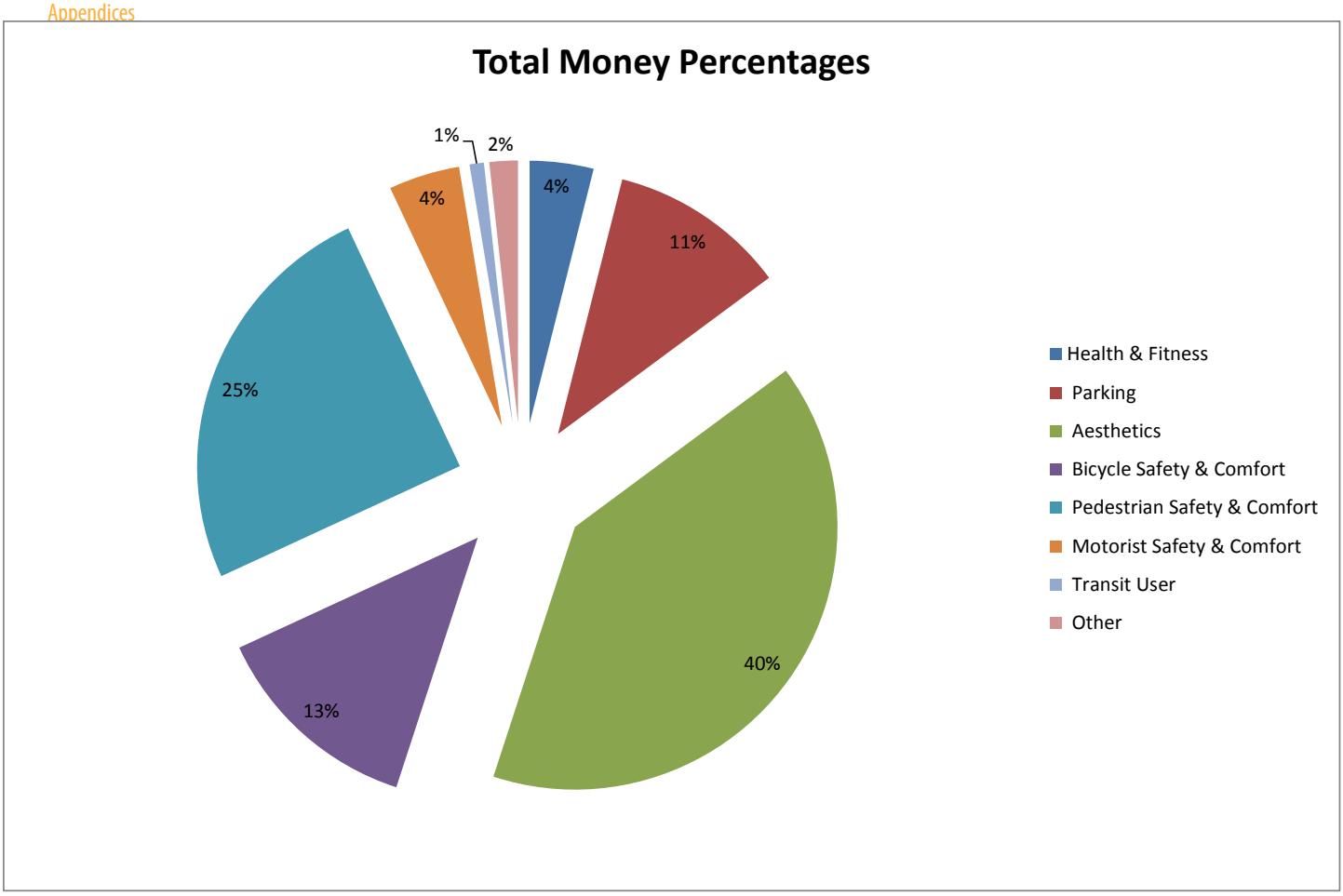
Image #3

Average Score:	8.67
Median Score:	9.00
% of Scores Less Than 4:	0%
% of Scores Greater Than 6:	90%

Image #2	
Average Score:	9.10
Median Score:	9.00
% of Scores Less Than 4:	0%
% of Scores Greater Than 6:	100%

NOTES:

1. Image Sources Include: Steinmetz Planning Group
   Ingalls Planning & Design
   Urban Advantage
2. These pictures may not be re-produced without written permission.



Money Category	Open House Issues	Money Spent	Money %
Aesthetics & Green Space	Aesthetics/green space, center median, facades	$9,200	40%
Pedestrian Safety & Comfort	Pedestrian crossings/ safety/ facilities, center median, road diet, traffic calming/speeding, parking, sidewalks	$5,700	25%
Bicycle Safety & Comfort	Bike safety/facilties, road diet	$3,000	13%
Parking	Parking availability, truck deliveries	$2,500	11%
Motorist Safety & Comfort	Center median, road diet, traffic calming/speeding, access management/driveways	$1,000	4%
Health & Fitness	Pedestrian crossings/ safety/ facilities, bike safety/facilties, aesthetics/green space	$900	4%
Other		$400	2%
Transit	Transit stops	$200	1%
	Total	**$22,900**	100%

Project: East Rochester Transportation Improvement Study
Subject: Steering Committee #2 Meeting
Meeting Date: Tuesday, January 21st 2013, 5PM – Village Hall Meeting Room

MEETING MINUTES/KEY ISSUES SUMMARY

Attendees:

- Village Board – Mike Flanigan
- Planning Board – Herbert R. Allen
- Town of Pittsford – Rob Fromberger
- Genesee Transportation Council – Richard Perrin
- New York State Department of Transportation – Dan Hallowell
- Village Residents – John Levato, Gene Giliaci
- Consultant Team - Stephen Ferranti, Matt Ingalls, John Steinmetz, David Kruse

Meeting Summary – Stephen Ferranti opened the meeting with attendee introductions and an overview of the meeting's agenda. Mr. Ferranti briefly spoke about the status of the project timeline and process and transitioned into discussing the inventory & analysis items covered in the Phase One Draft Report. Mr. Ferranti finished his discussion talking about the project's goals. John Steinmetz began speaking about the results from the Community Preference Survey exercise conducted at the Public Open House in November 2013. Following Mr. Steinmetz's discussion, David Kruse spoke about the other public input opportunities both from the Open House (e.g., movement vs. sense of place, budget exercise, "tell us what you think" board) and the collaborative map. Afterwards, Matt Ingalls presented the preliminary alternatives for the section of West Commercial Street from Washington Street to Roosevelt Road. Mr. Steinmetz introduced zoning opportunities and on-site parking alternatives (along West Commercial Street between Washington Street and McKinley Street) as it relates to zoning/regulatory modifications. Mr. Ferranti concluded the meeting with mentioning other preliminary alternatives developed and the next steps upon adjournment from the meeting.

- The intersections of Roosevelt Road and S/N Washington Street along W. Commercial Street intersection area high priority areas (especially for pedestrian crossings).
- Report comments
  - Town of Greece is listed in funding text
  - Page 27 – Should say West Commercial Street not East Commercial Street
- Most truck traffic is coming and going to Despatch Drive, which is a light industrial area.
  - Trucks have a hard time turning at the West Commercial Street / N. Washington Street intersection.
- Large trucks are rarely seen serving businesses along West Commercial Street between N. Washington and Roosevelt Road. If they do, they must use the rear area of Piano Works .
  - Large trucks occasionally park briefly in the right travel lane travelling westbound to patronize Tim Hortons.
- There are a few large trucks that serve businesses in the downtown area.
  - They use the center turn lane
- The West Commercial Street / N. Washington Street intersection is a problem for pedestrians.
  - *"it flows because it was designed for traffic, not people"*
- Demographics are changing in the Village
  - Lower income means more pedestrians and bicyclists

- Alternatives
    - We must improve pedestrian crossings anyway we can
    - There could be another alternative that combines aspects of #1 and #2
        - Take alternative #1 and make bike lane and parking bay wider
    - Should we consider transit stops?
    - The removal of the asphalt in the tree lawn along the south side could be phased. Could also include school children painting the asphalt.
    - Raised and flush medians should be considered
        - Could help with left turn accidents

Meeting adjourned at approximately 7:00 PM.

