CHAPTER 4 - SOCIAL, ECONOMIC & ENVIRONMENTAL CONDITIONS and CONSEQUENCES

4.1 INTRODUCTION

The purpose of this Chapter in the Scoping Document is to identify NEPA Class and SEQR Type; as well as, describe briefly the social, economic, and environmental character and issues. Future investigations will be done in consultation with cooperating and interested agencies, community groups, and elected officials. The detail and scope of the investigations will be based on the decisions being made for the project, the sensitivity of the resource, and the size of the impacted area. Preliminary environmental screening activities and preliminary comments as to whether surficial or historical evidence indicates the presence of recognized environmental sites, buildings, or conditions that may result in potential environmental and historical concerns within the project corridor are included herein. Some portions of this preliminary screening were originally prepared for Rochester's Inner Loop Improvement Study, completed in September 2001, but have been updated with this document. Other portions will be completed or revisited at a later time. The following discussion summarizes the pertinent information related to the southeast section of the Inner Loop.

4.1.1. Environmental Classification and Lead Agencies

This project is assumed to be a Class III action under United States Department of Transportation (USDOT) National Environmental Policy Act (NEPA) Regulations, 23 CFR 771. A NEPA checklist will be prepared with the final DAD. The project is expected to comply with the requirements of a Categorical Exclusion with Documentation. The lead agency for NEPA is the Federal Highway Administration (FHWA).

This project is assumed to be a Type II action in accordance with 17 NYCRR, Part 15, "Procedures for Implementation of State Environmental Quality Review (SEQR) Act". This designation will be confirmed upon completion of the preliminary design phase. The City of Rochester is the SEQR lead agency. As lead agency the City will satisfy SEQRA requirements though the preparation of an Environmental Assessment.

4.2. SOCIAL

4.2.1. Land Use

The purpose of this section is to document the land use in the general vicinity of the project corridor and specifically land use directly adjacent to the Inner Loop. This information will help in developing alternatives and assessing impacts to the adjacent neighborhoods, parks, and community facilities.

During the initial Inner Loop Improvement Study, various land use evaluations were undertaken for the reclaimed land in the corridor. This land recovery allows for future land use opportunities and the potential to physically and visually connect the Central Business District to the adjacent neighborhoods. The 2001 study identified opportunities for residential neighborhood extensions, commercial development, and open space, in the range of 9.4 acres of new land depending on the at-grade road alignment and width characteristics. Since then, various community initiatives have taken a serious look at desired land uses and densities, resulting in several recommendations surrounding the Southeast Loop area. The 2003 Center City Master Plan and the 2007 Downtown Charrette process helped to formulate a vision on the desired community characteristics to be considered in this area, including the need to:

- *Create a major gateway at the east end of Main Street,*
- *Create new development sites for civic space, new development and parking,*
- *Create new infill development that complements the historic housing stock along South Union Street,*
- *Reconnect Monroe Avenue to downtown through the addition of continuous building frontages,*
- *Expand and improve Manhattan Square Park and create a major civic space in front of the Strong Museum,*
- *Extend Woodbury Boulevard to improve connections and new opportunities for infill development,*
- *Create new neighborhoods that provide a built-in-constituency for Manhattan Square Park and other downtown destinations,*
- *Narrow Broad Street to provide new building sites that would create a stronger public realm.*

This project will be further coordinated with local planning officials to evaluate the compatibility of alternatives with community planning objectives.

Information on the general population served/ or affected by the proposed project will be collected and analyzed. This will include identification of the race, color, national origin, age and level of income of the overall population as well as the existence of any minority and/or low-income populations or communities.

This project is not located within a Coastal Area as defined by New York State Department of State (NYSDOS) Coastal Zone Management regulations, 19 NYCRR Part 600. Therefore, the proposed project does not need to be evaluated with respect to potential waterway impacts.

The City of Rochester has developed a Local Waterfront Revitalization Program (LWRP) and a Critical Environment Area (CEA) along the Genesee River. The LWRP and CEA limits, which include a 100 foot wide zone along the river, overlap the project limits on either side of the I-490 bridge over the river. However, while the proposed project is not anticipated to adversely affect the LWRP or CEA, coordination and a consistency review will be required.

4.2.2. Neighborhoods and Community Cohesion

Neighborhood cohesion is a comprehensive term that refers to an aggregate quality of a neighborhood. It is a social attribute that indicates a higher-than-average sense of community, shared civic responsibility, social interaction within a limited geographic space and interdependence that serves an assimilating function or a number of other localized social purposes. The current Inner Loop expressway long ago severed connectivity between the Central Business District and adjacent neighborhoods. The idea of the beltway around Rochester was conceived in the 1950s in order to address poor traffic conditions within downtown. Then, in the early 1960's, many structures were demolished to make way for the route.

