

Lawn Avenue Gateway Design Study



Final Report



North Albany
HOPE VI

Presented by:



Project #01-098d

and

THE SARATOGA ASSOCIATES



NEW VISIONS

June 2002

Lawn Avenue Gateway Design Study

City of Albany, Albany County, NY

CME Project #01-098d

Submitted to:

**Albany Housing Authority
HOPE VI Program Office
31 Walter Street
Albany, New York 12204**

**Capital District Transportation Committee
5 Computer Drive West
Albany, New York 12205**

Prepared by:



**4 Automation Lane
Albany, New York 12205-1663
(518) 446-0396**

Final Draft of June 28, 2002

TABLE OF CONTENTS

	<u>Page</u>
Title Page	i
Table of Contents	ii
List of Figures	iv
List of Tables	v
Technical Working Group	vi
Disclaimer	vi
EXECUTIVE SUMMARY	1
Background and Purpose	1
Study Aims/Watchwords	1
Scope.....	2
Key Issues and Recommended Actions.....	4
Gateway Intersection	4
Pedestrian and Cyclist Mobility.....	7
Public Transportation.....	9
Other Traffic Issues and Possible Concepts.....	10
PART ONE: GATEWAY CONCEPT.....	12
Context.....	13
Conditions and Issues	13
Relationship of the Gateway to the Corridor	13
Configuration	16
Traffic Operations.....	16
Pedestrian and Bicycle Flows	20
Public Workshop Discussions.....	20
Additional Issues.....	21
Speed.....	21
“Two Lanes to One” Perception of Lawn Avenue	21
Trucks	22
HOPE VI Development (North Albany Rental Homes).....	22
Recommended Gateway Concept.....	22
Concept Elements	23
Package and Component Cost Estimates.....	33
Some Additional Considerations and Issues.....	37
Other Alternatives Examined and Discarded.....	39
Next Steps	41
Establishing Commitment and a Staging Plan.....	41
Funding	42
Capitalizing on Other Opportunities to Make Improvements.....	44

	<u>Page</u>
PART TWO: NEIGHBORHOOD PEDESTRIAN AND CYCLIST MOBILITY	45
Context.....	46
Conditions and Issues	47
Setting	47
General Motor Vehicle Traffic	47
Truck Issues	50
Pedestrian and Bicycle Flow Patterns and Relationships to Provided Facilities	51
Public Workshop Discussions.....	56
Recommended Approach to Promotion of “Pedestrian Main Street” Environment.....	57
Note on Working from a Vision for the Area	57
Priority Steps to Complement the Gateway Treatments	57
Regulatory Steps	58
Capital Planning.....	58
Longer-Term Concepts	59
Basic Streetscaping	60
Bicycle Connections	60
Traffic Calming.....	61
Circulation Modifications	62
Reinforce Truck Restrictions with Physical Treatments	62
Next Steps	62
PART THREE: PUBLIC TRANSPORTATION PILOT PROGRAM	64
Conditions and Issues	64
Existing Transit Service in the Area	64
Needs.....	65
Issues Related to Existing/Expanded Transit Service.....	65
Public Workshop Discussions.....	66
Recommended Pilot Public Transportation Enhancement	67
Basic Concept: #5 Route Modification.....	67
Note on Administrative Structure/Logistics/Funding	69
Kickoff Campaign.....	69
Additional Public Transportation Concepts to Consider Progressing Over Time	70
APPENDIX ONE: ADDITIONAL CONCEPTS FOR EXPLORATION.....	78
Lower Lawn Avenue Through Traffic.....	78
Dead End Concept	79
One-Way Lawn Avenue Concept	80
“One-Way at the Intersection” Concept	81
North 1 st Street Through Traffic/Hackett Park Greenspace Connection	82
North Albany Truck Traffic.....	83

	<u>Page</u>
APPENDIX TWO: FUNDING OPTIONS	87
City Maintenance/Minor Capital Improvement Resources	87
Model City Programs	88
State Resources	89
Federal Transportation Funds/Programs	90
Transportation Improvement Program.....	91
Transportation Enhancements Program.....	91
CDTC Bicycle and Pedestrian Spot Improvement Program.....	92
Other Federal Funds/Programs	92
Private Support.....	92

LIST OF FIGURES

	<u>Page</u>
Figure 1: Study Area/Location Map	3
Figure 2: View of the Intersection of Lawn, Northern and Van Rensselaer from Lawn	14
Figure 3: View of Lawn Avenue from Vantage Point of Previous Picture	15
Figure 4: Plan View of Lawn Avenue/Northern Boulevard/Van Rensselaer Boulevard Intersection	17
Figure 5: “Stage 1” Improvement Concept for Gateway Intersection (Pavement Markings Emphasis)	24
Figure 6: “Stage 2” Improvement Concept for Gateway Intersection (Construction Emphasis)	25
Figure 7: “Stage 3” Improvement Concept for Gateway Intersection (Comprehensive Package)	26
Figure 8: Visualizations of Existing and “Stage 3” Conditions (Motorist and Pedestrian Perspectives)	27
Figure 9: Standing Snow Indicating Unused Pavement Space	28
Figure 10: Pedestrian Countdown Timer Signal Head showing WALK/DON’T WALK (flash)/DON’T WALK (hold) sequence.....	31
Figure 11: Easterly View of Lawn Avenue below Hutton Street	50
Figure 12: Sidewalk and Curb Conditions in North Albany.....	53
Figure 13: Sidewalk at Street Level, Lawn Avenue at Thomas Street	54
Figure 14: Easterly View of Lawn Avenue between North Pearl Street and Broadway	55
Figure 15: Crosswalk Partially Covered with Snow near Sidewalk, North Pearl Street at Lawn Avenue	56
Figure 16: Model Sidewalk and Curb Ramp Installation, Lawn Avenue at Jennings Drive	58
Figure 17: Model Streetscape, Tubman Circle	59
Figure 18: Pilot Transit Route Modification.....	67

<i>List of Figures (continued)</i>	<u>Page</u>
Figure 19: “One Way at the Intersection” Concept in Use: Intersection of Buckingham and Bender, Albany	81
Figure 20: Conceptual Truck Route System for North Albany	84

LIST OF TABLES

	<u>Page</u>
Table 1: Peak Hour Turn Volumes at Lawn/Northern/Van Rensselaer	18
Table 2: Component Cost Estimates for Gateway Improvements.....	35

TECHNICAL WORKING GROUP

The Study was guided and shaped by the following members of the Technical Working Group, who gave of their time and energy in discussing the issues covered by the Study, shaping the directions taken by the technical examinations and reviewing the various interim Study products.

Luis Acosta, Capital District Transportation Authority
Sarah Curry-Cobb, Ward 4 Councilperson, City of Albany Common Council
Kate Frank, City of Albany Planning
Georgette Jackson, TAC member, HOPE VI
Bill Lecuyer, City of Albany Engineering
Kate Maynard, City of Albany Planning
Joanne McElroy Moore, North Albany Shaker Park Neighborhood Association
Sandy Misiewicz, Capital District Transportation Committee
Carey Roessel, ACCESS Transit
Darren Scott, Albany Housing Authority HOPE VI Office
Dede Rudolph, City of Albany Engineering
Bill Trudeau, City of Albany Traffic Engineering
Kristina Younger, Capital District Transportation Authority

The Creighton Manning Engineering members of the Study Team included Chuck Manning, P.E., who served as principal-in-charge; Steve Allocco, who served as Project Manager and lead technical analyst; and John Tozzi, P.E., who led the design and operational analysis of the Gateway intersection. In addition, Ron Mogren, RLA of The Saratoga Associates (TSA) led TSA's streetscaping and intersection photosimulation efforts.

DISCLAIMER

The Lawn Avenue Gateway Design Study was conducted by the team of Creighton Manning Engineering, LLP and The Saratoga Associates for the Albany Housing Authority's HOPE VI Program Office and the Capital District Transportation Committee (CDTC), with funding through CDTC's Community and Transportation Linkage Planning Program and included in CDTC's 2001-2002 Unified Planning Work Program. While the Study Team was guided in its work by a Technical Working Group including HOPE VI and CDTC staff (as listed above), the final discussions of existing conditions and issues and the indicated recommendations of improvements are based on the Study Team's professional investigations and judgments, and should not be taken as statements of policy of the HOPE VI Office, CDTC, the North Albany Shaker Park Neighborhood Association or any other agencies or organizations represented on the Technical Working Group.

EXECUTIVE SUMMARY

Background and Purpose

The North Albany neighborhood is in the process of major redevelopment and revitalization. New housing is being constructed along with a number of new community facilities. Strong community support for change is demonstrated by the membership of the Hope VI Community Task Force, which includes many neighborhood residents, City agency staff, civic leaders and local business proprietors. There is a need to complement what is taking place *off* the road with improvements to the transportation system which will promote safety, mobility and neighborhood ambiance. The Lawn Avenue Gateway Design Study focuses on this aim.

In this report are presented the following:

- a detailed plan for redeveloping the Lawn Avenue/Northern Boulevard/Van Rensselaer Boulevard intersection to enhance its function as a bonafide gateway to North Albany
- a discussion of ways to enhance multimodal transportation along Lawn Avenue and in the surrounding area, particularly for pedestrians and bicyclists
- a discussion of transit access issues in the neighborhood and a first-cut plan for enhancing the transit-based mobility of neighborhood residents
- a brief exploration of a number of other traffic-related issues affecting the general quality of life of the neighborhood, along with some concepts for addressing these issues

The aim of this Study was to develop a detailed package of treatments which can be pursued over time by the City, the Albany Housing Authority and other relevant agencies and private parties to build on and complement the *off*-the-road enhancements to the area with community-focused improvements *on* the road. A review of funding options and a discussion of how to strategically advance desired projects based on program funding cycles is also included as an Appendix to this report.

Study Aims/Watchwords

Management of a transportation system is not simply about moving cars and trucks along their ways as quickly as possible. Ensuring that communities offer their residents *safe* transportation opportunities in a manner that provides them with the *flexibility* to travel via a variety of modes is critical; in addition, as people spend most of their time outside their cars, and indeed in most cases in their home areas, it is important that transportation systems function in harmony with adjacent neighborhoods – that is, transportation activity should not impose noise, smoke or other ills on where people live. It is important to ensure that planning and project development pay particularly close attention to these concerns when focused on communities where local residents may lack the resources to mobilize and protect their neighborhoods – or to relocate to other areas

with the ease that others might have. The aim in the case of a Study such as this one should be to bring about a bonafide *improvement* in conditions as a result of implementing its recommendations. This concept of *environmental justice* has become an important consideration in the planning and implementation of projects. In this context, it is important to note that the actions recommended in this report stand to provide positive benefits in enhancing personal mobility while reducing through traffic (especially truck traffic) in this neighborhood, which is among those in Albany for which a special emphasis on environmental justice considerations is in order.

The setting for this Study raises notes regarding *economic activity* as well. While the primary focus of this effort is indeed on the residential neighborhood consisting of Lawn Avenue and its immediate surroundings, it is also important to maintain the viability of the various commercial and industrial operations in or adjacent to the neighborhood.

Distilling these considerations to goal statements yields the following Study watchwords.

The aims should be to...

- *...enhance the community's sense of place through development of a gateway which truly conveys to motorists that they are entering a large residential neighborhood, and prompts them to drive more cautiously*
- *...promote local mobility through enhancements to the connectivity and safety of pedestrian and bicycle travel systems*
- *...promote job access and economic activity through enhanced transit service, to improve connections between the neighborhood and elsewhere in the City and the Capital District*
- *...improve community quality of life by better harmonizing the relationship between transportation and land use*
- *...promote safety by minimizing industrial and "short-cut" traffic from local streets*

The Study Team used these watchwords to guide its examinations of the various possible actions considered during this effort.

Scope

The area of focus of the Study varied based on the particular element being examined: the Lawn Avenue/Northern Boulevard/Van Rensselaer Boulevard intersection was focused upon for the purposes of Gateway development, the Lawn Avenue corridor for examination of the pedestrian and bicycle environments, and the Lawn Avenue neighborhood for the transit service component. The study area is located on Figure 1.

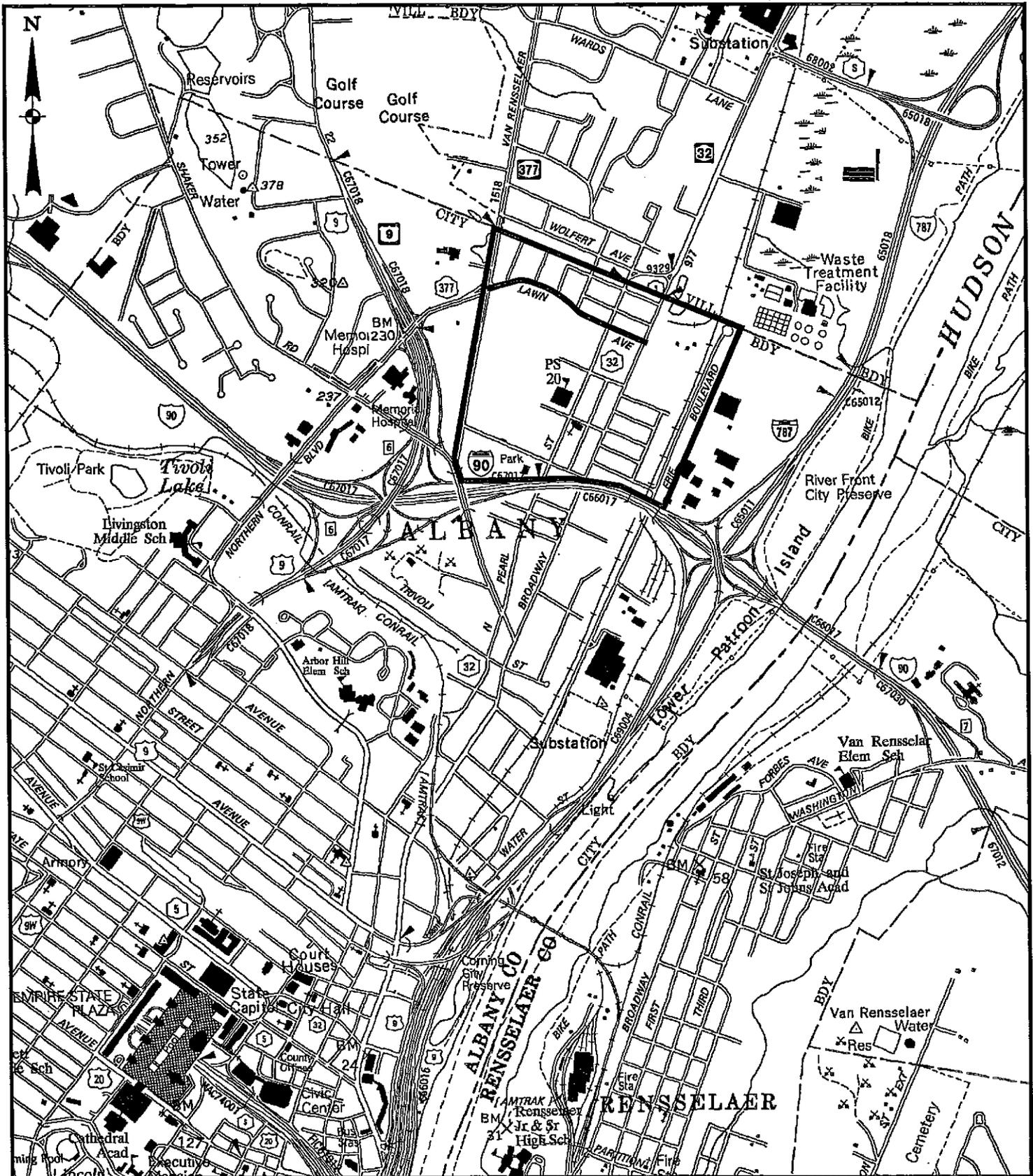


FIGURE 1
PROJECT LOCATION MAP

LAWN AVENUE GATEWAY DESIGN STUDY
CITY OF ALBANY, NEW YORK



4 AUTOMATION LANE, ALBANY, NY 12205

PROJECT: 01-098 SCALE: N.T.S. DATE: 06/2002

In addition to the three foci of the original Scope, the HOPE VI Office provided the Study Team with descriptions of a modest number of additional locations in North Albany to examine for possible traffic circulation modifications. Details on these explorations are presented in Appendix Two.

Working with the Study Technical Working Group, the Study Team identified and analyzed a number of concerns and opportunities for each element of the scope, and developed possible action items for the most promising concepts identified during early explorations. These examinations included initial assessments of potential effects on traffic flows and systemic feasibility (the latter largely a function of local acceptability and cost). For the Gateway alternative identified as most appropriate for pursuit, some of the pedestrian/bicycle concepts and the traffic circulation modifications being considered for the neighborhood, planning-level cost estimates are presented later in this report. The cost estimates reflect construction, engineering, and construction supervision service requirements.

In their explorations, the Study Team relied primarily on established engineering principles, professional judgment and field examinations to make determinations on the feasibilities of the various alternatives being considered in this effort. The Team recommends that particularly for the actions identified as more promising for the Gateway intersection, the Lawn Avenue/North Pearl Street area and the North 1st Street/Hackett Park area, further technical assessments should be conducted prior to proposal of any project concepts for funding and implementation.

Key Issues and Recommended Actions

Gateway Intersection

Issues

- *True “Gateway” Function:* The areas on either side of locations identified as “gateways” generally tend not to be much different from one another – either side of a municipal boundary, for example. By comparison, the Lawn Avenue/Northern Boulevard/Van Rensselaer Boulevard intersection has the potential to be a *true* gateway to the North Albany neighborhood, for Lawn Avenue and the streets intersecting it as it proceeds down the hill from the gateway intersection are truly different from the other streets at the gateway: North Albany is a largely residential neighborhood with two-lane streets and a considerable amount of pedestrian and bicycle activity, while Northern Boulevard and Van Rensselaer are four-lane, higher-speed through streets with relatively little pedestrian or bicycle traffic.
- *Pavement Availability Introduces Confusion, Increases Motor Vehicle Speed:* The width of Lawn Avenue at the intersection can result in confusion regarding its legal use *or* its deliberate misuse, such that there may be instances in which through traffic may be in both Northern Boulevard approach lanes, proceed through the intersection and then need

to merge on Lawn Avenue. In addition, the width of the street does not provide a clear sense of the need to slow down.

- *Crossing Distances Raise the Potential to Get “Trapped” or Rushed:* Pedestrians attempting to cross streets at the intersection need to walk across 42 to 50 feet or more of pavement. This requires that the average, able-bodied adult pedestrian have ten seconds or more of unimpeded walking time (that is, not waiting for cars to turn) to cross one side of the intersection. Elderly and/or physically challenged persons will require even more time. The combination of distance, walking speed and the potential for turning motor vehicles to impede pedestrians’ progress can require pedestrians to run across the street to complete their movements; this of course is only an option for those pedestrians who are able to do so.
- *Need for Sensitivity to Setting in Traffic Operations Management:* The majority of traffic flows at the intersection are between Northern Boulevard and that section of Van Rensselaer Boulevard to the north. With traffic largely “skirting” North Albany in this way, it is important to take explicit steps to ensure that the intersection is managed so as to also reflect its relationship to North Albany; that is, there are multiple types of users of the intersection (pedestrians, cyclists, cars, trucks, buses and so on), and the approach to management cannot rely on a simple objective such as “minimizing motor vehicle delay” in light of these varied users.
- *Traffic Speeds are a Concern:* Study Team observations noted that vehicles frequently approached the intersection at fairly high rates of speed, particularly during less congested times (e.g., mid-day and evening hours). A few stopwatch-based point-to-point observations found that even some turning vehicles maintain speeds exceeding 30 MPH (the City speed limit) through the intersection from the point at which they would presumably need to slow down to the point at which they would be able to accelerate away from the intersection. Similarly, through movements (particularly from Northern Boulevard to Lawn Avenue or between the two Van Rensselaer Boulevard sections) were frequently found to exceed the speed limit. While not a bonafide speed study, such that there is conclusive evidence of a consistent tendency toward speeding through the intersection, these indications do appear to be illustrative of a bonafide concern.
- *The Intersection is Part of a Variety of Pedestrian and Cyclist Trip Paths:* Errand, school and commuting-oriented travel were found to generally involve crossings, as when pedestrians walk from Lawn Avenue to Northern Boulevard en route to shopping opportunities or Memorial Hospital (the latter particularly around “shift change” times, which roughly correspond to the earlier parts of the morning and afternoon peak hours). Recreational travel tends to involve “squaring the corners,” as when runners run up Lawn Avenue or cyclists ride on Northern Boulevard and then proceed north on Van Rensselaer Boulevard. Planning for improvements to the intersection needs to reflect these varied patterns and trip purposes.

Recommendations

- ***Medians:*** Construction of three (3) medians: one on the Lawn Avenue leg of the intersection, lining up opposite the Northern Boulevard left turn lane; and one on either leg of Van Rensselaer Boulevard. The medians would include “cut-throughs” for crosswalks; the Van Rensselaer median to the north would end as a left turn pocket at the entrance to the Wolfert’s Roost Country Club, to provide an additional measure of safety by getting left turners into the Country Club driveway out of the flow of traffic.
- ***Pavement Narrowing:*** Reductions in the width of the existing curb-to-curb pavement in favor of the construction of a number of additional sidewalk connections with “utility strips” separating newly-constructed sidewalks from the roadway.
- ***Refuge Island or Extended Corner:*** Construction of a raised island on the Lawn Avenue leg of the intersection, separating right turning vehicles on this approach from left turners and through traffic. This would provide a refuge for pedestrians crossing either Lawn Avenue or the section of Van Rensselaer Boulevard north of the intersection, should they be unable to cross these streets in their entirety during one green light/WALK opportunity. As an alternative, the pavement area could be reduced to “reclaim” the area indicated by the refuge island for pedestrians. That is, the area up to and including the illustrated refuge island could simply be “curbed off” and become sidewalk area, further reducing crossing distances and reducing conflicts between pedestrians and right-turning motor vehicles.
- ***Channelized Lane Removal:*** Reclaiming for pedestrian use the area presently occupied by the channelized lane used for right turns from Van Rensselaer Boulevard to Northern Boulevard. Study Team evaluations of intersection performance with the channelized lane removed determined that the intersection in general and this movement in particular would continue to operate acceptably without the lane.
- ***Crosswalk Markings:*** “Ladder”-type high visibility crosswalks, installed for all for crossings at the intersection.
- ***Pedestrian Signal Heads:*** Countdown timer signal heads (indicating how much time pedestrians have remaining to cross a street), installed for all eight combinations of street crossing and direction.
- ***Bollards:*** Where the physical separation of sidewalks from the roadway is not as substantial as might be desired, bollards could be placed to provide a measure of protection; in addition, in keeping with the notion of a gateway, it might be desirable to provide these bollards strategically and with something of a decorative intention (black iron posts with black chains draped between them, for example), particularly on the two Lawn Avenue corners.
- ***Pavement Markings for Cyclists:*** Separate stop lines for cyclists – particularly on the Northern Boulevard and northbound Van Rensselaer Boulevard approaches – to give cyclists a head start when the traffic light facing them turns green, and dotted “trace lines” showing the appropriate trajectories of turn movements through the intersection, to serve as indications of where bicycles and cars are supposed to be when making some of the busier turns at the intersection.

- *Signage:* Installation of “WATCH FOR BIKES” and pedestrian silhouette signs upstream of the intersection (and in the case of Lawn Avenue, leading away from the intersection as well), and replacement of the faded “NO TRUCKS” sign on the eastbound side of Lawn Avenue just east of the intersection. Also, installation of “Welcome to North Albany” signage to define the area and give the neighborhood a sense of place. The concept presented in the report calls for a monument-type sign, no more than three to four feet tall, supported by vertical legs on either side, and positioned in the Lawn Avenue median to avoid impeding the lines of sight of motorists, pedestrians and/or cyclists.

While this package can be pursued in stages, with the details of possible staging presented in Part One, the major construction work needed to achieve the goals for the intersection would be estimated to cost \$364,000.

Pedestrian and Cyclist Mobility

Issues

- *Range of Pedestrian Travel Patterns:* North Albany is at its core a residential neighborhood, with a range of pedestrian travel patterns within the area (to and from PS 20, North Pearl Street and Broadway stores and Northern Boulevard employment and shopping destinations, as examples). The North Albany Rental Homes development, the YMCA and the new Community Center will all combine to increase the demand for pedestrian (and bicycle) travel in the area.
- *Need for Treatments Throughout the Corridor:* The corridor is fairly long, and thus it is not realistic to expect to manage the relationship between motor vehicle traffic, pedestrian and cyclists through actions at one or two selected locations. Similarly, given the length and the hillside nature of Lawn Avenue, having a real impact on motor vehicle speeds and driver behavior will require more than a few “spot” treatments – it will require that the streetscape convey a sustained message to motorists regarding the setting through which they are driving and the presences of other types of travelers along and across the street.
- *Traffic Dynamics:* Use of side streets intersecting Lawn Avenue for short-cutting by cars and trucks, illegal truck use of Lawn Avenue and other local streets, and speeding (by both local and through traffic) are all factors that need to be addressed in the corridor over time. This will require both “softer” treatments such as pavement markings and improved signage and construction-oriented steps such as pavement narrowings and other traffic calming treatments.
- *Pedestrian and Bicycle Travel Demand versus Infrastructure Condition:* In much of the study area, the basic infrastructure is in place for walking and cycling – sidewalks and streets of a width appropriate to the amount of traffic they carry. The issue may be more one of whether the sidewalks provided are up to standard with regard to condition, width and other qualitative measures.

