

SECTION No.: 86020000
Permit No.: 2018-L-491-025
COUNTY: Broward
S.R. No.: 5

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT FOUR
LANDSCAPE MAINTENANCE MEMORANDUM OF AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 20____, by and between the **STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION**, a component agency of the State of Florida, hereinafter called the DEPARTMENT and the **City of Fort Lauderdale**, a municipal corporation, existing under the Laws of Florida, hereinafter called the AGENCY.

WITNESSETH:

WHEREAS, the DEPARTMENT has jurisdiction over State Road 5 (US 1) as part of the State Highway System as described in **Exhibit "A"**; and

WHEREAS, the AGENCY seeks to have installed by permit and maintain certain landscape improvements within the right of way of State Road 5 (US 1) as described within **Exhibit "B"**; and

WHEREAS, as part of the continual updating of the State of Florida Highway System, the DEPARTMENT, for the purpose of safety, protection of the investment and other reasons, has constructed and does maintain the highway facility as described in **Exhibit "A"** attached hereto and incorporated by reference herein, within the corporate limits of the AGENCY; and

WHEREAS, the AGENCY is agreeable to maintaining those landscape improvements within the AGENCY'S limits including plant materials, irrigation system and/or hardscape which may contain specialty surfacing (concrete pavers, color stamped concrete and color stamped asphalt [also known as patterned pavement]) including any other nonstandard hardscape (if applicable), but excluding standard concrete sidewalk, and agree such improvements shall be maintained by periodic mowing, fertilizing, weeding, litter pick-up, pruning, necessary replanting, irrigation repair and/or repair of the median concrete replacements associated with the specialty surfacing (if applicable) as needed; and

WHEREAS, it is the intent of the AGENCY and the DEPARTMENT that the AGENCY shall maintain all right of way within the medians, outside the travelway and improvements made to the travelway that was made at the request of the AGENCY; and

WHEREAS, the parties hereto mutually recognize the need for entering into an Agreement designating and setting forth the responsibilities of each party; and

WHEREAS, the AGENCY by Resolution No. _____ dated _____, 20____, attached hereto and by this reference made a part hereof, desires to enter into this Agreement and authorizes its officers to do so; and

NOW THEREFORE, for and in consideration of the mutual benefits to flow each to the other, the parties covenant and agree as follows:

1. The recitals set forth above are true and correct and are deemed incorporated herein.
2. **INSTALLATION OF FACILITIES**

The AGENCY shall install and agrees to maintain the *landscape improvements* described herein as: plant materials, irrigation and/or hardscape on the highway facilities substantially as specified in plans and specifications hereinafter referred to as the Project (s) and incorporated herein as **Exhibit "B"**. *Hardscape* shall mean, but not be limited to any site amenities such as landscape accent lighting, bike racks, fountain, tree grates, decorative free standing wall, and/or sidewalk, median and/or roadway specialty surfacing such as concrete pavers, stamped colored concrete and/or stamped colored asphalt (also known as patterned pavement).

- (a) All plant materials shall be installed and maintained in strict accordance with sound nursery practice prescribed by the International Society of Arboriculture (ISA). All plant materials installed shall be Florida #1 or better according to the most current edition of Florida Department of Agriculture, *Florida Grades and Standards for Nursery Stock*; and all trees shall meet Florida Power & Light, *Right Tree, Right Place, South Florida*.
- (b) Trees and palms within the right of way shall be installed and pruned to prevent encroachment to roadways, lateral offsets and sidewalks. Definition of these criteria is included in the most current editions of FDOT standards for design, construction, maintenance, and utility operations on the state highway system and **Exhibit "C"**, the Maintenance Plan.
- (c) Tree and palm pruning shall be supervised by properly trained personnel trained in tree pruning techniques and shall meet the most current standards set forth by the International Society of Arboriculture (ISA) and the American National Standard Institute (ANSI), Part A-300.
- (d) Irrigation installation and maintenance activities shall conform to the standards set forth by the Florida Irrigation Society (FIS) latest edition of FIS, *Standards and Specifications for Turf and Landscape Irrigation Systems*.
- (e) The AGENCY shall provide the FDOT Local Operation Center accurate as-built plans of the irrigation system so if in the future there is a need for the DEPARTMENT to perform work in the area, the system can be accommodated as much as possible. (See paragraph (1) for contact information)

- (f) If it becomes necessary to provide utilities (water/electricity) to the median or side areas, it shall be the AGENCY'S responsibility to obtain a permit for such work through the local Operations Center (see paragraph (l) below) and the AGENCY shall be responsible for all associated fees for the installation and maintenance of these utilities.
- (g) All specialty surfacing shall be installed and maintained in strict accordance with the most current edition of the *Florida Accessibility Code for Building Construction* and the *Interlocking Concrete Pavement institute (ICPI)*.
- (h) All activities, including landscape improvements installation and future maintenance operations performed on State highway right of way, must be in conformity with the most current edition of the *Manual on Uniform Traffic Control (MUTCD)* and *FDOT Design Standards*, Index 600 Series, *Traffic Control through Work Zones*.
- (i) The most current edition of *FDOT Design Standards*, Index 546 (Sight Distance at Intersections) must be adhered to.
- (j) Lateral Offsets as specified in the *FDOT Plans Preparation Manual*, Volume 1, Chapters 2 and 4 must be adhered to.
- (k) Landscape improvements shall not obstruct roadside signs or permitted outdoor advertising signs, (see Florida Administrative Code [F.A.C.] Rule Chapter 14-10.)
- (l) The AGENCY shall provide the local FDOT Operation Center located at Broward Operations, 5548 NW 9th Avenue, Fort Lauderdale, FL 33309, (954)776-4300, a twenty-four (24) hour telephone number and the name of a responsible person that the DEPARTMENT may contact. The AGENCY shall notify the local maintenance office forty-eight (48) hours prior to the start of the landscape improvements.
- (m) If there is a need to restrict the normal flow of traffic, it shall be done on non-holiday, weekday off-peak hours (9 AM to 3 PM), and the party performing such work shall give notice to the local law enforcement agency within whose jurisdiction such road is located prior to commencing work on the landscape improvements. The DEPARTMENT'S Operation Center Public Information Officer (see telephone number in Paragraph (l) shall also be notified.
- (n) The AGENCY shall be responsible to clear all utilities within the landscape improvement limits before construction commences.
- (o) The AGENCY shall follow the minimum level of maintenance guidelines as set forth in FDOT'S Rule Chapter 14-40 *Highway Beautification and Landscape Management*, in the *FDOT Guide to Roadside Mowing and Maintenance Management System*, and **Exhibit "C"**, the *Maintenance Plan* for maintenance activities for landscape improvements.

