



Parks

NYC Parks- Flushing Meadows-Corona Park, Queens

Electrical upgrades including the installation of a new working platform and 8 electrical distribution buildings

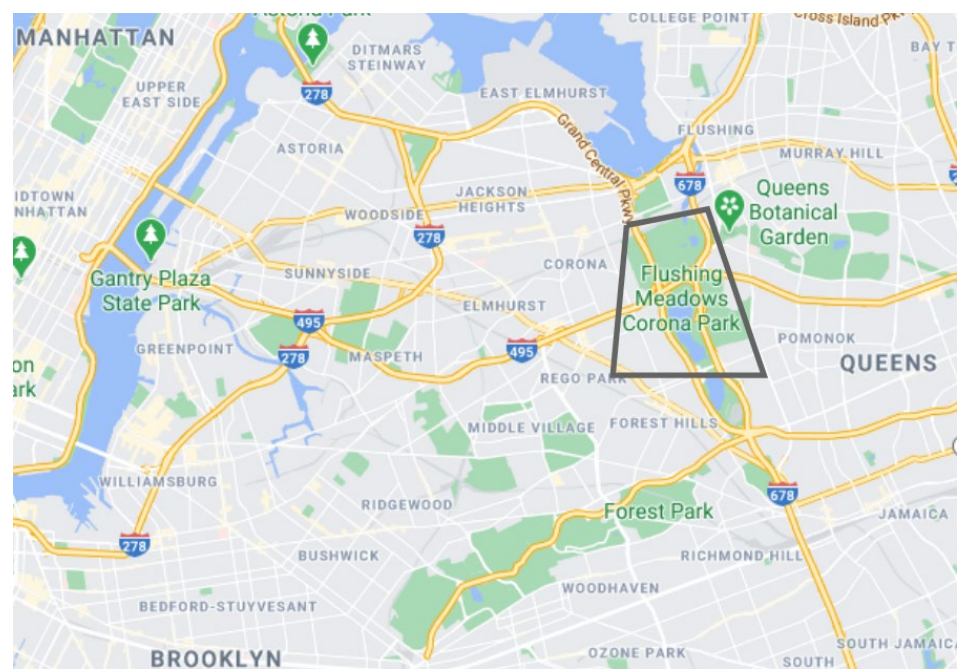
Project #: Q099-220M

Community Board Presentation
October 2022

Cameron Engineering & Associates, LLP NYC Parks Project Manager: Rajanikant Patel
Presented by: Steven Moltz – Deputy Director of Engineering

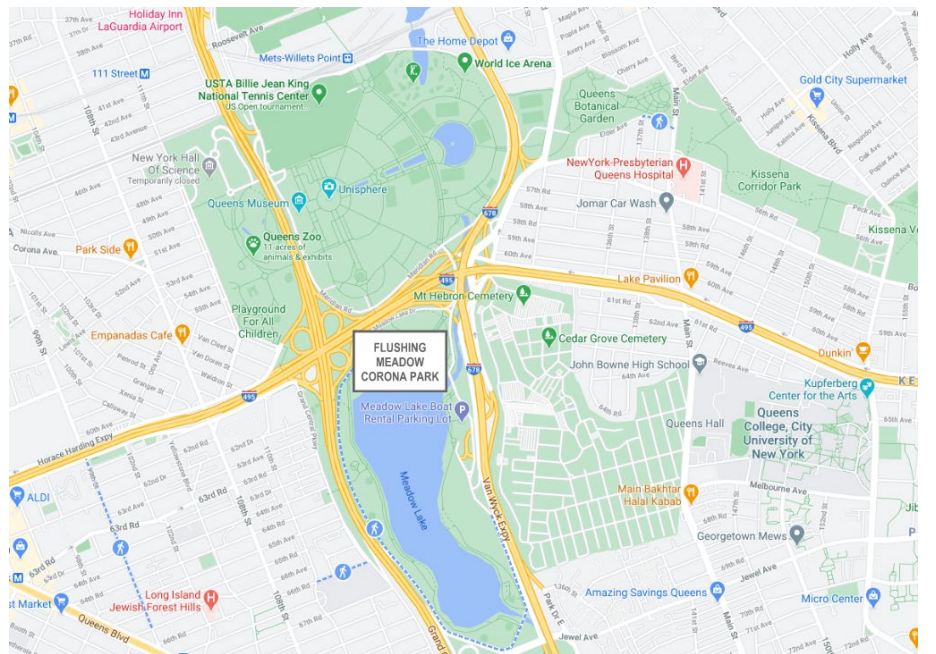
Total Budget: FEMA Funding \$50 Million
Mayoral Funds \$2 Million

