



Jacobson

November 12, 2013

Supervisor Tony Hay and
Town of Southeast Town Board
1360 Route 22
Brewster, NY 10509

Re: Crossroads Route 312, LLC
Draft Environmental Impact Statement
Engineering Review
NLJ #0001-0911

Dear Mr. Hay and Members of the Board:

As requested, in addition to the items noted in our previous review letters referenced below, we have reviewed the following information received for the subject project at our office through September 23, 2013:

- Item 1: Document entitled "Crossroads 312, NYS Route 312, Brewster, NY, 10509, Draft Environmental Impact Statement" dated September 10, 2013, prepared by Landscape Architectural Design Associates, P.C.
- Item 2: Letter to Mr. Tony Hay, Supervisor, from Phillip E. Doyle, dated August 29, 2013.
- Item 3: Bound set of thirty three (33) drawings entitled "Crossroads 312, LLC, RT 312, Town of Southeast, Putnam County, New York", sheets L-1 thru L-15.2, T-1 and C-1 thru C-6 G, scales as noted, latest revision date shown 08-29-13, prepared by LADA, P.C., Land Planners.
- Item 4: Letter to Tony Hay, from Richard L. O'Rourke, dated September 16, 2013 with attached Amended Petition for Change in Zone.
- Item 5: Transmittal dated August 20, 2013 from LADA, P.C., with attached SEQRA Notice of Completion.

We have previously reviewed the above referenced Draft Environmental Impact Statement (DEIS) for completeness and submitted comments to you in letters dated August 3, 2012, February 4, 2013 and August 21, 2013. While some of those comments were addressed in revisions to the DEIS, others were determined to be of a substantive nature that were to be addressed in conjunction with the preparation of a Final Environmental Impact Statement and more detailed site development plans required for site plan approval. The comments noted below include those substantive comments along with any additional comments regarding the content of the DEIS within our purview as Town Engineering Consultant. Specifically, with the exception of some general comments, our review is focused on the chapters of the document concerning geology, sanitary



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sewage, and stormwater management. We are aware that the Town Planner is reviewing the DEIS with respect to traffic and transportation.

At this time we have the following comments:

GENERAL

1. Page ES-2 of the DEIS indicates that in conjunction with the proposed zone change, the Applicant has requested a change in Section §138-15 A & B of the Town's Zoning Regulations to allow for a 10% modification of the requirements for slopes and walls. However, previous correspondence, the DEIS Page ES-5, and a review of the submitted plans indicate that the project as now proposed complies with current regulations. The need for the requested modification should be clarified and if proposed, the areas where the project exceeds current standards should be identified. If the current requirements are exceeded, the maximum wall height and slope length proposed for the project should be specified.
2. As further discussed below, the treatment of post development stormwater runoff as described in Chapter 9 (Wetlands and Water Resources) and Chapter 10B (Stormwater Management) has not yet been fully developed. Even if the detailed design of the storm drainage conveyance system is not completed at this time, the ultimate discharge of post development stormwater runoff from the development and the migration of impacts, particularly with respect to water quality, should be further detailed.
3. To fully evaluate impacts of the project, all disturbances necessary to construct the post development stormwater management system should be considered. A series of stormwater treatment basins are shown on the plans and calculations in the DEIS verify that the required storage volume can be provided. However, the design has not fully developed details which would require further site disturbance, such as outlet channels and maintenance access drives for the stormwater basins.
4. At various points throughout the DEIS, reference is made to stormwater pollution prevention plans. However, the accompanying plans developed to this point are more consistent with a level associated with erosion control plans, providing some level of detail with respect to construction sequencing and erosion controls during construction. In this regard, the stormwater pollution prevention plans for the project should be further developed and include details and supporting design calculations for post development stormwater control measures.



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GEOLOGY

1. As previously noted, geotechnical details of design for retaining walls and manufactured 2:1 (two horizontal to one vertical) slopes should be provided.
2. As previously noted, this Chapter generally discusses the land surface changes resulting from the proposed development and notes that increased impervious areas will tend to reduce water infiltration (as flows are diverted into the stormwater system) while exposing bedrock and constructing rock fill on rock revetted slopes will tend to increase infiltration. In this regard, quantitative analysis is required to support the design of infiltration measures incorporated into the project development plans.
3. There are inconsistencies between current site plans, Chapter 8 of the DEIS, and Appendix M (Geotechnical Report). While the submitted site plans and Chapter 8 seem to be consistent, Appendix M makes reference to cut slopes, rock faces and fill slopes that appear to reference prior site designs. These discrepancies should be resolved.

SANITARY SEWAGE

1. As previously noted, the DEIS provides various references to support projected design flows, including The New York Department of Environmental Conservation (NYSDEC) publication "Design Standards for Wastewater Treatment Works, 1998" for restaurant and bank uses, and comparative data from a report done by Insite Engineering, Surveying & Landscape Architecture, P.C for another project for retail uses. The incorporation of the text within this report on page 10A-7 is confusing, as it references design flows for a different project. Also, it would seem that for the big box retailer flow data to be relevant it should be provided as gallons per day per square foot and not just total gallons per day.
2. As previously noted, the DEIS should confirm the consistency of projected wastewater flows with the approved /allocated design flows for sites in the Terravest Corporate Park.

STORMWATER MANAGEMENT

1. As previously noted, the Applicant's Consultants have indicated that they do not wish to develop a detailed drainage plan at this early stage of development of site plans. The plans show proposed grading and site improvements incorporating several stormwater basins. Although a storm drainage conveyance system is not yet designed, a map is included in the DEIS which delineates the proposed contributing drainage areas to each of the basins. In order to verify that the proposed post development stormwater management plan will



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acceptably mitigate impacts with respect to peak runoff rates and water quality, the design of proposed infiltration and stormwater control measures, outlet control structures and configuration of drainage outfalls as well as a quantitative analysis of pre-development and post development conditions will be required.

2. As previously noted, this chapter indicates that stormwater calculations were developed to allow basins to be sized based on the amount of impervious area anticipated and that volumetric calculations were performed using methodology provided in TR55. These calculations should be included in the report or incorporated in the Appendices.
3. As previously noted, with respect to the proposed sequence of disturbance and construction phasing as shown on the accompanying Erosion and Sediment Control Plans, as the project design is further developed, it should be confirmed that respective phases can be completed without the need of land grading shown in subsequent phases.

Should you have any questions, please do not hesitate to contact me.

Very truly yours,

NATHAN L. JACOBSON & ASSOCIATES, P.C.

Thomas H. Fenton, P.E.

THF:thf

cc: T. LaPerch
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