3. MAINTENANCE OF FACILITIES

- A. The AGENCY agrees to maintain the landscape improvements, as existing and those to be installed, within the physical limits described in **Exhibit "A"** and as further described in **Exhibit "B"**. The non-standard improvements within and outside the travelway shall be maintained by the AGENCY regardless if the said improvement was made by the DEPARTMENT, the AGENCY, or others authorized pursuant to Section 7, by periodic mowing, pruning, fertilizing, weeding, curb and sidewalk edging, litter pickup, necessary replanting, irrigation system repair and/ or repair of any median concrete replacement associated with specialty surfacing (if applicable) following the DEPARTMENT'S landscape safety and maintenance guidelines, **Exhibit "C"**, the Maintenance Plan. The AGENCY'S responsibility for maintenance shall include all landscaped, turfed and hardscape areas on the sidewalk or within the medians and areas outside the travelway to the right of way and/or areas within the travelway containing specialty surfacing. It shall be the responsibility of the AGENCY to restore an unacceptable ride condition of the roadway caused by the differential characteristics of non-standard travelway surfacing (if applicable) on DEPARTMENT right of way within the limits of this Agreement.
- B. Such maintenance to be provided by the AGENCY is specifically set out as follows: to maintain, which means to properly water and fertilize all plant materials; to keep them as free as practicable from disease and harmful insects; to properly mulch the planting beds; to keep the premises free of weeds; to mow the turf to the proper height; to properly prune all plants which at a minimum includes: (1) removing dead or diseased parts of plants, (2) pruning such parts thereof to provide clear visibility to signage, permitted outdoor advertising signs per Florida Statute 479.106 and for those using the roadway and/or sidewalk; (3) preventing any other potential roadway hazards. *Plant materials* shall be those items which would be scientifically classified as plants and including trees, palms, shrubs, groundcover and turf. To maintain also means to remove or replace dead or diseased plant materials in their entirety, or to remove or replace those that fall below original project standards. Palms shall be kept fruit free year-round. To maintain also means to keep the header curbs that contain the specialty surfacing treatment in optimum condition. To maintain also means to keep the nonstandard hardscape areas clean, free from weeds and to repair said hardscape as is necessary to prevent a safety hazard. To maintain also means to keep litter removed from the median and areas outside the travel way to the right of way line. All plants removed for whatever reason shall be replaced by plants of the same species type, size, and grade as specified in the original plans and specifications. Any changes to the original plans shall be submitted by permit application to the DEPARTMENT for review and approval.
- C. If it becomes necessary to provide utilities (water/electricity) to the medians or areas outside the travelway to maintain these improvements, all costs associated with the utilities associated for the landscape improvements including any impact and/or connection fees, and the on-going cost of utility usage for water and electrical, are the maintaining AGENCY'S responsibility.

The AGENCY shall be directly responsible for impact and connection fees.

- D. The maintenance functions to be performed by the AGENCY may be subject to periodic inspections by the DEPARTMENT at the discretion of the DEPARTMENT. Such inspection findings will be shared with the AGENCY and shall be the basis of all decisions regarding, repayment, reworking or agreement termination. The AGENCY shall not change or deviate from said plans without written approval of the DEPARTMENT.

4. NOTICE OF MAINTENANCE DEFICIENCIES

- A. If at any time after the AGENCY has undertaken the landscape improvements installation and/or maintenance responsibility for the landscape improvements it shall come to the attention of the DEPARTMENT'S District Secretary that the limits, or a part thereof, are not properly maintained pursuant to the terms of this Agreement, said District Secretary, may at his/her option, issue a written notice that a deficiency or deficiencies exist(s), by sending a certified letter to the AGENCY, to place said AGENCY on notice thereof. Thereafter, the AGENCY shall have a period of thirty (30) calendar days within which to correct the cited deficiencies. If said deficiencies are not corrected within this time period, the DEPARTMENT may, at its option, proceed as follows:

- (1) Maintain the landscape improvements or any part thereof, with the DEPARTMENT or Contractor's personnel and invoice the AGENCY for expenses incurred, and/or
- (2) At the discretion of the DEPARTMENT, terminate the Agreement in accordance with Paragraph 8 of this Agreement and remove, by the DEPARTMENT or Contractor's personnel, all of the landscape improvements installed under this Agreement or any preceding Agreements, except as to trees and palms, and charge the AGENCY the reasonable cost of such removal.

5. FUTURE DEPARTMENT IMPROVEMENTS

It is understood between the parties hereto that the landscape improvements covered by this Agreement may be removed, relocated, or adjusted at any time in the future, as determined to be necessary by the DEPARTMENT in order that the adjacent state road be widened, altered, or otherwise changed to meet future criteria or planning needs of the DEPARTMENT.

The AGENCY shall be given sixty (60) calendar day notice to remove said landscape improvements at the AGENCY's expense after which time the DEPARTMENT may remove same. All permits (including tree permits), fees, and any mitigation associated with the removal, relocation or adjustments of these improvements are the maintaining AGENCY'S responsibility.

6. FUTURE AGENCY IMPROVEMENTS

The AGENCY may construct additional landscape improvements within the limits of the landscape improvements rights of ways identified as a result of this document, subject to the following conditions:

- (a) Plans for any new landscape improvements shall be subject to approval by the DEPARTMENT. The AGENCY shall not change or deviate from said plans without written approval by the DEPARTMENT.
- (b) All landscape improvements shall be developed and implemented in accordance with appropriate state safety and roadway design standards.
- (c) The AGENCY agrees to comply with the requirements of this Agreement with regard to any additional landscape improvements it chooses to have installed and there will be no cost to the DEPARTMENT.

7. ADJACENT PROPERTY OWNER IMPROVEMENTS

The DEPARTMENT may allow an adjacent property owner to construct additional landscape improvements within the limits of the right of way identified in **Exhibit "A"** of this Agreement that the AGENCY shall be responsible for maintaining under this Agreement, subject to the following conditions:

- (a) Plans for any new landscape improvements shall be subject to approval by the DEPARTMENT and shall require a valid permit attached with a letter of consent to said plans by the AGENCY. The plans shall not be changed or deviated from without written approval by the DEPARTMENT and the AGENCY.
- (b) All landscape improvements shall be developed and implemented in accordance with appropriate state safety and roadway design standards.
- (c) The AGENCY agrees to comply with the requirements of this Agreement with regard to any additional landscape improvements installed by an adjacent owner.

8. AGREEMENT TERM

- (a) The term of this Agreement commences upon execution by all parties. The term of this Agreement shall remain in effect for twenty-five (25) years.
- (b) If the DEPARTMENT chooses to cancel the landscape improvements described in **Exhibit "B"**, this Agreement becomes void and the original Agreement is reinstated, if any.

