

SECTION No.: 86010000
Permit No.: 2017-L-491-0003
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 (Federal Highway)** as part of the State Highway System as described in **Exhibit "A"**; and

WHEREAS, the AGENCY seeks to install or have installed by permit and maintain certain landscape improvements within the right of way of **State Road 5 (Federal Highway)** 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 (1) 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 N. 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 yearround. 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 TERMINATION

In addition to those conditions otherwise contained herein, this Agreement may be terminated under any one (1) of the following conditions:

- (a) By the DEPARTMENT, if the AGENCY fails to perform its duties under this Agreement, following ten (10) days written notice.
- (b) By the DEPARTMENT, for refusal by the AGENCY to allow public access to all documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, and made or received by the AGENCY in conjunction with this Agreement.

9. 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.

10. 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.

11. 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.

12. 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.

13. 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.

14. DISPUTES

The DEPARTMENT'S District Secretary shall decide all 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; and his decision upon all claims, questions, and disputes shall be final and conclusive upon the parties hereto.

15. 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.

16. 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. The AGENCY agrees to waive forum and venue and that the DEPARTMENT shall determine the forum and venue in which any dispute under this agreement is decided.

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: Elisabeth Hassett, R.L.A.
FDOT District IV Landscape Architect

If to the AGENCY:
City of Fort Lauderdale
290 N.E. 3rd Avenue
Fort Lauderdale, Florida
Attention: City Manager

18. LIST OF EXHIBITS

Exhibit A: Landscape Improvements and Maintenance Boundaries Limits
Exhibit B: Landscape Improvement Plans
Exhibit C: Maintenance Plan for Landscape Improvements

SECTION No.:	86010000
Permit No.:	2017-L-491-0003
COUNTY:	Broward
S.R. No.:	5

EXHIBIT A

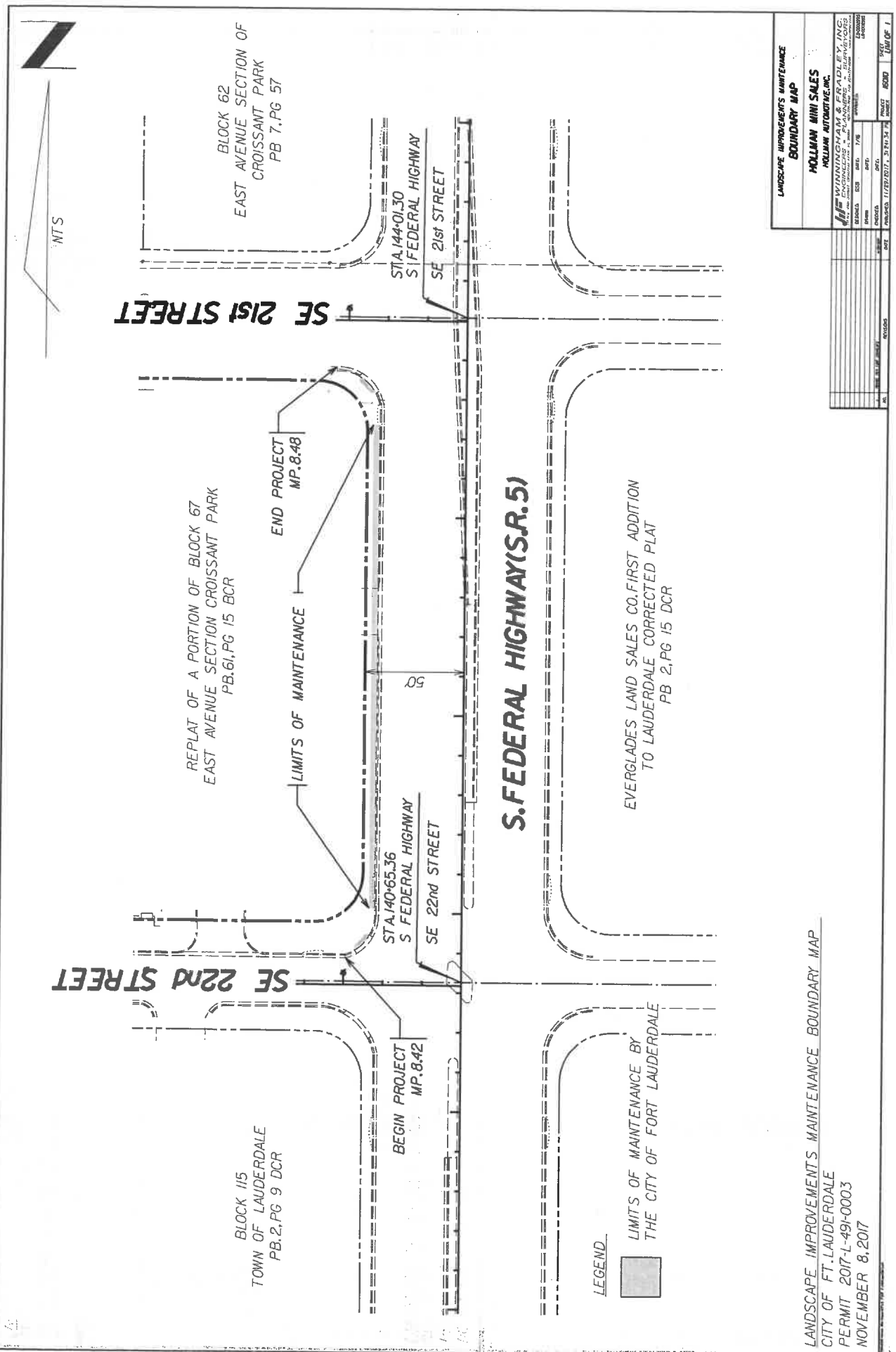
LANDSCAPE IMPROVEMENTS AND MAINTENANCE BOUNDARIES LIMITED

