



# Agenda

## Town of Lake Park Tree Board

Tuesday, February 9, 2021 6:00 P.M.  
Town Hall Commission Chamber,  
535 Park Avenue, Lake Park, FL 33403

PLEASE TAKE NOTICE AND BE ADVISED, that if any interested person desires to appeal any decision of the Town Commission, with respect to any matter considered at this meeting, such interested person will need a record of the proceedings, and for such purpose, may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. *Persons with disabilities requiring accommodations in order to participate in the meeting should contact the Town Clerk's office by calling 881-3311 at least 48 hours in advance to request accommodations.*

|                |              |
|----------------|--------------|
| Brady Drew     | Board Member |
| Pamela Frazier | Board Member |
| Cynthia Grey   | Board Member |
| Edward Viera   | Board Member |

A. **CALL TO ORDER/ ROLL CALL**

B. **PLEDGE OF ALLEGIANCE**

C. **APPOINTMENT OF A CHAIR**

D. **APPOINTMENT OF A VICE-CHAIR**

E. **CONSENT AGENDA:**

1. December 8, 2020 Meeting Minutes
2. January 12, 2021 Meeting Minutes

F. **NEW BUSINESS**

3. Review/Discuss of Tree Board Ordinances of other Municipalities.
4. Review the Town of Lake Park Preferred Plant List.
5. Completion of Task – Timeline Discussion.

G. **PUBLIC COMMENT**

This time is provided for addressing items that do not appear on the Agenda. Please complete a comment card and provide it to the Agency Clerk so speakers may be announced. Please remember comments are limited to a TOTAL of three minutes.

Tree Board Agenda  
February 9, 2021

H. **BOARD MEMBER COMMENTS**

I. **STAFF COMMENTS**

J. **ADJOURNMENT**

**The next scheduled Tree Board Meeting will be conducted on March 9, 2021**



**Town of Lake Park Town Tree Board**

**Agenda Request Form**

**Meeting Date:** February 9, 2021

**Agenda Item No.**

**Agenda Title:** Appointment of a Chair and Vice-Chair to the Tree Board

- SPECIAL PRESENTATION/REPORTS
- BOARD APPOINTMENT
- PUBLIC HEARING ORDINANCE ON \_\_\_\_\_ READING
- NEW BUSINESS
- OTHER: \_\_\_\_\_

- CONSENT AGENDA
- OLD BUSINESS

*Vivian Mendez, Town Clerk,*  
 \_\_\_\_\_  
 Name/Title

|  |  |  |
|--|--|--|
| <b>Originating Department:</b><br><br><b>Town Clerk's Office</b>                           | <b>Costs: \$ 0.00</b><br>Funding Source:<br>Acct. #<br><input type="checkbox"/> Finance _____  | <b>Attachments:</b><br><br><b>Town Code Pertaining to Board Chair and Vice-Chair</b>                       |
| <b>Advertised:</b><br>Date: _____<br>Paper: _____<br><input type="checkbox"/> Not Required | All parties that have an interest in this agenda item must be notified of meeting date and time. The following box must be filled out to be on agenda. | Yes I have notified everyone _____<br>OR<br>Not applicable in this case ____<br><b>Please initial one.</b> |

**Summary Explanation/Background:**

The Town of Lake Park Town Code states that each board shall annually elect from its membership a chair and a vice-chair. This agenda item has been provided so that the Board take this action.

**Recommended Motion:** I move to appoint \_\_\_\_\_ as Chair of the Tree Board.

I move to appoint \_\_\_\_\_ as Vice-Chair of the Tree Board.

(3) [Reserved.]

(4) Keep records of all of the activities of the library board and make annual reports to the town manager and the town commission relative thereto or whenever requested to do so by the town commission.

(Ord. No. 5-1968, § IV, 4-15-1968; Code 1978, § 12-27; Ord. No. 05-2010, § 5, 6-2-2010)

- **ARTICLE IV. - BOARDS AND COMMITTEES<sup>[5]</sup> Modified**

- **DIVISION 1. - GENERALLY**

- **Sec. 2-111. - Election of board and committee officers. Modified**

(a) *Chair.* Each board and committee of the town shall annually elect from its membership a chair, who shall preside at all meetings of such board or committee, and a vice-chair, who shall preside at all meetings of such board or committee in the absence or disability of the chair, at a regular meeting to be conducted in January, or if there is no meeting in January then at the first meeting of the board or committee in the new year.

(b) *Administrative support.* The town manager shall assign town employees to each board or committee, including a recording secretary who shall be responsible for recording the meetings and producing minutes of the board or committee meetings.

(Code 1978, § 2-56; Ord. No. 17-1991, § 1, 11-6-1991; Ord. No. 05-2015, § 2, 5-6-2015)

- **Sec. 2-112. - Membership on boards and committees terminated for missing meetings; filling of vacancies.**

(a) *Definitions.* For the purposes of this section, the following words, terms and phrases shall have the meanings herein ascribed to them:

*Board* means board or committee, as appropriate.

*Valid excuse* means one of the following:

(1)

Illness of a member or other person for whom the member is a caregiver;

(2)

Death of a member's relative; or

(3)

Scheduled absence approved in advance by the town clerk.

(b) *Recording of attendance.* The secretary of each board shall record the names of the board members who are present and absent at each board meeting, and shall include in the minutes of the meeting, the name of any member who has missed a meeting without a valid excuse, including regular and special meetings of said board.

(c) *Termination of membership.* Membership on a town board shall be automatically terminated for any member who, without valid excuse, misses three board meetings both regular and special in any consecutive 365-day period (any one-year term of the member).

(d) *Review of minutes.* The town clerk shall be responsible for reviewing the minutes of each board to determine when a vacancy has occurred, the town clerk shall confirm the unexcused absences of the member with the board secretary and once confirmed shall subsequently publish notice of the vacancy in a newspaper of general circulation of the town. The town commission shall fill the vacancy no sooner than two weeks after the publication of such notice. The term of a board member who is removed from office for lack of attendance shall end at the close of the third meeting in which the member failed to attend and which absence was not excused.

(e) *Notice of vacancies.* The town clerk shall monitor the terms of office for board members. Not less than 60 days prior to the end of a board member's term, the clerk shall publish a notice of the impending vacancy.

(f) *Publication of notice.* When publication of notice is required pursuant to this section, such publication shall be in the town newsletter and/or by other reasonable means of posting and publication. Copies of such notices shall be provided to the town commission at the next regular meeting following publication.

(g) *Profile sheet.* Each person seeking an initial appointment to a board shall be required to complete a profile sheet. The form for such profile sheet shall be approved by the commission. Any current regular member or alternate member seeking appointment or reappointment shall also be required to complete a profile sheet if one has not been completed within the previous three years. A profile sheet shall be due no later than 48 hours prior to the regular town commission meeting at which the appointment is scheduled to occur.

(h) *Appointment of alternate members.* The town commission shall appoint two alternates for each board. Alternate members of a board shall be appointed as first alternate and second alternate and shall serve in that order when necessary. Alternate members shall be permitted to participate in all board discussions. When an alternate member serves, the alternate member shall have all the powers and duties of a regular member including the right to vote on any matter before the board.

(i) *Nomination for action on vacancies.* The clerk shall prepare a list of volunteers, including members who seek reappointment, along with the profile sheet for commission action on a vacancy. The list of volunteers shall include the name of each person seeking the appointment for which a profile sheet has been timely received. The commission may interview board and committee members appearing on the clerk's list who volunteer for reappointment or appointment. A nomination to fill a vacancy may be made by any member of the commission. For a nominee to be appointed there must be a second and majority vote of the commission. Thereafter, the clerk shall notify each volunteer applicant in writing of the commission's action.

(j) Vacancies on a board or committee shall be automatically filled by an alternate member of that board or committee for the unexpired term. If two vacancies occur at the same time, the second vacancy shall be filled by the second alternate for the unexpired term. If a board or committee has more than two vacancies, the town commission may appoint temporary members, as necessary, who shall serve until the commission makes a regular appointment. The town clerk shall notify an alternate upon a change in status.

(k) *Residency requirement.* All members of town boards shall be residents of the town. However, unless otherwise prohibited by law, the town commission may appoint no more than two (including alternate members) town business owners to the boards of the town, excepting the planning and zoning board, and all appointments to said boards shall be made by the town commission.

(Ord. No. 33-1974, §§ I—III, 11-20-1974; Ord. No. 10-1979, § 1, 8-1-1979; Ord. No. 8-1982, § 1, 3-3-1982; Ord. No. 16-1990, § 1, 9-5-1990; Ord. No. 4-1991, § 1, 2-6-1991; Ord. No. 11-1994, § I, 5-18-1994; Ord. No. 6-1995, § I, 3-1-1995; Ord. No. 12-2001, § 1, 8-15-2001; Code 1978, § 2-57; Ord. No. 22-2004, § 2, 11-17-2004; Ord. No. 31-2004, § 2, 1-19-2005; Ord. No. 12-2006, § 2, 11-1-2006; Ord. No. 10-2013, § 2, 8-21-2013)

- **Sec. 2-113. - Scheduled board meetings; hours.**

All meetings of the various town boards shall be conducted after 5:00 p.m.

(Ord. No. 8-1985, § 1, 5-1-1985; Code 1978, § 2-58)

- **Secs. 2-114—2-150. - Reserved.**

# **Consent Agenda**

# TAB 1





**Town of Lake Park Town Tree Board**

**Agenda Request Form**

**Meeting Date:** February 9, 2021

**Agenda Item No.**

**Agenda Title:** December 8, 2020 Meeting Minutes and January 12, 2021 Meeting Minutes

- SPECIAL PRESENTATION/REPORTS  **CONSENT AGENDA**
- BOARD APPOINTMENT  OLD BUSINESS
- PUBLIC HEARING ORDINANCE ON \_\_\_\_\_ READING
- NEW BUSINESS
- OTHER: \_\_\_\_\_

*Vivian Mendez, Town Clerk,* \_\_\_\_\_  
Name/Title

|  |  |  |
|--|--|--|
| <b>Originating Department:</b><br><br><b>Town Clerk's Office</b>                           | <b>Costs: \$ 0.00</b><br>Funding Source:<br>Acct. #<br><input type="checkbox"/> Finance _____  | <b>Attachments:</b><br><br><b>Meeting Minutes</b>  |
| <b>Advertised:</b><br>Date: _____<br>Paper: _____<br><input type="checkbox"/> Not Required | All parties that have an interest in this agenda item must be notified of meeting date and time. The following box must be filled out to be on agenda. | Yes I have notified everyone _____<br>OR<br>Not applicable in this case ____<br><br><b>Please initial one.</b> |

**Summary Explanation/Background:**

Attached are the meeting minutes of the December 8, 2020 and January 12, 2021 Tree Board meetings. These items appear on the Consent Agenda because they are routine in nature

**Recommended Motion:** I move to approve the Consent Agenda.



**Minutes  
Town of Lake Park, Florida  
Tree Board Meeting  
Tuesday, December 8, 2020, 6:00 PM  
Town Hall Commission Chamber,  
535 Park Avenue, Lake Park, Florida 33403**

The Tree Board met for the purpose of a regular session on Tuesday, December 8, 2020 at 6:00 p.m. Present were Board Member Brady Drew, Pamela Frazier, Cynthia Grey, and Edward “Eddy” Viera. Town staff included Community Development Director Nadia DiTommaso, Town Manager John D’Agostino and Town Clerk Vivian Mendez.

Town Clerk Mendez performed the roll call and Town Manager D’Agostino led the pledge of allegiance.

**Consent Agenda:**

**1. November 10, 2020 Tree Board Meeting Minutes.**

**Motion: Board Member Frazier moved to approved the Consent Agenda; Board Member Viera seconded the motion.**

Vote on Motion:

| Board Member         | Aye | Nay | Other |
|----------------------|-----|-----|-------|
| Board Member Drew    | X   |     |       |
| Board Member Frazier | X   |     |       |
| Board Member Grey    | X   |     |       |
| Board Member Viera   | X   |     |       |

Motion Passed 4-0

**New Business:**

**2. Review and Open Discussion of the Town of Lake Park Tree Board Town Code.**

Town Manager D’Agostino thanked the Board members on behalf of the Town Commission for their willingness to volunteer their time to this Board. He explained that this Board has been inactive for many years and staff would be working with the Board to revitalize it. He explained the Town vision and how the Tree Board would contribute to that vision. He explained that the Tree Board Ordinance was outdated and could be re-written to be in line with the Town’s vision of bioswales.

He explained that other municipal Tree Board Ordinances would be on the next meeting agenda so that the Board could review them and determine what language should be included or removed from the Town’s current Tree Board Ordinance.

Board Member Frazier asked to receive the Tree Board reports from 17-years ago. Town Manager D’Agostino stated that if the information was available electronically it would be provided to the Board.

He explained that he has assigned staff to work with the Board to review the Tree Board Ordinance to ensure that it would meet the vision of the Town. Board Member Grey commented on what other communities are currently doing around the State of Florida and around the world. She asked if the purpose of reviewing other municipal Ordinances was to begin new Tree programs in the Town. Town Manager D'Agostino stated that it could be one aspect of reviewing the Town's Ordinance.

Board Member Viera expressed an interest in mapping out the current Town Trees throughout the public areas. He explained the Palm Beach County Tree Ordinance. He explained why he volunteered to be on the Town's Tree Board.

Town Manager D'Agostino asked the Board to work with staff on making the changes to the Tree Board Ordinance. He explained that the Town's consultant would be at a future meeting to discuss the bioswales aspect of the Town's vision with the Board. He stated that other resources would also be made available to the Board depending on the project.

Board Member Grey asked for a schedule so that the Board could work on present projects, future projects, and identifying which Trees the Town currently, has in the ground.

Board Member Viera asked clarifying questions regarding what communication was allowable of the Tree Board members outside of a meeting. Town Clerk Mendez along with Town Manager D'Agostino and Community Development Director DiTommaso answered questions of the Board.

Board Member Drew requested copies of the footnotes that are included in the Town Tree Board Code. Staff assured Board Member Drew that the footnotes would be reviewed and provided.

Board Member Frazier asked when the next meeting would be scheduled. The Board came to consensus to meet on the second Tuesday of each month. She asked if the Board members would be sworn in. Town Clerk Mendez explained that each Board members signed an Oath of Office when they were provided their welcome packets. She explained what the next few meeting agendas would include to move the Tree Board forward.

**PUBLIC COMMENT:**

None

**BOARD MEMBER COMMENTS:**

**Board Member Drew** had no additional comments.

**Board Member Frazier** had no additional comments.

**Board Member Grey** had no additional comments.

**Board Member Viera** had no additional comments.

**ADJOURNMENT**

There being no further business to come before the Board, and by unanimous vote, the meeting adjourned at 7:14 p.m.

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Town Clerk, Vivian Mendez, MMC

Town Seal

Approved on this \_\_\_\_\_ of \_\_\_\_\_, 2021

# TAB 2



**Town of Lake Park Town Tree Board**

**Agenda Request Form**

**Meeting Date:** February 9, 2021

**Agenda Item No.**

**Agenda Title:** December 8, 2020 Meeting Minutes and January 12, 2021 Meeting Minutes

- SPECIAL PRESENTATION/REPORTS  **CONSENT AGENDA**
- BOARD APPOINTMENT  OLD BUSINESS
- PUBLIC HEARING ORDINANCE ON \_\_\_\_\_ READING
- NEW BUSINESS
- OTHER: \_\_\_\_\_

*Vivian Mendez, Town Clerk,*  
 Name/Title \_\_\_\_\_

|  |  |  |
|--|--|--|
| <b>Originating Department:</b><br><br><b>Town Clerk's Office</b>                           | Costs: <b>\$ 0.00</b><br>Funding Source:<br>Acct. #<br><input type="checkbox"/> Finance _____  | <b>Attachments:</b><br><br><b>Meeting Minutes</b>  |
| <b>Advertised:</b><br>Date: _____<br>Paper: _____<br><input type="checkbox"/> Not Required | All parties that have an interest in this agenda item must be notified of meeting date and time. The following box must be filled out to be on agenda. | Yes I have notified everyone _____<br>OR<br>Not applicable in this case ____<br><br><b>Please initial one.</b> |

**Summary Explanation/Background:**

Attached are the meeting minutes of the December 8, 2020 and January 12, 2021 Tree Board meetings. These items appear on the Consent Agenda because they are routine in nature

**Recommended Motion:** I move to approve the Consent Agenda.



**Minutes  
Town of Lake Park, Florida  
Tree Board Meeting  
Tuesday, January 12, 2021, 6:00 PM  
Town Hall Commission Chamber,  
535 Park Avenue, Lake Park, Florida 33403**

The Tree Board meeting was canceled due to a lack of a quorum. The next scheduled meeting is Tuesday, February 9, 2021 at 6:00 p.m.

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Town Clerk, Vivian Mendez, MMC

Town Seal

Approved on this \_\_\_\_\_ of \_\_\_\_\_, 2021

# **New Business**



# Tab 3

The Town Clerk's Office reached out to Palm Beach County municipalities asking if they have a Tree Board and if so, to share their Tree Board Ordinance with us.

Several municipalities responded that they do not have Tree Boards. Other municipalities responded that their Planning & Zoning Board assumes the functions of a Tree Board.

Attached for your review are the City of Lake Worth Beach and Village of Wellington Tree Board Ordinances.

*CITY OF  
LAKE WORTH  
BEACH.*

*Tree Board  
Ordinance*

ORDINANCE NO. 90-12 OF THE CITY OF LAKE WORTH, FLORIDA, CREATING A CITY TREE BOARD TO SERVE IN A PLANNING AND ADVISORY CAPACITY WITH QUALIFIED CITY EMPLOYEES OR COMMERCIAL CONTRACTORS RESPONSIBLE TO OVERSEE THE WRITING AND IMPLEMENTATION OF AN ANNUAL PLAN FOR PLANTING AND MAINTENANCE OF CITY TREES; SEVERABILITY CLAUSE; CONFLICTING ORDINANCES REPEALED; CODIFICATION CLAUSE; EFFECTIVE DATE.

WHEREAS, the City Commission of the City of Lake Worth wishes to encourage citizen participation in the beautification of our community; and

WHEREAS, the City Commission wishes to apply to the National Arbor Foundation for designation as a "Tree City USA" City in an effort to promote its beautification goals; and

WHEREAS, in order to meet the application criteria for the Tree City USA designation, the City is required to establish an official City Tree Board to oversee writing and implementation of an annual work plan for planting and maintenance of City trees.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF LAKE WORTH, FLORIDA, that:

Section 1. Chapter 2, Article IX, of the Code of Ordinances is hereby created to read as follows:

Chapter 2

ADMINISTRATION

\* \* \*

ARTICLE IX. CITY TREE BOARD

\* \* \*

Sec. 2-82. Creation; Advisory function.

There is hereby created and established an official city tree board to serve in a planning and advisory capacity together with qualified city employees or commercial contractors to oversee the writing and implementation of an annual work plan to address all aspects of the planting and maintenance of city trees, including, but not limited to, recommendations on dead and hazardous tree removal, safety and fine pruning, planting, watering and fertilizing, insect and disease control and related long-term planning and prioritizing.

Sec. 2-83. Members, terms and vacancies.

The official city tree board shall be composed of ten (10) volunteer members-at-large, appointed by the city commission, to serve in that capacity unless and until he or she is removed from office pursuant to law or a vacancy otherwise occurs, in which case said vacancy shall be filled by the city commission. The board shall elect its own chairman and vice chairman annually at the first meeting in January.

ORIGINAL DOCUMENT

Section 2. If any provision of this Ordinance, or the application thereof to any person or circumstance is held invalid, the invalidity shall not affect other provisions or applications of the Ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this Ordinance are declared severable.

Section 3. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section 4. Section 1 of this Ordinance shall be codified.

Section 5. This Ordinance shall become effective ten (10) days after passage.

The passage of this Ordinance on first reading was moved by Commissioner Coonerty, seconded by Commissioner Wright, and upon being put to a vote, the vote was as follows:

|                               |            |
|-------------------------------|------------|
| Mayor Ronald E. Exline        | <u>AYE</u> |
| Commissioner C. L. Clarke     | <u>AYE</u> |
| Commissioner Michael Coonerty | <u>AYE</u> |
| Commissioner Charles Wright   | <u>AYE</u> |
| Commissioner Monte A. Mohr    | <u>AYE</u> |

The Mayor thereupon declared this Ordinance duly passed on first reading this 5th day of March, 1990.

The passage of this Ordinance on second reading was moved by Commissioner Coonerty, seconded by Commissioner Wright, and upon being put to a vote, the vote was as follows:

|                               |                    |
|-------------------------------|--------------------|
| Mayor Ronald E. Exline        | <u>NOT PRESENT</u> |
| Vice Mayor C. L. Clarke       | <u>AYE</u>         |
| Commissioner Michael Coonerty | <u>AYE</u>         |
| Commissioner Charles Wright   | <u>AYE</u>         |
| Commissioner Monte A. Mohr    | <u>AYE</u>         |

The Mayor thereupon declared this Ordinance duly passed and enacted this 19th day of March, 1990.

LAKE WORTH CITY COMMISSION

By: Ronald E. Exline  
Mayor

ATTEST:

Barbara C. [Signature]  
City Clerk

Submitted: 3/5/90

ORIGINAL DOCUMENT

Village of  
Wellington  
Tree Board  
Ordinance

## **ORDINANCE NO. 97-17**

AN ORDINANCE OF THE VILLAGE COUNCIL OF THE VILLAGE OF WELLINGTON, FLORIDA, CREATING A VILLAGE TREE BOARD TO SERVE IN A PLANNING AND ADVISORY CAPACITY WITH QUALIFIED VILLAGE EMPLOYEES TO OVERSEE THE DEVELOPMENT AND IMPLEMENTATION OF AN ANNUAL PLAN FOR PLANTING AND MAINTENANCE OF VILLAGE TREES; SEVERABILITY CLAUSE; CONFLICTING ORDINANCES REPEALED; CODIFICATION CLAUSE; EFFECTIVE DATE.

WHEREAS, the Village Council of the Village of Wellington wishes to encourage citizen participation in the beautification of our community; and

WHEREAS, the Village Council wishes to apply to the National Arbor Foundation for designation as a "Tree City USA" city in an effort to promote its beautification goals; and

WHEREAS, in order to meet the application criteria for the Tree City USA designation, the Village is required to establish an official Village Tree Board to help develop and administer a comprehensive community tree management program for the care of trees on public property.

NOW, THEREFORE, BE IT ORDAINED BY THE VILLAGE COUNCIL OF THE VILLAGE OF WELLINGTON, FLORIDA, THAT:

### **SECTION 1 MEMBERS, TERMS AND VACANCIES**

The official Village Tree Board shall be composed of seven (7) members, appointed by the Village Council to serve in that capacity unless and until he or she is removed from office pursuant to law or a vacancy otherwise occurs in which case said vacancy shall be filled by the Village Council. The Mayor and the Vice Mayor shall each appoint two members the remaining Councilmembers shall appoint one member each. The Tree Board shall elect its own chairperson and vice-chairperson at its first meeting. Members shall be appointed for a three (3) year term, and can be re-appointed to successive terms.

### **SECTION 2 DUTIES OF VILLAGE TREE BOARD**

A. It shall be the responsibility of the Tree Board to develop an annual work plan in accordance with the Tree City USA guidelines. Such work shall include, but not be limited to, tree related projects and tasks, as well as an implementation schedule for such projects and tasks.

B. The annual work plan shall be submitted to the Village Council not later than April of each year and shall include a list of estimated expenses for the following calendar year.

The Village Council may approve said plan by resolution, subject to the provision of necessary funding in the Village budget.

- C. The Tree Board shall review and comment on all Village planting projects prior to installation. Comments shall be directed to the Villages' Public Works Director.
- D. It shall be the responsibility of the Tree Board to assist the Public Works Director to study, investigate, counsel and develop and/or update annually, and administer a written care guide for the care, preservation, pruning, planting, replanting, removal or disposition of trees and shrubs in parks, along streets and in other public areas.
- E. It shall be the responsibility of the Tree Board to assist the Village in preparing plans for Wellington's Annual Arbor Day ceremony, for approval by the Village Council.

**SECTION 3  
SEVERABILITY**

If any section, paragraph, sentence, clause, phrase, or word of this Ordinance is for any reason held by a court of competent jurisdiction to be unconstitutional inoperative or void, such holding shall not affect the remainder of the Ordinance.

**SECTION 4  
REPEAL OF ORDINANCES IN CONFLICT**

All ordinances or parts of Ordinances of the Village of Wellington, Florida, which conflict herewith are to the extent of such conflict hereby repealed.

**SECTION 5  
CODIFICATION**

The provisions of this may become and be made a part of the Code of Ordinances of the Village of Wellington. The sections of this Ordinance may be renumbered or relettered to accomplish such, and the word "ordinance" may be changed to "section", "article"; or any other appropriate word.

**SECTION 6  
EFFECTIVE DATE**

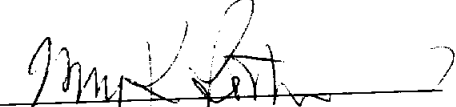
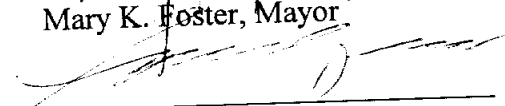
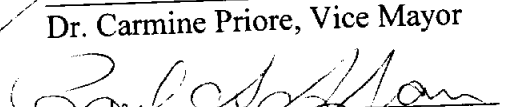
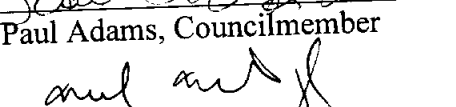
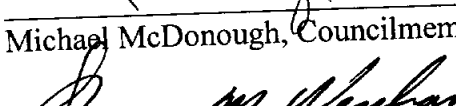
The provisions of this Ordinance shall become effective immediately upon its adoption.

PASSED this 23<sup>rd</sup> day of September, 1997, on first reading.


PUBLISHED this 7<sup>th</sup> day of October, 1997, in The Post.

PASSED AND ADOPTED this 14<sup>th</sup> day of October, 1997, on second and final reading.

