

4540 NORTH BAY ROAD GARDEN

4540 North Bay Road, Miami Beach, FL 33140

DRB21-0711 - FINAL SUBMITTAL 08-02-21

Prepared for:

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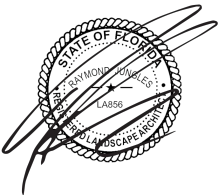
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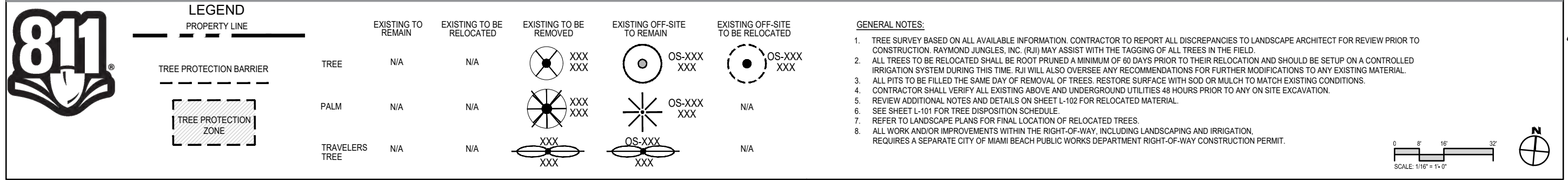
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2021/07/28  
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4540 NORTH BAY ROAD GARDEN											
TREE DISPOSITION SCHEDULE											
Per Arborist's Tree Evaluation Report, Dated 06/28/2021											
Existing Trees and Palms				D.B.H. (inch)	O.A. Height (feet)	Canopy Diameter (feet)	Condition	TPZ	Notes	Disposition	Mitigation Credits Required
Iden.	Symbol	Scientific Name	Common Name								
#1	DLU	<i>Dyopsis lutescens</i>	Arecia Palm	42	30	20	Moderate	4'	Clustering palm; mitigation not required	Remove	N/A
#2	SNH	<i>Streitzia nicotai</i>	White Bird of Paradise	15	22	16	Moderate	4'		Remove	
#2A	PEL	<i>Ptychosperma elegans</i>	Solitaire Palm	8	27	16	Good	4'	Double-trunk	Remove	(1) TREE
#3	PRE	<i>Phoenix reclinata</i>	Senegal Date Palm	94	30	30	Good	5'	Clustering palm; mitigation not required (FLEPPC Category II Invasive)	Remove	N/A
#4	PRE	<i>Phoenix reclinata</i>	Senegal Date Palm	98	30	30	Good	5'		Remove	
#5	PRE	<i>Phoenix reclinata</i>	Senegal Date Palm	32	22	26	Good	5'		Remove	
#6	RRE	<i>Roystonea regia</i>	Royal Palm	18	30	20	Good	5'		Remove	(1) TREE
#7	RRE	<i>Roystonea regia</i>	Royal Palm	19	38	26	Good	5'		Remove	(1) TREE
#8	RRO	<i>Phoenix roebelenii</i>	Pygmy Date Palm	5	9	7	Good	3'	Specs do not meet minimum requirements	Remove	N/A
#9	PAM	<i>Persea americana</i>	Avocado Tree	6	23	18	Moderate	6'		Remove	6
#10	CAC	<i>Carpentaria acuminata</i>	Carpentaria Palm	5	24	12	Good	4'	Specs do not meet minimum requirements	Remove	
#10A	SNH	<i>Streitzia nicotai</i>	White Bird of Paradise	7	14	16	Moderate	4'		Remove	N/A
#11	SNH	<i>Streitzia nicotai</i>	White Bird of Paradise	16	10	9	Poor	4'	Clustering palm; mitigation not required	Remove	
#12	CVA	<i>Codiaeum variegatum</i>	Croton	2	17	8	Good	4'	Specs do not meet minimum requirements	Remove	N/A
#13	CAC	<i>Carpentaria acuminata</i>	Carpentaria Palm	6	26	14	Good	4'		Remove	(1) TREE
#13A	SNH	<i>Streitzia nicotai</i>	White Bird of Paradise	16	22	14	Poor	4'		Remove	
#14	SNH	<i>Streitzia nicotai</i>	White Bird of Paradise	15	10	24	Poor	4'	Clustering palm; mitigation not required	Remove	N/A
#14A	SNH	<i>Streitzia nicotai</i>	White Bird of Paradise	26	22	26	Moderate	4'		Remove	
#14B	SNH	<i>Streitzia nicotai</i>	White Bird of Paradise	28	18	24	Moderate	4'		Remove	
#15	PRE	<i>Phoenix reclinata</i>	Senegal Date Palm	5	30	12	Moderate	5'	Specs do not meet minimum requirements	Remove	N/A
#15A	PRE	<i>Phoenix reclinata</i>	Senegal Date Palm	50	28	26	Moderate	5'	Clustering palm; mitigation not required	Remove	N/A
#15B	PRE	<i>Phoenix reclinata</i>	Senegal Date Palm	48	28	24	Good	5'		Remove	
#16	SRO	<i>Syagrus romanzoffiana</i>	Queen Palm	10	24	18	Moderate	4'		Remove	(1) TREE
#17	PEL	<i>Ptychosperma elegans</i>	Solitaire Palm	4	13	14	Good	4'	Specs do not meet minimum requirements	Remove	N/A
#18	DRE	<i>Delonix regia</i>	Royal Poinciana	21	55	55	Moderate	18'		Remove	21
#19	SRO	<i>Syagrus romanzoffiana</i>	Queen Palm	7	28	24	Moderate	4'		Remove	(1) TREE
#20	SRO	<i>Syagrus romanzoffiana</i>	Queen Palm	8	22	26	Moderate	4'		Remove	(1) TREE
#21	RMA	<i>Ravenala madagascariensis</i>	Traveler's Tree	82	27	28	Good	5'	Clustering palm; mitigation not required	Remove	N/A
#21A	RRE	<i>Roystonea regia</i>	Royal Palm	14	40	32	Good	5'		Remove	(1) TREE
#22	SRO	<i>Syagrus romanzoffiana</i>	Queen Palm	10	20	30	Moderate	4'		Remove	(1) TREE
#23	SRO	<i>Syagrus romanzoffiana</i>	Queen Palm	10	23	10	Moderate	4'		Remove	(1) TREE
#24	SRO	<i>Syagrus romanzoffiana</i>	Queen Palm	10	26	28	Moderate	4'		Remove	(1) TREE
#25A	PEL	<i>Ptychosperma elegans</i>	Solitaire Palm	4	30	12	Good	4'	Specs do not meet minimum requirements	Remove	N/A
#25B	SRO	<i>Syagrus romanzoffiana</i>	Queen Palm	10	30	28	Poor	4'		Remove	(1) TREE
#25C	RRE	<i>Roystonea regia</i>	Royal Palm	14	35	32	Good	5'		Remove	(1) TREE
#25D	RRE	<i>Roystonea regia</i>	Royal Palm	9	30	26	Moderate	5'		Remove	(1) TREE
#25E	RRE	<i>Roystonea regia</i>	Royal Palm	10	20	26	Good	5'		Remove	(1) TREE
#25F	SRO	<i>Syagrus romanzoffiana</i>	Queen Palm	11	28	24	Poor	4'		Remove	(1) TREE
#25G	RRE	<i>Roystonea regia</i>	Royal Palm	11	30	30	Good	5'		Remove	(1) TREE
#25H	RRE	<i>Roystonea regia</i>	Royal Palm	8	15	20	Good	5'		Remove	(1) TREE
#25I	PEL	<i>Ptychosperma elegans</i>	Solitaire Palm	4	35	14	Good	4'	Specs do not meet minimum requirements	Remove	N/A
#25J	PEL	<i>Ptychosperma elegans</i>	Solitaire Palm	3	30	14	Good	4'	Specs do not meet minimum requirements	Remove	N/A
#25K	SRO	<i>Syagrus romanzoffiana</i>	Queen Palm	10	22	15	Poor	4'		Remove	(1) TREE
#25L	PEL	<i>Ptychosperma elegans</i>	Solitaire Palm	7	30	24	Good	4'	Two trunks	Remove	(1) TREE
#25M	PEL	<i>Ptychosperma elegans</i>	Solitaire Palm	4	30	14	Good	4'	Specs do not meet minimum requirements	Remove	N/A
#25N	RRE	<i>Roystonea regia</i>	Royal Palm	10	12	30	Good	5'	Specs do not meet minimum requirements	Remove	N/A
#25O	PEL	<i>Ptychosperma elegans</i>	Solitaire Palm	4	30	14	Good	4'	Specs do not meet minimum requirements	Remove	N/A
#25P	PEL	<i>Ptychosperma elegans</i>	Solitaire Palm	4	30	14	Good	4'	Specs do not meet minimum requirements	Remove	N/A
#25Q	PRO	<i>Phoenix roebelenii</i>	Pygmy Date Palm	4	11	8	Good	3'	Specs do not meet minimum requirements	Remove	N/A
#26	RRE	<i>Roystonea regia</i>	Royal Palm	19	30	28	Good	5'		Remove	(1) TREE
#26A	RRE	<i>Roystonea regia</i>	Royal Palm	18	35	0	Dead	0		Remove	N/A
#26B	RRE	<i>Roystonea regia</i>	Royal Palm	20	35	0	Dead	0		Remove	N/A
#27	RRE	<i>Roystonea regia</i>	Royal Palm	22	30	28	Good	5'		Remove	(1) TREE
#28	RRE	<i>Roystonea regia</i>	Royal Palm	42	35	25	Moderate	5'	Three trunks	Remove	(1) TREE
#29	SRO	<i>Syagrus romanzoffiana</i>	Queen Palm	10	25	18	Poor	4'		Remove	(1) TREE
#30	RRE	<i>Roystonea regia</i>	Royal Palm	20	38	30	Moderate	5'		Remove	(1) TREE
#31	RRE	<i>Roystonea regia</i>	Royal Palm	19	35	32	Good	5'		Remove	(1) TREE
#32	SRO	<i>Syagrus romanzoffiana</i>	Queen Palm	7	28	18	Moderate	4'		Remove	(1) TREE
#33	SRO	<i>Syagrus romanzoffiana</i>	Queen Palm	8	20	18	Poor	4'		Remove	(1) TREE
#34A	RRO	<i>Phoenix roebelenii</i>	Pygmy Date Palm	3	8	6	Moderate	3'	Specs do not meet minimum requirements	Remove	N/A
#34B	RRO	<i>Phoenix roebelenii</i>	Pygmy Date Palm	3	8	6	Moderate	3'	Specs do not meet minimum requirements	Remove	N/A
#34C	PRO	<i>Phoenix roebelenii</i>	Pygmy Date Palm	3	10	8	Moderate	3'	Specs do not meet minimum requirements	Remove	N/A
#35	RMA	<i>Ravenala madagascariensis</i>	Traveler's Tree	0	28	28	Good	5'	Clustering palm; mitigation not required	Remove	N/A
#36	PEL	<i>Ptychosperma elegans</i>	Solitaire Palm	3	28	9	Good	4'	Specs do not meet minimum requirements	Remove	N/A
OS-#37	CSE	<i>Cordia sebestena</i>	Orange Geiger Tree	3	14	12	Good	4'		Remain	
OS-#38	HCH	<i>Handroanthus chrysanthus</i>	Yellow Tabebuia	7	22	20	Good	6'		Remain	
OS-#39	HCH	<i>Handroanthus chrysanthus</i>	Yellow Tabebuia	10	25	23	Good	10'		Remain	
OS-#40	CSE	<i>Cordia sebestena</i>	Orange Geiger Tree	5	18	18	Good	5'		Relocate	
OS-#41	FAU	<i>Ficus aurea</i>	Strangler Fig							Remain	
OS-#42	RRE	<i>Roystonea regia</i>	Royal Palm							Remain	
OS-#43	RRE	<i>Roystonea regia</i>	Royal Palm							Remain	
OS-#44	VMO	<i>Veitchia montgomeryana</i>	Montgomery Palm							Remain	
OS-#45	LCH	<i>Livistona chinensis</i>	Chinese Fan Palm							Remain	
OS-#46	LCH	<i>Livistona chinensis</i>	Chinese Fan Palm							Remain	
OS-#46	LCH	<i>Livistona chinensis</i>	Chinese Fan Palm							Remain	
OS-#47	RMA	<i>Ravenala madagascariensis</i>	Traveler's Tree							Remain	
OS-#48	FAU	<i>Ficus aurea</i>	Strangler Fig Tree							Remain	
OS-#49	FAU	<i>Ficus aurea</i>	Strangler Fig Tree							Remain	
OS-#50	FAU	<i>Ficus aurea</i>	Strangler Fig Tree							Remain	
OS-#51	RRE	<i>Roystonea regia</i>	Royal Palm							Remain	
OS-#52	CUV	<i>Coccoloba uvifera</i>	Seagrape Tree							Remain	
Total Tree D.B.H. Removed Requiring Mitigation (inches)										27	
Total Palms Removed Requiring Mitigation										28	

4540 NORTH BAY ROAD GARDEN			
4540 North Bay Road, Miami Beach, FL 33140			
EXISTING TREES			
Total # of Existing Trees :	2	To remain: 0	To be relocated: 0 To be removed: 2
EXISTING PALMS			
Total # of Existing Palms :	28	To remain: 0	To be relocated: 0 To be removed: 28

TREE REPLACEMENT CHART					
Total diameter of trees to be removed (sum of inches at DBH)	Total number of replacement trees required (where each replacement tree is a minimum of 2" DBH x 6' spread in canopy x 12' in height)	OR	Total number of replacement trees required (where each replacement tree is a minimum of 4" DBH x 8' spread in canopy x 16' in height)	OR	Contribution to Tree Trust Fund
2"—3"	1	or	0	or	\$1,000.00
4"—6"	2	or	1	or	\$2,000.00
7"—12"	4	or	2	or	\$4,000.00
13"—18"	6	or	3	or	\$6,000.00
19"—24"	8	or	4	or	\$8,000.00
25"—30"	10	or	5	or	\$10,000.00
31"—36"	12	or	6	or	\$12,000.00
37"—42"	14	or	7	or	\$14,000.00
43"—48"	16	or	8	or	\$16,000.00
49"—60"	20	or	10	or	\$20,000.00

(a) If the sum of the diameter of trees to be removed exceeds a total of 60 inches, the additional inches shall be added cumulatively from the top of the chart, down to the bottom of the chart, to calculate the number of trees required as replacement trees.

