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City of Jamestown

Traffic and Streetscape Enhancement Plan



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Chapter 1: Introduction and Overview

The City of Jamestown Transportation and Streetscape Enhancement Plan is the next step in implementing the vision for downtown revitalization set forth in the City's recently completed Urban Design Plan.

INTRODUCTION

In 2006, the City of Jamestown completed its *Urban Design Plan* (UDP) which defined a vision for future downtown revitalization. That UDP was an important milestone in the re-birth of downtown Jamestown and it recognizes the City has a long, exciting path ahead. Development of the City of Jamestown Transportation and Streetscape Enhancement Plan is the next step in that process. This effort is intended to provide a strategy for improving vehicular and pedestrian circulation throughout the downtown core, as well as recommendations for improving and enhancing the downtown streetscape to make it more attractive, welcoming, and safe. The recommendations and guidelines are considerate of the unique characteristics and development conditions that exist within downtown Jamestown, including the existing railroad line, the waterfront, and its signature topography.

Pedestrian and vehicular topics are treated together in this document because of the inexorable relationship between a city's transportation infrastructure and the viability of its streets from an economic development and pedestrian safety perspective. This is especially true in the central downtown business district. The community has made a conscious decision that its urban streets must do more than just move automobiles. The city's streets should provide connectivity between neighborhoods, facilitate the movement of pedestrians, goods and services, and offer an attractive setting to both local citizens and visitors alike.

GOALS AND OBJECTIVES

The goals of this project were two-fold: 1) *To examine existing traffic circulation patterns and assess the feasibility of making specific changes that were proposed in the Urban Design Plan and* 2) *To develop guidelines for improvements to the physical streetscape within the City of Jamestown's downtown core.* These goals reflect a desire to proclaim that Jamestown has a series of "great streets." Great streets have definable characteristics and incorporating these characteristics onto Jamestown's streets can be achieved by implementing the recommendations contained within this document. The American Planning Association has defined the characteristics of what a great street is, and these characteristics have been considered and integrated into the development of this plan.

A great street:

- Provides orientation to its users and connects to a larger development pattern.
- Balances the competing needs of the street, including vehicles, pedestrians, cyclists, service vehicle, public transit, etc.
- Capitalizes on natural features and topography and includes varied land uses and activities.
- Has urban design and/or architectural features that are exemplary in design.
- Encourages human contact and social interactions.
- Promotes use of the street 24-hours a day and offers a feeling of safety and security.
- Has a definable, memorable character.[1]

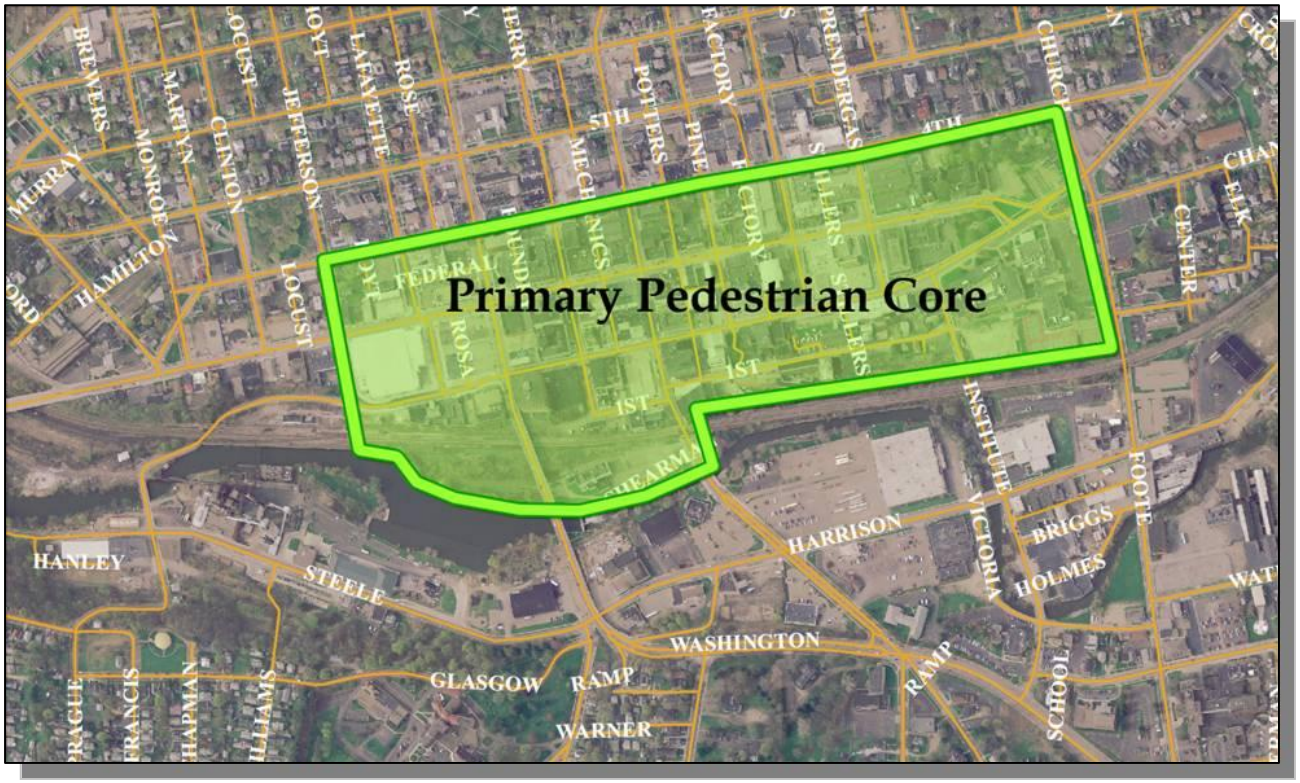
[1] American Planning Association

The overall objective of this Master Plan is to make the streets of downtown Jamestown functional, accessible, aesthetically pleasing, and supportive of a viable business and tourism industry. When people are comfortable on a street and enjoy being there they come more often. Increased pedestrian activity will in turn lead to greater opportunities for businesses, restaurants, galleries, and other urban land uses to successfully exist. Localized successes are often the catalyst for more widespread economic development, helping the community realize goals such as the relocation or expansion of significant businesses into downtown.

FOCUS AREA

The recommendations contained in this document are focused around the City's downtown core. This location was selected for its high concentration of pedestrian and vehicular traffic as well as its potential for increased activity from future economic development. It is also an area where the city believes it can benefit greatly from investments in multi-modal improvements and streetscape enhancements. For the purposes of this document, the downtown primary pedestrian core is defined as the area between the north side of the riverfront to Fourth Street and from Jefferson Street to Foote Avenue. The focus area boundaries are shown below.

Focus Area Boundaries
City of Jamestown



THE PLANNING PROCESS

The Transportation and Streetscape Enhancement Plan was developed over a 9-month period of cooperation between city leaders and the public. A Steering Committee, representing various municipal departments as well as a cross-section of organizations from throughout downtown Jamestown, was formed to guide the process. The Steering Committee was charged with providing background information and feedback throughout the planning process. A full list of Steering Committee members is included in Appendix 1 of this report.

The four key phases associated with the development of this plan are summarized below:

PHASE 1: PROJECT START-UP

The development of this document initiated with a start-up meeting involving city officials, members of the Steering Committee, and experts from the city's designated consultant team, Bergmann Associates. The start-up meeting involved a discussion of the overall project goals and helped outline what the city hoped to achieve with the completion of the Transportation and Streetscape Enhancement Plan. Specific problem areas, issues, and concerns facing the City of Jamestown were identified for future consideration.

PHASE 2: FIELD INVENTORY AND EXISTING CONDITIONS ASSESSMENT

Information on existing conditions was gathered over a series of site visits and through consultation with various city departments and agencies. Members of the consultant team reviewed relevant background information, including the Urban Design Plan, a Parking and Management Study, traffic data, and other planning and design documents. Data were compiled from a variety of sources including, but not limited to, the New York State Department of Transportation (NYSDOT) Region 5, New York State Office of Cyber Security and Critical Infrastructure Coordination, the City of Jamestown Department of Development, the City of Jamestown Department of Public Works, and the City of Jamestown Police Department.

Site visits were conducted to gather information on current streetscape conditions and to gather relevant traffic and parking data. Efforts were focused on identifying conditions associated with the vehicle and pedestrian circulation systems with regard to safety, availability, and condition. An inventory of public spaces and amenities was also undertaken. With detailed information about existing conditions in hand, the Bergmann Associates team presented its preliminary findings to the Steering Committee and the general public. A brief summary of public comments received at the Public Informational Meeting is included in Appendix 2 of this report.

PHASE 3: ANALYSIS, GUIDELINES, AND RECOMMENDATIONS

Analysis of the existing conditions data produced in Phases 1 and 2 resulted in specific guidelines and recommendations appropriate for the City of Jamestown. These guidelines cover various categories under the broad headings of multi-modal transportation and streetscape enhancements. The guidelines are intended to provide Jamestown with a framework for developing multi-modal and streetscape enhancements throughout the focus area, as well as other locations throughout the city.

Specific guidelines and recommendations were developed for three enhancement areas which were selected based on community and stakeholder input. The enhancement areas include Second Street between Jefferson Street and Foote Avenue, a one-block area surrounding the intersection of Third Street and Lafayette Street (adjacent to the Jamestown Savings Bank Ice Arena), and Fourth Street from Jefferson Street to Prendergast Avenue.

PHASE 4: IMPLEMENTATION, PHASING, AND FUNDING

The final component of the Transportation and Streetscape Enhancement Plan involves recommendations for the implementation of proposed changes throughout the downtown area. Potential funding sources available to assist the city with the implementation of identified projects have been outlined. This segment of the document functions as a resource for city officials as they work toward accommodating growth, providing transportation choices, and making downtown Jamestown a great place to live, work, and visit.

Chapter 2: General Guidelines and Recommendations - A Complete Streets Framework

INTRODUCTION

Complete streets are planned and designed to safely accommodate and be accessible to motorists, bicyclists, public transit, and pedestrians of all ages and abilities[2]. The heart of this movement reflects a change in the decision making and design process where all users are routinely considered from day one. Recent legislation proposed in the United States Senate would promote the design of streets for all users and require that states and metropolitan planning organizations adopt an explicit policy for the implementation of a complete streets program. These guidelines will place the City of Jamestown squarely within the complete streets movement.

The general guidelines and recommendations included in this chapter were developed in an effort to assist city officials and decision-makers in implementing projects that make the downtown core more user-friendly for pedestrians, bicyclists, transit, and motorists and that promote sustainable economic development that truly makes the City a desirable place to live, work, and play. They provide a series of recommendations to assist the City of Jamestown in realizing its short and long-term vision for the enhancement of downtown. The guidelines and recommendations center on the downtown focus area but they are broad enough to function as a template for guiding decision-making throughout the City.

The general guidelines are divided into two sections focusing on transportation network and streetscape character. The first section, *Design a Multi-Modal Downtown Environment*, includes guidelines associated with street design, including context sensitive design solutions, traffic signals, parking, accessible design, considering pedestrians, bicycles, public transportation, and other motorized vehicles The second section, *Develop a Vibrant and Exciting Streetscape*, discusses guidelines and considerations associated with creating strong connections – both visual and physical, signage, streetscape amenities, open spaces, and public art.

[2] Laplante and McCann, “Complete Streets: We Can Get There from Here”, ITE Journal, May 2008.

DESIGN A MULTI-MODAL DOWNTOWN ENVIRONMENT

Cycling and walking are significant modes of travel within downtown Jamestown. These activities take place on and around the downtown network of streets and roadways. It would be irresponsible, if not impossible, to design and improve one system without thinking about the other. In addition, improvements made to the city's transportation system are fully linked to the vitality and viability of the area as a center of commerce and recreation.



Pedestrian Crossing and Multimodal Streetscape
Boston, MA

In addition to serving a practical role of transporting people from one place to another, there are health, environmental, economic, and social benefits associated with non-vehicular transportation as an alternative to a personal vehicle, or even public transportation. Cycling and walking in lieu of driving encourages interaction between people as they have the opportunity to meet and gather on sidewalks or downtown parks. In order to encourage more pedestrian and bicycling activity throughout Jamestown and in particular the downtown core, the necessary infrastructure must be in place to support these users and foster an environment that is safe, welcoming, and convenient to use.

The following sections provide guidance to planners and engineers involved in developing preliminary and detailed plans for future transportation improvement projects throughout the City of Jamestown's downtown core. Though specific locations may be mentioned, these guidelines are meant to be applied to any downtown street. The reader is encouraged to obtain and read other reference guides and standards that are referenced throughout this document for additional guidance.

START WITH THE BUILDING BLOCKS OF GOOD DESIGN

Moving vehicles as quickly, efficiently, and as safely as possible was once viewed as the highest purpose of downtown streets. The uninviting atmosphere generated by speedy downtown traffic, along with a population shift to the suburbs as well as other outside economic factors, have contributed to the decline of our nation's downtown districts. Today communities around New York State and the nation are rediscovering the value of our urban centers and embracing a more balanced design philosophy that couples the need to move traffic with a conscious desire for an improved sense of place. In order to bring life back to their surroundings, the streets themselves must in some cases be changed. Understanding where our downtown streets fit, how we want them to function, and how they can be improved is an important first step in the process of enhancing the attractiveness of an urban core.

Consider Functional Classification

The term "functional classification" has traditionally been used by transportation planners and engineers to describe a roadway's traffic and travel function within the overall highway network. For example, freeways move large traffic volumes at high speeds with limited local access while local streets move low volumes of traffic at low speeds and are typically lined with driveways and entrances. Arterials and collectors provide service somewhere in between. Understanding how a particular roadway functions now, but more importantly how the city *wants* it to function in the future will facilitate the selection of safe, proven, and appropriate design elements.

Occasionally due to changes over time in adjacent land use, modifications to the surrounding roadway network, or other factors, a given road or street may have one official functional classification but operate as though it had another. Improvements should be tailored to result in safe,

efficient, and accessible changes that fit not only the facility's actual use, but its intended use as well. In some cases it may be appropriate to design a facility as though it had a different functional classification and pursue an appropriate change to the official listing. The current functional classification of select streets within the City of Jamestown's urban core and summary definitions[3] are provided below. A functional classification map for the City of Jamestown provided by the New York State Department of Transportation (NYSDOT) is contained in Appendix 4.

Urban Principal Arterial

Examples: Washington Street, NYS Route 60 and Fourth Street from Second Street to Prendergast Avenue

Definition: These roadways serve major centers of activity within the Jamestown urbanized area. They are typically among the corridors serving the highest volume of traffic, longest trips, and carry a high proportion of the city's total travel mileage even though they physically constitute a relatively small percentage of the total roadway network. They commonly serve trips entering and leaving the city as well as those bypassing the central business district.

Urban Minor Arterial

Examples: Second Street, Main Street, and Third Street west of Main Street

Definition: These streets interconnect with and supplement downtown's urban principal arterials. Trip lengths are typically shorter and volumes lower as well. These roadways place a higher emphasis on access to abutting land uses and corresponding lower level of focus on traffic mobility.

Urban Collector

Example: Fourth Street west of Prendergast Avenue

Definition: Urban collectors provide both access to abutting land uses and facilitate traffic circulation within downtown's commercial and industrialized areas. Each roadway distributes trips to and from the urban arterials to their ultimate destinations. Conversely, they also collect traffic from local streets and channel it to the arterial system.

Urban Local Street

Examples: First Street, Third Street east of Main Street, and north-south streets within the downtown core

Definition: The primary function of these urban local streets is to provide access to adjacent properties and land uses. They carry a proportionately low proportion of traffic volume but make up the largest proportion of downtown's transportation infrastructure.

Identify National Highway System Routes

Washington Street (New York State (NYS) Route 60) is part of a network of highways known as the National Highway System (NHS). The NHS includes the Interstate Highway System as well as other roads important to the nation's economy, defense, and mobility. It was developed by the United States Department of Transportation in cooperation with the states, local officials, and metropolitan planning organizations. The importance

[3] AASHTO, " A Policy on the Geometric Design of Highways and Streets" (Green Book), 2004

of Washington Street should be recognized by the City of Jamestown when formulating plans for future roadway and streetscape projects. Improvements or modifications that would constrict or severely limit vehicular flow must be carefully considered.

Recognize Ownership and Maintenance Jurisdiction

Considering street ownership and maintenance jurisdiction at the earliest stages of a project helps planners and engineers gather the proper decision makers around the table before improvements are carried to a high level of detail. The NYSDOT maintains one system of public streets and highways throughout the Empire State. Other municipal jurisdictions such as counties, towns, cities, and villages also own and maintain systems. Ownership and maintenance jurisdiction are important indicators of approval authority for changes in cross section, access, streetscape, and design.

State Highways are those owned and maintained by the NYSDOT. They include New York State Touring Routes, United States (US) Routes, and Interstate Highways. Within the City of Jamestown's downtown core, Washington Street (NYS Route 60) is a state highway and is owned and maintained by the NYSDOT. Design and traffic control decisions on this roadway must be coordinated with and approved by the Department.

Alternatively, beginning at its intersection with Fifth Street (NYS Route 394) and continuing to the northern city limit, NYS Route 60 is owned and maintained by the City of Jamestown. The City of Jamestown Department of Public Works has the authority to make design and traffic control decisions in cooperation with the NYSDOT. City streets such as First Street, Second Street, Third Street, Fourth Street, and Jefferson Street are also owned and maintained by the City of Jamestown. Design and traffic control decisions involving these thoroughfares fall under the city's discretion.

Select the Proper Design Vehicle

Deliveries to businesses, factories, and homes are critical to the city's economic vitality. As such, accommodation of truck traffic is an important consideration in the selection of appropriate street and roadway treatments within downtown Jamestown. The size and turning radius of the largest vehicle expected to use a roadway or street, known as the design vehicle, must be considered. These factors affect both lane size and the radii of curbs at intersections. They can also impact the location of signal poles, light poles, and pedestrian refuge areas. The size and turning radii of large dimension vehicles typically used throughout the United States can be found in Chapter 2 of the AASHTO Green Book.



Tractor Trailer Movement
Jamestown, NY

There are classes of highways and streets where larger vehicles must be accommodated. The State of New York's 1990 Omnibus Truck Safety Bill authorized the use of large tractor-trailer combinations (53 foot trailers) on what is known as a system of Qualifying and Access Highways[4]. Highways and streets on this network were designated by the United States' Surface Transportation Assistance Act of 1982. Vehicles pulling 53 foot trailers (an overall length of 67 feet) may travel on both Qualifying and Access highways. They may also travel on roadways or streets connected to Qualifying Highways for a distance of one mile. They are not allowed to travel off an Access Highway. Within the City of Jamestown's downtown core, only Washington Street (NYS Route 60) is a part of this network. It is designated as an Access Highway and therefore improvements for this street must be designed to accommodate 67 foot tractor trailer combinations.

[4] NYSDOT, "Official Description of Designated Qualifying and Access Highways in New York State", 2008

Not all streets need be designed to carry large tractor trailer combinations. Accommodation of a 30 foot single unit truck, 40 foot bus, or 50 foot tractor trailer combination (43 foot trailer) is common, especially within urban city centers. According to the City of Jamestown Department of Public Works, at present there are no formally designated city truck routes within downtown. Selection of a proper design vehicle for reconstruction and enhancement projects on downtown streets other than Washington Street should be based on the dimensions of the largest vehicle expected to service businesses, public facilities, educational facilities, recreational buildings, institutions, and residences. Use of a 30 foot single unit truck as a minimum standard is recommended to accommodate both small delivery vehicles and small busses used by the Chautauqua Area Transit System (CARTS). According to the City of Jamestown Planning Department, Coach USA, which operates a scheduled bus service between Jamestown, Olean, and Buffalo, is interested in using the arrival and drop off zone in front of the Erie-Lackawanna train station on Second Street to service passengers using full size (40 foot long) intercity buses. As routes are developed for this service, accommodation of large buses should be worked into future roadway reconstruction or enhancement plans.

Develop Basic Street Design Criteria

The NYSDOT has developed a document titled the Highway Design Manual[5]. The purpose of this reference is to provide requirements and guidance on highway design methods and policies and to assure uniformity of design. Municipalities without established design guides often utilize this document when planning and designing transportation infrastructure improvements. By referencing this document, these municipalities can be relieved of the need to create their own extensive requirements and guidelines and benefit from the collective experience of the NYSDOT, American Association of State Highway and Transportation Officials, and the Federal Highway Administration. In addition, the Highway Design Manual is periodically updated with new standards of practice, materials, and roadway treatments. Recommendations contained within these guidelines are based upon and consistent with NYSDOT standards.

The Highway Design Manual lists 17 important criteria that influence the design of highways and bridges. Design criteria provide guidance to individuals preparing roadway and street improvement plans. They are normally established early in planning or design. Elements including design speed, lane width, grade, and radius of curvature are important at the concept stage and are addressed where appropriate within these guidelines. Considering the community's desire to create a downtown that maintains a street system supportive of business activity yet vibrant, walkable, and aesthetically pleasing, several basic design criteria are recommended for the City of Jamestown's downtown urban core:

- The posted speed limit within the City of Jamestown is 30 miles per hour. Generally a design speed of 30 or 35 miles per hour will be appropriate. Speed studies can be conducted to determine actual operating speeds in accordance with references such as the Institute of Transportation Engineers' (ITE) Manual of Transportation Engineering Studies or Traffic Engineering Handbook. Streets and roadways can also designed with a specific operating speed in mind in an effort to tame traffic or provide a more livable environment for other, non-motorized, modes of travel. In addition, cities such as Jamestown have the ability by state law to reduce the posted speed limited in justifiable cases over short distances such as in areas adjacent to schools.

- Steep grades characterize parts of downtown Jamestown, especially its northbound and southbound streets. For design purposes it is appropriate to characterize this condition as rolling terrain which corresponds to a maximum desirable grade of 8% to 9% at design speeds of 35 and 30 miles per hour, respectively.

- Except where greater widths are required to service truck traffic or provide shared accommodation for bicyclists, travel lane widths of 11 feet are appropriate.

[5] NYSDOT, "Highway Design Manual", Chapter 2

- On streets that service significant truck traffic (more than 2%) or those designated as part of a nationwide system of truck access routes such as Washington Street (NYS Route 60), travel lanes should be a minimum of 12 feet wide.

- Curb offset is defined as a space provided between the edge of a travel lane and the face of a curb. Where 11 or 12 foot wide lanes are used, a 1 to 2 foot curb offset is desirable. It may be eliminated in situations where right of way is limited or other streetscape considerations take precedence. Typically a white edge line (between the travel lane and curb offset) is not installed in these situations.

- In general, exclusive turn lanes should be 11 feet wide. A 10 foot width may be considered in situations where truck traffic is low. Larger widths, from 12 to 14 feet, are desirable to facilitate vehicular safety and mobility, however judgment should be used to properly balance those needs against pedestrian crossing distances, streetscape considerations, and others within the city's downtown urban core.

- At a design speed of 30 miles per hour the minimum radius of horizontal curvature should be 280 feet. At 35 miles per hour the minimum value should be increased to 440 feet.