Project Size: Approximately 28 acres



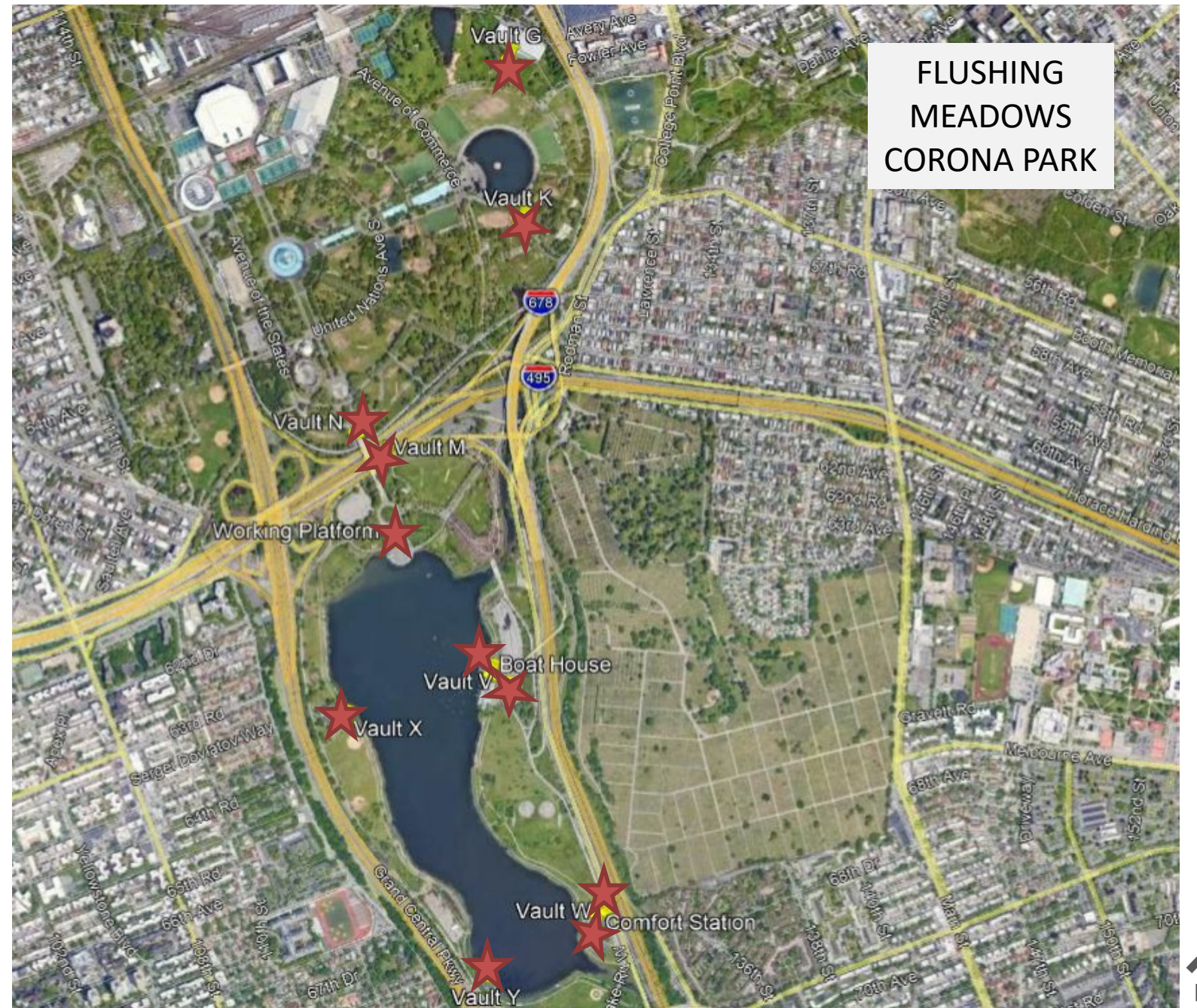
Queens

2 MI



Flushing Meadows Corona Park

1000 FT



FLUSHING
MEADOWS
CORONA PARK

Site

500 FT



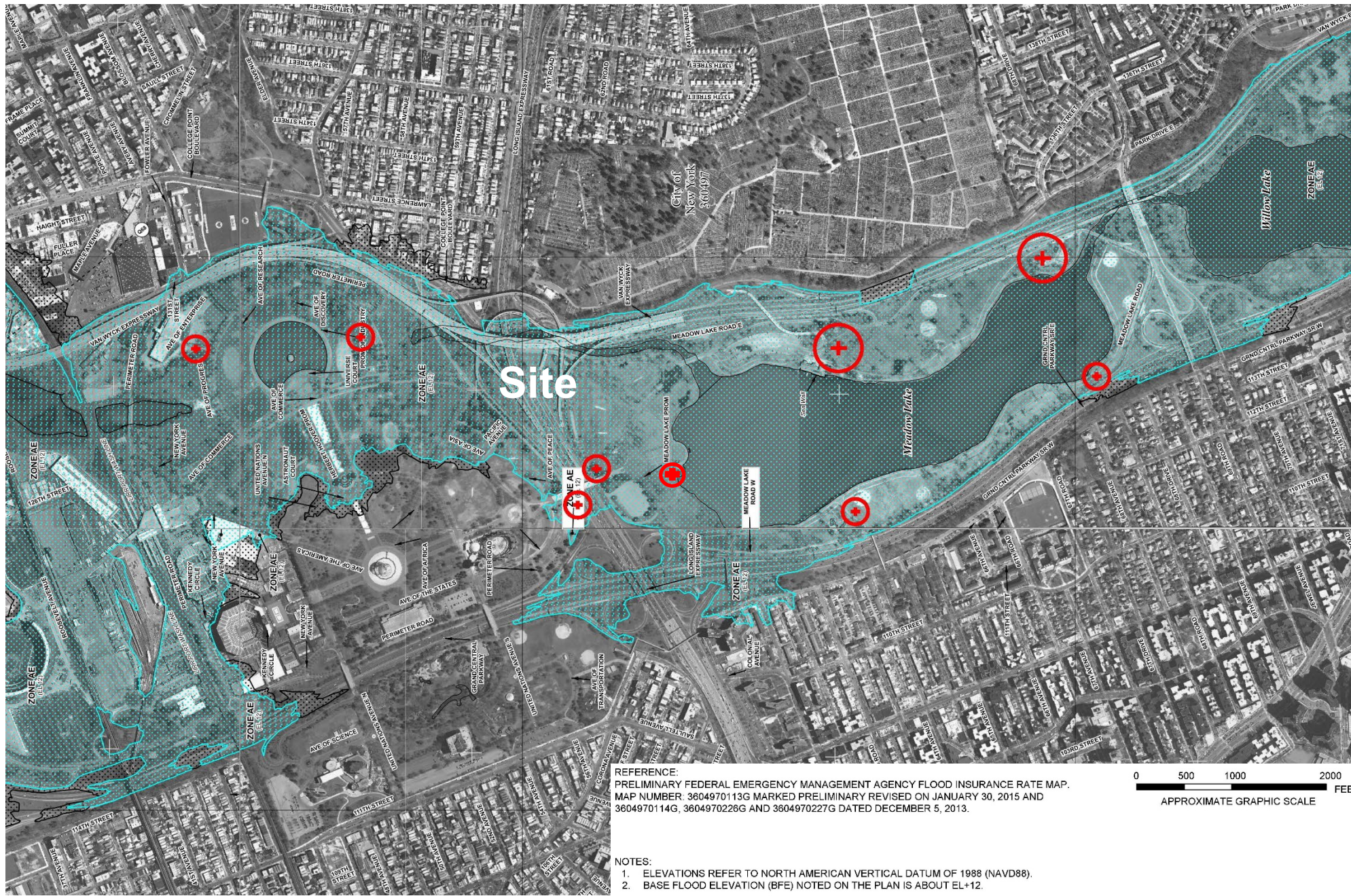
NYC Parks



CAMERON
ENGINEERING

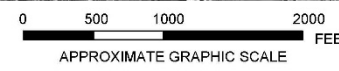
MEPS Engineering Design Services

Flushing Meadows Corona Park| Project Location



Site

REFERENCE:
 PRELIMINARY FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP.
 MAP NUMBER 3604970113G MARKED PRELIMINARY REVISED ON JANUARY 30, 2015 AND
 3604970114G, 3604970226G AND 3604970227G DATED DECEMBER 5, 2013.



- NOTES:
- ELEVATIONS REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
 - BASE FLOOD ELEVATION (BFE) NOTED ON THE PLAN IS ABOUT EL+12.

 **Hazard Mitigation Location of Work** **Base Flood Elevation (BFE): EL+12**

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Limit of Moderate Wave Action
- Base Flood Elevation line and value; elevation in feet*
 (EL 987)
 Base Flood Elevation value where uniform within zone; elevation in feet*

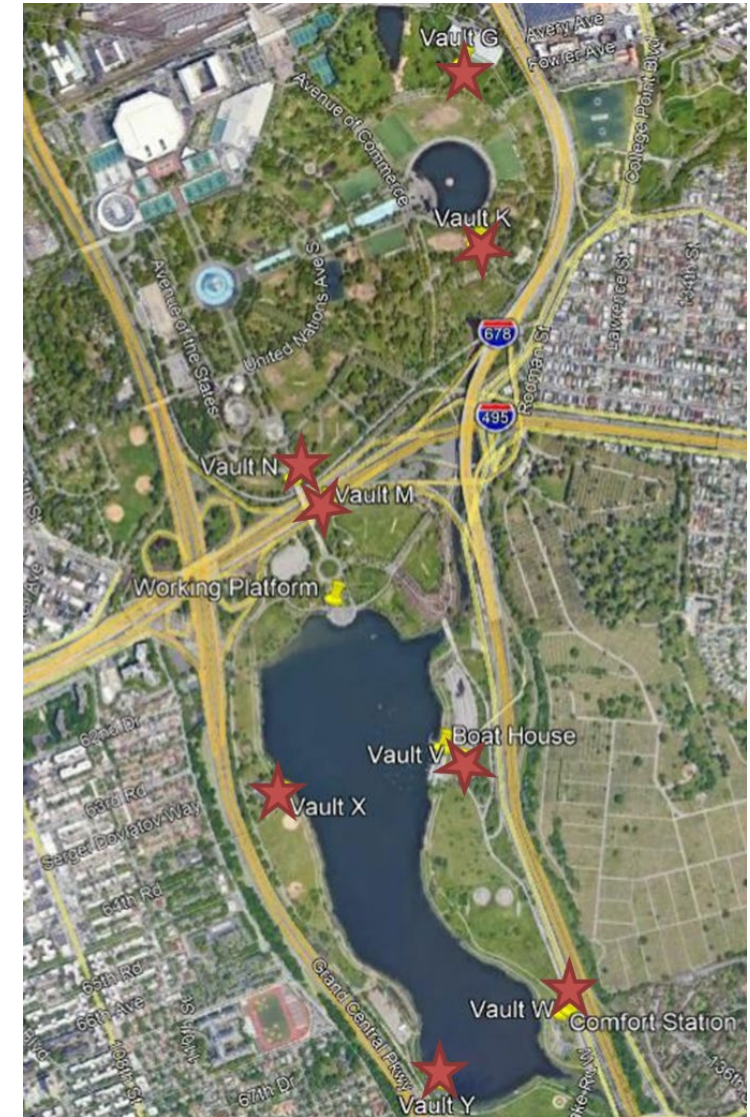
* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- Culvert, Flume, Penstock or Aqueduct
- Road or Railroad Bridge
- Footbridge
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
 87°07'45", 32°22'30"
- 1000-meter Universal Transverse Mercator grid values, zone 18
 247600m N
- 5000-foot grid values: New York State Plane coordinate system, Long Island zone (FIPZONE 3104), Lambert Conformal Conic projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
 DX5510 x
- River Mile
 ● M1.5

