NEIGHBORHOOD TREE SUCCESSION AND INITIATION PLAN

Prepared for:
City of Coral Gables

Prepared By:
Curtis + Rogers Design Studio, Inc. and
Lisa Hammer, Horticulturist

June 2014

CURTIS+ ROGERS DESIGN STUDIO INC.

INTRODUCTION

Curtis + Rogers Design Studio, Inc. was retained by The City of Coral Gables Public Works Department to prepare a Neighborhood Tree Succession and Initiation Plan for the residential streets. The goals of the project were as follows:

1. Develop a program to ensure the longevity of the urban forest in the residential areas of Coral Gables, by replacing missing canopy
2. Promote species diversity within the City
3. Evaluate species based on their appropriateness for the area and their past performance
4. Identify new tree species for inclusion in tree pallette
5. Preserve the historical plant pallette themes

This project was divided into 4 tasks and they are as follows:

Task 1: Tree Inventory and Analysis
Task 2: Tree Mapping
Task 3: Preparation of the Neighborhood Tree Succession and Initiation Plan
Task 4: Presentation to City Commission

This report will summarize the process taken in each task and report the findings during the inventory and analysis portion. It will include maps showing the existing tree and palm locations, the locations of proposed tree and palm locations and an excel spreadsheet (in electronic format) with the information by street address. In addition, the report will include planting details, specifications and a probable order of costs.

TASK I - INVENTORY & ANALYSIS

In Task I, C+R was given the task to inventory and analyze all of the existing trees and palms (approximately 38,000 trees and palms) that are in the single family residential right of ways. C+R was also instructed to look at a particular sampling of the Coconut Palm streets to determine if Coconut Palms were appropriate for those streets.