**VILLAGE OF WELLINGTON, FLORIDA**

|  | FOR           | AGAINST       |
|--|---------------|---------------|
| BY: <u></u><br>Mary K. Foster, Mayor        | <u>✓</u>      | <u>      </u> |
| <u></u><br>Dr. Carmine Priore, Vice Mayor   | <u>✓</u>      | <u>      </u> |
| <u></u><br>Paul Adams, Councilmember        | <u>✓</u>      | <u>      </u> |
| <u></u><br>Michael McDonough, Councilmember | <u>      </u> | <u>✓</u>      |
| <u></u><br>Thomas Wenham, Councilmember     | <u>✓</u>      | <u>      </u> |

ATTEST:

BY:   
Awilda Rodriguez, Village Clerk

kr.pltngord



# TAB 4

# TAB 5

# TAB 1

# **New Business**

# TAB 3



**Town of Lake Park Town Tree Board**

**Agenda Request Form**

**Meeting Date:** February 9, 2021

**Agenda Item No.**

**Agenda Title:** Review the Town of Lake Park Preferred Plant List

- SPECIAL PRESENTATION/REPORTS
- BOARD APPOINTMENT
- PUBLIC HEARING ORDINANCE ON \_\_\_\_\_ READING
- NEW BUSINESS**
- OTHER: \_\_\_\_\_

- CONSENT AGENDA
- OLD BUSINESS

*Vivian Mendez, Town Clerk,*

Name/Title

|   |  |  |
|---|--|--|
| <b>Originating Department:</b><br><br><p style="text-align: center;"><b>Community Development</b></p> | <b>Costs: \$ 0.00</b><br>Funding Source:<br>Acct. #<br><input type="checkbox"/> Finance _____  | <b>Attachments:</b><br><br><p style="text-align: center;"><b>Town of Lake Park Preferred Planting List</b></p> |
| <b>Advertised:</b><br>Date: _____<br>Paper: _____<br><input type="checkbox"/> <b>Not Required</b>     | All parties that have an interest in this agenda item must be notified of meeting date and time. The following box must be filled out to be on agenda. | Yes I have notified everyone _____<br>OR<br>Not applicable in this case ____<br><br><b>Please initial one.</b> |

**Summary Explanation/Background:**

During the November 12, 2020 and December 8, 2020 Tree Board meeting, staff explained that the Town's Tree Board Ordinance contained a list of preferred Tree planting in the Town. Attached is the Town's preferring planting list for review and discussion.

**Recommended Motion:** This item does not require a motion.

Sec. 4-7. - Preferred landscape palette.

A. *Preferred trees.* Fifty percent of the required trees shall be selected from the list presented below:

Table 4-7A. Preferred Tree Species

| Common Name             | Scientific Name       |
|-------------------------|-----------------------|
| 1. Cabbage Palm         | Sabal palmetto        |
| 2. Cattley Guava        | Psidium littorale     |
| 3. Dahoon Holly         | Ilex cassine          |
| 4. Ligustrum Tree       | Ligustrum lucidum     |
| 5. Live Oak             | Quercus virginiana    |
| 6. Mahogany             | Swietenia mahogani    |
| 7. Oak                  | Quercus spp.          |
| 8. Oleander Tree        | Nerium oleander       |
| 9. Pink Tabebuia        | Tabebuia heterophylla |
| 10. Pygmy Date Palm     | Phoenix roebellini    |
| 11. Silver Buttonwood   | Conocarpus erectus    |
| 12. Washington Palm     | Washingtonia robusta  |
| 13. Wax Myrtle          | Myrica cerifera       |
| 14. Weeping Bottlebrush | Callistemon viminalis |

- B. *Preferred shrubs and groundcovers.* Fifty percent of the required shrubs and groundcovers shall be selected from the list presented below:

Table 4-7B. Preferred Shrub/Groundcover Species

| Common Name            | Scientific Name             |
|------------------------|-----------------------------|
| 1. Bougainvillea       | Bougainvillea spp.          |
| 2. Cocoplum            | Chrysobalanus icaco         |
| 3. Confederate Jasmine | Trachelospermum jasminoides |
| 4. Crinum Lily         | Crinum asiaticum            |
| 5. Croton              | Codiaeum variegatum         |
| 6. Dwarf Oleander      | Nerium oleander "petite"    |
| 7. Dwarf Philodendron  | Philodendron "xanadu"       |
| 8. Fakahatchee Grass   | Tripsacum dactyloides       |
| 9. Hibiscus            | Hibiscus spp.               |
| 10. Liriope            | Liriope muscari             |
| 11. Saw Palmetto       | Serenoa repens              |

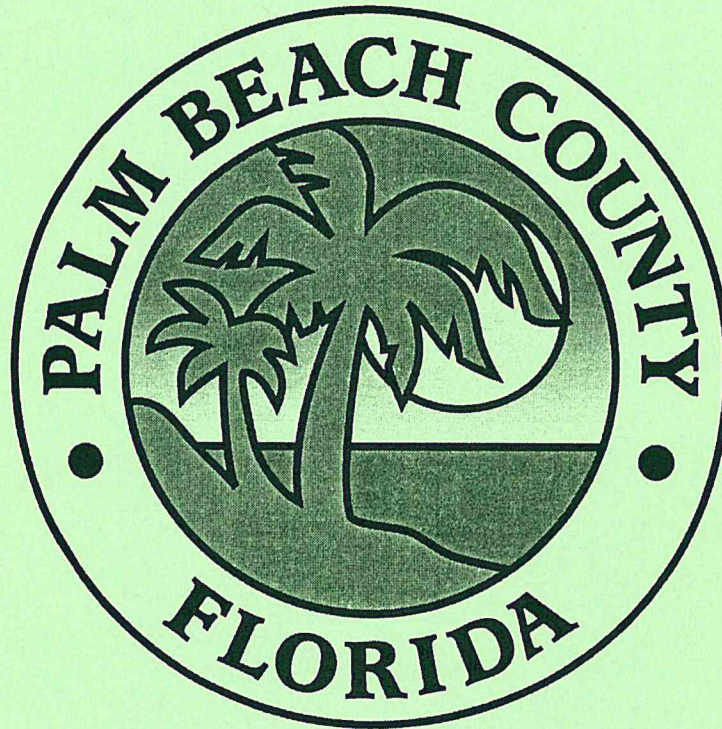
(Ord. No. 02-2006, Exh. A, 7-5-2006)



Board Member Viera  
provided the  
Preferred Plant List  
for  
Palm Beach County  
and additional  
documents for  
possible discussion.

ENGINEERING & PUBLIC WORKS OPERATIONS

# Streetscape Standards



REPUBLISHED

**FEBRUARY 20, 2008**

*(Includes revisions dated April 10, 2001; July 17, 2001;*

*October 29, 2003; and February 24, 2005.)*

2300 NORTH JOG ROAD, 3<sup>RD</sup> FL  
WEST PALM BEACH FL, 33411-2745

# **Palm Beach County**



## **Board of County Commissioners**

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Hal R. Valeche

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Steven Abrams

Melissa Mckinlay

Priscilla Taylor

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Robert Weisman

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## **INTRODUCTION**

The purpose of this manual is to provide uniform minimum standards for the design, installation and maintenance of all landscape within streets and roads under the jurisdiction or permitting control of Palm Beach County.

The standards established by this manual are applicable to all new development and where feasible to existing public rights of way where landscape improvements have been designed. These standards will be applied to the extent that legal, economic and environmental considerations allow.

This manual now contains dual (English and metric) dimensioning. This change was made to acknowledge a possible future conversion to the metric system. Until further notice, plans for landscaping on roadways that are under the jurisdiction or permitting control of Palm Beach County should continue to be prepared using English units of measurement.

### **OBJECTIVES**

Provide uniform minimum standards for landscape within streets and roads under the jurisdiction or permitting control of Palm Beach County and general information for landscaping in state road rights of way as required to meet specific development approval conditions imposed by the Board of County Commissioners. Contact the Florida Department of Transportation, Permit Department (561) 434-3918 for specific details and requirements for planting in state road rights of way.

Provide informational criteria about permitting and design requirements for landscaping on state roadways.

Provide guidelines to assist in the protection of the health, safety and welfare of the public using the roadway system.

Provide a planning tool for the development of landscaping within road rights of way throughout Palm Beach County.

Provide Landscape Architects, County Officials, related professionals and other interested parties with guidelines for landscaping within road rights of way off of the state highway system and provide information for landscaping within state road rights of way.

Provide Palm Beach County Engineering Department guidelines for reviewing right of way landscape plans as submitted by the public or other government agencies.

Provide uniformity along roadway corridors with an informational plant palette for consistency with desired criteria for growth characteristics.

Provide safe landscape installation and maintenance procedures.

# **PALM BEACH COUNTY ROAD CRITERIA**

The following criteria should be considered when designing landscape plans for streets and roads under the jurisdiction or permitting control of Palm Beach County. The intent should be to landscape the medians and roadsides with approved plant materials and conform to all standards already set forth in the Unified Land Development Code. The County Engineer shall retain final authority to approve or disapprove any street and right of way landscaping plans and maintenance requirements with respect to safe and proper engineering practices. All approvals shall be subject to any conditions imposed by the Department of Engineering and Public Works.

## **PERMITTING**

Permitting for projects within Palm Beach County rights of way shall be applied for through the Land Development Division, Permit Section. The following list sets forth the minimum requirements for submitting plans to landscape within Palm Beach County maintained rights of way.

1. One application, available from the Land Development Division, Permit Section. The applicant shall submit the following sets of plans through the permit process:
  - a. Six signed and sealed copy and two additional copies of plans, folded in eighths. Maximum plan size is 24" x 36" (610 mm x 914 mm) with initial application.
2. The plans shall be drawn to a scale of 1" = 20' (25 mm = 6 m) or 1" = 40' (50mm=12m) (which ever coincides with the related Palm Beach County roadway plans) and indicate the right of way lines, existing pavement, curbing, intersecting streets and names, driveways, drainage facilities, traffic control devices, and utilities, including underground and above ground utilities within the project boundaries. Exceptions to the required scale are to be approved by the County Engineer. In all cases, plans are to be prepared in a continuous format with match lines.
3. The plans shall indicate type, size and location of proposed and existing landscaping. Horizontal dimensions of the landscaping from the edge of pavement or face of curb shall be provided. Typical sections are to be provided showing the relevant information as shown in the example on page 2-8 and 2-11 of this manual.
4. The plans shall be signed and sealed by a landscape architect, authorized to practice in the state of Florida, and indicate on each plan sheet "All landscaping and above ground structures shown hereon are designed and are to be installed and maintained in accordance with Palm Beach County Streetscape Standards Manual."
5. Sight distance lines at intersections (including driveways) shall be indicated on the plans and dimensioned, as determined by this manual. Landscaping within sight distance lines shall provide a clear sight distance between 30" (.76 m) and 8' (2.4 m), measured from the adjacent road pavement. Required spacing between trees and/or palms shall be provided.

## PERMITTING – Continued

6. All plants specified for Palm Beach County roadways shall be Florida grade, No. 1 or better as specified in the most recent adopted manual of Grades and Standards for Nursery Plants, published by the Florida Department of Agriculture, Division of Plant Industries (second edition: February, 1998).
  7. Trees and plants placed within the right of way shall conform to the desirable growth characteristics as set forth in the informational plant list section of this manual, subject to approval by the office of the County Engineer. Special attention should be given to the appropriate species planted under or over utility lines. Adequate growth area shall be provided for all plant materials.
  8. Grouped plantings (including tree trunks) shall be arranged so they do not collectively present sight distance obstructions.
  9. Indicate on the plans the proposed method of irrigation. \*
  10. Submit a cost estimate (materials and installation) for the landscaping. Provide a cost estimate for the irrigation system, if one is proposed.
  11. Two copies of maintenance of traffic plan for installation and maintenance operation shall be submitted with permit application.
  12. Include two copies of plant maintenance and fertilization plan/schedule.
- \* If an irrigation system is proposed, submit five copies of the plans signed and sealed by a landscape architect authorized to practice in the state of Florida or a Florida certified irrigation designer. The irrigation plans shall indicate the items as noted in #2 above.

Should there be any question regarding the above information, contact the Land Development Division, Permit Section, (561) 684-4086.

## SAFE SIGHT DISTANCE

Safe sight distance triangles shall be provided in accordance with this manual and the Florida Department of Transportation, Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (Green Book current edition) criteria. Sight distance shall be provided for the ultimate roadway section, as appropriate.

All landscaping within the required safe sight distance triangle areas shall be planted and maintained as follows:

1. Safe sight distance triangle areas shall be planted and maintained in a way that provides

## SAFE SIGHT DISTANCE – Continued

unobstructed visibility at a level between 30" and 8' (.76 m and 2.4 m) above the pavement surface of the adjacent roadway. The effects of changes in elevations in the roadway cross section shall be considered when determining the adequacy of sight distance. Required spacing between trees and/or palms shall be provided.

2. Vegetation located within safe sight distance triangle areas shall be trimmed so that no canopy limbs or foliage extend into the required visibility area, unless otherwise provided herein.
3. Within safe sight distance triangle areas, vegetation that obstructs visibility shall not be planted, nor shall improvements or devices such as bus benches or shelters or newspaper vending machines be installed in ways that create traffic hazards. The effects of vertical curvature shall be addressed in order to provide required crossing and turning sight distances.
4. All landscaping planted within the safe sight distance triangle area shall be perpetually maintained by permittee to conform to the requirements of the permit and this manual.

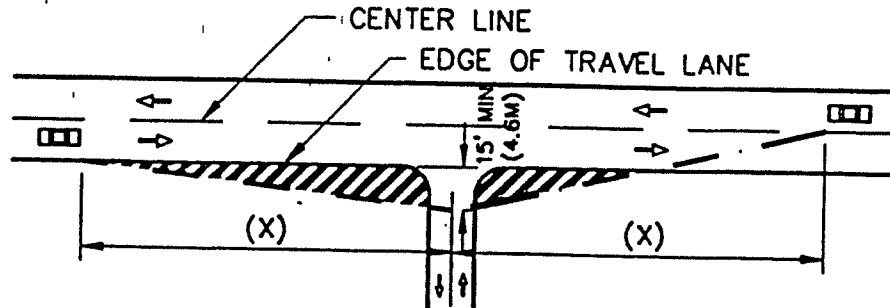
The County Engineer reserves the right to impose extended sight distance requirements as deemed necessary to provide for the health, safety and welfare of the public.

Required safe sight distances shall be provided using the following diagrams as guides. In the cases of roadways that do not conform to any of the example diagrams, safe sight distance shall be calculated using Green Book criteria.



SAFE SIGHT DISTANCE – Continued

USE FOR 2 LANES UNDIVIDED



 = REQUIRED AREA FOR SIGHT DISTANCE

**Notes:**

If no center line striping exists, measure to the centerline of the pavement.

Stated distances apply to both "T" and four way intersections. Stated distances also apply at signalized intersections.

If the design speed is higher than the posted speed limit, use the design speed for calculating required sight distance.

2 LANES UNDIVIDED

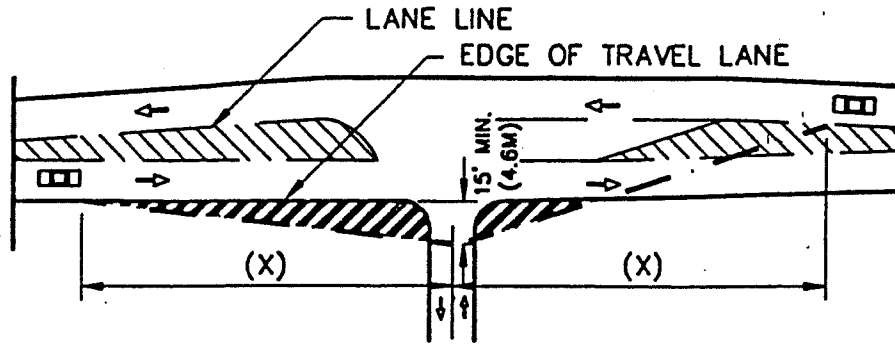
| Posted Speed Limit | Required Side Street/Drive Sight Distance (X) |
|--------------------|---|
| 45 MPH*** (73 kph) | 470' (143 m)                                  |
| 40 MPH (65 kph)    | 420' (128 m)                                  |
| 35 MPH (56 kph)    | 360' (110 m)                                  |
| 30 MPH* (48 kph)   | 300' (91 m)                                   |
| 20 MPH** (32 kph)  | 200' (61 m)                                   |

- \* Assume 30 MPH (56 kph) if speed limit on a local street is not posted.
- \*\* In certain situations on residential streets, providing 300' (91 m) of sight distance may be impossible due to existing conditions. In these situations, this reduced sight distance may be used, if approved by the County Engineers.
- \*\*\* For speeds greater than 45 MPH (73 kph), required sight distance is to be calculated using Green Book criteria.

Source: Florida Department of Transportation, Green Book

SAFE SIGHT DISTANCE - Continued

USE FOR 3 LANES UNDIVIDED



 = REQUIRED AREA FOR SIGHT DISTANCE

**Notes:**

If sight line extends beyond the limits of the turn lane pavement widening, measure to the centerline or edge of pavement, as appropriate.

Stated distances apply to both "T" and four way intersections. Stated distances also apply at signalized intersections.

If the design speed is higher than the posted speed limit, use the design speed for calculating required sight distance.

3 LANES UNDIVIDED

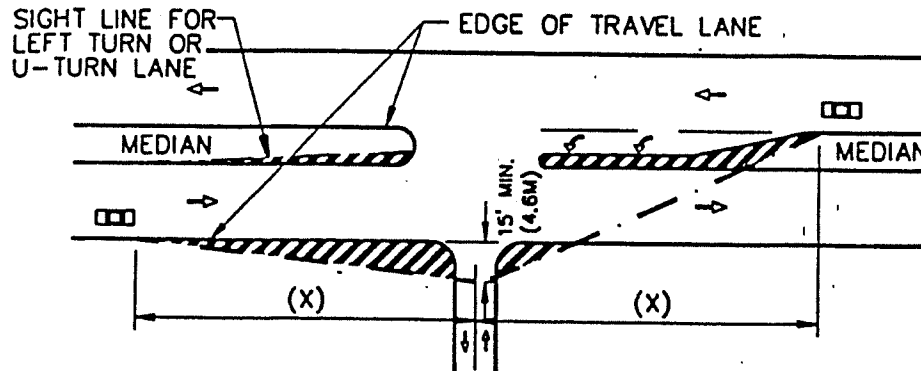
| Posted Speed Limit | Required Side Street/Drive Sight Distance (X) |
|--------------------|---|
| 45 MPH** (73 kph)  | 500' (152 m)                                  |
| 40 MPH (65 kph)    | 440' (134 m)                                  |
| 35 MPH (56 kph)    | 390' (119 m)                                  |
| 30 MPH * (48 kph)  | 330' (101 m)                                  |

- \* Assume 30 MPH (56 kph) if speed limit on a local street is not posted.
- \*\* For speeds greater than 45 MPH (73 kph), required sight distance is to be calculated using Green Book criteria.

Source: Florida Department of Transportation, Green Book

**SAFE SIGHT DISTANCE- Continued**

**USE FOR 4 OR 6 LANES DIVIDED**



Notes:

 = REQUIRED AREA FOR SIGHT DISTANCE

Stated distances apply to both "T" and four way intersections. Stated distances also apply at signalized intersections.

If the design speed is higher than the posted speed limit, use the design speed for calculating required sight distance.

**6 LANE DIVIDED**

| Posted Speed Limit | Required Side Street/Drive Sight Distance (X) |
|--------------------|---|
| 45 MPH* (73 kph)   | 650' (198 m)                                  |
| 40 MPH (65 kph)    | 575' (175 m)                                  |
| 35 MPH (56 kph)    | 510' (155 m)                                  |
| 30 MPH (48 kph)    | 440' (134 m)                                  |

**4 LANE DIVIDED**

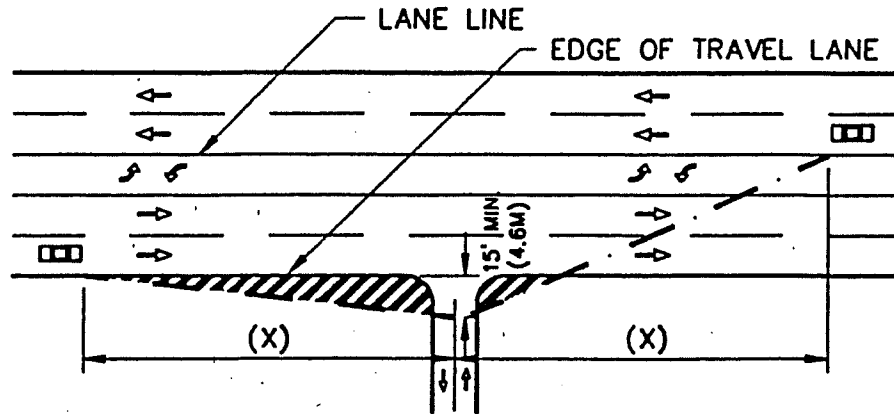
| Posted Speed Limit | Required Side Street/Drive Sight Distance (X) |
|--------------------|---|
| 45 MPH* (73 kph)   | 580' (177 m)                                  |
| 40 MPH (65 kph)    | 525' (160 m)                                  |
| 35 MPH (56 kph)    | 470' (143 m)                                  |
| 30 MPH (48 kph)    | 400' (122 m)                                  |

\* For speeds greater than 45 MPH (73 kph), required sight distance is to be calculated using Green Book criteria.

Source: Florida Department of Transportation, Green Book

SAFE SIGHT DISTANCE - Continued

USE FOR 5 LANES UNDIVIDED



 = REQUIRED AREA FOR SIGHT DISTANCE

Notes:

Stated distances apply to both "T" and four way intersections. Stated distances also apply at signalized intersections.

If the design speed is higher than the posted speed limit, use the design speed for calculating required sight distance.

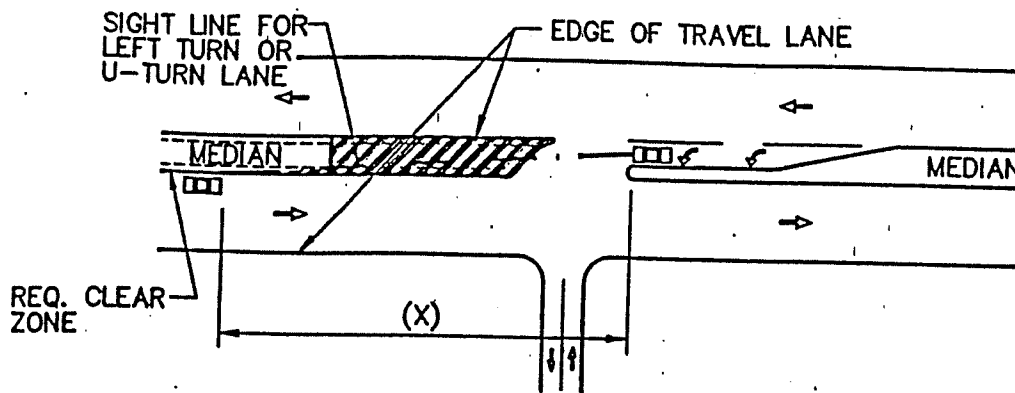
5 LANE UNDIVIDED

| Posted Speed Limit | Required Side Street/Drive Sight Distance (X) |
|--------------------|---|
| 45 MPH (73 kph)    | 550' (168 m)                                  |
| 40 MPH (65 kph)    | 490' (149 m)                                  |
| 35 MPH (56 kph)    | 430' (131 m)                                  |
| 30 MPH (48 kph)    | 375' (114 m)                                  |

Source: Florida Department of Transportation, Green Book

**SAFE SIGHT DISTANCE- Continued**

**USE FOR CHANNELIZED MEDIAN OPENINGS**



 = AREAS FREE OF SIGHT OBSTRUCTIONS

**Notes:**

Clear sight window for channelized median opening reflects F.D.O.T. Index 546, Roadway and Traffic Design Standards, January 1996.

If the design speed is higher than the posted speed limit, use the design speed for calculating required sight distance.

**6 LANE DIVIDED**

| Posted Speed Limit | Required Side Street/Drive Sight Distance (X) |
|--------------------|---|
| 45 MPH* (73 kph)   | 650' (198 m)                                  |
| 40 MPH (65 kph)    | 575' (175 m)                                  |
| 35 MPH (56 kph)    | 510' (155 m)                                  |
| 30 MPH (48 kph)    | 440' (134 m)                                  |

**4 LANE DIVIDED**

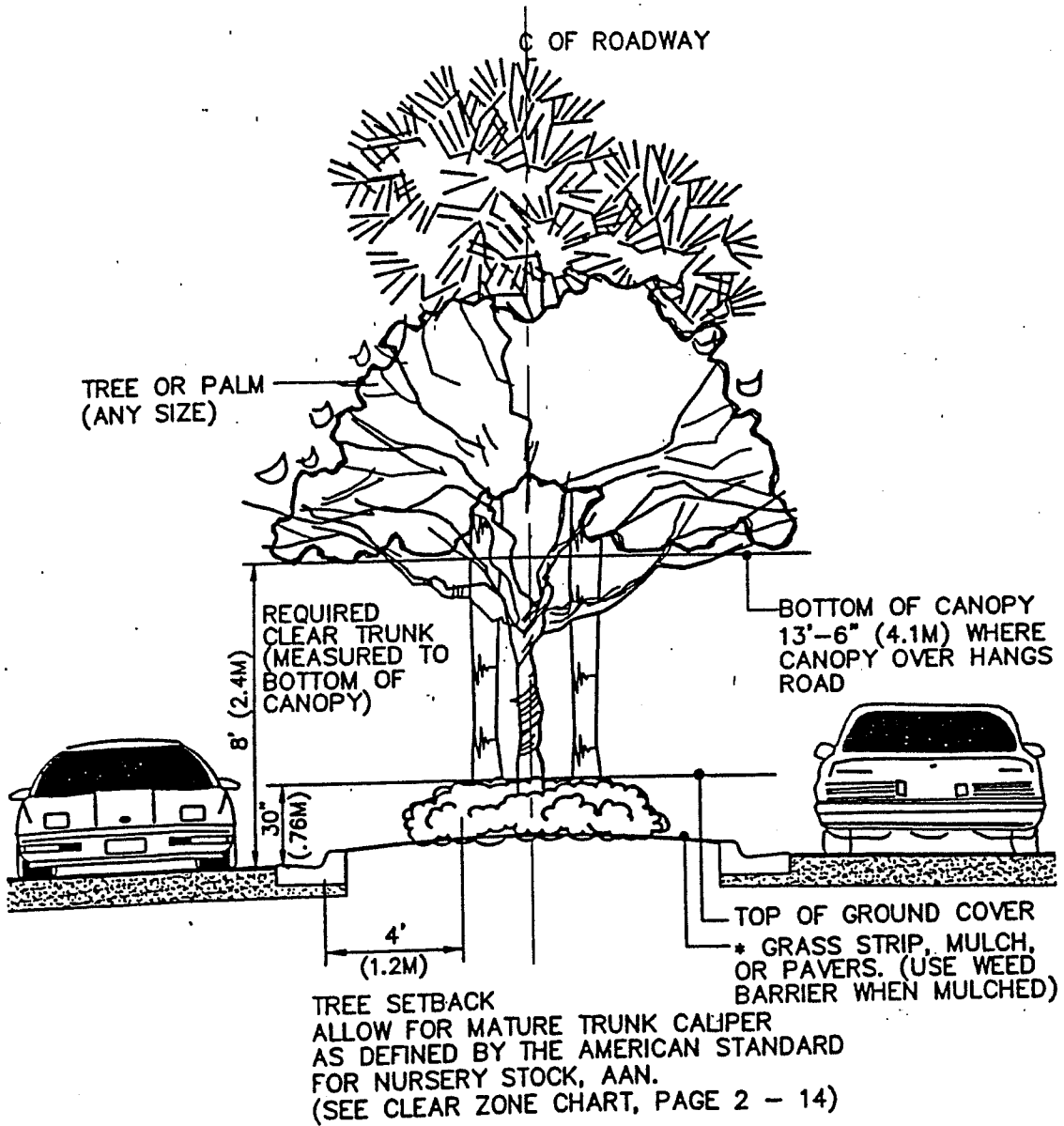
| Posted Speed Limit | Required Side Street/Drive Sight Distance (X) |
|--------------------|---|
| 45 MPH* (73 kph)   | 580' (177 m)                                  |
| 40 MPH (65 kph)    | 525' (160 m)                                  |
| 35 MPH (56 kph)    | 470' (143 m)                                  |
| 30 MPH (48 kph)    | 400' (122 m)                                  |

\* For speeds greater than 45 MPH (73 kph), required sight distance is to be calculated using Green Book criteria.