Project: East Rochester Transportation Improvement Study
Subject: New York State Department of Transportation Meeting
Meeting Date: Thursday, February 27th, 2014, 8:30AM – NYSDOT Offices (Jefferson Rd)

MEETING MINUTES

Attendees:

- New York State Department of Transportation – David Goehring
- New York State Department of Transportation – Paul Spitzer
- New York State Department of Transportation – Dan Hallowell
- Consultant Team - Stephen Ferranti, David Kruse

Meeting Comments:

- An eastbound left-turn green arrow is not practical at 31F/Main Street.
  - There would be excessive delays.
  - The signal is currently coordinated between the signals at Marsh Road and Washington Street.
  - A right-turn on red (RTOR) restriction was considered in the past; however, it would negatively impact the ability of RTS buses turning onto Main Street.
  - The green time for pedestrians crossing 31F was increased by NYSDOT.
- Downtown (100 block) back-in angle parking may be concerning.
  - There have been mixed reviews from communities with back-in angled parking.
    - Plattsburg has removed the spaces.
- A raised median on the easternmost portion of the 100 block would be applicable.
- The Rochester Regional Community Design Center's (RRCDC) concept for West Commercial Street should be updated to address the taper length for traffic coming off I-490.
  - Additionally, an eastbound left-turn lane is needed at the Roosevelt Road.
- NYSDOT prefers a 2' offset with an 11' travel lane; however, offsets between 1' and 2' may vary depending on local conditions (speeds, travel lanes).
- Bus stop locations should be identified and considered throughout the design alternatives.
- A right-turn channelized island is not preferred at the West Commercial Street/Washington Street intersection.
  - Truck traffic conditions need to be considered prior to removal of eastbound right-turn lane.
- NYSDOT supports relocating Wendy's driveway
- NYSDOT prefers, in order: Alternative 1, Alternative 2, Alternative 3
  - The median in Alt 2 is marginal given its relatively short length.
  - The flush contrasting media is not highly favored due to long term maintenance and life cycle costs (Alt 3).
- Road diet examples mentioned by NYSDOT were Batavia, Avon, and Arcadia.
- The conceptual crosswalks at McKinley and Grant Streets are supported.
  - Continental crosswalk style preferred.
  - Interpretive piano key design supported at Piano Works driveway.
  - Rectangular Rapid Flashing Beacon treatment supported at more common pedestrian locations.
- Alternative with no curb relocation requested.

Meeting adjourned at approximately 10:30AM.

Project: East Rochester Transportation Improvement Study
Subject: Steering Committee #3 Meeting
Meeting Date: Tuesday, March 4th, 2014, 5PM, Village Hall Meeting Room

MEETING MINUTES

Attendees:

- Village Board – Mike Flanigan
- Planning Board – Herbert R. Allen
- Town of Pittsford – Rob Fromberger
- Genesee Transportation Council – Richard Perrin
- New York State Department of Transportation – Dan Hallowell
- Monroe County Department of Transportation – Brent Penwarden
- Village Residents – John Levato, Gene Filiaci
- Consultant Team - Stephen Ferranti, Matt Ingalls, John Steinmetz, David Kruse

Meeting Summary – Stephen Ferranti opened the meeting with an overview of the meeting's agenda. Mr. Ferranti briefly spoke about what the Consulting Team has heard from the public and the public input plan used throughout the process. Mr. Ferranti began speaking about the West Commercial Street Alternatives within the 100 block. John Steinmetz initiated the discussion on downtown design guidelines and considerations. Mr. Steinmetz transitioned into the 200 block by talking about the land use characteristics found throughout that section today and future land use/design considerations. Afterwards, Mr. Ferranti discussed the alternatives within the Roosevelt Road to Washington Street section. Matt Ingalls led the discussion on urban design considerations in relation to streetscape enhancements and access management treatments. Mr. Ingalls spoke of the importance of neighborhood branding/identity as it relates to the project's unique neighborhoods. Mr. Ferranti concluded the meeting with highlighting other recommendations the Consulting Team is putting forth, review the project timeline, and provided next steps prior to the March 25th, 2014 Public Open House.

- Main Street to Garfield Street
  - Monroe County DOT favors back-in angled parking.
  - Loading zones should be present to avoid deterring businesses.
  - Importance of intent and purpose as it relates to codifying building design.
- Garfield Street to Washington Street
  - This section used to be residential.
  - Auto service shops cause issues.
  - Not enough parking for the west end of the section.
  - Over time, the auto service shops can be redeveloped into public parking lots.
- Washington Street to I-490
  - Chances of getting funding for curb relocation increases with a measurable safety benefit.
    - Highway Safety Improvement Program
    - Transportation Enhancements
    - Etc.
  - A median may be problematic between Roosevelt Road and Washington Street.
  - Committee would prefer median on I-490 ramp.
- Elm Street is preferred as a conceptual bike boulevard.

Meeting adjourned at approximately 7PM.

Project: East Rochester Transportation Improvement Study
Subject: Public Open House #2
Meeting Date: Tuesday, March 25th, 2014, 5PM, Jean Daniel Senior Center

MEETING MINUTES

Attendees:

- Fred Ricci – East Rochester Mayor
- Village Board – Mike Flanigan
- Planning Board – Herbert R. Allen
- Town of Pittsford – Rob Fromberger
- Genesee Transportation Council – Richard Perrin
- New York State Department of Transportation – Dan Hallowell
- Monroe County Department of Transportation – Brent Penwarden
- Village Residents – twelve village residents
- Village Engineer – Ed Parrone
- Consultant Team - Stephen Ferranti, Matt Ingalls, John Steinmetz, David Kruse, Mike Bouwmeester

Meeting Summary – The Public Open House began at 5:00pm with multiple stations available for viewing. Residents were asked to sign in and view the various preferred alternatives and preliminary recommendations & concepts. The three alternatives for West Commercial Street from Roosevelt Road to Washington Street were displayed in large print format in the middle of the room. There, attendees were asked to review and provide any comments culminating in an interactive vote for the preferred alternative. Other stations included urban design and streetscaping elements, land use/zoning regulations, the Western Gateway Design Treatment, downtown East Rochester alternatives, and various pedestrian/bicycle linkages. A brief summary of comments in listed below:

- The majority of the feedback (15/16 votes) voted for Alternative 3 for West Commercial Street.
    - Comments associated with the Alternative 3 votes were:
        - Making improvements for motorists at the Washington Street/West Commercial Street intersection turning from Washington onto Commercial travelling east towards Main Street.
        - The north side of West Commercial should have street trees as well. In the short-term, street trees should be planted where appropriate in the ROW. In the long-term, street trees should be planted in the wider tree lawn.
        - There should be a school crossing at Washington Street/Ivy Street intersection.
        - Bus stop locations should be carefully located
        - Travel lane and center turn lane width can be reduced further without impact on operations (e.g. 11’ travel lanes and 12’ center TWLTL)
- There was one vote for Alternative 1.
    - The voter noted the existing Wendy’s driveway should be removed from West Commercial Street. Additionally, the voter expressed a desire for a No Turn On Red for the northbound right movement at the Washington Street/West Commercial Street intersection.
- Feedback was positive towards Alternative 3 (for those that didn’t vote).

- Attendees inquired about the potential to increase the additional space on the south more than 8-9 feet.
- One question was asked regarding transit and its incorporation into the alternative plans. At the time of the Open House, officials from RGRTA were reviewing the alternatives to provide design considerations moving forward.
- Attendees were supportive of the traffic control and ped/bike linkage enhancement locations.
- The Western Gateway Treatment was viewed positively.
- The Urban Design components received positive feedback.
- Attendees liked the conceptual community branding ideas.
- One attendee provided the following feedback via a written response to the Open House:
    - There needs to be more awareness of the proximity and relevance of nearby trail systems (e.g., Erie Canal Trail and Rochester, Syracuse, and Eastern Trolley Trail)
    - Gap closure and barrier improvements at Washington/Linden and areas north of study area
    - Gap closure and barrier improvements between East Rochester and St. John Fisher College and beyond
    - Ped/bike enhancements near Fairport Road/Marsh Road and surrounding areas
    - The railroad tracks act as a barrier for people travelling between the northern and southern portions of the Village
        - Design considerations should be made to address the western end (near Gleason Estates and Linden Oaks Office Park)

Meeting adjourned at approximately 7:30PM.

Project: East Rochester Transportation Improvement Study
Subject: Steering Committee #4 Meeting
Meeting Date: Tuesday, May 7th, 2014, 5 PM, Village Hall Meeting Room

MEETING MINUTES

Attendees:

- Village Board – Mike Flanigan
- Planning Board – Herbert R. Allen
- Town of Pittsford – Rob Fromberger
- Genesee Transportation Council – Richard Perrin
- New York State Department of Transportation – Lora Barnhill
- Monroe County Department of Transportation – Brent Penwarden
- Village Residents – John Levato, Gene Filiaci
- Zoning Board of Appeals – Matt Fox
- Consultant Team - Stephen Ferranti, Matt Ingalls, John Steinmetz, David Kruse

Meeting Summary – Stephen Ferranti opened the meeting with an overview of the meeting's agenda. Mr. Ferranti briefly spoke about what the Consulting Team has heard from the Public Open House held on March 25. He then began speaking about the West Commercial Street preferred alternatives starting with the 100 block. Matt Ingalls followed the discussion speaking to the urban design and street components for the section. John Steinmetz began the discussion regarding the 200 block by talking about the land use characteristics found throughout that section today and spoke briefly about future land use/design recommendations; for which he returned to towards the end of the presentation. Mr. Ingalls spoke of the design recommendations for the block as it relates to the street wall rhythm and a potential future redevelopment opportunity. Afterwards, Mr. Ferranti discussed the preferred alternative within the Roosevelt Road to Washington Street section. Matt Ingalls led the discussion on urban design considerations in relation to streetscape enhancements, neighborhood branding, and other recommendations such as green infrastructure and reconstituting the Sidewalk Installation Program. David Kruse spoke briefly about traffic control and multi-modal enhancement recommendations and the western gateway treatment. Mr. Steinmetz finished the presentation speaking about regulatory and zoning code, and access management recommendations. Mr. Ferranti concluded the presentation with discussing the next steps (i.e., cost estimates, implementation & funding, finalize report based upon comments received from the Steering Committee, and presenting to the Village/Town Board in June).

