

Conklin Car Wash

Landscape Plan

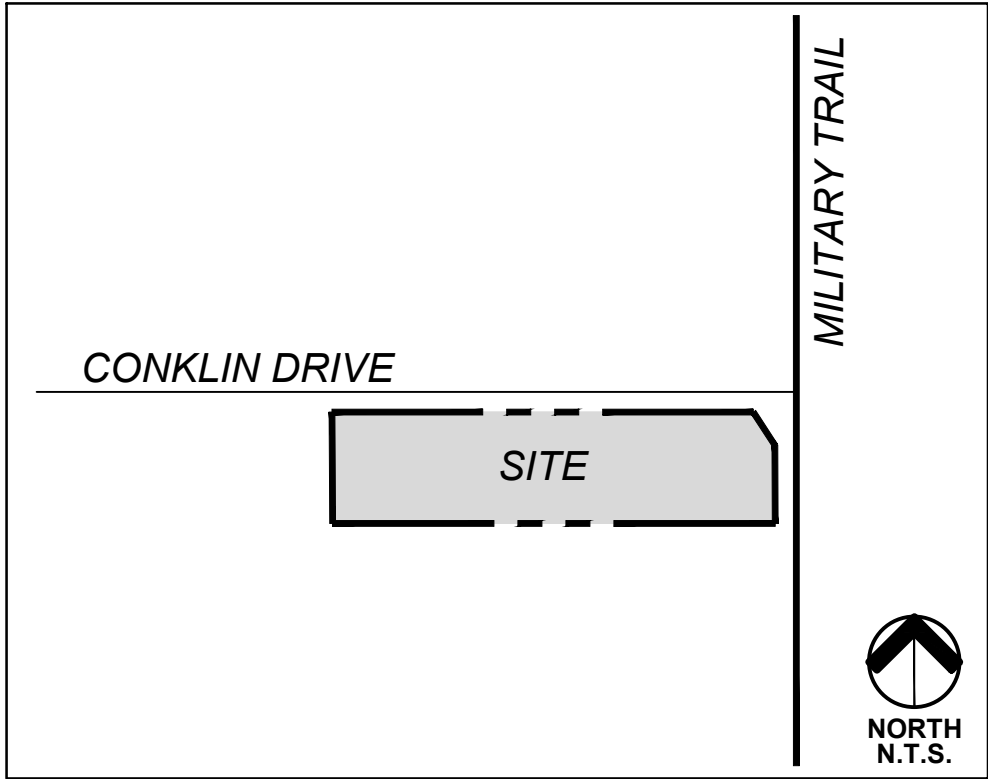
City of Delray Beach, Florida

NOTE: These Landscape Plans have been prepared to satisfy City of Delray Beach zoning requirements and to conceptually reflect landscape requirements for the site. They are not to be utilized for construction drawings until final engineering and architectural plans are available. These drawings are not to be used for Building Permit application until these plans are finalized.

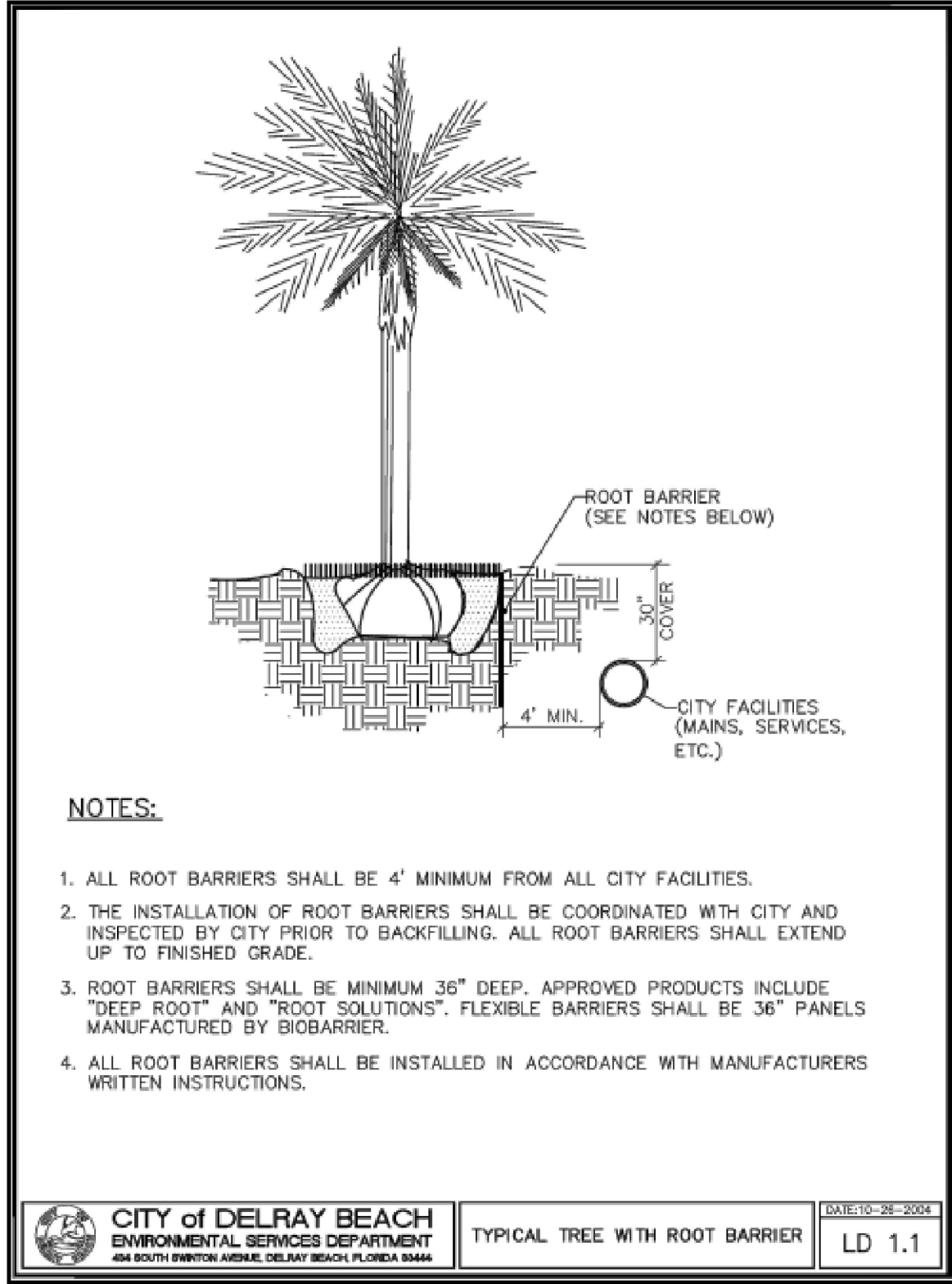
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LOCATION MAP



CITY OF DELRAY BEACH STANDARD ROOT BARRIER DETAILS



NOTES:

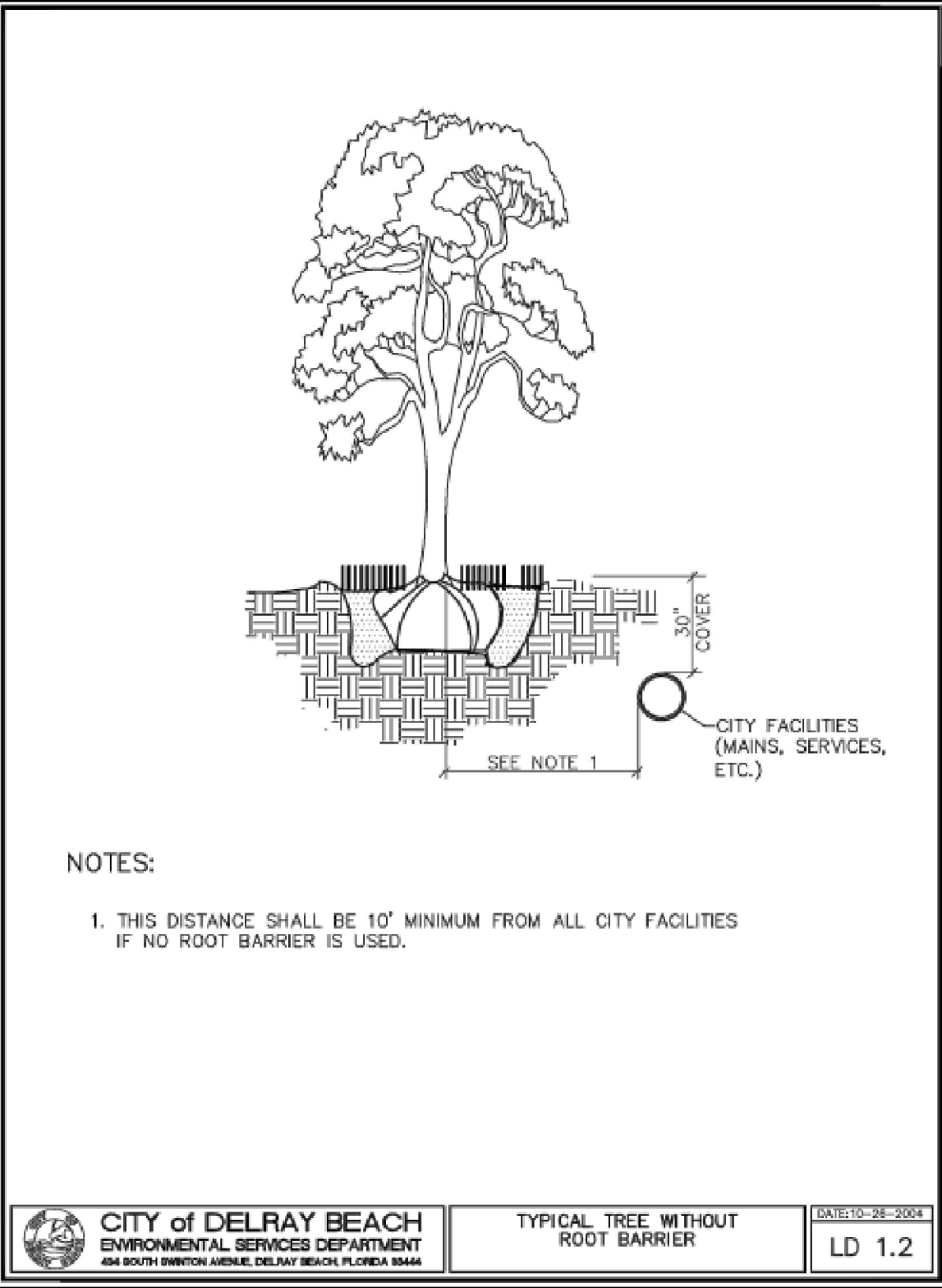
- ALL ROOT BARRIERS SHALL BE 4" MINIMUM FROM ALL CITY FACILITIES.
- THE INSTALLATION OF ROOT BARRIERS SHALL BE COORDINATED WITH CITY AND INSPECTED BY CITY PRIOR TO BACKFILLING. ALL ROOT BARRIERS SHALL EXTEND UP TO FINISHED GRADE.
- ROOT BARRIERS SHALL BE MINIMUM 36" DEEP. APPROVED PRODUCTS INCLUDE "DEEP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



CITY of DELRAY BEACH
ENVIRONMENTAL SERVICES DEPARTMENT
600 NORTH WINTHROP AVENUE, DELRAY BEACH, FLORIDA 33484

TYPICAL TREE WITH ROOT BARRIER

DATE: 02-28-2024
LD 1.1



NOTES:

- THIS DISTANCE SHALL BE 10" MINIMUM FROM ALL CITY FACILITIES IF NO ROOT BARRIER IS USED.



CITY of DELRAY BEACH
ENVIRONMENTAL SERVICES DEPARTMENT
600 NORTH WINTHROP AVENUE, DELRAY BEACH, FLORIDA 33484

TYPICAL TREE WITHOUT
ROOT BARRIER

DATE: 02-28-2024
LD 1.2

PLANT SCHEDULE

- DROUGHT TOLERANT RATING BASED UPON SFWMD WATERWISE PUBLICATION - SOUTH FLORIDA EDITION.
- ALL PLANT MATERIAL SPECIFICATIONS AND CONTAINER SIZES LISTED IN THE PROJECT PLANT SCHEDULE ARE REQUIRED MINIMUMS. CONTRACTOR MAY EXCEED THE REQUIRED MINIMUM SPECIFICATION AND CONTAINER SIZE BASED ON MATERIAL AVAILABILITY.
- ALL PLANT MATERIAL SHALL MEET AND ADHERE TO LATEST EDITION OF FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS. ALL PLANT MATERIAL SHALL BE FLORIDA # 1 OR BETTER.THE LANDSCAPE ARCHITECT OR OWNER/OWNER'S REPRESENTATIVE HAVE THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING THESE STANDARDS.
- QUANTITIES ON PLANT SCHEDULE ARE FOR CONVENIENCE ONLY. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL PLANTS SHOWN ON LANDSCAPE PLANS.

