323 Selective Clearing and Grubbing Plans

323.1 General

Selective Clearing and Grubbing Plan sheets are developed when existing vegetation, trees, and palms are to be protected, relocated, or removed. ***FDM 229*** contains the criteria to determine the type and the limits of selective clearing and grubbing.

Place Selective Clearing and Grubbing Plan sheets in accordance with ***FDM 302***.

323.2 Selective Clearing and Grubbing Plan Sheet

Selective Clearing and Grubbing Plan sheets include the following information, as applicable:

- Extent and type of type of clearing operation required within the project R/W limits
- Root pruning and branch pruning
- Plant preservation areas
- Tree protection barriers

For an example of a Selective Clearing and Grubbing Plan sheet, see ***Exhibit 323-1***.

323.2.1 Sheet Set Up

Use the standard plan format sheet provided in the FDOT CADD Software to prepare Selective Clearing and Grubbing Plan sheets. Refer to the ***CADD Manual*** for CADD standards associated with selective clearing and grubbing.

Show existing topography and the centerline of construction with stationing, proposed edge of roadway pavement, R/W lines, limits of construction, canopy of existing trees, limits of vegetation to remain, tree protection barrier, and trees to be relocated. Include a legend on each sheet depicting the type of selective clearing and grubbing operation to be performed.

Place a north arrow and scale in a conspicuous location, typically in the upper right portion of the sheet. Use a scale that provides clarity and legibility. Use appropriate match lines when necessary.

When tree canopies overlap, the entire outline of the tree canopies can be shown as one mass. Show tree protection barrier and root pruning locations. When existing trees to remain are to be root pruned, the trees are assigned a label which is shown adjacent to the tree trunk. Trees that are to be branch pruned may also be labeled in the plans. Each tree does not need to be labeled when a group of trees are to be branch pruned. Label areas of root or branch pruning on the plans or in the Work Table. The disposition of trees to be relocated is shown on Tree Disposition sheets. For an example of a Tree Disposition Sheet and a Tree Disposition Chart, see ***Exhibit 323-3*** and ***323-4***.

Where clarification is needed, trees to be removed may be noted on the plan.

Delineate areas of tree protection and plant preservation with tree protection barriers. Tree protection barrier may be used to delineate areas of selective clearing and grubbing. When a plant preservation area is adjacent to a R/W fence to remain, or similar permanent barrier, tree protection barrier parallel to the permanent barrier may be omitted.

323.3 Selective Clearing and Grubbing Detail Sheet

The notes required for selective clearing and grubbing vary depending on the project. It may be desirable to provide a separate Selective Clearing and Grubbing Detail Sheet to display the notes, symbols, and details that are applicable to the project. For an example of a Selective Clearing and Grubbing Detail Sheet, see ***Exhibit 323-2***.

323.3.1 Work Table

For an illustration of a Selective Clearing and Grubbing Work Table, see ***Exhibit 323-2***.

Selective clearing and grubbing areas are defined and labeled by location. Location numbers can be based on roadway stationing numbers, quadrants or sheet numbers.

Provide a Selective Clearing and Grubbing Work Table when the project includes selective removal of vegetation. As a minimum, the table includes:

(1) Abbreviated name of primary species to preserve

(2) Abbreviated name of primary species targeted for removal

(3) Work Description

Other information that may be included in the table:

(1) Florida Exotic Pest Plant Council Category I species to be removed

(2) Estimated percent of Category I vegetative cover for each area

(3) Additional species to target for removal or preservation

(4) Root and branch pruning

(5) Tree stumps to be removed or to remain

(6) Additional Information

323.3.2 Species Legend and Work Table Notes

Include a species legend with the Selective Clearing and Grubbing Work Table. The legend is to show all plant species noted in the table. Plant species are typically abbreviated by the first letter of the genus and the first letter of the species of the botanical name; e.g., show Live Oak, *Quercus virginiana* as QV.

Category 1 plants (as listed by the ***Florida Exotic Pest Plant Council***) are undesirable, and in most cases should be listed to be removed. The designer may call out Category 1 plants that are to remain in the Work Table Notes or in the Selective Clearing and Grubbing Work Table. Undesirable native species to be targeted for removal can also be listed.

