Acknowledgements

With the contributions and ideas from the following organizations and individuals, this project has been made possible.

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- Ed Patanian, Sand Lake Planning Oversight Committee
- Marybeth Pettit, Sand Lake Planning Oversight Committee
- Monica Ryan, Sand Lake Planning Oversight Committee
- Linda VonDerHeide, Rensselaer County Planning Department
- Mike Wyatt, NYSDOT

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- Elan Planning, Design, and Landscape Architecture
  Community Planning and Landscape Architecture
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  Traffic Planning and Engineering
Disclosure Statement

This report was prepared in cooperation with the Town of Sand Lake, Capital District Transportation Committee (CDTC), Rensselaer County, and New York State Department of Transportation (NYSDOT). This report was funded in part through grant[s] from the Federal Highway Administration [and Federal Transit Administration] and the United States Department of Transportation. The contents do not necessarily reflect the official views or policies of these governmental agencies.

The land use and transportation recommendations presented in this report are designed to help support the existing and future land use pattern described in the Town’s Comprehensive Plan. The various land use and transportation options identified in the report are based on an analysis of existing and expected future conditions in the study area.

Many of the actions identified in the study are not intended for short-term implementation. A considerable amount of design work still remains to be done before any of these projects can be constructed. The recommendations set forth in this report are conceptual in nature and do not commit the Town of Sand Lake, CDTC, NYSDOT, or Rensselaer County to funding any of the improvements. The concepts need to be investigated in more detail before any financial commitment can be made.
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Overview

Project Background and Purpose

The Route 43 corridor in the Town of Sand Lake is the current and historical backbone of the municipality. This corridor connects the hamlets of Sand Lake, Averill Park, and West Sand Lake. Established in the 19th century, these hamlets were once home to mills and industry. Today, the hamlets are comprised mainly of civic, retail and service components, with a few long-standing exceptions, such as the Troy Sand & Gravel property on Route 43. Commercial activity has grown between West Sand Lake and Sand Lake, with residential properties converted to retail, commercial services, or offices. As the town transitions from a rural to suburban community, all three hamlets are under development pressure, and have parcels of adjacent land that could be developed in the near future.

The corridor also acts as a major commuting route for residents working in Albany and points west. Increasing traffic levels, as well as high levels of truck traffic from local mining activities, have created long delays for drivers at peak hours, especially in West Sand Lake. In Averill Park, traffic is less intense. However, the roadway alignment and hamlet-scale development patterns make it difficult for drivers, pedestrians, and cyclists to turn on to Route 43 from the local roads such as Old Route 66, Orient Avenue, Burden Lake Road, and Eastern Union Turnpike. The lack of pedestrian amenities is also an issue, as it is for Sand Lake.

Resolving these issues has been identified as priorities of the community through the 2006 Comprehensive Plan. The purpose of this study, therefore, is to address vehicular and traffic concerns at key intersections, identify potential pedestrian/bicycle improvements within the hamlets, and increase pedestrian connectivity between the hamlets.

To undertake this study, a diverse Study Advisory Committee, consisting of representatives from the Capital District Transportation Committee (CDTC), the New York State Department of Transportation Region 1 (NYSDOT), the Town of Sand Lake, Rensselaer County, the Capital District Regional Planning Commission (CDRPC), and the Capital District Transportation Authority (CDTA), was created to ensure that the success of the project was a collaborative effort.

To guide the study, balance the diverse needs within the corridor, and incorporate previously collected information, three comprehensive project goals were formulated. From these goals, concept plans for each hamlet were developed. These are intended to guide the growth and development activity in the hamlets in the future.

Comprehensive Project Goals:

1. Address vehicular circulation and traffic concerns at key intersections
2. Identify potential pedestrian/bicycle improvements, including:
   - Crosswalks
   - Sidewalks
   - Bike-Hike trails
   - Strategic shortcuts
   - Pedestrian traffic controls
3. Increase pedestrian connectivity between the hamlets
Public Participation and Planning

To collect as many ideas as possible, as well as to include important input from both traditional and non-traditional stakeholders, a series of meetings were held, and a technical Study Advisory Committee (SAC) was formed. The public input process included:

1. Visioning Workshop
2. Meeting with the Department of Transportation
3. Public Information Meeting

In March 2010, a kick-off meeting with the SAC was held to determine the direction of the project, as well as plan for public meetings. To start the public input process, an initial public workshop was conducted in July of 2010. The purpose of the workshop was to gather input on initial options for transportation solutions in the corridor. A full summary of the Workshop is included in Appendix 1.

With the alternatives prepared, a meeting with the NYSDOT Region 1 staff was held in Schenectady. The purpose of the meeting was to obtain input on traffic, safety, and design components, so that the committee could make an informed choice for the preferred alternative. NYSDOT staff provided input that all concepts that appeared feasible, with the caveat that further study and technical analysis was necessary.

The ideas and input collected at the public visioning session, the SAC meetings, and the NYSDOT meeting were compiled and used to create and select the preferred alternatives for the transportation improvements. These were presented to the public in October 2010. The result of this second public meeting reinforced the ideas that were collected at the visioning workshop and input received from the SAC and NYSDOT. In addition, several new ideas and issues were brought forth at the second public meeting. Based on this input, the preferred concepts for West Sand Lake and Averill Park were revised.

As a result of this public process, the concepts and recommendations included in this report represent the SAC’s best effort to address the relevant issues in a flexible, feasible manner.
Existing Conditions

Community and Regional Setting

As stated previously, the Route 43 corridor is the focus of cultural, commercial, and civic life in the Town. This important roadway is the primary access to Route 4 and regional shopping centers, as well as Interstate 90 and Route 787, which provide access to employment in Albany.

Surrounding the corridor, the Town itself is a bucolic bedroom community in Rensselaer County. Although new subdivisions have increased housing in the past forty years, Sand Lake still retains an active and culturally important farming component. The eastern portions of the Town are the least developed, home to large areas of forest and open space.

The hamlet of West Sand Lake is the largest and most densely developed. Home to the Town’s main retail and service center, the hamlet contains a grocery, pharmacy, banks, and several other shops and service businesses, located mainly in two shopping centers. The hamlet also contains the elementary school, a fire house, and two churches. To the north and south of the hamlet there are two active mining areas. Within and adjacent to the hamlet are long-established residential neighborhoods.

Averill Park is the next largest hamlet, located to the east of West Sand Lake. This area is characterized by small shops and restaurants in historic structures located close to the roadway. There are also two churches near the hamlet. The Crystal Cove banquet hall is located just north of the hamlet, which hosts the Capital District Triathlon Club, a generator of a large concentration of runners and cyclists in the summer months. (See page 38 for more information about pedestrian/bicycle generators in the Town).

The hamlet of Sand Lake is the smallest in the Town. This crossroads hamlet contains the Arts Center, a post office, Town Hall, and elementary school, in addition to a few shops and businesses. Residential uses surrounding the hamlet are more rural and widely spaced than in the other two hamlets.
Land Use

West Sand Lake

The dominant land use is commercial, however these uses in West Sand Lake are not concentrated in one area. There are two main areas of commercial activity – one focused at the junction of Routes 43 and 150, and the other in the 43 Mall Planned Development District. Within the commercial areas, there is a combination of large-scale retail shopping centers, along with a few small businesses located in converted residences. There are also individual commercial uses located along Route 43 heading east.

Residential uses are interspersed between these commercial areas. In addition, there are neighborhoods located surrounding the intersection of Routes 43 and 150 to the northeast, northwest, and southwest.

In terms of industrial uses, large-scale mining operations are located directly north and south of hamlet.

Community services include the Elementary School, West Sand Lake Fire District 1 building, and Trinity Lutheran Church.

Setbacks vary widely, with most residences having a front yard, and most commercial uses located with medium to large parking lots in front of the building. The new Rite-Aid building does not have parking in front, however there is a landscaped front yard setback.

See page 5 for a map of land uses in West Sand Lake.

Averill Park/Sand Lake:

In these areas, the commercial uses are located mainly within the hamlets, with some individual commercial parcels located on Route 43.

These hamlets contain significant areas of community service, including two schools, the Community Arts Center, the Town Hall, American Legion, and multiple churches.

Most commercial uses within Averill Park are located directly along the back of the sidewalk, with little or no front yard setback.

Commercial uses in Sand Lake have shallow front yards, and several are located in converted residences.

See page 6 for a map of land uses in Averill Park and Sand Lake.
Land Use Map—West Sand Lake

Legend

Property Class Code
- Residential (single- and two-family)
- Multi-family Residential
- Vacant - Residential
- Vacant - Commercial/Other
- Commercial
- Community Service
- Industrial
- Parcels
Zoning

The Town of Sand Lake has recently undertaken a full zoning law update, adopted in 2010. The zoning districts, purposes, and dimensional requirements are summarized below. See pages 9 and 10 for maps of the zoning districts in each hamlet.

<table>
<thead>
<tr>
<th>Zoning District</th>
<th>Min. Lot Size</th>
<th>Setbacks</th>
</tr>
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<tbody>
<tr>
<td>Residential Districts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R – Residential:</td>
<td>1 ac.</td>
<td>Front: 50’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Side (total): 50’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rear: 50’</td>
</tr>
<tr>
<td>Commercial Districts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HMU – Hamlet Mixed-Use</td>
<td>15,000 sf</td>
<td>Front (Min./Max): 0’/10’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Side (total): 15’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rear: 15’</td>
</tr>
<tr>
<td>HC – Hamlet Commercial</td>
<td>10,000 sf</td>
<td>Front (Min./Max): 0’/10’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Side (total): 10’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rear: 12’</td>
</tr>
<tr>
<td>PEC - Pre-Existing Commercial</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overlay Districts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRO – Professional/Residential Overlay:</td>
<td>N/A</td>
<td>Same as underlying district</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPO – Scenic Preservation Overlay:</td>
<td>N/A</td>
<td>Same as underlying district</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>CEO – Commercial Extraction Overlay:</td>
<td>N/A</td>
<td>500’ from existing roadways/200’ from neighboring parcels</td>
</tr>
</tbody>
</table>
Zoning

In addition to the zoning districts, the law contains regulations which affect development patterns in and around the hamlets. These are summarized below.

