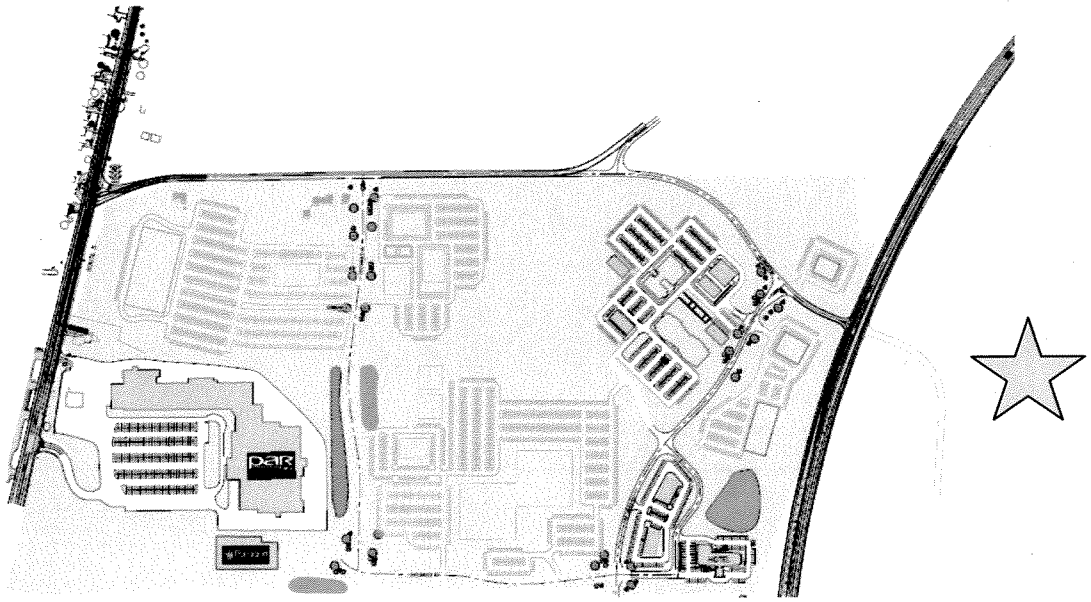
Supplemental Environmental Impact Statement (SEIS)

Break-in access of Route 840 at Woods Park Drive

Jug Handle Intersection Configuration



Lead Agency:
Town of New Hartford Town Board

Contact Person:
Earle C. Reed, Supervisor
Town of New Hartford
48 Genesee Street
New Hartford, NY 13413

Prepared for: Town of New Hartford
Prepared by: peter j. smith & company, inc.

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NYSDOT
Region 2

GTS Consulting
(Traffic Analysis)

Gordon T. Stansbury P.E, P.T.O.E.

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1.0 Introduction

The need for this Supplemental Environmental Impact Statement (SEIS) is to assess the anticipated impacts associated with a proposed break-in access ("BIA") of Route 840 at the point where Woods Highway extension (hereinafter referred to as Woods Park Drive) is planned to meet Route 840 to allow for access. A jug handle intersection allowing access to and from the Business Park, north of Route 840 to facilitate westbound traffic south into the business park is the proposed configuration.

This SEIS accompanies the EIS previously prepared in 1999 for the Business Park and reflects only those impacts anticipated from this subsequent action. Other items that are ancillary to this action include the following and have been reviewed accordingly as well:

- NYSDOT-installed wildlife crossings: an assessment of the configuration of the break-in access on the wildlife crossings is necessary to determine the impact to small animals that cross the highway via culverts. Mitigative measures will be necessary to facilitate safe movement of the animals during construction of the access and afterwards when traffic exits and enters the highway.