- *Spot Barriers:* Either along the sidewalk path or at crossings, there may be obstacles to safe and/or comfortable walking that are sufficient to deter pedestrians from making a particular walk trip at a particular time, from making it at all or from using the shortest-distance route to their destinations. Examples include blocked sidewalks, the absence of crosswalks to provide some sort of “sanction” to the presence of pedestrians in the street, and sidewalk gaps.
- *Maintenance Needs:* Pedestrian and bicycle facilities present special maintenance-related challenges to the City Department of General Services, for while it is a difficult enough task simply to keep up with the workload for maintenance based on what might be termed a “motor vehicle focus,” pedestrians and cyclists tend to require a higher degree of maintenance to ensure the safety of their travel systems. That is, for example, while motor vehicles are generally easily able to travel on a street with some loose gravel on it, a few pieces of gravel can present a real hazard to cyclists riding on narrow tires. Similarly, while motor vehicles can travel in a relatively controlled fashion with some amount of snowpack or slush on the road, pedestrians would find real obstacles in areas that are not cleared.

Recommendations

- *Crosswalks:* High-visibility crosswalks should be installed at the intersections of Lawn Avenue and Limerick Drive (both ends), Tubman Circle, Thomas Street, Jennings Drive and Hutton Street, and the existing crosswalks should be replaced at the intersection of Lawn Avenue and North Pearl Street.
- *Signs:* New “NO TRUCKS EXCEPT LOCAL DELIVERY” signs should be installed on the eastbound side of Lawn Avenue east of North Pearl Street and on the westbound side of Lawn Avenue west of both Broadway and North Pearl Streets.
- *Centerline Striping:* To convey to motorists a sense of where they need to be on the pavement and to provide some visual definition to the street, centerline striping should be applied to Lawn from the median at the Van Rensselaer Boulevard intersection to the North Pearl Street intersection – a distance of approximately 1,751 feet, less 171 feet at intersections, for an approximate net requirement of 1,581 feet.

These treatments, estimated to cost roughly \$3,400, would complement the Gateway improvements and thus compound the Gateway’s benefits; however, they would also offer benefit in their own rights, and thus should be considered for implementation as soon as possible.

In addition to the recommended priority steps above, Part Two also discusses a number of additional actions for exploration, including community-based development of a long-term vision for the corridor, the use of regulatory steps (e.g., City ordinance provisions) to enhance walking and cycling environments in the corridor, streetscaping improvements (including street trees and pedestrian-scale lighting), traffic calming, and circulation modification (i.e., changing some area streets from two-way to one-way).

Public Transportation

Issues

- Limited Existing Transit Service, with Poor Accessibility: Transit service in the area is currently limited to north-south service along Broadway, North Pearl Street and the Northern Boulevard-Van Rensselaer Boulevard corridor. The steep slopes in the area make it difficult for neighborhood residents living on upper Lawn Avenue or the streets intersecting upper Lawn to use transit, particularly in the winter.
- Potential for Increased Transit Demand Related to Area Developments: Developments in the neighborhood stand a strong chance of increasing transit demand. For example, the HOPE VI Program's combination of the North Albany Rental Homes development with skill-building efforts and other supportive services is geared toward promoting self-sufficiency, including the pursuit of employment opportunities, many of which will be outside the immediate neighborhood and which thus will raise a need for transportation service. Also, the YMCA and Community Center will likely see high patronage, in turn fostering a need for local transit service. Transit routes stopping at or near these sites stand to see increased patronage as well.
- Need/Opportunity for Education on Transit Opportunities: Educating local residents regarding the transit system is one of the keys to fostering increased ridership. One of CDTA's primary efforts in this area lies in its Transit to Jobs program's work (often on a one-to-one basis) in helping people understand how to use the transit system, including the provision of personal trip planning support. This sort of effort can help "demystify" the system and help people realize the potential they have to access destinations around the region via CDTA.

Recommendations

- Modification of CDTA's #5 route to include stops along Lawn Avenue. While the current route path proceeds from Northern Boulevard to Van Rensselaer Boulevard, Wards Lane and Broadway en route to Riverview Center in Menands, the planned route would set up a *loop* basis such that a bus would cover *both* streets. The pilot transit route modification will proceed as follows:
 - *Northbound* buses will travel as they do at present, from Northern Boulevard to Van Rensselaer Boulevard to Wards Lane to Broadway.
 - *Southbound* buses will travel along Broadway to North Pearl Street (at Wolfert Avenue), then to Lawn Avenue, and up Lawn Avenue to Northern Boulevard.
- The current schedule for the route's run start times would be maintained. The "pilot" nature of the modification comes in the potential for additional service changes if the modification proves successful in increasing ridership.

- The modification will make the Lawn/Northern/Van Rensselaer intersection something of a transfer point; thus, placement of a bus shelter on the corner of the intersection bounded by Lawn and the northern part of Van Rensselaer would allow both transferring patrons and people initially getting on the bus to have a comfortable waiting area.
- Once access to the North Albany Rental Homes site via North 2nd Street is open, the possibility of establishing transit access to the Rental Homes via this connection (with stops on Jennings Drive) should be investigated.
- Promotional efforts should also include education on transit use in general.
- In addition to presenting additional detail on the pilot route modification, Part Three of the Study report discusses a number of other potential means of enhancing the mobility of neighborhood residents. Among those concepts appearing to hold greater promise for success are coordinated carpooling (perhaps run out of the Community Center), community-operated vanpools and car-sharing arrangements. It is recommended that explorations of the potentials of these tools for local application take place in the future.

Note: CDTA staff have explored the feasibility of for implementation of the #5 route modification, and reached the determination that it can be made in August of 2002. While the most likely locations for stops along Lawn Avenue are at either end of the corridor, the possibility does also exist for a stop along Lawn Avenue, so as to reduce patrons' need to walk up or down the hill to get to the bus stop. CDTA staff responsible for determining the safety of any proposed stops are at this writing examining the area for potential issues such as winter stopping and pullaways on the hill.

Other Traffic Issues and Possible Concepts

Issue: Lower Lawn Avenue Through Traffic

Between North Pearl Street and Broadway, motorists attempting to travel along the street at a fairly high rate of speed (often far too high for conditions) combined with activity including children playing and people walking in or immediately adjacent to the street raise safety concerns. In addition, due to the narrowness of the street, residents are concerned that their parked vehicles may be sideswiped, with the result being that some people will park on the sidewalk to keep their cars away from other moving vehicles (in turn taking part of a travel route away from pedestrians).

Concept for Further Examination: Making Lower Lawn Avenue One-Way at the North Pearl Street Intersection

Comparable to the treatment of Buckingham Drive at its intersection with Bender Street near Route 85 in Albany, the potential for constructing a raised island across the eastbound side of Lawn Avenue just below North Pearl Street, but otherwise preserving the two-way nature of Lawn Avenue (so as to largely maintain the level of mobility enjoyed by residents of this segment of Lawn Avenue) should be investigated.

Issue: North 1st Street Through Traffic/Hackett Park Greenspace Connection

There is a neighborhood concern regarding through traffic (particularly truck traffic) on North 1st Street, which has a 13 percent grade in the area; in addition to concerns related to periodic brake failure incidents at the North Pearl Street intersection, there is a local desire to reconnect Hackett Park with the softball field across North 1st Street to provide an area of continuous green space with safer pedestrian access.

Concept for Further Examination: Terminating North 1st Street West of North Pearl Street

As envisioned, the section of North 1st extending from North Pearl Street would proceed westward for a short distance, turn southward and then end. The existing section of North 1st extending eastward from Van Rensselaer Boulevard would end at the North 1st Street/Jennings Drive access to the North Albany Rental Homes, preserving access between this site and Van Rensselaer. This section could be designated as one-way southbound/westbound (i.e., from the Rental Homes to Van Rensselaer) to discourage short-cutting from Van Rensselaer to Lawn and North Pearl but preserving emergency vehicle access.

Issue: North Albany Truck Traffic

Illegal truck use of neighborhood streets was identified as a major problem both by the Technical Working Group overseeing the Study and by participants at both Public Workshops. The difficulty of addressing these concerns strictly through stepped-up enforcement (i.e., police patrols) necessitates consideration of both physical (i.e., construction) and regulatory steps.

Concept for Further Examination: Truck Traffic Management Actions

A number of possible concepts were identified, including a *Broadway-Erie Boulevard street cluster*, which would establish a usage plan under which a single street out of the five between Broadway and Erie Boulevard would be trucks' means of getting to Erie Boulevard and of accessing the remaining four streets; *curb extensions at intersections*, which could establish "choke points" at intersections through which trucks could not proceed; and *gateway truck route/prohibition postings* at the major gateways to the neighborhood for trucks (e.g., Broadway, North Pearl Street, Northern Boulevard and New Loudonville Road), with signage including a map prominently showing the area streets upon which trucks *are* permitted to travel.

Appendix One presents additional detail on these issues and concepts; as it notes, the concepts set forth for further exploration are not recommendations for implementation, but rather were found to have no fatal flaws under the initial examinations conducted in by the Study Team.

PART ONE: GATEWAY CONCEPT

SYNOPSIS

Recommendation: Reconstruct the intersection of Lawn, Northern and Van Rensselaer to provide medians on Lawn Avenue and Van Rensselaer Boulevard, reduce pavement widths (and in turn, crossing distances for pedestrians), and provide an attractive point of entry to North Albany. Complement these improvements with high visibility crosswalks, pedestrian “countdown timer” signal heads, and destination and cautionary signage.

Cost: This action can be pursued in stages. Stage 1, emphasizing pavement markings, is an interim measure which could be pursued for an estimated \$7,600. Stage 2, which includes the main construction-oriented step needed to achieve the goals for the intersection, is estimated to cost \$319,000. Stage 3 consists of supplemental landscaping and other visual treatments, with an estimated cost of \$45,000, resulting in an estimated total for Stages 2 and 3 to \$364,000.

Next Steps: The City of Albany needs to determine for itself what level of priority it can give this intersection, the time frame in which it can be pursued, and how it can be funded.

The intersection of Lawn Avenue, Northern Boulevard and Van Rensselaer Boulevard (the “Gateway”) is situated at the western end of Lawn Avenue, along the northwest border of the North Albany neighborhood. The intersection connects two higher-volume, four-lane road segments (Northern Boulevard to the west and Van Rensselaer Boulevard to the north) and two moderate volume residential streets which also see mixes of commercial and industrial traffic (Lawn Avenue and Van Rensselaer Boulevard to the south). This combination of facility types, combined with Lawn Avenue’s steep downhill slope as it proceeds eastward away from the intersection, leads to a facilitates poses challenges when working to develop ways to “calm” traffic entering North Albany via this Gateway.

The Study Team’s examinations of options for promoting commercial vehicle access to this area, as guided by Technical Working Group discussions and the understanding that recommended improvements be not only *desirable* but *feasible*, led to the determination that the reallocation of the intersection area so as to reduce pavement widths, provide sidewalks, pedestrian crossing refuges and seating areas, and established a landscaped and signed (e.g., “Welcome to North Albany”) entry to the neighborhood was the improvement

option offering the best opportunity to influence traffic speeds and establish a sense of community identity at a moderate cost. This section of the study report discusses the contexts in which this determination was reached, including other alternatives examined and discarded.

Context

As was discussed earlier, the North Albany neighborhood is witnessing significant revitalization and redevelopment activity. This activity has a twofold benefit: unto itself, it is of course good for the neighborhood, and it can serve as the catalyst for other activity of this type. At the same time, however, planners and decisionmakers need to recognize the importance of acting in the midst of all of this work, to ensure that redevelopment activity – particularly those types of redevelopment which tend to prompt more neighborhood-level circulation (e.g., walking or cycling to the soon to be built YMCA and/or the Community Center) – is *complemented* with necessary improvements elsewhere in the neighborhood.

The North Albany HOPE (Housing Opportunities for People Everywhere) VI Supportive Services Workplan (October 2000) and the “Revitalization Strategies for North Albany” draft report prepared by the University at Albany Planning Studio (Fall 2000) cite various action needs for the neighborhood. These two documents go hand in hand, in that the HOPE VI document discusses several efforts which among other things will would be expected to increase neighborhood circulation – training and development programs, social offerings and transportation service enhancements, as examples – while the University at Albany document emphasized physical improvements to the area, including those which would both slow traffic down and which would facilitate local circulation (particularly for neighborhood residents who do not have access to cars).

Action taken at the Gateway intersection can address needs in each of these areas: it can complement the revitalization efforts currently underway elsewhere in the area – indeed, the recommended improvement to be discussed below would in fact establish a new “point of pride” for the neighborhood – while at the same time providing practical benefits in the forms of traffic calming and enhancing pedestrian movement through a busy, large intersection.

Conditions and Issues

Following are brief discussions of some of the major issues the Gateway design needs to address.

Relationship of the Gateway to the Corridor

The Gateway intersection is arguably different from locations for which this term is typically used, in that there *is* a true transition that takes place. (Ordinarily, unimproved gateways reflect

municipal boundaries where there is little difference to the character of the area on either side of the gateway.) As noted earlier, Northern and Van Rensselaer Boulevards are multi-lane facilities traveling through wide-open areas prior to reaching Lawn Avenue. Northern, in fact, also connects this area with Route 9 and I-90, making even more imperative the conveying of the “different area” message, as drivers making en-route transitions from highways and higher-speed surface streets to local streets need stronger “cues” to ensure that they recognize the importance of reducing speed and increasing awareness of the potential to encounter pedestrians, cyclists and vehicles pulling out of/into driveways.

That said, at present, the design of the intersection does not convey the nature of this transition, as Figure 2 below indicates. Even looking away from Lawn Avenue, one sees how motorists approaching the Gateway intersection do not get a sense of the impending transition from open space to a dense residential area.



*Figure 2
View of the Intersection of Lawn, Northern and Van Rensselaer
from Lawn Avenue*

The intersection has the potential to provide a real thematic introduction to this well-established, historic neighborhood. That is, while the other major gateways to the neighborhood (e.g., Broadway at Wolfert, North Pearl at Wolfert and North Pearl and North Pearl at the I-90 underpass) are of the types discussed above – more definitional than literal – a well-executed gateway treatment at this location holds the promise of highlighting the distinct nature of their

neighborhood while continuing the momentum of progress being made in enhancing local quality of life.

As will be discussed below under “Traffic Operations,” the gateway intersection also sets the tone for traffic flow, particularly (but not exclusively) in the eastbound or “downhill” direction. While the reduction in Lawn Avenue pavement width approximately 180 feet east of the intersection does begin to convey the message that a different driving environment is about to be entered, the view of open space (due to the grade of Lawn Avenue) which eastbound drivers see as they pass through the intersection onto Lawn Avenue further reinforces the errant sense of “openness” to the area, as illustrated in Figure 3, taken from the same vantage point as Figure 2 but in the opposite direction.



*Figure 3
View of Lawn Avenue from Vantage Point of Previous Picture*

It is also worth noting that the intersection is not just a *visual* or *motor vehicle* gateway, but a *functional* one as well: it is along a route used by many North Albany residents walking to shopping opportunities along Northern Boulevard or to Memorial Hospital, jogging up to and then along Van Rensselaer Boulevard, or crossing the intersection to get to the CDTA bus route near the northwest corner (the Wolfert’s Roost corner) of the intersection.

Configuration

Figures 2 and 3 illustrated the general look of the intersection; by the numbers, two key attributes stand out in characterizing the design and resulting challenges posed by its configuration:

- *Pavement Availability and Motor Vehicle Speed:* The Northern Boulevard approach is currently designated such that left-turning vehicles can use either of the two lanes, while through traffic and right turners can only use the right-most (outside approach lane). The Lawn Avenue “leg” of the intersection is roughly as wide as Northern Boulevard, with two lanes initially leaving the intersection. As a result, there may at times be either confusion regarding the legal use of these lanes *or* deliberate misuse of these lanes, such that there may be instances in which through traffic may be in both Northern Boulevard approach lanes and need to merge on Lawn Avenue. This creates a potential for acceleration by one motorist intended to get onto Lawn Avenue ahead of another; even in cases where this does not happen, the wide “exit lane” does not slow traffic down, and indeed arguably encourages increases to speeds.
- *Crossing Distances and the Potential to Get “Trapped” or Rushed:* As discussed earlier, Northern Boulevard and the section of Van Rensselaer Boulevard north of the intersection are four lanes wide. Van Rensselaer Boulevard south of the intersection is nearly as wide as it is north of the intersection, and Lawn Avenue as just discussed is essentially as wide as Northern Boulevard. As a result, the distances pedestrians attempting to cross these streets at the intersection are on the order of 42 to 50 feet or more. Based on standard engineering assumptions for walking speed, the average able-bodied adult pedestrian stands to require ten seconds or more of unimpeded (i.e., not waiting for cars to turn) walking time to cross one leg of the intersection. Elderly and/or physically challenged persons will require even more time. The combination of distance, walking speed and the potential for turning motor vehicles to impede pedestrians’ progress can require pedestrians to run across the street to complete their movements; this of course is only an option for those pedestrians who are able to do so.

Figure 4 presents an overhead or “plan view” visualization of the intersection. Note from this vantage point how much of the space available at the intersection is given over to motor vehicle movement.

Traffic Operations

The majority of traffic flows at the intersection are between Northern Boulevard and that section of Van Rensselaer Boulevard to the north. So, in addition to serving as a gateway to North Albany, the intersection carries a considerable amount of traffic which “skirts” the western edge of the neighborhood. Looking at some of the characteristics of traffic at the intersection, the comment arises that while management of the intersection needs to focus primarily on safe operations, there is also a clear need to ensure that the intersection’s relationship to North Albany is also factored into the approach; that is, there are multiple types of users of the intersection

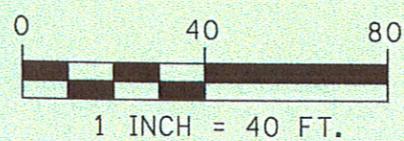
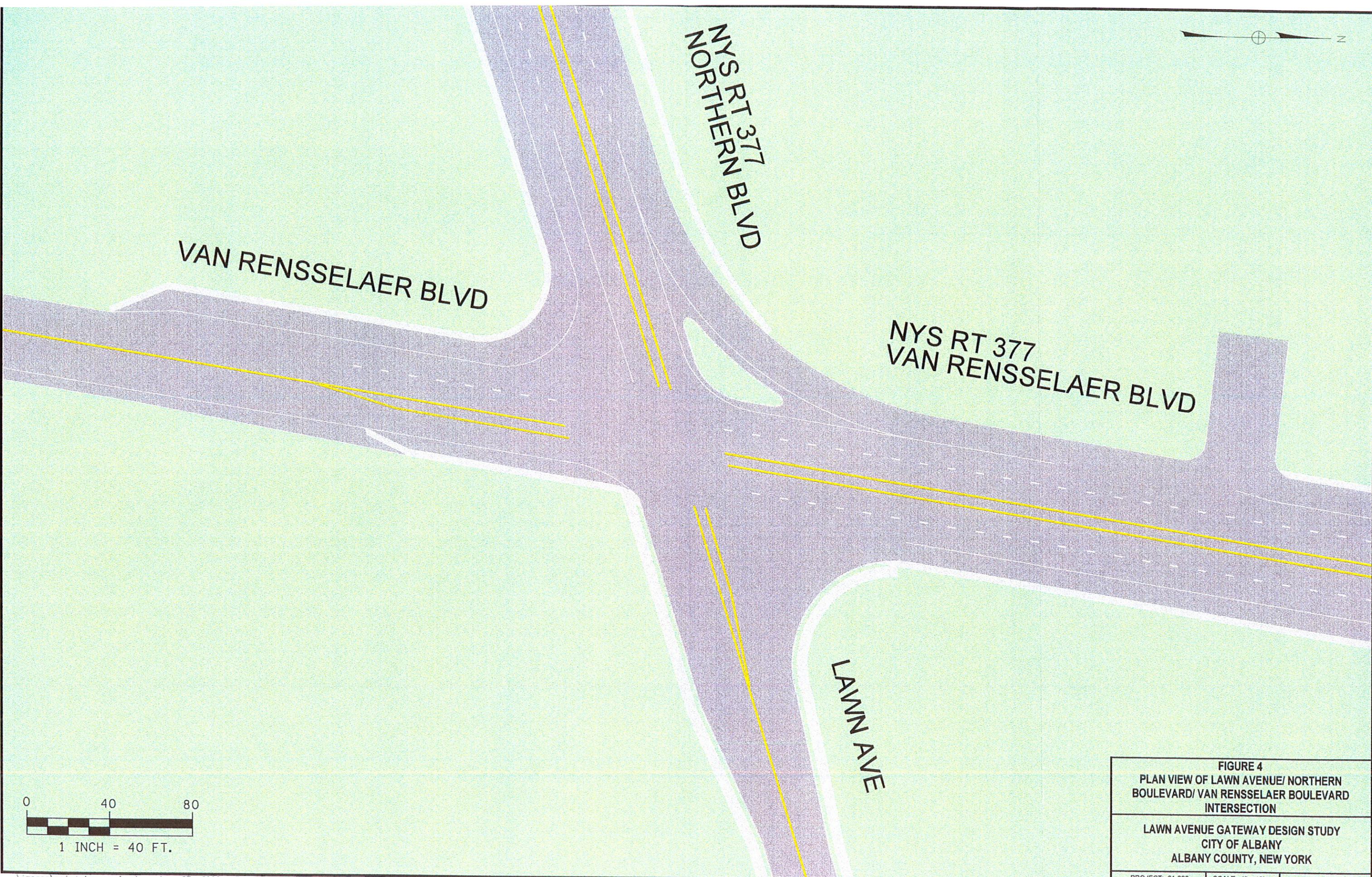


FIGURE 4
PLAN VIEW OF LAWN AVENUE/ NORTHERN
BOULEVARD/ VAN RENSSELAER BOULEVARD
INTERSECTION

LAWN AVENUE GATEWAY DESIGN STUDY
CITY OF ALBANY
ALBANY COUNTY, NEW YORK

PROJECT: 01-098 SCALE: 1" = 40' DATE: 06/ 2002

(pedestrians, cyclists, cars, trucks, buses and so on), and the approach to management cannot rely on a simple objective such as “minimizing motor vehicle delay” in light of these varied users.

Volumes

During the morning and afternoon peak hours, turn movements at the intersection are as listed in Table 1:

**Table 1
Peak Hour Turn Volumes at Lawn/Northern/Van Rensselaer**

Approach (Street Name)	Morning Peak Hour			Afternoon Peak Hour		
	Left	Through	Right	Left	Through	Right
Eastbound (Northern)	349	166	81	491	107	29
Westbound (Lawn)	0	77	9	2	156	13
Northbound (Van Rensselaer)	13	15	5	16	142	8
Southbound (Van Rensselaer)	18	111	811	14	23	350

Source: Creighton Manning Engineering, 2001 counts

While the primary emphases of this examination of the intersection are on its gateway function and on pedestrian and cyclists needs, the reality is that operational issues do need to be taken into account as options for the intersection are explored, to ensure that any recommended improvements are feasible from the perspective of their likely impacts on operations. That is, it is necessary to ensure that whatever concepts are set forth with the aim of enhancing the gateway function and pedestrian-friendliness of the intersection can be implemented without adversely affecting the *safety* of motor vehicle operations. Toward this end, the turn volumes shown in Table 1 have several implications for safety:

- The high volumes of traffic making left turns from Northern Boulevard to Van Rensselaer Boulevard during both peak hours (and indeed, during much of the day) require at least one left turn lane on the Northern Boulevard approach. Thus, it may not be feasible to reduce the width of the Northern Boulevard approach to reduce the amount of “open road” eastbound motorists see and have to work with as they approach the intersection.
- Northern Boulevard left turn movements are mirrored by right turn movements from southbound Van Rensselaer Boulevard – that is, many travelers making lefts from Northern in the morning also make rights from Van Rensselaer in the afternoon – and thus the Van Rensselaer right turns also require dedicated capacity to ensure safe and efficient operations.
- Movements to Lawn Avenue are overwhelmingly from Northern Boulevard as opposed to either northbound or southbound Van Rensselaer Boulevard; any adjustments to the design of either Northern or Lawn need to ensure that this movement can be safely accomplished. Of course, the safety of movements from Van Rensselaer to Lawn also

need to be ensured; however, as these are lower-volume movements, there is less of a need to provide separate capacity in order to safely accommodate them.

- Movements from the Lawn Avenue approach are generally light. There is no apparent operational need to separately accommodate any of these movements with their own lanes.

Creighton Manning Engineering (CME) conducted operational analyses of the intersection using *Highway Capacity Manual* analysis procedures. These procedures employ the concept of *level of service* (LOS), which is an expression of the quality of traffic operations along a facility or at an intersection, based particularly on the *delays* experienced by travelers. LOS is expressed using a letter grade convention similar to the grading system used in schools, ranging from LOS A (minimal delay at intersections – less than 5 seconds per vehicle) to LOS F (substantial delays at intersections – over 60 seconds per vehicle). LOS D – 25 to 40 seconds per vehicle – is usually considered the poorest “acceptable” level of service. Based on this convention, the intersection does on average operate acceptably for all four approaches during both peak hours, but without much reserve for handling additional traffic. This raises two concerns from the perspective of this Study:

- Delays can prompt some amount of abrupt or aggressive driver behavior with the intention of “cutting one’s losses” regarding further travel delays. The result can be reduced safety.
- Busy intersections tend to make motorists focus on other motor vehicles, frequently to the extent that they begin to forget the possibility of encountering other users such as pedestrians or cyclists. An intersection which the motorist sees as being “about cars” may require several visual cues such as signage or reconstruction (the latter to reduce “open space” at the intersection) to help ensure that the possible presence of other users of the intersection is kept in mind.

