- c) The buffer zone along rights of way shall be used to screen parking lots and drives and to supplement the required pedestrian sidewalk and may include berms and shrubs to create an uninterrupted visual barrier no less than 42" in height and in no case shall be less than the requirements of the Landscape Ordinance of the City of Jacksonville.
- d) A durable opaque landscape screen shall be planted using materials selected from the acceptable plant material list along at least seventy-five percent of the street frontage excluding driveways. At least 50% of the trees shall be shade trees.
- e) The landscape area shall be landscaped with trees, shrubs, groundcovers, grass or mulch except that mulch shall not exceed 25% of the total landscape area. (See Figure 3)
- f) Landscape earthen berms shall be no more than 5 feet and no less than 2.5 feet higher than the adjacent parking lot or street. In cases where one (street or parking lot) elevation may be higher than the other, the height of the berm is to be measured from the higher of the two. (See Figure 4)
- g) To optimize the visual impact and height of the berms, the use of right-of-way is permissible subject to city and DEVELOPER approval.
- h) Berms shall be landscaped such that no less than 50 percent of the raised area planted is a combination of trees, shrubs, hedging and/or groundcovers as specified in the attached plant list; the remainder to be sodded.
- i) Berms shall be graded to provide a gentle undulating form in a curvilinear manner to present a natural, attractive appearance from the street. Hedges shall be augmented by mixed smaller shrubs as facers, or groundcovers planted in curvilinear beds in front of the hedges so as to present an attractive appearance from the street.
- j) Hedges shall be augmented by mixed smaller shrubs as facers, or groundcovers planted in curvilinear beds in front of the hedges so as to present an attractive appearance from the street.

4. Service roads

Landscape areas along service roads shall be landscaped with groundcover or grass. Trees and shrubs are encouraged but not required.

8.8.6.1.2 Adjacent to abutting properties

A continuous landscape buffer at least 5 feet wide between the VUA's and the abutting property shall be landscaped using materials selected from the acceptable plant material list.

- A berm or hedge shall be located in a fashion to extend within the landscaped area, except when such a berm or hedge obstructs the vision and safety of vehicular or pedestrian traffic. In such cases, the berm or hedge shall not be required in the area necessary for vision or safety.
- 2. The design of berms or hedges erected in this area shall be curvilinear and the landscape treatment shall be equal on both sides of the feature. Trees shall be placed on the centerline of the hedge or berm with no less than one tree per fifty linear feet of common property. At least one-half of the required number of trees shall be shade trees.
- 3. Hedges in the landscape area shall be minimum 2 feet in height immediately upon planting and shall be planted and maintained so as to form a continuous, unbroken and solid visual screen within a maximum of 1 year period after planting. All plant materials shall be selected from the acceptable plant material list. Hedges shall also be arranged in a curvilinear manner with no straight linear runs in excess of 50 feet. (See Figure 6)
- 4. In the event that subsequent construction activities on the second building site destroys or damages all or any part of said berm or hedge, the OWNER of the second parcel shall be responsible for restoring said berm or hedge to its original condition.

8.8.6.1.3 Street corners

- 1. All street corners shall have special landscape treatment of trees, shrub and groundcovers.
- 2. The OWNERS of properties at street corners are required to provide landscape treatment in accordance with development guidelines. (See Figure 7)
- 3. The OWNER of properties along right-of-ways where existing street corner landscape treatment already occur shall not be required to plant the specified landscape treatment but shall be required to preserve existing landscape as specified.

8.8.6.2 Vehicular Use Area (VUA) interior landscaping

Landscape areas shall be distributed throughout the VUA in such a manner as to provide visual and climatic relief from broad expanses of pavement and at strategic points to help define vehicular and pedestrian circulation.

8.8.6.2.1 Parking

All parking lots shall be designed and laid out to meet the minimum landscape requirements of the City of Jacksonville Zoning Code Chapter 356, Part 12, Landscape and Tree Protection Regulations. Landscaping in all parking areas shall be incorporated into the landscaping and development plan for each parcel and shall present an attractive appearance when viewed from the structure it supports. All landscape areas shall be installed using materials selected from the acceptable plant material list.

- 1. Medians if parking lots contain multiple parking bays, the parking bays shall be separated with a continuous landscape median having a minimum width of 10 feet. Medians may include berms and shall contain no less than one approved tree per fifty lineal feet or fraction thereof. Minimum 50% of all trees shall be shade trees. Medians shall also have a minimum of 50% coverage of shrubs from the approved lists, the remainder being approved turf (sod) or groundcovers.
- 2. Parking Islands islands at the ends of parking bays shall be landscaped in similar fashion as medians. Islands shall contain no less than one approved tree each. Minimum 50% of all trees shall be shade trees. Islands shall also have a minimum of 50% coverage of shrubs from the approved lists, the remainder being approved turf (sod) or groundcovers. Berms and shrubs shall be located and maintained in such manner as to not obstruct the view of vehicular traffic. (See Figure 8) If a sidewalk is provided within the median, the sidewalk shall be at a minimum width of 5 feet and the landscape area shall be at least 10 feet in width from back of the curbs.
- 3. Pedestrian Corridor for parking lots where the distance between parking spaces and building front sidewalks exceeds 200 feet, pedestrian corridors are required. Pedestrian corridors should run with at least every other double parking row or every 120 feet,

whichever is less. Pedestrian corridors shall be clearly identified when crossing driveways through the use of raised speed humps, crosswalk striping, different pavement patterns or similar techniques. Sidewalks within pedestrian corridors shall be at least 5 feet in width, with a landscape strip on either side that is at least 5 feet wide. The spacing of palm trees shall be no more than 30 feet apart, and/or shade trees in average 20 feet apart, placed within landscape islands. (See Figure 9)

4. Free standing buildings must provide either a landscape strip with parking lot or street trees placed with a spacing that is no more than 30 feet on center that is at least 10 feet in width on the front and sides of the building.

8.8.6.2.2 Entry drives

Entry drives shall be landscaped and shall incorporate the design of landscaping in adjoining landscape areas. The design shall incorporate materials selected from the acceptable plant material list in a manner that visually emphasizes the areas and offers the driver and pedestrian an attractive appearance from the street.

- 1. There should be a direct relationship with the building entry.
- 2. Should a divided entry or median be proposed, the median shall be designed in a similar manner.
- 3. Landscape treatment of entry areas shall not incorporate hedging or berms in such a manner as to interfere with or obstruct the view of vehicular or pedestrian traffic.

8.8.6.3 Building open areas landscaping

8.6.3.1 Front areas and buildings that adjoin two street right-of-ways

Landscape treatment of primary or front open areas between buildings and parking, as defined herein, shall present an attractive appearance emphasizing and reinforcing the major entry of the structure.

- 1. Building-front landscape area including sidewalk shall have an overall average width of 15 feet minimum.
- 2. Landscaping shall incorporate a mix of approved trees, shrubs and groundcovers in a pleasing design and shall be appropriately

landscaped across the entire front façade at a minimum of 80 percent coverage.

- 3. Trees shall be incorporated into the landscape design for front areas to provide shade, accent and to frame the main entry of the building at a ratio of one tree per 800 square feet of open front area.
- 4. Other shrubbery and groundcovers in areas beyond the foundation planting incorporated into the overall landscape plan are encouraged. (See Figure 10)

8.8.6.3.2 Side areas adjoining common property lines or between building and parking

Landscape treatment of the side areas, as defined herein, shall be incorporated into, and shall continue the design of, the front area.

