

DRAFT PRESENTATION

# MIAMIBEACH

## Pump Station 24

### Water Quality Improvement

Design Review Board Meeting – March 2024



# Presentation Outline

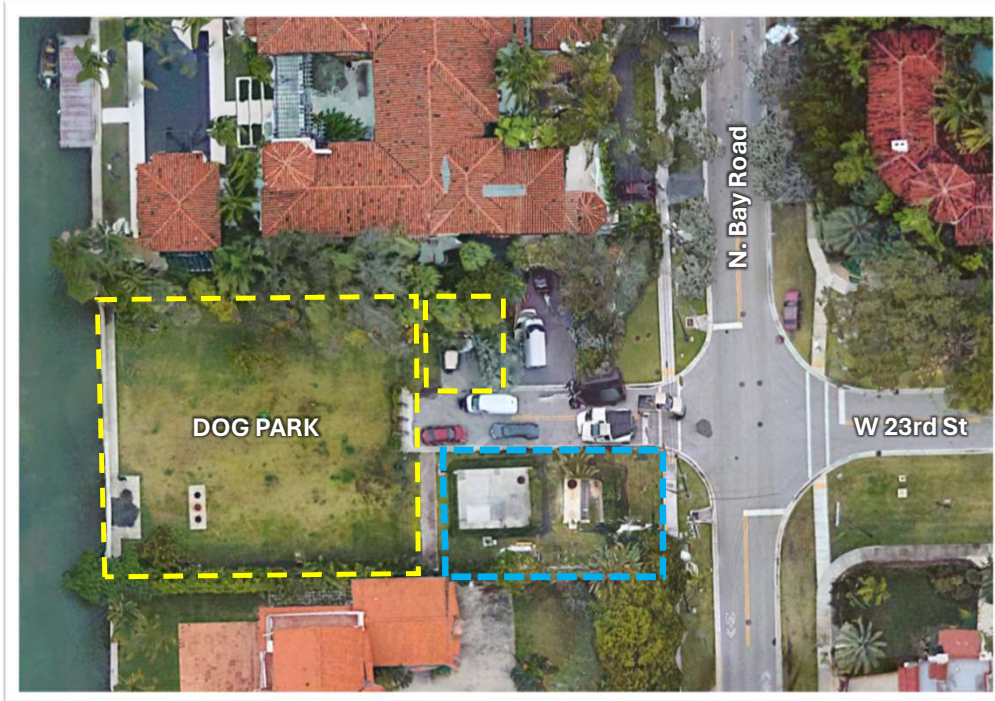
- Project Scope of Work
- Existing Conditions
  - Site Location
  - Site Photos
- Demolition Overview
- Site Constraints
- Proposed Improvements
- Proposed Restoration
  - Grade
  - Fence
  - Asphalt

# Scope of Work

- In 2015, as part of the Right-of-Way Infrastructure Improvements Package 8B, Stormwater Pump Station 24 was installed
- The new 2024 improvements consists of **additional stormwater runoff treatment** by capturing the “first flush” of rainfall which carries the most concentrated portions of stormwater runoff pollutants
- The Water Quality (WQ) Pump Station 24, is a new, smaller, pump station which will capture the “first flush” of rainfall and provide treatment via (2) Injection Wells
- The proposed WQ Pump Station 24 will provide environmental benefits by retaining harmful pollutants prior to the discharge of stormwater runoff into the Biscayne Bay
- The proposed WQ Pump Station 24 is part of an **active** Settlement with the Florida Department of Environmental Protection (FDEP)
- The Project Includes the following improvements:
  - PS24 WQ Manhole (Flush with Existing Grade)
  - PS24 WQ Wet Well & Valve Vault (Raised 6-inches above grade)
  - PS24 WQ Injection Wells (Raised 6-inches above grade)
  - PS24 WQ Raised Electrical Slab (Designed to meet Sea Level Rise Requirements)
  - New Landscaping to Conceal Raised Electrical Slab
  - New Decorative Park Fencing w/ 12-ft Sliding Gate and 4-ft Swing Gate