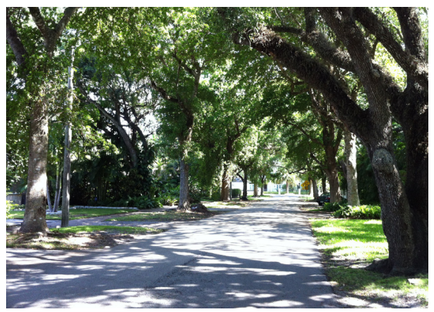


Photo 1- Oak Tree Street

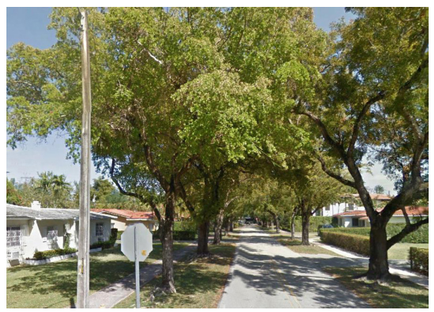


Photo 2- Black Olive Street

Photo 3- Coconut Palm Street

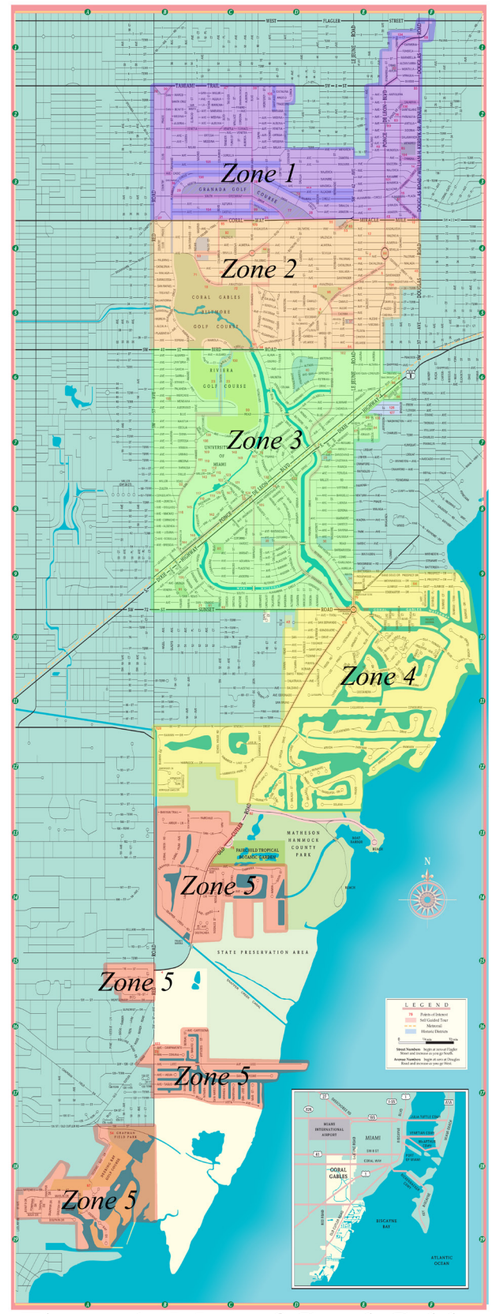


Figure 1- Map of Coral Gables

TASK I - INVENTORY & ANALYSIS

ID	UNIQUEID	ADDRESS	SUFFIX	STREET	ONSTR	FROMSTR	TOSTR	SIDE	SITE	SPP	DBH	COND	HIGHT
1820.00000	100	1412		MADRID ST	MADRID ST	MESSINA AV	ORTEGA AV	Front	2	SWIETENIA MAHOGANI	26	Fair	31-45 FT
1821.00000	1000	917		MEDINA AV	MEDINA AV	CAPRI ST	PIZARRO ST	Front	1	BUCIDA BUCERAS	8	Good	15-30 FT
1822.00000	10001	1556		MURCIA AV	RED RD	ALCALA AV	MURCIA AV	Side	2	BUCIDA BUCERAS	18	Good	15-30 FT
1823.00000	10002	1556		MURCIA AV	RED RD	ALCALA AV	MURCIA AV	Side	1	BUCIDA BUCERAS	15	Good	15-30 FT
1824.00000	10003	1569		ALCALA AV	ALCALA AV	RED RD	ALHAMBRA CR	Median	1	BUCIDA BUCERAS	9	Fair	15-30 FT
1825.00000	10004	1569		ALCALA AV	ALCALA AV	RED RD	ALHAMBRA CR	Median	2	BUCIDA BUCERAS	8	Good	15-30 FT
1826.00000	10005	1569		ALCALA AV	ALCALA AV	RED RD	ALHAMBRA CR	Median	3	BUCIDA BUCERAS	10	Good	15-30 FT
1827.00000	10006	1560		ALCALA AV	ALCALA AV	RED RD	ALHAMBRA CR	Front	2	BUCIDA BUCERAS	9	Good	15-30 FT
1828.00000	10007	1560		ALCALA AV	ALCALA AV	RED RD	ALHAMBRA CR	Front	1	BUCIDA BUCERAS	12	Good	15-30 FT
1829.00000	10008	1552		ALCALA AV	ALCALA AV	RED RD	ALHAMBRA CR	Front	2	BUCIDA BUCERAS	13	Good	15-30 FT
1830.00000	10009	1552		ALCALA AV	ALCALA AV	RED RD	ALHAMBRA CR	Front	1	BUCIDA BUCERAS	11	Good	15-30 FT
1831.00000	1001	921		MEDINA AV	MEDINA AV	CAPRI ST	PIZARRO ST	Front	1	BUCIDA BUCERAS	10	Fair	0-15 FT
1832.00000	10010	1542		ALCALA AV	ALCALA AV	RED RD	ALHAMBRA CR	Front	3	BUCIDA BUCERAS	10	Fair	15-30 FT
1834.00000	10012	1542		ALCALA AV	ALCALA AV	RED RD	ALHAMBRA CR	Front	2	BUCIDA BUCERAS	15	Good	15-30 FT
1835.00000	10013	1536		ALCALA AV	ALCALA AV	RED RD	ALHAMBRA CR	Front	2	BUCIDA BUCERAS	15	Fair	15-30 FT
1836.00000	10014	1536		ALCALA AV	ALCALA AV	RED RD	ALHAMBRA CR	Front	1	BUCIDA BUCERAS	12	Good	15-30 FT
1837.00000	10015	3700		ALHAMBRA CR	ALCALA AV	RED RD	ALHAMBRA CR	Side	1	BUCIDA BUCERAS	20	Good	31-45 FT
1839.00000	10017	3700		ALHAMBRA CR	ALHAMBRA CR	PLASENTIA AV	ALCALA AV	Front	2	QUERCUS VIRGINIANA	7	Good	15-30 FT
1840.00000	10018	3710		ALHAMBRA CR	ALHAMBRA CR	PLASENTIA AV	ALCALA AV	Front	1	BUCIDA BUCERAS	9	Good	31-45 FT
1841.00000	10019	3710		ALHAMBRA CR	ALHAMBRA CR	PLASENTIA AV	ALCALA AV	Front	2	BUCIDA BUCERAS	19	Good	31-45 FT
1842.00000	1002	1115		CAPRI ST	MEDINA AV	CAPRI ST	PIZARRO ST	Side	1	BUCIDA BUCERAS	7	Good	0-15 FT
1843.00000	10020	3711		ALHAMBRA CR	ALHAMBRA CR	PLASENTIA AV	ALCALA AV	Front	2	QUERCUS VIRGINIANA	2	Good	0-15 FT
1844.00000	10021	3711		ALHAMBRA CR	ALHAMBRA CR	PLASENTIA AV	ALCALA AV	Front	1	QUERCUS VIRGINIANA	2	Good	0-15 FT
1845.00000	10022	3613		ALHAMBRA CR	ALHAMBRA CR	ALCALA AV	MURCIA AV	Front	3	BUCIDA BUCERAS	29	Good	31-45 FT
1846.00000	10023	3613		ALHAMBRA CR	ALHAMBRA CR	ALCALA AV	MURCIA AV	Front	2	BUCIDA BUCERAS	7	Good	31-45 FT
1847.00000	10024	3613		ALHAMBRA CR	ALHAMBRA CR	ALCALA AV	MURCIA AV	Front	1	BUCIDA BUCERAS	32	Fair	31-45 FT
1848.00000	10025	3603		ALHAMBRA CR	ALHAMBRA CR	ALCALA AV	MURCIA AV	Front	1	BUCIDA BUCERAS	16	Good	15-30 FT
1849.00000	10026	3519		ALHAMBRA CR	ALHAMBRA CR	MURCIA AV	ALHAMBRA CR	Front	3	BUCIDA BUCERAS	18	Good	15-30 FT
1850.00000	10027	3519		ALHAMBRA CR	ALHAMBRA CR	MURCIA AV	ALHAMBRA CR	Front	2	BUCIDA BUCERAS	18	Good	15-30 FT
1851.00000	10028	3519		ALHAMBRA CR	ALHAMBRA CR	MURCIA AV	ALHAMBRA CR	Front	1	BUCIDA BUCERAS	18	Fair	15-30 FT
1852.00000	10029	3511		ALHAMBRA CR	ALHAMBRA CR	MURCIA AV	ALHAMBRA CR	Front	5	DELONIX REGIA	5	Good	0-15 FT
1853.00000	1003	1115		CAPRI ST	MEDINA AV	CAPRI ST	PIZARRO ST	Side	2	BUCIDA BUCERAS	11	Poor	15-30 FT
1854.00000	10030	3511		ALHAMBRA CR	ALHAMBRA CR	MURCIA AV	ALHAMBRA CR	Front	4	BUCIDA BUCERAS	21	Good	31-45 FT
1855.00000	10031	3511		ALHAMBRA CR	ALHAMBRA CR	MURCIA AV	ALHAMBRA CR	Front	2	BUCIDA BUCERAS	23	Good	31-45 FT
1857.00000	10033	3425		ALHAMBRA CR	ALHAMBRA CR	TARAGONA DR	SALVATIERRA DR	Front	3	BUCIDA BUCERAS	22	Good	31-45 FT
1858.00000	10034	3425		ALHAMBRA CR	ALHAMBRA CR	TARAGONA DR	SALVATIERRA DR	Front	2	BUCIDA BUCERAS	20	Good	31-45 FT
1859.00000	10035	3425		ALHAMBRA CR	ALHAMBRA CR	TARAGONA DR	SALVATIERRA DR	Front	1	BUCIDA BUCERAS	20	Good	31-45 FT
1860.00000	10036	3417		ALHAMBRA CR	ALHAMBRA CR	SALVATIERRA DR	TREVINO AV	Front	5	BUCIDA BUCERAS	22	Good	31-45 FT
1861.00000	10037	3417		ALHAMBRA CR	ALHAMBRA CR	SALVATIERRA DR	TREVINO AV	Front	4	BUCIDA BUCERAS	24	Good	31-45 FT
1862.00000	10038	3417		ALHAMBRA CR	ALHAMBRA CR	SALVATIERRA DR	TREVINO AV	Front	3	BUCIDA BUCERAS	13	Good	31-45 FT
1863.00000	10039	3417		ALHAMBRA CR	ALHAMBRA CR	SALVATIERRA DR	TREVINO AV	Front	2	BUCIDA BUCERAS	8	Fair	31-45 FT
1864.00000	1004	1201		CAPRI ST	MEDINA AV	CAPRI ST	PIZARRO ST	Side	2	BUCIDA BUCERAS	13	Fair	15-30 FT
1865.00000	10040	3417		ALHAMBRA CR	ALHAMBRA CR	SALVATIERRA DR	TREVINO AV	Front	1	BUCIDA BUCERAS	24	Good	31-45 FT
1866.00000	10041	3405		ALHAMBRA CR	ALHAMBRA CR	SALVATIERRA DR	TREVINO AV	Front	1	PLANTING SITE LARGE	0	N/A	N/A
1867.00000	10042	3400		ALHAMBRA CR	ALHAMBRA CR	SALVATIERRA DR	TREVINO AV	Front	1	BUCIDA BUCERAS	25	Good	31-45 FT
1868.00000	10043	3400		ALHAMBRA CR	ALHAMBRA CR	SALVATIERRA DR	TREVINO AV	Front	2	BUCIDA BUCERAS	24	Good	31-45 FT