(b) Up to 30 percent of the two-inch DBH replacement tree requirement may be met by planting native species within private property, with a minimum height of ten feet and a minimum DBH of one and one-half inches at time of planting.

(c) The removal of a palm shall be replaced with one canopy tree at 12 feet overall height with a two-inch DBH.



TREE / PALM PROTECTION NOTES

1. CONTRACTOR QUALIFICATIONS

- 1.1. CONTRACTOR MUST BE A LICENSED LANDSCAPE CONTRACTOR.  
1.2. CONTRACTOR MUST HAVE A MINIMUM OF 10 YEARS OF PROVEN EXPERIENCE RELOCATING LARGE SPECIMEN TREES AND PALMS IN SOUTH FLORIDA.  
1.3. CONTRACTOR MUST HAVE PROVEN EXPERIENCE RELOCATING TREES AND PALMS OF THE SAME TO RELOCATE AND SIZE AS THOSE TO BE RELOCATED FOR THE CURRENT PROJECT.  
1.4. CONTRACTOR MUST HAVE A CERTIFIED ARBORIST ON STAFF.

2. CONTRACTOR REQUIREMENTS

- 2.1. CONTRACTOR MUST VISIT THE JOBSITE AND INSPECT ALL TREES AND PALMS TO BE RELOCATED AS WELL AS EXISTING SITE CONDITIONS AND RESTRICTIONS PRIOR TO PREPARING BID.  
2.2. CONTRACTOR MUST VERIFY AND ENSURE THAT ALL TREES AND PALMS IDENTIFIED ON THE PLANS AND THOSE TAGGED ON THE JOBSITE CORRESPOND AS TO NUMBER AND DESCRIPTION. ANY DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT IMMEDIATELY, PRIOR TO PREPARING BID.  
2.3. CONTRACTOR MUST CONDUCT ALL WORK ASSOCIATED WITH RELOCATION AND MAINTENANCE OF TREES AND PALMS TO BE RELOCATED. NO WORK IS TO BE SUBCONTRACTED WITHOUT PRIOR WRITTEN CONSENT OF THE OWNER AND/OR LANDSCAPE ARCHITECT.  
2.4. CONTRACTOR MUST DESIGNATE A COMPETENT, ENGLISH-SPEAKING SUPERVISOR OR FOREMAN TO OVERSEE AND DIRECT ALL RELOCATION AND MAINTENANCE ACTIVITIES AS OUTLINED IN THESE SPECIFICATIONS.  
2.5. CONTRACTOR MUST SCHEDULE ROOT PRUNING TO PROVIDE THE MAXIMUM POSSIBLE TIME FOR NEW ROOT GROWTH. EVEN TREES AND PALMS THAT TYPICALLY DO NOT REQUIRE LONG (OR ANY) ROOT PRUNING WILL BENEFIT FROM MORE ROOT PRUNING TIME; THEREFORE, ALL TREES AND PALMS TO BE RELOCATED MUST BE ROOT PRUNED. CONTRACTOR MUST PROVIDE A ROOT PRUNE SCHEDULE FOR EACH TREE OR PALM TO BE RELOCATED AS AN ATTACHMENT TO THE BID.  
2.6. CONTRACTOR MUST CALL SUNSHINE 811 TO HAVE ALL UNDERGROUND UTILITIES LOCATED UNDER OR IN THE VICINITY OF THE CURRENT OR FUTURE LOCATIONS OF ALL TREES AND PALMS TO BE RELOCATED PRIOR TO WORK COMMENCING.  
2.7. CONTRACTOR MUST VERIFY WITH THE GENERAL CONTRACTOR THE ABSENCE OF ANY UNDERGROUND CONSTRUCTION OR OBSTRUCTIONS (E.G., BULKHEADS, SEPTIC SYSTEMS, ETC.) IN THE CURRENT AND FUTURE LOCATIONS OF ALL TREES AND PALMS TO BE RELOCATED.  
2.8. CONTRACTOR MUST ALERT THE LANDSCAPE ARCHITECT OF ANY TREES OR PALMS THAT WILL NOT SUCCESSFULLY RELOCATE DUE TO POOR HEALTH PRIOR TO BEGINNING ROOT PRUNING.  
2.9. CONTRACTOR MUST FLAG ALL PROPOSED TRANSPLANT LOCATIONS FOR THE LANDSCAPE ARCHITECT'S APPROVAL. A MINIMUM OF 15 DAYS PRIOR TO RELOCATION.  
2.10. CONTRACTOR MUST INSURE THAT ALL TREES AND PALMS TO BE RELOCATED ARE INSTALLED AT THE CORRECT GRADE OR ELEVATION, ACCORDING TO THE GRADING PLAN.  
2.11. CONTRACTOR MUST ENSURE THAT ALL ROOT FLARES ARE EXPOSED AFTER RELOCATION.  
2.12. CONTRACTOR MUST REMOVE ALL RESIDUAL ROOTS, STUMPS, AND PORTIONS THEREOF AND BACKFILL PITS FROM WHICH RELOCATED TREES AND PALMS WERE REMOVED WITH CLEAN FILL FLUSH WITH THE SURROUNDING GRADE.  
2.13. CONTRACTOR MUST REPAIR ANY DAMAGE TO OTHER PLANTS, LAWN, HARDSCAPES, OR NEW CONSTRUCTION WITHIN THE RELOCATION AREA AT CONTRACTOR'S EXPENSE. HARDSCAPES INCLUDE BUT ARE NOT LIMITED TO CURBS, WALKS, ROADS, FENCES, SITE FURNISHINGS, ETC.  
2.14. CONTRACTOR MUST PHOTOGRAPHICALLY DOCUMENT NEW ROOT GROWTH FOLLOWING EACH ROOT PRUNE AND SUBMIT THIS DOCUMENTATION TO THE LANDSCAPE ARCHITECT. THE PURPOSE OF THIS REQUIREMENT IS TO ENSURE THAT SUFFICIENT ROOT GROWTH HAS OCCURRED PRIOR TO THE SECOND AND SUBSEQUENT ROOT PRUNES AND FOLLOWING THE FINAL ROOT PRUNE PRIOR TO RELOCATION.  
2.15. CONTRACTOR MUST INSTALL AND MAINTAIN PROTECTION FENCING AROUND EACH TREE AND PALM TO BE RELOCATED BOTH DURING ROOT PRUNING AND AFTER RELOCATION. PROTECTION FENCING MUST CONSIST OF GALVANIZED WELDED WIRE FABRIC OR PLASTIC MESH ATTACHED TO 4" X 4" POSTS INSERTED AROUND THE PERIMETER OF THE DRIPLINE OF THE TREE OR PALM. PROTECTION FENCING MUST BE PLUMB, TAUT, AND STURDY AT ALL TIMES AND MUST REMAIN IN PLACE THROUGHOUT THE ROOT PRUNING AND WARRANTY PERIODS, OR AS DIRECTED BY THE LANDSCAPE ARCHITECT.  
2.16. CONTRACTOR MUST OBTAIN ALL NECESSARY OR REQUIRED PERMITS FOR THE RELOCATION AND TRANSPORTATION OF THE TREES AND PALMS TO BE RELOCATED.  
2.17. CONTRACTOR MUST REPLACE ANY TREES OR PALMS SCARRED OR DAMAGED DURING RELOCATION, AT THE CONTRACTOR'S EXPENSE, WITH THE SAME OR SIMILAR SPECIES, SIZE, AND QUALITY. REPLACEMENT TREES OR PALMS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PROCUREMENT, PREPARATION, AND/OR INSTALLATION. REPLACEMENT TREES AND PALMS MUST BE INSTALLED WITHIN 60 DAYS OF NOTICE.  
2.18. CONTRACTOR MUST GUARANTEE ALL RELOCATED TREES AND PALMS FOR ONE YEAR FROM THE DATE OF RELOCATION TO THE FINAL LOCATION. GUARANTEE MUST INCLUDE TREE HEALTH AND SETTLING.  
2.19. CONTRACTOR MUST PROVIDE ALL MATERIAL NECESSARY TO PERFORM THE WORK COVERED HEREIN, INCLUDING BUT NOT LIMITED TO BACKFILL MATERIAL, PROTECTION FENCING, FLAGGING, ADDITIVES AND SUPPLEMENTS, TEMPORARY IRRIGATION, BURLAP, WIRE, SHRINK WRAP, AND ALL NECESSARY TOOLS AND EQUIPMENT.

3. ROOT PRUNING SPECIFICATIONS

3.1. GENERAL

- 3.1.1. ALL TREES AND PALMS TO BE RELOCATED MUST BE WATERED DAILY FOR AT LEAST 2-3 DAYS PRIOR TO ANY ROOTS BEING CUT TO ENSURE THAT THEY ARE FULLY HYDRATED. EACH WATERING MUST THOROUGHLY SATURATE THE ROOTBALL TO ITS FULL DEPTH.  
3.1.2. EACH TREE AND PALM MUST THEN BE WATERED EVERY OTHER DAY, NOT RELYING ON RAIN, DURING THE ENTIRE ROOT PRUNING PROCESS EITHER BY A TEMPORARY IRRIGATION SYSTEM OR BY HAND. EACH WATERING MUST THOROUGHLY SATURATE THE ROOTBALL TO ITS FULL DEPTH.  
3.1.3. TREE AND PALM RELOCATION ACTIVITIES MUST BE SCHEDULED SO THAT REMOVAL AND REPLANTING TAKE PLACE IN THE SAME 24-HOUR PERIOD. NO TREES OR PALMS MAY BE 'STOCKPILED' ONSITE OR OFFSITE FOR ANY PERIOD OF TIME WITHOUT PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT. WHEN ALLOWED, APPROVAL FOR THE METHOD OF 'STOCKPILING' MUST BE OBTAINED FROM THE LANDSCAPE ARCHITECT.  
3.1.4. ALL DIGGING IN THE ROOT ZONE DURING THE ROOT PRUNE PROCESS MUST BE DONE BY HAND; NO MACHINERY WILL BE ALLOWED. PRUNING OF ROOTS MUST BE DONE BY HAND WITH CLEAN, SHARP TOOLS. DO NOT PAINT CUT ROOTS WITH TREE PAINT OR ANY KIND OF SEALANT.  
3.1.5. MYCORRHIZA (ROOTS®) TRANSPLANT OR EQUIVALENT MUST BE INCORPORATED INTO THE BACKFILL SOIL PRIOR TO BACKFILLING AS PER MANUFACTURER'S RECOMMENDATIONS.  
3.1.6. AFTER EACH ROOT PRUNE, EACH SECTION OF ROOTBALL THAT IS PRUNED MUST BE WRAPPED WITH BLACK PLASTIC AND THE TRENCH BACKFILLED WITH ORIGINAL EXCAVATED SOIL. A TREE RING WITH A MINIMUM HEIGHT OF 6" MUST BE CONSTRUCTED 6-12" OUTSIDE THE OUTERMOST EDGE OF THE ROOTBALL AND AROUND THE ENTIRE PERIMETER OF THE ROOTBALL TO DIRECT IRRIGATION WATER AND ANY ADDED SUPPLEMENTS DOWN INTO THE ROOTBALL DURING ROOT REGENERATION.  
3.1.7. ONCE THE TREE RING IS CONSTRUCTED AFTER EACH ROOT PRUNE, A HIGH-PHOSPHORUS ROOT STIMULANT MUST BE LIBERALLY APPLIED TO THE SURFACE OF THE ROOTBALL AND THOROUGHLY WATERED IN TO ENCOURAGE NEW ROOT GROWTH.

