

# STAFF REPORT

DATE: May 24, 2024

RE: 5537 College Road (permit application # T2024-0164)

FROM: Karen DeMaria, City of Key West Urban Forestry Manager

An application was received requesting the removal of (10) Green Buttonwood tree clumps at the John Jones Navigation Center (formerly called KOTS) in association with the construction of a retaining wall. A site inspection was done and documented the following:

Tree Species: Green Buttonwood (*Conocarpus erectus*)



Tree #1



Photo showing tree and its location. Tree is growing sideways.



Tree #1-tree is growing at a diagonal. Canopy is growing over development area. Other buttonwood trees adjacent to this area will be trimmed but there is no place to do a proper trim cut on this tree due to its growth.

Diameter: 3.8"

Location: 50% (growing along wetland boundary and construction area in side rear portion of the property. Not very visible.)

Species: 100% (on protected tree list)

Condition: 40% (overall condition is poor-poor structure.)

Total Average Value = 63%

Value x Diameter = 2.3 replacement caliper inches

**Tree #2**



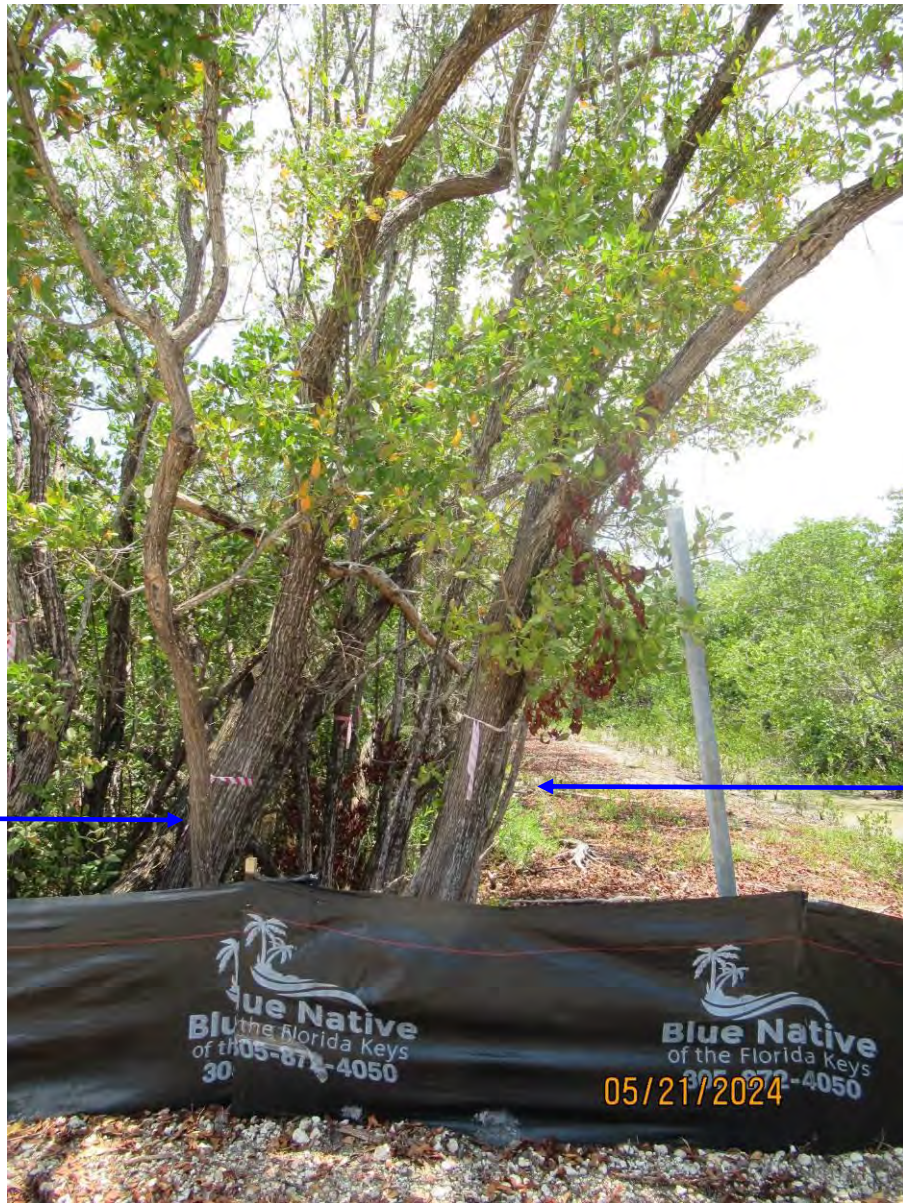
Tree #5

Tree #4

Tree #3

Tree #2

Photo showing location of tree clumps.



Tree #3

Tree #2



Photo showing the base of tree #2.



Photo of trunks and canopy of tree #2.

Tree #2

Diameter: **7.6"** (two trunks)

Location: 50% (growing along wetland boundary and construction area in side rear portion of the property. Retaining wall to be built in area and upland roots will be compromised by approved construction.)

Species: 100% (on protected tree list)

Condition: 50% (overall condition is fair to poor-poor structure.)

Total Average Value = 66%

Value x Diameter = 5 replacement caliper inches



Photo of tree #3 trunks.



Photo of base of tree #3.

Tree #3

Diameter: 15.2" (multiple trunks)

Location: 50% (growing along wetland boundary and construction area in side rear portion of the property. Retaining wall to be built in area and upland roots will be compromised by approved construction.)

Species: 100% (on protected tree list)

Condition: 50% (overall condition is fair to poor-poor structure.)

Total Average Value = 66%

Value x Diameter = 10 replacement caliper inches



Tree #4

Tree #3





Photo showing base and trunks of tree #4.

Tree #4  
Diameter: 27" (multiple trunks)  
Location: 50% (growing along wetland boundary and construction area in side rear portion of the property. Retaining wall to be built in area and upland roots will be compromised by approved construction.)  
Species: 100% (on protected tree list)  
Condition: 40% (overall condition is poor. Poor structure with some decay in main trunks.)  
Total Average Value = 63%  
Value x Diameter = 17 replacement caliper inches



Photo of tree #5 trunks.



Photo of base of tree #5.

Tree #5

Diameter: **11.4"** (multiple trunks)

Location: 50% (growing along wetland boundary and construction area in side rear portion of the property. Retaining wall to be built in area and upland roots will be compromised by approved construction.)

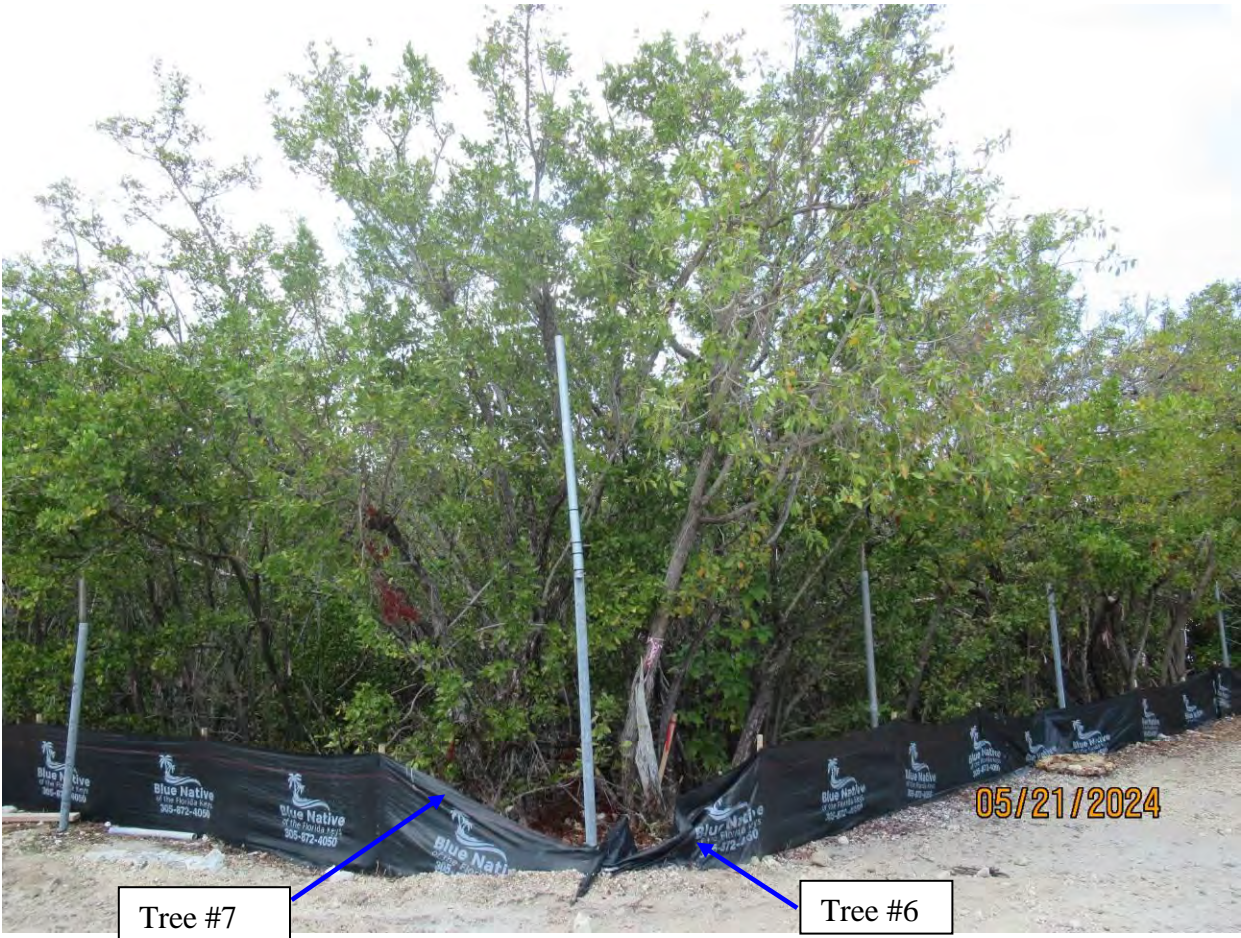
Species: 100% (on protected tree list)

Condition: 40% (overall condition is poor-part of tree is dead.)

Total Average Value = 63%

Value x Diameter = 7.1 replacement caliper inches

Tree #6



Tree #7

Tree #6



Photo of tree #6 trunks.



Photo of base of tree #6.

Tree #6

Diameter: 8.5"

Location: 50% (growing along wetland boundary and construction area in side rear portion of the property. Retaining wall to be built in area and upland roots will be compromised by approved construction.)

Species: 100% (on protected tree list)

Condition: 40% (overall condition is poor-poor structure and parts of tree are dead.)

Total Average Value = 63%

Value x Diameter = 5.3 replacement caliper inches



Photo of base of trunk of tree #7.



Photo showing location of tree and growth direction.

Tree #7

Diameter: 8.2"

Location: 50% (growing along wetland boundary and construction area in side rear portion of the property. Retaining wall to be built in area and upland roots will be compromised by approved construction.)

Species: 100% (on protected tree list)

Condition: 40% (overall condition is poor-poor structure and part of tree is dead.)

Total Average Value = 63%

Value x Diameter = 5.1 replacement caliper inches



Photo showing base and trunks of tree #8.





Photo showing location of tree.

Tree #8

Diameter: 11.4" (two trunks)

Location: 50% (growing along wetland boundary and construction area in side rear portion of the property. Retaining wall to be built in area and upland roots will be compromised by approved construction.)

Species: 100% (on protected tree list)

Condition: 40% (overall condition is poor, decay in one trunk, exposed surface roots, canopy health not as strong as other trees.)

Total Average Value = 63%

Value x Diameter = 7.1 replacement caliper inches



Photo showing trunks and canopy of tree #9.



Photo of base and trunks of tree.

Tree #9

Diameter: 17.5" (two trunks)

Location: 50% (growing along wetland boundary and construction area in side rear portion of the property. Retaining wall to be built in area and upland roots will be compromised by approved construction)

Species: 100% (on protected tree list)

Condition: 40% (overall condition is poor, parts of tree are dead, decay in main trunks.)

Total Average Value = 63%

Value x Diameter = 11 replacement caliper inches



Photo of tree trunk.



Photo of tree trunks.



Photo of tree canopy.

Tree #10

Diameter: 19.4"

Location: 50% (growing along wetland boundary and construction area in side rear portion of the property. Retaining wall to be built in area and upland roots will be compromised by approved construction.)

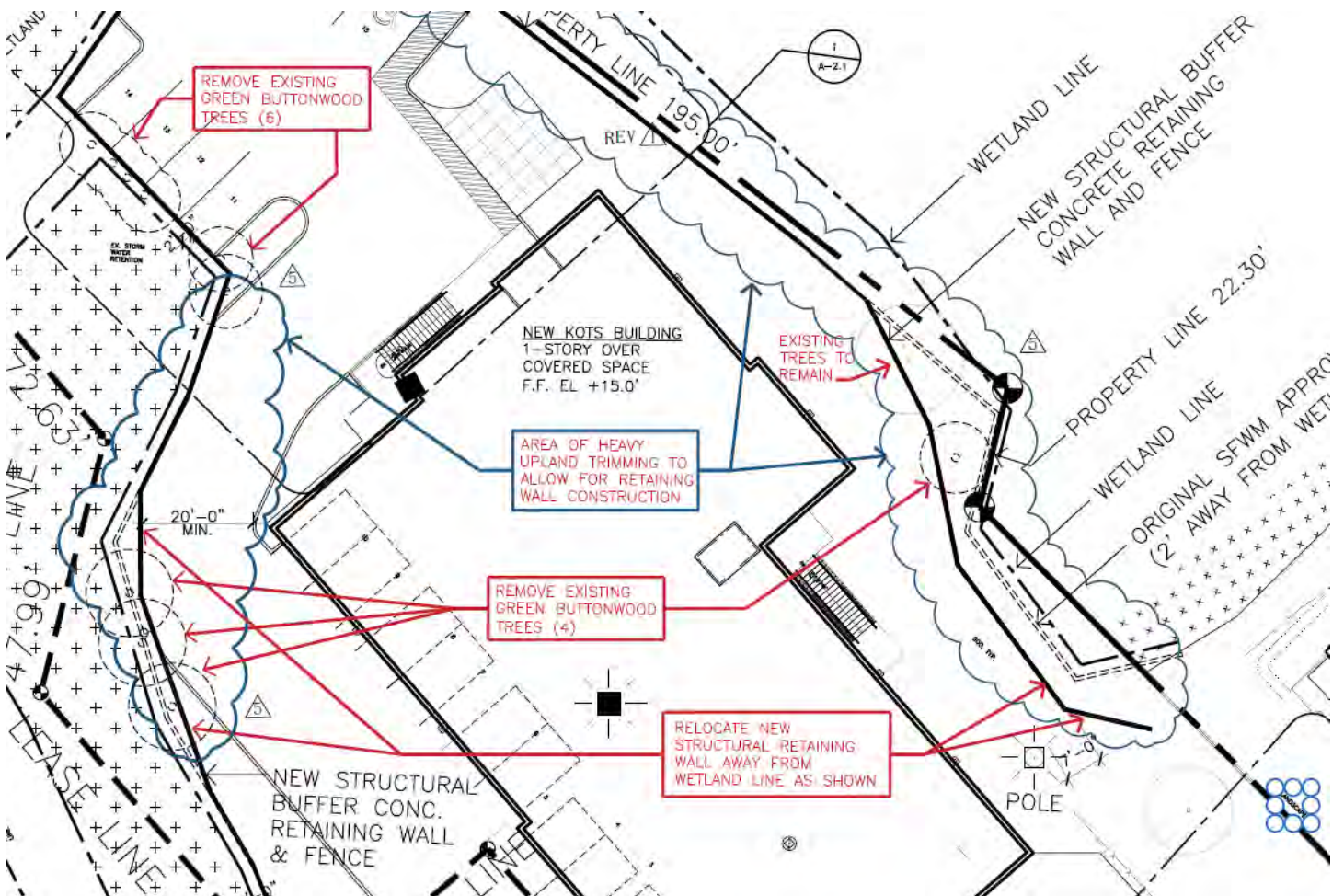
Species: 100% (on protected tree list)

Condition: 40% (overall condition is poor, parts of tree are dead.)