1.1 Project Background

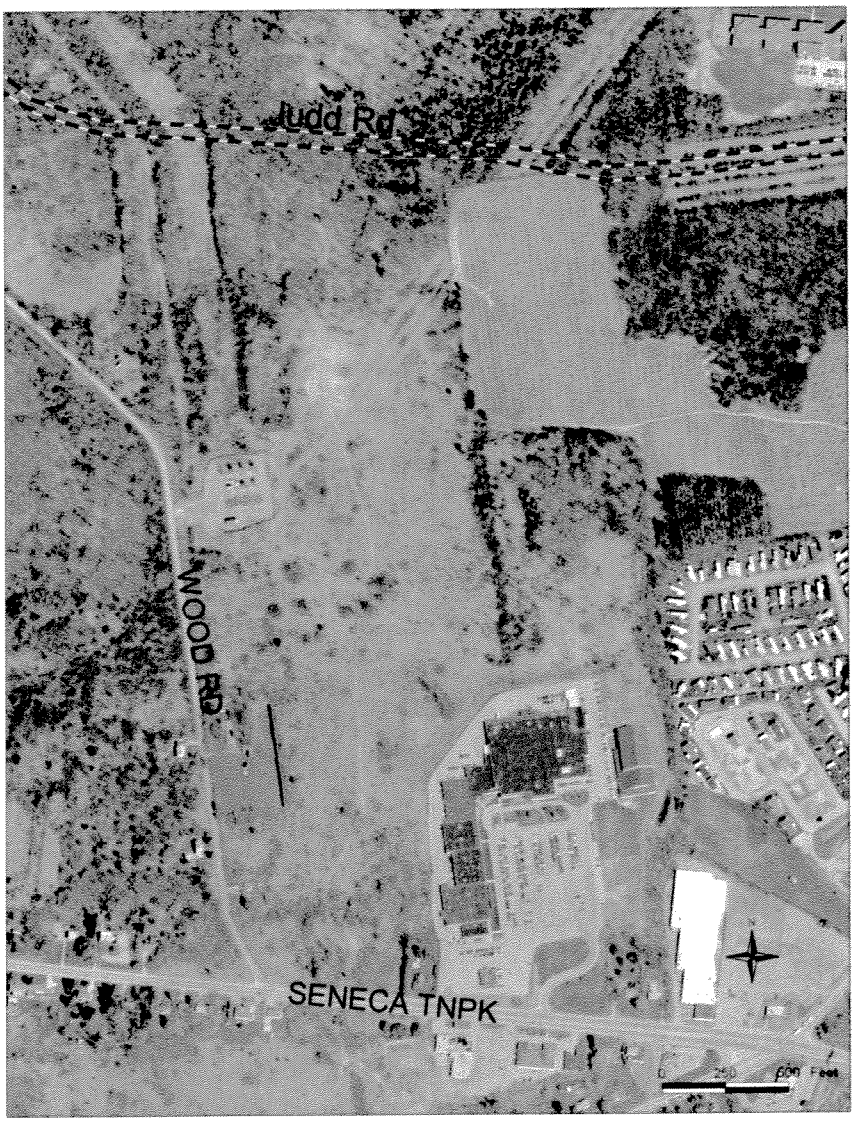
The Business Park is situated in the west portion of the Town of New Hartford in an area that has seen much commercial development in the past several years. This growth has included "big box" retail, office, light industrial, a recreational facility, and proposed hotel and additional office space.

In November 2006, the Town of New Hartford undertook a study ("Middle Settlement Road/Woods Highway/Route 840 Connector Link Study") to assess rapid development that was being proposed for the west end of Clinton Street at the intersection of Middle Settlement Road, and for an area situated on Woods Highway between Route 5 (Seneca Turnpike) and Clark Mills Road (Figure 1-1).