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	NATIVE	DROUGHT TOLERANT
TREES					
	CO	8	Conocarpus erectus / Green Buttonwood Min. 16" Ht. x 7" Spr., 3" DBH., 8' C.T., Single Straight Trunk, Full Canopy	Yes	Very
	EF	14	Eugenia foetida / Spanish Stopper 16" Ht. x 7" Spr., 3" DBH., 8' C.T., Single Straight Trunk, Full Canopy	No	Very
	LI	7	Lagerstroemia 'Natchez' / Crape Myrtle 16" Ht. x 7" Spr., 3" DBH., 8' C.T., Single Straight Trunk, Full Canopy	No	Very
	QV	3	Quercus virginiana / Southern Live Oak 16" Ht. x 7" Spr., 3" DBH., 8' C.T., Single Straight Trunk, Full Canopy	Yes	Very
	TH	3	Tabebuia heterophylla / Pink Tabebuia 16" Ht. x 7" Spr., 3" DBH., 8' C.T., Single Straight Trunk, Full Canopy	No	Very
MITIGATION TREES					
	EF-M	5	Eugenia foetida / Spanish Stopper 16" Ht. x 7" Spr., 3" DBH., 8' C.T., Single Straight Trunk, Full Canopy	No	Very
PALM TREES					
	SP	9	Sabal palmetto / Cabbage Palmetto 16" Ht. 8' C.T. Min., Single Straight Trunk, Hurricane Cut, No Scarred Trunks	Yes	Very
	VM	14	Veitchia montgomeryana / Montgomery Palm Min. 12' Ct. 16' O.A. Ht. Single Trunk, Full Head, No Scarred Trunks	No	Moderate
SHRUBS					
	CHR	467	Chrysobalanus icaco 'Red Tip' / Red Tip Cocoplum 24" Ht. 24" Spr. 24" O.C., Full and Dense Shrub, Full to Base	Yes	Very
	CLU	9	Clusia guttifera / Small Leaf Clusia 6' HT. x 3' SPR., 36" O.C., Full and Dense to Base	Yes	Yes
VINE					
	TRJ	8	Trachelospermum jasminoides / Chinese Star Jasmine 36" Ht Runners., 3" O.C., espalier to living green wall with stainless steel eye hooks,	No	Yes
SHRUB AREAS					
	COE	118	Conocarpus erectus / Green Buttonwood Min. 24" Ht. x 24" Spr. 24" O.C., Full and Dense Shrub, Full to Base	Yes	Very
	CON	105	Conocarpus erectus 'Sericeus' / Silver Buttonwood Min. 24" Ht. x 24" Spr. 24" O.C., Full and Dense Shrub, Full to Base	Yes	Very
	HAM	198	Hamelia patens / Firebush Min. 24" Ht. x 24" Spr. 30" O.C., Full and Dense Shrub, Full to Base	Yes	Very
	JAS	169	Jasminum volubile / Wax Jasmine Min. 24" Ht. x 24" Spr. 24" O.C., Full and Dense Shrub, Full to Base	No	Moderate
GROUND COVERS					
	ANN	197	Annuals / Seasonal Annuals Min. 4" Pots, Full Flowering When Installed, 12" O.C.	No	Moderate
	AGE	210	Arachis glabrata / Perennial Peanut 6" Ht. x 12" Spr., 18" O.C., Full to Edge of Pot	No	No
	ASP	15	Asparagus densiflorus 'Myers' / Myers Asparagus Min. 15" Ht. x 18" Spr., 24" O.C., Full and Dense Shrub, Full to Edge of Pot	No	Moderate
	FIG	56	Ficus microcarpa 'Green Island' / Green Island Indian Laurel Fig 18" Ht. x 18" Spr., 18" O.C., Full and Dense	No	
	PEN	73	Pentas lanceolata / Penta (pink) Min. 15" Ht. x 18" Spr., 24" O.C., Full and Dense Shrub, Full to Edge of Pot	No	Moderate
	TRA	1,025	Trachelospermum asiaticum 'Minima' / Minima Jasmine Min. 12" Ht. x 12" Spr. 12" O.C., Full and Dense Shrub, Full to Edge of Pot	No	Moderate
SOD AND MULCH					
	MULCH	7,955 sf	Shredded Melaleuca / Mulch Free of Foreign Materials and Weeds, Minimum Depth After Settling Shall be 3"; *Quantity to be Verified in the Field	N/A	N/A
	SOD	4,778	Stenotaphrum secundatum 'Floritam' / Floritam St. Augustine Sod Laid tightly and flat, sanded and rolled to provide a uniform flat lawn	No	Moderate

ROOT BARRIER
36" DEPTH MIN., INSTALLED PER MANUFACTURER'S SPECS.
(SEE DETAIL ON SHEET LA-1 AND LA-4)

GENERAL NOTES

- STREETSCAPE LANDSCAPE PLANS (STREET TREES AND PLANTINGS WITHIN ROW) ARE A SEPARATE DOCUMENT.
 - SEE ENGINEERING PLANS PREPARED BY OTHERS FOR CONFIGURATION, HEIGHT AND SLOPE OF BERMS.
 - DETAILING OF FOCAL POINTS AND HARDSCAPE ARE A SEPARATE DOCUMENT. SEE PLANS PREPARED BY OTHERS FOR THESE DETAILS.
- #### LANDSCAPE NOTES
- BASE INFORMATION OBTAINED FROM KEEN ENGINEERING DATED 09-04-2025.
 - ALL INVASIVE SPECIES WILL BE ERADICATED FROM SITE AS REQUIRED BY CODE.
 - ALL LANDSCAPE MATERIAL SHALL CONFORM TO THE MOST RECENT STANDARDS AS OUTLINED BY THE "GRADES AND STANDARDS FOR NURSERY PLANTS" PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. ALL PLANT MATERIAL SHALL BE FLORIDA #1 OR BETTER.
 - SIGHT TRIANGLES SHALL BE PROVIDED AND MAINTAINED BY OWNER CLEAR OF VEGETATION TO PROVIDE UNOBSTRUCTED VISIBILITY BETWEEN 30 INCHES AND 8 FEET ABOVE GRADE.
 - UTILITY EASEMENTS SHALL NOT ENCROACH INTO LANDSCAPE BUFFERS MORE THAN 5 FEET OR AS PERMITTED BY CODE.
 - FDOT TYPE "D" OR "F" CURB OR WHEEL STOPS TO BE PROVIDED ALONG ALL LANDSCAPE AREAS, INCLUDING DRIVE AISLES AND PARKING SPACES.
 - ALL INSTALLATION WORK SHALL BE CARRIED OUT IN A PROFESSIONAL MANNER IN ACCORDANCE WITH STANDARD NURSERY AND INSTALLATION PRACTICES.
 - ALL LANDSCAPE AREAS SHALL BE SODDED, MULCHED OR OTHERWISE COVERED WITH GROUND COVER PER THESE PLANS AS LABELED.
 - TREES SHOWN ON THIS PLAN ARE GRAPHIC REPRESENTATION ONLY. TREE SPACING IS BASED ON DESIGN REQUIREMENTS AND TREES SHOWN ON THESE PLANS ATTEMPT TO ACCOMPLISH THAT SPACING WHILE MAINTAINING THE REQUIRED SETBACKS FROM UTILITIES. TREES MAY BE FIELD ADJUSTED TO AVOID CONFLICTS WITH DRIVEWAYS AND UNDERGROUND UTILITIES.
 - CONTRACTOR TO COORDINATE PLANTING OPERATIONS WITH ALL UNDERGROUND UTILITY PROVIDERS AND CALL "SUNSHINE DIG" / 811 TO FLAG UTILITY LOCATIONS PRIOR TO COMMENCING PLANTING OPERATIONS FOR ANY PORTION OF THE SITE. IF "SUNSHINE DIG" / 811 DOES NOT LOCATE ALL UNDERGROUND UTILITIES ON-SITE, THE CONTRACTOR IS RESPONSIBLE FOR SECURING THESE SERVICES FROM A PRIVATE PROVIDER.
 - LANDSCAPE CONTRACTOR TO HAND DIG PLANTING HOLES FOR TREES AND/OR SHRUBS WITHIN FIVE (5) OF ALL FP&L EASEMENTS.
 - GROUND MOUNTED MECHANICAL EQUIPMENT TO BE SCREENED PER THESE PLANS INCLUDING AS-BUILT EQUIPMENT LOCATIONS AT TIME OF LANDSCAPE INSTALLATION. CONTRACTOR TO NOTIFY OWNER / OWNER'S REPRESENTATIVE OF ADDITIONAL REQUIRED PLANT MATERIAL QUANTITIES AT TIME OF LANDSCAPE INSTALLATION FOR ADDITIONAL MECHANICAL EQUIPMENT OR RELOCATED EQUIPMENT THAT MAY REQUIRE ADDITIONAL LANDSCAPE SCREENING.
 - PLANTINGS ADJACENT TO OVERHEAD LINES TO COMPLY WITH FP&L's "RIGHT TREE IN THE RIGHT PLACE" GUIDELINES FOR MINIMUM SEPARATIONS TO OVERHEAD LINES.

UTILITY SETBACK NOTES

- ALL SETBACK DIMENSIONS SHOWN ON THE PLANS ARE TO BE MET AT THE TIME OF INSTALLATION.
- TREES ARE TO BE INSTALLED WITH A TEN FOOT (10') SEPARATION FROM ANY WATER OR SEWER MAIN AND/OR SERVICE, HYDRANTS, AND LIFT STATIONS, OR WITH A MINIMUM SEVEN FOOT (7') SETBACK IF INSTALLED WITH A ROOT BARRIER SYSTEM. REFER TO THE "ROOT BARRIER" DETAIL ON THE PLANTING DETAILS SHEET FOR INSTALLATION REQUIREMENTS. HOWEVER IN NO CASE SHALL A TREE ENCROACH INTO A UE WITHOUT PRIOR UTILITY PROVIDER APPROVAL AND ONLY SOD CAN BE INSTALLED WITHIN 5' OF ANY WATER METER AND WITHIN 7.5' OF ANY FIRE HYDRANT UNLESS OTHERWISE APPROVED BY THE FIRE MARSHAL AND UTILITY PROVIDER.
- TREES ARE TO BE INSTALLED WITH A TEN FOOT (10') SEPARATION FROM ANY DRAINAGE OR STORM SEWER INFRASTRUCTURE, OR WITH A MINIMUM SEVEN FOOT (7') SETBACK IF INSTALLED WITH A ROOT BARRIER SYSTEM. REFER TO THE "ROOT BARRIER" ON THE PLANTING DETAILS SHEET FOR INSTALLATION REQUIREMENTS.
- WHERE REQUIRED, ROOT BARRIER TO BE INSTALLED WITH A MINIMUM 5' SEPARATION TO THE EDGE OF ALL UNDERGROUND UTILITIES AND INFRASTRUCTURE.
- TREES SHALL BE PLANTED WITH A MIN. 2' SEPARATION BETWEEN ANY ROOT BARRIER (MEASURED FROM THE CENTER OF THE TREE).

LANDSCAPE EXCAVATION & BACKFILL NOTES

- TREE AND SHRUB PLANTING BEDS WHICH FALL WITHIN OR NEAR ROADWAY AREAS SHALL BE COMPLETELY EXCAVATED AND BACK-FILLED WITH TOPSOIL. ALL SHELL-ROCK OR OTHER BASE MATERIALS, AND ALL SUBSOIL AND DEBRIS, SHALL BE COMPLETELY REMOVED FROM BENEATH SUCH PLANTING AREAS. TO A MINIMUM DEPTH OF 36". UPON COMPLETION OF EXCAVATION, LANDSCAPE ARCHITECT OR OWNER SHALL INSPECT THE EXCAVATED AREA PRIOR TO BACKFILLING WITH TOPSOIL.
- ALL TREE AND/OR SHRUB PLANTING AREAS WITHIN 8' OF BUILDING FOUNDATIONS, AND ANY OTHER PLANTING AREAS WHERE SIGNIFICANT BURIED CONSTRUCTION DEBRIS IS ENCOUNTERED, SHALL BE COMPLETELY EXCAVATED TO A MINIMUM DEPTH OF 36". UPON COMPLETION OF EXCAVATION, LANDSCAPE ARCHITECT OR OWNER SHALL INSPECT THE EXCAVATED AREA PRIOR TO BACKFILLING WITH TOPSOIL.

MULCH NOTES

- MULCH SHALL BE GRADE A PREMIUM NATURAL MULCH, OR APPROVED EQUAL, FREE OF FOREIGN MATERIALS AND WEED SEEDS. MINIMUM DEPTH AFTER SETTLING SHALL BE THREE (3") INCHES.