3.2. TREES

- 3.2.1. PRIOR TO ANY ROOTS BEING CUT, ALL MAJOR ROOTS MUST BE IDENTIFIED TO DETERMINE THE ROOTBALL DIAMETER BASED ON THE RELATIVE LOCATION AND SIZE OF THE ROOTS.  
3.2.2. MANY TREE RELOCATION SPECIFICATIONS USE 'GENERAL RULES' TO CALCULATE MINIMUM ROOTBALL DIAMETER, SUCH AS MULTIPLYING THE DIAMETER AT BREAST HEIGHT (DBH) OF THE TREE BY A FACTOR OF 10 OR ALLOWING A MINIMUM OF 9'-12' OF ROOTBALL FOR EVERY 1" OF TREE CALIPER. OTHERS LIST UNREALISTIC MINIMUM SIZES FOR THE ROOTBALLS OF VARIOUS TREE CALIPERS OR HEIGHTS. IN MANY CASES, SUCH APPROACHES RESULT IN ROOTBALLS THAT ARE EITHER TOO LARGE OR TOO SMALL FOR A GIVEN TREE. THE FOLLOWING TABLE LISTS MINIMUM ROOTBALL DIAMETERS BASED ON REAL-WORLD EXPERIENCE OF TREE RELOCATION SPECIALISTS IN SOUTH FLORIDA:

CALIPER (inches)	MIN. ROOTBALL DIA. (feet)	CALIPER (inches)	MIN. ROOTBALL DIA. (feet)
1 - 4	12 - 14	12 - 14	8
4 - 5	4	15 - 17	10
6 - 7	5	18 - 24	12 - 15
8 - 9	6	25 - 30	15 - 25
10 - 11	7	30 +	as needed

- 3.2.3. WHENEVER POSSIBLE, ROOTBALLS MUST BE CIRCULAR IN SHAPE WITH AN EQUAL DISTANCE FROM THE TRUNK TO THE EDGE OF THE ROOTBALL ALL AROUND.  
3.2.4. MINIMUM ROOTBALL DEPTH MUST BE 24"-36" FOR ALL TREES TO BE RELOCATED, WITH THE ACTUAL DEPTH TO BE DETERMINED ONLY AFTER A THOROUGH EXAMINATION OF ALL ROOTS DURING THE INITIAL ROOT INSPECTION AND BASED ON THE ABSENCE OF MAJOR ROOTS AT THE BOTTOM OF THE ROOTBALL. ROOTBALLS DEEPER THAN 36" MAY BE REQUIRED FOR LARGE SPECIMEN TREES, DEPENDING ON THE RELATIVE LOCATIONS AND DEPTHS OF THE MAJOR ROOTS AS OBSERVED DURING THE INITIAL ROOT INSPECTION.

- 3.2.5. AS A GENERAL RULE, MINIMUM ROOT PRUNE TIME FOR TREES WITH A DBH OF LESS THAN 10" IS 12 WEEKS. THE FIRST ROOT PRUNE MUST BE ON TWO OPPOSING SIDES OF THE ROOTBALL, WITH THE SECOND ROOT PRUNE ON ONE OF THE OTHER TWO SIDES DONE A MINIMUM OF 6 WEEKS LATER, AND A THIRD ROOT PRUNE ON THE LAST SIDE DONE A MINIMUM OF 3 WEEKS AFTER THAT. THE SECOND AND THIRD ROOT PRUNES MAY ONLY BE DONE WHEN HEALTHY NEW ROOT GROWTH FROM EARLIER ROOT PRUNES IS EVIDENT (SEE SECTION 2.14 ABOVE FOR SPECIFICATIONS ON PHOTOGRAPHICALLY DOCUMENTING NEW ROOT GROWTH DURING THE ROOT PRUNE PROCESS). MORE TIME MAY BE NEEDED DURING THE COOLER MONTHS OF THE YEAR.  
3.2.6. AS A GENERAL RULE, MINIMUM ROOT PRUNE TIME FOR TREES WITH A DBH OF 10" OR GREATER IS 24 WEEKS. THE FIRST ROOT PRUNE MUST BE ON TWO OPPOSING SIDES OF THE ROOTBALL, WITH THE SECOND ROOT PRUNE ON ONE OF THE OTHER TWO SIDES DONE A MINIMUM OF 12 WEEKS LATER, AND A THIRD ROOT PRUNE ON THE LAST SIDE DONE A MINIMUM OF 6 WEEKS AFTER THAT. THE SECOND AND THIRD ROOT PRUNES MAY ONLY BE DONE WHEN HEALTHY NEW ROOT GROWTH FROM EARLIER ROOT PRUNES IS EVIDENT (SEE SECTION 2.14 ABOVE FOR SPECIFICATIONS ON PHOTOGRAPHICALLY DOCUMENTING NEW ROOT GROWTH DURING THE ROOT PRUNE PROCESS). MORE TIME MAY BE NEEDED DURING THE COOLER MONTHS OF THE YEAR.  
3.2.7. CERTAIN HARDWOOD TREES AND GYMNOSPERMS REQUIRE LONGER ROOT PRUNING TIMES. THESE INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:  
· AVOCADO (PERSEA AMERICANA)  
· BLACK OLIVE (BUCIDIA BUCERAS)  
· BRIDALVEIL (CAESALPINIA GRANADILLO)  
· CASSIAS (ALL SPECIES OF CASSIA)  
· LIGNUM VITAE (GUAIACUM SANCTUM & G. OFFICINALE)  
· PODOCARPUS (PODOCARPUS SP.)  
· LIVE OAK (QUERCUS VIRGINIANA)  
· MAHOGANY (SWietenia mahagoni)  
· MANGO (MANGIFERA INDICA)  
· PIGEON PLUM (COCOCCOLA DIVERSIFOLIA)  
· SWEET ACACIA (ACACIA FARNESIANA)  
· VERAWOOD (BULNESIA ARBOREA)  
· WILD TAMARIND (LYSILOMA LATISILIQUUM & L. SABICU)

FOR THESE TREES, THE MINIMUM ROOT PRUNE TIMES DISCUSSED IN SECTIONS 3.2.5 AND 3.2.6 ABOVE MAY BE INSUFFICIENT. ONLY WHEN SUFFICIENT NEW ROOT GROWTH HAS TAKEN PLACE FOLLOWING AN EARLIER ROOT PRUNE CAN THE NEXT ROOT PRUNE BE DONE, AND ONLY WHEN SUFFICIENT NEW ROOT GROWTH HAS TAKEN PLACE FOLLOWING THE FINAL ROOT PRUNE MAY THE TREE BE RELOCATED (SEE SECTION 2.14 ABOVE FOR SPECIFICATIONS ON PHOTOGRAPHICALLY DOCUMENTING NEW ROOT GROWTH DURING THE ROOT PRUNE PROCESS).

3.3. PALMS

- 3.3.1. THE FOLLOWING TABLE LISTS MINIMUM ROOTBALL DIAMETERS FOR VARIOUS SPECIES OF PALMS BASED ON REAL-WORLD EXPERIENCE OF RELOCATION SPECIALISTS IN SOUTH FLORIDA:

PALM SPECIES	ROOTBALL SPECIFICATIONS
SABAL / CABBAGE PALM	36" diameter
QUEEN & FOXTAIL PALMS	12" from trunk in all directions
ROYAL & COCONUT PALMS	18 - 24" from trunk in all directions
CANARY DATE PALM	24" from trunk in all directions
SLOW-GROWING PALMS (see sec. 3.3.4)	24" from trunk in all directions

- 3.3.2. PALM ROOTBALLS MUST BE A MINIMUM OF 24" DEEP. WHENEVER POSSIBLE, ROOTBALLS MUST BE CIRCULAR IN SHAPE WITH AN EQUAL DISTANCE FROM THE TRUNK TO THE EDGE OF THE ROOTBALL ALL AROUND.  
3.3.3. AS A GENERAL RULE, MINIMUM ROOT PRUNE TIME FOR PALMS IS 6-8 WEEKS. THE FIRST ROOT PRUNE MUST BE ON TWO OPPOSING SIDES OF THE ROOTBALL, WITH THE SECOND ROOT PRUNE ON ONE OF THE OTHER TWO SIDES DONE A MINIMUM OF 3-4 WEEKS LATER, AND A THIRD ROOT PRUNE ON THE LAST SIDE DONE A MINIMUM OF 4-6 WEEKS AFTER THAT. THE SECOND AND THIRD ROOT PRUNES MAY ONLY BE DONE WHEN HEALTHY NEW ROOT GROWTH FROM EARLIER ROOT PRUNES IS EVIDENT (SEE SECTION 2.14 ABOVE FOR SPECIFICATIONS ON PHOTOGRAPHICALLY DOCUMENTING NEW ROOT GROWTH DURING THE ROOT PRUNE PROCESS). MORE TIME MAY BE NEEDED DURING THE COOLER MONTHS OF THE YEAR.  
3.3.4. CERTAIN PALMS, IN PARTICULAR THOSE THAT ARE SLOW GROWING, REQUIRE LONGER ROOT PRUNING TIME. THESE INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:  
· ALL SPECIES OF ARCHONTOPHOENIX  
· ALL SPECIES OF CORYPHA  
· AMERICAN OIL PALMS (ALL SPECIES OF ATTALEA)  
· BISMARCK PALM (BISMARCKIA NOBILIS)  
· CUBAN & CARIBBEAN COPERNICIA  
· CUBAN BELLY PALM (GASTROCOCCOS CRISPA)  
· GINGERBREAD/DIUM PALMS (ALL SPECIES OF HYPHAENE)  
· PALMYRA PALMS (ALL SPECIES OF BORASSUS)  
· SATAKE PALM (SATAKENTIA LUKUENSIS)  
· SAW PALMETTO (SERENOA REPENS)  
· SILVER PALM (COCOCTHRIXINAX ARGENTATA)  
· ZOMBIE PALM (ZOMBIA ANTILLARUM)

FOR THESE PALMS, THE MINIMUM ROOT PRUNING TIME IS 4-6 MONTHS OR GREATER. ONLY WHEN SUFFICIENT NEW ROOT GROWTH HAS TAKEN PLACE FOLLOWING AN EARLIER ROOT PRUNE CAN THE NEXT ROOT PRUNE BE DONE, AND ONLY WHEN SUFFICIENT NEW ROOT GROWTH HAS TAKEN PLACE FOLLOWING THE FINAL ROOT PRUNE MAY THE TREE BE RELOCATED (SEE SECTION 2.14 ABOVE FOR SPECIFICATIONS ON PHOTOGRAPHICALLY DOCUMENTING NEW ROOT GROWTH DURING THE ROOT PRUNE PROCESS).

4. CANOPY PRUNING SPECIFICATIONS

4.1. TREES

- 4.1.1. PRIOR TO RELOCATION, THE CANOPY OF EACH TREE TO BE RELOCATED MUST BE SELECTIVELY PRUNED TO REMOVE CROSSING, DEAD, DISEASED, BROKEN, AND LOW-HANGING BRANCHES THAT MAY INTERFERE WITH CONSTRUCTION ACTIVITIES, OR THAT MAY INTERFERE OR RESTRICT STRAPPING OR LIFTING THE TREE DURING RELOCATION.  
4.1.2. FOR TREES BEING RELOCATED ONSITE, THE CANOPY MAY BE SELECTIVELY THINNED AND REDUCED BY NO MORE THAN 1/3 OF THE OVERALL CANOPY MASS, AT THE DIRECTION OF THE LANDSCAPE ARCHITECT; HOWEVER, THE BASIC SHAPE, FORM, AND CHARACTER OF THE TREE MUST BE PRESERVED.  
4.1.3. FOR TREES BEING RELOCATED OFFSITE, THE CANOPY MUST BE PRUNED, AT THE DIRECTION OF THE LANDSCAPE ARCHITECT, TO FIT ON THE TRAILER FOR TRANSPORT. EVERY EFFORT MUST BE MADE TO RETAIN AS MANY LARGE BRANCHES AS POSSIBLE AND TO PRESERVE AS MUCH OF THE SHAPE, FORM, AND CHARACTER OF THE TREE AS POSSIBLE TO THE WIDEST LOAD WIDTH ALLOWABLE BY THE FLORIDA DEPARTMENT OF TRANSPORTATION. CONTRACTOR MUST OBTAIN ALL NECESSARY PERMITS AND ESCORTS TO TRANSPORT WIDE LOADS, PER FLORIDA LAW.  
4.1.4. ALL CANOPY PRUNING MUST BE CONDUCTED FOLLOWING ANSI A-300 TREE PRUNING STANDARDS AND BEST MANAGEMENT PRACTICES.  
4.1.5. ALL DEBRIS GENERATED DURING CANOPY PRUNING MUST BE REMOVED OFFSITE AND DISPOSED.

4.2. PALMS

- 4.2.1. IT IS WELL KNOWN THAT SOME PALMS SURVIVE RELOCATION BETTER WHEN ALL OF THE LEAVES ARE REMOVED (E.G., CABBAGE PALM, SABAL PALMETTO), AND THAT OTHER PALMS BENEFIT FROM HAVING THEIR LEAVES CUT IN HALF DURING RELOCATION (E.G., COCONUT PALM, COCOS NUCIFERA). BOTH OF THESE HORTICULTURAL PRACTICES, WHILE TRUE, ARE ONLY APPLICABLE WHEN PALMS ARE NOT ROOT PRUNED. LEAVES DO NOT NEED TO BE CUT IN HALF OR REMOVED FROM PALMS THAT ARE ADEQUATELY ROOT PRUNED. ON OCCASION WHEN SUFFICIENT ROOT PRUNING TIME IS NOT AVAILABLE, PALMS TO BE RELOCATED MAY HAVE THEIR LEAVES CUT IN HALF OR REMOVED ENTIRELY AT THE DIRECTION OF THE LANDSCAPE ARCHITECT.  
4.2.2. PALM LEAVES MUST BE TIED UP WITH 2-PLY BIODEGRADABLE TWINE PRIOR TO RELOCATION TO PREVENT MECHANICAL DAMAGE DURING THE RELOCATION PROCESS.  
4.2.3. PALM TRUNKS SHALL ONLY BE 'CLEANED UP' ACCORDING TO THE LANDSCAPE ARCHITECT'S SPECIFICATIONS SPECIFIC TO EACH PALM.

