



Building Communitysm

Herschel Substation Rebuild Project

Project Description

- **Herschel Substation is located at 3751 Herschel St. (Next to Boone Park)**
- **Existing electrical equipment was installed in 1959 and is reaching its end-of-lifetime use. JEA has determined that the substation should be rebuilt.**
- **General Scope of Work**
 - **Replace existing transformer and switchgear units.**
 - **Replace existing fence and improve property aesthetics.**

Project Description

- **Jacksonville Historic Preservation Commission Meeting**
 - **September 23rd 2015**
- **Construction Schedule**
 - **October 2015 – February 2016**
 - **Construction will require full substation outage. This outage will not affect customers.**

Existing Substation Site

Birds Eye View



Existing Substation Site View from Herschel Street



Existing Substation Site View from Herschel Street



Existing Substation Site

View from Boone Park



Existing Substation Site

View from Back Alley



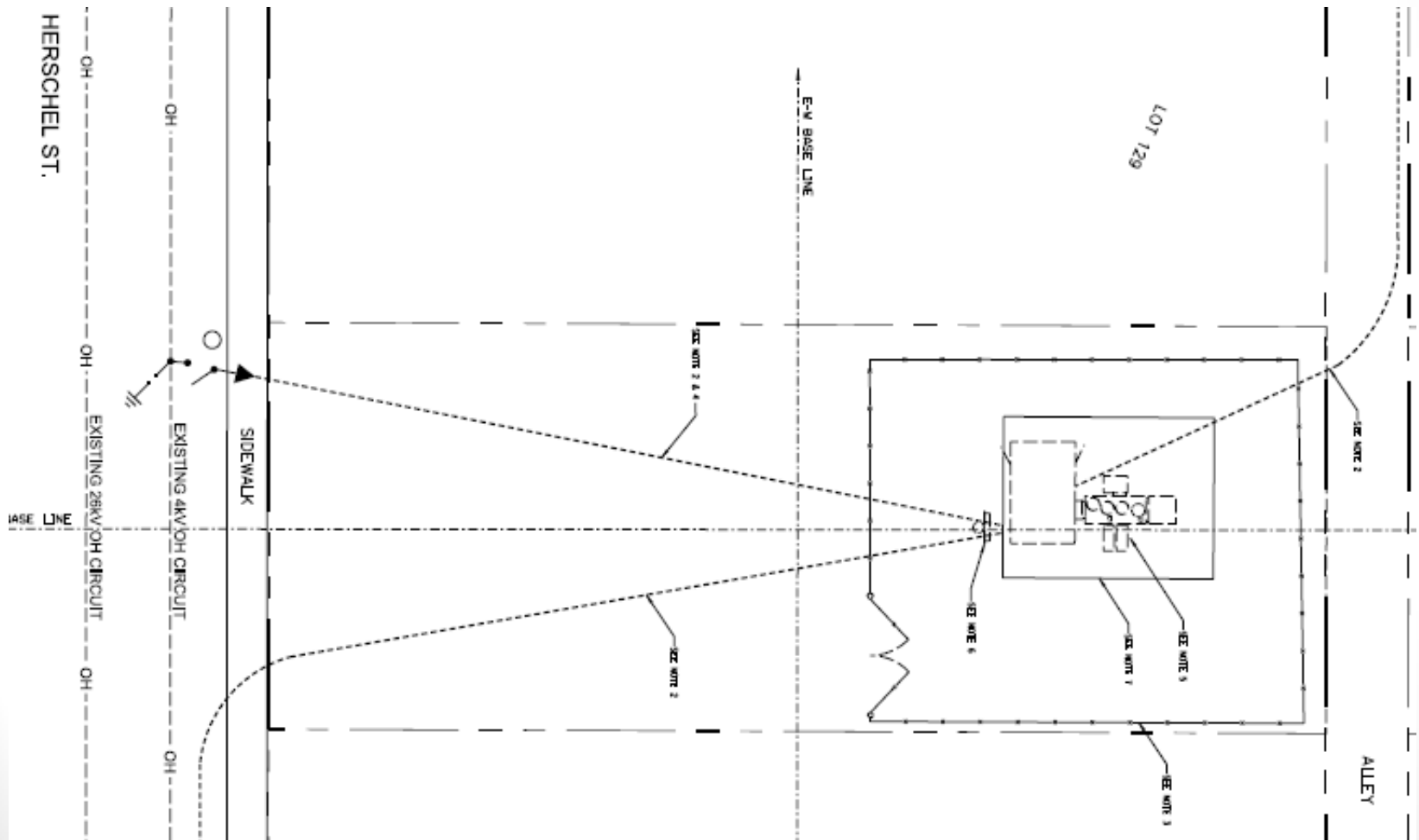
Existing Substation Site

Old Switchgear and Transformer



Existing Substation Site

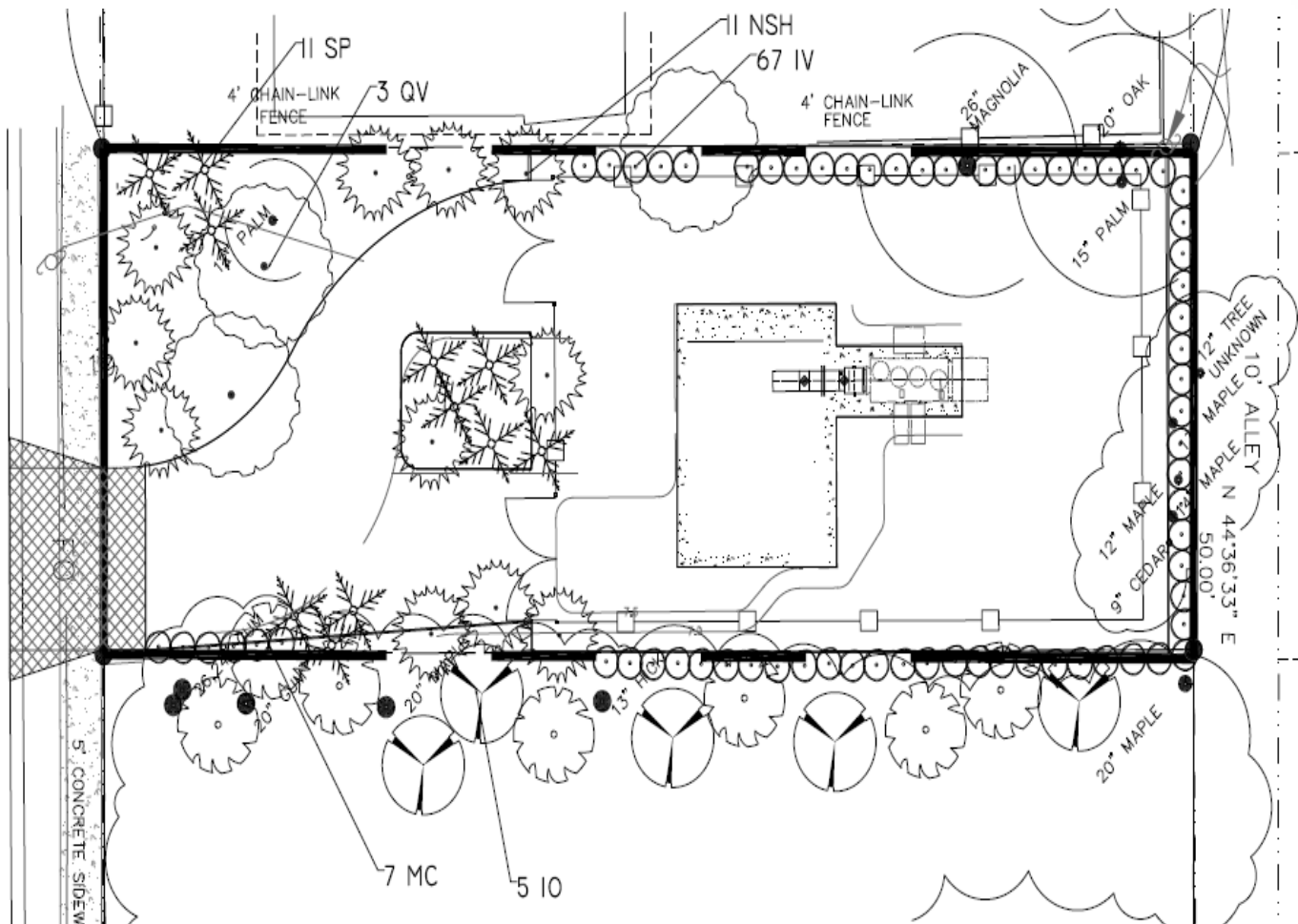
Existing Plan View



Proposed Substation Site Proposed Plan View



HERSCHEL STREET

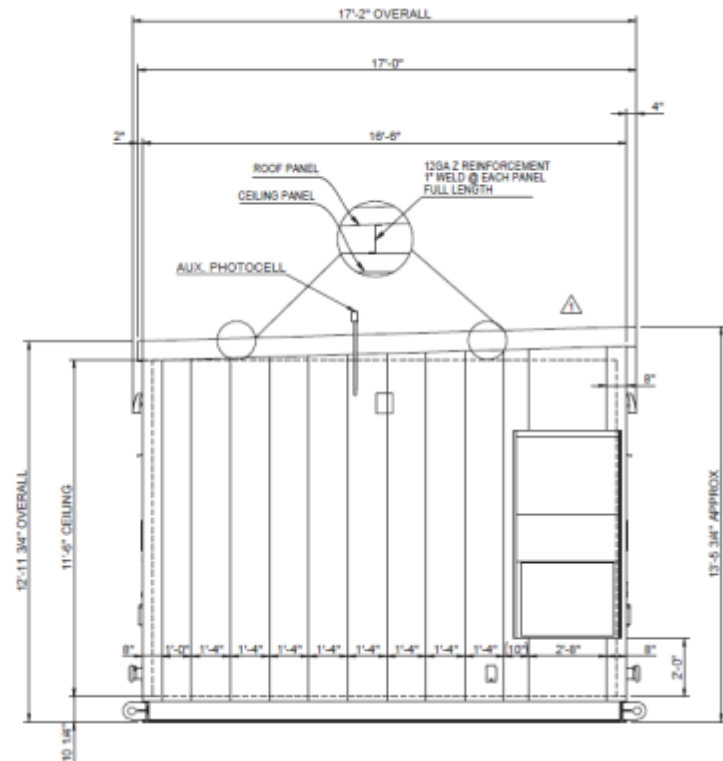
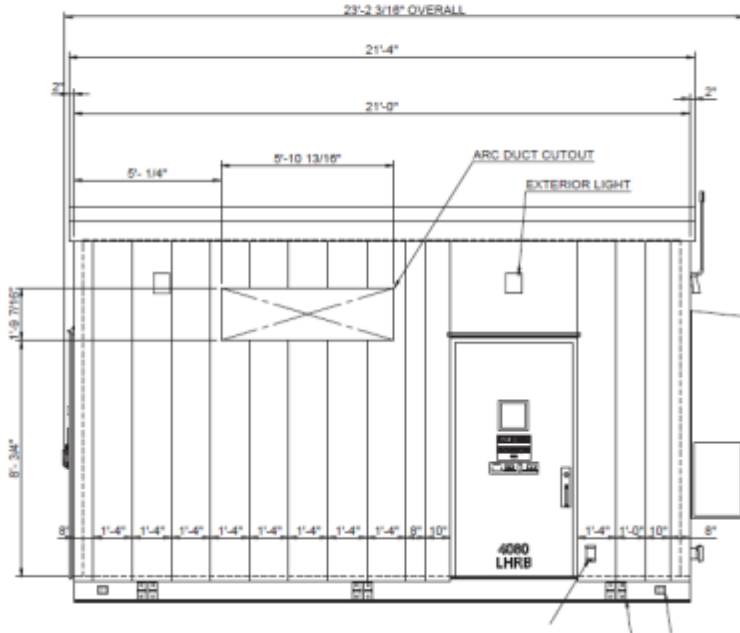