9. LIABILITY AND INSURANCE REQUIREMENTS

- A. With respect to any of the AGENCY'S agents, consultants, sub-consultants, contractors and/or sub-contractors, such party in any contract for the landscape improvements shall agree to indemnify, defend, save and hold harmless the DEPARTMENT from all claims, demands, liabilities, and suits of any nature arising out of, because of or due to any intentional and/or negligent act or occurrence, omission or commission of such agents, consultants, subconsultants, contractors and/or subcontractors. The AGENCY shall provide to the DEPARTMENT written evidence of the foregoing upon the request of the DEPARTMENT. It is specifically understood and agreed that this indemnification clause does not cover or indemnify the DEPARTMENT for its own negligence.

B. In the event that AGENCY contracts with a third party to provide the services set forth herein, any contract with such third party shall include the following provisions:

- (1) AGENCY'S contractor shall at all times during the term of this Agreement keep and maintain in full force and effect, at contractor's sole cost and expense, Comprehensive General Liability with minimum limits of \$1,000,000.00 per occurrence combined single limit for Bodily Injury Liability and Property Damage Liability and Worker's Compensation insurance with minimum limits of \$500,000.00 per Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Comprehensive General Liability and Worker's Compensation policy without restrictive endorsements, as filed by the Insurance Services Office. The AGENCY and DEPARTMENT shall be named as additional insured on such policies.
- (2) AGENCY'S contractor shall furnish AGENCY with Certificates of Insurance of Endorsements evidencing the insurance coverage specified herein prior to the beginning performance of work under this Agreement.
- (3) Coverage is not to cease and is to remain in full force and effect (subject to cancellation notice) until all performance required of AGENCY'S contractor is completed. All policies must be endorsed to provide the DEPARTMENT with at least thirty (30) day notice of cancellation and or/or restriction. If any of the insurance coverage will expire prior to the completion of work, copies of renewal policies shall be furnished at least (30) days prior to the date of expiration.

10. E-VERIFY REQUIREMENTS

The AGENCY shall:

- (a) Utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the AGENCY during the term of the contract; and
- (b) Expressly require any subcontractors performing work or providing services pursuant to the state contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.

11. SUPERSEDED AGREEMENTS

This writing embodies the entire Agreement and understanding between the parties hereto and there are no other Agreements and understanding, oral or written, with reference to the subject matter hereof that are not merged herein and superseded hereby (except the associated Grant Joint Participation Agreement if applicable).

12. FISCAL TERMS

The DEPARTMENT, during any fiscal year, shall not expend money, incur any liability, or enter into any contract which, by its terms, involves the expenditure of money in excess of

the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void, and no money will/may be paid on such contract. The DEPARTMENT shall require a statement from the Comptroller of the DEPARTMENT that funds are available prior to entering into any such contract or other binding commitment of funds. Nothing herein contained shall prevent the making of contracts for periods exceeding one (1) year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years; and this paragraph shall be incorporated verbatim in all contracts of the DEPARTMENT which are for an amount in excess of TWENTY-FIVE THOUSAND DOLLARS (\$25,000.00) and which have a term for a period of more than one year.

13. DISPUTES

The DEPARTMENT'S District Secretary shall decide questions, difficulties, and disputes of any nature whatsoever that may arise under or by reason of this Agreement, the prosecution or fulfillment of the service hereunder and the character, quality, amount and value thereof. Should the AGENCY disagree with the DEPARTMENT's District Secretary's decision, the AGENCY may pursue any and all legal and equitable remedies available under this Agreement.

14. ASSIGNMENT

This Agreement may not be assigned or transferred by the AGENCY, in whole or in part, without the prior written consent of the DEPARTMENT.

15. LAWS GOVERNING

This Agreement shall be governed by and construed in accordance with the laws of the State of Florida. In the event of a conflict between any portion of the contract and Florida law, the laws of Florida shall prevail. Venue with respect to judicial proceedings arising out of this Agreement shall be in Broward County, Florida.

16. Nothing herein shall constitute a of waiver of sovereign immunity by the AGENCY.

17. NOTICES

Any and all notices given or required under this Agreement shall be in writing and either personally delivered with receipt acknowledgement or sent by certified mail, return receipt requested. All notices shall be sent to the following addresses:

If to the DEPARTMENT:
State of Florida Department of Transportation
3400 West Commercial Blvd.
Ft. Lauderdale, FL 33309-3421
Attention:
FDOT District IV Landscape Architect

If to the AGENCY:
City of Fort Lauderdale
100 N. Andrews Avenue
Fort Lauderdale, FL 33301
Attention:
Christopher J. Lagerbloom
Title: City Manager

18. LIST OF EXHIBITS

Exhibit A: Landscape Improvements Maintenance Boundaries

Exhibit B: Landscape Improvement Plans

Exhibit C: Maintenance Plan for Landscape Improvements

IN WITNESS WHEREOF, the parties hereto have executed this Agreement effective the day and year first above written.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

By: _____
Transportation Development Director

Attest: _____ (SEAL)
Executive Secretary

Legal Review

Date

Office of the General Counsel

CITY OF FORT LAUDERDALE, through its
CITY COMMISSIONERS

By: _____
Dean J. Trantalis, Mayor
_____ day of _____, 2019

Christopher J. Lagerbloom, City Manager

Approved as to form by Office of City Attorney

Kimberly Cunningham Mosley, Assistant City Attorney

ATTEST:

Jeffrey A. Modarelli, City Clerk

(SEAL)

SECTION No.:	86020000
Permit No.:	2018-L-491-025
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EXHIBIT A