- Hamlet Design Guidelines are applicable in the HC and HMU zones. The Guidelines include both mandatory and suggested regulations, including:
  - Building location – as near as possible to sidewalk/front setback.
  - Parking location – side or rear parking encouraged. No parking to be located between building and the street.
  - Access management – shared access is encouraged. Curb cuts to conform to NYSDOT regulations for entrances to State Highways.
  - Sidewalks – continue across driveways uninterrupted.
  - Landscape plantings—mandated within parking areas, and buffers for parking lots from the street/neighborhood residential parcels are included.

- Pedestrian amenities—must be included in the site plan.

- Lighting – maximum pole heights set for pedestrian and vehicle areas. Dark-sky provisions added

- Landscape Plantings – guidelines for plant selection, soil volume, and size/maintenance are included

- Utilities/trash storage—must be shielded from view.

- Guidelines for architectural renovations—encourage remodeling which is authentic to the style of the structure (converted residential buildings should look like residences, for example)

- Guidelines for new building construction—address appropriate styles, facades, windows, materials, awnings, etc.

- Design guidelines for PR(O) are also in place, and are designed to encourage conversion of homes for business use with minimal disruption to residential character. New structures are encouraged to mimic or blend with residential character as well.

- The number of off-street parking spaces required is set according to use or by the Planning Board during Site Plan Review. Shared parking is allowed, and on-street parking may be counted towards the necessary number of spaces.
Zoning Map—Averill Park/Sand Lake
Natural Resources

West Sand Lake:

Within the hamlet areas, there are limited natural resources. In West Sand Lake, the primary water resource is the Wynantskill Creek, which runs through the hamlet. The Creek is Class B(T) within the hamlet, which indicates a best usage for swimming and other contact recreation, but not for drinking water. The creek may also support a trout population. There is a 100-year floodplain associated with the Wynantskill as well. This may limit development activity in the floodplain.

There are no state-regulated freshwater wetlands, rare plants or animals, or significant natural communities currently recognized by the New York State Department of Environmental Conservation (NYSDEC) in this hamlet.

There is a Class C pond on the Troy Sand and Gravel property just north of the hamlet. This is a man-made pond located within the mining operation. There are no rare plants or animals, or significant natural communities currently recognized by the NYSDEC in West Sand Lake.

See Page 12 for a map of natural resources in West Sand Lake.

Averill Park/Sand Lake:

There are several streams which converge in or around these hamlets, including Horse Heaven Brook and other un-named waterways. These drain out of Crystal Lake, just north of the Averill Park hamlet. Crystal Lake is classified as a B(T) waterbody. These streams are all classified as C or C(T), indicating that the streams support fisheries and are suitable for non-contact activities.

There are 100- and 500-year floodplains associated with the streams and creeks, especially along Route 43 between the hamlets and in Sand Lake. This may limit development activity in these areas.

There are large areas of state-regulated freshwater wetlands both north and south of Route 43. These wetlands have an associated 100-foot upland buffer, according to NYSDEC regulations. Development activities in the wetland or buffer would require a permit.

There are no rare plants or animals, or significant natural communities currently recognized by the NYSDEC in these hamlets.

See Page 13 for a map of natural resources in Averill Park/Sand Lake.
Natural Resources—West Sand Lake
Natural Resources—Averill Park/Sand Lake
**Transportation Conditions: Route 43**

**NY Route 43**

NY Route 43 is a two-lane roadway on rolling terrain generally providing east/west travel connection through the study area. The roadway width ranges from 22 feet to 32 feet wide with 0-4 foot wide shoulders depending on the location. The combination of the crest vertical curve, horizontal curves, intersecting side roads and roadside development causes traffic to slow in the center of Averill Park.

The NYSDOT 2008 Pavement Data Report identifies the roadway condition as fair to good condition throughout the study corridor. This means that surface distress is either clearly visible or beginning to show. The road was last overlaid with pavement in the mid to late 1990’s depending on the location.

Functional classification ranges from an Urban Minor Arterial at the west end of the study area to an Urban Collector at NY Route 351 through the end of the study area.

The NYSDOT 2008 Pavement Data Report shows that the vehicle to capacity ratio is nearing 1.0 in the west end of the study area and remains below 0.5 in the east end of the corridor. A vehicle to capacity ratio of 1.0 indicates the roadway is nearing capacity. This is validated by traffic congestion seen in the center of West Sand Lake during peak times, while little delays are seen in Averill Park and Sand Lake.

NY Route 43 is designated as an Access Highway (allows oversize vehicles only on Route 43, not off) from the west end of the study area up to NY Route 351.

NYSDOT data shows that traffic volumes in the corridor are:

- 11,200 vehicles per day (vpd) west of NY Route 150
- 14,500 vpd between NY Route 150 and NY Route 351
- 7,400 vpd between NY Route 351 and CR 45 (Old Route 66)
- 4,800 vpd between CR 45 and NY Route 66

These traffic volumes are common on two-lane roadways. Two-lane roadways are generally sufficient for daily traffic volumes up to 20,000 vehicles per day. For a detailed analysis of traffic crash data, please see Appendix 2.

There is no CDTA bus service along the corridor. CDTA used to provide service to Sand Lake via NY Route 43 (Route 14), but this service has been discontinued.

Sidewalks are provided on both sides of NY Route 43 in West Sand Lake in the west end of the study area but are lacking through the remainder of the study corridor, including the segment between Averill Park and Sand Lake which is less than one mile.

**Conclusion:** NY Route 43 serves both access and mobility roles through the corridor. In the west end of the study area where the roadway traffic volume is reaching the capacity of the roadway, spot capacity improvements and/or access management techniques should be applied to improve flow and minimize conflicts between local and through traffic. Multi-modal connections (like sidewalks, crosswalks, adequate shoulders for bicycles and/or multi-use paths) should be pursued throughout the corridor, primarily in the built-up locations and the east end of the study area.
Transportation Conditions: Hamlet-Specific

West Sand Lake

In West Sand Lake, the traffic and transportation conditions include the following:

- The traffic signal at NY Route 43/NY Route 150 includes full pedestrian accommodations and count down timers, but the crossings are not fully compliant with ADA, lacking detectable warning.

- Eastbound vehicular queues at the intersection extend to Old Best Road (about ¼ mile) during the evening peak hour. A queue of this length suggests that the intersection needs additional capacity to accommodate existing traffic volumes.

- The elementary school with access to the south and west of the NY Route 43/NY Route 150 intersection affects traffic flow during the school peaks.

- The mining operations occurring in the hamlet affect the number of heavy vehicles using NY Route 43.

- Sidewalks exist along the south side of NY Route 43 from Meeler Road to Werger Road and along the north side of NY Route 43 from Locke Road to NY Route 351. In addition, there is a section of sidewalk on the west side of NY Route 150 from the Route 43 Mall driveway to NY Route 43.

Conclusion: Intersection capacity improvements should be explored at the NY Route 43/NY Route 150 intersection to mitigate existing delays. In addition, sidewalks should be provided between NY Route 43 and the elementary school located on NY Route 150 and to other destinations within the hamlet. Access management techniques should be pursued near the NY Route 43/NY Route 150 intersection. Gateway improvements should be considered approaching the hamlet from the west.

Averill Park/Sand Lake

- A yellow and red flashing signal control is located at the NY Route 43/Old Route 66 intersection. The intersection lacks any ADA pedestrian compliant accommodations.

- The on-street perpendicular parking on the south side of NY Route 43 between Orient Avenue and Eastern Union Turnpike affects sight distances at adjacent stop controlled intersections.

- There are no sidewalks or marked pedestrian crossings in the hamlet. There is a “Share the Road” sign entering the hamlet from the west.

- The fire department relies on manual traffic control during emergencies, to allow trucks from the fire department on Eastern Union Turnpike to access Route 43 without significant delays caused by the poor sight lines for vehicles approaching from the east and west.

- In Sand Lake there is a traffic signal at the NY Route 43/NY Route 66 intersection with no apparent capacity concerns.

- There are short sections of sidewalk in the northwest and southeast quadrants of the Sand Lake intersection but no ADA-compliant crosswalks, push buttons or indicators.

Conclusion: Provision of multi-modal connections, in and between the hamlets should be investigated. In addition, the appropriate location for a pedestrian crossing on NY Route 43 should be investigated. Full pedestrian accommodations at the NY Route 43/NY Route 66 intersection in Sand Lake should be provided. Channelization improvements should also be considered in Averill Park, such as intersection alignment and on-street parking locations. Possible locations for off-street parking and/or replacing perpendicular parking with parallel parking should be pursued. In addition, gateway improvements could be considered for traffic approaching Sand Lake on Route 43 from the east.
Proposed Recommendations

To address the issues identified in the inventory and analysis and public input process, a series of circulation plans, transportation alternatives, and concepts have been prepared. These ideas are proposed to address issues on a broader, hamlet-wide scale, and on a site-specific basis. The general purpose and goals of each of these elements are listed below.

Hamlet Circulation Plans

The purpose of the circulation plans is to provide a graphic illustration of the pedestrian/bicycle facilities, development areas, future connections, and land uses on a hamlet-wide scale. This allows for an overview of how these issues can be addressed in a comprehensive manner.

Each circulation plan contains elements identified by the SAC and the public as important to the future of the hamlet. These include:

- **Pedestrian features.** This includes the extent to which sidewalks should be installed, as well as areas in which wide shoulders are more appropriate.
- **Future connections.** These are opportunities to increase the circulation and interconnectedness of the hamlets to existing and future destinations.
- **Recreation Areas.** Future green spaces or parks have been identified, based either on public comment, SAC input, or the Future Land Use Map from the adopted Comprehensive Plan. Acknowledging the potential green spaces will allow for logical connections to be proposed.
- **Intersection Improvements.** Certain key intersections have been identified as the focus of needed improvements or transportation analyses in the future.
- **Development areas.** Certain areas have been identified in the zoning law or by the SAC as having high potential for development or redevelopment in the future. This includes future Planned Development Districts, as well as areas which are suited for infill.

In addition, the circulation plans contain specific elements which were addressed as priorities for each area during the inventory and analysis process.