# Site Location



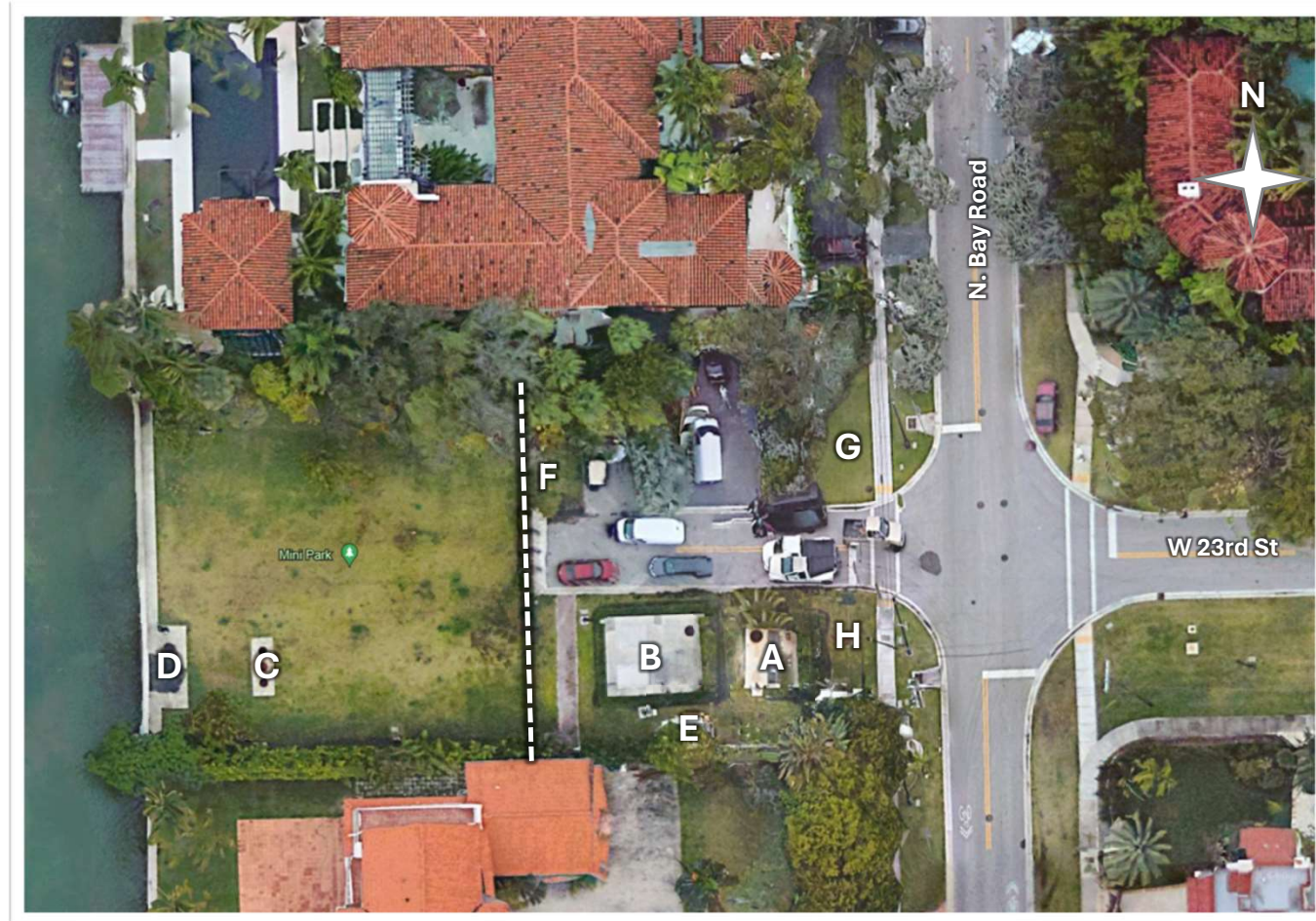
Within Dog Park near  
W 23<sup>rd</sup> Street and North Bay Road



# Existing Conditions

## Existing Structures

- A. PS24 Trash Rack w/ Overflow
- B. PS24 Wet Well
- C. PS24 Dissipator Box
- D. PS24 Outfall
- E. PS24 Raised Electrical Slab
- F. Existing Fence with Swing Gate
- G. Vortex Structure #1
- H. Vortex Structure #2