Total Average Value = 63%

Value x Diameter = 12.2 replacement caliper inches

Total required replacement if all trees approved for removal: **82.1"**



# Application

RECEIVED  
MAY 14 2024  
BY: Ad



Trimming T2024-0163  
removal-decot T2024-0164

Tree Permit Application

Please Clearly Print All Information unless indicated otherwise. Date: 5-10-24

Tree Address 5537 COLLEGE ROAD, KEY WEST, FLORIDA  
Cross/Corner Street (JOHN JONES NAVIGATION CENTER)

List Tree Name(s) and Quantity TO BE DETERMINED Y.M.W. - 10 Buttwood  
Reason(s) for Application: chups

- ( ) Remove ( ) Tree Health ( ) Safety (X) Other/Explain below
- ( ) Transplant ( ) New Location ( ) Same Property ( ) Other/Explain below
- ( ) Heavy Maintenance Trim (X) Branch Removal (X) Crown Cleaning/Thinning ( ) Crown Reduction

Additional Information and Explanation TRIM TREES AROUND WEST LAND WALL PERIMETER FOR JOHN JONES NAVIGATION CENTER

Property Owner Name THE CITY OF KEY WEST, 1300 WHITE STREET  
Property Owner email Address GLYNN.MEIBURG@CITYOFKEYWEST-FL.GOV  
Property Owner Mailing Address 1300 WHITE STREET, KEY WEST, FL. 33043  
Property Owner Phone Number 305 809 3962  
Property Owner Signature [Signature] 5-10-24

\*Representative Name JOHN COLE  
Representative email Address SHADE TREES SERVICES @ YAHOO.COM  
Representative Mailing Address 915 EATON STREET, KW  
Representative Phone Number 305 340 8094 305 296 8302

\*NOTE: A Tree Representation Authorization form must accompany this application if someone other than the owner will be representing the owner at a Tree Commission meeting or picking up an issued Tree Permit.

As of August 1, 2022, application fees are required. See back of application for fee amounts.

Sketch location of tree (aerial view) including cross/corner street. Please identify tree(s) on the property regarding this application with colored tape or ribbon.

SEE ATTACH DRAWING, TREE LIMBS WILL NEED TO BE TRIMMED FOR JUNGLE RETAIN WALL THAT HAS BEEN APPROVED 5 YEARS PRIOR. MAY HAVE A FEW TREES THAT HAVE TO BE REMOVED COMPLETELY AFTER THE CITY GETS ADDL ADVISE FROM TREES TO BE ~~TRIMMED~~ TRIMMED PER BEST MANAGEMENT PRACTICES REFER TO YELLOW HIGHLIGHT!





# Tree Representation Authorization

Attendance at the Tree Commission meeting on the date when your request will be discussed is necessary in order to expedite the resolution of your application. This Tree Representation Authorization form must accompany the application if the property owner is unable to attend or will have someone else pick up the Tree Permit once issued.

Please Clearly Print All Information unless indicated otherwise.

Date 5-10-24

Tree Address 5537 COLLEGE RD, KEY WEST

Property Owner Name THE CITY OF KEY WEST

Property Owner Mailing Address 1300 WHITE STREET, KEY WEST, FL. 33040

Property Owner Mailing City, State, Zip ↓

Property Owner Phone Number 305 809 3962

Property Owner email Address GLYNN.MEINBERG@CITYOFKEYWEST-FL.GOV

Property Owner Signature [Signature]

Representative Name JOHN COLE WILLIAM@WPHORNARCHITECT.COM  
WILLIAM P HORN

Representative Mailing Address P.O. Box 1341

Representative Mailing City, State, Zip Key west, FL 33041 915 EATON STREET  
KEY WEST, FL 33040

Representative Phone Number 305 340 8094 305 296 8302

Representative email Address SHADETREESERVICES@YAHOO.COM

I Albert P. Childress hereby authorize the above listed agent(s) to represent me in the matter of obtaining a Tree Permit from the City of Key West for my property at the tree address above listed. You may contact me at the telephone listed above if there are any questions or need access to my property.

Property Owner Signature [Signature]

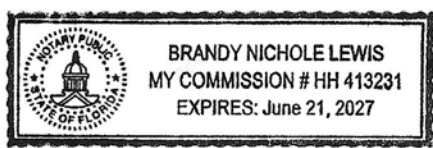
The forgoing instrument was acknowledged before me on this 13 day Mo 2024.  
By (Print name of Affiant) Albert P. Childress who is personally known to me or has produced as identification and who did take an oath.

### Notary Public

Sign name: Brandy Nichole Lewis  
Print name: Brandy Nichole Lewis

My Commission expires: 6/21/2027

Notary Public-State of Florida (Seal)



SEAL

DATE

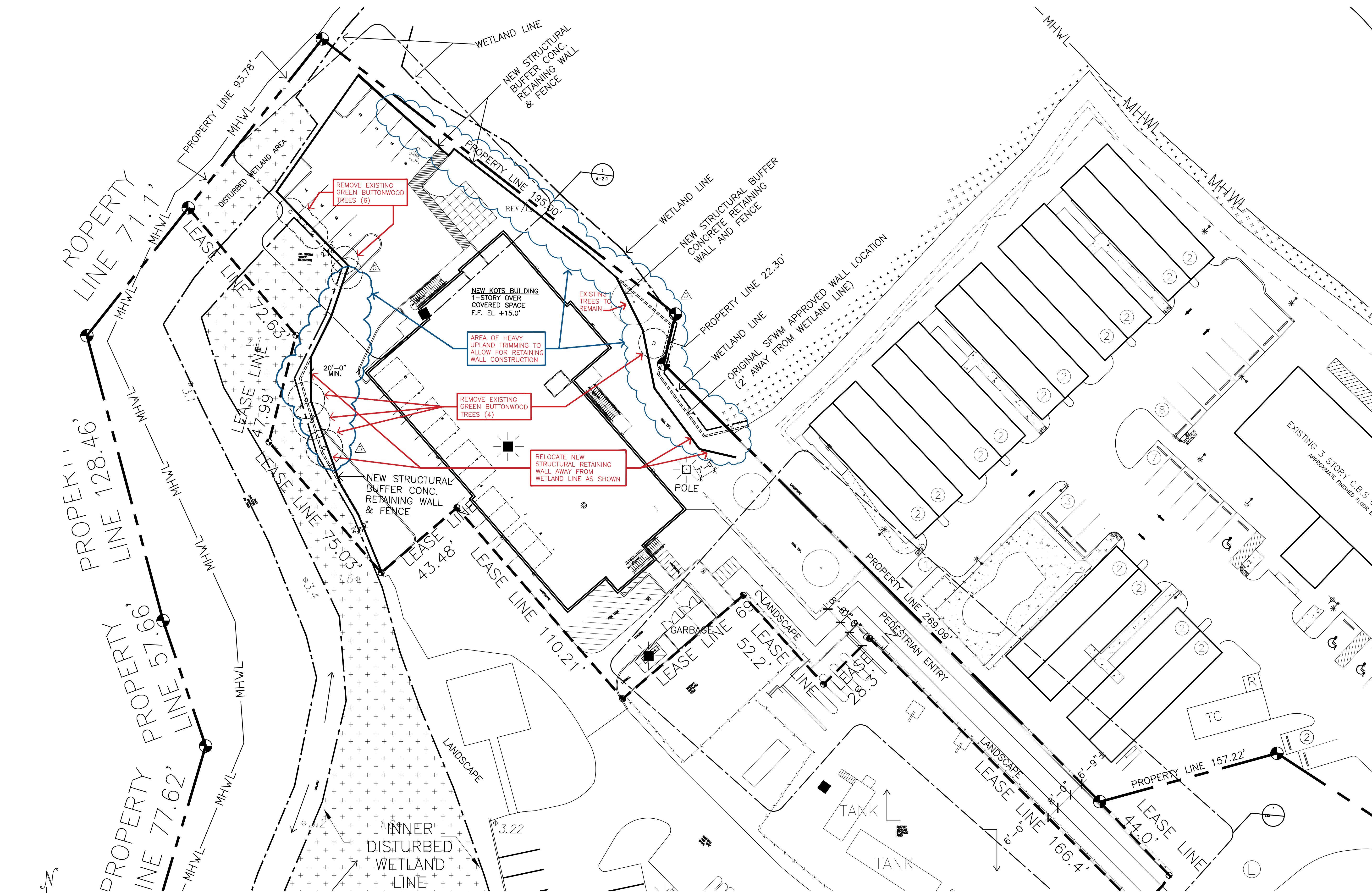
11-04-2021 D.R.C.  
11-30-2021 REV ▲  
12-09-2021 D.R.C.  
02-11-2022 PL. BD.  
03-03-2022 PL. BD. REV ▲  
08-04-2022 D.D. SUBMITTAL  
10-03-2022 50% CD'S SUBMITT.  
11-22-2022 95% CD'S SUBMITT.  
01-18-2023 100% CD'S SUBMITT.  
02-07-2023 BLDG. DEPT.  
05-13-2024 TREE COMM.

REVISIONS

05-16-2023 STAIR REV. ▲  
08-15-2023 REVISION ▲  
04-17-2024 ELEV. REV. ▲  
05-22-2024 TREE REV. ▲

DRAWN BY

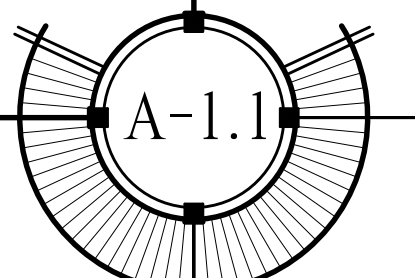
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JFS  
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PROJECT  
NUMBER  
2023

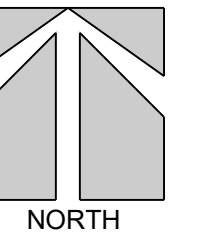


PROPOSED SITE PLAN (LEASE AREA)

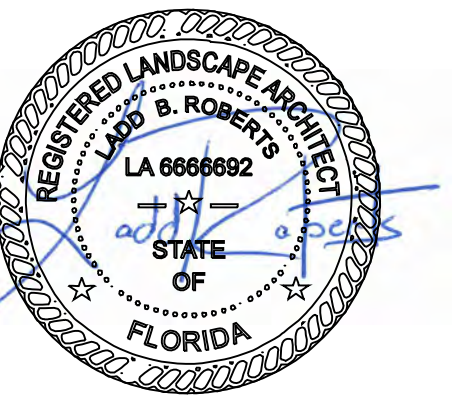
SITE PLAN BASED ON INFORMATION OBTAINED FROM SURVEY  
PREPARED BY AVIRON & ASSOCIATES DATED ON 04-08-2021.

SCALE: 1"=20'-0"





SCALE: 1" = 20'



100% CONSTRUCTION DOCUMENTS

**EXISTING VEGETATION**

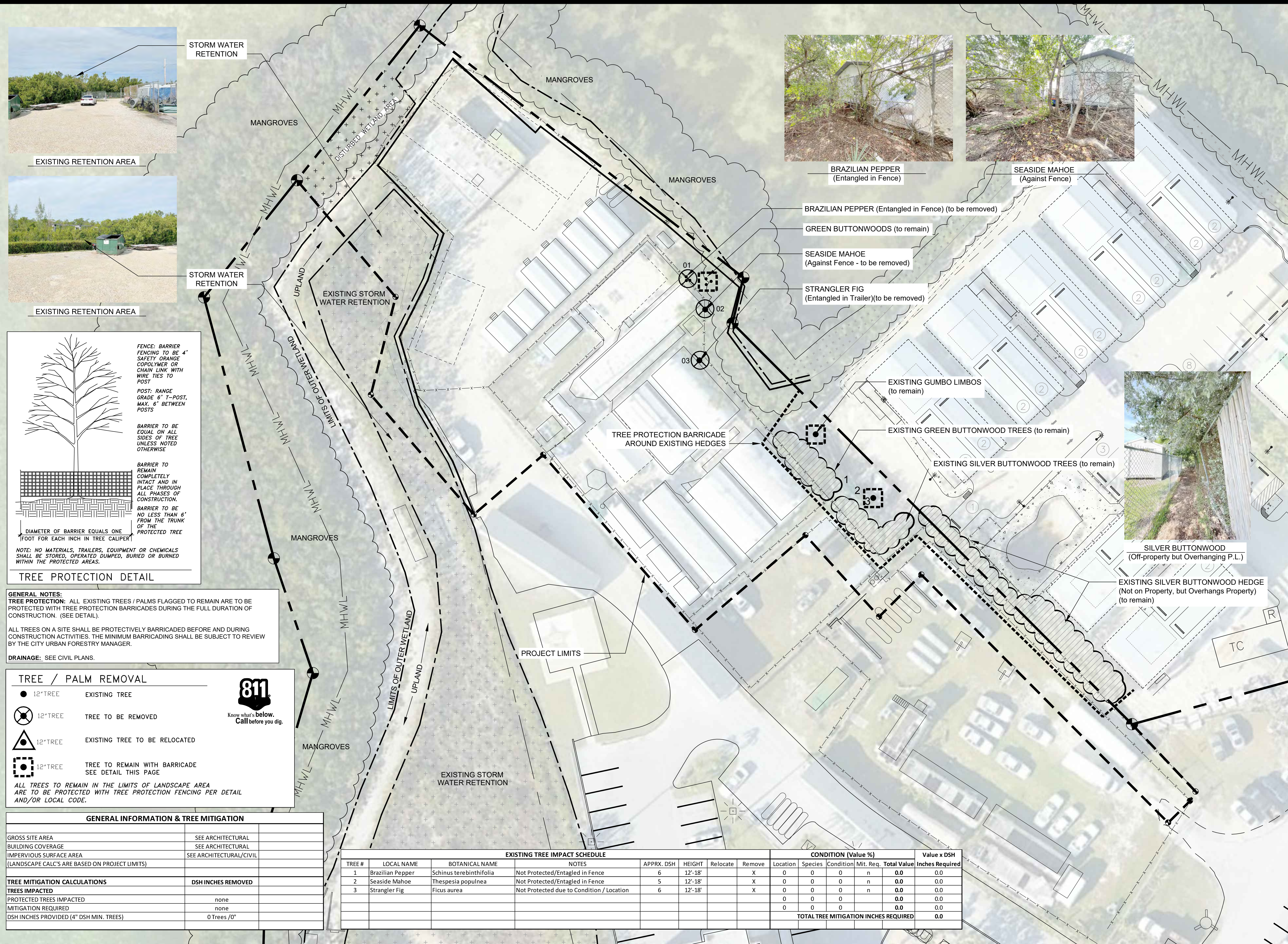
DATE: 9.30.22

REVISIONS:

| No. | Date    | Notes                       |
|-----|---------|-----------------------------|
| 1.  | 11.3.22 | minor base revisions        |
| 2.  | 1.18.23 | changed mulch specification |
| 3.  |         |                             |
| 4.  |         |                             |
| 5.  |         |                             |
| 6.  |         |                             |
| 7.  |         |                             |