- Main Street to Garfield Street (100 Block)
  - It was noted that funding for the recommendations should be focused elsewhere, particularly between Roosevelt Road and Washington Street.
  - The landscaping recommendations were supported.
- Garfield Street to Washington Street (200 Block)
  - The recommendations were supported.
- Washington Street to I-490 (300, 400, & 500 Blocks)
  - The preferred alternative and accompanying recommendations were supported.
- The remaining physical recommendations were supported.
- Rich Perrin, John Steinmetz, Herb Allen, et al spoke about the importance of establishing the zoning code recommendations to maximize the efforts/recommendations of this study.

- Stephen Ferranti, Rich Perrin, Brent Penwarden, et al discussed the benefits and challenges of access management as it relates to West Commercial Street.
    - The policies can be established now, but will realistically take effect over the next 5-15 years as land uses change and agreements between land owners are made.
- Community apathy was noted as it related to the number of attendees to the Open Houses
    - Rich Perrin explained that multi-million dollar projects receive low turnout despite exhaustive outreach efforts.
    - It was noted that turnout can depend on the topic in focus, support or lack thereof for the project, and/or type of project (e.g., planning study versus design/construction plan).
- Action items included clarifying the access management illustration on page 85 and ensuring the Zoning Board of Appeals and Planning Board are included in the invitation to the Village/Town Board meeting presentation of this Plan on the 2nd Thursday on June.

Meeting adjourned at approximately 6:30 PM.

Appendix D

Existing Level of Service Results

East Rochester CAP
2: Main St & W Commercial St

Exisitng Conditions - AM Peak Hour
11/14/2013

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	113	91	116	11	11	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	60	0	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.901	
Flt Protected	0.950			0.956		
Satd. Flow (prot)	1770	1583	0	1781	1678	0
Flt Permitted	0.950			0.718		
Satd. Flow (perm)	1770	1583	0	1337	1678	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		117			44	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1458			610	567	
Travel Time (s)	33.1			13.9	12.9	
Peak Hour Factor	0.78	0.78	0.93	0.93	0.70	0.70
Adj. Flow (vph)	145	117	125	12	16	44
Shared Lane Traffic (%)						
Lane Group Flow (vph)	145	117	0	137	60	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	NA	Perm	Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4	2			
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	
Act Effct Green (s)	30.0	30.0		30.0	30.0	
Actuated g/C Ratio	0.43	0.43		0.43	0.43	
v/c Ratio	0.19	0.16		0.24	0.08	
Control Delay	13.3	3.3		14.2	5.9	

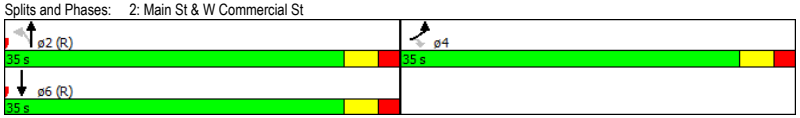
East Rochester CAP
2: Main St & W Commercial St

Exisitng Conditions - AM Peak Hour
11/14/2013

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	13.3	3.3		14.2	5.9	
LOS	B	A		B	A	
Approach Delay	8.9			14.2	5.9	
Approach LOS	A			B	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.24			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 28.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Main St & W Commercial St



East Rochester CAP — Exisitng Conditions - AM Peak Hour
5: S Washington St & W Commercial St — 11/14/2013

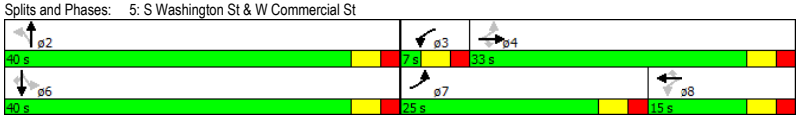
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	338	203	82	23	157	67	103	248	16	64	332	416
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	110		0	400		400
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.991				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1846	0	1770	1863	1583
Flt Permitted	0.440			0.616			0.374			0.458		
Satd. Flow (perm)	820	1863	1583	1147	1863	1583	697	1846	0	853	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			95			164		5				443
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1060			102			1226			618	
Travel Time (s)		24.1			2.3			27.9			14.0	
Peak Hour Factor	0.89	0.89	0.89	0.85	0.85	0.85	0.89	0.89	0.89	0.94	0.94	0.94
Adj. Flow (vph)	380	228	92	27	185	79	116	279	18	68	353	443
Shared Lane Traffic (%)												
Lane Group Flow (vph)	380	228	92	27	185	79	116	297	0	68	353	443
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	3	8	8	2	2		6	6	6

East Rochester CAP — Exisitng Conditions - AM Peak Hour
5: S Washington St & W Commercial St — 11/14/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	9.0	23.0	23.0	9.0	23.0	23.0	23.0	23.0		23.0	23.0	23.0
Total Split (s)	25.0	33.0	33.0	7.0	15.0	15.0	40.0	40.0		40.0	40.0	40.0
Total Split (%)	31.3%	41.3%	41.3%	8.8%	18.8%	18.8%	50.0%	50.0%		50.0%	50.0%	50.0%
Maximum Green (s)	20.0	28.0	28.0	2.0	10.0	10.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None		None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	0
Act Effct Green (s)	31.6	29.3	29.3	11.9	9.8	9.8	18.7	18.7		18.7	18.7	18.7
Actuated g/C Ratio	0.52	0.48	0.48	0.20	0.16	0.16	0.31	0.31		0.31	0.31	0.31
v/c Ratio	0.55	0.25	0.11	0.11	0.61	0.20	0.54	0.52		0.26	0.62	0.56
Control Delay	14.0	13.4	4.1	14.3	38.5	1.1	28.0	20.5		18.6	23.0	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	14.0	13.4	4.1	14.3	38.5	1.1	28.0	20.5		18.6	23.0	4.8
LOS	B	B	A	B	D	A	C	C		B	C	A
Approach Delay		12.5			26.1			22.6			13.3	
Approach LOS		B			C			C			B	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 60.7	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 16.4	Intersection LOS: B
Intersection Capacity Utilization 66.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 5: S Washington St & W Commercial St



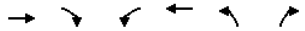
East Rochester CAP — Exisitng Conditions - AM Peak Hour
8: Roosevelt Rd/Country Club Rd & W Commercial St — 11/14/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	685	7	28	556	20	69	14	15	48	28	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.995			0.980			0.934	
Flt Protected		0.997			0.998			0.966			0.984	
Satd. Flow (prot)	0	3525	0	0	3514	0	0	1763	0	0	1712	0
Flt Permitted		0.873			0.889			0.709			0.875	
Satd. Flow (perm)	0	3087	0	0	3131	0	0	1294	0	0	1522	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			9			14			77	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1332			531			354	
Travel Time (s)		20.3			30.3			12.1			8.0	
Peak Hour Factor	0.81	0.81	0.81	0.89	0.89	0.89	0.77	0.77	0.77	0.81	0.81	0.81
Adj. Flow (vph)	57	846	9	31	625	22	90	18	19	59	35	90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	912	0	0	678	0	0	127	0	0	184	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	40.0	40.0		40.0	40.0		20.0	20.0		20.0	20.0	
Total Split (%)	66.7%	66.7%		66.7%	66.7%		33.3%	33.3%		33.3%	33.3%	
Maximum Green (s)	35.0	35.0		35.0	35.0		15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)							7.0	7.0		7.0	7.0	
Flash Dont Walk (s)							11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effct Green (s)		22.1			22.1			18.3			18.3	
Actuated g/C Ratio		0.44			0.44			0.36			0.36	
v/c Ratio		0.67			0.49			0.27			0.31	
Control Delay		13.7			10.9			14.4			10.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.7			10.9			14.4			10.4	
LOS		B			B			B			B	
Approach Delay		13.7			10.9			14.4			10.4	
Approach LOS		B			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 50.5			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 12.4		Intersection LOS: B	
Intersection Capacity Utilization 60.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: Roosevelt Rd/Country Club Rd & W Commercial St



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	695	14	10	617	16	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.997				0.946	
Flt Protected				0.999	0.971	
Satd. Flow (prot)	3529	0	0	3536	1711	0
Flt Permitted				0.999	0.971	
Satd. Flow (perm)	3529	0	0	3536	1711	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1332			1060	390	
Travel Time (s)	30.3			24.1	8.9	
Peak Hour Factor	0.84	0.84	0.90	0.90	0.68	0.68
Adj. Flow (vph)	827	17	11	686	24	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	844	0	0	697	40	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	695	14	10	617	16	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	90	90	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	827	17	11	686	24	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	844	0	1201	422
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	365	-
Follow-up Headway	-	-	2.22	-	3.52	3.32
Pot Capacity-1 Maneuver	-	-	788	-	177	580
Stage 1	-	-	-	-	386	-
Stage 2	-	-	-	-	673	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	788	-	173	580
Mov Capacity-2 Maneuver	-	-	-	-	173	-
Stage 1	-	-	-	-	386	-
Stage 2	-	-	-	-	658	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	22.8
HCM LOS			C

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	242	-	-	788	-
HCM Lane V/C Ratio	0.164	-	-	0.014	-
HCM Control Delay (s)	22.8	-	-	9.634	0.1
HCM Lane LOS	C			A	A
HCM 95th %tile Q(veh)	0.576	-	-	0.043	-