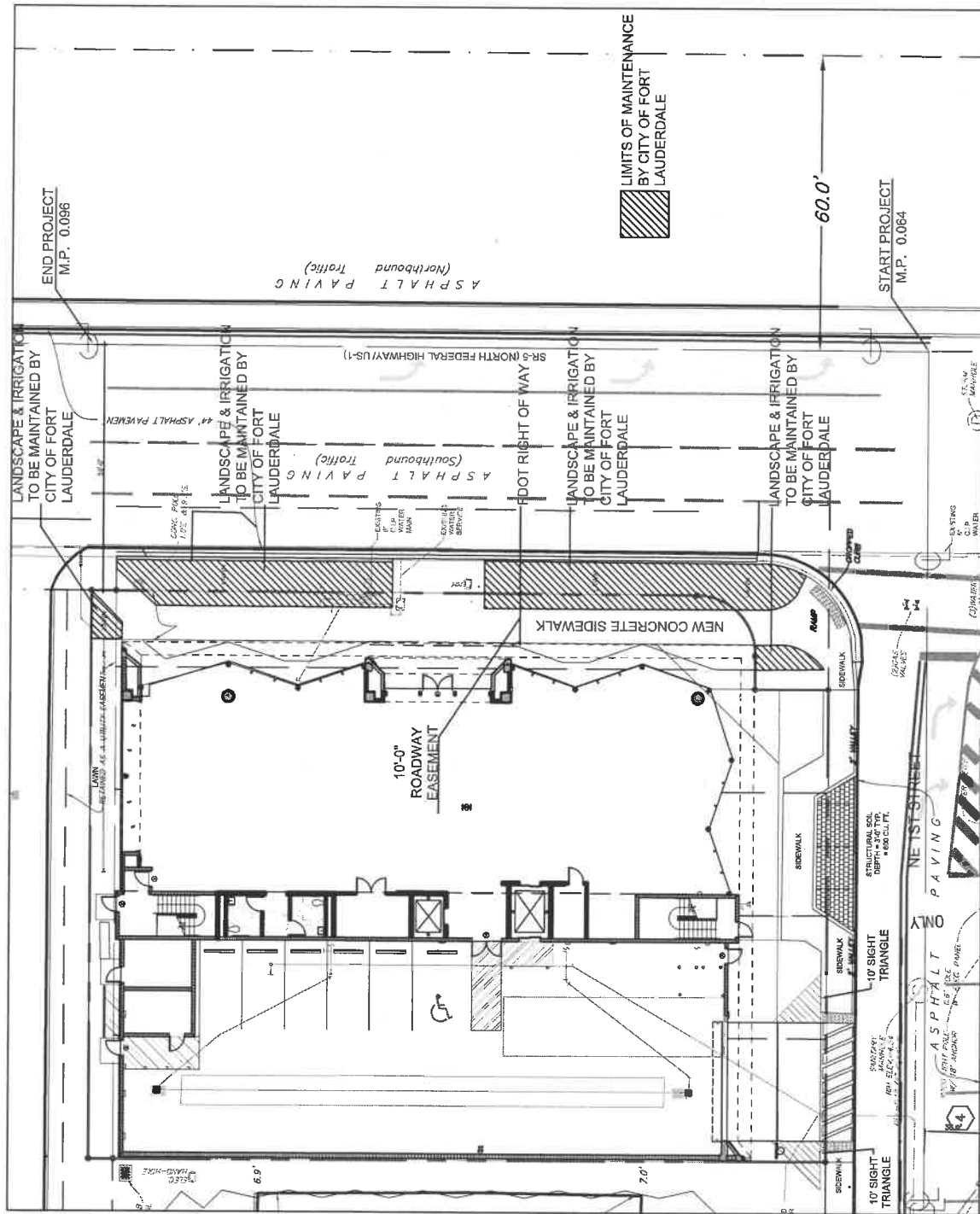
LANDSCAPE IMPROVEMENTS MAINTENANCE BOUNDARIES

I. LIMITS OF MAINTENANCE FOR LANDSCAPE IMPROVEMENTS:

State Road 5 (US 1) from M.P. 0.064 to M.P. 0.096

II. LANDSCAPE IMPROVEMENTS MAINTENANCE RESPONSIBILITIES MAP:

Please see attached map



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EXHIBIT B

LANDSCAPE IMPROVEMENT PLANS

The AGENCY agrees to install the landscape improvements in accordance with the plans and specifications attached hereto and incorporated herein.

Please see attached plans prepared by: Andrew M. Witkin, RLA
Witkin Hults Design Group

Date: January 6, 2019

WITKIN HULTS
DESIGN GROUP
www.witkinhulth.com
Phone: 813.222.3831
Fax: 813.222.3832
207 South 21st Avenue
Tampa, FL 33606

105
LANDSCAPE PLAN
105 NORTH FEDERAL HIGHWAY
FORT LAUDERDALE, FL 33301

Project:

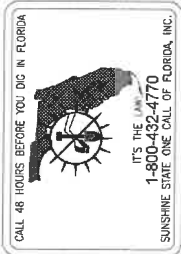
Revisions:

Seal:
 Digitally signed
 by Andrew M.
 Witkin
 Date: 2018.03.05
 12:09:15 -0500
 No. 1438888
 Andrew M. Witkin

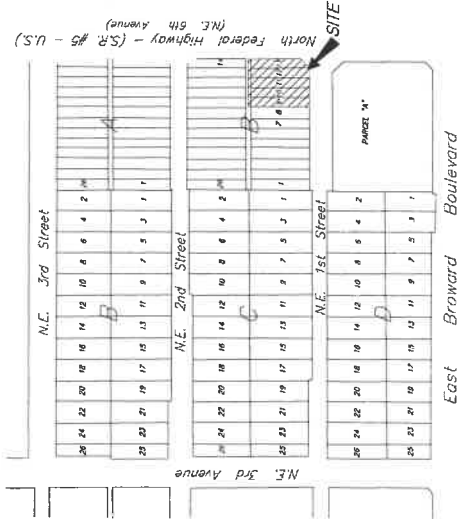
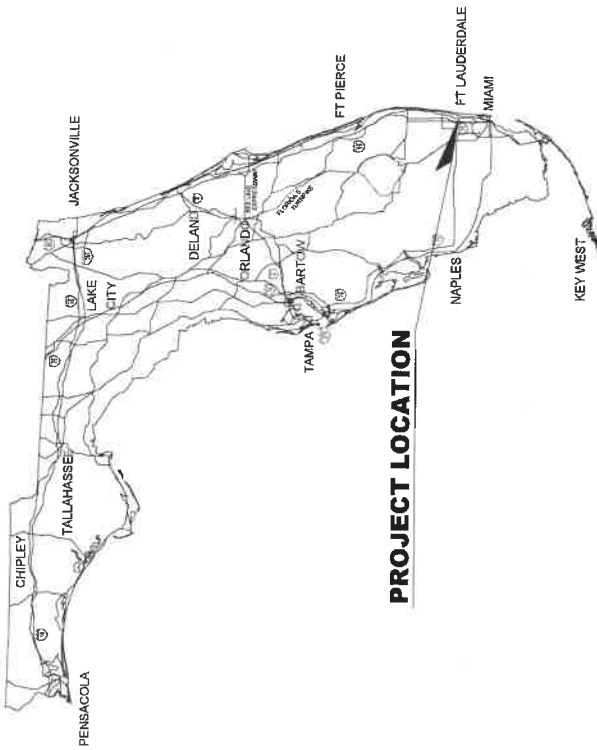
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 Date: 2/1/2018
 Scale: 8 1/2" x 11"
 Drawn by: C.T.
 Sheet No.:
 Civil No. 1014018



AERIAL MAP
N.T.S.



Permit No. 2018-L-491-025



BLOCK PLAN
N.T.S.