Design criteria describe minimum acceptable values and their explicit use may not result in the optimum design from a safety, operational, or cost-effectiveness perspective[6]. Designers have historically strived to exceed design criteria when appropriate, however today they often also choose to use design criteria to their advantage in fashioning a facility that fits the template of what the community "wants to be". There are cases where departures from standard values can be deemed acceptable based on transportation service, safety, environmental, scenic, aesthetic, cultural, natural resource, or community needs.

DEVELOP CONTEXT SENSITIVE SOLUTIONS

As defined by the Federal Highway Administration (FHWA), "context sensitive solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist." For example, a desirable context sensitive approach within downtown Jamestown would be to retain or replace the historic character of the existing brick pavement on Clinton, Jefferson, and Spring Streets.



Existing Brick Pavement
Jefferson Street, Jamestown, NY

The FHWA has also published a document titled Flexibility in Highway Design. This reference recognizes that transportation projects must often employ flexibility to balance a vehicular transpiration needs with proper integration into the surrounding natural and human environment[7]. This document also stresses the importance of public input during the design process to build consensus, community acceptance, and a transportation facility fashioned appropriately for its surroundings. The City of Jamestown has already begun to practice context sensitive solutions as evidenced by the *Urban Design Plan* and continuing with the formulation

[6] NYSDOT, Highway Design Manual", Chapter 2, Section 2.1
[7] FHWA, "Flexibility in Highway Design", 1997

of these guidelines. It is recommended that the City continue this collaborative approach into the preliminary and detailed design phases of future projects to ensure that the needs and desires of the community are reflected in projects that shape the downtown urban form. When community members reach consensus on a project and feel ownership, those projects are typically successful.

Flexibility inherent within existing design standards and documented design exceptions (when appropriate) are tools that can help planners, engineers, and the Jamestown community work together to balance the needs of all users while working toward an urban environment that effectively recognizes needs of all users. For more information on Context Sensitive Solutions one can visit the Institute of Transportation Engineer's (ITE) website at *http://www.ite.org/css/* and find the Draft Recommended Practice entitled Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities.

CONSIDER TRAFFIC CALMING

Traffic calming is "the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users."[8] ITE also has information and guidance on traffic calming features at *http://www.ite.org/traffic/index.html*. Traffic calming was suggested in the City of Jamestown's Urban Design Plan as an appropriate tool to help generate the character sought by the community. Traffic calming features should he implemented as the result of a conscious desire on the part of city leaders and staff to improve quality of life within a neighborhood or community for visitors and residents. They should enhance safety along streets for drivers and other users, reduce the negative impacts of heavy vehicular use, and promote alternative modes of transportation.

Objectives that may be achieved when implementing traffic calming measures within the City of Jamestown include[9]:

- Encouraging drivers to be more considerate of other street users;
- Encouraging use of non-motorized transportation modes such as walking and biking;
- Increasing driver respect for non-motorized street users;
- Improving perceived and substantive safety for all street users;
- Reducing vehicle speeds where they are incompatible with adjacent land use;
- Reducing the frequency and severity of collisions;
- Enhancing streetscape appearance;
- Achieving an overall improvement in the community's quality of life; and
- Improving access for all modes of transportation.

[8] Lockwood, Ian. "ITE Traffic Calming Definition." ITE Journal. July 1997.
[9] NYSDOT, "Highway Design Manual", Chapter 25

Traffic calming measures are typically divided between those that employ physical restrictions to lower the speed at which the prudent driver feels safe and comfortable and those that convey a message that priority has been given to creating a pedestrian and community friendly setting, possibly with special accommodation for bicyclists[10]. The latter group has the greatest potential to help the City of Jamestown realize its collective vision for the downtown core.

The following questions and others like them should be answered when traffic calming elements are proposed within the City of Jamestown:

- Is it possible to get community support from residents, business owners, transit operators, emergency service providers, the city school district, etc for the proposed action?
- Does the proposal comply with the *Urban Design Plan* or other adopted guidelines and ordinances?
- Are there significant generators of pedestrian and bicyclist activity to be considered?
- Is compliance with the 30 mile per hour city speed limit a problem on the street?
- Would a traffic calming treatment also address a known accident problem?
- Will traffic a proposed calming feature restrict necessary operations such as snow removal or utility maintenance?
- Is the City of Jamestown willing to accept a potential reduction in vehicular service quality if a proposed measure constricts flow?
- Can parallel streets handle diverted traffic if it moves there?
- Would the proposed action benefit economic vitality?
- Can the proposed feature be cost effectively maintained?



Landscaped Median
Charlotte Beach, NY



Curb Extension
Rochester, NY



Street Side Landscaping
Rochester, NY

[10] NYSDOT, "Highway Design Manual", Chapter 21

Chapter 25 of the NYSDOT *Highway Design Manual* offers guidance on selecting appropriate traffic calming measures for roadways and streets based on operating speed and function. A sampling of traffic calming measures generally suited to arterials and collectors within the City of Jamestown are listed below:

- Modified intersection channelization.
- Parking staggered on alternate sides of the street.
- Curb extensions at intersections in association with “pocket” parking.
- Pedestrian refuge islands.
- Median treatments.
- Improved bicycle facilities.
- High visibility crosswalks.
- Color contrasting pavement markings, patterns, or surface treatments.
- Pavement surface textures.
- Street side landscaping.
- Street furniture installation.
- Pedestrian scale lighting.
- Roadside or overhead gateway features.
- Signing improvements including wayfinding enhancements.
- Enhanced traffic signal systems.
- Cul-de-sac or hammer head treatments (local urban streets only).

On streets owned and maintained by the City of Jamestown, there is the flexibility to consider, in special cases and as appropriate, other traffic calming features that would otherwise not be typically recommended for a given class of street. For example, raised crosswalks and intersections would not normally be permitted by the NYSDOT on their arterial or collector roadways. However, the city might consider their use at special locations such as adjacent to the Jamestown Savings Bank Ice Arena or the Jamestown High School on Second Street in conjunction with other roadway or streetscape enhancements.

LEVERAGE TRAFFIC SIGNAL TECHNOLOGY

The City of Jamestown department of Public Works recently completed a full upgrade of all city-owned vehicular and pedestrian indications from incandescent bulbs to light emitting diode (LED) modules. Making this change has the potential to reduce energy consumption by up to 90%. The city has an opportunity to build upon that momentum and complete other signal modifications with the prospect of improving conditions for motorists, pedestrians, and bicyclists.

As noted in the existing conditions summary, the City of Jamestown owns and operates 21 traffic signals within the downtown area. It also maintains 5 signals owned by the NYSDOT. Over 60 percent of the city's signals were installed in the 1970's and are operated using electro-mechanical controllers that rely on physical gears and dials to change the lights. While the equipment is serviceable, obtaining parts for the controllers becomes more difficult with each passing year. Furthermore, these machines are incapable of running complex timing programs that benefit both vehicle and pedestrian traffic. The NYSDOT signals and remaining city installations are outfitted with solid state microcomputer control equipment, including Type 179 (model number) controllers with Traffic Actuated Processing System (TAPS) software.



Type 2070 Traffic Controller
Elmira, NY

The NYSDOT has begun a program to replace all its Type 179 controller equipment with state-of-the-art Type 2070 microcomputers statewide. The move to updated technology is part of a transition toward compliance with the National Transportation Communications for Intelligent Transportation Systems Protocol (NTCIP)[11]. Under the NTCIP, transportation control equipment from different manufacturers should operate together seamlessly. This approach is meant to allow municipalities to "mix and match" equipment from different manufacturers when building a system. In general, Type 2070 traffic signal control computers are more flexible than their predecessors, more easily programmed, and expand upon past signal timing capability. Unfortunately, experience has shown that up to this point, manufacturers have not yet completely realized the goal of complete interoperability. Other municipalities have experienced problems running software from one vendor on the traffic signal controller of another.

The City of Jamestown Department of Public Works has expressed a desire to replace existing traffic signal controllers and cabinets and take advantage of new technology, aligning with national standards and better serving the traveling public. Ideally the city would like to standardize its equipment and software selection with that of the NYSDOT to eliminate interoperability issues between signals on Washington Street (NYS Route 60) and other roadways downtown. Unfortunately, as of this time the Department has negotiated a licensing agreement for its chosen software that does not allow it to be shared with municipalities throughout the state. As an alternative, the City of Jamestown can select and standardize its own traffic signal controllers and software. It is recommended that the city consider choosing controllers and software from one vendor until such time as the true intent of the NTCIP becomes a reality or it becomes possible for municipalities to utilize the NYSDOT software. Potential vendors of Type 2070 traffic signal controller equipment and software include companies such as Eagle and Naztec.

To support an informed selection decision, it is recommended that the city seek out and talk to other municipalities that have begun to upgrade their traffic signal control equipment with Type 2070 controllers and software. In this way it can benefit from the knowledge and experiences of others. The City of Elmira is an example of one city in the Southern Tier that has such a program underway.

[11] www.ntcip.org

The City should continue to work with NYSDOT Region 5 to develop a clear scope and obtain funding for a citywide traffic signal upgrade project that can be added to the regional Transportation Improvement Plan. The city should also integrate traffic signal equipment upgrades into other its street reconstruction projects to the greatest extent possible. Effectively coordinated traffic signals can facilitate flow throughout a city's downtown district while reducing delay, fuel consumption, and vehicle emissions. Synchronization of traffic signal controllers has typically been handled within the City of Jamestown's downtown core using time base coordination and hard wire interconnects. Time base coordination relies on an internal clock within the traffic signal controller to begin appropriate phases at each intersection at the same time. While economical, this method requires routine maintenance to periodically check the accuracy of the internal clock. A hard wire interconnect involves two traffic signal controllers tied together by a cable (stranded, coaxial, or fiber optic) running through a series of underground conduit and pullboxes. One controller is chosen as the "master" and delivers an electrical pulse to the others instead of relying on an internal clock. Though reliable, underground conduit, pullboxes, and wires can be costly to install and are vulnerable to damage.

Wireless interconnect technologies present a modern alternative for synchronizing traffic signals. A wireless interconnect functions in much the same way as a hard wire connection but without the underground infrastructure. Requirements include antennae, modems, and clear sight lines from intersection to intersection. The City of Jamestown might consider a wireless interconnect to supplement or replace its existing systems as part of a traffic signal upgrade effort.

Vehicular, pedestrian, and bicyclist elements at signalized intersections should be compliant with the *Federal Manual of Uniform Traffic Control Devices*, the *New York State Supplement*, and all applicable addenda, commonly referred to as the MUTCD. Additional recommendations regarding traffic signal equipment and timings within the city of Jamestown's downtown core are provided below.

- All new vehicular traffic signal indications installed throughout downtown Jamestown should be 12 inches in diameter. The Federal Highway Administration is considering making this a requirement for all traffic signals as part of revisions to the MUTCD in 2009.
- Pedestrian indications should be installed at all signalized crosswalk locations where they do not exist today. The signalized intersection of Second Street and Foote Avenue is an example of a location with marked crosswalks but no pedestrian indications. Pedestrian indications should show a fully illuminated (filled) raised hand and walking person. This will ensure compliance with current standards and match those deployed elsewhere throughout downtown Jamestown.
- Leading pedestrian intervals can be used to facilitate pedestrian crossing by allowing individuals to establish their presence within a crosswalk before vehicles begin to make conflicting turns. The walking person indication is typically started 2 or 3 seconds in advance of a corresponding green light. This is an appropriate tool for facilitating pedestrian movement, especially in areas of high activity. Right turn on red prohibitions should be considered in conjunction with leading pedestrian intervals, especially where pedestrian volumes are high or sight lines are less than desirable. Revisions to the MUTCD in 2009 may require that at minimum, a part-time "no right turn on red" sign be installed overhead and be activated when the leading pedestrian interval is initiated to provide additional protection for those entering the crosswalk.
- Audible pedestrian signals emit a high pitched sound, usually a chirp or tweet, to notify blind and vision-impaired pedestrians that the pedestrian indications are active for a given crosswalk. They should be considered at locations where there is a potential or stated demand for their installation. This includes locations with a high frequency or likelihood of use by blind or vision-impaired pedestrians and those where they have been specifically requested by a blind or vision-impaired individual or an organization representing them. Appropriate places may include locations adjacent to transit stops, government offices, medical facilities, group homes, and others. Locations where traffic volumes are unusually high or intersection geometry is complex from the standpoint of the pedestrian may also be good candidates for this treatment.

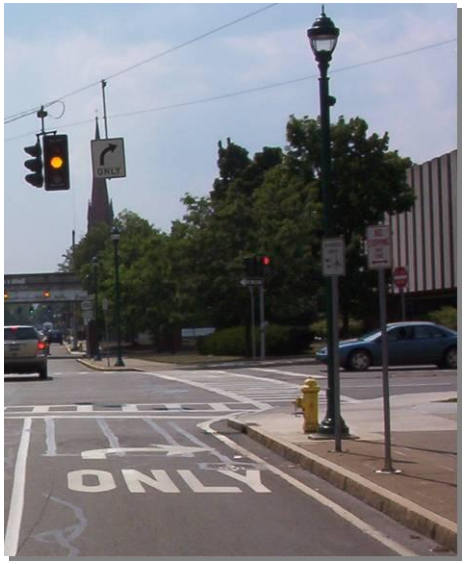
- Pedestrian clearance intervals, the duration during which a flashing raised hand is displayed, should be based on a walking speed of 3.5 feet per second. At locations where high populations of older adults or mobility impaired individuals are present, speeds of 3.0 and 2.5 feet per second may be more appropriate.
- Pedestrian push buttons at traffic actuated intersections should meet accessibility guidelines for location, height, and type. Where push buttons are installed, they should be accompanied by a push button sign clearly indicating which crossing they activate. Push buttons that emit an audible tone when depressed would be appropriate at locations where audible pedestrian signals are installed.
- Pedestrian countdown timers display the amount of time left during the flashing hand or "don't walk" interval. These devices should be considered for installation at all signalized crosswalk locations where pedestrians must cross more than 2 lanes of traffic to reach their destination. Revisions to the MUTCD in 2009 could potentially require the installation of pedestrian countdown timers at all signalized crosswalks. They should be mounted below a pedestrian indication capable of showing both the walking person and raised hand (bi-modal indication) to match other installations throughout New York State. They can be mounted inside a standard pedestrian traffic signal section such as the polycarbonate (plastic) housings currently used by the City of Jamestown. Countdown timers should be accompanied by a sign that instructs pedestrians on their meaning, especially since they would be a new addition to the Jamestown streetscape.
- Special attention should be paid to the detection of bicyclists on traffic actuated approaches to signalized intersections on designated bicycle routes or those with a high frequency of bicyclist activity. Sample methods for bicyclist detection used around New York State's southern tier include the provision of a special inductance loop behind the stop line marked with a bicyclist symbol or the installation of a smaller loop near the roadside accompanied by an instructional sign



Accessible Push Button and Signs
Johnson City, NY



Pedestrian Countdown Timer
Elmira, NY



Bicycle Detection Loop and Sign
Elmira, NY

PROMOTE ON-STREET PARKING UNIFORMITY

A lack of available public parking is perceived as a problem within the downtown core. This is not the case however, as the parking supply, both on street and off, has been determined to be adequate to serve current demand. Two factors contribute to the perceived lack of parking. These include the inability to easily circulate back to an open parking space and the variety of parking regulations posted throughout downtown. As noted in the discussion of existing conditions included in the Appendix 4 of this report, there are over 20 different types of signed parking regulations within the city's downtown core and regulations vary along each street.

As stated in the 2007 City of Jamestown Comprehensive Parking Plan – Phase III, "a successful off-street parking program is in large measure dependent on a well managed and appropriately coordinated on-street parking program."[12] That document went on to make the following recommendations for downtown parking:

- Install short term parking meters in the core central business district (1 and 2 hour duration).
- Install longer duration meters (12 hour duration).
- Coordinate the fee structure for these meters to remove competition with the off-street garages.

The implementation of these recommendations would help alleviate existing parking issues facing downtown business owners, merchants, and visitors. The following recommendations are offered in addition to those noted above to further standardize parking conditions within downtown Jamestown.

- On-street parking should be set back at least 20 feet from an intersecting street to promote appropriate sight distance for pedestrians, bicyclists, and motorists. No parking here to corner signs should be posted appropriately. Curb extensions (pocket parking) should be installed to geometrically enforce this condition where feasible.
- Parallel parking lanes should generally be 8 feet wide. Parallel parking spaces should be marked with a combination of 4 and 2 foot white lines, each 4 inches wide.
- Diagonal parking spaces should be designed in accordance with an appropriate reference such as The Dimensions of Parking, produced by the Urban Land Institute and the National Parking Association. Computer aided drafting and design (CADD) programs such as AutoTurn are also a useful tool for the location and design of this type of parking. Sight distance impacts of angled parking should be given careful consideration.
- The City of Jamestown should choose a standard parking sign design per the MUTCD and apply that standard throughout downtown. Standard signs with legends following the NYP1-2 and NYP-2-3 designs as shown in the New York State Supplement are recommended. These signs clearly highlight the restriction or duration at the top of each sign.

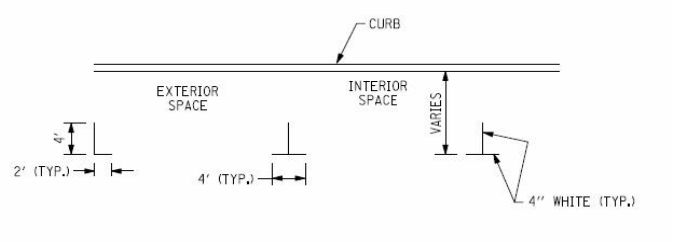


Standard Parking Signs
MUTCD

- Provide consistent wayfinding guide signs to assist visitors in locating and accessing off-street parking garages and lots from major downtown roadways using D4-1 signs or other standard panels permitted in future versions of the MUTCD.

[12] Allpro Parking, "City of Jamestown Comprehensive Parking Plan – Phase III", 2007, page 6.

- Recognizing that there will be locations that require special consideration and regulations (e.g. a 15 minute spot in front of a business that requires high-turnover for successful operation). The city should strive to create a more uniform environment of parking durations on downtown streets. Similar permissive or prohibitive conditions should be grouped together appropriately. Patterns should also be regulated from street to street to the greatest extent possible, building an expectation on the part of residents and visitors regarding what type of parking conditions they will find on similar streets.



Parallel On-Street Parking Detail
Source – NYSDOT

- Integrate designated, signed (short term) loading zones into the on-street parking plan at appropriate locations to eliminate the double parking of trucks which occasionally interferes with the travel lane.
- Parallel on street parking lanes may be surfaced with a color contrasting material to enhance the streetscape and visually narrow the roadway. Sample manufacturers of these treatments include Integrated Paving Concepts and Craftco.

INTEGRATE PEDESTRIAN AND BICYCLE FACILITIES

The City of Jamestown's pedestrian circulation system is primarily made up of sidewalks. Crosswalks are an extremely important determinant of the downtown pedestrian experience as the literal "intersection" between the pedestrian and vehicular environments. Ensuring that sidewalks and crosswalks provide a safe and comfortable walking environment is crucial to encouraging residents and visitors to spend time in downtown Jamestown.

The community also seeks to promote downtown as a bicycle friendly environment. In order to do so, adequate facilities should be provided to offer cyclists safe and reasonable travel, understanding that appropriate treatments for accommodating bicycle traffic downtown vary based on roadway classification, traffic volumes, and speeds. General guidelines for pedestrian and bicyclist infrastructure improvements are included below. More information on bicycle facility design is available in Chapter 17 of the NYSDOT *Highway Design Manual.* Chapter 18 of that same reference contains similar design guidance for pedestrian facilities.



Colored Surfacing Treatment in Parking Lane
Rochester, NY

Ensure Accessibility

The Americans with Disabilities Act (ADA) includes specific guidelines, *ADA Standards for Accessible Design (Standards)*, that should be applied when designing and improving roadways, sidewalks, multi-use paths or other public spaces to ensure they are adequately accessible to disabled persons. This document can be access on-line at *http://www.usdoj.gov/crt/ada/adastd94.pdf* and should be referred to when beginning any roadway or streetscape enhancement project.

Develop Sidewalk Continuity

The City of Jamestown should strive to have all sidewalks and walkways compliant with the Americans with Disabilities Act Accessibility Guidelines (ADAAG). These guidelines require a minimum clear width of 5 feet free from furniture, amenities, and landscaping, or utility poles, etc. The guidelines do allow for limited stretches of 4 foot passage when the relocation or removal of an obstacle is infeasible. The existence of steep grades on its northbound and southbound streets does present a significant challenge to complete compliance with the ADAAG. In cases where the ADAAG cannot be met, an alternate, accessible route should be provided.

Where separated from the street by a curb lawn, sidewalks in residential or park areas may have a minimum width of 5 feet. This treatment would be most appropriate in locations expected to experience limited pedestrian traffic. Where no curb lawn can be provided, sidewalks should be a minimum of 7 feet wide to provide both a clear walking space and an area for snow storage along the curb. On streets where there is no on-street parking, special effort should be made to include a buffer zone or planting strip to create a physical divide between moving vehicles and pedestrians.

Sidewalks carrying heavy pedestrian traffic should desirably include a 5 to 6 foot buffer from the roadside, a 5 foot wide clear passage, and a desirable 2 foot clearance between the passage and adjacent buildings. This width would allow for the accommodation of heavy foot traffic and amenities. Wider sidewalks are encouraged where feasible.

Sidewalks and walkways should generally be separated from vehicular traffic by on-street parking, landscaping, signage, curbing, or other pedestrian-oriented features appropriate for the streetscape. The city might also consider the placement of street trees along the face of buildings instead of street side where shade from the sun, delineation of entrances, and ambiance for seating areas would be beneficial for street side cafes and restaurants.

When locating, sizing, and determining the accessible routes along sidewalks it is also important to keep in mind the required separation of light poles, signal poles, utility poles street trees, street furniture, and other large elements from the roadway. While these elements are ideally accommodated within a curb lawn, throughout downtown they are often found within the first few feet of the concrete sidewalk. In general, there should be a minimum of 1.5 feet from the face of a curb to the face of these elements between intersections increased to 3 feet at the intersections themselves. This separation is important for roadside safety, protection of the elements themselves from damage, and to facilitate the opening of car doors along parking lanes.

Enhance Crosswalks

Crosswalks throughout downtown should be located at intersections wherever possible, recognizing that pedestrians will cross where it is most convenient. Mid-block crossings are not desirable. When unavoidable, special attention to marking and traffic control at mid-block locations.

It should be obvious to motorists that pedestrians will be present at crossing locations. Proper illumination should be provided (i.e. provide adequate light levels, avoid back-lighting when possible) so that pedestrians can see and be seen by approaching vehicles. In addition, street furniture, signs, utility poles, traffic signal poles, and other amenities should be located so as not to block intersection sight lines.