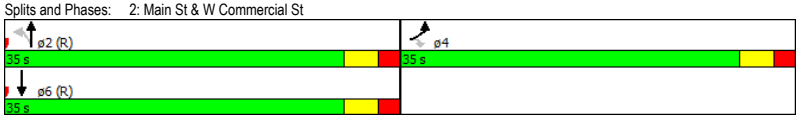
Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	59	141	74	24	20	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	60	0	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.886	
Flt Protected	0.950			0.964		
Satd. Flow (prot)	1770	1583	0	1796	1650	0
Flt Permitted	0.950			0.721		
Satd. Flow (perm)	1770	1583	0	1343	1650	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		158			149	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1458			610	567	
Travel Time (s)	33.1			13.9	12.9	
Peak Hour Factor	0.89	0.89	0.94	0.94	0.75	0.75
Adj. Flow (vph)	66	158	79	26	27	149
Shared Lane Traffic (%)						
Lane Group Flow (vph)	66	158	0	105	176	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	NA	Perm	Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4	2			
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	
Act Effct Green (s)	30.0	30.0		30.0	30.0	
Actuated g/C Ratio	0.43	0.43		0.43	0.43	
v/c Ratio	0.09	0.21		0.18	0.22	
Control Delay	12.4	3.1		13.5	4.2	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	12.4	3.1		13.5	4.2	
LOS	B	A		B	A	
Approach Delay	5.9			13.5	4.2	
Approach LOS	A			B	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.22			
Intersection Signal Delay: 6.9		Intersection LOS: A	
Intersection Capacity Utilization 29.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Main St & W Commercial St



East Rochester CAP — Exisitng Conditions - PM Peak Hour
5: S Washington St & W Commercial St — 11/14/2013

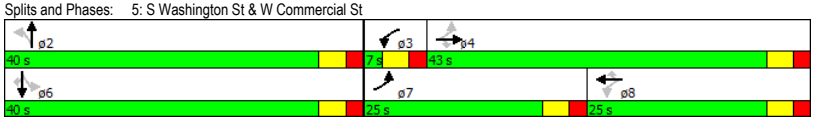
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	395	209	129	46	185	103	69	355	26	70	354	352
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	110		0	400		400
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.990				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1844	0	1770	1863	1583
Flt Permitted	0.401			0.625			0.263			0.302		
Satd. Flow (perm)	747	1863	1583	1164	1863	1583	490	1844	0	563	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			132			145		5				451
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1060			102			1226			618	
Travel Time (s)		24.1			2.3			27.9			14.0	
Peak Hour Factor	0.98	0.98	0.98	0.89	0.89	0.89	0.90	0.90	0.90	0.78	0.78	0.78
Adj. Flow (vph)	403	213	132	52	208	116	77	394	29	90	454	451
Shared Lane Traffic (%)												
Lane Group Flow (vph)	403	213	132	52	208	116	77	423	0	90	454	451
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	3	8	8	2	2		6	6	6

East Rochester CAP — Exisitng Conditions - PM Peak Hour
5: S Washington St & W Commercial St — 11/14/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	9.0	23.0	23.0	9.0	23.0	23.0	23.0	23.0		23.0	23.0	23.0
Total Split (s)	25.0	43.0	43.0	7.0	25.0	25.0	40.0	40.0		40.0	40.0	40.0
Total Split (%)	27.8%	47.8%	47.8%	7.8%	27.8%	27.8%	44.4%	44.4%		44.4%	44.4%	44.4%
Maximum Green (s)	20.0	38.0	38.0	2.0	20.0	20.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None		None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	0
Act Effct Green (s)	36.9	33.2	33.2	15.4	13.3	13.3	24.4	24.4		24.4	24.4	24.4
Actuated g/C Ratio	0.51	0.46	0.46	0.21	0.19	0.19	0.34	0.34		0.34	0.34	0.34
v/c Ratio	0.63	0.25	0.16	0.19	0.60	0.28	0.46	0.67		0.47	0.72	0.54
Control Delay	17.2	15.4	3.8	17.5	36.9	5.1	30.1	26.4		29.0	28.3	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	17.2	15.4	3.8	17.5	36.9	5.1	30.1	26.4		29.0	28.3	4.6
LOS	B	B	A	B	D	A	C	C		C	C	A
Approach Delay		14.3			24.4			27.0			17.6	
Approach LOS		B			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 71.8			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 19.4		Intersection LOS: B	
Intersection Capacity Utilization 72.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 5: S Washington St & W Commercial St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	549	42	30	638	37	29	18	34	33	17	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.992			0.943			0.958	
Flt Protected		0.995			0.998			0.982			0.978	
Satd. Flow (prot)	0	3486	0	0	3504	0	0	1725	0	0	1745	0
Flt Permitted		0.786			0.899			0.896			0.866	
Satd. Flow (perm)	0	2754	0	0	3156	0	0	1574	0	0	1545	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			20			39			26	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1332			531			354	
Travel Time (s)		20.3			30.3			12.1			8.0	
Peak Hour Factor	0.87	0.87	0.87	0.80	0.80	0.80	0.88	0.88	0.88	0.87	0.87	0.87
Adj. Flow (vph)	69	631	48	38	798	46	33	20	39	38	20	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	748	0	0	882	0	0	92	0	0	84	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	45.0	45.0		45.0	45.0		15.0	15.0		15.0	15.0	
Total Split (%)	75.0%	75.0%		75.0%	75.0%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	40.0	40.0		40.0	40.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)							7.0	7.0		7.0	7.0	
Flash Dont Walk (s)							11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effct Green (s)		20.5			20.5			18.3			18.3	
Actuated g/C Ratio		0.42			0.42			0.37			0.37	
v/c Ratio		0.64			0.66			0.15			0.14	
Control Delay		13.3			13.4			9.2			10.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.3			13.4			9.2			10.3	
LOS		B			B			A			B	
Approach Delay		13.3			13.4			9.2			10.3	
Approach LOS		B			B			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 48.9			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 13.0		Intersection LOS: B	
Intersection Capacity Utilization 56.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: Roosevelt Rd/Country Club Rd & W Commercial St

East Rochester CAP
13: Grant St & W Commercial St

Exisitng Conditions - PM Peak Hour
11/14/2013

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	630	25	31	687	11	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.994				0.917	
Flt Protected				0.998	0.981	
Satd. Flow (prot)	3518	0	0	3532	1676	0
Flt Permitted				0.998	0.981	
Satd. Flow (perm)	3518	0	0	3532	1676	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1332			1060	390	
Travel Time (s)	30.3			24.1	8.9	
Peak Hour Factor	0.96	0.96	0.79	0.79	0.64	0.64
Adj. Flow (vph)	656	26	39	870	17	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	682	0	0	909	44	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

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

East Rochester CAP
13: Grant St & W Commercial St

Exisitng Conditions - PM Peak Hour
11/14/2013

Intersection	
Intersection Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	630	25	31	687	11	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	79	79	64	64
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	656	26	39	870	17	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	682	0	1182	341
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	513	-
Follow-up Headway	-	-	2.22	-	3.52	3.32
Pot Capacity-1 Maneuver	-	-	907	-	183	655
Stage 1	-	-	-	-	471	-
Stage 2	-	-	-	-	566	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	907	-	168	655
Mov Capacity-2 Maneuver	-	-	-	-	168	-
Stage 1	-	-	-	-	471	-
Stage 2	-	-	-	-	519	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	18.7
HCM LOS			C

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	306	-	-	907	-
HCM Lane V/C Ratio	0.143	-	-	0.043	-
HCM Control Delay (s)	18.7	-	-	9.149	0.3
HCM Lane LOS	C			A	A
HCM 95th %tile Q(veh)	0.493	-	-	0.135	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Appendix E

Future No-Build Level of Service Results

East Rochester CAP
2: Main St & W Commercial St

Future No Build Conditions - AM Peak Hour
2/13/2014

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	113	91	116	11	11	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	60	0	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.901	
Flt Protected	0.950			0.956		
Satd. Flow (prot)	1770	1583	0	1781	1678	0
Flt Permitted	0.950			0.698		
Satd. Flow (perm)	1770	1583	0	1300	1678	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		140			53	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1458			610	567	
Travel Time (s)	33.1			13.9	12.9	
Peak Hour Factor	0.78	0.78	0.93	0.93	0.70	0.70
Growth Factor	120%	120%	120%	120%	120%	120%
Adj. Flow (vph)	174	140	150	14	19	53
Shared Lane Traffic (%)						
Lane Group Flow (vph)	174	140	0	164	72	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4	2			
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	
Act Effct Green (s)	30.0	30.0		30.0	30.0	
Actuated g/C Ratio	0.43	0.43		0.43	0.43	
v/c Ratio	0.23	0.18		0.29	0.10	

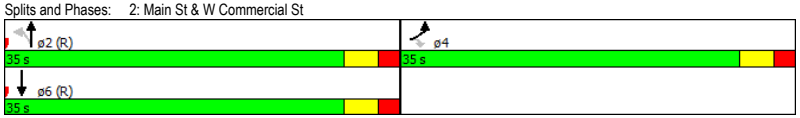
East Rochester CAP
2: Main St & W Commercial St

Future No Build Conditions - AM Peak Hour
2/13/2014

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Control Delay	13.7	3.2		14.9	5.7	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	13.7	3.2		14.9	5.7	
LOS	B	A		B	A	
Approach Delay	9.0			14.9	5.7	
Approach LOS	A			B	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.29			
Intersection Signal Delay: 10.4		Intersection LOS: B	
Intersection Capacity Utilization 30.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Main St & W Commercial St