Source: Florida Department of Transportation, Green Book

# PLANTING STANDARDS!

## Non-mountable Curb Median Within Safe Sight Distance Triangle



\* OTHER ALTERNATIVES MAY BE USED WITH APPROVAL FROM THE COUNTY ENGINEER ON A CASE BY CASE BASIS.

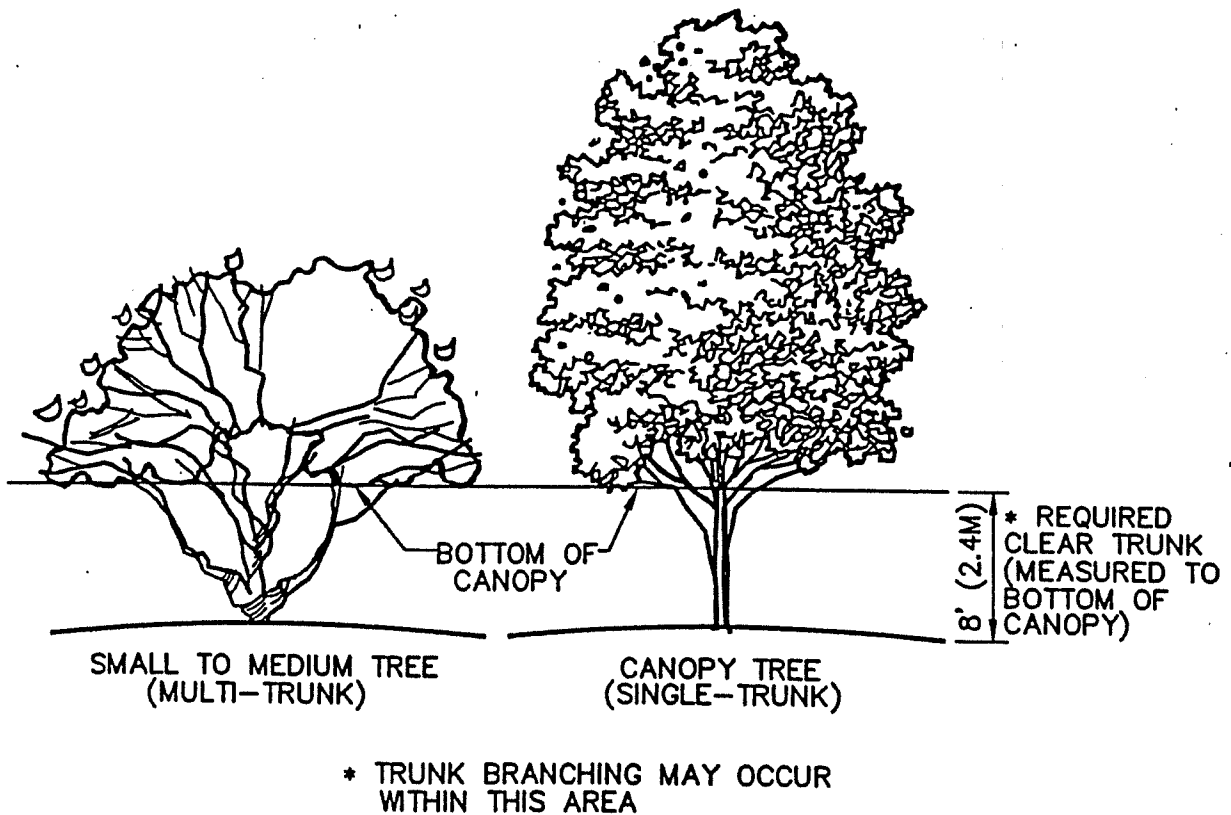
### TYPICAL SECTION

Planting within sight triangles requires that the plants do not block visibility. The diagrams illustrate in section and plan view a typical median that falls within a sight triangle. Drivers of vehicles on the crossroads and within the sight triangle must be able to see each other throughout the entire limits of the sight triangle. The effects of vertical curvature shall be addressed when designing to provide these sight distances.

PLANTING STANDARDS - Continued

Non-Mountable Curb Median Within Safe Sight Distance Triangle - Continued

Trees and palms of any caliper, as long as they can meet all the setback requirements, may be used within sight triangles. They shall be spaced no closer than 40' (12 m) on center. Trees and palms with mature trunk calipers less than 4" (100 mm) can be planted 20' (6 m) minimum, on center within sight triangles. Consideration for mature canopy and trunk caliper shall be taken into account when planting large shade trees and palms. They may need to be spaced further apart to allow for future canopy development. The bottom of the canopy shall be maintained at 8' (2.4 m) of clear trunk as measured from the pavement adjacent to the median or roadside, as appropriate. (See below.)

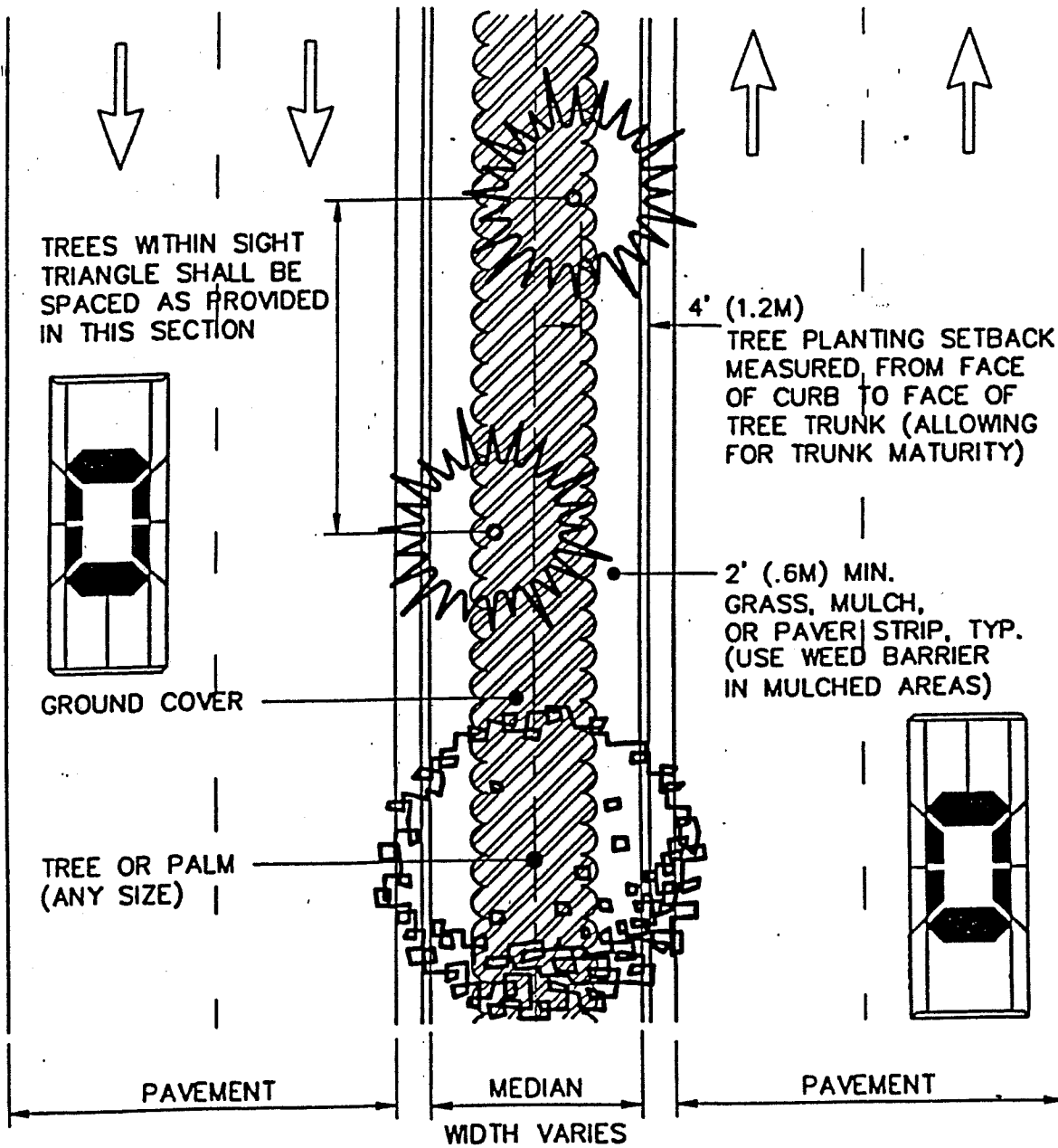


Ground covers and shrubs shall be low growing, which at time of maturity will not exceed 30" (.76 m) in height or shall be varieties that can be appropriately maintained at 30" (.76 m) or less.

Grass or mulched strips (with weed barriers) or pavers shall be a minimum width of 2' (.6 m) for maintenance of planting areas. This area will allow maintenance workers a safe area in which to perform routine maintenance operations and shall be provided on the roadway side of all planting areas.

# PLANTING STANDARDS – Continued

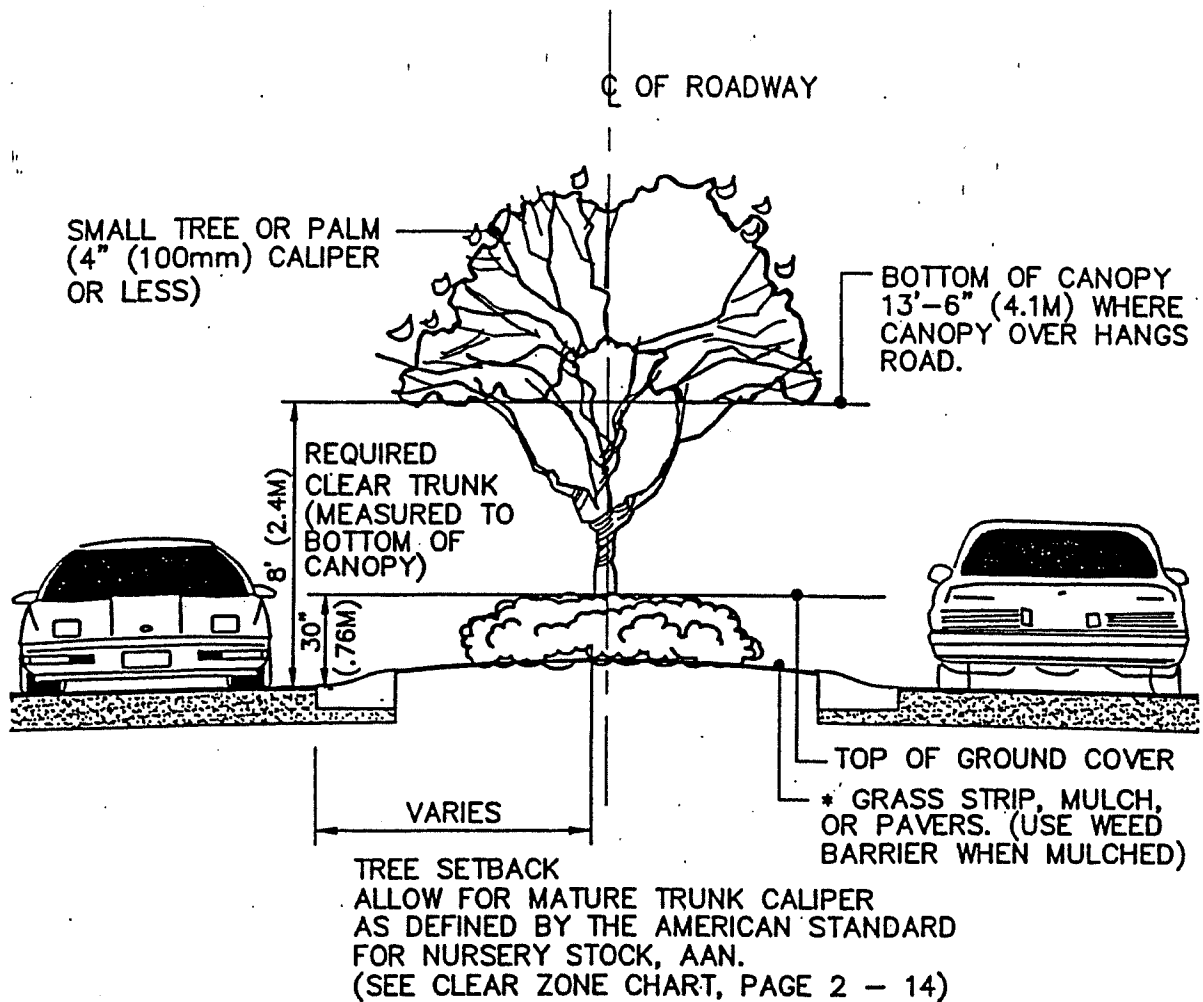
## Non-mountable Curb Median Within Safe Sight Distance Triangle





## PLANTING STANDARDS – Continued

### Mountable Curb and Uncurbed Median Within Safe Sight Distance Triangle



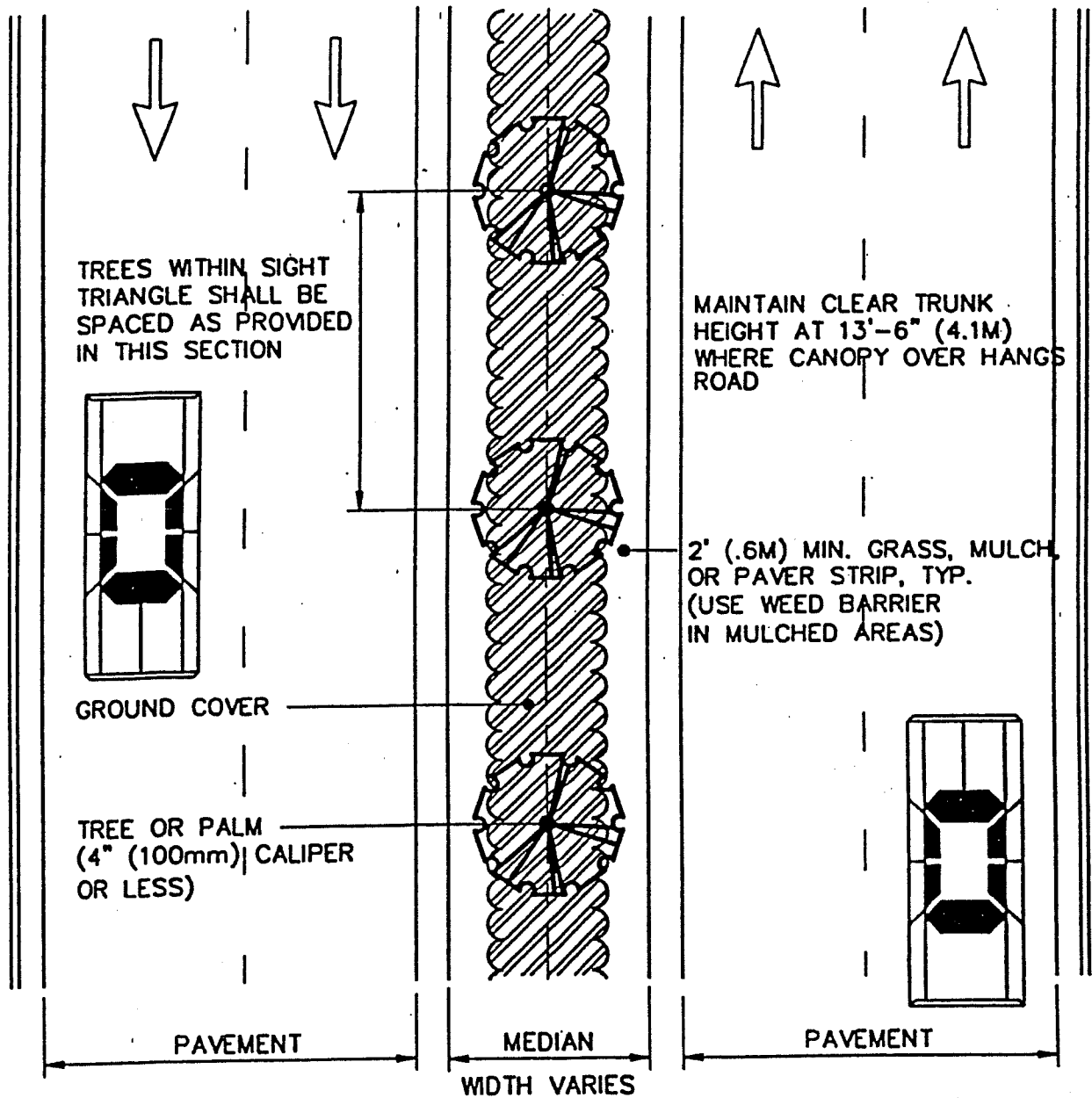
- \* OTHER ALTERNATIVES MAY BE USED WITH APPROVAL FROM THE COUNTY ENGINEER ON A CASE BY CASE BASIS.

### TYPICAL SECTION

Small trees and palms shall be used within mountable and uncurbed medians. Tree and palms that are 4" (100 mm) in caliper or less measured at 6" (150 mm) above grade shall be considered small and may be used within the medians. The plant material within these areas shall be maintained so that they do not overhang into the travel lane. Any portion of the tree that overhangs the travel lanes shall be maintained with a 13'-6" (4.1 m) vertical clearance. Otherwise, no encroachment will be permitted.

# PLANTING STANDARDS - Continued

## Mountable Curb and Uncurbed Median Within Safe Sight Distance Triangle



**PLANTING STANDARDS – Continued**

**Roadside Clear Zone**

The roadside clear zone is that area outside the traveled way, available for use by errant vehicles. Vehicles frequently leave the traveled way during avoidance maneuvers and due to loss of control by the driver or due to the collisions with other vehicles. The primary function of the clear zone is to allow space and time for the driver to regain control of vehicle and avoid or reduce the consequences of collision with roadside objects. This area also serves as an emergency refuge location for disabled vehicles.

The width of the clear zone should be as wide as it is practicable. The minimum permitted widths are given in the following table. These are minimum values only and should be increased wherever feasible.

In rural areas it is desirable and frequently economically feasible, to substantially increase the width of the clear zone. Where traffic volumes and speeds are high, the width should be increased. The clear zone on the outside of horizontal curves should be increased due to the high probability of vehicles leaving the roadway at a high angle.

**Minimum Width of Clear Zone**

| TYPE OF FACILITY   | DESIGN SPEED OR POSTED SPEED (WHICHEVER IS GREATER) |  |  |   |  |  |  |  |
|--------------------|---|--|--|---|--|--|--|--|
|                    | 25 MPH<br>(40 KM/H)<br>& BELOW                      | 30 MPH<br>(48 KM/H)  | 35 MPH<br>(56 KM/H)  | 40 MPH<br>(65 KM/H)                         | 45 MPH<br>(73 KM/H)  | 50 MPH<br>(81 KM/H)  | 55 MPH<br>(89 KM/H)  | 60 MPH<br>(97 KM/H)<br>& ABOVE   |
| MINIMUM CLEAR ZONE |   |  |  |   |  |  |  |  |
| RURAL ◦            | 6' (1.8M)   | 5' (1.5M) LOCAL<br>10' (3M) COLLECTORS<br>14' (4.3M) ARTERIALS | 5' (1.5M) LOCAL<br>10' (3M) COLLECTORS<br>14' (4.3M) ARTERIALS | 10' (3M) COLLECTORS<br>14' (4.3M) ARTERIALS | 14' (4.3M) ARTERIALS<br>AND COLLECTORS<br>ADT <1500<br>18' (5.5M) ARTERIALS<br>AND COLLECTORS<br>ADT ≥1500 | 14' (4.3M) ARTERIALS<br>AND COLLECTORS<br>ADT <1500<br>18' (5.5M) ARTERIALS<br>AND COLLECTORS<br>ADT ≥1500 | 18' (5.5M) ARTERIALS<br>AND COLLECTORS<br>ADT <1500<br>24' (7.3M) ARTERIALS<br>AND COLLECTORS<br>ADT ≥1500 | 18' (5.5M) ARTERIALS<br>AND COLLECTORS<br>ADT <1500<br>30' (9.1M) ARTERIALS<br>AND COLLECTORS<br>ADT ≥1500 |
| URBAN *            | 2.5'<br>(.76M)<br>1.5'                              | 4'<br>(1.2M)   | 4'<br>(1.2M)   | 4'<br>(1.2M)                                | 4'<br>(1.2M)   | N/A OO   | N/A OO   | N/A OO   |

\* From face of curb (6" (150 mm) type 'D' or 'F')

◦ Use rural for urban facilities when no curb and gutter is present. Measured from edge of through travel lane on rural section.

OO Curb and gutter not to be used on facilities with design speed > 45 MPH (73 kph).

Note: ADT in above table refers to design year ADT.

Source: Florida Department of Transportation, Green Book

## PLANTING STANDARDS – Continued

### Swale Areas at Roadside

Swale areas that may be planted must adhere to the minimum width of clear zone chart, (see page 2-13), and clear visibility when in a sight distance triangle, (see pages 2-4 - 2-7). All previous requirements apply as to non-mountable and mountable curb areas. In all cases, plantings are to be at least 2' (.6 m) behind the invert of swale, allowing for growth to maturity.

### Outside Sight Triangle

Medians and roadsides that do not fall within sight distance triangles must adhere to the same tree planting setbacks, (see minimum width of clear zone chart, page 2-13). Trees may be planted closer together and do not have to maintain 8' (12.4 m) of clear trunk. Shrubs and ground covers may exceed 30" (.76 m). Placement of trees in these areas shall take into account the mature canopy and caliper.

### Utility Clearance

Important consideration shall be given to the location of overhead and underground utility lines that may pass over or below the areas to be landscaped. They directly impact tree and site selection.

Large palms should be planted at the average frond length plus 2' (.6 m) for minimum clearance from utility lines. Large trees shall be setback 30' (9.1 m) from power lines. Medium trees shall be setback 20' (6 m) from power lines, depending on the tree selected. Small trees and small palms can be planted adjacent to and under power lines. (See Florida Power and Light Company's Plant the Right Tree in the Right Place for more information). Careful consideration shall be taken when selecting plant material. Trees planted in the wrong location can cause a wide variety of problems, most of which can be alleviated by taking into account the mature size of the tree selected. Exceptions to these standards shall be approved in writing by the affected utilities and specifically approved by the County Engineer.

Underground utilities shall also be given careful consideration. Drainage pipes, exfiltration trenches, water lines, fiber optic cable, etc. are just as important and shall be shown on the plans and field located prior to any installation of plant material. Offsets from these utilities will be reviewed on a case by case basis. Tree type and placement are critical to the project being approved. Every effort shall be taken to be sensitive to the location of the existing utilities. Root barriers may be allowed in special circumstances when appropriate clearances to underground utilities cannot be achieved, as determined by the County Engineer.

### Irrigation

Irrigation systems shall be designed so that they meet the "Palm Beach County Water and Irrigation Conservation Ordinance." Irrigation shall be restricted to the hours of 5:00 P.M. to 9:00 A.M. The system shall be operated in such a manner as not to waste water by over spraying impervious areas. Automatic irrigation systems shall be equipped with a water-sensing device that will automatically discontinue irrigation during periods of rainfall. High flow shutoff valves are recommended to be installed, so that a break at the head would cause a disrupted flow to the damaged head. This would help conserve water and minimize the water in the roadway, but still allow maintenance workers to locate the damaged equipment.

Source: Florida Highway Landscape Guide, April 1995

## PLANTING STANDARDS – Continued

### Subsurface Irrigation

Subsurface irrigation systems provide an alternative to conventional watering systems. These systems are recommended for use wherever possible. They irrigate the plant root zone directly, eliminating waste through evaporation and overspray. This type of system required less water and pressure for its operation, is low maintenance, vandal proof and eliminates the hazard of overspray onto the roadway driving lanes. Subsurface irrigation is good for trees and shrubs, but its method of water distribution is not recommended for turf grass areas.

### Landscaping in Roundabouts

Landscape should be an integral part of the design of roundabouts. Both the central island and the approach roadways present an opportunity for landscaping. This landscaping should be designed to increase the efficiency of the roundabout while improving safety and enhancing the aesthetics of the area.

The central island of a roundabout provides an opportunity for landscaping enhancements that other intersection treatments would not provide. However, the landscaping must be designed to optimize the safety and operation of the roundabouts. In accomplishing this, consideration must be given to the types of facilities on which the roundabouts are located.

On any roundabout, the landscaping of the central island and approach areas should:

1. Enhance visibility of the layout of the roundabout;
2. Not introduce a hazard to the intersection;
3. Maintain minimum stopping and turning sight distances;
4. Maintain minimum horizontal clearance and clear zone requirements;
5. Not obscure the view of signs and other vehicles in the roundabouts;
6. Clearly indicate to the driver that they cannot pass straight through the intersection;
7. Improve the aesthetics of the area while complementing surrounding streetscapes as much as possible; and
8. Discourage pedestrian traffic through the center island.

### Safety Issues Related to Landscaping Roundabouts

Carefully planned landscaping can enhance the safety of the intersection by making the intersection a focal point and by lowering speeds. Special care should be taken to insure that plant materials adhere to minimum height requirements to insure visibility of the layout of the roundabout and of sight distances within the roundabout. Trees shall have a minimum of 8' (12.4 m) clear trunk and a diameter 4" (100 mm) or less measured 6" (150 mm) above grade. Shrubs and ground covers must be under 30" (.76 m) at maturity, measured from the pavement surface. Landscaping must be designed to minimize damage in vehicle run-off areas. These areas include

## PLANTING STANDARDS – Continued

splitter islands (if they are large enough to landscape), the central island opposite the entry approach lanes and the right perimeter of the circulating roadway downstream of the entry points. Landscaping outside of clear sight zone may be planted as otherwise allowed by these standards.

Landscaping should require minimal maintenance because of the disruption to the traffic flow created by maintenance vehicles and workers.

Source: Florida Department of Transportation, Florida Roundabout Guide, March 1996

### Tree Grates

Tree grates can be used in situations where sidewalks and urban development provide limited area for "streetscaping." Tree grates provide protection and compliment trees in a hostile environment such as the urban settings. Proposals for such plantings will be considered on a case-by-case basis, as there may be locations where trees are not desirable.

