

# DELAWARE AVENUE HAMLET ENHANCEMENT STUDY

Hamlet Area Profile - October 7, 2008

## I. Purpose

The purpose of the Delaware Avenue Hamlet Enhancement Study is to identify transportation and land use design treatments that will help strengthen Delaware Avenue's main street character, consistent with principles outlined in the Town Plan and the Capital District Transportation Committee's New Visions Plan for Transportation. The plan will be designed to reinforce and enhance the architectural style, pedestrian scale and aesthetics of the area, respect and strengthen the surrounding residential neighborhoods along the corridor and provide for safe and convenient corridor travel and access for walkers, cyclists and transit users. The study is a joint effort between the Town of Bethlehem and The Capital District Transportation Committee (CDTC).

The purpose of the Study is to identify actions that could help strengthen Delaware Avenue's main street character by identifying:

- Hamlet design guidelines/standards including building scale, massing, design and setbacks
- Streetscape guidelines including typical cross sections
- Parking and circulation plan for vehicles and bicycles
- Transportation improvements
- Arterial management strategies

This Hamlet Area Profile provides a concise overview of the land use, design and transportation issues and opportunities. It will be the foundation for later steps in the Hamlet Enhancement Study including the public workshops, design standards and multi-modal transportation actions and strategies.



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## II. Introduction

This profile of the land use and transportation conditions in the Study Area is written with an eye toward improvements that positively impact the public and economic health of the residents of the Town of Bethlehem and the Delmar Hamlet. Currently Delaware Avenue can be identified as a state highway, a major conduit to other highways, a pedestrian destination, a place near which people live, work and go to school, a place to park a car and a good address for businesses. The question is: What is the desired identity for this avenue? What is the desired level of motor vehicle traffic, foot traffic and bicycle traffic?

The question of how to rethink Delaware Avenue has been talked about for several decades. As each portion of land is developed (and redeveloped) and more people move to the Town of Bethlehem, thoroughways like Delaware Avenue bear the responsibility of accommodating additional transportation demand. In turn, people walking and bicycling along Delaware Avenue are directly impacted by the additional vehicular traffic volumes along the avenue from a health and safety perspective.

Today, the Delaware Avenue Hamlet is the heart of the Delmar community, located between Adams Street and the Elsmere Avenue area with Delaware Avenue. This area, which includes the Four Corners Area, serves as the main community center for the Delmar area. Numerous businesses, the Delmar Post Office, and residences are found in this compact, walkable area. Many of the structures are built close to the sidewalk, particularly in the Four Corners area (at the intersections of Delaware Avenue/Kenwood Avenue). The Study Area includes Delaware Avenue from the Elsmere School from the east to Adams Street to the west and follows Hudson Avenue to the north and Adams Place and Herber Avenue to the south. A map of the Study Area can be found in Figure 1 on the following page.

The traditional neighborhood pattern throughout the area includes compact lots with older and historic structures built close to the street edge that establish the character and scale of the area. While the area is walkable in places, Delaware Avenue is a busy road with 14,000 vehicles per day through the Four Corners area and 16,000 vehicles per day at Elsmere Avenue. The streetscape is not continuous and there are dead spots in the area that distract from an overall cohesive style and design rhythms.

Delaware Avenue was originally built of unique yellow brick cobblestones. Today the yellow bricks are covered by an asphalt roadway that is a major commuter route to the east. In 2001 the NYS Department of Transportation (NYSDOT) partnered with the Town of Bethlehem and the local business community to improve pavement condition, walkability, safety and aesthetics of Delaware Avenue through the Four Corners. The Hamlet Enhancement Study will take the next step in that process, relying on similar partnerships to target new transportation investments that increase “sense of place” and livability.



