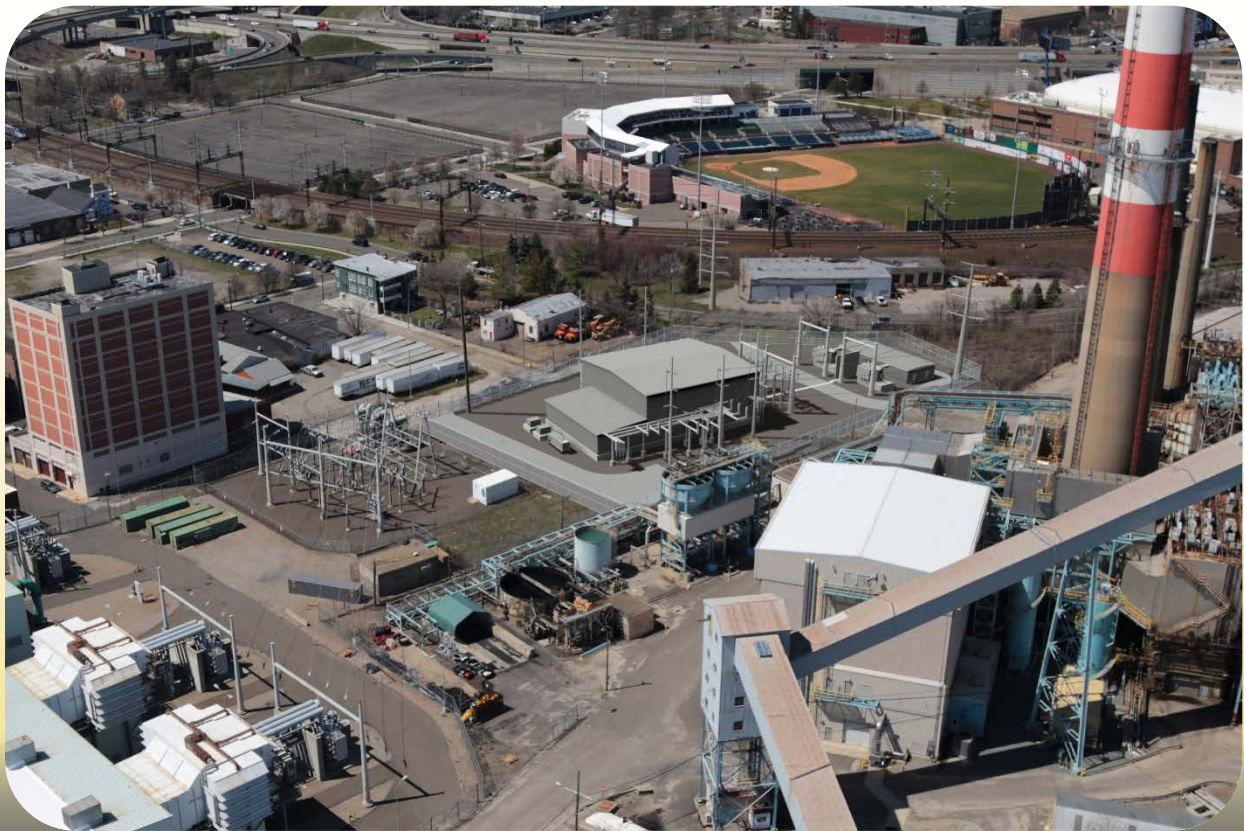


Appendix D: Visibility Analysis

VISIBILITY ANALYSIS

PEQUONNOCK SUBSTATION REBUILD BRIDGEPORT, CONNECTICUT



Prepared for:

**The United Illuminating Company
180 Marsh Hill Road
Orange, CT 06108**

Prepared by:

**All-Points Technology Corporation, P.C.
3 Saddlebrook Drive
Killingworth, CT 06419**

February 2018

VISIBILITY ASSESSMENT

The United Illuminating Company (“UI”) proposes to decommission its existing, air-insulated Pequonnock Substation located at One Atlantic Avenue in the south-central portion of Bridgeport, Connecticut (the “Site”) and construct a new gas-insulated substation on a nearby parcel. At the request of UI, All-Points Technology Corporation, P.C. (“APT”) completed a visibility assessment of the proposed Substation Rebuild Project to evaluate potential views from nearby locations.

Site Setting and Project Description

A 3.7-acre site located at One Kiefer Street will accommodate the new Substation, which will occupy approximately two (2) acres. The proposed location is approximately 700 feet southwest of the existing Substation. Located in a highly developed industrial area south of Interstate 95 (“I-95”) and west of the Pequonnock River, surrounding and nearby land uses include the Bridgeport Harbor Station generating facility, electrical utilities, oil storage facilities, storage yards, warehouses, commercial office buildings and the Interstate and Metro-North/Amtrak Railroad corridors.