All tree grates shall be cast iron and shall conform to A.S.T.M. A-48, Class 35 or better.

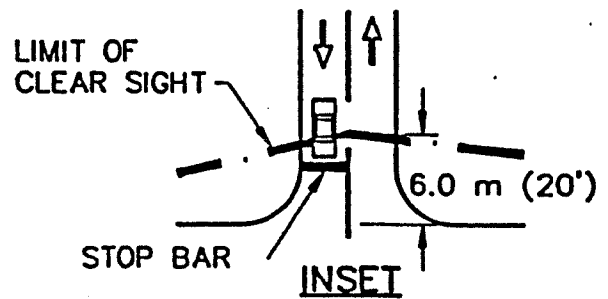
# STATE ROAD CRITERIA

The following criteria set forth in this manual shall provide guidelines for the design and installation of landscape along State Roads using information derived from publications of the State of Florida Department of Transportation Roadway and Traffic Design Standards Manual, January, 1998. The designer is still responsible for meeting all F.D.O.T. standards and requirements.

## Design Notes:

1. The information shown on this index is intended solely for purpose of landscape development and maintenance, and is not intended to be used to establish geometric design, right of way, speed control, signing, marking, lighting or signalization, or to establish roadway and roadside safety except as related to landscaping.
2. Sight distance ( $d$ ) is measured from the center of the intersection along the major highway (see diagram page 3 - 4).

| SIGHT DISTANCE ( $d$ )     |               |
|----------------------------|---------------|
| DESIGN SPEED<br>km/h (mph) | $d$           |
| 90 (55 mph)                | 310 m (1017') |
| 70 (45 mph)                | 205 m (673')  |
| 60 (35mph)                 | 160 m (525')  |



## General Notes:

1. Details are based on the AASHTO 'A Policy on Geometric Design of Highways and Streets', Chapter IX, Cases III and IV.
2. Details apply to rural and urban highways and streets.
3. Details also apply to skewed intersections and where vertical and/or horizontal curves are present.
4.
  - a. The limits of clear sight define a corridor throughout which a clear sight window must be preserved. See WINDOW DETAIL.
  - b. Clear Sight must be provided between vehicles at crossroad stop bars and vehicles on the project at any point within dimension "d."
  - c. Since observations are made in both directions along the line of sight, the reference datum between roadways is 1070 mm (3.5') above respective pavements.
5. The corridor defined by the limits of clear sight is a restricted planting area. Drivers of vehicles on the crossroad and vehicles on the project must be able to see each other clearly throughout the limits of "d". Plants within the restricted areas are limited to selections as follows:

**STATE ROAD CRITERIA – Continued**

**Ground Cover and Trunked Plants**

**Ground Covers**

Plant selection of low growing vegetation that at maturity does not attain a height greater than 470 mm (1.54') below the sight line datum.

**Trunked Plants**

Plant selection of a mature trunk diameter 100 mm (4") or less measured at 150 mm (6") above the ground. Canopy or high borne foliage shall never be lower than 1500 mm (5') above the sight line datum. These selections shall be spaced no closer than 6 m (20').

**Trees**

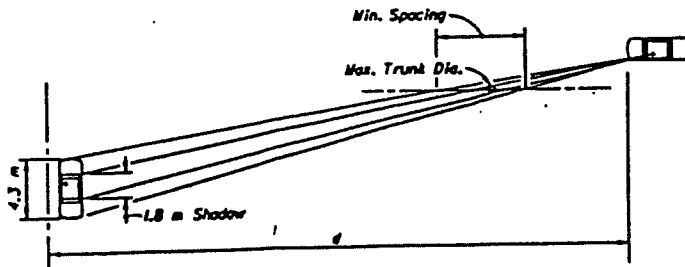
Trees can be used with lawn, pavers' pavement, gravel, bark or wood chip beds, ground covers or other Department approved material. The clear sight window must be in conformance with the WINDOW DETAIL modified to attain the height requirements listed in Ground Covers above. Tree size and spacing shall conform to the following tabular values:

| Description  | Speed km/h (mph)          |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |
|--|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
|  | 50 (30 mph)               |                           | 60 (35-40 mph)            |                           | 70 (43 mph)               |                           | 80 (50 mph)               |                           | 90 (55 mph)               |                           | 100 (60 mph)              |                           |
| Maximum Caliper (Diameter) (Within Limits of Sight Window) mm (Feet) | >100 (>4")<br>≤290 (≤11") | >290 (11")<br>≤450 (≤18") | >100 (>4")<br>≤290 (≤11") | >290 (11")<br>≤450 (≤18") | >100 (>4")<br>≤290 (≤11") | >290 (11")<br>≤450 (≤18") | >100 (>4")<br>≤290 (≤11") | >290 (11")<br>≤450 (≤18") | >100 (>4")<br>≤290 (≤11") | >290 (11")<br>≤450 (≤18") | >100 (>4")<br>≤290 (≤11") | >290 (11")<br>≤450 (≤18") |
| Minimum Spacing (c. to c. of Trunk) m (Feet)                         | 7.0 (23')                 | 29.0 (95')                | 9.0 (30')                 | 36.0 (118')               | 12.0 (40')                | 42.0 (138')               | 15.0 (50')                | 50.0 (164')               | 17.0 (56')                | 54.0 (177')               | 20.0 (66')                | 62.0 (204')               |

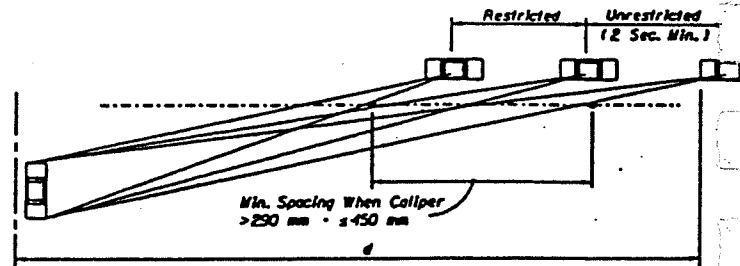
Sizes and spacings are based on the following conditions:

- (a) A single line of trees in the median parallel to but necessarily colinear with the centerline.
- (b) A straight approaching mainline, within skew limits as described in No. 3 above.
- (c) 1. Trees and palms ≤290 mm (11") in diameter casting a vertical 1.8 m (6') wide shadow band on a vehicle entering at stop bar location when viewed by mainline driver beginning at distance 'd'; see SHADOW DIAGRAM.  
2. Sabal palms with diameters >290 mm (11") - ≤450 mm (18") spaced at intervals providing a 2 second full view of entering vehicle at stop bar location when viewed by mainline driver beginning at distance 'd'; see PERCEPTION DIAGRAM.

For any other conditions the tree sizes, spacings and locations shall be detailed in the plans; see general note No. 8.



**SHADOW DIAGRAM**



**PERCEPTION DIAGRAM  
SETTING SABAL PALM (STATE TREE) SPACING**

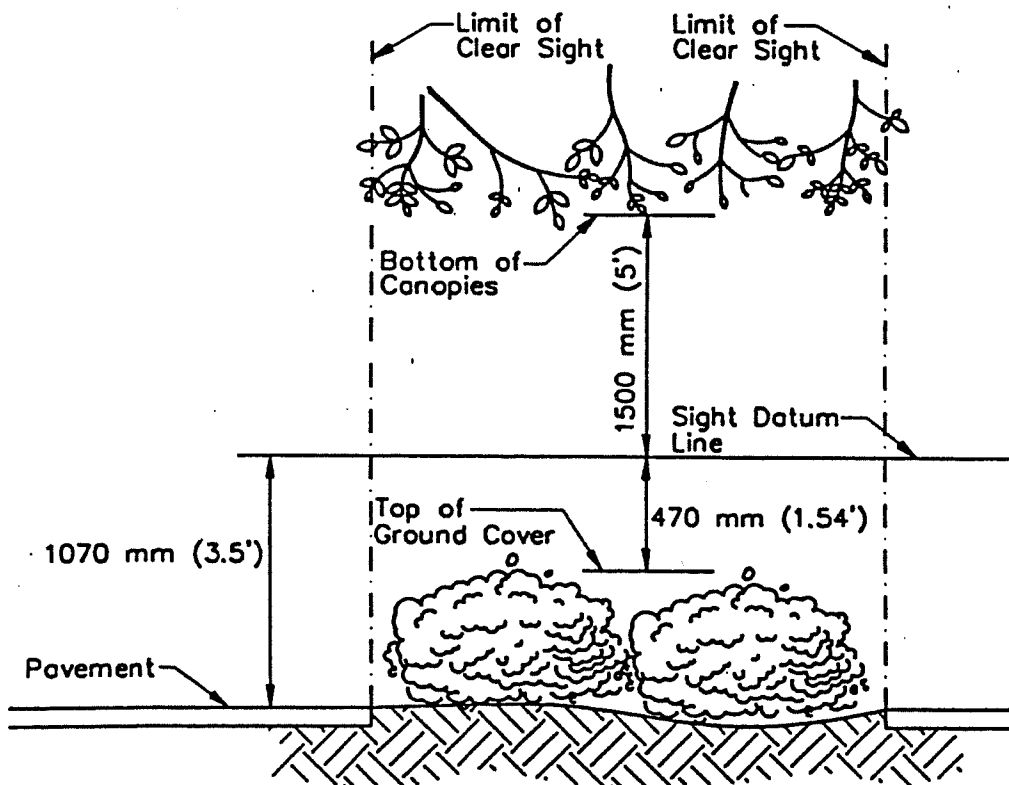
Source: Roadway and Traffic Design Standard, Index 546, January 1996



## STATE ROAD CRITERIA - Continued

6. *If, in the County Engineer's judgment, landscaping interferes with the line of sight prescribed by these standards the County Engineer may rearrange, relocate or eliminate plantings.*
7. *Plants shall never obscure signs or signals.*
8. *Where curvature, super elevation, adverse split profiles or other conditions preclude the use of standard tree sizes and spacing, proof of view and shadowing restraints must be documented and the size and location of trees in medians detailed in the plans.*

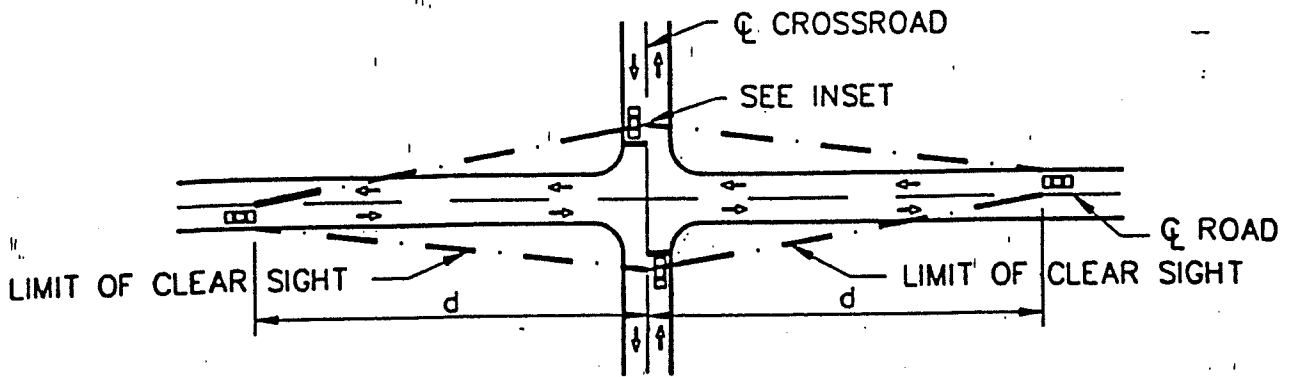
### Window Detail



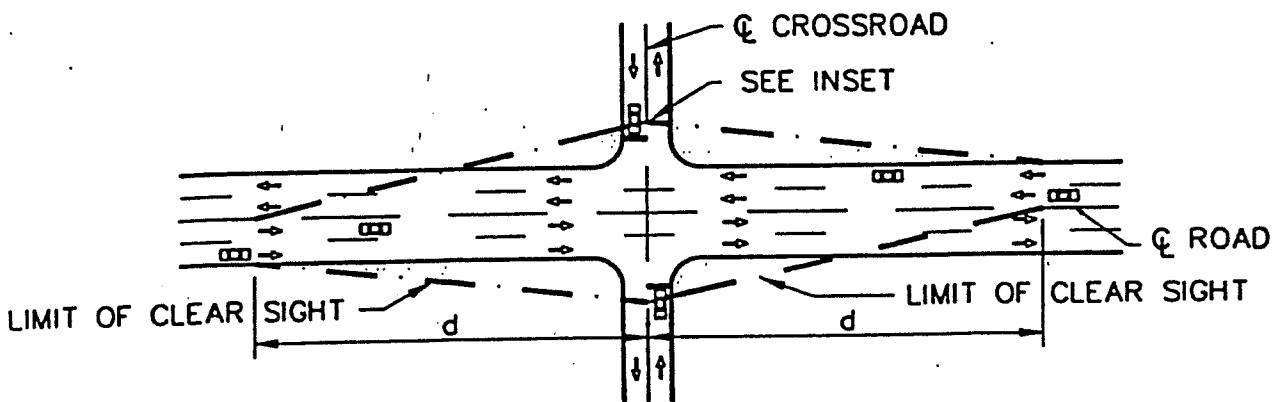
*The intent of this standard is to provide a window with vertical limits 1500 mm (5') above and 470 mm (1.54') below the sight line datum, and horizontal limits defined by the limits of clear sight.*

Source: *Roadway and Traffic Design Standards, Index 546, January 1996*

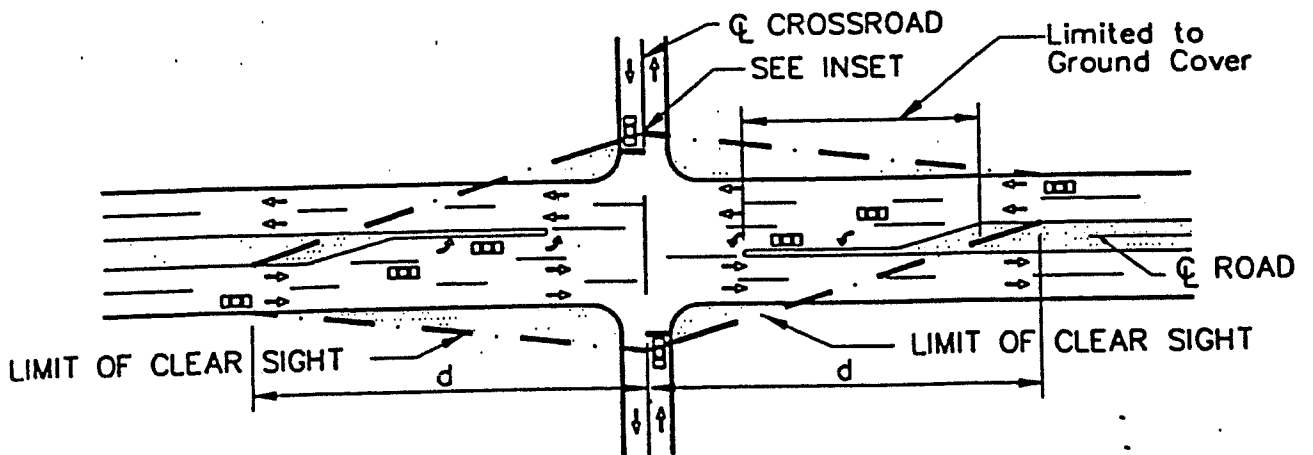
SAFE SIGHT DISTANCE FOR STATE ROADS



2 LANE UNDIVIDED - SIGNALIZED OR STOP SIGN CONTROLLED



MULTILANE UNDIVIDED - SIGNALIZED OR STOP SIGN CONTROLLED



MULTILANE DIVIDED - SIGNALIZED OR STOP SIGN CONTROLLED

Source: *Roadway and Traffic Design Standards, Index 546, January 1996*

**DESIGN CRITERIA RELATED TO HIGHWAY SAFETY**

**Horizontal Clearance to Trees**

Horizontal clearance to trees where the diameter is or is expected to be greater than 100 mm (4") measures, 150 mm (6") above the ground shall be:

**Flush Shoulders:**

Outside the clear zone

**Curb or Curb and Cutter:**

1.2 m (4') from face of outside curbs

1.8 m (6') from edge of inside traffic lane where median curb is present

Source: Plant Preparation Manual, Table 2.11.5; July 1996

**Clear Zone Width**

| CLEAR ZONE WIDTHS (METRIC & ENGLISH) |                                 |                                     |                                 |                                     |
|--------------------------------------|---------------------------------|-------------------------------------|---------------------------------|-------------------------------------|
| Design Speed<br>km/h (mph)           | FLUSH SHOULDERS                 |                                     |                                 |                                     |
|                                      | ≥1500 AADT                      |                                     | <1500 AADT                      |                                     |
|                                      | Travel Lanes & Multi-Lane Ramps | Auxiliary Lanes & Single Lane Ramps | Travel Lanes & Multi-Lane Ramps | Auxiliary Lanes & Single Lane Ramps |
| <70 km/h<br>(<45 mph)                | 5.4 m (18')                     | 3.0 m (10')                         | 4.8 m (16')                     | 3.0 m (10')                         |
| 70 km/h<br>(45 mph)                  | 7.3 m (24')                     | 4.2 m (14')                         | 6.0 m (20')                     | 4.2 m (14')                         |
| 80 km/h<br>(50 mph)                  | 7.3 m (24')                     | 4.2 m (14')                         | 6.0 m (20')                     | 4.2 m (14')                         |
| 90 km/h<br>(55 mph)                  | 9.1 m (30')                     | 5.4 m (18')                         | 7.3 m (24')                     | 4.2 m (14')                         |
| >90 km/h<br>(>55 mph)                | 11.0 m (36')                    | 7.3 m (24')                         | 9.1 m (30')                     | 5.4 m (18')                         |

Above clear zone widths are for side slopes 1:4 or flatter. Applies to highways with flush shoulders only. May be in rural or urban locations.

AADT = Mainline 20 year projected annual average daily traffic.

Where accident history indicates need, or where specific site investigation shows definitive accident potential, clear zone widths shall be adjusted on the outside of horizontal curves with flush shoulders in accordance with Table 2.12.2 of the Plans Preparation Manual July 1995.

Clear zone widths are measured from the edge of the traveled way.

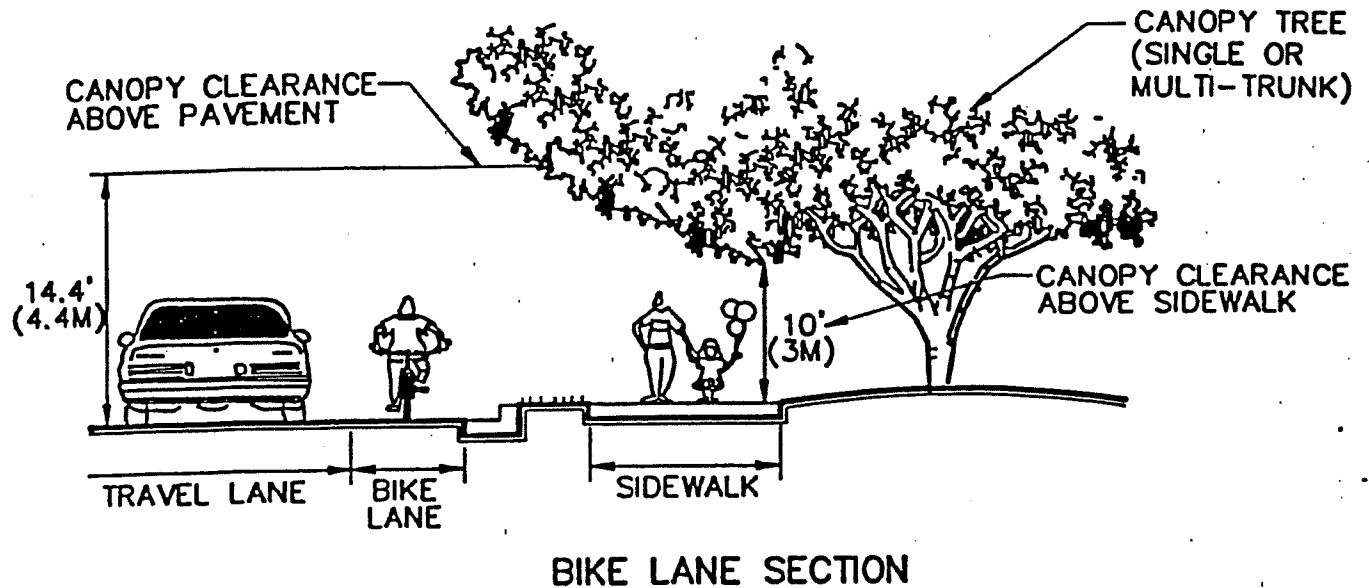
Source: Plans Preparation Manual, Table 2.12.1, July 1995

## PLANTING STANDARDS

### Canopy Clearance for Sidewalks and Bicycle Paths

Sidewalks should be maintained free of all growth. The bottom limbs of trees overhanging the sidewalk should be at least 10' (3 m) above the sidewalk.

When tree limbs extend over separate bike paths, they should be at least 10' (3 m) above the bike path. When they extend over designated or undesignated bike lanes within the roadway, they must be at least 14.4' (4.4 m) above the pavement. (See below.)

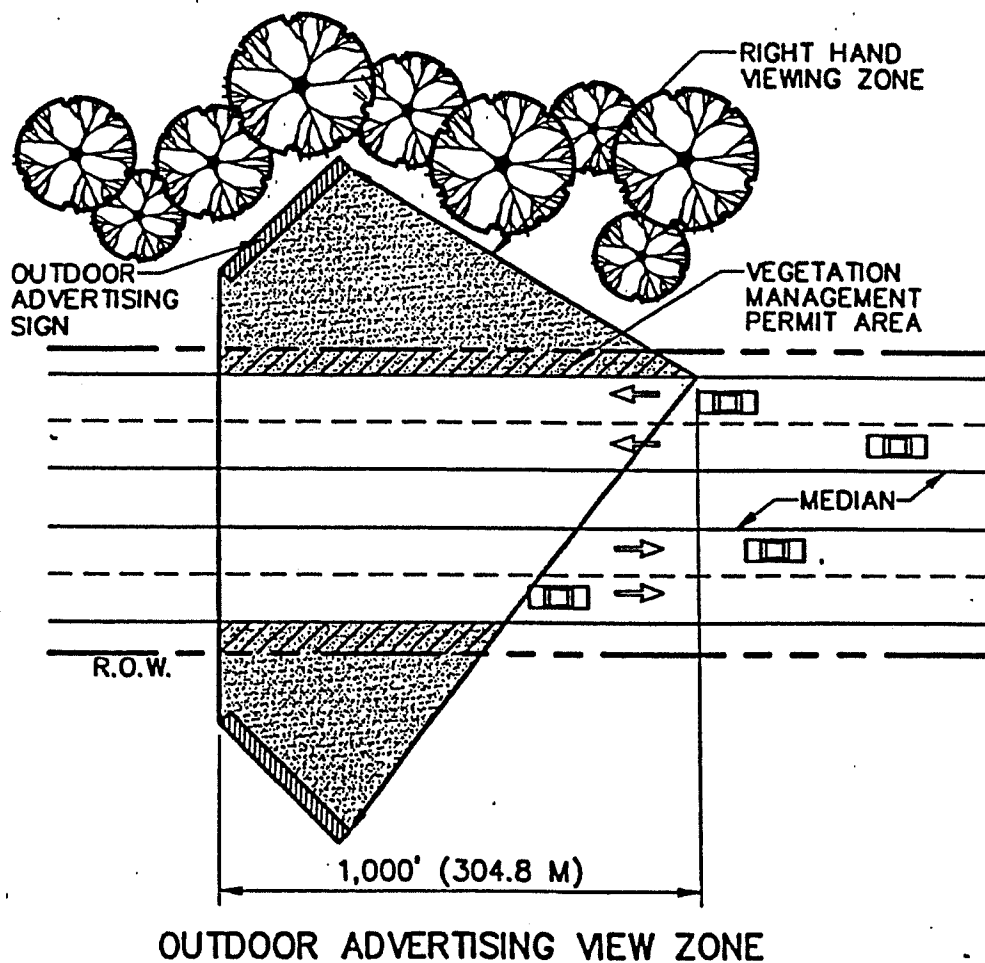


Source: Florida Highway Landscape Guide, April 1995

## PLANTING STANDARDS - Continued

### Outdoor Advertising

Once permitted and installed, outdoor advertising signs are provided by law with a viewing zone that must be respected in developing the highway landscape plan. FDOT, Rule Chapter 14-13, *Vegetation Control and Outdoor Advertising Signs*, outlines the criteria which must be applied to the placement and maintenance of proposed and existing vegetation. The purpose of this rule is to establish regulations and uniform guidelines covering the permitting or pruning, replacement or removal of selective vegetation on outdoor advertising signs along the rights of way of the other state highway systems. The "viewing zone" provided under this rule means the area to the left and right of the outdoor display should be maintained for reasonable viewing of the display. This area is called the vegetation management permit area. See below an example of a right hand and left hand vegetation management permit area.



Source: Florida Highway Landscape Guide, April 1995

## INFORMATIONAL PLANT LIST

The following plant list has been provided for your information and is not all-inclusive. The landscape architect and designer should be sensitive to the geographic area in which they are working. Material that does well in the southern part of the county may not do well in the northern and western parts of the county.

The trees and palms were chosen for their commercial availability, longevity and growth characteristics. The shrubs and ground covers listed were selected based upon their overall height. The height restriction within the sight triangle area for shrubs is 30" (.76 m), as measured from the adjacent roadway. Plants that grow taller than 30" (.76 m), but can be maintained at the required height, may also be planted within the sight triangle. Outside the sight triangle, shrubs may be used that reach a greater overall height than 30" (.76 m). In all cases, plant materials shall be Florida Grade No. 1 or better (as defined by the February, 1998 edition of Grades and Standards).

### Desirable Plant Characteristics

The following plant characteristics are desirable and should be considered when selecting plant material that has not been included in the informational plant list. Some acceptable characteristics include:

- Strong wood
- Limited leaf drop
- Slow growth

### Undesirable Plant Characteristics

The following plant characteristics are undesirable and should be considered when selecting plant material that is not included on the informational plant list. Some unfavorable plant characteristics for roadway plantings are as follows:

- Weak and brittle wood
- Excessive leaf, fruit and flower drop
- Invasive root system
- Edible fruit
- Rapid growth

Trees prohibited by Palm Beach County Unified Land Development Code shall not be used. These include melaleuca, Brazilian pepper, Australian pine and earleaf acacia. Ficus, silk oak and rosewood, classified as controlled plant species, shall not be used. In those medians and roadsides that are being upgraded, these species should be removed and more suitable plant material be installed in their place.

The informational plant list is comprised of trees, palms, shrubs and ground covers. The plant material is listed by common name with the scientific name listed below. The height range and drought tolerance were taken from the South Florida Water Management Xeriscape Plant Guide II. The other categories are as follows:

## INFORMATIONAL PLANT LIST – Continued

### Cost Rating

The cost rating refers to the installed cost for each plant on the informational plant list. There are three categories high, moderate and low.