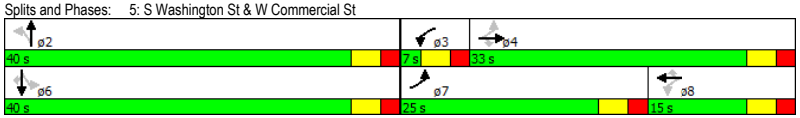


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	338	203	82	23	157	67	103	248	16	64	332	416
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	110		0	400		400
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.991				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1846	0	1770	1863	1583
Flt Permitted	0.349			0.591			0.301			0.390		
Satd. Flow (perm)	650	1863	1583	1101	1863	1583	561	1846	0	726	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			111			164		5				531
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1060			102			1226			618	
Travel Time (s)		24.1			2.3			27.9			14.0	
Peak Hour Factor	0.89	0.89	0.89	0.85	0.85	0.85	0.89	0.89	0.89	0.94	0.94	0.94
Growth Factor	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%
Adj. Flow (vph)	456	274	111	32	222	95	139	334	22	82	424	531
Shared Lane Traffic (%)												
Lane Group Flow (vph)	456	274	111	32	222	95	139	356	0	82	424	531
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	9.0	23.0	23.0	9.0	23.0	23.0	23.0	23.0		23.0	23.0	23.0
Total Split (s)	25.0	33.0	33.0	7.0	15.0	15.0	40.0	40.0		40.0	40.0	40.0
Total Split (%)	31.3%	41.3%	41.3%	8.8%	18.8%	18.8%	50.0%	50.0%		50.0%	50.0%	50.0%
Maximum Green (s)	20.0	28.0	28.0	2.0	10.0	10.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None		None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	0
Act Effct Green (s)	34.4	31.9	31.9	12.3	10.2	10.2	23.3	23.3		23.3	23.3	23.3
Actuated g/C Ratio	0.51	0.47	0.47	0.18	0.15	0.15	0.34	0.34		0.34	0.34	0.34
v/c Ratio	0.71	0.31	0.14	0.15	0.79	0.25	0.72	0.56		0.33	0.66	0.60
Control Delay	21.1	15.7	4.5	16.9	54.1	2.6	41.5	21.0		19.9	24.0	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	21.1	15.7	4.5	16.9	54.1	2.6	41.5	21.0		19.9	24.0	4.6
LOS	C	B	A	B	D	A	D	C		B	C	A
Approach Delay		17.2			36.7			26.8			13.8	
Approach LOS		B			D			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 67.9			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 20.1		Intersection LOS: C	
Intersection Capacity Utilization 76.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 5: S Washington St & W Commercial St



East Rochester CAP — Future No Build Conditions - AM Peak Hour
8: Roosevelt Rd/Country Club Rd & W Commercial St — 2/13/2014

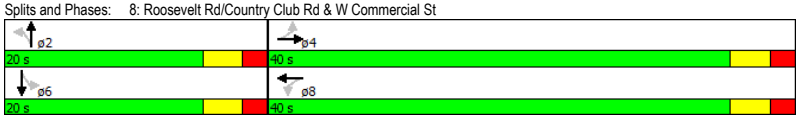
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	685	7	28	556	20	69	14	15	48	28	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.995			0.980			0.934	
Flt Protected		0.997			0.998			0.966			0.984	
Satd. Flow (prot)	0	3525	0	0	3514	0	0	1763	0	0	1712	0
Flt Permitted		0.850			0.867			0.697			0.855	
Satd. Flow (perm)	0	3005	0	0	3053	0	0	1272	0	0	1488	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			10			14			77	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1332			531			354	
Travel Time (s)		20.3			30.3			12.1			8.0	
Peak Hour Factor	0.81	0.81	0.81	0.89	0.89	0.89	0.77	0.77	0.77	0.81	0.81	0.81
Growth Factor	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%
Adj. Flow (vph)	68	1015	10	38	750	27	108	22	23	71	41	108
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1093	0	0	815	0	0	153	0	0	220	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	

East Rochester CAP — Future No Build Conditions - AM Peak Hour
8: Roosevelt Rd/Country Club Rd & W Commercial St — 2/13/2014

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	20.0	20.0		20.0	20.0		23.0	23.0		23.0	23.0	
Total Split (s)	40.0	40.0		40.0	40.0		20.0	20.0		20.0	20.0	
Total Split (%)	66.7%	66.7%		66.7%	66.7%		33.3%	33.3%		33.3%	33.3%	
Maximum Green (s)	35.0	35.0		35.0	35.0		15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)							7.0	7.0		7.0	7.0	
Flash Dont Walk (s)							11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effct Green (s)		27.3			27.3			18.2			18.2	
Actuated g/C Ratio		0.49			0.49			0.33			0.33	
v/c Ratio		0.74			0.54			0.36			0.41	
Control Delay		14.5			10.8			18.2			13.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.5			10.8			18.2			13.9	
LOS		B			B			B			B	
Approach Delay		14.5			10.8			18.2			13.9	
Approach LOS		B			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 55.7			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 13.4		Intersection LOS: B	
Intersection Capacity Utilization 70.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 8: Roosevelt Rd/Country Club Rd & W Commercial St



East Rochester CAP
13: Grant St & W Commercial St

Future No Build Conditions - AM Peak Hour
2/13/2014

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	695	14	10	617	16	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	90	90	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	993	20	13	823	28	19

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1013	0	1441	506
Stage 1	-	-	-	-	1003	-
Stage 2	-	-	-	-	438	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	680	-	123	512
Stage 1	-	-	-	-	315	-
Stage 2	-	-	-	-	618	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	680	-	119	512
Mov Cap-2 Maneuver	-	-	-	-	119	-
Stage 1	-	-	-	-	315	-
Stage 2	-	-	-	-	596	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	33.5
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	173	-	-	680	-
HCM Lane V/C Ratio	0.275	-	-	0.02	-
HCM Control Delay (s)	33.5	-	-	10.4	0.2
HCM Lane LOS	D	-	-	B	A
HCM 95th %tile Q(veh)	1.1	-	-	0.1	-

East Rochester CAP
2: Main St & W Commercial St

Future No Build Conditions - PM Peak Hour
2/13/2014

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	60	145	75	24	20	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	60	0	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.885	
Flt Protected	0.950			0.964		
Satd. Flow (prot)	1770	1583	0	1796	1649	0
Flt Permitted	0.950			0.686		
Satd. Flow (perm)	1770	1583	0	1278	1649	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		196			184	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1458			610	567	
Travel Time (s)	33.1			13.9	12.9	
Peak Hour Factor	0.89	0.89	0.94	0.94	0.75	0.75
Growth Factor	120%	120%	120%	120%	120%	120%
Adj. Flow (vph)	81	196	96	31	32	184
Shared Lane Traffic (%)						
Lane Group Flow (vph)	81	196	0	127	216	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4	2			
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	
Act Effct Green (s)	30.0	30.0		30.0	30.0	
Actuated g/C Ratio	0.43	0.43		0.43	0.43	
v/c Ratio	0.11	0.25		0.23	0.27	

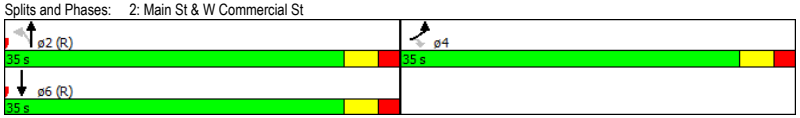
East Rochester CAP
2: Main St & W Commercial St

Future No Build Conditions - PM Peak Hour
2/13/2014

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Control Delay	12.5	3.1		14.2	4.1	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	12.5	3.1		14.2	4.1	
LOS	B	A		B	A	
Approach Delay	5.8			14.2	4.1	
Approach LOS	A			B	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.27			
Intersection Signal Delay: 6.9		Intersection LOS: A	
Intersection Capacity Utilization 32.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Main St & W Commercial St

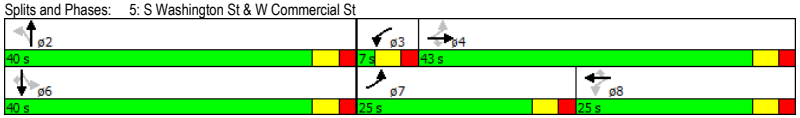


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	400	215	130	46	190	103	70	355	26	70	354	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	110		0	400		400
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.990				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1844	0	1770	1863	1583
Flt Permitted	0.309			0.597			0.187			0.228		
Satd. Flow (perm)	576	1863	1583	1112	1863	1583	348	1844	0	425	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			159			145		5				554
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1060			102			1226			618	
Travel Time (s)		24.1			2.3			27.9			14.0	
Peak Hour Factor	0.98	0.98	0.98	0.89	0.89	0.89	0.90	0.90	0.90	0.78	0.78	0.78
Growth Factor	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%
Adj. Flow (vph)	490	263	159	62	256	139	93	473	35	108	545	554
Shared Lane Traffic (%)												
Lane Group Flow (vph)	490	263	159	62	256	139	93	508	0	108	545	554
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	9.0	23.0	23.0	9.0	23.0	23.0	23.0	23.0		23.0	23.0	23.0
Total Split (s)	25.0	43.0	43.0	7.0	25.0	25.0	40.0	40.0		40.0	40.0	40.0
Total Split (%)	27.8%	47.8%	47.8%	7.8%	27.8%	27.8%	44.4%	44.4%		44.4%	44.4%	44.4%
Maximum Green (s)	20.0	38.0	38.0	2.0	20.0	20.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None		None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	0
Act Effct Green (s)	40.9	35.6	35.6	17.8	15.7	15.7	29.7	29.7		29.7	29.7	29.7
Actuated g/C Ratio	0.51	0.44	0.44	0.22	0.19	0.19	0.37	0.37		0.37	0.37	0.37
v/c Ratio	0.83	0.32	0.20	0.24	0.71	0.33	0.73	0.75		0.69	0.80	0.59
Control Delay	30.2	18.0	3.6	19.9	42.8	7.3	57.6	30.1		48.4	33.0	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	30.2	18.0	3.6	19.9	42.8	7.3	57.6	30.1		48.4	33.0	4.8
LOS	C	B	A	B	D	A	E	C		D	C	A
Approach Delay		22.0			28.9			34.3			21.4	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 80.8			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 25.1		Intersection LOS: C	
Intersection Capacity Utilization 84.2%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 5: S Washington St & W Commercial St