WITKIN HULTH
DESIGN GROUP
www.witkinhulth.com
307 West 11th Avenue, Suite 200
Fort Lauderdale, FL 33301
Phone: 954.322.0851 Fax: 954.322.0850

105

IRRIGATION PLAN

105 NORTH FEDERAL HIGHWAY
FORT LAUDERDALE, FL 33301

Revisions:

1. 10.15.15: Initial design at 3' scale of 1"=10'-0"

2. 10.15.15: Revisions to 10.15.15 design

3. 10.15.15: Revisions to 10.15.15 design

4. 10.15.15: Revisions to 10.15.15 design

5. 10.15.15: Revisions to 10.15.15 design

Sheet

IR-1

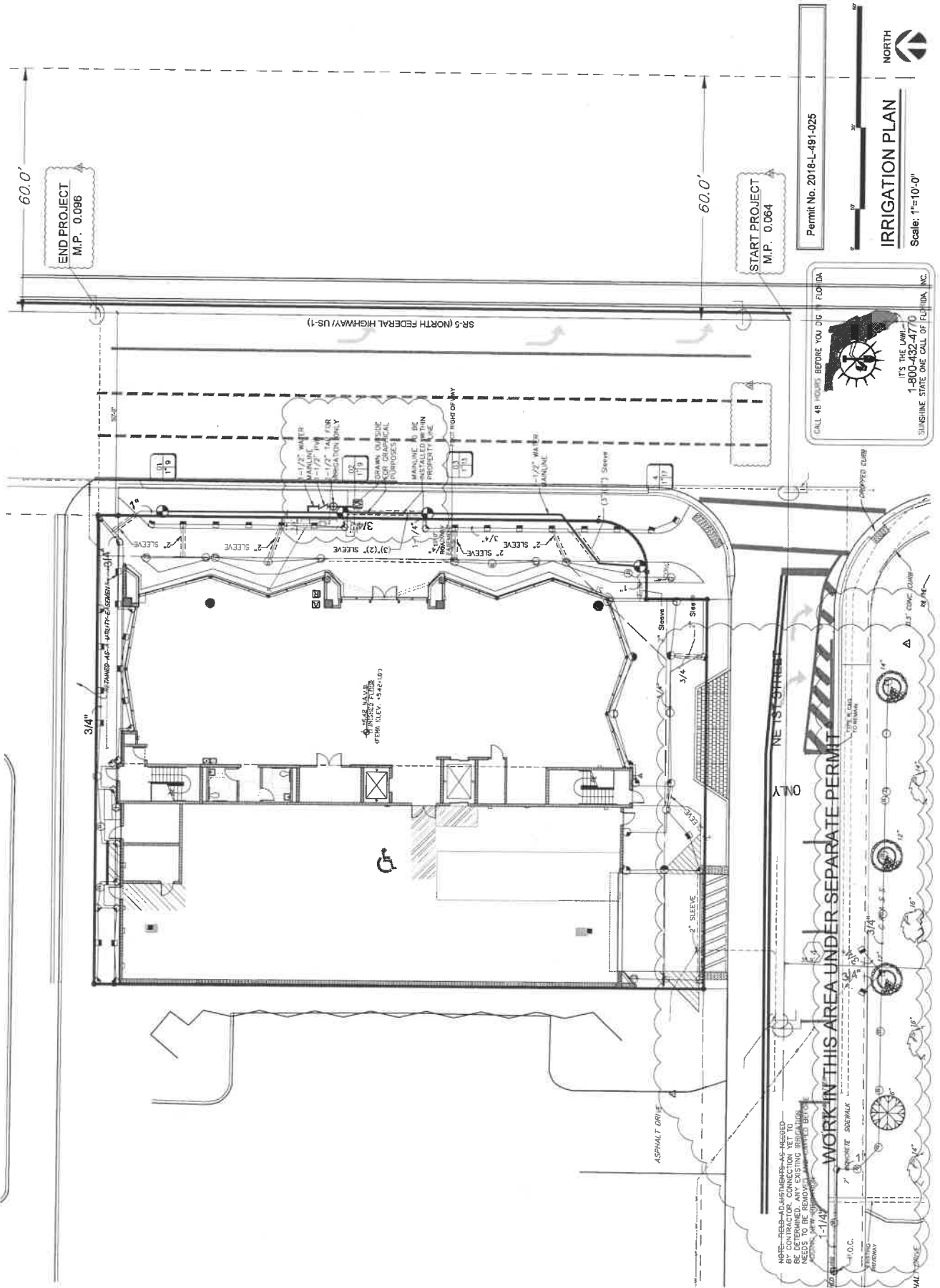
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Drawn: 10/15/14

Scale: 1"=10'-0"

Drawn by: DM

Sheet No.



NOTE: FIELD ADJUSTMENTS AS NEEDED BY CONTRACTOR. CONNECTION YET TO BE MADE TO REMAINING EXISTING SYSTEM. SEE REMOVAL OF EXISTING SYSTEM BEFORE CONSTRUCTION.

Irrigation Notes

LAYOUT

LAYOUT IRRIGATION SYSTEM MAINLINES AND LATERAL LINES MAKE ALL NECESSARY ADJUSTMENTS AS REQUIRED TO TAKE INTO ACCOUNT ALL SITE OBSTRUCTIONS AND LIMITATIONS PRIOR TO EXCAVATING TRENCHES.

FLAG ALL SPRINKLER HEAD LOCATIONS, ADJUST LOCATION AND MAKE THE NECESSARY NOTIFICATIONS TO NOZZLE TYPES ETC. AS REQUIRED TO INSURE 100% COVERAGE AND 100% OVERLAP.

LOW ANGLE TRAJECTORY NOZZLES SHALL BE USED WHEN ALL SPRINKLERS AND MOTORS ARE LOCATED WITHIN 100' OF POOLS OR PUBLIC GATHERING AREAS.

PPE

PIPE LOCATIONS SHOWN ON PLAN ARE SCHEMATIC ONLY AND SHALL BE ADJUSTED IN THE FIELD. WHEN ADJUSTING LOCATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES AND STRUCTURES WHEREVER POSSIBLE TO ALLOW SPACE FOR PLANT ROOT BALLS.

PPRPS UNDER HANDSCAPES SUCH AS ROADS, WALLS, AND PATIOS ARE TO BE ALIENED USING SICK 40 PIPE.

THRUST BLOCKS OR MEDIA LUGS AND DUCTILE IRON FITTINGS TO BE USED ON ALL GASKETED OR RING PIPES AT TURNING LOCATIONS.

*SIZES ALL PIPE 30 INCH TO 48 INCH PER SECOND

INSTALL RAIN SENSOR AS PER LOCAL CODE

PPRPS CONVEYING RECLAIM WATER SHALL HAVE A 3" HORIZONTAL DISTANCE SEPARATION FROM OTHER PIPING OR UTILITY SERVICES. AN 18" VERTICAL SEPARATION SHALL BE MAINTAINED WHEN APPLICABLE.

AIR RELEASE VALVES TO BE USED AT THE END OF ALL MAINLINE RUNS.

WIRES

LOW VOLTAGE WIRE TO BE INSTALLED ALONG MAINLINE INSTALLATION. USE 2" SCH. 40 PVC WITH SWEEP ELBOWS AT TURNING LOCATIONS WHEN SLEEVING IS REQUIRED. ALL SPICES SHALL BE ENCLOSED WITHIN A VALVE/SPICE BOX.