Speeds

While speed information was not collected at the intersection as it was further down Lawn Avenue (as will be discussed in Part Two), Study team observations noted that vehicles frequently approached the intersection at fairly high rates of speed, particularly during less congested times (e.g., mid-day and evening hours). A few stopwatch-based point-to-point observations found that some vehicles proceed through the intersection, even with turn movements, in such a way that they are maintaining speeds of 30 MPH (the City speed limit) or higher from the point at which they would presumably need to slow down to the point at which they would be able to accelerate away from the intersection. Similarly, through movements (particularly from Northern Boulevard to Lawn Avenue or between the two Van Rensselaer Boulevard sections) were frequently found to exceed the speed limit. These examples are not presented to serve as conclusive evidence on travel speeds through the intersection, as this was not a proper speed study, but they do appear to be illustrative of a bonafide concern.

Pedestrian and Bicycle Flows

Study team observations found that use of the intersection by pedestrians and cyclists tends to take one of two forms, related to *trip purpose*:

- Errand, school and commuting-oriented travel tends to involve crossings, as when pedestrians walk from Lawn Avenue to Northern Boulevard en route to shopping opportunities or Memorial Hospital (the latter particularly around “shift change” times, which roughly correspond to the earlier parts of the morning and afternoon peak hours).
- Recreational travel tends to involve “squaring the corners,” as when runners run up Lawn Avenue or cyclists ride on Northern Boulevard and then proceed north on Van Rensselaer Boulevard. These users of the intersection tend to seem less affected by motor vehicle traffic, frequently being willing to position themselves right next to traffic when need be (e.g., left-turning cyclists); while these users may be more comfortable sharing space with motor vehicles, it is still an important to recognize their safety needs.

As just noted, there are several destinations for pedestrians and cyclists in the area, both at or immediately adjacent to the intersection (e.g., bus stops) and some distance away (e.g., shopping and employment opportunities). Thus, it is also important to bear in mind the need to establish travel *connections* in the area which include this intersection; for example, not just getting pedestrians across the intersection but then getting them to a sidewalk or other safe refuge area from which they can continue on in their travels.

Public Workshop Discussions

At the March 19 and May 15 Public Workshops, there was considerable support for the idea of redeveloping the intersection for both of the purposes underlying this Study: reinforcement of its “Gateway” function and the promotion of pedestrian and cyclist safety and comfort. Indeed, some participants had more aggressive concept ideas, such as (in light of the predominance of movements between Northern and Van Rensselaer to the north in total intersection traffic) constructing some sort of diagonal diverter that would limit motor vehicle traffic flows at the intersection while perhaps designing in some level of pedestrian and cyclist accommodation so as to maintain these modes’ abilities to use the intersection for all movements. While this is an idea that has had some success in other parts of the country, the Study Team’s explorations determined that issues of safety, mobility and the potential to divert traffic to other streets (including other residential streets) render this concept unfeasible for this location.

During discussions of the Gateway intersection concept to be presented later in this section, participants were particularly interested in concepts which would “take away” some amount of pavement, particularly on the Lawn Avenue leg of the intersection.

Another promising concept raised at the workshops was in regard to the prohibition of right turns on red at the intersection. Such prohibitions can have the benefits of promoting motorist awareness of pedestrians and cyclists, making traffic much more predictable to pedestrians and cyclists, and slightly reducing overall travel speeds in the vicinity of the intersection to which they are applied. Workshop participants identified this concept as also desirable for elsewhere in the Study area.

Participants in the second Public Workshop also noted the desirability of bicycle connections from the area to downtown and the waterfront area via Van Rensselaer Boulevard. The traffic volumes using Van Rensselaer below the intersection appear to be on the borderline for establishment of a striped bike lane versus a simple shared motor vehicle/bicycle lane based on the lookup tables in the Federal Highway Administration's *Selecting Roadway Design Treatments to Accommodate Bicycles* (1994) report – that is, depending on the type of cyclist (average versus advanced) and motor vehicle speeds, the suggested treatment could go either way. That said, given the additional consideration of the slope of the street and the resulting need to give cyclists some “space of their own” on the pavement, it may be prudent to consider striping a lane and installing signs to advise motorists of the potential for encountering cyclists along this street.

Additional Issues

Following are a few issues of design or setting which became apparent early in the Study effort, and which were factored into the Study Team’s explorations of possible design concepts for the intersection.

Speed

As was discussed earlier, and as will be discussed again in Part Two, Technical Working Group and Public Workshop participants saw motor vehicle traffic speed as one of the primary issues if not *the* most significant issue to be addressed in the Study. Solutions will need to go a long way toward reconciling traffic speeds with the neighborhood setting and with the presence of various user types (including pedestrians, cyclists, cars and buses) in the intersection. As treatments at the intersection will have only a limited capability to reduce traffic speeds further down Lawn Avenue, they will ideally be *complemented* by additional treatments *along* Lawn Avenue to provide for a sustained effect on traffic speeds.

“Two Lanes to One” Perception of Lawn Avenue

While it is not intended to be used as such, Lawn Avenue traveling away from the intersection is periodically used by two vehicles, side by side, at once. As noted earlier, the reduction in Lawn Avenue pavement width begins approximately 180 feet east of the intersection. It will be important for any redesign of the intersection to include changes to this layout, to avoid the

continued “appearance of sanction” that some drivers are taking as an indication that they are allowed to drive side by side away from the intersection at all. While pavement markings and signage along the Northern Boulevard and southbound Van Rensselaer Boulevard approaches to the intersection may limit the extent to which this happens, there remains the potential for conflict, both for these approaches and for combinations of movements from different approaches. As an example of the latter, a left turner from southbound Van Rensselaer and a right turner from northbound Van Rensselaer might proceed at the same time because they see two lanes leading away from the intersection and think they each have space to complete their turns.

Trucks

Non-local heavy trucks are prohibited on Lawn Avenue, with signs posted indicating this point. However, due either to looking at a map and seeing Lawn Avenue as a shortcut between the Broadway and Northern/Route 9 areas, heavy vehicles are illegally using this street. The design of the intersection can be a tool in reducing illegal truck use of Lawn Avenue.

HOPE VI Development (North Albany Rental Homes)

While the redevelopment of the Edwin Corning Homes site is in essence from one residential community to another, the configuration of the development combined with the mix of tenants raises the prospect for shifts in general travel patterns to and from the site. Toward this end, it is important to relate the design of the Gateway intersection to the mobility needs of residents of the development. That is, the North Albany Rental Homes (NARH) may stand to be a popular development for people who work at Memorial Hospital, at businesses along Northern Boulevard, or in downtown Albany. Depending on the destinations of these residents’ trips to work, the possibility exists that increases in demand for walking or taking the bus to work will result; these demands need to be accommodated with appropriate sidewalks, waiting areas and other appropriate accommodations.

Recommended Gateway Concept

The Study Team and the Technical Working Group examined several options for promoting the Gateway function of this intersection and for making it more pedestrian and bicycle-friendly. Their explorations led to the determination that a combination of pavement reallocation, pavement narrowing, pedestrian and cyclist accommodating and streetscaping offered the best opportunity to achieve these aims while maintaining the safety of motor vehicle traffic operations. This package of treatments offers the additional advantage of having the capability to be *staged* based on logistical and fiscal considerations, so as to work toward a desired “final state” for the Gateway over time. The details of this packaging and staging are presented below.

Concept Elements

Figures 5 and 6 on the following two pages present two possible layouts for the recommended package, reflecting different staging alternatives. Figure 5 reflects what will be termed the “Stage 1” concept, a pavement marking-oriented approach to reallocating pavement and setting apart space for motor vehicles, pedestrians and cyclists, while Figure 6 reflects the “Stage 2” concept, including raised and planted medians, the construction of new curbing and greenspace development. Cost estimates for both approaches will be presented later in this section. It is important to note that while the approach of using pavement markings alone has the advantage of lower cost while still delineating those areas of the intersection from which motor vehicles should be excluded, it would not be as effective in “hemming in” the intersection (from the motorist’s point of view) that the construction-oriented approach would.

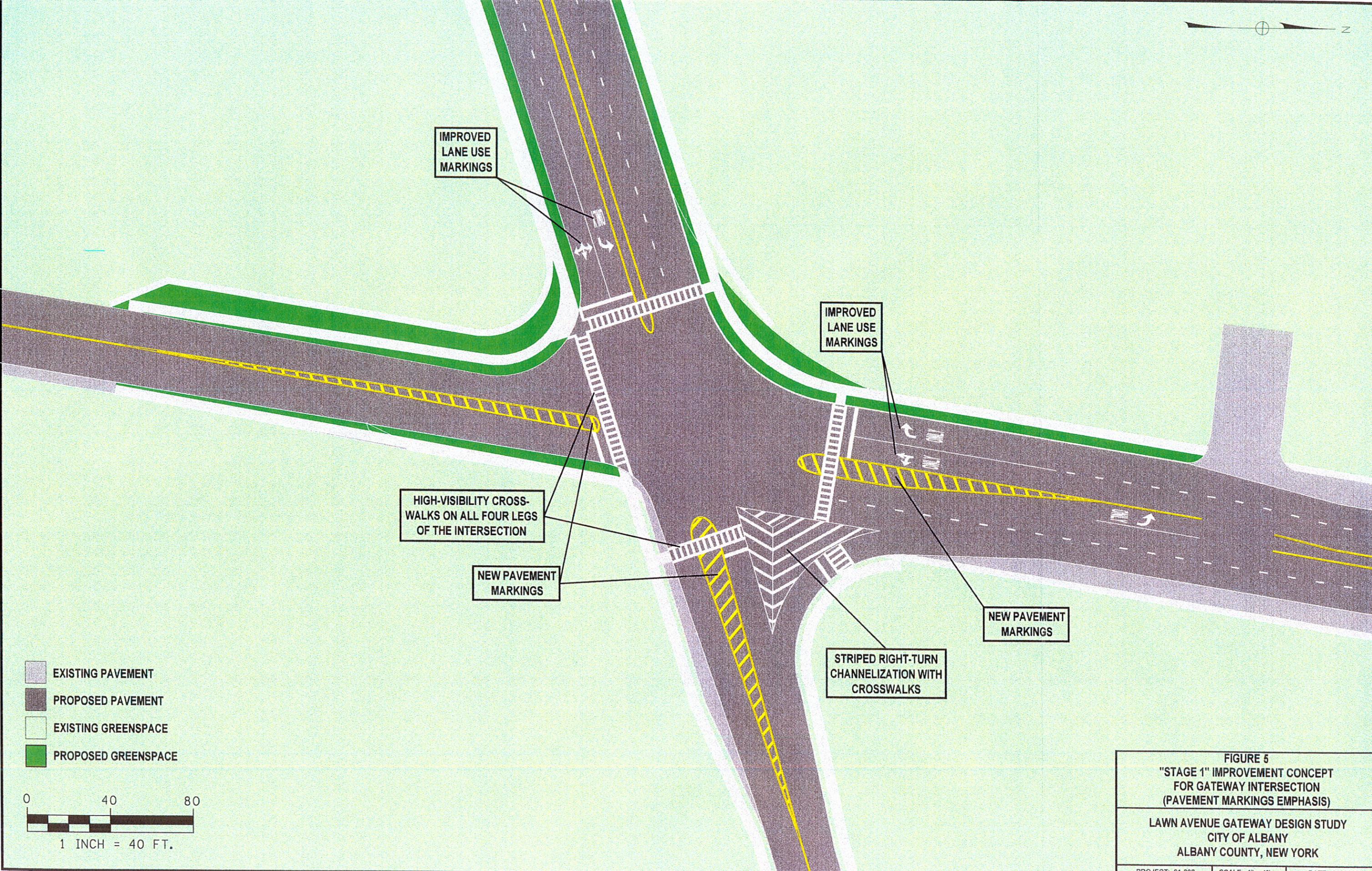
Following these two figures are Figures 7 and 8, presenting a more comprehensive package of treatments corresponding termed the “Stage 3” concept. Figure 7 presents a detailed overhead view of the intersection, while Figure 8 presents visualizations of two perspectives on the intersection under existing and “Stage 3” conditions: that of a motorist at the Northern Boulevard stop line, and that of a pedestrian on the south side of Lawn Avenue.

Medians

The recommended package includes three (3) medians: one on the Lawn Avenue leg of the intersection, lining up opposite the Northern Boulevard left turn lane; and one on either leg of Van Rensselaer Boulevard. The medians would include “cut-throughs” for crosswalks; the Van Rensselaer median would end as a left turn pocket at the entrance to the Wolfert’s Roost Country Club (to provide an additional measure of safety by getting left turners into the Country Club driveway out of the flow of traffic).

The median for Lawn Avenue would be set back from the intersection to provide left turners from southbound Van Rensselaer Boulevard with adequate space to complete their movements without driving over the median.

If developed as raised, planted medians, the medians would have rollover curbs for safety and be planted with grass; the Lawn Avenue median could include a “WELCOME TO NORTH ALBANY” sign, designed and located so as to avoid any problems of lines of sight for pedestrians or motorists. Alternatively, “WELCOME...” signs could be in the forms of stone columns along both sides of Lawn Avenue.



IMPROVED
LANE USE
MARKINGS

IMPROVED
LANE USE
MARKINGS

HIGH-VISIBILITY CROSS-
WALKS ON ALL FOUR LEGS
OF THE INTERSECTION

NEW PAVEMENT
MARKINGS

NEW PAVEMENT
MARKINGS

STRIPED RIGHT-TURN
CHANNELIZATION WITH
CROSSWALKS

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- EXISTING GREENSPACE
- PROPOSED GREENSPACE

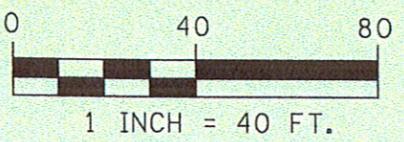
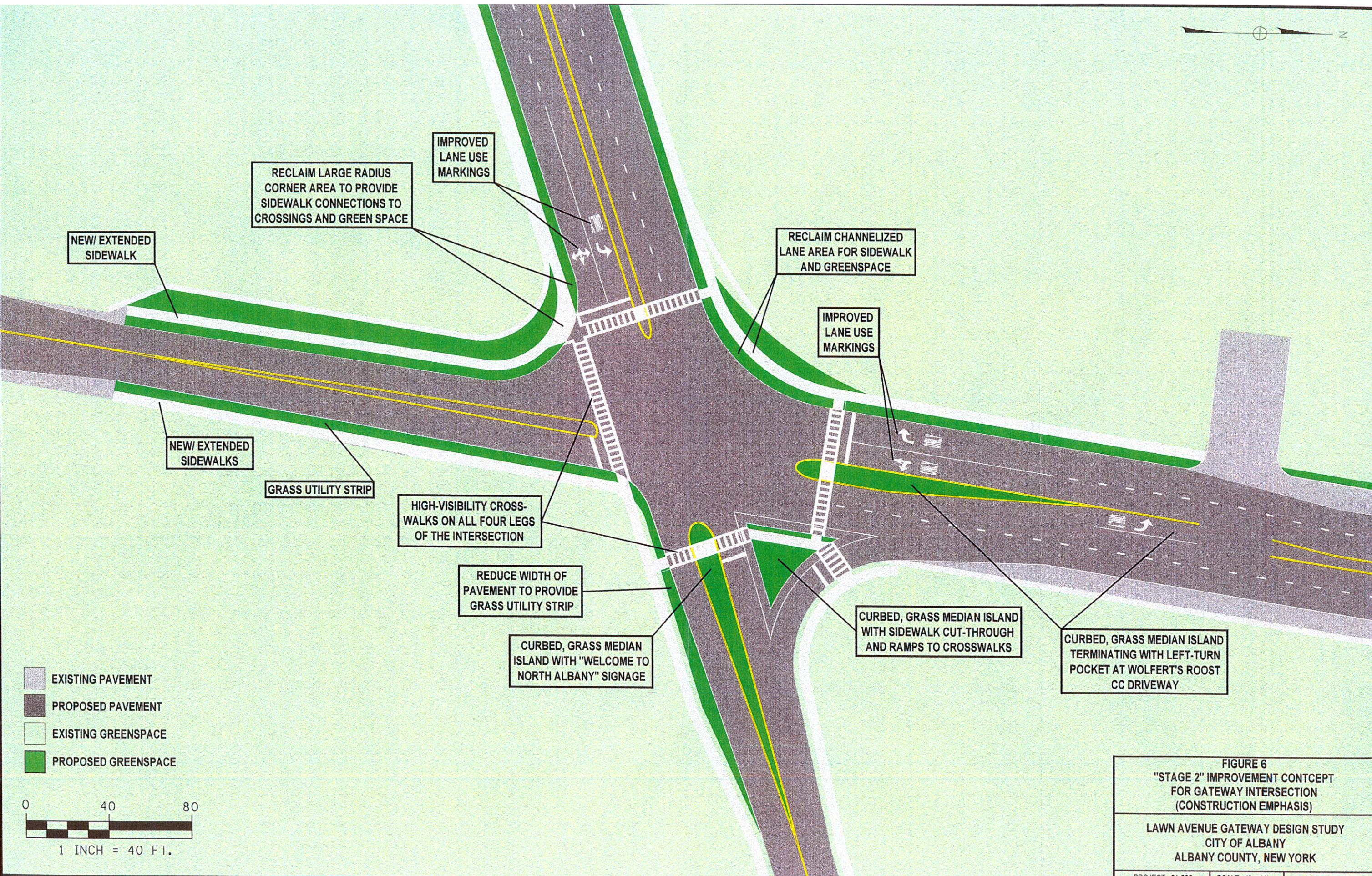


FIGURE 5 "STAGE 1" IMPROVEMENT CONCEPT FOR GATEWAY INTERSECTION (PAVEMENT MARKINGS EMPHASIS)		
LAWN AVENUE GATEWAY DESIGN STUDY CITY OF ALBANY ALBANY COUNTY, NEW YORK		
PROJECT: 01-098	SCALE: 1" = 40'	DATE: 06/2002



- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- EXISTING GREENSPACE
- PROPOSED GREENSPACE

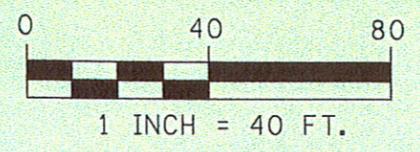


FIGURE 6
"STAGE 2" IMPROVEMENT CONCEPT
FOR GATEWAY INTERSECTION
(CONSTRUCTION EMPHASIS)

LAWN AVENUE GATEWAY DESIGN STUDY
CITY OF ALBANY
ALBANY COUNTY, NEW YORK

PROJECT: 01-098 SCALE: 1" = 40' DATE: 06/2002

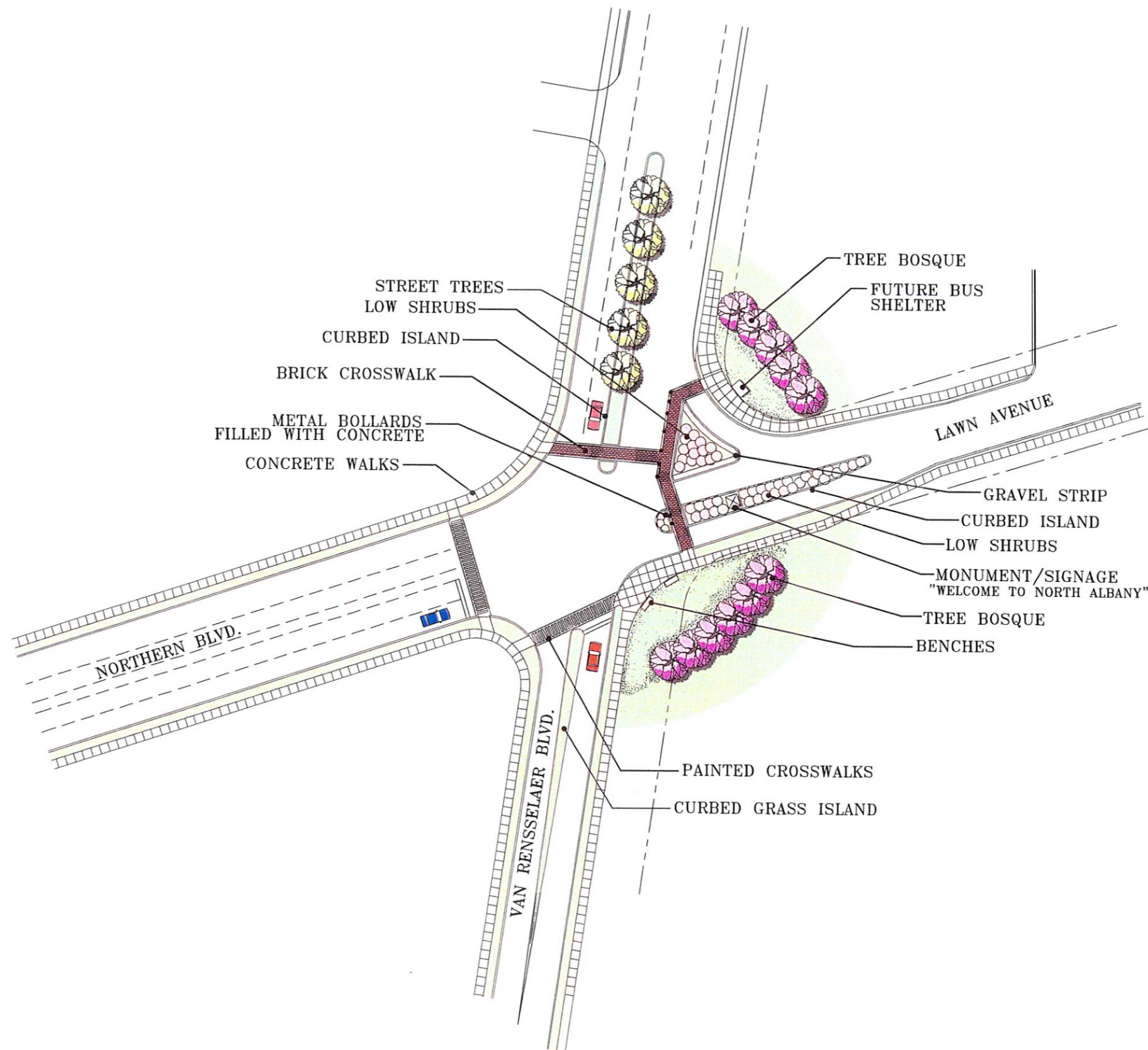


FIGURE 7
 "Stage 3" Improvement Concept
 for Gateway Intersection

LAWN AVENUE
 GATEWAY STUDY

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, ENGINEERS AND PLANNERS, P.C.
 SARATOGA SPRINGS • NEW YORK CITY • BOSTON, MA.

Project No. 2002-004.10P





EXISTING CONDITIONS
LOOKING EAST



LAWN AVENUE ENTRANCE
LOOKING EAST



EXISTING CONDITIONS
LOOKING WEST



LAWN AVENUE ENTRANCE
LOOKING WEST

FIGURE 8
Visualizations of Existing
and "Stage 3" Conditions

LAWN AVENUE
GATEWAY STUDY

THE SARATOGA ASSOCIATES
LANDSCAPE ARCHITECTS, ARCHITECTS, ENGINEERS AND PLANNERS, P.C.
SARATOGA SPRINGS ■ NEW YORK CITY ■ BOSTON, MA.

Project No. 2002-004.10P

Pavement Narrowing

In addition to median construction, Figure 6 illustrates how the recommended package for the intersection would include reductions in the width of the existing curb-to-curb pavement in favor of the construction of a number of additional sidewalk connections with “utility strips” separating newly-constructed sidewalks from the roadway. The sidewalks and utility strips will be discussed later in this section; the reminder to raise at this point is that while the goal is to “level the playing field” for pedestrians and cyclists, the reductions in roadway area needed to make these enhancements were developed with an eye toward maintaining the safety of traffic operations.

Refuge Island or Extended Corner

As illustrated in Figure 9, there is some unused pavement on the Lawn Avenue side of the intersection. While the present configuration of this quadrant was dictated by conventional approaches to intersection design, including an emphasis of continuity of alignments on either side of an intersection, the result in this case is that pedestrians crossing either Lawn Avenue or Van Rensselaer Boulevard above the intersection need to cross a significant amount of pavement which is not being used by motor vehicles. This adds to both crossing time requirements and the feeling of “exposure” to motor vehicles which the pedestrian may sense while crossing either of these streets.



Figure 9
Standing Snow Indicating Unused Pavement Space

The standing snow illustrates a potential opportunity, giving an indication of where some sort of pedestrian refuge may be feasible.

As illustrated in Figure 6, the recommended package for the area could thus include the development of a raised island on the Lawn Avenue leg of the intersection, separating right turning vehicles on this approach from left turners and through traffic. As indicated in that figure, this would provide a refuge for pedestrians crossing either Lawn Avenue or the section of Van Rensselaer Boulevard north of the intersection, should they be unable to cross these streets completely during one green light/WALK opportunity.

As an alternative to the refuge island, the pavement area could be reduced to in essence “reclaim” the area indicated by the refuge island for pedestrians. That is, the area up to and including the illustrated refuge island could simply be converted into sidewalk area, further reducing crossing distances and avoiding the potential conflict between pedestrians and motor vehicles rooted in the right turn “slip ramp” configuration shown in Figure 6. Should this alternative be pursued, the acute turn angle involved in this movement suggests that it would be prudent to design the corner with a fairly large turn radius so as to ensure that vehicles are able to complete this turn safely; in addition, as Lawn Avenue climbs a grade to the intersection, this accommodation would be beneficial in allowing vehicles climbing the hill and making this turn to maintain their momentum as they proceed up to the intersection and into this turn.

Channelized Lane Removal (Optional)

Figures 5 and 6 illustrate possible approaches to reclaiming for pedestrian use the area presently occupied by the channelized lane used for right turns from Van Rensselaer Boulevard to Northern Boulevard. In addition to imposing greater controls on this heavy turn movement (which is essentially “free flow” at present, and thus potentially confusion both to pedestrians and to other motorists attempting to travel westbound on Northern Boulevard), this would once again reduce crossing distances for pedestrians.

