

**RELOCATION NOTES:**

- All canopy trees designated as relocated on the plans, are to be root-pruned for a minimum of 3 months prior to the relocation process.
- The root ball size for each tree will depend on the caliper of the individual tree to be relocated. The size of the root ball shall be adequate to support & sustain the viability of the individual tree.
- All root cuts shall be "clean cuts", and the back fill material shall be well drained planting soils, or pre-approved equal. All road rock, and undesirable fill materials shall be removed from root-prune trench.
- Temporary irrigation shall be provided to all root-pruned trees during the root-pruning process, and after the tree's have been relocated to their location for a minimum of 4 months, or as necessary to insure their survivability.
- The canopies of all trees shall be reduced by a minimum of 20% at time of root pruning.
- All trees shall be relocated with machinery (i.e., crane, front-end loader, tree spade, or equal) capable of handling the material without damaging any portion of the tree. The Landscape Architect will pre-approve all methods utilized for the relocation process.
- All relocation work shall comply with the National Arborists Standards.

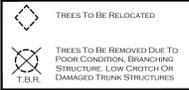
**REMOVAL NOTES:**

- All trees to be removed shall be completely removed from the site.
- The root systems, of the removals, shall be removed in such a manner to facilitate the installation of new trees, or palms. Root system removal shall be a minimum of 24" depth, and a 6 foot diameter around the trunk.
- TREE REMOVAL PERMITS WILL BE REQUIRED BY THE GOVERNING MUNICIPALITY, AND IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO OBTAIN ALL NECESSARY PERMITS.

ALL UNDERGROUND UTILITIES SHALL BE LOCATED PRIOR TO COMMENCING ANY WORK ON THE SITE, PER FLORIDA LAW.

New Materials To conform to City Of Delray Beach Requirements. All Tree Replacements Shall Also Replace Said Tree's Caliper Inches So As To Maintain Caliper Sizes. All Tree Replacements Shall Be Florida #1 Grade.

See Sheet L2 For Material Locations.



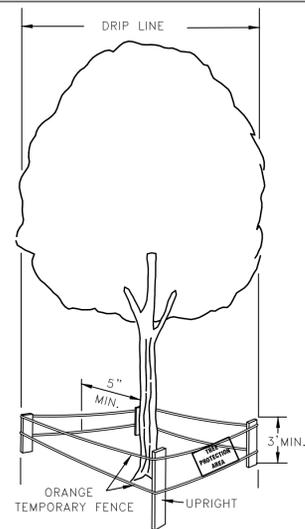
**NOTE:**  
Remove All Exotic Nuisance Species, Including But Not Limited To (Fl. Holly, Australian Pine, Melaleuca, etc.) Per State and Local Zoning & Landscape Code(s).

**EXISTING TREE LIST**

TREE #	SPECIES	SIZE	DISPOSITION
1	Sabal Palm	16' - 20' o.a.	To be Relocated
2	Sabal Palm	16' - 20' o.a.	To be Relocated
3	Sabal Palm	16' - 20' o.a.	To be Relocated
4	Sabal Palm	16' - 20' o.a.	To be Relocated
5	Sabal Palm	16' - 20' o.a.	To be Relocated
6	Sabal Palm	16' - 20' o.a.	To be Relocated
7	Sabal Palm	16' - 20' o.a.	To be Relocated
8	Sabal Palm	16' - 20' o.a.	To be Relocated

**NOTE:**  
Remove All Exotic Nuisance Species, Including But Not Limited To (Fl. Holly, Australian Pine, Melaleuca, etc.) Per State and Local Zoning & Landscape Code(s).

**NOTE:**  
All undeveloped portions of a parcel of land shall be left undisturbed or planted with ground cover, or lawn, as to leave no exposed soils in order to prevent dust or soil erosion, as per ULDR 47-21.9.M