The 2003 Center City Master Plan and the 2007 Downtown Charrette Report evaluated the challenges and opportunities associated with the possible transformation of the Inner Loop in the southeast quadrant. Both studies focused on creating a plan for the downtown area including the evaluation of needs for each of the neighborhood districts. The 2007 Downtown Charrette Report identified the Southeast Loop area as having the biggest need:

> ***"…to seamlessly connect the greater downtown and the southeast neighborhoods centered on Monroe, East and University Avenues. Streets need to be "right-sized" and reconceived as a complete environment for pedestrians, bicyclists, transit and private vehicles…"***

The following additional ***Challenges*** were presented in the Charrette Report for the Southeast Loop area:

- *Overcome the barrier created by the underutilized Inner Loop between downtown and the southeast neighborhoods centered on Monroe, East and University Avenues;*
- *"Right-Size" wide streets that discourage pedestrian activity, while encouraging speeding and aggressive driving;*
- *Break up "superblocks" that impede pedestrian and vehicular movement;*
- *Maximize development potential of vacant and underutilized land.*

Removing the Inner Loop and transforming it to a community-scaled urban boulevard will serve to reconnect these entities by allowing the original street grid system to be rebuilt (Charlotte Street, Woodbury Boulevard, etc.) as well as conversion of South Union Street (the new at grade boulevard) to two-way operation. This will allow significantly improved access to adjacent properties. The combination of improved local access, lower travel speeds, and new development can help to reconnect adjacent neighborhoods to the urban core. The quality of neighborhoods and lifestyles can be positively affected as a result of raising the Inner Loop. The new roadway network and elimination of the expressway system will allow for improved accessibility by pedestrian, bicycle and vehicles between neighborhoods, eliminating the isolation of these neighborhoods from the vibrant Center City.

4.2.3. Social Groups Benefited or Harmed

The project alternatives will be assessed for impacts in accordance with EO 12898, Environmental Justice during the next phase of this project using the guidance of the FHWA Technical Advisory 6640.8A. These include: relocation impacts, community cohesion, changes to travel patterns, accessibility, safety issues, and other environmental impacts or project results which could potentially impose a disproportionate and adverse health or environmental impact on a minority and/or low-income population.

The City of Rochester and NYSDOT are committed to Title VI of the Civil Right Act which stipulates that no person in the United States shall on the grounds of race, color, or national origin, be: excluded from participation; denied the benefits of; or be subjected to discrimination under any program or activity receiving federal assistance.

4.2.4. School Districts, Recreational Areas, Places of Worship

There will be no significant impacts to the local school district, except for the temporary disturbances and inconvenience generally associated with construction activities. Only one school facility, located at 200 University Avenue, is adjacent to the project corridor. This facility houses World of Inquiry School 58, serving grades K-7. Communication with the City of Rochester School District during construction will help to mitigate potential construction impacts.

No negative impact to recreation areas are expected as a result of the project. Although there are a number of parks located within the City of Rochester, none are located immediately adjacent to the project corridor. Opportunities for additional green space are expected as part of the streetscape improvements associated with project improvements. Access for pedestrian traffic is expected to be improved with the implementation of this project.

No negative impact to places of worship is expected as a result of the project. There are a few places of worship located along the corridor. These include but not limited to:

- Bethel Christian Fellowship, 321 East Avenue
- New Hope Free Methodist Church, 62 North Union Street
- Word of the Cross, 76 North Union Street

4.3. ECONOMIC

4.3.1. Regional and Local Economies

The project is intended to promote positive local economic impacts. These positive impacts include those that will result from the connectivity established between the surrounding neighborhoods which are now isolated from the Center City area. This project is consistent with the City of Rochester's Center City Master Plan, which recognizes the importance of economic development associated with this proposed boulevard style roadway to replace the below-grade roadway system.

The Area 1 project will make improvements to the roadway infrastructure and circulation on the east side of Rochester's Central Business District, thus allowing for expansion and growth of private sector businesses. Based on the current conceptual alignment, raising this portion of the Inner Loop would open up 9.4 acres of land for development. This amount of land could support 460,000 to 920,000 square feet of new commercial/residential developments, resulting in $64.4 to $128.8 million of additional investment in the community. The additional investment to re-develop this land would create an additional 708 to 1,416 construction jobs and the redeveloped land would generate between $3.43 to $6.86 million annually in new property taxes for Monroe County, the City of Rochester and the Rochester School District. It could result in over $2.0 million from the sale of this vacated land to private or public developments.