SHEET NUMBER:  
**L-1**

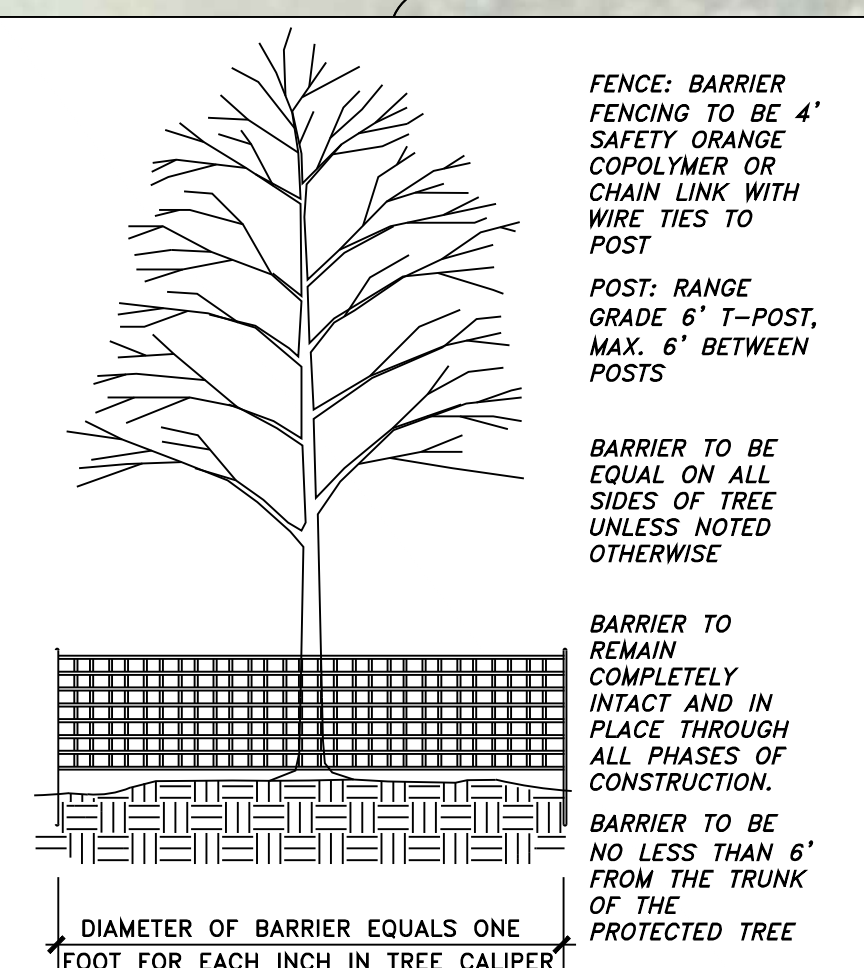
JOB #: 20005 DRAWN BY: LBR  
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EXISTING RETENTION AREA



EXISTING RETENTION AREA



**TREE PROTECTION DETAIL**

**GENERAL NOTES:**  
TREE PROTECTION: ALL EXISTING TREES / PALMS FLAGGED TO REMAIN ARE TO BE PROTECTED WITH TREE PROTECTION BARRICADES DURING THE FULL DURATION OF CONSTRUCTION. (SEE DETAIL).  
ALL TREES ON A SITE SHALL BE PROTECTIVELY BARRICADED BEFORE AND DURING CONSTRUCTION ACTIVITIES. THE MINIMUM BARRICADED SHALL BE SUBJECT TO REVIEW BY THE CITY URBAN FORESTRY MANAGER.  
**DRAINAGE:** SEE CIVIL PLANS.

**TREE / PALM REMOVAL**

- 12" TREE EXISTING TREE
- ⊗ 12" TREE TREE TO BE REMOVED
- ▲ 12" TREE EXISTING TREE TO BE RELOCATED
- ⊕ 12" TREE TREE TO REMAIN WITH BARRICADE SEE DETAIL THIS PAGE



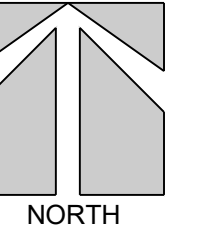
ALL TREES TO REMAIN IN THE LIMITS OF LANDSCAPE AREA ARE TO BE PROTECTED WITH TREE PROTECTION FENCING PER DETAIL AND/OR LOCAL CODE.

**GENERAL INFORMATION & TREE MITIGATION**

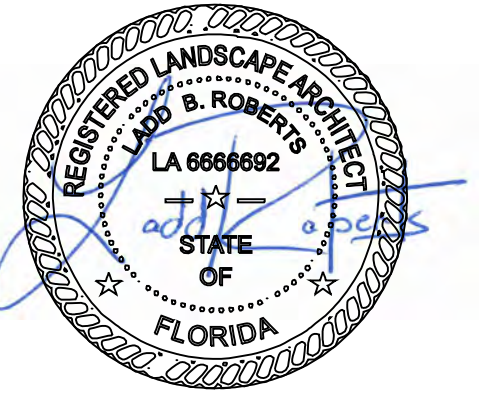
|  |                           |
|--|---------------------------|
| GROSS SITE AREA  | SEE ARCHITECTURAL         |
| BUILDING COVERAGE  | SEE ARCHITECTURAL         |
| IMPERVIOUS SURFACE AREA (LANDSCAPE CALC'S ARE BASED ON PROJECT LIMITS) | SEE ARCHITECTURAL/CIVIL   |
| <b>TREE MITIGATION CALCULATIONS</b>                                    | <b>DSH INCHES REMOVED</b> |
| TREES IMPACTED   |                           |
| PROTECTED TREES IMPACTED   | none                      |
| MITIGATION REQUIRED  | none                      |
| DSH INCHES PROVIDED (4" DSH MIN. TREES)                                | 0 Trees / 0"              |

| TREE #                                       | LOCAL NAME       | BOTANICAL NAME          | NOTES                                     | APPRX. DSH | HEIGHT  | Relocate | Remove | CONDITION (Value %) |         |           |            | Value x DSH |                 |
|--|------------------|-------------------------|---|------------|---------|----------|--------|---------------------|---------|-----------|------------|-------------|-----------------|
|  |                  |                         |   |            |         |          |        | Location            | Species | Condition | Mit. Req.  | Total Value | Inches Required |
| 1  | Brazilian Pepper | Schinus terebinthifolia | Not Protected/Entangled in Fence          | 6          | 12'-18' |          | X      | 0                   | 0       | 0         | n          | 0.0         | 0.0             |
| 2  | Seaside Mahoe    | Thespesia populnea      | Not Protected/Entangled in Fence          | 5          | 12'-18' |          | X      | 0                   | 0       | 0         | n          | 0.0         | 0.0             |
| 3  | Strangler Fig    | Ficus aurea             | Not Protected due to Condition / Location | 6          | 12'-18' |          | X      | 0                   | 0       | 0         | n          | 0.0         | 0.0             |
|  |                  |                         |   |            |         |          |        | 0                   | 0       | 0         |            | 0.0         | 0.0             |
| <b>TOTAL TREE MITIGATION INCHES REQUIRED</b> |                  |                         |   |            |         |          |        |                     |         |           | <b>0.0</b> |             |                 |

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SCALE: 1" = 20'



100% CONSTRUCTION DOCUMENTS

**LANDSCAPE PLAN (CONCEPTUAL)**

DATE: 9.30.22

REVISIONS:

| No. | Date    | Notes                       |
|-----|---------|-----------------------------|
| 1.  | 11.3.22 | minor base revisions        |
| 2.  | 1.18.23 | changed mulch specification |
| 3.  |         |                             |
| 4.  |         |                             |
| 5.  |         |                             |
| 6.  |         |                             |
| 7.  |         |                             |

SHEET NUMBER:  
**L-2**

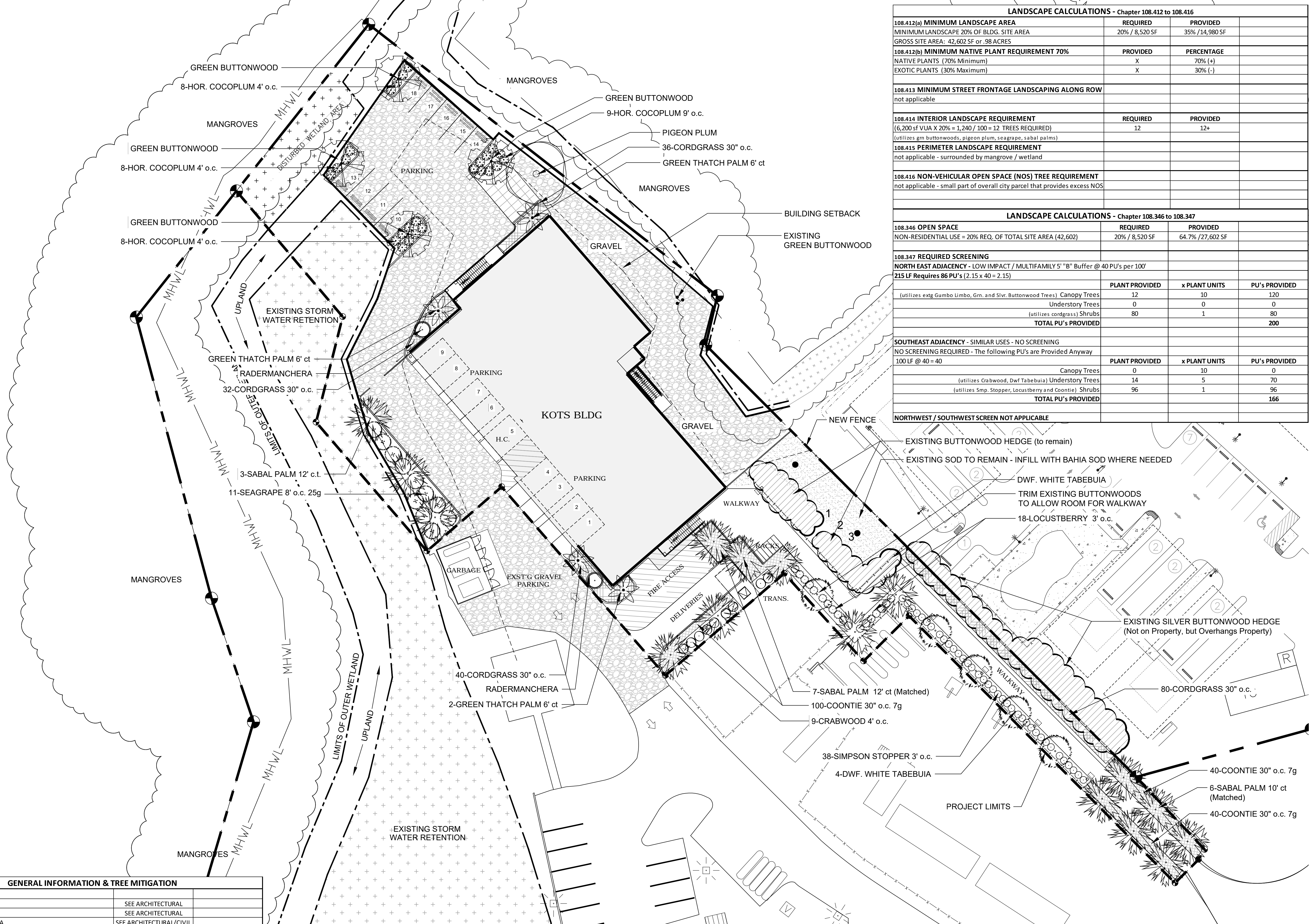
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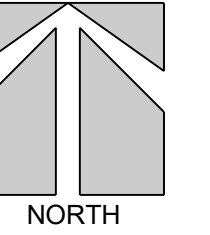
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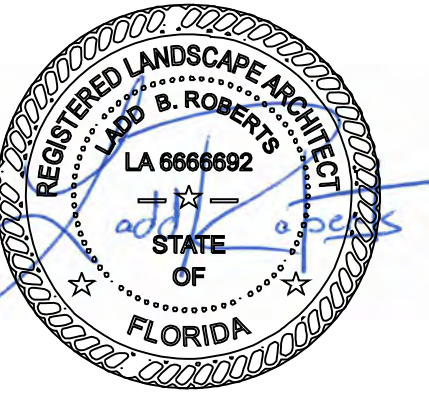
| LANDSCAPE CALCULATIONS - Chapter 108.412 to 108.416                              |   |                      |                      |
|--|---|----------------------|----------------------|
| <b>108.412(a) MINIMUM LANDSCAPE AREA</b>   | <b>REQUIRED</b>   | <b>PROVIDED</b>      |                      |
| MINIMUM LANDSCAPE 20% OF BLDG. SITE AREA   | 20% / 8,520 SF  | 35%                  | /14,980 SF           |
| GROSS SITE AREA: 42,602 SF or .98 ACRES  |   |                      |                      |
| <b>108.412(b) MINIMUM NATIVE PLANT REQUIREMENT 70%</b>                           | <b>PROVIDED</b>   | <b>PERCENTAGE</b>    |                      |
| NATIVE PLANTS (70% Minimum)  | X   | 70% (+)              |                      |
| EXOTIC PLANTS (30% Maximum)  | X   | 30% (-)              |                      |
| <b>108.413 MINIMUM STREET FRONTAGE LANDSCAPING ALONG ROW</b>                     |   |                      |                      |
| not applicable   |   |                      |                      |
| <b>108.414 INTERIOR LANDSCAPE REQUIREMENT</b>                                    |   |                      |                      |
| (6,200 sf VUA X 20% = 1,240 / 100 = 12 TREES REQUIRED)                           | 12  | 12+                  |                      |
| (utilizes gm buttonwoods, pigeon plum, seagrape, sabal palms)                    |   |                      |                      |
| <b>108.415 PERIMETER LANDSCAPE REQUIREMENT</b>                                   |   |                      |                      |
| not applicable - surrounded by mangrove / wetland                                |   |                      |                      |
| <b>108.416 NON-VEHICULAR OPEN SPACE (NOS) TREE REQUIREMENT</b>                   |   |                      |                      |
| not applicable - small part of overall city parcel that provides excess NOS      |   |                      |                      |
| LANDSCAPE CALCULATIONS - Chapter 108.346 to 108.347                              |   |                      |                      |
| <b>108.346 OPEN SPACE</b>  | <b>REQUIRED</b>   | <b>PROVIDED</b>      |                      |
| NON-RESIDENTIAL USE = 20% REQ. OF TOTAL SITE AREA (42,602)                       | 20% / 8,520 SF  | 64.7%                | /27,602 SF           |
| <b>108.347 REQUIRED SCREENING</b>  |   |                      |                      |
| NORTH EAST ADIACENCY - LOW IMPACT / MULTIFAMILY 5' "B" Buffer @ 40 PU's per 100' |   |                      |                      |
| 215 LF Requires 86 PU's (2.15 x 40 = 2.15)                                       |   |                      |                      |
|  | <b>PLANT PROVIDED</b>                                   | <b>x PLANT UNITS</b> | <b>PU's PROVIDED</b> |
| (utilizes extg Gumbo Limbo, Gm. and Slvr. Buttonwood Trees)                      | Canopy Trees  | 12                   | 10                   |
|  | Understory Trees  | 0                    | 0                    |
|  | (utilizes cordgrass) Shrubs                             | 80                   | 1                    |
|  | <b>TOTAL PU's PROVIDED</b>                              |                      | <b>200</b>           |
| <b>SOUTHEAST ADIACENCY - SIMILAR USES - NO SCREENING</b>                         |   |                      |                      |
| NO SCREENING REQUIRED - The following PU's are Provided Anyway                   |   |                      |                      |
| 100 LF @ 40 = 40   |   |                      |                      |
|  | <b>PLANT PROVIDED</b>                                   | <b>x PLANT UNITS</b> | <b>PU's PROVIDED</b> |
|  | Canopy Trees  | 0                    | 10                   |
|  | (utilizes Crabwood, Dwf Tabebuia) Understory Trees      | 14                   | 5                    |
|  | (utilizes Smp. Stopper, Locustberry and Coontie) Shrubs | 96                   | 1                    |
|  | <b>TOTAL PU's PROVIDED</b>                              |                      | <b>166</b>           |
| NORTHWEST / SOUTHWEST SCREEN NOT APPLICABLE                                      |   |                      |                      |

| GENERAL INFORMATION & TREE MITIGATION          |                         |
|--|-------------------------|
| GROSS SITE AREA                                | SEE ARCHITECTURAL       |
| BUILDING COVERAGE                              | SEE ARCHITECTURAL       |
| IMPERVIOUS SURFACE AREA                        | SEE ARCHITECTURAL/CIVIL |
| (LANDSCAPE CALC'S ARE BASED ON PROJECT LIMITS) |                         |
| TREE MITIGATION CALCULATIONS                   | DSH INCHES REMOVED      |
| TREES IMPACTED                                 |                         |
| PROTECTED TREES IMPACTED                       | none                    |
| MITIGATION REQUIRED                            | none                    |
| DSH INCHES PROVIDED (4" DSH MIN. TREES)        | 0 Trees / 0"            |