**NOTES:**

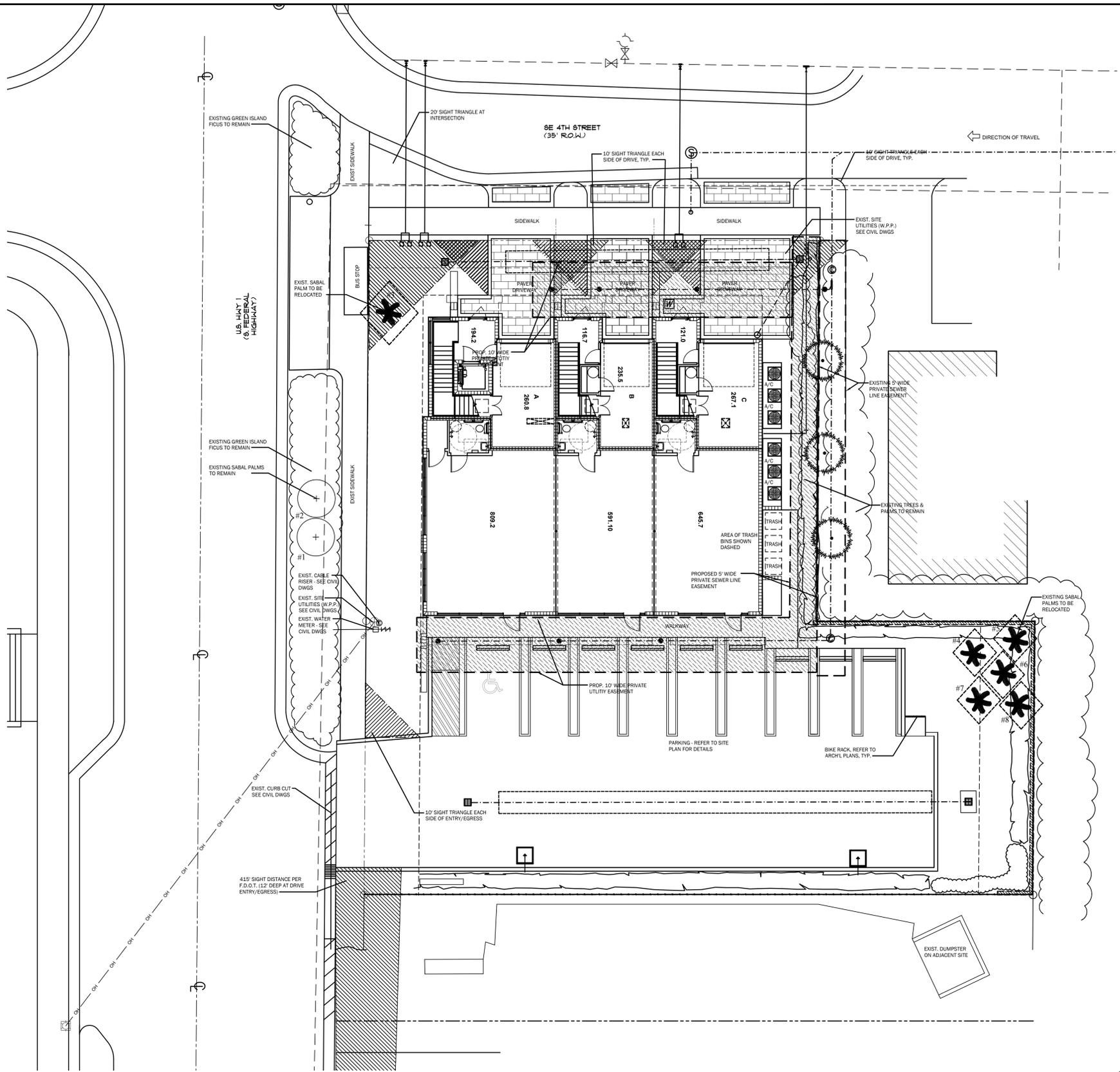
- NO HEAVY EQUIPMENT ALLOWED INSIDE BARRIER, ONLY HAND LABOR
- NO CONSTRUCTION MATERIALS OR TEMPORARY SOIL DEPOSITS ALLOWED INSIDE THIS AREA

BY OBSERVING THESE TWO SIMPLE PRINCIPLES, A TREES' CHANCE FOR SURVIVAL IS GREATLY ENHANCED

**SPECIFICATIONS FOR WOOD BARRIER**

- MINIMUM RADIUS TO BE PROTECTED IS ENTIRE DRIP LINE
- MINIMUM 3' IN HEIGHT
- UPRIGHTS- THE EQUIVALENT OF 2"x4" LUMBER ON 6" MINIMUM CENTERS
- HORIZONTAL- ORANGE TEMPORARY FENCING ATTACH "TREE PROTECTION AREA" SIGNS EVERY 30' O.C. AND MIN. 1 PER SIDE
- BARRIERS TO BE ERECTED AROUND TREES TO REMAIN BEFORE CONSTRUCTION OR NEARBY TREES ARE REMOVED
- BARRIERS TO REMAIN IN PLACE UNTIL ALL PAVING, CONSTRUCTION AND HEAVY EQUIPMENT IS OUT OF AREA

**NOTE:**  
BARRIER MUST BE ERECTED PRIOR TO CONSTRUCTION



Existing Conditions Plan

REVISIONS	BY
10/9/18 Revised per Arch'l Site Plan	TE
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3/13/19 Revised per Site Plan-Sight Triangle	TE
3/19/19 Revised per Site Plan-Sight Triangle	SP

DESIGNED BY:  
**CARTER & ASSOCIATES**  
**LANDSCAPE ARCHITECTS INC.**  
74 N.E. 5th Ave. Delray Beach, FL 33483  
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Landscape & Irrigation Plans for:  
**405 South**  
405 SE 6th Avenue  
Delray Beach, Florida