- 1. Mixed shrubs and groundcovers shall be used as foundation plants across the entire façade in these yard areas at a minimum of 40 percent coverage.
- 2. All walks, entries and courtyards in side areas shall be appropriately landscaped.
- 3. Trees shall also be provided in side yards to enhance the building and provide shade at a ratio of one tree per 1,000 square feet of open area.

8.8.6.3.3 Rear areas

Landscape treatment for rear or service areas, as defined herein, shall also be incorporated into the overall design of the front and side areas.

- 1. Appropriate foundation planting shall be required across all facades in normal public view.
- 2. Any service areas, drives and service entrances shall be fully screened from view with appropriate plant material and berms or walls from the approved lists so as to present a totally screened appearance to persons entering or leaving the building through all public entrances or exists and to vehicular or pedestrian traffic on the roadways adjacent to the parcel.
- 3. Trees shall be provided in rear yards and service areas at a minimum of one tree per 2,000 square feet of open area.

8.8.6.3.4 Loading areas

Landscape treatment for loading areas, as defined herein, shall also be incorporated into the overall design of the front, side and rear areas.

- 1. All opaque enclosures or screen walls should be designed in character with the architecture of the site. No stockade fence or other simple structure will be allowed. A minimum of 50 percent shrubs along the screen walls shall be required.
- 2. Any loading dock with opening exposed to an adjoining property or public view shall be required to be fully screened from view and designed as specified in paragraph 1 above. The screen wall shall have a minimum height of 10 feet. Plant shade trees at a minimum of 25′ o.c. or small ornamental trees at a minimum of 10′ o.c. the full length of the wall along with minimum of 50% coverage of shrubs. (See Figure 11)

8.8.6.4 <u>Hardscape standards</u>

8.8.6.4.1 Sidewalk connection

- 1. Sidewalks shall be permitted only to provide for internal landside circulation on leasehold property. Additional sidewalks may be required by the City of Jacksonville.
- 2. Sidewalks shall meet the requirements of the City of Jacksonville Department of Public Works.
- 3. Sidewalks shall be designed and pedestrian roadway crossings located to minimize pedestrian/vehicle conflicts and to provide adequate site distance for both the pedestrians and the vehicle drivers. Proper warning signs and special markings shall be provided if deemed necessary by the Authority.
- 4. Boulevard, secondary and collector roads shall have sidewalks minimum 6 feet in width along both sides. A 6-foot wide sidewalk along one side of service road is required.
- 5. All the sidewalks shall be connected. Handicap ramps shall be located at all pedestrian crossings of streets, drives and all other VUA in accordance with Florida Building Code 2004, Chapter 11, Florida Accessibility Code.

8.8.7 LANDSCAPE DESIGN STANDARDS – <u>INDUSTRIAL DISTRICT</u>

8.8.7.1 <u>Perimeter landscaping</u>

8.8.7.1.1 Landscape treatment of buffer zones along rights of way

The landscape buffer zone between the edge of street curb line and the edge of off-street parking along the right-of-way shall be landscaped using materials selected from the acceptable plant material list.

1. Boulevard

- a) Street trees along the boulevard shall be Live Oaks spaced at 50' o.c. located between the curb line and the off-street parking set back line but preferably, when appropriate, between the street curb line and the right of way line. The OWNER of properties along right-of-ways where existing street trees already occur shall not be required to plant the specified street trees and shall preserve existing trees as specified tree protection.
- b) The OWNER of properties along right-of-ways where existing street tress already occur shall not be required to plant the specified street trees and shall preserve exiting trees as specified tree protection.
- c) Medians shall be landscaped using materials selected from the acceptable plant material list. (See Figure 1) Medians containing retention ponds or decorative lakes shall also be landscaped between curb and top of the bank. (See Figure 2)
- d) The buffer zone along rights of way shall be used to screen parking lots and drives and to supplement the required pedestrian sidewalk and shall include berms and shrubs to create an uninterrupted visual barrier no less than 42" in height and in no case shall be less than the requirements of the Landscape Ordinance of the City of Jacksonville.
- e) A durable opaque landscape screen shall be planted using materials selected from the acceptable plant material list along at least seventy-five percent of the street frontage excluding driveways. At least 50% of the trees shall be shade trees.
- f) The landscape area shall be landscaped with trees, shrubs, groundcovers, grass or mulch except that mulch shall not exceed 25% of the total landscape area. (See Figure 3)

- g) Landscape earthen berms shall be no more than 5 feet and no less than 2.5 feet higher than the adjacent parking lot or street. In cases where one (street or parking lot) elevation may be higher than the other, the height of the berm is to be measured from the higher of the two. (See Figure 4)
- h) To optimize the visual impact and height of the berms, the use of right-of-way is permissible subject to city and DEVELOPER approval.
- i) Berms shall be landscaped such that no less than 50 percent of the raised area planted is a combination of trees, shrubs, hedging and/or groundcovers as specified in the attached plant list; the remainder to be sodded. Berms shall be graded to provide a gentle undulating form in a curvilinear manner to present a natural, attractive appearance from the street.
- j) Hedges shall be augmented by mixed smaller shrubs as facers, or groundcovers planted in curvilinear beds in front of the hedges so as to present an attractive appearance from the street.

2. Secondary / Collector road

- a) Trees along secondary / collector roads shall be Laurel Oaks or Live Oaks at 50' o.c. located between the curb line and the off-street parking set back line preferably, when appropriate, between the street curb line and the right of way line. All street trees along secondary roads are to be installed by individual parcel OWNERS in accordance with development guidelines. (See Figure 5)
- b) The OWNER of properties along right-of-ways where existing trees already occur shall not be required to plant the specified street trees and shall preserve existing trees as specified tree protection.
- c) The buffer zone along rights of way shall be used to screen parking lots and drives and to supplement the required pedestrian sidewalk and may include berms and shrubs to create an uninterrupted visual barrier no less than 42" in height and in no case shall be less than the requirements of the Landscape Ordinance of the City of Jacksonville.
- d) A durable opaque landscape screen shall be planted using materials selected from the acceptable plant material list along

- at least seventy-five percent of the street frontage excluding driveways. At least 50% of the trees shall be shade trees.
- e) The landscape area shall be landscaped with trees, shrubs, groundcovers, grass or mulch except that mulch shall not exceed 25% of the total landscape area. (See Figure 3)
- f) Landscape earthen berms shall be no more than 5 feet and no less than 2.5 feet higher than the adjacent parking lot or street. In cases where one (street or parking lot) elevation may be higher than the other, the height of the berm is to be measured from the higher of the two. (See Figure 4)
- g) To optimize the visual impact and height of the berms, the use of right-of-way is permissible subject to city and DEVELOPER approval.
- h) Berms shall be landscaped such that no less than 50 percent of the raised area planted is a combination of trees, shrubs, hedging and/or groundcovers as specified in the attached plant list; the remainder to be sodded.
- i) Berms shall be graded to provide a gentle undulating form in a curvilinear manner to present a natural, attractive appearance from the street. Hedges shall be augmented by mixed smaller shrubs as facers, or groundcovers planted in curvilinear beds in front of the hedges so as to present an attractive appearance from the street.
- j) Hedges shall be augmented by mixed smaller shrubs as facers, or groundcovers planted in curvilinear beds in front of the hedges so as to present an attractive appearance from the street.

3. Service roads

Landscape areas along service roads shall be landscaped with groundcover or grass. Trees and shrubs are encouraged but not required.

8.8.7.1.2 Adjacent to abutting properties

A continuous landscape buffer at least 5 feet wide between the VUA's and the abutting property shall be landscaped using materials selected from the acceptable plant material list.