Crosswalks should be a minimum of 8 feet wide and may be wider where high volumes of pedestrian traffic are present or expected. All crosswalks in the City of Jamestown's urban core should be appropriately marked. Several different patterns are available including a basic crosswalk (rails only), ladder (rungs only), and a combined version (both rails and rungs). A special pattern known as the "piano crosswalk" eliminates markings (which may become slippery under wet conditions depending on the marking material used) from the primary pedestrian path

and staggers them out of the primary vehicle wheel paths to improve longevity and save on replacement cost. The City of Jamestown should select one paint pattern as its standard for all crosswalks within the downtown core.

At locations where special emphasis is desired to attract motorist attention to the presence of pedestrians or as part of a streetscape enhancement effort, color contrasting and/or textured pavements should be utilized to highlight the crossing. The City of Jamestown already has several colored (red) concrete crosswalks. There are also a number of brick paved streets throughout the city. It is recommended that the city build upon this established motif with future crosswalk designs as it contrasts nicely with an asphalt roadway. It is important to note that the white painted rails of a basic crosswalk are still required outside of the colored and textured area to satisfy the New York State Vehicle and Traffic Law.

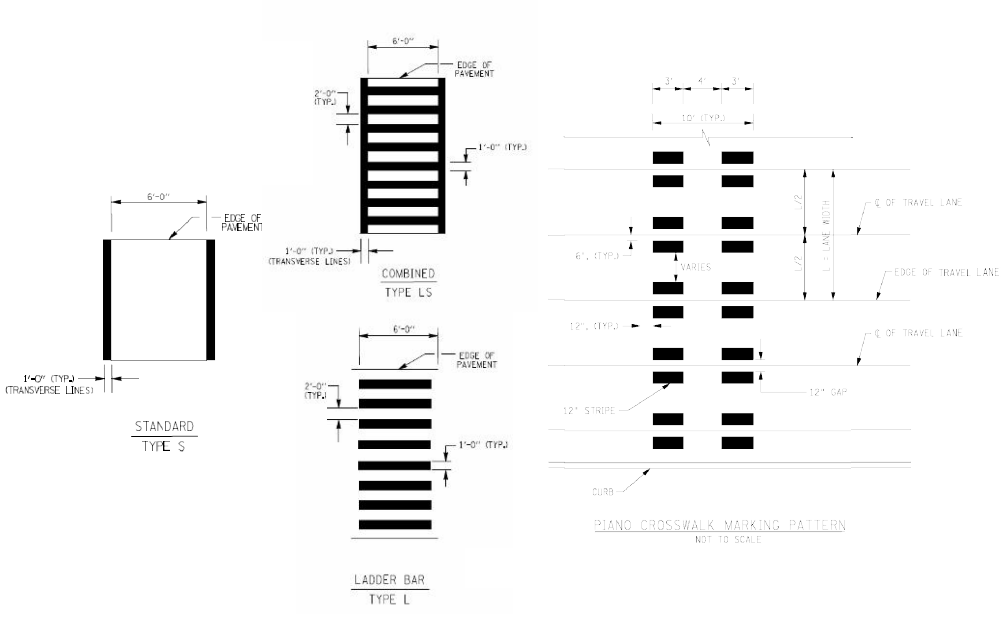


Piano Crosswalk
Rochester, NY

Durable long-lasting options for providing colored and textured pavements in cold weather environments include colored and stamped concrete and resin-based synthetic asphalt treatments. Experience in other upstate New York cities has shown that while attractive, the long-term maintenance issues associated with precast concrete paver crosswalks under heavy traffic in cold climates are a significant concern.



Existing Colored Crosswalk
Cherry Street, Jamestown, NY



Typical Crosswalk Marking Details

Regardless of the materials used to create a colored and textured crosswalk, each one should include a 4 foot wide area known as a reduced vibration zone. This is a narrower route within the boundaries of the crosswalk that is smooth and free of irregular surface features.[13] Irregular surfaces include exposed aggregate surfacing, pavers with rounded or chamfered edges greater than ¼ inch, cobblestones, stamped concrete, and other types of rough or jointed surfaces. Provision of a reduced vibration zone minimizes potentially uncomfortable or painful vibrations that can be experienced by those using wheeled mobility aids.

Curb ramps conforming to the ADAAG should be provided at all crosswalk locations. Directional ramps, two ramps per corner that facilitate movement straight into a crosswalk, are preferred. Diagonal ramps, which direct a person out into the middle of an intersection, are discouraged though sometimes their use is unavoidable. Detectable warning fields in a color that contrasts with the adjacent sidewalk are required at all curb ramps to assist the vision impaired and blind. Dark gray and red are among colors typically used. There are three usual methods to provide detectable, warning fields, including embedded pavers, stamped concrete pours, and surface applied sheets. Of these, the stamped pours are generally the most durable and require the least regular maintenance.



Detectable Warning Field at Curb Ramp
Rochester, NY



Colored and Textured Crosswalk with Reduced Vibration Zone
Buffalo, NY



Colored and Textured Crosswalk
Buffalo, NY

Identify Bicycle Routes

There are certain routes where bicycle accommodation is not only desirable, but already required. Facilities carrying designated bicycle routes, be they city, county, or state, are among those routes. The NYSDOT has designated certain highways throughout the state as preferred routes for long distance bicycling. The selection of surface treatments and lane widths are especially important along these corridors to maintain their usability. Bicycle Route 17 passes through the City of Jamestown just north of its downtown core via Fifth and Sixth Streets (NYS Route 394). There are no other designated statewide or local bicycle routes within the city of Jamestown at this time.

In order to identify additional desirable routes for bicycle traffic, the city should work with local and regional organizations, such as Healthy Steps NY, to identify current and future plans for creating a county-wide bicycle movement system and identifying how the city fits into the overall vision. Public education regarding the importance of bicycle usage in the city is also a valuable undertaking and can serve to identify the benefits

[13] NYSDOT, "Highway Design Manual", Chapter 18, Section 18.6.5.3.A

associated with increased bicycle use from both an environmental and health perspective. The general public should be made aware of bicycle routes when they are developed are located so they can be considerate of those users. Methods to educate the public on bicycle routes include signage, brochures, maps, and online resources.

Include Bicycle Accommodations

Connectivity between Bicycle Route 17, downtown, and the City's waterfront district has been identified by the community as an important way to promote tourism, alternatives to motorized vehicle transportation, and quality of life. The selection of proper lane widths, surface treatments, pavement markings, traffic signal detection, and drainage structure grates will ensure facilities that encourage safe and convenient access for bicyclists throughout the City of Jamestown.

The development of a bicycle infrastructure throughout downtown Jamestown must be balanced with other roadway features such as travel lanes, turn lanes, and on-street parking. At minimum, bicycles can be accommodated in shared use lanes. This approach is most applicable to roadways with moderate to low traffic volumes and slower rates of speed. If shared lanes are utilized on high volume roadways, signage should be installed to alert motorists to the possible presence of bicyclists. A higher level of accommodation is involves a dedicated bicycle lane.

- On low-volume local streets, a 12 foot travel lane to be shared by vehicles and bicyclists adjacent curb or a parking lane should be a minimum standard. This would be the same as providing an 11 foot travel lane with a 1 foot curb offset and no edge line.

- On arterials and collectors where bicycle traffic will share the roadway with vehicular traffic (i.e. no dedicated bicycle lanes or off-street facilities) a 14 foot travel lane is recommended immediately adjacent to the curb or an on-street parking lane. This would be the same as providing a 12 foot travel lane with 2 foot curb offset and no edge line.

- Dedicated bicycle lanes should be a minimum of 5 feet wide, separated from the travel lane by a 4 inch wide (minimum) white stripe, and marked with a bicycle pavement marking symbol. A contrasting color treatment may be applied to the surface of the bicycle lane to enhance delineation and visually narrow the vehicular roadway.

- Bicycle friendly drainage features such as reticuline grates should always be used along streets intended to carry bicycle traffic. These grates reduce or eliminate the chance of a bicycle tire becoming trapped as it passes over the drainage structure, potentially stopping or injuring the rider.



Colored Bicycle Lanes
Source, San Francisco Bicycle Coalition Website

Designate Places for Bicycle Parking

The City of Jamestown should strive to incorporate enhanced bicycle parking options throughout the downtown core to further encourage cycling as a convenient and desirable alternative to other modes of transportation. Bike parking and bike racks should be located in highly visible areas to reduce the potential for vandalism or theft. Bike parking might be made available in each of the municipal parking garages in order to provide a covered storage area for bike users. The City should ensure that bike parking is strategically located within fifty feet of all primary destinations in the downtown core, including major employment hubs such as the Municipal Building, commercial and restaurant establishments, Jamestown High School, Jamestown Ice Arena, parks, the Riverwalk, and other public buildings that generate a significant volume of traffic.

PROVIDE CONVENIENT TRANSIT STOPS

Transit stops are an important component of the downtown streetscape and should offer pedestrians a suitable area to await alternative modes of transit, including bus and van service. Bus stops, whether covered or uncovered, should be clearly signed and visible to both pedestrians and service providers. When possible, bus stops should include shelters or benches to accommodate persons as they wait. Other streetscape amenities, such as trash cans and lighting, should be located within direct proximity to any bus stops. Bus route schedules should be made available at all bus stops and may be discreetly incorporated into existing signage.



Bus Shelter
Ithaca, NY

Within the downtown core, covered bus stops are provided only at the Erie-Lackawanna Railroad Station. Bus shelters should be added at a minimum of one additional location in the downtown core to accommodate transit users in inclement weather. A location on the opposite end of the downtown core, in the vicinity of Jamestown High School, the Post Office, and government buildings would be an appropriate location for an additional downtown bus shelter.

Section 24.3.5 of the NYSDOT *Highway Design Manual* contains guidance on the design and location of curb side transit stops. Recommendations related to conditions within downtown Jamestown are summarized below:

- Transit stops should generally be spaced between 300 and 1000 feet in the downtown core with a typical spacing of 600 feet.
- The physical design and location of transit stops should be coordinated with the authority or authorities using them such as CARTS.
- The location of transit stops at the near side of an intersection, far side of an intersection, or mid block should be standardized throughout downtown to the greatest extent possible. Geometric, traffic, routing, service points, and pedestrian crossing conditions should be considered when determining the proper layout. Table 24-9 of the NYSDOT *Highway Design Manual* compares the advantages and disadvantages of each possibility. Near side and mid-block stop locations are suited to current conditions on Third Street.
- Curb side transit stops are designated areas where busses may stop in the right curb lane to load and unload passengers. They should generally be reserved for low volume streets or those with more than one travel lane in the direction of the stop to minimize the possibility of vehicles queuing behind a bus.

- Consider constructing “bus nubs.” These are sidewalk extensions that reach through the adjacent parking lane to the travel lane. They allow the bus to travel and stop in the same lane. This treatment would be best suited to low volume streets and those with more than one lane in the direction of the stop.

- Transit stops developed using a portion of the on-street parking lane would be appropriate on Third Street. They would also be well suited to Second Street and Fourth Street if converted to two-way operation.

- All transit stops should be appropriately signed with standard “No Stopping Except Busses” signs according to the MUTCD to keep them free and clear of parked vehicles.

DEVELOP A VIBRANT AND INVITING STREETSCAPE

Streetscape design elements include everything that is visible between the façade of a building facing the street and the travel lanes of a roadway. These design elements include, but are not limited to, sidewalks, street amenities, and landscaping and are intended to encourage activity on the street.

As these improvements are developed, it is important to keep the potential existence of historic districts and cultural resources in mind. For example, the former Erie-Lackawanna Railroad Station is listed on the National Register of Historic Places and thus improvements within this area should pay special attention to those resources. The area west of Foundry Alley is in an archaeologically sensitive area. Additional information on nationally listed historic districts and properties can be found online via the New York State Historic Preservation Office website at *http://www.nysparks.com/shpo/.*



An Inviting Streetscape has People, Activity, and Amenities

Recommendations and guidelines related to enhancing and improving the streetscape in the City of Jamestown follow:

CREATE STRONG CONNECTIONS

Connectivity between destinations offers users a variety of routes and helps to diffuse traffic burdens, whether vehicular or pedestrian, across a greater area. Strong connections create direct routes for pedestrian and bicycle travel (thus increasing their occurrence) and reduce trip lengths. Strong connections throughout downtown may be visual, physical, or both; they should appear safe and welcoming for all users. New connections should be promoted within the downtown core, and to surrounding neighborhoods and destinations, including public parking areas.

Strong pedestrian connections are critical to downtown's vitality. If users cannot find their way, or are unaware of the location of sites and destinations within the City, then they are less likely to stop and spend time there. The following are key elements and enhancements that should be considered by the City as future upgrades are made in the downtown core to improve pedestrian connectivity:

- Promote Third Street and Main Street as the primary pedestrian corridors in the downtown. These streets should be given priority with regards to streetscape enhancements in an effort to focus pedestrian traffic in these areas. Increased pedestrian activity will create stronger retail, restaurant, and business opportunities along these roadways and will provide direct pedestrian connections to outlying neighborhoods, as well as the Riverwalk off of South Main Street.

- Washington Street, Second Street, and Fourth Street should be considered as secondary pedestrian corridors and should also be improved with identified streetscape enhancements. These areas should become the focus of City-wide redevelopment efforts after economic success and sustainability is achieved along Third and Main Streets.

- First Street is a unique roadway within the City as it is physically and visually isolated from the remainder of the downtown core. Although the long-term goal is for First Street to become a high-volume pedestrian corridor, it has a very different character and ambiance than Third Street and Main Street. The vision for First Street is for it to function more as an eclectic downtown arts corridor that takes advantage of its visual and physical disconnectedness from the remainder of the City.

- Potters Alley between Fourth and Second Streets, and Mechanics Alley between Fourth and Third Streets, are key alleyways in the City that could be enhanced for pedestrian access. Specific recommendations for alleyways are included in the following section.

- Although a shortage of parking is a perceived problem downtown, parking studies indicate that there is an ample supply of parking within the downtown core. However, hard to navigate one-way streets and the lack of an identifiable parking identification plan make available parking spaces difficult to locate for some users. Creating strong visual connections through an improved wayfinding program that clearly delineates directions to, and locations of public parking, with a simple universally identifiable "P", would help vehicles to locate these areas. Specialty paving applications and smaller, pedestrian scaled directional signage, could also assist in directing people from public lots, garages, and on-street spaces to destinations within the downtown core.

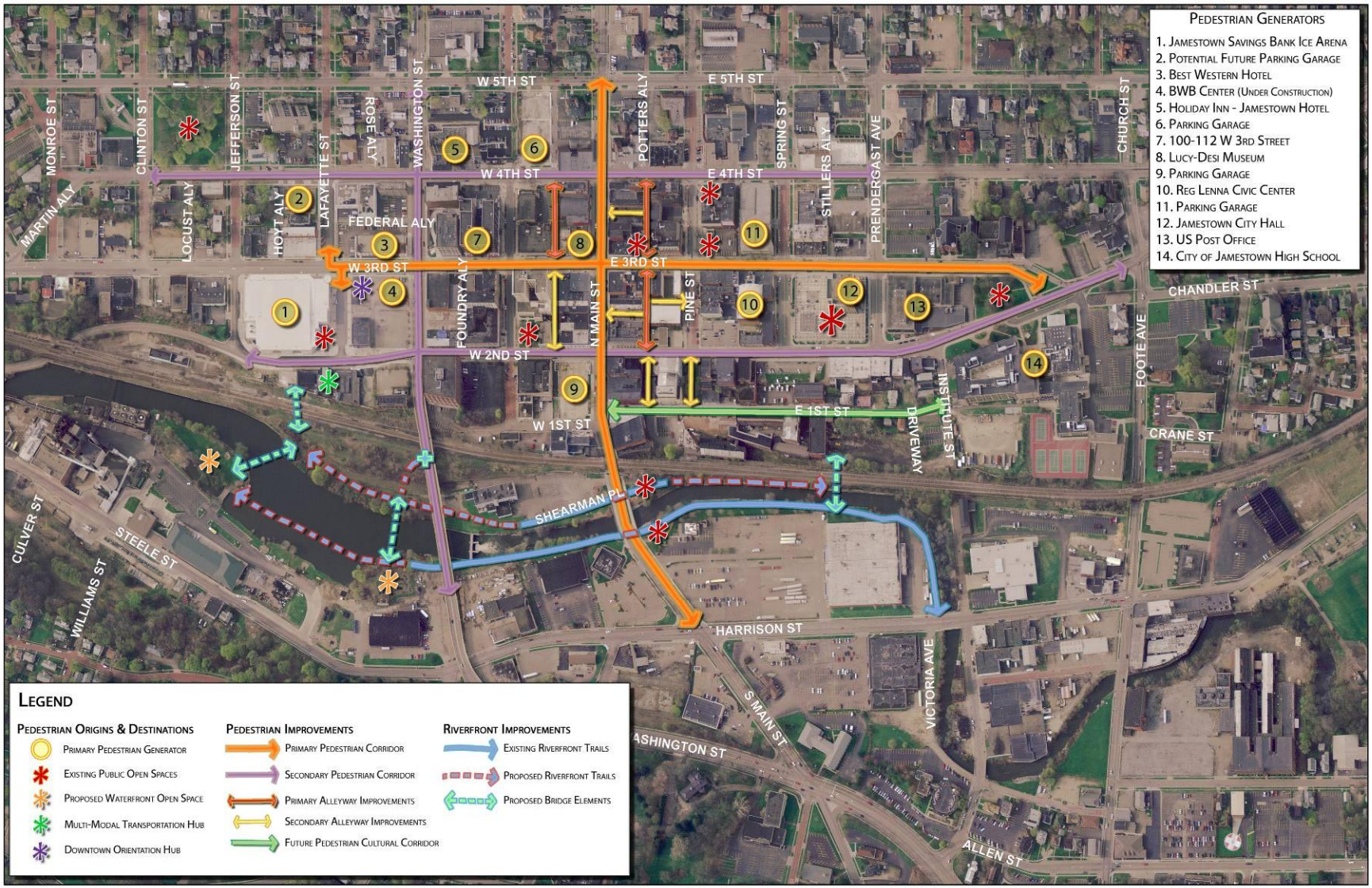
- The rehabilitated Erie Rail Station is intended to serve as the centralizing location for all public transportation in the City. Clearly identifying this multi-modal hub, and future Riverwalk connection, is an important detail in the City's overall wayfinding program. Clear signage locating this destination is imperative for visitors and alternative transportation users.

- The Urban Design Plan identifies the location of future connections to the Riverwalk and the City's riverfront areas. Connecting this natural and recreational asset to the downtown, and overcoming the current barriers which exist, will allow the downtown and riverfront area to function as one asset which can be utilized and marketed to users in tandem. The success of each of these areas is dependent on amenities that the other can provide. Primary physical connections that are recommended for implementation include the Erie Rail Station pedestrian bridge; the pedestrian platform, interpretive stair tower, and bridge from the Washington Street bridge; Main Street; and one connection via a pedestrian bridge on the east side of Main Street to the Riverwalk.

The Pedestrian Connectivity Plan graphically identifies each of these recommendations and depicts primary and secondary pedestrian corridors, primary and secondary alleyways, pedestrian generators and destinations, public open spaces, and riverfront trails and destinations.

Pedestrian Connectivity Plan

City of Jamestown



Promote Alleyways as Mid-Block Connections

Alleyways are a unique, character-defining feature within downtown Jamestown and should be enhanced as a practical means of mid-block travel for pedestrian traffic. Alleyways as pedestrian routes are particularly effective on long blocks and in areas that have a high volume of pedestrian traffic. The City should enhance targeted alleyways to serve as mid-block pedestrian crossings in appropriate areas as they will help to limit out-of-direction travel and reduce required walking distances for pedestrians. A list of prioritized alleyways should be developed based upon their proximity to highly utilized downtown sites, current condition, feasibility of reasonably incorporating necessary enhancements, and existing constraints or limitations, such as utilities and service access requirements. Currently, Potters Alley between Fourth and Second Streets and Mechanics Alley between Fourth and Third Streets appear to be particularly well-suited for improvements and enhancements as pedestrian connections.

The entrances to these alleys, and any other alleys that are enhanced in the future, should be improved with specialty paving materials, small signage, and small-scale gateway features. "Alleyscape" design criteria should be established to ensure that all alleys are enhanced and improved in a consistent manner to create a cohesive alleyway system throughout the City. The design criteria should address entry features and details, as well as required enhancements for pedestrian and vehicular safety such as lighting, pavement improvements, amenities, and murals.

"Alleyscape" design criteria should broadly include:

- Enhanced landscaping at alley entrances. Landscaping may be incorporated in planters along the length of an alley when it is limited to pedestrian use.
- Distinguishable pavement materials or patterns at the alleyway entrance to make it distinct from the sidewalk pavement.
- Historical or name markers at the alley entrance which may be embedded in the pavement or located on an entry feature or adjacent building.
- Bollards or gate features to prevent vehicular access to alleyways that are intended to be limited to pedestrian access.
- Light features at entryways to highlight alley entrances during the evening hours. Lighting at the entry way may be freestanding or attached to an adjacent building or entry feature, such as piers.
- Light features incorporated along the length of alley to create a welcoming and safe environment for users. Style of lighting will be dependent on design constraints (i.e. utilities, etc.) and intended alley users (i.e. pedestrians, vehicles, pedestrians and vehicles). Lights may be attached to the side of adjacent walls, freestanding, or hang overhead.
- Blank walls flanking alleyways may be improved with signage that is pedestrian-oriented in design. This may include "storytelling", interpretive, or wayfinding signage to educate pedestrians using the alleyway about the City, its history, and how to get to specific destinations. Keyed maps of the City with destinations highlighted would be a useful amenity for visitors.
- Public art can be incorporated on blank alley walls as murals or within pedestrian alleys as freestanding sculpture and artworks.

When feasible, alleyways should be limited to providing pedestrian access. However, some alleyways within the downtown core do serve as a required, functional area for access and deliveries, as well as utilities. Designs for alleyway enhancements must take into consideration the required and practical uses of the alley system. When vehicular access is required, incorporating design and entry elements that allow for vehicular traffic is a necessity, but must be balanced with improvements that provide a welcoming environment for pedestrians. In alleys that are currently used strictly for vehicular parking for building users, it is recommended that parking be relocated to a surrounding street or lot, and the alleyway limited to pedestrian use.

Alleyways limited to pedestrians would allow for a greater level of design integration. A pedestrian-only alley entry feature may include a wrought iron gate that could be closed to limit pedestrian access. Landscaping at the entryway and a marker located within the pavement at the entryway provides a clear indicator that you have reached a unique place. The entry to the alleyway could be further highlighted by a broad stretch of area identified with a new pavement material, such as brick. This would be identifiable by both pedestrians on the sidewalk and by vehicles driving by on the street. Some design aspects for the alleyways can be modified or removed to make a pedestrian-oriented alley suitable for vehicular traffic. Overhead signage and hanging lights would allow for vehicles to pass thru, as long as they meet specific height requirements. Specialty paving materials and improvements would benefit both cars and pedestrians. Landscaping, building signage, and bollards could be installed at appropriate alley entrances, and left off of other entrances where vehicular access was required or desirable. Alleyways that clearly need to remain passable for vehicles could also be enhanced, with changes limited to upgraded paving materials and an entry feature, such as brick piers identifying the alley name.