### Street Value

The street value refers to the aesthetic value of trees and shrubs that will help define the roadways' system within Palm Beach County. There are four categories; high refers to the most desirable of plant characteristics, moderate refers to material considered suitable, low refers to material that may be used, but shall be used sparingly, and out refers to material that shall be used outside the sight triangle.

### Maintenance Value

The maintenance value refers to maintenance required to keep the project maintained as permitted. There are three categories high, those plants requiring the most maintenance, moderate, those plants that require average maintenance and low, referring to those plants that require the least amount of maintenance.

### Other Information

Recommended locations for plantings in proximity of utility lines are available in Florida Power & Light Company's Plant the Right Tree in the Right Place publication.

## INFORMATIONAL PLANT LIST -Continued

### LARGE PALMS

| <u>COMMON NAME/<br/>BOTANICAL NAME</u>                     | <u>HEIGHT</u>            | <u>DROUGHT<br/>TOLERANT</u> | <u>COST<br/>RATING</u> | <u>STREET<br/>VALUE</u> | <u>MAINT.<br/>VALUE</u> |
|--|--------------------------|-----------------------------|------------------------|-------------------------|-------------------------|
| <b>Paurotis Palm *</b><br><i>Acoelorrhaphe wrightii</i>    | 15-25'<br>(4.6 - 7.6m)   | Mod                         | Mod                    | Out**                   | Low                     |
| <b>Alexandra Palm</b><br><i>Archontophoenix alexandrae</i> | 40-45'<br>(12.2 - 13.7m) | Very                        | Mod                    | High                    | Low                     |
| <b>Bismark Palm</b><br><i>Bismarkia nobilis</i>            | 30-60'<br>(9.1 - 18.3m)  | Very                        | High                   | Low                     | Low                     |
| <b>Chinese Fan Palm</b><br><i>Livistonia chinensis</i>     | 20-30'<br>(6.1 - 9.1m)   | Very                        | High                   | Low                     | Low                     |
| <b>Majesty Palm</b><br><i>Ravenea glauca</i>               | 50-80'<br>(15 - 24m)     | Low                         | Mod                    | Mod                     | Low                     |
| <b>Medjool Date Palm</b><br><i>Phoenix 'medjool'</i>       | 60-90'<br>(18.3 - 27.4m) | Very                        | High                   | High                    | Low                     |
| <b>Senegal Date Palm</b><br><i>Phoenix reclinata</i>       | 25-35'<br>(7.6 - 10.7m)  | Very                        | High                   | Low                     | Low                     |
| <b>Solitaire Palm</b><br><i>Ptychosperma elegans</i>       | 15-25'<br>(4.6 - 7.6m)   | Very                        | Mod                    | Mod                     | Low                     |
| <b>Royal Palm *</b><br><i>Roystonea elata</i>              | 50-70'<br>(15.2 - 21.3m) | Mod                         | High                   | High                    | Low                     |
| <b>Sabal Palm *</b><br><i>Sabal palmetto</i>               | 45-70'<br>(13.7 - 21.3m) | Very                        | Low                    | Mod                     | Low                     |
| <b>Queen Palm</b><br><i>Syagrus romanzoffiana</i>          | 40-45'<br>(12.2 - 13.7m) | Mod                         | Low                    | High                    | Low                     |
| <b>Windmill Palm</b><br><i>Trachycarpus fortunei</i>       | 20-40'<br>(6.1 - 12.2m)  | Very                        | High                   | Mod                     | Low                     |
| <b>Washingtonia Palm</b><br><i>Washingtonia robusta</i>    | 50-80'<br>(15.2 - 24.4m) | Very                        | Mod                    | High                    | Low                     |

\* Denotes plants native to Florida

\*\* Use only outside of sight triangle



## INFORMATIONAL PLANT LIST - Continued

### SMALL PALMS

| <u>COMMON NAME/<br/>BOTANICAL NAME</u>                          | <u>HEIGHT</u>          | <u>DROUGHT<br/>TOLERANT</u> | <u>COST<br/>RATING</u> | <u>STREET<br/>VALUE</u> | <u>MAINT.<br/>VALUE</u> |
|---|------------------------|-----------------------------|------------------------|-------------------------|-------------------------|
| <b>Pindo Palm</b><br><i>Butia capitata</i>                      | 10-15'<br>(3 - 4.6m)   | Very                        | High                   | Mod                     | Low                     |
| <b>European Fan</b><br><i>Chamaerops humilis</i>                | 15-20'<br>(4.5 - 6m)   | Low                         | High                   | Mod                     | Low                     |
| <b>Silver Palm</b><br><i>Coccothrinax argentea</i>              | 10-20'<br>(3 - 6.1m)   | Very                        | High                   | Mod                     | Low                     |
| <b>Pygmy Date Palm</b><br><i>Phoenix roebellini</i>             | 9-12'<br>(2.7 - 3.6m)  | Mod                         | Mod                    | Out**                   | Low                     |
| <b>Needle Palm</b><br><i>Rhapidophyllum hystrix</i>             | 3-5'<br>(.9 - 1.5m)    | Mod                         | Mod                    | Out**                   | Low                     |
| <b>Dwarf Palmetto *</b><br><i>Sabal minor</i>                   | 5-7'<br>(1.5 - 2.1m)   | Very                        | Mod                    | Out**                   | Low                     |
| <b>Saw Palmetto *</b><br><i>Serenoa repens</i>                  | 6-15'<br>(1.8 - 4.6m)  | Very                        | Low                    | Out**                   | Low                     |
| <b>Silver Saw Palmetto *</b><br><i>Serenoa repens 'Cinerea'</i> | 6-15'<br>(1.8 - 4.6m)  | Very                        | Low                    | Out**                   | Low                     |
| <b>Thatch Palm *</b><br><i>Thrinax spp.</i>                     | 15-25'<br>(4.6 - 7.6m) | Very                        | Mod                    | Mod                     | Low                     |
| <b>Christmas Palm</b><br><i>Veitchii merrillii</i>              | 15-20'<br>(4.6 - 6.1m) | Very                        | Mod                    | Mod                     | Low                     |

- \* Denotes plants native to Florida  
 \*\* Use only outside of sight triangle

## INFORMATIONAL PLANT LIST - Continued

### LARGE TREES

| <u>COMMON NAME/<br/>BOTANICAL NAME</u>                | <u>HEIGHT</u>             | <u>DROUGHT<br/>TOLERANT</u> | <u>COST<br/>RATING</u> | <u>STREET<br/>VALUE</u> | <u>MAINT.<br/>VALUE</u> |
|---|---------------------------|-----------------------------|------------------------|-------------------------|-------------------------|
| <b>Black Olive</b><br>Bucida buceras                  | 40-50'<br>(12.2 - 15.2m)  | Low                         | Low                    | Mod                     | Mod                     |
| <b>Gumbo Limbo *</b><br>Bursera simaruba              | 40-60'<br>(12.2 - 18.3m)  | Very                        | Low                    | Mod                     | Mod                     |
| <b>Satin Leaf *</b><br>Chrysophyllum oliviforme       | 30-40'<br>(9.1 - 12.2m)   | Mod                         | Mod                    | Mod                     | Mod                     |
| <b>Green Buttonwood *</b><br>Conocarpus erectus       | 30-40'<br>(9.1 - 12.2m)   | Very                        | Low                    | High                    | Mod                     |
| <b>Queen's Crepe Myrtle</b><br>Lagerstroemia speciosa | 30-45'<br>(9.1 - 13.7m)   | Very                        | Mod                    | Mod                     | High                    |
| <b>Redbay *</b><br>Persea borbonia                    | 50-60'<br>(15.2 - 18.3m)  | Very                        | Mod                    | Low                     | Low                     |
| <b>Slash Pine *</b><br>Pinus elliotii                 | 80-100<br>(24.4 - 30.5m)  | Very                        | Mod                    | Low                     | Low                     |
| <b>Laurel Oak *</b><br>Quercus laurifolia             | 60-100'<br>(18.3 - 30.5m) | Very                        | Mod                    | High                    | Low                     |
| <b>Live Oak *</b><br>Quercus virginiana               | 50-60'<br>(15.2 - 18.3m)  | Very                        | Mod                    | High                    | Low                     |
| <b>Mahogany *</b><br>Swietenia mahogani               | 35-60'<br>(10.7 - 18.3m)  | Very                        | Low                    | High                    | Low                     |
| <b>Chinese Elm</b><br>Ulmus parvifolia 'drake'        | 40-60'<br>(12.2 - 18.3m)  | Very                        | Mod                    | Mod                     | Low                     |

\* Denotes plants that are native to Florida  
 \*\* Use only outside of sight triangle

**INFORMATIONAL PLANT LIST - Continued**

**MEDIUM TREES**

| <u>COMMON NAME/<br/>BOTANICAL NAME</u>                  | <u>HEIGHT</u>           | <u>DROUGHT<br/>TOLERANT</u> | <u>COST<br/>RATING</u> | <u>STREET<br/>VALUE</u> | <u>MAINT.<br/>VALUE</u> |
|---|-------------------------|-----------------------------|------------------------|-------------------------|-------------------------|
| <b>Pitch Apple *</b><br><i>Clusia rosea</i>             | 25-35'<br>(7.6 – 10.7m) | Very                        | Mod                    | Out**                   | Low                     |
| <b>Pigeon Plum *</b><br><i>Clusia diversifolia</i>      | 25-30'<br>(7.6 – 9.1m)  | Very                        | Mod                    | Mod                     | Low                     |
| <b>Dahoon Holly *</b><br><i>Ilex cassine</i>            | 25-30'<br>(7.6 – 9.1m)  | Very                        | Mod                    | Mod                     | Low                     |
| <b>Black Ironwood *</b><br><i>Krugiodendron ferreum</i> | 20-30'<br>(6.1 – 9.1m)  | Very                        | Mod                    | Mod                     | Low                     |
| <b>Madagascar Olive</b><br><i>Noronhia emarginata</i>   | 20-30'<br>(6.1 – 9.1m)  | Very                        | Mod                    | Mod                     | Low                     |

\* Denotes plants that are native to Florida  
 \*\* Use only outside of sight triangle

## INFORMATIONAL PLANT LIST - Continued

### SMALL TREES

| <u>COMMON NAME/<br/>BOTANICAL NAME</u>                             | <u>HEIGHT</u>          | <u>DROUGHT<br/>TOLERANT</u> | <u>COST<br/>RATING</u> | <u>STREET<br/>VALUE</u> | <u>MAINT.<br/>VALUE</u> |
|--|------------------------|-----------------------------|------------------------|-------------------------|-------------------------|
| <b>Silver Buttonwood *</b><br>Conocarpus erectus<br>var 'sericeus' | 15-20'<br>(4.6 - 6.1m) | Very                        | Mod                    | Mod                     | Low                     |
| <b>Stoppers *</b><br>Myrcianthes fragrans                          | 15-20'<br>(4.6 - 6.1m) | Very                        | Mod                    | Low                     | Low                     |
| <b>Crepe Myrtle</b><br>Lagerstroemia indica                        | 15-20'<br>(4.6 - 6.1m) | Mod                         | Mod                    | High                    | High                    |
| <b>Tree Ligustrum</b><br>Ligustrum japonicum                       | 15-25'<br>(4.6 - 7.6m) | Very                        | Mod                    | High                    | Low                     |
| <b>Orange Jasmine</b><br>Murraya paniculata                        | 15-20'<br>(4.6 - 6.1m) | Very                        | Mod                    | Mod                     | Low                     |
| <b>Wax Myrtle *</b><br>Myrica cerifera                             | 15-20'<br>(4.6 - 6.1m) | Very                        | Low                    | High                    | High                    |
| <b>Oleander Standard</b><br>Nerium oleander                        | 15-20'<br>(4.6 - 6.1m) | Very                        | Mod                    | Mod                     | Low                     |
| <b>Kopsia</b><br>Ochrosia elliptica                                | 15-20'<br>(4.6 - 6.1m) | Very                        | Mod                    | Mod                     | Low                     |

\* Denotes plants that are native to Florida

\*\* Use only outside of sight triangle

## INFORMATIONAL PLANT LIST - Continued

### SHRUBS AND GROUND COVERS

| <u>COMMON NAME/<br/>BOTANICAL NAME</u>                         | <u>HEIGHT</u>           | <u>DROUGHT<br/>TOLERANT</u> | <u>COST<br/>RATING</u> | <u>STREET<br/>VALUE</u> | <u>MAINT.<br/>VALUE</u> |
|--|-------------------------|-----------------------------|------------------------|-------------------------|-------------------------|
| <b>Blue Daze</b><br><i>Evolvulus glomerata</i>                 | 10-12"<br>(254 - 305mm) | Mod                         | Low                    | Mod                     | High                    |
| <b>Bush Daisy</b><br><i>Gamolepis<br/>chrysanthemoides</i>     | 24-36"<br>(610 - 914mm) | Mod                         | Mod                    | Mod                     | High                    |
| <b>Beach Sunflower *</b><br><i>Helianthus debilis</i>          | 12-24"<br>(305 - 610mm) | Very                        | Low                    | Mod                     | High                    |
| <b>Daylily</b><br><i>Hemerocallis spp.</i>                     | 12-30"<br>(305 - 500mm) | Very                        | Low                    | Mod                     | High                    |
| <b>Spider Lily *</b><br><i>Hymenocallis latifolia</i>          | 2.5-5'<br>(.76 - 1.5m)  | Very                        | Mod                    | Out**                   | Low                     |
| <b>Dwarf Yaupon Holly</b><br><i>Ilex vomitoria 'shillings'</i> | 24-36"<br>(610 - 917mm) | Very                        | Mod                    | High                    | Low                     |
| <b>Cocoplum *</b><br><i>Chrysobalanus icaco</i>                | 3'+<br>(.9m)            | Very                        | Mod                    | Out**                   | Mod                     |
| <b>Cocoplum *</b><br><i>Chrysobalanus icaco 'Horizontal'</i>   | 24" (.6m)               | Very                        | Mod                    | High                    | Mod                     |
| <b>Wax Jasmine</b><br><i>Jasmine volubile</i>                  | 24-36"<br>(610 - 917mm) | Mod                         | Low                    | High                    | Mod                     |
| <b>Crinum Lily</b><br><i>Crinum spp.</i>                       | 3'+<br>(.9m)            | Mod                         | High                   | Out**                   | Low                     |
| <b>Shore Juniper</b><br><i>Juniperus conferta</i>              | 12-24"<br>(305 - 610mm) | Very                        | Mod                    | High                    | Low                     |
| <b>Lantana</b><br><i>Lantana montevidensis</i>                 | 24"<br>(610mm)          | Very                        | Mod                    | Mod                     | High                    |

- \* Denotes plants native to Florida  
 \*\* Use only outside of sight triangle

## INFORMATIONAL PLANT LIST – Continued

### SHRUBS AND GROUND COVERS – Continued

| <u>COMMON NAME/<br/>BOTANICAL NAME</u>                       | <u>HEIGHT</u>           | <u>DROUGHT<br/>TOLERANT</u> | <u>COST<br/>RATING</u> | <u>STREET<br/>VALUE</u> | <u>MAINT.<br/>VALUE</u> |
|--|-------------------------|-----------------------------|------------------------|-------------------------|-------------------------|
| <b>Liriope</b><br>Liriope muscari                            | 12-24"<br>(305 – 610mm) | Low                         | Low                    | High                    | Med                     |
| <b>Hibiscus</b><br>Hibiscus Rosa sinensis                    | 3'+<br>(.9m)            | Low                         | Mod                    | Out**                   | High                    |
| <b>Dwarf Pittosporum</b><br>Pittosporum 'wheelers<br>dwarf'  | 24-30"<br>(610 – 762mm) | Mod                         | Mod                    | High                    | Mod                     |
| <b>Indian Hawthorn</b><br>Raphiolepis indica                 | 24-30"<br>(610 – 762mm) | Low                         | Mod                    | High                    | Low                     |
| <b>Oyster Plant</b><br>Rhoeo spathacea                       | 12-24"<br>(305 – 610mm) | Very                        | Low                    | High                    | Low                     |
| <b>Purple Heart</b><br>Setcreasea pallida                    | 10-14"<br>(254 – 356mm) | Very                        | Low                    | High                    | Low                     |
| <b>Society Garlic</b><br>Tulbaghia violacea                  | 10-14"<br>(254 – 356mm) | Mod                         | Low                    | High                    | Low                     |
| <b>Parson's Juniper</b><br>Juniperus chinensis<br>'Parsonii' | 12-24"<br>(305 – 610mm) | Mod                         | Mod                    | Mod                     | Low                     |

- \* Denotes plants native to Florida
- \*\* Use only outside of sight triangle

## **COST ESTIMATE FOR PLANTING CONCEPTS**

The low cost planting concept is designed to be the basis for the moderate and high cost landscape concepts. This is to emphasize the concept of layering. Material can be chosen for a low cost planting concept and built upon to create a more expensive landscape design. The concepts shown are one solution to a median of this size and shape. Medians and roadsides differ in width and shape to the one used for this demonstration. This should be taken in consideration when reviewing the following concepts.

The following cost estimates were prepared according to standard nursery practices by using prices for installed material (current prices prevailing at time of publication). Installed shrubs and ground covers average twice the wholesale cost for one and three gallon material. The trees and palms range from a few dollars per foot to several hundred dollars per foot depending on size and species.

The initial installation of an automatic irrigation system will cost on average \$.35 per square foot (\$3.77 per square meter) of area to be irrigated. Two underground irrigation systems are being considered for this application. One type of system is considered a standard for the industry. This type of system sprays plant material and grass by mist heads which pop-up while in use and retracts while not in use. The other is a drip irrigation system. The difference is that with drip irrigation there is no visible water being sprayed on plants or grass. Instead, a series of underground tubes or pipes delivers water directly to the root system

It should be noted that the above mentioned cost per square footage (cost per square meter) for irrigation does not include the cost of connecting the system to the water supply, nor does it include the cost of the water used. Irrigation costs can vary widely with consideration such as:

### **Initial Costs**

Fees (Impact & Permit)  
Irrigation System Installation  
Well & Pump  
Jack & Bore/Open Cut

### **Operational and Maintenance Costs**

Water  
Electric  
Repairs

These and other relevant factors will need to be considered when designing an irrigation system, and evaluating initial start-up and ongoing expenses therewith.

Maintenance costs vary according to plant material selected and amount of sod to be mowed. Material that does not need a great deal of pruning or nutrients are less costly to maintain than material that requires a more intense maintenance schedule. Some initial costs may include soil amenities, weed fabrics, temporary irrigation, etc., which required, is not reflected in the following cost estimates.

## LOW COST PLANTING CONCEPT

| <u>COMMON NAME/<br/>BOTANICAL NAME</u> | <u>SIZE</u>               | <u>PRICE/UNIT</u>             | <u>QTY</u>             | <u>TOTAL</u>      |
|--|---------------------------|-------------------------------|------------------------|-------------------|
| <b>Palms and Trees</b>                 |                           |                               |                        |                   |
| Sabal Palm<br>Sabal Palmetto           | 10-12' C.T.<br>(3 - 3.7m) | \$ 125.00                     | 13                     | \$1,625.00        |
| Mahogany<br>Swietenia mahagoni         | 16' Ht.<br>(4.9m)         | \$ 250.00                     | 5                      | \$1,250.00        |
| <b>Shrubs and Ground Covers</b>        |                           |                               |                        |                   |
| Hibiscus<br>Hibiscus Rosa sinensis     | 3 Gal.<br>(11.36L)        | \$ 9.00                       | 24                     | \$ 216.00         |
| Indian Hawthorn<br>Raphiolepis indica  | 3 Gal.<br>(11.36L)        | \$ 9.00                       | 16                     | \$ 144.00         |
| Liriope<br>Liriope muscari             | 1 Gal.<br>(3.79L)         | \$ 3.00                       | 14                     | \$ 42.00          |
| <b>Sod and Mulch</b>                   |                           |                               |                        |                   |
| Sod                                    |                           | \$ .18/SF<br>(\$1.94/SM)      | 3,300 S.F.<br>(306 SM) | \$ 594.00         |
| Mulch                                  |                           | \$ 27.00/C.Y.<br>(\$35.30/CM) | 3 C.Y.<br>(2.36 CM)    | <u>\$ 81.00</u>   |
|  |                           |                               | <b>Total</b>           | <b>\$3,952.00</b> |

The associated planting concept shows a typical 200' (61 m) section. It would cost an average of \$20.00 per lineal foot (\$65.00 per lineal meter) for a low cost planting scheme.

### Maintenance

It would cost on average \$.20 to \$.25 per lineal foot (\$.66 to \$.82 per lineal meter) to maintain the median for the period of one month or \$2.40 to \$3.00 per lineal foot (\$7.87 to \$9.84 per lineal meter) for one year. Price includes weeding, fertilizing, mowing and trimming.

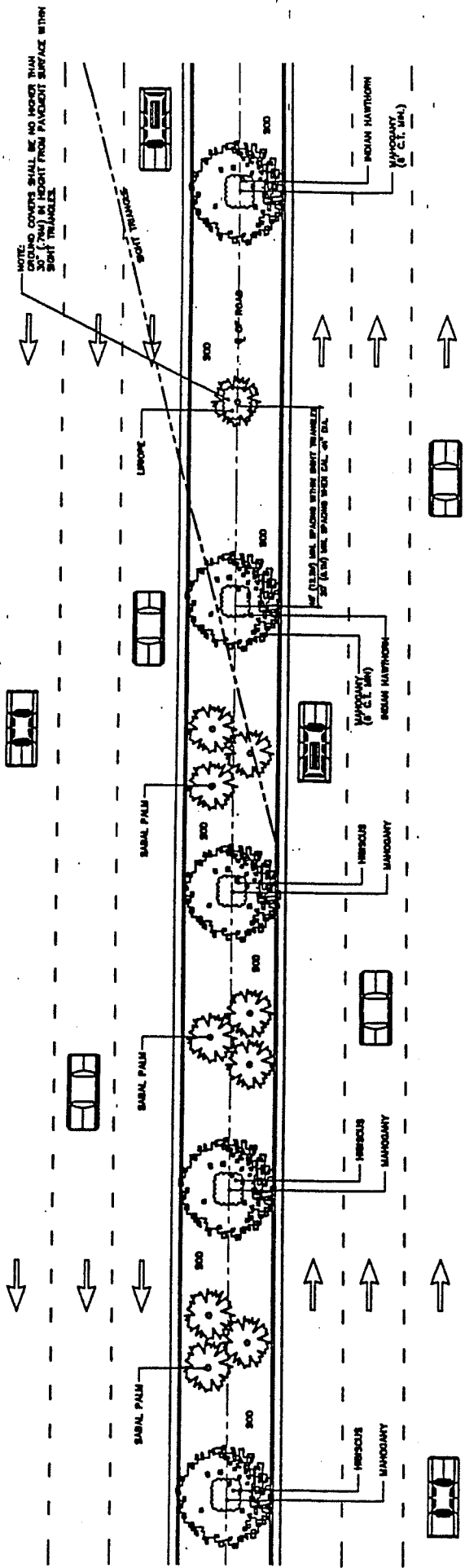
Note: Only highly drought tolerant plant materials are permitted where no irrigation system is proposed.

Current prices prevailing at time of publication, June 1999



IF CONCRETE SIDE WALK

CONCRETE CURB AND GUTTER



## MODERATE COST PLANTING CONCEPT

| <u>COMMON NAME/<br/>BOTANICAL NAME</u> | <u>SIZE</u>               | <u>PRICE/UNIT</u>             | <u>QTY</u>               | <u>TOTAL</u>      |
|--|---------------------------|-------------------------------|--------------------------|-------------------|
| <b>Palms and Trees</b>                 |                           |                               |                          |                   |
| Sabal Palm<br>Sabal palmetto           | 10-12' C.T.<br>(3 - 3.7m) | \$ 125.00                     | 13                       | \$1,625.00        |
| Mahogany<br>Swietenia mahagoni         | 16' Ht.<br>(4.9m)         | \$ 250.00                     | 5                        | \$1,250.00        |
| <b>Shrubs and Ground Covers</b>        |                           |                               |                          |                   |
| Cocoplum<br>Chrysobalanus icaco        | 3 Gal<br>(11.36L)         | \$ 9.00                       | 112                      | \$1,008.00        |
| Crinum Lily<br>Crinum spp.             | 7 Gal<br>(26.5L)          | \$ 20.00                      | 24                       | \$ 480.00         |
| Hibiscus<br>Hibiscus Rosa swiensis     | 3 Gal.<br>(11.36L)        | \$ 9.00                       | 24                       | \$ 216.00         |
| Indian Hawthorn<br>Raphiolepis indica  | 3 Gal.<br>(11.36L)        | \$ 9.00                       | 96                       | \$ 864.00         |
| Liriope<br>Liriope muscari             | 1 Gal<br>(3.79L)          | \$ 3.00                       | 14                       | \$ 42.00          |
| <b>Sod and Mulch</b>                   |                           |                               |                          |                   |
| Sod                                    |                           | \$ .18/SF<br>(\$1.94/SM)      | 2,500 S.F.<br>(231 SM)   | \$ 450.00         |
| Mulch                                  |                           | \$ 27.00/C.Y.<br>(\$35.30/CM) | 14 C.Y.<br>(10.7 CM)     | \$ 378.00         |
| Irrigation                             |                           | \$ .35/S.F.<br>(\$3.77/SM)    | 3,600 S.F.<br>(334.5 SM) | <u>\$1,260.00</u> |
|  |                           |                               | <b>Total</b>             | <b>\$7,573.00</b> |

The associated planting concept shows a typical 200' (61 m) section. It would cost an average of \$38.00 per lineal foot (\$124.00 per lineal meter) for a moderate cost-planting scheme.