The proposed break-in access will be a general benefit to the Town of New Hartford but more importantly to the general public for four reasons:

- Traffic congestion relief – The BIA could relieve volumes at the intersection of Seneca Turnpike, Commercial Drive and Middle Settlement Road. Drivers wishing to travel east into the commercial area or points eastward could use Woods Highway and the BIA to access Route 840.
- Highway System Improvement – The BIA is part of the Town of New Hartford's efforts to upgrade and improve the local highway system and will help stabilize and even improve intersection conditions on the existing network.
- Access for Business Park – The BIA will alleviate potential congestion on existing roads in the vicinity of the business park by allowing park tenants direct access from 840 and avoiding the local roads.
- Safety – The BIA provides drivers with improved access to a highway that is safer.

Figure 1-1 Location Map Town of New Hartford Business Park



Source: Town of New Hartford

The motivation for preparing a break-in access of Route 840 (Judd Road) was concern over the volumes of traffic for the existing roadways and intersections to accommodate the increase in traffic that the proposed commercial development would bring. These two proposed developments included a 138,000-square-foot Lowes Home Improvement Center and two smaller buildings located immediately adjacent to the intersection of Clinton Street and Middle Settlement Road, and the second development proposed a mix of 175,000 square feet of commercial space, 350,000 square feet of office space, 200,000 square feet of manufacturing space, 50 single-family homes, and 100 hotel rooms. To date, Lowes Home Improvement Center, Hartford Insurance Company, PAR Technology, and Paragon Athletic Club exist within this area.

The Middle Settlement-Woods Highway Connector Link Study included modeling of surrounding intersections and interchanges at various stages of build-out to ascertain the ability of the surrounding roadways to accommodate expected traffic volume and to assess the need for and potential benefits of constructing a connector link between Middle Settlement Road and Woods Highway and an extension of Woods Highway to Route 840. In addition, it is expected that traffic heading to Lowes Home Improvement Center will also utilize Route 840 via new access lanes along with traffic wishing to access property west of Lowes Home Improvement.

The traffic analysis models included:

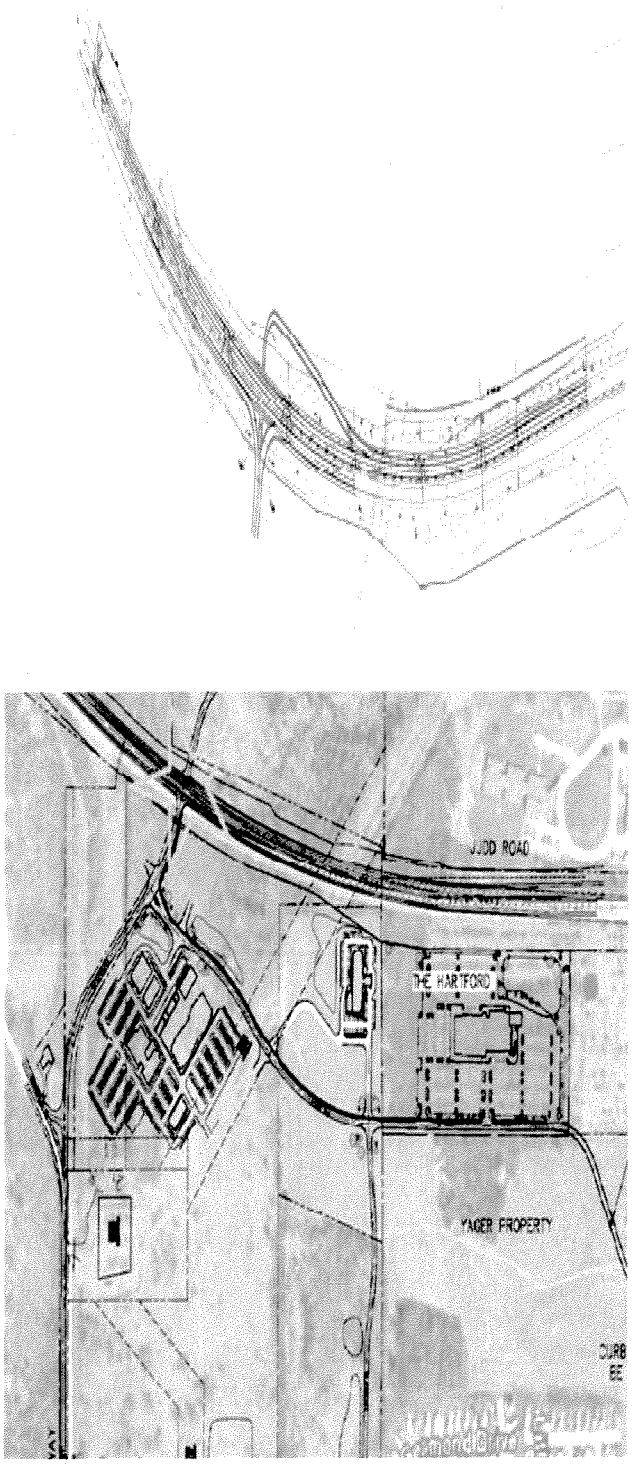
- Existing conditions;
- Development of the Twin Orchards property;
- Development of the Twin Orchards property with a two-lane connector road between Middle Settlement Road and Woods Highway;
- Development of the Twin Orchards property and the Woods Highway Business Park with a two-lane connector road between Middle Settlement Road and Woods Highway; and
- Development of the Twin Orchards property and the Woods Highway Business Park with a two-lane connector road between Middle Settlement Road and Woods Highway and the extension of Woods Highway to Route 840.
- Development of the Twin Orchards property and the Woods Highway Business Park without the two-lane connector but with the extension of Woods Highway to Route 840.

