APPENDIX 1

SEQRA Documentation

SEQRA Documentation

Reference	Meeting	Date
1	Town of Shawangunk Planning Board, Meeting Minutes	November 5, 2008
2	Town of Shawangunk Planning Board, Meeting Minutes	December 2, 2008
3	Town of Shawangunk Planning Board, Meeting Minutes (extracts)	January 6, 2009
4	Town of Shawangunk Planning Board, Meeting Minutes (extracts)	February 3, 2009
5	Report on Ulster County Planning Board Meeting of April 1, 2009	April 7, 2007

Minutes of a Regular Meeting held by the Planning Board of the Town of Shawangunk, County of Ulster, State of New York, at the Town Office Building, 14 Central Avenue, Wallkill, New York, on the 5th day of November, 2008.

Those present were: Kris Pedersen, Chairman
George Sawyer
Alan White
Mark Watkins
Carol Scofield
Bonnie Franson, AICP
Absent: None. Also present: Please see attached sign-in sheet.

Open Regular Meeting: 7:00 pm

A motion was made by George Sawyer, seconded by Carol Scofield to amend page seven correspondence – Board of Fire Commissioners Wallkill Fire District to read: Letter dated September 19, 2008 was entered into record and approve as amended. Vote: All Ayes. Absent: None.

PRELIMINARY PUBLIC HEARING AND HEARING ON DRAFT ENVIRONMENTAL IMPACT STATEMENT:
Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11) Proposed Special Use Permit with Site Plan Approval for 300 Multiple Dwellings in a 3 story residential building and ancillary uses included but not limited to 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is 1141+/- acres located at 900 Red Mills Road in RAG-4 District. Mr. Dave Kios and Mr. Richard Eldred represented the applicants.

The following items were entered into record: Letter dated October 17, 2008 from NYS Office of Parks, Recreation and Historic Preservation, letter dated November 3, 2008 from Hilda Borges and correspondence dated October 31, 2008 from Joe Mihm.

Mr. Kios said that the proposal is for 300 multiple dwelling units to be constructed in a 3 story residential building, two story parking garage for 400 spaces, 3 story accessory building with basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings.

Mr. Kios said as stated within the DEIS:
III.J.2 Existing and Proposed Population

The existing population on Parcel 99.4-1-11 ("property") is approximately 1,350 residents. Following completion of the project, the projected site population would have the potential to increase by 208 residents, or approximately 15 percent. Therefore the proposed population is anticipated to be near a target of 1,558 residents.

The new residential building would have 300 dwelling units (designated in the Zoning Code as multiple-family dwellings). Of these, approximately 151 dwelling units would replace dwelling units lost in other buildings as a result of this project. The dwelling units that are lost would mainly be due to quality-of-life improvements with the objective of increasing their size to include individual, rather than communal, bathrooms and simple kitchenettes. An example of dwelling units that would be lost is the modular housing north of the new residential building. Also, historically, approximately 15 percent of dwelling units must be allocated for occasional guests, temporary workers (seasonal and otherwise), short-term training, and special needs such as temporarily housing residents whose units are undergoing maintenance or renovation. Thus another 45 dwelling units would not be available for residents. This figure is also intended to incorporate under-utilization of dwelling units, which are typically designed to house two residents. For example, an older widow or widower may live alone, rather than with a roommate. Subtracting 196 (151 + 45) dwelling units from the 300 total dwelling units in the new residential building generates an estimated increase of 104 dwelling units, or 208 residents.

Watchtower con't.
Public comment:
Fred Whitaker and Margaret Annastas – 3 Whitaker Road asked how this project benefits the community they thought this proposal has to be a benefit to the Town. Their concerns are for the water table, who is conducting the studies, why not remodel rather than expand, increase of traffic, loss of mountain views and whether the technical school is relocating to this location.

Mr. Richard Eldred said that any public comments or concerns received will be addressed with the Final Environmental Impact Statement.

The Board discussed Joe Mihm October 31st correspondence. Mr. Mircea Catona, Ulster County Highways and Bridges Department asked Superintendent Martin Hand and he to meet with UCDOT to inspect the intersection of Red Mills Road-Bruynswick Road-Hoagerburgh Road. Mr. Catona's concern is that this is a non-standard intersection that is already prone to accidents and any further increases in traffic by the proposed Watchtower Farms Improvements project could make the situation worse. The Collins Traffic Study did evaluate this intersection and reports it has a "B" Level of Service. Mr. Mihm said that Mr. Catona will be suggesting that Watchtower consider an upgrade with a traffic circle at this intersection to improve this un-usual intersection that is really two "T" intersections.

The Board said that the intersection in question is an existing problem and suggests that stop signs be installed at each location. The Planning Board strongly disagrees with the County's suggestion that the applicant upgrade this location to a traffic circle.

The application remains incomplete. The Public Hearings will be continued to December and the Board will continue to receive agency and public comments for an additional thirty (30) days to December 5, 2008.

CONTINUATIONS:
Gabriel Dietrich:(106.1-1-17.123)Proposed Amendment to Special Use Permit with Site Plan approval for internet car sales to add auto repairs / storage at 18 Myers Road in RAG-4 District. No one appeared before the Board. The application remains incomplete. The Public Hearing was continued to November.

Titus, Lee & Joanna:(106.4-1-6.200)Proposed Final Approval of 32 Lot Cluster Subdivision of 25+/-acres with sewer & water off Buena Vista Avenue located in the Hamlet District and Borden AG Support Overlay District. Mr. John Tarolli, PE represented the applicant.

Memorandum dated October 31, 2008 from Planning Board to John Valk, Supervisor was entered into record.

Ms. Pedersen said that the Planning Board forwarded Mr. Tarolli's request to the Town Supervisor as requested. The application remains incomplete. The Public Hearing was continued to November.

Marbil Corp.:(100.4-1-13.2)Proposed Special Use Permit with Site Plan Review for sand and gravel mine on Denniston Road and NYS Route 208 in the RAG-4 District and Aquifer Overlay Protection District. No one appeared before the Board. The application remains incomplete. The Public Hearing was continued to November.

APPEARANCES:
Cellco Partnership d/b/a Verizon Wireless:(100.3-1-14.100)Proposed Special Use Permit with Site Plan Review for proposed Cell Tower at 23 Twin Ponds Lane in the RAG-4 District. Mr. Scott Olsen, Esq. and Tectonic Engineering was present before the Board.

Cellco/Verizon con'
Ms. Drayton Grant, Esq., Mr. Ron Graiff, PE and Mr. George Janes, AICP Town Consultants were present.

The following items were entered into record: Applicant's submission packet with plans stamped received on August 28, 2008, letter dated September 30, 2008 from Ronald E. Graiff, PE, letter dated October 6, 2008 from Brinnier & Larios, PC, letter dated October 24, 2008 from George Janes & Associates and memorandum dated October 24, 2008 from Tim Miller Associates.

Mr. Janes discussed and provided a photo simulation presentation of his October 24, 2008 letter to the Board.

A lengthy discussion was held regarding Mr. Janes comments.

Mr. Graiff discussed his October 6, 2008 letter with the Board.

A lengthy discussion was held regarding Mr. Graiff comments.

Ms. Franson discussed her October 24, 2008 letter with the Board.

A lengthy discussion was held regarding Ms. Franson comments.

Ms. Grant said that the application is incomplete as submitted and the Town Consultants comments need to be addressed.

The Board said the applicant is to address the Town Consultants comments, provide a digital photo montage as per Mr. Janes recommendation and resubmit. The application remains incomplete.

Charlie Eggelton:(106.4-1-43.110)Proposed amendment to Site Plan Approval for proposed 24' x 40' garage at 3053 NYS Route 208 in the SB District. Mr. Alphonse Mercurio, LS represented the applicant. Applicant proposes to construct a 24 x 40 three bay garage, bays facing south to be attached to an approved existing 30' x 60' structure for auto display, four car garage, ten car exterior area display on first floor and above ground floor apartment.

The following items were entered into record: Letter dated October 16, 2008 with revised Site Plan Survey dated revision 10/16/08 and Tim Miller Associates memorandum dated October 31, 2008.

The Board reviewed the Site Plan dated revision 10/16/08 and discussed TMA October 31st memo.

1. The Board requested landscape screening be provided on the plan to buffer views of the three bay garage. This has not been done the applicant is to submit.
2. The Board requested an elevation of the proposed improvements as this project is located within the SB District and is subject to design guidelines. This has not been done the applicant is to submit.
3. A floor plan and documentation is to be provided that the space above the garage will not be used for living space.
4. Note 10 is to be updated to reflect the variances and date that were granted.
5. The applicant's representative has been requested to indicate how the Town flood plan law may regulate the development.
6. The applicant's representative was requested to review the Town's stormwater law to determine whether it applies to this site plan.

Mr. Mercurio asked for a public hearing.

The application remains incomplete. The applicant is to address TMA October 31st comments and resubmit. The application was set for Public Hearing in December.

Estate of Stanley Gomes / K.C. Fox:(104.1-2-10.120 **/** 104.1-2-9)Proposed Three Lot Subdivision with lot line change of 39.9+\-acres at 42 / 48 Weed Road in the RAG-2 District. Mr. Alphonse Mercurio, LS and Mr. and Mrs. Keith Fox were present before the Board.

The following items were entered into record: Letter dated October 16, 2008 with revised Survey dated revision 10/16/08 and Tim Miller Associates memorandum dated October 31, 2008.

Ms. Pedersen requested a copy of the deed for the Fox property and signatures of all owners on file.

The Board reviewed the Survey dated revision 10/16/08 and discussed TMA October 31st memo.

1. The variances received were discussed. The Board requested that they be noted on the plan.
2. A driveway maintenance agreement is to be submitted and may require review by the Town Attorney.
3. The NYSDEC Wetlands are required to be revalidated.
4. The existing septic systems on the Fox lot and Lot 2 are to be added to the plan.
5. As per the House Relocation Note K – there shall be a mapped distance from property line to three (3) sides of the dwelling this is to be added to the plan.
6. UCDOH permits are required.

   Mr. Mercurio asked the Board to accept the 1993 UCDOH permits as the applicants are trying to settle an estate and requiring updated permits at this time is a financial burden.

   The Board said they would think about this request and make a decision at the next meeting.

7. The applicant's representative is to review the Town's stormwater regulations and determine what, if any, requirements must be met, based on the disturbance proposed.

The application remains incomplete. The applicant is to address TMA October 31st comments and resubmit. The application was set for Public Hearing in December.

Open Space Conservancy / Cornella / Doimi / Portuondo:(91.4-14.100 / 24 / 27.200)Proposed Lot Line Changes on / off Upper Mountain Road in the RS – 1 District. Ms. Patricia Brooks, LS represented the applicants. Applicant proposes a lot line change between lands of Open Space Conservancy (OSC) Tax Map 91.4-1-27.200, lands of Cornella & Doimi Tax Map 91.4-1-24 and lands of Portuondo Tax Map 91.4-1-14.100. The application will not result in any new buildable lots.

The following items were entered into record: Memorandum dated October 16, 2008 from Brooks and Brooks, LS, PC with revised Survey dated revision October 16, 2008 – deeds, ZBA Variance dated August 26, 1974 – Eugene Corey – ZBA 9/16/74 Minutes and Sketch Corey / Schneller Properties dated 5/18/72, ZBA Variance – 0-146 for Leonard Portuondo dated 2/16/05 and Tim Miller Associates memorandum dated October 31, 2008.

The Board reviewed the Survey dated revised October 16, 2008 and discussed TMA October 31st memo.

1. All ZBA Variances are on file.
2. Board requested the map show clearly the boundaries of the lots in relation to Schneller Lane.

   Discussion was held on remaining section of Schneller Lane.

   Ms. Brooks said that UC Real Property said that section of Schneller Lane stands on its own.

3. The Board said no further review is needed by the Town Attorney, all variances are on file.

The application remains incomplete. The applicant is to revise the plan and address TMA item 2 and submit. The application was set for Public Hearing in December.

Knoth, Joseph:(106.2-1-37.110)Request for Phasing Preliminary Approval of 24 Lot Cluster Subdivision of 61.3+/-acres on River Road with road and Town Sewer in the Hamlet District. Mr. Joseph Knoth, Mr. George Lithco, Esq. and Mr. John Tarolli, PE approached the Board.

The following items were entered into record: Letter dated October 10, 2008 from John Tarolli, PE with Two Phase Sectional Partial Cluster Knoth Subdivision plan dated revision 10/10/08 and Tim Miller Associates memorandum dated October 31, 2008.

Ms. Pedersen said a verbal from the Town Attorney was received, that there is no problem with phasing procedurally it will be conducted like Rolling Hills. The Board should allow a two phase not three. That the two phase map shows the phase line running through the middle of a lot it is to be amended. The lot with the detention basin needs to include the entire lot the basin cannot stand alone and the Highway Superintendent wants cul-de-sac not a "T".

Ms. Pedersen said that three phases is cumbersome.

Mr. Lithco said he wants to discuss with the Town Attorney for a three phase proposal.

Mr. Knoth said due to the economy he needs to utilize a three phase proposal.

Ms. Pedersen said that she will speak to the Town Attorney regarding a three phase.

At the meeting Mr. Tarolli showed the Board a three phase map – it was not provided to the Board nor file.

The Board discussed TMA October 31st memo for a two phased proposal – 10/10/08 plan.

1. Since most of the road frontage will be constructed in front of Lot 5, should this lot be included in Section I?
   Mr. Tarolli said they want to create whole lots.

   No opinion was stated by the Board.

2. The Town Engineer should comment as to whether the utilities will function property if this Section were to stand alone for an extended time period.

   Mr. Tarolli said mechanics can be moved.

3. Will all improvements be constructed as part of Section I i.e. sidewalks, street trees etc., be installed for Section I.

   Mr. Knoth said yes, we will do all installation of each district per section.

   Mr. Tarolli said they will provide a full plan illustrating all the other sections.

4. A mountable curb is shown in the vicinity of the two existing apartment buildings. Where will the access to the parking lots be obtained from?

   A lengthy discussion was held on the apartment parking lots access and/or relocation.

   The Board requested the minutes, preliminary resolution and negative declaration be reviewed for discussion / decision on the parking lots for the existing apartment buildings.

5. The Conservation Easement for the entire project will be required for Section I.

6. How does sectioning the plan affect the various utility districts being formed? Do the districts still encompass all lots in the partial cluster?

Knoth con't.

The Town Attorney will have to opine.

Mr. Knoth said that the Wallkill Fire District is not interested in the dry fire hydrant. The Town is interested in a ROW to the rail trail, Supervisor indicated 50' ROW.

Ms. Pedersen said the applicant said they will discuss the three phase proposal with the Highway Superintendent and she will contact the Town Attorney.

Mancuso & Family, LLC:(104.3-1-3)Proposed Phased 12 Lot Cluster Subdivision of 77.5+/-acres with two existing dwellings located on Vinegar Hill Road in the RAG-2 District. Mr. John Tarolli, PE represented the applicant.

Ms. Pedersen said that Town Attorney has opined and the Board agreed that only two phases will be allowed.

Mr. Tarolli will advise his client.

DISCUSSIONS:

Rolling Hills Three Lot Subdivision: Request for release of cash bond account #5223524 – tree planting screening.

Mr. Al Wegener, Arborist letter dated September 23, 2008 was entered into record.

The Board discussed Mr. Wegener's September 23rd letter and agreed with his findings.

A motion was made by Carol Scofield, seconded by Alan White to recommend to the Town Board that the bond posted known as cash account #5223524 for tree plantings for the Rolling Hills Three Lot Subdivision in the amount of $1,000.00 to be released. Vote: All Ayes. Absent: None.

A memo will be sent to the Town Board.

Prospect Heights: Request for bond reduction. Mr. Abraham Berkovic, Mr. George Litcho, Esq. and Mr. John Tarolli, PE was present before the Board.

The following items were entered into record: Memorandum dated November 5, 2008 from Martin Hand, Highway Superintendent, letter dated November 5, 2008 from George Lithco, Esq. to Richard Hoyt, Esq with sections of the Prospect Heights Conservation Easement – letter dated September 9, 2008 from Richard Hoyt to George Lithco.

Ms. Pedersen read Mr. Hand's November 5th memo into record.

The Board said that the request for bond reduction is on hold until a final sign off has been received from the Highway Superintendent and Town Engineer.

Ms. Pedersen suggested to the Board to consider holding a special meeting should the sign off be received prior to the next meeting. The Board agreed.

CORRESPONDENCE:
Leonard & Christine Adams: Correspondence dated October 15, 2008 regarding bond for Plains Estates was entered into record.

Mr. Abraham Berkovic stated to the Planning Board that he would offer $6,000.00 to the Adams to settle this.

Ulster County Planning Board: Fall 2008 Seminars, Zoning Board of Appeals Overview and UCPB Referral Process Under the Charter was entered into record.

ADJOURNMENT: A motion was made to adjourn the meeting by Mark Watkins, seconded by Carol Scofield. Vote: All Ayes. Absent: None. The meeting was adjourned at 10:32 p.m.

Respectfully submitted,

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Robin C. Kaufmann, Secretary

Minutes of a Regular Meeting held by the Planning Board of the Town of Shawangunk, County of Ulster, State of New York, at the Town Office Building, 14 Central Avenue, Wallkill, New York, on the 2nd day of December, 2008.

Those present were: Kris Pedersen, Chairman
George Sawyer
Alan White
Mark Watkins
Carol Scofield
Bonnie Franson, AICP
Absent: None. Also present: Please see attached sign-in sheet.

Open Regular Meeting: 7:00 pm

PRELIMINARY PUBLIC HEARINGS:

Charlie Eggelton:(106.4-1-43.110)Proposed amendment to Site Plan Approval for proposed 24 x 40 garage at 3053 NYS Route 208 in the SB District. See Public Hearing Minutes.

Estate of Stanley Gomes / Keith & Candice Fox:(104.1-2-10.200 & 104.1-2-9))Proposed Three Lot Subdivision of 39.9+\-acres at 42 Weed Road in the RAG-2 District. Mr. & Mrs. Keith Fox and Mr. Alphonse Mercurio, LS were present before the Board. Applicant proposes to create Lot 1 of 10.918+/-acres, net acreage of 10.80+/-acres. Lot 2 of 11.046+/-acres, net acreage of 0 acres, Lot 3 of 17.303+/-acres, net acreage of 12.120+/-acres with a Lot Line Change of 0.57+/-acre to be conveyed 0.570+/-acre to Lands of Fox being Tax Map 104.1-2-9 of 0.64+/-acres. The new total lot area is 1.293+/-acres.

The following items were entered into record: Letter dated November 24, 2008 with attachments Town's standard common driveway easement, UCDOH 1993 permits from Alphonse Mercurio, LS with revised map dated 11-23-08 and Zoning Board of Appeals Variances granted on October 15, 2008.

The Board reviewed the revised map dated 11-23-08 and attachments.

Ms. Pedersen asked if there were any questions or comments.

Ms. Pedersen said the maintenance agreement needs to be revised to reflect this as a three lot proposal not two also a Schedule A description must be submitted.

Mr. Mercurio asked the Board to accept the 1993 UCDOH permits for Lots 1 & 3 the soils are of sand/gravel with good perk. The applicant's ask for this waiver as they are settling the estate.

A lengthy discussion was held on the outdated UCDOH permits. The Board said that there have been no major changes to septic systems by the DOH since these permits were issued.

Mr. Sawyer said that when a building permit is applied for the owner/builder will be required to get a current UCDOH permit.

The Board agreed to accept the 1993 UCDOH permits for Lots 1 & 3 and waived the requirement due to the uniqueness of the application and so not to set precedent to any other application or project.

The Board said the E-17 NYSDEC Wetlands delineation is to be revalidated by the DEC, Notes 6 & 7 are to be amended to reflect the October 15, 2008 ZBA Variances. Note 5 needs to be amended to reflect all three (3) lots with no further subdivision noted for each.

Mr. Watkins said that the well location on Lot 3 should be looked at. As shown vehicles will be driving over the connection to the dwelling.

Mr. Mercurio said that he will look at it.

Estate of Gomes con't.
Mr. Watkins said the pond is also used as a fire pond by the Walker Valley Fire Department.

The Board said the applicant is to revise the map, revise Notes 5, 6 & 7 as stated above, revise the driveway maintenance agreement with Schedule A description and obtain revalidation for the NYSDEC Wetlands before resubmitting. The application remains incomplete. The Public Hearing was continued to January 2009.

Open Space Conservancy / Cornella / Doimi / Portuondo:(91.4-1-27.200 / 91.4-1-24 / 91.4-1-27.200) Proposed Lot Line Changes on Upper Mountain Road / Schneller Lane in the RS – 1 District. See Public Hearing Minutes.

CONTINUATION PUBLIC HEARINGS / DEIS HEARING:
Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11) Proposed Special Use Permit with Site Plan Approval for 300 Multiple Dwellings in a 3 story residential building and ancillary uses included but not limited to 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is 1141+/- acres located at 900 Red Mills Road in RAG-4 District. Mr. Richard Eldred and Mr. Dave Kios represented the applicants.

Ms. Pedersen said that no additional comments have been received. The Board can consider closing the Public Hearing for SEQRA on the Draft Environmental Impact Statement (DEIS) section of this project. There will be ten (10) additional days comment period after the hearing is closed for additional comments.

A motion was made by George Sawyer, seconded by Alan White to close the SEQRA Public Hearing on the Watchtower Bible & Tract Society of NY, Inc. Draft Environmental Impact Statement (DEIS). Additional comments will be received for an additional ten (10) days to December 12, 2008. Vote: All Ayes. Absent: None.

The Special Use Permit with Site Plan Public Hearing was continued to January 6, 2009.

Gabriel Dietrich:(106.1-1-17.123)Proposed Amendment to Special Use Permit with Site Plan approval for internet car sales to add auto repairs / storage at 18 Myers Road in RAG-4 District. See Public Hearing Minutes.

Titus, Lee & Joanna:(106.4-1-6.200)Proposed Final Approval of 32 Lot Cluster Subdivision of 25+/-acres with sewer & water off Buena Vista Avenue located in the Hamlet District and Borden AG Support Overlay District. No one appeared before the Board.

The application remains incomplete. The Public Hearing was continued to January 2009.

Marbil Corp.:(100.4-1-13.2)Proposed Special Use Permit with Site Plan Review for sand and gravel mine on Denniston Road and NYS Route 208 in the RAG-4 District and Aquifer Overlay Protection District. No one appeared before the Board.

The following items were entered into record: Letter dated November 6, 2008 from Edward Sprague, Project manager Medenbach & Eggers, PC and letter dated October 16, 2008 to Mr. Milano from the Planning Board.

The application remains incomplete. The Public Hearing was continued to January 2009.

APPEARANCES:

World Buddhist Ch'an Jing Center, Inc.:(104.1-4-1.300)Proposed Site Plan for change of use from pre-existing restaurant to Place of Worship at 3580 Route 52 in SB District.

- **World Buddhist Ch'an Jing Center, Inc.:**(104.1-4-1.300)Proposed Site Plan for change of use from single family dwelling to transient living quarters at 3572 Route 52 in SB District.

- **World Buddhist Ch'an Jing Center, Inc.:**(104.1-4-1.200)Proposed Site Plan for change of use from pro golf shop / single family dwelling to gift shop, administration offices and transient living quarters at 3581 Route 52 in SB District.

Mr. Alphonse Mercurio, LS represented the applicants.

The following items were entered into record: Letter dated November 4, 2008 from John Tarolli, PE with revised Site Plan dated 10/29/08 and memorandum dated November 26, 2008 from Tim Miller Associates.

The Board discussed TMA November 26th memo and reviewed the 10/29/08 Site Plan.

The Board informed the applicant's Representative that the application will be referred to the Zoning Board of Appeals for interpretation and / or variances for items 1, 2, 3 & 6 stated in TMA November 26th memo.

The Board said that the prior Subdivision map is to be reviewed to confirm the NYSDEC validation date for the wetland delineation to determine if the delineation requires to be revalidated.

The Board said that the Town will send a map with narrative to the Ulster County Department of Health addressing item 5 in TMA memo.

The applicant is to apply to the ZBA a memo will be sent to the Board. The application remains incomplete.

Knoth, Joseph:(106.2-1-37.110)Request for Phasing Preliminary Approval of 24 Lot Cluster Subdivision of 61.3+/-acres on River Road with road and Town Sewer in the Hamlet District. Mr. Joseph Knoth and Mr. George Litcho, Esq. were present before the Board.

The following items were entered into record: Letter dated October 31, 2008 to Mr. Knoth from Andrew Harcher, Board of Wallkill Fire Commissioners, letter dated November 19, 2008 from Andrew Harcher, Board of Wallkill Fire Commissioners, memo dated November 19, 2008 from Martin Hand, Highway Superintendent, Three Phase Map received on November 12, 2008 dated Revisions and letter dated November 24, 2008 to Town Board from George Litcho, Esq.

Mr. Knoth said that the Wallkill Fire District and they are in agreement there will no longer be a need for a dry hydrant for the Fire District.

A lengthy discussion was held on the requirement to show the apartment parking lot on the plan. The requirement is stated in the Preliminary Approval.

Mr. Knoth said he would like to provide notes on the plan for the parking. If there is the ability to obtain municipal water the parking areas may be relocated due to possible expansion of the apartment units.

The Board required that the curb cuts show the defined area for entrance and screening to the apartment parking lots on the Phase I plan and that the parking lot re-design can be submitted later.

A lengthy discussion was held on the applicant's request for three phases versus two phases.

A motion was made by Mark Watkins, seconded by George Sawyer to resolve that the Knoth Cluster Subdivision is two phases. Vote: All Ayes. Absent: None.

Estate of Patrick Kelly:(99.3-4-3)Proposed Two Lot Subdivision of 49.97+/-acres on Hardenburgh Road / Bruyn Turnpike in the RAG-2 and RAG-4 Districts. Mr. Kevin Kelly, Ms. Sandra Damon and Ms. Margaret Hillriegel, LS were present before the Board. Applicant proposes a two lot subdivision Lot 1 of 11.3056 acres, net acreage of 8.07+/-acres with single family dwelling with three (3) bungalows each unit is 360 SF. Lot 2 of 38.6693+/-acres, net acreage of 33.26+/-acres with proposed dwelling, barn, out buildings and the property extends to the opposite corner of Hardenburgh Road and across Bruyn Turnpike – all lands to remain one lot for continued farming. It was discussed and is noted that Land of Paffenroth sheds and garden encroach the Kelly property and adjoining S & N Real Estate Holding property.

The following items were entered into record: Applicant's submission received on November 13, 2008 with map dated November 10, 2008 and Tim Miller Associates memorandum dated November 26, 2008.

The Board discussed TMA November 26th memo and reviewed map dated November 13, 2008.

1. The proposed action is an Unlisted Action.
2. The property is in an agricultural district. An Agricultural Data Statement is to be submitted.
3. Property deed is on file.
4. Property contains freshwater wetlands, portion of the parcel was not delineated and soils indicate that extensive wetlands are present and found in association with existing streams.

   The Board discussed the existing wetlands. The Board said a note is to be added to the plan stating that the wetlands were not delineated on the north side RAG-4 land and the land with the barn.

5. The subdivision used 10-foot contours to illustrate topography rather than 2-foot contours.

   Ms. Hillriegel said that the land will continue to be farmed and believe for that purpose 10-foot contours seemed appropriate.

   The Board agreed to allow 10 foot contours.

6. This project is within two zoning districts – RAG-2 and RAG-4. The Board requested both bulk regulations to be on the map.

7. Based on the property lines shown on the map. Property lines are shown along the centerline of Hardenburgh Road and Bruyn Turnpike, suggesting the property has already been subdivided into multiple lots. The request is to create two lots, subdivide off the existing house / bungalows.
   The Board requested that the lines are removed to show that Lot 2 parcel is on both sides of the road. The map should not be interpreted that the road naturally bisects this property.

8. The Ulster County Department of Health review is outstanding. Ms. Hillriegel said that the UCDOH will review the existing units at the same time as the proposed septic.

9. The minimum lot area required for each lot is to be disclosed on the plan, taking into consideration that multiple dwellings are situated on one of the proposed lot.

10. It was suggested that the Board consider whether the Town Attorney or Zoning Board of Appeals should review this application, to determine whether area variances are required to allow the subdivision given the potential nonconforming status of the three dwellings on Lot 1.

    > Section 177-10F.states: "No yard or other open space provided about any building for the purpose of complying with the provisions of this chapter shall be considered as providing a yard or open space for any other building, and no yard or other space on another lot shall be considered as providing a yard or open space for a building on any other lot."

Kelly con't.

The Board said that even though the bungalows exist, they don't comply with the RAG-2 District setback requirements and is therefore non-conforming. The Board cannot act on a non-conforming lot. The proposal will be referred to the Zoning Board of Appeals.

11. The Board discussed the requirement of a cluster subdivision.

    A motion was made by Mark Watkins, seconded by George Sawyer to waive the Cluster Subdivision plan submission requirement at this time. Vote: All Ayes. Absent: None.

The applicant is referred to the Zoning Board of Appeals. The application remains incomplete and they are to address November 26th TMA comments above and resubmit.

DISCUSSIONS:

Prospect Heights: Mr. Abraham Berkovic was present before the Board.

The following items were entered into record: Letter dated December 2, 2008 from Brinnier & Larios, letter from Richard Hoyt, Esq. dated November 25, 2008 to George Lithco, Esq., letter from Richard Hoyt, Esq. dated November 14, 2008 to George Lithco, Esq., Brinnier & Larios letter dated November 20, 2008,

The Board reviewed and discussed Brinnier & Larios December 2, 2008 bond estimates reduction for Prospect Heights Cluster Subdivision.

A motion was made by Carol Scofield, seconded by Alan White to recommend to the Town Board the Public Improvement Bond Estimate for Prospect Heights Subdivision as stated in Brinnier & Larios December 2, 2008 letter for Public Improvements Bond Estimate of $368,000.00 subject to payment of all outstanding bills. Vote: All Ayes. Absent: None.

A motion was made by Carol Scofield, seconded by Alan White to recommend to the Town Board the Construction Supervision/Inspection for Prospect Heights Subdivision as stated in Brinnier & Larios December 2, 2008 letter for Construction Supervision/ Inspection of $16,000.00 subject to payment of all outstanding bills. Vote: All Ayes. Absent: None.

A motion was made by Carol Scofield, seconded by Alan White to recommend to the Town Board the Municipal Oversight/Administration for Prospect Heights Subdivision as stated in Brinnier & Larios December 2, 2008 letter for Municipal Oversight / Administration of $9,600.00 subject to payment of all outstanding bills. Vote: All Ayes. Absent: None.

The total recommended bond amount is $393,600.00 subject to payment of all outstanding bills.

The Board had sent letter dated November 20, 2008 to Mr. Berkovic requesting an additional $1,500.00 for escrow funds to be provided by December 2, 2008 to replenish the escrow account on file.

Cassara Subdivision: Memorandum dated November 24, 2008 from Richard Hoyt, Esq re: Map Notes & "L". Mr. Alphonse Mercurio represented the applicant.

The Board discussed Mr. Hoyt's November 24th memo and reviewed prior submitted T design on file with the Town Clerk for the end of Wildrick Road during the review of O'Donnell – Powell/Gamble projects.

The Board reviewed the Cassara survey and they were not in agreement with the suggestion to locate a "L" design into the Cassara's driveway for a turnaround/snow storage area for the Town. This location has wetland constraints and is not the appropriate location.

Cassara con't.
The Board requested a map note added to the final map calling for a 10' extension of the Cassara driveway culvert to total 30' as per the Town highway specifications. The applicant is to amend the final map and submit, request a curb cut permit and a pay recreation fee.

Baseline Reports: Planning Board Policy.

The Board discussed Draft Town of Shawangunk (revised 7/29/08) Conservation Easement Baseline Report Checklist.

The Board requested that the number of copies required for submission be reduce to four (4) and to add under item 7 that if 35 mm film is submitted that the photos are to be submitted / stored within photo jackets 6/8 photos per page and would not be accepted in bulk. Also, remove the word "Draft" and add December 2, 2008.

The Planning Board sets policy that applicants are to adhere to the Town of Shawangunk Conservation Easement Baseline Report Checklist (revised December 2, 2008) when it applies to their applications. The Secretary was instructed to amend the Checklist as stated above.

CORRESPONDENCE:
BAF, Inc.: Memorandum dated November 10, 2008 from the Town Board was entered into record.

Mamakating Planning Board: Public Hearing Notice three lot subdivision on Burlingham Road was entered into record.

Code Enforcement Officer: Federal Wetlands disturbance Plains Road owner John Sloboda was entered into record.

The Board requested that a letter be sent to the Army Corp of Engineers advising them of the filling of the Federal Wetlands for the record.

ADJOURNMENT: A motion was made to adjourn the meeting by Mark Watkins, seconded by George Sawyer. Vote: All Ayes. Absent: None. The meeting was adjourned at 9:00 p.m.

Respectfully submitted,

_____
Robin C. Kaufmann, Secretary

Minutes of a Preliminary Public Hearing held by the Planning Board of the Town of Shawangunk, County of Ulster, State Of New York, at the Town Office Building, 14 Central Avenue, Wallkill, New York, of the 2nd day of December, 2008 for a Amendment to Site Plan Approval for application of **"Charlie Eggelton".**

Those present were: Kris Pedersen, Chairwoman
George Sawyer
Alan White
Mark Watkins
Carol Scofield
Bonnie Franson, AICP

Absent were: None. Also present were: See attached sign in sheet.

Charlie Eggelton:(106.4-1-43.110)Proposed amendment to Site Plan Approval for proposed 24' x 40' garage at 3053 NYS Route 208 in the SB District. Mr. Alphonse Mercurio, LS represented the applicant. Applicant proposes to construct a 24 x 40 three bay garage, bays facing south to be attached to an approved existing 30' x 60' structure for auto display, four car garage, ten car exterior area display on first floor and above ground floor apartment.

The following items were entered into record: Letter dated November 24, 2008 from Alphonse Mercurio, LS with revised Site Plan dated 11/23/08 and Zoning Board of Appeals signed Variance dated 11/26/08.

Mr. Mercurio submitted at the meeting Building Rendering – Elevations – Eggelton Renovation by Jo Ann Keegan, JK TEC Inc. Dickerson Schoolhouse dated 11/25/08 Sheet 1.

Zoning Board of Appeals Variance granted on October 15, 2008 for net area, impervious surface coverage was subject to reduction of number of outside storage vehicles from ten to two vehicles.

The Board said that the conditions established on the Variance are put on the plan.

Ms. Pedersen asked if there were any comments or questions from Board of audience.

Ms. Pedersen said there are shed, container and a wrecked vehicle behind the container on the property. If the shed is to remain it is to be put on the site plan or it is to be removed along with the container and wrecked vehicle. No Certificate of Occupancy will be issued until they are removed.

The screening was discussed. The Board said the eastern white pines shown on the plan are acceptable. However, no Certificate of Occupancy will be issued until they are planted.

A motion was made by Mark Watkins, seconded by Carol Scofield, to declare a Negative Declaration on the environment for the amendment to the Site Plan. Vote: All Ayes. Absent: None.

After one hour a motion was made to close the Preliminary Public Hearing by George Sawyer, seconded by Mark Watkins. Vote: All Ayes.

A motion was made by Carol Scofield, seconded by Mark Watkins to grant Preliminary Approval, waive Final Public Hearing and grant Final Approval for this Amendment to Site Plan to construct a 24 x 40 three bay garage, bays facing south to be attached to an approved existing 30' x 60' structure for auto display as per JK Tec, Inc Elevations dated 11/25/08 Sheet 1, four car garage, reduced to two car exterior area display with an above ground floor apartment. The will be no Certificate of Occupancy for the garage addition until installation of eastern white pines and removal of shed (if not plotted on plan), container and wrecked vehicle are removed. Vote: Carol Scofield, aye, Mark Watkins, aye, Alan White, aye, George Sawyer, aye, Kris Pedersen, aye. Vote: All ayes. Absent: None.

Respectfully Submitted,

_____
Robin C. Kaufmann, Secretary

Minutes of a Preliminary Public Hearing held by the Planning Board of the Town of Shawangunk, County of Ulster, State Of New York, at the Town Office Building, 14 Central Avenue, Wallkill, New York, of the 2nd day of December, 2008 for a Lot Line Changes Subdivision Approval for application of **"Open Space Conservancy / Cornella / Doimi / Portuondo".**

Those present were: Kris Pedersen, Chairwoman
George Sawyer
Alan White
Mark Watkins
Carol Scofield
Bonnie Franson, AICP

Absent were: None. Also present were: See attached sign in sheet.

Open Space Conservancy / Cornella & Doimi / Portuondo:(91.4-1-27.200 / 91.4-1-24 / 91.4-1-14.100) Proposed Lot Line Changes on Upper Mountain Road / Schneller Lane in the RS – 1 District. Ms. Patricia Brooks, LS represented the applicants. Applicant proposes lot line changes to the back lands of Cornella & Doimi / Portuondo and overlaps to be conveyed to Open Space Conservancy (OSC). The application will not result in any new buildable lots.

The following conveyances are to the OSC:

Leonard & Kathleen Portuondo # 91.4-1-14.100 of 21.71+/-acres to convey Parcel A of 14.71+/-acres.
Lands of Portuondo to be 7.0+/-acres.
Cornella & Doimi of 47.20+/-acres #91.4-1-24 of 47.20+/-acres to convey Parcel B of 13.34+/-acres.
Lands of Cornella & Doimi to be 33.86+/-acres.
Deed Overlap area of 3.98+/-acres (see note 5).
Deed Overlap area of 2.93+/-acres (see note 4).

Open Space Conservancy of 142.92+/-acres with conveyances to be 177.88+/-acres.

The Board reviewed map dated revision November 13, 2008 and was entered into record.

Ms. Brooks said that OSC is still working with Schneller-McDonald and Tenaglia to preserve the Shawangunk Ridge.

Ms. Pedersen asked if there were any comments or questions from the Board or audience.

The Board discussed Schneller Lane the map was revised to clarify the boundary line.

A motion was made by Mark Watkins, seconded by Carol Scofield to waive the requirement for submission of a Cluster Plan and Conservation Area Map. Vote: All Ayes.

A motion was made by Carol Scofield, seconded by Alan White, to declare a Negative Declaration on the environment for the Lot Line Changes Subdivision. Vote: All Ayes. Absent: None.

After one hour a motion was made to close the Preliminary Public Hearing by George Sawyer, seconded by Mark Watkins. Vote: All Ayes.

A motion was made by George Sawyer, seconded by Carol Scofield to grant Preliminary Approval, waive Final Public Hearing and grant Final Approval for this Lot Line Changes Subdivision. Vote: Carol Scofield, aye, Mark Watkins, aye, Alan White, aye, George Sawyer, aye, Kris Pedersen, aye. Vote: All ayes. Absent: None.

Respectfully Submitted,

_____
Robin C. Kaufmann, Secretary

Minutes of a Preliminary Public Hearing held by the Planning Board of the Town of Shawangunk, County of Ulster, State Of New York, at the Town Office Building, 14 Central Avenue, Wallkill, New York, of the 2nd day of December, 2008 for a Amendment to Special Use Permit with Site Plan Approval for application of **"Gabriel Dietrich".**

Those present were: Kris Pedersen, Chairwoman
George Sawyer
Alan White
Mark Watkins
Carol Scofield
Bonnie Franson, AICP

Absent were: None. Also present were: See attached sign in sheet.

Gabriel Dietrich:(106.1-1-17.123)Proposed Amendment to Special Use Permit with Site Plan approval for internet car sales to add auto repairs / storage at 18 Myers Road in RAG-4 District. Mr. Gabriel Dietrich approached the Board.

Mr. Dietrich requests to amend original Special Use Permit with Site Plan Approval for Internet Car Sales using existing 1800 SF structure for storage of up to six (6) cars with no outside storage.

Applicant proposes a Special Use Permit with Site Plan review for Hudson Valley Motorcars (HVMC) Internet Car Sales with auto repair / storage using existing 1800 SF structure with rear storage behind structure for twelve (12) vehicles. The proposed hours of operation are Monday through Friday 8:00 am – 8:00 pm with weekends when needed. Employees include him and one part time. Repairs in facility to be limited to steering, suspension, exhaust system, brakes, fuel, tune-ups, electrical, transmission and engine repair when under 30 day warranty. Repairs will be done on vehicles being bought and sold through HVMC and owners own vehicles. Allowing, HVMC to repair vehicles privately and not open to the public. Used oil and antifreeze will be stored in (4) 15 gallon containers with additional drip tray and oil absorption pads to prevent spillage. Fluids to be transported and disposed of to shops / dealerships that accept recycled oil. Screening has been installed.

The Board reviewed revised Site Plan dated 11/12/08 and was entered into record.

Ms. Pedersen asked if there were any comments or questions from the Board or audience.

Mr. White said the note for highway purposes as shown is confusing. He suggested that the standard note for highway purposes be used.

The Board agreed the site plan is to be revised.

A motion was made by George Sawyer, seconded by Mark Watkins, to declare a Negative Declaration on the environment for the Amendment to the Special Use Permit with Site Plan. Vote: All Ayes. Absent: None.

A motion was made to close the Preliminary Public Hearing by Alan White, seconded by George Sawyer. Vote: All Ayes.

A motion was made by Carol Scofield, seconded by Mark Watkins to grant Preliminary Approval, waive Final Public Hearing and grant Final Approval for this Amendment to Special Use Permit with Site Plan as stated above and subject to amending the Site Plan to add the standard note used for highway purposes. Vote: Carol Scofield, aye, Mark Watkins, aye, Alan White, aye, George Sawyer, aye, Kris Pedersen, aye. Vote: All ayes. Absent: None.

Respectfully Submitted,

_____
Robin C. Kaufmann, Secretary

Minutes of a Regular Meeting held by the Planning Board of the Town of Shawangunk, County of Ulster, State of New York, at the Town Office Building, 14 Central Avenue, Wallkill, New York, on the 6th day of January, 2009.

Those present were: Kris Pedersen, Chairman
George Sawyer
Alan White
Mark Watkins
Carol Scofield
Bonnie Franson, AICP
Absent: None. Also present: Please see attached sign-in sheet.

Open Regular Meeting: 7:00 pm

A motion was made by George Sawyer, seconded by Carol Scofield to approve the Minutes of November 5, 2008. Vote: All Ayes. Absent: None.

A motion was made by George Sawyer, seconded by Carol Scofield to amend the Minutes of Open Space Conservancy / Cornella / Doimi / Portuondo final motion to read: A motion was made by George Sawyer, seconded by Carol Scofield etc., and approval of the Minutes as amended for December 2, 2008. Vote: All Ayes. Absent: None.

PRELIMINARY PUBLIC HEARINGS: There were none.

CONTINUATION PUBLIC HEARINGS:
Estate of Stanley Gomes/ Keith & Candice Fox:(104.1-2-10.120 & 104.1-2-9)Proposed Three Lot Subdivision with Lot Line Change of 39.9+\-acres at 42 / 48 Weed Road in the RAG-2 District. See Public Hearing Minutes.

Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11) Proposed Special Use Permit with Site Plan Approval for 300 Multiple Dwellings in a 3 story residential building and ancillary uses included but not limited to 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is 1141+/- acres located at 900 Red Mills Road in RAG-4 District. Mr. Dave Kios and Mr. Enrique Ford represented the applicants.

The following items were entered into record: Memorandum dated December 9, 2008 from Richard Hoyt, Esq., memorandum dated December 17, 2008 from Tim Miller Associates and email dated January 5, 2009 from Kris Van Tassel – Watchtower Farms.

The Board discussed and said that they endorse TMA December 17, 2008 comments in their entirety. The comments are to be considered for revision / addition of the FEIS. Additional discussion was held on the following items:

Item #20 Wastewater/Sewage Disposal – The Board requested a report be attached to FEIS;

Item # 26 Recreation – The Board requested that an analysis be provided of the supply and demand of the proposed recreation program with a comparison of existing and proposed recreation activities to be conducted on the site. Include proposed activities to match the demographics anticipated for the facility etc. Further research on Town Law on recreation fees will be investigated. Additional information from the applicant is necessary.

Item #31 – The Board requested that a written evaluation be provided on the supply and demand to substantiate the need for parking garage;

Item #41 – Ulster County Dept of Transportation request (through email from Joe Mihm, Brinnier & Larios, PC dated October 31, 2008) of roundabouts at intersections Red Mills Road with Steen /

Watchtower con't.

Hoagerburgh Road with Bruynswick Road and New Prospect Road. Town Traffic Consultant James Garofalo comment is pending.

Member Sawyer said he has spoken with UCDOT Mercia Catona, PE, and the County and Town Highway Superintendent are in favor of improvements to these intersections for safety factors. Mr. Catona offered to design a roundabout.

The Planning Board said that mitigation measures need to be evaluated to determine whether a roundabout, stop signs and/or speed measures would be the safest for these locations. The Board is not in favor of the applicant being responsible for the improvement. Most of the projects traffic is presumed in the other direction.

The Board will wait on their Consultant James Garofalo for further comment. The applicant is continuing to work on the FEIS.

The Special Use Permit with Site Plan Public Hearing was continued to February 3, 2009.

Titus, Lee & Joanna:(106.4-1-6.200)Proposed Final Approval of 32 Lot Cluster Subdivision of 25+/-acres with sewer & water off Buena Vista Avenue located in the Hamlet District and Borden AG Support Overlay District. No one appeared before the Board.

The application remains incomplete. The Public Hearing was continued to February 2009.

Marbil Corp.:(100.4-1-13.2)Proposed Special Use Permit with Site Plan Review for sand and gravel mine on Denniston Road and NYS Route 208 in the RAG-4 District and Aquifer Overlay Protection District.
No one appeared before the Board.

Ms. Pedersen said that the NYSDEC is scheduled for Privilege of the Floor at the Town Board January 8, 2009 meeting and said that Board Members and the secretary should attend if possible.

The application remains incomplete. The Public Hearing was continued to February 2009.

APPEARANCES:

Charlene Ramsey:(106.2-2-24)Proposed Two Lot Subdivision of 14.2 acres at 258 Old Reservoir Road in the RAG-2 District and AQ-Overlay. Ms. Margaret Hillriegel, LS and Ms. Charlene Ramsey were present before the Board.

The following items were entered into record: Applicants submission received on December 12, 2008 with map dated December 10, 2008 and Tim Miller Associates memorandum dated December 31, 2008.

The Board reviewed and discussed the December 10th plan and TMA December 31st memo.

Ms. Hillriegel agreed that the proposed house can't meet the AQ-Overlay requirement of 5'foot separation from the water table. She will relocate it to the hill.

A motion was made by Alan White, seconded by George Sawyer to waive the Cluster Plan requirement. Vote: All Ayes. Absent: None.

The application is incomplete and is to address TMA December 31st comments. The application was scheduled for a Public Hearing in February.

Knoth con't.
Ms. Pedersen asked if there were any comments or questions from the Board of audience. There were none.

The application remains incomplete. The Final Public Hearing was continued to March.

CONTINUATION PUBLIC HEARINGS:
Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11) Proposed Special Use Permit with Site Plan Approval for 300 Multiple Dwellings in a 3 story residential building and ancillary uses included but not limited to 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is 1141+/-acres located at 900 Red Mills Road in RAG-4 District. Mr. Enrique Ford represented the applicants.

Ms. Pedersen said that comments from the Town Consultants for review of the FEIS have not been received.

The Public Hearing was continued to March.

Titus, Lee & Joanna:(106.4-1-6.200)Proposed Final Approval of 32 Lot Cluster Subdivision of 25+/-acres with sewer & water off Buena Vista Avenue located in the Hamlet District and Borden AG Support Overlay District. Mr. John Tarolli, PE represented the applicant and said informed the Board that there is nothing new to report for this project.

The application remains incomplete. The Public Hearing was continued to March.

Marbil Corp.:(100.4-1-13.2)Proposed Special Use Permit with Site Plan Review for sand and gravel mine on Denniston Road and NYS Route 208 in the RAG-4 District and Aquifer Overlay Protection District. Mr. Mario Milano, owner was present before the Board.

Mr. Milano provided the Board with the funds to establish the escrow account. His Engineer contacted the office to request that the Town post the FEIS onto the Town's Web Site. The Board agreed.

The Board requested that nine (9) copies of the Site Plan and three (3) Final Environmental Impact Statements be submitted for review.

The application remains incomplete. The Public Hearing was continued to March.

APPEARANCES:
Estate of Patrick Kelly:(99.3-4-3)Proposed Two Lot Subdivision of 49.97+/-acres on Hardenburgh Road / Bruyn Turnpike in the RAG-2 and RAG-4 Districts. Ms. Margaret Hillriegel, LS represented the applicants. Applicant proposes Lot 1 of 11.3056+/-acres, net acreage of 8.07+/-acres with existing single family dwelling and three (3) bungalows. Lot 2 of 36.6693+/-acres, net acreage of 33.26+/-acres with proposed dwelling, existing barn and out buildings – property to remain in agricultural use (No wetlands easterly of Bruyn Turnpike or Northerly of Hardenburgh Road have been flagged.

The following items were entered into record: Map dated revised January 12, 2009, Map dated January 28, 2009, agricultural data statement and memorandum dated January 30, 2009.

WATCHTOWER
Bible and Tract Society of New York, Inc.
900 Red Mills Road, Wallkill, NY 12589-3223, U.S.A.
Phone: (845) 744-6000

MCT April 7, 2009

Town of Shawangunk Planning Board
Kris Pedersen, Chairwoman
PO Box 247
Wallkill, NY 12589

Re: Watchtower Farms Improvements
Ulster County Planning Board Staff Meeting on March 26, 2009
Ulster County Planning Board Meeting on April 1, 2009:

Dear Ms. Pedersen,

As you requested, this is a report concerning recent meetings with the Ulster County Planning Board (UCPB) concerning the proposed Watchtower Farms Improvements project.

At the request of UCPB staff, a meeting was held at their offices in Kingston, New York, on Thursday, March 26, 2009. The meeting was attended by Town of Shawangunk and Ulster County Planning Board member Mark Watkins. Seven staff and consultants appeared on behalf of the applicant. There were three attendees present on behalf of the Ulster County Planning Board – Dennis Doyle, Robert Leibowitz, and Burt Samuelson. Miklos Rudnay attended on behalf of the Department of Public Works (UCDPW), and Anthony Puccio attended on behalf of the Ulster County Health Department (UCHD). The meeting began with an overview presentation at 10:00 AM, continued with a thorough question-and-answer discussion, and concluded after 12:00 PM. Based on this meeting, Mr. Doyle indicated that the UCPB would present the proposed project to the full board at the UCPB meeting on Wednesday, April 1, 2009.

On Wednesday, April 1, 2009, Mr. Doyle presented the proposed project to the entire UCPB, and two of the applicant's representatives provided a brief overview. It was indicated that a written response to the referral should soon be received by the Town of Shawangunk Planning Board.

Thank you for considering this report, and please feel free to contact David Kjos at (845) 744-6000 if you have any questions.

Sincerely,

Watchtower B. & T. Society
OF NEW YORK, INC.

APPENDIX 2

Reference Documentation

Comment Letters and Reports

Letter No.	From	Date
1	Hickory Creek Consulting LLC, Karen Schneller-McDonald	October 2, 2008
2	Ruth L. Pierpont, Director of New York State Office of Parks, Recreation and Historic Preservation	October 17, 2008
3	Joe Mihm	October 31, 2008
4	Mrs. Hilda Borges	November 3, 2008
5	Tim Miller Associates, Inc., Bonnie Franson, AICP, and James Garofalo, AICP	December 17, 2008
6	Judith Blanvelt, Division of Environmental Permits, New York State Department of Environmental Conservation (NYSDEC)	January 13, 2009
7	Gerald Pratt, Chief of Commissioners for the Shawangunk Valley Fire Department	January 14, 2009
8	Hickory Creek Consulting LLC, Karen Schneller-McDonald	February 4, 2009
9	Watchtower Bible & Tract Society of New York: USFWS	February 12, 2009
10	Watchtower Bible & Tract Society of New York: NYSDEC, Tara Salerno	February 12, 2009
11	Watchtower Bible & Tract Society of New York: NYSDEC, Rebecca Crist	February 13, 2009
12	Hickory Creek Consulting LLC; Watchtower Bible & Tract Society of New York	February 20, 2009
13	Tim Miller Associates, Inc., Bonnie Franson, AICP	February 26, 2009
14	New York State DEC, Tara Salerno	March 2, 2009
15	Brinnier and Larios, P. C. Professional Engineers & Land Surveyors	March 3, 2009
16	Hickory Creek Consulting LLC, Karen Schneller-McDonald	March 10, 2009
17	Town of Shawangunk Planning Board to Ulster County Planning Board	March 18, 2009
18	Tim Miller Associates, Inc., Bonnie Franson, AICP	April 2, 2009

Hickory Creek Consulting LLC

Karen Schneller-McDonald
25 Carriage Drive
Red Hook, New York 12571

845 758-2369
katykill@frontiernet.net

To: Kris Pedersen
Chair, Town of Shawangunk Planning Board
From: Karen Schneller-McDonald
Re: Watchtower project
Date: October 2, 2008

I have reviewed the Watchtower Farms Improvements DEIS (Sept. 5) for completeness in the areas of watershed resources and habitat/wildlife, comparing new changes to this document in response to my previous comments of July 25, 2008. The following comments are for your consideration.

I am requesting that three maps are added to the DEIS: a buffer map, a watershed map, and a habitat map of the site. Details are provided below. Please let me know if you have any questions.

A. Section III.B Surface Water Resources

1. Shawangunk Kill. It is understood that a permit for water use is in place. However, information on stream flow changes should be included in the DEIS, so that if there are impacts, they can be reviewed. While these issues have been mentioned, the DEIS does not provide specific information on the amount of additional water that would be withdrawn from the Shawangunk Kill, and subsequent impacts on stream flow including during times of drought and considering climate change factors. This information should be added to the DEIS so that potential impacts on stream biota can be ascertained.

2. Buffers. (Refer also to Vegetation and Wildlife section comments below)
Impacts on wetland and stream water quality from stormwater runoff are directly related to the condition and size of buffer areas. While this has been discussed in the DEIS, the information has been scattered among different sections.

To provide a more complete description in the DEIS, and a more detailed look at the information presented in figure III E.7, a full-sized separate buffer map is needed. This map would include: existing buffers and type of vegetation; post-construction buffers and type of vegetation; location of turf grass; and location of management areas beyond the buffers (i.e. 'no chemical amendment' or special mowing areas).

In addition to the map, buffer information in the DEIS should be consolidated from the various sections in which it appears, so that all buffer information is in one place.

B. Section III.C Groundwater Resources

1. Groundwater recharge. On page III-61 (III.C.4) of the DEIS, a reduction of groundwater recharge impacts is mentioned. What are these impacts? On page III-60, the DEIS states that there are no groundwater recharge impacts. This appears to be a contradiction in the text, and should be clarified.

Section III. E 1 Vegetation

1. Plant lists. The DEIS refers to the Town's Habitat Assessment Guidelines. These guidelines provide a table of the plants of conservation concern that could be found within the town; this table should be included in the DEIS. The plant table includes information on wetland plants and their status, which is not otherwise provided in the DEIS, and is more specific to the Town than the very long list provided in the DEIS.

2. Protected areas. The DEIS states that "The need for additional field studies is not anticipated because the applicant assumes that such species could exist in these protected natural areas and is committed to the protection of these areas." The DEIS does not identify these 'protected areas', nor does it describe how they are to be protected.

3. Buffers and impacts from lawns. Manicured lawn generally requires the regular application of herbicides, pesticides and fertilizers. The effects of these on adjacent wetlands are not yet addressed in the DEIS. What chemicals are being applied to lawns? What are the quantities? How often are they applied? This information is still lacking, and until it is provided, a determination of indirect impacts on wetlands and the plants within them cannot effectively be determined.

4. A Habitat map of the site should be added to the DEIS to provide a picture of the relationship between constructed features and biological resources. It should include wetland, aquatic and upland habitats as described in either of the following resources:

a. Edinger, Gregory J., ed. 2002. Ecological communities of New York State, second edition. New York Natural Heritage Program. Revised and expanded edition of Reschke, Carol. Ecological Communities of New York State, 1990; or

b. Kiviat, Erik, Stevens, Gretchen. 2001. Biodiversity assessment manual for the Hudson River Estuary Corridor. Hudsonia Ltd., Annandale, NY.

III. E. 2 Fish and Wildlife

1. Species lists. The DEIS refers to the Town's Habitat Assessment Guidelines. These guidelines provide tables of the species of conservation concern that could be found within the town; these tables should be included in the DEIS. The wildlife tables include amphibians, reptiles and birds and are more specific to the Town than the lists provided in the DEIS; they also provide information on the status of each species, which is not found in the DEIS but should be included.

2. Protected natural areas. While the DEIS states that SGCN species can be assumed to be present (p. III-110) the DEIS refers to such species existing in "adjacent protected natural areas." What areas does this refer to? Which species?

3. Bog turtles.

As I noted in my July 2007 report:

"Bog turtle habitat is present in and near wetland area #3 as noted in the Wetland Delineation and Assessment Report. A representative from USFWS or the DEC should review the site and any proposed mitigation measures. A Phase 2 bog turtle survey may be requested, but it could not be started until next year due to seasonal requirements. Or, on the assumption that bog turtles are present, mitigation can be developed and evaluated to fully protect the habitat without requiring an actual field survey. However, personnel from both DEC and USFWS should be contacted, and their comments requested in this matter as soon as possible, as they may have specific requests."
This does not appear to be documented in the DEIS.

Mitigation measures described on page III-111 in reference to bog turtles need to be compared to the specific requirements of the above-mentioned USFWS Bog Turtle Recovery Plan.

Habitat areas that are suitable for bog turtles should be indicated on a habitat map of the site, and should include both onsite and adjacent site locations (see Habitat Map above).

4. Buffers. Page III-110 provides a confusing paragraph (beginning " Impacts on wildlife could occur ....") about wildlife and use of wetland buffers. Page III-111 also refers to Restoration of Buffers and wildlife species. Which wildlife species does this refer to? (Refer to the SGCN list in the Habitat Assessment Guidelines). And what are the specific wetland/buffer needs of those species? How does that match with existing and proposed buffer characteristics and restoration?

III. E. 3 Wetlands and Waterbodies

Watershed map
The DEIS does provide information on impervious surfaces. However, the narrative on page III-48 is confusing and requires clarification. The addition of a watershed map would be most helpful to illustrate the relationship between the three wetlands' contributing drainage area, the 352-acre drainage area and the 180-acre watershed described in the DEIS on page III-48, which drains to the two existing on-site water supply reservoirs. These areas, along with all surface water features, should be shown on one map in the DEIS to facilitate review of potential impacts.

Town of Shawangunk: Birds of Conservation Concern

This is a preliminary list, subject to updates as necessary.
Spring, 2008

COMMON NAME	SCIENTIFIC NAME	US	NY	BCC	PIF	SG CN	DEV SEN	HAB	NWR
GREBES, WADING BIRDS, DUCKS									
American bittern	*Botaurus lentiginosus*		SC			X	X	OU, MSW	
American black duck	*Anas rubripes*				PIF	X	X	MSW, LW	X
Wood duck	*Aix sponsa*				PIF		X		X
Pied billed grebe	*Podilymbus podiceps*		T			X	X	MSW,LC	
DIURNAL RAPTORS									
Bald eagle	*Haliaeetus leucocephalus*	T	T			X		TF, WS, LW	
Golden eagle	*Aquila chrysaeotos*		E			X		OU, TF, AM	
Broad-winged hawk	*Buteo platypterus*						X		
Cooper's hawk	*Accipiter cooperii*		SC			X	X	TF	X
Red-shouldered hawk	*Buteo lineatus*		SC			X	X	TF, MSW	X
Sharp-shinned hawk	*Accipiter striatus*		SC			X	X	TF	X
Northern goshawk	*Accipiter gentilis*		SC			X		TF,AM	X
Northern harrier	*Circus cyaneus*		T			X		OU,LW MSW	X
Osprey	*Pandiom haliaetus*		SC			X		OU, BW	
Peregrine falcon	*Falco peregrinus*		E	X	PIF	X	X	OU, AM	X
SHOREBIRDS									
Upland sandpiper	Bartramia longicauda		T	X	PIF	X		OU	X
American woodcock	Scolopax minor				PIF	X	X	OU, TF	X
CUCKOOS									
Black-billed cuckoo	*Coccyzus erythropthal-mus*				PIF	X	X	TF	X
Yellow-billed cuckoo	*Coccyzus americanus*						X		X

Town of Shawangunk: Birds of Conservation Concern

This is a preliminary list, subject to updates as necessary.
Spring, 2008

COMMON NAME	SCIENTIFIC NAME	US	NY	BCC	PIF	SG CN	DEV SEN	HAB	NWR
OWLS									
Northern saw-whet	*Aegolius acadicus*			X					
Barn owl	*Tyto alba*					X		OU, TF	X
Barred owl	*Strix varia*						X		
Long-eared owl	*Asio otus*					X		OU, TF	X
Short-eared owl	*Asio flammeus*		E	X	PIF	X		OU, MSW	X
GOATSUCKERS AND SWIFTS									
Common nighthawk	*Chordeiles minor*		SC			X		OU	X
Whip-poor-will	*Caprimulgus vociferous*		SC	X	PIF	X		BW	
UPLAND GAME BIRDS									
Ruffed grouse	*Bonasa umbellis*					X		TF	
HUMMINGBIRDS AND SWIFTS									
Chimney swift	*Chaetura pelagica*				PIF				
WOODPECKERS									
Pileated woodpecker	*Dryocopus pileatus*						X		
Red-headed woodpecker	Melanerpes erythro-cephalus		SC	X	PIF	X		OU, TF	X
Yellow-bellied sapsucker	Sphyrapicus varius			X	PIF				X
TYRANT FLYCATCHERS									
Eastern wood-pewee	*Contopus virens*				PIF		X		X
Acadian flycatcher	*Empidonax virescens*				PIF				
Great crested flycatcher	*Myiarchus crinitus*						X		
SHRIKES AND VIREOS									
Loggerhead shrike	*Lanius ludovicianus*		E	X	PIF	X		OU	X

Town of Shawangunk: Birds of Conservation Concern

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Spring, 2008

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Yelllow-throated vireo	*Vireo flavifrons*						X		
Red-eyed vireo	*Vireo olivaceus*						X		
JAYS AND CROWS									
Common raven	*Corvus corax*						X		
NUTHATCHES									
Red-breasted nuthatch	*Sitta canadensis*								
LARKS									
Horned lark	*Eremophila alpestris*		SC			X		OU	X
WRENS									
Marsh wren	*Cistothorus palustris*			X			X		
Sedge wren	*Cistothorus platensis*		T	X	PIF	X		OU, MSW	
OLD WORLD WARBLERS, THRUSHES									
Swainson's thrush	*Catharus ustulatus*						X		
Wood thrush	*Hylocichla mustelina*			X	PIF	X	X	TF	X
Veery	*Catharus fuscescens*						X		
Blue-gray gnatcatcher	*Polioptila caerulea*						X		
MIMIDS									
Brown thrasher	*Toxostoma rufum*				PIF	X	X	TF	X
WOOD-WARBLERS									
Ovenbird	*Seiurus aurocapillus*						X		
American redstart	*Setophaga ruticilla*						X		
Bay-breasted warbler	*Dendroica castanea*			X		X		TF	
Black-and-white warbler	*Mniotilta varia*				PIF		X		
Blackburnian warbler	*Dendroica fusca*				PIF		X		

Town of Shawangunk: Birds of Conservation Concern

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Spring, 2008

COMMON NAME	SCIENTIFIC NAME	US	NY	BCC	PIF	SG CN	DEV SEN	HAB	NWR
Blackpoll warbler	*Dendroica striata*								
Black-throated blue warbler	*Dendroica caerulescens*				PIF	X	X	TF	
Blue-winged warbler	*Vermivora pinus*			X	PIF	X	X	OU	X
Canada warbler	*Wilsonia canadensis*			X	PIF	X	X	TF	
Cape May warbler	*Dendroica tigrina*					X		TF	
Cerulean warbler	*Dendroica cerulea*		SC	X	PIF	X	X	TF	
Chestnut-sided warbler	*Dendroica pennsylvanica*						X		
Golden-winged warbler	*Vermivora chrysoptera*		SC	X	PIF	X		OU, MSW	
Hooded warbler	*Wilsonia citrina*						X		
Magnolia warbler	*Dendroica magnolia*						X		
Northern parula warbler	*Parula americana*						X		
Palm warbler	*Dendroica palmarum*								X
Prairie warbler	*Dendroica discolor*			X	PIF	X	X	TF	X
Prothonotary warbler	*Protonotaria citrea*				PIF	X	X	MSW	
Tennessee warbler	*Vermivora peregrina*					X		TF	
Worm-eating warbler	*Helmitheros vermivorus*			X	PIF	X	X	TF	
Black-throated green warbler	*Dendroica virens*						X		
Louisiana waterthrush	*Seiurus motacilla*			X	PIF	X	X	TF	
Northern waterthrush	*Seiurus noveboracensis*						X		
Yellow-breasted chat	*Icteria virens*		SC			X	X	OU	X
TANAGERS, CARDINALS, AND ALLIES									
Scarlet tanager	*Piranga olivacea*				PIF	X	X	TF	X
Rose-breasted grosbeak	*Pheucticus ludovicianus*						X		

Town of Shawangunk: Birds of Conservation Concern

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Spring, 2008

COMMON NAME	SCIENTIFIC NAME	US	NY	BCC	PIF	SG CN	DEV SEN	HAB	NWR
SPARROWS AND ALLIES									
Eastern towhee	*Pipilo erythropthalmus*				PIF		X		X
Field sparrow	*Spizella pusilla*				PIF		X		X
Grasshopper sparrow	*Ammodramus savanna-rum*		SC		PIF	X		OU	X
Henslow's sparrow	*Ammodramus henslowii*		T	X	PIF	X		OU	X
Savannah sparrow	*Passerculus sand-wichensis*						X		X
Vesper sparrow	*Pooecetes gramineus*		SC			X	X	OU	X
ICTERIDS									X
Bobolink	*Dolichonyx oryzivorus*					X	X	OU	X
Baltimore oriole	*Icterus galbula*			X	PIF		X		X
Eastern meadowlark	*Sturnella magna*					X	X	OU	X

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SGCN-- Species of Greatest Conservation Need, as identified by the N.Y. S. Department of Environmental Conservation in "Comprehensive Wildlife Conservation Strategy for New York" 2006.
DEV-SENS-- Development-sensitive species, i.e. species whose populations are declining in response to development and sprawl as identified in
LaBruna, D.T. and M.W. Klemens. 2007. Northern Wallkill Biodiversity Plan: Balancing Development and Environmental Steward-ship in the Hudson River Estuary Watershed, MCA Tech. Paper No. 13, Metropolitan Conservation Alliance, Wildlife Conservation Society, Bronx, N.Y
A blank space denotes species not in study areas for this report.
BCC US Fish and Wildlife Service Birds of Conservation Concern, 2002.
PIF-- Partners in Flight. Birds not listed as threatened or endangered that are at particular risk due to low population size, small range, declining populations, loss of habitat, nest parasitism, and other factors.
HAB-- General habitats as listed in the New York State Department of Environmental Conservation's "Comprehensive Wildlife Conservation Strategy for New York" 2006.

- **TF**: Terrestrial forested
- **OU**: Open upland
- **AM**: Alpine meadow
- **BW**: Barrens/ woodlands
- **WS**: Warm water stream
- **MSW**: Mineral soil wetland
- **LW**: Warm water lake
- **LC**: Cold water lake

NWR- Shawangunk Grasslands National Wildlife Refuge Trust Species and other species of conservation concern found at the Refuge.

Town of Shawangunk: Reptiles of Conservation Concern

2008

This is a preliminary list, subject to updates as necessary.

COMMON NAME	SCIENTIFIC NAME	US	NY	SG CN	DEV-SENS	HAB
Spotted turtle	*Clemmys guttata*		SC	X	X	OU, MSW, TF, WP
Wood turtle	*Clemmys insculpta*		SC	X	X	OU, TF, CS
Bog turtle	*Clemmys muhlenbergii*	T	E	X	X	WP, MSW,
Eastern box turtle	*Terrapene carolina*		SC	X	X	BW
Eastern hognose snake	*Heterodon platirhinos*		SC	X	X	OU, BW
Timber rattlesnake	*Crotalus horridus*		T	X	X	OU, BW
Snapping turtle				X		OU, LW
Northern black racer	*Coluber constrictor*			X	X	OU, TF
Eastern ribbon snake	*Thamnaphis s. sauritus*			X	X	OU, TF, BW
Black rat snake	*Edaphe obsoleta*			X	X	OU, TF
Northern copperhead	*Agkistrodon contortrix mokasen*			X	X	TF

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LW: Warm water lake
LC: Cold water lake
WP: Peatlands (wetland)

Town of Shawangunk: Amphibians of Conservation Concern *

2008

This is a preliminary list, subject to updates as necessary.