SCALE: 1" = 20'



100% CONSTRUCTION DOCUMENTS

LANDSCAPE SCHEDULE & DETAILS

DATE: 9.30.22

REVISIONS:

| No. | Date    | Notes                       |
|-----|---------|-----------------------------|
| 1.  | 11.3.22 | minor base revisions        |
| 2.  | 1.18.23 | changed mulch specification |
| 3.  |         |                             |
| 4.  |         |                             |
| 5.  |         |                             |
| 6.  |         |                             |
| 7.  |         |                             |

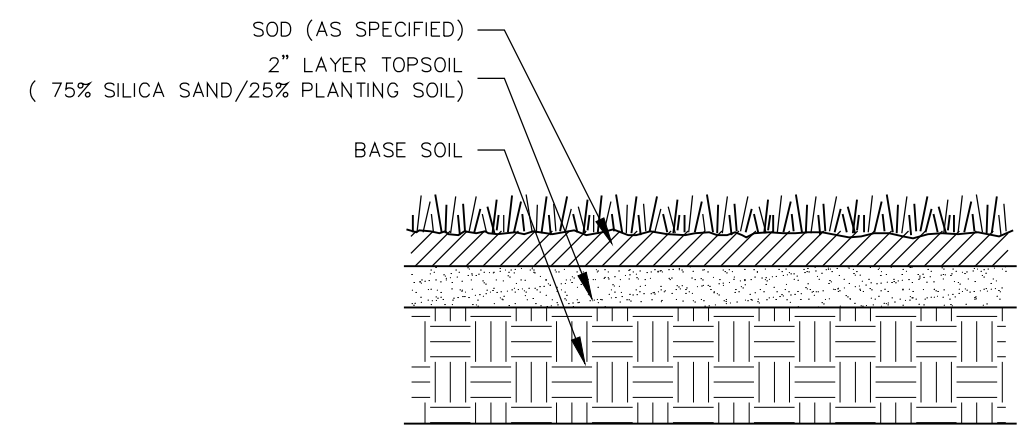
SHEET NUMBER:

**L-3**

JOB #: 20005 DRAWN BY: LBR

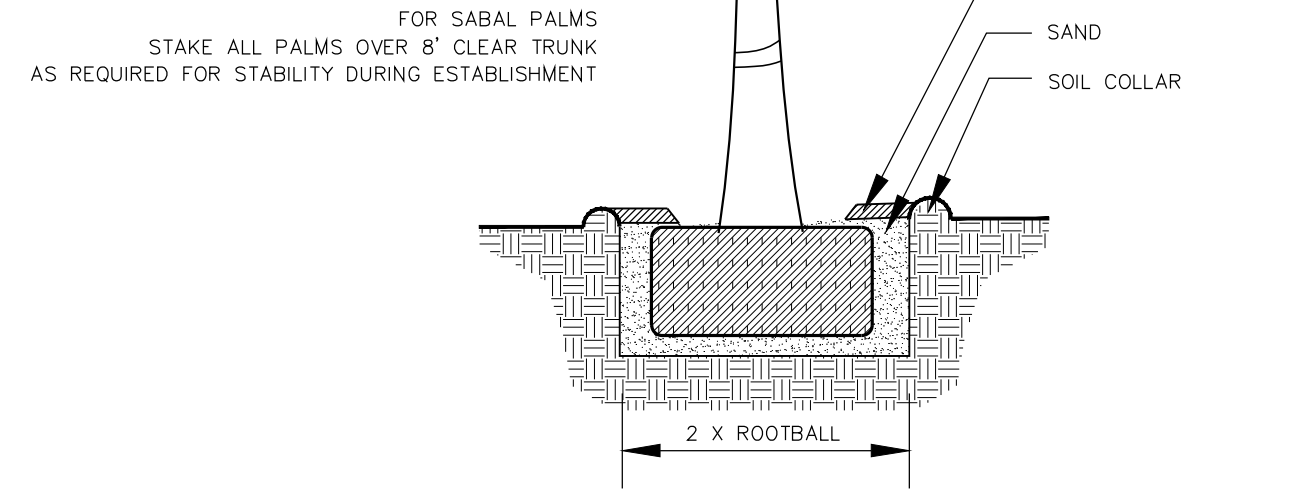
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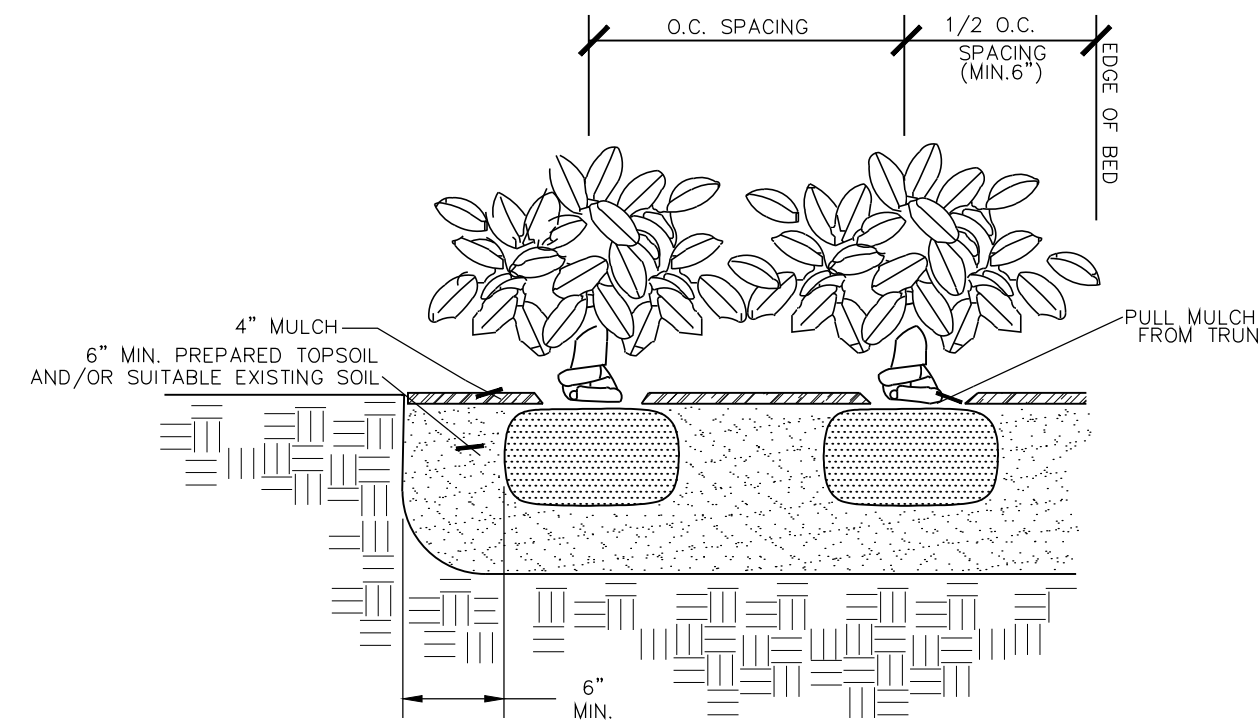


**SODDING DETAIL**

ALL AREAS TO BE SODDED TO RECEIVE 2\"/>

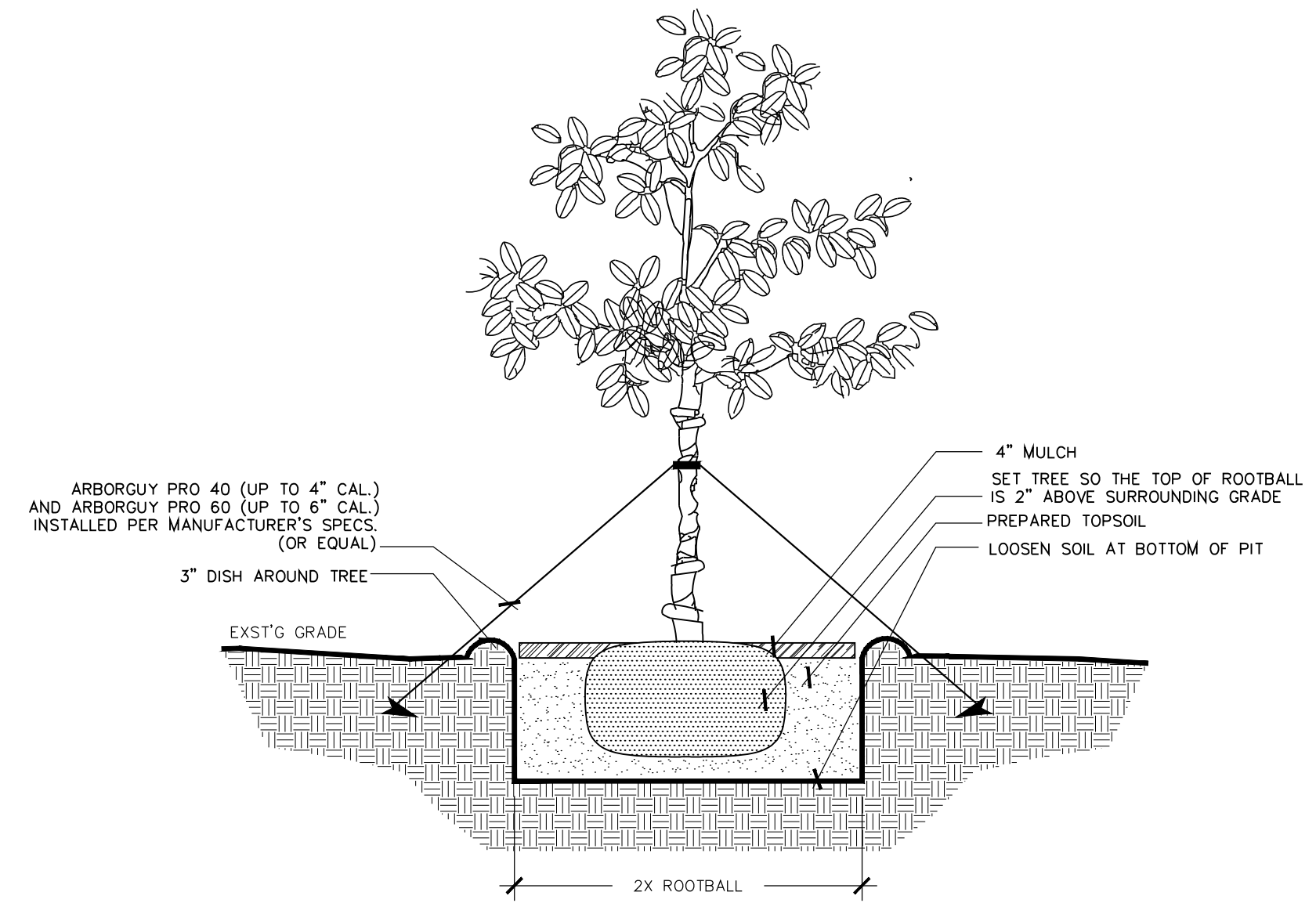


**PALM PLANTING DETAIL**



**SHRUB PLANTING DETAIL**

ALL SHRUBS ARE TO BE POSITIONED VERTICALLY REGARDLESS OF THE SLOPE OF THE GROUND IN WHICH THEY ARE PLANTED. WATER RINGS ARE TO BE CONSTRUCTED AT RIGHT ANGLES TO THE TREE OR SHRUB OR IN A MANNER IN WHICH THEY WILL MOST EFFECTIVELY SERVE THE PURPOSE OF RETAINING WATER AT THE BASE OF THE PLANT.



**TREE PLANTING DETAIL**

ALL TREES ARE TO BE POSITIONED VERTICALLY REGARDLESS OF THE SLOPE OF THE GROUND IN WHICH THEY ARE PLANTED. WATER RINGS ARE TO BE CONSTRUCTED AT RIGHT ANGLES TO THE TREE OR SHRUB OR IN A MANNER IN WHICH THEY WILL MOST EFFECTIVELY SERVE THE PURPOSE OF RETAINING WATER AT THE BASE OF THE PLANT.

