

# **Proposed World Headquarters of Jehovah's Witnesses Final Environmental Impact Statement (FEIS)**

## **APPLICANT INFORMATION**

### **Project Description**

The Project Sponsor will construct a campus of buildings on approximately 45 acres of the total 253-acre site. The proposal includes an administration offices building, services building with kitchen, laundry, storage and infirmary; four residential buildings housing 588 one- and two-bedroom units for approximately 1,000 residents; a vehicle maintenance building; a waste separation facility; a powerhouse/maintenance building, and a recreational facility. The majority of parking is proposed to be within attached underground parking structures.

### **Project Location**

1 Kings Drive, Tuxedo, New York 10987-5500 (Orange County)

### **Tax Map Identification**

Section No. 85, Tax ID Numbers 85-1-2.22, 85-1-2.3, 85-1-4.1, 85-1-4.2, 85-1-5.1, 85-1-5.2, 85-1-6

### **Lead Agency:**

Town of Warwick Planning Board  
Benjamin Astorino, Chair  
132 Kings Highway  
Warwick, New York 10990  
Tel: (845) 986-1124

### **Applicant/Project Sponsor:**

Watchtower Bible and Tract Society of New York, Inc.  
25 Columbia Heights  
Brooklyn, New York 11201  
Tel: (718) 560-5000, Fax: (718) 560-8827  
Contact: Robert Pollock

### **FEIS Preparer:**

Watchtower Bible and Tract Society of New York, Inc.  
25 Columbia Heights  
Brooklyn, NY 11201, U.S.A.  
Tel: (718) 560-5000, Fax: (718) 560-8827  
Contact: Greg Povah

### **Project Architect:**

Enrique Ford, R.A.  
25 Columbia Heights  
Brooklyn, New York 11201  
Tel: (718) 560-5000, Fax: (718) 560-8827

FEIS Acceptance Date: June 6, 2012

**Project Consultants**

Air Quality: B. Laing Associates Environmental Consulting  
225 Main Street, Suite 205  
Northport, New York 11768  
Tel: (631) 261-7170, Fax: (631) 261-7454  
Attn: Michael P. Bontje, President  
Danna M. Cuneo, Partner and Principal Scientist

Consulting Architect: Perkins Eastman  
115 Fifth Ave  
New York, New York 10003  
Tel: (212) 353-7370, Fax: (212) 353-7676  
Attn: Diana Ming Sung, AIA, Principal  
Alejandro Knopff, Associate Principal  
Mark McCarthy, AIA, LEED, AP, Principal

Cultural Resources: Eugene J. Boesch, Ph.D., R.P.A.  
581 Long Pond Road  
Mahopac, New York 10541  
Tel/Fax: (845) 628-3826

Ecologist—Wetlands  
and Topographic Surveyor: Paulus, Sokolowski & Sartor  
67B Mountain Boulevard Extension  
Warren, New Jersey 07059  
Tel: (732) 560-9700, Fax: (732) 560-9768  
Attn: Brian Kirkpatrick, P.E.  
Andrew L. Grundy, P.E., LEED AP, Sr. Associate  
Keith Samaroo, Vice President

Geotechnical: Clough, Harbour and Associates, LLP  
III Winners Circle  
Albany, New York 12205  
Tel: (518) 453-4500, Fax: (548) 458-1735  
Attn: Jason I. Gorman, P.E., Geotechnical Engineer  
Kelly Owens, Assistant Engineer

Stormwater Management: Harvey Castro, P.E.  
900 Red Mills Road  
Wallkill, New York 12589  
Tel: (845) 744-6000, Fax: (845) 744-9440

Transportation: John Collins Engineers, P.C.  
11 Bradhurst Avenue  
Hawthorne, New York 10532  
Tel: (914) 347-7500, Fax: (914) 347-7266  
Attn: Philip J. Grealey, Ph.D., P.E.

Wastewater Resources: Joseph Dodd, P.E.  
25 Columbia Heights  
Brooklyn, New York 11201  
Tel: (718) 560-5000, Fax: (718) 560-8827

Wildlife Biologist: Kathy Michell  
42 School St  
Narrowsburg, New York 12764  
Tel: (845) 252-3501

## **STATEMENT OF DOCUMENT AND INCORPORATION BY REFERENCE OF DEIS**

This document is the Final Environmental Impact Statement for the above-referenced project. Copies are available for review at the office of the Lead Agency. A copy of this document has also been made available on the Internet at the following address: [www.townofwarwick.org](http://www.townofwarwick.org).

This document, by reference, incorporates the Draft Environmental Impact Statement (DEIS) for Proposed World Headquarters of Jehovah's Witnesses, accepted as complete on May 4, 2011 and published on June 13, 2011.

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**NOTE:** *Blank pages occur behind every color page and every 11-by-17-inch page in this FEIS. Although these are counted in the numbering, no number is printed on them.*

**A. Introduction**

In compliance with the State Environmental Quality Review Act (SEQRA), the Applicant prepared a Draft Environmental Impact Statement (DEIS), which was submitted to the Town of Warwick Planning Board on March 15, 2011. The Planning Board deemed the DEIS complete for purposes of public and agency review on May 4, 2011, and circulated the DEIS to all involved and interested agencies on June 15, 2011. A SEQRA public hearing on the DEIS was held on July 20, 2011. The public comment period on the DEIS remained open and comments were accepted until August 3, 2011.

This Final Environmental Impact Statement (FEIS) was prepared as the next step in the SEQRA process and provides an update to the information supplied in the DEIS. A preliminary submission of the FEIS was made to the Town of Warwick Planning Board on November 16, 2011, resulting in additional comments which are addressed herein. The attached “Stormwater Pollution Prevention Plan” (SWPPP) in FEIS Appendix M is preliminary and being provided in support of this FEIS. The SWPPP will be finalized before it is submitted to the Town of Warwick MS4 and the New York State Department of Environmental Conservation (NYSDEC) to obtain coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit (GP-0-10-001) for Stormwater Discharges from Construction Activity. The FEIS is organized as follows:

- Chapter 1 is an “Executive Summary” and provides an updated description of the proposed action, including modifications to the Proposed Project in response to DEIS comments as well as potential environmental impacts and proposed mitigation measures where these differ from those presented in the DEIS.
- Chapter 2 includes responses to the comments received during the public review process.
- Appendices include correspondence since the DEIS was issued, revised portions of the DEIS, and additional supporting documentation.

The DEIS is hereby incorporated by reference as part of this document. Information in the following portions of the DEIS was affected by the public review comments and is clarified or revised by means of the information included in FEIS Chapter 1 and in the Applicant’s responses to comments in FEIS Chapter 2.

- Chapter 2                      Project Description
- Chapter 3                      Geology, Soils, and Topography
- Chapter 4                      Water Resources
- Chapter 5                      Air Resources
- Chapter 6                      Terrestrial and Aquatic Ecology
- Chapter 7                      Traffic and Transportation
- Chapter 8                      Community Services and Facilities
- Chapter 9                      Infrastructure and Utilities—Wastewater Management
- Chapter 11                     Infrastructure and Utilities—Solid Waste
- Chapter 12                     Fiscal Resources

- Chapter 13 Visual Character
- Chapter 14 Cultural, Historic, and Archaeological Resources
- Chapter 15 Unavoidable Adverse Environmental Impacts
- Chapter 16 Alternatives
- Chapter 17 Irreversible and Irrecoverable Commitment of Resources
- Appendix B-1 “Final Geotechnical Engineering Report,” CHA, Apr 2011
- Appendix D-1 “Mobile Source Air Pollution Modeling [and Asbestos Package],” B. Laing (Appendix D-1 was revised and is resubmitted with this FEIS)
- Appendix E-3 “Ecological Resources Report [and Bat Survey except Tree Survey, which was submitted in DEIS Appendix E-4],” PS&S (Appendix E-3 was revised and is resubmitted with this FEIS)
- Appendix F-1 “Traffic Impact Study,” John Collins (Appendix F-1 was revised and is resubmitted with this FEIS)
- Appendix I-3 “Site Lighting Plan,” (Appendix I-3 was revised and is resubmitted with this FEIS)
- Appendix L DEIS Drawings (Appendix L was revised and is resubmitted with this FEIS)
- Appendix M “Stormwater Pollution Prevention Plan” (SWPPP) (Appendix M was revised and is resubmitted with this FEIS)

The following portions of the FEIS were not included in the DEIS and represent new information that is being provided for clarification purposes and in response to requests made during the public review period:

- Appendix A-25 NYSDEC Notice of Acceptance of Draft EIS and Public Hearing
- Appendix A-26 Town of Warwick Planning Board Meeting Minutes
- Appendix A-27 HDR DEIS Comments, July 20, 2011
- Appendix A-28 Architectural Review Board DEIS Comments, August 3, 2011
- Appendix A-29 Conservation Board DEIS Comments, August 4, 2011
- Appendix A-30 Greenplan DEIS Comments, August 5, 2011
- Appendix A-31 Orange County Department of Planning DEIS Comments, August 15, 2011
- Appendix A-32 Orange County Department of Public Works DEIS Comments, September 15, 2011
- Appendix A-33 Watchtower Letter to NYSDEC Wildlife Biologist, Lisa Masi, January 17, 2012
- Appendix A-34 Watchtower Letter to NYSDEC, Daniel Whitehead, January 17, 2012
- Appendix A-35 Greenplan Preliminary—FEIS Comments, January 18, 2012
- Appendix A-36 HDR Preliminary—FEIS Comments, January 18, 2012

- Appendix A-37 Watchtower Letter to USACE Project Manager, Ahmed Soliman, January 19, 2012
- Appendix A-38 Watchtower Letter to NYSDEC Wildlife Biologist, Lisa Masi, February 10, 2012
- Appendix A-39 HDR Additional Preliminary-FEIS Review Comment–Air Emissions, January 27, 2012
- Appendix A-40 Greenwood Fire Department Letter, Comments on DEIS, January 24, 2012
- Appendix A-41 Watchtower Cover Letter to Preliminary FEIS, February 17, 2012
- Appendix A-42 NYSDEC Letter—Comments on DEIS, March 7, 2012
- Appendix A-43 Meeting Minutes—Greenwood and Tuxedo Fire Departments and Watchtower, May 15, 2012
- Appendix A-44 WTBTs Letter to Greenwood Fire Department, May 22, 2012
- Appendix B-5 Construction Phasing Drawings GC001 and GC002, April 2012
- Appendix F-2 *ITE Trip Generation Manual*, Chapter 7: Multi-Use Development
- Appendix J-3 “Phase IB Archaeological Investigation of the Area of Potential Effect,” August 2011
- Appendix J-4 “Phase II Archaeological Investigation of the Sunken Historic Period Road Section Within the Area of Potential Effect,” September 2011

An overview of changes to the DEIS is provided below. For a complete discussion, the reader should refer to the individual comments and responses in FEIS Chapter 2.

## **B. Project Description (DEIS Chapter 2)**

The areas provided for land type in the first paragraph of Section B were updated to reflect 225.1 acres of forest and 4.42 acres of wetland (1.05 acres west of Long Meadow Road delineated by PS&S and 3.37 acres east of Long Meadow Road shown on the National Wetlands Inventory).

The following change is hereby made to DEIS Table 2-4 “Construction Phasing”:

“Phase 4,” “Construction Activity” is amended to read:

*“Maintenance and Vehicle Maintenance Buildings.”*

The required approvals listed in Table 2-5 were updated to include the U.S. Army Corps of Engineers (USACE) Nationwide Permits (NWP) 33 and 39 for temporary and permanent disturbance associated with the wetlands. NWP 39 also requires 401 Water Quality Certification from NYSDEC, which was added to Table 2-5. Additionally, the Town of Warwick is part of a regulated Municipal Separate Storm Sewer System (MS4); thus, the MS4 Acceptance Form was also added to the table.

### **C. Geology, Soils, and Topography (DEIS Chapter 3)**

The following changes are hereby made:

On DEIS page 3-17, under “Geology,” the following paragraph after paragraph 5 has been amended to read:

*A color-coded cut-and-fill analysis has been prepared and is provided herein. (See Appendix B-5, Sheets GC001 and GC002.) The analysis is broken down per construction phase.*

On DEIS page 3-19, under “Soils,” the following sentence at the end of paragraph 1 has been amended to read:

*“Contaminated soils will be disposed of as waste in accordance with 6 NYCRR Part 360.”*

On DEIS page 3-22, the first sentence in the description of Erosion Control Measure #14, “Concrete Washout” is amended to read:

*“Construction washout areas will be installed at the temporary concrete batch plant location.”*

### **D. Water Resources (DEIS Chapter 4)**

The following changes are hereby made:

On DEIS page 4-9, the last sentence under “Wetland Delineation” is amended to read:

*“The Proposed Project will disturb less than 0.5 acre of the delineated wetlands and where possible will provide a buffer of between 25 and 86 feet as additional protection.”*

On DEIS page 4-13, the second paragraph under “Potential Impacts” is amended to read:

*“The project will disturb less than 0.5 acre of wetlands. A portion of this disturbance will be temporary. There will be no disturbance to Blue Lake and no stream disturbance, either temporary or permanent.”*

The following item in DEIS Chapter 4, Section C. “Surface Water Resources,” “Mitigation Measures” is amended to read:

*“Permanent disturbance to the on-site wetlands will be mitigated as required by the U.S. Army Corps of Engineers (USACE) and as described in NWP 39. The Applicant will maintain a buffer of between 25 and 86 feet around remaining wetlands to further protect and preserve the on-site wetlands.”*

### **E. Air Resources (DEIS Chapter 5) and “Mobile Source Air Pollution Modeling” (DEIS Appendix D-1)**

The “Mobile Source Air Pollution Modeling” report was updated to include an analysis of particulate matter with a diameter less than 10 microns, but greater than 2.5 microns (PM<sub>10</sub>). The maximum modeled PM<sub>10</sub> value for the 2015 AM BUILD scenario was 56.80 µg/m<sup>3</sup> at receptor 17. As this result and all other results were well below the 24-hour standard of 150 µg/m<sup>3</sup>, it was determined that the project will not significantly impact air quality.

The content of Tables 5-2 and 5-3 in DEIS Chapter 5 was updated to include PM<sub>10</sub> data. The format of these tables was also revised so that the maximum predicted value at any receptor is compared against the standard. The previous tables compared the average values at all receptors against the standard. The revised tables are included in FEIS Chapter 2, “Comments and Responses.”

Revisions were further made to the “Mobile Source Air Pollution Modeling” report to correct minor typographical errors and to provide data that was requested. A table listing emission factors was included as Table 2 and a second analysis for PM<sub>2.5</sub> was performed using an ambient level of 25.7 µg/m<sup>3</sup>, which is the 3-year average of the 98<sup>th</sup>-percentile values. These results are included in Table 5A of the revised “Mobile Source Air Pollution Modeling” report (FEIS Appendix D-1). Previously, the 2009 24-hour value (20.6 µg/m<sup>3</sup>) was used as the ambient level. None of these revisions affect the conclusions of the air study, the potential impacts, or proposed mitigation measures.

On DEIS page 5-9, the following sentence has been amended at the end of paragraph 1 under “Heating Plant Emissions” to read:

*“If geothermal wells are used, they will be less than 500 feet in depth and will be part of the closed-loop system. Thus, a Mined Land Reclamation Permit will not be required; neither will registration or certification of the geothermal system.”*

## **F. Terrestrial and Aquatic Ecology (DEIS Chapter 6) and “Ecological Resources Report” (DEIS Appendix E-3)**

The areas provided for land type in the penultimate paragraph on page 6-2 were updated to reflect 7.8 acres of meadow/brushland; 225.1 acres of forest; 4.42 acres are wetland (1.05 acres west of Long Meadow Road [CR-84] delineated by PS&S and 3.37 acres east of Long Meadow Road [CR-84] shown on the National Wetlands Inventory) regulated by the U.S. Army Corps of Engineers (USACE) in the project area; 6.8 acres of impervious area and 8.9 acres of landscaped area. A map showing the locations of these land covers is provided as DEIS Figure 6-1, “Land Use/Land Cover Map.”

As requested, a “Tree Preservation Plan” delineating the number and species of trees to be preserved and removed is provided in FEIS Appendix L. *The Town of Warwick Code* §150-5 specifies that a 25-foot-wide buffer be defined around the limits of disturbance to determine the total number of trees within the project’s work area. A total of 1,888 trees are located within this work area and include trees with a diameter of 12 inches or greater at breast height. Of these trees, 1,461 will be removed and 427 will be preserved. The “Landscaping Plan” includes 679 trees, a native wildflower and grass mix, and boulder gardens that will mimic the existing naturally forested scenery and will serve to mitigate the removal of on-site trees—see Drawing L-001 in DEIS Appendix L.

Temporary and permanent disturbances to the on-site wetlands will be limited to less than 0.5 acres and will require NWP 33 and 39 from the USACE as well as 401 Water Quality Certification from NYSDEC. These permits have been added to revised Table 2-5. On DEIS page 6-20, the last sentence under “Potential Impacts,” “Wetlands” is amended to read:

*“The Applicant will disturb less than 0.5 acre of wetlands.”*

The following item is hereby added to DEIS Chapter 6, Section D, “Mitigation Measures”:

### **Wetlands**

Permanent disturbance to the on-site wetlands will be mitigated as required by the U.S. Army Corps of Engineers (USACE) and as described in NWP 39. The Applicant will maintain a buffer of between 25 and 86 feet around remaining wetlands to further protect and preserve the on-site wetlands.

The “Ecological Resources Report” was updated to correct typographical errors associated with the scientific names of a few animal species. (See FEIS Appendix E-3 [does not include Tree Survey, which was included in DEIS Appendix E-4].) The area of delineated wetlands has also been corrected to 1.05 acres, which corresponds to what is shown on the “Wetlands Survey” in DEIS Appendix C-2.

A discussion of specific measures the Applicant will take to protect the habitat of the timber rattlesnake is provided in FEIS Chapter 2 “Comments and Responses.”

### **G. Traffic and Transportation (DEIS Chapter 7) and “Traffic Impact Study” (DEIS Appendix F-1)**

The “Traffic Impact Study” was revised to account for the removal of the Radha Soami Society/Sister Servants development. As a result, the traffic volume diagrams shown on Figures 10-13, 14-17, and 24-27 in Appendix A of the “Traffic Impact Study” (FEIS Appendix F-1) were updated. Additionally, the tables documenting the Level of Service (LOS) at each intersection for the baseline and sensitivity analysis were also updated and are shown in Tables 2 and 2A of FEIS Appendix F-1.

An analysis was performed to assess special event traffic and is contained in Appendix H of the “Traffic Impact Study” (FEIS Appendix F-1). The new LOS table for sensitivity analysis is shown in Table 2-B of FEIS Appendix F-1, which documents the LOS at area intersections during the three Saturdays when special events will be held.

Gap data for the stretch of roadway along Sterling Mine Road (CR-72) between Long Meadow Road (CR-84) and Sister Servants Lane/Eagle Valley Road was provided and is included in Appendix B of the “Traffic Impact Study” (FEIS Appendix F-1). The gap data shows that 30 percent of the gaps passing the intersection of Sterling Mine Road (CR-72) and Sister Servants Lane/Eagle Valley Road are of sufficient length to allow both right and left turns to be made onto Sterling Mine Road (CR-72).

The “Public Transportation” section of the “Traffic Impact Study” includes an expanded discussion of the potential future use of public transportation. It is expected that the public transportation usage of the proposed Warwick facility will be similar to that of the Applicant’s Patterson, New York, facility since they are similar-type developments. A maximum of ten Patterson facility residents per year are picked up from a bus or train station. There is no indication that commuters use public transportation for travel to the Patterson facility; and on average two visitors will use public transportation every other week during weekday working hours; and one visitor will use public transportation once a month on the weekend.

The “Sensitivity Analysis” section of the “Traffic Impact Study” includes an expanded discussion of how the sensitivity analysis was performed by adjusting the ITE trip generation factors for Use Categories 710 (Office) and 230 (Townhome). Table No. 1A contained in Appendix G of the “Traffic Impact Study” (FEIS Appendix F-1) summarizes the number of external trips predicted using the modified ITE method. None of these revisions affect the conclusions of the traffic study, the potential impacts, or proposed mitigation measures.

### **H. Community Services and Facilities (DEIS Chapter 8)**

The distance from the Project Site to area parks and recreational facilities was added to Table 8-1, which is provided in FEIS Chapter 2.

Required recreation is approximately 6.25 to 10.5 acres of parkland per 1,000 residents based on standards promulgated by the Urban Land Institute. As requested, for each alternative, the amount of required recreation was compared against what is proposed. The values are shown on revised Table 16-1 in FEIS Chapter 2. None of these revisions affect the potential impacts or proposed mitigation measures.

On DEIS page 8-11, the first paragraph under “Fire Protection” is amended to read:

*“In addition, in order to offset possible additional costs to the local fire district, the Project Sponsor will contribute the sum of \$2,000 per year to the Greenwood Lake Joint Fire District #1.”*

## I. Infrastructure and Utilities—Wastewater Management (DEIS Chapter 9)

A description of the gravity sewer main is provided for clarification. The gravity sewer main is proposed to be 8 inches in diameter, or larger where required in the downstream portions. A minimum slope of 0.4 percent may be used, or steeper where required to provide flow capacity or a minimum velocity of 2 feet per second. The sanitary sewer system will be designed to meet Town of Warwick and Ten State Standards criteria. This clarification does not affect the potential impacts or proposed mitigation measures.

As described in FEIS Chapter 2 “Project Description,” the Applicant will construct the pump station and force main and transfer ownership to United Water. In addition, the Applicant will not discharge industrial wastewater from the car washing activities to the Blue Lake Wastewater Treatment Plant (STP).

As also described in FEIS Chapter 2, the Applicant will implement provisions to prevent industrial stormwater from being discharged from the concrete plant. These provisions will be included in the construction documents for the project. All floor drains from the vehicle maintenance shop floor will be tied into a separate collection tank for removal by an approved hauler to an approved disposal location.

## J. Infrastructure and Utilities—Solid Waste (DEIS Chapter 11)

The Applicant is proposing a simplified approach to the previously proposed Waste Separation Facility. The Applicant will enter into an agreement with an organization that will separate and recycle the waste off-site thereby reducing the Proposed Project’s impervious area by approximately 12,300 square feet (0.28 acres). The Applicant will place the waste and recycling containers at the docks of the administration offices/services, and maintenance buildings. Cardboard, paper, bottles, and cans will be consolidated into one recycling stream with a pick-up frequency of two to three times per month. Thus, the following changes are hereby made:

On DEIS page 11-1, the last sentence in the first paragraph under “Potential Impacts” is amended to read:

*“This is below the national average published by EPA (for 2009) of 4.34 pounds per capita per day.”*

On DEIS page 11-2, Table 11-1 “Anticipated Average Daily/Monthly Municipal Solid Waste Generation” is amended to read:

Waste	Quantity (lbs per capita)		Total Monthly Quantity (lbs)	Vendor	Frequency of Pick-up
	Per day	Per month (x 30)			
General Solid Waste	2.37	71.19	71,190	Third-party	4 times/month
Cardboard <sup>(1)</sup>	0.30	8.95	8,950	Third-party	2-3 times/month
Paper <sup>(1)</sup>	0.20	5.99	5,990	Third-party	2-3 times/month
Bottles/Cans <sup>(1)</sup>	0.22	6.58	6,580	Third-party	2-3 times/month
Metal	0.30	9.00	9,000	Third-party	1 time/month
<b>Total</b>	<b>3.39</b>	<b>101.71</b>	<b>101,710</b>		

**Source:** Watchtower Bible and Tract Society of New York, Inc.

1. Cardboard, paper, bottles and cans will be consolidated into one recycling stream.

On DEIS pages 11-3, the first two sentences in the first paragraph under “Mitigation Measures” are amended to read:

*“As part of the Proposed Project, the Project Sponsor will include on-site waste and recycling containers located at the docks of the administration offices/services and maintenance buildings. The proposed containers will handle all of the non-hazardous waste and recyclable materials generated on site.”*

## **K. Fiscal Resources (DEIS Chapter 12)**

A description of the Applicant’s tax exempt status is provided for clarification. The taxes shown as paid in DEIS Tables 12-1 and 12-2 relate to taxes for tax periods preceding the application for exemption, during which time Parcels 15-1-2.22, 15-1-2.3, and 85-1-6 were not tax exempt. The Applicant's first exemption on those three parcels was for the 2010 tax year. The tax year for the county and town runs from January 1 to December 31 and for the school district from July 1 to June 30. Thus, the taxes shown as paid in DEIS Table 12-2 will no longer be applicable. This clarification does not affect the potential impacts or proposed mitigation measures.

## **L. Visual Character (DEIS Chapter 13) and E-001, “Site Lighting Plan” (DEIS Appendix I-3)**

The areas provided for land type in the second paragraph on page 13-1 were updated to reflect 225.1 acres of forest and approximately 4.42 acres of wetland (1.05 acres west of Long Meadow Road delineated by PS&S and 3.37 acres east of Long Meadow Road shown on the National Wetlands Inventory).

The Applicant will no longer be pursuing a variance for roadway lighting heights. Although the previously proposed 25-foot lighting poles would have been well below the tree canopy height, the Applicant has chosen to reduce the height of all light poles to 16 feet to comply with the maximum height requirement provided in *The Town of Warwick Code* §164-43.4 E.(5). This resulted in the addition of seven lighting fixtures. The discussion on site lighting was expanded to clarify the types of fixtures proposed. Additionally, Drawing E-001, “Site Lighting Plan,” was replaced with an updated drawing and the sheet number revised to ES101. A photosimulation is provided as Figure 13-31 demonstrating the height of 16-ft street light poles compared to the tree canopy. Also, lighting at the entrance sign is discussed in FEIS Chapter 2.

A discussion of how existing vegetation will be protected is also included in FEIS Chapter 2 “Comments and Responses.” Additionally, a “Tree Preservation Plan” is included in FEIS Appendix L. The responses also clarify how soil will be prepared for planted areas.

Renderings of the proposed residence buildings as well as visitors’ parking garage are provided in this Section. The administration offices building renderings from DEIS Chapter 2 are also included in order to provide the reviewer the overall architectural theme of the project.