# Site Photos



Looking West Along Lower North Bay Road

# Site Photos



**Existing Stormwater Utilities**  
**Looking North Along W 23<sup>rd</sup> Street**



**Existing Communication & Water Utilities**  
**Looking South Along W 23<sup>rd</sup> Street**

# Site Photos



**Existing Home**  
**Looking North Along W 23<sup>rd</sup> Street**



**Existing Green Space**  
**Looking North Along W 23<sup>rd</sup> Street**

# Site Photos



**Dog Park View**

**Looking West from W 23<sup>rd</sup> Street**

# Site Photos



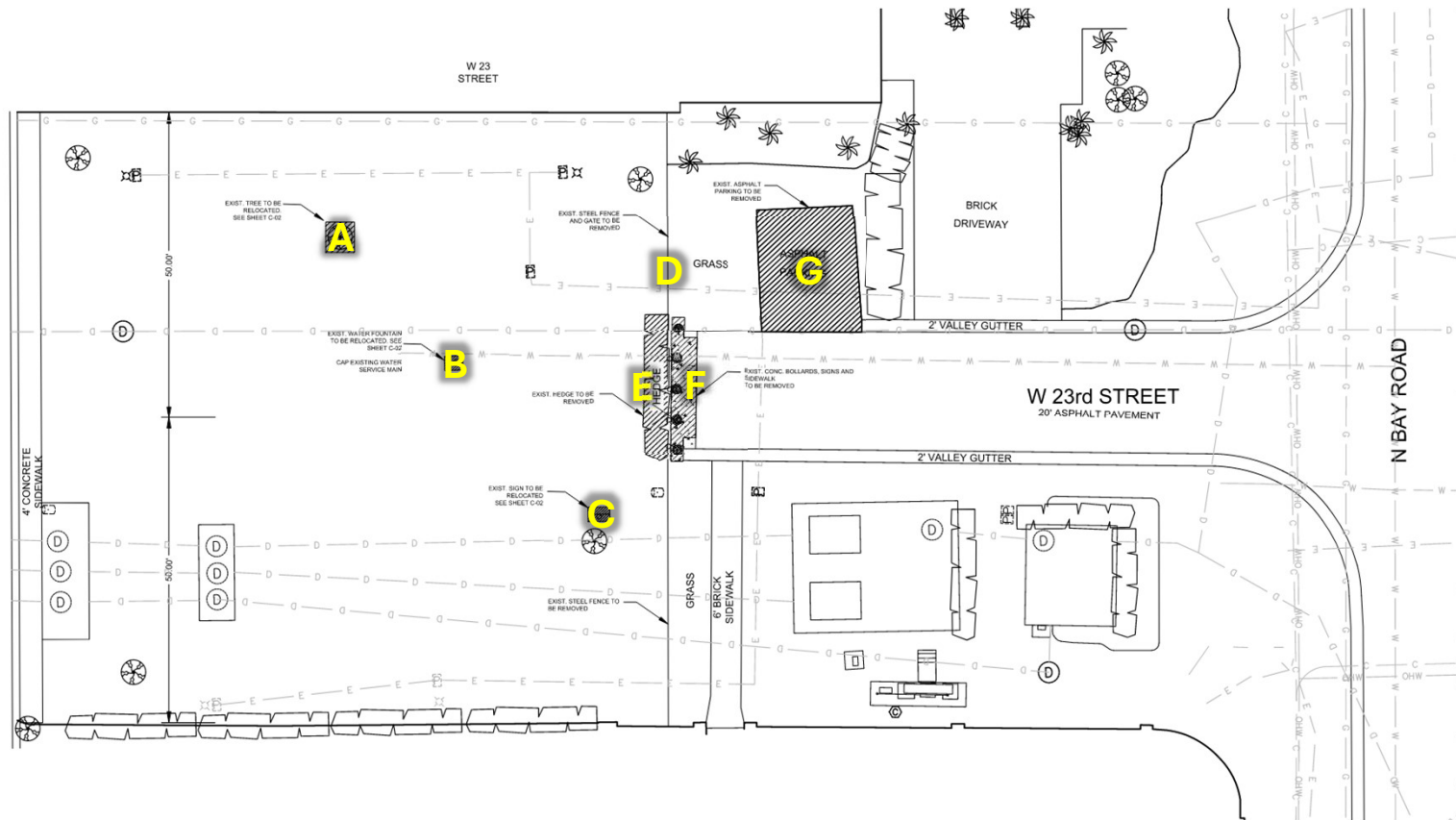
**Existing Stormwater Pump Station 24**  
**Looking East Along W 23<sup>rd</sup> Street**



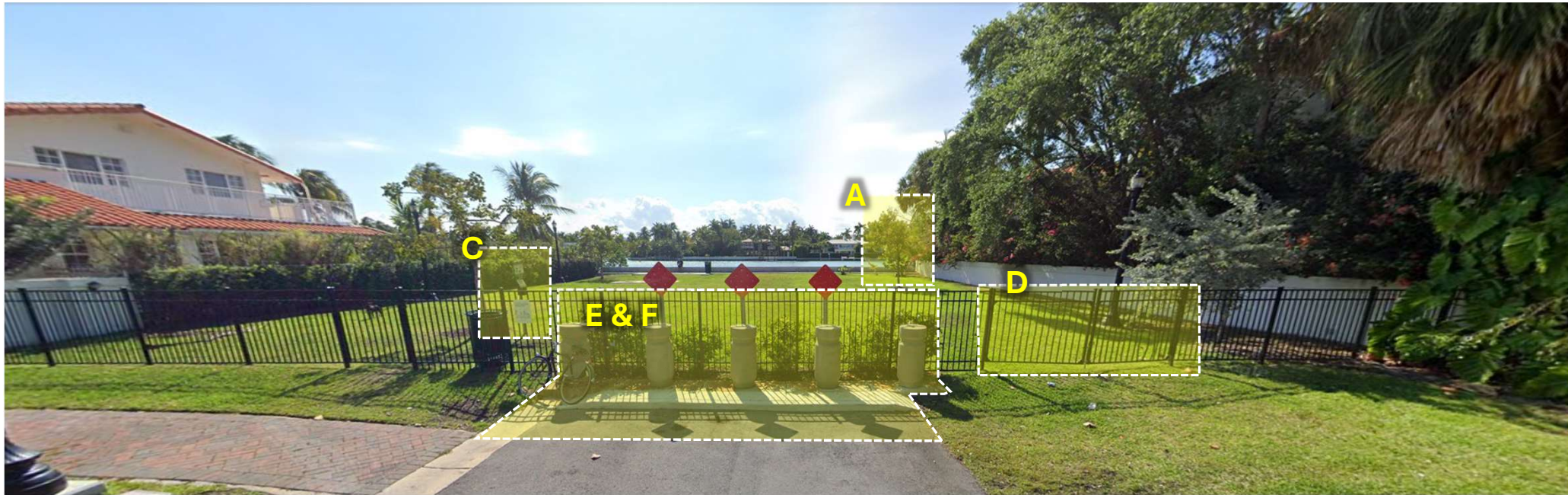
**Existing Home**  
**Looking South Along W 23<sup>rd</sup> Street**