# Delaware Avenue Hamlet Enhancement Study

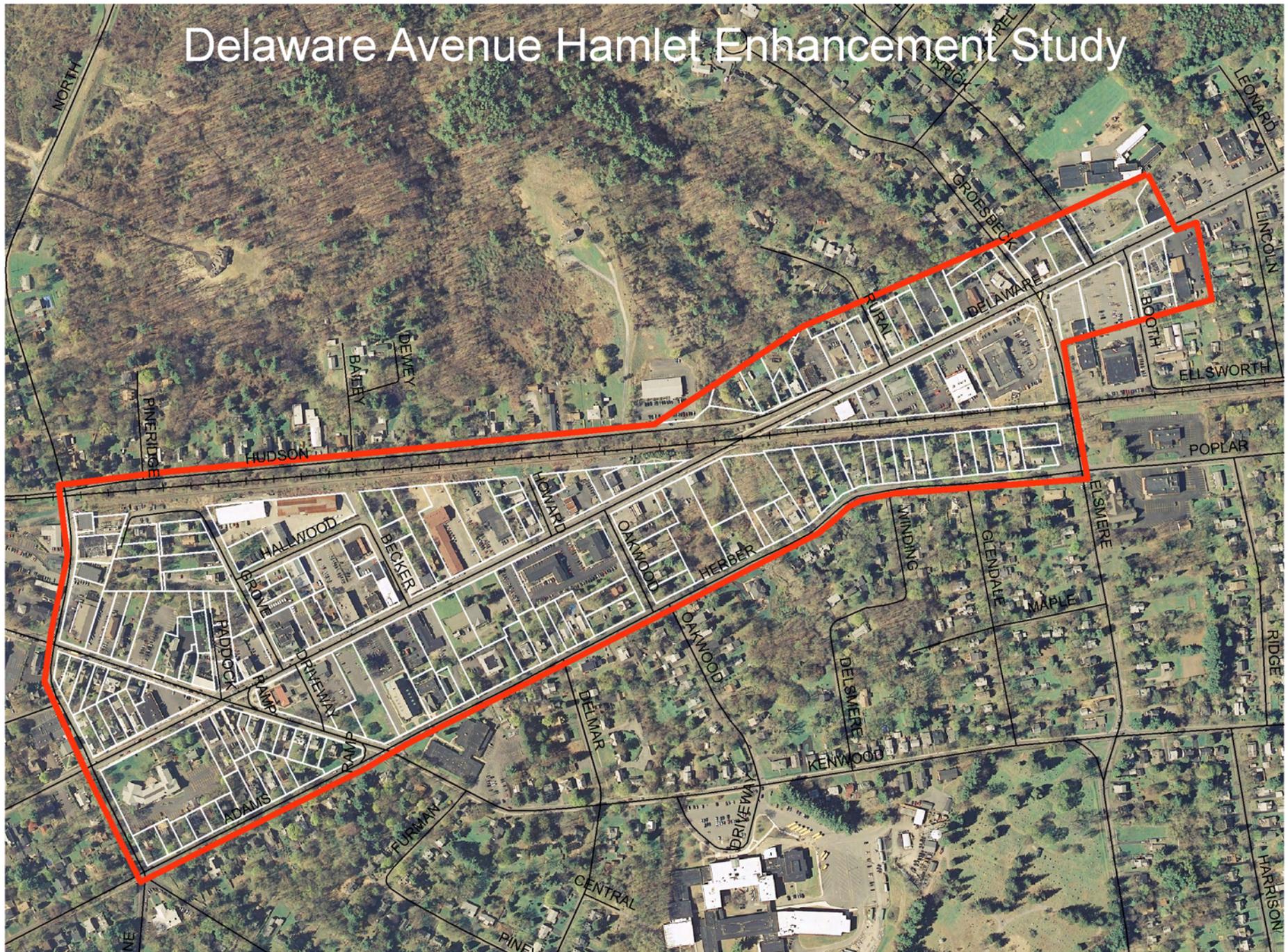


Figure 1 - Study Area Boundary

- Study Area Boundary
- Streets
- Railroad

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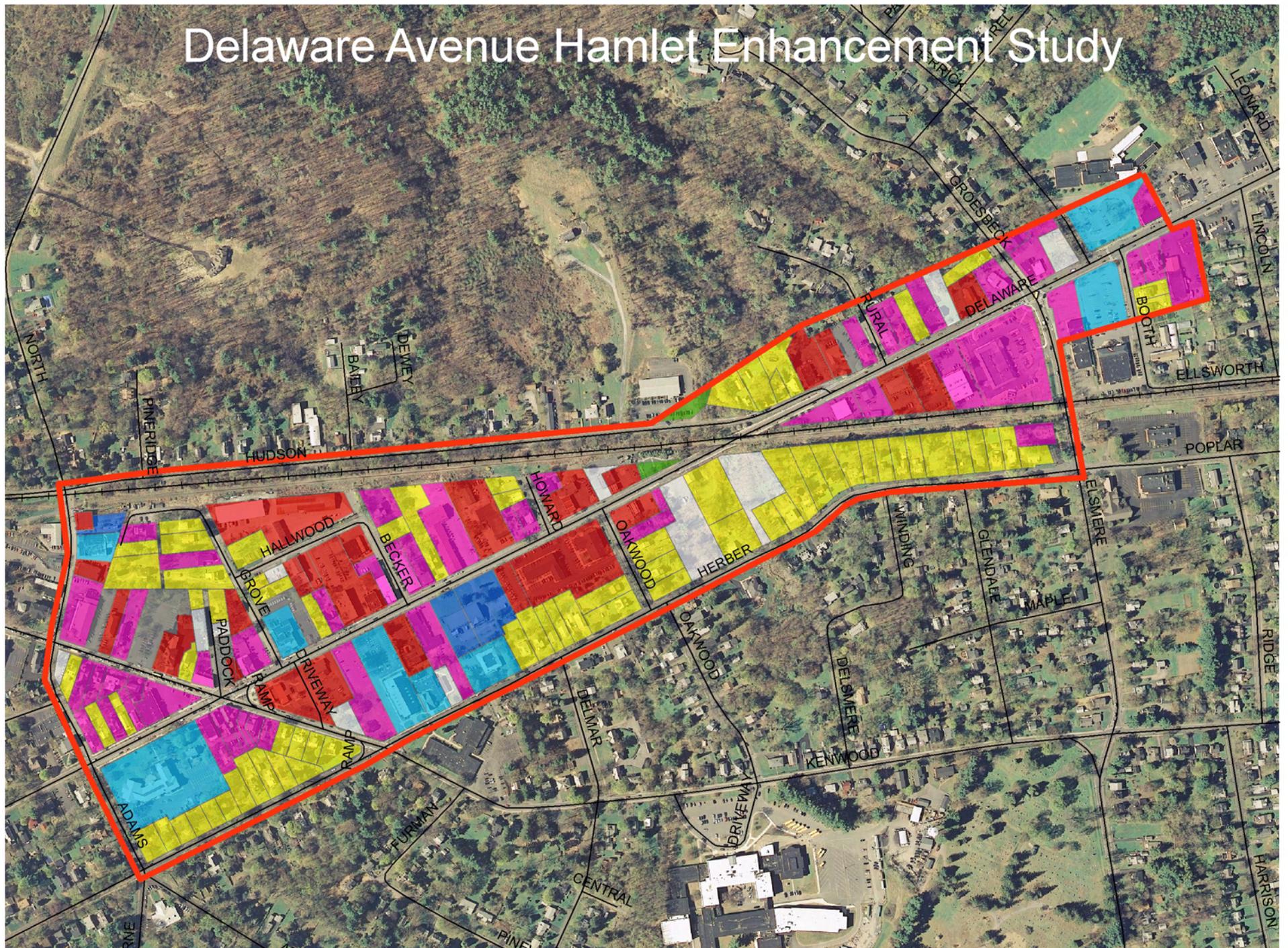
## III. LAND USE AND DEVELOPMENT PATTERNS

A map of the land use classifications for the Study Area can be found in Figure 2. The land uses along Delaware Avenue are primarily commercial with some community service and public services uses. Residential uses are most prominent along Adams Place and Herber Avenue.

The land use classifications in Figure 2 and the Figure 3 include residential, commercial, mixed use, recreation and entertainment, community services, public services, parking lots and vacant land categories. For the purposes of this study, parking lots and mixed use buildings were taken from the Albany County Real Property Tax Service Agency database as a separate category. The remaining categories utilize the general classifications from the New York State Office of Real Property Services Assessor's Manual. The mixed use category includes multi-use buildings including some buildings that have both residential and commercial uses and retail and office uses. The recreation and entertainment category includes Veterans Memorial Park, Planet Fitness (a health club), and the American Legion. The community services category includes schools, religious institutions, non-profits, a medical office, a fire department, Bethlehem's Department of Public Works and the Post Office. The public services category contains utility uses.



# Delaware Avenue Hamlet Enhancement Study



**Figure 2 - Land Use**

- |                     |                            |                    |
|---------------------|----------------------------|--------------------|
| Study Area Boundary | Streets                    | Railroad           |
| Residential         | Mixed Use                  | Community Services |
| Commercial          | Recreation & Entertainment | Public Services    |
|                     | Parking Lot                | Vacant Land        |

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The Study Area as a whole comprises about 100 acres. Residential uses occupy only 25.8% of the land. Veterans Park is the only recreation resource in the Study Area. A specific breakdown of acreage is found below.