The subject of this Supplemental EIS is the break-in access of Route 840 to facilitate traffic in and out of the Business Park and to assess the volume of traffic that may be redistributed from points within the Business Park to Route 840 and vice versa without the two-lane connector. To that end, the modeled eastbound traffic volume anticipated to access Route 840 and the Business Park from Woods Highway was reviewed to determine the traffic volume that may be expected from a break-in access of Route 840.

1.1.1 Study Area Boundary

The study area is confined to the location of break-in access of Route 840, that being where the proposed realignment of Woods Highway will intersect with Route 840. The proposed configuration would have to involve widening Route 840 to accommodate deceleration and acceleration lanes for westbound traffic exiting the highway, northbound traffic entering to head east, westbound traffic exiting to go south into the Business Park and traffic heading out of the park to turn left onto 840 westbound. The figure that follows shows the proposed extension to Woods Highway and its intersection with Route 840 with eastbound access from inside the Business Park to Route 840, west bound right-turn access and a jug handle configuration to carry westbound traffic south into the Business Park.

Figure 1-2 Proposed Jug Handle Break-In Access Point



Source: Town of New Hartford and GTS Consulting

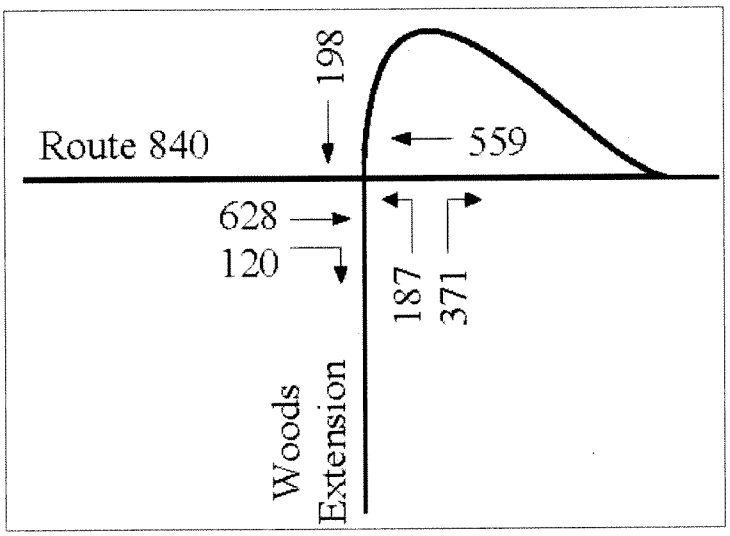
2.0 Impacts

2.1 Transportation

2.1.2 Traffic Analysis

Traffic volume counts that were obtained in the vicinity of the proposed Woods Highway connection to Route 840 from September 2006 were supplied by the New York State Department of Transportation. The counts showed volumes that were far greater than the Route 840 Connector Link Study had anticipated. The September counts identified 650 vehicles traveling in the eastbound direction and 605 vehicles in the westbound direction during the PM peak hour. The Route 840 Connector Link Study report assumed 484 and 452 vehicles respectively. The September volumes were used to create a distribution of traffic for the jug handle intersection configuration for the 2007 design year:

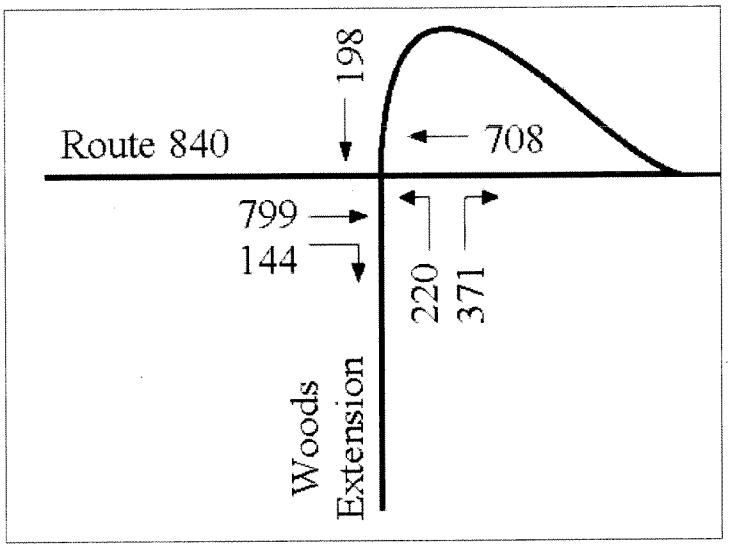
Figure 2-1 Jug Handle Intersection Design Year 2007



Source: GTS Consulting

The annual growth factor (1.5 %) that was used in the November 2006 report was applied to the updated volumes to create a 2027 Base Traffic Volume for this design option as shown below:

Figure 2-2 Jug Handle Intersection Design Year 2027



Source: GTS Consulting

The trips that will be generated by the potential developments on Woods Highway did not change from what was included in the November 2006 report. These trips were added to the 2027 Base traffic volume to create a 2027 Full Build traffic volume.

Evening peak hour traffic volumes have since been revised for existing volumes (2007), base volumes for two design years (2017 and 2027) and trips generated by and leading to Lowes Home Improvement, the property west of Lowes, and specific Business Park trips. In addition, full build volumes were revised for the same years. The revised volumes are reflected in the diagrams above.

The revised evening peak hour volumes indicated that trips forecast to come from Route 840 heading south into the Business Park via Woods Park Drive would be a total of 342 vehicles at full build out in the (then) current year 2007; 198 vehicles using the jug handle from westbound 840 to Woods Park Drive and 120 from eastbound 840. At full build out in year 2017, an additional 12 vehicles could be expected to access the Park from eastbound 840 for a total of 330 vehicles accessing the Park via Woods Park Drive. At full build in design year 2027, another 12 vehicles could be expected to access the Park from eastbound 840, for a total of 345 (*note: Year 2007 is the base year from which the future design build years are modeled)*. These volumes are for evening peak hour only and include redistributed traffic volume generated by the Lowes Home Improvement, property west of Lowes, and the Business Park. The traffic volume leading from the Business Park onto Route 840 eastbound is anticipated to be 187 vehicles at full build for the design year 2007, growing to 204 vehicles in design year 2017 and 220 in design year 2027.

