From: Sartori, Aline
To: Ingrid Allen

Subject: RE: PB-1426 Proposed Minor Alterations - Request for NMR Letter

Date: Tuesday, October 8, 2024 1:02:45 PM

Attachments: image004.png

image008.png image009.png

Ingrid,

Thank you for sending me the sheet.

These modifications will not affect the validity of the permit.

Thanks,



Aline Sartori

Office of Resilience and Coastal Protection Coastal Construction Control Line Program Environmental Specialist III

Environmental Specialist III Aline.Sartori@FloridaDEP.gov Office: 850-245-7531

From: Ingrid Allen <iallen@highlandbeach.us>
Sent: Tuesday, October 8, 2024 12:17 PM
To: Sartori Alina < Alina Sartori@EloridaDER govo

To: Sartori, Aline <Aline.Sartori@FloridaDEP.gov>

Subject: RE: PB-1426 Proposed Minor Alterations - Request for NMR Letter

EXTERNAL MESSAGE

This email originated outside of DEP. Please use caution when opening attachments, clicking links, or responding to this email.

Aline:

See attached newly proposed sheet IR-1 submitted to Town. As you can see, certain irrigation previously approved by FDEP that extends eastward of the dune area has now been removed. I just want to make sure that these modifications do not change the validity of FDEP's permit.

Thank you.



Sincerely, Ingrid Allen Town Planner

Town of Highland Beach 3614 S. Ocean Boulevard Highland Beach FL 33487 (561) 278-4540 Office (option 3) (561) 278-2606 Fax www.highlandbeach.us **PLEASE NOTE:** Florida has a very broad public records law. Most written communications to or from the Town of Highland Beach officials and employees regarding public business are public records available to the public and media upon request. Your e-mail communications may be subject to public disclosure. Under Florida law, e-mail addresses are public records. If you do not want your e-mail address released in response to a public records request, do not send electronic mail to this entity. Instead, contact this office by phone or in writing. The views expressed in this message may not necessarily reflect those of the Town of Highland Beach.

From: Sartori, Aline <Aline.Sartori@FloridaDEP.gov>

Sent: Tuesday, October 8, 2024 11:27 AM **To:** Ingrid Allen <iallen@highlandbeach.us>

Subject: RE: PB-1426 Proposed Minor Alterations - Request for NMR Letter

Good morning, Ingrid,

Could you please send me the new proposed sheet IR-1 submitted to the Town that includes the changes to the irrigation in the dune vegetation?

Thank you.

Best regards,



Aline Sartori

Office of Resilience and Coastal Protection Coastal Construction Control Line Program Environmental Specialist III Aline.Sartori@FloridaDEP.gov Office: 850-245-7531

From: CCCL < CCCL@dep.state.fl.us>
Sent: Monday, October 7, 2024 1:30 PM

To: Sartori, Aline < Aline.Sartori@FloridaDEP.gov >

Subject: FW: PB-1426 Proposed Minor Alterations - Request for NMR Letter



Derek Reed

Administrative Assistant I
Office of Resilience and Coastal Protection
Florida Dept. of Environmental Protection
2600 Blair Stone Road MS #235
Tallahassee, FL. 32399-2400

Office: (850)245-7567 Email: <u>Derek.Reed@FloridaDEP.gov</u>

From: Bonanno, Nathan < Nathan.Bonanno@FloridaDEP.gov>

Sent: Monday, October 7, 2024 1:27 PM To: Ingrid Allen < iallen@highlandbeach.us>

Cc: CCCL < CCCL@dep.state.fl.us>

Subject: RE: PB-1426 Proposed Minor Alterations - Request for NMR Letter

Good afternoon Ingrid,

I am no longer in the CCCL Program, so I am not the correct person to contact for this request.

I have tagged the CCCL inbox so that they can redirect this chain to the appropriate person to handle this request.

Feel free to reach out if you have any questions.

Thanks!



Nathan Bonanno, M.S., E.I.Florida Department of Environmental Protection Office of Resilience and Coastal Protection Coastal Engineering & Geology Engineering Specialist III Nathan.bonanno@floridadep.gov Office: 850-245-7623

From: Ingrid Allen < iallen@highlandbeach.us> Sent: Monday, October 7, 2024 1:10 PM

To: Bonanno, Nathan < Nathan.Bonanno@FloridaDEP.gov>

Subject: FW: PB-1426 Proposed Minor Alterations - Request for NMR Letter

EXTERNAL MESSAGE

This email originated outside of DEP. Please use caution when opening attachments, clicking links, or responding to this email.

Nathan:

Regarding my email below, I forgot to attach the Landscape Plan previously approved by FDEP (see attached).



Sincerely, Ingrid Allen Town Planner

Town of Highland Beach 3614 S. Ocean Boulevard Highland Beach FL 33487 (561) 278-4540 Office (option 3) (561) 278-2606 Fax www.highlandbeach.us

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From: Ingrid Allen

Sent: Monday, October 7, 2024 12:57 PM

To: Bonanno, Nathan < nathan.bonanno@floridadep.gov >

Subject: FW: PB-1426 Proposed Minor Alterations - Request for NMR Letter

Nathan:

Hoping you can assist regarding above-referenced permit. The applicant's Irrigation plan sheet IR-1 (see attached "Landscape Plan") which FDEP previously approved is now being revised by the Applicant. The newly proposed sheet IR-1 submitted to the Town (see attached) has changed whereby certain irrigation in the dune vegetation has now been removed. Kindly advise if this removal affects the validity of the permit.

Thank you.



Sincerely, Ingrid Allen Town Planner

Town of Highland Beach 3614 S. Ocean Boulevard Highland Beach FL 33487 (561) 278-4540 Office (option 3) (561) 278-2606 Fax www.highlandbeach.us

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From: Mark Hunley <<u>mark@charettearch.com</u>>
Sent: Thursday, October 3, 2024 9:51 AM
To: Ingrid Allen <<u>iallen@highlandbeach.us</u>>

Subject: FW: PB-1426 Proposed Minor Alterations - Request for NMR Letter

Email chain below.

Thank you,

MARK HUNLEY ARCHITECT/PARTNER CHARETTE INTERNATIONAL ARCHITECTURE

954-809-9802 MARK@CHARETTEARCH.COM

551 NW 77th St Suite 107 Boca Raton, FL 33487

Thank you for using email, it is the best way for us to accurately interpret, respond, share and archive client comments and information.

From: Mark Powell < mpowell@coastal-engineers.com >

Sent: Friday, March 29, 2024 11:59 AM **To:** Mark Hunley < <u>mark@charettearch.com</u>>

Subject: FW: PB-1426 Proposed Minor Alterations - Request for NMR Letter

Mark,

The request for DEP approval was just sent in. We should receive a response within 30 days.

Have a great weekend. Thanks,

Mark A. Powell, P.E.



Isiminger & Stubbs Engineering, Inc.

Registry Number: 8114 649 US Highway 1, Suite 9 North Palm Beach, FL 33408

561-881-0003

e-mail: mpowell@coastal-engineers.com

www.coastal-engineers.com

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From: Mark Powell

Sent: Friday, March 29, 2024 11:52 AM

To: CCCL < cccl@dep.state.fl.us>

Cc: Jackson, Celora A. < Celora.A. Jackson@FloridaDEP.gov>

Subject: PB-1426 Proposed Minor Alterations - Request for NMR Letter

Good morning Celora,

As a follow up to the referenced project, the owner has decided to make minor changes to the permitted residence as shown in the attached digitally signed and sealed architectural plans. Specifically, the revised house is slightly smaller in the shore-perpendicular dimension and has been relocated landward resulting in a reduction in the seaward dimension (measured perpendicular to the 1997 CCC) of approximately 9 ft compared to the previous DEP-approved plans. Due to these changes, there is less excavation required (339 cy vs 347 cy) seaward of the CCCL as shown in the attached digitally signed and sealed grading plan. Additionally, the landscape plans (attached) have been modified to show the revised house location. Finally, no changes to the approved exterior lighting plans are currently proposed. In summary, we believe the proposed modifications are minor and reduce any potential impacts to the dune and beach system. If acceptable, please approve the attached plans and issue a "No Permit Modification Required" (NMR) letter at your earliest convenience.

Please feel free to contact me if you have any questions.

Mark A. Powell, P.E.



Isiminger & Stubbs Engineering, Inc. Registry Number: 8114 649 US Highway 1, Suite 9 North Palm Beach, FL 33408 561-881-0003