- 1. A berm or hedge shall be located in a fashion to extend within the landscaped area, except when such a berm or hedge obstructs the vision and safety of vehicular or pedestrian traffic. In such cases, the berm or hedge shall not be required in the area necessary for vision or safety.
- 2. The design of berms or hedges erected in this area shall be curvilinear and the landscape treatment shall be equal on both sides of the feature. Trees shall be placed on the centerline of the hedge or berm with no less than one tree per fifty linear feet of common property. At least one-half of the required number of trees shall be shade trees.
- 3. Hedges in the landscape area shall be minimum 2 feet in height immediately upon planting and shall be planted and maintained so as to form a continuous, unbroken and solid visual screen within a maximum of 1 year period after planting. All plant materials shall be selected from the acceptable plant material list. Hedges shall also be arranged in a curvilinear manner with no straight linear runs in excess of 50 feet. (See Figure 6)
- 4. In the event that subsequent construction activities on the second building site destroys or damages all or any part of said berm or hedge, the OWNER of the second parcel shall be responsible for restoring said berm or hedge to its original condition.

8.8.7.1.3 Street corners

- 1. All street corners shall have special landscape treatment of trees, shrub and groundcovers.
- 2. The OWNERS of properties at street corners are required to provide landscape treatment in accordance with development guidelines. (See Figure 7)
- 3. The OWNER of properties along right-of-ways where existing street corner landscape treatment already occur shall not be required to plant the specified landscape treatment but shall be required to preserve existing landscape as specified.

8.8.7.2 Vehicular Use Area (VUA) interior landscaping

Landscape areas shall be distributed throughout the VUA in such a manner as to provide visual and climatic relief from broad expanses of pavement and at strategic points to help define vehicular and pedestrian circulation.

8.8.7.2.1 Parking

All parking lots shall be designed and laid out to meet the minimum landscape requirements of the City of Jacksonville Zoning Code Chapter 356, Part 12, Landscape and Tree Protection Regulations. Landscaping in all parking areas shall be incorporated into the landscaping and development plan for each parcel and shall present an attractive appearance when viewed from the structure it supports. All landscape areas shall be installed using materials selected from the acceptable plant material list.

- 1. Medians if parking lots contain multiple parking bays, the parking bays shall be separated with a continuous landscape median having a minimum width of 10 feet. Medians may include berms and shall contain no less than one approved tree per fifty lineal feet or fraction thereof. Minimum 50% of all trees shall be shade trees. Medians shall also have a minimum of 50% coverage of shrubs from the approved lists, the remainder being approved turf (sod) or groundcovers. If a sidewalk is provided within the median, the sidewalk shall be at a minimum width of 5 feet and the landscape area shall be at least 10 feet in width from back of the curbs.
- 2. Parking Islands islands at the ends of parking bays shall be landscaped in similar fashion as medians. Islands shall contain no less than one approved tree each. Minimum 50% of all trees shall be shade trees. Islands shall also have a minimum of 50% coverage of shrubs from the approved lists, the remainder being approved turf (sod) or groundcovers. Berms and shrubs shall be located and maintained in such manner as to not obstruct the view of vehicular traffic. (See Figure 8) An island shall be no less than 8-food wide between back of the curbs whether a sidewalk is provided within the island. A sidewalk within the island shall be minimum 5-foot wide.

8.8.7.2.2 Entry drives

Entry drives shall be landscaped and shall incorporate the design of landscaping in adjoining landscape areas. The design shall incorporate materials selected from the acceptable plant material list in a manner that visually emphasizes the areas and offers the driver and pedestrian an attractive appearance from the street.

- 1. There should be a direct relationship with the building entry.
- 2. Should a divided entry or median be proposed, the median shall be designed in a similar manner.
- 3. Landscape treatment of entry areas shall not incorporate hedging or berms in such a manner as to interfere with or obstruct the view of vehicular or pedestrian traffic.

8.8.7.3 Building open areas landscaping

8.8.7.3.1 Front areas and buildings that adjoin two street right-of-ways

Landscape treatment of primary or front open areas between buildings and parking, as defined herein, shall present an attractive appearance emphasizing and reinforcing the major entry of the structure.

- 1. Landscaping shall incorporate a mix of approved trees, shrubs and groundcovers in a pleasing design and shall be appropriately landscaped across the entire front façade at a minimum of 80 percent coverage.
- 2. Trees shall be incorporated into the landscape design for front areas to provide shade, accent and to frame the main entry of the building at a ratio of one tree per 800 square feet of open front area.
- 3. Other shrubbery and groundcovers in areas beyond the foundation planting incorporated into the overall landscape plan are encouraged. (See Figure 10)

8.8.7.3.2 Side areas adjoining common property lines or between building and parking

Landscape treatment of the side areas, as defined herein, shall be incorporated into, and shall continue the design of, the front area.

- 1. Mixed shrubs and groundcovers shall be used as foundation plants across the entire façade in these yard areas at a minimum of 40 percent coverage.
- 2. All walks, entries and courtyards in side areas shall be appropriately landscaped.
- 3. Trees shall also be provided in side yards to enhance the building and provide shade at a ratio of one tree per 1,000 square feet of open area.

8.8.7.3.3 Rear areas

Landscape treatment for rear or service areas, as defined herein, shall also be incorporated into the overall design of the front and side areas.

- 1. Appropriate foundation planting shall be required across all facades in normal public view.
- 2. Any service areas, drives and service entrances shall be fully screened from view with appropriate plant material and berms or walls from the approved lists so as to present a totally screened appearance to persons entering or leaving the building through all public entrances or exists and to vehicular or pedestrian traffic on the roadways adjacent to the parcel.
- 3. Trees shall be provided in rear yards and service areas at a minimum of one tree per 2,000 square feet of open area.

8.8.7.3.4 Loading areas

Landscape treatment for loading areas, as defined herein, shall also be incorporated into the overall design of the front, side and rear areas.

- 1. All opaque enclosures or screen walls should be designed in character with the architecture of the site. No stockade fence or other simple structure will be allowed. A minimum of 50 percent shrubs along the screen walls shall be required.
- 2. Any loading dock with opening exposed to an adjoining property or public view shall be required to be fully screened from view and designed as specified in paragraph 1 above. The screen wall shall have a minimum height of 10 feet. Plant shade trees at a minimum of 25′ o.c. or small ornamental trees at a minimum of 10′ o.c. the full length of the wall along with minimum of 50% coverage of shrubs. (See Figure 11)

8.8.7.4 <u>Hardscape standards</u>

8.8.7.4.1 Sidewalk connection

1. Sidewalks shall be permitted only to provide for internal landside circulation on leasehold property. Additional sidewalks may be required by the City of Jacksonville.

- 2. Sidewalks shall meet the requirements of the City of Jacksonville Department of Public Works.
- 3. Sidewalks shall be designed and pedestrian roadway crossings located to minimize pedestrian/vehicle conflicts and to provide adequate site distance for both the pedestrians and the vehicle drivers. Proper warning signs and special markings shall be provided if deemed necessary by the Authority.
- 4. Boulevard, secondary and collector roads shall have sidewalks minimum 6 feet in width along both sides. A 6-foot wide sidewalk along one side of service road is required.
- 5. All the sidewalks shall be connected. Handicap ramps shall be located at all pedestrian crossings of streets, drives and all other VUA in accordance with Florida Building Code 2004, Chapter 11, Florida Accessibility Code.