A key issue with this possible treatment is the acceptability of traffic operations without the channelized lane in place. As presented in the figures, vehicles turning right from Van Rensselaer to Northern would still have a separate right turn lane to use in approaching the intersection, and they would still be able to proceed with these movements during two of the three phases in the intersection’s current signal control plan, in addition to making right turns on red during the Lawn Avenue green phase. Based on these considerations, CME evaluations of intersection performance with the channelized lane removed determined that the intersection in general and this movement in particular would continue to operate acceptably under such circumstances.

Pedestrian/Bicycle/Transit Treatment Package

In addition to the median and refuge island treatments just discussed, following are a number of other treatments recommended for the Gateway which could both enhance pedestrian and bicycle travel in their own rights and enhance their practicality for use as means of accessing transit service.

Crosswalk markings should be provided on all four legs of the intersection. The “ladder”-type high visibility type would be a preferred minimum. Textured, contrasting-color crosswalks or the use of inlaid pavers would provide for a more striking appearance to the Gateway, particularly if the raised medians, signage and other streetscaping-related treatments were pursued (also see below), but the benefit of providing crosswalks tends to lie in their either “being there or not,” and not what specific type they are. That is, to say, contrasting-color or paver crosswalks would be visually impressive but not likely to provide any greater degree of safety for pedestrians. They *can* however provide greater grip for pedestrian crossings during rainy conditions than paint or thermoplastic pavement markings can.

Pedestrian signal heads should also be provided for all four crossings. NYSDOT has recently field-tested *countdown* heads which use graphics of crossing pedestrians and numbers to indicate to crossers how much time they have left to cross a street; this can be helpful to pedestrians in that while traffic signal timings are set to ensure that pedestrians crossing at a defined average walking speed will have sufficient time to do so, the engineering practice when using traditional “WALK/DON’T WALK” pedestrian signs is to start the “DON’T WALK” flash when less than half the allotted time for the crossing has elapsed. As a result, pedestrians may see the “DON’T WALK” indication begin flashing, assume they do not have enough time remaining to complete their crossings, and thus either turn around or stop and be “stranded” at the centerline. Countdown heads would thus provide pedestrians with better information to use in deciding whether it is safe to start or continue a crossing. Figure 10 shows the progression from WALK to DON’T WALK of a countdown head in use on Wolf Road in Colonie.

Bollards might be desirable at some locations where the physical separation of sidewalks from the roadway is not as great as might be desired. In addition, in keeping with the notion of a gateway, it might be desirable to provide these bollards strategically and with something of a decorative scheme (such as black iron posts with black chains draped between them). The two Lawn Avenue corners might be particularly promising locations for these installations.

Accommodating ***cyclists*** at and near this intersection is more problematic. Study Team observations noted two main groups of cyclists using the intersection: neighborhood residents (particularly younger children) cycling to the shopping opportunities on Northern Boulevard, and avid recreational cyclists “skirting the neighborhood” by way of Northern and upper Van Rensselaer Boulevards. The speeds and volumes of traffic using the intersection present a compelling argument for the accommodation of the younger group through development of some sort of ***bike path or mixed-use trail***; the problem lies in a lack of available space, particularly as

Northern Boulevard approaches the Route 9 overpass. Beyond this, for younger children legally allowed to ride on sidewalks, the recommended improvements discussed earlier would be strong first steps in accommodating this travel, particularly the sidewalk extensions.



*Figure 10
Pedestrian Countdown Timer Signal Head
showing WALK/DON'T WALK (flash)/DON'T WALK (hold) sequence*

For avid recreational cyclists, the issue is more one of “maintaining the base.” That is, these cyclists are skilled enough and comfortable with close proximity to traffic to use streets in this area. Among the desirable accommodations for this group would be *separate stop lines* – particularly on the Northern Boulevard and northbound Van Rensselaer Boulevard approaches – to give them a head-start when the traffic light facing them turns green, and dotted “trace lines” showing the appropriate trajectories of turn movements through the intersection, to serve as indications of where bicycles and cars are supposed to be when making some of the busier turns at the intersection.

As a complementary treatment to all of those discussed above, *signage* could provide cautionary guidance to motorists. Strategically-placed “WATCH FOR BIKES” and pedestrian silhouette signs upstream of the intersection (and in the case of Lawn Avenue, leading away from the intersection as well) would raise the reminder of the potential for encountering these users of the system in the area; again, this is important given the transition from four-lane, wide-open and higher-speed facilities which takes place as motorists approach the intersection from the north and west. In addition, given the issue of truck traffic along Lawn Avenue, the faded “NO TRUCKS” sign on the eastbound side of Lawn Avenue just east of the intersection needs to be replaced.

Transit patron accommodations are also needed at the intersection. As will be discussed in Part Three, the Capital District Transportation Authority (CDTA) has indicated a willingness to test a route modification that will bring transit service to Lawn Avenue; in addition to stops at Broadway and perhaps at some point along Lawn Avenue (either on Lawn Avenue or perhaps

Jennings Drive), this modification could include a new stop on the Lawn Avenue approach to the Gateway intersection. As such, it would be desirable to provide some sort of waiting area near the stop – likely near the northeastern corner of Lawn and Van Rensselaer. While this location would not meet CDTA’s basic criteria for the installation of a bus shelter, it would be desirable to at a minimum provide benches or other street furniture at this location. That said, and as will be noted in Part Three, the CDTA #5 route modification will require a very small number of travelers to transfer from a southbound bus to a northbound bus at this intersection; the need for this transfer arguably bolsters the argument for a shelter. Should a shelter be installed, consideration should be given to design treatments which would make the it fit in with the Gateway theme and the broader neighborhood setting.

Streetscaping

The recommended and supplemental treatments discussed to this point would help establish a separate identity for North Albany in a *functional* sense. That is, they would convey to motorists the idea that they are making the transition from a more open, traffic-oriented environment to a residential neighborhood through physical changes to street upon which vehicles travel. Community identity can *also* be defined through “softer” treatments which send a *message* about the neighborhood. Along this line, the Study Team and the Technical Working Group considered several possible steps that could be taken – particularly *outside* the curb lines – to define the setting itself. The most promising of these *streetscaping* steps are presented below for consideration.

It should be recognized that some of these treatments would come at significant cost and would require that agencies beyond the City of Albany Traffic Engineering Department (TED) commitment to their implementation. This reality can complicate implementation, as it requires that action in this neighborhood be made a priority for multiple City agencies. This in turn will require that implementation be progressed in harmony with each agency’s other priorities. That said, it is also important to note that opportunities *do* exist to get funding support for streetscaping efforts through state and federal transportation programs; indeed, it is *commonplace* for landscaping and other such “finishing touches” to be included in highway projects. This may help get around one of the main factors affecting relative priority.

First, as a very explicit means of establishing the setting, the Technical Working Group saw “*welcome*” *signage* as critical to defining the area and giving the neighborhood a sense of place. “Welcome to North Albany” was the most frequently-referenced sample wording. The concept envisioned by the group calls for a monument-type sign, perhaps no more than three to four feet tall, supported by vertical legs on either side. The group envisioned the placement of the sign in the Lawn Avenue median, positioned to avoid impeding the lines of sight of motorists, pedestrians and/or cyclists. An alternative would be to place signs on one or both sides of Lawn Avenue, facing the intersection, such that that people entering the neighborhood via Lawn Avenue would see them outside the curb line. Should this alternative be pursued, one sign adjacent to the side of Lawn Avenue leading away from the intersection might be preferable to

having signs on both sides of this street, for there is the potential for some motorists to interpret seeing two signs as indicating that Lawn Avenue is a one-way street leading away from the intersection.

A number of “second tier” or other possible elements were also raised during the study; while they are not parts of the group’s formal recommendation, they are presented here with the idea that opportunities for additional work at the intersection may arise in the future, and they represent some of the more attractive supplemental steps which could be pursued.

The median and refuge island concepts discussed earlier and presented in Figure 6 were conceived as planted with either grass or flowers; a more elaborate Gateway effect could be achieved through the planting of *shrubs or trees*. Such plantings would have the effect of presenting a more visually significant presence to the medians and refuge island without introducing major fixed objects to the cross-sections of the streets. At the same time, the types of shrubs or trees used would need to be chosen with consideration given to such matters as rate of growth (and required trimming) and hardiness (given the use of de-icing materials during wintertime). Conversely, the opportunity *could* exist to provide these amenities and then engage some type of community “adopt a highway” effort to handle necessary maintenance of the planted area.

Package and Component Cost Estimates

Table 2 presents a listing of the estimated costs of each Gateway improvement element discussed above. The estimates include labor, but should be taken as subject to local refinement based on City wage rates and the availability of City forces to progress the work needed in light of other commitments. For the purpose of cost estimation for grant proposal submission where City labor costs can be included in the local match, an initial starting point for estimation of labor requirements would be to assume that labor would amount to between 25 and 30 percent of the total cost shown for a particular package. That is, for example, a \$100,000 item would include \$25,000 to \$30,000 in labor.

The aim in developing these estimates was to provide the basis for an “a la carte” consideration of the funding requirements and fiscal implications of progressing improvements to the Gateway through more aggressive or less aggressive efforts; that is, for example, either improvement from the present condition to full planted medians with trees, signage and landscaping or simply striping out median areas and installing crosswalks as a starting effort.

To provide a better sense of the budget requirements of Gateway development, following are three *packages* of improvements which could be progressed individually or in combination, each achieving a distinct degree of enhancement to the Gateway environment.

- **Stage 1 (approximate cost \$7,600):** application of pavement markings, including striping of crosswalks and “striping out” of median areas, checking/possibly retiming the traffic signal to ensure the adequacy of green time for pedestrian crossings, and replacing faded or missing truck prohibition signs at the top of the Lawn Avenue hill. Supplemental treatments for this Stage could include signal replacement (an improvement which could be progressed with this work and maintained when Stage 2 took place), estimated at \$100,000 for the entire intersection, and an overlay of the entire pavement area of the intersection, which may be necessary in order to provide the optimal surface and “backdrop” for the striping work, estimated at \$75,000.
- **Stage 2 (approximate cost \$319,000):** Construction of medians on Lawn Avenue and Van Rensselaer Boulevard; reclaiming pavement area for sidewalks by narrowing intersection legs and tightening corners; the improvement of the intersection signal control and equipment as noted above (including installation of countdown timer pedestrian signals for all four crossings); and installation of “Welcome to North Albany” monument sign in Lawn Avenue median.
- **Stage 3 (approximate subtotal \$45,000; total for Stages 3 and 3 \$364,000):** Additional landscaping of medians and areas outside the curbs; tree plantings, bollards, transit shelter.

In considering the unit costs behind these cost estimates, it is important to bear in mind that larger-scale capital improvements in particular lend themselves to cost savings due to *economies of scale* or other forms of shared work when progressed together. For example, site preparation for sidewalk construction can also include grading for landscaping, plantings and the installation of pedestrian signal head power and communications conduits, thus providing a cost savings compared to discrete pursuit of each element.

While the Study Team made every effort to refine the cost estimates presented below so as to reflect particular circumstances at the intersection (the locations of all fixed objects to be removed/relocated in order to make a sidewalk connection, for example), these estimates should be taken as representing *approximate magnitudes* of cost rather than being of sufficient precision to serve as the basis for solicitation and evaluation of bids for construction work. Detailed design analysis and specification preparation should precede the initiation of costlier improvements through City forces or outside contractor efforts.

**Table 2
Component Cost Estimates for Gateway Improvements**

Stage 1: Pavement Markings Only (with/without traffic signal replacement)

Element Group/Specific Improvement	Estimated Cost
Yellow Preformed or Paint Markings	subtotal \$5480
<i>Lawn Avenue: 480 linear feet (LF) for median area</i>	\$960
<i>Lawn Avenue: 400 LF for approach centerline</i>	\$100
<i>Lawn Avenue: 1257 LF of "hatch" markings for triangle</i>	\$2520
<i>Northern Boulevard: 320 LF double-yellow</i>	\$80
<i>Van Rensselaer Boulevard north of Intersection: 600 LF for median</i>	\$1200
<i>Van Rensselaer Boulevard north of Intersection: 600 LF double-yellow</i>	\$150
<i>Van Rensselaer Boulevard South of Intersection: 168 LF hatch for median</i>	\$340
<i>Van Rensselaer Boulevard South of Intersection 500 LF double-yellow</i>	\$130
Stop Bars and Lane Markings	subtotal \$720
<i>Stop bars: all approaches to intersection, total 282 LF</i>	\$570
<i>White lane lines for multilane streets: total 600 LF</i>	\$150
Crosswalks	subtotal \$650
<i>High-visibility, all approaches to intersection, approximate total 2,592 LF</i>	\$650
Letters and Symbols	subtotal \$750
<i>ONLY x 3 (total 12 letters)</i>	\$480
<i>Arrow symbols x 3</i>	\$270
	Total \$7,600
Optional Stage 1 Elements	Estimated Cost
<i>New Traffic Signal</i>	\$100,000
<i>Pavement Overlay (see narrative)</i>	\$75,000
Estimated Cost with Optional Elements	\$182,600

Table 2 (continued)

Stage 2: Full Build With Medians, Sidewalk and Signal

Element Group/Specific Improvement	Estimated Cost
Sidewalks (5' wide)	subtotal \$49,000
<i>Outward from northeast corner, as illustrated: 170 LF</i>	\$5,950
<i>Outward from northwest corner, as illustrated: 400 LF</i>	\$14,000
<i>Outward from southeast corner, as illustrated: 450 LF</i>	\$15,750
<i>Outward from southwest corner, as illustrated: 380 LF</i>	\$13,300
Curbing	subtotal \$44,400
<i>Van Rensselaer north side island, total 400 LF</i>	\$8,000
<i>Lawn Avenue island, total 300 LF</i>	\$6,000
<i>Lawn Avenue "pork chop" island, total 120 LF</i>	\$2,400
<i>All curbing adjacent to corners, total 1400 LF</i>	\$28,000
Pavement/Median Islands (incl. drainage work, striping, overlays)	subtotal \$125,000
<i>Van Rensselaer north side island, total 200 LF</i>	\$25,000
<i>Van Rensselaer north side island, total 200 LF</i>	\$25,000
<i>Lawn Avenue island, approximate total 70 LF</i>	\$8,750
<i>Lawn Avenue "pork chop" island, estimated total 80 LF</i>	\$10,000
<i>Northwest corner island removal/maintenance strip installation, total 250 LF</i>	\$31,250
<i>Southwest corner island removal/maintenance strip installation, total 200 LF</i>	\$25,000
Crosswalks	subtotal \$650
<i>High-visibility, all approaches to intersection, approximate total 2,592 LF</i>	\$650
New Traffic Signal (includes turn arrows, pedestrian countdown timers)	subtotal \$100,000
<i>Lump sum</i>	\$100,000
Estimated Cost with Additional Elements	\$319,050

Table 2 (continued)

Stage 3: Supplemental Elements Only

Pedestrian Treatment	
<i>Crosswalk markings (all four legs) – inlaid pavers</i>	\$9,900
Bollards	
<i>Lawn/Van Rensselaer refuge island</i>	\$3,150
<i>Framing Lawn Avenue corners (not shown in Figures 7 or 8)</i>	\$2,800
Signage	
<i>“WATCH FOR BIKES” and pedestrian silhouette signs upstream of the intersection (and in the case of Lawn Avenue, leading away from the intersection as well)</i>	\$600
<i>Replacement “NO TRUCKS” signage on eastbound side of Lawn Avenue east of the intersection</i>	\$200
Transit Patron Accommodations	
<i>Paved waiting area/shelter pad near Lawn/Van Rensselaer stop (total 300 square feet)</i>	\$1,850
<i>Bench (8’ wood/steel)</i>	\$700
<i>sheltered stop</i>	\$5,000
Streetscaping	
<i>“Welcome to North Albany” monument sign</i>	\$3,500
<i>2 benches at southeast corner</i>	\$1,400
<i>low shrubs in medians and refuge island</i>	\$2,000
<i>new seeding of lawn areas at NE/SE corners</i>	\$3,125
<i>Street trees in Van Rensselaer north median</i>	\$2,450
<i>trees in NE/SE corner bosques</i>	\$3,450
Mobilization, Layout and Contingency	
<i>Supplemental to Stage 2</i>	\$4,800

Note: Landscaping cost estimates include topsoil, mulch, weed control fabric

Stage 3 Subtotal	<u>\$44,925</u>
Estimated Cost of Stage 2 plus Additional Stage 3 Elements	\$363,975

Some Additional Considerations and Issues

Intersection Function

It is again important to note that with the recommended package of improvements in place, the intersection would continue to function efficiently. In fact, with routine upgrades to signal control equipment over time, it appears quite likely that the intersection would operate more efficiently with the recommended improvements, newer technology *and* interim traffic growth than it does at present.

This note on the continued efficient operation of the intersection is also significant due to the intersection's place on the detour route system used by NYSDOT, the City of Albany and the New York State Police in the event of major incidents on nearby interstate highways. CME contacted NYSDOT on this matter, with NYSDOT confirming that the intersection is along the detour route used in the event of a full closure of I-787: under such conditions, Routes 9, 377 (Northern Boulevard and Van Rensselaer Boulevard north of the intersection) and Route 378 (Menands Road) are used to route traffic between I-90/downtown Albany and the Route 32/Troy-Menands Bridge area. In the event of a detour of this sort, the intersection is likely to be congested and perhaps see a police officer at the scene to monitor and direct traffic as necessary; again, the comment is that under such circumstances, the intersection would be able to perform its role in the detour plan.

The Gateway as the Point of Origin for Streetscape Themes

As was discussed earlier, the North Albany neighborhood is witnessing a considerable amount of activity which can serve as a catalyst for other positive actions in the area. One example of this catalytic function which will be cited in Part Two is in regard to providing a *model* for pedestrian and streetscaping treatments which can be applied elsewhere in the area; the North Albany Rental Homes neighborhood design features ornamental neighborhood-scale lighting and sidewalk design which would be desirable for carrying over to other locations in the neighborhood as opportunities present themselves.

In the same sense, the opportunity exists to use the Gateway intersection to establish a theme of some sort to carry through the area. This theme might be reflected in styles of shelters, lights, signage font and color, pedestrian accommodations and other installations. As was noted earlier, one of the main types of impact the Gateway is intended to have is on the perception of North Albany as motorists and residents continue down Lawn Avenue and through the area. Toward this end, the details of Gateway treatments were developed with an eye toward identifying aspects which are attractive not just at the intersection itself, but would also work well further into North Albany.

Right-of-Way Consideration for Stage 3 Treatments

As reflected in the placements of the right-of-way lines (sequenced as one long line then two short lines) in Figure 7, some amount of the landscaping proposed in the Stage 3 package would be situated outside City right-of-way (that is, on private property). While the purchase of additional right-of-way to allow the City to develop the landscaping as illustrated is certainly an option, it may also be possible for the City to negotiate with the owners of the subject parcels regarding the Gateway landscaping to take place on private property. Alternatively, the landscaping element could be scaled down to a less extensive treatment entirely within the City right-of-way. Should the latter course of action be progressed, care should be taken to ensure that plantings do not adversely affect lines of sight at the intersection.

Note on Review for Environmental Issues

The Study Team's initial search did not find any major environmental issues which would need to be addressed in the course of progressing the improvement recommended earlier. That said, depending on the natures of project progressed in the future, more detailed screens for environmental issues may be in order prior to project implementation.

Potential for Incorporation of Gateway Improvements into Other Projects and Programs

Particularly in cases such as that in Albany in which several desirable projects are competing with one another for limited available funding, it is prudent to explore opportunities to progress desired improvements in the courses of other activities. In the case of the Gateway improvements, the residential development being considered for near the intersection may provide the opportunity for the City to get some amount of the needed sidewalk development completed; should signal improvements also be required as a condition of approval for this proposal, enhancements to signal operations would also be realized.

Beyond the residential development proposal, a review of the Capital District Transportation Committee's *Transportation Improvement Program* found no opportunities at this time to take advantage of other projects at or near this specific location to progress Gateway concepts. That said, there are other *programmatic* opportunities for getting some of these concepts implemented; as one example, NYSDOT has an annual pavement markings replacement program under which it might be possible to get crosswalk markings installed and, if raised and planted medians and a refuge island are cost-prohibitive at this time, "paint-based" equivalents to these treatments could be installed through this program with the aim of getting an initial sense of the effect of simple delineation of these areas.

The nature of the Gateway improvement concept is such that it is difficult to find many other examples of projects or programs through which a head start on Gateway development could be realized. While there are various programs for funding improvements of these sorts, it seems likely that realizing a Gateway as discussed in this section of the report will involve one or more dedicated efforts on the City's part. The section on "Next Steps" will briefly discuss some opportunities for funding these efforts.

Other Alternatives Examined and Discarded

In the course of data collection, field visits and discussions with the Study Technical Working Group, a number of concepts beyond those discussed earlier arose for consideration. They are briefly presented below to give a sense of the range of possible treatments which was explored during the Study effort.

- The “Do Nothing” Alternative: This null alternative is examined as a matter of course in traffic engineering analyses to provide the opportunity consider the effects of not acting to improve an intersection on general traffic safety and pedestrian and cyclist mobility. Given current traffic volumes and the likelihood of even modest rates of traffic growth over time, the Study Team’s determination was that not acting to calm traffic and enhance the pedestrian and cyclist travel environments would result in a worsening of the conditions prompting the examinations of the intersection and the Lawn Avenue corridor.
- Conversion of the Intersection to a Roundabout: The current four-leg signalized intersection could conceivably be replaced with a roundabout (sometimes called a “traffic circle”) using a two-lane, one-way loop roadway accessed by the current legs of the intersection via stop-controlled or yield-controlled approaches. While roundabouts can open up overall traffic flow by eliminating the need to wait at traffic signals, and while the intersection’s dominant traffic flows (between Northern Boulevard and Van Rensselaer Boulevard to the north) might be accommodated efficiently by this type of design while still accommodating traffic to and from Lawn Avenue and lower Van Rensselaer Boulevard, the volumes of traffic making the current movements between Northern and Van Rensselaer could be problematic for one-lane stop-controlled accesses. In addition, and more importantly given the residential neighborhood setting of this intersection and its use by pedestrians accessing transit and/or traveling to the west, roundabouts can be problematic for visually-impaired persons, for at a roundabout there tends not to be the sort of clear audible indication that traffic has stopped (allowing pedestrians to cross safely) that there is at a signalized or stop-controlled intersection.
- Retrofitting the Intersection with a Diagonal Diverter: As noted earlier, the concept of installing a diverter that would limit movements at the intersection to those between Northern and Van Rensselaer to the north and Lawn and Van Rensselaer to the south was found infeasible for reasons of safety, mobility and the potential to divert traffic to other streets (including other residential streets). Diversers tend to be used in areas where there is more of a *grid* orientation to the street system, often with multiple intersections so outfitted, such that there is less of a net effect on local mobility and circulation patterns than there would be here.
- Reducing the Size of the Intersection: The recommended treatments for the intersection include some degree of reduction in intersection size, as the wider approach and departure lanes are proposed for narrowing and the channelized right turn lane from Van Rensselaer Boulevard north and Northern Boulevard is proposed for reclaiming for sidewalks. The Study Team found these to be the practical limits for the reduction of the size of the intersection. The numbers of lanes approaching and leaving the intersection reflect what is necessary to efficiently and safely process traffic, particularly for the heavier movements between Northern and Van Rensselaer to the north; while pedestrian crossing distances would be further reduced by reducing the numbers of lanes approaching and leaving the intersection on these legs, this would come at a cost of congestion, delay and air pollution (the latter due to increased motor vehicle waiting times at the traffic signal). In addition, there is a tendency for delay (particularly substantial delay) to prompt motorist impatience and aggressive maneuvers as the desire

to “make up for lost time” comes into play; this can in turn have an adverse effect on safety, both at the intersection and on those roads leading away from the congested intersection (a particularly undesirable dynamic for eastbound Lawn Avenue).

- Removing the Traffic Signal at the Intersection: This idea was raised during an informal discussion at the March 19 Public Workshop. The logic behind the idea was that going to all-way stop-controlled operation (in which all four approaches had to come to full stops before proceeding through the intersection) would reduce the likelihood that traffic would approach or travel away from the intersection “at speed” (as vehicles would never approach the intersection with there being a possibility of “making the light”). The Study Team’s determination was that going to a four-way stop or some other unsignalized operation would result in severe declines in intersection performance; as was just noted discussed in the discussion of the concept of reducing the numbers of lanes approaching or leaving the intersection, this in turn would also be expected to adversely affect safety.
- Converting Lawn Avenue to One-Way: This concept will also be discussed in Part Four, specifically for the section of Lawn Avenue between North Pearl Street and Broadway. As it was considered in the context of the Gateway intersection, the idea was that by limiting flows on upper Lawn Avenue (either for its entire length above North Pearl Street) or from some point on the hill (e.g., near Jennings Drive), the demand for travel and the resulting potential for accidents would be reduced. In addition, a one-way Lawn Avenue would not require the amount of pavement it currently has, opening up the opportunity for reclaiming some space for tree plantings, sidewalks, bike lanes and other non-motor vehicle treatments. While such enhancements are certainly desirable, changing Lawn Avenue to one-way, whether for the entire North Pearl-Van Rensselaer stretch or for some part of this section, could (1)introduce confusion and/or deliberate violations of the directional postings on the parts of people traveling to or from locations in the corridor, (2)reduce mobility for people living on or immediately adjacent to Lawn Avenue (the latter e.g., on Limerick Drive or Thomas Street), and (3)divert traffic to other neighborhood streets (as was noted at the March 19 Public Workshop, vehicular shortcutting is already a problem in the neighborhood even without any restrictions on where vehicles can be, apart from truck restrictions). In addition, specific to the notion of a switch from two-way to one-way part of the way up the hill, there can be a significant safety issue rooted in confusion at the specific point where these changes in allowable use come in force.

