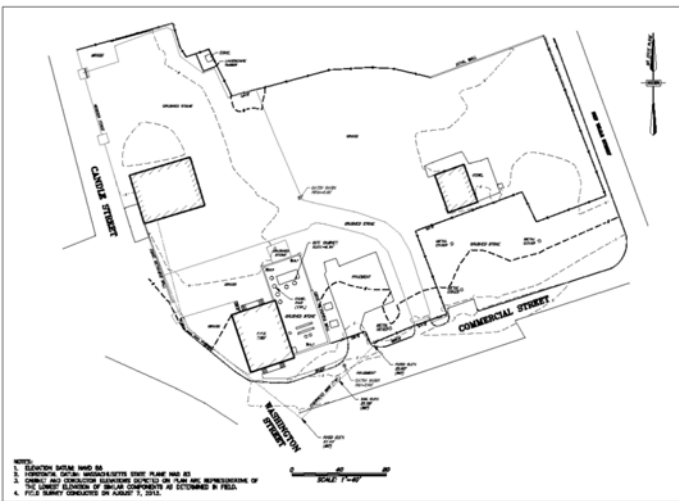
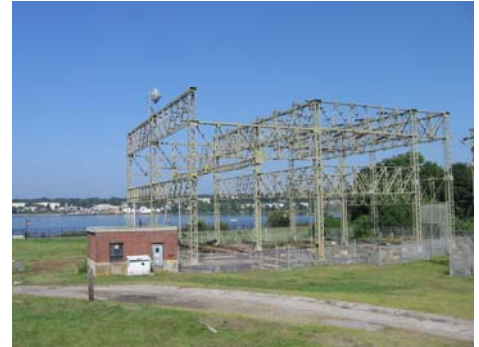


**National Grid**

**Bay State South  
Substation Flood Study**

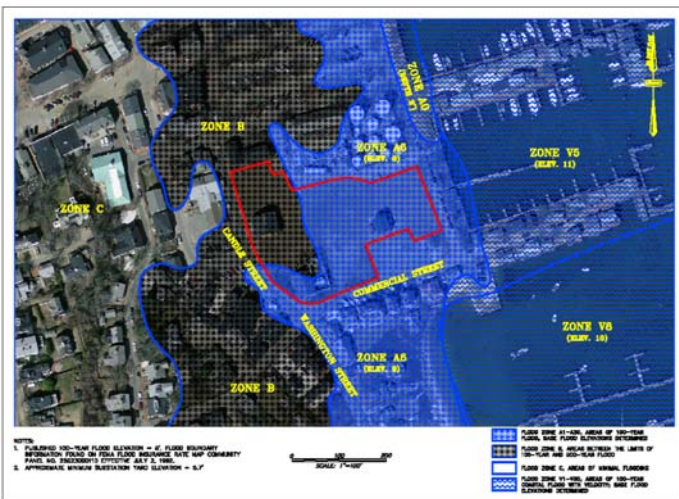
**Project Description**

The purpose of the project was to perform a flood study of 25 existing National Grid substation facilities located throughout southeastern



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Massachusetts. The scope of work included an analysis of existing flood elevation data, where available, to pre-determine which substation assets may be susceptible to flooding. Subsequently, an existing condition survey was performed at each facility, taking note of equipment panel and/or switchgear and control house slab elevations that are below established flood elevations. From this field data, existing conditions plans as well as flood study plans, which superimposed the survey data onto an aerial photo with the published flood zone data, were prepared. Coneco also performed an in-depth tributary watershed analysis and determined the 100-yr and 500-yr flood elevations at four of the facilities that had published flood zones but no published flood elevations and/or had experienced flooding even though the facility exists well outside any known flood zone. Included in our analysis was field survey of existing culverts and other hydraulic constraints. Our final product on the effort consisted of 25 existing conditions plans, 25 flood study plans, 4 hydraulic reports and a summary table identifying facilities and specific assets within those facilities that are susceptible to flooding.



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