

South Salina Street Corridor Study

Final Report



Fiscal Year 2000-2001



Syracuse Metropolitan Transportation Council

Portions completed in conjunction with



Parsons Brinckerhoff Quade & Douglas, Inc.

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Fiscal Year 2000-2001

SMTC Unified Planning Work Program Task 3C

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The identification of preliminary alternatives, recommendations, and preliminary implementation program included in Chapters 9, 10, and 11 of this report were prepared by Parsons Brinckerhoff.



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South Salina Street Corridor Study

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Executive Summary

Introduction

This corridor study focuses on the section of S. Salina Street between Taylor Street on the north and Seneca Turnpike on the south. The study was undertaken on behalf of the City of Syracuse by the Syracuse Metropolitan Transportation Council (SMTC) due to the concentration of transportation issues identified on South Salina Street in the South Side Transportation Study (completed by the SMTC in 1999). The scope of work for the study was approved in July of 1999.

Public involvement was an important component of this study. A Study Advisory Committee was assembled that provided input and guidance throughout the project and an extensive list of interested stakeholders were directly contacted for each of the three public meetings held during the study.

Transportation Issues

The study had a multi modal approach and examined current vehicular, truck, transit, bicycle and pedestrian travel conditions. The existing conditions analysis lead to the identification of a number of transportation issues including the following:

- High vehicle travel speeds, especially on longer street segments between traffic signal lights;
- Pavement south of Calthrop Ave. (I-81) is primarily rated as being in poor condition;
- The southbound approach at the intersection of Ballantyne Rd./Walrath Rd. and S. Salina St. was projected to deteriorate to a Level of Service (LOS) F in the year 2010;
- In the northbound direction, the street segment from Dawes Ave./Valley Plaza to Walrath Rd. was projected to operate at a LOS E in the year 2010;
 - Loop detectors, intended to recognize the presence of a moving or stopped vehicle at signalized intersections, are broken at Taylor St., Ballantyne Rd./Walrath Rd., and Dawes Ave./Valley Plaza;
 - Matson Ave., Ballantyne Rd./Walrath Rd., and Dawes Ave./Valley Plaza would benefit from being time-based coordinated;
 - Traffic signage at six locations was inconsistent with the *State of New York Manual of Uniform Traffic Control Devices (MUTCD)*;
- A number of on-street parking signs along the corridor are faded and no longer legible;
- On-street parking signs were missing at six locations;
- A number of locations analyzed exceed New York State Department of Transportation (NYSDOT) average accident rates;
- There are no designated New York State or City bicycle lanes or bicycle racks within the study area and there is a widespread lack of awareness and compliance with bicycle safety guidelines including lack of helmet use, riding on sidewalks, and traveling against vehicular traffic;

- Curb ramps that comply with the Americans with Disabilities Act of 1990 (ADA) do not exist at six locations within the study area;
- An extensive list of issues that impede pedestrian travel were identified;
- A number of bus stops are located at the near side of intersections often resulting in buses obstructing traffic control devices and traffic flow;
- Many bus stops lack a lead walk, a paved surface between the sidewalk and the curb, forcing individuals to walk and/or stand on muddy, wet or snow covered ground;
- Current zoning allows for development that is inconsistent with the urban setting and also allows for the existence of billboards;
- The site development process is complicated and lengthy; and
- There is widespread disregard for City of Syracuse ordinances such as the one that states that the owner, occupant, or agent of any property in the City of Syracuse is responsible for maintaining and keeping sidewalks clear of snow and ice.

Since the start of this study the City of Syracuse has made the following improvements within the corridor:

- *A center turn lane was added on S. Salina St between Ballantyne Rd./Walrath Ave. and Florence Avenue and an exclusive southbound right turn lane at the intersection with Ballantyne Road. As a result all locations analyzed within the study area are projected to operate at a LOS D or better through year 2010;*
- *The City repaired broken loop detectors within the study area;*
- *The City has taken steps to eliminate the signage that was inconsistent with the MUTCD; and*
- *The City installed speed limit signs and replaced missing and faded signs along the corridor.*

Corridor Wide Recommendations

A series of corridor wide actions are recommended for implementation that would address mobility issues along the South Salina Street Corridor. These primarily include enforcement, organizational/educational, and regulatory measures to help enhance pedestrian and transit access in the corridor, and lower cost capital improvements.

Recommended enforcement and educational programs include:

- Travel Speed Monitoring/Enforcement;
- Parking Enforcement;
- Bicycle Enforcement/Community Education; and
- Community Awareness of Existing City Regulations/Programs.

Lower cost capital improvement recommendations include:

- Street Striping Program;
- Spot Installation/Repair of ADA Curb Ramps;
- Pedestrian Crossings Buttons and Signage; and
- Far-Side Bus Stops.

Regulatory and Development control recommendations include:

- Parking Master Plan;
- Zoning Recommendations; and
- Site Plan Approval Process.

Site Specific Recommendations

A series of recommendations specifically targeted at key activity areas are also made. Each involves future capital improvements aimed at facilitating improved pedestrian safety and transit access. Particular effort was placed at maintaining the vehicular capacity characteristics present along various portions of the corridor so that traffic flow will continue to operate at current levels of service.

Valley Plaza Area

The Valley Plaza area presents the greatest opportunity for improving pedestrian and transit mobility in the corridor. It is recommended that a joint effort be undertaken by the City, in conjunction with the SMTC and Centro, to examine and develop an urban design program to create a better streetscape environment to achieve these mobility objectives.

Under Centro's *ReMAP* plan, a program to restructure the operations of the regional bus transit system, Valley Plaza is cited as the location of a new transit hub. This new hub has also been listed in the SMTC's current Transportation Improvement Plan (TIP). As part of this effort, or as a future phase to enhance a hub facility, it is recommended that further steps be taken to enhance multi-modal access in the Valley Plaza area. It is likely that such an improvement program would be eligible for federal funding, given that it would be consistent with the Federal Transit Administration's *Livable Communities Initiative*.

Such a program of improvements could include:

- Further use of enhanced road striping to better define travel/turning lanes and pedestrian zones, building upon the City's success in the creation of a center turn lane in the area;
- Creation of enhanced crosswalks (either through striping or textured concrete) in key locations with new signage and pedestrian-activated buttons (at Dawes Ave.).
- Consolidation and merging of multiple curb cuts, although this would require extensive coordination with local businesses to create cross access easements; and
 - Landscape and hardscape improvements to create a consistent design character and positive pedestrian setting, such as new street trees, identification banners, and installation of textured concrete verges.

Downtown Gateway Area

The Gateway area adjoining Downtown Syracuse is recommended for a medium level of urban design improvements consistent with prior planning efforts focusing on this area, most recently as part of the Southeast Gateway Initiative developed by The Community Builders, Inc. (a not-

for-profit community development organization). These types of improvements involve the creation of enhanced pedestrian access facilities, sheltered bus stops, pavement treatments, and lighting improvements.

Traditional Commercial Areas

The more traditional commercial district areas are recommended for a lower level of improvements in the short-term, focusing on striping improvements to better delineate the travel lane from parking areas and sidewalk replacement/repair in key locations. Possible future phases would involve urban design treatments that are consistent with those in the Valley Plaza and Gateway areas.

Calthrop Avenue/I-81 Interchange Area

The Calthrop Avenue/I-81 Interchange area is recommended for further review and assessment for a series of improvements. Funding of enhancements to the intersection/access could potentially be eligible for federal funding given that Calthrop serves as access to the interstate system.

The changes are targeted at improving pedestrian safety in conjunction with traffic transitioning from highway speeds and travel behavior to that of the urban characteristics of the corridor. The existing configuration requires pedestrians to cross a substantially wide roadway section with no crosswalks or pedestrian amenities. The lack of these elements tends to encourage increased traffic speeds through the intersection. Recommended improvements involve measures to provide visual and other cues to drivers to reduce speeds and be more aware of pedestrians.

Long-Term Reconstruction of South Salina Street

Given the current physical characteristics of portions of South Salina Street (pavement conditions, sidewalk conditions, etc.), as well as the fact that it serves as a main commuter route, the entire corridor could potentially be suitable for reconstruction in the long term. The majority of the corridor is designated as US Highway 11 (south of Raynor Avenue), and therefore, it would be eligible for federal funding of such a reconstruction program.

Implementation Plan

Programmed short-term actions would include additional transportation related planning, community education, and enforcement activities along the corridor, as well as lower cost capital projects to enhance mobility and access. Also during this period, further review and assessment of funding availability would be conducted for larger-scale improvements such as streetscape programs and possible long-term reconstruction efforts.

Medium-term actions, if determined to be financially feasible, would focus on improvements in targeted areas along the corridor that exhibit the greatest need and opportunities for pedestrian/transit enhancement. These would include the streetscape and pedestrian enhancement programs for the Valley Plaza area, Gateway area, and Calthrop Avenue/I-81 Interchange area. In addition, if determined to be reasonable in the context of the SMTC's Long

Range Transportation Plan and TIP, preliminary engineering and necessary environmental clearance would be conducted in this period for the reconstruction of South Salina designated as U.S. 11.

Long-term actions include the ultimate final design and construction activities associated with a reconstruction project on South Salina Street. It should be noted that the long lead time necessary to review, fund, plan, and design a major reconstruction project would not necessarily preclude the shorter-term capital projects from being reasonable first steps to such a project.

Where applicable, an estimated range of order-of-magnitude costs is presented for each action in the implementation plan. For planning efforts, the costs were derived examining prior, similarly scoped studies. For capital projects, costs were estimated using unit pricing values from NYSDOT reference documents and other nationally published cost-estimating sources.

CHAPTER 1 - INTRODUCTION

1.1 Purpose of Study / Goals and Objectives

Purpose of Study

The South Side of the City of Syracuse is recognized as a socioeconomically diverse environment, with a mix of residential, business, recreational and educational uses. South Salina Street, the primary north-south corridor within the South Side, provides a major connection between the City of Syracuse Central Business District (CBD) and locations south of the city including connections to Interstates 81 and 481.

In 1999, the Syracuse Metropolitan Transportation Council (SMTC) completed the South Side Transportation Study, which was undertaken to identify the overall transportation and mobility issues in the district. This study indicated that many residents in the vicinity of S. Salina St. have limited access to personal vehicles and therefore exhibit a high dependency on transit and pedestrian facilities. Additional issues identified on S. Salina St. include the following:

- Traffic volumes that exceed the capacity of the existing street
- Intersections and street segments that exceed mean accident rates
- Poor pavement conditions
- Excessive curb cuts (access points)
- Degradation of the livability and pedestrian nature of the community

Due to the concentration of transportation issues along this street segment, one of the recommendations made in the South Side Transportation Study was to complete a corridor study of S. Salina St. Based on the recommendation, the SMTC sought funding for this project. Subsequently, \$80,000 in federal funding was provided for in the 1999-2000 Unified Planning Work Program (UPWP) to complete the South Salina Street Corridor Study. The project has been carried over to the 2000-2001 UPWP.

This corridor study identifies current and future transportation needs, identifies and evaluates alternative solutions, and recommends a schedule of improvements for implementation. Particular attention was given to preserving and enhancing the pedestrian and transit oriented nature of the neighborhoods.

Goals

To give the study direction, the following goals were identified:

- Develop recommendations that will enhance the safety of the people using the transportation system;
- Develop recommendations that will provide safe, clean, well maintained and efficient transportation infrastructure including attention to neighborhood beautification; and

- Develop recommendations that will preserve and enhance the pedestrian and transit oriented nature of the neighborhoods.

Objectives

The following objectives were identified to assist in attaining the study goals:

- Create an effective public involvement forum to give involved agencies and the public the opportunity to take part in the planning process;
- Identify existing conditions, including an infrastructure condition analysis;
- Develop criteria to measure and compare alternative solutions;
- Develop and evaluate alternatives to improve facilities, traffic, and safety;
- Evaluate the impact of the changing nature of business along the corridor and its impact on pedestrian and traffic flow;
- Evaluate the use of regulatory controls such as site plan review, enhanced enforcement, access management and/or zoning changes;
- Evaluate the recommendations made in the Onondaga County Settlement Plan for applicability to S. Salina St.; and
- Prepare a recommendations and implementation plan.

1.2 Study Process

This study was completed in three phases with a technical memorandum prepared to document each phase. In order to complete the study the following tasks were accomplished:

Task 1	Establish a public involvement plan
Task 2	Establish the study area limits
Task 3	Define the study's goals and objectives
Task 4	Data collection and analysis
Task 5	Identify existing conditions
Task 6	Identify transportation issues
Task 7	Develop and evaluate alternative solutions
Task 8	Prepare recommendations and implementation plan
Task 9	Study Documentation

Technical Memorandum #1, summarized Tasks 1 through 5 above. Technical Memorandum #2 presented the transportation issues identified during Task 6, and Technical Memorandum #3 presented the recommendations and implementation plan established as a result of completing Tasks 7 and 8. Task 9 included the compilation of the three technical memorandums into a Draft Final Report for presentation to the public and necessary SMTC committees for comment. The Final Report has addressed all of the comments received and will be presented to the SMTC Planning and Policy Committee for their acceptance.

1.3 Public Involvement Plan (PIP)

Engaging the public early and often in the planning process is critical to the success of any transportation plan or program, and is required by numerous state and federal laws. The goal of the South Salina Street Corridor Study (PIP) was to:

1. Create public awareness relative to the study's goals, objectives and process, as well as publicize the public participation opportunities and activities available throughout the study; and
2. Involve the public throughout the planning process.

The PIP included the formation of two groups to assist the SMTC in the study effort. A Study Advisory Committee (SAC), consisting of representatives from affected organizations, local government, and community representatives, met four times throughout the study. The SAC provided input and guidance to the SMTC Project Manager.

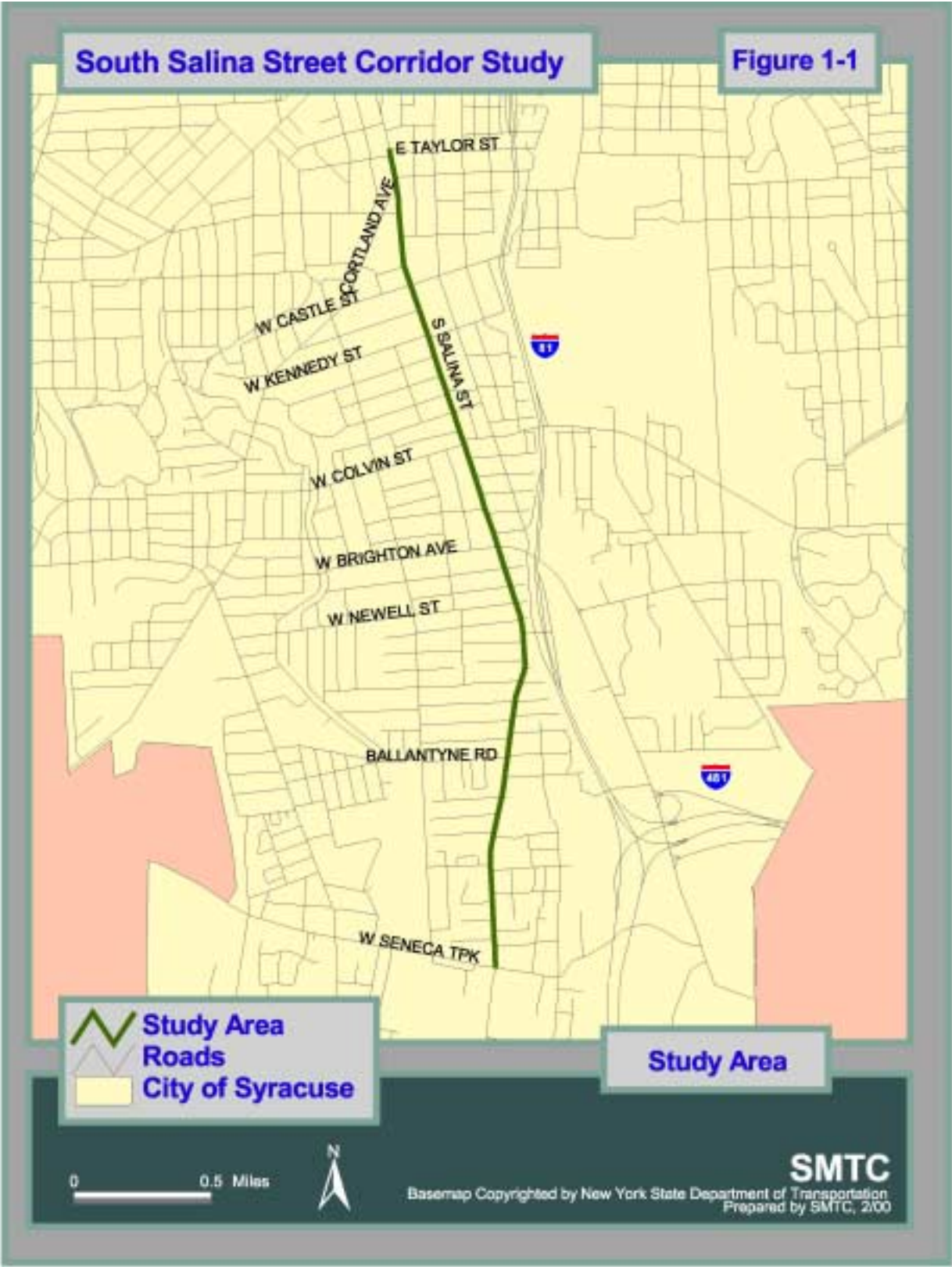
In addition to this formal committee, a list of interested "stakeholders" (individuals with significant relations and interest in the study area) was maintained by the SMTC. The stakeholders were sent pertinent study information, kept apprised of significant study developments, and were notified of all SAC and public meetings. A copy of the complete PIP for the South Salina Street Corridor Study, including a list of both the SAC and stakeholders is included in Appendix A.

Three public meetings were scheduled during the study. The first public meeting was held in January 2000 to formally present the study to the public. The meeting was attended by over 40 individuals and provided an opportunity for the public to ask questions and voice their transportation concerns regarding the study area. Minutes from the initial SAC and public meetings, as well as other project related correspondence, are included in Appendix B.

A second public meeting was held after the completion of Technical Memorandum #1. This meeting served to inform the public of the existing conditions analysis and provided the opportunity for individuals to speak out on the next phase of the study that documented transportation issues. The third public meeting gave the public the opportunity to comment on the recommendations and implementation plan incorporated in Technical Memorandum #3.

1.4 Study Area Boundaries

The study area for this project extends along S. Salina St. between E. Taylor Street on the north and Seneca Turnpike on the south and includes the adjacent land uses. Figure 1-1 shows the study area.



CHAPTER 2 - TRANSPORTATION NETWORK

2.1 Roadway

South Salina Street is a 40-foot wide paved roadway that runs in a north-south direction. It is designated as a minor arterial except between Raynor Ave. and Brighton Avenue. Between these two streets, S. Salina St. runs concurrently with Route 11 and is a principal arterial.

The purpose of principal arterials is to serve major traffic flows between important activity centers, while minor arterials connect and augment the principal arterial system. Although S. Salina St. provides a major connection between the City of Syracuse CBD and locations south of the City including Interstates 81 and 481, it also serves local land uses located throughout the corridor.

There are approximately 40 intersecting streets along the corridor spaced at regular intervals. In addition, there are numerous driveways to residential and commercial establishments.

Truck Route

South Salina Street through the study area is signed as a *Thru Truck Route*. The SMTC completed a Truck Route Study for the City of Syracuse in June of 2000 that identified and evaluated truck route signs in the City. The study indicated that S. Salina St. within the study area is currently and is recommended to remain a truck route.

2.2 Transit

Transit services within the study area are provided by Centro, a subsidiary of the Central New York Regional Transportation Authority (CNYRTA). The transit system is based on a hub and spoke system where the bus service originates and ends in downtown Syracuse. Outlying areas are serviced on radial routes from the City.

Transit operations were evaluated to determine the type and location of bus stops within the study area and ridership information. The primary route that operates on S. Salina St. within the study area is South Salina/Nedrow (Route 2). The Midland Avenue (Route 3) and Valley Direct routes also run partly within the area. Valley Direct is one of Centro's three cross-town routes that eliminates the need to go downtown and then transfer to another bus. Fares for all routes within the study area are \$1.00 with a \$0.25 transfer fee. All buses are handicap accessible and some buses are equipped with bicycle racks.

Bus Stop Locations

Within the study area, there are thirty-three bus stop locations for buses traveling inbound (routes ending in downtown Syracuse) and thirty-six locations for those buses traveling outbound (routes originating in downtown Syracuse). The bus stop locations are shown on the base map included in Appendix C.

Ridership Information

The ridership information provided by the CNYRTA was recorded manually by individuals riding the bus. The information was tabulated and grouped according to what time the data was recorded and then further by which direction the route was headed, inbound or outbound. The data summarized below by time of day and day of week indicates the most frequently used bus stops.

6:00 AM – 6:00 PM WEEKDAYS

An average of 2.5+ people boarded or exited the bus at the following stops:

Outbound

- Lafayette Ave.
- Corning Ave.
- Ballantyne Rd.
- Fillmore Ave.
- Dawes Ave.
- Florence Ave.

Inbound

- Seneca Turnpike
- Orlando Ave.
- Valley Plaza
- Fillmore Ave.
- Ballantyne Rd.
- Colvin St.

6:00 PM - 6:00 AM WEEKDAYS

An average of 2.5+ people boarded or exited the bus at the following stops:

Outbound

- Tallman St.
- Colvin St.
- Elk St.
- Dawes Ave.
- Glen Ave.
- Crippen Ave.

Inbound

- Minerva St.
- Ballantyne Rd.
- Newell St.
- Elk St.
- Colvin St.

SATURDAYS

An average of 2.5+ people outbound and 3.0+ people inbound boarded or exited the bus at the following stops:

Outbound

- Taylor St.
- Colvin St.
- Corning Ave.
- Ostrander Ave.
- Fillmore Ave.

Inbound

- Clarence Ave.
- Valley Plaza
- Ballantyne Rd.
- Hobart Ave.
- Amherst Ave.

SUNDAYS

An average of 2.3+ people outbound and 2.0+ people inbound boarded or exited the bus at the following stops:

Outbound

- Taylor St.
- Colvin St.
- McKinley Ave.
- Brighton Ave.
- Lafayette Ave

Inbound

- Seneca Turnpike
- Florence Ave.
- Ballantyne Rd.
- Bennington Ave.
- Newell St.
- Furman St. (midblock)
- Castle St.

Summary

Based on the above data, the bus stops listed below are the most frequently used overall:

Outbound

- Taylor St.
- Colvin St.
- Lafayette Ave.
- Corning Ave.
- Fillmore Ave.
- Dawes Ave.

Inbound

- Seneca Turnpike
- Valley Plaza
- Ballantyne Rd.
- Newell St.
- Colvin St.

2.3 Bicycle/Pedestrian Facilities

Bicycle Routes

There are no designated New York State or City Bicycle Routes within the study area.

Pedestrian Facilities

Pedestrian facilities in the form of sidewalks are present along the entire corridor.

The City of Syracuse Police Department indicated that there is one school crossing guard location within the study area located at the intersection of S. Salina St. and Newell Street. The school crossing guard location is shown on the base map included in Appendix C.

The crossing guard location at Newell Street was eliminated as a result of temporary school closings for renovations. Temporary crossing guard locations have been created at the intersections of Brighton Ave. and Colvin Street.

CHAPTER 3 - EXISTING TRAFFIC CONDITIONS

This chapter examines the existing traffic conditions within the study area. A base map of the area is included in Appendix C as a reference to the information presented below.

3.1 Traffic Volumes

Vehicular Traffic Volumes

Traffic volumes for the study area were obtained from two sources. The New York State Department of Transportation (NYSDOT) provided 1997 Average Annual Daily Traffic (AADT) volumes at a number of mid-block locations. In addition, 2000 AADT volumes including vehicle classification were obtained at the northern and southern extremes of the study area. The AADT and PM Peak Hour Volumes for the mid-block locations are summarized in Figures 3-1 and 3-2, respectively. The AADT volumes shown in Figure 3-1 have been factored to take into consideration seasonal fluctuations in traffic.

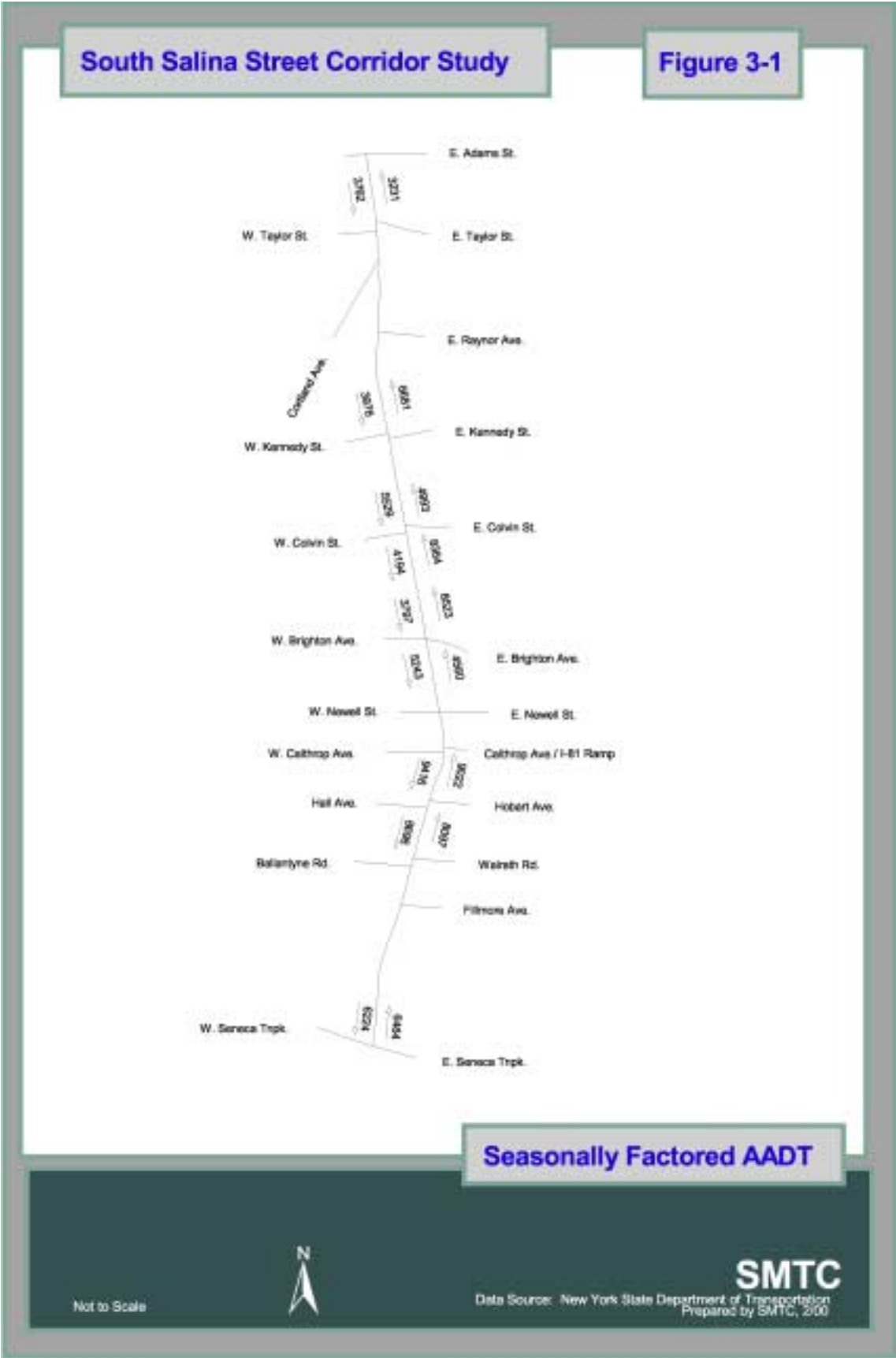
By examining Figures 3-1 and 3-2, it can be determined that the highest bi-directional volumes occur just south of the intersection with Calthrop Avenue. The AADT volumes are almost evenly split between northbound and southbound with southbound traffic accounting for 51% of the total traffic at this location. During the PM peak, the split changes, with southbound traffic accounting for 58% of the bi-directional traffic. The higher volumes in this area may be a result of the proximity to Calthrop Ave., which provides access to I-81.