Traffic volume data is used to determine the quality of traffic flow. This measure is known as "Level of Service". The service a road provides for facilitation of traffic is measured by the length of delay that is experienced by a vehicle during a peak travel hour. Level of Service thresholds are defined as average delay in seconds per vehicle over a 15-minute analysis period and range from Level of Service A to F for both signalized and un-signalized intersections. Table 2-1 provides a summary of the Level of Service thresholds as defined in the 2000 FHWA Highway Capacity Manual.

Table 2-1 – Level of Service Categories

Level of Service	Signalized Thresholds	Non-signalized Thresholds
A – little or no delay	< 10.0 seconds	< 10.0 seconds
B – minor, short delays	10.1 to 20.0 seconds	10.1 to 15.0 seconds
C – average delays	20.1 to 35.0 seconds	15.1 to 25.0 seconds
D – long but acceptable delays	35.1 to 55.0 seconds	25.1 to 35.0 seconds
E – long, near unacceptable delays	55.1 to 80.0 seconds	35.1 to 50 seconds
F – unacceptable delays	More than 80.0 seconds	More than 50.0 seconds

Source: 2000 FHWA Highway Capacity Manual

Level of service was determined for the jug handle intersection of Woods Park Drive with Route 840 at full build-out for Year 2017 and 2027 for the evening peak hour and is presented in Table 2-2. Year 2007 Full Build reflects existing conditions.

Table 2-2 – LOS Summary – Jug Handle Intersection

Evening Peak Hour

Intersection	2007 Full Build	2017 Full Build	2027 Full Build
Woods Park Drive/Route 840	B	B	C
Eastbound Through	B	C	D
Eastbound Right	A	A	A
Westbound Through	B	B	C
Northbound Left	B	C	C
Northbound Right	B	B	B
Southbound Through	C	C	C

Source: GTS Consulting

As shown in the table above, the intersection of Woods Highway with Route 840 as a signalized jug handle intersection will maintain a favorable level of service for the listed directions of traffic at full build design Year 2027.

While the proposed break-in access in the jug handle configuration shows a favorable level of service for the users of this stretch of highway, the signalized intersection will interrupt the free flow of traffic on 840. This will have the effect of increasing travel times as well as increasing the incidence of "bunching" on the highway as vehicles move in synchronized clusters and speeds vary widely at signal approach and

departure. The proposed intersection has less impact on the free-flow of traffic for right-in and right-out traffic as these movements would feed through on their own lanes.

A baseline would have to be established once the handle is built to determine how many accidents would be generated. Factors influencing accident generation would include the aforementioned bunching and speed variation, weather and sun glare. As 840 is an east/west highway, sun glare may have the highest potential to cause accidents and glare may be a consideration in determining the correct traffic signalization devices. The most frequent accidents would be rear end or right angle accidents at the signal. The right in/right out would be expected to generate the least accident frequency, and the accidents that would occur there would also likely be rear end accidents.

The impact of not building Woods Park Drive and the BIA would be intensified traffic volumes on Seneca Turnpike (New York State Route 5), as the traffic that would use the BIA would instead use this intersection. The BIA generation estimate is 318 inbound and 558 outbound peak hour trips in the current (2007) design year. This would almost certainly result in additional accidents as Seneca Turnpike/Woods Highway is an already congested local intersection on a set of congested roadways. A larger concern for volume-related accident generation would be "downstream" at the intersection of Seneca Turnpike, Middle Settlement and Commercial Drive, an already heavily burdened local intersection. Increased volumes at this intersection could cause drivers to make poor choices, such as running red lights or running under the yellow, resulting in rear end and right angle accidents.

Federal wetlands are present in the project area and had been delineated by NYSDOT staff prior to the construction of Route 840- Judd Road Connector. The boundaries of the federal wetlands in the project area for the jug handle intersection design of the break in access will be re-delineated by NYSDOT staff. Construction of the jug handle intersection and the associated widening of Rte. 840 are anticipated to have permanent impacts to some of these wetland areas.