THE ROOTBALL OF THE TREE SHOULD BE POSITIONED IN THE HOLE SO THAT THE FINISH GRADE OF THE BACKFILL SOIL AND LANDSCAPE SOIL IS 2\"/>

**GENERAL LANDSCAPE NOTES:**

- CHANGES MAY OCCUR DURING THE NORMAL COURSE OF IMPLEMENTATION. VERBAL CHANGE ORDERS WILL NOT BE HONORED. ANY CHANGES MUST BE SUBMITTED TO LANDSCAPE ARCHITECT IN WRITING AS A CHANGE ORDER TO BE REVIEWED AND APPROVED IN WRITING BY OWNER/CLIENT.
- ALL NEWLY PLANTED AREAS TO RECEIVE 100% COVERAGE BY AUTOMATIC IRRIGATION SYSTEM (DRIP PREFERRED) UNLESS OTHERWISE DIRECT BY OWNER. LANDSCAPE CONTRACTOR TO COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH IRRIGATION CONTRACTOR. IRRIGATION TIME CLOCK TO BE HARD WIRED ON COMPLETION - RESPONSIBILITY OF IRRIGATION CONTRACTOR. LANDSCAPE CONTRACTOR TO HAND WATER OR ARRANGE FOR WATERING DURING PLANTING UNTIL IRRIGATION SYSTEM IS 100% OPERABLE. THIS IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- LANDSCAPE CONTRACTOR TO BECOME FAMILIAR WITH THE SCOPE OF WORK AS WELL AS THE SITE, DIGGING CONDITIONS, AND ANY OBSTACLES PRIOR TO BIDDING.
- LANDSCAPE CONTRACTOR SHALL LOCATE AND VERIFY ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- ALL PLANT MATERIAL IS TO BE FLORIDA NO. 1 OR BETTER. FLORIDA DEPARTMENT OF AGRICULTURE GRADES AND STANDARDS, PARTS 1 & 2, 1975, RESPECTIVELY.
- ALL TREES TO BE STAKED IN A GOOD WORKMAN LIKE MANNER. NO NAIL STAKING PERMITTED.
- LANDSCAPE PLAN SHALL BE INSTALLED IN COMPLIANCE WITH ALL LOCAL CODES.
- ALL TREE HOLES TO BE BACK FILLED AROUND AND UNDER ROOT BALL WITH WASHED BEACH SAND AND PLANTING MIX. ALL SHRUB BEDS TO BE INSTALLED WITH WASHED BEACH SAND AND PLANTING MIX.
- ALL TREES, SHRUBS AND GROUND COVERS SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF FINAL ACCEPTANCE. ALL PALMS ARE TO GUARANTEED FOR ONE YEAR.
- ALL PLANTING BEDS SHALL BE WEED AND GRASS FREE.
- ALL TREES, PALMS, SHRUBS AND GROUND COVER PLANTS SHALL BE FERTILIZED AT INSTALLATION ACCORDING TO MANUFACTURERS' RECOMMENDATIONS. TYPE AND AMOUNT OF FERTILIZER IS UP TO DISCRETION OF LANDSCAPE CONTRACTOR IN ORDER TO AVOID 'BURN' ON PLANTS THAT MAY ALREADY CONTAIN FERTILIZER FROM NURSERY AND ENSURE PROPER ESTABLISHMENT TO MAINTAIN CONTRACTORS WARRANTY.
- PLANTING PLAN SHALL TAKE PRECEDENCE OVER PLANT LIST IN CASE OF DISCREPANCIES.
- NO CHANGE SHALL BE MADE WITHOUT PRIOR CONSENT OF LANDSCAPE ARCHITECT.
- ALL MATERIAL SHALL BE SUBJECT TO AVAILABILITY AT TIME OF INSTALLATION. SUBSTITUTIONS MAY BE MADE AFTER CONSULTATION WITH LANDSCAPE ARCHITECT.
- LANDSCAPE CONTRACTOR TO COORDINATE HIS WORK WITH GENERAL CONTRACTOR, IRRIGATION CONTRACTOR, AND THE ELECTRICAL CONTRACTOR.
- ALL EXISTING PLANT MATERIAL TO REMAIN SHALL BE PROTECTED.
- ALL TREES TO BE RELOCATED WILL BE ROOT PRUNED 30 DAYS MINIMUM (OR MORE IF REQUIRED BY SPECIES). UPON RELOCATION, TRIM OUT 30% OF THE RELOCATED TREES' CANOPY.
- AFTER REMOVAL OR RELOCATION OF EXISTING TREES AND PALMS, BACKFILL TREE PIT WITH WASHED BEACH SAND, AND SOD DISTURBED AREA, IF REQUIRED.
- ALL TREES ON SOD AREA SHALL RECEIVE A MULCH RING 2\"/>

END

**IRRIGATION NOTES:**

- ALL MAJOR PALMS TO HAVE TWO BUBBLERS ON OPPOSING SIDES OF ROOT BALL. BUBBLERS TO BE HIDDEN FROM VIEW.
- IRRIGATION CONTRACTOR TO COORDINATE LOCATION OF MAIN LINES WITH LANDSCAPE CONTRACTOR PRIOR TO IMPLEMENTATION. AVOID ROOT BALLS OF TREES AND LARGE PLANT MATERIALS. REFER TO LANDSCAPE DRAWINGS.
- ALL PIPE TO BE PVC SCHEDULE 40, 8\"/>

**TREE BRACING NOTES:**

2\"/>

- CHOOSE THE CORRECT SIZE AND NUMBER OF STAKES AND SIZE OF HOSE AND WIRE. GUYING SHALL BE COMPLETED WITHIN 48 HOURS OF PLANTING THE TREE
- CUT LENGTHS OF STAKING HOSE TO EXTEND 2 INCHES PAST TREE TRUNK WHEN WRAPPING AROUND.
- SPACE STAKES EVENLY ON OUTSIDE OF WATER RING AND DRIVE EACH FIRMLY INTO GROUND. STAKES SHOULD BE DRIVEN AT A 30 DEGREE ANGLE WITH THE POINT OF THE STAKE TOWARD THE TREE UNTIL 4 TO 5 INCHES ARE LEFT SHOWING.
- PLACE THE HOSE AROUND THE TRUNK JUST ABOVE THE LOWEST BRANCH.
- THREAD THE WIRE THROUGH THE HOSE AND PAST THE STAKE, ALLOWING APPROXIMATELY 2 FEET OF EACH OF THE TWO ENDS BEYOND THE STAKE BEFORE CUTTING THE WIRE.
- TWIST WIRE AT RUBBER HOSE TO KEEP IT IN PLACE
- PULL WIRE DOWN AND WIND BOTH ENDS AROUND STAKE TWICE. TWIST WIRE BACK ONTO ITSELF TO SECURE IT BEFORE CUTTING OFF THE EXCESS.
- THE ABOVE PROCEDURES ARE TO BE FOLLOWED FOR EACH STAKE, KEEPING THE TREE STRAIGHT AT ALL TIMES. THERE SHOULD BE A 1 TO 3 INCH SWAY IN THE TREE (THE WIRES SHOULD NOT BE PULLED TIGHT) FOR BEST ESTABLISHMENT.
- FLAG THE GUY WIRES WITH SURVEYORS FLAGGING OR APPROVED EQUAL FOR SAFETY.
- GUYS ARE NOT TO BE REMOVED UNTIL APPROVED BY LANDSCAPE CONTRACTOR.

SPECIMEN TREES AND TALL PALMS BRACED WITH PROPS:

- CHOOSE THE CORRECT SIZE, LENGTH, AND NUMBER OF PROPS TO BE USED (PRESSURE TREATED (PT) 2\"/>

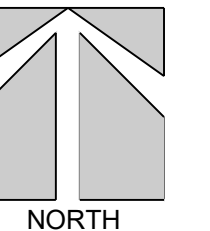
END

- IRRIGATION CONTRACTOR TO MEASURE WATER AVAILABLE ON SITE AND USE NO MORE THAN 75% OF AVAILABLE GPM.
- WATER CONNECTION TO THE HOUSE, INCLUDING SHUT-OFF VALVES, SHALL NOT BE ALTERED BY PRESSURIZED BACKFLOW.
- ALL WIRE SPLICES TO BE IN VALVE BOXES AND CLEARLY LABELED AT BACK OF TIME CLOCK. ALL WIRE SPLICES TO BE INSTALLED WITH WATER PROOF CONNECTIONS.
- 2 SPARE WIRES TO BE RUN TO THE LAST VALVE IN EACH DIRECTION.
- CONTROLLER TO BE HARD WIRED AT TIME OF COMPLETION AND INCLUDED IN IRRIGATION CONTRACTORS BID.
- SYSTEM TO PROVIDE 100% CONTROLLED COVERAGE ON COMPLETION. ADDITIONS/MODIFICATIONS FROM IRRIGATION PLAN MAY BE NECESSARY.
- IRRIGATION CONTRACTOR TO BE COUNTY AND CITY LICENSED WHERE WORK IS TO BE PERFORMED. LIABILITY AND WORKMANS COMP INSURANCE IS REQUIRED FOR EACH AND EVERY EMPLOYEE TO BE ON-SITE AND AT ANY TIME DURING IMPLEMENTATION. PAPERWORK TO THIS EFFECT TO BE PROVIDED ON REQUEST WITHIN 2 BUSINESS DAYS.
- AS-BUILT IRRIGATION DRAWING TO BE PROVIDED PRIOR TO FINAL PAYMENT.

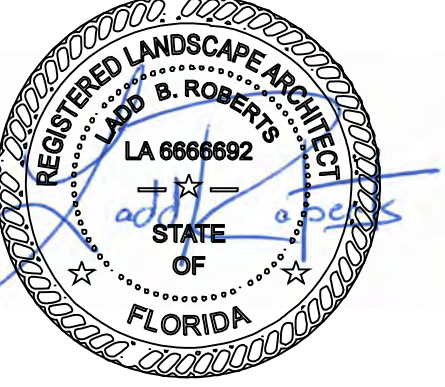
END

| PLANT SCHEDULE - KOTS - Keys Overnight Temporary Shelter |                              |  |  |       |        |                          |             |
|--|------------------------------|--|--|-------|--------|--------------------------|-------------|
| QTY.   | COMMON NAME                  | BOTANICAL NAME                         | SIZE   | NOTE  | NATIVE | MIT. RATIO               | MIT. CREDIT |
| <b>TREES</b>   |                              |  |  |       |        |                          |             |
| <b>Canopy</b>  |                              |  |  |       |        |                          |             |
| 4  | PIGEON PLUM                  | <i>Coccoloba diversifolia</i>          | 3\"/>  | FL #1 | NATIVE | 1:1                      | 3           |
| 1  | GREEN BUTTONWOOD             | <i>Conocarpus erectus</i>              | 3\"/>  | FL #1 | NATIVE | 1:1                      | 12          |
| <b>Understory</b>  |                              |  |  |       |        |                          |             |
| 11   | SEAGRAPE                     | <i>Coccoloba uvifera</i>               | 3\"/>  | FL #1 | NATIVE | 1:1                      | 33          |
| 5  | DWF. WHITE TABEBUIA          | <i>Tabebuia bahamensis</i>             | 2\"/>  | FL #1 | NATIVE | 1:1                      | 10          |
| 9  | CRABWOOD                     | <i>Gymnanthes lucida</i>               | 2\"/>  | FL #1 | NATIVE | 1:1                      | 18          |
|  |                              |  |  |       |        | <b>Total Tree Inches</b> | <b>61</b>   |
| <b>PALMS</b>   |                              |  |  |       |        |                          |             |
| 16   | SABAL PALM                   | <i>Sabal palmetto</i>                  | (6) 10' ct. (9) 12' ct, regens, slick-skinny | FL #1 | NATIVE |                          |             |
| 4  | GREEN THATCH PALM            | <i>Thrinax radiata</i>                 | 6' c.t., full Canopy                         | FL #1 | NATIVE |                          |             |
| <b>SHRUBS and GROUNDCOVERS</b>                           |                              |  |  |       |        |                          |             |
| 18   | LOCUSTBERRY                  | <i>Brysonima lucida</i>                | 3 gal., full                                 | FL #1 | NATIVE |                          |             |
| 2  | RADERMACHERA                 | <i>radermachera kunming</i>            | 7 gal., full                                 | FL #1 |        |                          |             |
| 33   | HORIZONTAL COCOPLUM          | <i>Chrysalanusa icaco 'horizontal'</i> | 3 gal., full                                 | FL #1 | NATIVE |                          |             |
| 38   | SIMPSON STOPPER              | <i>Myrcianthes fragrans</i>            | 7 gal., 36\"/>                               | FL #1 | NATIVE | 1:1                      | 76          |
| 180  | COONTIE                      | <i>Zamia pumila</i>                    | 7 gal., 24\"/>                               | FL #1 | NATIVE |                          |             |
| 188  | CORDGRASS                    | <i>Spartina bakerii</i>                | 3 gal., full                                 | FL #1 | NATIVE |                          |             |
| <b>SOD &amp; SUNDRY ITEMS</b>                            |                              |  |  |       |        |                          |             |
| 0 SF   | n/a                          | CONTRACTOR TO VERIFY QUANTITY          |  | FL#1  |        |                          |             |
| 0 LF   | SMALL CORAL ROCKS FOR EDGING |  |  |       |        |                          |             |
| 5,900 SF   | MELALEUCA MULCH              | COLOR: NATURAL COLOR MULCH.            | DO NOT USE CYPRESS MULCH                     |       |        |                          |             |
| 0 SF   | BLACK MEXICAN RIVER PEBBLES  |  |  |       |        |                          |             |
| 0 LF   | BLACK ALUMINUM EDGING        |  |  |       |        |                          |             |





SCALE: 1" = 20'



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**IRRIGATION PLAN**

DATE: 9.30.22

REVISIONS:

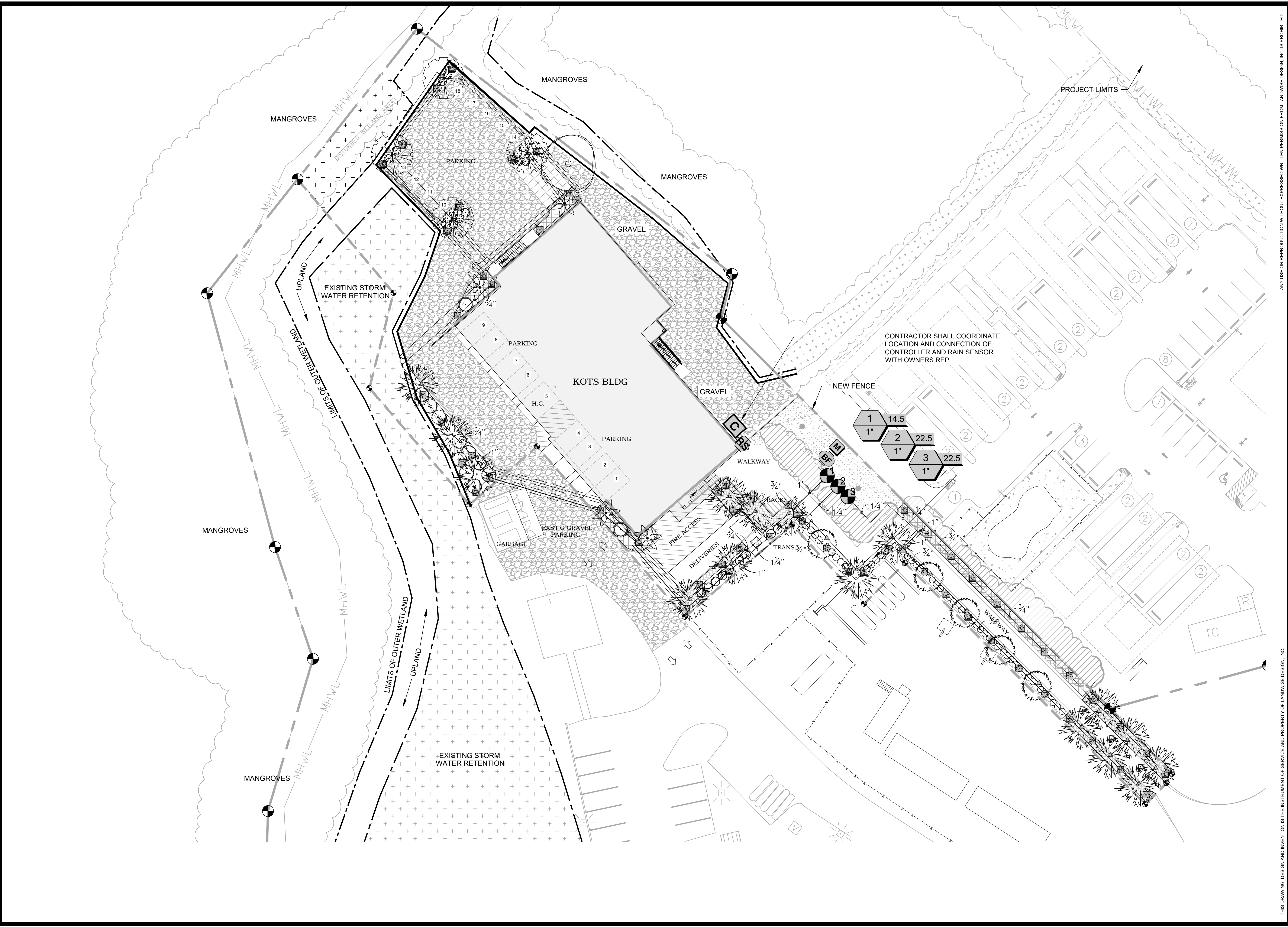
| No. | Date    | Notes                       |
|-----|---------|-----------------------------|
| 1.  | 11.3.22 | minor base revisions        |
| 2.  | 1.18.23 | changed mulch specification |
| 3.  |         |                             |
| 4.  |         |                             |
| 5.  |         |                             |
| 6.  |         |                             |
| 7.  |         |                             |