DRAWN	TE
CHECKED	D.H.C.
DATE	04.28.17
SCALE	1" = 10'-0"
JOB NO.	41717
SHEET	

**MATERIAL SCHEDULE:**

Qty.	Key	Botanical / common name	Size
5	Cet*	Conocarpus erectus / Green Buttonwood Tree	16 x 7', 7' c.t., matching
8	Cest*	Conocarpus E. Serecius / Silver Buttonwood Tree	14' x 6', 7' c.t.
6	Sp-R*	Sabal Palm - Relocated	16'-20' o.a.
1	Bst-16	Bursera Simaruba / Gumbo Limbo Tree	16' x 8', 7' c.t.
4	Lit-S	Lysiloma Latisia, / Sabcicu Tree	12' x 8', 6' c.t.
1	Pep-S	Phycosperma elegans / Alexander Palm	18' o.a., single trunk, matching
8	Rep-28*	Roystonea elata / Florida Royal Palm	10' gray wood, heavy calip., matching specimen
4	Fxtp-18	Woodyettia bifurcata / Fox Tail Palm	18' o.a., heavy calip., matching
9	Vmp-20	Veitchia Montgomeryana / Montgomery Palm	20' o.a., heavy calip., matching
6	Mff*	Myrcianthes fragrans / Simpson stopper tree	8-10' o.a.
24	Pm-7	Podocarpus makii / Yew	40"-42" ea. 7g. full to base
113	Gif*	Ficus microcarpa / Green Island Ficus	18' 3g. @ 15" o.c.
60	Cg-4*	Clusia guttifer / Small Leaf Clusia	42"-48" x 24" @ 4-1/2 ft. o.c.
25	Cg-7*	Clusia guttifer / Small Leaf Clusia	54" 3g. @ 4-1/2 ft. o.c.
30	D-Bf	Dianella tasmanica / Blue Flax Lily	15"-18" 3g. @ 18" o.c.
30	Hp-D*	Hamelia patens, dwf./ Dwf. Firebush	24" 3g. @ 24" o.c.
59	Jc-Bp	Juniperus chinensis / Blue Pacific	15" 3g. @ 18" o.c.
15	Mg*	Muhlenbergia capilaris / Muhly grass	15" 3g. @ 15" o.c.
4	B-I	Bromeliad Imperialis	24" x 24"
cu. yd.	BRG	Brown River Gravel on tyrap filter fabric	
5.5 cu. yd.	BMR	Black Mexican Rock on tyrap filter fabric	

Planting soils, see notes & specs.  
Mulch, see notes & specs.  
Sod, Floratam

\* - Denotes native, or highly drought tolerant plant materials, per SFWMD, "Xeriscape Manual".