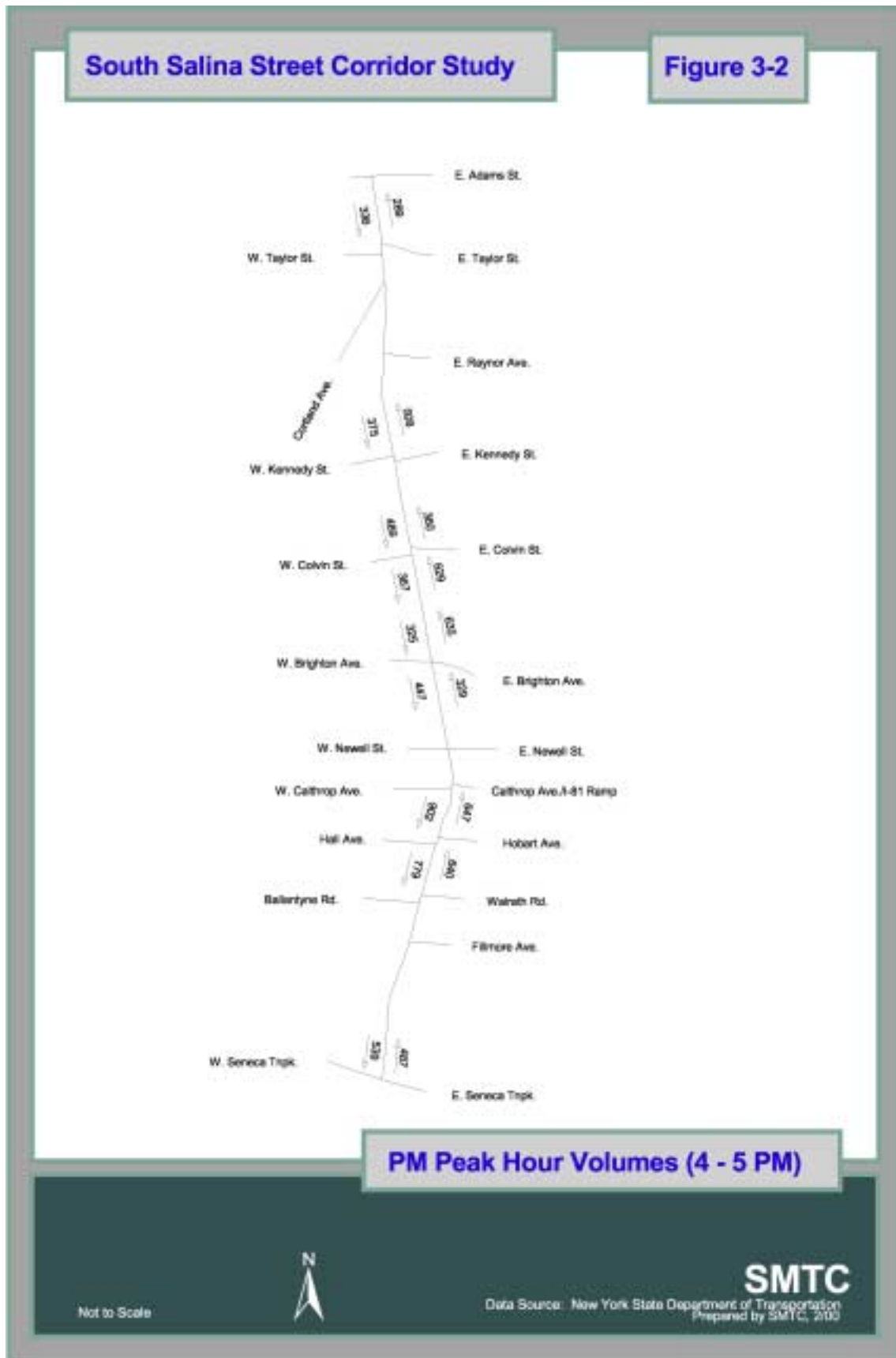
The NYSDOT provided 1997 manual turning movement volumes at five locations. In addition, PM peak hour manual turning movement volumes were obtained at eight intersections in February 2000. The turning movement traffic volumes for the PM peak hour, determined to be 4:00 PM to 5:00 PM, are summarized in Figure 3-3.

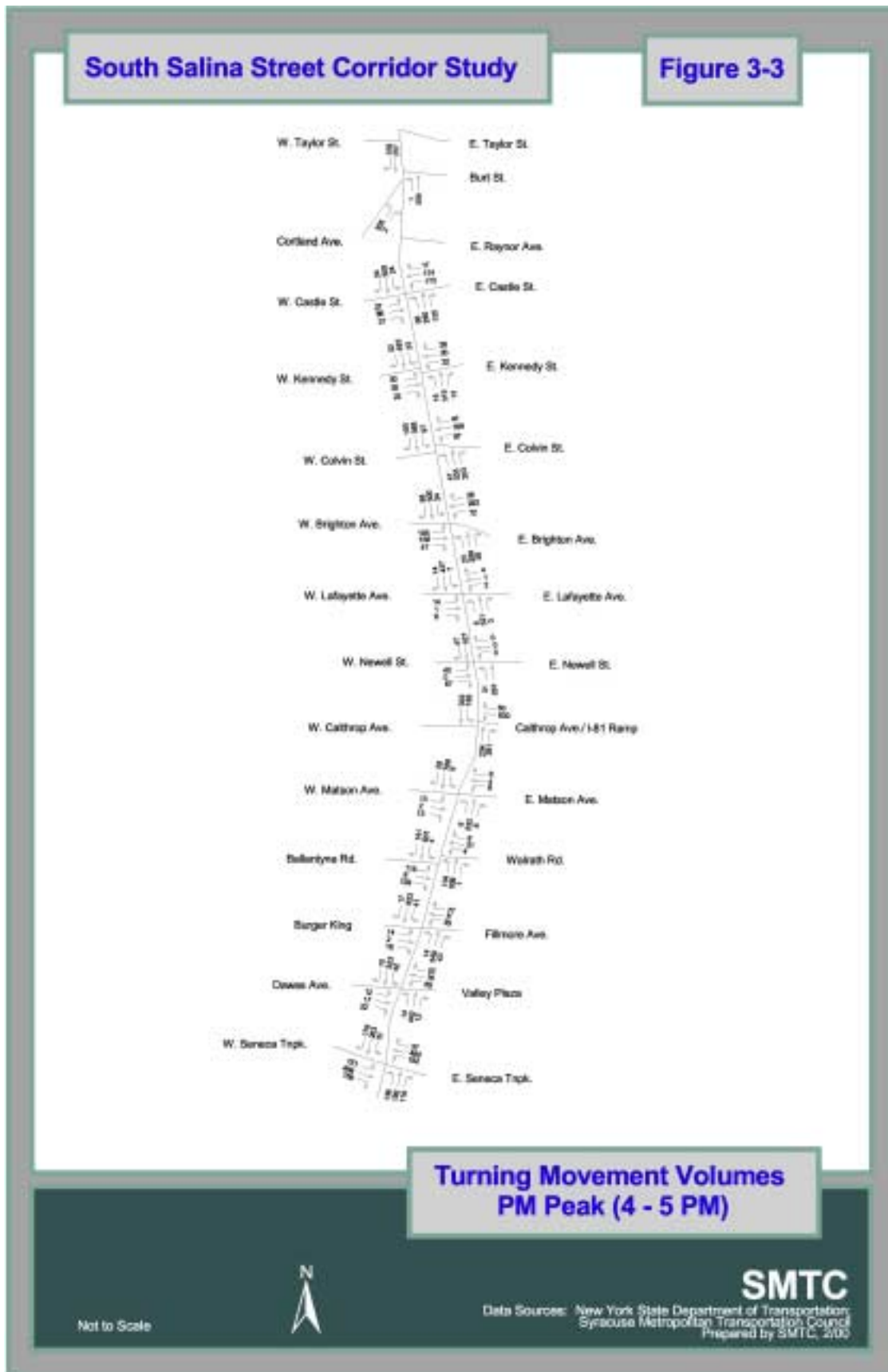
An analysis was completed to determine whether the 1997 turning movement volumes should be adjusted along the corridor to correlate with the 2000 volumes. The analysis revealed that there was no consistent pattern between the 1997 and 2000 volumes that would allow for applying an overall adjustment factor. The 1997 and 2000 volumes were comparable with the majority of intersection volumes being within 15% of adjacent locations. For those locations that exceeded the 15% discrepancy, the high number of cross streets and driveways may explain the difference. A complete set of the AADT and turning movement volumes for the study area are included in Appendix D.

Vehicle Classifications

Federal Highway Administration (FHWA) Vehicle Classifications were identified for a 48-hour period at one northern and one southern location along the S. Salina St. Corridor. Vehicle classifications were obtained near Furman Street at the northern location and near Seeley Avenue to the south.







An analysis of the 4:00 - 5:00 PM peak hour data revealed the following:

Furman Street Location

Approximately 97% of vehicles traveling northbound at this location are passenger vehicles including motorcycles, cars, trucks, and sport utility vehicles. School or Centro buses account for 2% of the vehicles, and two axle, six tire vehicles account for the remaining 1%.

Passenger vehicles account for approximately 98% of all vehicles traveling in the southbound direction. The remaining 2% of the vehicles are school or Centro buses.

Seeley Avenue Location

Approximately 98% of vehicles traveling northbound at this location are passenger vehicles. The remaining 2% of the vehicles are split between buses and two axle, six tire vehicles.

Passenger vehicles account for approximately 97% of all vehicles traveling in the southbound direction. The remaining 3% of vehicles are evenly split between buses; two axle, six tire vehicles; and three axle single unit vehicles.

Pedestrian Traffic Volumes

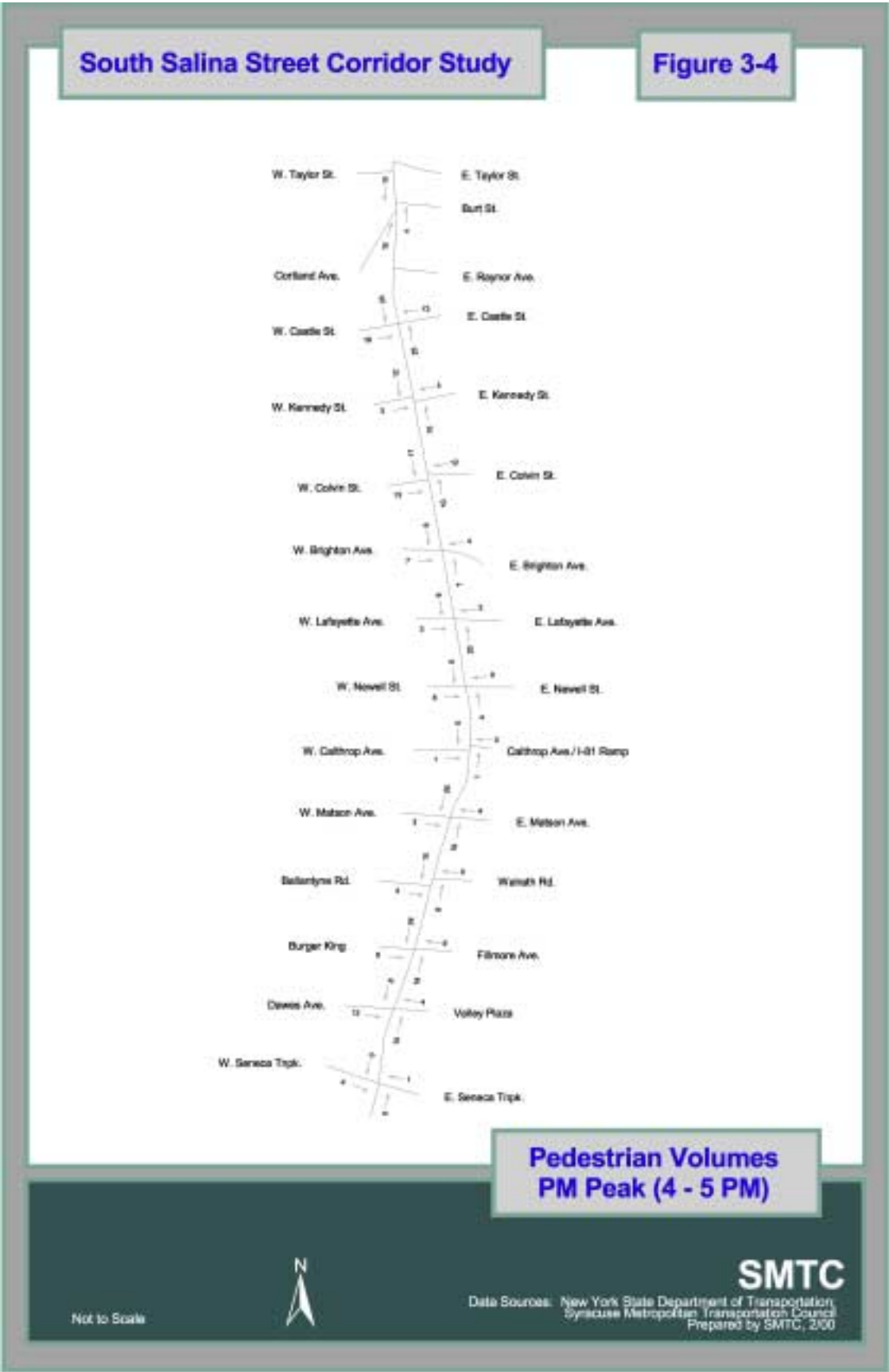
The pedestrian traffic volumes shown in Figure 3-4 were obtained at the same time as the vehicle turning movement volumes discussed previously. Based on this data, the intersection of S. Salina St. and Castle St. has the most pedestrian traffic during the PM peak hour with 81 individuals crossing the intersection. Sixty percent of the pedestrians at this location are traveling north or south along S. Salina St., while the remaining 40% are traveling east or west on Castle. The high pedestrian volumes at this location may be due to the proximity to high density residential property to the northeast and the high percentage of households with no vehicles in this area (see Chapter 5 - Demographics and Land Use).

The intersections of S. Salina St. with Colvin St., Matson Ave., and Fillmore Ave., also have high pedestrian volumes during the PM peak that range from 51 to 57 individuals. The high pedestrian volumes at the intersection of Colvin St. may be due to the high concentration of community services (including the public library) and commercial establishments at this location. The number of individuals walking north-south versus east-west is almost evenly split.

The high pedestrian volumes at Fillmore Ave. may be the result of the high concentration of commercial uses in the vicinity, including Valley Plaza. Seventy-four percent of the pedestrians at this location were traveling northbound or southbound.

No reason could be identified for the high volume of pedestrians at the intersection of Matson Avenue. Eighty-six percent of the individuals were traveling north or south along S. Salina St. at this location.

Weather does not seem to play a role in the volume of pedestrians, since some of the highest pedestrian volumes were recorded during winter months.



Bicycle Traffic

No data on bicycle traffic was formally obtained. However, bicyclists were observed using the corridor, even during winter months. Casual observation on a March morning identified five bicyclists.

By law, bicyclists must obey the rules of the road just as vehicle drivers do. Bicyclists on S. Salina St. were observed traveling with and against vehicular traffic, as well as on the sidewalk.



3.2 Speed and Delay

A vehicle speed and delay study was conducted along the corridor during the 4:00 PM - 5:00 PM peak hour. The legal speed limit along the corridor is 30 miles per hour (MPH). The purpose of the study was to determine actual travel speeds throughout the study area and to identify specific causes of stops and/or delay. The study was conducted by making three runs in both directions. The driving strategy was to travel at a speed that was representative of the flow of traffic.

The average travel time southbound from E. Taylor St. to Seneca Tnpk., was 8 minutes 52 seconds. Travel speeds along the corridor ranged from 30 to 40 MPH. The average travel speed in the northern portion of the study area, in the vicinity of Castle Street, was 36 MPH. The average travel speeds in the vicinities of Beard Ave. and Newell St. were 31 MPH and 33 MPH, respectively. In the southern portion of the study area, near Glen Ave. the average travel speed was 33 MPH.

The average travel time northbound from Seneca Tnpk. to E. Taylor St. was 7 minutes 46 seconds. Travel speeds in this direction ranged from 30 to 40 MPH. The average travel speeds in the northern portion of the study area, in the vicinity of Castle Street/Raynor Ave., was 38 MPH. The average speeds in the vicinities of Kennedy St. and Newell St. were 34 MPH and 32 MPH, respectively. In the southern portion of the study area, near Glen Ave. the average speed was 36 MPH.

Reasons for delay when traveling in both directions included traffic signals, Centro buses entering or exiting traffic, and vehicles turning into or out of traffic. The following table summarizes the cause and average delay for northbound and southbound trips.

Table 3-1
Average Overall Delay (minutes:seconds)

Direction	Delay Due to:		
	Traffic Signals	Centro Bus	Turning Vehicles
Northbound	1:33	0:17	0:09
Southbound	2:22	0:28	0:11

Source: SMTc

Speed data was also obtained electronically for a 48-hour period at one northern and one southern location along the S. Salina St. Corridor. The data was obtained near Furman Street at the northern location and near Seeley Avenue to the south.

The 85th percentile speed (the speed at or below which 85% of the vehicles were moving) one hundred feet south of Furman Street was 34.0 MPH in the northbound direction and 33.8 MPH in the southbound direction.

The 85th percentile speed on S. Salina St. near Seeley Avenue was 34.5 MPH in the northbound direction and 34.1 MPH in the southbound direction.

3.3 Traffic Control Devices

An inventory of traffic control devices was completed for the study area. Traffic control devices include signs, signals, markings, and other devices placed by authority of a public body to regulate, warn, or guide highway traffic. The proper use of traffic control devices promotes safe, orderly, and convenient movement of traffic on the transportation system.

The *State of New York Manual of Uniform Traffic Control Devices* (MUTCD) states that in order to be effective, a traffic control device should meet five basic requirements. Each device should:

- Fulfill a need;
- Command attention;
- Convey a clear, simple meaning;
- Command the respect of road users; and
- Give adequate time for proper response.

Traffic Signs

An inventory of traffic related signs was completed for the study area. The signs were evaluated based on the MUTCD. The following locations indicate inconsistency with the MUTCD:

Intersection of S. Salina St. with W. Newell St. - There are no school child or school crossing signs at the school crossing guard location.

Intersection of S. Salina St. and E. Calthrop Ave./I-81 - Do Not Enter Signs are not present at the median on E. Calthrop Avenue.

Intersection of S. Salina St. and W. Calthrop Ave. - The MUTCD states that when needed, *No Left Turn* signs should be placed in the near right and far left corners of the intersection. Although there is a *No Left Turn* sign located at the far left corner of the intersection, there is an *All Traffic* with a right arrow sign located at the near right corner.

Intersection of S. Salina St., Ballantyne Road and Walrath Road - *Do Not Enter* Signs are not present at the median on Walrath Road.

Intersection of Fillmore Avenue with the western most driveway to Rite Aid - The *No Left Turn* sign located at the near right corner of the intersection is not the standard left turn arrow with a slash through it and is not placed at the standard height. Also there is no corresponding sign located at the far left corner of the intersection.

Intersection of S. Salina St. and Blockbuster Parking Lot (just north of Seneca Turnpike) - Although there is a *No Left Turn* sign located at the far left corner of the intersection, there is no sign located in the near right corner.

Intersection of S. Salina St. and Seneca Turnpike - There are no route signs to guide traffic to Route 173 on the southbound approach

The City was made aware of the above evaluation and has since taken steps to eliminate traffic signage inconsistencies.

Parking Signs

Parking signs are used to inform motorists of regulations established to prohibit, restrict, or limit parking, standing, or stopping of vehicles pursuant to the Vehicle and Traffic Law. An inventory of parking signs along the corridor identified variations on the standard parking prohibition signs. Following is a brief definition of the three types of parking prohibitions:

- **No Parking** - This sign indicates that vehicles may stop while actually loading or unloading merchandise or passengers.
- **No Standing** - Vehicles may be stopped while actually loading or unloading passengers only.
- **No Stopping** - Vehicles may not be stopped except to avoid conflict with other traffic or to comply with the directions of a police officer or traffic control sign or signal.

Parking regulations should be established only after a traffic study indicates they are needed. The MUTCD states that the type of parking prohibition should be based on problems caused by parked vehicles, their parking and unparking maneuvers, the need for on-street parking spaces, and adjoining parking regulations. The *City of Syracuse Traffic Code* includes the policy for the placement of parking signs.

Figure 3-5 displays the location of the various parking restrictions and prohibitions along the corridor. The majority of the corridor is marked with variations of the *No Stopping* sign. Areas on Figure 3-5 that indicate *No Stopping* include those areas signed as *No Stopping Any Time* and

South Salina Street Corridor Study

Figure 3-5



On-Street Parking Signage

SMTc

Data Source: Syracuse Metropolitan Transportation Council, 1999
Prepared by SMTc, 2000

No Stopping Here to Corner. Areas shown as no stopping with time limits indicates areas where stopping is prohibited during either the 7:00 AM to 9:00 AM or 4 PM to 6 PM peak hours. Some of the no stopping with time limits signs apply seven days a week while others state the prohibition applies only Monday through Friday. In addition, some locations are signed *No Stopping Bus Stop*.

No Standing signs of the same variety as the *No Stopping* signs described above are also present along the corridor. There is one area near the southern end of the corridor signed *No Parking Loading Zone*. The remaining areas permit even/odd parking, one hour parking 9 AM to 4 PM, or are not posted with parking signs.

The numerous different regulations along the S. Salina St. corridor complicate sign posting and have the potential to confuse motorists.

The field investigation revealed that there are a number of signs along the corridor, especially in the southern half that are faded and no longer legible. In addition, parking signs are missing at the following locations:

- Southwest corner of the intersection of S. Salina St. and W. Pleasant Ave.
- Southwest corner of the intersection of S. Salina St. and W. Matson Ave.
- Northeast corner of the intersection of S. Salina St. and Walrath Road
- West side of S. Salina St. between Dawes Ave. and Florence Ave.
- East side of S. Salina St. between E. Glen Ave. and Roney Rd.
- West side of S. Salina St. between Crippen Ave. and Minerva St.

Through the public involvement process, it was determined that on-street parking is often an issue. The following two parking situations were identified:

- Illegal on-street parking near churches during services
- Illegal parking in front of the Colvin Street Key Bank
- Illegal and legal on-street parking on the curve near Ostrander Ave. and Matson Ave. makes it difficult for vehicles (especially emergency vehicles) to maneuver (see photo)



North of the intersection of S. Salina St. and Matson Ave.

The City was made aware of the above evaluation and has since replaced all missing and illegible signs.

Speed Limit Signs

The area wide speed limit for the City of Syracuse is 30 miles per hour. At the beginning of this study there were no speed limit signs posted within the study area.

The SMTC made a request to the City to post speed limit signs within the study area and subsequently signs have been placed along the corridor.

Traffic Signals (vehicle and pedestrian)

Figure 3-6 shows the location of the signalized intersections, pedestrian signals and pedestrian push button control. The push button allows pedestrians to request a pedestrian walk interval.

The DON'T WALK or upraised "hand" symbol, steadily illuminated, indicates that a pedestrian shall not enter the roadway. The flashing DON'T WALK or upraised "hand" symbol is used as a clearance interval during which pedestrians may complete their crossing, but not start to cross. The white WALK message or "walking person" symbol means that a pedestrian may enter the roadway and cross in the direction of the indication. Even with a WALK indication, there may be possible conflicts with turning vehicles.

It was identified through the public involvement process that not all individuals understand the pedestrian signal indications.

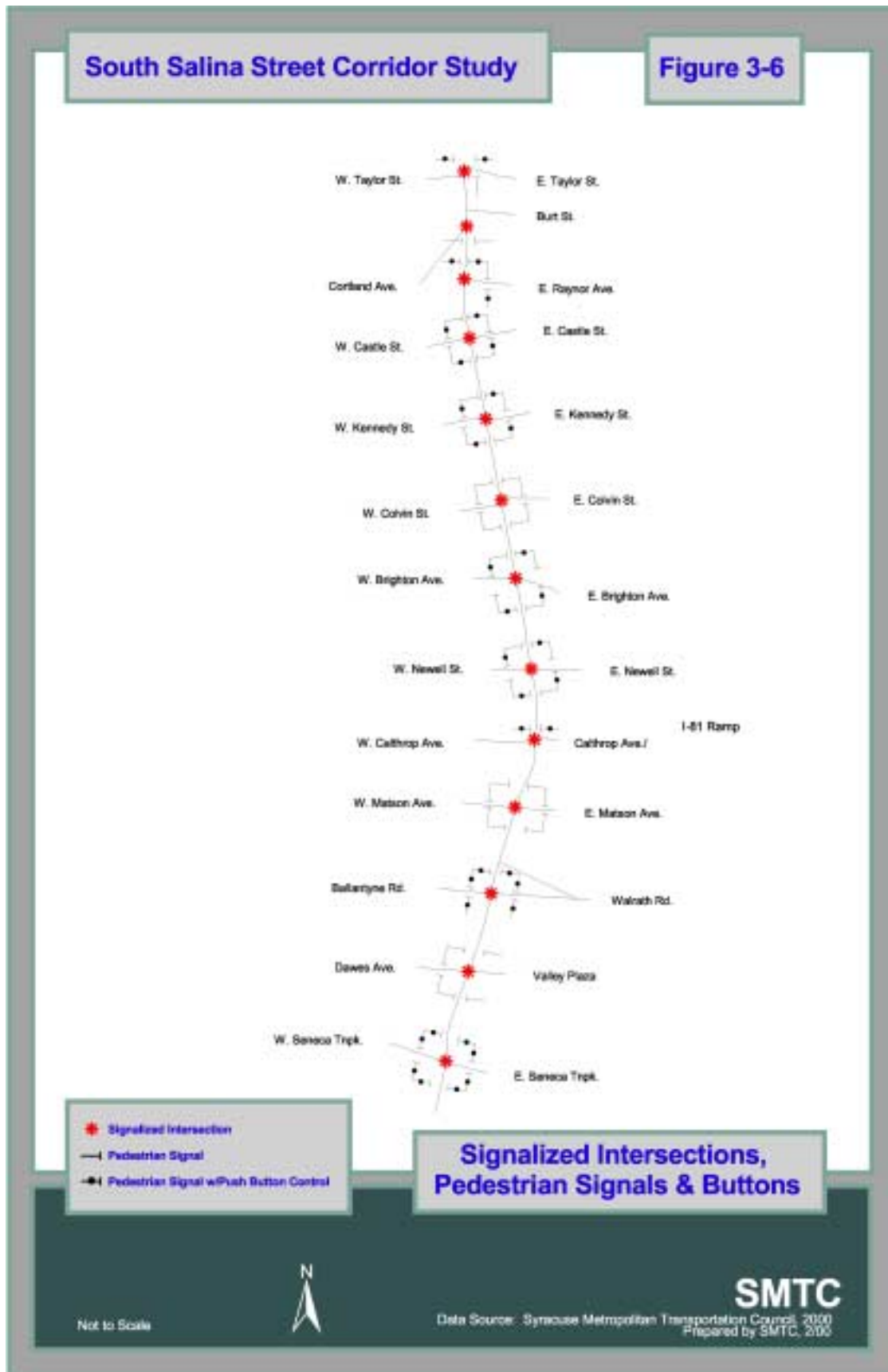
Pavement Markings

The base mapping included in Appendix C shows the existing pavement markings within the study area. Pavement markings within the study area consist of travel lane striping, crosswalks, and stopbars. The majority of S. Salina St. is striped as a two-lane street except for the sections from East Taylor St. to Castle St. and Calthrop Ave. (I-81) to Lynhurst Ave. that are striped for two lanes in each direction. Pavement striping will be discussed further in *Section 4.2, Pavement Markings*.

3.4 Capacity Analysis

The traffic analysis software Synchro 4.0 was used to determine the existing PM peak hour Level of Service (LOS) at the thirteen signalized intersections along the corridor and to complete an arterial analysis. The traffic volumes shown in Figure 3-3 and existing signal timings obtained from the City of Syracuse were used to complete the analysis. Summary reports of the information presented in this section are included in Appendix E.

Level of service is a measure relating primarily to speed, delay and density. There are six levels of service ranging from A through F. Level of service A represents free flow with individual vehicles unaffected by the presence of others in the traffic stream, while LOS E indicates that



traffic flow is exceeding the capacity of the transportation system. Generally, LOS D is considered the minimally acceptable level of service.

Intersection LOS

The Synchro analysis for the existing PM peak hour indicates that all approaches to each of the signalized intersections within the study area operate at a LOS C or better (see Figure 3-7).