### Maintenance

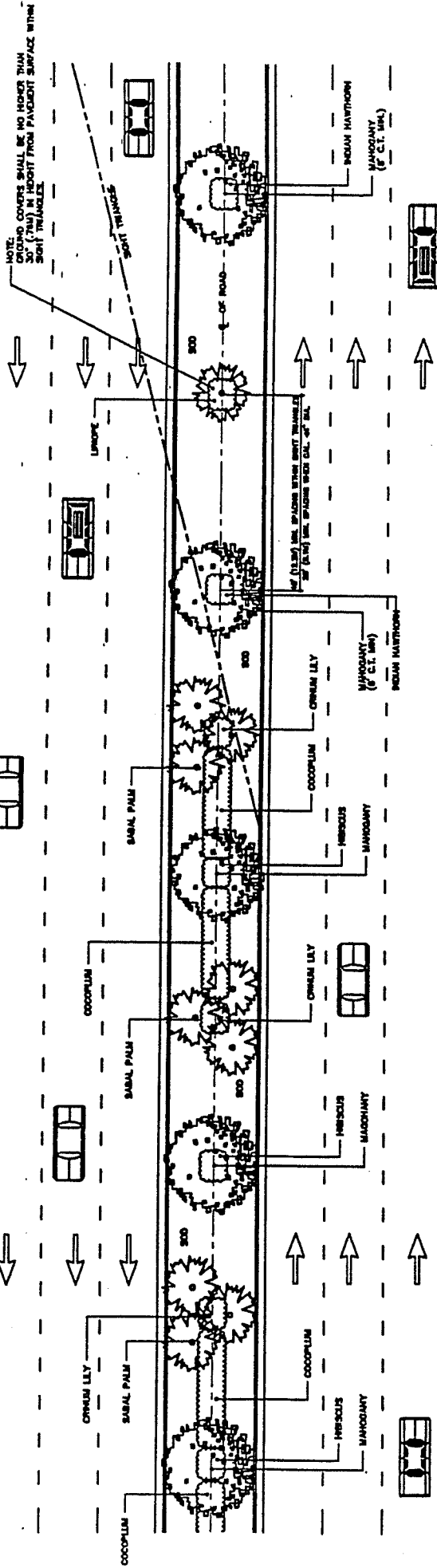
It would cost on average \$.25 to \$.30 per lineal foot (\$.82 to \$.98 per lineal meter) to maintain the median for the period of one month or \$3.00 to \$3.60 per lineal foot (\$9.84 to \$11.81 per lineal meter) for one year. Price includes weeding, fertilizing, mowing, trimming and testing the irrigation system.

Impact fees and operating costs, such as electric and water, are additional. These costs should be considered when budgeting for landscape improvements.

Current prices prevailing at time of publication, June 1999

8' CONCRETE SIDE WALK

CONCRETE CURB AND GUTTER



**MODERATE COST PLANTING CONCEPT**  
CONTINUED

## HIGH COST PLANTING CONCEPT

| <u>COMMON NAME/<br/>BOTANICAL NAME</u> | <u>SIZE</u>               | <u>PRICE/UNIT</u>             | <u>QTY</u>               | <u>TOTAL</u>      |
|--|---------------------------|-------------------------------|--------------------------|-------------------|
| <b>Palms and Trees</b>                 |                           |                               |                          |                   |
| Sabal Palm<br>Sabal palmetto           | 10-12' C.T.<br>(3 - 3.7m) | \$ 125.00                     | 13                       | \$1,625.00        |
| Mahogany<br>Swietenia mahagoni         | 16' Ht.<br>(4.9m)         | \$ 250.00                     | 5                        | \$1,250.00        |
| <b>Shrubs and Ground Covers</b>        |                           |                               |                          |                   |
| Cocoplum<br>Chrysbalanus icaco         | 3 Gal.<br>(11.36L)        | \$ 9.00                       | 112                      | \$1,008.00        |
| Crinum Lily<br>Crinum spp.             | 7 Gal.<br>(26.5L)         | \$ 20.00                      | 24                       | \$ 480.00         |
| Hibiscus<br>Hibiscus Rosa swiensis     | 3 Gal.<br>(11.36L)        | \$ 9.00                       | 24                       | \$ 216.00         |
| Indian Hawthorn<br>Raphiolepis indica  | 3 Gal.<br>(11.36L)        | \$ 9.00                       | 96                       | \$ 864.00         |
| Liriope<br>Liriope muscari             | 1 Gal.<br>(3.79L)         | \$ 3.00                       | 414                      | \$1,242.00        |
| Shore Juniper<br>Juniperus conferta    | 1 Gal.<br>(3.79L)         | \$ 3.00                       | 250                      | \$ 750.00         |
| <b>Sod and Mulch</b>                   |                           |                               |                          |                   |
| Sod                                    |                           | \$ .18/SF<br>(\$1.94/SM)      | 1,000 S.F.<br>(92.7 SM)  | \$ 180.00         |
| Mulch                                  |                           | \$ 27.00/C.Y.<br>(\$35.30/CM) | 25 C.Y.<br>(19.1 CM)     | \$ 675.00         |
| Irrigation                             |                           | \$ .35/ S.F.<br>(\$3.77/SM)   | 3,600 S.F.<br>(334.5 SM) | <u>\$1,260.00</u> |
|  |                           |                               | <b>Total</b>             | <b>\$9,550.00</b> |

The associated planting concept shows a typical 200' (61 m) section. It would cost an average of \$48.00 per lineal foot (\$156.50 per lineal meter) for a high cost planting scheme.

### Maintenance

It would cost on average \$.35 to \$.37 per lineal foot (\$1.15 to \$1.24 per lineal meter) to maintain the median for the period of one month or \$4.20 to \$4.44 per lineal foot (\$13.78 to \$14.57 per lineal meter) for one year. Price includes weeding, fertilizing, mowing, trimming and testing the irrigation system.

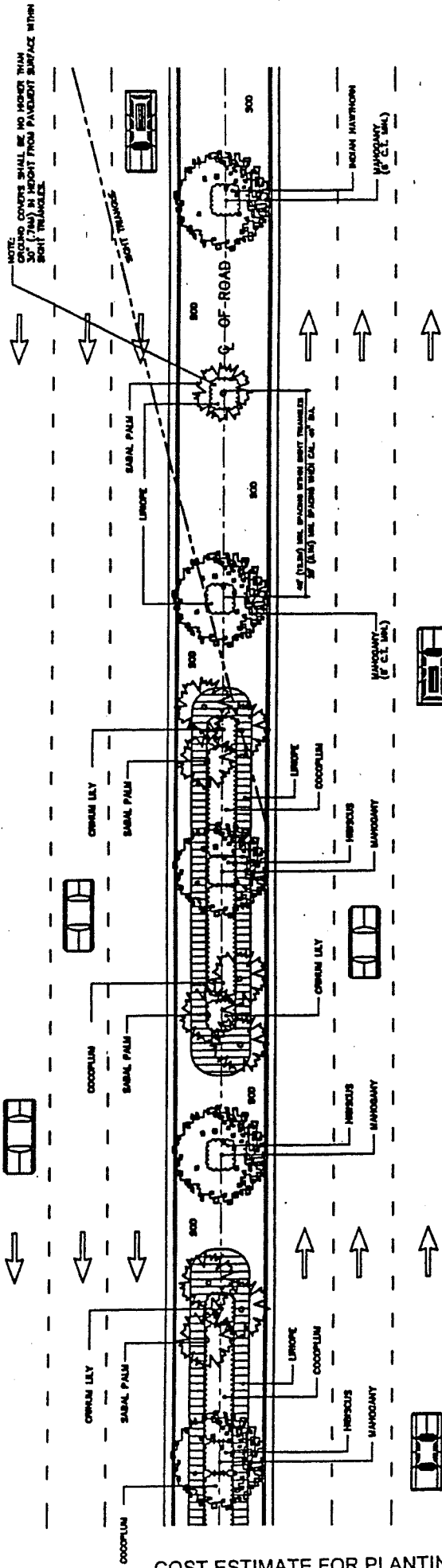
**HIGH COST PLANTING CONCEPT – Continued**

Impact fees and operating costs, such as electric and water, are additional. These costs should be considered when budgeting for landscape improvements.

Current prices prevailing at time of publication, June 1999

8' CONCRETE SIDE WALK

CONCRETE CURB AND GUTTER



COST ESTIMATE FOR PLANTING CONCEPTS 5-8

# HIGH COST PLANTING CONCEPT



SCALE 1" = 10'

CONTINUED

## MAINTENANCE REQUIREMENTS

Plantings shall be maintained to provide required visibility and conform to all the required setbacks as permitted by Palm Beach County.

### Watering Requirements

Watering is probably the most critical concern regarding maintenance of healthy plant material. How much water to apply at any one time varies with the weather, drainage conditions and water holding capacity of the soil. Proper watering techniques should provide even and thorough water dispersal to wet the entire root zone but not to saturate the soil.

Avoid extremes in watering. Light, frequent watering is ineffective and produces shallow root systems. Excessive watering that keeps the root zones saturated, may kill the plant material due to the lack of available air to the root zone.

A typical rule of thumb is that turf areas should receive on an average, a minimum of 1" (25 mm) of water per week, with an equal or lesser amount for trees and shrubs, depending on their individual water usage. Ideally, watering should be done on a consistent but limited basis (three days a week) for longer periods (45 to 60 minutes) to establish deeper roots. Of course, this is dependent on the individual irrigation system, the gallonage capacity of each individual zone and the individual water requirements for each plant species.

### Fertilization Requirements

Due to the poor shallow soils of the South Florida area, coupled with heavy rainfall during the growing season, available nutrient levels for landscape materials are very low, therefore nutrient amendments are essential. A soil analysis of each planting site should be done to determine the nutrient levels needed for good plant growth. The following are general guidelines for fertilization application.

#### Palms, Shrubs and Trees

General application amounts:

Palms under 8' ht. (2.44 m) – 2 lbs. to 5 lbs. (.9 kg to 2.27 kg) per application

Mature palms – 5 lbs. to 8 lbs. (2.27 kg to 3.63 kg) per application

A typical formula to use is ½ lb. (.27 kg) of fertilizer per 2' (.61 m) of overall height, up to 15 lbs. (6.8 kg) for a mature specimen [greater than 30' (9.1 m) in height].

Palms, shrubs and trees should be fertilized at least four times a year at the same application rate as turf areas. Using a fertilizer that is at least a 50% organic base with a slow release 6-6-6 or 8-8-8 composition is very important. Plants should be watered at least 48 hours prior to the application of the fertilizer. Application of the fertilizer should be done on top of the mulch and should be watered in thoroughly, making sure to remove any fertilizer that may have settled on foliage.

#### Turf Area

Turf areas should be fertilized with a complete fertilizer (16-4-8). Application of ammonium nitrate and ammonium sulfate should also be applied as follows:

## Fertilization Requirements - Continued

Complete fertilizer (16-4-8) in mid-September and mid-February at 8 lbs. (3.6 kg) per 1000 SF (92.9 SM), apply ammonium nitrate at 3 lbs. (1.36 kg) per 1000 SF (92.9 SM) in mid-April and mid-October, and apply ammonium sulfate at 5 lbs. (2.27 kg) per 1000 SF (92.9 SM) in mid-June.

### Mulching

Mulch shall be applied by hand to a depth of 3" (76 mm). Typically, mulch shall only be required when less than an inch (25 mm) of existing mulch remains. Mulches can be applied anytime of the year, but should be applied if needed with the fertilization of the trees and shrubs. It is recommended that the soil under the mulch be watered just prior to the mulch being laid and watered down again prior to application of any fertilizers. After years of mulch accumulation has significantly raised the levels of the beds, removing the upper layers of the residual mulch may be necessary and cultivate any remaining into the soil.

### Weed Barrier

Although mulch provides somewhat of a weed barrier, weeds still find a way to grow up through planting beds. Weed barriers can be used to discourage the growth of weeds and still allow water and nutrients to penetrate through the soil to the roots of trees and shrubs.

The barrier shall be a 5-ounce (.14 kg), woven needle-punched material that is approximately 100% opaque, with a 5-year guarantee against UV deterioration. The barrier shall be a polypropylene material, that is 28 mils (.71 mm) thick. Water flow shall be 12 gallons (45.5 L) minimum, per minute per square foot (.09 SM).

The barrier shall be laid directly on top of the soil and stabilized with anchor pins. The barrier shall be covered with a minimum of 3" (76 mm) of mulch.

### Pruning

No major thinning shall occur until after the second growing season following planting. Major thinning shall then commence annually from the first of December to mid-February (except some shrubs as specified). The cutting and removal of deadwood, sucker growth and diseased or injured limbs shall be conducted on a regularly scheduled basis (at least monthly from March through October) by qualified personnel conducting an inspection of all plant materials.

Shade and flowering trees shall be thinned from the bottom up and from the inside out.

Lower branches detracting from the intended character of a tree, all cross branches and excessive branches near the core of the tree shall be removed.

Where two double leaders occur and only one is desired, one leader shall be removed, the smaller or the larger depending upon the desired effect.

Where branching joint is very narrow there is a greater potential for breakage; therefore, one branch shall be removed depending on the desired effect.

In general, maintaining main branching can preserve the shape of the tree, providing joints are wide enough and by removing weaker side branches.



### Pruning – Continued

The desired growth habit in landscape planting beds shall be such that shrubs of the same species shall develop into a single mass and be kept separate from adjacent masses of other species.

Further pruning information is provided in the Palm Beach County Land Development Code, Article 7.3 H.

### Staking and Guying

Guy and stake trees with "duckbill" fluorescent orange guying system or two strands of 14-gauge twisted galvanized wire and turnbuckle. Feed wire through flexible hose chafing guards. Anchor with hardwood or treated wood stakes immediately after planting. Care must be taken not to make guys too tight. "Wellington tape" will also be accepted. Tie down in four directions when tree is 16' (4.9 m) or taller. All other trees will be tied down in three directions.

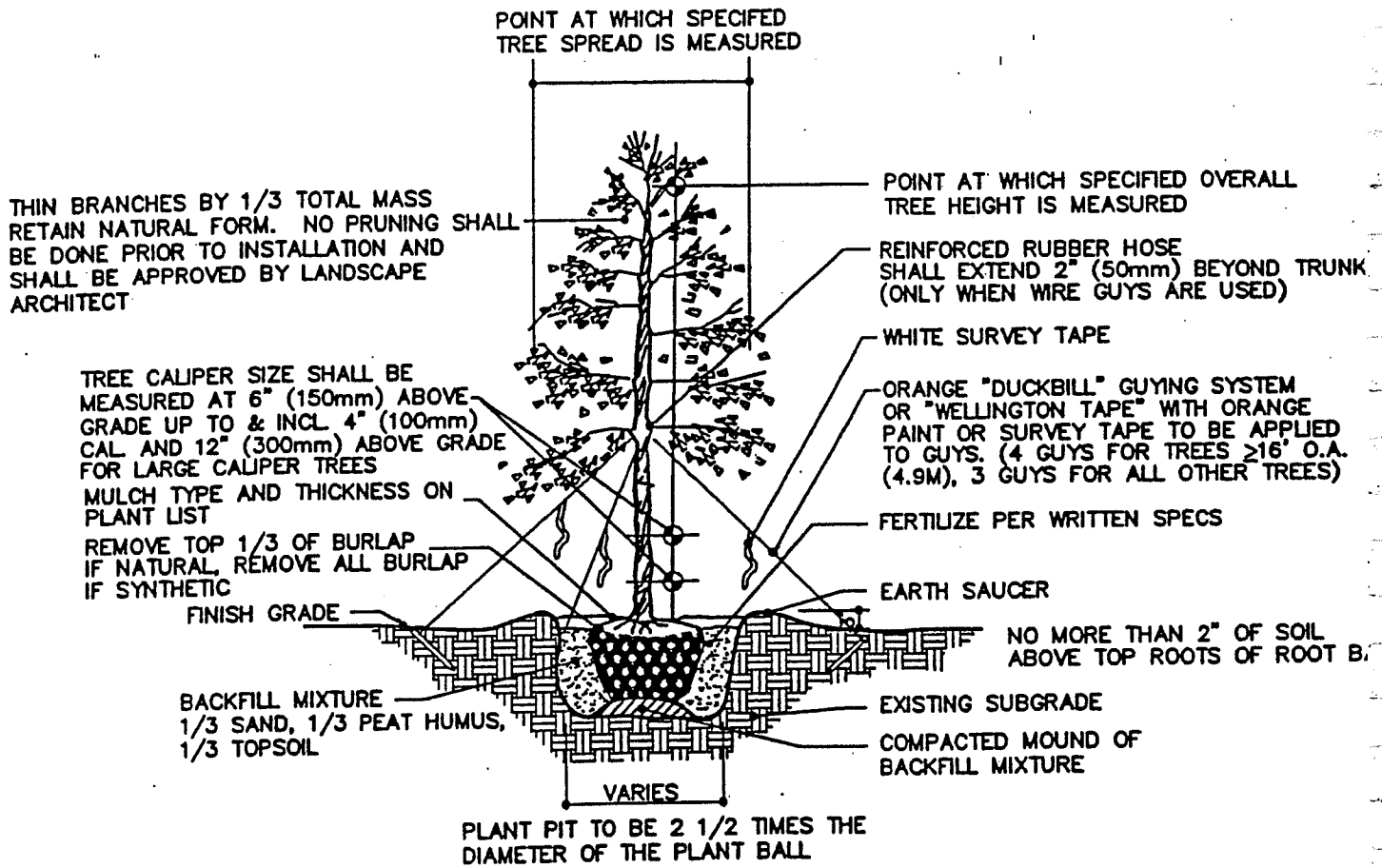
These staking and guying specifications, and the details that follow, are acceptable to Palm Beach County. While providing proper support to newly installed trees and palms during their establishment is required, these suggested methods may be modified by the Landscape Architect so long as they are approved by the County. Alternate specifications for planting area preparation may also be approved, so long as the alternate specifications are acceptable to the County.

### Aesthetic Maintenance

In addition to the foregoing safety-related maintenance requirements, the following minimum standards for the aesthetic maintenance of landscaped areas shall also apply to all landscaping projects permitted by Palm Beach County:

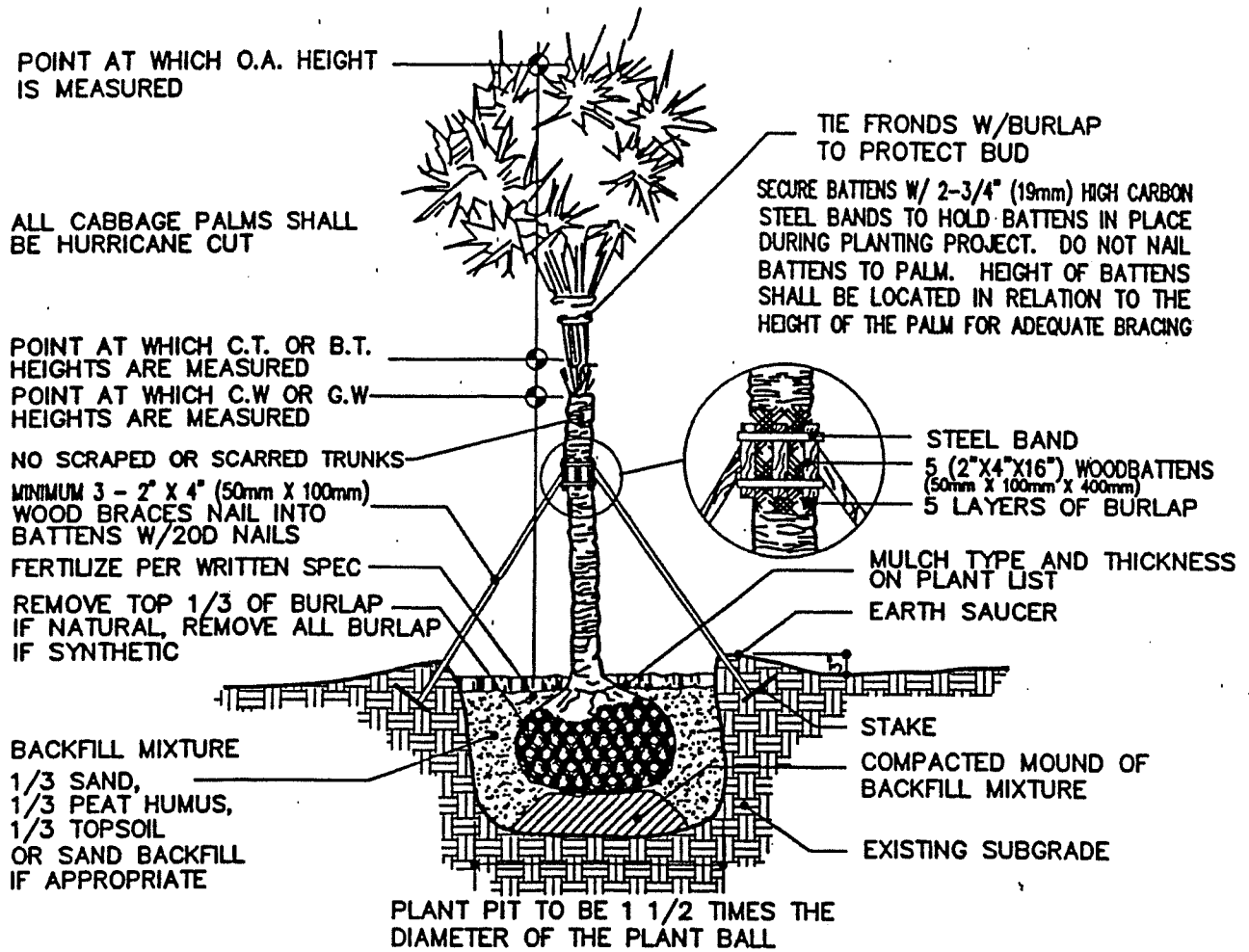
- Grassed areas of planted medians are to have litter removed and are to be mowed and trimmed with sufficient frequency to maintain a neat and clean appearance.
- All planting areas shall be maintained to be as weed free as possible (with mechanical and/or chemical weeding to occur at least monthly), and where specified on the plans, with mulch properly applied and maintained.
- All plant materials shall be periodically trimmed and/or pruned, so as to remove dead or unhealthy elements, and to provide a neat and "cared for" appearance. All trimming and pruning shall be done with the health of the plant materials and their natural growth habits in mind.
- Insecticides/fungicides shall be applied when needed to ensure that plants and grass remain pest and disease free.
- Dead and/or unhealthy plant materials shall be removed and replaced with healthy plant materials that meet the original permitted landscaping plan specifications, as soon as such deficiencies become known.
- All litter, trimmings, and other waste materials generated as results of maintenance operations shall be removed and legally disposed by those responsible for the landscaping.

# SUGGESTED TREE PLANTING DETAIL



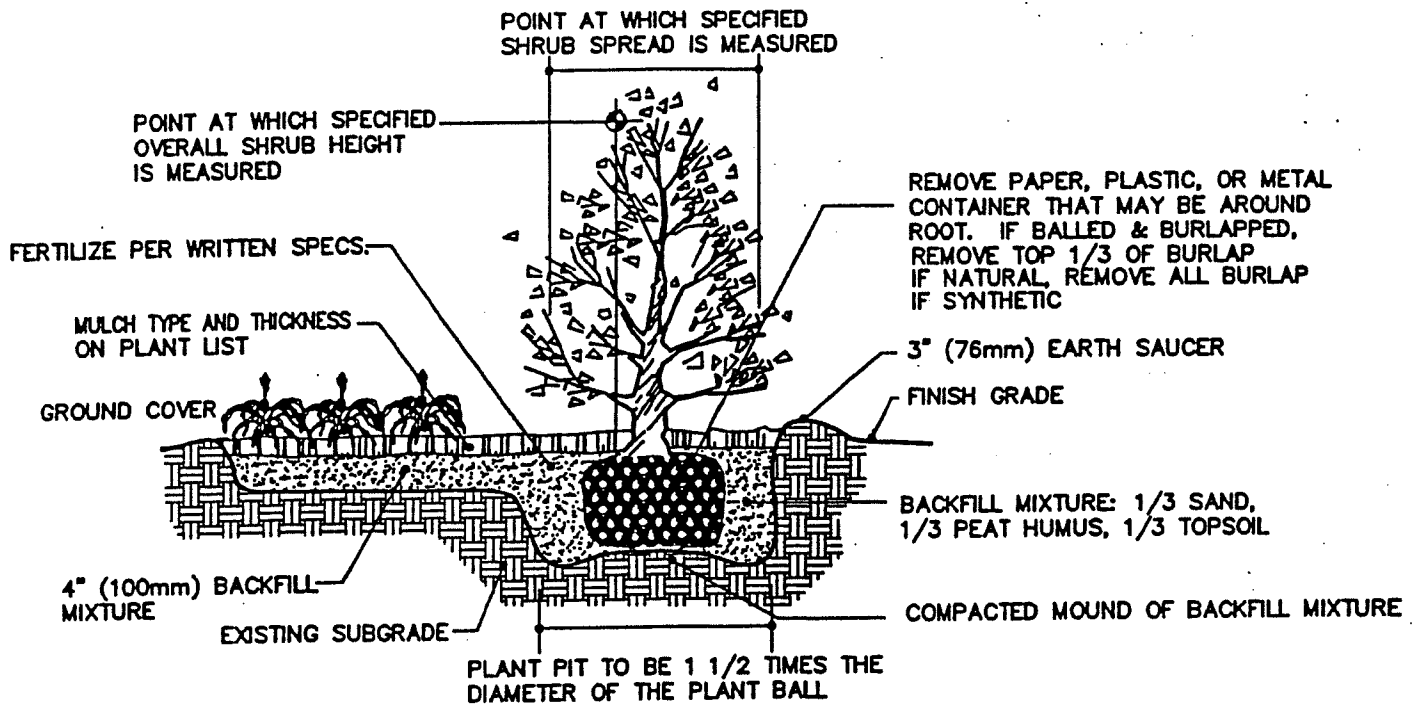
**SUGGESTED  
TREE PLANTING DETAIL**

**SUGGESTED PALM PLANTING DETAIL**



**SUGGESTED PALM PLANTING DETAIL**

# SUGGESTED SHRUB & GROUND COVER PLANTING DETAIL



## SUGGESTED SHRUB & GROUND COVER PLANTING DETAIL

## Traffic Control for Installation and Maintenance

Traffic control operations for installation and future maintenance shall be in accordance with the current Florida Department of Transportation Standard Specifications for Road and Bridge Construction and Roadway and Traffic Design Standards, Index 600. The Manual on Uniform Traffic Control Devices (Part VI) (M.U.T.C.D.) as well as the attachments herein. There shall be no obstruction of the travel lanes Monday through Friday between 7:00 A.M. and 9:00 A.M. and between 3:00 P.M. and 6:00 P.M., except local and subdivision roads. No time restrictions will be applied on Saturday or Sunday.

The permittee shall meet with Palm Beach County's Traffic Inspector prior to commencement of initial installation of landscaping. The following criteria must be followed during construction within the road right of way.

### Signing

Signs may be portable or temporary but shall not be less than 1' (.3 m) from the ground.

All advance warning signs shall not be less than 48" x 48" (1.22 m x 1.22 m).

Except in emergencies and during daylight activities, all signs shall be high intensity.

### Barricades and Cones

All barricades shall utilize high intensity sheeting.

Cones shall be a minimum of 28" (.71 m) high, and clean and free of foreign matter to offer the highest target value.

Traffic control devices shall not be mixed.

### Flaggers and Vests

The flaggers shall be trained as set forth in the M.U.T.C.D.

All personnel shall wear a high visibility orange vest when working within the right of way.