Four photosimulations were revised to better reflect landscaping conditions at the completion of construction and light pole locations. Figures 13-14, 13-16, 13-18, and 13-24 were updated and are included in Chapter 2. Also provided in Chapter 2 are images for cellular/two way radio and dish-type receivers.

None of these revisions affect the potential impacts or proposed mitigation measures.

## **M. Cultural, Historic, and Archaeological Resources (DEIS Chapter 14)**

A “Phase 1B Archaeological Investigation” was completed as recommended in the Phase 1A study. The Phase 1B study recommended further evaluation of a potentially historic road on the Project Site. Thus, a “Phase II Archaeological Investigation” was completed for the road. No significant cultural material was found in the 21 shovel tests performed on the road. The Phase II investigation concluded that no additional archaeological investigations are recommended for the proposed sunken road or other portions to be disturbed on the Project Site. These two studies do not affect the potential impacts or proposed mitigation measures.

As discussed in FEIS Chapter 2, the Applicant received written confirmation from the New York State Historic Preservation Office (NYS OPRHP) that their project "will have No Impact upon cultural resources in or eligible for inclusion in the State and National Register of Historic Places."—See Appendix J-5, NYS OPRHP letter dated April 16, 2012.

## **N. Unavoidable Adverse Environmental Impacts (DEIS Chapter 15)**

No comments were received on this chapter; however, the following item is hereby added to the list of potential impacts that cannot be avoided:

- Temporary and permanent disturbance of on-site wetlands: the Proposed Project will disturb less than 0.5 acre of on-site wetlands. There will be limited temporary impact to on-site wetlands, which will be covered under Nationwide Permit (NWP) 33. The wetland area and associated buffers that are temporarily disturbed will be replanted and restored. Permanent disturbance to the on-site wetlands will be mitigated as required by the U.S. Army Corps of Engineers (USACE) and as described in NWP 39. Requirements of the 401 Water Quality Certification from NYSDEC will also be adhered to. The Applicant will maintain a buffer of between 25 and 86 feet around remaining wetlands to further protect and preserve the on-site wetlands.

On DEIS page 15-3, the second sentence in the third to the last bullet is amended to read:

*“Mitigation measures include on-site containers to handle non-hazardous waste and recyclable materials generated on site.”*

## **O. Alternatives (DEIS Chapter 16)**

The solid waste generation values in DEIS Table 16-1 were updated to reflect 2009 US EPA per capita estimates. The Waste Separation Facility was eliminated resulting in an overall site-wide decrease of impervious area from 13.0 acres to 12.72 acres. Also, the amount of required recreation was listed in the table for comparison against what is proposed. These revisions do not affect the potential impacts or proposed mitigation measures.

On DEIS page 16-34, the third sentence in the second paragraph under “Terrestrial and Aquatic Ecology” is amended to read:

*“Both this alternative and the Proposed Project will disturb less than 0.5 acre of wetlands.”*

## **P. Irreversible and Irretrievable Commitment of Resources (DEIS Chapter 17)**

No comments were received on this chapter; however, the following item is hereby added to the list of irreversible and irretrievable commitment of resources:

- The proposal will permanently disturb less than 0.5 acre of on-site wetlands.

### **Q. CHA’s “Final Geotechnical Engineering Report” (DEIS Appendix B-1)**

Figure 4 in the “Final Geotechnical Engineering Report” (DEIS Appendix B-1) represents the estimated static groundwater elevation and does not represent seasonal groundwater fluctuations that were observed in the piezometers. This clarification does not affect the conclusions of the geotechnical investigation, the potential impacts, or proposed mitigation measures.

### **R. “Stormwater Pollution Prevention Plan” (SWPPP) (DEIS Appendix M)**

The overall drainage area for the project remains the same; however, new sub-basin areas were delineated to better define and size the treatment practices. Corresponding text and tables in the SWPPP have been updated accordingly.

Worksheets showing the calculation of Water Quality Volume (WQv) and Runoff Reduction Volume (RRv) are provided in Appendix G of FEIS Appendix M. An explanation of how CN values were determined is also included in Section 3 of FEIS Appendix M.

Completed Notice of Intent (NOI) and MS4 Acceptance forms are provided in FEIS Appendix M.

Seven new full-size drawings (C-009, C-010, CG501, CG502, CE501, CE502 and CE503) are provided in FEIS Appendix M. Drawings C-009 and C-010 depict the drainage area, time of concentration, and flow type. Drawings CG501 and CG502 depict stormwater details including the green practices proposed. Drawings CE501 through CE503 contain the erosion and sediment control details. Also, Drawings CG101 through CG104 have been revised to include the drainage structure name and rim elevation. Detailed dimensions and profiles will be provided as part of the final SWPPP to be submitted with Site Plan Approval. \*

This Final Environmental Impact Statement (“FEIS”) addresses comments that were made on the Draft Environmental Impact Statement (DEIS). Comments were submitted in writing by public officials and interested and involved agencies. No verbal comments were received at the Public Hearing held on July 20, 2011.

The DEIS, prepared on behalf of the Watchtower Bible and Tract Society of New York, Inc. (herein referred to as the “Applicant” or “Project Sponsor”), analyzed the potential environmental impacts of the proposed site plan for the World Headquarters of Jehovah’s Witnesses (“Proposed Project”).

This chapter of the FEIS summarizes the substantive verbal and written comments submitted on the DEIS. A preliminary submission of the FEIS was made to the Town of Warwick Planning Board on November 16, 2011, resulting in additional comments which are addressed herein. These subsequent comments are dated to differentiate them from earlier comments made on the DEIS. Complete correspondence from which these comments are drawn can be found in FEIS Appendix A.

### **A. DEIS Commentators**

1. Henningson, Durham & Richardson (HDR), letters dated July 20, 2010 [2011] and January 18, 2012.
2. Architectural Review Board, Penny Steyer and Percy Caraballo, e-mail dated August 3, 2011.
3. Conservation Board, Daniel P. Duthie, Esq., e-mail dated August 4, 2011.
4. Greenplan Environmental Planners, J. Theodore Fink, AICP, memoranda dated August 5, 2011 and January 18, 2012.
5. Orange County Department of Planning, letter dated August 15, 2011.
6. Orange County Department of Public Works, letter dated September 15, 2011.
7. Greenwood Lake Joint Fire District 1, letter dated January 24, 2012.
8. New York State Department of Environmental Conservation, letter dated March 7, 2012.

**Table 2-1 DEIS Review Comments Cross-Reference**

<b>Commenter</b>	<b>Comment and Response Bullet Nos.</b>
HDR	10, 11, 15-23, 25-35, 40-54, 62-111, 114-117, 128-140, 143-147, 149-167
Architectural Review Board	61
Conservation Board	1
Greenplan	3, 36-39, 113, 123-127, 141, 148
Orange County Department of Planning	2, 112
Orange County Department of Public Works	4
Greenwood Lake Joint Fire District 1	5, 6
New York State Department of Conservation	7-9, 12-14, 24, 55-60, 118-122, 142, 168-170

## B. Comments and Responses

### DEIS General Comments

#### 1. Conservation Board:

While it appears that the Society is not contemplating further development beyond the plan presented, the CB respectfully requests that the Society provide written assurances that the site will not be developed further than the proposed plan.

Response:

*The property includes several constraints that preclude development beyond what is currently proposed. The 700-ft Ridgeline Overlay District south of the Proposed Project covers most of Tax Parcel 5.1. The area included in the Southern Wallkill Biodiversity Plan (SWBP) covers most of Tax Parcel 5.1 and all of Parcels 2.2 and 2.3 effectively surrounding the Proposed Project. (See DEIS Figure 2-13, "Southern Wallkill Biodiversity Plan [SWBP] and 700-foot Ridgeline Overlay District.") Furthermore, Parcels 2.2 and 2.3 include the Ringwood River and steep slopes. (See DEIS Figure 3-3, "Slope Survey Drawing.") These constraints all serve to limit the amount of further development possible on this site beyond the Proposed Project. Further, additional development, even of a minor nature, would be subject to review and approval by the Planning Board.*

#### 2. Orange County Department of Planning, Comment 1:

At this time, the DEIS appears to be complete and sufficient, with one exception; we were unable to determine how the applicant proposes to dispose of the debris resulting from the demolition of the existing structures. Please specify the disposal measures as part of the GML 239 referral process.

**1/18/2012 Greenplan Comment:** On page 2-2 under the response to Comment 2, the reference to "an approved waste transfer station" should be clarified to include an approved facility for acceptance of construction and demolition waste.

Response:

*Demolition debris will be separated into like commodities of recyclable materials. Metals will be prepared accordingly and removed off site for recycling. Concrete will be crushed and prepared for reuse. Using a portable concrete recycling machine with spay bars and self-cleaning magnets, the concrete will be recycled to a three-inch minus size with rebar removed. The crushed concrete will be stockpiled on site for later use as structural sub-base material. It is estimated that 98 percent by weight of the material in the existing buildings will be recycled. The remaining non-recyclable materials will be disposed of at an approved waste transfer station that accepts construction and demolition debris.*

#### 3. Greenplan Comment 1—Chapter 1:

Any clarifications, revisions or supplementation made to the body of the DEIS as a result of comment thereon, should be consistent with appropriate changes to the Executive Summary of the FEIS.

Response:

*An "Executive Summary" is included with the FEIS and summarizes the changes made to the DEIS.*

**4. Orange County Department of Public Works, Comment 1:**

This Department has reviewed the DEIS for the above referenced project as it pertains to traffic and drainage impacts to County Road No. 84 and accepts the information and proposal provided.

A full set of project plans prepared in conformance with the Policy & Standards of the Orange County Department of Public Works must now be provided to this Department for review and approval.

Response:

*A full set of project plans prepared in conformance with the “Orange County Design Policy and Standards” will be submitted concurrent with the Town of Warwick Site Plan Approval.*

**5. Greenwood Lake Joint Fire District #1, Comment 1:**

The area in question is within the Greenwood Lake Fire District and while we contract with Tuxedo to cover the area it is still ultimately our responsibility. After speaking with Tuxedo they led us to believe they are not aware of what is going on with this project.

Response:

*On May 15, 2012, a meeting was held at the Applicant’s Warwick site with officials from both the Greenwood Lake Joint Fire District #1 and the Tuxedo Fire Department. (See Appendix A-43, “Meeting Minutes: Greenwood Lake Joint Fire District #1, Tuxedo Fire Department, and Watchtower Personnel.”) It was agreed that this statement was a misunderstanding since Watchtower personnel had met with both the Greenwood Lake Joint Fire District #1 (in November 2010) and Tuxedo Fire Department (in February 2010) to review the site plan and fire prevention/fighting measures.—See Appendix A-40, letter from Greenwood Lake Joint Fire District #1, dated January 24, 2012, as well as Appendix A-44, letter to Greenwood Lake Joint Fire District #1, dated May 22, 2012.*

**6. Greenwood Lake Joint Fire District #1, Comment 2:**

We are also concerned that neither district has apparatus capable of handling an emergency situation at buildings the height that are being proposed.

Response:

*At the above-mentioned meeting with officials from both the Greenwood Lake Joint Fire District #1 and the Tuxedo Fire Department on May 15, 2012, the Tuxedo Fire Department confirmed that their 75-ft truck at its maximum reach is able to access the highest floors planned.”—See Appendix A-43, “Meeting Minutes: Greenwood Lake Joint Fire District #1, Tuxedo Fire Department, and Watchtower Personnel.”*

*It was confirmed that Watchtower will contribute the sum of \$2,000 per year to the Greenwood Lake Joint Fire District #1 (rather than the Warwick Fire District as stated in the DEIS) in order to offset possible additional costs to the fire district.*

**7. DEC Comment 17:**

The DEIS briefly mentions trails on the parcels on the north east side of Long Meadow Road along with "ancillary rest areas". No plans were provided on these trails. Any crossing of Ringwood River for trails will require a Stream disturbance permit.

Response:

*New trails are not proposed; rather, existing trails will be maintained and cleared of overgrowth and brush to make them accessible. Benches will also be added. No bridges are planned.*

**8. DEC Comment 20:**

Petroleum bulk storage registration will be required for any tank greater than 1,100 gallons in size.

Response:

*The proposed petroleum storage tanks will be registered in accordance with 6 NYCRR Part 612.*

**9. DEC Comment 21:**

Sewer extension approval and all registrations are not permits subject to 6 NYCRR Part 621, Uniform Procedures. Part 182, Endangered and Threatened Species, is not subject to Part 621, but per Part 182.10, the procedures found in Part 621 will be utilized for species taking permits.

Response:

*Comment noted. It is understood that approvals and registrations sought from DEC are not required to be issued pursuant to the procedures outlined in Part 621. A species-taking permit is not anticipated to be required. Please see responses to DEC Comments 1 and 6 in Bullets #55 and #60.*

**DEIS Chapter 3: “Geology, Soils and Topography” and Appendix B-1: CHA’s “Final Geotechnical Engineering Report”**

**10. HDR Comment 1—Chapter 3 (Appendix B-1):**

Four piezometers were installed to monitor water levels and data from two of the locations near the southwestern end of the development exhibit water levels that fluctuated approx. 8 ft (in TB-20) and 4 ft (in TB-11) within a couple months—with seasonal high levels likely associated with a combination of spring runoff and precipitation. An 8 ft seasonal fluctuation is significant and does not appear to be accounted for in the groundwater elevation contour map accompanying Figure 4 in CHA's report. The Applicant should clarify how this fluctuation will be managed with regard to excavation and the implications after the building is in place given the proximity to Blue Lake and the topographic differences between the lake and the uplands to the south and east.

Response:

*The “Groundwater Contour Plan” provided as Figure 4 in CHA’s “Final Geotechnical Engineering Report” (see DEIS Appendix B-1) represents the estimated static groundwater elevation and does not represent seasonal groundwater fluctuations that may be observed. The high groundwater level recorded on April 4, 2010, at Test Boring TB-11 is the result of water that was used during advancement of the test boring and construction of the piezometer and does not represent a static groundwater level; as evidenced by the declining water level observed during the monitoring period where the water level within the piezometer equalized with the groundwater level at this location. Therefore, the near 4-foot change in groundwater level shown on Table 4 of the “Geotechnical Report” does not represent static groundwater conditions at this location.*

*The high groundwater level recorded on April 26, 2010, at Test Boring TB-20 represents the high groundwater level recorded during the monitoring period and is likely the result of a rain event that occurred April 25–26, 2010. The change in groundwater levels observed during the monitoring period are the result of precipitation and seasonal weather changes.*

*As indicated in Section 5.8, “Groundwater Control,” of the “Geotechnical Report,” it is anticipated that groundwater will be encountered during construction and recommendations for construction dewatering are provided. In addition, Section 5.8 includes recommendations for installation of drainage and waterproofing systems for the proposed structures that may be impacted by groundwater. The proposed finished floor elevations for the structures are above the normal pool elevation of Sterling Forest Lake (Blue Lake) and therefore will not be impacted by changes in the pool elevation of the lake.*

**11. HDR Comment 2—Chapter 3 (Appendix B-1):**

The recorded water level in test boring TB-21 also looks to be elevated significantly relative to what is shown on the groundwater elevation contour map—although the value determined from the test boring may represent a perched level and not true static conditions (based on measurements found on the test boring log ground surface is 711 ft and depth to water is 2 ft so water elevation is ~ 709 ft; however Figure 4 has it between 680 & 685 ft GW elev. contours). If this represents the true groundwater elevation, there would be a strong gradient over the relatively short distance between TB-21 area and Blue Lake (709 ft vs. 645 ft GW elevations, respectively). Applicant should clarify these elevations and groundwater contour map.

Response:

*The recorded water level on the subsurface log for Test Boring TB-21 is the result of water that was used during advancement of the test coring to obtain a bedrock sample and does not represent a groundwater level. Therefore, this water level is not represented on Figure 4 of the “Geotechnical Report.”*

**12. DEC Comment 15—Chapter 3:**

Section 3, “Geology Soils & Topography”, identifies some areas of soil contamination associated with the former industrial use of the site. Soils in these areas are proposed to be removed from the site. Contaminated soils must be disposed of as waste pursuant to 6 NYCRR Part 360 or tested and a “Beneficial Use Determination” obtained prior to their re-use. Please see the DEC website for more information at <http://www.dec.ny.gov/chemical/8821.html>.

Response:

*Contaminated soils will be disposed of as waste in accordance with 6 NYCRR Part 360.*

**13. DEC Comment 18—Chapter 3:**

The DEIS failed to include a cut and fill analysis, although it was stated that no material is proposed to leave the site. However even though material is not leaving the site, a Mined Land Reclamation permit could be required. Please include a cut and fill analysis as an addendum to DEIS section 3.1, “Geology, Soils and Topography”.

**5/7/2012 Town of Warwick Workshop Meeting—Planning Board Comment #1:**

The Planning Board requested a written statement confirming the anticipated extent of off-site spoils removal.

Response:

A color-coded cut-and-fill analysis has been prepared and is provided herein. (See FEIS Appendix B-5, Sheets GC001 and GC002.) The analysis is broken down per construction phase.

The DEIS states the following on page 7–10 under “Construction Traffic”:

“Construction truck traffic will include between 30 and 50 trips per day for approximately 3.5 years. Truck traffic will be present for approximately 3 to 4 years and will include dump trucks removing excess site material, along with semi-flatbed and boxtrucks transporting construction materials.”

The Applicant has reviewed the most recent cut-and-fill estimates and has confirmed that the projections used in the Traffic Study are accurate including the portion related to trucks removing excess site material. Additionally, the Applicant has recently contracted with the Clough Harbor Associates (CHA) engineering firm to identify further opportunities to re-use excavated fill. It is believed that these will result in a further reduction in the amount of spoils taken off site as well as the amount of structural fill that will be brought to the site.

## DEIS Chapter 4: Water Resources

### 14. DEC Comment 16—Chapter 4:

Table 1-2 “Required Approvals” in the Executive Summary lists required permits from DEC as including Article 15, Title 5 of the ECL, Use & Protection of Waters. However there is no further discussion of this in the document and the plans do not appear to show any activities regulated which are regulated. Page 4-13, Water Resources, states that “no water body or wetland fill, excavation or clearing is proposed ... (and) no stream disturbance, either temporary or permanent”.

In addition to Protection of Waters regulation (stream disturbance, excavation and fill, dams, and docks & mooring), if a permit is required from the Army Corp of Engineers for excavation or fill in wetlands under federal jurisdiction, then a Water Quality Certification will be required pursuant to Section 401 of U.S. Public Law 95-217, and 33 USC 1341 of 1977, 1984. In New York State these certifications have been delegated to DEC and issuance is regulated pursuant to 6 NYCRR Part 608. Please see the table below and the attached map regarding potential regulation pursuant to Part 608. All waterbodies and wetlands are potentially subject to Part 608.9, Water Quality Certification.

Name	Waters Index Number (WIN)	Class/Standard	Regulation
Tributary of Ringwood River	NJ-13-2a	Class C	608.9 Water Quality Certification Only
Tributary of Ringwood River	NJ-13-2	Class C	608.9 Water Quality Certification Only
Ringwood River	NJ-13	Class C(t)	608.2 Stream disturbance
Sterling Forest Lake AKA Blue Lake	NJ-13-2-P 1021c	Class A Navigable Waters	608.5 Excavation & Fill in Navigable Waters
			608.4 Docks and Moorings
Blue Lake Dam ID 180-1740			608.5 Dams and impoundments

Response:

*The inclusion of the Article 15 permit is for possible repair work to Blue Lake Dam.—See response to Bullet #45.*

*The Applicant will disturb less than 0.5 acre of delineated wetlands under the jurisdiction of the U.S. Army Corps of Engineers. There will be no disturbance to Blue Lake and no stream disturbance. A Joint Application will be submitted to USACE and NYSDEC requesting coverage under several USACE Nationwide Permits (see revised DEIS Tables 1-2 and 2-5 in Bullet #4) as well as 401 Water Quality Certification from NYSDEC. Should repairs on Blue Lake Dam be needed, this too will be noted on the Joint Application and appropriate documentation submitted.*

## **DEIS Chapter 5: Air Resources**

### **15. HDR Comment 1a—Chapter 5: B. Existing Conditions—Page 5-1, Paragraph 1:**

Particulate matter less than 10 microns are also regulated by federal law.

The 2009 PM<sub>10</sub> background value should be listed on page 5-5 and the region that background value is monitored at should be listed in this paragraph.

Ambient CO is also monitored in Region 2, which may be closer than Region 4. The "Mobile Source Air Pollution Modeling" report provides a reasoning for using the Region 4 data. This reason should also be provided here, with more detail, for the benefit of the reader, who may not review the appendices.

Response:

*The 2009 24-hour measurement of PM<sub>10</sub>, as measured at the Queens College 2 station, was recorded at 56 µg/m<sup>3</sup>. This value was listed on page 5-5 of the DEIS.*

*The CO monitoring station in Region 2 is closer to the Project Site; however, the reason for using carbon monoxide data from Region 4 instead is that the Loudonville, NY, monitoring site is more comparable to the Project Site than the monitoring site located at the Botanical Gardens in New York City, which although closer, measures carbon monoxide concentrations in a highly urbanized setting. The Project Site is located in a rural setting.*

### **16. HDR Comment 1b—Chapter 5: B. Existing Conditions—Page 5-1, Paragraph 2:**

As stated in page 5-5, the background ozone concentrations for 2009 exceed the standard.

Response:

*The commenter is correct in that the average ozone value over a three-year period from 2007 to 2009 was recorded at 0.076 ppm, which exceeded the limit by 0.001 ppm. Background levels for other pollutants are all within the limits. Therefore, it can be said that air quality in the vicinity of the project generally does not exceed standards adopted by the New York State Department of Environmental Conservation (NYSDEC).*

### **17. HDR Comment 2a—Chapter 5: B. Existing Conditions—Page 5-5:**

The average maximum PM<sub>2.5</sub> concentration during a 24-hour period for 2007 to 2009 appears to be 25.2 µg/m<sup>3</sup>.

Response:

Compliance with the federal standard is determined by using the average of the 98<sup>th</sup>-percentile 24-hour values during the past three years as stated on the NYSDEC web site: <http://www.dec.ny.gov/chemical/29311.html>.

The average is correctly stated in the DEIS as 25.7  $\mu\text{g}/\text{m}^3$   $[(20.6+26.0+30.4)/3=25.7]$ . However, the DEIS incorrectly indicated that this value represented the three-year average of the maximum hourly measurements. This value actually represents the three-year average of the 98<sup>th</sup>-percentile 24-hour measurements.

**18. HDR Comment 2b—Chapter 5: B. Existing Conditions—Page 5-5:**

As is stated, the NYSDOT EPM requires a PM<sub>10</sub> analysis. The NYSDEC has the following note for the Ambient Air Quality Standard for PM<sub>10</sub>: "Federal standard for PM<sub>10</sub> not yet officially adopted by NYS, but is currently being applied to determine compliance status." Therefore, since a mobile analysis for the project has been performed, a PM<sub>10</sub> analysis should be included.

Response:

A PM<sub>10</sub> analysis was performed and the results are included in the revised "Mobile Source Air Pollution Modeling" study. (See FEIS Appendix D-1.) The maximum result for the 2015 AM BUILD scenario is 56.80  $\mu\text{g}/\text{m}^3$  at Receptor 17, which is below the 24-hour standard of 150  $\mu\text{g}/\text{m}^3$ . Thus, it was determined that the project will not significantly impact air quality.

**19. HDR Comment 3a—Chapter 5: B. Existing Conditions—Page 5-7, Table 5-2:**

Table 5-2: The Maximum concentration determined at any receptor should be compared to the NYSDEC Limit, not the average of all the receptors.

