



March 4, 2016

Mr. John Radcliffe, Chairman
New Bedford Conservation Commission
133 William Street – Rm 304
New Bedford, MA 02740

**RE: Response Letter
50 Duchaine Boulevard
New Bedford, Massachusetts**

Dear Mr. Radcliffe,

On behalf of the applicant, Parallel Products of New England, please find revised Site Plans and Stormwater Calculations enclosed with this letter. An addendum to the previously submitted Drain Report has been prepared in response to the comment letter prepared by Nitsch Engineering dated March 1, 2016 in regards to their review of the Site Plans. Our responses to the comments provided by Nitsch Engineering are provided on the following pages.

We trust the attachments noted above and included herewith will provide the necessary documentation to address their comments. If you should have any questions, please feel free to contact us.

Very Truly Yours,

Thompson Farland, Inc.

Christian A. Farland

Christian A. Farland, P.E., LEED AP
Principal Engineer and President

cc: File, Client

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Nitsch Engineering Comments

Comment #1:

Portions of the existing drain system were surveyed but not the entire existing drainage system. Pipe sizing calculations were provided for the 100-year storm. Typically, pipe sizing calculations are performed for the 10-year storm, so these calculations are conservative. These calculations showed that one pipe segment was undersized. It is likely that this segment would be sized appropriately for the 10-year storm. In general, we feel the piping is adequate based on the information provided. However, all of the drainage structures were not surveyed and the existing structures were not labeled on the plans consistent with the pipe sizing calculations.

RE: Pipe capacity calculations for the entire drainage system, including the existing drainage system which will remain, have been performed for the 10-year storm. All pipes are capable of conveying the 10-year storm. A revised Existing Conditions Plan (Sheet 3 of 7) and Grading and Utility Plan (Sheet 5 of 7), which provide structure invert elevations and appropriate structure labels consistent with the pipe capacity calculations, have been provided.

Comment #2:

The drainage calculations have been revised to show that peak flows entering the onsite wetland are lower during the proposed condition than during the existing condition. Numerous changes were made to both the existing and proposed calculations. Some of the basins have been increased in size. The biggest change was the re-routing of essentially the entire existing building roof directly to the onsite wetland in the existing conditions calculations. This re-routing effectively increased the existing conditions peak flows. It is unclear why this change was made. The previously submitted calculations showed a significant portion of the roof draining to an infiltration basin onsite. The applicant should provide supporting documentation to justify this change. The proposed conditions calculations show an increase in peak flow offsite during the 100-year storm but a decrease in total flow volume. The Guidelines do not specifically require a decrease in peak flows during the 100-year storm but simply a demonstration that downstream flooding will not be increased. Traditionally, this requirement is satisfied by showing a decrease in peak flows. A decrease in overall volume of flow demonstrates this. However, please refer to the comment above regarding the routing. If the routing as currently shown in the model is not accurate, all of the peak flows and volumes will be different.

RE: During the process of collecting the existing structure invert information to provide the requested pipe capacity calculations, an additional drainage manhole structure (DMH-20) was found which had not been discovered during the initial field survey of the property. The structure had apparently been buried during the partial demolition of the existing transformer area. This drainage manhole receives roof runoff from DMH-22 and DMH-21, which had previously been thought to discharge toward the on-site depression at the southwest corner of

the existing building, and discharges to DMH-19. DMH-19 then discharges directly to the stormwater basin resource area.

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