DEVELOPMENT TEAM

OWNER / APPLICANT:
FAZIO CONSULTING, LLC
50 LIBERTY DRIVE, SUITE 9F
BOSTON, FL 02110

LANDSCAPE ARCHITECT & PLANNER:

URBAN DESIGN STUDIO
610 CLEMATIS STREET, SUITE CU02
WEST PALM BEACH, FL 33401
(561) 366-1100

ARCHITECT:

A.23 STUDIOS
711 E. 9TH STREET
TUCSON, AZ 85719

SURVEYOR:

PERIMETER SURVEYING & MAPPING
947 CLINT MOORE ROAD
BOCA RATON, FL 33487
(561) 241-9988

TRAFFIC ENGINEER:

PINDER TROUTMAN CONSULTATING, INC.
601 HERITAGE DRIVE, SUITE 493
JUPITER, FL 33458
(561) 296-9698

CIVIL ENGINEER:

KEEN ENGINEERING INC.
7280 PALMETTO PARK RD., SUITE 105
BOCA RATON, FL 33433
(561) 325-6700

IRRIGATION:

PARKER YANETTE DESIGN GROUP, INC.
4425 MILITARY TRAIL, SUITE 202
JUPITER, FL 33458
(561) 747-5069



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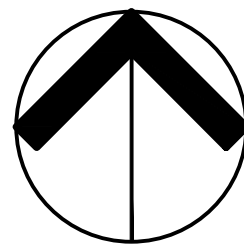
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Conklin Car Wash

14145 S. Military Trail

City of Delray Beach, Florida

Landscape Plan & Plant Schedule - Cover Sheet



NORTH

0 10' 20' 40'
Scale: 1" = 20'-0"

Date: JAN. 2025
Project No.: 24-054.000
Designed By: JEV/LMB
Drawn By: JEV/LMB
Checked By: AV/RD

Revision Dates:

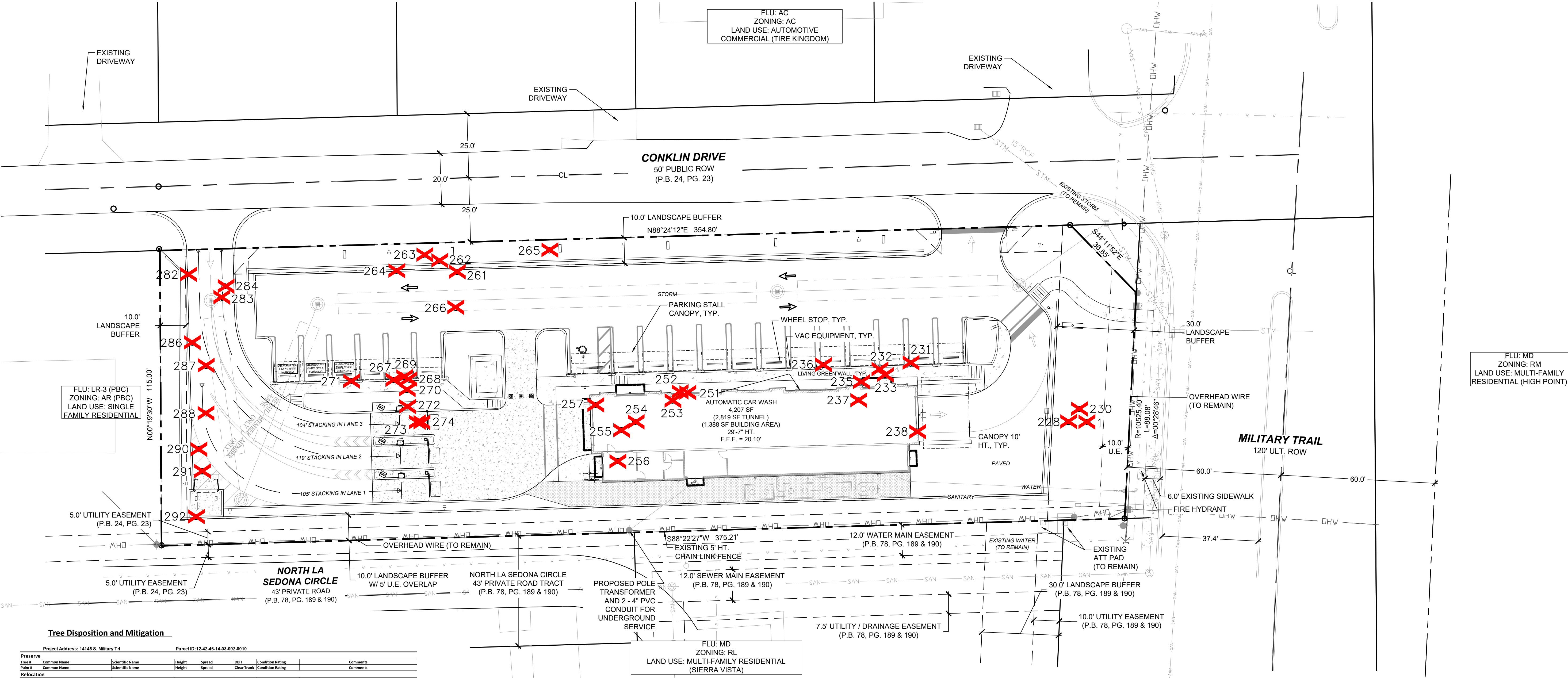
01-21-2025 SUBMITTAL
05-12-2025 RESUBMITTAL
08-06-2025 RESUBMITTAL
09-17-2025 RESUBMITTAL

SUBMITTAL

LA-1

of 5

TREE DISPOSITION PLAN



Tree Disposition and Mitigation

Project Address: 14145 S. Military Trl			Parcel ID: 12-42-46-14-03-002-0010				
Preserve							
Tree #	Common Name	Scientific Name	Height	Spread	DBH	Condition Rating	Comments
Palm #	Common Name	Scientific Name	Height	Spread	Clear Trunk	Condition Rating	Comments
Relocation							
Tree #	Common Name	Scientific Name	Height	Spread	DBH	Condition Rating	Comments
Palm #	Common Name	Scientific Name	Height	Spread	Clear Trunk	Condition Rating	Comments
Removal							
Tree #	Common Name	Scientific Name	Height	Spread	DBH	Condition Rating < 50%	Comments
228	Slash Pine	Pinus elliotii	60	48	24	45	Co-canopy, forest form, large dead branched
229	Slash Pine	Pinus elliotii	60	48	23.75	45	Co-canopy, forest form, large dead branched
231	Slash Pine	Pinus elliotii	50	24	12	30	Forest form
232	Slash Pine	Pinus elliotii	0	0	0	40	Dead no mitigation required
233	Slash Pine	Pinus elliotii	50	24	14	30	Forest form
235	Slash Pine	Pinus elliotii	50	21	10.75	30	Forest form
237	Live Oak	Quercus virginiana	0	0	0	40	Did not locate no mitigation required
238	Live Oak	Quercus virginiana	0	0	0	40	Did not locate no mitigation required
251	Java Plum	Syzygium cumae	0	0	0	40	Category 1 Invasive - no mitigation required
252	Java Plum	Syzygium cumae	0	0	0	40	Category 1 Invasive - no mitigation required
253	Java Plum	Syzygium cumae	0	0	0	40	Category 1 Invasive - no mitigation required
254	Java Plum	Syzygium cumae	0	0	0	40	Category 1 Invasive - no mitigation required
255	Java Plum	Syzygium cumae	0	0	0	40	Category 1 Invasive - no mitigation required
256	Java Plum	Syzygium cumae	0	0	0	40	Category 1 Invasive - no mitigation required
							Condition Rating > 50%
238	Slash Pine	Pinus elliotii	50	30	15.5	30	Forest form
265	Strangler Fig	Ficus munda	45	30	15.5	40	
267	Mango	Mangifera indica	75	30	30	20	
268	Slash Pine	Pinus elliotii	50	48	23	40	
							Trees with Condition Rating < 50% to be Removed:
							Total DBHs of Trees with Condition Rating < 50% to be Removed:
Palm #	Common Name	Scientific Name	Height	Spread	Clear Trunk	Condition Rating < 50%	Comments
257	Palm Tree	Psychopoma elegans	3			40	Too small no mitigation required
262	Com Plant						Not a tree no mitigation required
							Condition Rating > 50%
261	Cabbage Palm	Sabal palmetto	25	18	23	40	
262	Cabbage Palm	Sabal palmetto	13	18	9	20	
267	Alexander Palm	Archontophoenix alexandrinae	12	12	10	20	
268	Alexander Palm	Archontophoenix alexandrinae	12	12	10	20	
269	Alexander Palm	Archontophoenix alexandrinae	12	12	10	20	
270	Alexander Palm	Archontophoenix alexandrinae	12	12	10	20	
271	Alexander Palm	Archontophoenix alexandrinae	12	12	10	20	
272	Alexander Palm	Archontophoenix alexandrinae	12	12	10	20	
273	Alexander Palm	Archontophoenix alexandrinae	12	12	10	20	
274	Alexander Palm	Archontophoenix alexandrinae	12	12	10	20	
283	Cabbage Palm	Sabal palmetto	29	18	26	20	
284	Cabbage Palm	Sabal palmetto	29	18	26	20	
289	Areca Palm	Dyopsis lutescens	16			20	
290	Areca Palm	Dyopsis lutescens	16			20	
291	Areca Palm	Dyopsis lutescens	16			20	
292	Areca Palm	Dyopsis lutescens	16			20	
293	Areca Palm	Dyopsis lutescens	16			20	
							Total Numbers of Palms with Condition Rating < 50% to be Removed:
							Total Heights of Palms with Condition Rating < 50% to be Removed:
							0 Palms
							264 CT in height / 4 of Palms
							Mitigation
							Tree Replanting Calculations *
							New Trees
							New Trees
							Total DBHs of Trees :
							Palm Replanting Calculations **
							New Palms
							Palm for Palm Basis:
							Total Heights of Palms
							Requirements of Vegetation Removal (Sec. 4.6.19 (E)(5))
							* TREE
							** Palm
							In-lieu fee for TREE (Sec. 4.6.19 (E)(5)(d))
							DBH 0 to 8"
							DBH 9" to 12"
							DBH 13" to 18"
							DBH 19" and greater
							Example: In-lieu fee for a 21" DBH tree: (\$450 × 8") + (\$650 × 4") + (\$850 × 6") + (\$1,000 × 7") + (\$3,000 × 52,600 + \$5,100 + \$3,000 + \$14,300
							For trees with a condition rating of between 0 percent and 49 percent, the in-lieu fee shall be calculated at 50 percent of the above escalating scale.
							Trees and palms with a condition < 50% are exempt from DBH/canopy inch-for-inch replacement, but are required to be mitigated on a tree-for-tree or palm-for-palm basis.
							In-lieu fee for a palm \$75 per one foot grey trunk or clear trunk

MITIGATION DATA

MITIGATION TREE FOR TREE BASIS : 5 TREES REQUIRED/5 SPANISH STOPPERS PROVIDED
MITIGATION INCHES FOR CANOPY TREES REQUIRED: 64" DBH REQUIRED/105" DBH PROVIDED
MITIGATION FOR PALMS: 164" CT REMOVED/240" CT PROVIDED

MITIGATION NOTES:

- REMOVED PALMS WITH LESS THAN 8" CT DO NOT NEED TO BE MITIGATED, PER SECTION 4.6.19.D
- THE TOTAL DBH OF ALL REMOVED TREES WITH A CONDITION RATING 50% OR GREATER SHALL BE REPLACED WITH AN EQUAL NUMBER OF CALIPER INCHES INSTALLED AT A MINIMUM SIZE AS PER SECTION 4.6.16
- REMOVED TREES AND PALMS WITH A CONDITION RATING LESS THAN 50% SHALL BE MITIGATED ON A TREE-FOR-TREE OR PALM-FOR-PALM BASIS PER SECTION 4.6.19.E.6.A

LEGEND

X TREE / PALM TO BE REMOVED

NOTES

- BASE INFORMATION OBTAINED FROM PERIMETER SURVEYING & MAPPING DATED 10-11-2024.
- ALL TREES AND PALMS PROPOSED FOR REMOVAL SHALL COMPLY WITH LAND DEVELOPMENT REGULATIONS SECTION 4.6.19.E

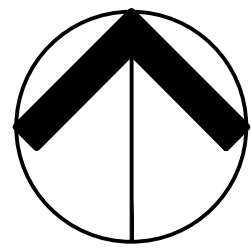
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14145 S. Military Trail
City of Delray Beach, Florida
Landscape Plan



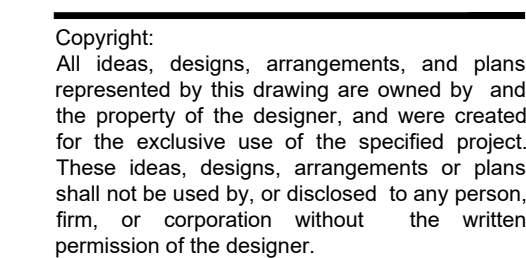
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Date: JAN. 2025
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SUBMITTAL

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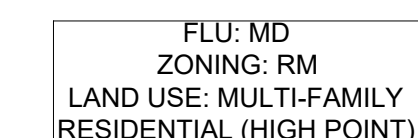




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2. [REDACTED]