Next Steps

Establishing Commitment and a Staging Plan

It is difficult to establish a specific timetable for progression of these improvements, due to considerations of competing priorities, the staging plan seen as most desirable by the City, and the prospects for successful pursuit of outside funding (as will be discussed in the next section). That is, while some amount of the work discussed earlier could be progressed in the current

construction season if resources were available – particularly lower-cost treatments such as pavement markings – it is more realistic to expect that none of the more costly and time-consuming work could be progressed until at least next year. Additional complications include the availability of funding under various programs (to be discussed below) and the potential for other projects of this type to be considered in other City neighborhoods. That said, the “bottom line” comment on timing would be that *what is set forth in this report for the intersection could be progressed in its entirety in one construction season*. It might be necessary to stage the different elements of the project so as to ensure safe and efficient traffic operations while the project progresses – not working on the Van Rensselaer-to-Northern turn lane and the Lawn Avenue median at the same time, for example – but allowing for this staging, the intersection could conceivably proceed through Stages 1, 2 and 3 in one year.

Primary responsibility for implementation of any of the desired Gateway improvements would rest with the City. Toward this end, perhaps the first step will need to be the City’s consideration of the Gateway concepts so as to get a sense of their relative priority in the context of the full range of local infrastructure needs. That is, the degree of urgency of making improvements at this intersection needs to be weighed against the urgencies of other City projects. Should the Gateway package be seen as a high enough priority to progress in the near future, necessary concept explorations and detailed design work could conceivably get underway within six to eight months.

As was noted earlier, the opportunity exists to stage improvements to the intersection to ensure compatibility with City fiscal resources and the logistics attendant to project implementation. While a “jump” to a comprehensive improvement of the intersection is certainly also an option, one breakout of the three stages of improvement with cost estimates would be as was presented earlier, with Stage 1 emphasizing pavement markings, signal timing adjustments and signage; Stage 2 emphasizing construction actions, and Stage 3 covering landscaping and other “finishing steps” outside the curbs.

Funding

The sample staging plan presented above illustrates one other feature of the Gateway concept: implementation can be tied to the availability of funding for each part of the improvement package. Based on the discussion of funding opportunities presented in Appendix Two, the approach to getting the Gateway improvements into the City’s capital program would best start with consideration of following four funding opportunities, presented in order of when the opportunity for implementation of any funded projects would exist:

- **City Annual Budget:** This appears to be the shortest-term opportunity for getting some level of financial support for progressing improvements to the intersection. The Common Council is expected to begin its review of the proposed 2003 budget in August. While in the interest of predictability and fiscal prudence it is arguably not likely that a very large-scale undertaking would be feasible in the next year, the opportunity could

exist to progress the Stage 1 treatments out of the operating budget allocations of the Departments of General Services and Traffic Engineering.

- **CDTC Bicycle and Pedestrian Spot Improvement Program:** This program provides area communities with the opportunity to secure funding support for “spot” actions addressing barriers to cycling and/or walking at specific locations such as intersections and relatively short road sections. CDTC sent out a call letter for Spot Program proposals with an application deadline of July 31, 2002; this next round of Spot Program awards will provide the opportunity for project implementation between the 2003 and 2005 construction seasons. The City may wish to consider proposing some part of the Gateway package (in addition to some of the treatments to be discussed in Parts Two and Four of this report) for funding under the Program.
- **Transportation Enhancements Program:** While the next call for proposals for the TEP will likely not take place until at least 2004 or 2005 (after the next federal highway law takes effect and the parameters for the next round of the TEP are finalized), it may still offer a shorter time frame than would the next CDTC Transportation Improvement Program update (see next bullet). The TEP’s emphasis on bicycle and pedestrian improvements will need to be factored into what elements of the recommended package for the Gateway would be proposed for funding, but bearing in mind that the TEP is intended for projects costing at least \$50,000 in total (\$40,000 federal, assuming the minimum allowed local share of 20%), the opportunity would exist to make some significant improvements in the area, such as the construction of sidewalks accessing the intersection and/or leading away from it and toward the nearby Northern Boulevard employment and shopping opportunities.
- **CDTC Transportation Improvement Program:** The *Transportation Improvement Program* (TIP) is a listing of projects to be progressed over a five-year period with some amount of federal funding. The TIP was last updated in 2001, and thus as a biennially-updated document, its next iteration would be approved in 2003. Given the time required for the development of proposals, analysis by the CDTC staff and review by the CDTC Planning and Policy Committees prior to cooperative development of a slate of projects to be included in a TIP update, the next call for TIP proposals will take place in the Fall of 2002. TIP projects tend to be larger-scale, with costs typically in the six- to seven-figure range. This suggests that more comprehensive treatments of the intersection – perhaps covering two or all three of the stages discussed above – would be TIP candidates. It should be noted, however, that the TIP update process in essence adds new projects to the furthest years into the future for which the TIP is maintained; that is, to say, the 2003-2008 TIP update process which will get underway in the Fall will lead to new projects being added to the TIP for implementation in 2008. While on the one hand this provides communities with some lead time for getting their required local matches together, it also means that it will be some time in the future before projects are actually implemented. In the context of this Study, the implication is that from the standpoint of addressing needs, the City may do better to try to gradually progress improvements to the intersection rather than wait for a complete TIP-funded effort, particularly if the slate of

improvements to which the City would commit to making can be implemented quickly (e.g., in one construction season or less, as is the case for the Gateway concepts).

Capitalizing on Other Opportunities to Make Improvements

As noted earlier, other programs at the City or State level, development proposals for the area and other such opportunities to get pieces of the Gateway concept implemented will arise over time. A reality of making some sort of “all at once” improvement in one part of the City is that it tends to result in calls for similar actions elsewhere in the City; particularly in cases like this one where the improvements are quite desirable from the standpoint of promoting community quality of life, it is prudent to try to get maximum coverage of the area through combinations of City efforts and other opportunities. Using this intersection as an example, the City is likely in the position to do the needed work on pavement markings while the residential development proposal noted earlier may provide the opportunity to get sidewalks put in as part of the package of traffic mitigation and resident accommodations required as a condition of proposal approval. NYSDOT in turn might be in the position to provide “SHARE THE ROAD” or other cautionary signage to further promote cycling and walking in the area. While the result may be something of a less-than-complete “patchwork” of improvements for some period of time – that is, for example, some discontinuous sidewalk sections near the intersection – this approach stands to be a safer way of getting *some* improvements made at the intersection rather than waiting for a future point in the hope that the complete package will be realized at once.

PART TWO: PEDESTRIAN AND CYCLIST MOBILITY

SYNOPSIS

Recommendation: A modest investment in treatments along Lawn Avenue (particularly pavement markings and the replacement of “NO TRUCKS” signage should be progressed in the short term to provide some degree of traffic calming. Over the longer term, upgrades and expansions to pedestrian and bicycle infrastructure should take place as opportunities present themselves.

Cost: \$3,400 for the early priority actions.

Next Steps: Development of a community vision for the corridor, and identifying opportunities (e.g., ongoing programs, other public works projects which could include pedestrian/bicycle elements, and funding programs) to progress toward the vision.

In its proposal to HOPE VI and CDTC for this Study, the Study Team set forth the concept of a “Pedestrian Main Street,” envisioned as an approach to facility design and streetscaping tailored to both the mobility needs of pedestrians and cyclists and the desire to create a “feel” to the street which is not simply “about cars.” The Team saw this concept as desirable based on three attributes of the area:

- With a considerable amount of residential development in the area, there is also a range of pedestrian travel patterns within the area (to and from PS 20, North Pearl Street and Broadway stores and Northern Boulevard employment and shopping destinations, as examples).
- The corridor is fairly long, and thus it is not realistic to expect to manage interactions between motor vehicle traffic, pedestrian and cyclists through actions at one or two selected locations.
- Given the length and the hillside nature of Lawn Avenue, having a real impact on motor vehicle speeds and driver behavior will require more than a few “spot” treatments – it will require that the streetscape convey a sustained message to motorists regarding the setting through which they are driving and the presences of other types of travelers along and across the street.

At the first Technical Working Group meeting, the Study Team led the group in examination of some possible concepts for the Gateway intersection and the remainder of the corridor. While this exploration raised a number of points regarding potentially desirable improvements to the

corridor, the Group expressed a clear preference that the Study's recommendations with regard to construction emphasize the Gateway rather than the corridor, with any discussions of potential improvements along Lawn Avenue to be presented in a "desired state" context; that is, as a condition toward which to work as opportunities and resource availability permit over time. This preference was rooted in the reality that a comprehensive approach to developing a Pedestrian Main Street would be quite costly, with a considerable share of its total cost coming in replacements to existing facilities (e.g., substandard sidewalks). As such, this section of the report can be thought of more as a needs assessment for the Lawn Avenue corridor than a packaged recommendation for action in the near term.

Context

In a general sense, North Albany has a combination of dense residential development and placement of nonresidential trip destinations (schools, businesses and so on) conducive to walking and cycling for local tripmaking. The degree to which this "conduciveness" is translated to actual cycling and walking (as opposed to driving) is in large part a function of the environments for these modes. Neighborhood residents have several concerns in this regard, with the end result being that those residents who do not have several choices for mode of travel or who do have choices but still see walking or cycling as logical selections (for the two-block trip, for example) will use these modes but may be exposed to undesirable conflicts with motor vehicles. Both accidents and "near misses" result.

The way in which North Albany revitalization and redevelopment activity can serve as a catalyst for other actions was discussed earlier. The critical comment with regard to pedestrian and cyclist circulation in the area is that this activity brings with it a need for *complementary* action on the transportation system. This need is most commonly understood in the context of motor vehicle operations – for example, a new building is developed, and thus there is a need for driveway access, perhaps a turn lane allowing vehicles to access the site safely, and other such treatments. In the case of North Albany, this need exists, but there is a related need for accommodation of *other* modes, particularly walking and cycling: the placement of new trip destinations in the neighborhood is introducing the desire for more local travel to the area, and pedestrians and cyclists need to be accommodated so as to maintain (if not enhance) travel safety. That is, while the North Albany Rental Homes development is in essence a replacement of the Corning Homes with regard to trip generation (albeit with a lower total level of trips, as there will be fewer units with the new development completed than the old one contained), other local travel destinations such as the Community Center and the YMCA will induce more local trips. It will thus be important to ensure the availability of safe and comfortable walking and cycling routes to these sites.

The next section discusses some of the specific issues to be addressed through management of physical and regulatory changes to Lawn Avenue over time.

Conditions and Issues

Setting

The character of Lawn Avenue changes significantly from east to west. The first block between Broadway and North Pearl is a typical urban street with parking on one side, sidewalks on both sides, and residential driveways entering the street. Through traffic is calmed somewhat because the street is narrow and parked vehicles provide a buffer on one side for pedestrians, although traffic speeds on this lower section appear to be at or slightly above the speed limit much of the time. West of North Pearl, the street view becomes more open. Housing is more widely spaced and there are intersecting streets including the new streets serving the HOPE VI project. No on-street parking is permitted. The street is curbed, but it has a character similar to a collector rather than a residential street. This collector-like appearance is reinforced by the configuration and geometry of the signalized intersection with Van Rensselaer Boulevard. As discussed in Part One, the eastbound exit lane on Lawn Avenue is wide enough for two vehicles and Northern Boulevard; as Northern Boulevard continues on to the interchange with Route 9, is clearly an arterial designed to serve vehicle traffic.

General Motor Vehicle Traffic

Traffic Dynamics

Lawn Avenue provides east-west vehicle circulation in North Albany between Van Rensselaer Boulevard and Broadway. It provides direct connections to the regional highway system as well as to downtown Albany, the latter via Northern Boulevard. Thus, in addition to serving as a gateway to the neighborhood, the street processes a fair amount of through traffic.

The Study Team observed traffic dynamics along Lawn Avenue at various times of day. From these observations, discussions at Technical Working Group meetings and Public Workshops comments, the following concerns were noted. They should be taken in addition to the more general discussions of traffic issues (volumes, speeds, truck issues, et cetera) subsequently presented in their own sections.

- *Short-Cut Traffic:* In addition to through traffic (that is, vehicles traveling along Lawn Avenue which neither begin nor end their trips in North Albany), there is a tendency for short-cutting on the side streets off Lawn Avenue. As one example, both cars and trucks were observed traveling east on Lawn Avenue to Thomas Street and then Lindbergh Avenue; the net effect is a shortcut from Northern Boulevard to Broadway in Menands. Also, at the first Public Workshop, a resident of Tubman Drive (a dead end) reported having observed vehicles entering that street (apparently looking for a short cut to North 1st or North 2nd Street, to continue on to North Pearl Street or Broadway) and then leaving upon determining that the street was not a through street. Other participants in the first

Workshop reported having experienced near-misses with through traffic when attempting to back out of their driveways.

While the *volumes* of traffic making these shortcuts do not appear to result in levels of traffic which are incompatible with residential neighborhood settings, the *speeds* at which some of these vehicles travel raise safety concerns. Shortcutting is generally difficult to eliminate without also reducing the degree of mobility enjoyed by residents of the streets upon which this activity is taking place (as will be discussed in Part Four of this report), but the comment here would be that this concern could be lessened if the Lawn Avenue streetscape evolved to a point at which people driving through the corridor sensed that there was not a travel time advantage to attempting to travel through this area as opposed to using Van Rensselaer Boulevard and Menands Road or some other alternate path for their trips. Similarly, illegal truck use of Lawn Avenue (to be discussed later in this section) may be rooted in this street's being part of an apparent "shortest route" between I-90, Route 9 and Broadway based on how the area street system looks on a map; steps can be taken to convey to truck drivers the message that in actuality, the potential for conflicts combined with geometric (e.g., tight corners) and regulatory (e.g., the ban on trucks on this street) render Lawn Avenue an undesirable route for their trips.

- *Speed:* This aspect of area traffic flow will be discussed in detail in a separate section below; the comment with regard to traffic dynamics is that speed does not appear to be a function of whether a given vehicle is locally-based or simply traveling through the area. This is a common finding. Its significance to discussion of the "Pedestrian Main Street" goal lies in giving an indication that issues of speed will not simply "go away" if through traffic is removed from the area – that is, these *issues are endemic to the street itself*, by virtue of its design and its relationship to the roadway system in the surrounding area. This point lends support to the notion of design treatments as key steps toward enhancing compatibility between traffic operations and the surrounding neighborhood.
- *Vehicle Positioning on the Roadway:* The physical character of Lawn Avenue, particularly its width and curvature, seems to be having the effect of promoting a tendency for vehicles to travel toward the middle of the street rather than toward the outside of the street. On a related note, on some curved sections (such as near Jennings Drive and below Hutton Street), there seems to be the greatest tendency for motorists to drive through the curves by "striking an arc" carrying them over the center of the street – occasionally placing their vehicles briefly on the opposite side of the street – rather than taking the more cautious approach of staying well to the right. The potential for this behavior to impact safety is clear, both for car-versus-car conflicts and for those instances where illegally parked vehicles or children playing in or near the street may require that a motorist make a last-second evasive maneuver toward the center of the street.

Volumes

Traffic counts conducted by CME found that east of the Gateway intersection, Lawn Avenue typically carries about 275 vehicles in the morning peak hour (roughly 2/3 of which travel down the hill) and 300 vehicles in the afternoon peak hour (roughly 55 percent of which travel up the hill). Approximately 75 percent of these volumes are also on Lawn Avenue just west of North Pearl Street. Based on general traffic engineering standards, Lawn Avenue is busy for a residential street but not excessively so. As suggested earlier, traffic issues are more about speed (and trucks, as will be discussed below) than about the sheer volume of traffic using the street.

The likely impact of full occupancy of the North Albany Rental Homes site (a point expected to be reached by November of 2002) on Lawn Avenue traffic volumes is something of a “wild card.” That is, while the potential exists for the site to generate between 100 and 160 afternoon rush hour trips, variables including vehicle ownership, the locations of employers and the site’s eventually having four vehicle access points connecting it to the surrounding area street system combine to raise a number of possible scenarios for the distribution of traffic to and from the site on area streets. The Study Team considered a number of sketch plan-level scenarios for trip distribution; the general comment from these explorations would be that from a traffic engineering standpoint, the effect on Lawn Avenue volumes will likely be fairly modest (that is, they will not raise any significant operational concerns), although trips related to the site *will* likely have more significant impacts on the pedestrian and bicycle environments, particularly at the points where the NARH street system ties into the surrounding system.

Speeds

A speed study conducted by CME found that over the course of a representative weekday, approximately 25 percent of vehicles on Lawn Avenue are traveling at least five miles per hour over the street’s 30 mile per hour (MPH) speed limit, and 30 percent are traveling between the speed limit and 35 MPH. In addition, the study found that while there is more of a tendency for vehicles traveling downhill (eastbound) rather than uphill (westbound) to be speeding, there is still a fair tendency for vehicles traveling uphill to be speeding. That is, to say, speeding is not just “a function of gravity.” This point is important to the issue of corridor design, as it points to a need to act not only on the environment of downhill vehicles but on that of uphill vehicles as well.

The speed study also found that there is a slightly higher propensity for speeding in the early to mid-evening hours (roughly 8:00 PM to midnight) than during the busiest traffic periods of the day (the morning and afternoon rush hours). During several early evening hours, the study found that well over half of all vehicles on Lawn Avenue between North Pearl Street and Van Rensselaer Boulevard were speeding. This makes intuitive sense, given the reduced likelihood of encountering not only other traffic but pedestrians, delivery vehicles and other impediments to through traffic during the evening hours.

The speed information suggests that there are some significant problems of incompatibility between motorist behavior and the residential environment. Roadway design appears to be a significant factor influencing speed. As was shown in Figure 3, vehicles entering the corridor from the west have little in the way of visual cues that they are entering a dense residential neighborhood. Further down the hill, the street narrows, with homes on both sides, but the sense of “open territory” continues, as Figure 11 illustrates.



*Figure 11
Easterly View of Lawn Avenue below Hutton Street*

Speeding coupled with driving toward the center of the street rather than toward one side increases the potential for conflict. Also, while the City is quite aggressive in its winter maintenance on steep streets such as Lawn Avenue, stopping distances still increase significantly with any type of frozen precipitation on the street; these distances are still greater when higher speeds come into play.

Truck Issues

Truck traffic is a major concern in North Albany, particularly given the neighborhood’s location between a number of commercial and industrial land uses along Broadway and access points to the region’s interstate highway system. CME conducted a vehicle classification study under which vehicles were classified by vehicle type based on axle-to-axle lengths and tracked to control for NARH site-related traffic (e.g., flatbed tractor-trailers carrying lumber or other building materials to the site). The finding was that throughout the day, there are modest

volumes of tractor-trailer traffic using Lawn Avenue which are not related to the NARH site. Discussions at the March 19 Public Workshop suggested that a number of these tractor trailers are traveling to or from the Leroy Holdings site on North Street off Broadway, among other local sites. As will be discussed in Part Four, this is one of a number of truck-related concerns in North Albany.

The presence of trucks along Lawn Avenue raises a number of concerns for area residents. Safety is first and foremost among these concerns, with issues of stopping distance, conflicts with residential activity (such as children playing in or near the road) and car-versus truck accidents among the most frequently cited issues. In addition, on the section of Lawn Avenue between North Pearl Street and Broadway, the narrow street coupled with the demand for parking creates “spillover effects” on walkability such as the parking of vehicles on the sidewalks to avoid the potential for sideswipes (not exclusively due to trucks, but there is certainly a greater likelihood of a truck doing damage to a parked car than another car). Figure 14 will illustrate this problem, which will be discussed in the section on pedestrian facilities.

Several other ill effects of illegal truck traffic were observed and/or reported during the March 19 Public Workshop, including noise (particularly from “pullaways” up the hill when the light turns green for Lawn Avenue at the North Pearl Street intersection), brake squeal (particularly on the downhill approach to the North Pearl Street intersection) and vibration (most pronounced in its effect between North Pearl Street and Broadway, with homes close to the street and trucks’ inability to coast on this section when traveling westbound).

Pedestrian and Bicycle Flow Patterns and Relationships to Provided Facilities

In its proposal for this Study, the Study Team set forth the plan of mapping pedestrian and bicycle flow patterns in the area. The aim of doing so was to have an overlay of “demand lines” which could be related to existing pedestrian and bicycle infrastructure so as to get a measure of the sufficiency of current accommodations to meet demand for these modes of travel. Six determinations in the course of flow observations and infrastructure inventory led to the determination that this approach while logically sound would not be an appropriate area of focus for this Study, as follow:

Scattered Demand

It was found that pedestrian and bicycle travel is widespread within the study area (and particularly along Lawn Avenue), but with a few exceptions such as the routes to PS 20 and along Lawn Avenue to the bus stops at Van Rensselaer and North Pearl, the volumes of pedestrians and/or cyclists are quite low and thus difficult to relate to more general patterns. The main flow in the corridor is obviously up and down the hill (that is, along Lawn Avenue), but this appears to be in part because at present there is no opportunity to shortcut through the NARH site (also see below) to reduce the required travel distance to access local destinations such as Hackett Park and PS 20.

Demand versus “More Advisable Facilities”

In some cases, particularly for cyclists, the chosen travel paths may not be the most advisable ones, and thus there is a disconnect between demonstrated travel paths and what might be the best paths to *sanction* through improvements in the corridor. For example, a modest number of children and adults were observed to be cycling downhill (eastbound) on Lawn Avenue and then turning left onto North Pearl Street. While it may be the “straight-shot” nature of Lawn Avenue (that is, the ability to get down the hill without turning) and the ability to reach a brisk speed on the downhill which compelled these cyclists to use this route, from the standpoint of minimized conflict with motor vehicles, it would arguably make more sense to bicycle from Lawn Avenue to Thomas or Hutton Streets, then to Lindbergh Avenue and on to North Pearl Street to complete this part of these trips.

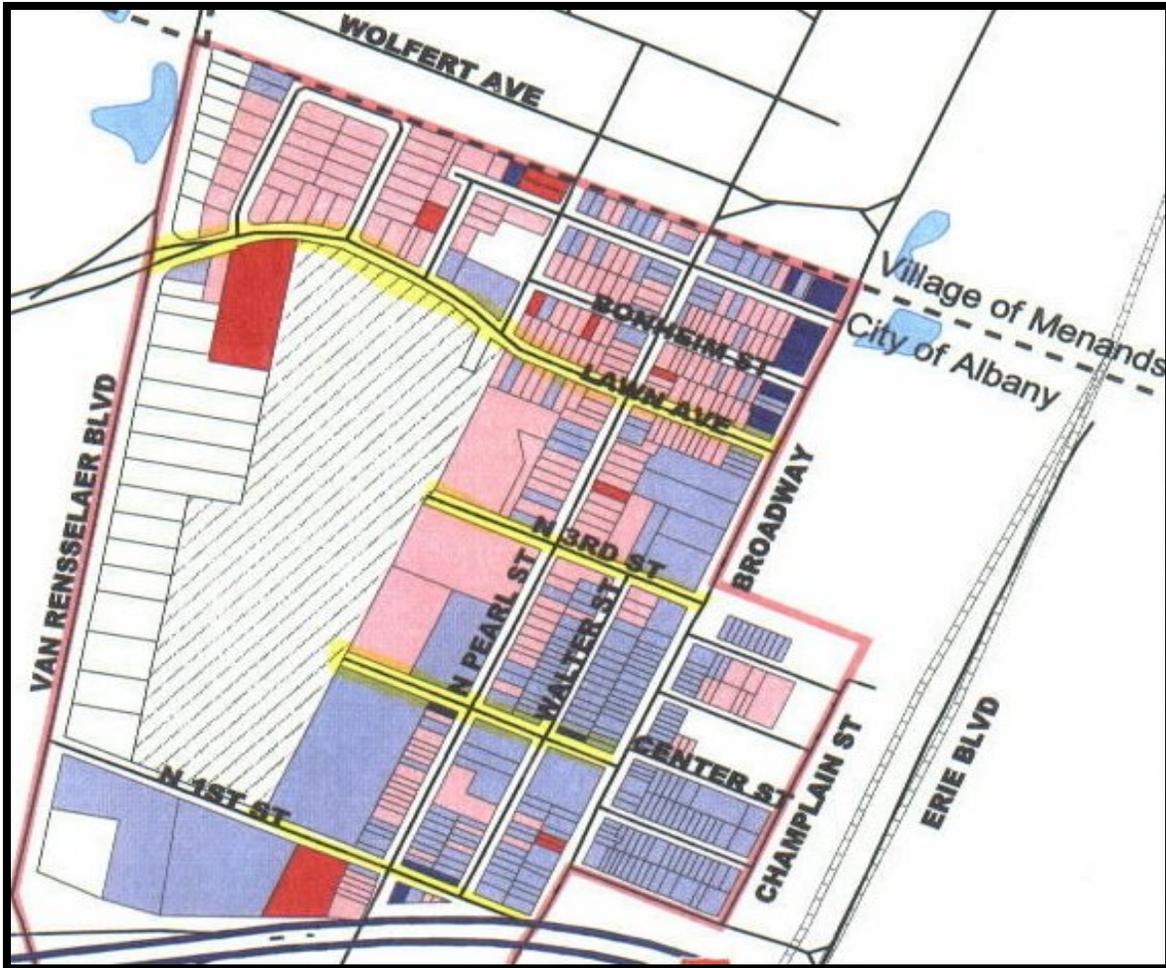
Basic Infrastructure is Available – Condition May be More the Issue

This determination applies more to pedestrians than cyclists; the discussion is thus limited to sidewalks and other pedestrian accommodations.