Figure 2- Sample Excel Spreadsheet

TASK I - INVENTORY & ANALYSIS

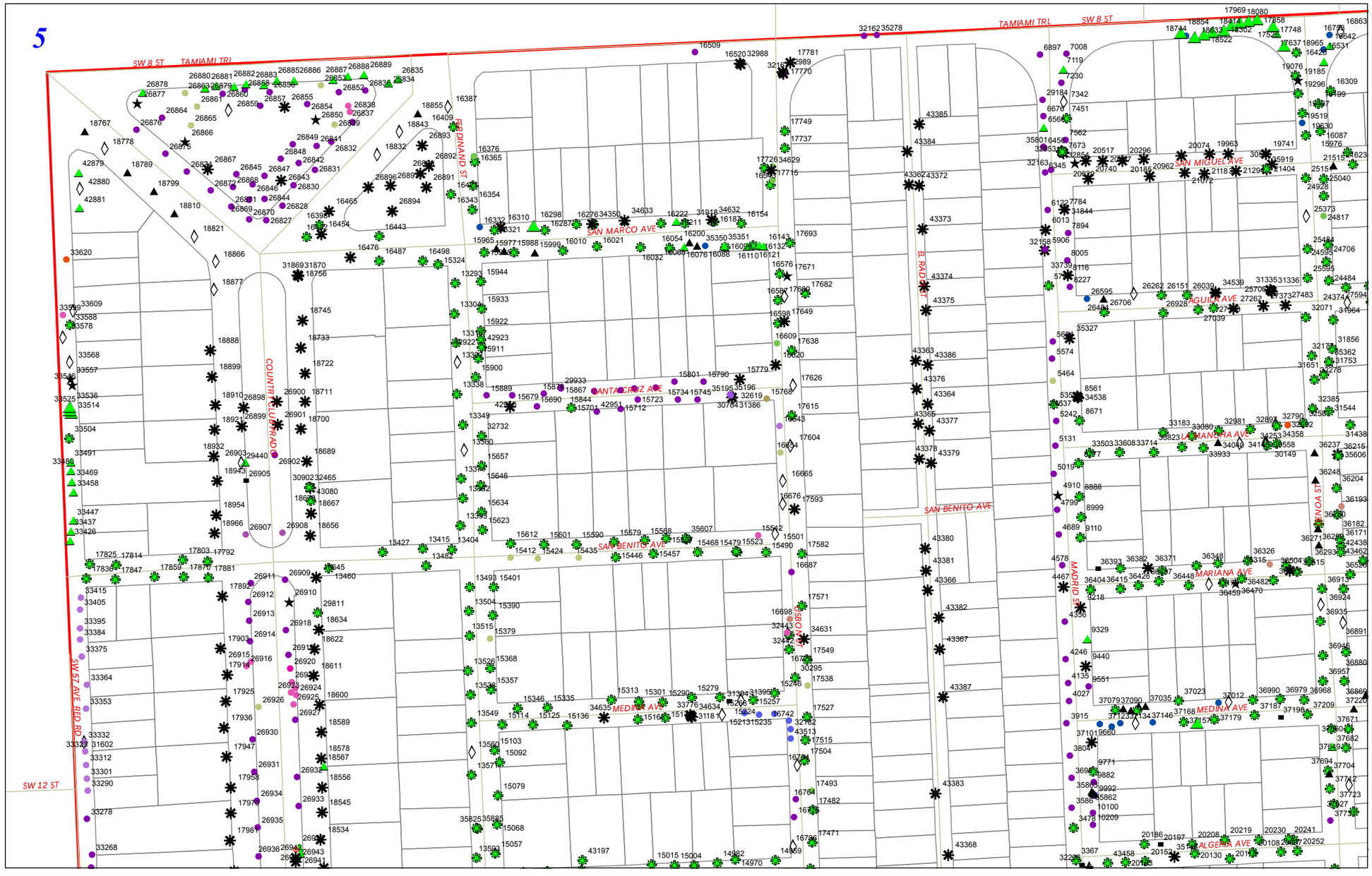


Figure 3- Sample Map

TASK I - INVENTORY & ANALYSIS

Process

The Curtis + Rogers team divided the city into 5 zones (refer to Figure 1) in order to methodically confirm the locations and species of all trees and palms. The original information was provided by The City of Coral Gables Public Services Department in an excel spreadsheet digital file format (refer to Figure 2 for a sample page). C+R imported the information into GIS and mapped all of the trees and palms (refer to Figure 3 for a sample map). After the maps were created the C+R team began confirming the information. A team of seven C+R professionals walked every street to confirm the location of the trees and the species of the trees. In addition, they were documenting the discrepancies, looking for spaces where trees are missing and capturing the character of the street.

The information provided to C+R included future planting locations. We found that in some cases, that even though there was an open space for a tree, and it would follow the spacing on a particular street, a tree would not do well for numourous reasons such as the canopy of a tree from private property overhanging in the right of way (photo 4), too close to an intersection, not enough space between driveways (photo 5) or there are utilities in the way (photo 6)..

Once all the data was confirmed, C+R began the task of mapping the information. The original spreadsheet was updated to reflect the confirmed data. This information was then brought back into the GIS mapping and new maps were created with the updated information.

Photo 4- over hanging canopy

Photo 5- not enough space between driveways

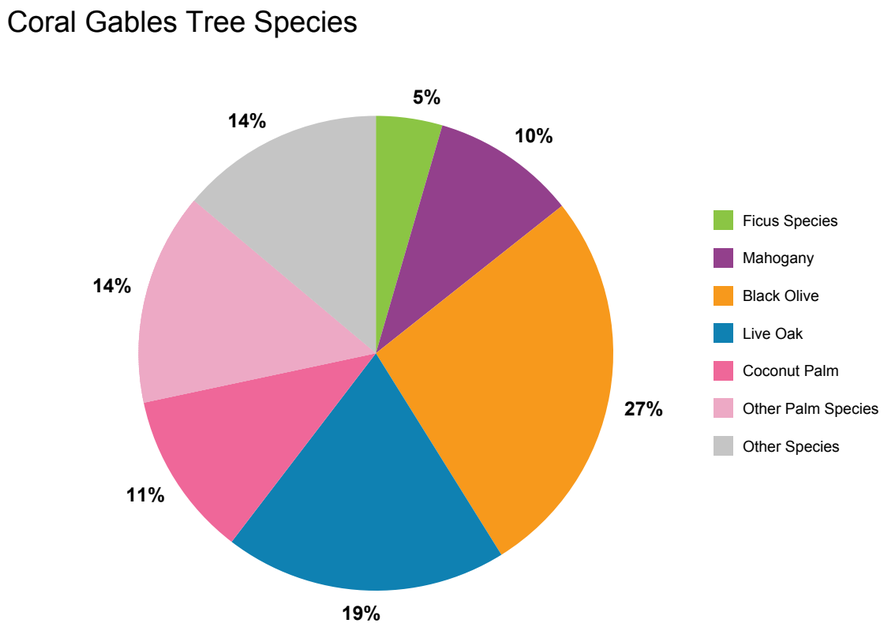
Photo 6- existing utilities

Findings

The City of Coral Gables appears to have a balanced diversity. Few predominant species are found, and continued diversification and balance should be striven for.

Predominant Trees

- Black Olive
- Live Oak
- Coconut Palm
- Mahogany



While C+R confirmed the information received, Lisa Hammer, Certified Arborist, was performing a Level 1 Limited Visual Assessment of all trees. This was performed with the objective of identifying obvious defects which pose immediate hazards and significant tree health issues, as seen from the drive-by perspective. Using a motor scooter, the arborist drove down every street in the single-family residential areas, noting any tree that met the above criteria, locating it by address and tree number on the maps provided, and making brief comments in regard to the defects observed. This information was later compiled with the master plan data. Work began in the northwestern quadrant of the city and proceeded toward the south and southeast.

General Conditions

In general, the arborist found most of the street trees to be in good general condition when age, size, and location factors are considered. Many of the City's trees are old and as such, have incurred storm damage, lightning damage, vehicle damage, pest/disease infestations, or other common occurrences under local urban conditions. However, they continue to provide the desired functions of canopy coverage, shade, and the overall environmental benefits of urban trees.