5. RELOCATION SPECIFICATIONS

5.1. GENERAL

- 5.1.1. LANDSCAPE CONTRACTOR TO FLAG ALL PROPOSED PLANT LOCATIONS FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION. NOTIFY LANDSCAPE ARCHITECT A MINIMUM OF 15 DAYS PRIOR TO RELOCATION.  
5.1.2. ALL TREES AND PALMS TO BE RELOCATED MUST BE WATERED DAILY FOR AT LEAST 5 DAYS PRIOR TO ANY RELOCATION TO ENSURE THAT THEY ARE FULLY HYDRATED. EACH WATERING MUST THOROUGHLY SATURATE THE ROOTBALL TO ITS FULL DEPTH.  
5.1.3. ALL ROOTBALLS MUST BE WRAPPED IN BURLAP AND THEN TIGHTLY WIRE-WRAPPED (USING REDLINE HORSE WIRE OR EQUIVALENT) TO KEEP THE ENTIRE ROOTBALL INTACT DURING RELOCATION. TREES AND PALMS GROWING IN LIMESTONE MUST BE DUG AND RELOCATED WITH THE ROOTS ATTACHED TO A SECTION OF ROCK AS PART OF THE ROOTBALL, SUCH THAT THE ROOTS REMAIN INTACT. ROOTBALLS COMING FROM SAND OR SANDY SOIL MAY ALSO NEED TO BE BOXED PRIOR TO RELOCATION, AT THE DISCRETION OF THE LANDSCAPE ARCHITECT.  
5.1.4. TREES AND PALMS BEING RELOCATED OFFSITE MUST HAVE THEIR ENTIRE ROOTBALLS THOROUGHLY AND TIGHTLY WRAPPED WITH PLASTIC SHRINK WRAP ON THE OUTSIDE OF THE WIRE WRAP, AND THE ENTIRE TREE OR PALM (INCLUDING CANOPY, TRUNK, AND ROOTBALL) MUST BE COVERED WITH A BREATHABLE TARP (E.G., SHADE CLOTH) DURING TRANSPORT.  
5.1.5. NEW PLANTING PITS FOR RELOCATED TREES AND PALMS MUST BE PREPARED PRIOR TO LIFTING THE PALM OR TREE FROM ITS CURRENT LOCATION AND MUST BE AT LEAST 3-4 FEET WIDER THAN THE ROOTBALL AND THE SAME DEPTH AS THE ROOTBALL, SUCH THAT THE FINAL ELEVATION OF THE TOP OF THE ROOTBALL IS AT OR SLIGHTLY ABOVE (NO MORE THAN 2" HIGHER) FINAL GRADE.  
5.1.6. TREES AND PALMS TO BE RELOCATED MUST BE LIFTED BY THE ROOTBALL ONLY, USING APPROPRIATELY SIZED (LENGTH AND STRENGTH) LIFTING STRAPS OR CHAINS. DURING LIFTING, THE TREE OR PALM MUST BE BALANCED IN A MORE-OR-LESS UPRIGHT POSITION, WITH THE STRAP ON THE TRUNK USED ONLY FOR BALANCING AND MANEUVERING THE TREE OR PALM TO POSITION. NO CHAINS MAY BE USED AROUND OR AGAINST THE TRUNK AT ANY TIME. AT NO TIME SHALL 100% OF THE WEIGHT OF THE TREE OR PALM BE ON THE STRAP ATTACHED TO THE TRUNK. TRUNKS MUST BE HEAVILY PADDED WITH 30-60 LAYERS (DEPENDING ON SIZE AND WEIGHT) OF BURLAP BENEATH THE BALANCING STRAP.  
5.1.7. TREES AND PALMS MUST BE LIFTED WITH A CRANE OR BACKHOE APPROPRIATELY SIZED FOR THE SIZE AND WEIGHT OF THE TREE OR PALM AND LIFTED OR CARRIED DIRECTLY TO THE FINAL INSTALL LOCATION OR TRANSPORT TRAILER.  
5.1.8. ONCE LIFTING BEGINS, ANY UN CUT ROOTS UNDER OR AROUND THE ROOTBALL THAT MAY YET REMAIN MUST BE IMMEDIATELY SEVERED WITH HAND PRUNING TOOLS TO MINIMIZE TEARING AND ROOT DAMAGE.  
5.1.9. AGRI-FORM PLANTING TABLETS (OR APPROVED EQUIVALENT) MUST BE EVENLY DISTRIBUTED AROUND THE PERIMETER OF THE PLANTING PIT AT THE RATE OF 2 TABLETS PER 1" TRUNK CALIPER PRIOR TO BACKFILLING.  
5.1.10. MYCORRHIZA (ROOTS®) TRANSPLANT OR EQUIVALENT) MUST BE INCORPORATED INTO THE BACKFILL SOIL PRIOR TO BACKFILLING.  
5.1.11. RELOCATED TREES AND PALMS MUST BE CENTERED IN THE PLANTING PIT, AND THE PIT BACKFILLED USING A 1:1 MIXTURE OF EXISTING SOIL AND 80-20 (DOT SAND-MUCK) SOIL MIX THOROUGHLY BLENDED TOGETHER. DO NOT USE MUDDY SOIL AS BACKFILL. (SEE 5.2.2 BELOW FOR SPECIAL CONDITIONS REGARDING DATE PALM BACKFILL SPECIFICATIONS.)  
5.1.12. SMALL TREES AND PALMS MUST BE FIRMLY BRACED USING A MINIMUM OF FOUR 4" X 4" WOODEN BRACES ATTACHED TO 2" X 4" WOODEN BATTENS HELD IN PLACE WITH TWO STEEL BANDS. LARGER TREES MAY REQUIRE 6" X 6" WOODEN POSTS OR EVEN TELEPHONE POLES TO PROVIDE SUFFICIENT BRACING STRENGTH TO PREVENT TOPPLING DURING WIND EVENTS. A SUFFICIENT NUMBER OF BATTENS MUST BE STRATEGICALLY PLACED AROUND THE TRUNK SUCH THAT THE STEEL BANDS NEVER CONTACT THE TRUNK. NO BURLAP IS TO REMAIN UNDER THE WOODEN BATTENS ON TREES DURING BRACING, BUT SEVERAL LAYERS OF BURLAP SHOULD BE LEFT UNDER THE WOODEN BATTENS WHEN BRACING PALMS. NAILS SHALL NEVER BE DRIVEN DIRECTLY INTO THE TRUNK DURING BRACING. BRACING MUST REMAIN IN PLACE FOR A MINIMUM OF ONE YEAR.  
5.1.13. A TREE RING WITH A MINIMUM HEIGHT OF 6" MUST BE CONSTRUCTED 6-12" OUTSIDE THE OUTERMOST EDGE OF THE ROOTBALL AND AROUND THE ENTIRE PERIMETER OF THE ROOTBALL TO DIRECT IRRIGATION WATER AND ANY SUPPLEMENTS THAT ARE ADDED DOWN INTO THE ROOTBALL DURING ROOT REGENERATION.  
5.1.14. ONCE THE TREE RING IS CONSTRUCTED, A HIGH-PHOSPHORUS ROOT STIMULANT MUST BE LIBERALLY APPLIED TO THE SURFACE OF THE ROOTBALL AND THOROUGHLY WATERED IN.  
5.1.15. ROOTBALLS MUST BE THOROUGHLY WATERED IN USING A HOSE AND A JOHNSON BAR INSERTED TO THE VERY BOTTOM OF THE ROOTBALL AND SWUNG BACK AND FORTH TO PREVENT FORMATION OF AIR POCKETS. THE JOHNSON BAR TECHNIQUE MUST BE REPEATED AT LEAST ONCE MORE WITHIN ONE WEEK AFTER RELOCATION, AND AGAIN IF ANY SIGNS OF STRESS BECOME APPARENT.  
5.1.16. ORGANIC MULCH (MELALEUCA IS PREFERRED) MUST BE APPLIED WITHIN 48 HOURS OF RELOCATION AT A DEPTH OF 3-4" OVER THE ENTIRE TOP OF THE ROOTBALL FROM THE TREE RING TO WITHIN 6" OF THE TRUNK. MULCH MUST NOT BE APPLIED OR ALLOWED TO ACCUMULATE DIRECTLY AGAINST THE TRUNK.  
5.1.17. PITS FROM WHICH THE RELOCATED TREES AND PALMS WERE REMOVED MUST BE CLEANED OF ALL RESIDUAL ROOTS, STUMPS, AND PORTIONS THEREOF AND BACKFILLED WITH CLEAN FILL FLUSH WITH THE SURROUNDING GRADE.  
5.1.18. RESTORE THE SURFACE WITH MATERIAL TO MATCH ADJACENT AREAS. MATERIAL TO BE APPROVED BY LANDSCAPE ARCHITECT. CONTRACTOR TO PROVIDE A MINIMUM OF ONE YEAR WARRANTY ON SETTLING AND PLANT MATERIAL FROM TIME OF SUBSTANTIAL COMPLETION.  
5.2. SPECIAL CONDITIONS  
5.2.1. MULTI-TRUNK TREES AND PALMS MUST BE RELOCATED AS ONE UNIT WITH A SINGLE ROOTBALL.  
5.2.2. PLANTING PITS FOR EDIBLE DATE PALMS (PHENIX DACTYLIFERA) MUST BE BACKFILLED WITH PURE DOT SILICA SAND.

6. MAINTENANCE SPECIFICATIONS

6.1. GENERAL

- 6.1.1. ALL RELOCATED TREES AND PALMS MUST BE MAINTAINED FOR ONE YEAR FROM THE DATE OF RELOCATION TO THEIR FINAL LOCATIONS.  
6.1.2. CONTRACTOR MUST MAINTAIN ALL RELOCATED TREES AND PALMS FOR ONE FULL YEAR FROM THE DATE OF RELOCATION TO THE FINAL LOCATION.  
6.1.3. WHENEVER POSSIBLE, EACH TREE AND PALM MUST BE WATERED BY A PERMANENT AUTOMATIC IRRIGATION SYSTEM FOLLOWING RELOCATION. EACH WATERING MUST THOROUGHLY SATURATE THE ROOTBALL TO ITS FULL DEPTH; THIS WILL REQUIRE 25-50 GALLONS OF WATER FOR SMALL TREES AND PALMS, DEPENDING ON ROOTBALL SIZE, WHILE LARGE TREES WILL REQUIRE A MINIMUM OF 10 GALLONS PER FOOT OF ROOTBALL DIAMETER (I.E., A 10' DIAMETER ROOTBALL WILL REQUIRE A MINIMUM OF 100 GALLONS PER WATERING EVENT). WATERING FREQUENCY MUST BE EVERY DAY FOR THE FIRST TWO WEEKS, EVERY OTHER DAY FOR THE NEXT THREE WEEKS, AND EVERY THIRD DAY FOR THE NEXT 6-8 WEEKS.  
6.1.4. WHEN AN AUTOMATIC IRRIGATION SYSTEM IS NOT POSSIBLE, CONTRACTOR IS RESPONSIBLE FOR HAND WATERING RELOCATED TREES AND PALMS THROUGHOUT THE MAINTENANCE PERIOD AND UNTIL FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT AND/OR CLIENT.  
6.1.5. IMMEDIATELY AFTER RELOCATION TO THE FINAL LOCATION, A HIGH-PHOSPHORUS ROOT STIMULANT MUST BE APPLIED TO THE SURFACE OF THE ROOTBALL AT THE RECOMMENDED LABEL RATE AND WATERED IN WITH A DRENCH CONSISTING OF A SYSTEMIC INSECTICIDE AND A CONTACT ROOT ROT FUNGICIDE, FOLLOWING LABEL INSTRUCTIONS, AS INITIAL PREVENTATIVE MAINTENANCE.  
6.1.6. EVERY THREE MONTHS THEREAFTER, A HIGH-PHOSPHORUS ROOT STIMULANT MUST BE APPLIED TO THE SURFACE OF THE ROOTBALL AT THE RECOMMENDED LABEL RATE AND WATERED IN WITH A DRENCH CONSISTING OF A SYSTEMIC INSECTICIDE AND A BROAD-SPECTRUM SYSTEMIC FUNGICIDE, FOLLOWING LABEL INSTRUCTIONS, AS CONTINUING PREVENTATIVE MAINTENANCE.  
6.1.7. IRRIGATION AND BRACING MUST BE CHECKED AND EACH TREE OR PALM THOROUGHLY INSPECTED FOR SIGNS OF STRESS, DISEASE, OR PEST PROBLEMS ON A MONTHLY BASIS.

6.2. SHADE TREES

- 6.2.1. IMMEDIATELY AFTER RELOCATION TO THE FINAL LOCATION AND EVERY THREE MONTHS THEREAFTER, A HIGH-QUALITY, SLOW-RELEASE 15-2-15 GRANULAR FERTILIZER MUST BE APPLIED, AT THE RECOMMENDED LABEL RATE, SPREAD EVENLY ACROSS THE SURFACE OF THE ROOTBALL.  
6.2.2. FOLIAR FEED FOUR TIMES PER YEAR.

6.3. FLOWERING TREES

- 6.3.1. IMMEDIATELY AFTER RELOCATION TO THE FINAL LOCATION AND EVERY THREE MONTHS THEREAFTER, A HIGH-QUALITY, SLOW-RELEASE 5-10-15 GRANULAR FERTILIZER MUST BE APPLIED, AT THE RECOMMENDED LABEL RATE, SPREAD EVENLY ACROSS THE SURFACE OF THE ROOTBALL.  
6.3.2. FOLIAR FEED FOUR TIMES PER YEAR.

