Mr. Geoffrey Engler
SLV SCHOOL STREET, LLC
257 Hillside Avenue
Needham, Massachusetts 02494

RE: The Sanctuary – School Street Development – Blasting and Site Operations Protection Measures

Mr. Engler,
Rubicon has reviewed the site development plans for the proposed Sanctuary Project in Manchester by the Sea. We also engaged two subcontractors, Maine Drilling and Blasting and Comley Excavating, to review the plans and provide feedback on the site conditions and means and methods. Based on Rubicon's review, as well as our subcontractors, we provide the following narrative on measures and tools that would be used to manage the blasting and site operations to prevent impacts of the vernal pool resource areas:

- Management of Blasting Operations - A job specific blasting plan will be created. The plan will implement:
  - Delayed Sequence Blasting (Directional Blasting) – This is a method where the timing of each charge ignition in a blast is adjusted so the ledge will be designed to move in a specific direction. This allows the blasting company to blast the ledge away from the vernal pools.
  - Matting – Heavy Rubber matts are installed on top of all blasting operations. The matts absorb the materials expended from the blast locations
  - Backfill and Berming – In coordination with the site contractor, as the work progresses, temporary berms may be set-up adjacent to the blasting locations to control rock movement from the blast
- Management of Site Operations and Potential Movement Downslope - Prior to the commencement of operations, a Catchment system will be designed to "catch" materials that may move downslope as a result of the site and blasting operations. These systems would be installed near the boundary of the vernal pool setbacks. These consist of two typical systems:
  - Catchment Berm – This is a designed system installed up slope of the vernal pool location. The system consists of a raised berm, with a lowered swale immediately after the berm. The intent of the system is to redirect water and debris away from the vernal pool and is commonly used for this application.
  - Temporary Rock Fall Fence – This is exactly what is sounds like. It is an engineered temporary fencing system that will block all falling debris or rocks.
  - Both Systems will be designed in coordination with the Erosion Controls installed throughout the site.
  - Both designed systems will have specific maintenance and inspection requirements that would be managed throughout the duration of the project.

As noted, the methods and catchment systems would be fully designed based on site conditions and implemented accordingly.

Please let me know if this answers your questions or if you need anything further.

Sincerely,

Brian Mitchell
Project Executive
Rubicon Builders