Figure 3: Land Use	Acreage	% of Land Use
Residential	25.88	25.8%
Commercial	13.94	13.9%
Mixed Use	21.03	20.9%
Recreation & Entertainment	9.18	9.1%
Community Services	22.14	22.0%
Public Services	1.68	1.7%
Parking Lot	2.63	2.6%
Vacant Land	4.01	4.0%
<b>Total</b>	<b>100.50</b>	<b>100%</b>

The area is compact which allows for good pedestrian access from homes to businesses. Smaller lot sizes are found in the Four Corner Areas and larger properties are found farther out and from Delaware Avenue. Parking lots make up nearly three percent of the land area, but the municipal parking lots appear to be largely underutilized. In addition, four percent of the land area is undeveloped.

On the next page, a series of photographs indicate the variety of land use types found throughout the Study Area.



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### LAND USE DEVELOPMENT PATTERNS



Residential, commercial and mixed use development found throughout the Study Area.

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### IV. ZONING

Zoning districts in the Study Area include the Hamlet District, the Commercial Hamlet District and the Core Residential District. A map of the zoning districts is found in Figure 4.

The Hamlet District permits a variety of residential uses and some commercial uses. The district has design guidelines that encourage the use of multi-story mixed use buildings, the installation of sidewalk, multifamily dwellings near the hamlet boundary and compatible building design for new or infill construction. In addition the design guidelines encourage landscaped front yards when buildings are not built to the edge of the sidewalk, the development of public amenities, the reuse of existing structures, the retention of existing landscaping and the use of complementary building materials for additions to existing buildings. The design guidelines address bulk, architectural rhythm, roof shapes, primary entrances and a few parking recommendations. The minimum lot size is 5,000 sq. ft. for residential uses, 7,000 sq. ft. nonresidential uses and 10,000 sq. ft. for mixed uses. This district is found in the Four Corners area and adjacent areas and includes part of Hudson Avenue.

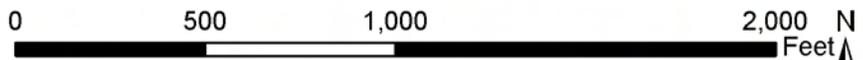
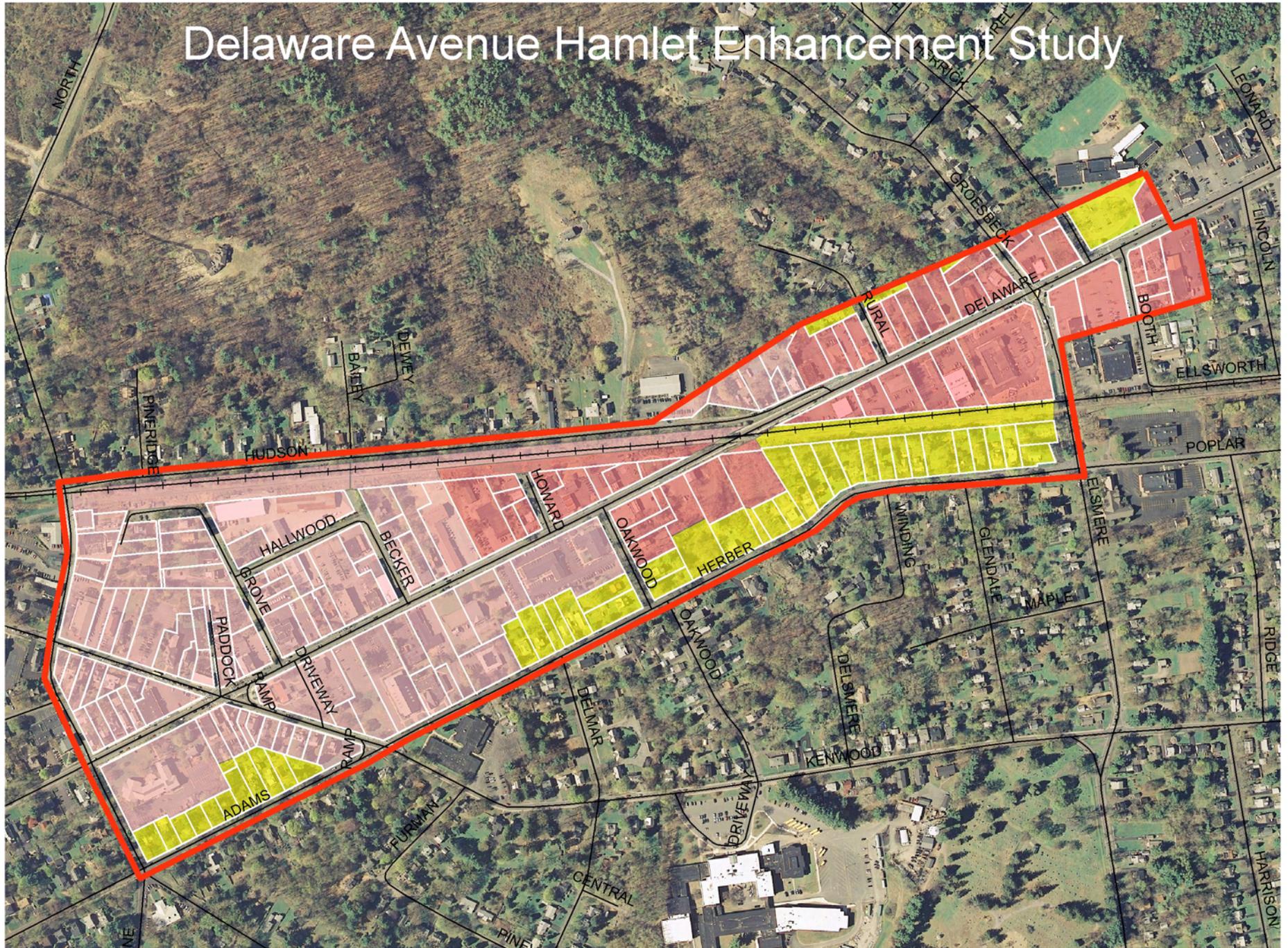
The Commercial Hamlet District permits a variety of residential uses and more commercial uses than the Hamlet District. The district has design guidelines that are similar to the Hamlet District; however there is less emphasis on mixed use structures. The minimum lot size for this district is 10,000 sq. ft. This district is found on Delaware Avenue adjacent to the Hamlet District.