Future Development Potential

± 9.4 acres

450,000 sf - 900,000 sf
new mixed use development

$65M to $130M
new community investment

700-1,400
Construction Jobs

$3.4M to $7M
new tax revenue

Economic competitiveness is demonstrated by the project's ability to address the four major challenges being faced in the southeast Inner Loop area, they are:

- Overcome the barrier created by the underutilized Inner Loop;
- "Right-Size" wide streets that discourage pedestrian activity;
- Break up "superblocks" that impede pedestrian and vehicular connections; and,
- Maximize development potential of vacant and underutilized land.

Removal of the expressway section allows for reconnecting the street grid system. This provides for the integration of livability in the transportation system. Some of the livability principles[1] that directly relate to this project include:

- *Provide more transportation choices.* Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.
- *Enhance economic competitiveness*. Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services, and other basic needs by workers, as well as expanded business access to markets.
- *Support existing communities.* Target Federal funding toward existing communities—through strategies like transit oriented, mixed-use development, and land recycling—to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.
- *Value communities and neighborhoods.* Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods—rural, urban, or suburban.

[1] USDOT, FHWA, FTA, Livability in Transportation Guidebook, Planning Approaches that Promote Livability, June 2010

4.3.2. Business Districts

Because the Inner Loop is a limited access highway, there is essentially no established business district associated with the southeast section of the Inner Loop. Within the southeast area, connecting the East End District (west side of Inner Loop from Main Street to Broad Street), Upper East End District (east side of Inner Loop from University to north of Howell) and the Manhattan Square District (west side of Inner Loop from Broad Street to Monroe Ave) is essential, and removing the southeast section of the Inner Loop will make it possible. The Center City central business district and the business districts associated with East Main Street, the Park Avenue, and Monroe Avenue areas are in close proximity to the project corridor. These districts consist of a mix of dense commercial, retail and service businesses. A positive impact to these business districts is expected due to the improved connectivity between the Center City area and these business districts, as well as the land use changes resulting from this project.

4.3.3. Specific Business Impacts

As the Inner Loop is a limited access highway, there are essentially no existing highway related businesses along the southeast section of the Inner Loop. Businesses in the surrounding blocks along South Union and Pitkin Street may experience positive effects as a result of:

- Improved local circulation and access with the conversion of one-way to two-way streets;
- Improved local circulation with the reconnection of the street grid system;
- Direct connection to adjacent residential neighborhoods;
- New developments will increase population density in the area needing more services;
- Increased pedestrian, bicycle and vehicular traffic along the new accessible urban boulevard; and,
- Opportunity for revitalization of existing building frontages and space.

Minor and temporary inconveniences may be experienced during the construction phase of the project. Construction phasing impacts will be identified and addressed during the preliminary design phase of the project. Therefore, no notable impact to highway related businesses is expected as a result of this project.

4.3.4. Benefit / Cost Analysis

Considering the unique nature of the Inner Loop project, three different types of benefit/cost analyses were considered. There are three distinct levels of assessments that include: Traditional Highway User Benefit/Cost Analysis; Infrastructure Life Cycle Cost Analysis; and, Land Use Redevelopment Benefit/Cost. Each of these elements are further discussed below and then aggregated to provide a comparison of the viable alternatives.

Construction Costs - The current estimated cost to remove the Inner Loop and create a community-scaled urban boulevard that re-establishes a new street grid system from Monroe Avenue to Charlotte Street is estimated at $20.855 million (2010$), including engineering and inspection. The new I-490 ramp would cost an additional investment of $2.285 million. The 2001 Inner Loop study found that the cost of reconstructing the existing Inner Loop (in kind) would be 1.32 times greater than the cost to raise it. A detailed breakdown of the construction cost estimates are provided in Appendix H.