Response:

The maximum concentration determined at any receptor was compared to the NYSDEC limit. DEIS Tables 5-2 and 5-3 have been revised and are provided below. Predicted maximum concentrations do not exceed the NYSDEC limits:

**Revised DEIS Table 5-2 Carbon Monoxide and Particulate Matter Results  
—2010 Conditions at Long Meadow Road (CR-84) and Sterling Mine Road (CR-72)**

Receptor Location	Carbon Monoxide (ppm)		Particulate Matter PM <sub>2.5</sub> (µg/m <sup>3</sup> )		Particulate Matter PM <sub>10</sub> (µg/m <sup>3</sup> )
	1-hour	8-hour	24-hour	Annual	24-hour
1	3.20	2.27	20.60	9.40	56.40
2	3.20	2.27	21.00	9.48	56.40
3	3.20	2.27	21.00	9.48	56.40
4	3.10	2.20	20.60	9.40	56.00
5	3.10	2.20	20.60	9.40	56.00
6	3.10	2.20	20.60	9.40	56.00
7	3.30	2.34	21.00	9.48	56.80
8	3.30	2.34	21.00	9.48	56.80
9	3.40	2.41	21.00	9.48	56.80
10	3.40	2.41	21.00	9.48	56.80
11	3.40	2.41	21.00	9.48	56.80
12	3.60	2.55	21.00	9.48	56.80
13	3.40	2.41	21.00	9.48	56.40
14	3.20	2.27	20.60	9.40	56.40
15	3.20	2.27	20.60	9.40	56.40
16	3.20	2.27	20.60	9.40	56.40
17	3.40	2.41	21.00	9.48	56.80
18	3.40	2.41	21.00	9.48	56.80
19	3.40	2.41	21.00	9.48	56.80
20	3.40	2.41	21.00	9.48	56.80
21	3.50	2.48	21.00	9.48	56.80
22	3.90	2.76	21.00	9.48	56.80
23	3.30	2.34	21.00	9.48	56.40
24	3.20	2.27	20.60	9.40	56.40
25	3.20	2.27	20.60	9.40	56.40
26	3.30	2.34	21.00	9.48	56.40
27	3.40	2.41	21.00	9.48	56.80
28	3.40	2.41	21.00	9.48	56.80
29	3.40	2.41	21.00	9.48	56.80
30	3.40	2.41	21.00	9.48	56.80
31	3.50	2.48	21.00	9.48	56.80
32	3.30	2.34	21.00	9.48	56.40
33	3.30	2.34	21.00	9.48	56.80
34	3.40	2.41	21.00	9.48	56.80
35	3.40	2.41	21.00	9.48	56.80
36	3.40	2.41	21.00	9.48	56.80
37	3.40	2.41	21.00	9.48	56.80
38	3.20	2.27	21.00	9.48	56.40
39	3.20	2.27	20.60	9.40	56.40
Maximum	3.90	2.76	21.0	9.48	56.8
NYSDEC Limit	35 ppm	9 ppm	35 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>
% of Limit	11.1%	30.7%	60.0%	63.2%	37.9%

**Revised DEIS Table 5-3 Carbon Monoxide and Particulate Matter Results  
—2015 Conditions at Long Meadow Road (CR-84) and Sterling Mine Road (CR-72)**

Receptor Location	Carbon Monoxide (ppm)				Particulate Matter PM <sub>2.5</sub> (µg/m <sup>3</sup> )				Particulate Matter PM <sub>10</sub> (µg/m <sup>3</sup> )	
	1-hour		8-hour		24-hour		Annual		24-hour	
	Build	No-Build	Build	No-Build	Build	No-Build	Build	No-Build	Build	No-Build
1	2.95	2.95	2.09	2.09	20.60	20.60	9.40	9.40	56.40	56.40
2	2.95	2.95	2.09	2.09	20.60	20.60	9.40	9.40	56.40	56.40
3	2.95	2.95	2.09	2.09	21.00	21.00	9.48	9.48	56.40	56.40
4	2.85	2.85	2.02	2.02	20.60	20.60	9.40	9.40	56.00	56.00
5	2.85	2.85	2.02	2.02	20.60	20.60	9.40	9.40	56.00	56.00
6	2.85	2.85	2.02	2.02	20.60	20.60	9.40	9.40	56.00	56.00
7	3.05	3.05	2.16	2.16	21.00	21.00	9.48	9.48	56.80	56.80
8	3.05	3.05	2.16	2.16	21.00	21.00	9.48	9.48	56.80	56.80
9	3.05	3.05	2.16	2.16	21.00	21.00	9.48	9.48	56.80	56.80
10	3.05	3.05	2.16	2.16	21.00	21.00	9.48	9.48	56.80	56.80
11	3.05	3.05	2.16	2.16	21.00	21.00	9.48	9.48	56.80	56.80
12	3.25	3.25	2.30	2.30	21.00	21.00	9.48	9.48	56.40	56.40
13	3.05	3.05	2.16	2.16	21.00	21.00	9.48	9.48	56.40	56.40
14	3.05	2.95	2.16	2.09	20.60	20.60	9.40	9.40	56.40	56.40
15	2.95	2.95	2.09	2.09	20.60	20.60	9.40	9.40	56.40	56.40
16	2.95	2.95	2.09	2.09	20.60	20.60	9.40	9.40	56.40	56.40
17	3.15	3.15	2.23	2.23	21.00	21.00	9.48	9.48	56.80	56.80
18	3.15	3.15	2.23	2.23	21.00	21.00	9.48	9.48	56.80	56.80
19	3.15	3.15	2.23	2.23	21.00	21.00	9.48	9.48	56.80	56.80
20	3.15	3.15	2.23	2.23	21.00	21.00	9.48	9.48	56.80	56.80
21	3.15	3.15	2.23	2.23	21.00	21.00	9.48	9.48	56.80	56.80
22	3.45	3.45	2.44	2.44	21.00	21.00	9.48	9.48	56.80	56.80
23	3.05	3.05	2.16	2.16	21.00	21.00	9.48	9.48	56.40	56.40
24	2.95	2.95	2.09	2.09	20.60	20.60	9.40	9.40	56.40	56.40
25	2.95	2.95	2.09	2.09	20.60	20.60	9.40	9.40	56.40	56.40
26	3.15	3.05	2.23	2.16	21.00	21.00	9.48	9.48	56.40	56.40
27	3.15	3.15	2.23	2.23	21.00	21.00	9.48	9.48	56.80	56.80
28	3.15	3.15	2.23	2.23	21.00	21.00	9.48	9.48	56.80	56.80
29	3.15	3.15	2.23	2.23	21.00	21.00	9.48	9.48	56.80	56.80
30	3.15	3.15	2.23	2.23	21.00	21.00	9.48	9.48	56.80	56.80
31	3.15	3.15	2.23	2.23	21.00	21.00	9.48	9.48	56.80	56.80
32	3.15	3.05	2.23	2.16	21.00	20.60	9.48	9.40	56.40	56.40
33	3.05	3.05	2.16	2.16	21.00	21.00	9.48	9.48	56.80	56.80
34	3.05	3.05	2.16	2.16	21.00	21.00	9.48	9.48	56.80	56.80
35	3.05	3.05	2.16	2.16	21.00	21.00	9.48	9.48	56.80	56.80
36	3.05	3.05	2.16	2.16	21.00	21.00	9.48	9.48	56.80	56.80
37	3.05	3.05	2.16	2.16	21.00	21.00	9.48	9.48	56.80	56.80
38	2.95	2.95	2.09	2.09	20.60	21.00	9.40	9.48	56.40	56.40
39	2.95	2.95	2.09	2.09	20.60	20.60	9.40	9.40	56.40	56.40
Maximum	3.45	3.45	2.44	2.44	21.00	21.00	9.48	9.48	56.80	56.80
NYSDEC Limit	35 ppm	35 ppm	9 ppm	9 ppm	35 µg/m <sup>3</sup>	35 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>
% of Limit	9.86%	9.86%	27.11%	27.11%	60.00%	60.00%	63.20%	63.20%	37.87%	37.87%

**20. HDR Comment 4a—Chapter 5: C. Potential Impacts—Page 5-8:**

Tables 5-2 & 5-3: Per the "Mobile Source Air Pollution Modeling" report (pg.10), PM<sub>2.5</sub> ambient values were obtained from the NYSDEC ambient air quality monitoring results. Since the ambient air quality value for PM<sub>2.5</sub> 24-hour is 25.2 ug/m<sup>3</sup>, it is unclear how the predicted concentrations for PM<sub>2.5</sub> 24-hour are all below 25.2 ug/m<sup>3</sup>.

Response:

*The "NYSDOT Environmental Procedures Manual" does not provide guidance on whether to use the yearly or 3-year average value for ambient levels. The ambient level used was the 2009 24-hour value of 20.6 µg/m<sup>3</sup>. The results of this analysis are shown in Table 5 of the "Mobile Source Air Pollution Modeling" study. (See FEIS Appendix D-1.) A second analysis was conducted using the 3-year average of 25.7 µg/m<sup>3</sup> as the ambient level and these results are shown in Table 5A of the "Mobile Source Air Pollution Modeling" study. Regardless of the ambient level used, predicted levels of PM<sub>2.5</sub> are below the standard.*

**21. HDR Comment 4b—Chapter 5: C. Potential Impacts—Page 5-8:**

Please provide a discussion to explain what factors in the Future Build scenario cause a no increase or even a decrease when compared to the Future No Build Scenario. A discussion is provided in the "Mobile Source Air Pollution Modeling" report but should also be provided in the DEIS chapter for the benefit of the reader, who may not review the appendices.

Response:

*The future-build scenario no longer shows a decrease when compared to the future no-build scenario. A discrepancy in the data was corrected and the correct table was provided with the DEIS submitted on June 15, 2011. The explanation offered on page 12 of the revised "Mobile Source Air Pollution Modeling" study (see FEIS Appendix D-1) compares the future scenarios to the existing condition. This explanation is repeated below for the benefit of the reader:*

*"The results of the BUILD and NO BUILD scenario are less than the EXISTING CONDITION results because the CO emissions rates for vehicles decreases in each future year. This yearly decrease in emissions outweighs the projected vehicle increase and so, the future CO results are less than the EXISTING CONDITION. The emission rates are listed in the Mobile6 CO Emission Factor Table in the NYSDOT EPM."*

**22. HDR Comment 1—Chapter 5, Noise:**

The Applicant should clarify if blasting will be included since the construction includes buildings with basements and tunnels.

Response:

*Page 3-17 of the DEIS of June 15, 2011, states the following:*

*"The soil study performed by CHA indicates that there is predominance of boulders and moderately to severely weathered rock below the surface at the proposed building site.*

*“As such, the majority of rock removal during excavation should be able to be performed primarily by normal excavation methods including the ripping of weathered rock. However, it is anticipated that some blasting may be necessary. If blasting is necessary, the potential noise, dust, and vibration impacts produced by blasting operations will be mitigated by implementation of a blasting plan that conforms to State and local codes. Licensed personnel will perform blasting in a manner that protects existing structures, and nearby property owners will be notified in accordance with code requirements.”*

*The blasting procedure is discussed on pages 3-18 and 3-19 of the DEIS.*

**23. HDR Comment 2—Chapter 5, Noise:**

The Applicant should clarify if a noise assessment was performed to show compliance with the DEC noise policy and the Town of Warwick Noise Code by addressing noise emissions from 1) construction and 2) operations related to the HVAC system and power generators and vehicles traveling to and from the site.

Response:

*A noise assessment was not performed as it is not required by the “Final Scoping Document.” The DEC noise policy outlined in Parts 450-454 does not apply to motor vehicles with a maximum gross weight of 10,000 pounds or less, which make up the majority of vehicles that will be traveling to and from the site once construction is complete. Since the site is not in close proximity to public receptors, noise during construction and from the HVAC and power generators is not expected to impact public receptors. Also, the “Town of Warwick Code” allows construction noise during specific days and hours; the Applicant will comply with these construction times. The Applicant’s operations related the HVAC systems and power generators will also comply with the Town of Warwick Code.*

**24. DEC Comment 19—Chapter 5:**

Heating plants will likely require either an Air facility registration or an Air State Facility permit. Any geo-thermal wells of greater than 500 feet depth will require a Mined Land Reclamation permit. Drillers and pump installers for open-loop or standing column systems wells of less than 500 feet must be registered and certified. Registration and certification is not required for closed-loop system wells of less than 500 feet.

Response:

*As described on DEIS page 5-9, both geothermal and combustion-based heating options are being considered for the site. If a combustion-based heating plant is used exclusively, the proposed heating plant will be approximately 1,450 boiler hp or 48.5-million Btu/hr. Emissions from the heating plant will not exceed 50 percent of the major stationary source thresholds for regulated air pollutants. Thus, as described in 6 NYCRR Part 201, the proposed heating facility does not require a State Facility Permit. However, the same regulations require Air Facility Registration. This registration is listed in Revised DEIS Tables 1-2 and 2-5, “Required Approvals.”—See Bullet #42.*

*If geothermal wells are used, they will be less than 500 feet in depth and will be part of the closed-loop system. Thus, a Mined Land Reclamation Permit will not be required; neither will registration or certification of the geothermal system.*

## DEIS Appendix D-1: “Mobile Source Air Pollution Modeling,” May 2011

### 25. **HDR Comment 1a—Air Study: 2.0 Introduction—Page 4:**

Monitored values for PM<sub>2.5</sub> 24-hour, NO<sub>x</sub> and PM<sub>10</sub> should be provided.

**1/18/2012 HDR Comment:** PM<sub>2.5</sub> 24-hr values are not provided in the 2.0 Introduction.

Response:

*These values have been included on page 4 of the revised “Mobile Source Air Pollution Modeling” study.—See FEIS Appendix D-1.*

### 26. **HDR Comment 1b—Air Study: 2.0 Introduction—Page 4:**

Monitored values provided for Lead are in µg/m<sup>3</sup>, not parts per billion (ppb), should [be] revised—quarterly value is 0.069 µg/m<sup>3</sup> versus a standard of 0.15 µg/m<sup>3</sup>.

Response:

*The text was corrected in the revised “Mobile Source Air Pollution Modeling” study.—See FEIS Appendix D-1.*

### 27. **HDR Comment 1c—Air Study: 2.0 Introduction—Page 4, Footnote 1:**

Should add the reason why using a NYC monitoring location is not appropriate for use in the Town of Warwick.

Response:

*The reason for using carbon monoxide (CO) data from Region 4 is that the Loudonville, NY, monitoring site is more comparable to the Project Site than the monitoring site located at the Botanical Gardens in New York City, which although closer, measures carbon monoxide concentrations in a highly urbanized setting. The Project Site is located in a rural setting. A footnote was added on page 5 of the revised “Mobile Source Air Pollution Modeling” study.—See FEIS Appendix D-1.*

### 28. **HDR Comment 2a—Air Study: 2.2 Intersection Selection—Page 5:**

As previously stated, the NYSDOT EPM requires a PM<sub>10</sub> analysis. The NYSDEC has the following note for the Ambient Air Quality Standard for PM<sub>10</sub>: "Federal standard for PM<sub>10</sub> not yet officially adopted by NYS, but is currently being applied to determine compliance status." Therefore, since a mobile analysis for the project has been performed, a PM<sub>10</sub> analysis should be included.

Response:

*Please see response to Bullet #18 (HDR Comment #2b, Chapter 5).*

### 29. **HDR Comment 2b—Air Study: 2.2 Intersection Selection—Page 5:**

We believe footnote #3 to be incorrect. MOVES2010 was noticed in the Federal Register on March 2, 2010. Please revise.

Response:

*The footnote was corrected in the revised “Mobile Source Air Pollution Modeling” study.—See FEIS Appendix D-1.*

**30. HDR Comment 3a—Air Study: 3.1 Microscale Dispersion Modeling—Page 7:**

Table 1: The surface roughness should be 175 cm. Background PM<sub>2.5</sub> 24-hour value should be 25.2 ug/m<sup>3</sup>.

**1/18/2012 HDR Comment:** HDR suggests that a footnote be added to the table clarifying what each of the two PM<sub>2.5</sub> 24-hour background values represent. The current 20.60/25.7 should clarify that the 20.60 is the 2009 98th percentile value and the 25.7 is the 3-year average 98th percentile value.

Response:

*The surface roughness was corrected in Table 1 of the revised “Mobile Source Air Pollution Modeling” study.—See FEIS Appendix D-1.*

*The PM<sub>2.5</sub> analysis was conducted using two background values for PM<sub>2.5</sub>—the 2009 98<sup>th</sup>-percentile value of 20.6 ug/m<sup>3</sup> and the 3-year average 98<sup>th</sup>-percentile value of 25.7 ug/m<sup>3</sup>. A footnote is included in Table 1 of the “Mobile Source Air Pollution Modeling” study.—See FEIS Appendix D-1.*

**31. HDR Comment 3b—Air Study: 3.1 Microscale Dispersion Modeling: Page 7:**

Table 1: Wind speed appears twice on the table, line 3 and line 9, not necessary.

Response:

*The extra line item was removed from Table 1 of the revised “Mobile Source Air Pollution Modeling” study.—See FEIS Appendix D-1.*

**32. HDR Comment 3c—Air Study: 3.1 Microscale Dispersion Modeling—Page 7:**

Table 1: Ambient levels for CO are only in 1-hour and 8-hour. Remove "year" from "CO—(year—1 hour—8 hour) in the Input column.

Response:

*The correction was made in Table 1 of the revised “Mobile Source Air Pollution Modeling” study.—See FEIS Appendix D-1.*

**33. HDR Comment 4—Air Study: 3.2. Emission Rates—Page 8:**

The first paragraph states that "Cruise and idle emissions are calculated by use of the U.S.EPA MOBILE6.2 model as modified by NYDOT," however, emission rates used in the input files do not match the MOBILE6.2 Emission Factor Tables provided by the NYDOT. Please provide table with emission factors used for CO and PM and language on how these values were achieved.

**1/18/2012 HDR Comment:** Please note that although MOBILE6.2 only models PM idle emission rates for heavy duty diesel trucks, PM idle emission rates for the remaining vehicle classifications are not equal to 0. General EPA guideline suggest multiplying the emission rate at 2.5 mph by the average speed (2.5 mph) to obtain the idle emission rate, see EPA's Technical Guidance on the Use of Mobile 6.2 for Emission Inventory Preparation for more information.

**1/27/2012 HDR Comment (via e-mail [see FEIS Appendix A-39]):** EPA guidelines outlined in section 4.4.4 Idling Emission Rates of EPA's *Technical Guidance on the Use of MOBILE6.2 for Emission Inventory Preparation* recommend multiplying the emission rate at 2.5mph by the average speed (2.5 mph) to obtain the idling emission rates for particulates. These guidelines were established in August of 2004, after the June 2004 EPA guidance to DOT, and are generally applicable for analyses ranging from estimating the national impacts of motor vehicle emissions control strategies to estimating human exposure to pollutants at a specific intersection. However, since idling PM contribution is probably slight and EPA recommended NYSDOT to assume zero PM idling emissions for all light-duty and heavy-duty gasoline vehicles, it appears that the analysis would be in compliance with NYSDOT guidance. HDR suggests that a footnote be added to Table 2 of Appendix D-1 stating that the EPA and the State recommend ignoring the slight idling component.

Response:

*Table 2 with emission factor rates was included in the revised "Mobile Source Air Pollution Modeling" study. (See FEIS Appendix D-1.) Additionally, the following text was added to Section 3.2 of the revised "Mobile Source Air Pollution Modeling" study:*

*"The composite emission factor is determined by using the percent composition of the vehicle mix and the NYSDOT emission factors for each modeled year. The weighted emission factors are used in CAL3QHC modeling for the CO, PM<sub>2.5</sub> and PM<sub>10</sub> (see Table 2 - Emission Factor Table)."*

*The following footnote was also added to the PM<sub>2.5</sub> and PM<sub>10</sub> Emission Factor Tables in FEIS Appendix D-1:*

*"Note that MOBILE6.2 only provides idle emission factors for heavy-duty diesel vehicles and heavy-duty diesel buses. The program does not provide idle emission factors for light-duty or heavy-duty gasoline vehicles; EPA recommends that for these vehicles, users should assume that PM idling emissions are zero (email from EPA to NYSDOT dated June 2004). See page 1 of the NYSDOT Mobile 6.2 PM<sub>10</sub>/PM<sub>2.5</sub>Emission Factors Table Guidance document located at the following URL:*

*<https://www.dot.ny.gov/divisions/engineering/environmental-analysis/repository/pmemiss.pdf>."*

**34. HDR Comment 5a—Air Study: 4.1 CAL3QHC Results—Page 12:**

In paragraph 3, sentence that reads "The peak PM<sub>2.5</sub> results for one hour with the project constructed ...", should say 24-hour not one hour.

Response:

*The correction was made in the text of the revised "Mobile Source Air Pollution Modeling" study. —See FEIS Appendix D-1.*

**35. HDR Comment 6—Air Study: 5.1 Construction—Page 14:**

Additional measures to reduce air emissions should be provided, such as:

- The implementation of a diesel emissions program, including using grid power for construction equipment as early as practicable.
- The use of diesel particulate filters (dpf's).
- The use of ultra-low sulfur diesel ("ULSD") fuel (i.e., fuel having less than 15 parts per million (15 ppm) sulfur content) for all equipment having diesel engines; and
- Limiting idling.

Response:

*Grid power is currently provided at the site by Orange and Rockland Utilities (O&R) and will be utilized during construction. The Applicant currently uses ultra-low sulfur fuel for construction equipment and limits idling to conserve fuel and minimize pollutants. As demonstrated by the “Mobile Source Air Pollution Modeling” study, very limited impact is expected to result from the project. Additionally, the project is not located near receptors that would be impacted during construction; thus, additional measures to further reduce air emissions are not warranted.*

## **DEIS Chapter 6: Terrestrial & Aquatic Ecology**

### **36. Greenplan Comment 2—Chapter 6:**

The text should be clarified to state that a biologist will inspect the fencing that is proposed to be installed around the area of disturbance to ensure that timber rattlesnakes, wood turtles, and eastern box turtle have not been trapped inside the construction area, consistent with the recommendations of the two studies conducted by Paulus, Sokolowski, and Salior PC (PS&SPC) in 2007 and 2010 in Appendices E-1 and E-3.

Response:

*A biologist will inspect the fencing to be installed around the area of disturbance to ensure that timber rattlesnakes, wood turtle, and eastern box turtles have not been trapped inside the construction area.*

### **37. Greenplan Comment 3—Chapter 6:**

On page 6-22, under the heading “Wood Turtles and Eastern Box Turtles,” the text should be amended to add references to eastern box turtles.

Response:

*The commenter is correct. The text on page 6-22 is hereby changed to read as follows:*

*Wood Turtles and Eastern Box Turtles*

*Prior to construction, the area of disturbance will be bounded by silt fence to deter wood turtles and eastern box turtles in the area from entering the construction area. After installation of the fence, the fence will be inspected to prevent potential trapping of wood turtles inside the construction area.*

### **38. Greenplan Comment 4—Chapter 6:**

Dr. Klemens’ recommendations regarding the abandoned sewer treatment plant, the ornamental Weeping beech at the site entrance, and a tree preservation plan to preserve specimen trees around the site (listed on page 6-7) have not been adequately addressed in the DEIS. The FEIS should clarify the results of the tree location survey, such as the total number of trees that are proposed to be removed, the number and condition of trees that are over 24” in diameter at breast height that are proposed to be removed and whether any of the significant trees can be incorporated into the site design. The list of trees found in Appendix E-4 shows 2,106 trees over 12” in diameter at breast height (some of which are four feet (4’) or more in diameter) but it is unknown how many and exactly which ones will be removed as a result of proposed site construction activities. The applicant should prepare a tree preservation plan to identify which trees can be retained, how they will be protected during construction and, if they cannot be preserved, whether any can be moved.

There should also be a discussion of whether the landscaping plan is adequate to mitigate the loss of trees.

Response:

*The abandoned sewer plant will be removed as part of the Proposed Project and the remediation outlined on DEIS page 3-9 will be carried out.*

*The ornamental weeping beech located at the entrance of the INCO Building cannot be preserved since it is located within the footprint of one of the proposed buildings.*

*A “Tree Preservation Plan” was prepared and is included in FEIS Appendix L. The Town of Warwick Code §150-5 specifies that a 25-foot-wide buffer be defined around the limits of disturbance to determine the total number of trees within the project’s work area. A total of 1,888 trees are located within this work area and include trees with a diameter of 12 inches or greater at breast height. Of these trees, 1,461 will be removed and 427 will be preserved. The “Landscaping Plan” includes 679 trees, a native wildflower and grass mix, and boulder gardens that will mimic the existing naturally forested scenery.—See Drawing L-001 in DEIS Appendix L.*

**39. Greenplan Comment 5—Chapter 6:**

Correspondence from Brian Kirkpatrick to Robert S. May, dated March 8, 2011, in Appendix E-3 states that the “sewer treatment plant is located outside the limits of disturbance for the project;” however Figure 6-1 shows it in within the area of disturbance.

Response:

*Figure 6-1 is correct. The abandoned sewer plant is within the limits of disturbance and will be removed as part of the Proposed Project.*

**40. HDR Comment 1—Chapter 6:**

USACE must verify, through their Jurisdictional Determination process, that the two cited ephemeral streams are in fact ephemeral and not subject to their jurisdiction.

**1/18/2012 HDR Comment:** Applicant received verbal agreement on delineation; written JD letter still pending from USACE.

**1/18/2012 Greenplan Comment:** On page 2-13 under the Response to Comment 31, the applicant should make reference to correspondence with the US Army Corps of Engineers and such correspondence should be inserted into the appendices.

Response:

*U.S. Army Corps of Engineers (USACE) completed its field inspection of the site on July 13, 2011. Following the field inspection, the USACE Project Manager Ahmed Soliman verbally acknowledged agreement with the wetland delineation and that written confirmation would follow. Although repeated verbal requests have been made for the Jurisdictional Determination and a follow-up letter was submitted to USACE on January 19, 2012, inquiring as to when the Applicant may receive written notification of the Jurisdictional Determination, the document has, as of this writing, not been received.—See FEIS Appendix A-37.*

**41. HDR Comment 2—Chapter 6:**

The Applicant should clarify if there has been any feedback from USACE since their 9/21/10 response on the Jurisdictional Determination application. The Applicant should verify with USACE if any supplemental information is needed to conform to the current delineation protocol as described in the October 2009 document "Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region." It was also noted that the wetland delineation took place outside the regional growing season for vegetation and thus the herbaceous species may be under-represented.

Response:

*USACE completed its field inspection of the site on July 13, 2011, during the 2011 growing season. Following the field inspection, the USACE Project Manager Ahmed Soliman verbally acknowledged agreement with the wetland delineation and that written confirmation would follow. Although repeated verbal requests have been made for the Jurisdictional Determination and a follow-up letter was submitted to USACE on January 19, 2012, inquiring as to when the Applicant may receive written notification of the Jurisdictional Determination, the document has, as of this writing, not been received. (See FEIS Appendix A-37). While wetlands boundaries were established outside the growing season, there was sufficient woody vegetation and remnants of herbaceous vegetation to determine (in combination with hydric soils and wetlands hydrology indicators) the location of the wetlands boundaries.*

**42. HDR Comment 3—Chapter 6:**

There is no definitive statement in the DEIS on whether or not the project as proposed is expected to require wetland/watercourse permits from USACE. USACE is not included in Table 1-2 (Required Approvals) in the Executive Summary. There is a statement (Page 7-2 of the October 2007 PS&S report) that the "project will impact less than one acre of USACE-regulated wetlands."

Response:

*The current design minimizes impacts to wetlands and waters of the U.S. The Applicant will submit for coverage under Nationwide Permit (NWP) 33 for temporary disturbance and NWP 39 for permanent disturbance of wetlands. NWP 39 also requires 401 Water Quality Certification from NYSDEC. Table 1-2, provided below, was updated to include these permits. This table also replaces DEIS Table 2-5.*

**Revised DEIS Tables 1-2 and 2-5 Required Approvals**

<b>Type of Approval</b>	<b>Agency</b>
Special Use Permit	Town of Warwick Planning Board
Site Plan	Town of Warwick Planning Board
Possible (non-use) Variances a) Incursion of portion of one building into Ridgeline Overlay District.	Town of Warwick Planning Board
Blasting Permit	Town of Warwick Planning Board
Building Permit	Town of Warwick Planning Board
Water and Sewer Service	United Water
Architectural Review	Town of Warwick Architectural Review Board
Water, Sewer, Road Access	Orange County Department of Public Works
Stormwater SPDES Permit	NYS DEC
MS4 Acceptance Form	NYS DEC
Article 15—Protection of Waters Permit (Dams and Impoundment Structures)	NYS DEC
401 Water Quality Certification	NYS DEC
Air Facility Registration	NYS DEC
Petroleum Bulk Storage Registration	NYS DEC
GML 239 Review	Orange County Planning Department
NWP 3—Maintenance	USACE
NWP 12—Utility Line Activities	USACE
NWP 13—Bank Stabilization	USACE
NWP 33—Temporary Construction, Access and Dewatering	USACE
NWP 39—Commercial and Institutional Developments	USACE

**43. HDR Comment 4—Chapter 6:**

The 11/30/09 NYSDEC letter in Appendix A-4 cites the need for an Article 15 (Protection of Waters) permit based on the project's proximity to Sterling Forest Lake. Article 15 does not appear in Table 1-2 in the Executive Summary. If the Applicant does not believe an Article 15 Permit is needed it should be stated in the Summary.