In addition to the existing LOS, traffic volumes were projected at a growth rate of 1% per year for ten years to determine the 2010 future year LOS. All approaches continue to operate at a LOS C or better with the exception of the southbound approach at the intersection of S. Salina St. and Ballantyne Rd./Walrath Rd. that is projected to operate at a LOS D. The 2010 PM peak hour LOS for each signalized approach is shown in Figure 3-8.

Since the start of this study, the City has added a center turn lane on S. Salina St between Ballantyne Rd./Walrath Ave. and Florence Avenue and an exclusive southbound right turn lane at the intersection with Ballantyne Road. As a result, all approaches at the intersection of S. Salina St. and Ballantyne Rd./Walrath Rd. operate at a LOS C or better for both existing and future conditions.

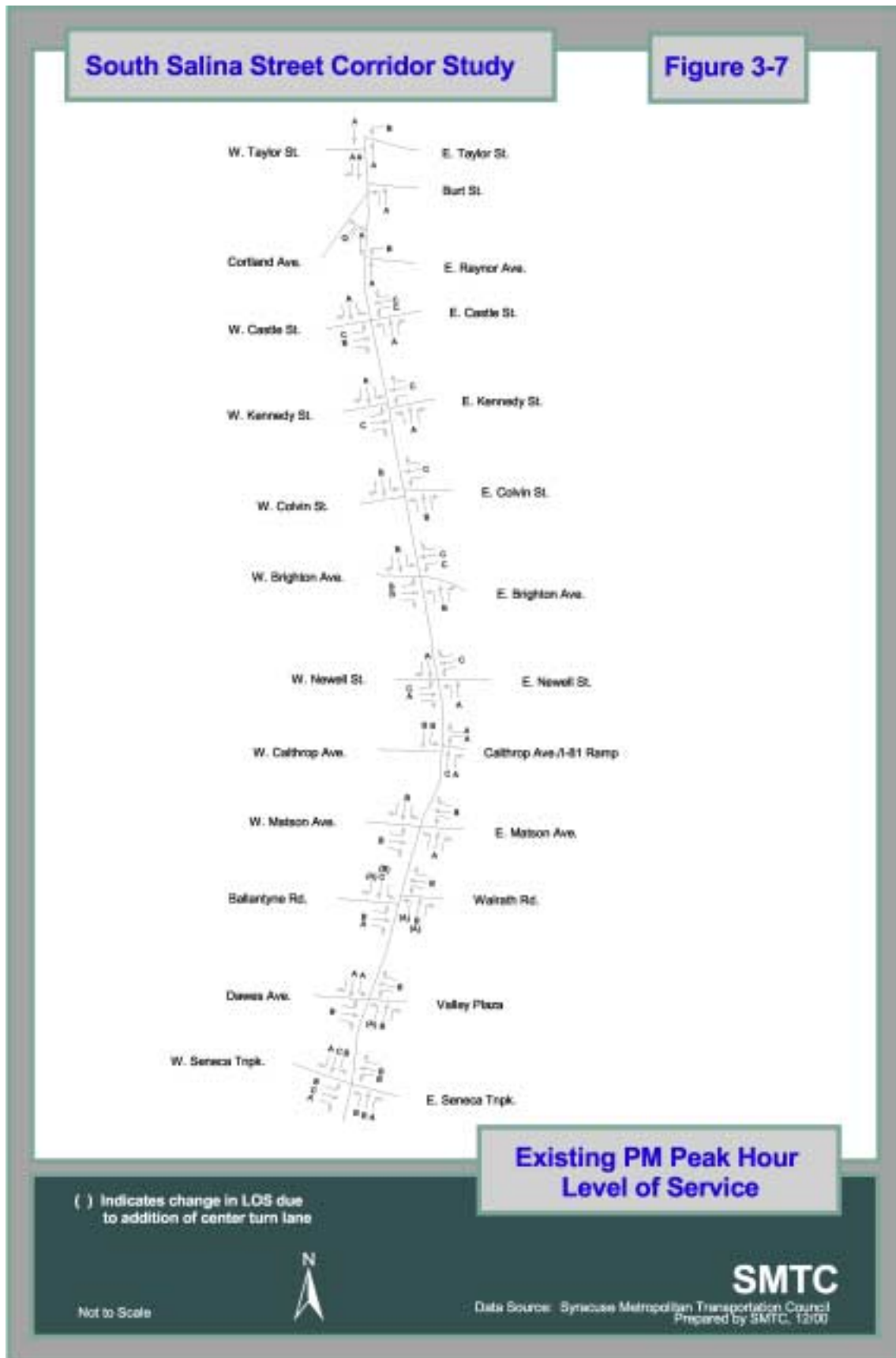
Arterial LOS

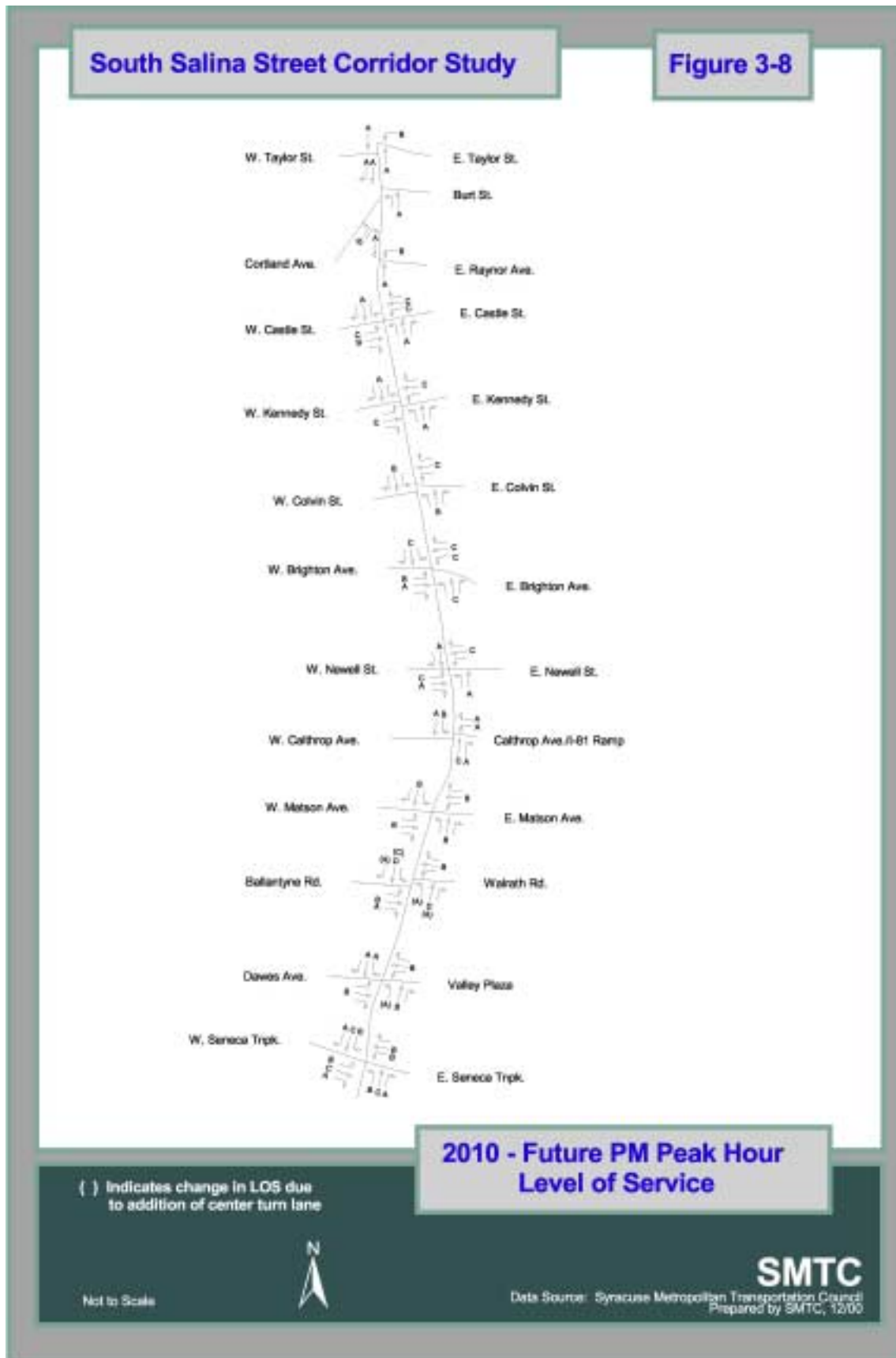
The existing northbound arterial analysis revealed that all street segments along the corridor operate at a LOS C or better. This remains true for the future year of 2010 with the exception of the street segment from Dawes Ave./Valley Plaza to Walrath Rd. that is projected to operate at a LOS E. The overall existing northbound arterial LOS is B for both existing and future years.

For existing conditions in the southbound direction all street segments operate at a LOS C or better except the segment from Newell St. to Calthrop Ave., which operates at a LOS D. This street segment continues to operate at a LOS D in the future year along with the street segment from Matson Ave. to Ballantyne Rd. The overall LOS for the southbound direction is B for both the existing and future years.

The arterial analysis also provided information on signal delay and travel time. The overall signal delays and travel times are comparable to the data obtained during the speed and delay study presented in Section 3.2. In general, the Synchro analyses arrived at greater signal delays and travel times than what was actually observed in the northbound direction and a lesser amount of signal delay and travel time than actually observed in the southbound direction. Tables 3-2 and 3-3 provide a summary of the existing and future arterial analyses for northbound and southbound conditions, respectively.

Due to the addition of the center turn lane and exclusive right turn lane discussed under Intersection LOS, future year northbound travel on the street segment from Dawes Ave./Valley Plaza to Walrath Rd. is projected to operate at a LOS B instead of a LOS E. The improvements are also projected to improve southbound travel between Matson Ave. and Ballantyne Rd. from a LOS D to a LOS C in the future year.





**Table 3-2
Northbound Arterial Analysis**

Street Segment	Signal Delay (seconds)		Travel Time (seconds)		Arterial LOS	
	Existing	Future	Existing	Future	Existing	Future
Seneca Tnpk. to Valley Plaza	11.9	12.8	71.4	72.3	A	A
Valley Plaza to Walrath Rd.	18.1	49.4	36.9	68.2	C (B*)	E (B*)
Walrath Rd. to Matson Ave.	8.4	8.9	31.6	32.1	B	B
Matson Ave. to Calthrop Ave.	30.2	29.6	57.9	57.3	C	C
Calthrop Ave. to Newell St.	0.9	1.0	14.7	14.8	B	B
Newell St. to Brighton Ave.	17.2	18.7	41.7	43.2	C	C
Brighton Ave. to Colvin St.	8.1	9.8	50.7	52.4	A	B
Colvin St. to Kennedy St.	3.0	2.9	47.5	47.4	A	A
Kennedy St. to Castle St.	2.1	2.4	26.0	26.3	B	B
Castle St. to Raynor Ave.	0.3	0.3	20.1	20.1	A	A
Raynor Ave. to Cortland Ave.	2.1	2.1	29.1	29.1	A	A
Cortland Ave. to Taylor St.	0.7	0.6	12.0	11.9	B	B
Total	128.3	165.5	473.9	508.6	B	B

* Indicates improved LOS resulting from the addition of a center turn lane

Source: SMTc

Table 3-3
Southbound Arterial Analysis

Street Segment	Signal Delay (seconds)		Travel Time (seconds)		Arterial LOS	
	Existing	Future	Existing	Future	Existing	Future
Taylor St. to Cortland Ave.	2.6	2.6	13.9	13.9	C	C
Cortland Ave. to Raynor Ave.	0.9	0.9	27.9	27.9	A	A
Raynor Ave. to Castle St.	2.9	3.4	22.7	23.2	B	B
Castle St. to Kennedy St.	4.3	4.4	28.2	28.3	B	B
Kennedy St. to Colvin St.	6.7	11.6	51.2	56.1	A	B
Colvin St. to Brighton Ave.	18.3	19.9	60.9	62.5	B	B
Brighton Ave. to Newell St.	1.8	1.9	26.3	26.4	A	A
Newell St. to Calthrop Ave.	13.1	12.3	26.9	26.1	D	D
Calthrop Ave. to Matson Ave.	9.9	10.9	37.6	38.6	B	B
Matson Ave. to Ballantyne Rd.	23.9	41.2	47.1	64.4	C	D (C*)
Ballantyne Rd. to Dawes Ave.	4.2	4.7	23.0	23.5	B	B
Dawes Ave. to Seneca Tnpk.	28.9	31.1	88.4	90.6	B	B
Total	119.6	147.0	474.6	502.0	B	B

* Indicates improved LOS resulting from the addition of a center turn lane

Source: SMTc

Signal Control

Loop Detectors

Consultation with a representative of the City of Syracuse revealed that loop detectors, intended to recognize the presence of a moving or stopped vehicle at signalized intersection, are broken at the following locations on the corridor.

- Taylor St.
- Ballantyne Rd./Walrath Rd.
- Dawes Ave./Valley Plaza

The condition of the loop detectors at the other signalized intersections within the study area is unknown. The City planned to have all of the loop detectors repaired by the end of 2000. For this reason, the Synchro analysis was completed as if the loop detectors were functioning.

The loop detectors that were known to be broken within the study area were repaired in 2000.

Signal Coordination

Coordination of signal operation between adjacent intersections offers an opportunity for significant benefits to motorists. Signal coordination attempts to accommodate platoons (groups) of vehicles with minimal stops.

Nine of the thirteen signalized intersections within the study area, from Taylor St. to Calthrop Ave., were time-based coordinated in 1999.

Based on the Synchro analysis, coordination of three of the four remaining uncoordinated signalized intersections within the study area is recommended. The intersections, listed below, would require equipment upgrades in order to be coordinated.

- Matson Ave.
- Ballantyne Rd./Walrath Rd.
- Dawes Ave./Valley Plaza

It is not recommended that the traffic signal at the intersection of Seneca Tnpk. and S. Salina St. be coordinated with the traffic signals to the north due to the large increase in cycle length that would be required at this location.

The City of Syracuse currently has a traffic signal system that utilizes fiberoptic interconnection. The existing traffic signal equipment at the intersection of S. Salina St. and Adams St. is capable of expansion to include the S. Salina St. corridor.

3.5 Accident Analysis

Using the January 1995 to December 1997 New York State Department of Transportation (NYSDOT) Centralized Local Accident Surveillance System (CLASS), locations within the study area with ten or more accidents during that period were identified. The analysis revealed nineteen intersections and three street segments that met that criterion.

A request was made through the NYSDOT to obtain actual Department of Motor Vehicle (DMV) Police Accident Reports at the twenty-two locations for the most recent three-year period available. Consequently, Police Accident Reports were received and evaluated for the period August 1995 through September 1998. Accident reports for 1999 were provided by the Syracuse Police Department. However, the 1999 accident reports were not included in the following evaluation due to the use of a portion of S. Salina St. as a detour route for I-81 during that period.

The accident rate is the ratio of the number of accidents at an intersection, or within a segment, for every million vehicles entering an intersection or million vehicle miles of travel in a segment

within the specified study period. The equations used to calculate the accident rate for intersections and road segments are as follows:

$$AccidentRate_{RoadSegment} = \frac{TotalAcc * 10^6}{AADT * \#ofDaysStudied * SegmentLength}$$

$$AccidentRate_{Intersection} = \frac{TotalAcc * 10^6}{PeakHourVol * AdjFactor * \#ofDaysStudied}$$

TotalAcc	= Total number of accidents analyzed during the period studied
AADT	= Average Annual Daily Traffic
#ofDaysStudied	= Total number of days during the study period
SegmentLength	= Length of road segment in miles
PeakHourVol	= Volume of traffic during the PM peak hour (4-5pm)
AdjFactor	= The factor of 11 was used to convert the PM peak hour volume to an AADT (Determined by comparing available AADT to peak hour volumes and averaging over the study area.)

Accident rates were calculated at all of the intersections and street segments originally identified, plus, at additional street segments for which accident data was available. The accident rates were then compared to the latest NYSDOT Average Accident Rates available which are based on facility and intersection type. All of the locations analyzed exceed the NYSDOT average accident rates.

The accident rates were also compared to the NYSDOT 95th percentile accident rates. The 95th percentile is the accident rate at 95 percent of similar type locations. Five percent of similar type locations would have a higher rate. This analysis revealed that two intersections and five segments exceed the 95th percentile as shown in Tables 3-4 and 3-5.

The fourth edition of the *Traffic Engineering Handbook*, states that pedestrian accidents account for 15% to 45% of all traffic accidents worldwide with rates in North America being among the lowest. Assuming bicycle/pedestrian accidents represent 15% of all traffic accidents in the United States, two intersections and seven street segments exceed that threshold. The locations that exceed the 15% threshold are marked with an asterisk in Tables 3-4 and 3-5.

**Table 3-4
Intersection Accident Summary**

Intersection	Vehicle					Bicycle/Pedestrian		
	Total Accidents	Accident Rate	NYS DOT Average Accident Rate	95 th Percentile	Exceeds 95 th Percentile	Number of Bike/ Pedestrian Accidents	Percent Bike/ Pedestrian Accidents of Total	Exceeds 15%
Beard Ave.	16	1.26	0.29	1.03	*	1	6	
Elk St.	10	0.66	0.20	0.78		1	10	
Ballantyne Rd./Walrath Rd.	26	1.29	0.45	1.51		2	8	
Wood Ave.	7	0.55	0.20	0.78		0	0	
Colvin St.	36	2.06	0.77	1.87	*	4	11	
Lafayette Ave.	7	0.70	0.29	1.03		1	14	
Amherst Ave.	7	0.47	0.20	0.78		2	29	*
Furman St.	6	0.47	0.20	0.78		0	0	
Seneca Tnpk.	42	1.44	0.64	1.63		2	5	
Brighton Ave.	25	1.34	0.64	1.63		3	12	
East Taylor St.	8	0.55	0.27	1.32		0	0	
Kennedy St.	11	0.87	0.45	1.51		0	0	
Castle St.	17	1.06	0.64	1.63		1	6	
Ostrander Ave.	8	0.40	0.29	1.03		1	13	
Calthrop Ave.	12	0.56	0.43	0.97		0	0	
Dawes Ave.	12	0.81	0.64	1.63		0	0	
Fillmore Ave.	9	0.52	0.20	0.78		1	11	
Matson Ave.	16	0.88	0.77	1.87		4	25	*

Note: The initial step in selecting locations for analysis was to identify areas where there were ten or more accidents in a three year period. See the text for more information.

Source:
SMTC
NYS
DOT

**Table 3-5
Segment Accident Summary**

Road Segment	Vehicle					Bicycle/Pedestrian		
	Total Acc.	Acc. Rate	NYS DOT Ave. Rate	95 th Percentile	Exceeds 95 th Percentile	# of Bike/ Ped. Acc.	% Bike/ Ped. Acc. of Total	Exceeds 15%
Brighton Ave. to Lafayette Ave.	9	11.98	2.09	7.17	*	4	44	*
Beard Ave. to Wood Ave.	8	9.92	2.09	7.17	*	1	13	
Wood Ave. to Colvin Ave.	3	8.68	2.09	7.17	*	1	33	*
McKinley Ave. to Amherst Ave.	7	8.48	2.09	7.17	*	0	0	
Calthrop Ave. to Lynhurst Ave.	6	9.32	2.61	8.64	*	0	0	
Colvin Ave. to Elk St.	4	5.82	2.09	7.17		1	25	*
Lafayette Ave. to Corning Ave.	3	4.66	2.09	7.17		0	0	
McClure Ave. to Brighton Ave.	3	4.45	2.09	7.17		0	0	
Castle St. to Furman St.	4	3.81	2.09	7.17		0	0	
Elk St. to McKinley Ave.	3	3.64	2.09	7.17		1	33	*
Ostrander Ave. to Matson Ave.	4	3.63	2.09	7.17		0	0	
McLennan Ave. to Borden Ave.	2	3.47	2.09	7.17		1	50	*
Orlando Ave. to Seneca Tnpk.	3	3.08	2.09	7.17		0	0	
Furman St. to Kennedy St.	3	2.86	2.09	7.17		0	0	
Dawes Ave. to Anderson Ave.	3	2.48	2.09	7.17		0	0	
Ballantyne Rd/Walrath Rd to Fillmore Ave.	3	2.12	2.09	7.17		1	33	*
Fillmore Ave. to Dawes Ave.	1	0.71	2.09	7.17		1	100	*

Note: The initial step in selecting locations for analysis was to identify areas where there were ten or more accidents in a three year period. See the text for more information.

Source:
SMTC
NYSDOT

Accident summary sheets and diagrams were prepared for each of the locations analyzed and are included in Appendix D. The analysis revealed that the three most frequently occurring accident types of the 343 collisions reviewed are as follows:

1. Rear end collision - 29%
2. Sideswipe - 16%
3. Right angle - 13%

The Institute of Transportation Engineers (ITE) *Traffic Engineering Handbook* states that while human error contributes to 70% - 90% of all accidents, road and vehicle improvements can greatly reduce the likelihood of human error or the consequences of the accident.

Based on our review of the accident reports, driver inattention and/or driver error was a major cause of many of the accidents along S. Salina Street. However, as noted above, street geometry and physical features can play a role. The high number of rear end collisions along the corridor is due in part to the high number of intersections that create stop and go traffic. Right angle accidents are also impacted by the high number of intersections and driveways that set the stage for this type of collision. Finally, the width of S. Salina St. allows it to be used as a four lane street even though it is primarily striped as two lanes. The driver confusion caused by this condition contributes to the high number of sideswipe accidents. Tables 3-6 through 3-8 provide summaries of intersection, street segment, and parking lot accidents.

The specific months and days in which the accidents occurred were also reviewed, but no pattern could be established. However, a review of the time of day at which the accidents occurred revealed that a higher percentage of accidents occurred during the AM and PM peak hours at the intersections and road segments listed below:

Intersections

- Wood Avenue
- Colvin Street
- Brighton Avenue
- Matson Avenue
- Ballantyne Road/Walrath Road
- Seneca Turnpike

Road Segments

- Between Beard Avenue & Wood Avenue
- Between McClure Avenue & Brighton Avenue
- Between Calthrop Avenue & Lynhurst Avenue
- Between Ballantyne Road/Walrath Road & Fillmore Avenue

Table 3-6
Intersection Accident Summary

Table 3-7
Road Segment Accident Summary

Table 3-8
Parking Lot Accident Summary

CHAPTER 4 - FACILITY CONDITIONS

4.1 Pavement

Pavement conditions of State owned facilities are assessed using the New York State Department of Transportation's (NYSDOT) Pavement Condition Rating Manual. The surface rating scale ranges from very poor to excellent. The portion of S. Salina St. from Raynor Ave. to Seneca Turnpike (Route 11) was rated by the state. The City of Syracuse rates the pavement condition on S. Salina St. north of Raynor Ave. using the same method as the NYSDOT. Based on this method, the pavement north of Calthrop Ave. (I-81) was rated in good or excellent condition, and the pavement south of this location was rated in poor or fair condition (see Figure 4-1).

4.2 Pavement Markings

Figure 4-2 indicates whether pavement markings within the study area are in good, fair, or poor condition. The graphic represents the overall worst condition for each intersection and block. A good rating indicates that the markings are intact, reflective and easy to comprehend. A fair rating indicates that the markings are intact but are faded, and a poor rating indicates that the markings are not intact, faded, and difficult to comprehend.

Only two intersections received a good condition rating. The remaining intersection markings received fair ratings except for the following four locations where the markings are in poor condition:

- S. Salina St. and Burt St.
- S. Salina St. and Brighton Ave.
- S. Salina St. and I-81 ramps
- S. Salina St. and Matson Ave.

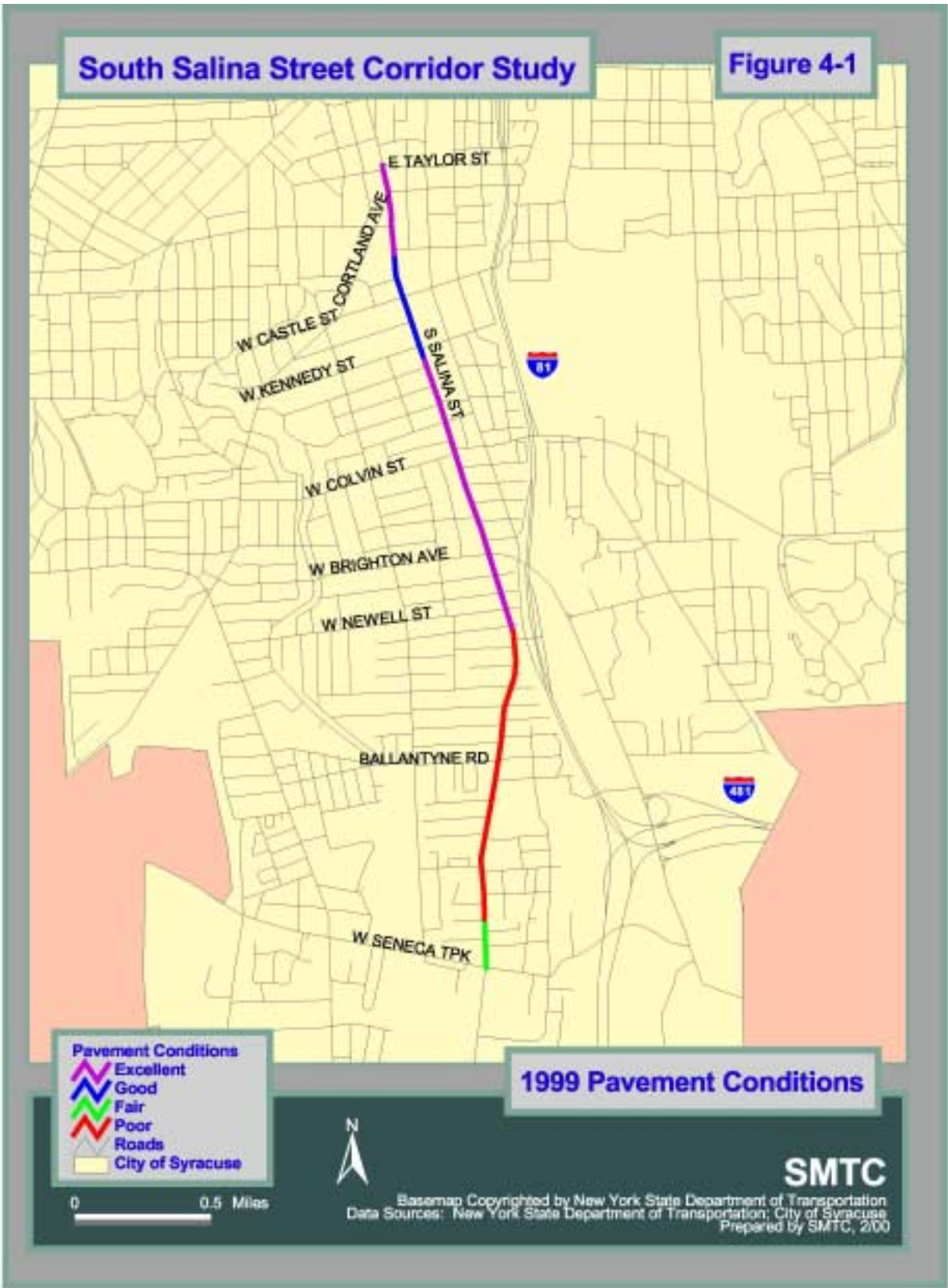
Travel lane markings along S. Salina St. were rated in good condition from E. Taylor St. to W. Lynhurst Avenue. However, the southern portion of the study area from W. Lynhurst Ave. to Seneca Turnpike is in fair condition. Currently, there are no pavement markings at the existing school crossing guard location.