6.4. PALMS

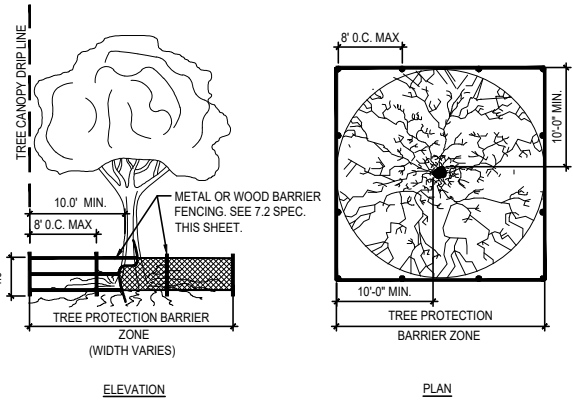
- 6.4.1. STRING MUST BE REMOVED FROM THE TIED UP LEAVES IMMEDIATELY AFTER RELOCATION TO THE FINAL LOCATION IF THE PALM WAS ROOT PRUNED OR WITHIN 30-45 DAYS AFTER RELOCATION ON THE OCCASION THE LANDSCAPE ARCHITECT APPROVED RELOCATION WITHOUT ROOT PRUNING DUE TO TIME CONSTRAINTS.  
6.4.2. IMMEDIATELY AFTER RELOCATION TO THE FINAL LOCATION AND EVERY THREE MONTHS THEREAFTER, A HIGH-QUALITY, SLOW-RELEASE 8-4-12 GRANULAR PALM FERTILIZER WITH MINORS MUST BE APPLIED, AT THE RECOMMENDED LABEL RATE, SPREAD EVENLY ACROSS THE SURFACE OF THE ROOTBALL.  
6.4.3. FOLIAR FEED SIX TIMES PER YEAR.

7. TREE PROTECTION SPECIFICATIONS

- 7.1. TREE PROTECTION FENCES SHALL BE CONSTRUCTED PRIOR TO ANY CONSTRUCTION ACTIVITY INCLUDING GRUBBING FOR ALL TREES / PALMS TO REMAIN OR BE RELOCATED.  
7.2. FENCES SHOULD BE OF STURDY CONSTRUCTION. STURDY TEMPORARY BARRIERS SHALL BE INSTALLED AROUND ALL TREE PROTECTION ZONES. BARRIERS SHALL BE A MINIMUM OF FOUR FEET HIGH, AND SHALL BE CONSTRUCTED OF CONTINUOUS CHAIN LINK FENCE WITH METAL POSTS AT EIGHT-FOOT SPACING, OR OF TWO-BY-FOUR INCH POSTS WITH THREE EQUALLY SPACED TWO-BY-FOUR INCH RAILS. POSTS MAY BE SHIFTED TO AVOID ROOTS.  
7.3. FENCES MUST BE MAINTAINED INTACT UNTIL THE PROJECT IS COMPLETED. THEY SHOULD NOT BE REMOVED OR DROPPED FOR ANY REASON WITHOUT AUTHORIZATION FROM THE CITY'S URBAN FORESTER.  
7.4. NO ACTIVITY OR DISTURBANCE SHOULD OCCUR WITHIN THE FENCED AREAS, INCLUDING VEHICLE USE, STORAGE OF MATERIALS, DUMPING OF LIQUIDS OR MATERIALS, GRADE CHANGES, GRUBBING, MECHANICAL TRENCHING FOR IRRIGATION, ELECTRICAL LIGHTING, ETC.

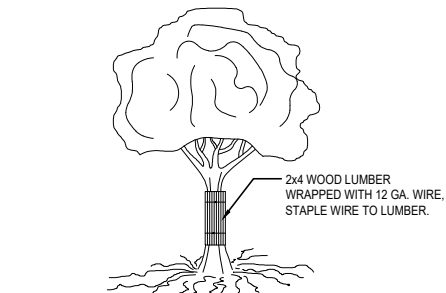
8. WARRANTY

- 8.1. ALL RELOCATED TREES AND PALMS MUST BE GUARANTEED FOR ONE YEAR FROM THE DATE OF RELOCATION TO THEIR FINAL LOCATIONS.  
8.2. IF A TREE OR PALM DIES WITHIN THE 1-YEAR WARRANTY PERIOD, IT MUST BE REMOVED AND REPLACED AT CONTRACTOR'S EXPENSE.  
8.3. IF A TREE OR PALM PERFORMS POORLY WITHIN THE 1-YEAR WARRANTY PERIOD, IT MUST BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. THE DECISION TO REPLACE BASED ON POOR HEALTH IS AT THE DISCRETION OF THE LANDSCAPE ARCHITECT.  
8.4. IF A TREE OR PALM SETTLES TO AN UNHEALTHY DEPTH WITHIN THE 1-YEAR WARRANTY PERIOD, AS DEEMED BY THE LANDSCAPE ARCHITECT, IT MUST BE RAISED TO THE CORRECT GRADE AT CONTRACTOR'S EXPENSE.



1 TREE BARRICADE DETAIL

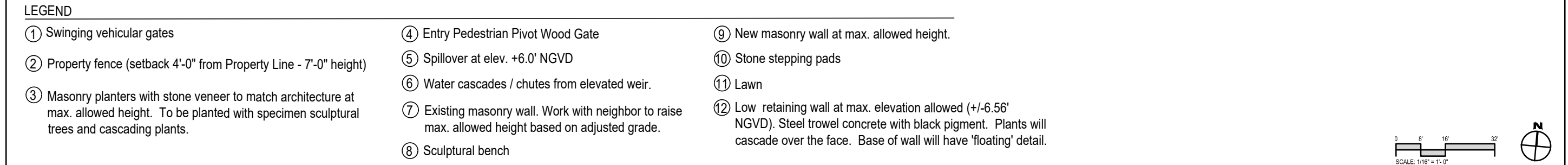
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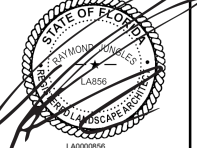
2 TREE TRUNK PROTECTION DETAIL

SCALE: N/A



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LANDSCAPE ARCHITECT: Raymond Jungles

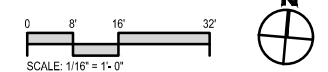


SHEET TITLE:

HARDSCAPE PLAN  
GROUND FLOOR

Scale: 1/16" = 1'-0"  
 Drawn By: VA, JL  
 Checked By: JS  
 Date: 08/02/2021  
 SHEET NUMBER:

**L-103**









## DESIGN REVIEW BOARD

[illegible]

SEAL:

LANDSCAPE ARCHITECT: Raymond Jungles



SHEET TITLE:  
CANOPY  
PLANTING PLAN  
GROUND FLOOR

Scale: 1/16" = 1'-0"  
 Drawn By: VA, JL  
 Checked By: JS  
 Date: 08/02/2021

SHEET NUMBER:

L 100

**L-106**

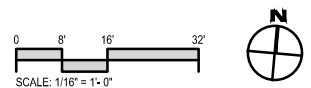
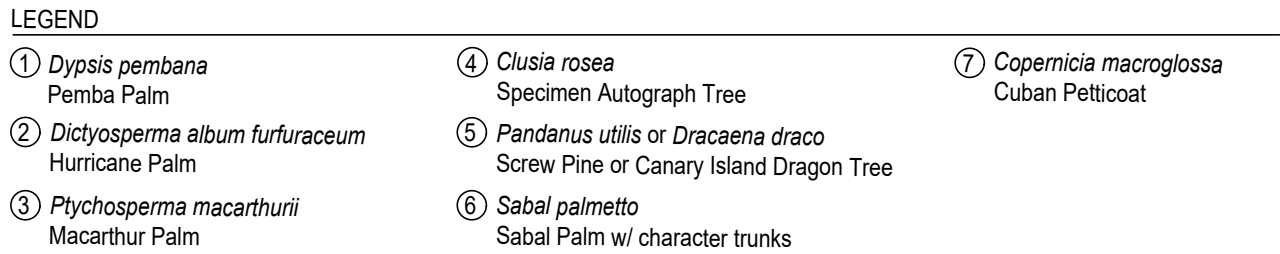
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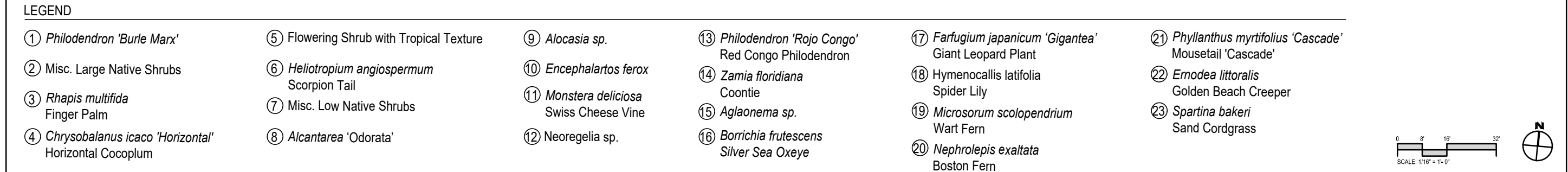
① <i>Cocos nucifera</i> Coconut Palms w/ character trunks	⑤ <i>Dypsis pembana</i> Pemba Palm	⑨ <i>Clusia rosea</i> Specimen Autograph Tree	⑬ <i>Polyalthia longifolia</i> Specimen Mast Tree	⑰ <i>Cordia sebestena</i> Orange Gieger Tree to match existing	⑳ Existing <i>Ficus sp.</i>	㉕ Existing Veitchia Palm
② <i>Sabal palmetto</i> Sabal Palms w/ character trunks	⑥ <i>Thrinax or Coccothrinax sp.</i>	⑩ <i>Coccoloba uvifera</i> Specimen Seagrape	⑭ <i>Guaiacum officinale</i> Specimen Lignum vitae	⑱ Existing <i>Handroanthus c.</i> Yellow Tabebuia	㉑ Existing <i>Syagrus romanzoffiana</i> Queen Palm	㉖ Existing <i>Livistona chinensis</i> Chinese Fan Palm
③ <i>Sabal domingensis</i> or <i>Copernicia fallae</i> Dominican Sabal Palm	⑦ <i>Ravenala madagascariensis</i> Specimen Travelers Tree	⑪ Asymmetrical Specimen Canopy Tree	⑮ <i>Relocated Cordia sebestena</i> Orange Gieger Tree from R.O.W.	㉒ Existing Phoenix Florida Hybrid	㉓ Existing Dwarf <i>Clusia</i> hedge	
④ <i>Roystonea regia</i> Royal Palm	⑧ <i>Quercus virginiana</i> or <i>Busera simaruba</i> Live Oak or Gumbo limbo	⑫ Miscellaneous Native Understory Tree	⑯ Existing <i>Cordia sebestena</i> Orange Gieger Tree	㉔ Existing <i>Roystonea regia</i> Royal Palm	㉗ Existing <i>Ravenala madagascariensis</i> Travelers Tree	











VISIONS:

AL:

Date: 06/02/2021

LANDSCAPE ARCHITECT: Raymond J. Smith

STATE OF FLORIDA

RAYMOND J. SMITH, P.E.

LA559

LANDSCAPE ARCHITECT

LA0000050

SHEET TITLE:

UNDERSTORY  
PLANTING PLAN  
GROUND FLOOR

Scale: 1/16" = 1'-0"

Drawn By: VA, JL

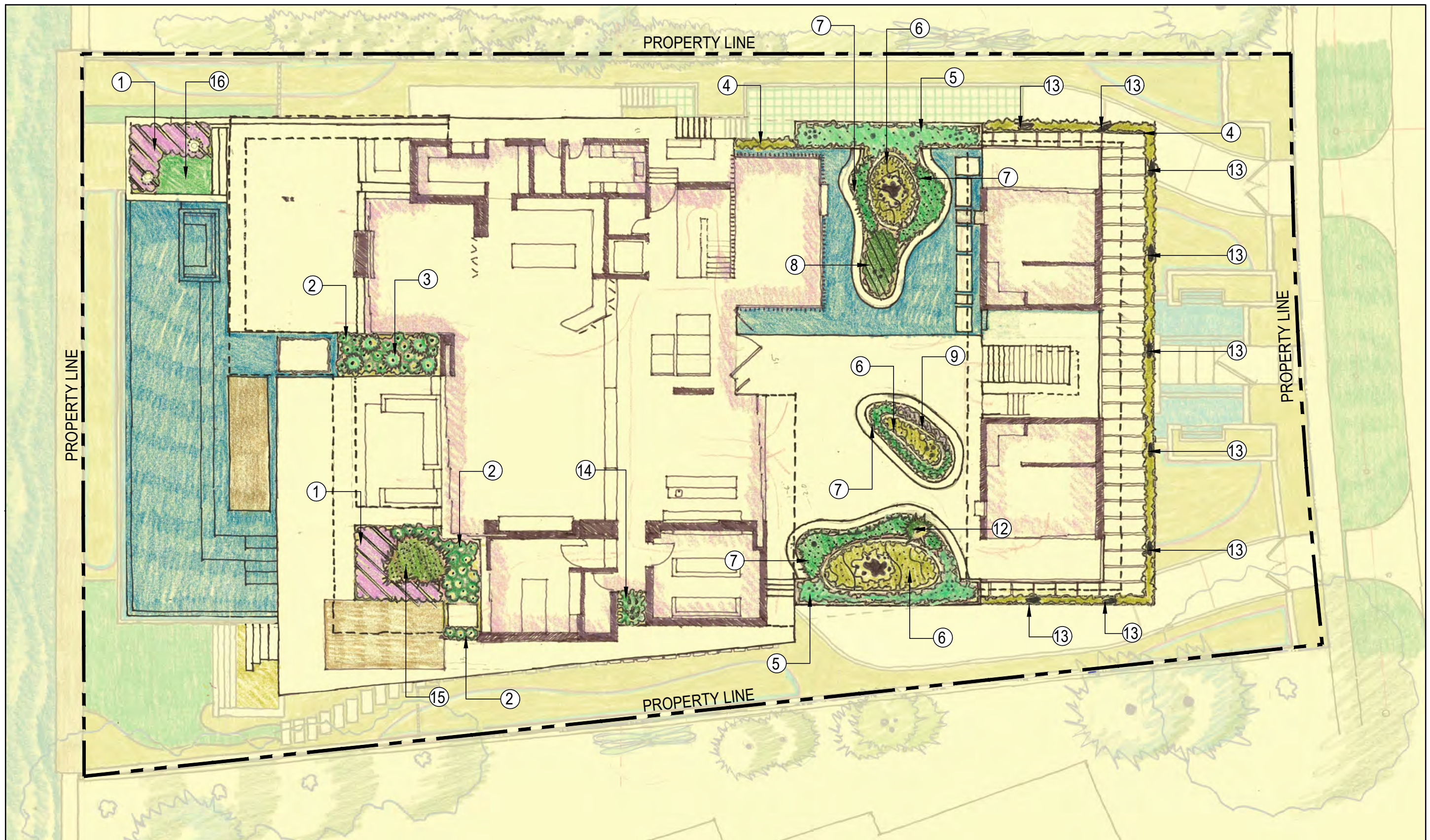
Checked By: JS

Date: 06/02/2021

SHEET NUMBER:

**L-108**





- ① *Glandularia maritima*  
Beach Verbena
- ② *Peperomia obtusifolia*  
Baby rubber plant
- ③ *Alcantarea 'Odorata'*
- ④ *Ernodea littoralis*  
Golden Beach Creeper

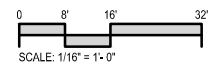
- ⑤ *Philodendron* 'Burle Marx'
- ⑥ *Phyllanthus myrtilifolius* 'Cascade'  
Mousetail 'Cascade'
- ⑦ *Crinum americanum*  
Crinum Lily
- ⑧ *Colocasía esculenta* 'Illustris'  
Elephant Ear

- ⑨ *Cascading Flowering Groundcover*
- ⑩ *Hymenocallis latifolia*  
Spider Lily
- ⑪ *Philodendron 'Burle Marx'*
- ⑫ *Zamia floridiana*  
Coontie

- |  |   |
|--|---|
| ⑨ <i>Cascading Flowering Groundcover</i>       | ⑬ <i>Stephanotis floribunda</i><br>Bridal Wreath        |
| ⑩ <i>Hymenocallis latifolia</i><br>Spider Lily | ⑭ <i>Clerodendrum speciosissimum</i><br>Java Glory Vine |
| ⑪ <i>Philodendron 'Burle Marx'</i>             | ⑮ <i>Heterocentron elegans</i><br>Spanish Shawl         |
| ⑫ <i>Zamia floridiana</i><br>Coontie           | ⑯ Lawn (TYP.)   |

- ⑬ *Stephanotis floribunda*  
Bridal Wreath
- ⑭ *Clerodendrum speciosissimum*  
Java Glory Vine
- ⑮ *Heterocentron elegans*  
Spanish Shawl
- ⑯ Lawn (TYP.)

- ⑬ *Stephanotis floribunda*  
Bridal Wreath
- ⑭ *Clerodendrum speciosum*  
Java Glory Vine
- ⑮ *Heterocentron elegans*  
Spanish Shawl
- ⑯ Lawn (TYP.)





[illegible]

Scale: 1/16"=1'-0"  
 Drawn By: VA, JL  
 Checked By: JS  
 Date: 08/02/2021  
 SHEET NUMBER:

L-110



4540 North Bay Road Garden | Proposed Plant List  
Miami Beach, Fl.  
28-Jun-21

RELOCATED TREES					
QTY	SYM	Botanical Name	Common Name	Native	Specifications
1	CSE	<i>Cordia sebestena</i>	Orange Gieger Tree	Yes	(Tree #37 from R.O.W.)

TREES					
QTY	SYM	Botanical Name	Common Name	Native	Specifications
4	ASC	<i>Asymmetrical Specimen Canopy Tree</i>	T.B.D.		16' HT. x 8" SPR.; 4" DBH (minimum)
2	CRO	<i>Clusia rosea</i>	Autograph Tree	Yes	Specimen; 24' HT. x 20" SPR.; Character trunk (30" DBH min.)
1	CSE	<i>Cordia sebestena</i>	Orange Gieger Tree	Yes	F.G.; 12'-14' HT.; 4" DBH (to match existing)
1	CUF	<i>Coccoloba uvifera</i>	Seagrape	Yes	Specimen; 16' HT. x 8" SPR.; 4" DBH (minimum); Multi-trunk w/ character branching
2	GOF	<i>Guaiacum officinale</i>	Lignum vitae	Yes	100 Gal.; 6'-8' HT.; Character branching
19	PLO	<i>Polyalthia longifolia</i> 'Upright'	False Ashoka	No	16' HT. - (matching)
1	BSI	<i>Bursaria simaruba</i>	Gumbo Limbo	Yes	F.G.; 18'-20' HT. x 12" SPR.; 8" DBH
	QVI	<i>Quercus virginiana</i>	Live Oak	Yes	

PALMS					
QTY	SYM	Botanical Name	Common Name	Native	Specifications
21	CAR	<i>Coccothrinax sp.</i>	T.B.D.		7'-13' WD; Staggered heights; Character trunks
	TRA	<i>Thrinax radiata</i>	Green Thatch Palm	Yes	13'-21' WD; Staggered heights; Character trunks
	CFA	<i>Copernicia fallasense</i>	Same	No	Specimen; \$15,000.00 planted price allowance. To be selected by Landscape Architect
5	SDO	<i>Sabal domingensis</i>	Dominican Sabal Palm	No	20'-25' CT.; Heavy
5	CNU	<i>Cocos nucifera</i>	Coconut Palm	No	25'-35' WD.; Staggered heights; Character trunks
8	DPE	<i>Dypsis pembana</i>	Pemba Palm	No	F.G.; 16'-20' HT.; 5 trunks min.
4	RRE	<i>Roystonea regia</i>	Royal Palm	Yes	25'-35' GW; Heavy
10	SPA	<i>Sabal palmetto</i>	Sabal Palm	Yes	25'-35' CT.; Staggered heights; Character trunks

UNDERSTORY TREES / LARGE SHRUBS					
QTY	SYM	Botanical Name	Common Name	Native	Specifications
17	LNS	T.B.D.	Misc. Large Native Shrubs	Yes	12' HT. x 6' SPR.; 2" DBH (minimum)
16	LNS	T.B.D.	Misc. Large Native Shrubs	Yes	45 Gal.; 6'-8' HT. x 4'-5' SPR.; Bush
14	MUT	T.B.D.	Misc. Native Understory Tree	Yes	12' HT. x 6' SPR.; 2" DBH (minimum)

UNDERSTORY PALMS					
QTY	SYM	Botanical Name	Common Name	Native	Specifications
4	RML	<i>Rhapis multifida</i>	Finger Palm	No	15 Gal.; 5'-6' HT.

UNDERSTORY SHRUBS					
QTY	SYM	Botanical Name	Common Name	Native	Specifications
9	CI	<i>Chrysobalanus icaco</i> 'Horizontal'	Cocoplum	Yes	7 Gal.; 24" HT.; Full
74	FS	Flowering Shrub with Tropical Texture	T.B.D.		7 Gal.; Full
59	HA	<i>Heliotropium angiospermum</i>	Scorpion Tail	Yes	3 Gal.; Full
59	LS	T.B.D.	Misc. Low Native Shrubs	Yes	7 Gal.; 24"-36" HT.; Full

ACCENTS				
QTY	SYM	Botanical Name	Common Name	Native Specification
3	AQ	<i>Alcantarea 'Odorata'</i>	Same	No 7 Gal.; Full
3	AP	<i>Alocasia sp.</i>	Elephant Ear	No 15 Gal.
2	EF	<i>Encephalartos ferox</i>	Same	No 15 Gal.; 3'-4' HT.
52	MD	<i>Monstera deliciosa</i>	Swiss Cheese Vine	No 7 Gal.; Mature leaves
3	RM	<i>Ravenala madagascariensis</i>	Travelers Tree	No Specimen; 24'-28' HT.
48	PR	<i>Philodendron 'Rajo Congo'</i>	Red Congo Philodendron	No 7 Gal.; Full
7	ZF	<i>Zamia floridana</i>	Coontie	Yes 7 Gal.; 18" HT.; Full

GROUNDCOVERS					
QTY	SYM	Botanical Name	Common Name	Native	Specification
52	AS	<i>Aglaonema</i> sp.	Same	No	3 Gal.; Full
10	BF	<i>Bornchia frutescens</i>	Silver Sea Oxeye	Yes	3 Gal.; Full
90	EL	<i>Ernodea littoralis</i>	Golden Beach Creeper	Yes	3 Gal. @ 24" O.C.; Full
28	FJ	<i>Farfugium japonicum</i> 'Gigantea'	Giant Leopard plant	No	3 Gal. @ 24" O.C.; Full
31	HL	<i>Hymenocallis latifolia</i>	Spider Lily	Yes	3 Gal. @ 24" O.C.; Full
34	MS	<i>Microsorium scolopendrium</i>	Wart Fern	No	1 Gal. @ 18" O.C.; Full
227	NE	<i>Nephrolepis exaltata</i>	Boston Fern	Yes	3 Gal.; 18" HT. @ 24" O.C.; Full
112	NS	<i>Neoregelia</i> sp.		No	1 Gal. @ 12" O.C.; Full
258	PB	<i>Philodendron</i> 'Burle Marx'	Same	No	3 Gal. @ 24" O.C.; Full
24	PM	<i>Phyllanthus myrsinifolius</i> 'Cascade'	Mousetail 'Cascade'	No	3 Gal. @ 24" O.C.; Full

GRASSES				
QTY	SYM	Botanical Name	Common Name	Native Specification
98	SB	<i>Spartina bakeri</i>	Sand Cordgrass	Yes 3 Gal. @ 18" O.C.

TREES					
QTY	SYM	Botanical Name	Common Name	Native	Specifications
1	CRO	<i>Clusia rosea</i>	Autograph Tree	Yes	Specimen; 16' HT. x 16' SPR.; Character trunk (30" DBH min.)
1	DDR	<i>Dracaena draco</i>	Canary Islands Dragon Tree	No	Specimen; To be selected by Landscape Architect
	PUT	<i>Pandanus utilis</i>	Screw Pine	No	

PALMS					
QTY	SYM	Botanical Name	Common Name	Native	Specifications
1	CMA	<i>Copernicia macroglossa</i>	Cuban Petticoat	No	45 Gall.; 5' HT.
3	DAF	<i>Dictyosperma album furfuraceum</i>	Hurricane Palm	No	25 Gall.; 6'-8' HT.
6	DPE	<i>Dypsis pembana</i>	Pemba Palm	No	F.G.; 16'-20' HT.; 5 trunks min.
4	PMA	<i>Ptychosperma macarthurii</i>	Macarthur Palm	No	10'-12' HT.; To be selected by Landscape Architect
2	SPA	<i>Sabal palmetto</i>	Sabal Palm	Yes	25'-35' CT.; Staggered heights; Character trunks

ACCENTS					
QTY	SYM	Botanical Name	Common Name	Native	Specification
5	AO	<i>Alcantarea 'Odorata'</i>	Same	No	7 Gal.; Full
43	CA	<i>Crinum americanum</i>	Crinum Lily	Yes	3 Gal.; Full
12	CE	<i>Colocasia esculenta 'Illustis'</i>	Elephant Ear	No	7 Gal.; Full
1	ZF	<i>Zamia floridiana</i>	Coontie	Yes	7 Gal.; 18" HT.; Full

GROUNDCOVERS					
QTY	SYM	Botanical Name	Common Name	Native	Specification
11	CF	<i>Cascading Flowering Groundcover</i>	T.B.D.		1 Gal. @ 18" O.C.; Full
55	EL	<i>Ernodea littoralis</i>	Golden Beach Creeper	Yes	3 Gal. @ 24" O.C.; Full
113	GM	<i>Glandularia maritima</i>	Beach Verbena	Yes	1 Gal. @ 18" O.C.; Full
32	HE	<i>Heterocentron elegans</i>	Spanish Shawl	No	1 Gal. @ 18" O.C.; Full
24	HL	<i>Hymenocallis latifolia</i>	Spider Lily	Yes	3 Gal. @ 24" O.C.; Full
45	PB	<i>Philodendron 'Burle Marx'</i>	Burle Marx Philodendron	No	3 Gal. @ 24" O.C.; Full
51	PM	<i>Phyllanthus myrtifolius 'Cascade'</i>	Mousetail 'Cascade'	No	3 Gal. @ 24" O.C.; Full
38	PO	<i>Peperomia obtusifolia</i>	Baby rubber plant	Yes	1 Gal. @ 18" O.C.; Full

VINES					
QTY	SYM	Botanical Name	Common Name	Native	Specification
13	CS	<i>Clerodendrum speciosissimum</i>	Glory Bower	No	3 Gal.
9	SF	<i>Stephanotis floribunda</i>	Bridal Wreath	Yes	7 Gal.

SOD					
QTY	SYM	Botanical Name	Common Name	Native	Specification
55SF	ZJ	Zoysia japonica	Zoysia Grass	No	Solid Sod; Quantity shown in square feet

ACCENTS					
QTY	SYM	Botanical Name	Common Name	Native	Specification
7	AR	<i>Alocasia 'Regal Shields'</i>	Elephant Ear	No	7 Gal.
4	AI	<i>Alcantarea imperialis</i>	Bromeliad	No	7 Gal.