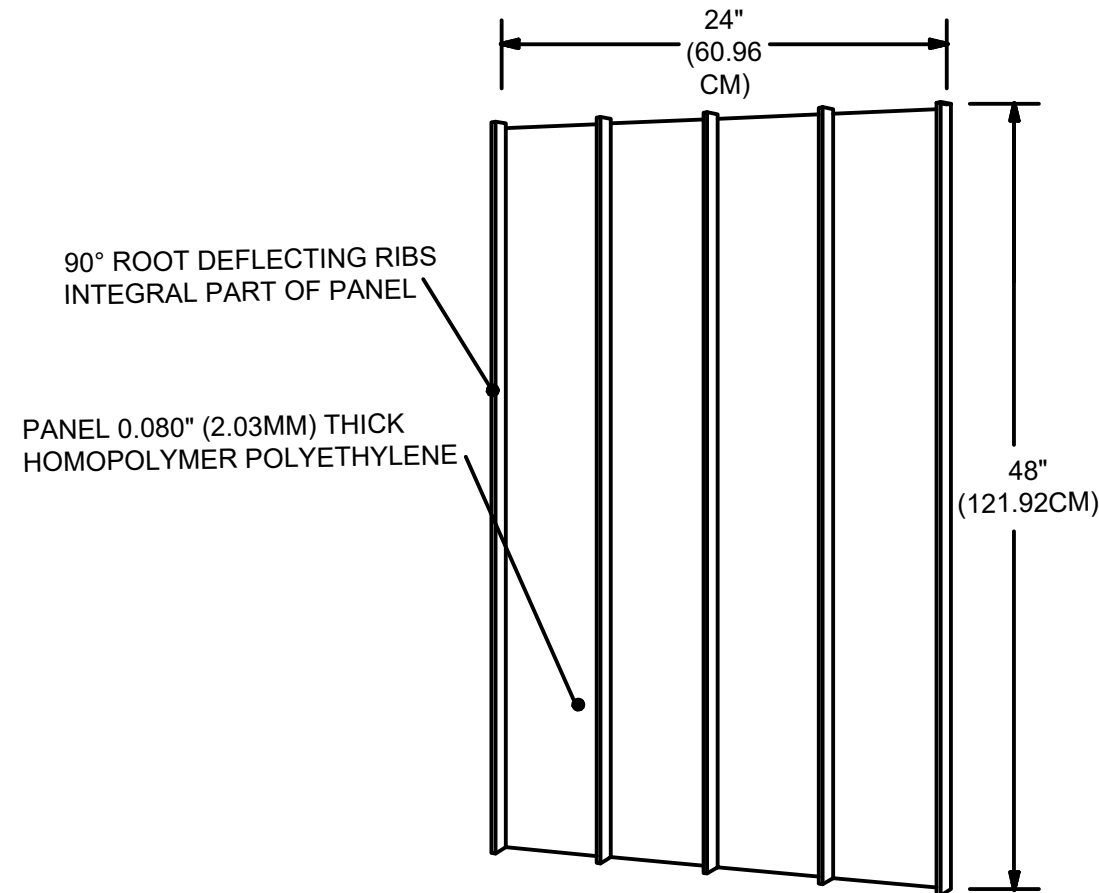


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SHRUBS		
	CHR	Chrysobalanus icaco 'Red Tip' / Red Tip Cocoplum 24" Ht. 24" Spr. 24" O.C., Full and Dense Shrub, Full to Base
	CLU	Clusia guttifera / Small Leaf Clusia 6' HT. x 3' SPR., 36" O.C., Full and Dense to Base
VINE		
	TRJ	Trachelospermum jasminoides / Chinese Star Jasmine 36" Ht Runners, 3' O.C., espalier to living green wall with stainless steel eye hooks,
SHRUB AREAS		
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	CON	Conocarpus erectus 'Sericeus' / Silver Buttonwood Min. 24" Ht. x 24" Spr. 24" O.C., Full and Dense Shrub, Full to Base
	HAM	Hamelia patens / Firebush Min. 24" Ht. x 24" Spr. 30" O.C., Full and Dense Shrub, Full to Base
	JAS	Jasminum volubile / Wax Jasmine Min. 24" Ht. x 24" Spr. 24" O.C., Full and Dense Shrub, Full to Base
GROUND COVERS		
	ANN	Annuals / Seasonal Annuals Min. 4" Pots, Full Flowering When Installed, 12" O.C.
	AGE	Arachis glabrata / Perennial Peanut 6" Ht. x 12" Spr., 18" O.C., Full to Edge of Pot

 ROOT BARRIER
36" DEPTH MIN., INSTALLED PER MANUFACTURER'S SPECS.
(SEE DETAIL ON SHEET LA-1 AND LA-4)

ROOT BARRIER
36" DEPTH MIN., INSTALLED PER MANUFACTURER'S SPECS
(SEE DETAIL ON SHEET LA-1 AND LA-4)





SPECIFIED TREE ROOT BARRIERS ARE A MECHANICAL BARRIER AND ROOT DEFLECTOR TO PREVENT TREE ROOTS FROM DAMAGING HARDSCAPES, AND LANDSCAPES. ASSEMBLED IN 2 FOOT (61 CM) LONG MODULES TO CREATE VARYING LENGTHS FOR LINEAR APPLICATION DIRECTLY BESIDE A HARDSCAPE ELEMENT, ADJACENT TO ONE SIDE OF A TREE, OR FOR LARGE PERIMETER SURROUND APPLICATIONS WITH A MINIMUM 8 FOOT (2.43 M) DIAMETER USING 12 PANELS.

NOT LESS THAN 4 MOLDED INTEGRAL VERTICAL ROOT
DIRECTING RIBS OF A MINIMUM 0.080" (2.03MM) THICKNESS
PROTRUDING 1/2" (12.7MM) AT 90° FROM INTERIOR OF THE
BARRIER PANEL, SPACED 6" (154 MM) APART.
SEE PANEL DRAWING.

1. THE CONTRACTOR SHALL INSTALL THE TREE ROOT BARRIERS WITH THE NUMBER OF PANELS AND IN THE MANNER SHOWN ON THE DRAWINGS. THE VERTICAL ROOT DIRECTING RIB SHALL BE FACING INWARDS TO THE ROOT BALL AND THE TOP EDGE SHALL BE 1/2" TO 1" ABOVE GRADE. EACH OF THE REQUIRED NUMBER OF PANELS SHALL BE JOINED IN A LINEAR FASHION AND PLACED ALONG THE ADJACENT HARDSCAPE OR WHERE SPECIFIED TO FORM A CIRCLE AROUND THE ROOT BALL.

DRAWINGS.

SECTION

ROOT BARRIER BY "TYPAR BIOBARRIER" AND/OR "DEEPROOT"

ROOT BARRIER BY "TYPAR BIOBARRIER" AND/OR "DEEPROOT"

EDGE OF PLANTING ROOT BALL PIT

39" MIN. COVER

2" MIN. 7'-0" MIN. W/BARRIER 5" MIN. 10'-0" MIN. W/O BARRIER

EDGE OF PLANTING ROOT BALL PIT

PBCWUD WATER AND/OR SEWER FACILITIES (I.E. MAINS, SERVICES, AND/OR LATERALS)

PLAN

7'-0" MIN. W/BARRIER 10'-0" MIN. W/O BARRIER 2" MIN. 5" MIN. 7.5' 15' 7.5'

PBCWUD WATER AND/OR SEWER FACILITIES (I.E. MAINS, SERVICES, AND/OR LATERALS)

1. TREES SHOWN ON THIS PLAN ARE FOR GRAPHIC REPRESENTATION ONLY. TREE SPACING IS BASED ON DESIGN REQUIREMENTS AND THE TREES SHOWN ON THESE PLANS ATTEMPT TO ACCOMPLISH THAT SPACING WHILE MAINTAINING THE REQUIRED SETBACKS FROM UTILITIES. TREES MAY BE FIELD ADJUSTED TO AVOID CONFLICTS WITH DRIVEWAYS AND UNDERGROUND UTILITIES. IN ANY CASE THE TREE SHALL BE LOCATED IN THE FIELD IN ACCORDANCE WITH THE PLANTING DETAILS SHOWN HEREON.
2. TREES ARE TO BE INSTALLED WITH A TEN FOOT (10') SEPARATION FROM ANY WATER OR SEWER MAIN AND/OR SERVICE, HYDRANTS, AND LIFT STATIONS. IF A TEN FOOT (10') SEPARATION CANNOT BE ACHIEVED, THE TREE CAN BE INSTALLED WITH A ROOT BARRIER SYSTEM. HOWEVER, IN NO CASE SHALL A TREE ENCROACH INTO A PCUBE WITHOUT PRIOR DEPARTMENT APPROVAL.
3. ONLY SOD CAN BE INSTALLED WITHIN 7.5' MINIMUM OF A FIRE HYDRANT UNLESS OTHERWISE APPROVED BY THE FIRE MARSHAL AND THE DEPARTMENT
4. SOD ONLY SHALL BE INSTALLED WITHIN 5.0' MINIMUM OF ANY DEPARTMENT WATER METER.
5. WHEN INSTALLING A SOLID ROOT BARRIER PANEL SYSTEM THE PANEL RIBS MUST FACE THE TREE ROOT BALL.

ROOT BARRIER DETAIL

NOT TO SCALE

NOTES:

- MULCH RINGS SHALL BE PROVIDED FOR ALL TREES AND PALMS PLANTED IN SODDED AREAS OR AS OTHERWISE NOTED ON LANDSCAPE PLAN.

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MULCH

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TREE

1. MULCH RINGS SHALL BE PROVIDED FOR ALL TREES AND PALMS PLANTED IN SODDED AREAS OR AS OTHERWISE NOTED ON LANDSCAPE PLAN.

Diagram illustrating the sod ring detail, showing the layout of sods and the required soil preparation. The diagram includes the following labels and instructions:

- SPREAD OF PLANT**: Indicated by arrows pointing to the topsoil area above the sods.
- ON CENTER SPACING**: Indicated by arrows pointing to the center-to-center distance between sods.
- CLEAN TOPSOIL OF ANY ROOTS, PLANTS, SOD, STONES, CLAY LUMPS, AND OTHER EXTRANEOUS MATERIAL DETRIMENTAL TO PLANT GROWTH**: Instruction for the topsoil layer.
- ROTARY-TILL SOIL THOROUGHLY TO A DEPTH OF 6". PLOWING OR DISHING IS NOT AN ACCEPTABLE SUBSTITUTE**: Instruction for the subsoil layer.
- MULCH TO MINIMUM DEPTH OF 3" AFTER SETTLING. (SEE WRITTEN SPECIFICATIONS)**: Instruction for the mulch layer.
- TYPICAL TRIANGULAR SPACING OF PLANTS TO INSURE FULL COVERAGE BY GROUND COVER**: Indicated by arrows pointing to the triangular arrangement of plants within the sods.

NOT TO SCALE

- NOT TO SCALE

- PALM PLANTING PIT TO BE FULLY EXCAVATED AND BACKFILLED WITH TOPSOIL. TAMP FILL AS IT IS ADDED. WHEN HOLE IS 2/3 FILLED, WATER THOROUGHLY, RELEASE ANY AIR POCKETS, THEN COMPLETE FILLING. TAMP AND WATER THOROUGHLY AGAIN. (SEE WRITTEN SPECIFICATIONS)

- DIAMETER OF EXCAVATED HOLE SHALL BE AT LEAST TWICE THE WIDTH OF THE ORIGINAL ROOT BALL OR CONTAINER.
(SEE WRITTEN SPECIFICATIONS)

Diagram illustrating the correct method for planting a tree or shrub in a hole. The diagram shows a cross-section of the ground with a tree in a hole on the left and a shrub in a hole on the right. The tree hole is wider at the top and tapers down to the root ball. The shrub hole is wider at the bottom and tapers up to the root ball. The diagram includes labels for the root ball, mulch, and existing soil. It also includes a scale bar at the bottom indicating the diameter of the hole should be at least twice the width of the root ball or container.

Labels and instructions:

- PLANT SO THAT ROOTBALL IS LEVEL WITH FINISHED GRADE (ALLOW FOR SETTLING)
- MULCH TO MINIMUM DEPTH OF 3" AFTER SETTLING
- CREATE A SHALLOW SAUCER AROUND PLANTING BED OR PLANT
- EXISTING SOIL
- PLANTING BEDS FOR SHRUBS OR GROUND COVER TO BE FULLY EXCAVATED TO A DEPTH OF THE ROOT BALL AND BACKFILLED WITH TOPSOIL. TAMP FILL AS IT IS ADDED. WHEN HOLE IS 2/3 FILLED, WATER THOROUGHLY. (SEE WRITTEN SPECIFICATIONS)
- DIAMETER OF EXCAVATED HOLE SHALL BE AT LEAST TWICE THE WIDTH OF THE ORIGINAL ROOT BALL OR CONTAINER. (SEE WRITTEN SPECIFICATIONS)

Scale bar: 1x, 2x

REMAINING SHRUBS ARE FILLED IN BEHIND THE FRONT SHRUB LINE.

LAYOUT OF SHRUBS AT THE PLANTING EDGE IS DONE FIRST TO ESTABLISH A CONTINUOUS LINE. BEST FACE OF SHRUB TO FACE FRONT OF PLANTING BED.

SOD. USE ROLLER TO SMOOTH SURFACE.