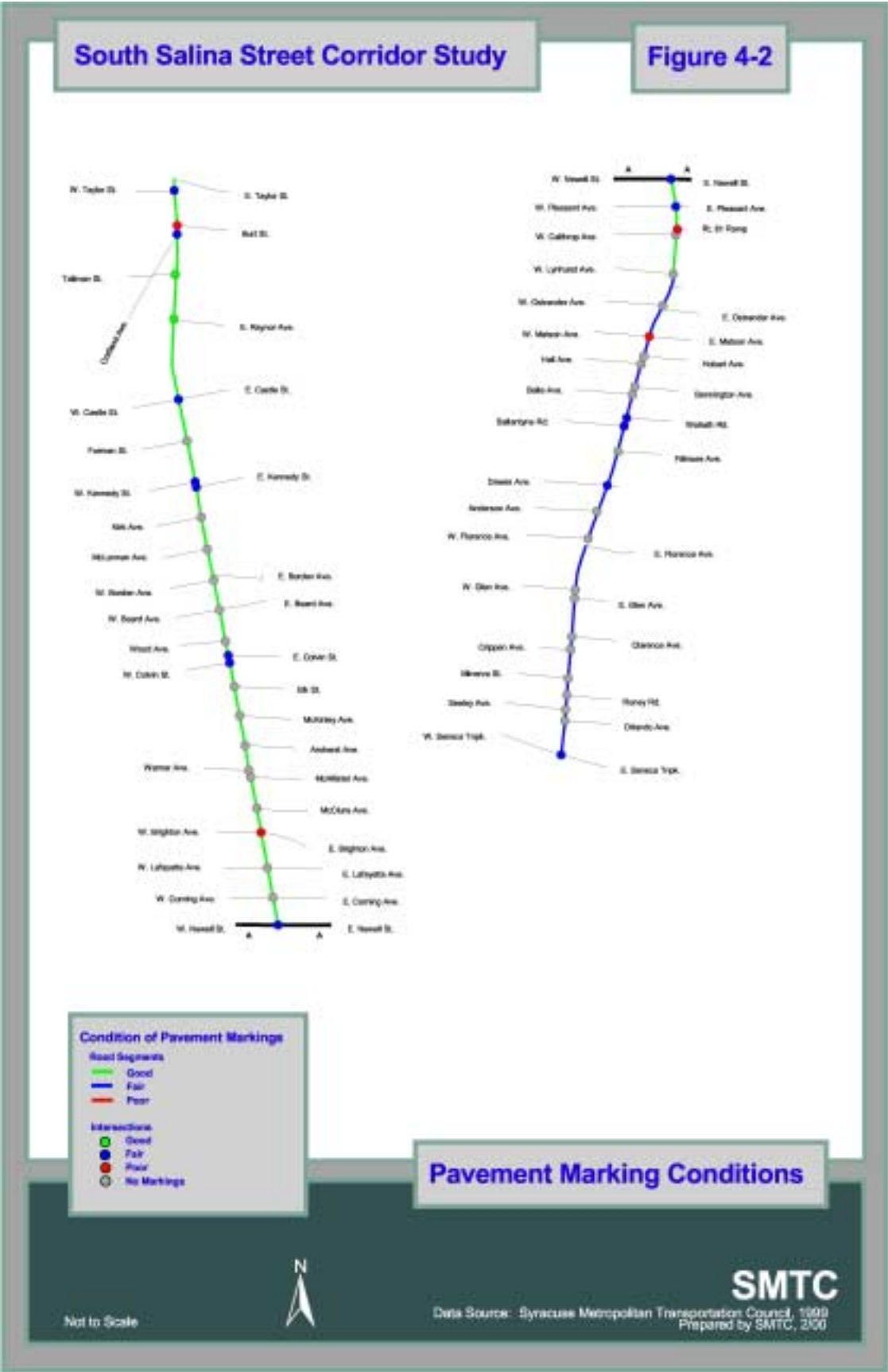
As part of their annual pavement marking program, the City refreshed all of the pavement markings within the study area in 2000.

4.3 Type and Condition of Bus Stops

The bus stops within the study area are designated with a blue Centro sign. All of the bus stops except two are unsheltered, and the majority of the locations lack a lead walk paved surface between the sidewalk and the curbline. As a result, individuals are often forced to walk and/or stand on muddy, wet or snow covered ground.

Of the two sheltered bus stops, one is located at Valley Plaza and the other is at Brighton Avenue. Both bus shelters are located on the east side of S. Salina St. for those individuals waiting for a bus traveling inbound.





Some of the bus stops are located at the near side of intersections. This condition often results in buses obstructing traffic control devices.

4.4 Sidewalks

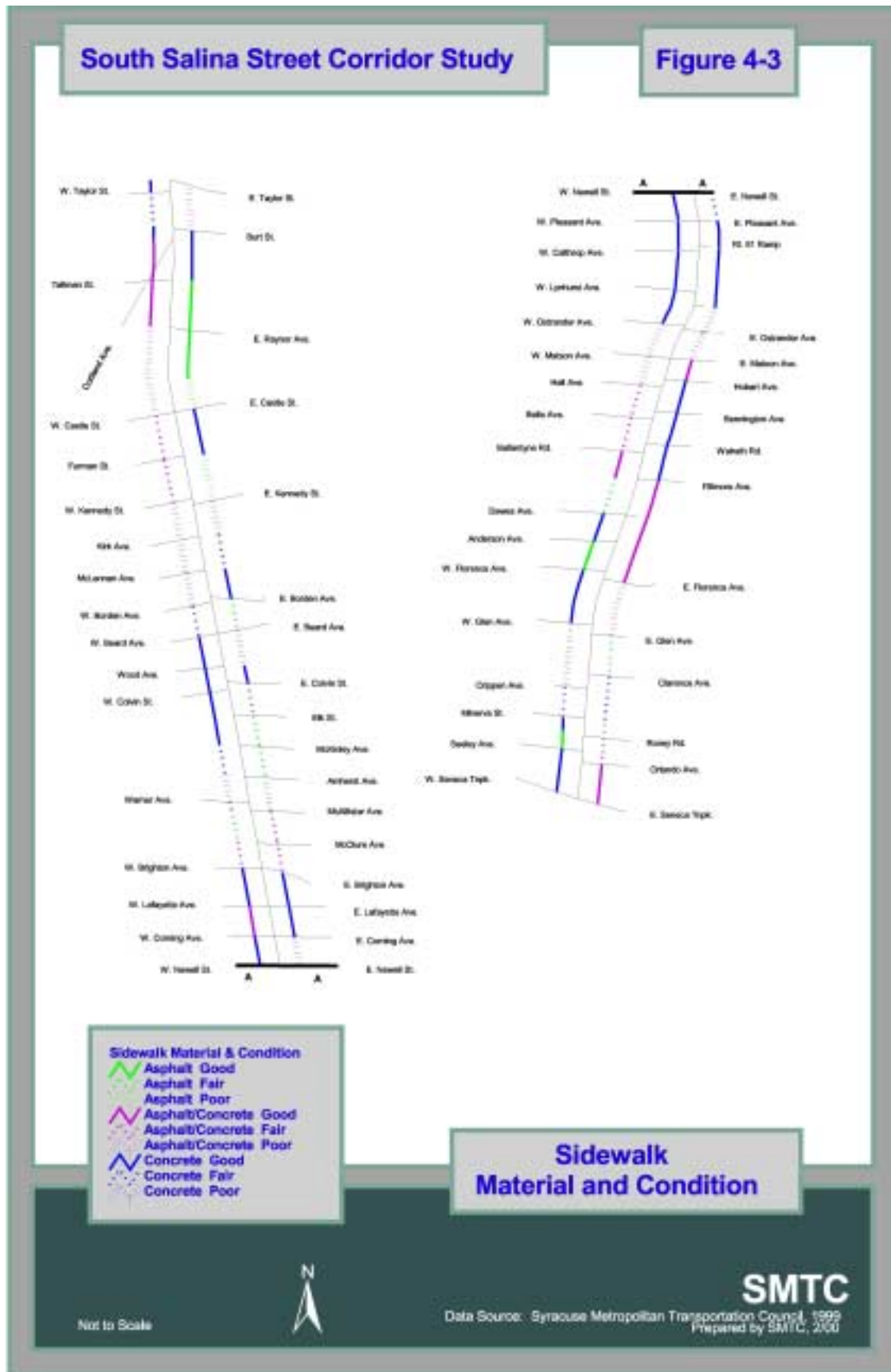
A sidewalk inventory was completed along the corridor in the Fall of 1999. Sidewalks exist along both sides of S. Salina St. throughout the study area. Figure 4-3 identifies the sidewalk condition and the surface construction material. The condition rating shown represents the worst case condition for the sidewalk segment. In many locations, the concrete sidewalk has been overlaid with asphalt, especially in areas adjacent to parking lots. These wide expanses of asphalt make it difficult to distinguish the pedestrian path.

Sidewalks were rated as being in good condition if they showed few signs of wear. A fair rating indicates that the sidewalk is showing signs of wear such as pitting or unevenness. The sidewalk received a poor rating if it was cracked, upheaved, missing chunks or vegetation was growing through it. Extensive areas of sidewalk were rated as being in fair or poor condition.

In addition to sidewalk conditions the following issues were identified:

- Water ponds to sidewalk level at the southeast corner of the intersection of S. Salina St. and E. Florence Avenue.
- Water ponds to sidewalk level on S. Salina St. between Elk St. and McKinley Avenue.
- Commercial sites use sidewalks for snow storage.
- Some corners are used for snow storage (especially near Valley Plaza) reducing visibility.
- Sidewalks are often not cleared of snow/ice and other debris (see photo below).





4.5 Curb Ramps

The American with Disabilities Act (ADA) of 1990 requires curb ramps to be provided in all existing sidewalks and for new construction and alterations. Curb ramps do not exist at the following locations within the study area:

- All four corners of the intersection of S. Salina St. and Pleasant Ave.
- East side of the intersection of S. Salina St. and Calthrop Ave.
- Northwest corner of the intersection of S. Salina St. and Lynhurst Ave.
- Southeast corner of the intersection of S. Salina St. and Walrath Rd.
- North and south of median at intersection of S. Salina St. and Walrath Rd.
- Southwest corner of the intersection of S. Salina St. and Ballantyne Rd.

Curb ramps should be designed to minimize the grade, cross-slope, and changes in level experienced by users. The transition between the ramp and the street surface should be flush. At many of the curb ramps along the corridor there is a significant difference in elevation between the bottom of the curb ramp and the street surface (see photo). This height transition can create difficulties for wheelchair users.



Intersection of S. Salina St. and Minerva St.

4.6 Curbs

An inventory of the curb conditions was completed at the same time as the sidewalk inventory. The majority of the curbs along S. Salina St. were rated as being in good condition. The exceptions are the following areas where the curb condition was rated as either fair or poor:

- | | |
|---|--------|
| • West curb between Raynor Ave. and Castle St. | - poor |
| • East curb between E. Taylor St. and Burt St. | - fair |
| • East curb between Burt St. and Castle St. | - poor |
| • West curb between E. Glen Ave. and Crippen Ave. | - poor |
| • West curb between Crippen Ave. and Minerva St. | - fair |

- East curb between E. Glen Ave. and W. Glen Ave. - poor
- East curb between E. Glen Ave. and Clarence Ave. - fair
- East curb between Clarence Ave. and Minerva St. - poor
- East curb between Minerva St. and Roney Rd. - poor

4.7 Bicycle Racks

No bicycle racks were observed along the corridor. However, some Centro buses are equipped with bicycle racks.

4.8 Lighting

Existing street light locations including the type of utility pole, type of luminaire, and wattage was supplied by Niagara Mohawk. The location of the utility poles and streetlights are shown on the base map included in Appendix C. All of the utility poles are wood structures, however, some streetlights shown on the base map are mounted on traffic signal poles. The luminaires are 400-watt high-pressure sodium that provide an initial output of 50,000 lumens.

At the initial public meeting, residents stated that streetlights along the corridor are frequently not working and that even when the lights are working they are inadequate. The area between Ostrander Ave. and Matson Ave. was of particular concern. Residents that attended the public meeting were not aware that the City relies on public input regarding lighting outages.

4.9 Landscape Features

Trash Receptacles

Trash receptacles are located along S. Salina St. at the following locations:

- Northwest corner of the intersection with Kennedy St.
- Northeast and northwest corner of Colvin St.
- Northwest corner of Matson Ave.
- Northwest and southeast corner of Pleasant Ave.
- Southwest corner of Newell St
- Southeast bus stop at Elk St.
- Northwest corner of Wood Ave.
- Southeast corner of McKinley Ave.
- Northwest corner of Taylor St.

Billboards

At the initial public meeting, citizens stated that billboards such as these located near Valley Plaza are distracting to motorists, add to visual confusion, and have a negative impact on the visual environment.



CHAPTER 5 - DEMOGRAPHICS AND LAND USE

The following demographic information is based on 1990 census data. More recent data is currently unavailable. The data is broken down by Transportation Analysis Zones (TAZ). Transportation analysis zones are similar to census tracts, but are geographic units delineated especially for transportation planning.

5.1 Population

The population of the City of Syracuse peaked in 1950 at 220,583 and has decreased steadily to a population of 163,860 in 1990. After 1970, the older towns surrounding the city also began decreasing in population. While the City's population has decreased, population within Onondaga County has experienced growth in the northern, eastern, and western parts.

Population density within the study area is highest near the center of the study area and decreases as you move to the northwest and south (see Figure 5-1)

5.2 Income

The median household income for Onondaga County is \$31,783. Table 5-1 lists the median household income for each TAZ within the study area. Median household incomes range from \$7,303 in TAZ 267, to \$23,415 in TAZ 292. In general, the median incomes increase as you move to the south within the study area.

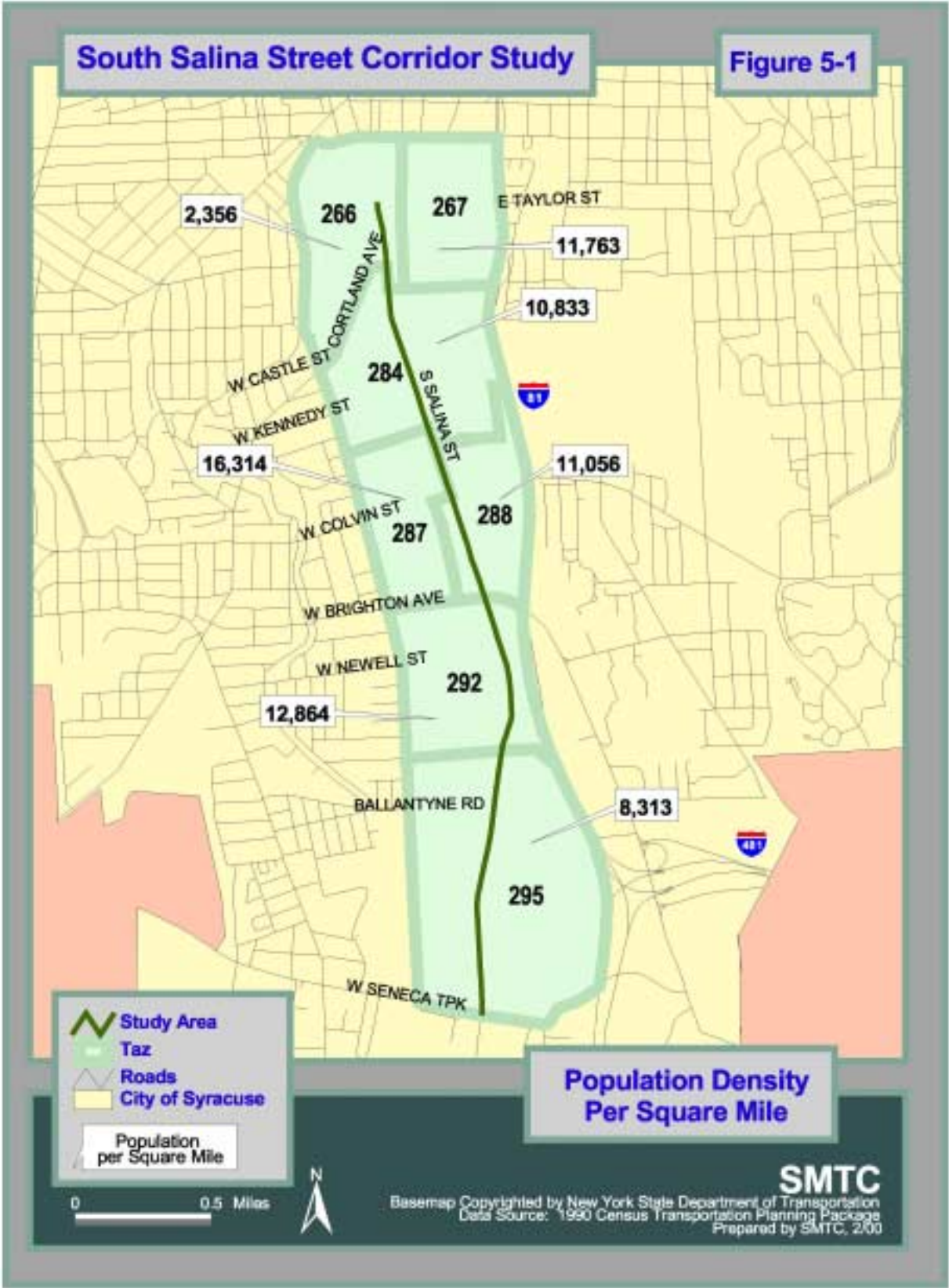
Table 5-1
Median Household Income

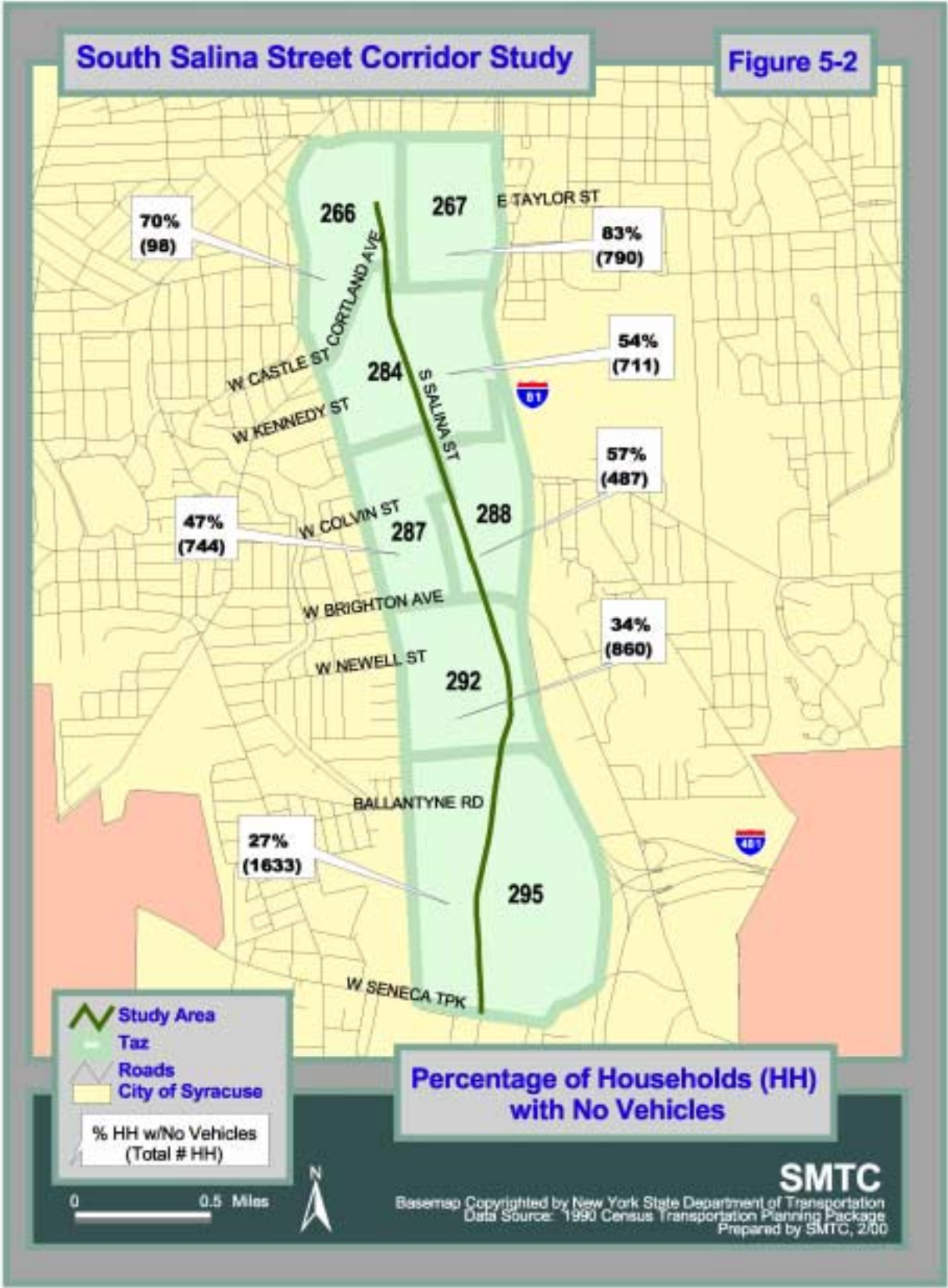
TAZ	Median Household Income (\$)
266	10,517
267	7,303
284	13,194
287	15,265
288	16,860
292	23,415
295	21,147

Source: Census Transportation Planning Package

5.3 Households and Vehicles

Figure 5-2 shows the percentage of households with no vehicles. The number of households with no vehicles ranges from 27 percent in TAZ 295 to 83 percent in TAZ 267. In general, the number of households with no vehicles is greater in the northern portion of the study area.





5.4 Employment

Table 5-2 shows the mode of transportation used by individuals to get to work by TAZ. Driving alone is the primary mode of transportation to work for all TAZ's with the exception of zones 267 and 266 where walking to work is the primary mode of transportation. Carpooling, taking the bus, and walking are the next most popular modes of transportation, respectively.

Table 5-2
Mode of Transportation to Work

TAZ	Drove Alone	Car-pool	Bus	Walk	Worked at Home	Taxi	Bicycle	Rail	Other Means
295	1,068	204	143	52	31	8	0	0	0
292	637	169	152	32	6	10	0	0	0
288	235	159	194	9	0	0	11	7	0
287	405	154	70	35	8	0	0	0	0
284	425	120	212	94	12	0	0	0	19
267	112	74	17	198	10	0	0	0	0
266	26	10	0	57	0	0	0	0	0

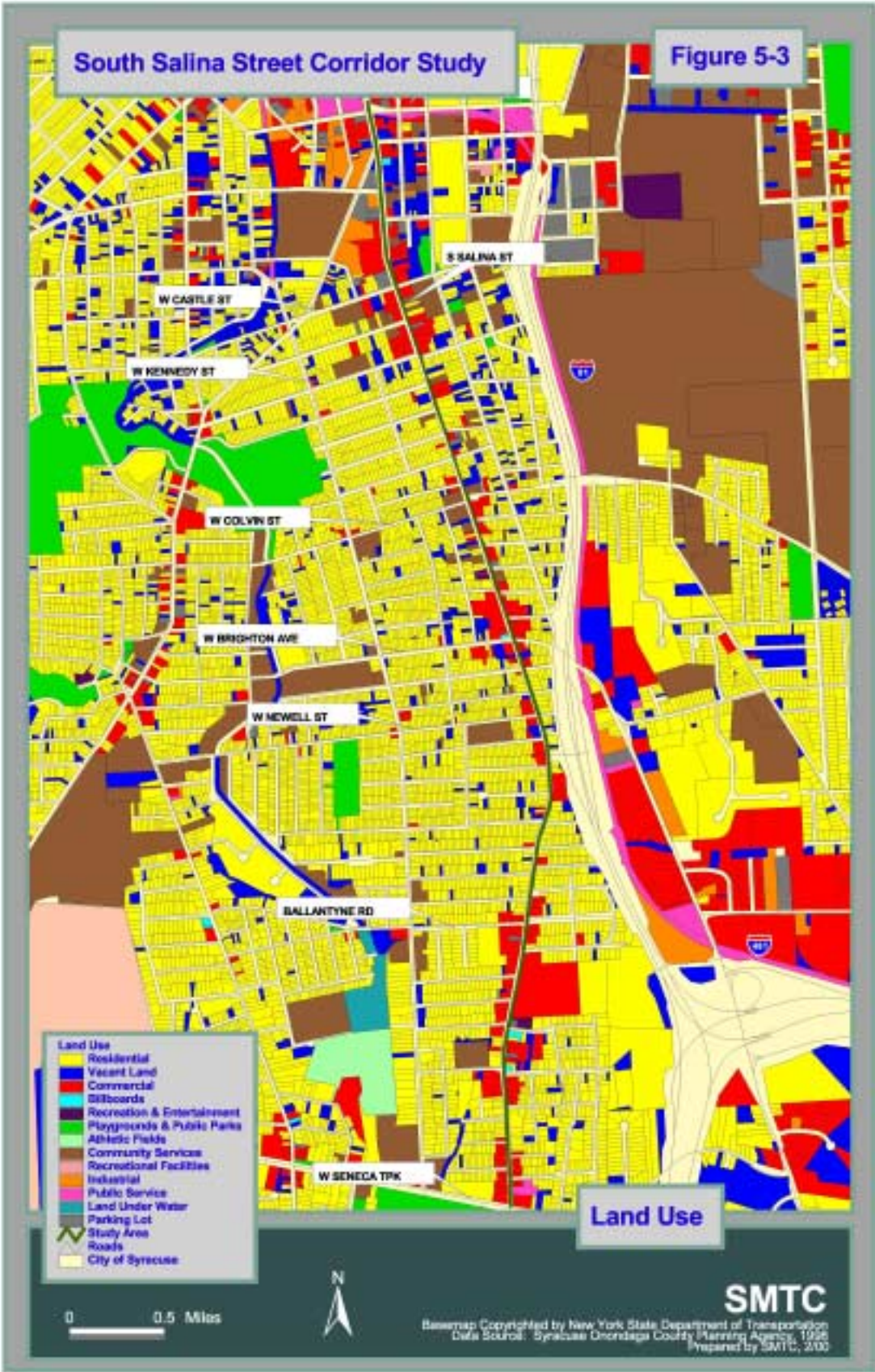
Source: Census Transportation Planning Package
Syracuse Metropolitan Transportation Council

The study area contains over 7,000 jobs with the greatest concentrations of employment existing in the northern portion, TAZ 266, and southern portion, TAZ 295, of the study area. However, as mentioned previously, the population density is highest near the center of the study area and declines as you move to the northern and southern extremes.

5.5 Land Use

Land use within the study area and surrounding areas is shown in Figure 5-3. Land use within the study area is primarily commercial and residential. Commercial properties are dispersed along the corridor with higher concentrations north of Kennedy St. and south of Ballantyne Road. Commercial properties also cluster near main east west streets including Colvin St., Brighton Ave., Calthrop Ave., and Seneca Turnpike.

Areas to the north and east of the study area, the Central Business District and University Area, are primarily commercial and community services. Areas west and south of the study area are mostly residential.



CHAPTER 6 - EXISTING REGULATIONS AND DEVELOPMENT CONTROLS

There are a variety of methods used to regulate and control what property owners are allowed to do with their land. Discussed below are zoning, the process for site development and ordinances that citizens and developers must adhere to in the City of Syracuse.

6.1 Zoning

The most well known form of land-use control is zoning. Zoning is a set of requirements that apply to every property in the City of Syracuse. For each of the different zone districts, there are controls over allowable uses of the property, such as parking, signs, location of buildings on the lot, fences, swimming pools, garages, satellite dishes and home occupations. South Salina Street from Taylor Avenue on the north to Seneca Turnpike on the south is primarily zoned residential and commercial.

Zoning along the corridor is shown in Figure 6-1, and a description of each of the zoning types represented in the study area follows:

Residential District, Class A (RA)

This district provides for one- and two-family dwellings within the City of Syracuse at a greater density than a single-family district. It also serves to protect the basic low-density character of areas developed with a mixture of one-and two-family dwellings.

Residential District, Class AA (RAA)

Residential Class AA allows for one-and two-family dwellings at a density slightly greater than that permitted in other one-and two-family districts, but on existing smaller-sized lots. It also serves to protect the amenities and characteristics associated with low-density residential development.

Residential District, Class B (RB)

This district provides for areas within the City which permit high density residential development. This development consists of a mixture of single-, two-, three-, four-, and multiple-family dwellings, and other compatible land uses that are characterized by a similar high land use intensity.

Residential District, Class C (RC)

This district provides for the development of areas for medium density residential and certain compatible office and business uses. It provides a means of transition between areas used for residential and nonresidential uses.

Local Business District, Class A (BA)

The intent of this district is to provide areas within the City, but outside the Central Business District (CBD), which permit the intensive development of land for mixed residential, retail, service and certain industrial uses.



Planned Shopping District (PSD)

The purpose of this district is to provide areas outside the CBD, on or adjacent to highways characterized by large traffic volumes, for well-planned and designed shopping center facilities to serve adjacent residential areas and the motoring public.

Commercial District, Class A (CA)

This district provides appropriate areas on or near major routes within the City that would permit the development and continued use of lands for compatible retail, commercial, and light manufacturing uses.

Commercial District, Class B (CB)

This district provides appropriate areas on or near major routes within the City which would permit the more intensive development and continued use of lands for compatible retail, commercial, and light manufacturing uses.