Recommendations

Under a Level 1 assessment, our scope was to identify obvious defects which pose immediate hazards and significant tree health issues, as seen from the drive-by perspective. In cases where trees were no longer performing the desired functions due to the above, and recovery or hazard abatement was not likely, the arborist recommended removal. If there was a chance that defective or unhealthy trees could be remedially treated, she recommended pruning or further evaluation to determine if there might be other options.

Risk Assessment

Many of the damaged trees pose some level of risk due to their potential to fail, limb drop, trunk splitting, breaking, toppling, etc., even though they may have healthy canopies. Should these damaged trees split, break, or topple, people or property could be at risk of injury or damage.

This evaluation was a Level 1 Risk Assessment only and the threshold levels for risk acceptance have not been established by the City. Therefore, the arborist recommended removal only for those trees that she deemed to be at an immediate risk of failure in which the consequences would be severe. For all others of concern, she recommended Further Evaluation, in which case additional risk assessments (Level 2 or 3) could be performed and/or the City can evaluate the tree and determine the level of acceptable risk.

Most Common Tree Problems

Trunk Damage

The most common problem noted on the larger hardwood trees was trunk damage from storms (limb rip-outs and splits) and vehicles (particularly trash pick-up equipment). Mahogany trees and black olive trees seemed to most affected, but some of the live oaks and other species also had damaged trunks. In many cases trunk damage was severe and the trees are at risk of failing, even though they may still have a healthy canopy. For future plantings, you may want to consider eliminating mahogany trees due to their great potential to split, and make sure that black olives and live oaks have acceptable branching structures. If feasible, consider potential alternatives to locating trash piles adjacent to trees.

Lightning Damage

Another common problem noted was lightning damage. Many trees showed signs of past or recent lightning strikes. Those with structural defects were treated as above for those with trunk damage. For those which were in an obvious state of decline, removal was recommended, as recovery would be unlikely. If the stress and damage was moderate, Further Evaluation was recommended, as there could be a chance for recovery.

Coconut Palm Problems

Many of the coconut palms showed stress symptoms due to cold damage in 2009-2010 and rugose spiraling whitefly infestations in the past two years. Both of these stressors have ultimately resulted in nutritional deficiencies. Some palms were so severely stressed that recovery is unlikely, in which case the arborist recommended removal. For those which could potentially recover with remedial fertilization and pest control treatments she recommended Further Evaluation. The City must make a management decision as to whether remedial treatments are desirable to help save the trees. Otherwise, they could be left as is, in which case they may eventually die, or they could be removed and replaced now as part of the Tree Succession Plan.

In general,she did not note any streets in which the coconut palms were in such poor condition that an entirely new street design was warranted.

Weeping Fig Trees

Some large weeping fig (Ficus benjamina) trees remain, although many have been lost to storms in past years. Those which remain are in variable condition. Some are partially toppled, some have numerous dead branches, and ficus whitefly infestations are recurring and causing significant defoliation. Following these stressors are infections of wood-rotting diseases such as Hypoxylon canker and Kretzschmaria deusta, which will eventually kill the tree. The arborist expects that most all of them will be gone within the next several years. She has recommended removal for any that are diseased, dangerous, or in very poor general condition. For some she has recommended further evaluation. On streets that have only a few weeping figs left, you may want to consider removing them and re-designing.

Lofty Fig Trees

The lofty fig (Ficus altissima) trees are mostly in good condition, but sthe arborist noted a few that are diseased with one or both of the wood-rotting diseases mentioned above on the weeping figs. She recommended removal of the diseased trees. This species is on Miami-Dade County's list of prohibited species, therefore, those which are removed cannot be replaced with the same species. If significant numbers of lofty figs die out in a specific area, some re-design may be needed.

Queen Palms

There are numerous queen palms (Syagrus romanzoffianum) and overtop palms (Syagrus amara) in Gables By The Sea (Bella Vista Avenue and adjacent side streets). These palms are not well-adapted to alkaline soils and as such, many are in very poor condition due to nutritional deficiencies. Again, removal was recommended for many of them which are beyond recovery, and unless a stringent fertilization program is implemented, more can be expected to decline. This might be an area to consider for a new street tree design.

Purple Trumpet Trees

Riviera Court is lined with purple trumpet trees (Tabebuia impetiginosa). These trees are not well-adapted to our soils and many on this street are missing or in poor condition. This is another street to consider for a new street design.

Bottlebrush Trees

Some old bottlebrush trees (Callistemon viminalis) remain. Most are in poor general condition due to damage, stress, or disease (gall disease). The arborist only recommended removal for those in very poor condition, but some consideration should be given to removal of most, if not all, bottlebrush trees in an effort to update current plantings.

TASK I - INVENTORY & ANALYSIS

Hong Kong Orchid Trees

Some Hong Kong orchid trees (Bauhinia blakeana) trees remain in scattered locations. This species is highly susceptible to trunk and limb breakage and most of the trees are damaged. The arborist only recommended removal of the most severely damaged trees, or those near streets or sidewalks where there are significant "targets". But in general, some consideration might be given to replacing all of these trees with alternative species for greater long-term performance.

Young Live Oaks

There are numerous recent (last several years) plantings of young live oak trees. Most are performing well but some scattered trees show symptoms of stress. In severe cases, the arborist has recommended removal. In moderate cases, she has recommended further evaluation to determine the cause of stress, which might be abated with remedial treatments or prevented in future plantings.

Conclusion

C+R met with the city at various stages during the inventory and analysis process to discuss our progress and our findings. It was evident very early on that this task was greater and would take much longer than originally thought mostly because work started at the beginning of summer and the rainy season. In order to keep the project moving forward we agreed to start working on specifications, looking at costs for the replacements and production of what would become the final deliverables to shorten the schedule at the end of this project.

During these meetings the concern of the whether or not Coconut Palms was an appropriate species was discussed at length. After many meetings and review trips C+R was finally given a criteria in which to assess the palms. The criteria was to look at the percentage of trees that were missing, dead or unhealthy looking at each of Coconut Palm streets. If any of these streets had more than 30% of missing, dead or unhealthy looking palms they should be changed to shade trees. The final plan reflects the proposed species of the streets that met this criteria.

TASK II - MAPPING

Once the analysis was completed C+R began the process of calling out and mapping tree species for the individual streets. This process evolved over time as we received direction from the City Manager and city staff. We began by color coding the different species of the streets that were predominantly one species. During this initial process we began to see that some streets were mixed. Some were mixed with two or three species and some were just completely mixed. After we color coded everything we met with the city to discuss our progress and seek direction on the mixed streets.

The color coding helped us see the distribution of species throughout the entire city. This was useful when determining which species these particular streets should be converted to. During our numerous meetings it was determined that we would look at the streets with two or three species by block instead of as a whole. In doing so we found that many cases the blocks were already one species therefore no decision was required. It was also determined that a few streets were historically completely mixed and should stay that way. It would be left up to the city staff to decide what tree to plant if a tree needed to be replaced at the time of replacement. The color coded plans also included the change from Coconut Palms to street trees.