# Demolition Overview

- A. Exist. Tree to be Relocated
- B. Exist. Water Fountain to be Relocated
- C. Existing Park Sign to be Relocated
- D. Existing Steel Fence to be Demolished
- E. Existing Hedge to be Demolished
- F. Existing Conc. Sidewalk, Conc. Bollards, and Street Signage to be Demolished
- G. Existing Asphalt to be Demolished



# Demolition Overview



**A.** Exist. Tree to be Relocated

**C.** Exist. Sign to be Relocated

**D.** Existing Swing Gate to be Demolished

**E/F.** Existing Hedge, Sidewalk, & Bollards to be Demolished

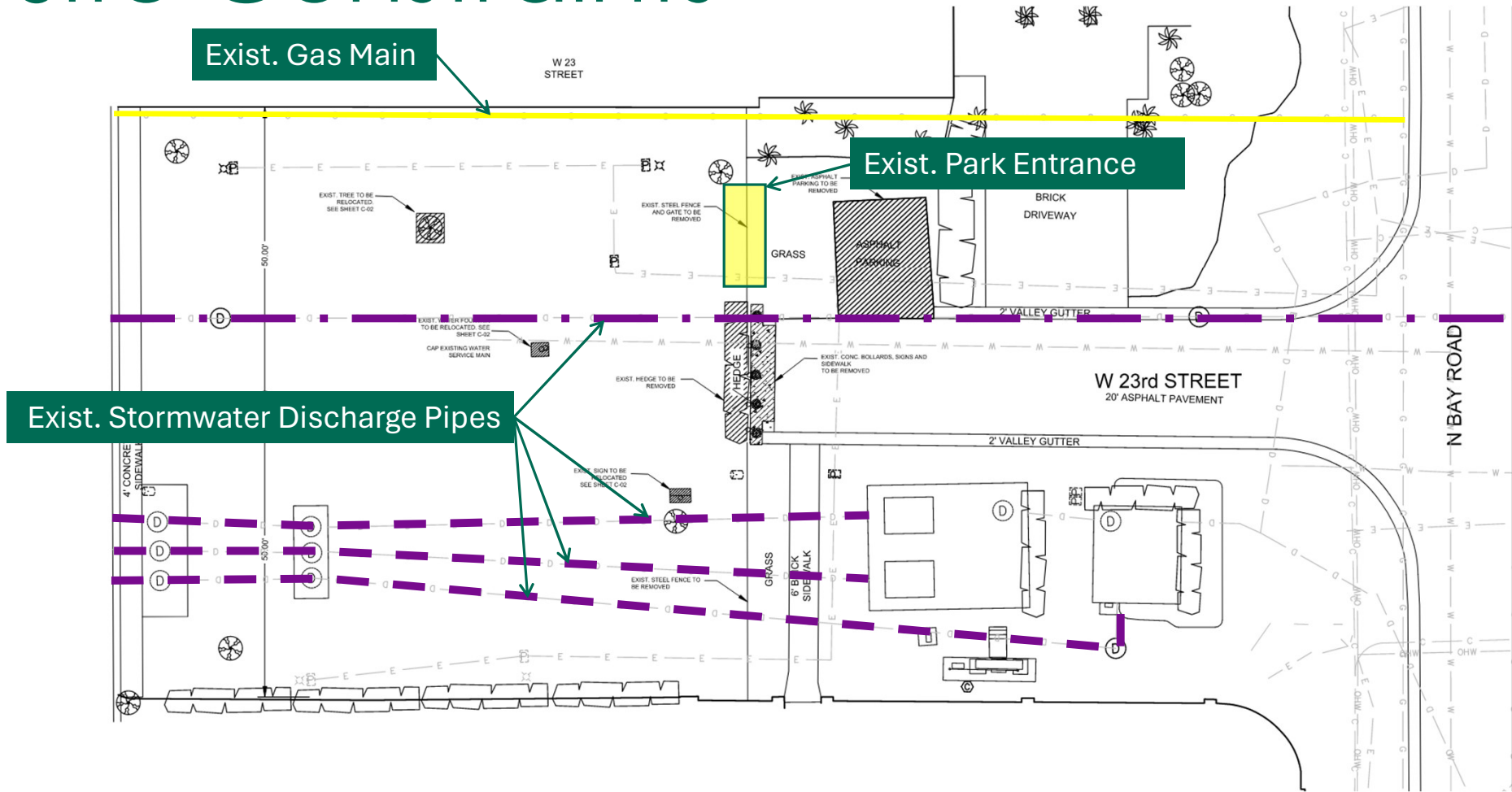
