

FIELD REPORT

Nitsch Project #:	12808	Date:	November 10, 2022
Client:	Pine Hill Village, LLC	Time:	10:00 am – 11:00 am
Project:	Pine Hill Development	Location:	Harvard, Massachusetts
Weather:	54°F Partly Sunny		
Present:	Liz Allard – Conservation Agent / Town Planner Donald Ritchie – Chair, Conservation Commission Steven Ventresca – Nitsch Engineering		

The purpose of this site visit was to observe general site conditions for the Pine Hill Village project located off Stow Road in Harvard, MA. The site visit focused on Phase 2 of the project. Nitsch continues to provide notes on Phase 1 work that requires attention by the Applicant/Contractor. Nitsch offers the following observations:

- Nitsch observed the area near building #12A and notes that the areas provided for stormwater capture are very deep. Nitsch recommends that this area be changed to a catch basin or inlet and directly connected into the installed pipe. The area can be loamed and seed if an inlet is installed. The Applicant should provide an inlet detail for review by the Commission. Nitsch also recommends that a split rail fence be installed along the length of building #12A to separate the drainage swale from walkways (Phase 2).



2. Nitsch noted that when the finished driveway grading for Units #5 and #7 are installed the grading shall be pitched so that stormwater does not flow toward the units. Stormwater runoff shall be directed toward the landscaped area and shall not cause erosion on the landscaped slope (Phase 1).



3. Nitsch observed that the material for the septic system near Unit #8 has eroded and flowed off property. Nitsch recommends that the Contractor stabilize the material and remove and dispose of properly, the material that flowed off site into the abutting property (Phase 2).



4. Nitsch observed the bioretention systems at the site entrance and within the site. Nitsch recommends that the Contractor provide detailed as-built plans with area drain rim and inverts, outlet pipes, basin contours, and spot grades at all of the currently installed bioretention systems and berms at the bioretention basin. Nitsch recommends that the Contractor focus on the bio-retention systems at the site entrance for detailed as-built information. If the as-builts deviate substantially from the Approved Plans, the Applicant should provide an updated HydroCAD model indicating the as-built plans provide the intended stormwater mitigation (Phases 1 and 2).

5. Nitsch noted that the walkways to the units could be installed with open jointed pavers to help with stormwater mitigation. The walkways should allow for stormwater to pass through and infiltrate into the sub-soil. The open joint spacing between the pavers shall not be wider than 0.5-inches (Phase 2). A walkway detail shall be provided to the Commission for review.
6. The Contractor shall create stepped pools along the driveway as previously recommended by Nitsch and the Conservation Agent. The area has been cleaned of sediment with some installed stone intended to slow stormwater through the slope. The Contractor shall continue to monitor this area until completion of the site work and stepped pool is completed and stabilized per Approved Plans (Phase 1).



7. Nitsch observed that the pavement base course near the culvert and constructed wetland was repaired as part of Phase 1.



8. The Contractor shall continue to monitor, stabilize, and repair any on site erosion at the roadway shoulders and provide new wattles and bales being used for erosion control in stone swales and along grassed swales. Also, the Contractor shall provide erosion control measures along the non-stabilized slopes (Phases 1 and 2).
9. The Contractor shall review a plan with the Conservation Agent concerning how and when to remove sediment in the constructed wetland prior to final planting. Also, the Contractor shall confirm if the splash pad for the construction wetland was re-established per the approved plans (Phase 1).

Past Recommended Items to be Completed:

1. The Contractor to install erosion controls prior to the constructed wetland to minimize sedimentation into drainage systems and the constructed wetland.
2. The Contractor to provide erosion control measures along the non-stabilized slopes at the top and mid-slope of exposed surfaces to minimize erosion.

3. Maintain the installed bio-retention systems at the driveway entrance by removing weeds and replanting any dead shrubs or plantings that were part of the bio-retention system. This will be continuous maintenance task until the development is turned over to the HOA.
4. Contractor to re-establish the outlet rip rap to the constructed wetland per the approved detail which indicates a level spreader type splash pad, where there is a slight depression to pool water prior to discharge toward the wetland.
5. Contractor to provide a plan for sediment removal at the constructed wetland prior to plant installation of plants.
6. Install all street lighting.
7. Provide detailed, updated as-built plans for review as noted.

New Recommended Items to be Completed:

1. Sediment removal and proper disposal near Unit #8.
2. Provide detailed, updated as-built plans for review, as noted.

Ongoing Recommendations:

1. The Contractor to sweep the roadway periodically and after rain events at or over 0.25-inches in 24-hours, to remove sediment and debris, which shall be disposed of properly.



Steven Ventresca, PE
Senior Project Manager

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Disclaimer: Nitsch Engineering performed this site visit in compliance with the guidelines and requirements of the Commonwealth of Massachusetts COVID-19 Guidelines and Procedures for All Construction Sites and Workers at All Public Work dated March 2020 (COVID-Construction Safety Guidance) and with the COVID-19 guidelines and requirements issued by the CDC and OSHA. However, Nitsch Engineering's services DO NOT include observations for compliance of the general contractor and/or the construction site with the COVID-19 Construction Safety Guidance and with the COVID-19 guidelines and requirements issued by the CDC and OSHA. Jobsite/worker safety duties belong with the general contractor who has control of the jobsite and responsibility for constructing the project, including the implementation and compliance of the COVID-19 Construction Safety Guidance. Neither the professional activities of Nitsch Engineering, nor the presence of Nitsch Engineering or its employees and subconsultants at a construction/project site, imposes any duty on Nitsch Engineering, nor relieve the General Contractor of its obligations, duties and responsibilities including health or safety precautions required by any regulatory agencies.