WIRE SIZED AND COLORED AS FOLLOWS:

#12 WHITE FOR COMMON

#12 SPARE BLACK COMMON (1 SPARE NEEDED PER 10 HOT WIRES)

#14 SPARE YELLOW HOT WIRE (1 SPARE NEEDED PER 10 HOT WIRES)

#16 SPARE YELLOW HOT WIRE (1 SPARE NEEDED PER 10 HOT WIRES)

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#112 SPARE YELLOW HOT WIRE (1 SPARE NEEDED PER 10 HOT WIRES)

#114 SPARE YELLOW HOT WIRE (1 SPARE NEEDED PER 10 HOT WIRES)

#116 SPARE YELLOW HOT WIRE (1 SPARE NEEDED PER 10 HOT WIRES)

#118 SPARE YELLOW HOT WIRE (1 SPARE NEEDED PER 10 HOT WIRES)

#120 SPARE YELLOW HOT WIRE (1 SPARE NEEDED PER 10 HOT WIRES)

#122 SPARE YELLOW HOT WIRE (1 SPARE NEEDED PER 10 HOT WIRES)

#124 SPARE YELLOW HOT WIRE (1 SPARE NEEDED PER 10 HOT WIRES)

#126 SPARE YELLOW HOT WIRE (1 SPARE NEEDED PER 10 HOT WIRES)

#128 SPARE YELLOW HOT WIRE (1 SPARE NEEDED PER 10 HOT WIRES)

DESIGN

THIS DESIGN IS PARAMETRIC. ALL IRRIGATION EQUIPMENT SUCH AS PIPES, VALVES, ETC., SHOWN WITHIN PERIODES AREAS ARE FOR DESIGN CLARIFICATION ONLY. THE IRRIGATION CONTRACTOR SHALL INSTALL IRRIGATION EQUIPMENT IN PLANTING AREAS WHEREVER POSSIBLE.

THE IRRIGATION CONTRACTOR IS RESPONSIBLE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK, INCLUDING BUT NOT LIMITED TO GRADE DIFFERENCES, LOCATION OF WALLS, STRUCTURES, UTILITIES AND EXISTING IRRIGATION EQUIPMENT. THE IRRIGATION CONTRACTOR IS RESPONSIBLE TO REPAIR AND/OR REPLACE ANY DAMAGE CAUSED BY THEIR WORK. THEY SHALL COORDINATE HIS WORK WITH OTHER CONTRACTOR OR MUNICIPAL AUTHORITIES PRIOR TO EXCAVATING TRENCHES. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES AND STRUCTURES WHEREVER POSSIBLE TO ALLOW SPACE FOR PLANT ROOT BALLS. PAVING, ALLEYS THROUGH WALLS AND ETC. ETC.

INSTALL ALL IRRIGATION EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.

DO NOT INSTALL IRRIGATION EQUIPMENT AS SHOWN ON THE DRAWINGS WHEN FIELD CONDITIONS DIFFER. OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER OR OWNER'S REPRESENTATIVE. IN THE EVENT THE NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY.



EDOT IRRIGATION NOTES

- The irrigation system shall use the lowest quality water available which adequately and safely meets the water needs of the system. Storm water, recidm water, or grey water irrigation shall be used whenever possible.
- Contractor requires 24-hour emergency access to water source.
- Contractor shall provide FDOT District Operations Manager with a set of "As-Built" irrigation plans.

FLUISING

PRIOR TO PLACEMENT OF HEADS FLUSH ALL LINES UNTIL LINES ARE COMPLETELY CLEAN OF DEBRIS.

TRENCHES

TRENCH BOTTOMS TO BE UNIFORM AND FREE OF DEBRIS. NATIVE EXCAVATED MATERIAL USED TO BACKFILL TRENCH SHALL BE FREE FROM ROCKS OR STONES LARGER THAN 1" IN DIAMETER.

MISC.

PRESSURE TEST MAINLINE AS PER FLORIDA BUILDING CODE. INSTALL IRRIGATION SYSTEM AS PER LATEST EDITION OF THE FLORIDA BUILDING CODE, APPENDIX F, AND ALL PERTINENT LOCAL CODES.

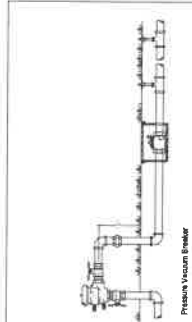
SPRAY HEADS INSTALLED IN SHRUB AREAS TO BE 12 INCH POP-UPS OR INSTALLED ON HUBBIE.

EQUIPMENT TABLE

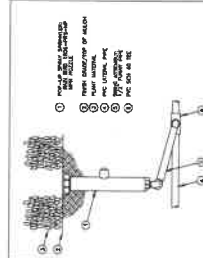
Backflow Preventers	
Symbol	Description
	Pressure Vacuum Breaker
Controllers	
Symbol	Description
	Rainbird ESP-Me
	Rain Sensor
Irrigation Heads	
Symbol	Description
	RAINBIRD 1800 SERIES 5 Series 6" above finish grade trajectory 5 deg 90"
	RAINBIRD 1800 SERIES 8 Series 6" above finish grade trajectory 5 deg 120"
	RAINBIRD 1800 SERIES 8 Series 6" above finish grade trajectory 5 deg 180"
	RAINBIRD 1800 SERIES 10 Series trajectory 15 deg 90"
	RAINBIRD 1800 SERIES 12 Series trajectory 30 deg 90"
	RAINBIRD 1800 SERIES 12 Series trajectory 30 deg 120"
	RAINBIRD 1800 SERIES 12 Series trajectory 30 deg 180"
	RAINBIRD 1800 SERIES 15 Series trajectory 30 deg 90"
	RAINBIRD 1800 SERIES 15 Series trajectory 30 deg 180"
	RAINBIRD 1800 SERIES 15 Strip Series trajectory 30 deg EST
	RAINBIRD 1800 SERIES 15 Strip Series trajectory 30 deg SST
	RAINBIRD 1800 SERIES 15 Strip Series trajectory 30 deg SST

Pipes	
Symbol	Description
	Class 160 PVC (Lateral)
	SCH 40 PVC (Mainline)
	SCH 40 PVC (Sleeve)
Valves	
Symbol	Description
	Rainbird PGA Valve
Water Meters	
Symbol	Description
	Proposed 1" Water Meter

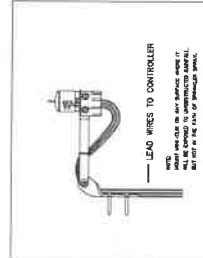
Permit No. 2018-L-491-025



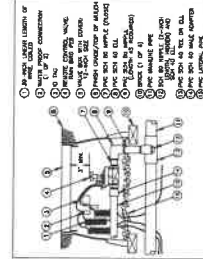
PRESSURE VACUUM BREAKER INSTALLATION DETAIL