In North Albany, the *coverage* of pedestrian infrastructure – that is, the presence or absence of sidewalks – is arguably quite good. The issue may be more one of whether the sidewalks provided are up to standard with regard to condition, width and other qualitative measures. Once it is completed, the North Albany Rental Homes development stands to offer additional opportunities for pedestrian and bicycle circulation in the area, due both to the high-quality pedestrian and bicycle facilities included in its site plan and its layout (the latter which will accommodate pedestrian and bicycle shortcutting between Lawn Avenue and the PS 20, Community Center and YMCA areas).

The University at Albany Planning Studio’s draft “Revitalization Strategies for North Albany” report (Fall 2000) included the presentation of sidewalk and curb conditions replicated below. Parcels are color-coded based on the condition of sidewalks and curbs along their street frontages; in color copies of this report, those parcels shown in blue or purple have sidewalks and curbs rated “good” or “excellent,” while in black and white copies, the darker parcels have sidewalks rated “good” or “excellent.” Parcels coded in white have no curbs or sidewalks along their frontages.

From the map presentation, it is apparent that the desire to simply walk on sidewalks to reach destinations from the Lawn Avenue area is not problematic in itself; the issue is more one of whether the sidewalks used are of sufficient quality to be comfortable for walking. The problems which led to codings of “fair” or “poor” in the above presentation included major cracking, buckling and grass overgrowth; Study Team field observations found other problems including the following:



DATA SOURCES: University at Albany Planning Studio; base map data from NYS Real Property Service, City of Albany Tax Maps, TIGER files and NYSDOT

Figure 12
Sidewalk and Curb Conditions in North Albany

- Low Curbs: Where the sidewalk and/or curb are low relative to the street, particularly at corners, pedestrians may be forced into the street, as illustrated in Figure 13.
- Spot Barriers: Either along the sidewalk path or at crossings, there may be obstacles to safe and/or comfortable walking that are sufficient to deter pedestrians from making a particular walk trip at a particular time, from making it at all or from using the shortest-distance route to his/her destinations. Examples include blocked sidewalks, as illustrated in Figure 14, the absence of crosswalks to provide some sort of “sanction” to the presence of pedestrians in the street, or sidewalk gaps.



*Figure 13
Sidewalk at Street Level, Lawn Avenue at Thomas Street*

- *Maintenance:* Pedestrian and bicycle facilities present special maintenance-related challenges to the Department of General Services, for while it is difficult enough to simply keep up with the workload for maintenance using what might be termed a “motor vehicle focus,” pedestrians and cyclists tend to require a higher degree of facility maintenance to ensure the safety of their travel systems. That is, for example, while motor vehicles may be easily able to travel on a street with some loose gravel on it, a few pieces of gravel can present a real hazard to cyclists riding on tires 2” or less in width. Similarly, while motor vehicles can travel in a relatively controlled fashion with some amount of snowpack or slush on the road, pedestrians would find real obstacles in areas that are not cleared, such as that illustrated in Figure 15.



*Figure 14
Easterly View of Lawn Avenue
between North Pearl Street and Broadway*

These problems noted, the question for this Study becomes that of whether the first order of business from an investment standpoint should be to rebuild existing sidewalks en masse or to address spot deficiencies at the most critical locations while bridging other types of gaps through such steps as modified routine maintenance practices. As will be discussed in the “Recommended Approach” section, it would seem prudent to employ the latter approach, in the interest of realizing a more significant enhancement to the neighborhood pedestrian environment and in turn to pedestrian mobility.



*Figure 15
Crosswalk Partially Covered with Snow near Sidewalk,
North Pearl Street at Lawn Avenue*

Public Workshop Discussions

Discussions of Lawn Avenue walking and cycling issues at the Public Workshops generally focused on destinations, underscoring the importance of bridging gaps to provide “complete trip” routes for these modes. An example noted in Part One was Northern Boulevard in the vicinity of Memorial Hospital, access to which would require the development of new sidewalk or mixed-use trail segments to bridge gaps. Access to Hackett Park and the softball field was another example cited; as will be discussed in Part Four of this report, part of the solution may be to somewhat limit motor vehicle access to an area where destinations seem to be isolated from the rest of the area (and lack direct access to the pedestrian and bicycle travel systems as well).

The presentation of sidewalk conditions in Figure 12 was echoed by some of the discussion at the May 25 Public Workshop, at which one participant observed (and others agreed) that the sidewalks along Lawn Avenue needed to be replaced in their entirety. Inadequate width and broken/heaved sections were the main reasons given for improvement need. It was noted that this sort of improvement would be quite costly, and that from the perspective of cost-effectiveness it was perhaps more prudent to first concentrate on bridging gaps and/or establishing new walking routes and then take up the matter of in-kind replacement.

Recommended Approach to Promotion of “Pedestrian Main Street” Environment

Note on Working from a Vision for the Area

The long-term promotion of a Main Street environment for Lawn Avenue will ideally proceed from a fairly detailed, specific *vision* for the area presenting both a visual indication of the desired end state and an understanding of the goals underlying physical improvements (e.g., “enhance pedestrian connectivity between the Lawn Avenue area and the YMCA”). Establishing this sense for the area will provide the community with a reference point to use as the basis for progressing improvements to the corridor as opportunities present themselves.

The vision should include both location-specific steps (e.g., “street furniture at the intersection of Lawn and North Pearl”) and corridor-length elements (e.g., some sort of visual theme). Toward this end, it may be helpful to use the North Albany Rental Homes site as a source of model treatments, such as for sidewalks and streetscaping, as illustrated in Figures 16 and 17.

Priority Steps to Complement the Gateway Treatments

Some actions do appear to be more immediately compelling for the corridor, such as those treatments which would complement the Gateway improvements and thus compound their benefits. These elements are as follow:

- *Crosswalks*: High-visibility crosswalks should be installed at the intersections of Lawn Avenue and Limerick Drive (both ends), Tubman Circle, Thomas Street, Jennings Drive and Hutton Street, and the existing crosswalks should be replaced at the intersection of Lawn Avenue and North Pearl Street. **Approximate cost: \$2,000.00**
- *Signs*: New “NO TRUCKS EXCEPT LOCAL DELIVERY” signs should be installed on the eastbound side of Lawn Avenue east of North Pearl Street and on the westbound side of Lawn Avenue west of both Broadway and North Pearl Streets. **Approximate cost: \$600.00**
- *Centerline Striping*: To convey to motorists a sense of where they need to be on the pavement and to “hem in” the roadway somewhat, centerline striping should be applied to Lawn from the terminus of the median at the Van Rensselaer Boulevard intersection to the North Pearl Street intersection – a distance of approximately 1,751 feet, less 171 feet

at intersections, for an approximate net requirement of 1,581 feet. **Approximate cost: \$800.00**



*Figure 16
Model Sidewalk and Curb Ramp Installation
Lawn Avenue at Jennings Drive*

Regulatory Steps

Given the amount of redevelopment and revitalization activity taking place in North Albany, it may be prudent to review the appropriate City ordinances for requirements of provision of sidewalks and bicycle parking for new nonresidential developments. In addition, given the tendencies for some vehicles to partially cover the sidewalk area when parked in the business lots at the Lawn Avenue/Broadway intersection, consideration should be given to the establishment of a municipal ordinance requiring that parking lots adjacent to sidewalks have asphalt or concrete berms installed in the lots so as to prevent such overhangs..

Capital Planning

As discussed earlier, the key to working toward a Pedestrian Main Street concept for Lawn Avenue will lie in establishing a vision for the street and taking opportunities to further this vision over time. While the amount of City-funded work needed to realize the vision is difficult to project, for opportunities will come in the forms of City projects (some perhaps assisted by federal or state funding programs), public authority actions and private sector investments, it will

be prudent to develop a sense of the City’s potential investment in improvements to the corridor, so as to enable both fiscal planning and the consideration of these investments in the context of other neighborhood-level goals. With regard to the latter, it is important to recognize that every through street in the City could conceivably be the focus of some sort of “reclamation” effort along the lines of what has been discussed in this report for Lawn Avenue. Proper determination of Lawn Avenue’s level of priority relative to other needs elsewhere in the City requires an understanding of what level of investment would be required to achieve the vision for the corridor.



*Figure 17
Model Streetscape, Tubman Circle*

Longer-Term Concepts

Following are brief discussions of some concepts which could be incorporated into the vision for the corridor and which might be implemented as opportunities arise over time.

Basic Streetscaping

Reclaim Space for Pedestrians

Particularly along the section of Lawn Avenue west of North Pearl Street, restrictions on curbside parking provide the opportunity to reduce pavement width slightly in favor of providing some additional space for sidewalks and their physical separation from the roadway. The ideal cross-section for the corridor would include a five foot-wide sidewalk (consistent with Americans with Disabilities Act standards) and a three to five foot-wide utility strip (the grass strip between the sidewalk and the curb). Where buildings are not set far back from the street, as is the case east of Hutton Street, it would be preferable to provide space between sidewalks and the street by narrowing the street; starting from the typical 30 foot-wide pavement width, it may be possible to provide an additional four to eight feet in space outside the curb by reducing travel lane widths. This may also have a calming effect on traffic.

Street Trees

Where possible, planting trees in utility strips would provide both aesthetic and traffic calming benefits. Given the slope of Lawn Avenue and the resulting need to use salt and other ice-melting treatments on the street, trees capable of handling some degree of sodium or calcium leaching through the soil should be used, although much of this material will run down the hill while the soil is frozen during the winter months.

The type of trees selected for planting will partially be functions of the width of the utility strip, given the potential for longer-term sidewalk heaving when larger trees outgrow the space provided for them and/or when roots spread under sidewalk bases.

Pedestrian-Scale Lighting

Over time, opportunities (or needs) to replace the overhead lighting in the corridor may arise. Replacing the standard “cobra-head” lights with lower height, more aesthetically-pleasing pedestrian scale lighting would serve to enhance both the visual environment and the sense of the corridor as a neighborhood street rather than one given over to motor vehicles.

Bicycle Connections

The Technical Working Group noted the importance of establishing safe bicycle routes for neighborhood circulation and for connections to the surrounding area. The challenge in getting these routes identified lies in the very limited potential for establishing separate off-road trails for this purpose – much of the neighborhood is built up, with a considerable share of the remaining open space (e.g., that west of the North Albany Rental Homes development) privately owned and/or available for use but featuring difficult grades or terrain rendering it difficult for the average cyclist to use (provided appropriate trails could be physically blazed).

While traffic counts were only conducted on Lawn Avenue itself in the course of the Study, CME conducted a cursory comparison of traffic volumes on this street and estimates of traffic volumes on other area streets with the specifications of the Federal Highway Administration's *Selecting Roadway Design Treatments to Accommodate Bicycles* (1994) report, to which reference was made earlier. The indication was that while volumes tended to suggest that a shared 14 foot-wide travel lane was adequate for a minimum level of accommodation of the average cyclist, traffic speeds in the area – frequently exceeding 30 miles per hour, even on the side streets – point to the advisability of a five foot-wide bike lane as the preferable minimum treatment. While such a treatment may be possible on a small number of streets in the neighborhood, particularly those which are designated as one-way or parking-prohibited, it does not appear practical to specify this as a standard treatment for the area. Thus, actions including traffic calming (to be discussed below) and the use of a number of *strategic short-length bicycle connections* (such as access to the North Albany Rental Homes development, allowing for bicyclist shortcutting) should be progressed to enhance bicycle mobility.

Looking further into the future, one question is that of whether the redevelopment of properties in the neighborhood might raise opportunities for creating new connections through properties and/or the inclusion of other bicycle accommodations as part of the package of actions taken to mitigate the traffic impacts of a new nonresidential land use. While some modest opportunities may arise in this regard, they will need to be weighed against the potential for any new developments to increase the demand for vehicle access and parking in the area. This note in turn points to the desirability of encouraging the use of New Urbanist/neotraditional design concepts to ensure that future development in and near the neighborhood does not impose the degree of burden (and impact) on the surrounding neighborhood as has been typical in the past.

Traffic Calming

The speed study undertaken for this project suggests that speed limit reductions are not feasible for the corridor, for prevailing speeds are significantly higher than the current posted speed. Standard practice does not allow for speed limit reductions unless the prevailing speed is consistent with the newly-posted speed. Beyond the matters of practice or policy, simply reducing the speed limit would simply not be expected to have any real effect on operating speeds.

Some potential traffic calming steps have already been discussed; the specific comment is that it may be possible to achieve reductions in speeds along Lawn Avenue through the use of some physical treatments. While it would not be advisable to use rumble strips or grooved pavement to slow traffic down, for nearby homes would likely find the noise levels objectionable, there are some other tools which would be promising for the area. *Speed humps*, for example, are similar to the often-seen parking lot speed bumps, but with a longer, flat peak section; these can be strategically spaced so as to both have the desired effect on speeds (that is, for example, by spacing them closely enough to not provide an opportunity to return to a high rate of speed

before needing to slow down again) and avoid creating a problem of acceleration noise (due to pullaways after traversing a hump). *Curb extensions* or *bulbouts* extend the areas outside the curbs into the street area, so as to provide a protected area for pedestrians; these can have the combined effect of reducing pedestrians' crossing distances while introducing a visual encroachment on the space the motorist perceives as available to work with, in turn tending to reduce speeds.

Circulation Modifications

Part Four will examine some possible modifications on local traffic patterns that have already been introduced into local discussions; the more general comment at this point is that potential turn restrictions, changes from two-way to one-way designations and other such tools need to be explored bearing in mind potential impacts on both (1) adjacent street traffic and (2) the mobility levels of people living on the street segment(s) in question. Thus, while opportunities may arise to introduce changes to circulation patterns either specifically on Lawn Avenue or on other nearby streets, it is also important to consider impacts at the *areawide* level in the interest of preserving *neighborhood* quality of life as it relates to traffic.

Reinforce Truck Restrictions with Physical Treatments

The fact that there have been numerous complaints about heavy truck activity on Lawn Avenue in spite of a prohibition on non-local trucks is indicative of a need to back up the truck ban with physical treatments that will compel truck drivers to find alternate routes. While the "NO TRUCKS" signs may be faded, they still have sufficient material on their faces to indicate to drivers that non-local trucks are banned from Lawn Avenue. (The condition of the material may limit the "advance notice" drivers get, but they still arguably do see the signs.) That said, there is a need to make it more readily apparent to the truck driver that Lawn Avenue is not a bonafide short cut; in fact, if it is possible to impose delay on these movements while at the same time not preventing legal truck use of the street from taking place in a safe and efficient manner, this could be a goal of some construction-oriented steps. Some of the treatments already discussed will accomplish this, in narrowing down the roadway and highlighting the presence of pedestrians (raising in the truck driver's mind the potential for conflict); others should be explored, particularly for the Van Rensselaer Boulevard, North Pearl Street and Broadway intersections.

Next Steps

This part of the report has set forth a number of ideas for the Pedestrian Main Street, but more as a "menu of possibilities" than as an articulation of a bonafide vision for the corridor. As this aspect of the Study was de-emphasized by the Technical Working Group, it would not be appropriate to use the sample streetscaping plan developed by the Study Team early in the effort as the community's vision for the corridor. A prudent first step would thus be for the City and

neighborhood residents to meet to work toward establishing a planning-level vision; this would ensure that future efforts are organized around the community's needs and desires as well as the City's fiscal realities and other priorities.

Identifying opportunities for progressing different parts of the Pedestrian Main Street concept would also be a high priority. These opportunities, particularly in existing City and NYSDOT programs, are likely to be for lower-cost, less controversial treatments such as pavement markings, short-length sidewalk constructions and repairs, and minor landscaping work.

Finally, while most of the actions recommended not only in Part Two but throughout this report would be pursued by the City and other public sector entities, some aspects of promoting the Pedestrian Main Street concept can be progressed as community projects or activities. As one example, neighborhood events along Lawn Avenue can serve to assert the Avenue's place as one of the "spines" of North Albany and as a street that is "about the community." Events encouraging area residents to "get out and about" on Lawn Avenue can be set up on their own on weekends or summer evenings (outdoor communitywide cultural events and garage sales have been used for this purpose elsewhere), or they can be piggybacked onto other events such as either an official "Grand Opening" for NARH, the YMCA and/or the Community Center.

PART THREE: PILOT PUBLIC TRANSPORTATION PROGRAM

SYNOPSIS

Recommendation: Work with CDTA to promote the pilot modification of its #5 Route to include Lawn Avenue. Promotional efforts should also include education on transit use in general. Explore future opportunities to coordinate carpooling, community-operated vanpools, car sharing and other arrangements for promoting the mobility of neighborhood residents who either do not have cars or would prefer to reduce the frequency with which they drive.

Cost: No cost for the CDTA route modification; educational and programmatic efforts may require modest expenditures on staff time (i.e., HOPE VI Office or City staff) and materials.

Next Steps: Publicize projected June start for Route #5 modification, and explore opportunities for promotion of other mobility-enhancement tools such as those noted above.

In a neighborhood such as North Albany where the percentage of the population having access to their own vehicles is not as high as it may be elsewhere in the City, ensuring the basic mobility of residents requires that there be a range of opportunities for tripmaking. This section discusses *public transportation*-based tools for promoting mobility, with “public transportation” defined not only as conventional public *transit* (provided by the Capital District Transportation Authority) but also as human service agency transportation systems and tools for promoting mobility ranging from carpooling and shared taxi service to innovative “car sharing” cooperative programs. The common attribute of these public transportation tools is their emphasis on providing means for travel that are not predicated on driving alone in one’s own vehicle.

Conditions and Issues

Existing Transit Service in the Area

Transit service in the area is currently limited to north-south service along Broadway, North Pearl Street and the Northern Boulevard-Van Rensselaer Boulevard corridor. The topography of the area, rising from the river, creates a physical barrier to easy walking from east to west (and, at times, some discomfort in walking from west to east). This raises a problem for neighborhood residents who rely on transit service for mobility in that it becomes difficult to access

employment, commercial and social opportunities along Broadway and Northern Boulevard, in downtown Albany, or elsewhere in the region.

The Capital District Transportation Authority's (CDTA)'s #5 route, running from the Wal-Mart in Rensselaer and Riverview Center in Menands (by way of the Albany-Rensselaer Amtrak station and downtown Albany) currently operates on Northern and Van Rensselaer Boulevards in the area. That is, it essentially "skirts" North Albany. Locally, it stops on Van Rensselaer Boulevard a short distance north of the intersection. In addition, CDTA's #22 route, the main route between Albany and Troy, travels through the eastern part of the neighborhood on Broadway. It stops in either direction near the Lawn Avenue intersection.

Needs

The neighborhood has several needs in the area of public transportation. Some of the key needs are as follow.

- ***Access to existing transit service in the area*** is not as good as it could be; that is, unless one lives on or immediately off Van Rensselaer Boulevard, North Pearl Street or Broadway, s/he will need to walk a fair distance to access the bus stops; during inclement weather (and certainly during the wintertime), this can be uncomfortable if not hazardous.
- ***Information on service availability and route status*** can enhance both the ease and convenience of transit, by giving transit patrons a basis for planning their trips and an understanding of how long they may need to wait for a bus. In addition, potential transit patrons may benefit from information on where the CDTA system goes and what the opportunities to connect to other routes via the #5 or #22 routes are, such that they will more fully recognize the extents of travel opportunities available via CDTA.
- Many area residents see the ***amount of transit service*** provided to the neighborhood as insufficient. That said, it must be noted that decisions on service provision need to be made based on CDTA's overall ridership levels and resource availability.
- ***Flexibility of travel opportunities*** for neighborhood residents who do not own their own cars is limited. Perhaps the only tool available for longer-distance tripmaking for such people that provides a significant degree of flexibility in scheduling and/or destination is taxi service, which can come at considerable cost if frequently utilized.

Issues Related to Existing/Expanded Transit Service

- ***Terrain:*** As noted at several points in this report, the hillside setting of this neighborhood imposes challenges from a transportation perspective. In addition to the aforementioned matter of the comfort and safety with which transit patrons can access existing transit routes, the potential for new or modified routes to have stops at more convenient locations such as along Lawn Avenue has to be weighed against the possibility of wintertime or rainy day skids during stops or pullaways.

- Street Widths/Corner Radii: The ideal degree of coverage for transit service in the neighborhood would include a degree of route coursing over streets away from Lawn Avenue, such as North 2nd Street, Hutton Street and Lindbergh Avenue. However, combinations of curbside parking and/or tight corners may limit the extent to which different types of transit vehicles can be used in these areas; for example, while it may be possible to fit a standard bus on a street such as North 2nd, provided the turn off North Pearl Street or Broadway can be navigated, it would likely be difficult to run a vehicle larger than a CDTA STAR paratransit bus around some of the corners in the area.
- New Demand from North Albany Rental Homes Area Developments: Developments in the NARH area may enhance transit demand. For example, the HOPE VI Program’s combination of skill-building efforts and other supportive services is geared toward promoting self-sufficiency, including the pursuit of employment opportunities, many of which will be outside the immediate neighborhood and thus will increase the need for transportation service. Also, the YMCA and Community Center near NARH will likely see high patronage, quite possibly becoming transit destinations unto themselves; transit routes stopping at or near these sites stand to see increased patronage. It should be noted that this increased level of development and the potential it holds for increasing the patronage of transit service comes *in addition to* the level of either demonstrated (in current ridership) or latent (see next bullet on education) demand in this dense residential neighborhood. Provided that neighborhood residents are made aware of opportunities presented by the area’s transit system, dense neighborhoods close to downtown areas hold particularly strong potential for transit use.
- Education on Transit Opportunities: As was just noted, educating local residents regarding the transit system is one of the keys to fostering increased ridership. One of CDTA’s primary efforts in this area lies in its Transit to Jobs program’s work (often on a one-to-one basis) in helping people understand how to use the transit system, including the provision of personal trip planning support. This sort of effort can help “demystify” the system and help people realize the potentials they have to access destinations around the region via CDTA.

Public Workshop Discussions

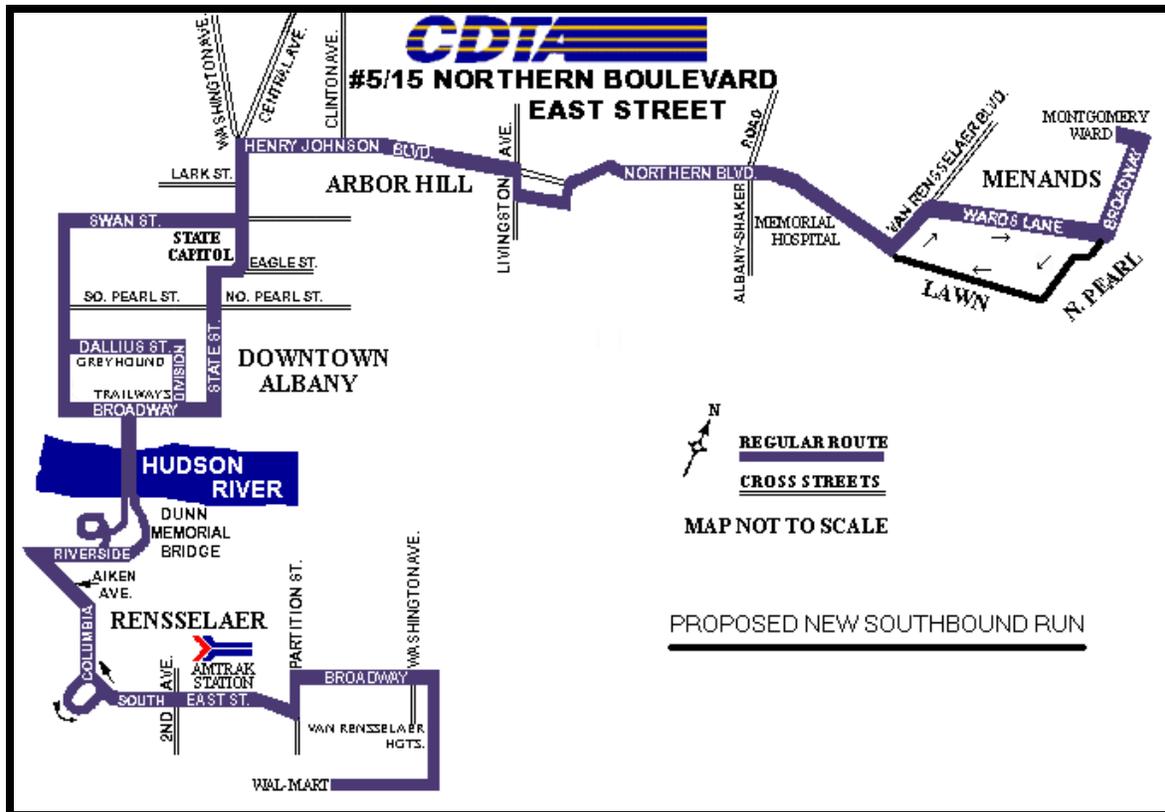
At the Public Workshops, a conceptual route modification developed by the Technical Working Group with CDTA was presented and discussed (see next section for details). Participants were quite positive about the route modification, which would provide neighborhood residents with the opportunity to directly access the #5 route from Lawn Avenue. They also noted that it would be helpful to have more east-west service, both to access Corporate Woods and to access other parts of the CDTA system without having to travel into downtown Albany to do so.

Recommended Pilot Public Transportation Enhancement

Basic Concept: #5 Route Modification

The Technical Working Group and CDTA developed a conceptual route modification for the #5 route which would add Lawn Avenue to the route course. While the current route proceeds from Northern Boulevard to Van Rensselaer Boulevard, Wards Lane and Broadway en route to Riverview Center in Menands, the planned route would set up a *loop* basis such that a bus would cover *both* streets: Wards Lane on the northbound trip to Riverview Center, and Lawn Avenue on the southbound trip to downtown Albany. That is, for example, a northbound bus on this route would reach Riverview Center and then proceed back toward Albany via North Pearl Street and Lawn Avenue before returning to the original path on Northern Boulevard.

