

COST ANALYSIS

Total Cost

\$1,577,037.86

ARRA Funding

50%

Project Timeline

7 mo.

Fast-Fill Capacity

300 scf per minute

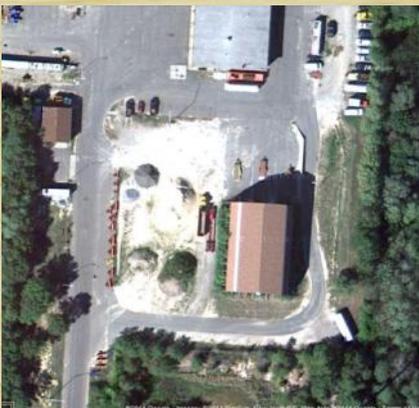
(135 scf = 1 diesel gallon equivalent)

Storage Capacity

36,000 scf. @ 4500 psi



Asphalt Cutting and Removal



Aerial View of Site at Crooked Hill Rd.

Commack CNG Filling Station

Suffolk County Department of Public Works (DPW) installed compressed natural gas (CNG) fuelling stations which are open to the public. The County fleet has expanded to include more CNG vehicles which reduce the operation costs and reduce emissions.

Funding for the design and construction of CNG fuelling stations came from an American Recovery and Reinvestment Act (ARRA) Federal Grant to Suffolk County DPW.

The site chosen for construction of the site is the Highways department Commack facility. The existing structures on the site include a garage, a salt shed, a cell tower, and equipment stored on these grounds which are locked at night. The site is available for public fuelling during the hours of 7:00 am to 3:00 pm. The site was chosen because it is centrally located and available to the County's fleet and to the public.

The Suffolk County DPW did not have the manpower to carry out the project, and it was sufficiently technical to require a request for proposal (RFP). An RFP was issued to several consultants. Paul W. Grosser Consulting Inc. was chosen to design the CNG station and direct the construction of the project.

A fast-fill type station was designed which requires more compressor power and storage than a slow-fill station. The equipment used was ANGI Energy Systems. Four 50 hp compressors and a three-tank storage array were specified. The site was properly graded and paved to provide room for trucks to maneuver in and out of the station. Two pumps were provided with a billing system for the County fleet and any major credit card. Proper safety was a paramount issue and the consultant included all safety precautions. Signs display the site address, emergency telephone, and emergency shut-down switches within the equipment fence and at a safe distance from the equipment and dispensers. A phone line provides auto-dial to Suffolk County in case of any emergencies.

SUFFOLK COUNTY DEPARTMENT OF PUBLIC WORKS

335 Yaphank Ave.

Yaphank NY, 11980



Snow Plows on County Property



Installation of Compressors, Dryers, and Storage



Vehicle Guard Rail at Entrance



Two Dispensing Islands

RESULT

The project took 7 months to plan and build. Planning ran from February to March 2011. Stages of planning were review, comments on drawings, revisions for further review, and getting specs from National Grid and ANGI Energy Systems. Drawings and specs were reviewed by County personnel, the fire marshal, and outside agencies. Construction ran from April to August 2011 with phases such as surveying, cutting, trenching, paving, concrete casting, equipment mounting, running conduit, welding, inspections, and commissioning.

An RFP will be sent out in November for a 2-year contract for the operation, maintenance, and data management (OM&DM) of the CNG station. The duties will include billing of County and public vehicles, payment of utilities, replacement of parts, repair of equipment, and 24-hour emergency response.

The project included design, construction, and OM&DM contract for a fast-fill CNG filling Station. P.W. Grosser was the consultant for the project and ANGI Energy Systems provided the equipment. The design and construction went from February to August 2011 and a 2 year contract will be sent for proposals and award in November. The lessons from this project are that close communication with the consultant was a requirement during the planning stage and construction. In order to phase the construction properly we had to anticipate the utility lead time to build new service, lead time on parts and copies of their proprietary specs, and room for extra conduit in trenches.