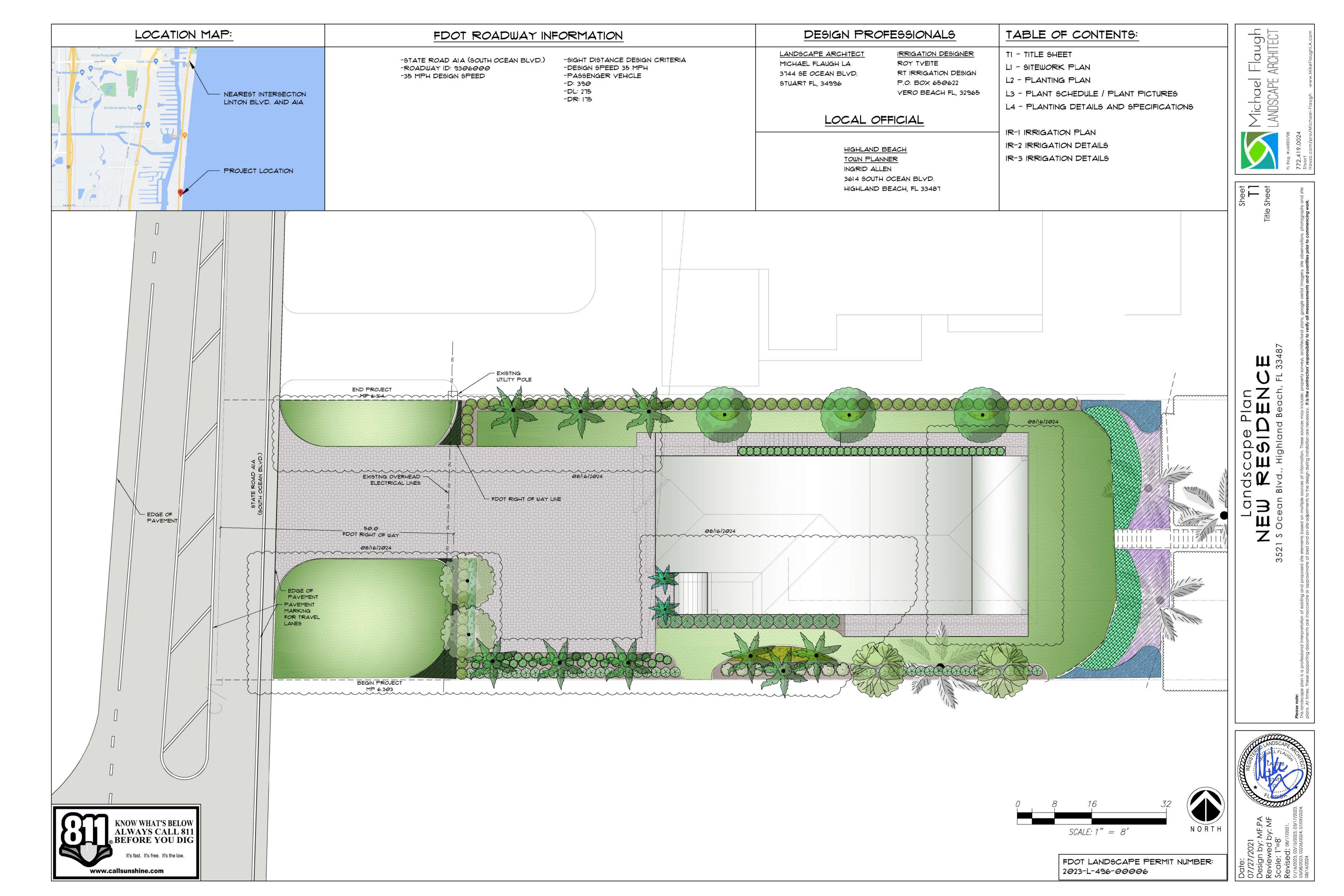
e-mail: mpowell@coastal-engineers.com

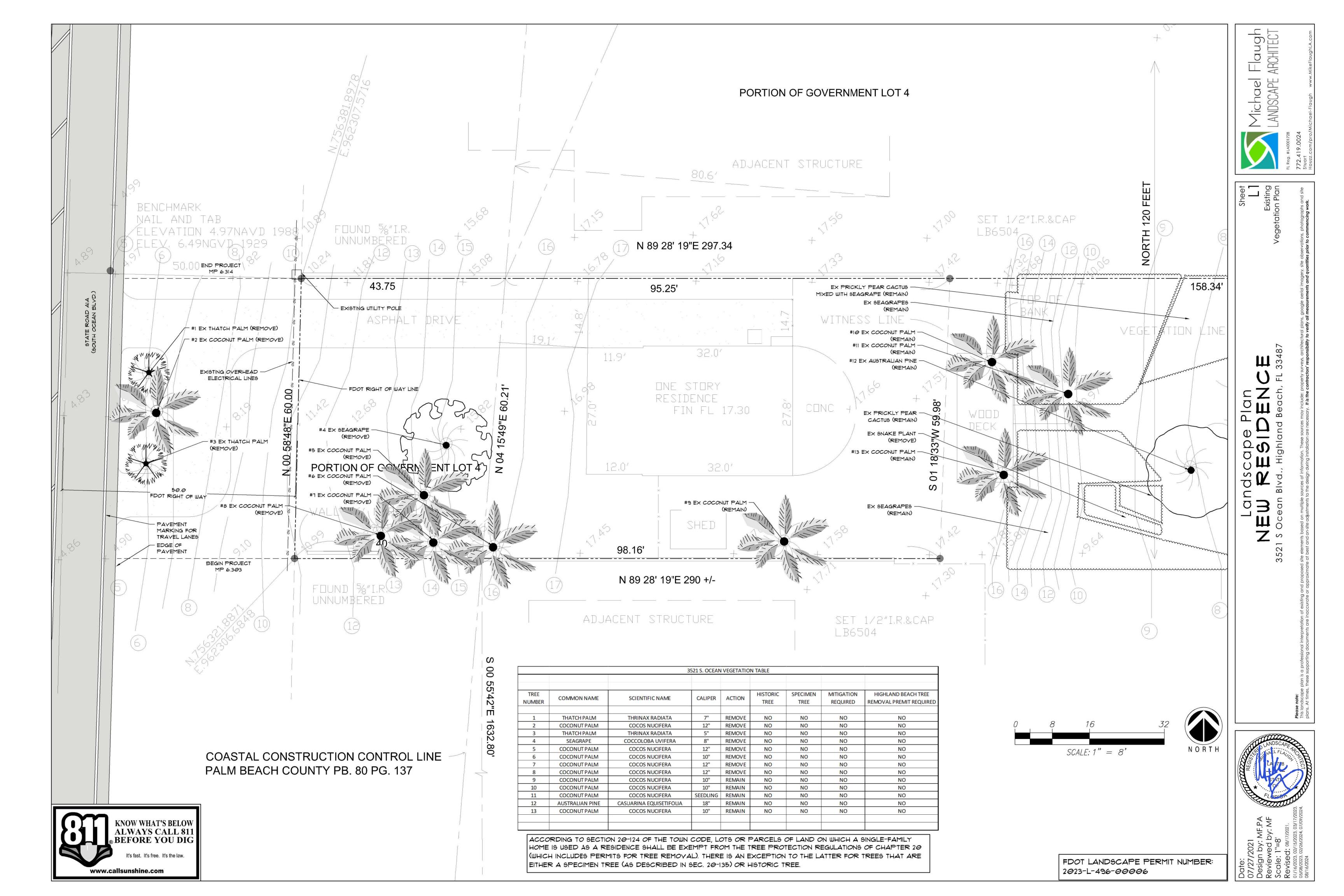
www.coastal-engineers.com

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FDOT GENERAL NOTES

- 1. GOVERNING STANDARD PLANS:
- Florida Department of Transportation, FY 2022-23 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs) are available at the
- following website: https://www.fdot.gov/design/standardplans 2. GOVERNING STANDARD SPECTIFICATIONS:
- Florida Department of Transportation, July 2022 Standard Specifications for Road and Bridge Construction at the following website:
- https://www.fdot.gov/programmanagement/implemented/specbooks
- 3. Contractor shall repair all damage cone to FDOT property during demolition, relocation &/or installation activities at his sole expense.

LIMIT OF CLEAR SIGHT

D: 390'

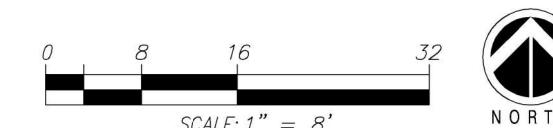
DL: 275'

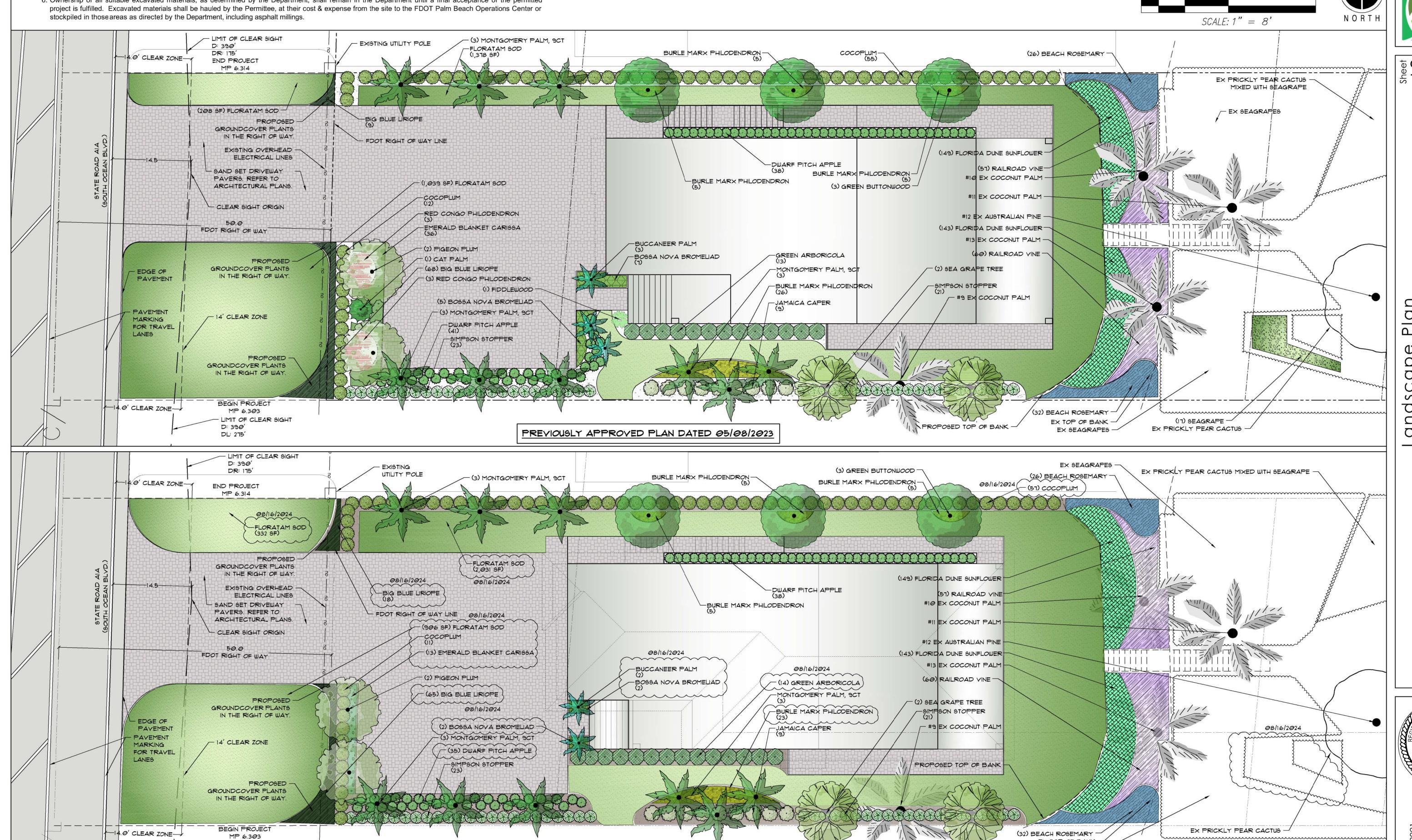
- 4. Any plant material substitution within or impacting the FDOT Right of Way whether requested by the Contractor, Owner, Landscape Architect or other will need to get approval from the FDOT District Landscape Architect.
- 5. Architectural Pavers installation for sidewalks, medians, driveways, or roadways within the FDOT right of way shall comply with current FDOT Standard Specification 526. Online Reference:
- https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/specbooks/fy-20/23-24/fy/2023-24/ebook.pdf?sfvrsn=6b69416d 6
- 6. Ownership of all suitable excavated materials, as determined by the Department, shall remain in the Department until a final acceptance of the permitted project is fulfilled. Excavated materials shall be hauled by the Permittee, at their cost & expense from the site to the FDOT Palm Beach Operations Center or stockpiled in those areas as directed by the Department, including asphalt millings.

FDOT PLANTING NOTES

- 1. For the portion of landscape plant material that will be installed within the FDOT Right of Way, landscape installation shall comply with current applicable FDOT Maintenance Specification 580. Online Refference: ssm5800000wd-722-i17992.pdf (windows.rnet)
- 2. For the portion of landscape plant material that will be installed within the FDOT Right of Way refer to the FDOT Standard Plans Index 580-001 Landscape Online Reference: https://fdotwww.blob.core.windows.net/stefinity/docs/default-source/design/standardplans/2i023/idx/580-001.jpdf?
- 3. Sodded areas will be in accordance with Standard Plans Index 570-010 and Standard Specifications Sections 162, 570, 981, 982, 983, 987 of the Department's latest edition of Governing Design Standards and Standard Specifications. All disturbed areas will be sodded within one (1) week of installation of said permitted work.







REVISED PLAN SUBMITTED FOR APPROVAL

FDOT LANDSCAPE PERMIT NUMBER:

2023-L-496-00006

EX SEAGRAPES

PLANT SCHEDULE

PLAN	1 5CH	IEDULE							
SYMBOL	QTY	PREVIOUSLY APPROVED	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE	NOTES	CODE
TREES		PLAN DATED 05/08/2023							
	2	2	COCCOLOBA DIVERSIFOLIA	PIGEON PLUM	в¢в	3"CAL	14` OA HT.	NATIVE	DROUGHT TOLERA
	2	\{	COCCOLOBA UVIFERA	SEA GRAPE TREE	в¢в	3"CAL	14` OA HT.	NATIVE	DROUGHT TOLERA
	3	3	CONOCARPUS ERECTUS 'GREEN'	GREEN BUTTONWOOD	45 GAL	3"CAL	14` OA HT.	NATIVE	DROUGHT TOLERA
	2	3	PSEUDOPHOENIX SARGENTII NATIVE	BUCCANEER PALM	B \$ B		14` OA HT.	NATIVE	DROUGHT TOLERA
	9	$\left\{ \begin{array}{c} e \end{array} \right\}$	VEITCHIA MONTGOMERYANA	MONTGOMERY PALM, 9CT	в¢в	FL FANCY	9° CT, 14° OA HT.	NON NATIVE	
SYMBOL	QTY	\	BOTANICAL NAME	COMMON NAME	CONT	SPACING	SIZE	NOTES	CODE
SHRUBS	9	$\left. \left. \left. \right\rangle \right. \right. \left. \left. \left. \left. \right\rangle \right. \right. \left. \left. \left. \left. \left. \right\rangle \right. \right. \right. \left. \left.$	CAPPARIS CYNOPHALLOPHORA	JAMAICA CAPER	7 GAL	AS SHOWN	3 - 4`HT., FULL	NATIVE	DROUGHT TOLERA
	\sim	61	CHRYSOBALANUS ICACO 'RED-TIP'				36"HT., FULL	NATIVE	DROUGHT TOLERA
> 5000 > 5000	68	\ \ \		COCOPLUM	7 GAL	AS SHOWN	8		
Call Market	13	er \	CLUSIA ROSEA 'NANA'	DWARF PITCH APPLE	3 GAL	AS SHOWN	14"×12"	NON NATIVE	DROUGHT TOLERA
	44	44	MYRCIANTHES FRAGRANS	SIMPSON STOPPER	7 GAL	AS SHOWN	36"HT., FULL	NATIVE	DROUGHT TOLERA
	14	13	SCHEFFLERA ARBORICOLA	GREEN ARBORICOLA	25 GAL	AS SHOWN	4`HT., FULL	NON NATIVE	DROUGHT TOLERA
SYMBOL	QTY	}	BOTANICAL NAME	COMMON NAME	CONT	INSTALL	SPECS	NOTES	CODE
GROUND	COVERS	}							
0.0.0.		36	CARISSA MACROCARPA 'EMERALD BLANKET'	EMERALD BLANKET CARISSA	1 GAL	18" O.C.	6"×8"	NON-NATIVE	DROUGHT TOLERAI
	58	58	CONRADINA CANESCENS	BEACH ROSEMARY	1 GAL	18" O.C.		NATIVE	DROUGHT TOLERAN
	292	292	HELIANTHUS DEBILIS	FLORIDA DUNE SUNFLOWER	1 GAL	12" OC	4"×8"	NATIVE	DROUGHT TOLERAN
	117	}	IPOMOEA PES-CAPRAE	RAILROAD VINE	1 GAL	18" O.C.	FULL	NATIVE	DROUGHT TOLERAN
	83	711 }	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LIRIOPE	1 GAL	12" OC	6"×8"	NON-NATIVE	
	4 }	{ 12 }	NEOREGELIA 'BOSSA NOVA'	BOSSA NOVA BROMELIAD	1 GAL	24" O.C.	SUN GROWN, 12"X12"	NON-NATIVE	
	38	\ 41 \}	PHILODENDRON X 'BURLE MARX'	BURLE MARX PHILODENDRON	1 GAL			NON-NATIVE	
OTHER	3,269 SF	2,625 SF	STENOTAPHRUM SECUNDATUM 'FLORATAM'	FLORATAM SOD	5 <i>0</i> D	TIGHTLY FITTED, STAGGERED JOINTS			

INSTALLATION

TILLED IN



BUCCANEER PALM













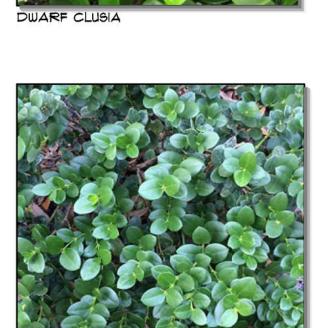






















NATIVE / DROUGHT TOLERANT PLANT TABLE								
PLANT TYPE	TOTAL PLANTS PROVIDED	NATIVE / DROUGHT TOLERANT						
TREES / PALMS	18	10 (55%)						
SHRUBS	208	208 (100%)						
GROUNDCOVERS	605	480 (19%)						