COMMON NAME	SCIENTIFIC NAME	US	NY	SG CN	DEV-SENS	HAB
Marbled salamander	*Acris crepitans*		SC	X	X	BW, MSW, VP
Spotted salamander	*Ambystoma maculatum*				X	MSW, VP
Jefferson salamander	*Ambystoma jeffersonia-num*		SC	X	X	MSW, VP,TF
Northern red salamander	*Pseudotriton ruber*			X	X	CS, MSW
Northern dusky salamander	*Desmognathus fuscus*				X	
Mountain dusky salamander	*Desmognathus ochro-phaeus*				X	
Four-toed salamander	*Hemidactylium scutatum*			X	?	TF, WP
Slimy salamander	*Plethodon glutinosus*				X	
Spring salamander	*Gyrinophilus porphyriticus*				X	
Blue-spotted salamander	*Ambystoma laterale*		SC	X	X	TF, BW, MSW, VP
Northern cricket frog	*Ambystoma opacum*		E	X	X	TF, MSW
Wood frog	*Rana sylvatica*				X	VP
Southern leopard frog	*Rana utricularis spheno-cephalis*		SC	X	X	MSW, TF, OU
Gray treefrog	*Hyla versicolor*				X	
Fowler's toad	*Bufo fowleri*			X	?	MSW

NOTES:

* Many of these species are vulnerable because of their dependence on wetlands (including vernal pools) or streams for breeding habitat, and their sensitivity to water contamination

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Town of Shawangunk: Amphibians of Conservation Concern *

2008

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WP: Peatlands (wetland)
VP: Vernal pool breeder

Town of Shawangunk: ***PLANTS OF CONSERVATION CONCERN***
This list is subject to updates as necessary.
November, 2006

Scientific Name	Common Name	NYS	NYS Natural Heritage Program Ulster County	USFWS Wetland Plant List	Shawan-gunk Ridge	Shawan-gunk Kill
Agastache nepetoides	hyssop, yellow giant	T	Active inventory	FACU		
Agrimonia parviflora	agrimony, swamp		Watch list	FAC		*
Agrimonia rostella	agrimony, woodland	T	Active inventory	FACU		
Aplectrum hyemale	puttyroot	E	Active inventory	FACU		
Arethusa bulbosa	dragon's mouth orchid	T	Active inventory	OBL		
Arisaema dracontium	green dragon	V		FACW		*
Aristolochia serpentaria	Virginia snakeroot	E	Active inventory	UPL		
Asclepias viridiflora	green milkweed	T	Active inventory			
Asplenium bradleyi	spleenwort, Bradley's *	E	Active inventory		*	
Asplenium montanum	spleenwort, mountain	T	Active inventory		*	
Betula nigra	birch, river	V	Watch list	FACW		
Bidens bidentoides	Delmarva beggar-ticks	R	Active inventory	FACW		
Bidens laevis	smooth bur-marigold	T	Active inventory	OBL		
Boechera missouriensis	green rock-cress	T	Active inventory			
Botrychium oneidense	fern,blunt-lobe grape	E	Active inventory			
Carex albicans var.emmonsii	sedge, Emmons'		Watch list			
Carex amphibola	sedge, narrow-leaved	E	Active inventory	FAC		
Carex bushii	sedge, Bush's		Watch list	FACW		*
Carex cryptolepis	sedge, northeastern		Watch list	OBL		
Carex cumulata	sedge, clustered	T	Watch list	FACU	*	
Carex davisii	sedge, Davis's	T	Watch list	FAC		*
Carex frankii	sedge, Franks	E	Watch list	OBL		*
Carex glaucodea	sedge, glaucous	E	Watch list			
Carex lupuliformis	sedge, false hop	R	Watch list	FACW+	*	

Carex merritt-fernaldi	sedge, Fernald's	T	Watch list			
Carex molesta	sedge, troublesome	T	Watch list			
Carex retroflexa	sedge, reflexed	E	Watch list		*	
Carex seorsa	sedge, weak stellate	T	Watch list	FACW		
Carex straminea	sedge, straw	E	Watch list	OBL		
Castilleja coccinea	scarlet indian paintbrush	E	Watch list	FAC		
Celastrus scandens	bittersweet, American		Watch list			
Ceratophullum echinatum	hornwort, prickly	T	Watch list	OBL		
Chamaelirium luteum	fairy wand	T	Watch list	FAC		
Cheilanthes lanosa	fern, wooly-lip	E	Watch list			
Chelone glabra	turtlehead	V		OBL	*	
Corema conradii	broom crowberry	E	Watch list		*	
Cornus florida	flowering dogwood	V			*	
Corydalis aurea	golden corydalis	T	Watch list			
Crassula aquatica	water pigmyweed	E	Watch list	OBL		
Crotalaria sagittalis	rattlebox	E	Watch list			
Cuscuta cephalanthi	dodder, buttonbush	E	Watch list			
Cynoglossum virgnianum var. boreale	comfrey, northern wild	E	Watch list			
Cyperus erythrorhizos	sedge, red-root		Watch list	FACW		*
Cypripedium acaule	lady's slipper, pink	V		FACU		
Cypripedium parviflorium var.parviflorum	lady's slipper, small yellow	E	Watch list			*
Diarrhena obovata	beakgrass	E	Watch list			*
Dichanthelium oligosanthes var. oligosanthes	grass, rough panic	E	Watch list	FACU		
Digitaria filiformis	crabgrass, slender	T	Watch list			
Diphasiastrum complanatum	running-pine, northern	E	Watch list			
Drosera intermedia	sundew, spatulate-leaved	V		OBL		
Drosera rotundifolia	sundew, round-leaved	V		OBL		
Eclipta prostrata	false-daisy	E	Watch list			
Elatine americana	waterwort, American	E	Watch list	OBL		
Eleocharis fallax	spikerush, creeping	E	Watch list	OBL		
Eleocharis obtusa var. ovata	spikerush, blunt	E	Watch list	OBL		*

Eleocharis quandrangulata	spikerush, angled	E	Watch list	OBL		
Epigaea repens	trailing arbutus	V			*	
Equisetum pratense	horsetail, meadow	T	Watch list	FACW		
Galearis spectabilis	orchis, showy	V				
Gentiana clausa	gentian, closed	V		FACW	*	*
Gentiana quinquefolia	gentian, stiff	V			*	
Geranium carolinianum var. sphaerospermum	Carolina cranesbill	T	Active inventory		*	
Geum macrophyllum var. macrophyllum	avens, bigleaf yellow		Active inventory	FACW		
Geum vernum	avens, spring	E	Watch list	FACU	*	
Geum virginianum	avens, rough	E	Active inventory	FAC-	*	
Goodyera pubescens	rattlesnake plantain	V		FACU	*	
Hedeoma hispidum	mock-pennyroyal	T	Active inventory		*	
Heteranthera reniformis	kidney-leaf mud plantain		Watch list	OBL		
Houstonia purpurea var. calycosa	southern bluet	E	Active inventory			
Huperzia appressa	Appalachian firmoss	T	Active inventory			
Hypericum prolificam	St. John's-wort, shrubby	T		FACU	*	
Ilex laevigata	smooth winterberry	V		OBL	*	
Ilex montana	holly, mountain	V			*	
Ilex verticillata	black alder	V		FACW+	*	
Isoetes riparia	quillwort, riverbank	E	Active inventory	OBL	*	
Isotria medeoloides	pogonia, whorled	E	Active inventory	FACU	*	
Juglans cinerea	butternut	V	Watch list	FACU+	*	
Juncus subcaudatus	rush, woods	E	Active inventory	OBL	*	
Juncus trifidus	rush, Arctic	T	Active inventory		*	
Kalmia angustifolia	laurel, sheep	V		FAC	*	
Kalmia latifolia	laurel, mountain	V		FACU	*	
Kalmia polifolia	laurel, swamp	V		OBL	*	
Lactuca floridana	lettuce, false	E	Active inventory	FACU		
Lactuca hirsuta	lettuce, downy	E	Active inventory		*	
Lespedeza repens	bush-clover, trailing	R	Watch list			
Lespedeza stuevei	bush-clover, velvety	T	Active inventory			

Lespedeza violacea	bush-clover, violet	R	Watch list			
Liatris scariosa var. novae-angliae	northern blazing star	T	Active inventory			
Lilium canadense	Canada lily	V		FAC+		
Lilium philadelphicum	woodlily	V		FACU+		
Limosella australis	mudwort	R	Watch list	OBL		
Liparis liliifolia	large twayblade	E	Active inventory	FACU-	*	
Lobelia cardinalis	cardinal flower	V		FACW+		
Lobelia nuttallii	lobelia, Nuttall's	R	Watch list	FACW		
Ludwigia sphaerocarpa	ludwigia, globe-fruited	T	Active inventory	OBL		
Lupinus perennis	lupine, wild		Watch list			
Luzula echinata	woodrush, spiny		Watch list	FACU		
Lycopodium complanatum	Northern running pine	E		FACU-	*	
Mimulus alatus	winged monkeyflower	R	Watch list	OBL		*
Minuartia glabra	Appalachian sandwort	T		UPL	*	
Minuartia groenlandica	sandwort, mountain		Watch list			
Myriophillum farwellii	farwell watermilfoil	T		OBL	*	
Oenothera laciniata	evening primrose, cut-leav	E	Active inventory	FACU-		
Orchis spectabilis	orchid, showy	V				
Orontium aquaticum	golden club	T	Active inventory	OBL		
Oxalis violacea	wood sorrel, violet	T	Active inventory		*	
Panax quinquefolius	ginseng,American	V				
Pedicularis lanceolata	lousewort, swamp	T	Active inventory	FACW		
Persicaria careyi	smartweed, Carey's	E	Active inventory	FACW	*	
Persicaria setacea	smartweed, swamp	E	Active inventory	OBL		
Platanthera hookeri	orchid, Hooker's	E	Active inventory	FAC		
Podostemum ceratophullum	riverweed	T	Active inventory	OBL		*
Pogonia ophioglossoides	pogonia, rose	V		OBL	*	
Polemonium vanbruntiae	Jacob's ladder	R	Active inventory	FACW		
Polygonum erectum	knotweed, erect	E	Watch list	FACU		
Polygonum tenue	knotweed, slender	R	Watch list			
Populus heterophylla	cottonwood, swamp	T	Active inventory	FACW+		*

Potamogeton pulcher	pondweed, spotted	T	Active inventory	OBL	
Prunus pumila var. pumila	low sand cherry	E			
Ranunculus hispidus var. nitidus	buttercup, swamp	E	Active inventory	FAC	
Ranunculus micranthus	crowfoot, small-flowered	T	Watch list	FACU	
Rhododendron canadense	rhodora	T		FACW	*
Rhododendron maximum	rhododendron (great laurel	V		FAC	*
Rhododendron periclmenoides	pinkster	V			*
Rotala ramosior	tooth-cup	T	Active inventory	OBL	
Sagittaria montevidensis var. spongiosa	arrowhead, spongy	T	Active inventory	OBL	
Sagittaria subulata	arrowhead, strap-leaf		Watch list	OBL	
Salvia lyrata	sage, lyre-leaf	E	Active inventory	UPL	
Sarracenia purpurea	pitcher plant	V		OBL	
Scirpus georgianus	bullrush, Georgia	E	Active inventory	OBL	*
Scutellaria integrifolia	hyssop skullcap	E	Active inventory	FACW	*
Sphenopholis obtusata	prairie wedgegrass	E	Active inventory	FAC-	
Sphenopholis pensylvanica	swamp oats	E	Active inventory	OBL	
Spiranthes cernua	ladies' tresses, nodding	V		FACW	
Spiranthes gracilis	ladies' tresses, slender	V		FACU-	
Symphyotrichum laeve var. concinnum	aster, smooth blue	E	Active inventory		
Thaspium trifoliatum var. flavum	purple meadow-parsnip		Active inventory		*
Trichomanes intricatum	Appalachian trichomanes	E	Active inventory		
Trichostema brachiatum	false-pennyroyal		Watch list		
Trillium cernuum	trillium, nodding	V		FACW	
Trillium erectum	trillium, purple	V		FACU-	
Trillium grandiflorum	trillium, white	V			
Trillium undulatum	trillium, painted	V		FACU+	
Triphora trianthophora	pogonia, nodding	E	Active inventory	UPL	
Trollius laxus	globeflower, spreading	R	Active inventory	OBL	
Utricularia juncea	bladderwort, rush	T	Active inventory	OBL	
Verbesina alternifolia	wingstem	T		FAC	*
Vernonia gigantea spp. Gigantea	ironweed, tall	E	Active inventory		

Veronicastrum virginicum	culver's root	T	Active inventory	FACU	
Viola hirsutula	violet, southern wood	E	Active inventory		
Viola primulifolia	violet, primrose-leaf	T	Active inventory	FAC+	*
Vittaria appalachiana	fern, Appalachian shoestrii	E	Active inventory		
Woodsia alpina	fern, alpine cliff	E	Active inventory		*

NOTES

The following groups of species are considered to be vulnerable according to NYS Environmental Conservation Law:
1. All native clubmosses
2. All native ferns except bracken (Pteridium aquilinum), hay-scented (Dennstaedtia punctilobula), and sensitive (Onoclea sensibilis)
3. All native orchids

N.Y.S. Natural Heritage Program- *Rare Plant Status Lists. Species whose presence in Ulster County is confirmed or probable. Several species of Sphagnum are designated as special concern by the N.Y. State Natural Heritage Program: Sphagnum andersonianum, S. agermanicum, S. cuspidatum, S. platyphyllum, S. tenellum, and S. trinitense*

N.Y.S. *lists: Endangered, E; Threatened, T; Rare, R; Exploitably Vulnerable, V*

USFWS Wetland Plant List *(National List of Plant Species That Occur in Wetlands: 1988 National Summary*
Indicator Categories:
OBL (Obligate Wetland) Plants that occur almost always under natural conditions in wetlands (est. probability greater than 99%)
FACW (Facultative Wetland) Plants that usually occur in wetlands (est. probability 67-99%) but occasionally found in nonwetlan
FAC (Facultative) Plants that are equally likely to occur in nonwetlands or wetlands (est. probability 34-66%)
FACU (Facultative Upland) Plants that usually occur in nonwetlands (est. probability 67-99%) but occasionally found in wetlands (est. probability 1-33%)
UPL (Obligate Upland) Plants that occur in wetlands in another region, but occur almost always (est. probability greater than 99%) under natural conditions in nonwetlands in the region specified (the northeast in this case)
If a plant species does not occur in wetlands in any region, it is not included on the National List. However, changes in plant names (synonomy) may warrant additional investigation regarding potential wetland indicator status.

Shawangunk Ridge *and* ***Shawangunk Kill*** *- partial lists*

OFFICE OF PARKS · RECREATION · HISTORIC PRESERVATION
NEW YORK STATE

New York State Office of Parks, Recreation and Historic Preservation

Historic Preservation Field Services Bureau • Peebles Island, PO Box 189, Waterford, New York 12188-0189
518-237-8643
www.nysparks.com

David A. Paterson
Governor

Carol Ash
Commissioner

October 17, 2008

OCT 2 3 2008

Kris Pedersen
Town of Shawangunk Planning Board
P.O. Box 247
Wallkill, New York 12589

Re: DEC,SEQRA
Watchtower Bible & Tract Society of NY, Inc./300 Multiple Family Dwellings & 3-story Residential Building, 900 Red Mills Rd
SHAWANGUNK, Ulster County
07PR06149

Dear Mr. Pedersen:

Thank you for requesting the comments of the Field Services Bureau of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the Field Services Bureau and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the OPRHP's opinion that your project will have No Impact upon cultural resources in or eligible for inclusion in the State and National Register of Historic Places.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont

Ruth L. Pierpont
Director

Robin Kaufmann

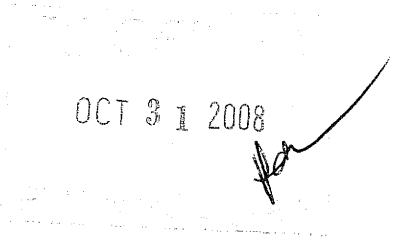
From: Joe Mihm [jmihm@blengineers.com]
Sent: Friday, October 31, 2008 3:20 PM
To: Kris Pedersen
Cc: Robin Kaufmann; Martin Hand; Bonnie Franson
Subject: Watchtower Farms - Roadways

Kris,

Mircea Catona of the Ulster County Highways and Bridges Department asked Marty Hand and I to meet him today to inspect the intersection of Red Mills Road-Bruynswick Road-Hoagerburgh Road. His concern is that this is a non-standard intersection that is already prone to accidents and any further increases in traffic by the proposed Watchtower Farms Improvements project could make the situation worse. The Collins Traffic Study did evaluate this intersection and reports it has a "B" Level of Service.

To improve this un-usual intersection that is really two "T" intesections, Mircea Catona will be suggesting that Watchtower consider an upgrade with traffic circle at this intersection. He is supposed to be generating a letter with his findings/recommendations.

Joe



RECEIVED
NOV 03 2008

2616 Brunswick Rd.
Wallkill, NY 12589
November 3, 2008

Planning Board, Town of Shawangunk
% Kris Pedersen, Chairwoman
Shawangunk Town Hall
14 Central Avenue
Wallkill, NY 12589

I have received notice of the purposed development of the Watchtower Bible & Tract Society of NY.

I, Hilda Borges am opposed to such a large development, on the grounds, that, there would be, so much more traffic. Also, too much wear and tear on our roads.

What would be the purpose of a 300 multiple dwelling? Are the occupants permanent or transient?

Is parking for 400 cars necessary? Are you expecting that much traffic

I am opposed to this development!

Miss Hilda Borges.

Tim Miller Associates, Inc.

Memorandum:

To: Kris Pedersen, Chairwoman
Members, Shawangunk Planning Board

From: Bonnie Franson, AICP
James Garofalo, AICP

Date: December 17, 2008

Subject: Watchtower DEIS and Site Plan - Substantive Review

Cc: Robin Kaufmann, Planning Board Secretary
Richard Hoyt, Esq., Town Attorney
Joe Mihm, P.E., Town engineering consultant
Dave Kjos (for the applicant)

This memorandum is intended to:

- provide a summary list of substantive comments received regarding the review of the DEIS; and
- provide comments related to TMA's substantive review of the DEIS document.

Comments Received

The following substantive comments have been received with regard to the DEIS;

- Hickory Creek Consulting LLC Comments, dated October 2, 2008. These comments were issued on the draft DEIS and are to be addressed as substantive comments;
- Hilda Borges letter, dated November 3, 2008;
- Substantive comments that have been raised during the DEIS public hearing, held on November 5, 2008, continued and closed on December 2, 2008, including comments that may have been raised by the Planning Board.
- Email from Joe Mihm to Kris Pedersen, dated October 31, 2008;
- NYS OPRHP letter dated October 17, 2008.

TMA SEQRA Comments

Table of Contents

1. The List of Drawings that constitute the site plan that is referenced in the Table of Contents does not reflect all the sheets that have been submitted as part of the site plan application. A complete set of sheets should be submitted that include all site plan sheets, including the floor plans, list of adjoiners, etc., that have been submitted in support of the site plan application. In addition, the date of revision 1 should be

Tim Miller Associates, Inc.
10 North Street
Cold Spring, NY 10516
845-265-4400
fax: 845-265-4418
www.timmillerassociates.com

identified. Note that the most recent set of plans that I have in my possession is dated May 2008. The comments in this memo reference the May 2008 site plan.

Description of the Proposed Action

1. What is the total number of dwelling units on the project site, once the facility is completed? The cumulative development of the site, with the proposed action in place, is not described in the DEIS.
2. It is noted that the May 2008 site plan does not include a detailed landscaping plan. For example, while areas are shown to be re-seeded, the proposed method is not addressed. A schedule of plantings should be provided and landscaping notes and details included.
3. What are "garden-type" dwelling units?
4. The total parking demand needs to be calculated to ensure that the requisite parking spaces are being provided as per the zoning law requirements. Although the DEIS describes the capacity of the proposed garage, it does not calculate parking demand based on the component uses of the existing facility or proposed expansion.
5. The dining area capacity is for 1,980 seats. However, the approximate final population of the facility would be 1,550 seats. An additional 430 seats are being provided. Please explain the need for the additional seating.
6. Does the site plan illustrate the proposed improvements to accommodate the additional fuel storage tank? According to the DEIS, it is north of the printery. Are any exterior building improvements required for the expanded containment area?
7. Does the site plan reflect any exterior improvements required to the central steam plant and the chilled water plant? Are exterior improvements that would affect the footprints of these plants proposed?
8. Rooftop mechanical equipment. The building elevations do not illustrate rooftop mechanical equipment. New rooftop mechanical equipment should be screened from view. Has this been accomplished?
9. The applicant has submitted a phasing plan which shows the sequence of construction activities on the project site. However, the phasing plan does not describe the timing of the construction sequences. This should be provided to determine whether, for instance, demolition of the modular housing will occur in association with the overall construction of the new residential building, or sometime after construction.
10. Will the applicant be seeking separate certificates of occupancy for the various components of the facility? For example, will the applicant seek to occupy the residential building before the recreational facilities are constructed? This should be discussed.
11. It is unclear how many trees are being removed. A protection measure is proposed (Detail 1 on the site plan) - are the locations where these measures are to be used shown?

12. Under "Construction related Activities", the DEIS indicates that there are 16 phases. However, the May 2008 site plan illustrates 13 phases only.

13. It appears that construction of the sewer main may result in road disturbances to Red Mill Road. What approvals, if any, would be required? A description of the duration of the improvement should be described, and whether any road closures would be required.

Geology, Soils, and Topography

14. The DEIS concludes that it is not anticipated that solid rock material will be encountered during construction to necessitate blasting. With regard to Appendix 5, it is unclear whether borings were done in the area of the proposed pedestrian tunnels. How deep are these tunnels and does the potential exist to require blasting to construct them? The site plan should detail the tunnels, e.g., depth below ground, etc.

15. With regard to phasing, will these activities be conducted concurrently or sequentially? The total duration of proposed construction activities should be described. Does the schedule provided in this section include building construction during the applicable time period noted for each phase?

16. Based on review of the site plan, it is not clear where the ESCM #2 will be installed.

17. There are locations on the site plan that have the designation "M" for mulch. Is this where mulch to is to stockpiled?

18. The site plan should indicate the specific seed mixes to be used where seeding is used as an erosion control measure.

Surface Water Resources

19. The DEIS indicates, as a mitigation, that snow stockpiles would not be located adjacent to wetlands streams, or stormwater detention ponds. Existing and proposed locations for snow stockpiles should be shown to verify whether this mitigation measure will be met.

Wastewater/Sewage Disposal

20. As per the NYSDEC letter dated January 28, 2008, the letter indicates that the Permittee must submit a brief engineering report summarizing any current and proposed changes in usage at the facility. Has this report been prepared? If not, when will the report be submitted? The submission should be reviewed as part of the SEQRA process.

21. The DEIS indicates that minor adjustments will be made to the WWTP, including converting the present pretreatment tank into a supplemental flow equalization tank and installing new headworks, variable speed pumps, controls, and aeration blowers. These improvements are not identified on the construction phasing plan (Sheet CD101) - when would these improvements be made?

22. With regard to the estimated demand created by the proposed improved facility (Table III.D-2), wastewater generation is assigned entirely to the

resident population, except for the flow assigned to food processing. Are there any employees that work at the facility that do not reside at the facility? If so, how does this affect the proposed flow?

Terrestrial and Aquatic Ecology

23. The DEIS states that the NYSDEC will likely request revegetation in the area of the modular removal and planting of buffering vegetation along the proposed access road. The applicant should clearly indicate what the proposed use and remediation will be for this area, with specific plantings noted as this serves as a mitigation. The landscaping plan should include proposed plantings for the buffer mitigation areas shown on Figure III.E-7.

24. Are the rock outlet protection measures located within the 50-foot regulated area associated with the Dwaar Kill? If so, is a permit required to discharge to the Dwaar Kill in this location?

Land Use and Zoning

25. Cumulative assessments of the facility should be provided. For example, while the DEIS indicates the number of new garage spaces to be added, or the number of new dwellings to be introduced, the DEIS does not provide a discussion of the cumulative buildout of the property with the proposed action. This is needed to determine the action's consistency with land use and zoning, e.g., residential density. In addition, the DEIS addresses residential density only. However, the DEIS should disclose the minimum acreage requirement for the entire facility, given the various residential and nonresidential uses that occupy the site.

26. Recreation. A supply and demand analysis of the proposed recreation program should be provided. Recreation should be analyzed in terms of the existing facilities found on site and the current resident population, compared with the new population and proposed recreation improvements. A comparison of existing and proposed recreation activities to be conducted on the site should be provided. Do the proposed activities match the demographics anticipated for the facility? There appear to be a significant number of active recreation facilities to be constructed even though the demographics indicate that there would be no children on site, and the population is "becoming older". In a previous narrative submitted by the applicant, it is stated:

    "Watchtower Farms is in the process of transitioning to improve the quality of life for residents living in existing, dormitory-style housing. Included in this would be the elimination of any temporary housing that had been erected on site. Also, the demographics of the population are becoming older. Improved accommodations will provide a quality way of life for older residents while being cared for on site."

27. Recreation. It is unclear from the documentation what the status is of the existing ballfield - will this be retained?

28. Lighting. The DEIS does not provide sufficient information to support the conclusion that the lighting at the proposed fields will not have an impact or be visible from the project surrounds. Although the DEIS indicates that lighting is designed to avoid "hotspots", information on illumination

levels has not been provided. A photometric plan should be provided to assist the Planning Board in determining whether the lights associated with the re-located fields would cause any lighting impacts.

29. Recreation. The proposed hours of use of the various recreation areas should be indicated. What will be the hours of operation for lighting associated with the outdoor recreation facilities?

30. Lighting. Based on a review of the DEIS and site plan, we question whether all lighting is being shown. No new lighting is shown on the proposed buildings, the recreation building, or the garage. A photometric plan should be provided, illustrating the cumulative effect of all additional lighting to be introduced by the proposed project to ensure that lighting levels are kept to a minimum, given the rural nature of the project surrounds.

31. Off-street parking. An evaluation of supply and demand should be provided to substantiate the need for a new parking garage.

Aesthetic Resources

32. Although the DEIS indicates that the proposed berm would be landscaped with deciduous and evergreen trees, the landscaping plan sheets do not propose any plantings on the berm.

33. The site plan does not appear to illustrate trees that will either be retained or removed.

Community Services and Facilities

34. The DEIS indicates that the proposed project incorporated the recommendation from the SVFD to install and maintain landscaping that would avoid interfering with firefighting or rescue operations. However, the landscape plan does not detail the location of proposed plantings, so this cannot be confirmed.

35. Has the SVFD reviewed and commented on the evacuations plans for the facility?

36. Full access to the residential buildings are provided via the loop road encircling all buildings. During construction, it appears that the loop road will be disrupted. The construction phasing plan should be reviewed to determine whether reconstruction of the loop road should be accelerated to ensure emergency access to the existing residential buildings during construction. Access to the facility needs to be ensured during all phases of construction.

37. Will the proposed ponds be used for fire protection purposes? Or, are they to be used strictly for stormwater management purposes?

Transportation

38. Appendix 6, the traffic study, references traffic study appendices. These appendices should be included in the FEIS to establish a complete record. The May 2008 copy was previous supplied to us.

39. The proposed mitigation measures - signal retiming,, vegetation removal to improve sight distance, replacing old signs, repainting worn pavement marking, or correcting a failed slope are maintenance-related. The addition of new signs, stable slope regrading, and new pavement markings are small capital improvements. Although such capital improvements may be needed regardless of the proposed action, the additional site traffic is increasing the need for such implementation. Setting up a fund to pay for implementation of needed new sign and pavements markings would offset potential safety issues from increased roadway utilization.

40. A drawing should be provided at the key intersection Bruyn Turnpike and New Prospect Road/Indian Spring Road to indicate the actual sight distances and indicate necessary improvements for sight distance in conjunction with speed studies. This would allow the town to make an informed choice regarding sight distance improvements.

41. Would the intersection of Red Mill Road with Steen Road and/or the intersection of Hoagerburgh Road with Bruyn Turnpike be candidates for a roundabout? See email from Joe Mihm related to this comment.

42. A detailed calculation should be provided which explains why a net increase in 200 residents requires a parking garage of 400 spaces.

43. A more detailed plan should be made that described on-site internal circulation for vehicles, especially in relation to bicycle and pedestrian on-site use. The site plan should examine:

    - Providing a handicapped accessible pedestrian connection from recreation building to print building.

    - Providing lighting outside the recreation building for the building itself and not just the fields. The recreational facility is likely to have its own recreational uses after dark and may provide rest rooms and auxiliary use to the outdoor fields.

    - To the extent possible, new walkways should be designed with ramps rather than provided with short stairways.

    - Lighting should be provided for areas with steps.

    - Fencing should be provided at retaining walls where sidewalk is on top of wall or wherever pedestrian accessible.

    - Lighting at building entrances. Proposed building entrances should be marked on lighting plans. E-103 there appears to be no new lighting.

    - The reach of the lights to a minimum candle power needed should be indicated on plans to ensure coverage. It is not clear if lighting provided by lower light posts will be directed down so not to interfere with drivers.

- Better use of landscaping to keep people on sidewalks. It is not clear where existing landscaping is being removed.

- Crosswalks should be indicated on the plan.

- Truck pick up and delivery areas should be clearly defined to better consider pedestrian interaction.

44. Prevailing speeds should be determined at Bruyn Turnpike and New Prospect Road/Indian Spring Road and at Red Mill Road east of Steen Road. This second location is recommended for a speed reduction warning sign. The location should be carefully located to provide input as to the existing speeds just prior to or after the turn.

45. If the machine counts were done on a 15 minute basis, please provide a graph over the day on a fifteen minute basis to indicate the 6:30 a.m. to 6 45 a.m. period was not critical in determining the peak traffic period.

46. Accident information and a discussion appears to be missing from the analysis.

47. Please provide the reference land use code used for trip generation.

48. To make the location of the proposed signage and pavement markings evident, a figure showing the existing and proposed signing and markings should be submitted with the FEIS.

New York State Department of Environmental Conservation
Division of Environmental Permits, Region 3
21 South Putt Corners Road, New Paltz, New York 12561-1620
Phone: (845) 256-3000 • **FAX:** (845) 255-4659
Website: www.dec.state.ny.us

Alexander B. Grannis
Commissioner

FAX COVER SHEET

TO: Brian Ware - Wadsworth Farms **FAX #** 845-744-1595

FROM: Judith Blauvelt / Environmental Permits - Region 3

DATE: 1/13/09 **NUMBER OF PAGES (including cover)** 5

MESSAGE: Attached please find a response to your request.

FAX MACHINES:

(845) 255-4659 - Environmental Permits, Wildlife, Natural Resources, Minerals
(845) 255-3042 - Regional Director, Legal
(845) 255-0714 - Administration & Real Property
(845) 255-0716 - Solid & Hazardous Materials, Air
(845) 255-9249 - Law Enforcement
(845) 255-2987 - Spills Management
(845) 255-3414 - Pesticides, Water
(845) 255-4238 - Hazardous Waste Remediation
(845) 256-9219 - Bureau of Habitat, Fisheries
(845) 255-3649 - F. Dunwell

New York State Department of Environmental Conservation
Division of Environmental Permits, Region 3
21 South Putt Corners Road, New Paltz, New York 12561-1620
Phone: (845) 256-3054 • **FAX:** (845) 255-4659
Website: www.dec.ny.gov

Sent Via Facsimile to 845-744-1595 + US Mail

Alexander B. Grannis
Commissioner

Date: 1-13-09

Mr. Brian Ware
Watchtower Farms Regulatory Office
900 Red Mills Rd.
Wallkill, NY 12589

RE: Dwaar Kill + Shawangunk Kill Portions per attached map CH#2428

Location: T/ Shawangunk , Ulster County

Dear Mr. Ware :

Based upon our review of your inquiry dated 12-30-08, we offer the following comments:

PROTECTION OF WATERS

☑ The following stream(s)/pond(s)/waterbody(ies) is(are) located within or near the site you indicated:

	Name	Class	DEC Water Index Number	Status
(SITE 1)	Dwaar Kill	[B(T)]	H-139-13-19-7	[Protected, non-protected, navigable]
(SITE 3)	Shawangunk Kill	[B]	H-139-13-19	[Protected, non-protected, navigable]

☑ A Protection of Waters permit is required to physically disturb the bed or banks (up to 50 feet from stream) of any streams identified above as "protected." A permit is not required to disturb the bed or banks of "non-protected" streams.

☐ A Protection of Waters permit is required for any excavation or filling below the mean high water line of any waterbodies identified above as "navigable."

(SITE 2) ☑ There are no waterbodies that appear on our regulatory maps at the location/project site you identified. Therefore, if there is a stream or pond outlet present at the site with year-round flow, it assumes the classification of the watercourse into which it feeds, Dwaar Kill, Class "B (T)", and a Protection of Waters permit is/is not required. If there is a stream or pond outlet present at the site that runs intermittently (seasonally), it is not protected, and a Protection of Waters permit is not required.*

* If a permit is not required, please note, however, you are still responsible for ensuring that work shall not pollute any stream or waterbody. Care shall be taken to stabilize any disturbed areas promptly after construction, and all necessary precautions shall be taken to prevent contamination of the stream or waterbody by silt, sediment, fuels, solvents, lubricants, or any other pollutant associated with the project.

FRESHWATER WETLANDS

☐ Your project/site is near or in Freshwater Wetland _____, Class _____. Be aware that a Freshwater Wetlands permit is required for any physical disturbance within these boundaries or within the 100 foot adjacent area. To have the boundary delineated, please read the attached notice.

OVER PLEASE -

RE: B. Ware; Dwaar Kill & Shawangunk Kill sites per attached map

☑ Your project/site is not within a New York State protected Freshwater Wetland. However, please contact your town officials and the United States Army Corps of Engineers in New York City, telephone (917) 790-8511 (Westchester/Rockland Counties), or (917) 790-8411 (other counties), for any permitting they might require.

STATE-LISTED SPECIES

☐ DEC has reviewed the State's Master Habitat Databank (MHDB) records. We have determined that the site is located within or near record(s) of the following state-listed species: _____. If your inquiry is related to a specific development project, additional evaluation of the potential impacts of this project related to the sensitive resource(s) identified by this review, may be required. Please contact the person noted below.

☐ No records of sensitive resources were identified by this review.

☑ OTHER: The Shawangunk Kill is also regulated under the Wild, Scenic, & Recreational River program. Please see attached brochure and map

Please note that this letter only addresses the requirements for the following permits from the Department:

☑ Freshwater Wetlands ☐ Master Habitat Databank ☐ Other: _____

☑ Protection of Waters

and that other permits from this Department or other agencies may be required for projects conducted on this property now or in the future. Also, regulations applicable to the location subject to this determination occasionally are revised and you should, therefore, verify the need for permits if your project is delayed or postponed. This determination regarding the need for permits will remain effective for a maximum of one year unless you are otherwise notified. Applications may be downloaded from our website at www.dec.ny.gov under "Programs" then "Division of Environmental Permits."

Please contact this office if you have questions regarding the above information. Thank you.

Sincerely,
Judith A. Blauvelt
Judith A. Blauvelt
Division of Environmental Permits
Region 3, Telephone No. 845/256-2250.

☑ Information/Permit Materials/Regulations/Map (Napanoch Quadrangle) Attached.
☑ Web page information (& WSR brochure + map w/us mail copy)
☐ NYC DEP Contact Information (this site is within the NYC Watershed).

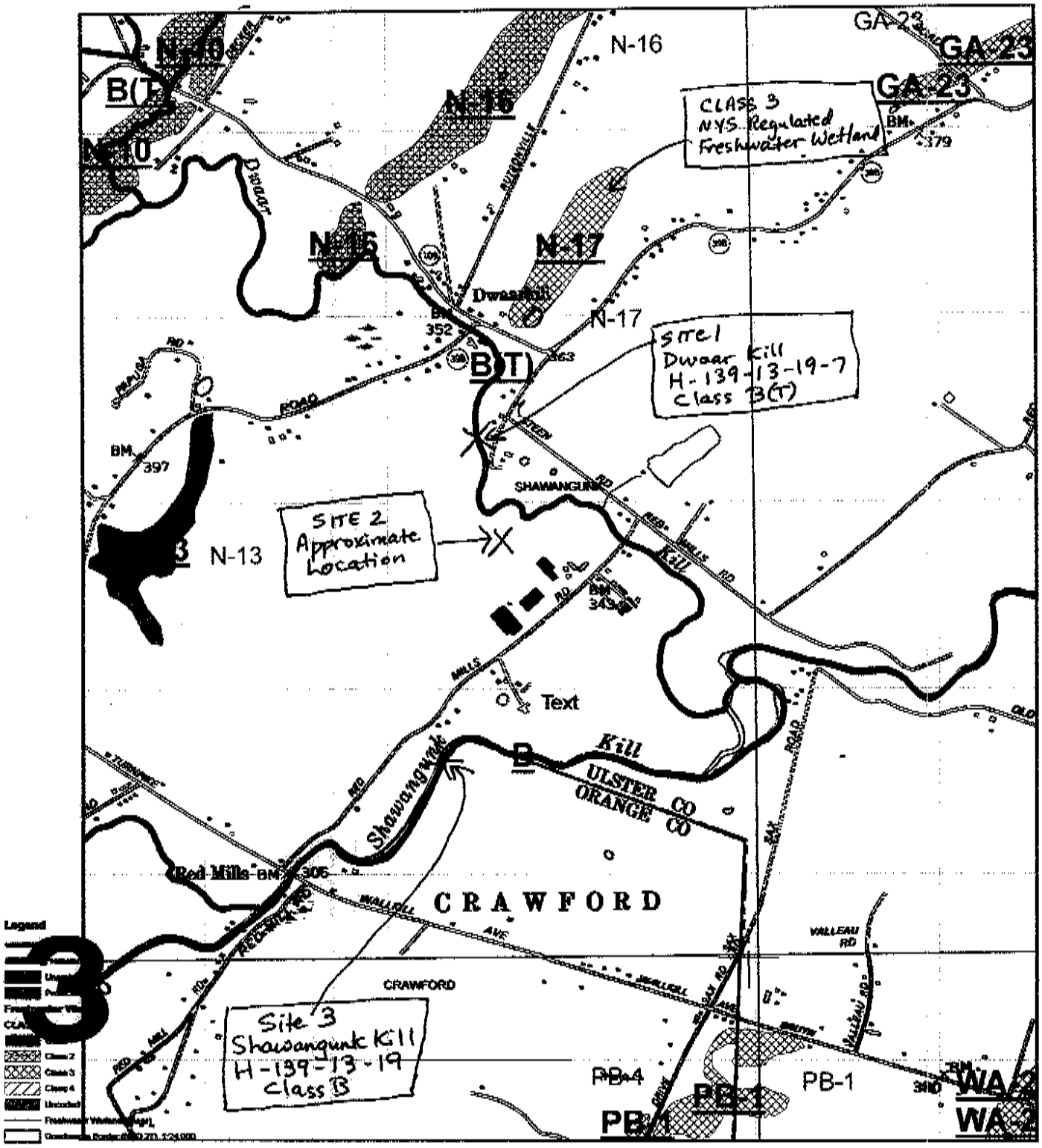
cc: _____

NOTE: Regarding erosion/sedimentation control requirements:

Stormwater discharges now require a SPDES Stormwater permit from this Department if they either:

- occur at industrial facilities and contain either toxic contaminants or priority pollutants OR
- result from construction projects involving the disturbance of one (1) or more acres of land.

Your project may be covered under one of two Statewide General Permits or may require an individual permit. If you believe your project would be covered under one of the General Permits and does not require any other DEC permits you may apply for coverage by filing a Notice of Intent with NYSDEC, Division of Water, 625 Broadway, Albany NY 12233-3505, (forms & permits available from this office or DEC Website at www.dec.ny.gov or call 518-402-8109). If your project involves other DEC permits, please contact the regional Division of Environmental Permits office (see above).



Stream Classifications
Town of Shawangunk, Ulster County
Napanoch Quadrangle

J. Blauvelt
DEC Div. of Environmental Permits
1/7/09

Division of Environmental Permits, Region 3
21 South Putt Corners Road, New Paltz, New York 12561-1620
Phone: (845) 256-3054 • **FAX:** (845) 255-4659
Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

HAVE YOU VISITED OUR WEBSITE LATELY? http://www.dec.ny.gov

You can find information and status* on permits, determining protected streams and wetlands **, application forms and other downloadable forms, State Environmental Quality Review Act (SEQR) guidance, functions of DEC, and much more. Please try it - you may save yourself a phone call and/or waiting for an answer. Also try the "search" function on each page for further information.

PERMIT INFORMATION:

Environmental Notice Bulletin (ENB) - http://www.dec.ny.gov/enb/enb.html
Forms - http://www.dec.ny.gov/pubs/371.html
Guide to Permit Hearings - http://www.dec.ny.gov/permits/6234.html
How to File for a DEC Permit - http://www.dec.ny.gov/permits/6081.html
Natural Heritage Information - http://www.dec.ny.gov/public/29338.html
Protection of Waters: Do I Need a Permit? - http://www.dec.ny.gov/permits/6554.html
SPDES Information - http://www.dec.ny.gov/permits/6054.html
SPDES Multi-Sector General Permit Fact Sheet - http://www.dec.ny.gov/chemical/9009.html
***Status of Permit Applications and Decisions** -http://www.dec.ny.gov/cfmx/extapps/envapps/
Stormwater Information - http://www.dec.ny.gov/chemical/8468.html
(UPA) Permit Profiles - http://www.dec.ny.gov/permits/6228.html
Wetlands Information (freshwater & tidal) - http://www.dec.ny.gov/lands/305.html

MAPS:

****Environmental Resource Mapper** - http://www.dec.ny.gov/animals/38801.html
Floodplain Management - http://www.dec.ny.gov/lands/24267.html
Freshwater Wetland Maps - http://www.dec.ny.gov/lands/5124.html
Freshwater Wetland Maps (to order):
http://www.btimages.com/commerce/default.asp - (502) 933-1555
http://www.syracuseblueprint.com - (315) 476-4084
Maps - http://www.dec.ny.gov/pubs/212.html

SEQR:

SEQR Handbook - http://www.dec.ny.gov/public/6467.html
SEQR Information - http://www.dec.ny.gov/public/6469.html

INFORMATION/POLICIES:

Conservationist Magazine - http://www.dec.ny.gov/pubs/conservationist.html
Environmental Justice - http://www.dec.ny.gov/public/333.html
Freedom of Information Law (FOIL) - http://www.dec.ny.gov/pubs/373.html
Noise & Visual Impacts Assessment Guidance - http://www.dec.ny.gov/permits/6224.html

SHAWANGUNK VALLEY FIRE DISTRICT

2150 Bruynswick Road
Wallkill, NY 12589
(845) 895-2600

Watchtower Farms
Bethel Office
900 Red Mills Road
Wallkill, NY 12589

January 14, 2009

Subject: Facility Evacuation Plan

Dear Sir or Madam:

The Board of Fire Commissioner has received and reviewed the Watchtower Farm Facility Evacuation Plan (Revised January 2009). We have found the plan to meet the needs and/or concerns our District previously presented to the Town of Shawangunk Planning Board regarding your Draft Environmental Impact Statement on this topic.

We thank you for your considerations in this matter.

Sincerely:

Roger Rascoe
Secretary/Treasurer

Hickory Creek Consulting LLC

Karen Schneller-McDonald 845 758-2369
25 Carriage Drive katykill@frontiernet.net
Red Hook, New York 12571

To: Kris Pedersen
Chair, Town of Shawangunk Planning Board
From: Karen Schneller-McDonald
Re: Watchtower project
Date: February 4, 2009

MEMO

I have reviewed the FEIS for the Watchtower Project, as well as a set of accompanying maps; my review focuses on the responses to the comments re: DEIS completeness which I submitted in October 2008 (FEIS comments 3.B-3,p.III-6; 3.E-4, p.III-15; 3.E-5, p.III-15; 3.E-8, p.III-24; 3.E-9, p.III-24; 3.E-10, p.III-27). I am concerned that the FEIS still does not provide the information I requested in my October review. This information is necessary to provide a basis for developing and evaluating mitigation for impacts on wildlife (including the bog turtle) and plants of conservation concern: the FEIS as it is currently written does not provide the 'hard look' required by SEQRA. The following comments document this.

Note that the applicant has demonstrated a willingness to recognize and protect important wildlife habitat on this site, and that the property presents opportunities for protecting the town's significant natural resources. The FEIS can be the vehicle for these opportunities, but it first needs to provide the 'hard look' and additional information described below.

1. The applicant makes the case for not requiring field surveys because it is assumed that species of conservation concern (i.e. threatened, endangered, special concern, rare, and species of greatest conservation need) do exist onsite. This is a valid assumption. However, this is not the case for a further assumption of the FEIS that since the proposed project activities are to occur in already disturbed areas, no impacts are anticipated. The FEIS describes 13 acres of restored/managed buffer area as mitigation- but this presents an incomplete and ambiguous picture of what is actually occurring on the project site.

2. The existing Watchtower site development has already impacted habitat and species on and adjacent to the property. The site is intensively developed in very close proximity to aquatic, upland, and wetland habitats that are known to harbor a number of species of plants and animals of conservation concern. This is not discussed in the FEIS yet is a critical component of existing conditions—and of cumulative impacts, which should also be discussed in the FEIS in this context. Therefore, even though the additional proposed development does not appear to intrude beyond existing disturbed areas in most places, impacts may still occur and species-specific mitigation is critical to avoid impact 'tipping points'.

For example, the FEIS states that the percent impervious surface within the wetland drainage area is just over 9%. Current research (U.S. Environmental Protection Agency, NYS DEC, Environmental Law Institute, Center for Watershed Protection) indicates that 10% impervious surface within a watershed or contributing drainage area indicates the first major threshold for water quality impacts from impervious surfaces. Bog turtles require high quality water within their habitat.

3. As documented in the 1-20-07 letter to John Chitty from Tara Seoane, NY Natural Heritage Program "Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information." I have not yet found any documentation in the FEIS (which includes the DEIS) for a second contact. The NYSDEC Environmental Resource Mapper (an online resource) shows the entire site within a Rare Plants/Rare Animals zone. This is information that should be included in the FEIS.

4. Although I have requested additional information on species of conservation concern that may be using the site, the FEIS still has not provided this information in a site specific context. The FEIS relies only on letters from the USFWS and NY Natural Heritage Program to document which threatened, endangered, or rare species are likely to be present. As a sole source of rare species information, these letters do not provide adequate documentation. The FEIS has included the species lists I recommended, from the Town's Habitat Assessment Guidelines; however, those lists are meant to be a starting point for determining which species may use the project site and documenting their status (e.g. threatened, special concern, etc.). The FEIS still does not provide any additional information on a 'short list' of species of conservation concern that matches the habitats present on the project property. For example, the Town's lists include all the rare species found in Shawangunk Ridge-specific habitats, many of which would not be found on the project site. Additional resources for compiling a 'short list' that is more site specific include the NYS Breeding Bird Atlas and the NYS Reptile and Amphibian Atlas. While these s do not substitute for site specific field surveys, they can be used to supplement the above mentioned lists. For more information on species associated with the habitats onsite, and the habitat needs of species of conservation concern, refer to the NYS Comprehensive Wildlife Strategy Plan, and Hudsonia's Biodiversity Assessment Manual.

5. While it is commendable that the FEIS does describe buffer restoration and management as mitigation, the above described additional information is necessary so that this mitigation can be designed to match the habitat needs of species of conservation concern that are likely to be using the site. The FEIS mentions protected natural areas, but does not specify what conservation concern species might use these areas. Nor does it define 'protected': have conservation easements been considered as part of the mitigation plan? This should be addressed in the FEIS.

6. It is also commendable that the FEIS describes 13 acres of wetland buffer that are to be restored; however, the buffer map provided does not depict standard buffer areas as described by DEC and FWS, so the 13 acres does not represent buffers as they are commonly described by regulatory agencies. (see #8 below)

7. The 13 acres apparently include areas within the wetland complex, which presents real potential for additional mitigation. However, this makes it even more imperative that the mitigation restores the actual habitat types needed by the rare species that are likely to be using the site. According to the current FEIS it appears that these habitat needs primarily pertain to the bog turtle and a group of

rare grassland dependent birds. Other particular species of concern are likely to be protected if the habitat needs of these two groups are met- but this assumption cannot be made without additional information in the FEIS. Birds may be affected in this case by management of pasture, buffers and landscaped areas, and plants used for restoration.

8. For mitigation planning it is essential that the FEIS provides all of the following on a site map (I have requested this in previous DEIS comments): 1) all wetlands, streams and habitats; 2) the construction area of disturbance; 3) a 100 foot buffer around all delineated wetland boundaries; 4) the Zone 2 management area, extending 200 ft beyond the 100 ft. buffer line and surrounding all wetlands(see bog turtle comments below); 5) the boundary of the wetland's contributing drainage area. The existing maps I have been shown do not present all of this information, nor do they present it on one map. The existing habitat map (C-005) could probably be used as the base, with watershed, wetland boundary, buffers and management zones added.

All buffer management and planting information should be keyed to this map so that the reviewer can easily see where site disturbances, mitigation and management activities are occurring in relation to pertinent natural features and habitats and all proposed construction. Until this is done it will not be possible to effectively evaluate mitigation for indirect (including water quality) impacts on bog turtle habitat--and on the habitat required by other species of conservation concern as well.

Bog Turtles (Comment 3.E-9, FEIS page III-24)

9. Impacts on bog turtle habitat can be incurred even though project activities are outside the actual wetland. The Bog Turtle Northern Population Recovery Plan (USFWS) describes this as follows (this should be in the FEIS as well):

" Projects in and adjacent to bog turtle habitat can cause habitat destruction, degradation and fragmentation. Of critical importance is evaluating the potential direct and indirect effects of activities that occur in or are proposed for upland areas adjacent to bog turtle habitat. Even if the wetland impacts are avoided (i.e. the activity dose not result in encroachment into the wetland), activities in adjacent upland areas can seriously compromise wetland habitat quality, fragment travel corridors, and alter wetland hydrology…" and the conservation recommendations for each zone are meant to "guide the evaluation of activities that may affect high potential bog turtle habitat, potential travel corridors, and adjacent upland habitat that may serve to buffer bog turtles from indirect effects."

10. In my previous comments on this project I recommended further contact with DEC biologists. I have recently contacted DEC personnel (Peter Nye, Endangered Species Unit in Albany, and Lisa Masi,Wildlife group in Region 3) for general information, and received confirmation that DEC supports the use of management zones described in the US FWS BogTurtle Recovery Plan. This includes a 100 foot wetland buffer and a 300 foot management zone measured from the edge of the delineated wetland (i.e. 200 feet beyond the buffer). This defines the area where management options are evaluated, and where mitigation should focus.

11. The FEIS unnecessarily provides the "Recovery Task Outline" from the Recovery Plan as its model for mitigation—but this outline contains measures that are aimed at regulatory agencies and a larger area, well beyond the scope of any one project. Instead, the appropriate mitigation recommendations to follow are presented in Appendix A of the Recovery Plan: Bog Turtle

Conservation Zones. In particular I am concerned about management within zone 2, which extends 300 feet from the wetland edge. Any new construction within this zone (roads, sediment basins, structures) and any application of pesticides, herbicides, and fertilizers may impact wetlands. This is especially important since zone 3 (extends to geomorphic edge of drainage basin or at least ½ mile beyond Zone 2) already contains substantial development; because of this existing development it is esp. important to protect Zone 2 to avoid impacts on water quality and other indirect impacts to the wetland complex. None of this is described in the FEIS; there is only a cursory mention of these zones (FEIS page III-26). This is a significant omission and needs to be corrected.

12. It is still not clear where the FEIS proposed mitigation measures are located in relation to the 100ft. buffer and Zone 2 areas described above. The bog turtle's multiple habitat needs onsite include clean water, open corridors for movement between habitats, and adequate buffers and management zones along the edges of the wetland. This matching of specific habitat needs with specific mitigation measures is not described in the FEIS. Existing buffer planting lists will need to be re evaluated, based on the configuration of buffers and management areas depicted on the new map (#8 above), and on species and habitat information provided as per these comments.

13. Additional mitigation measures and options re: bog turtles (and other rare species as identified) should be addressed in the FEIS. These include:
a. conservation easements
b. location of all stormwater management facilities outside the 100 foot wetland buffer, with outflow spread across a vegetated surface of at least 100 feet before reaching the wetland or intermittent stream
c. reduction in impervious surfaces within the wetland buffer and Zone 2 areas
d. road salt and pesticides cannot be removed by stormwater management facilities; application of road salt should not occur within mitigation areas.

WATCHTOWER
Bible and Tract Society of New York, Inc.
900 Red Mills Road, Wallkill, NY 12589-3223, U.S.A.
Phone: (845) 744-6000

February 12, 2009

Mr. David Stilwell, Field Supervisor
United States Department of Interior
Fish and Wildlife Service
3817 Luker Road
Cortland, New York 13045

(No response to this letter has been received - 3/13/09)

Re: Endangered Species Consultation Update
Study Area at Watchtower Farms
Town of Shawangunk, Ulster County, New York

Dear Mr. Stilwell:

This is a request for an update of the previous January 17, 2007 Endangered Species Consultation Program response (attached) for the above referenced study area and proposed project development. The previous response was addressed to Mr. John Chitty, Ecologist/Wetland Specialist, 1971 Oxnard Drive, Downers Grove, Illinois. The study area is located northeast of Bruyn Turnpike, northwest of Red Mills Road, southeast of County Road 7 and southwest of Steen Road; Town of Shawangunk, Ulster County, New York; Napanoch quadrangle, as indicated on the attached location map and National Wetland Inventory (NWI) map (included with past requests). Also included is a page from our Draft Environmental Impact Statement that shows our existing facilities and the proposed project.

Although your previous response directed us to your website for such information, we wish to confirm that we should follow the same procedure at this time. We are requesting any updated information on the presence of endangered or threatened species that may occur on or within 0.5 mile of the subject study area. The current land use for this study area is residential and agriculture.

Please reply with your response to Mr. David Kjos, Facility Manager, Watchtower Bible & Tract Society of New York, 900 Red Mills Rd, Wallkill, NY 12589. Thank you for your assistance. Please call Mr. Kjos with any questions or if additional information is needed, at (845) 744-6000.

Sincerely,

Watchtower B. & T. Society
OF NEW YORK, INC.

Enclosures

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Field Office
3817 Luker Road
Cortland, NY 13045
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo

Project Number: 70345

To: John Chitty Date: 1-17-07

Regarding: Hatchtower Farms property on Red Mills Road

Town/County: Shawangunk / Ulster

We have received your request for information regarding occurrences of Federally-listed threatened and endangered species within the vicinity of the above-referenced project/property. Due to increasing workload and reduction of staff, we are no longer able to reply to endangered species list requests in a timely manner. In an effort to streamline project reviews, we are shifting the majority of species list requests to our website at http://www.fws.gov/northeast/nyfo/es/section7.htm. Please go to our website and print the appropriate portions of our county list of endangered, threatened, proposed, and candidate species, and the official list request response. Step-by-step instructions are found on our website.

As a reminder, Section 9 of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) prohibits unauthorized taking* of listed species and applies to Federal and non-Federal activities. Additionally, endangered species and their habitats are protected by Section 7(a)(2) of the ESA, which requires Federal agencies, in consultation with the U.S. Fish and Wildlife Service (Service), to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. An assessment of the potential direct, indirect, and cumulative impacts is required for all Federal actions that may affect listed species. For projects not authorized, funded, or carried out by a Federal agency, consultation with the Service pursuant to Section 7(a)(2) of the ESA is not required. However, no person is authorized to "take"* any listed species without appropriate authorizations from the Service. Therefore, we provide technical assistance to individuals and agencies to assist with project planning to avoid the potential for "take," or when appropriate, to provide assistance with their application for an incidental take permit pursuant to Section 10(a)(1)(B) of the ESA.

Project construction or implementation should not commence until all requirements of the ESA have been fulfilled. If you have any questions or require further assistance regarding threatened or endangered species, please contact the Endangered Species Program at (607) 753-9334. Please refer to the above document control number in any future correspondence.

Endangered Species Biologist: Sandra Doran

*Under the Act and regulations, it is illegal for any person subject to the jurisdiction of the United States to ***take*** (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these), import or export, ship in interstate or foreign commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any endangered fish or wildlife species and most threatened fish and wildlife species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. "Harm" includes any act which actually kills or injures fish or wildlife, and case law has clarified that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife.

WATCHTOWER
Bible and Tract Society of New York, Inc.
900 Red Mills Road, Wallkill, NY 12589-3223, U.S.A.
Phone: (845) 744-6000

February 12, 2009

Ms. Tara Salerno, Information Services
NY Natural Heritage Program
New York State Department of Environmental Conservation
625 Broadway, 5th floor
Albany, New York 12233-4757

Re: Endangered Species Consultation Update
Study Area at Watchtower Farms
Town of Shawangunk, Ulster County, New York

Dear Ms. Salerno:

This is a request for an update of the previous January 30, 2007 Endangered Species Consultation Program response (attached) for the above referenced study area and proposed project development. The previous response was addressed to Mr. John Chitty, Ecologist/Wetland Specialist, 1971 Oxnard Drive, Downers Grove, Illinois. The study area is located northeast of Bruyn Turnpike, northwest of Red Mills Road, southeast of County Road 7 and southwest of Steen Road; Town of Shawangunk, Ulster County, New York; Napanoch quadrangle, as indicated on the attached location map and National Wetland Inventory (NWI) map (included with past requests). Also included is a page from our Draft Environmental Impact Statement that shows our existing facilities and the proposed project.

We are requesting any updated New York Natural Heritage Program data or related records since the past response for any listed threatened or endangered species or natural areas that may occur on or within 0.5 mile of the subject study area. The current land use for this study area is residential and agriculture.

Please reply with your response to Mr. David Kjos, Facility Manager, Watchtower Bible & Tract Society of New York, 900 Red Mills Rd, Wallkill, NY 12589. Thank you for your assistance. Please call Mr. Kjos with any questions or if additional information is needed, at (845) 744-6000.

Sincerely,

Enclosures

WATCHTOWER
Bible and Tract Society of New York, Inc.
900 Red Mills Road, Wallkill, NY 12589-3223, U.S.A.
Phone: (845) 744-6000

February 13, 2009

Rebecca Crist, Environmental Analyst
New York State Department of Environmental Conservation
Division of Environmental Permits, Region 3
21 South Putt Corners Road
New Paltz, NY 12561-1620

Re: Watchtower Farms Improvements
Town of Shawangunk, Ulster County

Dear Ms. Crist,

This response has been prepared in accordance with your letter dated January 25, 2008 to the Town of Shawangunk Planning Board concerning the proposed Watchtower Farms Improvements project. It supplements the "Watchtower Farms Improvements Draft Environmental Impact Statement" (DEIS) dated October 8, 2008 that the Town of Shawangunk Planning Board sent to the New York State Department of Environmental Conservation (DEC) Division of Environmental Permits in Albany and Region 3 Division of Regulatory Affairs in New Paltz. This document is also available at: http://www.timmillerassociates.com/publicreview/shawangunk/index.html. Below, please find the Department's comments from the January 25, 2008 letter in *italics* followed by responses.

Wild, Scenic, and Recreational River (WSRR) – Shawangunk Kill
Comment: Full plan sets which show the location of the WSRR corridor boundaries . . . must be submitted to the Department to determine the need for a permit.
Response: The DEIS drawing C-102 – Wetlands, Flood Plain, & Recreational River Corridor shows the WSRR boundary, and p. II-17 expresses that "[t]he proposed development does not fall within the recreational river corridor."

Freshwater Wetlands and Protection of Waters
Comment: [T]he Department believes new wetland impacts will be minimal. Please submit full plan sets . . . which include the location of the on-site wetlands.
Response: The DEIS drawing C-102 – Wetlands, Flood Plain, & Recreational River Corridor shows the on-site wetlands. Additional information is provided in Section III and Appendix IV of the DEIS.

NYS Threatened or Endangered Species
Comment: Since these species are all open meadows and the project is generally restricted to redevelopment of areas previously disturbed, the Department does not believe this proposal is likely to impact these species.
Response: So noted. Additional information is provided in the DEIS.

State Pollutant Discharge Elimination System (SPDES) - Sanitary
Comment: The permittee must submit to the Department a brief engineering report summarizing any current and proposed changes in usage at the facility.
Response: Enclosed for the Department's review is an engineering report for the facility operated under the State Pollutant Discharge Elimination System (SPDES), Permit No. NY-002-5925. The report is entitled "Wastewater Treatment Plant Improvements, Watchtower Farms, Wallkill, New York, January 12, 2009" by Joseph Dodd, P.E.

State Pollutant Discharge Elimination System (SPDES) – Stormwater
Comment: A Stormwater Pollution Prevention Plan (SWPPP) must be prepared and reviewed by the Department.
Response: The SWPPP is included as Volume 2 of the DEIS.

Please feel free to contact David Kjos at (845) 744-6000 if you have any questions regarding this submittal.

Sincerely,

Watchtower B.W.T. Society
OF NEW YORK, INC.

Enclosure

c: Town of Shawangunk Planning Board
Tim Miller Associates
Ulster County Health Department - Division of Water

Hickory Creek Consulting LLC

Karen Schneller-McDonald
25 Carriage Drive
Red Hook, New York 12571

845 758-2369
katykill@frontiernet.net

To: Kris Pedersen
Chair, Town of Shawangunk Planning Board
From: Karen Schneller-McDonald
Re: Watchtower project
Date: February 4, 2009

MEMO

February 20, 2009

I have reviewed the FEIS for the Watchtower Project, as well as a set of accompanying maps; my review focuses on the responses to the comments re: DEIS completeness which I submitted in October 2008 (FEIS comments 3.B-3,p.III-6; 3.E-4, p.III-15; 3.E-5, p.III-15; 3.E-8, p.III-24; 3.E-9, p.III-24; 3.E-10, p.III-27). I am concerned that the FEIS still does not provide the information I requested in my October review. This information is necessary to provide a basis for developing and evaluating mitigation for impacts on wildlife (including the bog turtle) and plants of conservation concern: the FEIS as it is currently written does not provide the 'hard look' required by SEQRA. The following comments document this.

Note that the applicant has demonstrated a willingness to recognize and protect important wildlife habitat on this site, and that the property presents opportunities for protecting the town's significant natural resources. The FEIS can be the vehicle for these opportunities, but it first needs to provide the 'hard look' and additional information described below.

- ***As an introduction to our discussion on February 20, 2009, we discussed the project design history and adjustments that have been made to address environmental concerns, such as:***
  - ***Relocation and redesign of the Residence bldg***
  - ***In direct response to K.Schneller McDonald's comments the detention pond was relocated to outside of the 100 ft buffer***
  - ***Vegetated swale was added for filter of surface runoff***
  - ***Road curbing was added and during this discussion modified to Cape Cod curbing to facilitate Bog Turtle protection.***
  - ***Double silt fence for wild life barrier was specified during construction phase***
  - ***Buffer vegetation was identified and incorporated into site design***
  - ***Integrated pest management is current and proposed practice***
  - ***It was explained that by law we are required to maintain loop road accesws for police, fire access and personnel safety***
    - ***Roads would use a 30% salt/70% sand mixture***
    - ***Salt stockpile is and will continue under roof, enclosed and outside of 300 ft buffer***

- ***Snow is plowed side cast away from wetland area, Fig III.B-1 Snow Stockpile will be revised accordingly.***
- ***Where it is not possible to side case, then snow is removed and located away from sensitive area***

1. The applicant makes the case for not requiring field surveys because it is assumed that species of conservation concern (i.e. threatened, endangered, special concern, rare, and species of greatest conservation need) do exist onsite. This is a valid assumption. However, this is not the case for a further assumption of the FEIS that since the proposed project activities are to occur in already disturbed areas, no impacts are anticipated. The FEIS describes 13 acres of restored/managed buffer area as mitigation- but this presents an incomplete and ambiguous picture of what is actually occurring on the project site.

- ***Need to identify particular species as they may help in design of buffer and mitigation strategies. For instance may affect mowing seasons, etc. Biodiversity Assement Manual by Hudsonia, Breeding Bird Atlas, NYS Reptile and Amphibian Atlas would serve as guideline that she would accept.***

2. The existing Watchtower site development has already impacted habitat and species on and adjacent to the property. The site is intensively developed in very close proximity to aquatic, upland, and wetland habitats that are known to harbor a number of species of plants and animals of conservation concern. This is not discussed in the FEIS yet is a critical component of existing conditions—and of cumulative impacts, which should also be discussed in the FEIS in this context. Therefore, even though the additional proposed development does not appear to intrude beyond existing disturbed areas in most places, impacts may still occur and species-specific mitigation is critical to avoid impact 'tipping points'.

For example, the FEIS states that the percent impervious surface within the wetland drainage area is just over 9%. Current research (U.S. Environmental Protection Agency, NYS DEC, Environmental Law Institute, Center for Watershed Protection) indicates that 10% impervious surface within a watershed or contributing drainage area indicates the first major threshold for water quality impacts from impervious surfaces. Bog turtles require high quality water within their habitat.

- ***Provided a background for discussion of activities within Bog Turtle Protection Zone 2 and is a point for future consideration of development of site.***

3. As documented in the 1-20-07 letter to John Chitty from Tara Seoane, NY Natural Heritage Program "Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information." I have not yet found any documentation in the FEIS (which includes the DEIS) for a second contact. The NYSDEC Environmental Resource Mapper (an online resource) shows the entire site within a Rare Plants/Rare Animals zone. This is information that should be included in the FEIS.

- ***Handled by letter sent out.***

4. Although I have requested additional information on species of conservation concern that may be using the site, the FEIS still has not provided this information in a site specific context. The FEIS

relies only on letters from the USFWS and NY Natural Heritage Program to document which threatened, endangered, or rare species are likely to be present. As a sole source of rare species information, these letters do not provide adequate documentation. The FEIS has included the species lists I recommended, from the Town's Habitat Assessment Guidelines; however, those lists are meant to be a starting point for determining which species may use the project site and documenting their status (e.g. threatened, special concern, etc.). The FEIS still does not provide any additional information on a 'short list' of species of conservation concern that matches the habitats present on the project property. For example, the Town's lists include all the rare species found in Shawangunk Ridge-specific habitats, many of which would not be found on the project site. Additional resources for compiling a 'short list' that is more site specific include the NYS Breeding Bird Atlas and the NYS Reptile and Amphibian Atlas. While these s do not substitute for site specific field surveys, they can be used to supplement the above mentioned lists. For more information on species associated with the habitats onsite, and the habitat needs of species of conservation concern, refer to the NYS Comprehensive Wildlife Strategy Plan, and Hudsonia's Biodiversity Assessment Manual.

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- ***Protection was discussed, no further follow-up needed.***

6. It is also commendable that the FEIS describes 13 acres of wetland buffer that are to be restored; however, the buffer map provided does not depict standard buffer areas as described by DEC and FWS, so the 13 acres does not represent buffers as they are commonly described by regulatory agencies. (see #8 below)

- ***We discussed the entire 100 ft buffer with respect to planting selection and landscape management.***
- ***We discussed Integrated Pest Management (IPM) based on Cornell University.***
- ***Increase buffer to north up to loop road and southwest around Wetlands #1 with IPM outside buffer and within 100 ft.***
- ***We will consider wildflower meadows where possible.***

7. The 13 acres apparently include areas within the wetland complex, which presents real potential for additional mitigation. However, this makes it even more imperative that the mitigation restores the actual habitat types needed by the rare species that are likely to be using the site. According to the current FEIS it appears that these habitat needs primarily pertain to the bog turtle and a group of rare grassland dependent birds. Other particular species of concern are likely to be protected if the

habitat needs of these two groups are met- but this assumption cannot be made without additional information in the FEIS. Birds may be affected in this case by management of pasture, buffers and landscaped areas, and plants used for restoration.

- ***Review the planting list to make sure that vegetation selected for reseeding responds to habitat needs for the revised species list.***
- ***Timing of mowing and other landscape management techniques would be adjusted as needed to maintain species habitat.***

8. For mitigation planning it is essential that the FEIS provides all of the following on a site map (I have requested this in previous DEIS comments): 1) all wetlands, streams and habitats; 2) the construction area of disturbance; 3) a 100 foot buffer around all delineated wetland boundaries; 4) the Zone 2 management area, extending 200 ft beyond the 100 ft. buffer line and surrounding all wetlands(see bog turtle comments below); 5) the boundary of the wetland's contributing drainage area. The existing maps I have been shown do not present all of this information, nor do they present it on one map. The existing habitat map (C-005) could probably be used as the base, with watershed, wetland boundary, buffers and management zones added.

All buffer management and planting information should be keyed to this map so that the reviewer can easily see where site disturbances, mitigation and management activities are occurring in relation to pertinent natural features and habitats and all proposed construction. Until this is done it will not be possible to effectively evaluate mitigation for indirect (including water quality) impacts on bog turtle habitat--and on the habitat required by other species of conservation concern as well.

Bog Turtles (Comment 3.E-9, FEIS page III-24)

- ***Revised drawing C-005 sufficient and will be included in submittal package.***

9. Impacts on bog turtle habitat can be incurred even though project activities are outside the actual wetland. The Bog Turtle Northern Population Recovery Plan (USFWS) describes this as follows (this should be in the FEIS as well):

" Projects in and adjacent to bog turtle habitat can cause habitat destruction, degradation and fragmentation. Of critical importance is evaluating the potential direct and indirect effects of activities that occur in or are proposed for upland areas adjacent to bog turtle habitat. Even if the wetland impacts are avoided (i.e. the activity dose not result in encroachment into the wetland), activities in adjacent upland areas can seriously compromise wetland habitat quality, fragment travel corridors, and alter wetland hydrology..." and the conservation recommendations for each zone are meant to "guide the evaluation of activities that may affect high potential bog turtle habitat, potential travel corridors, and adjacent upland habitat that may serve to buffer bog turtles from indirect effects."

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delineated wetland (i.e. 200 feet beyond the buffer). This defines the area where management options are evaluated, and where mitigation should focus.

11. The FEIS unnecessarily provides the "Recovery Task Outline" from the Recovery Plan as its model for mitigation—but this outline contains measures that are aimed at regulatory agencies and a larger area, well beyond the scope of any one project. Instead, the appropriate mitigation recommendations to follow are presented in Appendix A of the Recovery Plan: Bog Turtle Conservation Zones. In particular I am concerned about management within zone 2, which extends 300 feet from the wetland edge. Any new construction within this zone (roads, sediment basins, structures) and any application of pesticides, herbicides, and fertilizers may impact wetlands. This is especially important since zone 3 (extends to geomorphic edge of drainage basin or at least ½ mile beyond Zone 2) already contains substantial development; because of this existing development it is esp. important to protect Zone 2 to avoid impacts on water quality and other indirect impacts to the wetland complex. None of this is described in the FEIS; there is only a cursory mention of these zones (FEIS page III-26). This is a significant omission and needs to be corrected.

12. It is still not clear where the FEIS proposed mitigation measures are located in relation to the 100ft. buffer and Zone 2 areas described above. The bog turtle's multiple habitat needs onsite include clean water, open corridors for movement between habitats, and adequate buffers and management zones along the edges of the wetland. This matching of specific habitat needs with specific mitigation measures is not described in the FEIS. Existing buffer planting lists will need to be re evaluated, based on the configuration of buffers and management areas depicted on the new map (#8 above), and on species and habitat information provided as per these comments.

13. Additional mitigation measures and options re: bog turtles (and other rare species as identified) should be addressed in the FEIS. These include:
a. conservation easements
b. location of all stormwater management facilities outside the 100 foot wetland buffer, with outflow spread across a vegetated surface of at least 100 feet before reaching the wetland or intermittent stream
c. reduction in impervious surfaces within the wetland buffer and Zone 2 areas
d. road salt and pesticides cannot be removed by stormwater management facilities; application of road salt should not occur within mitigation areas.

- ***We discussed in detail the 300 ft Bog Turtle Zone 2 across the entire site.***
- ***Need to research plant species that are favorable to salt uptake that could be used in vegetative filter.***
- ***Agreed to use Cape Cod Curb detail on both sides of the road where new curbs are planned.***
- ***We discussed landscape management within Zone 2.***

Karen Schneller-McDonald Richard Eldred Enrique Ford

Tim Miller Associates, Inc.

Memorandum:

To: Kris Pedersen, Chairwoman
Members, Shawangunk Planning Board

From: Bonnie Franson, AICP

Date: February 26, 2009

Subject: Watchtower FEIS - Substantive Review

Cc: Robin Kaufmann, Planning Board Secretary
Richard Hoyt, Esq., Town Attorney
Joe Mihm, P.E., Town engineering consultant
Dave Kjos (for the applicant)

We are in receipt of the draft Final Environmental Impact Statement for the proposed Watchtower Improvements dated January 15, 2009.

As per the regulations implementing the New York State Environmental Quality Review Act, a final EIS must consist of: the draft EIS, including any revisions or supplements to it; copies or a summary of the substantive comments received and their source (whether or not the comments were received in the context of a hearing); and the lead agency's responses to all substantive comments. The draft EIS may be directly incorporated into the final EIS or may be incorporated by reference.

The lead agency is responsible for the adequacy and accuracy of the final EIS, regardless of who prepares it. All revisions and supplements to the draft EIS must be specifically indicated and identified as such in the final EIS.

I find that the FEIS has addressed satisfactorily most comments raised by our office. We offer the Planning Board the following comments with regard to the completeness and adequacy of the responses incorporated into the draft FEIS.

1. Recreation - It would be useful if the FEIS included a simple chart describing the changes being made to these facilities. In the first column, list all existing recreation facilities on-site. In the second column, list all proposed facilities. In the 3rd column, indicate the following: 1. where the recreation facility is a replacement for an existing facility 2. where the recreation facility is entirely new; and 3. where a facility is being removed and not replaced.

Tim Miller Associates, Inc.
10 North Street
Cold Spring, NY 10516
845-265-4400
fax: 845-265-4418
www.timmillerassociates.com

2. Recreation - Please indicate the total number of dwelling units being constructed and the net change in dwelling units, as we understand that the demolition of dwelling units and reconfiguration of existing dwellings results in a loss of existing dwellings.

3. Variance. Based on the parking data provided, it appears that a variance may be required as the application proposes less parking spaces than required by the Town's zoning ordinance. The applicant should consult with the Building Inspector on this matter. If a variance is required, the list of permits and approvals must also be updated.

4. Site plan. Although not a FEIS comment, the enlarged fuel tank area should be shown on the site plan if this has not been shown.

5. Wastewater. The Town's engineering consultant should confirm the content and adequacy of the wastewater report.

6. Integrated Pest Management. The FEIS indicates that an integrated pest management approach will be used in applications intended to maintain landscaped areas. This will be made a mitigation noted in the Findings Statement. The applicant can incorporate the methods to be used in FEIS or the pest management methods can be incorporated as notes in the site plan.

7. Traffic. On p. III-36, Response to Comment 3.G-4, the FEIS indicates that the applicant may contribute a share of expenses related to capital improvements noted in the Traffic Impact Study. This is vague and it is unclear whether the applicant is committed to any of the mitigation measures noted in the study. The applicant should discuss proposed improvements with the Town Highway Superintendent and County DPW and identify specific proposals for mitigation.

8. Ecology. With regard to ecology and wetlands, I note that NYSDEC indicates they do not believe there will be a significant impact on ecological resources. We understand that the applicant has met with Hickory Creek Consulting and have agreed to how comments will be responded to - the FEIS should be updated to include these responses.

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, Albany, New York 12233-4757
Phone: (518) 402-8935 • **FAX:** (518) 402-8925
www.dec.state.ny.us

Alexander B. Grannis
Commissioner

March 2, 2009

David Kjos
Watchtower Bible &Tract Society of NY
900 Red Mills Road
Wallkill, NY 12589

Dear Mr. Kjos:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to an Environmental Assessment for the proposed Project Development at Watchtower Farms, area as indicated on the map you provided, located in the Town of Shawangunk, Ulster County.