The Core Residential District permits two family dwellings, bed and breakfasts and uses like professional office and day care centers when an adaptive reuse of a residential structure. The district also has a few design guidelines related to sidewalks, compatibility with surrounding structures, retention of existing landscaping, etc. The minimum lot size is 7,260 sq. ft. for residential uses and 15,000 sq. ft. for nonresidential and mixed uses. This District is found on Adams Place and Herber Avenue with one additional parcel on Delaware Avenue (the Elsmere School).

The Hamlet Commercial District does not address the location of parking. Unlike many traditional neighborhood zoning frameworks, the Town does not require placement of parking to the side and rear of the principal building. The district also does not require buildings to be built to the sidewalk. While the Hamlet District has a 10 foot front yard setback requirement from the right-of-way and allows for an option so that buildings can be built in accordance with adjacent structures, the Hamlet Commercial District requires a minimum of 30 feet front yard setback from the right-of-way.



# Delaware Avenue Hamlet Enhancement Study



**Figure 4 - Zoning**

- Study Area Boundary
- Streets
- Railroad
- Hamlet
- Commercial Hamlet
- Core Residential

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## V. NATURAL AND HISTORIC RESOURCES

The Delmar Post Office is the only property listed on the National Register of Historic Places in the Study Area. The Post Office, located at 357 Delaware Avenue, is a Colonial Revival brick building built in 1939-1940. Within the Post Office, there is a mural from 1940 by Sol Wilson. Many other buildings could be eligible for listing based upon their age and historical use.

Delaware Avenue is itself historically significant. Delmar's "yellow brick road" was built by the Albany and Delaware Turnpike Company in 1805. The road was paved with cobblestones using yellow bricks instead of the usual red bricks. This unique aspect of the road is documented in a marker at the Four Corners and a portion of the yellow bricks remains.



Yellow Brick Road marker and yellow bricks on Delaware Avenue at Kenwood Avenue

Veterans Memorial Park, a passive park that is 0.145 acres in size is the only natural resource in the Study Area. While the Study Area does not have significant natural resources in the traditional sense such as wetlands, steep slopes, etc., the area does have street trees throughout the Study Area. Trees and other vegetation (including trees within residential front yards) are important features of the Study Area. Nationally, the urban forest canopy cover is decreasing but there is a potential to encourage further greening of the Delaware Avenue Study Area. The planned rail trail through the area will run from Voorheesville to the Port of Albany and beyond.



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### Delaware Avenue: Four Corners to Oakwood Place

Delaware Avenue between the Four Corners area and Oakwood Place has a variable streetscape presence. Paving, sidewalk, curbing and landscape planting conditions are inconsistent, resulting in poorly or irregularly defined pedestrian circulation and ambiguous parallel parking opportunities. The use of hanging planters and banners is carried over on utility poles from the Four Corners area, but the effect is less when not combined with curbs, sidewalk and furnishings. The area is overwhelmingly commercial and deserves clear articulation of design elements to enhance parking and the pedestrian experience when patronizing businesses. Several side streets such as Howard Place, Becker Terrace and Grove Street extend north from Delaware Avenue. They share similar streetscape conditions to Delaware Avenue, but demand less attention since they are not as heavily traveled.



Poorly defined sidewalk areas with patchwork paving are typical.



Appropriate street presence of building with attractive landscape plantings. Parking on sidewalk detracts from pedestrians.



Business with mature landscape plantings and organized pedestrian circulation. A curb, sidewalk and parallel parking could be the finishing touch.



Parallel parking or sidewalk? Hanging planters and banners add interest, and will appear more in scale with curb, sidewalk and parallel parking improvements.

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### Delaware Avenue: Oakwood Place to Hudson Avenue

This stretch of Delaware Avenue is characterized by a narrowing of the roadway shoulder width and descent under the railroad bridge. Curb cuts give way to defined sidewalks on both sides of the street through the underpass gateway. The Veterans Memorial Park in this area has an inviting presence typified by well-maintained landscape plantings and furnishings, and has relatively new curbing and sidewalk along Delaware Avenue. The one existing residence in this transition area appears poorly maintained.



The railroad bridge is showing its age, but has the potential to become a celebrated gateway to the Hamlet when combined with the future multi-use trail and Veterans Memorial Park.



The park is welcome dedicated green space with an opportunity for connection to the future rail trail.



This stretch of Delaware Avenue is a transition as defined by the railway underpass, curb, sidewalks and narrowing of the roadway.

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### Delaware Avenue: Hudson Avenue to East Edge of the Study Area



Business set close to road edge with paving all over with no landscape planting.



Business set far back from road edge, large curb cut with landscape planting buffer.



Too much pavement lacks definition between parking and pedestrian circulation and detracts from this attractive business. The street trees, while attractive, block views to the storefront signage from passing vehicles.

The streetscape running along Delaware Avenue from Hudson Avenue to the east edge of the study area has very inconsistent building setbacks ranging from fifteen feet to at some locations to one hundred feet at others. Excessive pavement, large curb cuts, highly variable landscaping, discordant business signage and lack of vegetated buffer between the sidewalk and curb are typical.

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### Hudson Avenue

The portion of the Study Area along Hudson Avenue is a vegetated right of way buffer between the roadway and existing railway bed that is to become a multi-use trail. Several informal parking areas, informal paths and trails perforate this buffer and provide pedestrian connections to side streets along Delaware Avenue to the south of the railway bed. Hudson Avenue itself is predominantly residential with some businesses to the east heading towards the intersection with Delaware Avenue. There is a sidewalk along the north edge of the road with no curbs, a grass strip and utility poles overhead with limited street lighting.



This informal trail perforates the vegetated buffer, crosses the railway bed and connects to Delaware Avenue side streets.



This vegetated buffer and informal parking area between Hudson Avenue and the railway bed along Hudson Avenue.

### Adams Place and Herber Avenue

Primarily residential areas along Adams Place and Herber Avenue have a suburban feel with front lawns, mature trees and sidewalks set back from the street by a grass buffer strip. These areas have a general lack of curbing and lighting standards, with overhead lights being mounted on utility poles. Some sidewalks need definition and crosswalk markings are faded at the Adams Place and Kenwood Avenue intersection near the school.