The Project includes the construction and operation of a new gas-insulated substation and the relocation of the eight (8) existing transmission and distribution lines that connect to the existing Substation. The new Substation will include an 8,000-square foot enclosure and a $\pm 2,600$ -square foot enclosure, as well as exterior equipment. The new Substation and equipment will be elevated three (3) feet above the 100-year flood zone.¹

Eight (8) 115-kV lines that feed the existing Pequonnock Substation will be relocated to connect to the new Substation. To connect the existing overhead lines to the new substation, 17 new galvanized steel monopole structures, ranging in height from 75 to 100 feet, will be installed on the Project site and adjacent properties, including adjacent to the Metro-North Railroad corridor.

Methodology Employed

On April 11, 2017, APT personnel conducted a field reconnaissance to determine locations from where the new Substation components would be visible and photo-document existing conditions at the Site. The geographic coordinates of the camera’s position at each photo location were logged via GPS. Photographs were taken with a Canon EOS 6D digital camera body and Canon EF 24 to 105 millimeter (“mm”) zoom lens.² Three-dimensional computer models were developed for the Project area and Substation components from digital elevation models and AutoCAD information. Photographic simulations were generated to portray scaled renderings of the proposed Substation modifications. Using field data, site plan information and image editing software, the Substation and associated appurtenances were scaled to the correct locations and heights,

¹ The 100-year Base Flood Elevation for the area has been established at 14 feet Above Mean Sea Level as defined in 2013 by the Federal Emergency Management Agency.

² In addition to street-level photographs, an oblique aerial view was obtained to depict a “birds-eye” view of the Project area.

relative to the photo location and surrounding area. For presentation purposes in this report, all of the photographs were produced in an approximate 7-inch by 10.5-inch format. Photo-simulations are provided in the attachment to this report.

Photographs and renderings are provided in the attachment to this report. The photo-simulations provide a representation of the proposed project under similar settings as those encountered during the field reconnaissance. Views of the project can change throughout the seasons and the time of day, and are dependent on weather and other atmospheric conditions (e.g., haze, fog, clouds); the location, angle and intensity of the sun; and the specific viewer location. Weather conditions on the days of the reconnaissance consisted of partly cloudy skies and the photo-simulations presented in this report provide an accurate portrayal of the modified Substation under comparable conditions.

Visibility Assessment Results

Once constructed, the new Substation will remain consistent with surrounding land uses. As depicted on the attached Visibility Map, the Project will not extend substantially beyond the immediate Site. Portions of the new Substation will be seen from abutting northern and western locations along Ferry Access Road and Singer Avenue, as well as from a short stretch of elevated I-95 farther to the northwest. In addition to these locations, views of the new transmission structures will extend out up to ¼-mile west and north. The presence of large, existing utility and industrial infrastructure will serve to obstruct the new facilities from several surrounding locations. Based on the results of this assessment, the Project will not adversely affect views in the surrounding community.

Prepared by:

All-Points Technology Corporation, P.C.

A handwritten signature in cursive script that reads "Michael Libertine".