I. LIMITS OF MAINTENANCE FOR LANDSCAPE IMPROVEMENTS:

State Road 5 (US 1) from (M.P. 8.42) to (M.P. 8.48)

II. LANDSCAPE IMPROVEMENTS MAINTENANCE RESPONSIBILITIES MAP:

Please see attached map



LANDSCAPE IMPROVEMENTS MAINTENANCE

BOUNDARY MAP

HOLLMAN MINI SALES

HOLLMAN AUTOMOTIVE, INC.

WINNINGHAM & FRADLEY, INC.

CONTRACTING - PLANNING, ENGINEERING, SURVEYING

NO.	DATE	BY	REVISION
1	11/08/2017	WJF	ISSUED FOR PERMIT

PROJECT

11/08/2017 - 21/04/21

PROJECT

8500

DATE

11/08/2017

BY

WJF

REVISION

ISSUED FOR PERMIT

1 OF 1

LANDSCAPE IMPROVEMENTS MAINTENANCE BOUNDARY MAP
 CITY OF FT. LAUDERDALE
 PERMIT 2017-L-491-0003
 NOVEMBER 8, 2017

SECTION No.:	86010000
Permit No.:	2017-L-491-0005
COUNTY:	Broward
S.R. No.:	5

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: Natalia Barranco, RLA
Barranco-RLA, inc.

Date: November 8, 2017



Natalia Barranco
 Digitally signed
 by Natalia Barranco
 Date: 2017.11.08
 11:36:00 -05'00'