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## VI. TRANSPORTATION SYSTEM

The following past studies have been reviewed to determine existing transportation conditions throughout the Study Area:

- Bethlehem Comprehensive Plan, *Report of the Comprehensive Plan Oversight Committee (CPOC)*, 2007
- CDTC's Regional Transportation Plan, *New Visions 2030*, 2007
- *Town of Bethlehem Comprehensive Plan and Generic Environmental Impact Statement*, 2005
- *North Street-McCormack Road Area Transportation Network Impact Study*, Town of Bethlehem, 1987

According to these sources, traffic conditions along this corridor have been a concern for quite some time. One particular intersection of concern, Four Corners, has been reported as congested for decades. Current traffic data from 2008 shows that mobility conditions have not improved.

There are numerous methods that can be used to improve congested streets. Sometimes called "Mobility Management" or "Transportation Demand Management," these practices develop ways to improve street environments for everyone. These methods include promoting walking and bicycling improvements, transit improvements, car sharing programs, congestion pricing and parking management, to name a few. The desire is to bring down the number of people driving each day generally through a combination of transportation options. Reducing the number of per capita vehicle trips not only improves the overall environment, but it also has a significant impact on the number and severity of automobile crashes.

In order to determine appropriate methods for improving the transportation network along Delaware Avenue, the following baseline information was used to assess existing conditions.

### Roadway Network

Kenwood and Delaware Avenues intersect to form Four Corners, considered by most to be the heart of the Study Area. Not only do these streets operate as local shopping streets at this location, they are direct routes to the highway systems outside of this area. The businesses at this location also attract decent foot traffic, adding another user group to this area.

Delaware Avenue (NYS Route 443) is the primary arterial, connecting motorists with NYS 85, US Route 9W, and I-87/New York State Thruway. Many residents of the Town of Bethlehem commute to work sites in Albany via NYS 85, causing heavy volumes of peak period traffic through Delmar along Delaware Avenue and Kenwood Avenue. This congestion is most noticeable at the Four Corners location, where these avenues converge. During mid-day field observations in August 2008, traffic on all legs of this intersection was almost at a standstill. The traffic data collected for this effort, discussed in the "Vehicle Traffic Volume" section of this memo confirms this constrained level of service.

Figure 5 presents the roadway network throughout the immediate Study Area and the wider regional context.



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At the northern end of the Study Area, near Booth Avenue, Delaware Avenue is 40 feet wide, with two lanes of travel each in the north and south directions.

Figure 5: Study Area and Regional Roadway Network



This geometry is maintained until Rural Place, when the road begins to narrow to 25 feet, with one travel lane in each direction. Heading south, the road begins to widen again. At Becker Place the right-of-way widens to allow for parking on either side of the street, while maintaining one travel lane in each direction of travel.

Approaching the Four Corners intersection at Kenwood Avenue, Delaware Avenue is 45 feet wide, with the addition of a dedicated right turn lane from Delaware Avenue to Kenwood Avenue. North of Kenwood Avenue, Delaware Avenue narrows by about five feet. Parking is no longer allowed on Delaware Avenue after the Four Corners intersection. Delaware Avenue then narrows for the remainder of its length in the Study Area, maintaining a width of 25 feet with no parking.

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Traffic is heaviest on the segments of Delaware Avenue that connect to the highway system. Many of the side streets that intersect Delaware Avenue are controlled by stop signs rather than traffic signals. Because of this, there are few gaps in the traffic flow where drivers can easily and safely turn on to and off of Delaware Avenue. There are also no dedicated turning lanes at intersections controlled by stop signs. This causes the flow of traffic to halt when drivers turn left from Delaware Avenue. Observational data shows people driving out of their way to signalized intersections in order to make safer turns. This causes unnecessary backups at intersections where the motorists did not want to be in the first place, and results in longer drives, more Vehicles miles traveled and additional auto emissions.

### Pedestrian and Bicycle Conditions

Delaware Avenue is a challenging environment in which to walk. Starting at the curb, pedestrians find themselves looking in all directions with every step due to a high number of driveway curb cuts. Because on-street parking is only informally demarcated in some areas, people tend to drive very close to the sidewalks and sometimes on the sidewalks in certain segments east of the Four Corners area.

With the exception of the sidewalk area adjacent to the Four Corners intersection, sidewalk widths are narrower than the Americans with Disability Act (ADA) minimum of five feet. In addition, the existence of curb ramps are inconsistent and also do not meet ADA standards where they do exist. Sidewalks are located on both sides of the street as one approaches the Four Corners intersection. This continues to the south until Adams Street when the sidewalk continues only on the west side of the street, until disappearing into parking lot areas. North of Four Corners, the sidewalk turns into a three-foot paved path and eventually to a dirt path and then to parking lot areas.

Due to the lack of signalized intersections, there are few formal crossings for pedestrians. This does not stop people from crossing the street at all points along Delaware Avenue. Data was collected during 1998 and 2008 along Delaware Avenue at the Post Office, a major destination near the Four Corners intersection. There is an unsignalized crosswalk at this location. Figure 6 shows how this area operates from a pedestrian and motor vehicle perspective. According to the data provided, drivers are stopping for pedestrians much more often today than in 2008. However, there is still a failure to stop rate of 50%.

**Figure 6: Driver Compliance to Yield to Pedestrians in Crosswalk, Delmar P.O., 1998 & 2008 (CDTC)**

Date: Time:	3/5/98 10:30am – 1:00pm	9/1/98 10:30am – 1:00pm	7/10/08 11:00am – 1:00pm	7/29/08 10:30am – 1:00pm
Total Number of Pedestrians	75	95	25	68
Number of Pedestrians Crossing With No Vehicles Present	37	46	10	25
Number of Pedestrians Crossing When Vehicles Stopped	38	49	4	10
Total Number of Vehicles Stopping for Pedestrians	42	60	9	21
Total Number of Vehicles Not Stopping for Pedestrians	94	55	9	22
Total Number of Vehicles Parked in the Crosswalk	16	11	NA	NA



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Additional conditions noted during fieldwork include:

- Cars exiting out of bank driveway turning right do not stop for pedestrians in the crosswalk and accelerate through it
- Cars parked in front of the Post Office are too close to the crosswalk for cars to see pedestrian behind it
- Cars turning left into the Post Office parking lot, queue up and often block the crosswalk
- Many pedestrians (more than 10) were observed crossing in front of TD Bank North instead of at the Post Office crosswalk

The numerous driveways, changes in parking areas and roadway geometry make bicycling on Delaware Avenue an unpleasant and potential dangerous activity. Most cyclists ride in the street until they get to Delaware Avenue, where they ride on the sidewalk. Somewhat surprisingly, during field observations there were cyclists of all ages and abilities riding around the Study Area. This is an encouraging indicator of latent demand and evidence that provide improvements to the bicycling environment will be worthwhile.