**1/18/2012 HDR Comment:** The Applicant cites the proposed use of USACE Nationwide Permit #39 (Commercial and institutional Developments) for wetland takings which are stated to be less than one-tenth of an acre. Nationwide Permit #39 requires a project-specific 401 Water Quality Certification from NYSDEC (regardless of acreage impacted) and thus Tables 1-2 and 2-5 should be revised to include the 401 WQC from NYSDEC.

Response:

*Article 15—Protection of Waters Permit was added to Table 1-2 prior to the June 15, 2011, DEIS submittal. The 401 Water Quality Certification from NYSDEC has been added to revised DEIS Tables 1-2 and 2-5.—Please see response to FEIS Bullet #42.*

**44. HDR Comment 5—Chapter 6:**

There is no comprehensive plant list for the site. Blooming purple loosestrife is apparent in Photograph 6 (Appendix E-3) in the Indiana bat report yet the species does not appear on the plant list. Additionally, there are several plant species (red maple, jewel weed, broadleaf cattail, nut sedge, skunk cabbage, and purple loosestrife) that are cited in the text of Jurisdictional Determination Report that are not cited in DEIS Table 6-1 [Table 6-2].

Response:

*A revised comprehensive plant list is included below and was compiled using the plants listed in the revised PS&SPC “Ecological Resources Report” (see FEIS Appendix E-3) and the Jurisdictional Determination report (see DEIS Appendix A-5):*

Revised DEIS Table 6-2 Vegetative Species Observed On Site

Common Name	Scientific Name	Common Name	Scientific Name
Field horsetail	<i>Equisetum arvense</i>	Multiflora rose	<i>Rosa multiflora</i>
Cinnamon Fern	<i>Osmunda cinnamomea</i>	Wild-black cherry	<i>Prunus serotina</i>
Bracken fern	<i>Pteridium aquilinum</i>	Pin Cherry	<i>Prunus pensylvanica</i>
Maidenhair fern	<i>Adiantum pedatum</i>	Crabapple	<i>Pyrus coronaria</i>
Ebony spleenwort	<i>Asplenium platyneuron</i>	Birds foot trefoil	<i>Lotus corniculatus</i>
New York fern	<i>Thelypteris noveboracensis</i>	Crown vetch	<i>Coronilla varia</i>
Christmas fern	<i>Polystichum acrostichoides</i>	Virginia creeper	<i>Parthenocissus quinquefolia</i>
Sensitive fern	<i>Onoclea sensibilis</i>	Fox grape	<i>Vitis labrusca</i>
Hemlock	<i>Tsuga canadensis</i>	Red maple	<i>Acer rubrum</i>
White pine	<i>Pinus strobus</i>	Sugar maple	<i>Acer saccharum</i>
Tulip popular	<i>Liriodendron tulipifera</i>	Poison ivy	<i>Toxicodendron radicans</i>
Sassafrass	<i>Sassafrass albidum</i>	Tree-of-heaven	<i>Ailanthus altissima</i>
Spicebush	<i>Lindera benzoin</i>	Wood sorrel	<i>Oxalis stricta</i>
Japanese barberry	<i>Berberis thunbergii</i>	Jewelweed	<i>Impatiens capensis</i>
Witch hazel	<i>Hamamelis virginiana</i>	Queen Anne's lace	<i>Daucus carota</i>
Shagbark hickory	<i>Carya ovalis</i>	Spreading dogbane	<i>Apocynum androsaemifolium</i>
Mockernut hickory	<i>Carya tomentosa</i>	Indian hemp	<i>Apocynum cannabinum</i>
American beech	<i>Fagus grandifolia</i>	Common milkweed	<i>Asclepias syriaca</i>
White oak	<i>Quercus alba</i>	Morning glory	<i>Ipomoea purpurea</i>
Chestnut oak	<i>Quercus prinus</i>	Hyssop skullcap	<i>Scutellaria integrifolia</i>
Red oak	<i>Quercus rubra</i>	Jack-in-a-pulpit	<i>Arisaema triphyllum</i>
Black oak	<i>Quercus velutina</i>	Soft rush	<i>Juncus effusus</i>
American hornbeam	<i>Carpinus caroliniana</i>	Nutsedge	<i>Cyperus esculentus</i>
Black birch	<i>Betula lenta</i>	Ryegrass	<i>Lolium spp</i>
Gray birch	<i>Betula populifolia</i>	Upland bentgrass	<i>Agrostis hyemalis</i>
Yellow birch	<i>Betula alleghaniensis</i>	Common reed	<i>Phragmites australis</i>
Pennsylvania smartweed	<i>Polygonum pensylvanicum</i>	Bluegrass	<i>Poa spp</i>
Japanese knotweed	<i>Polygonum cuspidatum</i>	Deer-tongue grass	<i>Panicum cladeustum</i>
Cottonwood	<i>Populus deltoides</i>	Crab grass	<i>Digitaria filiformis</i>
Garlic mustard	<i>Alliaria petiolata</i>	Japanese stiltgrass	<i>Microstegium vimineum</i>
Mountain laurel	<i>Kalmia latifolia</i>	Cattail	<i>Typha latifolia</i>
Winter green	<i>Gaultheria procumbens</i>	False Hellebore	<i>Veratrum viride</i>
Low bush blueberry	<i>Vaccinium angustifolium</i>	Large-flowered trillium	<i>Trillium grandiflorum</i>

**Revised DEIS Table 6-2 Vegetative Species Observed On Site (Continued)**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Common Name</b>	<b>Scientific Name</b>
Indian pipe	<i>Monotropa uniflora</i>	Indian cucumber root	<i>Medeola virginiana</i>
Dwarf spirea	<i>Spiraea latifolia</i>	Nodding trillium	<i>Trillium cernuum</i>
Wild strawberry	<i>Fragaria virginiana</i>	False Solomon's seal	<i>Smilacina racemosa</i>
Skunk cabbage	<i>Symplocarpus foetidus</i>	Jewel weed	<i>Impatiens capensis</i>
Tear thumb	<i>Polygonum sagittatum</i>	Redtop panicgrass	<i>Panicum rigidulum</i>
Broadleaf cattail	<i>Typha latifolia</i>	Blooming Purple Loosestrife	<i>Lythrum salicaria</i>
Spice bush	<i>Lindera benzoin</i>	Nut sedge	<i>Cyperus esculentus</i>
Dwarf cinquefoil	<i>Potentilla canadensis</i>	Greenbriar	<i>Smilax rotundifolia</i>
Raspberry	<i>Rubus occidentalis</i>	Silky dogwood	<i>Cornus Amomum</i>
Oriental bittersweet	<i>Celastrus orbiculatus</i>	White ash	<i>Fraxinus americana</i>
Black hawthorn	<i>Crataegus douglasii</i>	Japanese honeysuckle	<i>Lonicera japonica</i>
Deertongue	<i>Dichantherium clandestinum</i>	Slippery elm	<i>Ulmus rubra</i>
Black willow	<i>Salix nigra</i>	Scaldweed	<i>Cuscuta gronovii</i>
Goldenrod	<i>Solidago spp.</i>		

Source: Biological Studies Report: Touro College Site, PS&SPC, October 2007; and Jurisdictional Determination Report, PS&SPC, September 2010

**45. HDR Comment 6—Chapter 6:**

There are several references in the text to improvements that will be made to the Blue Lake Dam, though the need for an NYSDEC Dam Safety Permit is not included in Table 1-2. Applicant should verify if the proposed actions will trigger the need for a Dam Safety Permit.

Response:

*The majority of proposed work on the dam is considered "ordinary maintenance," as defined by 6 NYCRR Part 608.1, and does not require a permit. "Repairs" to the dam, as defined by 6 NYCRR Part 608.1 require a permit. The Applicant is currently working with a dam safety engineer to determine what repairs, if any, are needed. The Applicant will submit the required documentation to NYSDEC prior to making repairs to the dam.*

**46. HDR Comment 7—Chapter 6:**

The Wetlands Map (Sheet WT-1) in Appendix C-2 cites a wetland acreage of 1.051 acres; the DEIS text on page 7- [page 6-2] and the updated Ecological Resources Report cite an acreage of 2.9 acres.

Response:

*The total delineated wetland acreage of 1.051 acres is correct. The revised PS&SPC "Ecological Resources Report" includes the correct value.—See FEIS Appendix E-3.*

**47. HDR Comment 8—Chapter 6:**

The Wetlands Report in Appendix C-2 cites that the wetlands field work was conducted between March 24 and July 30, 2010. The delineation data sheets all cite a date of 24 March and the Photograph Log cites a date of 25 March 2010 (Appendix A-5). The Applicant should clarify what wetlands work was conducted during the balance of the spring and early summer of 2010.

Response:

*The delineation data sheets reflect the date that information was collected. Field work for establishing the wetlands line and evaluating changes took place from March 2010 through July 2010. Delineation efforts continued through July 30, 2010.*

**48. HDR Comment 9—Chapter 6:**

We disagree with the statement on page 4-7 [page 6-20] that "the red-shouldered hawks are relatively tolerant of human disturbance." According to the species dossier on NYSDEC's website ([dec.ny.gov/animals/7082](http://dec.ny.gov/animals/7082)) "Disturbances from humans in the form of off-road vehicles, hunters, horseback riders, and suburbanites in general have pushed red-shouldered hawks in the deepest, wildest areas left. Although some members of the species seem to be unaffected by humans most are secretive and avoid inhabited areas."

Response:

*The "Ecological Resources Report" in FEIS Appendix E-3 was revised to say the following on page 25:*

*"The red-shouldered hawk is a striped, broad winged hawk. At the turn of the century, this species was the most common species of hawk in New England (Weidensaul, 1989, Terres, 1991). The logging of mature forests and pesticide contamination has contributed to the decline of this species. In places human activity has pushed red shoulder hawks deep into forested area. In other areas red shoulder hawks have been observed nesting and foraging in close proximity to human activity. Accordingly, red-shouldered hawks may or may not be tolerant to human disturbance."*

*In any event, the Applicant's proposed development will retain well over 80 percent of the forested land in its natural state thereby providing nesting habitats for this and other wildlife species. In addition, off-road recreational vehicles and hunting will be prohibited on the site.*

**49. HDR Comment 10—Chapter 6:**

The text on the first page of the Wildlife section of Appendix E-3 states "Wildlife species expected to be found and observed on the Site are listed in Tables 2 through 4." Tables 2 and 4 cite observed species; the Applicant should clarify if there were additional species expected (such as muskrat, gray fox, and flying squirrel) but not observed. Clarification is needed on why these regionally common species were not expected to occur on the site.

Response:

*The text in the "Wildlife" section of the "Ecological Resources Report" was corrected to indicate that only observed species are included in the tables. (See FEIS Appendix E-3, page 11.) Additionally, the text on page 11 was revised to say the following:*

*"Not all anticipated wildlife species were observed during the surveys. This may be due to the time of year the surveys were conducted, the location in which observations occurred, the amount*

*of time spent doing wildlife observations, or some species may not have been present on the site despite the habitat suitability.”*

**50. HDR Comment 11—Chapter 6:**

The scientific names need to be checked in the text and tables. As examples, the scientific name for the red-tailed hawk appears on pages 1-14 and 6-16 where the scientific name for the red-shouldered hawk is intended. The scientific names for the rainbow trout and yellow perch are also incorrect.

Response:

*The scientific names have been corrected as follows:*

*red-shouldered hawk (Buteo lineatus)*

*rainbow trout (Oncorhynchus mykiss)*

*yellow perch (Perca flavescens)*

**51. HDR Comment 13—Chapter 6:**

Eastern red bats are cited as being captured (Site WT-OI) in the 2010 bat survey, but the species does not appear in Table 4 in Appendix E-3. Additionally, the text on page 6-15 cites the bat survey was done in 2009 while the bat survey report cites 2010. No bat species are listed in Table 6-2 in the DEIS.

Response:

*The “Bat Survey” was conducted during the summer of 2010. Big brown bat (Eptesicus fuscus), little brown bat (Myotis lucifugus), and eastern red bat (Lasiurus borealis) species have been added to Table 5 of the revised “Ecological Resources Report.” (See FEIS Appendix E-3.) Table 5 also appears below:*

**Revised “Ecological Resources Report” Table 5 Observed Or Expected Mammals  
World Headquarters Of Jehovah’s Witnesses  
Long Meadow Road, Orange County, New York**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Observation Status</b>
Opossum	<i>Didelphis marsupialis</i>	Confirmed*
Short-tailed shrew	<i>Blarina brevicauda</i>	Confirmed
Eastern mole	<i>Scalopus aquaticus</i>	Confirmed
Black bear	<i>Ursus americanus</i>	Confirmed
Raccoon	<i>Procyon lotor</i>	Confirmed
Striped skunk	<i>Mephitis mephitis</i>	Confirmed
Coyote	<i>Canis latrans</i>	Confirmed
Red fox	<i>Vulpes fulva</i>	Confirmed
Woodchuck	<i>Marmota monax</i>	Confirmed
Chipmunk	<i>Tamias striatus</i>	Confirmed
Grey squirrel	<i>Sciurus carolinensis</i>	Confirmed
New England cottontail rabbit	<i>Sylvilagus transitionalis</i>	Suitable <sup>Δ</sup>
Beaver	<i>Castor Canadensis</i>	Confirmed
Muskrat	<i>Ondatra zibethicus</i>	Confirmed
Deer mouse	<i>Peromyscus maniculatus</i>	Confirmed
White-footed mouse	<i>Peromyscus leucopus</i>	Confirmed
Meadow vole	<i>Micotus pennsylvanicus</i>	Confirmed
White-tailed deer	<i>Odocoileus virginianus</i>	Confirmed
Big brown bat	<i>Eptesicus fuscus</i>	Confirmed
Little brown bat	<i>Myotis lucifugus</i>	Confirmed
Eastern red bat	<i>Lasiurus borealis</i>	Confirmed
*Confirmed—Calls heard during observation, visually observed, or evidence of presence on site.		
<sup>Δ</sup> Suitable—suitable habitat available on site but not confirmed.		
Data acquired from the NYSDEC <a href="http://www.dec.ny.gov/animals">http://www.dec.ny.gov/animals</a> 2011		

**52. HDR Comment 14—Chapter 6:**

We assume that the NYSDEC Breeding Bird Atlas was the source for the bird list in Table 3; though there should be a footnote to the table and/or citation in the References (8.0) for the source and Breeding Bird Atlas database. (1980–85 or 2000–05) used.

Response:

The “New York State Environmental Conservation Breeding Bird Atlas 2000” was the source of the bird breeding information. This footnote was added to Table 4 (formerly Table 3 in the DEIS) in the revised “Ecological Resources Report” (FEIS Appendix E-3):

“Data acquired from the NYSDEC Breeding Bird Atlas 2000.”

**53. HDR Comment 15—Chapter 6:**

A detailed tree survey and mapping effort has been conducted for the site and is presented in Appendix E-4. The 8 March 2011 response letter (from PS&S to Watchtower Bible and Tract Society of New York, Inc.) cites that 16–17 acres of forested habitat will be cleared for the proposed project. Have the number and species of significant trees proposed for removal and to be retained been quantified? USF&WS typically requires this information to assess potential impacts to Indiana bats, as summarized in their September 2010 "Indiana Bat Project Review Fact Sheet."

Response:

*The number and species of trees proposed for removal or retention have been summarized as part of the "Tree Preservation Plan," (Drawings L-002, L-003, and L-501) which are located in FEIS Appendix L.*

**54. 1/18/2012 HDR Comment 16—Chapter 6:**

Prior comments had requested evidence (such as a letter from NYSDEC Region 3) indicating that NYSDEC staff had reviewed the timber rattlesnake studies conducted to date and site plans and concurred with both the adequacy of the studies and conclusions. Earlier correspondence (6/20/11) indicated that NYSDEC had been reviewing the reports but had not provided any comments or confirmation. Applicant should clarify if there has been further contact with NYSDEC Region 3.

Response:

*The NYSDEC has reviewed the Applicant's DEIS and rattlesnake studies. Their comments were included in a letter dated March 7, 2012, which is included in Appendix A-42 of this FEIS.*

**55. DEC Comment 1—Chapter 6:**

This site is in close proximity (<1 mile) to a known den site for timber rattlesnake, *Crotalus horridus*. This species is protected under Article 11, Title 5 of the ECL and listed by New York State as 'Threatened' (Note - page 14 of the Executive Summary incorrectly identifies the species as 'Vulnerable' in NYS). In addition to the actual mortality of individuals, the disturbance or loss of habitat is considered a 'taking' of a species. As detailed in 6 NYCRR Part 182, a permit is required for a taking. In order for a permit to be issued, a net conservation benefit for the species must be demonstrated.

The Department reviewed the DEIS and the Confidential "2010 Addendum to Timber Rattlesnake Study" prepared by wildlife consultant Kathy Michell. Although it does not appear that a taking of important habitat is proposed, at this time the Department cannot rule out the need for a Part 182 taking permit.

Disturbances during the snake's hibernation period are unlikely to have a direct impact (except for blasting); this period is approximately November 1st through March 31st of any given year. All new disturbances should be done during the hibernation period; if there is a reasonable justification as to why this cannot be done, fencing and a monitor would be required in those areas to avoid a take.

Response:

The first heading on DEIS page 1-14 and the first bullet on DEIS page 6-16 is hereby corrected to read:

“Timber Rattlesnake—Crotalus horridus—NY Threatened and NJ Endangered Species”

The Applicant met with DEC staff on April 2, 2012. Based on this discussion, DEC is concerned with disturbing previously undisturbed areas near the vehicle maintenance building and outdoor recreation areas. The Applicant will implement one or a combination of the following options in the newly disturbed areas. Previously disturbed areas are exempt from these requirements:

- Perform vegetation removal, clearing, grubbing, and grading between November 1 and March 31.
- If, in the unlikely event that clearing, grubbing, or grading is needed between the dates noted above, the Applicant will provide a completely enclosed fence around the disturbed area. The fence will comply with the requirements noted in DEC’s letter of March 7, 2012 (see FEIS Appendix A-42), except that hardware cloth should not be used. The DEC has advised that one fence could be used to serve the purpose of erosion control and as a wildlife barrier. Where the erosion control fence doubles as a wildlife barrier, it will be 4 feet tall. Where two separate fences are used, they will not be placed so close to each other that animals could get trapped or entangled between the two fences. The Applicant will show fencing and requirements on the plans. If the fence is installed between April 1 and October 31, a monitor (individual licensed by New York State to handle snakes) will be required to be on hand to determine if snakes are in the disturbed area. No monitor is required if the fence is installed between November 1 and March 31.

**56. DEC Comment 2—Chapter 6:**

There is mention of installing 'fencing' around the site, but there are no details regarding the size or location of the fencing or when it would be installed. The Department offers the following guidance on temporary barriers:

“When disturbance is likely to occur from actions occurring outside of the acceptable work periods, a temporary restrictive barrier (Stechert, 2001) may help to avoid impacts if installed around the perimeter of the disturbance footprint of small projects (< 1 acre). The barrier should be: 1) installed before the end of the acceptable work period and maintained until the end of the construction phase of the project or until the beginning of the next acceptable work period, whichever occurs first, 2) inspected daily and, if necessary, repaired immediately to a fully functional condition\* , and 3) constructed in accordance with the following design specifications:

- a. made of 1/4 inch square hardware cloth or wire mesh
- b. a minimum of 48 high
- c. anchored into the ground with reinforcement bars placed on the disturbance side of the barrier and spaced between 6 8 feet apart.
- d. secured at the base (barrier/ground interface) with at least 6 of fence material covered with soil backfill

\* The effectiveness of the barrier will be diminished and snakes may be able to gain access to the disturbance area if debris (e.g. tree limbs, soil) is allowed to overtop or pile up along side of the barrier.”

Response:

*Please see response to DEC Comment 1 in Bullet #55 above.*

**57. DEC Comment 3—Chapter 6:**

If any easements are proposed on the property, information will be needed on the type of easement and to which parts of the property these easements will be applied. The easement language will need to be reviewed to demonstrate that it allows for potential habitat management for the benefit of timber rattlesnake and that it does not allow management practices that would be detrimental.

Response:

*No new easements are proposed on the property. However, if a maintenance-access easement were required for the sanitary sewer pump station, the easement would address the need for habitat management.*

**58. DEC Comment 4—Chapter 6:**

An education plan for rattlesnakes is proposed, review by the Department is recommended.

Response:

*Our meeting with DEC revealed that the DEC mistakenly thought that an education plan is being proposed by the Applicant. Although a plan will not be developed, residents will be educated on the presence of rattlesnakes. Additionally, the Applicant will post signs at the trails indicating that snakes may be encountered, that they are protected, and that individuals should remain on the trail.*

**59. DEC Comment 5—Chapter 6:**

New trails are proposed for the parcel on the northeast side of Long Meadow Road. Details on the size and location of the proposed trails is needed, including the “ancillary rest areas” mentioned in the DEIS. Use of existing trails does not require review, but any new paths, structures, or widening/modification of existing paths will require additional review and conservation measures may be needed. The Department recommends posting warning signs at trail heads, similar to those now used in the area state parks, about the presence and status of rattlesnakes.

Response:

*New trails are not being proposed; rather, existing trails will be maintained and cleared of overgrowth and brush to make them accessible. Benches will also be added along the existing trails. The Applicant will post warning signs at trails heads to notify trail users of the potential presence and status of rattlesnakes. Please see response to DEC Comment 4 in Bullet #58 above.*

**60. DEC Comment 6—Chapter 6:**

If it is determined that a taking will occur, in order for a permit to be issued the applicant must propose sufficient mitigation to offer a net conservation benefit to the species.

Response:

*The Applicant will implement the fencing and clearing recommendations proposed by DEC during their meeting with the Applicant on April 2, 2012 (see response to DEC Comment 1 in Bullet # 55). These mitigation measures will preclude the need for a taking permit.*

## DEIS Chapter 7: Traffic & Transportation

### 61. Architectural Review Board—Chapter 7:

Our principal concern is that traffic impacts along Long Meadow Road may be underestimated. The addition of 800 people, even in a live-work development, may have a greater impact on routes accessing the development than anticipated. The impact would still be less than that of having the standard 3 cars/household making 3 trips/day of a normal housing subdivision.

Response:

*Site-generated traffic volumes at the intersection of the site entrance and Long Meadow Road (CR-84) are expected to be between 23 and 81 vehicles entering the site and between 30 and 116 vehicles exiting the site during peak hours. The hourly trip generation rates used to calculate these volumes are based on traffic counts taken at the Applicant's facility in Patterson, NY, which is larger in size than the Proposed Project. The Proposed Project will have a maximum of 1,000 residents while the Patterson, NY, facility is capable of housing 1,550 residents. Based on traffic counts taken at other complexes operated by the Applicant such as in the Town of Patterson, NY, the external trip generation (i.e., leaving the site) is significantly less than other residential uses and will likely be less than what was observed at the Patterson, NY, facility. Because of the live-work arrangement employed by the Project Sponsor, the majority of the peak-hour trips generated by the development will remain on site.*

### 62. HDR Comment 1—Chapter 7, Section B, Page 7-1:

The Applicant should clarify which Institute of Transportation Engineering standards is being referenced.

Response:

*The Applicant referenced the Institute of Transportation Engineers (ITE) report entitled, "Trip Generation," 8th Edition, 2008.*

### 63. HDR Comment 2—Chapter 7, Section B, Page 7-5:

The applicant did not provide a clear quantitative basis for the sensitivity analysis assumptions (including the office trip generation reduction to 60% of the total and the residential generation reduction to 40% of the total). According to the documentation, these estimates are based on "engineering judgment and knowledge of the Project Sponsor's Patterson facility".

Response:

*Page 24 of the "Traffic Impact Study," (see FEIS Appendix F-1) states the following:*

*"The applicant's proposed facility operates in a unique fashion in that individuals live and work on the site. The trip generation factors provided by ITE are not representative of this type of facility since the rates are based on individuals making trips to and from separate home and work locations. The ITE land use categories most similar to the applicant's facility are use categories 710 (Office) and 230 (Townhome); however, applying these trip generation factors directly to the applicant's facility would result in predicted traffic volumes that are significantly higher than what was actually observed at the Applicant's Patterson, NY facility, which employs the same live-work arrangement, especially during the Peak AM and PM Hours. Thus, it was deemed unrealistic to assume that the full number of townhome and office trips will be external to the site. Rather, based on engineering judgment and knowledge of the Project Sponsor's Patterson facility, which employs the same live-work arrangement, it was assumed that 60 percent of the office-related trips and 40 percent of the townhome-related trips will be external to the site. Internal trips, for*

*example, a trip from the residential portion to the office portion of the site, will not involve any vehicles entering or exiting the site; therefore internal trips will not impact the external roadway system. Since, the applicant conducted a traffic study at the Patterson, NY facility; these results were used as background information for lowering the ITE trip generation rates, such that the sensitivity analysis would still be conservative but reasonable. Table No. IA contained in Appendix "G" summarizes the number of external trips predicted using the modified ITE method."*

**64. HDR Comment 3—Chapter 7, Section B, Page 7-5:**

The revised LOS table would be clearer if the main street left-turns were labeled (e.g. SB-left). That would differentiate them from the side-street stop controlled movement.