# Demolition Overview



**D.** Existing Swing Gate to be Demolished

**G.** Existing Asphalt and Sod Area to be reworked for Elevated Electrical Equipment Slab and Proposed Hedge

# Site Constraints

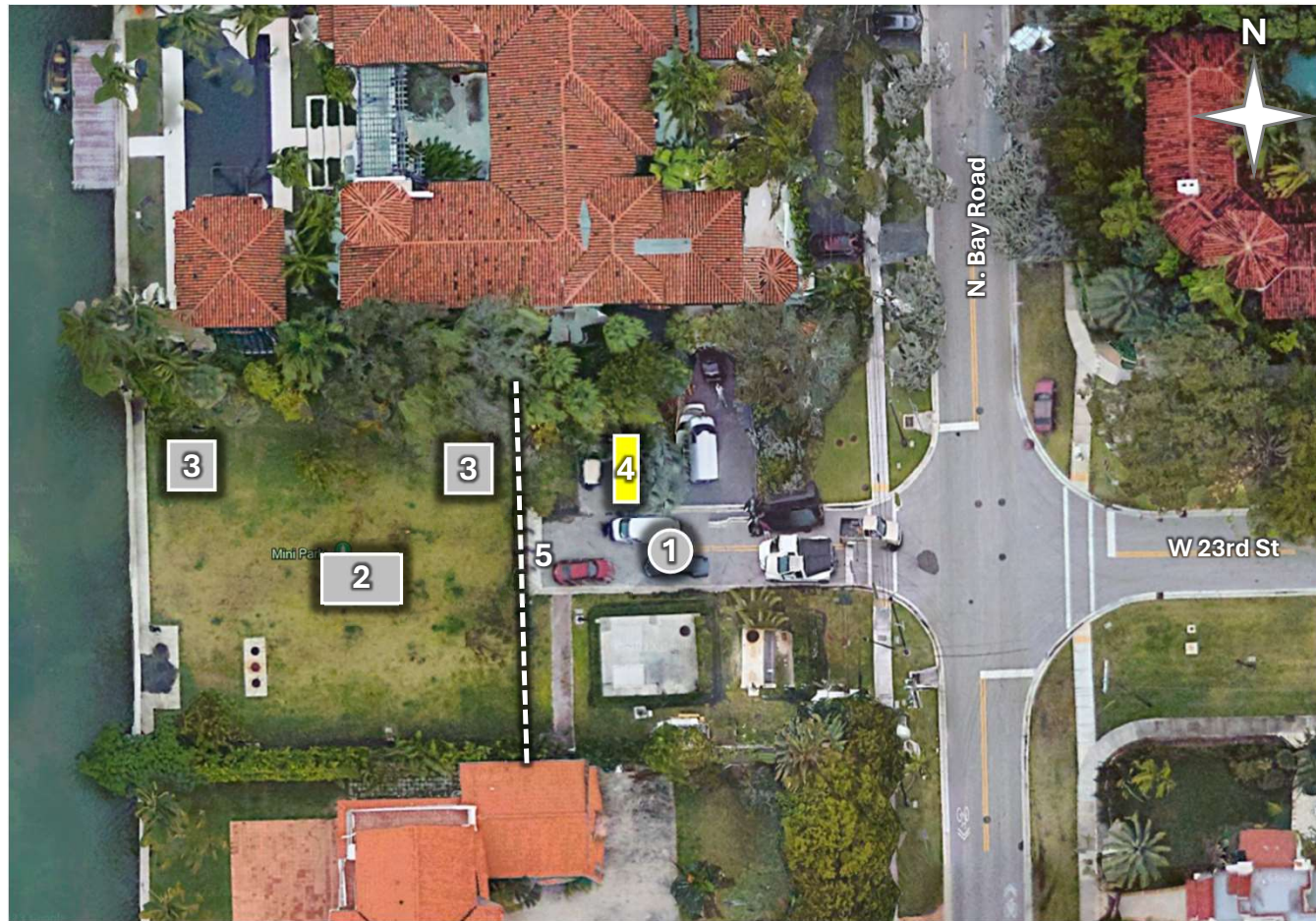


# Proposed Improvements

## Proposed Structures

1. PS24 WQ Manhole (6-ft Round)
2. PS24 WQ Wet Well & Valve Vault
3. PS24 WQ Injection Wells (5-ft x 5-ft)
4. **PS24 WQ Raised Electrical Slab**
5. New Park Fencing w/ 12-ft Sliding Gate and 4-ft Swing Gate

