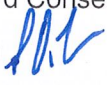


MEMORANDUM

TO: Ms. Sarah Porter, City of New Bedford Conservation Agent
FROM: Scott Turner, PE, Nitsch Engineering 
DATE: May 17, 2019
RE: 100 Duchaine Boulevard, Parallel Products, DEP# SE49-0771, Raingarden

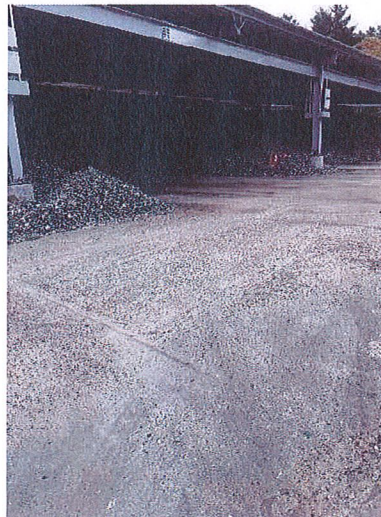
This memorandum is regarding the request for a Certificate of Compliance submitted by Farland Corp. on behalf of Parallel Products. The request for a Certificate of Compliance is regarding the construction of the solar panels, raingarden, and access driveway that connects the parking lot with solar canopies with the site driveway that is located to the east of the recycling building.

To support this request, the following items were submitted:

- 1.) Fee calculation sheet;
- 2.) Cover letter prepared by Farland Corp. requesting the Certificate of Compliance dated April 24, 2019;
- 3.) Plan entitled "As-Built Plan, 100 Duchaine Boulevard, Assessors Map 134, Lot 5," prepared by Farland Corp., dated April 24, 2019; and
- 4.) Letter prepared by Farland Corp. with supporting drainage calculations, dated May 6, 2019.

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

- 1.) The area beneath the solar panels contains a significant amount of stockpiled glass that is mixed with sediment. Some of the sediment has been tracked onto the pavement in the parking area located underneath the solar panels. This pavement drains towards the access driveway and rain garden. The pavement needs to be swept regularly to limit the amount of sediment that is transported down the driveway and towards the raingarden.



- 2.) The stone located at the inlet to the raingarden appears too small and was placed above the elevation of the inlet from the access driveway. It appears to be restricting water from flowing into the raingarden from the access driveway. We observed sediment along the edge of the access driveway where water appears to have settled.



- 3.) It is unclear whether the access driveway was graded properly. The as-built plan does not show grades along the driveway. Our recollection is the driveway was supposed to be superelevated to direct water towards the raingarden. There is sediment located along the edge of the access driveway opposite the raingarden. If the driveway were superelevated, sediment would not collect on the opposite side of the access driveway.



- 4.) The rip-rap overflow appears to have been set too high. There are no elevations shown on the as-built plan regarding the grading of the raingarden or the overflow.



- 5.) There appears to be shallow “trenches” that were created on the south side of the rain garden. These “trenches” appear to be directing water from the raingardens to the wooded area located to the south of the raingarden. Since they appear lower than the rip-rap overflow, water that is collected in the basin never reaches the rip-rap elevations. (see pictures above and below)



- 6.) The calculations submitted support the approved design. However, the as-built plan does not include elevations so we cannot compare the calculations with the as-built plan.

Please call if you have any questions.