Project Goals

Equipment Replace-in-Kind(RIK) & Required Hazard Mitigation Plan (HMP)

- Replace the electrical distribution equipment damaged in eight electrical structures, Boathouse, and the Working Platform (at Ederle Terrace).
- Reconstruct the eight electrical structures to FEMA P-936 Design Code for Floodproofing based off a single standard structure design.
- Designed flood elevation is 13 feet. Minimum equipment on second floor have elevations at 14.75.



Area of work



NYC Parks



MEPS Engineering Design Services
Flushing Meadows Corona Park| Project Goals

Existing Structures

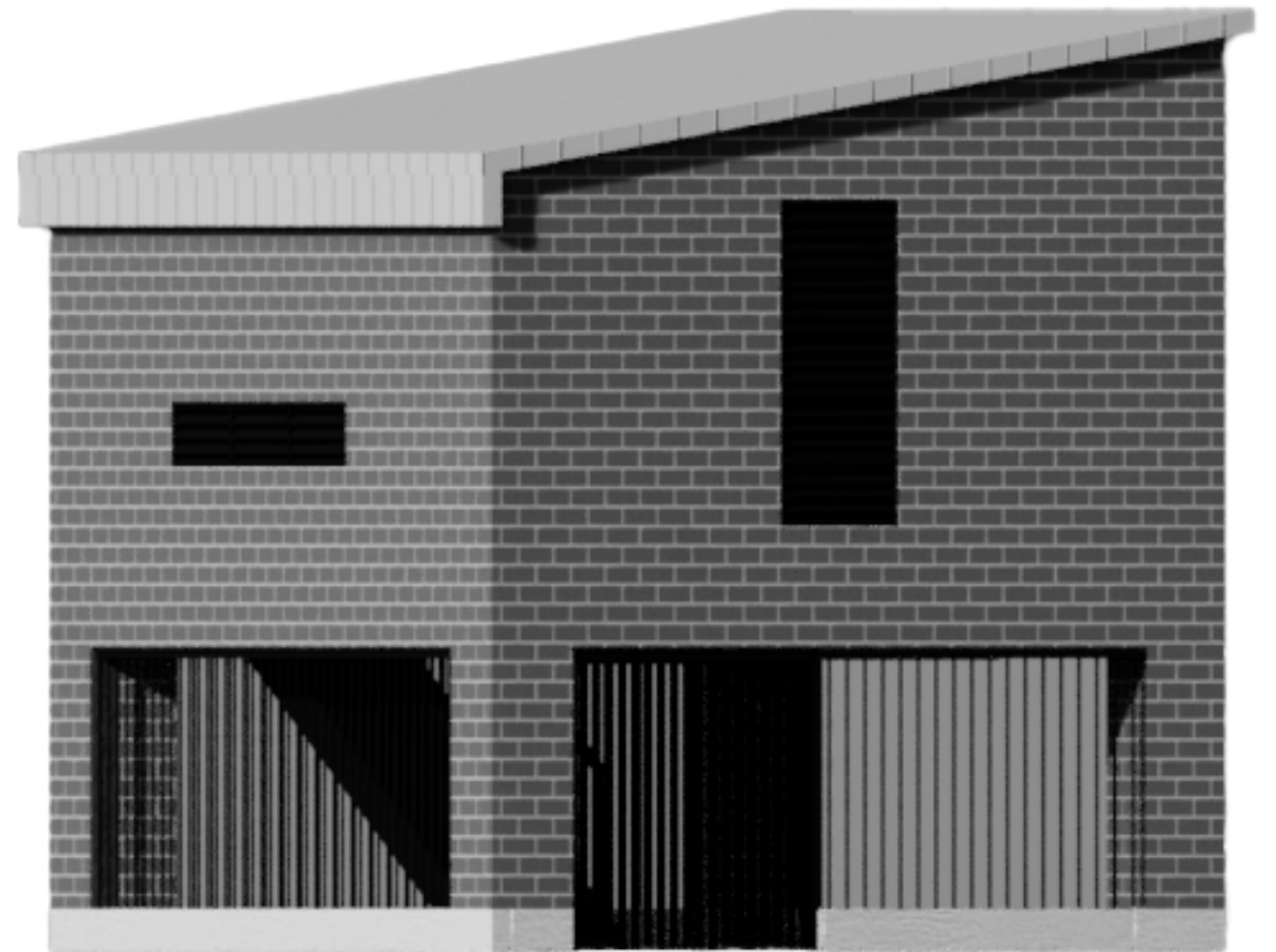


EXISTING
VAULT K

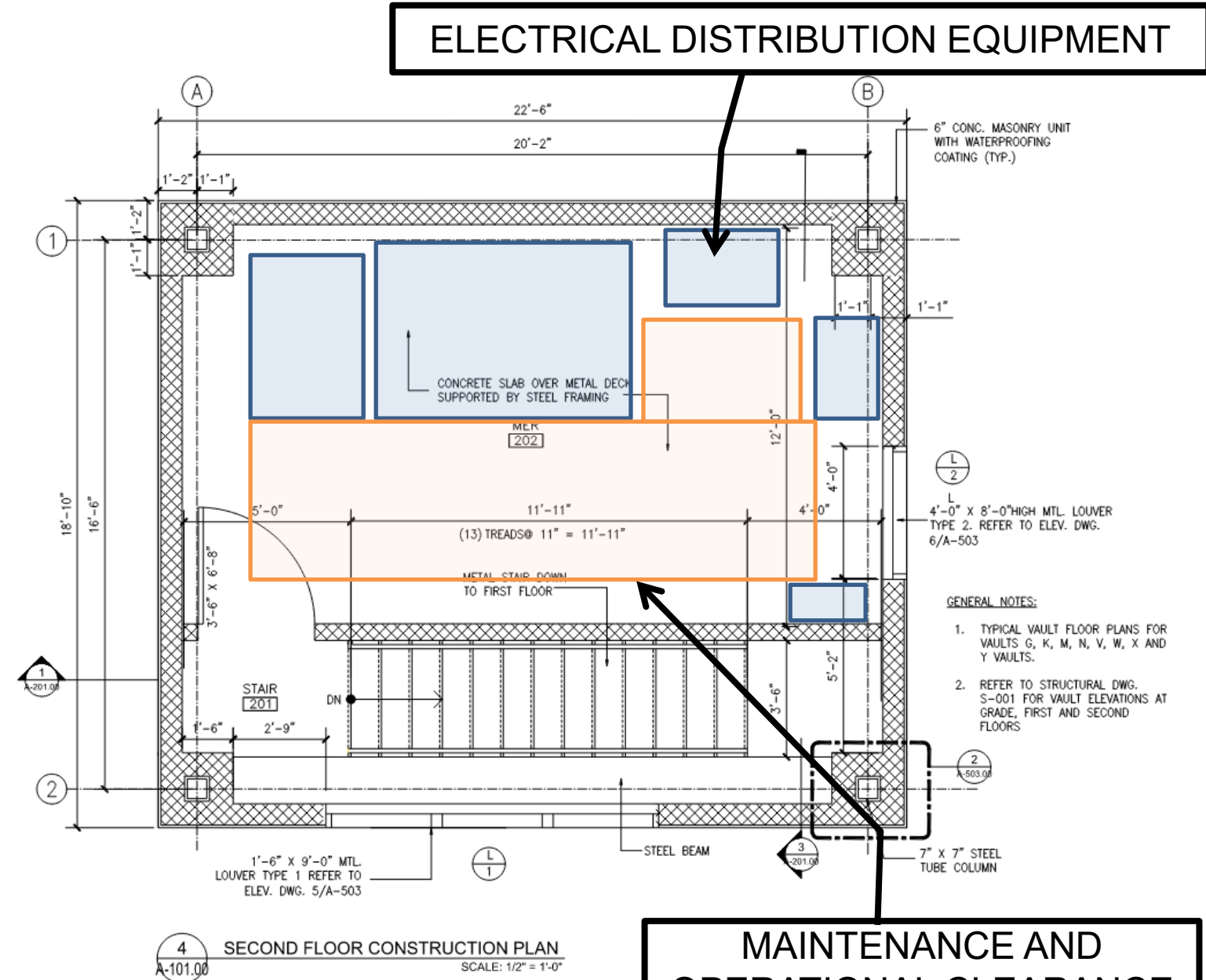
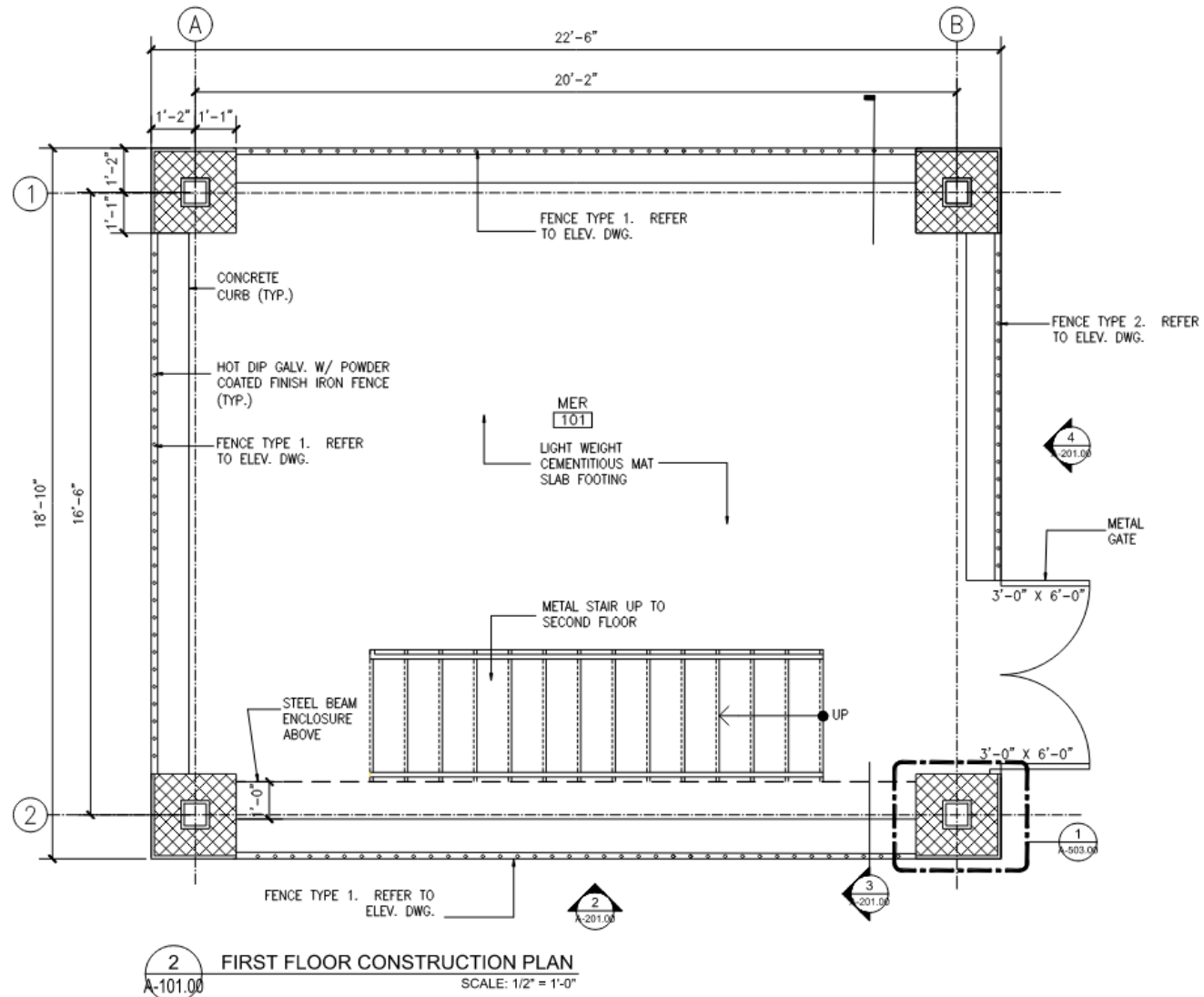