\*WQ = Water Quality

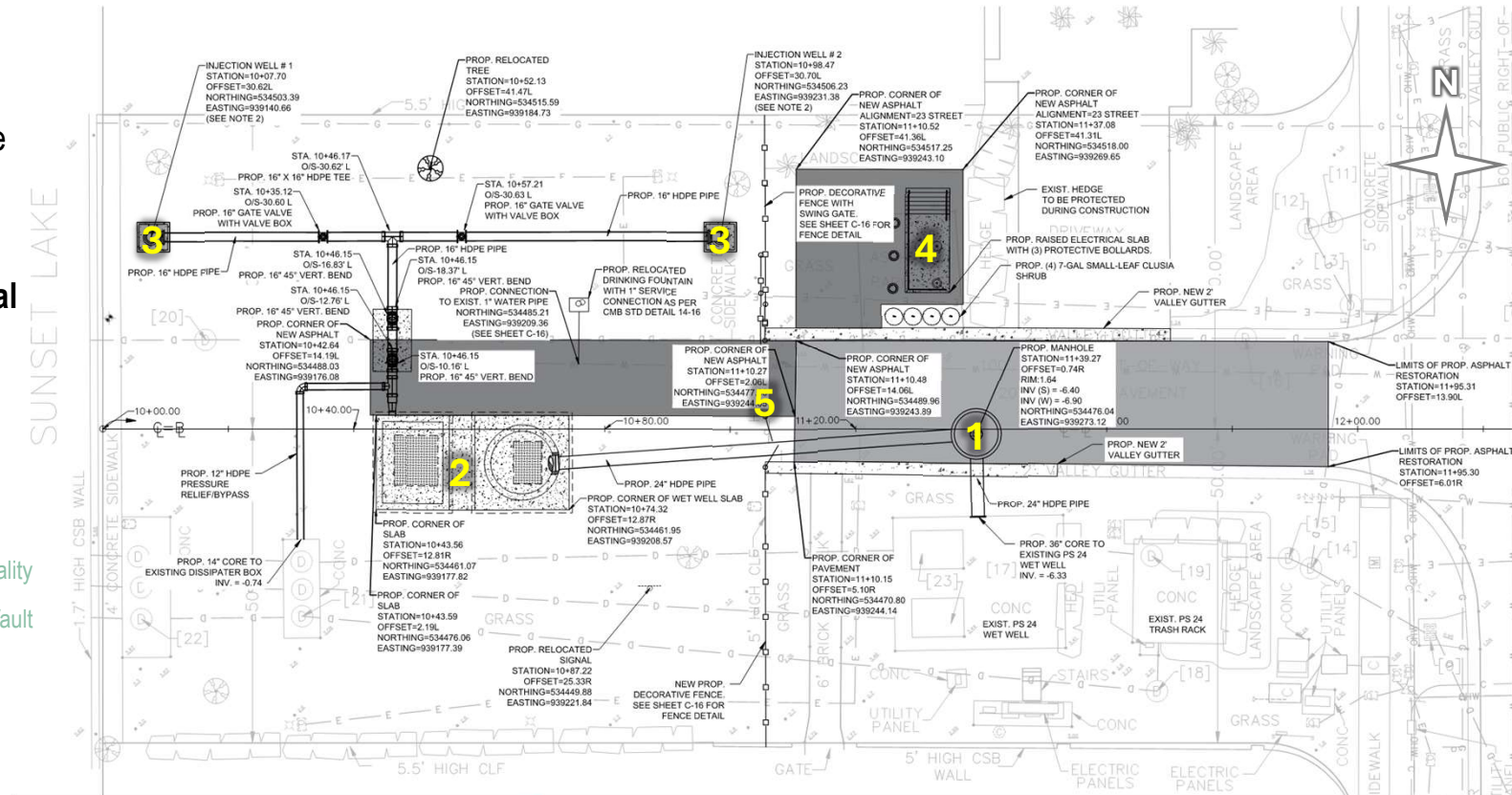


# Proposed Improvements

1. PS24 WQ Manhole
2. PS24 WQ Wet Well & Valve Vault
3. PS24 WQ Injection Wells
4. PS24 WQ Raised Electrical Slab
5. New Park Fencing w/ 12-ft Sliding Gate and 4-ft Swing Gate