MULCH RING

NO TREE TO BE PLANTED CLOSER THAN 4' TO BED EDGE.

PLANTING BED EDGE CUT CLEAN AND STRAIGHT

MAINTAIN 12" ALONG BED EDGE; SEE PLANTING BED EDGE DETAIL.

BEST "FACE" OF PLANT TO BE TOWARD THE FRONT EDGE OF THE PLANTING BED.

MULCH TO MINIMUM DEPTH OF 12" AFTER SETTLING

12" WIDTH ALONG BED EDGE FOR MAINTENANCE

SHALLOW SAUCER AROUND PLANTING BED

EXISTING SOIL

NOT TO SCALE

1. MULCH RINGS SHALL BE PROVIDED FOR ALL TREES AND PALMS PLANTED IN SODDED AREAS OR AS OTHERWISE NOTED ON LANDSCAPE PLAN.

NOT TO SCALE

SPREAD OF PLANT

CLEAN TOPSOIL OF ANY ROOTS,
PLANTS, SOD, STONES, CLAY
LUMPS, AND OTHER EXTRANEOUS
MATERIAL DETRIMENTAL TO
PLANT GROWTH

TYPICAL TRIANGULAR SPACING
OF PLANTS TO INSURE FULL
COVERAGE BY GROUND COVER.

ON CENTER SPACING

ROTARY-TILL SOIL THOROUGHLY TO A DEPTH OF 6". PLOWING OR DICING IS NOT AN ACCEPTABLE SUBSTITUTE.

MULCH TO MINIMUM DEPTH OF 3" AFTER SETTLING. (SEE WRITTEN SPECIFICATIONS)

Conklin Car Wash 14145 S. Military Trail City of Delray Beach, Florida Planting Details

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LA-4

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of 5

SUBMITTAL

SECTION 02950

TREES, SHRUBS AND GROUND COVER

PART I - GENERAL

By bidding on this project and/or signing a contract for landscape work, the Contractor acknowledges that he/she has read and understood these specifications in their entirety, that he/she has inspected the site, and that he/she will abide by all plans, specifications, and conditions found herein. Any perceived conflicts or omissions within the specifications or on the plant list, including unavailability of materials, are to be brought to the attention of the Landscape Architect prior to bid submission.

1.01 WORK INCLUDED

- Contractor shall obtain or ensure that all necessary permits have been granted to the Owner for work on the Owner's properties or in any adjacent easements prior to commencement of all work.
- All planting and construction work shall be executed as shown on the provided drawings, schedules, and specifications.
- Any additional work or materials required to install landscape elements as called for on the plans, specifications or plant list shall be provided and installed by the Contractor.
- Finish Grade Elevations: 2 inch below top of pathway edging.
- The Contractor shall be entirely responsible for all work until final acceptance by the Owner. The Contractor shall protect all materials and work against injury and shall provide and maintain all necessary guards for the protection of the public. He shall be held responsible for any negligence during the execution of the work.

1.02 QUALITY ASSURANCE

- All work specified herein shall be performed by a single firm specializing in landscape work. The Landscape Architect and the Owner retain the right to approve any proposed subcontractors prior to awarding the contract.
- Ship landscape materials with certificates of inspection required by governing authorities. Comply with all regulations applicable to landscape materials.
- Package standard products with manufacturers certified analysis. For other materials, provide analysis by recognized laboratory made in accordance with methods established by the Association of Official Agricultural Chemists, wherever applicable.
- Provide trees, palms, shrubs and groundcover grown in a recognized nursery in accordance with good horticultural practice. Materials must be healthy and vigorous, free of disease, insects, eggs, larvae, and defects such as decay, rot, knots, sun scald, injuries, abrasions, and poor or unusual form. No collected material will be permitted unless specific written approval is granted.
- Do not make substitutions. If specified landscape material is not available at time of planting, submit proof of non-availability and provide a list of proposed equivalent material. Once authorized, adjustments to the contract will be made. Owner is not financially responsible for unauthorized substitutions.
- Plant materials of larger size than specified may be used if acceptable to Landscape Architect and if sizes of root balls are increased proportionately. Installation of larger sizes will not increase contract amount unless specifically authorized by Owner.
- Owner and Landscape Architect reserve the right to inspect, approve or reject at any time plant materials or work either at the nursery or at the site which does not meet the condition in the plans, plant list or specifications.
- The Contractor shall be responsible for planting the landscape in complete accordance with all applicable codes, ordinances, and laws. Any modification made to conform with said codes, laws and ordinances, after the bid is awarded, shall be completed at the Contractor's expense at no additional cost to the Owner.

1.03 SUBMITTALS

- Certification: Submit certificates of inspections as required by governmental authorities, and manufacturers or vendor's certified analysis for soil amendments and fertilizer materials. Submit other data substantiating that materials comply with specified requirements.
- Submit seed analysis for each grass seed mixture required, stating botanical and common name, percentage by weight, and percentage of purity, germination, and weed seed for each grass seed species.
- Planting Schedule: Submit planting schedule showing schedule dates for each type of planting in each area of site.
- Maintenance Instructions: Submit typewritten procedures for maintenance of landscape work, through final acceptance.

1.04 DELIVERY, STORAGE AND HANDLING

- Packaged Materials: Deliver packaged materials in original containers showing manufacturer's guaranteed weight analysis and name of manufacturer. Protect materials from damage and deterioration during delivery and storage.
- Trees, shrubs, and ground covers: Provide freshly dug trees, palms, and shrubs. Do not prune prior to delivery. All plants shall be handled and stored so that they are adequately protected from drying out, from sun or wind burn, and from any other injury at all times. Any plant determined to be wilted or burned may be rejected at any time, whether in the ground or not. Plants shall be handled only by their containers or root balls, not by stems or trunks. Trees that are scraped or scarred during delivery, storage, or planting will be rejected. The on-site storage area shall be approved prior to the delivery of any plant materials. Do not bend or bind plants in such a manner as to damage bark, break branches, or destroy natural shape or provide protective covering during delivery.
- Deliver plant materials and preparations for planting are complete, and plant immediately. Roots or balls of all plants shall be adequately protected at all times from sun and/or wind. Balled and burlapped (B&B) plants that cannot be planted immediately upon delivery shall be set on the ground and protected by having soil, wet peat, or other acceptable material covering the roots or balls keeping them moist.
- Do not remove container grown stock from containers until planting time.
- Ball at least one tree, one palm and one shrub of each variety with a securely attached waterproof tag bearing legible designation of botanical and common name, if requested by Owner.
- Fod: Soil time delivery so that sod will be placed within 24 hours after stripping. Protect sod against drying and breaking of rolled strips.

1.05 JOB CONDITIONS

- Proceed with and complete landscape work as rapidly as portions of site become available.
- Utilities: Determine location of overhead and underground utilities and perform work in a manner which will avoid such damage. Hand excavations: Forty eight (48) hours prior to digging, call the appropriate Utility Authority to have all utilities identified and marked in order to avoid conflicts.
- Protection of Existing Structures: All existing buildings, walks, walls, paving, piping, and other items of construction and planting already completed or established shall be protected from damage. All damage resulting from negligence shall be repaired or replaced, including but not limited to marks on pavers and cracks within existing walkways caused by the Contractor. The Owner may, at his discretion have any damage repaired by others and subsequently costs back-charged to the Contractor.
- Protection of Existing Plant Material: The Contractor shall be responsible for all unauthorized cutting or damage to existing trees or shrubs caused by careless operation of equipment, stockpiling of materials, etc. This shall include compaction by driving or parking inside the drip-line of any tree, or spilling of oil, gasoline, or other deleterious materials within the drip-line of any tree. No materials shall be burned.
- Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify Landscape Architect before planting.

PART II - PRODUCTS

2.01 TOPSOIL

- The Contractor is required to obtain a soil sample and perform a soil analysis test to determine the existing soil composition and conclude whether it complies with the composition criteria below.
- Where topsoil does not meet the specified limits within the project site, it shall be furnished. Throughout all parts of site where finish grades and contour lines differ from existing contours lines, bring to finish grade contours shown on "Grading Plan."
- Topsoil shall be friable, fertile soil with representative characteristics of local soils. It shall be free of heavy clay, lime, sand, stones, roots, rocks and/or solid waste, sticks, brush, construction demolition debris, and any other deleterious materials. There shall be no noxious weeds or weed seeds (i.e., nut grass, Bermuda grass and the like). In no case shall there be more than five percent (5%) by dry weight of clay lumps or stones larger than 1". It shall test in the pH range of 6.0 to 7.2 and shall contain no substance that will impede plant growth. The Contractor shall have topsoil laboratory-tested at his expense and approved by Landscape Architect or Owner prior to material delivery.

Topsoil shall conform to the following specifications:

COMPONENTS	DRY WEIGHT MEASURE	PARTICLE SIZE
Organic Matter	2% - 7%	
Silt/Clay	2% - 10%	< 0.074 mm
Sand	85% - 98%	0.075 - 3.00 mm
Gravel	0% - 5%	4.75 mm - 1 inch

The analysis shall also show the following ranges:

Soluble salt	2 - 1.0mmhos/cm
Nitrogen	25-150 PPM
Phosphorus	26 - 39 PPM
Potassium	50 - 250 PPM
Calcium	500 - 2500 PPM
Magnesium	50 - 500 PPM
Iron	2.5 - 25 PPM
Manganese	2.5 - 25 PPM
Zinc	2.5 - 25 PPM
Copper	1.3 - 5 PPM
Boron	0.5 - 1.5 PPM
Sulphur	15 - 200 PPM
Chlorine	less than 100 PPM
Sodium	less than 10
Nematodes	none

2.02 SOIL AMENDMENTS AND FERTILIZERS

- Peat Moss: Peat moss shall be a commercial, baled sphagnum material, free of woody material, minerals, or foreign matter, with a pH range of 3.0 - 5.5.
- Sand: Sand shall be clean, sharp, and free of all deleterious material.
- Lime: Natural limestone (Dolomite) containing not less than 85% of total carbonates, ground so that not less than 90% passes a 10-mesh sieve and not less than 50% passes a 100-mesh sieve.
- Humus Soil Conditioner: Consisting of yard trimmings and biosolids co-compost.
- Fertilizer: Fertilizer shall be a commercial grade, granular, slow release "pre-plant" type fertilizer.
 - Fertilizer shall be delivered to the site in the original unopened container, bearing the manufacturer's guaranteed analysis. Any opened, caked, or damaged fertilizer will be rejected.
 - Tree, palm, shrub and grass fertilizer shall be "UF (University of Florida) Formulated" product 8-2-12 or 8-2-13 with minor elements as an all-purpose fertilizer, or equal, and applied according to the manufacturer's direction.
 - Any additional fertilizer shall be consistent with the current recommendations of the Green Industries - Best Management Practices.
 - Fertilizer shall be applied by an individual who has successfully completed the GI-BMP program and holds a current Urban Fertilizer License or as required by the State and Local Ordinances.

2.03 WATER

- All water necessary for planting and maintenance shall be of satisfactory quality to sustain adequate growth of plants and shall not contain harmful, natural or man-made elements detrimental to plants.

2.04 OTHER LANDSCAPE PRODUCTS

- Mulch: Mulch shall be shredded Melaleuca, Eucalyptus, Grade "A" Pine Bark Nuggets, or approved equal, free of foreign materials and weed seeds. Minimum depth after settling shall be 3".
- Guying and Bracing: Tree guying and bracing shall be the responsibility of the Contractor in accordance with the planting details to insure stability and maintain plants in an upright position.
- Anti-desiccant: Anti-desiccant shall be "Wiltpro" or equal, if specified on plans.
- Tree Wound Paint: Tree wound paint shall be an asphaltic base paint containing an antiseptic agent, specially prepared for tree surgery work.
- Super Absorbent Polymer: "Terra Sorb" or approved equal as packaged in 3 oz. Handy Pac composed of synthetic acrilamide copolymer, potassium, acrylate. Particle size of 1.0 mm to 3.0 mm and absorption rate of 300 times its weight in water, if specified on plans.

Apply dry, using the following amounts:

- For trees and palms up to 36" diameter root ball, use one 3 oz. Handy Pac.
- For trees and palms over 36" diameter root ball use two 3 oz.
- Handy Pacs: Broadcast throughout planting hole and backfill as per manufacturers specifications.