The modification fits into the existing #5 route scheme as illustrated in Figure 18 below.



MAP SOURCE: CDTA

Figure 18
Pilot Transit Route Modification

The modified route would proceed as follows:

- *Northbound* buses will travel as they do at present, from Northern Boulevard to Van Rensselaer Boulevard to Wards Lane to Broadway.
- *Southbound* buses will travel along Broadway to North Pearl Street (at Wolfert Avenue), then to Lawn Avenue, and up Lawn Avenue to Northern Boulevard.

The Lawn/Northern/Van Rensselaer intersection will become a transfer point for a small number of bus patrons – those who are for example leaving Riverview Center (the former Montgomery Wards building) and wish to get to the apartment complexes on Wards Lane would do so by taking the southbound bus to Lawn/Northern/Van Rensselaer and then transferring to the next northbound bus stopping here. The placement of stops is conducive to this transfer, with the northbound stop currently situated near the intersection; a transit shelter will enhance the travel experience. While precise stop locations are at this writing still being finalized by CDTA, based on examinations by safety and supervisory staff, it would be reasonable given the layout of the intersection and the availability of pavement space to expect that the Lawn Avenue stop would be roughly as far from the corner as is the northbound Van Rensselaer stop; placing the shelter so as to “split the distance” between these two stops should ensure that people waiting for either a northbound or southbound bus will not have far to walk to get to their bus when it arrives.

The #5 route would continue to operate on its current schedule with regard to frequency and start times.

As the #5 route sees low ridership, there is not the sort of concern of additional travel time that might exist with a modification to a route such as the #22 (the sixth-busiest in CDTA’s system) for which CDTA would not entertain the notion of adding travel time in the hope of increasing patronage. The opportunity to get these modifications to the #5’s path are rooted in the reality that this route is likely to be discontinued in the next round of route revisits if it does not begin to attract more riders; in the same vein, increasing ridership will be the key to potentially securing *additional* service for the #5 route, such as night and weekend service.

CDTA staff examinations of this modification concept found it to be feasible and worth trying, and thus CDTA expects to implement it in August of 2002. While the most likely locations for stops along Lawn Avenue are at either end of the corridor, the possibility does also exist for a stop along Lawn Avenue, to reduce patrons’ need to walk up or down the hill to get to the bus stop. CDTA staff responsible for determining the safety of any proposed stops are at this writing examining the area for potential issues such as winter stopping and pullaways on the hill, as discussed previously.

The Technical Working Group also saw potential for this route’s eventually looping through the North Albany Rental Homes development, with a stop on Jennings Drive near Lawn Avenue. Being a cross-slope point, this approach could alleviate some of the safety concerns. The

connection from the Rental Homes site to North 2nd Street will not be completed by the projected implementation of the modified #5 route path, but once the development is accessible from North 2nd (projected to be in October or November), the potential for such route modifications will be explored by CDTA.

Note on Administrative Structure/Logistics/Funding

Based on the specifications of the request for proposals for this Study, the Study Team's proposal included an element for development of a plan for initiating service, including identification of a separate administrative structure or any necessary interagency cooperative agreements (as appropriate), for housing the service, route plan details, a conceptual framework for financing the service and the elements of a "kickoff campaign" aimed at maximizing public awareness of service availability. With CDTA indicating a willingness to initiate this service modification in-house, all of these items have been covered or are not applicable, save for that of the kickoff campaign, discussed in the next section.

Kickoff Campaign

Ordinarily, changes to transit service are announced through means of general notice such as press releases and announcements on CDTA's Web page. Because this is a neighborhood-focused modification, more *directed* outreach is in order. Among the steps which should be taken are the following:

- Door-to-door distribution of an announcement flyer through the HOPE VI Offices and the North Albany Shaker Park Neighborhood Association, much in the same way that an announcement of the March Public Workshop for this Study was distributed.
- An announcement of the change should be posted at the HOPE VI Offices and other high-traffic locations around the neighborhood.
- If there will be any major community events in the near future, CDTA can provide staff to promote their services and help neighborhood residents get understandings of their offerings. Specifically, CDTA has indicated that its Transit to Jobs Coordinator will work with HOPE VI staff to promote the service modification and the new opportunities it presents, drawing from its history of similar cooperative efforts under its Access to Jobs program with entities such as the WAGE Center, the One Stop and other Albany County-based service providers..
- Looking further into the future, the Community Center and YMCA should also have displays of CDTA information; similar to the previous item, scheduled "traveler outreach" visits should be scheduled and publicized.

Additional Public Transportation Concepts to Consider Progressing Over Time

In addition to modifications to fixed route transit service, there are several other actions which can be taken to promote general mobility. While it may not be advisable to progress any of the following examples at this time –for example, it may be best to wait until the North Albany Rental Homes are close to fully occupied and some of the other developments in the neighborhood have been completed – they give a sense of how variables such as vehicle availability, age and desired travel destinations can be accommodated through a range of tools. These concepts are presented in a rough lowest-cost to higher-cost progression; the “Overall Sense” indications should be considered as discussion-starters, not a final stratification.

- volunteer driver program

Volunteers use their personal vehicles to provide transportation. Tend to be primarily for trips to doctors/shopping, and usually for seniors or other mobility-impaired persons.

Cost Issues: mileage reimbursement (usually supported by formal program), support for coordinator (see below)

Service Provision Issue: need for centralized coordinator/scheduler/contact

Key Lawn Avenue Issue: The question of whether this sort of service can truly address the mobility needs of the neighborhood (that is, this may be a good approach to senior transportation, as noted above, but for a broader range of transportation purposes (including commuting), it may be inappropriate.

- vanpool/carpool program

Vanpool: organization or company may provide vehicle(s) for which groups of travelers share driving responsibilities, (sometimes) fuel costs. Carpool: travelers use own vehicles to share rides with others, with driving (i.e., whose vehicle is used) typically rotated on a daily or weekly basis.

Cost Issues: for vanpools, provision and maintenance of vehicles. CDTC notes that the cost of a vanpool vehicle is typically rolled into the monthly fee paid by the participant. Thus, if riders “drop out” of the arrangement, average costs paid by riders who remain in a program increase.

Service Provision Issue: less formal coordination function required, but still the need for communication with/between pool participants. Also, CDTC reports that carpools are most successful when rides and costs are shared, as opposed to arrangements under which one party participates solely to be a rider (that is, never takes a turn as driver).

Key Lawn Avenue Issues: Taking advantage of a densely-developed neighborhood's potential to have a number of people traveling to the same general area, by first getting a sense of where these travel paths go; also, determining whether vehicle ownership alone is sufficient to make this a potentially cost-free undertaking, or alternatively whether the need is for vehicle purchases for vanpooling. Also, the type of employment of potential participants can significantly impact the success of a carpool program; for example, CDTC has found that many entry-level jobs do not go by the traditional 9-to-5 schedule, and thus finding a rideshare partner with a compatible schedule can be difficult.

- car sharing arrangements

A relatively new development in the United States (but more established in Europe) in which cars are made available for use to participating travelers who have registered with a sharing program. Vehicles are reserved in advance (often on-line) for blocks of time; after use, the participant returns the vehicle to where s/he picked it up.

Cost Issue: vehicle rental cost appears to include prorated cost of vehicle purchase, maintenance and insurance (like any other car rental operation)

Service Provision Issue: does not appear to be particularly conducive to regular commuting-type use (that is, is more an "as needed" service)

Key Lawn Avenue Issue: Is this neighborhood by itself large enough to support such a program – they tend to be citywide – or is it necessary to make this a Citywide effort? If the latter, is Albany interested in progressing such a concept (possibly with the assistance of CDTC and other parties)?

- school bus down time utilization

Using school buses when they are not transporting students, based on either the regular bus route or a dial-a-ride basis. Some communities have also developed arrangements under which adult travelers (e.g., commuters) ride underutilized buses along with students, although this requires implementation of a number of safeguards to allay concerns of the parents of students. The potential for application of this tool is also a function of whether applicable State laws allow it.

Cost Issues: covering additional fuel/maintenance/insurance costs associated with increased vehicle operating hours

Service Provision Issues: timeliness of service (e.g., reconciling vehicle availability with employee work hours), availability of service at both ends of the workday

Key Lawn Avenue Issue: The Albany City School District’s use of contract transportation service and CDTA for pupil transportation reduces the potential for use of this tool (extra hours would likely cost extra money; the expected cost-effectiveness of this additional investment would need to be clear.

- human service agencies providing transportation

Taking advantage of down times of transportation fleets of agencies such as senior citizens’ service and Associations for Retarded Citizens) to supplement local public transportation operations.

Cost Issues: need for agreement for provision of financial assistance for vehicle maintenance; costs of drivers and operating costs; insurance coverage.

Service Provision Issues: same as for “school bus down time utilization” above; in addition, there may be issues of labor availability (CDTC reports that many human service agencies have difficulty hiring and retaining drivers).

Key Lawn Avenue Issue: Nearby service/vehicle availability and the receptiveness of local providers to the concept.

- contracted taxi service

Either for single-traveler service or (more commonly) “shared ride” arrangements under which multiple travelers with trip origins and destinations in the same general areas or along the same routes. Service contracted with taxi companies.

Cost Issues: need to provide some guarantee to the taxi company to make the venture worthwhile; can be more expensive per trip than other tools, and may not be compatible with the set ride rates within City limits

Service Provision Issue: need to establish a system for requesting qualified rides (e.g., either a group identifier for use when calling the taxi company or a go-between which contacts the taxi company).

Key Lawn Avenue Issue: The extent to which utilization and benefit can be projected ahead of time, such that the terms of a contract with one or more taxi services (provided these services are willing to participate) can be spelled out to all parties’ satisfaction.

- fixed route transit reroutes

Diversion of routes (the route modification of the #5 CDTA route discussed earlier is an example)

Cost Issues: impacts of reroutes on patronage (and, in turn, farebox revenues), and modest change announcement/schedule reprint costs.

Service Provision Issue: impact on travelers who have to change their transit use plans (e.g., leave earlier to get to a stop) or who may no longer be able to use the transit route due to the route modification

Key Lawn Avenue Issue: The practical likelihood of modifications to other CDTA routes, such as a #22 reroute through the new HOPE VI development, in light of both ridership issues and other considerations (the latter e.g., difficulty in accessing certain areas due to grades, intersection geometries).

- shuttle services (private)

Entrepreneur-provided operation typically providing fixed-route service in a given area, usually in a loop or other out-and-back configuration allowing for passengers to be carried in either direction.

Cost Issues: coverage of the capital cost of vehicles, and the feasibility of providing profitable service based exclusively on fares (i.e., without subsidy)

Service Provision Issue: particularly for services covering smaller areas, profitability concerns have in some cases led to deferral of shuttle vehicle maintenance, in turn raising safety concerns

Key Lawn Avenue Issue: Determination of one or more promising routes, and the private sector's willingness to make a go of such a service.

- transportation brokerage (e.g., ACCESS Transit)

The ACCESS Transit model is of an entity which, as ACCESS' Web page puts it,

“function(s) as the intermediary between government and transportation providers in much the same way as a travel agent acts between a consumer and an airline.”

ACCESS Transit performs this function for Medicaid transportation programs in Albany, Rensselaer and Schenectady Counties. Conceivably, a parallel model could be created to

broker the various forms of transportation available to the public on a fare basis (e.g., the “one number to call” through which available transportation opportunities could be identified for a given trip).

Cost Issue: funding to establish and operate the brokerage function

Service Provision Issues: getting agreements to participate from enough types of providers to make the brokerage function achieve something more than contacting a taxi most of the time; on a related note, achieving enough of a benefit in enhanced utilization of available resources to enable travelers to minimize travel costs (e.g., it may be cheaper to travel through a ride on a human service agency vehicle than a taxi).

Key Lawn Avenue Issue: In all likelihood, this would have to happen at minimum at a Citywide rather than neighborhood-level. The City’s willingness to consider pursuit of such an idea (or a contracted operator’s doing so), based on both funding and potential benefit, needs to be ascertained. The question of whether ACCESS Transit performs this function to the maximum extent it can be done in this area also needs to be considered.

- alternative mode facilitation

Taking steps to ensure that opportunities to use other modes of transportation are not precluded by design problems such as sidewalks that do not continuously accommodate major travel paths and the absence of safe waiting areas at existing transit stops.

Cost Issue: potential construction costs routed both in unit costs (e.g., cost per linear foot of constructing sidewalks, which can add up quickly) and in the amount of work needed to enhance “complete trip” connections

Service Provision Issue: this may only be a partial solution to the problem of encouraging use of other modes. There may be factors beyond the physical sufficiency of facilities with which to be dealt; discussions with travelers need to explicitly consider this question so as to get a complete picture of what the local needs are.

Key Lawn Avenue Issues: It needs to be determined whether and to what extent these types of actions would address the sorts of mobility issues discussed in the study RFP, rather than having benefit particularly limited to accommodating existing bicycle and pedestrian mobility. As noted above, cost would also be a major issue.

- sponsored services

Securing support for transportation service operations from businesses or other entities. As an example, some local automobile dealers have donated vehicles and/or maintenance service to senior citizens' residences and service agencies, in exchange for "Donated by XYZ Auto World"-type signage on the vehicles.

Cost Issues: the sponsoring entity must reach the determination that the service is worth sponsoring, and care must be taken to ensure that the terms of the sponsorship do not leave the service operator responsible for certain costs (e.g., mileage-interval-based major maintenance) it is unable to absorb. In addition, while the sponsor may be willing to provide a vehicle, the matter of who covers the cost of insurance can be difficult to resolve.

Service Provision Issues: part of the arrangement with the sponsor may be that the service coverage is such that there is a fair amount of visibility for the vehicle(s) bearing any signage acknowledging the sponsor; very localized services may not meet this requirement. Along a similar line, the service coverage would likely need to be designed not just to provide connections to other nearby transportation opportunities (e.g., bus stops) but to provide complete trips to nearby major destinations.

Key Lawn Avenue Issue: The potential for one or more sponsors to be identified and willing to participate; also, along the lines of the shuttle service and vanpool/carpool options discussed earlier, there needs to be the determination that neighborhood travel demand falls into a pattern which could be addressed through this sort of service.

- employer vans

Employers either hire or operate vehicles (frequently 15-passenger "window vans") to get their employees to and from work. Service may be on either a door-to-door or a central pickup basis.

Cost Issue: employers need to see the benefit of investing in the service, either without charge or with some level of reimbursement from employees utilizing the service

Service Provision Issues: identifying employee residence "clusters" so as to target areas for service, and getting employees to take advantage of the service

Key Lawn Avenue Issues: There needs to be enough of an employee presence in the neighborhood (and others in the area) for a particular employer to see potential benefit in investing in this type of service. Also, there of course needs to be the financial capability on the part of the employer to invest in this type of service.

While the State might have the resources and the employees in the neighborhood needed to make this type of venture work, it does not engage in these kinds of programs at present.

- fixed-route shuttle services (public)

Local examples include CDTA's Shuttle Bee, Shuttle Bug and Shuttle Fly – smaller vehicles providing scheduled service connecting longer fixed-route services to denser areas. May be either the only service provided to these areas or supplement existing service with significant time lengths between runs.

Another version of fixed-route shuttles involves dedicated point-to-point service, through which access to a major destination from another area can be provided through an exclusive “run” between the two.

Cost Issue: while farebox revenues are not ordinarily expected to cover the total cost of a service of this sort, ridership does need to be fairly strong in order to continue this type of service, particularly given the reality of needing to justify supporting subsidies

Service Provision Issues: identification of promising areas from the perspectives of unmet transportation needs and ridership; identification of the travel destinations from these areas

Key Lawn Avenue Issues: The existing level of transit service provided to the neighborhood, and the potential benefit of providing shuttle service to it; these need to be weighed from a benefit perspective against comparable metrics for other neighborhoods and commercial areas. Of course, fiscal realities are also critical factors.

- door-to-door service

Provision of “dial-a-ride” service through which travelers can arrange for transportation service in advance. Service tends to be provided via vans, with trips shared along general routes.

Cost Issues: can be costly on a per-ride basis, unless the density of the area served and patronage of the operation is such that the service has significant utilization

Service Provision Issue: most typically provided for mobility-impaired persons; few general-travelers programs in urban areas to use as models

Key Lawn Avenue Issue: Potential ridership.

- fixed-route transit service expansions

Establishment of new routes.

Cost Issues: substantial cost implications; need to have very strong indications of likely ridership

Service Provision Issue: distributional issue of where new services should be provided (e.g., “why there and not here”)

Key Lawn Avenue Issue: Existing transit service provided to the neighborhood and fiscal realities.

APPENDIX ONE: ADDITIONAL CONCEPTS FOR EXPLORATION

SYNOPSIS

Issues: through traffic on lower Lawn Avenue; reconnection of Hackett Park and the softball field on either side of North 1st Street; and truck traffic in general.

Key Findings/Insights: Possible treatments found not to have any initial “fatal flaws” include a treatment at Lawn Avenue at North Pearl Street comparable to that at the intersection of Buckingham Drive and Bender Street (near Route 85) in Albany, and the concept of terminating North 1st Street so as to reconnect the Park and the softball fields. More effectively managing (i.e., “controlling”) truck circulation in the area will require a combination of regulatory steps (e.g., signage) and geometric treatments (to make certain truck movements physically difficult/impossible).

Next Steps: While the treatments above were found to be particularly promising, none of the concepts examined should absolutely be ruled out. Further professional examination of each of these issues and of the more promising potential actions is warranted.

At the request of the Technical Working Group, the study team examined three additional traffic-related matters significantly affecting the quality of life in North Albany: through traffic on lower Lawn Avenue; through traffic on North 1st Street and the way in which it separates two major recreational sites for the community; and general truck traffic. While the Study team did not conduct detailed feasibility studies for concepts which might address these issues, it did progress several “fatal flaw” examinations intended to identify potential problems with these concepts. The aim of this effort was to provide a starting point for future discussions of these ideas among the responsible agencies.

Lower Lawn Avenue Through Traffic

The segment of Lawn Avenue between North Pearl Street and Broadway presents a combination of on-street parking and homes which are fairly close to the road. This being a through street, there seems to be a troubling combination of motorists attempting to travel along the street at a fairly high rate of speed (arguably too high for conditions) and activity including children playing and people walking in or immediately adjacent to the street. Through traffic on this narrow street also appears to be raising a concern that parked vehicles may be sideswiped, with the result being (as shown earlier in Figure 6) that some people will park on the sidewalk to keep

their cars away from other moving vehicles (in turn taking part of a travel route away pedestrians).

While there are some steps which can be taken to raise motorist awareness, in the hope that they will proceed with caution along the block, the larger question is one of whether there are other routes which some share of the street's traffic could more appropriately use. This is to a considerable extent a matter of achieving goals related to *quality of life* rather than *mobility* in how the transportation system is managed. That is, the realities are that (1)Lawn Avenue is right on the way from Broadway to Route 9 and I-90 and (2)traffic volumes on this segment of Lawn Avenue while significant are not technically inconsistent with a residential setting, but the problem is one of adverse impacts of traffic at the neighborhood level. Removing some share of through traffic would serve an important function in promoting *environmental justice* – the assurance that communities or populations lacking the resources to mobilize and protect their neighborhoods or to relocate to other areas with the ease that others might have at minimum do not suffer negative impacts from investments, and preferably see an *improvement* in their situations.

Several concepts for addressing this issue were raised in Technical Working Group meetings, including making this section of Lawn Avenue a dead end, making it a one-way street, and developing a “one way at the intersection” configuration akin to that for Buckingham Drive at its intersection with Bender Street near Route 85 in Albany. The findings of explorations for each concept are briefly discussed below.

Dead End Concept

The concept of dead-ending this segment of Lawn Avenue with access either at Broadway or at Lawn Avenue was considered. Of the two, access at Broadway is arguably the more desirable alternative, particularly if the traffic signal at the intersection was to be maintained. (The Lawn/North Pearl intersection does of course have a signal as well, but in the case of Broadway, the signal is more of a necessity for people leaving Lawn Avenue.)

Proceeding from the “base case” of closing the street at North Pearl Street, the group considered the notion of cutting the street off some distance before the intersection such that a modest pocket park could be created. In addition to greenspace, this pocket park occupying the former pavement area could include some planters, benches and other treatments which could make it a local pedestrian destination. With bus stops on North Pearl Street at the intersection, the park could also serve as a pleasant waiting area.

The four major concerns that arose from examination of this concept were as follow:

1. *Emergency vehicle access* could be affected. Using firefighter response as an example, while CME analyses of minimum path run times from the Arbor Hill firehouse at the intersection of Manning Boulevard and Lark Drive found that fire apparatus might not

ordinarily travel from North Pearl Street to this section of Lawn Avenue in the course of a response, street closures, blockages or other incidents might make this connection necessary. While the pocket park could be designed with roll-over curbs and any furniture positioned to allow emergency apparatus to drive through the park, there is a safety issue attendant to having emergency response vehicles driving through a pedestrianized area. Similarly, there is the potential for police pursuits to include the park area, a circumstance even more likely to raise safety concerns.

2. The *mobility of residents of this part of Lawn Avenue* will be adversely affected, as they would lose one route of access to and from their homes.
3. With movements in either direction of traffic precluded at the closed end of the street, the greatest potential for *undesirable changes in traffic pattern on other neighborhood streets* exists. That is, much of the traffic conflict problem on this segment of Lawn Avenue might be shifted to Lindbergh Avenue, North 3rd Street, both of these streets, or some other combination of streets.
4. From an urban design standpoint, it should be noted that dead-ending a street can also physically and psychologically cut the street off from the surrounding area. Particularly at the end of the street where it is actually cut off, street activity would be almost entirely limited to pedestrian and bicycle traffic. Also, a dead end can be less inviting the pedestrians at Broadway, even if the public nature of the pocket park is clearly evident. While this point would likely run counter to the wishes of residents of this segment of Lawn Avenue, who certainly stand to prefer such a reduction in activity, it is presented here to note the varied perspectives on such a treatment which might come into play during a more comprehensive examination of potential treatments for this area.

One-Way Lawn Avenue Concept

This approach would maintain emergency vehicle access via either end of the street, but residents of the street would need to adjust their travel patterns in light of only being able to access or leave their houses in one direction. It would be a relatively inexpensive change to make, primarily requiring the installation of “ONE WAY” and “DO NOT ENTER” signage and repositioning existing regulatory and other signage so as to ensure that all signage along the street faces approaching traffic.

There was some debate at Technical Working Group meetings and the March Public Workshop regarding which direction would be preferred if one-way operation was established. No clear consensus emerged; should this concept be explored further in the future, one desirable element of the exploration would be to survey residents of this segment of the street for their input on what would work better for them. That said, it is important to note that as the street would continue to be open to all traffic (and, if only on an unlawful basis, to through heavy truck traffic as well), it will not resolve the “motorist awareness” matter noted earlier.

While signal control at either end would partially mitigate the adverse affects of this change, confusion, “force of habit” and other behavioral factors could raise safety concerns when “what is expected” is not what happens in practice.

“One-Way at the Intersection” Concept

In Pine Hills, Buckingham Drive extends from Route 85 (the Slingerlands Bypass) to New Scotland Avenue (a heavily-traveled street along which there are numerous commercial, institutional and residential land uses). Due to a concern regarding speeds of vehicles traveling from Route 85 to New Scotland Avenue, several years ago the City modified the intersection of Buckingham Drive and Bender Street (which parallels Route 85) such that while Buckingham Drive remained two-way for its entire length, traffic was not permitted to access Buckingham from the intersection. That is, from its appearance at the intersection, Buckingham is one-way entering the intersection, but it is in fact a two-way street. From a construction perspective, this was accomplished by building a raised island across what had been the side of Buckingham which vehicles used to travel from Bender or Route 85 onto Buckingham. Appropriate signage was also installed to make clear the prohibitions on turns or through movements onto Buckingham. Two perspectives on the intersection are shown in Figure 19.



*Figure 19
“One Way at the Intersection” Concept in Use
Intersection of Buckingham and Bender, Albany*

A comparable treatment could prohibit being on movements from North Pearl Street and upper Lawn Avenue to this segment of Lawn. The appeal of this concept lies in maintaining emergency vehicle access and residents’ abilities to travel from their homes to their destinations. Again, it continues to allow some through traffic, but the continuation of two-way mobility on the street would avoid the “expected versus what happens” problem noted for the one-way street concept.

North 1st Street Through Traffic/Hackett Park Greenspace Connection

The North Albany community has expressed a desire to cut North 1st Street off west of North Pearl Street to accomplish two ends:

- connection of Hackett Park with the softball field for continuous green space and safer pedestrian access
- elimination of vehicular traffic coming down this steep (13% grade) hill (a particular concern during the winter months)

In addition to these functional impacts, the cutoff concept is also seen by the community as potentially having more specific safety benefit. For example, the Technical Working Group noted that the intersection of North 1st Street and North Pearl Street is heavily used by children walking to PS 20; there have been incidents in which vehicle brake failures have resulted in both “near misses” with pedestrians and vehicles’ crashing into houses on the corners of this intersection.

The Technical Working Group cited New Loudonville Road as a preferred alternate route to which heavy vehicles should be directed for this connection.

The HOPE VI Office has developed a conceptual modification to North 1st Street which would terminate the street west of North Pearl Street. It is included in Figure 20’s conceptual truck route presentation. As envisioned, the section of North 1st extending from North Pearl Street would proceed westward for a short distance, turn to the south and then end. The existing section of North 1st extending eastward from Van Rensselaer Boulevard would end at the North 1st Street access to the North Albany Rental Homes, preserving access between this site and Van Rensselaer. The HOPE VI concept calls for this section to be designated as one-way southbound/westbound (i.e., from the Rental Homes to Van Rensselaer), so as to discourage short-cutting from Van Rensselaer to Lawn and North Pearl while at the same time preserving emergency vehicle access.