Potential Alleyway Enhancements
City of Jamestown



Pedestrian-Only Alley



Pedestrian-Only Alley with potential to Accommodate Vehicular Traffic



Alley allowing for Vehicular Access

Enhance the Riverwalk

The Riverwalk is a recreational asset provided to City residents adjacent to the downtown core. Currently divided in half by Main Street, the Riverwalk is not clearly identifiable as a resource for residents and visitors to enjoy. Riverwalk, particularly where it meets and crosses Main Street, should be enhanced and identified with signage that is consistent with the design and theme used throughout the downtown core.

The City should consider the feasibility of implementing additional traffic calming measures at this location to create a safe crossing for pedestrians and to help slow traffic as vehicles move into the downtown core from an area that is more suburban in design and character. Appropriate traffic calming measures would include textured, colored pavers delineating a pedestrian crossing, additional signage identifying Riverwalk and the pedestrian crossing, a short landscaped median to visually slow traffic and provide a respite for pedestrians half way across the street, and additional landscaping to provide visual cues to cars that they are entering a pedestrian-oriented environment.

Signage directing people from the downtown to the Riverwalk, and vice versa, is an important consideration and component of the overall wayfinding signage program. Signage will provide the visual relationship between these two important areas of the City. This will be especially important until such time in the future that additional physical connections, as defined in the *Urban Design Plan,* are able to be fully implemented.

INCORPORATE IDENTIFIABLE SIGNAGE

Accurate orientation provides a sense of comfort and safety. Any details provided on the street helps people to know where they are and that helps to make the city a more comfortable place. Components of the streetscape, such as a thematic wayfinding sign program, should be repeated to offer users the level of comfort they seek and to create the sense of place that people desire. The City of Jamestown should develop a comprehensive signage program that includes detailed designs for a hierarchy of future sign needs, including gateway, directional, interpretive, and parking signs. Informational kiosks and exhibits are also an important part of the overall wayfinding system. Signs should be coordinated to be as graphically consistent as possible to further promote the thread of continuity between the downtown streetscape.

The courtyard and open space being developed as part of the BWB Center project should serve as an organizing destination within the downtown core and should be considered as a key location for the dissemination of information. This location is strategically located adjacent to the ice arena, train station, future pedestrian links to the Riverfront, and the Third Street commercial corridor.



Pedestrian Wayfinding Map
Source, Best Practices in Bicycle and Pedestrian Wayfinding in the Washington Region, 2007

Help People Find Their Way

Wayfinding guide signing programs have been developed and instituted by municipalities across the United States for more than two decades. In the past, a lack of specific guidance on their development has led to large variation from one locale to another. Current national guidelines include the 2003 FHWA Draft Guidelines on Wayfinding Guide Signing and a 2006 update. Today the FHWA is considering additions to the MUTCD in 2009 that will standardize the sizes, colors, fonts, text sizes, contrast ratios, allowable pictographs, and number of destinations that can be used on vehicular wayfinding signs. Additional guidelines for pedestrian wayfinding signs may be added in the future. As the City of Jamestown begins to develop detailed designs for its own wayfinding system, the following guidelines based upon current and proposed FHWA guidance should be referenced.

- The selection of places for wayfinding signs maybe based on the level of expected vehicular and pedestrian activity, the significance of the destination, community requests, and other factors deemed appropriate by the City of Jamestown.

- Colors other than approved MUTCD colors may be used on wayfinding signs to color code destinations, but the use of MUTCD Red, yellow, and orange are not allowed.

- Word messages should be brief and should be printed in a text that provides the same legibility as standard highway type faces with a letter height of 1 inch per 30 feet of legibility distance on signs to be used by motorists. City of Jamestown might consider use of the Clearview font for wayfinding guide signs as it provides an improved level of legibility from long distances and benefits older individuals. It may however, result in slightly larger sign sizes as compared to the standard alternatives.

- The number of destinations on a single vehicular wayfinding sign should be limited to 3.

- Boundary signs, which are typical green guide signs with white lettering and borders, must be located at the boundary of the wayfinding area and show motorists the color coding system that will be used by subsequent signs.

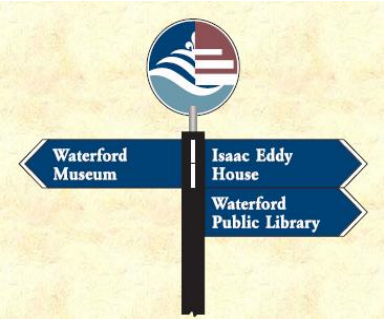
- Commercial logos (i.e. McDonalds) are not allowed on wayfinding signs. Pictographs for government agencies, transit authorities, or public institutions may be displayed on the signs.

- The vehicular and pedestrian wayfinding signage systems should be coordinated.

- Pedestrian wayfinding signs should be used to direct persons over short distances, usually less than ½ mile away.

- A higher but appropriate level of detail may be provided on pedestrian wayfinding signs when compared to their vehicular counterparts. They may serve both an informational and educational purpose where appropriate and may include text, maps, and pictures.

- Bicycle routes and multi-use path wayfinding should conform to existing MUTCD standards and guidance.



Post and Blade Pedestrian Wayfinding Signage
Source, NYS Scenic Byways Sign Manual

Though not directly applicable to pedestrian wayfinding signs, related guidance on similar pedestrian scale signage can be obtained from the *New York State Scenic Byways Sign Manual,* available as Appendix 11A to the NYSDOT *Highway Design Manual*.

In coordination with a signing plan, another possible wayfinding application might involve the creation of a self guided pedestrian tour showcasing downtown Jamestown, made available to residents and visitors through the city's official website, Discover Jamestown, or that of another municipal organization. The tour could be downloaded to a personal iPod or other MP3 player in podcast format and taken along on foot. The content of the tour could highlight downtown history, landmarks, festivals, or any other element the city wishes to showcase to place in the spotlight. A similar program is in place for the Freedom Trail in Boston Massachusetts. Information on the Freedom Trail is available online at http://www.thefreedomtrail.org/.

An orientation sign / kiosk should be located near the intersections of Third and Washington Streets and Third and Main Streets as they are both high volume pedestrian areas. The kiosk should include a map of the downtown including all points of interest, businesses, and restaurants. The kiosk should also include brochures that visitors can take along with them that identifies the various business and attractions and includes key information such as hours of operation and the location of public parking and restroom facilities. The design of the orientation sign / kiosk should be coordinated with the preferred signage design for the wayfinding and interpretive signage programs in order to maintain a cohesive identity throughout the downtown, and the City



Sample orientation kiosk
Rochester, NY



Freestanding Perpendicular Business Signage
New Castle, Delaware

Permit Businesses Visibility on Street

Perpendicular signage should be permitted in front of or on businesses within the downtown core to improve the visibility of restaurants and businesses for both pedestrians and vehicles. People driving in their vehicles are more likely to stop for a store or business they are interested in if they see it before they have already passed it.

Perpendicular signage, when freestanding, should be limited to streets with a high volume of pedestrian traffic and wide sidewalks that can accommodate the additional space required. The design of perpendicular signs should have the same general design scheme but should allow for individualization by each business.

Perpendicular signage attached to buildings should be proportionately sized and in a design and color scheme that is appropriate and considerate of the building. Historic detailing and design elements consistent with historic structures are recommended.



Perpendicular Business Signage
Essex, Connecticut

Interpret the History of the City

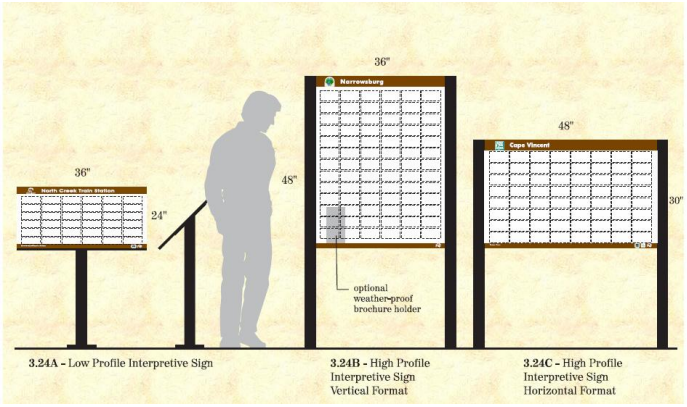
The City has a rich history and a variety of cultural organizations and elements that should be promoted in a manner that educates and entertains visitors to the downtown core. Promoting the heritage of the City, sharing its history with a broad audience, and educating both residents and visitors about the significance of the community will foster local pride, promote awareness, and draw a wider audience to the downtown.

Discrete community interpretive exhibits are recommended for the downtown core, as well as the Riverwalk and other areas of the City beyond the immediate downtown core. Exhibits should be installed in public areas linking strategic sites. Sites could be coordinated with walking tours with brochures available at informational kiosks or information distribution points, such as the BWB Center area. Interpretive exhibits should be well designed with quality materials and conservative in appearance and scale.

Community interpretation is intended to be limited in extent and in content. Community exhibits should go beyond the mere statement of facts. Interpretation is only successful when it uses information to reveal meanings and relationships. Good interpretation should stir visitors' emotions and provoke reconsideration of the facts. It should be engaging rather than didactic, dynamic rather than passive.

The City should work with local historic organizations to identify relevant stories and themes that are important to Jamestown's development. An interpretive sign program would be an expansion of the City's Historical Marker Program. A number of these historical markers are already located at sites within the downtown core and stories have been identified for various sites and important events in the City's history. These stories should be expanded upon and incorporated throughout the City to add interest to the streetscape, though identifying sites for storytelling should be strategic and meaningful.

The City should also make strides in implementing the History and Cultural Trail to loop through the downtown core. The trail should incorporate interpretive signage and vignettes to tell the story of the City and highlight key figures in the City's history. The trail should be identifiable to visitors through an integrated and unique signage and paving system that directs people to each of the trail "stops".



Interpretive Signing Formats - Source, NYS Scenic Byways Sign Manual

PROVIDE AMENITIES ON THE STREET

The integration of pedestrian-oriented furniture and amenities is encouraged throughout downtown Jamestown. Pedestrian furniture and amenities appropriate for Jamestown include benches, trash receptacles, bike racks, pedestrian-scale lighting, public art, and wayfinding and directional signage. Pedestrian-oriented furniture and amenities should be incorporated in a consistent manner throughout the entire downtown core in order to maintain continuity in the downtown streetscape. A preferred design palette / template should be developed and adhered to when improvements are made throughout downtown. When installed and selected in accordance with these guidelines, the streetscape furniture and amenities will enhance the pedestrian environment, encourage walking and activity downtown, and promote great streets and neighborhoods.

Although the installation of pedestrian amenities on the street is encouraged, the City should be careful when selecting amenities in order to avoid installing too many, which creates an overly cluttered streetscape. Selecting a single design palette for various types of pedestrian furniture and amenities will help to create a sense of continuity throughout downtown and contribute to overall "placemaking" efforts. All amenities should be

selected to be durable and resistant to both Jamestown's weather conditions and potential vandalism. In some areas of the City historic streetscape elements have withstood the test of time; these elements should be maintained to the greatest extent possible.



Public amenities are not necessarily a cheap way to update the streetscape, particularly when the desire to implement a program is on a large-scale. The City should encourage people and businesses to leave their mark on downtown Jamestown by creating a gift program that allows them to donate money for specific amenities at specific locations. In return, the donor is remembered and thanked through the incorporation of a plaque associated with that amenity. For instance, a plaque associated with the donation of a downtown bench may read, "Mr. So-and-So invites you to sit and stay."

Create an Outdoor Roof

Awnings are a pedestrian-friendly gesture as they create an outdoor roof by helping to protect sidewalk users from the natural elements, whether it be the sun, rain, wind, or snow. Awnings draw in pedestrian traffic and as a result create busier streets, which in turn, result in more business for adjacent retailers and business owners. Awnings should be considerate of the scale and overall size of the building façade on which they are placed and color selection should be compatible with building features.



Appropriately Designed Building Awnings

Install Banners

Banners are a non-permanent streetscape enhancement that can help to market strategic sites or events in the downtown core. They can help foster a sense of community pride that highlights the positive attributes of Jamestown. Banners should be placed on light poles on high volume pedestrian and vehicular streets, such as Main Street, Washington Street, and Third Street. The design and colors of the banners should be modified on a regular basis as events and marketing opportunities in the downtown change. Some locations within the City, such as Cherry Street have banners which contribute to the desirable character of the streetscape. The banner program should be expanded to include a greater area within the downtown core.

Provide Seating Opportunities

Seating should be provided throughout the downtown core as the City of Jamestown's way of inviting people to stop and enjoy the downtown setting. While benches, or other seating options, should be installed on every street within the focus area, a greater concentration of seating opportunities should be available along streets that experience a greater volume of pedestrian traffic. At least two seating opportunities per block should be provided along Third Street and Main Street. Specific blocks with a high profile destination, such as the ice arena or transit station, may require additional seating options. At least one seating opportunity should be provided, per block, on all other streets in the focus area.



Bench with a memorial marker

Benches should be of a consistent design throughout the downtown and in surrounding public parks and open space areas. The design should reflect the historic character of Jamestown and should be classic, simple, and comfortable. Benches should be consistent in color and once implemented, will contribute to the creation of a

cohesive downtown streetscape. Dark green and black benches are appropriate options for the downtown. Metal benches tend to be attractive and are fairly durable. The design scheme of the benches should be carried through with other pedestrian amenities in order to achieve a consistent palette.

Spontaneous seating opportunities should also be provided throughout downtown. This concept involves the use of walls, artwork, sculptures, or other streetscape items to provide interest within the streetscape while unoccupied, but also give pedestrians a place to lean or sit when needed. One inherent advantage of spontaneous seating areas over traditional benches is that they do not contribute to an empty and desolate character when unused as they still have an identifiable function.



Existing Pedestrian Light Post
City of Jamestown

Illuminate Pedestrian Walkways

Integration of pedestrian-scale lighting encourages pedestrian activity and helps foster an atmosphere of comfort and safety for all users, particularly during evening hours. Pedestrian scale lighting should be incorporated along all downtown streets, considering a greater concentration of lights on streets with higher pedestrian volumes. While dual-purpose light posts with both vehicular and pedestrian-scale luminaires are appropriate for downtown intersections, pedestrian only light posts should be used in between to ensure a continually lighted sidewalk and roadway corridor. Pedestrian-scale lighting should not exceed twelve to fourteen feet in height and should be located generally 40'-50' apart on streets with high pedestrian volumes. Pedestrian-scaled lighting can be placed at wider increments on streets with a lower volume of pedestrian traffic, though spacing generally does not exceed 50'-75'. Marching or staggered arrangements can be chosen on a case by case basis to ensure proper lighting levels in both sidewalk and roadway areas. The exact spacing of pedestrian lights should be determined as part of the detailed streetscape design phase and will vary based on the height of the fixtures, intensity of light, arrangement, fixture style, design, and adjacent foliage. Street and sidewalk lighting levels should be maintained at a minimum of 1 foot candle and the average to minimum uniformity ratio should not exceed 4:1 according to the Illuminating Engineering Society of North America. Minimizing light "spill" into adjacent businesses and apartments is another important consideration. Sidewalk and street lighting levels must be balanced against the potential for unwelcome light pollution in residential areas. Proper cut-off should be provided and consideration of adjusted lighting levels given in areas where residents are present.

A single light style should be chosen and installed throughout the downtown core. Currently, the City has three primary light styles found throughout the focus area, including traditional vehicular style lights, pedestrian scaled lighting in a classic Victorian style, and dual purpose light poles that have both vehicular and pedestrian light features. The new dual poles were intended to be installed throughout the downtown core but their installation has been delayed due to issues between the City and State Historic Preservation Office (SHPO).



Existing Dual-Purpose Light Post
City of Jamestown



Existing Vehicular Light Post
City of Jamestown

It is recommended that the City continue to meet with SHPO to identify their concerns and to determine a reasonable solution for both parties so the installation of these poles, or similar, can be continued. The design and aesthetics of these light poles is appropriate for the downtown core, particularly on streets with a high volume of traffic. On streets with limited vehicular traffic the larger poles can be used less frequently and pedestrian-only poles can be used in their place. The existing pedestrian only poles which have been used on Third Street and in association with new development projects are attractive and should be continued to be used in association with any future lighting projects or new developments. New developments that will be installing outside lighting should be required to purchase and install matching light poles in an effort to maintain consistency in design throughout the streetscape.

Provide Public Comforts

Public facilities in the downtown core include public restrooms, water fountains, and informational kiosks. The presence of pedestrian facilities is directly associated with creating a comfortable environment for downtown users. Public restrooms are also commonly referred to as comfort stations, and rightfully so. They should be identifiable and available to downtown users as they are a key priority in creating a welcoming and comfortable city experience. Public restrooms can be in stand alone shelters that are designed to attractively integrate into the streetscape. While the cost of these may be a deterrent, if advertising were allowed in an area on the facilities, they could pay for themselves over a short period of time.

Promote Recycling and Clean Streets

Trash cans and recycle bins should be provided on each block within the downtown core. By adding recycling bins together with standard trash cans, the City will be helping to promote recycling as second nature. There are a wide variety of designs and styles available to accommodate trash and recycling service downtown. Ideally, trash cans and recycling containers should be of the same design with their specific use clearly identified. The color scheme selected for trash and recycling containers should be consistent with the color scheme selected for other pedestrian amenities, such as benches. Trash and recycling containers should have simple, clean lines and be similar in character to other amenities. They should not detract from the overall aesthetic character of the streetscape.

Recycling “centers”, as shown in the image to the right, could also be placed at strategic locations in areas that experience a high volume of pedestrian traffic.



Recycling Center



Trash Can and Recycling Bin Identifiable By Recycling Sticker

Provide Ash Trays

Public ash trays provide a designated place for cigarette butts and ashes, reducing litter associated with smoking. Public ash trays can be discreetly attached to trash receptacles and can help keep used cigarettes off the street.



Ash Tray Attached to Trash Can

GREEN THE PUBLIC REALM

Street trees and landscaping enhance the road edge and create an attractive streetscape for both drivers and pedestrians. City wide standards and specifications for landscape materials, specifications, and maintenance should be developed and implemented in order to fully achieve continuity in the downtown streetscape. The city should develop a series of landscape specifications that must be followed by all municipal agencies and private developers when undertaking work that impacts the downtown streetscape.

Street trees help to reduce heat and air pollution and increase pavement lifecycle. Street trees should be planted to provide maximum shading of sidewalk and pavement areas. When selecting plant species for the Jamestown streetscape, native species should be chosen over exotic or invasive species. Due to the weather conditions in Jamestown, landscaping materials should be tolerant to road salt, strong winds, and other weather-related conditions. Specific tree species that are tolerant to existing conditions in the City of Jamestown are identified in the table to the right.

Recommended Tree Species

City of Jamestown

Small Urban Trees (< 30') with Hardiness and Salt Tolerance for Jamestown New York

BOTANICAL NAME	COMMON NAME	NOTES
Acer campestre	Hedge Maple	Only narrow tree pits if pruned regularly
Acer tataricum	Tartarian Maple	
Acer tataricum ssp. ginnala	Amur Maple	Only narrow tree pits if pruned regularly
Cercis canadensis	Eastern Redbud	Questionable salt tolerance, good for parks
Cornus mas	Corneliancherry Dogwood	Only narrow tree pits if pruned regularly
Crataegus crus-galli var. inermis	Thornless Cockspur Hawthorn	
Crataegus phaenopyrum	Washington Hawthorn	
Crataegus punctata var.inermis 'Ohio Poineer'	Ohio Pioneer Dotted Hawthorn	
Crataegus viridis 'Winter King'	'Winter King' Hawthorn	
Fraxinus excelsior	European Ash	
Fraxinus pennsylvanica	Green Ash	
Koelreuteria paniculata	Goldenraintree	
Malus species	Crabapple	
Pyrus calleryana	Callery Pear	
Styphnolobium japonicum(Sophora japonica)	Japanese Pagodatree	
Syringa reticulata	Japanese Tree Lilac	
Zelkova serrata	Japanese Zelkova	

Medium to Large Urban Trees (> 30') with Hardiness and Salt Tolerance for Jamestown New York

BOTANICAL NAME	COMMON NAME	NOTES
Acer pseudoplatanus	Sycamore Maple	
Alnus glutinosa	European Alder	Good in poorest soils and as a windbreak
Eucommia ulmoides	Hardy Rubber Tree	Good for park areas
Fraxinus americana	White Ash	
Ginkgo biloba	Ginkgo	
Gleditsia triacanthos var. inermis	Thornless Common Honeylocust	
Gymnocladus dioicus	Kentucky Coffee Tree	Good for park areas
Maclura pomifera var. inermis	Osage Orange	Useful as windbreak
Metasequoia glyptostroboides	Dawn Redwood	Good for park areas and big tree lawn areas
Nyssa sylvatica	Black Tupelo	
Platanus x acerifolia	London Planetree	Wide Tree Pits Only
Prunus sargentii	Sargent Cherry	
Quercus robur	English Oak	Wide Tree Pits Only
Quercus rubra	Northern Red Oak	Wide Tree Pits Only
Ulmus americana	American Elm	
Ulmus parvifolia	Chinese Elm	

** Note: Urban tree species selections are highly situational, and should be considered on an individual basis when planting*

Tree species should be selected that have an appropriate canopy and leaf mass to effectively shade roadways and sidewalks without interfering with vehicular or pedestrian travel. A minimum of seven feet should be maintained between the lowest branches of a tree and the sidewalk or pedestrian walkway and a minimum of twelve to fifteen feet should be maintained between the lowest branches of a tree and the roadway. Tree wells incorporated into the sidewalk should be used to maintain the health of street trees.

Where street trees are not appropriate, shrubs, tall grasses, or other native vegetation may be substituted. Planting boxes should be incorporated to continue the character that vegetation brings to the streetscape. Annual inspections of all vegetation should be conducted to check for pests, damage, or disease. The City should take responsibility for pruning trees and ensuring new vegetation is planted during the optimum season based on species.



University Avenue
Rochester, NY

Additional landscaping should also be incorporated at surface parking lots. Entrances to new and existing parking lots should be narrowed to create an additional area for landscaping to help screen the parking lot from the sidewalk area. Appropriate plant materials should be used based on the size of the available landscape area.

In 2005 the New York City Department of Design and Construction published its High Performance Infrastructure Guidelines. That document outlines a range of treatments and best management practices to advance a green, environmentally friendly infrastructure within the public right-of-way. It is available online at *http://www.nyc.gov/html/ddc/html/ddcgreen/documents/hpig.pdf.* The guiding principles behind these guidelines are the promotion of a sustainable urban ecology, the enhancement of public, health, safety, and quality of life, and the optimization of lifecycle costs and performance. Vegetated filter strips or swales, rain gardens, and the reduced use of turf grass in curb lawns are environmentally friendly practices that could be used green the public realm in the City of Jamestown.

