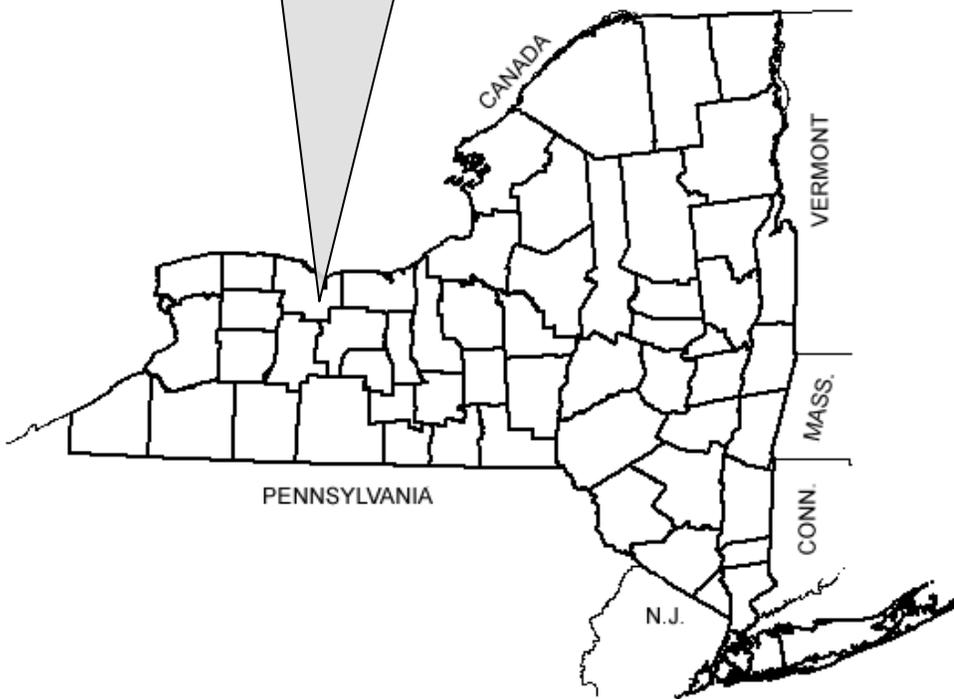


**Midtown Redevelopment
Project**

(Former Midtown Plaza Site)
P.I.N. 4755.25
City of Rochester, New York
Monroe County



City of Rochester, Monroe County, New York

Thomas S. Richards, Mayor

James McIntosh, City Engineer

U.S. Department of Transportation Federal Highway Administration

New York State Department of Transportation

Andrew M. Cuomo, Governor

Joan McDonald, Commissioner



PROJECT APPROVAL SHEET

A. Public Hearing Pursuant to 6NYCRR Part 617 A public hearing was held on December 2, 2008 in accordance with 6NYCRR part 617.9 (a)(4).

Project Manager

B. Recommendation for Design Approval: The project cost and schedule are consistent with the Regional Capital Program.

Daniel Hallowell, Regional Program Planning Manager, NYSDOT

C. Recommendation for Design and Nonstandard Feature Approval: All requirements requisite to these actions and approvals have been met, the required independent quality control reviews separate from the functional group reviews have been accomplished, and the work is consistent with established standards, policies, regulations and procedures, except as otherwise noted and explained.

Rob Traver, Acting Regional Director, NYSDOT

D. Nonstandard Feature Approval: No nonstandard features have been identified, created, or retained.

James R. McIntosh, PE, City Engineer

E. Design Approval: The required environmental determinations have been made and the preferred alternative for this project is ready for final design.

James R. McIntosh, PE, City Engineer

LIST OF PREPARERS

Group Director Responsible for Production of the Design Approval Document:

Brian R. Miller, P.E., Transportation Division Director, **LaBella Associates, P.C.**

Description of Work Performed by Firm: Directed the preparation of the Design Approval Document in accordance with established standards, policies, regulations and procedures, except as otherwise explained in this document.

PLACE P.E. STAMP

Note: *It is a violation of law for any person, unless they are acting under the direction of a licensed professional engineer, architect, landscape architect, or land surveyor, to alter an item in any way. If an item bearing the stamp of a licensed professional is altered, the altering engineer, architect, landscape architect, or land surveyor shall stamp the document and include the notation "altered by" followed by their signature, the date of such alteration, and a specific description of the alteration.*

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VIII.	Alternatives Considered and Eliminated from Further Study
IX.	Areaway Investigation

CHAPTER 1 - EXECUTIVE SUMMARY

1.1 Introduction

This design report has been prepared to study the Midtown Redevelopment Project, City of Rochester Project Identification No. 10103 and NYSDOT Project Identification Number 4755.25. Included in this report are: the project description and need for the project, a study of design alternatives to meet the project objectives and discussion of the environmental effects of the alternatives which are presently under consideration. The report also serves as the design approval document.

This report was prepared in accordance with the NYSDOT Project Development Manual, 17 NYCRR Part 15, and 23 CFR 771 Purpose and Need.

1.2 Purpose and Need

1.2.1 Where is the Project Located?

The project is located in downtown Rochester, New York. Figure 1 Project Location, depicts the project location within the City. In 2007, the City of Rochester established an urban renewal district to encompass what is known as the “Midtown site” and subsequently acquired the Midtown properties. The buildings are currently being demolished to make way for redevelopment of the site. Figure 2 Project Site depicts the Midtown site and identifies the roads and development parcels.

FIGURE 1 PROJECT LOCATION

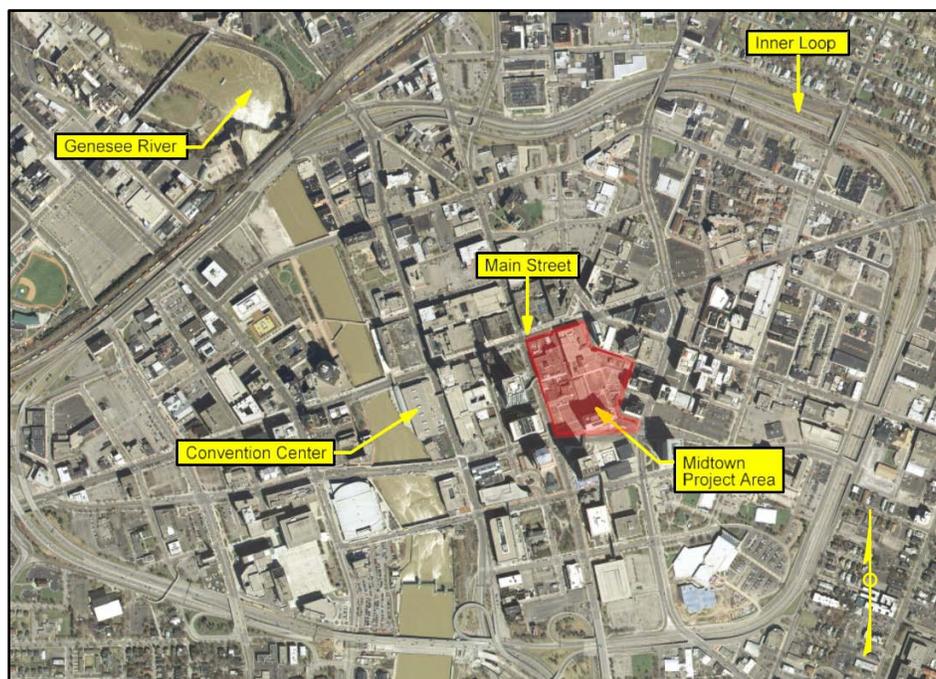
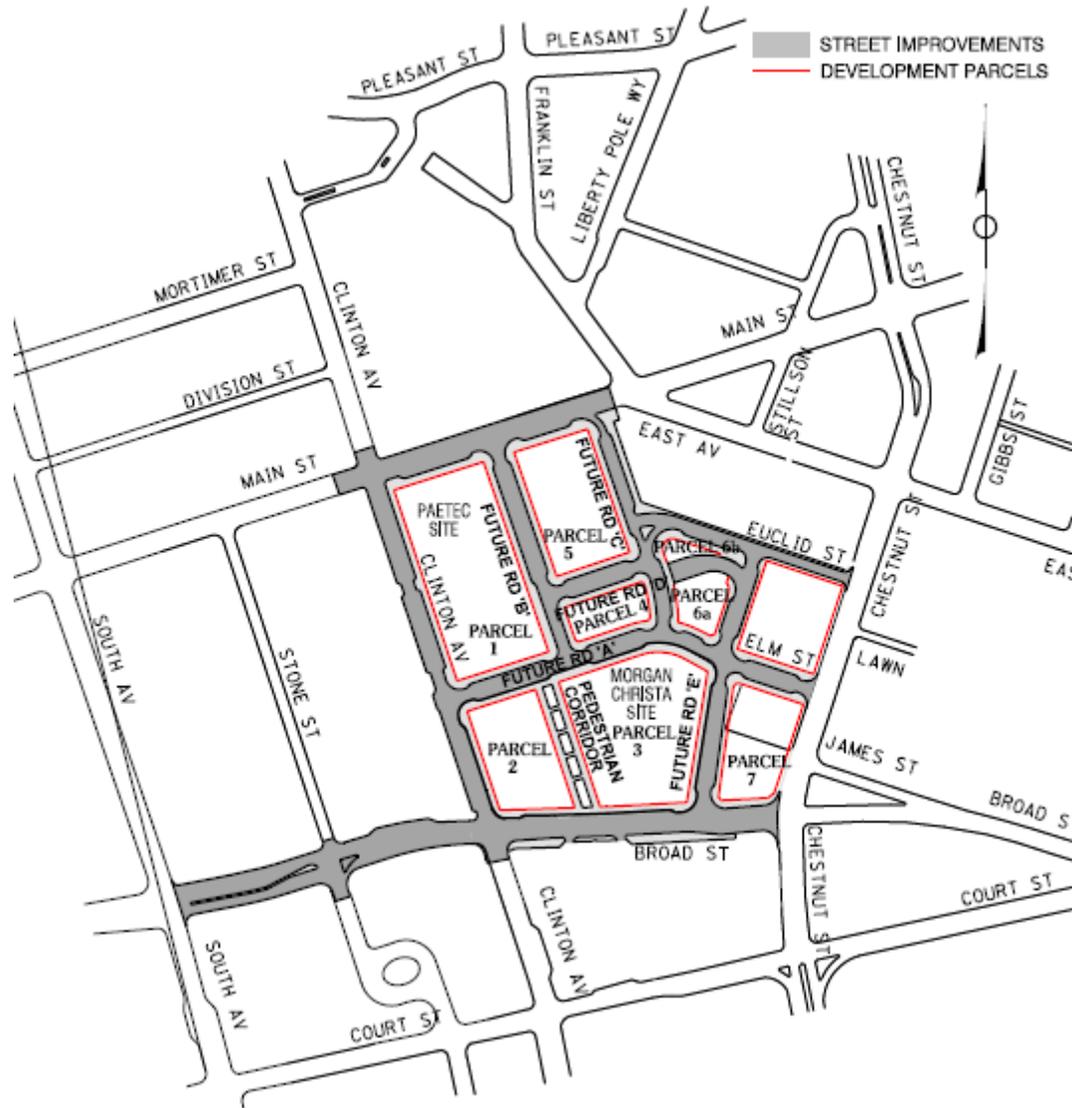


FIGURE 2 PROJECT SITE



1.2.2 Why is the Project Needed?

Several years ago, the City determined the project is needed to eliminate the blighting influence of Midtown and to facilitate redevelopment of this key location so as to attract private investment, contribute to the tax base, support job growth, and catalyze further downtown revitalization. To this end, the City and Empire State Development Corporation have joined together and taken steps to provide a shovel ready Midtown site for future development.

The project reviewed in this document generally involves the first steps in the redevelopment of the Midtown site, construction of infrastructure improvements to accommodate future development. PAETEC and the City of Rochester are establishing a public-private partnership to facilitate the

construction of corporate headquarters in the site (Parcel # 1). Also, the City of Rochester has selected a development firm, Morgan/Christa LLC to redevelop the former Midtown tower (Parcel #3).

1.2.3 What are the Objectives/Purposes of the Project?

Several years ago the City identified the following important public revitalization goals which were relied upon to justify the necessary investment of public funds:

- Revitalize downtown, reduce vacancy rates and preserve property values;
- Generate municipal tax base and additional jobs;
- Capitalize on sites potential to spur private investment and job creation;
- Promote reuse of underutilized land and buildings consistent with the center city master plan;
- Redevelop the site as mixed-use urban space to accommodate PAETEC headquarters;
- Provide economically attractive opportunities for development on the site;
- Emphasize and strengthen downtown as the regional center for business, entertainment, cultural assets and urban living;
- Develop a strong, economically viable and diverse commercial area;
- Position the district as a premier site for high-quality office, residential and retail;
- Position the site as a critical downtown node for existing corridors;
- Breakdown the superblock, improve access and establish a street grid including elements that historically existed in the project area;
- Reconnect neighborhoods, enhance adjacent districts and improve walk ability;
- Enhance connections to other key districts including the East End;
- Create meaningful open and green spaces that enhance the public realm;
- Enhance and activate the street environment and the public realm;
- Create active and intimate street environments and intensify use of street front retail; and,
- Use proven place making methods to encourage activity and create a destination.

As such, the City of Rochester is re-subdividing the land that was formally occupied by the Midtown Plaza and other associated buildings. This project addresses the need for: placement of embankment material to prepare the site for construction; a street grid and utilities to create shovel ready development lots; restoration of an existing three level underground parking garage to serve initial development on the site; reconstructing a truck service tunnel for underground deliveries; rehabilitating and /or reconstructing the perimeter streets; development of open space for public use and assembly; and, restoring available building lots until such a time when development occurs.

1.3 What Alternative(s) Are Being Considered?

For purposes of this final design report, there is one “preferred alternative” being advanced. It is briefly described below and described in further detail in Chapter 3.

It should be noted that there were three primary alternatives considered as part of the preliminary design process. The three alternatives were developed to examine different construction options for various components of the project. As part of this final design report, the city has selected a single “Preferred Alternative” that satisfies the objectives. The following descriptions identify the status of each of the three primary alternatives:

- Alternate A - Future Road C (formerly called Historic Elm St. Road Option): Under this alternate, a roadway would be constructed along the eastern boundary of Parcel 5 (instead of developing this corridor for pedestrians only). The City has selected this alternate and it is now part of the “Preferred Alternative.” The preliminary engineering plans shown in Appendix I reflect a one-way southbound street with on-street parking.
- Alternate B - Future Road B Extension (formerly called Cortland Street Extension Road Option): Under this alternate, a two-way roadway with parking would be constructed between Parcel 3 and Parcel 2, extending from Future Road A southerly to Broad Street. The City has not selected this alternate. This 48 foot wide right-of-way will be developed as a pedestrian corridor only, which is depicted on the drawings contained in Appendix I.
- Alternate C - Broad Street (S. Clinton Avenue to South Avenue): Under this alternate, Broad Street would be rehabilitated between S. Clinton Ave. and South Avenue. As part of this street rehabilitation, traffic patterns between S. Clinton Ave. and Stone Street would be changed (converted) from one-way westbound to two-way traffic. The City has selected Alternate C and it is now part of the “Preferred Alternative.” It will be constructed as a future second phase of the project.

Refer to Chapter 3 for a detailed description of alternatives investigated as part of the preliminary design process and were subsequently eliminated from further consideration.

A description of the base project and alternates follows:

Preferred Alternative:

Site Work: Placement of embankment material to bring the Midtown site up to grade prior to the commencement of road and utility construction.

Development of a New Internal Street Grid:

- Construction of new streets including: Future Roads A, B, C, D, and E.
- Construction of a new pedestrian corridor between Parcel 2 and Parcel 3.
- Reconstruction of existing streets including: Elm Street, Atlas Street, and Euclid Street. Significant street enhancements and pedestrian accommodations are anticipated.

Rehabilitation of Adjacent Streets: Broad Street (Chestnut Street to South Avenue), South Clinton Avenue, (Broad Street to Main Street) and Main Street (South Clinton to East Avenue). Broad Street will be converted from one way traffic flow to two-way traffic flow.

Open Space: Development of a centrally located "open space" dedicated for public uses an assembly.

Utilities: construction of public utilities including: potable water mains, sanitary sewers, holly fire service system, and storm sewers.

Underground Parking Garage:

- Repair concrete deterioration to structural members including: floor slabs, beams, columns, walls, curbs, and leaky expansion joint extending under Broad Street.
- Reconstruct certain portions of the roof slab to strengthen to facilitate street construction.
- Relocate air handling equipment necessary to accommodate street grid.
- Repair mechanical, electrical, and plumbing systems required to re-open the garage.
- Construct a pedestrian link tunnel to serve the proposed PAETEC headquarters.
- Modify the entrance and exit ramps on Broad Street in anticipation of converting the arterial to two-way traffic.
- Remove the existing garage exit ramp on Elm Street. Construct a new exit that will utilize the new truck service tunnel and access ramp on Euclid Street.

Underground Truck Service Tunnel: Reconstruct the truck service tunnel to accommodate PAETEC headquarters, Midtown Tower, as well as future development on other development sites within the district. The preferred tunnel alignment will have an access ramp located on Atlas Street just north of the existing location. The tunnel will be re-aligned to provide more efficient traffic flow, and will no longer require a traffic signal.

Site Restoration: Restore vacant parcels until such a time when development occurs.

1.4 How will the Alternative(s) Affect the Environment?

National Environmental Policy Act (NEPA):

This project will be advanced as NEPA Class II Action (categorical exclusion with documentation) in accordance with the Federal Highway Administration 23 CFR 771.115. The NEPA checklist has been prepared along with necessary documentation in support of this classification. Included in Chapter 4 are discussions regarding construction on a “new location” and “changes to travel patterns” associated with Broad Street and existing Euclid Street. Accordingly, it has been determined that the project does qualify as a categorical exclusion and does not have a significant environmental effect, either individually or cumulatively.

State Environmental Quality Review Act (SEQR):

Pursuant to Article 8 of the Environmental Conservation Law, Chapter 48 of the City code, and 6 NYCRR 617, the City of Rochester Director of Zoning, as lead agency, completed the environmental review of the Midtown Redevelopment project. The project was designated as a Type I Action (one which has the potential to cause significant environmental impact) and a Generic Environmental Impact Statement was prepared for the defined action, a broad range of activities comprising the project. A formal SEQR findings statement was adopted by the City in March of 2009 and similar findings were adopted by Empire State Development Corporation a short time thereafter.

A complete description of the findings is included in Chapter 4. In general, It was determined that the project is, “consistent with the social, economic and other essential considerations from among the reasonable alternatives thereto, the action is one which would avoid or minimize to the maximum extent practicable, adverse environmental effects including the effects disclosed in the GEIS and set forth in the findings statement.” Specific mitigations to minimize identified adverse environmental effects were accepted by the City and are detailed in the findings statement. The three more prominent mitigative determinations are listed below:

- State/National Register of Historic Places- Eligible Resources included Buildings within the Midtown Block: A final *Letter of Resolution* between New York State Office of Parks Recreation and Historic Preservation, Empire State Development Corporation and the City of Rochester has been executed. It includes stipulations determined to mitigate, to the extent practicable, impacts to cultural resources.
- Underground Truck Service Tunnel: It was determined that should there be a decision to relocate the truck service tunnel from its current location on Atlas Street, it would be a reviewable action.

- Temporary Construction Impacts: Temporary adverse impacts related to demolition and/or construction activities will likely occur. Recommendations are made to minimize those temporary impacts and will be considered in the design of the construction project(s).

As defined under 6NYCRR Part 617.10(c), generic EIS's and their findings should set forth specific conditions or criteria under which future actions will be undertaken or approved, including requirements for any subsequent SEQR compliance. Now that a specific project is being proposed for construction (roads, utilities, underground garage, truck access tunnel, open space, site restoration), the environmental attributes of that specific project have been reviewed against the generic EIS and related findings. This review is included in Chapter 4 of this document.

In general, the specific construction project matches closely to the projects that were evaluated in the generic EIS. However, there are several traffic related aspects of the project were not adequately evaluated in the generic EIS and additional documentation is included in Chapter 4. Based on the documentation contained in Chapter 4 - Section 4.2, it has been determined that the actions will not result in any significant traffic impacts.

To officially complete SEQR, an Environmental Assessment Form (EAF) was prepared for the *Midtown Redevelopment Project* site plan. The EAF provides supplemental information (similar to Section 4.2 of this report) that addresses the environmental effects of the traffic issues identified above. Based on this additional documentation, the City Director of Zoning, acting as the responsible officer for the lead agency (City of Rochester), completed the environmental review of the project under SEQR and signed the EAF form. The signed form indicates that the proposed action will not result in any significant adverse environmental impacts. The signed EAF form is contained Appendix V.

Anticipated Permits, Certifications, and Coordination:

- Funding approval, modification of urban renewal plan, land disposition, official map amendment and potential zoning text and map amendments by the Mayor, City of Rochester;
- Funding approval, modification of urban renewal plan, land disposition, official map amendment and potential zoning text and map amendments by the Rochester City Council;
- Resubdivision approval by the City of Rochester planning commission;
- Site plan approval by the City of Rochester Director of Zoning;
- Site preparation permit by the Commissioner of Community Development;
- Right-of-way approvals and traffic changes, City of Rochester Traffic Control Board;
- Inducement by County of Monroe Industrial Development Agency;
- Concurrence with environmental classification by FHWA;
- Health Department approvals for water Main construction; and

- NYS DEC state pollutant discharge elimination system general permit.

1.5 What Are The Costs & Schedules?

Schedule: The following preliminary schedule identifies some key milestone dates:

- Design Approval: July 2011
- Construction Start :
 - Contract Number One- Truck Service Tunnel and Pedestrian Tunnel: Spring 2012
 - Contract Number Two - Parking Garage Modifications and Rehabilitation, Streets and Utilities: After July 1, 2012
 - Contract Number Three – Open Space and Landscaping: After July 1, 2013
- Construction Complete: End 2013

Preliminary Cost Estimate:

Please see the following Table 1-1 for a summary of preliminary costs.

TABLE 1-1 PRELIMINARY COST ESTIMATE

Activities		Phase I	Phase II	
Construction	Site Preparation	Embankment	\$236,000	
	Adjacent Streets	Main Street	\$366,048	
		Broad Street	\$588,622	\$227,622
		S. Clinton Ave.	\$396,719	
		Future Road A / Elm Street	\$766,010	
	Internal Street Grid	Future Road B	\$566,775	
		Future Road C	\$420,086	
		Future Road D	\$146,713	
		Future Road E / Atlas Street	\$496,509	
		Pedestrian Corridor	\$524,600	
		Euclid Street	\$342,330	
		Open Space	\$672,000	
	Public Utilities	Domestic Water	\$587,750	
		Holly System	\$515,000	
		Sanitary System	\$893,000	
		Storm System	\$2,106,000	
	Structures	UG Parking Garage Modifications	\$2,810,000	
		UG Parking Garage Rehabilitation	\$3,631,000	
		Service Tunnel	\$3,800,000	
		Pedestrian Tunnel	\$520,000	
	Site Finishing	Temporary Restoration	\$100,000	
	Subtotal (2010)		\$20,485,162	\$227,622
	Incidentals (2010) 10%		\$2,048,516	\$22,762
Subtotal (2010)		\$22,533,678	\$250,384	
Contingencies (15% @ Design Approval)		\$3,380,052	\$37,558	
Subtotal (2010)		\$25,913,730	\$287,942	
Potential Field Change Order (3%)		\$777,412	\$8,638	
Subtotal (2010)		\$26,691,142	\$296,580	
Mobilization (4%)		\$1,067,646	\$11,863	
Subtotal (2010)		\$27,758,788	\$308,443	
Expected Award Amount – Inflated @ 5%/yr to midpoint of Construction (2012)		\$30,604,063	\$340,059	
Construction Inspection (10%)		\$3,060,406	\$34,006	
ROW Costs (2010)		\$10,000	\$0	
Total Cost		\$33,674,470	\$374,065	

1.6 Which Alternative is Preferred?

The City has selected a "Preferred Alternative" as previously described.

1.7 Who Will Decide Which Alternative Will Be Selected And How Can I Be Involved In This Decision?

Over the last three years, considerable work has been accomplished to define a new urban plan for the Midtown site. A number of decisions have already been made such as the establishment of an urban renewal district, the adoption of an urban renewal plan and the adoption of environmental "findings" in accordance with city, state and federal law. These decisions have enabled the project to move forward in a planned and systematic fashion. Chapter 2, Section 2.1 of this report identifies some of the steps the City has taken in the redevelopment process as well as some of the future actions that can be anticipated. Documentation of the decision making process can be found in the Draft Generic Environmental Impact Statement and Final Generic Environmental Impact Statement which are available on Project's website: <http://www.midtownrochesterrising.com>.

The purpose of this draft design report is to document pertinent site and engineering details associated with the infrastructure project to enable a review by involved agencies, interested stakeholders and the public. The documents have been made available for review by the general public on the City's website or at the address given below. A public meeting was held on January 18, 2011 to present the details of the project and solicit comments. Following a review of all public and agency comments, and after careful consideration of comments and recommendations received, the City made the decision to proceed with final design of the "Preferred Alternative."

- For further information, you can contact:

James R. McIntosh, PE, City Engineer

City Project Identification Number 10103

Questions or comments:

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Rochester, NY 14614-1290

The remainder of this report is a detailed technical evaluation of the existing conditions, the proposed alternatives, the impacts of the alternatives, copies of technical reports and plans and other supporting information.

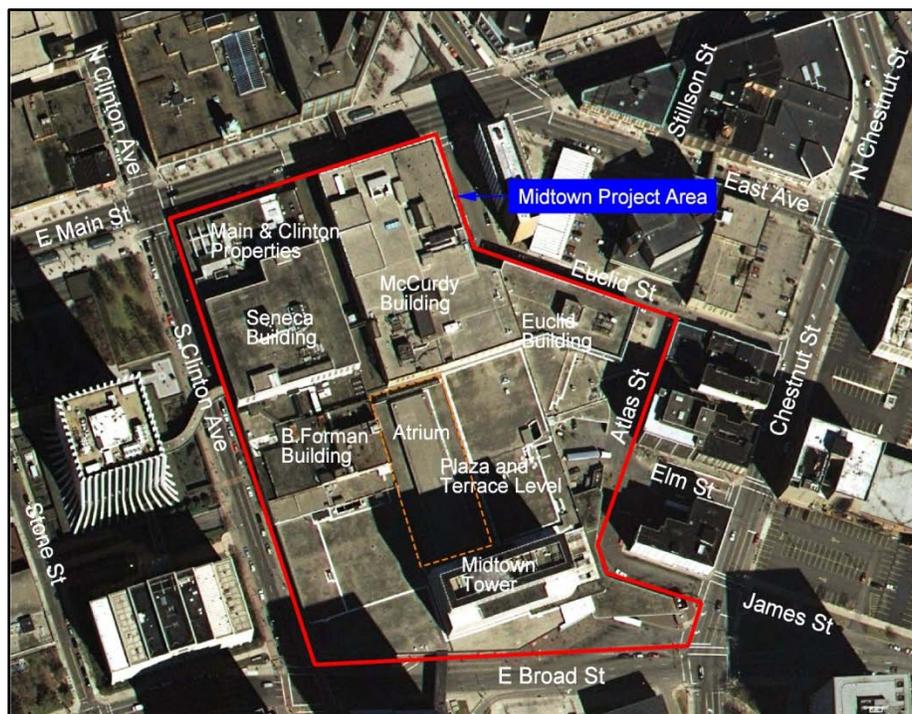
CHAPTER 2 PROJECT CONTEXT: HISTORY, TRANSPORTATION PLANS, CONDITIONS AND NEEDS

This chapter addresses the history and existing context of the project site, including the existing conditions, deficiencies, and needs for this part of the Midtown Redevelopment Project.

2.1 Project History

The City of Rochester is committed to the redevelopment of the Midtown Plaza site. In an effort to eliminate the blighting influence of Midtown Plaza and to facilitate redevelopment of this key location so as to attract private investment, contribute to the tax base, support job growth, and catalyze further downtown revitalization, the City and the Empire State Development Corporation have joined together, established a public-private partnership with PAETEC and taken steps to provide the company a shovel ready Midtown site. As originally conceived, the Midtown Redevelopment Project would follow the abatement and remediation of hazardous materials, building demolition of the existing Plaza buildings (except the garage), establishment of an interior street grid, and the assembly/resubdivision of properties to create a suitable site for PAETEC as well as additional parcels attractive to private-sector developers. The planning and study process included market and other analysis necessary in order to develop a prudent plan that takes maximum advantage of the many opportunities offered by the site but also takes existing conditions and market constraints into account as well.

FIGURE 3 MIDTOWN SITE AERIAL VIEW 2005



To date, the City of Rochester has taken the following steps:

- Establishment of an Urban Renewal District - completed
- Adoption of an Urban Renewal Plan – completed
- Preparation of a SEQR draft generic environmental statement, final generic environmental impact statement and findings statement - completed
- Preparation of a NEPA environmental review record in accordance with 24 CFR part 58.5 and 24 CFR part 58.6 - completed
- Acquisition of Properties within the Midtown block Comprising the Site Proposed for Redevelopment by the City of Rochester - completed
- Closure of the Facility - completed
- Abatement of Asbestos and other Recognized Environmental Conditions - completed
- Demolition of a number of existing buildings and other segments of the existing Skyway pedestrian corridor - currently being demolished
- Preparation for Adaptive Reuse of Remaining Buildings - currently underway
 - PAETEC - reuse of Seneca building
 - Morgan/Christa - reuse of Midtown tower
- Development of an interior street grid, associated utilities and other public improvements necessary to enable conversion of the existing super block to a neighborhood of smaller parcels more suitable for urban redevelopment - design currently underway and is the subject of this design report
- Re-subdivision of the assembled parcels to create a neighborhood of smaller parcels - design currently underway
- Development of a central urban “park” or open space within the redeveloped block - design currently underway and is the subject of this design report.
- Restoration of the existing parking garage located beneath the former Plaza - design currently underway and is the subject of this design report
- Reconstruction and rehabilitation of the truck service tunnel beneath the site - design currently underway and is the subject of this design report
- Potential development of additional on-site parking to meet redevelopment needs - street parking design currently underway and is the subject of this design report
- Execution of Development Agreements - currently underway for PAETEC and Morgan/Christa
- Conveyance of Parcels to Private Parties for Development and Occupancy - currently underway for PAETEC and Morgan/Christa

- Construction of Buildings And Other Improvements Upon Individual Parcels Consistent With The Urban Renewal Plan - future action
- Utilization of grants and other public funding sources to accomplish many aspects of the proposed redevelopment effort – currently underway

A significant planning effort was accomplished as part of the environmental review process conducted by the City of Rochester. As such, the environmental documentation contains a number of preferred design concepts that are being advanced as part of this design report. For example, the project will break down the existing superblock established during the development of Midtown Plaza and establish a more traditional street grid in its place to delineate development parcels and provide access to the site interior. The streets would provide access to the site, would be local in nature and would be subject to temporary closure for festivals and similar events. The preferred street grid is shown in Drawing BP-01, Appendix I and is being advanced as the Base Project in this Draft Design Report.

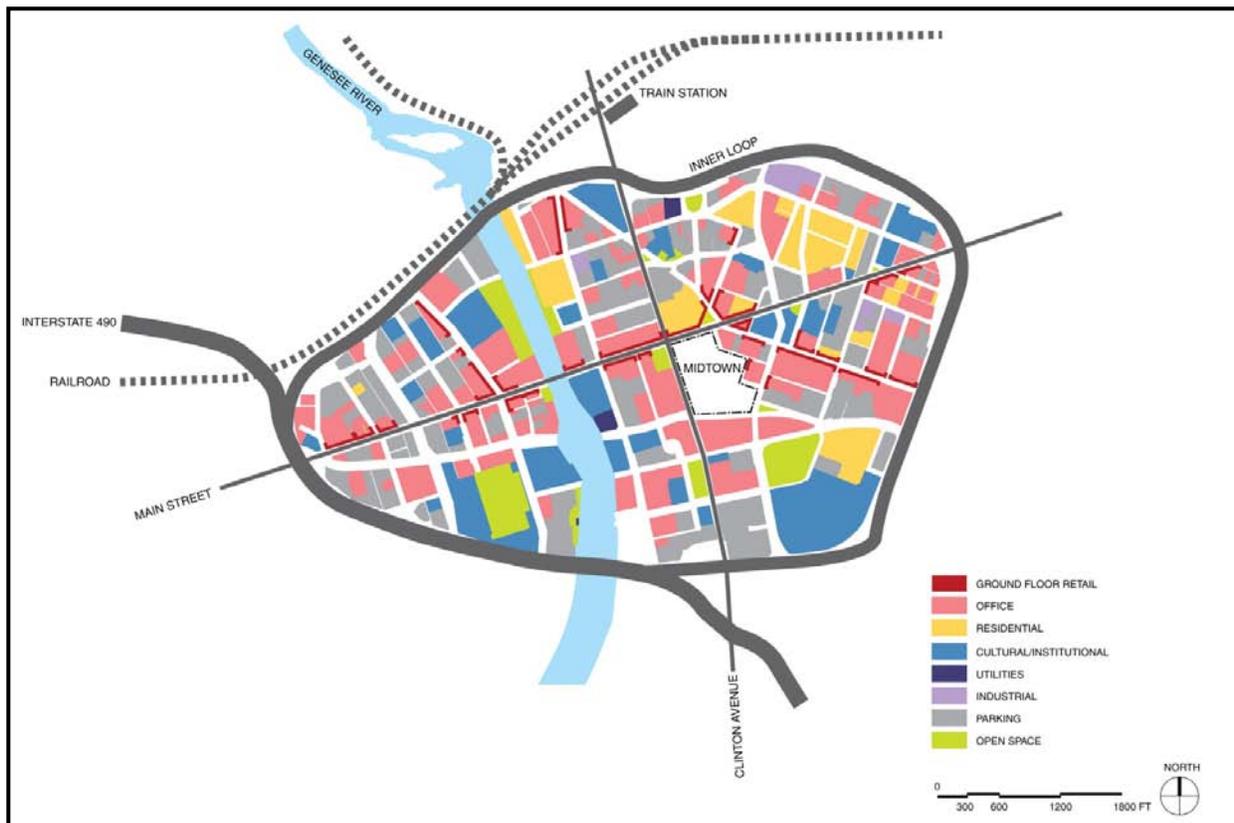
2.2 Plans and Land Use

2.2.1 Local Plans for the Project Area

2.2.1.1 Local Master Plan

The City of Rochester adopted the “Rochester 2010,” a comprehensive master plan for the entire city. It focuses on 11 “campaigns” and emphasizes, among other things, citizen involvement, neighborhood revitalization, economic development and downtown revitalization. The City of Rochester found the acquisition of the Midtown properties, establishment of the Midtown urban renewal district, the proposed redevelopment and potential rezoning activities to be in harmony with goals, standards, and objectives of the comprehensive plan and supportive of the policies and goals of the City's comprehensive plan -- Rochester 2010. Consistency with Campaign 11 “Economic Vitality” and Campaign 10 “Center City” was noted. Figure 4 depicts land use within the downtown area.

FIGURE 4 SURROUNDING LAND USE



Balancing and integrating economic development and urban design are the primary objectives of the Center City Plan. The plan includes thirteen (13) overall Development Objectives and sixteen (16) Design Principles. Both the objectives and principles focus on strategies to help revitalize the Center City such as:

- Redevelopment of the Center City as the cultural, economic, governmental and institutional center of the region;
- Integration and connection of open spaces and recreational opportunities throughout the Center City;
- Pedestrian oriented design;
- Development and enhancement of gateways into downtown;
- Increased employment and residential opportunities within the Center City; and,
- Encouragement of mixed use development.

In addition to the overall objectives provided in the plan, specific recommendations are proposed for sub-areas. The Midtown redevelopment area falls within the Sub-Area 14 or Main Street Central District. Recommendation 68 of the plan proposes that the Midtown Plaza be redeveloped to include residential space, as well as ground floor, street level retail.

2.2.1.2 City of Rochester Zoning and Planning Regulations

Downtown Rochester falls within the Center City District (CCD) zoning district. The CCD form based district implements the urban design recommendations of the Center City Master Plan. Principles and objectives of the Center City Plan, as outlined above, guide the review and approval of development and redevelopment in the CCD. The purpose of the district, as outlined in the City's Zoning Ordinance, is as follows:

“The CCD is intended to foster a vibrant, safe, twenty four hour Center City by encouraging residential development while retaining and further developing a broad range of commercial, office, institutional, public, cultural, and entertainment uses and activities.”

Unlike traditional zoning classifications based on the use of a property, CCD zoning is primarily a form based code. The Form Base Codes Institute provides the following definition of a form based code:

“A method of regulating development to achieve a specific urban form. Form-based codes create a predictable public realm primarily by controlling physical form, with a lesser focus on land use.”

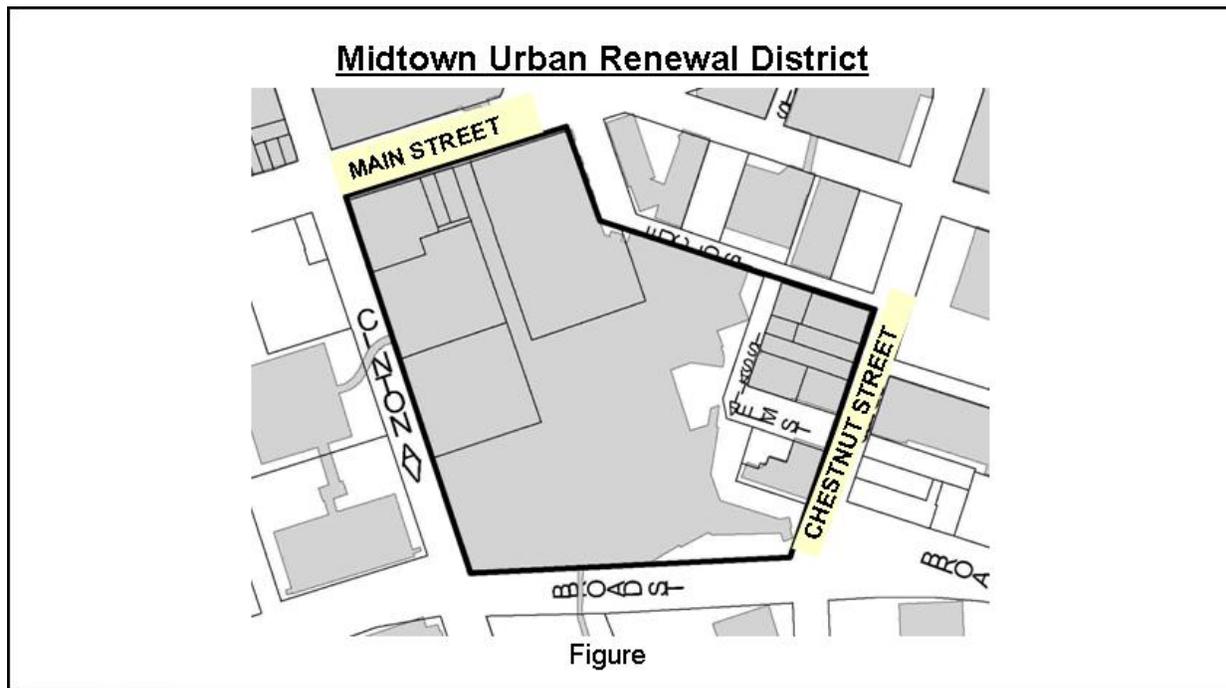
The CCD district is further divided into six sub-districts based on spatial form, historical development, current development patterns, and design characteristics. The subject site falls partially within the Main Street sub-district and mostly within the Tower sub-district. The primary purpose of the Main Street sub-district is to preserve and enhance Main Street as the primary civic, commercial and ceremonial street in the City. On the other hand, the Tower District seeks to “build upon the monumentality of the district to create grand public promenades” and to ensure the buildings in the district include street level public uses or amenities.