Response:

*The main street left turns have been labeled in Table 7-2, which is included below. Additionally, Tables 2, 2-A, and 2-B of the "Traffic Impact Study" were revised to include the main street left turns.—See FEIS Appendix F-1.*

Revised DEIS Table 7-2 Overall Level of Service (LOS)

			2010 EXISTING <sup>(2)</sup>				2015 NO-BUILD <sup>(2)</sup>				2015 BUILD <sup>(2)</sup>				2015 BUILD (Sensitivity Analysis) <sup>(3)</sup>			
			AM	PM	SAT	SUN	AM	PM	SAT	SUN	AM	PM	SAT	SUN	AM	PM	SAT	SUN
1	STERLING MINE ROAD (CR 72) & LONG MEADOW ROAD (CR 84)	<b>SIGNALIZED</b> EB WB SB OVERALL	B[18.8] A[2.7] C[30.7] B[18.1]	A[5.6] B[11.4] C[28.8] B[12.2]	A[5.8] A[5.1] C[28.6] A[8.5]	A[5.8] A[4.0] C[28.3] A[8.1]	C[32.2] A[2.7] C[31.2] C[27.6]	A[5.8] B[14.9] C[29.3] B[15.0]	A[6.0] A[5.2] C[29.1] A[8.8]	A[6.0] A[4.0] C[28.6] A[8.4]	C[32.2] A[2.5] C[32.0] C[27.5]	A[5.9] B[14.6] C[31.2] B[15.8]	A[5.9] A[4.6] C[30.8] B[10.5]	A[6.0] A[3.7] C[29.4] A[9.5]	C[31.5] A[1.8] C[34.9] C[26.0]	A[6.0] B[14.1] C[34.2] B[16.5]	A[5.9] A[4.7] C[29.9] A[9.5]	A[6.0] A[3.7] C[29.2] A[9.1]
2	LONG MEADOW ROAD (CR 84) & EAGLE VALLEY ROAD	<b>UNSIGNALIZED</b> WB SB LEFT	B[10.0] A[7.5]	A[9.6] A[7.5]	A[9.3] A[7.5]	A[9.2] A[7.4]	B[10.4] A[7.5]	A[9.9] A[7.6]	A[9.5] A[7.5]	A[9.3] A[7.5]	B[10.7] A[7.6]	B[10.5] A[7.7]	B[10.3] A[7.7]	A[9.8] A[7.5]	B[12.4] A[7.9]	B[11.1] A[7.8]	B[10.1] A[7.6]	A[9.7] A[7.5]
3	LONG MEADOW ROAD (CR 84) & WOODLANDS DRIVE	<b>UNSIGNALIZED</b> WB SB LEFT	B[10.2] A[7.5]	A[9.9] A[7.5]	A[9.5] A[7.4]	A[9.3] A[7.4]	B[10.7] A[7.5]	B[10.3] A[7.6]	A[9.8] A[7.5]	A[9.6] A[7.5]	B[11.0] A[7.6]	B[11.3] A[7.7]	B[11.0] A[7.6]	B[10.1] A[7.5]	B[13.2] A[7.9]	B[12.3] A[7.8]	B[10.5] A[7.6]	A[10.0] A[7.5]
4	LONG MEADOW ROAD (CR 84) & IBM ENTRANCE / BEECH ROAD	<b>UNSIGNALIZED</b> EB NB LEFT	A[9.0] A[7.6]	A[9.4] A[7.4]	A[8.8] A[7.4]	A[8.7] A[7.4]	A[9.2] A[7.6]	A[9.6] A[7.5]	A[9.0] A[7.4]	A[8.8] A[7.4]	A[9.2] A[7.6]	A[9.8] A[7.5]	A[9.1] A[7.5]	A[8.9] A[7.4]	A[9.5] A[7.7]	A[10.0] A[7.5]	A[9.1] A[7.5]	A[8.9] A[7.4]
5	NYS ROUTE 17A & LONG MEADOW ROAD (CR 84)/ CLINTON ROAD	<b>UNSIGNALIZED</b> EB LEFT WB LEFT NB SB	A[7.4] B[11.0] C[15.4] C[18.6]	A[9.3] A[7.6] B[13.5] C[17.3]	A[7.8] A[7.9] B[11.1] B[12.2]	A[7.6] A[7.7] B[10.1] B[11.0]	A[7.5] B[12.2] C[22.4] D[25.4]	A[9.6] A[7.8] C[16.4] C[21.5]	A[7.9] A[8.1] B[12.0] B[13.7]	A[7.7] A[7.9] B[10.6] B[11.7]	A[7.5] B[12.3] C[22.8] D[26.4]	A[9.6] A[7.8] C[17.2] C[22.6]	A[7.9] A[8.2] B[12.5] B[14.5]	A[7.7] A[7.9] B[10.7] B[12.0]	A[7.5] B[13.0] D[28.3] D[32.0]	A[9.6] A[7.9] C[18.6] C[23.8]	A[7.9] A[8.2] B[12.3] B[14.3]	A[7.7] A[7.9] B[10.7] B[12.0]
6	LONG MEADOW ROAD (CR 84) & SITE ACCESS DRIVEWAY	<b>UNSIGNALIZED</b> EB NB LEFT	- -	- -	- -	- -	- -	- -	- -	- -	A[9.3] A[7.6]	B[10.0] A[7.6]	A[9.9] A[7.6]	A[9.2] A[7.5]	B[10.8] A[8.0]	B[11.1] A[7.7]	A[9.5] A[7.6]	A[9.2] A[7.5]
7	STERLING MINE ROAD (CR 72) & SISTER SERVANTS LANE/ EAGLE VALLEY ROAD	<b>UNSIGNALIZED</b> EB LEFT WB LEFT NB SB	A[7.7] B[11.2] C[16.4] E[47.2]	B[10.7] A[7.8] A[9.3] D[32.1]	A[8.3] A[7.9] A[9.5] C[15.9]	A[7.9] A[7.9] A[9.5] B[13.6]	A[7.8] B[12.0] C[18.2] F[87.1]	B[11.4] A[8.0] A[9.7] F[50.1]	A[8.5] A[8.1] A[9.9] C[22.2]	A[8.0] A[8.0] A[9.8] C[15.2]	A[7.9] B[12.1] C[18.5] F[95.6]	B[11.6] A[8.2] B[10.0] F[59.3]	A[8.7] A[8.3] B[10.3] C[22.4]	A[8.1] A[8.1] A[10.0] C[16.3]	A[8.2] B[12.4] C[19.2] F[116.1]	B[11.8] A[8.3] B[10.3] F[57.8]	A[8.6] A[8.2] B[10.1] D[25.4]	A[8.1] A[8.1] A[9.9] C[18.3]

Notes:

1. Based on the *Highway Capacity Manual 2000*, an overall LOS is determined for signalized intersections only. Unsignalized intersections are assigned an LOS for each approach.
2. Data for 2010 Existing, 2015 No Build, and 2015 Build scenarios includes trip generation data obtained from the Project Sponsor's existing facility located in Patterson, NY.
3. Data for 2015 Build (Sensitivity Analysis) includes trip generation data obtained from the Institute of Transportation Engineers (ITE).



**65. HDR Comment 4—Chapter 7, Section B, Page 7-5:**

The applicant did not provide the requested non-residential (e.g. office space) information for the Patterson, NY facility. Instead they state that, "Since residents work and live on the site, no additional traffic is generated by the office space. The number of residents and dwelling units provide a more accurate basis for comparing site-generated traffic." Therefore, given how the facility functions, additional information may not be required.

Response:

*Comment noted.*

**66. HDR Comment 5—Chapter 7, Section B, Page 7-7:**

The revised text does not directly address what the proposed public transportation demand is expected to be.

Response:

*Pages 9 and 10 of the revised "Traffic Impact Study" (see FEIS Appendix F-1) include information on the use of public transportation and state the following:*

*"Public Transportation usage data was also obtained for the Watchtower facility in Patterson, New York by the Project Sponsor. It is expected that the public transportation usage of the proposed Warwick facility will be similar to that of the Patterson facility since they are similar type developments. The data, which was provided by the Watchtower Transportation Department, indicates that for the Patterson Facility a maximum of ten Watchtower residents per year are picked up from a bus or train station and there is no indication that residents at the Patterson facility regularly use public transportation. The Watchtower Transportation Department indicated that there is no indication that commuters use public transportation for travel to the Patterson facility.*

*"Finally, the Watchtower Transportation Department data indicates that during working hours (Mon.-Fri. 8:00AM -12:00 PM and 1:00PM to 5:00PM) an average of one group every two weeks uses public transportation. In those groups there is an average of two persons. In addition, on average, once a month a visitor will use public transportation on the weekend."*

**67. HDR Comment 6a—Chapter 7, Section B, Page 7-7 (Accident Data):**

The Applicant should clarify how many of the accidents occurred along each roadway.

Response:

*The DEIS submittal of June 15, 2011, previously reported that a total of 44 accidents occurred from March 2007 to February 2010. In actuality, a total of 45 accidents were reported during this time period: 16 along Sterling Mine Road (CR-72); 23 along Long Meadow Road (CR-84), and 6 along Route 17A. Table A of FEIS Appendix F-1, "Traffic Impact Study," contains a list of these accidents.*

**68. HDR Comment 6b—Chapter 7, Section B, Page 7-7 (Accident Data):**

The Applicant should clarify how many accidents occurred within a 12-month period.

Response:

*Twelve months of accident data was obtained for 2008 and 2009.*

*A total of 20 accidents occurred in 2009: 9 along Sterling Mine Rd; 10 along Long Meadow Rd; 1 along Route 17A.*

*A total of 12 accidents occurred in 2008: 3 along Sterling Mine Rd., 7 along Long Meadow Rd., and 2 along Route 17A.*

**69. HDR Comment 6c—Chapter 7, Section B, Page 7-7 (Accident Data):**

The Applicant should clarify if there are any roadways that should be considered a high accident location.

Response:

*Please refer to Table A-2 in FEIS Appendix F-1, "Traffic Impact Study." These roadways are not considered high accident locations.*

*The accident rates along Sterling Mine Rd (CR-72) range from 0.37 to 1.66 accidents per million vehicle miles (MVM), which are lower than the statewide average for this roadway of 2.14 accidents per MVM.*

*The accident rates along Long Meadow Rd (CR-84) range from 0.47 to 1.55 accidents per MVM, which are lower than the statewide average for this roadway of 2.14 accidents per MVM.*

*The accident rates along NYS Route 17A range from 0.4 to 1.20 accidents per MVM, which are lower than the statewide average for roadway of 1.74 accidents per MVM.*

**70. HDR Comment 6d—Chapter 7, Section B, Page 7-7 (Accident Data):**

The Applicant should clarify what the accident rate is when compared to other similar roadway facilities.

Response:

*Please see response to HDR Comment 6c in Bullet #69 above.*

**71. HDR Comment 6e—Chapter 7, Section B, Page 7-7 (Accident Data):**

If accident rates are above the NYS average, then what appropriate improvements in the roadway should be included, and how much of anticipated reduction will the proposed improvements make.

Response:

*As stated in FEIS Appendix F-1, "Traffic Impact Study," page 8:*

*"Also, as shown on Table A-2 the accident rates for each roadway are lower than the statewide averages."*

*Please see response to HDR Comment 6c in Bullet #69 above.*

**72. HDR Comment 6f—Chapter 7, Section B, Page 7-7 (Accident Data), Table A:**

Table A in Appendix F-1 does not provide a summary of the accident data. A summary should be included.

Response:

*A summary table of the 45 accidents was included in the revised "Traffic Impact Study," (see FEIS Appendix F-1) and is repeated below:*

**Revised “Traffic Impact Study” Table A-3: Summary of Accident Types for Each Roadway Segment for the Latest Three-Year Period**

Roadway	Accident Type <sup>(1)</sup>	Year				Total
		2007	2008	2009	2010	
Long Meadow Road (CR 84)	F		1			1
	N/A			3		3
	PD & I	1		1	1	3
	PDO	2	6	6	2	16
<b>Subtotal</b>		<b>3</b>	<b>7</b>	<b>10</b>	<b>3</b>	<b>23</b>
Route 17A	N/A	1	2			3
	PD & I			1		1
	PDO	2				2
<b>Subtotal</b>		<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>6</b>
Sterling Mine Road (CR 72)	I			1		1
	N/A	1		2	1	4
	PD & I		2	1		3
	PDO	1	1	5	1	8
<b>Subtotal</b>		<b>2</b>	<b>3</b>	<b>9</b>	<b>2</b>	<b>16</b>
<b>Total</b>		<b>8</b>	<b>12</b>	<b>20</b>	<b>5</b>	<b>45</b>
NOTES: (1) Accident Types: F = Fatality N/A = Not Available PD = Property Damage PDO = Property Damage Only I = Injury						

**73. HDR Comment 6g—Chapter 7, Section B, Page 7-7 (Accident Data), Paragraph 2:**

Minimal change in LOS between No-Build and Build may or may not affect the number of accidents. Additional explanation should be provided to justify the following statement, "It is not believed that the Project Sponsor's project will affect the number of accidents in the area since, as shown in Table 7-2 and Table 7-3, there is minimal impact to the LOS at nearby intersections."

Response:

*Accident frequency is not necessarily a function of Level of Service at intersections. Geometric features, including such items as limited sight distance or lack of turn lanes at high-volume locations, have greater influence on accidents. Intersections that have both good geometrics and also good Levels of Service typically do not have unusual accident history. Based on the anticipated traffic generation and a review of the type of past accidents as summarized in Table A in Appendix E of the “Traffic Impact Study,” (see FEIS Appendix F-1) it is expected that the accident rates at the area intersections should not be significantly impacted by the project traffic.*

**74. HDR Comment 7—Chapter 7, Section C, Page 7-7 to 7-8:**

While text has been moved and adjusted, there is still somewhat limited information provided with regard to the trip generation for the sensitivity analysis.

Response:

*Please see response to HDR Comment 2 in Bullet #63 above.*

**75. HDR Comment 8a—Chapter 7, Section D, Page 7-8 (Mitigation Measures):**

Provide information regarding the amount of construction truck traffic that would be routed along the specified roadways.

**1/18/2012 HDR Comment:** HDR requested the inclusion of construction truck traffic activity related to the site during construction. Thirty to fifty trucks throughout the day may have an impact on the study intersections depending on the arrival and departure patterns of the trucks. Additionally, the number of construction workers were not included as part of the response. Please provide the temporal distribution of the construction trips (trucks and employees) throughout the day and the routes that these employees would be taking to and from the site.

Response:

*Pages 7-10 and 7-11 of the DEIS under the heading, “Construction Traffic,” state:*

*“Construction is proposed to begin upon completion of the permit process in 2012 and is anticipated to continue for approximately four years. Once underway, construction truck traffic will include between 30 and 50 trips per day for approximately 3.5 years. Truck traffic will be present for approximately 3 to 4 years and will include dump trucks removing excess site material, along with semi-flatbed and box trucks transporting construction materials. The majority of the trucks will travel on Long Meadow Road south from 17A. The others will travel Highway 17 to Sterling Mine Road (CR-72) to Long Meadow Road (CR-84).”*

*Page 7-12 of the DEIS under the heading, “Mitigation Measures,” states:*

*“During construction, truck traffic to and from the site will be routed along Long Meadow Road (CR-84), Sterling Mine Road (CR-72), NYS Routes 17 and 17A. No construction traffic will be routed along Eagle Valley Road due to the 4-ton weight limit.”*

*The majority of the 30 to 50 trips associated with the construction truck traffic will be distributed between 7 AM and 3 PM with some trips occurring between 3 PM and 7 PM.*

*Approximately 50 vehicles carrying construction workers are expected to arrive at the site at approximately 6 AM and are expected to depart at approximately 5 PM. Some construction workers will arrive at and exit the site by shuttle from and to the Applicant’s staging area located at 1422 Long Meadow Rd, while others will arrive in private vehicles and will approach and leave the site using Long Meadow Road (CR-84), Sterling Mine Road (CR-72), and NYS Routes 17 and 17A.*

*The total amount of construction traffic is expected to be less than operating traffic. A comparison of the temporal distribution is provided below:*

**Table 7-4: Temporal Distribution of Operating and Construction Traffic**

<b>Time</b>	<b>Operating Traffic(1)</b>	<b>Construction Traffic(2)</b>
Before Peak Hour (By 6 AM)	Not Available	50 trips (arriving construction workers)
Weekday AM Peak (7:30 AM to 8:30 AM)	53 trips	50 trips (all construction trucks)
Weekday PM Peak (4:45 PM to 5:45 PM)	159 trips	100 trips (departing construction workers and all construction trucks)
Saturday Peak (12:30 PM to 1:30 PM)	197 trips	50 trips (all construction trucks)
Sunday Peak (11:00 AM to 12:00 PM)	99 trips	50 trips (all construction trucks)
Notes: (1) See revised DEIS Table 16-1 in response to FEIS Bullet #143. (2) Conservative assumption that construction truck traffic coincides with the peak hour operating traffic rather than being spread out over several hours.		

**76. HDR Comment 8b—Chapter 7, Section D, Page 7-8 (Mitigation Measures):**

Provide information regarding construction truck traffic distribution produced by the site during construction period.

*Response:*

*Please see response to HDR Comment 8a in Bullet #75 above.*

**DEIS Appendix F-1: “Traffic Impact Study” (TIS), June 2011**

**77. HDR Comment 1—TIS, Section 1, Subsection A (Project Description and Location), Paragraph 1:**

- Typo, 12 building to 12 buildings (plural form), revise text.
- In the DEIS, Executive Summary, page 1-3, Proposed Action states that eight (8) buildings are proposed. This is inconsistent with the 12 buildings mentioned in the TIS. Clarify and revise text.
- The number of proposed buildings and square footage area in TIS do not match the proposed buildings and square footage area contained in the DEIS Exec. Summary, Page 1-3. Clarify and revise text.

*Response:*

*The correct project description was included in Appendix F-1 “Traffic Impact Study” included in the June 15, 2011, DEIS submittal and is also included in Appendix F-1 of this FEIS submittal.*

**78. HDR Comment 2—TIS, Section II, Subsection A (Description of Existing Roadway Network):**

General Note: Include the field notes/pictures/back-up information as to where the descriptions of the roadway were derived.

Response:

Field sketches, pictures, and traffic counts were included in Appendix F-1 "Traffic Impact Study" included in the June 15, 2011, DEIS submittal and are also included in Appendix F-1 of this FEIS submittal.

**79. HDR Comment 3a—TIS, Section II, Subsection B (Year 2010 Existing Traffic Volumes), Page 6, Paragraph 1:**

Clarify and revise text.

- Sentence 1—DEIS section stated that data was collected and analyzed during the Saturday peak, but not listed in this section.
- Sentence 2—describe the location of ATR along Long Meadow Road and Sterling Mine Road.
- Sentence 3—If ATR counts were conducted during April and May 2010, include May 2010 in Section B, Page 7-5 of Chapter 7 of DEIS.
- Six of the seven intersections analyzed are listed in this section. Include the missing intersection of Sterling Mine Rd (CR-72) & Sister Servants Ln/Eagle Valley Road mentioned in DEIS.
- If the Saturday peak hour was determined to be between 12:30 pm and 1:30 pm and the counts were conducted between 9:00 am and 12:00, explain how the Saturday peak hour counts were determined.

Response:

- *Page 6, paragraph 1: The first sentence indicates that traffic counts were performed between 11:00 a.m. and 2:00 p.m. for the Saturday peak hours.*
- *Page 6, paragraph 1: Automatic Traffic Recorder (ATR) machines collected volumes, speed and classification data at locations along Long Meadow Road (CR-84) and Sterling Mine Road (CR-72). One machine was placed along Sterling Mine Road (CR-72) approximately 715 feet east of the Long Meadow Road (CR-84) intersection near the west end of Babcock Hill Road. Two machines were placed along Long Meadow Road (CR-84), one between Eagle Valley Road and Woodlands Drive, and the second approximately 400 feet north of the proposed site access location.*
- *May 2010 was included on page 7-5 of DEIS Chapter 7.*
- *Page 7: The seventh intersection (Sterling Mine Road [CR-72] and Sister Servants Lane/Eagle Valley Road) was included.*
- *Page 6, paragraph 1: The Saturday counts were conducted between 11:00 a.m. and 2:00 p.m. The Sunday counts were conducted between 9:00 a.m. and 12:00 p.m.*

**80. HDR Comment 3b—TIS, Section II, Subsection B (Year 2010 Existing Traffic Volumes), Page 7, Paragraph 2:**

Clarify and revise text: Saturday Peak Hour should be included in this paragraph.

Response:

*Saturday peak hour was included in this paragraph.*

**81. HDR Comment 4a—TIS, Section II, Subsection C (Accident Data):**

General Note—Additional information is described in the DEIS that's not presented in this section. Please clarify and revise text.

Response:

*The same accident data is included in both the DEIS and the TIS. Note that the number of accidents was changed to 45 from 44. Please see HDR Comment 6a in Bullet #67 above.*

**82. HDR Comment 4b—TIS, Section II, Subsection C (Accident Data):**

Sentence 2—indicates the accident data collected along three (3) roadways. Provide information regarding the segment(s) of each roadway, where the accident data was obtained.

Response:

*Page 7 of FEIS Appendix F-1 "Traffic Impact Study," states:*

*"This accident data includes accidents along Sterling Mine Road from the Rockland County Border to the NJ Border, Long Meadow Road from Sterling Mine Road to NYS Route 17A and NYS Route 17A from Benjamin Meadow Road to Sylvan Way for the period from March 2007 through February 2010."*

**83. HDR Comment 4c—TIS, Section II, Subsection C (Accident Data):**

Sentence 3 states "Table A which summarizes the accidents". Table A indicates the details of each accident, include a summary of the accidents (i.e. total each year, total of type of accident, etc.).

**1/18/2012 HDR Comment:** Table A-3 includes a fatality in Year 2008. Please include details on this crash, including the location of the fatality as well as potential improvements to the roadway to mitigate this fatality.

Response:

*A summary table of the 45 accidents was compiled and is included in Appendix A, Table A-3 of the revised "Traffic Impact Study." (See FEIS Appendix F-1.) See HDR Comment 6f, Bullet #72 where the table is repeated. The accident resulting in 2 fatalities occurred on 10/12/2008 near the intersection of Long Meadow Rd (CR-84) and Woodlands Drive (see <http://www.city-data.com/accidents/acc-Warwick-New-York.html>). The accident occurred during daylight hours when the road conditions were dry and weather conditions clear. The apparent contributing factors are cited as "Turning Improper, Unsafe Speed." (See FEIS Appendix F-1, Appendix E "Accident Data".) Since the contributing factors are attributable to driver error, it is unlikely that roadway improvements would mitigate this.*

**84. HDR Comment 5a—TIS, Section II, Subsection D (Public Transportation):**

General Note—

- Include the frequency of the trains and buses during peak periods.
- Include the anticipated number of passengers/person trips generated by the project site that would utilize these public transportation modes during which peak hours.

Response:

- *The frequency of trains and buses is provided in Appendix F of the revised “Traffic Impact Study.”—See FEIS Appendix F-1.*
- *Pages 9 and 10 of revised “Traffic Impact Study” (see FEIS Appendix F-1) includes information on the use of public transportation and states the following:*

*“Public Transportation usage data was also obtained for the Watchtower facility in Patterson, New York by the Project Sponsor. It is expected that the public transportation usage of the proposed Warwick facility will be similar to that of the Patterson facility since they are similar type developments. The data, which was provided by the Watchtower Transportation Department, indicates that for the Patterson Facility a maximum of 10 Watchtower residents per year are picked up from a bus or train station and there is no indication that residents at the Patterson Facility regularly use public transportation. The Watchtower Transportation Department indicated that there is no indication that commuters use public transportation for travel to the Patterson facility.*

*“Finally, the Watchtower Transportation Department data indicates that during working hours (Mon.-Fri. 8:00 AM-12:00 PM and 1:00 PM to 5:00 PM) and average of one group every two weeks uses public transportation. In those groups there is an average of two persons. In addition, on average, once a month a visitor will use public transportation on the weekend.”*

**85. HDR Comment 6a—TIS, Section III, Subsection A (Year 2010 No-Build Traffic Volumes), Page 9, Paragraph 1:**

The text indicate a 2% growth rate annually, based upon a review of the background volumes, the rate may be lower. Clarify and revise the text. Also, if the background volume is confirmed to be lower explain any impacts on the analysis.

Response:

*Page 11 of the “Traffic Impact Study” (see FEIS Appendix F-1) states:*

*“In order to account for normal background traffic growth in the area, the Year 2010 Existing Traffic Volumes were projected to the 2015 Design Year utilizing a background growth factor of 2% per year for a total background growth of 10% (See Figures No.6, 7, 8 and 9). The 2% per growth rate was based on NYSDOT historical data contained in the NYSDOT Traffic Volume Data Reports. This data indicates that for the last 10 year period, growth on the area roadways was less than 1% per year. The 2% per year factor was used to also account for other miscellaneous development traffic in the area which may occur.”*

*If the annual growth rate in traffic volume is less than 2 percent per year, the impact on the analysis would be lower predicted traffic volumes for the 2015 scenarios and possibly improved Levels of Service (LOS) at the area intersections for the 2015 scenarios.*

**86. HDR Comment 6b—TIS, Section III, Subsection A (Year 2010 No-Build Traffic Volumes), Page 9, Paragraph 1:**

Describe in further detail the "other" developments in the area.

Response:

Pages 11 and 12 of the “Traffic Impact Study” (see FEIS Appendix F-1) state:

*“These developments included:*

*“Sterling Mine Estates - 24 lot single family home subdivision which is located on the north side of County Route 72 (Sterling Mine Road) between the east and west ends of Eagle Valley Road.*

*“Sterling Mine Active Adult - 350 unit active adult project located on the south side of Sterling Mine Road in the Town of Ramapo.*

*“Tuxedo Reserve - A major residential project located in the Town of Tuxedo. It has access connections to NYS Route 17 and Sterling Mine Road (via Eagle Valley Road in Sloatsburg).”*

*The “Traffic Impact Study” prepared for the DEIS previously included the Radha Soami Society/Sister Servants Development, which is no longer proceeding. This development has been removed from the analysis.*

**87. HDR Comment 7a—TIS, Section III, Subsection B (Site Generated Traffic Volumes):**

Trip generation was based on an existing facility at Patterson, NY, but how were the rates developed (shown in Table 1, HTGR\*). Include additional information regarding size of facility, number of buildings, area of office space, number of dwellings, etc.

