## STORMWATER MANAGEMENT REPORT AND HYDROLOGIC ANALYSIS

## **SECTION 1: Project Summary**

The project area associated with this proposed development is located at the southwest quadrant of the intersection of Samuel Barnet Boulevard and John Vertente Boulevard in the New Bedford Business Park. The site is comprised of one existing parcel, identified as Assessors Plot 133, Lot 47 which consists of approximately 16.4 acres. The site is located entirely within the Industrial C Zoning District.

The site is partially developed, and consists of an 82,000+/- square foot manufacturing building, with associated parking areas to the north, east, and west of the building, and loading areas at the southwest corner of the building. Access to the site is gained from a single site entrance driveway off of John Vertente Boulevard. A bordering vegetated wetland is located along the eastern portion of the site, along the parcel's frontage on John Vertente Boulevard and along the eastern portion of the parcel's frontage on Samuel Barnet Boulevard. An electric easement runs along the parcel's southern boundary. The site is located entirely in Zone X, areas determined to be outside the 0.2% annual chance floodplain. The site is not located within an area identified by the Natural Heritage and Endangered Species Program as a Priority Habitat of Rare Species or an Estimated Habitat of Rare Wildlife.

The applicant is seeking permission to change the use of the structure, install loading dock bays along the structure's eastern wall, expand the paved parking area to the east of the building to allow for access to the loading docks, and to create additional gravel surfaced trailer storage parking spaces within the proposed easement area south of the existing building. This will require alteration of approximately 700 square feet of existing bordering vegetated wetland in order to construct an access to the easement area. The disturbed resource area, located along a finger-like ditch running along the existing site driveway, will be replicated on-site.

In order to attenuate the increased stormwater runoff generated by the proposed impervious site coverage and to provide the appropriate level of water quality treatment, stormwater management practices have been proposed. Proposed structural BMP's include proprietary separators and a detention basin.

## **SECTION 2: Methodology**

Drainage computations were performed using the Natural Resources Conservation Services (NRCS) TR-20 method and HydroCAD® Drainage Calculation Software to