Provide the following note on the Selective Clearing and Grubbing Detail sheet:

> "Primary" species to target (remove) or preserve are those that were determined to be most prevalent in that area, and are not intended to be the only species that occur.

Provide a note describing follow up treatment needed to prevent recurrence of removed plants.

323.4 Tree Disposition Sheets

Tree Disposition Sheets are used when there are trees to be relocated. For an example of a Tree Disposition Sheet, see ***Exhibit 323-3***.

Tree Disposition Sheets may be omitted if tree relocations can be clearly and legibly shown on Selective Clearing and Grubbing Plan sheets.

Note the following on plans:

- Proper root pruning methods and time schedule for each species of plant to be relocated.

- Contractor is responsible for coordination with an arborist for the care of vegetation during construction and during root and branch pruning

Detail tree bracing that is not covered by ***Standard Plans***, ***Index 580-001*** in the plans. Provide recommended root pruning procedures and time schedule. Provide the above information as plan notes or details to the sheet.

Tree Disposition Sheets show the condition of each tree, and whether each tree is to remain, to be removed, or to be relocated. Tree Disposition Sheets and Tree Disposition Charts (see ***FDM 323.5***) list the trees on a site, and the tree numbers which must correspond to the tag ID numbers. Groups of trees to remain may be shown as a single cluster and assigned one representative tree number. Include the representative tree number on the Tree Disposition Chart and noted as 'Group of Trees' in the notes column.

Tree Disposition Sheets are typically prepared as part of the Selective Clearing and Grubbing Plan Sheets in the Roadway Plans set. When prepared as part of a Landscape plan set, place the sheets prior to the Landscape Plan sheets.

323.5 Tree Disposition Chart

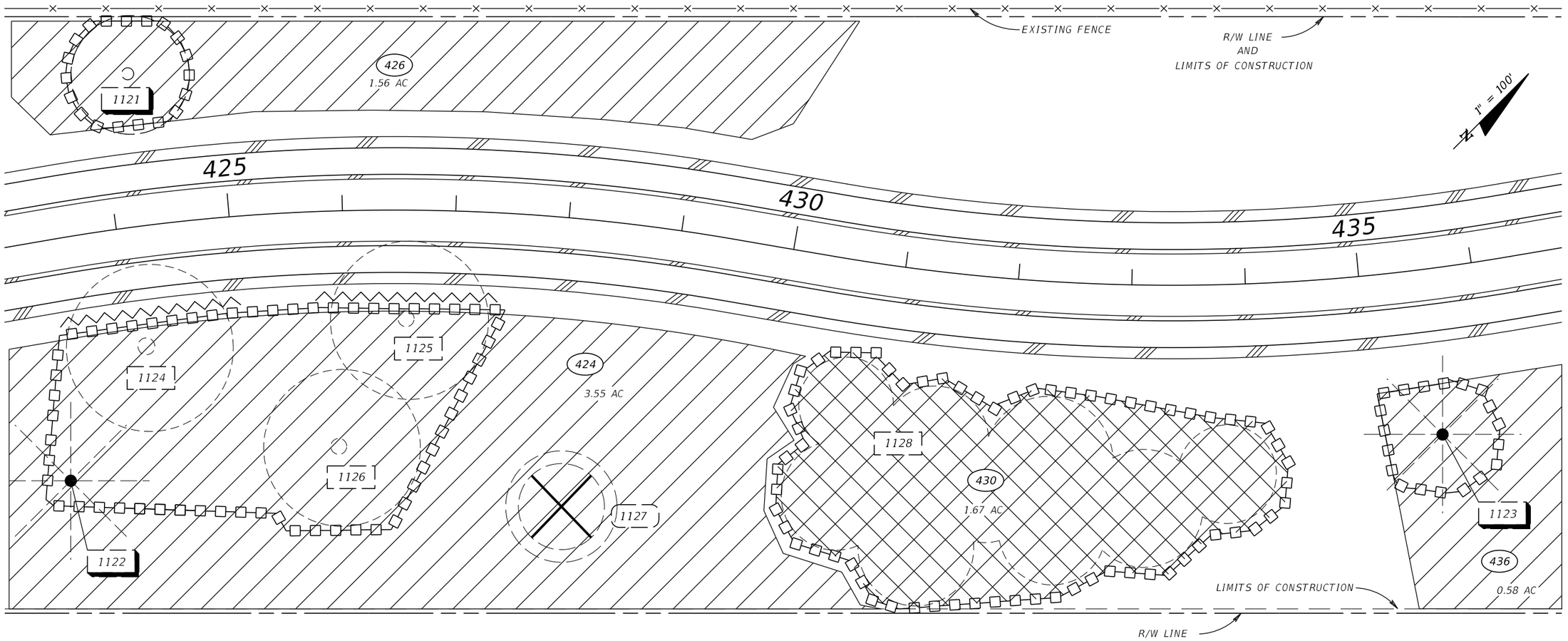
A plan sheet titled "Tree Disposition Chart" should accompany the Tree Disposition Sheets, and include the following in table format:

- The identification number of each tree
- Sheet number
- Botanical and common name of each tree
- Diameter at breast height (DBH) of each tree
- Approximate Tree height (feet)
- Approximate Canopy spread (feet)
- Condition of the tree including health, structure, damage
- Label the disposition of each tree as "To Remain," "To Be Removed," or "To Be Relocated." For CADD symbols refer to ***Exhibit 323-3***.
- If a tree or palm is removed following the Vegetation Survey,, note 'Tree/Palm does not exist'

Site-specific requirements may be included under the "Notes" column. Site-specific requirements may include:

- Watering schedule
- Fertilizer mix
- Fertilizer schedule
- Backfill or soil amendments.

An example of a Tree Disposition Chart is included as ***Exhibit 323-4***.



LEGEND

- TREE PROTECTION BARRIER
- ROOT PRUNING LINE
- CANOPY OF EXISTING TREE (DASHED LINE DENOTES DRIPLINE OF TREE)
- TREES TO BE REMOVED
- SELECTIVE CLEARING AND GRUBBING AREAS (XX)
- PLANT PRESERVATION AREAS (XX)
- XXXX EXISTING TREE TO REMAIN
- XXXX EXISTING TREE TO BE REMOVED
- XXXX EXISTING TREE TO BE RELOCATED

NOTES

1. TREE DESIGNATION (ID) NUMBERS ARE DETAILED ON THE TREE DISPOSITION SHEETS.

Exhibit 323-1
Date: 1/1/19

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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L.A. NO.: 99999
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ORLANDO, FL 32801
CERTIFICATE OF AUTHORIZATION: 98765

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 22	BAY	123456-1-52-01

SELECTIVE CLEARING & GRUBBING PLAN

SHEET NO.

9/26/2018 4:41:29 PM

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SELECTIVE CLEARING & GRUBBING WORK TABLE

AREA ID	WORK DESCRIPTION	EST. % OF PRIMARY SPECIES TO TARGET	PRIMARY SPECIES TO TARGET	SPECIES TO REMAIN	ADDITIONAL INFORMATION
424	DESIGNATES AREAS WHERE CATEGORY #1 INVASIVE, EXOTIC VEGETATION AND NATIVE UNDERSTORY WILL BE SELECTIVELY REMOVED. LARGE DESIREABLE TREES TO REMAIN. ALL TREES UNDER 4" DBH TO BE REMOVED.	75%	JP, ST, LY, AA	PE, QV, SP	RAISE CANOPY OF QV BY PRUNING. REMOVE LARGE TREE DEBRIS OR GRIND ON SITE AND SPREAD IN UPLAND (NON-GRASSED) AREAS.
426	DESIGNATES AREAS WHERE ALL NATIVE VEGETATION WILL BE MOWED FLUSH WITH THE GROUND AND ALL CATEGORY #1 INVASIVE, EXOTIC VEGETATION WILL BE TREATED WITH HERBICIDES AND ALLOWED TO DIE IN PLACE.	100%	TS, ST, CW	NONE	INCLUDES REMOVAL OR MOWING OF WILLOWS AND WAX MYRTLE.
436	DESIGNATES AREAS WHERE CATEGORY #1 INVASIVE, EXOTIC VEGETATION WILL BE SELECTIVELY REMOVED FROM DESIREABLE VEGETATION TO REMAIN.	50%	JP, ST, LY	PE, QV, SP	

WORK TABLE NOTES

1. "PRIMARY" SPECIES TO TARGET (REMOVE) OR PRESERVE ARE THOSE THAT WERE DETERMINED TO BE MOST PREVALENT IN THAT AREA, AND ARE NOT INTENDED TO BE THE ONLY SPECIES THAT OCCUR.