Transportation Alternatives and Preferred Concepts

Using the Hamlet Circulation Plans as a guide, alternative transportation scenarios for key intersections were prepared. Each of these alternatives poses a potential set of solutions to the site-specific issues identified in the inventory and analysis. It is important to note that no alternative represents an ideal, perfect solution within the complex and varied conditions found in each hamlet at each of the key intersections.

To select the Preferred Concepts, the Transportation Alternatives were presented to the public and to the NYSDOT. The Study Advisory Committee used this input to guide the selection of the Preferred Concepts for each hamlet.

The Preferred Concepts were prepared by applying the general recommendations of the Hamlet Circulation Plans, such as pedestrian features, to a site specific area surrounding the key intersections or sites for each hamlet. This illustrates how the transportation and pedestrian improvements would function within the development pattern of each hamlet. It should be noted that these concepts are based on the best available site data and aerial photography and do not reflect site surveys. These concepts are intended to guide future development and transportation improvement projects in a flexible manner.
West Sand Lake Hamlet Circulation Plan

As stated previously, West Sand Lake is the largest hamlet in the Town, containing the most dense and active commercial uses. The following goals and recommendations have been developed which should be applied to the entire hamlet. These goals are illustrated on page 18.

1. **Improve pedestrian connectivity within the hamlet.** This includes continuous sidewalks along Routes 43 and 150, extending west to Old Best Road, north to Capital Boulevard, east to Werger Road, and south to the entrance to the Wicks/Malloy mine. In addition, sidewalks should be provided along Mall Way and Mieler Roads.

2. **Improve pedestrian/bicycle connectivity between hamlet and adjacent areas.** Although the sidewalks recommended above will improve pedestrian circulation within the hamlet itself, it is also important to create facilities to link to the residential areas near or adjacent to the hamlet. The recommendation is therefore to accommodate cyclists and pedestrians by creating wide shoulders along NYS Routes 43 and 150. In addition, shoulders should be added to NY Route 351 (Reichard’s Lake Road), to provide access to the Town beach.

This effort should also include exploring the viability of providing trail access along the Wynantskill. This could be accomplished by using the old Trolley alignment/Rensselaer County Sewer easement on the west side of the creek, or providing a new trail alignment on the east side. The feasibility of using the existing pedestrian bridge over the creek, located on the Brookside property, should also be explored.

3. **Create linkages to existing and future development areas.** The newly-adopted zoning law denotes certain areas as suitable for the Planned Development District (PDD) process. Two of these areas, currently home to active mining operations, are located adjacent to the hamlet area. This plan recommends that appropriate connections, both vehicular and pedestrian, be included in any future PDD proposals. By creating an interconnected network of streets and sidewalks, the growth of the hamlet into these PDDs can occur in a sustainable, compact manner.

4. **Address the need for access management.** This refers to the proactive management of vehicular access points to property adjacent to roadways. It is recommended that access management techniques be applied within the hamlet, especially along Route 43 east of the 43/150 intersection. The specific application of access management techniques will depend largely on the transportation improvements proposed for the 43/150 intersection. However, it can be anticipated that the consolidation of curb cuts and shared access to commercial properties will play an important role in moving cars into and out of the roadway safely and efficiently. This will also improve pedestrian conditions, by reducing the amount of area in which there is a potential for vehicular/pedestrian conflict.

5. **Increase recreation/open space amenities in the hamlet.** Currently, there are no dedicated recreation areas within the hamlet. Although space is limited in this dense development, there may be room to create a linear or pocket park along the Wynantskill. Access to this amenity should also link to existing or future pedestrian and bicycle trail networks.
West Sand Lake Circulation Plan

- Extend sidewalk to Wildwood on west side of Route 150
- Potential connections to PDD
- Potential trail alignment
- Potential for re-development of Mall Road as secondary “Main Street”
- Connect street network between Rockery and Locke
- Add green space/park amenities along creek
- Study sight lines and turning movements at intersection
- Promote access management and shared access as sites are redeveloped

Legend:
- Preferred street section to include two 14’ travel lanes (shared use) and 5’ sidewalks, one or both sides
- Preferred street includes 4’-6’ shoulders to accommodate pedestrians and cyclists
- Intersection improvement
- Future connection
- Access Management Area
- Future PDD
- Potential Redevelopment Area
- Potential Park/Open Space
West Sand Lake Transportation Alternatives

The circulation plan calls for intersection improvements to the Route 43/150 intersection. As such, this area is the focus of the transportation alternatives proposed for this project.

The goal of these alternatives was to identify ways in which the significant traffic delays at the peak hour could be addressed. In particular, the left turn movements at peak hour are assumed to be the cause of the traffic buildup.

Each alternative was analyzed for positive and negative aspects. The intent in providing these “pros and cons” was to allow the public and the committee to weigh potential benefits and drawbacks in selecting a preferred concept. As with any real-world transportation issue, no solution is perfect, and compromises must be anticipated regardless of which alternative is selected.

Alternative 1: Left-turn lanes

This alternative proposes the creation of dedicated left turn lanes on all four approaches of the intersection. Pedestrian crosswalks would be located as shown on page 20 with count-down timers on each corner.

**PROS:**
- Relieves intersection congestion
- Provides full pedestrian connectivity and accommodations in the hamlet
- Opportunity for access management which minimizes conflict points

**CONS:**
- Right-of-way constraints/impacts
- Increased intersection footprint
- Diminished opportunity for gateway into Hamlet

Alternative 2: Single-lane Roundabout

This alternative proposes a 135-foot outer diameter single lane roundabout, which includes the sidewalk area. Access to the roundabout would be controlled by curbed islands. Pedestrian access would consist of signed and marked crosswalks across all travel lanes, with pedestrian refuges within the curbed islands. No countdown timers are necessary or proposed for this option.

**PROS:**
- Relieves intersection congestion
- Provides an attractive and distinctive gateway into the hamlet
- Provides full pedestrian connectivity and accommodations in the hamlet
- Localizes right-of-way impacts close to the intersection
- Physically restricts turning movements immediately adjacent to the intersection which minimizes conflict points

**CONS:**
- Right-of-way constraints/impacts
- Larger intersection footprint than Alternative 1
- Potential impact to Veteran’s Monument site, which is slated for relocation elsewhere in the Town.

For the purposes of this plan, Alternative 2 was selected as the preferred concept, as it offers the greater balance of transportation and quality of life concerns for this hamlet.
Alternative 1: Turn Lanes
Alternative 2: Roundabout
West Sand Lake Preferred Concept Plan

For West Sand Lake, the preferred concept plan includes the Route 43/150 intersection, the Route 43 Mall, and the Wicks/Maloy Pre-mapped Planned Development District. These areas were determined to be crucial to the future of the hamlet, in terms of alleviating traffic congestion, improving pedestrian systems, and seeking to encourage attractive and appropriately-scaled commercial, residential, and mixed-use redevelopment. As with all concepts presented in this plan, the sketches are intended only to provide an idea of what may be possible. Concepts located on private property are not intended to limit future development in any manner, and all projects which are undertaken to implement this plan should have the full support and cooperation of all affected landowners.
The preferred concept for the Route 43/150 intersection includes the single-lane roundabout alternative described previously. To develop the concept, streetscape elements were designed and applied to the intersection, consistent with access management principles and the Design Guidelines contained in the Zoning Law. This concept is illustrated graphically on page 24. In addition, a photoillustration was prepared, showing “before” and “after” conditions along Route 43 in front of the Hannaford Plaza.

The preferred concept includes the following:

- **Consolidated entrances and linked parking.** Access to commercial properties on Route 43 were consolidated and/or narrowed to create discrete entrances/exits. On the north side of Route 43, each commercial property within the concept now has a single entry/exit drive. These adjacent parking areas have been connected, to allow customers to access all of the businesses regardless of which entrance is used. It is important to note that these design features should not inhibit access to internal parking, and may be modified in the final design, but they show the intent to channelize traffic and consolidate access near the roundabout.

- **Streetscape elements.** Street trees, pedestrian-scale lighting, pedestrian accommodations, tree lawns, and landscape plantings are proposed to enhance the look and walkability of the area.

- **Roundabout gateway enhancements.** The roundabout has been conceptually designed as a gateway feature, which welcomes visitors and residents to the hamlet. Decorative paving elements are included, and landscape plantings in the center of the roundabout will enhance the aesthetics as well. A heritage feature, such as a monument for the Veterans or a similar community symbol, has been proposed for the roundabout center as well. ADA-compliant pedestrian crossings have also been proposed.

- **Redevelopment areas.** The gas station property located on the northeast corner of the intersection is currently vacant. A potential redevelopment scheme based on the stipulations of the zoning law, has been proposed, to illustrate how new development will fit in with the existing hamlet.
Re-alignment of Rt. 150 creates more favorable approach for vehicles

Consolidated curb cuts and access management

Connect adjacent parking areas

Potential redevelopment pattern

Improve pedestrian crossings and accessibility

Potential for heritage or gateway feature

Maintain access to parcels
43 Mall Preferred Concept

In recognition of the importance of the 43 Mall, and the need to plan for its eventual redevelopment in the coming decades, this plan includes a concept for future improvements, shown on page 27.

The 43 Mall represents an important opportunity and resource within the hamlet of West Sand Lake. This busy commercial area is located on its own roadway, which is situated along a picturesque section of the Wynantskill Creek. The Mall itself provides much-needed commercial space for retail and service businesses of a variety of types and scales.

Although the Mall plays an important role in the community, its location and design are somewhat disconnected from the fabric of the rest of the hamlet. In addition, the Mall structure itself, like all commercial buildings, will eventually be subject to renovation or redevelopment by the property owner.

This concept consists of two phases. Phase 1 involves improvements to Mall Road and the establishment of recreation facilities along the Wynantskill Creek. A linear multi-use path has been proposed between the road and the stream, which would take advantage of the views of the creek while also providing much-needed pedestrian and bicycle facilities. This should link to Routes 43 and 150, and should also provide access to future trail links to the north. Designated crosswalks are also proposed, so that pedestrians can access the parking area and stores. A small pocket park has also been proposed, on the south side of the creek. As with all proposals located on private property, this park would require a public/private partnership to implement.