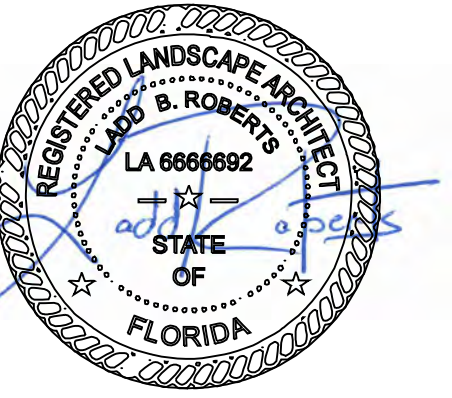
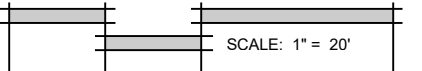
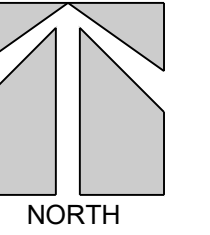
SHEET NUMBER:  
**L-5**

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**IRRIGATION SCHEDULE**

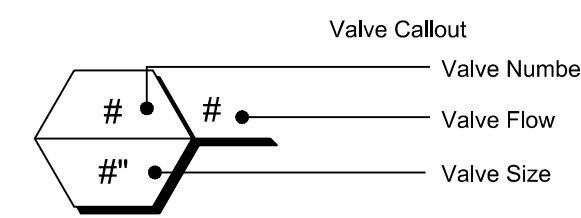
| SYMBOL | MANUFACTURER/MODEL      | QTY | ARC | PSI | GPM | RADIUS |
|--------|-------------------------|-----|-----|-----|-----|--------|
|        | K-Rain 78012 FN15CS     | 27  | CST | 30  | 1   | 4'x30' |
|        | K-Rain 78012 FN15ES     | 36  | EST | 30  | 0.5 | 4'x15' |
|        | K-Rain PROS-04-TB TB-05 | 29  | 360 | 20  | 0.5 | 3'     |

| SYMBOL | MANUFACTURER/MODEL                 | QTY |
|--------|------------------------------------|-----|
|        | Rain Bird PGA Angle 1"             | 3   |
|        | Febco 860 1"                       | 1   |
|        | Rain Bird ESP4ME3 with (2) ESP-SM3 | 1   |
|        | Rain Bird RSD-BEx                  | 1   |
|        | Water Meter 1"                     | 1   |

|           |  |            |
|-----------|--|------------|
| —————     | Irrigation Lateral Line: PVC Class 160 SDR 26 1/2"   | 1,433 l.f. |
| —————     | Irrigation Lateral Line: PVC Class 160 SDR 26 3/4"   | 310.5 l.f. |
| —————     | Irrigation Lateral Line: PVC Class 160 SDR 26 1"     | 214.8 l.f. |
| —————     | Irrigation Lateral Line: PVC Class 160 SDR 26 1 1/4" | 110.1 l.f. |
| — — — — — | Irrigation Mainline: PVC Class 200 SDR 21            | 34.2 l.f.  |
| =====     | Pipe Sleeve: PVC Schedule 40                         | 365.9 l.f. |



**VALVE SCHEDULE**

| NUMBER | MODEL               | SIZE | TYPE        | GPM  | WIRE | PSI  | PSI @ POC | PRECIP    |
|--------|---------------------|------|-------------|------|------|------|-----------|-----------|
| 1      | Rain Bird PGA Angle | 1"   | Bubbler     | 14.5 | 51.5 | 37.2 |           | 1.7 in/h  |
| 2      | Rain Bird PGA Angle | 1"   | Shrub Spray | 22.5 | 58.9 | 44.8 |           | 1.02 in/h |
| 3      | Rain Bird PGA Angle | 1"   | Shrub Spray | 22.5 | 66.0 | 41.1 |           | 1.31 in/h |
|        | Common Wire         |      |             |      | 34.2 |      |           |           |

**WATERING SCHEDULE**

| NUMBER | MODEL               | TYPE        | PRECIP    | SUN | MON | TUE    | WED | THU | FRI    | SAT | IN./WEEK | MIN./WEEK | GAL./WEEK | GAL./DAY |
|--------|---------------------|-------------|-----------|-----|-----|--------|-----|-----|--------|-----|----------|-----------|-----------|----------|
| 1      | Rain Bird PGA Angle | Bubbler     | 1.7 in/h  |     |     | 14 min |     |     | 14 min |     | 0.75     | 27        | 391.5     | 195.8    |
| 2      | Rain Bird PGA Angle | Shrub Spray | 1.02 in/h |     |     | 23 min |     |     | 23 min |     | 0.75     | 45        | 1,013     | 506.3    |
| 3      | Rain Bird PGA Angle | Shrub Spray | 1.31 in/h |     |     | 18 min |     |     | 18 min |     | 0.75     | 35        | 787.5     | 393.8    |
|        |                     | TOTALS:     |           |     |     | 55     |     |     | 55     |     |          | 107       | 2,192     | 1,096    |

100% CONSTRUCTION DOCUMENTS

**IRRIGATION SCHEDULE**

DATE: 9.30.22

REVISIONS:

| No. | Date    | Notes                       |
|-----|---------|-----------------------------|
| 1.  | 11.3.22 | minor base revisions        |
| 2.  | 1.18.23 | changed mulch specification |
| 3.  |         |                             |
| 4.  |         |                             |
| 5.  |         |                             |
| 6.  |         |                             |
| 7.  |         |                             |

SHEET NUMBER:  
**L-6**

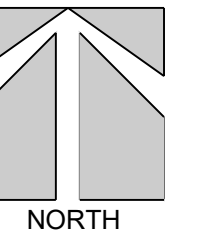
JOB #: 20005 DRAWN BY: LBR

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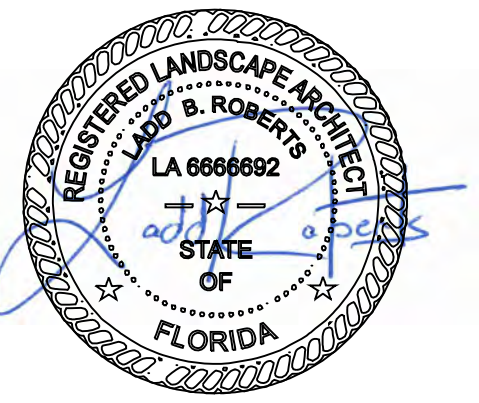


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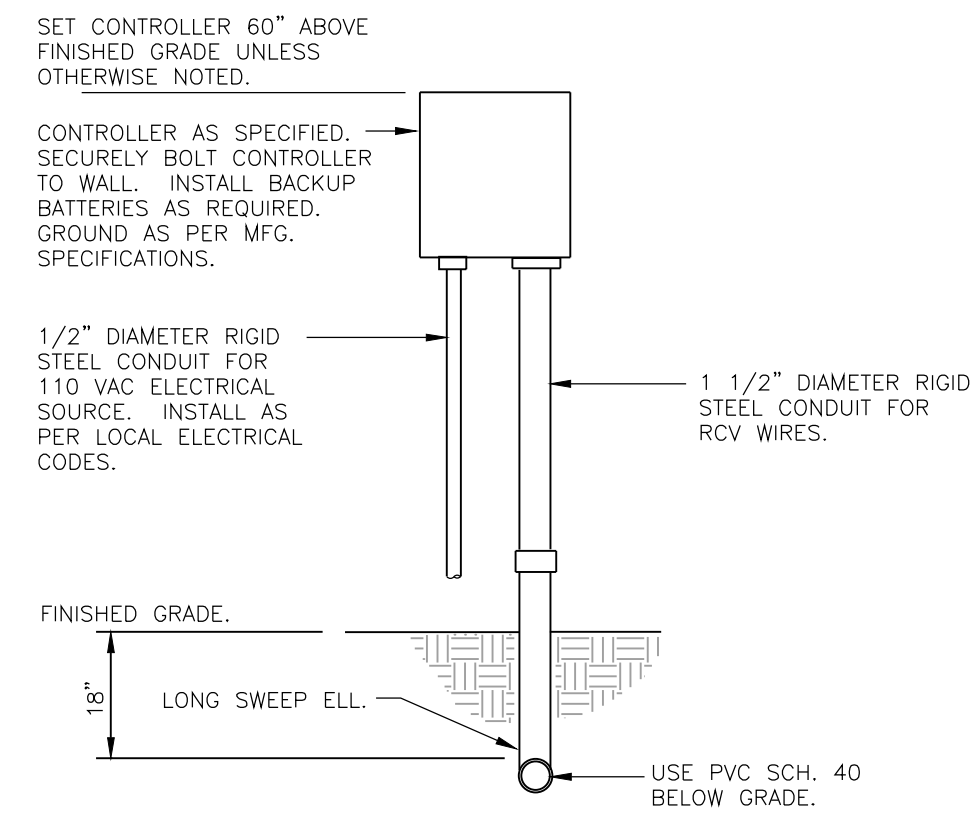
SCALE: 1" = 20"



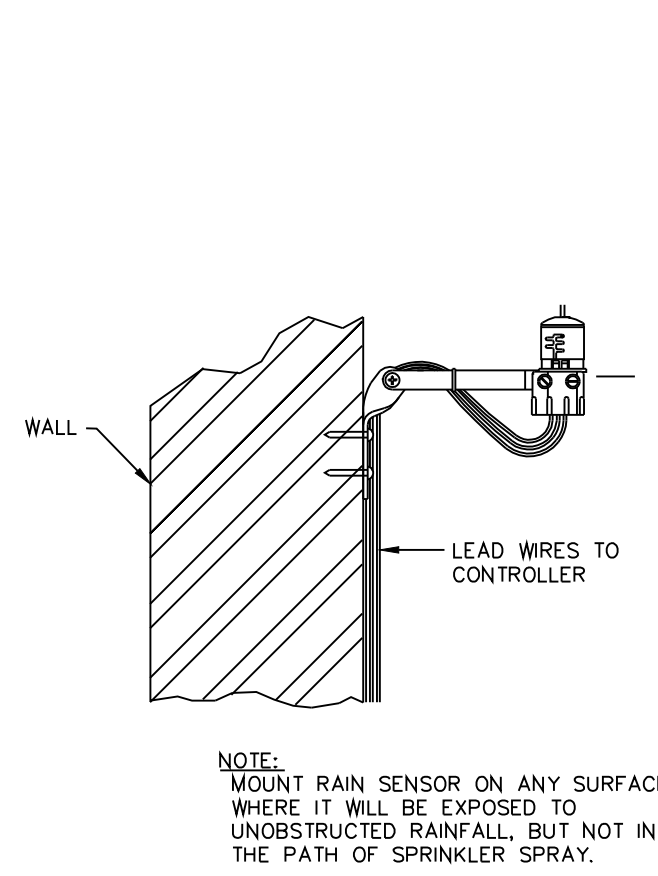
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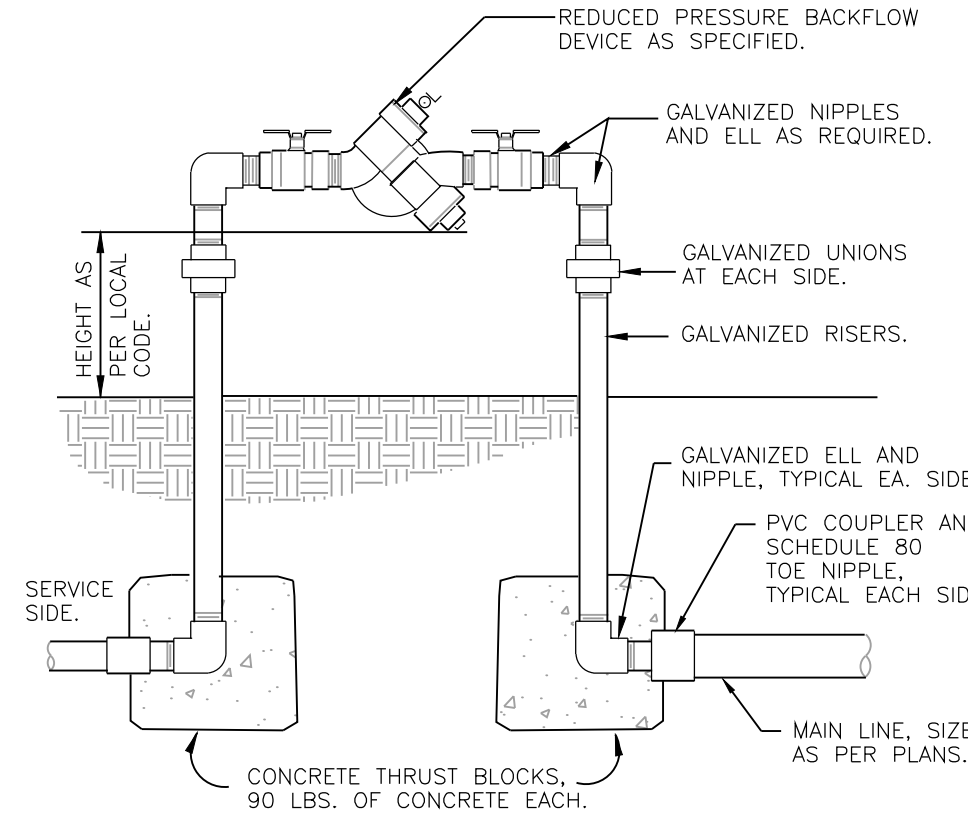
IRRIGATION DETAILS



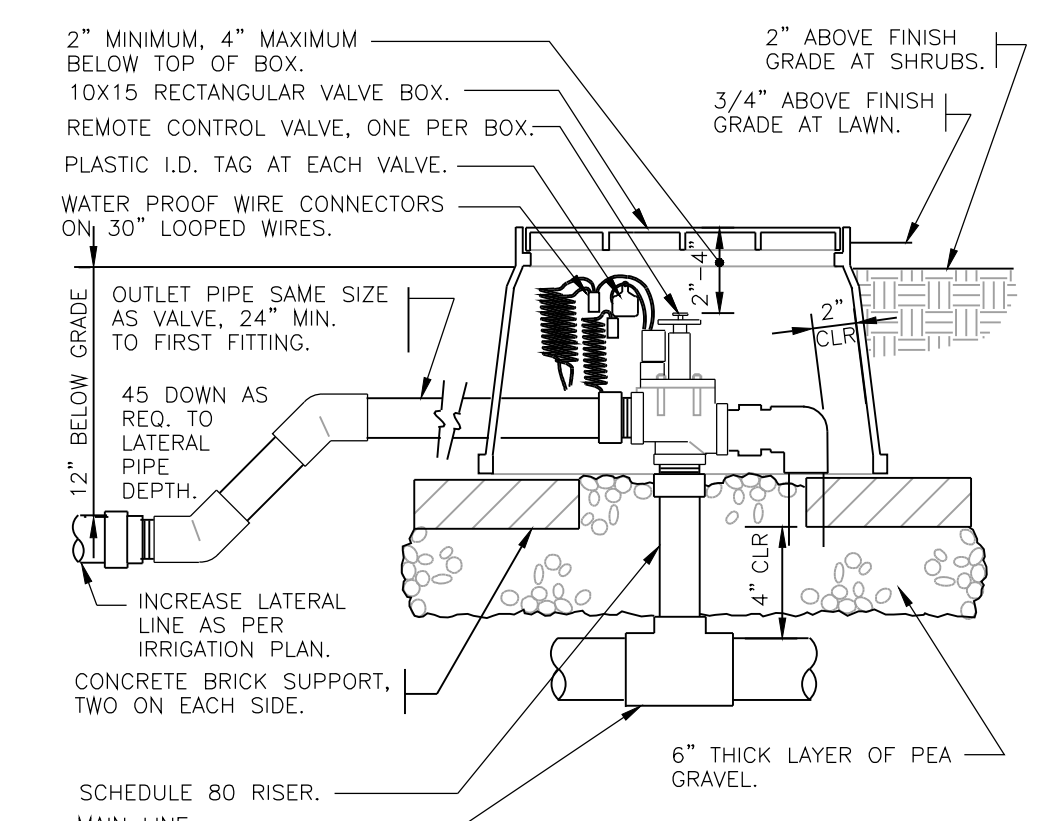
**01 WALL MOUNT CONTROLLER**  
N.T.S.