There are two buildings along S. Salina St. that are considered historically or architecturally protected. These are shown on the zoning map (Figure 6-1), as Residential, Class B, Protected and Residential Class AA, Protected. With a protected building, the property owner must seek permission in order to make any major or minor changes to the buildings.

Within each district there may be parcels where variances or special uses have been granted. Variances or special use permits can be granted to property owners when they want to use the land in a manner or for a purpose which is otherwise not allowed by the zoning regulations. In order to obtain a variance or special use permit, the landowner must contact the City of Syracuse Zoning Office to apply and must demonstrate a certain set of circumstances.

When granted, variances and special use permits are specific to the property. Variances stay with the property even if it changes ownership or use. In the study area, variances and special use permits often deal with curb cuts and access (mainly south of Calthrop Ave).

Within the study area, there is a noteworthy nonconforming use, the NAPA Auto Parts site, located at 3832 S. Salina Street. A nonconforming use is a legal use that was established prior to the present zoning classification and is permitted to continue despite its nonconformance with the zoning code. This site is nonconforming because it is located in an area zoned residential. The nonconforming use is said to run with the land (like a variance) and not with the individual owner, and therefore a buyer can continue the nonconforming use. If a period of time goes by where the nonconforming use is not continued, it is nullified.

The City of Syracuse Zoning Administration indicated that there have been no zone changes within the study area during the past three years. However, the Zoning Administration acknowledged that zoning along the corridor needs to be reexamined especially in regard to building placement. Development that has occurred during the past few years (especially near Valley Plaza) is out of character with the urban setting. Buildings are set further back from the road with large areas of parking in front. This type of development is inconsistent with the pedestrian nature of the community.

Enforcement of zoning regulations begins with the Zoning Office and may be forwarded to the Division of Code Enforcement and can be pushed as far as the Legal Department if warranted.

6.2 Site Development Process

In the City of Syracuse the process of obtaining a building permit for development exceeding \$250,000 involves many city departments and agencies. Within the Department of Community Development is the Division of Code Enforcement that houses the Permits Office, which issues building permits. Before a building permit can be issued, a developer must first contact the Division of Special Projects also within the Department of Community Development.

The developer submits preliminary site plans to the Division of Special Projects showing the building layout, set backs, curb cuts, utilities, and other pertinent information. Once this information is received, the Division of Special Projects contacts other City departments and involved agencies. The City departments and agencies typically involved include the Zoning Administration; Departments of Water, Fire, Police, Parks and Recreation, and Public Works (Transportation and Sewer Bureaus); and public utilities. Combined, these departments and agencies make up the development review team.

The Division of Special Projects organizes a meeting between the developer and the development review team. At this meeting the development review team advises the developer as to what issues need to be addressed. Once the developer addresses these issues and receives the approval of each of the involved departments and agencies, the final plans are forwarded to the Permits Office for a building permit.

If a development site is 10,000 square feet or more, or if the site is on a 15% or greater slope, a site preparation permit is required in addition to a building permit. The purpose of a site preparation permit is to make sure the soil is capable of handling development; to mitigate possible environmental impacts; to be sure there will not be any adverse affects of drainage runoff; and to examine the landscaping proposed by the developer for aesthetic quality. The site plans are reviewed, and if appropriate, a site preparation permit is issued by the City of Syracuse Department of Public Works Engineering Department (Technical Services).

6.3 City Ordinances and Enforcement

The City of Syracuse has a number of ordinances that city residents are responsible for adhering to. One of the many ordinances, Section 27-72 D, involves the maintenance of sidewalks. The owner, occupant, or agent of any property in the City of Syracuse is responsible for maintaining and keeping sidewalks clear of snow and ice. The clearing of snow and ice must be completed by 6:00 p.m. of the day following the accumulation. If there is a violation of this ordinance, it can be reported to the city through their hotline, 448-CITY. At this point, the Division of Code Enforcement would write up a violation and mail it to the property owner who would then have 15 days to clear the sidewalk. The Division of Code Enforcement finds it more effective to have the Office of Police Ordinance Enforcement stop by the property owner's residence or business and ask them to clear the sidewalk. This is often done in lieu of sending a violation notice and yields faster, better results. City property owners are also responsible for keeping their sidewalks clear of trash, yard waste and any other type of debris.

The City of Syracuse also has a number of police ordinances that must be adhered to. One of the ordinances, Section 15-316(A), refers to parking regulations. Through this ordinance a person is not allowed to park a vehicle in any of the following places:

- On a sidewalk or between a sidewalk and the curb or the edge of the road where there is no curbing
- Blocking the entrance or exit of a driveway, public or private
- Within ten feet of a fire hydrant
- At any place that is posted by official signs prohibiting stopping, standing or parking and
- On any ground, lawn or vegetated areas, public or privately owned.

Parking violations can be reported to the Syracuse Police Department's non-emergency phone number at 422-5111. Vehicles parked in violation of this ordinance will be ticketed. Also, vehicles parked in front of a fire hydrant or on any ground, lawn or vegetated areas, public or privately owned, may be towed away by the police at the owner's expense.

CHAPTER 7 - PLANNED IMPROVEMENTS AND/OR DEVELOPMENT

Outlined below are various developments and projects planned on or near S. Salina Street. On a broader scale is a description of the Onondaga County Settlement Plan, which may serve as a blueprint for neighborhoods throughout the county.

7.1 Private Development

Valley Plaza

Raised planting beds were recently constructed within the Valley Plaza parking lot. The recommendation to provide some type of traffic barrier (such as the raised beds) to limit the number of conflict points was made in a Traffic Impact Study completed by Flint, Allen White & Radley Consulting Engineers, P.C. in April 1999.

Currently there are no plans for new development within Valley Plaza. However, an AutoZone was recently constructed and opened on S. Salina St. across from the plaza.

KFC/Taco Bell

A proposal to develop a KFC/Taco Bell drive-through restaurant in Blockbuster plaza at the intersection of Seneca Turnpike and S. Salina St. is currently being considered. The development proposal requires a variance and has not yet been approved.

The variance was denied because the suburban traffic oriented nature of the development (i.e. drive thru business) was considered inappropriate for the site.

7.2 Central New York Regional Transportation Authority

The Regional Mobility Action Plan (ReMAP) recently completed by the Central New York Regional Transportation Authority involved research to determine Central New York's public transit needs, deficiencies in the current bus system, opportunities to coordinate services with other agencies, long-term funding and implementation.

One recommendation of this report was the establishment of transit hubs at key locations throughout the region. Although Centro has a hub in downtown Syracuse at the intersection of Fayette St. and S. Salina St. called Common Center, the additional hubs will eliminate the need to go to Common Center to transfer. The new hubs may therefore reduce travel time and increase travel convenience for those whose destinations are outside downtown Syracuse.

A recent amendment to the 1999-2004 Transportation Improvement Program (TIP) included funding for the construction of a hub at Valley Plaza, in addition to other locations. The exact location and design have not yet been determined. However, the ReMAP report states that hubs may include well-lit and weather protected (and sometimes climate controlled) waiting areas, as

well as improved user information, all designed to make transfers more convenient. The anticipated construction date is 2002-2003.

7.3 Southeast Gateway Project

The Southeast (SE) Gateway Project is a planned revitalization effort for a 12-acre area bordered by Taylor St. on the north, S. Salina St. on the west, W. Kennedy St. on the south, and Interstate 81 on the east. This project lies within the S. Salina St. Corridor study area. The goal of the Southeast Gateway project is to create an Urban Renewal Master Plan. Once the Master Plan is ready, the city will work with businesses and entrepreneurs interested in participating in redevelopment of the area. It will also search for grants and other funding to pay for public improvements to the area. Already, the project has attracted \$70,000 from the U.S. Department of Housing and Urban Development to retain a consultant. Various community organizations have also contributed time and monies to this cause.

Several neighborhood meetings have been held to enlist community support resulting in the organization of a representative community work group and task force. One of the major areas of concern for this group is the existing infrastructure in the SE Gateway project area, in particular, transportation infrastructure. Area residents have voiced concerns about the poor condition of sidewalks, curbs, roads, striping, and the lack of attention to street lighting and beautification. South Salina Street was identified as a problem and as an impediment to the redevelopment of the area. Concerned residents feel that traffic consistently exceeds posted speed limits. The project work group feels that a redesign of the street could effectively improve the problems they have identified. In early meetings, some members of the group suggested converting the road into a boulevard with a median (or to reduce the road to two lanes), providing angled parking, and addressing intersection problems. To enhance the overall appearance of the area, the following landscaping elements were suggested: street trees, pedestrian lighting, benches, kiosks, newspaper stands and trash receptacles.

7.4 City of Syracuse Department of Public Works (DPW)

During any given year the City DPW may undertake a variety of transportation related projects. Projects may range from basic maintenance such as the painting of pavement markings to street pavement rehabilitation. Currently, the City of Syracuse DPW has no paving projects planned within the study area.

In order for new and replacement signs to be installed prior to the completion of this project, the SMTTC sent a letter to the City of Syracuse DPW on February 22, 2000. The letter, based on the information included in Section 3.3 of this report, noted locations where parking regulation signs are missing and that a number of signs in the southern half of the study area are faded and no longer legible. The letter also requested that speed limit signs be posted along the corridor.

Subsequent consultation with the City of Syracuse revealed that speed limit signs have been placed every half-mile along the corridor and that missing and faded parking regulation signs have been replaced.

In the spring of 1999 the City of Syracuse DPW requested that Ellicott Development Company (the developer of Valley Plaza) complete a Traffic Impact Study for S. Salina St. between Ballantyne Rd. and Florence Avenue. The study recommended pavement markings for S. Salina Street. The City has indicated that they may implement some of the markings.

The City DPW has an annual pavement marking program that allows for all City pavement markings to be painted at least once a year. Painting of pavement markings generally begins in April and the City indicated that if they are made aware of those locations that are in poor condition, they will make an effort to have those locations completed earlier in the program year.

The City DPW added a center turn lane on S. Salina St. between Ballantyne Rd. and Florence Ave. in the summer of 2000. In addition a southbound exclusive right turn lane was added at the Ballantyne Rd. intersection.

7.5 Onondaga County Settlement Plan

Onondaga County recently hired a consulting firm to examine a variety of neighborhoods in Onondaga County and make suggestions for improvements. In the Fall of 1999, the firm examined eight “pilot neighborhoods” in Onondaga County. The team worked with town and village leaders and business and property owners to identify urban design problems and develop design proposals for specific residential and main streets. The aim was to tackle universal problems on a local scale and leave behind a design blueprint to help remedy and avoid them in the future. Any Central New York community can adopt the ideas. The Settlement Plan is intended to be a new tool that can be provided to the city, towns and villages in Onondaga County. The final plan will provide a template that can be used and applied to various specific locations within Onondaga County. The draft final report is expected to be complete in early 2001.

CHAPTER 8 - TRANSPORTATION ISSUES

8.1 Introduction

Through the course of completing *Technical Memorandum #1 (TM #1), Existing Conditions*, which consisted of Chapters 1 - 7 of this report, and the public involvement process, a number of transportation issues along the S. Salina St. corridor were identified. These issues are outlined below along with possible opportunities and constraints. A constraint that applies to almost all of the issues is the availability of funding sources to design, construct, and maintain potential solutions.

8.2 Vehicular Travel

Travel Speeds

Issue

High vehicle travel speeds, especially on long segments between traffic signal lights, were identified a number of times throughout the public involvement process as being an issue. The posted legal speed limit along the corridor is 30 miles per hour (MPH). The 85th percentile speed (the speed at or below which 85% of the vehicles were moving) on S. Salina St. near Furman Street was 34.0 MPH in the northbound direction and 33.8 MPH in the southbound direction. The 85th percentile speed on S. Salina St. near Seeley Avenue was 34.5 MPH in the northbound direction and 34.1 MPH in the southbound direction.

Opportunities

At the start of this project, no speed limit signs were posted along the corridor. Based on the information in Chapters 1 - 7 and public request, speed limit signs were posted every quarter mile along the corridor including near the entrance to I-81 at Calthrop Ave.

Keeping vehicle travel speeds within the desired range increases safety and enhances the pedestrian nature of S. Salina Street. Preserving and/or enhancing the pedestrian nature of the corridor increases the mobility of people, particularly children and the elderly, who would otherwise have difficulty getting around. Potential solutions to controlling excessive speeds include better enforcement of speed regulations and/or the implementation of traffic-calming measures.

Constraints

Speed limits are imposed in order to promote lower relative speed conditions, better traffic flow, and to reduce accidents. High speeds may be caused by the lack of effective enforcement of speed laws.

Typically, residents request some form of traffic management measure such as an all way stop, reduced speed limit, or a turn prohibition when they perceive that traffic speeds are unsafe. However, these measures are usually ineffective at correcting the problem.

Pavement, Pavement Markings, and Curbs

Issues

The following issues were identified regarding pavement, pavement markings and curbs:

- Pavement south of Calthrop Ave. (I-81) is primarily rated as being in poor condition.
- Pavement markings are in fair condition throughout the study area except for the following four locations where the markings are in poor condition:
 - S. Salina St. and Burt St.
 - S. Salina St. and Brighton Ave.
 - S. Salina St. and I-81 ramps
 - S. Salina St. and Matson Ave.
- Curb conditions were rated as poor at the following locations:
 - West curb between Raynor Ave. and Castle St.
 - East curb between Burt St. and Castle St.
 - West curb between E. Glen Ave. and Crippen Ave.
 - East curb between E. Glen Ave. and W. Glen Ave.
 - East curb between Clarence Ave. and Minerva St.
 - East curb between Minerva St. and Roney Rd.

Opportunities

South Salina St. is one of the primary north-south corridors within the City of Syracuse and handles not only local traffic but also a significant amount of commuter traffic. Pavement, pavement markings, and curbs that are in good condition may enhance traffic flow and improve safety.

The City Department of Public Works (DPW) has an annual pavement-marking program to refresh existing pavement markings throughout the city. The City DPW also has a Street Reconstruction Program that has been used in the past to fund street improvements on S. Salina Street.

Constraints

City budget constraints and availability of other sources of funding may limit the extent of pavement improvements that can be made.

Intersection and Arterial Level of Service (LOS)

Issues

The Synchro analysis for the existing PM peak hour indicates that all approaches to each of the signalized intersections within the study area operates at a LOS C or better except for the following locations that operate at a LOS D:

- Southbound approach at the intersection of Ballantyne Rd./Walrath Rd. and S. Salina St.
- Eastbound approach at the intersection of Cortland Ave. and S. Salina St.

All of the approaches are projected to continue to operate at a LOS C or better through the year 2010 with the exception of the following three locations:

- The southbound approach at the intersection of Ballantyne Rd./Walrath Rd. and S. Salina St. that deteriorates to a LOS F;
- The northbound approach at the intersection of Ballantyne Rd./Walrath Rd. and S. Salina St. projected to operate at a LOS D; and
- The eastbound approach at the intersection of Cortland Ave. and S. Salina St. that continues to operate at a LOS D.

All of the street segments operate at a LOS C or better except for the following:

- In the northbound direction, the street segment from Dawes Ave./Valley Plaza to Walrath Rd. is projected to operate at a LOS E in the year 2010.
- In the southbound direction, the street segment from Newell St. to Calthrop Ave. currently operates and is anticipated to continue to operate at a LOS D through the year 2010.
- In the southbound direction, the street segment from Matson Ave. to Ballantyne Rd. is anticipated to operate at a LOS D in the year 2010.

Opportunities

The segment of S. Salina St. between Ballantyne Rd./Walrath Rd. and Florence Ave., which includes Valley Plaza, was of primary concern to many of the individuals attending the public meetings. The combination of high traffic volumes and the concentration of commercial curb cuts coupled with high pedestrian and transit use creates a high conflict environment. These factors make this street segment a good candidate for comprehensive improvements.

Even if no improvements are made, the eastbound approach at the intersection of Cortland Ave. and S. Salina St. along with the southbound street segments from Newell St. to Calthrop Ave. and Matson Ave. to Ballantyne Rd. will continue to operate at a LOS D through 2010. In general, a LOS D is considered minimally acceptable.

Since the start of this study, the City added a center turn lane on S. Salina St between Ballantyne Rd./Walrath Ave. and Florence Avenue and an exclusive southbound right turn lane at the intersection with Ballantyne Road. The improvements result in the following changes in LOS:

- All approaches at the intersection of S. Salina St. and Ballantyne Rd./Walrath Rd. operate at a LOS C or better for both existing and future conditions;
- Future year northbound travel on the street segment from Dawes Ave./Valley Plaza to Walrath Rd. is projected to operate at a LOS B instead of a LOS E; and
- Southbound travel between Matson Ave. and Ballantyne Rd. is projected to improve from a LOS D to a LOS C in the future year.

Constraints

No constraints were identified.

Signal Control

Issues

Consultation with a representative of the City of Syracuse revealed that loop detectors, intended to recognize the presence of a moving or stopped vehicle at signalized intersections, are broken at the following locations on the corridor:

- Taylor St.
- Ballantyne Rd./Walrath Rd.
- Dawes Ave./Valley Plaza

The condition of the loop detectors at the other signalized intersections within the study area is unknown.

Nine of the thirteen signalized intersections within the study area, from Taylor St. to Calthrop Ave., were time-based coordinated in 1999. Based on the Synchro analysis, it is recommended that the following three signalized intersections within the study area also be coordinated:

- Matson Ave.
- Ballantyne Rd./Walrath Rd.
- Dawes Ave./Valley Plaza

Opportunities

Coordination of traffic signals between adjacent intersections offers an opportunity for significant benefits to motorists. Beyond time-based coordination, the City of Syracuse currently has a traffic signal system that utilizes fiberoptic interconnection. The existing traffic signal equipment at the intersection of S. Salina St. and Adams St. is capable of expansion to include the S. Salina St. corridor.

The City repaired broken loop detectors within the study area in 2000.

Constraints

The intersections would require equipment upgrades in order to be coordinated.

8.3 Traffic Control Devices

Traffic Signs

Issues

The following locations indicate inconsistency with the *State of New York Manual of Uniform Traffic Control Devices* (MUTCD):

- **Intersection of S. Salina St. and E. Calthrop Ave./I-81** - *Do Not Enter* Signs are not present at the median on E. Calthrop Avenue.
- **Intersection of S. Salina St. and W. Calthrop Ave.** - The MUTCD states that when needed, *No Left Turn* signs should be placed in the near right and far left corners of the intersection. Although there is a *No Left Turn* sign located at the far left corner of the intersection, there is an *All Traffic* with a right arrow sign located at the near right corner.
- **Intersection of S. Salina St., Ballantyne Road and Walrath Road** - *Do Not Enter* Signs are not present at the median on Walrath Road.
- **Intersection of Fillmore Avenue with the western most driveway to Rite Aid** - The *No Left Turn* sign located at the near right corner of the intersection is not the standard left turn arrow with a slash through it and is not placed at the standard height. Also there is no corresponding sign located at the far left corner of the intersection.
- **Intersection of S. Salina St. and Blockbuster Parking Lot (just north of Seneca Turnpike)** - Although there is a *No Left Turn* sign located at the far left corner of the intersection, there is no sign located in the near right corner.
- **Intersection of S. Salina St. and Seneca Turnpike** - There are no route signs to guide traffic to Route 173 on the southbound approach

Opportunities

The City DPW has taken steps to eliminate the signage inconsistencies noted above.

Constraints

No constraints were identified for addressing these issues.

On-Street Parking

Issues

Based on information provided in Chapters 1 - 7 and public comment, the following issues regarding on-street parking were identified:

- There is a general lack of understanding regarding the difference between the three types of parking prohibitions: no parking, no standing, and no stopping.
- There are numerous on-street parking regulations (up to 15 different signs used and up to ten signs posted per block) within the study area that complicate sign posting and have the potential to confuse motorists.
- There are a number of signs along the corridor, especially in the southern half, that are faded and no longer legible.
- Illegal on-street parking is prevalent, particularly near churches during services and in front of the Colvin Street Key Bank Automated Teller Machine.
- Illegal and legal on-street parking on the curve near Ostrander Ave. and Matson Ave. make it difficult for vehicles (especially emergency vehicles) to maneuver.
- On-street parking signs are missing at the following locations:
 - Southwest corner of the intersection of S. Salina St. and W. Pleasant Ave.
 - Southwest corner of the intersection of S. Salina St. and W. Matson Ave.
 - Northeast corner of the intersection of S. Salina St. and Walrath Road
 - West side of S. Salina St. between Dawes Ave. and Florence Ave.
 - East side of S. Salina St. between E. Glen Ave. and Roney Rd.
 - West side of S. Salina St. between Crippen Ave. and Minerva St.

Opportunities

The City DPW has replaced the missing and faded signs along the corridor. An on-street parking study to evaluate simplifying on-street parking along the corridor may be beneficial to the City as far as the number and types of signs needed and to minimize confusion to motorists. The distribution of educational materials and better enforcement of parking regulations may improve the parking situation further.

Constraints

Any changes to on-street parking should be discussed with businesses and public service agencies along the corridor to ensure adequate parking.

8.4 Accidents

Issues

The accident analysis presented in Chapter 3 revealed that the three most frequently occurring accidents within the study area are rear end, sideswipes, and right angle. The following issues regarding street geometry were noted:

- The high concentration of curb cuts and intersections along the corridor may contribute to the number of rear end and right angle accidents; and
- The width of S. Salina St. allows it to be used as a four-lane street even though it is primarily striped as two lanes. This issue contributes to the high number of sideswipe accidents.

All of the locations analyzed exceed the NYSDOT average accident rates. The following intersections and street segments all located between Beard Ave. and Lynhurst Ave. also exceeded the NYSDOT 95th percentile accident rates.

Intersections

S. Salina St. and Beard Ave.

S. Salina St. and Colvin St.

Street Segments

Brighton Ave. to Lafayette Ave.

McKinley Ave. to Amherst Ave.

Beard Ave. to Colvin St.

Calthrop Ave. to Lynhurst Ave.

Bicycle/pedestrian accidents represent more than 15% of all traffic accidents at the following locations:

Intersections

S. Salina St. and Amherst Ave.

S. Salina St. and Matson Ave.

Street Segments

Brighton Ave. to Lafayette Ave.

McLennan Ave. to Borden Ave.

Wood Ave. to McKinley Ave.

Ballantyne Rd/Walrath Rd. to Dawes Ave.

Opportunities

The Institute of Transportation Engineers (ITE) *Traffic Engineering Handbook* states that while human error contributes to 70% - 90% of all accidents, road and vehicle improvements can greatly reduce the likelihood of human error or the consequences of the accident. Enhancements to the locations noted above may have a positive impact on vehicular, bicycle, and pedestrian safety.

The area surrounding Calthrop Ave. (I-81 access) and the area between Ballantyne Rd./Walrath Rd. and Dawes Ave. (which incorporates Valley Plaza) were noted at public and Study Advisory Committee (SAC) meetings as being areas most in need of enhancement. Improvements at the Calthrop Ave. location should focus on creating a noticeable visual and or physical distinction between interstate travel habits and those desired within a pedestrian and transit oriented neighborhood.

Constraints

There are two existing land uses at the Calthrop Ave. location that may contribute to the perception that the area is an extension of the interstate.

8.5 Bicycle Travel

Issues

A number of issues regarding bicycle travel were identified along the corridor including the following:

- There are no designated New York State or City bicycle routes or lanes;
- There are no bicycle racks (although many Centro buses are equipped with bicycle racks); and
- There is a widespread lack of awareness and compliance with bicycle safety guidelines including lack of helmet use, riding on sidewalks, and traveling against vehicular traffic.

Opportunities

Enhancements to bicycle facilities and educational programs may increase safety and give individuals with limited mobility an additional transportation option.

The Onondaga County Legislature recently passed a law requiring everyone 18 years of age and under to wear a helmet while riding a bicycle. Bicycle safety guidelines could be tied into a campaign to increase awareness of this new regulation.

Constraints

The existing road geometry and the desire to maintain on-street parking may make it infeasible to safely accommodate a bicycle lane.

Targeting the right audience for increasing awareness of bicycle safety and enforcement of current helmet regulations also poses challenges.

8.6 Pedestrian Travel

Issues

The following issues regarding pedestrian travel were identified:

- Extensive areas of sidewalk were rated as being in fair or poor condition.
- In many locations, the concrete sidewalk has been overlaid with asphalt, especially in areas adjacent to parking lots, making it difficult to distinguish the pedestrian path.
- Water ponds to the sidewalk level at the southeast corner of the intersection of S. Salina St. and E. Florence Ave. and on S. Salina St. between Elk St. and McKinley Avenue.
- Commercial sites use sidewalks for snow storage.
- Some corners are used for snow storage (especially near Valley Plaza) reducing visibility.
- Sidewalks are often not cleared of snow/ice and other debris.
- Street lights are frequently not working and the lighting between Ostrander Ave. and Matson Ave. is inadequate.
- Many individuals do not realize the benefit of pushing a pedestrian push button or understand pedestrian signal indications.
- There is no signage or pavement striping to alert individuals to the current crossing guard location.
- Many residents are not aware that the City relies on public input regarding street lighting outages.
- Many residents are not aware that the City has a complaint line (448-CITY) that they can call to report street lighting outages, poor sidewalk conditions, etc.
- Crosswalk pavement markings throughout the study area are in fair or poor condition.

- Placement of trash receptacles along the corridor is minimal and not consistent.

In addition to the above issues, it was determined that curb ramps that comply with the Americans with Disabilities Act of 1990 (ADA) do not exist at the following locations within the study area:

- All four corners of the intersection of S. Salina St. and Pleasant Ave.
- East side of the intersection of S. Salina St. and Calthrop Ave.
- Northwest corner of the intersection of S. Salina St. and Lynhurst Ave.
- Southeast corner of the intersection of S. Salina St. and Walrath Rd.
- North and south of median at intersection of S. Salina St. and Walrath Rd.
- Southwest corner of the intersection of S. Salina St. and Ballantyne Rd.

Also, the transition between existing ramps and the street surface is not flush at many locations.

Opportunities

The number of households with no vehicles ranges from 47 to 83 percent in the area north of Brighton Avenue. For those individuals living within the study area north of Raynor Avenue, walking to work is the primary mode of transportation. Pedestrian enhancements that address sidewalk/crosswalk conditions, that improve the link to transit, and keep the sidewalks clear of snow and ice, would preserve and improve the pedestrian and transit oriented nature of the corridor. The following intersections with S. Salina St. have the most pedestrian traffic during the PM peak hour and therefore may be logical locations for making improvements:

- Castle St.
- Colvin St.
- Matson Ave.
- Fillmore Ave.

Since the areas around Colvin St., Matson Ave. and Fillmore Ave. were noted as high bicycle/pedestrian accident locations, and Colvin St. and Fillmore Ave. were among the most frequently used bus stop locations, improvements in these areas may benefit the most people.

As a result of this study, the City DPW has notified the City sidewalk inspector regarding sidewalk conditions within the study area. It is the sidewalk inspector's responsibility to identify the specific areas of sidewalk that need repair and to work with property owners to ensure that the improvements are made. It was suggested that an attempt be made to increase property owners' knowledge of their responsibilities regarding sidewalks prior to serving any citations for poor conditions.

The City DPW has an annual pavement-marking program to refresh existing pavement markings throughout the City.

Individuals at the public meetings felt that the placement of trash receptacles as part of an overall street enhancement project would be desirable.

The Americans with Disabilities Act (ADA) of 1990 requires curb ramps to be provided in all existing sidewalks. The City DPW has forwarded the above information on missing ADA curb ramps to the Engineering Inspector for the City. In addition, the City DPW has notified the appropriate individuals to address the two locations where water ponds to the sidewalk level.

Constraints

Many individuals living within the study area are not aware that it is the property owners responsibility to maintain and keep sidewalks clear of obstructions. This lack of awareness coupled with the fact that the corridor extends through a low-income area makes providing well-maintained sidewalks clear of obstructions difficult, and restricts the ability to make area wide sidewalk improvements.

The current school crossing guard located at the intersection of S. Salina St. and Newell St. will not be used for the next two years due to school renovations. The City of Syracuse Police Department has indicated that new crossing guard locations may be used during the renovation period.

Installing street lighting at a pedestrian scale may require the creation of a special lighting district. Typically, in other areas of the City where special lighting districts have been created, the cost has been assessed to the property owners. Given the fact that the study area is primarily made up of low-income households, the installation of special street lighting may not be feasible.