Traditional Highway User Benefit/Cost Analysis normally compares the associated cost savings of reduced travel time, improved traffic safety, and changes in vehicle-related costs as compared to the cost of construction of new or modified infrastructure. The following breakdown of transportation benefits is estimated:

Accident Reduction Benefit	*$0.947M*
Travel Delay/Energy (Costs)	*(-$0.275M)*
Transportation Benefits	***$0.672M (annually)***

Land Use Redevelopment Benefit/Cost is quantitative and qualitative. Quantitative with respect to costs and benefits, such as increased tax base, changes in property values, and changes in community service costs. Qualitative in terms of community cohesion and character, visual impacts, accessibility for other modes of transportation (walking, bicycling, etc.), and the benefit or harm to various social groups that could be affected. The following breakdown of land benefits is estimated:

Land Value	*$2.115M*
Re-Development Value	*$64.4M - $128.8M*
Property Taxes	*$3.5M - $6.87M (annually)*
Land Use Benefits	***$70.02M - $137.785M***

Combining the possible Transportation and Land Use benefits and costs distributed over 20 years after completion of raising the Inner Loop (assuming a 3.5% discount rate) demonstrates a positive benefit / cost ratio. Including the calculated user benefits, sale and reinvestment in land and new property tax revenue, a **benefit/cost ratio of 2.33 to 3.82** is expected. This return on these variables is dependent on the square footage and type of redevelopment that occurs in the land vacated by the highway system.

Infrastructure Life-Cycle Cost Analysis (LCCA) is performed to determine the best long-term investment of public funds in infrastructure. The life-cycle cost analysis calculates what it costs to maintain the existing Inner Loop (bridges, walls, pavement, etc) over a 30-year period in comparison to the construction and maintenance costs of the various other alternatives being considered.

An LCCA following FHWA's guide was performed to compare the costs of maintaining the southeast portion of the Inner Loop to the alternative of raising the Inner Loop from Monroe Avenue to Charlotte Street. Costs included normal road and bridge maintenance practices as presented in the Modal Cost Comparison Matrix (June 2009), NYSDOT Region 4, over the presumed 75 year life for these types of facilities. It also included miscellaneous road maintenance, snow removal, and traffic signal maintenance to name a few. A detailed evaluation is included in Appendix H documenting inflationary factors and rates of return used.

In summary, the LCCA shows that the two feasible alternatives will require the following public investment, assuming a 3.5% rate of return and a 30 year assessment period:

	Present Worth (2015$)
Inner Loop Expressway (Null /No Build Condition) – Eventual replacement of bridges, walls, railings, and pavement reconstruction covering 8.4 lane miles	**$23,663,875**
New At-Grade Arterial- South Union Corridor – includes 3/5 lane boulevard, roundabouts, new construction 3.8 lane miles	**$21,856,341**
Net Public Savings (2015$)	**$1,807,534**

The Life-Cycle Cost Analysis indicates approximately $1.8 million dollars in savings (2015$) by raising the Inner Loop ($21.9 million) to a community-scale urban boulevard versus maintaining the existing Inner Loop ($23.7 million) expressway over 30 years.

These are minimum savings as the benefits attributable to reconnecting districts, improving community cohesion and character, positive visual impacts, accessibility for other modes of transportation (walking, bicycling, etc.) are qualitative in nature and considered priceless. Thus, even at the most rudimentary level, removing the Inner Loop expressway and rebuilding a community-scale urban boulevard with the reconnected street grid system is a better investment of public funds than maintaining the existing expressway.

4.4. ENVIRONMENTAL

4.4.1. Wetlands

There are no state or federal wetlands within the project limits. Therefore, no impacts to wetlands will occur.

4.4.2. Surface Waterbodies and Watercourses

The proposed project area is not situated over a New York State Department of Environmental Conservation (NYSDEC) Primary or Principal aquifer as identified in Kantrowitz and Snavely (1982). Supplemental groundwater investigations will, therefore, not be required for the project.

The Genesee River is the major surface water body situated in the project vicinity. The NYSDEC stream classification for the Genesee River in the project vicinity, as contained in 6 NYCRR, Chapter X, is Class B Fresh Surface Waters and the water quality standard for the river is B. The best use of Class B waters are primary and secondary recreation contact and fishing. The waters are also suitable for fish propagation and survival.

Coverage under NYSDEC State Pollution Discharge Elimination System (SPDES) General Permit (GP-01-10-001) will be required since the project will exceed the 1-acre of ground disturbance applicability threshold. The general permit's primary purpose is to regulate stormwater discharges from the project site both during and after construction. Refer to Section 4.4.8 for further details.

4.4.3. Wild, Scenic, and Recreational Rivers

There are no wild, scenic or recreational rivers within the southeast section of the Inner Loop project limits.

4.4.4. Navigable Waters

There are no State Regulated Waters per the Office of General Services Lands and Navigable Waters in the immediate study area limits.

4.4.5. Floodplains

There are no floodplains in the project area.

4.4.6. Coastal Resources

This project is not located within a Coastal Zone Management Program, in a State Coastal Erosion Hazard Area, Waterfront Revitalization and Coastal Resources Program, Federal Coastal Barrier Resources Act (CBRA) or a Coastal Barrier Improvement Act (CBIA).