For container grown plants:

Container Size	Application Rate
1 Gallon	1 Handy Pac / 9 Containers
3 Gallons	1 Handy Pac / 4 Containers
7-10 Gallons	1 Handy Pac / 2 Containers
20 Gallons	1 Handy Pac / 1 Container

2.05 PLANT MATERIAL

- Plant list is part of this specification section. The Contractor shall be responsible for furnishing and installing all plant materials shown on the drawings and plant list. In case of conflict between the two documents, the drawings shall rule.
- Quality: Trees, palms, shrubs, and other plants shall be Florida #1 or better as defined in the latest edition of Grades and Standards for Nursery Plants, Florida Department of Agriculture and Consumer Services. Multi-trunked trees will not be accepted unless they are specifically specified in the planting plans. All plants shall have a normal habit of growth and shall be sound, healthy, and vigorous. Plants shall have normal well-developed branching structures and vigorous root systems that are not root or container bound.
 - Balled and burlapped plants (BB or b&b) shall be dug with firm, natural balls of earth, of sufficient depth and diameter to include the fibrous and feeding roots. Plants with cracked, dry, or broken balls will not be accepted, nor will plants with root balls of insufficient size.
 - All plants, other than those collected on site, shall be nursery grown in accordance with good horticultural practices and under climatic conditions similar to the site for at least two years. Transplanting or root pruning shall have taken place during growth.
- Size: Plant sizes shown in the plant list are minimums. When a plant size is given by height and spread or by container size, all specifications are minimums to be met or exceeded. All trees and shrubs shall be measured when their branches are in a normal position. Spread dimensions specified refer to the main body of the plant and not from extreme branch tip to tip. Height is measured from the soil line to the average height of the canopy. Measurement does not include any terminal growth; the container or root ball is also not included.

Unless otherwise specified, the determining measurement for trees shall be caliper, which shall be measured 6" above the ground for trees up to 4" in caliper, and 12" above the ground for trees over 4" caliper.

2.06 GRASS MATERIALS

- Types: Sod type shall be as specified on the provided landscape plan and associated plant schedule.
- Dimensions: The sod shall be taken up in commercial size rectangles, preferably 12-inch x 24-inch.
- Measurement: Sod shall be measured on the basis of square footage. Contractor shall be responsible for complete coverage based on the square footage shown on plans; therefore, Contractor shall factor in cutting and shrinkage of materials.
- The sod shall be sufficiently thick to provide a dense stand of live grass. The sod shall be live, firm and unharmed. Hand excavations: Forty eight (48) hours prior to digging, call the appropriate Utility Authority to have all utilities identified and marked in order to avoid conflicts.
- Protection of Existing Structures: All existing buildings, walks, walls, paving, piping, and other items of construction and planting already completed or established shall be protected from damage. All damage resulting from negligence shall be repaired or replaced, including but not limited to marks on pavers and cracks within existing walkways caused by the Contractor. The Owner may, at his discretion have any damage repaired by others and subsequently costs back-charged to the Contractor.
- Cutting of Existing Plant Material: The Contractor shall be responsible for all unauthorized cutting or damage to existing trees or shrubs caused by careless operation of equipment, stockpiling of materials, etc. This shall include compaction by driving or parking inside the drip-line of any tree, or spilling of oil, gasoline, or other deleterious materials within the drip-line of any tree. No materials shall be burned.
- Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify Landscape Architect before planting.

2.07 REJECTION, SUBSTITUTION, AND RELOCATION

- All plants not conforming to the requirements herein specified shall be considered defective and such plants shall be marked as rejected and removed from the site whether in the ground or not, at the Contractor's expense. Such removal shall take place immediately and new plants shall be brought in as replacements. The plant materials must meet all applicable inspections required by law.
- The Owner or Landscape Architect also reserves the right to require that plants be relocated after installation if their initial installation does not conform to the plans or the intent of the plans, or if the original location poses an unforeseen threat to other facilities, human life, health, or safety, or to site utilities. Such relocation shall be at the Contractor's expense.

PART III - EXECUTION

3.01 GENERAL

- Proceed with and complete landscape work as rapidly as portions of the site become available.
- No planting shall be done until all operations in conjunction with the installation of the sprinkler system have been completed, final grades have been established, planting areas have been properly graded and prepared.
- Adverse Conditions: When conditions potentially detrimental to plant growth are encountered during work, such as adverse weather, adverse drainage conditions, or obstructions, notify Owner or Landscape Architect before planting.
- Work Scheduling: Work is to be scheduled to establish a logical sequence of steps for completion of each type and phase of landscape work, in such a way as to correspond with, and avoid damage and conflict with, other disciplines on site.
- Establishment: Plant trees, palms, and shrubs only after final grades have been established, and prior to sodding or lawn establishment. If such planting must be done after lawn work, protect lawn/sod areas during planting and promptly repair any resulting damage.
- Timing:
 - Planting work shall not be started until the final subgrade has been established, berms have been constructed and fine finished grading completed.
 - Under no conditions shall work be done if weather or soil conditions are not satisfactory.
- Clean-up:
 - At all times during the construction and installation, the site shall be maintained in a clean, orderly and safe condition. Streets and pavements shall be kept clean. Materials and equipment for planting work shall be limited to the quantity required for the particular phase of work currently underway on the job site.
 - Protect landscape work and materials from damage due to landscape installation and maintenance operations, operations by other contractors and trades, and trespassers. Maintain protection during installation, Maintenance and Establishment periods. Treat, repair or replace damaged landscape work as directed.

3.02 SOIL PREPARATION

- Grading and soil preparation work shall be performed only during periods when best results can be obtained. If the moisture content of the soil is high enough that work would damage soil structure, grading and tilling operations shall be suspended.
- Before mixing in soil amendments, clean topsoil of roots, plants, sods, stones, clay lumps, and other extraneous materials harmful or toxic to plant growth. Apply Herbicide for weed control as needed.
- Mix specified soil amendments and fertilizers with topsoil at rates specified. Delay mixing of fertilizer if planting will not follow pacing of planting soil within a few days.

- For planting beds, mix planting soil either prior to planting or apply on surface of topsoil and mix thoroughly before planting.

- Mix lime with dry soil prior to mixing of fertilizer.
- Prevent lime from contacting roots of acid-loving plants.

- Unless drawings indicate otherwise, berms shall not exceed a 3:1 slope. Berms near buildings or in potentially troublesome drainage situations shall be checked for correct drainage by the project Engineer or Owner prior to planting.
- Tree and shrub planting beds which fall within or near parking lot areas shall be completely excavated and back-filled with topsoil. All shell-rock or other base materials, and all subsoil and debris, shall be completely removed from beneath such planting areas, to a minimum depth of 24".
- All tree and/or shrub planting areas within 36" of building foundations, and any other planting areas where significant buried construction debris is encountered, shall be excavated to a minimum depth of 24" and backfilled with topsoil as specified elsewhere in these specifications.

3.03 TILLING

- Before mixing, clean soil of roots, plants, clay lumps, stones in excess of 1" in diameter, and other extraneous or potentially harmful materials.
- After all soil conditioning (and topsoil if called for on plans) has been spread at specified rates, the areas to be planted should be thoroughly rotary-tilled to a depth of six (6) inches. Plowing or dicing is not an acceptable substitute for rotary-tilling.

- If the sprinkler system is installed after grading and tilling is completed, the backfill shall be settled in the affected areas.
- When the subsoil, grading, topsoil addition, soil conditioning, and tilling have been accomplished, all areas so treated shall be compacted and settled by application of heavy irrigation to a minimum depth of twelve (12) inches. Erosion scars shall be repaired.

3.04 FINE FINISH GRADING

- When preliminary grading has been completed and the soil has dried sufficiently to be readily worked, all lawn and planting areas shall be graded to the elevations indicated on the Engineering Plans. The top four (4) inches shall be completely free of stones larger than one (1) inch. Grades not otherwise indicated shall be uniform levels or slopes between points where elevations are given. Positive drainage away from buildings shall always be maintained. Surface drainage shall be directed as indicated on the drawings by remodeling surfaces to facilitate the natural run-off of water. All depressions where water will stand, all voids, erosion, settled trenches and excavations, and all ridges and rises shall be amended and/or removed leaving a smooth, even finish grade. If additional amended topsoil is required to accomplish the intent of this specification, it shall be according to the foregoing specifications for topsoil.
- All area shall be graded so that the final grades are 2" below adjacent paved areas, sidewalks, valve boxes, mowing strips, clean-outs, drains, etc., with appropriate adjustments for varying sod thicknesses. The intent is for water always to drain away from paving into lawn and/or areas.
- Eliminating all erosion scars prior to beginning planting.
- The Owner and/or his representative shall approve all final finish grades prior to planting.

- Prior to fine grading or the installation of plant material the Contractor shall obtain certification that the project area is at the grade levels proposed by the Civil Engineer or Landscape Architect from a licensed Surveyor. The Contractor shall fine grade the lawn and planting areas to bring the rough grade up to final finished grade allowing for thickness of sod and/or mulch depth.

3.05 PLANTING TREES AND PALMS

- Layout individual tree locations and areas for multiple plantings. Stake all locations and outline areas, then secure Landscape Architect's acceptance before the start of planting work.
- Prior to preparation of tree pits, ascertain the location of all electrical cables, all conduits, all utility lines, oil tanks and supply lines, so that proper precautions may be taken not to disturb or damage any existing conditions. Properly maintain and protect existing utilities. Should such underground or overhead obstructions be encountered that interfere with planting, the Contractor will inform the Landscape Architect or Owner's representative and shall be consulted as to the adjustment of the location of plants to clear such obstruction or the relocation of the obstruction.
- Tree pit locations shall be staked by the Contractor and approved by the Owner or Landscape Architect before digging. Pits shall be excavated to the depth and width indicated and all subsoil removed.
- Protect all areas from excessive compaction by foot traffic or machinery when bringing trees to the planting area.
- All excavated holes shall have vertical sides with roughened surfaces and shall be of a size that is at least twice the width of the original plant container or ball. In all cases the holes shall be large enough to permit handling and planting without damage to the roots or root ball.
- Excess soil shall be removed or utilized as directed by Owner or the Owner's representative. If the excess soil will not be used, it is the responsibility of the Contractor to remove and dispose of the discarded soil off site in an acceptable manner.
- Tree pits shall be backfilled with a topsoil mixture as specified elsewhere in these specifications. Palm tree pits will be backfilled with a mixture of up to 95% sand and 5% organic material.
- Add fertilizer to tree pits as specified elsewhere in these specifications.
 - Set balled and burlapped stock on a layer of 50% native soil and 50% topsoil compacted to a 6" depth. Loosely bury top from top of sides of the ball but no burlap shall be pulled from underneath. Remove non-organic binding material (if any) from tree ball. Immediately cut any damaged roots with clean shears. Using a plumb to assure that the tree is properly upright, begin filling the hole and tamping the fill material. When the hole is 2/3 filled, water thoroughly and probe with a stick to be sure that no air pockets remain. Re-plumb, complete filling the hole, re-amp, and water again.
 - Set container-grown stock as above, taking care not to damage roots when removing the container
- During planting, do not cover the top of the root ball with the soil mixture. All rope, wires, burlap mesh etc., shall be removed from the root ball. No synthetic burlap is allowed on any plant materials as specified. If used, it shall be a soil mat of sufficient thickness, at least 2" thick, adhering firmly to the roots to withstand all necessary handling. It shall be free of weeds and other grasses. It shall be planted as soon as possible after being dug, and shall be shaded and kept moist from the time it is dug until it is planted. After approval, the area from which the sod is to be harvested shall be closely mowed and raked as necessary to remove excessive top growth and debris.

- All trees are to be staked or guyed per these specifications. All stakes shall be painted a conspicuous color or shall be flagged for visibility and public safety; guy wires shall be painted the same color.
- Palms shall be planted per above specifications.

3.06 PLANTING SHRUBS, VINES, AND GROUND COVERS

- The locations of all plants, bed outlines and all other areas to be planted shall be clearly marked with agricultural gypsum or landscape marking paint then approved by the Owner or Landscape Architect before any holes are dug.
- No planting shall be done until the area concerned has been satisfactorily prepared in accordance with these specifications.
- No more plants shall be distributed in the planting area on any work day than can be planted and watered in that day.
- Unless otherwise indicated, all plants shall be planted in pits, centered as called for on the plant list, and set in 24" depth of topsoil as specified elsewhere in these specifications to such depth that the soil line of the plants will match the surrounding grade after settling. Plants shall be planted in a vertical position and oriented to give the best possible appearance or during work, such as adverse weather, adverse drainage conditions, or obstructions, notify Owner or Landscape Architect before planting.
- Work Scheduling: Work is to be scheduled to establish a logical sequence of steps for completion of each type and phase of landscape work, in such a way as to correspond with, and avoid damage and conflict with, other disciplines on site.
- Establishment: Plant trees, palms, and shrubs only after final grades have been established, and prior to sodding or lawn establishment. If such planting must be done after lawn work, protect lawn/sod areas during planting and promptly repair any resulting damage.
- Timing:
 - Planting work shall not be started until the final subgrade has been established, berms have been constructed and fine finished grading completed.
 - Under no conditions shall work be done if weather or soil conditions are not satisfactory.
- Clean-up:
 - At all times during the construction and installation, the site shall be maintained in a clean, orderly and safe condition. Streets and pavements shall be kept clean. Materials and equipment for planting work shall be limited to the quantity required for the particular phase of work currently underway on the job site.
 - Protect landscape work and materials from damage due to landscape installation and maintenance operations, operations by other contractors and trades, and trespassers. Maintain protection during installation, Maintenance and Establishment periods. Treat, repair or replace damaged landscape work as directed.

3.07 ANNUAL AND SEASONAL COLOR BEDS

- Beds shall be mounded to a height 6" on top of the existing grade and composed of 50% topsoil and 50% compost.
- Soil shall be covered with 1/2" - 1" deep layer of fine Pines Mulch or comparable product.