SHOWCASE PUBLIC ART AND SPACES

Within the downtown core of the City there are a number of green and open spaces for pedestrians and visitors to stop, relax, and enjoy the urban environment. Streetscape activity should be promoted around these spaces in order to maximize there use. Public spaces within the downtown help to foster social activity and interactions and as a result have the potential to stimulate property values, the sense of safety and well-being, and the overall maintenance of the streetscape..



Public Art on a Traffic Control Cabinet
Susan B. Anthony District, Rochester NY

Encourage Public Art

Public art and decoration is a city comfort that functions as a high-class form of graffiti. It is a conversation piece that can help to foster human exchange and social interaction on a downtown street. Public art should be incorporated into various streetscape elements to the greatest extent possible. Public art can be integrated into streetscape design elements such as paving, planters, and water fountains.

Public art should be used to highlight gateways and public spaces. Stand alone public art is appropriate in these areas as it creates interest along the streetscape and serves as a "destination" when part of a city-wide program. Significant pieces of public art should also be lit so they remain a viable part of the downtown streetscape in the evening hours.

The City of Jamestown should implement a downtown-wide mural program which allows blank walls of buildings to be decorated with murals, in an effort to enhance and beautify the streetscape. The murals could be completed by local artists, visiting artists, or students Jamestown High School. Murals should be an important component of the enhanced alleyway system proposed for the downtown.



Representative Example -Mural Program
Philadelphia, PA

Pocket parks and public spaces throughout the downtown core are wonderful locations to allow local artists to work in public, creating interest on the streetscape and providing an opportunity for conversation and social interaction.



Public Sculpture
Ithaca Commons, Ithaca, NY

Celebrate Pocket Parks and Public Spaces

Small parks and public spaces surprise the traveler as they make their way through downtown Jamestown. However, many of these spaces are not clearly defined or welcoming in their current design. Small, public spaces are an integral part of the downtown streetscape and create little "havens" away from the hustle and bustle of the street.

In order to better highlight these small parks and open spaces, and welcome users into them, a number of design criteria should be followed. Parks and public spaces should have an identifiable connection to the neighborhoods and user groups they are intended to service. This may be achieved through banners, signage, pavement materials, or landscaping. The purpose and function of spaces should be clearly identifiable. Amenities should be provided within the spaces to identify, for potential users, how the space is intended to be utilized. Benches or other seating options should be incorporated into public areas to encourage interaction and socializing. Amenities should be consistent with the palette selected for the downtown core in order to maintain continuity between the streetscape and secondary public spaces. Public spaces should be well lit to convey a feeling of safety and security for users. Public spaces should have some level of landscaping to provide shade cover and visual interest. Clear routes should be identified, as part of the wayfinding and signage program, to direct people to the pocket parks and public spaces throughout downtown. Knowing these spaces are there for public enjoyment is the first major step in maximizing there use on a regular basis.

The City should consider combining the needs of adults and the needs of children into any updates they undertake at the various small pocket parks within the downtown core. This is particularly important in the central business district where there is a lot of foot traffic. A small sandbox, child size picnic tables, and other small equipment could easily be incorporated into any of the outdoor public spaces already established in the down. This enhances the user-friendliness of the downtown and enhances the street for a greater variety of users.

PROMOTE ECONOMIC DEVELOPMENT DOWNTOWN

A lively downtown is directly related to the economic viability of retailers, restaurants, cultural establishments, and employment centers. In order to create a vibrant destination, more people need to take to the streets and visit downtown. The following guidelines are intended to assist downtown business owners, landowners, and economic development officials in creating a downtown environment that entices and brings more people onto the street and into area businesses.

Encourage a Sufficient Concentration of Downtown Housing

Downtown residents are critical to the revitalization of downtown Jamestown and have the greatest interest in seeing the downtown core rejuvenated. The upper stories of downtown buildings are ideal locations for housing units and developers should be urged to pursue the rehabilitation and construction of buildings that offer a variety of uses, particularly retail on the first level and office space and residential units above. Residents that live downtown require services and can help to secure the economic sustainability of downtown retailers by frequenting their shops for both everyday and specialty goods.

Encourage a Sufficient Concentration of Retail Uses

For businesses that are small, independently owned, and do not offer a full range of goods and services such as those provided by today's big box retailers, it is difficult to sustain a business that stands alone. With so many shopping options available to consumers today, and so many constraints on peoples' time, it is important for consumers to have the ability to visit a number of retail shops and services on a single shopping trip. In order for retail business in the downtown core to be successful and sustainable, there needs to be a sufficient concentration of retail uses that, together, create a "destination" shopping experience. City officials should identify potential incentive programs for attracting the types of small

scale businesses that have a reasonable potential for success. These retail uses should include a mix of service-oriented shops for downtown workers and residents, as well as specialty shops that have the potential to appeal to both locals and visitors.

Encourage a Sufficient Concentration of Downtown Employment

Downtown employees are also key to downtown success, as they will shop, visit attractions, and eat in the downtown during lunch breaks and after the work day. Guests to downtown employment centers will also have the opportunity to visit downtown retailers and will be more inclined to return for a visit on their own time is they have a positive experience. The construction of the BWB Center as an employment hub in the heart of downtown is an important first step in the City's efforts to attract other western New York headquarters and regional businesses. The City should work with employers in the downtown core to develop a downtown employee parking plan which includes designated locations for employee parking, allowing prime parking spaces to remain free for potential visitors to local shops, restaurants, and attractions.

Ensure Downtown Businesses are User-Friendly

Retailers in the downtown need to be responsive to the needs of their customers in order to attract, and maintain, a greater volume of sales and draw people in that may otherwise go to a suburban shopping center, mall, or big box chain. Retail businesses cannot limit their hours from 9 AM until 5 PM from Monday to Friday when many customers are at their jobs and unable to shop. Retailers, restaurants, and cultural sites in the downtown business district should agree to remain open through the evening at least one night per week in order to allow local residents the opportunity to do shopping. If all retailers remained open the same night, as suggested, residents would have a destination and reason to shop downtown. Many small downtown areas throughout the country, such as West Chester, PA, implement evening hours on a regular basis in order to cater to their working customers. Many times these evenings are themed nights, such as "Thursday Night Out in Jamestown" and may include other events, such as concerts in one of the parks, outdoor displays, and art festivals. Creating a theme also helps to establish a marketing slogan that can be used in advertisements in stores and in publications throughout the local and regional community. Businesses should also consider the benefits of remaining open on Saturday and/or Sundays in an effort to attract both local residents and to take advantage of the influx of visitors, who are most likely to be visiting local sites and attractions and participating in special events on the weekend.

Identify Appropriate Uses for Vacant and/or Underutilized Properties

Vacant and underutilized buildings in disrepair detract from the overall streetscape aesthetic. The City should undertake a building inventory to identify existing vacant or underutilized buildings and to determine what the highest and best use for each building or site may be in order to further the City's overall goals for the downtown as a place people can live, work, and recreate. For historic buildings, the federal Rehabilitation Tax Credit Program provides a 20% tax break for construction and property acquisition costs associated with historic buildings. The tax credit is one possible way to offset rehabilitation costs.

Develop a Series of Special Events that Appeal to Local Residents and Regional Visitors

Special events are a great way to bring a significant influx of people into a community and to showcase what Jamestown has to offer – from the Riverwalk, to downtown merchants, to a great artist community, and Lucy and Desi. When special events are done right, they showcase the community as a great destination and spur repeat trips at other times for people to further explore the businesses, restaurants, and attractions within the area. In order to better market the downtown as a great place to visit, the City should work with local stakeholders to develop and identify a series of special events that could showcase the assets of the community and draw visitors in from a regional level. This could be accomplished by establishing new events, enhancing long-standing downtown events that are already in place, and building on existing programming already offered by various cultural organizations.

When establishing a special events program for the downtown, the focus should be on implementing a limited number of high-quality events, as opposed to a greater number of smaller events that do not have recognizable positive impacts for the City or downtown vendors. A City-wide special events program should focus on quality, not quantity. The number of events held annually does not necessarily automatically lead to greater economic development success. High quality events that are attractive to a group of people with greater spending power and more disposable income are likely to have positive implications on downtown businesses and downtown economic development.

Special event programming also has the potential to create additional traffic issues within the downtown core, making the area less attractive to visitors and local residents during the periods when special events are occurring. This further supports the strategy to identify a smaller number of special events that have the potential to have the greatest positive impact on Jamestown by drawing a desirable visitor base. Special events should be scattered throughout the City to showcase different neighborhoods and areas and to ensure there is no excessive burden on downtown businesses and retailers with respect to street closings and limited access to their establishments while events are occurring.

Chapter 3: Study Area Improvements

INTRODUCTION

Recommended study area improvements build upon the General Guidelines and Recommendations provided in Chapter 2. Specific recommendations are provided for some roadways within the study area and should be considered in addition to the General Guidelines and Recommendations. While the general guidelines in Chapter 2 are applicable throughout the downtown core, the guidelines and recommendations provided in Chapter 3 identify where selected improvements can be made to achieve the overall goals and objectives of the Jamestown community. Detailed discussions of key enhancement areas including Second Street, a one-block area around the Jamestown Ice Arena, and Fourth Street, are included.

STREET-BY-STREET IMPROVEMENTS

Specific guidelines and recommendations for streets within the study area are as follows:

JEFFERSON STREET

On Jefferson Street, between Fifth and Fourth Streets, there is diagonal on-street parking adjacent to Baker Park. People utilizing this parking often park vehicles farther into the spaces than required. This results in vehicles overhanging and intruding onto the adjacent sidewalk. It is recommended that wheel stops be added to these spaces in order to ensure the sidewalk remains free and clear from obstruction.

LAFAYETTE STREET

The intersection of Third Street and Lafayette Street should be highlighted as a central location within the downtown core that provides information to pedestrians related to getting around the City, key destinations, and other anecdotal information. To better define this area, informational kiosks and a character-defining downtown feature, such as a clock tower, should be incorporated into the public open space.

CHERRY STREET

Cherry Street represents one of Jamestown's most attractive streets. A small pocket park at the corner of Cherry and Second Streets that includes landscaping, shade cover, and benches is a character-defining feature. Unfortunately, the park is tucked away in a back corner of the downtown and as a result, is an underutilized resource. The Cherry Street park should be clearly identified on downtown maps, wayfinding signage, and at informational kiosks located throughout the downtown. The gradual replacement of existing amenities with updated amenities that are consistent with the downtown-wide design palette would improve aesthetics overall and help tie the park into the rest of downtown. A pavement marking or treatment system, which could include specialty paving materials, from Third Street to this open space will increase the visibility of the Park to downtown users.

MAIN STREET

The City should install a designated pedestrian crosswalk on Main Street south of the viaduct for users of the Riverwalk Trail. Signage indicating that vehicles must slow for pedestrians, pedestrian-scaled lighting, and landscaping to highlight the location should be incorporated at the crosswalk area. Crosswalk surface character should vary from the roadway surface and visually define its place within the street. The City may consider installing a landscaped median to create a physical and visual cue for vehicles to slow down. This particular section of Main Street associated with the Riverwalk Trail warrants a detailed engineering and design analysis.

WASHINGTON STREET

Road diets involve the removal of travel lanes from a street or roadway and the utilization of that space for other uses or travel modes[14]. The public and Steering Committee has expressed the desire for an improved pedestrian and bicyclist environment on Washington Street as well as lower vehicular speeds. Today this roadway is undivided with two travel lanes in each direction and no on-street parking. The southbound inside lane terminates at an exclusive left turn lane at Second Street, potentially trapping motorists who would like to continue on to the city's south side. In cooperation with the NYSDOT, it is recommended that the City of Jamestown investigate the feasibility of redesigning Washington Street to carry one through travel lane in each direction and a center turn lane. The remaining pavement area could be utilized to incorporate bicycle lanes or create on-street parking. Both options would help the City achieve goals identified through the planning process.

This arrangement would integrate well with a two lane section proposed by the NYSDOT as part of their planned effort to replace the Washington Street Bridge over the Western New York and Pennsylvania Railroad, Chadakoin River, and West Harrison Street (Project Identification Number 5058.39). The 17,000 vehicles per day carried by Washington Street are within the range of volumes that can be considered for a road diet. The results of a traffic analysis documented in Appendix 5 suggest that this cross section can provide acceptable traffic flow during both the morning and evening peak hour now and 20 years into the future.

The City of Jamestown should continue to work with the NYSDOT to ensure that a new Washington Street Bridge incorporates appropriate pedestrian and bicyclist facilities that meet the community's goals. Magnificent views of the railroad, river, and downtown can be seen from the bridge and should be made available to pedestrian users. In the future, direct pedestrian connections between the bridge and the Riverwalk Trail would be desirable.

[14] Rosales, "Road Diet Handbook: Setting Trends for Livable Streets", Parsons Brinkerhoff, 2006

Washington Street Concept "A" – Bicycle Lanes

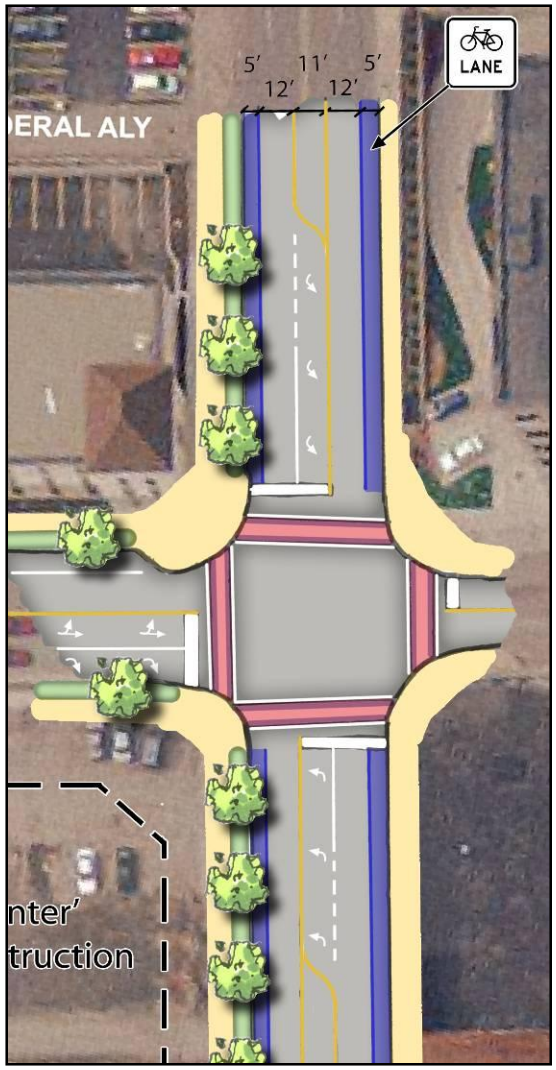
The city has identified a need to make the downtown core more pedestrian and bicycle friendly. Currently there are no designated bicycle lanes within downtown. Their introduction on Washington Street would allow for direct access to destinations within the City as well as to areas outside of the downtown core via a possible connection to NYS Bicycle Route 17.

This concept at the right shows Washington Street converted to include one 12 foot wide travel lane in each direction, 11 foot wide turn lanes at intersections, and one 5 foot wide bicycle lane in each direction. Travel lanes would meet NYSDOT standards for a truck access highway. Special attention would have to be given during design to the accommodation of bicyclists adjacent to an exclusive southbound right turn lane required at Fourth Street.

The existing sidewalk width would be maintained on both sides of the street. The western sidewalk is shown with a new tree lawn. This feature would provide an added buffer between pedestrians and vehicular traffic. It would also support a more attractive, welcoming and comfortable streetscape for users.

Improvements depicted at the intersection of Third Street and Washington Street also include the delineation of crosswalks with the incorporation of textured and colored paving materials. This intersection at the crossing of two of downtown's prominent streets is well suited for enhancements because of its location. The west end is becoming a focal point for development in the city, including the construction of the BWB Center.

Bike Lane Concept
Washington Street, City of Jamestown



Washington Street Concept "B" – On-Street Parking

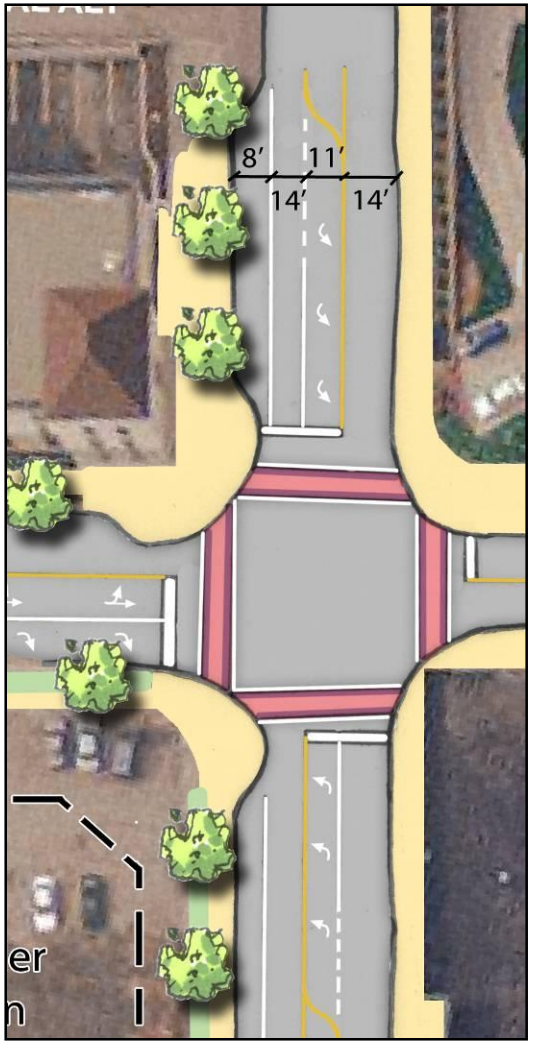
The availability of parking in a city's downtown is critical to the success of employment centers, retailers, tourism venues and special event centers. While a shortage of parking has not been identified in downtown Jamestown, its provision in close proximity to key sites and destinations is an important consideration.

This concept shows Washington Street reconfigured to include 14 foot travel lanes, 11 foot wide turning lanes at intersections, and an 8 foot wide on-street parking lane on the west side. The 14 foot wide travel lanes would meet NYSDOT guidelines for lanes shared by bicyclists and motor vehicles.

As shown, curb extensions could be incorporated at the intersections to serve as traffic calming elements while improving the visibility of crossing pedestrians and enhancing the overall streetscape experience. Required roadway and parking lane widths would not allow for the expansion of roadside areas and as a result no additional tree lawn could be incorporated along side the western sidewalk. Landscaping and street trees could be accommodated within individual planting areas.

Improvements shown at the intersection of Third Street and Washington Street are identical to those shown under Concept "A" and include the delineation of crosswalks with the use of textured and colored paving materials.

On-Street Parking Concept
Washington Street, City of Jamestown



FIRST STREET

First Street is a unique urban street within downtown that is physically and visually isolated from its remainder. This is in large part due to the topography of the city as it approaches the riverfront. As a result, the functionality and character of First Street is markedly different than other downtown streets and provides an opportunity to create a unique destination. Jamestown should advance the creation of an Arts and Cultural District along First Street with studios, artist housing, and galleries. The existence of a small number of art-related businesses on First Street is a good foundation for the development of this district. Enhanced pedestrian walkways and streetscape amenities, such as seating and lighting, would help define the overall character for this district. The existing one-way eastbound traffic pattern should remain. Improving the streetscape and defining vehicular and pedestrian spaces would be a critical first step in achieving the City's vision. Other streetscape enhancements such as banners, pedestrian amenities, and landscaping should follow. Once the streetscape is completed and ready to accommodate increased pedestrian traffic, the city should work with existing building and property owners to upgrade and renovate buildings for the desired artist use. Afterwards, a marketing strategy should be developed to attract gallery operators, artists, and studios to the area.

SECOND STREET

Second Street carries one-way eastbound traffic from the west end development site to the vicinity of the Jamestown High School and Veterans Park. As part of a conscious decision to further the goals of improving the overall downtown experience, increasing vitality on downtown streets, and promoting economic development opportunities, the city is considering the conversion of Second Street from one-way to two-way traffic within the downtown core. Second Street can accommodate the traffic impacts associated with this conversion between Lafayette Street and Foote Avenue. Additional detail and information regarding the two-way conversion may be found in the Specific Enhancement Areas segment and Appendix 5 of this document.

The City should continue to identify funding sources and projects to assist in creating pedestrian connections between Second Street and the riverfront. Specific locations and connection ideas were presented in the *Urban Design Plan.* These recommendations should be designated as priority projects in order to improve the overall physical and visual connections between the north and south sides of the River.

Veterans Park is located on the north side of Second Street across from the Jamestown High School. The future status of Veterans Park at this location is currently unknown, as the property may be purchased for use by the United State Post Office, may be relocated and its former place used to implement transportation improvements adjacent to the High School, or may remain in its current location as a park. If the park is to remain, additional amenities should be added, including trash cans, bike racks, and benches. The park is currently underutilized, with its primary users being students who congregate in the park before and after classes and during breaks in the school day.

THIRD STREET

Third Street serves as the primary east-west pedestrian corridor through the city and should be improved to attract further use. Simple measures can be taken to ensure it remains a vibrant pedestrian connection through downtown Jamestown. Enhancing and attracting retail and restaurant establishments is key, as is maintaining as much window coverage at the ground floor level as possible. Storefronts should seek to be 60-80% transparent at the ground floor level. Windows and entrances should be placed along the sidewalk to create interest along the street front and to allow people to see what exists behind the windows. This is a basic principle associated with good urban design.

There is a small pocket park on the north side of Third Street between Main Street and Pine Street which would serve as an ideal place for small lunchtime, weekend, or evening performances. This space is however undecorated, and would benefit from additional landscaping and possible

shade cover. The public space at the southeast corner of Lafayette and Third Street is being considered for development as a public open space. It is an ideal corner for such an amenity given that Third Street is a primary pedestrian corridor and its relationship to the Rail Station, Transportation Hub, Jamestown Ice Arena, and BWB Center. Plans being developed for this area should provide the amenities outlined in this document as well as the potential for additional features such as a clock tower. A clock tower would be a defining feature within downtown and provide an additional convenience to pedestrians.

Informational maps should be incorporated at conspicuous locations within the downtown core such as the corner of Lafayette and Third Street and Tracy Plaza. Sidewalk maps help residents and visitors get around a City and identify where key locations and destinations exist. Interactive electronic map kiosks might provide visitors with routes and addresses for specific destinations.

Tracy Plaza is a largely empty downtown plaza that is a leftover design element from the popular International Style of design from the 1950's, 60's, and 70's. Filling the plaza with new uses, whether buildings to house retailers or more pedestrian-oriented amenities such as landscaping and functional seating areas would help to create a richer and more human-friendly environment.