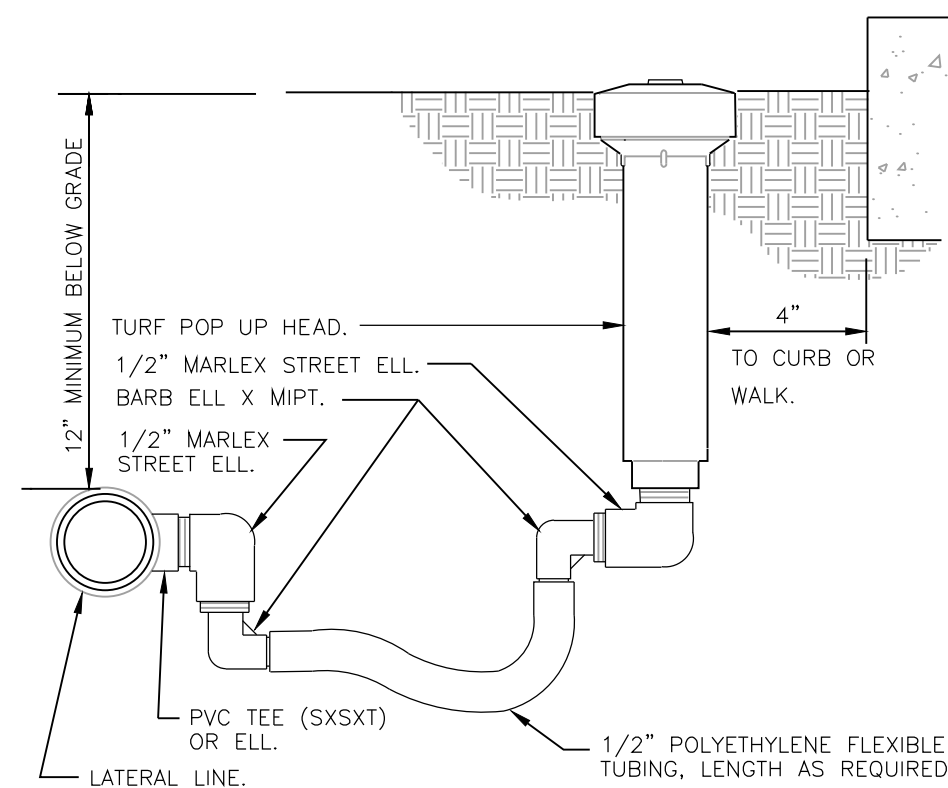
**02 RAIN SENSOR**  
N.T.S.



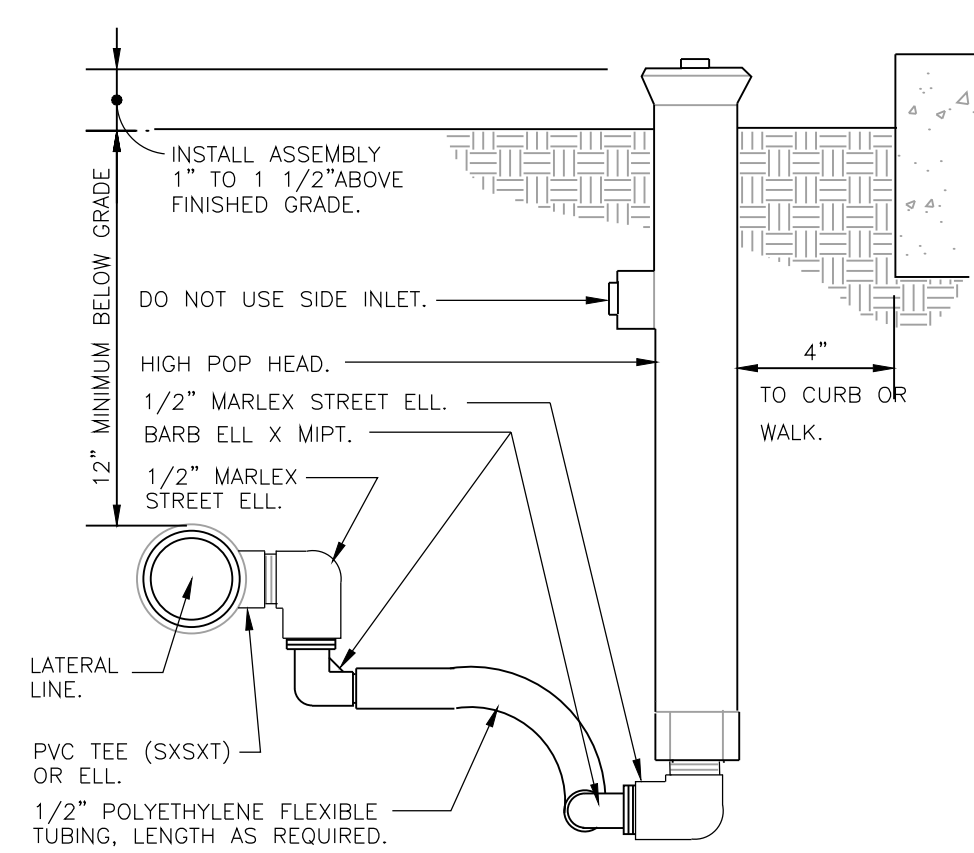
**03 REDUCED PRESSURE BACKFLOW DEVICE**  
N.T.S.



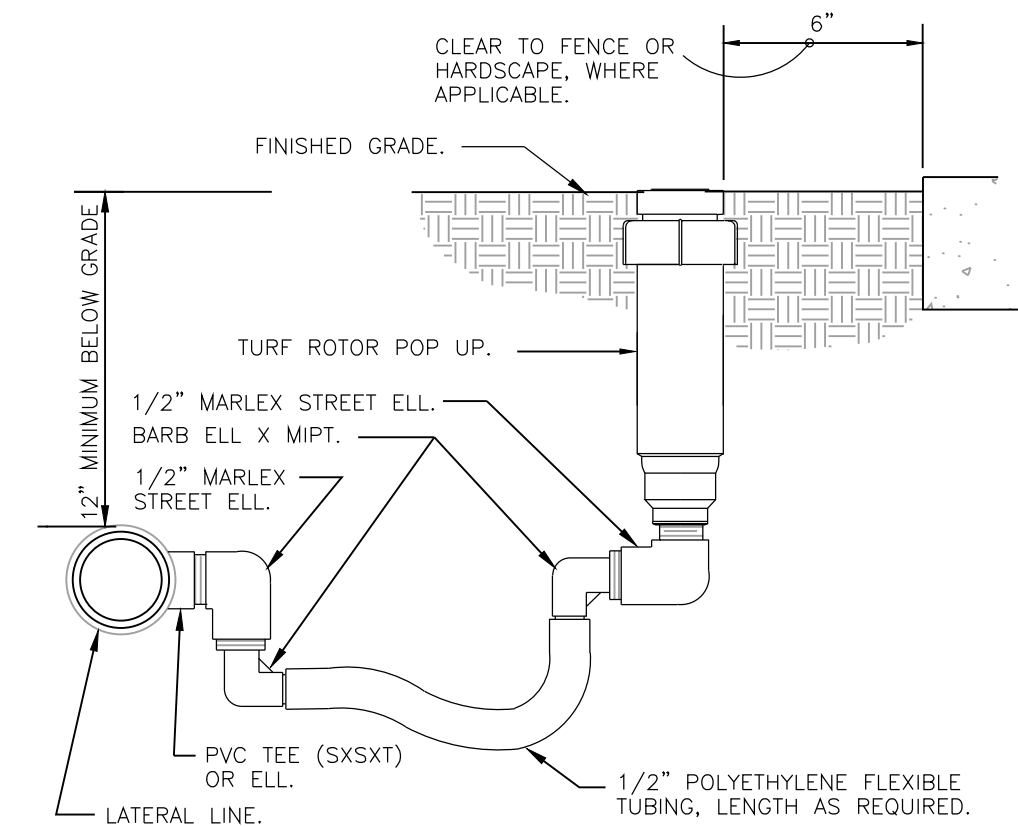
**04 ELECTRIC REMOTE CONTROL VALVE**  
N.T.S.



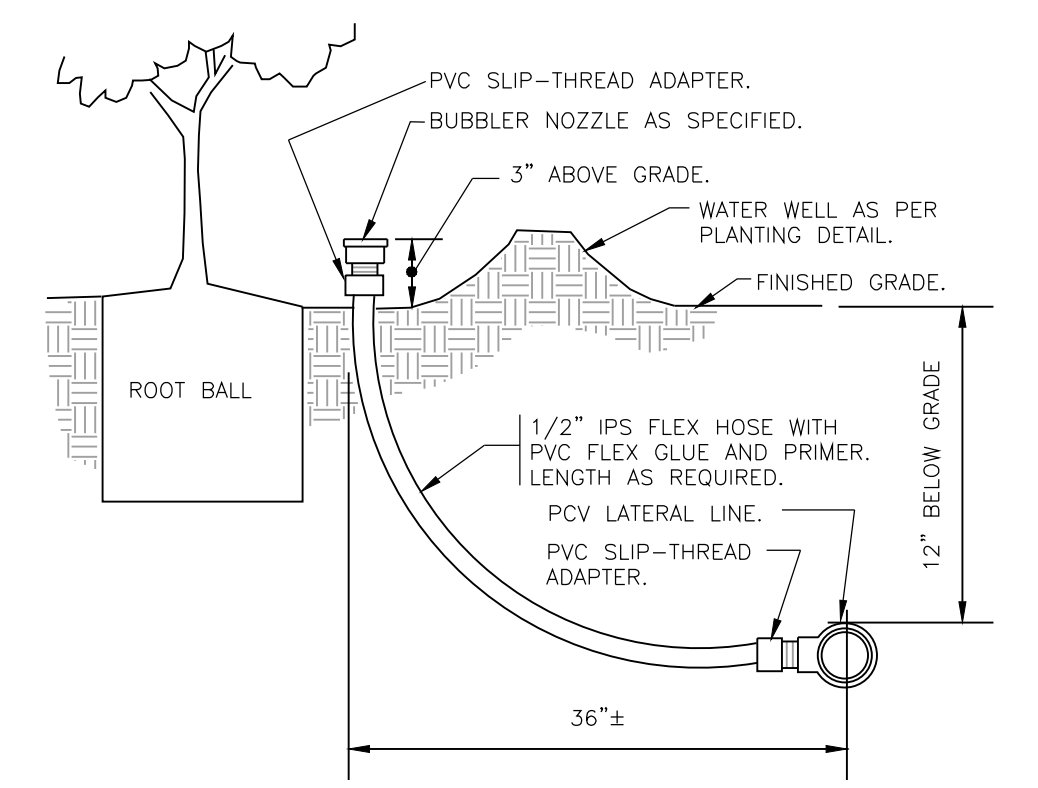
**05 TURF SPRAY FLEX ASSEMBLY**  
N.T.S.



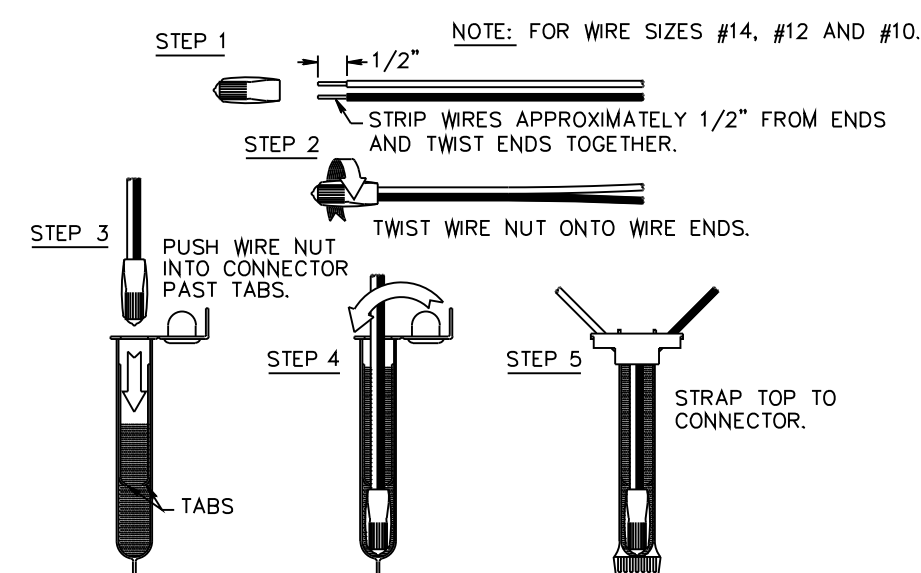
**06 SHRUB SPRAY HIGHPOP W/FLEX ASSEMBLY**  
N.T.S.



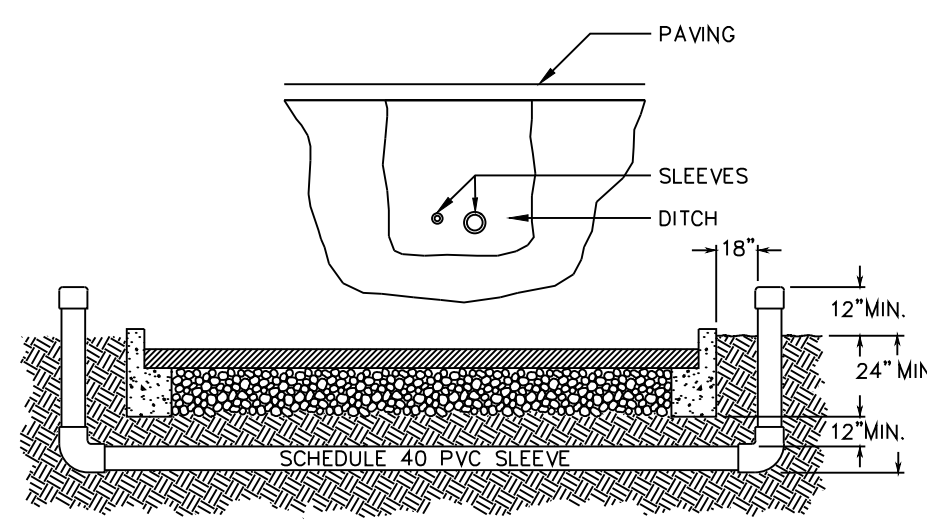
**07 TURN ROTOR FLEX ASSEMBLY**  
N.T.S.