3.08 PRUNING

- All pruning shall be done in the presence of, and with the approval of, the Owner or

Landscape Architect. Only clean, sharp tools designed for the purpose shall be used. The goal of pruning is always to preserve and enhance the natural character of the plant. Pruning shall be done per modern horticultural practice (see National Arboret Standards, latest edition).

- Pruning shall be limited to the minimum necessary to remove injured twigs, branches, and fronds, to compensate for root loss suffered during digging and transplanting, and to thin and shape the canopy of trees and shrubs. In no case shall more than 1/3 of the branching structure be removed. Damaged, scarred, frayed, split, or skinned twigs, branches, or limbs shall be pruned back to the next sound outside lateral bud, branch or limb. The terminal bud or leader shall never be removed.
- Prune trees and shrubs to retain required height and spread. Remove the minimal amount of work necessary on flowering trees and shrubs. Remove only dead or dying fronds from palms. Cuts over 3/4" in diameter shall be treated with tree wound paint; all exposed living tissue shall be covered.
- Existing Trees: If indicated on drawings, Contractor shall prune and thin existing trees on site. The use of climbing sprays is prohibited. All diseased, dead branches and those interfering with healthy plant growth shall be removed. Also, remove roots, low branches, and limbs others as directed by the Owner or Landscape Architect. Cuts shall be flush with the trunk or limb and shall be painted with tree paint. Remove any nails, wires, etc. fastened to the tree.

3.09 PLANTERS - DECORATIVE OR STRUCTURAL

If specified, landscaping in planters shall be installed using the following method:

- Install 4" deep layer of fine crushed stone in bottom of planter.
- Install filter fabric over stone layer. Turn up edges of fabric all around.
- Install planting soil mix over filter fabric to within 3/2" of top for planter. Do not compact the soil.
- Install plant material as specified elsewhere in these specifications.
- Install 3" of mulch over planting soil.

3.10 SODDING NEW LAWNS

- The Contractor shall add all areas indicated and noted on the drawings. No sodding shall occur until areas to be sodded are cleared of any rough grass, weeds and debris, the ground brought to an even grade and specified amendments have been added. See details for specific amendments as per sod type.
- Whenever a suitable area has been graded and is ready for sodding the Contractor shall, when directed by the Landscape Architect, proceed at once with the sodding of the available area. The sod shall be placed on the prepared surface, with edges in close contact, and shall be firmly and smoothly embedded by light tamping with appropriate tools. Sod shall be rolled with 1,000 lbs. roller unless waived by the Landscape Architect or Owner.
- Where sodding is used in drainage ditches, sod panels shall be set in a staggered pattern, such as to avoid a continuous seam along the line of flow. Offsets of individual strips shall not exceed 18" and the joints shall be staggered.
- On areas where the sod may slide, due to height and slope, the Landscape Architect or Owner may direct that the sod be pegged, with pegs driven through the sod blocks into firm earth, at suitable intervals.
- Any pieces of sod which, after placing, show an appearance of extreme dryness shall be removed from the work.
- Where placement of new sod abuts existing sodded areas, new sod must be placed in such a manner as to produce an even transition to existing sodded areas.
- It shall be the responsibility of the Contractor to bring the sod edge in a neat, clean manner to the edge of all paving and shrub areas.

PART IV MAINTENANCE, ESTABLISHMENT AND WARRANTY PERIODS

4.01 MAINTENANCE AND ESTABLISHMENT PERIOD

- The Maintenance Period shall begin immediately after each plant is planted, and the Contractor shall continuously maintain all areas involved in this contract during the progress of the work.
- The Establishment Period shall begin on the first day after all planting and installation of all landscape elements is completed and initially accepted. The Contractor shall continuously maintain all areas from initial acceptance until final acceptance by the Owner. The Establishment Period shall continue for not less than ninety (90) continuous calendar days. Hurricane cut Sabal Palms shall have an Establishment Period of not less than one hundred and eighty (180) continuous calendar days. The Establishment Period will end at the time the project is given final acceptance. An inspection shall be made by the Owner or Landscape Architect to accept the completed work and issue a determination of substantial completion. Inspections may be performed on all or partially completed phased work under the Contract, as directed by the Owner.
- Maintenance shall consist of, but not necessarily be limited to, pruning, weeding, cultivating, weeding, mulching, tightening or replacing guys and stakes, resetting plants to proper grades or upright positions, furnishing and applying sprays as necessary to combat insects and disease, light control, rolling, fertilizing and replanting.
- Planting areas and plants shall be protected at all times against damage of any kind for the duration of the maintenance and establishment period.
- Tree pits shall be backfilled with a topsoil mixture as specified elsewhere in these specifications. Palm tree pits will be backfilled with a mixture of up to 95% sand and 5% organic material.
- Add fertilizer to tree pits as specified elsewhere in these specifications.
 - Set balled and burlapped stock on a layer of 50% native soil and 50% topsoil compacted to a 6" depth. Loosely bury top from top of sides of the ball but no burlap shall be pulled from underneath. Remove non-organic binding material (if any) from tree ball. Immediately cut any damaged roots with clean shears. Using a plumb to assure that the tree is properly upright, begin filling the hole and tamping the fill material. When the hole is 2/3 filled, water thoroughly and probe with a stick to be sure that no air pockets remain. Re-plumb, complete filling the hole, re-amp, and water again.
 - Set container-grown stock as above, taking care not to damage roots when removing the container
- During planting, do not cover the top of the root ball with the soil mixture. All rope, wires, burlap mesh etc., shall be removed from the root ball. No synthetic burlap is allowed on any plant materials as specified. If used, it shall be a soil mat of sufficient thickness, at least 2" thick, adhering firmly to the roots to withstand all necessary handling. It shall be free of weeds and other grasses. It shall be planted as soon as possible after being dug, and shall be shaded and kept moist from the time it is dug until it is planted. After approval, the area from which the sod is to be harvested shall be closely mowed and raked as necessary to remove excessive top growth and debris.
- Create a watering basin around each tree at least as wide as the root ball in diameter formed by a circular ridge of soil at least 6" high.
- Each planting basin shall be covered to a minimum depth of 3" (after settling). Mulch shall not be applied until the tree has been thoroughly watered and two days have elapsed. Mulch should be placed so that it is not in direct contact with trunks.
- All trees are to be staked or guyed per these specifications. All stakes shall be painted a conspicuous color or shall be flagged for visibility and public safety; guy wires shall be painted the same color.
- Palms shall be planted per above specifications.

- The locations of all plants, bed outlines and all other areas to be planted shall be clearly marked with agricultural gypsum or landscape marking paint then approved by the Owner or Landscape Architect before any holes are dug.
- No planting shall be done until the area concerned has been satisfactorily prepared in accordance with these specifications.
- No more plants shall be distributed in the planting area on any work day than can be planted and watered in that day.
- Unless otherwise indicated, all plants shall be planted in pits, centered as called for on the plant list, and set in 24" depth of topsoil as specified elsewhere in these specifications to such depth that the soil line of the plants will match the surrounding grade after settling. Plants shall be planted in a vertical position and oriented to give the best possible appearance or during work, such as adverse weather, adverse drainage conditions, or obstructions, notify Owner or Landscape Architect before planting.
- Work Scheduling: Work is to be scheduled to establish a logical sequence of steps for completion of each type and phase of landscape work, in such a way as to correspond with, and avoid damage and conflict with, other disciplines on site.
- Establishment: Plant trees, palms, and shrubs only after final grades have been established, and prior to sodding or lawn establishment. If such planting must be done after lawn work, protect lawn/sod areas during planting and promptly repair any resulting damage.
- Timing:
 - Planting work shall not be started until the final subgrade has been established, berms have been constructed and fine finished grading completed.
 - Under no conditions shall work be done if weather or soil conditions are not satisfactory.
- Clean-up:
 - At all times during the construction and installation, the site shall be maintained in a clean, orderly and safe condition. Streets and pavements shall be kept clean. Materials and equipment for planting work shall be limited to the quantity required for the particular phase of work currently underway on the job site.
 - Protect landscape work and materials from damage due to landscape installation and maintenance operations, operations by other contractors and trades, and trespassers. Maintain protection during installation, Maintenance and Establishment periods. Treat, repair or replace damaged landscape work as directed.

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IRRIGATION NOTES

IRRIGATION TO BE INSTALLED ACCORDING TO LOCAL CODES AND TO THE REGIONAL WATER MANAGEMENT DISTRICT RESTRICTIONS AND REGULATIONS. IRRIGATION PLAN DESIGNED TO MEET OR EXCEED THE FLORIDA BUILDING CODE APPENDIX F AND THE FLORIDA IRRIGATION SOCIETY STANDARDS AND SPECIFICATIONS FOR TURF AND LANDSCAPE IRRIGATION SYSTEMS.

IRRIGATION PLAN IS TO BE USED AS A GENERAL GUIDE. CONTRACTOR TO ENSURE 100% HEAD TO HEAD COVERAGE OCCURS. IT IS UP TO THE CONTRACTOR TO MAKE ADJUSTMENTS WHEN THERE IS AN UNFORESEEN OBSTRUCTIONS. CONTRACTOR TO FAMILIARIZE THEMSELVES WITH SITE PLANTING/HARDSCAPE LOCATIONS, UTILITIES, AND GRADE DIFFERENCES. IF NOTICEABLE DIFFERENCES EXIST BETWEEN THE PLAN AND SITE CONDITIONS, CONTRACTOR TO MAKE ADJUSTMENTS AS NEEDED, OR COORDINATE WITH SITE OWNER FOR LAYOUT CHANGES.

IRRIGATION CONTRACTOR TO VERIFY ALL UNDERGROUND UTILITIES PRIOR TO THE START OF WORK. ANY ITEMS DAMAGED BY THE IRRIGATION INSTALL IS TO BE REPLACED/REPAIRED AT THE COST OF THE CONTRACTOR. CONTRACTOR TO COORDINATE WITH OTHER CONTRACTORS IN REGARDS TO SLEEVE LOCATIONS FOR UNDER WALLS, ROADWAYS, OR PAVED AREAS.

IRRIGATION POINT OF CONNECTION (P.O.C.) IS TO BE A 2 HP PUMP PULLING FROM 3" WELL. PUMP TO MEET 22 GPM @ 120 T.D.H. DESIGN BASED OFF OF 22 GPM @ 50 PSI. CONTRACTOR TO CONFIRM P.O.C. MEETS OR EXCEEDS THESE SYSTEM REQUIREMENTS PRIOR TO THE START OF INSTALL. PUMP TO BE INSTALLED ON CONCRETE PAD, MIN. 3'X3'.

ALL PIPING SHOWN IS SCHEMATIC AND IS TO BE ADJUSTED AS NEEDED IN THE FIELD. PIPING IS DESIGNED TO HAVE WATER FLOW VELOCITIES OF 5'/SECOND OR LESS IN ORDER TO LIMIT FRICTION LOSS WITHIN THE SYSTEM. SMALLER PIPE SHALL NOT BE SUBSTITUTED, BUT LARGER PIPE UPGRADES ARE ALLOWED. MAINLINE PIPE TO BE SCHEDULE 40, AND ALL LATERAL LINE PIPE IS TO BE CLASS 200. ALL PIPE IS TO BE BURIED TO APPROPRIATE LEVELS FOUND ON DETAIL "F". FITTINGS ARE TO BE SCH. 40 PVC. WHEN APPLICABLE, KEEP ALL PIPE WITHIN GRASS AREAS AND AWAY FROM PROPOSED TREES. ANY PIPE INSTALLED AGAINST WALLS/HARDSCAPES ARE TO HAVE SUFFICIENT CLEARANCE TO ALLOW FOR FUTURE MAINTENANCE/REPAIRS. PIPE TO BE CEMENTED WITH GLUE AND PRIMER. GLUE TO BE GREY WELD-ON 711 AND PRIMER TO BE PURPLE WELD-ON P70, OR EQUALS.