East Rochester CAP — Future No Build Conditions - PM Peak Hour
8: Roosevelt Rd/Country Club Rd & W Commercial St — 2/13/2014

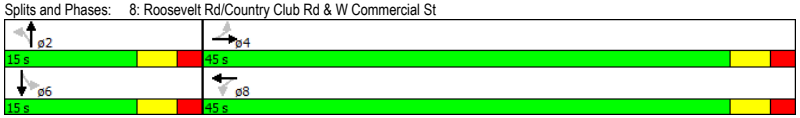
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	560	42	30	645	37	29	18	34	33	17	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.992			0.944			0.957	
Flt Protected		0.995			0.998			0.982			0.978	
Satd. Flow (prot)	0	3486	0	0	3504	0	0	1727	0	0	1743	0
Flt Permitted		0.723			0.882			0.881			0.846	
Satd. Flow (perm)	0	2533	0	0	3097	0	0	1549	0	0	1508	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			20			46			32	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1332			531			354	
Travel Time (s)		20.3			30.3			12.1			8.0	
Peak Hour Factor	0.87	0.87	0.87	0.80	0.80	0.80	0.88	0.88	0.88	0.87	0.87	0.87
Growth Factor	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%
Adj. Flow (vph)	83	772	58	45	968	56	40	25	46	46	23	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	913	0	0	1069	0	0	111	0	0	101	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	

East Rochester CAP — Future No Build Conditions - PM Peak Hour
8: Roosevelt Rd/Country Club Rd & W Commercial St — 2/13/2014

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	20.0	20.0		20.0	20.0		23.0	23.0		23.0	23.0	
Total Split (s)	45.0	45.0		45.0	45.0		15.0	15.0		15.0	15.0	
Total Split (%)	75.0%	75.0%		75.0%	75.0%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	40.0	40.0		40.0	40.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)							7.0	7.0		7.0	7.0	
Flash Dont Walk (s)							11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effct Green (s)		26.7			26.7			18.4			18.4	
Actuated g/C Ratio		0.48			0.48			0.33			0.33	
v/c Ratio		0.74			0.71			0.20			0.19	
Control Delay		14.7			13.4			12.0			13.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.7			13.4			12.0			13.3	
LOS		B			B			B			B	
Approach Delay		14.7			13.4			12.0			13.3	
Approach LOS		B			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 55.3			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 13.9		Intersection LOS: B	
Intersection Capacity Utilization 65.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 8: Roosevelt Rd/Country Club Rd & W Commercial St



Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	640	25	31	700	11	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	79	79	64	64
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	800	31	47	1063	21	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	831	0	1442	416
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	626	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	797	-	123	585
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	495	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	797	-	105	585
Mov Cap-2 Maneuver	-	-	-	-	105	-
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	424	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	27.9
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	209	-	-	797	-
HCM Lane V/C Ratio	0.251	-	-	0.059	-
HCM Control Delay (s)	27.9	-	-	9.8	0.6
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0.2	-

Appendix F

Future Road Diet Level of Service Results

East Rochester CAP
2: Main St & W Commercial St

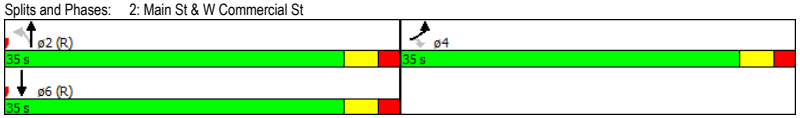
Future Road Diet Conditions - AM Peak Hour
2/13/2014

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	113	91	116	11	11	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	60	0	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.901	
Flt Protected	0.950			0.956		
Satd. Flow (prot)	1770	1583	0	1781	1678	0
Flt Permitted	0.950			0.698		
Satd. Flow (perm)	1770	1583	0	1300	1678	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		140			53	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1458			610	567	
Travel Time (s)	33.1			13.9	12.9	
Peak Hour Factor	0.78	0.78	0.93	0.93	0.70	0.70
Growth Factor	120%	120%	120%	120%	120%	120%
Adj. Flow (vph)	174	140	150	14	19	53
Shared Lane Traffic (%)						
Lane Group Flow (vph)	174	140	0	164	72	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4	2			
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	
Act Effct Green (s)	30.0	30.0		30.0	30.0	
Actuated g/C Ratio	0.43	0.43		0.43	0.43	
v/c Ratio	0.23	0.18		0.29	0.10	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Control Delay	13.7	3.2		14.9	5.7	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	13.7	3.2		14.9	5.7	
LOS	B	A		B	A	
Approach Delay	9.0			14.9	5.7	
Approach LOS	A			B	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.29			
Intersection Signal Delay: 10.4		Intersection LOS: B	
Intersection Capacity Utilization 30.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Main St & W Commercial St



East Rochester CAP — Future Road Diet Conditions - AM Peak Hour
5: S Washington St & W Commercial St — 2/13/2014

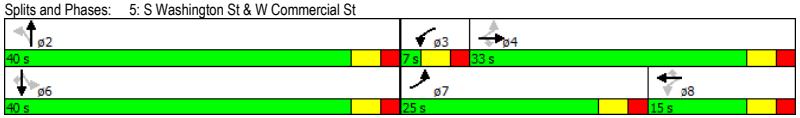
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	338	203	82	23	157	67	103	248	16	64	332	416
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	265		100	0		0	110		0	400		400
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.991				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1846	0	1770	1863	1583
Flt Permitted	0.349			0.591			0.301			0.390		
Satd. Flow (perm)	650	1863	1583	1101	1863	1583	561	1846	0	726	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			111			164		5				531
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1060			102			1226			618	
Travel Time (s)		24.1			2.3			27.9			14.0	
Peak Hour Factor	0.89	0.89	0.89	0.85	0.85	0.85	0.89	0.89	0.89	0.94	0.94	0.94
Growth Factor	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%
Adj. Flow (vph)	456	274	111	32	222	95	139	334	22	82	424	531
Shared Lane Traffic (%)												
Lane Group Flow (vph)	456	274	111	32	222	95	139	356	0	82	424	531
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		6

East Rochester CAP — Future Road Diet Conditions - AM Peak Hour
5: S Washington St & W Commercial St — 2/13/2014

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	9.0	23.0	23.0	9.0	23.0	23.0	23.0	23.0		23.0	23.0	23.0
Total Split (s)	25.0	33.0	33.0	7.0	15.0	15.0	40.0	40.0		40.0	40.0	40.0
Total Split (%)	31.3%	41.3%	41.3%	8.8%	18.8%	18.8%	50.0%	50.0%		50.0%	50.0%	50.0%
Maximum Green (s)	20.0	28.0	28.0	2.0	10.0	10.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None		None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	0
Act Effct Green (s)	34.4	31.9	31.9	12.3	10.2	10.2	23.3	23.3		23.3	23.3	23.3
Actuated g/C Ratio	0.51	0.47	0.47	0.18	0.15	0.15	0.34	0.34		0.34	0.34	0.34
v/c Ratio	0.71	0.31	0.14	0.15	0.79	0.25	0.72	0.56		0.33	0.66	0.60
Control Delay	21.1	15.7	4.5	16.9	54.1	2.6	41.5	21.0		19.9	24.0	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	21.1	15.7	4.5	16.9	54.1	2.6	41.5	21.0		19.9	24.0	4.6
LOS	C	B	A	B	D	A	D	C		B	C	A
Approach Delay		17.2			36.7			26.8			13.8	
Approach LOS		B			D			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 67.9			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 20.1		Intersection LOS: C	
Intersection Capacity Utilization 76.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 5: S Washington St & W Commercial St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	685	7	28	556	20	69	14	15	48	28	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.995			0.980			0.934	
Flt Protected	0.950			0.950				0.966			0.984	
Satd. Flow (prot)	1770	1861	0	1770	1853	0	0	1763	0	0	1712	0
Flt Permitted	0.197			0.116				0.652			0.862	
Satd. Flow (perm)	367	1861	0	216	1853	0	0	1190	0	0	1500	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			5			14			77	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1332			531			354	
Travel Time (s)		20.3			30.3			12.1			8.0	
Peak Hour Factor	0.81	0.81	0.81	0.89	0.89	0.89	0.77	0.77	0.77	0.81	0.81	0.81
Growth Factor	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%
Adj. Flow (vph)	68	1015	10	38	750	27	108	22	23	71	41	108
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	1025	0	38	777	0	0	153	0	0	220	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		23.0	23.0		23.0	23.0	
Total Split (s)	40.0	40.0		40.0	40.0		20.0	20.0		20.0	20.0	
Total Split (%)	66.7%	66.7%		66.7%	66.7%		33.3%	33.3%		33.3%	33.3%	
Maximum Green (s)	35.0	35.0		35.0	35.0		15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)							7.0	7.0		7.0	7.0	
Flash Dont Walk (s)							11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effct Green (s)	34.6	34.6		34.6	34.6			18.0			18.0	
Actuated g/C Ratio	0.55	0.55		0.55	0.55			0.29			0.29	
v/c Ratio	0.34	1.00		0.32	0.76			0.43			0.45	
Control Delay	13.5	44.1		16.5	16.8			21.3			15.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	13.5	44.1		16.5	16.8			21.3			15.4	
LOS	B	D		B	B			C			B	
Approach Delay		42.2			16.8			21.3			15.4	
Approach LOS		D			B			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 62.6			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 29.1		Intersection LOS: C	
Intersection Capacity Utilization 67.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 8: Roosevelt Rd/Country Club Rd & W Commercial St

