



## Project Summary

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### Geospatial Services

#### PROJECT NAME AND LOCATION

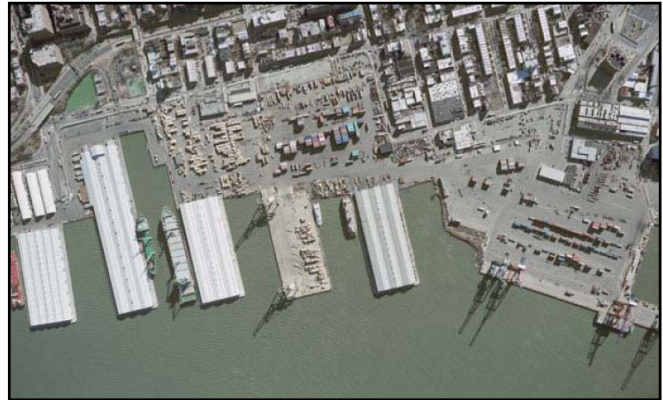
Brooklyn Marine Terminal/Red Hook Container Terminal  
Brooklyn, NY

#### PERFORMANCE DATA

Total project fee: NA  
Project estimated completion in 2007

#### OWNER INFORMATION

The Port Authority of New York and New Jersey  
Jersey City, NJ



#### **KEY PROJECT FEATURES**

- ❑ Field work involved close coordination with personnel at a busy, highly congested terminal area to meet both schedule and safety considerations.
- ❑ Project involved a combination of both field survey and photogrammetric mapping services.
- ❑ Project required quick mobilization of field crews to meet the tight schedule for aerial imagery capture.

The Erdman Anthony photogrammetric mapping group (**EA Maps, LLC**) was assigned this project under an on-call agreement for professional surveying services with the Port Authority of New York and New Jersey (Port Authority). The project involved survey control and photogrammetric mapping of over 350 acres along the East River.

Field survey crews were mobilized to set and pre-target twelve photo control points to use in establishing a primary control network. All photo control points were observed with a minimum of two static Global Positioning System (GPS) baseline vectors, thus providing a closed loop network.

In addition, three pairs of permanent Port Authority monuments were set and surveyed to FGCC Second Order, Class I specifications. The horizontal control was tied to local HARN monuments and data from the nearest Continually Operating Reference Station (CORS) was added as a check on the network. Vertical control for all control points was established by differential leveling with an electronic digital level.

Aerial imagery was captured both in black and white at 1"=300' scale and in color at 1"=600' scale. Mapping of the facility was then prepared at a scale of 1"=40' utilizing our first order Z/I-SSK digital photogrammetric workstations. Mapping deliverables were provided both in digital format conforming to Port Authority CAD standards, as well as on hard copy media using Port Authority drawing borders.

All topographic data was developed using three-dimensional Digital Terrain Model (DTM) methods, with sufficient break/fault lines and point data to produce accurate 1-foot contours for the entire project area. The DTM was also used to orthorectify the color images and provide a frameless color digital orthophotography (0.5'/pixel resolution). Erdman Anthony was retained to update this mapping on an annual basis for the next two years. The project was completed entirely by the staff of Erdman Anthony's Photogrammetric Group prior to the formation of **EA Maps, LLC** in 2006.