A copy of the City of Rochester Center City Requirements and Base & Design District Maps are included in Appendix L of the DGEIS, and the City of Rochester Design District Requirements for Main Street and Tower Districts are included in Appendix M of the DGEIS.

2.2.1.3 Urban Renewal Plan

As part of the Midtown Redevelopment Project, an Urban Renewal Plan for the Midtown Plaza site has been prepared and adopted. Altogether, the district encompasses 12.96 acres. The district, its boundary and surrounding parcels are shown in Figure 2 Project Site.

FIGURE 5 URBAN RENEWAL DISTRICT



The Land Use Plan element of the Urban Renewal Plan is generally consistent with the Center City District guidelines and the Comprehensive Plan. The key difference between the Urban Renewal Plan and the Center City District code involves allowed uses. With a few exceptions, the Center City District zoning allows all uses. In contrast, the Urban Renewal Plan will not allow the following uses:

1. Warehousing and distribution, unless accessory to the principal use of the property;
2. Rooming houses;
3. Recycling Centers; and/or,
4. Auto Repair.

Otherwise all the design and development guidelines of the Center City District will apply within the Urban Renewal district. Specific design guidelines intended to govern development within the district are:

1. Great urban spaces are created out of an attention to activity and environment.
2. Maintain retail and active street level uses along Main Street and streets leading from Main Street and East Avenue into the site.
3. Residential buildings should be located in proximity to parks and open spaces.
4. Provide a new open space along Clinton Avenue at Broad Street.

5. Promote visual and physical connections across the site.
6. Adapt skyway connections to the Midtown Block.
7. Maintain a consistent building edge along major roadways.
8. Maintain the 5 story minimum story height and 15 story maximum height limits along Main Street.
9. Locate taller buildings away from Main Street in the Tower District.
10. Position tall buildings so as to avoid blocked views from new and existing buildings.
11. Locate buildings to create favorable solar orientations.

2.2.1.4 Local Private Development Plans

PAETEC, a national communications corporation with headquarters in the Rochester area, has made a commitment to the City of Rochester to build an office building on the Midtown site. The structure would be placed on the development parcel proposed for the northwest corner of the site. Development of this parcel would be subject to the regulations and guidelines established for the Center City. The environmental attributes for this development was generally reviewed within the purview of the GEIS for this project. It will be re-evaluated as details of the development are presented to the City for planning review.

The City of Rochester has accepted a proposal for the redevelopment of the Midtown Tower from Morgan/Christa Development, a partnership for this development. The adaptive reuse of the structure into mostly residential units includes a portion of the former Midtown Atrium and the Midtown Towers.

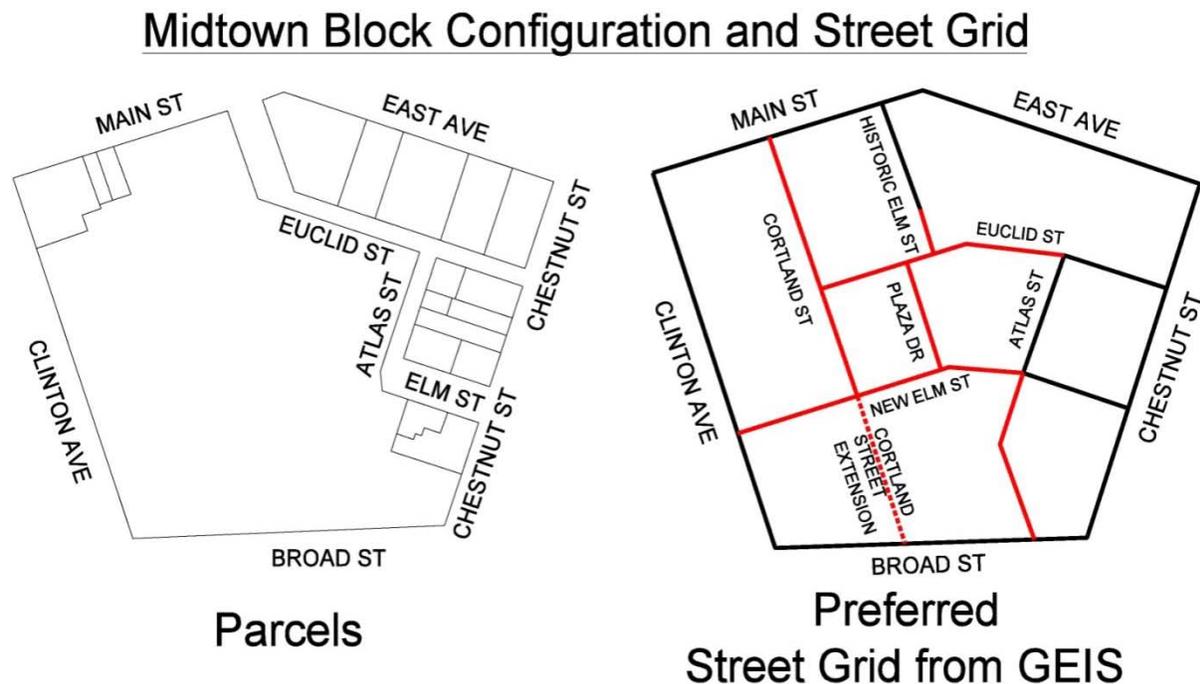
The location for these two private developments is shown on Drawing BP-01, Appendix I.

2.2.2 Transportation

2.2.2.1 Corridor Deficiencies and Needs

Redevelopment of the Midtown site is dependent on the construction of infrastructure needed to support the building program. This includes the need to develop a street grid with provisions for public and private utilities. Planning conducted as part of the Generic Environmental Impact Statement examined the overall site and established a preferred street grid. The street grid was developed in an effort to improve connectivity to the East End, provide greater access to the interior of the site from Main Street and East Avenue and generate active and inviting public spaces. Site design will promote visual and physical connections across this site (including the streets) to develop a sense of inner connectivity and physical connections that will help to engage land uses with spaces on the site. The preferred street grid developed as part of the GEIS process is shown in Figure 6.

FIGURE 6 SCHEMATIC OF EXISTING STREET NETWORK



2.2.2.2 Transportation Plans

The Statewide Transportation Improvement Program (STIP) for Region 4 includes funding for this project. The project is entitled, “Midtown Redevelopment Transportation Infrastructure Improvements.” Discretionary funding (2010) is programmed for scoping and preliminary design.

A project entitled “South Clinton Avenue Preventive Maintenance (Woodbury Blvd. to E. Main Street)” is listed on the Transportation Improvement Program for 2011-2014, adopted by the Genesee Transportation Council in June 2010. The project is scheduled for design funding in 2011 and construction in 2012. This project is on the approved Transportation Improvement Program (TIP) as project No. 118.

2.2.2.3 Abutting Highway Segments and Future Plans for Abutting Highway Segments

The City of Rochester has a project entitled, “Broad Street / Court Street / Chestnut Street Improvement Project.” Chestnut Street is to be rehabilitated from a point just north of Elm Street to the Inner Loop. The same project will rehabilitate Broad Street from Chestnut Street to Broadway, which will include the elimination of street pavement on James Street. Chestnut Street will be two lanes northbound and two lanes southbound with a center turn lane at the intersections. Broad Street will have two lanes westbound, one lane eastbound, and a parking lane on the south side. Construction is anticipated to begin in the spring of 2011 and completed by 2012.

Coordination is ongoing regarding signal improvements at Chestnut and Elm Streets, as well as Chestnut and Broad Streets. Coordination of maintenance and protection of traffic plans is required. The drawings contained in Appendix I depict the lane configuration on Broad St that has been coordinated between the two projects.

The City of Rochester has received funding through the Genesee Transportation Council's (GTC) Unified Planning Work Program (UPWP) to study the possible conversion of South Clinton Ave and South Avenue / St. Paul Street to two-way traffic. Segments of these streets between the Inner Loop and Woodbury Blvd will be analyzed. The analysis is expected to be completed in 2011.

2.3 Conditions, Deficiencies and Engineering Considerations

2.3.1 Street Network

2.3.1.1 Functional Classification and National Highway System (NHS)

The street network adjacent to the Midtown Plaza site includes East Main Street, South Clinton Avenue, East Broad Street, Chestnut Street, Elm Street, Atlas Street and Euclid Street. A description of the characteristics of each street follows. Table 2-1 lists the perimeter streets and their classification status. All existing interior grid streets are classified as local roads.

- East Main Street is classified as an urban minor arterial and serves as a primary east-west route traversing downtown Rochester. In the study area, East Main Street has two eastbound and two westbound travel lanes for a total curb to curb width of 44 feet. The curb lanes on both sides of the roadway are reserved for buses and right turns (where permitted) and are 10 ft. wide. The travel lanes are 12 ft. wide. Annual Average Daily Traffic (AADT) volume is approximately 12,600 vehicles (2009 data);
- South Clinton Avenue is an urban minor arterial and serves as a primary route into the City from points south and east (including many of the eastern suburbs). It provides direct access from I-490 westbound. From Court St to Broad St there are three (3) northbound travel lanes. Adjacent to the site (between Broad St and E. Main St), South Clinton Avenue is one-way northbound with two travel lanes (one 11 ft. wide, one 12 ft. wide) for thru traffic. Plus, there are curb lanes recessed on both sides of the road that are used for parking and for bus pull outs for a total width of 40 feet. The AADT volume is approximately 13,000 vehicles per day (2005 data). The segment within the Inner Loop is on the National Highway System (NHS);
- East Broad Street is an urban minor arterial. It is one-way westbound between Stone Street and Broadway with three travel lanes for a total width of 32 feet. There are segments that have auxiliary lanes that widen the pavement, and there are also drop off loops and lanes. The right-of-way width is 80 feet on the block adjacent to Midtown. The AADT volume for Broad Street is

approximately 4,700 vehicles per day east of Clinton Avenue and 7,000 vehicles per day west of Clinton (2009 data).

- Chestnut Street is an urban minor arterial serving as a primary route in and out of downtown Rochester, with direct access to I-490 and the Inner Loop south of the project area. The segment south of East Avenue is part of the NHS. In the vicinity of the Midtown site, Chestnut Street carries approximately 14,800 vehicles per day (2005 data) and has five lanes, including two northbound and two southbound thru-travel lanes, and a southbound curb parking / right turn lane. The total pavement width is 50 feet inside of the 66 foot right-of-way.
- East Avenue is an urban minor arterial serving as a connection between the center city and East End district. The segment of East Ave between Chestnut St and E. Main St has one travel lane and one parking lane in each direction, with a pavement width of 40 feet and 66 foot right-of-way. The AADT volume for this segment of East Ave is approximately 4,900 vehicles per day (2006 data).
- Elm Street is a two-lane, local road that serves as an access point to the Midtown site and the truck service tunnel. Located within the Elm Street right away is an exit ramp from the Midtown Parking Garage. It connects to Atlas Street and service areas for Midtown Plaza. The pavement is 24 feet wide and also has a seven foot wide recessed parking lane on the South side for much of its length. The right-of-way is 33 feet wide.
- Atlas Street is a local road between Elm Street and Euclid Street. It primarily serves a loading dock area for Midtown Plaza and also provides access to the Midtown truck service tunnel. The pavement width is 24 feet and the right-of-way is 33 feet.
- Euclid Street is a local road, one-way westbound between Chestnut Street and East Main Street. The street has a 33 foot right-of-way for the segment west of Chestnut and parallel to East Avenue. The pavement varies from 23 feet to 28 feet wide in this segment. The segment more or less running north-south and connecting to East Main Street has a 66 foot wide right-of-way and a pavement width of 40 feet, which includes two travel lanes and two parking lanes.

TABLE 2-1 CLASSIFICATION OF PERIMETER STREETS

Route(s)	E Main St	S Clinton St	East Avenue	Chestnut St	E Broad St
Functional Classification	Urban Minor Arterial				
National Highway System (NHS)	No	Yes	No	Yes	No
Designated Truck Access Route	No	No	No	No	No
Qualifying Highway	No	No	No	No	No
Within 1.6 km of a Qualifying Highway	Yes	Yes	Yes	Yes	Yes
Within the 4.9 m vertical clearance network	No	No	No	No	No

2.3.1.2 Control of Access

All streets in the project site have uncontrolled access.

2.3.1.3 Traffic Control Devices

Within the City of Rochester, the Monroe County Department of Transportation (MCDOT) maintains and operates the traffic control system along City streets. The traffic signals located within the service truck tunnel were privately owned by the former Midtown Properties (now owned by the City) and continue to be maintained by the MCDOT. The truck service tunnel signals are provided for safety around a blind corner. The signals are isolated (not interconnected) and receive power from RG&E from inside Midtown Properties.

All traffic control devices (garage ramp signals) within the underground parking garage are owned and maintained by the City's Midtown Garage.

The traffic control for intersections on the perimeter streets are listed in the following table:

TABLE 2-2 INTERSECTION TRAFFIC CONTROL

Intersection	Traffic Control
South Clinton/E. Broad Street	Signal
South Clinton/E Main Street	Signal
E Main Street/Pedestrian Crossing	Signal
E Main Street/Euclid Street	Stop Sign on Euclid
E Main Street/East Avenue	Signal
East Avenue/Stillson Street	None (One-way)
East Avenue/Chestnut Street	Signal
Chestnut Street/Euclid Street	None (One-way)
Chestnut Street/Elm Street	Signal
E. Broad Street/Chestnut Street	Signal
Elm Street/Atlas Street	None
Atlas Street/Euclid Street	None

2.3.1.4 Intelligent Transportation Systems (ITS)

There are ITS systems in operation within the project area. The Monroe County Department of Transportation (MCDOT) operates a coordinated signal system throughout downtown Rochester. Traffic signals are interconnected with underground cable. MCDOT also operates traffic monitoring cameras at the intersections of Broad St / Chestnut St and Broad St / South Ave. The cameras are connected to the Regional Traffic Operations Center (RTOC).

2.3.1.5 Speeds and Delay

Speed limits within the limits of the City of Rochester are 30 miles per hour (MPH) when not physically posted. The streets in the project network are not posted and therefore have a speed limit of 30 MPH. Operating speeds have been observed to be 30 MPH plus or minus, depending on the level of traffic congestion.

Delays were determined to be consistent with an urban setting, and excessive delays were not noted at any of the studied intersections under normal conditions. Average delays at each intersection and approach were calculated as part of the Level of Service analysis and are summarized in Section 2.3.1.7 – Level of Service and Mobility.

2.3.1.6 Traffic Volumes

2.3.1.6. (1) Existing traffic volumes – The following Table 2-3 summarizes the results of 24-hour traffic counts taken by the Monroe County Department of Transportation at various locations throughout the project area. The traffic counts include the AADT (Annual Average Daily Traffic) volume, the DHV (Design Hour Volume, which measures the two-way peak hour volume), and the DDHV (Directional Design Hour Volume, which is a one-way peak hour volume). Vehicle classification data was requested from the City but was not available, but traffic observations indicate approximately 2% truck traffic. RGRTA buses also utilize streets in the project area, particularly the Main St and Broad St corridors due to the location of bus transfer points. As part of a future project (assumed to be completed in 2014), RGRTA is planning to relocate the existing bus transfer points to a central bus station near South Clinton Avenue and Mortimer Street.

Refer to Appendix III for peak hour turning movement volumes for all major intersections and traffic generator driveways/entrances within the project area.

TABLE 2-3 EXISTING AND FORECAST TRAFFIC VOLUMES

	Segment	Year	AADT	DHV	DDHV
E. Broad Street	Stone St to S. Clinton Ave	Existing (2009)	6971	N/A	850
		ETC+20 (2032)	7808	N/A	952
	S. Clinton Ave to Chestnut St	Existing (2009)	4721	N/A	494
		ETC+20 (2032)	5288	N/A	553
Court Street	Stone St to S. Clinton Ave	Existing (2009)	7311	664	444
		ETC+20 (2032)	8188	744	497
	S. Clinton Ave to Chestnut St	Existing (2009)	6572	N/A	668
		ETC+20 (2032)	7361	N/A	748
S. Clinton Avenue	Court St to E. Broad St	Existing (2009)	15,398	N/A	1590
		ETC+20 (2032)	17,246	N/A	1781
	E. Broad St to E. Main St	Existing (2005)	12,953	N/A	1182
		ETC+20 (2032)	14,507	N/A	1324
E. Main Street	S. Clinton Ave to East / Franklin	Existing (2009)	12,614	961	543
		ETC+20 (2032)	14,128	1076	608
	East / Franklin to Chestnut St	Existing (2009)	11,731	874	443
		ETC+20 (2032)	13,139	979	496
East Avenue	E. Main St to Chestnut St	Existing (2006)	4917	439	255
		ETC+20 (2032)	5596	500	290
Chestnut St	East Ave to E. Broad St	Existing (2005)	14,774	1303	721
		ETC+20 (2032)	16,901	1491	825
	E. Broad St to Court St	Existing (2007)	11,804	1029	636
		ETC+20 (2032)	13,339	1163	719

Note: AADT = Annual Average Daily Traffic Volume (total both directions)

DHV = Design Hour Volume (total both directions)

DDHV = Directional Design Hour Volume (one direction)

2.3.1.6. (2) Future no-build design year traffic volume forecasts – The Estimated Time of Completion (ETC)+20 design year was selected per PDM Appendix 5. An ETC+30 year projection was not completed as the project is not near a bridge or large culvert. A growth rate of 0.5% per year was selected based on input from the City of Rochester, Monroe County Department of Transportation (MCDOT), and Genesee Transportation Council (GTC). Forecast AADT, DHV and DDHV volumes for ETC+20 (Year 2032) are provided in the above table.

2.3.1.7 Level of Service and Mobility

2.3.1.7. (1) Existing level of service and capacity analysis – A traffic analysis has been completed to assess the need for improvements to the surrounding street network as a result of the proposed Midtown Plaza redevelopment. The traffic analysis is a supplement to a traffic assessment completed by Fisher Associates for the Midtown Redevelopment Generic Environmental Impact Statement (GEIS) in 2008. The original traffic analysis considered conceptual Low, Medium and High Density development scenarios, and studied intersections adjacent to the site as well as several key intersections elsewhere in Downtown Rochester.

This analysis examines the Existing (2010) condition, an ETC+20 (Year 2032) No-Build condition, and an ETC+20 Build condition for the proposed site, which currently includes PAETEC and Midtown Tower redevelopment projects. The analysis utilizes similar methodologies to the original traffic study and focuses on the following intersections, which are included based on their proximity to the site and interrelationship with the existing Midtown Parking Garage access points:

- E. Main Street / Midtown Pedestrian Crossing (Future Cortland St);
- E. Main Street / East Avenue / Franklin Street;
- E. Main Street / Stillson Street;
- E. Main Street / Chestnut Street;
- Chestnut Street / East Avenue;
- Chestnut Street / Elm Street;
- Chestnut Street / Broad Street;
- Chestnut Street / Court Street;
- S. Clinton Avenue / Broad Street;
- S. Clinton Avenue / Court Street.

The intersection of East Main St / Clinton Ave was not included as part of this analysis, per direction of the Monroe County Department of Transportation, as it has been studied as part of the Renaissance Square traffic analysis (completed by Kimley-Horn in July 2008) and also was included in the original Midtown Generic Environmental Impact Statement traffic analysis. The Renaissance Square traffic analysis, which includes traffic generated by the Midtown Redevelopment, indicates that this intersection will operate at acceptable level of service under the future development scenario.

Manual turning movement counts were taken by LaBella Associates on September 21-23, 2010 and September 28-30, 2010 during the morning and afternoon peak hours (7:45-8:45 am and 4:45-5:45 pm). New traffic counts were desired to verify the original assumptions regarding the Midtown Parking Garage re-distribution (vehicles formerly parking at the Midtown Garage were relocated to other downtown

parking garages) and recently-completed ESL Headquarters on Chestnut Street. Each intersection was analyzed using Synchro traffic software (Version 6) and a base model of the Downtown Rochester street network provided by the Monroe County Department of Transportation (MCDOT). Signal timings, turn restrictions and lane configurations were verified by LaBella Associates.

Level of Service (LOS) is a qualitative measure of driver discomfort and frustration, fuel consumption, and lost travel time. The methodology for performing capacity analyses and determining LOS is detailed in the Highway Capacity Manual (HCM) (Transportation Research Board, 2000). LOS designations range from "A" (little or no delay) to "F" (significant delay). LOS has been determined for each overall intersection, as well as individual turning movements and approaches. Average delays (in seconds) were also calculated. The Monroe County Department of Transportation has developed the following criteria for acceptable level of service:

- LOS of "D" or better for the overall intersection and each individual approach;
- LOS of "E" or better for each individual movement; AND
- Volume to capacity ratio (v/c ratio) less than 1.00 for each individual movement.

Results of the LOS analysis for the existing condition during the morning and afternoon peak hour are summarized in Table 2-4 (below). Under existing conditions, each intersection operates at an overall LOS of "C" or better during both peak hours, with individual approach LOS of "D" or better. Refer to Appendix III for level of service calculations and reports.

2.3.1.7. (2) Future No-Build level of service and capacity analysis – Traffic volumes were projected to ETC+20 (Year 2032) to assess general background growth during the design life (No-Build condition). A growth rate of 0.5% per year was selected based on input received from the City of Rochester, MCDOT and Genesee Transportation Council. Also included in the No-Build condition are traffic volumes associated with the former Renaissance Square project, as the various components of that project are still likely to be built downtown during the 20-year design period (Renaissance Square trip generation volumes were provided by MCDOT). The Broad St Aqueduct project, which may result in the closure of the Broad Street Bridge over the Genesee River to vehicle traffic, was not considered as part of this analysis per direction from the City of Rochester and MCDOT. The Aqueduct traffic analysis does include traffic generated by the proposed Midtown Redevelopment. The analysis is currently being finalized and is subject to review by the City and MCDOT.

Results of the LOS analysis for the future No-Build scenario are summarized in Table 2-4 below. Each intersection is projected to operate at an overall LOS "D" or better during the AM and PM peak hours. Each intersection approach will operate at LOS "D" or better. Refer to Appendix III for level of service calculations and reports.

Table 2-4 Design Year Level of Service and Delays

S. CLINTON AVE/COURT ST INTERSECTION

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)
Court St Eastbound	Overall	AM	C (24.1)	C (25.1)
		PM	B (19.2)	C (21.0)
Clinton Ave Northbound	Thru/Left	AM	A (5.5)	A (5.5)
		PM	A (9.8)	B (12.3)
	Right	AM	A (1.5)	A (2.2)
		PM	A (1.3)	A (2.1)
	Overall	AM	A (4.7)	A (5.5)
		PM	A (8.1)	B (10.2)
Overall Intersection		AM	A (6.6)	A (7.5)
		PM	B (11.4)	B (13.4)

S. CLINTON AVE/BROAD ST INTERSECTION

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)
Broad St Westbound	Overall	AM	C (30.3)	C (30.3)
		PM	B (19.2)	B (18.4)
Clinton Ave Northbound	Left	AM	A (2.2)	A (2.6)
		PM	A (0.5)	A (0.6)
	Thru/Right	AM	A (4.0)	A (4.4)
		PM	A (7.4)	A (8.1)
	Overall	AM	A (3.4)	A (3.8)
		PM	A (5.6)	A (6.1)
Overall Intersection		AM	A (9.8)	A (10.0)
		PM	A (8.6)	A (8.8)

MAIN ST/MIDTOWN PEDESTRIAN SIGNAL

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)
Main St Eastbound	Overall	AM	A (0.7)	A (1.3)
		PM	A (2.1)	A (2.2)
Main St Westbound	Overall	AM	A (5.0)	A (5.4)
		PM	A (1.4)	A (1.3)
Overall Intersection		AM	A (3.3)	A (3.6)
		PM	A (1.8)	A (1.8)

MAIN ST/EAST AVE INTERSECTION

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)
Main St Eastbound	Thru	AM	A (4.3)	A (5.6)
		PM	C (24.4)	C (26.2)
	Right	AM	A (2.2)	A (6.7)
		PM	D (36.9)	D (43.8)
	Overall	AM	A (3.7)	A (5.9)
		PM	C (27.2)	C (30.2)
Main St Westbound	Thru	AM	A (5.4)	A (5.6)
		PM	B (11.7)	B (12.2)
	Right	AM	A (2.3)	A (1.7)
		PM	A (6.4)	A (6.5)
	Overall	AM	A (5.4)	A (5.5)
		PM	B (11.5)	B (12.0)
East Ave Northbound	Overall	AM	C (22.9)	C (22.9)
		PM	C (21.6)	C (21.5)
Franklin St Southbound	Overall	AM	A (5.3)	A (5.2)
		PM	A (6.4)	A (7.0)
Overall Intersection		AM	A (6.2)	A (7.0)
		PM	B (19.3)	C (20.9)

MAIN ST/STILLSON ST INTERSECTION

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)
Main St Eastbound	Overall	AM	A (2.7)	A (2.5)
		PM	A (0.4)	A (0.3)
Main St Westbound	Overall	AM	A (3.5)	A (3.7)
		PM	A (1.2)	A (1.2)
Stillson St Northbound	Overall	AM	C (24.9)	C (24.9)
		PM	C (24.9)	C (25.0)
Stillson St Southbound	Overall	AM	C (24.8)	C (24.9)
		PM	C (24.9)	C (25.0)
Overall Intersection		AM	A (5.1)	A (5.1)
		PM	A (2.3)	A (2.4)

MAIN ST/CHESTNUT ST INTERSECTION

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)
Main St Eastbound	Left	AM	C (23.4)	C (22.1)
		PM	C (22.5)	C (20.9)
	Thru/Right	AM	C (29.7)	C (28.2)
		PM	C (28.7)	C (27.1)
	Overall	AM	C (27.1)	C (25.7)
		PM	C (26.7)	C (25.1)
Main St Westbound	Left	AM	A (3.9)	A (4.0)
		PM	A (5.0)	A (5.9)
	Thru/Right	AM	A (5.0)	A (5.3)
		PM	A (7.0)	A (8.7)
	Overall	AM	A (4.6)	A (4.9)
		PM	A (6.6)	A (8.1)
Chestnut St Northbound	Left	AM	B (15.9)	B (19.7)
		PM	A (7.9)	A (8.3)
	Thru/Right	AM	B (12.6)	B (13.1)
		PM	A (8.1)	A (8.4)
	Overall	AM	B (13.0)	B (13.8)
		PM	A (8.1)	A (8.4)
Chestnut St Southbound	Left	AM	A (9.6)	B (11.9)
		PM	B (13.2)	B (16.0)
	Thru/Right	AM	B (11.9)	B (14.9)
		PM	B (11.8)	B (12.7)
	Overall	AM	B (11.7)	B (14.7)
		PM	B (12.0)	B (13.1)
Overall Intersection		AM	B (12.1)	B (13.2)
		PM	B (13.2)	B (13.5)

CHESTNUT ST/EAST AVE INTERSECTION

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)
East Ave Eastbound	Left/Thru	AM	C (32.5)	C (33.8)
		PM	C (32.4)	C (32.5)
	Right	AM	C (32.5)	C (33.6)
		PM	C (31.5)	C (31.5)
	Overall	AM	C (32.5)	C (33.7)
		PM	C (32.1)	C (32.1)
East Ave Westbound	Left/Thru	AM	B (11.7)	B (12.0)
		PM	B (11.6)	B (12.0)
	Right	AM	A (9.2)	A (9.3)
		PM	A (10.0)	B (10.1)
	Overall	AM	B (11.0)	B (11.2)
		PM	B (11.1)	B (11.5)
Chestnut St Northbound	Left	AM	C (21.3)	C (26.8)
		PM	A (8.6)	A (8.7)
	Thru/Right	AM	B (16.5)	B (16.5)
		PM	A (9.8)	B (9.9)
	Overall	AM	B (17.2)	B (18.1)
		PM	A (9.7)	A (9.8)
Chestnut St Southbound	Left	AM	B (10.5)	B (11.2)
		PM	A (7.4)	A (8.0)
	Thru/Right	AM	B (10.5)	B (10.8)
		PM	A (7.4)	A (7.6)
	Overall	AM	B (10.5)	B (10.9)
		PM	A (7.4)	A (7.6)
Overall Intersection		AM	B (14.6)	B (15.1)
		PM	B (13.0)	B (13.2)

CHESTNUT ST/ELM ST INTERSECTION

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)
Elm St Eastbound	Left	AM	C (34.6)	C (34.6)
		PM	C (34.6)	C (34.6)
	Right	AM	C (29.7)	C (29.7)
		PM	C (29.7)	C (29.7)
	Overall	AM	C (32.7)	C (32.7)
		PM	C (32.7)	C (32.7)
Chestnut St Northbound	Overall	AM	A (2.4)	A (2.8)
		PM	A (1.2)	A (1.3)
Chestnut St Southbound	Overall	AM	A (5.7)	A (5.7)
		PM	A (4.1)	A (4.1)
Overall Intersection		AM	A (9.5)	A (9.2)
		PM	A (8.2)	A (7.7)

CHESTNUT ST / BROAD ST INTERSECTION

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)
Broad St Westbound	Overall	AM	C (33.4)	C (33.6)
		PM	C (26.3)	C (27.2)
Chestnut St Northbound	Left	AM	A (3.5)	A (4.5)
		PM	B (12.0)	B (13.7)
	Thru	AM	A (1.3)	A (1.3)
		PM	B (9.2)	B (9.3)
	Overall	AM	A (1.8)	A (2.0)
		PM	B (9.8)	B (10.2)
Chestnut St Southbound	Thru	AM	A (2.3)	A (3.0)
		PM	A (2.0)	A (1.9)
	Right	AM	A (0.6)	A (0.5)
		PM	A (1.0)	A (1.1)
	Overall	AM	A (2.3)	A (2.3)
		PM	A (1.8)	A (1.8)
Overall Intersection		AM	A (5.7)	A (5.8)
		PM	A (8.8)	A (9.1)

CHESTNUT ST/COURT ST INTERSECTION

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)
Court St Eastbound	Thru	AM	C (22.6)	C (23.0)
		PM	C (28.9)	C (28.6)
	Right	AM	C (25.8)	C (26.2)
		PM	B (18.4)	B (18.9)
	Overall	AM	C (23.3)	C (23.7)
		PM	C (25.7)	C (25.6)
Chestnut St Northbound	Thru	AM	B (11.0)	B (11.5)
		PM	A (7.2)	A (7.4)
	Right	AM	B (15.8)	B (15.1)
		PM	A (9.6)	A (9.3)
	Overall	AM	B (11.9)	B (12.2)
		PM	A (7.4)	A (7.6)
Chestnut St Southbound	Left	AM	B (12.8)	B (13.4)
		PM	A (4.3)	A (4.3)
	Thru	AM	B (13.0)	B (13.8)
		PM	A (5.0)	A (5.2)
	Overall	AM	B (13.0)	B (13.8)
		PM	A (5.0)	A (5.1)
Overall Intersection		AM	B (16.4)	B (16.9)
		PM	B (13.0)	B (13.1)

2.3.1.8 Safety Considerations, Accident History and Analysis

Accident records for the intersections surrounding the Midtown Site were reviewed to assess the safety history. A three-year period between January 1, 2008 and December 31, 2010 was analyzed, and police reports were provided by the City of Rochester. Only "reportable" accidents were considered (accidents involving injury and/or damage greater than \$1000). Accident diagrams have been created to identify clusters or accident patterns at the studied intersections (refer to Appendix III). In general, the intersections studied experienced accident rates higher than the MCDOT average rate. The majority of accidents appears to be typical for multi-lane, signalized urban intersections and do not appear to be caused by deficiencies in the existing intersection geometry or signal operations. Many of the intersections experience congestion (both vehicles and pedestrians) that is typical of a downtown setting, and may be a detriment to safety. Table 2-5 (below) compares the intersection accident rates to the MCDOT average rates, and a summary of the accidents that occurred at each intersection follows.

TABLE 2-5 SUMMARY OF ACCIDENT RATES

Intersection	Accident Rate (Acc/MEV)	Monroe County Average Rate (Acc/MEV)
Clinton Ave / Main St	1.92	0.50
Main St / East Ave / Franklin St	1.00	0.50
Chestnut St / East Ave	0.98	0.50
Chestnut St / Elm St	0.28	0.25
Chestnut St / Broad St	0.67	0.50
Broad St / Clinton Ave	0.72	0.50
Broad St / Stone St	0.62	0.25

Main St / Clinton Ave

A total of 55 accidents occurred at this intersection over the three-year period, including 12 with injury. The dominant accident types included sideswipe (24 accidents) and rear-end (14 accidents). Right angle, pedestrian, out of control, and left turn accidents were also reported. The resulting accident rate was calculated to be 1.92 Accidents per Million Entering Vehicles (Acc/MEV), which is approximately 3.8 times higher than the MCDOT average rate of 0.50 Acc/MEV. The sideswipe accidents primarily involved vehicles making improper lane changes or turning movements and are typical of a multi-lane urban roadway. Rear-end crashes are also typical at a signalized intersection. The pedestrian accidents are likely a result of the large volume of pedestrian traffic at the intersection due to bus transfer points and other pedestrian generators such as the MCC campus, and most of these accidents were caused by pedestrians crossing against the "don't walk" indicator. In general, the accidents appear to have been caused by driver inattention or improper lane usage / turning movements. The intersection does experience congestion during the peak hours, which may exacerbate these factors. Safety would likely be improved at the intersection once the downtown transit center is constructed, as many of the pedestrians and buses would be relocated to the facility near Clinton Ave & Mortimer St.

Main St / Franklin St / East Ave

Eighteen accidents occurred at this intersection, including ten sideswipes, seven rear-end and one pedestrian. Five of the accidents resulted in injury. The collisions primarily occurred at the two Main St approaches; only one accident occurred at the East Ave approach and one occurred at the Franklin St approach. No accidents were reported at the Main St / Euclid St intersection, which is just to the west of East Ave. The resulting accident rate is 1.00 Acc/MEV, which is approximately 2.0 times higher than the MCDOT average rate. The accidents appear to have been caused by driver inattention and improper turns and lane usage. The bus lanes and buses on Main St may have a negative influence on safety.

Chestnut St / East Ave

A total of 21 accidents occurred at this intersection over the three-year period, including six with injury. The dominant accident type was right angle (eight accidents), with rear-end, sideswipe, left turn, right turn, pedestrian and backing collisions also reported. The accident rate was calculated to be 0.98 Acc/MEV, which is 2.0 times higher than the MCDOT average. The accidents appear to have been caused by driver inattention.

Chestnut St / Elm St

Four accidents occurred at the Chestnut St / Elm St intersection, including three rear-end and one sideswipe. None of the accidents occurred at the Elm St approach, and no injuries were reported. The accident rate was calculated at 0.28 Acc/MEV, which is slightly higher than the MCDOT average rate of 0.25 Acc/MEV for a signalized intersection of a minor arterial and local street. The accidents appear to have resulted from driver inattention.

Chestnut St / Broad St

Eleven accidents were documented at this intersection, including one with injury. The prevalent accident type was sideswipe (eight of the eleven accidents). The resultant accident rate was 0.67 Acc/MEV, which is approximately 1.3 times higher than the MCDOT average. The accidents appear to have been caused by driver inattention, although the closely spaced signalized intersections along Chestnut St (Court, Broad, James, and Elm) may cause confusion or distraction to some drivers. The City's Broad – Court – Chestnut project will remove the James St pavement and intersection at Chestnut St, which should improve safety along the Chestnut St corridor.

S. Clinton Ave / Broad St

Sixteen accidents occurred at this intersection over the three-year period, including two with injury. The dominant accident type was right angle. Sideswipe, rear-end and backing accidents were also reported. The accident rate was calculated to be 0.72 Acc/MEV, which is approximately 1.4 times higher than the MCDOT average. The accidents appear to have been caused by driver inattention.

Broad St / Stone St

This intersection experienced seven accidents during the analysis period. Accident types included fixed object (3), sideswipe (3) and left turn (1). One of the accidents reported injuries. The resultant accident rate was 0.62 Acc/MEV, which is approximately 2.5 times higher than the MCDOT average. The majority of the accidents appear to have been caused by driver confusion related to the configuration of the intersection (this intersection is where Broad St changes from one-way westbound to two-way traffic), including the presence of a splitter island. Traffic analyses have been completed for the two-way

conversion of Broad St between Stone St and Chestnut St. The conversion would likely improve safety at the Stone St intersection as it would result in a more typical intersection configuration.

2.3.1.9 Existing Police, Fire Protection and Ambulance Access

Response time to the subject site is typically four minutes or less. Eight pieces of apparatus respond to any fire or smoke alarms at the existing Midtown site. The response includes a high-building rescue team. Main Street and Chestnut Street are typical routes for emergency response vehicles.