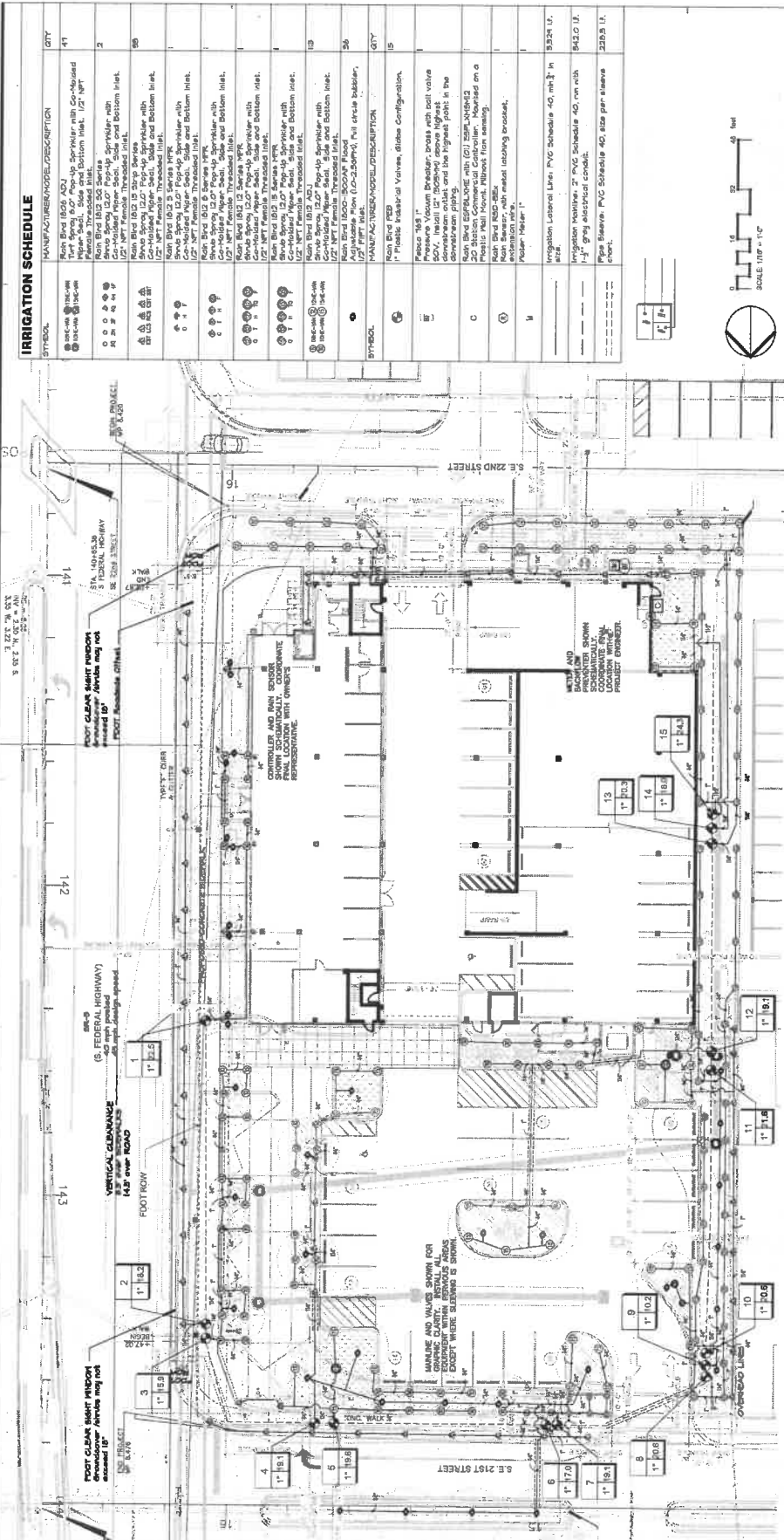
REVISIONS
 11/14/2018 P. Barranco
 11/14/2017 Generated

DATE
 02/21/16
SCALE
 1/4" = 1'-0"

**SALES FACILITY
 RENOVATION FOR
 LAUDERDALE MINI**

PROPOSED IRRIGATION PLAN

IR-100
 FOOT PERMIT 2017-L-491-0003



VALVE NUMBER	MODEL	SIZE	TYPE	PSI	PSI @ PCC	PSI @ PCC	PSI @ PCC	PRECIP
1	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87
2	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87
3	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87
4	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87
5	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87
6	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87
7	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87
8	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87
9	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87
10	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87
11	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87
12	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87
13	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87
14	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87
15	Rain Bird PEB	1"	Shrub Spray	36.29	25.49	5.82	1.87	1.87

