



October 31, 2014

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

Re: Crossroads Route 312, LLC
Revised Final Environmental Impact Statement
And Response to Comments
Engineering Review
NLJ #0001-0911

Dear Mr. Hay and Members of the Board:

As requested, in addition to the items noted in our September 16, 2014 letter, we have reviewed the following information received for the subject project at our office through October 17, 2014:

- Item 1: Document entitled "Final Environmental Impact Statement, Crossroads 312, NYS Route 312, Brewster, NY 10509, Town of Southeast, Putnam County, New York", date of issue October 14, 2014, prepared by Landscape Architectural Design Associates, P.C.
- Item 2: Document entitled "Response to FEIS Review Comments, Chapter 25," date of issue October 14, 2014, prepared by Landscape Architectural Design Associates, P.C.

The comments below represent our review of the revised Final Environmental Impact Statement (FEIS) and the Applicant's response to our September 16, 2014 review comments which are incorporated in the submittal as a portion of a new Chapter 25 of the Document. Our comments are formatted to include the original prior review comments in italics followed by any further comments or recommended revisions in bold.

GENERAL COMMENTS AND EXECUTIVE SUMMARY

1. *In the Table of Contents Page 3, Chapter 12 is identified as Sanitary Sewage and Stormwater Management. As organized in the FEIS, Chapter 12 is now specifically dedicated to Sanitary Sewage and Chapter 13 to Stormwater Management.*

The corrected Table of Contents Page should be included.

2. *Page ES-6 of the Document makes reference to maximum slopes and indicates slopes will be designed to meet the requirements of Section 138-15.1A and 138-15.1B of the Zoning*

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Regulations, which determines maximum allowed slopes. However, the Response to Comment LU&Z-4 indicates that the proposed zoning amendment will allow the Town Board to modify the requirements of 138-15.1 of the Code up to 10%; and the Response to Comment LU&Z-6 notes that this is not an attempt to allow for a specific known modification or waiver but is meant to provide the Town Board flexibility in responding to unexpected changes requiring extra vertical room to meet existing grade. These inconsistencies regarding the proposed modifications to maximum slope limitations should be resolved. Based on a cursory review of the current Grading Plan, we identified a maximum manufactured slope height of 42 feet below Bioretention Basin #1, which is well above the 10% variance proposed. We are not necessarily opposed to extending the allowable slope height if it will minimize overall site impacts (i.e. additional retaining walls), however, the details of the proposed modification should be clarified.

This comment has not been addressed. The Applicant's response indicates that the Zone Change Petition was filed to allow for limited locations to exceed manufactured slope height up to 12' based on a total slope allowance of 120' as defined by 138-15.1 (60' cut and 60' fill using a combination of slopes and walls). We do not agree with this interpretation. The regulation now requires a maximum slope height of 30 feet and wall height of 10 feet. As such, a 10% waiver would allow slope height to be increased by 3 feet and wall height to be increase by 1 foot. Further the regulation, as written in the proposed zoning amendment does not specify that the waiver is with respect to slope or wall height. This creates more ambiguity as to how the regulation could be interpreted.

We recommend the following:

- **Page ES-6 should be revised to remove the language that the slopes comply with §138-15.1A and §138-15.1B. Notes on drawings with this language should also be removed or revised.**
 - **The language of the proposed zoning amendment should be revised to eliminate ambiguity as to what the waiver will allow.**
 - **Plans should be revised so that maximum slope length is consistent with what will be approvable in the proposed zoning amendment.**
3. *Several of the maps incorporated at the end of Volume 1 are dated 06/28/13, but clearly reflect more recent revisions to the project configuration.*



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Updating the map title blocks will sufficiently address this comment.

GEOLOGY

- 1 The Typical Section for boulder retaining wall is simplistic and lacks the level of detail that will be required for design. This sketch is also included as the only page of the Geology Appendix. In addition, the sketch is not consistent with the Interlocking Modular Retaining Wall Detail on Plan Sheet L-15.1. As the Boulder Wall Section adds nothing of substance to the Document, we would recommend it be removed and that the Response to Comment GEO-1 include a statement that final design of manufactured slopes and retaining walls will be provided by the project Geotechnical Engineer and reviewed during application for site plan approval.*

The text has been revised to address our comment. The Boulder Wall Section shows dimensional information only. Typical construction details should be included also.

- 2. As shown on the Utility Plans SP-1 and SP-2, some fill slopes are located immediately downgradient of proposed infiltration practices. In that these are large scale systems and the subsurface flow could be significant, it should be confirmed that the slopes will be stable under the anticipated flow regime.*

This comment has not been addressed. The Applicant's Consultant has indicated to us that extensive soil testing necessary for final design of the systems has not yet been conducted. Nonetheless, the FEIS should address what measures will be employed to ensure that slopes will be stable under potentially saturated soil conditions resulting from the infiltration practices.

WATER RESOURCES AND WETLANDS

- 1. The Responses to Comments WRW-1 and WRW-2 discuss the two systems that will be piped through the site. The westerly system discussed in these responses is captures a much smaller contributing drainage area and the water quality benefits are derived simply from eliminating flow over the existing eroded channels. The easterly system captures a much larger developed area from within the Terravest development and routes this flow through the project's proposed stormwater treatment measures to achieve additional phosphorous removal. We would defer to the Town's Wetland's Consultant as to whether this is an appropriate mitigation for the wetland buffer disturbance.*



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This comment requires no further action.