PLANT MATERIAL THAT WAS PREVIOUSLY APPROVED BUT IS NO LONGER INCORPORATED IN THE DESIGN

1 CAT PALM (CHAMAEDOREA CATARACTARUM) 1 GALLON

ALL PLANTS ARE TO BE A MINIMUM GRADE OF FLORIDA #1

REFERENCE NOTES SCHEDULE

PLANTING ACCESSORIES

6 PHILODENDRON "ROJO CONGO" (RED CONGO PHILODENDRON) 3 GALLON

17 PROPOSED SEAGRAPE SHRUBS HAVE BEEN REMOVED FROM THE EXISTING DUNE.

1 FIDDLEWOOD (CITHAREXYLUM FRUITICOSUM) 1 GALLON

GENERAL NOTE:

08/16/2024

NATIVE / DROUGHT TOLERANT PLANT TABLE										
PLANT TYPE	TOTAL PLANTS PROVIDED	NATIVE / DROUGHT TOLERANT								
TREES / PALMS	ei	10 (53%)								
SHRUBS	220	213 (97%)								
GROUNDCOVERS	650	520 (80%)								

VOICE PRODUCTION OF THE PRODUC

08/16/2024

FINISHED GRADE EVEN WITH ADJACENT SOD/HARDSCAPES

NATIVE / DROUGHT TOLERANT PLANT TABLE									
PLANT TYPE	TOTAL PLANTS PROVIDED	NATIVE / DROUGHT TOLERANT							
TREES / PALMS	19	10 (53%)							
SHRUBS	220	213 (97%)							
GROUNDCOYERS	650	520 (80%)							

PATTERN

BLACK, SHREADED, HARDWOOD, NON-CYPRESS

1:1 SCREENED COMPOST AND SCREENED TOPSOIL

BOSSA NOVA BROMELIAD





FDOT LANDSCAPE PERMIT NUMBER: 2023-L-496-00006



2. ALL SPECIFICATIONS MUST BE SATISFIED. IF "HERE IS A PROBLEM LOCATING A MATERIAL WITH GIVEN SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT BY EMAIL PRIOR TO INSTALLATION. AT THE DISCRETION OF THE LANDSCAPE ARCHITECT, A SUBSTITUTION MAY BE MADE.

3. LANDSCAPE CONTRACTOR IS RESPONSIBLE TO REVIEW AND RECONCILE PLAN WITH LANDSCAPE MATERIALS LIST, AND ANALYZE SITE CONDITONS AND ACCESS PRIOR TO SUBMITTING A PROPOSAL

4. LANDSCAPE CONTRACTOR MUST PROVIDE EVIDENCE OF WORKMAN'S COMPENSATION AND LIABILITY INSURANCE IN PROPOSAL PACKAGE.

5. THE LANDSCAPE CONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE LAWS, CODES AND ORDINANCES.

6. ALL PLANT MATERIAL FURNISHED BY THE LANDSCAPE CONTRACTOR SHALL BE FLORIDA #1 OR BETTER (GRADES AND STANDARDS FOR NURSERY PLANTS, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, LATEST EDITION), UNLESS OTHIERWISE NOTED ON THE LANDSCAPE MATERIALS LIST. AS MANY SPECIES TOLERATE BOTH SUNNY AND SHADY GROWING CONDITIONS, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ALL PLANT MATERIAL GROWN IN SIMILAR CONDITIONS TO THE SITE.

1. THE LANDSCAPE CONTRACTOR SHALL COMPLETE ALL WORK ACCORDING TO THE FLORIDA GREEN INDUSTRIES BEST MANAGEMENT PRACTICES.

8. THE LANDSCAPE CONTRACTOR MUST SPECIFY START AND COMPLETION DATES, IF AWARDED THE PROJECT.

9. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK

10. ALL PLANTING AREAS SHALL BE PREPARED BY REMOVING ALL DEBRIS, INCLUDING ASPHALT, CONCRETE, OR SIMILAR MATERIALS NOT SUITED FOR LANDSCAPE PLANTING.

11. PLANTING SOIL SHALL BE CLEAN OF ROCKS, STICKS, ROOTS AND WEEDS, AND SHALL BE WELL-DRAINING.

12. ALL LANDSCAPED AREAS SHALL BE FINISH GRADED SUCH THAT FINISHED ELEVATION WILL BE FLUSH AND LEVEL WITH SURROUNDING PAVED SURFACES. THE FINISHED GRADE AFTER PLANTING AND MULCHING SHALL NOT IMPEDE THE FLOW OF DRAINAGE INTO LANDSCAPED AREAS AND TO PREVENT THE BACKWASH OF MULCH AND DEBRIS INTO P'AVED AREAS.

13. ALL PLANTING BEDS MUST DRAIN SUFFICIENTLY PRIOR TO PLANTING. IF EXISTING SOIL IS NOT ADEQUATE FOR ESTABLISHMENT OF PLANT MATERIALS DUE TO POOR DRAINAGE OR CHEMICAL PROPERTIES, SOIL AMENDMENTS SHALL BE ADDED PRIOR TO PLANTING

14. PLANTS SHALL NOT BE PLACED TOO CLOSE TO ONE ANOTHER OR ANY HARDSCAPES. SEE LANDSCAPE MATERIALS LIST AND PLANTING DETAILS FOR SPACING AND PLACEMENT OF ALL PLANTS. A MULCH STRIP SHALL BE LEFT BETWEEN THE PLANTINGS AND WALLS. EDGE: OF SOD DRIVEWAY OR WALKWAYS. ALL PLANTS SHALL BE PLACED OUTSIDE THE EAVES OF THE ROOF, UNLESS OTHERWISE INDICATED ON THE LANDSCAPE PLAN.

15. ALL PLANTS TO BE RELOCATED SHALL BE PROPERLY ROOT PRUNED 6 TO 10 WEEKS PRIOR TO RELOCATION.

16. ALL NEW LANDSCAPE PLANTS SHALL BE PLANTED SLIGHTLY HIGHER THAN THE EXISTING GRADE LEAVING TOP OF THE ROOT BALL EXPOSED

17. ALL PLANT MATERIALS SHALL BE THOROUGHLY WATERED IN AT THE TIME OF PLANTING.

18.3" LAYER OF ORGANIC MULCH SHALL BE LAID IN ALL LANDSCAPE BEDS. NO MULCH SHALL BE LAID NEAR TREE TRUNKS, NO MULCH SHALL BE LAID ON TOP OF CITRUS TREE ROOT BALLS.

19. NEWLY PLANTED TREES SHALL BE STAKED ONLY IF THE ROOT BALL MOVES IN THE WIND OR THE TREES ARE LOCATED IN AN AREA OF WINDY CONDITIONS. ALL PALMS SHALL BE STAKED. ALL WOOD BRACES AND BRACE FRAMES SHALL BE STAINED DARK BROWN. NO NAILS SHALL BE DRIVEN INTO ANY PALM OR TREE.

20. PLANTING PLAN TAKES PRECEDENCE OVER PLANT LIST

21. THE LANDSCAPE BID SHALL INCLUDE IRRIGATION ON A SEPARATE CONTRACT, EXPRESSED AS A LINE-ITEM PROPOSAL

22. ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH FULLY AUTOMATIC IRRIGATION SYSTEM. THE IRRIGATION CONTRACTOR SHALL PROVIDE 100% COVERAGE IN ALL IRRIGATED PLANTING AREAS THE IRRIGATION SYSTEM SHALL BE DESIGNED ACCORDING TO ACCEPTED IRRIGATION STANDARDS USING WATER CONSERVATION PRINCIPLES WITH LOW-VOLUME IRRIGATION SYSTEM. THE SYSTEM SHALL ACCOMMODATE EASY ADJUSTMENTS FOR SEASONAL IRRIGATION NEED CHANGES OR LOCAL WATERING RESTRICTIONS.

23. ALL SOD AND SHRUB AREAS SHALL BE IRRIGATED ON SEPARATE ZONES, WHENEVER POSSIBLE. PLANTING AREAS WITH DIFFERENT WATERING NEEDS SHALL BE PLACED ON SEPARATE ZONES.

24. ALL SHRUB AND GROUND COVER AREAS SHALL BE IRRIGATED WITH DRIP LINE OR MIST HEADS; TREES AND PALMS SHALL HAVE BUBBLERS. ALL HEADS IN A GIVEN ZONE MUST HAVE THE SAME PRECIPITATION RATE.

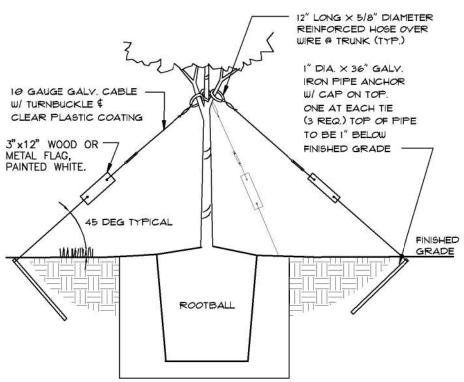
25. SPRAY HEADS SHALL BE PLACED AND ADJUSTED TO MINIMIZE OVER-SPRAY ON PAVED AREAS, ROADWAYS AND CURBING. NO OVER-SPRAY ON BUILDINGS IS ACCEPTABLE

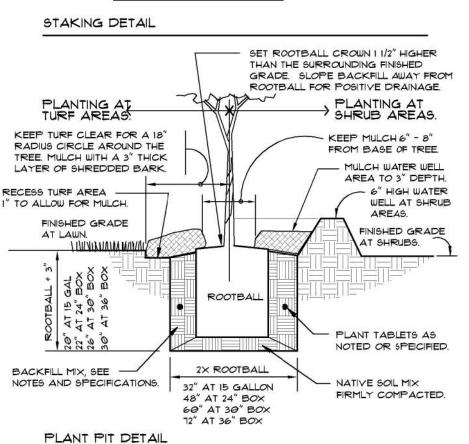
26. THE CONTRACTOR(S) SHALL KEEP ALL WORK AREAS NEAT AND TIDY ON A DAILY BASIS. AT COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL REMOVE FROM THE PROPERTY ALL TEMPORARY STRUCTURES AND GARBAGE AT HIS/HER OWN EXPENSE.

27. THE CONTRACTOR(S) SHALL KEEP ALL PLANTS WATERED, FERTILIZED, MULCHED, PRUNED, STAKED AND GUYED AS NECESSARY TO ASSURE SPECIFIED MINIMUM GRADE OF FLORIDA #1 THROUGHOUT THE DURATION OF THE PROJECT CONSTRUCTION PERIOD. PLANTING BEDS SHALL BE KEPT FREE OF LITTER AND UNDESIRABLE VEGETATION. THE CONTRACTOR(S) IS RESPONSIBLE FOR KEEPING ALL THE PLANT MATERIAL HEALTHY, VIGOROUS, AND UNDAMAGED THROUGHOUT THE DURATION OF THE PROJECT CONSTRUCTION PERIOD.

28. THE FINAL PAYMENT IS MADE UPON COMPLETION OF PROJECT AND EXECUTION OF LIEN RELEASE AFFIDAVIT.

29. ALL SHRUBS AND GROUND COVERS SHALL BE WARRANTIED FOR 90 DAYS; ALL TREES AND PALMS SHALL BE WARRANTIED FOR I YEAR FROM THE DATE OF FINAL ACCEPTANCE AND PAYMENT.





NOT TO SCALE

AT WATER WELL FINISHED GRADE ROOTBA PLANT TABLETS AS NOTES OR SPEICIFIED BACKFILL MIX, SEE NOTES AND SPECIFICATIONS. 2 X ROOTBALL FIRMLY COMPACTED. 12" AT I GALLON 22" AT 5 GALLON 32" AT 15 GALLON TREE GUY WIRE PLANTING

4" HIGH AT SHRUE

NO WATER WELL

AT LAWN AREA.

PALM AS SPECIFIED.

2" THICK MULCH BED

4" HIGH WATER WELL

12"

CLEAR

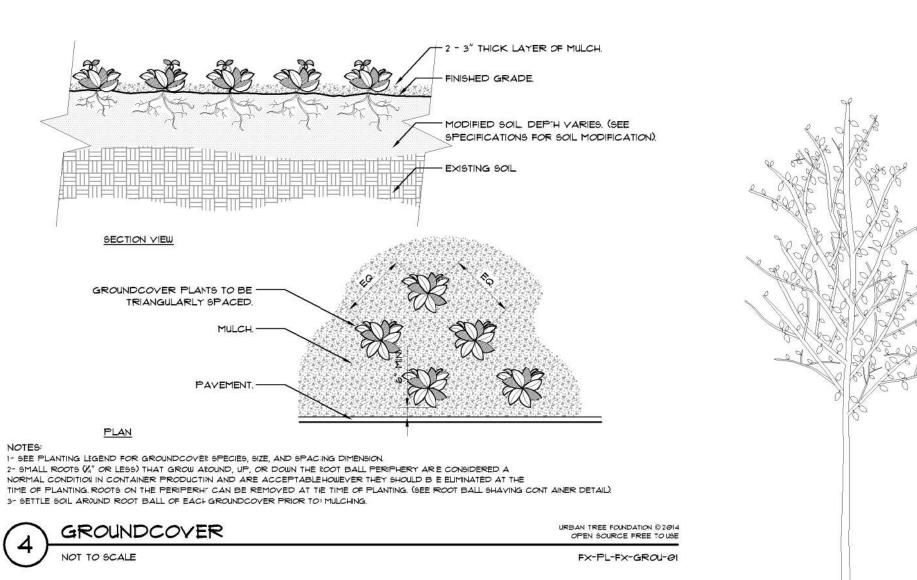
PALM TREE PLANTING

AT WATER WELL

OMIT AT LAWN.