The second phase of the concept addresses the future of the commercial area. Using the design vocabulary established in the zoning law, building footprints and parking areas have been situated on the property. Although the 43 Mall is located on a Planned Development District, and may not be subject to the same design guidelines as the Hamlet Commercial district, the intention of the Design Guidelines established in the zoning law should still apply. The preferred concept calls for hamlet-scale development patterns, with buildings located close to the street and parking behind. There is also a strong emphasis on streetscape amenities and high-quality architecture. This concept also allows for two-story development, which would effectively double the amount of available commercial space and/or residential space.

The photos to the right illustrate similar development styles used in the Northeast. These development patterns are becoming very popular among developers and the shopping public, and represent the future of commercial redevelopment in the region.
Hamlet Expansion Preferred Concept

The Town of Sand Lake is a growing community, whose residents are interested in preserving community character, including vibrant hamlets surrounded by neighborhoods. This theme has carried through the Comprehensive Plan to the zoning law, which proactively denotes certain areas as appropriate for future Planned Development Districts (PDD). One such potential PDD is located in the southeast corner of the West Sand Lake hamlet.

The importance of this area to the future of the hamlet cannot be overstated. Currently, this area is used as a mining operation, and is buffered from the hamlet by steep slopes and heavy vegetation. The Town, through its Comprehensive Plan, zoning law, and this report, seeks to encourage the orderly development of this area once the mine is extinguished.

As such, this report recommends that an integrated system of transportation and roadway connections should link this area to the hamlet. The intent is for this area to become a holistic expansion of the hamlet itself, rather than a disconnected development area. Ideally, the most intensive development uses and densities should be located closest to the existing hamlet fabric, with the required open spaces located around important natural features.
**43 Mall Preferred Concept**

- **Connection to future development**
- **Parking behind buildings**
- **Pedestrian-oriented development patterns**
- **Connection to future trail system**
- **Linear green space with multi-use path**
- **Pocket Park**

**Legend**
- **Phase 1**
- **Phase 2**
Averill Park/Sand Lake Circulation Plan

Averill Park and Sand Lake, located in close proximity along Route 43, were analyzed as a whole, to better address connectivity in a holistic manner. The following goals and recommendations have been developed which should be applied to these hamlets.

1. **Improve pedestrian connectivity within the hamlets.** In Averill Park, sidewalks have been proposed on Route 43 between Lake and Bullis, on Old Route 66 to St. Henry’s church, on Eastern Union Turnpike to the fire station, on Burden Lake to Tin Can Alley, and Orient Avenue to a proposed parking area. In Sand Lake, sidewalks are proposed surrounding the NY Route 43/NY Route 66 intersection, linking to the elementary school to the north, the old middle school building to the west, Schumann Road to the south, and to the commercial properties to the east.

2. **Address the need for transportation improvements to NY Route 43/Old Route 66 intersection.** The goal for the intersection is to reduce conflicts for vehicles and pedestrians.

3. **Increase available parking.** Residents, business owners, and members of the SAC cited a strong need for additional parking in this hamlet. An off-street parking area has been proposed in Averill Park, to relieve some of the need for off-street spaces in the hamlet.

4. **Improve pedestrian connectivity between the hamlets.** Due to natural constraints such as topography and wetlands, widening the roadway to accommodate sidewalks or shoulders may not be desirable. Between the hamlets, the proposal is to create a sidewalk or wide path along the north side (school side) of Route 43, as illustrated in the photoillustration to the right. In addition, off-street trail connections would provide additional alternatives for pedestrians and cyclists.

5. **Create linkages to existing and future development and recreation areas.** As with West Sand Lake, linkages to future development areas are noted, as well as connections to potential future recreation areas. In particular, the circulation plan includes Town-owned property near the fire station which was identified as a future park in the Town’s Comprehensive Plan.

6. **Explore emergency vehicle signal feasibility.** If warrants are met for the placement of an emergency vehicle signal, (200 emergency calls annually at times when the two-way traffic volumes exceeds 525 vph if the sight distances is limited), the Town should work with NYSDOT to establish this signal at the Eastern Union/Route 43 intersection.
Averill Park/Sand Lake Circulation Plan

- Pursue trail connection on trolley line
- Potential Parking area—locate on Town property
- Possible emergency vehicle signal for fire department
- Extend sidewalks to Schumann; wide shoulders to Glass Lake
- Pursue future pedestrian access to cemetery if parcel is developed
Averill Park/Sand Lake Transportation Alternatives

The circulation plan calls for intersection improvements to the Route 43/Old Route 66 intersection. As such, this area is the focus of the transportation alternatives proposed for this hamlet. There is one transportation alternative proposed for Sand Lake.

The goal of the Averill Park alternatives was to identify ways in which the conflicts could be addressed, allowing for an easier way for vehicles to enter and exit Route 43 and Old Route 66. In addition, traffic calming techniques were considered, to slow traffic within the hamlet. Pedestrian accommodations and parking were also included.

In addition to the two alternatives proposed herein, the SAC considered a single-lane roundabout at the target intersection. However, this alternative was removed from further consideration by the SAC due to significant right-of-way and geometric constraints. This alternative would require at least two structures to be removed. As such, the single-lane roundabout option was not considered a viable option at this time.

**Alternative 1: Channelization and Pedestrian Improvements**

This alternative proposes channelizing Route 43 by adding curbs and dedicated pedestrian areas, which would provide traffic calming effects. An off-street parking area is proposed on the municipal property behind the commercial businesses.

**PROS**
- Improves pedestrian connectivity and accommodations in the hamlet
- Unsignalized pedestrian crossing provided at location with best visibility
- Accommodates bicycles in 14 foot shared-use lane
- Provides off-street Parking
- Calms traffic through visual cues

**CONS**
- Maintains basic intersection geometry, which will not address sight line deficiency
- Does not address potential conflicts with private entrance drive into Lakeview
- Reduces on-street parking

**Alternative 2: Re-alignment and Signalization**

This alternative proposes re-aligning the intersection of Old Route 66 to be perpendicular with Orient Avenue, creating a four-way intersection. In this option, Old Route 66 and Orient Avenue would be controlled with stop signs until such time as signal warrants are met and a traffic signal can be added.

**PROS**
- Channelizes and minimizes NY Route 43/Old Route 66 intersection footprint
- Provides greater controlled pedestrian connectivity and increases accommodations in the hamlet
- Provides off-street and on-street parking

**CONS**
- Right-of-way impact to Citgo station
- Signal warrants may not be met in the near future

For the purposes of this plan, Alternative 2 was selected as the preferred concept, as potential transportation benefits are balanced with retaining as much on-street parking as possible.
Alternative 1: Channelization & Pedestrian Improvements

- Install unsignalized crosswalk to maximize visibility
- Potential pedestrian access to parking lot
- Potential parking lot
Alternative 2: Re-alignment & Signalization

Install traffic signal if warrants are met

Potential parking lot
Averill Park/Sand Lake Preferred Concept Plans

For Averill Park and Sand Lake, the preferred concept plans have been illustrated individually, to allow for a higher level of detail and scale than the circulation plan. Concepts were prepared for the core of Averill Park and Sand Lake and are described herein in further detail.
Averill Park Preferred Concept

As stated previously, Alternative 2—Realignment and Signalization—was selected as the preferred concept. Using the geometry of the proposed intersection as a base, streetscape and other elements were designed according to the goals set in the circulation plan. This includes:

- **Combination of on-street and off-street parking.** The parking area proposed for the municipal lots adds 20 spaces which can be available for short- or long-term use. This area will provide parking for customers, employees and residents, which will free up valuable on-street spaces for short-term use. It is important to note that the number of spaces shown on the concept plan may increase or decrease as the intersection is realigned. As such, the location of on-street spaces along Route 43 is conceptual, and subject to change pending detailed design development.

- **Pedestrian amenities.** Sidewalks have been proposed throughout the hamlet, including connections to the proposed parking area. By formalizing the road edges and on-street parking with curbs, room for pedestrian improvements has been established. ADA-compliant crosswalks at the Route 43/Old Route 66 are proposed, as this location provides the best available sight line distances. If signalized, the intersection should include pedestrian signals with county down timers and ADA compliant detectable warning. If unsignalized, a median refuge area with offset pedestrian crossing locations could be considered.

- **Additional green space.** The re-alignment of the intersection has created an opportunity for a small area of green space in the center of the hamlet. Access to the private property to the north must be maintained; coordination with the property owner should take place during the design development phase to ensure adequate entry to the parcel.

Examples of median refuge islands. Middle and bottom photos courtesy of Pedestrian and Bicycle Information Center.
Averill Park Preferred Concept

Connect sidewalks to St. Henry’s and Crystal Cove

Additional green space opportunity (maintain access to parcel)

Parallel parking located as sight lines allow (applies throughout concept)

Pursue formal shared parking agreement between bank and church

Pedestrian connection to parking

20-space off-street parking lot
Sand Lake Preferred Concept

Proposed improvements to the Sand Lake hamlet are primarily pedestrian-related. This is largely due to the fact that the Route 43/66 intersection functions adequately, with no delays or safety issues. As such, the preferred concept focuses on ways to improve the pedestrian crossings and connectivity while improving look and feel of the hamlet, including:

- **Pedestrian Amenities.** Sidewalks have been added to the roadways, with a grass strip between the sidewalk and roadway wherever feasible. In addition, ADA-compliant crosswalks and countdown timers are proposed at the intersection, which will greatly improve pedestrian safety and comfort.

- **Landscape plantings.** This intersection features overhead utility wires, which can interfere with tree plantings. As such, lower height plantings are proposed immediately around the intersection itself, with street trees located where feasible. These landscape plantings could consist of small shrubs or perennials, which require minimal maintenance but limited visual variety. Annual plantings are also viable, which would require more maintenance but provide a greater level of color and seasonal variety. The Town can work with local groups, such as the garden club, to implement a variety of landscape options to beautify this hamlet.