8.8.8 LANDSCAPE DESIGN STANDARDS – AVIATION DISTRICT (LAND-SIDE ONLY)

8.8.8.1 Perimeter landscaping

8.8.8.1.1 Landscape treatment of buffer zones along rights of way

The landscape buffer zone between the edge of street curb line and the edge of off-street parking along the right-of-way shall be landscaped using materials selected from the acceptable plant material list.

1. Secondary / Collector road

- a) Trees along secondary / collector roads shall be Laurel Oaks or Live Oaks at 50' o.c. located between the curb line and the off-street parking set back line preferably, when appropriate, between the street curb line and the right of way line. All street trees along secondary roads are to be installed by individual parcel OWNERS in accordance with development guidelines. (See Figure 5)
- b) The OWNER of properties along right-of-ways where existing trees already occur shall not be required to plant the specified street trees and shall preserve existing trees as specified tree protection.
- c) The buffer zone along rights of way shall be used to screen parking lots and drives and to supplement the required pedestrian sidewalk and may include berms and shrubs to create an uninterrupted visual barrier no less than 42" in height and in no case shall be less than the requirements of the Landscape Ordinance of the City of Jacksonville.
- d) A durable opaque landscape screen shall be planted using materials selected from the acceptable plant material list along at least seventy-five percent of the street frontage excluding driveways. At least 50% of the trees shall be shade trees.
- e) The landscape area shall be landscaped with trees, shrubs, groundcovers, grass or mulch except that mulch shall not exceed 25% of the total landscape area. (See Figure 3)
- f) Landscape earthen berms shall be no more than 5 feet and no less than 2.5 feet higher than the adjacent parking lot or street. In cases where one (street or parking lot) elevation may be

- higher than the other, the height of the berm is to be measured from the higher of the two. (See Figure 4)
- g) To optimize the visual impact and height of the berms, the use of right-of-way is permissible subject to city and DEVELOPER approval.
- h) Berms shall be landscaped such that no less than 50 percent of the raised area planted is a combination of trees, shrubs, hedging and/or groundcovers as specified in the attached plant list; the remainder to be sodded.
- i) Berms shall be graded to provide a gentle undulating form in a curvilinear manner to present a natural, attractive appearance from the street. Hedges shall be augmented by mixed smaller shrubs as facers, or groundcovers planted in curvilinear beds in front of the hedges so as to present an attractive appearance from the street.
- j) Hedges shall be augmented by mixed smaller shrubs as facers, or groundcovers planted in curvilinear beds in front of the hedges so as to present an attractive appearance from the street.

2. Service roads

Landscape areas along service roads shall be landscaped with groundcover or grass. Trees and shrubs are encouraged but not required.

8.8.8.1.2 Adjacent to abutting properties

A continuous landscape buffer at least 5 feet wide between the VUA's and the abutting property shall be landscaped using materials selected from the acceptable plant material list.

- 1. A berm or hedge shall be located in a fashion to extend within the landscaped area, except when such a berm or hedge obstructs the vision and safety of vehicular or pedestrian traffic. In such cases, the berm or hedge shall not be required in the area necessary for vision or safety.
- 2. The design of berms or hedges erected in this area shall be curvilinear and the landscape treatment shall be equal on both sides of the feature. Trees shall be placed on the centerline of the hedge or berm with no

- less than one tree per fifty linear feet of common property. At least one-half of the required number of trees shall be shade trees.
- 3. Hedges in the landscape area shall be minimum 2 feet in height immediately upon planting and shall be planted and maintained so as to form a continuous, unbroken and solid visual screen within a maximum of 1 year period after planting. All plant materials shall be selected from the acceptable plant material list. Hedges shall also be arranged in a curvilinear manner with no straight linear runs in excess of 50 feet. (See Figure 6)
- 4. In the event that subsequent construction activities on the second building site destroys or damages all or any part of said berm or hedge, the OWNER of the second parcel shall be responsible for restoring said berm or hedge to its original condition.

8.8.8.1.3 Street corners

- 1. All street corners shall have special landscape treatment of trees, shrub and groundcovers.
- 2. The OWNERS of properties at street corners are required to provide landscape treatment in accordance with development guidelines. (See Figure 7)
- 3. The OWNER of properties along right-of-ways where existing street corner landscape treatment already occur shall not be required to plant the specified landscape treatment but shall be required to preserve existing landscape as specified.

8.8.8.2 Vehicular Use Area (VUA) interior landscaping

Landscape areas shall be distributed throughout the VUA in such a manner as to provide visual and climatic relief from broad expanses of pavement and at strategic points to help define vehicular and pedestrian circulation.

8.8.8.2.1 Parking

All parking lots shall be designed and laid out to meet the minimum landscape requirements of the City of Jacksonville Zoning Code Chapter 356, Part 12, Landscape and Tree Protection Regulations. Landscaping in all parking areas shall be incorporated into the landscaping and development plan for each parcel and shall present an attractive appearance when viewed from the structure it supports. All landscape

areas shall be installed using materials selected from the acceptable plant material list.

- 1. Medians if parking lots contain multiple parking bays, the parking bays shall be separated with a continuous landscape median having a minimum width of 10 feet. Medians may include berms and shall contain no less than one approved tree per fifty lineal feet or fraction thereof. Minimum 50% of all trees shall be shade trees. Medians shall also have a minimum of 50% coverage of shrubs from the approved lists, the remainder being approved turf (sod) or groundcovers. If a sidewalk is provided within the median, the sidewalk shall be at a minimum width of 5 feet and the landscape area shall be at least 10 feet in width from back of the curbs.
- 2. Parking Islands islands at the ends of parking bays shall be landscaped in similar fashion as medians. Islands shall contain no less than one approved tree each. Minimum 50% of all trees shall be shade trees. Islands shall also have a minimum of 50% coverage of shrubs from the approved lists, the remainder being approved turf (sod) or groundcovers. Berms and shrubs shall be located and maintained in such manner as to not obstruct the view of vehicular traffic. (See Figure 8) An island shall be no less than 8-food wide between back of the curbs whether a sidewalk is provided within the island. A sidewalk within the island shall be minimum 5-foot wide.

8.8.8.2.2 Entry drives

Entry drives shall be landscaped and shall incorporate the design of landscaping in adjoining landscape areas. The design shall incorporate materials selected from the acceptable plant material list in a manner that visually emphasizes the areas and offers the driver and pedestrian an attractive appearance from the street.

- 1. There should be a direct relationship with the building entry.
- 2. Should a divided entry or median be proposed, the median shall be designed in a similar manner.
- 3. Landscape treatment of entry areas shall not incorporate hedging or berms in such a manner as to interfere with or obstruct the view of vehicular or pedestrian traffic.

8.8.8.3.1 Front areas and buildings that adjoin two street right-of-ways

Landscape treatment of primary or front open areas between buildings and parking, as defined herein, shall present an attractive appearance emphasizing and reinforcing the major entry of the structure.

- 1. Landscaping shall incorporate a mix of approved trees, shrubs and groundcovers in a pleasing design and shall be appropriately landscaped across the entire front façade at a minimum of 80 percent coverage.
- 2. Trees shall be incorporated into the landscape design for front areas to provide shade, accent and to frame the main entry of the building at a ratio of one tree per 800 square feet of open front area.
- 3. Other shrubbery and groundcovers in areas beyond the foundation planting incorporated into the overall landscape plan are encouraged. (See Figure 10)

8.8.8.3.2 Side areas adjoining common property lines or between building and parking

Landscape treatment of the side areas, as defined herein, shall be incorporated into, and shall continue the design of, the front area.

