

# MEMORANDUM

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TO: Matthew Bollerman – Hauppauge Public Library

FROM: Michael C. Marinis, P.E.

DATE: December 13, 2013

SUBJECT: Hauppauge Public Library – Civil Design Narrative  
(BBV Project No. 130162)

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## ***A. Site Description***

1. The subject property is 43,561 SF in size and located within Hidden Pond Park. The property is located off the main park entrance drive from Terry Road. The site is bordered to the north by the entrance road and further by parkland and an existing Suffolk County Water Authority well field; to the west and south the property is bordered by the public parking lot for the park and to the southwest by the “Rinx” facility. To the east, an existing recharge basin exists, with residences located beyond.
2. The Suffolk County tax map number for the subject property is: District 500, Section 18, Block 5, Lot 1
3. The site is vacant and wooded with a 25’ wide parking lot access road traversing the middle of the site. The existing topography of the site is mostly flat.

The site currently has access to public utilities that include public water (provided by the Suffolk County Water Authority and owned by the Town of Islip), gas service (owned by National Grid) and electric service (owned by LIPA).

4. Proposed access to the site is via the park entrance road from Terry Road located to the northeast of the site.

## ***B. Utility Description***

Sanitary Sewage Disposal – The sanitary sewage generated by the library is to be treated by an on-site sewage treatment system located in the south-west corner of the property. The internal gravity-flow plumbing network will serve to collect sewage to a 1,200 gallon septic tank which overflows to two (2) eight (8) foot diameter x sixteen (16) foot effective depth leaching pools. The sanitary system is to be

constructed in accordance with the standards and specifications of the Suffolk County Department of Health Services. The on-site sewage treatment system is to be owned and maintained by the library. This system is designed to treat 588 gpd of sanitary effluent from the library.

Water – An existing water main located in Hidden Pond Park is owned by the Town of Islip and served by the Suffolk County Water Authority. This existing main will serve the Library via an agreement with the Town of Islip. The library water service will consist of a combined 6” domestic and fire service. The average daily demand capacity for the proposed main is estimated to be approximately 600 gallons per day.

Electric – Electricity for the development will be provided by the Long Island Power Authority. Connection to the LIPA infrastructure and a new transformer pad will be located to the north of the library.

Gas – Gas service for the development will be provided by National Grid; service located to the north from existing entrance road.

Telephone – Telephone service is to be provided by Cablevision; service to north from existing entrance road.

### ***C. Sub-Soil Conditions***

1. Four soil borings were conducted throughout the site (Tectonic) to determine the sub grade soil conditions. These borings indicate that the on-site soil consists of sand with traces of silt. This material will provide adequate drainage for the on-site stormwater management system and the on-site sanitary system. Groundwater was encountered within 10’ depth of the borings (Approximately elevation 43).
2. As a recharge basin is located directly east of the proposed library structure, the eastern foundation wall of the library will be designed to accommodate hydrostatic pressure and the potential for moisture seepage.

### ***D. Drainage***

1. The proposed stormwater management system for the project site will consist of a series drywells that will capture and recharge the stormwater runoff generated by the library development. These drywells will serve to store and recharge the stormwater into the underlying soil. (Sized for 2” overflow after cisterns). The roofs of the building are to be piped directly into the wetland / rain gardens. Any overflow from wetland / rain gardens or cisterns will be directed into proposed drywells. The existing drainage park system is to be re-routed around the proposed building into the existing recharge basin. The impact to the existing park drainage system has been reduced as a result of the subject property containing its own stormwater.
2. If necessary, the park drainage system is designed to overflow out of the existing parking lot drainage structures located to the west of the library and away from the library property to eliminate any danger of flooding due to the overflow of the recharge basin or from the groundwater table.

### ***E. Parking and Site Access***

1. Parking for the proposed library will consist of off-street parking spaces located immediately west and south of the library on town property. There are to be xx parking spaces, including xx handicap spaces located immediately adjacent to the library. The handicap spaces are positioned such that they provide an accessible route for the library.
2. All existing parking and access to be modified or improved under this development will be owned and maintained by the Town of Islip.
  - a. The roadway pavement will be constructed in accordance with the standards of the Town of Islip.
  - b. Parking lot lighting will consist of approximately 5 existing free-standing light fixtures located throughout the existing parking lot.
  - c. The proposed pavement, curb, stormwater facilities and street lighting are to be in conformance with the local codes of the Town of Islip.