4.4.7. Aquifers, Wells, and Reservoirs

The proposed project area is not situated over a New York State Department of Environmental Conservation (NYSDEC) Primary or Principal aquifer as identified in Kantrowitz and Snavely (1982). Supplemental groundwater investigations will, therefore, not be required for the project.

4.4.8. Stormwater Management

Since the project will exceed 1 acre of ground disturbance, permit coverage under SPDES GP-01-10-001 will be required. To that end, a project-specific Stormwater Pollution Prevention Plan (SWPPP) will be developed that addresses the management of stormwater discharges that leave the project site both during and after construction. The SWPPP will conform to the SPDES General Permit, as well as the technical standards of "NYSDEC Stormwater Management Design Manual" and "NYS Standards and Specifications for Erosion and Sediment Control". An Erosion and Sediment Control Plan will be included as part of the SWPPP.

The project is located in the City of Rochester, a designated Municipal Separate Storm Sewer System (MS4) entity. As such, the City is the initial approval authority for the SWPPP, including all proposed project-related stormwater management practices and facilities. With the City's approval, via an "MS4 SWPPP Acceptance Form", a "Notice of Intent" (NOI) will be submitted to NYSDEC for authorization to perform construction operation under the General Permit.

Since the project involves the conversion of an existing transportation system into a more context sensitive transportation solution, it will most-likely qualify as a "Redevelop" project. Also worth noting is that the project site's stormwater runoff enters a combined (storm and sanitary) sewer system that ultimately flows through the Van Lare Treatment facility before discharging to Lake Ontario. By meeting the "Redevelopment" qualification coupled with the existence of the combined sewer system, the project would be given more latitude as to how the technical standards are applied. But in general, the typical process requires that stormwater management controls be included to provide stormwater quality treatment, as well as stormwater runoff reduction capabilities when feasible and practical.

4.4.9. General Ecology and Wildlife Resources

Coordination with the New York State Department of Environmental Conservation (NYSDEC), the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) indicated that there are no records of state or federal endangered or threatened species that have the potential to be affected by the project. Copies of the correspondence with these agencies are included in the Appendix G of this report.

4.4.10. Critical Environmental Areas

There are no State Critical Environmental Areas or State Forest Preserve Lands in the project limits.

4.4.11. Historic and Cultural Resources

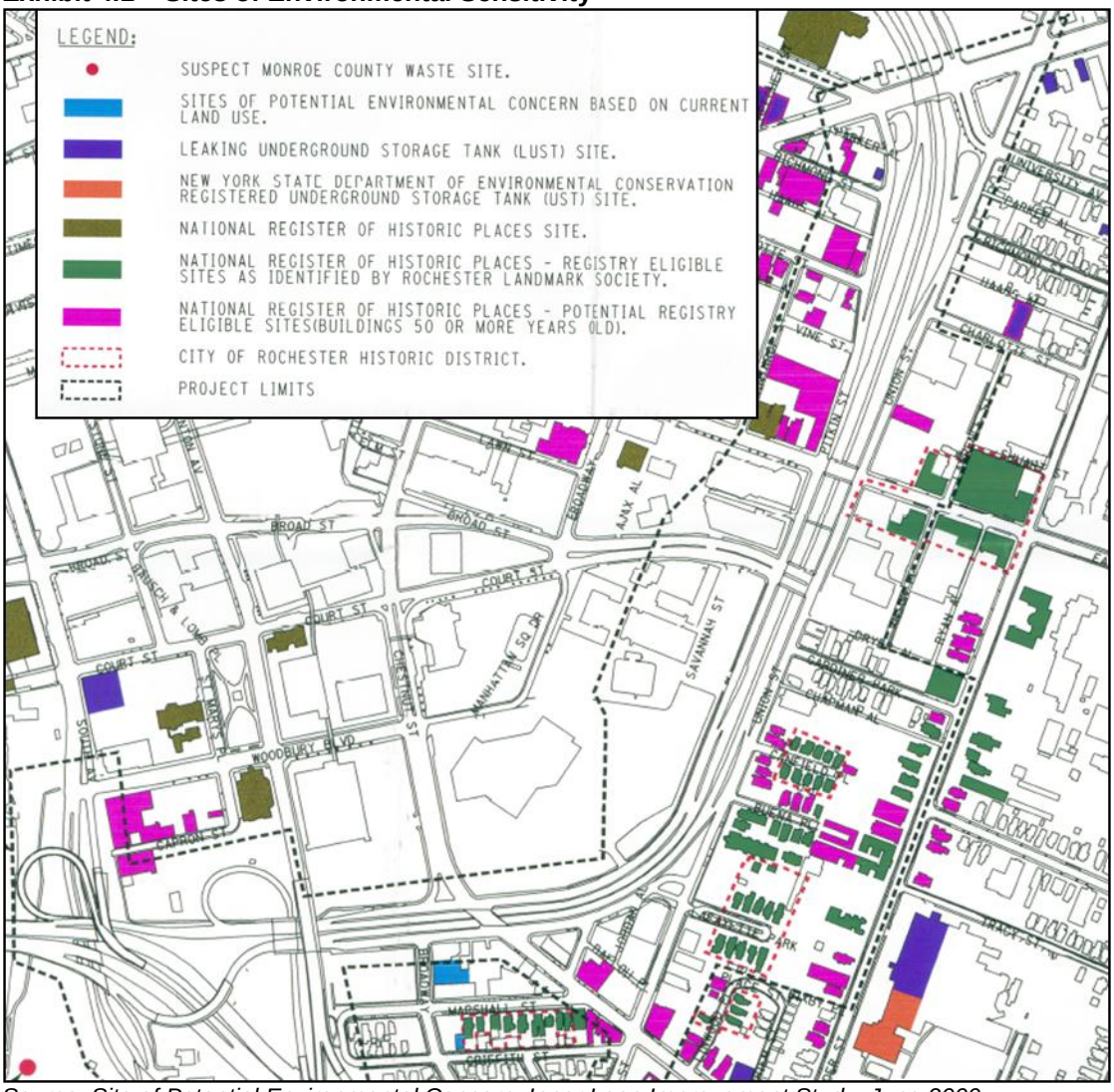
The approach for Historical and Cultural resources in the study area will be to avoid, minimize and/or mitigate. The data needed for each of these steps will be different and determined from consultation with resource agencies. It is unlikely that significant, unknown archeological sites are located within the project limits. The project is located within the City of Rochester and there does not appear to be any areas within the study limits that have not been disturbed by previous construction activities. Therefore, it is unlikely that the study area will be archeologically sensitive.