2.3.1.10 Parking Regulations and Parking Related Conditions

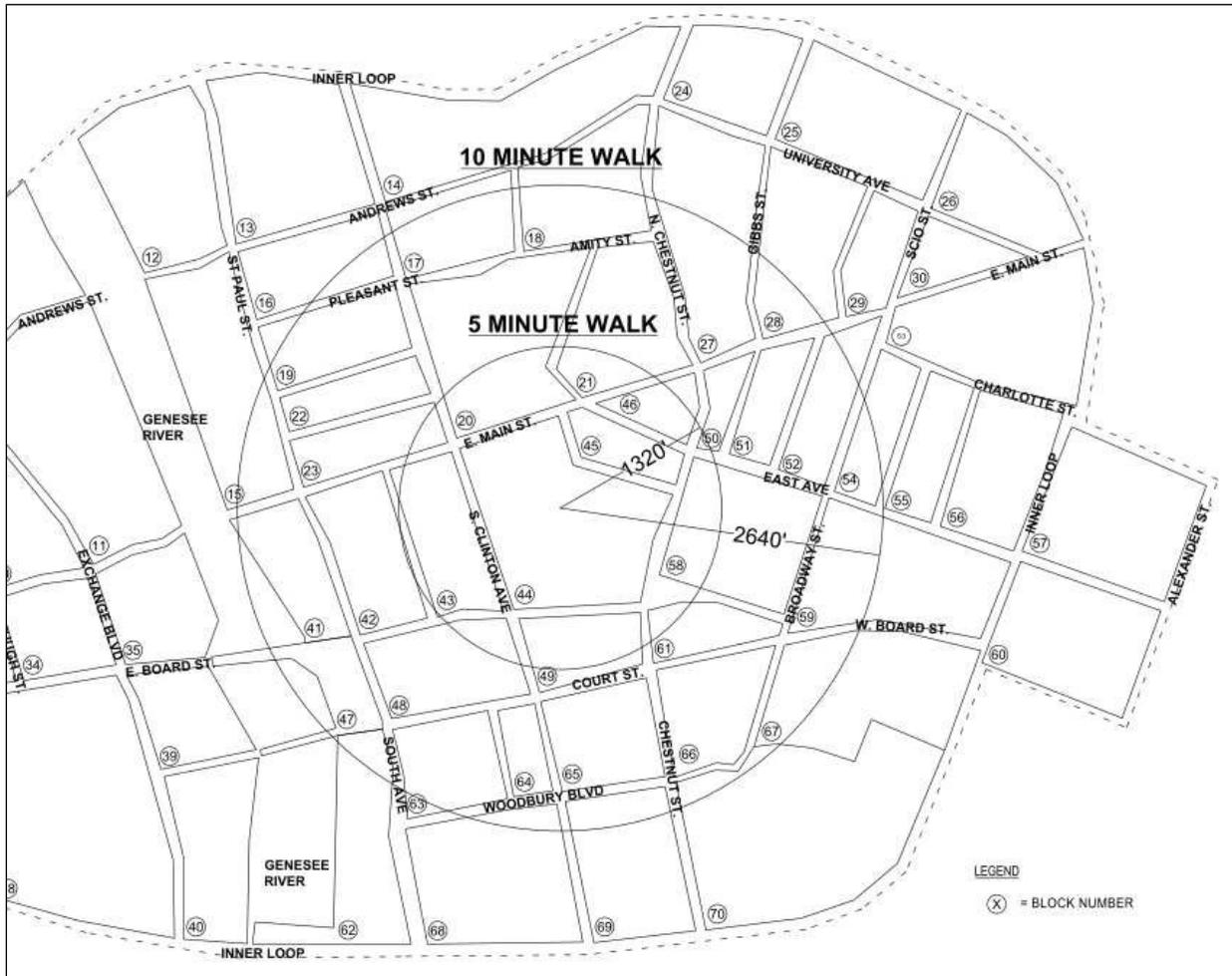
A parking study was completed by Carl Walker to address parking at the Midtown Plaza site. Parking Planning Study, Midtown Redevelopment, dated September 2008, analyzes the parking demand from various land uses and build-out scenarios proposed for the Midtown site and provides recommendations for future parking options. The report also discusses the background of the Midtown Parking Garage, including the relocation process implemented by the City of Rochester when the garage closed to the public in September, 2008.

The Walker parking study estimates that before its closure in September 2008, approximately 1,365 of the Midtown garage's 1,773 spaces (77%) were occupied on a consistent basis during a typical work day.

It is estimated that the closure of Midtown Parking Garage has resulted in a net decrease of 588 contract parking spaces within downtown Rochester, as the loss of approximately 1300 parking spaces at Midtown was countered by an additional 700 spaces made available at the Mortimer Street Garage. The Walker parking report indicates that within a ten-minute walk (approximately 2,640 feet) from Midtown, there are approximately 15,302 parking spaces (including on-street, off-street, public and private spaces).

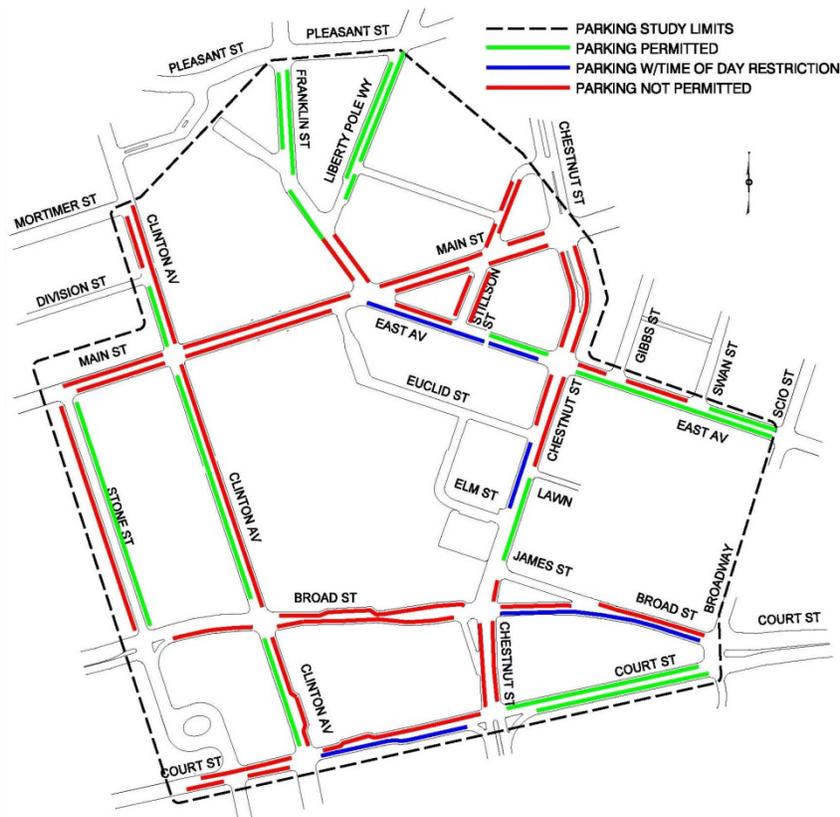
Approximately 8,627 spaces were unused on a daily basis during the study period. Therefore, a surplus of parking still remains in downtown within a ten minute walk from Midtown. Shortages of parking are reportedly rare occurrences.

FIGURE 7 STREETS WITHIN WALKING DISTANCE OF MIDTOWN



On-street parking demand was surveyed during late September 2010 for the street network immediately adjacent to the Midtown site. On the streets highlighted in Figure 8, there were 122 metered spaces counted and approximately 13 unmetered spaces.

FIGURE 8 PARKING STUDY STREET NETWORK



Two observations were notable: parking regulations are routinely ignored at some locations, and rarely are all metered spaces full with a few exceptions. Parking on East Avenue, Broad Street, and Court Street for the blocks between Chestnut and Broadway see the most demand for parking. The utilization for the week on those blocks was at or above the number of legal spaces available. Other blocks in the study area experienced 75% or less utilization through the week. The ratio of commercial vehicles parked to total vehicles was typically 20%. Parking utilization was highest between 9:00 a.m. and 3:00 p.m. On a daily basis, the total demand for the area never exceeded the total number of legal spaces. Illegally parked vehicles in some areas could have been accommodated in legal on-street spaces at other locations. Franklin, Chestnut, and Stillson Streets have blocks that see frequent occurrences of illegally parked cars. Of the two blocks of Franklin Street studied, one has parking meters and the other is signed for no parking. The metered block was at 43% on the west side and 63% utilization on the east side. Almost equal numbers of vehicles were observed to be illegally parked on the other block although some were police vehicles. This indicates a resistance to pay for parking. Clinton Avenue north of Main and south of Broad were two other blocks that were at low utilization for the week. Detailed parking data is compiled in Appendix VI.

2.3.1.11 Lighting

The City of Rochester, through the Rochester Street Lighting Bureau, maintains street lights along East Main Street, South Clinton Avenue, Euclid Street, Atlas Street, Chestnut Street, and Broad Street. Pedestrian level light poles along Broad Street east of South Clinton Avenue were privately owned by the former Midtown Properties or by Xerox. Cobra-head fixtures on steel davit poles are located along all streets on the perimeter except East Main Street. Supplemental pedestrian level lighting is provided by various fixtures on S. Clinton Avenue, and portions of Broad Street. Lighting is provided by tear drop fixtures on decorative poles along East Main Street. The location of the street lighting poles and conduit are shown on Drawings UT-01 and UT-02.

2.3.1.12 Ownership and Maintenance Jurisdiction

The City of Rochester owns and maintains all roadways within the project limits. The Monroe County Department of Transportation owns and maintains the signs and traffic signal equipment. The City is responsible for installing pavement markings on capital projects, while MCDOT maintains the pavement markings.

2.3.2 Multimodal

2.3.2.1 Pedestrians

In most central business districts, walking is the predominant, and often last or first link in a trip. Parking is typically clustered in garages or municipal lots, which requires a walk to get to the destination. On-street or on-site parking opportunities are typically limited. Public transit or taxis sometimes discharge passengers within a block of their final destinations. The City Center is typical of this situation, with transit stops at major intersections and parking garages at various locations just outside the core.

Public sidewalks are present along all of the streets within the project area. Sidewalk widths vary, and conditions vary from fair to good. Many of the sidewalk segments appear to have been recently repaired to bring them into closer compliance with the Americans with Disabilities Act. Curb ramps exist at all street crossings.

The sidewalks along Main Street and Clinton Avenue are fairly new and are decorative in nature. Along Main Street, the sidewalks are quite wide (approximately 25 feet in width, see Photo #1 below). Along South Clinton Avenue, sidewalks are approximately 14 feet wide (see Photo #2). The presence of a major bus transfer area, including shelters, at the Southeast corner of Main and Clinton causes some pedestrian congestion (see Photos #3 and #4). The RGRTA is in the design stages of a project to construct a central bus terminal near the Clinton Avenue / Mortimer Street intersection. Upon completion

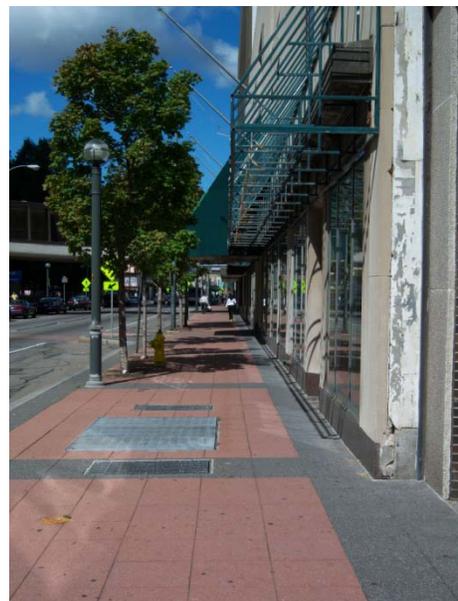
of the bus terminal, the existing transfer points along Main Street, S. Clinton Avenue and Broad Street will be eliminated.

A system of pedestrian bridges, referred to as the Skyway system, connects many of the major buildings in downtown Rochester. The Midtown site had three connecting bridges (Chase Tower, the Sibley Building, and to Xerox Tower) that have been removed as part of the Midtown demolition contract. Removal of the Skyway bridges will likely result in a minor increase in pedestrian activity at the intersections adjacent to the Midtown site. These intersections generally feature pre-timed pedestrian crossing phases, and the existing 8 foot to 12 foot wide crosswalks are accommodating the increase of pedestrians.

The truncated streets, such as Elm Street and Atlas Street, along the east side of the study area have substandard sidewalk systems. Sidewalk widths on the interior streets are often only four feet wide and do not present an inviting pedestrian pathway. The presence of the truck entrance to the service tunnel interrupts pedestrian circulation.



1. Sidewalk on Main Street, 20 ft. wide (looking east).



2. South Clinton Avenue, 10 ft. wide (looking north).



3. South Clinton Avenue (looking south).



4. Elm Street (looking west).



5. Broad Street (looking east).

2.3.2.2 Crosswalks

Pedestrian signals and crosswalks are present on all of the surrounding street intersections. Midblock crossings at ground level include:

- Traffic signal with pedestrian crossing buttons along Main Street between South Clinton and East Avenues is located to align with an entrance to the Sibley Building and the former Midtown atrium.

Pedestrian “bump-outs” with decorative paver crosswalks and signs for motorists are at two locations along South Clinton Street between Broad Street and Main Street. These two crosswalks roughly align with entrances to the Chase Towers plaza and to former entrances to the Seneca Building and B. Forman building.

2.3.2.3 Bicyclists

There are no separate provisions for bicyclists on the street network. There are no plans for a bicycle route within the project limits. Bicyclists may legally use the street pavement. Use of the sidewalk for bicycles is prohibited within the Inner Loop by City Code. While observing traffic on Main Street, it was noted that the majority of bicyclists using the corridor traveled on the sidewalks or alternated between the street and the sidewalk as it was convenient. All public buses are equipped with bike racks.

2.3.2.4 Transit

Public transit service in downtown Rochester is administered by the Rochester Genesee Regional Transportation Authority (RGRTA) and operated by several subsidiaries. The Rochester Transit Service (RTS) operates bus routes in Monroe County and the City of Rochester. LiftLine operates paratransit for persons within Monroe County who are unable to utilize the standard bus service. Regional subsidiaries provide occasional service into downtown Rochester.

As shown in Table 2-5 and Table 2-6, RTS buses utilize South Clinton Avenue north of Broad Street, Main Street between Clinton Avenue and East Avenue, and Broad Street between Chestnut Street and South Clinton Avenue.

The following three sites located in the immediate vicinity of Midtown are currently utilized as central transfer points for converging bus routes:

- Along Clinton Avenue at the southeast corner of the Main Street intersection for northbound buses. This transfer point has been temporarily relocated to a point north of Main Street while the demolition and redevelopment occurs.
- Along Main Street at the southwest corner of Clinton and Main for eastbound buses; and,
- Along Main Street at the southwest corner of Main and Liberty Pole Way for westbound buses.

Southbound buses line up along St. Paul Boulevard, one block west of the project site.

A total of 20 bus routes serve this area. According to current bus schedules, buses arrive at Main & Clinton a total of 553 times each weekday and depart from one of the two Main & Clinton transfer sites 431 times each weekday. The transfer site at Main Street and Liberty Pole Way supports 312 arrivals and 446 departures each weekday. These three locations serve approximately 25,000 bus patrons on a typical weekday.

The following table (Table 2-5) identifies the RTS routes that stop near the intersection of Main Street and Clinton Avenue, either along Clinton Avenue just south of Main Street or along Main Street just west of Clinton, as well as the number of weekday arrivals and departures.

TABLE 2-5 RTS BUS ROUTES ACTIVE IN VICINITY OF MAIN & CLINTON

<u>Route</u>	<u>Total Weekday Arrivals</u>	<u>Total Weekday Departures</u>
1 - Lake / Park	48	42
2 - Thurston / Parsells	35	33
4 - Genesee / Hudson	45	42
5 - South / Saint Paul	42	41
6 – Jefferson / Clifford	35	34
7 - Monroe / N. Clinton	42	38
8 - Chili / East Main	52	49
9 - Jay - Maple / Bay	30	28
10 - Dewey / Portland	53	49
11 - S. Clinton / Joseph	35	30
14 – West Ridge and East Ridge	12	0
15 – Dewey/ Latta	21	0
16 – Crosstown	13	0
18 / 19 – University/Plymouth	30	26
20 – Brockport/ Spencerport	13	0
24 - Marketplace Mall	24	0
50 - Monroe Community College	23	14
99 – Hilton/ Hamlin/ Clarkson	0	5
Main & Clinton Totals	553	431

The following table, Table 2-6, identifies the RTS routes that stop at the major transfer sites at Main Street and Liberty Pole Way.

TABLE 2-6 BUS ROUTES ACTIVE IN VICINITY OF MAIN & LIBERTY POLE

<u>Route</u>	<u>Total Weekday Arrivals</u>	<u>Total Weekday Departures</u>
1 - Lake / Park	44	46
2 - Thurston / Parsells	32	35
3 – Goodman/ Lyell	36	54
4 - Genesee / Hudson	41	43
6 – Jefferson/ Clifford	33	36
8 - Chili / East Main	47	53
9 - Jay - Maple / Bay	28	30
10 - Dewey / Portland	51	54
15 – Dewey Avenue/ Latta	0	24
16 – Crosstown	0	14
18/19 – University/Plymouth	0	57
Liberty Pole Totals	312	446

Upon completion of the new transit center, it is possible the three major transfer points will be relocated to the new center located northwest of the intersection of Main Street and Clinton Avenue. Buses are expected to continue to utilize South Clinton Avenue, Chestnut Street, Broad Street and Main Street. Riders who start their trips near Midtown or need to transfer to other buses downtown will utilize the new transit center.

Downtown Rochester is also served by Inter-city buses such as Greyhound and Trailways. The terminal for these private bus services was formerly located at the Midtown site near the intersection of Chestnut St and Broad St. The private buses are expected to utilize the future downtown transit center planned near Clinton Ave / Mortimer St. In the interim, the private bus services are using a temporary bus transfer station on Central Ave just outside the Inner Loop.

2.3.2.5 Airports, Railroad Stations, and Ports

There are no airports, railroad stations or port entrances within or in the vicinity of the project limits. Greater Rochester International Airport is four miles southwest of the project site. Site development will not conflict with the flight paths of aircraft using the County airport.

There is an Amtrak station five blocks north of the site on Central Avenue. This project will have no involvement with any railroad facilities.

2.3.2.6 Access to Recreation Areas (Parks, Trails, Waterways, State Lands)

There are no entrances to recreation areas within the project limits. There are two city parks within two blocks of the site, one southwest and another southeast.

2.3.3 Infrastructure

2.3.3.1 Existing Highway Section

See Typical Sections, Plan and Profile sheets in Appendix I.

2.3.3.2 Geometric Design Elements Not Meeting Standards

2.3.3.2.(1) Critical Design Elements

There are no existing nonstandard features.

2.3.3.2.(2) Other Design Parameters

There are no existing nonconforming features.

2.3.3.3 Pavement and Shoulder

Pavement Evaluation and Treatment Selection Report (PETSr) has not been completed.

2.3.3.4 Drainage Systems

The Genesee River is located approximately 1,000 feet to the west of the project site. The Genesee River empties into Lake Ontario several miles downstream from the Midtown Properties site. According to the Flood Insurance Rate Map prepared by the Federal Emergency Management Agency (FEMA), the project site is not located in the 100-year floodplain associated with the Genesee River, nor within any other flood hazard area. No other surface water resources (streams, wetlands, etc.) are located in the project area.

The Midtown Properties site is an urban setting and, prior to demolition, it was covered predominately with impervious surfaces (99-100 percent lot coverage) including building roofs, concrete sidewalks, asphalt drives and asphalt loading areas. Roof drainage was directed to closed pipe systems which discharged to the Rochester Pure Waters District (RWPD) combined sanitary/storm sewer system generally located in the center of the adjacent public streets. Surface and street drainage is typically

captured by drainage inlets along the curbs. The inlets connect to the combined sewers in the middle of the right-of-way by a lateral rather than connected in series.

Roof drainage from the former McCurdy's Building, Seneca Building, Euclid Building and Midtown Plaza generally discharged to the RPWD 30-inch RCP combined sewer located along East Main Street, which flows west. Roof drainage from the former B. Forman Building, Midtown Tower, Parking Garage and other building facilities south of B. Forman discharged to the RPWD combined sewer system located along South Clinton Avenue southward to Broad Street. This is an 18-inch diameter VT sewer than connects to a 24-inch RCCP sewer on Broad Street, which then flows west.

The storm drainage pipe network handling surface runoff along Broad Street between Chestnut Street and South Clinton Avenue is suspended from the Midtown Parking Garage located directly beneath Broad Street. It discharges through building services to the South Clinton Avenue public RWPD combined storm sewers. Surface runoff on Elm Street is collected by a 12-inch sewer that flows east to connect to a 24-inch sewer in Chestnut Street. Atlas and Euclid Streets have combined sewers ranging from 12 to 15-inches that connect to the East Main Street sewer flowing west.

There are no reports of persistent drainage problems.

2.3.3.5 Geotechnical

Bedrock in the project area consists of dolomite within the Lockport Group of formations. Based upon a known elevation of bedrock within the site boundary, as well as bedrock elevations at nearby built sites, it is estimated that the depth to bedrock is approximately 20 to 25 feet with a variable bedrock surface. The third sub-level of the Midtown Parking Garage is excavated into the bedrock. No soils remain between the garage floor and the bedrock foundation.

The Soil Survey for Monroe County classifies the project site as "Urban Land." Urban Land is defined as areas that have been so altered or obscured by urban works and structures that identification of the soils is not feasible. As previously described, the site is completely covered with buildings or paved surfaces, and little to no exposed soils remain.

The project site and the surrounding area of downtown Rochester is relatively flat. Street level elevation is approximately 531 feet above sea level.

There are no special geotechnical concerns with the soils or rock slopes within the project area.

2.3.3.6 Bridges

There are no bridges within the project limits.

2.3.3.7 Hydraulics of Bridges and Culverts

There are no bridges or culverts over waterways within the project limits.

2.3.3.8 Guide Railing, Median Barriers and Impact Attenuators

There are no guide railings, median barriers, or impact attenuators within the project limits.

2.3.4 Private Utilities

2.3.4.1 Steam: Rochester District Heating Co-Operative

Rochester District Heating Co-Operative (RDH), a non-profit user cooperative, provides steam for heating within the City's Inner Loop. RDH owns, maintains, operates and holds the easements for the steam lines. The steam lines are leased to the County of Monroe Industrial Development Agency (COMIDA).

Two RDH steam lines traversed the former Midtown Properties. With the exception of seasonal heating for the former Seneca Building, neither line directly served the property. The locations of the remaining RDH mains are shown on Drawings UT-01 and UT-02 in Appendix I.

The southern RDH steam line is a primary 12-inch main which runs between Chestnut Street and South Clinton Avenue. The steam line is located within a utility tunnel chase under the Level C floor slab of the City's Midtown Parking Garage. The utility tunnel chase is located in the southern portion of the site approximately 35 feet below the surface elevation of Broad Street and is under portions of the former Midtown Plaza and Broad Street. This primary steam line feeds the entire west side of the district representing 75 percent of the RDH system and half of the downtown area. This steam line is encapsulated but would require asbestos abatement were it to be removed or replaced.

A northern RDH steam line was a secondary 4- and 6-inch main that ran from Euclid Street through the former McCurdy's basement utility room and truck service tunnel to the former Seneca Building mechanical room and fed the former Seneca Building. This main then continued from the mechanical room under South Clinton Avenue to Chase Tower. This northern steam main was part of a looped steam system servicing portions of the northeast area of the City. With the demolition of the former Midtown Properties, the northern steam line was temporarily closed off at the Chase Tower and subsequently terminated and removed between Euclid Street and the truck service tunnel adjacent to the former Seneca Building. The steam pipe between the truck service tunnel through the former Seneca Building mechanical room and under South Clinton Avenue was left in place. The pipe insulation for the portions of steam line remaining within the truck service tunnel and former Seneca Building mechanical room was removed and abated. The looped steam system between Euclid Street and South Clinton Avenue needs to be reestablished.

Steam lines are also located in street rights-of-way adjacent to the project area including Chestnut Street, Euclid Street, South Clinton Avenue, and Broad Street. The steam is fed from RDH's primary control plant located on Lawn Street.

2.3.4.2 Telephone

Frontier Communications of Rochester

Frontier Communications of Rochester (Frontier) provided telephone and communication service to various buildings within the former Midtown Properties. These individual building services will be terminated as part of the demolition contract work. Frontier owns and maintains a major 9-way transite conduit with approximately 24 thousand cable pairs and 2 fiber optic bundles (one 48 strand & one 36 strand) located under the Level C floor slab of the City's Midtown Parking Garage. This major conduit system runs between South Clinton Avenue and Chestnut Street north of, and generally parallel with, the RDH steam utility tunnel chase. The conduit is located approximately 35 feet below the surface elevation of Broad Street and is under portions of the former Midtown Plaza and Broad Street.

Within the 9-way transit conduit, approximately 16K cable pairs and many of the fiber lines fed the former Midtown complex and Xerox. In May 2008, Frontier completed a new separate service to Xerox, bypassing the former Midtown Properties. The former Midtown Properties complex services will be terminated with the building demolition contract. The remaining cable pairs and fiber lines within the 9-way transite conduit located under the garage's Level C floor slab pass through the garage to service residences and businesses from Chestnut Street to East Avenue and as far as Clifford Avenue.

The location of the Frontier conduit under the garage's Level C floor slab is shown on Drawing UT-02 in Appendix I. Conduits are also located in street rights-of-way adjacent to the project area including Chestnut Street, Euclid Street, East Main Street, South Clinton Avenue, and Broad Street.

Verizon Business

Verizon Business (Verizon) provided telephone service to various buildings within the former Midtown Properties and adjacent facilities, such as Chase, Xerox and the former Sibley Building. The armored fiber (96 count single tube) network located within the former Midtown Properties was part of Verizon's ring (looped) system serving the east side of the City. Prior to the building demolition contract, Verizon relocated all of their facilities out of the former Midtown Properties and into various street rights-of-way. Conduits are located along Euclid Street, Chestnut Street, South Clinton Avenue and Broad Street.

The locations of the Verizon conduits are shown on Drawings UT-01 and UT-02 in Appendix I.

TW Telecom

TW Telecom (TWT) also provided telephone service to various buildings within the former Midtown Properties and adjacent facilities, such as Chase and Xerox. Prior to the building demolition contract, TW

Telecom relocated all of their facilities out of the former Midtown Properties and into various street rights-of-way. Conduits are located along South Clinton Avenue, East Main Street and Broad Street. The locations of the conduits are shown on Drawings UT-01 and UT-02 in Appendix I.

2.3.4.3 Electric: Rochester Gas & Electric

Rochester Gas & Electric (RG&E) provided electric service at various locations within the former Midtown Properties. Many of the transformers and meter panels were situated within the truck service tunnel or City's Midtown Parking Garage. The locations of the RG&E service connections are shown on Drawings UT-01 and UT-02 in Appendix I. These facilities included:

- Eight (8) 11 kV network transformer vaults: four located in the truck service tunnel (Vaults 8, 10, 27.11 and 27.13) and four located in the Midtown Garage Level-A (Vaults 27.03, 4, 5, and 9); and,
- Eight (8) different 11 kV network circuits (circuits 530, 533, 534, 569, 591, 598, 679, and 683).

With the exception of Circuit 569, all circuits within the former Midtown Properties supplied power only to the former Midtown facilities. Circuit 569 feeds from Chestnut Street to Vault 5 (located in the City's Midtown Parking Garage Level A under Broad Street) and over to South Clinton Avenue. This circuit provides service to Bausch & Lomb and a building on the southwest corner of Main Street and South Clinton Avenue. Vault 5 also provides service to Midtown Parking Garage.

With the building demolition contract, all equipment and transformers located in the truck service tunnel will be removed. All vaults in the truck service tunnel will also be razed with the exception of Vault 27.13 located in the former Seneca Building basement. The equipment will be removed and the empty vault area will remain for potential reuse by development Parcel 1. The electrical vaults located in the City's Midtown Parking Garage Level A and the network circuits feeding these vaults (also located in the City's Midtown Parking Garage Level A) will remain.

Adjacent to the project area, RG&E also has multiple high voltage vaults (some with transformers) and associated multiple duct conduits servicing their network system grid. These network vaults and conduit ducts are located along the street rights-of-way of South Clinton Avenue, East Main Street, Euclid Street, Atlas Street and Elm Street. Some of these vaults and conduits are directly adjacent to the former Midtown Properties foundations walls.

2.3.4.4 Natural Gas: Rochester Gas & Electric

Rochester Gas & Electric (RG&E) provided natural gas service at five locations within the former Midtown Properties (4 services entered various buildings and 1 service entered the City's Midtown Parking Garage Level A.) As part of the building demolition contract, RG&E will remove all meters and disconnect all services at the gas main to the former Midtown Properties and City's Midtown Parking Garage.

All natural gas mains are located outside the perimeter of the former Midtown Properties buildings and parking garage footprints. The gas mains are located in street rights-of-way adjacent to the project area including Chestnut Street, Euclid Street, Atlas Street, East Main Street, South Clinton Avenue, and Broad Street. The locations of the RGE natural gas mains are shown on Drawings UT-01 and UT-02 in Appendix I.

2.3.4.5 Cable: Time Warner Cable

Time Warner Cable (TWC) provided co-axial cable service to various buildings within the former Midtown Properties. TWC also served Xerox through conduits and a 48 pair fiber located in the truck service tunnel and City's Midtown Parking Garage Level A. Prior to the building demolition contract TWC relocated all of their facilities out of the former Midtown Properties and into various street rights-of-way. TWC also completed a new separate service to Xerox, bypassing the former Midtown Properties. All services to the former Midtown Properties were terminated.

Conduits are located along Euclid Street and Broad Street and also cross South Clinton Avenue, Chestnut Street, and East Main Street. The locations of the conduits are shown on Drawings UT-01 and UT-02 in Appendix I.

2.3.4.6 Communications: Fibertech Networks

Fibertech Networks (Fibertech) provides a data communication fiber network along Main Street, Broad Street and Chestnut Street. The fiber is generally located within conduits leased from RG&E. Fibertech does own a separate conduit near the intersection of Chestnut Street and Broad Street. The locations of the conduits are shown on Drawings UT-01 and UT-02 in Appendix I.

2.3.5 Public Utilities

2.3.5.1 Domestic & Fire Water Service - Rochester Bureau of Water

The City of Rochester, through the Rochester Bureau of Water (formerly the Rochester Water Works and hence still referred to as "RWW"), provides domestic drinking water and high pressure fire service (through the Holly System) to the City of Rochester. These are two separate systems, both owned and operated by RWW. The Holly System is a high pressure system connected to the Holly Pump Station and available for fire suppression within most of the downtown area.

The RWW distribution system around the former Midtown Properties includes the following:

- 20-inch domestic and 12-inch Holly along East Main Street
- 12-inch domestic and 12-inch Holly along South Clinton Avenue and Chestnut Street
- 6- and 8-inch domestic and 12-inch Holly along Euclid near East Main Street

- 8-inch combined fire and domestic along Euclid, Atlas and Elm Streets

Small garden sprinklers are also located along the south side of East Main Street to water street landscaping. The locations of the RWW service connections and water mains are shown on Drawings UT-01 and UT-02 in Appendix I.

Through the City's water distribution system, domestic and fire service water was provided to various buildings within the former Midtown Properties, the City's Midtown Parking Garage and the truck service tunnel. The former Midtown Tower and former Seneca Building had domestic water pressure booster pumps. City domestic system pressures appeared to be adequate for other areas. The former Midtown Tower and former Seneca Building also utilized electric fire pumps. Holly system pressures appeared to be acceptable for fire protection in other areas.

As part of the building demolition contract, the individual domestic and fire services will be terminated, with the exception of the private 8-inch domestic service located in Level A of the garage to service the former Midtown Tower and the Holly fire service system to the garage.

The Holly (fire) system feeds the City's Midtown Parking Garage from three locations (South Clinton Avenue/Broad Street; Chestnut Street/Broad Street and Atlas Street). Within the parking garage, the three fire service mains interconnect. Check valves and 1-inch bypass meters are located in vaults at each of the Holly service connections where the main enters the former Midtown Properties Complex. RWW considers the fire service mains located after these meters as private. These fire service lines were previously maintained by the former Midtown Properties.

The Holly meter vaults and the private 10-inch fire service entering from South Clinton Avenue and Chestnut Street are all located under the floor of Midtown Parking Garage Level C, outside and directly north of the steam utility tunnel. The private 10-inch fire service directs water to risers serving the garage and the former Midtown Tower. The former 24-inch water main located within the steam utility tunnel chase has been abandoned.

As part of the building demolition contract the 10-inch Holly main entering from Atlas Street will be abandoned and disconnected at the northeast corner of the garage. This fire service generally served the sprinklers in the truck service tunnel and the Euclid Building. Also as part of the building demolition contract, fire service riser pipes previously serving the buildings above the garage will be terminated.

2.3.5.2 Sanitary and Storm Sewers: Rochester Pure Waters District

Monroe County Pure Waters (MCPW) Rochester Pure Waters District (RPWD) operates and maintains public sewers in the City of Rochester under a lease agreement. As with many older cities, the sewer is a combined storm and sanitary system. Sanitary and storm flows from the City collection systems are directed to the Frank E. Van Lare Waste Water Treatment Facility (Van Lare WWTF) located along the

south shore of Lake Ontario near Durand Eastman Park. The collection and trunk sewer system also utilizes a storage/conveyance tunnel system to intercept combined sewer overflows.

In the project area, the RPWD sewer mains are generally located in the center of the streets. The combined collection system around the former Midtown Properties includes the following:

- a. 30-inch RCP along East Main Street, flowing westerly
- b. 2' x 2.5' stone box, Type 2 along South Clinton Avenue, north of the truck service tunnel, flowing northerly to East Main Street
- c. 18-inch RCP along South Clinton Avenue, south of the truck service tunnel and north of Broad Street, flowing southerly to Broad Street (an abandoned 2'x2.5' stone box sewer is abandoned in this location).
- d. 24- and 36-inch along Broad Street, west of South Clinton Avenue and flowing westerly
- e. 12- and 15-inch VT and RCP along Atlas and Euclid, generally flowing north and west to East Main Street
- f. 18-inch VT along Elm Street flowing easterly to Chestnut Street
- g. 12- and 24-inch VT along Chestnut Street flowing northerly to East Avenue

Closed circuit television inspection was completed by the RPWD for sewers adjacent to the project area for Items a, c, and e to assist in locating potential lateral connections. Item b could not be televised as the camera could not enter the manhole due to a protruding lateral. The RPWD indicates the sewers televised are in good or adequate condition. The video inspection identified numerous service lateral connections to the RPWD sewers from the former Midtown Properties, the truck service tunnel, various utility vaults and the City's Midtown Parking Garage. The location of the RPWD service connections and mains are shown on Drawings UT-01 and UT-02 in Appendix I.

A portion of the original sewer along the former Cortland Street rights-of-way remains in service. The sewer is located under the truck service tunnel floor and accepts sanitary and storm flows from several private laterals within the former Midtown Properties and storm drains within the truck service tunnel. In addition, records indicate a service connection from the City's Midtown Parking Garage. This existing sewer is considered private by RPWD, and was owned and maintained by the former Midtown Properties. The original 24-inch vitrified tile Cortland sewer was constructed circa 1930. Based on closed circuit television inspection completed by the RPWD it appears the original pipe was replaced with cement lined steel with welded joint connections. The sewer is in relatively good condition and is being used during the demolition contract to handle the stormwater discharge from the long term temporary stormwater management facilities.

In addition to the sewers in the street rights-of way, there are sanitary and storm sewers hung from the City's Midtown Parking Garage Level A ceiling (garage roof slab). These include the following:

Broad Street Storm

Broad Street is constructed over the City's Midtown Parking Garage. As a result, the storm drainage network, including catch basins, along Broad Street between Chestnut Street and South Clinton Avenue is incorporated in Level A of the garage. There are two separate drainage networks for Broad Street, the east section near South Clinton Avenue and the west section near the former taxi stand for the former Midtown Properties. For both systems, the catch basins are sumps located within the garage roof and the discharge piping is hung from the garage's Level A ceiling.

Each system drains westerly and discharges to the combined sewers along South Clinton Avenue. The east drainage system is conveyed by a 10-inch CIP through the west wall of the garage. The west system appears to tie into a building service main from the former Midtown Tower and is conveyed by a 14-inch CIP through the west wall of the garage.

Former Midtown Tower

Sanitary and storm sewer piping systems from the former Midtown Tower are hung from the garage's Level A ceiling. The Tower is served by two separate systems. A 14-inch and 12-inch sewer, each of which drains westerly and discharges to the combined sewers along South Clinton Avenue. These two pipes exit the property through the west wall of the garage.

Former Midtown Properties

Multiple sewers are hung from the garage's Level A ceiling. Many of these served the former plaza and buildings above. Catch basins serving the former plaza loading docks along Atlas Street are located within the garage roof and the discharge piping is hung from the garage's Level A ceiling. Several of these pipes discharge easterly to sewers in Atlas and Elm Streets.

Below Level C, the garage has perimeter drainage and slab underdrain systems. Portions of the existing truck service tunnel drainage tie into the garage perimeter drain system, as do the floor drains for garage Levels A and B. The RDH utility tunnel chase drains to the slab underdrain system. The garage perimeter drains and underslab drainage flow by gravity to a sump pump located at the west wall of the garage and are discharged by force main to the RPWD sewers along South Clinton Avenue.

2.3.5.3 Fiber Optics: Monroe County

Monroe County has fiber optic lines which run within the RG&E duct bank along the south side of East Main Street. All fiber is located outside the building footprint and no services were provided to the former Midtown Properties. Fiber optic lines encased in PVC conduits are also located along Broad Street, west of South Clinton Avenue. The existing fiber optic lines will be maintained as part of the project.

TABLE 2-7 SUMMARY OF EXISTING UTILITY TYPES

Owner	Type
Rochester District Heating Co-Operative	Underground Steam
Frontier Communications of Rochester	Underground Telephone Copper & Fiber
Verizon Business	Underground Telephone
TW Telecom	Underground Telephone - Fiber
Rochester Gas & Electric	Underground Electric and light poles
Rochester Gas & Electric	Natural Gas
Fibertech Networks	Underground Communications – Fiber
Time Warner Cable	Underground Cable
Rochester Bureau of Water	Domestic & Fire Water Service
Rochester Pure Waters District	Sanitary & Storm Sewers
Monroe County	Underground Traffic Control
Monroe County	Fiber Optics
Rochester Street Lighting Bureau	Underground Electric & Poles for street lighting

2.3.6 Railroad Facilities

There are no railroads within the project limits and no at-grade crossings within 1 mile that could impact traffic conditions.

2.3.7 Landscape and Environmental Enhancement Opportunities

2.3.7.1 Landscape

Along the perimeter of the project, the streetscape includes limited tree plantings. No open or landscape spaces exist interior to the project – it is currently all buildings (the former Midtown Mall).

Main Street has a distinctive and consistent design look. City form-based code and guidelines outline the dimensions, standard amenities and treatments along Main Street. Light poles with banners, round planters, benches, bus shelters, tree grates and pavements are all consistent. Section 120-61 of the zoning regulations states,

“Main Street is the most important civic/commercial street in the Center City District (CCD) and should be designed as the primary public ceremonial route in the City. Main Street has several design character objectives. The pedestrian zone is envisioned to include the most generous sidewalks and outdoor public gathering/plaza spaces. The pedestrian zone should be well delineated from the vehicular zone. Well-defined pedestrian crossings should be considered a design priority. Special paving design at intersections should be considered to enhance the pedestrian experience and the stature of Main Street. The existing collection of unique street amenities (light standards, benches, bus shelters, banners, etc.) should be maintained to clearly distinguish Main Street from all others in the CCD. Appropriately sized and spaced deciduous street trees should be integrated into the design of the pedestrian zone to enhance separation and provide comfort.”

2.3.7.2 Opportunities for Environmental Improvements

The project presents an opportunity to provide increased tree plantings and public landscaped open space.