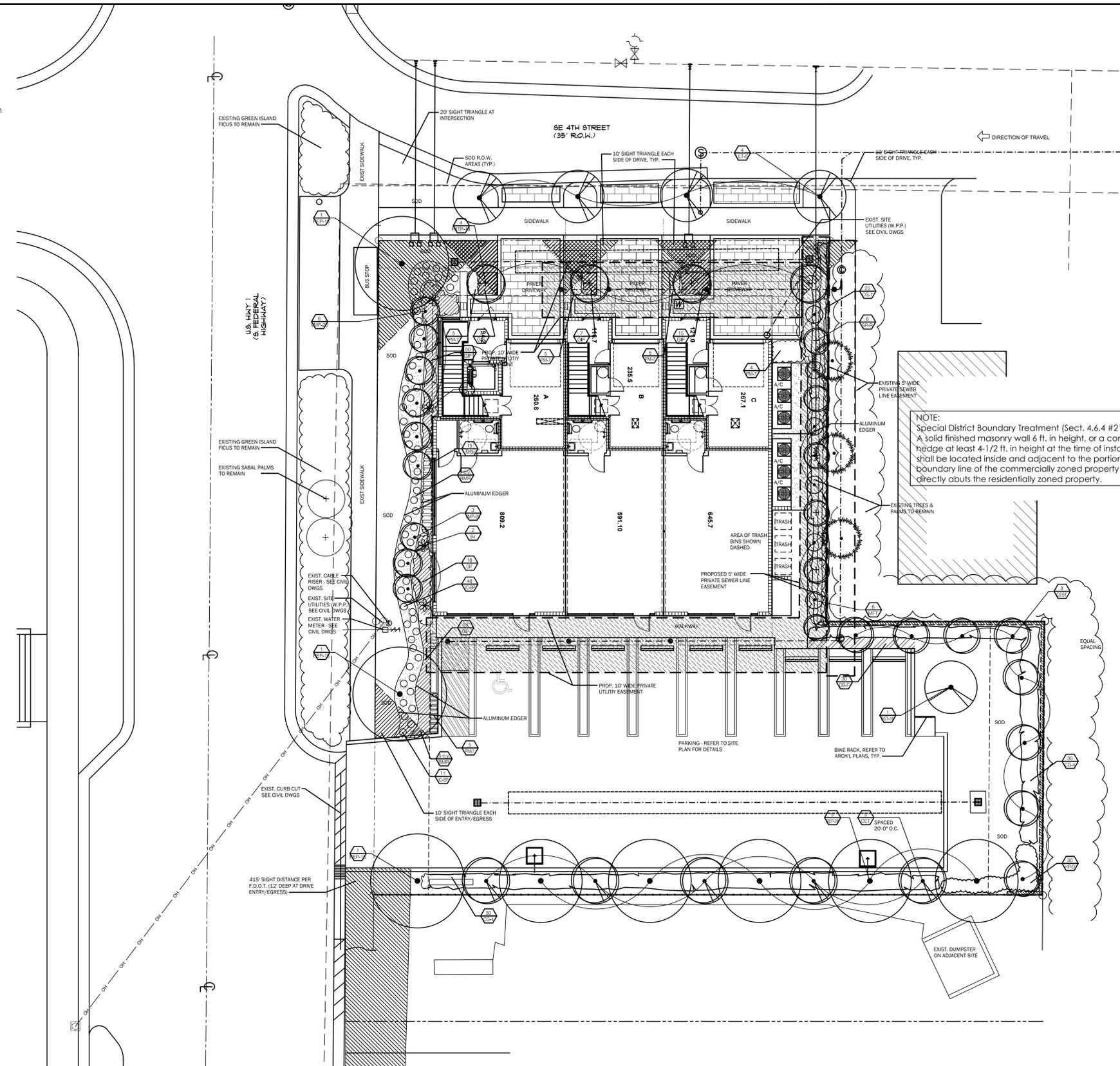
**LANDSCAPE CALCULATION TABLE:**

**SITE DATA**

A. TOTAL LOT AREA	11,871.0 SQ.FT.
B. TOTAL PAVED IMPERVIOUS AREA	6,404.82 SQ.FT.
C. REQ'D INTERIOR GREENSPACE (10% TOTAL PAVED AREA)	640.48 SQ.FT.
D. INTERIOR GREENSPACE PROVIDED	3,031.40 SQ.FT.
E. TOTAL # OF TREES REQ'D (1 PER 125 SQ.FT. OF REQ'D GREENSPACE)	24 TREES
F. NUMBER OF INTERIOR TREES PROVIDED	25 TREES
G. PERIMETER GREENSPACE REQ'D (DEPTH OF BUFFER X LENGTH)	1,990.85 SQ.FT.
H. NUMBER OF PERIMETER TREES REQ'D (1 PER 30 LIN. FT.)	13 TREES
I. NUMBER OF PERIMETER TREES PROVIDED	27 TREES

**XERISCAPE CALCULATIONS**

A. REQ'D SHRUBS & GROUND COVERS (30% OF REQ'D INTERIOR & PERIMETER GREENSPACE)	789.39 SQ.FT.
B. SHRUBS & GROUND COVER PROVIDED	985.60 SQ.FT.
C. REQ'D NATIVE PLANT MATERIALS (25% OF REQ'D SHRUBS & GROUND COVERS)	197.00 SQ.FT.
D. NATIVE PLANT MATERIALS PROVIDED	985.60 SQ.FT.
E. NUMBER OF NATIVE TREES REQ'D (50% OF REQ'D TREES)	19 TREES
F. NUMBER OF NATIVE TREES PROVIDED	27 TREES



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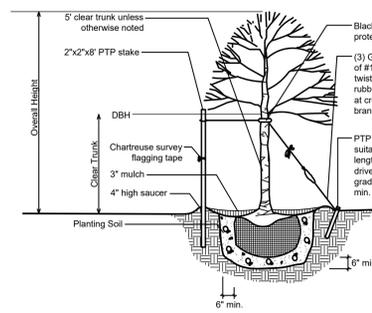
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**L-2**  
OF 4 SHEETS