Once we finalized all of the streets C+R started finalizing the tree master plan so that the plan could be presented to the residents. For purposes of simplification the team divided the entire City into 5 zones as follow:

ZONE 1
From Coral Way (SW 24th St) north to City limits
From Red Road (SW 57th Ave)to Douglas Road (SW 37th Ave)

ZONE 2
From Bird Road (SW 40th St) to Coral Way (SW 24th St)
From Red Road (SW 57th Ave)to Douglas Road (SW 37th Ave)

ZONE 3
From US1 to Bird Road (SW 40th St)
From Red Road (SW 57th Ave)to Le Jeune Road (SW 42h Ave)

ZONE 4
From Sunset Dr (SW 72nd St) to US1
From Red Road (SW 57th Ave)to Le Jeune Road (SW 42h Ave)

ZONE 5
From Sunset Dr (SW 72nd St) south to City Limits

A total of 5 community meetings where held, one meeting per zone (refer to figure 4). Residents were invited to ask questions and/or make comments. The main resident concerns were as follows:

- Coconut Palms not looking good and not providing enough shade
- Black Olive Trees staining sidewalks and there were some complaints of the Black Olive Trees destroying sidewalks
- Crepe Myrtle Trees not providing shade and not flowering
- Queen Palms not doing well in some areas
- When is this project of replacing trees and palms going to begin
- Who will take care of the trees after they are installed

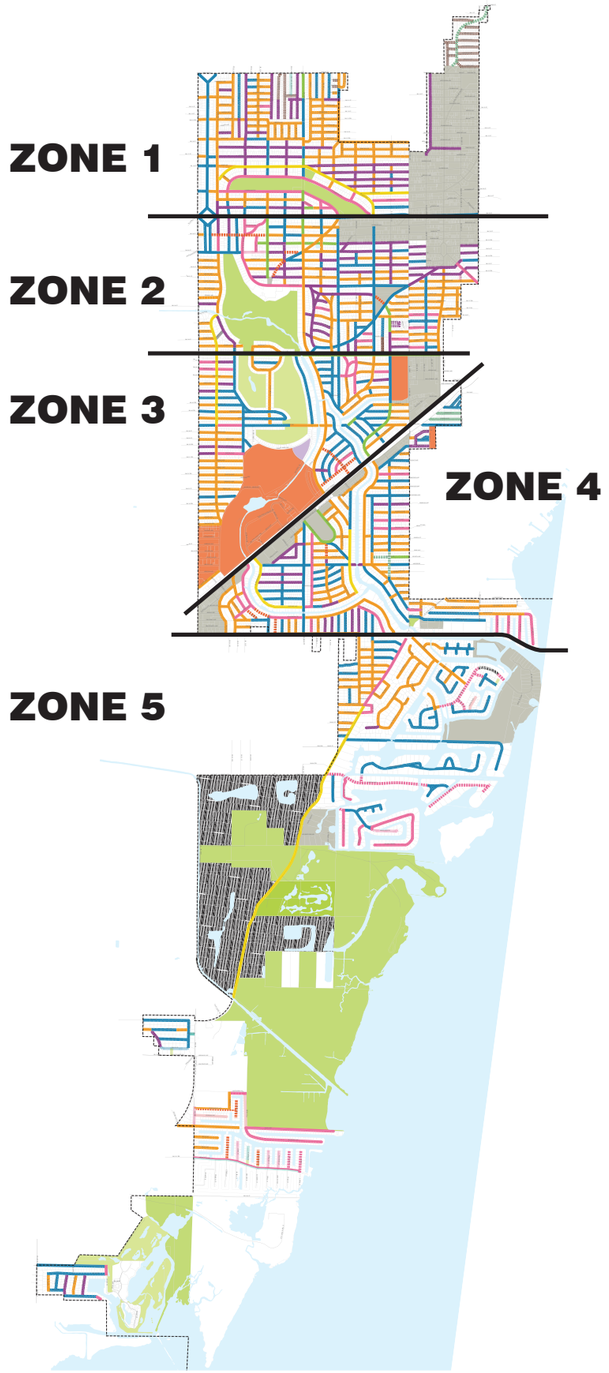
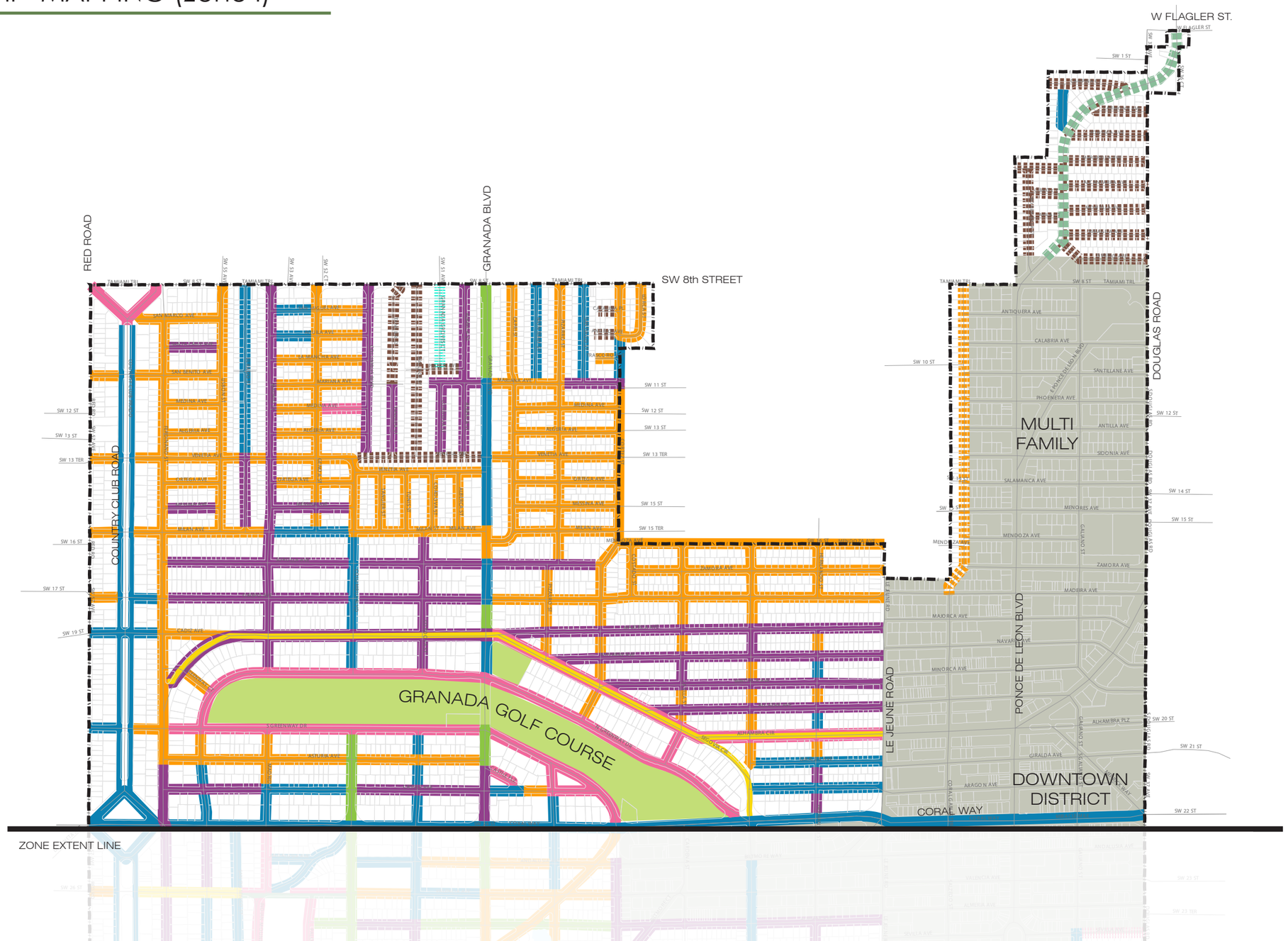