EXISTING
VAULT G

Proposed Building



Building Floor Plan



ELECTRICAL DISTRIBUTION EQUIPMENT

MAINTENANCE AND OPERATIONAL CLEARANCE



NYC Parks



CAMERON ENGINEERING

MEPS Engineering Design Services

Flushing Meadows Corona Park| Proposed Building Floor Plan

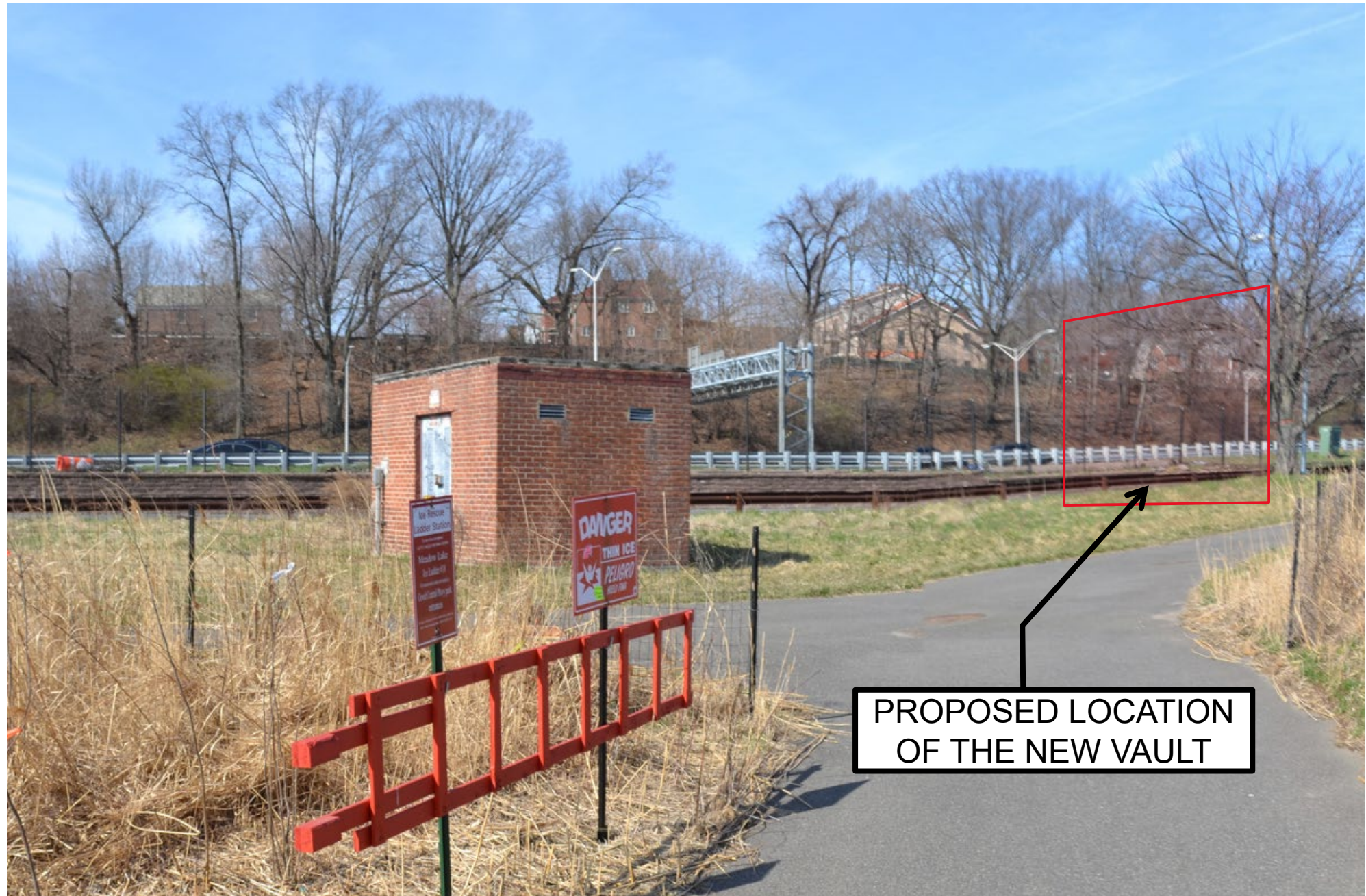
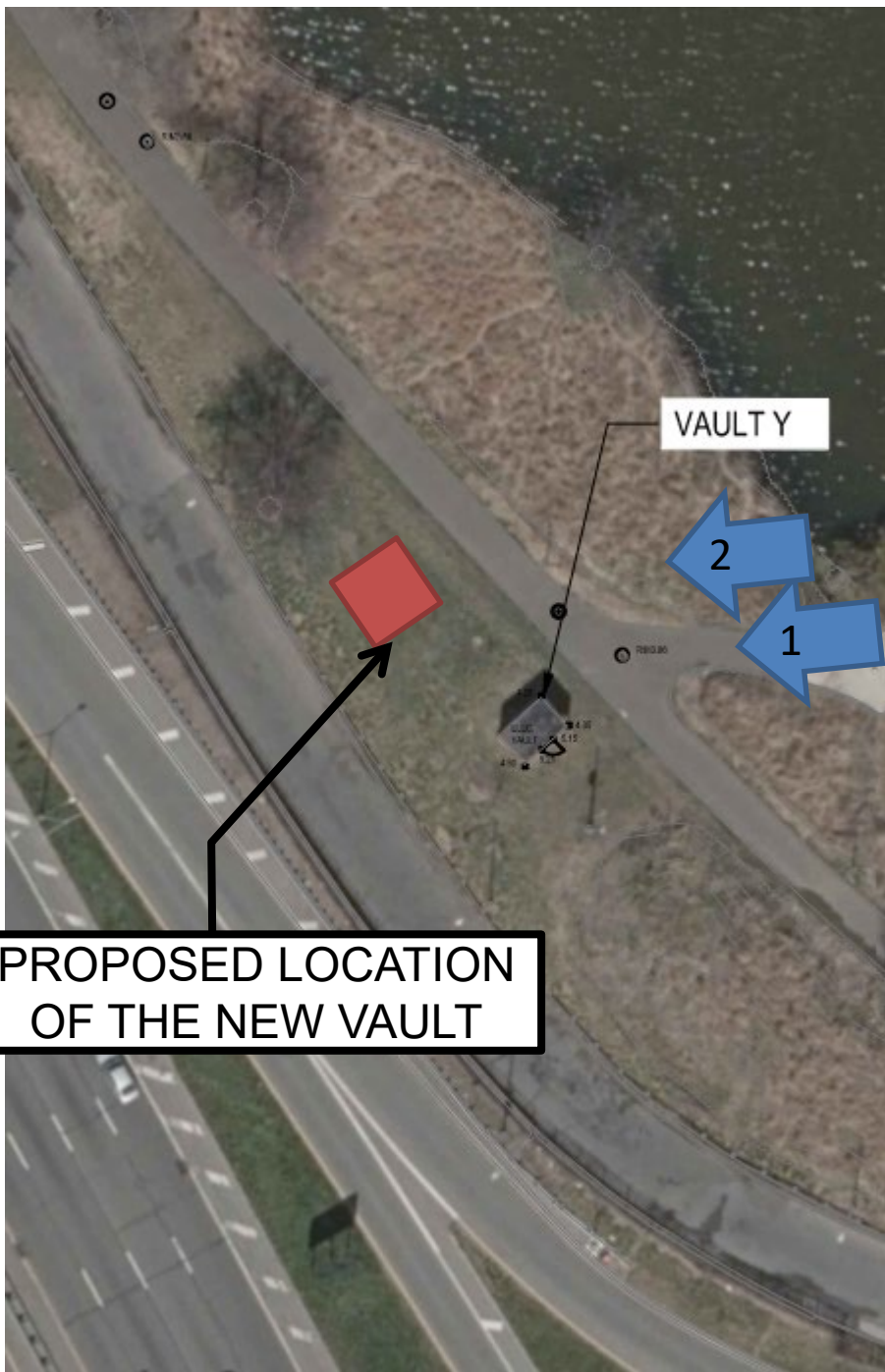