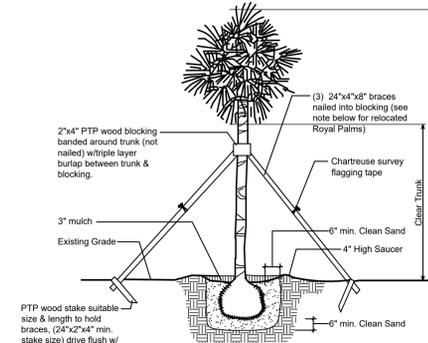
Landscape Plan

**GENERAL LANDSCAPE NOTES:**

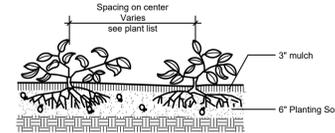
1. All plant material shall be F1, #1, or better, as per the latest addition of F1, Grades & standards. All "specimen" quality materials shall be F1, #1, or better, and shall be pre-approved by the Landscape Architect.
2. All plant materials shall be true to name & size, as per F1, Grades & Standards. Plant materials which do not meet, or exceed these standards will not be accepted.
3. Quantities, sizes, and locations of plants will be determined by the plan and material schedule. Sizes of the specified plants shall take precedence over the container size. Spacing of the ground covers will be determined by the material schedule. Quantities shown on the material schedule are to be used as a guideline. The landscape contractor shall be responsible for the actual quantities shown on the plan. The plans will take precedence over the material schedule. Discrepancies shall be brought to the attention of the Landscape Architect, prior to commencing.
4. No substitutions shall be accepted without the Landscape Architect's written approval. All substitution requests shall be made in writing.
5. Planting soils shall be clean, sterile, and free of debris. Soil shall consist of 50% FI, muck % 50% clean sand. Tree's shall be installed with a minimum of 6" on sides & bottom of root balls. Shrubs, plants & ground covers shall be installed with a minimum of 6" on sides & bottom of root balls. Rooted cuttings shall be installed with a minimum of 4" of planting soils worked into the top 6" of the existing soils. Sabal palms and Phoenix specie shall be installed with a clean well drained sand.
6. Milarganite, or equal, fertilizer shall be applied to all plantings, per manufactures recommendations. In addition, "Agriform" tablets (20-10-5) shall also be applied to all plants 1 gal., and above, per manufactures recommendations.
7. All tree's & palms shall be mulched with a 3ft. diameter circle, 3" minimum depth. All planting beds shall receive 3" finished depth, mulch upon completion of planting process. Mulch shall "Eucalyptus", or approved equal. NO CYPRESS MULCH SHALL BE UTILIZED ON THE PROJECT.
8. All plants shall be planted at soil levels which they were previously grown. Shrubs and hedges are to be planted 2ft. away from any wall, or structures. Materials with a six greater than overhangs shall be planted so as not to impede the natural growth habit of the plant.
9. All materials are to be watered-in immediately after planting, so as to remove all air pockets. BIB materials area to be hand-watered for a minimum of 1 week after installation, and there-after as required. Contractor shall advise the owner of any additional hand-watering requirements.
10. All tree's 8ft., or larger, are to be staked, or guyed, to provide ample support such that materials remain straight & true in an up-right position through the guarantee period. Staking & guying shall be performed at the option of the landscape contractor, except where required by code. However, the landscape contractor shall be responsible for all tree's & palms remaining straight & true through the guarantee period. In the event that a material shifts after it has been properly staked, or guyed, the landscape contractor shall not be held responsible.
11. All sod shall be "Floritam", unless otherwise specified. Sod shall be dense, green, well-rooted, and free of debris, weeds, disease, or insects. A complete 6-6-6 fertilizer shall be applied at a rate of 10lbs. per 1,000sq.ft.. Sod is to be watered to a depth of 3" immediately after installation. Grades are to be raked smooth, and all debris removed, prior to installation.
12. All tree's, plants & ground-covers shall be guaranteed for a period of 120 days, and all palms are for a period of one year, after the date of substantial completion. Phoenix canariensis & dactylifera palms are to be maintained, per growers/suppliers recommendations, by a qualified person, or firm. Said maintenance program shall be the responsibility of the owner. The landscape invoice will be deemed as rejection of the plant materials. The landscape contractor shall remove any, or all of the rejected materials from the site as their discretion.
14. The removal of "base rock" is not included in the landscape contract.
15. All grades are to be within 2" of finished grades, prior to the landscape contractor commencing work.



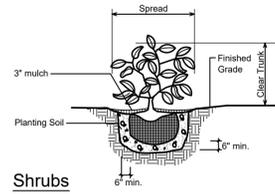
**Trees**



**Straight Trunk Palms**

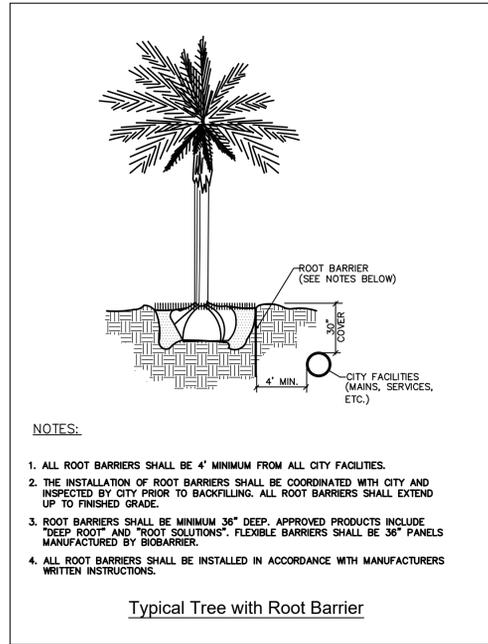


**Groundcovers**



**Shrubs**

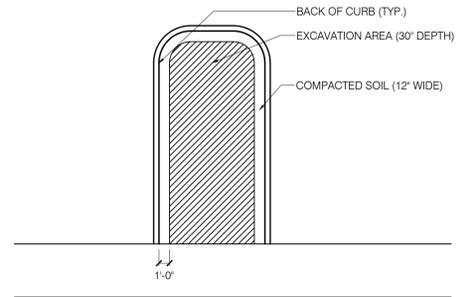
**Note:**  
All Above Ground Mechanical Equipment Such As, But Not Limited To, Exterior Utility Boxes, Meters, And Transformers Shall Be Depicted On All Plans And Shall Be Visually Screened, Backflow Preventers Shall Be Painted To Match Principle Structure.