- **Access management principles.** As in West Sand Lake, access management in the form of narrower entrance/exit drives are proposed in this concept. This is mainly targeted towards the gas station property, which currently has very wide entrances. As the improvements to this area are designed, it will be important to balance the necessary turning radii for fuel delivery trucks with the need to create narrower entrances. Ultimately, the preferred concept will allow free movement of vehicles into the property while maintaining as much contiguous pedestrian areas as possible. This will reduce the vehicle speed entering the property and will also reduce the potential for vehicle-pedestrian conflict.
Sand Lake Preferred Concept

- Pedestrian improvements incl. crosswalks and sidewalks
- Narrow, defined entrance/exit drives promote access management
- Seasonal plantings add color
Pedestrian/Bicycle Connection Plan

In addition to identifying overall circulation plans for each hamlet, a Pedestrian/Bicycle Connection Plan has been prepared. This plan recognizes the existence of two important running/biking routes in the Town: the route used by the High School Running team, and the routes used by the Capital District Triathlon Club.

These groups routinely generate large numbers of pedestrians and cyclists during the summer months. Currently, users are concerned about the sufficiency of the roads for intensive pedestrian and bicycle use.

It is recommended that these roadways be targeted for improvements which would provide a greater level of comfort for all user groups. Although there may not be room available along all roadways for a dedicated pedestrian and/or bicycle facility, all efforts should be made to provide wider shoulders along both sides of the street. This is especially important for roadways such as Crystal Lake Road, which is narrow. Short-term improvements could include “Share the Road” or similar signs to alert motorists to expect other users.

In addition, the Town should pursue off-road multi-use path connections in this area, as illustrated. These will provide alternatives for non-vehicle transportation, further decreasing the potential for conflicts along existing roadways.
Existing Capital District Triathlon Club running/biking route

Existing H.S. Cross Country running route

Proposed trail connection

Future park/recreation area

Future PDD

Create trail on old Route 43 alignment to minimize running on roadway

Additional pedestrian access to water
Implementation & Funding

Short Term Projects

The preferred concepts in this plan will require a long-term commitment from the Town in order to be implemented. Each concept involves many different steps and phases, some of which are interdependent, and some of which may be completed individually.

The transportation and pedestrian improvements in this plan will require coordination with NYSDOT and other agencies. As such, these have been designated as long-term projects, and are discussed on page 41.

In terms of projects which the Town might begin immediately, the Town could commence the following implementation actions starting immediately. See Appendix 4 for more detailed breakdowns of probable cost.

West Sand Lake:

1. **Mall Road improvements.** As Mall Road is privately owned and is not a NYSDOT roadway, the Town could begin coordination with the 43 Mall owners immediately concerning the potential to establish the pedestrian and green space amenities proposed in this plan.
   
   *Design, Engineering, and Permits:* $64,100
   
   *Probable Construction Cost:* $493,200
   
   *Estimated Total Project Cost:* $557,300

Averill Park/Sand Lake:

1. **Establish parking area.** The proposed parking area in Averill Park is located on Town property. As such, the Town can proceed with design and construction as it sees fit. This project will result in an immediate benefit to the residents and businesses in the hamlet, and should be pursued as a high-priority project.
   
   *Design, Engineering, and Permits:* $29,400
   
   *Probable Construction Cost:* $226,200
   
   *Estimated Total Project Cost:* $255,600

2. **Pursue trail connections.** The off-road trail connections can be pursued as stand-alone projects. Funding for acquisition, design, and construction can come from a variety of sources, including NYS Office of Parks, Recreation, and Historic Preservation, NYSDOT Transportation Enhancement Program, and the Hudson River Valley Greenway Conservancy Grants.
   
   *Design, Engineering, ROW/Permits:* $192,500
   
   *Probable Construction Cost:* $904,700
   
   *Estimated Total Project Cost:* $1,097,200

Potential funding sources:

- Spot Improvement Program
- Transportation Enhancement Program (TEP)
- Safe Routes to School
- Congestion Mitigation and Air Quality Improvement (CMAQ) Program
- CDTC Linkage Implementation Program
- Transportation Improvement Program (TIP)
- Parks and Trails New York
- Hudson River Valley Greenway Conservancy Grants
- New York State Recreational Trails Program
Implementation & Funding

Long Term Projects

The transportation-related improvements in this plan will require coordination with NYS DOT. As such, implementation will entail a multi-phase process for each hamlet. This process should be overseen by a Town committee, such as the Planning Oversight Committee or similar group. In addition, the Town should take into account that transportation improvements of this magnitude include a significant administrative component, especially if the projects are grant funded.

The implementation process includes:

1. **Agency Coordination.** The Town should meet with officials of the NYS DOT Planning/Programming, Rensselaer County, and CDTC to address design and jurisdictional concerns as well as identify potential strategies concerning funding. The goal should be to allow the Town to determine the best course of action regarding project phasing and funding cycles. A preliminary construction cost estimate for the preferred concepts should also be included in this phase. Potential funding sources include the Spot Improvement Program, Transportation Enhancement Program (TEP), Safe Routes to School, Congestion Mitigation and Air Quality Improvement (CMAQ) program, CDTC Linkage Implementation Program, and Transportation Improvement Program (TIP).

2. **Design.** Conduct needed surveys, including rights-of-way, utilities, topography, and related items. Establish appropriate design criteria and review with NYS DOT (i.e. design speed, lane width, etc.). Prepare construction documents, with review by agencies as called for by the requirements of NYS DOT projects. Conduct environmental review of project.

3. **Public Education and Outreach.** Ongoing public input should be sought through a coordinated outreach program. This program could consist of public meetings, the preparation of a media kit and press releases, coordination with local media, and web updates.

4. **Construction.** The final step will be to construct the improvements using the required bidding and oversight procedures, as required by the funding agency. Depending on the project and the funding agency, this may be accomplished with Town labor and/or by putting the project out to bid.
Appendices
Appendix 1—Public Input Summaries
1. The first Public Meeting for the *Town of Sand Lake Hamlets Master Plan/Linkage Study* was held on July 27, 2010 at 7:00 pm at the Town of Sand Lake Town Hall. The purpose of the meeting was to introduce the project to the general public and receive comments on the preliminary transportation alternatives for the hamlets of West Sand Lake, Averill Park and Sand Lake. The workshop was advertised online on the Town of Sand Lake website and through local news publications. Meeting flyers were posted at the Library and the Town Hall. The workshop was attended by approximately 20 people. Attachment A contains the attendance sheets.

2. The meeting was facilitated by Jere Tatich of Elan Planning and Mark Sargent of Creighton Manning Engineering (CME). The workshop began with a brief open house session in which the transportation alternatives for the Hamlets were displayed at several stations. Elan and CME staff were present to respond to any questions. The open house was followed by a PowerPoint presentation delivered by Jere Tatich, Mark Sargent, and Alanna Moran (CME). The presentation was broken into two segments to discuss transportation recommendations in the hamlet of West Sand Lake and the hamlets of Averill Park and Sand Lake. Following the presentation was a question and answer period facilitated by Mark Sargent. Below is a summary of the general themes, comments and concerns noted during the meeting and contained in the written comments received from the meeting. Although attendance at the first public meeting was good, it should be noted that there will be future opportunities for public comment/involvement at the final public meeting. The presentation given at the first public meeting will also be made available for public viewing on the Town’s website.
3. **West Sand Lake**

   a. Two capacity improvements were presented for the NY Route 43/NY Route 150 intersection: Alternative 1 – left-turn lanes on all approaches and Alternative 2 – a single-lane roundabout. Concerns were raised regarding impacts and the area affected by the left-turn lanes. In general, comments of those in attendance supported construction of a single-lane roundabout at this intersection, noting that it could be a focal point/gateway. It was also mentioned that enhancing rather than diminishing the Veterans Memorial should be considered as part of any alternative.

   b. Expanding the pedestrian network received support though it was suggested that sidewalks extend south on NY Route 150 to Shaver Road or Old South Road.

   c. Truck traffic through the hamlet is a concern. A suggestion was made that a detailed study of truck traffic in the hamlet should be pursued. The study should include the daily and seasonal variability of truck traffic through the hamlet. Questions were raised about the potential for a truck climbing lane west of the hamlet on NY Route 43 traveling westbound out of the hamlet. It was noted that this idea had been proposed several years ago but was rejected for a number of reasons including sight distance and side road access concerns.

   d. In terms of bicycle accommodations, one commenter preferred separate shoulders on NY Route 43 as opposed to the shared travel lanes presented as part of the concept plan.

   e. Another commenter questioned the specific access management improvements noting that they make sense conceptually. Mark Sargent explained that the specifics need to be addressed during roadway reconstruction and/or during site redevelopment.

4. **Averill Park and Sand Lake**

   a. Two capacity improvements were presented for the NY Route 43/Old Route 66 intersection: Alternative 1 – channelization and pedestrian improvements and Alternative 2 – re-alignment and traffic signal. Concerns were raised regarding the loss of on-street parking associated with both alternatives. It was generally conceded that pedestrian and bicycle improvements are needed in the hamlet of Averill Park and to connect to Sand Lake. Alternative 2 generally received greater support than Alternative 1.

   b. It is noted that a traffic signal at NY Route 43/Old Route 66 is not currently warranted, but is supported. Installation of a traffic signal at this location would require a NYSDOT highway work permit.

   c. On-street parking in Averill Park is a major concern. General support was noted for the provision of off-street parking in the Town-owned parcels south of NY Route 43, but
questions were raised regarding access to/from the parking lot and whether the lot would be used since it is not directly adjacent to the NY Route 43 businesses.

d. There was very strong support for expanding the pedestrian and bicycle network in and between Averill Park and Sand Lake. Comments were made regarding providing further expansion of sidewalks along Old Route 66, Gettle Road, and Crystal Lake Road. There was also support for a sidewalk connection to the post office and to schools in the study area.

e. There was a question about the ownership of the old trolley line/sewer easement and a comment to use it as a roadway, rather than a path connection as proposed. One commenter mentioned a Westchester Co. example where an abandoned rail ROW had been turned into a trail and it was a significant asset to the community.
1. The second Public Meeting for the Town of Sand Lake Hamlets Master Plan/Linkage Study was held on October 28, 2010 at 6:30 pm at the Town of Sand Lake Town Hall. The purpose of the meeting was to receive comments on the concept plans for the hamlets of West Sand Lake, Averill Park and Sand Lake. The workshop was advertised online on the Town of Sand Lake website and through local news publications. Meeting fliers were posted at the Library and the Town Hall, in addition to several other public locations in each hamlet. The workshop was attended by approximately 20 people. Attachment A contains the attendance sheets.