2.3.7.3 Areaways

There are numerous areaways within the project limits. These areaways are located within the Euclid Street, Atlas Street and Elm Street rights-of-way. Refer to Appendix IX for details.

2.3.8 Underground Parking Garage

2.3.8.1 Configuration

The Midtown Parking Garage is a three level underground parking facility constructed in 1960 as part of an indoor shopping plaza and office tower complex. The structure predominantly has a rectangular footprint. Overall, the garage is 547 feet in the north/south direction and 556 feet in the east/west direction. The garage column bays are predominately 30' long in the north/south direction and alternate between 25' and 30' long in the east/west direction. The floor area per level is approximately 255,000 square feet.

The garage's structural framing is constructed of cast-in-place, reinforced concrete slabs, beams, columns and walls. The Level A and B elevated floors are 9" thick, two-way flat slabs with drop panels with a 1 ¾" minimum low slump concrete overlay. The Level C floor is comprised of a 5" concrete slab on grade with a 1 ½" asphalt overlay wearing surface. The roof, which doubles as the Mall Level floor, is the same construction as the elevated floor levels. Beams are introduced between column lines to accommodate depressing the roof slab under Broad Street and Atlas Street and prior bus terminal. The roof slab is 12" thick at the Mall Level and 13" thick where depressed under the streets. The columns and walls are founded on bedrock.

The garage structure is divided into four quadrants by expansion joints running north/south and east/west. Vehicle entry/exits ramps are located at Broad Street, Clinton Avenue, Court Street and Chestnut Street. Outside of the garage footprint, the entry/exit ramps are bounded by cast-in-place, reinforced concrete retaining walls.

Stair towers and elevators are located around the perimeter of the garage. An elevator tower is located in the center of the garage to provide access to the former office tower and plaza Mall Level.

2.3.8.2 Capacity

The garage has a total parking capacity of 1,773 vehicles. Broken down by parking level, the number of parking spaces is as follows:

- 547 spaces on Level A
- 583 spaces on Level B
- 643 spaces on Level C

The structural capacity of the parking garage roof slab (Mall Level) and elevated floor slabs (Level A & B) is based on the following design live loads:

- 12" roof slab – 250 psf or AASHTO H15 truck (one per bay)
- 13" depressed roof slab (under streets) – AASHTO HS20 truck with 36 ton maximum weight
- 9" elevated floor slabs – 75 psf

2.3.8.3 Structural Condition

Since the original construction, previous garage repairs and improvements have been performed under various contracts, including:

- Structural concrete repairs to floor slabs, beams, columns and walls
- Traffic grade membrane system installation
- Expansion joint replacement
- Fire protection and ventilation improvements

In May 2008, Walker Parking Consultants performed a field survey of the parking garage facility and prepared a "Midtown Parking Structure – Condition Appraisal." The survey considered structural elements, safety concerns, waterproofing and a limited review of the electrical and mechanical items in the garage. As a result of Walker's field survey, emergency action was undertaken to install temporary shoring steel bents along Column Line H between Columns 5 and 6 on all three floor levels. This action was prompted by the extensive deterioration observed to these concrete columns (located under an

actively leaking expansion joint). Walker's "Condition Appraisal" is a supporting document but not included with this Design Report.

In August/September 2010, LaBella Associates performed a condition survey of the Midtown Parking Garage facility. The condition survey addressed structural, mechanical and electrical components. Structurally, the garage is in good condition. In general, the condition survey revealed concrete deterioration of various degrees to all concrete structural components, leaking expansion joints and debonding & deterioration to the floor topping traffic grade membrane system. See Appendix IV for detailed results of the condition survey.

2.3.8.4 Fire Suppression Systems

The fire suppression system that protects the Midtown Parking Garage is fed from the Rochester Bureau of Waters' high pressure fire service or "Holly System." The Holly system enters the garage at three vault locations at South Clinton Avenue/Broad Street; Chestnut Street/Broad Street; and Atlas Street where they become the property of the City of Rochester. Fire protection mains then feed from these vaults to a point where they merge at a location in the middle of the 'C7' drive lane, just west of Sprinkler Riser Room 312. There are three isolation valves buried below grade in valve boxes at this location which allows any one of the three fire mains to be isolated by shutting the valve at the street and at the valve box (this shuts down any sprinkler riser located between those valves). This arrangement also allows the ability to shut down the water supply from any vault while still maintaining water supply to all the sprinkler risers.

The fire suppression system feeding from the Sprinkler Riser Room consisted of the following:

- Wet pipe sprinkler mains feeding the former Midtown Plaza and Midtown Towers
- Dry pipe sprinkler systems for the Midtown Parking Garage
- Dry pipe standpipe systems for the Midtown Parking Garage
- Fire supply lines from fire department connections at street level

The parking garage Levels A, B, and C and the current truck service tunnel are protected by dry pipe sprinkler systems which are fed from twenty-five (25) dry pipe sprinkler risers. These risers are strategically located in eleven (11) Sprinkler Riser Rooms located around the perimeter of the garage and in the center of Level C. The service tunnel is protected by two dry pipe risers located in a Sprinkler Riser Room located on A Level near the loading dock. The risers on the garage perimeter also have a feed from fire department connections at street level which are maintained dry. Also feeding out of these perimeter rooms, are wet pipe risers that fed the former Midtown Plaza and the Midtown Tower wet pipe sprinkler systems.

Water enters the various sprinkler riser rooms from fire protection mains located below grade. These water mains then feed the sprinkler room's dry pipe risers, their associated dry pipe sprinkler systems and the water supply risers feeding the wet pipe systems that were part of the Midtown Tower and former plaza. These water supply mains were heat traced and insulated where they were exposed to freezing at the various garage levels they passed through.

Each sprinkler room has an air compressor which is connected to the dry pipe riser assemblies providing the required air pressure to maintain the dry pipe systems air pressure.

For the dry pipe systems to remain active during parking garage modifications, the associated heat tracing systems, air compressors, alarm devices, and room heating elements must remain active.

There are very little wet pipe sprinkler systems visible in the parking garage facility. The existing wet pipe system feeding out of the sprinkler riser rooms should be isolated, drained at their base and the riser maintained for future use.

The standpipe hose system appears to be a dry pipe system fed from the various riser systems.

It should be noted that these are the original fire protection systems installed when the garage was built in 1960. They may no longer meet today's codes and should have a full in-depth evaluation done based on design NFPA and the City of Rochester's requirements. At a minimum, all heads should be changed out due to age, corrosion and possible recalls.

For a more detailed description of the garage fire suppression system, see the Midtown Parking Garage Condition Survey Report in Appendix IV.

2.3.8.5 Ventilation Systems

The ventilation requirements for the garage are being provided by various supply fans and exhaust fans located throughout the parking garage facility. There are six (6) main shafts, labeled 'Shaft A' through 'Shaft F'. Each shaft is dedicated to either intake air or exhaust air.

The central core, consisting of the former plaza escalators, lobby, and garage administrative areas, is ventilated and air-conditioned. This area was supplied through an air handling unit and cooling coil connected to a condensing unit, which is located in a fenced area on Level A. There are various air distribution systems (ductwork) located on Level A and Level B. Level C supplies and exhausts air through large supply and exhaust grills mounted directly on the shaft walls. A visual examination of the systems indicated that all systems have been shut down.

Various condensing units which serviced air conditioning systems or refrigeration systems above the garage are scattered throughout Level A. These have been decommissioned and require removal.

Electric heating elements (i.e., unit heaters, baseboard radiators, and heat tape) provide freeze protection for mechanical spaces. The functionality of these units could not be determined.

For a more detailed description of garage HVAC system, see the Midtown Parking Garage Condition Survey Report in Appendix IV.

2.3.8.6 Electrical Systems

Electrical Distribution. The electrical distribution system in the parking garage facility is in good condition, with a major upgrade to the distribution components performed approximately in Year 2000. The distribution system supplies power for the various systems serving the garage space, such as the HVAC and lighting systems. The system should have a significant remaining serviceable life.

Lighting. Lighting throughout the garage is handled by a combination of high pressure sodium HID lighting and linear fluorescent luminaires. While lighting levels appeared adequate, luminaires are in poor condition and in need of maintenance or replacement. Lighting control is handled by a relay control system from Year 1991, which provides basic on-off control, as well as the ability to lower lighting levels by switching off one-half of the luminaires in an area. While the system itself is functional, the age of the unit makes serviceability difficult.

Fire Alarm. Fire alarm and detection is provided by a Simplex 4100 fire alarm control panel installed in 1991. The notification appliances are non-ADA compliant, do not provide adequate coverage, and are in poor condition. Due to the age of the control panel, replacement parts are becoming increasingly difficult to obtain. The system is generally in poor condition, and requires either system improvements or complete system replacement.

For a more detailed description of the garage electrical systems, see the Midtown Parking Garage Condition Survey Report in Appendix IV.

2.3.9 Service Tunnel

2.3.9.1 Configuration

A truck service tunnel located under the former Midtown Plaza provided underground delivery access to the various buildings within the former Midtown Properties. The tunnel extends to South Avenue through the Seneca Building basement level and currently provides for underground deliveries and some reserved parking for other connected facilities outside the former Midtown Properties. The only ingress and egress to the service tunnel is from Atlas Street, located at the northeast corner of the former Midtown Plaza complex. The tunnel alignment “hugs” the north perimeter wall of the Midtown Parking Garage and makes a 90 degree turn to the north to follow the east foundation wall of the Seneca Building (traffic at this corner is controlled by a signal, owned by the City and operated by MCDOT). The opposite tunnel wall was the building foundation wall of the former McCurdy’s building. At the 90 degree turn, there was a 90 feet by 80 feet loading dock area.

The 2010 Midtown Plaza - Demolition and Site Preparation contract proposes to demolish the tunnel roof and the former McCurdy's building's foundation walls, leaving the tunnel floor exposed, but still operational, for continued deliveries to facilities outside the former Midtown Properties. The re-built service tunnel will be on an improved alignment that will no longer require the existing traffic signal.

2.3.9.2 Capacity

The truck service tunnel has the vehicular capacity to maintain two traffic lanes (one in each direction).

2.3.9.3 Structural Condition

After the 2010 Demolition contract, the previous tunnel floor's concrete slab-on-grade is all that will remain under the former Midtown Plaza site. Being covered with brick pavers, the structural condition of the slab is not able to be determined.

The truck service tunnel access opening at the Seneca Building east foundation wall has a 12'-3" minimum vertical clearance. The reinforced concrete beam spanning the opening shows evidence of having been previously impacted by vehicles.

Near the service tunnel overhead door at the Seneca Building west foundation wall, a steady stream of water leaking into the tunnel from the Clinton Avenue area has been observed for several years.

2.3.9.4 Fire Protection

The previous truck service tunnel was protected by two dry pipe sprinkler systems, S-24 and S-25, located in the Sprinkler Riser Room 125, located on the parking garage's A Level beside Stair No. 4. These risers are fed below grade off a tee fed from the fire main that runs between the Atlas Street Vault and the sprinkler riser system located in Sprinkler Riser Room 302 on C Level. These mains feed the main service tunnel off Euclid Street and the Cortland Tunnel between the old McCurdy's and Seneca Buildings. The Clinton Street truck tunnel, which runs under the Seneca Building, is fed from the Seneca Building fire suppression system and is presently active. This system will now be maintained as part of the City of Rochester's Midtown Parking Garage fire system.

2.3.9.5 Ventilation

The ventilation for the previous truck service tunnel was being provided by a supply air fan located in the northern section of the service tunnel area and an exhaust fan located adjacent to the former Midtown Plaza loading dock area in the tunnel. Exhaust air was collected below the loading dock and transferred through underground duct.

CHAPTER 3 ALTERNATIVES

3.1 Alternatives Considered and Eliminated from Further Study

A number of alternatives were investigated during the preliminary design phase. The investigation included an analysis of the relative advantages and disadvantages of each. Identified below is a listing of those alternatives that have been considered and subsequently eliminated from further study.

- Truck Service Tunnel Alternatives: Nine (9) distinct alternatives were identified and evaluated. Each alternative was evaluated based on their relative advantages and disadvantages regarding the following: traffic operation, cost, right-of-way acquisition, environmental impact and affect on proposed development parcel(s). A summary of the truck service tunnel investigation is included in Appendix VIII, including the rationale for eliminating each alternative from further consideration.
- Combined Parcels 4, 5, and 6: As part of the preliminary design, an alternative was developed which modifies the overall street layout and parcel sizes from that which was originally envisioned in the generic environmental impact statement. In developing this plan, Parcel 5 was expanded in size from 0.76 acres to around 1.12 acres. In addition, this alternative eliminates Future Road C and Future Road D and absorbs Parcel 6 into the overall footprint of the site. Refer to Appendix VIII for a schematic drawing of this alternate.

This specific alternative was eliminated from further consideration for several reasons. First, the alternate modifies the proposed site plan which has previously undergone extensive inter-agency review. Second, the redesigned street network represents a significant departure from the site plan developed as part of the generic environmental impact statement and may require additional environmental review. And third, this alternate would eliminate a development parcel (Parcel 6).

- Future Road C between Future Road A and Future Road D as a Pedestrian Corridor: This alternate examined the possibility of eliminating Future Road C in favor of a pedestrian corridor. Refer to Appendix VIII, for a schematic diagram of this alternate. The City's preference is to maintain Future Road C as a street in accordance with the original intent of the Generic Environmental Impact Statement. The development of a street network surrounding the open space parcel in the center of the site was considered important in the Section 106 (cultural resource) review conducted by the New York State Office of Parks Recreation and Historic Preservation. Therefore, this alternate has been eliminated from further consideration.

- Future Road C between Future Road D and Main Street as a Pedestrian Corridor: This alternative examined the development of a pedestrian corridor within the existing right-of-way for Euclid Street that is adjacent (west) of the Bank of America building. This section of Euclid Street would be removed in order to construct a pedestrian corridor. At this location, Euclid Street is currently a one-way (northbound) alleyway and it is anticipated that once the road is removed, the right-of-way would be narrowed from 66 feet wide to 25 feet. An off-street parking area was anticipated adjacent to the Bank of America Building to mitigate impacts for deliveries and access and would be subject to acceptance of maintenance responsibilities by the benefitting properties. This alternate has been eliminated from further consideration due to the limiting effect on circulation within the site, impacts to deliveries and other necessary daily functions at adjoining properties, and the narrowed right-of-way has significant and costly impacts on public utilities.
- Pedestrian Corridor as a Road: Under this alternate, the pedestrian corridor identified between parcels 2 and 3 would be developed as a street extending between Broad Street and Future Road A. The street right-of-way would be established at 48 feet to accommodate 10 foot travel lanes, 7 foot parking lanes (both sides) and 7 foot sidewalks (both sides). The eastern highway boundary has been established to coincide with the steel framing expected to remain as part of the adaptive reuse of the Midtown Tower site (Parcel 3). Consequently, the road centerline would be offset from the Future Road B centerline by approximately 58 feet. The entire length of the road (approximately 340 feet) would be located directly above the existing underground parking garage roof. To facilitate AASHTO HS20 vehicle loading on the new street, the garage roof slab will need to be reconstructed. This alternate has been eliminated from further consideration due to the significant cost to reconstruct the roof of the underground parking garage and potential traffic conflicts created on Broad Street across from the entrance and exit to the underground parking garage.

3.2 Feasible Build Alternatives

3.2.1 Description of Feasible Alternatives

As described in Chapter 2 (Section 2.1 - Project History) the City has been moving forward with the redevelopment of the Midtown site over the last four years. The “build alternative” has been determined to be the appropriate course of action and is justified based on goals established in the Urban Renewal Plan. Therefore, the purpose of this chapter is to examine the details of the “build alternative” including a subset of alternates that may or may not be chosen by the City to be constructed as part of the project.

The “build alternative”, when constructed, will support the redevelopment of the site into seven distinct development parcels. Two of those parcels (Parcel 1 and Parcel 3) are being considered for development by PAETEC (corporate headquarters) and Morgan/Christa Development (Midtown Tower adaptive reuse). A third proposal has been proposed and involves the construction of a Performing Arts Center. Consideration is being given to accommodating this facility on Parcel 5.

Base Project:

Site: Placement of embankment material will be necessary to bring the Midtown site up to grade prior to the commencement of road and utility construction. Approximately 29,500 cubic yards of embankment material will be needed to raise the site elevation approximately 19 feet (in certain areas). The embankment will be placed in accordance with the NYSDOT standard contract pay Item 203.03, Embankment-In-Place.

Internal Street Grid : In general, the internal street grid has been developed in accordance with the preferred street grid and parcel layout identified in the Generic Environmental Impact Statement (GEIS). Table 3-1 summarizes the proposed development parcel acreages (as depicted on drawing BP-01, Appendix I.) as compared to the preferred layout from the GEIS:

TABLE 3-1 PROPOSED DEVELOPMENT PARCELS

Parcel Number	Area (acres) (Midtown DGEIS)	Area (acres) (Current Proposal)
1	1.692	1.859
2	0.670	0.790
3	1.492	1.687
4	0.330	0.268
5	0.706	0.933
6a / 6b	0.948	0.239 / 0.207
7	0.382	0.337
Total	6.220	6.320

Refer to Appendix I for plans, profiles and sections of the proposed internal streets.

The possibility of constructing a new Performing Arts Center on the Midtown site has always been a consideration and still is. The likely location for the Performing Arts Center is Parcel 5. The base plan, which is more fully described in the following sections, maximizes the size of this parcel within the overall street network envisioned for the project.

An effort has been made to maximize the accommodations for pedestrians within the district. Street rights-of-way have been established to facilitate the construction of wide (8 to 20 ft. wide) sidewalks for pedestrian mobility around the district. The internal streets typically utilize 11 foot wide travel lanes and 8 foot wide parking lanes. Right-of-way widths range from 48 feet to 66 feet. The street grid incorporates curb bump outs at many of the intersection quadrants to reduce pedestrian crossing distances where crosswalks are proposed. Approximately 164 on-street parking spaces are currently shown on the plans for the new internal street grid (Appendix I).

At this time, the pavement design is the City of Rochester's medium-duty asphalt pavement section.

A description of the internal street grid follows:

- Future Road A – Future Road A is an east/west street running through the center of the Midtown site from South Clinton Avenue on the west to Atlas Street on the east. The street right-of-way has been established at 66 feet wide. It aligns with existing Elm Street to form an east-west street through the site. The southern street boundary is located to coincide with the Morgan/Christa Development project site (Parcel 3). Approximately 375 feet of Future Road A is located directly above the underground parking garage. To facilitate vehicle loading, the garage roof slab will be strengthened and repaired, as necessary, to accommodate the new street.

At the Elm & Chestnut Street intersection, there is an existing underground parking garage exit ramp located on the north side of the street. This ramp will be relocated as part of the project to a point within the new underground truck service tunnel. This will provide a greater opportunity to develop the block between Chestnut and Atlas as a more prominent entrance into the site with wider sidewalks and increased parking opportunity (recessed parking on both sides of the street). Plus, eliminating the ramp should eliminate the need for turn restrictions at the signalized intersection at Elm & Chestnut. The disposition of the existing traffic signal at Elm and Chestnut will be determined in final design. At this time, it is assumed that it will be retained and upgraded as part of the Chestnut Street project.

- Future Road B – Future Road B will serve as a main entrance into the Midtown site from Main Street. The street right-of-way has been established at 66 feet wide. The western street boundary was established to coincide with the Seneca Building steel framework that is expected to remain as part of the PAETEC development on Parcel 1. The 66 foot wide right-of-way provides ample space for two 11 foot travel lanes, two 8 foot parking lanes and a minimum of 14 foot wide sidewalks. Future Road B will cross over the rebuilt truck service tunnel, and vertical separation between the street and tunnel is a design consideration. A new traffic signal at the intersection of Main and Future Road B is anticipated.

- Future Road C – Future Road C is proposed to extend from Main Street on the north to Future Road A. Future Road C would occupy the portion of existing Euclid Street right-of-way at Main Street (east of the Bank of America Building). The existing one-way northbound direction of travel will be reversed from its current direction to one-way southbound between Main Street and Future Road D. The existing right-of-way width at this location is 66 feet and the proposed right-of-way width is 56 feet with a 12 foot travel lane, two 8' parking lanes, and two 14 foot sidewalks. The portion of Future Road C between Future Road D and Future Road A will have two-way traffic. A 58 foot wide right-of-way is proposed which provides for two travel lanes, two 8' parking lanes, and two 13 foot (minimum) sidewalks.
- Future Road D – Future Road D is located between Future Road B and Future Road C directly to the north of the open space parcel (Parcel 4). The street right-of-way is established at 66 feet to accommodate two 11 foot travel lanes, two 8 foot recessed parking lanes, and two 14 foot wide sidewalks. It is anticipated that this road will be designed to enhance the open space with special consideration of materials and landscaping such that the road can be closed to enlarge the open space for special events.
- Future Road E – Future Road E extends from Broad Street to Elm Street. The right-of-way will be established at 60 feet to accommodate two travel lanes, two 8 foot parking lanes, and two 11 foot sidewalks. The entire length of the road (approximately 350 feet) is located above the underground parking garage. To facilitate vehicle loading, the garage roof slab will be strengthened and repaired as necessary to accommodate the new road.
- Atlas Street – Atlas Street is being reconstructed as a two-way street with 8' recessed parking along both curb lines, eight foot sidewalks and a 54' wide right-of-way. The existing centerline alignment has been shifted several feet to the west in order to provide a wider sidewalk (approximately 8 feet) along the existing building frontage on the east side of the street. The new underground truck service tunnel access point will remain on Atlas Street slightly north of its existing location.
- Euclid Street - Euclid Street will extend from Chestnut Street to Future Road C. The section between Chestnut and Atlas street (which is currently an alleyway with a 33 foot wide right-of-way) will remain one-way westbound. The curb-to-curb pavement width will be 16 feet with a 10 foot wide sidewalk on the south side and a 7 foot wide sidewalk on the north side. The section of Euclid Street from Atlas to Future Road C would be developed as a two-way street with a right-of-way width of 50 feet and recessed parking along the south side.

- Pedestrian Corridor - The planning process conducted as part of the Generic Environmental Impact Statement contemplated that this right-of-way may be developed as a corridor for pedestrians only. Under this scenario, the garage roof slab below would not require strengthening. A 48 foot wide right-of-way has been established for this pedestrian/open space corridor.

Adjacent Streets: Adjacent streets will be rehabilitated and/or reconstructed as part of the public improvements contemplated on this project. The following improvements are proposed:

- S. Clinton Avenue (Broad Street to Main Street) - S. Clinton Avenue will be rehabilitated. Included in the rehabilitation will be the replacement of sidewalks along the eastern side of the road adjacent to the Midtown site. The pavement will receive a mill and overlay treatment. It is anticipated that the existing curbs will remain. The existing southern curb bump-out will be moved slightly to the south to be integrated with the intersection of Future Road A. Consideration for removing the northern curb bump-out will be made during final design when more is known about the proposed PAETEC building entrances. Pavement markings will be installed to reestablish the existing lane widths - 8 foot parking lane (west side), 11 foot travel lane, 12 foot travel lane and 9 foot parking lane (east side), which is also used for bus standing. Other minor improvements will be determined during final design.
- Main Street (S. Clinton Avenue to East Avenue) – Main Street will be rehabilitated. Included in the rehabilitation will be the replacement of sidewalks with recessed parking added along the southern side of the street adjacent to the Midtown site. The pavement will receive a mill and overlay treatment. Pavement markings will be installed to reestablish the existing lane widths - 10 foot wide curb lanes for buses and right turns and 12 foot wide travel lanes. A new traffic signal will be installed at the Cortland Street intersection. Other minor improvements will be determined during final design.
- Broad Street (Chestnut Street to S. Clinton Avenue) - It is proposed to rehabilitate Broad Street over this section. As part of the street rehabilitation, traffic patterns will be changed (converted) from one-way westbound to two-way traffic flow.

From Chestnut Street to S. Clinton Avenue, Broad Street is located directly above the Midtown underground parking garage. Pavement rehabilitation will consist of removing the existing asphalt overlays down to concrete, applying a truing and leveling course and/or milling, as necessary, and replacing the existing 3 inch asphalt wearing service. Within this block, the typical section will consist of one travel lane in each direction (14 foot wide when adjacent to curb and 12 feet wide when adjacent to a parking lane) with a 12 foot wide center two-way left turn lane.

Auxiliary turn lanes will be incorporated at the Chestnut Street intersection approach while a second westbound through lane will be added at the S. Clinton Avenue approach. Drainage structures will extend through the garage roof slab with storm piping suspended from the underside of the roof (similar to existing). Recessed parking is provided on the north side of the street. The lane configuration for this block is consistent with the section of Broad Street located to the east of Chestnut Street (currently being designed).

- Broad Street (S. Clinton Avenue to South Avenue) – it is proposed to continue the rehabilitation of Broad Street westward to South Avenue. It is anticipated that this work will be completed in a second phase of the project. As part of the street rehabilitation, traffic patterns between S. Clinton Avenue and Bausch & Lomb Place will be changed (converted) from one-way westbound to two-way traffic. The section between Bausch & Lomb Place and South Avenue is already a two-way thoroughfare. It is anticipated that this portion of Broad Street rehabilitation will be completed in a second phase of the project.

Between S. Clinton Avenue and Bausch & Lomb Place, it is possible to rehabilitate the pavement and to salvage a significant portion of the curbs, sidewalks and drainage. The typical section will include two 12 foot travel lanes in the westbound direction with one 12 foot travel lane in the eastbound direction. Some curb relocation and sidewalk reconstruction is required along the south side of the road near to the Bausch & Lomb Place intersection. Auxiliary left turn lanes are provided at intersections with Stone Street and S. Clinton Avenue. Under this alternate, a new traffic signal would be installed at Stone Street and Bausch & Lomb Place. Traffic analysis suggests that a signal is still warranted at the Stone Street intersection when two-way traffic takes effect.

From Stone Street to South Avenue, it is possible to rehabilitate a significant portion of the pavement. It is anticipated that all of the outside curbs, drainage and sidewalks will be retained. The raised median will largely be rebuilt to accommodate the eastbound left turn (U-turn) at Stone Street and provide an opportunity to increase the westbound curb travel lane from 10 ft to 12 ft wide. The typical section will include two travel lanes (10 ft interior, 12 ft curb) in the westbound direction, two 10 foot left turn lanes in the westbound direction, a 2 foot raised median, one 12 foot travel lane in the eastbound direction and one 8 foot parking lane in the eastbound direction. The raised median will be modified to accommodate a left turn lane in the eastbound direction at Stone Street.

Refer to Appendix I, Drawing BP-02 for a schematic diagram.

Open Space: Centrally located within the Midtown Redevelopment site will be an “open space” dedicated for public use and assembly. The open space location coincides with the former Midtown Plaza atrium. The specific design of the open space will be accomplished in final design and will include a public participation component designed to include stakeholders in historic preservation and downtown development. Programming of the public space will be designed to commemorate or facilitate the types of public functions once served by the Midtown Plaza atrium space and should also foster an appreciation of the significance of the former atrium to the Rochester community.

Utilities: Public utilities (potable water mains, sanitary sewers, fire service – Holly system, storm sewers) will be constructed to service the Midtown Redevelopment site. These will be primarily located within the street right-of-way and will connect to existing facilities located on the adjacent streets. The presence of the existing underground parking garage and new truck service tunnel must be considered in the design and may require utility easements within these underground structures.

Underground Parking Garage: The proposed structural rehabilitation of the Midtown Parking Garage is based on Repair Scenario #1 outlined in the May 2008 “Midtown Parking Structure Condition Appraisal” prepared by Walker Parking Consultants. This repair scenario addresses concrete deterioration to structural members (floor slabs, beams, columns, walls and curbs and replacement of the leaky expansion joints extending under Broad Street and Atlas Street). The location of the street grid requires the elimination of some of the existing emergency egress stair towers and a ventilation exhaust shaft inside the parking garage. Modifications to the entrance ramp and exit ramp on Broad Street are necessary to accommodate the conversion of Broad Street to two-way traffic.

As noted, certain portions of the new street grid will be located on top of the existing garage roof slab. The existing 12 inch reinforced concrete slab load carrying capacity is not adequate to carry highway loading. Therefore, it will be necessary to strengthen (and in some cases reconstruct) the roof slab to carry an AASHTO HS20 live load design vehicle and the weight of the roadway construction materials. Refer to Drawing ST-01 in Appendix I for the location of roof slab reconstructions.

Within the garage, the air handling equipment (fans and fan motors) are past their useful life and considered inefficient by today's energy standards, and replacement is required. Some of the ventilation shafts will be removed or modified dependent on the final parcel and road configurations. The ductwork condition is acceptable. Also, the garage will require a heat source, as much of the former plaza structure above the garage will be removed. Initial projections are that the heat requirements will be minimal.

Fire suppression systems, such as the existing 25 dry pipe sprinkler riser systems and dry pipe standpipe/hose cabinet systems, will require replacement and/or modifications to maintain proper coverage per code.

Interior plumbing systems, such as domestic water, sanitary/waste, vent and storm piping, will require upgrades and/or modifications.

The project includes the construction of a pedestrian link tunnel to serve the proposed PAETEC Corporate Headquarters on Parcel 1. This will provide direct access to the existing parking garage facility. The tunnel will originate at a stair tower/elevator lobby within the footprint of PAETEC's building (southeast corner) and follow the west perimeter wall of the underground truck service tunnel under Cortland Street en-route to the parking garage. The tunnel will access the parking garage at Level A. A new independent elevator shaft is proposed to be installed to service garage parking Levels A and B. Drawings ST-06 and ST-07 in Appendix I depict the pedestrian tunnel alignment and details.

A new pedestrian stairwell from ground surface to the underground garage will be constructed on Parcel 6b.

Underground Truck Service Tunnel (general): The project will include the reconstruction of the truck service tunnel that was removed as part of the 2010 Midtown Plaza – Demolition and Site Preparation contract. It is anticipated that the new service tunnel will provide underground service access to PAETEC (Parcel 1), Morgan/Christa's Midtown Tower (Parcel 3), as well as future development on Parcel 5 and Parcel 6. The existing tunnel located beneath the Seneca Building (PAETEC's Parcel 1) running westward to the Rochester Convention Center will remain.

A number of different tunnel alignments were investigated as part of preliminary design. Included in Appendix VIII is a description of the tunnel alignment alternatives that were considered and eliminated from further study. The preferred tunnel alignment is shown on the Base Plan and Drawings ST-04 and ST-05 contained in Appendix I. It has been designed to provide a straight alignment to access existing and future underground loading docks beneath the former Midtown site. The new tunnel alignment will not require a traffic signal (as was the case in the former service tunnel). The tunnel access ramp is located on Atlas Street just north of the current location.

Some of the design parameters associated with the service tunnel are as follows. The design truck for the reconstructed tunnel portion is assumed to be an AASHTO 18-wheel tractor-trailer (WB-50). The design vehicle for the remaining portion of the tunnel from the Seneca Building westward, will continue to be a single unit 10-wheel truck (flatbed "haul-away" truck) used for the Rochester Convention Center dumpster removal. The geometric design criteria for the tunnel will utilize a 30 foot minimum wall-to-wall horizontal clear opening, a 14 foot minimum vertical clearance floor-to-ceiling and a 15% maximum ramp/tunnel slope. The tunnel will include the installation of a new dry pipe sprinkler system, as well as a heating and ventilation system.

Restoration of Undeveloped Parcels: Parcels 2, 5, 6, and 7 require temporary surface restoration pending future redevelopment. Parcel 2 which is entirely over the underground parking garage and the portion of Parcel 6 over the underground parking garage are to receive a waterproof membrane and 2" asphalt overlay. Parcel 5 and the portion of Parcel 6 not over the parking garage are to receive topsoil and grass seed. Parcel 7 which is entirely over the parking garage is currently asphalt pavement which will remain.

Alternates Under Consideration:

There are no alternates under consideration.

3.2.2 Feasible Alternative Costs

Please reference Page 1-9 for Feasible Alternative Costs.

3.2.3 Preferred Alternative

Following further evaluation of the alternatives' impacts, comments on the draft design approval document, comments from the Midtown Advisory Committee meeting, and comments from the public meeting, a single feasible alternative has been identified and is the preferred Alternative. Refer to Section 3.2.1 Description of Feasible Alternatives for a description of the preferred alternative.

3.2.4 Design Criteria for Feasible Alternative(s)

3.2.4.1 Design Standards

The design criteria indicated in Table 3-2 has been developed in accordance with the following publications:

- Monroe County Geometric Design Standards
- NYSDOT Highway Design Manual (HDM)
- AASHTO A Policy on Geometric Design of Highways and Streets, 2004
- AASHTO Roadside Design Guide, 1996
- AASHTO Guide for the Development of Bicycle Facilities, 1999
- Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities
- AASHTO Guide for Planning, Design, and Operation of Pedestrian Facilities, 2004
- National Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), 2009 and the New York State Supplement

3.2.4.2 Critical Design Elements

TABLE 3-2 DESIGN CRITERIA (LOCAL ROADS)

New Street Grid (in accordance with HDM §2.7)					
PIN:		4755.25		NHS (Y/N): No	
Route No. & Name:		Cortland, Elm, Atlas, Plaza, Euclid		Functional Class: Urban	
Project Type:		New Local Streets		Design Classification (AASHTO Class): Local	
% Trucks:		3-5		Terrain: Level	
ADT:		< 2000		Truck Access /qualify Hwy.: No	
Element		Standard Criteria	Reference	Existing Conditions	Proposed Conditions
1	Design Speed (1)	30 mph		N/A	30 mph
2	Lane Width - Travel lanes (2) - Turn Lane - Curbed lane - Parking	12 ft des, 10 ft min 12 ft des, 10 ft min 14 ft des, 12 ft min 8 ft. des., 7 ft. min.	AASHTO	N/A N/A N/A	11 ft N/A 12 ft, 13 ft 8 ft.
3	Shoulder width	N/A		N/A	N/A
4	Bridge Roadway Width	N/A		N/A	N/A
5	Grade (maximum)	8% Commercial Areas		N/A	1.8%
6	Horizontal Curvature	75 ft (e =4.0% max)	HDM 2.7.4.2 E	N/A	150 ft.
7	Superelevation Rate	4.0% maximum	HDM 2.7.2.2 G	N/A	N/A
8	Stopping Sight Distance (Horizontal & Vertical)	115 ft minimum	HDM 2.7.2.2 H	306 ft and greater	115 ft and greater
9	Horizontal Clearance - With barrier (curb) - At Intersections - Without barrier	1.5 ft. 3.0 ft.. 10.0 ft	HDM 2.7.2.2 I	N/A	1.5 min 3.0 min. 10 ft
10	Vertical Clearance	N/A	N/A	N/A	N/A
11	Pavement Cross Slope - Travel Lane - Parking Lane	1.5% min, 2% max 1.5 % min. to 5% max.	MCDOT	Varies	2.0%
12	Rollover Between travel lanes At edge of traveled way	4.0% max 8.0% max	HDM 2.7.2.2 L	Varies Varies	4.0% max 8.0% max
13	Structural Capacity - Garage Roof	AASHTO HS20	NYS DOT Std. Specs.	AASHTO H15	AASHTO HS20
14	Pedestrian Accommodations (3)	5 ft	See Note 3	Varies	5 ft

(1) The MCDOT concurs with the selected design speed.

(2) AASHTO – Geometric Design of Highways and Streets provides guidance on lane widths. The use of 10 ft. minimum inside lanes are acceptable on low speed facilities. Engineering judgment is required to assess the importance of factors such as percentage of truck traffic, right of way constraints, capacity, and safety.

(3) Pedestrian facilities shall be designed in accordance with Americans with Disabilities Act (ADA) guidelines

TABLE 3-3 DESIGN CRITERIA (ARTERIALS)

Broad St., S. Clinton Ave., E. Main St. (in accordance with HDM §2.7)							
PIN:		4755.25		NHS (Y/N):		No	
Route No. & Name:		Broad, S. Clinton, E. Main		Functional Class:		Urban Minor Arterial	
Project Type:		Rehabilitation		Design Classification (AASHTO Class)		Urban Minor Arterial	
% Trucks:		5		Terrain:		Level	
ADT:		4700 to 12,900		Truck Access/Qualifying Hwy.		< 1.0 mile to Qualifying Hwy.	
Element		Standard Criteria	Reference	Existing Conditions	Proposed Conditions		
1	Design Speed (1)	30 mph	HDM 2.7.2.2 A	30 mph (posted)	30 mph		
2	Lane Width - Travel lanes (2) - Turn Lane - 2-way left turn Lane - Curbed lane - Bus lane (Main St.) - Parking	12 ft des, 10 ft min 12 ft des, 10 ft min 12 ft. min, 16ft. max 14 ft des, 12 ft min 8 ft. des., 7 ft. min.	AASHTO MCDOT	10ft, 11 ft & 12 ft. 10 ft N/A 10 ft, 11 ft. 10 ft. 8 ft. & 9 ft.	10 ft, 11 ft, 12 ft. 10 ft, 12 ft 12 ft 12 ft, 14 ft. 10 ft. 8 ft, 9 ft		
3	Shoulder width	N/A	N/A	N/A	N/A		
4	Bridge Roadway Width	N/A	N/A	N/A	N/A		
5	Grade (maximum)	8%	HDM 2.7.2.2 E	0.8%	0.8%		
6	Horizontal Curvature	282 ft @ e=4.0% max	HDM 2.7.2.2 F	N/A	950 ft.		
7	Superelevation Rate	4.0% maximum	HDM 2.7.2.2 G	N/A	4.0% maximum		
8	Stopping Sight Distance (Horizontal & Vertical)	213 ft minimum	HDM 2.7.2.2 H	N/A	213 ft and greater		
9	Horizontal Clearance (5) - With barrier (curb) - Intersections - Without barrier	1.5 ft 3.0 ft. 10 ft	HDM 2.7.2.2 I	2 ft 8.5 ft	1.5 min 3.0 min. N/A		
10	Vertical Clearance	N/A	N/A	N/A	N/A		
11	Pavement Cross Slope - Travel - Parking	1.5% min, 2% max 1.5 % min. to 5 % max.	HDM 2.7.3.2.L	2.6 %	2% (1.5% Broad) 2%		
12	Rollover Between travel lanes At edge of traveled way	4.0% max 8.0% max	HDM 2.7.3.2 L	Varies Varies	4.0% maximum 8.0% maximum		
13	Structural Capacity - Garage Roof	AASHTO HS20	NYSDOT Std. Specs.	AASHTO H15	AASHTO HS20		
14	Pedestrian Accommodations (4)	5 ft	See Note 4	Varies	5 ft min		

- (1) The MCDOT concurs with the selected design speed.
- (2) AASHTO – Geometric Design of Highways and Streets provides guidance on lane widths. The use of 10 ft. minimum inside lanes are acceptable on low speed facilities. Engineering judgment is required to assess the importance of factors such as percentage of truck traffic, right of way constraints, capacity, and safety.
- (3) Shoulder not normally provided in urban streets w/ curbs. A 2-4 ft curb offset is typically provided (14 ft wide shared use lane is typical).
- (4) Pedestrian facilities shall be designed in accordance with Americans with Disabilities Act (ADA) guidelines

3.2.4.3 Other Design Parameters

Additional design parameters were considered and are included in Table 3-4.