- NOTES:**
1. ALL ROOT BARRIERS SHALL BE 4' MINIMUM FROM ALL CITY FACILITIES.
  2. THE INSTALLATION OF ROOT BARRIERS SHALL BE COORDINATED WITH CITY AND INSPECTED BY CITY PRIOR TO BACKFILLING. ALL ROOT BARRIERS SHALL EXTEND UP TO FINISHED GRADE.
  3. ROOT BARRIERS SHALL BE MINIMUM 36" DEEP. APPROVED PRODUCTS INCLUDE "DEEP ROOT" AND "ROOT SOLUTIONS". FLEXIBLE BARRIERS SHALL BE 36" PANELS MANUFACTURED BY BIOBARRIER.
  4. ALL ROOT BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

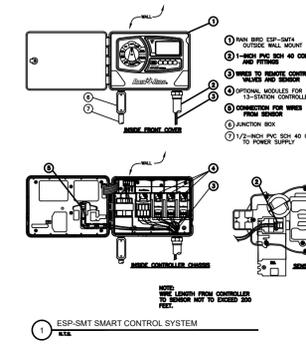
**Typical Tree with Root Barrier**

Any Trees or shrubs placed within water, sewer or drainage easements shall conform to this Standard Detail

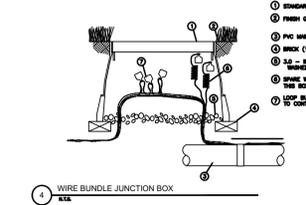


**Vehicular Use Landscape Strip Excavation Detail**

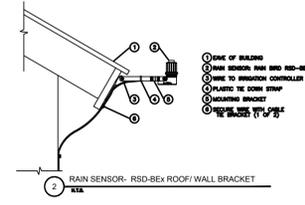
**NOTE:**  
Existing native soil within all landscape islands, interior landscape strips and perimeter landscape strips, adjacent to vehicular use areas, shall be excavated down to a depth of thirty (30) inches below existing grade, except for a 12" buffer from the inside of curb or pavement [see detail]. A suitable planting soil mixture of fifty/fifty (50/50), sixty/forty (60/40) (sand / planting soil) shall either be backfilled in place of the native soil or efficiently mixed with the native soil to create an optimum environment for successful root development. If the native soil is to be mixed, it shall first be screened to remove rocks and debris larger than one-half (1/2) inch in diameter prior to mixing. All properties under this section shall be required to have an open landscape bed inspection prior to backfilling to insure the thirty (30) inch depth has been met.



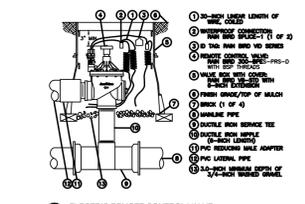
**1 ESP-SMT SMART CONTROL SYSTEM**



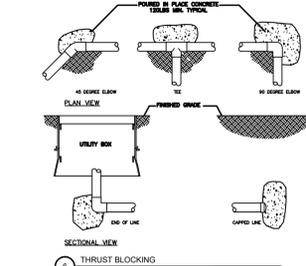
**4 WIRE BUNDLE JUNCTION BOX**



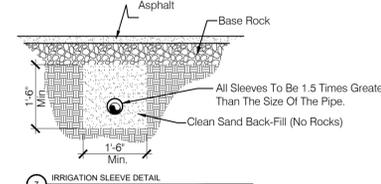
**2 RAIN SENSOR - RSD-BEX ROOF/WALL BRACKET**



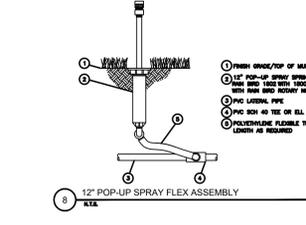
**3 ELECTRIC REMOTE CONTROL VALVE**



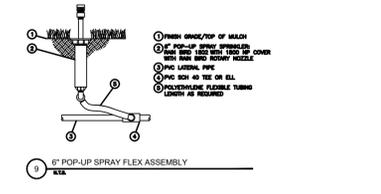
**6 THRUST BLOCKING**



**7 IRRIGATION SLEEVE DETAIL**



**8 12" POP-UP SPRAY FLEX ASSEMBLY**



**9 6" POP-UP SPRAY FLEX ASSEMBLY**

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**IRRIGATION LEGEND**

- Rain bird 6 & 12 Pop-up 1800 Series w/PCP pattern as shown
- ▲ Irritrol Valve
- Rain bird Controller ESP Series/ Mini Click Rain Sensor
- Water Source: Existing City Water Meter (contractor to field verify size and location)

NOTE: Main Line [Typ.] & valve locations are shown for graphic clarity only. All Main Line [Typ.]s & valves are to be located within landscape area's on-site.