Response:

*The hourly trip generation rates (HTGR) were developed by dividing the vehicular volume by the population. For example, for Peak AM Hour the volume was 23 vehicles. The maximum number of residents at the Patterson, NY, facility is 1,550; thus, the HGTR is  $23/1,550 = 0.015$ .*

*Since residents work and live on the Patterson site, no additional traffic is generated by the office space. This will also be the case with the Proposed Project. The number of residents and dwelling units provide a more accurate basis for comparing site-generated traffic. This information was provided on page 13 of FEIS Appendix F-1, “Traffic Impact Study,” which states:*

*“The Patterson facility includes 783 dwelling units and can house a maximum population of 1,550 persons, while the proposed facility will include 588 dwelling units and a maximum population of 1,000 persons. The data obtained from the traffic counts of the existing Patterson facility, which are shown in Table No. 1, were used to estimate traffic volumes that could potentially be generated by the Project Sponsor’s proposed facility at maximum population.”*

**88. HDR Comment 7b—TIS, Section III, Subsection B (Site Generated Traffic Volumes):**

The proposed Warwick facility may have more visitor traffic and deliveries as the World Head quarters than the Patterson facility, which is an education facility. Applicant to clarify.

Response:

*The Applicant’s records show that the number of visitors between the three existing facilities in New York State has a fairly even distribution. This is not anticipated to change. Further, since the proposed facility at Warwick will be smaller than the facility at Patterson, and the number of deliveries is related to the number of residents and total building area, the number of deliveries will be fewer, not greater.*

**89. HDR Comment 7c—TIS, Section III, Subsection B (Site Generated Traffic Volumes):**

If the ITE Trip Generation was not utilized, state the reason why they were analyzed.

Response:

*The separate analysis conducted using the ITE Trip Generation Estimates was performed as a Sensitivity Analysis This was presented for comparison only since it is expected that the trip generation rates will be consistent with those presented in the “Traffic Impact Study” (Appendix F-1) given that these are based on actual experiences at other existing facilities operated by the Applicant.*

**90. HDR Comment 7d—TIS, Section III, Subsection B (Site Generated Traffic Volumes):**

What is the percentage of trips internal to the site?

**1/18/2012 HDR Comment:** There are some trips that are being generated internally; the Applicant should present these internal trips (perhaps with some of the Patterson facility information) to show that the proposed internal transportation to the site is adequate (e.g. tunnels, sidewalks, roadways).

Response:

*The scope of the “Traffic Impact Study” was to evaluate the Proposed Project’s impact on the external roadway system. The percentage of trips internal to site does not impact the external roadway system analyzed in the “Traffic Impact Study.” Furthermore, the live-work arrangement employed by the Project Sponsor allows residents to walk to their work locations using either the tunnels connecting the buildings or outside sidewalks. Depending on assignment, some residents may even live and work in the same building, thus internal traffic is primarily pedestrian and internal vehicular trips are negligible. The walking distance from home and work locations ranges from an elevator ride (for those who live and work in the same building) to 2,800 feet for those who live and work at opposite ends of the site.*

**91. HDR Comment 7e—TIS, Section III, Subsection B (Site Generated Traffic Volumes):**

How was the data collected at the existing Watchtower Farms facility referenced/used?

Response:

*The traffic volumes associated with the Applicant’s facility located in the Town of Patterson, New York, were used for the trip generation estimates. However, as noted in Section III.B: “Site Generated Traffic,” of the “Traffic Impact Study,” the data collected at the existing Watchtower Farms facility located in the Town of Shawangunk, New York, was also referenced for determining peak hours or arrival and departure.*

**92. HDR Comment 8—TIS, Section III, Subsection C (Arrival and Departure Distributions):**

Describe how the expected travel patterns for this facility were calculated/derived.

Describe why the majority of the trips originate from the south.

Response:

*The expected travel patterns for this facility were generally derived from (1) the existing traffic volumes observed at the study area intersections, and (2) the expected travel patterns anticipated by the Applicant as explained below.*

*The Applicant operates two other facilities in Patterson and Wallkill, NY. It is expected that travel from the Patterson facility would approach the site from the south using Long Meadow Road (CR-84). Travel from the Wallkill facility is expected to approach the site from the north along Route 17A, except during hazardous winter conditions. In those cases travel from the Wallkill facility would be routed from the south. Additionally, visitors to the complex are expected to arrive at area airports located to the south of the facility; thus, they would arrive from the south. Residents at the complex would likely be assigned to congregations located south of the facility so that they too would exit and approach the site from the south.*

**93. HDR Comment 9—TIS, Section III Subsection D (Year 2015 Build Traffic Volumes):**

See comments from Subsections B & C.

Response:

*Comment noted.*

**94. HDR Comment 10a—TIS, Section III, Subsection E (Description of Analysis Procedures):**

General Note—State the name of software and version that was utilized to perform the capacity analysis.

Response:

*As noted in Section III.E: “Description of Analysis Procedures,” of the revised “Traffic Impact Study,” the capacity analysis for each intersection was conducted using HCS+ Version 5.3 developed by McTrans.—See FEIS Appendix F-1.*

**95. HDR Comment 11a—TIS, Section III, Subsection F (Traffic Impact Analysis Results), Page 13, Paragraph 2:**

AM Peak hour operates at LOS C and the expected LOS for PM, Sat and Sun is LOS B and A, which is not "similar" to AM Peak.

Response:

*On page 16 of the revised “Traffic Impact Study,” (see FEIS Appendix F-1) the fourth paragraph reads:*

*“Capacity analysis conducted utilizing the Year 2015 No-Build and Build Traffic Volumes indicates the intersection (referring to Sterling Mine Rd and Long Meadow Rd) is anticipated to operate at a Level of Service “C” during the AM Peak Hour while similar Levels of Service to existing conditions can be expected for PM, Saturday and Sunday Peak Hours.”*

*Future LOS for PM, Saturday and Sunday Peak Hours will be similar to existing conditions, not to the Future AM Peak Hour.*

**96. HDR Comment 11b—TIS, Section III, Subsection F (Traffic Impact Analysis Results):**

Page 17, paragraph 1, Sentence 2—only PM Peak has overall LOS B and AM, Sat, and Sun operates at LOS A.

Response:

*The comment is correct. The intersection of Long Meadow Road (CR-84) and the Site Access Driveway is expected to operate at a Level of Service A during the AM, Saturday and Sunday peak hours, while a Level of Service B will be experienced during the PM peak hour.*

97. **HDR Comment 11c—TIS, Section III, Subsection E (Description of Analysis Procedures):**

Page 17, paragraph 2—misspelled acronym, ASSHTO should be changed to AASHTO. Furthermore, the acronym should be defined including the version and title of publication. Include the analysis/calculation to determine the sight distances.

*Response:*

Page 21 of the “Traffic Impact Study” (FEIS Appendix F-1) states:

*“A sight distance analysis was completed for this intersection based on standards provided in the American Association of State Highway and Transportation Officials (AASHTO) publication entitled ‘A Policy on Geometric Design of Highways and Streets,’ dated 2004. The sight distance looking to the left (north) from the site access is approximately 1100 ft. while the sight distance looking to the right (south) is approximately 885 ft. Based on a 85th Percentile Speed of 60 mph, as measure [measured] by ATR machine data collected along Long Meadow Road, Exhibit 9-55 on page 661 of the AASHTO indicates that a minimum stopping sight distance (SSD) of 570 ft. and an intersection sight distance (ISD) of 665 ft is required. Therefore, the required sight distances are currently met.”*

98. **HDR Comment 11d—TIS, Section III, Subsection F (Traffic Impact Analysis Results),**

**Page 18:**

- Describe the planned development Radha Society Soami Society/Sister Servants development.
- Confirm that this intersection was analyzed with a separate left turn lane on County Road 72 and include the direction of the approach.
- Paragraph 2—there was an overall deterioration of LOS between No-Build and Build. State the deterioration and describe in the text.

**1/18/2012 HDR Comment:** The TIS indicated that the No Build and Build Conditions are at LOS F for the SB-L movement. The TIS further notes "It should be noted that the presence of the traffic 'signal at the intersection of Sterling Mine Road (CR-72) and Long Meadow Road (CR-84) does provide some gaps in traffic stream which benefits this condition." This note requires additional validation. These intersections are approximately 0.7 miles apart and have driveways and unsignalized intersections in between. Further analysis should be provided (i.e., Gap Analysis) at the intersection of Sterling Mine Road and Sister Servants Lane/Eagle Valley Road. HDR understands that there is a potential 10 seconds per vehicle delay experienced between No Build and Build on the SB-L movement, however, the residents utilizing this intersection due to its close proximity to the interstate would continue to utilize this intersection and could require mitigation/improvements in the near future. In addition, the Build levels of service reported for this intersection in the sensitivity analysis table do not match the HCS sheets for that scenario. (For example, the southbound movement is LOS F during both the AM and PM peak hours on the HCS sheets in the Build sensitivity analysis scenario.)

*Response:*

- *The Radha Soami Society/Sister Servants development is no longer proceeding and was removed from the analysis. The original plan called for a proposed religious facility which would have been constructed on property owned by the Sisters Servants of Mary Immaculate. The development included the construction of a new church and ancillary buildings with a total of 750 parking spaces and accommodations for 3,000 attendees.*

- *The proposed left-turn lane on Sterling Mine Road (CR-72) was not included in the analysis since this was part of the Radha Soami development.*
- *Pages 21 through 23 of the revised “Traffic Impact Study” (FEIS Appendix F-1) describe the deterioration in LOS between the No-build and Build scenarios and states the following:*

*“Capacity analysis conducted utilizing the Year 2010 Existing Traffic Volumes indicates that the Eagle Valley Road (West) Southbound approach (minor movements) is currently operating at a Level of Service “E” during the Weekday Peak AM Hour and is currently operating at a Level of Service “D” during the Weekday Peak PM Hour. All other movements to the intersection are currently operating at a Level of Service “C” or better during these peak periods. A Level of Service “C” or better is also currently experienced on all approaches during the Saturday and Sunday Peak Hours.*

*“Capacity analysis conducted utilizing both the Year 2015 No-Build and 2015 Build Traffic Volumes indicates that a Level of Service “F” for the southbound left turn movement on Eagle Valley Road approach will occur during the AM and PM Peak Hours. All other approaches during these peak hours will operate at a Level of Service “C” or better. During the Saturday and Sunday Peak Hours it is expected that the Levels of Service experienced at this intersection will be similar to existing conditions.*

*“It should be noted that the presence of the traffic signal at the intersection of Sterling Mine Road (CR 72) and Long Meadow Road (CR 84) does provide some gaps in the traffic stream which benefits this condition. As discussed previously traffic data was collected along Sterling Mine Road by ATR machines over several days during April and May of 2010. This data included gap data. The machine was placed approximately 715 ft. east of the Sterling Mine Road/Long Meadow Road intersection. Based on this data, contained in Appendix “B” approximately 30% of the gaps passing this intersection are greater than 7 seconds. Note that based on the Exhibit 17-5 contained in Chapter 17 of the 2000 Highway Capacity Manual published by the Transportation Research Board the base critical gap for left turns from the minor street at an unsignalized intersection is 7.1 seconds. As an example, the gap data contained in Appendix “B” indicates that on May 13, 2010 during the AM Peak Hour (see 8:00 AM Hour in Table) there were 157 gaps of 7 seconds or more in traffic in both directions. As a result it is not expected that any mitigation will be required due to the additional traffic from the proposed Watchtower Development. It should also be noted that the increase in average vehicle delay of 8.5 to 9 seconds that will be experienced during the AM and PM Peak Hours under Build Conditions will only be experienced by the vehicles exiting (75 AM Peak Hour, 45 PM Peak Hour) from Eagle Valley Road southbound making both right and left turns onto Sterling Mine Road.”*

**99. HDR Comment 12—TIS, Section III, Subsection G (Results and Recommendations):**

General Note—Describe the supporting statements why the recommendations are necessary. (i.e. were there any preliminary studies indicating this such as a Signal Warrant, providing a jitney due to a growth in ridership by XX% from existing).

Response:

*As noted in Section III.G: Results and recommendations of the “Traffic Impact Study,” monitoring the intersection of CR-84 and NYS Route 17A for potential signalization in the future and the consideration of providing a jitney service from the site to the Metro-North Train Station are recommended as potential future improvements but are not necessary to mitigate any specific project impacts. The monitoring for mitigation recommendation was because the intersection currently experiences Level of Service E during the AM peak hour, which is expected to be maintained under No-Build and Build conditions. Since the Level of Service could be affected by other background traffic increases, this location was identified for future monitoring. Furthermore, if the transit usage of the site increases in the future, the jitney may make sense as an amenity available to the project residents, but is not needed for project-specific mitigation.—See FEIS Appendix F-1.*

**100. HDR Comment 13a—TIS, Section III, Subsection H (Sensitivity Analysis):**

General Note—Describe why a sensitivity analysis was conducted.

Response:

*The separate analysis conducted using the ITE Trip Generation Estimates was performed as a Sensitivity Analysis. This was presented for comparison only since trip generation rates will be consistent with those presented in the main section of the “Traffic Impact Study” given that these are based on actual experiences at other existing facilities operated by the Applicant.*

**101. HDR Comment 13b—TIS, Section III, Subsection H (Sensitivity Analysis):**

If it was necessary, describe the results of the analysis.

Response:

*The results of the Sensitivity Analysis are summarized on Table 2-A contained in Appendix G of the “Traffic Impact Study.” In general the results of the analysis are similar to those presented in the main section of the “Traffic Impact Study.”—See FEIS Appendix F-1.*

**102. HDR Comment 13c—TIS, Section III, Subsection H (Sensitivity Analysis):**

Table 1-A—Entry Volume Column (Residential Dwellings)—describe why the peak hour of Adj Street was used rather than the Peak Hour generator.

Response:

*In the Sensitivity Analysis, the peak hour of adjacent street traffic was used for the trip generation estimates because this represents the volume that will enter and exit the site coincident with the existing peak traffic hours of the adjacent roadway. In general for residential and office land uses, the peak hour of adjacent street traffic coincides with the peak hour of generator.*

**103. HDR Comment 13d—TIS, Section III, Subsection H (Sensitivity Analysis):**

Table 1-A—External Trips were calculated to have 60% office space and 40% residential drawings. This is inconsistent with Note 2 and what was mentioned in the TIS and DEIS. Clarify and revise text and analysis.

Response:

The calculations in Table 1-A are correct, however, Note 2 at the bottom of the table was revised to reflect the correct factors used.—See FEIS Appendix F-1.

**104. HDR Comment 14a—TIS, Overall General Comments:**

Construction Phasing or Activity was not described (i.e. the year or date when the construction would begin, the period of construction, how many truck trips would be generated due to construction, what routes they would take, etc.)

Response:

This information was included in DEIS Chapter 7, pages 7-10 and 7-11:

*“Construction Traffic*

*“Construction is proposed to begin upon completion of the permit process in 2012 and is anticipated to continue for approximately four years. Once underway, construction truck traffic will include between 30 and 50 trips per day for approximately 3.5 years. Truck traffic will be present for approximately 3 to 4 years and will include dump trucks removing excess site material, along with semi-flatbed and box trucks transporting construction materials. The majority of the trucks will travel on Long Meadow Road south from 17A. The others will travel Highway 17 to Sterling Mine Road (CR-72) to Long Meadow Road (CR-84).”*

**105. HDR Comment 14b—TIS, Overall General Comments:**

Appendix C should include field notes and/or plans containing field geometry, signal timing, manual counts.

Response:

Please see response to FEIS Bullet #78.

**106. HDR Comment 14c—TIS, Overall General Comments:**

Pedestrian and Bicycle activities should be included in the report.

Response:

This information was included in DEIS Chapter 7, page 7-11:

*“Pedestrian and Bicycle Traffic*

*“Provision will be made for bicycle parking at various locations throughout the site, although on-site bicycle traffic is expected to be minimal. Signage, speed tables, and striping will be provided to maintain low speeds (traffic calming) and to ensure pedestrian and vehicle traffic do not conflict. Pedestrian crosswalks will be provided to ensure safe and effective pedestrian travel.”*

**107. HDR Comment 14d—TIS, Overall General Comments:**

Describe any parking displacement or existing parking conditions.

Response:

As shown in DEIS Table 16-1, the existing site includes approximately 246 parking spaces. The Proposed Project will increase the number of parking spaces to 1,020, which will not result in any parking displacement.

**108. HDR Comment 14e—TIS, Overall General Comments:**

Describe any anticipated special events throughout the year and frequency of events of the site, if there are events, describe the change in overall traffic pattern and operations at the intersections.

Response:

*An analysis was conducted for special events and pages 27 and 28 of the revised "Traffic Impact Study" (FEIS Appendix F-1) state the following:*

*"A separate analysis was conducted to analyze the impact of these special events on the study area intersections. This analysis is contained in Appendix "H". Based on the arrival and departure data for these special events as provided by the Project Sponsor it is expected that the 9:00 AM to 10:00 AM period will be the peak period of trip generation for these special events. It should be noted that during this time the background traffic volumes on a Saturday are approximately 20% lower than during the Saturday Peak Hour which occurs between 12:30 PM and 1:30 PM. However, to provide a conservative analysis the Saturday Peak Hour background traffic volumes were assumed to coincide with the site's highest hour of trip generation during these special events. Thus, the operating conditions during the special events peak hour are expected to be better than what is depicted in the Special Events results analysis. Table 1-B contained in Appendix "G" summarizes the expected trip generation estimates of the site during the 9:00 AM to 10:00 AM Peak Hour for these special events. It should be noted that it was assumed there would be little or no exiting site traffic during this period however, for the analysis purposes it was assumed that approximately 10% of the entering traffic will also exit the site during the 9:00 AM to 10:00 AM hour. This accounts for any potential drop-offs to the site. For the Special Events condition analysis a total site trip generation of 342 vehicles (311 entering, 31 exiting) was used. Site Generated and Build Traffic Volumes for the Special Events scenario can be found on Figures No. 22B and 26B, respectively.*

*"The results of the analysis are summarized on Table No. 2-B contained in Appendix "H". In general, these results indicate that similar Levels of Service to the Saturday Peak Hour Build Scenario will be experienced."*

**109. HDR Comment 14f—TIS, Overall General Comments:**

The additional special event text does not provide a quantitative analysis. The study could assess the impacts of special events to determine if traffic mitigation is needed (such as off-duty police officers to direct traffic); however given only three Saturday events per year, a one-hour critical arrival window with 311 inbound vehicles, and dispersed departures, it may not be necessary to do a more detailed analysis.

**1/18/2012 HDR Comment:** Please confirm that the analysis was performed during the Saturday peak hour. Also, please explain how the Saturday Midday Peak period volumes were utilized in the future analysis during the event (especially if the peak hour of the event is outside the peak period when the data was collected. The explanation is unclear.

Response:

*Please see response to HDR Comment 14e in Bullet #108.*

*Based on these results, there is no need for additional traffic mitigation such as off-duty police officers to direct traffic during special events.*

**110. HDR Comment 15—TIS:**

Indicate the current land use of the facility. If the Watch Tower decides to sell the property, the trip generated may increase significantly under the tenant. As such a sensitivity analysis should be performed to better understand the full impacts of the proposed square footage of the building(s) and residential dwelling units. Furthermore, the sensitivity analysis should include a scenario without an internal trip generation credit or at a minimum utilize the trip generation credit based upon the ITE Trip Generation Manual.

Response:

*The land is not currently used and has not been in use for several years. Its last use was as an office/research/laboratory facility. The land use of the proposed facility does not directly correspond to ITE land uses. However, a sensitivity analysis was done which accounts for the unique use of this development as explained in the response to HDR Comment 2 in Bullet #63. The analysis shows that there is negligible difference in the levels of service regardless of the method of analysis chosen.*

*The Applicant is not a for-profit developer; thus, development of this property is not being accomplished with the intent of selling it. Furthermore the proposed development is specific to live-work/residence-office environment. It would be a reasonable assumption that any sale to another user would either be for a similar arrangement, or the purchaser would have to completely redevelop the facility, requiring another environmental review and a new traffic analysis. If the property were sold, it cannot be determined what future tenants may do with it.*

*Chapter 7, “Multi-Use Development,” of the “ITE Trip Generation Manual” (see FEIS Appendix F-2) provides a procedure for calculating trips generated by multi-use developments. When applying this procedure, the following items should be noted:*

- Section 7.1 states that for multi-use sites where trips can be made by walking, “the total generation of vehicle trips entering and exiting the multi-use site may be reduced from simply a sum of the individual, discrete trips generated by each land use.”*
- The document further states in Section 7.5: “The procedure does not take into account a number of key variables that are likely to affect the internal capture rate, such as proximity of on-site land uses (and pedestrian connections between them)...The analyst is encouraged to exercise caution in applying the data presented herein because of the limited sample size and scope....The analyst is also encouraged to make logical assumptions in his/her use of this procedure. In summary, use good professional judgment.”*
- Furthermore Tables 7.1 and 7.2, which provide internal capture rates, include the following cautionary note: “The estimated typical internal capture rates presented in this table rely directly on data collected at a limited number of multi-use sites in Florida. While ITE recognizes the limitations of these data, they represent the only known credible data on multi-use internal capture rates and are provided as illustrative of typical uses. If local data on internal capture rates by paired land use can be obtained, the local data may be given preference.”*

*As stated on DEIS page 7-6:*

*“The live-work arrangement employed by the Project Sponsor allows residents to walk to their work locations using either the tunnels connecting the buildings or outside sidewalks.”*

*Thus, the procedure outlined in Chapter 7 of the "ITE Trip Generation Manual" cannot be directly applied to the Applicant's facility without first accounting for this fact. Local data was collected at the Applicant's Patterson, NY, facility, which employs the same live-work arrangement. Therefore, as recognized by the ITE procedure, this data was given precedence in the sensitivity analysis. Therefore, performing a sensitivity analysis without an internal trip credit or using only the internal credit provided in the ITE tables would not be indicative of how the facility will operate, nor would it reflect "good professional judgment" or make use of "local data."*

**111. HDR Comment 16—TIS:**

There was not a discussion about any possible access improvements to Sterling Mine Road; the Applicant should clarify if any site access improvements (such as turn lanes) are required by the County due to speed, functional class, and volume.

Response:

*Turn lanes at the site access have not been recommended since the traffic volumes at the intersection do not meet warrants for a turn lane. However, the installation of "stop" signs and stop bars was recommended on the site access approach as well as new double yellow centerline along Long Meadow Road (CR-84) where the double yellow centerline is currently faded.*

*Additionally, the Applicant will contact the Orange County Department of Public Works for input on the proposed access during the Site Plan Approval and as part of the Highway Work Permit process and complete any improvements at the site access as necessary.*

**112. Orange County Department of Planning Comment 2—TIS:**

We advise that the County Department of Public Works will be needed to give their input regarding the Traffic Impact Study, as the project takes access from a County road. We will be conducting further review of the traffic study when we receive the project through the GML 239 referral process.

**1/18/2012 Greenplan Comment:** On page 2-38 under the Response to Comment 96, the text should be changed to "The Planning Board will undertake a GML 239 referral to the Orange County Department of Planning once the SEQR review process has been concluded. The Planning Board will also coordinate with and will require that the Orange County Department of Public Works issue an approval for the site accesses on County Route 84 prior to the granting of Site Plan and Special Use Permit approval following completion of the SEQR review process."

Response:

*The Planning Board will undertake a GML 239 referral to the Orange County Department of Planning once the SEQR review process has been concluded. The Planning Board will also coordinate with and will require that the Orange County Department of Public Works issue an approval for the site accesses on County Route 84 prior to the granting of Site Plan and Special Use Permit approval following completion of the SEQR review process.*

## **DEIS Chapter 8: Community Services & Facilities**

### **113. Greenplan Comment 6—Chapter 8:**

Please discuss whether the access gates to the secondary access driveway will be locked and if so, how they would be opened in an emergency.

*Response:*

*Electronic lift gates will be provided for emergency access. The lift gates will be monitored 24 hours a day from the central desk.*

### **114. HDR Comment 1—Chapter 8, Table 8-1:**

Add distances to the parks in the table.

*Response:*

*Distances have been provided in the table below:*

**Revised DEIS Table 8-1 Existing Park and Recreation Facilities**

<b>Name of Facility</b>	<b>Location</b>	<b>Facilities Offered</b>	<b>Size (acres)</b>	<b>Distance from Project Site (miles)</b>
<b>Neighborhood and Community Parks</b>				
Warwick Town Park / Union Corners Park	Union Corners Road	Pavilions, golf course, baseball diamonds, soccer fields, playground equipment	47.9	24.0
Union Corners Sports Complex	Union Corners Road	Six multi-use fields, little league fields	64.3	24.0
Pine Island	Kay Road at Treasure Lane	Baseball fields, basketball court, playground, tennis court, and fitness station	4.8	21.8
Airport Park	Airport Road	Playground area, basketball courts, baseball diamond	4.4	19.2
<b>Lakes and Beaches</b>				
Sterling Forest Lake (Blue Lake)	Beech Rd	Non-motorized boating	115	1.6
East Shore Beach	Gamache Lane	Pavilion, playground equipment, beach with swimming area, volleyball courts	38	13.9
Wickham Lake	Off County Route 13	Fishing , boating, beach area	13	19.2
<b>Natural Resource Areas</b>				
Cascade Park	Cascade Lake Road	Fishing, picnicking, nature trails, natural area	504	20.0
<b>County , State, and Nationally maintained park lands within the Town of Warwick</b>				
Hickory Hill County Park	Off Route 17A	Picnic area, baseball fields, 18-hole golf course	708.5	18.4
Sterling State Forest	Southern tip of Town, accessible via Route 84 in the Town of Tuxedo	Fishing, biking, hunting, hiking, boating, natural trails	17,988, 8,668 within Town of Warwick	3.2
Wallkill River National Wildlife Refuge	Southwest portion of the Town	Nature trails, wildlife observation, fishing, canoeing	4,800,222 within Town of Warwick	30.4

Sources: Town of Warwick web site, Town Recreation Plan, and Greater Warwick Orange County, New York Final Park and Recreation Map by Laberge Group.