2. The meeting was facilitated by Lisa Nagle and Jere Tatich of Elan Planning and Alanna Moran of Creighton Manning Engineering (CME). The workshop began with a PowerPoint presentation delivered by Lisa Nagle, Jere Tatich, and Alanna Moran. Following the presentation was a question and answer period facilitated by Lisa Nagle. Below is a summary of the general themes, comments and concerns noted during the meeting and contained in the written comments received from the meeting. The presentation given at the public meeting will also be made available for public viewing on the Town’s website.

3. West Sand Lake
   a. There was a concern that large trucks may be unable to traverse the roundabout, especially an oversize vehicle, such as the 150’ truck which recently transported a windmill through this intersection. Alanna noted that most large trucks can get through a roundabout, but that very large vehicles may be unable to get through. However, the curb on the inner radius is mountable, so for the majority of trucks, the roundabout will not pose an obstacle.

   b. There was a concern regarding the speed of traffic at the crosswalk on Route 43 to Mieler Avenue. The overall plan notes this as an intersection of concern, and the report will address potential options such as a flashing light, which will alert drivers to the crosswalk.

   c. A question was raised as to whether the roundabout will slow traffic down. The project team noted that a slower, but steady, traffic flow can be expected with a roundabout.
d. A question was raised regarding the viability of turn lanes, and whether these were examined as part of the project. The project team noted that this was an alternative presented in July, which had much greater right of way impacts. The consensus from the previous public meeting was that the roundabout would be the preferred option.

e. Clarification was requested regarding the entrances into the Hannaford shopping center. The entrances were pointed out on the concept plan by the project team.

f. A concern regarding left turns on Route 43 was brought up, in particular whether the roundabout would ease the delays in being able to pull out of residential driveways during the peak hour. The project team explained the difference in traffic flow with a roundabout vs. a signalized intersection, which may help create spaces for residents to pull on to Route 43.

g. Concerns regarding impacts to the two commercial properties on the southwest side of the 43/150 intersection were raised. Specifically, whether the intersection would eliminate parking in front of these businesses. The feasibility of adding parking in the soon-to-be former Veterans’ Memorial was discussed. The project team will take a closer look at this area to determine if the concept can be revised to address the need for parking in front of these businesses.

h. There was a question regarding the relevance of the 43 Mall to the concept. The project team explained that the Mall Road was examined first from a transportation standpoint, especially in terms of pedestrian amenities. The committee then expressed an interest in exploring the future potential of the property once the shopping center near the end of its useable life. The committee did not work with the land owners on this concept, and the concept is more about an exercise in identifying full potential and vision than in proposing a specific development for the area.

4. **Averill Park**

a. Parking was a main concern in this concept. Several attendees noted that the proposed parking area would not likely be used by customers, and that the small businesses are reliant on parking in front of the building. The potential to locate parking next to the pharmacy was brought up by one attendee, as well as the idea of closing off part of Burden Lake Road.

b. There was a question of whether this concept would slow traffic in Averill Park. Alanna noted that the streetscape concept would provide visual clues that could slow drivers in this area.

c. There was a question regarding the concept for the Eastern Union Turnpike intersection, which is not shown on the concept. The project team displayed the overall plan, showing the walkway and sidewalk connections in that area.
5. **Sand Lake** – There were no comments regarding the Sand Lake concept.

6. General questions/comments:
   a. There was a question and subsequent discussion regarding the way in which the local, state, and federal funding would work together for these projects. The CDTC Spot Improvement Program and Safe Routes to School program were mentioned as potential sources of funding.

   b. An attendee asked for examples of other successful projects, and wanted clarification as to the timeline for improvements. The project team clarified that these are long term concepts, and that much more design is necessary. Examples of successful projects would include Wolf Road and Glens Falls. A description of the TIP and TEP processes was also given by the project team.

   c. The question of next steps was brought up, specifically how the Town can take advantage of funding opportunities. Lisa explained the implementation matrix which will be included with the plan. This links funding sources to specific aspects of the project concepts.

7. To close the meeting, Lisa thanked the audience, and explained that the materials shown tonight would be available on the Town’s website. The next round of revisions will be brought to the project committee, and a draft plan will be presented to the Town Board after the New Year.
Appendix 2—Crash Data Summary
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<td>11 MV, 1 BK</td>
</tr>
<tr>
<td>NY 43: Arthur Rd - Grange Rd</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>3 MV, 2 DR, 1 CRB, 1 FNC</td>
</tr>
<tr>
<td>NY 43: Grange Rd - NY 351</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>2 MV</td>
</tr>
<tr>
<td>NY 43: NY 351 - Werger Rd (W)</td>
<td>2</td>
<td>2</td>
<td>0</td>
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<td>1 MV, 1 BW</td>
</tr>
<tr>
<td>NY 43: Werger Rd (W) - Werger Rd (E)</td>
<td>3</td>
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<td>1</td>
<td>0</td>
<td>1 MV, 1 DR, 1 GR</td>
</tr>
<tr>
<td>NY 43: Werger Rd (E) - Bradley Way</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1 DR, 2 GR</td>
</tr>
<tr>
<td>NY 43: Tollgate Rd - Trestle Rd/Patricia La</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2 MV</td>
</tr>
<tr>
<td>NY 43: Thais Rd - Wilkins Dr</td>
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<td>0</td>
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<td>0</td>
<td>3 MV</td>
</tr>
<tr>
<td>NY 43: Horton Rd - Baxter Rd</td>
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<td>1</td>
<td>0</td>
<td>0</td>
<td>1 DR, 1 LSUP</td>
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<tr>
<td>NY 43: Eastview Rd - Bon Acre Way</td>
<td>5</td>
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<td>2</td>
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<tr>
<td>NY 43: Bon Acre Way - Gettle Rd</td>
<td>1</td>
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<td>0</td>
<td>0</td>
<td>1 MV</td>
</tr>
<tr>
<td>NY 43: Gettle Rd - High School Rd</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>2 MV, 1 TR</td>
</tr>
<tr>
<td>NY 43: Edgewood Dr - Sunset Rd</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>3 MV, 1 OTHNC</td>
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<tr>
<td>NY 43: Sunset Rd - Clearview Rd</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1 OTHFO</td>
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<tr>
<td>NY 43: Clearview Rd - Allen Ave</td>
<td>10</td>
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<td>0</td>
<td>1 MV, 3 DR, 3 GR, 1 ERD, 1 CLHD, 1 OVRT</td>
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<tr>
<td>NY 43: Terrace Dr - Pine Ave</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>NY 43: Marcy Ave - Lake Ave</td>
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<td>1</td>
<td>0</td>
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<tr>
<td>NY 43: Lake Av-Unnamed St W of Orient S</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>2 MV, 1 DR, 1 ERD</td>
</tr>
<tr>
<td>NY 43: Orient Ave N - Old Route 66</td>
<td>1</td>
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<td>0</td>
<td>0</td>
<td>1 MV</td>
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<tr>
<td>NY 43: Old Route 66 - Burden Lake Rd</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1 MV</td>
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<tr>
<td>NY 43: Burden Lake Rd-Eastern Union Tpk</td>
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<td>1</td>
<td>0</td>
<td>1 MV, 1 OTHNC</td>
</tr>
<tr>
<td>NY 43: Eastern Union Tpk - Barzen Rd</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1 ERD</td>
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<tr>
<td>NY 43: Victor La - School Driveway</td>
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<td>2</td>
<td>0</td>
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<tr>
<td>NY 43: School Driveway - Miller Hill Rd</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>1 MV, 1 TR, 1 BW, 1 CLHD</td>
</tr>
</tbody>
</table>

**TOTAL NON-INTERSECTION CRASHES**: 117 88 41 0

71 MV, 1 SP, 1 OTH, 4 ERD, 13 DR, 1 BK, 2 CRB, 1 FNC, 2 BW, 7 GR, 1 LSUP, 1 AN, 2 TR, 2 OTHNC, 1 OTHFO, 2 CLHD, 1 OVRT

40 RE, 2 RTW, 2 OVR, 6 LTA, 4 LTW, 46 OTH, 6 RA, 2 UNK, 2 HO, 2 SDSLW, 1 RTA

---

Town of Sand Lake Linkage Study Crash Data
Prepared by: CDTC
<table>
<thead>
<tr>
<th>Intersection Crashes</th>
<th>Total Crashes</th>
<th>Reportable Injuries</th>
<th>Fatalities</th>
<th>Crash Type</th>
<th>Collision Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>NY 43 @ CR 53</td>
<td>5</td>
<td>5</td>
<td>6</td>
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<tr>
<td>NY 43 @ Meeler Rd</td>
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<td>2</td>
<td>2</td>
<td>2 MV</td>
<td>1 RE, 1 RTA</td>
</tr>
<tr>
<td>NY 43 @ NY 150</td>
<td>9</td>
<td>9</td>
<td>6</td>
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<td>2 RE, 1 RA, 1 LTA, 1 OVR, 1 OTH, 3 UNK</td>
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<tr>
<td>NY 43 @ Firehouse La</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1 MV</td>
<td>1 RE</td>
</tr>
<tr>
<td>NY 43 @ Breigle La</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3 MV</td>
<td>3 RE</td>
</tr>
<tr>
<td>NY 43 @ Springer Rd</td>
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<td>1 RE, 1 OTH</td>
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<tr>
<td>NY 43 @ Arthur Rd</td>
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<td>1</td>
<td>1 MV</td>
<td>1 RE, 1 SDSW</td>
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<tr>
<td>NY 43 @ Grange Rd</td>
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<td>0</td>
<td>1 MV</td>
<td>1 RE</td>
</tr>
<tr>
<td>NY 43 @ NY 351</td>
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<td>0</td>
<td>11 MV, 1 DR, 1 SP</td>
<td>8 RE, 1 RA, 3 OTH, 1 UNK</td>
</tr>
<tr>
<td>NY 43 @ Wergard Rd (W)</td>
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<td>2</td>
<td>1</td>
<td>1 MV, 1 DR</td>
<td>1 RE, 1 OTH</td>
</tr>
<tr>
<td>NY 43 @ Tolligete Rd</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1 MV</td>
<td>1 RE</td>
</tr>
<tr>
<td>NY 43 @ Thais Rd</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1 MV</td>
<td>1 RE</td>
</tr>
<tr>
<td>NY 43 @ Eastview Rd</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>4 MV</td>
<td>3 RE, 1 RA</td>
</tr>
<tr>
<td>NY 43 @ Gettle Rd</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2 MV</td>
<td>1 RE, 1 HO</td>
</tr>
<tr>
<td>NY 43 @ Orient Ave S</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1 MV, 1 OVRT</td>
<td>1 OTH, 1 UNK</td>
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<tr>
<td>NY 43 @ Orient Ave N</td>
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<td>0</td>
<td>1 MV</td>
<td>1 SDSW</td>
</tr>
<tr>
<td>NY 43 @ Old Route 66</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2 MV, 1 PD</td>
<td>1 RA, 1 OTH, 1 UNK</td>
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<tr>
<td>NY 43 @ Barzen Rd</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2 MV</td>
<td>1 RE, 1 RA</td>
</tr>
<tr>
<td>NY 43 @ Victor La</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1 MV, 1 LSUP</td>
<td>1 RE, 1 OTH</td>
</tr>
<tr>
<td><strong>TOTAL INTERSECTION CRASHES</strong></td>
<td><strong>58</strong></td>
<td><strong>49</strong></td>
<td><strong>33</strong></td>
<td><strong>0</strong></td>
<td><strong>51 MV, 1 LSUP, 1 BK, 2 DR, 1 SP, 1 OVR, 1 PD</strong></td>
</tr>
</tbody>
</table>