- 1. Mixed shrubs and groundcovers shall be used as foundation plants across the entire façade in these yard areas at a minimum of 40 percent coverage.
- 2. All walks, entries and courtyards in side areas shall be appropriately landscaped.
- 3. Trees shall also be provided in side yards to enhance the building and provide shade at a ratio of one tree per 1,000 square feet of open area.

8.8.8.3.3 Rear areas

Landscape treatment for rear or service areas, as defined herein, shall also be incorporated into the overall design of the front and side areas.

1. Appropriate foundation planting shall be required across all facades in normal public view.

- 2. Any service areas, drives and service entrances shall be fully screened from view with appropriate plant material and berms or walls from the approved lists so as to present a totally screened appearance to persons entering or leaving the building through all public entrances or exists and to vehicular or pedestrian traffic on the roadways adjacent to the parcel.
- 3. Trees shall be provided in rear yards and service areas at a minimum of one tree per 2,000 square feet of open area.

8.8.8.3.4 Loading areas

Landscape treatment for loading areas, as defined herein, shall also be incorporated into the overall design of the front, side and rear areas.

- 1. All opaque enclosures or screen walls should be designed in character with the architecture of the site. No stockade fence or other simple structure will be allowed. A minimum of 50 percent shrubs along the screen walls shall be required.
- 2. Any loading dock with opening exposed to an adjoining property or public view shall be required to be fully screened from view and designed as specified in paragraph 1 above. The screen wall shall have a minimum height of 10 feet. Plant shade trees at a minimum of 25′ o.c. or small ornamental trees at a minimum of 10′ o.c. the full length of the wall along with minimum of 50% coverage of shrubs. (See Figure 11)

8.8.8.4 Taxi Way Landscape Restriction

To meet all FAA regulations.

8.8.5 <u>Hardscape standards</u>

8.8.8.5.1 Sidewalk connection

- 1. Sidewalks shall be permitted only to provide for internal landside circulation on leasehold property. Additional sidewalks may be required by the City of Jacksonville.
- 2. Sidewalks shall meet the requirements of the City of Jacksonville Department of Public Works.
- 3. Sidewalks shall be designed and pedestrian roadway crossings located to minimize pedestrian/vehicle conflicts and to provide

- adequate site distance for both the pedestrians and the vehicle drivers. Proper warning signs and special markings shall be provided if deemed necessary by the Authority.
- 4. Boulevard, secondary and collector roads shall have sidewalks minimum 6 feet in width along both sides. A 6-foot wide sidewalk along one side of service road is required.
- 5. All the sidewalks shall be connected. Handicap ramps shall be located at all pedestrian crossings of streets, drives and all other VUA in accordance with Florida Building Code 2004, Chapter 11, Florida Accessibility Code.

8.8.9 XERISCAPE

Xeriscape is a set of landscape design and maintenance principles that promote good horticultural practice and the economic and efficient use of water. The term Xericape is the registered trademark of the National Xericape Council and means water conserving, drought tolerant landscaping or simply the use of appropriate plant materials that do not require special attention and which require little supplemental water to grow properly. Xeriscape designs do not resemble desert landscapes, but reflect the lush traditional appearance of Florida gardens because water restrictions have become a common occurrence in Northeast Florida, the county is incorporating water conserving landscape standards into this Section.

Use of Xeriscape principles shall be required for the Cecil Commerce Center development and be implemented through the following standards:

- 1. Design Trees for which points have been awarded under City of Jacksonville Zoning Code Chapter 356, Part 12, Landscape and Tree Protection Regulations shall be retained and incorporated into the site plan. Installed trees and plant materials shall be grouped together with plants of the same water use needs into zones. The water use zones shall correlate to the water use zone designations of plants listed in Plant Material List in Section 4.13 and as described below. Plant species may be grouped with other plants of the same water use zone or with plants of a higher water use zone. Plant species of a higher water use zone shall not be placed in a lower water use zone. The water use zones shall be shown on the landscape plan. All newly installed plants require regular, moderately applied watering for the first year to become established. Installed trees and vegetation shall be spaced and located to accommodate their mature size on the site. The water use zones are as follows:
 - a) <u>High Water Use Zone</u> A high water use zone consists of plants that are associated with moist soils and require supplemental water in addition to natural rainfall to survive. This zone includes most turf grass areas.
 - b) <u>Moderate Water Use Zone</u> Plants that survive on natural rainfall with supplemental water during seasonal dry periods. This zone includes turf grass area.
 - c) <u>Low Water Use Zone</u> A low water use zone consists of plants that survive on natural rainfall without supplemental water.

- 2. Plant Selection Plant material shall be selected that is best suited to withstand the physical growing and soil conditions which are found in the microclimate of each particular location on the site. Plant species that are freeze and drought tolerant are preferred. Plant required to be installed by this Section shall be selected from Plant Material List in Section 8.13.
- 3. Turf grass Turf grass areas shall be consolidated and limited to those areas on the site that receive pedestrian traffic, provide for recreational uses, or require soil erosion control such as on slopes or in swales, or where turf grass is used as a design unifier, or other similar practical use. The Landscape Plan shall label the use of turf areas.
- 4. Mulch A layer of organic mulch to a minimum depth of two inches shall be specified on the landscape plans in plant beds and around individual trees in turf grass areas. Mulch shall not be required in annual beds.

8.8.10 IRRIGATION REQUIREMENT

The irrigation system shall be designed to correlate to the organization of plants into zones as described in Section 8.9 Xeriscape. The water use zones shall be shown on the Irrigation Plan when required by this Section. Irrigation shall be required as follows:

- 1. <u>High Water Use Zone</u> All portions of high water use zones shall be provided with central automatic irrigation systems.
- 2. <u>Moderate Water Use Zone</u> All portions of moderate water use zones shall be provided with a readily available water supply.
- 3. <u>Low Water Use Zone</u> All portions of low water use zones shall be provided with a readily available water supply or located such that watering from a portable source is possible.

Retained trees, shrubs and native plant communities need not be irrigated, unless directed to do so by the landscape reviewer as part of an encroachment permit. Turf grass areas shall be irrigated on separate irrigation zones from tree, shrub and groundcover beds. Reclaimed or non-potable water shall be used for irrigation if a source is determined to be available by the City of Jacksonville. Moisture sensor and/or rain gauge equipment shall be required on automatic irrigation systems to avoid irrigation during periods of sufficient rainfall. The use of low volume, emitter, or target irrigation is preferred for trees, shrubs and groundcovers. No significant irrigation overthrow shall be allowed onto impervious surfaces.

The DEVELOPER requires, whenever possible and reasonable, the use of ponds, lakes and retention areas as sources of irrigation water. Whenever possible, the DEVELOPER shall provide an easement for irrigation pipe access to these water bodies. When sources of retained water in lakes and ponds are readily available to OWNERS of Cecil Commerce sites, the DEVELOPER reserves the right to withhold approval of irrigation systems using community water as the sole source of irrigation water.

8.8.11 MAINTENANCE REQUIREMENT

All landscaping shall be maintained in a neat, clean and healthy condition. This shall include proper pruning, mowing of lawns, weeding, removal of litter, fertilizing, replacement of plants when necessary and the regular watering of all

plantings. The failure of an OWNER to do so or to promptly remove and replace any dead landscape material shall constitute a violation of the terms and conditions of the Development Guidelines.

Once a landscape plan has been approved by the DEVELOPER for a particular site, the OWNER shall develop and maintain the site in strict accordance with the approved landscape plan. Thereafter, until amended or waived by the DEVELOPER, the requirements and representation set forth on the approved landscape plan shall be deemed imposed upon the site as if such landscape plan has been made a part of the Protective Covenants.