Figure 4- Street tree master plan

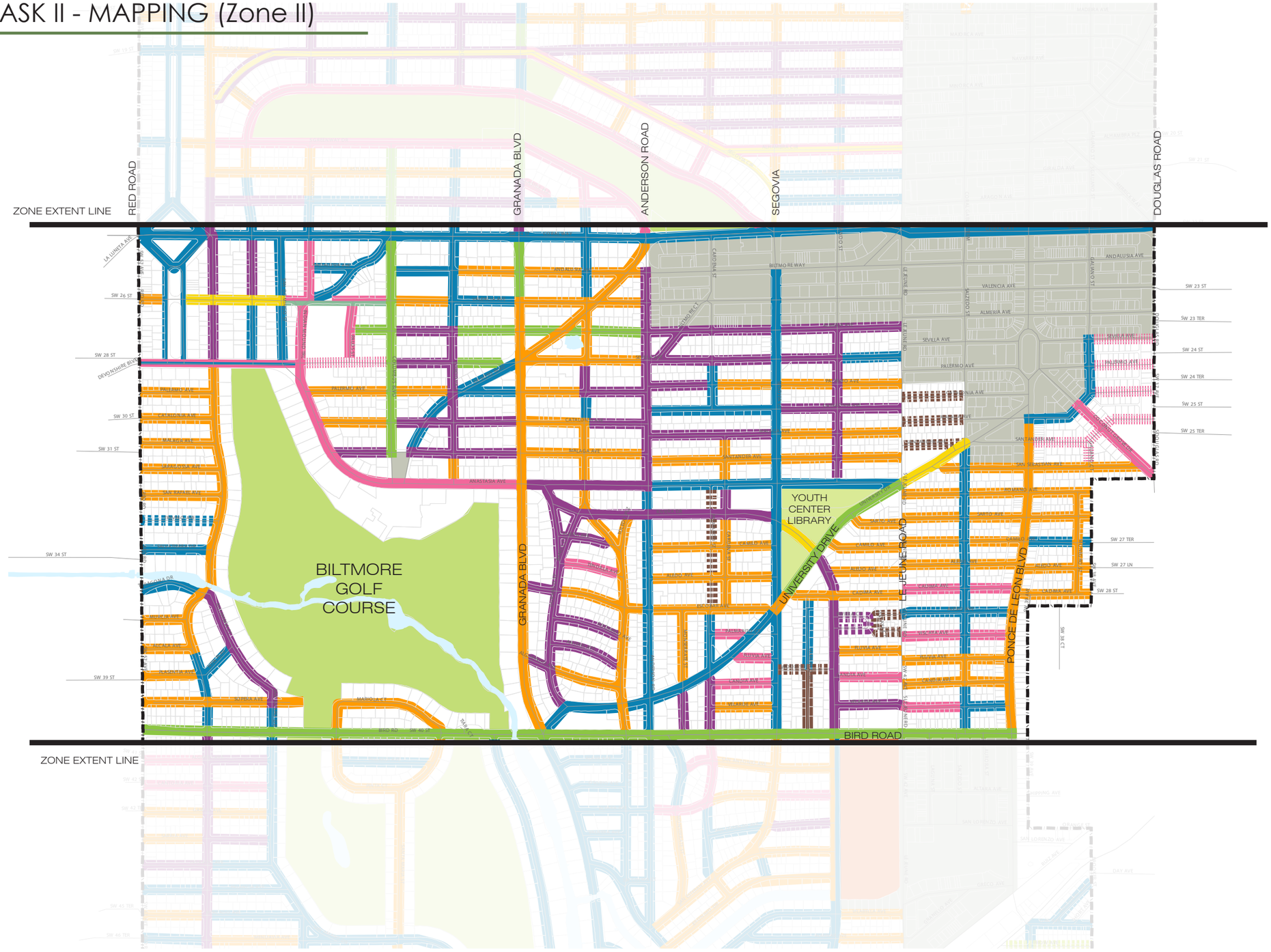
TASK II - MAPPING (Zone I)



LEGEND

- BRIDALVEIL
- BLACK OLIVE
- MAHOGANY
- OAK
- YELLOW ELDER
- MIXED SPECIES
- BISMARK PALM
- COCONUT PALM
- FICUS
- ROYAL PALM
- PINK TABEBUIA
- SIMPSON STOPPER
- GREEN BUTTONWOOD
- QUEEN PALM
- LYSILOMA SABICU
- LYSILOMA LATISILIQUA
- SILVER BUTTONWOOD
- WASHINGTONIA
- LIMITED/PAVED SWALE (NO TREES)
- GUMBO
- CRAPE MYRTLE
- PURPLE TABEBUIA
- POINCIANA
- PUBLIC / PRIVATE GREENSPACE
- SCHOOLS / UNIVERSITIES
- OUT OF SCOPE*
  *areas covered by "Master Landscape Plan for the North Ponce De Leon Boulevard Area and the CBD"
- INITIATION ZONE
- NATIVE MIX ZONE

TASK II - MAPPING (Zone II)