GROUNDCOVERS					
QTY	SYM	Botanical Name	Common Name	Native	Specification
45	EL	<i>Ernodea littoralis</i>	Golden Beach Creeper	Yes	3 Gal. @ 24" O.C.; Full
52	BF	<i>Bulbine frutescens 'Peach'</i>	Desert Candles	No	1 Gal. @ 12" O.C.; Full
7	NE	<i>Nephrolepis exaltata</i>	Boston Fern	Yes	3 Gal.; 18" HT. @ 24" O.C.; Full

GRASSES					
QTY	SYM	Botanical Name	Common Name	Native	Specification
50	TF	<i>Tripsacum floridana</i>	Florida Gama Grass	Yes	3 Gal.

SOD					
QTY	SYM	Botanical Name	Common Name	Native	Specification
233 SF	ZJ	Zoysia japonica	Zoysia Grass	No	Solid Sod; Quantity shown in square feet; Allow to mound

Miami Beach, Fl.

28-Jun-21

Total Tree D.B.H. Removed Requiring Mitigation	27 inches (5 trees @ 16' HT. x 8' SPR.)
Proposed Trees with 16' HT. x 8' SPR.; 4" D.B.H. (minimum)	8 (refer to 'Trees' category in plant list)

Remaining Tree D.B.H. Removed Requiring Mitigation	0
Total Palms Removed Requiring Mitigation Tree Replacement on a 1:1 basis	28 (12' HT.; 2" DBH.)

**Proposed Trees with 12' HT. and 2" D.B.H. (minimum)**

Miami Beach, Fl.

28-Jun-21

Replacement Mitigation Trees (16' HT. x 8' SPR.; 4" DBH. (minimum) specifications	8
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(4) Asymmetrical Specimen Canopy Tree, (2) Autograph Tree, (1) Seagrape, (1) Live Oak -or- Gumbo Limbo

(1) Orange Geiger, (17) Miss. Large Native Shrubs, (14) Miss. Native Understory Trees

(1) Orange Geiger, (17) Misc. Large Native Shrubs, (14) Misc. Native Understory Trees



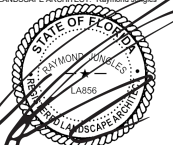
CITY OF MIAMI BEACH LANDSCAPE LEGEND			
INFORMATION REQUIRED TO BE PERMANENTLY AFFIXED TO PLANS			
ZONING DISTRICT <u>RS-2</u> LOT AREA <u>22,885 SF</u> ACRES <u>0.52</u>			
	<b><u>OPEN SPACE</u></b>	<b>REQUIRED/ ALLOWED</b>	<b>PROVIDED</b>
A.	SQUARE FEET OF REQUIRED OPEN SPACE AS INDICATED ON SITE PLAN: LOT AREA = <u>22,885</u> S.F. X <u>70%</u> % = <u>16,019.5</u> S.F.	16,019.5 SF	16,281 SF
B.	SQUARE FEET OF PARKING LOT OPEN SPACE REQUIRED AS INDICATED ON SITE PLAN:	N/A	N/A
	NUMBER OF PARKING SPACES    _____ X 10 S.F. PARKING SPACE =	N/A	N/A
C.	TOTAL SQUARE FEET OF LANDSCAPED OPEN SPACE REQUIRED: A+B=	16,019.5 SF	16,281 SF
COVERAGE EXEMPTION (5'-0" PROJECTIONS-1,779 SQ.FT.)			
	<b><u>LAWN AREA CALCULATION</u></b>		
A.	SQUARE FEET OF LANDSCAPED OPEN SPACE REQUIRED 22,998 SF		
B.	MAXIMUM LAWN AREA (SOD) PERMITTED= 50 % X 16,020 S.F.=8,010 SF	8,010 SF	275 SF
	<b><u>TREES</u></b>		
A.	TREES REQUIRED PER NET LOT ACRE	21	21
	TREES ON FRONT YARD	2	5
	TREES ON BACK YARD	3	16
	TREES IN EXCESS OF 6,000 SF LOT (1 TREE X 1,000 SF)	16	
	TOTAL TREES ON LOT	21	21
B.	30% NATIVES REQUIRED: 21 X 30% = 6.3	7	17
C.	50% LOW MAINTENANCE / DROUGHT AND SALT TOLERANT REQUIRED: 21 X 50% = 10.5	11	17
D.	STREET TREES (MAXIMUM AVERAGE SPACING OF 20' O.C.) 100 LF / 20' = 5	N/A	N/A
E.	STREET TREE SPECIES ALLOWED DIRECTLY BENEATH POWER LINES: (MAXIMUM AVERAGE SPACING OF 20' O.C.):	5	5
	<b><u>SHRUBS</u></b>		
A.	NUMBER OF SHRUBS REQUIRED: SUM OF LOT AND STREET TREES REQUIRED 26 X 12 = 312	312	702
B.	50% NATIVE SHRUBS REQUIRED: 312 X 50% = 156	156	358
	<b><u>LARGE SHRUBS OR SMALL TREES</u></b>		
A.	LARGE SHRUBS OR SMALL TREES (10% OF REQUIRED SHRUBS) 312 X 10% = 31.2	32	33
B.	50% NATIVE LARGE SHRUBS OR SMALL TREES REQUIRED: 32 X 50% = 16	16	33

DESIGN REVIEW BOARD

4540 NORTH BAY  
ROAD GARDEN  
4540 North Bay Road, Miami Beach, FL 33140

[illegible]

LANDSCAPE ARCHITECT: Raymond Jungles



HEET TITLE:

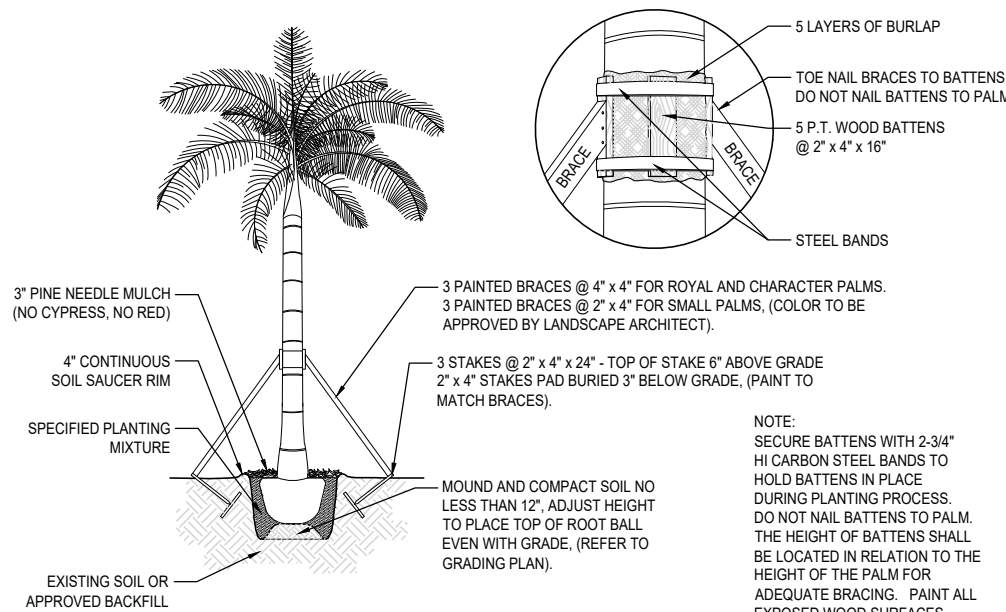
## LANDSCAPE LEGEND

Scale: AS SHOWN  
Drawn By: VA, JL  
Checked By: JS  
Date: 08/02/2021

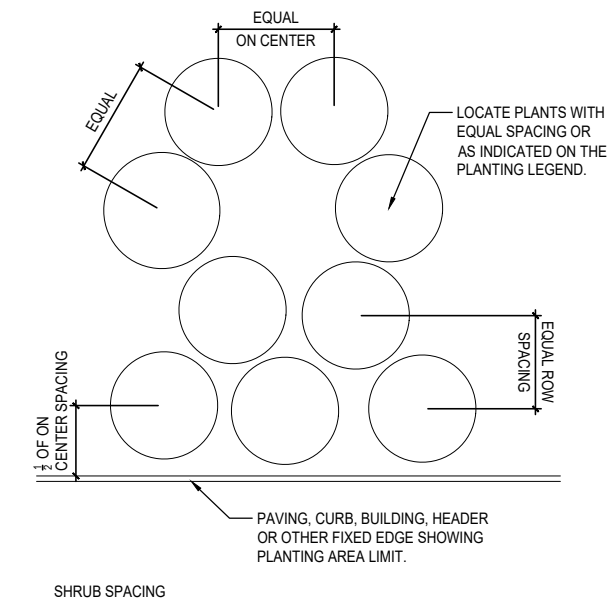
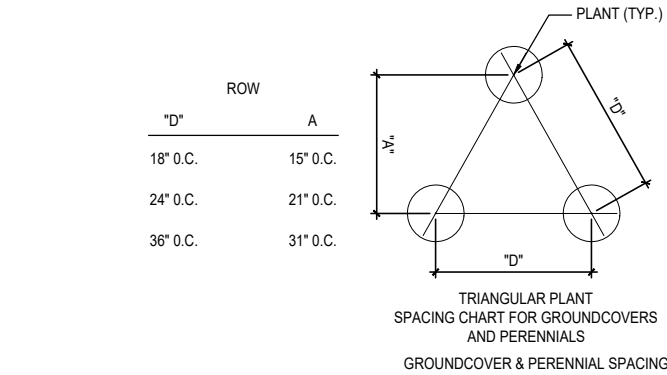
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## L-112

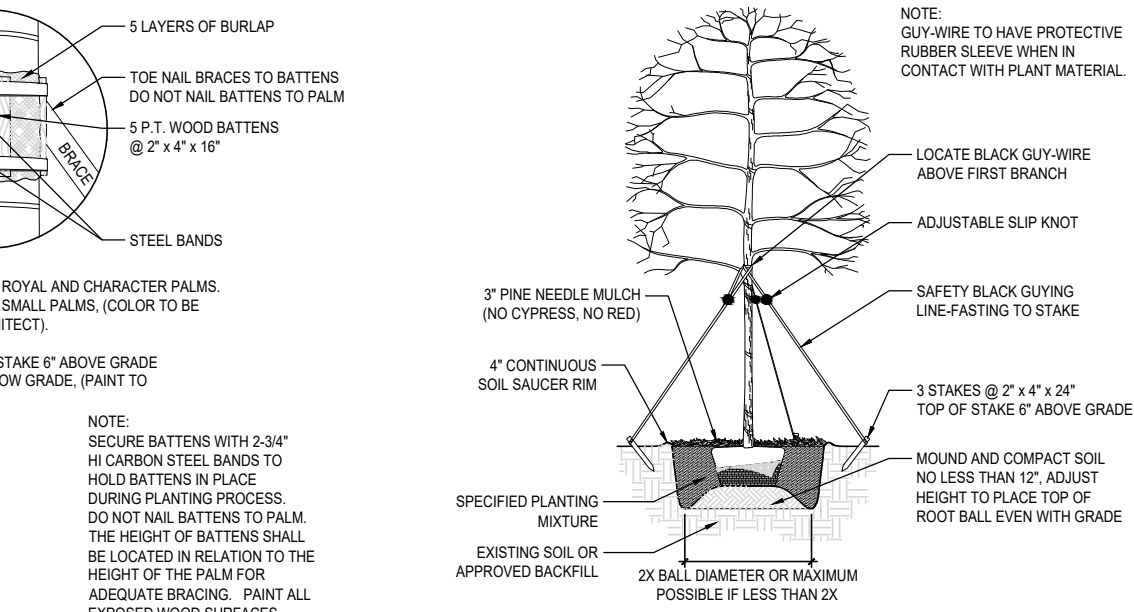




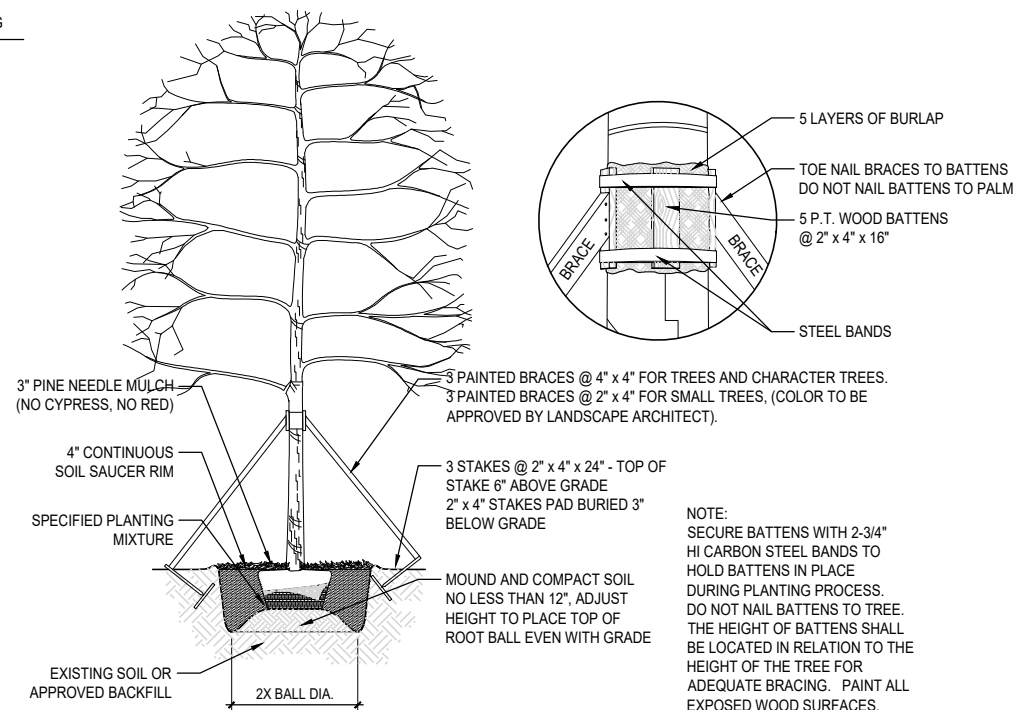
1 PALM PLANTING AND STAKING DETAIL  
SCALE: N.T.S.