SHRUB PLANTING

NOT TO SCALE FX-PL-FX-SHRB-01



FX-PL-FX-TREE-IT

1. ALLOW 3 MONTHS FOR THE ROOT-PRUNING PROCESS OF A LARGE TREE BEFORE RELOCATING IT 2. IF THE RELOCATION IS SCHEDULED DURING DRY OR ACTIVE GROWING SEASON THE TREE SHALL BE WATERED DAILY DURING THE ROOT PRUNING PROCESS. 3. THE TIME OF THE RELOCATION SHALL BE 90 DAYS AFTER THE START OF THE ROOT PRUNING PROCESS. THEN, THE ROOT BALL SHALL BE CUT BEYOND THE ROOT PRUNING CUT TO INCLUDE ALL NEW FEEDER ROOTS. 4. AFTER RELOCATION, THE TREE SHALL BE THOROUGHLY WATERED DALY FOR THE FIRST TWO WEEKS,

TREE AS SPECIFIED. IRRIGATE REGULARLY FOR 2 WEEKS PRIOR TO THE BEGINNING OF THE ROOT PRUNING PROCESS. STANDARD PRUNING PROCESS: 1/3 OF THE ROOT BALL SHALL BE CUT AS SOON AS THE CONTRACT HAS BEEN AWARDED; THE NEXT 1/3 SHALL BE CUT 30 DAYS AFTER THE PROCESS STARTED; THE LAST 1/3 SHALL BE CUT 60 DAYS AFTER THE PROCESS STARTED.

AND THREE TIMES PER WEEK FOR THE FOLLOWING TWO MONTHS. TREE RELOCATION NOT TO SCALE

LANDSCAPE MAINTENANCE GUIDELINES:

1. LAWN CARE:

TO ENSURE SAND FILLS ALL

VOIDS. ADD VITAMIN BI AT

OF WATER DURING BACKFILL

ONE TABLESPOON PER GALLON

SAND

-BACKFILL WITH 100%

PURE COURSE, CLEAN

BLEND TWO CUPS OF BONE MEAL INTO BOTTOM OF PLANT

SET ROOTBALL CROWN

SLOPE FINISHED GRADE

AT BACKFILL AWAY FROM

THAN SURROUNDING

MULCH TO 2" DEPTH

FINISHED GRADE

" HIGHER

ROOTBALL

FX-PL-FX-TREE-19

1.1. MAINTAIN ST. AUGUSTINE LAWN AT 3" HEIGHT. LEAVE LAWN CLIPPINGS ON THE LAWN.

1.2. FERTILIZE IN FEBRUARY, MAY AND OCTOBER. APPLY PRE-EMERGENT WEED KILLER IN EARLY SPRING AND FALL

1.3. PRACTICE INTEGRATED PEST MANAGEMENT TO IDENTIFY AND TREAT INSECT STRESS, WEED AND FUNGAL PROBLEMS. INSPECT AND CONTROL INSECT DAMAGE ON LAWNS DURING SUMMER MONTHS. FOLLOW LABEL DIRECTIONS FOR ANY INSECTICIDE, HERBICIDE OR FUNGICIDE APPLICATION. REFER TO GROWERS GUIDELINES FOR DETAILED INSTRUCTIONS.

1.4. 100% OF THE SOD AREAS SHALL BE COVERED BY AN AUTOMATIC IRRIG:ATION SYSTEM. INSPECT THE IRRIGATION SYSTEM FOR BREAKS AND HEAD ALIGNMENT ROUTINELY.

2. MULCH

2.1. ALL LANDSCAPE BEDS SHALL BE MULCHED TWICE A YEAR.

2.2. APPLY 3" LAYER OF MSC CERTIFIED, SHREDDED EUCALYPTUS OR RECYCLED HARDWOOD MULCH.

3. FERTILIZING:

3.1. FERTILIZE WITH A GOOD QUALITY ORGANIC FERTILIZER THREE TIMES A YEAR PER LABEL

INSTRUCTIONS STARTING IN MID TO LATE FEBRUAR'S 3.2. YELLOWING LEAVES ARE OFTEN A SIGN OF NUTRITIONAL DEFICIENCY

3.3. DO NOT APPLY FERTILIZER BETWEEN JUNE 1 AND SEPTEMBER 30. COMPLOST SHALL BE USED IN LIEU

OF FERTILIZER DURNG THE RAINY SEASON, AS NEEDED.

3.4. MAINTAIN A FERTILIZER FREE ZONE ALONG THE RIVER TO PREVENT RUN-OFF

4. PEST AND DISEASES

4.1. SCOUT FOR PESTS AND DISEASES REGULARLY. ONLY 1% OF ALL INSECTS ARE HARMFUL TO PLANTS. 4.2. USE INTEGRATED PEST MANAGEMENT PRACTICES. USE PREVENTATIVE CHEMICAL APPLICATIONS ONLY, WHEN DETERMINED NECESSARY BY A PEST MANAGEMENT PROFESSIONAL

4.3. CHEMICAL PEST CONTROL SHALL BE USED ONLY WHEN THE DAMAGE IS EXPECTED TO BE SIGNIFICANT

5. WEEDS:

5.1. WEED CONTROL SHALL BE PREVENTATIVE.

5.2. HERBICIDE APPLICATIONS MUST BE DONE BY A LICENSED PEST-CONTROL PROFESSIONAL

6. IRRIGATION:

6.1. PROGRAM THE IRRIGATION SYSTEM TO RUN IN THE EARLY MORNING

6.2. NEW PLANTINGS SHOULD BE WATERED DAILY FOR THE FIRST TWO WEEKS, AFTER WHICH THREE TIMES PER WEEK FOR THE FOLLOWING TWO MONTHS

6.3. NEW TREES SHALL BE WATERED AT LEAST ONCE A WEEK FOR THE FOLLOWING YEAR AND SHRUBS FOR THE FOLLOWING 6 MONTHS FOR PROPER ESTABLISHMENT

6.4. TREES SHOULD RECEIVE 2 - 3 GALLONS OF WATER PER INCH OF TRUNK DIAMETER AT EACH WATERING.

6.5. AT EACH WATERING, APPLY I" WATER TO ESTABLISHED PLANTING BED.

6.6. THE AUTOMATIC IRRIGATION SYSTEM SHALL BE INSPECTED ONCE A MONTH FOR LEAKS, BRAKES AND MISALIGNED HEADS

6.7. INCREASE WATERING FREQUENCY DURING TIMES OF HEAVY WINDS AND DIROUGHT, TYPICALLY IN THE SPRING. PLEASE NOTE THAT A RAIN SENSOR WILL NOT DETECT THE DRYING EFFECTS OF HEAVY WINDS.

6.8. REDUCE WATERING FREQUENCY DURING COOL WINTER AND RAINY SUMMER MONTHS. WATER ONLY A.S. NEEDED AS HEAVY RAINS AND IRRIGATION WILL INCREASE WEEDS. THE IRRIGATION SYSTEM MAY BE TURNED OFF DURING MONTHS OF HEAVY RAIN A RAIN SENSOR MAY BE USED TO OVERRIDE THE SYSTEM DURING THE RAINY SEASON.

7. PRUNING:

1.1. ALL PRUNING AND TRIMMING TOOLS SHALL BE CLEANED AFTER EACH USE TO PREVENT SPREADING OF DISEASES.

1.2. REMOVE DEAD FRONDS, DEAD WOOD AND CROSSING BRANCHES ON LARGE SHRUBS, PALMS AND TREES ANY TIME OF THE YEAR.

1.3. FLOWERING SHRUBS: LATE SUMMER AND FALL FLOWERING SHRUBS, AS WELL AS CONIFERS SHALL BE PRUNED ONCE A YEAR IN MARCH. SPRING BLOOMING SHRUBS SHALL BE PRUNED ONCE A YEAR, AFTER THEIR BLOOMS FADE IN LATE SPRING.

1.4. SHADE TREES SHALL BE STRUCTURALLY PRUNED ONCE A YEAR IN SPRING BY A CERTIFIED ARBORIST.

7.5. SHRUBS SHALL BE MAINTAINED FOLLOWING THEIR NATURAL FORM WITH ROUNDED TOP AND WIDER BASE. SMALL-LEAVED (LESS THAN I" LENGTH) SHRUBS MAY BE SHEARED WITH POWERED HEDGE TRIMMERS. ALL SHRUBS SHALL BE TRIMMED ONE TO THREE TIMES A YEAR TO MAINTAIN DESIRED HEIGHT. ALL OVERGROWN SHRUBS SHALL BE CUT BACK IN MAY AND IN SEPTEMBER.

1.6. HEDGES SHALL BE PRUNED REGULARLY FROM THE BEGINNING FOR PROPER ESTABLISHMENT. ALL HEDGES MUST BE MAINTAINED WTH NARROWER TOP THAN THE BOTTOM FOR SUNLIGHT TO REACH THE LOWER HALF OF THE PLANT.

1.1. ORNAMENTAL GRASSES MAY BE CUT BACK ONCE A YEAR IN SUMMER TO REMOVE BROWN LEAVES! CUTTING MAY BE COMPLETED IN FOUR WEEK INTERVALS SO NOT TO HAVE ALL THE ORNAMENTAL GRASSES RECOVERING AT THE SAME TIME.

8. DIVIDING PLANTS:

8.1. BROMELIADS: WHEN THE MOTHER PLANT TURNS BROWN, CAREFULLY PULL UP THE BROMELIAD CLUMP. CUT THE PUPS APART WITH A SHARP KNIFE OR PRUNERS PRESERVING AS MANY OF THE ROOTS AS POSSIBLE. DISCARD THE DYING MOTHER PLANT AND PLANT THE PUPS. THE DEAD MOTHER PLANT MAY ALSO BE TWISTED OFF AT THE BASE, WITHOUT REMOVING THE CLUMP FROM THE GROUND.

8.2. HERBACEOUS PERENNIALS: THE CLUMPS MAY BE DIVIDED EVERY TWO TWO THREE YEARS IN LATE SPRING OR SUMMER. DIG THE ROOT BALL OUT OF THE GROUND AND CAREFULLY DIVIDE THE CLUMP INTO 2-4 SMALLER SECTIONS.

9. RELOCATING PLANT MATERIAL

9.1. THE BEST TIME TO RELOCATE PLANTS IN THE GARDEN IS FEBRUARY THROUGH APRIL

9.2. THE PLANT SHALL BE PROPERLY ROOT-PRUNED BETWEEN 6 AND 10 WEEKS BEFORE RELOCATION. 9.3. AT THE TIME OF THE RELOCATION, THE ROOT BALL SHALL BE CUT BEYOND THE ROOT PRUNING CUT TO INCLUDE ALL NEW FEEDER ROOTS

9.4. WATER RELOCATED PLANTS DAILY FOR THE FIRST TWO WEEKS, AFTER WHICH THREE TIMES PER WEEK FOR THE FOLLOWING TWO MONTHS.

10. MAINTAINING SOIL PH:

10.1.SANDY SOILS ARE NATURALLY ALKALINE, BUT MOST PLANT MATERIALS PREFER SOILS IN NEUTRAL OR ACIDIC RANGE TO THRIVE.

10.2. ADDING ORGANIC MATTER REGULARLY WILL MAINTAIN A HEALTHY PHILEVEL FOR ALL PLANTS. 10.3. COMPOST WILL DECREASE THE SOIL PH THROUGH THE DECOMPOSITION PROCESS.

10.4. ACIDIC ORGANIC MATTER, SUCH AS PINE NEEDLES AND ACID PEAT WILL REDUCE THE PH TEMPORARILY

10.5. GRANULAR SULFUR SHOULD ONLY BE USED AS THE LAST RESORT TO LOWER SOIL PH.

11. CONTAINER PLANTS:

11.1. ONLY USE POTTING SOIL OR POTTING MIX IN CONTAINERS.

11.2. WATER THOROUGHLY. CONTAINER PLANTS NEED MORE WATER THAN THE PLANTS IN THE GROUND. DURING SUMMER MONTHS, HERBS IN CONTAINERS WILL NEED WATERING ONCE DAILY.

12. COLD PROTECTION:

12.1. WATER COLD SENSITIVE PLANTS THOROUGHLY 12 HOURS BEFORE THE FORECASTED COLD FRONT. 12.2. COVER THE PLANTS AT DUSK WITH BLANKETS OR BREATHABLE COVERS. REMOVE THE COVERS AFTER DAWN.