8.7 Transit

Issues

There were two primary issues identified relating to Centro bus service as identified below:

- A number of bus stops are located at the near side of intersections often resulting in buses obstructing traffic control devices and traffic flow.
- All of the bus stops except two are unsheltered, and the majority of the locations lack a lead walk paved surface between the sidewalk and the curb forcing individuals to walk and/or stand on muddy, wet or snow covered ground.

Opportunities

Based on the data compiled, the bus stops listed below are the most frequently used within the study area and therefore may be logical locations for making improvements:

Outbound

- Taylor St.
- Colvin St.
- Lafayette Ave.
- Corning Ave.
- Fillmore Ave.
- Dawes Ave.

Inbound

- Seneca Turnpike
- Valley Plaza
- Ballantyne Rd.
- Newell St.
- Colvin St

The 1999-2004 Transportation Improvement Program (TIP) includes funds for the construction of a new transit hub at Valley Plaza that may have a well-lit, weather-protected and possibly climate-controlled waiting area.

Constraints

Although changing bus stop locations to the far side of intersections may improve vehicle safety and flow, it may impede pedestrians boarding and exiting the bus during periods of snow accumulation. During these periods, buses may actually pull into intersections to allow passengers to board or exit rather than make individuals pass through snow banks. However, if bus stops were moved to the far side of intersections and the lead walks were constructed and kept clear of snow, this constraint would be invalid.

8.8 Regulations and Development Controls

Zoning

Issues

The City Zoning Administration acknowledged that zoning along the corridor needs to be reexamined especially in regard to building placement. Development that has occurred during the past few years (especially near Valley Plaza) is out of character with the urban setting. Buildings are set further back from the road with large parking areas in front. This type of development is inconsistent with the pedestrian nature of the community. In addition, variances and special use permits (mainly south of Calthrop Ave) have been granted for access, contributing to the high concentration of curb cuts.

Current zoning regulations allow for the existence of billboards. At the initial public meeting, citizens stated that existing billboards located along the corridor are distracting to motorists, add to visual confusion, and have a negative impact on the visual environment.

Opportunities

The Onondaga County Settlement Plan is anticipated to include a blueprint for creating a parallel zoning code that may be applicable to S. Salina Street.

Constraints

South Salina St. is primarily developed and since zoning changes cannot be imposed on existing lands uses, it may be a number of years before desired changes are observed.

Site Development Process

Issues

The site development process is complicated and lengthy. Based on public input, residents are not satisfied that all of the issues, specifically how the development may impact vehicular and pedestrian traffic flow, are addressed in the process.

Opportunities

Development of a formal site plan review process that is adopted by the City Common Council as a policy would create consistency when dealing with developers.

Syracuse Onondaga County Planning Agency (SOCPA) has recently hired a consultant to develop a site plan review process for the City of Syracuse.

Constraints

No constraints were identified.

City Ordinances and Enforcement

Issues

There is widespread disregard for the following City of Syracuse ordinances:

- The owner, occupant, or agent of any property in the City of Syracuse is responsible for maintaining and keeping sidewalks clear of snow and ice.
- Property owners are responsible for keeping their sidewalks clear of trash, yard waste and any other type of debris.

There is also widespread disregard for the following City of Syracuse police ordinance that states that a person is not allowed to park a vehicle in any of the following places:

- On a sidewalk or between a sidewalk and the curb or the edge of the road where there is no curbing;
- Blocking the entrance or exit of a driveway, public or private;
- Within ten feet of a fire hydrant;
- At any place that is posted by official signs prohibiting stopping, standing or parking; and
- On any ground, lawn or vegetated areas, public or privately owned.

Opportunities

If there is a violation of the sidewalk ordinance, it can be reported to the City through their hotline, 448-CITY. City parking violations can be reported to the Syracuse Police Department's non-emergency telephone number at 422-5111. Vehicles parked in violation of this ordinance will be ticketed. In addition, vehicles parked in front of a fire hydrant or on any ground, lawn or vegetated areas, public or privately owned may be towed away by the police at the owner's expense.

Based on public input, many property owners are not aware of their responsibilities. Educational programs to increase awareness may be beneficial and cut down on the lack of compliance.

Increased enforcement of these ordinances may decrease the number of offenders.

Constraints

Reaching the target audience to make them aware of their responsibilities may be challenging. In addition, manpower may not be available to fully enforce the existing ordinances.

CHAPTER 9 – PRELIMINARY ALTERNATIVES

9.1 Introduction

This chapter presents preliminary transportation alternatives for implementation regarding corridor improvements along South Salina Street in the City of Syracuse and evaluates these alternatives based upon a series of performance criteria. The alternatives discussed were derived from an assessment of baseline information collected, public comments, and meetings/discussions with the Study Advisory Committee (SAC).

A range of potential alternatives was developed for addressing various items identified in Chapter 8. Where applicable and appropriate, these alternatives are grouped/classified according to the associated level of effort and/or capital investment necessary for implementation, as follows:

- **Low**, meaning items primarily associated with management, enforcement, or procedures;
- **Medium**, indicating a middle range of effort, such as larger measures of management or enforcement, possible further examination through more detailed or focused future studies, and/or lower cost capital investments; and
- **High**, indicating a major change of policy, regulations, and/or high level of capital investment and time for approvals/funding.

The preliminary alternatives listed were not intended to represent an exhaustive compilation of fully developed designs or approaches for corridor improvements along South Salina Street. It served as a starting point of discussion among the members of the project's SAC regarding the overall reasonableness of design concepts and possible courses of action for improvements.

Each of the alternatives were evaluated in conjunction with the SAC against the following performance criteria:

- Ability to improve the safety and security of the transportation system for vehicular and non-vehicular users;
- Ability to facilitate integration and connectivity among various modes of transportation (i.e., automobile, bus, pedestrian, bicycle);
- Specific ability to improve the experience, access, and mobility of pedestrians and transit users in the corridor;
- Ability to maintain adequate traffic mobility for vehicular users in the corridor; and
- Ability to be reasonably implemented, considering policy and regulatory jurisdictions and prerequisites to achieve project funding.

Preliminary alternatives that would meet these evaluation criteria were carried forward for further refinement, development, and analysis in Chapter 10. In many cases, given the presence of closely related issues, the evaluation indicated that aspects of individual alternatives could be merged into more comprehensive proposals for key areas along the corridor.

9.2 Vehicular Travel

Travel Speeds

Issues identified regarding travel speeds generally involve comments that arose out of the public comment process regarding incidences of traffic moving at speeds higher than the posted speed limit, particularly on longer segments of the corridor between traffic signals. Analyses indicated that these instances occurred most near the intersections of Seeley Avenue and Furman Street.

Alternatives

Low

- Installation of speed limit signs along the corridor. This has been implemented since the start of this study.

Medium

- Periodic use of radar monitoring devices by the Syracuse Police at key points along the corridor. The intent of such devices is to inform the driver of their current travel speed thereby encouraging compliance with the speed limit. This technique is typically used along regularly traveled commuter corridors such as South Salina Street and around special uses such as schools and hospitals.
- Increased police enforcement efforts along targeted portions of the corridor. The primary intent would be to discourage speeding by developing reputation for a larger police presence. Efforts should be well publicized in local media for the greatest impact on commuters regularly traveling the corridor.

High

- Implement a larger program involving construction of more comprehensive traffic calming measures. These could range from lower cost improvements involving items like enhanced striping to more capital-intensive projects (typically arising out of a full reconstruction project) such as the construction of pedestrian bulb-outs at intersections and more constrained lane configurations to encourage slower speeds. Items associated with the former technique are discussed in conjunction with pedestrian improvements under Section 9.6.

Evaluation of Alternatives

It was determined that each of the alternatives listed would meet the evaluation criteria. Enforcement techniques were determined to focus more on monitoring in the short term, followed by a manned presence, in consideration of manpower requirements. It was also determined that higher-cost capital improvements associated with traffic calming would be best implemented with proposals for improved pedestrian/transit access at key areas along the corridor such as around the Valley Plaza and the I-81 Interchange area.

Pavement, Pavement Markings, and Curbs

Issues identified regarding pavement conditions focused on the areas south of Calthrop Avenue, which were primarily rated in poor condition. Curb conditions were rated as poor along six segments of the corridor. Pavement markings were rated only as fair throughout the corridor and were rated as poor in four locations.

Alternatives

Medium

- As part of the City's Street Reconstruction Program, implement a milling and overlay project to address poor pavement conditions. Such a program could also include spot replacement of substandard curbing in key locations, installation of Americans with Disabilities Act (ADA) compliant curb ramps, and a comprehensive pavement-marking program.

High

- Undertake a comprehensive reconstruction program of South Salina Street including full reconstruction of the right-of-way (i.e., cartway and sidewalks), a comprehensive pavement marking program, as well as the potential for underground installation of aerial utilities, and installation of enhanced lighting.

Evaluation of Alternatives

It was determined that both the medium- and high-level alternatives would meet the evaluation criteria. It was also determined that these types of proposals could only be implemented in the long term, given the approval and funding process associated with such capital improvements.

Intersection and Arterial Level of Service (LOS)

The LOS along corridor segments and at intersections were generally rated as acceptable in both the current and 2010 scenarios with the exception of areas in the vicinity of Valley Plaza (Ballantyne/Walrath Roads, Dawes Avenue), the I-81 Interchange, and in the northern portion of the corridor at the intersection of Cortland Avenue. Of these, the only area that reaches a LOS of "F" is the southbound approach at the intersection of Ballantyne/Walrath Avenue.

Overall, the area of Valley Plaza was noted as the best candidate for more comprehensive improvements, given its high concentration of curb cuts, pedestrian use, and transit use. *It should also be noted that since the traffic analysis was conducted, the City added a center turn lane in this area that significantly improved LOS conditions.*

Alternatives

Low

- Continue to monitor the situation prior to implementing measures to expand capacity.

Medium

- Program and implement intersection improvements at key locations where feasible, such as dedicated left-turn lanes. This likely would require elimination of on street parking in selected locations.

High

- In conjunction with other measures (see Section 9.6), implement a comprehensive improvement program around Valley Plaza, targeted on maintaining current LOS while improving access for pedestrian and transit.

Evaluation of Alternatives

It was determined that the low- and high-level alternatives would meet the evaluation criteria. It was determined that the implementation of new dedicated left turn lanes in key areas was premature, pending further assessment of the implications on street parking availability.

Signal Control

Issues identified for signal control involve the lack of operable loop detectors at the intersections of Taylor Street, Ballantyne/Walrath Roads, and Dawes Avenue/Valley Plaza. In addition, opportunities exist to incorporate these signals into the City's signal interconnect system.

Alternatives

Low

- Repair inoperable loop detectors (completed in 2000).

Medium

- Time-based coordination of aforementioned signalized intersections with other signals along the corridor

High

- Upgrade signalization equipment to tie into the City's interconnected signalization system.

Evaluation of Alternatives

It was determined that all of these alternatives would meet the evaluation criteria. It was also determined that the medium- and high-level alternatives could be part of a phased program, beginning with time-based coordination of these intersections with others in the corridor, followed in the long-term by adding them to the City's interconnect system, given necessary capital requirements of extending fiberoptic lines along the corridor.

9.3 Traffic Control Devices

Traffic Signs

Issues identified included the lack of appropriate signage at selected locations in accordance with the *State of New York Manual of Uniform Traffic Control Devices*.

Alternatives

The City has taken steps to eliminate traffic signage inconsistencies. No alternatives necessary.

On-Street Parking

Issues identified regarding on-street parking included:

- A lack of understanding regarding the multiple types of parking restrictions along the corridor (e.g., no parking, no standing, no stopping);
- Illegal parking around certain types of land uses (e.g., churches, automated teller machines);
- Illegal and legal parking blocking access in certain locations (e.g., curve between Ostrander and Matson Avenues); and
- Missing/illegible parking control signs in various locations, which has been corrected by the City of Syracuse.

Alternatives

Low

- Implementation of an enhanced police enforcement program in the corridor in key problem locations. To help educate the public, such a program could initially consist of an appropriate *grace period* before actual enforcement measures are undertaken.

Medium

- Where critical to improve mobility and safety, use striping to further delineate no parking areas (e.g., key bus stop locations, areas with constrained right-of-way, merge areas, fire hydrants, etc.).
- Undertake a comprehensive on-street parking master plan for the corridor in consultation with local residents and businesses. Such a plan would look to techniques at simplifying parking provisions and identifying key locations where controls are needed.

High

- Consider undertaking actions at the Common Council level to amend the City parking regulations to simplify the number of different parking zones along the corridor (i.e., merging all the “no parking” and “no standing” zones).

Evaluation of Alternatives

It was determined that the low- and medium-level alternatives would meet the evaluation criteria. It was determined that the high-level alternative may be premature absent a comprehensive evaluation of on-street parking in the context of a master plan. However, the formulation of preliminary measures regarding possible changes was progressed to the recommendations phase.

9.4 Accidents

Issues identified regarding accidents focused on a relatively high number of rear-end, sideswipe, and right-angle accidents, as well as accidents involving bicycles/pedestrians. Key areas of the corridor needing attention (noted in public comments) included the I-81 access at Calthrop Avenue and areas near Valley Plaza.

Alternatives

Low

- Institute educational programs in public schools regarding pedestrian and bicycle safety (see Section 9.5).

Medium

- Implement a striping program to better differentiate the travel lane from the parking lane along the corridor to encourage better lane compliance and to reduce sideswipe incidents.

High

- Explore opportunities for consolidation of curb cuts through cross access easements for adjacent businesses in more concentrated areas (e.g., Valley Plaza area) to reduce vehicle conflicts. Typically, such an alternative would be in the context of a more comprehensive improvement program.
- Institute measures in the vicinity of the I-81 access at Calthrop Avenue to facilitate pedestrian access, such as pavement speed limit markings, grooved pavement/speed table sections, and enhanced pedestrian crossings and refuge islands.
- Institute a comprehensive improvement program around the Valley Plaza area targeted at improving pedestrian safety (see Section 9.6).

Evaluation of Alternatives

It was determined that all of the alternatives met the evaluation criteria. It was also determined that high-level capital improvements should be synthesized in a comprehensive manner with pedestrian access alternatives in key areas (e.g., Calthrop Avenue/I-81 Interchange, Valley Plaza).

9.5 Bicycle Travel

Issues identified regarding bicycle travel included the lack of designated NYS or City bicycle routes or lanes; the lack of bicycle rack facilities along the corridor; and the widespread lack of awareness of bicycle regulations/guidelines.

Overall, the width of the right-of-way and the presence of on-street parking significantly limit the potential for adding a designated bicycle lane, therefore, the alternatives are limited to different levels of education for bicycle safety.

Alternatives

Low

- As part of an awareness campaign/community policing effort, issue informational “citations” (flyers) to younger bicyclists noting key issues on bicycle safety in the field, when instances of unsafe practices are observed.

Medium

- Institute a grammar school curriculum on issues of bicycle and pedestrian safety in the Syracuse public schools as part of the local, county, or state police community relations programs.

High

- Implement a needs-based discount or giveaway program for bicycle helmets for area parents. Such a program could have a prerequisite of children’s attendance at a safe bicycling course and could be coordinated with local community centers and/or churches.

Evaluation of Alternatives

It was determined that the low and medium alternatives would meet the evaluation criteria and should be implemented as part of a coordinated effort. It was determined that implementation of the high-level alternative may be limited to the long-term, based upon funding availability.

9.6 Pedestrian Travel

Issues identified for pedestrian facilities are as follows:

- Extensive areas of poor sidewalk conditions, or areas where property owners have paved over sidewalks and lot frontages with asphalt as part of parking lot improvements.
- Drainage problems in selected locations.
- Lack of access during winter months because of snow storage on sidewalks or property owners not clearing sidewalks.
- Inoperable street lighting and inadequate lighting in selected locations.
- Lack of knowledge on the operations of pedestrian-button activated street crossings.

- Lack of awareness of sidewalk maintenance responsibilities of property owners or hotlines to report lighting outages and poor sidewalk conditions.
- Lack or poor condition of crosswalks and crossing guard locations.
- Lack of appropriate ADA curb ramps at selected locations and problems with settlement of pavement at selected existing ramps creating a poor transition between the sidewalk and the street surface.
- Lack of an appropriate continuity of street furniture (lighting, signage, trash receptacles) to adequately define pedestrian areas and create a positive visual environment.

Alternatives

Low

- Undertake a community awareness campaign to distribute informational materials to area corridor homeowners/businesses on their responsibilities for sidewalk maintenance and hotline numbers on safety issues (sidewalks, lighting etc.).
- As part of the City's capital programs, install user-friendly signage as part of pedestrian crossing buttons, noting procedures for safe movements.

Medium

- Adopt minimum sidewalk improvement standards at the Common Council level to prevent future use of asphalt paving by private property owners.
- Institute spot improvement or replacement program for sidewalks along the corridor. Such a program could be administered by the City as an eligible area benefit activity in its community development block grant program or be structured as a needs-based 50/50 match program tied to a stepped-up enforcement program (i.e., property that could not afford to comply with the standards would be eligible for a grant).
- As part of City's capital improvement activities, install missing ADA curb ramps and undertake spot repair of existing ramps through milling/overlay to improve sidewalk to street transition.
- Explore opportunities for business/community organization-sponsored maintenance from group purchase of services, such as snow removal along frontages/sidewalks.
- Undertake a coordinated program of streetscape and pedestrian improvements at key locations along the corridor (e.g., Valley Plaza area, I-81 access, areas north of Brighton). Such a program would seek to reduce the number of curb cuts through coordination with local businesses and install enhanced pedestrian improvements such as crosswalks, sidewalks, patterned concrete verges (grassed area between curblane and sidewalk) in high traffic areas, and appropriate street furniture. In the case of Valley Plaza, such a program could be eligible for federal funding in conjunction with a planned transit hub at this location.

High

- Develop a plan to undertake a comprehensive, coordinated reconstruction program along the corridor to focus on correcting pedestrian and vehicle conflicts, drainage problems, and

issues such as inadequate sidewalks or ADA curb ramps (see 9.2).

Evaluation of Alternatives

It was determined that each of the alternatives would meet the evaluation criteria with two exceptions/clarifications. Under the medium level alternatives, it was recognized that adoption of minimum sidewalk improvement standards would have citywide implications and would best be achieved through a comprehensive adoption of site plan improvement standards. Secondly, it was recognized that the creation of a matching grant program for sidewalk replacement might be constrained by funding availability.

9.7 Transit

Issues regarding transit focus on the predominance of bus stops being located on the near-side of intersections. Far-side bus stops would be preferred because they generally produce fewer delays in the traffic surrounding the stop, give more area for the manipulation of the vehicle, allow greater sight distances for both the driver of the bus and passengers boarding and disembarking the vehicle, and, in general, provide a safer environment for vehicle/passenger interaction. In addition, bus shelters exist on only two of the bus stops along the corridor.

Alternatives

Medium

- Where feasible, from the perspective of adequate right-of-way and lack of parking conflicts, move bus stops to the far side of intersections along with appropriate lead walks.
- Coordinate and expand planned transit hub at Valley Plaza with targeted pedestrian enhancements (see Section 9.6).

High

- Examine opportunities for installation of bus shelters and/or seating at most heavily used stops along the corridor.

Evaluation of Alternatives

It was determined that each of the alternatives would meet the evaluation criteria.

9.8 Regulations and Development Control

Zoning

Issues regarding zoning involve the fact that commercial districts in the corridor allow conventional shopping center development (e.g., large setbacks, frontage parking lots) that is out of character with the urban setting. In addition, advertising billboards are permitted in commercial zones along the corridor.

Alternatives

High

- Consider amending City zoning ordinance to move the corridor districts toward a more restricted zoning classification so as to prevent further highway commercial style development or create special review district with standards that allow such development only if certain conditions are met (e.g., frontage improvements, continuity of street wall, pedestrian connections, etc.).
- Implement alternative or parallel zoning approach promulgated by the draft Onondaga County Settlement Plan.
- Amend zoning ordinance to remove billboards as a permitted sign type in the commercial districts along the corridor.

Evaluation of Alternatives

While each of these alternatives would meet the evaluation criteria, it was recognized that they address issues that have implications reaching beyond the South Salina Street corridor. Any recommendations derived from these issues would need to be in the context of a citywide program.

Site Development Process

The major issue regarding new development is the lack of a conventional site plan review process. This type of process is becoming more typical among local municipalities. While a series of internal reviews are conducted by City agencies, there is no formal public board approval process (e.g., Planning Commission or Common Council) that occurs as a prerequisite to obtaining a building permit for new development.

Alternatives

High

- Initiate a process to prepare a new site plan review ordinance and adopt at the Common Council level. At a minimum, such an ordinance would include establishment of approval types based upon the scale of development (e.g., minor site plan, major site plan); minimum submission requirements for applications for development; an approval process for conceptual, preliminary and final site plan approval; criteria for approval; and affect of approval (e.g., time limits for implementing project and vested rights).

Syracuse Onondaga County Planning Agency (SOCPA) has recently hired a consultant to develop a site plan review process for the City of Syracuse.

Evaluation of Alternatives

While this alternative would meet the evaluation criteria, it was recognized that they address issues that have implications reaching beyond the South Salina Street corridor. Any

recommendations derived from these issues would need to be in the context of a citywide program.

Other City Ordinances and Enforcement

Issues involving other City ordinances center upon widespread disregard for sidewalk maintenance and parking regulations.

Alternatives

See Sections 9.2 and 9.6.

CHAPTER 10 - RECOMMENDATIONS

Based upon the evaluation of alternatives discussed in Chapter 9, this section presents recommendations that are proposed for further study and implementation along the South Salina Street Corridor. In many instances, the individual alternatives were merged and/or synthesized into coordinated proposals to improve mobility along the corridor.

This section includes a discussion of the development character of various portions of the corridor to establish a context for each of the recommendations. This is followed by a discussion of recommendations that apply to the entire corridor. Finally, a series of site-specific recommendations for key areas along the corridor is presented.

It should be noted that in some cases, the recommendations include conceptual plans/illustrations of proposed physical improvements along the corridor. These are presented only to illustrate the design and planning concepts set forth in each of the recommendations. They are not intended to represent specific proposals or final design drawings. All of the recommendations included in this section would require further investigation, review, and approval in accordance with local, state, and/or federal rules and regulations, depending on the agency/entity that would ultimately implement the recommendations and associated funding and regulatory jurisdictions.

10.1 Context of Recommendations

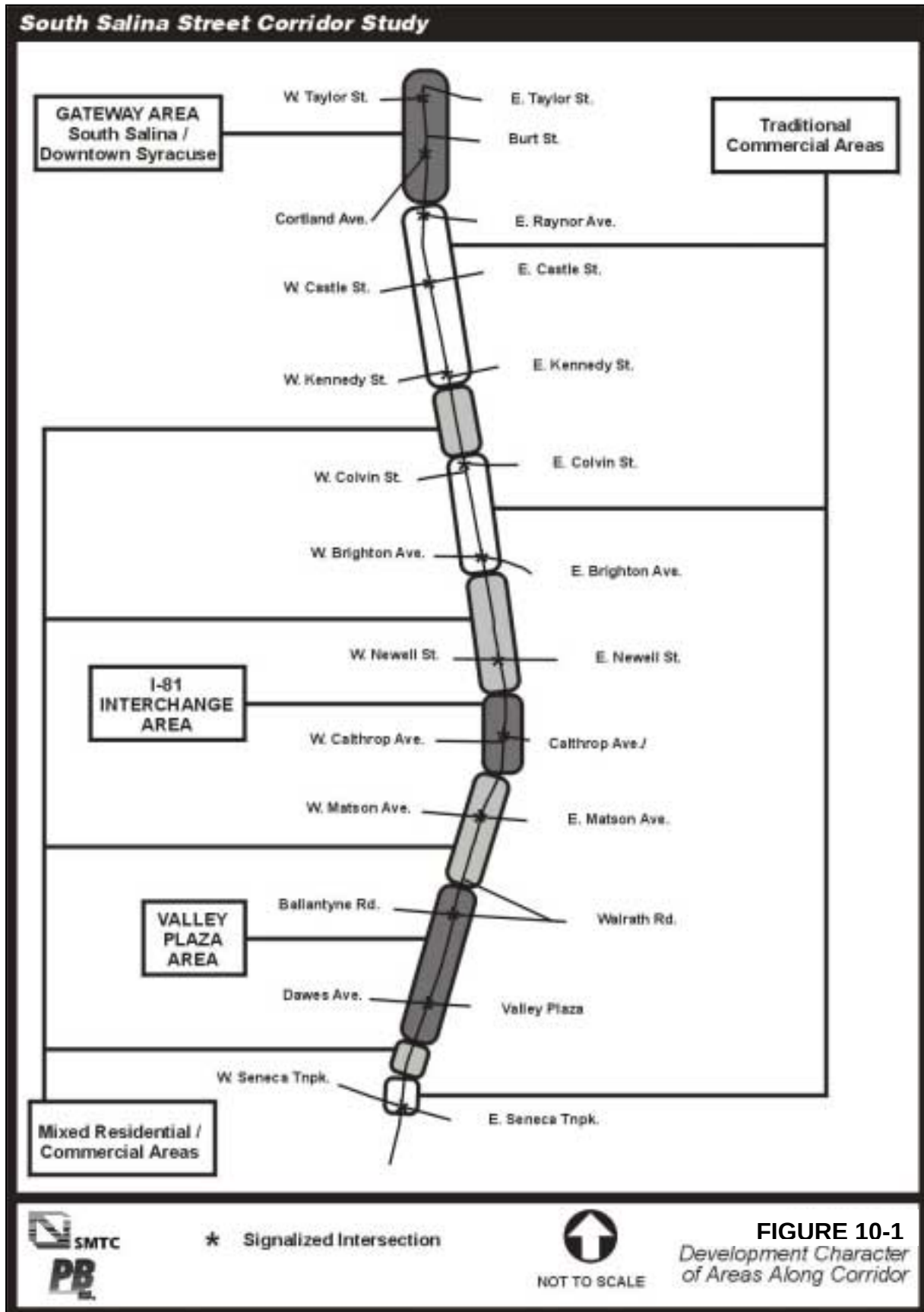
The land use information indicated that a substantial mix of commercial, retail, community-service, and residential uses along its entire length characterize the South Salina Street corridor. Such development character is relatively typical along mature urban road corridors. However, while mixed, a close examination of the streetscape characteristics (i.e., building scale/placement, pavement width, sidewalk characteristics, etc.) indicate that the corridor contains definable groupings or concentrations of uses along the corridor --- each suggesting various approaches and differing levels of necessary improvements.

Over the course of the corridor's development, South Salina Street has served as a key connecting route from more rural areas south of the City to Downtown Syracuse. The nature of the corridor and its associated development character has varied with changes in the overall development of the region. Early in its development, the northern portion of the corridor was predominated by commercial development that essentially grew out of the downtown area (delineated by the Susquehanna Railroad overpass at Taylor Street), transitioning to residential uses in the southern portion of the corridor. As the extent of residential development grew along South Salina and adjoining streets, the corridor developed as the center of retail and community services to serve the neighborhood, characterized by groupings of smaller retail storefronts, restaurants/taverns, and churches, developed along the street face to serve a primarily pedestrian market base. As the region became more suburbanized in the 1960s and 70s, the corridor progressed into a main automobile commuting route. While the corridor still retained a portion of its residential base (although converting to higher densities) and smaller retail development character, it experienced more automobile-oriented development types such as gas stations, fast-food outlets, car washes, and community shopping center uses, typically with buildings set back from the street face behind surface parking. This was reinforced with the construction of an

interchange accessing I-81, increasing traffic volumes in the corridor. Ironically, these intrusions have degraded South Salina Street's pedestrian character, while the population base of the corridor has become relatively lower income and more transit dependent compared to other areas of the region.

Figure 10-1 depicts a conceptual diagram of the current development character of key areas along the South Salina Street corridor, summarizing the issues that each of the improvement recommendations is intended to address. These include the following areas, listed in order of importance to addressing transportation issues identified.