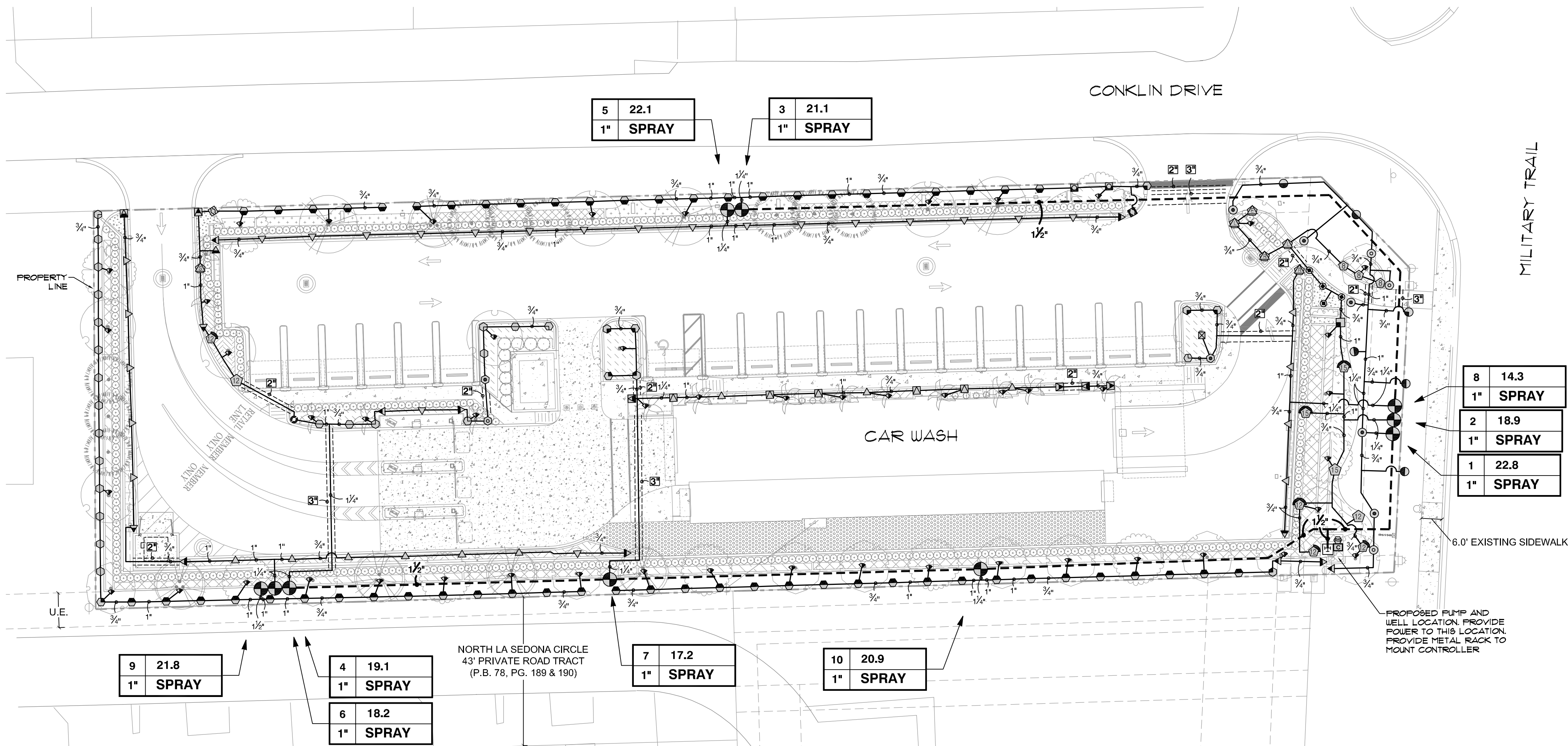
PIPE THAT IS LOCATED UNDER HARDSCAPE SHALL BE INSTALLED WITHIN A SCHEDULE 40 SLEEVE THAT IS TWO SIZES LARGER, OR AS CALLED OUT ON PLAN. SLEEVE IS TO BE A MINIMUM OF 24" DEEP AND EXTEND A MINIMUM OF 3' PAST THE HARDSCAPE. ALL MAINLINE CROSSINGS ARE TO INCLUDE A 2" SLEEVE FOR WIRE RUNS.

CONTROLLER ELECTRIC TO BE 120V, 20 AMP. PROVIDE RACK TO MOUNT CONTROLLER/ PSR. PUMP ELECTRIC TO BE 230V AND CONNECTED THROUGH A PSR. ALL ELECTRIC CONNECTIONS MADE ARE TO MEET NATIONAL ELECTRICAL CODE AND ARE TO BE INSTALLED BY A LICENSED ELECTRICIAN. CONTROLLER TO BE HARDWIRED TO POWER SOURCE AND ALL WIRES TO CONTROLLER ARE TO BE HOUSED WITHIN CONDUIT WITH CONNECTIONS MADE IN A JUNCTION BOX. EACH CONTROL WIRE IS TO BE LABELED WITH ZONE NUMBER AT THE CONTROLLER, JUNCTION BOX, EACH VALVE LOCATION, OR AT ANY SPLICE LOCATIONS. ANY SPLICES MADE TO THE WIRE PATH ARE TO BE HOUSED WITHIN A VALVE BOX AND MARKED ON SITE MAP.

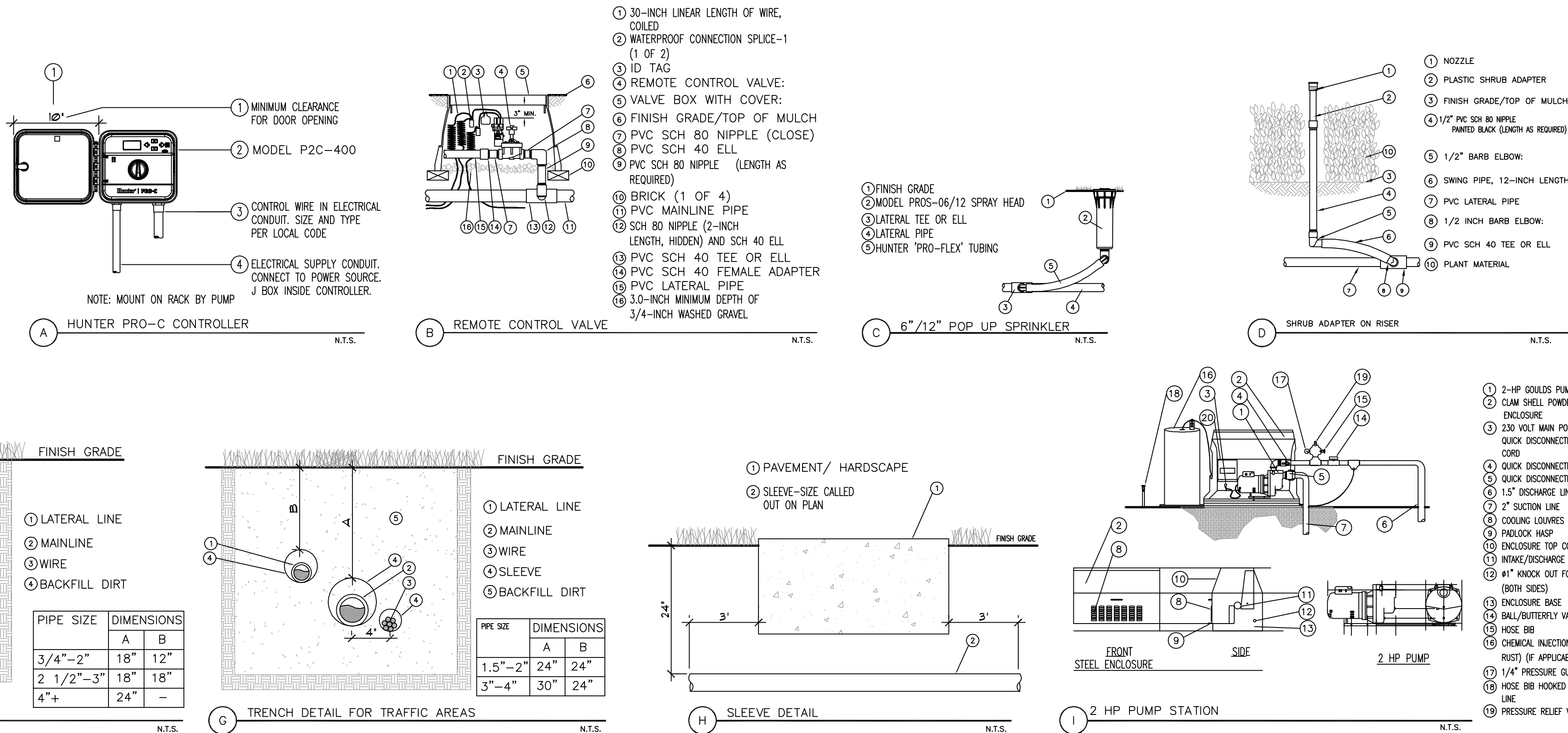
ZONE VALVES ARE TO BE PLACED WITHIN A RECTANGULAR VALVE BOX WITH GRAVEL AT THE BOTTOM. WHEN MULTIPLE VALVE BOXES ARE GROUPED TOGETHER, THEY SHOULD BE IN THE SAME ORIENTATION AND EVENLY ALIGNED. PLACE VALVE BOXES LEVEL TO THE GROUND AND IN MULCHED AREAS WHEN POSSIBLE.

ALL SPRAY EMITTERS SHALL BE PLACED TO AVOID OVER SPRAYING ONTO WALLS, ROADS, SIDEWALKS, OR OTHER STRUCTURES. SPRAY HEADS TO BE INSTALLED A MINIMUM OF 4" OFF CURBED ROADS OR SIDEWALKS, AND 12" OFF WALLS OR CURBLESS ROADS. INSTALL ALL HEADS LEVEL WITH GRADE WHEN IN GRASS/TURF AREAS. INSTALL 12" SPRAY HEADS AND STANDPIPES SO THEY SPRAY A MIN. 3" ABOVE THE PROPOSED SHRUB MATERIAL'S MAINTAINED HEIGHT. STANDPIPES ARE TO USE 3/4" SCHEDULE 40 PIPE. ANY PVC PIPE ABOVE GROUND TO BE PAINTED BLACK OR DARK GREEN. DESIGN IS BASED ON 100% HEAD TO HEAD COVERAGE AND THE CONTRACTOR IS RESPONSIBLE TO ENSURE PROPER COVERAGE OCCURS. STAKE OUT HEADS PRIOR TO INSTALL AND ADJUST LAYOUT/NOZZLE TYPE TO FIELD CONDITIONS AS NEEDED TO PROVIDE PROPER COVERAGE. FLUSH LINES A MIN. OF 10 MINUTES PRIOR TO INSTALLING FILTERS/NOZZLES.

BUBBLERS ARE TO BE USED ON TREES AND PALMS. ALL FUNNY PIPE SHALL BE BURIED BELOW GRADE LEVEL AND STAKED JUST BELOW THE BUBBLER TO AVOID TRIPPING HAZARDS. ENSURE THAT ALL NEWLY PLANTED TREES WITH BUBBLERS HAVE A 4" HEIGHT SOIL BERM TO AVOID RUNOFF WATER.

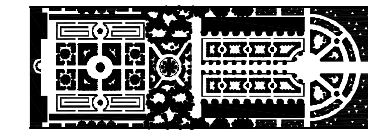


IRRIGATION DETAILS



IRRIGATION SPECIFICATIONS

SYMBOL	MANUFACTURER/MODEL	QTY
	Hunter PROS-06 Strip Series	49
	Hunter PROS-06 8 Series	23
	Hunter PROS-06 10 Series	66
	Hunter PROS-06 15 Series	6
	Hunter PROS-06 Adj Series	12
	Hunter PROS-12 Strip Series	11
	Hunter PROS-12 10 Series	2
	Hunter PROS-12 15 Series	1
	Hunter PROS-12 Adj Series	6
	Hunter PROS-00 Strip Series	6
	Hunter PROS-00 12 Series	4
	Hunter PROS-00 15 Series	2
	Hunter PROS-00 Adj Series	6
	Hunter PCN Bubbler	52
	Irritrol 533 Bubbler	1
SYMBOL	MANUFACTURER/MODEL	QTY
	Hunter PGV-100G 1"	10
	Hunter P2C-400 w/ (02) PCM-300	1
	Hunter RAIN-CLIK	1
	2 HP Pump (Goulds or similar) Point of Connection	1
	Irrigation Lateral Line: PVC Class 200 SDR 21	-
	Irrigation Mainline: PVC Schedule 40 1 1/2"	615 Lf.
	Pipe Sleeve: PVC Schedule 40 2"	98 Lf.
	Pipe Sleeve: PVC Schedule 40 3"	110 Lf.
	Valve Callout	
	Valve Number	
	Valve Flow	
	Emitter Type	
	Valve Size	



PARKER-YANNETTE
design group, inc.

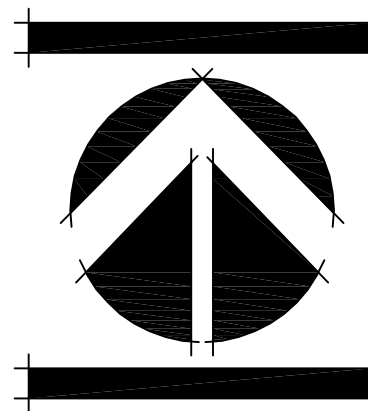
LANDSCAPE ARCHITECTURE
PLANNING GRAPHICS
4425 Military Trail, Suite 202
Jupiter, Florida 33458

Telephone:(561) 747-5069
Fax: (561) 747-2041
Email: mail@pydg.com
License #LA0001347

CONKLIN CAR WASH
14145 S. MILITARY TRAIL
CITY OF DELRAY BEACH, FLORIDA
IRRIGATION PLAN, DETAILS, AND SPECIFICATIONS

DATE: 1/15/2025
DRAWN BY: TY
JOB NO.: 25-003
SCALE: 1" = 20'-0"
FILENAME: Conklin Car Wash

REVISIONS:
5/8/2025
1/18/2025
8/4/2025
9/10/2025



SHEET:

70-1