**IRRIGATION NOTES:**

**Notes:**  
Automatic Irrigation System  
Water demand/ zone  
Pressure required (refer to plan)

**GENERAL**

System shall be installed in accordance with a Federal, State, and local codes, Contract drawings and Contract Specifications.  
Irrigation design is based on "Planting Plan" dated 3/19/19  
Contractor shall refer to this plan to coordinate sprinkler locations and pipe routing with plant locations.  
The water source for this system shall be the Existing City Water Meter.  
The master shut-off valve shall be activated via the automatic controller, and shall be used to depressurize the zone lines when the system is not operational.  
Contractor shall adjust the irrigation, where noted on the plans for actual field conditions, and shall install the system in accordance with South Florida Irrigation Society Standards and specifications.

To insure proper operation of this system, pump size, pressure required, pipe and wire sizes, sprinkler spacing, installation details, and specifications shall be followed as shown on the drawings and in the specifications.

Irrigation system shall provide 100% coverage, with a 50% overlap minimum, utilizing "rust-free" water source. If a well & pump system is to be utilized, the contractor shall provide a "chemical injection system" to inhibit rust stains, if water sample testing indicates that there will be "rust" staining from the well water.

**PIPING**

Pipe routing is schematic only, and shall be field adjusted for on-site conditions. All pipe shall be installed in accordance with local codes, and per manufactures recommendations.  
Pipe routed under paver surfaces, and through planter walls shall be sleeved in SCH 40 PVC. Sleeves shall be of adequate size to allow for 1/2" clearance for pipe & wire. Contractor shall verify the location, depth & size of all existing sleeves, as required.  
Pipe installed above grade for the backflow preventer shall be SCH 40 Galvanized pipe. All other piping shall be PVC. The Main Line [Typ.] shall be SCH 40 PVC, laterals sized from 1" to 2" shall be SDR 26, Class 160, and laterals sized from 1" to 3/4" shall be SDR 21, Class 200 PVC pipe.  
Pipe shall be installed so the backfill depths are maintained at 18", for Main Line [Typ.]s and all lateral lines routed beneath pavement, and at 12" for all other lines. The depths from 1" to 2" shall be SDR 26, Class 160, and laterals sized from 1" to 3/4" shall be SDR 21, Class 200 PVC pipe, are to be taken from finished grades.  
Backfill material shall be suitable material, free of rocks, stones, or other debris that could damage components of the irrigation system.

**SPRINKLERS**

Sprinkler locations are schematic only, and shall be adjusted for wind, landscape materials, hardscape elements, etc., to provide 100% coverage with a no overthrow onto paved surfaces, or building facades.  
Pop-up spray heads shall be Toro series 6", and 12" type, which are to be installed on flexible swing joints of Toro thick-walled poly pipe with 1/2" insert elbows. THERE SHALL BE NO 4" POP-UP HEADS UTILIZED FOR THE PROJECT.  
Shrub heads shall be installed at a uniform height of 6" above the plantings, and are to be located within planting masses so as to be concealed from view.  
Shrub type spray heads shall be Toro 570 series, and are to be installed on a 1/2" SCH 40 PVC risers.  
Bubblers are to be installed on a SCH 40 PVC risers at the base of the plant material, for low-level watering.  
All SCH 40 PVC risers are to be painted "Forest green", or Brown, to be less conspicuous.  
Toro 12" pop-up sprinklers shall be installed in ground-cover areas at the parking-lot islands, and at other critical locations, as determined in the field by the Landscape Architect.

Sprinklers located adjacent to pavement, sidewalks, decks, patios, buildings, etc., shall be installed 8" from the edge. Unless otherwise noted on the plans, pop-up sprinklers shall be installed 6" from the edge, and shrub sprinklers shall be installed 18" from the edge. Shrub risers are not to be installed at walk-way intersections, or where-ever a "trip & fall" hazard may occur.  
Adjustment feature of sprinklers specified shall be utilized to insure proper coverage, while minimizing undesirable overthrow.  
Contractor shall use precaution in locating, and setting sprinkler heads in planting areas adjacent to parking spaces to minimize the damage to sprinklers be overhanging car bumpers.

Pop-up sprinklers with "low angle" nozzles shall be installed amid masses of tall shrubs, for low level watering. Contractor shall install sprinklers at optimum locations for the most effective coverage.