All of the recent existing documents reviewed for this study point to the desire to vastly change the balance between bicyclists/pedestrians and motorists along Delaware Avenue. Encouraging walking can be as simple as giving people more time to cross the street in a designated area and bicycling can be encouraged by providing safe places to lock a bicycle. These small changes can start the ball rolling on larger infrastructure projects to make more dramatic modifications.

### Transit Routes

The Capital District Transit Authority (CTDA) operates two bus routes through the Study Area. The Route 18-Delaware Avenue line connects riders between Delmar and Downtown Albany. The Route 19-Voorheesville line connects riders between Voorheesville, the Elm Avenue Park and Ride and Downtown Albany.

The Route 18-Delaware Avenue line makes 10 stops at locations throughout the Study Area. The Route 19-Voorheesville line has 6 stops in and near the Study Area boundary.

According to September 2008 ridership data provided by CTDA, most people traveling by bus through the Study Area do not get on or off within the Study Area. For example, during one entire Route 18 run, from the Greyhound Terminal to Grove Street at Kenwood Avenue, and back, 69 people got on and off of the bus. Of the 69 people, only 15 got on and three got off within the Study Area, versus 51 who rode through. In the next complete run of Route 18, 61 people got on and off the bus throughout the route. Of those, four got on and five got off within the Study Area. These trends indicate that the Study Area is used more as a transit through-route, instead of an origin or destination. Transit is therefore limited in accommodating trips generated by land uses within the Study Area.



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### Trail Information

In August 2008, Albany County agreed to purchase the old Delaware and Hudson railway for \$700,000 Canadian Pacific Railway. This facility is approximately 9.3 miles in length, stretching from the Port of Albany to the Village of Voorheesville. Other trails of similar length and location have proven to have major economic benefits for towns, as well as providing great recreational areas for residents. Access and street design from Delaware Avenue to points along this trail will have to be studied.

### Parking

There are a variety of parking facilities in the study area. At the Four Corners intersection, on-street metered parking is present along Kenwood Avenue and Delaware Avenue. To the north of the Four Corners intersection there are numerous, large off-street surface parking lots associated with the adjacent commercial or institutional uses, but no on-street parking on Delaware Avenue. However, there is unregulated on-street parking on all of streets intersecting Delaware Avenue.

South of the Four Corners intersection, there is on-street parking that is not metered. While there are numerous parking lots associated with businesses along this stretch of Delaware Avenue, motorists appear to prefer parking in front of the businesses. Key destinations like the Post Office generate a significant number of people pulling in and out of the spaces in front of the building while the adjacent lot sits almost vacant. Likewise, the municipal lot at Adams Street near Kenwood Avenue is underutilized.

### Vehicular Traffic Volumes

Figure 7 presents PM peak hour traffic volumes for eight intersections along the corridor. Figure 8 presents these volumes graphically.

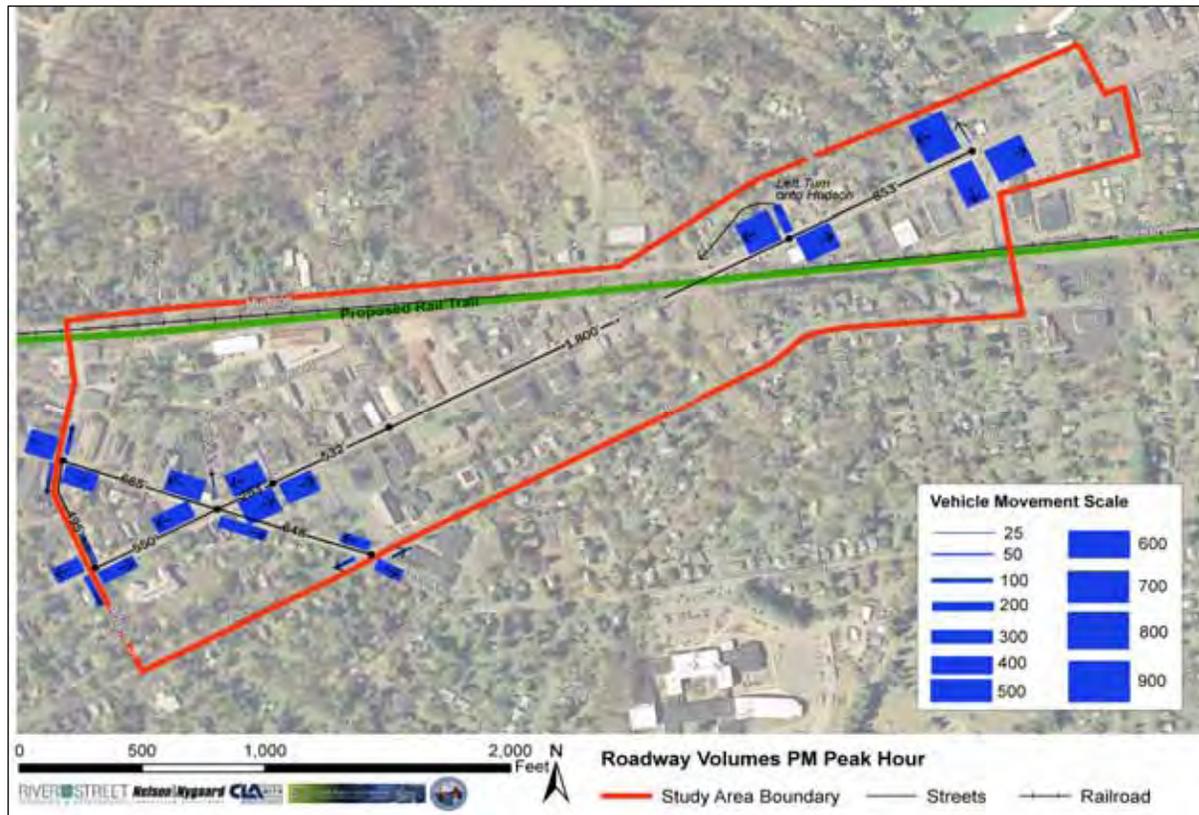
Location	Total Approaches & Departures
Kenwood Avenue and Adams Street	1,092
Delaware Avenue and Adams Street	831
Delaware Avenue and Kenwood Avenue and Paddock Place	1,701
Delaware Avenue and Grove Street	1,032
Delaware Avenue and Becker Terrace	27
Kenwood Avenue and Adams Place	653
Delaware Avenue and Hudson Ave (1/2 hour counts)	1,484
Delaware Avenue and Elsmere Avenue and Groesbeck Place (1/2 hour counts)	2,211



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Figure 8: PM Peak Hour Traffic Volumes, CDTC, 2008



Note: Volumes for Delaware Ave. at Hudson Ave & Delaware Ave. at Elsmere Ave. and Groesbeck Pl. are peak 30-minute periods.