- **Valley Plaza Area.** This area contains the largest concentration of automobile-oriented uses in the corridor. It is anchored by the Valley Plaza, a community shopping center that serves as the primary location for retail services for the neighborhood, as well as other newer retail and service uses. While it serves as the main location of goods and services in the corridor, its development character does not present an environment that best supports the pedestrian and transit dependent nature of the neighborhood. This is characterized by larger building setbacks, numerous curb cuts creating traffic movements that often conflict with pedestrian movements, and the lack of street parking that tends to facilitate higher traffic speeds. Recently, the change of the lane configuration in this area from four lanes to two lanes with a designated center turn lane has slowed traffic speeds and eased turning movements, however, this area presents further opportunities for enhancing pedestrian and transit access.
- **I-81 Interchange Area.** This area presents unique issues related to accommodating highway traffic access, while maintaining safety for pedestrians in the corridor. I-81, paralleling South Salina Street in this location, is accessed via Calthrop Avenue, which has been progressively widened with dedicated turn lanes to facilitate automobile access. This widening has degraded ease of crossing by pedestrians, particularly on the east side of South Salina Street. Further, issues with traffic speeds have been identified, associated with traffic entering/exiting Calthrop to access I-81.
- **Gateway Area.** Defined by the railroad viaduct at the northern limit of the corridor, this area serves as the main gateway between Downtown Syracuse and the corridor. In turn, the demographic analysis conducted indicates that the northern portion of the corridor contains the largest percentage of transit-dependent populations. As such, the area requires treatment to enhance its pedestrian character. This is consistent with prior planning efforts focusing on this area.
- **Traditional Commercial Areas.** These areas represent older, more pedestrian based commercial and retail concentrations along the corridor. The corridor in these areas is generally characterized by a narrower street cartway compared to aforementioned areas (i.e., two travel lanes with on-street parking), buildings oriented along the street face, fewer curb cuts, and wider sidewalk sections.
- **Mixed Residential/Commercial Areas.** These areas are characterized predominantly by conventional single, double and multi-family residential development, interspersed periodically with commercial uses, varying from converted residential structures to



conventional commercial buildings. The road configuration includes two travel lanes with on-street parking, and four-foot sidewalks separated from the street by narrow grass verges.

The following sections present improvement recommendations intended to enhance pedestrian and transit access in these various contexts. This discussion begins with recommendations that would apply to various areas in each of these development contexts, then focusing on recommendations specifically to each of these areas.

10.2 Corridor-Wide Recommendations

A series of corridor wide actions are recommended for implementation that would address mobility issues along the South Salina Street Corridor. These primarily include enforcement, organizational/educational, and regulatory measures to help enhance pedestrian and transit access in the corridor, and lower cost capital improvements.

Enforcement and Educational Programs

Travel Speed Monitoring/Enforcement

It is recommended that the Syracuse Police Department examine the potential to undertake an enhanced program of monitoring and enforcement to dissuade the tendency for traffic speeds in excess of the speed limit along the corridor. The objective of such a program would be to facilitate a safer environment for pedestrians and transit users, particularly during morning and evening peak traffic periods. As discussed in Section 9.2, the City has already installed new speed limit signage along the entire corridor, implementing the first step in such a program.

Traditionally, when speeding is a problem, the approach has been to deploy a radar-equipped traffic officer to problem locations to monitor the speeds and issue citations. The presence of the patrol car causes drivers to slow down for the time period that police are present. If an officer is regularly assigned to that location to maintain a visible presence, drivers who regularly traverse that route will at least be mindful of their speed when passing that location.

An alternate approach is recommended along the corridor. This involves "self policing" traffic speeds, which relies upon the fact that most drivers will reduce excessive speed if they are reminded that they are speeding. The approach is becoming more popular as police departments struggle to do more with limited resources. Driver awareness of travel speed would be gained through the use of an automatic, radar-driven sign that displays speeds to individual drivers as they approach the sign (see Figure 10-2). Such signs can be mounted on the deck lid of a patrol vehicle, can be built into a trailer, or permanently installed on the side of the road. They are typically used where there is greater risk from someone exceeding the speed limit, such as near school crossing zones or in areas where there is a transition from highway speeds to local speeds, such as near Calthrop Avenue (where traffic is entering/exiting the corridor from I-81) and Seeley Street (where traffic proceeds from higher speed-limit areas south of Seneca Turnpike). In addition to displaying current speeds to drivers, this type of device can also maintain a record of those speeds and the number of vehicles that pass the device. To address the portion of drivers whose driving behavior would not be affected by such an approach, it is also recommended that periodic conventional police monitoring and enforcement be undertaken.



Figure 10-2
Typical Radar Monitoring Device

To ensure public awareness and effectiveness, especially by daily commuters, any enhanced enforcement program along the corridor should be supplemented with a series of media releases announcing the objectives of the program. Such an approach often focuses on local radio coverage as part of morning/evening traffic reports.

Parking Enforcement

As discussed in Section 9.3, the primary issues related to parking in the district involve overall confusion regarding the multiple types of parking regulations that apply to various sections of the corridor, as well as problems with periodic illegal parking around certain land uses. As a first step to address these issues, it is recommended that an enhanced program of parking enforcement be implemented along the corridor, with a first objective of helping to educate residents and visitors regarding the existing parking regulations. This would involve an enforcement period where only warning citations would be issued, including flyers explaining existing parking regulations in clear understandable terms. This phase should continue periodically for a series of months to serve as an appropriate grace period for residents and visitors to gain a better understanding of the objectives and specifics of existing parking controls. Such a phase would be followed by a phase of conventional monitoring and issuance of citations for illegal parking.

Bicycle Enforcement/Community Education

As discussed in Section 9.5, a major issue regarding bicycle travel is a lack of overall awareness of bicycle safety issues, primarily by younger bicyclists. Therefore, it is recommended that a public education program be organized to increase awareness of bicycle safety issues and regulations such as the bicycle helmet law. Such a program could have joint sponsorship by the Syracuse Police Department, Syracuse Public Schools, and/or community/church organizations.

Early phases of the program could involve, as part of a community policing effort, the issuance of informational flyers upon observation of unsafe practices (e.g., riding without a helmet, cutting through traffic, etc.). Other elements could include sessions in grammar school curricula, ranging from a teacher-conducted program based upon a pre-approved lesson plan prepared by the sponsor, to special visits by police officers to teach the benefits of bicycle and pedestrian safety (similar to typical programs on fire safety). Other enhancements could include poster contests for local schools and/or after school programs such as bicycle “fairs” or seminars to teach bicycle safety in local playgrounds or community centers.

Community Awareness of Existing City Regulations/Programs

Through the public involvement process, residents along the corridor indicated their lack of awareness of some of their responsibilities regarding street-level improvements/maintenance, as well as the City’s current programs for reporting infrastructure problems. These include:

- Property owners’ responsibilities regarding sidewalk maintenance (repairs, snow clearance, etc.);
- Non-emergency police numbers for reporting parking violations; and
- City hotlines for reporting street lighting outages, inoperative traffic signals, etc.

Therefore, it is recommended that the City implement a community awareness campaign to better inform citizens of public resources and resident responsibility. Such an effort would include the development of easily understandable brochure materials explaining these issues. These could be distributed to schools, community centers, churches, and retail businesses. To maximize the potential for reaching target audiences, many communities have issued such materials in conjunction with other widespread mailings, such as property tax billings. Some communities have undertaken joint efforts with utility companies as part of their community service programs, issuing community information as part of regular monthly billings.

Parking Master Plan

It is recommended that the City of Syracuse undertake the development of a Parking Master Plan for the corridor. The objective of such a study will be to conduct a focused assessment of existing parking availability and suggest changes to simplify the existing parking structure to make it more understandable to the general public, as well as to facilitate enforcement efforts. The ultimate product of such a plan would be used to assist the Common Council in proactive changes to the parking regulations along the corridor to best address varying land use needs.

Because of the diverse interests that such a plan would need to address, the master plan process would need to solicit the input and opinion of multiple stakeholders (e.g. residents, business owners, churches, etc.). Issues, policies and procedures that should be addressed in such a master plan could include, but not be limited to the following:

- **Categories of parking controls (e.g., no stopping, no standing, no parking, etc).** Currently the corridor has multiple parking control categories that often cause confusion to residents and visitors. Several short-term recommendations for consolidation or amendment of these controls that would not impact total parking space supply could be examined. For example, most areas along intersections are now regulated as “no stopping” zones. “No stopping” zones are typically used only in areas where maintaining traffic movement is critical in terms of safety (e.g., designated right turn lane at Calthrop/I-81 intersection). Areas where this is not the situation could be designated as “no parking”. In turn, consideration could be given to converting all “no standing” zones to “no parking” zones, given that the difference between such zones is very subtle and likely is not enforced. Changing this classification would only involve allowing vehicles to be stopped while loading/unloading merchandise or passengers rather than passengers only.
- **Location and permitting of loading zones/handicap spaces.** The City’s Department of Public Works currently reviews and issues permits for loading zones and handicap spaces. However, no mechanism or process is in place to rescind such special permits upon a change of occupancy or use of a building. Consideration could be given to linking other City review processes (e.g., certificate of occupancy, property tax collection, etc.) to periodically update on-street controls such as this. An alternate process could involve annual or biannual renewal of such permits to ensure continued need.
- **Time limits for parking controls.** The corridor exhibits multiple categories of parking control periods (e.g., no standing 7-9 AM; alternate side of the street parking, etc.). A

parking master plan process could provide an opportunity to review and streamline such controls to ensure appropriate turnover while not creating unnecessary confusion to users.

Corridor Wide Capital Improvement Recommendations

A series of lower-cost improvements are recommended to be undertaken as part of the City of Syracuse's regular capital improvement programs. Each of these relate to improvements along the entire corridor to facilitate mobility and access.

Street Striping Program

It is recommended that the City undertake a street striping program to better define zones for travel lanes, parking areas and pedestrian crossings along the corridor. A first priority in such a program should be given to key areas discussed in Section 10.3; however, this type of program is applicable in all areas of the corridor. A key component of such a program would include the addition of a solid travel lane stripe to separate the travel lane from on-street parking areas (see Figure 10-3). This type of technique has been regularly used in suburban highway sections, but is becoming more common in urban applications. It would better delineate the vehicular zone and prevent drivers from inappropriately using unoccupied parking lanes as traffic lanes, thus avoiding accidents. In addition, use of such a technique in urban areas provides some refuge for bicyclists in the absence of suitable right-of-way width to provide a dedicated bike lane. No striping should be implemented until after a comprehensive parking plan has been undertaken for the corridor so as to avoid potential conflicts. Also, a striping program in the South Salina Street Corridor could serve as a pilot or test case to determine if such striping is appropriate and/or feasible in other areas of the city.

Spot Installation/Repair of ADA Curb Ramps

It is recommended that the City of Syracuse undertake a program of inspection and repair/installation of missing or inadequate ADA curb ramps along the corridor. Pending future actions on more comprehensive capital improvements, this should include a modest program of milling and overlay at curb ramp locations where there is not a flush transition between the curb and road surface, either a result of settling or inadequate installation. As a result of the corridor assessment, the SMTC has forwarded a listing of these locations to the City Engineer for inspection and appropriate action.

Pedestrian Crossings Buttons and Signage

To facilitate better understanding on the use of pedestrian crossings along the corridor, it is recommended that the city institute a program of signage installation at each pedestrian-activated button location (see Figure 10-4). This signage will inform the pedestrian of the meaning of pedestrian crossing signals, as well as when it is safe to proceed.



Figure 10-3
Typical Use of Travel Lane Striping



Figure 10-4
Typical Pole Mounted Pedestrian Information Sign at Crossing Button Locations

Far-Side Bus Stops

Chapter 8 suggested the potential for moving bus stops along the corridor to the far side of an applicable intersection, installed with appropriate lead walks to sidewalks on grass verge areas. In addition, the corridor lacked any type of bus shelters or waiting areas on all but two bus stop locations.

It is recommended that Centro further examine the feasibility of creating far side bus stops and bus shelters with benches at several key locations along the corridor. Table 10-1 identifies these bus stop locations based upon a preliminary assessment of the adequacy of each of the locations to allow for such improvements (i.e., available right-of-way, lack of curb cuts, etc.). First priority should be given to existing bus stop locations with the greatest patronage at signalized intersections. These locations would yield the greatest benefits of far-side bus stop location and shelter improvements. Secondary priority should be given to far-side stops at other suitable locations at signalized intersections.

**Table 10-1
Potential Bus Stop Changes**

First Priority (High Usage Stops/Signalized Intersections)			
Location	Side	Potential Change to Far side (Yes/No)	Possible New Bus Shelter (Yes/No)
Colvin St.	East & West	Yes	Yes
Cortland St.	West	No (existing far side)	Yes
Ballantyne Rd.	East (inbound)	Yes	Yes
Burt St.	East	Yes	Yes
Dawes Ave.	West (outbound)	Yes	Yes
Valley Plaza	East (inbound)	Yes	Yes (as part of transit hub)
Seneca Turnpike	East (inbound)	No (existing far side)	Yes
Secondary Priority (Signalized Intersections)			
Raynor St.	East (inbound)	Yes	No
Kennedy Street	West (outbound)	Yes	No
Brighton Ave.	West (outbound)	Yes	No
Newell Street	West (outbound)	Yes	No
E. Pleasant Ave. (not signalized, but near Calthrop/I-81 intersection)	East (inbound)	Yes	No
Matson Ave.	East & West	Yes	No
Walrath Ave.	East (inbound)	Yes	No

Source: Parsons Brinckerhoff

Development Control Recommendations

The following recommendations involve the possible amendment or creation of regulations targeted at encouraging future development that is sensitive to the pedestrian and transit-dependent characteristics that are exhibited along the corridor. It should be noted however, that such changes are exclusively within the jurisdiction of the City of Syracuse and most likely would be in the context of more comprehensive actions regarding development control in the City.

Zoning Recommendations

It is recommended that the City review current zoning regulations that govern permitted development along the South Salina Street corridor for possible amendment or refinement to facilitate future development that is more consistent with the urban development character of the corridor. This examination should focus on two main issues:

- Regulations governing development in commercial and business districts (i.e., BA, PSD, and CA zoning districts); and
- Regulations permitting the placement of freestanding billboards in commercial and business districts.

Existing business/commercial zoning districts along the corridor outline specific bulk regulations (e.g., front, side and rear yard setback requirements) for the construction of new buildings. These regulations specify minimum distances a new building must be set back from its property lines, a traditional practice in zoning ordinances, with allowances for reducing these required distances in locations to conform to predominant setback of existing buildings. However, the ordinance does not provide for a *maximum* setback distance in any zoning distance. Thus, typical highway-oriented development, where buildings are set back behind large surface parking lots are currently permitted under the zoning ordinance in business and commercial districts.

Urban municipalities are beginning to recognize the value of “traditional” planning principles in the practice of zoning control. A major aspect of this is encouraging the development or maintenance of a “street wall” consisting of buildings situated along or close to the sidewalk/street face and prohibition of streetscape elements that conflict with a pedestrian-scale of development, such as billboards. This would encourage better transit access and pedestrian-friendly environment. It would also provide better opportunities for coordinating new development with other urban design improvements.

Amending the zoning ordinance to encourage such a development character could be accomplished through changing the relevant specifications for business/commercial districts, although this would also affect development outside the corridor. Another approach could involve the creation of an “overlay” zoning district, which would place an additional set of regulations in specific locations (i.e., just in the corridor). A more ambitious approach would involve implementation of a comprehensive “parallel” development ordinance as currently being set forth by Onondaga County’s efforts in the development of the Onondaga County Settlement Plan.

Site Plan Approval Process

The City of Syracuse does not currently implement a formal site plan approval procedure as part of its development review process. All site plans do undergo internal administrative review from various departments in the City as part of the building permit process, but there is no formal board approval (e.g., planning board, Common Council) of new development plans. The undertaking of a coordinated site plan review has essentially become a standard practice by municipalities in the administration of new multifamily residential, commercial, and industrial development. The basic premise is that regardless of whether a proposed development meets all the zoning requirements (e.g., use, setbacks, building height, density, etc.), site plan review looks to how well a development plan meets design objectives in relationship to its setting and surrounding uses. These include issues such as building placement in relation to the streetscape, internal vehicular and pedestrian circulation, access to adjoining streets (curb cuts), landscaping, signage plans, and drainage implications. In some cases, communities have also used the site plan approval process to review architectural design and to exact developer-installed or financed frontage improvements (curbing, sidewalks, street trees, etc.). Site plan review is also often used as the forum to undertake any necessary environmental reviews (i.e., in accordance with the New York State Environmental Quality Review Act [SEQRA]) and/or to receive public comment on issues and considerations associated with a private development proposal.

Whereas many of the recommendations included in this memorandum are targeted at correcting mobility problems along the corridor, instituting a coordinated site plan review process would be targeted at creating future development that best fits into the context of the corridor. It is recommended that the City further examine the potential for implementing a site plan review ordinance. At a minimum, such an ordinance would contain provisions for:

- Submission requirements for all development applications (e.g., drawing size/scale, calculations, traffic report, etc.);
- Performance or development standards for various site components (e.g., curbing, curb cuts/aprons, pavement, drainage, landscaping, etc.);
- Various classifications of development applications, typically based upon the scale of development proposed (e.g., minor site plan approval, preliminary major site plan approval, final major site plan approval);
- A written description of the review and approval procedure for each type of application;
- Necessary criteria and findings required by the approving board for approval; and
- Effect of each type of approval (i.e., duration of terms and conditions).

Syracuse Onondaga County Planning Agency (SOCPA) has recently hired a consultant to develop a site plan review process for the City of Syracuse.

10.3 Site Specific Recommendations

This section outlines a series of recommendations specifically targeted at key activity areas noted above. Each involves future capital improvements aimed at facilitating improved pedestrian safety and transit access. Particular effort was placed at maintaining the vehicular capacity characteristics present along various portions of the corridor so that traffic flow will continue to operate at current levels of service.

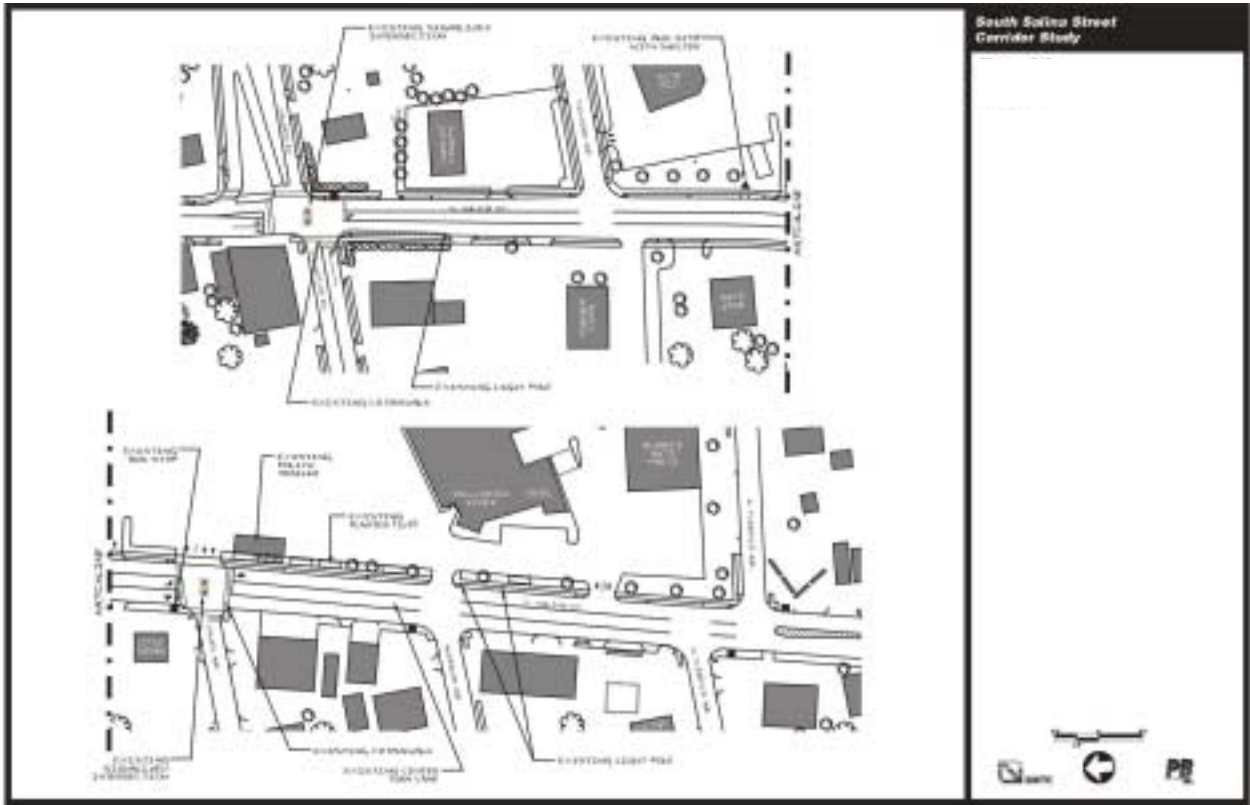
Valley Plaza Area

As discussed in Section 10.1, the Valley Plaza area presents the greatest opportunity for improving pedestrian and transit mobility in the corridor. It is recommended that a joint effort be undertaken by the City, in conjunction with the SMTC and Centro, to examine and develop an urban design program to create a better streetscape environment to achieve these mobility objectives.

Under Centro's *ReMAP* plan, a program to restructure the operations of the regional bus transit system, Valley Plaza is cited as the location of a new transit hub. This new hub has also been listed in the SMTC's current Transportation Improvement Plan (TIP). This type of facility typically provides park and ride accommodations, sheltered waiting areas, and informational facilities to allow for bus access along multiple routes. As part of this effort, or as a future phase to enhance a hub facility, it is recommended that further steps be taken to enhance multi-modal access in the Valley Plaza area. It is likely that such an improvement program would be eligible for federal funding, given that it would be consistent with the Federal Transit Administration's *Livable Communities Initiative*.

A plan view of the existing streetscape characteristics is presented in Figure 10-5 and a conceptual design plan of proposed improvements is depicted in Figure 10-6. Such a program of improvements could include:

- Further use of enhanced road striping to better define travel/turning lanes and pedestrian zones, building upon the City's success in the creation of a center turn lane in the area;
- Creation of enhanced crosswalks (either through striping or textured concrete) in key locations with new signage and pedestrian-activated buttons (at Dawes Ave.). This improvement could also include pedestrian activated crossing signals (i.e., signals that typically flash yellow but turn to red when pedestrian button is pressed) at key locations (i.e., Fillmore, Anderson, or Florence Avenues). Such signals would need to be synchronized to the intersection/signal at Dawes Avenue to avoid conflicts. Additional traffic lights are not recommended;
- Consolidation and merging of multiple curb cuts, although this would require extensive coordination with local businesses to create cross access easements; and



**Figure 10-5
Valley Plaza Area
Existing**

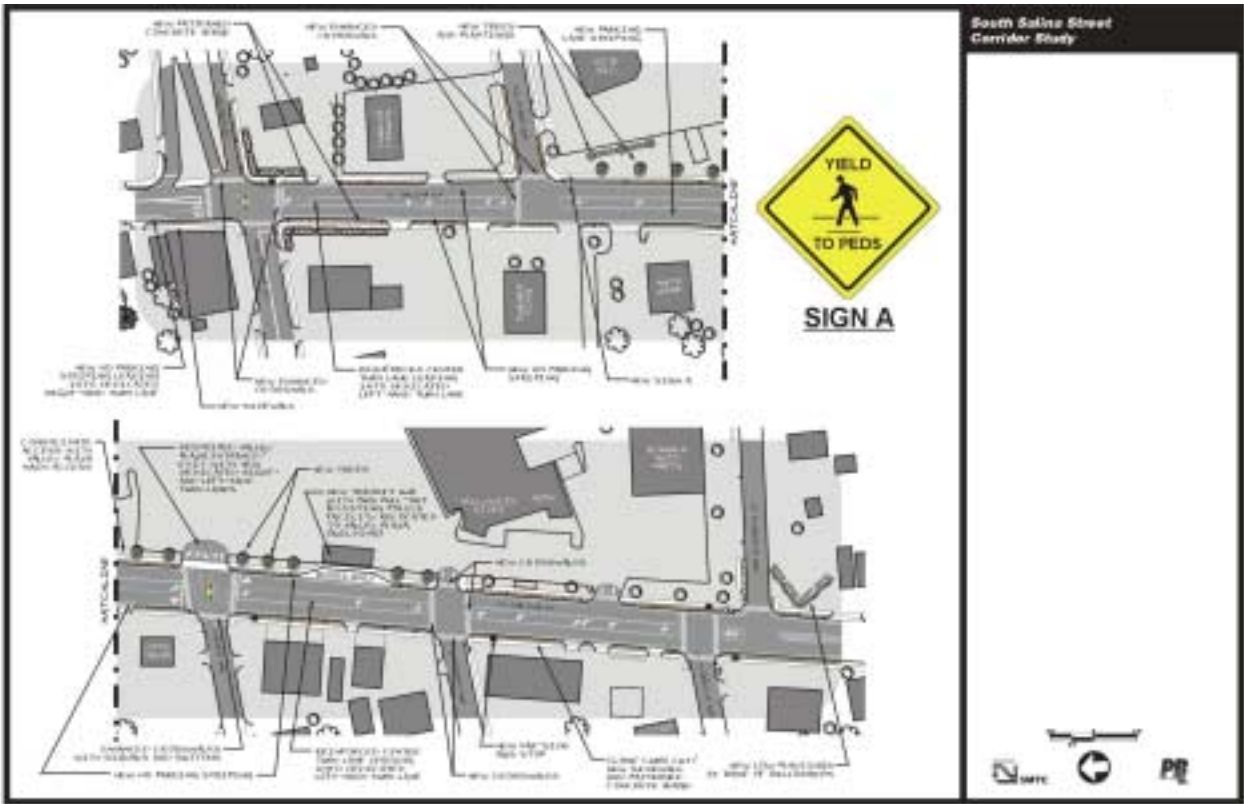


Figure 10-6
Valley Plaza Area
Conceptual Improvement Plan

- Landscape and hardscape improvements to create a consistent design character and positive pedestrian setting, such as new street trees, identification banners, and installation of textured concrete verges.

Figure 10-7 presents photo simulations of these types of improvements under a medium-level of development and under a higher-level investment that might include underground installation of aerial utilities. The latter however, would only be feasible under a possible long-term reconstruction of South Salina Street (see Section 10.3).

Downtown Gateway Area

The Gateway area adjoining Downtown Syracuse is recommended for a medium level of urban design improvements consistent with prior planning efforts focusing on this area, most recently as part of the Southeast Gateway Initiative developed by The Community Builders, Inc. (a not-for-profit community development organization). These types of improvements are depicted in Figure 10-8, and involve the creation of enhanced pedestrian access facilities, sheltered bus stops, pavement treatments, and lighting improvements. Figure 10-9 depicts a photo simulation of such a potential improvement plan.

Traditional Commercial Areas

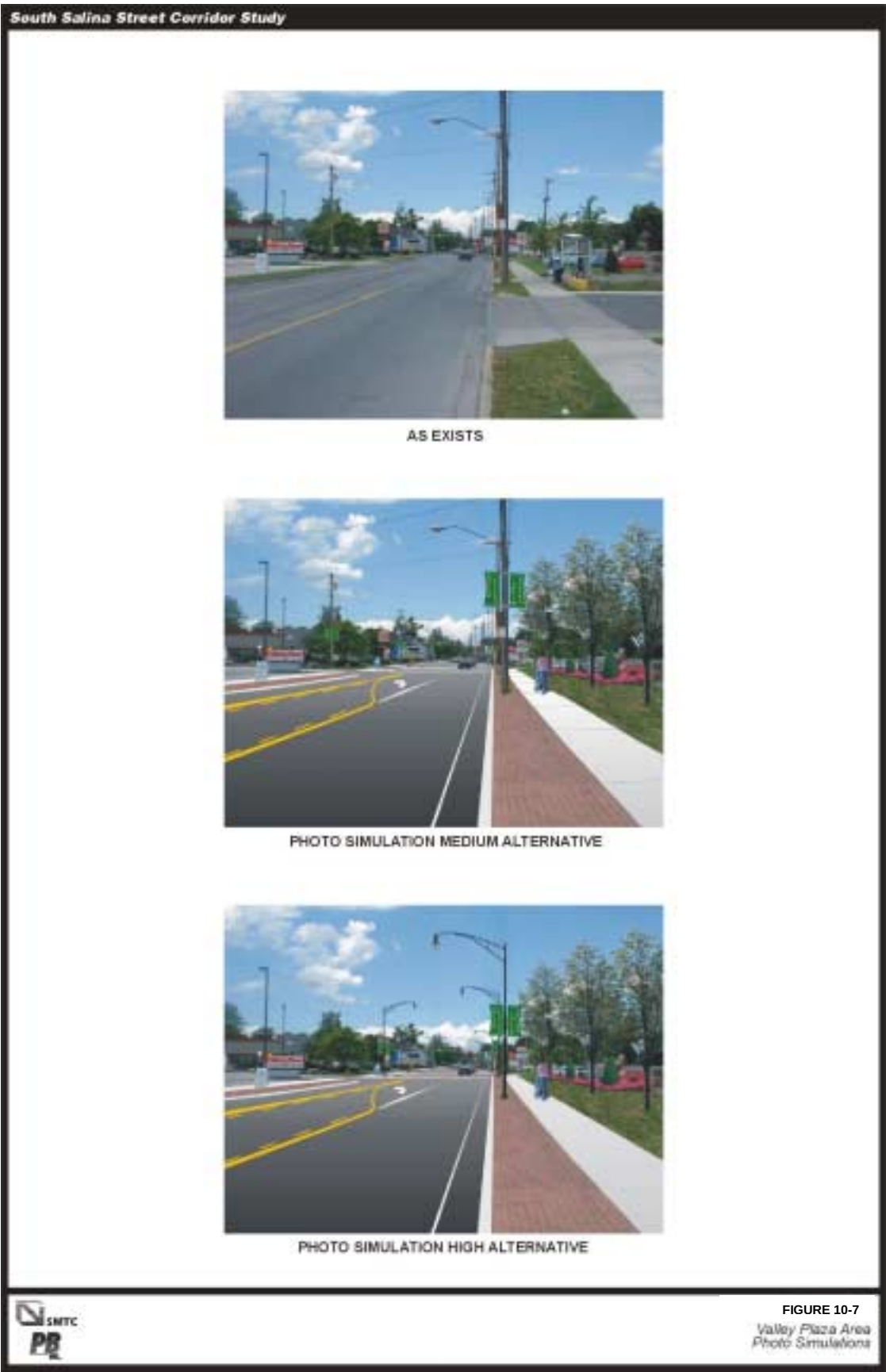
As noted in Section 10.1, included along the corridor are a series of areas that contain development of more traditional commercial districts. These areas are recommended for a lower level of improvements in the short-term, focusing on striping improvements to better delineate the travel lane from parking areas and sidewalk replacement/repair in key locations. Possible future phases would involve urban design treatments that are consistent with those in the Valley Plaza and Gateway areas. A typical improvement plan for one of these areas near Seneca Turnpike is presented in Figure 10-10.