East Rochester CAP
13: Grant St & W Commercial St

Future Road Diet Conditions - AM Peak Hour
2/13/2014

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	695	14	10	617	16	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	90	90	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	993	20	13	823	28	19

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1013	0	1852	1003
Stage 1	-	-	-	-	1003	-
Stage 2	-	-	-	-	849	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	684	-	81	294
Stage 1	-	-	-	-	355	-
Stage 2	-	-	-	-	419	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	684	-	79	294
Mov Cap-2 Maneuver	-	-	-	-	210	-
Stage 1	-	-	-	-	355	-
Stage 2	-	-	-	-	411	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	23.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	238	-	-	684	-
HCM Lane V/C Ratio	0.2	-	-	0.019	-
HCM Control Delay (s)	23.9	-	-	10.4	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

East Rochester CAP
2: Main St & W Commercial St

Future Road Diet Conditions - PM Peak Hour
2/13/2014

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	60	145	75	24	20	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	60	0	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.885	
Flt Protected	0.950			0.964		
Satd. Flow (prot)	1770	1583	0	1796	1649	0
Flt Permitted	0.950			0.686		
Satd. Flow (perm)	1770	1583	0	1278	1649	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		196			184	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1458			610	567	
Travel Time (s)	33.1			13.9	12.9	
Peak Hour Factor	0.89	0.89	0.94	0.94	0.75	0.75
Growth Factor	120%	120%	120%	120%	120%	120%
Adj. Flow (vph)	81	196	96	31	32	184
Shared Lane Traffic (%)						
Lane Group Flow (vph)	81	196	0	127	216	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4	2			
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	
Act Effct Green (s)	30.0	30.0		30.0	30.0	
Actuated g/C Ratio	0.43	0.43		0.43	0.43	
v/c Ratio	0.11	0.25		0.23	0.27	

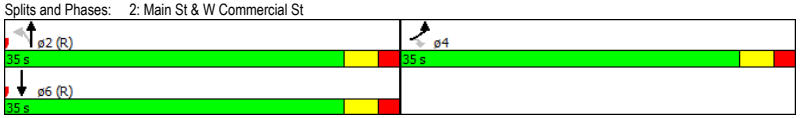
East Rochester CAP
2: Main St & W Commercial St

Future Road Diet Conditions - PM Peak Hour
2/13/2014

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Control Delay	12.5	3.1		14.2	4.1	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	12.5	3.1		14.2	4.1	
LOS	B	A		B	A	
Approach Delay	5.8			14.2	4.1	
Approach LOS	A			B	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.27			
Intersection Signal Delay: 6.9		Intersection LOS: A	
Intersection Capacity Utilization 32.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Main St & W Commercial St



East Rochester CAP — Future Road Diet Conditions - PM Peak Hour
5: S Washington St & W Commercial St — 2/13/2014

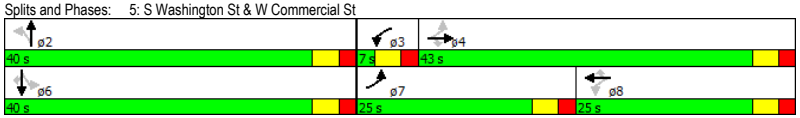
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	400	215	130	46	190	103	70	355	26	70	354	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	110		0	400		400
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.990				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1844	0	1770	1863	1583
Flt Permitted	0.309			0.597			0.187			0.228		
Satd. Flow (perm)	576	1863	1583	1112	1863	1583	348	1844	0	425	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			159			145		5				554
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		266			102			1226			618	
Travel Time (s)		6.0			2.3			27.9			14.0	
Peak Hour Factor	0.98	0.98	0.98	0.89	0.89	0.89	0.90	0.90	0.90	0.78	0.78	0.78
Growth Factor	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%
Adj. Flow (vph)	490	263	159	62	256	139	93	473	35	108	545	554
Shared Lane Traffic (%)												
Lane Group Flow (vph)	490	263	159	62	256	139	93	508	0	108	545	554
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		6

East Rochester CAP — Future Road Diet Conditions - PM Peak Hour
5: S Washington St & W Commercial St — 2/13/2014

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	9.0	23.0	23.0	9.0	23.0	23.0	23.0	23.0		23.0	23.0	23.0
Total Split (s)	25.0	43.0	43.0	7.0	25.0	25.0	40.0	40.0		40.0	40.0	40.0
Total Split (%)	27.8%	47.8%	47.8%	7.8%	27.8%	27.8%	44.4%	44.4%		44.4%	44.4%	44.4%
Maximum Green (s)	20.0	38.0	38.0	2.0	20.0	20.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None		None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	0
Act Effct Green (s)	40.9	35.6	35.6	17.8	15.7	15.7	29.7	29.7		29.7	29.7	29.7
Actuated g/C Ratio	0.51	0.44	0.44	0.22	0.19	0.19	0.37	0.37		0.37	0.37	0.37
v/c Ratio	0.83	0.32	0.20	0.24	0.71	0.33	0.73	0.75		0.69	0.80	0.59
Control Delay	30.2	18.0	3.6	19.9	42.8	7.3	57.6	30.1		48.4	33.0	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	30.2	18.0	3.6	19.9	42.8	7.3	57.6	30.1		48.4	33.0	4.8
LOS	C	B	A	B	D	A	E	C		D	C	A
Approach Delay		22.0			28.9			34.3			21.4	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 80.8			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 25.1		Intersection LOS: C	
Intersection Capacity Utilization 84.2%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 5: S Washington St & W Commercial St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	560	42	30	645	37	29	18	34	33	17	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.992			0.944			0.957	
Flt Protected	0.950			0.950				0.982			0.978	
Satd. Flow (prot)	1770	1844	0	1770	1848	0	0	1727	0	0	1743	0
Flt Permitted	0.108			0.172				0.874			0.838	
Satd. Flow (perm)	201	1844	0	320	1848	0	0	1537	0	0	1494	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			10			46			32	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		758			1332			531			354	
Travel Time (s)		17.2			30.3			12.1			8.0	
Peak Hour Factor	0.87	0.87	0.87	0.80	0.80	0.80	0.88	0.88	0.88	0.87	0.87	0.87
Growth Factor	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%	120%
Adj. Flow (vph)	83	772	58	45	968	56	40	25	46	46	23	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	830	0	45	1024	0	0	111	0	0	101	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		23.0	23.0		23.0	23.0	
Total Split (s)	45.0	45.0		45.0	45.0		15.0	15.0		15.0	15.0	
Total Split (%)	75.0%	75.0%		75.0%	75.0%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	40.0	40.0		40.0	40.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)							7.0	7.0		7.0	7.0	
Flash Dont Walk (s)							11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effct Green (s)	37.2	37.2		37.2	37.2			18.1			18.1	
Actuated g/C Ratio	0.57	0.57		0.57	0.57			0.28			0.28	
v/c Ratio	0.73	0.79		0.25	0.97			0.24			0.23	
Control Delay	51.2	17.3		11.0	36.8			14.4			16.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	51.2	17.3		11.0	36.8			14.4			16.1	
LOS	D	B		B	D			B			B	
Approach Delay		20.3			35.7			14.4			16.1	
Approach LOS		C			D			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 65.4			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 27.3		Intersection LOS: C	
Intersection Capacity Utilization 67.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 8: Roosevelt Rd/Country Club Rd & W Commercial St

East Rochester CAP
13: Grant St & W Commercial St

Future Road Diet Conditions - PM Peak Hour
2/13/2014

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	640	25	31	700	11	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	79	79	64	64
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	800	31	47	1063	21	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	831	0	1973	816
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	1157	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	801	-	68	377
Stage 1	-	-	-	-	435	-
Stage 2	-	-	-	-	299	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	801	-	64	377
Mov Cap-2 Maneuver	-	-	-	-	183	-
Stage 1	-	-	-	-	435	-
Stage 2	-	-	-	-	281	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	21.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	266	-	-	801	-
HCM Lane V/C Ratio	0.197	-	-	0.059	-
HCM Control Delay (s)	21.8	-	-	9.8	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.7	-	-	0.2	-