### Access, Operation and Management of Arterials

The Four Corners intersection influences the traffic flow on Delaware Avenue and Kenwood Avenue. Figure 9 illustrates the flow of traffic at this intersection during the mid-day peak (based on observations in August 2008).

Figure 5 helps to explain why this particular area feels congested. This intersection has signals for each through movement, as well as dedicated turning time. There is a pedestrian activated signal, so that phase only comes into play if there are people waiting at the intersection. During every signal phase, there is a green phase for motorists to move, in some cases a dedicated signal for turning, an amber phase to transition motorists into the red and a red phase for the stop. There is then an additional few seconds, called a "clearance interval" to attempt to free the intersection of any cars before the next direction of traffic can move. All of this happens in 90 seconds.

At the intersection of Delaware Avenue and Kenwood Avenue congestion occurs for several reasons. First, there are numerous driveways for businesses on Delaware Avenue on both sides of this intersection. This means that while cars are trying to move through the Four Corners intersection, there are also vehicles

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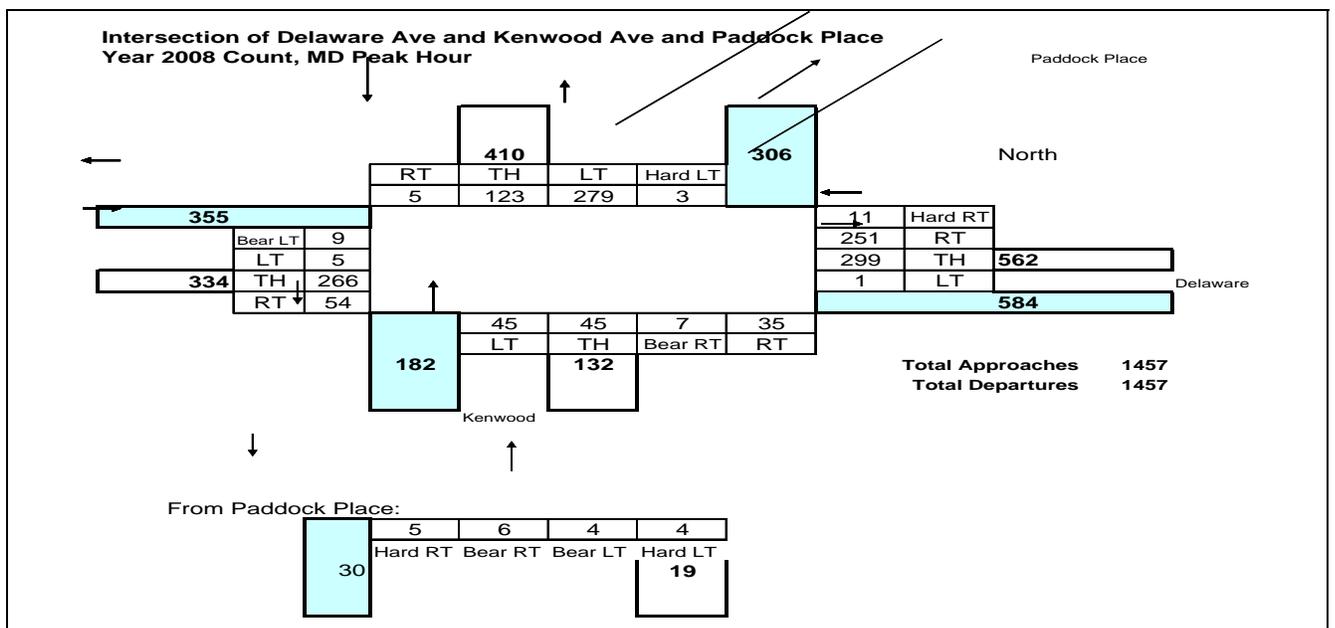
moving in and out of these various driveways, causing cars to slow down and back up toward the intersection.

Second, there is a finite amount of time given to move vehicles through a certain amount of road space. Using Delaware Avenue as an example, in the one-hour count there are 334 cars traveling through on Delaware Avenue. There are an additional 35 cars turning right from Kenwood Avenue. Add to that the 279 left turning cars from Kenwood Avenue for a total of 584 vehicles moving to one central direction in one-hour. That is 146 vehicles coming from three different directions in 15 minutes, while drivers are parallel parking next to the intersection, pedestrians are running across the street mid-block and other vehicles are exiting and entering driveways.

If this flow of traffic was uninhibited by parking or driveways, this number of motor vehicles can be absorbed in about 7,000 linear feet in one hour. This is almost double the length of the entire Study Area. Because there are so few signalized intersections away from the Four Corners intersection, traffic is able to move more freely about 1,000 feet away from the intersection.

The “problem” leg is the left turning movement from Kenwood Avenue to Delaware Avenue. East and west bound left turning cars from Kenwood Avenue to Delaware Avenue can only move when all other traffic is stopped. Because these dedicated turns are given the lowest priority in terms of time, the majority of people wanting to make this turn, especially in the eastbound direction, have to sit through several light cycles. This is congestion.

**Figure 9: Vehicle Volumes at Intersection of Delaware Avenue and Kenwood Avenue and Paddock Place, 2008 Midday Peak Hour**



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Access management looks at the way traffic moves between particular roadways and adjacent land uses. Like any management strategy, access management is looking for places in the street system that cause speeds and traffic flow to decrease as primary points for improvement.

There are four key factors contributing to congestion and access issues along Delaware Avenue including:

- Many driveways per block on each side of the street close to Four Corner;
- Parallel, metered parking adjacent to the intersection causes bottlenecks as people pull in and out (and in turn often run across the street after exiting their parked car);
- Lack of signalized intersections allowing drivers to turn at their desired cross street and instead requiring longer trips to higher volume locations; and
- Left turning vehicles slowing traffic flow on the through lanes of Delaware Avenue due to a lack of signals or dedicated turning areas.