**08 BUBBLER ON FLEX HOSE RISER**  
N.T.S.



**09 WIRE CONNECTION DETAIL**  
N.T.S.

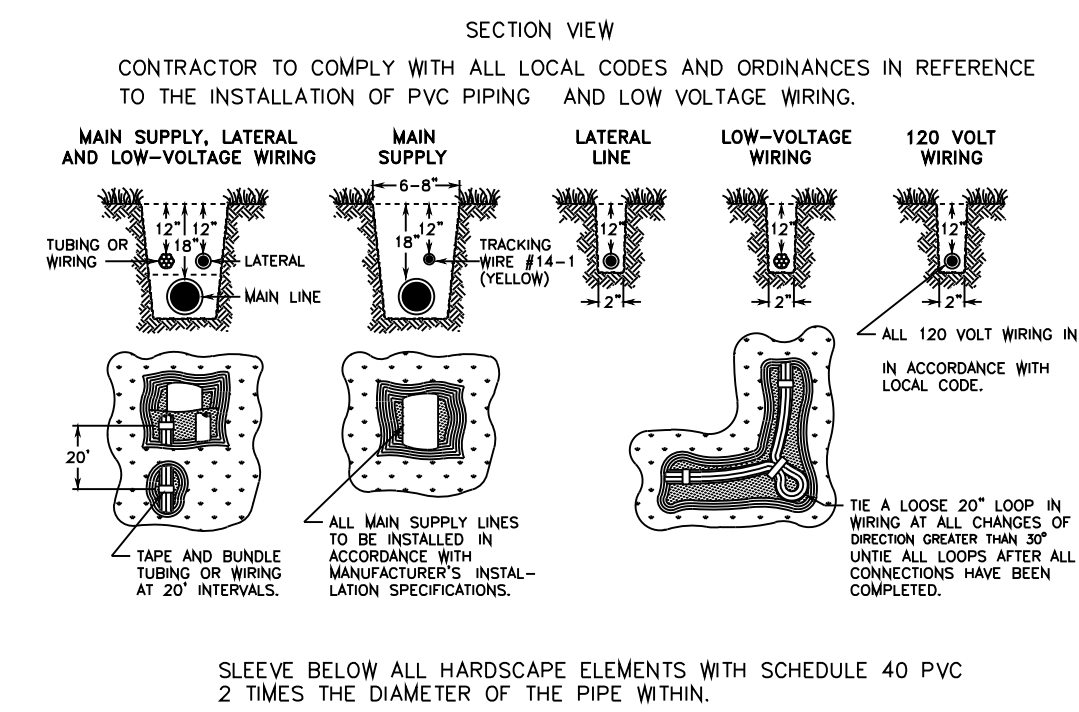


BEDDING AND COMPACTION AS PER ENGINEER'S SPECIFICATIONS

NOTES:

1. ALL PVC IRRIGATION SLEEVING TO BE SCH 40.
2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND SMALLER SLEEVE TO 24" MIN. ABOVE FINISH GRADE.
4. MECHANICALLY TAMP TO 95% PROCTOR.
5. INSTALLER OF SLEEVES SHALL BE RESPONSIBLE TO LOCATE SLEEVES IF NOT PROPERLY INSTALLED.

**10 IRRIGATION SLEEVING**  
N.T.S.



**11 PIPE AND WIRE TRENCHING**  
N.T.S.

Note:

1. System is diagrammatic to improve clarity. All mainline and lateral piping, electric valves and wiring are to be installed in landscape bed areas and within the property boundaries.
2. Contractor shall reference the landscape plan prior to the installation of piping to avoid contact with existing or new plant material.
3. Contractor shall make field adjustments to location of irrigation equipment and pipe layout when existing obstructions may occur (see irrigation note and specifications).

Irrigation system shall be installed with an automatic controller and a rain sensor. The irrigation system must have 100% head to head coverage of all plant material and shall be hydro-zoned. (Zoned to deliver water based on the specific water demand for the type plants for that zone.) Example: Sod, Trees and Shrubs shall be on separate irrigation zones. 30% of landscape area shall be low or no volume irrigation. Irrigation system must have a rain sensor installed to manufacturer specifications.

These timings have been compiled using the Manufacturers specifications to achieve 0.75 inches precipitation per week. Precise watering times must be site determined based on season, rainfall, etc. Precipitation rates will also vary based on the elements and the seasons.

**Daylight Saving Time:**  
Houses with odd numbered addresses or no address will water on Wednesday & Saturday.  
Houses with even numbered addresses will water on Thursday & Sunday.  
Non residential addresses will water on Tuesday & Friday.

**Eastern Standard Time:**  
Houses with odd numbered addresses or no address will water on Saturday.  
Houses with even numbered addresses will water on Sunday.  
Non residential addresses will water on Tuesday.

DATE: 9.30.22

REVISIONS:

| No. | Date    | Notes                       |
|-----|---------|-----------------------------|
| 1.  | 11.3.22 | minor base revisions        |
| 2.  | 1.18.23 | changed mulch specification |
| 3.  |         |                             |
| 4.  |         |                             |
| 5.  |         |                             |
| 6.  |         |                             |
| 7.  |         |                             |

SHEET NUMBER:  
**L-7**

JOB #: 20005 DRAWN BY: LBR

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# UNDERGROUND IRRIGATION SPECIFICATIONS

## 1.0 GENERAL

- 1.1 SUMMARY: Includes but not limited to:  
 A. Furnishing and installing sprinkler system as described in Contract Documents complete with accessories necessary for proper functioning.
- 1.2 SYSTEM DESCRIPTION:  
 A. Design Requirements:  
 1. Layout of Irrigation Heads:  
 a. Location of heads shown on Drawings is approximate. Actual placement may vary slightly as is required to achieve full, even coverage without spraying onto buildings, sidewalks, fences, etc.  
 b. During layout, consult with Landscape Architect to verify proper placement and make recommendations, where revisions are advisable.
- 1.3 QUALITY ASSURANCE:  
 A. Regulatory Requirements:  
 1. Work and materials shall be in accordance with latest rules and regulations, and other applicable state or local laws. Nothing in Contract Documents is to be construed to permit work not conforming to these codes.  
 B. Pre-Installation Conference:  
 1. Meet with Owner and Landscape Architect to discuss and clarify all aspects of job requirements prior to commencing work of this Section.  
 C. System Adjustments:  
 1. Minor adjustments in system will be permitted to avoid existing fixed obstructions.  
 2. Mainline, laterals, and valves are shown for clarity purposes only. All irrigation equipment to be with landscape area. Mainline, laterals and valves to be installed as far away from existing and new specimen trees as possible.  
 D. 1. Documentation and submittal of actual water supply performance prior to commencing installation.
- 1.4 SUBMITTALS:  
 A. Record Drawings:  
 1. Prepare an accurate as-built drawing as installation proceeds to be submitted prior to final inspection. Drawing shall include:  
 a. Detail and dimension changes made during construction.  
 b. Significant details and dimensions not shown in original Bidding Documents.  
 2. Maintain, at job site, one copy of Contract Documents (as defined in General Conditions) and relevant shop drawings.  
 3. Clearly mark each document "PROJECT RECORD COPY" and maintain in good condition for use of the Landscape Architect and Owner.  
 4. As-built drawing shall be provided in pdf format.  
 5. Submit product literature for all sprinklers, valves, pipe, wire, wire connectors and controller.  
 6. Final payment for system will not be authorized until accurate and complete submittals are delivered to the Landscape Architect.  
 B. Instruction Manual:  
 1. Provide instruction manual which lists complete instructions for system operation and maintenance.
- 1.5 PRODUCT STORAGE:  
 A. During construction and storage, protect materials from damage and prolonged exposure to sunlight.
- 1.6 WARRANTY:  
 A. Standard one (1) year warranty stipulated in General Conditions shall include:  
 1. Completed system including parts and labor.  
 2. Filling and repairing depressions and replacing plantings due to settlement of irrigation trenches for one (1) year following final acceptance.  
 3. System adjustment to supply proper coverage to areas to receive water.
- 1.7 MAINTENANCE:  
 A. Extra Materials:  
 1. In addition to installed system, furnish Owner with the following items at close-out:  
 a. Two sprinkler head bodies of each size and type.  
 b. Two nozzles for each size and type.  
 c. Two adjusting keys for each sprinkler head cover type.

## 2.0 PRODUCTS:

- 2.1 PIPE, PIPE FITTINGS, AND CONNECTIONS:  
 A. Pipe shall be continuously and permanently marked with Manufacturer's name, size, schedule, type, and working pressure.  
 B. Pipe:  
 1. Pressure Lines: as indicated on plans.  
 2. Lateral Lines: as indicated on plans.  
 3. Risers: sch. 80 PVC, gray  
 C. Fittings:  
 1. Schedule 40 PVC.  
 D. Steeving:  
 1. Schedule 40 PVC.
- 2.2 SPRINKLER HEADS:  
 A. Conform to requirements shown on Drawings as to type, radius of throw, pressure, and discharge.
- 2.3 AUTOMATIC SPRINKLER SYSTEM:  
 A. Control valves shall be of size and type indicated on Drawings.  
 B. Control wire shall be UL listed, color coded copper conductor direct burial size 14. Use 3M-DBY waterproof wire connectors at splices and locate all splices within valve boxes. Use white or gray color for common wire and other colors for all other wire. Each common wire may serve only one controller.  
 C. Add two extra control wires from panel to valves for use if a wire fails and mark it in the control box as extra wires. These wires shall be of a different color than the others.
- 2.4 VALVES:  
 A. Electric Valves:  
 1. Make and model shown on Drawings.  
 B. Gate valves:  
 1. Bronze construction, angle type, 150 pound class, threaded connections, with cross-type operating handle designed to receive operating key.  
 C. Automatic Controller:  
 1. Make and model shown on Drawings.  
 D. Backflow Preventor:  
 1. Make and model shown on Drawings.
- 2.5 VALVE ACCESSORIES:  
 A. Valve Boxes:  
 1. Ametek or Brooks rectangular heavy duty valve box with locking lid or Landscape Architect approved equal.  
 2. Do not install more than one (1) valve in a single box.  
 3. Valve boxes shall be large enough for easy removal or maintenance of valves.

## 3.0 EXECUTION:

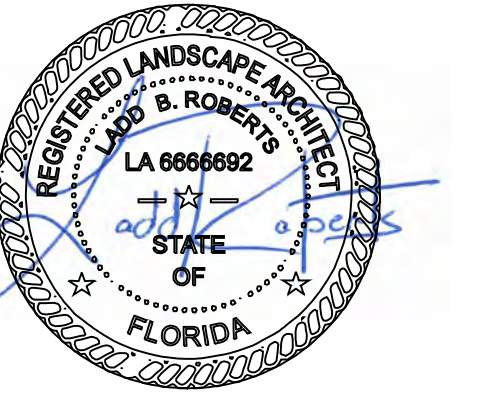
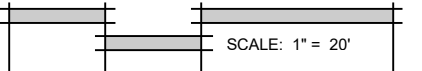
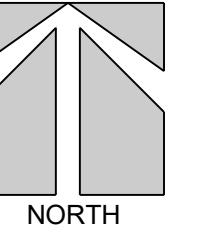
- 3.1 PREPARATION:  
 A. Protection:  
 1. Work of others damaged by this Section during course of its work shall be replaced or repaired by original installer at this Section's expense.
- 3.2 INSTALLATION:  
 A. Trenching and Backfilling:  
 1. Over-excavate trenches by two (2") inches and bring back to indicated depth by filling with fine, rock-free soil or sand.  
 2. Cover pipe both top and sides with two (2") inches of material specified in paragraph above. In no case shall there be less than two (2") inches of rock-free soil or sand surrounding pipe.

3. Do not cover pressure main, sprinkler pipe, or fittings until the Landscape Architect has inspected and approved system.
- B. Installation of Plastic Pipe:  
 1. Install plastic pipe in a manner to provide for expansion and contraction as recommended by Manufacturer.  
 2. Unless otherwise indicated on Drawings, install main lines with a minimum cover of eighteen (18") inches based on finish grade. Install lateral lines with a minimum cover of twelve (12") inches based on finish grade.  
 3. Install pipe and wires under driveways or parking areas in specified sleeves a minimum of eighteen (18") inches below finish grade or as shown on Drawings.  
 4. Locate no sprinkler head closer than twelve (12") inches from building foundation. Heads immediately adjacent to mowing strips, walks or curbs shall be one (1") inch below top of mowing strip, walk or curb and have a minimum of one (1") inch clearance between head and mowing strip, walk or curb.  
 5. Drawings show arrangement of piping. Should local conditions necessitate rearrangement, obtain approval of Landscape Architect prior to proceeding with work.  
 6. Cut plastic pipe square. Remove burrs at cut ends prior to installation so unobstructed flow will result.  
 7. Make solvent weld joints in the following manner:  
 a. Clean mating pipe and fitting with clean, dry cloth and apply one (1) coat of P-70 primer to each.  
 b. Apply uniform coat of 711 solvent to outside of pipe.  
 c. Apply solvent to fitting in similar manner.  
 d. Reapply a light coat of solvent to pipe and quickly insert into fitting.  
 e. Give pipe or fitting a quarter turn to insure even distribution of solvent and make sure pipe is inserted to full depth of fitting socket.  
 f. Hold in position for fifteen (15) seconds minimum or long enough to secure joint.  
 g. Wipe off solvent appearing on outer shoulder of fitting.  
 h. Do not use an excessive amount of solvent thereby causing an obstruction to form on the inside of pipe.  
 i. Allow joints to set at least 24 hours before applying pressure to PVC pipe.  
 8. Tape threaded connection with teflon tape.  
 9. Install concrete thrust blocks wherever change of direction occurs a PVC main pressure lines unless otherwise detailed on Drawings.
- C. Control Valves and Controller:  
 1. Install controller, control wires, and valves in accordance with Manufacturer's recommendations and according to applicable electrical code.  
 2. Install valves in plastic boxes with reinforced heavy duty plastic covers. Locate valve box tops at finish grade.  
 3. Install remote control valves in valve boxes positioned over valve so all parts of valve can be reached for service. Set cover of valve box even with finish grade.  
 4. Install all valve boxes over nine (9") inches of gravel for drainage.
- D. Sprinkler Heads:  
 1. Prior to the installation of sprinkler heads, open control valves and use full head of water to flush out system.  
 2. Set sprinkler heads perpendicular to finish grade.  
 3. Set lawn sprinkler heads adjacent to existing walks, curbs, and other paved areas to grade.
- 3.3 FIELD QUALITY CONTROL:  
 A. Flushing and Testing:  
 1. Test pressure lines at a minimum sustained pressure of 100 psi for two (2) hours. Pressure shall not drop below 95 psi during the two hour test. Notify Landscape Architect 24 hours prior to test. Do not backfill lines until approved by Landscape Architect.
- 3.4 ADJUSTMENT AND CLEANING:  
 A. Adjust heads to proper grade when turf is sufficiently established to allow walking on it without appreciable harm. Such lowering or raising of heads shall be part of the original contract with no additional charge to the Owner.  
 B. Adjust sprinkler heads for proper distribution and trim to ensure spray does not fall on building.  
 C. Adjust watering time of valves to provide proper amounts of water to all plants.
- 3.5 DEMONSTRATION:  
 A. After system is installed and approved, instruct Owners Representative in complete operation and maintenance.

END OF SECTION

**100% IRRIGATION COVERAGE SHALL BE PROVIDED TO ALL LANDSCAPE AND TURF AREAS.**

**KEYS  
OVERNIGHT  
TEMPORARY  
HOUSING**  
 5537 COLLEGE ROAD  
 STOCK ISLAND, FL 33040



100% CONSTRUCTION DOCUMENTS

IRRIGATION SPECIFICATIONS

DATE: 9.30.22

REVISIONS:

| No. | Date    | Notes                       |
|-----|---------|-----------------------------|
| 1.  | 11.3.22 | minor base revisions        |
| 2.  | 1.18.23 | changed mulch specification |
| 3.  |         |                             |
| 4.  |         |                             |
| 5.  |         |                             |
| 6.  |         |                             |
| 7.  |         |                             |

SHEET NUMBER:  
**L-8**

JOB #: 20005 DRAWN BY: LBR

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