Appendix G

Cost Estimates

SF = Square Foot
LF = Linear Foot
TN = Ton
CY = Cubic Yard
EA = Each
LM = Lane Mile

Estimate of Propbable Costs
East Rochester Transportation Improvement Study

Alternative 3	*Unit*	*Estimated Quantity*	*Unit Price*	*Cost*
Mill	SF	132000	$ 1.50	$ 198,000
Paving	TN	1100	$ 95.00	$ 105,000
Curbing	LF	4500	$ 25.00	$ 113,000
Drainage	LS	1	$ 100,000.00	$ 100,000
Top Soil	CY	550	$ 40.00	$ 22,000
Hydoseeding	SF	12500	$ 0.25	$ 3,200
Sidewalks	LF	820	$ 40.00	$ 33,000
Pavement marking - turn arrows	EA	17	$ 125.00	$ 2,200
Pavement marking - striping	LF	6900	$ 0.50	$ 3,500
Pavement marking - bike lane symbols	EA	4	$ 350.00	$ 1,400
Traffic Patterns Median	SF	9500	$ 10.00	$ 95,000
Curb extensions	EA	4	$ 25,000.00	$ 100,000
Signage	EA	12	$ 450.00	$ 5,400
Crosswalks	LF	980	$ 3.00	$ 3,000
Removal of materials	CY	700	$ 25.00	$ 17,500
ADA Curb Ramp	EA	24	$ 800.00	$ 19,200
24" white pavement stripe	LF	110	$ 3.00	$ 400
Subtotal 1				$ *821,800*
MPT and Mobilization	15% of Subtotal 1			$ 124,000
Subtotal 2				$ *945,800*
Contingencies	40% of Subtotal 2			$ 379,000
Subtotal of Construction				$ *1,324,800*
Engineering	35% of Subtotal of Construction			$ 464,000
Construction Inspection	12% of Subtotal of Construction			$ 159,000
Total Cost				***$ 1,948,000***

Western Gateway Treatment	*Unit*	*Estimated Quantity*	*Unit Price*	*Cost*
Mill	SF	53000	$ 1.50	$ 80,000
Paving	TN	500	$ 95.00	$ 48,000
Curbing	LF	750	$ 25.00	$ 19,000
Top Soil	CY	470	$ 40.00	$ 19,000
Hydoseeding	SF	12000	$ 0.25	$ 3,000
Pavement marking - turn arrows	EA	3	$ 125.00	$ 400
Pavement marking - striping	LF	2300	$ 0.50	$ 1,200
Crosswalks	LF	115	$ 3.00	$ 400
Removal of materials	CY	5	$ 25.00	$ 200
ADA Curb Ramp	EA	4	$ 800.00	$ 3,200
24" white pavement stripe	LF	22	$ 3.00	$ 100
Subtotal 1				$ *174,500*
MPT and Mobilization	15% of Subtotal 1			$ 27,000
Subtotal 2				$ *201,500*
Contingencies	40% of Subtotal 2			$ 81,000
Subtotal of Construction				$ *282,500*
Engineering	35% of Subtotal of Construction			$ 99,000
Construction Inspection	12% of Subtotal of Construction			$ 34,000
Total Cost				***$ 416,000***

South Washington St - Extended NBL	*Unit*	*Estimated Quantity*	*Unit Price*	*Cost*
Remove pavement markings	LF	560	$ 0.60	$ 1,000
Pavement marking - turn arrows	EA	2	$ 125.00	$ 300
Pavement marking - striping	LF	400	$ 0.50	$ 200
Subtotal 1				$ *1,500*

SF = Square Foot
LF = Linear Foot
TN = Ton
CY = Cubic Yard
EA = Each
LM = Lane Mile

Estimate of Propbable Costs
East Rochester Transportation Improvement Study

MPT and Mobilization	15% of Subtotal 1	$ 1,000
Subtotal 2		$ *2,500*
Contingencies	40% of Subtotal 2	$ 1,000
Subtotal of Construction		$ *3,500*
Engineering	35% of Subtotal of Construction	$ 2,000
Construction Inspection	12% of Subtotal of Construction	$ 1,000
Total Cost		***$ 7,000***

CBD - 100 Block Alternative	*Unit*	*Estimated Quantity*	*Unit Price*	*Cost*
Micro Paving	LM	0.77	$ 30,000.00	$ 24,000
Pavement marking - turn arrows	EA	3	$ 125.00	$ 400
Pavement marking - striping	LF	3300	$ 0.50	$ 1,700
Traffic Patterns Median	SF	4300	$ 10.00	$ 43,000
Signage	EA	7	$ 450.00	$ 3,200
Crosswalks	LF	122	$ 3.00	$ 400
24" white pavement stripe	LF	60	$ 3.00	$ 200
Subtotal 1				$ *72,900*
MPT and Mobilization	15% of Subtotal 1			$ 11,000
Subtotal 2				$ *83,900*
Contingencies	40% of Subtotal 2			$ 34,000
Subtotal of Construction				$ *117,900*
Engineering	35% of Subtotal of Construction			$ 42,000
Construction Inspection	12% of Subtotal of Construction			$ 15,000
Total Cost				***$ 175,000***

Rectangular Rapid Flashing Beacons	*Unit*	*Estimated Quantity*	*Unit Price*	*Cost*
RRFBs	EA	4	$ 15,000.00	$ 60,000

Pedestrian Countdown Signals	*Unit*	*Estimated Quantity*	*Unit Price*	*Cost*
Pedestrian Countdown Signals	EA	38	$ 2,000.00	$ 76,000

Bike Boulevard Treatments (Elm St)	*Unit*	*Estimated Quantity*	*Unit Price*	*Cost*
Pavement marking - sharrow symbols	EA	7	$ 350.00	$ 2,500

Alternative 1 Road Diet	*Unit*	*Estimated Quantity*	*Unit Price*	*Cost*
Remove pavement markings	EA	1	$ 12,000.00	$ 12,000
Pavement marking - turn arrows	EA	22	$ 125.00	$ 2,800
Pavement marking - striping	LF	15000	$ 0.50	$ 7,500
Pavement marking - bike lane symbols	EA	4	$ 350.00	$ 1,400
Curb extensions	EA	4	$ 25,000.00	$ 100,000
Signage	EA	12	$ 450.00	$ 5,400
Crosswalks	LF	190	$ 3.00	$ 600
ADA Curb Ramp	EA	8	$ 800.00	$ 6,400
24" white pavement stripe	LF	150	$ 3.00	$ 500
Subtotal 1				$ *136,600*
MPT and Mobilization	15% of Subtotal 1			$ 21,000
Subtotal 2				$ *157,600*
Contingencies	40% of Subtotal 2			$ 64,000
Subtotal of Construction				$ *221,600*
Engineering	35% of Subtotal of Construction			$ 78,000
Construction Inspection	12% of Subtotal of Construction			$ 27,000
Total Cost				***$ 327,000***

Village of East Rochester Transportation Improvement Study: Opinion of Probable Costs

ITEM	UNIT	QTY.	PRICE	PROBABLE COST	NOTES
AREA C - West Commercial Street - Washington Street to Roosevelt Road (Alt 3)					
Install Street Trees, Landscaping, and Other Streetscape Components					
Install Street Trees on North Side	EA	30.00	$850.00	$25,500.00	
Install Street Trees on South Side	EA	35.00	$850.00	$29,750.00	
Benches	EA	3.00	$1,000.00	$3,000.00	
Trash Receptacles	EA	3.00	$850.00	$2,550.00	
Bike Racks	EA	3.00	$500.00	$1,500.00	
Install Pedestrian Scaled Lighting on South Side	EA	20.00	$12,000.00	$240,000.00	
Install Pedestrian Scaled Lighting on North Side	EA	21.00	$12,000.00	$252,000.00	
Area C Sub-Total				**$554,300.00**	
AREA B - West Commercial Street - South Washington Street to Garfield Street					
Install Street Trees, Landscaping, and Other Streetscape Components					
Benches	EA	2.00	$1,000.00	$2,000.00	
Trash Receptacles	EA	2.00	$850.00	$1,700.00	
Bike Racks	EA	2.00	$500.00	$1,000.00	
Install Street Trees on North Side	EA	3.00	$850.00	$2,550.00	
Install Street Trees on South Side	EA	7.00	$850.00	$5,950.00	
Area B Sub-Total				**$13,200.00**	
AREA A - West Commercial Street - Garfield Street to Main Street					
Install Street Trees, Landscaping, and Other Streetscape Components					
Benches	EA	3.00	$1,000.00	$3,000.00	
Trash Receptacles	EA	3.00	$850.00	$2,550.00	
Bike Racks	EA	3.00	$500.00	$1,500.00	
Install Street Trees on North Side	EA	11.00	$850.00	$9,350.00	
Install Street Trees on South Side	EA	12.00	$850.00	$10,200.00	
Decorative Wall / Iron Fencing and Landscaping along Village Hall Parking Lot	LF	175.00	$90.00	$15,750.00	
Area A Sub-Total				**$42,350.00**	
Wayfinding Sign Family		**1.00**		**$15,000.00**	
TOTAL				**$624,850.00**	

Note: The intent of this Preliminary Opinion of Probable Cost is to provide a general perspective of the magnitude of cost associated with the implementation of the project. Actual costs will be dependent on many factors including but not limited to final scope of project, design changes or modifications, phasing, and current constructions costs.