Traffic Engineering Solutions, P.C.

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MEMORANDUM

DATE: November 22, 2010

TO: Christine Nelson, AICP

Town Planner/Director of Land Use

Town of Old Saybrook

302 Main Street

Old Saybrook, CT 06475

FROM: Bruce Hillson - Traffic Engineering Solutions

RE: Review of Open Space Subdivision Modification

As requested in the Planning Commission's October 13, 2010 Referral Memorandum, Traffic Engineering Solutions, P.C. has reviewed the Application of River Sound Development's October 8, 2010 Modification of Approved Preliminary Open Space Subdivision Plan. Our work included reviewing the following information:

- Modified Preliminary Open Space Plan prepared by Doane-Collins Engineering Associates, LLC dated 10/7/10.
- October 8, 2010 Statement of Use with attachments.
- Town of Old Saybrook recently adopted Subdivision Regulations.
- Town of Old Saybrook Regulations for Public Improvements, Section 70-Road Criteria.
- Memorandums prepared by Traffic Engineering Solutions, P.C. for the original Open Space Subdivision Application.

The review considered the design of each of the roadway systems within the three areas identified in the Application as stand-alone roadways (the Application requests that River Sound be permitted to apply for final subdivision approval of the three areas as one or separate applications in a sequence chosen by the Applicant), and as roadways that will ultimately be incorporated into the overall Open Space Subdivision. To accomplish this dual objective, the Town's regulations governing Dead End Streets was used in the review of the stand-alone subdivisions and the Town's Regulations for Feeder/Collector Road were used in the review of the proposed geometry of the road leading to Route 153 in Westbrook and the connection to Ingham Hill Road. The original Open Space Subdivision identified the roadway system connection from Route 153 in Westbrook, traveling through the Village and connecting to Ingham Hill Road as a Feeder Road, and the roadway leading to Bokum Road as a Local Road. The review identified the following:

- The Dead End roads from Route 153 in Westbrook to the center of its cul-de-sac and from Bokum Road to the center of its cul-de-sac are both 1,000 feet in length, meeting the Town's Subdivision Regulation for Dead End Streets.
- 2. The Dead End roads from Ingham Hill Road are both less than 1,000 feet from their intersections with Ingham Hill Road to the center of the cul-de-sac.
- 3. A driveway/private road extends an additional 1,450 feet from the cul-de-sac of the Route 153 road to the furthest building lot. All of the proposed homes have access from this drive. If these homes are considered rear lots, they do not conform with the Subdivision Regulations which state that the maximum number of rear lots shall generally not exceed 20 percent of the total number of lots.
- 4. The extensions from Ingham Hill Road lengthen an existing non-conforming Dead End Road. The present length of Ingham Hill Road is greater than one and one-quarter miles with a single connection to the external roadway system. The intent of the original River Sound Open Space Subdivision Plan was to connect Ingham Hill Road through the village to Route 153 in Westbrook to provide the second access route for safety vehicles to serve present and future Ingham Hill Road residents. The request to allow the three areas included in the Application to Modify the Open Space Subdivision Plan to be constructed as a group or separately without the remainder of the Open Space Subdivision Plan being constructed means that Ingham Hill Road may be extended from its presently non-conforming length for an additional length with no definite plan to connect the road to a second point of access.

The Subdivision Regulations under the section entitled Connection to Existing Streets (Section 5.3.2) state that subdivisions having more than 30 lots will have at least two connections to one or more public streets. In the case of resubdivision or phased development, previously approved lots will be considered as part of the total in determining the need for a second direct connection. While the proposed Modification to the Open Space Subdivision contains fewer than thirty lots, the total number of lots served by Ingham Hill Road with its single connection to a public road for exceeds the thirty lots identified in the Subdivision Regulations. Most towns, including Old Saybrook, have identified limits to the length of dead-end/cul-de-sac roads due to safety considerations. There reaches a point where police, fire, medical and other emergency responders are not able to provide their service due to the distance they would need to walk if the access road became blocked. It is my recommendation that the Commission require a connection to provide secondary access to the Ingham Hill neighborhood or consider a bond be posted for the cost of connecting to a secondary access to finally address the safety issue that has lingered for many years. The Applicant might be allowed a reasonable period of time such as five years from the start of construction of the lots along Ingham Hill Road to complete the connection before the Town uses the bond to do the work.

5. The Town's Regulations for Public Improvements indicate that Local Roads are to be 24 feet wide and Feeder/Collector Roads are to be 30 feet wide. The original Open Space Subdivision classified the roads within the development with the spine road between Route 153 and Ingham Hill Road being classified as a Feeder/Connector road and the road from Bokum Road being classified as a local road. The Local Road from Bokum Road scales to be 26 feet wide which

meets the requirements for Local Roads; the Feeder Road from Route 153 scales to be 24 feet wide which does not meet the requirements of a Feeder Road; and the width of the Feeder Road that will eventually be extended into the Open Space Village scales to be 26 feet which does not meet the requirements of a Feeder Road. The other road from Ingham Hill Road scales to be 24 feet which meets the requirements of a Local Road.

- 6. The Open Space Subdivision Plan that was previously approved shows revisions to the existing curve near the top of Ingham Hill Road to flatten the radii around the reverse curve. The proposed Modifications appear to eliminate this improvement. The Applicant should make this a formal request for review by the Commission or modify the plan to conform with the original Open Space Subdivision Plan.
- 7. The plan for the Ingham Hill cul-de-sacs does not depict the bicycle paths or other offsite improvements that were noted in the approval for the original Open Space Subdivision. The Commission should determine if these improvements should be made with the Ingham Hill homes or allow them to be deferred to the time if and when the overall plan is developed.
- 8. The plans submitted with the Application to Modify the Open Space Subdivision do not provide road profiles to allow the grades and vertical curvature to be reviewed. Similarly, there is inadequate information to check sight distances at the intersections.
- 9. Horizontal curves are all greater than 200 feet which means they meet the requirements of the Regulations for Public Improvements. These regulations also require that the tangent distance between curves shall be at least 100 feet. A tangent of at least 100 feet appears to be provided in all cases except between curves C4 and C5 (inside curve) and C12 and C13 (outside curve) on the Bokum Road roadway. The length of tangent between the curves should be provided.
- 10. The cul-de-sac serving lots 12 and 13 on Ingham Hill Road intersects the existing road at a sharp curve in such a way that the cul-de-sac is a direct continuation of the road. The Applicant should indicate the traffic control that is intended at this location.

This completes my review of the request to modify the Open Space Subdivision for the River Sound Development project. If during review of this memorandum you have any questions, please call me at (860) 567-3579.