### Flashing Arrow Boards

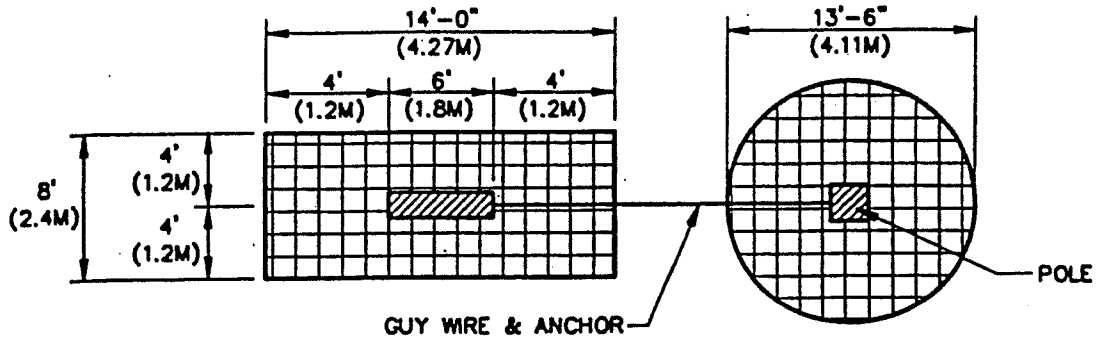
Flashing arrow boards shall be used on any three lanes or larger roadways where traffic is being channelized or diverted, or as directed by the Palm Beach County Traffic Engineering Department.

Flashing arrow boards shall be Type B or C, as per M.U.T.C.D.

### Traffic Signals

No material shall be disturbed within 6' (1.83 m) of a traffic pole or within the specified distance of a guy wire and anchor to a depth greater than 2' (.61 m), unless approved by and coordinated with Palm Beach County Traffic Operations. Contact Traffic Operations, 24 hours in advance of any excavation. Failure to comply with the above, shall result in the prime contractor incurring all costs incurred as a result of damage to the traffic signal installation. These costs shall be paid 30 days from date of invoice. See figure below.

### RESTRICTED EXCAVATION AREAS AROUND TRAFFIC SIGNAL POLES

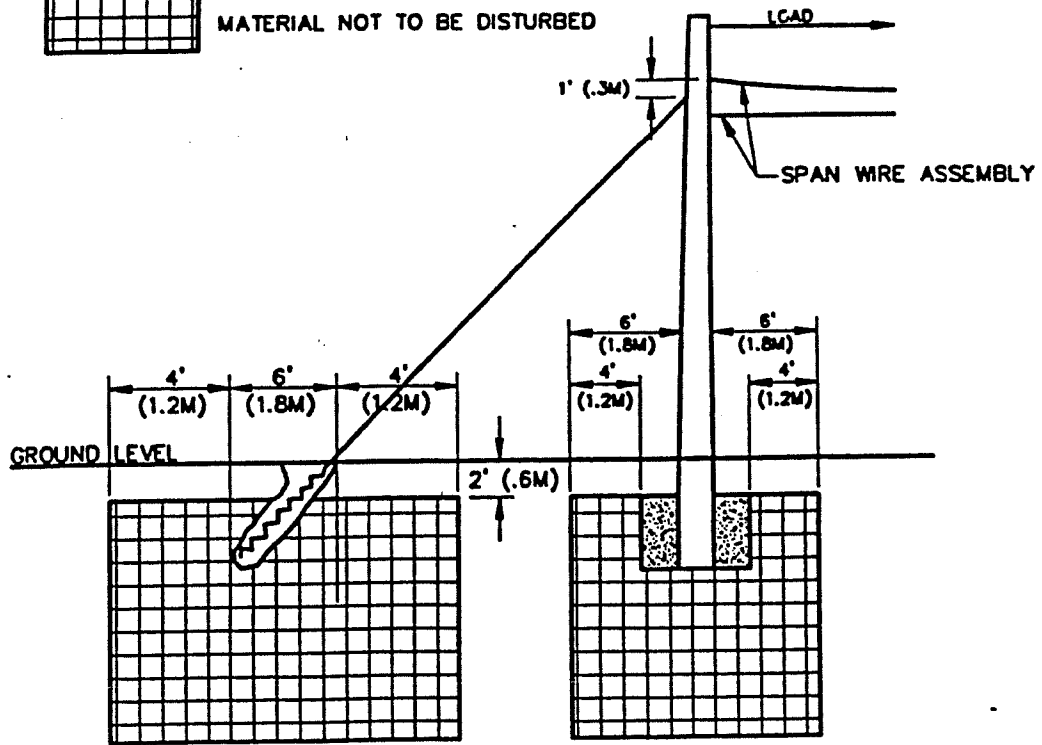


TOP VIEW  
N.T.S.

#### LEGEND



MATERIAL NOT TO BE DISTURBED



CROSS SECTION  
N.T.S.

Traffic Control for Installation and Maintenance - Continued

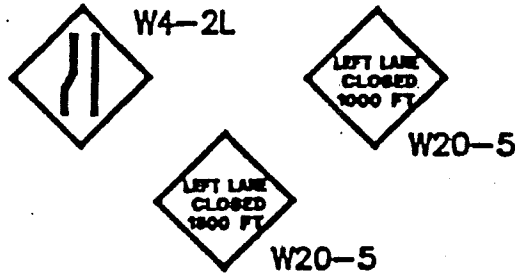
RECOMMENED TAPER LENGTH AND DEVICE SPACING

| APPROACH SPEED LIMIT<br>IN MILES PER HOUR<br>(KM/H) | MINIMUM TAPER LENGTHS<br>FOR LANE WIDTH * |               |               | MAXIMUM DEVICE<br>SPACING IN FEET<br>(METERS) |
|---|---|---------------|---------------|---|
|   | 10' (3M)                                  | 11' (3.35M)   | 12' (3.66M)   |   |
| 20 (32)   | 70' (21.3M)                               | 75' (22.9M)   | 80' (24.4M)   | 20' (6.1M)                                    |
| 25 (40)   | 105' (32M)                                | 115' (35M)    | 125' (38.1M)  | 25' (7.6M)                                    |
| 30 (48)   | 150' (45.7M)                              | 165' (50.3M)  | 180' (54.9M)  | 30' (9.1M)                                    |
| 35 (56)   | 205' (62.5M)                              | 225' (68.6M)  | 245' (74.7M)  | 35' (10.7M)                                   |
| 40 (65)   | 270' (82.3M)                              | 295' (89.9M)  | 320' (97.5M)  | 40' (12.2M)                                   |
| 45 (73)   | 450' (132.2M)                             | 495' (150.9M) | 540' (164.6M) | 45' (13.7M)                                   |
| 50 (80)   | 500' (152.4M)                             | 550' (167.6M) | 600' (182.9M) | 50' (15.2M)                                   |
| 55 (88)   | 550' (167.6M)                             | 605' (184.4M) | 660' (201.2M) | 55' (16.8M)                                   |
| 60 (96)   | 600' (182.9M)                             | 660' (201.2M) | 720' (219.5M) | 60' (18.3M)                                   |
| 65 (104)  | 650' (198.1M)                             | 715' (217.9M) | 780' (237.7M) | 65' (19.8M)                                   |

\*  $L = \frac{WS^2}{60}$  FOR S OF 40 MPH (65 KM/H) OR LESS:  $L = WS$  FOR 45 MPH (73 KM/H) OR MORE.

- L IS THE TAPER LENGTH.
- W IS THE WIDTH.
- S IS THE POSTED SPEED LIMIT.

Traffic Control for Installation and Maintenance - Continued



NOTES:  
SIGNS ARE TO BE LOCATED IN  
ADVANCE OF THE CONES OR  
BARRICADES.  
ALSO MOUNT SIGNS IN MEDIA.

SYMBOL: ● = CONES OR BARRICADES

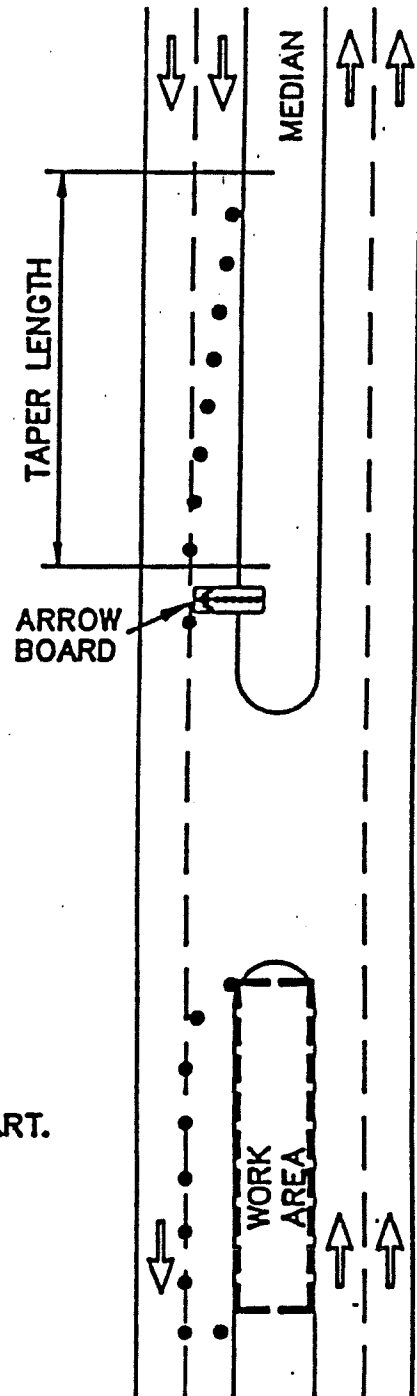
⎓ WORK AREA

← TRAFFIC FLOW

NOTE:

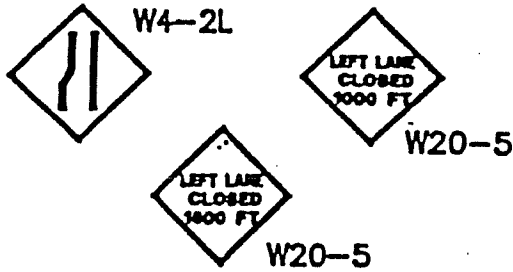
TO FIND THE TAPER LENGTH  
FOR CONES OR BARRICADES, SEE CHART.

IDENTICAL TREATMENT MAY BE GIVEN  
TO BOTH SIDES OF THE ROAD IF  
CONDITION WARRANTS IT.





Traffic Control for Installation and Maintenance – Continued



NOTES:  
 SIGNS ARE TO BE LOCATED IN  
 ADVANCE OF THE CONES OR  
 BARRICADES.  
 ALSO MOUNT SIGNS IN MEDIA.

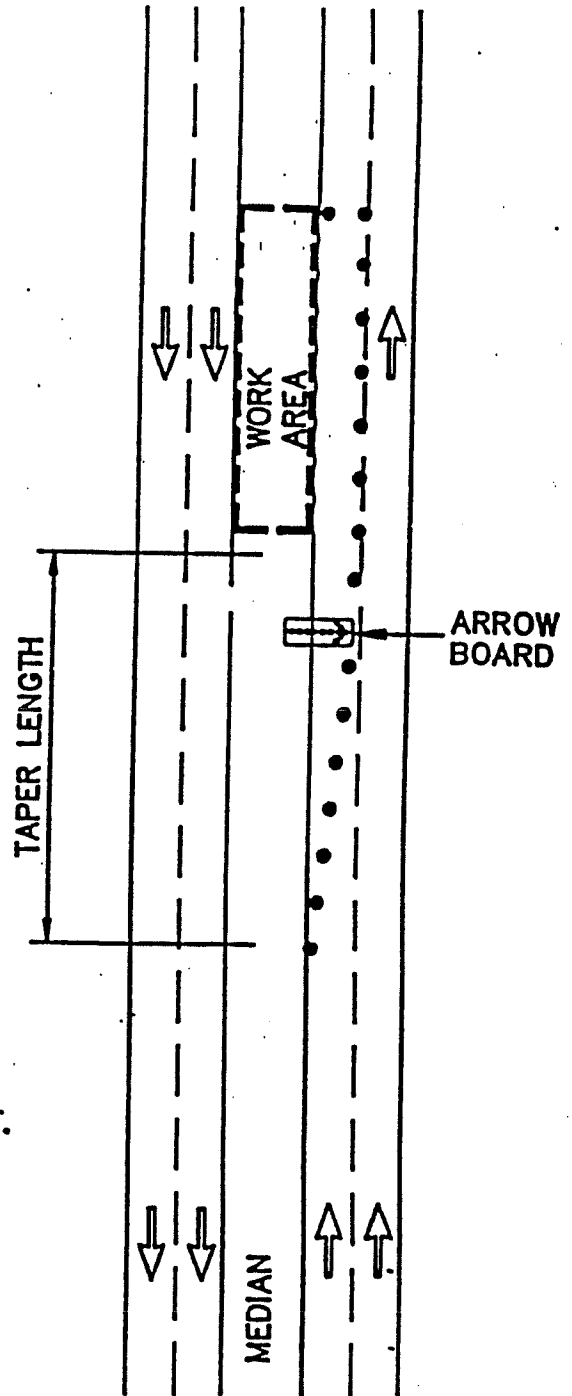
SYMBOL: • = CONES OR BARRICADES

⎓ WORK AREA

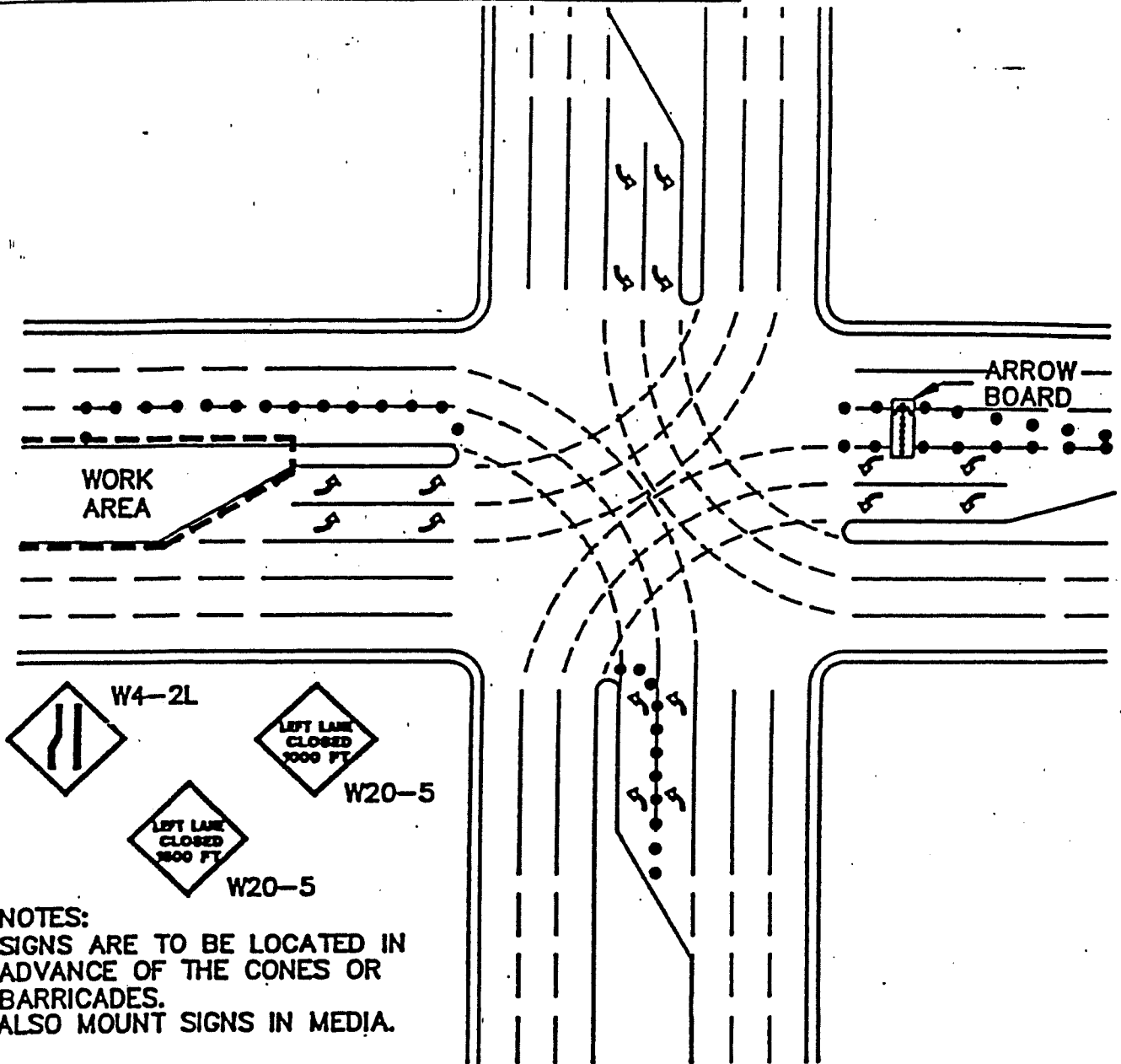
← TRAFFIC FLOW

NOTE:  
 TO FIND THE TAPER LENGTH  
 FOR CONES OR BARRICADES, SEE CHART.

IDENTICAL TREATMENT MAY BE GIVEN  
 TO BOTH SIDES OF THE ROAD IF  
 CONDITION WARRANTS IT.



Traffic Control for Installation and Maintenance – Continued



**NOTES:**  
 SIGNS ARE TO BE LOCATED IN  
 ADVANCE OF THE CONES OR  
 BARRICADES.  
 ALSO MOUNT SIGNS IN MEDIA.

**SYMBOL:** ● = CONES OR BARRICADES

⌈---⌋ WORK AREA

**NOTE:**  
 IF NECESSARY, BARRICADE OFF THE LEFT TURN LANE  
 AND LEFT-MOST THROUGH LANE TO MEET THE REQUIRED  
 MINIMUM TAPER LENGTH. TO FIND THE TAPER LENGTH  
 FOR CONES OR BARRICADES, SEE CHART.



April 10, 2001

**Department of Engineering  
and Public Works**

P.O. Box 21229

West Palm Beach, FL 33416-1229

(561) 684-4000

www.pbcgov.com

**Palm Beach County  
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**County Administrator**

Robert Weisman

**SUBJECT: REVISIONS TO THE AUGUST, 1999, "STREETSCAPE  
STANDARDS" MANUAL**

To Whom It May Concern:

The following are revisions/additions to the Palm Beach County "Streetscape Standards" manual (August 1999 Edition). These will become effective on April 30, 2001, and shall apply to all new submittals for landscaping received by the County beginning that date. The revisions addressed herein include:

- ▶ Modifications to the required clear zone setbacks measured from median curbing.
- ▶ The addition of standards for beautified traffic separators.
- ▶ The addition of restrictions on the use of Royal Palms in road rights of way.
- ▶ General prohibitions on the use of certain trees that have demonstrated problems with their ability to withstand high winds.
- ▶ The addition of a requirement for irrigation plans to be signed and sealed by a Registered Landscape Architect.
- ▶ The modification of the requirement for a 2' wide safety strip next to the back of curb.



April 10, 2001  
page 2

**Clear zone setbacks** are hereby amended to more closely align with the standards of the Florida Department of Transportation. This revision recognizes that all median curbing types, not only Types "D" and "F" are acceptable for the purpose of establishing reduced clear zone setbacks as prescribed by FDOT and AASHTO. Also, where the effective height of Types "D" and "F" curbing has been reduced to less than the original 6" by asphalt overlaying of the adjacent roadway, such curbing shall now be recognized as acceptable for the purpose of establishing reduced clear zone setbacks. The required clear zone setbacks (allowing room for growth of plant materials to maturity) shall be measured as follows:

- Where median curbing is standard Type "A", "B", "D", "E", or "F", or the reveal of the curb face has been reduced by asphalt overlay, the required clear zone setback shall be 6' from the adjacent travel lane. In the case of curbs with gutters, the travel lane begins at the joint where the asphalt pavement and gutter concrete meet. In cases where there is no gutter, the setback shall be measured from the median side of the striped edgeline next to the median.
- In special situations where the median curbing is either Type "D" or "F", with a standard 6" reveal, the required clear zone setback may be approved by the County Engineer (or his designee) as 4', measured from the face of curb, instead of 6' from the travel lane.

As a practice, Palm Beach County will generally continue to construct Type "F" median curbing with its new roadway projects. Unless required for roadway design purposes, curbing along the outside of roadways shall only be Type "F".

**Beautified traffic separator** standards are established as follows:

- Separators that are to include decorative paving and planted areas shall generally conform with the attached design concept.



April 10, 2001  
page 3

- The decorative paving in such separators shall, unless otherwise approved, be stamped colored concrete.
- In Commissioner District No. 1, the color, "Boca Pink" has been used for stamped colored concrete in certain traffic separators. In order to provide consistency for this established color theme, this color shall continue to be utilized in all traffic separators in District No. 1. In all other Commission Districts, the accepted colors for stamped concrete shall be "Brick Red" and "Autumn Brown". All colors are as manufactured by Coloration Systems, Inc., or approved equal.
- The accepted patterns for stamped concrete are "Running Bond Cobblestone" and "Basketweave Brick", as manufactured by the Bomanite Corporation, or approved equal.
- The color and pattern of stamped concrete shall be the same in all separators of any roadway link, with a link being defined as the roadway section between two intersecting thoroughfare plan roadways. Contact the Median Beautification Section for assistance with determining what patterns and colors for stamped concrete exist or have been permitted on a roadway link.
- Plant materials within the planters shall be closely-enough spaced in order to provide the desired appearance for the planters, and to discourage the growth of weeds within the planters.
- For all standard widths of traffic separators (4', 6', and 8'-6") the landscaped planter areas should be 6' long, and the stamped colored concrete areas should be 12' long. Special width traffic separators, which occur infrequently, will be addressed on a case-by-case basis.



April 10, 2001  
page 4

- The ends of traffic separators shall always start with a minimum 6' long stamped colored concrete section, in order to minimize recurring maintenance in these areas.
- Any design for the construction of new traffic separators (i.e., complete replacements that will not be utilizing existing curbs) must be designed by a registered engineer. Type I (Option 1) and Type IV (Option 1) separators may be reconstructed as beautified separators using existing curbs. An engineer would not be required for such scenarios. However, if when attempting to remove the inside concrete, the curb is significantly damaged or cracked, and the County determines that it must be replaced, then the curb shall be replaced in accordance with the approved plans and specifications for the roadway project that caused the initial construction of the separator.
- Any curbs replacing existing traffic separators shall normally be Type "D" curbs. In new roadway construction projects, Type "F" curb and gutter will be used in lieu of traffic separators.
- In all cases, during construction of the planter areas of beautified separators, all asphalt, base material and stabilized subgrade shall be removed down to natural soil and replaced with suitable soil for planting.
- In all cases, underground irrigation shall be provided for beautified traffic separators.
- Two - 4" Schedule 80 PVC irrigation sleeves shall be provided from the roadside to the median for water and electricity to operate the irrigation system(s). 1 - 6" Schedule 80 PVC sleeve shall be provided longitudinally from planter to planter across median openings. If there is existing sleeving to the median(s) in place, its adequacy shall be verified by the County prior to its use.



April 10, 2001  
page 5

- Proposals for the use of "approved equals by other manufacturers" are to be routed to the Median Beautification Section for review and possible approval for use.

Royal Palms have large heavy fronds that can cause significant property damage. The fronds can cause vehicle accidents, and/or injuries when they fall into the travel lanes of the adjacent roadway below. Therefore, in County road rights of way, Royal Palms may be used only in situations when:

- They can be located such that required clear zone setbacks and spacing between trees within sight lines can be provided.

- and -

- They can be located where they will be set back a distance equal to the average mature frond length, plus 100% of the average mature frond length, to allow an area for fronds to fall to the ground without falling into the travel lanes of the roadway.

- or -

- There is a formal commitment on the part of the permittee to provide the level of maintenance (regular removal of older fronds) necessary to significantly reduce the likelihood of any fronds falling. The Engineering Department will have the final authority to approve or disapprove the use of Royal Palms in this type of situation.

The use of trees that are not wind resistant is prohibited because of demonstrated failures of such plant materials in recent storms and high wind events. Characteristics of such trees include brittle and/or weak wood and generally weak root systems. Examples of trees included in this category include Yellow Tabebuia and Royal Poinciana. Other trees with the foregoing characteristics shall also not be utilized in roadway planting schemes. See "Undesirable Plant Characteristics" on page 4-1 of the August, 1999 "Streetscape Standards" manual for more information.



page 6

All plans for irrigation in the right of way shall be signed and sealed by a registered landscape architect.

The current requirement for a 2' wide grass, mulch (with weed barrier), or paver safety strip is modified to also allow the use of low-maintenance ground covers (with weed barriers) in median turn lane taper areas, only.

It is my hope that these revisions will clarify discussions concerning streetscaping, and provide more flexibility and opportunities to beautify the County's roadways.

Please include these revisions as a supplement to your copy of the August, 1999 "Streetscape Standards" manual. Please direct any questions or comments you have to our new Manager of the Median Beautification Section, Andrew Hertel, AICP. He can be reached by telephone at (561) 684-4010.