TABLE 3-4 OTHER CONTROLLING PARAMETERS

Element		Reference to Standard	Criteria	Proposed Condition
1	Design Vehicle - Internal Street Grid - Minor Arterials - Underground Garage - Tunnel	HDM Section 5.7.1 HDM Section 5.7.1 AASHTO	SU SU P WB-50	SU SU P WB-50
2	Level of Service (non-Interstate)	MCDOT	D Overall Intersection E Individual Movements v/c <1.0	D (min.) E (min.) v/c <1.0
3	Design Storm - Closed Storm Systems	HDM Chapter 8	10 Years	10 Years
4	Truck Service Tunnel: - Ramp Grade - Vertical Clearance		15% max. 14'-0" min.	11.5% max. 14'-0" min.

3.3 Engineering Considerations

3.3.1 Operations (Traffic and Safety) & Maintenance

3.3.1.1 Functional Classification and National Highway System

This project will not change the functional classification of the highways.

3.3.1.2 Control of Access

Existing and new streets within the project area will remain “with access.”

3.3.1.3 Traffic Control Devices

3.3.1.3. (1) Traffic Signals: The following traffic signal improvements are proposed as part of the project:

A new traffic signal will be installed at the intersection of E. Main St and Future Road B and paid for as part of the development project. The signal will be at approximately the same location as an existing signal for the pedestrian crossing between the former Midtown Plaza and the Sibley Building. The existing signal equipment will be removed and replaced with new signal poles, three-color signal heads, wiring and a new cabinet. Two signal heads will be provided for each approach. The new signal will be connected to the existing coordinated signal system along Main St. New pedestrian signal equipment will also be installed.

Signal warrants from the Manual on Uniform Traffic Control Devices (MUTCD, 2009 Edition) were reviewed regarding the proposed traffic signal at the Main St / Road B intersection. Based on the existing traffic counts along Main St and the projected trip generation from the Midtown site, it is not expected that a signal would be warranted at this intersection as a result of vehicular volumes (Warrants 1, 2, and 3: Eight Hour, Four Hour and Peak Hour volumes, respectively). Accident records were reviewed, and there are no apparent safety issues at this location. Therefore, Warrant 7: Crash Experience is not applicable. Other signal warrants such as Warrant 5: School Crossing, Warrant 6: Coordinated Signal System, Warrant 8: Roadway Network and Warrant 9: Intersection Near a Grade Crossing are also not applicable to this intersection. However, Warrant 4: Pedestrian Volume is expected to be met, as the intersection will continue to be an important pedestrian link between the Sibley Building and Midtown site.

At the Broad St / Chestnut St intersection, new signal equipment will be installed as part of the Broad / Court / Chestnut project, which will likely precede the Midtown Redevelopment project. Coordination has taken place during the design phase of both projects to ensure the intersection configuration is compatible. Coordination will be required through the construction phase to ensure the new signal cabinet, any necessary underground conduit and future eastbound signal pole, master arm and signal

heads are compatible with the two-way conversion of Broad St (west of Chestnut St) with minimal disruption.

The Chestnut St / Elm St traffic signal will be upgraded as part of the Broad / Court / Chestnut project. Most of the existing equipment is scheduled to remain, however a new controller will be installed. Consequently, the signal will operate from its own controller (it currently shares a controller with the Chestnut St / Broad St intersection). During final design, the Midtown Redevelopment project will coordinate with the Broad / Court / Chestnut project to confirm the ultimate disposition of this signal. It is expected that a signal will continue to be warranted at this intersection, considering the anticipated development of the Midtown site as well as the desire of Benderson Development (owner of the HSBC Building) to create an entrance to a surface parking lot opposite Elm St. The disposition of this signal will be determined during final design as more information becomes available regarding the development within the Midtown site and surrounding properties.

Phase 2 of the project, which includes the two-way conversion of Broad St between Clinton Ave and Stone St, would require additional signal work at the Broad St / Clinton Ave and Broad St / Stone St intersections. At Broad St / Clinton Ave, new signal equipment would be required for the Broad St eastbound approach, including signal heads, a pole and mast arm, wiring, and possibly a new cabinet. At Broad St / Stone St, the existing signal pole for the Broad St eastbound approach would need to be relocated from an existing splitter island to the adjacent sidewalk area. A new signal pole, signal heads, and wiring would be provided as needed. No signal work is anticipated at Broad St and South Avenue with the exception of detector loop installation.

3.3.1.3. (2) New signage will be installed along the proposed internal streets. The following new unsignalized intersections will be controlled with 'Stop' signs:

- S. Clinton Ave / Future Road A (Stop sign on Road A)
- Broad St / Future Road E (Stop sign on Road E)
- Broad St / Midtown Garage Ramp (Stop sign on ramp)
- Future Road A / Future Road B (Stop sign on Road B)
- Future Road A / Future Road C (Stop sign on Road C)
- Elm St / Atlas St (four-way stop; Stop signs at each approach)
- Atlas St / Euclid St (Stop sign on Atlas St)
- Euclid St / Future Road C (Stop sign on Euclid St)
- Future Road C / Future Road D (Stop sign on Road D)
- Future Road B / Future Road D (Stop sign on Road D)

New signage will also be provided (as needed) along the streets adjacent to the project site. New pole-mounted lane delineation signage will be installed at the Broad St intersections as part of the two-way conversion. All signage will conform to the current MUTCD (2009 Edition).

3.3.1.3. (3) Pavement Markings: New pavement markings including lane striping, crosswalks and parking delineation will be installed along the proposed internal streets. Pavement markings will also be installed as needed along the adjacent streets to be rehabilitated in order to establish travel lanes, turn lanes and delineate crosswalks. Pavement markings on Broad St are to match the markings proposed as part of the City's Broad – Court – Chestnut St project. All pavement markings will conform to the current MUTCD (2009 Edition).

3.3.1.4 Intelligent Transportation Systems (ITS)

ITS measures are not proposed as part of the project.

3.3.1.5 Speeds and Delay

The existing 30mph speed limit will be retained upon completion of the project.

3.3.1.6 Traffic Volumes

Future traffic volume projections (ETC+20) were presented in Section 2.3.1.6 and are repeated in the table below. Traffic volume diagrams are included in Appendix III.

Traffic Data

	Segment	Year	AADT	DHV	DDHV
Broad St	Stone St to S. Clinton Ave	Existing (2009)	6971	N/A	850
		ETC+20 (2032)	7808	N/A	952
	S. Clinton Ave to Chestnut St	Existing (2009)	4721	N/A	494
		ETC+20 (2032)	5288	N/A	553
Court St	Stone St to S. Clinton Ave	Existing (2009)	7311	664	444
		ETC+20 (2032)	8188	744	497
	S. Clinton Ave to Chestnut St	Existing (2009)	6572	N/A	668
		ETC+20 (2032)	7361	N/A	748
S. Clinton Ave	Court St to Broad St	Existing (2009)	15,398	N/A	1590
		ETC+20 (2032)	17,246	N/A	1781
	Broad St to E. Main St	Existing (2005)	12,953	N/A	1182
		ETC+20 (2032)	14,507	N/A	1324
E. Main St	S. Clinton Ave to East / Franklin	Existing (2009)	12,614	961	543
		ETC+20 (2032)	14,128	1076	608
	East / Franklin to Chestnut St	Existing (2009)	11,731	874	443
		ETC+20 (2032)	13,139	979	496
East Ave	E. Main St to Chestnut St	Existing (2006)	4917	439	255
		ETC+20 (2032)	5596	500	290
Chestnut St	East Ave to Broad St	Existing (2005)	14,774	1303	721
		ETC+20 (2032)	16,901	1491	825
	Broad St to Court St	Existing (2007)	11,804	1029	636
		ETC+20 (2032)	13,339	1163	719

Note: AADT = Annual Average Daily Traffic Volume (total both directions)
 DHV = Design Hour Volume (total both directions)
 DDHV = Directional Design Hour Volume (one direction)

3.3.1.7 Level of Service and Mobility

3.3.1.7 (1) At Design Year – Level of service at the design year ETC+20 (Year 2032) are presented in the tables below. In addition to the intersections analyzed (as described in Section 2.3.1.7), the following new or modified intersections have been studied for the ETC+20 Build condition:

- Main St / Road B (signalized)
- S. Clinton Ave / Road A (unsignalized)

- Broad St / Garage Ramp Exit / Entrance (unsignalized)
- Broad St / Road E (unsignalized)
- Court St / Garage Ramp (unsignalized)

Trip generation was completed for the proposed Midtown Redevelopment using the assumption that the Midtown Parking Garage would operate at near-capacity (95% occupancy) on a daily basis. The parking garage has a total of 1773 spaces, and a 95% occupancy rate would result in 1685 spaces being utilized. The current proposal includes allocating 1000 spaces for use by PAETEC and 200 spaces for Xerox on Levels A and B, as well as 436 spaces reserved for the Midtown Tower residential units on Level C. Any remaining spaces could be used for general monthly contract parking. It was assumed that 40% of the commuter traffic using the parking garage (PAETEC and other office employees) would arrive during the morning peak hour and leave during the afternoon peak hour. This percentage is slightly higher than the rate predicted by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 8th Edition; however, the 40% assumption is supported by a local parking study completed by Walker Parking Consultants (Comprehensive Downtown Parking Study, January 2008).

Trip generation was also completed for other known components of the redevelopment as follows:

- Retail – 67,600 sf (ITE 814: Specialty Retail). The square footage is consistent with the High Density redevelopment scenario presented in the Midtown Generic Environmental Impact Statement (GEIS). Trip generation was estimated for the number of AM peak hour trips, as data from ITE or other local sources is not available.
- Hotel – 100 rooms (ITE 310: Hotel). The number of rooms is consistent with the High Density scenario in the GEIS. Conceptual plans indicate the hotel will be located on Parcel 2.
- Chase Tower parking in service tunnel – 50 spaces. Assumptions for commuting patterns are similar to the Midtown Parking Garage as described above.
- Surface parking lots – 75 total spaces. Assumptions for commuting patterns are similar to the Midtown Parking Garage as described above. A new surface lot (approx. 30 spaces) is planned for Parcel 7. An existing surface lot (approx. 45 spaces) between the Riedman and Bank of America Buildings on East Avenue will access Euclid St.

The projected trip generation is summarized in the following table:

Trip Generation Summary

Project Component	AM Peak Hour			PM Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
Midtown Parking Garage	500	88	588	125	500	625
Residential	135	301	436	253	183	436
Retail	81	103	184	81	103	184
Hotel	28	20	48	27	27	54
Chase Parking (Tunnel)	20	4	24	5	20	25
Surface Parking Lots	21	0	21	0	21	21
TOTAL	785	516	1301	491	854	1345

The Midtown-generated vehicle trips were distributed onto the street network generally consistent with the original Midtown Traffic Analysis completed for the Generic EIS, which considered existing and projected travel patterns, turn restrictions, and the Midtown Parking Garage access points. Adjustments were made to the original distributions to account for the Broad St two-way conversion (between Chestnut St and S. Clinton Ave). It is assumed that the majority of new trips will utilize the Midtown Parking Garage, with portals on S. Clinton Ave (enter only), Broad St (enter/exit), Court St (enter/exit), and a new exit ramp (serving garage Level A) connected to the proposed service tunnel near the intersection of Atlas St and Euclid St (to replace the exit ramp being removed at Elm St / Chestnut St). The proposed internal streets at the Midtown site will likely be utilized for short-term parking, drop-offs, deliveries, and access to the proposed retail space, and will therefore experience traffic volumes characteristic of a “local” street. Refer to Appendix III for trip distribution and trip generation figures.

The conversion of Broad St from one-way to two-way traffic between Chestnut St and Clinton Ave is considered as part of the base project. Two-way conversion of Broad St between Clinton Ave and Stone St is considered as Phase 2 of the project. The City of Rochester’s Broad – Court – Chestnut project includes the two-way conversion of Broad St east of Chestnut St. Several traffic analyses have been completed for the two-way conversion of Broad St. Consultants for the City of Rochester (Clark Patterson-Lee and SRF Associates) completed a design report and traffic analysis for the segment of Broad St east of Chestnut St in April, 2010. A supplemental analysis was completed by SRF & Associates in April 2010 for the two-way conversions of Broad St (between Chestnut St and Stone St) and Court St (between Chestnut St and S. Clinton Ave). Conclusions of these studies indicate that the two-way conversion of Broad St is feasible from capacity, level of service and safety perspectives. The conversion of Court St was determined to not be feasible due to capacity issues at the S. Clinton Ave intersection as well as ramps to the Xerox and HSBC parking garages that are configured for one-way operation on Court St.

As part of this report, an independent analysis of the Broad St two-way conversion was completed using updated traffic counts and projections for the re-distribution of traffic along Broad St as a result of the conversion (refer to Traffic Analysis for Broad St Two-Way Conversion in Appendix III). Generally, the existing signal phasing was utilized for the analysis, and the new Broad St eastbound movement was added to the existing westbound signal phase, for a combined eastbound/westbound phase. The level of service analysis indicates that the two-way conversion of Broad St between Chestnut St and Stone St is feasible with regard to capacity and level of service. The Broad St intersections with Chestnut St, Clinton Ave and Stone St will continue to operate at acceptable level of service and delay. With regard to street and driveway geometry, the intersections are generally well-suited for the conversion of Broad St to two-way traffic. Modifications to intersections are expected to include the following:

- The Midtown Parking Garage entrance and exit ramps on Broad St require modification to enable the ramps to intersect Broad St perpendicularly. The existing one-way operation of the ramps will be maintained.
- At the Broad St / Stone St intersection, a splitter island would need to be removed to allow through traffic along Broad St eastbound. The eastbound signal pole and equipment (currently located in the splitter island) would be relocated to the sidewalk area.
- The concrete median between Stone St and South Ave would be modified to provide a left turn lane at Stone St which is also capable of staging a U-turn. The existing u-turn movement on Broad St eastbound at Stone St would continue to be accommodated (the u-turn allows access to the South Ave Parking Garage). The raised median will also be narrowed from 4 ft to 2 ft to enable the westbound curb travel lane to be widened from 10 ft to 12 ft.
- Minor pavement widening would be needed along the south side of Broad St near the Stone St intersection (in front of the Bausch & Lomb Building).

The two-way conversions of Clinton Ave, South Ave / St Paul St, and Court St were not considered as part of this project. The City of Rochester plans to conduct a two-way conversion analysis of Clinton Ave and South Ave / St Paul St in 2011.

Also, the Broad St Aqueduct project was not considered as part of this traffic analysis. The project may result in the removal of vehicular traffic across the Broad St Bridge over the Genesee River. A traffic analysis for the Aqueduct project is currently being completed and will be reviewed by the City of Rochester and Monroe County Department of Transportation. The Aqueduct traffic analysis does include vehicle trips generated by the Midtown Redevelopment project.

Results of the level of service analysis for ETC + 20 (Year 2032) indicate that each intersection will operate with an overall LOS "D" or better during the morning and afternoon peak hours. Each approach

will operate with acceptable LOS (LOS "E" or better, with a v/c ratio less than 1.0). The following tables provide a summary of the level of service analysis for Phase 1 of the project (including the two-way conversion of Broad St between Chestnut St and S. Clinton Ave). The Traffic Analysis for the Broad St Two-Way Conversion, located in Appendix III, includes the level of service analysis for the two-way conversion between S. Clinton Ave and Stone St (Phase 2 of the project).

Level of Service Analysis

S. Clinton Ave / Court St Intersection

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)	ETC+20 LOS (Approach Delay)
Court St Eastbound	Overall	AM	C (24.1)	C (25.1)	D (37.0)*
		PM	B (19.2)	C (21.0)	C (28.2)
Clinton Ave Northbound	Thru/Left	AM	A (5.5)	A (5.5)	A (8.1)
		PM	A (9.8)	B (12.3)	B (14.6)
	Right	AM	A (1.5)	A (2.2)	A (4.3)
		PM	A (1.3)	A (2.1)	A (5.7)
	Overall	AM	A (4.7)	A (5.5)	A (7.3)
		PM	A (8.1)	B (10.2)	B (12.7)
Overall Intersection		AM	A (6.6)	A (7.5)	B (11.8)
		PM	B (11.4)	B (13.4)	B (17.6)

* The Midtown Redevelopment GEIS predicted a LOS "F" for the Court St eastbound movement during the morning peak hour. The Court St approach includes one through lane and a through / left turn lane, and the Synchro modeling results in a combined level of service for the through and left turn movements. The poor level of service projected in the GEIS was due to the large amount of projected left turns at this approach under the high density scenario. The LOS "D" shown in the above table is based on traffic counts that have been updated since the GEIS was published, as well as trip generation projections based on the current known projects and utilization of the Midtown Parking Garage.

S. Clinton Ave / Broad St Intersection

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)	ETC+20 LOS (Approach Delay)
Broad St Westbound	Overall	AM	C (30.3)	C (30.3)	C (23.4)
		PM	B (19.2)	B (18.4)	C (21.9)
Clinton Ave Northbound	Left	AM	A (2.2)	A (2.6)	A (4.7)
		PM	A (0.5)	A (0.6)	A (0.5)
	Thru	AM	A (4.0)	A (4.4)	A (6.0)
		PM	A (7.4)	A (8.1)	A (8.4)
	Overall	AM	A (3.4)	A (3.8)	A (5.4)
		PM	A (5.6)	A (6.1)	A (6.3)
Overall Intersection		AM	A (9.8)	A (10.0)	B (10.2)
		PM	A (8.6)	A (8.8)	B (10.7)

Main St / Road B Intersection (New Intersection, Signalized)

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)	ETC+20 LOS (Approach Delay)
Main St Eastbound	Overall	AM	A (0.7)	A (1.3)	A (0.5)
		PM	A (2.1)	A (2.2)	A (2.0)
Main St Westbound	Overall	AM	A (5.0)	A (5.4)	A (4.4)
		PM	A (1.4)	A (1.3)	A (1.1)
Road B Northbound	Overall	AM	N/A	N/A	C (27.5)
		PM			C (27.7)
Overall Intersection		AM	A (3.3)	A (3.6)	A (3.3)
		PM	A (1.8)	A (1.8)	A (2.6)

Main St / Franklin St / East Ave Intersection

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)	ETC+20 LOS (Approach Delay)
Main St Eastbound	Thru	AM	A (4.3)	A (5.6)	A (5.5)
		PM	C (24.4)	C (26.2)	C (26.3)
	Right	AM	A (2.2)	A (6.7)	A (3.3)
		PM	D (36.9)	D (43.8)	D (42.6)
	Overall	AM	A (3.7)	A (5.9)	A (4.8)
PM	C (27.2)	C (30.2)	C (30.1)		
Main St Westbound	Thru	AM	A (5.4)	A (5.6)	A (5.3)
		PM	B (11.7)	B (12.2)	B (11.8)
	Right	AM	A (2.3)	A (1.7)	A (1.3)
		PM	A (6.4)	A (6.5)	A (5.6)
	Overall	AM	A (5.4)	A (5.5)	A (5.2)
PM	B (11.5)	B (12.0)	B (11.6)		
East Ave Northbound	Overall	AM	C (22.9)	C (22.9)	C (24.0)
		PM	C (21.6)	C (21.5)	C (21.9)
Franklin St Southbound	Overall	AM	A (5.3)	A (5.2)	A (5.2)
		PM	A (6.4)	A (7.0)	A (7.0)
Overall Intersection		AM	A (6.2)	A (7.0)	A (6.5)
		PM	B (19.3)	C (20.9)	C (20.8)

Main St / Stillson St Intersection

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)	ETC+20 LOS (Approach Delay)
Main St Eastbound	Overall	AM	A (2.7)	A (2.5)	A (2.5)
		PM	A (0.4)	A (0.3)	A (0.3)
Main St Westbound	Overall	AM	A (3.5)	A (3.7)	A (3.9)
		PM	A (1.2)	A (1.2)	A (1.3)
Stillson St Northbound	Overall	AM	C (24.9)	C (24.9)	C (24.9)
		PM	C (24.9)	C (25.0)	C (25.0)
Stillson St Southbound	Overall	AM	C (24.8)	C (24.9)	C (24.9)
		PM	C (24.9)	C (25.0)	C (25.0)
Overall Intersection		AM	A (5.1)	A (5.1)	A (5.2)
		PM	A (2.3)	A (2.4)	A (2.4)

Main St / Chestnut St Intersection

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)	ETC+20 LOS (Approach Delay)
Main St Eastbound	Left	AM	C (23.4)	C (22.1)	C (21.3)
		PM	C (22.5)	C (20.9)	B (19.9)
	Thru/Right	AM	C (29.7)	C (28.2)	C (27.6)
		PM	C (28.7)	C (27.1)	C (25.6)
	Overall	AM	C (27.1)	C (25.7)	C (25.1)
		PM	C (26.7)	C (25.1)	C (23.8)
Main St Westbound	Left	AM	A (3.9)	A (4.0)	A (4.6)
		PM	A (5.0)	A (5.9)	A (6.5)
	Thru/Right	AM	A (5.0)	A (5.3)	A (6.2)
		PM	A (7.0)	A (8.7)	A (9.5)
	Overall	AM	A (4.6)	A (4.9)	A (5.6)
		PM	A (6.6)	A (8.1)	A (8.7)
Chestnut St Northbound	Left	AM	B (15.9)	B (19.7)	B (19.6)
		PM	A (7.9)	A (8.3)	B (13.2)
	Thru/Right	AM	B (12.6)	B (13.1)	B (12.9)
		PM	A (8.1)	A (8.4)	B (15.0)
	Overall	AM	B (13.0)	B (13.8)	B (13.5)
		PM	A (8.1)	A (8.4)	B (14.9)
Chestnut St Southbound	Left	AM	A (9.6)	B (11.9)	B (13.5)
		PM	B (13.2)	B (16.0)	B (21.6)
	Thru/Right	AM	B (11.9)	B (14.9)	B (16.6)
		PM	B (11.8)	B (12.7)	B (13.2)
	Overall	AM	B (11.7)	B (14.7)	B (16.4)
		PM	B (12.0)	B (13.1)	B (14.2)
Overall Intersection		AM	B (12.1)	B (13.2)	B (13.7)
		PM	B (13.2)	B (13.5)	B (15.4)

Chestnut St / East Ave Intersection

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)	ETC+20 LOS (Approach Delay)
East Ave Eastbound	Left/Thru	AM	C (32.5)	C (33.8)	D (35.2)
		PM	C (32.4)	C (32.5)	C (33.4)
	Right	AM	C (32.5)	C (33.6)	C (34.9)
		PM	C (31.5)	C (31.5)	C (32.2)
	Overall	AM	C (32.5)	C (33.7)	D (35.1)
		PM	C (32.1)	C (32.1)	C (32.9)
East Ave Westbound	Left/Thru	AM	B (11.7)	B (12.0)	B (13.5)
		PM	B (11.6)	B (12.0)	B (13.7)
	Right	AM	A (9.2)	A (9.3)	A (9.2)
		PM	A (10.0)	B (10.1)	B (10.7)
	Overall	AM	B (11.0)	B (11.2)	B (12.6)
		PM	B (11.1)	B (11.5)	B (13.0)
Chestnut St Northbound	Left	AM	C (21.3)	C (26.8)	E (59.1) v/c=0.53
		PM	A (8.6)	A (8.7)	B (14.9)
	Thru/Right	AM	B (16.5)	B (16.5)	D (43.1)
		PM	A (9.8)	B (9.9)	B (15.9)
	Overall	AM	B (17.2)	B (18.1)	D (45.1)
		PM	A (9.7)	A (9.8)	B (15.9)
Chestnut St Southbound	Left	AM	B (10.5)	B (11.2)	B (13.6)
		PM	A (7.4)	A (8.0)	B (11.4)
	Thru/Right	AM	B (10.5)	B (10.8)	B (11.8)
		PM	A (7.4)	A (7.6)	A (8.1)
	Overall	AM	B (10.5)	B (10.9)	B (12.1)
		PM	A (7.4)	A (7.6)	A (8.4)
Overall Intersection		AM	B (14.6)	B (15.1)	C (23.3)
		PM	B (13.0)	B (13.2)	B (15.8)

Chestnut St / Elm St Intersection

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)	ETC+20 LOS (Approach Delay)
Elm St Eastbound	Left	AM	C (34.6)	C (34.6)	N/A
		PM	C (34.6)	C (34.6)	
	Right	AM	C (29.7)	C (29.7)	
		PM	C (29.7)	C (29.7)	
	Overall	AM	C (32.7)	C (32.7)	D (43.7)
		PM	C (32.7)	C (32.7)	D (42.1)
Chestnut St Northbound	Overall	AM	A (2.4)	A (2.8)	A (5.4)
		PM	A (1.2)	A (1.3)	A (4.8)
Chestnut St Southbound	Overall	AM	A (5.7)	A (5.7)	A (5.5)
		PM	A (4.1)	A (4.1)	A (3.9)
Overall Intersection		AM	A (9.5)	A (9.2)	A (7.3)
		PM	A (8.2)	A (7.7)	A (8.4)

Chestnut St / Broad St Intersection

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)	ETC+20 LOS (Approach Delay)		
Broad St Eastbound	Left	AM	N/A	N/A	C (26.4)		
		PM			C (22.0)		
	Thru/Right	AM			C (27.6)		
		PM			C (21.8)		
	Overall	AM			C (27.3)		
		PM			C (21.9)		
Broad St Westbound	Left	AM	N/A	N/A	C (28.3)		
		PM			C (21.4)		
	Thru/Right	AM			C (30.2)		
		PM			B (19.5)		
	Overall	AM			C (33.4)	C (33.6)	C (29.8)
		PM			C (26.3)	C (27.2)	C (20.4)
Chestnut St Northbound	Left	AM	A (3.5)	A (4.5)	B (18.8)		
		PM	B (12.0)	B (13.7)	C (31.7)		
	Thru	AM	A (1.3)	A (1.3)	C (17.8)		
		PM	B (9.2)	A (9.3)	C (31.1)		
	Overall	AM	A (1.8)	A (2.0)	B (18.2)		
		PM	B (9.8)	B (10.2)	C (31.3)		
Chestnut St Southbound	Left	AM	N/A	N/A	A (7.3)		
		PM			B (12.2)		
	Thru	AM			A (2.3)	A (3.0)	B (20.8)
		PM			A (2.0)	A (1.9)	C (30.7)
	Right	AM			A (0.6)	A (0.5)	B (20.8)
		PM			A (1.0)	A (1.1)	C (30.7)
	Overall	AM			A (2.3)	A (2.3)	B (20.1)
		PM			A (1.8)	A (1.8)	C (29.9)
Overall Intersection		AM	A (5.7)	A (5.8)	C (20.9)		
		PM	A (8.8)	A (9.1)	C (28.7)		

Chestnut St / Court St Intersection

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)	ETC+20 LOS (Approach Delay)
Court St Eastbound	Thru	AM	C (22.6)	C (23.0)	C (20.3)
		PM	C (28.9)	C (28.6)	C (28.2)
	Right	AM	C (25.8)	C (26.2)	C (22.3)
		PM	B (18.4)	B (18.9)	D (37.5)
	Overall	AM	C (23.3)	C (23.7)	C (20.9)
		PM	C (25.7)	C (25.6)	C (31.6)
Chestnut St Northbound	Thru	AM	B (11.0)	B (11.5)	B (13.0)
		PM	A (7.2)	A (7.4)	A (7.9)
	Right	AM	B (15.8)	B (15.1)	B (11.9)
		PM	A (9.6)	A (9.3)	A (8.6)
	Overall	AM	B (11.9)	B (12.2)	B (12.9)
		PM	A (7.4)	A (7.6)	A (8.0)
Chestnut St Southbound	Left	AM	B (12.8)	B (13.4)	C (20.4)
		PM	A (4.3)	A (4.3)	A (5.8)
	Thru	AM	B (13.0)	B (13.8)	C (22.0)
		PM	A (5.0)	A (5.2)	A (6.3)
	Overall	AM	B (13.0)	B (13.8)	C (21.9)
		PM	A (5.0)	A (5.1)	A (6.3)
Overall Intersection		AM	B (16.4)	B (16.9)	B (18.8)
		PM	B (13.0)	B (13.1)	B (16.2)

S. Clinton Ave / Road A Intersection (New Intersection, Unsignalized)

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)	ETC+20 LOS (Approach Delay)
Elm St Westbound	Right	AM	N/A	N/A	C (15.1)
		PM			B (13.3)
Overall Intersection		AM	N/A	N/A	A (0.2)
		PM			A (0.4)

Broad St / Road E Intersection (New Intersection, Unsignalized)

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)	ETC+20 LOS (Approach Delay)
Broad St Eastbound	Left	AM	N/A	N/A	B (10.7)
		PM			A (9.1)
Atlas St Southbound	Overall	AM	N/A	N/A	C (25.0)
		PM			C (16.9)
Overall Intersection		AM	N/A	N/A	A (1.1)
		PM			A (1.5)

Broad St / Midtown Garage Ramp Intersection

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)	ETC+20 LOS (Approach Delay)
Broad St Westbound	Left	AM	N/A	N/A	A (7.8)
		PM			A (7.6)
Garage Ramp Northbound	Overall	AM	N/A	N/A	E (44.7) v/c=0.81
		PM			C (20.8)
Overall Intersection		AM	N/A	N/A	A (13.2)
		PM			A (8.6)

Court St / Midtown Garage Ramp Intersection

Street & Approach		Peak Hour	Existing LOS (Approach Delay)	ETC + 20 No-Build LOS (Approach Delay)	ETC+20 LOS (Approach Delay)
Garage Ramp Southbound	Overall	AM	N/A	N/A	C (18.1)
		PM			D (30.7)
Overall Intersection		AM	N/A	N/A	A (4.0)
		PM			A (9.6)

3.3.1.8 Safety Considerations, Accident History and Analysis

An accident analysis has been completed for the intersections surrounding the Midtown Site. Reportable accidents (involving injury or damage over \$1,000) occurring during the three-year period of January 2008 through December 2010 were reviewed. Refer to Section 2.3.1.8 for a discussion of accident types at each intersection. A summary of the safety analysis for each intersection, as well as any project-related safety considerations, is as follows:

Main St / Clinton Ave

The accident rate at the Main St / Clinton Ave intersection was approximately 3.8 times higher than the MCDOT average. The dominant sideswipe and rear-end accident types are typical of multi-lane, urban intersections. The accidents appear to have been caused by driver inattention and improper lane usage. Contributing factors likely include peak hour congestion, significant bus activity on Main St and S. Clinton Ave, and high pedestrian volumes. Improvements at the Main St / Clinton Ave intersection will include pavement overlay, signs and striping (Main St will be rehabilitated as part of this project and S. Clinton Ave will be rehabilitated under a separate contract). As part of this project, the City's goal is to rehabilitate S. Clinton and E. Main St in a minimal fashion (i.e., only repair what is likely to be affected during Midtown construction). As such, widening and geometric changes are not proposed.

It is noted that there are two potential future projects that could improve safety. The first is the downtown transit center project, currently in the design phase. It will relocate the bus transfer areas along Main St to a facility near Clinton Ave / Mortimer St. The transit center project will also likely include the removal of turn restrictions at the Main St / Clinton Ave intersection and the removal of bus lanes on Main St, which can potentially improve safety and mobility at the intersection. Second, the City is investigating the possibility of converting S. Clinton Ave to two-way.

Main St / Franklin St / East Ave

This intersection experienced an accident rate approximately 2.0 times higher than the MCDOT average rate. While driver inattention appears to be the cause of the accidents, the presence of buses and bus lanes on Main St may be a contributing factor. As stated above, the downtown transit center will relocate the bus transfers on Main St to a separate facility, which should improve safety and mobility along Main St. The Midtown project includes modifications to Euclid St, and the direction of travel will be changed from one-way northbound to one-way southbound. Eastbound traffic on Main St would be able to enter Euclid St, but left turns from Main St westbound would be prohibited. This configuration is more desirable than the current one-way northbound configuration, as the Euclid St / Main St intersection is very close to the Main St / East Ave / Franklin St intersection and the proposed one-way southbound configuration would eliminate traffic entering Main St at this location.

Chestnut St / East Ave

The accident rate at the Chestnut St / East Ave intersection was approximately 2.0 times higher than the MCDOT average. The accidents appear to be caused by driver inattention and not a result of deficiencies in the intersection geometry or signal operation. No improvements are proposed at this intersection as part of the Midtown Redevelopment project.

Chestnut St / Elm St

The Chestnut St / Elm St intersection experienced an accident rate very close to the MCDOT average. The accidents appear to have been caused by driver inattention. Improvements to the intersection, including new signs and pavement markings, will be completed as part of the City's Broad – Court – Chestnut project. The Elm St approach will be reconstructed as part of the Midtown project, and the exit ramp from the Midtown Garage will be removed and relocated to the truck service tunnel. The ramp removal will allow the Elm St approach to operate without turn restrictions and will likely improve safety at the intersection.

Chestnut St / Broad St

The accident rate at this intersection was approximately 1.3 times higher than the MCDOT average rate. The accidents appear to have been caused by driver inattention and improper lane usage. The short spacing between multiple intersections along Chestnut St (Broad, James, Elm, Euclid and East) may also be a factor. The City's Broad – Court – Chestnut (BCC) project will reconstruct this intersection, including new pavement, traffic signals, signs and striping. At the southbound approach (the location of several sideswipe accidents), the short right turn lane will be removed, which should result in a better-defined intersection approach. The BCC project will also remove the James St pavement and intersection at Chestnut St, which can improve safety along the Chestnut St corridor.

S. Clinton Ave / Broad St

The accident rate at the S. Clinton Ave / Broad St intersection was approximately 1.4 times higher than the MCDOT average rate. The accidents were primarily right angle and appear to have been caused by driver inattention. This intersection will be modified as part of the Midtown Redevelopment project, including a two-way conversion of Broad St between S. Clinton Ave and Chestnut St (the section of Broad St between S. Clinton Ave and Stone St will be converted as part of a Phase 2). New signs, traffic signals and pavement markings will also be installed as part of the project.

Broad St / Stone St

The Broad St / Stone St intersection had an accident rate approximately 2.5 times higher than the MCDOT average rate. Several of the accidents occurred as a result of the unusual configuration of the intersection (where two-way travel on Broad St becomes one-way). The two-way conversion of Broad St between Chestnut St and Stone St has been analyzed (refer to Traffic Analysis for Broad St Two-Way Conversion located in Appendix III). Phase 1 of the Midtown Redevelopment project will include the two-way conversion between Chestnut St and S. Clinton Ave, and Phase 2 will convert the remaining segment between S. Clinton Ave and Stone St. The full two-way conversion would likely benefit safety along the Broad St corridor. At Stone St, the island would be removed, allowing eastbound travel to continue along Broad St.

3.3.1.9 Impacts on Police, Fire Protection and Ambulance Access

Upon completion of the project, emergency access to the site will be improved due to the construction of the internal street grid and conversion of Broad St to two-way traffic.

3.3.1.10 Parking Regulations and Parking Related Issues

On-street parking will be provided on the new streets within the Midtown site. New on-street parking spaces will also be constructed along Broad Street between Chestnut Street and South Clinton Ave and on the south side of Main St between S. Clinton Ave and East Ave. The total number of new parking spaces created is approximately 164. Many of these parking spaces will be regulated to allow two hour parking during weekday business hours. The on-street parking will be metered, either with parking meters or pay stations. Loading zones will likely be necessary and will be determined as the parcels are developed.

The Midtown Parking Garage includes approximately 1,773 spaces on three levels below the Midtown site. It is expected that the entire parking garage will be used to accommodate the parking needs at the Midtown site, including approximately 1,000 spaces reserved for PAETEC and approximately 436 spaces reserved for the Midtown Tower residential development. The remaining parking spaces within the garage would be available for the additional mixed-use development at the Midtown site. It is not expected that monthly contract parking would be available for the general public.

The base plan includes the removal of the Midtown Garage exit ramp to Chestnut Street (adjacent to Elm Street) and construction of a new exit ramp connected to the new truck service tunnel near the intersection of Atlas Street and New Euclid Street. The original Chestnut Street exit ramp provided access from the underground garage parking Levels A and B; however, its location adjacent to Elm Street resulted in an undesirable intersection at Chestnut Street and required turning restrictions to avoid conflicting vehicle turns. The new garage exit ramp to be constructed will provide access from parking Level A only; however, because of the new location, vehicles using the ramp would be able to use the internal street grid to access Broad Street, Chestnut Street, South Clinton Avenue or East Main Street.

3.3.1.11 Lighting

Street lighting exists on all streets within the project area. Provisions will be made to light street pavement and pedestrian areas with new systems. The internal street grid will be lit with pedestrian level fixtures on 18 foot decorative poles. The existing system on Main Street will be maintained. Broad Street will be lighted with fixtures on 30 foot decorative poles similar to Main Street. Cobra head fixtures on the east side of Clinton Ave will be replaced with decorative poles and fixtures to complement the existing fixtures on the west side of the street.

Target light levels will be 1.2 lux average for street pavement and 10 lux for pedestrian areas. The uniformity ratio of average to minimum luminance should not exceed 5 to 1 for pedestrian areas, 3 to 1 for the perimeter streets, and 6 to 1 for the grid streets.

3.3.1.12 Ownership and Maintenance Jurisdiction

The City of Rochester will continue ownership and maintenance responsibilities for the streets. The Monroe County Department of Transportation will continue to operate and maintain the traffic signals, signs and pavement markings within the project area.

3.3.1.13 Constructability Review

The project plans and report will be reviewed by the Regional Construction Group.

3.3.2 Multimodal

3.3.2.1 Pedestrians

The project's location within a central business district automatically qualifies the project for the provision of facilities for pedestrians. A pedestrian generator checklist from NYSDOT HDM Chapter 18 was completed for this project. Six of the ten questions were answered yes, which indicates a high level of pedestrian activity is possible for the project area. The transit stops around the area generate a high number of pedestrian trips. The Eastman School of Music to the northeast of Midtown and the MCC Damon campus opposite Midtown on Main Street both generate significant pedestrian trips through the site and around it.

The Midtown Tower is reportedly being redeveloped into residential units. There are high-rise residential developments southeast of the site on Broad Street. Newer residential development has been occurring in the East Avenue neighborhood two blocks east of Midtown. A residential neighborhood exists two blocks north and east of the site. These residential buildings will be sources of pedestrian trips.

Although the Renaissance Square project is no longer being advanced, the transit center and MCC downtown campus components of that project will likely still be constructed in downtown Rochester. RGRTA is currently in the design stages for a transit center to be located near Clinton Ave / Mortimer St, which is northwest of Midtown across the Main St / Clinton Ave intersection. This would become a major pedestrian destination in the Center City, with many pedestrian corridors converging at that area. The MCC downtown campus is currently in development although a location has not been finalized. Main Street will continue to function as a primary pedestrian corridor. Elm St and Road B would also become important routes for pedestrian moving through the site from the southeast.