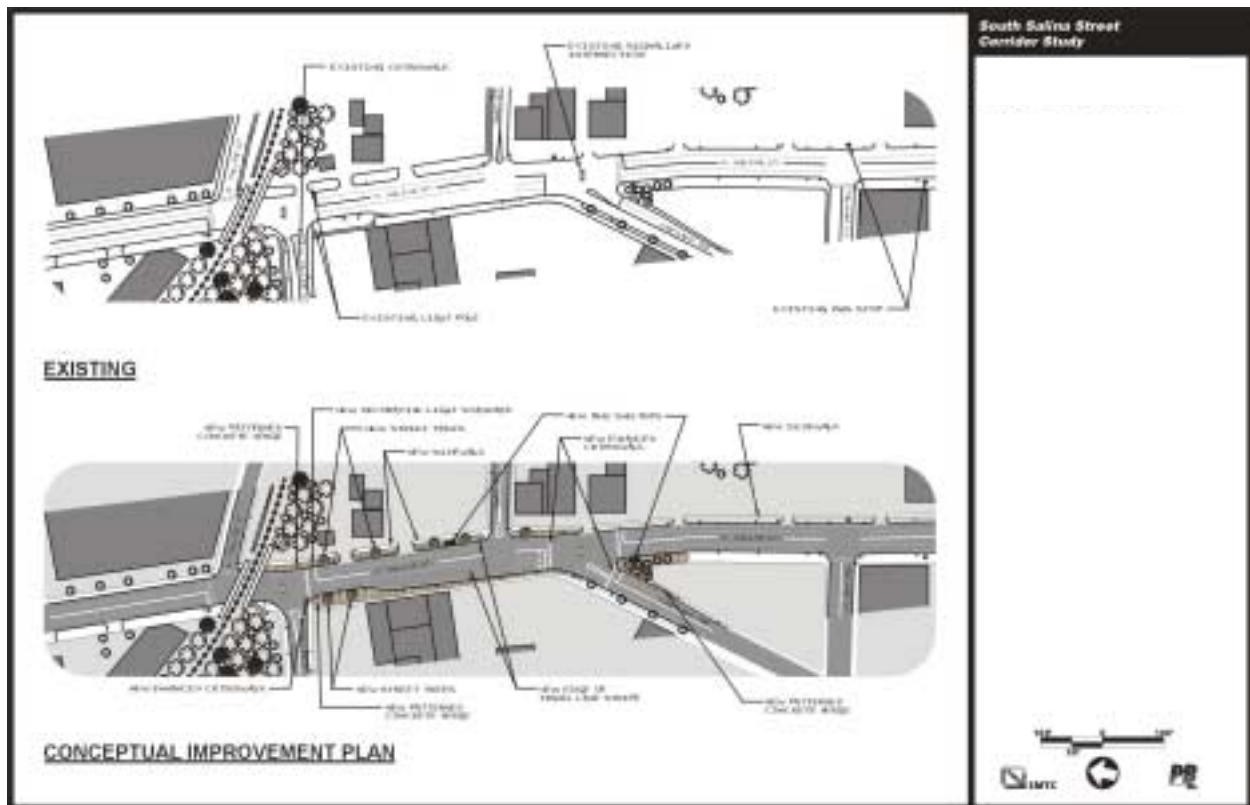
Calthrop Avenue/I-81 Interchange Area

The Calthrop Avenue/I-81 Interchange area is recommended for further review and assessment for a series of improvements. Funding of enhancements to the intersection/access could potentially be eligible for federal funding given that Calthrop serves as access to the interstate system.

The changes are targeted at improving pedestrian safety in conjunction with traffic transitioning from highway speeds and travel behavior to that of the urban characteristics of the corridor. The existing configuration requires pedestrians to cross a substantially wide roadway section with no crosswalks or pedestrian amenities. The lack of these elements tends to encourage increased traffic speeds through the intersection. The current configuration of the intersection is depicted in Figure 10-11. A conceptual design for improvements is shown in Figure 10-12. Recommended improvements involve measures to provide visual and other cues to drivers to reduce speeds and be more aware of pedestrians. These include:

- Enhanced crosswalks and striped travel lanes;





**Figure 10-8
Downtown Gateway Area
Conceptual Improvement Plan**

South Salina Street Corridor Study



AS EXISTS



PHOTO SIMULATION



FIGURE 10-9

*Downtown Gateway
Photo Simulation*

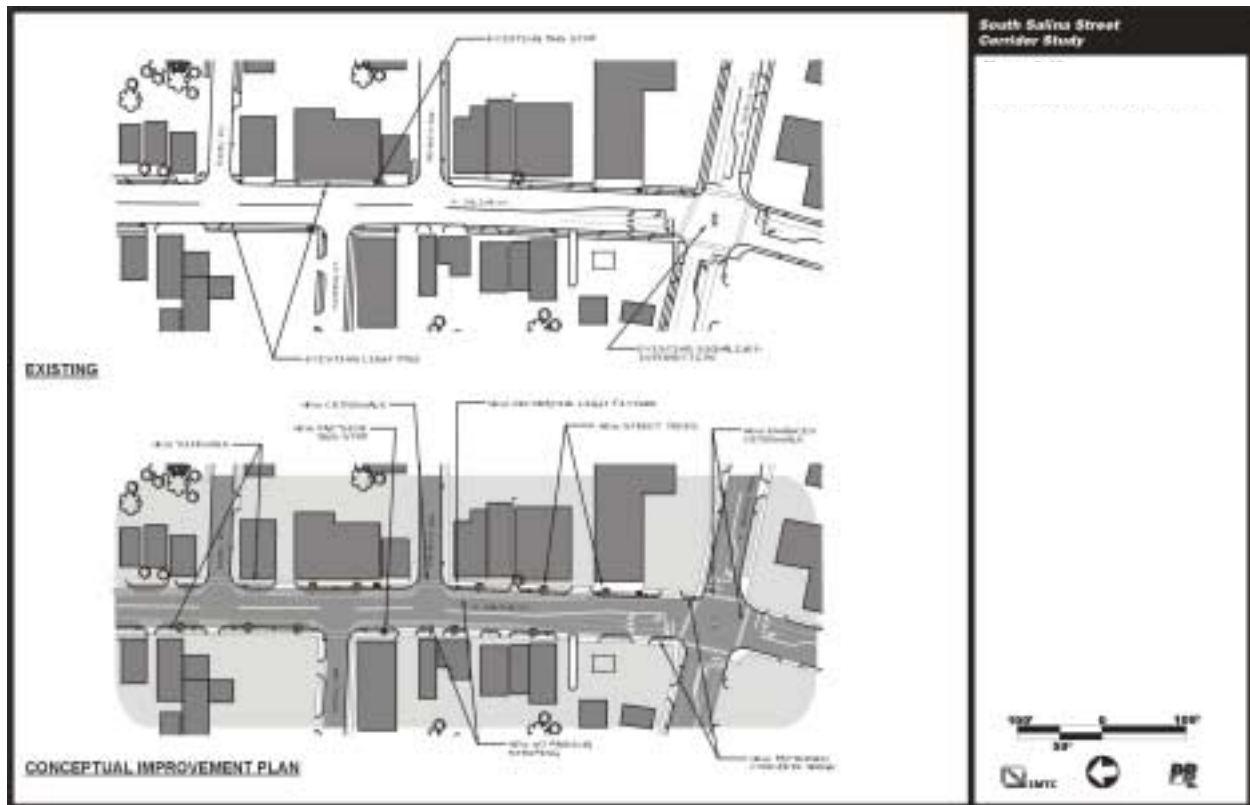
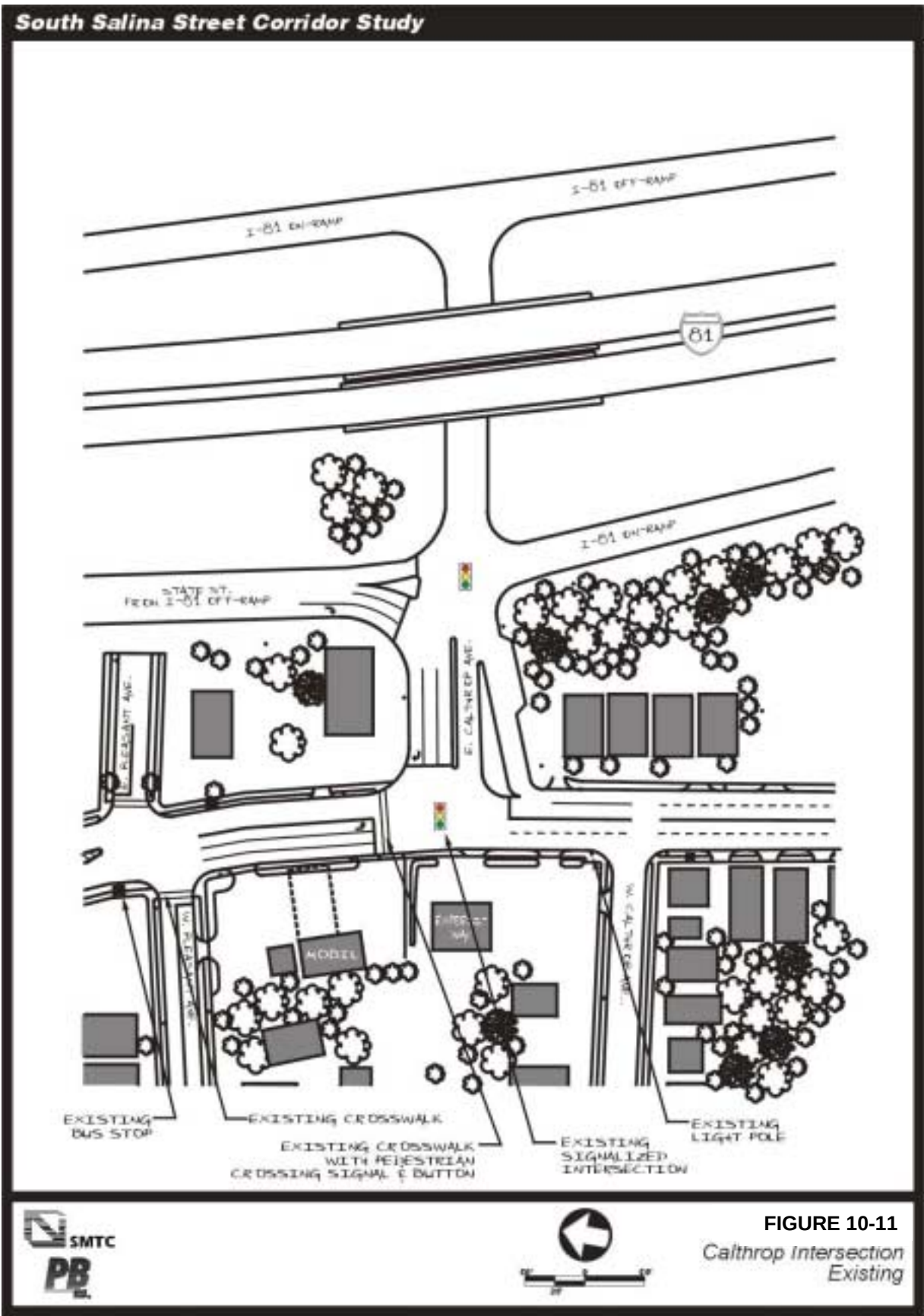
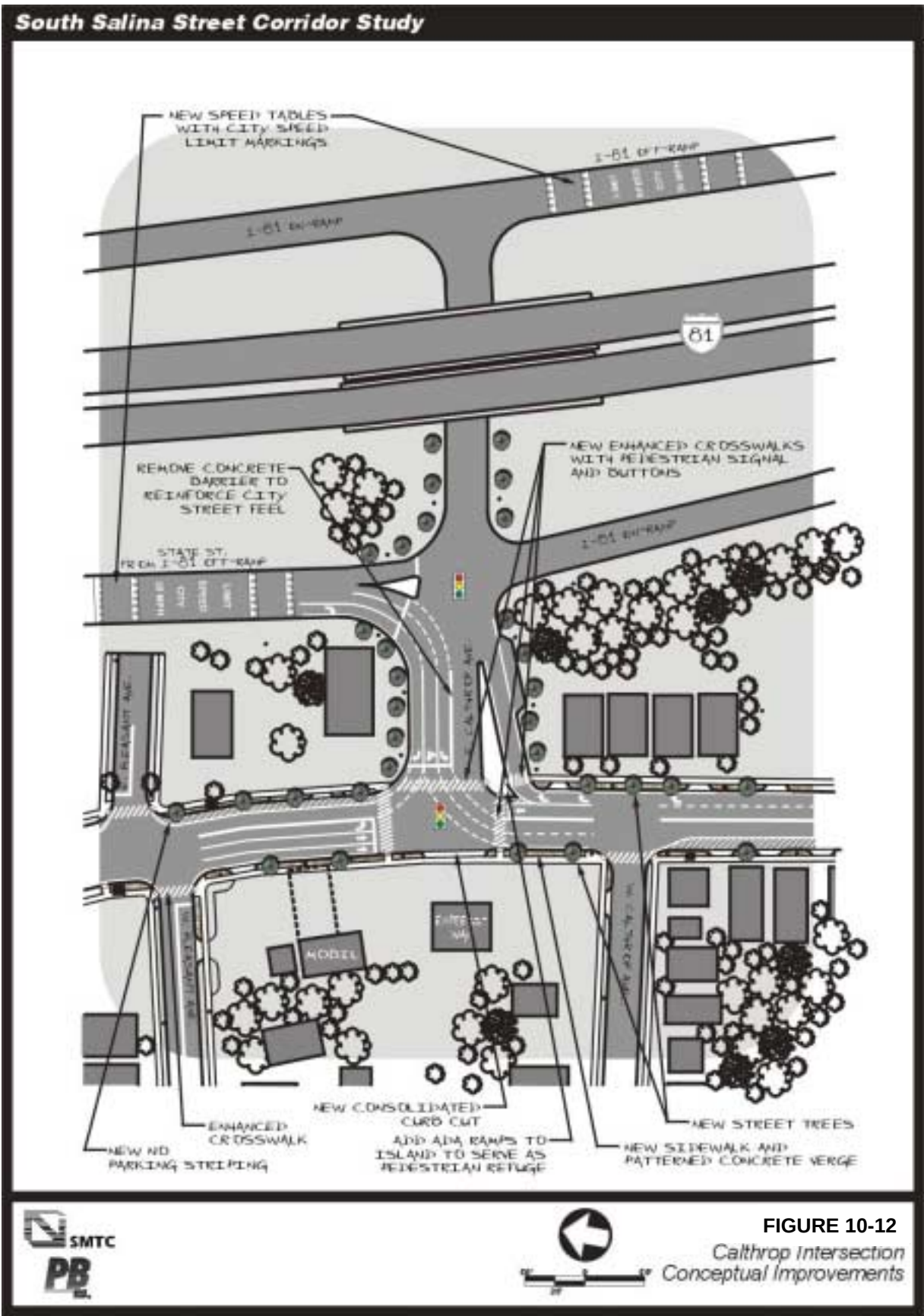


Figure 10-10
Commercial District
Typical Conceptual Improvement Plan





- Addition of ADA ramps to an existing raised island to serve as a pedestrian refuge; and
- Enhanced road markings for approaching traffic to indicate City speed limits, with potential use of “speed tables” on off-ramps to encourage transitioning to urban speeds.

A preliminary investigation was also conducted of the traffic implications of a reduced roadway width along Calthrop Avenue as an alternative to improve the pedestrian crossing situation. Future year condition analysis for the intersection was conducted with the existing cross section and then compared to a reduced Calthrop Avenue approach cross section. The intersection analysis was based upon information used in the capacity analysis completed in Chapter 3.

The analysis indicated that the intersection currently operates under capacity with an acceptable overall level of service of B in the PM peak period. Queuing at the intersection is minor with average queues of 3 to 4 vehicles on the Calthrop Avenue approach to the intersection. A future year (2010) analysis was conducted at the intersection using the existing lane configurations. This analysis also indicated that the intersection would operate under capacity with an overall level of service of B in the PM peak period. Traffic volumes are anticipated to increase only slightly to the year 2010 from existing conditions. Queuing at the intersection will remain minor with average queues of 4 vehicles per lane per cycle on the Calthrop Avenue approach to the intersection.

Using the future year traffic volumes, an analysis with a reduced Calthrop Avenue approach cross section was conducted. The analysis assumed a reduction of one lane on the approach, leaving a dedicated left turn lane and a combined left, through, and right turning lane remaining along Calthrop Avenue. The analysis assumed no changes in the Salina Street approaches and no changes to the existing signal operations. The analysis found that even with this reduced lane configuration, the intersection continued to operate at an overall level of service B. The Calthrop Avenue approach remained operating at a level of service B also even with the reduced lane configuration. The queuing on the Calthrop Avenue approach would be anticipated to increase slightly as compared to the existing cross section but would generally remain minor. It was determined that queues per lane would increase to an average of 6 to 7 vehicles per signal cycle (see Figure 10-13). Calculations associated with this analysis are presented in Appendix G.

While this analysis indicated no substantial operational effects of reducing the width of Calthrop Avenue, it is recommended that this analysis be further refined in subsequent planning reviews of this intersection. Such refinements would include, but not be limited to the development of a 2020 projection of intersection operations under such a scenario.

Long-Term Reconstruction of South Salina Street

Given the current physical characteristics of portions of South Salina Street (pavement conditions, sidewalk conditions, etc.), as well as the fact that it serves as a main commuter route, the entire corridor could potentially be suitable for reconstruction in the long term. The majority of the corridor is designated as US Highway 11 (south of Raynor Avenue), and therefore, it would be eligible for federal funding of such a reconstruction program.

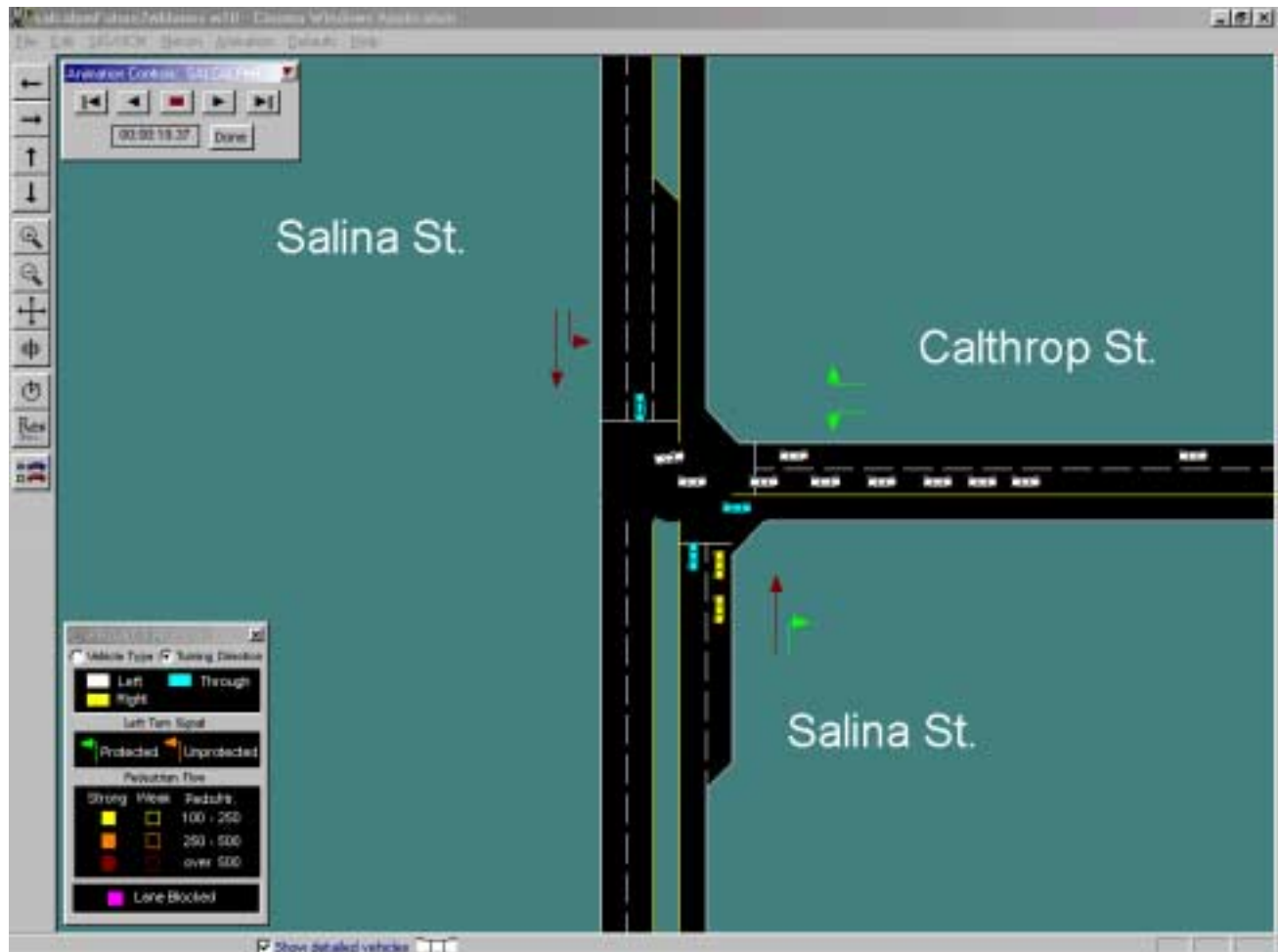


Figure 10-13
Projected 2010 Conditions –Modified Calthrop Avenue

It is recommended that the SMTC and the City examine the potential for securing state and/or federal funding for a comprehensive road reconstruction project in the long-term future (i.e. 10-20 years). Such a project would need to undergo the standard federal review and approval process, involving being reviewed for inclusion as a project in the SMTC's Long Range Plan and subsequently its Transportation Improvement Program (TIP). It should be noted that this process would weigh such a reconstruction in terms of public benefits against other major projects in the region.

Whether administered by NYSDOT or the City of Syracuse as a pass-through project, a reconstruction such as this would also need to follow procedures contained in NYSDOT's *Design Procedure Manual*. Depending on the scale of the project, it could include full reconstruction of the right-of-way (i.e., cartway and sidewalks), a comprehensive pavement marking program, as well as the potential for underground installation of utilities and installation of enhanced lighting. This could involve a substantial public investment, ranging from \$25 to \$30 million. A preliminary order-of-magnitude cost estimate of such a project is included in Appendix H.

CHAPTER 11 – PRELIMINARY IMPLEMENTATION PROGRAM

Table 11-1 presents a preliminary plan of implementation for recommended improvements discussed in Chapter 10. Programmed short-term actions would include additional planning, community education, and enforcement activities along the corridor, as well as lower cost capital projects to enhance mobility and access. Also during this period, further review and assessment of funding availability would be conducted for larger-scale improvements such as streetscape programs and possible long-term reconstruction efforts.

Medium-term actions, if determined to be financially feasible, would focus on improvements in targeted areas along the corridor that exhibit the greatest need and opportunities for pedestrian/transit enhancement. These would include the streetscape and pedestrian enhancement programs described in Chapter 10 for the Valley Plaza area, Gateway area, and Calthrop Avenue/I-81 Interchange area. In addition, if determined to be reasonable in the context of the SMTTC's Long Range Plan and TIP, preliminary engineering and necessary environmental clearance would be conducted in this period for the reconstruction of South Salina designated as U.S. 11.

Long-term actions include the ultimate final design and construction activities associated with a reconstruction project on South Salina Street. It should be noted that the long lead time necessary to review, fund, plan, and design a major reconstruction project would not necessarily preclude the shorter-term capital projects from being reasonable first steps to such a project. Where applicable, an estimated range of order-of-magnitude costs is presented for each action in the implementation plan. For planning efforts, the costs were derived examining prior, similarly scoped studies. For capital projects, costs were estimated using unit pricing values from NYSDOT reference documents and other nationally published cost-estimating sources.

**Table 11-1
Preliminary Implementation Plan**

Action	Estimated Order-of-Magnitude Costs	Potential Responsible Agencies
Short-Term (0 to 5 years)		
Corridor Parking Master Plan	\$75,000 – \$100,000	SMTC, City of Syracuse
Corridor-wide Striping Program	\$30,000 – \$50,000	City of Syracuse
Speed Monitoring/Enforcement	\$5,000 – \$8,000 (equipment only – personnel requirements TBD)	City of Syracuse
Community Enforcement/Education Programs (Parking; Bicycle & Pedestrian Safety)	TBD	City of Syracuse, SMTC, Onondaga County
Corridorwide Capital Upgrades: - Curb Ramp Installation/Repair - Pedestrian Button Signage	\$10,000 – \$15,000 \$3,000 – \$5,000	City of Syracuse
Far Side Bus Stops, Lead Walks, & Shelter at Key Intersections	\$12,000 – \$15,000	Centro
Further Review of Potential for Augmenting Valley Plaza Transit Hub with a Pedestrian Streetscape Program in TIP	NA	SMTC
Review of Calthrop Ave./I-81 Improvements in Long Range Transportation Plan	NA	SMTC
Review of Potential S. Salina St. Reconstruction in Long Range Transportation Plan	NA	SMTC
Medium-Term (5 to 10 years)		
Valley Plaza Area Streetscape Program	\$200,000 – \$1 Million (With mill & overlay of S. Salina Street)	City of Syracuse, NYSDOT, Centro, Federal Transit Administration
Gateway Area Streetscape Program	\$200,000 – \$250,000 (w/underground utilities and decorative light standards)	City of Syracuse
Calthrop Ave./I-81 Pedestrian Improvements	\$225,000 – \$300,000	City of Syracuse, NYSDOT, Federal Highway Administration
Preliminary Engineering & Environmental Review of South Salina Reconstruction Program	\$300,000 – \$500,000	City of Syracuse, NYSDOT, Federal Highway Administration
Long-Term (10 - 20 years)		
Final Design & Construction – Reconstruction of South Salina – Raynor to Seneca	\$25 Million – \$30 Million	NYSDOT, City of Syracuse, Federal Highway Administration

Source: Parsons Brinckerhoff

APPENDIX A Public Involvement Plan

APPENDIX B Correspondence

APPENDIX C Base Map

APPENDIX D Traffic Volumes

APPENDIX E Synchro Analysis Summary Sheets

APPENDIX F Accident Summaries and Diagrams

APPENDIX G Conditions Analysis at Calthrop Avenue

APPENDIX H Order of Magnitude Cost Estimate