Sincerely,

OFFICE OF THE COUNTY ENGINEER

George T. Webb, P.E., County Engineer

GTW:GHF:ash

pc: G. Haney Frakes, P.E., Assistant County Engineer  
K.S. Rogers, P.E., Director, Land Development  
Jim Peters, Land Development  
Andrew S. Hertel, AICP, Manager, Median Beautification Section

File: General - Streetscape Standards

ash/2001ssrev3.wpd



**NOTES**

1. DESIGN 'A' APPLIES TO: 2' WIDE OR GREATER SEPARATORS (INCLUDING CURB WIDTHS)

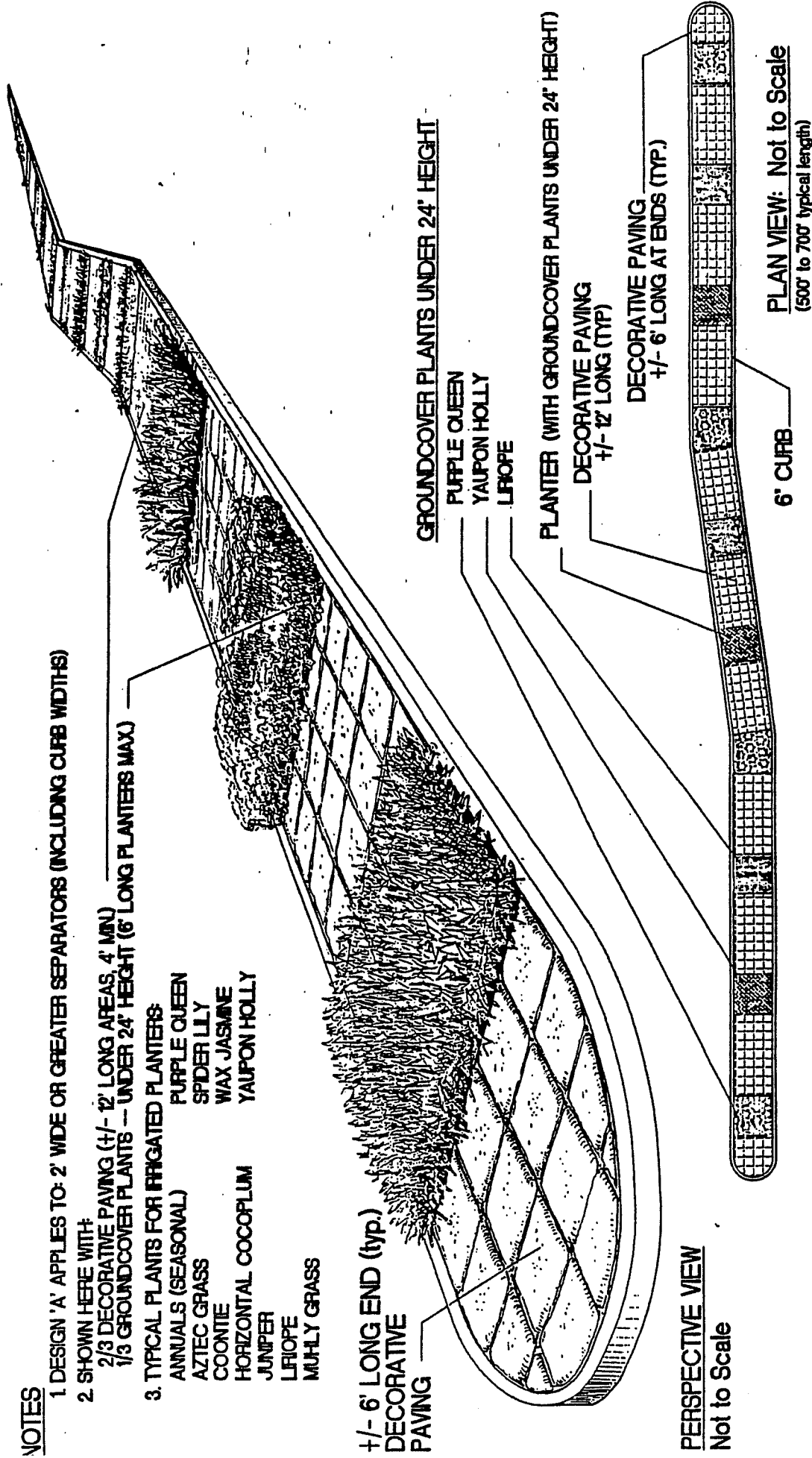
2. SHOWN HERE WITH:

2/3 DECORATIVE PAVING (+/- 12' LONG AREAS, 4' MIN)

1/3 GROUND COVER PLANTS -- UNDER 24" HEIGHT (6' LONG PLANTERS MAX)

3. TYPICAL PLANTS FOR IRRIGATED PLANTERS:

- ANNUALS (SEASONAL)
- AZTEC GRASS
- COONTIE
- HORIZONTAL COCOPLUM
- JUNPER
- LIRIOPE
- MUHLY GRASS
- PURPLE QUEEN
- SPIDER LILY
- WAX JASMINE
- YAU PON HOLLY



**+/- 6' LONG END (typ.)  
DECORATIVE  
PAVING**

**GROUND COVER PLANTS UNDER 24" HEIGHT**

- PURPLE QUEEN
- YAU PON HOLLY
- LIRIOPE

**PLANTER (WITH GROUND COVER PLANTS UNDER 24" HEIGHT)**

**DECORATIVE PAVING  
+/- 12' LONG (TYP)**

**DECORATIVE PAVING  
+/- 6' LONG AT ENDS (TYP.)**

**PERSPECTIVE VIEW  
Not to Scale**

**PLAN VIEW: Not to Scale  
(500' to 700' typical length)**

**6" CURB**

**DESIGN OPTION: DECORATIVE PAVING AT ENDS**

Prepared by: LAND STEWARDSHIP COMPANY, INC. and PBC ENGINEERING DEPT. 8/20/99



**Department of Engineering  
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P.O. Box 21229  
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**County Administrator**

Robert Weisman

July 17, 2001

**SUBJECT: ANNOUNCEMENT CONCERNING THE MEDIAN  
BEAUTIFICATION SECTION AND ONE CLARIFICATION OF THE  
AUGUST, 1999, "STREETSCAPE STANDARDS" MANUAL**

To Whom It May Concern:

This letter is to advise you of changes that have occurred in the Median Beautification Section, and to clarify one topic that is addressed in Section 3 of the August 1999 "Streetscape Standards" manual.

The County's Median Beautification Section has been renamed to better encompass the evolved scope of the matters with which it deals. Effective immediately, this group will be known as the **Streetscape Section**.

**The Section now has new telephone and facsimile numbers. The office telephone number is (561) 684-4100. The office fax number is (561) 478-5774.**

I would like to offer one point of clarification on the "Streetscape Standards" manual. In Section 3 of the Manual, addressing State Road Criteria (updated by the State in 2000), there is a detail (and accompanying table) addressing a "Shadow Diagram" for the spacing of trees that are located within sight triangles on State roads. This diagram and table, and the procedure that they establish shall ordinarily not be used when designing landscaping that is to be installed on County roads. This policy is being established to provide uniform standards for use in the design of landscaping to be planted on County roads, and for the protection and benefit of all involved.

The only circumstance under which this procedure can be used for landscaping on County roads is with the express permission of the County Engineer on a case by case basis.

Please include this letter as a supplement to your copy of the August, 1999 "Streetscape Standards" manual. Please contact me with any questions or comments.

Sincerely,

OFFICE OF THE COUNTY ENGINEER

  
Andrew S. Hertel, AICP  
Manager, Streetscape Section

pc: George T. Webb, P.E., County Engineer  
G. Haney Frakes, P.E., Assistant County Engineer  
K.S. Rogers, P.E., Director, Land Development  
Jim Peters, Land Development

File: General - Streetscape Standards

ash/2001ssrev5.wpd

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**County Administrator**

Robert Weisman

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October 29, 2003

**SUBJECT: REVISIONS TO THE AUGUST, 1999, "STREETSCAPE  
STANDARDS" MANUAL**

To Whom It May Concern:

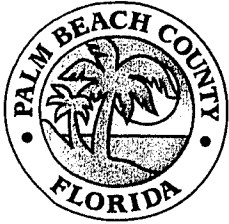
The following are revisions/additions to the Palm Beach County "Streetscape Standards" manual (August 1999 Edition). These will become effective on October 31, 2003, and shall apply to new submittals. The revisions addressed herein include:

- Modifications to plant materials acceptable for use in beautified traffic separators.
- Clarification of requirements for clear zone setbacks applicable to curbed medians.

**BEAUTIFIED TRAFFIC SEPARATORS** - As detailed in the attached memorandum to the Board of County Commissioners, dated October 24, 2003, only irrigated turf grass will be permitted in the planter areas of new beautified traffic separators. The use of sod in existing beautified traffic separators that have experienced plant viability problems is encouraged. This action is being taken to increase the likelihood of long-term plant survival in the cut-outs, while reducing requirements for ongoing maintenance, such as weeding.

**CLEAR ZONE SETBACKS** - In order to be consistent with the clear zone requirements of the Florida Department of Transportation's "Plans Preparation Manual", Table 2.11.5 (attached), "Horizontal Clearance to Trees", where curb or curb and gutter is present, the clear zone setback shall be a minimum 6 feet from the edge of the inside travel lane.

In special situations where median curbing is either Type "D" or "F", with a standard 6" reveal, the required clear zone setback may be approved by the County Engineer (or his designee) as 4', measured from the face of curb, instead of 6' from the travel lane.



October 29, 2003  
Page 2

Please include these revisions as a supplement to your copy of the August, 1999 "Streetscape Standards" manual. Please direct any questions or comments you have to the Streetscape Section at (561) 684-4010.

Sincerely,

OFFICE OF THE COUNTY ENGINEER

A handwritten signature in black ink, appearing to read "A. Hertel", is written over the typed name.

Andrew S. Hertel, AICP  
Manager, Streetscape Section

Attachments: FDOT Plans Preparation Manual Table 2.11.5  
October 24, 2003 Memo to the Board of County  
Commissioners

pc: George T. Webb, P.E., County Engineer  
G. Haney Frakes, P.E., Assistant County Engineer  
K.S. Rogers, P.E., Director, Land Development  
Jim Peters, Land Development  
Streetscape Section Staff

File: General - Streetscape Standards

ash/2003ssrev1.wpd



## Inter-Office Communication

**Department of Engineering  
and Public Works**

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West Palm Beach, FL 33416-1229  
(561) 684-4000  
www.pbcgov.com



**Palm Beach County  
Board of County  
Commissioners**

Karen T. Marcus, Chair  
Tony Masilotti, Vice Chairman  
Jeff Koons  
Warren H. Newell  
Mary McCarty  
Burt Aaronson  
Addie L. Greene

**County Administrator**

Robert Weisman

**Date:** October 24, 2003  
**To:** Commissioner Karen T. Marcus, Chair,  
And Members of the Board of County Commissioners  
**From:** George T. Webb, P.E. *by T. Webb*  
County Engineer  
**RE: MODIFICATION OF PLANT MATERIALS IN BEAUTIFIED  
TRAFFIC SEPARATORS**

---

This is to advise you that effective October 31, 2003, staff will amend the requirements for plant materials acceptable for use in the cut-outs of new beautified traffic separators to allow only irrigated turf grass.

This change is being made in order to address common recurring failures of plant materials that have been observed in such separators since the first ones were constructed starting several years ago.

Staff intends to apply this turf grass requirement in all instances involving yet to be constructed separators, and to encourage it as an option for those locations with existing problem landscaping, as the need for corrective action is identified at existing beautified separator locations.

Please let me know as soon as possible if you have any objections to this approach.

pc: G. Haney Frakes, P.E., Assistant County Engineer  
Kenneth S. Rogers, P. E., Director, Land Development  
Andrew S. Hertel, AICP, Manager, Streetscape Section  
James E. Peters, E. A. III, Permit Section, Land Development

F:\Median\ASH\beaut-traffic-sep-bcc1.doc

## 2.11 Horizontal Clearance and Clear Zone

**Table 2.11.4 Horizontal Clearance to Signal Poles  
and Controller Cabinets for Signals**

Shall not be located in medians

Flush Shoulders:

Outside the clear zone.

Curb or Curb and Gutter:

4 ft. from face of outside curbs and outside the sidewalk. However, when necessary, the Signal Poles may be located within sidewalks such that an unobstructed sidewalk width of 4 ft. or more (not including the width of curb) is provided.

**Table 2.11.5 Horizontal Clearance to Trees**

Minimum Horizontal Clearance to trees where the diameter is or is expected to be greater than 4 inches measured 6 inches above the ground shall be:

Flush Shoulders:

Outside the clear zone.

Curb or Curb and Gutter:

4 ft. from face of outside curbs.

6 ft. from edge of inside traffic lane where median curb is present.

**Table 2.11.6 Horizontal Clearance to Bridge Piers and Abutments**

Minimum Horizontal Clearance to Bridge Piers and Abutments:

Flush Shoulders:

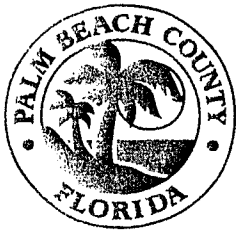
Outside the clear zone.

Curb or Curb and Gutter:

16 ft. from the edge of the travel lane.

**Table 2.11.7 Horizontal Clearance to Railroad Grade Crossing  
Traffic Control Devices**

Placement shall be in accordance with the *Design Standards*.



**Department of Engineering**

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**County Administrator**

Robert Weisman

"An Equal Opportunity  
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February 24, 2005

**SUBJECT: REVISIONS TO THE AUGUST, 1999 "STREETSCAPE  
STANDARDS" MANUAL**

To Whom It May Concern:

The following is a revision to the Palm Beach County "Streetscape Standards" manual (August 1999 Edition). This will become effective immediately, and shall apply to new submittals.

In the revisions dated April 10, 2001, page 3, paragraph 2 is revised to read as follows:

- \* In Commission District No. 1, the color "Venetian Pink" has been used for stamped colored concrete in certain traffic separators. In order to provide consistency for this established color theme, this color shall continue to be utilized in all traffic separators in District No. 1. In all other Commission Districts, the accepted colors for stamped concrete shall be "Brick Red" and "Autumn Brown". All colors are as manufactured by Coloration Systems, Inc., or approved equal.

Please include this revision as a supplement to your copy of the August, 1999 "Streetscape Standards" manual. Please direct any questions or comments you have to the Streetscape Section at (561) 684-4100.

Sincerely,

OFFICE OF THE COUNTY ENGINEER

Andrew S. Hertel, AICP  
Manager, Streetscape Section

ASH:mae

pc: G. Haney Frakes, P.E., Assistant County Engineer  
Kenneth S. Rogers, P. E., Director, Land Development  
James E. Peters, E. A. III, Permit Section, Land Development

File: General-Streetscape Standards  
F:\Median\ASH\022405ssrev.doc

Palm Beach  
Gardens  
Preferred Plant  
List



**Note - All Palm Beach County native species shall be considered as acceptable plants if used properly and planted in correct conditions.**

**Note 2- The use of native flowering trees, shrubs and groundcovers is encouraged for roadway beautification projects. Examples marked with \***

**Palm Beach Gardens Preferred Species List / Revised 3/24/2009**

| <b>Scientific Name</b>                   | <b><u>Common Name</u></b> | <b><u>Abbr.</u></b> |
|--|---------------------------|---------------------|
| <b>TREES</b>                             |                           |                     |
| <i>Acer rubrum</i>                       | Red Maple                 | AR                  |
| <i>Bursera simaruba</i>                  | Gumbo Limbo               | BU                  |
| <i>Caesalpinia pulcherrima</i>           | Dwarf Poinciana           | DR                  |
| <i>Calophyllum brasiliense</i>           | Brazilian Beauty Leaf     | CB                  |
| <i>Capparis cynophallophora</i>          | Jamaican Caper            | CC                  |
| <i>Cassia fistula</i>                    | Golden Shower             | CF                  |
| <i>Chrysophyllum oliviforme</i>          | Satin Leaf                | CO                  |
| <i>Clusia rosea</i>                      | Pitch Apple               | CR                  |
| <i>Coccoloba diversifolia</i>            | Pigeon Plum               | CD                  |
| <i>Coccoloba uvifera</i>                 | Seagrape                  | CU                  |
| <i>Conocarpus erectus var. sericeus</i>  | Silver Buttonwood         | COS                 |
| <i>Cordia sebestena</i>                  | Geiger Tree               | CS *                |
| <i>Ilex cassine</i>                      | Dahoon Holly              | IC                  |
| <i>Ilex x attenuata 'East Palatka'</i>   | East Palatka Holly        | IP                  |
| <i>Ilex x attenuata 'Savannah'</i>       | Savannah Holly            | IA                  |
| <i>Juniperus virginiana silicicola</i>   | Southern Red Cedar        | JS                  |
| <i>Lagerstromia spp.</i>                 | Lagerstromia              | LI                  |
| <i>Ligustrum japonicum</i>               | Ligustrum                 | LJ                  |
| <i>Magnolia grandiflora</i>              | Southern Magnolia         | MG                  |
| <i>Magnolia virginiana</i>               | Sweetbay Magnolia         | MV *                |
| <i>Persea borbonia</i>                   | Red Bay                   | PB                  |
| <i>Pinus elliotti densa</i>              | South Florida Slash Pine  | PE                  |
| <i>Quercus Virginiana</i>                | Live Oak                  | QV                  |
| <i>Syzygium paniculatum 'Hookeriana'</i> | Hookeriana                | SY                  |
| <i>Tabebuia heterophylla</i>             | Pink Trumpet Tree         | TH                  |
| <i>Tamarindus indica</i>                 | Tamarind                  | TI                  |
| <i>Taxodium distichum</i>                | Bald Cypress              | TD                  |
| <i>Tibouchina granulosa</i>              | Purple Glory Tree         | TT                  |
| <b>PALMS</b>                             |                           |                     |
| <i>Acoelorrhaphe wrightii</i>            | Paurotis Palm             | AW                  |
| <i>Adonidia merrillii</i>                | Adonidia Palm             | AM                  |
| <i>Bismarckia nobilis</i>                | Bismarck Palm             | BN                  |
| <i>Chamaerops humilis</i>                | European Fan Palm         | CH                  |
| <i>Cocos nucifera spp.</i>               | Coconut Palms             | CN                  |
| <i>Dypsis decaryi</i>                    | Triangle Palm             | DD                  |
| <i>Howea forsteriana</i>                 | Kentia Palm               | HF                  |
| <i>Livistona chinensis</i>               | Chinese Fan Palm          | LC                  |
| <i>Livistona decipiens</i>               | Ribbon Fan Palm           | LD                  |
| <i>Phoenix dactylifera 'Medjool'</i>     | Medjool Date Palm         | PD                  |
| <i>Phoenix reclinata</i>                 | Senegal Date Palm         | PS                  |
| <i>Phoenix roebelenii</i>                | Pygmy Date Palm           | PR                  |

|                               |                     |    |
|-------------------------------|---------------------|----|
| <i>Phoenix sylvestris</i>     | Wild Date Palm      | PW |
| <i>Ptychosperma elegans</i>   | Alexander Palm      | PT |
| <i>Ravenea rivularis</i>      | Majesty Palm        | RA |
| <i>Rhapis excelsa</i>         | Lady Palm           | RH |
| <i>Roystonea spp.</i>         | Royal Palm          | RE |
| <i>Sabal Palmetto</i>         | Cabbage Palm        | SP |
| <i>Thrinax morrisii</i>       | Key Thatch Palm     | TM |
| <i>Thrinax radiata</i>        | Florida Thatch Palm | TR |
| <i>Veitchia montgomeryana</i> | Montgomery's Palm   | VM |
| <i>Washingtonia robusta</i>   | Washingtonia Palm   | WR |
| <i>Wodyetia bifurcata</i>     | Foxtail Palm        | WB |

## SHRUBS

|   |                             |       |
|---|-----------------------------|-------|
| <i>Agave spp.</i>                       | Agave                       | AGA   |
| <i>Allamanda schottii</i>               | Bush Allamanda              | ALB   |
| <i>Alpinia spp.</i>                     | Shell Ginger                | ALP   |
| <i>Asparagus densiflorus 'Myers'</i>    | Foxtail Fern                | ASD   |
| <i>Begonia 'Angel Wing'</i>             | Angel Wing Begonia          | BEG1  |
| <i>Begonia 'Dragon Wing'</i>            | Dragon Wing Begonia         | BEG2  |
| <i>Begonia odorata 'Alba'</i>           | White Angel                 | BEG4  |
| <i>Bougainvillea spp.</i>               | Bougainvillea               | BOU1  |
| <i>Brunfelsia pauciflora</i>            | Yesterday, Today & Tomorrow | BRP   |
| <i>Calliandra haematocephala</i>        | Powder Puff                 | CAH   |
| <i>Callicarpa americana</i>             | Beautyberry                 | CAL   |
| <i>Capparis cynophallophora</i>         | Jamaica Caper               | CAP   |
| <i>Carissa macrocarpa</i>               | Natal Plum                  | CAR   |
| <i>Cephalanthus occidentalis</i>        | Buttonbush                  | CEO   |
| <i>Chamaedoria cataractarum</i>         | Cat Palm                    | CAT   |
| <i>Chrysobalanus icaco spp.</i>         | Cocoplum                    | CHR   |
| <i>Clusia guttifera</i>                 | Small Leaf Clusia           | CLU   |
| <i>Coccoloba uvifera</i>                | Seagrape                    | COC   |
| <i>Codiaeum spp.</i>                    | Croton                      | COD   |
| <i>Conocarpus erectus</i>               | Green Buttonwood            | CON   |
| <i>Conocarpus erectus var. sericeus</i> | Silver Buttonwood           | COS   |
| <i>Cordyline spp.</i>                   | Ti Plants                   | COR   |
| <i>Crinum spp.</i>                      | Crinum                      | CRI   |
| <i>Dracaena spp.</i>                    | Dracaena                    | DRA   |
| <i>Duranta erecta 'Gold Mound'</i>      | Gold Mound Duranta          | DUR   |
| <i>Elaeagnus phillippensis</i>          | Lingaro                     | ELA   |
| <i>Elaeagnus pungens</i>                | Silverthorn                 | ELP   |
| <i>Eugenia spp.</i>                     | Stopper                     | EUW   |
| <i>Forestiera segregata</i>             | Florida Privet              | FOR   |
| <i>Galphimia gracilis</i>               | Thryallis                   | GAL   |
| <i>Garcinia spicata</i>                 | Garcinia                    | GAS * |
| <i>Hamelia patens spp.</i>              | Firebush                    | HAM   |
| <i>Hibiscus spp.</i>                    | Hibiscus                    | HIB * |
| <i>Hymenocallis latifolia</i>           | Spider Lily                 | HYM   |
| <i>Ilex cornuta 'Burfordii'</i>         | Burford Holly               | IBU   |
| <i>Ilex vomitoria 'Nana'</i>            | Dwarf Yaupon Holly          | ILN   |
| <i>Ixora spp.</i>                       | Ixora                       | IXO   |
| <i>Jasminum spp.</i>                    | Jasmine                     | JAS   |
| <i>Jatropha integerrima</i>             | Jatropha                    | JAT   |

|                                      |                        |       |
|--------------------------------------|------------------------|-------|
| <i>Ligustrum japonicum</i>           | Wax Privet             | LIG   |
| <i>Malpighia glabra</i>              | Barbados Cherry        | MAG   |
| <i>Muhlenbergia capillaris</i>       | Muhly Grass            | MUH   |
| <i>Murraya paniculata</i>            | Chalcas/Orange Jasmine | MUR   |
| <i>Myrcianthes fragrans</i>          | Simpson's Stopper      | MYF   |
| <i>Myrica cerifera</i>               | Wax Myrtle             | MYR   |
| <i>Nephrolepis biserrata</i>         | Giant Sword Fern       | NEP   |
| <i>Nephrolepis exaltata</i>          | Florida Sword Fern     | NEE   |
| <i>Nephrolepis falcata</i>           | Macho Fern             | NEM   |
| <i>Nephrolepis falcata 'Furcans'</i> | Fishtail Fern          | NEF   |
| <i>Ochrosia elliptica</i>            | Kopsia                 | OCH   |
| <i>Philodendron xanadu</i>           | Philodendron           | PHX   |
| <i>Pittosporum tobira</i> spp.       | Pittosporum            | PIT   |
| <i>Plumbago 'Imperial Blue'</i>      | Plumbago               | PLU   |
| <i>Podocarpus</i> spp.               | Podocarpus             | POD   |
| <i>Psychotria nervosa</i>            | Wild Coffee            | PSY   |
| <i>Rapanea punctata</i>              | Myrsine                | RAP * |
| <i>Rhaphiolepis</i> spp.             | Indian Hawthorn        | RHA   |
| <i>Schefflera arboricola</i> spp.    | Dwarf Schefflera       | SCH   |
| <i>Serenoa</i> spp.                  | Saw Palmetto           | SER   |
| <i>Spartina bakeri</i>               | Sand Cordgrass         | SPA   |
| <i>Spartina patens</i>               | Saltmeadow Cordgrass   | SPP   |
| <i>Spathiphyllum</i>                 | Peace Lily             | SPT   |
| <i>Strelitzia reginae</i>            | Bird of Paradise       | STR   |
| <i>Tabernaemontana divaricata</i>    | Dwarf Crape Jasmine    | TAD   |
| <i>Tecoma stans</i>                  | Yellow Elder           | TES   |
| <i>Tecomaria capensis</i>            | Cape Honeysuckle       | TEC   |
| <i>Tibouchina urvilleana</i>         | Glory Bush             | TIB   |
| <i>Tripsacum dactyloides</i>         | Fakahatchee Grass      | TRI   |
| <i>Tripsacum floridanum</i>          | Florida Gama Grass     | TRF   |
| <i>Viburnum suspensum</i>            | Sandankwa Viburnum     | VIB   |
| <i>Yucca</i> spp.                    | Yucca                  | YUC   |
| <i>Zamia furfuracea</i>              | Cardboard Palm         | ZAM   |
| <i>Zamia pumila</i>                  | Coontie                | ZAP   |

#### GROUNDCOVERS/VINES

|   |                          |       |
|---|--------------------------|-------|
| <i>Aspidistra elatior</i>                 | Cast Iron Plant          | ASP   |
| <i>Clerodendrum thomsoniae 'Delectum'</i> | Bleeding Heart           | CLE   |
| <i>Cyrtomium falcatum</i>                 | Holly Fern               | CYR   |
| <i>Dianella tasmanica</i>                 | Blueberry Flax           | DIA   |
| <i>Euphorbia millii</i> spp.              | Crown of Thorns          | EUP   |
| <i>Helianthus debilis</i>                 | Beach Sunflower          | HEL   |
| <i>Hemerocallis 'Aztec gold'</i>          | Dwarf Evergreen Day Lily | HEM * |
| <i>Iris virginica</i>                     | Blue Flag Iris           | IRS   |
| <i>Juniperus chinensis 'Parsons'</i>      | Parsons Juniper          | JUN   |
| <i>Juniperus conferta 'Blue Pacific'</i>  | Blue Pacific Juniper     | JUP   |
| <i>Juniperus conferta 'Compacta'</i>      | Dwarf Shore Juniper      | JUC   |
| <i>Lantana camara</i>                     | Yellow Lantana           | LAY   |
| <i>Lantana camara 'Confetti'</i>          | Confetti Lantana         | LAC   |
| <i>Lantana montevidensis</i>              | Purple Trailing Lantana  | LAN   |
| <i>Liriope</i> spp.                       | Liriope                  | LIR   |
| <i>Microsorium scolopendrium</i>          | Wart Fern                | MIC   |

|   |                     |     |   |
|---|---------------------|-----|---|
| <i>Ophiopogon japonicum</i>               | Mondo Grass         | OPH |   |
| <i>Passiflora spp.</i>                    | Passion Flower      | PAS |   |
| <i>Petrea volubilis</i>                   | Queen's Wreath      | PEV | * |
| <i>Pilea microphylla</i>                  | Artillery Fern      | PIL |   |
| <i>Pyrostegia ignea (venusta)</i>         | Flame Vine          | PYR |   |
| <i>Senecio confusus</i>                   | Mexican Flame Vine  | SEC |   |
| <i>Strongylodon macrobotrys</i>           | Jade Vine           | STR |   |
| <i>Thunbergia spp.</i>                    | Thunbergia          | THB |   |
| <i>Trachelospermum jasminoides</i>        | Confederate Jasmine | TRJ |   |
| <i>Trachelospermum asiaticum 'Minima'</i> | Small Leaf Jasmine  | TAM |   |
| <i>Tradescantia pallida' Purpurea"</i>    | Purple Queen        | TRA |   |
| <i>Trimezia martinicensis</i>             | Walking Iris        | TRM |   |

**TURF**

|   |                     |
|---|---------------------|
| <i>Paspalum notatum</i>                   | Argentine Bahia Sod |
| <i>Stenotaphrum secundatum 'Floratum'</i> | St. Augustine       |

**Please Note:**

**These are recommendations based on performance within The City of Palm Beach Gardens.**

**Research is highly recommended to place the plants in the correct sunlight, water, and soil conditions.**

# TAB 5

Completion of Tasks - Timeline Discussion.

This will be open discussion with staff.