ZONE EXTENT LINE
RED ROAD
GRANADA BLVD
ANDERSON ROAD
SEGOVIA
DOUGLAS ROAD
BILTMORE WAY
VALENCIA AVE
ALMERIA AVE
SEVILLA AVE
PALERMO AVE
ANDALUSIA AVE
SW 23 ST
SW 23 TER
SW 24 ST
SW 24 TER
SW 25 ST
SW 25 TER
SW 26 ST
SW 27 TER
SW 27 LN
SW 28 ST
SW 30 ST
SW 31 ST
SW 34 ST
SW 39 ST
SW 40 TER
SW 41 TER
SW 42 TER
SW 43 TER
SW 44 TER
SW 45 TER
SW 46 TER
SW 38 CT
LA LUNETA AVE
DEVONSHIRE BLVD
CATALONIA AVE
ANASTASIA AVE
SAN RAFAEL AVE
SAN SEBASTIAN AVE
SAN LORENZO AVE
SANTO DOMINGO AVE
SANTANDER AVE
SANTA CRUZ AVE
SANTA MARIA AVE
SANTA ANA AVE
SANTA CECILIA AVE
SANTA CATALINA AVE
SANTA BARBARA AVE
SANTA ROSA AVE
SANTA CLARA AVE
SANTA ANDREW AVE
SANTA ANNA AVE
SANTA ANTONIA AVE
SANTA ANGELA AVE
SANTA ANGELINA AVE
SANTA ANGELICA AVE
SANTA ANGELITA AVE
SANTA ANGELO AVE
SANTA ANGELUS AVE
SANTA ANGELUSA AVE
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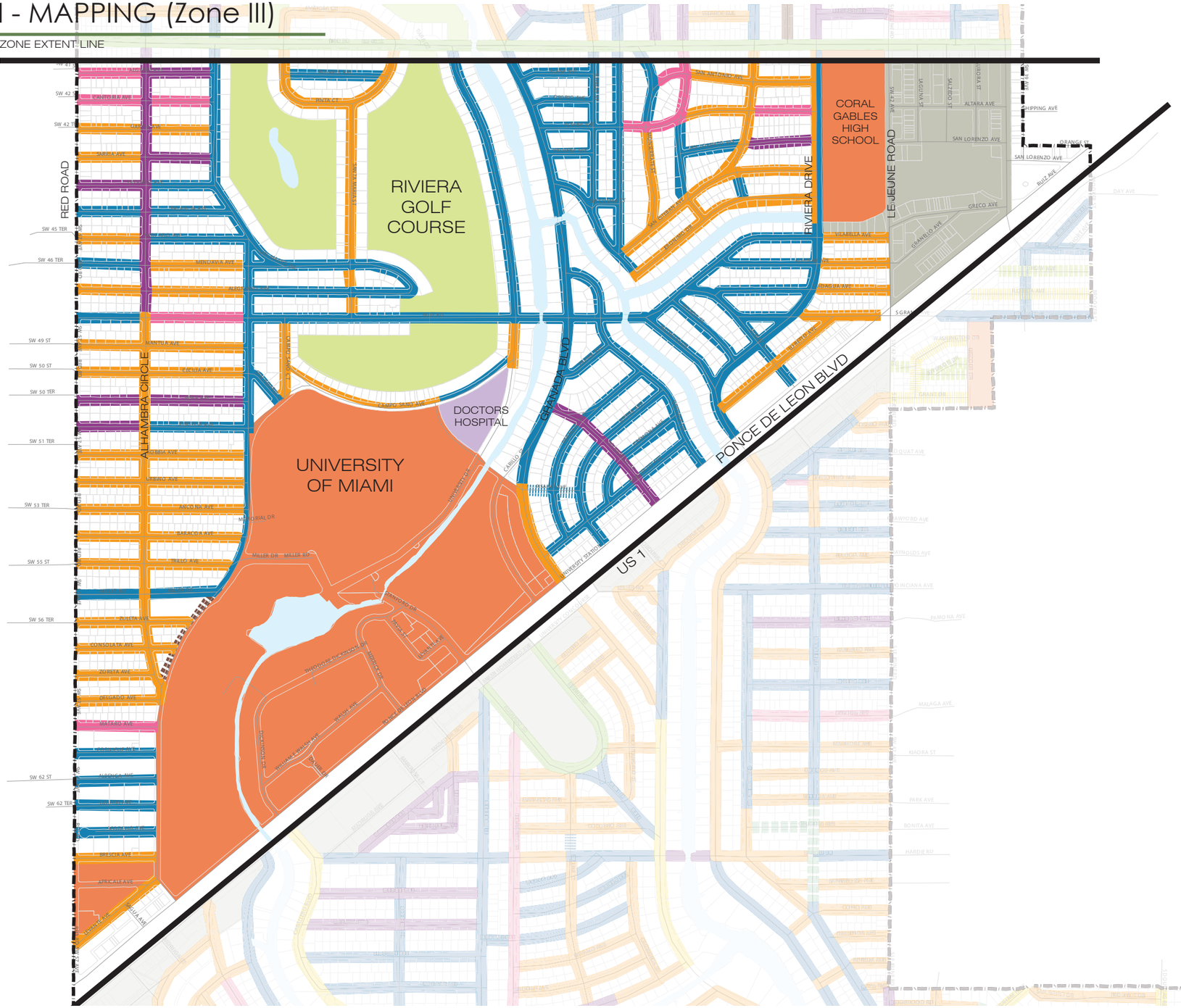
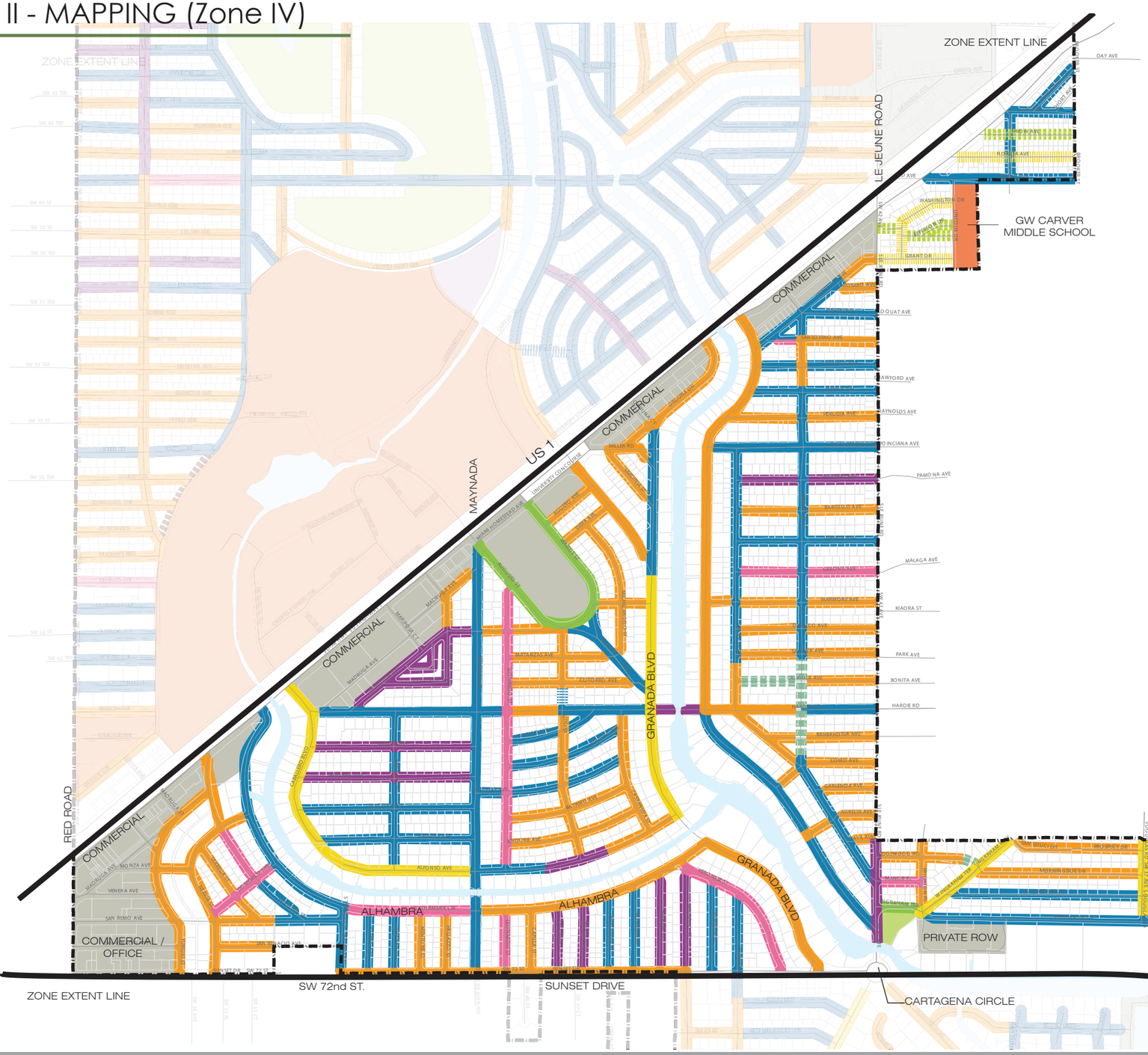
TASK II - MAPPING (Zone III)



LEGEND

- BRIDALVEIL
- BLACK OLIVE
- MAHOGANY
- OAK
- YELLOW ELDER
- MIXED SPECIES
- BISMARK PALM
- COCONUT PALM
- FICUS
- ROYAL PALM
- PINK TABEBUIA
- SIMPSON STOPPER
- GREEN BUTTONWOOD
- QUEEN PALM
- LYSILOMA SABICU
- LYSILOMA LATISILIQUA
- SILVER BUTTONWOOD
- WASHINGTONIA
- LIMITED/PAVED SWALE (NO TREES)
- GUMBO
- CRAPE MYRTLE
- PURPLE TABEBUIA
- POINCIANA
- PUBLIC / PRIVATE GREENSPACE
- SCHOOLS / UNIVERSITIES
- OUT OF SCOPE*
  - *areas covered by "Master Landscape Plan for the North Ponce De Leon Boulevard Area and the CBD"
- INITIATION ZONE
- NATIVE MIX ZONE