WQ = Water Quality

WW/VV = Wet Well & Valve Vault



# Proposed Electrical Slab

Base Flood Elevation: +6.44-ft NAVD

Free Board: +1.00-ft

Sea Level Rise Projection (2050): +1.50-ft

Total Base Flood Elevation: +9.00-ft NAVD

Bottom Elevation of Elec. Equipment: **+9.00-ft NAVD**

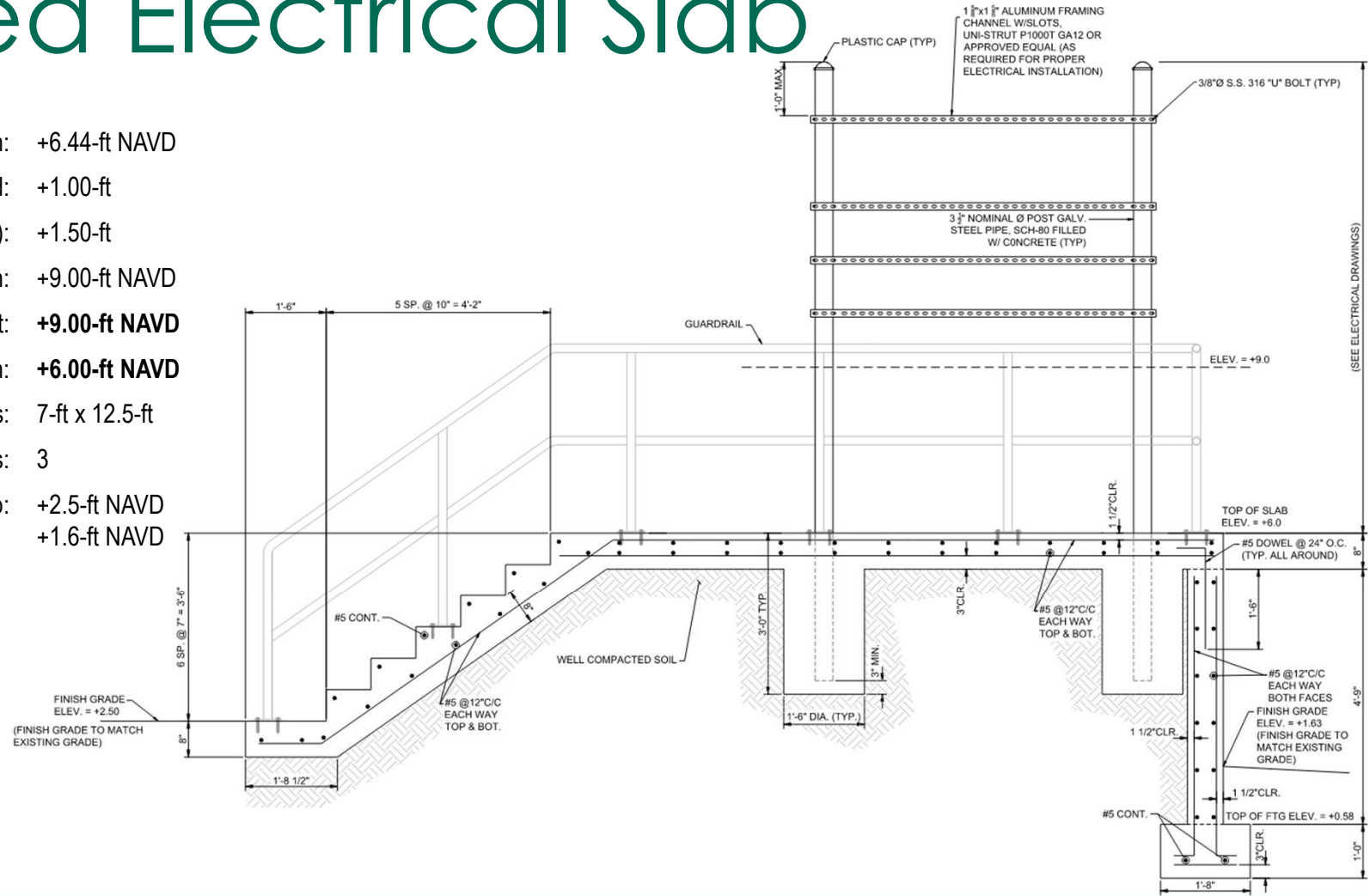
Elec. Equipment Top of Slab Elevation: **+6.00-ft NAVD**

Elec. Equipment Slab Dimensions: 7-ft x 12.5-ft

Number of Decorative Bollards: 3

Prop. Elevation around Elec. Slab: +2.5-ft NAVD

+1.6-ft NAVD

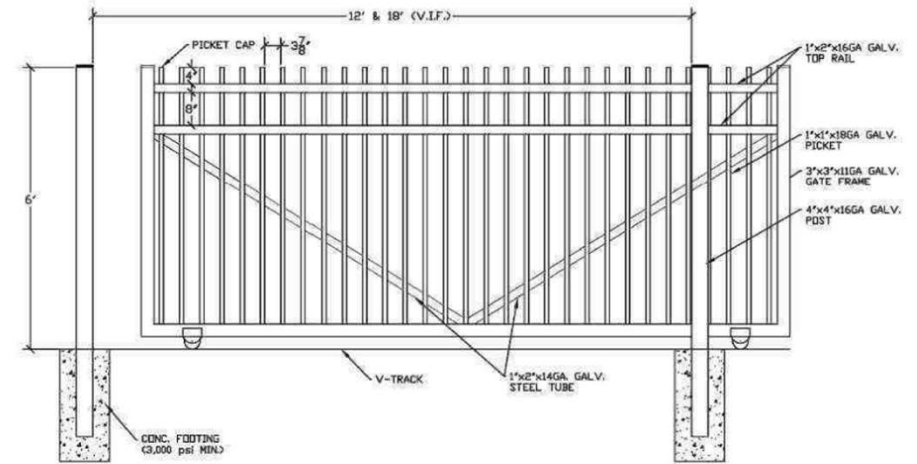
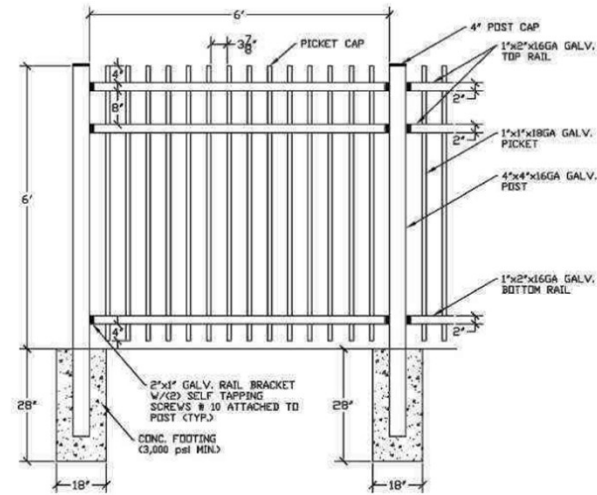