Previous investigations completed for the 2001 Inner Loop Improvement Study revealed various records. An updated investigation will be performed as part of the subsequent design report. The

available record information reveals the presence of two (2) buildings/ structures within the project limits that are currently identified on the National Historic Registry and shown in Exhibit 4.1. The registered structures within the limits include:

1. Little Theatre, 240 East Avenue
2. Chester Dewey School #14, 200 University Avenue

Exhibit 4.1 – Sites of Environmental Sensitivity



Source: Site of Potential Environmental Concern, Inner Loop Improvement Study, June 2000

The available record information reveals the presence of five (5) City of Rochester Historic Districts, which are registry eligible, situated within the project limits. As provided by the Rochester Landmark Society, they include the following:

1. East Avenue-Alexander Street
2. Canfield Place
3. Lafayette Park
4. Linwood Place
5. Marshall Street

The Rochester Landmark Society has also researched and identified the presence of many structures that are potentially registry eligible historic sites within the project limits. In addition, numerous

potentially registry eligible structures (structures over fifty years old) are situated within the project limits.

Further review will be necessary to determine and evaluate the project's potential impact on the Registered and registry eligible structures. Coordination and review with the New York State Office of Parks, Recreation, and Historic Preservation (SHPO) will be required and measures that minimize the potential impacts to these sites may be necessary.

4.4.12. Parks and Recreational Resources

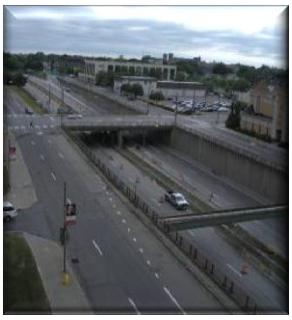
Initial research did not reveal the presence of recreation areas or wildlife/waterfowl refuges within the project limits. Potential impacts to Section 4(f) properties will be evaluated upon completion of Section 4.4.5. Historic Preservation (Section 106). After identification of historic resources, potential impacts of the proposed project design will be evaluated and addressed in accordance with the Section 4(f) process. There are no Section 6(f) properties in the project corridor.

Although the Inner Loop improvements may not require the acquisition of additional right-of-way (ROW) that is currently used as a public park or significant historic site, it is anticipated that the proposed project would impact lands with the noted uses. Therefore, Section 4(f) evaluation will be required and will be completed during the preliminary design phase.