Enclosed is a report of rare or state-listed animals and plants, significant natural communities, and other significant habitats, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site. The information contained in this report is considered sensitive and should not be released to the public without permission from the New York Natural Heritage Program.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the enclosed address.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. This information should not be substituted for on-site surveys that may be required for environment impact assessment.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Sincerely,

Tara Salerno

Tara Salerno, Information Services
New York Natural Heritage Program

cc: Reg. 3, Fisheries Mgr.
Peter Nye, Endangered Species Unit, Albany

Eight pages removed from
**** NY Natural Heritage Program Report ****

SENSITIVE MATERIAL
not for public distribution

DENNIS M. LARIOS, P.E.
Lic. No. 58747

CHRISTOPHER J. ZELL, L.L.S.
Lic. No. 49629

BRINNIER and LARIOS, P.C.
PROFESSIONAL ENGINEERS & LAND SURVEYORS
67 MAIDEN LANE
KINGSTON, NEW YORK 12401
TELEPHONE (845) 338-7622
FAX (845) 338-7660

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TOPOGRAPHIC SURVEYS

March 3, 2009

Ms. Kris Pedersen, Chairperson
Town of Shawangunk Planning Board
Town of Shawangunk
PO Box 247
Wallkill, NY 12589

MAR 0 9 2009

RE: Review of FEIS
Watchtower Farms
Town of Shawangunk, NY

Dear Ms. Pedersen:

Our office reviewed the Final Environmental Impact Statement (FEIS) for the Watchtower Farms Improvements project. The project involves disturbance of 46 acres of land to construct a 3-story residence building, a 3- story office building, a two story parking garage, a recreation building and outdoor facilities, a dining room addition, a laundry/dry cleaning addition, and a one story technical equipment building. The following documents were reviewed:

- Final Environmental Impact Statement, prepared by Kingdom Support Services, Inc dated January 15, 2009
- A 40 drawing set, dated 15 Jan 09

Our review was focused on the stormwater and roadway aspects of the project. While we did also review the water supply and wastewater disposal aspects of the project, the primary review and acceptance of the water and wastewater systems is by other regulatory agencies, namely the UCHD and NYSDEC. Our comments are as follows:

1. We have no comments on the stormwater management information given in the FEIS.

2. The Sidewalk Ramp Detail provided on Sheet CP-501 should be equipped with a Detectable Warning Surface to comply with ADA R304 requirements.

3. The Wastewater Treatment Plant Improvements Report given in Appendix 14 should be referred to the NYSDEC for review and acceptance.

Please do not hesitate to contact this office with any questions or concerns.

Respectfully submitted,

BRINNIER AND LARIOS, P.C.

Joseph E. Mihm, P.E.

cc: Martin Hand, Town of Shawangunk Highway Superintendent
Bonnie Franson, Tim Miller Associates
Dennis Larios, Brinner & Larios

Hickory Creek Consulting LLC

Karen Schneller-McDonald 845 758-2369
25 Carriage Drive katykill@frontiernet.net
Red Hook, New York 12571

To: Kris Pedersen
Chair, Town of Shawangunk Planning Board
From: Karen Schneller-McDonald
Re: Watchtower project-completed comments
Date: March 10, 2009

MEMORANDUM

I have reviewed the maps and text changes for the Watchtower Project as submitted to the Planning Board on March 3. I provided the following text to Dave Kjos and John Chitty in response, on March 4. Since that time all of my concerns and questions have been addressed, and I have no further concerns regarding this FEIS.

Text from March 4:

1. My remaining concern is the specific timing of mowing within the pasture and the old field habitats so it doesn't disturb the nests or fledglings of the grassland nesting birds (see list below) that may be using these habitats. This specific information should be provided as part of the response to my comments, and as part of the project's mitigation plan. General guidance on mowing practices include mowing every one to three years to maintain fields in grasses and present growth of woody vegetation . Since timing of mowing is crucial to the survival of nesting grassland birds, mowing after August 15 is generally recommended. For more details refer to the attached USDA publication.

The remainder of my comments refer to the species/ habitat lists and are provided to improve accuracy of the record.

2. Please remove the Blandings Turtle from the list; in NYS it is found only in Dutchess county, and in a few counties along the St. Lawrence River and Lake Ontario.

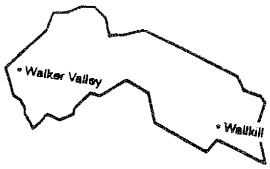
3. Please include the sources of information for the National, State and Regional lists. I realize that these are taken from the Biodiversity Assessment Manual, but the reader needs to know the sources of this information as states on Page 82 of the Manual.

<u>For the Planning Board's information:</u>

It is important to note that although these species lists do not include all possible species, they are representative, and appropriate for the level of development planned for the site. They are taken from the Biodiversity Assessment Manual, which states that the lists are not comprehensive, but are a sample of the species that might occur in each habitat. (For purposes of accuracy of the record, I requested that this information should be added at the end of the species lists).

There is a discrepancy between hemlock/ hardwood forests described by Edinger and the 'young woods' designation on the habitat map and list for this project. However, since I did recommend use of the Biodiversity Manual, and it does not contain a specific description of a hemlock/hardwood forest, this was the closest description available. And since none of this habitat will be lost as a result of the project, this will description will suffice for purposes of this project review.

Established March 7, 1788



PLANNING BOARD

TOWN OF SHAWANGUNK

COUNTY OF ULSTER (P.O. BOX 247)

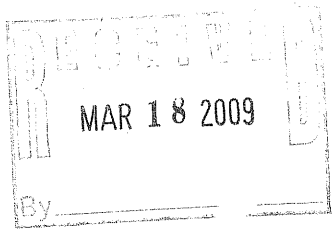
Wallkill, New York 12589

TELEPHONE (845) 895-3356

FAX (845) 895-2162

March 18, 2009

Referral Officer
Ulster County Planning Board
Box 1800
Kingston, NY 12402



RE: Watchtower Bible & Tract Society of New York, Inc.

To whom it may concern:

Enclosed is the Referral submission with attachments for the Watchtower Bible & Tract Society of New York, Inc. as per my phone conversation with Mr. Dennis Doyle yesterday March 17, 2009. Representatives from Watchtower Farms were kind enough to hand deliver this package for the Town.

Please be advised that at the Town of Shawangunk Planning Board meeting held on March 3, 2009 the Board requested our Town Planner to prepare the Draft Notice of Completion and Finding Statement.

If you require additional information please contact the office Monday through Friday between the hours of 12:00 – 4:00 pm or you can email the office at planning@shawangunk.org.

Thank you for your consideration with this matter.

Truly,

Kristine Pedersen
Chairwoman

KP/rck

Cc: File

Ulster County Planning Board

Print Form

General Municipal Law 239 M-N Referral Submittal Form

Please Fill Out All Sections - Type or Print Only

Municipality:	Town of Shawangunk
Referring Board:	Planning Board
Referring Official:	Kristine Pedersen, Chairwoman
Phone Number:	845-895-3356
Local File #:	PB 7-7
Applicant Name:	Watchtower Bible & Tract Society
Project Name:	Watchtower Farms Improvements

Type of Referral
(Check All Those That Apply)

239-M:
- [x] Site Plan Review
- [x] Special Permit
- [ ] Area Variance
- [ ] Use Variance
- [ ] Amend Zoning Statute
- [ ] Amend Zoning Map
- [ ] Comprehensive Plan
- [ ] Other Special Authorizations

239-N:
- [ ] Subdivision

SEQRA Determination
- [x] Type I Action
- [ ] Type II Action
- [ ] Unlisted Action

GML/Ulster County Charter Referral Criteria:
(Choose One)

- [x] **Within 500 feet of a:** County Road or State Road, City, Village, Or Town Boundary, County or State Park or Other Recreation Area, Stream or Drainage Channel Owned or Established Channel Line by County, County or State Owned Land with public building or institution Located on it, or Boundary of Parcel with a farm operation
- [ ] **Greater than 500 feet of :** Any of the Above Listed Conditions

Parcel(s) Information

Section	Lot	Block
99.004	1	11

Number of Lots

Project Acreage
1,141

Zoning District(s) of Project
RAG-4

Parcel Utilities
- [x] Central Water private
- [ ] Private Water
- [x] Central Sewer private
- [ ] Individual Septic

Location of Project: (Address or Nearest Intersection)
900 Red Mills Road, Wallkill

Project Description: (Please Be As Specific as Possible)

Applicant seeks Special Use Permit and Site Plan Approval for 300 multiple family dwellings to be constructed in three (3) story residential building attached to existing residential building. The Applicant also proposes to construct and expand various ancillary uses including but not limited to a two (2) story parking garage with 400 spaces, three (3) story accessory building with basement, recreation building, technical equipment building, with proposed additions to existing dining room and laundry and dry cleaning

see attached

Referring Official - Signature - Certification of Application's Completeness: Kristine Pedersen 3-18-09

UCPB Staff Use Only

Received Stamp:

RECEIVED
MAR 18 2009
By

Referral #

Agenda Date:

Major Project? ☐

Return Form to:
Referral Officer
Ulster County Planning Board
P.O. Box 1800
Kingston, NY 12402

Mail or Hand Delivery Only Please!

Questions? - Call 845-340-3340

Applicant seeks Special Use Permit and Site Plan Approval for 300 multiple family dwellings to be constructed in three (3) story residential building attached to existing residential building. The Applicant also proposes to construct and expand various ancillary uses including but not limited to a two (2) story parking garage with 400 spaces, three (3) story accessory building with basement, recreation building, technical equipment building, with proposed additions to existing dining room and laundry and dry cleaning buildings. The proposed development is situated on a portion of the Applicant's 1,141+/-acre landholding. The application involves land already developed within the Watchtower Farms residential campus complex, except some disturbance of lands in agricultural or vacant use can be anticipated at the periphery of the proposed development area. Property is located in the Residential Agricultural District (RAG-4). Please review FEIS with Plans. The DEIS has the SWPPP and Planning Board minutes are located within the FEIS and DEIS, January / February 2009 Minutes are attached.

Knoth con't.
Ms. Pedersen asked if there were any comments or questions from the Board of audience. There were none.

The application remains incomplete. The Final Public Hearing was continued to March.

CONTINUATION PUBLIC HEARINGS:
Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11) Proposed Special Use Permit with Site Plan Approval for 300 Multiple Dwellings in a 3 story residential building and ancillary uses included but not limited to 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is 1141+/-acres located at 900 Red Mills Road in RAG-4 District. Mr. Enrique Ford represented the applicants.

Ms. Pedersen said that comments from the Town Consultants for review of the FEIS have not been received.

The Public Hearing was continued to March.

Titus, Lee & Joanna:(106.4-1-6.200)Proposed Final Approval of 32 Lot Cluster Subdivision of 25+/-acres with sewer & water off Buena Vista Avenue located in the Hamlet District and Borden AG Support Overlay District. Mr. John Tarolli, PE represented the applicant and said informed the Board that there is nothing new to report for this project.

The application remains incomplete. The Public Hearing was continued to March.

Marbil Corp.:(100.4-1-13.2)Proposed Special Use Permit with Site Plan Review for sand and gravel mine on Denniston Road and NYS Route 208 in the RAG-4 District and Aquifer Overlay Protection District. Mr. Mario Milano, owner was present before the Board.

Mr. Milano provided the Board with the funds to establish the escrow account. His Engineer contacted the office to request that the Town post the FEIS onto the Town's Web Site. The Board agreed.

The Board requested that nine (9) copies of the Site Plan and three (3) Final Environmental Impact Statements be submitted for review.

The application remains incomplete. The Public Hearing was continued to March.

APPEARANCES:
Estate of Patrick Kelly:(99.3-4-3)Proposed Two Lot Subdivision of 49.97+/-acres on Hardenburgh Road / Bruyn Turnpike in the RAG-2 and RAG-4 Districts. Ms. Margaret Hillriegel, LS represented the applicants. Applicant proposes Lot 1 of 11.3056+/-acres, net acreage of 8.07+/-acres with existing single family dwelling and three (3) bungalows. Lot 2 of 36.6693+/-acres, net acreage of 33.26+/-acres with proposed dwelling, existing barn and out buildings – property to remain in agricultural use (No wetlands easterly of Bruyn Turnpike or Northerly of Hardenburgh Road have been flagged.

The following items were entered into record: Map dated revised January 12, 2009, Map dated January 28, 2009, agricultural data statement and memorandum dated January 30, 2009.

Minutes of a Regular Meeting held by the Planning Board of the Town of Shawangunk, County of Ulster, State of New York, at the Town Office Building, 14 Central Avenue, Wallkill, New York, on the 6th day of January, 2009.

Those present were: Kris Pedersen, Chairman
George Sawyer
Alan White
Mark Watkins
Carol Scofield
Bonnie Franson, AICP
Absent: None. Also present: Please see attached sign-in sheet.

Open Regular Meeting: 7:00 pm

A motion was made by George Sawyer, seconded by Carol Scofield to approve the Minutes of November 5, 2008. Vote: All Ayes. Absent: None.

A motion was made by George Sawyer, seconded by Carol Scofield to amend the Minutes of Open Space Conservancy / Cornella / Doimi / Portuondo final motion to read: A motion was made by George Sawyer, seconded by Carol Scofield etc., and approval of the Minutes as amended for December 2, 2008. Vote: All Ayes. Absent: None.

PRELIMINARY PUBLIC HEARINGS: There were none.

CONTINUATION PUBLIC HEARINGS:
Estate of Stanley Gomes/ Keith & Candice Fox:(104.1-2-10.120 & 104.1-2-9)Proposed Three Lot Subdivision with Lot Line Change of 39.9+\-acres at 42 / 48 Weed Road in the RAG-2 District. See Public Hearing Minutes.

Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11) Proposed Special Use Permit with Site Plan Approval for 300 Multiple Dwellings in a 3 story residential building and ancillary uses included but not limited to 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is 1141+/- acres located at 900 Red Mills Road in RAG-4 District. Mr. Dave Kios and Mr. Enrique Ford represented the applicants.

The following items were entered into record: Memorandum dated December 9, 2008 from Richard Hoyt, Esq., memorandum dated December 17, 2008 from Tim Miller Associates and email dated January 5, 2009 from Kris Van Tassel – Watchtower Farms.

The Board discussed and said that they endorse TMA December 17, 2008 comments in their entirety. The comments are to be considered for revision / addition of the FEIS. Additional discussion was held on the following items:

Item #20 Wastewater/Sewage Disposal – The Board requested a report be attached to FEIS;

Item # 26 Recreation – The Board requested that an analysis be provided of the supply and demand of the proposed recreation program with a comparison of existing and proposed recreation activities to be conducted on the site. Include proposed activities to match the demographics anticipated for the facility etc. Further research on Town Law on recreation fees will be investigated. Additional information from the applicant is necessary.

Item #31 – The Board requested that a written evaluation be provided on the supply and demand to substantiate the need for parking garage;

Item #41 – Ulster County Dept of Transportation request (through email from Joe Mihm, Brinnier & Larios, PC dated October 31, 2008) of roundabouts at intersections Red Mills Road with Steen /

Watchtower con't.

Hoagerburgh Road with Bruynswick Road and New Prospect Road. Town Traffic Consultant James Garofalo comment is pending.

Member Sawyer said he has spoken with UCDOT Mercia Catona, PE, and the County and Town Highway Superintendent are in favor of improvements to these intersections for safety factors. Mr. Catona offered to design a roundabout.

The Planning Board said that mitigation measures need to be evaluated to determine whether a roundabout, stop signs and/or speed measures would be the safest for these locations. The Board is not in favor of the applicant being responsible for the improvement. Most of the projects traffic is presumed in the other direction.

The Board will wait on their Consultant James Garofalo for further comment. The applicant is continuing to work on the FEIS.

The Special Use Permit with Site Plan Public Hearing was continued to February 3, 2009.

Titus, Lee & Joanna:(106.4-1-6.200)Proposed Final Approval of 32 Lot Cluster Subdivision of 25+/-acres with sewer & water off Buena Vista Avenue located in the Hamlet District and Borden AG Support Overlay District. No one appeared before the Board.

The application remains incomplete. The Public Hearing was continued to February 2009.

Marbil Corp.:(100.4-1-13.2)Proposed Special Use Permit with Site Plan Review for sand and gravel mine on Denniston Road and NYS Route 208 in the RAG-4 District and Aquifer Overlay Protection District.
No one appeared before the Board.

Ms. Pedersen said that the NYSDEC is scheduled for Privilege of the Floor at the Town Board January 8, 2009 meeting and said that Board Members and the secretary should attend if possible.

The application remains incomplete. The Public Hearing was continued to February 2009.

APPEARANCES:

Charlene Ramsey:(106.2-2-24)Proposed Two Lot Subdivision of 14.2 acres at 258 Old Reservoir Road in the RAG-2 District and AQ-Overlay. Ms. Margaret Hillriegel, LS and Ms. Charlene Ramsey were present before the Board.

The following items were entered into record: Applicants submission received on December 12, 2008 with map dated December 10, 2008 and Tim Miller Associates memorandum dated December 31, 2008.

The Board reviewed and discussed the December 10th plan and TMA December 31st memo.

Ms. Hillriegel agreed that the proposed house can't meet the AQ-Overlay requirement of 5'foot separation from the water table. She will relocate it to the hill.

A motion was made by Alan White, seconded by George Sawyer to waive the Cluster Plan requirement. Vote: All Ayes. Absent: None.

The application is incomplete and is to address TMA December 31st comments. The application was scheduled for a Public Hearing in February.

Estate of Gomes con't.
Mr. Watkins said the pond is also used as a fire pond by the Walker Valley Fire Department.

The Board said the applicant is to revise the map, revise Notes 5, 6 & 7 as stated above, revise the driveway maintenance agreement with Schedule A description and obtain revalidation for the NYSDEC Wetlands before resubmitting. The application remains incomplete. The Public Hearing was continued to January 2009.

Open Space Conservancy / Cornella / Doimi / Portuondo:(91.4-1-27.200 / 91.4-1-24 / 91.4-1-27.200) Proposed Lot Line Changes on Upper Mountain Road / Schneller Lane in the RS – 1 District. See Public Hearing Minutes.

CONTINUATION PUBLIC HEARINGS / DEIS HEARING:
Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11) Proposed Special Use Permit with Site Plan Approval for 300 Multiple Dwellings in a 3 story residential building and ancillary uses included but not limited to 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is 1141+/- acres located at 900 Red Mills Road in RAG-4 District. Mr. Richard Eldred and Mr. Dave Kios represented the applicants.

Ms. Pedersen said that no additional comments have been received. The Board can consider closing the Public Hearing for SEQRA on the Draft Environmental Impact Statement (DEIS) section of this project. There will be ten (10) additional days comment period after the hearing is closed for additional comments.

A motion was made by George Sawyer, seconded by Alan White to close the SEQRA Public Hearing on the Watchtower Bible & Tract Society of NY, Inc. Draft Environmental Impact Statement (DEIS). Additional comments will be received for an additional ten (10) days to December 12, 2008. Vote: All Ayes. Absent: None.

The Special Use Permit with Site Plan Public Hearing was continued to January 6, 2009.

Gabriel Dietrich:(106.1-1-17.123)Proposed Amendment to Special Use Permit with Site Plan approval for internet car sales to add auto repairs / storage at 18 Myers Road in RAG-4 District. See Public Hearing Minutes.

Titus, Lee & Joanna:(106.4-1-6.200)Proposed Final Approval of 32 Lot Cluster Subdivision of 25+/-acres with sewer & water off Buena Vista Avenue located in the Hamlet District and Borden AG Support Overlay District. No one appeared before the Board.

The application remains incomplete. The Public Hearing was continued to January 2009.

Marbil Corp.:(100.4-1-13.2)Proposed Special Use Permit with Site Plan Review for sand and gravel mine on Denniston Road and NYS Route 208 in the RAG-4 District and Aquifer Overlay Protection District. No one appeared before the Board.

The following items were entered into record: Letter dated November 6, 2008 from Edward Sprague, Project manager Medenbach & Eggers, PC and letter dated October 16, 2008 to Mr. Milano from the Planning Board.

The application remains incomplete. The Public Hearing was continued to January 2009.

Minutes of a Regular Meeting held by the Planning Board of the Town of Shawangunk, County of Ulster, State of New York, at the Town Office Building, 14 Central Avenue, Wallkill, New York, on the 5th day of November, 2008.

Those present were: Kris Pedersen, Chairman
George Sawyer
Alan White
Mark Watkins
Carol Scofield
Bonnie Franson, AICP
Absent: None. Also present: Please see attached sign-in sheet.

Open Regular Meeting: 7:00 pm

A motion was made by George Sawyer, seconded by Carol Scofield to amend page seven correspondence – Board of Fire Commissioners Wallkill Fire District to read: Letter dated September 19, 2008 was entered into record and approve as amended. Vote: All Ayes. Absent: None.

PRELIMINARY PUBLIC HEARING AND HEARING ON DRAFT ENVIRONMENTAL IMPACT STATEMENT:
Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11) Proposed Special Use Permit with Site Plan Approval for 300 Multiple Dwellings in a 3 story residential building and ancillary uses included but not limited to 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is 1141+/- acres located at 900 Red Mills Road in RAG-4 District. Mr. Dave Kios and Mr. Richard Eldred represented the applicants.

The following items were entered into record: Letter dated October 17, 2008 from NYS Office of Parks, Recreation and Historic Preservation, letter dated November 3, 2008 from Hilda Borges and correspondence dated October 31, 2008 from Joe Mihm.

Mr. Kios said that the proposal is for 300 multiple dwelling units to be constructed in a 3 story residential building, two story parking garage for 400 spaces, 3 story accessory building with basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings.

Mr. Kios said as stated within the DEIS:
III.J.2 Existing and Proposed Population

The existing population on Parcel 99.4-1-11 ("property") is approximately 1,350 residents. Following completion of the project, the projected site population would have the potential to increase by 208 residents, or approximately 15 percent. Therefore the proposed population is anticipated to be near a target of 1,558 residents.

The new residential building would have 300 dwelling units (designated in the Zoning Code as multiple-family dwellings). Of these, approximately 151 dwelling units would replace dwelling units lost in other buildings as a result of this project. The dwelling units that are lost would mainly be due to quality-of-life improvements with the objective of increasing their size to include individual, rather than communal, bathrooms and simple kitchenettes. An example of dwelling units that would be lost is the modular housing north of the new residential building. Also, historically, approximately 15 percent of dwelling units must be allocated for occasional guests, temporary workers (seasonal and otherwise), short-term training, and special needs such as temporarily housing residents whose units are undergoing maintenance or renovation. Thus another 45 dwelling units would not be available for residents. This figure is also intended to incorporate under-utilization of dwelling units, which are typically designed to house two residents. For example, an older widow or widower may live alone, rather than with a roommate. Subtracting 196 (151 + 45) dwelling units from the 300 total dwelling units in the new residential building generates an estimated increase of 104 dwelling units, or 208 residents.

Watchtower con't.
Public comment:
Fred Whitaker and Margaret Annastas – 3 Whitaker Road asked how this project benefits the community they thought this proposal has to be a benefit to the Town. Their concerns are for the water table, who is conducting the studies, why not remodel rather than expand, increase of traffic, loss of mountain views and whether the technical school is relocating to this location.

Mr. Richard Eldred said that any public comments or concerns received will be addressed with the Final Environmental Impact Statement.

The Board discussed Joe Mihm October 31st correspondence. Mr. Mircea Catona, Ulster County Highways and Bridges Department asked Superintendent Martin Hand and he to meet with UCDOT to inspect the intersection of Red Mills Road-Bruynswick Road-Hoagerburgh Road. Mr. Catona's concern is that this is a non-standard intersection that is already prone to accidents and any further increases in traffic by the proposed Watchtower Farms Improvements project could make the situation worse. The Collins Traffic Study did evaluate this intersection and reports it has a "B" Level of Service. Mr. Mihm said that Mr. Catona will be suggesting that Watchtower consider an upgrade with a traffic circle at this intersection to improve this un-usual intersection that is really two "T" intersections.

The Board said that the intersection in question is an existing problem and suggests that stop signs be installed at each location. The Planning Board strongly disagrees with the County's suggestion that the applicant upgrade this location to a traffic circle.

The application remains incomplete. The Public Hearings will be continued to December and the Board will continue to receive agency and public comments for an additional thirty (30) days to December 5, 2008.

CONTINUATIONS:
Gabriel Dietrich:(106.1-1-17.123)Proposed Amendment to Special Use Permit with Site Plan approval for internet car sales to add auto repairs / storage at 18 Myers Road in RAG-4 District. No one appeared before the Board. The application remains incomplete. The Public Hearing was continued to November.

Titus, Lee & Joanna:(106.4-1-6.200)Proposed Final Approval of 32 Lot Cluster Subdivision of 25+/-acres with sewer & water off Buena Vista Avenue located in the Hamlet District and Borden AG Support Overlay District. Mr. John Tarolli, PE represented the applicant.

Memorandum dated October 31, 2008 from Planning Board to John Valk, Supervisor was entered into record.

Ms. Pedersen said that the Planning Board forwarded Mr. Tarolli's request to the Town Supervisor as requested. The application remains incomplete. The Public Hearing was continued to November.

Marbil Corp.:(100.4-1-13.2)Proposed Special Use Permit with Site Plan Review for sand and gravel mine on Denniston Road and NYS Route 208 in the RAG-4 District and Aquifer Overlay Protection District. No one appeared before the Board. The application remains incomplete. The Public Hearing was continued to November.

APPEARANCES:
Cellco Partnership d/b/a Verizon Wireless:(100.3-1-14.100)Proposed Special Use Permit with Site Plan Review for proposed Cell Tower at 23 Twin Ponds Lane in the RAG-4 District. Mr. Scott Olsen, Esq. and Tectonic Engineering was present before the Board.

DISCUSSIONS:

Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11)Submission of Phase IB and responses for DEIS for proposed Special Use Permit with Site Plan Approval property is located at 900 Red Mills Road in RAG-4 District. Mr. Dave Kios and Mr. Enrique Ford represented the applicants.

The following items were entered into record: Memorandum dated October 1, 2008 from Tim Miller Associates, letter dated October 1, 2008 from Brinnier & Larios, PE and letter dated October 2, 2008 from Hickory Creek Consultant, LLC was entered into record.

A lengthy discussion was held on the Town Consultants comments.

Ms. Pedersen asked the Board to consider the Watchtower DEIS for completeness. She suggested that Watchtower Representatives speak directly with Hickory Creek Consulting.

The Board said at this time they considered the DEIS complete and a substantive review should begin subject to minor changes as stated within TMA and Brinnier & Larios comments. The changes from comments are to be sent to TMA and Brinnier & Larios for final signoff and then the applicant is to resubmit a clean two volume package DEIS.

A motion was made by Mark Watkins, seconded by George Sawyer to deem the Watchtower Bible & Tract Society of NY, Inc Draft Environmental Impact Statement complete. Vote: All Ayes. Absent: None.

Ms. Pedersen said that part of the Board's responsibility is to make the determination for recreation fees.

Discussion was held on the DEIS public hearing process, time frame and TMA will prepare the Notice of Completion and a Public Hearings will be set for the DEIS and Special Use Permit with Site Plan on November 5, 2008.

Pfaff-Adams, Dawn / Jeff:(106.1-3-2.200 & 106.1-3-2.100)Approved Three Lot Subdivision with Lot Line Change on Bruyn Turnpike in the RAG-4 District. Mr. and Mrs. Adams and Mr. Jeff Pfaff were present before the Board.

The following items were submitted into record: Letter dated September 5, 2008 from Richard Hoyt, Esq., letter from George Lithco, Esq. dated September 9, 2008 to Richard Hoyt, Esq.

The following items were submitted at the meeting: Letter dated October 6, 2008 from Michael Aiello, PE with well log dated 9/30/08 by Rich Tompkins for Jeff Pfaff, well log dated 8/22/08 by Jim Wild for Dawn Pfaff – Adams and executed driveway maintenance agreement.

The Board discussed the abandonment of the wells and accepted the letter dated October 6th from Michael Aiello for signed off for the abandonment. The final maps are to be submitted for signature, recreation fees paid and the driveway maintenance agreement is to be reviewed as per the Town Attorneys September 5th comments.

Prospect Heights: Regarding Map Note – Street Tree from Letter received on April 1, 2007 for project. Mr. Abraham Berkovic and John Tarolli, PE was present before the Board.

Letter from Richard Hoyt, Esq. dated September 9, 2008 to George Lithco, Esq. was entered into record.

The Board discussed the Prospect Heights site visit to review proposed locations for street trees for purposes of updating the road bond which was prepared some time ago.

DEIS Tarolli con't.
Ms. Pedersen said the Board accepted the Town Consultants comments and both projects were deemed incomplete at the July 1, 2008 Planning Board meeting. The applicants are to address the issues and resubmit.

Mr. Watkins commended the Town Consultants on their review and comments.

Ms. Franson said the Town has contacted the NYSDEC in regards to the project status for Martinelli Scott Sheeley, NYSDEC will be contacting the Town after speaking with the Timber Harvest DEC division.

Mr. Tarolli said if the Board is not going to deem both DEIS complete than he requests a meeting with consultants to speak with them directly on their comments.

The Board discussed Mr. Tarolli's request. The Board agreed to schedule a meeting with two Board Members, Town Consultants and Mr. Tarolli. This meeting will discuss the Town Consultants letters on the level of review that is required for the DEIS's for Martinelli and S & N Real Estate Holding Corp.

Special Use Permit for all Political Parties: Special Use Permit to post election signs for September 9th Primary and November 4th Elections.

Letter dated July 25, 2008 from Jane Rascoe, Chairman Republican Committee was entered into record.

A motion was made by Carol Scofield, seconded by George Sawyer to grant a Special Use Permit to allow Political signs to be erected in the Town of Shawangunk thirty (30) days prior to the September 9, 2008 Primary Election and thirty (30) days prior to the November 4, 2008 Election. The signs erected are not to obstruct site distance at intersections and must be removed within seven (7) days after the Elections.

CORRESPONDENCE:
Gerald Jacobowitz: Letter dated July 7, 2008 regarding Habitat Assessment Guidelines was entered into record.

HR Ventures, LLC: Letter dated July 15, 2008 from NYSDEC – re: NYS Eligible Wetlands. Mr. Abraham Berkovic, Mr. John Tarolli, PE and Mr. George Lithco, Esq. were present before the Board.

Mr. Berkovic said they will meet with the NYSDEC before the DEIS is submitted to the Town. He said he is not sure he will allow them to conduct the site visit to delineate the wetlands to make the determination if the wetlands on site qualify to be large enough for State protection.

NYS Office of Parks, Recreation & Historic Preservation: re: Phase 1B – Watchtower. Representative, Shannon Konrardy was present before the Board.

Mr. Konrardy informed the Board that Watchtower has already preceded with the Phase 1B field work and they have spoken with Mr. Marcunas, NYSOPRHP to gather the appropriate information. Once the report has been completed it will be submitted to the Town and NYSSOPRHP.

Cassara con't.
Torgersen site investigation done on June 10, 2008, memorandum dated June 17, 2008 from Martin Hand, Highway Superintendent and Tim Miller Associates memorandum dated June 30, 2008.

Prior Town Attorney comments are on file. The Board requested that the January 8, 2008 map be sent to Mr. Hoyt for review.

The Board reviewed map dated January 8, 2008 and discussed TMA June 30th memo.

1. The Board to determine the water quality test that is to be performed – the color of the water is probably reflecting the constituent minerals in the soils of the pond or within the water column, i.e. – calcium carbonate or copper sulfate etc.

2. The septic area for Lot is to be located on the plan.

3. The previous June 2007 map illustrated that a proposed septic area for Lot 2 would be situated in the upland area adjoining the wetland and in close proximity to the dwelling. Why has it been relocated to the rear of the property as shown on the current map before the Board.

   Mr. Tarolli said it was relocated due to the areas tested had nothing suitable up front and the area shown is for a raised system.

4. House relocation notes are to be added to the plan.

5. Setback lines are to be added to Lot 1.

6. The Planning Board needs to determine whether the Bog Turtle Report should be transmitted to the state/federal regulatory agencies for their review and possible field check or whether it should be reviewed by a specialist.

   The Board made no decision.

7. The applicant is working with the UCDOH.

The Board will contact Mr. Tarolli with the appropriate testing for the pond and the map sent to the Town Attorney for review. The applicant will return once the results for the water have been received.

DISCUSSIONS:
DEIS's submitted for completeness:

Watchtower Farms Special Use Permit with Site Plan Approval: Several Representatives were present before the Board.

The following items were entered into record: Letter dated June 25, 2008 from Karen Schneller McDonald, letter dated June 27, 2008 from Brinnier & Larios, PC and memorandum dated June 30, 2008 from Tim Miller Associates.

The Board said that the DEIS submission was very well organized comprehensively.

The section of engineering has been deemed complete by Brinnier & Larios.

The section of watershed resources and habitat/wildlife was deemed incomplete by comments addressed in Karen Schneller McDonald June 25, 2008 letter.

Watchtower con't.
The remaining sections was deemed incomplete by comments addressed in TMA June 30, 2008 memorandum.

A motion was made by George Sawyer, seconded by Mark Watkins to make a determination of incomplete for the Watchtower Farms Special Use Permit with Site Plan DEIS as per the Town Consultants comments. Vote: All Ayes. Absent: None.

Elizabeth Martinelli Cluster Subdivision: No one was present before the Board.

The following items were entered into record: Letter dated June 11, 2008 from Brinnier & Larios, PC and memorandum dated June 26, 2008 from Tim Miller Associates.

A motion was made by George Sawyer, seconded by Mark Watkins to make a determination of incomplete for the Elizabeth Martinelli Cluster Subdivision DEIS as per the Town Consultants comments received. Vote: All Ayes. Absent: None.

S & N Real Estate Holding Corp. Cluster Subdivision: No one was present before the Board.

The following items were entered into record: Letter dated June 10, 2008 from Brinnier & Larios, PC and memorandum dated June 26, 2008 from Tim Miller Associates.

A motion was made by Mark Watkins, seconded by Carol Scofield to make a determination of incomplete for the S & N Real Estate Holding Corp Cluster Subdivision DEIS as per the Town Consultants comments received. Vote: All Ayes. Absent: None.

Watson Subdivision:(98.2-2-19.100)Approved Two Lot Subdivision in 2005 located on Church Road. The Town Attorney advised the Board that the surveyor, Howard Weeden for this project contacted his office. Mr. Weeden requested advice to correct an error made on the Watson Filed Map No: 05-509.

The Board discussed the Attorney's advice. Mr. Weeden is to submit an application for amendment to previously filed Map #05-509 to reduce the width of the stem for Lot 1 to 31.89 feet and remove the note regarding a common driveway agreement.

CORRESPONDENCE:
NYSDEC: Permit ID 3-5152-00061/00002 – Garrison Shale Mine was entered into record.

Wallkill Town Center: Letter dated June 12, 2008 from Brinnier & Larios, PC was entered into record.

Central Hudson: Letter dated June 23, 2008 re: Garrison/Rohl-Garrison Subdivision Plains Road was entered into record.

The Planning Board requested that a copy be mailed to Mr. Garrison for the record.

Dawn Pfaff – Adams: Email dated June 28, 2008 was entered into record. Ms. Adams requested an extension of final approval for her subdivision.

Ms. Carol Scofield recused herself from this application.

Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11)DEIS submission for proposed Special Use Permit with Site Plan Approval for 300 Multiple Dwellings in a 3 story residential building and ancillary uses included

but not limited to 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is located at 900 Red Mills Road in RAG-4 District**.** Watchtower Representatives were present. Enrique Ford addressed the Board.

The DEIS was received on May 16, 2007 the Town has 45 days. The document has been circulated to the Town Consultants for completeness for adequacy for a substantial review. Once the comments have been received the applicant will receive a letter from the Planning Board of its completeness.

A/A Amthor & E. Buesing:(107.1-1-2.113 / 2.114 & 107.1-1-2.120)Proposed Lot Line Changes to existing lots on Alpine Lane (pvt.) and 964 Plains Road in the RAG-2 District and AQ-Overlay. Ms. Margaret Hillriegel, LS represented the applicants.

The following items were entered into record: Applicant submission received on May 13, 2008 with map dated May 12, 2008 and Tim Miller Associates memorandum dated May 29, 2008.

The Board reviewed map dated May 12, 2008 and discussed TMA May 29th memo.

1 – 3 discussed the history of prior actions before the ZBA and Planning Board.

4. Applicant to ensure that all accessory structures conform to the setback zoning law.
5. This lot line change enhances the acreage to the conservation subdivision.
6. Mr. Buesing lot was 4 acres as he thought in the future he could subdivide.
7. Applicant to plot approximate location of ACOE wetland and net acreage to the plan.
8. Applicant to plot well / septic location for Lot 2 to confirmation of separation distances to Lot 4.

   Ms. Hillriegel said there will be nothing built on Lot 2.

   Contours are to be added to the plan and outline of Lot 1.

9. Applicant to add all topographic contours shown on approved conservation plan to current plan.
10. Existing limits of clearing should be shown on Lot 3.
11. The lot line change map is to outline the David A. & Carol A. Amthor lot (Lot 1 on Filed Map #12311)
12. The t-end line is to be lightened.
13. Discussion was held – UCDOT had reviewed entrance culverts all improvement was done.
14. All lots have rights to use the entire road – Alpine Lane, driveway easement to be submitted.
15. Applicant to obtain UCDOH permit.

The applicant is to address TMA May 29th comments and resubmit. The application was set for Public Hearing in July.

DISCUSSIONS:

Han Woo Development, Inc.:(99.3-1-1.111)Discussion of comments for pre-Application/sketch review for proposed Eight Lot Re-Subdivision of 174+/-acres on Benjamin VanKeuren Drive / Indian Springs Road in the RAG-2 District. Mr. John Tarolli, PE represented the applicants.

The following items were entered into record: Letter dated April 15, 2008 from Brinnier & Larios, PC and Han Woo Subdivision Environmental Report by Town of Shawangunk EMC dated May 25, 2008.

Ms. Pedersen said that the application has officially been submitted to the Town. There is to be no further disturbance or adding material to the site.

Mr. Tarolli asked for a pre-meeting with two Planning Board and Town Board members.

Wallkill Fire House con't.
Ms. Pedersen said she would check with the Town Supervisor. The application was set for an appearance at the March meeting.

DISCUSSIONS:
Rolling Hills Estate – Three Lot Subdivision: December 19, 2007 Planning Board letter for bond reduction was entered into record.

The Planning Board discussed the bond reduction and the Board agreed that the bond posted for tree plantings in the amount of $3,000.00 can be reduced to $1,000.00 subject to the following conditions:

- applicant must install a swale on Lot 1;
- applicant must improve the existing swale on Lot 2;
- due to the poor structure of the sugar maples, corrective pruning will be conducted;
- prior to release of the remaining bond, the Town Arborist is required to conduct a site visit at the applicant's expense and inform the Planning Board of his findings.

A motion was made by Carol Scofield, seconded by Mark Watkins to recommend to the Town Board that the bond posted known as cash account #5223524 for tree plantings for the Rolling Hills Three Lot Subdivision in the amount of $3,000.00 can be reduced to $1,000.00 and is to be retained until early May 2008, all subject to the conditions noted above. Vote: All Ayes. Absent: None.

Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11)Discussion of Public Scope comments for Draft Scoping Document. Mr. Richard Eldred, Mr. Dave Kios, Mr. Enrique Ford and Mr. Kris Vantassel and other Watchtower Representatives were present before the Board.

The following items were entered into record: Scoping Document, Watchtower Farms Draft 2 dated February 1, 2008, letter dated January 8, 2008 from Town of Crawford, Supervisor Charles E. Carnes, letter dated January 12, 2008 from Shawangunk Valley Fire District, Secretary/Treasurer Roger Rascoe, letter dated January 25, 2008 from New York State Department of Environmental Conservation, Rebecca Crist Environmental Analyst and letter dated January 17, 2008 from Anne C. Bienstock.

Ms. Pedersen said that the Draft Scoping Document has been revised to reflect the public comments from the Scoping Session and letters received.

The Board discussed Scoping Document dated February 1, 2008.

A lengthy discussion was held on the traffic study. A copy of the study was requested to be forwarded to the Town of Crawford. The Crawford Supervisor's letter dated January 8th was discussed. Drexel Drive is to be added to the traffic study.

Ms. Franson suggested that the Board confirm with the Town of Crawford for the traffic study locations sites.

A motion was made by Mark Watkins, seconded by George Sawyer to adopt the Watchtower Scope Document dated February 1, 2008 subject to the amendment of adding a traffic study location intersection of Drexel Drive intersection with Wallkill Avenue / Bruyn Turnpike and confirmation of the traffic study locations with the Town of Crawford. Vote: All Ayes. Absent: None.

Town of Shawangunk,

Minutes of a Regular Meeting held by the Planning Board of the Town of Shawangunk, County of Ulster, State of New York, at the Town Office Building, 14 Central Avenue, Wallkill, New York, on the 2nd day of January, 2008.

Those present were: Kris Pedersen, Chairman
George Sawyer
Alan White
Mark Watkins

Absent: Carol Scofield and Bonnie Franson. Also present: John Valk, Town Supervisor and please see attached sign-in sheet.

Open Regular Meeting: 7:00 pm

PUBLIC SCOPING SESSION:

Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11)Proposed Special Use Permit with Site Plan Approval for 300 Multiple Dwellings in a 3 story residential building and ancillary uses included but not limited to 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is located at 900 Red Mills Road in RAG-4 District. Mr. Dave Kios, Mr. Enrique Ford and Mr. Kris Vantassel and other Watchtower Representatives were present before the Board.

The following items were entered into record: Draft Scoping Document dated December 4, 2007, Positive Declaration dated December 4, 2007 and letter dated December 31, 2007 from Brinnier & Larios, PC.

Ms. Pedersen discussed the Draft Scope process.

Mr. Kios said that they have been working with the Town for ten months on this project. Watchtower Society purchased the property in the early 1960's, farmed the land, in late 1070's printing operation started. The early residences they are dormitory style. They are proposing to enlarge those rooms and a 300 multi residence building, a two story parking garage with 400 spaces, three story accessory building with basement, a recreation building, technical building and additions to the existing dining room and laundry / dry cleaning buildings.

Mr. Ford showed the Board and audience a presentation of the project proposal. The purpose of the proposal is to modernize and upgrade the facility. The entire development is proposed on the north side. The parking garage is proposed to reduce the impervious surface coverage of parking. The indoor recreational facility is proposed next to the outdoor recreational facility. View sheds were shown – a berm is proposed to preserve the natural character of the existing visual environment view from Bruyn Turnpike and Red Mills Road.

A copy of the Brinnier & Larios dated December 31, 2007 was given to the applicant. The Town Engineer requested revisions.

Keith Scott, 75 Red Mills Road: Traffic concern, said that he believes there will be 600 additional cars. The current building there now resembles a factory it doesn't fit into the rural character - it looks like a factory. The gates freak people out. There is growing about concern of the number of people added as it will physically impact the area. The land was originally bought for farm use and now it's being turned into factory use - they are getting rid of the farm use.

Ms. Pederson asked how many more residence are anticipated and how many visitors does the complex get per year.

Mr. Kios said that they anticipate an extra 200 people and they get approximately 70,000 visitors per year.

Mr. Kios said that the gates are used to direct people on the tours.

Watchtower con't.
Paul Angelson, 2704 New Prospect Road: Concern of the view from his home. Where will the additional water come from and how will it impact the surrounding homes. Will the expansion provide any job opportunities for the community?

Mr. Kios said that the water supply is by a reservoir we are not taping into wells.

Abby Jackson, 101 Red Mills Road: How many square feet will this encompass? What are the future development plans?

Ms. Pedersen said that the footprint square footage has been identified in the Town Engineer's December 31st letter is as follows: Three – story residence building is 52,000 SF footprint, three – story office building is 16,800 SF footprint, two story parking garage is 33,600 SF footprint, recreation building and outdoor facilities is 20,000 SF footprint, dining room addition is 4,800 SF, laundry / dry cleaning addition is 5,463 SF and one story technical building is 5,592 SF.

Anne Beinstock, 337 Red Mills Road: Is Wallkill's site location going to be the new world head quarters for WT? What is your conventional build out?

Ms. Pedersen asked what is being proposed, is it the maximum number of units allowed per zoning on the current 1100+ acres?

Mr. Enrique Ford said the number of units is the limitation by the Zoning Law and our water reservoir. We are not looking to develop or urbanize this site. While we have 1100+ acres it is our main location and our facility is clustered now and the proposed plan is also clustered. We are looking at consolidation of our facilities. We have 2000 members in Brooklyn. In Wallkill we are only adding 200 people. Patterson is being looked at for expansion. It is not the intent to relocate to Wallkill or make it our world head quarters.

Mr. Kios said internally we are working on lessening our staff, we wouldn't move the 2000 from Brooklyn here. We are considering becoming smaller.

Mr. Richard Eldred said it is identified on page 9 of the Draft Scope which outlines what Watchtower is required to with regards to future expansion. To comment on the job opportunities -- he said they basically have volunteers - it is possible to have outside contractors used. The printing press has been in operation in Wallkill since 1973 along with the farming - it is not anything new, we are just adding 200 people

Ms. Pedersen said that if anyone has other comments the Board will be accepting additional written comments until January 18, 2008.

PRELIMINARY PUBLIC HEARINGS:
Miller, Loretta:(99.3-2-25 & 99.3-2-22.120)Proposed Two Lot Subdivision with Lot Line Change on 114 Brimstone Hill Road in RAG-2 District. Ms. Loretta Miller and Mr. Mike Morgante, PE was present before the Board. Applicant proposes to create Lot 1 of 5.36+/-acres, net acreage of 4.79+/-acres with existing dwellings and structures. Flag Lot – Lot 2 of 4.50+/- acres, net acreage of 4.03+/-acres. Also, proposed is a Lot Line Change to create a conforming lot. Applicant proposes a Lot Line Change of 0.92+/-acres from Lands of Miller Tax Map 99.3-2-25 to be conveyed to Lands of Miller Tax Map 99.3-2-22.120 of 14.6+/-acres with a 50' R.O.W. Tax Map 99.3-2-22.120 to be 15.52+/-acres flag lot for a single family dwelling. Zoning Variances are on file granted on 12/13/06. He is working with UCDOH for the septic permits.

APPEARANCES: There were none.

DISCUSSIONS:
Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11) Board determination of Lead Agency for proposed Special Use Permit with Site Plan Approval for 300 Multiple Dwellings in a 3 story residential building and ancillary uses included but not limited to 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is located at 900 Red Mills Road in RAG-4 District. Watchtower Representatives were present. Enrique Ford addressed the Board.

The following items were entered into record: Letter dated November 15, 2007 from Watchtower Farm with written comment response and Stormwater Pollution Prevention Plan, Lead Agency consent forms from Pine Bush C.S.D, NYS Office of Parks, Recreation and Historic Preservation, Town Board – on file is UCDPW, Shawangunk Highway and UC Soil and Water, Draft Scoping Document dated December 3, 2007 and Draft State Environmental Quality Review Positive Declaration Notice of Intent to Prepare a Draft EIS.

Discussion was held on the Draft Positive Declaration. The reasons supporting this determination are that project may have a significant impact on the following resources:

- Ecological Habitat
- Agricultural Resources
- Visual Resources
- Wetlands
- Traffic
- Drainage

A motion was made to render a Positive Declaration on the environment by George Sawyer, seconded by Carol Scofield for the Watchtower Bible & Tract Society of NY, Inc. project. Vote: All Ayes. Absent: None.

A copy of the Positive Declaration is to be sent to the Environmental Notice Bulletin.

The Draft Scope Document dated December 3, 2007 was discussed. A copy is to be sent to the Town Attorney for review. Scoping date was set for January 2, 2008.

The SEQRA analysis will focus on that portion of the project site which is proposed to be disturbed by the proposed action unless the Public Scoping requires a broader analysis.

Mr. Watkins asked if an analysis has been done on the entire property.

Mr. Ford said it has not been done on the agricultural land.

Ms. Franson said this is addressed at page 9 of 13, 2d: Zoning – Describe and assess the various uses that are being done on the entire project site, and compare same with the existing zoning of the site. Consider alternative zoning language that may better reflect the various operations being conducted at the facility.

Ms. Pedersen said that the Town Engineer has not commented on the SWPPP.

The Board requested that the entire drainage plan be reviewed – in context with the proposed and existing.

The NYS Office of Parks, Recreation and Historic Preservation recommended that a Phase I archeological survey is warranted for all portions of the project to involve ground disturbance, unless substantial prior ground disturbance can be documents.

Watchtower con't.
Ms. Franson suggested that the applicant provide a Phase I or provide documentation why a Phase I is not necessary.

The Board said that the project borders a portion of Orange County. The Town of Crawford is to be added to the circulation list. The Draft Scope is to be put on the Town's Web site copies at the Wallkill Library and at Town Hall will be available for the public. The Public Scoping Session is scheduled for January 2, 2008.

Introductory Local Law No: 5 of 2007: Stormwater Management and Erosion & Sediment Control.

The Planning Board discussed Introductory Local Law No. 5 of 2007 entitled: Stormwater Management and Erosion & Sediment Control. A memo will be sent to the Town Board of the Board's recommendation.

A motion was made by Alan White, seconded by George Sawyer to recommend that the Town Board enact Local Law No. 5 of 2007. Vote: All Ayes. Absent: None.

CORRESPONDENCE:

Cooper Erving & Savage, LLP: Letter dated 11/15/07 from Scott Olsen, Esq. re: Cellco Partnership d/b/a Verizon Wireless, 23 Twin Ponds Lane proposed cell tower application was entered into record.

Rural Futures: New Interest about Rural New York November / December 2007 was entered into record.

Brinnier & Larios: Letter dated November 30, 2007 re: Yarwood Road cul-de-sac recommend acceptance was entered into record.

ADJOURNMENT: A motion was made to adjourn the meeting by Alan White, seconded by Carol Scofield. Vote: All Ayes. Absent: None. The meeting was adjourned at 10:45 p.m.

Respectfully submitted,

_____
Robin C. Kaufmann, Secretary

The Board discussed that the proposal is within the Town's water, sewer, sidewalk and lighting districts service this property. There is adequate acreage for the proposal.

Serrao con't.
As shown, the plan essentially proposes to introduce a flag lot in the H – 1 district. Flag lots are not allowed in the H – 1 District, thus variances will be required. The Board advised the applicant to apply to the Zoning Board of Appeals for an appearance. A memo from the Planning Board would be sent to the ZBA.

Also, SEQRA coordinated review is required due to the project site's proximity to the historic Dubois House on Wallkill Avenue.

A motion was made by Carol Scofield, seconded by George Sawyer to declare the intent to be Lead Agency for the Serrao two lot subdivision. Vote: All Ayes. Absent: None.

John Vitek / William McPhillips:(99.2-4-19 & 99.2-4-20)Pre-application and / or sketch plan review for lot line change to pre-existing non-conforming lots on Rutsonville Road in the RAG-2 District. Mr. and Mrs. John Vitek were present before the Board. Applicant's proposes to request a lot line change to adjust the property boundary line.

Mr. Vitek said that when they purchased 99.2-4-19 of 1 acre, a survey was not required and were told that the property line was a nearly straight line running from a point near the south end of the property to a survey marker located in a stone wall on the Northern side of the property. He said in 2007 Mr. McPhillips purchased the adjacent property 99.2-4-20 of 18.6+/-acres and had it surveyed. It was found that trees planted as a boundary line by the Vitek's (fully grown now) are on McPhillips property. Should either party wish to sell in the future they wanted to seek a lot line change to eliminate any future problems.

The following items were entered into record: Applicant's submission received on October 1, 2007 and Tim Miller Associates memorandum dated October 26, 2007.

The Board discussed TMA October 26th memo. In order to proceed, the Board requires verification to determine when the two lots were originally created. If they were created prior to the enacting of zoning they may be grandfathered. If they were created after the zoning was enacted they would have to be referred to the Zoning Board of Appeals. The deeds submitted are current, however the applicant needs to research and find the original owners deeds. Once this has been determined a survey will need to be submitted. The applicant is to notify the office when ready to return to the agenda.

Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11)Proposed Special Use Permit with Site Plan Approval for 300 Multiple Dwellings in a 3 story residential building and ancillary uses included but not limited to 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is located at 900 Red Mills Road in RAG-4 District. Mr. Kris Vantassel and Mr. Richard Eldred spoke with the Board.

The following items were entered into record: Applicant's resubmission with revised application received on October 5, 2007 and Tim Miller Associates memorandum dated October 26, 2007.

The Board discussed TMA October 26th memo. The EAF is to be revised as stated in TMA's memo. Once received and reviewed coordinated review will be conducted. The applicant was requested to provide an 11 x 17 site plan with revised EAF.

Kissaroo, LLC / Brimstone Hill Estates:(105.1-5-9.200)Proposed Two Lot Re-subdivision of 17.6+/-acres on Brimstone Hill Road and New Prospect Road in the RAG-2 District. Ms. Marcia Jacobowitz, Esq. represented the applicants.

The following items were entered into record: Letter dated October 4, 2007 from Marcia Jacobowitz

Mr. White said that none of the proposed homes share any common space. How can the open space be protected from encroachment by the homeowners? The layout should provide homes sharing the back properties and provide larger open space areas.

Donner con't.
Ms. Franson said the open space that is provided should have meaning and purpose. She requested that the roads be labeled to provide review and identification assistance.

The Board said that Ms. Franson took the applicant's Draft Scope and revised it. The Board needs to review the Draft Scoping Document dated July 27, 2007 first for possible additions or changes.

The Board requested that the applicant address the Board's comments and the 20 lots in question on the conventional plan, address TMA and Brinnier & Larios comments and resubmit. Resubmission for the August 28th meeting is to receive by August 10th.

Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11)Proposed expansion of existing Special Use with Site Plan Approval for 3 story residential building w/300 units for farm labor housing, 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is located at 900 Red Mills Road in RAG-4 District. Mr. Dennis Ostendorf represented the applicants.

The following items were entered into record: Applicant's submissions dated July 6, 2007 with June 2007 Wetland delineation report, letter dated July 16, 2007 from Brinnier & Larios, PC, letter dated July 24, 2007 from Karen Schneller McDonald, memo dated July 25, 2007 from Ray Jolivette and memo dated July 31, 2007 from Richard Hoyt, Esq.

The Board discussed Mr. Hoyt's July 31st memo and the use for the project is to be considered as a §177-18 Residential Uses – C. Planned Development Groups and not farm labor housing.

The Board suggested that the whole complex be considered as a Planned Development Group.

Mr. Ostendorf asked what is the next step.

Ms. Pedersen said that the application should be amended, but the Board wants the opportunity to discuss with the Town Attorney to possibility of the whole complex being under the same use.

Ms. Pedersen asked what the future plans are being considered for Watchtower.

Mr. Ostendorf said that they have other locations in Brooklyn and Patterson and are looking at all facilities for expanding.

Discussion was held on KSM wetland report dated July 24th. Item number three, the NYSDEC and USFWS should be contacted to review the site for Bog Turtle and Indian Bat habitats in and near wetland area #3, they may have specific requests.

The Board discussed KSM suggestion that an assumption could be made that bog turtles are using the wetland (this is a valid assumption even if they are using another portion of the same drainage, as high water quality is an important habitat need), and that mitigation measures as recommended by the USFWS could be considered.

Ms. Ostendorf said that they are concerned about meeting a 300' foot buffer and would have to review the site plan. He asked who would be responsible for KSM suggestion? He said the SWPPP is being worked on and will resubmit.

Ms. Pedersen said the Town would have a representative suggest the mitigation measures. Resubmission for the August 28th meeting is to be received by August 10th.

Christmas Tree Lane /Joseph & Ann Maria Degroodt:(105.2-2-3)Proposed Five Lot Cluster Subdivision of 16.9+/-acres with proposed road, existing tree farm on Bruyn Turnpike in RAG-4 District. Mr. Stephen Hagopian, PE and Mr. and Mrs. DeGroodt approached the Board.

The following items were entered into record: Revised Map dated July 3, 2007, letter dated July 19, 2007 from Brinnier & Larios, PC, Town Board memo dated June 26, 2007, Town Board June 21, 2007 Minutes and Tim Miller Associates memo dated July 26, 2007.

The Board discussed TMA July 26th memo.

1. There is one well that exists and one is proposed.
2. Board requested the well for Lot 5 placed closer to the dwelling to limit the amount of clearing.
3. The Applicant agreed to extend the Conservation Area A could possibly extend to stonewall.
4. Applicant requested that the house remain behind the tree farm. Applicant is to confirm that the existing farm building meets the required 50' foot setback from property line.
5. All ACOE wetlands to be shown with total amount disturbed and if permit is needed. These all should be provided notes on the plan.
6. The Klaus property well and septic is to be shown with distances to ensure adequate distance is maintained for proposed Lot 5.
7. Reserve septic areas are not shown in green as indicated on the legend – it may be easier to label the reserve areas, map to be revised.
8. Board suggested that stonewalls be relocated where driveways cut through. Applicant was in agreement to this.
9. Revise title of plan to indicate it is a cluster subdivision.
10. Revise Note 12 to read that no further subdivision is allowed except for lot line changes approved by the Planning Board where no additional building lots are created.
11. The Conservation Easement is to be submitted. Applicant informed Board that it is currently being worked on.
12. House relocation notes are to be added to the plan.

Mr. White asked what the driveway length for Lot 3 is. Pull off areas for emergency vehicles need to be added.

Mr. Hagopian said that it is 560' feet.

Ms. DeGroodt asked when a building permit for Lot 3 could be issued. It will be their personal home.

The Board said not until final approval has been received and the final map filed.

The Board discussed Brinnier & Larios letter dated July 19th.

Mr. Hagopian didn't think that a SWPPP was required, but will address the Town Engineer's comments. He said that changing the culvert size at the road entrance might affect the wetlands. He asked if curbs were really necessary and said it would change the rural character. He asked for a public hearing.

The Board said the applicant is to address TMA and Brinnier & Larios comments. Plan to add a pull off area for emergency vehicles for Lot 3 and will talk with the Highway Superintendent about the road design with curbs. The application was set for a Public Hearing in September.

The following items were entered into record: Submission dated June 7, 2007 from Tectonic Engineering with SWPPP dated June 5, 2007 and revised map dated 6/4/07, letter dated June 26, 2007 from Brinnier & Larios, PC and memo dated June 22, 2007 from Tim Miller Associates.

Shawangunk Materials con't.
The Board discussed Brinnier & Larios June 26th letter.

Mr. Darling said their comments are related to the SWPPP and will be revised. The existing gate will be used, no new gate is proposed. A total of 33.4 acres of disturbance is proposed. Currently 10 acres is being worked on, total area of mining is 28.37 acres.

The Site Plan sites Shawangunk Materials mining schedule as: Mining Section I - 5 acres - 9/07 - 6/08, Section II - 5 acres - 6/15/08 - 12/8/08, Section III - 5 acres 12/8/08-12/1/09, Section IV - 5 acres 12/1/09 - 12/21/2010, Section V – (**) 5 Acres December 21, 2010 to end of 1st mining permit term on October 31, 2012 November 1, 2012; Start of 2nd Mining permit term.

The Board discussed TMA memo dated June 22nd.

1. The Town Attorney is to review deeds to comment whether there are any restrictions, easements etc. that should be noted on the plan.
2. Revisions / changes to the mining plan applicant is to keep Board appraised and the special use permit will establish as a condition that changes to the mining plan be forward to the Planning Board, since it represents a change to the special use permit/site plan for the project.
3. Ulster County Department of Transportation curb permit is to be submitted and the special use permit will be condition on receipt of the permit. Nothing has been submitted to date.
4. Noise impact analysis is to be submitted and will be incorporated if there are conditions.
5. Note is to be added to the plan that the topsoil is being spread within the mined area and not outside of the disturbance area.
6. There is a fence that exists for the livestock.
7. The Board requested silt fence provided along the topsoil to delineate the limits and install a safety fence around the pit notes to be put on the plan.
8. Drainage ditches are not being used. The plan needs to plot the drainage ditches and show where the straw bale weirs are to be installed.
9. This is related to item 7 & 8 the SWPPP is to be reworded / corrected.
10. The anticipated height of the topsoil will be a maximum twenty (20) feet.
11. The stockpile of the topsoil goes away as the mined areas progress it gets used to reclaim the area prior to the next phase that is to be mined.

Mr. Saffioti requested a public hearing.

The Board requested that the applicant address TMA and Brinnier & Lairos memos and resubmit. The application was set for a Public Hearing in August pending submission by July 13th.

Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11)Proposed expansion of existing Special Use with Site Plan Approval for 3 story residential building w/300 units for farm labor housing, 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is located at 900 Red Mills Road in RAG-4 District. Mr. Dennis Ostendorf, Mr. Rich Ford and Mr. Richard Eldred represented the applicants.

Mr. Ostendorf said that Watchtower has been located within the Town of Shawangunk since 1963.

The following items were entered into record: Applicant submission dated June 8, 2007, memo dated June 22, 2007 from Tim Miller Associates and letter dated June 26, 2007 from Brinnier & Larios, PC.

Watchtower con't.
The Board discussed Brinnier & Larios letter dated June 26th. The applicant is to address these comments and resubmit.

The Board discussed TMA memo dated June 22nd.

1. The Town Attorney is to review the deeds
2. This is a Type I action.
3. The SWPPP is required to be prepared by a licensed certified engineer.
4. The Planning Board requested that the Environmental Management Council conduct a site visit and provide the Board with any other locations or vantage points from which the project may be visible and may require visual analysis.
5. Is required to be addressed by the applicant as to whether water and sewer demand for the proposed meets the requirements for UCDOH and NYSDEC.
6. The response narrative indicates that another site plan submission will be submitted the site plan is to be at the same scale as the SWPPP plans for readability.
7. Traffic study is to be submitted. The applicant stated it was completed.
8. The Board requested that the Town Wetland Consultant verify the wetlands and comment as to whether Bog Turtle or Indian Bat Habitat is present.
9. The Board will wait for the Wetland Consultants review to decide if the Bog Turtle expert needs to conduct a site visit.
10. The Board will conduct a coordinated review of SEQRA. Circulation will be done once the Town Attorney confirms the use.

The Board requested that a narrative be submitted telling of the current agricultural uses, plans for the future of the farm and the facility. The applicant is to address TMA and Brinnier & Larios letters and resubmit by July 6th to be on the July 31st agenda.

James Luis:(99.1-1-47)Proposed Two Lot Subdivision of 5.1 acres with existing dwelling at 246 Church Road in the RAG-4 District. Mr. Howard Weeden, LS and Mr. James Luis approached the Board. Applicant proposes to create Lot 1 of 2.013+/-acres with proposed dwelling. Lot 2 of 3.107+/-acres with existing dwelling. Mr. Weeden said the UCDOH permit is pending it is to be an in-ground septic system.

The following items were entered into record: Applicant submission received May 3, 2007 with maps dated March 5, 2007, Town of Shawangunk Highway Curb Cut permit and Tim Miller Associates memo dated June 21, 2007.

The Board reviewed the submission and TMA memo dated June 21st.

The Board discussed the proposed driveway. It is not to exceed 12% grade. It is to be compared to the existing driveway grade.

A motion was made by Mark Watkins, seconded by Alan White to waive the requirement for a cluster plan. Vote: All Ayes. Absent: None.

Donner con't.
The Board suggested that Ms. Franson should prepare the Draft Scoping Document.

Watchtower Bible & Tract Society of NY, Inc.:(99.4-1-11)Proposed expansion of existing Special Use with Site Plan Approval for 3 story residential building w/300 units for farm labor housing, 2 story parking garage w/400 spaces, 3 story accessory building w/basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. Property is located at 900 Red Mills Road in RAG-4 District. Mr. Dennis Ostendorf, Project Manager, Richard Eldred, PE and Mr. Enrique Ford, Architect represented the applicants.

The following items were entered into record: Applicant's submission dated and received April 27, 2007, memo dated May 24, 2007 from Tim Miller Associates, letter dated May 24, 2007 from Brinnier & Lairos, PC, and Watchtower Farms Improvements visual analysis submitted at the meeting.

Mr. Ostendorf discussed that there are five objectives for the reason for the expansion they are:

1. Quality of life for the residents
2. Modernize the buildings and services – urbanomics and environmental friendly
3. Advances in communication and databases technology. Computer systems are to be updated and the technology building is undersized.
4. Improve our recreational facilities by providing indoor recreation – basketball, volleyball, racket ball and indoor pool.
5. Accommodate net increase in population of 208 residents. We are also combining two existing dormitories into one by doing this – accommodations are being lost. Additional housing is needed.

A power point presentation of the proposed sighting of the buildings and visual analysis of possibly impacts and open space was provided and narrated by Mr. Ford. Locating west to the existing facility there will be no impact to the existing wetlands. The 400 parking spaces garage is to accommodate 300 residences, its intended to meet the needs of the existing and new residents. The proposed buildings will create a loss in 110 surface parking spaces, with the additional 208 people puts it in a range of 300 spaces. The recreation indoor facility is proposed adjacent to the existing outdoor recreation. The technical building, dining room and laundry room needed to be expanded. Mitigation for the visual protection to be provided at the existing knoll on the property landscape will be extended, evergreens planted to enhance to visual protection of the buildings.

A written narrative of the power point presentation was requested for submission.

The Board discussed that the application has been submitted to the Town Attorney for review. Research of what has been approved prior by the Town needs to be provided and the Town will also research their files.

A lengthy discussion was held on the prior approvals.

Mr. Ostendorf said they will provide documentation of prior approvals for 1982-84 and 1994. He said that Watchtower Farms has been in existence at this location since 1963. Prior approval for Farm housing and parking garages were accessory permitted uses.

The Board said the documentation provided by the applicant will be forwarded to the Town Attorney.

Ms. Franson said the Board is also required to determine how the additions are being addressed.

Watchtower con't.
Ms. Pedersen asked what percentage of residence is engaged in farming pursuit to Agricultural & Market regulations? What percentage of residence is engaged in the printing operations on the property?

Mr. Ostendorf said currently there is no more dairy on site it is primarily 800 head beef herd, blueberries, sweet corn, orchards and vineyards. During the year planting and harvesting employs residents throughout the year in addition to landscaping responsibilities. He couldn't provide a percentage calculation at this time for accuracy. A large portion of the population are involved in the farming, off time they are utilized for other housing duties. Combination with farming and printing facility – residences are full time. 15% is held for training around the United States and world.

The Board asked if they are individual rooms with shared bathrooms.

Mr. Elder said the existing farm labor housing used since the 80's was basic living with a bed, sink, chair and table of 250 SF with no bathroom. The renovation will combine two rooms to make one 450 SF with bathroom, kitchenette, living area and bedroom.

Ms. Liana Hoodes asked how many actually farm workers as defined by AG & Markets work and live at the farm - how does that relate to the number of units you're requesting for additional farm housing.

Ms. Pedersen asked what the net increase is of who reside at the property and how many visitors per year.

Mr. Ostendorf said the population increase is due to the loss of housing by the renovation of the existing farm housing of 208. There are no school age children being introduced and there are no children at the farm. There were approximately 80,000 visitors this year, approximately 100,000 the prior year. The majority does stay on site. 60 – 70% have cars and carpooling is done.

Mr. White asked if the buildings have sprinkler systems.

Mr. Ostendorf said yes, the structures comply with ADA and NY State Code. The farm has sixteen member industrial fire brocade with fire apparatus / pump truck, water truck, emergency response team and one ambulance. All is coordinated with the local EMS.

The Board said TMA and Brinnier & Larios letters are to be addressed, resubmit the SWPPP for review. Wetlands are to be delineated on site plan, traffic study to be completed and submit a narrative of the power point presentation on the view shed analysis for the record.

DISCUSSION:
Four B Developers, LLC / Prospect Heights:(99.3-3-14.100)Proposed 20 Lot Cluster Subdivision of 88.3+/-acres with road on New Prospect Road in the RAG-2 District. See Public Hearing Minutes.

TJMJR Developers / Rolling Hills Estates: Proposed request for revision of Section I drainage area located off Ralph Brach Drive in the RAG-4 District. Mr. John Tarolli represented the applicant.

The following items were entered into record: Letter dated April 30, 2007 from John Tarolli, PE with email dated 4/24/07 from John Tarolli to Pat Ferracane, NYSDEC, letter dated April 26, 2007 to John Tarolli from Patrick Ferracane, NYSDEC, Stormwater Management Report Re-Design dated Revision April 10, 2007 with revised map for Section 1 Stormwater Quality Treatment & Detention Details dated March 2007 and letter dated May 3, 2007 from Brinnier & Larios, PC.

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March 3, 2009

Ms. Kris Pedersen, Chairperson
Town of Shawangunk Planning Board
Town of Shawangunk
PO Box 247
Wallkill, NY 12589

MAR 0 3 2009

RE: Review of FEIS
Watchtower Farms
Town of Shawangunk, NY

Dear Ms. Pedersen:

Our office reviewed the Final Environmental Impact Statement (FEIS) for the Watchtower Farms Improvements project. The project involves disturbance of 46 acres of land to construct a 3-story residence building, a 3- story office building, a two story parking garage, a recreation building and outdoor facilities, a dining room addition, a laundry/dry cleaning addition, and a one story technical equipment building. The following documents were reviewed:

- Final Environmental Impact Statement, prepared by Kingdom Support Services, Inc dated January 15, 2009
- A 40 drawing set, dated 15 Jan 09

Our review was focused on the stormwater and roadway aspects of the project. While we did also review the water supply and wastewater disposal aspects of the project, the primary review and acceptance of the water and wastewater systems is by other regulatory agencies, namely the UCHD and NYSDEC. Our comments are as follows:

1. We have no comments on the stormwater management information given in the FEIS.

2. The Sidewalk Ramp Detail provided on Sheet CP-501 should be equipped with a Detectable Warning Surface to comply with ADA R304 requirements.

3. The Wastewater Treatment Plant Improvements Report given in Appendix 14 should be referred to the NYSDEC for review and acceptance.

Please do not hesitate to contact this office with any questions or concerns.

Respectfully submitted,

BRINNIER AND LARIOS, P.C.

Joseph E. Mihm, P.E.

cc: Martin Hand, Town of Shawangunk Highway Superintendent
Bonnie Franson, Tim Miller Associates
Dennis Larios, Brinner & Larios

Hickory Creek Consulting LLC

Karen Schneller-McDonald
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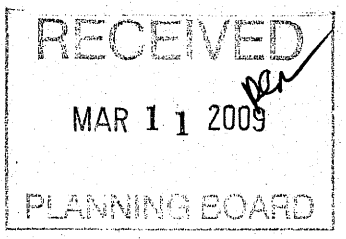

To: Kris Pedersen
Chair, Town of Shawangunk Planning Board
From: Karen Schneller-McDonald
Re: Watchtower project-completed comments
Date: March 10, 2009

MEMORANDUM

I have reviewed the maps and text changes for the Watchtower Project as submitted to the Planning Board on March 3. I provided the following text to Dave Kjos and John Chitty in response, on March 4. Since that time all of my concerns and questions have been addressed, and I have no further concerns regarding this FEIS.

Text from March 4:

1. My remaining concern is the specific timing of mowing within the pasture and the old field habitats so it doesn't disturb the nests or fledglings of the grassland nesting birds (see list below) that may be using these habitats. This specific information should be provided as part of the response to my comments, and as part of the project's mitigation plan. General guidance on mowing practices include mowing every one to three years to maintain fields in grasses and present growth of woody vegetation . Since timing of mowing is crucial to the survival of nesting grassland birds, mowing after August 15 is generally recommended. For more details refer to the attached USDA publication.
The remainder of my comments refer to the species/ habitat lists and are provided to improve accuracy of the record.
2. Please remove the Blandings Turtle from the list; in NYS it is found only in Dutchess county, and in a few counties along the St. Lawrence River and Lake Ontario.
3. Please include the sources of information for the National, State and Regional lists. I realize that these are taken from the Biodiversity Assessment Manual, but the reader needs to know the sources of this information as states on Page 82 of the Manual.

<u>For the Planning Board's information:</u>
It is important to note that although these species lists do not include all possible species, they are representative, and appropriate for the level of development planned for the site. They are taken from the Biodiversity Assessment Manual, which states that the lists are not comprehensive, but are a sample of the species that might occur in each habitat. (For purposes of accuracy of the record, I requested that this information should be added at the end of the species lists).

There is a discrepancy between hemlock/ hardwood forests described by Edinger and the 'young woods' designation on the habitat map and list for this project. However, since I did recommend use of the Biodiversity Manual, and it does not contain a specific description of a hemlock/hardwood forest, this was the closest description available. And since none of this habitat will be lost as a result of the project, this will description will suffice for purposes of this project review.

Tim Miller Associates, Inc.