Proposed Substation Site Equipment Removal



- **To Be Removed**
 - Switchgear
 - Transformer
 - Foundation Pad
 - Wooden Pole
 - Fence

Proposed Substation Site New Switchgear House



Proposed Substation Site

New Transformer



Proposed Substation Site

Impact on Back Alley

NEW CONDUIT REQUIRED FROM POLE TO SUBSTATION.
CONCRETE WILL BE CUT AND RESTORED TO ORIGINAL STATE

SUBSTATION

POLE

UNDERGROUND
CONDUIT PATH



Proposed Substation Site Fence



- A 7' tall high security ornamental fence will be used to provide both a decorative look as well as ensure safety for the station.
- The National Electrical Safety Code (NESC) mandates fence heights for electrical substations.
- This is the same fence as the Rosselle Substation Rebuild Project.

Proposed Substation Site

Substation Rock

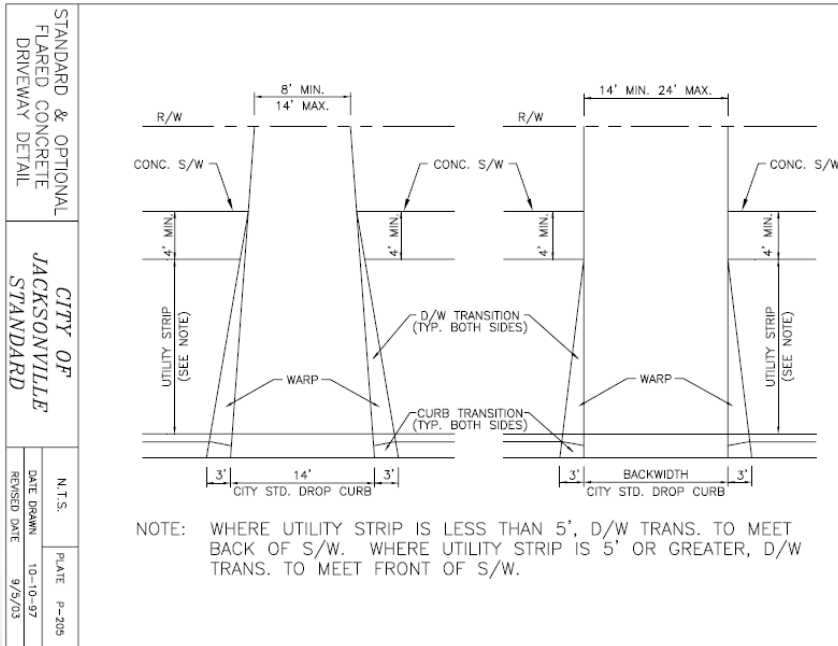


- All rock shall be blue/gray limestone within the substation and access road.
- JEA will use a polyethylene cellular confinement system to keep rock in designated areas.

Proposed Substation Site Driveway



- The existing concrete is cracked from previous use. JEA will demolish and install new driveway.



- The proposed flared concrete driveway will be 24' wide at the curb. Driveway is COJ Standard Plate P-205
- A rock road will be installed all the way to the substation as shown on the plans.