PIPE SIZE	SLEEVE SIZE
9/4"	2 1/2"
1"	3"
1 1/4"	4"
1 1/2"	4"
2"	4"
2 1/2"	6"
3"	6"
4"	8"
6"	10"
8"	12"

Date: 2017.11.08
11:36:51 -05'00'

2025 15:05:11

REF Y I S + C H S

11/04/2018 Permit Revision

01/15/2017 General Revision
11/04/2018 UTILITY CORRELCT

07/21/2017 County Comments

DATE: _____ COURT: _____

07.21.16	14067
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SALES FACILITY

RENOVATION FOR

LAUDERDALE MINI

STATISTICS FOR FEDERAL HIGHWAY, FORT
ALL INFORMATION CONTAINED

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PROPOSED LANDSCAPE PLAN

300

L-200
DOT PERMIT #20171491-001

800-147-9611

0% shall be shade tree	7.5 Shade Trees
Structural Soil	

[illegible]

CAM 18-0514
Exhibit 1
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SECTION No.:	86010000
Permit No.:	2017-L-491-0003
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: State Road 5 (US 1) from (M.P. 8.42) to (M.P.8.48)
Permit: 2017L-491-0003
Maintaining Agency: City of Fort Lauderdale
RLA of Record: Natalia Barranco
Date: November 8, 2017

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 Requirements and Recommendations for guidelines. The understory plant materials selected for use within the restricted planting areas (Limits of Clear Sight) are to be maintained at a height in compliance with *FDOT Design Standards* Index 546; Page 6 of 6, Window Detail. Vertical tree heights must meet *FDOT Maintenance Rating Program* (MRP) standards.

STAKING AND GUYING

All staking materials, except for replacements, are to be removed by the completion of FDOT warranty period or at 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 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.

Or Use When Concrete Pavers

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 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 replace with the same type and specification as the approved plan.

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*.

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 (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

The landscape design for this project consists of two materials: Alexander Palms with 10 foot high clear trunk and spaced at approximately 20 feet on center. Approximately 10 total palms. As the clear trunk already meets the vertical height as required by FDOT and will only increase as the tree matures, as the palm is self-cleaning only general maintenance of the palm fronds and fruit is required (removal of debris and annual fertilization).

The second material consists of Minima Jasmine as ground cover. This material is to be maintained at a height of 6 inches. Material shall maintain its height and shall also be 'edged' so as not spread beyond its planting bed.

The irrigation system consists of 16 pop-up spray heads utilizing potable water. System will irrigate all landscape areas. Utilizing the as-built plans of the system, the system shall be flushed annually by capping the main lines and running each zone for a minimum of 2 minutes. Any damaged heads shall be replaced with same manufacturer and type.

Annual fertilization of both materials shall be in accordance with UF/IFAS Florida-Friendly Landscaping Guidelines or FloridaYards.org.

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, 2010 Florida Building Code, Chapter 11 Florida Accessibility Code for Building Construction Part A*

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

Florida Department of Transportation, *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 544 Landscape Installation*

<http://www.fdot.gov/roadway/DS/17/IDx/00544.pdf>

Florida Department of Transportation, *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 546 Sight Distance at Intersections*

<http://www.fdot.gov/roadway/DS/17/IDx/00546.pdf>

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

<http://www.fdot.gov/roadway/DS/17/IDx/00600.pdf>

Florida Department of Transportation, *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 700 Roadside Offsets*

<http://www.fdot.gov/roadway/DS/17/IDx/00700.pdf>

Florida Department of Transportation, *FDOT Plans Preparation Manual (PPM) Vol. I Chapter 4, 4.2.4 Lateral Offset*

Table 4.2.1 Clear Zone Width Requirements

Table 4.2.3 Lateral Offset Criteria (for Trees)

<http://www.fdot.gov/roadway/PPMManual/2016PPM.shtm>

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

<http://www.fdot.gov/programmanagement/Maintenance/2017Jan/Files/SS5800000.doc>

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