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## VII. Strengths & Weaknesses of the Physical Environment

### Strengths

- Multiple modes are available to serve Study Area transportation demand. Trips can occur via auto, transit, walking and bicycling.
- Capacity exists on the current bus routes serving the Study Area.
- The addition of the new rail-to-trail route will add to the environment for bicycling.
- Veterans Park offers passive recreation and green space.
- 2001 DOT Investments are successful and supported by the community.
- Vehicular parking is available in many locations, especially in off-street surface lots.
- The area is compact and walkable.
- There are a variety of streetscape amenities in the Four Corners Area that help to define its sense of place.
- The business base is predominantly locally owned and many property owners have made investment in their buildings, facades and signage.
- Many residents walk to local shops, the Post Office, school and churches.
- Traditional development pattern is largely in place.
- Design guidelines are in place and being used.
- The considerable traffic volume represents a large potential shopper base.
- There is a solid mix of retail and services.
- The streetscape at the Four Corners is attractive and inviting.
- Availability of municipal parking.
- Diversity of land uses (commercial, residential, institutional, etc.).

### Weaknesses

- The sidewalks are in disrepair in some areas.
- Bicyclists use sidewalks for biking instead of shoulders.
- There are few defined crosswalks (and existing ones are not utilized in many locations).
- Long wait times are experienced at signalized pedestrian crossings.



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- There is a lack of infrastructure to support the multiple modes.
- Traffic signals and turn lanes are lacking and would improve vehicular flows.
- Sidewalks and curbing would improve the pedestrian environment.
- Bicycle lanes and bicycle storage would encourage bike trips.
- Bus stop infrastructure, including signage, shelters, information, and lighting would increase utilization of the existing routes.
- Drivers do not respect pedestrians in crosswalks.
- Pedestrian amenities don't meet ADA requirements.
- There are only four acres of vacant land in the study area.
- Parking standards don't require side or rear parking.
- Lack of defined on-street parking.
- Municipal parking is somewhat hidden – tucked away.
- Limited shared parking is available.
- There is less than one acre of green space.
- Landscaping standards are not met or actively enforced.
- Some historic properties are not protected by register listing.
- The Stewarts parking lot and lawn of the Reformed church are gathering spaces for young people rather than public space like Memorial Park
- Excessive paving creates undefined areas for pedestrians.
- There are not acknowledged safe walk to school routes.
- Condition of some buildings.
- Lack of design unity in building facades (materials, signage, lighting, planting, etc.).
- Gas station canopies are not in keeping with community character.
- Highly variable setbacks east of underpass.
- Trees are overgrown making sidewalks less accessible and obscuring building signage and windows.



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## VIII. Possibilities for Future Enhancement and Redevelopment

The possibilities for future enhancement along Delaware Avenue are many. The new rail trail should have an enormous impact on people bicycle and walking in and near the Study Area. As such, bicycling and walking should be prioritized in the transportation hierarchy of Delaware Avenue.

The current vehicular congestion that exists at many intersections along Delaware Avenue can be changed by modifying aspects of the existing environment, in turn promoting better street design and management going forward. Options include combining driveways, formalizing mid-block crossings, creating median areas with turning bays at key intersections and developing a continuous sidewalk system. Ultimately creating an environment that encourages walking and bicycling requires making the shared road space safer, or creating an entirely separate space.

Educating motorists about traffic conditions further away from Delaware Avenue is another way to relieve congestion. Encouraging people to take alternative routes at certain times of the day can help manage a more regular stream of traffic through the study area.

Four categories of improvements are recommended:

- Access along Delaware Avenue needs to be consolidated and redesigned.
- Land use management needs to be made in tandem with transportation decisions. This means that land uses that generate significant traffic, like a bank or post office, need to have access points designed to positively influence the current street system.
- Parking needs to be managed more efficiently.
- Non-motorized and transit improvements need to be made throughout the corridor.

Together these mechanisms will create an environment where parents feel comfortable allowing their children to walk to the store, people will ride their bikes and walk for shopping and recreation, businesses will have increased foot traffic, congestion will be reduced, and all aspects of safety increases.

In addition there are a number of redevelopment properties whose future use will affect the Hamlet's viability. With proper planning the properties could help anchor the hamlet and provide necessary goods and services. Without proper planning these sites could weaken the system and quality of life. Opportunities include:

- **Site of the former CVS Drug Store** - When CVS built a new store on the opposite corner of Elsmere Avenue, the current store at 254/256 Delaware Avenue has remained vacant. There is an opportunity to encourage new buildings to be built at the street with parking to the rear of buildings.
- **Underpass** – Celebrate the underpass as a Hamlet gateway with cosmetic improvements, lighting and plantings.



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- **Veterans Memorial Park** - Veterans Park is a largely passive park and is not heavily used. With the construction of the future bike trail, this park has the potential to become an active trailhead when the bike trail is built. A proposal to extend the Park to Hudson Avenue should be advocated with Albany County.
- **Property Across Delaware Avenue from Veterans Memorial Park** - The property across Delaware Avenue from Veterans Park at 298 Delaware Avenue is largely underutilized and could serve as a nice gateway to the future bike trail.
- **Connections to Rail Trail** – With the future rail trail development, there are opportunities to add additional connections to the trail (in addition to Veterans Park) from Grove, Becker and Howard.
- **Intersection of Oakwood and Delaware Avenue** - This intersection has a large amount of unnecessary paving and could use a pedestrian crossing to facilitate access across Delaware Avenue.
- **Municipal Parking Lots** – The lot on Kenwood Avenue is underutilized and options exist to make connections through the rear of the lot to Paddock Place. Shared parking with the Applebee's Funeral home is also a possibility. The lot on Adams Street near Kenwood is also underutilized.
- **Connection Between Hudson Avenue and New Scotland Avenue** - The creation of a connection between Hudson Avenue and New Scotland Avenue is a long term project that should be referenced in this project even though it cannot be formally evaluated
- **Paddock Place Enhancement** –There may be an opportunity to consolidate parcels along Paddock Place for new development or improved connection between existing uses for more parking.
- **Streetscape Elements** – Extend desirable streetscape elements from Four Corners area outward along Delaware Avenue.
- **Consolidation of Land Uses around Curtis Lumber** – There may be an opportunity to consolidate land uses or redevelop the area around Curtis Lumber, perhaps through relocation of the warehousing use.
- **Mixed Use Infill** – There is an opportunity for mixed use infill on vacant lots.
- **Widening Delaware Avenue** - Concern exists that DOT's desire to eventually widen Delaware Avenue will negatively affect quality of life.