TASK II - MAPPING (Zone IV)



LEGEND

- BRIDALVEIL
- BLACK OLIVE
- MAHOGANY
- OAK
- YELLOW ELDER
- MIXED SPECIES
- BISMARK PALM
- COCONUT PALM
- FICUS
- ROYAL PALM
- PINK TABEBUIA
- SIMPSON STOPPER
- GREEN BUTTONWOOD
- QUEEN PALM
- LYSILOMA SABICU
- LYSILOMA LATISILIQUA
- SILVER BUTTONWOOD
- WASHINGTONIA
- LIMITED/PAVED SWALE (NO TREES)
- GUMBO
- CRAPE MYRTLE
- PURPLE TABEBUIA
- POINCIANA
- PUBLIC / PRIVATE GREENSPACE
- SCHOOLS / UNIVERSITIES
- OUT OF SCOPE*
  *areas covered by "Master Landscape Plan for the North Ponce De Leon Boulevard Area and the CBD"
- INITIATION ZONE
- NATIVE MIX ZONE
- CITY BOUNDARY

NEIGHBORHOOD TREE SUCCESSION AND INITIATION PLAN

Lisa H. Hammer
Horticultural Consultant

CURTIS+ ROGERS
DESIGN STUDIO INC.

TASK II - MAPPING (Zone V)

TASK III - NEIGHBORHOOD TREE SUCCESSION PLAN

Task III was the creation of the neighborhood tree succession and initiation plan. The tree succession plan is the replacing of currently missing and damaged trees in the city and the initiation plan is the introduction of trees to the newly annexed neighborhoods. The plans produced reflect C+R's following recommendations.

Recommendations:

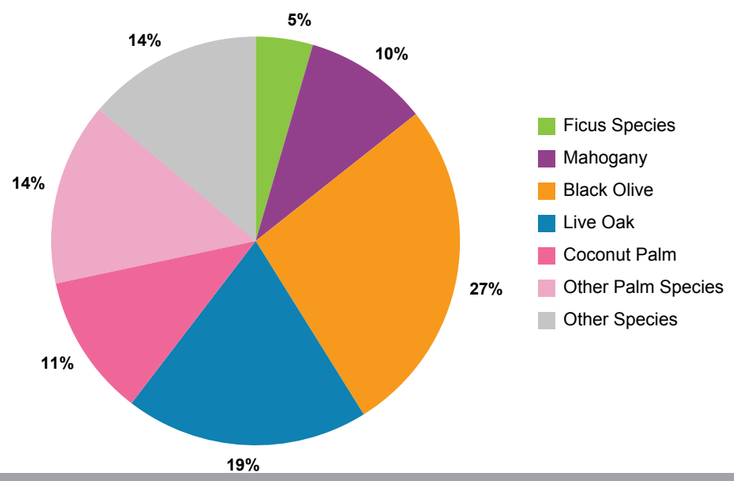
- The city should continue with the historical thematic street tree planning
- The city should follow the Florida Power and Light's plant the right tree in the right place program
- The city should review the succession plan every five years which may include review of particular species for community preference replacements
- The city should continue to strive for species diversification
- The city should explore and implement a treatment plan for the Black Olive trees in order to minimize staining

In order to increase diversification in the future C+R recommends the addition of the following new species:

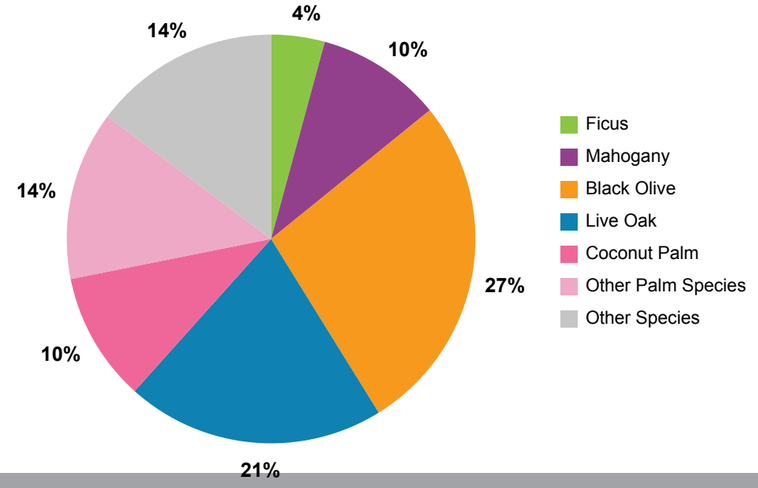
Bridalveil - Caesalpinia granadillo
Verawood - Bulnesia arborea
Wild Tamarind Tree - Lysiloma latisiliqua
Yellow Elder- Tecoma stans
Glossy Privet- Ligustrum japonicum
Simpson Stopper- Myrcianthes fragans
Pink Shower Tree - Casia bakeriana
White Tabebuia - Tabebuia roseo-alba
Purple Tabebuia - Tabebuia ipe
Yellow Poinciana - Peltophorum pterocarpum

These plans were completed after the public meetings and include replacement of the Coconut Palms that met the criteria set forth by the city.

Existing Tree Canopy by Species



Proposed Tree Canopy by Species



TASK III - NEIGHBORHOOD TREE SUCCESSION PLAN

Trees to be purchased for initial phase of tree succession and initiation program

Species	**Specifications**
Bismarkia nobilis- Bismark Palm	10' CT ,18'-20' oa
Bursera simaruba -Gumbo Limbo	14-16' ht, 7' sp, 4"dbh
Caesalpinia granadillo- Bridal Veil	12' ht, 5'sp, 2"dbh
Coconut nucifera - Green Malayan Coconut	15' gray wood
Conocarpus erectus "sericeous"Silver Buttonwood	12'-14' ht, 6' sp, 3 "dbh
Conocarpus erectus-Green Buttonwood	14-16' ht, 7' sp, 3 "dbh
Delonix regia - Royal Poinciana	14-16' ht, 7' sp, 4"dbh
Ficus aurea- Strangler Fig	14-16' ht, 7' sp, 4"dbh
Ligustrum Japonicum -Japanese Privet	10' ht., 10'sp.
Lysiloma latisiliqua- Wild Tamarind	12'-14' ht, 6' sp, 3 "dbh
Myrcianthes Fragans-Simpson Stopper	10-12' ht,5' sp, 2"dbh
Quercus virginiana-Live Oak	14-16' ht, 7' sp, 4"dbh
Roystonea regia -Royal Palms	14' gray wood
Swietenia mahogany- Mahogany	14-16' ht, 7' sp, 4"dbh
Syagrus romanzoffiana - Queen Palm	14' gray wood
Tabebuia heterophylla- Pink Tabebuia	12'-14' ht, 6' sp, 3 "dbh
Tabebuia impetiginosa- Purple Tabebuia	14'-16' ht, 8' sp, 4 "dbh
Tecoma Stans- Yellow Elder	10-12' ht,5' sp, 2"dbh
Mixed species to be planted throughout City	
Bulnesia arborea - Verawood	14'-16' ht, 7' sp, 3 "dbh
Cassia bakeriana- Pink Shower Tree	14-16' ht, 7' sp, 4"dbh
Ligustrum Japonicum -Japanese Privet	10' ht., 10'sp.
Quercus virginiana-Live Oak	14-16' ht, 7' sp, 4"dbh
Tabebuia impetiginosa- Purple Tabebuia	14'-16' ht, 8' sp, 4 "dbh