Michael Libertine
Director of Siting & Permitting

ATTACHMENT



EXISTING



PROPOSED



EXISTING

PHOTO

1

LOCATION
KIEFER STREET

ORIENTATION
EAST



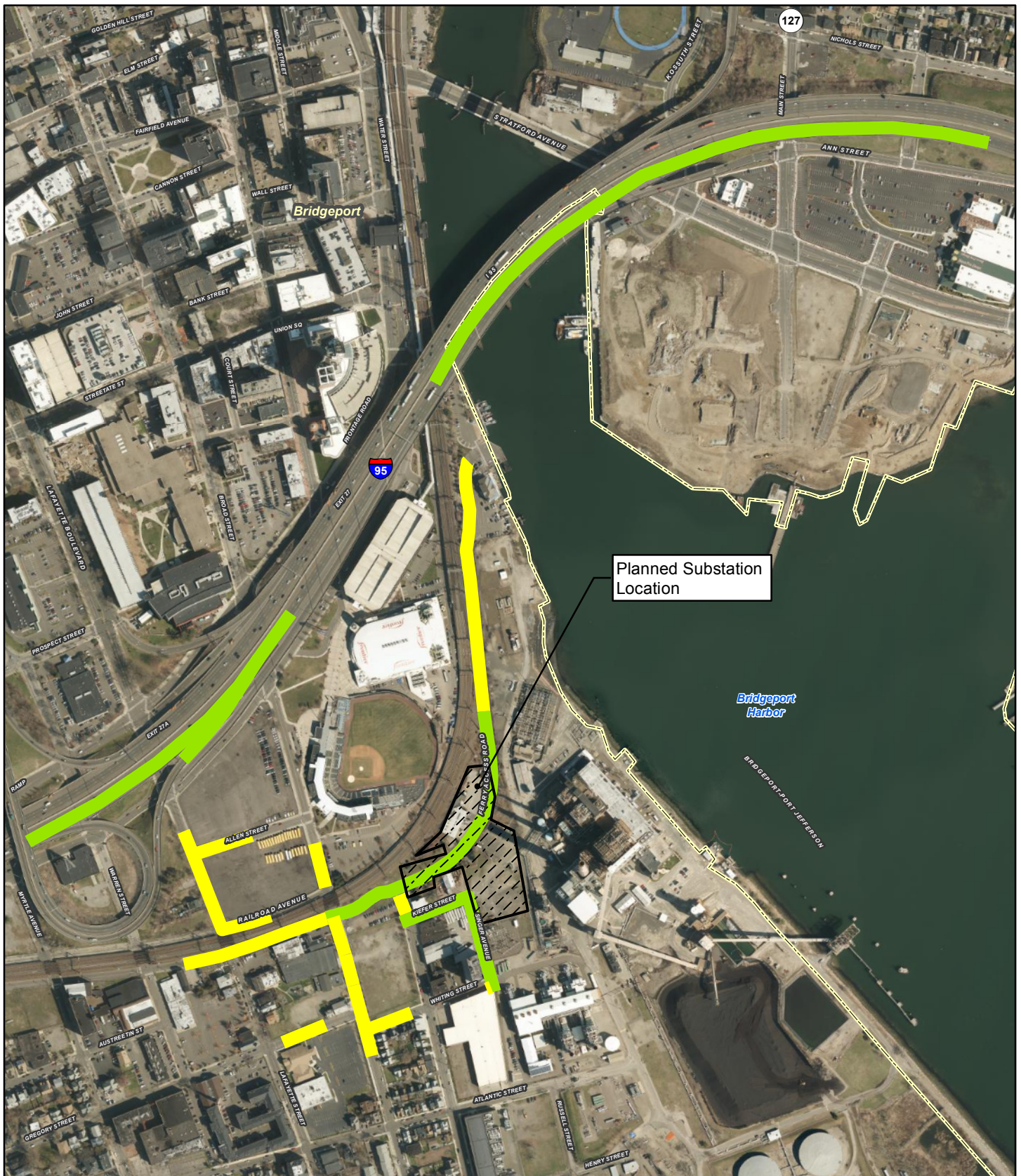
PROPOSED

PHOTO

1

LOCATION
KIEFER STREET

ORIENTATION
EAST

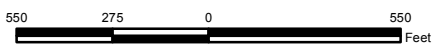


Planned Substation Location

Bridgport Harbor

- Legend**
- Approximate Site Boundary
 - Approximate Areas of Visibility**
 - Proposed Transmission Poles Visible
 - Proposed Ground Equipment and Transmission Poles Visible
 - Municipal Boundary

Visibility Map
 Pequonnock Substation Rebuild
 Bridgeport, Connecticut



Base Map Source: 2016 CT Aerial Imagery (CTECO)
 Map Scale: 1 in = 550 ft
 Map Date: February 2018



Surrounding Features Map

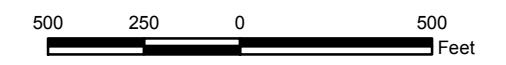
Pequonnock Substation Rebuild

Bridgeport, Connecticut

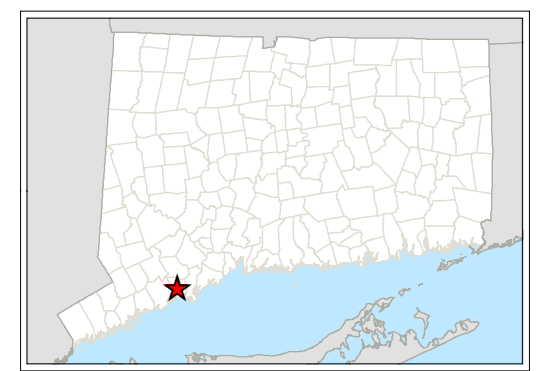


Legend

- Approximate Subject Property
- 2,000-Foot Radius
- Surrounding Features (within 2,000 feet)**
- School
- Park/Recreation
- Municipal and Private Open Space Property (CTDEEP GIS)
- Protected Open Space Property (CTDEEP GIS)**
- Federal
- Land Trust
- Municipal
- Private
- State
- State Forest/Park
- Municipal Boundary



1 in = 500 ft



**Pequonnock Substation Rebuild - Bridgeport, Fairfield County, Connecticut
Public Facilities and Resources**

Resource Type	Name	Address	Distance from Project Area
Daycare	None located within 2,000 Feet		
Community Center	None located within 2,000 Feet		
Senior Facility	None located within 2,000 Feet		
Hospital	None located within 2,000 Feet		
School	Capital Prep Harbor Upper School	777 Main St, Bridgeport, CT	1,640' N
	Housatonic Community College	900 Lafayette Blvd, Bridgeport, CT	1,584' NW
	Abcd Jamie Hulley Early Learning	460 Lafayette St, Bridgeport, CT	900' W
Recreational / Park	Seaside Park	1 Barnum Dyke, Bridgeport, CT	1,425' S
	Knights Field	113 University Ave, Bridgeport, CT	1,425' SW
Youth Camp	None located within 2,000 Feet		