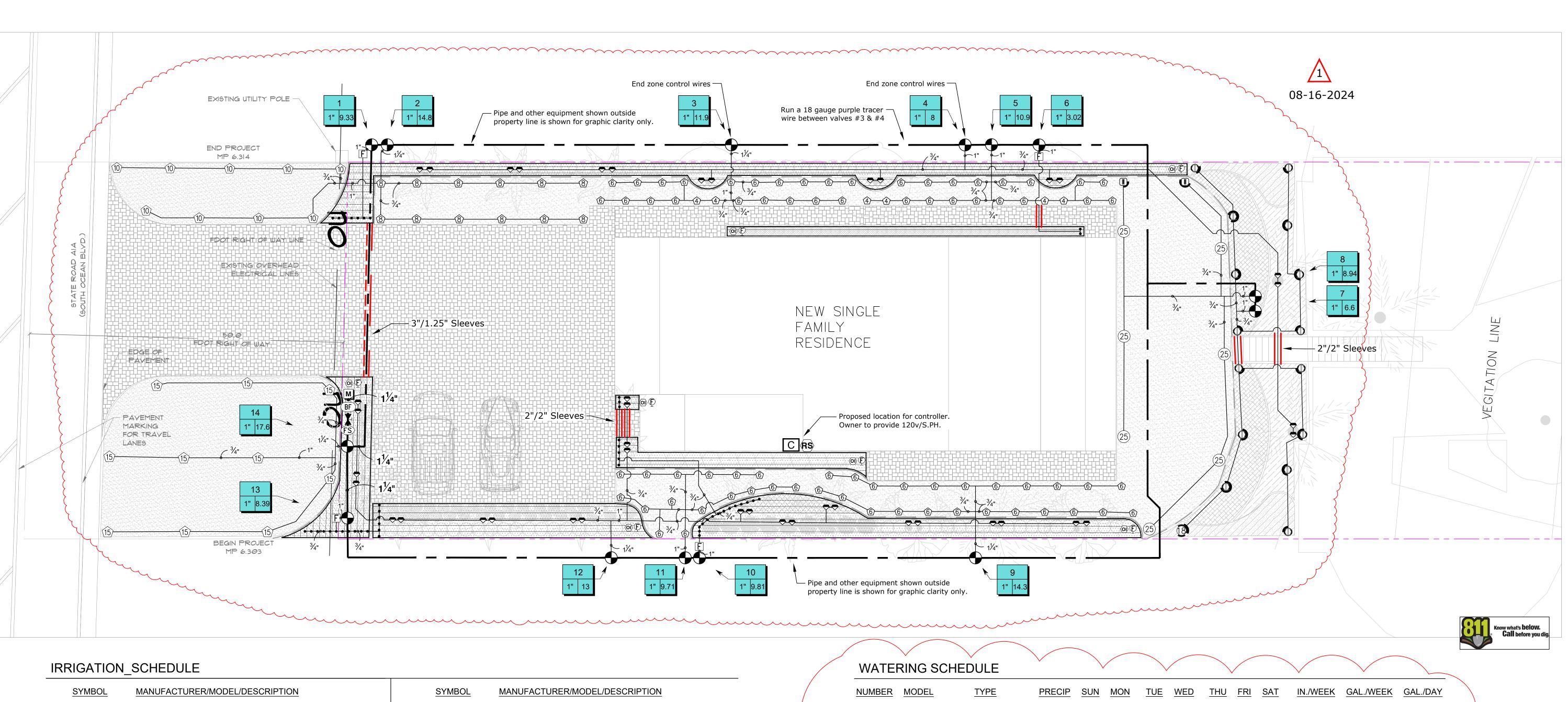
> FDOT LANDSCAPE PERMIT NUMBER: 2023-L-496-00006



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Hunter PROS-06-CV Adj Series ④ ⑥ ⑧ ⑩ ⑫ ① Turf Spray, 6in. Pop-Up. With Drain Check Valve. \bowtie Hunter PROS-06-CV, Rain Bird R-VAN14 Nibco T-113 14 ADJ 14 F Turf Rotary, 8ft.-14ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/PROS-06 and check valve. Hunter PROS-12-CV, Rain Bird R-VAN-STRIP Shrub Rotary, 5ft.x15ft. (LCS and RCS), 5ft.x30ft. (SST) Hand Adjustable Multi-Stream Rotary w/ PROS-12 pop-up with check valve, on a Sch-40 riser. Hunter PROS-12-CV, Rain Bird R-VAN14 Shrub Rotary, 8ft.-14ft. 45-270 degrees and 360 degrees. Hand ① ① 14 ADJ 14 F Hunter WR-CLIK Adjustable Multi-Stream Rotary w/ PROS-12 pop-up with check valve, on a Sch-40 riser. Hunter PROS-12-CV, Rain Bird R-VAN18 1812-SAM-P45 Shrub Rotary, 13ft.-18ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/ PROS-12 pop-up with check (FS) valve, on a Sch-40 riser. Hunter PCB 10 Flood Bubbler, 1/2" FIPT. Hunter PGP-04-MPR 25 Turf Rotor, 4" Pop-Up. Adjustable to Full Circle. MPR Nozzle. Proposed Water Meter Netafim TL050MFV-1 Automatic flush valve, 1/2" male pipe thread. Drip System Operation Indicator, stem rises 6" for clear visibility when drip system is charged to a minimum of 20psi. Includes 16" of 1/4" distribution tubing with connection fitting pre-installed. Area to Receive Dripline Hunter HDL-09-12-CV HDL-09-12-CV: Hunter Dripline w/ 0.9 GPH emitters at 12" O.C. 2,036 l.f.

Check valve, dark brown tubing w/ black striping. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern.

1" Plastic Electric Remote Control Valve, Angle Configuration,

Install with Hunter PLD barbed or PLD-LOC fittings.

Hunter PGV-101A

With Flow Control.

Landscape Products Inc. CWV Slip Socket Slip Socket Plastic Ball Valve. Quarter-turn shutoff designed for irrigation, cold water applications. Same size as mainline.

Class 125 bronze gate shut off valve with wheel handle, same size as mainline pipe diameter at valve location.

Proposed Zurn 720A 1.25" Pressure Vacuum Breaker to be provided, installed and certified by others.

Hunter HCC-2400-PL 24 Station Outdoor Wi-Fi enabled, w/ (2) ICM-800 modules, touchscreen, Plastic Cabinet.

Rain Sensor, install within 1000 ft of controller, in line of sight. 22-28 VAC/VDC 100 mA power from timer transformer. Mount as

Creative Sensor Technology FSI-T-SP3 Series 1in. PVC tee type flow sensor w/socket ends, custom mounting tee and ultra-lightweight impeller enhances low flow measurement. 2 wire digital output compatible w/all irrigation controllers.

Hunter HY-100 1" MPT x MPT threaded inlet and outlet filter with 150 mesh stainless steel screen

Owner to Provide a (1") potable water meter with a minimum size PE service line of 1.25 inches. Irrigation Lateral Line: PVC Schedule 40 Sch-40 solvent weld bell end PVC pipe, ASTW D2266. Use only

Weld-on Medium body 721 Blue glue with P-70 purple primer. Apply solvent weld glue per manufactures instructions. See specifications and details for additional installation instructions. Irrigation Mainline: PVC Schedule 40
Sch-40 solvent weld hell and PVC nine. Use only Weld-o

_	Sch-40 solvent weld bell end PVC pipe. Use only Weld-on Medium body 721 Blue glue with P-70 purple primer. Apply solvent weld glue per manufactures instructions. See specifications and details for additional additional instructions.	
_	Pipe Sleeve: PVC Schedule 40 Sleeving sizes 1.5-inch thru 4-inch shall be Sch-40 pipe, Sleeving	

6-inch and larger shall be Class 200 pipe. See details and

specifications for additional installation instructions.

NUMBER	MODEL	TYPE	PRECIP	<u>SUN</u>	MON	<u>TUE</u>	<u>WED</u>	<u>THU</u>	<u>FRI</u>	SAT	IN./WEEK	GAL./WEEK	GAL./DAY
1	Hunter PGV-101A	Area for Dripline	2.76 in/h		10 min		10 min			10 min	1.25	261	87.1
2	Hunter PGV-101A	Turf Spray	2.33 in/h		12 min		12 min			12 min	1.3	503	168
3	Hunter PGV-101A	Turf Spray	6.31 in/h		5 min		5 min			5 min	1.3	155	51.5
4	Hunter PGV-101A	Bubbler	2.73 in/h		7 min		7 min			7 min	0.9	220	73.3
5	Hunter PGV-101A	Turf Spray	6.21 in/h		5 min		5 min			5 min	1.3	141	47.0
6	Hunter PGV-101A	Area for Dripline	3.44 in/h		8 min		8 min			8 min	1.25	66.3	22.1
7	Hunter PGV-101A	Shrub Rotary	0.97 in/h		27 min		27 min			27 min	1.3	634	211
8	Hunter PGV-101A	Turf Rotor	0.98 in/h		27 min		27 min			27 min	1.3	715	238
9	Hunter PGV-101A	Turf Spray	4.3 in/h		7 min		7 min			7 min	1.3	272	90.7
10	Hunter PGV-101A	Area for Dripline	2.78 in/h		10 min		10 min			10 min	1.25	275	91.6
11	Hunter PGV-101A	Turf Spray	4.67 in/h		6 min		6 min			6 min	1.3	165	55.0
12	Hunter PGV-101A	Bubbler	2.65 in/h		7 min		7 min			7 min	0.9	273	91
13	Hunter PGV-101A	Area for Dripline	2.12 in/h		12 min		12 min			12 min	1.25	302	101
14	Hunter PGV-101A	Turf Spray	1.9 in/h		14 min		14 min			14 min	1.3	738	246
-		TOTALS:			157		157			157		4,720	1,573

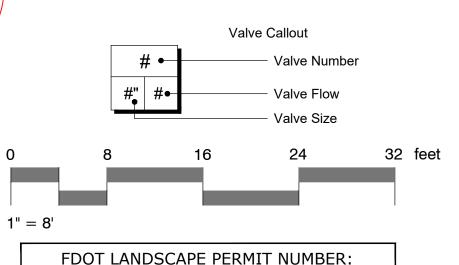
Note: Run times are base on SFWMD 10 year average rain fall, peak usage in July. Contractor / owner must adjust run time to current weather condition...

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	<u>GPM</u>	<u>PSI</u>	PSI @ POC	PRECIP
1	Hunter PGV-101A	1"	Area for Dripline	9.33	26.5	33.4	1.44 in/h
2	Hunter PGV-101A	1"	Turf Spray	14.79	26.6	33.6	2.33 in/h
3	Hunter PGV-101A	1"	Turf Spray	11.9	26.4	33.8	6.31 in/h
4	Hunter PGV-101A	1"	Bubbler	11	33.6	41.0	n/a
5	Hunter PGV-101A	1"	Turf Spray	10.86	26.4	33.9	6.21 in/h
6	Hunter PGV-101A	1"	Area for Dripline	3.02	26.2	33.7	1.44 in/h
7	Hunter PGV-101A	1"	Shrub Rotary	7.83	31.6	39.3	0.97 in/h
8	Hunter PGV-101A	1"	Turf Rotor	8.94	31.5	39.2	0.98 in/h
9	Hunter PGV-101A	1"	Turf Spray	14.32	26.5	33.9	4.3 in/h
10	Hunter PGV-101A	1"	Area for Dripline	9.81	26.6	33.8	1.44 in/h
11	Hunter PGV-101A	1"	Turf Spray	9.71	26.3	33.5	4.67 in/h
12	Hunter PGV-101A	1"	Bubbler	13	32.4	39.5	n/a
13	Hunter PGV-101A	1"	Area for Dripline	8.39	26.3	32.7	1.44 in/h
14	Hunter PGV-101A	1"	Turf Spray	17.57	27.2	33.3	1.9 in/h
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08-16-2024



2023-L-496-00006



08-16-2024

RT Irrigation Design, LLC
P.O. BOX 650622 * VERO BEACH * FL., 32965
E-mail; roy@rtirrigationdesign.com