**115. HDR Comment 2—Chapter 8, Table 8-1:**

Section D suggests that Blue Lake may be used for non-motorized boats. Add this resource to Table 8-1, including a distance to the public access. It does not appear that any access to Blue Lake will be provided from the Watchtower site.

Response:

Blue Lake was added to Table 8-1 including a distance to the public access. The table is included in the response to HDR Comment—Chapter 8, Table 8-1 (see Bullet #114). No public access to Blue Lake will be provided from the Applicant's site.

**116. HDR Comment 3—Chapter 8, Section D, Recreation:**

Suggest listing the comparison of the suggested amount of recreation and the proposed amount provided. Suggest similar comparison for all of the alternatives, Chapter 16.

Response:

Table 16-1 was revised to include recreation estimates and is provided in the response to Chapter 16, Comment 1.—See Bullet #143.

**DEIS Chapter 9: Infrastructure & Utilities—Wastewater Management**

**117. HDR Comment 1—Chapter 9, Page 9-2, last paragraph:**

Provide minimum sewer slope to be used. Design must ensure that an appropriate slope is used so that required pipe flow capacity and minimum velocity 2 feet per second recommended in Section 33.41 of the Ten State Standards for Wastewater Facilities are met.

Response:

The gravity sewer main is proposed to be 8 inches in diameter, or larger where required in the downstream portions. A minimum slope of 0.4 percent may be used, or steeper where required to provide flow capacity, or a minimum velocity of 2 feet per second.

**118. DEC Comment 7—Chapter 9:**

The Blue Lake Sewage Treatment Plant is the proposed receiver of wastewater. This system is currently permitted under SPDES permit NY 002 8827 as a private/commercial/institutional discharge. While the system is capable of handling the volume of waste proposed, the following must be addressed:

The proposal includes a Vehicle Maintenance Building. Industrial Wastewater from vehicle maintenance activities, like car washing operations, is prohibited from connection to the sanitary sewer for the Blue Lake Sewage Treatment Plant without modification of United Water's Blue Lake Sewage Treatment Plant SPDES permit. Either United Water must modify their permit to accept industrial discharges or Watchtower must obtain an individual SPDES industrial discharge permit. Vehicle maintenance wastewater is not eligible for coverage under the Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity, GP-0-06-002.

Response:

The Applicant will not discharge industrial wastewater from the car washing activities to the Blue Lake Wastewater Treatment Plant (STP). The Applicant will recycle the wastewater to the extent possible, and collect the balance for removal by an approved hauler to an approved disposal location.

**119. DEC Comment 9—Chapter 9:**

United Water must own or be responsible for the maintenance of the collection system (gravity sewer, pump station and force main). The Department needs the proof that this agreement is in place. Otherwise, a sewage works corporation must be formed for the ownership of the system.

*Response:*

*The Applicant will own, operate, and maintain the portions of the collection system located on its private property, with the exception of the pump station and force main. The Applicant will construct the pump station and force main and transfer ownership to United Water. If, as currently proposed, the pump station and force main are to be constructed on the Applicant's property as shown on the Site Plan (see Drawing C-006 in Appendix M of the DEIS), then United Water will be granted access to the pump station and force main through a written agreement. A copy of any agreement made with United Water regarding the sewer collection system will be provided to DEC by the Applicant along with the wastewater engineering report and sewer extension plans and specifications.—See response to DEC Comment in Bullet #120.*

**120. DEC Comment 10—Chapter 9:**

The engineering report, plans and specifications for the sewer extension must be submitted to the Department for review and approval.

*Response:*

*The Applicant will submit to the DEC the engineering report, plans, and specifications for the sewer extension per Part 750-2.10 of the DEC regulations.*

**DEIS Chapter 10: Infrastructure & Utilities—Water Supply**

**121. DEC Comment 11—Chapter 10:**

The Blue Lake Water Public Supply, operated by United Water of New York, is the proposed source for this project's water supply needs. Some, but not all, of the subject parcels are within the Blue Lake Water Supply District, therefore United Water of New York must obtain a Water Supply permit pursuant to Article 15, Title 15 of the ECL and 6 NYCRR Part 601 for the service of this development.

*Response:*

*The Applicant received an e-mail dated May 30, 2012 from Rebecca Crist of the NYS DEC stating:*

*“Aparna [Roy] has reviewed the United Water information and determined that per the revised, consolidated permit for UW, no additional permits are required for the supply of water to Watchtower by UW.”*

**DEIS Chapter 11: Infrastructure & Utilities—Solid Waste**

**122. DEC Comment 14—Chapter 11:**

The proposed on-site recycling facility is not subject to regulation under Article 27, Title 7 of the ECL and 6 NYCRR Part 360, Solid Waste. The proposal appears to be consistent with Orange County source separation laws. Given the fairly large proposed residential population, the Department recommends consideration of a food composting facility.

Response:

The Applicant is proposing a simplified approach to the previously proposed Waste Separation Facility. Recyclables will be separated from solid waste in accordance with Orange County Local Law No. 2 of 1989. Cardboard, paper, bottles, and cans will be consolidated into one recycling stream with a pick-up frequency of two to three times per month. The Applicant will enter into an agreement with an organization that will separate recyclables into their components off-site thereby reducing the Proposed Project's impervious area by approximately 12,300 square feet (0.28 acres).

The Applicant considered the possibility of conventional composting on-site; however, due to the presence of bears and other scavenger wildlife it was seen as impractical. As an alternative, the Applicant is investigating other processes for the disposal of food scraps. Options include grinding the food waste and discharging it into the wastewater system for treatment and digestion at the Blue Lake Wastewater Treatment Plant (STP). Another option evaluates chopping up the waste, dewatering it, and disposing of it in the municipal solid waste compactor where it will be transported to a landfill. The extracted liquid would be discharged into the wastewater system. This option greatly reduces the volume of the disposed food waste. Discussions with the Blue Lake Wastewater Treatment Plant (STP) are ongoing to determine the viability of these options.

## **DEIS Chapter 12: Fiscal Resources**

### **123. Greenplan Comment 7—Chapter 12:**

Chapter 12 states that all seven parcels have received full exemption under Section 420-a of the Real Property Tax Law, and that Tables 12-1 and 12-2 describe the current valuation and taxes paid to each jurisdiction (a total of \$9,863.86 in 2010). The fiscal analysis should clarify whether these "current" taxes will continue to be paid if all seven parcels are "wholly exempt from taxes beginning in 2010," as noted in the Town assessor's letter dated August 23, 2010 (Appendix A-11).

Response:

The "current" taxes will not continue to be paid. The taxes shown as paid in DEIS Tables 12-1 and 12-2 relate to taxes for tax periods preceding the application for exemption, during which time the three parcels were not exempt. The Applicant's first exemption on those three parcels was for the 2010 tax year. The tax year for the county and town runs from January 1 to December 31 and for the school district from July 1 to June 30.

## **DEIS Chapter 13: Visual Character**

### **124. Greenplan Comment 8—Chapter 13:**

In the first paragraph of the Property Description on page 13-1, the acreage figures do not total 253, and do not correspond to the description of the subject property in other sections of the DEIS, such as on page 6-2.

Response:

The correct property description is included below:

The Project Site is approximately 253 acres in the Town of Warwick and is divided into two tracts: one tract northeast and one tract southwest of Long Meadow Road (CR-84) (see DEIS Figure 2-1, "Regional Location Map"). In addition, the tract northeast of Long Meadow Road (CR-84) is traversed by a portion of Old Sterling Mine Road as well as by a portion of Ringwood Brook.

*Approximately 7.8 acres of the site are meadow/brushland; 225.1 acres are forest; 4.42 acres are wetland (1.05 on the southwest side of Long Meadow Road (CR-84) delineated by PS&SPC and 3.37 acres on the northeast side of Long Meadow Road (CR-84) shown on the National Wetlands Inventory); 6.8 acres are roads, pavement, structures, and other impervious surfaces; and 8.9 acres are landscaped area.*

**125. Greenplan Comment 9—Chapter 13:**

Proposed method of lighting the entrance site identification sign should be discussed.

*Response:*

*The entrance sign will be illuminated in accordance with the requirements of §164-43.1 of the “Town of Warwick Code.”*

**126. Greenplan Comment 10—Chapter 13:**

Methods to protect existing vegetation in areas to be preserved, as identified on Sheet L-001 (Landscaping Plan), should be discussed.

*Response:*

*A “Tree Preservation Plan,” along with tree protection details, is included in FEIS Appendix L. Existing vegetation to be preserved will be protected by orange mesh barrier installed around individual and groups of trees.*

**127. Greenplan Comment 11—Chapter 13:**

The assertion that the proposed 25' high lighting poles for roadways and parking lots will be lower than the general height of the on-site tree canopy should be substantiated. The Town’s outdoor lighting regulations permit a maximum allowable height of a freestanding luminaire of 16 feet above the average finished grade. Exceptions to the maximum height limitations up to 25 feet above the average finished grade may be made when it can be demonstrated that glare to off-site locations will not occur with such higher fixture.

**1/18/2012 Greenplan Comment:** The applicant has prepared plans for entranceway lighting that involve light fixtures up to 25 feet high. The Zoning Law limits light fixtures to 16 feet high and so the applicant has requested a waiver of this requirement. The purpose of the waiver is to permit fewer light fixtures to be installed since height affects light distribution and the lower the light fixtures, the more poles are required to obtain adequate light levels. The most visible light fixtures will be those at the entrance to the facility on Sterling Lake Road [Long Meadow Road] (County Route 84). If the Board is considering the grant of a waiver from the light fixture height requirement, (since as we discussed, more light fixtures affects energy use), my suggestion is to require that the three light poles proposed at the site entrance not be waived since these will be the light fixtures that will be most visible from a public road. They are clearly visible on Figure 13-31 in the FEIS. The remainder of the light fixtures appear as if they will be substantially hidden by the mature trees that exist on the site. I have marked up a copy of the Site Lighting Plan to illustrate the fixtures that have been proposed by the applicant for a waiver. The Board should discuss if there is consensus on this issue.

Response:

*The Applicant will no longer be pursuing a variance for lighting heights. On-site lighting poles will not exceed 16 feet in height. Decreasing the lighting pole height from 25 feet to 16 feet resulted in seven additional lighting fixtures across the entire site. A photosimulation of the entrance showing the 16-ft-high lighting poles is provided in Figure 13-31 below. Based on a survey performed by the Applicant, the on-site tree canopy ranges between 55 and 70 feet in height. As can be seen, the 16-foot lighting poles are significantly lower than the existing tree canopy. Full cut-off fixtures will be provided to prevent glare to off-site locations.*





**Figure 13-31 Photosimulation of Proposed Project Entrance**



**128. HDR Comment 1—Chapter 13:**

Provide sample images of the rooftop platforms for cellular/two way radio and dish-type receiver.

*Response:*

*Sample images are provided below as Figures 13-32, 13-33, and 13-34:*





**Figure 13-32 Rooftop Platform for Cellular/Two-Way Radio Receiver—Single Mast**



**Figure 13-33 Rooftop Platform for Cellular/Two-Way Radio Receiver—Two Mast**





**Figure 13-34 Rooftop Platform for Dish-Type Receiver (Source: [www.SolidSignal.com](http://www.SolidSignal.com))**

**129. HDR Comment 2—Chapter 13, Figures 13-14 and 13-16:**

Landscaping shown does not match that illustrated on the landscape plan. There seems to be a significant amount of trees filling in the corner, when the plans show all landscaping behind the existing storm drain outlet. Are these trees in the right-of-way? Do these plants affect the storm drain outlet in this location.

*Response:*

*Figures 13-14 and 13-16 were revised to match the “Landscaping Plan” and are shown below. (See DEIS Drawing L-001 in Appendix L.) These revised photosimulations show all landscaping behind the existing storm drain outlet and out of the right-of-way. Plantings will not block the storm drain outlet in this location.*



**Revised Figure 13-14 Viewshed Photosimulation—Location #1, Winter Condition**



**Revised Figure 13-16 Viewshed Photosimulation—Location #1, Summer Condition**



**130. HDR Comment 3—Chapter 13, Figures 13-14 and 13-16:**

Applicant to clarify if the center island is anticipated to be visible from this location.

*Response:*

*The center island is not anticipated to be visible from the location shown in Figures 13-14 and 13-16.*

**131. HDR Comment 4—Chapter 13, Figure 13-16:**

It appears that there is a light pole, or something similar along the north side of the road, is this correct? Lighting Plan shows light pole in the center island. The same pole is not in Figure 13-14 or 13-18.

*Response:*

*The revised “Site Lighting Plan,” included in FEIS Appendix I-3, is correct in showing the light pole in the center island. Figures 13-14, 13-16, and 13-31 were revised accordingly. (See Bullets #127 and #129.) Figure 13-18 was also revised and is shown below:*



**Revised Figure 13-18 Viewshed Photosimulation—Location #2, Winter Condition**



**132. HDR Comment 5—Chapter 13, Figure 13-24:**

Much of the landscaping illustrated in the simulations looks to be fairly mature. Applicant to clarify how many years to achieve this amount of screening. Consider showing Conditions closer to construction growth.

*Response:*

*As shown in the “Tree Preservation Plan” (Drawings L-002, L-003, and L-501) in FEIS Appendix L, the trees along the shore of Blue Lake will be preserved and protected during construction. Additional tree planting is not anticipated along the shore of Blue Lake; thus, Figure 13-24 has been revised to show only existing trees along Blue Lake.*



**Revised Figure 13-24 Viewshed Photograph—Location #5, Winter Condition**



**133. HDR Comment 6—Chapter 13:**

It is stated that the site plan preserves as much existing vegetation as possible. The methods proposed to be used (i.e. provide tree protection details, soil preparation, avoidance of soil compaction) should be clarified.

*Response:*

*Tree protection details are provided on Sheet L-501 (see FEIS Appendix L) and include construction fencing around protected vegetation as well as posted signs identifying the "Tree Protection Area."*

*All disturbed areas that are to remain as pervious areas will have the soil prepared as outlined by NYSDEC "Deep-Ripping and Decomaction," April 2008.*

**134. HDR Comment 7—Chapter 13:**

The Landscape Design section should note anticipated, typical soil preparation for planted areas within disturbed areas (i.e. topsoil, organic matter supplements, soil preparation from construction compaction).

*Response:*

*Soil in disturbed areas will be prepared as described in NYSDEC "Deep-Ripping and Decomaction," April 2008. Additionally, areas to be reseeded will be raked smooth and large stones will be removed.*

*Tree and shrub planting will include a two-inch mulch layer; planting soil will consist of one-third sand, one-third topsoil, one-third peat moss, mycorrhizal fertilizer placed per manufacturer's instructions and fertilizer briquettes.*

*Perennial planting will include a two-inch mulch layer; planting soil will consist of four parts topsoil, two parts peat moss, one part aged manure, and mycorrhizal fertilizer placed per manufacturer's instructions.*

*Groundcover planting will include a six-inch-deep planting bed consisting of three parts topsoil and one part peat moss or compost and mycorrhizal fertilizer placed per manufacturer's instructions.*

**135. HDR Comment 8—Chapter 13:**

Town Code §164-43.4 requires certain lighting levels: For parking lots with low activity, levels are as follows: 0.8 average illumination, 0.2 minimum, and 4:1 uniformity ratio. Local road illumination of 0.3 - 0.8 average and 6:1 uniformity ratio.

a. Add uniformity ratio to Table 13-3.

b. The minimum of 0.01 foot-candles for pedestrian walkways is not sufficient. Placement of bollard lighting should maintain adequate pedestrian walkway illumination while not creating glare for drivers on adjacent roadways.

c. As the lighting plan may change during site plan approval process, provide design minimums, averages and uniformity ratios to be maintained.

**1/18/2012 HDR Comment:** d. Table 13-3 provided and the tables on Sheet ES101 are not the same. Please update. Lighting levels from the Town Code §164-43.4 should be adhered to for local roads and building entrances.

Response:

- a. *The uniformity ratio was added to Table 13-3, which is included below.*
- b. *The minimum foot-candles were increased by adding bollards to the pedestrian walkways. Shielded round bollards will be used to prevent roadway glare.*
- c. *The revised “Site Lighting Plan” on Sheet ES101 includes a table with the design minimums, averages, and uniformity ratios.—See FEIS Appendix I-3.*
- d. *Table 13-3 has been updated to match the table on Sheet ES101. Lighting levels shown in Town Code §164-43.4 are adhered to for local roads and building entrances.*

Revised DEIS Table 13-3 Lighting Design Calculations Summary in Foot-Candles (fc)

Location	Definition	Std. Value Design			Calculated Values				
		Uniformity Ratio	Avg (fc)	Min (fc)	Avg (fc)	Max (fc)	Min (fc)	Uniformity Ratio (Avg-to-Min)	Uniformity Ratio (Max-to-Min)
Local Road—Main Entrance	Low Activity Level	6:1	0.5	0.3	1.69	3.83	0.27	6:1	N / A
Local Road—Residential	Low Activity Level	6:1	0.3	0.2	0.60	6.76	0.10	6:1	N / A
Open Parking	Low Activity Level	4:1	0.5	0.2	0.64	3.64	0.16	4:1	N / A
Walkway Adjacent To Driveway	Low Activity Level	4:1	0.5	0.2	0.66	4.00	0.16	4:1	N / A
Walkway Distant From Driveway	Low Activity Level	4:1	0.5	0.2	1.88	4.63	0.45	4:1	N / A
Building Entrance—Active	Pedestrian and/or Conveyance	N / A	5	N / A	5.49	N / A	N / A	N / A	N / A
Building Entrance—Inactive	Infrequently Used	N / A	1	N / A	2.62	N / A	N / A	N / A	N / A
Recreational Areas	Exclusively Social Recreation	4:0	20	N / A	21.8	43	5.24	N/A	4:1



**136. HDR Comment 9—Chapter 13:**

Building entrances are required to have 5 foot-candles at active entrances and 1 foot-candle at inactive entrances.

**1/18/2012 HDR Comment:** These levels should be noted in Table 13-3, along with all design standards for minimums, averages and uniformity ratios. These levels should also be noted on the Site Plans. It is stated that wallpack fixtures will be included on the building for the entrances. These fixtures should be included on the photometrics plan.

**Response:**

*Active and inactive building entrances will be equipped with U2 wall-mounted fixtures over the door. See revised "Site Lighting Plan" in FEIS Appendix I-3. Please note that the "Site Lighting Plan" in FEIS Appendix I-3 replaces DEIS Figures 13-29 and 13-30. Fixtures will be of adequate wattage to provide a minimum of 5 foot-candles at active entrances and 1 foot-candle at inactive entrances. These levels are noted in revised Table 13-3 (see Bullet #135) and the fixtures are included on the revised photometrics plan (i.e., "Site Lighting Plan" in FEIS Appendix I-3).*

**137. HDR Comment 10—Chapter 13, Page 13-24, Paragraph 1:**

Page 13-24, first paragraph references Figure 2-6 as SWBP and 700' Ridgeline Overlay District. That is not the case, please update.

**Response:**

*The correct reference is Figure 2-13 "Southern Wallkill Biodiversity Plan (SWBP) and 700-foot Ridgeline Overlay District."*

**138. HDR Comment 11—Chapter 13, Page 13-24, Paragraph 1:**

Architectural Renderings in Section 2 should be referenced in the Visual Section, as they represent the architectural style of the buildings. Applicant should provide references to the renderings for the parking garage and residence building.

**Response:**

*Figure 2-9 Architectural Rendering—Administration Offices/Services Courtyard View and Figure 2-10 Architectural Rendering—Administration Offices/Services Lakeside View are reproduced in this FEIS for the benefit of those reading Chapter 13, "Visual Character." These renderings were previously provided in Chapter 2 of the DEIS, but were not referenced in Chapter 13. Newly provided renderings of the residence building and parking garage are included as Figures 13-35, 13-36, and 13-37.*





**Figure 2-9 Architectural Rendering—Administration Offices/Services Courtyard View**



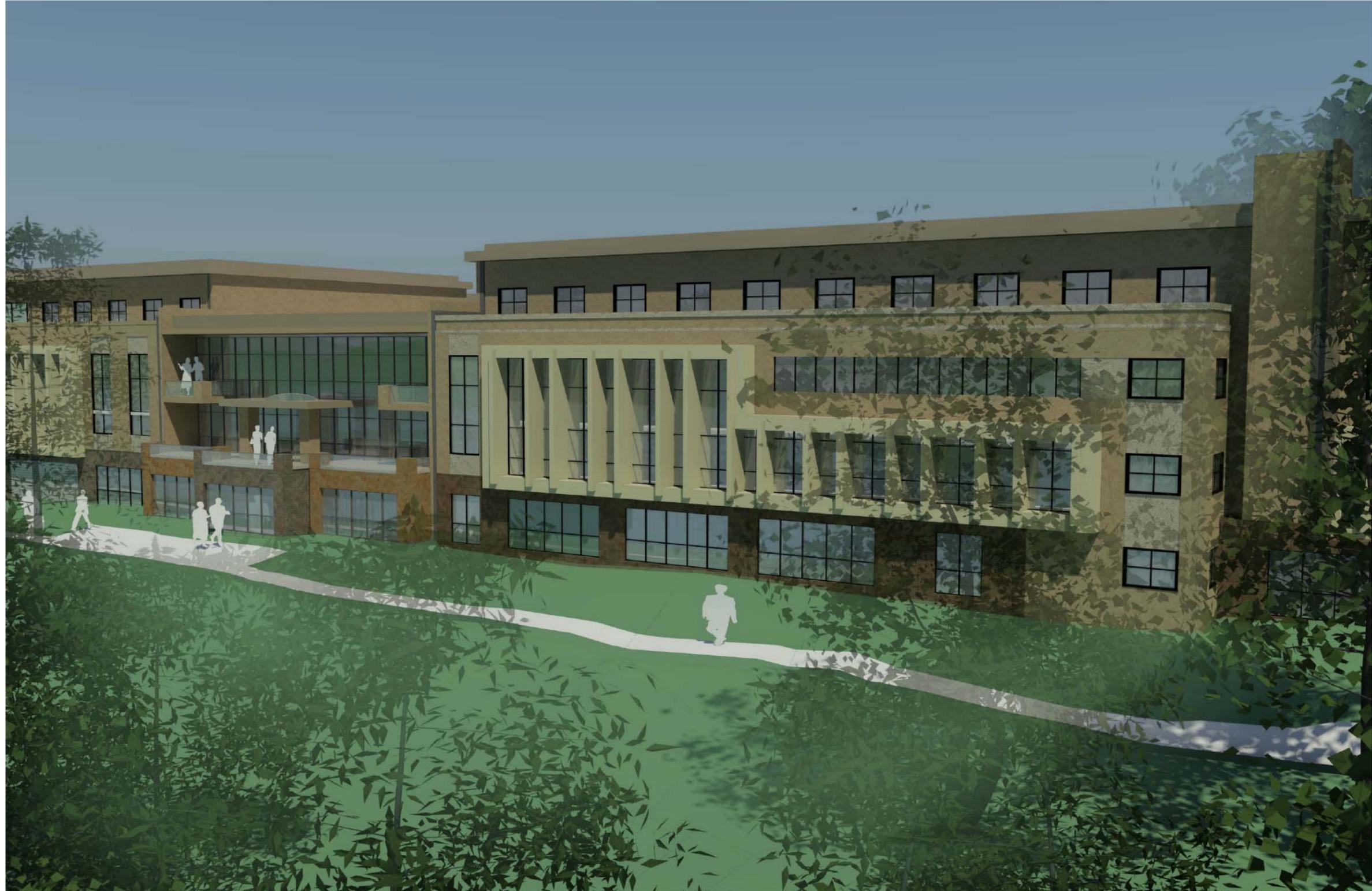


Figure 2-10 Architectural Rendering—Administration Offices/Services Lakeside View





**Figure 13-35 Architectural Rendering—Residence Building Roadside View**





**Figure 13-36 Architectural Rendering—Residence Building Lakeside View**





Figure 13-37 Architectural Rendering—Parking Garage



**139. HDR Comment 12—Chapter 13, Page 13-45:**

Statement that IBM site employees and visitors are present during daylight hours is incorrect. Winter conditions would include darkness during a typical work day.

*Response:*

*Site lighting is proposed to utilize full cut-off fixtures for the following areas of the Proposed Project: roadways and parking, pedestrian walkways and spaces, service areas, building entrances, main site entrance, and outdoor recreation area. The effect of the proposed site lighting, including internal building lighting, may result in increased visual impact within a limited viewshed above existing site conditions, or conditions that existed previously at the INCO facility. As discussed above, the viewshed of the Project Site is limited by topography and vegetation to the Blue Lake basin. Within this area there are three primary receptors which will be impacted by the proposed site lighting. These are the private IBM facility on the northeast side of Blue Lake, woods roads within Sterling Forest State Park within the Blue Lake basin, and the public boat launch located at the north end of Blue Lake. Considering that the boat launch is substantially used for daytime recreational activities, the impact of proposed site lighting on recreational users within the viewshed will be minor. The majority of IBM employees and visitors use will be during daylight hours in the summer. In winter conditions the complex has its own site lighting that will provide a more significant visual site lighting impact than the Proposed Project during typical working hours. Therefore, the visual impact to their facility will be minimal.*

**140. 1/18/2012 HDR Comment 13—Chapter 13:**

Free-standing lighting [lighting] fixtures over 16-ft will require a variance from the ZBA. The Planning Board should refer this to the ZBA with a recommendation requesting where on the site the lighting fixtures are allowed to exceed 16-ft (i.e., at the entranceway, shorter lighting fixtures may want to be used to reduce/avoid glare.