Both permanent and temporary impacts to these wetland areas will require quantification and coordination by the Town of New Hartford with the U.S. Army Corps of Engineers for applicability of the Nationwide Permit program under Section 404 of the Clean Water Act (33 U.S.C. 1344) and the NYS Department of Environmental Conservation Section 401 Water Quality Certification Program through the joint application process.

Efforts will be made to avoid and if avoidance is not possible to minimize the impacts to wetlands. Mitigation requirements will be determined in discussion with those agencies.

2.1 Air Quality

The quality of air near a highway is generally a reflection of the volume of traffic that utilizes the road and how well the road facilitates movement of the traffic. While level of service of a road or highway is not necessarily a direct correlation to quality of the surrounding ambient air, it is typically a fairly good indicator. The Town of New Hartford is an air-quality attainment area for all pollutants, according to the Town's Comprehensive Plan (2007).

Local air quality can be affected by traffic and traffic and weather combined can intensify air quality problems. Increasing traffic in New Hartford has the potential to negatively impact the air quality. As intersections become more congested, the ambient air quality can be expected to deteriorate because idling engines will continue to spew pollutants into the atmosphere even though the vehicles are not moving. This can be particularly true during the winter when high pressure holds emissions closer to the ground.

The BIA, by adding another signalized intersection to the local network and interrupting the free flow of traffic has the potential to negatively impact air quality in New Hartford. The northbound and the eastbound through traffic scenarios show the lowest LOS in the final design year, 2027 and lower LOS cold be correlated to poorer air quality.

However, the greater impact to air quality could be not building the BIA. As with the accident analysis above, the impact of not building the BIA will be to force all of the Business Park traffic to use the already congested local road network, impacting the Woods Highway and Seneca Turnpike intersection. There would be, as with the accident potential, even more air quality consequences for the larger intersection of Seneca Turnpike, Commercial Drive and Middle Settlement Road to the east.

2.2 Wildlife Crossings

Culverts in the project limits are functioning as drainage culverts and wildlife crossings. Wildlife viewing cameras posted by NYSDOT at some of the culverts indicate that they are actively being used throughout the year.

Mitigation will be required for impacts to the existing culverts that are in use as wildlife crossings in the vicinity of the jug handle intersection access. The culverts that will be impacted by construction activities may become less attractive to wildlife due to being increased in length or due to installation or modification of drop structures between the culvert segments. These culverts may be fenced to allow drainage only. Mitigation for adverse impacts to wildlife passages will take the shape of installation of several additional wildlife viewing cameras at unfenced crossing locations to determine the effectiveness of the mitigation measures in place. Additionally, wildlife attractive vegetation placement may be necessary at some culverts based upon camera evidence and evidence of wildlife mortality on the highway.

2.3 Storm water Runoff

The realignment of Woods Highway extending to Woods Park Drive and the Route 840 break-in access will increase storm water impacts in the study area. These impacts will include increase in impervious surface resulting from the construction of Woods Park Drive as well as of widening Route 840, adding acceleration and deceleration lanes and placement of the jug handle.

Storm water impacts should be anticipated both from the construction and post construction phases.

3.0 Mitigative Measures

The disturbed area for the jug handle design has been estimated at 8920 sm (2.2 acres) for the south side improvement and 18862 sm (4.66 acres) for the north side exit ramp; for an estimated total of 27782 sm (6.86 acres).

Under NYSDEC State Pollution Discharge Elimination System (SPDES) requirements, the disturbance by construction will meet the acreage threshold for requiring creation of a Storm Water Pollution Prevention Plan (SWPPP). Further, if the increase in permanent impervious area resulting from the access break will require the design and installation in the state highway right of way of new storm water treatment facilities.

4.0 Land Use

4.1 Right-Of-Way Donation

4.2 Set Aside for Future Uses

5.0 SEQRA