Memorandum:

To: Kris Pedersen, Chairwoman
Members, Shawangunk Planning Board

From: Bonnie Franson, AICP

Date: February 26, 2009

Subject: Watchtower FEIS - Substantive Review

Cc: Robin Kaufmann, Planning Board Secretary
Richard Hoyt, Esq., Town Attorney
Joe Mihm, P.E., Town engineering consultant
Dave Kjos (for the applicant)

We are in receipt of the draft Final Environmental Impact Statement for the proposed Watchtower Improvements dated January 15, 2009.

As per the regulations implementing the New York State Environmental Quality Review Act, a final EIS must consist of: the draft EIS, including any revisions or supplements to it; copies or a summary of the substantive comments received and their source (whether or not the comments were received in the context of a hearing); and the lead agency's responses to all substantive comments. The draft EIS may be directly incorporated into the final EIS or may be incorporated by reference.

The lead agency is responsible for the adequacy and accuracy of the final EIS, regardless of who prepares it. All revisions and supplements to the draft EIS must be specifically indicated and identified as such in the final EIS.

I find that the FEIS has addressed satisfactorily most comments raised by our office. We offer the Planning Board the following comments with regard to the completeness and adequacy of the responses incorporated into the draft FEIS.

1. Recreation - It would be useful if the FEIS included a simple chart describing the changes being made to these facilities. In the first column, list all existing recreation facilities on-site. In the second column, list all proposed facilities. In the 3rd column, indicate the following: 1. where the recreation facility is a replacement for an existing facility 2. where the recreation facility is entirely new; and 3. where a facility is being removed and not replaced.

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Walter Bost
Marcy Denker
James F. Stanley
Jill M. Butler
Doreen B. Derry
Michelle Gallo

Sergio Smiriglio,
Consulting Hydrogeologist

** CPESC / CPSWQ*

2. Recreation - Please indicate the total number of dwelling units being constructed and the net change in dwelling units, as we understand that the demolition of dwelling units and reconfiguration of existing dwellings results in a loss of existing dwellings.

3. Variance. Based on the parking data provided, it appears that a variance may be required as the application proposes less parking spaces than required by the Town's zoning ordinance. The applicant should consult with the Building Inspector on this matter. If a variance is required, the list of permits and approvals must also be updated.

4. Site plan. Although not a FEIS comment, the enlarged fuel tank area should be shown on the site plan if this has not been shown.

5. Wastewater. The Town's engineering consultant should confirm the content and adequacy of the wastewater report.

6. Integrated Pest Management. The FEIS indicates that an integrated pest management approach will be used in applications intended to maintain landscaped areas. This will be made a mitigation noted in the Findings Statement. The applicant can incorporate the methods to be used in FEIS or the pest management methods can be incorporated as notes in the site plan.

7. Traffic. On p. III-36, Response to Comment 3.G-4, the FEIS indicates that the applicant may contribute a share of expenses related to capital improvements noted in the Traffic Impact Study. This is vague and it is unclear whether the applicant is committed to any of the mitigation measures noted in the study. The applicant should discuss proposed improvements with the Town Highway Superintendent and County DPW and identify specific proposals for mitigation.

8. Ecology. With regard to ecology and wetlands, I note that NYSDEC indicates they do not believe there will be a significant impact on ecological resources. We understand that the applicant has met with Hickory Creek Consulting and have agreed to how comments will be responded to - the FEIS should be updated to include these responses.

Tim Miller Associates, Inc.

Memorandum:

To: Kris Pedersen, Chairwoman
Members, Shawangunk Planning Board

From: Bonnie Franson, AICP

Date: April 2, 2009

Subject: Watchtower FEIS - Substantive Review

Cc: Robin Kaufmann, Planning Board Secretary
Richard Hoyt, Esq., Town Attorney
Joe Mihm, P.E., Town engineering consultant
Dave Kjos (for the applicant)

We are in receipt of the draft Final Environmental Impact Statement for the proposed Watchtower Improvements last revised March 13, 2009. Our comments regarding the Final Environmental Impact Statement have been addressed satisfactorily.

The Planning Board has also received comment letters from the Town's engineering consultants and Hickory Creek Consulting, LLC.

If the Planning Board finds the FEIS revisions satisfactory, it may issue a Notice of Completion of the FEIS. The next step related to SEQRA will be for the Planning Board to review and adopt a Findings Statement for the project. As per the SEQRA regulations, findings must:

(1) consider the relevant environmental impacts, facts and conclusions in the FEIS;

(2) weigh and balance relevant environmental impacts with social, economic and other considerations;

(3) provide a rationale for the agency's decision;

(4) certify that the requirements of SEQRA have been met;

(5) certify that consistent with social, economic and other essential considerations from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that adverse environmental impacts will be avoided or minimized to the maximum extent practicable by incorporating as conditions to the decision those mitigative measures that were identified as practicable.

As per the March Planning Board discussion, we will be drafting the Findings document for the Planning Board's consideration.

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APPENDIX 6

TRAFFIC CALCULATIONS AND TRAFFIC REPORTS

JOHN COLLINS ENGINEERS, P.C. TRAFFIC • TRANSPORTATION ENGINEERS

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TRAFFIC IMPACT STUDY

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WATCHTOWER FARMS EXPANSION

RED MILLS ROAD

TOWN OF SHAWANGUNK, NEW YORK

JOB NO. 410

JULY 20, 2007

REVISED JULY 25, 2008

TABLE OF CONTENTS

SECTION I

INTRODUCTION

A. PROJECT DESCRIPTION AND LOCATION (Figure No.1)

The Watchtower Farms is planning an expansion of their facilities located along Red Mills Road in the Town of Shawangunk, New York. The site which is identified on Figure No. 1 is proposed to be expanded to include several new or modified facilities. The proposal calls for the construction of the following:

- A new three story office building
- A new accessory parking garage with 400 spaces
- A net residential expansion of 208 persons which will include the construction of a three story residence which will allow the removal of the existing modular housing consisting of 48 rooms
- Additions to the support facilities including the dining room, laundry and cleaning facilities
- A new recreation building
- A new accessory technical equipment building

A year of 2012 has been utilized in evaluating the potential traffic impacts after the opening and operating of the expanded facilities.

B. SCOPE OF STUDY

This study has been prepared to evaluate both existing and future traffic conditions in the vicinity of the site and to assess the potential traffic impacts of the proposed expansion of the Watchtower Farms facilities on the surrounding roadway network. The report has been prepared for submission to the Town of Shawangunk. In the course of completing this study, both manual turning movement and machine traffic counts were conducted at several intersections in the vicinity of the site to identify existing traffic volumes for various peak periods. The existing counted traffic volumes were also compared with other available data in the area. Together this resulted in the 2007 Existing Traffic Volumes. The 2007 Existing Traffic Volumes were then projected to a future design year utilizing a background growth factor to represent No-Build Traffic Volumes, i.e., without the expansion of the proposed facilities.

Estimates of the expected additional site generated traffic which will be generated by the expansion of the facilities was computed based on information provided by Watchtower together with information published by the Institute of Transportation Engineers (ITE) as well as observations of the existing facility. The additional Site Generated Traffic Volumes were then added to the roadway network using on an arrival and departure distribution which was developed based on a review of existing traffic patterns in the area. The Site Generated Traffic Volumes were then added to the roadway network and combined with the design year No-Build Traffic Volumes to obtain the 2012 Design Year Build Traffic Volumes.

A detailed capacity analysis was conducted at each of the intersections utilizing the procedures outlined in the 2000 Highway Capacity Manual. The Existing, No-Build and Build Traffic Volumes were then analyzed to determine Levels of Service and operating conditions for each of the intersections. Based on the results of the analysis as well the results of the field surveys, recommendations for improvements were made where necessary.

SECTION II

EXISTING ROADWAY AND TRAFFIC CONDITIONS

A. DESCRIPTION OF EXISTING ROADWAY NETWORK

The site is served by the existing driveways located on Red Mills Road. A description of this and other roadways serving the area is as follows:

1. Red Mills Road - is generally a two lane roadway which runs between Bruyn Turnpike and Steen Road. The roadway has a posted speed limit of 35mph and much of the roadway also has paved shoulders. Sidewalks are also provided along this roadway. North of the main site prior to the intersection with Steen Road, there is an existing narrow bridge crossing. Red Mills Road continues from the intersection with Steen Road in a northeasterly direction intersecting and terminating at Bruynswick Road and Hoagerburgh Road.

2. Bruyn Turnpike - is a east/west roadway which, in the vicinity of the site, intersects with other roadways including Albany Post Road, Hoagerburgh Road, Red Mills Road, Hardenburgh Road and terminates at an intersection with New Prospect Road and Indian Springs Road. The eastern portion of this roadway is also County Route 18, which changes to a northerly alignment at the intersection of Hoagerburgh Road. The speed limit along this roadway varies. The easterly section has a 30mph while the westerly

section has a 40mph speed limit. The roadway mostly has a double yellow centerline and has a fairly steep vertical curve at its intersection with Hoagerburgh Road. This intersection is an all-way stop controlled intersection.

3. New Prospect Road – is a two lane roadway which originates at an intersection with Bruynswick Road. It continues in a southwesterly direction and it has a 45mph speed limit and no centerline striping. It continues in a southwesterly direction intersecting with Bruyn Turnpike.

4. Bruynswick Road (C.R. 7) – is two lane roadway with a 45mph posted speed limit. It extends from New Prospect Road in a northeasterly direction and also intersects with Red Mills Road and Hoagerburgh Road.

5. Hardenburgh Road – originates at a "T" intersection with Bruyn Turnpike, continues in a southerly direction serving primarily a residential area, continues into Orange County and terminates at an intersection with North Street in Pine Bush. This roadway has a double yellow centerline and a 35mph posted speed limit which changes to 30mph in Pine Bush.

6. NYS Route 52 – is a primarily two lane State Highway which traverses throughout Orange County Route 52 (Main Street) has a signalized intersection with NYS Route 302 and Maple Avenue NYS in Pine Bush. It then continues into Ulster County.

7. NYS Route 302 – is a primarily State Highway which runs in a generally north east and south west direction through the Town of Wallkill in Orange County. It has an interchange connection with NYS Route 17 and a signalized intersection with NYS Route 17K south of this area it terminates at a signalized intersection with NYS Route 52 in Pine Bush.

8. Steen Road – is a two lane local road which connects from Bruynswick Road (C.R. 7) to Red Mills Road. It intersects with Red Mills Road at "stop" sign controlled "T" intersections and extends in a northwesterly direction. Approximately 1100 feet south of Bruynswick Road, the alignment changes abruptly to a northeasterly direction. It has a 35 mph posted speed and terminates at a "Y" type intersection with Bruynswick Road.

B. 2007 EXISTING TRAFFIC VOLUMES (Figures No. 1A, 2, 3 and 4)

Representatives of John Collins Engineers, P.C. collected detailed turning movement traffic counts at several intersections in the vicinity of the site in order to identify current traffic volumes and patterns. The intersections which were studied included the following, which were also discussed with the Town of Shawangunk Planning Consultant.

1. Bruyn Turnpike and Hoagerburgh Road
2. Bruyn Turnpike and Red Mills Road
3. Bruyn Turnpike and Hardenburgh Road
4. Hardenburgh Road and North Street/Maple Road
5. Bruyn Turnpike and New Prospect Road/Indian Springs Road

6. Red Mills Road and Steen Road
7. Red Mills Road/Hoagerburgh Road and Bruynswick Road
8. Red Mills Road and Watchtower Farms Driveways
9. Wallkill Avenue and Drexel Drive
10. NYS Route 52 and County Route 7/New Prospect Road
11. NYS Route 52 and Maple Avenue (Route 302)

The traffic counts were collected between the hours of 6:45AM and 9:30AM and between 3:00PM and 7:30PM on June 5 through June 12, 2007 for locations 1 through 8. Locations 9, 10 and 11 were requested to be added by the Town and were counted during the week of March 24, 2008. In addition to the manual counts, machine traffic counts were also collected at select locations including one on Bruyn Turnpike and two locations along Red Mills Road. The locations are identified on Figure No. 1A. The machine counts were collected to identify hourly and daily variations and copies are contained at the end of Appendix "A" of this document. Based upon the results of the traffic counts, the peak hours were determined to occur generally as follows:

Weekday Peak AM Highway Hour	–	7:30 AM to 8:30 AM
Weekday Peak PM Highway Hour	–	4:30 PM to 5:30 PM
Weekday Peak Evening Hour	–	6:00 PM to 7:00 PM

The turning movement traffic counts for the various intersections are identified on Figures No. 2, 3 and 4, representing the 2007 Existing Traffic Volumes. It should be noted that based on the machine traffic counts, during the Weekday Peak Evening Hour, there was a significant variation in the day-to-day volumes from the highest day and the higher volumes were used in the analysis presented herein.

SECTION III

EVALUATION OF FUTURE TRAFFIC CONDITIONS

An evaluation of future traffic conditions with and without the expansion of the Watchtower Farms facilities was completed. A description of the traffic volume projections, analysis procedures, results of analysis and recommended improvements is presented in the following sections.

A. 2012 NO-BUILD TRAFFIC VOLUMES (Figures No. 5, 6 and 7)

A background growth factor 3% per year was applied to the Existing Traffic Volumes to obtain the 2012 No-Build Traffic Volumes. This growth factor was utilized to account for normal traffic growth in the area as well as traffic from any other specific development which may occur in the area. The resulting 2012 No-Build Traffic Volumes are shown on Figures No. 5, 6 and 7 for the Weekday AM, Weekday PM and Weekday Evening hours, respectively.

B. SITE GENERATED TRAFFIC VOLUMES (Table No. 1)

Based on the plans for expansion, there will be several new facilities. Unlike typical residential and commercial facilities, a significant portion of the traffic generated is expected to "stay on site" or in the immediate area along Red Mills Road. This occurs

since all the persons living in the complex also work in the complex so there is no "commute to work". Also, the private loop road will be maintained on site to minimize the need for traffic accessing Red Mills Road. The expected peak hour trip generation rates and volumes are summarized in Table No. 1. In addition, in order to evaluate conditions in the area a separate analysis was also prepared assuming that the office generates entirely new trips. (See Section G.)

C. ARRIVAL AND DEPARTURE DISTRIBUTIONS (Figures No. 8 and 9)

Based upon a review of the existing traffic patterns in the area, an arrival and departure distribution was developed to assign the site generated traffic volumes to the roadway network. Figures No. 8 and 9 summarize the expected distribution patterns. Note that for the purposes of this evaluation, the traffic to the various driveways at the Watchtower Farms facilities are analyzed as if they occur at a single location thus concentrating the turning movements. This provides a worst case analysis of the Levels of Service.

D. 2012 BUILD TRAFFIC VOLUMES (Figures No. 10, 11, 12, 13, 14 and 15)

The Site Generated Traffic Volumes shown of Table No. 1 where added to the roadways and intersections utilizing the arrival and departure distributions. The resulting Site Generated Traffic Volumes for the Weekday AM, Weekday PM and Weekday Evening hours are shown on Figures No. 10, 11 and 12. These volumes were added to 2012 No-Build Traffic Volumes to obtain the 2012 Build Traffic Volumes which are shown on Figures No. 13, 14 and 15, respectively.

E. DESCRIPTION OF ANALYSIS PROCEDURES

In order to determine existing and future traffic operating conditions at the study area intersections, it was necessary to perform capacity analyses. The following is a brief description of the analysis method utilized in this report:

- Signalized Intersection Capacity Analysis

  The capacity analysis for a signalized intersection was performed in accordance with the procedures described in the 2000 Highway Capacity Manual, published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. A Level of Service "A" represents the best condition and a Level of Service "F" represents the worst condition. A Level of Service "C" is generally used as a design standard while a Level of Service "D" is acceptable during peak periods. A Level of Service "E" represents an operation near capacity. In order to identify an intersection's Level of Service, the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

- Unsignalized Intersection Capacity Analysis

  The unsignalized intersection capacity analysis method utilized in this report was also performed in accordance with the procedures described in the 2000 Highway Capacity Manual. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line.

The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement to the intersection.

Additional information concerning signalized and unsignalized Levels of Service can be found in Appendix "D" of this report.

F. TRAFFIC IMPACT ANALYSIS RESULTS (Table No. 2)

A capacity analysis was conducted at each of the key intersections including the site access drives for each of the peak hours utilizing the procedures described above. The analyses were conducted for the Existing, No-Build and Build conditions. Table No. 2 summarizes the Levels of Service and corresponding vehicle delays for each of intersections for each of the peak hours. A description of each of the intersections analyzed, the results of the analyses and any recommendations for improvements are as follows:

1. Bruyn Turnpike and Hoagerburgh Road

Hoagerburgh Road intersects with Bruyn Turnpike at an all-way "stop" sign controlled intersection. All approaches to this intersection consist of one lane. The approaches to this intersection especially along Bruyn Turnpike are relatively steep.

The capacity analysis conducted at this intersection indicates that under Existing, No-Build and Build conditions, this intersection operates at a Level of Service "A".

2. Bruyn Turnpike and Red Mills Road

Red Mills Road intersects with Bruyn Turnpike at a "stop" sign controlled "T" intersection. All approaches to this intersection consist of one lane and the Red Mills Road approaches include paved shoulders.

The capacity analysis conducted at this intersection indicates that under Existing conditions a Level of Service "A" are experienced during the AM and PM Peak Hour and a Level of Service "B" during PM Evening Hour. The future Levels of Service are expected to maintain a Level of Service "A" during the AM Peak Hour and a Level of Service "B" under the No-Build and Build conditions for the PM Peak Highway Hour and PM Evening Hours.

3. Bruyn Turnpike and Hardenburgh Road

Hardenburgh Road intersects with Bruyn Turnpike at a "stop" sign controlled "T" intersection. All approaches to the intersection consist of one lane.

The capacity analysis conducted at this intersection indicates Levels of Service "B" or better under Existing conditions. Similar Levels of Service are expected under the future 2012 No-Build and Build conditions.

In addition to the "stop" sign on the Hardenburgh Road northbound approach to this intersection, it is recommended that additional pavement markings including a painted "stop" bar be added on this approach.

4. Hardenburgh Road and North Street (Maple Road)

Hardenburgh Road intersects with North Street at a "stop" sign controlled "T" type intersection. All approaches to this intersection consist of one lane. The posted speed limit on Hardenburgh Road is 35mph and changes to 30mph in Pine Bush. The posted speed limit on North Street is 30mph.

The capacity analysis conducted at this intersection indicates that Levels of Service "B" or better are currently experienced during peak periods. Similar Levels of Service are expected under future conditions.

5. New Prospect Road and Bruyn Turnpike/Indian Springs Road

Bruyn Turnpike intersects with New Prospect Road opposite Indian Springs Road. The Bruyn Turnpike and Indian Springs Road approaches are "stop" sign controlled. All approaches to this intersection consist of one lane.

The capacity analysis conducted at this intersection indicates that under current conditions Levels of Service "B" or better experienced during peak periods. Under the 2012 No-Build conditions, during the PM Peak Highway Hour, the westbound approach to the intersection is expected to experience a Levels of Service "C" with

Levels of Service "B" or better during all other time periods and all other movements. Similar Levels of Service are projected for the 2012 Build conditions. It should be noted that the sight distance looking north of the Bruyn Turnpike approach to this intersection is somewhat restricted due to excess vegetation and grading along this intersection. Some clearing and grading should be completed to improve sight lines regardless of the proposed development. In addition, supplemental warning signs at the intersection should be considered.

6. Red Mills Road and Steen Road

Red Mills Road intersects with Steen Road at a "T" intersection with a "stop" sign on the Red Mills Road northbound approach. At the intersection, Red Mills Road continues to a northeasterly direction while Steen Road continues in a westerly direction. All approaches to this intersection consist of one lane. Double yellow centerline striping is present on the Red Mills Road northbound approach as well as a "stop" sign. The installation of a painted "stop" bar should be added to this intersection and speed reduction warning signs should be added to Red Mills Road east of Steen Road.

The capacity analysis conducted at this intersection indicates Levels of Service "A" during peak periods.

7. Bruynswick Road and Hoagerburgh Road/Red Mills Road

Red Mills Road intersects with Bruynswick Road and Hoagerburgh Road at separate "stop" sign controlled "T" intersections. There is a double yellow centerline on the Bruynswick Road and Hoagerburgh Road approaches to this intersection. The Red Mills Road is "stop" controlled however, an additional painted "stop" bar should be added as well as double yellow centerline.

The capacity analysis conducted at this intersection indicates that Levels of Service "B" or better are currently experienced and will continue under future conditions.

8. Red Mills Road and Watchtower Farms Driveways

Access to the Watchtower facilities is provided from Red Mills Road. This roadway is a two lane roadway in the vicinity of the site driveways.

The capacity analysis conducted at the intersections indicates a Level of Service "B" or better during peak periods.

The intersection was reanalyzed under future No-Build and Build conditions and found that similar Levels of Service would be experienced during peak periods.

9. Wallkill Avenue and Drexel Drive

Drexel Drive and Sax Road intersect with Wallkill Avenue (Bruyn Turnpike) at a "stop" sign controlled intersection unsignalized intersection. The capacity analysis conducted at the intersection indicates a Level of Service "A" during peak periods.

The intersection was reanalyzed under future No-Build and Build conditions. Similar Levels of Service are expected at this location.

In addition, to the painted "stop" signs, it is recommended that consideration be given installing pavement "stop" bars at this intersection regardless of proposed project.

10. NYS Route 52 and County Route 7/New Prospect Road/Pirog Road

New Prospect Road (C.R. 7) intersects with NYS Route 52 at signalized four-way intersection. The remaining leg is Pirog Road. All approaches to the intersection consist of a single lane with varying and shoulder widths.

The capacity analysis conducted at this signalized intersection (Signal No. U-89) indicates that during peak periods modifications to the traffic signal timings would be required to provide improved operation. The capacity analysis of future conditions especially during the AM Peak Hour, indicates that the signal timing changes will be required to accommodate future traffic volumes. With these

improvements, the capacity analysis indicates that the No-Build and Build traffic volumes can be accommodated at Levels of Service "C" or better.

11. NYS Route 52 (Main Street) and NYS Route 302/Maple Avenue

This four-way intersection is controlled by an existing traffic signal (Signal No. O-23). The intersection which includes some sidewalks, pedestrian crosswalks are also provided. The capacity analysis conducted at this intersection indicates during peak periods this intersection currently operates at an overall Level of Service "C" or better.

Under future No-Build conditions, Levels of Service "C" or better will be maintained during the AM Peak Hour and a Level of Service "D" will be obtained during the PM Peak Hour.

The capacity analyses were recomputed utilizing the 2012 Build Traffic Volumes. A review of these analyses indicates Levels of Service similar to those for the No-Build conditions with only minor increases in the average vehicle delays. Some minor signal timing modifications may be required in the future to accommodate the future traffic volumes most efficiently.

G. CONSIDERATION OF ALTERNATE OFFICE TRIP GENERATION

As indicated previously, it is anticipated that the occupants of the office building will be living on site in the Watchtower Community. An additional sensitivity analysis was completed assuming that the traffic generated by the office building would be new to the

roadway system. This analysis, which is included at the end of Appendix "C" indicates that the overall Levels of Service will be similar to those identified in the above sections. There would be some increases in the average vehicle delays but similar Levels of Service will be maintained.

H. SUMMARY AND CONCLUSIONS

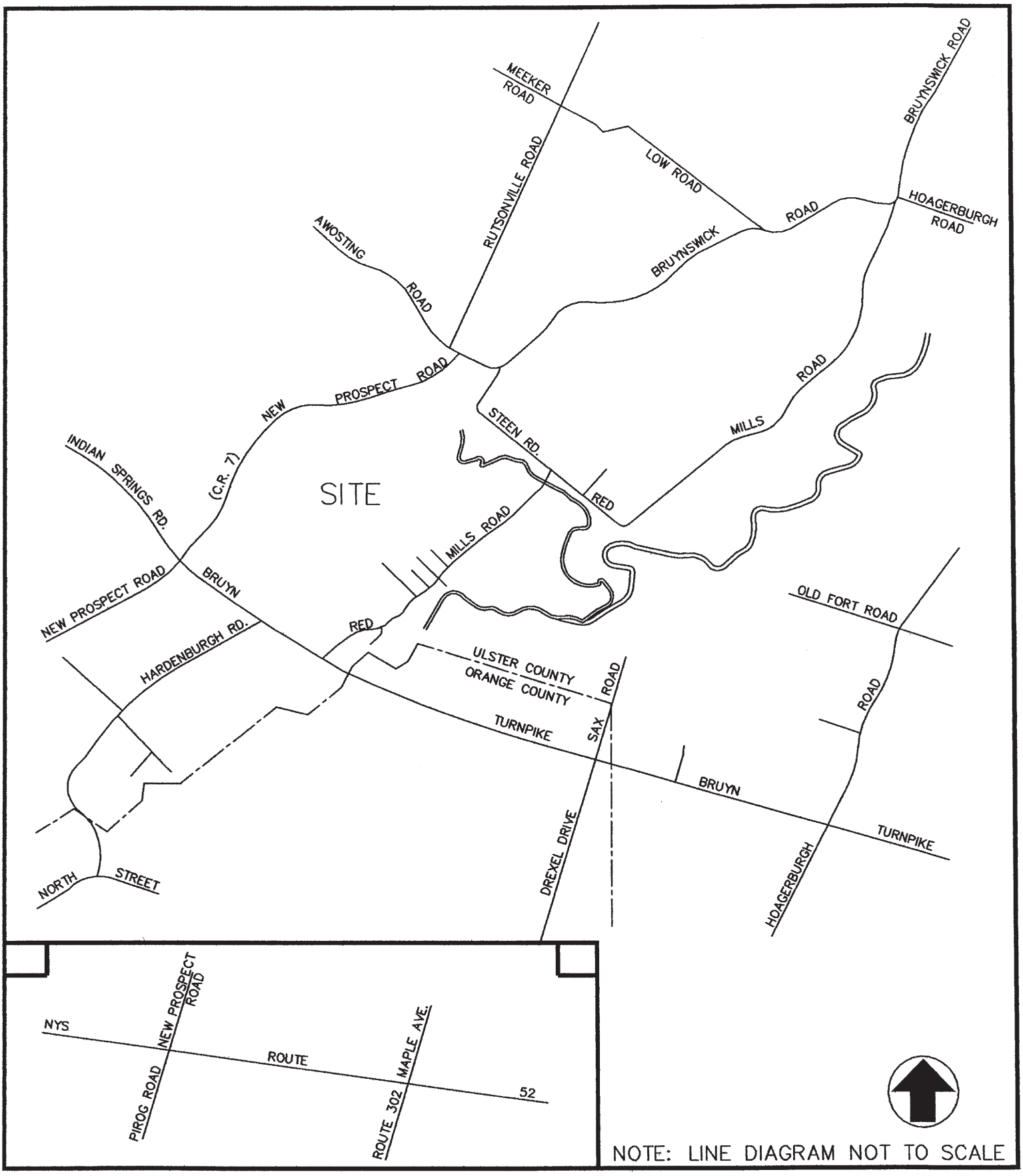
Based on the results of the field inspections of the roadways in the vicinity of the site together with the results of the capacity analysis for the individual intersections, the traffic generated by the expansion of the Watchtower Farms facilities should not result in a significant negative impact on traffic operations in the area. Several recommendations have been identified which should be completed regardless of the proposed expansion. These will have to be coordinated with the Town of Shawangunk and the Highway Superintendent as part of the approval process.

Respectfully submitted,
JOHN COLLINS ENGINEERS, P.C.

Philip J. Grealy, Ph.D., P.E.

APPENDIX "A"

FIGURES

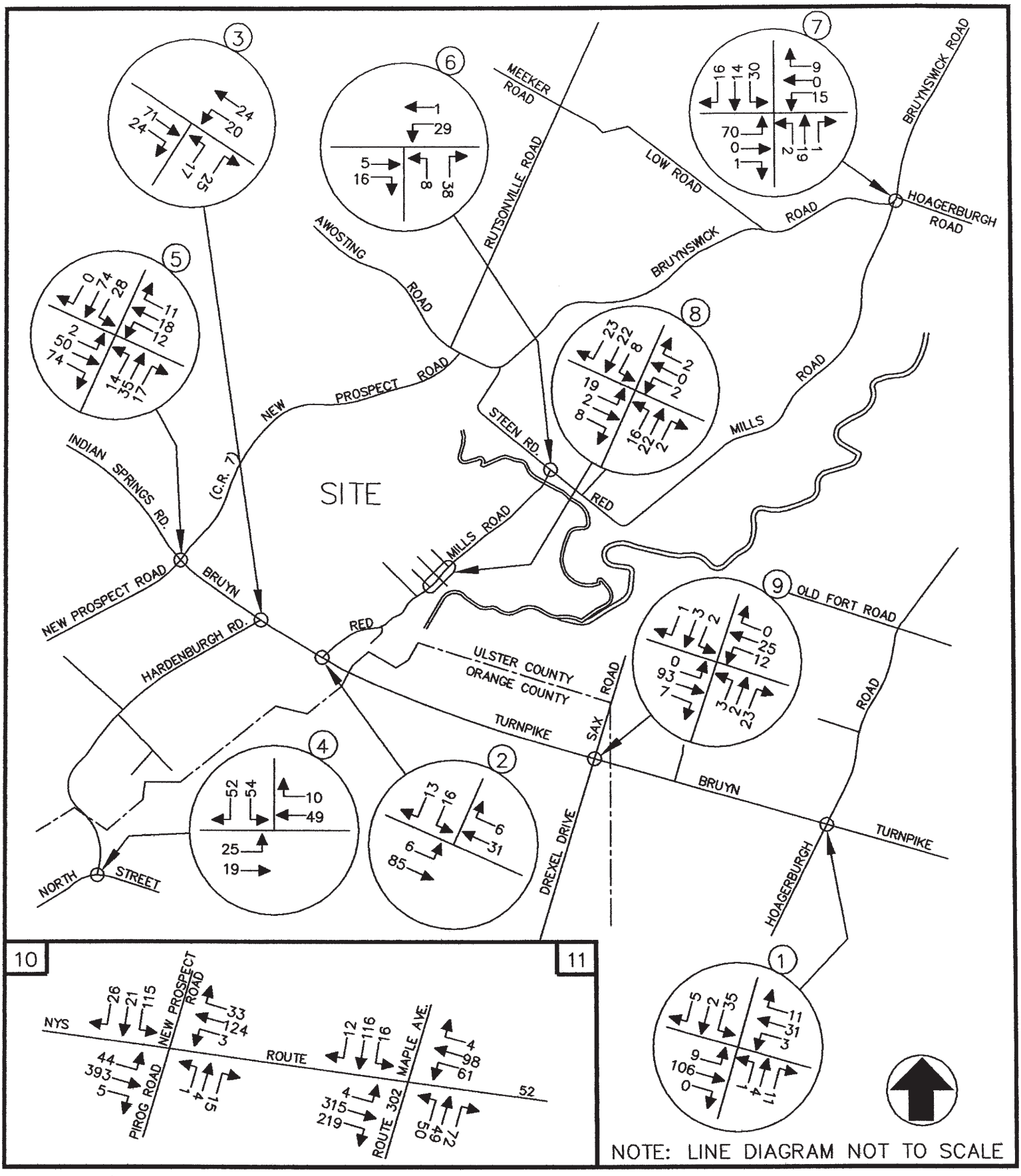


WATCHTOWER
SHAWANGUNK, NEW YORK

SITE LOCATION MAP

JOHN COLLINS ENGINEERS, P.C.
HAWTHORNE , NEW YORK

PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 1

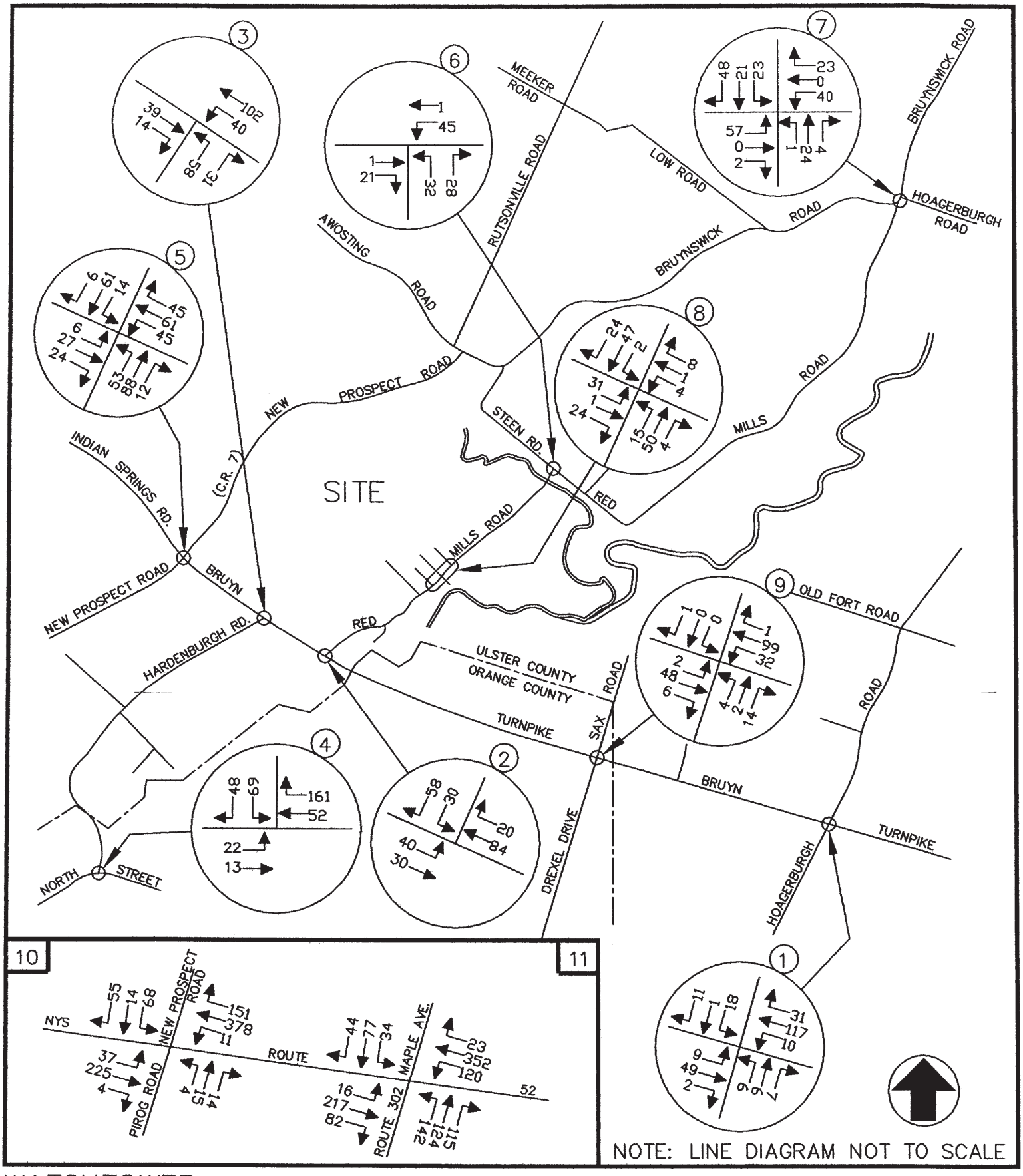


WATCHTOWER
SHAWANGUNK, NEW YORK

2007 EXISTING TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

JOHN COLLINS ENGINEERS, P.C.
HAWTHORNE , NEW YORK

PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 2



WATCHTOWER
SHAWANGUNK, NEW YORK

2007 EXISTING TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR

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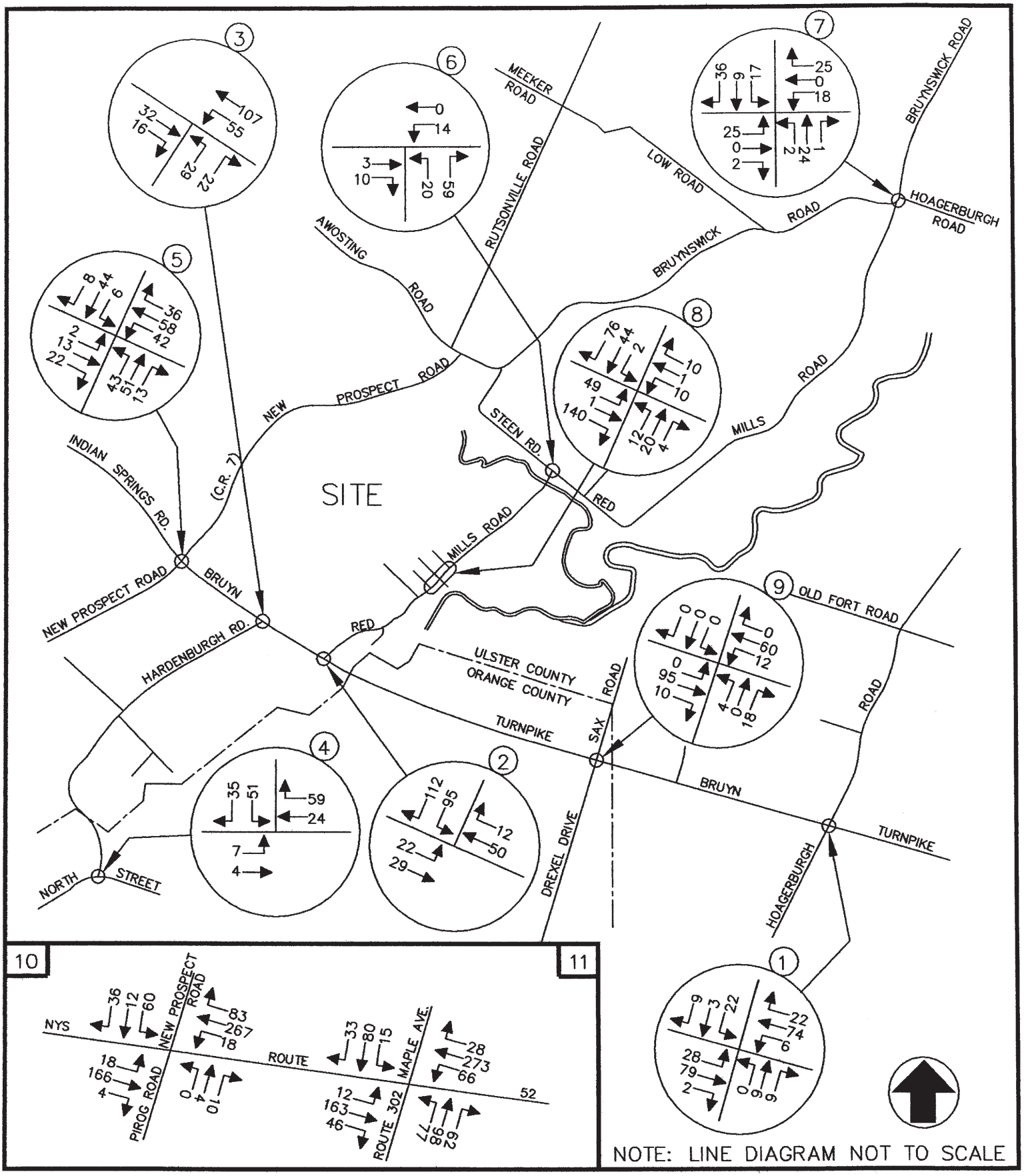
HAWTHORNE , NEW YORK

PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 3



WATCHTOWER
SHAWANGUNK, NEW YORK

2007 EXISTING TRAFFIC VOLUMES
WEEKDAY PEAK EVENING HOUR

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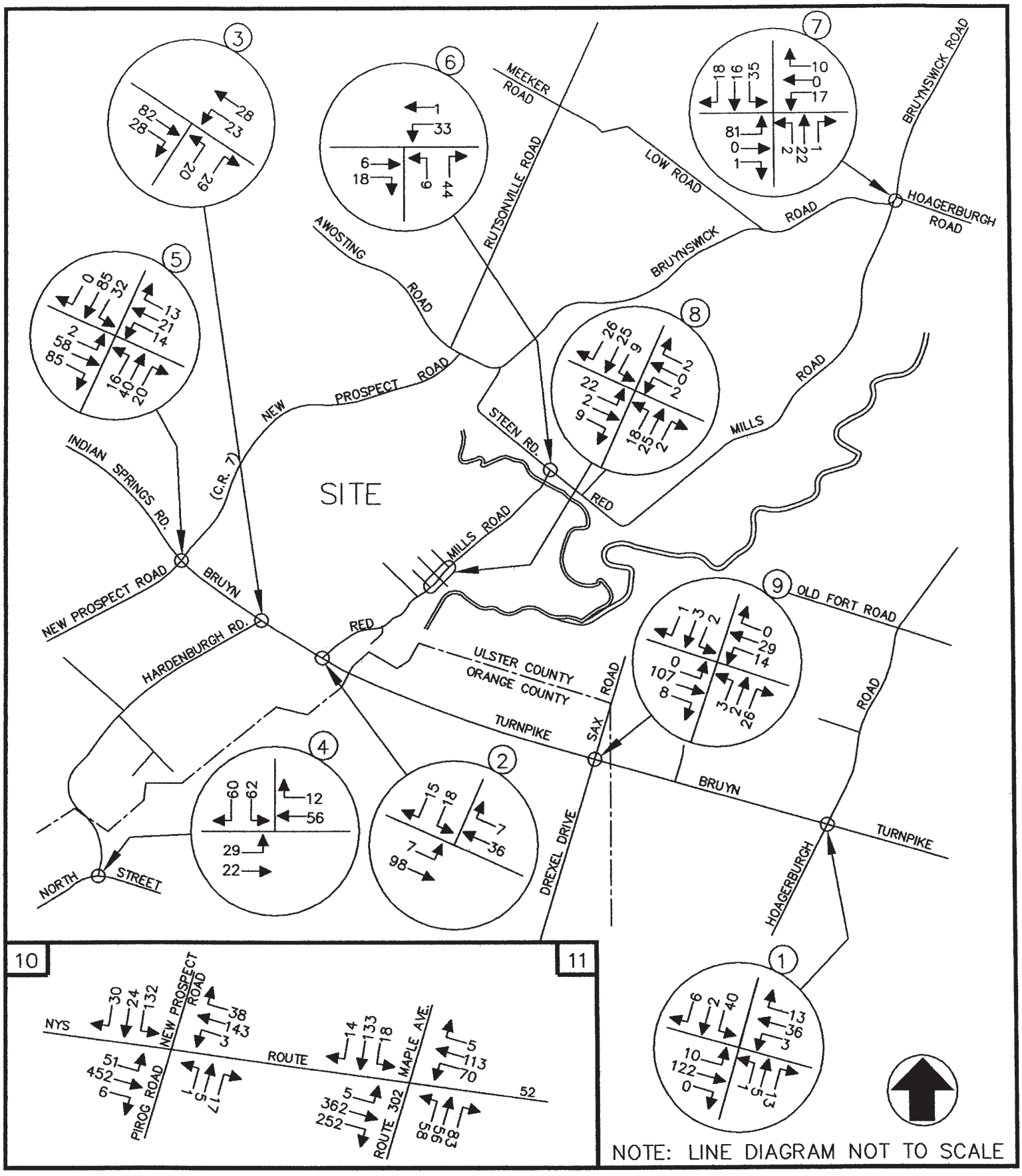
PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 4



WATCHTOWER
SHAWANGUNK, NEW YORK

2012 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

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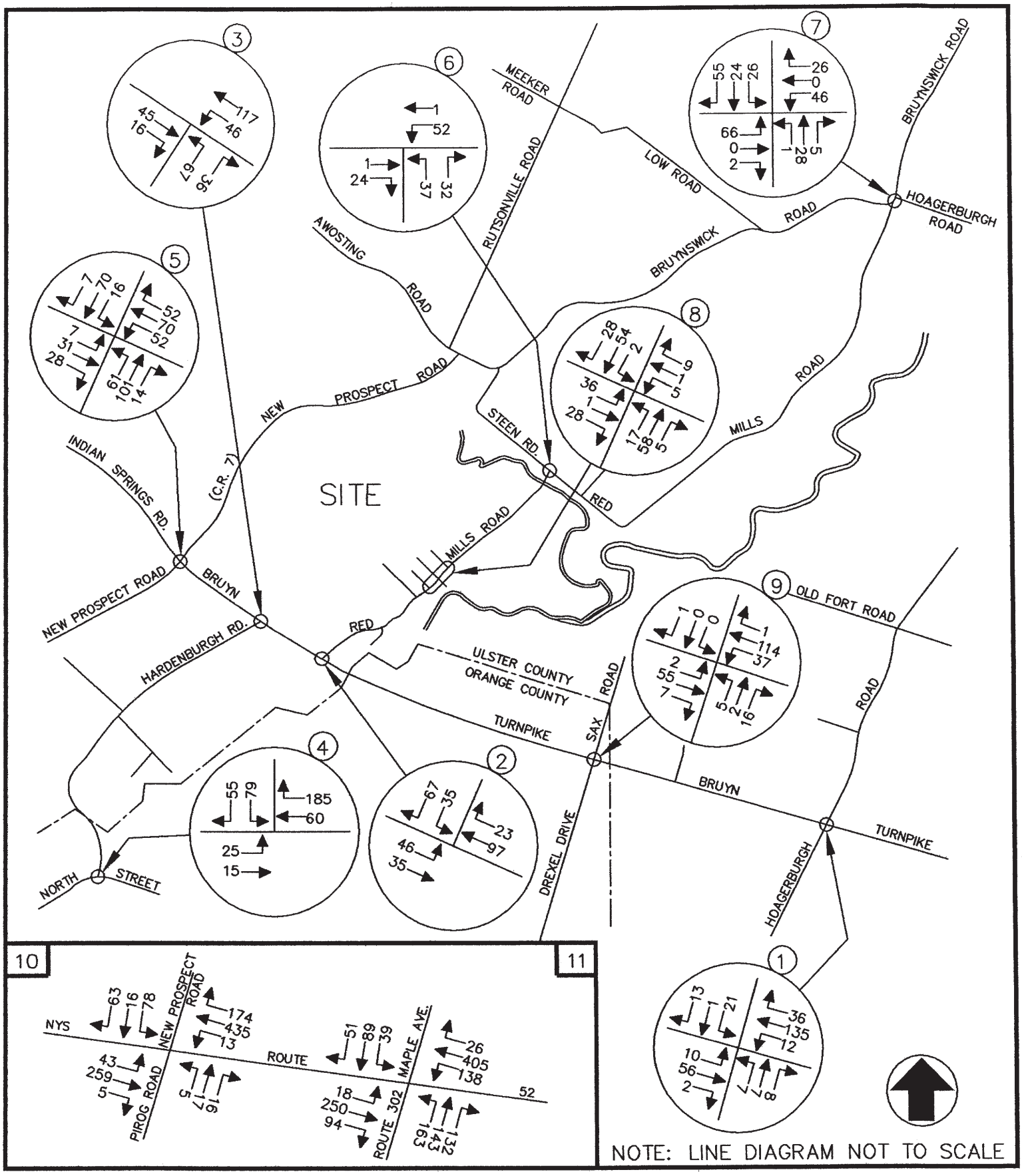
PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 5



WATCHTOWER
SHAWANGUNK, NEW YORK

2012 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR

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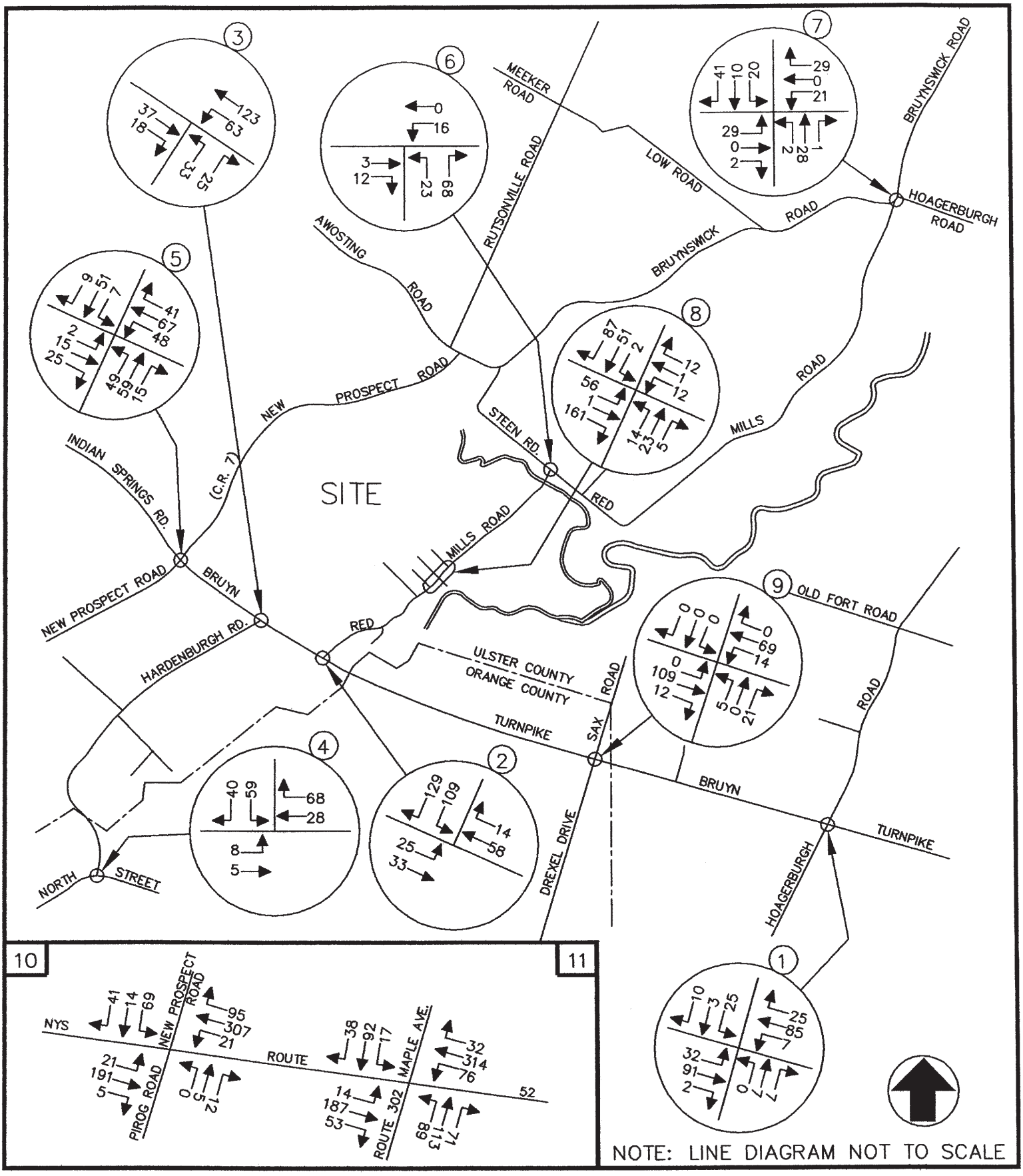
PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 6



WATCHTOWER
SHAWANGUNK, NEW YORK

2012 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK EVENING HOUR

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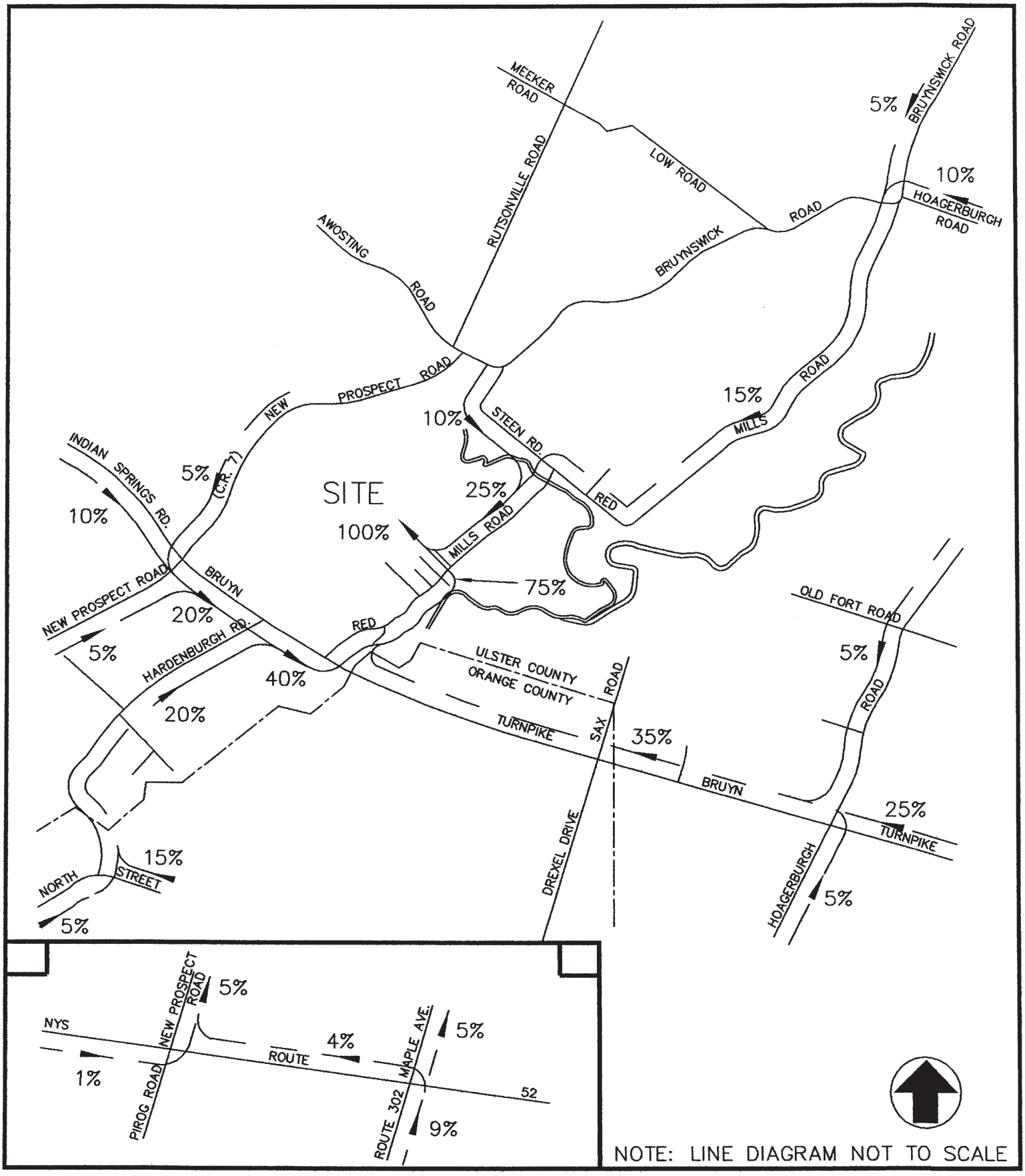
PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 7



WATCHTOWER

SHAWANGUNK, NEW YORK

ARRIVAL DISTRIBUTION

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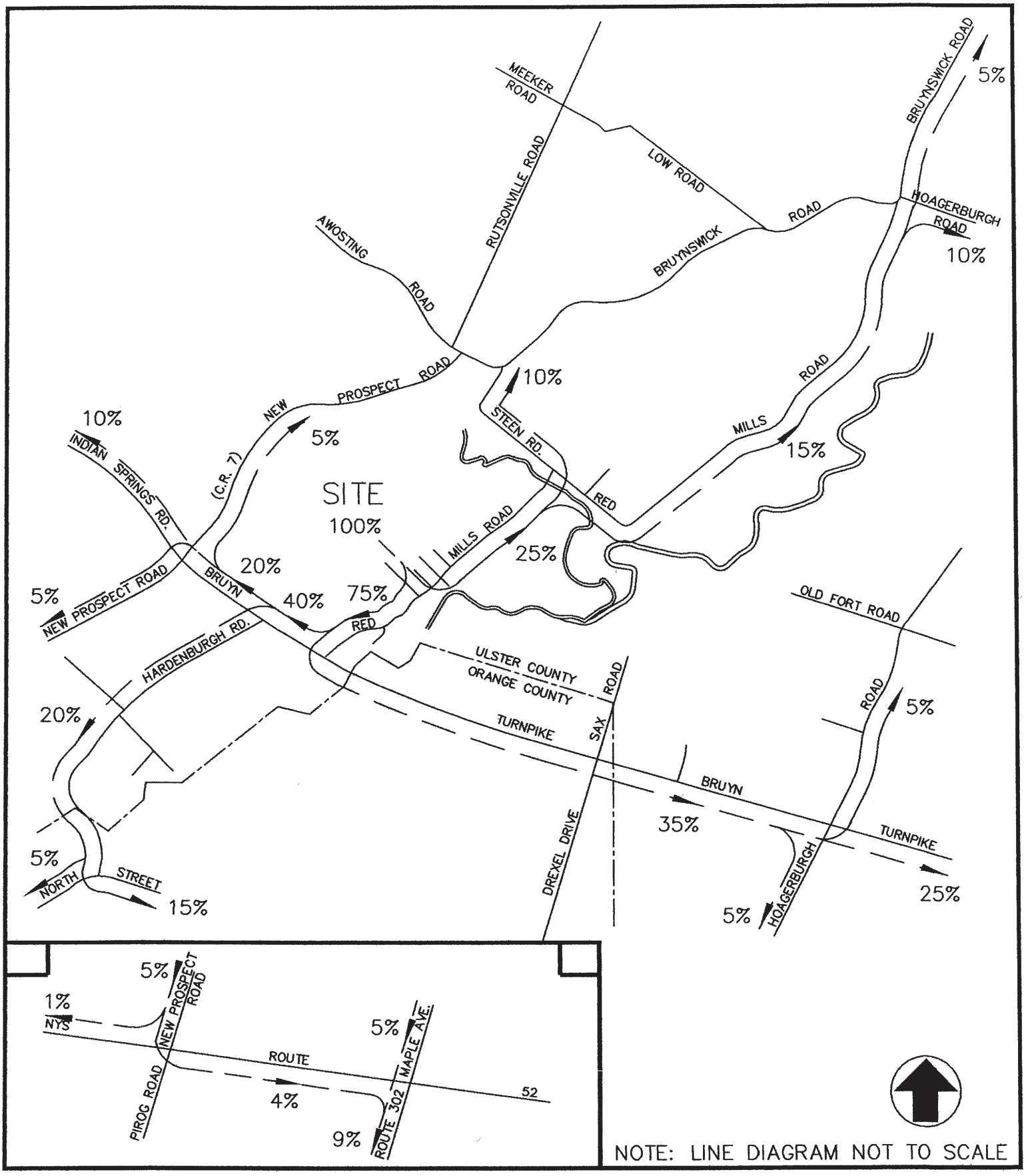
PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 8



WATCHTOWER
SHAWANGUNK, NEW YORK

DEPARTURE DISTRIBUTION

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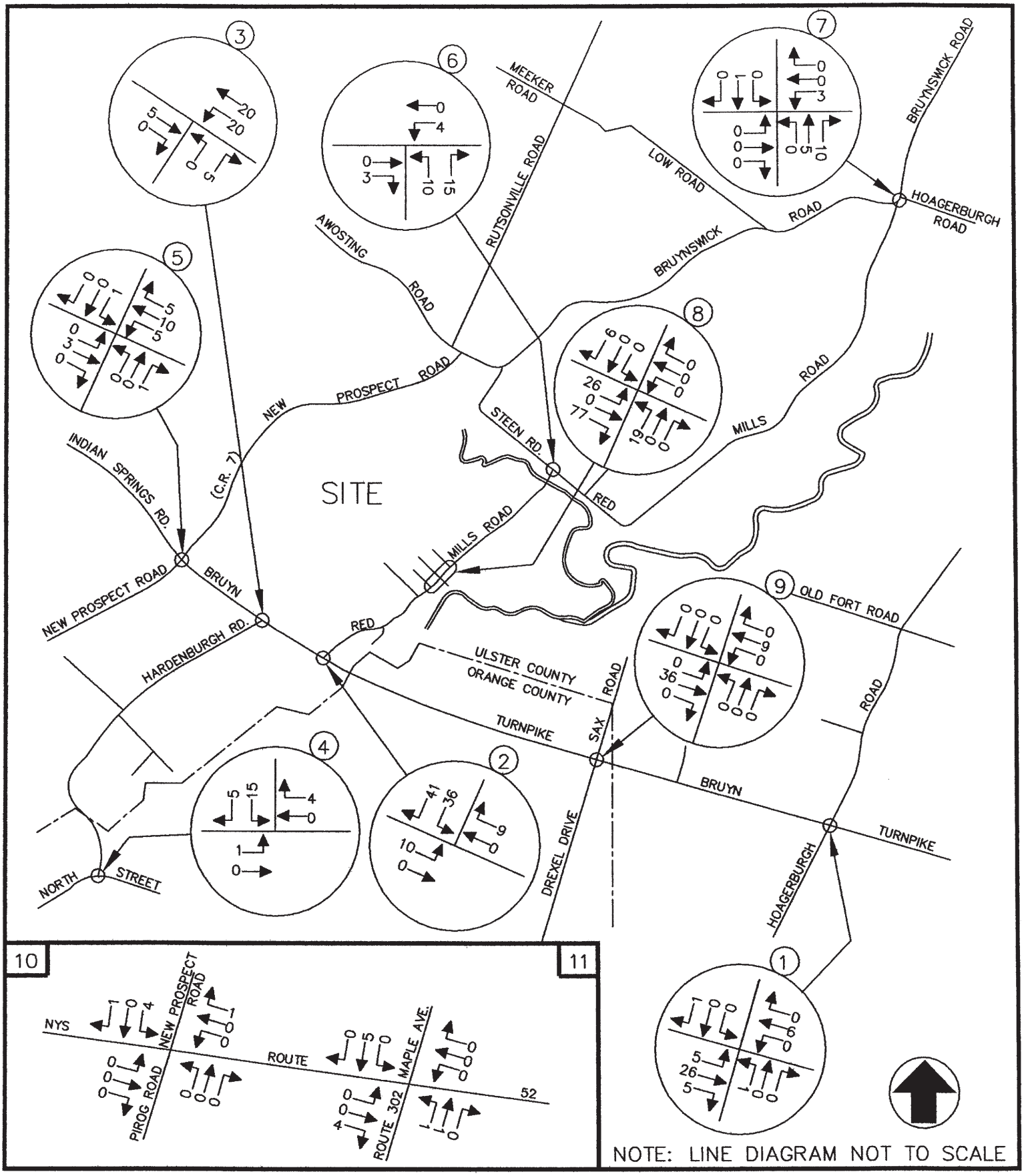
PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 9



WATCHTOWER
SHAWANGUNK, NEW YORK

SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

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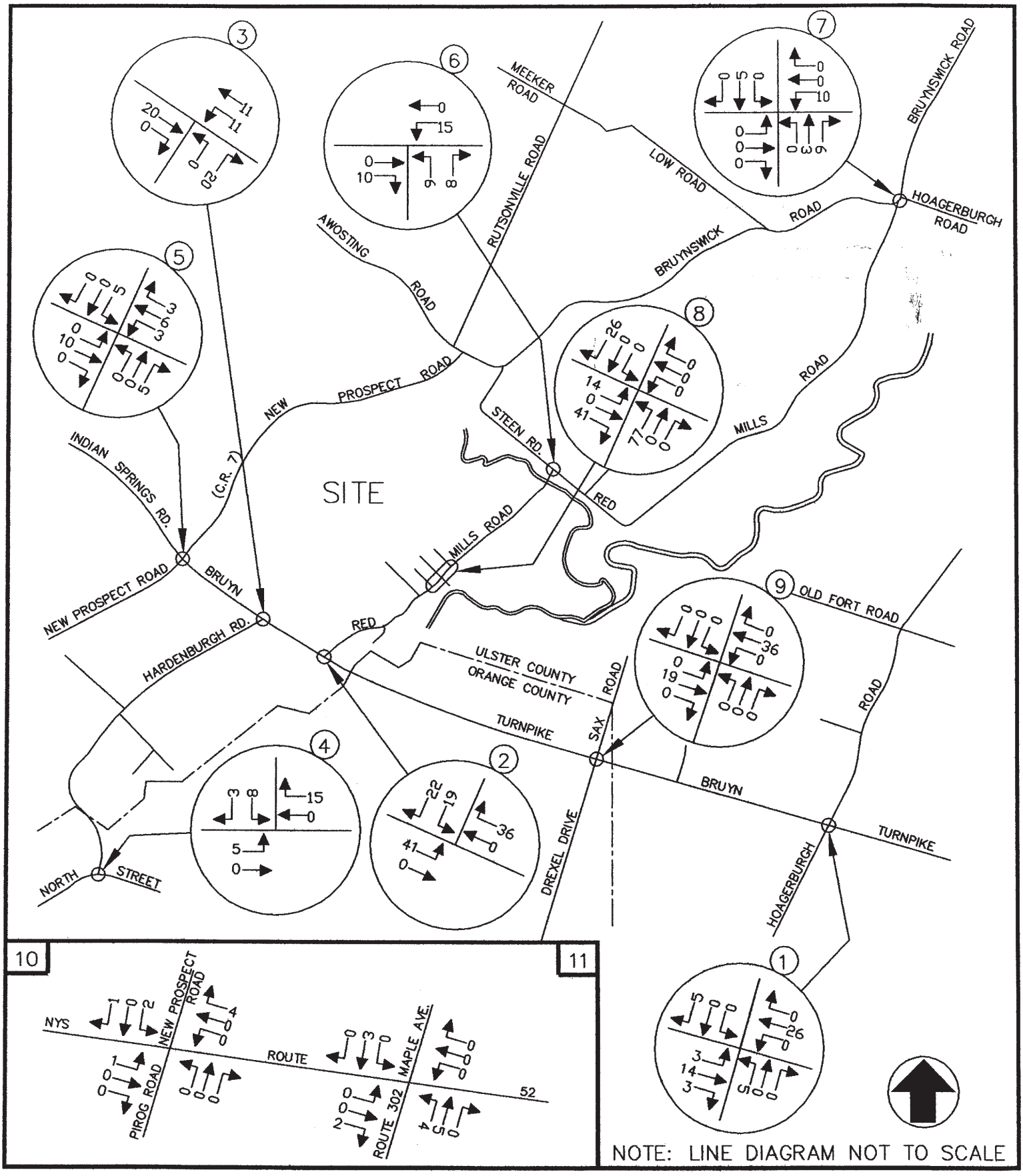
PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 10



WATCHTOWER
SHAWANGUNK, NEW YORK

SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR

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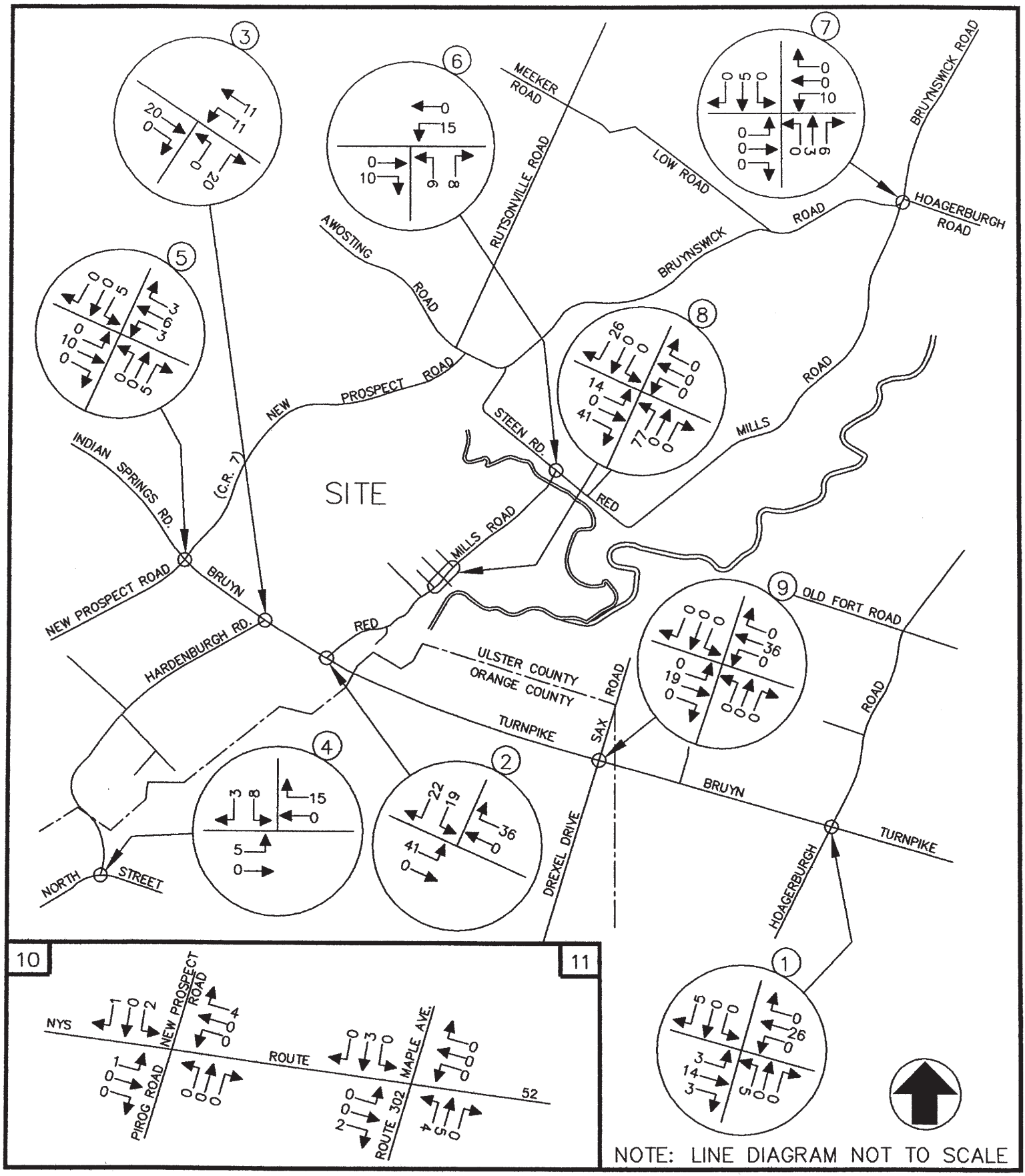
PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 11



WATCHTOWER
SHAWANGUNK, NEW YORK

SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK EVENING HOUR

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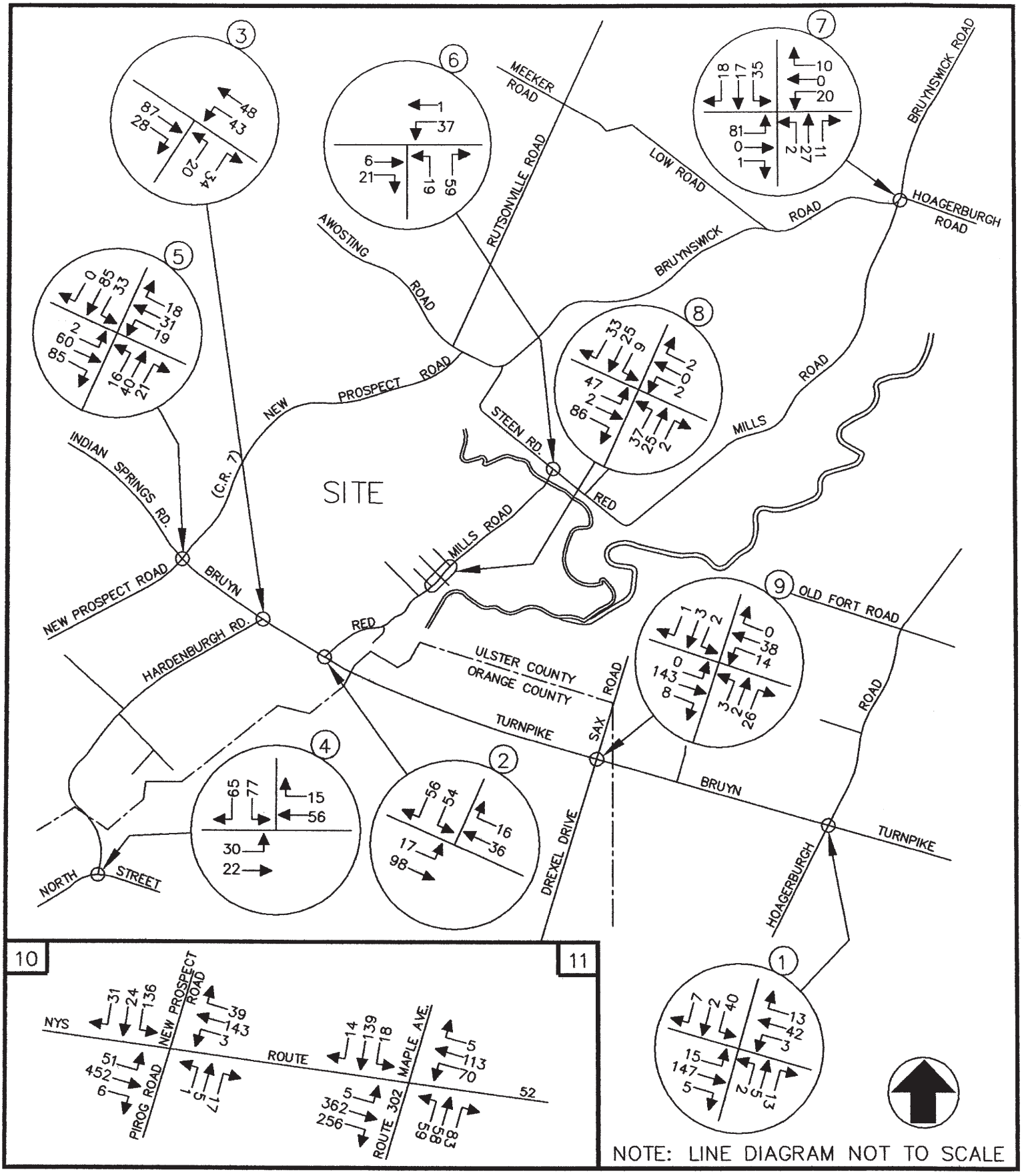
PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 12

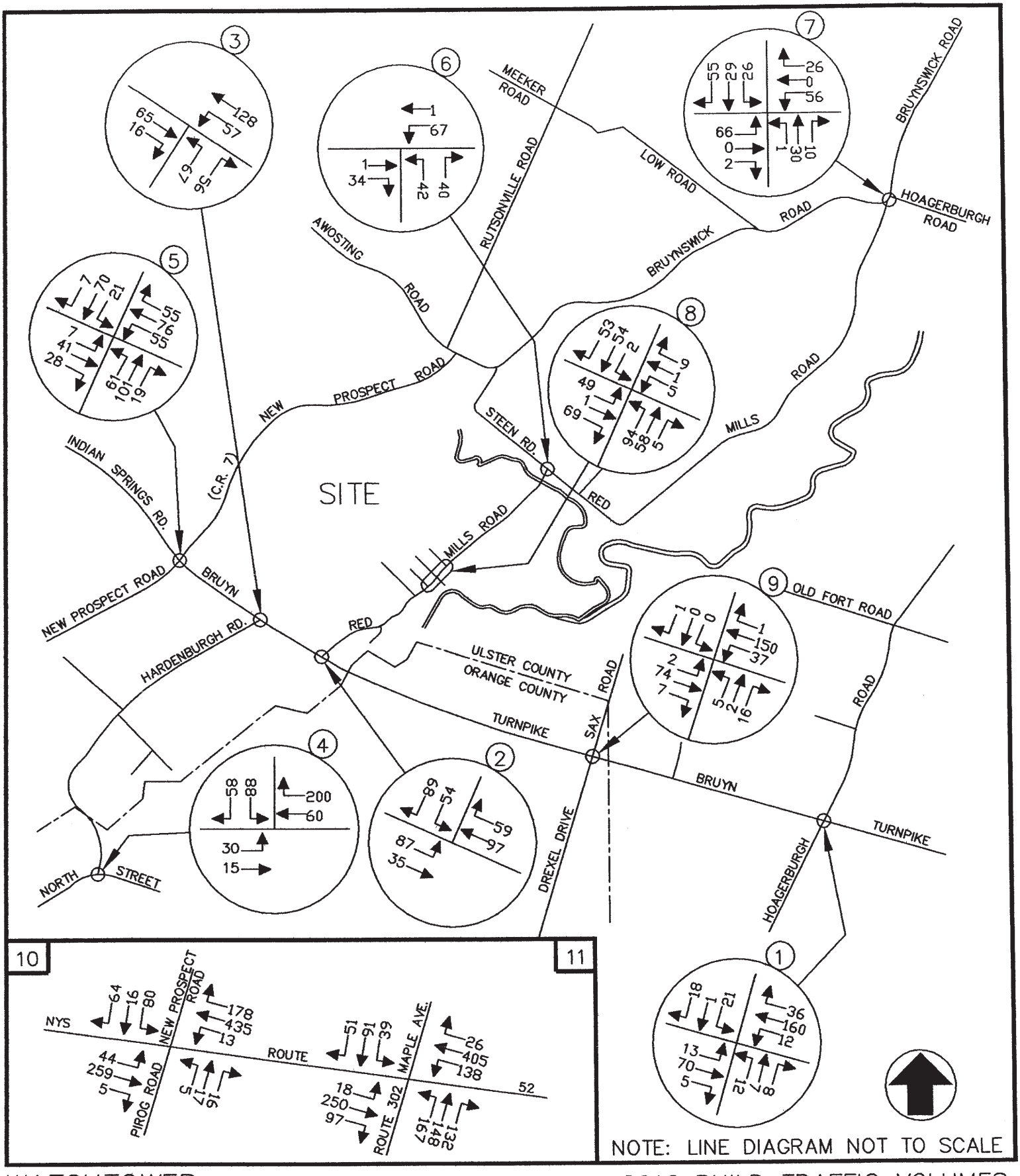


WATCHTOWER
SHAWANGUNK, NEW YORK

2012 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

JOHN COLLINS ENGINEERS, P.C.
HAWTHORNE , NEW YORK

PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 13



WATCHTOWER
SHAWANGUNK, NEW YORK

2012 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR

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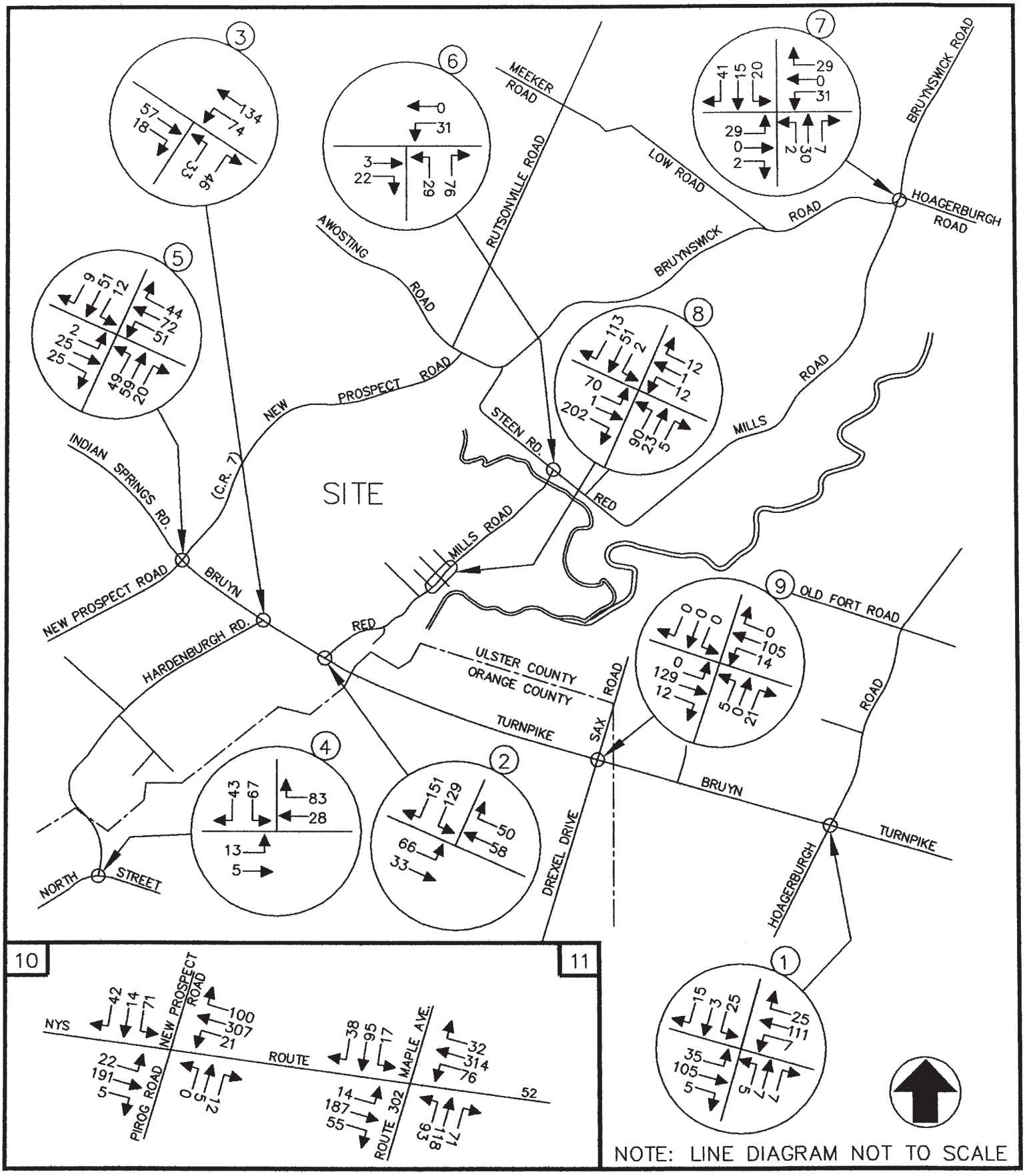
PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 14



WATCHTOWER
SHAWANGUNK, NEW YORK

2012 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK EVENING HOUR

JOHN COLLINS ENGINEERS, P.C.
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PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 15

APPENDIX "B"

TABLES

TABLE NO. 1

HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

WATCHTOWER SHAWANGUNK, NY	ENTRY		EXIT	
	HTGR*	VOLUME	HTGR*	VOLUME
RESIDENTIAL DWELLING UNITS				
PEAK AM HOUR	0.10	25	0.40	102
PEAK PM HOUR	0.40	102	0.22	55

NOTES:

1) * THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 7TH EDITION, 2003.