Sidewalks will be provided on the streets within the Midtown site. The minimum width of the clear accessible path will be five feet on Euclid and Atlas Streets. Elm St, Road A, Road B, Road C, Road D and Road E will have attached sidewalks with a minimum width of ten feet. Cortland St Extension is proposed to be developed as a pedestrian corridor with wide sidewalks, landscaping and pedestrian amenities. A new sidewalk will also be constructed along the north side of Broad St between Chestnut St and S. Clinton Ave, with a minimum width of ten feet. Crosswalks will be installed at all pedestrian crossings.

There are two mid-block crossings on S. Clinton Ave between Broad St and Main St. The disposition of the northern mid-block crossing on S. Clinton Ave will be investigated during final design when more is known about the proposed PAETEC building entrances. The southern mid-block crossing will be relocated to the south to be integrated with the Future Road A intersection with S. Clinton Ave.

3.3.2.2 Bicyclists

The internal street network will utilize 12 ft wide travel lanes when next to a curb, which is sufficient for shared vehicle and bicycle usage. No special provisions are proposed to accommodate bicyclists. The occasional bicyclist may legally use the streets, and bicycle racks will be provided at select locations to encourage the use of bicycles as an alternative mode of transportation in the downtown area.

3.3.2.3 Transit

No transit-related modifications are proposed. Transit routes will continue to utilize the adjacent streets including Broad St, S. Clinton Ave, Main St, East Ave and Chestnut St (transit routes may be altered as part of a future RGRTA project to construct a downtown transit center). The former bus stops along S. Clinton Ave that were relocated to accommodate the demolition contract will likely not be re-established once the site is redeveloped. Coordination with RGRTA will be necessary.

3.3.2.4 Access to Recreation Areas (Parks, Trails, Waterways, and State Lands)

A plaza area open to the public is planned for a central location on the site. Access to the plaza will be from public sidewalks along the right-of-ways surrounding the plaza. No other parks, trails, waterways, or state lands are accessible from any streets within the project area.

3.3.3 Infrastructure

3.3.3.1 Proposed Highway Section

Refer to Appendix I for plans and typical sections for each of the roads. These plans and sections indicate the proposed travel lane widths and parking lane widths. Also, a description of the proposed streets is included in Section 3.2..

3.3.3.1 (1) Right of Way – No Right of Way acquisitions (FEE with access) will be required to construct this project. Right-of-way abandonment is also anticipated in the future. The following table describes the anticipated right-of-way abandonment.

Right-of-Way Abandonments				
Alternate	Property (Refer to Map)	Street	Estimated Abandonment Area	Purpose
Base	Dwg. PL-02, and Dwg. PL-04	Future Road C	0.174 acres	Parcel 5

Other right-of-way issues on this project include:

- **Underground Parking Garage:** The City of Rochester is currently developing a maintenance and ownership agreement with Morgan/Christa regarding the portion of the underground garage directly beneath the existing Midtown Tower.
- **Development Parcels:** A subdivision plan depicting parcel sizes have been developed. A 30 day review period was conducted by the Bureau of Planning and Zoning. Following that, it was referred to the City Planning Commission where it was approved.

An Official Map Amendment (OMA) is also required for this project. It will be provided to the City Planning Commission for recommendations, after which it will be referred to City Council for approval. A public hearing will be conducted by the City Planning Commission as part of this process.

- **Temporary Easements:** Temporary easements will be required if construction work is required outside of the highway boundary to match existing. Easements may also be required for areaway abandonments that could include some building foundation work.
- **Right-of-way Encroachment:** An existing brick shed located in the rear of property at 65 -- 67 Chestnut St. is encroaching into the proposed right-of-way for Atlas Street Extension. This structure will need to be removed.

3.3.3.1. (2) Curb – Broad Street (from S. Clinton Avenue to Chestnut Street) and all streets within the internal street grid will have 7 ¼" vertical faced granite curb provided on both sides. It is anticipated that the existing curb will be retained on S. Clinton Avenue and E. Main Street. Broad Street (from South Avenue to S. Clinton Avenue, which is Phase 2 of the project) was designed to retain existing curb and curb reveal. An exception will be on the south side of Broad Street, east of Bausch & Lomb Place, which will require minimal widening. The median curb on Broad Street (from South Avenue to Bausch & Lomb Place) will be modified to accommodate a left turn lane onto Stone Street.

3.3.3.1 (3) Grades – Several new roads (Future Road A and Future Road E) will be constructed on top of the existing underground parking garage. At these locations, profiles were established by maintaining the existing elevation of the parking garage roof and adding the minimum depth for the required structural concrete overlay and repairs. Minimum asphalt depths and cross slopes were then used to calculate a desirable profile elevation. This minimum elevation was used at the outer limits of the garage footprint and a minimum longitudinal slope of 0.30% was projected inward. Following this design philosophy results in elevations at the back of the sidewalk that are a minimum of 1.35 feet ($\pm 16''$) and a maximum of 1.77 feet ($\pm 21''$) above the first floor elevation of the Morgan/Christa Development (Parcel 3). The remainder of the profiles was designed to gently slope back down to the existing roadway elevations at S. Clinton Avenue, E. Main Street and Broad Street. Refer to Appendix I for the Roadway Profiles

3.3.3.1 (4) Intersection Geometry and Conditions – Intersection layouts for the internal street grid typically utilize 20 foot and 30 foot radius curbs to accommodate an SU vehicle with minimal encroachment. At intersections with E. Main St, S. Clinton Ave, and Broad St, curb radii are typically 30 ft. Curb bump outs have been incorporated at many crosswalk locations to reduce pedestrian crossing distances and develop recessed parking to the maximum extent practical. The City's standard recessed parking detail has been utilized in laying out these features. New intersections will be created on South Clinton Avenue at Road A and on East Main Street at Road B.

Broad Street will be converted from one-way westbound traffic to two-way traffic from Chestnut Street to Stone Street. The section from Stone St to South Avenue is already two-way. This will require modifications to the Broad Street / Chestnut Street intersection and Broad Street / South Clinton Avenue intersection, and the Broad Street / Stone Street intersection and Broad Street / South Avenue intersection. The eastbound left turn lane and through lane on Broad Street at Stone Street have been shifted slightly to the south to accommodate a passenger vehicle U-turn movement. The minimum 48 ft is present to accommodate this U-turn movement. Intersection layouts are shown on the plans and Appendix I.

Intersection modifications have not been made at Main Street and South Clinton Avenue. It is assumed that the existing turn restrictions will remain in effect following the Midtown Redevelopment project. A future traffic study (late fall 2010) is being contemplated by the Genesee Transportation Council under a Unified Planning Work Program grant. The purpose of the study is to investigate the conversion of several one-way arterials to allow two-way traffic. Following the results of the study, assuming South Clinton is suitable for conversion to two-way traffic, it may be prudent to investigate geometric modifications at Main Street.

3.3.3.1. (5) Roadside Elements:

- (a) Snow Storage, Sidewalks, Utility Strips, Bikeways, Bus Stops – Sidewalks will be provided within the entire project limits on all streets. New sidewalks will be typically 14' wide with few variations. Surface utilities will be generally located within the 5' strip closest to the

road. Bicycles will be accommodated by utilizing a shared use curb lane which will be a minimum of 11' wide. Bus stops along the perimeter roads may change as a result of the construction of a new transit center anticipated in several years. Coordination will be accomplished during final design. It is not anticipated there will be any new bus stops located within the internal street grid. This will be confirmed with the City and RGRTA during final design.

- (b) Driveways – There is a driveway located in the southwest quadrant of the Chestnut Street / Broad Street intersection serving the Xerox property. It is very close to the intersection. It has been determined that this driveway can be eliminated. Driveways within the project limits will be reviewed against the current City of Rochester standards during Final Design.
- (c) Clear Zone - The clear zone will be retained, but will be improved where feasible during final design.

3.3.3.2 Special Geometric Design Elements

3.3.3.2 (1) Non-Standard Features – All alternatives being considered comply with the geometric features and cross section elements in the design criteria.

3.3.3.2 (2) Non-Conforming Features – The intersection corner radius (15') on the southeast corner of S. Clinton Avenue and Broad Street is inadequate for the design vehicle (W-50) without encroachment. This radius is constrained by the ramp into the parking garage. The intersection corner radius (30') on the northeast corner of Atlas Street and Elm Street (Base Plan) is inadequate for the WB-50 vehicle (that will likely use Elm Street and Atlas Street to access the truck service tunnel) without encroachment. This radius is constrained by an existing building.

3.3.3.3 Pavement and Shoulder

New streets within the internal street grid will be constructed using the City of Rochester medium duty pavement section consisting of: 1½ inches of top course, 2 inches of binder course, 3 inches of base course and 11 inches of subbase. A conventional pavement thickness design was performed which resulted in thicknesses very similar to the City's medium duty pavement section.

The City of Rochester standard heavy duty pavement section will be utilized on Broad Street where full depth widening is anticipated. This section is the same as the medium duty except that the base course will match existing. At locations where Broad Street is located directly above the underground parking garage, a new asphalt wearing surface will be placed over the existing concrete fill. A truing and leveling course may be required to establish grades. The wearing surface will include only binder and top courses.

Main St. and Clinton Avenue will be rehabilitated with a mill and overlay treatment. Refer to the Typical Sections in Appendix I for the proposed pavement sections and treatment.

A final design consideration is whether to construct the parking lanes using a different material, such as brick pavers, colored concrete, etc. This treatment would create a safety enhancement by providing a contrast between the parking and the travel lanes. This would also enhance the visual appeal of the road network.

3.3.3.4 Drainage Systems

A system of catch basins and new storm sewers will be constructed as part of the internal street network proposed for the site. Storm sewers will connect to existing combined facilities on South Clinton Ave., Main Street, and Chestnut Street. The capacity of the existing sewer system to handle flows from the new streets is expected to be adequate since the former site was nearly 100% impervious surface. Existing storm sewers inside the street grid (i.e. Atlas, Euclid) may need to be upgraded and/or replaced. This will be determined during final design.

On Broad Street, between Chestnut Street and South Clinton Avenue, existing inlets and storm sewers will be utilized to the extent possible to avoid additional puncturing of the garage roof slab. Since the road lies directly on top of the parking garage roof slab, inlets currently penetrate the garage roof and associated piping is suspended from the ceiling within the garage. Investigations will be made to determine if the existing piping and inlets can be utilized thereby minimizing any additional roof penetrations.

On Broad Street, between South Avenue and S. Clinton Avenue, the existing drainage system will be retained. There may be a need to relocate one drop inlet where the pavement is scheduled to be widened.

3.3.3.5 Geotechnical

In 1959, a subsurface investigation was performed by B.K. Hough Consulting Engineers for the Midtown Parking Garage facility. The investigation determined top of bedrock (Lockport dolomite) within the footprint of the garage varies from Elevation 507 to 511.5 feet. Due to the proximity of bedrock to the ground surface, the existing underground parking garage structure was founded on bedrock. Per the original garage contract plans (Drawing No. S-1), the allowable bedrock bearing capacity used for the design of the garage was 50 tons per square foot. This information can be used for the design of new structural elements within, or adjacent to, the garage, i.e., the new truck service tunnel.

3.3.3.6 Guide Railing, Median Barriers and Impact Attenuators

There is no guide railing, median barriers or impact attenuators within the project limits.

3.3.4 Structures

3.3.4.1 PAETEC Pedestrian Link Tunnel

PAETEC Corporation New World Headquarters is planned to occupy the former Seneca Building and Forman's Building sites on Clinton Avenue (Parcel 1) immediately north of the existing Midtown Parking Garage facility. PAETEC has requested to have direct access to the parking garage via an underground pedestrian link tunnel. The tunnel will originate at a stair tower/elevator lobby within the footprint of PAETEC's building (southeast corner) and follow the west perimeter wall of the new truck service tunnel under Future Road B en-route to the parking garage. The tunnel will access the garage at Level A. An independent elevator shaft will be constructed to service parking garage Levels A and B near the tunnel access location. Drawings ST-06 and ST-07 depict the pedestrian link tunnel alignment and details.

Tunnel Structure. The stair tower/elevator lobby enclosure within the footprint of the PAETEC building is proposed to be comprised of a cast-in-place, reinforced concrete roof slab and perimeter walls and CMU interior partition walls. The top of the roof slab will be at the planned PAETEC's building first floor elevation and designed to carry the appropriate floor live load. The perimeter walls are anticipated to be on spread footing on soil.

The estimated length of tunnel section is approximately 100 feet measured from the PAETEC building stair tower/elevator lobby to the parking garage. The tunnel section is an extension of the new truck service tunnel, resulting in a "zig-zag" alignment. The service tunnel's 13" concrete roof slab extends over the top of the pedestrian tunnel and an 8" CMU partition wall separates the pedestrian tunnel from the service tunnel. A 12" cast-in-place, reinforced concrete wall on spread footing founded on bedrock forms the pedestrian tunnel's exterior perimeter wall. The floor is a 5" concrete slab-on-grade over 6" thick stone subbase layer over soil. The tunnel inside clear width is proposed to be 10 feet. A drop ceiling providing 8'-6" pedestrian headroom is proposed to provide a concealed space for a utility chase above the ceiling to accommodate HVAC, electrical, etc.

The pedestrian tunnel tie-in to the existing garage is proposed at garage Parking Level A (top of curb elevation), between column lines "I" and "J". This location is based on the pedestrian tunnel following the proposed west perimeter wall of the new truck service tunnel and results in an approximate 3.5% grade up to the garage from the stair tower/elevator lobby enclosure under PAETEC's building footprint. Providing an ADA compliant ramp from the tunnel and elevator curbed landings on Levels A and B will eliminate a total of 8 existing garage parking spaces.

A new independent elevator shaft is proposed to be installed to provide access to garage Parking Levels A and B. Garage Parking Level C at this location is reserved for Midtown Tower residents. The elevator shaft location is proposed to be outside the footprint of the existing parking garage (near column 14-H.1). The existing garage perimeter wall will form two of the shaft walls. This location eliminates costly cut-out

demolition and reconstruction of the garage level interior elevated floor slabs. Because this shaft location falls under the sidewalk for Future Road A, it is proposed a hydraulic elevator system be provided. Being this type of elevator system does not require an equipment room on top of the shaft, the elevator shaft roof slab can accommodate the new sidewalk geometrics above. The elevator shaft construction is proposed to be comprised of cast-in-place, reinforced concrete roof and floor slabs and perimeter walls on spread footing founded on bedrock.

At the pedestrian tunnel and elevator shaft tie-in to the existing parking garage, selective cut-out demolition of the existing 12" reinforced concrete garage perimeter wall and construction of a new header beam over the tunnel and elevator door openings will be required.

The opinion of probable construction cost for the all pedestrian link structural components (PAETEC building lobby enclosure, tunnel section, garage tie-in and elevator shaft), including the hydraulic elevator, is \$425,000.

Tunnel Ventilation. The pedestrian tunnel will require ventilation to conform to the NYS Mechanical Code and also to satisfy the space requirements for air quality. A ventilation rate of 0.20 cfm/sq. ft. or 350 cfm will satisfy these needs. The air will be introduced from the closest available air shaft (existing parking garage 'Shaft E'), and exhausted at the most convenient location at the pedestrian tunnel termination. This air will need to be tempered. The energy source to temper this air will be determined along with the overall plan for the facility. The opinion of probable construction cost for the ventilation system is \$4,000.

Tunnel Storm Sewer and Water Systems Storm Drainage and water piping will require installation of floor drains, sand and oil separators, piping and a storm water duplex sump pump system. It is anticipated this system will be shared with the new truck service tunnel.

Opinion of Probable Construction Cost:

Storm Sewer:	\$5,000
Oil/sand separator system and drains:	\$30,000
Replacement domestic water piping above ground:	\$2,000

Tunnel Dry Pipe Sprinkler System

A new Dry Pipe sprinkler system with standpipe hose valves and air compressor from the Garage Sprinkler Room to, and including, the pedestrian tunnel will be required. It is noted that the cost does not include in-coming piping from the Holly System, if a new water supply main is required. The opinion of probable construction cost for the sprinkler system is \$10,000.

Tunnel Electrical System. Electrical systems required for the pedestrian tunnel will include lighting, fire detection and notification, and power for the miscellaneous support facilities, such as ventilation and the proposed elevator on the garage side of the tunnel. Lighting will be provided in accordance with IESNA

recommendations for pedestrian tunnels, with a minimum average of 5 foot-candles (FC). Fire detection devices would be located along the walkway and in the elevator lobby, as well as audio-visual notification appliances, and manual pull stations at each entrance. Fire alarm devices would be connected to the garage fire alarm system. Power for the lighting, ventilation, and other support facilities would be connected to the existing parking garage power distribution system. The opinion of probable construction cost for the electrical systems is \$40,000.

3.3.4.2 Underground Parking Garage

3.3.4.2.1 Roof Slab under Street Grid

As part of the Base Plan for the Midtown Redevelopment Project, a new City street grid is proposed to be constructed over the existing Midtown Parking Garage footprint; Future Roads A, C and E. The location of the street grid requires strengthening (or reconstruction) of the garage roof (Mall Level) slab, the elimination of the garage's Chestnut Street exit and the elimination of some existing emergency egress stair towers and a ventilation exhaust shaft inside the parking garage.

Roof Slab Modifications. It is proposed to construct the new streets on top of the garage roof (Mall Level) slab at its existing elevation. The existing 12" reinforced concrete roof slab's load carrying capacity is not adequate to carry City street highway loading. Therefore, it will be necessary to strengthen (or reconstruct) the roof slab to carry an AASHTO HS20 live load design vehicle and the weight of the roadway construction materials. As a strengthening measure, the construction of a 5" minimum reinforced concrete slab placed over the top of the existing roof slab is proposed. The existing roof slab below the new reinforced concrete slab will be scarified to create composite action between the two slabs. At some roof slab panels, even when considering the new composite slab, the existing slab's steel reinforcement is not adequate to carry the imposed loads and therefore, will require reconstruction. At these locations, the existing utilities hung from the reconstructed roof slab will require temporary support, modification or relocation. Drawing ST-01 depicts the limits of this roof slab strengthening/reconstruction work. During the final design phase of the project, additional slab strengthening methods will be considered.

Due to the proposed street profiles, roadway and sidewalk cross slopes and curb height, constructing the new street grid on top of the garage roof slab will create a step down condition into adjacent buildings and storefronts. Means of overcoming this elevation difference can include installing stairs and ADA ramps inside the building, installing lightweight concrete fill on the floor area or a combination of both.

Considerations with installing lightweight concrete fill include the reduction in available floor live load capacity and the available first floor headroom.

Under the footprint of the proposed Pedestrian Corridor, the existing 3" concrete fill over the garage roof (Mall Level) structural slab is proposed to be removed and replaced to accommodate the proposed landscape treatments along the corridor. A waterproof membrane over the pedestrian corridor footprint will also be installed. No roof strengthening is required provided the superimposed loading over the roof

does not exceed 250 PSF or one AASHTO H15 truck (30,000 LBS vehicle weight with 14-foot axle spacing) per garage bay.

The remaining areas of the of the existing garage roof (Mall Level) slab in the parcels adjacent to the footprint of the new street grid and pedestrian corridor (Parcels 2 & 6) are to receive a waterproof membrane and 2" asphalt overlay as a temporary measure until these parcels are developed.

The new street grid configuration and site development treatments require the elimination of three existing emergency egress stair towers along the garage's north perimeter wall; stair towers located under new Pedestrian Corridor and Parcels 4 and 6. These three stair towers can remain to provide travelling internally between parking garage levels. The remaining existing emergency egress stair towers in the garage facility satisfy the Building Code of New York required 300-foot exit travel distance on all three parking levels. The stair tower openings will be sealed with a 12" reinforced concrete slab.

The opinion of probable cost for all garage roof modifications depicted on Drawing ST-01 (i.e., strengthening, reconstruction, waterproofing and closing roof openings) is \$1,500,000.

An additional design consideration for addressing the new street grid over the garage roof is to lower the roof slab under the street footprint, similar to the original garage construction under Broad Street and Elm Street. Lowering the roof slab offers the new street sidewalks to approximately match the existing garage roof (Mall Level) slab elevation, thus eliminating the need to step down into adjacent buildings and storefronts. The lowered slab is proposed to match, in elevation and thickness (13"), the existing adjacent lowered roof slab under Broad Street and Elm Street. Lowering the garage roof slab also requires shortening the existing garage concrete columns, constructing new cast-in-place, reinforced concrete beams spanning between the garage columns at the slab steps and reconstructing a portion of the adjacent existing reinforced concrete slabs, beams and drop panels to reconfigure the steel reinforcing (existing interior spans become end spans). The new beams at the slab steps will extend below the lowered slabs to accommodate new column drop panels. Existing utilities hung from the lowered roof will require costly relocation and modification. Impacts to the storm, water, and fire suppression systems are anticipated to cost \$400,000. Drawings ST-02 & ST-03 depict the lowered slab details.

The details at specific new street grid locations are as follows:

- Future Road E. Two garage roof (Mall Level) slab bays are proposed to be lowered, bounded by column lines 6 to 8 / P to Q. The total of area of slab to be lowered and reconstructed is 1500 SF and 3395 SF, respectively. The step in the structural slab will be 1'-6" to match the existing adjacent lowered slab located under the former bus terminal and plaza loading dock along existing Elm Street. The opinion probable construction cost to structurally perform this work is \$325,000.
- Future Road A & C. Approximately 40 garage roof (Mall Level) slab bays are proposed to be lowered, predominantly bounded between Column Lines 14 to 18 / H.1 to the garage's east

perimeter wall. The total of area of slab to be lowered and reconstructed is 31,250 SF and 11,275 SF, respectively. The step in the structural slab will be 1'-6" to match the existing adjacent lowered slab under Elm Street and the former plaza loading dock. In Parcel 3 along column lines 13 and 14, five existing building steel columns are to remain in-place after the Midtown Plaza Demolition and Site Preparation contract. Located directly over the garage columns, the presence of these columns, with their base plates/anchor bolts at the Mall Level, pose major constructability issues with constructing the required new concrete beams at the slab steps. Leaving the concrete below the building column base plates requires drilling and grouting the new beam reinforcing bars through a "maze" of column anchor bolts, Mall Level existing slab reinforcing and column vertical and spiral reinforcing. This is considered not feasible to accomplish. A more constructible option involves constructing the new beams for the slab step on independent columns adjacent to the existing columns. The new columns would extend to Level C with spread footing founded on bedrock. Localized Level C floor reconstruction and rock excavation will be required to accommodate the new column footing. Parking stall restriping on all garage levels will be necessary where the new columns are located. The number of spaces in the column bays will be the same as existing, however, the parking stall will lessen in width by approximately 7". The opinion probable construction cost to structurally perform this work is \$2,600,000.

Chestnut Street Exit. The proposed configuration of Elm Street eliminates the parking garage's Chestnut Street exit. This existing exit served both garage parking Levels A and B (the new garage exit in the service tunnel will serve only Level A). The exit opening at the face of the parking garage is proposed to be closed with a reinforced concrete infill wall with steel reinforcing bars drilled and grouted around the perimeter of the wall. Work also includes removing the exit's roof structure under Elm Street and backfilling with embankment material. The opinion of probable construction cost to perform this work is \$100,000.

Ventilation Exhaust Shafts. The existing ventilation exhaust shaft in the garage's northeast quadrant (Exhaust Shaft B) falls under the footprint of Future Road A and therefore must be eliminated. New exhaust shafts will be required to be constructed. The existing shaft extends up through all three garage parking levels. A new shaft, built in close proximity to the existing shaft will house new ventilation fans to accommodate the ventilation requirements previously supplied by the original equipment. Construction of the new exhaust shaft involves selective cut-out demolition through the existing elevated garage roof and floor slabs, and construction of cast-in-place, reinforced concrete enclosure walls and spread footings founded on bedrock. Matching approximately the same footprint as the existing shaft, the opinion of probable construction cost to structurally build the new shaft enclosure is \$350,000. The opinion of probable construction cost for the new ventilation equipment required to replace the equipment in the existing shaft is \$530,000. This amounts to a total cost of \$880,000.

For the design consideration to lower the garage roof, in addition to the new shaft described above, ventilation distribution ductwork located on Level A will be required to be removed and re-installed in areas in which the garage roof will be lowered. The opinion of probable cost for re-installation of the ventilation distribution duct in these areas is \$126,000.

Roadway Drainage Structures. To capture surface runoff within the new City street grid, new drainage structures will need to be installed. Many of the proposed drainage structures fall over the footprint of the existing parking garage roof. Roof slab modifications will be required to accommodate these drainage structures. It is anticipated at the new drainage structures the lower portion of drainage structure will extend below the roof slab into the garage (similar to existing condition). The anticipated structural construction cost to modify the existing garage roof slab and provide additional drainage piping is estimated to be \$6,000 per each location. Based on 25 proposed locations, this amounts to \$150,000.

3.3.4.2.2 Garage Structural Rehabilitation

The proposed structural rehabilitation to the Midtown Parking Garage is based on Repair Scenario #1 outlined in the May 2008 "Midtown Parking Structure - Condition Appraisal" prepared by Walker Parking Consultants. This repair scenario addresses the repair of current concrete deterioration to structural members (floor slabs, beams, columns, walls and curbs) and the replacement of the leaking expansion joints extending under Broad Street and Atlas Street. The service life of Repair Scenario #1 ranges from 8 to 10 years. This repair scenario does not address waterproofing and other maintenance items. The garage structural rehabilitation opinion of probable construction cost is \$3,500,000. See Appendix IV for more detailed information on the proposed structural rehabilitation measures.

3.3.4.2.3 Garage Storm and Water Piping

As a minimum rehabilitation measure to make the parking garage facility operational, the damaged or missing floor drain/trench grates and sediment buckets require replacement. The opinion of probable cost to perform this work is \$30,000.

Fire Suppression System

To make the parking garage facility operational, the minimum rehabilitation measures to the fire suppression system include service and maintenance to the system to verify proper operation and replacement of nine (9) of the eleven (11) air compressors (2 were previously replaced in the last 3 years). As part of the service and maintenance, the piping will be flushed and inspected for corrosion and blockage. The outcome of this activity may reveal additional repairs are required. The opinion of probable cost to rehabilitate the garage sprinkler system is \$61,000.

See Appendix IV for additional information on the garage fire suppression system rehabilitation measures.

3.3.4.2.4 Garage Mechanical System Rehabilitation

The air-handling equipment (fans and fan motors) are past their useful life and considered inefficient by today's energy standards. The existing equipment is functional and can remain, however it is recommended that all fans and motors be replaced to meet current energy standards and codes.

The ductwork condition is acceptable. The final configuration of the ventilation system will depend on final garage configurations and the removal or modification of offices, egress access, ventilation shafts, etc.

For operational cost considerations, the minimum required ventilation rate according to the NYS Mechanical code is 1.5 cfm/sq. ft. of garage space or 1,147,500 cfm of outside air. Air flows will be reduced where the system is arranged to operate automatically upon detection of a concentration of carbon monoxide of 25 parts per million (ppm) by approved automatic detection devices. It is recommended that these devices be incorporated into any new ventilation system designs or any existing system modifications.

The requirement for heat for the garage is dependent on the owner's environmental requirements. Currently, the garage is unheated and various systems have been designed for isolated freeze protection of individual areas. All mechanical spaces have installed heat. The operation of these systems could not be verified and require a service/operational inspection. Any new systems or areas that have the potential for causing structural or component damage due to freezing temperatures would be required to be addressed on an individual basis. Electric heat (unit heaters, baseboard heaters, heat trace, etc.) would be the recommended heat source. The opinion of probable cost for maintenance and start-up of the existing ventilation system as well as the isolated heating elements is \$40,000. If the ventilation fans were to be replaced, as is recommended above, the opinion of probable cost for fan replacement is \$1,600,000.

The following describes a description of the systems required if the owner requires assurance that the garage environment be maintained above freezing.

The garage will require a heat source as much of the existing former plaza building structures above the garage roof are being removed under the 2010 Midtown Plaza – Demolition and Site Preparation contract. The existing ventilation system is unheated and will require a heating system depending on the environmental condition requirements (temperature). The required heat for the ventilation air is significant. A heat load calculation will be performed during the design phase of the project. The energy source will be determined base on life cycle costing relevant to the final site configuration. Energy sources considered will be a gas fired high efficiency hot water system, district steam, and electric resistance heat. The cost for the ventilation heating systems is \$300,000. This cost represents the distribution costs of a heating system only. The opinion of probable cost for the central plant heating system is \$800,000. Therefore, the total cost to provide heat for the garage is \$1,100,000 which would be in addition to any cost described above.

See Appendix IV for additional information on the garage mechanical system rehabilitation measures.

3.3.4.2.5 Garage Electrical System Rehabilitation

The electrical distribution in the parking garage facility generally appears to be in good condition and serviceable in its current state, so no specific rehabilitation measures are recommended at this time.

The lighting, controls, fire alarm, and fire detection systems are in poor condition but functional. Upgrades for these systems are recommended.

No immediate rehabilitation costs for the garage electrical system are required at this time. See Appendix IV for additional information on the garage electrical systems rehabilitation measures.

3.3.4.2.6 New Garage Exit

Due to the proposed elimination of the existing Chestnut Street exit ramp to accommodate the new street grid, a new garage exit is proposed at the parking garage's northeast corner. The proposed exit is located at garage Parking Level A between column lines "Q" and "R". The exit will tie-into the proposed truck service tunnel. The service tunnel structure will be widened to accommodate one garage exit lane and two service tunnel lanes. Cast-in-place, reinforced concrete walls will separate traffic exiting the garage from traffic utilizing the service tunnel. The walls will be supported on spread footing founded on bedrock. The service tunnel roof system will be extended over the garage exit.

At the garage exit tie-in to the existing parking garage, selective cut-out demolition of the existing 12" reinforced concrete garage perimeter wall and construction of a new header beam over the exit door opening will be required.

3.3.4.2.7 New Garage Pedestrian Tunnel and Stair Tower

Direct access from the parking garage to street level is proposed at the parking garage's northeast corner. This will be accomplished by constructing an underground pedestrian tunnel link traversing below the proposed truck service tunnel floor and constructing a stair tower located along the north wall of the service tunnel's open ramp section (see Drawing ST-04). Due to the elevation of the service tunnel floor, the tunnel will access the garage at Parking Level B between column lines "S" and "T".

The estimated length of the tunnel section is approximately 60 feet. The tunnel's inside clear dimensions are proposed to be 10 feet wide by 8'-10" high. The stair tower is proposed to be similar to the parking garage's Stair Tower #2; 10'-4" by 17'-10" in footprint with a metal pan stair system. At street level, a roofed enclosure over the stair tower will be provided.

Tunnel / Stair Tower Structure. The tunnel and stair tower are proposed to be comprised of cast-in-place, reinforced concrete perimeter walls and roof slabs. The walls will be supported on spread footing founded on bedrock. The floors will be a 5" concrete slab-on-grade over 6" thick stone subbase layer over soil.

At the pedestrian tunnel tie-in to the existing parking garage, selective cut-out demolition of the existing 12" reinforced concrete garage perimeter wall and construction of a new header beam over the tunnel door opening will be required.

Tunnel / Stair Tower Ventilation.

The pedestrian tunnel will require ventilation to conform to the NYS Mechanical Code and also to satisfy the space requirements for air quality. A ventilation rate of 0.20 cfm/sq. ft., or approximately 150 cfm, will satisfy these needs. The air will be introduced from the closest available air shaft (new relocated ventilation shaft in the parking garage), and positively pressurize the pedestrian tunnel. The air will be ducted to the pedestrian tunnel through the garage parking Level B and terminate in the tunnel occupied space by means of supply register(s). Mechanical exhaust means will not be introduced and relief will be accomplished through barometric relief means. The ventilation air will not be tempered.

Tunnel / Stair Tower Storm Sewer and Water System. Storm drainage and water system provisions will require installation of floor drains, sand and oil separators, piping and possibly a storm water duplex sump pump system. CW piping would be provided for freeze resistant wall hydrants.

Tunnel / Stair Tower Dry Pipe Sprinkler System. A new dry pipe sprinkler system with standpipe hose valves and air compressor from the Garage Sprinkler Room to, and including, the pedestrian tunnel will be required.

Tunnel / Stair Tower Electrical System. Electrical systems required for the pedestrian tunnel and stair tower will include lighting, fire detection and notification, and power for the miscellaneous support facilities. Lighting will be provided in accordance with IESNA recommendations for pedestrian tunnels, with a minimum average of 5 foot-candles (FC). Fire detection devices will be located along the walkway, as well as audio-visual notification appliances, and manual pull stations at each entrance to the space. Fire alarm devices will be connected to the garage fire alarm system. Power for the lighting and other support facilities will be connected to the existing parking garage power distribution system.

3.3.4.3 Service Tunnel

Design Criteria. The design truck currently utilizing the service tunnel is an AASHTO Heavy Truck, based on the existing flatbed "haul-away" truck used for the Rochester Convention Center (RCC) dumpster removal (based on the April 2009 "Concept Feasibility Review Report: Service Tunnel Ramps at South Avenue" prepared by LaBella Associates, PC). The truck dimensions are as follows:

- 35 feet overall length (including RCC 30 yard container mounted)
- 21 feet wheelbase
- 8.5 feet width (excluding mirrors, which are an additional 6" each side)
- 11.75 feet height (including RCC 30 yard container mounted)

The new truck service tunnel geometrics will be designed to accommodate this current design truck and a tractor trailer (WB-50). Tractor trailer access to the new service tunnel portion is being considered to accommodate the future development plans for Parcels 2, 3 and 5.

The truck service tunnel geometric design criteria are the following:

- 30 feet minimum wall-to-wall horizontal clear opening
- 14 feet minimum vertical clearance floor-to-ceiling
- 15% maximum ramp/tunnel slope

The below grade tunnel structure shall be designed to carry all imposed dead loads and an AASHTO HS20 design live load vehicle.

Tunnel Alignment. The new truck service tunnel alignment approximately follows the existing tunnel alignment (“hugs” the north perimeter wall of the parking garage). From the entry/exit ramp at Atlas Street, the tunnel follows a tangent alignment to an open loading dock area. The loading dock area serves the existing garage loading dock door and a future loading dock for Parcel 5. From this area, the tunnel angles toward the existing tunnel through the Seneca Building basement. The angled orientation provides adequate sight distance for opposing vehicles to eliminate the need for a traffic signal. At the Seneca Building, a widened tunnel portion is provided to maintain access to the existing RG&E electric vault in the Seneca Building basement. Additionally, at the Seneca Building tunnel access foundation wall opening, the existing basement floor is lowered to achieve 13’-0” minimum vertical clearance under the building’s header beam spanning the tunnel’s foundation wall opening (at 12’-3” existing vertical clearance, this beam has been previously impacted several times by vehicles). See Drawing ST-04 for the proposed service tunnel alignment.

Tunnel Structure. The entry/exit ramp to the tunnel is an open structure utilizing a post and panel wall system. This wall system is comprised of steel posts socketed into bedrock, precast concrete panels placed between the posts, and a cast-in-place concrete veneer and cap finished wall treatment, topped with a concrete parapet and steel railing (see Drawing ST-05). On an approximate 11.5% grade, the ramp floor is comprised of a 7” reinforced concrete slab-on-grade with 3” concrete overlay over 12” stone subbase on soil. The 11.5% ramp grade is required to achieve having the below grade tunnel portion fall below Future Road C. Advantages to the post and panel wall system include low cost, minimal excavation and disturbance to existing adjacent features, doubles in use as the temporary excavation shoring system, and provides a small footprint for future development of Parcel 6.

The below grade tunnel section is a two-sided structure that “hugs” the north perimeter wall of the existing parking garage. A steel roof framing system, composite with a 13” cast-in-place, reinforced concrete slab is pocketed into the existing garage perimeter wall (similar to the original tunnel construction) on the south side and supported on a reinforced concrete wall supported on spread footing founded on bedrock on the north side (see Drawing ST-05). To create the beam pockets in the existing garage perimeter wall, wall concrete removal and reconstruction is required. The north tunnel wall flares in width to accommodate a

new parking garage exit from Level A entering the service tunnel. The tunnel floor construction consists of a 7" concrete slab-on-grade with 3" concrete overlay placed over a 12" stone subbase layer on soil. The tunnel roof slopes downward to follow the tunnel floor slope. Advantages to the two-sided structure include low cost, maintains existing tunnel alignment "tight" to the garage perimeter wall, no potential for differential settlement, and can accommodate future wall openings.

The loading dock area and tunnel portion to the Seneca Building is comprised of a steel roof framing system, composite with a 13" cast-in-place, reinforced concrete slab. The steel framing spans between either steel cross beams or reinforced concrete perimeter walls. The steel cross beams are supported on reinforced concrete columns. The perimeter walls and columns are on spread footings founded on bedrock. The perimeter wall common to Parcel 5 shall be designed to be removed to accommodate a future loading dock. To achieve a 14-foot minimum vertical clearance and an "open" area for tractor trailer turning movements, the steel roof framing depth requirements dictates the original tunnel floor be lowered approximately 2 to 3.5 feet. This is based on providing 3 ½" minimum cover (top and binder asphalt courses) over the top of the tunnel roof under Future Road B.

The new service tunnel structural work opinion of probable construction cost is \$3,250,000.

3.3.4.3.1 Service Tunnel Water and Sewer/Storm

Storm drainage and water piping will require replacement and installation of trench drains, sand and oil separators, piping and a storm water duplex sump pump system.

Opinion of Probable Construction Cost:

Replacement sanitary/storm/vent piping (\$3.50/Sq Ft)	\$81,900
Sand/oil separator system and drains	\$60,000
Replacement domestic water piping above ground (\$1.00/Sq Ft)	\$23,400

3.3.4.3.2 Service Tunnel Fire Suppression

Estimated cost to provide a new dry pipe sprinkler system with standpipe hose valves and air compressor is \$6.00(+/-) per square foot from the Sprinkler Room to, and including, the service tunnel. It is noted that the square foot unit cost does not include in-coming piping from the Holly System, if a new water supply main is required.

Opinion of Probable Construction Cost:

New Dry Pipe System (\$6.00 Sq Ft)	\$141,000
New Sprinkler Riser Room and CA Piping	\$15,000
Modification to below grade piping mains a new FDC	\$20,000

3.3.4.3.3 Service Tunnel Ventilation and Heat

The truck service tunnel will require a heat source and ventilation air. A heat load calculation will be performed during the design phase of the project. Initial projections are that the heat requirements will be minimal. The minimum required ventilation rate is 1.5 cfm/sq. ft. of tunnel space. At this rate, 40,000 cfm is being estimated as required. Air flows will be reduced where the system is arranged to operate automatically upon detection of a concentration of carbon monoxide of 25 parts per million (ppm) by approved automatic detection devices. The energy source will be determined based on life cycle costing relevant to the final site configuration. Energy sources considered will be a gas fired high efficiency hot water system, Rochester District Heat steam, and electric resistance heat. The opinion of probable construction cost for heating and ventilation is \$120,000.