PHOTO 1- EXISTING VAULT Y



NYC Parks



CAMERON
ENGINEERING

MEPS Engineering Design Services

Flushing Meadows Corona Park| Vault Y- Existing Conditions

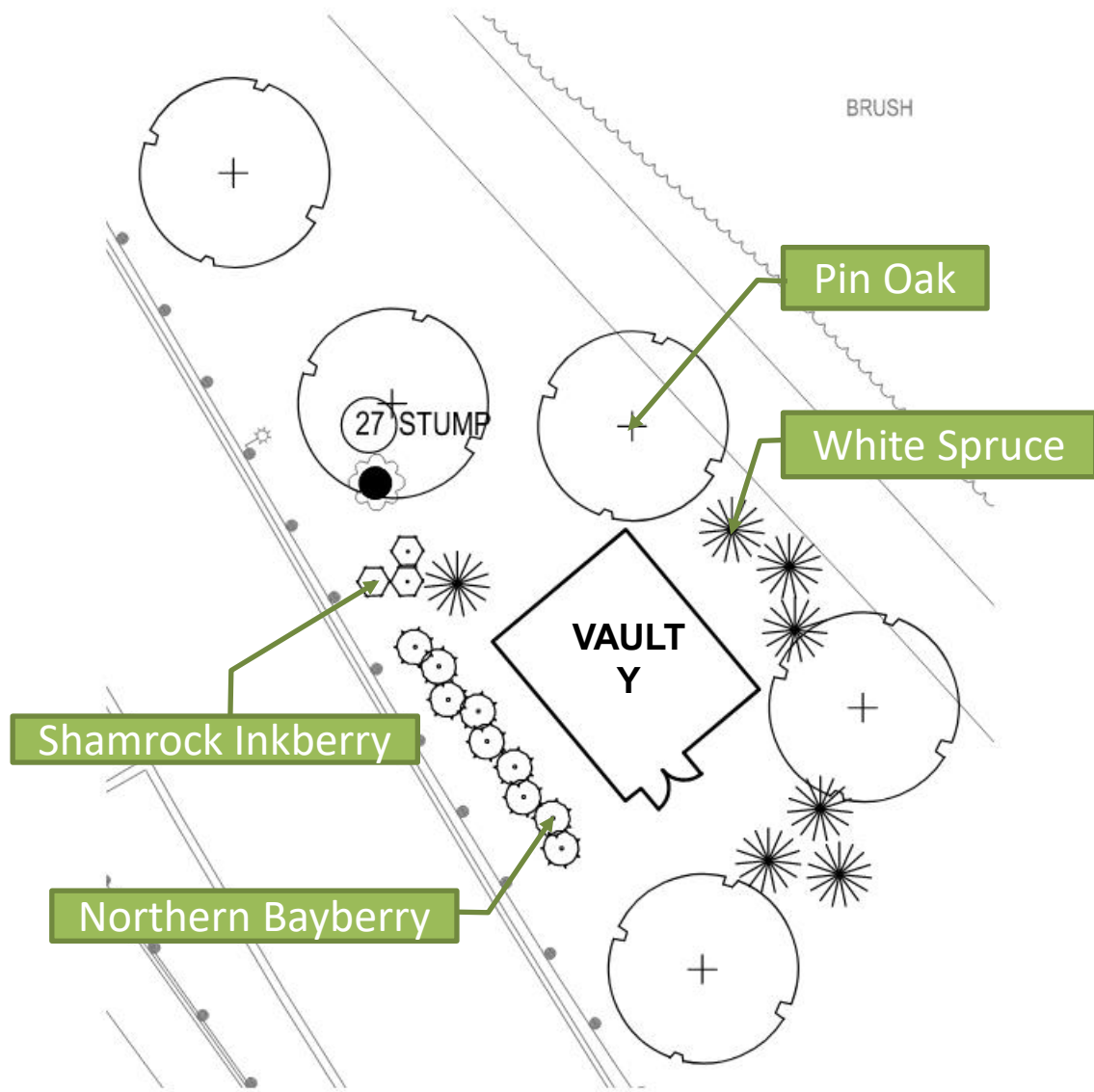


PHOTO 2- PROPOSED VAULT Y



NYC Parks



CAMERON
ENGINEERING

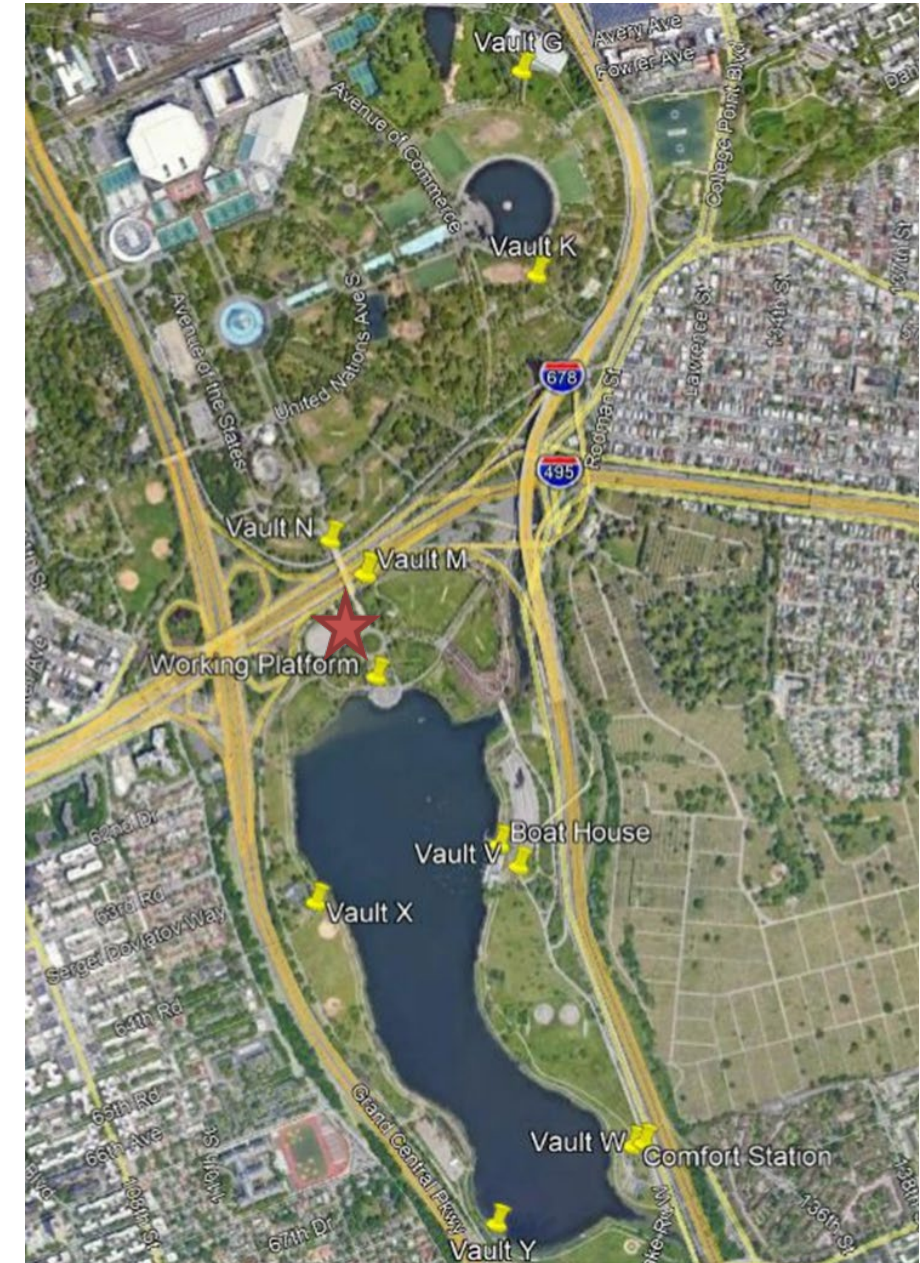
MEPS Engineering Design Services

Flushing Meadows Corona Park | Proposed Structure and Plantings Design

Working Platform Scope

Working Platform at Ederle Terrace

- Construct a new elevated electrical structure to house electrical equipment moved from beneath the existing Ederle Terrace.
 - To conform with FEMA P-936 Design Code for Floodproofing and be based off a smaller version of the single standard structure design provided under the base project scope.
- Designed flood elevation is 13 feet. Equipment on second floor has an elevation from 15.35 feet.