TABLE NO. 2

LEVEL OF SERVICE SUMMARY TABLE

			2007 EXISTING			2012 NO-BUILD			2012 BUILD		
			AM	PM (HIGHWAY)	PM (EVENING)	AM	PM (HIGHWAY)	PM (EVENING)	AM	PM (HIGHWAY)	PM (EVENING)
1	BRUYN TURNPIKE & HOAGERBURGH ROAD	**UNSIGNALIZED**									
		NB	A[7.2]	A[7.7]	A[7.4]	A[7.3]	A[7.8]	A[7.6]	A[7.5]	A[8.1]	A[7.9]
		SB	A[7.9]	A[7.8]	A[7.9]	A[8.0]	A[7.9]	A[8.0]	A[8.2]	A[8.0]	A[8.1]
		EB	A[8.1]	A[7.8]	A[8.1]	A[8.3]	A[7.9]	A[8.4]	A[8.7]	A[8.2]	A[8.6]
		WB	A[7.5]	A[8.3]	A[7.9]	A[7.6]	A[8.6]	A[8.1]	A[7.7]	A[9.0]	A[8.4]
		OVERALL	A[7.9]	A[8.1]	A[8.0]	A[8.0]	A[8.3]	A[8.2]	A[8.3]	A[8.7]	A[8.4]
2	BRUYN TURNPIKE & RED MILLS ROAD	**UNSIGNALIZED**									
		SB	A[9.2]	A[9.9]	B[10.5]	A[9.3]	B[10.2]	B[11.1]	A[9.9]	B[11.5]	B[13.0]
		EB	A[7.4]	A[7.6]	A[7.5]	A[7.4]	A[7.7]	A[7.5]	A[7.4]	A[7.9]	A[7.7]
3	BRUYN TURNPIKE & HARDENBURGH ROAD	**UNSIGNALIZED**									
		NB	A[9.4]	B[10.4]	B[10.1]	A[9.6]	B[10.9]	B[10.5]	A[9.8]	B[11.3]	B[10.6]
		WB	A[7.6]	A[7.5]	A[7.5]	A[7.6]	A[7.5]	A[7.5]	A[7.7]	A[7.6]	A[7.6]
4	NORTH STREET & HARDENBURGH ROAD	**UNSIGNALIZED**									
		SB	A[9.7]	B[10.6]	A[9.3]	A[10.0]	B[11.0]	A[9.5]	B[10.2]	B[11.4]	A[9.7]
		EB	A[7.5]	A[7.9]	A[7.5]	A[7.5]	A[8.0]	A[7.5]	A[7.5]	A[8.1]	A[7.6]
5	NEW PROSPECT ROAD & BRUYN TURNPIKE/ INDIAN SPRINGS ROAD	**UNSIGNALIZED**									
		NB	A[7.5]	A[7.6]	A[7.5]	A[7.5]	A[7.6]	A[7.5]	A[7.5]	A[7.6]	A[7.5]
		SB	A[7.5]	A[7.6]	A[7.5]	A[7.5]	A[7.6]	A[7.5]	A[7.5]	A[7.6]	A[7.5]
		EB	B[10.7]	B[11.3]	A[9.8]	B[11.1]	B[11.9]	B[10.0]	B[11.2]	B[12.5]	B[10.5]
		WB	B[11.0]	B[13.5]	B[11.7]	B[11.4]	C[15.2]	B[12.6]	B[11.8]	C[16.2]	B[13.1]
6	RED MILLS ROAD & STEEN ROAD/ RED MILLS ROAD	**UNSIGNALIZED**									
		NB	A[8.8]	A[9.2]	A[8.9]	A[8.8]	A[9.4]	A[9.0]	A[9.0]	A[9.7]	A[9.2]
		WB	A[7.4]	A[7.4]	A[7.3]	A[7.4]	A[7.4]	A[7.3]	A[7.4]	A[7.5]	A[7.4]

NOTES:

THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND AVERAGE VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE INTERSECTION INDICATED. IT ALSO INDICATES THE OVERALL INTERSECTION DELAY FOR THE SIGNALIZED INTERSECTIONS.

TABLE NO. 2 (CONTINUED)

LEVEL OF SERVICE SUMMARY TABLE

			2007 EXISTING			2012 NO-BUILD			2012 BUILD		
			AM	PM (HIGHWAY)	PM (EVENING)	AM	PM (HIGHWAY)	PM (EVENING)	AM	PM (HIGHWAY)	PM (EVENING)
7	BRUYNSWICK ROAD	**UNSIGNALIZED**									
	HOAGERBURGH ROAD &	NB	A[7.4]	A[7.5]	A[7.4]	A[7.4]	A[7.5]	A[7.4]	A[7.4]	A[7.5]	A[7.4]
	RED MILLS ROAD/	SB	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.4]
	BRUYNSWICK ROAD	EB	A[10.0]	B[10.1]	A[9.6]	B[10.2]	B[10.4]	A[9.8]	B[10.4]	B[10.5]	A[9.9]
		WB	A[9.2]	A[9.5]	A[9.0]	A[9.3]	A[9.7]	A[9.1]	A[9.5]	A[9.9]	A[9.4]
8	RED MILLS ROAD &	**UNSIGNALIZED**									
	WATCHTOWER DRIVEWAY	NB	A[7.4]	A[7.5]	A[7.6]	A[7.4]	A[7.5]	A[7.7]	A[7.5]	A[7.8]	A[7.9]
		SB	A[7.4]	A[7.4]	A[7.3]	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.4]
		EB	A[9.3]	A[9.7]	B[10.4]	A[9.5]	A[9.9]	B[10.9]	A[10.0]	B[11.5]	B[13.1]
		WB	A[9.0]	A[9.2]	B[10.1]	A[9.1]	A[9.3]	B[10.4]	A[9.7]	B[10.4]	B[12.7]
9	BRUYN TURNPIKE	**UNSIGNALIZED**									
	/WALLKILL AVENUE &	NB	A[9.1]	A[9.2]	A[9.1]	A[9.2]	A[9.3]	A[9.3]	A[9.5]	A[9.6]	A[9.5]
	DREXEL DRIVE/SAX ROAD	SB	A[9.7]	A[8.9]	A[8.6]	A[9.9]	A[8.9]	A[8.7]	B[10.2]	A[9.1]	A[8.9]
		EB	A[7.3]	A[7.5]	A[7.4]	A[7.3]	A[7.5]	A[7.4]	A[7.3]	A[7.6]	A[7.5]
		WB	A[7.5]	A[7.4]	A[7.5]	A[7.5]	A[7.4]	A[7.5]	A[7.6]	A[7.5]	A[7.6]
10	NYS ROUTE 52 &	**SIGNALIZED**									
	PIROG ROAD/	NB	C[21.8]	C[22.4]	C[21.4]	C[21.9]	C[22.7]	C[21.6]	C[21.9]	C[22.7]	C[21.6]
	NEW PROSPECT ROAD	SB	E[56.6]	D[40.8]	C[32.4]	F[80.9]	D[50.6]	D[36.5]	F[86.8]	D[52.2]	D[37.3]
		EB	A[5.9]	A[4.8]	A[4.2]	A[6.6]	A[5.2]	A[4.3]	A[6.6]	A[5.2]	A[4.4]
		WB	A[4.0]	A[7.2]	A[5.4]	A[4.2]	A[8.5]	A[5.9]	A[4.2]	A[8.6]	A[6.0]
		OVERALL	B[16.4]	B[11.8]	A[9.7]	C[21.9]	B[14.0]	B[10.7]	C[23.4]	B[14.3]	B[10.9]
	WITH SIGNAL TIMING	NB	-	-	-	B[15.2]	B[15.5]	B[15.0]	B[15.2]	B[15.5]	B[15.0]
	MODIFICATIONS	SB	-	-	-	C[23.0]	C[20.5]	B[18.8]	C[23.4]	C[20.6]	B[18.9]
		EB	-	-	-	B[13.2]	B[10.0]	A[8.4]	B[13.2]	B[10.1]	A[8.4]
		WB	-	-	-	A[8.0]	B[18.3]	B[11.5]	A[8.1]	B[18.6]	B[11.6]
		OVERALL	-	-	-	B[14.3]	B[16.3]	B[11.9]	B[14.4]	B[16.5]	B[12.0]
11	NYS ROUTE 52 (MAIN ST.) &	**SIGNALIZED**									
	ROUTE 302/MAPLE AVENUE	NB	B[18.4]	C[26.6]	B[18.3]	B[19.0]	D[37.4]	B[19.2]	B[19.0]	D[40.4]	B[19.6]
		SB	B[17.4]	B[16.5]	B[15.9]	B[17.7]	B[16.9]	B[16.2]	B[17.7]	B[17.0]	B[16.2]
		EB	C[23.9]	B[17.5]	B[15.9]	C[32.8]	B[18.7]	B[16.5]	C[33.4]	B[18.8]	B[16.5]
		WB	B[14.4]	C[26.8]	B[18.0]	B[15.2]	D[50.0]	B[19.6]	B[15.3]	D[50.8]	B[19.6]
		OVERALL	C[20.5]	C[23.4]	B[17.3]	C[25.5]	D[35.3]	B[18.3]	C[25.8]	D[36.4]	B[18.4]

NOTES:

THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND AVERAGE VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE INTERSECTION INDICATED. IT ALSO INDICATES THE OVERALL INTERSECTION DELAY FOR THE SIGNALIZED INTERSECTIONS.

APPENDIX "C"

CAPACITY ANALYSIS

Phone: Fax:
E-Mail:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: R.H.
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK AM HOUR
Intersection: BRUYN TURNPIKE & HOAGERBURGH R
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2007 EXISTING TRAFFIC VOLUMES
Project ID: 410AMEX1
East/West Street: BRUYN TURNPIKE
North/South Street: HOAGERBURGH ROAD

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	9	106	0	3	31	11	1	4	11	35	2	5
% Thrus Left Lane												

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.85		0.85		0.85		0.85	
Flow Rate	134		51		17		48	
% Heavy Veh	10		10		10		10	
No. Lanes	1		1		1		1	
Opposing-Lanes	1		1		1		1	
Conflicting-lanes	1		1		1		1	
Geometry group	1		1		1		1	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	134		51		17		48	
Left-Turn	10		3		1		41	
Right-Turn	0		12		12		5	
Prop. Left-Turns	0.1		0.1		0.1		0.9	
Prop. Right-Turns	0.0		0.2		0.7		0.1	
Prop. Heavy Vehicle	0.1		0.1		0.1		0.1	
Geometry Group	1		1		1		1	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.2		0.2	

hRT-adj	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	0.2	0.0	-0.2	0.3

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	134		51		17		48	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.12		0.05		0.02		0.04	
hd, final value	4.29		4.23		4.13		4.62	
x, final value	0.16		0.06		0.02		0.06	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.3		2.2		2.1		2.6	

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	134		51		17		48	
Service Time	2.3		2.2		2.1		2.6	
Utilization, x	0.16		0.06		0.02		0.06	
Dep. headway, hd	4.29		4.23		4.13		4.62	
Capacity	384		301		267		298	
Delay	8.11		7.50		7.22		7.92	
LOS	A		A		A		A	
Approach:								
Delay	8.11		7.50		7.22		7.92	
LOS	A		A		A		A	
Intersection Delay	7.89		Intersection LOS		A			

Phone: Fax:
E-Mail:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: R.H.
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK AM HOUR
Intersection: BRUYN TURNPIKE & HOAGERBURGH R
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2012 NO-BUILD TRAFFIC VOLUMES
Project ID: 410AMNB1
East/West Street: BRUYN TURNPIKE
North/South Street: HOAGERBURGH ROAD

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	10	122	0	3	36	13	1	5	13	40	2	6
% Thrus Left Lane												

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.85		0.85		0.85		0.85	
Flow Rate	154		60		21		56	
% Heavy Veh	10		10		10		10	
No. Lanes	1		1		1		1	
Opposing-Lanes	1		1		1		1	
Conflicting-lanes	1		1		1		1	
Geometry group	1		1		1		1	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	154		60		21		56	
Left-Turn	11		3		1		47	
Right-Turn	0		15		15		7	
Prop. Left-Turns	0.1		0.1		0.0		0.8	
Prop. Right-Turns	0.0		0.3		0.7		0.1	
Prop. Heavy Vehicle	0.1		0.1		0.1		0.1	
Geometry Group	1		1		1		1	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.2		0.2	

hRT-adj	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	0.2	0.0	-0.2	0.3

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	154		60		21		56	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.14		0.05		0.02		0.05	
hd, final value	4.33		4.28		4.21		4.67	
x, final value	0.19		0.07		0.02		0.07	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.3		2.3		2.2		2.7	

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	154		60		21		56	
Service Time	2.3		2.3		2.2		2.7	
Utilization, x	0.19		0.07		0.02		0.07	
Dep. headway, hd	4.33		4.28		4.21		4.67	
Capacity	404		310		271		306	
Delay	8.32		7.61		7.31		8.04	
LOS	A		A		A		A	
Approach:								
Delay	8.32		7.61		7.31		8.04	
LOS	A		A		A		A	
Intersection Delay	8.04		Intersection LOS		A			

Phone: Fax:
E-Mail:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: R.H.
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK AM HOUR
Intersection: BRUYN TURNPIKE & HOAGERBURGH R
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2012 BUILD TRAFFIC VOLUMES
Project ID: 410AMB1
East/West Street: BRUYN TURNPIKE
North/South Street: HOAGERBURGH ROAD

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	15	147	5	3	42	13	2	5	13	40	2	7
% Thrus Left Lane												

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.85		0.85		0.85		0.85	
Flow Rate	194		67		22		57	
% Heavy Veh	10		10		10		10	
No. Lanes	1		1		1		1	
Opposing-Lanes	1		1		1		1	
Conflicting-lanes	1		1		1		1	
Geometry group	1		1		1		1	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	194		67		22		57	
Left-Turn	17		3		2		47	
Right-Turn	5		15		15		8	
Prop. Left-Turns	0.1		0.0		0.1		0.8	
Prop. Right-Turns	0.0		0.2		0.7		0.1	
Prop. Heavy Vehicle	0.1		0.1		0.1		0.1	
Geometry Group	1		1		1		1	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.2		0.2	

hRT-adj	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	0.2	0.0	-0.2	0.3

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	194		67		22		57	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.17		0.06		0.02		0.05	
hd, final value	4.34		4.35		4.35		4.77	
x, final value	0.23		0.08		0.03		0.08	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.3		2.3		2.3		2.8	

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	194		67		22		57	
Service Time	2.3		2.3		2.3		2.8	
Utilization, x	0.23		0.08		0.03		0.08	
Dep. headway, hd	4.34		4.35		4.35		4.77	
Capacity	444		317		272		307	
Delay	8.66		7.73		7.47		8.16	
LOS	A		A		A		A	
Approach:								
Delay	8.66		7.73		7.47		8.16	
LOS	A		A		A		A	
Intersection Delay	8.32		Intersection LOS		A			

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK AM HOUR
Intersection: BRUYN TPKE & DREXEL DR/SAX RD
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2007 EXISTING TRAFFIC VOLUMES
Project ID: 410AMEX9
East/West Street: BRUYN TURNPIKE
North/South Street: DREXEL DRIVE/SAX ROAD
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	93	7	12	25	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	0	103	7	13	27	0
Percent Heavy Vehicles	5	--	--	5	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	3	2	23	2	3	1
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	3	2	25	2	3	1
Percent Heavy Vehicles	5	5	5	5	5	5
Percent Grade (%)		2			2	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	13		30			6	
C(m) (vph)	1568	1462		904			770	
v/c	0.00	0.01		0.03			0.01	
95% queue length	0.00	0.03		0.10			0.02	
Control Delay	7.3	7.5		9.1			9.7	
LOS	A	A		A			A	
Approach Delay				9.1			9.7	
Approach LOS				A			A	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK PM HOUR
Intersection: BRUYN TPKE & DREXEL DR/SAX RD
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2007 EXISTING TRAFFIC VOLUMES
Project ID: 410PMEX9
East/West Street: BRUYN TURNPIKE
North/South Street: DREXEL DRIVE/SAX ROAD
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	2	48	6	32	99	1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	2	53	6	35	110	1
Percent Heavy Vehicles	5	--	--	5	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	4	2	14	0	0	1
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	4	2	15	0	0	1
Percent Heavy Vehicles	5	5	5	5	5	5
Percent Grade (%)		2			2	
Flared Approach: Exists?/Storage		No	/		No	/
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	2	35		21			1	
C(m) (vph)	1460	1526		879			935	
v/c	0.00	0.02		0.02			0.00	
95% queue length	0.00	0.07		0.07			0.00	
Control Delay	7.5	7.4		9.2			8.9	
LOS	A	A		A			A	
Approach Delay				9.2			8.9	
Approach LOS				A			A	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK PM HOUR
Intersection: BRUYN TPKE & DREXEL DR/SAX RD
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2007 EXISTING TRAFFIC VOLUMES
Project ID: 410PMEX9 (EVENING)
East/West Street: BRUYN TURNPIKE
North/South Street: DREXEL DRIVE/SAX ROAD
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	95	10	12	60	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	0	105	11	13	66	0
Percent Heavy Vehicles	5	--	--	5	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	4	0	18	0	0	1
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	4	0	20	0	0	1
Percent Heavy Vehicles	5	5	5	5	5	5
Percent Grade (%)		2			2	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	13		24			1	
C(m) (vph)	1517	1454		897			989	
v/c	0.00	0.01		0.03			0.00	
95% queue length	0.00	0.03		0.08			0.00	
Control Delay	7.4	7.5		9.1			8.6	
LOS	A	A		A			A	
Approach Delay				9.1			8.6	
Approach LOS				A			A	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK AM HOUR
Intersection: BRUYN TPKE & DREXEL DR/SAX RD
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2012 NO-BUILD TRAFFIC VOLUMES
Project ID: 410AMNB9
East/West Street: BRUYN TURNPIKE
North/South Street: DREXEL DRIVE/SAX ROAD
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	107	8	14	29	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	0	118	8	15	32	0
Percent Heavy Vehicles	5	--	--	5	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	3	2	26	2	3	1
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	3	2	28	2	3	1
Percent Heavy Vehicles	5	5	5	5	5	5
Percent Grade (%)		2			2	
Flared Approach: Exists?/Storage		No	/		No	/
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	15		33			6	
C(m) (vph)	1561	1442		887			745	
v/c	0.00	0.01		0.04			0.01	
95% queue length	0.00	0.03		0.12			0.02	
Control Delay	7.3	7.5		9.2			9.9	
LOS	A	A		A			A	
Approach Delay				9.2			9.9	
Approach LOS				A			A	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK PM HOUR
Intersection: BRUYN TPKE & DREXEL DR/SAX RD
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2012 NO-BUILD TRAFFIC VOLUMES
Project ID: 410PMNB9
East/West Street: BRUYN TURNPIKE
North/South Street: DREXEL DRIVE/SAX ROAD
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	2	55	7	37	114	1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	2	61	7	41	126	1
Percent Heavy Vehicles	5	--	--	5	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	2	16	0	0	1
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	2	17	0	0	1
Percent Heavy Vehicles	5	5	5	5	5	5
Percent Grade (%)		2			2	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	2	41		24			1	
C(m) (vph)	1441	1514		854			916	
v/c	0.00	0.03		0.03			0.00	
95% queue length	0.00	0.08		0.09			0.00	
Control Delay	7.5	7.4		9.3			8.9	
LOS	A	A		A			A	
Approach Delay				9.3			8.9	
Approach LOS				A			A	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK PM HOUR
Intersection: BRUYN TPKE & DREXEL DR/SAX RD
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2012 NO-BUILD TRAFFIC VOLUMES
Project ID: 410PMNB9 (EVENING)
East/West Street: BRUYN TURNPIKE
North/South Street: DREXEL DRIVE/SAX ROAD
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	109	12	14	69	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	0	121	13	15	76	0
Percent Heavy Vehicles	5	--	--	5	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	0	21	0	0	1
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	0	23	0	0	1
Percent Heavy Vehicles	5	5	5	5	5	5
Percent Grade (%)		2			2	
Flared Approach: Exists?/Storage		No	/		No	/
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	15		28			1	
C(m) (vph)	1504	1432		869			977	
v/c	0.00	0.01		0.03			0.00	
95% queue length	0.00	0.03		0.10			0.00	
Control Delay	7.4	7.5		9.3			8.7	
LOS	A	A		A			A	
Approach Delay				9.3			8.7	
Approach LOS				A			A	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK AM HOUR
Intersection: BRUYN TPKE & DREXEL DR/SAX RD
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2012 BUILD TRAFFIC VOLUMES
Project ID: 410AMB9
East/West Street: BRUYN TURNPIKE
North/South Street: DREXEL DRIVE/SAX ROAD
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	143	8	14	38	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	0	158	8	15	42	0
Percent Heavy Vehicles	5	--	--	5	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	3	2	26	2	3	1
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	3	2	28	2	3	1
Percent Heavy Vehicles	5	5	5	5	5	5
Percent Grade (%)		2			2	
Flared Approach: Exists?/Storage		No	/		No	/
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	15		33			6	
C(m) (vph)	1548	1394		839			699	
v/c	0.00	0.01		0.04			0.01	
95% queue length	0.00	0.03		0.12			0.03	
Control Delay	7.3	7.6		9.5			10.2	
LOS	A	A		A			B	
Approach Delay				9.5			10.2	
Approach LOS				A			B	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK PM HOUR
Intersection: BRUYN TPKE & DREXEL DR/SAX RD
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2012 BUILD TRAFFIC VOLUMES
Project ID: 410PMB9
East/West Street: BRUYN TURNPIKE
North/South Street: DREXEL DRIVE/SAX ROAD
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	2	74	7	37	150	1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	2	82	7	41	166	1
Percent Heavy Vehicles	5	--	--	5	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	2	16	0	0	1
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	2	17	0	0	1
Percent Heavy Vehicles	5	5	5	5	5	5
Percent Grade (%)		2			2	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	2	41		24			1	
C(m) (vph)	1393	1488		810			870	
v/c	0.00	0.03		0.03			0.00	
95% queue length	0.00	0.08		0.09			0.00	
Control Delay	7.6	7.5		9.6			9.1	
LOS	A	A		A			A	
Approach Delay				9.6			9.1	
Approach LOS				A			A	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK PM HOUR
Intersection: BRUYN TPKE & DREXEL DR/SAX RD
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2012 BUILD TRAFFIC VOLUMES
Project ID: 410PMB9 (EVENING)
East/West Street: BRUYN TURNPIKE
North/South Street: DREXEL DRIVE/SAX ROAD
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	129	12	14	105	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	0	143	13	15	116	0
Percent Heavy Vehicles	5	--	--	5	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	0	21	0	0	1
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	0	23	0	0	1
Percent Heavy Vehicles	5	5	5	5	5	5
Percent Grade (%)		2			2	
Flared Approach: Exists?/Storage		No /			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	15		28			1	
C(m) (vph)	1454	1406		832			928	
v/c	0.00	0.01		0.03			0.00	
95% queue length	0.00	0.03		0.10			0.00	
Control Delay	7.5	7.6		9.5			8.9	
LOS	A	A		A			A	
Approach Delay				9.5			8.9	
Approach LOS				A			A	

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK AM HOUR
Project ID: 410AMEX10
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2007 EXISTING TRAFFIC VOLUMES

N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	44	393	5	3	124	33	1	4	15	115	21	26
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
WB Left	P				SB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	40.0				10.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1128	1692	0.44	0.67	5.9	A	5.9	A
Westbound								
LTR	1111	1666	0.16	0.67	4.0	A	4.0	A
Northbound								
LTR	258	1549	0.09	0.17	21.8	C	21.8	C
Southbound								
LTR	212	1274	0.85	0.17	56.6	E	56.6	E

Intersection Delay = 16.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM HOUR
Project ID: 410PMEX10
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2007 EXISTING TRAFFIC VOLUMES

N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	37	225	4	11	378	151	4	15	14	68	14	55
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
WB Left	P				SB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	40.0				10.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1048	1572	0.28	0.67	4.8	A	4.8	A
Westbound								
LTR	1098	1647	0.55	0.67	7.2	A	7.2	A
Northbound								
LTR	265	1589	0.14	0.17	22.4	C	22.4	C
Southbound								
LTR	218	1310	0.70	0.17	40.8	D	40.8	D

Intersection Delay = 11.8 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM EVENING HOUR
Project ID: 410PMEX10 (EVENING)
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2007 EXISTING TRAFFIC VOLUMES

N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	18	166	4	18	267	83	0	4	10	60	12	36
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	40.0					10.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1121	1682	0.19	0.67	4.2	A	4.2	A
Westbound								
LTR	1096	1644	0.37	0.67	5.4	A	5.4	A
Northbound								
LTR	264	1584	0.06	0.17	21.4	C	21.4	C
Southbound								
LTR	219	1313	0.55	0.17	32.4	C	32.4	C

Intersection Delay = 9.7 (sec/veh) Intersection LOS = A

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK AM HOUR
Project ID: 410AMNB10
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2012 NO-BUILD TRAFFIC VOLUMES

N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	51	452	6	3	143	38	1	5	17	132	24	30
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	40.0					10.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1122	1683	0.50	0.67	6.6	A	6.6	A
Westbound								
LTR	1111	1666	0.18	0.67	4.2	A	4.2	A
Northbound								
LTR	261	1565	0.10	0.17	21.9	C	21.9	C
Southbound								
LTR	212	1271	0.98	0.17	80.9	F	80.9	F

Intersection Delay = 21.9 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM HOUR
Project ID: 410PMNB10
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2012 NO-BUILD TRAFFIC VOLUMES

N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	43	259	5	13	435	174	5	17	16	78	16	63
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds						Peds				
WB	Left	P				SB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		40.0						10.0			
Yellow		3.0						3.0			
All Red		2.0						2.0			

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1023	1534	0.33	0.67	5.2	A	5.2	A
Westbound								
LTR	1097	1645	0.63	0.67	8.5	A	8.5	A
Northbound								
LTR	263	1578	0.16	0.17	22.7	C	22.7	C
Southbound								
LTR	217	1304	0.81	0.17	50.6	D	50.6	D

Intersection Delay = 14.0 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM EVENING HOUR
Project ID: 410PMNB10 (EVENING)
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2012 NO-BUILD TRAFFIC VOLUMES

N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	21	191	5	21	307	95	0	5	12	69	14	41
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
WB Left	P				SB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	40.0				10.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1112	1668	0.22	0.67	4.3	A	4.3	A
Westbound								
LTR	1093	1640	0.43	0.67	5.9	A	5.9	A
Northbound								
LTR	266	1596	0.07	0.17	21.6	C	21.6	C
Southbound								
LTR	219	1312	0.63	0.17	36.5	D	36.5	D

Intersection Delay = 10.7 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK AM HOUR
Project ID: 410AMB10
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2012 BUILD TRAFFIC VOLUMES

N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	51	452	6	3	143	39	1	5	17	136	24	31
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
WB Left	P				SB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	40.0				10.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1122	1683	0.50	0.67	6.6	A	6.6	A
Westbound								
LTR	1111	1666	0.18	0.67	4.2	A	4.2	A
Northbound								
LTR	261	1566	0.10	0.17	21.9	C	21.9	C
Southbound								
LTR	212	1270	1.00	0.17	86.8	F	86.8	F

Intersection Delay = 23.4 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM HOUR
Project ID: 410PMB10
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2012 BUILD TRAFFIC VOLUMES

N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	44	259	5	13	435	178	5	17	16	80	16	64
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
WB Left	P				SB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	40.0				10.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1019	1528	0.34	0.67	5.2	A	5.2	A
Westbound								
LTR	1096	1644	0.63	0.67	8.6	A	8.6	A
Northbound								
LTR	263	1579	0.16	0.17	22.7	C	22.7	C
Southbound								
LTR	217	1303	0.82	0.17	52.2	D	52.2	D

Intersection Delay = 14.3 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM EVENING HOUR
Project ID: 410PMB10 (EVENING)
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2012 BUILD TRAFFIC VOLUMES

N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	22	191	5	21	307	100	0	5	12	71	14	42
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	40.0					10.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1109	1663	0.22	0.67	4.4	A	4.4	A
Westbound								
LTR	1092	1638	0.43	0.67	6.0	A	6.0	A
Northbound								
LTR	266	1596	0.07	0.17	21.6	C	21.6	C
Southbound								
LTR	219	1311	0.65	0.17	37.3	D	37.3	D

Intersection Delay = 10.9 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK AM HOUR
Project ID: 410AMNB10 (WITH SIGNAL MODIFICATIONS)
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2012 NO-BUILD TRAFFIC VOLUMES
N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	51	452	6	3	143	38	1	5	17	132	24	30
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	32.0					18.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	895	1679	0.63	0.53	13.2	B	13.2	B
Westbound								
LTR	888	1665	0.23	0.53	8.0	A	8.0	A
Northbound								
LTR	471	1570	0.06	0.30	15.2	B	15.2	B
Southbound								
LTR	381	1271	0.54	0.30	23.0	C	23.0	C

Intersection Delay = 14.3 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM HOUR
Project ID: 410PMNB10 (WITH SIGNAL MODIFICATIONS)
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2012 NO-BUILD TRAFFIC VOLUMES
N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	43	259	5	13	435	174	5	17	16	78	16	63
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
WB Left	P				SB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	32.0				18.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	812	1523	0.42	0.53	10.0+	B	10.0+	B
Westbound								
LTR	877	1644	0.79	0.53	18.3	B	18.3	B
Northbound								
LTR	479	1595	0.09	0.30	15.5	B	15.5	B
Southbound								
LTR	396	1321	0.44	0.30	20.5	C	20.5	C

Intersection Delay = 16.3 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM EVENING HOUR
Project ID: 410PMNB10 (EVENING) (WITH SIGNAL MODIFICATIONS)
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2012 NO-BUILD TRAFFIC VOLUMES
N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	21	191	5	21	307	95	0	5	12	69	14	41
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	32.0					18.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	886	1662	0.27	0.53	8.4	A	8.4	A
Westbound								
LTR	874	1638	0.54	0.53	11.5	B	11.5	B
Northbound								
LTR	479	1596	0.04	0.30	15.0	B	15.0	B
Southbound								
LTR	401	1338	0.35	0.30	18.8	B	18.8	B

Intersection Delay = 11.9 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK AM HOUR
Project ID: 410AMB10 (WITH SIGNAL MODIFICATIONS)
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2012 BUILD TRAFFIC VOLUMES
N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	51	452	6	3	143	39	1	5	17	136	24	31
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
WB Left	P				SB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	32.0				18.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	895	1679	0.63	0.53	13.2	B	13.2	B
Westbound								
LTR	887	1664	0.23	0.53	8.1	A	8.1	A
Northbound								
LTR	471	1570	0.06	0.30	15.2	B	15.2	B
Southbound								
LTR	381	1270	0.56	0.30	23.4	C	23.4	C

Intersection Delay = 14.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM HOUR
Project ID: 410PMB10 (WITH SIGNAL MODIFICATIONS)
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2012 BUILD TRAFFIC VOLUMES
N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	44	259	5	13	435	178	5	17	16	80	16	64
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	32.0					18.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	809	1517	0.42	0.53	10.1	B	10.1	B
Westbound								
LTR	876	1643	0.79	0.53	18.6	B	18.6	B
Northbound								
LTR	478	1594	0.09	0.30	15.5	B	15.5	B
Southbound								
LTR	396	1319	0.45	0.30	20.6	C	20.6	C

Intersection Delay = 16.5 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM EVENING HOUR
Project ID: 410PMB10 (EVENING) (WITH SIGNAL MODIFICATIONS)
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd:
Year : 2012 BUILD TRAFFIC VOLUMES
N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	22	191	5	21	307	100	0	5	12	71	14	42
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	32.0					18.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	884	1657	0.27	0.53	8.4	A	8.4	A
Westbound								
LTR	873	1637	0.54	0.53	11.6	B	11.6	B
Northbound								
LTR	479	1596	0.04	0.30	15.0	B	15.0	B
Southbound								
LTR	401	1335	0.35	0.30	18.9	B	18.9	B

Intersection Delay = 12.0 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK AM HOUR
Project ID: 410AMEX11
E/W St: NYS ROUTE 52 (MAIN STREET)

Inter.: NYS RTE 52 & RTE 302/MAPLE AVE
Area Type: All other areas
Jurisd:
Year : 2007 EXISTING TRAFFIC VOLUMES
N/S St: ROUTE 302/MAPLE AVENUE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	4	315	219	61	98	4	50	49	72	16	116	12
Lane Width		11.0			15.0			10.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left A			
Thru	A				Thru A			
Right	A				Right A			
Peds					Peds			
WB Left	A				SB Left A			
Thru	A				Thru A			
Right	A				Right A			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	43.0				37.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	781	1634	0.76	0.48	23.9	C	23.9	C
Westbound								
LTR	643	1346	0.28	0.48	14.4	B	14.4	B
Northbound								
LTR	577	1403	0.33	0.41	18.4	B	18.4	B
Southbound								
LTR	711	1729	0.23	0.41	17.4	B	17.4	B

Intersection Delay = 20.5 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM HOUR
Project ID: 410PMEX11
E/W St: NYS ROUTE 52 (MAIN STREET)

Inter.: NYS RTE 52 & RTE 302/MAPLE AVE
Area Type: All other areas
Jurisd:
Year : 2007 EXISTING TRAFFIC VOLUMES

N/S St: ROUTE 302/MAPLE AVENUE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	16	217	82	120	352	23	142	124	115	34	77	44
Lane Width		11.0			15.0			10.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	41.0					39.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	734	1611	0.48	0.46	17.5	B	17.5	B
Westbound								
LTR	699	1535	0.79	0.46	26.8	C	26.8	C
Northbound								
LTR	570	1316	0.74	0.43	26.6	C	26.6	C
Southbound								
LTR	653	1508	0.26	0.43	16.5	B	16.5	B

Intersection Delay = 23.4 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM EVENING HOUR
Project ID: 410PMEX11 (EVENING)
E/W St: NYS ROUTE 52 (MAIN STREET)

Inter.: NYS RTE 52 & RTE 302/MAPLE AVE
Area Type: All other areas
Jurisd:
Year : 2007 EXISTING TRAFFIC VOLUMES
N/S St: ROUTE 302/MAPLE AVENUE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	12	163	46	66	273	28	77	98	62	15	80	33
Lane Width		11.0			15.0			10.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left A			
Thru	A				Thru A			
Right	A				Right A			
Peds					Peds			
WB Left	A				SB Left A			
Thru	A				Thru A			
Right	A				Right A			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	41.0				39.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	747	1640	0.33	0.46	15.9	B	15.9	B
Westbound								
LTR	793	1741	0.51	0.46	18.0	B	18.0	B
Northbound								
LTR	608	1402	0.43	0.43	18.3	B	18.3	B
Southbound								
LTR	725	1674	0.20	0.43	15.9	B	15.9	B

Intersection Delay = 17.3 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK AM HOUR
Project ID: 410AMNB11
E/W St: NYS ROUTE 52 (MAIN STREET)

Inter.: NYS RTE 52 & RTE 302/MAPLE AVE
Area Type: All other areas
Jurisd:
Year : 2012 NO-BUILD TRAFFIC VOLUMES
N/S St: ROUTE 302/MAPLE AVENUE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	5	362	252	70	113	5	58	56	83	18	133	14
Lane Width		11.0			15.0			10.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	43.0					37.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	780	1633	0.88	0.48	32.8	C	32.8	C
Westbound								
LTR	577	1208	0.36	0.48	15.2	B	15.2	B
Northbound								
LTR	569	1385	0.38	0.41	19.0	B	19.0	B
Southbound								
LTR	708	1723	0.26	0.41	17.7	B	17.7	B

Intersection Delay = 25.5 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM HOUR
Project ID: 410PMNB11
E/W St: NYS ROUTE 52 (MAIN STREET)

Inter.: NYS RTE 52 & RTE 302/MAPLE AVE
Area Type: All other areas
Jurisd:
Year : 2012 NO-BUILD TRAFFIC VOLUMES
N/S St: ROUTE 302/MAPLE AVENUE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	18	250	94	138	405	26	163	143	132	39	89	51
Lane Width		11.0			15.0			10.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	A				NB	Left	A			
	Thru	A					Thru	A			
	Right	A					Right	A			
	Peds						Peds				
WB	Left	A				SB	Left	A			
	Thru	A					Thru	A			
	Right	A					Right	A			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		41.0						39.0			
Yellow		3.0						3.0			
All Red		2.0						2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	730	1603	0.55	0.46	18.7	B	18.7	B
Westbound								
LTR	656	1441	0.96	0.46	50.0	D	50.0	D
Northbound								
LTR	558	1287	0.87	0.43	37.4	D	37.4	D
Southbound								
LTR	648	1496	0.31	0.43	16.9	B	16.9	B

Intersection Delay = 35.3 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM EVENING HOUR
Project ID: 410PMNB11 (EVENING)
E/W St: NYS ROUTE 52 (MAIN STREET)

Inter.: NYS RTE 52 & RTE 302/MAPLE AVE
Area Type: All other areas
Jurisd:
Year : 2012 NO-BUILD TRAFFIC VOLUMES
N/S St: ROUTE 302/MAPLE AVENUE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	14	187	53	76	314	32	89	113	71	17	92	38
Lane Width		11.0			15.0			10.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left A			
Thru	A				Thru A			
Right	A				Right A			
Peds					Peds			
WB Left	A				SB Left A			
Thru	A				Thru A			
Right	A				Right A			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	41.0				39.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	742	1628	0.38	0.46	16.5	B	16.5	B
Westbound								
LTR	786	1725	0.60	0.46	19.6	B	19.6	B
Northbound								
LTR	599	1383	0.51	0.43	19.2	B	19.2	B
Southbound								
LTR	722	1666	0.23	0.43	16.2	B	16.2	B

Intersection Delay = 18.3 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK AM HOUR
Project ID: 410AMB11
E/W St: NYS ROUTE 52 (MAIN STREET)

Inter.: NYS RTE 52 & RTE 302/MAPLE AVE
Area Type: All other areas
Jurisd:
Year : 2012 BUILD TRAFFIC VOLUMES
N/S St: ROUTE 302/MAPLE AVENUE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	5	362	256	70	113	5	59	58	83	18	139	14
Lane Width		11.0			15.0			10.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	A				NB	Left	A			
	Thru	A					Thru	A			
	Right	A					Right	A			
	Peds						Peds				
WB	Left	A				SB	Left	A			
	Thru	A					Thru	A			
	Right	A					Right	A			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		43.0						37.0			
Yellow		3.0						3.0			
All Red		2.0						2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	780	1632	0.89	0.48	33.4	C	33.4	C
Westbound								
LTR	575	1204	0.37	0.48	15.3	B	15.3	B
Northbound								
LTR	567	1379	0.39	0.41	19.0	B	19.0	B
Southbound								
LTR	709	1725	0.27	0.41	17.7	B	17.7	B

Intersection Delay = 25.8 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM HOUR
Project ID: 410PMB11
E/W St: NYS ROUTE 52 (MAIN STREET)

Inter.: NYS RTE 52 & RTE 302/MAPLE AVE
Area Type: All other areas
Jurisd:
Year : 2012 BUILD TRAFFIC VOLUMES
N/S St: ROUTE 302/MAPLE AVENUE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	18	250	97	138	405	26	167	148	132	39	91	51
Lane Width		11.0			15.0			10.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left A			
Thru	A				Thru A			
Right	A				Right A			
Peds					Peds			
WB Left	A				SB Left A			
Thru	A				Thru A			
Right	A				Right A			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	41.0				39.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	730	1602	0.56	0.46	18.8	B	18.8	B
Westbound								
LTR	654	1436	0.97	0.46	50.8	D	50.8	D
Northbound								
LTR	556	1284	0.89	0.43	40.4	D	40.4	D
Southbound								
LTR	648	1496	0.31	0.43	17.0	B	17.0	B

Intersection Delay = 36.4 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM EVENING HOUR
Project ID: 410PMB11 (EVENING)
E/W St: NYS ROUTE 52 (MAIN STREET)

Inter.: NYS RTE 52 & RTE 302/MAPLE AVE
Area Type: All other areas
Jurisd:
Year : 2012 BUILD TRAFFIC VOLUMES
N/S St: ROUTE 302/MAPLE AVENUE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	14	187	55	76	314	32	93	118	71	17	95	38
Lane Width		11.0			15.0			10.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	41.0					39.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

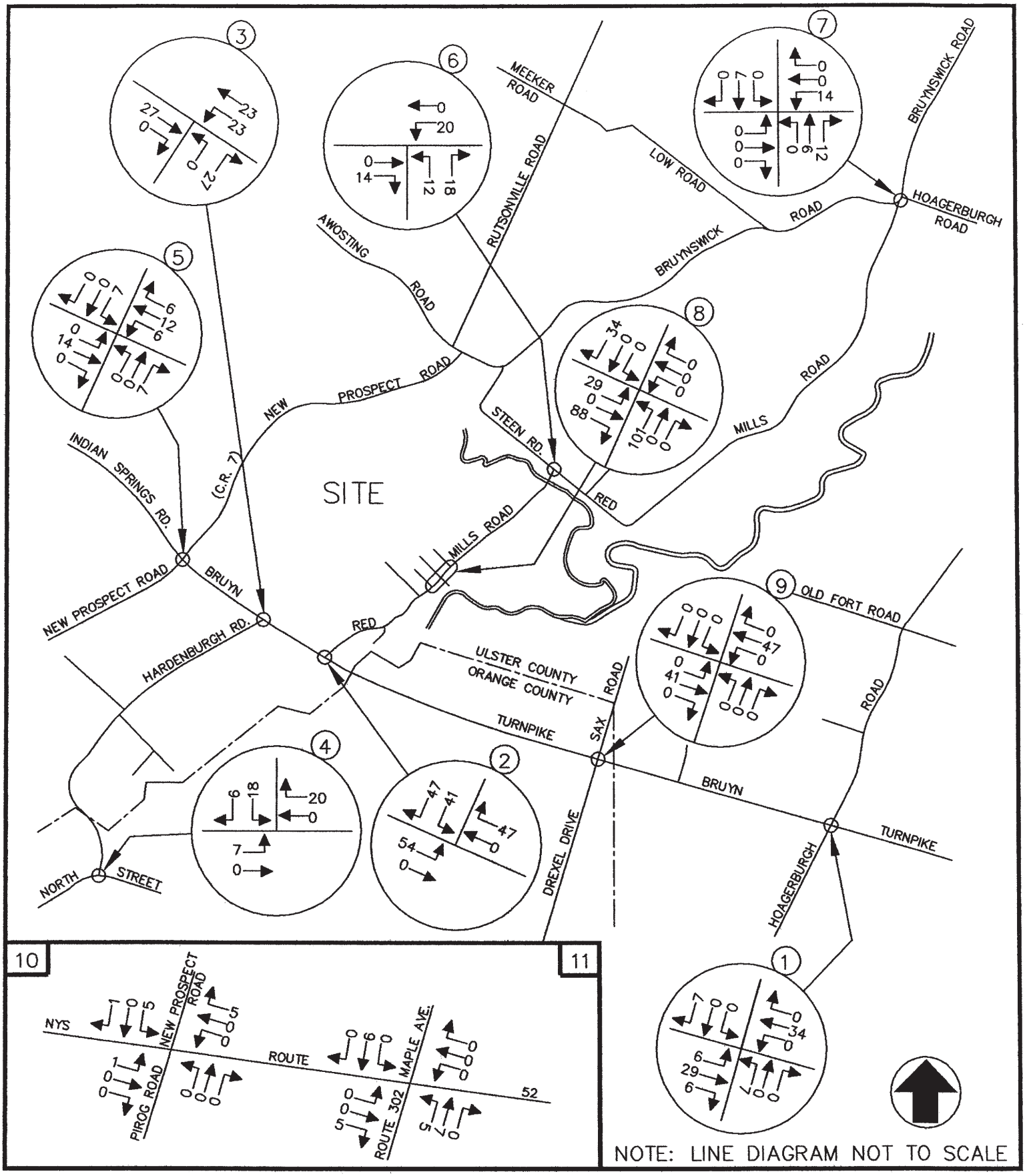
Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	741	1627	0.38	0.46	16.5	B	16.5	B
Westbound								
LTR	785	1724	0.60	0.46	19.6	B	19.6	B
Northbound								
LTR	597	1377	0.52	0.43	19.6	B	19.6	B
Southbound								
LTR	722	1667	0.23	0.43	16.2	B	16.2	B

Intersection Delay = 18.4 (sec/veh) Intersection LOS = B

ANALYSIS OF OFFICE
WITH SEPARATE TRIP GENERATION

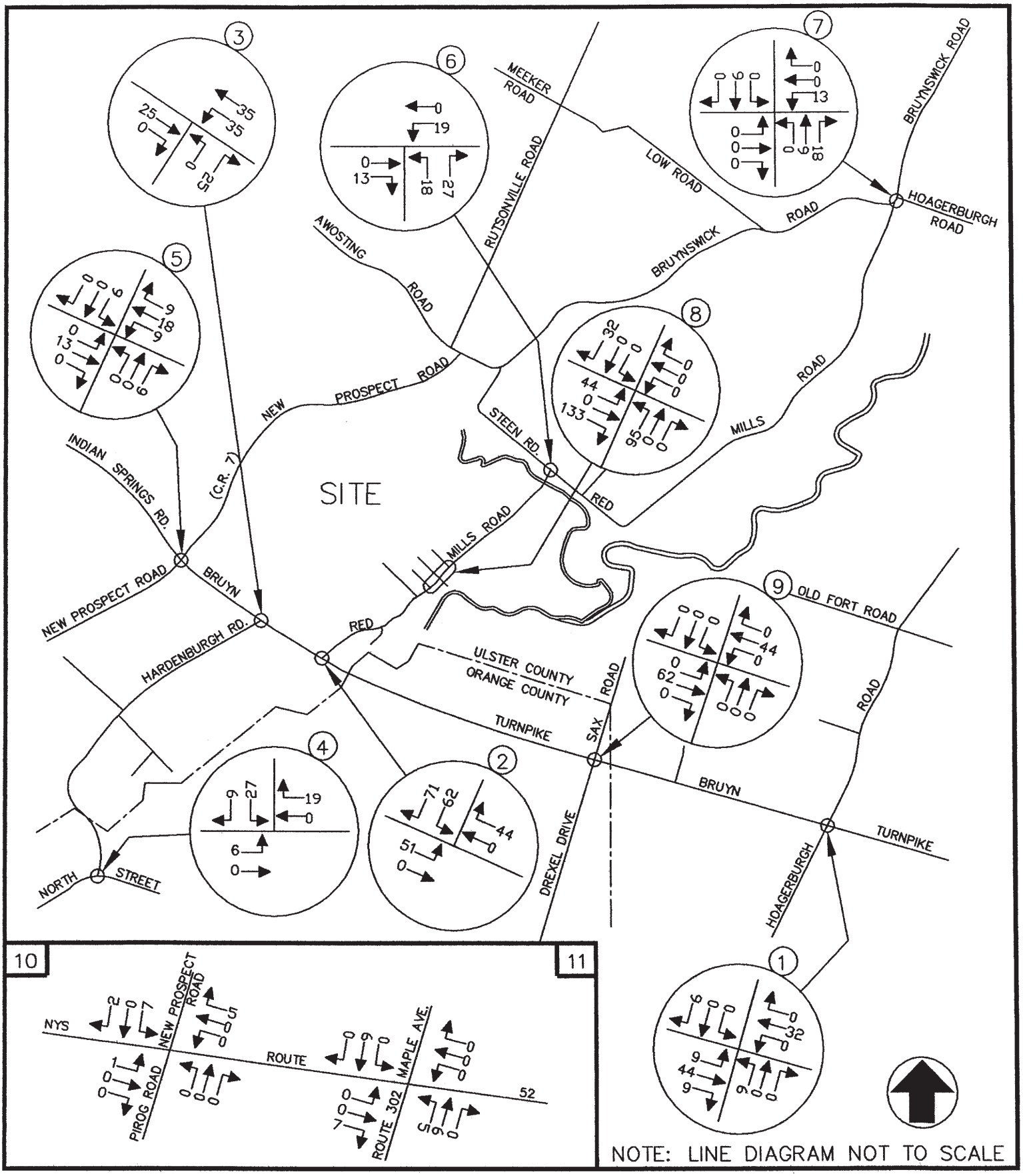


WATCHTOWER
SHAWANGUNK, NEW YORK

SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR
(WITH OFFICE)

JOHN COLLINS ENGINEERS, P.C.
HAWTHORNE , NEW YORK

PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 10A

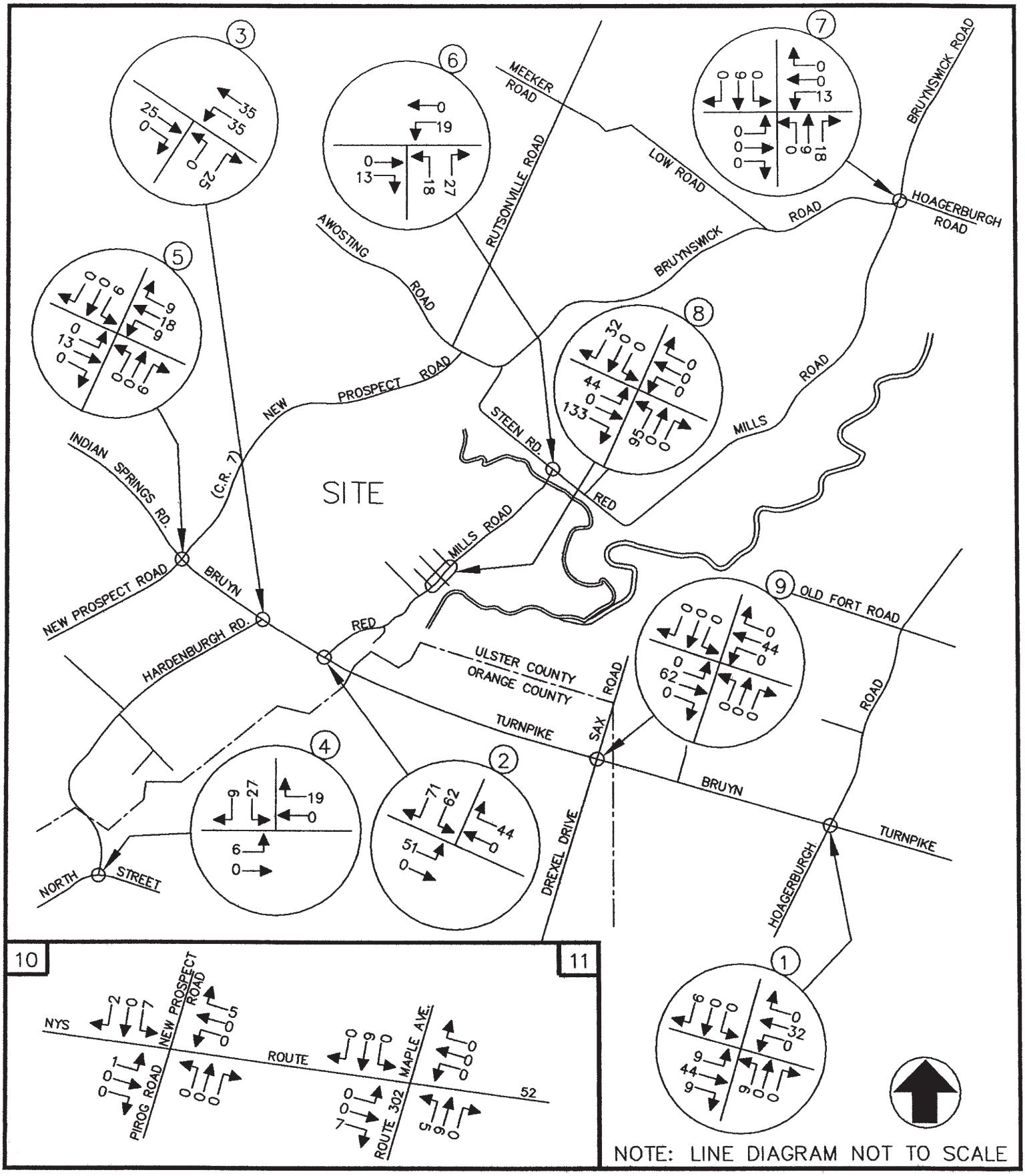


WATCHTOWER
SHAWANGUNK, NEW YORK

SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR
(WITH OFFICE)

JOHN COLLINS ENGINEERS, P.C.
HAWTHORNE , NEW YORK

PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 11A

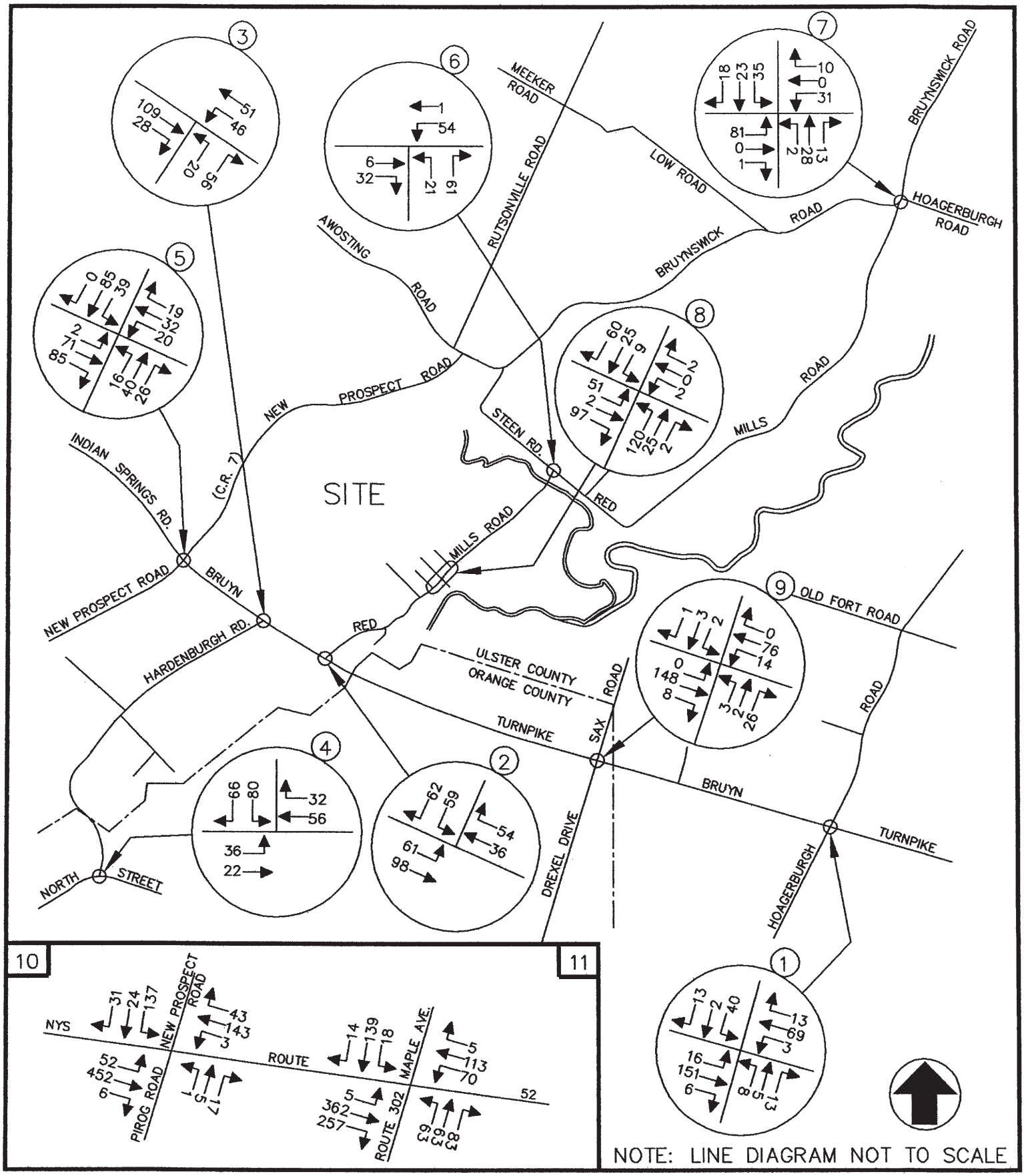


WATCHTOWER
SHAWANGUNK, NEW YORK

SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK EVENING HOUR
(WITH OFFICE)

JOHN COLLINS ENGINEERS, P.C.
HAWTHORNE , NEW YORK

PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 12A

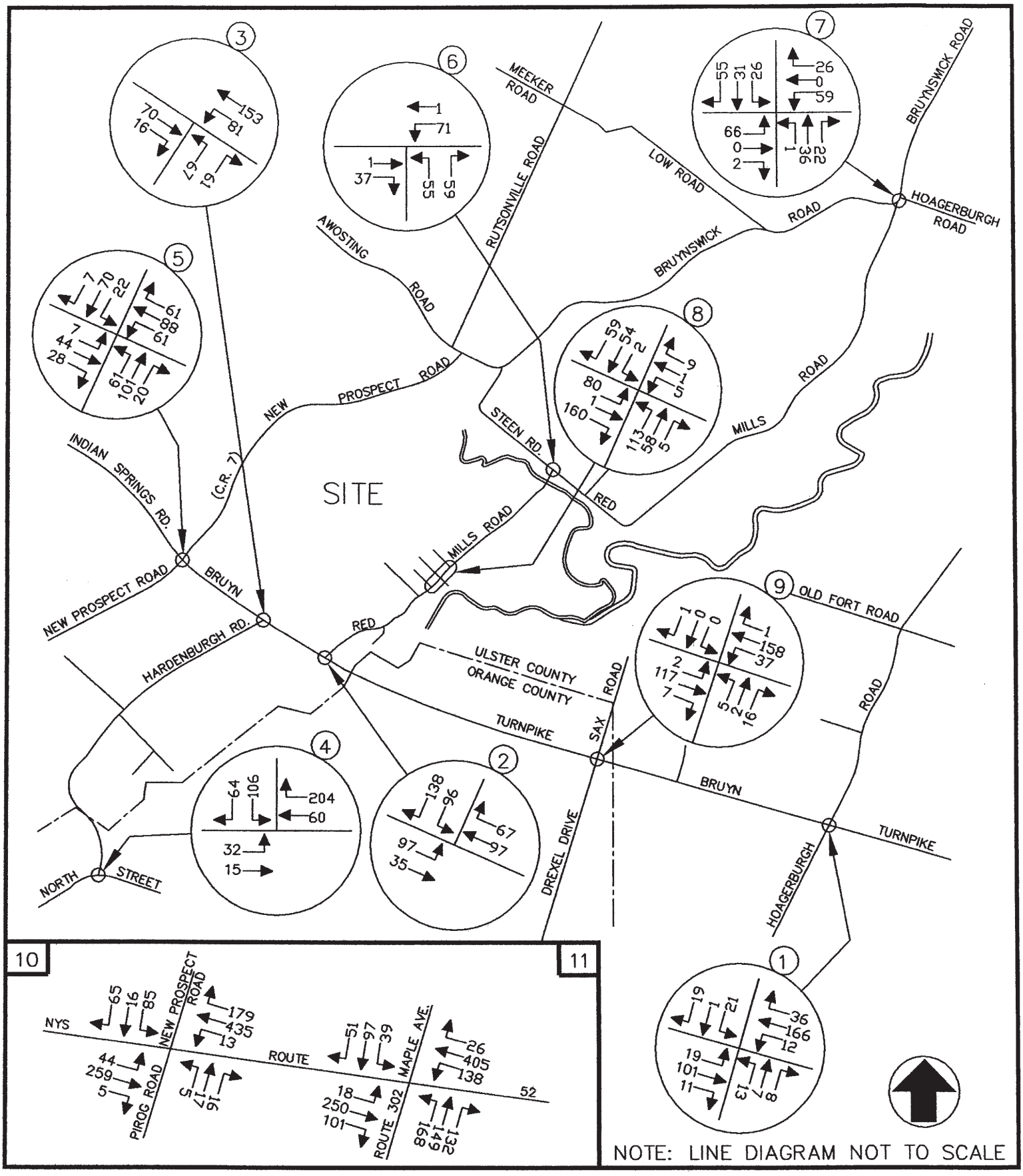


WATCHTOWER
SHAWANGUNK, NEW YORK

2012 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR
(WITH OFFICE)

JOHN COLLINS ENGINEERS, P.C.
HAWTHORNE , NEW YORK

PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 13A

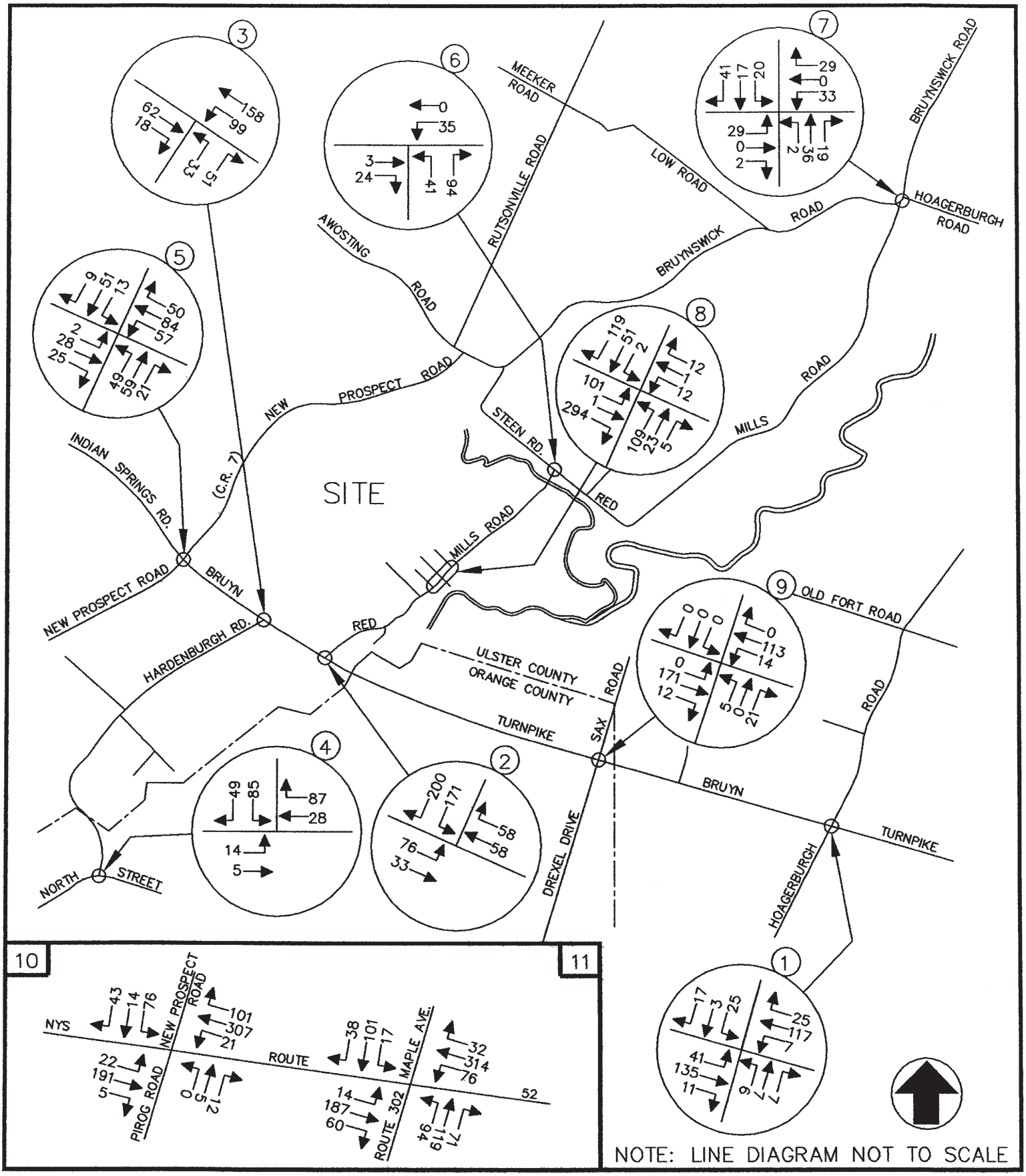


WATCHTOWER
SHAWANGUNK, NEW YORK

2012 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HIGHWAY HOUR
(WITH OFFICE)

JOHN COLLINS ENGINEERS, P.C.
HAWTHORNE , NEW YORK

PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 14A



WATCHTOWER
SHAWANGUNK, NEW YORK

2012 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK EVENING HOUR
(WITH OFFICE)

JOHN COLLINS ENGINEERS, P.C.
HAWTHORNE , NEW YORK

PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 15A

TABLE NO. 1A

HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

WATCHTOWER SHAWANGUNK, NY	ENTRY		EXIT	
	HTGR*	VOLUME	HTGR*	VOLUME
RESIDENTIAL DWELLING UNITS				
PEAK AM HOUR	0.10	25	0.40	102
PEAK PM HOUR	0.40	102	0.22	55
OFFICE BUILDING (60,000 S.F.)				
PEAK AM HOUR	1.83	110	0.25	15
PEAK PM HOUR	0.42	25	2.03	122
TOTAL				
PEAK AM HOUR	-	135	-	117
PEAK PM HOUR	-	127	-	177

NOTES:

1) * THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATIOI HANDBOOK, 7TH EDITION, 2003.