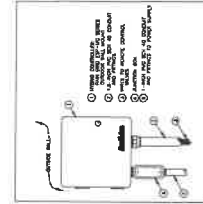
RAIN BIRD 1800 SERIES SPRINKLER



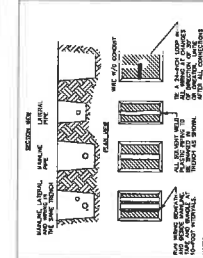
RAIN BIRD MINI-CLICK RAIN SENSOR



RAIN BIRD PCA VALVE



RAIN BIRD CONTROLLER DETAIL



TRENCH DETAIL

Product:

Revisions:

Scale:

Drawing: Irrigation Details
Date: 4/20/2014
Scale: NTS
Drawn by: CM
Sheet No.:
WHS

IR-2
DATE: 2/14/2018

SECTION No.:	86020000
Permit No.:	2018-L-491-025
COUNTY:	Broward
S.R. No.:	5

EXHIBIT C

MAINTENANCE PLAN FOR LANDSCAPE IMPROVEMENTS

This Exhibit forms an integral part of the DISTRICT FOUR (4) LANDSCAPE MAINTENANCE MEMORANDUM OF AGREEMENT between the State of Florida, Department of Transportation and the AGENCY.

Please see attached

MAINTENANCE PLAN Landscape Improvements

Project State Road No: 5 (US 1) M.P. 0.064 to M.P. 0.096
Permit: 2018-L-491-025
Maintaining Agency: City of Fort Lauderdale
RLA of Record: Andrew M. Witkin
Date: February 26, 2019

I. GENERAL MAINTENANCE REQUIREMENTS AND RECOMMENDATIONS:

The purpose of a plan for the landscape improvements maintenance practices is to allow the plant material on your project to thrive in a safe and vigorous manner while fulfilling their intended purpose and conserving our natural resources. Plantings and all other landscape improvements shall be maintained to avoid potential roadway hazards and to provide required clear visibility, accessibility, clearance, and setbacks as set forth by Florida Department of Transportation (FDOT) governing standards and specifications: *FDOT Design Standards*, *FDOT Plans Preparation Manual Vol. I, Chapter 2.11* and *FDOT Standard Specifications for Road and Bridge Construction*, as amended by contract documents, and all other requirements set forth by the District 4 Operations Maintenance Engineer. The initial portion of the Maintenance Plan describes general maintenance requirements and recommendations. **The concluding section provides recommendations prepared by the Registered Landscape Architect of Record specific to the attached approved plans.**

WATERING REQUIREMENTS

Watering is a critical concern for not only the maintenance of healthy plant material but also for observing water conservation practices. The amount of water to apply at any one time varies with the weather, drainage conditions and water holding capacity of the soil. For plant materials that have been established, it is imperative that any mandated water restrictions be fully conformed to on FDOT roadways.

Proper watering techniques should provide even and thorough water dispersal to wet the entire root zone, but not saturate the soil or over-spray onto travel lanes.

IRRIGATION SYSTEM

The Agency shall ensure there are no roadway overspray or irrigation activities during daytime hours (most notably "rush hour" traffic periods). It is imperative the irrigation controller is properly set to run early enough that the watering process will be entirely completed before high traffic periods, while adhering to mandated water restrictions. To ensure water conservation, the Agency shall monitor the system for water leaks and the rain sensors to ensure they are functioning properly so that the system shuts down when there is sufficient rainfall.

INTEGRATED PLANT MANAGEMENT

An assessment of each planting area's soil is recommended to periodically determine the nutrient levels needed to sustain healthy, vigorous plant growth.

Palms, shrubs, trees and turf areas shall be fertilized in such a manner and frequency to ensure that the plant material remains healthy and vigorously growing. Please be alert to changes in fertilization types per University of Florida, Institute of Food and Agricultural Services (I.F.A.S.) recommendations. Establishment of an integrated pest management program is encouraged to ensure healthy plants, which are free of disease and pests.

MULCHING

Mulch planting beds in such a manner as to prevent weed growth, retain moisture to the plants, protect against soil erosion and nutrient loss, maintain a more uniform soil temperature, and improve the appearance of the planting beds. Avoid mulch mounded up on the trunks of trees, palms, and the base of shrubs to encourage air movement in this area which aids in lowering disease susceptibility. Cypress mulch is prohibited on state right of way.

PRUNING

All pruning, and the associated safety criteria, shall be performed according to American National Standard Institute (ANSI) A300 standards and shall be supervised by an International Society of Arboriculture (ISA) Certified Arborist. Pruning shall be carried out with the health and natural growth of plant materials in mind, to specific pruning heights maintaining clear visibility for motorists, and provide vertical clearance for pedestrian, bicyclist, and truck traffic where applicable. Visibility windows must be maintained free of view obstructions, and all trees and palms must be maintained to prevent potential roadway and pedestrian hazards, all palms are to be kept fruit free. The specific pruning heights are determined by understanding the designer's intent when selecting and placing the plants. The intended mature maintained height and spread of plants are noted on the plans (See Exhibit B.) and see Part II., Specific Project Site Maintenance Requirements and Recommendations as guidance. The understory plant materials selected for use within the restricted planting areas (Limits of Clear Sight) are to be mature height in compliance with Window Detail. Vertical tree heights must meet *FDOT Maintenance Rating Program* (MRP) standards. See Reference pages.

STAKING AND GUYING

All staking materials, except for replacements, are to be removed by the completion of FDOT establishment or after one year (whichever comes first). Any subsequent staking and guying activities by the Agency must adhere to *FDOT Design Standards* guidelines (See Index 544). The Agency shall closely monitor staking and guying attachment materials so that they are securely fastened to avoid potential roadway hazards.

TURF MOWING:

All grassed areas are to be mowed and trimmed with sufficient frequency to maintain a deep, healthy root system while providing a neat and clean appearance to the urban landscape. All turf efforts, mowing, curb/sidewalk edging and turf condition, must at a minimum, meet *FDOT Maintenance Rating Program* (MRP).

LITTER CONTROL:

The project site shall remain as litter free as practicable. It is recommended to recycle this litter to avoid unnecessary waste by its reuse. Litter removal efforts must meet *FDOT Maintenance Rating Program* (MRP) standards.

WEEDING/HERBICIDE

All planting areas shall be maintained as weed free as practicable by enlisting integrated pest management practices in areas specified on the plans and maintaining proper mulch levels. Extreme care is recommended when using a chemical herbicide to avoid overspray onto plant materials. It is the applicator's responsibility to restore any damage resulting from overspray to the plantings, per the approved plans.