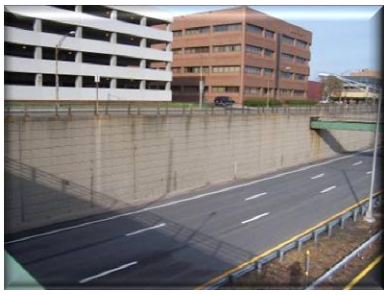
4.4.13. Visual Resources

The current Inner Loop expressway long ago severed connectivity between the Central Business District and adjacent eastern neighborhoods. Many structures were demolished to make way for the route, which was constructed in densely populated neighborhoods that surrounded downtown. The southeast section of the Inner Loop is a four to six lane divided expressway with parallel two to three lane frontage roads. This results in a facility that in some places has as many as twelve travel lanes and occupies a width ranging from 182 feet to 355 feet (curb to curb). The width of the roadway system is not the only negative visual aspect; the expressway is depressed (below grade) in relation to the service roads, creating a moat effect between the Center City and adjacent neighborhoods. The expressway does meet at grade with the service roads near the South Union Street exit. There are high retaining walls, bridges and overhead sign structures with very little landscaping/green space.

The visual environment can be reviewed by looking first at the 'viewshed' areas within the corridor and then analyzing the viewshed relative to the viewer groups (residents, pedestrians/bicyclists and visitors) and the viewer sensitivity. Some of the photos below show viewsheds from a pedestrian/bicyclist crossing a bridge or residents/employees in adjacent buildings.


Combining the width and depth of the expressway system with the adjoining service roads, results in poor view sheds that are intimidating and uninviting from a non-motorized user. A detailed visual resource assessment will be performed at the next phase of the project.


The transformation of the limited access expressway to an urban scale boulevard that will consist of 3-5 travel lanes, landscaped medians, roundabouts, a new reconnected street grid system, increased development density and the addition of pedestrian friendly amenities will notably improve the viewsheds of this corridor.

4.4.14. Farmlands

The project is not within any State Farmland and Agricultural Districts, or in a Federal Prime and Unique Farmland area.

4.4.15. Air Quality

In order to consider air quality effects of a project, three issues must be addressed: microscale analysis, mesoscale analysis and conformity. The need for a microscale and/or mesoscale air quality analysis can be determined during the preliminary design phase of the project. During the preliminary design phase, detailed information pertaining to the roadway geometry, traffic and other factors will be available for use in evaluating the potential air quality impact of the proposed project.

Monroe County is currently an air quality non-attainment area in accordance with the National Ambient Air Quality Standards (NAAQS). The need for an air quality study will depend on the nature and extent of the proposed Inner Loop improvements. However, portions of the roadway will be on a new alignment or widening of an existing roadway and therefore may increase traffic volume more than 10%; may reduce source receptor distances by more than 10%; and otherwise may change existing conditions to such a degree that attainment of the National Ambient Air Quality Standards must be further investigated. The need for such additional studies will be evaluated as the project design is progressed.

The replacement of the Inner Loop with a community-scaled urban boulevard will encourage and enable alternative transportation modes such as pedestrian, bicycle and transit service. Connectivity from the adjacent residential communities to the commercial and business districts will be more inviting. Adjacent community cultural destinations, restaurants and many other establishments will be more readily accessible from the residential neighborhoods by foot or bicycle. These every day trips are currently achieved via circuitous routes and one-way streets around the grade separated Inner Loop expressway; hence overall traffic may see a redistribution and reduction.

While future use of alternative transportation modes is difficult to quantify at this time, expected reductions in CO2 emissions and fuel consumption is expected based solely on the projected traffic volumes assessed for this project. According to the SYNCHRO traffic simulation model, which was used to evaluate before and after traffic conditions along the new boulevard during the evening peak travel hour, the following Vehicle Emission Reductions are expected for the forecasted traffic (year 2035, 5 runs averaged):

- HC Emissions – from 2,161 grams to 1,994 grams or 8% decrease
- CO Emissions – from 77,428 grams to 71,169 grams or 8% decrease
- NOx Emissions – from 7,405 grams to 6,915 grams or 6.5% decrease

Per the forecasts noted above (evening peak hour), there will be a reduction in overall vehicle emissions thus improving air quality.

4.4.16. Energy

According to the SYNCHRO traffic simulation model, which was used to evaluate before and after traffic conditions along the new boulevard and it's intersections during the evening peak travel hour, a minor reduction in energy use is expected for the forecasted traffic. By the year 2035 (5 runs averaged), it is estimated that energy use will drop from 1,843 gallons to 1,837.7 gallons used, or a decrease of 0.3%.