*Response:*

*Please see response to FEIS Bullet #127.*

**DEIS Chapter 14: Cultural, Historic, and Archaeological Resources**

**141. Greenplan Comment 12—Chapter 14:**

..., one important issue will need to be addressed by the applicant and Planning Board before the FEIS review process can be concluded as follows:

The Applicant has completed a Phase 1A Archaeological Investigation of the Area of Potential Effect (APE) on the site. The Phase 1A recommends that a Phase 1B be completed to determine impacts and that the Phase 1B report should then be reviewed by the New York State Office of Parks Recreation and Historic Preservation prior to finalization of the proposed Site Plans in order to determine significance. The applicant has committed to completion of the Phase 1B but wishes to await the outcome of the Final Site Plans. This strategy would contravene the intent of SEQR. According to Matthew Bender Publishing Company's Environmental Impact Review in New York "EISs for projects that affected archaeological resources have been annulled. An EIS that deferred identifying and evaluating archaeological impacts until the final design phase failed to show a "hard look" at the impacts.<sup>373.1</sup>" [For footnote 373.1 see County of Orange v. Village of Kiryas Joel, 2005 NY Slip Op 52270U, N.Y.L.J., October 27, 2005, at 20, col. 1 (Sup. Ct. Orange Co.)].

See bullet above for comment on the sufficiency of the Phase 1A Archaeological investigation to assess impacts on historic and cultural resources.

Response:

*The “Phase 1B Archaeological Investigation” was submitted on August 25, 2011, by Doctor Eugene J. Boesch and is included as FEIS Appendix J-3. The report recommended additional investigation of a potentially historic road. This investigation was conducted and documented in the “Phase II Archaeological Investigation,” which is also included as FEIS Appendix J-4. On page 7 of the Phase II report, Section 3.2 “Recommendations,” states the following:*

*“No additional archaeological investigations are recommended for the proposed sunken road. In addition, the previously completed Phase IB investigation did not identify other potentially significant archaeological sites within the APE. Accordingly, based upon the results of the two investigations, no additional archaeological studies are warranted for the Jehovah’s Witnesses World Headquarters project’s APE.”*

**142. DEC Comment 22—Chapter 14:**

This property lies within an area identified by the New York State Historic Preservation Office (SHPO) as having the potential for containing archaeological resources. While it appears that a cultural resource survey has been completed, a final determination of impact by SHPO will be a requirement of DEC approvals pursuant to Uniform Procedures.

Response:

*The Applicant received written confirmation from the New York State Historic Preservation Office that their project “will have No Impact upon cultural resources in or eligible for inclusion in the State and National Register of historic Places.”—See Appendix J-5, NYS OPRHP letter dated April 16, 2012.*

**DEIS Chapter 16: Alternatives**

**143. HDR Comment 1—Chapter 16, Section 11, Page 11-1:**

Section 11, page 11-1 states 2008 EPA average of solid waste is 4.5 pounds per capita per day. 2009 rates were 4.34 (of which 1.46 is recycled) pounds per capita per day. Updated figures and sources should be used. Table 16-1 should note average pounds per capita per day used in calculations.

**1/18/2012 Greenplan Comment:** The footnote 6 in the Revised DEIS Table 16-1 on page 2-77 of the FEIS needs to be corrected.

Response:

*The 2009 EPA rate was used and DEIS Table 16-1 was revised and is provided below. Please note that footnote 6 is correct, but the recreation amounts for the Proposed and Low-Height Alternative were corrected to match the values promulgated by the Urban Land Institute.*

Revised DEIS Table 16-1 Summary Comparison of Alternatives

Areas of Potential Impact	Proposed Project	No-Action/Reoccupy by Similar User Alternative	Educational Facilities Alternative	Low-Height Alternative	As-of-Right Alternative
<b>Land/Demographics</b>					
Population, Employees, Students	1,000 residents	440 employees <sup>(1)</sup>	1,500 students + 260 staff	1,000 residents	113 residents
Area of Disturbance (Total)	45 acres	15 acres <sup>(2)</sup>	102 acres	59 acres	65 acres
Disturbance of Slopes 15–25%	2 acres	0 acres	26 acres	13.7 acres	14 acres
Disturbance of Slopes >25%	0.5 acres	0 acres	5 acres	3.4 acres	3.8 acres
Impervious Surface	13.0 acres	6.8 acres	31.7 acres	31 acres	25.7 acres
<b>Buildings</b>					
Total Building Area (except parking)	1,140,200 sq ft	198,000 sq ft	706,000 sq ft	1,140,200 sq ft	80,000 sq ft
Total Covered Parking Area	341,000 sq ft	None	None	None	None
Maximum Height	60 ft or less	50 ft or less	60 ft or less	40 ft or less	35 ft or less
Minimum Distance to Public Road	330 ft	1,380 ft	980 feet	429 ft	150 ft
Parking Spaces	870 (garage), 1,020 (total)	246	1,370	630 (garage), 1,020 (total)	None
<b>Infrastructure and Utilities</b>					
Water	85,000 gpd	Unknown	144,000 gpd	85,000 gpd	13,750 gpd
Wastewater	80,000 gpd	45,000 gpd <sup>(3)</sup>	130,000 gpd	80,000 gpd	13,750 gpd
Stormwater	Underground stormwater chambers @ 26,500 cu ft	No detention; all runoff into Blue Lake	6 detention basins @ 560,000 cu ft	1 detention basin @ 318,500 cu ft	Unknown
Solid Waste	427 tons/year—disposed 183 tons/year—recycled	228 tons/year - disposed <sup>(4)</sup> 116 tons/year - recycled	912 tons/year—disposed <sup>(4)</sup> 462 tons/year—recycled	427 tons/year—disposed 183 tons/year—recycled	58 tons/year—disposed <sup>(4)</sup> 30 tons/year—recycled
Electricity	2,100 kVA	Unknown	Unknown	Unknown	500 KVA <sup>(5)</sup>
Heating Fuel	Geothermal with boilers or Conventional Fuel Oil Boilers w/ heat input = 48.5 million Btu/hr	Conventional Fuel Oil Boilers w/ heat input = 40 million Btu/hr	Unknown	Geothermal with boilers or Conventional Fuel Oil Boilers w/ heat input = 48.5 million Btu/hr	Residential installations using natural gas or heating oil
<b>Community Services</b>					
Police, Fire, and Ambulance	Minimal	Minimal	Minimal	Minimal	Minimal
Recreation <sup>(6)</sup>	<p><u>Provided:</u> 70,000 sq ft of outdoor tennis, volleyball, and basketball courts; several miles of walking trails; 24,200 sq ft of indoor weight/exercise room(s), an aerobics room, an indoor basketball court, racquetball courts, music/social rooms, sauna, and a therapeutic pool; 208 acres of undisturbed land.</p> <p><u>Required:</u> 6.25 to 10.5 acres of parkland</p>	<p><u>Provided:</u> None.</p> <p><u>Required:</u> 0 to 4.62 acres of parkland.</p>	<p><u>Provided:</u> All-weather track/multi-use field, a soccer field, a baseball field, six tennis courts, a gymnasium, an indoor pool, a music center and amphitheater.</p> <p><u>Required:</u> 11 to 18.48 acres of parkland.</p>	<p><u>Provided:</u> 70,000 sq ft of outdoor tennis, volleyball and basketball courts; several miles of walking trails; 24,200 sq ft of indoor weight/exercise room(s), an aerobics room, an indoor basketball court, racquetball courts, music/social rooms, sauna, and a therapeutic pool; 208 acres of undisturbed land.</p> <p><u>Required:</u> 6.25 to 10.5 acres of parkland.</p>	<p><u>Provided:</u> None.</p> <p><u>Required:</u> 0.71 to 1.19 acres of parkland.</p>
Schools	Minimal	Minimal	Minimal	Minimal	Significant



Revised DEIS Table 16-1 Summary Comparison of Alternatives (Continued)

Areas of Potential Impact	Proposed Project	No-Action/Reoccupy by Similar User Alternative	Educational Facilities Alternative	Low-Height Alternative	As-of-Right Alternative
<b>Traffic</b>					
Weekday AM Peak (Trips—Entry/Exit)	23 / 30	203 / 41	129 / 86	23 / 30	8 / 22
Weekday PM Peak (Trips—Entry/Exit)	44 / 115	32 / 182 <sup>(6)</sup>	163 / 195	44 / 115	16 / 9
Saturday Peak (Trips—Entry/Exit)	81 / 116	Minimal	Minimal	81 / 116	Minimal
Sunday Peak (Trips—Entry/Exit)	41 / 58	Minimal	Minimal	41 / 58	Minimal
<b>Other</b>					
Geology, Soils and Topography	Minimal	Minimal	Significant	Significant	Moderate
Groundwater and Surface Water	Minimal	Significant	Minimal	Minimal	Minimal
Air Resources	Minimal	Minimal	Minimal	Minimal	Minimal
Terrestrial and Aquatic Ecology	Minimal	Potentially Significant	Significant	Moderate	Moderate
Visual Character	Minimal	Minimal	Significant	Significant	Minimal
Cultural, Historic and Archaeological	Further Study Recommended	None	Further Study Recommended	Further Study Recommended	Further Study Recommended
Fiscal Impacts	Minimal	Minimal	Significant	Minimal	\$350,000 Net Deficit
Zoning	Land Conservation	Land Conservation	Land Conservation - Requires variance for 4-story buildings and Special Permit	Land Conservation - Requires Special Permit	Land Conservation

Notes:

1. Based on 2.2 employees per 1,000 sq ft in *ITE Trip Generation Manual*, 4<sup>th</sup> ed.
2. Calculated based on 102 total acres minus 87 newly disturbed acres for The King's College.
3. Based on CHA Site Investigation Report, June 2009.
4. Source: *Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2009*, by United States Environmental Protection Agency.
  - 4.34 pounds/person/day total solid waste generated
  - 2.88 pounds/person/day disposed
  - 1.46 pounds/person/day recycled
5. Electrical demand based on approximately 20 KVA per home.
6. Required recreation is approximately 6.25 to 10.5 acres of parkland per 1,000 residents based on standards promulgated by the Urban Land Institute.
7. Based on ITE Trip Generation Table for Land Use Code 760—Research & Development.



**144. HDR Comment 2—Chapter 16, Table 16-1:**

Table 16-1 should include solid waste calculations for the No Action alternative. Educational Facility Alternative, explain use of 5 lbs/day over EPA national average of 4.34 lbs/day. As of Right Alternative, verify that 88 tons of disposed solid waste is correct, appears to use total solid waste including recyclables. All calculations should be consistent (either to include recyclables or not).

Response:

*DEIS Table 16-1 was revised and is provided in the response to HDR Comment 1, Chapter 16. —See Bullet #143 above.*

**145. HDR Comment 3—Chapter 16:**

There are no estimates of recreation space provided in the Educational Facility (Kings College) Alternative. Provide area provided compared to estimated need based on population.

Response:

*DEIS Table 16-1 was revised to include recreation estimates and is provided in the response to HDR Comment 1, Chapter 16.—See Bullet #143 above.*

**146. HDR Comment 4—Chapter 16:**

Provide all references for EPA and County based informational statements (i.e., statement that the solid waste generated under Educational Facility Alternative is less than one-half of one percent of solid waste in Orange County).

Response:

*Based on 2009 US EPA municipal solid-waste estimates and a population of 383,532 (Source: U.S. Census Bureau, 2009 population estimate), Orange County is expected to generate approximately 300,000 tons/year of solid waste (199,000 tons/year disposed and 101,000 tons/year recycled). Thus, the educational facility alternative is anticipated to generate less than one-half of a percent of the solid waste anticipated to be generated by Orange County.—See revised DEIS Table 16-1 above in Bullet #143 and see calculation below:*

*Calculations:*

*Total Generated:  $4.34 \text{ lbs/person/day} \times 383,532 \text{ people} \times 30 \text{ days/month} \times 12 \text{ months/yr} / 2000 \text{ lbs/ton} = 299,615 \text{ tons/year}$ .*

*Disposed:  $2.88 \text{ lbs/person/day} \times 383,532 \text{ people} \times 30 \text{ days/month} \times 12 \text{ months/yr} / 2000 \text{ lbs/ton} = 198,823 \text{ tons/year}$ .*

*Recycled:  $1.46 \text{ lbs/person/day} \times 383,532 \text{ people} \times 30 \text{ days/month} \times 12 \text{ months/yr} / 2000 \text{ lbs/ton} = 100,792 \text{ tons/year}$ .*

*Educational Facility Compared to County:  $1,374 \text{ tons/year} / 299,615 \text{ tons/year} = 0.46 \text{ percent}$ .*

**147. HDR Comment 5—Chapter 16:**

There are no estimates of recreation space provided in the As of Right Alternative. Provide area required and estimated need based on population.

Response:

*DEIS Table 16-1 was revised to include recreation estimates and is provided in the response to HDR Comment 1, Chapter 16.—See Bullet #143 above.*

## **DEIS Appendices (General)**

### **148. Greenplan Comment 13—Appendices A–M:**

No comments on this section of the DEIS except to the extent that the above comments call for corrections or modifications to the Appendices, should be reflected in corrections or modifications to the applicable Appendix.

Response:

*Comment noted.*

## **DEIS Appendix M: Stormwater Pollution Prevention Plan (SWPPP)**

### **149. HDR Comment 1—Appendix M, SWPPP:**

SWPPP document needs the stamp and signature of a New York State Licensed Professional Engineer.

Response:

*Plans and report have been signed and sealed.*

### **150. HDR Comment 2—Appendix M, SWPPP:**

Each plan sheet requires the stamp and signature of a New York State Licensed Professional Engineer

Response:

*Each plan sheet was signed and sealed.*

### **151. HDR Comment 3—Appendix M, SWPPP (Appendix A):**

Provide a copy of a filled out and signed Notice of Intent (NOI) Form. The NOI should also have the signature of the NOI preparer (NYS Licensed Professional Engineer).

Response:

*A completed Notice of Intent form is included in Appendix A of the SWPPP.—See FEIS Appendix M.*

### **152. HDR Comment 4—Appendix M, SWPPP:**

The Applicant should provide an MS4 Acceptance Form with the appropriate information filled-in.

Response:

*An MS4 Acceptance form has been provided.—See FEIS Appendix M.*

**153. HDR Comment 5—Appendix M, SWPPP, Page 2-8, “Sequence of Construction”:**

The SWPPP states that "total disturbance will be kept at a 10-acre maximum at any given time, based on NYSDEC regulations". Part II.C.3 of the SPDES General Permit for Stormwater Discharges (GP-0-10-001) states "*The owner or operator of a construction activity shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department.*" This will impact the Applicant's current proposed phasing for the site.

Response:

*The Applicant will submit to NYSDEC for coverage under SPDES GP-0-10-001 concurrently with site plan approval from the Town of Warwick after the SEQOR process is complete. Once the submittal to NYSDEC is made, the Applicant will request written approval for disturbance of more than 5 acres at one time from NYSDEC Region 3.*

**154. HDR Comment 6—Appendix M, SWPPP:**

The Applicant should provide full-size plans for the pre- and post development drainage areas. The full-size plans should contain the following information:

- a. Drainage area name and size
- b. Time of concentration paths broken up by flow type.
- c. All reaches and ponds in the HydroCAD analysis should contain the same naming on the Drainage Area maps, for ease of reviewing the HydroCAD analysis

Response:

*Two new sheets, C-009 and C-010, have been added to the SWPPP drawing set. (See FEIS Appendix M—SWPPP Drawings.) Each drawing contains the drainage area, time of concentration path broken up by flow type, and was cross referenced to the HydroCAD input nodes.*

**155. HDR Comment 7—Appendix M, SWPPP:**

The Grading and Drainage Plans included with the SWPPP should include the following:

- Legend
- Each of the drainage structures should be named, and contain information for the rim elevation, and inverts. This information could also be provided in table format.
- Pipe materials and sizes should be clearly indicated.
- Locations of all proposed stormwater management practices (including green infrastructure practices)

Response:

*Drawings CG101 through CG104 have been revised to include the drainage structure name and rim elevation. (See FEIS Appendix M—SWPPP Drawings.) The legend for the CG series of drawings is located on Sheet C-001. The storm inverts, profiles, and sizes will be subsequently provided during final SWPPP submission.*

**156. HDR Comment 8—Appendix M, SWPPP:**

The Applicant should include Detail Sheets in the SWPPP which include the following:

- a. Catch Basin Detail
- b. Pipe trenching detail
- c. Representative cross-section and profile drawings of ALL proposed stormwater management practices and conveyances (e.g., Green Roof, Riparian Buffers, Porous Asphalt, Permeable Pavers, Stormwater Planters, Sand Filters, Bioretention Areas, Water Quality Units, Detention Basin, Infiltration Chambers, etc.). The details should be specific to the application, and include inverts, and water surface elevations for design storms (if applicable).
- d. Specific maintenance requirements for each of the proposed stormwater management practices should be provided.
- e. Details for all proposed erosion controls (e.g. silt fence, stabilized construction entrance, diversion swale, soil stockpile, sediment trap, etc.)

*Response:*

*Two new detail sheets, CG501 and CG502, have been added to the drawing set. (See FEIS Appendix M—SWPPP Drawings.) These two sheets contain the details for the stormwater system and are representative of the practices specified. Further details, including inverts, water surface elevations, and detailed dimensions will be provided as part of the final SWPPP submission. Three additional sheets, CE501, CE502 and CE503, have also been added. These sheets contain the erosion and sediment control details.*

**157. HDR Comment 9—Appendix M, SWPPP:**

The Applicant should provide profile drawings for the drainage system.

*Response:*

*Stormwater system profile drawings will be included as part of the final SWPPP submission concurrent with site plan approval application.*

**158. HDR Comment 10—Appendix M, SWPPP:**

Provide a copy of the logs for the soil borings and infiltration tests conducted on site in the SWPPP.

*Response:*

*A copy of the soil boring logs has been included in the SWPPP Appendix F. (See FEIS Appendix M.) Please note that the complete “Geotechnical Report” including soil boring logs is included in DEIS Appendix B-1.*

**159. HDR Comment 11—Appendix M, SWPPP, Page 3-19, Table 3-1:**

The table indicates only one Drainage Area to DP-3, which is DA-3. However, Figure 3-9 as well as Sheet C-007 of the plans show three sub-areas (DA-3A, DA-3B and DA-3C). This table should be updated to show how the WQv for these subareas have been met or exceeded.

Response:

SWPPP Table 3-1 (see FEIS Appendix M) was updated to reflect the sub-basins of the drainage area.

**160. HDR Comment 12—Appendix M, SWPPP, Page 3-19, Table 3-1:**

The table is unclear in indicating the required Runoff Reduction Volume for each area. This should be clearly provided in the table, and followed by the provided Runoff Reduction Volume.

Response:

SWPPP Table 3-1 (see FEIS Appendix M) was updated to reflect the RRv provided and RRv required.

**161. HDR Comment 13—Appendix M, SWPPP:**

The Applicant should provide supporting calculations for each individual stormwater management practice to show how they meet the Water Quality Volume or Runoff Reduction Volume requirements. Right now, the SWPPP only shows how the required amounts are exceeded with a brief explanation of how the requirements were met. For example, there are several green roofs proposed. Calculations should be provided for each one to show how much Water Quality Volume or Runoff Reduction Volume it provides for the drainage area it is located in.

Response:

Individual sizing worksheets have been added to the SWPPP. (See FEIS Appendix M.) These worksheets provide detailed information on the sizing criteria used for the green practices and how the RRv is being met.

**162. HDR Comment 14—Appendix M, SWPPP:**

The Applicant should provide supporting calculations to show how the Channel Protection Volume requirements have been met for the site.

Response:

A section identifying the Channel Protection Volume (Cpv) requirements is included on page 3-36 of the SWPPP. (See FEIS Appendix M.) The Cpv was calculated by taking the volume produced by 1-year, 24-hour storm event and reducing it by what is stored in the green infrastructure practices. The difference is the volume that will be detained to meet the Cpv requirements.

**163. HDR Comment 15—Appendix M, SWPPP (Appendix D—Pre-Developed Conditions Analysis), Reach 2R:**

Storm System is not modeled with any defining characteristics (pipe sizing, slope, inverts, etc.). However, page 3-24 of the SWPPP indicates a storm system containing pipe diameters of 15" and 24". If the existing pipe system runs full for any of the design storms, the peak runoff to the design point could conceivably change. The Applicant should accurately model this reach in HydroCAD.

Response:

The reach in HydroCAD was updated with existing condition parameters for the culvert.

**164. HDR Comment 16—Appendix M, SWPPP (Appendix E—Post-Developed Conditions Analysis):**

The Applicant is using the following Curve Numbers (CN value) and should explain how each of these have been selected:

- a. CN of 48 for the green roof
- b. CN of 74 for the pervious pavers
- c. CN of 61 for bioretention sand soil medium
- d. CN of 61 for storm planter
- e. CN of 74 for porous asphalt

**Response:**

*CN values were revised and the hydrology model was updated.*

*The following values are being used:*

- *Green Roof: 68*
- *Porous Pavement: 74*
- *Stormwater Planters/Bioretention: 60*
- *Pervious Asphalt: 74*

*Page 3-35 of the revised SWPPP (see FEIS Appendix M) provides the following explanation for how the CN values were selected:*

*"As green roofs, porous pavement or pervious asphalt, and stormwater planters do not have standard CN values associated with them, they have been modeled under the assumption of impervious cover reduction only. A modified CN, to account for storage, has been calculated based on SCS Methodology in the TR-55 using the following equation:*

$$S = (1000/CN) - 10$$

*Where:*

*S = Storage over practice (in)*

*CN = Modified Curve Number*

*"Due to this assumption, green roofs have been designed to store approximately 4.7 inches of water over the area of the total green roof. This storage value computes to an average CN value of 68. Porous Pavement has been designed to store approximately 3.6 inches of water of the total area of the porous pavement. This storage value computes to an average CN value of 74. Stormwater planters have been designed to store a minimum of 6.6 inches of water over the area of the stormwater planter. This storage value computes to an average CN of 60. Bioretention facilities have been assigned a CN value of 61 which is equivalent to a vegetated area on HSG B soils."*

**165. HDR Comment 17—Appendix M, SWPPP:**

The Applicant should specify in the landscaping plans the planting types that are to be used for each green roof.

Response:

*The detailed landscape design for the vegetated (green) roofs will be submitted with the application for site plan approval from the Town of Warwick after the SEQOR process is complete. The vegetated roofs will be designed in accordance with “New York State (NYS) Stormwater Management Design Manual” (SMDM), Section 5.3.8., “Green Roofs,” taking into consideration local climate and design objectives.*

**166. HDR Comment 18—Appendix M, SWPPP:**

The Applicant is using Stormwater Planters in several locations. The Applicant should indicate how much impervious area is being directed toward the planters. Page 5-100 of the NYS Stormwater Design Manual (August 2010) indicates that stormwater planters should not receive drainage from impervious areas greater than 15,000 square feet. Additionally, the Applicant should provide a means of directing excess stormwater flow to a secondary treatment system or storm drain system.

Response:

*Stormwater planters are proposed within basins DA-2B3 and DA-2B4. DA-2B3 has an impervious area of 30,013 square feet which will be treated by three stormwater planters. DA-2B4 has an impervious area of 31,363 square feet, which will also be treated by three stormwater planters. Thus, the area treated by each planter will not exceed 15,000 square feet. Excess stormwater flow will be directed to the storm drain system.*

**167. HDR Comment 19—Appendix M, SWPPP:**

Page 5-101 of the NYS Stormwater Design Manual indicates that all stormwater planters should be located a minimum distance of 10 feet from structures. Several of the stormwater planters shown on Sheet C-007 show the planters to be immediately adjacent to structures and should thus be relocated.

Response:

*The 10-foot-minimum-distance requirement found on page 5-101 of the “NYS Stormwater Management Design Manual” (SMDM) is applicable to infiltration planters only. The project is being designed with flow-through planters, which do not have this requirement as shown in Figure 5.53 on page 5-99 of the NYS SMDM.*

**168. DEC Comment 8—Chapter 9:**

Please note that stormwater discharges associated with the concrete plant may require coverage under an industrial permit. The applicant must either obtain coverage under a single SPDES permit along with the [Vehicle] Maintenance Building discharge or submit proof to the Department that industrial stormwater is not discharged from the plant. Although the concrete plant discharge may be eligible for coverage under the Multi-Sector GP, as the vehicle maintenance is not, a single, individual permit is required for both discharges.

Response:

*The Applicant will implement several provisions to prevent industrial stormwater from being discharged from the concrete plant. These include covering the aggregate storage areas and grading away from these locations. Use of a dust-collector and regular housekeeping around the bins and concrete plant will also prevent sediments from entering the stormwater system. Additionally, the concrete truck wash water will be recycled in a closed-loop system and the excess*

*water will be removed by an approved hauler to an approved disposal location. These provisions will be included in the construction documents for the project. All floor drains from the vehicle maintenance shop floor will be tied into a separate collection tank for removal by an approved hauler to an approved disposal location.*

**169. DEC Comment 12—Appendix M, SWPPP:**

This project requires coverage under the General Permit for Stormwater Discharges from Construction Activity (GP-0-10-00 1), therefore a Stormwater Pollution Prevention Plan (SWPPP) must be prepared. The DEIS incorrectly states that this site is not in the Town of Warwick MS-4 (Municipal Separate Storm Sewer System) area. Although the site is not within the 'Designated MS-4' area, the entire Town, exclusive of the Villages of Florida and Warwick, is subject to the Town's MS-4 permit. The SWPPP must be reviewed and accepted by the Town. Authorization for coverage under the SPDES General Permit is not granted until the Department issues any other necessary DEC permits.

Response:

*A Stormwater Pollution Prevention Plan (SWPPP) has been prepared and is included as Appendix M of this FEIS. The project is subject to the Town of Warwick MS4 permit. This permit is listed in Revised DEIS Tables 1-2 and 2-5, "Required Approvals." (See response to Bullet #42.) An MS4 "Acceptance Form" is also included in Appendix A of the SWPPP.*

**170. DEC Comment 13—Appendix M, SWPPP:**

The DEIS mentions trails on the parcels on the north east side of Long Meadow Road but these are not included on the Erosion and Sediment Control Plans or discussed in the Stormwater Pollution Prevention Plan (SWPPP). All disturbances must be included.

Response:

*Please see response to DEC Comment 4 in Bullet #59 above.*

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