PLANT REPLACEMENT

Plant replacement shall be the same species and specification as the approved plan. Move and replace all plant materials that may conflict with utility relocations and service. Only plants graded Florida #1 or better, per the *Florida Department of Agriculture and Consumer Services, Grades and Standards for Nursery Plants* are permitted on FDOT roadways. Should it become necessary to change the species, a permit is required from FDOT for approval by the FDOT District Landscape Architect.

HARDSCAPE (SPECIALTY SURFACING)

All tree grates and specialty surfacing (if applicable) shall be maintained in such a manner as to prevent any potential tripping hazards and protect damage to the surfacing and tree grates. Final surface tolerance from grade elevations shall, at a minimum, meet the most current FDOT Maintenance Rating Program Handbook Pages 43-47; ADA accessible sidewalk; and FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on The State Highway System. If the specialty surfacing or tree grates become damaged, they shall be replaced with the same type and specification as the approved plan.

HARDSCAPE (CONCRETE PAVERS)

All tree grates and concrete pavers (if applicable) shall be maintained in such a manner as to prevent any potential tripping hazards and protect damage to the pavers and tree grates. Final surface tolerance from grade elevations shall, at a minimum, meet the most current *Interlocking Concrete Pavement Institute (ICPI), Guide Specifications for Pavers on an Aggregate Base, Section 23 14 13 Interlocking Concrete Pavers, Part 3.05*. If the specialty surfacing or tree grates become damaged, they shall be replaced with the same type and specification as the approved plan.

It shall be the responsibility of the AGENCY to maintain all signs located within a non-standard surfacing area. Such maintenance to be provided by the AGENCY shall include repair and replacement of the sign panel, post, and base.

HARDSCAPE (NON-STANDARD) TRAVELWAY SURFACING

It shall be the responsibility of the AGENCY to restore an unacceptable ride condition of the roadway, including asphalt pavement (if applicable), caused or contributed by the installation or failure of non-standard surfacing, and/or the header curb, on the Department of Transportation right of way within the limits of this Agreement. Pavement restoration areas or "patches" will have a minimum length of 10-ft, measured from the edge of the header curb, and a width to cover full lanes for each lane affected by the restoration.

Pavement restoration will be performed in accordance with the most current edition of the *FDOT Standard Specifications for Road and Bridge Construction*, and the *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System*.

**HARDSCAPE (LANDSCAPE ACCENT LIGHTING)
(IF APPLICABLE)**

Landscape accent lighting shall be maintained in such a manner as to prolong the life of the lighting fixture and prevent potential safety hazards. If the lighting fixtures and their system become damaged, they shall be replaced with the same type and specification as the approved plan. Landscape lighting shall meet requirements for the sea turtle nesting and hatching.

MAINTENANCE OF TRAFFIC CONTROL

Reference the FDOT website regarding the selection of the proper traffic control requirements to be provided during routine maintenance and / or new installations of this DOT roadway.

**VEGETATION MANAGEMENT AT OUTDOOR ADVERTISING (ODA)
(IF APPLICABLE)**

To avoid conflicts with permitted outdoor advertising, please reference the State of Florida website regarding the vegetation management of outdoor advertising. This website provides a portal to search the FDOT Outdoor Advertising Inventory Management System Database. The database contains an inventory of outdoor advertising structures, permits and other related information maintained by the Department.

Also, reference the *Florida Highway Beautification Program* website link for *Vegetation Management at ODA signs* Florida Statutes and Florida Administrative Code related to vegetation management at outdoor advertising sign, permit applications for vegetation management and determining mitigation value of roadside vegetation.

II. SPECIFIC PROJECT SITE MAINTENANCE REQUIREMENTS AND RECOMMENDATIONS

There are no additional maintenance requirements.

REFERENCES

This reference list is provided as a courtesy. The list may not contain the most current websites. The most current references must be accessed for up to date information.

Accessible Sidewalk (ADA)

<http://www.access-board.gov/guidelines-and-standards/streets-sidewalks>

Americans with Disabilities Act (ADA) (ADAAG)

http://www.ada.gov/2010ADAstandards_index.htm

American National Standard Institute, ANSI A300, (Part 1) for Tree Care Operations – Trees, Shrub, and Other Woody Plant Maintenance – Standard Practices (Pruning), available for purchase

<http://webstore.ansi.org>

Florida Department of Agriculture and Consumer Services, Division of Plant Industry, *Florida Grades and Standards for Nursery Plants 2015*

<http://www.freshfromflorida.com/Divisions-Offices/Plant-Industry/Bureaus-and-Services/Bureau-of-Plant-and-Apiary-Inspection>

Florida Department of Community Affairs (DCA), *Florida Board of Building Codes & Standards, 2017 Florida Building Code, Chapter 11 Florida Accessibility Code for Building Construction Part A*

http://www2.iccsafe.org/states/florida_codes/

Florida Department of Transportation, *Program Management, Maintenance Specifications Workbook Supplemental Specifications, Section 580 Landscape Installation*

<http://www.fdot.gov/programmanagement/Maintenance/2018Jan/default.shtm>

Florida Department of Transportation, *FDOT Standard Plans for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 580-001 Landscape Installation*

<http://www.fdot.gov/design/standardplans/current/IDX/580-001.pdf>

Florida Department of Transportation, *FDOT Design Manual for Design, Construction, Maintenance and Utility Operations on the State Highway System, Chapter 212.11 Clear Sight Triangles*

<http://www.fdot.gov/roadway/FDM/current/2018FDM212Intersections.pdf>

Florida Department of Transportation, *FDOT Design Manual for Design, Construction, Maintenance and Utility Operations on the State Highway System, Chapter 215.2.3 Clear Zone Criteria and 215.2.4 Lateral Offset*

Table 215.2.1 Clear Zone Width Requirements

Table 215.2.2 Lateral Offset Criteria (for Trees)

<http://www.fdot.gov/roadway/FDM/current/2018FDM215RoadsideSafety.pdf>

Florida Department of Transportation, *FDOT Standard Plans for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index Series 102-600 Traffic Control through Work Zones*

<http://www.fdot.gov/design/standardplans/current/IDx/102-600.pdf>

Department of Transportation, Landscape Architecture Website

www.MyFloridaBeautiful.com

Florida Department of Transportation, *Maintenance Rating Program Handbook*

<http://www.dot.state.fl.us/statemaintenanceoffice/MaintRatingProgram.shtm>

Florida Department of Transportation Outdoor Advertising Database

<http://www2.dot.state.fl.us/rightofway/>

Florida Exotic Pest Plant Council Invasive Plant Lists

<http://www.fleppc.org/list/list.htm>

Florida Irrigation Society

<http://www.fisstate.org>

Florida Power and Light (FPL), *Plant the Right Tree in the Right Place*

http://www.fpl.com/residential/trees/right_tree_right_place.shtml