

Field Investigation Activities: Basement Flooding



Field Investigation Activities

Norfolk Ram Group, LLC (Norfolk) was retained by the New Bedford Housing Authority to perform field investigation activities to determine the probable cause(s) of basement flooding at the Harwich Manor Apartment Complex. The housing complex was experiencing flooding in several of the lower rental units, with occasional flooding in the existing catch basins and stairwell drains. Norfolk conducted research at the City of New Bedford's Engineering and Wastewater Departments, as well as at the Department of Public Works, and provided oversight services during all of the field investigation activities to verify the position of the underlying pipe network using an underground camera and various electronic sensors.

Norfolk's field investigation and hydraulic modeling found that the existing drainage system was not adequate to handle the various drainage inputs (i.e., stairwells, roof and yard drainage). Norfolk's remedial design for drainage improvement separated the existing roof collection system from the paved parking areas, and called for construction of a second drain line to connect to the City's stormwater system, while minimizing the area under construction.

Scope of Services

To complete the drainage design, construction drawings and specifications required at Harwich Manor, Norfolk provided the following services:

- Researched and reviewed existing conditions, met and coordinated with City Engineering, DPW, and the Housing Authority's Maintenance personnel.
- Prepared preliminary plans and cost estimates for review and approval from the Housing Authority, City Engineering, and the DPW.
- Prepared final design plans, specifications and final cost estimates.
- Provided bidding and construction supervision services that included attendance at field meetings, reports and closeout/as-builts plans.