   THE FOLLOWING ADDITIONAL UNDESIREABLE NATIVE SPECIES WILL BE TARGETED FOR REMOVAL IN ALL AREAS LISTED IN THE WORK TABLE:

   BOTANICAL NAME (COMMON NAME)
   MYRICA CERIFERA (SOUTHERN WAX MYRTLE)
   TYPHA SPP. (CATTAILS)

2. ESTIMATED PERCENTAGES OF INVASIVE EXOTIC VEGETATION ARE BASED ON FIELD OBSERVATIONS AND ARE SUBJECT TO CHANGE.

3. THE FOLLOWING CATEGORY #1 INVASIVE SPECIES WILL NOT BE TARGETED FOR REMOVAL:

   BOTANICAL NAME (COMMON NAME)
   SOLANUM TAMPICENSE (WETLAND NIGHTSHADE)
   PANICUM REPENS (TORPEDO GRASS)

SPECIES LEGEND

(SYM)	BOTANICAL NAME (COMMON NAME)
(AA)	ACACIA AURICULIFORMIS (EARLEAF ACACIA)
(ST)	SCHINUS TEREBINTHIFOLIUS (BRAZILIAN PEPPER)
(TS)	TYPHA SPP. (CATTAILS)
(JP)	SYZYGIUM CUMINI (JAVA PLUM)
(LY)	LYGODIUM SPP. (JAPANESE/OLD WORLD CLIMBING FERN)
(MC)	MYRICA CERIFERA (SOUTHERN WAX MYRTLE)
(PE)	PINUS ELLIOTTII (SLASH PINE)
(SP)	SABAL PALMETTO (SABAL PALM)
(QV)	QUERCUS VIRGINIANA (LIVE OAK)
(CW)	SALIX CAROLINIANA (COASTAL PLAIN WILLOW)

Exhibit 323-2
Date: 1/1/19

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SR 22	BAY	123456-1-52-01

SELECTIVE CLEARING AND GRUBBING DETAIL SHEET

SHEET NO.

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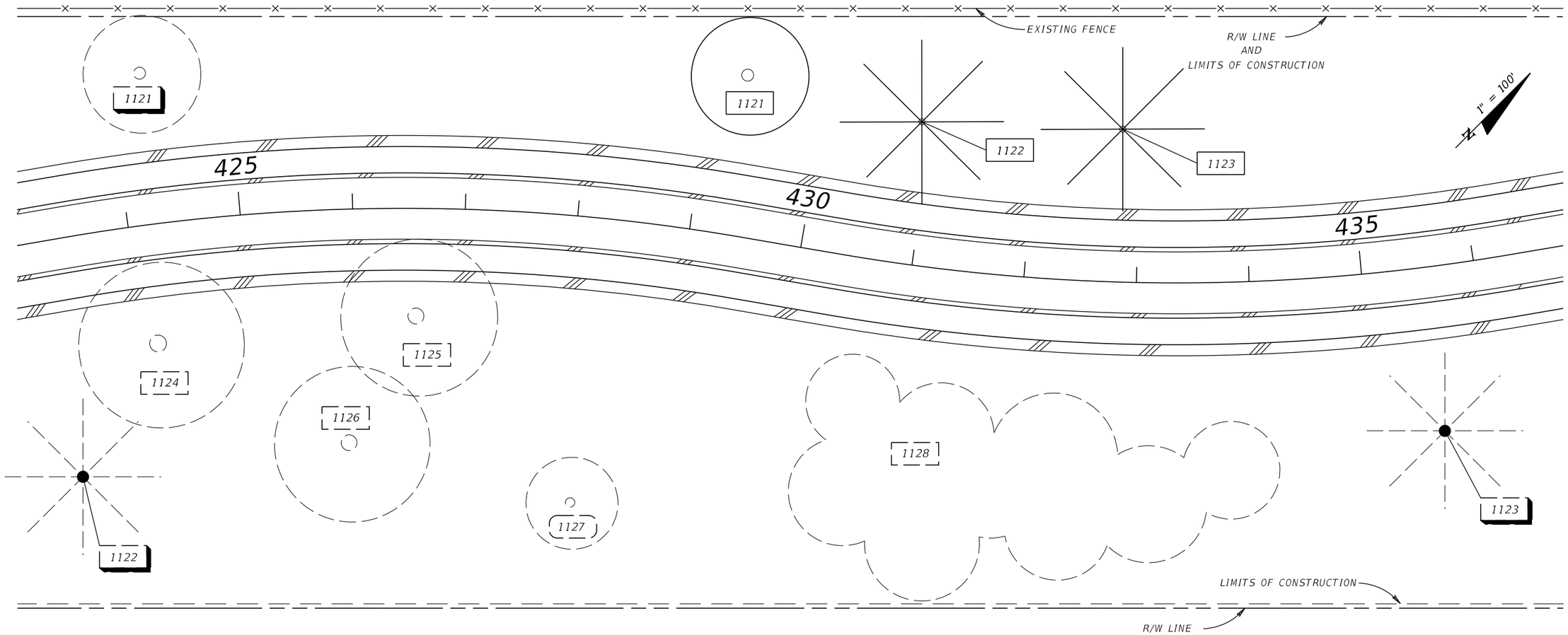