Proposed Substation Site Construction Laydown Area

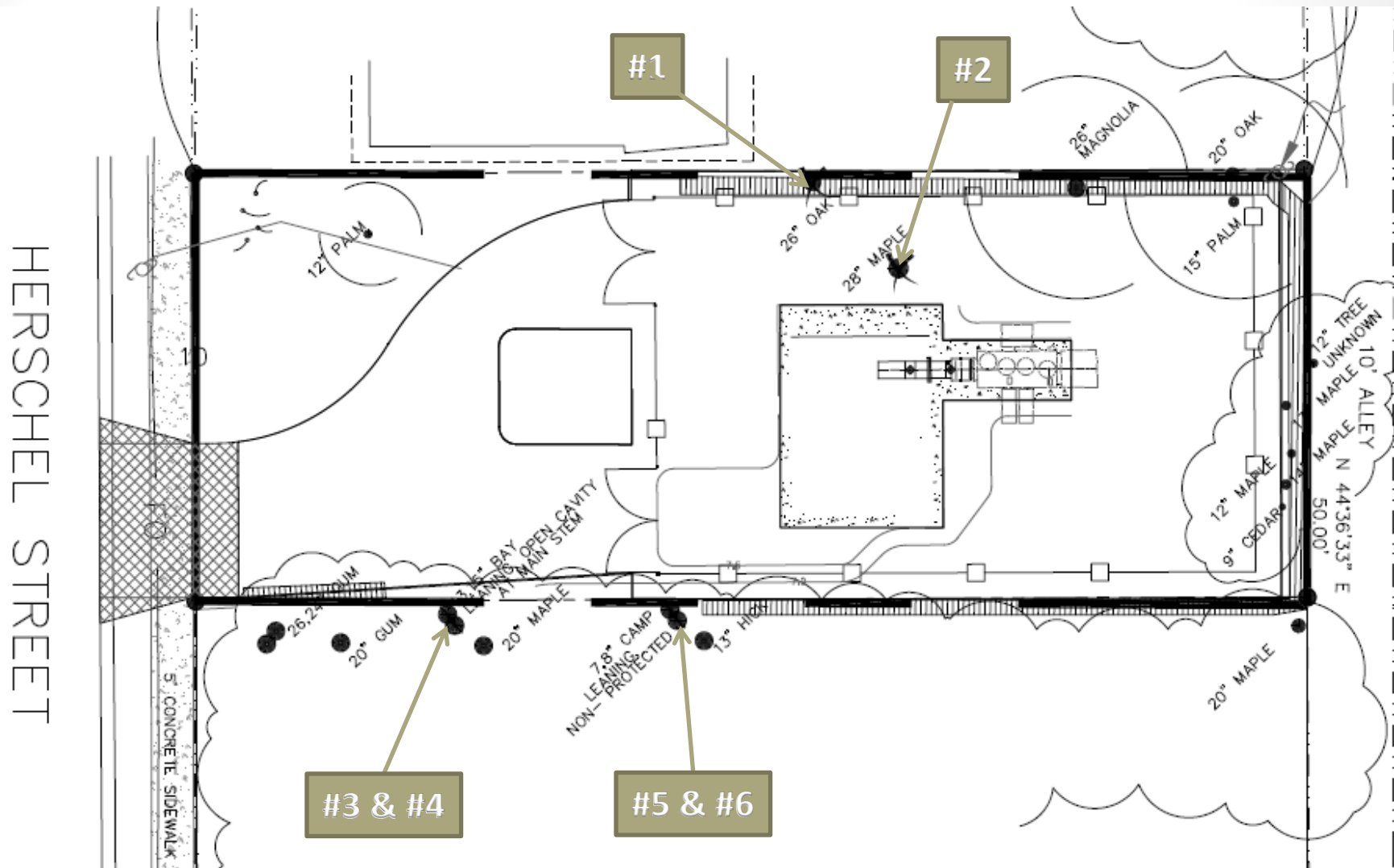


- JEA proposes allowing contractor personnel to park and lay down equipment on the terms that the contractor will restore the area to its original state, which includes any curb damage or grass damage.

Tree Mitigation Demo Plan

ID	Trees to Be Removed	Trunk Diameter	Reason to Be Removed
#1	Oak	26"	Will impede ground grid installation. Damage to roots may cause tree to die and fall.
#2	Maple	28"	Tree is located on access road to new substation.
#3	Bay	13"	Leaning into JEA access road. Diseased Tree.
#4	Bay	15"	Leaning into JEA access road. Open cavity/rot in trunk. Diseased Tree.
#5	Camphor	7"	Leaning into proposed section of substation. Diseased Tree.
#6	Camphor	8"	Leaning into proposed section of substation. Diseased Tree.