TABLE NO. 2S

LEVEL OF SERVICE SUMMARY TABLE

			2007 EXISTING			2012 NO-BUILD			2012 BUILD (WITH OFFICE)		
			AM	PM (HIGHWAY)	PM (EVENING)	AM	PM (HIGHWAY)	PM (EVENING)	AM	PM (HIGHWAY)	PM (EVENING)
1	BRUYN TURNPIKE & HOAGERBURGH ROAD	**UNSIGNALIZED**									
		NB	A[7.2]	A[7.7]	A[7.4]	A[7.3]	A[7.8]	A[7.6]	A[7.5]	A[8.1]	A[7.9]
		SB	A[7.9]	A[7.8]	A[7.9]	A[8.0]	A[7.9]	A[8.0]	A[8.2]	A[8.0]	A[8.1]
		EB	A[8.1]	A[7.8]	A[8.1]	A[8.3]	A[7.9]	A[8.4]	A[8.7]	A[8.2]	A[8.6]
		WB	A[7.5]	A[8.3]	A[7.9]	A[7.6]	A[8.6]	A[8.1]	A[7.7]	A[9.0]	A[8.4]
		OVERALL	A[7.9]	A[8.1]	A[8.0]	A[8.0]	A[8.3]	A[8.2]	A[8.3]	A[8.7]	A[8.4]
2	BRUYN TURNPIKE & RED MILLS ROAD	**UNSIGNALIZED**									
		SB	A[9.2]	A[9.9]	B[10.5]	A[9.3]	B[10.2]	B[11.1]	A[9.9]	B[11.5]	B[13.0]
		EB	A[7.4]	A[7.6]	A[7.5]	A[7.4]	A[7.7]	A[7.5]	A[7.4]	A[7.9]	A[7.7]
3	BRUYN TURNPIKE & HARDENBURGH ROAD	**UNSIGNALIZED**									
		NB	A[9.4]	B[10.4]	B[10.1]	A[9.6]	B[10.9]	B[10.5]	A[9.8]	B[11.3]	B[10.6]
		WB	A[7.6]	A[7.5]	A[7.5]	A[7.6]	A[7.5]	A[7.5]	A[7.7]	A[7.6]	A[7.6]
4	NORTH STREET & HARDENBURGH ROAD	**UNSIGNALIZED**									
		SB	A[9.7]	B[10.6]	A[9.3]	A[10.0]	B[11.0]	A[9.5]	B[10.2]	B[11.4]	A[9.7]
		EB	A[7.5]	A[7.9]	A[7.5]	A[7.5]	A[8.0]	A[7.5]	A[7.5]	A[8.1]	A[7.6]
5	NEW PROSPECT ROAD & BRUYN TURNPIKE/ INDIAN SPRINGS ROAD	**UNSIGNALIZED**									
		NB	A[7.5]	A[7.6]	A[7.5]	A[7.5]	A[7.6]	A[7.5]	A[7.5]	A[7.6]	A[7.5]
		SB	A[7.5]	A[7.6]	A[7.5]	A[7.5]	A[7.6]	A[7.5]	A[7.5]	A[7.6]	A[7.5]
		EB	B[10.7]	B[11.3]	A[9.8]	B[11.1]	B[11.9]	B[10.0]	B[11.2]	B[12.5]	B[10.5]
		WB	B[11.0]	B[13.5]	B[11.7]	B[11.4]	C[15.2]	B[12.6]	B[11.8]	C[16.2]	B[13.1]
6	RED MILLS ROAD & STEEN ROAD/ RED MILLS ROAD	**UNSIGNALIZED**									
		NB	A[8.8]	A[9.2]	A[8.9]	A[8.8]	A[9.4]	A[9.0]	A[9.0]	A[9.7]	A[9.2]
		WB	A[7.4]	A[7.4]	A[7.3]	A[7.4]	A[7.4]	A[7.3]	A[7.4]	A[7.5]	A[7.4]

NOTES:

THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND AVERAGE VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE INTERSECTION INDICATED. IT ALSO INDICATES THE OVERALL INTERSECTION DELAY FOR THE SIGNALIZED INTERSECTIONS.

TABLE NO. 2S (CONTINUED)

LEVEL OF SERVICE SUMMARY TABLE

			2007 EXISTING			2012 NO-BUILD			2012 BUILD (WITH OFFICE)		
			AM	PM (HIGHWAY)	PM (EVENING)	AM	PM (HIGHWAY)	PM (EVENING)	AM	PM (HIGHWAY)	PM (EVENING)
7	BRUYNSWICK ROAD	**UNSIGNALIZED**									
	HOAGERBURGH ROAD &	NB	A[7.4]	A[7.5]	A[7.4]	A[7.4]	A[7.5]	A[7.4]	A[7.4]	A[7.5]	A[7.4]
	RED MILLS ROAD/	SB	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.4]
	BRUYNSWICK ROAD	EB	A[10.0]	B[10.1]	A[9.6]	B[10.2]	B[10.4]	A[9.8]	B[10.4]	B[10.5]	A[9.9]
		WB	A[9.2]	A[9.5]	A[9.0]	A[9.3]	A[9.7]	A[9.1]	A[9.5]	A[9.9]	A[9.4]
8	RED MILLS ROAD &	**UNSIGNALIZED**									
	WATCHTOWER DRIVEWAY	NB	A[7.4]	A[7.5]	A[7.6]	A[7.4]	A[7.5]	A[7.7]	A[7.5]	A[7.8]	A[7.9]
		SB	A[7.4]	A[7.4]	A[7.3]	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.4]
		EB	A[9.3]	A[9.7]	B[10.4]	A[9.5]	A[9.9]	B[10.9]	A[10.0]	B[11.5]	B[13.1]
		WB	A[9.0]	A[9.2]	B[10.1]	A[9.1]	A[9.3]	B[10.4]	A[9.7]	B[10.4]	B[12.7]
9	BRUYN TURNPIKE	**UNSIGNALIZED**									
	/WALLKILL AVENUE &	NB	A[9.1]	A[9.2]	A[9.1]	A[9.2]	A[9.3]	A[9.3]	A[9.6]	A[9.9]	A[9.8]
	DREXEL DRIVE/SAX ROAD	SB	A[9.7]	A[8.9]	A[8.6]	A[9.9]	A[8.9]	A[8.7]	B[10.5]	A[9.2]	A[8.9]
		EB	A[7.3]	A[7.5]	A[7.4]	A[7.3]	A[7.5]	A[7.4]	A[7.4]	A[7.6]	A[7.5]
		WB	A[7.5]	A[7.4]	A[7.5]	A[7.5]	A[7.4]	A[7.5]	A[7.6]	A[7.6]	A[7.7]
10	NYS ROUTE 52 &	**SIGNALIZED**									
	PIROG ROAD/	NB	C[21.8]	C[22.4]	C[21.4]	C[21.9]	C[22.7]	C[21.6]	C[21.9]	C[22.7]	C[21.6]
	NEW PROSPECT ROAD	SB	E[56.6]	D[40.8]	C[32.4]	F[80.9]	D[50.6]	D[36.5]	F[88.0]	D[55.9]	D[39.2]
		EB	A[5.9]	A[4.8]	A[4.2]	A[6.6]	A[5.2]	A[4.3]	A[6.7]	A[5.2]	A[4.4]
		WB	A[4.0]	A[7.2]	A[5.4]	A[4.2]	A[8.5]	A[5.9]	A[4.2]	A[8.6]	A[6.0]
		OVERALL	B[16.4]	B[11.8]	A[9.7]	C[21.9]	B[14.0]	B[10.7]	C[23.6]	B[15.0]	B[11.4]
	WITH SIGNAL TIMING	NB	-	-	-	B[15.2]	B[15.5]	B[15.0]	B[15.2]	B[15.5]	B[15.0]
	MODIFICATIONS	SB	-	-	-	C[23.0]	C[20.5]	B[18.8]	C[23.5]	C[21.0]	B[19.2]
		EB	-	-	-	B[13.2]	B[10.0]	A[8.4]	B[13.3]	B[10.1]	A[8.4]
		WB	-	-	-	A[8.0]	B[18.3]	B[11.5]	A[8.1]	B[18.7]	B[11.7]
		OVERALL	-	-	-	B[14.3]	B[16.3]	B[11.9]	B[14.4]	B[16.6]	B[12.1]
11	NYS ROUTE 52 (MAIN ST.) &	**SIGNALIZED**									
	ROUTE 302/MAPLE AVENUE	NB	B[18.4]	C[26.6]	B[18.3]	B[19.0]	D[37.4]	B[19.2]	B[19.3]	D[47.9]	B[19.7]
		SB	B[17.4]	B[16.5]	B[15.9]	B[17.7]	B[16.9]	B[16.2]	B[17.7]	B[17.7]	B[16.3]
		EB	C[23.9]	B[17.5]	B[15.9]	C[32.8]	B[18.7]	B[16.5]	C[33.7]	B[18.1]	B[16.6]
		WB	B[14.4]	C[26.8]	B[18.0]	B[15.2]	D[50.0]	B[19.6]	B[15.3]	D[43.3]	B[19.6]
		OVERALL	C[20.5]	C[23.4]	B[17.3]	C[25.5]	D[35.3]	B[18.3]	C[26.0]	D[35.7]	B[18.4]

NOTES:

THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND AVERAGE VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE INTERSECTION INDICATED. IT ALSO INDICATES THE OVERALL INTERSECTION DELAY FOR THE SIGNALIZED INTERSECTIONS.

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK AM HOUR
Intersection: BRUYN TPKE & DREXEL DR/SAX RD
Jurisdiction: (WITH OFFICE)
Units: U. S. Customary
Analysis Year: 2012 BUILD TRAFFIC VOLUMES
Project ID: 410AMB9A
East/West Street: BRUYN TURNPIKE
North/South Street: DREXEL DRIVE/SAX ROAD
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	148	8	14	76	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	0	164	8	15	84	0
Percent Heavy Vehicles	5	--	--	5	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	3	2	26	2	3	1
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	3	2	28	2	3	1
Percent Heavy Vehicles	5	5	5	5	5	5
Percent Grade (%)		2			2	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	15		33			6	
C(m) (vph)	1494	1387		823			655	
v/c	0.00	0.01		0.04			0.01	
95% queue length	0.00	0.03		0.13			0.03	
Control Delay	7.4	7.6		9.6			10.5	
LOS	A	A		A			B	
Approach Delay				9.6			10.5	
Approach LOS				A			B	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK PM HOUR
Intersection: BRUYN TPKE & DREXEL DR/SAX RD
Jurisdiction: (WITH OFFICE)
Units: U. S. Customary
Analysis Year: 2012 BUILD TRAFFIC VOLUMES
Project ID: 410PMB9A
East/West Street: BRUYN TURNPIKE
North/South Street: DREXEL DRIVE/SAX ROAD
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	2	117	7	37	158	1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	2	130	7	41	175	1
Percent Heavy Vehicles	5	--	--	5	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	2	16	0	0	1
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	2	17	0	0	1
Percent Heavy Vehicles	5	5	5	5	5	5
Percent Grade (%)		2			2	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	2	41		24			1	
C(m) (vph)	1382	1429		754			859	
v/c	0.00	0.03		0.03			0.00	
95% queue length	0.00	0.09		0.10			0.00	
Control Delay	7.6	7.6		9.9			9.2	
LOS	A	A		A			A	
Approach Delay				9.9			9.2	
Approach LOS				A			A	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: R.H
Agency/Co.: JCE
Date Performed: APRIL 2008
Analysis Time Period: PEAK PM HOUR
Intersection: BRUYN TPKE & DREXEL DR/SAX RD
Jurisdiction: (WITH OFFICE)
Units: U. S. Customary
Analysis Year: 2012 BUILD TRAFFIC VOLUMES
Project ID: 410PMB9A (EVENING)
East/West Street: BRUYN TURNPIKE
North/South Street: DREXEL DRIVE/SAX ROAD
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	171	12	14	113	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	0	190	13	15	125	0
Percent Heavy Vehicles	5	--	--	5	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	0	21	0	0	1
Peak Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	0	23	0	0	1
Percent Heavy Vehicles	5	5	5	5	5	5
Percent Grade (%)		2			2	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	15		28			1	
C(m) (vph)	1443	1351		780			917	
v/c	0.00	0.01		0.04			0.00	
95% queue length	0.00	0.03		0.11			0.00	
Control Delay	7.5	7.7		9.8			8.9	
LOS	A	A		A			A	
Approach Delay				9.8			8.9	
Approach LOS				A			A	

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK AM HOUR
Project ID: 410AMB10A
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd: (WITH OFFICE)
Year : 2012 BUILD TRAFFIC VOLUMES

N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	52	452	6	3	143	43	1	5	17	137	24	31
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
WB Left	P				SB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	40.0				10.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1120	1680	0.51	0.67	6.7	A	6.7	A
Westbound								
LTR	1107	1661	0.19	0.67	4.2	A	4.2	A
Northbound								
LTR	261	1566	0.10	0.17	21.9	C	21.9	C
Southbound								
LTR	212	1269	1.00	0.17	88.0	F	88.0	F

Intersection Delay = 23.6 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM HOUR
Project ID: 410PMB10A
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd: (WITH OFFICE)
Year : 2012 BUILD TRAFFIC VOLUMES

N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	44	259	5	13	435	179	5	17	16	85	16	65
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds						Peds				
WB	Left	P				SB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		40.0						10.0			
Yellow		3.0						3.0			
All Red		2.0						2.0			

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1018	1527	0.34	0.67	5.2	A	5.2	A
Westbound								
LTR	1095	1643	0.64	0.67	8.6	A	8.6	A
Northbound								
LTR	264	1582	0.16	0.17	22.7	C	22.7	C
Southbound								
LTR	217	1300	0.85	0.17	55.9	E	55.9	E

Intersection Delay = 15.0 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM EVENING HOUR
Project ID: 410PMB10A (EVENING)
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd: (WITH OFFICE)
Year : 2012 BUILD TRAFFIC VOLUMES

N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	22	191	5	21	307	101	0	5	12	76	14	43
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	40.0					10.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1108	1662	0.22	0.67	4.4	A	4.4	A
Westbound								
LTR	1092	1638	0.44	0.67	6.0	A	6.0	A
Northbound								
LTR	266	1596	0.07	0.17	21.6	C	21.6	C
Southbound								
LTR	218	1307	0.68	0.17	39.2	D	39.2	D

Intersection Delay = 11.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK AM HOUR
Project ID: 410AMB10A (WITH SIGNAL MODIFICATIONS)
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd: (WITH OFFICE)
Year : 2012 BUILD TRAFFIC VOLUMES
N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	52	452	6	3	143	43	1	5	17	137	24	31
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	32.0					18.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	894	1676	0.63	0.53	13.3	B	13.3	B
Westbound								
LTR	885	1660	0.24	0.53	8.1	A	8.1	A
Northbound								
LTR	471	1570	0.06	0.30	15.2	B	15.2	B
Southbound								
LTR	381	1269	0.56	0.30	23.5	C	23.5	C

Intersection Delay = 14.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM HOUR
Project ID: 410PMB10A (WITH SIGNAL MODIFICATIONS)
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd: (WITH OFFICE)
Year : 2012 BUILD TRAFFIC VOLUMES
N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	44	259	5	13	435	179	5	17	16	85	16	65
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
WB Left	P				SB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	32.0				18.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	809	1516	0.42	0.53	10.1	B	10.1	B
Westbound								
LTR	876	1642	0.79	0.53	18.7	B	18.7	B
Northbound								
LTR	478	1593	0.09	0.30	15.5	B	15.5	B
Southbound								
LTR	394	1312	0.47	0.30	21.0	C	21.0	C

Intersection Delay = 16.6 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM EVENING HOUR
Project ID: 410PMB10A (EVENING) (WITH SIGNAL MODIFICATIONS)
E/W St: NYS ROUTE 52

Inter.: NYS RTE 52 & NEW PROSPECT RD/P
Area Type: All other areas
Jurisd: (WITH OFFICE)
Year : 2012 BUILD TRAFFIC VOLUMES
N/S St: PIROG ROAD/NEW PROSPECT ROAD

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	22	191	5	21	307	101	0	5	12	76	14	43
Lane Width		11.0			11.0			11.0			10.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds						Peds				
WB	Left	P				SB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		32.0						18.0			
Yellow		3.0						3.0			
All Red		2.0						2.0			

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	883	1656	0.27	0.53	8.4	A	8.4	A
Westbound								
LTR	873	1636	0.55	0.53	11.7	B	11.7	B
Northbound								
LTR	479	1596	0.04	0.30	15.0	B	15.0	B
Southbound								
LTR	398	1328	0.37	0.30	19.2	B	19.2	B

Intersection Delay = 12.1 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK AM HOUR
Project ID: 410AMB11A
E/W St: NYS ROUTE 52 (MAIN STREET)

Inter.: NYS RTE 52 & RTE 302/MAPLE AVE
Area Type: All other areas
Jurisd: (WITH OFFICE)
Year : 2012 BUILD TRAFFIC VOLUMES
N/S St: ROUTE 302/MAPLE AVENUE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	5	362	257	70	113	5	63	63	83	18	139	14
Lane Width		11.0			15.0			10.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	43.0					37.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	780	1632	0.89	0.48	33.7	C	33.7	C
Westbound								
LTR	574	1202	0.37	0.48	15.3	B	15.3	B
Northbound								
LTR	566	1376	0.41	0.41	19.3	B	19.3	B
Southbound								
LTR	709	1724	0.27	0.41	17.7	B	17.7	B

Intersection Delay = 26.0 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM HOUR
Project ID: 410PMB11A
E/W St: NYS ROUTE 52 (MAIN STREET)

Inter.: NYS RTE 52 & RTE 302/MAPLE AVE
Area Type: All other areas
Jurisd: (WITH OFFICE)
Year : 2012 BUILD TRAFFIC VOLUMES
N/S St: ROUTE 302/MAPLE AVENUE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	18	250	101	138	405	26	168	149	132	39	97	51
Lane Width		11.0			15.0			10.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left A			
Thru	A				Thru A			
Right	A				Right A			
Peds					Peds			
WB Left	A				SB Left A			
Thru	A				Thru A			
Right	A				Right A			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	41.0				39.0			
Yellow	3.0				3.0			
All Red	2.0				2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	729	1601	0.56	0.46	18.9	B	18.9	B
Westbound								
LTR	652	1431	0.97	0.46	51.5	D	51.5	D
Northbound								
LTR	553	1277	0.90	0.43	42.1	D	42.1	D
Southbound								
LTR	651	1503	0.32	0.43	17.1	B	17.1	B

Intersection Delay = 37.1 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.21

Analyst: R.H.
Agency: JCE
Date: APRIL 2008
Period: PEAK PM EVENING HOUR
Project ID: 410PMB11A (EVENING)
E/W St: NYS ROUTE 52 (MAIN STREET)

Inter.: NYS RTE 52 & RTE 302/MAPLE AVE
Area Type: All other areas
Jurisd: (WITH OFFICE)
Year : 2012 BUILD TRAFFIC VOLUMES
N/S St: ROUTE 302/MAPLE AVENUE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	14	187	60	76	314	32	94	119	71	17	101	38
Lane Width		11.0			15.0			10.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	A				NB Left	A			
Thru	A				Thru	A			
Right	A				Right	A			
Peds					Peds				
WB Left	A				SB Left	A			
Thru	A				Thru	A			
Right	A				Right	A			
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	41.0					39.0			
Yellow	3.0					3.0			
All Red	2.0					2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	740	1624	0.39	0.46	16.6	B	16.6	B
Westbound								
LTR	785	1723	0.60	0.46	19.6	B	19.6	B
Northbound								
LTR	595	1374	0.53	0.43	19.7	B	19.7	B
Southbound								
LTR	725	1672	0.24	0.43	16.3	B	16.3	B

Intersection Delay = 18.4 (sec/veh) Intersection LOS = B

APPENDIX "D"

STANDARDS

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS) for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Specifically, LOS criteria for traffic signals are stated in terms of the average control delay per vehicle, typically for a 15-minute analysis period. The criteria are given in Exhibit 16-2 from the 2000 Highway Capacity Manual published by the Transportation Research Board.

EXHIBIT 16-2

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

LEVEL OF SERVICE (LOS)	CONTROL DELAY PER VEHICLE (S/VEH)
A	≤10
B	>10-20
C	>20-35
D	>35-55
E	>55-80
F	>80

LEVEL OF SERVICE A describes operations with low control delay, up to 10 seconds per vehicle (s/veh). This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.

LEVEL OF SERVICE B describes operations with control delay greater than 10 and up to 20 seconds per vehicle (s/veh). This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with Level of Service "A", causing higher levels of delay.

LEVEL OF SERVICE C describes operations with control delay greater than 20 and up to 35 seconds per vehicle (s/veh). These higher delays may result from only fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LEVEL OF SERVICE D describes operations with control delay greater than 35 and up to 55 seconds per vehicle (s/veh). At Level of Service D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LEVEL OF SERVICE E describes operations with control delay greater than 55 and up to 80 seconds per vehicle (s/veh). This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.

LEVEL OF SERVICE F describes operations with control delay in excess of 80 seconds per vehicle (s/veh). This level is considered unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

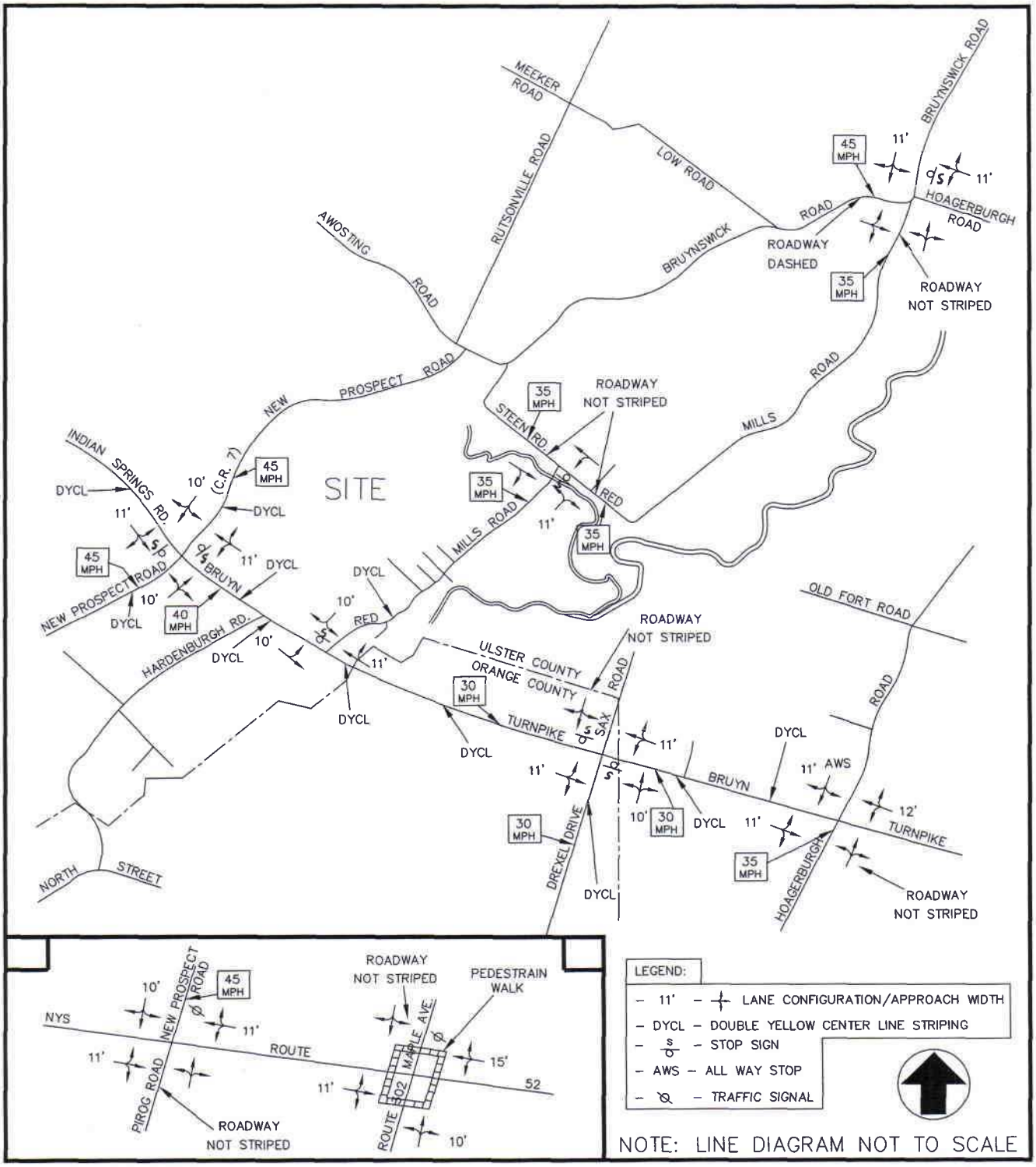
The Level of Service (LOS) for unsignalized intersections is determined by the computed or measured control delay and is defined for each minor movement. Control delay is defined as the total elapsed time a vehicle stops at the end of the queue to the time the vehicle departs from the stop line. This total elapsed time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to speed of vehicles in queue. Average control delay for any particular minor movement is a function of the capacity of the approach and the degree of saturation. The Level of Service Criteria are given in Exhibit 17-2 from the 2000 Highway Capacity Manual published by the Transportation Research Board.

EXHIBIT 17-2

LEVEL OF SERVICE FOR CRITERIA
FOR UNSIGNALIZED INTERSECTIONS

LEVEL OF SERVICE (LOS)	AVERAGE CONTROL DELAY (S/VEH)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

The Level of Service Criteria for unsignalized intersections are somewhat different from the criteria for signalized intersections.



WATCHTOWER
SHAWANGUNK, NEW YORK

EXISTING LANE GEOMETRY,
PAVEMENT MARKINGS, & SIGNING

JOHN COLLINS ENGINEERS, P.C.
HAWTHORNE , NEW YORK

PROJECT NO. 410 DATE: APRIL 2008 FIG. NO. 1A

TABLE NO. A

AREA ROAD ACCIDENT REPORT SUMMARY

NODE/LINK	LOCATION	DATE	TIME	TRAFFIC CONTROL	ACCIDENT CLASS *	# OF VEHICLES INJURIES	LIGHT CONDITION	ROAD CONDITION	WEATHER	MANNER OF COLLISION	APPARENT CONTRIBUTING FACTORS
	RED MILLS ROAD										
46 Meters North of Bruyn Tyke		11/15/07	7:12 PM	NONE	PDO	1-0	DARK-ROAD UNLIGHTED	WET	RAIN	OTHER	ANIMAL'S ACTION
		12/23/07	8:12 AM	NONE	PD & I	1-1	DAYLIGHT	WET	RAIN	OTHER	FELL ASLEEP, FAILURE TO KEEP RIGHT
BRUYNSWICK RD & RED MILLS RD											
		09/25/06	12:12 PM	NONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	LEFT TURN	DRIVER INEXPERIENCE/FAILURE TO YIELD RIGHT OF WAY
		08/12/06	2:12 PM	UNKNOWN	PD & I	1-1	UNKNOWN	UNKNOWN	UNKNOWN	OTHER	UNKNOWN
		09/09/07	12:12 PM	NONE	PD & I	2-1	DAYLIGHT	DRY	CLEAR	LEFT TURN	DRIVER INATTENTION/FAILURE TO YIELD RIGHT OF WAY
		10/10/07	1:12 PM	NONE	PD & I	2-1	DAYLIGHT	WET	RAIN	SIDESWIPE	PAVEMENT SLIPPERY
		10/20/07	4:12 PM	NO PASSING ZONE	PDO	1-0	DAYLIGHT	WET	RAIN	OTHER	PAVEMENT SLIPPERY
	BRUYNSWICK RD										
19.5399 Meters South of Hoagerburgh Rd											
		12/19/06	4:12 PM	NO PASSING ZONE	PDO	1-0	DARK-ROAD UNLIGHTED	DRY	CLEAR	OTHER	ANIMAL'S ACTION
10.9448 Meters South of Hoagerburgh Rd											
		07/09/05	10:12 PM	NO PASSING ZONE	I	2-1	DARK-ROAD UNLIGHTED	DRY	CLEAR	HEAD ON	ALCOHOL INVOLVEMENT, FAILURE TO KEEP RIGHT
6 Meters East of Red Mills Rd											
		06/25/08	7:12 PM	NONE	PDO	1-0	DAYLIGHT	DRY	CLEAR	OTHER	PAVEMENT SLIPPERY
		06/25/08	7:12 PM	NONE	PDO	1-0	DAYLIGHT	DRY	CLEAR	OTHER	PAVEMENT SLIPPERY
		06/25/08	7:12 PM	NONE	PD & I	1-1	DAYLIGHT	OTHER	CLEAR	OTHER	TRAFFIC CONTROL DEVICE IMPROPER/NON-WORKING, PAVEMENT SLIPPERY
BRUYN TPKE & INDIAN SPRINGS RD											
		12/23/05	10:12 AM	STOP SIGN	PD & I	3-3	DAYLIGHT	DRY	CLEAR	OTHER	TRAFFIC CONTROL DEVICES DISREGARDED
		08/19/06	4:12 PM	STOP SIGN	PD & I	2-1	DAYLIGHT	DRY	CLOUDY	RIGHT ANGLE	FAILURE TO YIELD RIGHT OF WAY
BRUYN TPKE & HARDENBURGH RD											
		06/09/07	1:12 AM	NONE	N/A	1-0	DARK-ROAD UNLIGHTED	DRY	CLEAR	OTHER	ANIMAL'S ACTION
	BRUYN TURNPIKE										
169.0011 Meters West of Red Mills Rd											
		10/01/07	10:12 AM	NO PASSING ZONE	PD & I	1-1	DAYLIGHT	DRY	CLOUDY	OTHER	UNSAFE SPEED/FAILURE TO KEEP RIGHT
353.4978 Meters East of New Prospect Rd											
		10/21/06	8:12 AM	NONE	PDO	1-0	DAYLIGHT	DRY	CLEAR	OTHER	ANIMAL'S ACTION
		02/22/07	7:12 AM	NONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	AGGRESSIVE DRIVING/ROAD RAGE
533.0905 Meters West of Hoagerburgh Rd											
		10/11/05	3:12 PM	HWY WORK AREA	I	1-1	DAYLIGHT	DRY	CLOUDY	OTHER	DRIVER INATTENTION
		10/17/06	7:12 AM	NO PASSING ZONE	PDO	1-0	DAYLIGHT	WET	RAIN	OTHER	ANIMAL'S ACTION
		01/24/07	9:12 AM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	FOLLOWING TOO CLOSELY
		06/28/07	7:12 PM	NO PASSING ZONE	I	1-1	DAYLIGHT	DRY	CLEAR	OTHER	PASSING OR LANE USAGE IMPROPERLY/
322 Meters West of Hoagerburgh Rd											
		05/16/08	1:12 PM	NO PASSING ZONE	PDO	1-0	DAYLIGHT	WET	CLOUDY	OTHER	PAVEMENT SLIPPERY/OBSTRUCTION/DEBRIS
	WALLKILL AVE										
17.6442 Meters East of Whittaker Rd											
		01/19/06	9:12 PM	NONE	PDO	1-0	DARK-ROAD UNLIGHTED	DRY	CLEAR	OTHER	UNKNOWN
NEW PROSPECT RD & INDIAN SPRINGS RD											
		10/10/07	6:12 AM	NONE	N/A	1-0	DUSK	WET	RAIN	OTHER	ANIMAL'S ACTION
NEW PROSPECT RD & BRUYN TURNPIKE											
		06/13/08	3:12 PM	STOP SIGN	PD & I	2-5	DAYLIGHT	DRY	CLEAR	RIGHT ANGLE	TRAFFIC CONTROL DEVICES DISREGARDED

* PDO = PROPERTY DAMAGE ONLY I = INJURY F= FATALITY

TABLE NO. A (CONTINUED)

AREA ROAD ACCIDENT REPORT SUMMARY

NODE/LINK	LOCATION	DATE	TIME	TRAFFIC CONTROL	ACCIDENT CLASS *	# OF VEHICLES - INJURIES	LIGHT CONDITION	ROAD CONDITION	WEATHER	MANNER OF COLLISION	APPARENT CONTRIBUTING FACTORS
NYS ROUTE 52 & SEAS NEW PROSPECT											
52 8602 1211		07/31/06	11:12 AM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	UNKNOWN	BACKING UNSAFELY
52 8602 1211		03/07/07	2:12 PM	TRAFFIC SIGNAL	PD & I	3-4	DAYLIGHT	DRY	CLEAR	OTHER	DRIVER INATTENTION/FOLLOWING TOO CLOSELY
	NYS ROUTE 52										
12.2401 Meters South of Zazversky Rd											
52 8602 1215		11/17/05	7:12 AM	NONE	PDO	1-0	UNKNOWN	DRY	CLEAR	OTHER	N/A
40 Meters East of Zazversky Rd											
52 8602 1216		01/03/08	3:12 PM	NONE	PDO	2-0	DAYLIGHT	SNOW/ICE	CLOUDY	SIDESWIPE	PAVEMENT SLIPPERY
50 Meters North of Zazversky Rd											
52 8602 1215		04/06/08	7:12 AM	NO PASSING ZONE	PD & I	1-2	DAYLIGHT	DRY	CLOUDY	OTHER	DRIVER INATTENTION
	NYS ROUTE 52										
52 8602 1218		08/11/06	3:12 PM	UNKNOWN	PDO	2-0	DAYLIGHT	DRY	CLEAR	LEFT TURN	UNSAFE SPEED/DRIVER INATTENTION/ FAILURE TO YIELD RIGHT OF WAY
	NYS ROUTE 52										
82.4534 Meters East of Riverview Rd											
52 8303 1001		03/28/07	7:12 AM	NO PASSING ZONE	I	2-1	DAYLIGHT	DRY	CLOUDY	REAR END	FOLLOWING TOO CLOSELY
	NYS ROUTE 52										
73.1614 Meters East of Pirog Rd											
52 8602 1211		09/22/05	6:12 AM	NO PASSING ZONE	PDO	1-0	DARK-ROAD UNLIGHTED	DRY	CLEAR	OTHER	UNKNOWN
231.153 Meters East of Pirog Rd											
52 8602 1212		05/31/06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NYS ROUTE 52 & RECREATIONAL PARK ROAD											
52 8303 1000		01/01/08	12:12 PM	NONE	PDO	1-0	DAYLIGHT	DRY	CLOUDY	OTHER	PAVEMENT SLIPPERY
NYS ROUTE 52 & MAPLE AVENUE											
302 8301 1105		12/06/07	8:12 AM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	UNKNOWN	FAILURE TO YIELD RIGHT OF WAY/TURNING IMPROPER
302 8301 1105		01/16/08	9:12 AM	TRAFFIC SIGNAL	PD & I	2-1	DAYLIGHT	DRY	CLEAR	RIGHT ANGLE	DRIVER INATTENTION/ TRAFFIC CONTROL DEVICES DISREGARDED
	NYS ROUTE 52										
52 8602 1211		02/10/08	10:12 AM	TRAFFIC SIGNAL	PD & I	2-6	DAYLIGHT	WET	CLEAR	REAR END	PAVEMENT SLIPPERY

1) Based on Accident data obtained from the NYSDOT for area roadways for the latest available three years

*PDO = PROPERTY DAMAGE ONLY I = INJURY F = FATALITY

Date: 12/30/08 12:26

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Accident Location Information System (ALIS)

County Interim Accident Summary

FOIL 3725 Red Mills Rd from Bryun Tpk to Hoagerburgh Rd

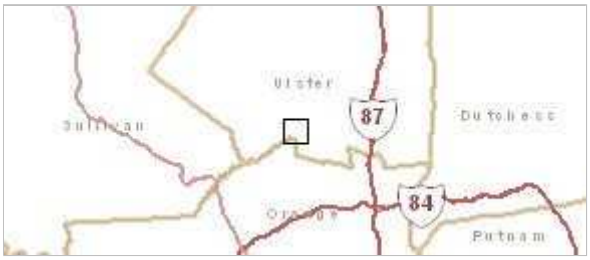
Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

Number Of Accidents

COUNTY	TOTAL	AT INT.	FTL	INJ	PDO	N/R	WET ROAD	FIXED OBJ	PED & BIKE	TRUCK	LIGHT CONDITION DWN/DSK	DAY	NIGHT
ULSTER	12	2	0	6	6	0	4	3	0	0	0	8	3
Total	12	2	0	6	6	0	4	3	0	0	0	8	3

FOIL 3725 Red Mills Rd from Bryun Tpk to Hoag



Legend

Accident	**Street**
Street Name Change	<all other values>
Airport	**SHIELD**
Bus Station	C
College	I
Government Office	U
Hospital	S
Institution	Hydrography
Library	County Boundary
Nursing Home	State Recreation
Parking Area	NYS Campground
Point Of Interest	State Non Recreation
Public School	City
Rail Station	Town
Retail Center	Indian Reservation
Service Area	Village

Accident Location Information System (ALIS)

Date: 12/30/08 12:22

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Accident Verbal Description Report

FOIL 3725 Red Mills Rd from Bryun Tpk to Hoagerburgh Rd

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: RED MILLS RD
46 Meters North of BRUYN TPKE

11/15/2007 Thu 19:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2007-32393748**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH DEER Traffic Control: NONE
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3138 State of Registration: NY
Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, ANIMAL'S ACTION

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: RED MILLS RD

12/23/2007 Sun 08:12 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2007-32446283**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH TREE Traffic Control: NONE
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 5150 State of Registration: NY
Num of Occupants: 1 Driver's Age: 29 Sex: M Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FELL ASLEEP, FAILURE TO KEEP RIGHT

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruynswick Rd
AT INTERSECTION WITH Red Mills Rd

9/25/2006 Mon 12:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2006-31919344**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3481 State of Registration: NY
Num of Occupants: 1 Driver's Age: 17 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INEXPERIENCE, NOT APPLICABLE

Date: 12/30/08 12:22

Accident Location Information System (ALIS)

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Accident Verbal Description Report

FOIL 3725 Red Mills Rd from Bryun Tpk to Hoagerburgh Rd

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruynswick Rd
***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 23 Sex: F Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruynswick Rd
AT INTERSECTION WITH Red Mills Rd

8/12/2006 Sat 14:12 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2006-31887371**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 1
Type Of Accident: COLL. W/EARTH ELE./ROCK CUT/DITCH Traffic Control: UNKNOWN
Manner of Collision: OTHER Weather: UNKNOWN
Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 MOTORCYCLE Registered Weight: 720 State of Registration: NY
Num of Occupants: 1 Driver's Age: 58 Sex: M Citation Issued: N
Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
Pre-Accd Action: UNKNOWN
Apparent Factors: UNKNOWN, UNKNOWN

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruynswick Rd
19.5399 Meters South of Hoagerburgh Rd

12/19/2006 Tue 16:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2006-32026867**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH DEER Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRYRoad Char.: STRAIGHT/ GRADELight Condition: DARK-ROAD UNLIGHTEI
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2985 State of Registration: NY
Num of Occupants: 1 Driver's Age: 50 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: ANIMAL'S ACTION, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruynswick Rd
10.9448 Meters South of Hoagerburgh Rd

7/9/2005 Sat 22:12 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2005-31560869**
Accident Class: INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: HEAD ON Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Accident Location Information System (ALIS)

Date: 12/30/08 12:22

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Accident Verbal Description Report

FOIL 3725 Red Mills Rd from Bryun Tpk to Hoagerburgh Rd

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruynswick Rd
***** CONTINUED

Veh :2 MOTORCYCLE Registered Weight: 472 State of Registration: NY
Num of Occupants: 1 Driver's Age: 41 Sex: M Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: VA
Num of Occupants: 2 Driver's Age: 40 Sex: F Citation Issued: Y
Direction of Travel: NORTH-EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: OTHER
Apparent Factors: ALCOHOL INVOLVEMENT, FAILURE TO KEEP RIGHT

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: RED MILLS RD
AT INTERSECTION WITH BRUYNSWICK RD

9/9/2007 Sun 12:12 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2007-32325936**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3289 State of Registration: NY
Num of Occupants: 1 Driver's Age: 90 Sex: F Citation Issued: N
Direction of Travel: NORTH-WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: DRIVER INATTENTION, FAILURE TO YIELD RIGHT OF WAY

Veh :2 MOTORCYCLE Registered Weight: 385 State of Registration: NY
Num of Occupants: 1 Driver's Age: 56 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: BRUYNSWICK RD
AT INTERSECTION WITH RED MILLS RD

10/10/2007 Wed 13:12 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2007-32352515**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: SIDESWIPE Weather: RAIN
Road Surface Condition: WET Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 1818 State of Registration: NY
Num of Occupants: 1 Driver's Age: 40 Sex: F Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PAVEMENT SLIPPERY, NOT APPLICABLE

Accident Location Information System (ALIS)

Date: 12/30/08 12:22

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Accident Verbal Description Report

FOIL 3725 Red Mills Rd from Bryun Tpk to Hoagerburgh Rd

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: BRUYNSWICK RD
***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 4201 State of Registration: NY
Num of Occupants: 1 Driver's Age: 39 Sex: M Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PAVEMENT SLIPPERY, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: BRUYNSWICK RD
AT INTERSECTION WITH RED MILLS RD

10/20/2007 Sat 16:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2007-32387365**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH SIGN POST Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2019 State of Registration: NY
Num of Occupants: 5 Driver's Age: 25 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: Y School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PAVEMENT SLIPPERY, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: BRUYNSWICK RD
6 Meters East of RED MILLS RD

6/25/2008 Wed 19:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2008-32641153**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: RAN OFF ROAD ONLY Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 MOTORCYCLE Registered Weight: 381 State of Registration: NY
Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, PAVEMENT SLIPPERY

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: BRUYNSWICK RD
6 Meters East of RED MILLS RD

6/25/2008 Wed 19:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2008-32641154**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: OTHER NON-COLLISION Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Accident Location Information System (ALIS)

Date: 12/30/08 12:22

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Accident Verbal Description Report

FOIL 3725 Red Mills Rd from Bryun Tpk to Hoagerburgh Rd

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: BRUYNSWICK RD
***** CONTINUED

Veh :1 MOTORCYCLE Registered Weight: 377 State of Registration: NY
Num of Occupants: 1 Driver's Age: 28 Sex: M Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, PAVEMENT SLIPPERY

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: BRUYNSWICK RD
6 Meters West of RED MILLS RD

6/25/2008 Wed 19:12 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2008-32648269**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 1
Type Of Accident: OVERTURNED Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: OTHER Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 MOTORCYCLE Registered Weight: 427 State of Registration: NY
Num of Occupants: 1 Driver's Age: 39 Sex: M Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: TRAF CNTRL DEV IMPROPER/NON-WRKING, PAVEMENT SLIPPERY

Date: 12/30/08 12:00

Page: 1

Accident Location Information System (ALIS)

County Interim Accident Summary

FOIL 3725 Bryun Tpke from New Prospect Rd to Hoagerburgh Rd

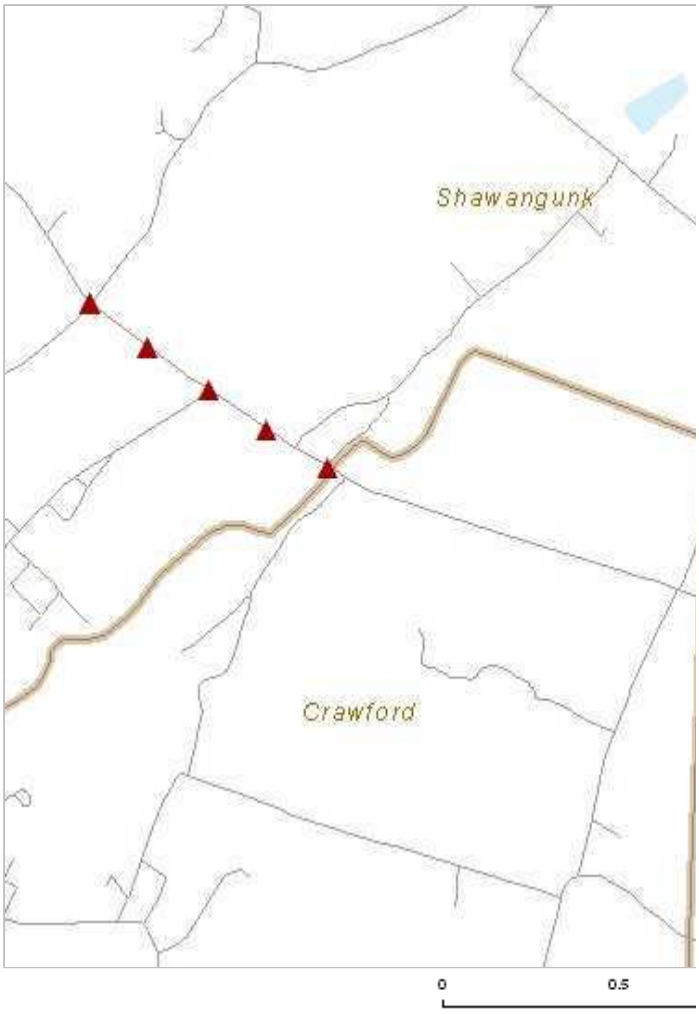
Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

Number Of Accidents

COUNTY	TOTAL	AT INT.	FTL	INJ	PDO	N/R	WET ROAD	FIXED OBJ	PED & BIKE	TRUCK	LIGHT CONDITION DWN/DSK	DAY	NIGHT
ULSTER	14	4	0	6	6	2	3	2	1	1	1	11	2
Total	14	4	0	6	6	2	3	2	1	1	1	11	2

FOIL 3725 Bryun Tpke from New Prospect Rd to Ho



Accident Location Information System (ALIS)

Date: 12/30/08 11:58

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Accident Verbal Description Report

FOIL 3725 Bryun Tpke from New Prospect Rd to Hoagerburgh Rd

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruyn Tpke
AT INTERSECTION WITH Indian Springs Rd

12/23/2005 Fri 10:12 AM Persons Killed: 0 Persons Injured: 3 Extent of Injuries: BCC **Case: 2005-31726424**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 3
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2625 State of Registration: NY
Num of Occupants: 1 Driver's Age: 23 Sex: M Citation Issued: Y
Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, TRAFFIC CONTROL DEVICES DISREGARDED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3700 State of Registration: NY
Num of Occupants: 1 Driver's Age: 64 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, UNKNOWN

Veh :3 CAR/VAN/PICKUP Registered Weight: 5000 State of Registration: NY
Num of Occupants: 1 Driver's Age: 70 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruyn Tpke
AT INTERSECTION WITH Indian Springs Rd

8/19/2006 Sat 16:12 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2006-31883890**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: RIGHT ANGLE Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2482 State of Registration: NY
Num of Occupants: 2 Driver's Age: 32 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3197 State of Registration: NY
Num of Occupants: 1 Driver's Age: 55 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

Date: 12/30/08 11:58

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Accident Location Information System (ALIS)

Accident Verbal Description Report

FOIL 3725 Bryun Tpke from New Prospect Rd to Hoagerburgh Rd

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruyn Tpke
AT INTERSECTION WITH Hardenburgh Rd

6/9/2007 Sat 01:12 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2007-32216431**
Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH ANIMAL Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 41 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: ANIMAL'S ACTION, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruyn Tpke
169.0011 Meters West of Red Mills Rd

10/1/2007 Mon 10:12 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2007-32341781**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 1
Type Of Accident: OVERTURNED Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLOUDY
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 TRUCK Registered Weight: 54500 State of Registration: NY
Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: Y
Direction of Travel: SOUTH-WEST Public Property Damage: Y School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNSAFE SPEED, FAILURE TO KEEP RIGHT

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Wallkill Ave
17.6442 Meters East of Whittaker Rd

1/19/2006 Thu 21:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2006-31698272**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH DEER Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2843 State of Registration: NY
Num of Occupants: 2 Driver's Age: 25 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, UNKNOWN

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Accident Location Information System (ALIS)

Accident Verbal Description Report

FOIL 3725 Bryun Tpke from New Prospect Rd to Hoagerburgh Rd

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruyn Tpke
353.4978 Meters East of New Prospect Rd

10/21/2006 Sat 08:12 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2006-31942041**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH DEER Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4296 State of Registration: NY
Num of Occupants: 1 Driver's Age: 29 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: ANIMAL'S ACTION, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruyn Tpke
353.4978 Meters East of New Prospect Rd

2/22/2007 Thu 07:12 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2007-32100103**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 6499 State of Registration: NY
Num of Occupants: 1 Driver's Age: 37 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: UNKNOWN, AGGRESSIVE DRIVING/ROAD RAGE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3946 State of Registration: NY
Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: AGGRESSIVE DRIVING/ROAD RAGE, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruyn Tpke
533.0905 Meters West of Hoagerburgh Rd

10/11/2005 Tue 15:12 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2005-31621851**
Accident Class: INJURY Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH CULVERT/HEADWALL Traffic Control: HIGHWAY WORK AREA
Manner of Collision: OTHER Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Date: 12/30/08 11:58

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Accident Location Information System (ALIS)

Accident Verbal Description Report

FOIL 3725 Bryun Tpke from New Prospect Rd to Hoagerburgh Rd

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruyn Tpke
***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3495 State of Registration: NY
Num of Occupants: 1 Driver's Age: 75 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, OTHER (HUMAN)

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruyn Tpke
533.0905 Meters West of Hoagerburgh Rd

10/17/2006 Tue 07:12 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2006-31944618**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH DEER Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2800 State of Registration: NY
Num of Occupants: 1 Driver's Age: 29 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: ANIMAL'S ACTION, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruyn Tpke
533.0905 Meters West of Hoagerburgh Rd

1/24/2007 Wed 09:12 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2007-32059727**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :2 BUS Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 33 Sex: F Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruyn Tpke
533.0905 Meters West of Hoagerburgh Rd

6/28/2007 Thu 19:12 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2007-32241888**
Accident Class: INJURY Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH PEDESTRIAN Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: PED/BICYCLIST NOT AT INTERSECTION Action of Ped/Bicycle: NOT IN ROADWAY

Accident Location Information System (ALIS)

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Accident Verbal Description Report

FOIL 3725 Bryun Tpke from New Prospect Rd to Hoagerburgh Rd

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: Bruyn Tpke
***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3360 State of Registration: NY
Num of Occupants: 1 Driver's Age: 48 Sex: M Citation Issued: Y
Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, ALCOHOL INVOLVEMENT

Veh :2 PEDESTRIAN Registered Weight: State of Registration:
Num of Occupants: 1 Driver's Age: 42 Sex: F Citation Issued: N
Direction of Travel: NOT APPLICABLE Public Property Damage: N School Bus Involved: N
Pre-Accd Action: NOT APPLICABLE
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: NEW PROSPECT RD
AT INTERSECTION WITH INDIAN SPRINGS RD

10/10/2007 Wed 06:12 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2007-32360051**
Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH DEER Traffic Control: NONE
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 25 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: ANIMAL'S ACTION, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: NEW PROSPECT RD
AT INTERSECTION WITH BRUYN TPKE

6/13/2008 Fri 15:12 PM Persons Killed: 0 Persons Injured: 5 Extent of Injuries: CCCCC **Case: 2008-32634701**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3638 State of Registration: NY
Num of Occupants: 1 Driver's Age: 47 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3479 State of Registration: NY
Num of Occupants: 4 Driver's Age: 43 Sex: F Citation Issued: Y
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, NOT APPLICABLE

Accident Location Information System (ALIS)

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Accident Verbal Description Report

FOIL 3725 Bryun Tpke from New Prospect Rd to Hoagerburgh Rd

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: Street: BRUYN TPKE
322 Meters West of HOAGERBURGH RD

5/16/2008 Fri 13:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2008-32600674**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLOUDY
Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4934 State of Registration: NY
Num of Occupants: 1 Driver's Age: 32 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PAVEMENT SLIPPERY, OBSTRUCTION/DEBRIS

Accident Location Information System (ALIS)

Date: 12/30/08 01:26

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County Interim Accident Summary

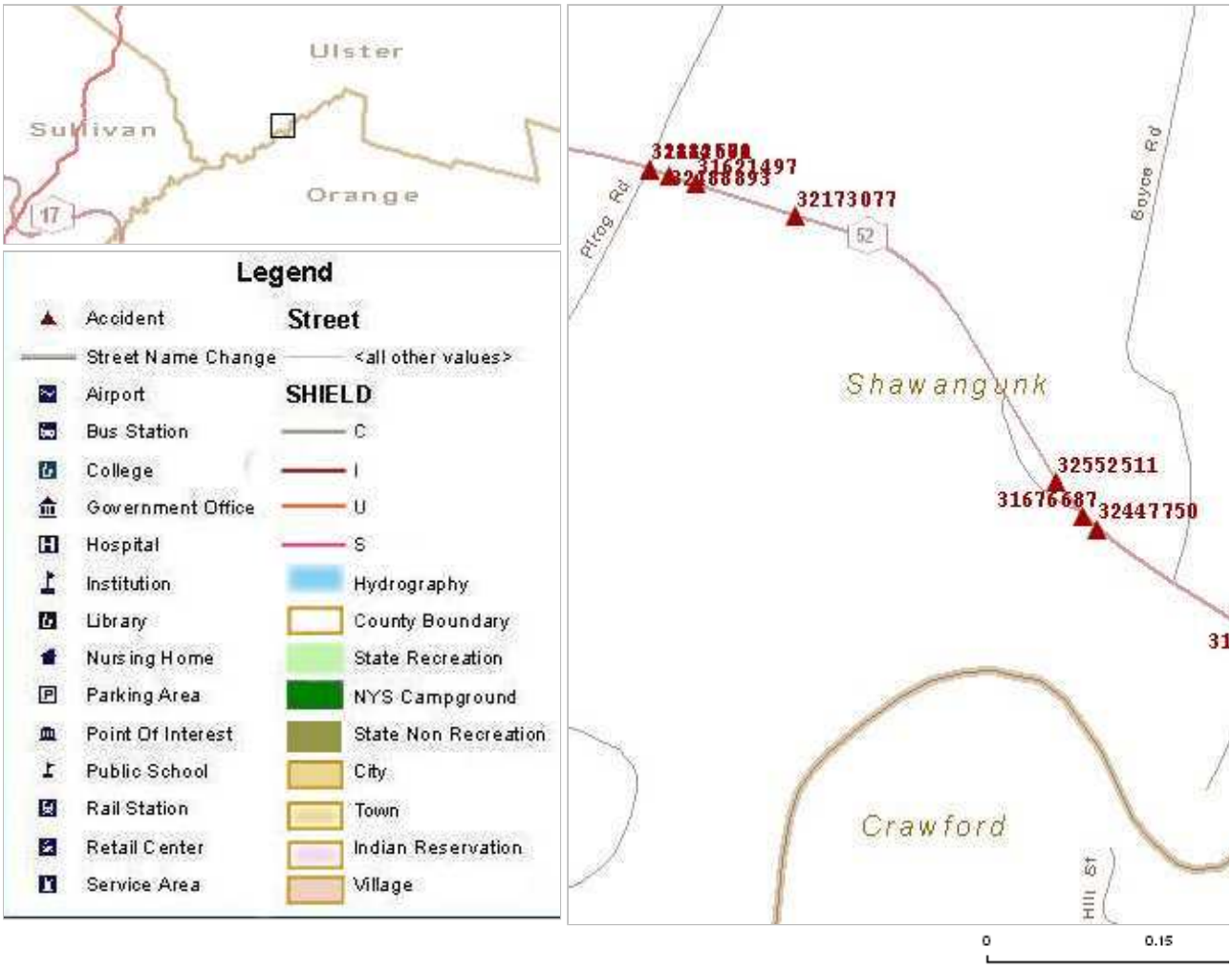
Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

Number Of Accidents

COUNTY	TOTAL	AT INT.	FTL	INJ	PDO	N/R	WET ROAD	FIXED OBJ	PED & BIKE	TRUCK	LIGHT CONDITION DWN/DSK	DAY	NIGHT
ORANGE	3	2	0	2	1	0	0	0	0	0	0	3	0
ULSTER	9	2	0	3	6	0	1	2	0	2	0	7	1
Total	12	4	0	5	7	0	1	2	0	2	0	10	1

FOIL 3725 NY 52 from New Prospect Rd to N



Accident Location Information System (ALIS)

Date: 12/30/08 01:23

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Accident Verbal Description Report

FOIL 3725 NY 52 from New Prospect Rd to NYS 302

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: 52 86021211 Street: State Route 52
AT INTERSECTION WITH SEAS NEW PROSPECT

7/31/2006 Mon 11:12 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2006-31884660**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: UNKNOWN Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 9500 State of Registration: NY
Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: BACKING
Apparent Factors: BACKING UNSAFELY, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 2534 State of Registration: NY
Num of Occupants: 3 Driver's Age: 26 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: UNKNOWN, UNKNOWN

County: Ulster Muni: Shawangunk(T) Ref. Marker: 52 86021211 Street: State Route 52
AT INTERSECTION WITH SEAS NEW PROSPECT

3/7/2007 Wed 14:12 PM Persons Killed: 0 Persons Injured: 4 Extent of Injuries: CCCC **Case: 2007-32112571**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 3
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3449 State of Registration: NY
Num of Occupants: 1 Driver's Age: 50 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3647 State of Registration: NY
Num of Occupants: 4 Driver's Age: 30 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :3 CAR/VAN/PICKUP Registered Weight: 4516 State of Registration: NY
Num of Occupants: 1 Driver's Age: 17 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY

Date: 12/30/08 01:23

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Accident Location Information System (ALIS)

Accident Verbal Description Report

FOIL 3725 NY 52 from New Prospect Rd to NYS 302

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: 52 86021216 Street: State Route 52
12.2401 Meters South of Zazversky Rd

11/17/2005 Thu 07:12 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2005-31676687**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH DEER Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: UNKNOWN
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 OTHER Registered Weight: State of Registration:
Num of Occupants: 1 Driver's Age: 52 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: 52 86021218 Street: State Route 52
0.0004 Meters East of

8/11/2006 Fri 15:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2006-31888019**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 TRUCK Registered Weight: 25900 State of Registration: NY
Num of Occupants: 2 Driver's Age: 34 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNSAFE SPEED, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 4500 State of Registration: NY
Num of Occupants: 1 Driver's Age: 24 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: DRIVER INATTENTION, FAILURE TO YIELD RIGHT OF WAY

County: Orange Muni: Crawford(T) Ref. Marker: 52 83031001 Street: State Route 52
82.4534 Meters East of Riverview Rd

3/28/2007 Wed 07:12 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2007-32139889**
Accident Class: INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Date: 12/30/08 01:23

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Accident Location Information System (ALIS)

Accident Verbal Description Report

FOIL 3725 NY 52 from New Prospect Rd to NYS 302

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Orange Muni: Crawford(T) Ref. Marker: 52 83031001 Street: State Route 52
***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 23 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3920 State of Registration: NY
Num of Occupants: 4 Driver's Age: 36 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: 52 86021211 Street: State Route 52
73.1614 Meters East of Pirog Rd

9/22/2005 Thu 06:12 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2005-31621497**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH DEER Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 6050 State of Registration: NY
Num of Occupants: 2 Driver's Age: 46 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, UNKNOWN

County: Ulster Muni: Shawangunk(T) Ref. Marker: 52 86021212 Street: State Route 52
231.153 Meters East of Pirog Rd

5/31/2006 Wed Persons Killed: Persons Injured: Extent of Injuries: **Case: 2006-32173077**
Accident Class: Police Agency: Num of Veh:
Type Of Accident: Traffic Control:
Manner of Collision: Weather:
Road Surface Condition: Road Char.: Light Condition:
Loc. of Ped/Bicycle: Action of Ped/Bicycle:

Veh : Registered Weight: State of Registration:
Num of Occupants: Driver's Age: Sex: Citation Issued:
Direction of Travel: Public Property Damage: School Bus Involved:
Pre-Accd Action:

County: Ulster Muni: Shawangunk(T) Ref. Marker: 52 86021216 Street: STATE ROUTE 52
40 Meters East of ZAZVERSKY RD

1/3/2008 Thu 15:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2008-32447750**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: SIDESWIPE Weather: CLOUDY
Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Accident Location Information System (ALIS)

Date: 12/30/08 01:23

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Accident Verbal Description Report

FOIL 3725 NY 52 from New Prospect Rd to NYS 302

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: 52 86021216 Street: STATE ROUTE 52
***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3347 State of Registration: NY
Num of Occupants: 1 Driver's Age: 44 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PAVEMENT SLIPPERY, NOT APPLICABLE

Veh :2 TRUCK Registered Weight: 33000 State of Registration: NY
Num of Occupants: 1 Driver's Age: 49 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: OTHER (VEHICLE), NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: 52 83031000 Street: STATE ROUTE 52
AT INTERSECTION WITH RECREATIONAL PARK RD

1/1/2008 Tue 12:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2008-32447083**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH GUIDE RAIL Traffic Control: NONE
Manner of Collision: OTHER Weather: CLOUDY
Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AT HILLCREST Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3080 State of Registration: NY
Num of Occupants: 1 Driver's Age: 41 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PAVEMENT SLIPPERY, NOT APPLICABLE

County: Orange Muni: Crawford(T) Ref. Marker: 302 83011105 Street: STATE HWY 52
AT INTERSECTION WITH MAPLE AVE

12/6/2007 Thu 08:12 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2007-32455450**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: UNKNOWN Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3889 State of Registration: NY
Num of Occupants: 1 Driver's Age: 40 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, TURNING IMPROPER

Veh :1 CAR/VAN/PICKUP Registered Weight: 4490 State of Registration: NY
Num of Occupants: 1 Driver's Age: 72 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: NOT APPLICABLE, UNKNOWN

Accident Location Information System (ALIS)

Date: 12/30/08 01:23

Page: 5

Accident Verbal Description Report

FOIL 3725 NY 52 from New Prospect Rd to NYS 302

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Orange Muni: Crawford(T) Ref. Marker: 302 83011105 Street: [Route] 52
AT INTERSECTION WITH MAPLE AVE

1/16/2008 Wed 09:12 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2008-32491120**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4094 State of Registration: NY
Num of Occupants: 3 Driver's Age: 38 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3080 State of Registration: NY
Num of Occupants: 1 Driver's Age: 41 Sex: F Citation Issued: Y
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, TRAFFIC CONTROL DEVICES DISREGARDED

County: Ulster Muni: Shawangunk(T) Ref. Marker: 52 86021211 Street: STATE ROUTE 52

2/10/2008 Sun 10:12 AM Persons Killed: 0 Persons Injured: 6 Extent of Injuries: CCCCC **Case: 2008-32488893**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3069 State of Registration: NY
Num of Occupants: 1 Driver's Age: 31 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PAVEMENT SLIPPERY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4082 State of Registration: NY
Num of Occupants: 6 Driver's Age: 39 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Ulster Muni: Shawangunk(T) Ref. Marker: 52 86021216 Street: STATE ROUTE 52
50 Meters North of ZAZVERSKY RD

4/6/2008 Sun 07:12 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2008-32552511**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH TREE Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLOUDY
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Accident Location Information System (ALIS)

Date: 12/30/08 01:23

Page: 6

Accident Verbal Description Report

FOIL 3725 NY 52 from New Prospect Rd to NYS 302

Data in this report covers the period Jul 01, 2005 - Jun 30, 2008

Complete Accident data from NYSDMV is only available thru 6/30/2008

County: Ulster Muni: Shawangunk(T) Ref. Marker: 52 86021216 Street: STATE ROUTE 52
***** CONTINUED

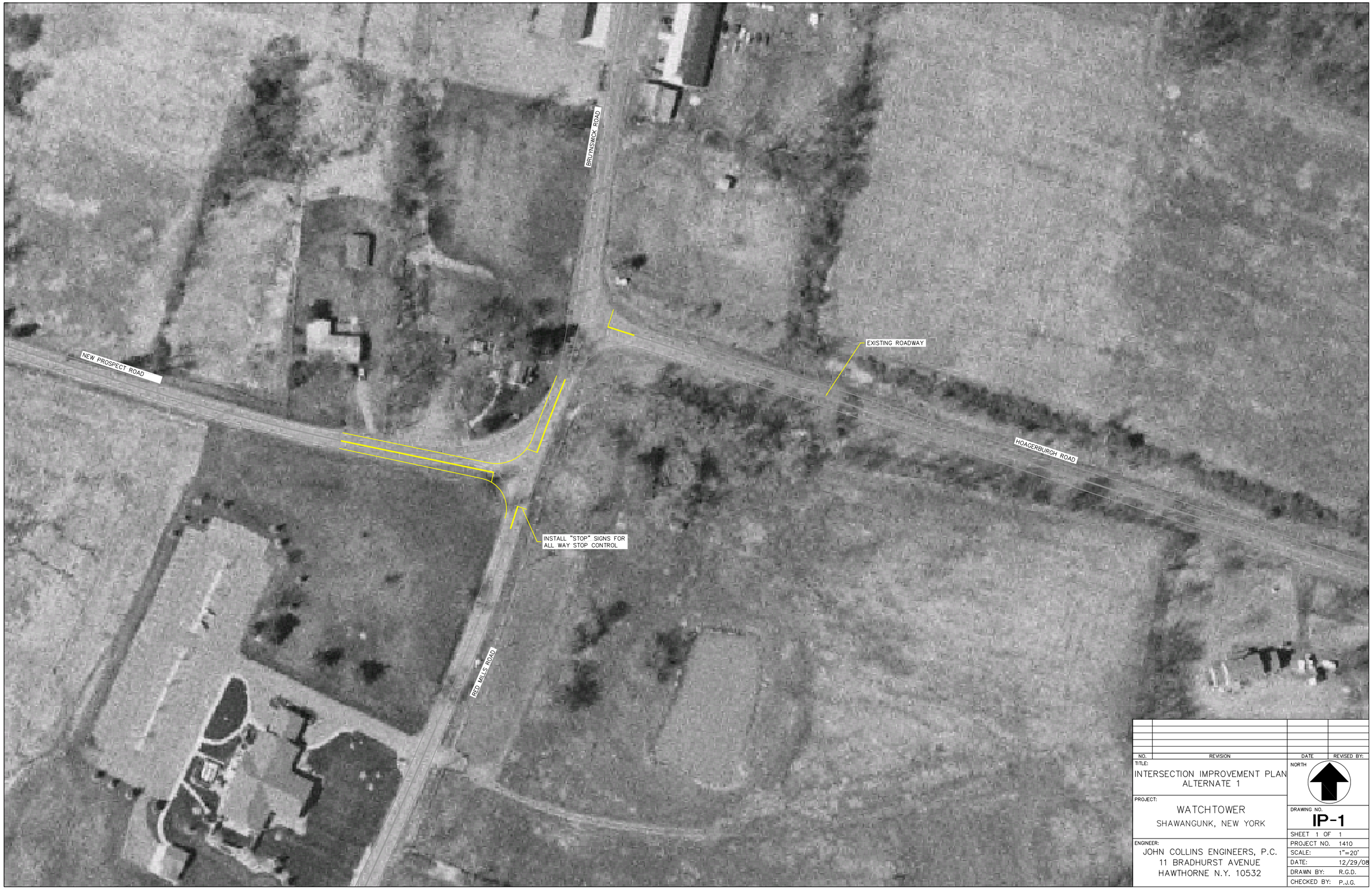
Veh :1 CAR/VAN/PICKUP Registered Weight: 3209 State of Registration: NY

Num of Occupants: 2 Driver's Age: 56 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: N School Bus Involved: N

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE



NO.	REVISION	DATE	REVISED BY:

TITLE:
INTERSECTION IMPROVEMENT PLAN
ALTERNATE 1

NORTH

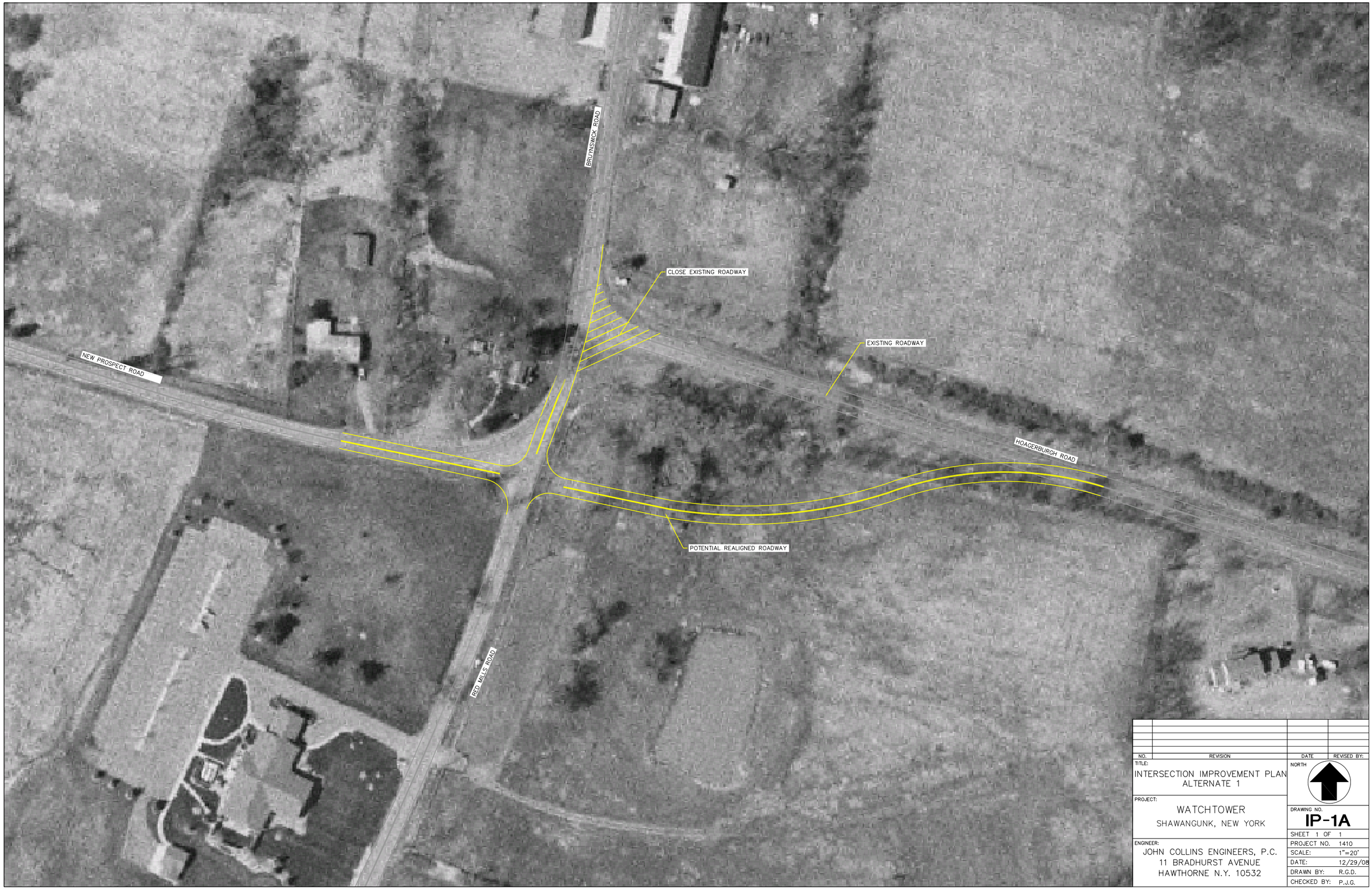
PROJECT:
WATCHTOWER
SHAWANGUNK, NEW YORK

DRAWING NO.
IP-1

SHEET 1 OF 1

ENGINEER:
JOHN COLLINS ENGINEERS, P.C.
11 BRADHURST AVENUE
HAWTHORNE N.Y. 10532

PROJECT NO.	1410
SCALE:	1"=20'
DATE:	12/29/08
DRAWN BY:	R.G.D.
CHECKED BY:	P.J.G.