As with the dead-ended Lawn Avenue concept, the major concerns this concept raises – provided there does not prove to be a southbound (i.e., toward lower Van Rensselaer) shortcutting problem – are those of (1) emergency vehicle access when one or more preferred routes are not available, (2) police pursuits which might travel through the reclaimed greenspace, and (3) adverse impacts on adjacent street traffic. Regarding the first two concerns, it is worth noting that the part of North 1st below the greenspace area (that is, no longer directly accessible from Van Rensselaer) is sparsely developed and/or open space, and thus not very likely to be a location to which emergency service agencies will need to respond (barring accidents and other non-location-specific incidents). In addition, the detour to North 2nd Street would not require a very great distance, and the section between the Rental Homes site and North Pearl Street is bordered by open space on one side and the grounds of PS 20 on the other, limiting the potential for adjacent activity to spill over into the street in the path of emergency vehicles.

On the matter of impacts on adjacent street traffic, at the May 15 Public Workshop, the Principal of Public School 20 (located on the west side of North Pearl Street between North 2nd and North 3rd Streets) raised a concern regarding both this concept and the more general issue of traffic increases on North 2nd Street once the connection to the North Albany Rental Homes site is completed (projected to be in October or November). While as discussed in Part Two the distribution of traffic to and from the Rental Homes site will be over several streets, North 2nd Street's conversion from a dead end off of North Pearl Street to a through street certainly brings with it the likelihood that there will be an increase in traffic volumes. The greenspace connection discussed here would compound this increase, although the magnitude of this increase is difficult to project. Two notes are thus offered for this area:

1. Prior to and upon the completion and opening of the connection of North 2nd Street to Jennings Drive, traffic counts should be conducted on North 1st Street, North 2nd Street Lawn Avenue as well as strategic locations *within* the Rental Homes site (e.g., on Jennings Drive near Lawn Avenue, North 1st Street and North 2nd Street) to determine any changes to local traffic patterns and the potentials for supplemental modifications to access management and street use (the latter e.g., one-way designations).
2. Along a similar line, should the greenspace reconnection concept be progressed for the North 1st Street area, there should be an effort to plan for the distribution of traffic on the nearby alternatives to North 1st Street, to ensure that the effect is not simply to move traffic to another street or streets where it is as important if not more important to minimize the conflict between traffic and adjacent land use.

North Albany Truck Traffic

During the Study effort, the North Albany Shaker Park Neighborhood Association noted that the residents of North Albany recognize the importance of a vital commercial district; indeed, they want the nearby commercial and industrial activities to flourish. That said, at the public meetings for this Study and over the years, neighborhood residents have also expressed a desire to see through truck traffic including traffic related to the commercial and industrial land uses in the Erie Boulevard area focused on a small number of local streets including Broadway, New Loudonville Road and Van Rensselaer Boulevard. In other words, they are seeking a balance of economic vitality and livability. Toward this end, neighborhood residents have voiced their desire for an increased police presence to provide for greater enforcement of truck bans, but at the same time they recognize the resource constraints affecting the degree to which enforcement can take place.

One of several possible solutions to the problem of truck routing within and around the neighborhood advocated by the North Albany Shaker Park Neighborhood Association is presented in Figure 20. This graphic also illustrates how focusing trucks on a selected set of

streets through design and enforcement steps can complement the Lawn Avenue and North 1st Street cutoffs discussed earlier.

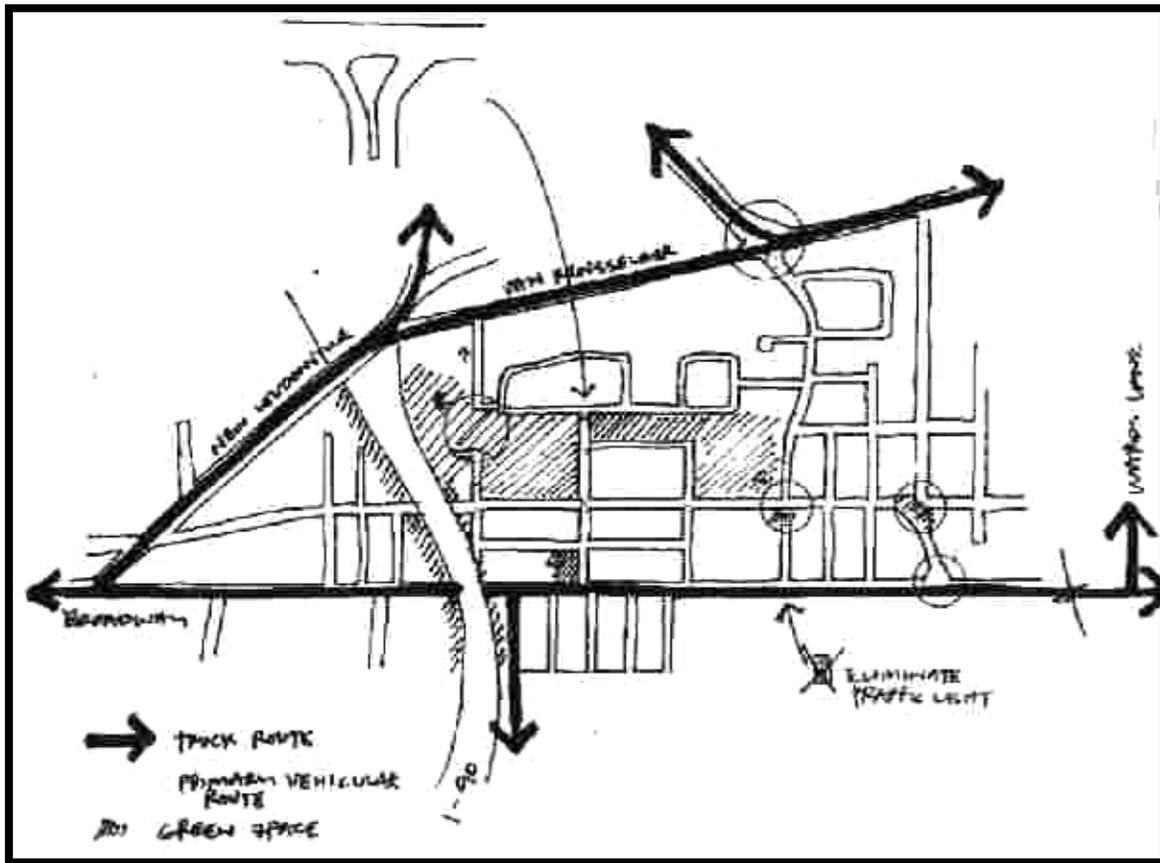


Figure 20
Conceptual Truck Route System for North Albany

Earlier, the concept of *environmental justice* was discussed. Truck traffic passing through the residential part of North Albany is a textbook example of an environmental justice challenge. Safety concerns, noise, emissions, vibrations and potential vehicle damage (the latter prompting the sort of behavior seen earlier in Figure 14) are all aspects of the environment with which North Albany residents must contend on a daily basis on the streets along which they live.

Streetside signage is an important starting point in keeping truck traffic off of Lawn Avenue, although a number of the relevant signs along this street are faded to the point that they do not have the sort of upstream visibility needed to influence the decisions of truck drivers who are willing to abide by the truck ban. More importantly, many streets such as Lawn Avenue which heavy trucks are illegally using are *geometrically capable* of handling trucks – they are wide enough, and the intersections into which they feed are broad enough for turning trucks to navigate. This reality, combined with the logistical difficulty of allocating police officers to this

sort of enforcement work, results in the some number of heavy trucks' traveling through the area based on what constitutes the apparent shortest distance or quickest trip, rather than the law.

It is important to note the City of Albany's law regarding truck bans: unless a street has been officially designated for a truck prohibition and has "NO TRUCKS" posted, trucks may legally use them. That is, the truck route system is not limited to a designated number of streets with affirmative signage (e.g., "TRUCK ROUTE"). When the City Traffic Engineering Department (TED) receives a complaint regarding truck use of a street where it may not be appropriate (a narrow residential street, for example), it conducts a field examination and determines whether a ban on non-local trucks is appropriate. Thus, it is incumbent on residents of the neighborhood to bring to TED's attention those locations where truck activity is incompatible with neighborhood setting. While this will result in something of a "process of elimination" progression by which the network of streets available for truck use becomes specifically defined, it is a necessary progression in light of the wide range of issues and locations of concern being handled by TED.

Beyond the use of "NO TRUCKS" signage, a number of the treatments discussed throughout this report can combine to affect the attractiveness and/or basic availability of streets in the neighborhood for truck use. While a proper, comprehensive plan for keeping trucks on a targeted set of appropriate streets would need to be developed through a study specifically concentrating on this topic, an initial scan of known truck paths and the characteristics of the neighborhood's street system points raises the following concepts for consideration.

- *Broadway-Erie Boulevard Street Cluster:* It may be possible to establish a usage plan under which a single street out of the five between Broadway and Erie Boulevard is the means of accessing the remaining four streets via Erie Boulevard. (The plan could apply either to all traffic or only to trucks, although the regulations would be clearer if they applied to all traffic.) That is, for example, if a truck is destined for North Street, it might have to turn from Broadway onto Erie Street, then from Erie to Champlain, and then from Champlain to North. This would be one way to focus trips into the area. Alternatively, the reverse of this arrangement could be established, with all five streets accessible *from* Broadway but only one of the five allowing access *to* Broadway. This would focus traffic exiting the cluster on one street; however, it could also result in some queuing of trucks at times as a number of them wait to turn at the same spot. Also, the "one way out" approach would be more prone to adversely affect the degrees of mobility enjoyed by residents of these streets.
- *Curb Extensions at Intersections:* Discussed earlier as a more general traffic calming concept, this tool could establish "choke points" at intersections through which trucks could not proceed. As with all of the other techniques that might be considered for this issue, signage and other regulatory steps need to be in the package with such physical treatments; that said, a particular note applying to curb extensions bears separate mention here, for the possibility exists that if the extension and the truck prohibition are not absolutely clear, some truck drivers will attempt to execute the maneuver being acted

upon, with the possible results ranging from blocked intersections for some period of time to truck rollovers and injuries.

- *Parking*: As was noted previously, some neighborhood residents are hesitant to park on the streets for fear of sideswipes. That said, physical treatments to reduce through traffic (both truck and general) *combined with* the continued allowance of parking (where it can be safely done) can further convey to truck drivers the sense that what appears to be the quickest way to travel through the neighborhood in fact presents obstacles.
- *Gateway Truck Route Postings*: Using “gateway” in a more general sense than simply the single intersection discussed in Part One, notice could be given at the major gateways to the neighborhood for trucks (e.g., Broadway, North Pearl Street, Northern Boulevard and New Loudonville Road) of truck travel opportunities. That is, for example, it might be possible to post a sign including a basic map of some sort prominently showing the streets upon which trucks are permitted to travel. Such signs should also make clear that other streets are off-limits except for local delivery purposes.
- *Notes on Local Truck Traffic*: The “NO TRUCKS” signs posted on several streets in the neighborhood include the note that these prohibitions apply *with the exception of trucks making local deliveries*. This indication can raise debate as to what constitutes “local.” For example, it is a dubious contention that Lawn Avenue is part of a valid “local delivery” route from I-90 to North Street. It needs to be made clear that “local” means that the truck must either be on the street where the delivery is being made or on the street most connecting to the delivery destination street.

Another note regarding local deliveries would be that where construction-related actions are taken, some degree of flexibility should be provided in design to ensure that legitimate local delivery trucks are not *absolutely* prevented from using neighborhood streets. The model condition for consideration of this need would be a tractor-trailer moving van carrying personal belongings to a house.

The sum comment on managing truck circulation in the neighborhood is that as there are a considerable number of streets which could conceivably be illegally used by heavy trucks, it will be necessary to develop a package of tools that not only covers regulatory and construction-oriented steps but also covers the neighborhood both at the areawide and single-street levels. Working with larger trucking operations to convey neighborhood concerns regarding truck use to drivers can complement these actions, but the range of commercial and industrial activities in the area (and beyond the local area to lower Erie Boulevard as well as into Menands, Watervliet and other communities) will limit the potential impact on behavior to be realized solely from such outreach efforts.

APPENDIX TWO: FUNDING OPTIONS

SYNOPSIS

Issue: How to implement the recommended improvements in a fiscally prudent manner, taking into consideration both available funding and other priorities.

Key Findings/Insights: There are a variety of sources of funding for the improvements desired for the Study area, ranging from taking advantage of ongoing City agency efforts (e.g., maintenance and improvement programs) to State and Federal transportation funding programs. The key lies in developing a strategic plan relating priorities to the availability of funding and the time frame in which improvements can be progressed.

Next Steps: Identify opportunities for CDTC Spot Improvement Program (July 31, 2002 application deadline) and Transportation Improvement Program (projected September 2002 call letter) funding. Spot Improvement Program proposals would ideally be valued in the range of \$5,000 to \$25,000 or so, while Transportation Improvement Program proposals would typically cost on the order of \$100,000 or more.

Following is a brief review of some of the options available for funding the improvements discussed in this report. The range of offerings presented illustrates not only the *opportunities* that exist but the *challenges* of pursuing them, with these challenges including revenue forecasting, balancing of competing priorities, development of compelling proposals, coordination of resource provision (for example, securing sufficient short-term funds to “front” project costs under reimbursement programs) and the simple management of information regarding where the opportunities are.

City Maintenance/Minor Capital Improvement Resources

Use of local funds has the advantage of generally being the fastest way to progress projects. At the same time, this approach requires local implementers to fund projects entirely with their own resources. This may not be a desirable approach for larger-scale projects.

Typically, highway, public works or parks department budgets are used to support transportation projects such as pavement repairs or reconstruction, sidewalk construction and trail or bike path development. Human service agency funds may be used to secure transportation service for agency clients. Under more aggressive arrangements around the State, highway funds have been

used to support transit service, with the logic being that the investment in transit service benefits the highway system by relieving some of the burden on the road system.

From the set of concepts developed in this *Study*, the primary candidates for pursuit solely with local funding are the following:

- use of pavement markings to delineate pedestrian and motorist areas, crosswalk markings and centerline striping
- short-length sidewalk construction or repairs
- construction of transit waiting areas (e.g., pads and/or shelters)
- the installation of street furniture (e.g., benches)
- signal retiming
- signage improvements or replacement

In addition, the ordinance development actions discussed earlier and other regulatory or legislative actions could be progressed through local resources as they would be undertaken by City, County or agency staff in the courses of their normal duties.

Model City Programs

In addition to the just-discussed notion of integrating Gateway improvements into routine maintenance activities, City agencies including the Department of Development and Planning are responsible for analytic and programmatic efforts similar to those identified in this report as needed for the Lawn Avenue Study area. In addition to providing essential technical resources to efforts to bring about improvements in the area (in preparing funding proposals, for example), a number of City agencies operate programs which could support improvement efforts in this area, either “as is” or with some modifications to their structures. The Study Team examined the City’s programmatic offerings with an eye toward identifying such opportunities, either for the Gateway improvements or for other improvements discussed in this report. While there did not seem to be a great deal of *specific* applicability of programs to the desired slate of actions for the Lawn Avenue area – perhaps due to the relative newness of transportation-neighborhood linkage efforts of the sort covered by this Study – this review did identify two current City programs which could with some adjustment provide mechanisms for bringing about the sorts of improvements discussed in this report.

The Division of Neighborhood Revitalization’s *C-1 Neighborhood Commercial Revitalization Program* includes use of a neighborhood planning process which would lend itself well to continuing the work discussed in Part Two regarding development of a neighborhood vision for the Lawn Avenue streetscape. While most of the North Albany neighborhood (including the Gateway intersection) is in a residential rather than neighborhood commercial district (the Program concentrates its efforts on neighborhood commercial districts), the Program could with

some minor modifications of “operating parameters” provide a mechanism for continuing the community-based process of developing a working vision for Lawn Avenue.

The Division of Housing and Community Development’s *Boulevard Improvement Program* could serve as a model for either a targeted effort concentrating on North Albany or on main thoroughfares for neighborhoods such as Lawn Avenue, with an emphasis on assisting efforts to upgrade visual quality, pedestrian and bicycle infrastructure and other neighborhood attributes significantly impacting local quality of life. While the Boulevard Improvement Program is functionally a bit removed from the emphasis of this Study – it is in essence a building rehabilitation assistance program targeting the Henry Johnson Boulevard Redevelopment Area – the “model” potential lies in its focus on both structural quality and the visual experience in a specific corridor.

State Resources

State support for transportation investments comes in four main forms: direct State pursuit of these investments, State assistance to local governments in covering their shares of the costs of transportation-related investments, State non-NYSDOT grant programs in other areas which can provide communities with support for their efforts, and legislative “member items.”

In regard to *direct state pursuit* of transportation projects, while the facilities examined in this Study are City-owned (although Van Rensselaer Boulevard becomes a State-owned route approximately 850’ north of the Gateway intersection), opportunities may exist to secure assistance from NYSDOT in such areas as pavement markings (NYSDOT has an annual program for the replacement of these markings, and has in the past accommodated requests by communities for markings within their borders) and traffic counting (which could help the City get a sense of the changes in area traffic flows resulting from the North Albany Rental Homes development).

On the matter of *State assistance to local governments*, the two main programs serving this purpose in the transportation arena are the Consolidated Highway Improvement Program System (CHIPS), which provides support for capital improvements to road and bridges with expected life spans of seven to ten years or more, and Marchiselli funding, which covers 75 percent of the local share on federally-funded projects (that is, 75 percent of the required 20 percent local share, meaning that the locality ultimately needs to cover only five (5) percent of the cost of such shared-fund projects). CHIPS tends to be used to support improvements such as pavement rehabilitations – repaving – and bridge repairs, while Marchiselli funding tends to be applied to larger pavement and bridge reconstruction projects (that is, projects that are large enough to be federally funded and for which this type of support would be beneficial). Major work at the Gateway intersection as well as more ambitious treatments along Lawn Avenue (to be discussed in Part Two) may be candidates for this type of support.

There are also *non-NYS DOT programs* which support transportation improvements or related activities. For example, in the area of safety education, the Governor's Traffic Safety Committee (GTSC) and the New York State Department of Health's Bureau of Injury Prevention both operate funding programs supporting safety education. The City and Albany County have in the past taken advantage of GTSC programmatic opportunities; doing so at the neighborhood level would be important in complementing what is done to *physically* improve the pedestrian and bicycle travel environments with *education* on how to safely use the transportation system. These agencies are also sources of accident data for planning and project development efforts. (GTSC: 518-474-3135; Bureau of Injury Prevention: 518-474-8985) Also, the New York State Environmental Protection Act, administered by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), covers projects for such facilities as walking and bicycling trails. There has been some discussion of ideas for trail development in the area, such as on the former Dollard Estate grounds; should bonafide opportunities to progress such concepts arise in the future, this funding source could be worth exploring.

Finally *legislative member items* can be secured through the area's State Senate or Assembly representatives. The pursuit of member items has positive and negative aspects. On the positive side, they can be secured for relatively short term project implementation (i.e., within the next State Fiscal Year), tend not to require the sorts of detailed applications or project justifications that are typical of transportation funding processes (particularly competitive program opportunities), tend not to require local matches, and can be "pitched" through very localized efforts such as meetings or field visits with a Senator's or Assemblyperson's district office staff. On the negative side, the competition for this sort of support can be quite fierce, the dollar amounts that can be provided tend to be toward the low end of the range for transportation improvements (perhaps \$10,000 or less, except in cases where funds previously made available have not been used up), the degree to which the opportunity really exists is a function of the political process (e.g., the area representative's majority/minority status in his/her legislative body), and the availability of funds is dependent on the passage of the State budget.

Federal Transportation Funds/Programs

Several transportation funding programs operate under the provisions of the Transportation Equity Act for the 21st Century, or TEA-21. TEA-21 is the Federal transportation law which authorizes Federal highway, highway safety, transit and other surface transportation programs. These programs cover general transportation, transit, bicycle and pedestrian transportation, pavement and bridges. TEA-21 took effect in October of 1997, and will be in force through September 30, 2003, by which time a new highway law will likely have been passed.

Transportation Improvement Program

NYSDOT Region 1 has responsibility for administering TEA-21's programs in the eight counties it covers, including Albany County. In addition, the Capital District Transportation Committee (CDTC), which is the metropolitan planning organization (MPO) for the Albany-Schenectady-Troy metropolitan area, provides the forum and technical support for a coordinated planning process to guide the distribution of funds under the provisions of the federal transportation law. The City of Albany participates in CDTC's Planning and Policy Committees, which oversee CDTC's activities, and regularly pursues TEA-21 program funding through the CDTC process. One of CDTC's main activities is the development and maintenance of the *Transportation Improvement Program* (TIP), a biennially-updated program of projects to be progressed over a multi-year period with at least partial federal funding. Projects on the CDTC TIP are funded through a range of federal fund sources including the Surface Transportation Program (which provides flexible-use funds to states on a formula basis), transit programs and safety programs. The next call for proposals for the TIP is expected to be issued in the Fall of 2002, with a final 2003-2008 TIP to be approved by June of 2003.

Transportation Enhancements Program

A particularly relevant and popular TEA-21 funding opportunity lies in the Transportation Enhancements Program (TEP), administered by NYSDOT for the Federal Highway Administration. The TEP provides opportunities for bicycle and pedestrian facility development, open space preservation, landscaping and scenic beautification, among other eligible project categories. (As a local example, the City's Waterfront Pedestrian Bridge project connecting downtown to the Corning Preserve was a successful TEP proposal.) One particularly attractive aspect of the TEP lies in its providing an opportunity for these types of projects to compete with each other for funding, rather than having to compete with projects geared toward enhancing motor vehicle operations (the latter type of project tends to fare far better in estimates of potential benefit as defined by reductions in delay, congestion and air pollution – the general reference measures for transportation investments).

The provisions of TEA-21 include the requirement that at least ten (10) percent of flexible-purpose Surface Transportation Program (STP) funds allocated to states be committed to the TEP. The TEP is an extremely popular program for which the competition has been keen in recent years; this popularity makes it desirable for inclusion in the next federal highway bill, although the events of September 11, 2001 may stand to shift priorities in transportation investments for the coming years. At a minimum, discussions of the contents of the next highway bill and its potential for continuing the TEP program should be monitored.

CDTC Bicycle and Pedestrian Spot Improvement Program

Another source of federal funds for implementation of some of the types of improvements identified as desirable for the Gateway area is the *CDTC Bicycle and Pedestrian Spot Improvement Program*. This program provides funding for smaller-scale improvements to bridge gaps in or remove barriers to bicycle and pedestrian travel routes. In addition, streetscaping improvements such as the development of sidewalks with historic or other thematic pavers (e.g., brick walkways) and landscaping along bicycle and pedestrian facilities may also be eligible for Spot Improvement Program funds. One of the particularly helpful aspects of this Program to area communities is its intention to be used for projects of low to moderate cost; that is, those projects not ordinarily large enough for federal funding support yet still costly enough to tend to be difficult for communities to fund entirely on their own.

The CDTC TIP includes a setaside of \$100,000 per year (combined federal funds and the required 20 percent local match) for this Program. Funds available for the Program are allowed to accumulate so as to ensure that a fair number of projects can receive awards and be implemented in each round. The most recent call for applications was made on May 1, 2002, with an application deadline of July 31, 2002. Among the projects discussed in this report which might be proposed for Program funding would be sidewalk replacements and improvements, the installation of crosswalk markings, and the installation of street furniture such as benches. (*Contact: Jason Purvis, CDTC, 458-2161*).

Other Federal Funds/Programs

Other Federal agencies administer programs with potential application to study area projects, particularly in the area of trail development. As examples, the Federal Land and Water Conservation Funds and the National Trails Act are managed by OPRHP and New York State Department of Environmental Conservation (NYSDEC) staff, while stormwater, wastewater and floodplain management efforts supported through the Army Corps of Engineers and the United States Department of Agriculture's Soil Conservation Service may include trail and walkway development. NYSDEC Region 4's suboffice in Schenectady would be the first point of contact for information on these opportunities.

Private Support

Private support for transportation-related improvements tends to be in the forms of donations of land, right-of-way, construction equipment time or materials for trail development; volunteer efforts in support of development of facilities; and "adopt-a-highway"-type maintenance efforts. Opportunities could exist in the Study area for pedestrian and/or cyclist amenity development (pocket parks or short-length path connections, as examples) or maintenance efforts for existing facilities. However, much of what is needed in the Gateway area would sit within City rights-of-

way, and thus there does not appear to be much opportunity to “help along” Gateway development in this manner. That said, Technical Working Group and Public Workshop discussions included a good deal of exploration of concepts for making the Gateway a point of pride for the neighborhood through visual elements as plantings and signage; the potential could exist to solicit private support for the purchase, installation and maintenance of such amenities. It is worth noting that some funding programs (such as the TEA-21 Transportation Enhancements Program, discussed above) give a little “extra weight” to project proposals which indicate that commitments to this type of support exist, the logic being that this is reflective of the community’s truly wanting the proposed improvements to take place.

Another form of private support is financial support for trail development or land acquisition. Charitable foundations such as the J. M. Kaplan Fund (www.jmkfund.org) have provided grants to efforts of these sorts in past years, although these grants tend to be awarded to private organizations rather than governments. Community-based organizations may find opportunities to enhance local quality of life through such foundations’ programs. For both private and public grant support, it would be prudent to periodically contact the New York State Library regarding grant information; it and other *designated repositories for foundation grant information* maintain updated information on grant opportunities.