

Green Infrastructure Project Completion Report

Project F-01: Pearl Street Parking Lot

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The purpose of this memorandum is to document a summary of the important information noted during the design and construction of the Pearl Street Parking Lot green infrastructure project.

Item #1: Subsurface Utility Location

- 1A. Stormwater Utility Location.** Stormwater utility record mapping was investigated through the NYSDOT, of which indicated record of a stormwater pipe connecting the two inlets on E. Belden Avenue, and were accordingly designed to be connected to the parking lot infiltration bed. This record mapping was not accurate, which required a modification to the contract. In the future, all questionable or conflicting record mapping will be field verified, with the attendance of City DPW if possible. Dye testing should be requested if necessary.
- 1B. Electric/Gas Utility Location.** Requests for electric/gas utility mark-out were either ignored or assigned a low priority, and subsequently not available when the survey was completed. As a consequence, field adjustments were required. For future projects, record mapping contacts at National Grid have been identified for both gas and electric utilities, and should be contacted for record mapping transmittal at or before the time of field work, and prior to design. In addition, National Grid has stated that line relocation and/or replacement is often done in conjunction with large projects, and may require additional coordination by the project team with the benefit of solving utility conflicts where they occur.

Item #2: Unforeseen Conditions

- 2A. Subsurface Structure Demolition.** While excavating the infiltration bed, multiple building foundations were encountered, requiring the use of equipment beyond the scope of typical "unclassified" excavation, incurring additional costs. Subsurface foundations were also found at City Parking Lot #3. The project team has determined that typically the cost of increased subsurface testing with the goal of mapping subsurface structures exceeds the additional costs of having the contractor remove them via field directive. However, record mapping and the environmental assessment should be evaluated at all sites requiring subsurface excavation to determine if subsurface structure mapping is warranted.
- 2B. Existing Pavement Subgrade.** Existing pavement at the parking lot to be replaced with standard pavement, i.e., no infiltration bed or porous pavement, was presumed to have an adequate layer of suitable subbase material. Upon excavation, most subbase material was found to be unsuitable. Future projects with similar circumstances will be more conservatively evaluated with regard to the amount of new subbase required.
- 2C. Owner Requests.** During construction, multiple owner requests were made by the City, including an additional handicap ramp detectable warning unit, new sidewalk, and abandonment of a stormwater receiver manhole in Pearl Street while a street cut was being made - all resulting in contract modifications. In an effort to manage these requests and satisfy the owner (in this case a critical program partner), all owner preferences and requests should be thoroughly vetted prior to the time of bid.

Item #3: Public Outreach

3A. Public Notification. During construction, the owner of a business adjacent to the project raised considerable concern over the effects that construction traffic and parking had on their business. While public reaction will vary widely contingent on the type, location, and demographic of the project, the project team should ensure that adequate notification and/or public meeting(s) are provided by the project team and/or owner/City so that negative public reaction can be minimized (and positive reaction maximized).

Project Metrics Summary

Bid Price	\$367,000
Change Order Total	\$29,772
Total Project Cost	\$396,772
Total Estimated CSO Reduction	913,000 gallons
Cost per CSO Reduction	\$0.43 per gallon