3.3.4.3.4 Service Tunnel Electrical System

Electrical systems for the truck service tunnel will include roadway and pedestrian lighting, fire alarm and detection equipment, security and access control systems, and power for the miscellaneous support systems, such as ventilation equipment. The existing power distribution from the parking garage would be used to supply the electrical loads for the service tunnel. Lighting would be provided by a combination of HID and linear fluorescent luminaires, chosen based on the environmental conditions and lighting requirements in each area of the tunnel. Fire alarm and detection connections for the service tunnel would be extended from the existing parking garage fire alarm system.

In its current configuration, security for the tunnel is essentially nonexistent. The tunnel has free access for several hours a day, and is not monitored to any extent. It is proposed that for the new configuration of the service tunnel that an access control system utilizing proximity cards be installed to allow the garage doors to remain closed to general traffic, and only granting access to authorized personnel. In addition, security cameras are proposed to monitor vehicles at the door to allow for visually verified remote door operation through either an intercom or phone system. Security cameras would also be provided along the tunnel to monitor unauthorized pedestrian or vehicle traffic, and provide the ability to monitor for accidents or other tunnel blockages.

The opinion of probable construction cost for electrical work related to the service tunnel is \$92,000.

3.3.4.3.5 Service Tunnel through Seneca Building

Remedial work is proposed to address the observed water leaking from the Clinton Avenue area into the service tunnel near the tunnel overhead door at the Seneca Building west foundation wall. The existing 2" expansion joint and flashing at the interface between the Seneca Building foundation wall and the service tunnel roof slab under Clinton Avenue is proposed to be replaced. The opinion of probable construction cost to perform this work is \$35,000.

3.3.4.4 Bridges

There are no proposed bridges within the project limits.

3.3.4.5 Hydraulics of Bridges and Culverts

There are no bridges or culverts within the project limits.

3.3.5 Public and Private Utilities

The project site has several areas impacting existing infrastructure. The public infrastructure consists of combined sanitary and storm sewers operated by the Rochester Pure Waters District (RPWD), and fire (Holly) and domestic water mains operated by the City Water Bureau. Private utilities include six different communication providers for telephone, cable, and data communication, Rochester Gas and Electric (RG&E) for natural gas and electrical systems and services, and the Rochester District Heating (RDH) for steam lines.

The design of the utility infrastructure systems to support the redevelopment of the former Midtown complex has two major limiting factors. The first is the reconfigured section of the service tunnel linking Atlas Street to the existing tunnel under the Seneca Building. This section of service tunnel will follow the north wall of the parking garage and sit approximately four feet lower than the existing floor elevation with provisions for loading docks servicing Parcels 3 and 5. It will be difficult to cross the service tunnel with new utility infrastructure due to vehicle clearance requirements. The second limiting factor is the parking garage and the obstacle it represents to desired utility installations within the proposed rights-of-way for the street and pedestrian grid above.

Under the project, the north end of Future Road C located east of Parcel 5 will be reconfigured to a 12-foot wide one-way, south bound roadway with 8-foot wide parking lanes along both sides (Refer to drawing UT-03). There will be limited impact to existing utilities with this modification. Curb line adjustments will require the relocation of drainage structures and hydrants. Valve boxes and manhole rims will need to be adjusted to revised grades. The RG&E 12-inch natural gas main will need relocation out from under the new west curbline to maintain service to the Bank of America. Verification of sufficient cover to Verizon's network connection between Chestnut Street and East Main Street will be required. If the cover is inadequate the network conduits will need to be relocated. The existing Frontier conduits and cables with services to outside customers will also need to be protected.

The domestic water main along Atlas and Elm Streets will be replaced due to conflicts with new drainage and sanitary infrastructure and curbing along Atlas Street. The existing parking garage ramp along Elm Street and exiting to Chestnut Street will be eliminated. This ramp will be realigned and connected to the new service tunnel ramp. The existing water main beneath the existing Elm Street ramp will be

reconstructed (refer to drawing UT-04). The existing Frontier conduits and cables with services to outside customers will need to be protected.

The Rochester District Heating (RDH) system network has been impacted by the demolition of the Midtown Complex. A 4-inch high pressure steam line traversing the former McCurdy's building between the former Seneca Building and Euclid Street has been severed and temporarily removed to permit building demolition. This line provided a network loop and system redundancy for the primary 12-inch steam line located under Level C of the parking garage (to remain). RDH indicates this secondary line needs to be reconnected to maintain continuous and reliable service. Several incidents occurred during demolition to obstruct the 12-inch steam and temporarily shut down steam delivery which reinforced RDH's need for network redundancy to complete repairs.

The project will impact RG&E's primary electrical distribution network within Level A of the parking garage if structural modifications to the garage roof (lowering the roof) are needed for HVAC equipment relocations, road grade adjustments or building modifications adjacent to the former Midtown Tower. Refer to Additional Considerations for more discussion.

Multiple RG&E network and non-network electrical vaults outside the garage will also be impacted in several locations by the proposed street configuration and curblines adjustments. The impacts include placement of roadway, parking area, curb and/or sidewalks over several vaults South Clinton Avenue, Future Road A, Euclid Street, Future Road C, Elm Street, and East Main Street. Refer to section RG&E Primary Electric for more discussion.

The realignment of the south curblines along East Main Street to provide parking will require the relocation of drainage structures. Valve boxes will need to be adjusted to revised grades. Relocation of RG&E transformer vault 1.42 $\frac{3}{4}$ or adjustment of proposed curblines will be required. Verification of sufficient cover to RG&E's network conduit banks between South Clinton Avenue and Future Road C will also be required. If the cover is inadequate the network conduits will need to be relocated.

During the design phase, the impacted private utilities may need to find alternate routes to reestablish their network connection, expand their networks, reconnect lost customer services, and/or provide service to future customers. Based on our assessments of the public and private infrastructure there are no apparent impacts to the existing networks or customer services for the following agencies from the project (this will be confirmed during final design):

- Fibertech
- MC Fiber (Assuming RG&E conduit banks have sufficient cover)
- TW Cable
- TW Telecom

Additional Design Considerations

A design consideration to be reviewed during the next phase involves the possible lowering of the garage roof in the northeast corner of the parking garage (refer to drawings ST-01, ST-02 and ST-03).

This design consideration requires removal of the deck 10 feet south of column line 13 north to the garage limits and east of the expansion joint at column row "H." The impacts to RG&E electrical systems include the removal of the ceiling above RGE Vault 27.04 (Vault 4) and subsequent removal of all ceiling mounted primary electrical cable trays and primary circuit cables exiting Vault 4 between column rows "P" to "R" and "14" to "16" The trays would be temporarily removed from Vault 4 west to column row "Q", then south to main tray between column rows "12" and "13". The associated primary circuit cables would need to be removed back to the source. In addition, the transformers at Vault 4 would need to be shutdown and removed while the roof is razed and replaced, If the ceiling lowering is extended between column rows "D" to "H" and "5.4" to "14" (northern garage limits) removal of more cable trays and circuits to Vaults 5, 8, and 9 would be required.

Public Utilities

3.3.5.1 Storm and Sanitary Sewers

With the redevelopment of the former Midtown Complex, the individual development parcels will be serviced by separate storm and sanitary laterals in accordance with the New York State Plumbing Code. The proposed laterals will either connect to existing dedicated sewers that encompass the project site or to proposed extensions of the combined sewers operated by the Rochester Pure Waters District.

Storm and sanitary collections systems for parcels located above the parking garage (Parcels 2, 3, 4, 6 and 7) will be suspended from the ceiling in Level A of the garage. Code interpretations will be necessary from both the Rochester Pure Waters District (RPWD) and City Plumbing Department related to the number of users permitted on a shared lateral without dedication to the RPWD.

Based on conceptual design conversations with the RPWD, the design approach for sewers within the proposed City rights-of-way will include; the construction of new combined sewers (not separate storm and sanitary mains) with connections to existing combined sewers; improvements to existing combined sewers; and/or the continued use of existing combined sewers. However, near the intersection of Broad Street and South Clinton Avenue an existing separate storm sewer begins conveying stormwater runoff westward to the Genesee River. A combined sanitary/storm sewer extends northward along South Clinton Avenue to the truck service tunnel to provide sanitary and storm sewer service. With the available separate storm sewer the RPWD has indicated that separate storm and sanitary laterals from both Parcels 2 and 3 will be required for connection to the respective South Clinton Avenue sewers.

Prior to building demolition, eight discrete and separate sewer systems were suspended from the ceiling on Level A of the parking garage that conveyed flows to sewers along South Clinton Avenue, the former Cortland Street, Atlas Street and Elm Street. Post demolition, it is anticipated that the primary laterals including; the 10-inch, 12-inch and 14-inch lines, towards South Clinton Avenue; the 8-inch and 15-inch lines towards Elm Street; and, the 8-inch line towards Atlas Street can be replaced and utilized for redevelopment. The other systems will be eliminated, including flows to the former Cortland Street and vertically to the pump station located on Level C of the garage. With redevelopment, the anticipated hydraulic loading to these remaining laterals will need to be reviewed to ensure flows do not exceed the available capacity of the existing dedicated sewers encompassing the project site.

As discussed above, new sewers will be constructed or existing sewers utilized within the proposed street and pedestrian corridor City rights-of-way to provide service to the development parcels and street collection systems. All sewers within the rights-of-way will be dedicated to the Rochester Pure Waters District. The proposed collection systems are schematically shown on drawings UT-03 and UT-04. In general the new sewers include the following:

- Future Road C: Utilize the existing combined sewer located east of Parcel 5 and along Future Road C. Based on closed circuit televising completed by RPWD personnel the existing sewer generally appears in good condition. As a result, minimal work is anticipated to maintain utilizing this sewer. New street catch basins and services from Parcel 5 will be connected. This existing sewer will be extended south and then west along Future Road D to the service tunnel and collect run-off from the proposed street network.
- Future Road B: Based on the parcel configuration (refer to drawing UT-03), it is anticipated that approximately 150 linear feet of pipe lining will be completed at the former Cortland Street private sewer south of the East Main Street sewer connection. This rehabilitated sewer will then be extended southward to the proposed service tunnel limits (refer to drawing UT-04).
- Future Road A: A combined sewer will be installed from South Clinton Avenue eastward along Future Road A and enter Level A of the parking garage between Columns 14-H and 15-H (refer to drawing UT-04). This sewer will continue eastward within the parking garage suspended from the ceiling of Level A to receive the proposed catch basins along the east portion of Future Road A and the south end of Future Road C adjacent to Parcels 4 and 6a.
- Broad Street: At Broad Street and Future Road E, as well as the pedestrian corridor located over the garage a separate storm sewer serving these features will be installed within the garage Level A with stormwater flowing westerly and discharging to the existing storm sewer along South Clinton Avenue.

Street Stormwater Conveyance

The stormwater system along the proposed street grid will consist of multiple conveyance networks located within the public rights-of-way and suspended in Level A of the garage. These conveyance systems will be independent of the laterals extended to each of the developable parcels. Above the parking garage drainage drop inlets will be placed in the ceiling of Level A to collect stormwater from portions of Broad Street, Future Road E, Elm Street, Future Road C, and the pedestrian corridor (between Future Road A and Broad Street) . Beyond the garage limits, portions of Elm Street, Future Street B, Atlas Street, and Future Road C east of Parcel 5 will have drainage inlets connected to existing, relocated, or new sewers. The proposed collection systems are schematically shown on drawings UT-03 and UT-04.

As discussed with the RPWD, stormwater from the pedestrian corridor and Broad Street (both above the parking garage) will be directed to the existing 30-inch storm sewer along South Clinton Avenue that outfalls to the Genesee River. Within the parking garage structure this would be accomplished by utilizing the existing 10-inch system (Drawings UT-02 and UT-04). An analysis of the capacity of the collection systems will be performed during the design phase and sized accordingly.

Sanitary/Storm Sewer Services to Parcels

The approach for storm and sanitary services to each of the developable parcels is as follows:

Parcel 1

This parcel has multiple opportunities for connection to the dedicated gravity laterals along East Main Street, South Clinton Avenue (north and south of the service tunnel) and eastward to the proposed sewer extension along Future Road B. The basement area south of the service tunnel has an existing pump station that discharges to a gravity lateral connected to the public sewer north of the service tunnel along South Clinton Avenue. The northern half of the basement has potential for a gravity lateral to the deep 30-inch sewer along East Main Street and/or possibly to the sewer extension along Future Road B. Conveyance of stormwater run-off could be internally plumbed and discharged to the existing sewers to the west, north and east of the parcel as described above.

Parcel 2

This parcel is located entirely above the parking garage and will be surrounded by streets and a pedestrian corridor. The most feasible configuration will be new laterals out to the dedicated sewers along South Clinton Avenue with separate laterals dedicated for storm and sanitary flows. The size and location of each lateral would be determined during redevelopment of the parcel. Storm and sanitary collection system for this parcel will be hung in Level A of the parking garage (refer to drawing UT-04). Stormwater from this parcel will be directed to the existing 30-inch storm sewer along South Clinton Avenue that outfalls to the Genesee River. Sanitary flows will be directed to the existing 18-inch to 24-inch combined

sewer along South Clinton Avenue or possibly the new combined sewer north of the garage along Future Road A.

Parcel 3

This parcel consists of the former Midtown Tower and surrounding proposed retail development that will be surrounded by streets and a pedestrian corridor. Parcel 3 is located entirely above the parking garage. This parcel is currently serviced by six separate collection systems for sanitary effluent and stormwater run-off within the parking garage. Many of these collection systems currently share connection points with other proposed development parcels and the street grid. Based on preliminary discussions with the RPWD, each parcel will be serviced separately and stormwater run-off from the street grid and pedestrian corridor will be collected in a segregated system from that serving the parcel services. With redevelopment, it is anticipated that the existing 12-inch and 14-inch combined sewers flowing westward towards South Clinton Avenue will remain in Level A and will become private laterals for Parcel 3. The redevelopment will need to separate sanitary and storm laterals. No other parcel or street drainage will be permitted to connect to these private laterals.

To the east, a 15-inch sewer exits to Elm Street and subsequently connects to a 24-inch combined sewer along Chestnut Street that will not be impacted by redevelopment. This 15-inch sewer currently has no branch laterals within Level A of the garage. It penetrates the ceiling of the garage northeast of the former Midtown Tower near Column 10-P. Additionally, a separate 8-inch lateral from a drainage drop inlet collects run-off from the former bus circulation area, follows the exterior eastern wall of the garage and connects to the manhole with the 15-inch line described above. The 15-inch and 8-inch lines would become private laterals for Parcel 3 discharging to the dedicated manhole along Elm Street.

The northwestern corner of Parcel 3 has a collection system on the ceiling of Level A that conveys the former Midtown Plaza floor drains as well as effluent from a variety of drops, down to Level B near Column I-15. From there, flows are conveyed to the southerly portion of the former Cortland Street private sewer that will be severed by the construction of the new service tunnel. Due to construction of the new service tunnel it is anticipated this sewer will no longer be viable for flows from the parking garage or Parcel 3.

The northeastern portion of the parking garage, including the former exterior plaza loading docks, is serviced by an 8-inch sewer exiting the eastern wall of the garage. This is the starting point of the combined sewers along the southern part of Atlas Street. This sewer collects numerous drops into Level A of the garage from the former retail spaces above that have been removed during demolition operations. The 8-inch main is located within the proposed Parcel 3 limits and would not be impacted by the removal and reconstruction of the garage roof slab near RG&E Vault 4, if required for structural modifications. This sewer is connected to the combined sewers along Atlas Street flowing north to Euclid Street.

With redevelopment, it is anticipated that reworking of several existing main sewer lines will be necessary to provide service to Parcel 3. The plumbing consultants associated with the parking garage and Parcel 3 will need to identify the hydraulic loading of each lateral and distribution. Further assessment of the storm and sanitary sewers on Level A of the parking garage will be necessary to ensure that adequate horizontal separation distance is provided for the other utilities and that minimum clearance distances are maintained for vehicular circulation.

Parcel 4

This parcel is intended to be public open space owned by the City of Rochester with hardscape and landscape improvements. It is anticipated that the center of the parcel will be graded as a high point shedding stormwater run-off to the outer edges to be collected by perimeter drainage. Coordination with the Landscape Architect will be necessary to facilitate a well drained soil media that allows for vertical drainage above the parking garage and new service tunnel. No sanitary laterals are anticipated for this park setting.

Parcel 5

It is anticipated that Parcel 5 will be serviced by multiple private storm and sanitary laterals. Dedicated sewers are available to the north along East Main Street, to the west along Future Road B, to the south along Future Road D, and to the east along Future Road C. The developer's consultants will need to identify the hydraulic loading of each lateral and distribution.

Parcels 6a & 6b

This parcel is bordered on all sides by the new street grid and the new service tunnel. Parcel 6a is located south of the service tunnel and is partially located above the parking garage. For Parcel 6a it is anticipated that storm and sanitary flows will be directed eastward toward Atlas Street, with portions of the sewers suspended from the ceiling in Level A of the parking garage. Two laterals will extend from the parking garage and connect to the combined sewer along Atlas Street (refer to drawing UT-04). The developer's consultants will need to identify the hydraulic loading of each lateral and distribution.

No services are anticipated for Parcel 6b located north of the service tunnel. If needed sanitary and storm services can be provided to the north along Euclid Street or west along Future Road D.

Parcel 7

This parcel is located over the southeastern limits of the parking garage (refer to Drawing UT-04). It is anticipated that storm and sanitary flows will be directed eastward towards Chestnut Street, with portions of the sewers suspended from the ceiling in Level A of the parking garage. Two laterals will extend from the parking garage north of the existing ventilation shaft and connect to the combined sewer along Chestnut Street (refer to drawing UT-04). The developer's consultants will need to identify the hydraulic loading of each lateral and distribution.

3.3.5.2 Domestic Water

The proposed domestic water network adjacent to the project site and to be operated by the City Water Bureau includes: a 12-inch water main along South Clinton Avenue; a 20-inch water main along East Main Street; an 8-inch water main along Future Road C and Euclid Street that increases to a 12-inch near the intersection of Atlas Street and links (loops) to the 12-inch water main along Chestnut Street. The water main network also loops between Euclid and Chestnut Streets with an 8-inch line along Atlas and Elm Streets.

All domestic water mains within the rights-of-way will be dedicated to the City Water Bureau. The proposed domestic water system improvements are schematically shown on drawings UT-03 and UT-04. In general the new domestic water improvements include the following:

- Replace the domestic water main along Atlas and Elm Streets due to drainage structure replacements and curblines adjustments. (The proposed curb line lies directly above the existing water main and drainage structures will interfere with the water main.)
- The Elm Street garage ramp exiting to Chestnut Street will be eliminated and relocated to the service tunnel ramp. Reconstruct the water main beneath the existing Elm Street.
- Curblines and sidewalk adjustments along Future Road C will require hydrant location modifications. Hydrant locations may also require striping adjustments for parking.
- Extend a new dedicated water main from South Clinton Avenue eastward along Future Road A into Level A of the parking garage between column rows "14" and "15" terminating in a utility closet in Level A (refer to drawing UT-04). The existing water utility room in Level B is abandoned, as there is currently no use for the existing service.
- Provide new domestic services to all Parcels. Under the building demolition contract, individual water services to all the buildings of the former Midtown Complex have been terminated at the main by various methods, except for the 8-inch service to the former Midtown Tower located in Levels A and B of the parking garage..

Domestic Water Service to Parcels

The approach for domestic water services to each of the developable parcels is as follows:

Parcel 1

To service this parcel with a domestic supply, it is anticipated a new service will be cut into the existing 12-inch water main along South Clinton Avenue. A master meter and backflow prevention equipment will be located in the basement mechanical room south of the existing service tunnel (refer to Drawing UT-03). The developer's consultants will size and determine the location and obtain the necessary approvals for the domestic service (typical for all development parcels).

Parcel 2

We have identified three options under which domestic service could be provided to Parcel 2. These options should be evaluated further as plans for development of the parcel advance. The first option is to reuse the existing mechanical room in the northwest corner of Level B. The second is to construct a new mechanical room on Level A. This option could be centered on the South Clinton Avenue leg of the parcel and provide greater accessibility; however, it would eliminate existing parking spaces on Level A of the garage. The third option is to construct a mechanical room at the parcel's first floor elevation. This option too could be centered on the South Clinton Avenue leg of the parcel and provide greater accessibility; however, it would occupy street-level tenant space. The mechanical room wherever constructed would house a master meter and backflow prevention equipment. Depending on the option selected, the service could enter the garage at Levels A or B, and from South Clinton Avenue or Future Road A. The developer's consultants will size and determine the location and obtain the necessary approvals for the domestic service.

Parcel 3

Parcel 3 consists of the former Midtown Tower and potential retail space above the parking garage. Under the project, a domestic water main extension is proposed along Future Road A between the parking garage and South Clinton Avenue. This extension could potentially provide service to Parcels 2, 3 and 6, with private services hung in the parking garage if permitted. The project also extends the domestic service from Future Road A to the former Midtown Tower from a mechanical room located on Level A of the garage (refer to Drawing UT-04) The existing service will be abandoned back to the Level B mechanical room.

An advantage to this concept is that the individual retail tenants on Parcel 3 surrounding the former Midtown Tower could connect to the domestic service downstream of the master meter and backflow prevention device. The sizing and final location will be determined with the developer's consultants for the redevelopment of Parcel 3.

Parcel 4

This parcel is intended to be a park setting and coordination with City and Landscape Architect will determine if irrigation water is required for the proposed plant materials. If irrigation water is necessary, a service would be extended from the main extension described above along Future Road A.

Parcel 5

For Parcel 5 the existing domestic network has potable water available to the north from the 20-inch main along East Main Street, or to the east from the 8-inch main along Future Road C. The domestic service for this parcel will be sized and located by the developer's consultants during the approval process for development of this parcel.

Parcels 6a & 6b

For Parcel 6a the existing domestic network has a potable water supply available from the east consisting of an 8-inch main along Atlas Street. The domestic service for this parcel will be sized and located by the developer's consultants during the approval process for development of this parcel. It is assumed that Parcel 6b does not require domestic water service. If water service is needed the existing domestic network has a potable water supply available from the north consisting of an 8-inch main along Euclid Street.

Parcel 7

The existing domestic network has a potable water supply available east of Parcel 7 consisting of a 12-inch main along Chestnut Street. The domestic service for this parcel will be sized and located by the developer's consultants during the approval process for development of this parcel. Given that this parcel is located entirely above the existing parking garage, it is anticipated that a new service would be installed through the eastern wall of the garage into Level A. One option would be to construct a new mechanical room on Level A. This option may eliminate existing parking spaces on Level A. A second option would be to construct a mechanical room at the parcel's first floor elevation. This option would occupy street-level tenant space. These options should be evaluated further as plans for development of the parcel advance.

Parking Garage

The design phase will identify any required hydraulic demands for potable water in the three story parking structure. These demands could consist of restrooms, wash down water, and janitorial closets. If a domestic service is required, it would likely be an extension off the new water main along Future Road A.

3.3.5.3 Fire Water (Holly System)

The proposed fire protection network (Holly System) adjacent to the project site and to be operated by the City Water Bureau includes: a 12-inch main along South Clinton Avenue; a 16-inch main along East Main Street; a 12-inch main along Future Road C; and, a 12-inch main along Chestnut Street. Through the demolition contract, the individual fire services to each building/garage defining the former Midtown Complex have been terminated at the main by various methods, except for two of the three original Holly services to the parking garage. . These two remaining fire service entrances are located near the intersections of South Clinton Avenue/Broad Street and Chestnut Street/Broad Street and enter the garage below Level C.

All Holly fire service water mains within the rights-of-way will be dedicated to the City Water Bureau. The proposed Holly water system improvements are schematically shown on drawings UT-03 and UT-04. In general the new Holly water improvements include:

- **Garage Fire Protection:** The City Water Bureau indicates that the fire service lines downstream of the detector check valves at the two remaining fire service entrances to the garage are considered privately owned. This ownership issues will need to be resolved. Regardless, the existing private fire system within the parking garage, including the mains under Level C and all risers, will be utilized primarily for fire protection of the garage structure. Each building and developable parcel above the parking garage structure, will need its own private fire service separate from the garage system. The reconstructed and remaining service tunnel will have a shared system with the parking garage and is discussed in the Fire Suppression section of this Report.
- **Future Road C:** The project severs the existing 12-inch Holly line along Future Road C approximately 180-feet south of East Main Street (refer to Drawing UT-03). The fire service to Bank of America will be maintained. Curblines and sidewalk adjustments along Future Road C will require hydrant location modifications. Hydrant locations may also require striping adjustments for parking. This main will be extended southward as described below.
- **Future Road B:** The project includes a Holly System extension off East Main Street extending south along Future Road B and ending near the southwestern corner of Parcel 5 at a hydrant.
- **Future Road A:** The project includes a Holly System extension from South Clinton Avenue eastward along Future Road A and ending in a mechanical room on level A of the parking garage (refer to drawing UT-04). A hydrant would be installed just northeast of Parcel 2 beyond the limits of the parking garage. From the mechanical room, a fire service can extend to service various parcels above the parking garage structure.
- **Fire Loop:** The project includes a Holly System extension that would complete a loop from Future Road A back to East Main Street by crossing under, or through, the service tunnel, then east along Future Road D, and then north along Future Road C.

Holly Fire (Water) Service to Parcels

The approach for fire water services to each of the developable parcels is as follows:

Parcel 1

The fire service for this parcel will likely cut into the existing 12-inch main along South Clinton Avenue or connect to the proposed Holly infrastructure improvements along Future Road A and/or Future Road B. It

is anticipated that the utility services for Parcel 1 would reuse the existing basement mechanical room just south of the service tunnel and adjacent to South Clinton Avenue. Sizing of this service, final location and design of the backflow prevention equipment, and obtaining all necessary approvals will be by the responsibility of the developer's consultants, (typical for all fire services).

Parcel 2

The approach to provide fire service to this parcel will mirror the approach to provide domestic water service as described above.

Parcel 3

As part of the overall infrastructure improvements, an extension of the Holly system is proposed on Future Road A between the parking garage column rows "14" and "15" and South Clinton Avenue (refer to drawing UT-04). This extension would end in a mechanical room located in Level A of the parking garage and could provide private fire services to Parcels 2, 3, 6, and the new service tunnel from piping hung in the parking garage. The existing fire protection that serviced the garage and former Midtown Tower will be segregated and dedicated strictly to the fire suppression for the parking garage and service tunnel. Design considerations will have to include the location of a mechanical room for Parcel 3 and how the fire protection will be installed to service both the redeveloped Tower and its surrounding retail/mixed use development. Sizing of this service, final location and design of the backflow prevention equipment, and obtaining all necessary approvals will be by the responsibility of the developer's consultants.

Parcel 4

This parcel is intended to be a park setting (public gathering space) and does not warrant a fire service.

Parcel 5

The existing Holly "fire protection main" network has service available from the existing 16-inch main along East Main Street to the north. Parcel 5 will also have access to the proposed Holly lines along Future Road C to the east, Future Road D to the south and Future Road B to the west. Sizing of this fire service, final location and design of the backflow equipment, and obtaining all necessary approvals will be the responsibility of the developer's consultants.

Parcels 6a & 6b

For Parcel 6a the fire service can be provided from the combined domestic/fire main to be replaced along Atlas Street. Sizing of the fire service, final location and design of the backflow prevention equipment, and obtaining all necessary approvals will be the responsibility of the developer's consultants. It is assumed that Parcel 6b does not require a separate fire service. If a separate fire service is needed a service from the new Holly system along Future Road D could be provided.

Parcel 7

The existing fire suppression network has a supply available east of the parcel consisting of the 12-main main along Chestnut Street. The fire service for this parcel will be sized and installation location

determined during the approval process for redevelopment of this parcel by the developer's consultants. Given this parcel is located above the existing parking garage, it is anticipated that a new service would be installed through the eastern wall of the garage in Level A. The approach to providing fire service to this parcel will mirror the approach to provide domestic water service as described above.

Parking Garage

The existing fire protection piping in the garage and former Midtown complex will be utilized only for the fire protection of the garage after redevelopment. The former Midtown Tower and the surrounding former Midtown Plaza areas utilized for retail/mixed use redevelopment will have a new fire service hung in Level A of the garage. The proposed plumbing upgrades and improvements for the garage fire suppression system are discussed in the Fire Suppression section of this Report.

Service Tunnel

It is anticipated that the new service tunnel and existing parking garage can share a fire suppression system because they have a common owner, the City of Rochester. Refer to Fire Suppression section of this Report for more information regarding the service tunnel fire protection network.

Private Utilities

3.3.5.4 RG&E Primary Electric

It is anticipated that the developable parcels located above the parking garage will be fed power from the RG&E network within the garage. The other parcels will receive power from various underground network systems either existing or installed by RG&E along the rights-of-way of the various Future Roads. The developer's consultants will need to work with RG&E to provide the necessary requirements.

The project will impact RG&E's primary electrical distribution network within Level A of the parking garage if structural modifications to the garage roof (lowering the roof) are needed for HVAC equipment relocations, road grade adjustments or building modifications adjacent to the former Midtown Tower. Refer to Additional Considerations for more discussion. The reinstallation of the cable trays and circuits between RG&E's vaults in the garage for the redevelopment will need to be coordinated with the other infrastructure (e.g. gravity discharge systems) suspended in the parking garage especially if reduced ceiling heights are proposed.

RG&E representatives have indicated that Level A of the parking garage contains circuit 569, which is the feed from Chestnut Street across the garage through Vaults 5 and 9 to the Bausch & Lomb Building. This circuit also feeds equipment in Level B and extends south of Vault 5 towards, but does not feed, Xerox. It does not appear as if these circuits and cable trays will be impacted by the project.

The greatest impact to RG&E's electrical network outside the garage will be the numerous vaults impacted by the proposed street configuration and curblines adjustments. The impacts include placement

of roadway, parking area, curb and/or sidewalks over several vaults including 81.02 3/16 and 81.02A (South Clinton Avenue/Future Road A); 1049.01A and 1049.01 (Euclid Street); 1049.01 1/2, 1049.01 7/8, 1049.01 15/16 (Future Road C); 2457.03, 2457.02, 2457.01 and 2457.01 1/2 (Elm Street); and, 1.42, 1.42 3/4, 1.44, 1.46, and 1.48 (East Main Street). Several of the above are significant network vaults including:

- The intersection of Future Road A and South Clinton Avenue at RG&E network Vaults 81.02 3/16 with high voltage network transformers and RG&E main splice bus Vault 81.02A.
- Euclid Street vaults including network Vaults 1049.01A (having (2) 750 KVA network transformers), 1049.03, 1049.04.
- East Main Street transformer vault 1.42 3/4

The realignment of the south curblin along East Main Street to provide parking will require the relocation of drainage structures. In addition to possible relocation of RG&E transformer vault 1.42 3/4 verification of sufficient cover to RG&E's network conduit banks along East Main Street between South Clinton Avenue and Future Road C will be required. If the cover is inadequate the network conduits will need to be relocated or lowered.

3.3.5.5 RG&E Natural Gas

Natural gas is available from the Rochester Gas and Electric (RG&E) distribution network within the surrounding rights-of-way. To the north, a 16-inch main is located along East Main Street that feeds 12-inch mains going south along both Future Road C and South Clinton Avenue. The existing 12-inch natural gas main along Future Road C ends near the proposed intersection of Future Road C and Euclid Street. This main serves the Bank of America building and the former Midtown Complex. The 12-inch natural gas main along South Clinton Avenue also provided numerous services to the former Midtown Complex. All services to the former Midtown Complex have been terminated with the demolition project.

From Chestnut Street, natural gas mains extend westerly along portions of Euclid and Elm Street. The Euclid Street extension includes a 6-inch main that turns southwest following the existing Atlas Street and services several of the buildings between Atlas and Chestnut Streets. This main also serviced the boilers at the former Midtown Complex. The gas main along Elm Street is a dead end main but provides service to 65-67 Chestnut Street. RG&E may want to consider looping the gas main between Elm Street, Atlas Street and Chestnut Street.

The proposed curblin for Future Road C lies directly above the existing natural gas main. RG&E's 12-inch natural gas main will need to be relocated away from the curb and service to the Bank of America maintained.

It is anticipated that the developable parcels will receive natural gas service from the existing gas mains located along South Clinton Avenue, East Main Street, Atlas Street and Future Road C. The developer's consultants will need to work with RG&E to provide the necessary loads and demands.

3.3.5.6 Rochester District Heating Steam Lines

Rochester District Heating Co-Operative (RDH) is a non-profit user cooperative that provides steam for heating and hot water within the City's inner loop. RDH has a 12-inch primary steam line within a concrete chase located under Level C of the parking garage. RDH has an easement for this steam line location. The chase has two shafts up to the street level for exterior access that were reconstructed in 2000. These access shaft manholes are both visible near the center of Broad Street near the western edge of Chestnut Street and eastern edge of South Clinton Avenue. This 12-inch steam line will not be directly impacted by the redevelopment but must be protected. Protection includes maintaining operational the sump pumps located in Level C of the garage since the steam chase drainage discharges to the garage underdrainage system. Backup of groundwater into the steam chase cools the steam lines resulting in condensation which fills or partially fills the steam pipe with fluid effectively obstructing the flow of steam. .

The demolition contract for the former Midtown complex (with approval from RDH) included the severing of a 4-inch high pressure steam line that bisected the site. The 4-inch line traversed the former Midtown complex from Euclid Street to the Seneca Building, with piping located in the service tunnel, former McCurdy's Building and former Euclid Buildings. This 4-inch line provided steam heat to the Seneca Building and served to loop the steam system outside of the parking garage providing a backup to the primary 12-inch main. Without the 4-inch backup, the 12-inch primary line is the sole source of steam to multiple RDH customers for heat and hot water. These customers are generally located between South Clinton Avenue to the east, the Genesee River to the west, East Main Street to the north, and Broad Street to the south.

The 4-inch steam line has been cut and capped within the mechanical room located in the former Seneca Building. From this location eastward the pipe has been removed to a point just outside the former Euclid Building in the vicinity of Station EU 12+50. The pipe was then capped inside an existing steam manhole along Euclid Street and the underground pipe between the manhole and former Euclid Building foundation wall was abandoned in place.

Rochester District Heating will need to identify an alternate path within easements or rights-of-way to re-establish the redundant bypass. Incidents during the demolition contract that impacted the co-op's ability to provide steam service to its customers have rekindled the interest in re-establishing the redundant loop. Additionally, RDH may explore expanding its distribution network to service parcels north of the truck service tunnel. For the projects parcels, the respective developer's consultants will need to work with RDH to provide the necessary loads and demands if steam service is desired.

RDH is also considering modifications to the two existing steam lines along Broad Street and west of South Clinton Avenue to provide a piping interconnection with valving between the two independent systems. This interconnection would normally be closed but could be opened to provide backup to each system during routine or emergency repairs.

NOTE: Rochester District Heating has indicated that if the chilled and hot water loops described below are constructed, the existing high pressure steam line on Euclid Street can be terminated at RDH manhole "RDH 67-8.4", located at the intersection of Chestnut Street and Lawn Street. The 4-inch high pressure line severed with the demolition contract has no active customers at this time on the section from the manhole to the termination point in Euclid Street.

3.3.5.7 Communications (Voice/Data/Video)

Of the six identified voice / data / video providers around and through the former Midtown Complex potential impacts to two agencies have been identified. These impacts may result from the proposed street configuration and curblines adjustments, as well as the removal of the Elm Street garage ramp. The impacts include placement of roadway, parking area, curb and/or sidewalks over vaults or shallow buried conduit ducts and demolition activities directly adjacent to existing facilities. Existing hand holes, vaults and conduit ducts will need to be protected and possibly relocated at conflicts.

Frontier

Frontier has four, 4-inch conduits on the west side of Future Road C located just east of the basement walls of the former McCurdy's building. These conduits include a service to the Bank of America building. Frontier also has conduits along Elm Street and adjacent to the existing garage ramp with services to outside customers. These raceways and associated vaults would need to be protected.

Frontier also has a 9-way transite conduit with approximately 24 thousand cable pairs and 2 fiber optic bundles (one 48 strand & one 36 strand) under Level C of the parking garage. This conduit with cable and fiber optic bundles will not be directly impacted by the redevelopment but must be protected.

Verizon

Verizon has recently installed two, 4-inch conduits along existing Euclid Street (including Future Road C) that may be impacted if insufficient cover is provided. These conduits link their systems along East Main and Chestnut Streets and consist of a 144 count fiber cable.

The four other providers include:

Fibertech	no anticipated impact to their network or customer services with redevelopment.
M.C. Fiber	no anticipated impact to their network or customer services with redevelopment.
TW Cable	no anticipated impact to their network or customer services with redevelopment

TW Telecom no anticipated impact to their network or customer services with redevelopment.

3.3.5.8 RDH/RDC Chilled and Hot Water

Rochester District Heating (RDH) is investigating installation of a new district heating and district cooling infrastructure that utilizes closed loop water systems. These would be considered a new private utility and would function similarly to their high pressure steam system servicing Downtown Rochester. Based upon the supporting documentation provided by RDH, a pair of 20-inch chilled water mains and pair of 12-inch hot water lines would be installed within the Midtown redevelopment limits to service the redevelopment parcels and future expansion west of South Clinton Avenue and north of East Main Street.

One of the preferred pathways being investigated is the existing RDH chase system under Level C of the parking garage. This would involve removal of the out-of-service piping (former water main) in this concrete chase system. Being able to traverse the garage will enable chilled/hot water services for the heating and cooling system servicing the developable parcels above the parking garage, including Parcels 2, 3, 4, and 6.

3.3.6 Landscape and Environmental Enhancements

3.3.6.1 Landscape Development and Other Aesthetics Improvements

Trees and landscaped spaces will be included in the design for the new streets and open space. Widened sidewalks with attractive amenities and plazas for public activity and gathering are included as well. View corridors will be opened by the inclusion of new public streets. See Section 3.4 for more information on the streetscape and open space design.

3.3.6.2 Environmental Enhancements

Trees and landscaped spaces will be included in the design for the new streets and open space. Access to views to the sky and the outdoors will be increased.

3.3.7 Miscellaneous

Areaways

An areaway investigation was performed for this project. All buildings within the project limits that are scheduled to remain were investigated for the presence of an areaway.

As a part of this investigation, a visual inspection of each basement was performed to determine if an areaway exists. The table below documents the results of the investigation.