2022-0328_HB

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of 3

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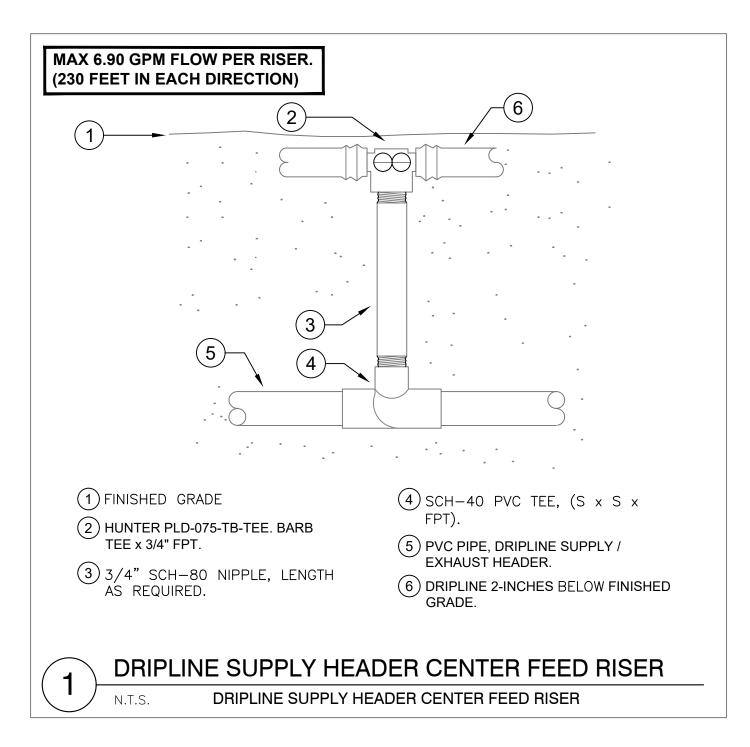
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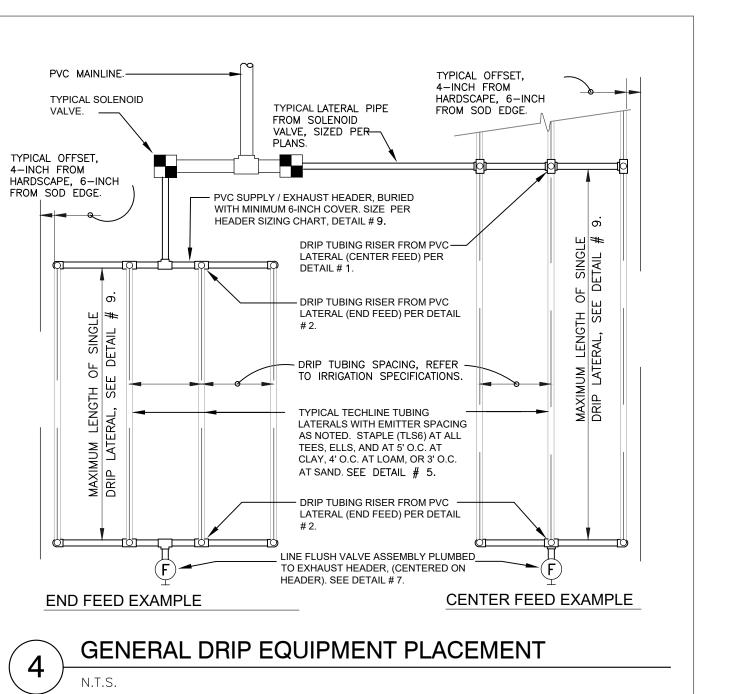
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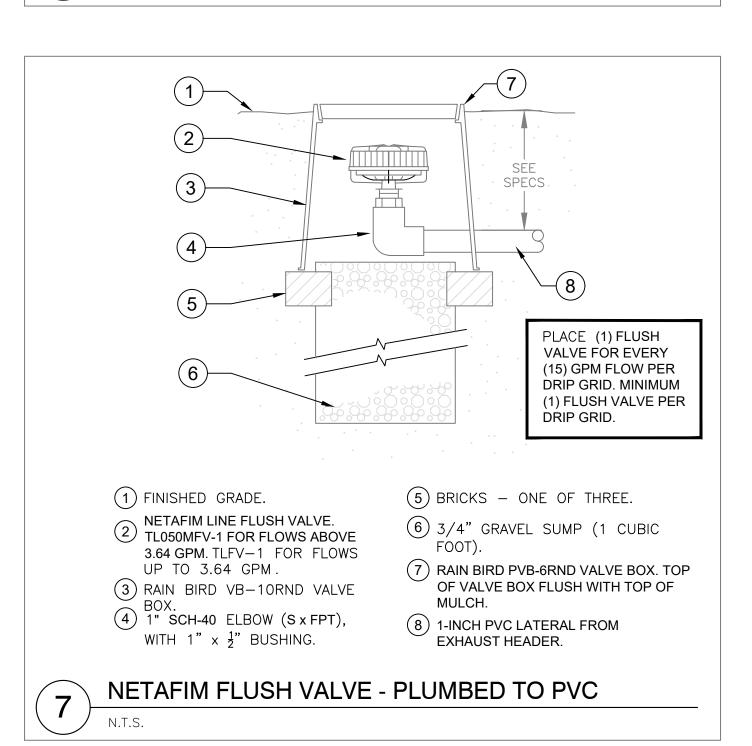
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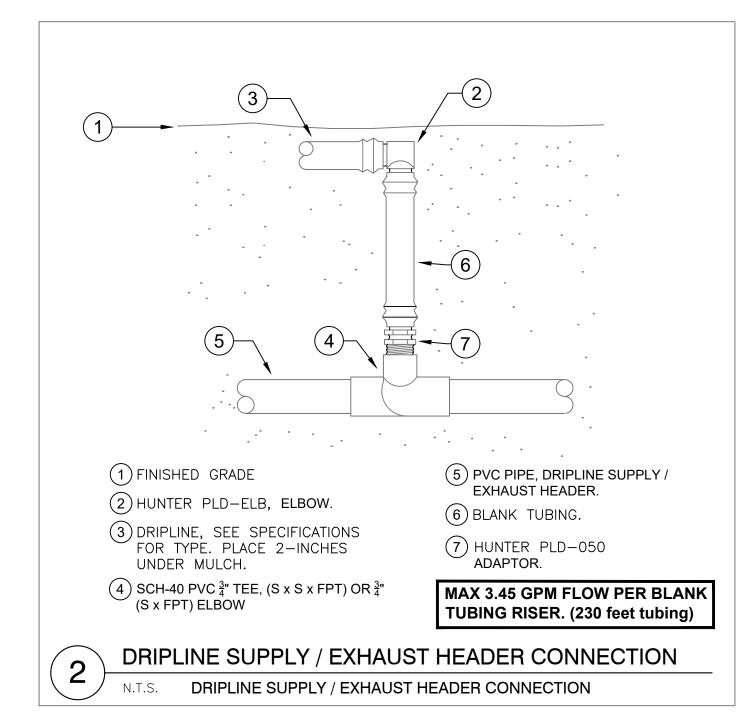
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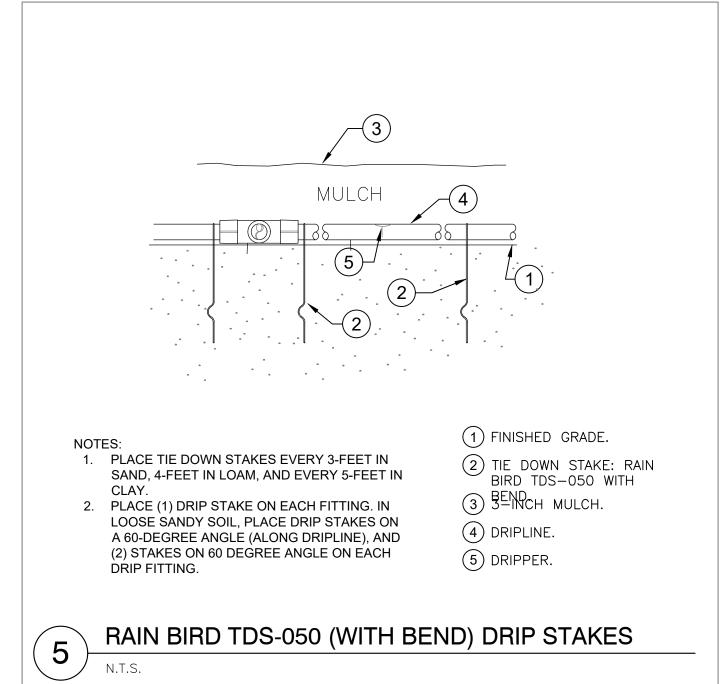
NORTH





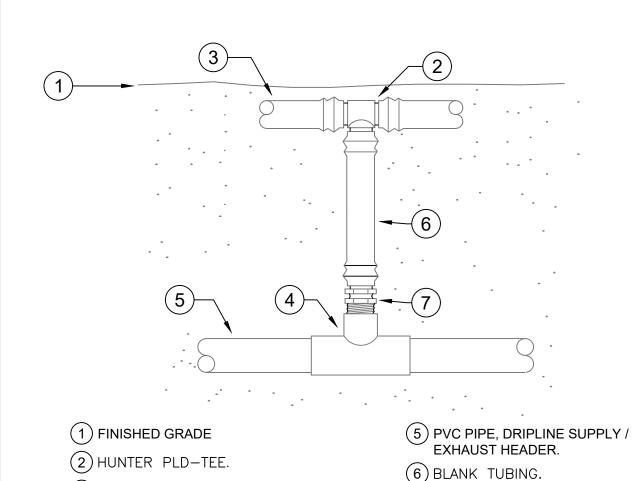






HDL-COP DRIPLINE GENERAL GUIDELINES FOR WATERING TIME										
		TURF		SHRUB	& GROUNI	O COVER				
	CLAY	LOAM	SANDY	CLAY	LOAM	SANDY				
DIPPER FLOW (GPH)	0.40	0.60	0.90	0.40	0.60	0.90				
DRIPPER INTERVAL	24"	12"	12"	24"	18"	12"				
LATERAL (ROW) SPACING	18"-24"	12"	9"-12"	18"-24"	18"-24"	12"-18"				
APPLICATION RATE (IN/HR)	.2217	.96	1.93-1.44	.2217	.4332	1.4496				
TIME TO APPLY 1/4"	68-88	16	8 -10	68-88	35-47	10-16				





(2) HUNTER PLD-TEE.

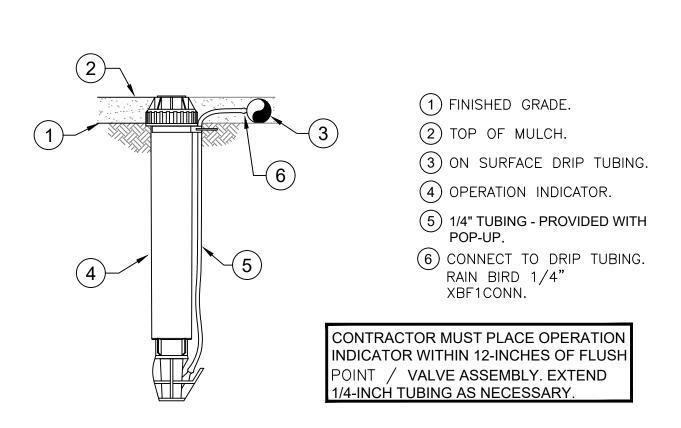
(3) DRIPLINE, SEE SPECIFICATIONS FOR TYPE. PLACE 2-INCHES BELOW FINISHED GRADE. (4) SCH-40 PVC $\frac{3}{4}$ " TEE, (S x S x FPT).

MAX 3.45 GPM FLOW PER BLANK **TUBING RISER.** (230 feet tubing)

(7) HUNTER PLD-050

ADAPTOR.

DRIPLINE SUPPLY / EXHAUST HEADER CONNECTION (3)DRIPLINE SUPPLY / EXHAUST HEADER CONNECTION



1. USE XERIMAN TOOL XM-TOOL TO INSERT BARB TRANSFER FITTING DIRECTLY INTO DRIPLINE TUBING.

2. VAN NOZZLE MAY BE SET TO CLOSE, OR IF IT IS DESIRED TO SEE SPRAY FROM NOZZLE, SET THE ARC TO 1/8 PATTERN. THE FLOW FROM NOZZLE MUST BE DIRECTED WITHIN PLANTING AREA, VISIBLE ENOUGH TO BE SEEN / LOCATED BY MAINTENANCE PERSON.

RAIN BIRD OPERATION INDICATOR

HUNTER HDL-COP MAXIMUM LENGTH OF SINGLE LATERAL (FEET)												
DRIPPER SPA				12"				18"			24"	
DRIPPER FL <u>C</u> RATE (GPH)	<u>D</u> W			0.4	0.6	0.9	_	0.4	0.6	0.9	0.6	0.9
	URE	15	_	285	236	164	_	404	333	233	423	292
	PRESSURE	20	_	339	280	192	-	475	395	273	501	348
	I .	30	_	411	339	236	-	582	482	333	610	419
	INLET (PSI)	40	_	463	385	267	-	657	545	376	688	479

HUNTE	HUNTER HDL-COP FLOW PER 100 FEET													
-DRIPPER SPACING			0.4 GPH	DRIPPER	0.6 GPH	DRIPPER	0.9 GPH DRIPPER							
SFACING	GPH	GPM	GPH	GPM	GPH	GPM	GPH	GPM						
12"	-	_	40.00	0.67	60.00	1.00	90.0	1.50						
18"	ı	_	26.67	0.44	40.00	0.67	59.9	0.99						
24"	-	_	20.00	0.33	30.00	0.50	45.0	0.75						

SUPPLY AND EXHAUST HEADER SIZING CHART (UNLESS NOTED ON PLANS)

STEP 1: ADD LENGTH OF ALL TECHLINE LATERAL TUBING CONNECTED TO THE HEADER. STEP 2: DIVIDE THIS TOTAL LENGTH BY 100 TO INDICATE THE LENGTH IN UNITS OF 100. STEP 3: LOCATE THE GPM THAT APPLIES FOR EACH UNIT OF 100 FEET LENGTH ON THE CHART "TECHLINE FLOW PER 100 FEET". MULTIPLY THIS GPM NUMBER TIMES THE UNITS OF 100 FEET FOR THE TOTAL GPM AT THIS HEADER. STEP 4: SIZE THE HEADER WITH THE FOLLOWING:

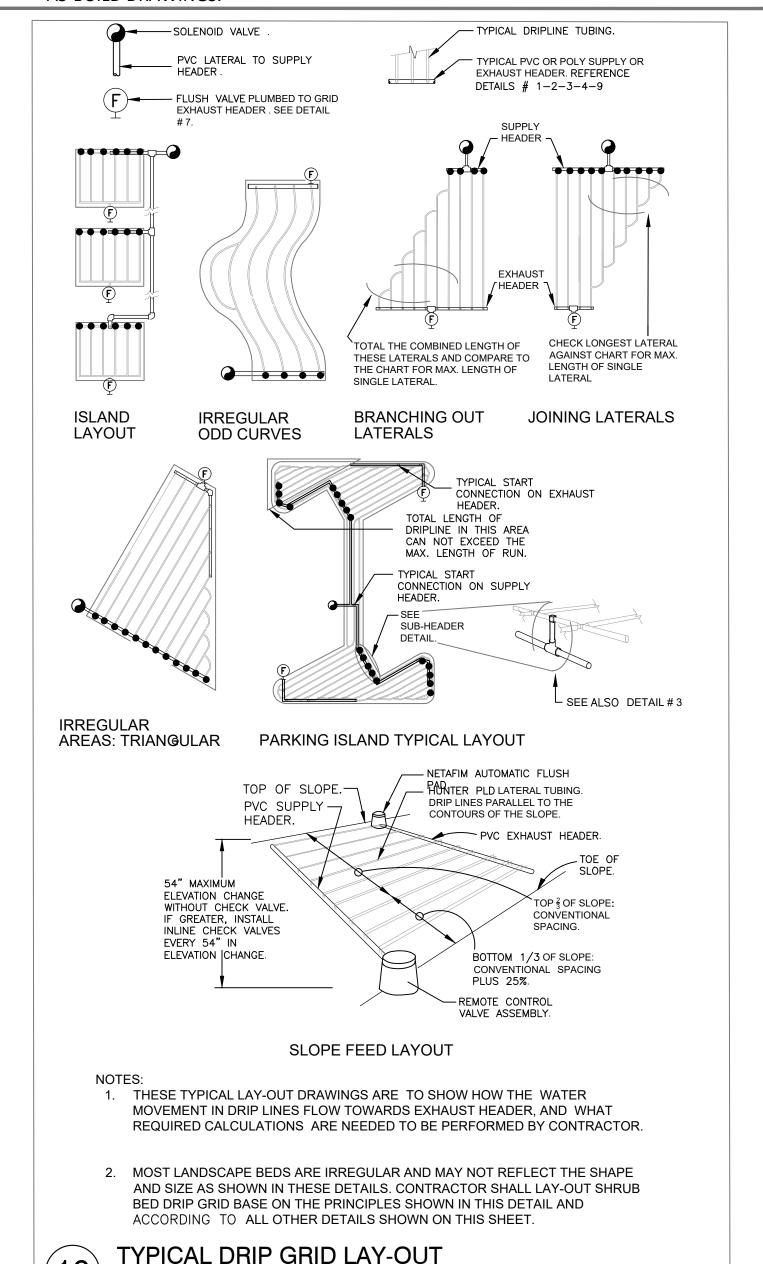
6 TO 10 GPM: 1" HEADER. 1 TO 6 GPM: 3/4" HEADER. 10 TO 20 GPM: 1 1/4" HEADER. 20 TO 30 GPM: 1 1/2" HEADER.

