

MEMORANDUM

TO: Ms. Sarah Porter, City of New Bedford Conservation Agent
FROM: Jennifer Johnson, PE, Nitsch Engineering
DATE: August 1, 2019
RE: Plumbers Supply Co. Inc., DEP# SE49-0798

This memorandum is regarding the request for a Certificate of Compliance, submitted by Field Engineering Co. Inc. on behalf of Plumbers Supply Co. Inc., for the site development including the site's stormwater management system. The stormwater management system consists of a closed drainage system that collects and conveys stormwater to a large stormwater detention/infiltration basin located on the east side of the site development.

To support this request, the following items were submitted:

- Cover letter prepared by Field Engineering Co. Inc. requesting the Certificate of Compliance, dated July 10, 2019;
- WPA Form 8A – Request for a Certificate of Compliance;
- Calculation Fee Worksheet;
- Memorandum prepared by Field Engineering Co. Inc. summarizing stormwater calculations; and
- Plan entitled “Existing Conditions Plans, Plumbers Supply Company, 922 Flaherty Drive, New Bedford, Massachusetts,” prepared by Field Engineering Co. Inc., dated July 10, 2019.

With regards to this request, we have the following comments:

- 1) Nitsch Engineering visited the site on July 30, 2019. Rich Ricco from Field Engineering Co. Inc., also attended.
- 2) The site is in generally good condition. The majority of the site is stabilized. There are some grass areas along the northern perimeter of the site that are on steep slopes that require additional growth to ensure their stability.
- 3) The large stormwater basin on the eastern side of the site appears complete. The following observations were made during the site visit:
 - a. Standing water was observed throughout the majority of the basin. The last significant rainfall occurred approximately one (1) week ago. Water was flowing through the outlet control structure.
 - b. We were unable to evaluate the infiltration trench that was installed along the eastern edge of the basin because it was completely covered with water.
 - c. Sediment accumulation was observed in the areas of the basin that did not contain standing water. This included the downstream side of the berm that divides the sediment forebay on the north side of the basin with the remainder of the basin.

- d. Since there was considerable standing water in the basin and accumulated sediment was observed in other areas, we are concerned that the basin bottom may be covered with sediment that is limiting the ability to infiltrate water. Stormwater basins should generally drain within 72 hours after a storm.
 - e. We recommend that an additional observation occur once all the water has drained from the basin so the bottom of the basin can be observed. Any silt that is found in the basin, including the infiltration trench, should be removed.
 - f. We reviewed the as-built calculations for the basin that indicate that the basin was constructed consistent with the Construction Documents. The as-built calculations included some infiltration from the basin. Given the current condition of the basin as described above, we cannot confirm that infiltration is occurring. However, if the infiltration was removed from the calculations, the post development flows would still be lower than the existing conditions flows.
- 4) There was significant sediment observed in the level spreader. The sediment appears to have completely buried some portions on the level spreader. Therefore, the level spreader does not operate as intended. We recommend that the sediment in the level spreader be removed and the rip-rap stone be replaced.

Please call Jennifer Johnson at 857-777-6171 if you have any questions.