NO.	REVISION	DATE	REVISED BY:

TITLE:
INTERSECTION IMPROVEMENT PLAN
ALTERNATE 1

NORTH

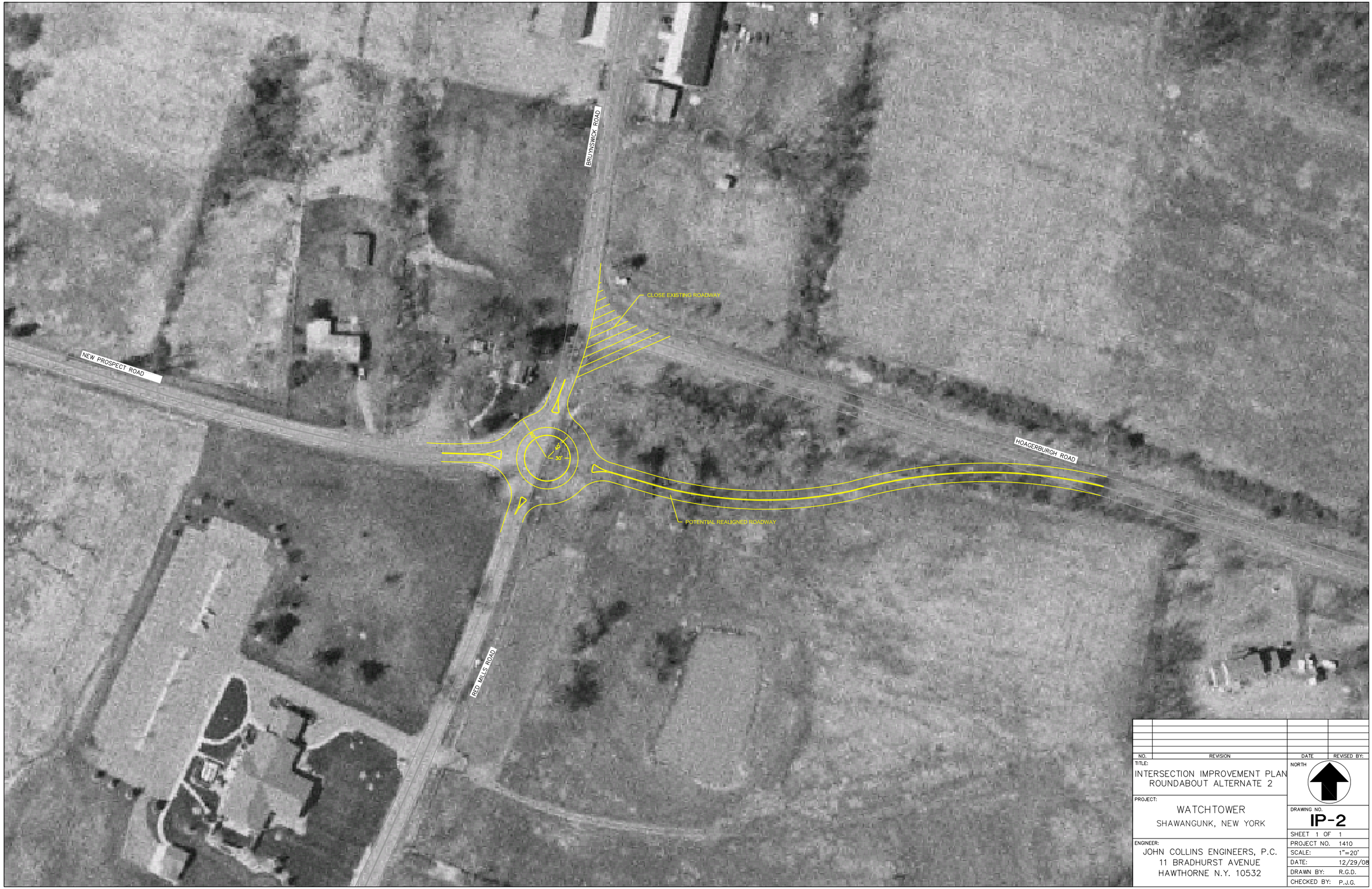
PROJECT:
WATCHTOWER
SHAWANGUNK, NEW YORK

DRAWING NO.
IP-1A

SHEET 1 OF 1

ENGINEER:
JOHN COLLINS ENGINEERS, P.C.
11 BRADHURST AVENUE
HAWTHORNE N.Y. 10532

PROJECT NO.	1410
SCALE:	1"=20'
DATE:	12/29/08
DRAWN BY:	R.G.D.
CHECKED BY:	P.J.G.



NO.	REVISION	DATE	REVISED BY:

TITLE:
INTERSECTION IMPROVEMENT PLAN
ROUNDABOUT ALTERNATE 2

NORTH

PROJECT:
WATCHTOWER
SHAWANGUNK, NEW YORK

DRAWING NO.
IP-2

SHEET 1 OF 1

ENGINEER:
JOHN COLLINS ENGINEERS, P.C.
11 BRADHURST AVENUE
HAWTHORNE N.Y. 10532

PROJECT NO.	1410
SCALE:	1"=20'
DATE:	12/29/08
DRAWN BY:	R.G.D.
CHECKED BY:	P.J.G.

NO.	REVISION	DATE	REVISED BY:

TITLE:
INTERSECTION IMPROVEMENT PLAN
ROUNDABOUT ALTERNATE 2A

NORTH

PROJECT:
WATCHTOWER
SHAWANGUNK, NEW YORK

DRAWING NO.
IP-2A

SHEET 1 OF 1

ENGINEER:
JOHN COLLINS ENGINEERS, P.C.
11 BRADHURST AVENUE
HAWTHORNE N.Y. 10532

PROJECT NO.	1410
SCALE:	1"=20'
DATE:	12/29/08
DRAWN BY:	R.G.D.
CHECKED BY:	P.J.G.

JOHN COLLINS ENGINEERS, P.C.

TRAFFIC • TRANSPORTATION ENGINEERS

===== 11 BRADHURST AVENUE • HAWTHORNE, N.Y. • 10532 • (914) 347-7500 • FAX (914) 347-7266 =====

MEMORANDUM

TO: Enrique Ford

FROM: Philip J. Grealy, Ph.D., P.E.

DATE: January 14, 2009

SUBJECT: Watchtower
Town of Shawangunk

PROJECT: No. 410

COPY TO:

****

We have completed our speed measurements and sight distance evaluation for the intersection of Indian Springs Road/Bruyn Turnpike and New Prospect Road. Photos of each approach and drivers' view from the side road are attached. Figure SD-1 identifies the existing sight distances for traffic exiting each of the side roads at this intersection. It also identifies the location of potential new signing for the intersection.

Based on a review of the speed data which was collected along New Prospect Road, the average observed speed was 43mph while the 85th percentile speed was 49mph to the north of the intersection. Based on the American Association of State Highway and Transportation Officials (AASHTO) sight distance criteria, the current sight lines exceed the stopping sight distance criteria of 410 feet for the 85th percentile speeds however, looking north from Indian Springs Road is short of the recommended intersection sight distance of 540 feet. By reestablishing the "stop" bars on the side road approach as depicted on Drawing SD-1 together with some pruning of vegetation, the intersection sight distance can also be obtained.

JOHN COLLINS ENGINEERS, P.C.

11 BRADHURST AVENUE
HAWTHORNE, NY, 10532
(914) 347-7500 / FAX (914) 347-7266

Default Comments
PROJECT: WATCHTOWER FARM
LOCATION: SHAWANGUNK, NEW YORK
JCE JOB# 410

Site Code: 141000000777
Station ID:
NEW PROSPECT ROAD (NORTH OF BRUYN TURNPIKE)
Latitude: 0' 0.000 Undefined

NB

Start Time	1 29	30 32	33 35	36 38	39 41	42 44	45 47	48 50	51 53	54 56	57 59	60 62	63 65	66 999	Total	85th Percent	95th Percent
01/13/09	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	1	2	4	7	19	13	8	5	**8**	1	**2**	**1**	0	0	71	51	53
15:00	**4**	2	6	8	16	9	12	**14**	7	1	0	1	0	0	80	50	52
16:00	4	**3**	**7**	7	16	21	14	10	2	**2**	1	0	0	0	87	48	52
17:00	3	1	3	**16**	**24**	**26**	**18**	12	2	2	0	0	0	**1**	**108**	48	50
18:00	2	0	7	10	15	19	11	4	2	1	0	0	0	1	72	46	50
19:00	3	3	6	5	11	10	14	4	3	0	0	0	0	0	59	47	50
20:00	1	0	1	4	3	8	5	2	0	0	0	0	0	0	24	46	48
21:00	0	0	3	3	5	4	3	1	3	2	0	0	0	0	24	51	54
22:00	3	1	2	5	4	2	7	3	3	0	1	0	0	0	31	49	52
23:00	2	0	0	1	1	3	1	4	0	1	0	0	0	0	13	49	50
Total	23	12	39	66	114	115	93	59	30	10	4	2	0	2	569		
Percent	4.0%	2.1%	6.9%	11.6%	20.0%	20.2%	16.3%	10.4%	5.3%	1.8%	0.7%	0.4%	0.0%	0.4%			
AM Peak																	
Vol.																	
PM Peak	15:00	16:00	16:00	17:00	17:00	17:00	17:00	15:00	14:00	16:00	14:00	14:00		17:00	17:00		
Vol.	4	3	7	16	24	26	18	14	8	2	2	1		1	108		

JOHN COLLINS ENGINEERS, P.C.

11 BRADHURST AVENUE
HAWTHORNE, NY, 10532
(914) 347-7500 / FAX (914) 347-7266

Default Comments
PROJECT: WATCHTOWER FARM
LOCATION: SHAWANGUNK, NEW YORK
JCE JOB# 410

Site Code: 141000000777
Station ID:
NEW PROSPECT ROAD (NORTH OF BRUYN TURNPIKE)
Latitude: 0' 0.000 Undefined

NB

Start Time	1 29	30 32	33 35	36 38	39 41	42 44	45 47	48 50	51 53	54 56	57 59	60 62	63 65	66 999	Total	85th Percent	95th Percent
01/14/09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	1	0	0	1	0	1	0	0	0	1	0	0	0	0	4	42	54
02:00	1	0	0	0	1	0	0	0	0	0	1	0	0	0	3	57	57
03:00	1	0	0	1	0	0	1	1	0	0	0	0	0	0	4	47	48
04:00	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	48	48
05:00	0	0	0	1	2	2	3	0	1	1	0	0	0	0	10	47	53
06:00	0	1	2	0	7	4	11	7	2	0	0	0	0	0	34	49	50
07:00	1	1	6	4	4	8	10	6	7	3	0	0	0	0	50	51	53
08:00	0	3	1	6	3	7	12	5	6	3	0	0	0	0	46	51	54
09:00	0	1	2	2	7	6	7	5	4	0	0	0	1	0	35	50	52
10:00	3	4	1	4	4	6	6	5	5	0	0	0	0	0	38	50	52
11:00	6	3	1	7	3	13	7	7	3	1	1	0	0	0	52	49	52
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	13	13	13	27	31	47	57	37	28	9	2	0	1	0	278		
Percent	4.7%	4.7%	4.7%	9.7%	11.2%	16.9%	20.5%	13.3%	10.1%	3.2%	0.7%	0.0%	0.4%	0.0%			
AM Peak	11:00	10:00	07:00	11:00	06:00	11:00	08:00	06:00	07:00	07:00	02:00		09:00		11:00		
Vol.	6	4	6	7	7	13	12	7	7	3	1		1		52		
PM Peak Vol.																	
Grand Total	36	25	52	93	145	162	150	96	58	19	6	2	1	2	847		
Percent	4.3%	3.0%	6.1%	11.0%	17.1%	19.1%	17.7%	11.3%	6.8%	2.2%	0.7%	0.2%	0.1%	0.2%			

15th Percentile :	36 MPH
50th Percentile :	43 MPH
85th Percentile :	49 MPH
95th Percentile :	53 MPH

Statistics

10 MPH Pace Speed :	39-48 MPH
Number in Pace :	489
Percent in Pace :	57.7%
Number of Vehicles > 55 MPH :	17
Percent of Vehicles > 55 MPH :	2.0%
Mean Speed(Average) :	42 MPH

JOHN COLLINS ENGINEERS, P.C.

11 BRADHURST AVENUE
HAWTHORNE, NY, 10532
(914) 347-7500 / FAX (914) 347-7266

Default Comments
PROJECT: WATCHTOWER FARM
LOCATION: SHAWANGUNK, NEW YORK
JCE JOB# 410

Site Code: 141000000777
Station ID:
NEW PROSPECT ROAD (NORTH OF BRUYN TURNPIKE)
Latitude: 0' 0.000 Undefined

SB

Start Time	1 29	30 32	33 35	36 38	39 41	42 44	45 47	48 50	51 53	54 56	57 59	60 62	63 65	66 999	Total	85th Percent	95th Percent
01/13/09	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	1	**2**	1	7	9	11	7	9	**5**	2	0	0	0	0	54	50	52
15:00	3	2	1	6	4	10	6	**10**	3	0	0	0	0	0	45	49	51
16:00	2	0	5	8	13	**19**	**19**	5	1	**3**	0	0	0	0	**75**	47	50
17:00	**4**	1	**8**	**16**	14	16	6	5	0	0	0	0	0	0	70	44	48
18:00	0	0	6	6	**15**	14	5	4	0	1	0	0	0	0	51	45	48
19:00	3	0	2	4	**9**	6	3	0	1	0	0	0	0	0	28	44	47
20:00	0	1	1	3	9	7	2	5	1	0	0	0	0	0	29	48	50
21:00	1	0	1	0	3	4	3	3	1	0	0	0	0	0	16	49	50
22:00	0	0	0	2	7	5	1	2	4	0	0	**1**	0	0	22	51	53
23:00	0	0	0	4	1	1	1	2	0	0	0	0	0	0	9	48	49
Total	14	6	25	56	84	93	53	45	16	6	0	1	0	0	399		
Percent	3.5%	1.5%	6.3%	14.0%	21.1%	23.3%	13.3%	11.3%	4.0%	1.5%	0.0%	0.3%	0.0%	0.0%			
AM Peak																	
Vol.																	
PM Peak	17:00	14:00	17:00	17:00	18:00	16:00	16:00	15:00	14:00	16:00		22:00			16:00		
Vol.	4	2	8	16	15	19	19	10	5	3		1			75		

JOHN COLLINS ENGINEERS, P.C.

11 BRADHURST AVENUE
HAWTHORNE, NY, 10532
(914) 347-7500 / FAX (914) 347-7266

Default Comments
PROJECT: WATCHTOWER FARM
LOCATION: SHAWANGUNK, NEW YORK
JCE JOB# 410

Site Code: 141000000777
Station ID:
NEW PROSPECT ROAD (NORTH OF BRUYN TURNPIKE)
Latitude: 0' 0.000 Undefined

SB

Start Time	1 29	30 32	33 35	36 38	39 41	42 44	45 47	48 50	51 53	54 56	57 59	60 62	63 65	66 999	Total	85th Percent	95th Percent
01/14/09	0	0	0	0	1	3	0	0	1	0	0	0	0	0	5	44	51
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	39	39
02:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	40	40
03:00	0	0	0	0	1	1	0	2	0	0	1	0	0	0	5	49	57
04:00	0	0	0	0	3	1	2	1	1	0	0	0	0	0	8	50	51
05:00	0	0	0	2	4	3	5	3	2	2	0	0	0	0	21	52	54
06:00	0	0	1	6	9	13	15	8	5	2	0	0	0	0	59	49	52
07:00	1	3	0	6	10	23	31	20	9	4	1	0	0	0	108	50	53
08:00	1	0	3	13	9	11	14	14	7	3	0	1	0	0	76	50	53
09:00	0	0	1	2	8	13	8	5	1	3	1	0	0	0	42	49	55
10:00	3	2	0	2	7	9	15	5	2	0	1	0	0	0	46	48	51
11:00	0	0	1	3	6	6	11	5	3	0	0	0	0	0	35	49	51
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	5	5	6	34	61	83	101	63	31	14	4	1	0	0	408		
Percent	1.2%	1.2%	1.5%	8.3%	15.0%	20.3%	24.8%	15.4%	7.6%	3.4%	1.0%	0.2%	0.0%	0.0%			
AM Peak	10:00	07:00	08:00	08:00	07:00	07:00	07:00	07:00	07:00	07:00	03:00	08:00			07:00		
Vol.	3	3	3	13	10	23	31	20	9	4	1	1			108		
PM Peak Vol.																	
Grand Total	19	11	31	90	145	176	154	108	47	20	4	2	0	0	807		
Percent	2.4%	1.4%	3.8%	11.2%	18.0%	21.8%	19.1%	13.4%	5.8%	2.5%	0.5%	0.2%	0.0%	0.0%			

15th Percentile :	37 MPH
50th Percentile :	43 MPH
85th Percentile :	49 MPH
95th Percentile :	53 MPH

Statistics

10 MPH Pace Speed :	39-48 MPH
Number in Pace :	511
Percent in Pace :	63.3%
Number of Vehicles > 55 MPH :	12
Percent of Vehicles > 55 MPH :	1.5%
Mean Speed(Average) :	43 MPH

EASTBOUND INDIANS SPRINGS ROADAPPROACH

NORTHBOUND NEW PROSPECT ROAD APPROACH

WESTBOUND BRUYN TURNPIKE APPROACH

SOUTHBOUND NEW PROSPECT ROAD APPROACH

BRUYN TURNPIKE LOOKING LEFT

BRUYN TURNPIKE LOOKING RIGHT

INDIAN SPRINGS ROAD LOOKING RIGHT

INDIAN SPRINGS ROAD LOOKING LEFT

SIGHT DISTANCE TABLE				
	EXISITNG SIGHT DISTANCE		AASHTO RECOMMENDED SIGHT DISTANCES *	
APPROACH	SIGHT DISTANCE LOOKING LEFT	SIGHT DISTANCE LOOKING RIGHT	STOPPING SIGHT DISTANCE	INTERSECTION SIGHT DISTANCE
BRUYN TURNPIKE	1200' +	850'	410'	540'
INDIAN SPRINGS ROAD	450'	650'	410'	540'

* BASED ON 49 MPH SPEED

NO.	REVISION	DATE	REVISED BY:

TITLE:
SIGHT DISTANCE PLAN

NORTH

PROJECT:
WATCHTOWER
SHAWANGUNK, NEW YORK

DRAWING NO.
SD-1

ENGINEER:
JOHN COLLINS ENGINEERS, P.C.
11 BRADHURST AVENUE
HAWTHORNE N.Y. 10532

SHEET	1 OF 1
PROJECT NO.	1410
SCALE:	1"=60'
DATE:	1/14/09
DRAWN BY:	R.G.D.
CHECKED BY:	P.J.G.

JOHN COLLINS ENGINEERS, P.C.

TRAFFIC • TRANSPORTATION ENGINEERS

===== 11 BRADHURST AVENUE • HAWTHORNE, N.Y. • 10532 • (914) 347-7500 • FAX (914) 347-7266 =====

MEMORANDUM

TO: Enrique Ford
Gil Nazaroff
Terry Nebel

FROM: Philip J. Grealy, Ph.D., P.E.

DATE: January 15, 2009

SUBJECT: Watchtower Farm
Additional Information for Comment #40

PROJECT: No. 410

****

The section of Red Mills Road east of Steen Road currently has a 35mph posted speed limit. This section of roadway has no centerline striping and approaching the horizontal curve east of this intersection, the prevailing speeds observed were in the 30 to 35mph speed range. In consideration of the current sharp horizontal curvature, the installation of advisory speed reduction signs on both approaches in advance of the curve should be considered. Advisory warning sign W1-1A would be appropriate. (See the attached SK-1)

NO.	REVISION	DATE	REVISED BY:

TITLE:
ADVISORY SPEED SIGN PLAN

PROJECT:
WATCHTOWER
SHAWANGUNK

ENGINEER:
JOHN COLLINS ENGINEERS, P.C.
11 BRADHURST AVENUE
HAWTHORNE N.Y. 10532

NORTH

DRAWING NO.
SK-1

SHEET	1 OF 1
PROJECT NO.	1410
SCALE:	1"=100'
DATE:	1/15/09
DRAWN BY:	R.G.D.
CHECKED BY:	P.J.G.

APPENDIX 14

WASTEWATER TREATMENT PLANT IMPROVEMENTS

WASTEWATER TREATMENT PLANT IMPROVEMENTS

Watchtower Farms

Wallkill, New York
January 12, 2009

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APPENDICES

DRAWING LIST

IMPROVEMENT OF WASTEWATER TREATMENT PLANT

Wallkill, New York
January 12, 2009

I. DESCRIPTION OF PROJECT

The wastewater treatment plant (WWTP) at Watchtower Farm on Red Mills Road has been in continuous operation since mid-1973. The original single-activated sludge treatment unit was conservatively designed for 150,000 gallons per day and 498 pounds of biochemical oxygen demand (BOD) per day. Although the actual plant loadings were well below these values, in 1993 a 34,000-gallon pretreatment tank was added to provide for retention of high-strength cannery and slaughterhouse loads. Agricultural operations included a dairy and associated cheese and butter production, a cannery for fruits and vegetables, layer-hen egg production, and livestock production involving slaughtering of chickens, pigs, and beef cattle. These agricultural loads caused certain treatment challenges to the system due to limited provisions for equalizing these loads. The pretreatment tank allowed the high-strength wastes to be fed into the system gradually in periods of low domestic load.

A major improvement to the WWTP was carried out in the mid-1990's and was completed in 1997 that added the following major elements:

A. A second activated sludge treatment unit similar to, but slightly larger than the original unit. This unit could be operated in parallel with the original unit or as a stand-alone unit.

B. A new blower building, allowing the previous blowers in the control building to be removed and the space converted to an additional laboratory and control room.

C. A new tertiary sand filter of the pulsed bed "Hydroclear" type with dual-filter beds.

D. A new chemical storage/feeding and shops building adjacent to the control building.

E. A new larger chlorine contact tank.

F. A new transformer and emergency generator.

G. New sludge drying beds and covered sludge storage shed, allowing phase-out of injecting liquid sludge on fields for production of animal fodder.

The proposed project consists of improvements to reflect the changing loads of wastewater and the need to accommodate a larger population than used in the 1997 expansion described above. The proposed population of 1,558 persons takes into account the addition of a new residence building and the removal of the present modular units housing 96 persons. The enlargement of existing rooms will also reduce the number of persons living in the existing Residence E.

The agricultural operations described above have been reduced and now involve only beef cattle production, which does not contribute to the waste stream, and seasonal juicing of apples and grapes.

As a result of organizational changes at the facility, there has been a shift from a predominantly agricultural operation to one that combines reduced agricultural activities with an increase in office, printery, and support functions. While the resulting waste stream is now more diverse, it does not contribute a significant increase in wastewater flows and loads other than for the increased residential population.

The most significant change proposed with the WWTP improvement is the conversion of the present "pretreatment" tank, which was used for spreading out high-strength agricultural loads, to a supplemental flow equalization tank for the entire wastewater stream. This is appropriate due both to the reduction in agricultural flows and loads as well as the diversity of the proposed loading. Because of the difference in sewer grades entering the plant, a new headworks is required to allow gravity flow from the main influent sewer into the pretreatment tank. From there it is pumped directly to the flow equalization tank rather than to Manhole S-175 above the old headworks as at present. Valves at MH S-140 allow bypassing all of the flow to the old headworks when the new headworks must be shut down for maintenance. The pretreatment tank pumps will be replaced with larger variable-speed drive pumps. Controls will be provided to optimize the use of the new flow equalization volume in the pretreatment tank.

The new headworks consists of the following components, progressing in the direction of flow:

1. Coarse bar rack with 1.75-inch clear spacing between bars per Section 61.121 of Ten States Standards, and provisions for manual cleaning per Section 61.129.
2. A six-inch-deep rock trap is provided upstream of the comminutor per Section 62.31 of Ten States Standards.
3. A 10-hp comminutor of the heavy-duty channel-mounted grinder type (Muffin Monster 40000 Series), with provisions for bypassing.
4. Grit chamber with parabolic cross section to provide 1-fps velocity per Section 63.43, with gated outlet to grit tank for vacuum truck disposal.
5. Fiberglass Parshall flume with a six-inch throat and ultrasonic level sensor for influent flow measurement.

A further improvement is the addition of another 20-hp blower (No. 9) in the space allowed in the present blower building for a future blower. See Drawing C-503. This blower will be capable of supplying air to either of the treatment units, but its primary function will be to supply supplemental air to the downstream portion of the aeration tank in the larger Unit No. 2. The adjacent 20-hp blower (No. 7) can serve a similar function for Unit No. 1. While this blower is not required to meet the overall air requirements based on Ten States Standards, it will provide greater flexibility and control over air delivery to assure a dissolved oxygen level of at least 2 mg/l over all portions of the aeration tank at varying times of day. It should also improve energy efficiency as a result of the reduced velocity with two air mains feeding the ring main at the unit.

The site plan of the WWTP is shown in Drawing C-101. Details of the new headworks are shown on Drawings C-501 and C-502. The pretreatment tank revisions are shown on Drawing C-504. Some minor changes not described above have been incorporated on the drawings which should be self-explanatory. The two old sludge drying beds were improved some time ago to allow their use in the winter to supplement the main drying beds when appropriate.

II. WASTEWATER FLOWS AND LOADS

The Segment 2 "Improvement of Wastewater Treatment Facility at Watchtower Farms" report dated September 30, 1994 (see Appendix A), assumed a design population of 1,450 and the flows and loads as shown in Table 1.

Table 1		
Combined Flows and Loads—Segment 2		
Source	Flow (gpd)	BOD Loading (lb/d)
Residential Population (1,450 persons)	94,500	246.7
Dairy, Cheese, Butter, Canning	25,000	73.8
Slaughterhouse	26,000	187.5
TOTAL:	145,500	508.0

The above BOD loading for the residential population was based on 0.17-lb BOD per capita per day as given in Paragraph 11.253 of the GLUMRB "Recommended Standards for Wastewater Facilities" (Ten States Standards).

An extensive study was conducted in 1994 at Watchtower Farms to provide data on wastewater flows and characteristic loads from one of Watchtower's residential complexes to assist in the design of similar facilities worldwide. It did not include the high-strength waste streams from agricultural processing. The complete report of this study, "Watchtower Farms Wastewater Study," March 17, 1994, will be sent on request. The study confirmed the 0.17-lb BOD-per-capita-per-day value for typical applications. A conservative value of 0.20-lb BOD-per-capita-per-day will be assumed in this report.

The slaughter schedule now consists of about ten beef cattle per week, of which most are slaughtered on Thursday, and the remainder on Friday. The estimated water usage for Thursday is about 3,000 gallons with a BOD load of about 25 pounds. Juicing of apples or grapes is seasonal and is not done on slaughter days. Flows and loads for juicing are not accurately known due to the variability inherent in this operation. A conservative maximum daily value for agricultural waste streams, whether from slaughtering or juicing, is assumed at 6,000 gallons for flow and 50 pounds for loading.

The combined flows and loads for the proposed improved facility are shown in Table 2.

Table 2		
Combined Flows and Loads for Proposed Improved Facility		
Source	Flow (gpd)	BOD Loading (lb/day)
Residential Population (1,558 persons)	118,400*	312
Agricultural (slaughter or juicing)	6,000	50
TOTAL:	124,400	362
Use for design (from 1972 report):	150,000	498

*The current residential housing at Watchtower Farms uses low-flush toilets, except for the B Residence, consisting of 180 rooms with 5 gallon/flush toilets. The latter toilets will be replaced with low-flush toilets as part of the proposed expansion. These and the new residence toilets may use the new EPA "WaterSense" 1.28 gallons per flush toilets if available. Urinals may also be of the new one-quart-per-flush type if available. To be conservative, the 76-gallon-per-capita-per-day flow obtained in the 1994 "Watchtower Farms Wastewater Study" has been assumed for this report.

III. TREATMENT REQUIREMENTS

The SPDES permit (NY 002 5925) for the treatment facility was renewed on April 1, 2008. A copy of the new permit is attached as Appendix B to this report. The Shawangunk Kill is presently a Class B stream. At the present time, both the Ulster County Health Department and the NYSDEC have indicated that they do not anticipate any changes in the stream classification.

IV. COLLECTION SYSTEM IMPROVEMENTS

Changes to the collection system will include a new lift station and force main serving the new residence and nearby smaller buildings, along with new gravity sewers serving the new buildings. The present grease trap and lift station serving the kitchen may require modifications due to the enlargement of the dining room and laundry. These improvements will be the subject of a separate report to be submitted when the design of these facilities is finalized.

V. PROPOSED PROJECT EQUIPMENT INFORMATION

Catalog product data sheets are provided in Appendix C.

APPENDIX A

“Improvement of Wastewater Treatment Facility at Watchtower Farms”

September 30, 1994, submitted to Ulster County Health Department.

Watchtower Farms

IMPROVEMENT OF WASTEWATER TREATMENT FACILITY

SEGMENT 2

Wallkill, New York

September 30, 1994

Prepared by: Joseph C. Dodd, P.E.

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A 2.2	Control Building Renovation - Plans and Elevations
A 2.3	Blower Building - Plans, Elevations, and Sections
A 2.4	Filter Building - Plans and Elevations
C 2.01	Grading Plans - Wastewater Treatment Plant
C 2.02	Grading Plans - Sludge Drying Beds and Details
C 2.03	Grading Plan - Misc. Areas
C 3.01	Yard Piping Plan - Wastewater Treatment Plant
C 3.02	Yard Piping Plan - Sludge Drying Beds
C 3.03	Yard Piping Details - Lift Stations and Miscellaneous
C 8.01	Sludge Line - Profiles
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S7.1	New Wastewater Treatment Unit - Plan and Details
S7.2	New Wastewater Treatment Unit - Sections and Details
S7.3	New Chlorine Contact Tank
M2.1	Control, Filter, Chem. Stor./Shop, and Blower Buildings - Mechanical
M7.1	Control Building MER Detail Plan and Sections - Mechanical
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Watchtower Farms

IMPROVEMENT OF WASTEWATER TREATMENT FACILITY SEGMENT 2

Wallkill, New York

September 30, 1994

I. DESCRIPTION OF PROJECT

The Watchtower Farm is located on Red Mills Road, Town of Shawangunk, Ulster County, New York. The location is shown on Figure 1. It is a self-contained farm complex, owned and operated by the Watchtower Bible and Tract Society of New York, Inc., 25 Columbia Heights, Brooklyn, New York, 11201.

The Initial phase (Segment 1) of this improvement project was described in the engineering Report dated June 20, 1991 (revised on March 13, 1992). The emphasis in this segment was to construct a pretreatment tank for the high strength wastes from the Slaughterhouse and Cannery. The initial phase was approved for construction by the Ulster County Health Department (UCHD) on April 10, 1992. Following UCHD approval, the pretreatment tank began operation in early April, 1993, and the remainder of Segment 1 work has subsequently been completed.

The Engineering Report for the initial phase also described the improvements and additions which were planned for the future. These included the following major elements:

A. Add a second activated sludge treatment unit in parallel with the present unit, to allow split flow at reduced loading, or backup to allow shutdown of one unit for maintenance. This treatment unit would be similar to the present unit, with a circular clarifier surrounded by an annular tank divided into a large compartment for activated sludge aeration, and a smaller compartment for the aerobic digester.

B. Add a new blower building with variable frequency drive blowers to supply air to the present treatment unit and flow equalization tank, and to the new treatment unit and pretreatment tank. The existing blowers would be removed from the present control building to provide space for additional laboratory and control facilities and reduce environmental noise in this building.

C. Improve the laboratory, controls, and chemical facilities in the control building to handle additional monitoring, analytical, control, and chemical treatment requirements.

D. Add a tertiary sand filter for polishing the activated sludge effluent to meet possible stricter effluent limitations. The filter would receive flow by gravity from both secondary clarifiers. The proposed filter would be of the pulsed-bed "Hydroclear" type produced by Zimpro/Passavant, Inc. with a 10-inch deep bed of 0.45 mm sand and computer-controlled backwash.

E. Replace the present chlorine contact tank with a larger tank at a lower elevation to allow gravity discharge from the tertiary sand filter.

All of the above elements are incorporated into the presently proposed Segment 2 improvement project. In addition, we are including new sand drying beds and a covered sludge storage shed which were not discussed in the previous Engineering Report. At the time of the previous report, the Federal and State regulations on sludge disposal were not finalized, so this aspect was not included. We plan to have the sludge cake from the drying beds hauled to an approved landfill or composting facility for disposal, rather than the land application of liquid sludge as presently used. Land application of sludge cake may also be practiced as circumstances and current regulations permit.

A number of other improvements will also be made to supporting facilities, as follows:

- New 480 v. transformer and emergency generator supplying the new motor control center in the new blower building.
- New chemical storage/shop building adjacent to the control building.
- New lift station for the wastewater from the control building, discharging to the plant influent, and one to replace the present lift station in the tertiary filter location which will be removed.
- New heating system for the control building, tertiary filter bulding, and chemical storage/shop building.

A plan and flowsheet of the proposed facilities described above are shown on Sheet D1 and Figure 2, respectively. A hydraulic profile is shown on Figure 3.

II. WASTEWATER FLOWS AND LOADINGS

The June 20, 1991, Engineering Report reviewed the original design loadings for the wastewater facility, and updated these loadings to reflect 1991 conditions. The combined flows and loads for the improved facility were as reported in Table 1.

Table 1

Combined Flows and Loads for Improved Facility - Segment 1

(From June 20, 1991, Engineering Report)

SOURCE	FLOW, GPD	BOD LOADING, #/d
Residential Pop. (1,300 persons)	91,000	221.0
Dairy, Cheese, Butter, Canning	25,000	73.8
Slaughterhouse	26,000	187.5
TOTAL	142,000	482.3
Use for design (from 1972 report)	150,000	498

Since the June 20, 1991, Engineering Report was prepared, three additional years of data are available as shown in Tables 2 and 3.

Table 2

Sewage Treated and Per Capita Usage

YEAR	SEWAGE TREATED (million gallons)	AVERAGE POPULATION	DAILY AVERAGE (thousand gallons)	DAILY AVERAGE USAGE (gal/cap)
1991	26.9	949	73.7	77.7
1992	28.0	928	76.7	82.7
1993	28.9	983	79.2	80.6

Table 3

Slaughter Schedule

(Number of Animals)

YEAR	CHICKENS	BEEF	PORK
1991	51,400	820	1380
1992	39,566	774	1512
1993	45,693	670	1309

Watchtower is now in the planning process for adding two new residence buildings to the main complex, which will be served by the Watchtower Farms Wastewater Treatment Facility. Consequently, the design population tributary to the facility will be increased from 1300 to 1450. The resulting combined flows and loads are shown in Table 4.

Table 4

Combined Flows and Loads for Improved Facility - Segment 2

SOURCE	FLOW, GPD	BOD LOADING, #/d
Residential Pop. (1,450 persons)	94,500*	246.7
Dairy, Cheese, Butter, Canning	25,000	73.8
Slaughterhouse	26,000	187.5
TOTAL	145,500	508.0
Use for design(from 1972 report):	150,000	510**

*Estimated Flow:

Present population of 950 using standard fixtures	=	950 x 70	=	66,500
Future population of 500 using low flush fixtures	=	500 x 70 x .80	=	28,000
				94,500

**Exceeds 498#/d in original design by 2.4%. Not a problem with two units and should not cause difficulty with one unit in operation due to some BOD removal in new pretreatment tank.

III. TREATMENT REQUIREMENTS

The SPDES permit for the treatment facility was renewed on January 1, 1993. A copy of the new permit is attached as Appendix A to this report. The Shawangunk Kill is presently a Class B stream. At the present time both the Ulster County Health Department and the NYSDEC have indicated that they do not anticipate any changes in the discharge requirements.

The proposed Segment 2 improvements are being undertaken to enhance the reliability and performance of the facility, beyond what is currently required. The second treatment unit is a safeguard in the event of equipment failure or other difficulty with the present unit, as either unit is capable of meeting the treatment requirements. The addition of the tertiary filter provides protection against biological upset causing loss of solids in the secondary system, and makes it possible to meet stricter discharge limitations if the stream classification is changed in the future.

IV. COLLECTION SYSTEM IMPROVEMENTS

The addition of the proposed two new residence buildings at Watchtower Farm will require additions to the wastewater collection system. However, the flows and loads to the wastewater treatment facility used in this report reflect these changes so that no further changes to this report will be needed on account of the collection system additions. The collection system changes will be the subject of a later application to be submitted when design of these features is completed. Also, the provision of automatic controls for the major lift stations mentioned on page 12 of the February 16, 1994, engineering report submitted on March 7, 1994, has been deleted from the present report and will be incorporated in a subsequent engineering report to be submitted with the collection system application.

V. SECONDARY TREATMENT AND SUPPORT FACILITY IMPROVEMENTS

This section gives the basis for design and detailed description of the following improvements: Second activated sludge treatment unit; new blower building and electrical system; laboratory, control, and chemical facilities in the control building; and new chemical storage/shop building and adjacent lift station.

A. Second Activated Sludge Treatment Unit

The new treatment unit consists of a circular secondary clarifier surrounded by an annular tank divided into a large compartment for activated sludge aeration, and a smaller compartment for the aerobic digester. The volume of the annular tanks is the same as for the present unit, and the layout and operation of the new treatment unit will be similar to the present one. The design of the clarifier is different; incorporating design improvements such as greater depth, flocculating center well, and weirs on both sides of the launder which is offset from the wall to minimize density current carryover. These changes allow the new 20 ft diameter clarifier to perform equally as well as the present 22 ft diameter clarifier. Provisions are also made for chemical addition in case this is needed in the future. The new secondary treatment unit is shown on Sheets C11.11 through C11.15, S7.1, and S7.2.

The design data for the original treatment facility are contained in calculations prepared by Sanitaire, the suppliers of the existing secondary treatment equipment. These calculation and Sanitaire correspondence are included as attachments to a report by Louis C. Turcotte, P.E., and transmitted by letter dated July 31, 1985, to the New York State Department of Environmental Conservation, with copy to the Ulster County Health Department. This report supports the original design basis of 150,000 gal/day average flow and 498 lbs BOD_5/day loading. A copy of these documents is included as Appendix B.

Because our expected flow will not exceed the presently permitted flow, we are not seeking a change in our SPDES permit at this time. The treatment capacity in terms of BOD loading will depend on the aeration blower capacity, which will be discussed in the section on the new blower building.

B. New Blower Building and Electrical System

A new blower building will be constructed to house new variable frequency drive blowers which will replace the fixed speed blowers now located in the control building. The old blowers will be removed to provide space for the new computer control and office. This will also improve the working environment in the control building by the elimination of blower noise.

The new blower building will also include a new motor control center and switchgear, which will receive power from a new 480v pad mounted transformer located near the road above the pretreatment tank. This will replace the present 208v transformer which was installed when the new underground feeder was brought in during Segment 1 construction. A new emergency generator will also be installed adjacent to the new transformer, of sufficient capacity to carry the full Wastewater Treatment Facility load.

The layout of the new blower building is shown on Sheets A2.3, C11.20, C11.21, and S4.1. Four 20hp and three 7.5hp positive displacement blowers will be installed initially, with space allowed for a future 20hp and 7.5hp blower. The 20hp blowers supply the two treatment units, and the 7.5hp blowers supply the pretreatment and flow equalization tanks. Each 20hp blower is rated at 357 cfm and each 7.5hp blower is rated at 129 cfm at full speed. Catalog cut sheets for these blowers are shown in Appendix E.

The air requirements for the various processes are given in Appendix C, along with a summary of available blower capacity. The piping arrangement in the blower building allows air delivery from all blowers to any process, with provision for a backup unit for each blower size. In general, the speed may be varied for dedicated blowers to allow adjustment of the amount of air delivered to the various processes. The aeration tank air supply will be controlled by the computer to respond to dissolved oxygen probe measurements.

C. Laboratory, Control and Chemical Facilities in the Control Building

The proposed modifications to the control building are shown on Sheets A2.2, M2.1, M7.1, and M11.1.

1. Laboratory

A separate microbiology laboratory was constructed in Segment 1, but the door connecting to the main laboratory was deferred due to the existing switchgear which will be removed in Segment 2. The main laboratory will be redone with new cabinets, countertops, sinks, and finishes. The laboratory equipment was upgraded in the past few years, and will be retained in nearly all cases. The laboratory will be temporarily relocated to the chemical storage/shop building, as discussed in the next section, until the laboratory renovation work is completed. Countertops, backsplash, and sinks will be fabricated from epoxy resin material, "Durcon," or equal. A new balance table will be installed, isolated from other laboratory work surfaces. A suspended ceiling with recessed fluorescent light fixtures will be installed in the laboratory and control room areas.

2. Control Room/Office

The existing mimic/control panel using relays and mechanical elements will be removed and replaced with a new computerized control system located in the old blower room. This will include process control, data management, alarms, and report generation functions, with color monitor and PLC. Space is also provided for several desks and record cabinets, which will relieve the present congestion in the laboratory.

3. Chemical and Support Facilities

Chemical storage and feed equipment, along with emergency shower and eyewash station were installed in Segment 1. A new chase for feeding hypochlorite for effluent disinfection and polymer for sludge thickening will be added between the control building chemical area and the sludge line just downstream of the junction of the lines from the old and new treatment units. The old chemical rooms will be removed and a new mechanical equipment room (MER) will be added. The existing hot water heater and high pressure water pump will be relocated to this room. A new hot water boiler will be added for building heating, using fin tube rather than the present steam radiators. A new air conditioner will be installed for the control room.

D. Chemical Storage/Shop Building and Lift Station

This new building will provide the following support services for the Wastewater Treatment Facility:

- Temporary laboratory during renovation of permanent laboratory.
- Storage for full or empty chemical containers, to avoid congested conditions in the control building consistent with two week chemical delivery schedule.
- Workshop space for minor maintenance and repairs on pumps and other equipment.
- Classroom for operator training and meetings.

The temporary laboratory will be provided with cabinets, countertop, backsplash and sink (not Durcon). An air conditioner will be provided along with a hood for heat generating equipment. Facilities will be installed to allow the presently used tests to be conducted. The building layout is shown on Sheets A2.1, M2.1, and S4.1.

A new lift station will be constructed adjacent to the chemical storage/shop building, to transfer wastewater from the present sewer and the new chemical storage/shop building to the existing manhole 8E at the head of the plant. Duplex pumps will be installed.

VI. TERTIARY TREATMENT

Tertiary treatment includes the pulsed-bed tertiary sand filter for polishing secondary effluent, and the chlorine contact tank for effluent disinfection.

A. Tertiary Sand Filtration

High rate effluent filtration of the clarified secondary effluent will be provided using a proprietary filter of the pulsed bed type containing integral clearwell and mudwell as a package unit. A layout of the filter building is shown on Sheets A2.4, C11.22, C11.23, M2.1, and S4.1. The unit will be similar to the "Hydro-clear" Model F2-93 tertiary filter shown on Zimpro drawing 70.0-2299-D-401 dated 1/9/89, cell profile sketch dated 1/9/89, and design data sheet dated 1/9/89, included in Appendix E. Two filters with a surface area of 46.25 sq ft each are provided. At a filtration rate at peak flow of 5 gpm/sq ft with one unit out of service, or 1.25 gpm/sq ft at design flow with two units in service, the filter would treat a design flow of 165,000 gal/day. Filter medium consists of a 10 inch bed of 0.45mm sand with a uniformity coefficient of 1.7 or less. Design backwash rate is 12 gpm/ft^2 for 3.5 minutes. Clarified effluent will be supplied to the filter by gravity flow from the secondary clarifiers. Duplicate backwash and mudwell pumps are provided. Discharge from the mudwell pumps is returned to the flow equalization tank.

The above filter is identical to the tertiary filter at our Wastewater Treatment Facility at the Watchtower Educational Center in Patterson, New York. This filter has given excellent service. Operating data as well as a site visit to this facility can be provided upon request.

B. Chlorine Contact Tank

The present chlorine contact tank is too high to receive gravity flow from the new tertiary filter. It is also marginally sized to meet the Ten State Standard minimum contact period of 15 minutes at peak flow, and the baffle walls are in a somewhat deteriorated condition. Therefore, a new chlorine contact tank will be constructed adjacent to the filter building at a lower elevation, of larger size to accommodate possible future increases in flow. An effluent flowmeter will be included, to pace the hypochlorite dosing to the flow. The design of the new chlorine contact tank is shown on Sheet D8.

VII. SLUDGE DRYING BEDS

Since the Watchtower Farms Wastewater Treatment Facility began operation in 1973, aerobically digested liquid sludge has been disposed of by land application of sludge on farm land. In recent years, acceptable fields were not always available for land application. Crop management and the weather often require that no sludge be land applied in certain months. For this reason, two small

sand drying beds (one 35' x 35' and one 60' x 36') have been used to store and dewater sludge when fields are not available for land application. The current drying beds are not big enough to dewater the sludge to the extent that it could be landfilled (20% solids). During 1992, approximately half of the sludge produced at the Watchtower Farms Wastewater Treatment Facility was dewatered on these sludge drying beds before being land applied. For the past two years, the sludge in the drying beds was reslurried as a thick liquid and applied by subsurface injection. In prior years, the sludge was removed as a semi-solid, land applied by manure spreader, and disked into the soil.

As a result of regulatory changes, impact on farming operations, and cost factors, Watchtower Farms is contemplating moving away from land application for disposal of sludge as a liquid, although land application of sludge cake may be practiced as circumstances and current regulations permit. We plan to add sufficient sludge drying beds to allow off-site disposal of sludge cake at a minimum solids concentration of 20% to a commercial or public landfill, compost facility, or incinerator. Verbal inquiries indicate that the Ulster County Landfill and a compost facility in Sullivan County will be able to accept the dewatered sludge.

A. Sludge Quantities

The Wastewater Treatment Facility began operation in June 1973 and started producing sludge from that date to present. The first year sludge handling was recorded was in 1974 when 81,000 gallons of sludge was produced. A peak of 865,000 gallons of sludge was produced in 1992. (See Figure 4, "Total Gallons of Sludge Produced Per Year.") This was higher than normal due to limited decanting of sludge in the digester. The volume in 1993 was lower, as shown on the chart.

B. Full Scale Drying Bed Test Results

On October 6-12, 1993, a test was done on the larger existing sand bed to determine the feasibility of using sand beds to dewater Watchtower Farms' Wastewater Treatment Facility sludge. Fourteen inches (19,200 gallons) of sludge at 1.1% solids were applied to the 60' x 36' sand bed. Six inches drained immediately, leaving eight inches to dry. In six days, the sludge cake bed dried to 19.6% solids over most of the bed and 67% solids in some parts. See Appendix D for documentation of this test.

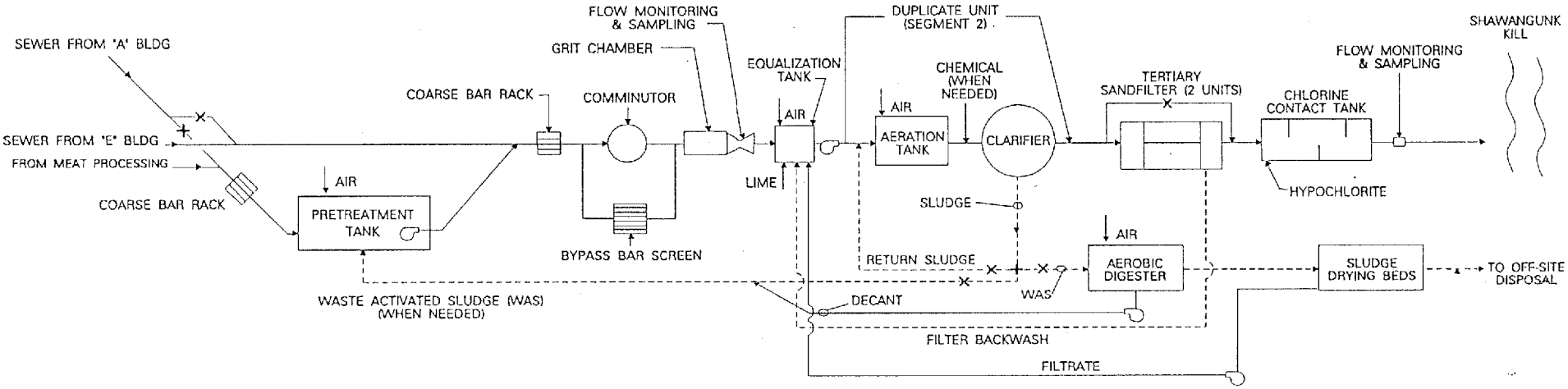
C. Sludge Drying Bed Design

The proposed sludge drying bed layout is shown on Sheets C11.24, 11.25, and S4.1. Four uncovered new drying beds with inside dimensions of 25' x 58' are provided, to supplement the two existing beds. The new beds will be used whenever possible, and the existing beds will be brought into service only when necessary during winter or unusually wet conditions. Additionally, a 42' x 60' covered sludge storage shed will be provided to store sludge removed from the drying beds during cold or wet periods, when needed for additional drying to reach 20%solids required for disposal. Provisions are also made to allow polymer addition to the sludge feed line, and decanting from the settled sludge surface on the drying bed, to accelerate drying when needed.

The total area of new sludge drying beds is 5,800 ft^2. From the full scale drying bed test reported above, and proportioning on sand bed area, approximately 12,900 gal could be

applied to a single new bed without exceeding the 8 inch maximum depth on the bed per Ten State Standards, Sec. 88.22b. Using the peak year (1992) sludge production of 865,000 gal from Figure 4, and four beds, 16.8 applications per year would be required. This amounts to slightly more than three weeks between applications. Based on the drying time to reach 20% solids observed in the full scale test in October, under one week, the proposed bed area is more than adequate for most of the year without resorting to special measures. During unusually wet or cold periods, special measures including polymer treatment, decanting, and transfer of inadequately dried sludge to the covered storage area will be employed as needed. Beyond this, the existing sludge drying beds will be kept in a condition of readiness in the event the above special measures using the new facilities prove inadequate under unusually severe conditions.

Filtrate from the new beds and floor drains in the covered storage area will drain by gravity into a new lift station, as shown on Sheet C11.25. Discharge from the lift station will be conveyed by force main to the present lift station in the small existing sludge drying bed. This bed will be used for short-term storage of the filtrate to minimize recycle stream shock loading on the secondary treatment system. The pump in the existing small bed lift station will transfer the filtrate to the flow equalization tanks at a controlled slow rate.



LIQUIDS ———————

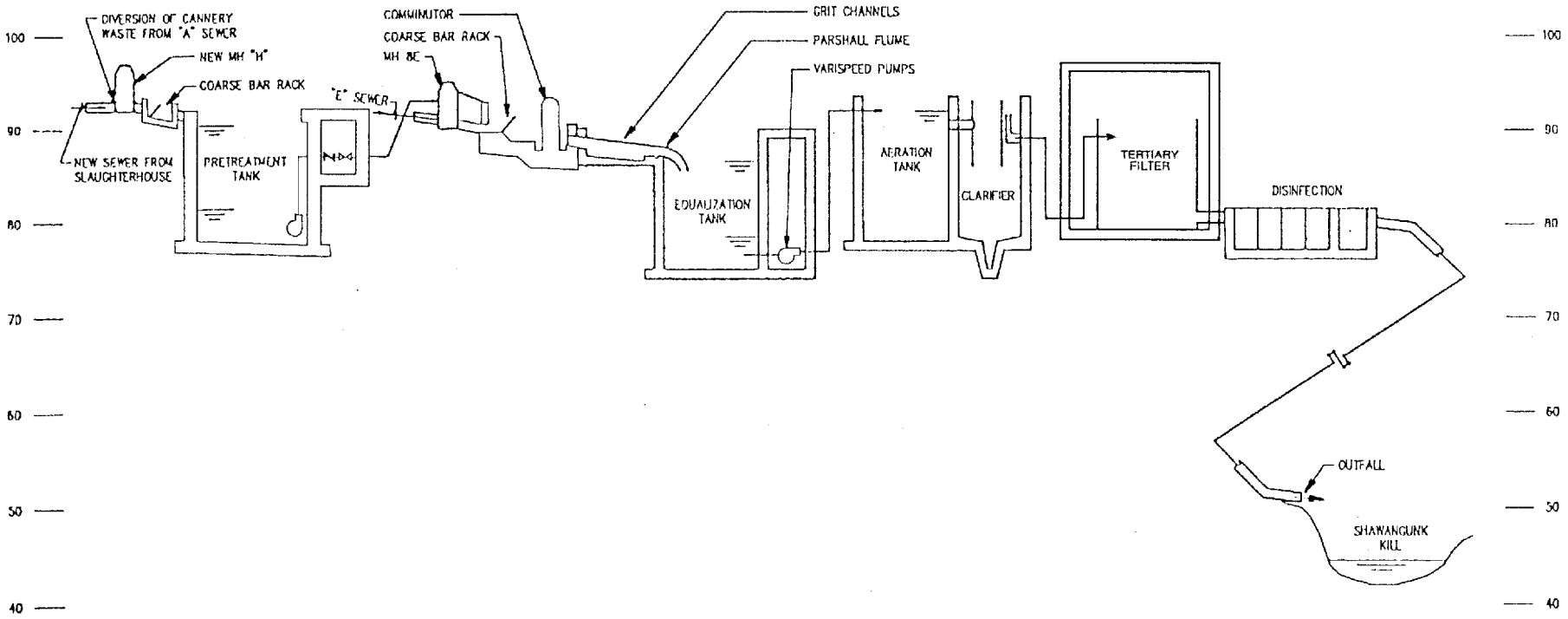
SOLIDS - - - - - - - - - - - - - - - -

VALVE ✕

PUMP

FIGURE 2

SYSTEM FLOWSHEET



Elevation Ft.
(Factory Datum -
Add 234.28 for MSL)

FIGURE 3
SYSTEM HYDRAULIC PROFILE

APPENDIX B

New SPDES Permit

New York State Department of Environmental Conservation
Division of Environmental Permits, 4th Floor
625 Broadway, Albany, New York 12233-1750
Phone: (518) 402-9167 • **FAX:** (518) 402-9168
Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

SEP 20 2007

FACILITY INFORMATION

Brian Ware
Watchtower Bible & Tract Society of N.Y.
900 Red Mills Road
Wallkill, NY 12589

NAME: Watchtower Farms
LOCATION: Shawangunk (T)
COUNTY: Ulster
SPDES NO: NY 002 5925
DEC ID NO.: 3-5152-00026/00004

Dear SPDES Permittee:

Enclosed please find a validated NOTICE/RENEWAL APPLICATION/PERMIT form renewing your State Pollutant Discharge Elimination System (SPDES) permit for the referenced facility. This validated form, together with the previously issued permit (see issuance date of this permit in Part 3 of the NOTICE/RENEWAL APPLICATION/PERMIT form), and any subsequent permit modifications constitute authorization to discharge wastewater in accordance with all terms, conditions and limitations specified therein.

The instructions and other information that you received with the NOTICE/RENEWAL APPLICATION/PERMIT package fully described procedures for renewal and modification of your SPDES permit under the Environmental Benefit Permit Strategy (EBPS). As a reminder, SPDES permits are renewed at a central location in Albany in order to make the process more efficient. All other concerns with your permit such as applications for permit modifications, permit transfers to a new owner, name changes, and other questions should be directed to the Regional Permit Administrator at the following address:

Margaret Duke
NYSDEC - Region 3
21 South Putt Corners Road
New Paltz, NY 12561-1696
(845)256-3054

If you have already filed an application for modification of your permit, it will be processed separately through our regional office. If you have questions concerning this permit renewal, please contact Lindy Sue Czubernat at (518) 402-9165.

Sincerely,

William R. Adriance

Chief Permit Administrator

Enclosure
cc: RPA
RWE
BWP

91-20-5 (5/97)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
State Pollutant Discharge Elimination System (SPDES)
NOTICE / RENEWAL APPLICATION / PERMIT

MCO JUN 20 2007

Please read **ALL** instructions on the back before completing this application form. Please **TYPE** or **PRINT** clearly in ink.

PART 1 - NOTICE

06/15/2007

Permittee Contact Name, Title, Address

WATCHTOWER BIBLE & TRACT SOCIETY OF N Y
BRIAN WARE
900 RED MILLS RD
WALLKILL NY 12589

Facility and SPDES Permit Information

Name: WATCHTOWER FARMS
Ind. Code: 2011 County: ULSTER
DEC No.: 3-5152-00026/00004
SPDES No.: NY 002 5925
Expiration Date: 04/01/2008
Application Due By: 10/04/2007

Shawangunk (T)
015

Are these name(s) & address(es) correct? if not, please write corrections above.

The State Pollutant Discharge Elimination System Permit for the facility referenced above expires on the date indicated. You are required by law to file a complete renewal application **at least 180 days prior to expiration of your current permit. Note the "Application Due By" date above.**

CAUTION: This short application form and attached questionnaire are the only forms acceptable for permit renewal. Sign Part 2 below and mail only this form and the completed questionnaire using the enclosed envelope. *Effective April 1, 1994 the Department no longer assesses SPDES application fees.*

If there are changes to your discharge, or to operations affecting the discharge, then in addition to this renewal application, you must also submit a separate permit modification application to the Regional Permit Administrator for the DEC region in which the facility is located, as required by your current permit. See the reverse side of this page for instructions on filing a modification request.

PART 2 - RENEWAL APPLICATION

CERTIFICATION: I hereby affirm that under penalty of perjury that the information provided on this form and all attachments submitted herewith is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to section 210.45 of the Penal Law.

Lon Schilling — Vice-President

Name of person signing application (see instructions on back) — Title

x [signature] — x 7/30/07

Signature — Date

RECEIVED NYSDEC
07 AUG -2 PM 1:28

PART 3 - PERMIT (Below this line - Official Use Only)

Effective Date: 4/1/08 **Expiration Date:** 3/31/13

William R. Adriance
Permit Administrator

Address: NYSDEC - Division of Environmental Permits
Bureau of Environmental Analysis
625 Broadway, Albany, NY 12233-1750

William R. Adriance
Signature

SEP 20 2007
Date

This permit together with the previous valid permit for this facility issued 4/1/03 and subsequent modifications constitute authorization to discharge wastewater in accordance with all terms, conditions and limitations specified in the previously issued valid permit, modifications thereof or issued as part of this permit, including any special or general conditions attached hereto. Nothing in this permit shall be deemed to waive the Department's authority to initiate a modification of this permit on the grounds specified in 6NYCRR §621.14, 6NYCRR §754.4 or 6NYCRR §757.1 existing at the time this permit is issued or which arise thereafter.

~~Attachments: General Conditions dated ___/___~~

91-20-5a (5/97)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Please enter the numbers from your current permit:

DEC Number: 3 - 5152 - 00026/ 00004

SPDES Number: NY 002 5925

SPDES RENEWAL APPLICATION
QUESTIONNAIRE

THIS PAGE MUST BE COMPLETED AND RETURNED WITH YOUR COMPLETED APPLICATION

Please **TYPE** or **PRINT** neatly using adequate pressure to make ALL copies legible. Keep a copy for your records.

1. Has the SPDES permit for your facility been modified in the past 5 years ☐ YES ☒ NO

2. Dischargers who use, manufacture, store, handle or discharge toxic or hazardous pollutants are subject to Industrial Best Management Practices (BMP) plan requirements for toxic or hazardous substances. A BMP plan prevents or minimizes the potential for release of pollutants to receiving waters from such ancillary industrial activities, including material storage areas; plant site runoff; in-plant transfer; process and material storage areas; loading and unloading operations, and sludge and waste disposal areas.

   Does your facility conduct ancillary activities as described above, which are not covered by BMP requirements in your current permit? ☐ YES ☒ NO

Please indicate which of the following best describes the situation at your facility:

☒ None of the concerns on the "Self Evaluation List" seem to apply to my facility at this time and I will not be applying for a modification of the SPDES permit in the foreseeable future.

☐ Yes, some of the items on the "Self Evaluation List" have led me to believe that the permit for this facility needs to be modified. I already have a complete modification application pending with the Department.

☐ Yes, some of the items on the "Self Evaluation List" have led me to believe that the SPDES permit for this facility may need to be Modified. I have requested the appropriate forms by phone OR I have completed and attached the "Request For SPDES Application Forms" (included in this renewal package) to allow me to submit a permittee-initiated Modification application. See The "Request For SPDES Application Forms" page for a toll free 800 number.

☐ The items on the "Self Evaluation List" have left me unable to conclude whether my permit needs to be modified at this time. I am reporting the following general concerns about my permit:

_____

_____

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DISTRIBUTION: Regional Water Engineer
Regional Permit Administrator
Central Office (BWP)

APPENDIX C

Proposed Project Equipment Information

CIRCULAR OPENING
EXTENDED FLANGEBACK

P-32
SLUICE GATE

- HEAVY DUTY
- SELF CONTAINED
- MEETS AWWA SPECIFICATIONS*
- 60 FOOT SEATING, 20 FOOT UNSEATING PRESSURE
- 6" THRU 14" SIZES

APPLICATION:
Waterman Sluice Gate Model P-32 is ideally suited for pipe end shut-off applications.

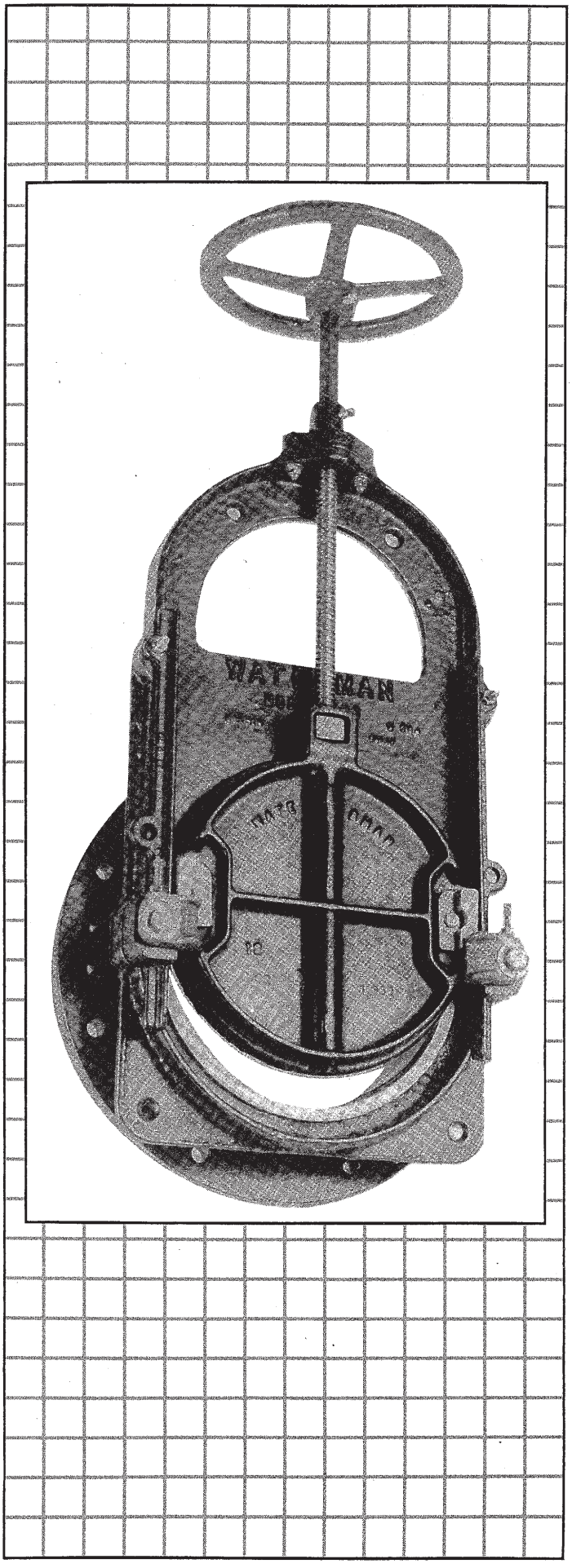
Commonly used for pumping stations, effluent ponding installations, and distributing boxes.

FEATURES:
The P-32 Sluice Gate is ruggedly constructed of high strength, close-grained cast grey iron. Stainless steel non-rising stems with 29 degree acme threads are standard.

Primarily supplied with 2" square operating nut. Can be furnished with handwheel (as shown) or with alternate lifts as commonly supplied with any other sluice gate.

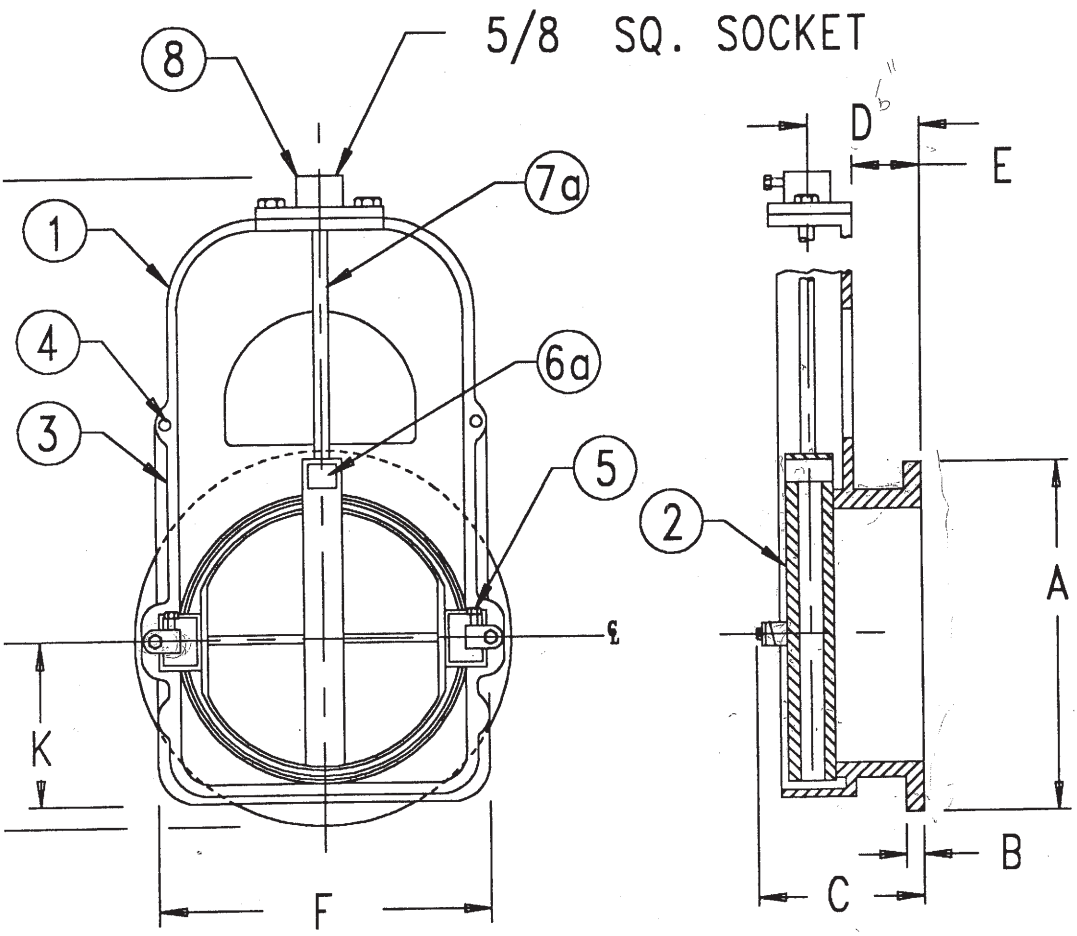
Features of note are:
Available in 6" up to 14" opening diameter. Circular opening, circular extended flangeback frame. Bronze seat faces and adjustable wedges. Stainless steel stem, non-rising (standard) and rising (optional). Stainless steel assembly hardware. Circular flangeback mounting, with option of 25 lb. ANSI or 125 lb. ANSI drilling. Designed to accommodate the full range of lift types.

* with AWWA approved materials



Waterman® INDUSTRIES, INC.

2 SLUICE GATE

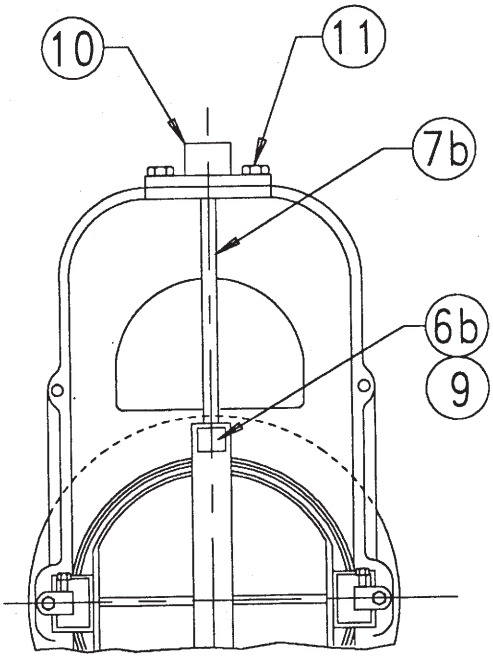


Non-Rising Stem

PARTS	
No.	Name
1	Frame - Cast Iron
2	Cover - Cast Iron
3	Guide Rails - Cast Iron
4	Rail Bolts - Stn. Stl.
5	Wedges - Bronze w/Stn. Stl. Hdwr.
Non-Rising Stem Ass'y.	
6a	Thrust Nut - Bronze
7a	Stem - Stn. Stl.
8	Lift Ass'y. - as req'd.
Rising Stem Ass'y.	
6b	Thrust Nut - Bronze
7b	Stem - Stn. Stl.
9	Pin - Stn. Stl.
10	Stem Guide - Cast Iron
11	Bolt & Nut - Stn. Stl.