TABLE 3-5 SUMMARY OF AREAWAY INVESTIGATION

Areaway No.	Owner	Property	Address	Areaway?	Dimensions	Known Utilities
1	First States Investors	Bank of America	1-17 East Avenue	Yes	8.5x8.0	Fiber (minor)
N/A	Riedman Agency Inc.	Riedman Agency	45-47 East Avenue	No	N/A	N/A
2	Riedman Corporation	Vacant	49-57 East Avenue	Yes	4.3x74.0	Water, Electric (extensive)
3	Maximus Col. LLC	Decibel	45 Euclid Street	Yes	14.5x55.0	Water, Electric, Gas, Other (extensive)
4	Action for a Better	Action for a Better Community	27-33 Chestnut Street	Yes	6.3x16.0	None
5	Raldon Center City Prop.	Convenience Store	6 Atlas Street	Yes	5.7x4.6	None
N/A	Raldon Center City Prop.	Raldon Center	35 Chestnut Street	No	N/A	N/A
N/A	City of Rochester	Vacant	88-94 Elm Street	No	N/A	N/A
6	Ramji Inc.	Cadillac Hotel	45-51 Chestnut Street	Yes	11.5x5.6	Electric (minor)
7	Mwood Estates LLC	Vacant	65-67 Chestnut Street	Yes	49.0x10.0	Water, HVAC, Electric, other (extensive)

During final design, coordination with property owners will be necessary to determine the disposition of each areaway. In general, the City encourages the removal of areaways within the right-of-way and will include areaway abandonment as part of capital projects. The building owner is typically responsible for relocating any utilities or other equipment that may be located in the space. Should the owner decide to retain the areaway, it is typically the owner's responsibility to ensure that the roof slab is structurally sound per the City's current loading design criteria. The structural integrity of the roof slab will need to be certified by a professional engineer licensed in New York State.

Refer to Appendix IX for more detailed information regarding the areaways.

3.4 Streetscape and Open Public Spaces

3.4.1 Streetscape

3.4.1.1 East Main Street

East Main Street is the northern border of the project. The proposed design along East Main Street maintains the standard dimensions, surface treatments and amenities as existing conditions. It is proposed to maintain the typical condition with wide sidewalks, offset tree plantings, standard city benches, standard city light fixtures with banners, standard city trash receptacles and standard city bowl-shaped planters.

3.4.1.2 City Street

South Clinton Avenue, East Broad Street and Chestnut Street border the property along its west, south and east sides, respectively. These are categorized as City Streets. In the city zoning regulations, City Streets are characterized as those that “serve as the principal facility for carrying through traffic across the CCD” (Section 120-61). The design objectives include “generous sidewalks and delineation of the sidewalk from the vehicular zone with tree lawn street amenities (light standards, benches, trash receptacles, etc.) should be consistent on all city streets to identify them as such appropriately sized and spaced deciduous trees should be integrated into the design of the pedestrian zone to enhance separation and comfort” (Section 120-61). The concept for City Streets is similar to that of District Streets, Drawing L-07, Midtown District Street Section, illustrates a proposed typical condition with sidewalks, trees and tree lawns. In some locations, the incidence of the parking garage below, or narrowed sidewalk, will limit tree lawn and tree planting options. In these cases, the area between the pedestrian zone and vehicular zone will be treated with pavers.

3.4.1.3 District Street

New Streets within the project boundaries, are proposed as District Streets. As defined by Section 120-61 of the City zoning regulations, the streetscape “pedestrian zone should be designed to include adequate space for uninterrupted movement and localized street activities and should be delineated from the vehicular zone with tree lawns. Well-defined pedestrian crossing should be considered a design priority. Street amenities (light standards, benches, trash receptacles, etc.) should be unique to the district and designed/selected to express the character of the district. Appropriately sized and spaced deciduous street trees should be integrated into the design of the pedestrian zone to enhance separation and comfort.”

Proposed design of the streetscapes within the project boundaries includes consistent, unique and contemporary amenity choices and a tree lawn with deciduous tree plantings. To enhance the identity of the district, and provide a more residential feel, the parking areas along the street are proposed as unit pavers with a 2' paver strip between the curb and the tree lawn. Concrete is proposed along the main pedestrian walkway between the tree lawn and the building face. Drawing L-07, Midtown District Street Section, illustrates these proposed conditions.

There are streets and sidewalks within the project area that are above the parking garage structure. In these areas, it is not expected that there will be sufficient soil depth to allow for successful tree plantings. Along the District Streets above the garage, contemporary raised structured planters with hardy, tall ornamental grasses are proposed. Between them, in what would be a typical tree lawn, low ornamental grasses are proposed. Drawing L-08, Midtown District Street with Garage, illustrates this condition.

3.4.2 City Owned Green Space

The City owned green space, as presented in the GEIS, is positioned in the heart of the Midtown site, providing open views, places to gather, a respite from the urban fabric, and as mitigation for the loss of the historic Midtown Plaza Atrium. Drawing L-01, Midtown Base Plan, illustrates an open park with a combination of green and plaza space. Corridors into the site afford clear and focused views to the south end of the park. Here, a generous open plaza inspired by the regional geology is proposed. Open rolling lawn areas with native stone outcroppings are provided for passive activity and visual relief. A limited number of tree plantings are feasible by raising the topography and increasing soil volume in discreet locations. Walks across and through the park accommodate the street grid and patterns of predicted movement. Benches, table seating, lighting and shrub planting are also included. Drawing L-09, Section Through Midtown Open Space, illustrates the conceptual idea for the open space.

The atrium in the Midtown Plaza served a public function for the City of Rochester as a central gathering space and place for events. The proposed open space is intended to fulfill this function for the new neighborhood. As a reference to the atrium as a source of light, the design team is investigating ways to provide lighting within the plaza pavements. Interpretive signage describing the history of the site and Midtown Plaza should also be provided within the green space, or along the streetscape at the end of Parcel 3 (nearest the actual atrium).

3.4.3 Development Parcel Temporary Green Spaces

For parcels that do not yet have plans for redevelopment, the proposed sidewalks and streetscape should be installed. To encourage a feeling of renewal and neighborhood, considerations for softening the temporary paving and parking is recommended in the open lots. Areas of urban meadows over all or a portion of the parcels is a practical and attractive alternative to a vast area of asphalt. Hardy, drought

resistant, no-mow grasses with a mix of perennials can visually green the site without the need for heavy maintenance or installation expense. This can be accomplished with 6" of topsoil at grade overlaid on a profile of gravel (for drainage). However, installing a meadow over the parking garage such as parcel 2 may be more difficult than areas such as parcel 5 and may require additional topsoil, berms or more sophisticated green roof techniques. Parcel 7 is already paved so would likely not include a full meadow but providing a narrow buffer of meadow between the sidewalk and interior paved surface is recommended.

3.4.4 Pedestrian Corridor

The right-of-way between Parcel 2 and Parcel 3 is proposed as a pedestrian only right-of-way and is flanked by the two new parcels, one of which has already committed to providing ground-floor retail experiences. Directly off Broad Street, and leading to the interior of the site, this has the potential to be an active and programmed outdoor space. Events, sidewalk sales, outdoor dining, and other street activity could occur in this zone. Site design for a pedestrian street along this corridor suggests a flexible arrangement with wide sidewalks along the building face with room for both programming and pedestrian movement, center unit paving with moveable seating and furnishings, as well as vegetation in planters. Amenities, planting and furnishing choices would be consistent with the other district selections. Drawing L-06, Section Through Pedestrian Corridor, illustrates the potential for this area as a pedestrian only zone.

3.4.5 View Corridors

Streets, sidewalks and street trees into the site will open up views across the currently opaque eight-acre parcel. PAETEC's setback along Future Road A will further open views between East Main Street and the site's central open space. The curving geometry of Future Road A, and the proposed footprint setbacks for Parcel 3 (residential and retail development) also allow for views from Chestnut Street into the site interior and open space. If the southwest corner of Parcel 5 developed with a potential building footprint that opens up at the corner of Future Road B and Future Road D, it would strengthen visual connections between the central open space and East Main Street.

Linkages between Euclid Street and East Avenue could be strengthened if the existing parking lot (currently not part of the project scope) could be converted to pedestrian green open space. Views from the site to the building across the way are attractive, and are a draw toward East Avenue and the East End neighborhood.

Drawings L-03, View from Midtown Tower, L-04, Elm Street Looking Northwest, and L-05, Future Road C Looking South illustrate views into the site and from the central green space.

CHAPTER 4 SOCIAL, ECONOMIC, & ENVIRONMENTAL CONSIDERATIONS

4.1 Introduction

This chapter discusses the environmental issues associated with the proposed project. The project consists of the construction of infrastructure improvements to support the redevelopment of the Midtown site. Project elements include:

- New roads: internal street grid, as well as rehabilitation of adjacent streets including Broad Street, South Clinton Avenue, and Main Street
- Public utilities to serve the Midtown site
- Underground parking garage modifications, rehabilitation and pedestrian connections including the elimination of the underground garage exit on Elm Street
- Underground truck service tunnel reconstruction and rehabilitation including a new underground garage exit
- Open space development and a pedestrian rights-of-way referred to as on Cortland Street Extension
- Temporary site restoration (until such a time when development occurs)

4.1.1 Environmental Classification and Lead Agencies

4.1.1.1 NEPA Classification

Previous NEPA Compliance:

In anticipation of using *Economic Development Initiative* (HUD) funds, the City conducted an environmental review under NEPA pursuant to 24 CFR Part 58, "Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities". The NEPA record was assembled in October 2009 and included: 1) NEPA Environmental Assessment/Level of Clearance Finding; 2) NEPA Project Environmental Review Record; 3) Final of Resolution -- NYSOPRHP, ESDC and city of Rochester; 4) NYS SEQR Findings Statement; and, 5) the draft and final generic environmental impact statements included by reference. In complying with NEPA, the HUD ERR examined the environmental impact of a broad range of activities that included:

- Establishment and adoption of an urban renewal plan
- Acquisition of properties within the Midtown block comprising the site proposed for redevelopment by the City
- Closure of the facility

- Abatement of asbestos and other recognized environmental conditions
- Demolition of buildings and segments of the Skyway pedestrian corridors
- Preparation for adaptive reuse of remaining buildings
- Development of an interior street grid, associated utilities and other public improvements necessary to enable conversion of the existing superblock into a neighborhood of multiple smaller parcels more suitable for urban development
- Abandonment of segments of existing streets as necessary to accommodate the alignment of the newly developed street grid
- Re-subdivision of the assemble parcels to create a neighborhood smaller parcels
- Development of a central urban park or open space
- Restoration of the existing underground parking garage
- Potential development of additional on-site parking to meet redevelopment needs
- Execution of development agreements
- Review and approval of site plans for private development
- Conveyance of parcels to private parties for development and occupancy
- Construction of buildings and other improvements upon individual parcels consistent with the urban renewal plan
- Recordation of historic structures, preservation of interior artifacts, a review process prior to raising of Skyway Bridges, public participation in the final design planning of new public space and extended consideration of proposals for adaptive reuse and redevelopment of the existing Midtown tower
- Utilization of grants and other public funding sources to accomplish aspects of the proposed redevelopment effort (including all of the infrastructure improvements identified for the construction project) that together form the project.

In accordance with HUD procedures, the City reviewed the environmental effects of the project in accordance with 24 CFR Part 58.5 and 24 CFR Part 58.6 and issued a NEPA finding of “no significant impact.” The City found that the project will not significantly affect the quality of the human environment. This determination was made following a review of the full NEPA record as described above. On May 13, 2010 Robert J. Duffy, Mayor, City of Rochester signed the NEPA Environmental Assessment/Level of Clearance Finding..

Refer to Appendix V which contains the following documents:

- NEPA Level of Clearance Finding
- NEPA Environmental Review Record

Additional NEPA Compliance for EDA and FHWA:

The city of Rochester has applied for funding from the Economic Development Administration. The application is for funds to construct “streets, utilities and landscaping”. Accompanying the application was an engineering report as well as environmental narrative, each of which was prepared in the specified format required by this federal agency. The EDA application process is separate from this design report. It is anticipated that EDA will issue its own environmental determination regarding this project prior to committing funds for infrastructure work.

The City would also like to use Federal Highway Administration (FHWA) funds for the design and construction of streets at the Midtown site. In general, if FHWA funds are to be used, the project must comply with the provisions of NEPA 23 CFR 771 and have the necessary documentation and environmental approvals from the Federal Highway Administration in order for the project to proceed with the final design and construction phases of the project. Federal aid eligible roads include Broad Street, S. Clinton Avenue, Main Street and Chestnut Street which are City arterials. The proposed internal streets within the Midtown site are considered “Local Roads” and are typically not eligible for Federal-Aid transportation dollars unless they are federal aid earmarks and the legislation is written to include their construction.

For purposes of FHWA’s review under NEPA, the Midtown site is considered “shovel ready”. At the time of this final design report, the City has completed or is completing the following work using state and local funds: establishing an urban renewal district & adopting an urban renewal plan; acquiring properties & relocating several businesses in accordance with federal policies; remediation of contaminated materials in existing buildings; demolishing buildings with the exception of two (Seneca Bldg & Midtown Tower); renovation of underground parking garage & truck service tunnel; and, re-subdivision of the property to create street rights-of-way and suitable sites for future development. The entire project including those actions listed above has been previously reviewed under SEQR as well as under NEPA per 24 CFR Part 58.

In consideration of using FHWA funds to design and construct roads on the cleared site, compliance with 23 CFR 771 begins with the completion of a NEPA checklist. The checklist is used to screen the project to determine the likelihood of environmental impacts and establish the appropriate environmental classification. Included in Appendix V is a NEPA checklist prepared for this project. In accordance with 23 CFR 771.115, the preliminary determination is that the Midtown Redevelopment project can be classified as a Class II *Categorical Exclusion*. Class II actions are actions that do not cause significant environmental impacts, either individually or cumulatively and normally do not require the preparation of an Environmental Impact Statement (EIS) or Environmental Assessment (EA). As indicated on the checklist, some documentation is necessary to confirm this classification. Therefore, the project will be processed as a “categorical exclusion with documentation.” It is noted that, FHWA concurrence with the

environmental classification and documentation is required to proceed into final design and construction using federal transportation funds.

As noted in the checklist, Questions III.3.and III.6.require supporting documentation because they are answered "yes." Question 3 asks, "Is the project on a new location or does it involve a change in the functional classification or added mainline capacity (add through traffic lanes)? Question 6 asks, "Does the project involve changes in travel patterns?" Documentation relative to these questions is included in Section 4.2 and supports the environmental classification identified above.

As part of the review of the draft design report, a question arose regarding compliance with Section 106 of the National Historic Preservation Act (36 CFR 800). This is also the subject of question #10 of the NEPA assessment checklist. A letter from the New York State Office of Parks Recreation and Historic Preservation (dated April 6, 2011) serves as confirmation that; 1) The Historic Preservation Field Services Bureau has reviewed the project in accordance with section 106 of the National Historic Preservation Act of 1966; and, 2) the current undertaking (reestablishment of the historic street grid pattern that was altered by the construction of the plaza and atrium in the 1960s) will have *No Adverse Effect* upon the adjacent national register eligible or listed resources. The letter is included in appendix V.

4.1.1.2 SEQR Classification

Previous SEQR Compliance:

Pursuant to Article 8 of the Environmental Conservation Law, Chapter 48 of the City code, and 6 NYCRR 617, the City of Rochester Director of Zoning, as lead agency, completed the environmental review of the Midtown Redevelopment project. The project was designated as a Type I Action and a Generic Environmental Impact Statement was prepared for the defined action, a broad range of activities as described in the Findings Statement.

A formal SEQR findings statement was adopted by the City in March of 2009 and similar findings were adopted by Empire State Development Corporation a short time thereafter. Section 4.1.3 included herein summarizes the SEQR process that was followed and summarizes the findings and determinations that were made by the City. In general, it was determined that the project is, "consistent with the social, economic and other essential considerations from among the reasonable alternatives thereto, the action is one which would avoid or minimize to the maximum extent practicable, adverse environmental effects including the effects disclosed in the GEIS and set forth in the findings statement."

Refer to Section 4.1.3 for a summary of the Generic Environmental Impact Statement and Appendix V which contains the following documents:

- Final Letter of Resolution – NYSOPRHP, ESDC, City of Rochester
- NYS SEQRA Findings Statement

SEQR Compliance for This Project:

As defined under 6NYCRR Part 617.10(c), generic EIS's and their findings should set forth specific conditions or criteria under which future actions will be undertaken or approved, including requirements for any subsequent SEQR compliance. Now that a specific project is being proposed for construction (roads, utilities, underground garage, truck access tunnel, open space, site restoration), the environmental attributes of that specific project will be reviewed against the generic EIS and related findings. This review is provided below.

In accordance with 617.10 (d)(1), no further SEQR compliance is required if a proposed action will be carried out in conformance with the conditions and thresholds established for such actions in the generic EIS or its findings statement. However, if that is not the case and there are specific actions proposed for construction that were not adequately addressed in the generic EIS, then additional environmental documentation will be needed.

A comparison has been made between the specific construction project described in this design report and the action(s) identified in the generic EIS. In general, the specific construction project matches closely to the projects that were evaluated in the generic EIS. However, there are several traffic related aspects of the project that were not adequately evaluated in the generic EIS and require additional documentation. The traffic related aspects are identified below and documentation evaluating their environmental impact is provided in Section 4.2 and Appendix V.. The following list describes some of the traffic related issues that are identified in which additional documentation is provided.

- Broad Street Conversion: The City would like to rehabilitate Broad Street and convert the thoroughfare from one-way westbound to two-way traffic flow as part of the Midtown project. The limits of the work under this contract will extend from Chestnut Street to Stone Street. Upon reviewing the generic EIS, the concept to change travel directions was not identified as one of the development actions. The traffic analysis included in the generic EIS assumed that one-way streets adjacent to the Midtown site would remain that way. Refer to Section 4.2 for a discussion of traffic related considerations of the Broad Street conversion.
- Convert Existing Euclid Street from one-way northbound (onto Main Street) to one-way southbound (away from Main Street): The section of existing Euclid Street adjacent to the western property line of the Bank of America building (labeled Future Road C on BP-01) will be converted from one-way northbound to one-way southbound. The new traffic pattern will allow eastbound vehicles on Main Street to turn right onto the street and into the site. Westbound vehicles on Main Street would be prohibited from turning left onto Future Road C. Refer to Section 4.2 for a discussion of traffic issues related to the Euclid .
- Relocate the Existing Underground Parking Garage Exit Currently Located on Elm Street: It is proposed to relocate the existing Chestnut Street parking garage exit on Elm Street to a location within the truck service tunnel. Vehicles exiting the underground garage would now emerge

from the truck service tunnel onto Atlas Street which is just around the corner from the original site. Under this scenario, a connection would be made between the underground parking garage (Level A) and the new truck service tunnel allowing vehicles to share the new truck service tunnel ramp. Refer to Section 4.2 for a discussion of traffic issues related to the garage ramp relocation.

To officially complete SEQR, an Environmental Assessment Form (EAF) was prepared for the *Midtown Redevelopment Project* site plan. The EAF provides supplemental information (similar to Section 4.2 of this report) that addresses the environmental effects of the traffic issues identified above. Based on this additional documentation, the City Director of Zoning, acting as the responsible officer for the lead agency (City of Rochester), completed the environmental review of the project under SEQR and signed EAF form. The signed form indicates that the proposed action will not result in any significant adverse environmental impacts. The signed the EAF form is contained Appendix V.

4.1.2 Cooperating, Participating, and Involved Agencies

The following agencies have been identified as “Cooperating Agencies” in accordance with 23 CFR 771.109 (c)(3):

- City of Rochester
- Federal Highway Administration
- Empire State Development Corporation
- New York State Department of Transportation
- Monroe County Department of Transportation
- County of Monroe Industrial Development Agency

4.1.3 Generic Environmental Impact Study

4.1.3.1 Draft Generic Environmental Impact Study

In accordance with SEQR and Chapter 48 of the City Code, the Midtown Redevelopment proposal has been designated as a Type I action. As such, the City of Rochester Director of Zoning, as Lead Agency, conducted a coordinated review pursuant to SEQR and issued a Positive Declaration on June 30, 2008 stating that the project was likely to create significant adverse impacts upon the environment and should be the subject of an Environmental Impact Statement (EIS).

A draft scope of the anticipated Draft Generic Environmental Impact Statement (DGEIS) was issued by the lead agency on July 3, 2008. A hearing on the draft scope to which the public, residents of the

neighborhood, involved agencies, and other interested parties were invited was conducted by the lead agency on July 29, 2008. The final scope was issued by the lead agency on August 7, 2008.

A Draft Generic Environmental Impact Statement was accepted by the lead agency on November 10, 2008 and a notice of completion of the draft environmental impact statement and public hearing issued. The notice appeared in the Democrat and Chronicle on November 20, 2008 and the Environmental Notice Bulletin on November 19, 2008. The DGEIS was properly filed with all involved and interested agencies and made available for public review.

The SEQR and NEPA documentation assembled addresses the social, economic and environmental implications of the project. The following issues are covered in detail in the DGEIS:

Chapter 1- Executive Summary

- 1.1 Proposed Action
- 1.2 Purpose, Underlying Public Need and Benefit
- 1.3 Setting, Potential Impacts and Mitigation
- 1.4 Unavoidable Impacts
- 1.5 Alternatives
- 1.6 Generic Environmental Impact Statements and SEQR

Chapter 2 - Description of the Proposed Action

- 2.1 Overview: Objectives, History, Conditions and Considerations
- 2.2 Specific Activities under the Proposed Action
- 2.3 PAETEC Headquarters
- 2.4 Property Acquisition
- 2.5 Urban Renewal Plan (mixed use development program; assembly, street grid and block configuration, land-use plan and reservations for open space; parking; infrastructure and utilities; demolition of existing buildings and structures)
- 2.6 Clearance and Demolition Phasing
- 2.7 Redevelopment Guidelines, Principles, and Land-Use Regulations
- 2.8 Subdivision and Disposition of Property
- 2.9 Phase 1 Development
- 2.10 Phase 2 and Subsequent Development
- 2.11 Schedule
- 2.12 Transition Plans Improvements
- 2.13 Funding and Approvals

Chapters 3 – Purpose, Public Need and Benefits of the Proposed Action

- 3.1 Purpose

- 3.2 Public Need
- 3.3 Benefits (state and regional interests, community interests and neighborhood benefits)

Chapter 4 - Existing Condition and Environment Setting

- 4.1 Geology, Soils and Topography
- 4.2 Water Resources (groundwater, surface water, existing surface drainage)
- 4.3 Vegetation and Wildlife
- 4.4 Air
- 4.5 Aesthetic and Visual Resources
- 4.6 Cultural, Archaeological and Historic Resources (archaeological resources, historic buildings)
- 4.7 Parks, Recreation and Open Space (existing publicly owned parks and open spaces, existing privately owned public spaces)
- 4.8 Critical Environmental Areas
- 4.9 Land-Use (City of Rochester Center City master plan, City of Rochester zoning and planning regulations, urban renewal plan)
- 4.10 Site Development Capacity
- 4.11 Building Conditions, Studies and Evaluations (exterior shell, roof, interior finishes, elevators, escalators and lifts, mechanical systems, ADA accessibility, parking garage, hazardous materials, site conditions)
- 4.12 Transportation: Traffic and Parking (existing street network, loading docks, service truck tunnel and delivery routes, Midtown parking garage access, existing parking analysis, Midtown traffic analysis, changes to traffic and parking due to Renaissance Square and ESL projects)
- 4.13 Public Transit
- 4.14 Pedestrian (sidewalks and general walk ability, crosswalks, Skyway system in underground tunnels)
- 4.15 utilities(private utilities, public utilities)
- 4.16 Energy
- 4.17 Building Shadows
- 4.18 Noise And Odor
- 4.19 Public Health And Safety
- 4.20 Community Facilities And Services (police, fire, ambulance, public schools, refuse and recycling)
- 4.21 Community/Neighborhood Character in Growth (socioeconomic characteristics of the Midtown Plaza neighborhood, architectural and urban design characteristics, neighborhood

character in growth defined by the Center City master plan and zoning, neighborhood density of development, urban renewal plan neighborhood goals)

- 4.22 Economic And Fiscal
- 4.23 Studies And Community Initiatives Related To Urban Redevelopment
- 4.24 Studies Related to Office, Retail, Hospitality, and Housing Markets

Chapter 5 - Potential Environmental Impacts and Mitigation

- 5.1 Geology, Soils and Topography
- 5.2 Water Resources
- 5.3 Vegetation and Wildlife
- 5.4 Air And Dust
- 5.5 Aesthetic and Visual Resources
- 5.6 Cultural, Historic and Archaeological Resources
- 5.7 Parks, Recreation and Open Space
- 5.8 Critical Environment Areas
- 5.9 Land-Use and Zoning (compliance with Center City master plan, City of Rochester zoning, building design requirements, and urban renewal plan land-use compliance)
- 5.10 Site Development Capacity
- 5.11 Building Demolition and Adaptive Reuse
- 5.12 Transportation (potentially significant impacts to parking, traffic, redevelopment with PAETEC only, PAETEC with low and high density redevelopment: new street rights-of-way interpose dependence, Midtown parking garage access, loading docks, service truck tunnel and delivery routes)
- 5.13 Public Transit
- 5.14 Pedestrian (projected pedestrian usage, Skyway system impacts)
- 5.15 Utilities (public utilities, private utilities)
- 5.16 Energy
- 5.17 Building Shadows
- 5.18 Noise and Odor and Dust
- 5.19 Public Health And Safety
- 5.20 Community Facilities and Services (same topics as 4.21)
- 5.21 Community/Neighborhood Character in Growth (same topics as 4.21)
- 5.23 Studies and Community Initiatives Related to Urban Redevelopment
- 5.24 Consistency with Office, Retail, Hospitality and Housing Markets
- 5.25 Environmental Justice

Chapter 6 - Unavoidable Adverse Impacts

- 6.1 Utilities and Infrastructure

Chapter 7- Irreversible and Irretrievable Commitment of ResourcesChapter 8 - Cumulative ImpactsChapter 9 - Growth Inducing AspectsChapter 10 - Impacts on Use and Conservation of Energy ResourcesChapter 11 - Impact on Solid Waste ManagementChapter 12 - Analysis of Alternatives

- 12.1 Preferred Alternative
- 12.2 No Action Alternatives to the Preferred Alternatives
- 12.2 Mixed-Use Program Alternatives
- 12.3 Assembly, Street Grid, Block Configuration and Parcel Subdivision
- 12.4 Land-Use, Open Space, and Concept Site Plan
- 12.5 Historic Resource Alternatives Involving the Atrium
- 12.6 Alternative for Adaptive Reuse of the Midtown Tower
- 12.7 Parking Garage Alternatives
- 12.8 Parking Alternatives
- 12.9 Demolition of Skyway Bridges and Utilities
- 12.10 Clearance and Demolition Phasing

Appendices

- A. Urban Land Institute Advisory Services Panel Report
- B. Rochester Midtown Concept Alternatives Presentation
- C. Midtown Market Feasibility Analysis
- D. block land-use, massing and public realm Guidelines
- E. Utility Report-Site
- F. NYSOPRHP Determination of Eligibility
- G. Record of NYSOPRHP Section 14.09 Consultation
- H. Relevant Agency Correspondence
- I. Visual Impact Assessment and Building Shadows Study
- J. Cultural Resource Management Report- Phase 1A
- K.. Rochester 2010: the Renaissance plan; campaign 10-Center City Master Plan
- L City of Rochester Center City Requirements and Base and Design District Maps
- M. City of Rochester Design District Requirements Main Street and Tower

- N City of Rochester Midtown Urban Renewal Plan and District Establishment
- O. Condition Analysis Report for the Midtown Project Area
- P. Midtown Building Assessment
- Q Condition Appraisal- Midtown Parking Structure
- R. Midtown Plaza Building Utility Inventory
- S. Midtown Parking Garage: Roof Slab Load Carrying Capacity
- T. Comprehensive Downtown Parking Study
- U. Parking Planning Study
- V. Traffic Assessment
- W. 2007 Downtown Charrette Report: A Vision for the Future:
- X. Survey of Downtown Office Space

4.1.3.2 Public Comment on the GEIS

A public hearing for the receipt of public comments on the DGEIS was held on December 2, 2008. The public comment period was held open until December 19, 2008.

4.1.3.3 Final GEIS and Findings Statement

The Rochester Environmental Commission reviewed the DGEIS and the comments received relative to the GEIS and made recommendations regarding responses to be included in the final GEIS.

A final GEIS was accepted by the lead agency on February 20, 2009, and a Notice of Completion issued. The notice was accepted to appear in the Environmental Notice Bulletin on February 25, 2009. The final GEIS has been properly filed with all involved and interested agencies and made available for public review.

The issuance of the Statement of Findings by each of the involved agencies completes the state environmental review process required by SEQR. The City's Findings Statement is included in Appendix V.

The Findings Statement identified resources regarding which no potential permanent adverse impacts of significance were identified. They are: geology, soils and topography; groundwater and surface water; storm water management; vegetation and wildlife; air; aesthetic and visual resources; archaeological resources; effects to neighboring historical buildings; parks and open space; critical environmental areas; land-use and zoning; site development density and capacity; Midtown garage; truck and delivery access to the Midtown site; public transit; pedestrian resources; off-site utilities; energy; building shadows; noise and odors; community facilities and services; community neighborhood character in growth; economic and fiscal resources; irreversible irretrievable commitment of resources; growth induction; use and conservation of energy resources; and, solid waste management.

The Findings Statement identified resources for which potential temporary adverse impacts related to demolition and/or construction activities would occur. In each instance recommendations are made to minimize those temporary impacts. The recommendations will be considered in the design of the construction project under consideration. The following list identifies those resources for which temporary adverse impacts can be expected and appropriate mitigation measures employed: water resources; air and dust; aesthetics and visual resources; traffic; parking; public transit; pedestrian resources; off-site utilities and infrastructure; noise and odor; public health and safety; demolition; and, temporary off-site activities.

The Findings Statement identified resources where potential adverse impacts (non-temporary) would be realized. Potential adverse impacts of significance that were identified and reviewed include those to the following resources:

- Utilities and Infrastructure: it has been determined that the impacts to public utilities and infrastructure on-site would be mitigated by the inclusion of funds for replacement, relocation and repair in the project budget.
- S/NRHP - Eligible Resources Which Include the Buildings within the Midtown Block: A final letter of resolution between NYSOPRHP, ESDC and the City of Rochester has been executed and is contained in appendix V. It includes stipulations determined to mitigate, to the extent practicable, impacts to cultural resources. These include: recordation of historic structures; preservation of interior artifacts, participation in a review process for razing of Skyway Bridges; participation in the final design/planning of new public space; and consideration of an extended deadline for acceptance of proposals for adaptive reuse of the Midtown Tower.
- Skyway System: It has been determined that the potential negative impact to pedestrians associated with demolishing the Skyway system would be mitigated by the availability of existing and proposed ground level sidewalks and the utilization of those sidewalks to provide connectivity now provided by the Skyway Bridges.
- Traffic: It has been found that a projected level of service "F" for the Court Street eastbound left turn onto Clinton Avenue would be an unavoidable impact. It has been concluded that the Court Street/Clinton Avenue intersection should be monitored as redevelopment of the Midtown site progresses. Affecting geometric modifications to this intersection is not feasible due to the physical constraints of adjacent site development. It was acknowledged that changing some of the surrounding one-way streets to two-way might have some benefit at this location should they be determined to be feasible sometime in the future.
- Parking: It has been determined that the temporary displacement of monthly parkers from the Midtown garage would be made permanent. It has been found that the permanent displacement of these parkers would not in fact lead to a significant adverse parking impact.

- Underground Truck Service Tunnel: It was determined that there should be a decision to relocate the current truck service tunnel from its current location on Atlas Street, it would be a reviewable action. In addition, six criteria were identified as being important to the planning and design of a relocated entrance and it is assumed that the six listed conditions (identified in 4.2.2.) would be adhered to in such an instance and that any further environmental review would therefore be limited to a consideration of potential traffic impacts.

Therefore, it has been determined that future proposals that retain the service tunnel function and adhere to the foregoing conditions will likely be sufficient to mitigate the effects of relocation or realignment.

The Findings Statement evaluated several alternatives to the proposed action under review. They were reviewed and evaluated to determine whether an alternative with fewer or less significant impacts might accomplish the project objectives. The “alternative” findings are:

- No Action Alternatives: It has been found that the build alternative now being proposed remains the preferred alternative which would both realize the stated project objectives and minimize impacts to the maximum extent practicable.
- Mixed Use Program Alternatives: The mixed use program alternatives which combines the two higher density program alternatives has been found to be the preferred alternative which will further realization of the project's goals, minimize impacts to the maximum extent practicable and provide the City and ESDC the most flexibility to respond to changing market conditions in the future.
- Assembly, Street Grid, Block Configuration and Parcel Subdivision Alternatives: It has been determined that the preferred street grid incorporates the most desirable components of the alternatives reviewed in terms of increased access to and through the interior block, improved connectivity to the East End and other neighborhoods and effective delineation of suitable blocks for development consistent with the market conditions described in the DGEIS.
- Land-use, Open Space and Concept Site Plan Alternatives: It has been determined that the anticipated redevelopment would include new opportunities for creating open spaces or parks not currently present in the Midtown site.
- Preservation, Reuse And/or Interpretation of S/NRHP -Eligible Resources Slated for Demolition and Removal: See S/NRHP discussion above.
- Alternatives regarding Adaptive Reuse of the Midtown Tower: It is been determined that the adaptive reuse of the existing Midtown Tower has economic value and could help accelerate development on the site and conserve embodied energy. The City did solicit and receive reasonable proposals for the adaptive reuse of the buildings and that option is progressing.
- Alternatives regarding the Midtown Garage: It has been found that the garage remains an important parking resource, is in reasonable condition given the need for some repairs and

should remain rather than be demolished or reconstructed. Parking available within the garage should be dedicated to supporting the demands associated with uses to be redeveloped on the Midtown site.

- Parking Alternatives: It is been determined that additional demand for parking generated on site should be met through development of additional parking resources on-site.
- Alternatives to Demolition of Skyway Bridges and Of On-Site Utilities: It has been determined that demolition impacts are incidental and of minor significance when evaluated in the context of the overall project.
- Alternatives Related to Phasing and Scheduling of Demolition: It has been determined that demolition of Midtown buildings slated for removal should proceed in a single continuous process rather than in a manner that would phase or delay some of the intended removals.

4.2 Evaluation of Additional Social, Economic and Environmental Issues Identified

4.2.1 Construction of a Project in a New Location

The NEPA checklist, included in Appendix V, identifies issues of potential concern on transportation projects. One such issue (Question III.3.) involves the construction of a project on a “new location.” In complying with 23 CFR 771, the FHWA is concerned about projects constructed on a new location and the effects of that project on existing land uses and resources of significance. As part of the environmental review of the Midtown Redevelopment Project, the environmental effects of building demolition and construction of infrastructure (roads, utilities, open space) have been thoroughly studied. The Environmental Record is exhaustive. Therefore, the concerns normally associated with highway construction on a new location have been previously determined to be negligible and do not represent a significant environmental concern.

4.2.2 Changes in Travel Patterns

The NEPA checklist included, in Appendix V, identifies issues of potential concern on transportation projects. One such issue (Question III.6.) involves “changing travel patterns.” In complying with 23 CFR 771, the FHWA is concerned about projects that will create a change in travel patterns that could potentially affect businesses and other land uses within the corridor. This issue is also important to the SEQR review as identified in Section 4.1.1.2.

Broad Street Conversion: As part of the Midtown Redevelopment Project, there are public improvements being proposed on some of the adjacent streets. The improvements being contemplated on Broad Street include pavement rehabilitation and reconstruction, as well as the conversion of the one-way westbound traffic to a two-way traffic pattern. Such a traffic pattern conversion is consistent with City of Rochester plans to convert an adjacent portion of Broad St. (between Broadway and Chestnut) to two-way.

To address this issue, a traffic study (dated March 2011) has been prepared by LaBella Associates to evaluate the traffic implications of converting Broad Street into a two-way thoroughfare between Chestnut Street and Stone Street. The study is included in Appendix III. The study concludes that changing the traffic pattern will not adversely affect level of service on the street over a 20 year study period. The study has been reviewed and approved by City and County staff. In fact, the conversion is considered a positive change that will improve circulation within the Center City District and provide improved access to properties along the corridor, including the underground parking garage with entrances located on Broad Street. Future level of service calculations for the Broad & Chestnut Street intersection and the Broad & South Clinton Avenue intersection indicate acceptable levels of service (overall intersection level of service C or better during the morning and afternoon peak hours).

This change in travel patterns will not result in any additional right-of-way acquisitions.

Convert Existing Euclid Street from one-way northbound (onto Main Street) to one-way southbound (away from Main Street): The section of existing Euclid Street adjacent to the western property line of the Bank of America building (labeled Future Road C on BP-01) will be converted from one-way northbound to one-way southbound. The new traffic pattern will allow eastbound vehicles on Main Street to turn right onto the street and into the Midtown site. Westbound vehicles on Main Street would be prohibited from turning left onto Future Road C.

Future Road C. does not serve a major transportation purpose in the downtown street network. It is an alleyway that is primarily used for deliveries and parking. The Midtown project does not change this basic function and the road will continue to serve these purposes. Traffic that would have used this ally to exit the site onto Main Street will now use Cortland Street which is being designed to serve as the primary entrance and exit to the Midtown site from Main Street. A new traffic signal is planned at the Cortland/Main intersection.

This traffic pattern change is considered more desirable than the current situation in which vehicles exit onto Main Street in close proximity to a busy intersection (East Main Street/East Avenue/Franklin Street). Monroe County Traffic supports this change because it reduces the number of conflict points on Main Street in the vicinity of the East Avenue intersection. Lastly, on-street parking would be maintained on Future Road C. which was a concern for existing businesses in the vicinity.

This traffic pattern adjustment is not anticipated to create adverse environmental impacts for this one way alleyway.

Relocate the Existing Underground Parking Garage Exit Currently Located on Elm Street: It is proposed to relocate the existing underground parking garage "Chestnut Street" exit from its current location on Elm Street to a location within the rebuilt underground truck service tunnel. Under this scenario, a connection would be made between the underground parking garage (Level A) and the new truck service tunnel

allowing vehicles to share the new truck service tunnel ramp. The existing ramp on Elm Street would be abandoned and removed.

Relocating the exit ramp on Elm Street does not represent a significant impact to users of the facility. Vehicles would now exit on Atlas Street and proceed to the Elm/Chestnut intersection which is just around the corner. Plus, a benefit of eliminating the Chestnut Street exit ramp on Elm Street is that the turn restrictions at the signalized intersection of Elm Street & Chestnut Street can be removed, allowing greater functionality at this intersection with fewer conflicting movements.

This traffic pattern adjustment is not anticipated to create adverse environmental impacts.

4.2.3 Compliance with SEQR Findings

As part of this project, the City of Rochester will comply with the letter of resolution between the City of Rochester and the New York State Office of Parks Recreation and Historic Preservation in which stakeholder participation in the final design/planning of new public space is required.

As part of this project, the City of Rochester will comply with mitigation measures to minimize temporary impacts associated with construction as outlined in the Generic Environmental Impact Statement and Findings Statement.