HUNTER HDL-COP DRIPLINE TABLE - 2

DRIP SPECIFICATIONS:

1. DRIP TUBING; HUNTER HDL-CV-GOP, ROW SPACING 12-INCHES. DRIP GRID LAY-OUT IS BASED ON 30 PSI. IF PRESSURE BY SOLENOID VALVE IS HIGHER THAN 50 PSI, INSTALL A AS-50 ON SOLENOID VALVE.

- 2. INSTALL DRIP SYSTEM IN THE FOLLOWING ORDER: A). WITH ALL MAINLINE AND IT'S ASSOCIATE EQUIPMENT COMPLETELY INSTALLED, FLUSH MAINLINE TILL FREE AND CLEAR OF DEBRIS. B). INSTALL ALL LATERALS TO THE VARIOUS DRIP GRIDS, AND SUPPLY HEADERS WITH RISERS EXTENDED ABOVE GROUND. CENTER FEED RISERS, TEMPORARY EXTEND NIPPLES WITH PIPE AND COUPLINGS (DO NOT GLUE). FLUSH TILL FREE AND CLEAR OF DEBRIS, TEMPORARY CAP NIPPLES, SEAL BLANK TUBING (RISERS) WITH TAPE. C). INSTALL EXHAUST HEADERS - RISERS - FLUSH POINTS. D). INSTALL DRIP GRID. STAPLE TUBING PER DETAIL #5, CONNECT DRIP TUBING TO SUPPLY HEADER RISERS. FLUSH TILL FREE AND CLEAR OF DEBRIS. E). CONNECT DRIP GRID TO EXHAUST HEADER RISERS, FLUSH SYSTEM USING "FLUSH VALVE". PVC DISCHARGE AND EXHAUST HEADERS MUST BE BURIED WITH MINIMUM 6" COVER. MULCH IS NOT CONSIDERED AS COVERAGE.
- 3. INSTALL OPERATION INDICATORS "OI" WITHIN 12-INCHES OF FLUSH POD, ONE AT END OF EACH DRIP GRID. SEE DETAIL #6. ACTIVATE DRIP ZONE, ENSURE ALL OPERATION INDICATORS ARE FULLY EXTENDED, ADJUST STREAM SPRAY TO WHERE IT CAN EASILY BE SEEN BY MAINTENANCE PERSON.
- 4. PRESSURE TEST WITH OWNERS REPRESENTATIVE PRESENT; PER ZONE, TEMPORARY INSTALL (2) PRESSURE GAUGES (LIQUID FILLED PRESSURE GAUGES) ON (2) FLUSH POINTS, (1) ON LARGEST GRID "FLUSH POINT" AND THE OTHER ON FARTHEST GRID "FLUSH POINT" ACTIVATE ZONE, AFTER FLOW HAS STABILIZED, VERIFY ALL ZONE OPERATION INDICATORS ARE FULLY EXTENDED, CHECK PRESSURE ON BOTH GAUGES, PRESSURE MUST BE 20 PSI OR HIGHER TO PASS TEST. IF TEST FAILS, CONTRACTOR TO LOCATE AND CORRECT PROBLEM AND RETEST. IT IS IN THE CONTRACTORS BEST INTEREST TO PERFORM HIS OWN TEST BEFORE HE CALLS OWNERS REPRESENTATIVE PRESENTS TO AVOID RE-INSPECTION FEE'S.
- 5. PRESSURE TEST RESULTS SHALL BE NOTED AS-BUILD DRAWING BY THE "FLUSH VALVE" WHERE TESTS WAS TAKEN. ALL "FLUSH VALVE" LOCATIONS SHALL BE INCLUDED IN AS-BUILD DRAWINGS.



FDOT LANDSCAPE PERMIT NUMBER: 2023-L-496-00006

2022-0328_HB

1" = 8'

08-16-2024

Design Date: 03-28-2022

Drawn By:

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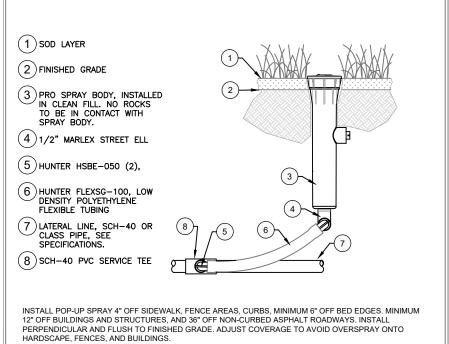
IRRIGATION DRIP DETAILS

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of 3



HUNTER PROS-06

(1) 24 STATION IRRIGATION CONTROLLER; (2) ICM-800 MODULES

3 ELECTRICAL SUPPLY CONDUIT -CONNECT TO POWER SOURCE, J-BOX INSIDE CONTROLLER

MOUNT CONTROLLER LCD SCREEN AT EYE LEVEL. CONTROLLER SHALL BI

REFER TO THE HUNTER HCC INSTALLATION GUIDE FOR FURTHER INSTRUCTIONS.

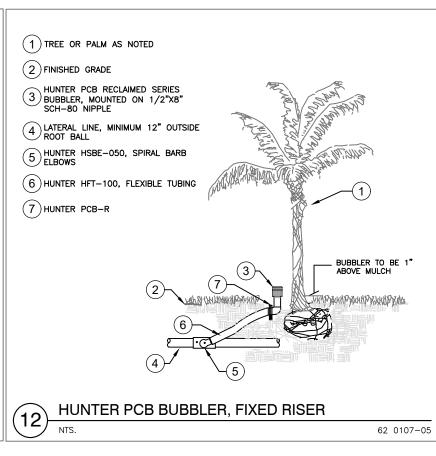
HUNTER HCC-2400-PL CONTROLLER

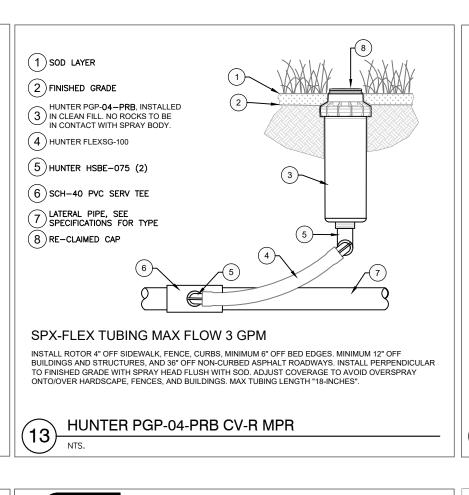
W/ WIFI AND (2) ICM-800 MODULES

(4) ADJACENT SURFACE TO MOUNT CONTROLLER PER PLAN

2 IRRIGATION CONTROL WIRES IN CONDUIT SIZE AND TYPE PER LOCAL CODES

OPEN DOOR WIDTI





MINIMUM UPSTREAM AND DOWNSTREAM DISTANCES BETWEEN ANY VALVE

CST FSI-T-SP3 SERIES FLOW SENSOR

6

 \Box

OR FITTING AND THE FLOW SENSOR

1 PLASTIC VALVE BOX TO

NWATERPROOF WIRE SPLICE, 3M $^\prime$ SCOTCHPACK OF EQUIVALENT.

DIRECT BURIAL 1 PAIR, TWISTED SHIELDED CABLE—MINIMUM

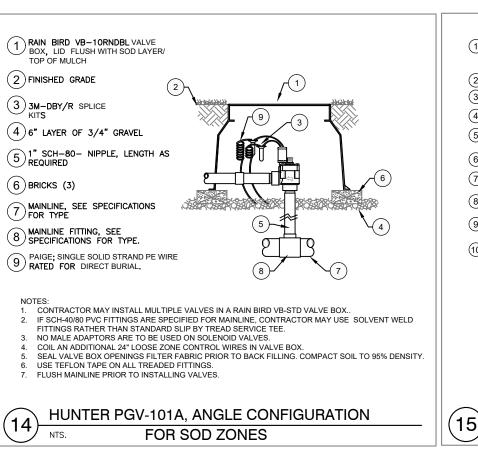
CONDUCTOR SIZE 20 AWG. DO NO EXCEED 2.000 FEET IN LAYING

DISTANCE FROM FLOW SENSOR TO

LOW SENSOR — CREATIVE SENSOR TECHNOLOGY, SIZE FLOW SENSOR

BASED ON REQUIRED G.P.M. NEEDED ON THE PROJECT

PROVIDE ACCESS.



MINIMUM PIPE DEPTH SHALL BE PER DETAIL, HOME DEPOT SPEC'S / LOCAL / STATE CODES

MAINLINE AND LATERAL PIPE, TYPE AND DEPTH UNLESS OTHERWISE NOTED IN SPECIFICATIONS

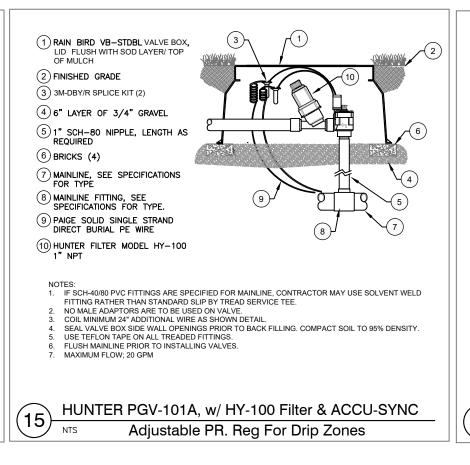
PIPE IN THE SAME TRENCH SHALL HAVE MINIMUM 6" HORIZONTAL & VERTICAL SEPARATION. IF ROCK OR OTHER DEBRIS IS ENCOUNTERED, CONTRACTOR SHALL SHALL HAVE MINIMUM IMBED

CONTRACTOR TO REPAIR ALL SINK HOLES AND DEPRESSIONS UNDER WARRANTY PERIOD AT NO COST TO OWNER.

PIPE 3/4"-2" IN 4" OF SAND, AND 3"- 4" IN 6" OF SAND. FOR LARGER PIPE. SEE SPECIFICATIONS

FROSTLINE, WITCH EVER IS MOST STRINGENT

PIPE TRENCH DETAIL

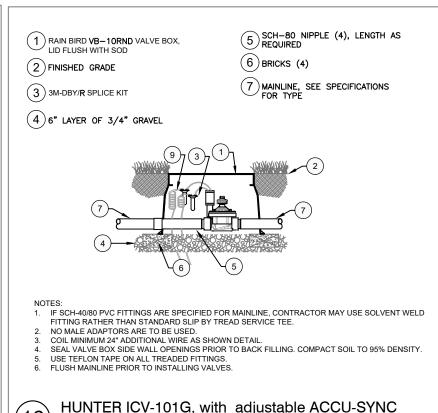


UNDER ROADWAY, ALL PVC SLEEVING SHALL BE SCH-40 PIPE FOR SIZES UP TO 4". SLEEVING 6" TR LARGER SHALL BE 0,200 INDER SIDEMALK AND OTHER HARDSCAPE; ALL SLEEVING TO BE SCH-40. LEEVING TO BE TWO PIPE SIZES LARGER THAN OF CARRYING PIPE. ONLY OME PIPE DE SLEEVIE.