| **TOTAL ALL CRASHES** | **175** | **137** | **74** | **0** | **122 MV, 2 SP, 2 LSUP, 1 OTH, 4 ERD, 15 DR, 2 BK, 2 CRB, 1 FNC, 2 BW, 7 GR, 1 AN, 2 TR, 2 OTHNC, 1 OTHFO, 2 CLHD, 2 OVRT, 1 PD** | **29 RE, 5 RA, 1 RTW, 1 LTA, 10 OTH, 1 LTW, 1 RTA,** |

NY 150: Just South of Shaver Rd to Just North of Wildwood Heights

<table>
<thead>
<tr>
<th>Link Crashes</th>
<th>Total Crashes</th>
<th>Reportable Injuries</th>
<th>Fatalities</th>
<th>Crash Type</th>
<th>Collision Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>NY 150: Just S of Shaver Rd - Shaver Rd</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1 DR</td>
<td>1 OTH</td>
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<tr>
<td>NY 150: Shaver Rd - Meeler Rd</td>
<td>7</td>
<td>6</td>
<td>0</td>
<td>1 MV, 2 DR, 2 GR, 1 SP, 1 TR</td>
<td>1 RE, 6 OTH</td>
</tr>
<tr>
<td>NY 150: Meeler Rd - NY 43</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3 MV</td>
<td>3 RE</td>
</tr>
<tr>
<td>NY 150: NY 43 - Brookside Way</td>
<td>7</td>
<td>4</td>
<td>0</td>
<td>6 MV, 1 OTHNC</td>
<td>1 RE, 2 RA, 1 LTA, 1 LTA, 1 LTW, 1 OTH</td>
</tr>
<tr>
<td>NY 150: Brookside Way - Capital Blvd</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>2 MV, 1 DR, 1 OTHNC</td>
<td>1 RE, 1 LTA, 2 OTH</td>
</tr>
<tr>
<td>NY 150: Longview Ave - Birch Dr</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1 GR</td>
<td>1 OTH</td>
</tr>
<tr>
<td>NY 150: Birch Dr - Wildwood Heights</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1 GR</td>
<td>1 OTH</td>
</tr>
<tr>
<td>NY 150: Wildwood Hgts-Just N of Wildwood</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1 DR</td>
<td>1 OTH</td>
</tr>
<tr>
<td><strong>TOTAL NON-INTERSECTION CRASHES</strong></td>
<td><strong>26</strong></td>
<td><strong>16</strong></td>
<td><strong>2</strong></td>
<td><strong>0</strong></td>
<td><strong>12 MV, 1 TR, 2 OTHNC, 5 DR, 4 GR, 1 SP</strong></td>
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Town of Sand Lake Linkage Study Crash Data
Prepared by: CDTC
<table>
<thead>
<tr>
<th>Intersection Crashes</th>
<th>Total Crashes</th>
<th>Reportable</th>
<th>Injuries*</th>
<th>Fatalities</th>
<th>Crash Type</th>
<th>Collision Type</th>
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</thead>
<tbody>
<tr>
<td>NY 150 @ Capital Blvd</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>2 MV, 1 GR</td>
<td>2 RE, 1 OTH</td>
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<tr>
<td>NY 150 @ Birch Dr</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>1 MV</td>
<td>1 RE</td>
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<tr>
<td>TOTAL INTERSECTION CRASHES</td>
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<td>4</td>
<td>3</td>
<td>0</td>
<td>3 MV, 1 GR</td>
<td>3 RE, 1 OTH</td>
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<tr>
<td>TOTAL ALL CRASHES</td>
<td>30</td>
<td>20</td>
<td>5</td>
<td>0</td>
<td>15 MV, 1 TR, 2 OTH, 5 DR, 5 GR, 1 SP</td>
<td>9 RE, 1 RTA, 1 LTW, 14 OTH, 2 RA, 2 LTA</td>
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</table>

<table>
<thead>
<tr>
<th>Link Crashes</th>
<th>Total Crashes</th>
<th>Reportable</th>
<th>Injuries*</th>
<th>Fatalities</th>
<th>Crash Type</th>
<th>Collision Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>NY 351: NY 43 to near Poestenkill Town Line</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1 MV</td>
<td>1 RE</td>
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<tr>
<td>NY 351: Carlson La - Helen Way</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>1 GR</td>
<td>1 OTH</td>
</tr>
<tr>
<td>NY 351: Tollgate Rd - Dahl Way</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>1 MV, 2 DR, 2 GR, 1 ERD</td>
<td>5 OTH, 1 HO</td>
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<tr>
<td>TOTAL NON-INTERSECTION CRASHES</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>2 MV, 3 GR, 2 DR, 1 ERD</td>
<td>1 RE, 1 HO, 6 OTH</td>
</tr>
<tr>
<td>TOTAL ALL CRASHES</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>2 MV, 3 GR, 2 DR, 1 ERD</td>
<td>1 RE, 1 HO, 6 OTH</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Intersection Crashes</th>
<th>Total Crashes</th>
<th>Reportable</th>
<th>Injuries*</th>
<th>Fatalities</th>
<th>Crash Type</th>
<th>Collision Type</th>
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</thead>
<tbody>
<tr>
<td>NY 66: NY 43 to Just North of Town Hall</td>
<td>2</td>
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<td>0</td>
<td>0</td>
<td>1 MV, 1 BW</td>
<td>1 RE, 1 OTH</td>
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<tr>
<td>NY 66: School Driveway - N of Town Hall</td>
<td>2</td>
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<td>4</td>
<td>0</td>
<td>1 MV, 1 ERD</td>
<td>1 RE, 1 OTH</td>
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<tr>
<td>TOTAL NON-INTERSECTION CRASHES</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>2 MV, 1 BW, 1 ERD</td>
<td>2 RE, 2 OTH</td>
</tr>
<tr>
<td>TOTAL ALL CRASHES</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>0</td>
<td>4 MV, 1 BW, 2 ERD</td>
<td>2 RE, 3 OTH, 2 UNK</td>
</tr>
</tbody>
</table>

Town of Sand Lake Linkage Study Crash Data
Prepared by: CDTC

3
<table>
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<tr>
<th>Link Crashes</th>
<th>Total Crashes</th>
<th>Reportable</th>
<th>Injuries*</th>
<th>Fatalities</th>
<th>Crash Type</th>
<th>Collision Type</th>
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</thead>
<tbody>
<tr>
<td>NY 66/NY 43/NY 43-Just N of Cemetery La</td>
<td>12</td>
<td>10</td>
<td>4</td>
<td>0</td>
<td>4 MV, 1 BK, 1 SP, 1 BW, 2 AN, 2 LSUP, 1 ERD</td>
<td>4 RE, 8 OTH</td>
</tr>
<tr>
<td>TOTAL NON-INTERSECTION CRASHES</td>
<td>232</td>
<td>179</td>
<td>91</td>
<td>0</td>
<td>147 MV, 1 PD, 22 DR, 3 TR, 1 OTHFO, 4 SP, 4 LSUP, 1 OTH, 8 ERD, 3 BK, 2 CRB, 1 FNC, 4 BW, 15 GR, 3 AN, 4 OTHNC, 2 CLHD, 2 OVRT</td>
<td>13 RA, 87 OTH, 3 OVR, 85 RE, 9 LTA, 6 LTW, 3 RTA, 3 RTW, 4 SDSW, 10 UNK, 4 HO</td>
</tr>
</tbody>
</table>

Crash Type Codes:  
AN = Collision with Animal  
BK = Collision with Bicyclist  
BW = Collision with Building/Wall  
CLHD = Collision with Culvert/Headwall  
CRB = Collision with Curbing  
DR = Collision with Deer  
ERD = Collision with Earth Element/Rock Cut/Ditch  
FNC = Collision with Fence  
GR = Collision with Guide Rail  
LSUP = Collision with Light Support/Utility Pole  
MV = Collision with Motor Vehicle  
OTH = Collision with Other  
OTHFO = Collision with Other Fixed Object  
OVR = Overturning  
OVRT = Overturned  
PD = Collision with Pedestrian  
SP = Collision with Sign Post  
TR = Collision with Tree

Intersection Crashes

<table>
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<tr>
<th>Total Crashes</th>
<th>Reportable</th>
<th>Injuries*</th>
<th>Fatalities</th>
<th>Crash Type</th>
<th>Collision Type</th>
</tr>
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<tbody>
<tr>
<td>NONE</td>
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</table>