FOURTH STREET

Similar to Second Street, Fourth Street carries one-way traffic through the downtown core connecting the city's west side neighborhoods with Third Street near the railroad overpass. Because it has a wide pavement surface and multiple lanes, the City of Jamestown has also identified this street as a candidate for conversion to two-way traffic flow. Similar goals of improving the downtown experience, increasing vitality, and promoting economic development apply. The results of an analysis completed for this plan indicate that Fourth Street can accommodate the traffic impacts associated with conversion to two-way traffic flow, initially between Prendergast Avenue and Jefferson Street. Additional planning, design, and reconfiguration of the segment connecting Jefferson Street and Third Street would be required to safely accommodate two-way traffic. Further detail and information regarding the two-way conversion may be found in the Specific Enhancement Areas segment and Appendix 3 of this document.

Baker Park is located at the northwest corner of the intersection of Jefferson Street and Fourth Street. The park covers a full square city-block, making it an expansive, attractive, green space within close proximity to downtown businesses and tourist attractions. Currently, the park has minimal amenities and city officials have described this urban green space as underutilized. Signage identifying Baker Park and providing directions to the park should be incorporated throughout the downtown as part of a comprehensive wayfinding program. Baker Park should be highlighted on all wayfinding signs that show multiple destinations within the downtown core, as well as distributable materials that are made available to the public. Additional amenities should be added to Baker Park to make the green space more desirable to a wide range of users. The park has ample shade cover due to a significant number of mature trees and could serve a wide audience. Recommended additions to the landscape include picnic benches, additional seating benches, trash receptacles, children's play equipment, and signage. On-street parking for park users is readily available on Fourth Street, as well as Jefferson Street.

SPECIFIC ENHANCEMENT AREAS

Three target areas were identified by the public and Stakeholder Group as the focus for specific enhancement plans to improve the overall condition and character of downtown. Selections were based on the existing downtown street network, pedestrian facilities, and opportunities to synergize the two in creating the city's desired streetscape character. The three target areas are as follows:

Enhancement Area One
Second Street - Lafayette Street to Foote Avenue

Enhancement Area Two
Fourth Street - Prendergast Avenue to Jefferson Street

Enhancement Area Three
Lafayette Street to Washington Street between Fourth Street and Second Street

In addition to these three locations, the City of Jamestown Department of Development and Stakeholder Group asked for the development of a plan to clarify traffic operations at the existing intersection of Third Street, Fairmount Avenue, Martin Alley, and Monroe Street. A proposed pavement marking, signing, and surface texturing treatment for this area is also discussed at the end of this section.

ENHANCEMENT AREA ONE
SECOND STREET – LAFAYETTE STREET TO FOOTE AVENUE

The first target enhancement area is the Second Street corridor. This corridor was selected because of its potential to undergo a conversion from one-way to two-way operation and its promise for positive impacts as a result of streetscape improvements. The Second Street enhancement area covers the segment of Second Street between Jefferson Street and its intersection with Foote Avenue. Roadway and pedestrian connectivity, especially around the Jamestown High School, are significant considerations. Second Street presents a prime opportunity for continued downtown redevelopment with many of the existing historic buildings suitable for housing and mixed use development projects intact.

Two-Way Conversion

An analysis was performed to assess the feasibility from a traffic operations standpoint of the conversion of Second Street from one-way to two-way operation between Lafayette Street and Foote Avenue. A model of the existing downtown street network was developed considering traffic volumes and control as well as roadway geometry using the Synchro transportation analysis software. The next step was to estimate how traffic would redistribute on the downtown street network if Second Street were converted from one-way to two-way operation. The Synchro model was modified for two-way traffic on Second Street and intersection operations were evaluated. Traffic volumes were then projected 20 years into the future using an annually compounded, straight line growth rate to anticipate continued downtown and regional development. The Synchro analysis was repeated to determine if a two-way conversion would remain viable. A detailed summary of existing roadway, traffic control, and parking conditions is available in Appendix 4. A detailed summary of the redistributed traffic volumes used to perform the analysis, intersection operation summary tables, and copies of the Synchro output are contained in Appendix 5. The results of the analysis indicate that converting Second Street from one-way to two-way traffic flow between Lafayette Street and Foote Avenue is feasible from a traffic operations standpoint. Acceptable intersection operations would be maintained during peak periods today and throughout the next 20 years.

A conceptual pavement marking plan is included in Appendix 5. The plan suggests one 12 foot wide travel lane in each direction. The proposed width meets minimum standards for the shared accommodation of vehicles and bicyclists in a constrained urban environment. It is believed that an 8 foot parking lane along the south side of the street could also be accommodated within the existing street footprint and without sacrificing pedestrian space. One lane shared by left turns and through movements and an exclusive right turn lane could be placed on the eastbound approach to Washington Street. This arrangement would allow eastbound through movements to cross the intersection in a straight line. This geometric assessment is conceptual in nature and should be verified during future stages of design if a conversion project is progressed.

As explained in the traffic analysis summary contained in Appendix 5, the provision of exclusive left turn lanes on Second Street at Washington Street and North Main Street would serve to improve vehicular traffic flow on those approaches during peak periods. If adequate space exists to accommodate these additions, the City of Jamestown might consider their installation. That decision however, should be carefully weighed against the goal of creating a more pedestrian and business friendly environment. The city may find it reasonable to tolerate an incremental increase in vehicular delay during peak periods in order to maintain shorter crossing distances and allow ample space for streetscape amenities.

On street parking could be maintained on the south side of the street from Washington Street to Prendergast Avenue and on both sides of the street from Prendergast Avenue to Institute Street. The net change in parking availability (i.e. places where parking is allowed) would be negligible. A summary of types of parking impacted is available in Appendix 5. The most significant change would involve the shift of on-street parking from the north side of Second Street between Pine Street and Prendergast Avenue to the south. The exact number of parking spaces gained or removed should be determined during future phases of design.

Traffic signal equipment would require modification to support two-way traffic flow. The number of signal heads provided, their orientation, and arrangement would each require adjustment. Replacement of outdated traffic signal hardware and software such as control cabinets, microcomputer controllers, detection, and interconnect systems could be done at the same time in support of a conversion. Such improvements would facilitate the implementation of a traffic signal timing and phasing plan that would balance motor vehicle movements with safer pedestrian accommodation along the new two-way corridor.

Traffic control devices such as signs and pavement markings would also require adjustment. Applicable signs in good condition and meeting MUTCD standards might be rotated to avoid the cost of new installations. However, at locations where changes or upgrades would be necessary to properly mark changed conditions in accordance with current MUTCD standards, relocated or new signs would be necessary.

Other items that generally facilitate a two-way conversion include advance public notice and education as well as the implementation of a work zone traffic control plan beyond the level which would typically be envisioned for a street reconstruction project. Advance public notice of a change from one-way to two-way flow via radio, newspapers, brochures, and the World Wide Web is critical. The content of public notices should focus not only on the date of the change, but include specific information that would educate motorists, pedestrians, and bicyclists on what to expect and how to navigate the new traffic pattern safely. Construction staging and work zone traffic control plans should be developed to allow motorists to adapt to the future traffic patterns over time. For example, all eastbound traffic on Second Street could be moved to the right side of the roadway once construction was underway. Westbound traffic would not be allowed until the necessary street, pavement marking, and traffic signal elements were in place. Delineation devices such as barrels, tubular markers, cones, etc. would remain on the new double yellow line for at least a 2 week adjustment period. Special temporary signing advising motorists of the change should be placed on all approaches to the converted corridor as well as at key locations along its length. The actual conversion should take place on an off-peak day and at an off-peak time to minimize the potential for congestion and safety concerns.



Public Outreach and On-Street Methods to Smooth Elmira's Two-Way Conversion
Elmira, NY

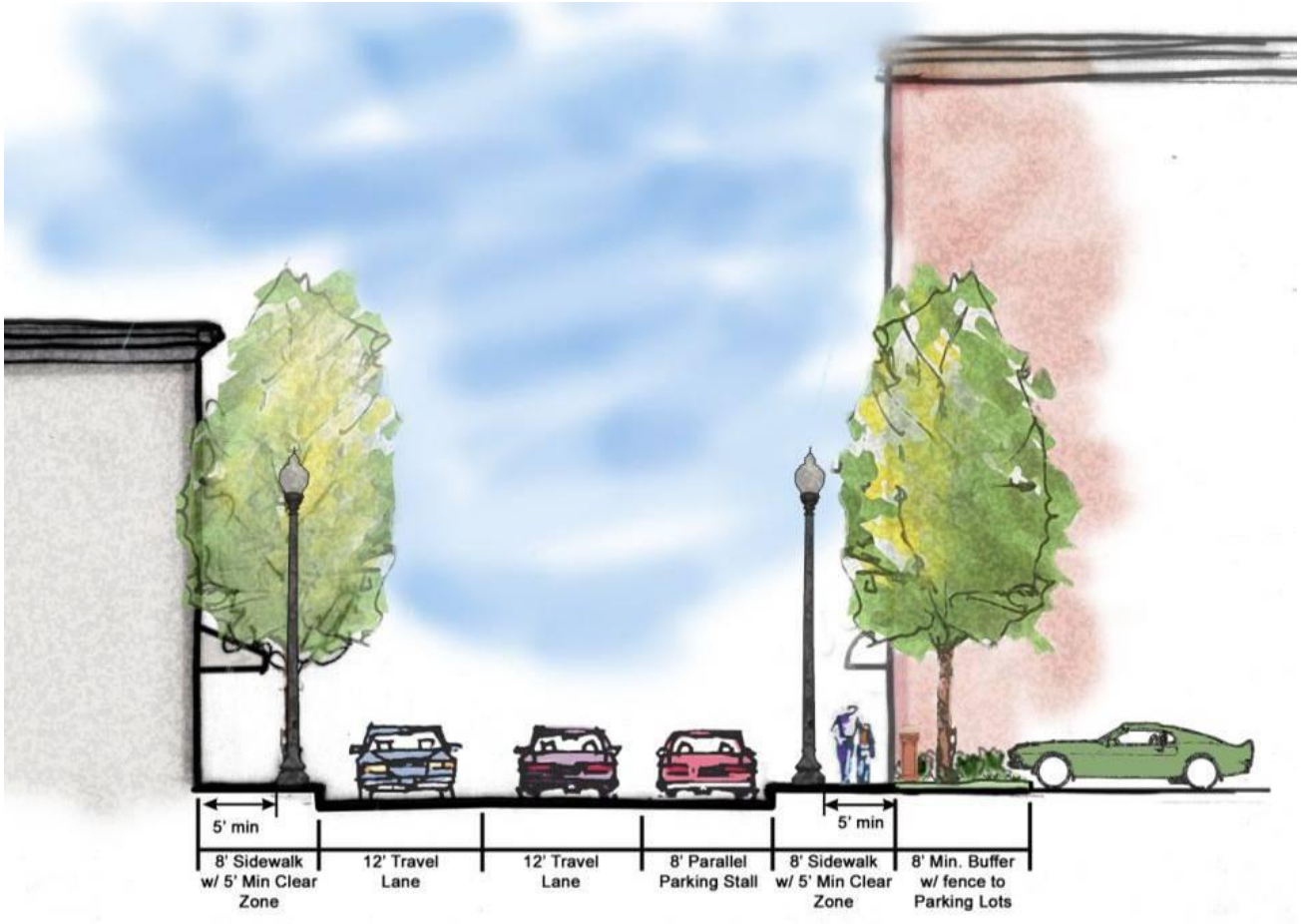


Church Street in Downtown Elmira Just Prior to Opening for Two-Way Traffic in 2004
Elmira, NY

Parking quantity and location are among the most sensitive issues involved in a two-way conversion for a central business district. It would therefore be important to reach out to business owners, tenants, and residents before construction in order to understand their needs during design. Though it may not be possible to satisfy all business owners' needs, this effort would help avoid major surprises. It would also help spread the word that this change is not undertaken in response to traffic needs, but rather to improve downtown circulation and the ability of residents and visitors alike to reach shops, museums, restaurants, and other downtown destinations.

Streetscape Enhancements

Converting Second Street to two-way traffic would provide additional opportunities for streetscape enhancements. The typical section below shows one 12 foot wide travel lane in each direction with an 8 foot wide area for parallel on-street parking along the south side of the street. Although not possible for the entire length of Second Street due to limited space availability associated with narrow roadway conditions, 8 foot sidewalks would be desirable with 3 feet dedicated to streetscape enhancements. The remaining 5 feet could provide for clear pedestrian passage. Street trees, of species identified in Chapter 2, would be installed in tree wells every 30 to 40 feet. Second Street should have pedestrian-scaled lighting that is consistent with pedestrian lighting on Third Street and around the Jamestown Ice Arena. Trash cans and benches should be installed, where space permits. One bench and one trash and recycling container should be located on each block, on each side of the street. All streetscape amenities on Second Street should be consistent with the guidelines and recommendations within Chapter 2 of this document.



Section Detail
Second Street, City of Jamestown

The intersections of Washington Street and Main Street with Second Street have been identified as priority locations for streetscape improvements in association with the potential conversion to two-way traffic. Specialty crosswalks including coloring and texturing treatments are recommended for both intersections as they have the potential for a high volume of pedestrian traffic. Please refer to crosswalk guidelines and recommendations included in Chapter 3 for a discussion of crosswalk treatments. Other pedestrian and streetscape enhancements, including landscaping, signage, benches, trash cans, and art would help to highlight these intersections and identify their importance as pedestrian spaces within the downtown.

Jamestown High School and Veterans Park Area Improvements

The area in front of Jamestown High School was identified as a location of concern related to traffic and pedestrian circulation, access, and safety. Heavy traffic congestion impacts this area during peak school traffic times, emanating from the existing signal at Foote Avenue. Traffic signal queuing experienced in front of the school today could be mitigated with a dedicated school peak timing plan. This would involve a shorter cycle length and adjustment of the green time allocated to the Second Street approach. Geometrically, there are numerous potential points of conflict involving busses, vehicles, and pedestrians at times when students are arriving or departing school grounds. Some parents use the existing roadway as a drop-off area, aggravating traffic conditions and resulting in unsafe crossing conditions for students. The United States Post Office maintains an eastbound curb side drop box along the north side of Second Street, which further detracts from the safety of this location.

Four optional improvement concepts were developed to enhance safety and mobility for all users at this location. Each of these options could be used to complete a two-way conversion of Second Street between Institute Street and Foote Avenue. Design elements and noteworthy issues for consideration are briefly summarized.

Option 1 – Two-Way Traffic Conversion Only

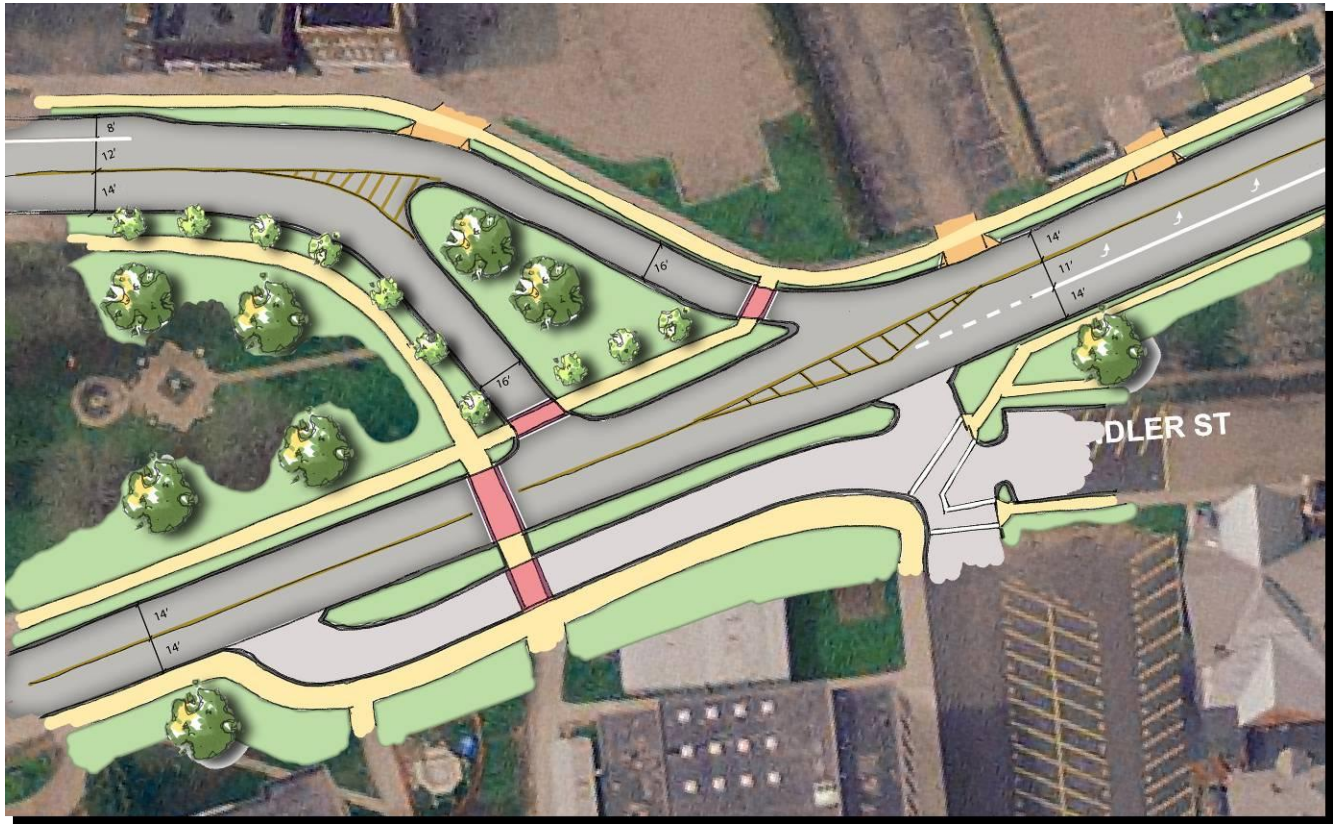
Under this option, Second Street would be converted to two-way traffic and the principal geometry of its intersection with Third Street would remain the same. The eastbound Third Street approach to Second Street would continue to operate under stop sign control. An eastbound left turn lane would be included on the approach to Foote Avenue. Pedestrian circulation patterns would also remain unchanged.

Pedestrian crossings would be highlighted with coloring and texturing to clearly indicate the location of preferred pedestrian routes. Decorative bollards connected by ornamental chains and street side plantings could be installed to discourage pedestrian crossing outside the designated crosswalks. Veterans Park, with the exception of additional walkways and landscaping, would remain unaltered as part of this plan.

Two-Way Traffic Conversion
Jamestown High School, Second Street, City of Jamestown



Landscaping Bollards
Glens Falls,, NY



Option 2 – Third Street Cul-de-Sac

Option 2 identifies Second Street accommodating two-way traffic with an eastbound left turn lane approaching Foote Avenue. The intersection of Second Street and Third Street would be eliminated with Third Street terminating in a cul-de-sac. The existing entry to the parking lot at the northeast corner of Second and Third Streets would be maintained. The cul-de-sac would provide access to the parking lot and provide an informal area for student drop-off and pick-up.

Pedestrian circulation would take place around the cul-de-sac with a single designated pedestrian crosswalk at Second Street. Ideally, this crosswalk would be incorporate colors and textures to clearly and effectively identify the preferred pedestrian route, as well as to provide a visual cue to vehicles that they should to reduce their speed. The potential for an additional drop-off area has been identified on the south side of Second Street, east of Institute Street and is shown on the plan. A pedestrian sidewalk would provide direct access to the front of the high school with no need to cross the street. The concept for Option 2 illustrates the potential to incorporate exterior drive-up mailboxes adjacent to the existing post office. This is an important element as the post office currently has maintains a drop-off mailbox along the northern curb line of Second Street that must be relocated as part of the two-way conversion. A drop off area and additional parking could be incorporated into the existing post office site with minimal impact to the neighboring park.

Third Street Cul-de-Sac

Jamestown High School, Second Street, City of Jamestown



Option 3 – Third Street Intersection Consolidation

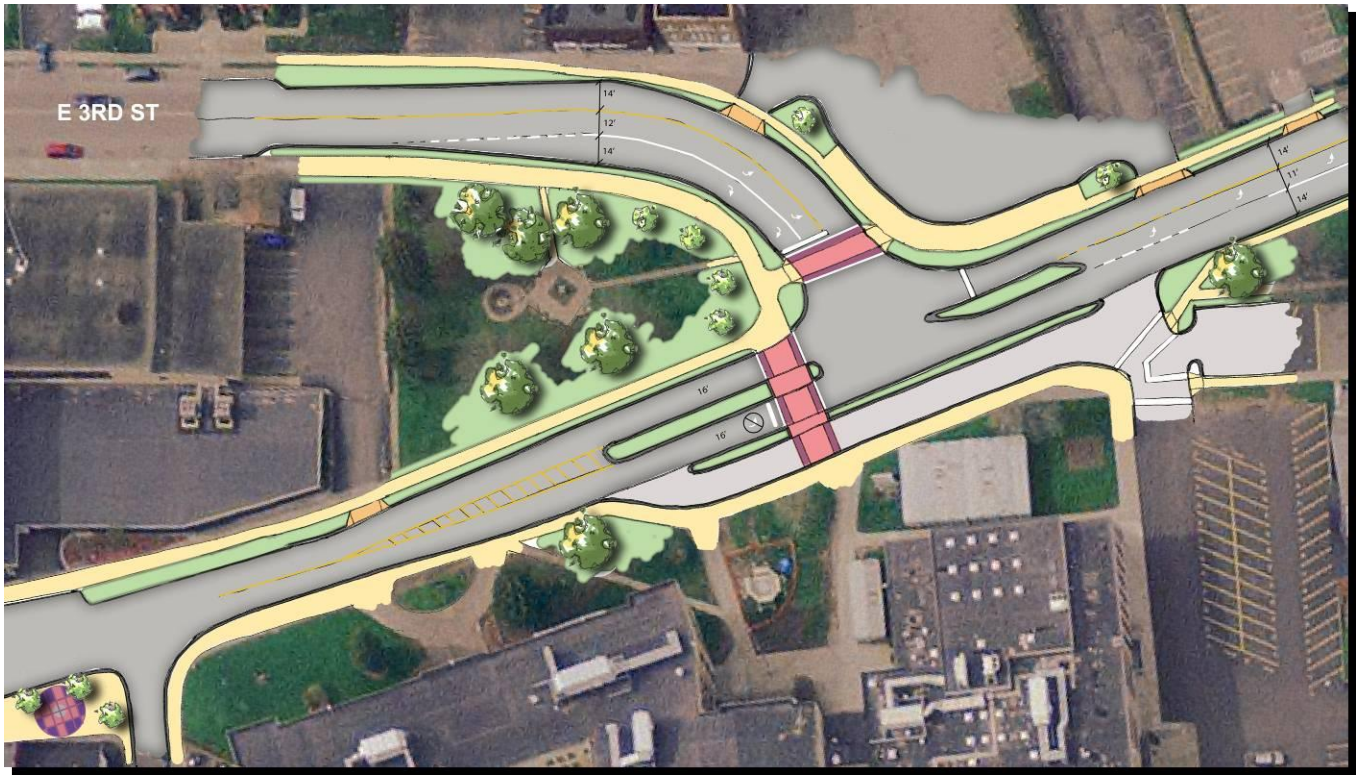
This option also has Second Street accommodating two-way traffic with a left turn lane approaching the intersection of Foote Avenue. No eastbound left turns would be allowed from Second Street to Third Street. A convenient alternate location for this movement would be available at Prendergast Avenue. This arrangement would allow for the inclusion of a landscaped median and pedestrian refuge on the west side of the intersection. A raised median on the east side of the intersection could be landscaped to discourage pedestrian crossing at that location. Planted medians on Second Street would further provide a visual cue for reduced vehicular speeds. The intersection may include stop signs or have signal control if and when applicable traffic signal warrants are met. If a signal were not installed at the time of initial construction, it would be prudent to burry conduit and install pullboxes to avoid future disturbance of new pavement and landscaping. If a signal were installed, it would require coordination with the existing light at Foote Avenue to ensure smooth traffic flow.