Upon approval by the DEVELOPER of the landscape plan and the construction plan, the OWNER will not change or modify the plan or the site landscaping installed pursuant to such approved plan without the expressed, prior written approval of the DEVELOPER.

The OWNER shall require 60 day contractor-maintenance clause and 1 year contractor-guarantee on tree watering and irrigation equipment in all landscape contracts.

Maintenance shall include, but is not limited to, the replacement of plants damaged by insects, diseases, vehicular traffic, acts of God, and vandalism. Necessary replacement shall be made as required, but in no case more than 30 days after notification by the DEVELOPER. OWNER maintenance shall include all areas of the site extending to front, rear and side property lines including those areas within the public right-of-ways extending from the edge of paving to the property lines. In addition, any property having a front, side or backyard on a public street shall maintain an area extending from the edge of off-street parking to the back of the city curb and gutter on a weekly basis.

8.8.12 SWALES AND EROSION CONTROL

All areas with slopes of 6:1 or greater, or areas prone to erosion shall be sodded or planted with low maintenance plant material or groundcover to maintain smooth slopes and to prevent erosion.

Acceptable plant materials shall include either sod, groundcovers or low growing shrubs as appropriate.

Swales shall have side slopes and back slopes of no steeper than 5:1. Normal swale sections shall be designed to store water as required by governmental agencies.

Runoff may be accumulated in the swales up to but not above the point where flooding of parking areas, streets or drives would occur.

8.8.13 ACCEPTABLE/SUGGESTED PLANT MATERIAL LIST

1. Street trees

All street trees shall have a minimum 6' clear trunk height.

Botanical Name	Common Name	Min.	Min.	Min.
		<u>Ht.</u>	Spd.	<u>Cal.</u>
Ilex opaca	American Holly	8' – 12'	4' - 6'	2.5" - 3"
Ilex x attenuata 'East	East Palatka	$8^{\prime}-12^{\prime}$	4' - 6'	2.5" - 3"
Palatka'	Holly			
Ilex x attenuate 'Savannah'	Savannah Holly	8' – 12'	4' - 6'	2.5" - 3"
Quercus laurifolia	Laurel Oak	12'	8'	3.5"
Quercus Virginiana	Live Oak	12'	8'	3.5"

2. Approved plant material list

Н	High water use plant species associated with wetlands or moist soils; requires supplemental irrigation in addition to natural rainfall. This
11	zone includes most manicured turf grass areas.
	Moderate water use, drought tolerant plant species that survive on
M	natural rainfall; requires supplemental irrigation during seasonal dry
141	periods to maintain attractive appearance. This zone includes St.
	Augustine, Bahia and other turf grass areas.
T	Low water use drought tolerant plant species; will survive on natural
L	rainfall without supplemental irrigation.

NATIVE CANOPY TREES (Mature size 40' or more in height)

Botanical Name	Common Name	Water Zone
Acer rubrum	Red Maple	H, M
Quercus laurifolia	Laurel Oak	L
Quercus nigra	Water Oak	Н, М
Quercus virginiana	Live Oak	M, L

NON-NATIVE CANOPY TREES (Mature size 40' or more in height)

Botanical Name	Common Name	Water Zone
Washingtonia robusta	Washington Palm	L

NATIVE UNDERSTORY TREES (Mature size 12' to 40' height) AND PALMS

Botanical Name Common Name Water Zone

Acer barbatum spp. Floridanum	Florida Maple	M
Cornus florida	Flowering Dogwood	H, M
Ilex spp.	Holly	L
Myrica cerifera	Wax Myrtle	M, L
Prunus caroliniana	Cherry Laurel	M, L
Sabal palmetto	Cabbage Palm	L

NON-NATIVE UNDERSTORY TREES (Mature size 12' to 40' height) AND PALMS

Common Name	Water Zone
Loquat	M
Treeform Holly	M, L
Golden Raintree	M
Crape Myrtle	M, L
Waxleaf Privet	M, L
Glossy Privet	M
Deciduous Magnolia	Н, М
Chinese Elm	M, L
	Loquat Treeform Holly Golden Raintree Crape Myrtle Waxleaf Privet Glossy Privet Deciduous Magnolia

NATIVE SHRUBS, SMALL PALMS AND CYCADS

<u>Botanical Name</u>	Common Name	Water Zone
Myrica cerifera	Wax Myrtle	M, L

NON-NATIVE SHRUBS, SMALL PALMS AND CYCADS

Botanical Name	Common Name	Water Zone
Cycas revolute	Sago Palm	L
Eleagnus punggens	Silverthorn	M, L
Ilex spp.	Shrubform Holly	M
Juniperus spp.	Juniper	M, L
Ligustrum japonica	Waxleaf Privet	M, L
Ligustrum sinensis	Chinese Privet	M, L
Nerium oleander	Oleander	M, L
Pittosporum tobira	Pittosporum	Н, М
Podocarpus macrophyllus	Podocarpus	M, L
Raphiolepis indica	Indian Hawthorn	M, L
Rhododendron spp.	Azalea	Н, М
Ternstroemia gymnanthera	Cleyera	M, L
Trachycarpus fortunei	Windmill Palm	L
Viburnum suspensum	Sandankwa Viburnum	H
Photinia glabra	Red Tip Photinia	L

NATIVE GROUNDCOVERS

Botanical Name	Common Name	Water Zone
Crinum spp.	Crinum Lily	M
Zambia pumila	Coontie	M

NON-NATIVE GROUNDCOVERS

Botanical Name	Common Name	Water Zone
Ajuga reptans	Bugleweed	H
Aspidistra elatior	Cast-Iron Plant	M
Cyrtomium falcatum	Holy Fern	M
Dietes vegeta	African Iris	M, L
Hedera canariensis	Algerian Ivy	L
Hedera helix	English Ivy	L
Hemerocallis spp.	Daylily	M, L
Juniperus spp.	Juniper	M, L
Liriope muscari	Liriope spp.	M
Nandina domestica	Heavenly Bamboo	M, L
Ophiopogon japonicus	Mondo Grass	L
Pittosporum tobira	Dwarf Pittosporum	H, M
Protasparagus densiflorus	Asparagus Fern	M, L
Trachelospermum asiaticum	Asian Jasmine	L
Trachelopermum jasminoides	Confederate Jasmine	L
Tulbaghia violacea	Society Garlic	M, L
Vinca major	Bigleaf Periwinkle	M

NON-NATIVE VINES

Botanical Name	Common Name	Water Zone
Hedera helix	English Ivy	L
Hemerocallis spp.	Daylily	M, L
Trachelospermum asiaticum	Asian Jasmine	L
Trachelospermum jasminoides	Confederate Jasmine	L

ANNUALS AND PERENNIALS (ENCOURAGE BUT NOT LIMITED TO)