TOTAL ALL CRASHES

| TOTAL ALL CRASHES (STUDY AREA) | 232 | 179 | 91 | 0 | 147 MV, 1 PD, 22 DR, 3 TR, 1 OTHFO, 4 SP, 4 LSUP, 1 OTH, 8 ERD, 3 BK, 2 CRB, 1 FNC, 4 BW, 15 GR, 3 AN, 4 OTHNC, 2 CLHD, 2 OVRT | 13 RA, 87 OTH, 3 OVR, 85 RE, 9 LTA, 6 LTW, 3 RTA, 3 RTW, 4 SDSW, 10 UNK, 4 HO |

Crash Type Codes:  
AN = Collision with Animal  
BK = Collision with Bicyclist  
BW = Collision with Building/Wall  
CLHD = Collision with Culvert/Headwall  
CRB = Collision with Curbing  
DR = Collision with Deer  
ERD = Collision with Earth Element/Rock Cut/Ditch  
FNC = Collision with Fence  
GR = Collision with Guide Rail  
LSUP = Collision with Light Support/Utility Pole  
MV = Collision with Motor Vehicle  
OTH = Collision with Other  
OTHFO = Collision with Other Fixed Object  
OVR = Overturning  
OVRT = Overturned  
PD = Collision with Pedestrian  
SP = Collision with Sign Post  
TR = Collision with Tree

Data Source: NYS LESQR  
Data Range: 01/01/06 - 09/30/09  
Prepared by: CDTC
Appendix 3—Environmental Justice Documentation

Increased attention has been given to the National Environmental Policy Act (NEPA) related to its ability to balance overall mobility benefits of transportation projects against protecting quality of life of low-income and minority residents of a community. President Clinton issued Executive Order 12898 to bring attention to environmental and human health impacts of low-income and minority communities – referred to as environmental justice – when federal funding is involved. The goal of environmental justice review is to ensure that any adverse human health or environmental effects of a government action, such as federally-supported roadway or transit project, does not disproportionately affect minority or low-income residents of a community or neighborhood. Environmental justice is a public policy objective that can help improve the quality of life for those whose interests have traditionally been overlooked.

The CDTC staff has completed a review of civil rights/environmental justice impacts of transportation actions proposed under this study. Based on a review of the latest socioeconomic data available, the CDTC staff has determined that there are a total of 0 TAZ’s in the Sand Lake Hamlets Master Plan Study Area that are identified as Environmental Justice Target Population Areas. All of the transportation recommendations for the study would provide fair access and do not result in negative impacts to any minority or low-income residents. However, additional information gathered through the public review process could suggest a different outcome. In addition, examination of regional equity impacts would be necessary if any transportation action is considered for inclusion in CDTC’s Transportation Improvement Program.

Equitable access to, consideration within, and effects of the design and implementation of federally assisted projects is also a key aspect of environmental justice. However, design and construction is the responsibility of implementing agencies in the region. For projects identified in this study, implementing agencies would either be the New York State Department of Transportation, Rensselaer County, or the Town of Sand Lake. EJ Target Population Areas are defined as any TAZ with low income, minority, or Hispanic populations equal to or greater than the regional average.

The regional averages are as follows:

<p>| | |</p>
<table>
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<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Minority Population</td>
<td>11.2%</td>
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<tr>
<td>Hispanic Population</td>
<td>2.6%</td>
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<tr>
<td>Low Income Population</td>
<td>8.9%</td>
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Appendix 4—Conceptual Cost Estimates

Note: The following cost estimates are intended only to provide a general idea of probable cost, based on the concept-level planning completed for this study. The intent is to allow the Town to plan and prioritize funding sources as the study is implemented.
Description of Major Improvements:
Construct 1360' of Asphalt Multi-use Path (10' Wide)
Install Pedestrian Bridge (30' Span x 10' Wide) and Foundations (can support vehicular traffic for plowing)

Approximate ROW required:

<table>
<thead>
<tr>
<th>ITEM DESCRIPTION</th>
<th>UNITS</th>
<th>PRICE</th>
<th>QUANTITY</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNCLASSIFIED EXCAVATION AND DISPOSAL</td>
<td>CY</td>
<td>$20.00</td>
<td>1,000</td>
<td>$20,000.00</td>
</tr>
<tr>
<td>EMBANKMENT IN PLACE</td>
<td>CY</td>
<td>$16.00</td>
<td>750</td>
<td>$12,000.00</td>
</tr>
<tr>
<td>PAVEMENT AND SUBBASE FOR PATH</td>
<td>SF</td>
<td>$4.50</td>
<td>13,600</td>
<td>$61,200.00</td>
</tr>
<tr>
<td>RETAINING WALLS</td>
<td>SF</td>
<td>$40.00</td>
<td>1,000</td>
<td>$40,000.00</td>
</tr>
<tr>
<td>BIKE RAIL</td>
<td>LF</td>
<td>$100.00</td>
<td>500</td>
<td>$50,000.00</td>
</tr>
<tr>
<td>CLEARING AND GRUBBING</td>
<td>LS</td>
<td>$10,000.00</td>
<td>1</td>
<td>$10,000.00</td>
</tr>
<tr>
<td>LANDSCAPING (INCLUDING TOPSOIL AND SEED)</td>
<td>LS</td>
<td>$12,500.00</td>
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<td>$12,500.00</td>
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<tr>
<td>PEDESTRIAN BRIDGE AND FOUNDATIONS</td>
<td>LS</td>
<td>$100,000.00</td>
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<td>$100,000.00</td>
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<tr>
<td>EROSION CONTROL</td>
<td>LS</td>
<td>$7,500.00</td>
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<td>$7,500.00</td>
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SUB-TOTALS $313,200.00

CONSTRUCTION SUBTOTAL: $314,000
CONTINGENCY (35%) $109,900
MAINT.AND PROT. OF TRAFFIC (4%) $12,600
SURVEY AND STAKEOUT (2%) $6,300
CONSTRUCTION INSPECTION (10%) $31,400
CONSTRUCTION TOTAL: $474,200

4% MOBILIZATION $19,000

PROJECT SUBTOTAL: $493,200

DESIGN ENGINEERING (12%) $53,000
PERMITS (1.5%) $4,800
LEGAL/ADMIN (2%) $6,300

PROJECT TOTAL: $558,000
Description of Major Improvements:
Construct 2050' of Asphalt Multi-use Path (10' Wide)
Add Curb and Closed Drainage to Route 43 on Multi-use side
Add Retaining Walls where needed

Approximate ROW required:

<table>
<thead>
<tr>
<th>ITEM DESCRIPTION</th>
<th>UNITS</th>
<th>PRICE</th>
<th>QUANTITY</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNCLASSIFIED EXCAVATION AND DISPOSAL</td>
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<td>$20.00</td>
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<td>EMBANKMENT IN PLACE</td>
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<tr>
<td>CONCRETE CURB</td>
<td>LF</td>
<td>$30.00</td>
<td>2,050</td>
<td>$61,500.00</td>
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<tr>
<td>DRAINAGE BASINS</td>
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<tr>
<td>DRAINAGE PIPE (18&quot;)</td>
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<td>2,050</td>
<td>$112,750.00</td>
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<tr>
<td>ASPHALT FOR BOXOUT</td>
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<td>6,150</td>
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<tr>
<td>PAVEMENT AND SUBBASE FOR PATH</td>
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<tr>
<td>RETAINING WALLS</td>
<td>SF</td>
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<tr>
<td>REESTABLISH DRIVEWAYS</td>
<td>EA</td>
<td>$1,000.00</td>
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<tr>
<td>SIGNING AND STRIPING</td>
<td>LS</td>
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<td>$7,500.00</td>
</tr>
<tr>
<td>CLEARING AND GRUBBING</td>
<td>LS</td>
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<td>$10,000.00</td>
</tr>
<tr>
<td>LANDSCAPING (INCLUDING TOPSOIL AND SEED)</td>
<td>LS</td>
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<td>$7,500.00</td>
</tr>
<tr>
<td>EROSION CONTROL</td>
<td>LS</td>
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<td>$12,000.00</td>
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<tr>
<td>UTILITY RELOCATIONS</td>
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<td>STORMWATER MANAGEMENT ($80,000 /acre)</td>
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<td>0.90</td>
<td>$72,000.00</td>
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SUB-TOTALS $575,975.00

CONSTRUCTION SUBTOTAL: $576,000
CONSTRUCTION INSPECTION (10%) $57,600
CONSTRUCTION TOTAL: $633,600

4% MOBILIZATION 34,800
PROJECT SUBTOTAL: $668,400

DESIGN ENGINEERING (12%) $97,200
PROJECT TOTAL: $765,600
Description of Major Improvements:
Construct 20 Space Parking Lot and Connection to Burden Lake Road.
Construct Sidewalks between Parking Lot and Route 43 along Orient Ave and Burden Lake Road

Approximate ROW required:

<table>
<thead>
<tr>
<th>ITEM DESCRIPTION</th>
<th>UNITS</th>
<th>PRICE</th>
<th>QUANTITY</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
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<td>UNCLASSIFIED EXCAVATION AND DISPOSAL</td>
<td>CY</td>
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<td>$7,500</td>
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<td>EMBANKMENT IN PLACE</td>
<td>CY</td>
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<td>$1,600</td>
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<tr>
<td>PAVEMENT AND SUBBASE FOR PARKING LOT AND ACCESS ROAD</td>
<td>SF</td>
<td>$4.50</td>
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<tr>
<td>CONCRETE SIDEWALKS</td>
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<td>CLEARING AND GRUBBING</td>
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<td>$3,500.00</td>
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<td>LANDSCAPING (INCLUDING TOPSOIL AND SEED)</td>
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<tr>
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<tr>
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<td>AC</td>
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<td>0.30</td>
<td>$15,000.00</td>
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</tbody>
</table>

SUB-TOTALS $143,750.00

CONSTRUCTION SUBTOTAL: $144,000
CONTINGENCY (35%) $50,400
MAINT. AND PROT. OF TRAFFIC (4%) $5,800
SURVEY AND STAKEOUT (2%) $2,900
CONSTRUCTION INSPECTION (10%) $14,400
CONSTRUCTION TOTAL: $217,500

4% MOBILIZATION $8,700

PROJECT SUBTOTAL: $226,200

DESIGN ENGINEERING (12%) $24,300
PERMITS (1.5%) $2,200
LEGAL/ADMIN (2%) $2,900

PROJECT TOTAL: $256,000