# Proposed Fence

6-ft Height Galv. Picket Fence

12-ft Proposed Rolling Gate for Driveway Entrance to Prop. Pump Station

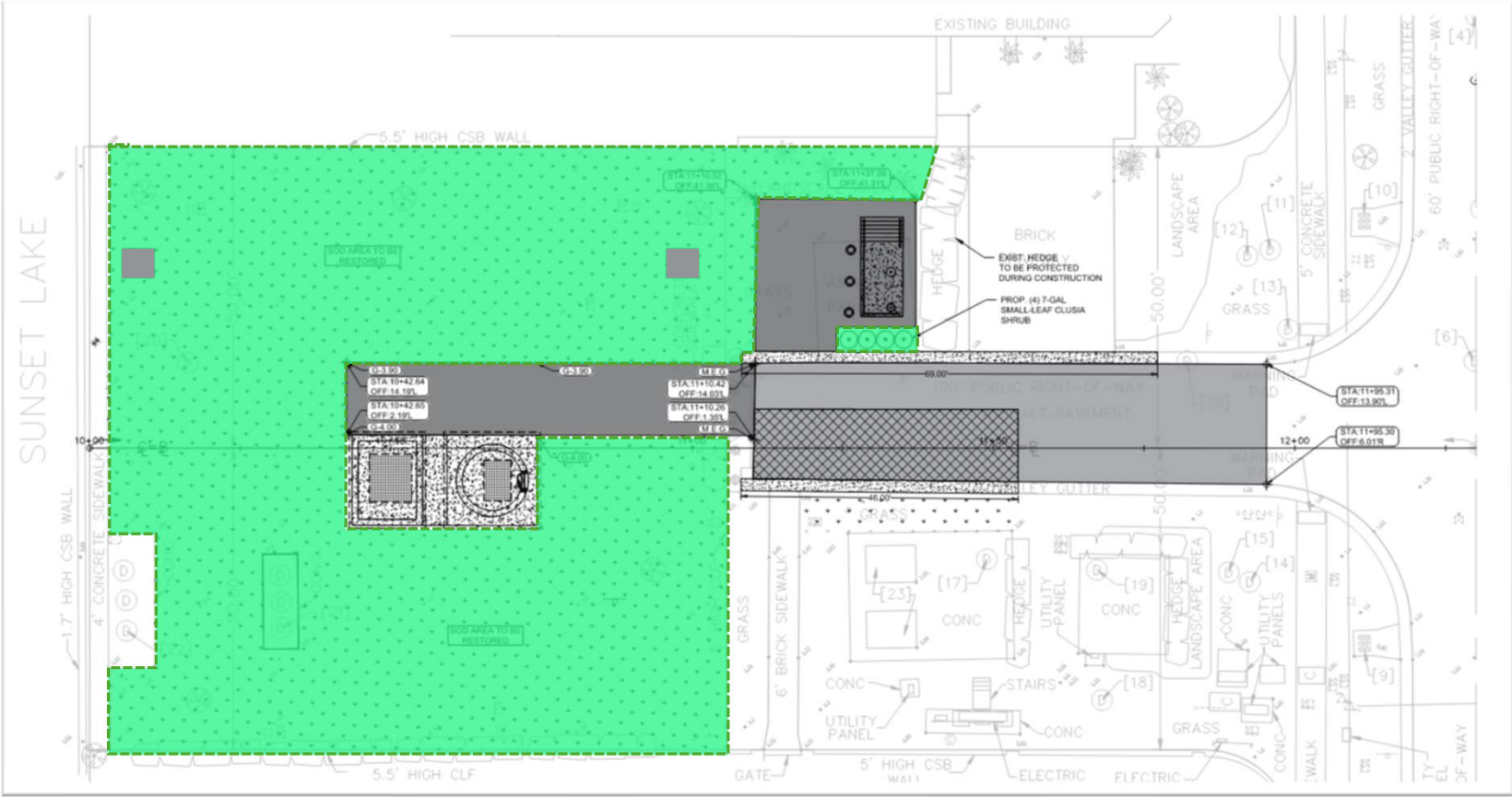
4-ft Swing Gate for Park Entrance



ROLLING GATE ELEVATION (NTS)

# Final Restoration

- LEGEND:**
-  AREA OF NEW PAVEMENT
  -  AREA OF MILLING AND RESURFACING PAVEMENT
  -  AREA OF SOD TO BE RESTORED
  -  AREA OF NEW CONCRETE CURB
  -  AREA OF NEW PAVEMENT SECTION



# Questions?