Botanical Name	<u>Common Name</u>	
Tagatas enn	Marigold	

Tagetes spp. Marigold

Viola tricolor hortensis Garden Pansy

Zinnia spp. Zinnia

Antirrhinum majus Snapdragon

Chrysanthemum hybrids Chrysanthemum

Portulaca grandiflora Rose-Moss Portulaca

Calendula officinalis Pot Marigold

Ajuga reptans Carpet Bugleweed

Helianthus annuus Sunflower

Yucca filamentosa Adam's Needle

Sedum acre Goldmoss

Lobularia maritima Sweet Alyssum

Gerbera jamesonii Transvaal Daisy

Gaillardia aristata Blanket Flower

Delphinium spp. Delphinium

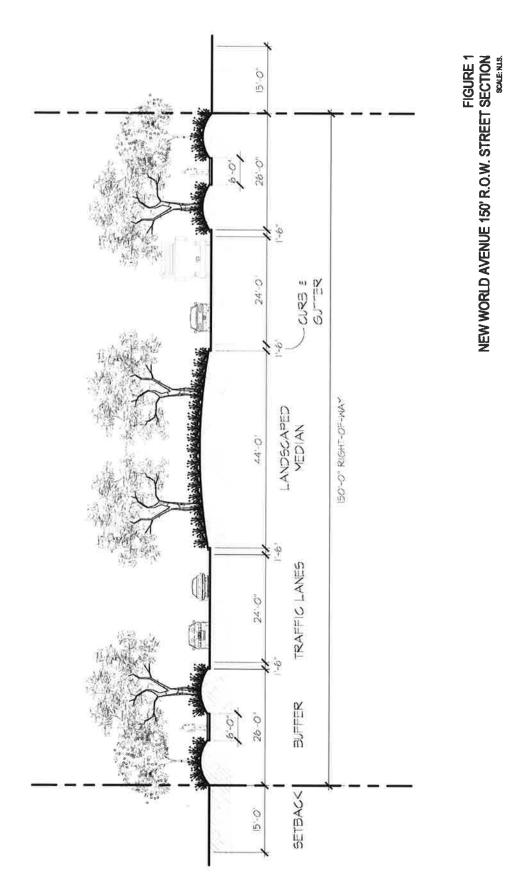
Salvia farinacea Blue Sage

LAWN

St. Augustine Floratan shall be used at the grassed areas where to be located in full sun. Where areas are located in shaded areas of the site, suitable ornamental plants shall be provided.

8.8.14 FIGURES / DIAGRAMS

- Figure 1 New World Avenue 150' R.O.W. Street Section
- Figure 2 New World Avenue 200' R.O.W. Street Section
- Figure 3 Landscape Treatment Along Right-Of-Ways
- Figure 4 Berms Adjacent to Parking Lots and Drives
- Figure 5 Secondary / Collector Roads 85' R.O.W. Street Section
- Figure 6 Landscape Treatment Between Adjacent Parcels
- Figure 7 Landscape Treatment of Street Corner, Typ.
- Figure 8 Parking Islands and Median
- Figure 9 Pedestrian Corridor
- Figure 10 Landscape Treatment Between Bldgs and Parking
- Figure 11 Loading Dock Screening
- Figure 12 Tree Protection Detail



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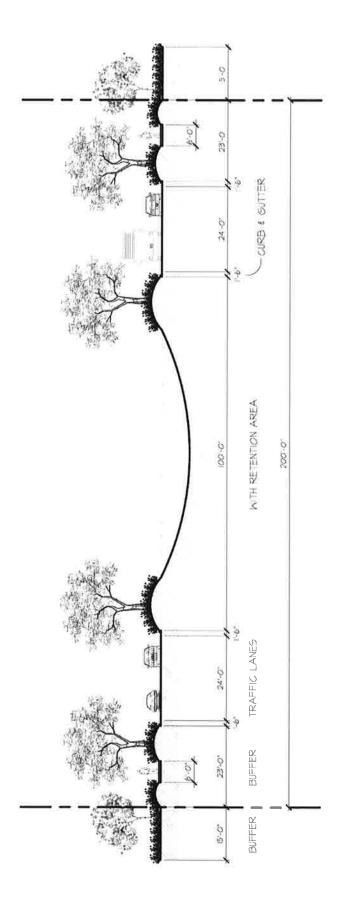


FIGURE 2 NEW WORLD AVENUE 200' R.O.W. STREET SECTION SOME: NIS.

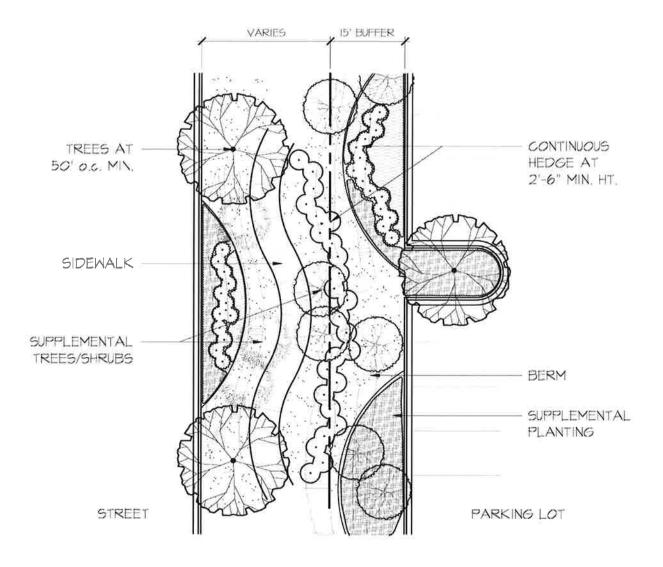


FIGURE 3
LANDSCAPE TREATMENT ALONG RIGHT-OF-WAYS

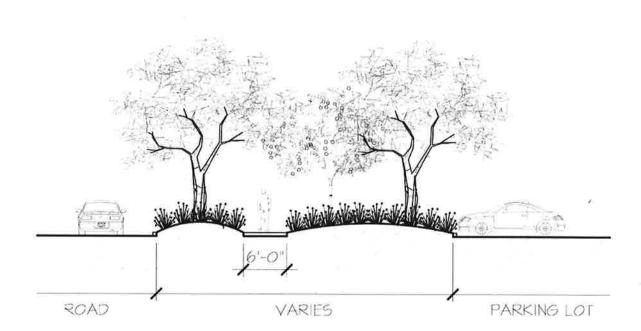


FIGURE 4
BERMS ADJACENT TO PARKING LOTS AND TRAFFIC LANES
8CALE: N.I.B.

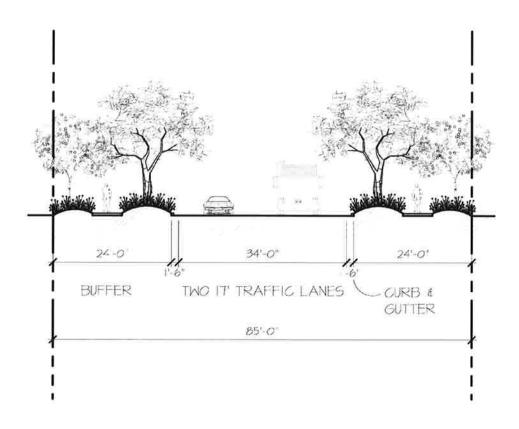


FIGURE 5 SECONDARY / COLLECTOR ROADS 85' R.O.W. STREET SECTION SCALE 1"=1/4"