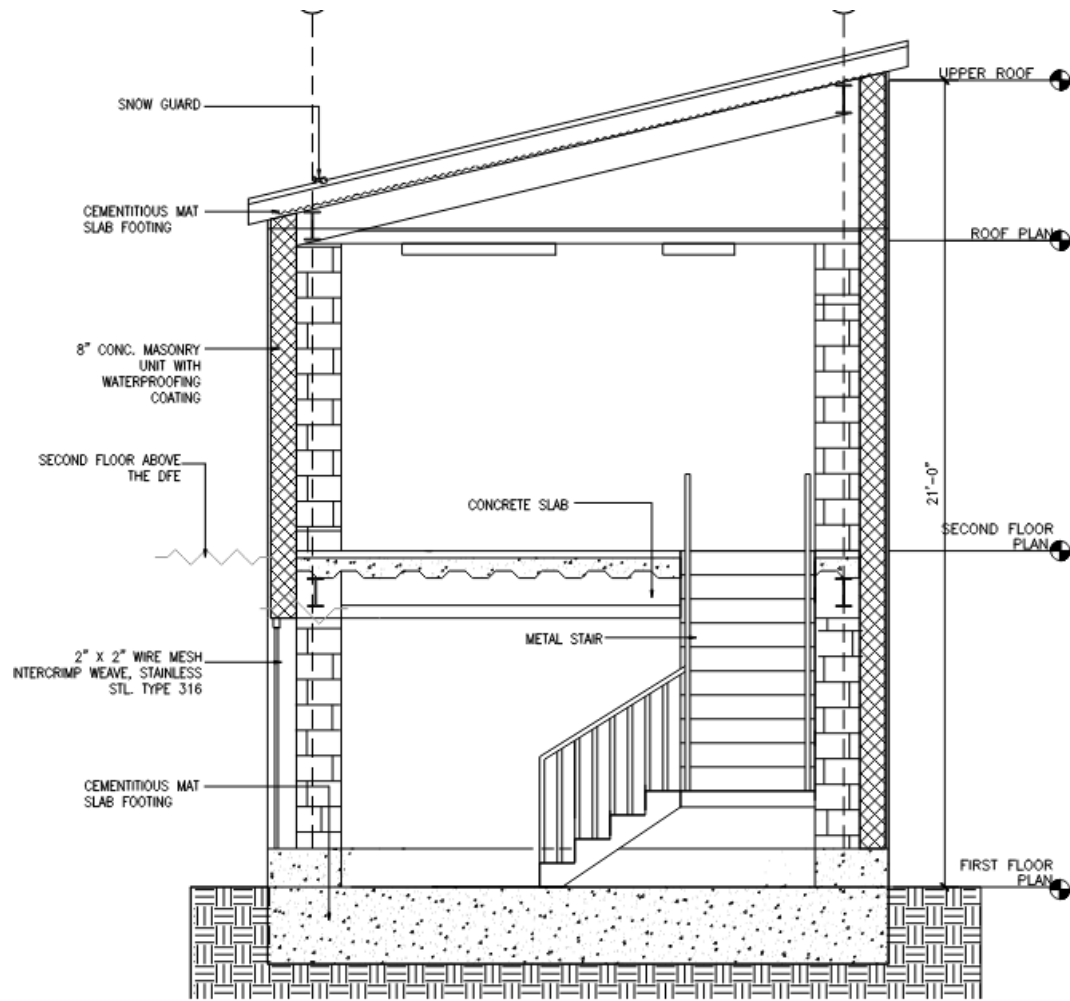
MEPS Engineering Design Services
Flushing Meadows Corona Park | Working Platform

PROPOSED LOCATION OF THE NEW WORKING PLATFORM BUILDING

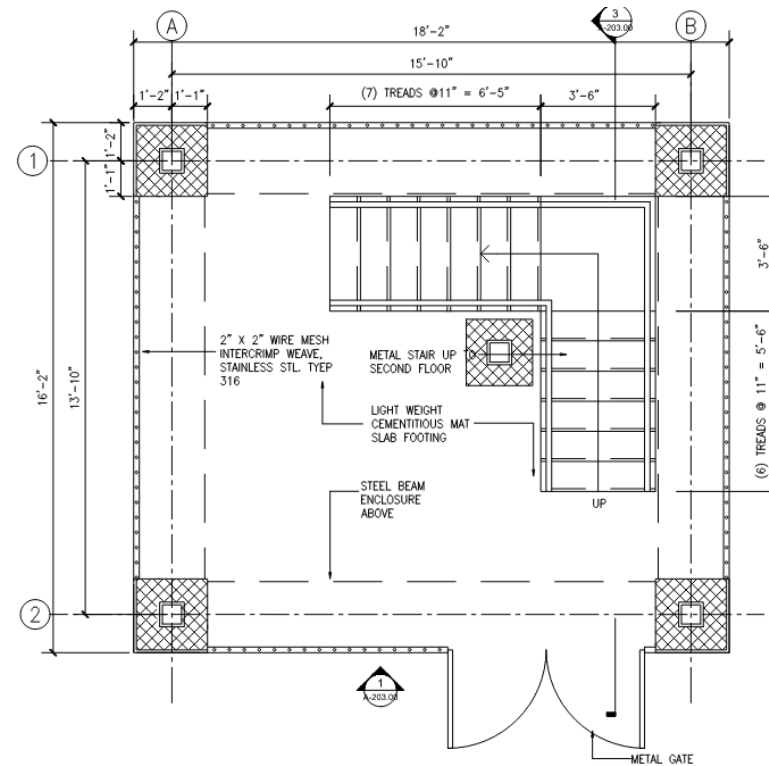


MEPS Engineering Design Services
Flushing Meadows Corona Park | Working Platform- Existing Conditions

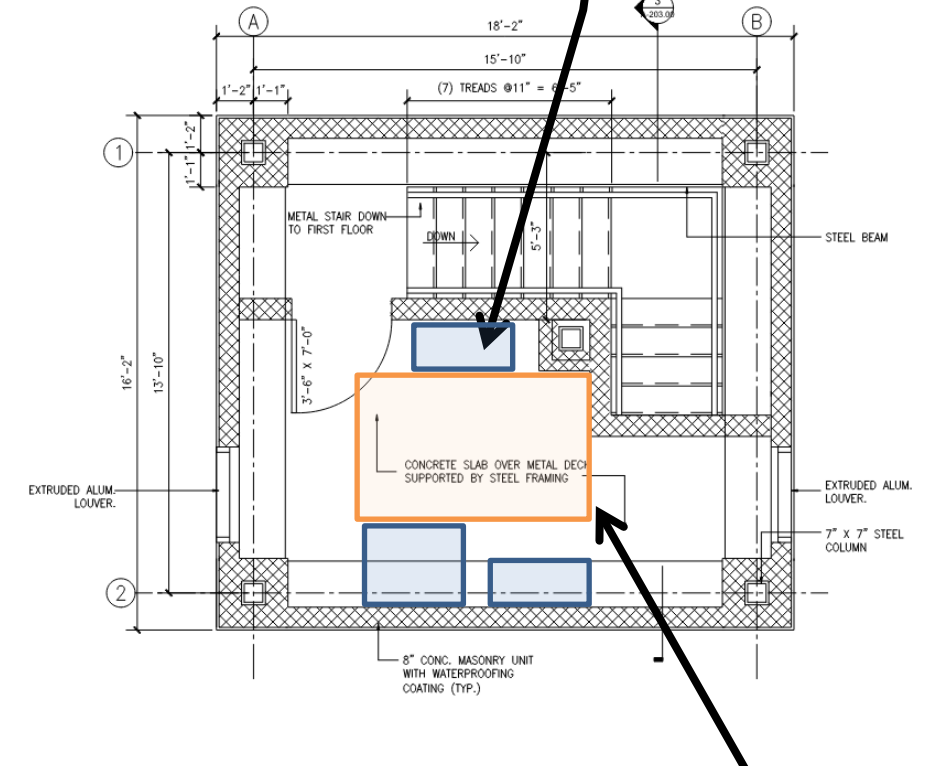
FLOOR PLAN WORKING PLATFORM



3 EDERLE TERRACE SECTION
A-203.00
SCALE: 1/2" = 1'-0"



1 EDERLE TERRACE FIRST FLOOR PLAN
A-103.00
SCALE: 1/2" = 1'-0"



2 EDERLE TERRACE SECOND FLOOR PLAN
A-103.00
SCALE: 1/2" = 1'-0"

ELECTRICAL DISTRIBUTION EQUIPMENT

MAINTENANCE AND OPERATIONAL CLEARANCE



MEPS Engineering Design Services

Flushing Meadows Corona Park| Proposed Working Platform Floor Plan

Project Goals for Triassic Comfort Station

- Demolish the existing structure and provide a new code compliant building designed for the anticipated flood elevation. To conform with FEMA P-936 Design Code for Floodproofing.
- Design to match NYC DPR prototypical comfort station.