ROADWAY / HARDSCAPE SLEEVING

OTHER HARDSCAPE; ALL SLEEVING TO BE SCH-40.
OTHER HARDSCAPE; ALL SLEEVING TO BE SCH-40.
PIPE SIZES LARGER THAN OF CARRYING PIPE. ONLY ONE PIPE PER SLEEVE.
DUENT WELD.
RE THAN ONE SLEEVE IN TRENCH, EXTEND THE SMALLER SLEEVE TO 36"

FRADE. PPES ARE LAID IN THE SAME TRENCH, MAINTAIN MINIMUM 6" SEPARATION BETWEI



(1) FINISH GRADE

3) CONCRETE PAD

2) CONTROLLER OR CONTROLLE MOUNTED IN PUMP STATION

(7)earth contact material

(8) 5/8"X10" COPPER CLAD GROUND

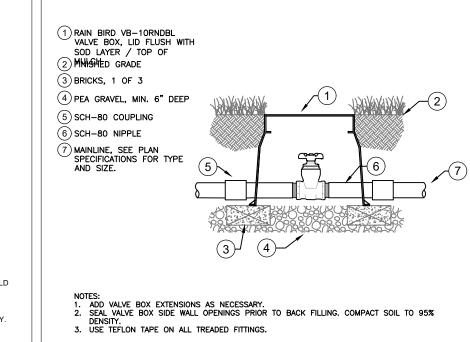
ROD. (Paige Part #182007IC6)

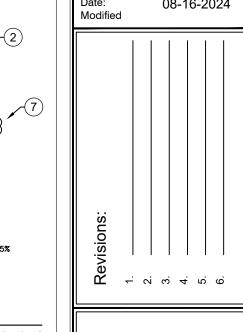
9 CADWELD CONNECTION

5) 6 AWG SOLID COPPER WIRE CONNECTED DIRECTLY TO CONTROLLER GRD BAR

6 COPPER GROUND PLATE (4"x96"x.0625"). Paige Part #182199IC. SIDE_VIEW

(23) CONTROLLER GROUNDING DETAIL





Drawn By:

NIBCO T-113 GATE VALVE P-H0-13

1) FENCE OR OTHER STRUCTURE

(3) HUNTER STAKING KIT, WITH #5
REBAR

(4) 3/4" SCH-40 PVC PIPE

7) SCH-40 PVC FITTINGS

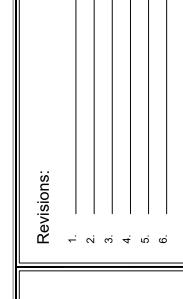
8) HUNTER HSBE-075, SPIRAL BARB

9 HUNTER FLEXIBLE TUBING, HFT-100

(5) FINISHED GRADE

ELBOWS (2)

2 HUNTER PROS-12-CV SET 4" BELOW TOP OF SHRUB MATERIAL



1" = 8'

Design Date: 03-28-2022

PVC RISER AND REBAR TO BE PAINTED FLAT BLACK UNLESS OTHERWISE NOTED IN SPECIFICATIONS. INSTALL RISER BETWEEN PLANT MATERIAL, BUT NO CLOSER TO STRUCTURE THAN 18". USE ONLY TEFLON TAPE ON THREADED FITTINGS, ADJUS' HUNTER PROS-12-CV, ON SCH-40 RISER

08-16-2024

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DELTA 1 (IRRIGATION MODIFIED)

SPRAY HEADS, DRIP LINE, and BUBBLERS

TURF HEADS ON THE NORTH SIDE OF DRIVEWAYWERE MODIFIED TO ACCOMMODATE A LARGER TURF AREA.

1 RAIN BIRD CONTROLLER WITH WR2 CONTROLLER INTERFACE

4 CUT POST TOP 45 DEGREES TO DEFLECT RAIN SPLASH.

WIRELESS RAIN SENSOR LOCATIONS

TURF SPRAY HEADS ON EAST SIDE OF THE HOUSE WERE MODIFIED TO ACCOMMODATE A LARGER TURF AREA

TURF SPRAYS HEADS WERE MODIFIED ON THE SOUTH SIDE OF MAIN ENTRANCE TO THE HOUSE TO ACCOMMODATE THE NEW LANDSCAPE LAYOUT.

TURF SPRAY HEADS WERE MODIFIED ON THE SOUTH SIDE OF DRIVEWAY TO THE HOUSE TO ACCOMMODATE A SMALLER TURF AREA.

DRIPLINE LAYOUT WAS MODIFIED ON THE WEST SIDE OF THE PARKING AREA OF ACCOMMODATE THE REDUCED PLANTING AREA

DRIPLINE LAYOUT WAS MODIFIED ON THE SOUTH SIDE OF THE MAIN ENTERANCE OF THE HOUSE T ACCOMMODATE THE NEW LANDSCAPE LAYOUT.

ONE BUBBLER WAS REMOVED FROM THE PLANTING AREA TO THE WEST OF THE PARKING.

ALL IRRIGATION COMPONENTS HAVE BEEN REMOVED FROM THE EXISTING DUNE AREA.

VALVES

THE VALVES ALONG THE NORTH PROPERTY LINE HAVE BEEN RECONFIGURED TO ACCOMODATE THE REVISED LANDSCAPE DESIGN. THE ORIGINAL PALN AND NEW BOTH HAVE 6 VALVESALONG THIS PROPERTY LINE BUT THE SPACING HAS BEEN MODIFIED.

THE ORIGINAL PLAN HAD ONE VALVE ON THE EAST SIDE OF THE HOUSE AND THE NEW PLAN HAS ONE ON THE EAST SIDE OF THE HOUSE.

THE ORIGINAL PLAN HAD 10 VALVES ALONG THE SOUTH PROPERTY LINE. THE NEW PLAN 4 VALVES ALONG THE SOUTH PROPERTY LINE TO ACCOMMODATE THE MODIFIED LANDSCAPE LAYOUT.

THE ORIGINAL PLAN HAD 1 VALVE WEST OF THE PARKING AREA AND THE NEW PLAN HAS 2 VALVES TO ACCOMMODATE THE NEW LANDSCAPE LAYOUT.

DELTA 2 (VALVE SCHEDULE MODIFICATIONS)

THE ORIGINAL PLAN HAD A TOTAL OF 18 VALVES AND THE NEW PLAN HAS A TOTAL OF 14 VALVES.

DELTA 3 (WATERING SCHEDULE MODIFICATIONS)

THE ORIGINAL PLAN HAD A TOTAL OF 18 VALVES IN THE WATERING SCHEDULE WITH A TOTAL GALLON PER DAY OF 1,554. THE NEW PLAN HAS A TOTAL 14 VALVES WITH A TOTAL GALLON PER DAY OF 1,573.

DELTA 4 (DETAIL)

DETAIL #4 was added to show the installation contractor how to install the irrigation rotary heads in the dune area (zone #7).

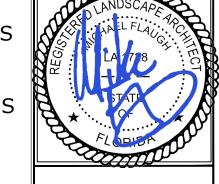
CONTRACTOR MUST VISIT SITE PRIOR TO SUBMITTING HIS BID TO GET A VISUAL PICTURE OF THE COMPLEXITY, TREE / PALM LOCATIONS AND STRUCTURAL OBSTRUCTIONS THAT HE WILL NEED TO TAKE IN CONSIDERATION. THIS WILL ALSO REQUIRE WORKING WITH LANDSCAPE CONTRACTOR FOR PALM / TREE LOCATION AND OBTAINING INFORMATION ON THE WIDTH AND DEPTH OF ROOT BALLS AND OWNER FOR LOCATION OF NEW AND EXISTING UTILITIES.

BACKFILL WITH CLEAN SAND FREE F ROCKS AND DEBRIS 6" AROUND PIPE

- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE INSTALLATION OF THIS IRRIGATION SYSTEM IS INSTALLED ACCORDING TO FLORIDA STATE PLUMBING CODE APPENDIX "F", LOCAL CODES ITS AMENDMENTS, AND PER ALL MANUFACTURES INSTALLATION RECOMMENDATIONS / REQUIREMENTS. WORK SHALL BE SECURED FOR PUBLIC HAZARDS ACCORDING TO O.S.H.A. REGULATIONS. A COPY OF CURRENT LOCATING TICKET SHALL BE ON SITE DURING WORK. NEW ON SITE UTILITIES, POOL PIPING AND SO ON; CONTRACTOR MUST WORK OWNER FOR THE LOCATION OF THESE UTILITIES PRIOR TO COMMENCING WORK.
- 3. IRRIGATION PLANS; PIPE LAY-OUT AND ZONE VALVE EQUIPMENT SHOWS THE INTENDED ROUTING, CONTRACTOR MUST NEGOTIATE THE PIPE ROUTING THROUGH ALL THE OBSTRUCTION IN THE FIELD IN THE MOST EFFICIENT MANNER. VERIFY THAT ALL CORE DRILL LOCATIONS ARE NOT IN FRONT OF A FUTURE PALM/TREE ROOT BALL.
- 4. PRIOR TO COMMENCING WORK, CONTRACTOR MUST VERIFY MINIMUM FLOW & PRESSURE OF; 18.5 GPM @ 45 PSI. HE/SHE MUST PERFORM A FIVE DAY PRESSURE TEST (MONDAY THRU, FRIDAY) USING DIGITAL RECORDER MOUNTED IN THE BACKFLOW TEST COCK (UP STREAM OF CHECK VALVE), IF PRESSURE IS SHOWN BELOW DESIGN MINIMUMS AT ANY GIVEN TIMES DURING NORMAL IRRIGATION HOURS, HE/SHE MUST SEND TEST RESULTS IN PDF FORMAT TO OWNER & LANDSCAPE ARCHITECT FOR REVIEW AND WAIT FOR INSTRUCTIONS ON HOW TO PROCEED.
- 5. RAIN SENSOR: HUNTER WR-CLIK. MOUNT IN A LOCATION THAT HAS A MINIMUM OF A 12-FOOT RADIUS CLEAR OF VERTICAL OBSTRUCTIONS AS WELL AS OUT OF AIRFLOW FROM A/C UNITS.
- 6. PIPING: ALL LATERAL, MAINLINE AND SLEEVE PIPING IN SHALL BE SCH-40, BURIED WITH MINIMUM COVERAGE AS SHOWN IN DETAIL #21 & #22. KEEP ALL PIPES MINIMUM 18-INCHES OFF VERTICAL STRUCTURES. ALL PIPE FITTINGS SHALL BE SCH-40. ALL WIRE CONDUIT SHALL BE SCH-40 USING SWEEP ELBOWS IN ALL DIRECTIONAL TURNS. ABOVE GROUND PIPING SHALL BE SECURED TO WALL OR ELECTRICAL RACK ("C" CHANNEL) EVERY 3-FEET.
- 7. CONTROLLER; HUNTER HCC-800-PL w/ (2) ICM-800 MODULES 24 STATION CONTROLLER, WIFI, FLOW SENSING WALL MOUNT CONTROLLER, SET CONTROLLER DISPLAY MINIMUM 5-FEET ABOVE FINISHED GRADE. OBTAIN OWNERS APPROVAL FOR PROPOSED CONTROLLER LOCATION AND LOCATION OF RAIN SENSOR. CONTRACTOR TO INSTALL (2) CONTROLLER GROUNDING PLATES RATHER THAN A ROD AND PLATE AS SHOWN ON DETAIL #23 INSTEAD OF COORDINATE WITH OWNER FOR POWER TO CONTROLLER.
- 8. FLOW SENSOR; CST FSI-T-SP3 SERIES (1"). INSTALL PER DETAIL #20, COMMUNICATION WIRE- USE PAIGE 2-PAIR 18 GAUGE SHIELDED CABLE WITH DRAIN WIRE (P7171D-A-Rev 7). GROUND DRAIN-WIRE IN CONTROLLER BUSS BAR. RUN CABLE IN IN A CONDUIT THAN ZONE CONTROL WIRES.
- 9. WIRES; ALL ABOVE AND BELOW GROUND WIRES SHALL BE INCASED IN A SCH-40 CONDUIT. ALL WIRE CONDUIT DIRECTIONAL CHANGES SHALL COMPLETED USING SWEEP ELBOWS. ALL MAINLINE SLEEVING SHALL HAVE A 1.25-INCH SCH-40 WIRE CONDUIT. ZONE CONTROL WIRES SHALL BE; 18 GAUGE SINGLE SOLID STRAND RATE FOR DIRECT BURIAL. HOT WIRES TO BE 18 GAUGE YELLOW, COMMON WIRES 18 GAUGE WHITE AND BLUE 18 GAUGE SPARE WIRES (MINIMUM TWO IN EACH DIRECTION). ALL SPICES TO BE PERFORMED IN VALVE BOXES USING 3M-DBY OR HUNTER "DBRY100" SPLICE KITS. LOOP ALL WIRES INTO ALL ZONE VALVE BOXES LEAVING ADDITIONAL 30-INCHES LOOSE WIRE COILED UP AND PLACED TO THE SIDE IN VALVE BOX. CONTRACTOR TO ADD ADDITIONAL SPLICE BOXES AS NEEDED.
- 10. ZONE VALVES; ALL DRIP ZONE VALVES SHALL HAVE A 1-INCH FILTER AND ACCU-SYNC ADJUSTABLE PRESSURE REGULATOR, SEE DETAIL #15, ALL OTHER ZONES PER DETAILS #14 & 16. ZONE VALVES SHOWN OUTSIDE PROPERTY IS FOR GRAPHIC CLARITY, TO BE PLACED WITHIN PROPERTY - OUT OF VIEW IN MULCH BEDS WHENEVER POSSIBLE.
- 11. POP-UP HEADS; INSTALL PER DETAILS #11 / #13 / #24, PLACED AS SHOWN PER PLANS. ADJUST LOCATION FOR CURRENT CONDITIONS TO MAXIMIZE COVERAGE. USE RADIUS REDUCTION SCREW ON NOZZLE AND OR ADJUST HEAD AS NEEDED (HEAD SPACING SHALL BE THE SAME AS RADIUS OF THROW).
- 12. FINAL WALK THROUGH; PROVIDE OWNER WITH AN ASBUILT DRAWING SHOWING LOCATION OF ALL EQUIPMENT, SLEEVING ENDS (BOTH ENDS), CORE DRILL LOCATION WITH MINIMUM TWO POINTS REFERENCE FROM FIXED STRUCTURES. PROVIDE "OWNERS MANUALS FOR ALL EQUIPMENT. IF WIFI LINK IS NOT AVAILABLE, ACTIVATE ALL ZONES FROM CONTROLLER - TEST RAIN SENSOR SHUT-OFF ON RANDOM ZONES. CONTRACTOR TO ASSIST OWNER IN LINKING CONTROLLER AND PHONE OR COMPUTER TO ONLINE HYDRAWISE SOFTWARE. PROVIDE OWNER WITH A (1) YEAR WARRANTEE FOR ALL MATERIAL AND LABOR.

FDOT LANDSCAPE PERMIT NUMBER: 2023-L-496-00006

NORTH



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2022-0328_HB