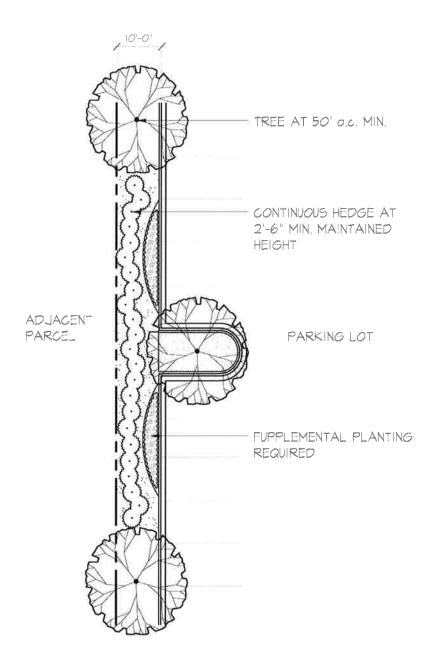


FIGURE 6
LANDSCAPE TREATMENT BETWEEN ADJACENT PARCELS
SCALE: 11-1/4

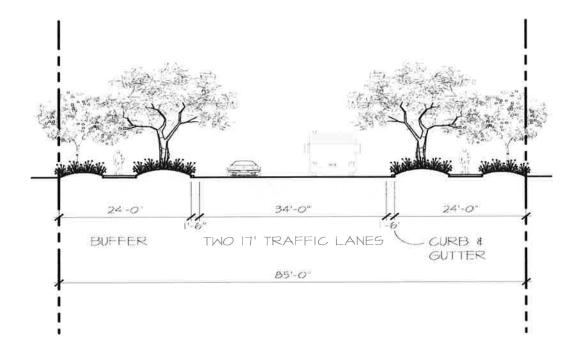


FIGURE 6 SECONDARY / COLLECTOR ROADS 85' R.O.W. STREET SECTION SOME 19-3/4*

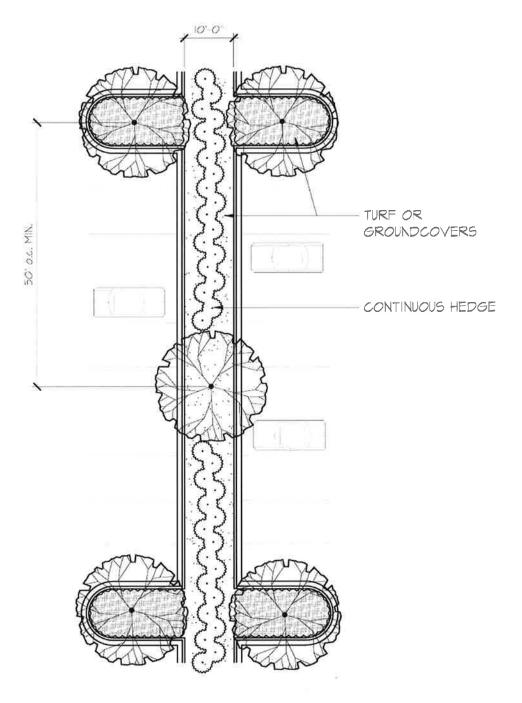


FIGURE 8
PARKING ISLANDS AND MEDIAN
SCALE: 1'= 1/4"

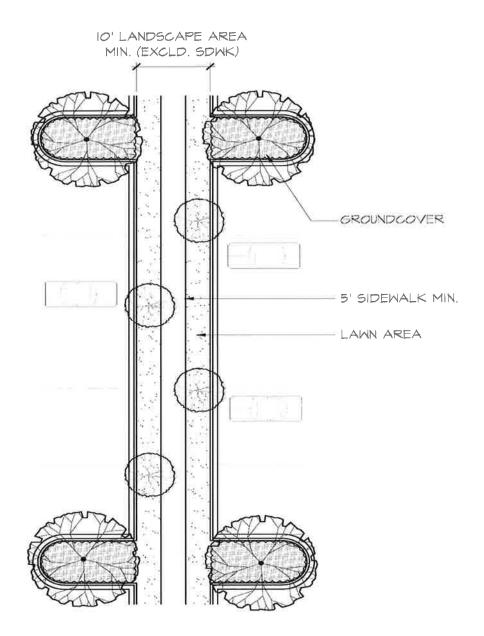


FIGURE 9
PEDESTRIAN CORRIDOR
SCALE: 1'= 1/4"

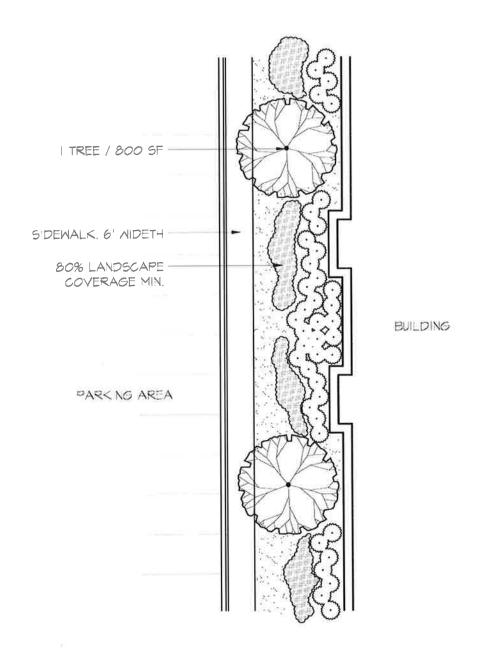


FIGURE 10
LANDSCAPE TREATMENT BETWEEN BLDGS AND PARKING
SCALE: 1'= 1/4'

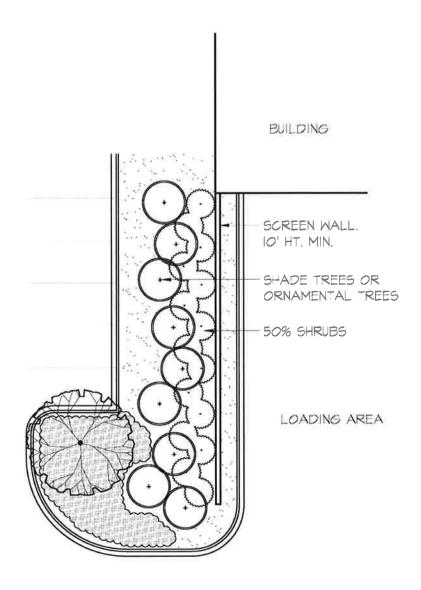


FIGURE 11 LOADING DOCK SCREENING SOLE: 1'=%

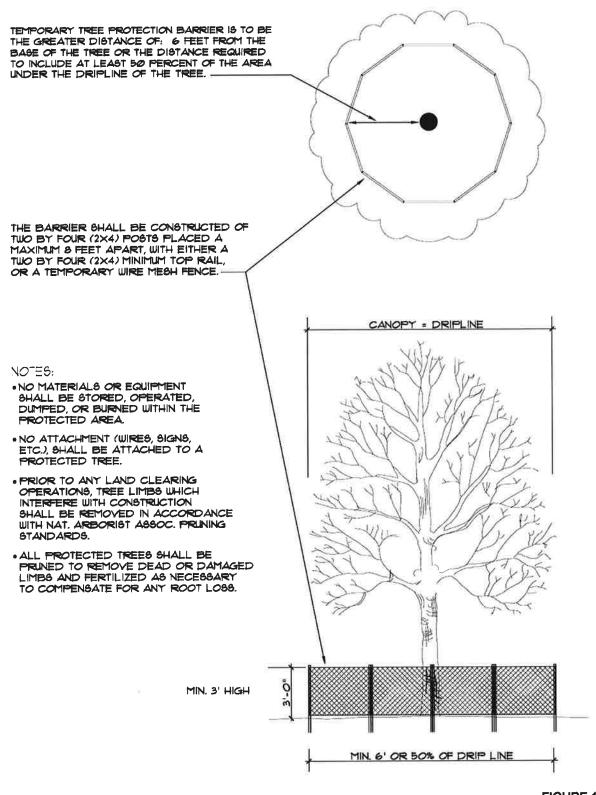


FIGURE 12
TREE PROTECTION DETAIL