DIMENSIONS IN INCHES									
GATE SIZE	A	B	C*	D*	E	F	G	J	K
6	11	.94	7 5/8	4 3/4	3 3/8	9 7/8	5 1/2	14 3/8	4 3/4
8	13 1/2	.94	7 5/8	4 1/2	3 3/8	11	6 3/4	17 5/8	5 1/2
10	16	.88	7 7/8	4 3/4	3 5/8	13 1/8	8	20 3/4	6 7/8
12	19	1.12	8 1/8	5	3 3/4	15 3/4	9 1/2	24 1/8	7 3/4
14	21	1.12	8 1/8	5	3 3/4	18	10 1/2	26 1/2	8 11/16

* Add grout pad thickness if applicable

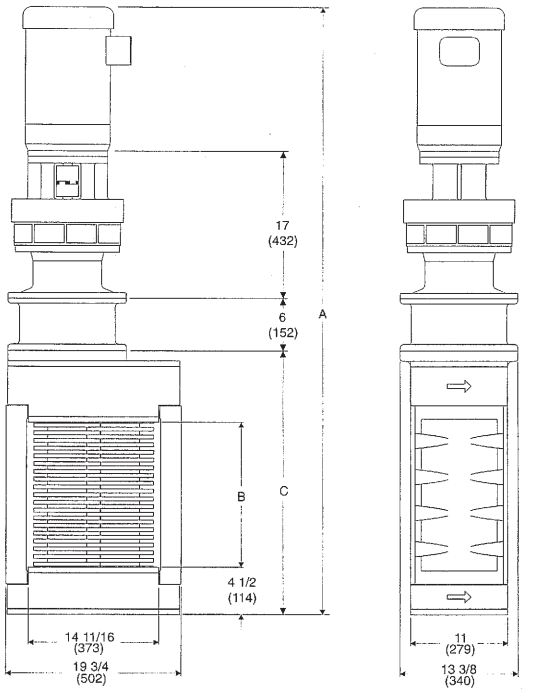


Rising Stem

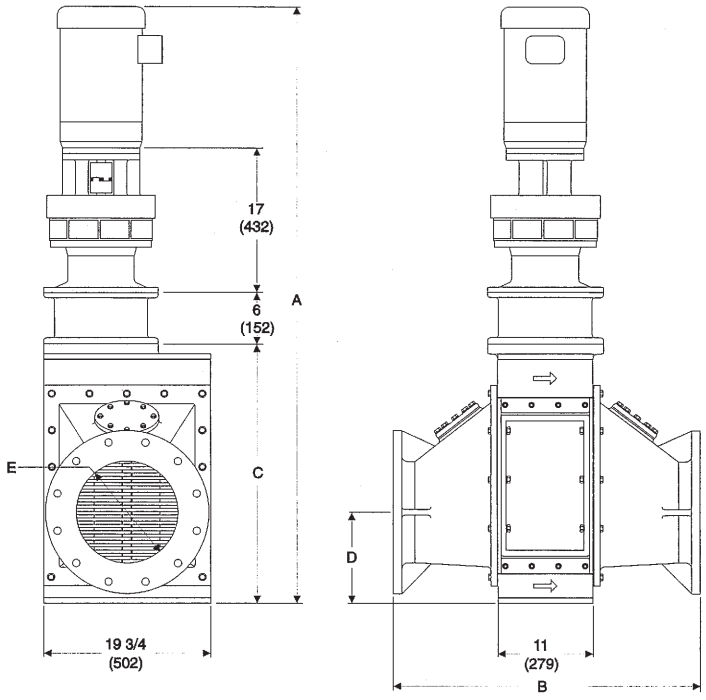
Waterman INDUSTRIES, INC.

NOTE: FOR PRELIMINARY DESIGN PURPOSES ONLY
DO NOT USE FOR INSTALLATION
UNLESS PART OF CERTIFIED & APPROVED SUBMITTAL

40000 SERIES
DIMENSIONAL DRAWINGS, ELECTRIC



CHANNEL CONFIGURATION



IN-LINE CONFIGURATION

CHANNEL CONFIGURATION

MODEL	DIMENSIONS INCHES (mm)		
	A	B	C
40000-0018	69 1/4 (1759)	18 (457)	30 1/4 (768)
40000-0024	75 5/8 (1921)	24 (610)	36 5/8 (930)
40000-0032	82 1/8 (2086)	32 (813)	43 1/8 (1095)

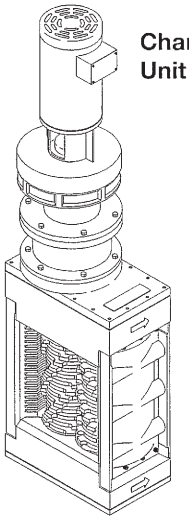
IN-LINE CONFIGURATION

MODEL	DIMENSIONS INCHES (mm)				
	A	B	C	D	E
40000-1812	69 1/4 (1759)	35 1/4 (895)	30 1/4 (768)	10 3/4 (273)	12 (305)
40000-2412	75 5/8 (1921)	35 1/4 (895)	36 5/8 (930)	10 3/4 (273)	12 (305)
40000-2416	75 5/8 (1921)	43 1/4 (1099)	36 5/8 (930)	12 5/8 (321)	16 (406)
40000-2418	75 5/8 (1921)	47 1/4 (1200)	36 5/8 (930)	13 5/8 (346)	18 (457)

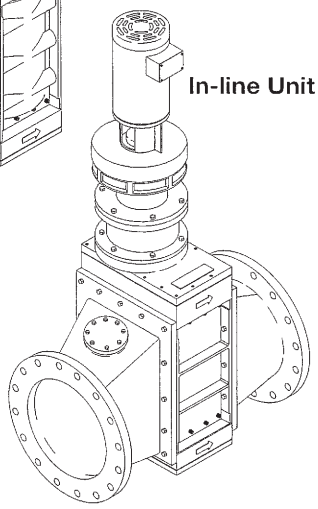
Dimensions are shown in English and (metric)

New Comminutor

40000 SERIES
PERFORMANCE CHARACTERISTICS



Channel Unit



In-line Unit

TYPICAL PERFORMANCE CAPABILITY– CHANNEL CONFIGURATION

MODEL	GPM (l/s)	HEAD DROP IN (mm)	APPROX. NET WEIGHT LB (kg)
40000-0018	1000 (63)	9 (229)	1175 (534)
40000-0024	1400 (88)	13 (330)	1365 (620)
40000-0032	1800 (114)	14 (356)	1560 (709)

TYPICAL PERFORMANCE CAPABILITY– IN-LINE CONFIGURATION

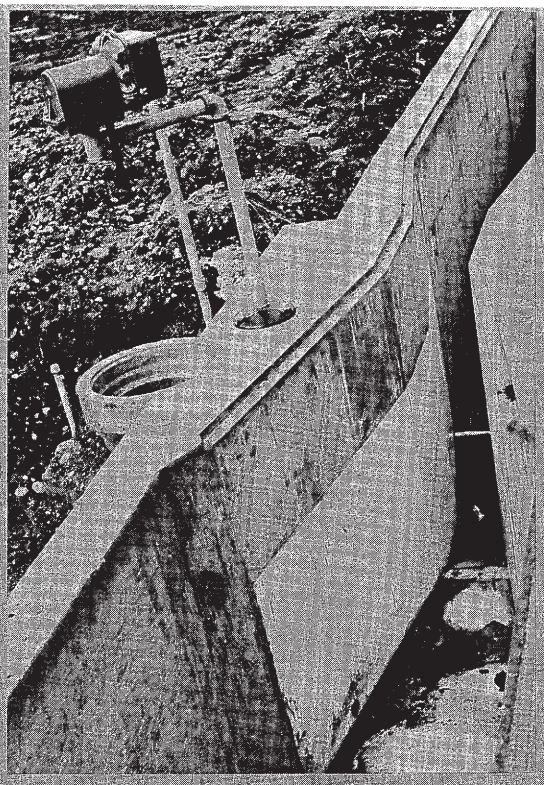
MODEL	GPM (l/s)	PRESSURE DROP P.S.I (kPa)	APPROX. NET WEIGHT LB (kg)
40000-1812	2500 (158)	3.00 (20.7)	1520 (691)
40000-2412	3000 (189)	1.12 (7.7)	1775 (807)
40000-2416	3500 (221)	1.35 (9.3)	1895 (861)
40000-2418	4000 (252)	1.80 (12.4)	2095 (952)

GRINDING PERFORMANCE OF SELECTED ITEMS
LB/HR (kg/hr)

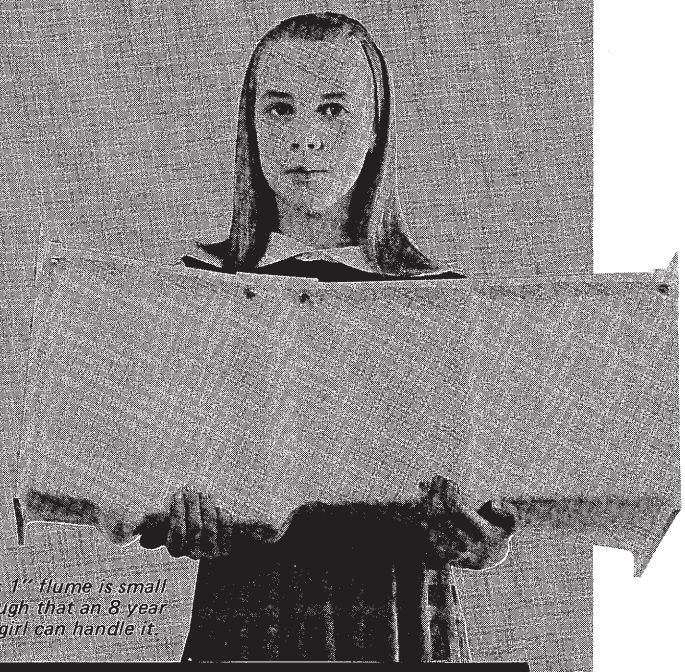
ITEM	MODEL[1]		
	40000-0018	40000-0024	40000-0032
DRY MIXTURE OF PAPER, CLOTHES, AND PLASTIC	3000 (1364)	3800 (1727)	4400 (2000)
WET MIXTURE OF DIAPERS, PAPER, PAPER TOWELS, AND NAPKINS	2400 (1091)	3000 (1364)	3500 (1591)
SMALL MISC. FOAM, PLASTIC, AND LIGHT METAL PARTS	1000 (455)	1250 (568)	1500 (682)
RAW SCREENINGS	2150 (977)	3000 (1364)	4000 (1818)

[1] MUFFIN MONSTER CONFIGURATION: 10 hp (7.4 kW) motor, 43:1 reducer, cam cutters, and cleanout scrapers.

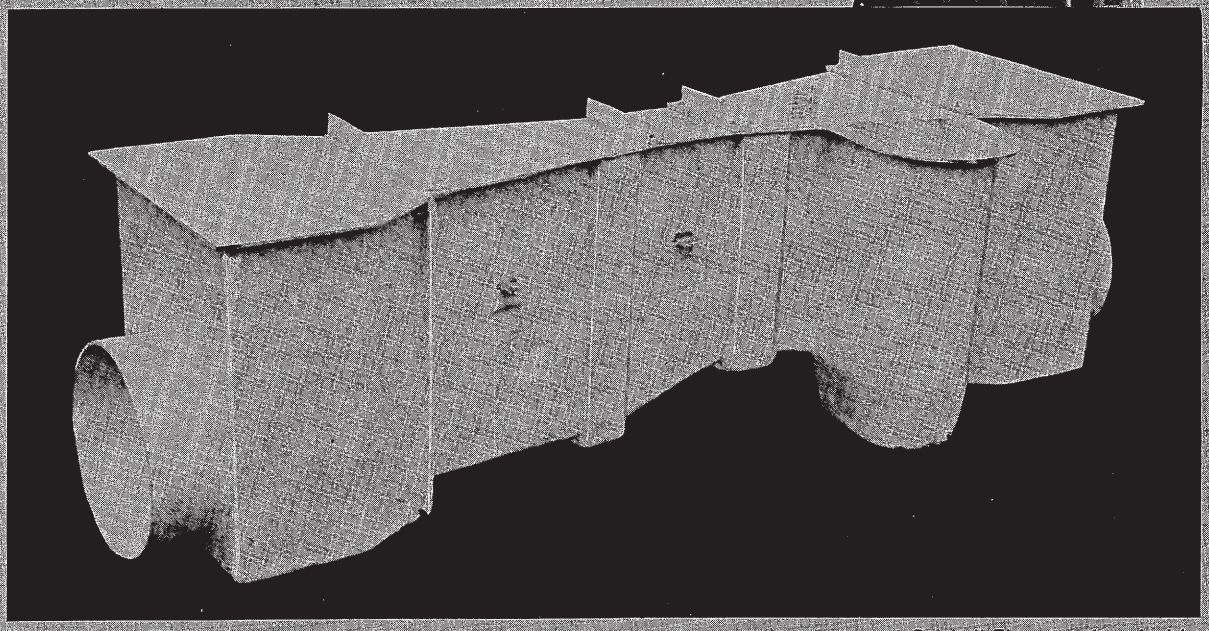
Dimensions are shown in English and (metric)



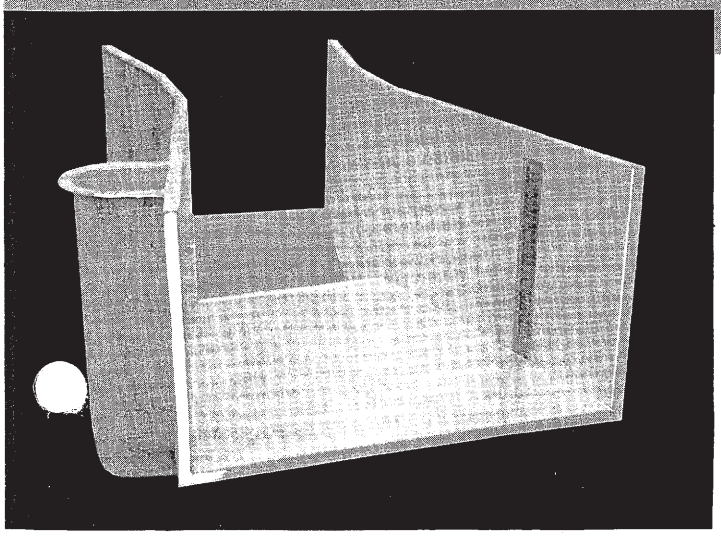
A 6" flume with a separate floatwell in a municipal treatment plant.



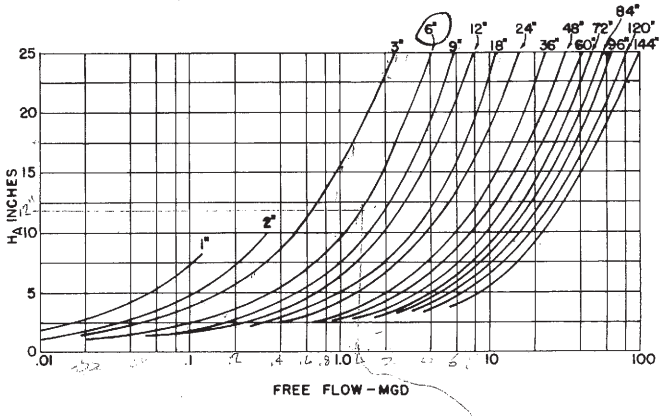
This 1" flume is small enough that an 8 year old girl can handle it.



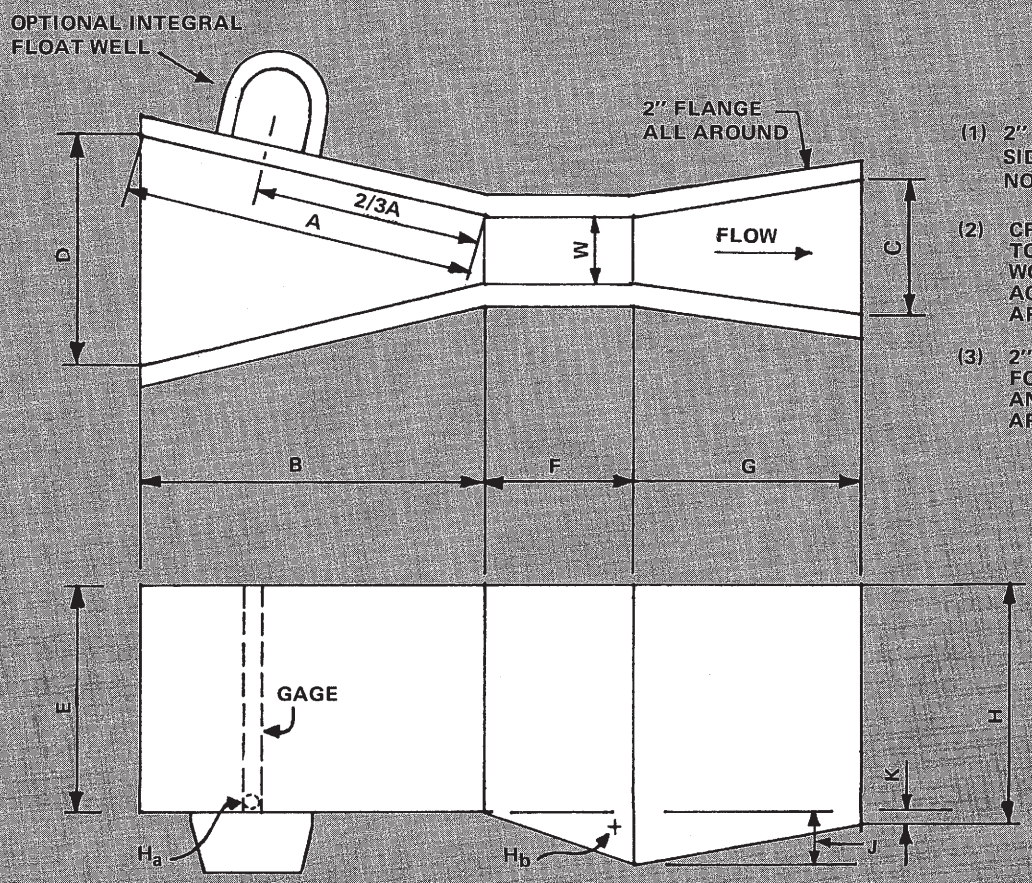
A Parshall Flume equipped with standard Plasti-Fab end adapters for installation in a pipeline.



A 3-foot flume with attached floatwell.



10 ¢ x 9 = 936 gpm ≈ 1.35 mgd



(1) 2" HIGH RIBS ON SIDES & BOTTOM ARE NOT SHOWN

(2) CROSSTIES AT THE TOP OR TEMPORARY WOOD STIFFENERS ACROSS THE TOP ARE NOT SHOWN.

(3) 2" CLIPS ON SIDES FOR CONCRETE ANCHORAGE ARE NOT SHOWN.

W	A	2/3 A or 2/3 (W/2+4)	B	C	D	E	F	G	H	J	K
1"	1'-2-9/32"	0'-9-17/32"	1'-2"	0'-3-21/32"	0'-6-19/32"	0'-9"	0'-3"	0'-8"	0'-9-3/4"	1-1/8"	3/4"
2"	1'-4-5/16"	0'-10-7/8"	1'-4"	0'-5-5/16"	0'-8-13/32"	0'-9"	0'-4-1/2"	0'-10"	0'-9-7/8"	1-11/16"	7/8"
3"	1'-6-3/8"	1'-0-1/4"	1'-6"	0'-7"	0'-10-3/16"	2'-0"	0'-6"	1'-0"	2'-1"	2-1/4"	1"
6"	2'-0-7/16"	1'-4-5/16"	2'-0"	1'-3-1/2"	1'-3-5/8"	2'-0"	1'-0"	2'-0"	2'-3"	4-1/2"	3"
9"	2'-10-5/8"	1'-11-1/8"	2'-10"	1'-3"	1'-10-5/8"	2'-6"	1'-0"	1'-6"	2'-9"	4-1/2"	3"
12"	4'-6"	3'-0"	4'-4-7/8"	2'-0"	2-9-1/4"	3'-0"	2'-0"	3'-0"	3'-3"	9"	3"
18"	4'-9"	3'-2"	4'-7-7/8"	2'-6"	3'-4-3/8"	3'-0"	2'-0"	3'-0"	3'-3"	9"	3"
24"	5'-0"	3'-4"	4'-10-7/8"	3'-0"	3'-11-1/2"	3'-0"	2'-0"	3'-0"	3'-3"	9"	3"
30"	5'-4-1/4"	3'-6-3/4"	5'-3"	3'-6"	4'-6-3/4"	3'-0"	2'-0"	3'-0"	3'-3"	9"	3"
36"	5'-6"	3'-8"	5'-4-3/4"	4'-0"	5'-1-7/8"	3'-0"	2'-0"	3'-0"	3'-3"	9"	3"
48"	6'-0"	4"-0"	5'-10-5/8"	5'-0"	6'-4-1/4"	3'-0"	2'-0"	3'-0"	3'-3"	9"	3"
60"	6'-6"	4'-4"	6'-4-1/2"	6'-0"	7'-6-5/8"	3'-0"	2'-0"	3'-0"	3'-3"	9"	3"
72"	7'-0"	4'-8"	6'-10-3/8"	7'-0"	8'-9"	3'-0"	2'-0"	3'-0"	3'-3"	9"	3"
84"	7'-6"	5'-0"	7'-4-1/4"	8'-0"	9'-11-3/8"	3'-0"	2'-0"	3'-0"	3'-3"	9"	3"
96"	8'-0"	5'-4"	7'-10-1/8"	9'-0"	11'-1-3/4"	3'-0"	2'-0"	3'-0"	3'-3"	9"	3"
120"	14'-3-1/4"	6'-0"	14'-0"	12'-0"	15'-7-1/4"	4'-0"	3'-0"	6'-0"	4'-6"	1'-1-1/2"	6"
144"	16'-3-3/4"	6'-8"	16'-0"	14'-8"	18'-4-3/4"	5'-0"	3'-0"	8'-0"	5'-6"	1'-1-1/2"	6"

New Parshall Flume

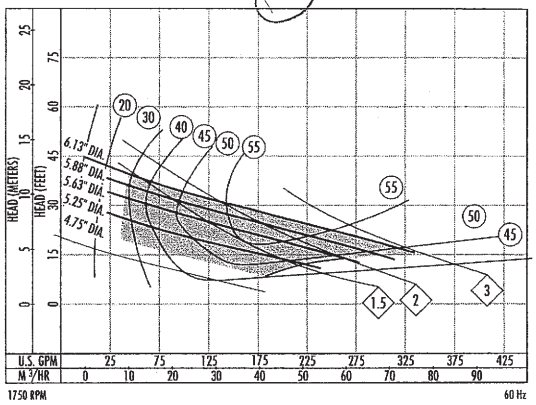
S3S/S4S & SB3S/SB4S - Submersible Sewage Pumps

FEATURES AND PERFORMANCE...

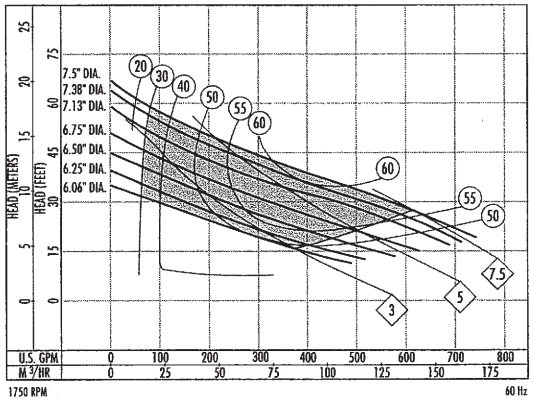
- Oil-filled motor for cooler operation, longer life, and less maintenance. The dielectric oil effectively dissipates heat and lubricates upper and lower ball bearings.
- Single phase motors are capacitor start, capacitor run with capacitors located in control panel. Contact distributor for proper Hydromatic control panel sizing.
- Standard construction is cast iron.
- 300 Series Stainless steel shafts.
- Standard 15' or 30' power cord has three conductor PVC jacket.
- Field serviceable; pumps have 300 series stainless steel fasteners for easy tear down.
- Semi-open, two-vane sewage type impellers have pump-out vanes on back shrouds to prevent stringy materials from building up around shaft and seal.
- Manufactured with carbon and ceramic faced mechanical shaft seal for long leakproof life.
- All units given complete hydraulic test run before shipping.

○ = %EFF ◇ = BHP

MODEL NO. S3S & SB3S



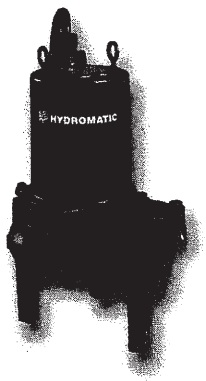
MODEL NO. S4S & SB4S



S3S Series

S4S Series

SB3S Series



SB4S Series

HYDROMATIC®
Pentair Pump Group

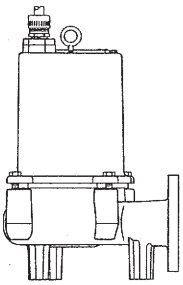
USA
1840 Baney Road Ashland, Ohio 44805
Tel: 419-289-3042 Fax: 419-281-4087

ISO 9001 Certified
www.hydromatic.com

– Your Authorized Local Distributor –

CANADA
269 Trillium Drive Kitchener, Ontario, Canada N2G 4W5
Tel: 519-896-2163 Fax: 519-896-6337

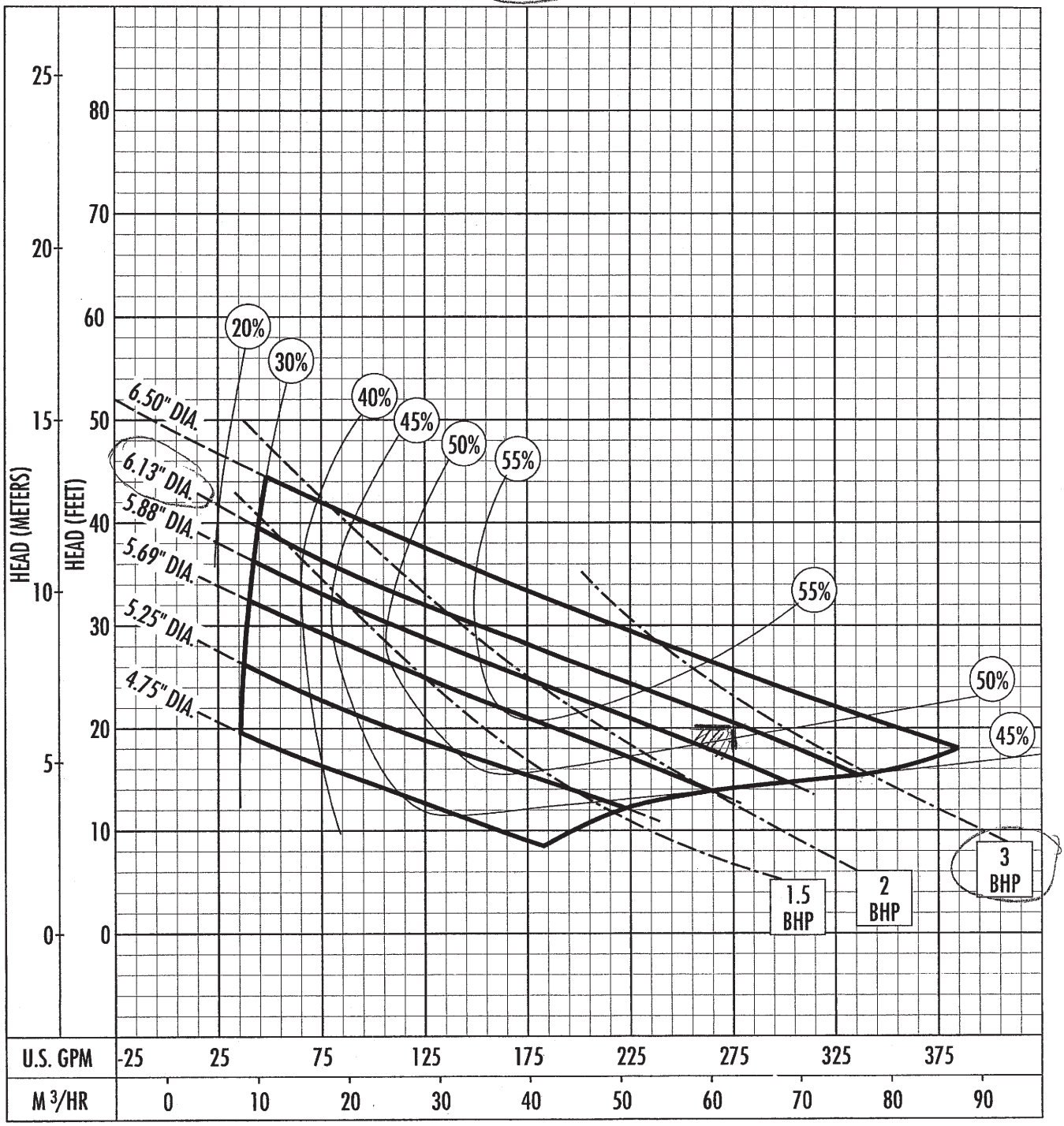
Item #: E-02-6520 7/00 10M



Performance Curve

S3S

RPM: **1750** Discharge: **3"** Solids: **2-1/2"**



The curves reflect maximum performance characteristics without exceeding full load (Nameplate) horsepower. All pumps have a service factor of 1.2. Operation is recommended in the bounded area with operational point within the curve limit. Performance curves are based on actual tests with clear water at 70° F. and 1280 feet site elevation.

Conditions of Service:

GPM: _____ **TDH:** _____

HYDROMATIC®

New 20 HP Blower
(Same as existing)

DRAFT EQUIPMENT SPECIFICATIONS

Watchtower Farms
Wallkill, New York
Wastewater Facilities Improvements

Project No. WTF-037
August 7, 1995

FINAL SPECS
[illegible] FOR COOPER
[illegible] 5/10/95
[illegible]
JGN

AERATION BLOWERS

1. SCOPE

Furnish blowers and associated equipment for the aeration system as specified herein and in accordance with the attached catalog cuts.

2. SOURCE

Manufacturer: Cooper Industries, Industrial Machinery Division

Local Representative: Bankhauf - Georgas Associates, Inc.
One Lethbridge Plaza, P.O. Box 765
Mahwah, New Jersey 07430
Phone (201)529-0077

3. DESCRIPTION.

Positive displacement rotary blowers shall be Sutorbilt California "L - Series" vertical blowers, bottom hand central configuration, with screwed NPT connections. All blowers shall be rated for a discharge pressure of 7 psig. Blowers, motors, and silencers shall be furnished in the table on the following page.

Blowers shall be equipped with 460 volt, 60 Hz, ,3-phase drip-proof motors mounted on an adjustable sliding base, with belt drive and removable belt guard. The motor shall be to the left of the blower when looking at the blower from the pulley side. Blowers and motors shall be furnished with a common base plate for installation on a concrete foundation (by others).

A weighted relief valve suitable for the service conditions shall also be furnished for each blower package as indicated in the table on the following page.

(See attached catalog cuts)

END OF SECTION

Blower Package Table:

	Bare Blower				Motor (460V/3ϕ/60Hz)			Baseplate & V-belt drive	Relief Valve	Intake Silencers		Exhaust Silencers	
Model	Qty	cfm[1]	rpm[1]	Bhp	Qty	Nhp	rpm[2]	Qty	Qty	Qty	Model	Qty	Model
3MVL	0[3]	-	-	-	2	7.5	1750	2	3	3	BMSI-2½	3	BMSS-2½
5MVL	~~0~~[4] 1	357	2070	14.4	1	20	1750	1	~~2~~ 1	~~2~~ 1	BMSI-4	~~2~~ 1	BMSS-4
6MVL	2	527	1680	21.3	2	30	1750	2	2	2	BMSI-4	2	BMSS-4

Need VFD for this new blower

Notes:

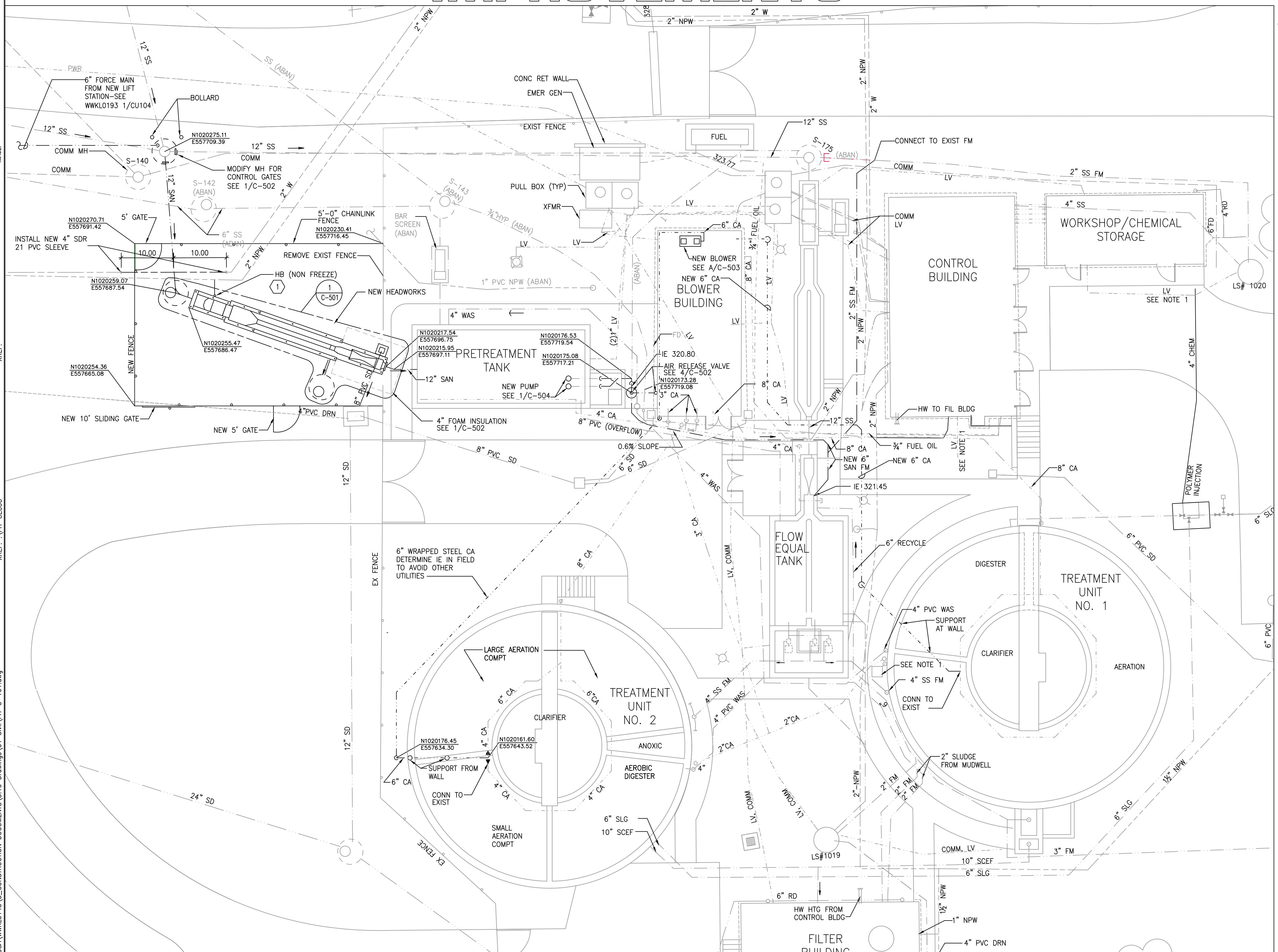
[1]At maximum motor speed. Cfm free air measured at blower inlet.

[2]Maximum speed, controlled by variable frequency drive units (by others).

[3]Bare blowers not required - three bare 3MVF blowers and one motor/base/drive are on hand.

[4]Furnish one blower package without bare blower unit. One bare 5MVL blower and one complete 5MVL package already ordered by WTF Env. Services, to temporarily replace aging units. Performance data shown for bare blower is for information only.

WASTEWATER TREATMENT PLANT IMPROVEMENTS



1 PLAN – UTILITIES

1" = 10'   0 5' 10' 20'

DRAWING INDEX

KEY NOTES

1. USA BLUE BOOK – STOCK NO. MB 15600

GENERAL SHEET NOTES

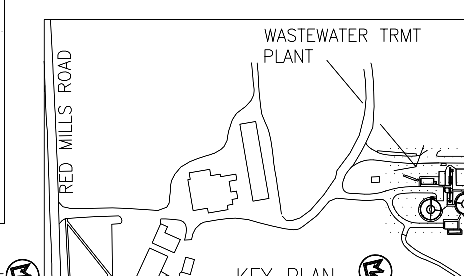
1. USE EXTREME CAUTION WHEN EXCAVATING FOR NEW UTILITIES BECAUSE OF UNCERTAINTIES REGARDING LOCATION OF EXISTING UTILITIES. MANY LV, COMM, CONTROL LINES AND CHEMICAL CHASES ARE NOT SHOWN, PARTICULARLY OUTSIDE AREAS OF NEW WORK. REFER TO 'CALL BEFORE YOU DIG' DRAWINGS FOR ADDITIONAL INFORMATION.
2. LINES TO BE ABANDONED CAN BE REMOVED OR KEPT IN PLACE WHERE APPROVED, IN WHICH CASE THE ENDS SHALL BE CAPPED OR PLUGGED.
3. ALL BURIED STEEL PIPE SHALL BE WRAPPED WITH POLYETHELENE TAPE COATING.
4. ELEVATIONS SHOWN ON ARCHIVED DRAWINGS GENERALLY VARY FROM THE RECENTLY SURVEYED VALUES, IN SOME CASES IN EXCESS OF ONE FOOT. CONFIRM ELEVATIONS OF EXISTING WORK PRIOR TO BEGINNING NEW WORK.
5. REMOVE GATES AND PLUG ABANDONED SANITARY SEWER AT MANHOLE S–144 AND MANHOLE S–141

ABBREVIATIONS

ABAN	ABANDON
APPROX	APPROXIMATE
BFV	BUTTERFLY VALVE
BLDG	BUILDING
CA	COMPRESSED AIR (LOW PRESSURE)
CI	CAST IRON
CONC	CONCRETE
COMM	COMMUNICATION LINE (INCLUDES CONTROLS)
COMPT	COMPARTMENT
DBL	DOUBLE
DOT	DEPARTMENT OF TRANSPORTATION
EQUAL	EQUALIZATION
EXIST	EXISTING
FIL BLDG	FILTER BUILDING
FM	FORCE MAIN
HB	HOSE BIBB
IE	INVERT ELEVATION
LS	LIFT STATION
LV	LOW VOLTAGE ELECTRICAL LINE
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
NPW	NON POTABLE WATER
PVC	POLYVINYL CHLORIDE
SCEF	SECONDARY EFFLUENT
SD	STORM DRAIN
SLG	SLUDGE
SS	SANITARY SEWER
STD	STANDARD
TYP	TYPICAL
W	POTABLE WATER
WAS	WASTE ACTIVATED SLUDGE

LEGEND

- EXISTING PROPERTY LINE
- SWALES
- EXISTING CHAIN LINK FENCE
- PORPOSED CHAIN LINK FENCE
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- CENTERLINE
- NXXXX / EXXXX — NORTH – EAST COORDINATES
- DIRECTION OF FLOW
- MANHOLE
- CATCH BASIN



KINGDOM SUPPORT SERVICES, INC.
175 PEARL STREET BROOKLYN, NY 11201 USA
PH: (718) 560–4800
FAX: (718) 560–8831

STATE OF NEW YORK · JOSEPH CONWAY DODD · 64062 · LICENSED PROFESSIONAL ENGINEER

CONSULTANT:

MARK:	DATE:	DESCRIPTION:
–	15 JAN 09	FEIS FILING

OWNER:
WATCHTOWER BIBLE & TRACT SOC. OF NY, INC.
25 COLUMBIA HEIGHTS
BROOKLYN, NY 11201

ACCOUNT No.

PROJECT TITLE:
WASTEWATER TREAT. PLANT IMPROVEMENT
900 RED MILLS ROAD
WALLKILL, NY 12589

SHEET TITLE:
SITE PLAN UTILITIES

PROJECT No. WWKLO143

SHEET No. C–101

PLOT DATE: 15 Jan 09 PLOTTED BY: Warren, Krystal
DIMSCALE: 120.00 DSGN\DRFT: JD\CC
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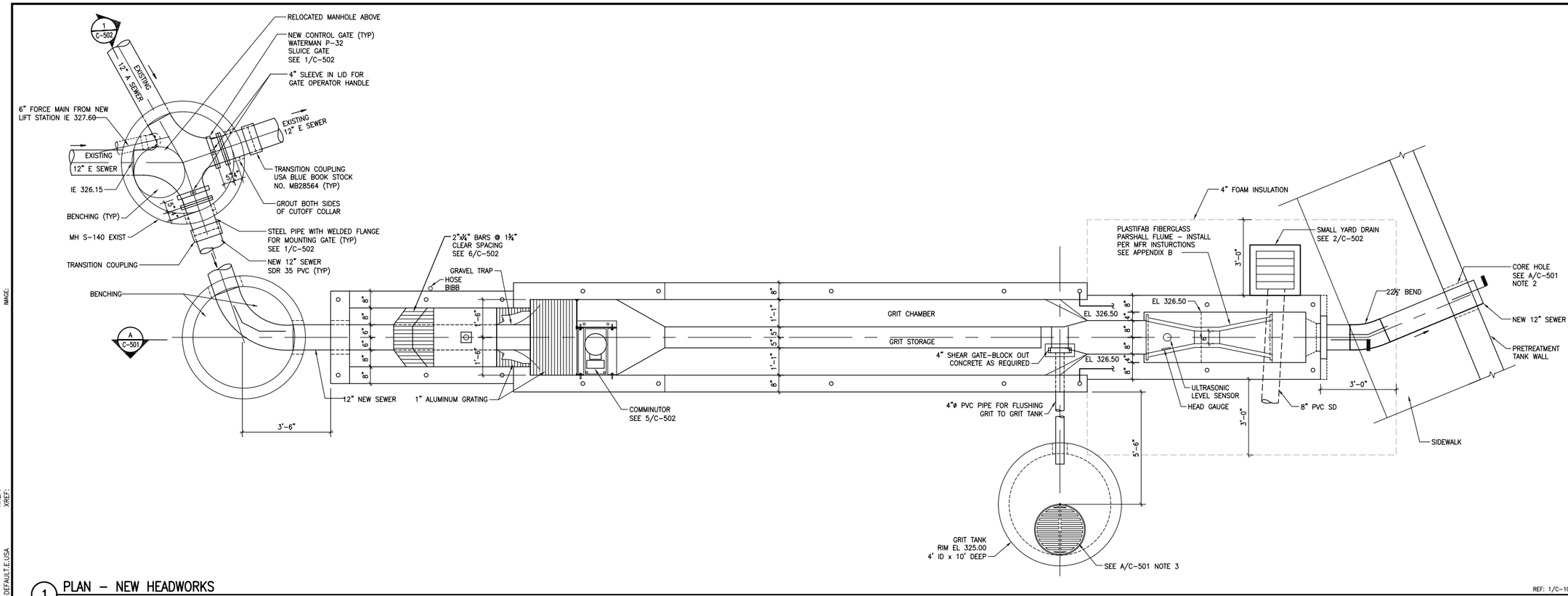
XREF: XREF: XREF: XREF: XREF: XREF: .\FH-CE000

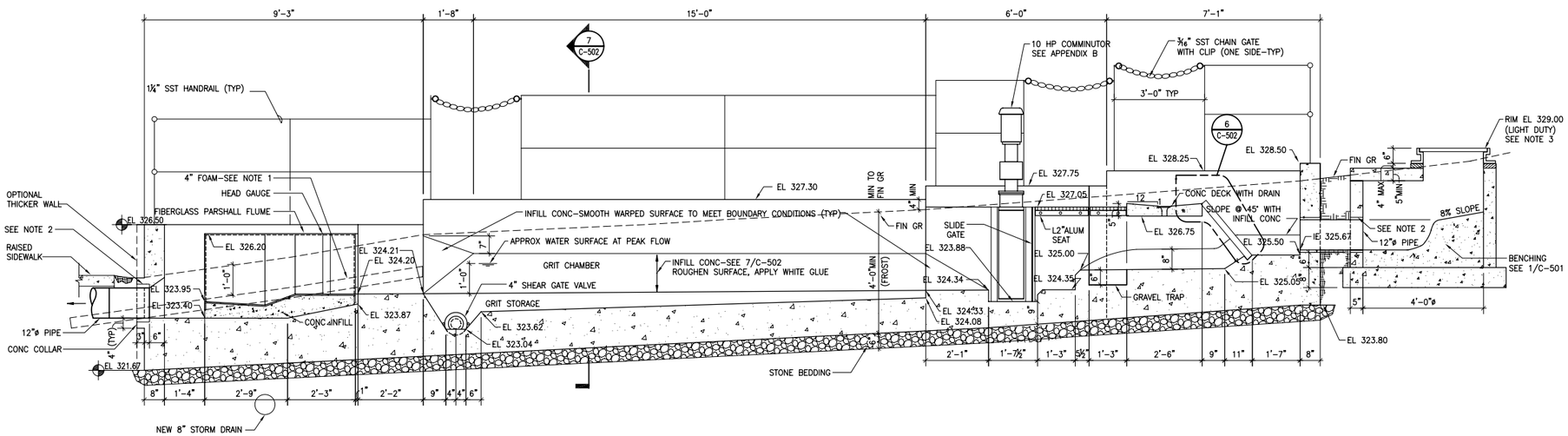


1 PLAN – NEW HEADWORKS

REF: 1/C-101

½" = 1'-0"

NOTE:
1. EXTEND FOAM 3' MIN BEYOND STRUCTURE FOR FROST PROTECTION.
2. GASKET TYPE SEAL OR LINKSEAL (TYP)
3. LIGHT DUTY MANHOLE FRAME AND COVER CAMPBELL FOUNDRY NO. 1309 OR EQUAL



A SECTION – NEW HEADWORKS

REF: 1/C-501

½" = 1'-0"

KINGDOM SUPPORT SERVICES, INC.
175 PEARL STREET BROOKLYN, NY 11201 USA
PH: (718) 560-4000 FAX: (718) 560-5831

STATE OF NEW YORK JOSEPH CONWAY DODD 072058 LICENSED PROFESSIONAL ENGINEER

CONSULTANT:

MARK:	DATE:	DESCRIPTION:
–	15 JAN 09	FEIS FILING

OWNER:
WATCHTOWER BIBLE & TRACT SOC. OF NY, INC.
25 COLUMBIA HEIGHTS
BROOKLYN, NY 11201

ACCOUNT No.

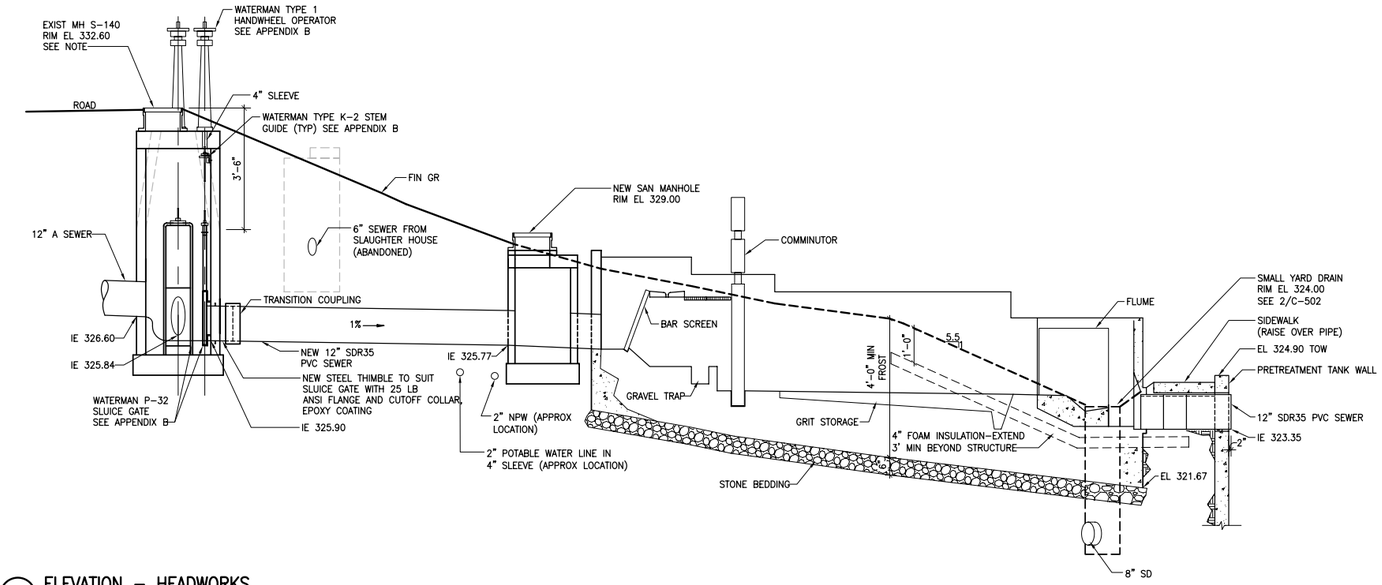
PROJECT TITLE:
WASTEWATER TREAT. PLANT IMPROVEMENT
900 RED MILLS ROAD
WALLKILL, NY 12589

SHEET TITLE:
NEW HEADWORKS PLAN & SECTIONS

PROJECT No.
WWKL0143

SHEET No.
C-501

NOTE:
REMOVE THE EXISTING TAPERED SECTION AND REPLACE WITH A NEW CYLINDRICAL SECTION AND NEW FLAT LID. RELOCATE EXISTING MANHOLE FRAME AND COVER AND PROVIDE SLEEVES IN LID FOR GATE OPERATOR STEM AS SHOW ON 1/C-501.



1 ELEVATION – HEADWORKS

REF: 1/C-501

VERTICAL ½" = 1'-0" (0, 1', 2', 4')

HORIZONTAL 1" = 5' (0, 2½', 5', 10')

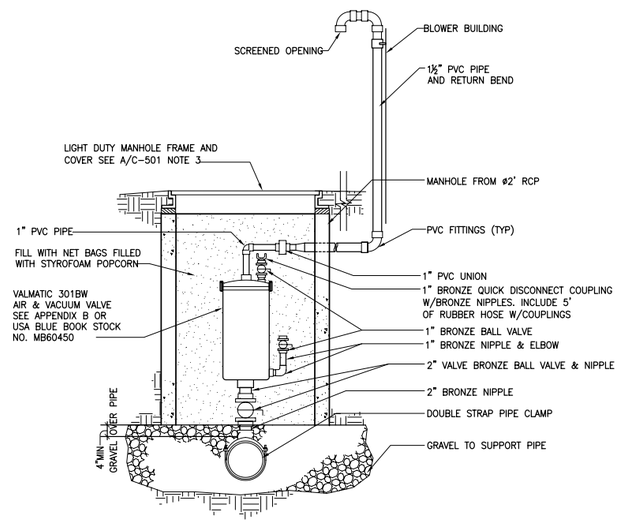
NOTES:

1. ALL UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH COMPACTED BEDDING MATERIAL.
2. STORM PIPE BEDDING MATERIAL:
   ABOVE GROUND WATER OR ROCK: COMPACTED EXISTING SUBSOIL
   BELOW GROUND WATER OR ROCK: ½" TO ?" CRUSHED STONE (⅜" MAXIMUM FOR PVC PIPE)
3. PIPE BEDDING MATERIAL SHALL BE LAID AND COMPACTED DRY.
4. BEDDING TO BE SMOOTHED PRIOR TO PIPE INSTALLATION, WITH POCKETS FOR JOINTS.
5. SELECT BACKFILL SHALL NOT CONTAIN ROCKS OVER 1" IN SIZE, CLAY OR OTHER UNSUITABLE MATERIAL.
6. FOR PVC PIPE:
   A. FOR GLUED JOINTS, BACKFILLING SHALL BE DONE WHEN PIPE IS SUFFICIENTLY COOL TO PREVENT CONTRACTION STRESSES ON UNDRIED JOINTS.
   B. PIPE SHALL BE UNIFORMLY AND CONTINUOUSLY SUPPORTED OVER ITS ENTIRE LENGTH ON FIRM, STABLE MATERIAL. BLOCKING SHALL NOT BE USED UNDER THE PIPE AT ANY TIME.
   C. BEDDING AND SELECT MATERIAL SHALL NOT CONTAIN ROCKS OVER ½" IN SIZE FOR UP TO 6" PIPE. FOR PIPE OVER 6", 1" MINUS MATERIAL IS ACCEPTABLE.
   D. SANITARY SEWER PIPE: USE SDR 35 PIPE OR EQUAL (ASTM 3034). WATER MAINS: USE SDR 21 RATED FOR 200 PSI OR EQUAL (ASTM 2441).
7. IN TRENCHES DEEPER THAN 5 FEET, SIDEWALLS SHALL BE SLOPED BACK AT A MIN. 1:1 OR A TRENCH BOX MUST BE USED TO ENSURE SAFETY OF PERSONNEL.

3 DETAIL – UTILITY TRENCH

REF: 1/C-101

NOT TO SCALE



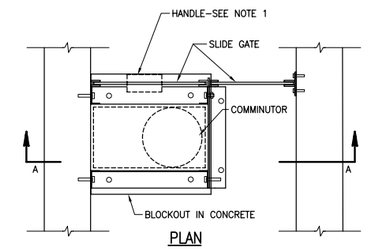
4 DETAIL – AIR & VACUUM RELEASE VALVE

REF: 1/C-101

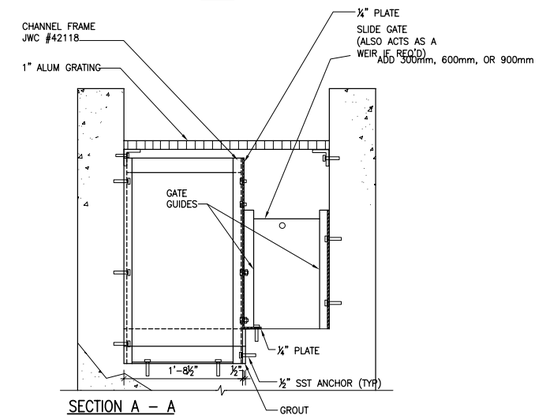
1" = 1'-0" (0, ½', 1', 2')

NOTES:

1. REMOVE TOP HANDLE FROM MANUFACTURER FURNISHED SLIDE GATE.
2. STEEL SURFACES NOT FACTORY COATED TO BE SANDBLASTED, PRIMED WITH ONE COAT TNEMMEC 66 EPOXOLINE AND COATED WITH NOT LESS THAN TWO COATS OF TNEMEC 104 H.S. EPOXY.



PLAN

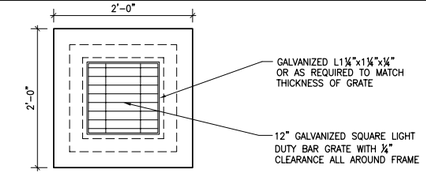


SECTION A – A

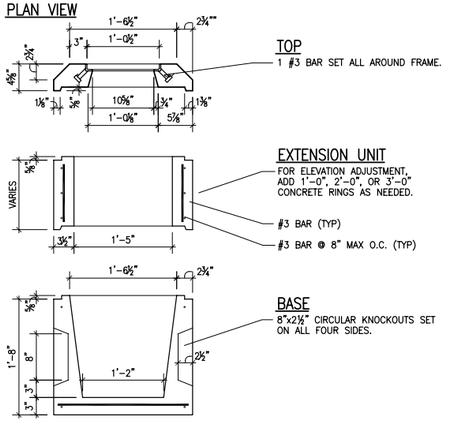
5 DETAIL – COMMINUTOR

REF: 1/C-101

1" = 1'-0" (0, ½', 1', 2')



PLAN VIEW

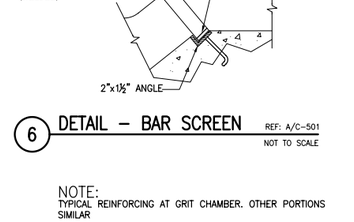


SECTION

2 DETAIL – SMALL YARD DRAIN

REF: 1/C-101

1" = 1'-0" (0, ½', 1', 2')

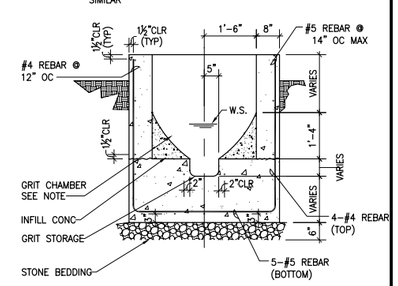


6 DETAIL – BAR SCREEN

REF: A/C-501

NOT TO SCALE

NOTE:
TYPICAL REINFORCING AT GRIT CHAMBER. OTHER PORTIONS SIMILAR



7 SECTION – GRIT CHAMBER

REF: A/C-501

½" = 1'-0" (0, 1', 2', 4')

KINGDOM SUPPORT SERVICES, INC.
175 PEARL STREET
BROOKLYN, NY 11201 USA
PH: (718) 560-4000
FAX: (716) 560-5831

STATE OF NEW YORK
JOSEPH CONWAY DODD
LICENSED PROFESSIONAL ENGINEER
052058

CONSULTANT:

MARK:	DATE:	DESCRIPTION:
–	15 JAN 09	FEIS FILING

OWNER:
WATCHTOWER BIBLE & TRACT SOC. OF NY, INC.
25 COLUMBIA HEIGHTS
BROOKLYN, NY 11201

ACCOUNT No.

PROJECT TITLE:
WASTEWATER TREAT. PLANT IMPROVEMENT
900 RED MILLS ROAD
WALLKILL, NY 12589

SHEET TITLE:
NEW HEADWORKS ELEVATION SECTION & DETAILS

PROJECT No.
WWKL0143

SHEET No.
C-502

PLOT DATE: 13 Jan 09
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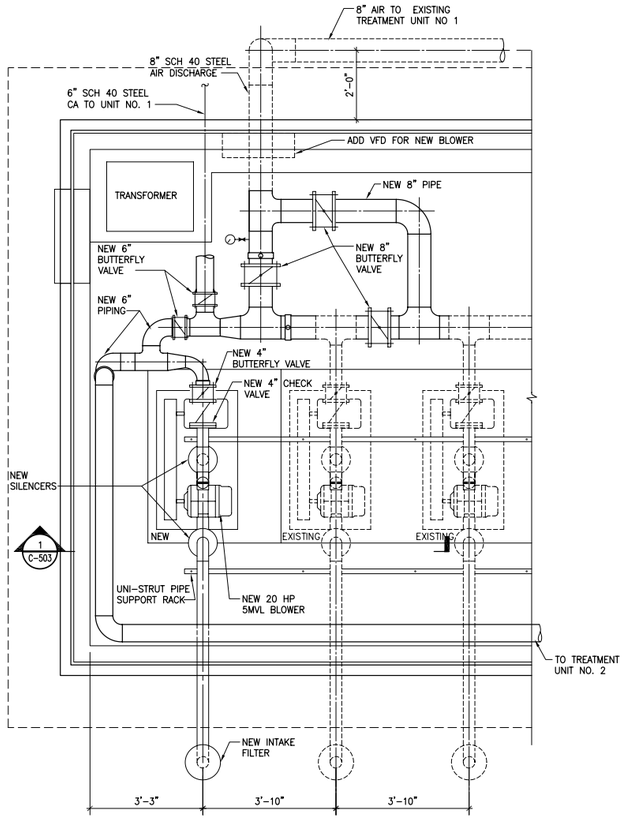
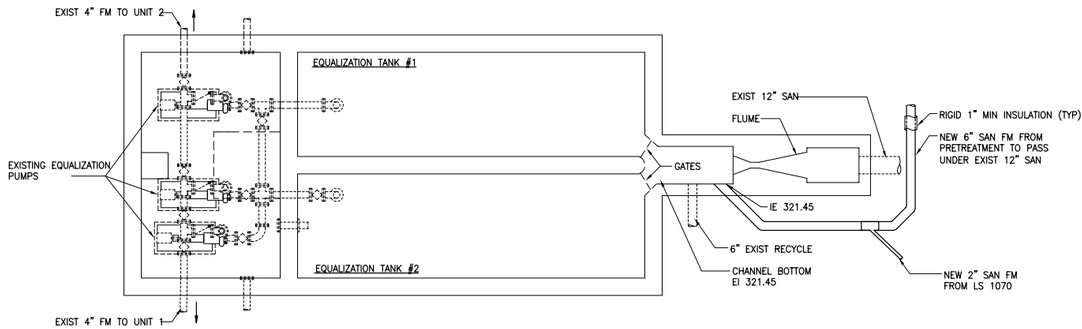


A PLAN – NEW BLOWER & PIPING REF: 1/C-101

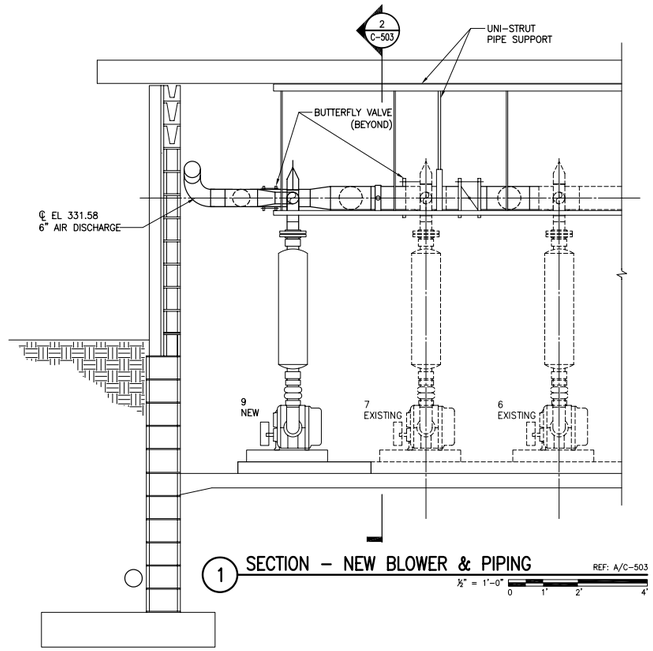
½" = 1'-0" (0, 1', 2', 4')

NOTE:
SEE C-101 GENERAL SHEET NOTES 4



B PLAN – EQUALIZATION TANKS ADDED PIPING REF: 1/C-101

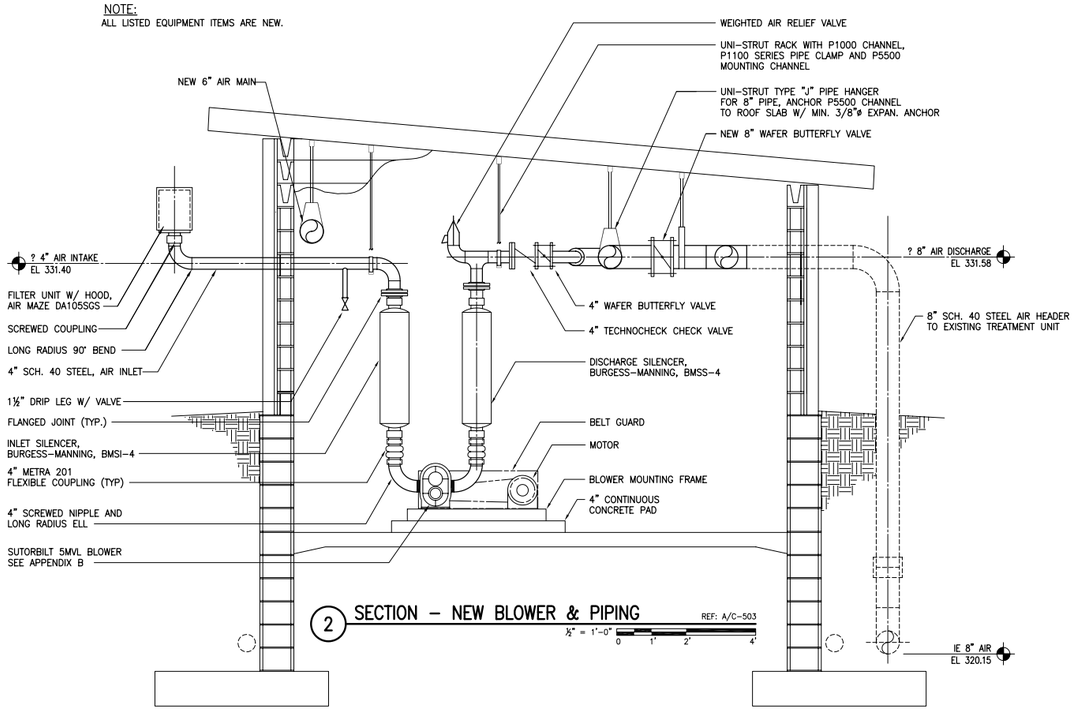
¼" = 1'-0" (0, 2', 4', 8')



1 SECTION – NEW BLOWER & PIPING REF: A/C-503

½" = 1'-0" (0, 1', 2', 4')

NOTE:
ALL LISTED EQUIPMENT ITEMS ARE NEW.



2 SECTION – NEW BLOWER & PIPING REF: A/C-503

½" = 1'-0" (0, 1', 2', 4')

KINGDOM SUPPORT SERVICES, INC.
175 PEARL STREET PH: (718) 560-4000
BROOKLYN, NY 11201 USA FAX: (718) 560-5831

STATE OF NEW YORK JOSEPH CONWAY GOOD 075058 LICENSED PROFESSIONAL ENGINEER

CONSULTANT:

MARK:	DATE:	DESCRIPTION:
–	15 JAN 09	FEIS FILING

OWNER:
WATCHTOWER BIBLE & TRACT SOC. OF NY, INC.
25 COLUMBIA HEIGHTS
BROOKLYN, NY 11201

ACCOUNT No.

PROJECT TITLE:
WASTEWATER TREAT. PLANT IMPROVEMENT
900 RED MILLS ROAD
WALLKILL, NY 12589

SHEET TITLE:
ADDED BLOWER PIPING PLANS & SECTIONS

PROJECT No.
WWKL0143

SHEET No.
C-503

IMAGE:
IMAGE:
IMAGE:
IMAGE:
IMAGE:
IMAGE:
XREF:
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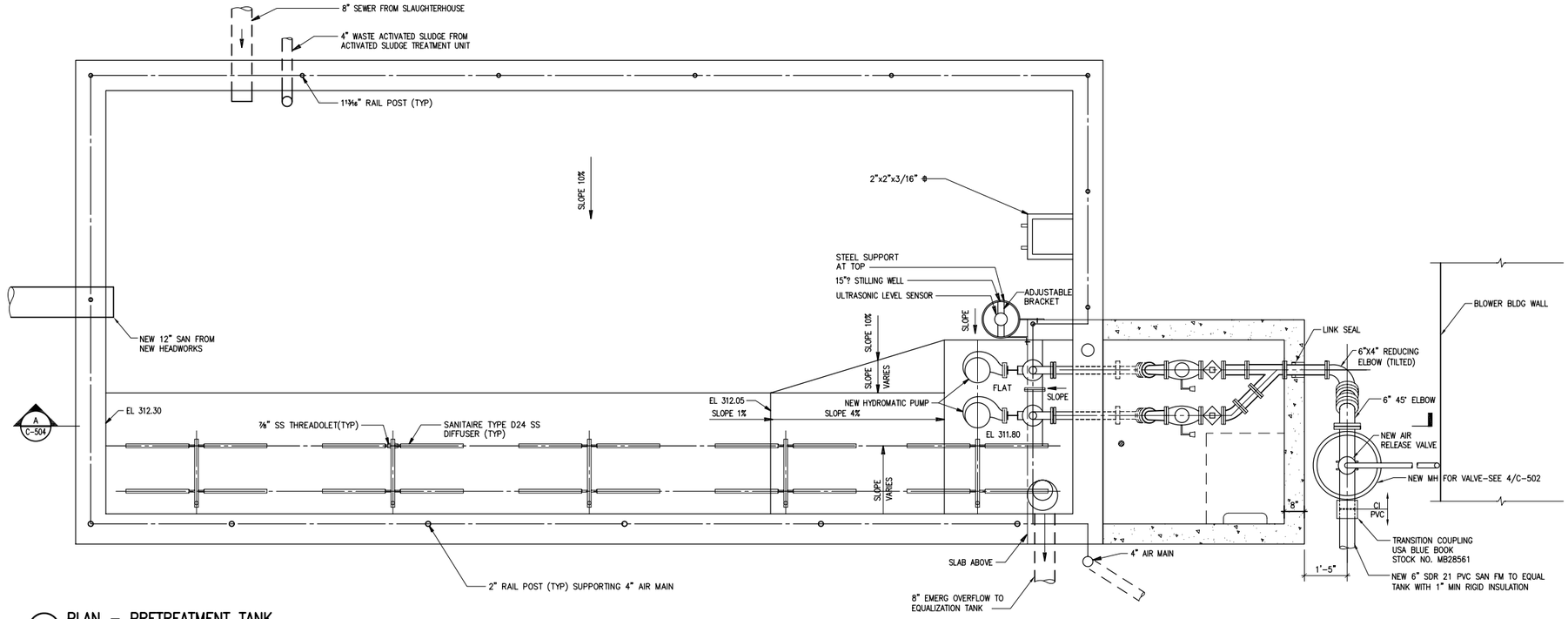
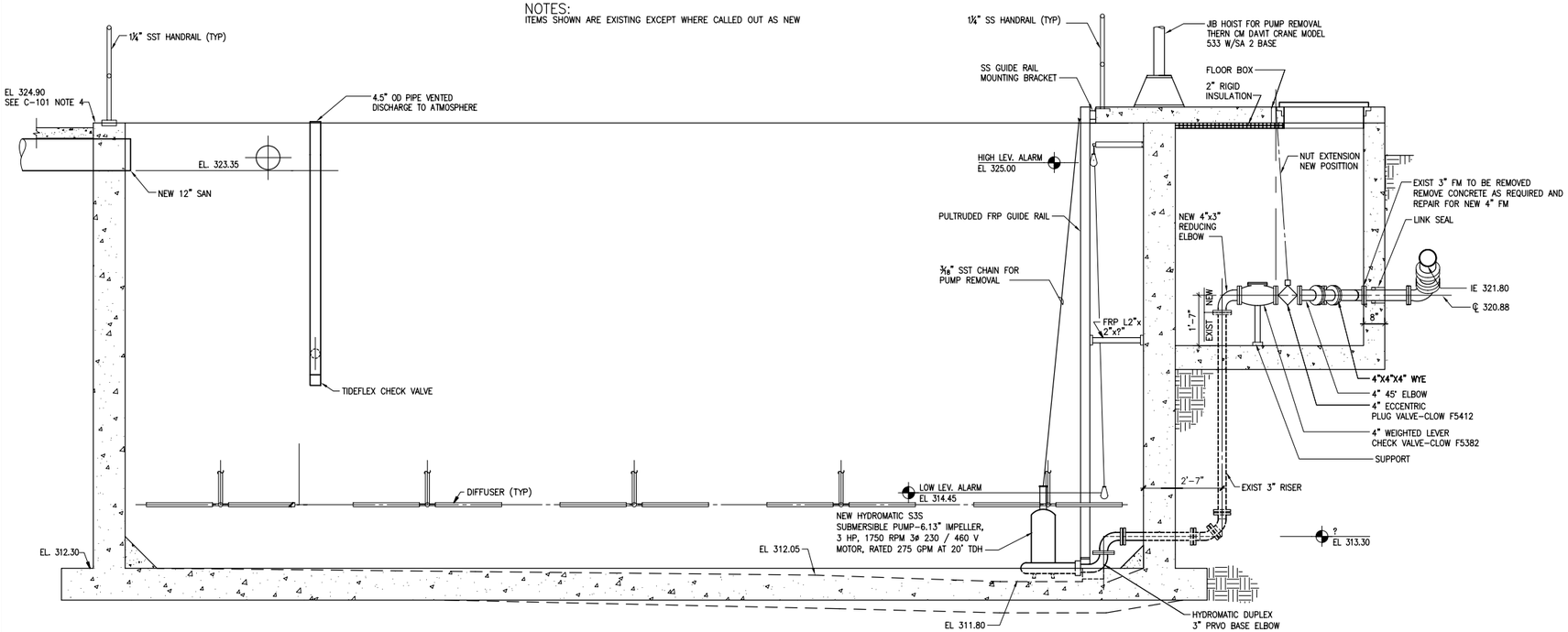
PLOT DATE: 13 Jan 09 PLOTTED BY: Colley, Charmaine
DWGSCALE: 1.0000 DSGN\DRFT: JD/CC
FILE PATH: P:\USA\WWKL0143\3_CONSTRUCTION DOCUMENTS\3.10 DRAWINGS\01 CIVIL\FH-C-503.dwg



1 PLAN – PRETREATMENT TANK

½" = 1'-0"

NOTES:
ITEMS SHOWN ARE EXISTING EXCEPT WHERE CALLED OUT AS NEW



A SECTION – PRETREATMENT TANK

½" = 1'-0" REF: 1/C-504

KINGDOM SUPPORT SERVICES, INC.
175 PEARL STREET BROOKLYN, NY 11201 USA
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STATE OF NEW YORK JOSEPH CONWAY DODD 072058 LICENSED PROFESSIONAL ENGINEER

CONSULTANT:

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OWNER:
WATCHTOWER BIBLE & TRACT SOC. OF NY, INC.
25 COLUMBIA HEIGHTS
BROOKLYN, NY 11201

ACCOUNT No.

PROJECT TITLE:
WASTEWATER TREAT. PLANT IMPROVEMENT
900 RED MILLS ROAD
WALLKILL, NY 12589

SHEET TITLE:
PRETREATMENT TANK PLAN & SECTION

PROJECT No.
WWKL0143

SHEET No.
C-504