**CONTROL SYSTEM**

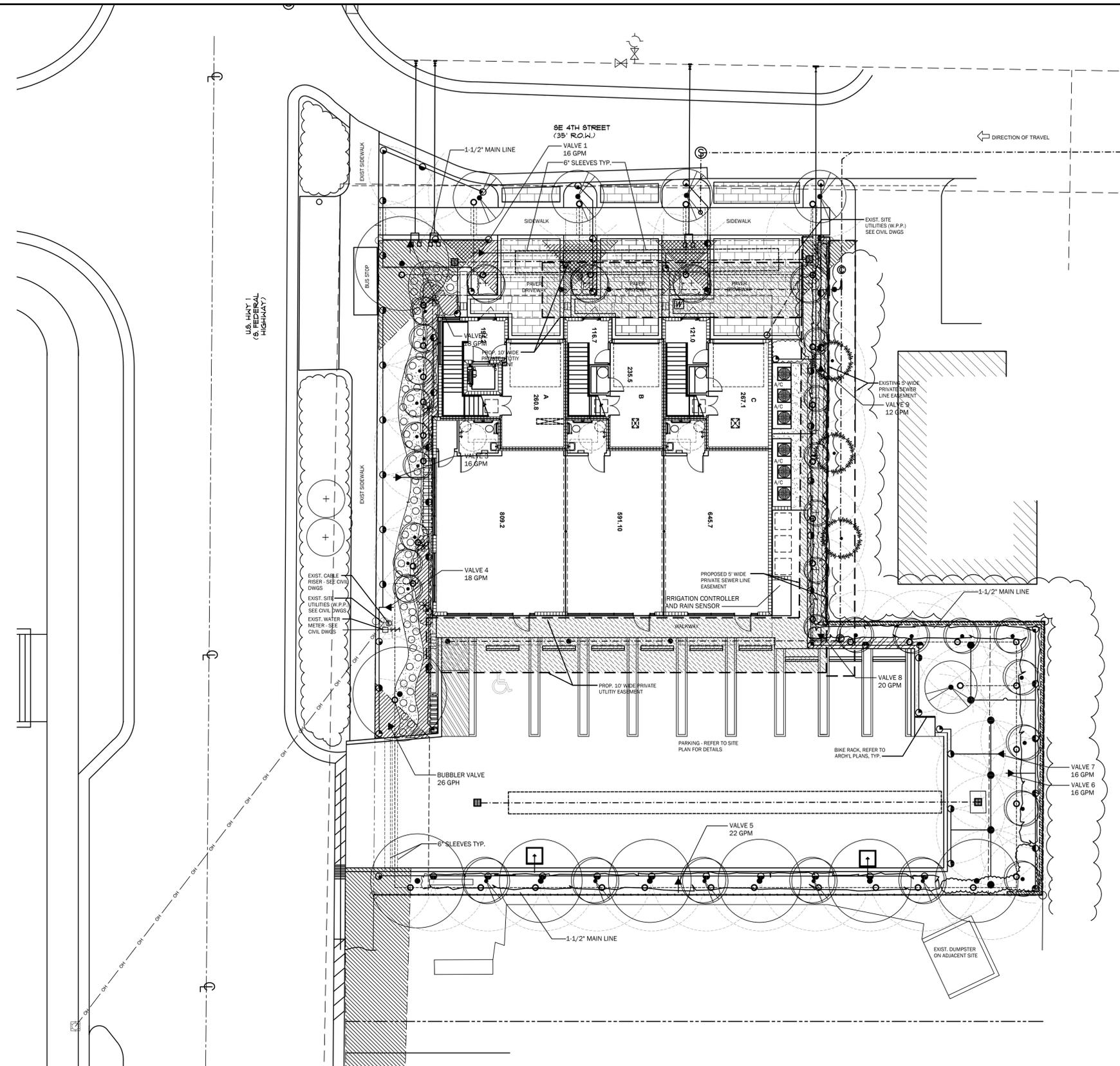
Rainbird control system shall be installed, per manufactures recommendations, to activate in-line valves, and the master shut-off valve.  
Proper grounding equipment shall be installed, for the controller.  
Controller location shall be approved by the Landscape Architect, and project supervisor.  
The irrigation contractor shall supply the controller, however the physical installation there-of, and the electrical hook-up shall be by others.

**VALVES**

IRRITROL, or approved equal, electric valves shall be installed per manufactures recommendations, and as per details. All valves are to be installed in a 10" Ametex valve box, see details.

**RAIN SENSOR**

Mini-click rain sensor shall be installed, per manufactures recommendations. Rain sensor location shall be approved by the Landscape Architect.



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Landscape & Irrigation Plans for:  
**405 South**  
405 SE 6th Avenue  
Delray Beach, Florida

DRAWN	TE
CHECKED	D.H.C.
DATE	04.28.17
SCALE	1" = 10'-0"
JOB NO.	41717
SHEET	

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