Access to the existing parking areas in the northeast quadrant of the intersection would be combined. There is also a potential for a designated pick-up and drop-off area at that location. Pedestrian crossings would incorporate colored and textured paving materials to highlight their locations.

Veterans Park would be maintained in its existing location with additional landscaping and amenities added within the available open space. This plan also illustrates the potential to eliminate a wide expanse of existing asphalt on the west side of Institute Street at Second Street, where vehicles currently stack during peak school hours to pick up and drop off students. The pavement could be narrowed, better defining the intersection and allowing for an enhanced pedestrian space which could be utilized by future businesses or residents that will ultimately occupy the existing adjacent row of buildings. Improved channelization would also help reduce eastbound speeds approaching the school.

Third Street Intersection Consolidation

Jamestown High School, Second Street, City of Jamestown



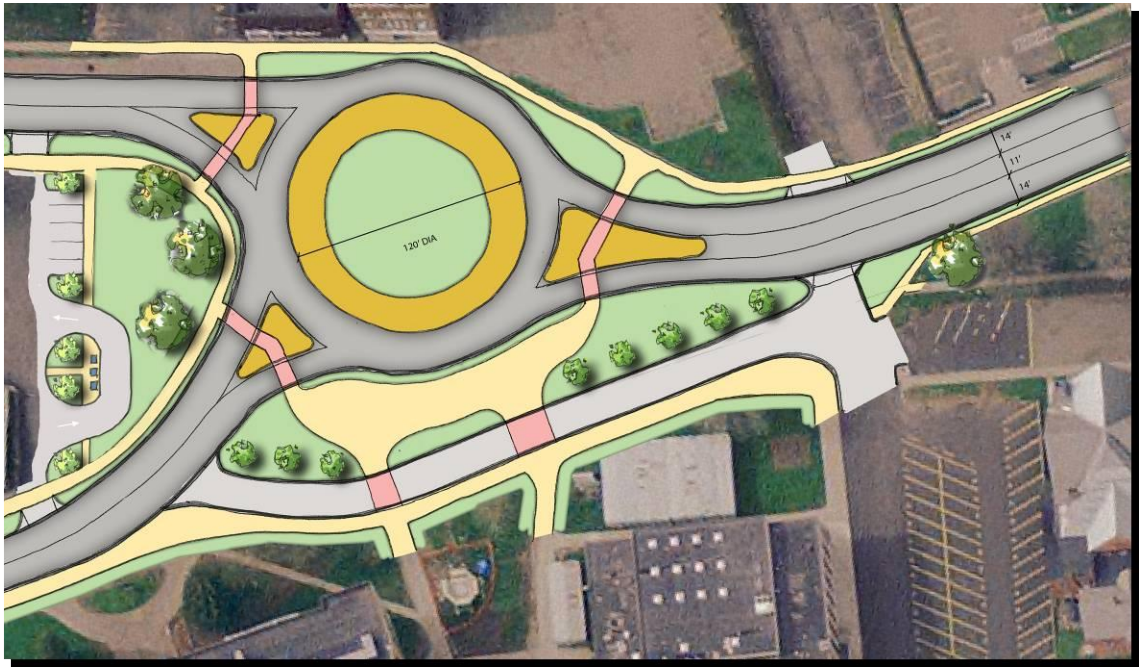
Option 4 – Roundabout

Option 4 would replace the existing intersection of Second Street and Third Street with a modern roundabout. Roundabouts are unsignalized circular intersections engineered to maximize safety and minimize delay[15]. They have been installed at numerous locations throughout the United States, including New York State, over the past 10 years including at locations near schools. Roundabouts eliminate some traffic conflicts commonly experienced at conventional intersections such as left turns. Entries and exits are accomplished via right turns only. Entrances are channelized by raised, mountable splitter islands. The horizontal curvature (deflection) of the entrances slows vehicles upon approach. Unlike older traffic circles found in Massachusetts and New Jersey, all entering traffic must yield to traffic within the circulatory roadway. One attractive feature of modern roundabouts is that the central island provides an excellent "stage" for landscaping elements, public art, or other permanent large-scale displays that highlight the history or culture of the area (municipality) in which it exists.

A single lane approach and a single lane circulatory roadway would be adequate to handle the projected traffic demand at the intersection of Second Street and Third Street now and in the future. The geometry of the roundabout would force drivers to reduce their speeds to approximately 20 miles per hour or less upon approach to, and while traveling around, the intersection. The potential severity of any crash that might occur would be less than that involving a pedestrian and a vehicle passing straight through a signalized intersection. Access to the existing parking area at the northeast corner of the intersection of Second and Third Streets would be relocated to Second Street. As shown under Option 2, a designated area for student drop off could be incorporated west of the intersection. Access to the bus loading area would remain unaltered. This option would preserve room for parking and circulation improvements adjacent to the United States Post Office building. It would however, require the relocation of Veteran's Park. The potential for queuing from the existing traffic signal at Foote Avenue during peak school traffic times must be evaluated prior to selection of this option.

Modern Roundabout

Jamestown High School, Second Street, City of Jamestown



Pedestrians coming from areas to the north, west, and east would have to make more than one road crossing in order to get to the school. Special provisions would have to be made to discourage students from crossing the circulatory roadway and into the center island. Proposed pedestrian crossings would incorporate colored and textured paving treatments to highlight the crosswalks for vehicular traffic.

[15] NYSDOT, "A Citizen's Guide to Roundabouts".

ENHANCEMENT AREA TWO
FOURTH STREET – PRENDERGAST AVENUE TO JEFFERSON STREET

The Fourth Street corridor was selected as a target enhancement area because it also has the potential for a conversion from one-way to two-way traffic. The existing roadway carries 3 and 4 westbound lanes in some areas between Prendergast Avenue and Washington Street, suggesting ample width to reconfigure the street within its existing footprint without sacrificing pedestrian space. In addition, the adjacent buildings have extensive potential for urban redevelopment.

The same procedure described for the Second Street analysis was utilized for Fourth Street. Traffic volumes, intersection operation summary tables, and copies of the Synchro output are contained in Appendix 5. The results indicate that converting Fourth Street from one-way to two-way traffic flow between Prendergast Avenue and Jefferson Street is feasible from a traffic operations standpoint. Acceptable intersection operations would be maintained during peak periods today and throughout the next 20 years.

A conceptual pavement marking plan is included in Appendix 5. The two-way conversion would begin at Jefferson Street and extend to the existing two-way segment at Prendergast Avenue. West of that intersection, Fourth Street would continue to carry one-way westbound traffic. At this preliminary stage of development, a three-lane section is assumed including one 14 foot wide travel lane in each direction, an 11 foot wide center turning lane, and 8 foot wide on-street parking lanes. The proposed travel lane width meets desirable standards for the shared accommodation of vehicles and bicyclists in an urban environment. This geometric assessment is conceptual in nature and should be refined during future stages of design if a conversion project is progressed. For example, the center turn lane could be replaced by a landscaped median in areas where driveways do not exist, would be eliminated, or where they could be converted to right-in and right-out operation. If turn lanes can be eliminated at intersections, the space could be utilized for a pedestrian refuge.

On-street parking would be impacted in greater measure along Fourth Street as compared to Second Street. A summary of the types of parking impacted is available in Appendix 5. The proposed concept would eliminate existing on-street parking along the south side of the street between Prendergast Avenue and Washington Street and again from Lafayette Street to Jefferson Street. Loss of parking would be realized to a lesser degree along the north side of the street with the greatest impact occurring between Lafayette Street and Jefferson Street. The impact to on-street parking is highly dependent on the provision of left turn lanes or a median on Fourth Street. Additional parking could be retained if the Fourth Street roadway section were reduced to one through lane in each direction. Even if the actual number of parking spaces were reduced, a two-way circulation pattern should improve access to the remaining spaces and counteract any perceived lack of on-street parking. The exact number of parking spaces gained or removed should be evaluated during future phases of design

Traffic signal modifications, traffic control device adjustments (marking and signing), public information, and work zone traffic control considerations for a two-way conversion along Fourth Street would be similar to those discussed in the text describing Second Street.

Streetscape Enhancements

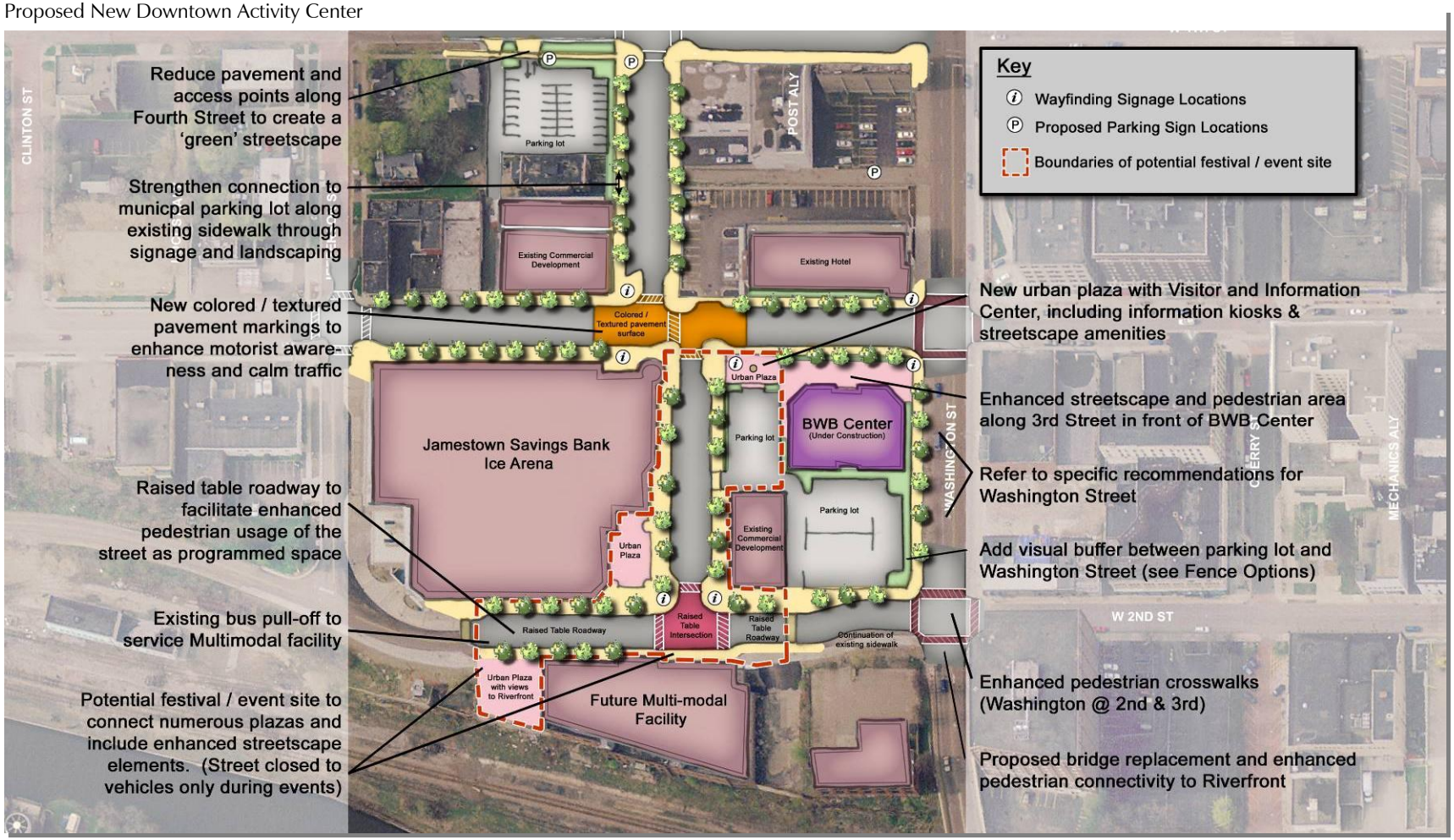
Converting Fourth Street to two-lanes of traffic would provide additional opportunities for streetscape enhancements and also help to slow traffic speeds. Wide sidewalks which currently characterize the roadway would remain and provide opportunities for streetscape enhancements such as street trees, pedestrian lighting, benches, and trash cans. Street trees, of species identified in Chapter 2, should be installed in tree wells. Fourth Street should have pedestrian-scaled lighting that is consistent with pedestrian lighting on Third Street and reflects the recommendations found in Chapter 2. Trash cans and benches should also be installed, where space permits. One bench and one trash and recycling container should be located on each block, on each side of the street. All streetscape amenities on Fourth Street should be consistent with the guidelines and recommendations within Chapter 2 of this document.

ENHANCEMENT AREA THREE
LAFAYETTE STREET TO WASHINGTON STREET BETWEEN FOURTH STREET AND SECOND STREET

The third enhancement area includes a one-block radius from the intersection of Third Street and Lafayette Street at the Jamestown Savings Bank Ice Arena. This area of the City is viewed as a primary focal point due to the location of several prominent traffic generators, both pedestrian and vehicular. Within this enhancement area is the Jamestown Ice Arena, Erie Rail Station Multi-Modal Transportation Facility, access to Washington Street and the Washington Street Bridge (and ultimately, Riverwalk), the BWB Center, and the Third Street commercial corridor.

Conceptual Enhancement Plan

Proposed New Downtown Activity Center



Streetscape enhancements within this area focus on improving the overall aesthetics of the Third Street, which serves as the western gateway into the downtown. The importance of strengthening pedestrian connections between established destination points, establishing an organizational center for the dissemination of visitor information, and creating a central starting point for wayfinding and interpretive programs is also recognized. Specific recommendations for this area, as indicated on the preceding plan, are summarized below:

- The municipal parking lot at the corner of Fourth and Lafayette Streets should be clearly signed with a simple and universally understood “P” parking sign. A sign should be visible from all surrounding streets and for traffic approaching the lot from any direction. Proposed locations for these signs have been indicated on the preceding plan. The location of all municipal parking lots and garages should also be incorporated into wayfinding signs and should be provided to visitors at informational kiosks located throughout the city.

- Landscaping, including trees, shrubs, and flower materials, are a more attractive alternative than paving and parking areas, whether traveling a street by foot or car. The existing public parking lot at the corner of Lafayette and Fourth Streets, as well as new parking areas to the west and south of the BWB Center should be buffered by additional trees and plantings to soften the streetscape and keep vehicular oriented areas separate from the pedestrian environment, most notably the sidewalk. The installation of a decorative fence in addition to landscaping further enhances privacy and safety for those using the parking areas, while maintaining visibility to the parking lot. Decorative fences can add an architectural quality to the streetscape. The rendering below shows an option for how to incorporate both landscaping and a decorative fence in a manner that effectively shields the parking area behind it, while enhancing the streetscape and pedestrian environment.

Proposed Parking Lot Buffer Treatment

Municipal Surface Lots and Private Surface Lots



- Key intersections should be clearly defined as pedestrian crossings, giving pedestrian activity precedence over vehicular traffic. The intersections of Lafayette and Third Streets, and Lafayette and Second Streets, should be identified with colored / textured pavement markings and clearly striped crosswalks as further defined in Chapter 2.

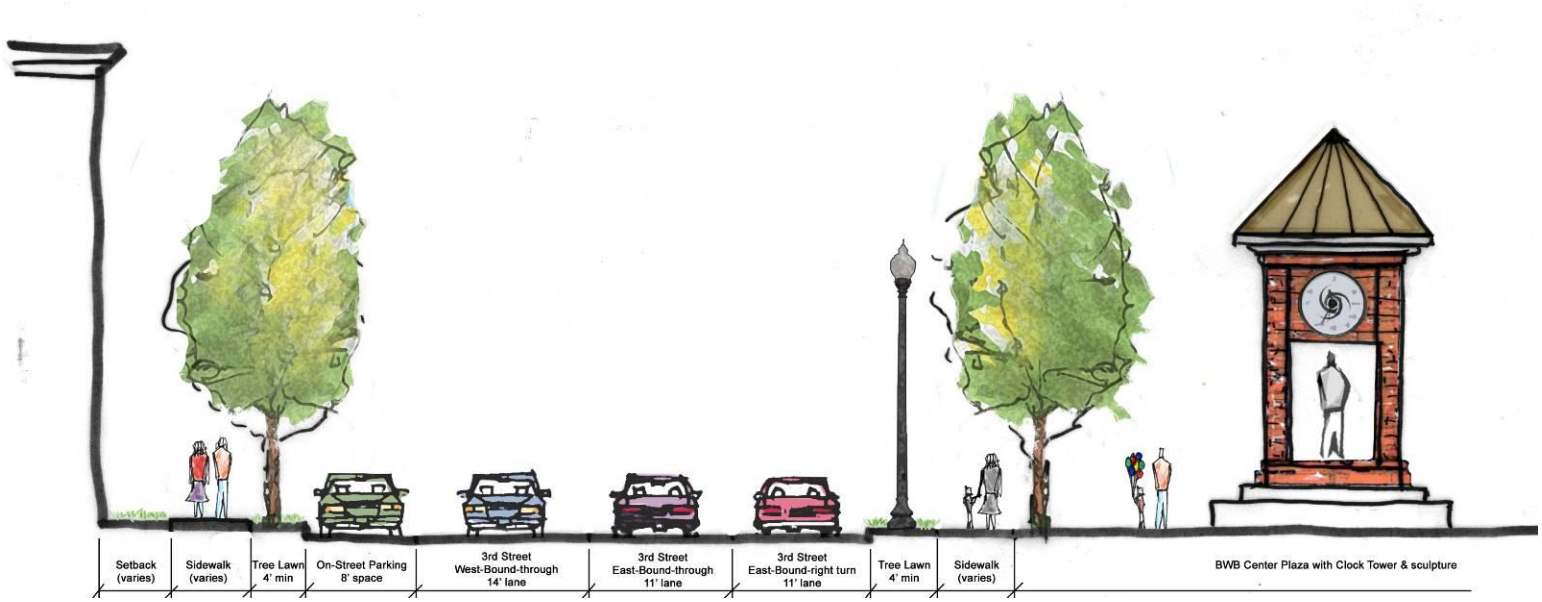
- Given the surrounding uses and potential future Riverwalk connections within this focus area, it is recommended that this location be the site of potential future community festivals and events, with portions of Lafayette and Second Streets having the ability to be closed to traffic during specified event times to create a unique and inviting pedestrian space. This concept builds on the existing public space at the rear corner of the ice arena, the urban plaza being created at the corner of Lafayette and Third Streets, and a recommended urban plaza to the west of the Erie Rail Station that provides views to the riverfront to the public.

- Wayfinding and information signage is critical to helping people get around the City and informing them of where a variety of destinations are. Recommended locations, within the focus area, for wayfinding and information signage are identified on the Conceptual Enhancement Plan.

The Streetscape Cross Section shows Third Street in the vicinity of Lafayette Street with one-lane of traffic westbound and two lanes of traffic eastbound into the downtown core. On-street parking would be retained on the north side of the street, as it is allowed currently. A tree lawn provides a buffer between vehicles and pedestrians on both sides of the street. Shade tress, lighting, plantings, and other pedestrian amenities provide a welcoming environment for pedestrians. The urban plaza at the corner of Lafayette and Third Streets could become the gathering area for pedestrians and visitors with a clock tower and information kiosks located here to provide and disseminate information.

Streetscape Section Detail

Third Street, City of Jamestown



INTERSECTION OF THIRD STREET, FAIRMOUNT AVENUE, MARTIN ALLEY, AND MONROE STREET

The intersection of Third Street, Fairmount Avenue, Martin Alley, and Monroe Street was identified as a concern by the City of Jamestown Department of Development and the Steering Committee during the planning process. Among the issues described was driver confusion over who has the right-of-way when approaching the intersection from the east and north. Indeed the alignment, character, and context of Third Street in this area visually suggest to an approaching driver that it is the major street and thus should enjoy the right-of-way. This is compounded by the fact that eastbound traffic on the same street is not required to stop. Southbound movements from Martin Alley are given the right of way as it would be difficult to stop on the steep approach downgrade, especially during the winter months. The task was to develop a low-cost concept for improvements that would improve positive guidance and driver behavior. Major reconfiguration alternatives were beyond the scope of this investigation due to funding and property constraints. In addition, the Department of Public Works recently completed a project involving roadway reconstruction in the vicinity of this intersection and that investment was to be protected.

A conceptual improvement plan is contained in Appendix 5. Major components of the plan are as follows:

- The existing four-lane segment of Third Street between Hall Avenue and Martin Alley would be converted from four lanes to two with a striped center median. The existing roadway contains two lanes (one in each direction) to both the east and west of this segment. The existing four-lane configuration is neither contiguous nor necessary. The proposed median area would be terminated in an exclusive left turn lane at Monroe Street.

- Pavement markings on the westbound and southbound approaches to the intersection would be enhanced. This would involve the placement of an 18 inch white stop line and supplementary pavement lettering no more than 30 feet back from the point where Third Street and Martin Alley meet. Edge lines would be used on Martin Alley to place traffic destined for Third Street into one lane. Southbound traffic headed for Fairmount Avenue would be given an exclusive right turn lane to utilize the rest of the existing pavement. Edge lines and gore stripes at the intersection would be increased in width from 4 inches to 12 inches to improve channelization. A white dotted lane line would be extended along the inside of the travel path from Martin Alley to Third Street to further reinforce the right-of-way.

- Gore and median areas within the intersection would be treated with a color contrasting and textured surface treatment. This would supplement the MUTCD pavement markings and reinforce the proper channelization of traffic flow through the intersection.

- Existing signs would be augmented or replaced as necessary to meet current MUTCD requirements and improve positive guidance. The addition of a sign with the legend “traffic from right does not stop” beneath the westbound stop sign on Third Street would serve as an additional warning to approaching motorists. A new warning sign placed on the southbound Martin Alley approach would both provide information regarding the curve ahead, intersection, and a recommended advisory speed.