- 2. The Response to Comment WRW-6 discusses the extent of infiltration systems and indicates that 60% of the site's water quality volume is to be received in infiltration systems and that this surface runoff received in infiltrators will become groundwater and migrate to the down gradient wetland. Although the storage volume of these infiltration systems has been verified in Stormwater Appendix A, without specific soil testing information as to the acceptance rate of the underlying soils for infiltration, it cannot be confirmed that the stated 60% volume will be infiltrated.*

See NLJA Geology-2 above. It should be indicated what alternate or additional measures will be employed if the anticipated infiltration rates cannot be achieved.

SANITARY SEWAGE

- 1. The Response to Comment San-8 indicates that the discussion on page 10A-7 of the DEIS is no longer applicable to the proposed project. However, the water use projections on Page Water Supply-1 reference Crossroads 312 DEIS, Chapter Ten A, Section F, Supporting Data as the source for projected flow rates for retail use.*

The reference on page Water Supply-1 to page 10A-7 of the DEIS should then be removed and the appropriate reference included.

- 2. The summary of wastewater generation for existing uses, proposed T2 and T3 uses, and the proposed Crossroads Development uses presented in Table A show significant remaining excess capacity. However, the response to Comment San-6 does acknowledge that limits may become necessary in the future should actual water usage become higher than presently anticipated.*

This comment requires no further action.

- 3. The Town Planner has noted that the remaining flow cited in Comment San-6 does not match the remaining flow in Table A. Similarly, the available treatment plant deficiency to serve T-1 buildings cited in this Response should also be corrected.*

This comment has been satisfactorily addressed.



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STORMWATER MANAGEMENT

1. *The stormwater management plan presented in the FEIS is much further developed and provides supporting analyses that address the most significant comments raised during the review of the DEIS, at which time the plan was conceptual. The design, as now presented, includes infiltration and bioretention practices as well as treatment of runoff from a significant offsite area associated with Terravest Corporate Park. The accompanying Utility Plans still lack some detail such as pipe sizes, structure configurations and invert elevations, required for a full engineering review of the drainage system; however it is understood that additional detail will be provided and a full review will be conducted in conjunction with a submission for site plan approval.*

This comment requires no further action.

2. *The Stormwater Analysis for Design Line #1 includes capturing runoff from a developed area of about 20 acres from the Terravest Corporate Park which is currently discharged on the south side of NYS Route 312 and flows uncontrolled through the property. While the water quality volume for this area is captured and treated in the onsite treatment system, it is worth noting that the 10-year design storm flow from the area is overcapacity for the existing box culvert under NYS Route 312 and is therefore significantly higher than what is discharged to the outlet and the on-site system. For the purposes of the FIES, it should be noted that the connection and routing of this drainage through the site should be reviewed with NYSDOT to determine if any additional improvements should be made to the existing culvert to fully convey the 10 year design storm.*

This comment has been satisfactorily addressed.

3. *As discussed above, Stormwater Appendix A includes calculations which verify that the proposed infiltration practices provide the required storage to accommodate the calculated water quality volume. However, no specific soil testing information is provided as to the acceptance rate of the soils to verify the assumed infiltration.*

See comment NLJA WRW-2 above.

4. *Porous pavement is discussed in the Executive Summary and shown on the Drawings but is not referenced in the Stormwater section as an incorporated practice.*

This comment has been satisfactorily addressed.



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EROSION CONTROL

1. *In previous reviews of the DEIS, we alluded to the fact that that phasing of construction for such a large developed site with significant land regrading to maintain a maximum 5 acre land disturbance may be difficult to accomplish from a constructability standpoint. It is worthwhile therefore to note that while the FEIS currently includes a plan for land disturbance in less than 5 acre increments, it is realistic in leaving open the possibility of pursuing waivers to that threshold (Comment Erosion-1).*

This comment requires no further action.

TRAFFIC

1. *Drawing Sheet L-16.10 identifies the sequencing of off-site roadway improvements to NYS Route 312 site as being completed within Phase 10 of the construction sequence. We question if the off-site roadway improvements not in immediate proximity to the site, as listed in the Traffic Introduction (Page Traffic-1), have a specific schedule relative to completion of the project.*

We understand that the NYSDOT Highway Work Permit is a construction permit and will not be issued until after site plan approval. However, the Applicant's response does not specifically address the timing for completion of off-site improvements roadway improvements relative to completion of the project.

2. *The off-site road improvements listed in the Traffic Introduction are not consistent with the improvements listed in Response to Comment Traffic-35. For example, the Comment Response includes signalization of the intersection at Independent Way and Applebee's/Home Depot. This is not listed in the introduction.*

This comment has been satisfactorily addressed.

ADDITIONAL COMMENTS

1. **The response to comment SC-8 regarding the proposed stormwater system indicates that there are modifications now proposed to the stormwater design which will route additional off-site runoff (subbasin #11) through the onsite stormwater treatment system. Plans and Drainage Calculations submitted in the FEIS have not yet been revised to reflect these changes.**



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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.

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