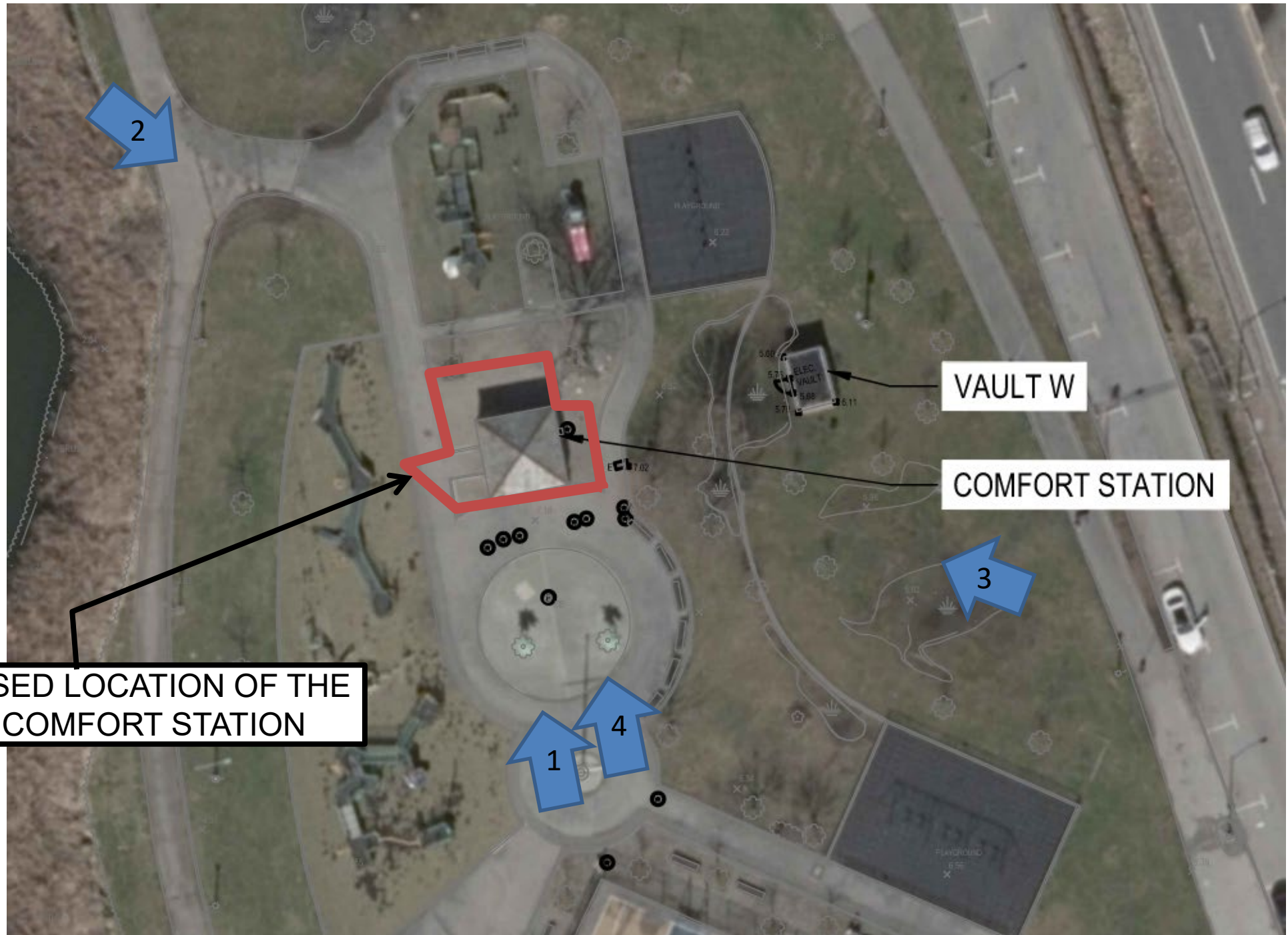
NYC Parks



CAMERON
ENGINEERING

MEPS Engineering Design Services

**Flushing Meadows Corona Park| Project Goals
Triassic Comfort Station**



MEPS Engineering Design Services

Flushing Meadows Corona Park | Triassic Comfort Station - Existing Conditions



PHOTO 1- SOUTHERN VIEW



PHOTO 2- NORTHERN VIEW



PHOTO 3- SURROUNDING AREA



NYC Parks



CAMERON
ENGINEERING

MEPS Engineering Design Services

Flushing Meadows Corona Park| Triassic Comfort Station- Existing Conditions

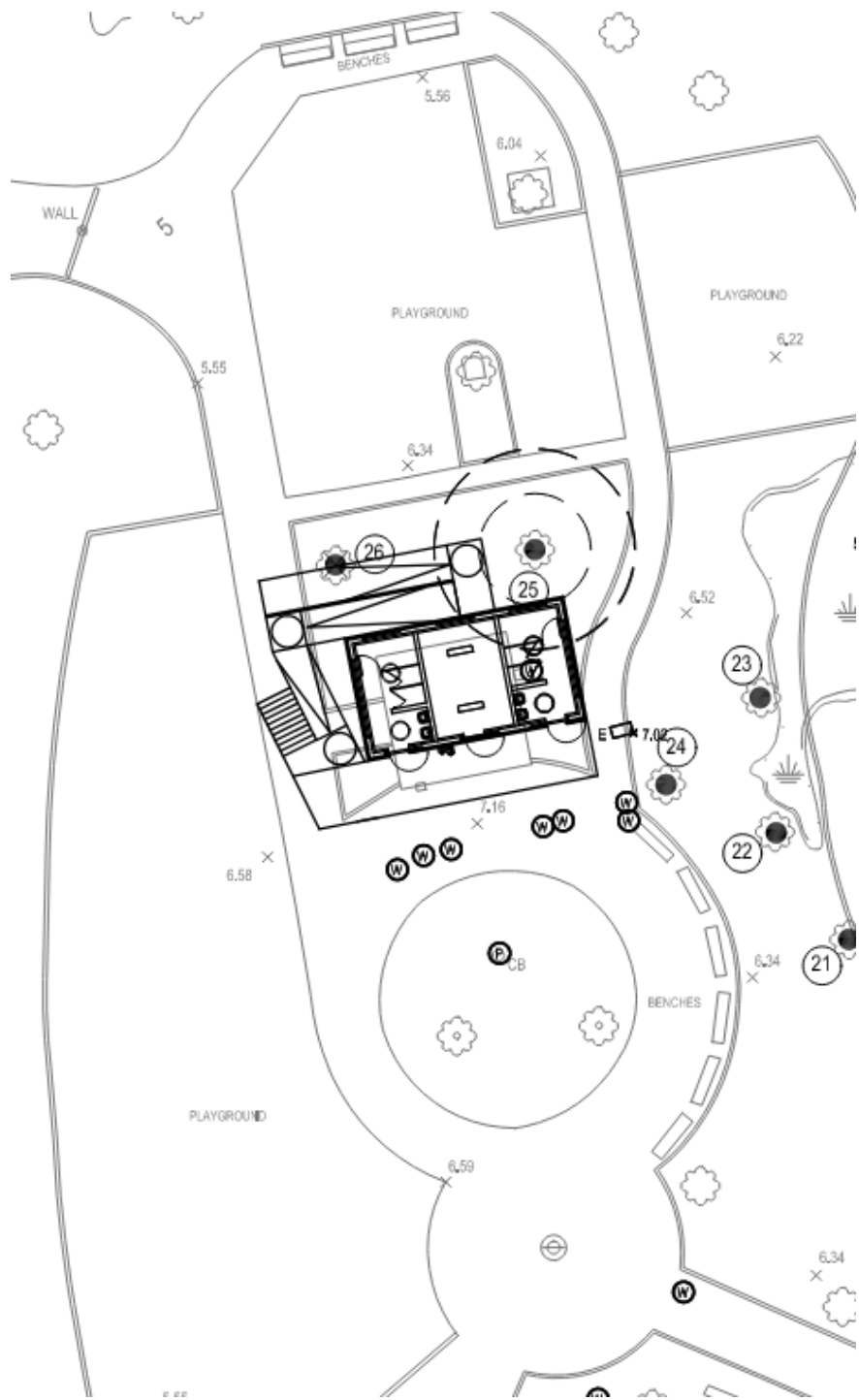


PHOTO 4- PROPOSED COMFORT STATION



NYC Parks



CAMERON
ENGINEERING

MEPS Engineering Design Services

Flushing Meadows Corona Park| Proposed Comfort Station