Chapter 4: Implementation Plan

IMPLEMENTATION MATRIX

The implementation of transportation and streetscape design improvements can be phased to reduce annual municipal cost burden and secure funding from outside sources and agencies. Phasing improvements could either occur based on geography, such as phasing by block, or by specific improvements, such as adding banners or creating a cohesive wayfinding program. When approaching implementation over significant area such as the downtown focus area, some improvements will dictate the order in which other improvements can be made. For instance, road reconstruction projects that have the potential to impact the adjacent sidewalk areas should be undertaken before enhancing the streetscape.

Excitement and interest in improving the downtown and attracting more visitors and residents to the downtown is generated by people seeing progress. Therefore, it is recommended that the City of Jamestown begin the implementation of this plan by concentrating on enhancement projects within the identified focus areas as well as making small changes that require minimal investment and can be accomplished in a short period of time. Examples would include improvements to small pocket parks and public spaces or the installation of art pieces which could be accomplished with help from outside are organizations. General enhancements within the downtown, including lighting, benches, trash cans, and the installation of similar amenities can be started immediately and do not require a significant additional level of detailed design.

A general outline of recommendations associated with the Transportation and Streetscape Enhancement Master Plan is provided below and includes proposed phasing, responsible parties, and general cost estimates. Final costs of streetscape amenities can be determined once a specific design and manufacturer are selected by the city for each specified job. It should be noted that prices for amenities can vary significantly depending on manufacturer, materials, design, and quantity purchased.

Site specific projects, including alleyway enhancements, First Street improvements, and Riverwalk enhancements, require an additional level of design detail once a final desired vision is established by the city for these areas. During the detailed design phase, a final set of recommended amenities, materials, and actual costs would be determined. Specific costs per project would depend on the area designated for implementation, project phasing, and final plans as determined during the detailed design phase of projects. Preliminary estimates for these projects are provided in the Implementation Matrix but should be further evaluated as part of a detailed design project.

Other improvements, such as business signage and awnings and public art, are not included in the cost estimates as they are expected to be funded by individual property and business owners or completed through volunteer efforts.

The general costs (2008 dollars) provided below are presented for planning purposes and can be used as a baseline to establish budgets and to apply for funding assistance for implementation. Specific costs will be established in follow-on studies and during detailed design. Timeframes have been established for short, intermediate, and long-term projects, representing projects to be completed in 1-3 years, 3-5 years, and 5-10 years, respectively.

Brief Description of Recommendation	Timeframe	Responsible Party	Cost per Unit	Quantity	TOTAL Estimated Cost	Checkbox for Completion
Jefferson Street, including Baker Park (3 blocks)						
Wheel Stops (Baker Park) does not include installation	Intermediate	City – DPW	$100	12	$1,200	
Benches (Baker Park - 4, Street - 2)	Short-Term	City – Planning City – DPW (install)	$500	6	$3,000	
Trash Cans (Baker Park)	Short-Term	City – Planning City – DPW (install	$700	4	$2,800	
Bike Rack (Baker Park)	Short-Term	City – DPW	$500	1	$500	
Playground Equipment (Baker Park)	Intermediate	City – DPW	$20,000	1	$20,000	
Picnic Tables (Baker Park)	Intermediate	City – DPW	$1,000	4	$4,000	
Lafayette Street, including intersection with Third Street (3 blocks)						
Clock Tower (details determined once final design is approved)	Long-Term	City – Planning	TBD	1	TBD	
Informational Kiosks	Intermediate	City – Planning City – DPW (install)	$4,000	2	$8,000	
Wayfinding Signage	Short-Term	City – Planning City – DPW (install)	$500	5	$2,500	
Cherry Street (2 blocks)						
Benches	Short-Term	City – Planning City – DPW (install)	$500	4	$2,000	
Trash Cans	Short-Term	City – Planning City – DPW (install)	$700	3	$2,100	
Flower Planters	Intermediate	City – Planning City – DPW (install)	$700	6	$4,200	

Brief Description of Recommendation	Timeframe	Responsible Party	Cost per Unit	Quantity	TOTAL Estimated Cost	Checkbox for Completion
Main Street (3 blocks)						
Pedestrian lighting	Intermediate	City – Planning City – DPW (install)	2000	10	20,000	
Benches	Short-Term	City – Planning City – DPW (install)	$500	4	$2,000	
Trash Cans	Short-Term	City – Planning City – DPW (install)	$700	4	$2,800	
Flower Planters	Intermediate	City – Planning City – DPW (install)	$700	8	$5,600	
Wayfinding Signage	Short-Term	City – Planning City – DPW (install)	$500	4	$2,000	
Colored and Textured Crosswalk (Riverwalk)	Intermediate	City – Planning City – DPW (install)	$5,000	1	TBD	
Landscape median (Riverwalk)	Long-Term	City – Planning City – DPW (install)	TBD	1	TBD	
Washington Street (3 blocks)						
Roadway Conversion (curb, curb extensions, pavement marking, signing, traffic signals, etc.)	Long-Term	City – Planning City – DPW NYSDOT , Consultant	$1.0 to $1.5 M	1	TBD based on selected alternative and final design	
Dual Fixture Light Posts	Intermediate	City – Planning City – DPW (install)	TBD	8	TBD based on final design approved by SHPO	
Benches	Short-Term	City – Planning City – DPW (install)	$500	4	$2,000	
Trash Cans	Short-Term	City – Planning City – DPW (install)	$700	4	$2,800	
Flower Planters	Intermediate	City – Planning City – DPW (install)	$700	8	$5,600	
Wayfinding Signage	Short-Term	City – Planning City – DPW (install)	$500	4	$2,000	
Trees and Tree Grates	Intermediate	City – DPW	$1250	24	$30,000	

Brief Description of Recommendation	Timeframe	Responsible Party	Cost per Unit	Quantity	TOTAL Estimated Cost	Checkbox for Completion
First Street (1 block, east of Main Street)						
Pedestrian lighting	Intermediate	City – Planning City – DPW (install)	2000	8	16,000	
Benches	Short-Term	City – Planning City – DPW (install)	$500	6	$3,000	
Trash Cans	Short-Term	City – Planning City – DPW (install)	$700	4	$2,800	
Flower Planters	Intermediate	City – Planning City – DPW (install)	$700	8	$5,600	
Wayfinding Signage	Short-Term	City – Planning City – DPW (install)	$500	4	$2,000	
Streetlight Banners	Intermediate	City – Planning City – DPW (install)	$150	8	$1,200	
Economic Development Strategy	Intermediate	City – Planning Consultant	$25,000	1	$15,000	
Second Street (8 blocks)						
Two-way traffic conversion (curb, curb extensions, pavement marking, signing, traffic signals, etc.)	Intermediate	City – Planning City – DPW Consultant	$1.5 M to $2.0 M	1	TBD	
Jamestown High School Vicinity Improvements	Long-Term	City – Planning City – DPW Consultant	$750,000 to $1.0 M	1	TBD based on final design selected by City	
Dual Fixture Light Posts	Intermediate	City – Planning City – DPW (install)	TBD	16	TBD based on final design approved by SHPO	
Pedestrian lighting	Intermediate	2000	TBD	8	$16,000	

Brief Description of Recommendation	Timeframe	Responsible Party	Cost per Unit	Quantity	TOTAL Estimated Cost	Checkbox for Completion
Second Street (8 blocks)						
Benches	Short-Term	City – Planning City – DPW (install)	$500	16	$8,000	
Trash Cans	Short-Term	City – Planning City – DPW (install)	$700	16	$11,200	
Flower Planters	Intermediate	City – Planning City – DPW (install)	$700	12	$8,400	
Wayfinding Signage	Short-Term	City – Planning City – DPW (install)	$500	8	$4,000	
Trees and Tree Grates	Intermediate	City – DPW	$1250	16	$20,000	
Third Street (7 blocks)						
Tracy Plaza Improvements (8 planters, 6 benches, 3 trash cans, kiosk)	Long-Term	City – Planning City – DPW	Misc.	N/A	$13,700	
Dual Fixture Light Posts	Intermediate	City – Planning City – DPW (install)	TBD	TBD	TBD based on final design approved by SHPO	
Pedestrian lighting	Intermediate	City – Planning City – DPW (install)	TBD	TBD	TBD	
Benches	Short-Term	City – Planning City – DPW (install)	$500	14	$7,000	
Trash Cans	Short-Term	City – Planning City – DPW (install)	$700	14	$9,800	
Flower Planters	Intermediate	City – Planning City – DPW (install)	$700	16	$11,200	
Informational Kiosks	Intermediate	City – Planning City – DPW (install)	$4,000	2	$8,000	
Wayfinding Signage	Short-Term	City – Planning City – DPW (install)	$500	8	$4,000	

Brief Description of Recommendation	Timeframe	Responsible Party	Cost per Unit	Quantity	TOTAL Estimated Cost	Checkbox for Completion
Second Street (8 blocks)						
Streetlight Banners	Intermediate	City – Planning City – DPW (install)	$150	TBD	TBD	
Economic Development Analysis / Strategy for downtown business and residential development	Intermediate	City – Planning Consultant	$25,000	1	$20,000	
Fourth Street (7 blocks)						
Two-way traffic conversion (curb, curb extensions, pavement marking, signing, traffic signals, etc.)	Intermediate	City – Planning City – DPW Consultant	$2.0 M to $2.5 M	1	TBD	
Dual Fixture Light Posts	Intermediate	City – Planning City – DPW (install)	TBD	TBD	TBD based on final design approved by SHPO	
Pedestrian lighting	Intermediate	City – Planning City – DPW (install)	$2000	TBD	TBD	
Benches	Short-Term	City – Planning City – DPW (install)	$500	14	$7,000	
Trash Cans	Short-Term	City – Planning City – DPW (install)	$700	7	$4,900	
Flower Planters	Intermediate	City – Planning City – DPW (install)	$700	12	$8,400	
Wayfinding Signage	Short-Term	City – Planning City – DPW (install)	$500	4	$2,000	
Third Street, Fairmount Avenue, Monroe Street, and Martin Alley Intersection (						
Marking and Signing Enhancements	Short-Term	City – Planning City – DPW	< $250,000	1	< $250,000	

FUNDING SOURCES

INTRODUCTION

There are various considerations associated with the implementation of the Transportation and Streetscape Enhancement Master Plan. These include actual up-front costs to get a projected completed, but administrative and long-term maintenance costs must also be factored into the overall costs of a project. While some projects may be included in the City's Capital Improvement Program, other projects will require additional financial support from other sources. A key consideration when seeking outside funding is the ability of the City to provide a local match which is often made in the form of cash, materials, and/or "in-kind" labor or materials.

There are a wide variety of financial resources available for the City of Jamestown. Federal, state, and local programs should be considered and combined for maximum benefit and implementation of suggested projects and actions. Potential funding opportunities for both transportation-oriented projects and streetscape enhancements are identified below. One item of interest is that streetscape elements funded with Federal dollars are required to be non-portable or immovable. That is, they may not be removable and thus in jeopardy of being moved or removed in the future. Projects utilizing Federal funds must also consider potential impacts on historic and cultural resources. Due to the rich history contained within the city of Jamestown, the city should anticipate involvement with agencies such as the New York State Historic Preservation Office if Federal transportation dollars are utilized.

TRANSPORTATION IMPROVEMENTS AND ENHANCEMENTS

The Transportation and Streetscape Enhancement Master Plan describes a set of actions that can calm traffic and enhance pedestrian accommodation. A funding plan that utilizes the resources listed below should be established by working with the NYSDOT, Empire State Development Corporation, and local or State elected officials.

SAFETTEA-LU Federal Transportation Bill

The Federal Transportation Bill "SAFE, ACCOUNTABLE, FLEXIBLE, EFFICIENT TRANSPORTATION EQUITY ACT: A Legacy for Users" (SAFETEA-LU) placed an emphasis on improved transportation operations and traffic signal re-timing. Several programs in the transportation bill are available as potential funding sources. Cities, through application to their Metropolitan Planning Organization or State Transportation Agency can request use of the following funds for signal upgrades and retiming:

- Surface Transportation Program (STP)
- Surface Transportation Program Flexible Spending
- Congestion Mitigation and Air Quality Program (CMAQ)

These funds typically require a 20% local match. The STP provides flexible funding that may be used by states and localities for projects on any Federal-aid highway. The Act expands STP eligibilities to include high accident congested locations, intersections, and supports environmental restoration and pollution abatement.

CMAQ Program

The CMAQ program provides a flexible funding source to state and local governments for transportation projects and programs that help meet the requirements of the Clean Air Act. Funding is available for areas that do not meet the National Ambient Air Quality Standards (non-attainment

areas) as well as former non-attainment areas that are now in compliance (maintenance areas). The formula for distribution of funds considers an area's population by county and the severity of its ozone and carbon monoxide problems within the non-attainment or maintenance area, with greater weight given to areas that are both carbon monoxide and ozone non-attainment/maintenance areas. SAFETEA-LU requires the Secretary of Transportation to evaluate and assess the effectiveness of a representative sample of CMAQ projects, and maintain a database.

Other non traditional funding sources may be available through the following programs:

United States Department of Energy Clean Cities Program

This program is aimed at total city wide efforts to reduce energy and emissions.

Climate Trust

The Climate Trust invests funding from power plants, businesses, organizations and individuals into projects that offset GHG emissions resulting from activities such as generating electricity, running a business, driving, flying, heating a home, etc. Offsets are a critical piece of the climate change solution, and because offsets can be readily implemented using existing technology, they make a difference today. A fine example of this is underway in Portland Oregon. Through the use of offsets the City has undertaken a program of traffic signal optimization.

New York State Multi-Modal program consists of authorized State and local highway and bridge, rail, port, and aviation projects and fixed ferry facilities. The Multi- Modal Program may fund the construction, reconstruction, improvement, reconditioning, and preservation of State, county, town, city, and village roads, highways, parkways, bridges, and municipal and privately owned fixed ferry facilities. Projects must have a minimum service life of at least ten years

STREETSCAPE IMPROVEMENTS AND ENHANCEMENTS

With adoption of the Transportation and Streetscape Enhancements Master Plan the City of Jamestown will demonstrate its commitment to improving the aesthetic character of the City, enhancing the downtown to be more welcoming and user friendly, creating a strong sense of place, and improving walkability. In turn, it is anticipated that streetscape and public space improvements will foster pride and excitement in the community by both residents and visitors, creating new opportunities for investment in the downtown and leading to sustainable economic growth.

The City's Department of Development and Department of Public Works should partner with local, regional, state, and federal agencies to identify and establish a plan of action for the full implementation of the Master Plan. A list of potential funding sources available for the improvement of buildings, resources, and the streetscape within the downtown focus area is provided below. Additional funding sources should be identified and pursued as appropriate.

Community Development Block Grant Program

The CDBG program, through the Office of Community Renewal for the State of New York, provides grants to cities with populations under 50,000 people and counties with populations under 200,000 people to develop viable communities providing affordable housing, suitable living environments, and expanded economic opportunities for persons with low to moderate incomes. The grants can be used to fund programs aimed at revitalizing neighborhoods, expanding affordable housing opportunities, promoting economic development, and improving community facilities, services, and infrastructure. In Jamestown, this grant could help to rehabilitate buildings in the downtown core for the purposes of affordable housing.

Council on the Arts

The NYS Council on the Arts offers funding through their Architecture, Planning, and Design program. The program provides funding for projects related to planning and community design, design of public spaces (including plazas), open space planning, streetscapes, and transportation linkages. Any of these programs could be applicable to proposed projects for the City of Jamestown primary downtown core.

Empire State Development Zone

The City of Jamestown is Empire Zone #35 of 85 Empire Zones located in New York State through 2007. This designation should be used as a marketing tool to attract new, regionally significant businesses to the City. The Empire Zone program was originally created to stimulate economic growth through a variety of State tax incentives designed to attract new businesses to New York State and to enable existing businesses to expand and create more jobs. Businesses seeking to locate or expand within the City of Jamestown must become zone certified in order to qualify for the State tax incentives. In order to qualify for certification a business must be able to demonstrate that it will create new jobs and/or make investments in the empire zone and be consistent with any local development plans. Once a business is certified it is eligible to claim tax credits, subject to requirements and performance based formulas set in Tax Law.

Benefits given to Empire Zone certified companies include:

- Wage Tax Credits
- Investment Tax Credits
- Employment Incentive Credits
- Zone Capital Credits

- NYS Sales Tax Refund
- Real Property Tax Credit
- Tax Reduction Credit

Environmental Protection Fund – Clean Water / Clean Air Bond Act

This funding resource is administered through the New York State Office of Parks, Recreation, and Historic Preservation. The Environmental Protection Fund provides a variety of grant opportunities that could be pursued by the City to further restore and develop existing parks, for acquisition of lands associated with trails, or historic preservation. Programs that may be of interested to the City include:

- Parks Program – a matching grant for the development of parks and recreational facilities
- Historic Preservation Program – a matching grant program to restore properties listed on State or National Register of Historic Places
- Acquisition – a matching grant program for acquisition of easement or fee title to lands, water, or structures for use by all segments of the population for park, recreation, or preservation purposes

Funds from this program could be used to restore historically significant buildings in the downtown or to acquire additional parklands as part of the Riverwalk project.

Federal Transit Funding Programs

The Federal Transit Funding Program is administered by the New York State Department of Transportation and is available to assist local governments with planning and implementing community transportation projects.

New York Landmarks Conservancy – City Ventures Fund

The New York Landmarks Conservancy is dedicating to enhancing and rehabilitating architecturally significant buildings in New York State. Since its founding in 1973, the Conservancy has provided more than $30 million in grants and low-interest loans to owners of architecturally significant historic structures. The goal of their program is consistent with the vision of the City of Jamestown – to revitalize neighborhoods and preserve the character of the City.

The City Ventures Fund provides funding to non-profit housing corporations, community development organizations, and social service agencies that are restoring historic buildings for the benefit of the greater community. Grants range up to $30,000 and may be used by non-profit developers to retain period details of architecturally significant buildings that are being converted to affordable housing or other services that benefit lower income communities.

Preserve New York Grant Program

This grant program is offered by the Preservation League of New York State and the New York State Council on the Arts to support three types of projects: cultural resource surveys, historic structures reports, and historic landscape reports. Local governments and not-for-profit organizations are eligible to apply with grants ranging from $3,000 - $15,000. In Jamestown, grant funding could be used to document the condition of historic structures which could be provided to owners and potential developers to better understand redevelopment and rehabilitation potentials.

Recreational Trails Program

The Recreational Trails Program is provided through funding from the Federal Highway Administration and is a matching grant program for the acquisition, development, rehabilitation, and maintenance of trails and trail-related projects. The City of Jamestown would be eligible to apply for the grant to continue and further the development of the Riverwalk and other projects related to the Riverwalk development.

Safe Routes to Schools (SRTS)

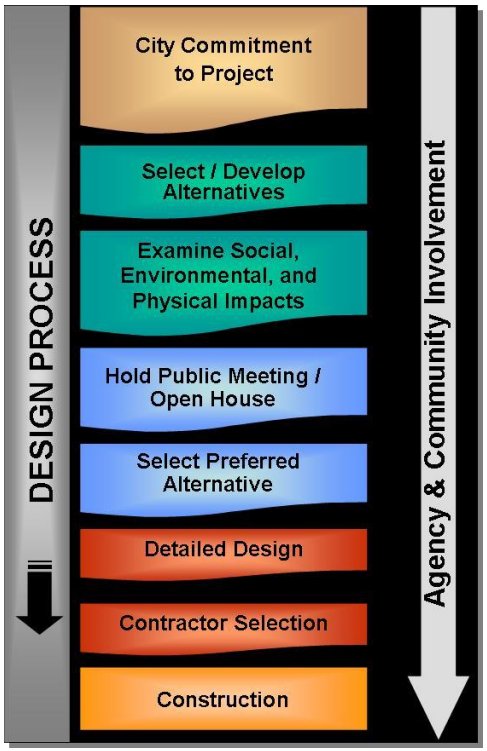
The SRTS program is a federal-aid reimbursement program under the SAFETEA-LU administered by the Federal Highway Administration and the NYSDOT to encourage children to walk and bicycle to school by making it safe and appealing to users. The goal of the program is to assist communities throughout New York is developing and implementing projects that increase bicycle, pedestrian, and traffic safety and typically include an approach based on engineering, enforcement, education, and/or encouragement. Local governments, school districts, and community not-for-profits willing to implement the program are eligible to apply for funding.

Rivers, Trails, and Conservation Assistance Program (RTCA)

RTCA provides technical assistance to locally-led outdoor recreation projects, such as the Riverwalk Trail. Applicants may be local agencies, non-profit organizations, or citizen groups. RTCA does not provide monetary assistance. Projects eligible for technical assistance should include community outreach.

DESIGN AND CONSTRUCTON PHASES

The conceptual alternatives and streetscape enhancements described in Chapter 3, including one-way to two-way traffic conversions on Second Street and Fourth Street, were developed to a sufficient level of detail to determine feasibility. That level of detail is also appropriate to further public discussion and support informed decision making efforts by local officials. The next step is for the Jamestown community and its leaders to prioritize the list of suggested improvements. Should the City undertake general streetscape improvements, pursue one or both of the two-way conversions, or focus on other efforts? This is a decision that can and should only be made by the City of Jamestown and its leadership. The Urban Design Plan and this document have laid the groundwork for a vision. It is time to commit to making that vision a reality, develop a scope for intended improvements, secure the necessary funding, and move on to the design and construction phases.



Remaining Steps in the Local Project Development Process

The design process should continue to involve public input, though more focused on specific areas, concerns, and improvements. Once the City commits to one or more of the projects outlined in this plan, specific alternatives can be drawn from its text. New alternatives may also be developed. If local (City of Jamestown) money is the sole funding source utilized, a study of potential environmental impacts must be undertaken in accordance with the [New York] State Environmental Quality Review Act (SEQRA). This would include, for example, an examination of temporary and permanent impacts from changes in storm water discharge. It would also deal with the implication of changes affecting spaces such as Veterans Park near the Jamestown High School. If additional sources involving State or Federal funding are used, a project would also be subject to review under the National Environmental Protection Act (NEPA). Coordination with other outside agencies including for example the New York State Office of Parks and Historic Preservation may also become necessary depending on the nature of the project.

Once alternatives have been brought into preliminary design and the physical, environmental, and cost implications are known, they should be discussed with the public at a formal meeting or open house. With public input in hand, City officials would then choose a preferred alternative and progress that alternative to detailed design. Once architectural or engineering drawings, specifications, and estimates are prepared, the City can move on to the selection of a contractor for construction. Public outreach should continue during the construction phase in the form of news releases and postings on the City's website to keep residents informed on progress and results.

The intensity and duration of this process should be tailored to the complexity and level of potential impact. For example, the level of effort required to progress a wayfinding sign program would generally be less than that necessary to reconfigure the intersection of Third Street and Second Street adjacent to the Jamestown High School. The graphic to the left summarizes the steps necessary to construct the major traffic and streetscape enhancements outlined in this document. A more detailed flowchart showing how a public project involving State and Federal funding typically moves through the design process can be found on the NYSDOT website at the following address:

https://www.nysdot.gov/portal/page/portal/divisions/engineering/design/dqab/dqab-repository/flowchrt.jpg.