LEGEND

- XXXX — EXISTING TREE/ GROUP OF TREES TO REMAIN
- XXXX — EXISTING TREE TO BE REMOVED
- XXXX — EXISTING TREE TO BE RELOCATED
- XXXX — RELOCATED TREE
- EXISTING TREE
- RELOCATED TREE
- EXISTING PALM
- RELOCATED PALM

Exhibit 323-3
Date: 1/1/19

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 22	BAY	123456-1-52-01

TREE DISPOSITION SHEET

SHEET NO.

9/26/2018 4:43:03 PM

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SHEET NUMBER	TREE NO.	SYMBOL	BOTANICAL NAME	COMMON NAME	DBH (INCHES) (DIAMETER AT BREAST HEIGHT)	HEIGHT (FEET) (APPROX.)	SPREAD (FEET) (APPROX.)	LOCATION		CONDITION	DISPOSITION	NOTES
								STA.	OFFSET/SIDE			
TD-1	1121	QV	QUERCUS VIRGINIANA	LIVE OAK	4	16	7	424+20	130' LT	ABOVE AVERAGE	RELOCATE TO STA. 429+30, 145' LT	NURSERY MATERIAL PLANTED IN 2017 AS PART OF A LANDSCAPE PROJECT
TD-1	1122	RR	ROYSTONIA REGIA	ROYAL PALM	19	19 GW		423+60	210' RT	ABOVE AVERAGE	RELOCATE TO STA. 430+90, 130' LT	
TD-1	1123	RR	ROYSTONIA REGIA	ROYAL PALM	23	13 GW		435+70	140' RT	EXCELLENT	RELOCATE TO STA. 432+85, 135' LT	
TD-1	1124	QV	QUERCUS VIRGINIANA	LIVE OAK	16	30	35	424+25	108' RT	AVERAGE	REMAIN	
TD-1	1125	QV	QUERCUS VIRGINIANA	LIVE OAK	14	30	30	426+57	97' RT	ABOVE AVERAGE	REMAIN	
TD-1	1126	QV	QUERCUS VIRGINIANA	LIVE OAK	25	40	50	425+99	210' RT	ABOVE AVERAGE	REMAIN	LOCATED INSIDE PLANT PRESERVATION AREA #430, BOUNDED BY TREE PROTECTION BARRIER
TD-1	1127	QV	QUERCUS VIRGINIANA	LIVE OAK	6	20	25	427+95	300' RT	POOR	REMOVE	SEE SELECTIVE CLEARING AND GRUBBING SHEET
TD-1	1128	PC	PINUS CLAUSA	SAND PINE				430+70 - 434+95	RT	AVERAGE	REMAIN	GROUP OF PINES

Exhibit 323-4
Date: 1/1/19

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 22	BAY	123456-1-52-01

TREE DISPOSITION CHART

SHEET NO.

10/31/2018 9:17:17 AM

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