4.4.17. Noise

The proposed Project is a Type I project per FHWA highway noise regulations, 23 CFR 772, due to the significant change in the vertical alignment. Type I projects require evaluation for potential noise impacts. A detailed noise assessment will be required during the next design phase of the project. The use of the FHWA computer model program, TNM (Traffic Noise Modeling), is required to assess potential noise impacts to identified sensitive receptors in the immediate project corridor.

The general transformation of a depressed expressway to a community-scale urban boulevard provides a notable vertical alignment change. This would generally result in increased noise levels to adjacent properties (receptors); however, the reduced speed on the roadway will result in decreases in noise levels. The actual projected future noise levels as a result of the preferred alternative will need to be evaluated with the TNM program, when roadway geometry and alignment details are determined in the preliminary design phase. The analysis will identify land uses impacted by roadway noise and explore abatement strategies, if necessary. Those abatement strategies that are found to be reasonable and feasible will be proposed to the community to determine their acceptance for inclusion on the preferred alternative.

4.4.18. Asbestos

Asbestos Screening, assessment, mitigation, clearing and disposal, if any, will be determined during the next phase of the project.

4.4.19. Contaminated and Hazardous Materials

An initial assessment of the project corridor was performed to determine areas that may present a concern to the construction of the project. This section of the Inner Loop varies from being at grade, to being approximately 22 feet below the surrounding surface. Groundwater flow in this area is impacted by the Genesee River, and to a lesser extent, Lake Ontario. Regional groundwater flow in the project area is generally in the northwesterly direction. Based upon the groundwater flow direction, potential upgradient sites were identified. The potential sites of environmental concern are depicted on the EDR DATA Map, in the Appendix. Based upon this screening, an analysis of these potential upgradient sites was performed.

Environmental Data Resources (EDR) Review-The following table summarizes the information available through the EDR report for those sites that may have a potential impact upon the project. Specific detailed site information for each of these sites is summarized in the Appendix F.

Based upon the preliminary project concepts, the potential environmental impacts are generally limited to management of excavated soil and worker health and safety during construction.

Excavation and removal of soils from the project site is not expected since the existing expressway is planned to be filled. If soils are not removed, then generator waste soil characterization requirements are not triggered.

Standard Environmental Record Sources	Minimum Search Distance miles (kilometers)	No. of Listed Properties
Federal NPL Site List	1.0 (1.6)	0
Federal Delisted NPL Site List	0.5 (0.8)	0
Federal CERCLIS List	0.5 (0.8)	0
Federal CERCLIS NFRAP Site List	0.5 (0.8)	1
Federal RCRA CORRACTS Facilities List	1.0 (1.6)	3
Federal RCRA non-CORRACTS TSD Facilities List	0.5 (0.8)	1
Federal RCRA Generators List	Site and adjoining properties	5
Federal Institutional Control/ Engineering Control Registries	Site only	2
Federal ERNS List	Site only	0
State Hazardous Waste Sites – equivalent NPL	1.0 (1.6)	0
State Hazardous Waste Sites – equivalent CERCLIS	0.5 (0.8)	4
State Landfill and/or Solid Waste Disposal Site Lists	0.5 (0.8)	0
State Leaking Storage Tank Lists	0.5 (0.8)	20
State Registered Storage Tank Lists	Site and adjoining properties	8
State Institutional Control/ Engineering Control Registries	Site only	0
State Voluntary Cleanup Sites	0.5 (0.8)	0
State Brownfield Sites	0.5 (0.8)	0
Additional Environmental Record Sources		
Federal FINDS	1.0 (1.6)	16
Federal RCRA – NonGen	1.0 (1.6)	9
CBS Chemical Bulk Storage	1.0 (1.6)	1
MOSF Major Oil Storage Facilities	1.0 (1.6)	1
NY Spills	1.0 (1.6)	29
Toxic Chemical Release Inventory System	1.0 (1.6)	1
Toxic Substances Control Act	1.0 (1.6)	1
FTTS Sites	1.0 (1.6)	2
HIST FTTS Sites	1.0 (1.6)	1
PCB Activity Database	1.0 (1.6)	2
Soil Vapor Intrusion Sites Reopened	1.0 (1.6)	1
Manifest	1.0 (1.6)	15

It is expected that bridge abutment walls would be removed to a depth of approximately 3 – 6 feet below the surrounding ground elevation. With this shallow project depth, it is not anticipated that environmental sites upgradient from the project corridor would impact worker health and safety protocols for the removal of the abutment walls. It is recommended that during the subsequent design phase, a review of these environmental sites be conducted to determine their potential impact on project design details.