Tree Mitigation Demo Plan



Tree Mitigation Demo Plan



(#1) 26" Oak



(#2) 28" Maple

Tree Mitigation Demo Plan



(#3 & #4) 13" & 15" Bay

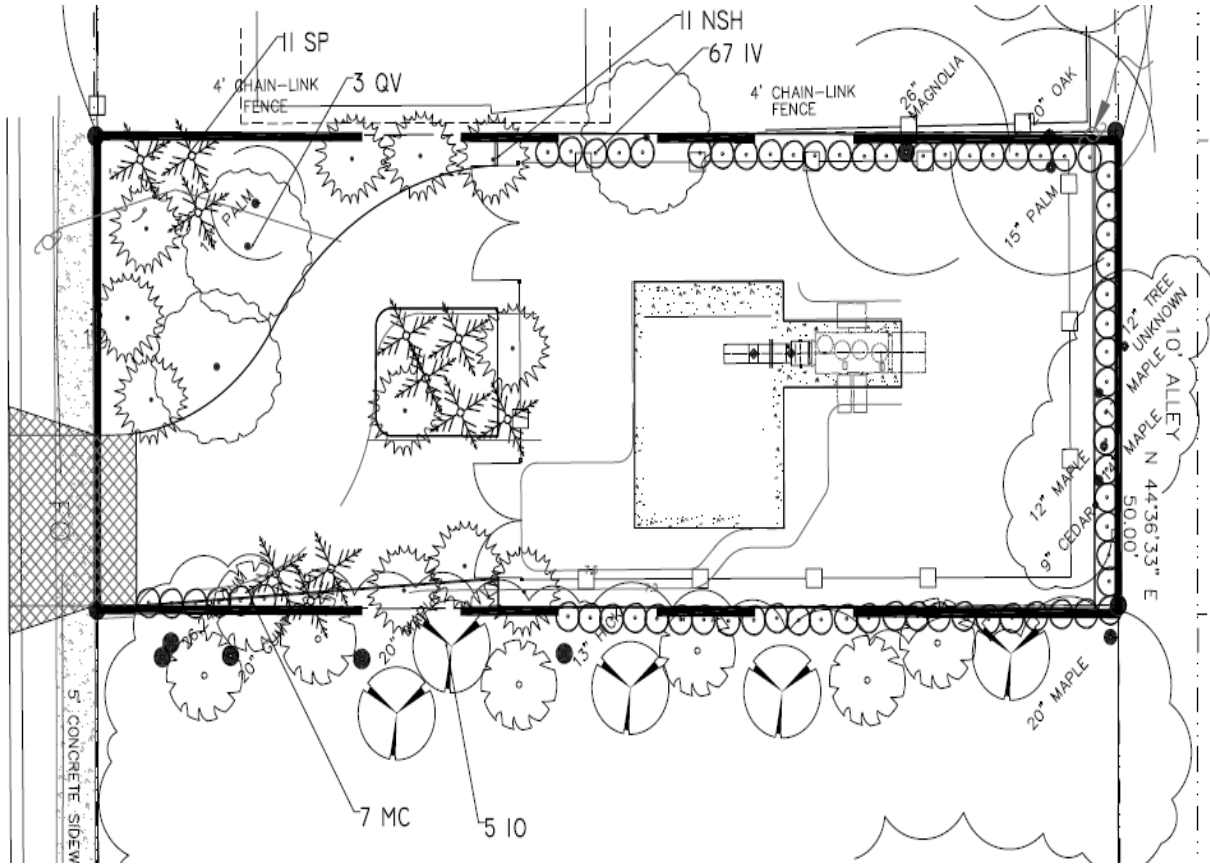


(5 & #6) 7" & 8" Camphor

Proposed Landscape Plan



HERSCHEL STREET



Proposed Landscape Plan



QV-CATHEDRAL LIVE OAK 8" CAL., 19' HT X 10' SPD.



IO-DAHOON HOLLY 4" CAL, 9' HT X 6' SPD.



MC-WAX MYRTLE MT, 5' HT X 4' SPD FTG



SP-CABBAGE PALM 8', 10', 12' CT.



NSH-NELLIE STEVENS HOLLY 4" CAL, 9' HT X 6' SPD.



IV-UPRIGHT YAUPON 4' HT X 28" SPD, FTG

New trees will replace the existing protected trees. Sizes are selected based upon the trunk diameter of protected trees we remove.

Proposed Landscape Plan



**Elevation View
From Herschel Street**



**Elevation View
From Boone Park**