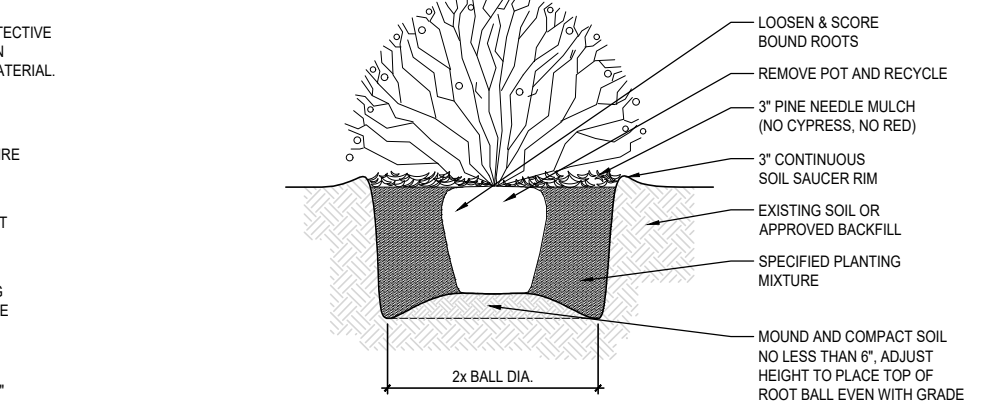
5 PLANT & SHRUB SPACING DETAIL  
SCALE: N.T.S.



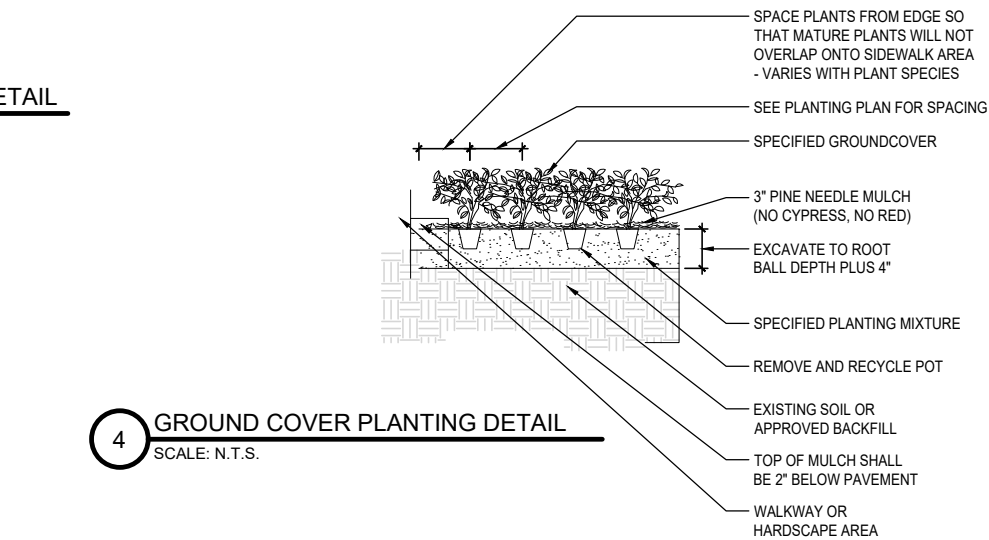
2 UNDERSTORY TREE PLANTING AND STAKING DETAIL  
SCALE: N.T.S.



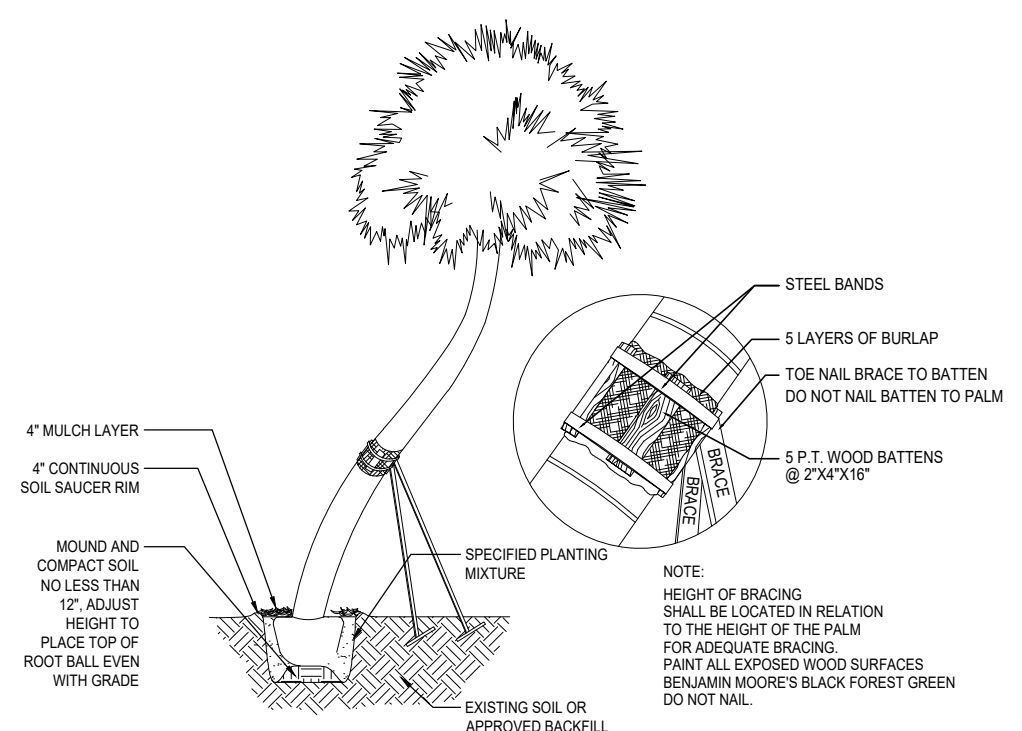
6 TREE PLANTING AND STAKING DETAIL  
SCALE: N.T.S.



3 SHRUB PLANTING DETAIL  
SCALE: N.T.S.



4 GROUND COVER PLANTING DETAIL  
SCALE: N.T.S.



7 CHARACTER PALM PLANTING AND STAKING DETAILS  
SCALE: N.T.S.



1. LANDSCAPE CONTRACTOR SHALL BECOME FAMILIAR WITH THE SCOPE OF WORK AS WELL AS THE SITE, DIGGING CONDITIONS, AND ANY OBSTACLES PRIOR TO SUBMITTING A BID.
2. LANDSCAPE CONTRACTOR SHALL PROVIDE AN INSTALLATION SCHEDULE TO THE GENERAL CONTRACTOR AND LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL.
3. LANDSCAPE CONTRACTOR SHOULD VERIFY ALL ESTIMATED QUANTITIES OF MATERIAL SHOWN ON THE LANDSCAPE ARCHITECT'S DRAWINGS PRIOR TO SUBMITTING A BID.
4. PLANT PLAN SHALL TAKE PRECEDENCE OVER PLANTING LIST IN CASE OF DISCREPANCIES.
5. ALL PLANT MATERIAL SYMBOLS SHOWN ON LANDSCAPE PLANS SHALL BE CONSIDERED DIAGRAMMATIC AND SHOULD BE ADJUSTED IN THE FIELD BY LANDSCAPE CONTRACTOR TO AVOID ALL UTILITIES AND ALL OTHER OBSTRUCTIONS, AFTER CONSULTING THE LANDSCAPE ARCHITECT.
6. ALL SIZES SPECIFIED FOR PLANT MATERIAL ON THE PLAN AND PLANT LIST SHALL BE CONSIDERED MINIMUM.
7. ALL PLANT MATERIAL MUST MEET OR EXCEED THE SPECIFIED MINIMUM REQUIREMENTS FOR BOTH HEIGHT AND SPREAD. MEASURE ALL INSTALLED PLANTS AND COMPARE AGAINST SPECIFICATIONS.
8. ANY SPECIFIC REQUIREMENTS SUCH AS SPECIFIC SHAPE, CHARACTER, NUMBER OF TREE TRUNKS, PLANT SOURCE, TRANSPORTING, AND OR SPECIAL BRACING NOTED ON THE PLAN OR PLANT LIST, WILL REQUIRE APPROVAL AND OR COORDINATION WITH THE LANDSCAPE ARCHITECT.
9. NO CHANGE OR SUBSTITUTION SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT.
10. ALL MATERIAL SHALL BE SUBJECT TO AVAILABILITY AT TIME OF INSTALLATION. SUBSTITUTIONS MAY BE MADE AFTER CONSULTATION WITH THE LANDSCAPE ARCHITECT
11. ALL TREES, PALMS, SHRUBS AND GROUND COVERS SHALL BE GUARANTEED FOR A PERIOD OF 12 MONTHS FROM DATE OF FINAL ACCEPTANCE.
12. CHANGES MAY OCCUR DURING THE NORMAL COURSE OF IMPLEMENTATION. VERBAL CHANGE ORDERS WILL NOT BE HONORED. ANY CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT IN WRITING AS A CHANGE ORDER TO BE REVIEWED AND APPROVED IN WRITING BY OWNER/CLIENT.
13. LANDSCAPE CONTRACTOR SHALL LOCATE AND VERIFY ALL UNDERGROUND UTILITIES OR STRUCTURES PRIOR TO DIGGING. LANDSCAPE CONTRACTOR SHALL REPAIR ALL DAMAGES TO UNDERGROUND UTILITIES, AND OR CONSTRUCTION CAUSED BY LANDSCAPE INSTALLATION, AT NO COST TO THE OWNER.
14. LANDSCAPE CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR, THE REMOVAL OF ALL BUILDING CONSTRUCTION DEBRIS AND FOREIGN MATERIAL PRIOR TO INSTALLATION OF ANY PLANT MATERIAL.
15. SITE PREPARATION SHOULD INCLUDE THE ERADICATION AND REMOVAL OF ANY WEEDS OR GRASS, REMOVAL AND CLEAN UP OF ANY DEAD MATERIAL AND ROUGH AND FINISH GRADING PER SPECS AND OR LANDSCAPE PLANS.
16. FOR PLANT MATERIAL DESIGNATED TO BE REMOVED, THE ENTIRE ROOT SYSTEM SHALL BE DUG AND REMOVED FROM THE SITE.
17. ALL PLANTING AREAS SHALL BE EXCAVATED TO A MINIMUM OF 6" FOR GROUNDCOVERS AND MORE THAN 12" FOR SHRUBS, TREES, AND PALMS, AND SHOULD RECEIVE PLANTING SOIL TYPE 1(REFER TO SOIL SPECIFICATIONS LP. 402) (COARSE SAND 70%, FLORIDA PEAT 20%, PINE BARK 10% FINAL TESTED ORGANIC MATTER BETWEEN 1.5% & 2.5% (BY DRY WEIGHT). SUBMIT ALL TESTING DATA FOR APPROVAL BY LANDSCAPE ARCHITECT.
18. ALL PLANT MATERIAL SHALL BE FLORIDA NO. 1 OR BETTER. FLORIDA DEPARTMENT OF AGRICULTURE GRADES AND STANDARDS, PARTS I & II, 1975, RESPECTIVELY.
19. ALL TREES SHALL BE STAKED IN A GOOD WORKMANLIKE MANNER. NO NAIL STAKING PERMITTED. (REFER TO BRACING NOTES AND PLANTING DETAILS)
20. AFTER REMOVAL OR RELOCATION OF EXISTING TREES AND PALMS, ALL REMAINING HOLES SHALL BE BACK FILLED AROUND AND UNDER ROOT BALL WITH WASHED BEACH SAND. SOD DISTURBED AREA, IF REQUIRED. ALL SHRUB BEDS TO BE INSTALLED WITH WASHED BEACH SAND. (SEE SPEC)

- ALL TREES, PALMS, SHRUBS AND GROUND COVER PLANTS SHALL BE FERTILIZED AT INSTALLATION, WITH LONG LASTING FERTILIZER, ACCORDING TO MANUFACTURERS' RECOMMENDATIONS AND BASED ON EXISTING SOIL TEST.
22. ALL EXISTING PLANT MATERIAL TO REMAIN, SHALL BE PROTECTED DURING ALL CONSTRUCTION PHASES. ANY PLANT MATERIAL SCARRED OR DESTROYED DESIGNATED TO REMAIN MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE WITH SIMILAR SPECIES SIZE AND QUALITY.
23. ALL TREES ON SOD AREA SHALL RECEIVE A HARDWOOD / PINE NEEDLE MULCH MIX RING 2" IN DIAMETER TYPICAL. MULCH TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE AND/OR INSTALLATION.
24. ALL PLANTING AREAS SHALL BE MULCHED WITH PINE STRAW MULCH TO A MINIMUM OF 3"; WITH THE EXCEPTION OF BEACH PLANTING. DO NOT USE CYPRESS OR RED MULCH.
25. ALL TREES SHALL HAVE 2" CALIPER AT D.B.H. MINIMUM FOR A 10' HEIGHT TREE, UNLESS NOTED OTHERWISE.
26. ALL 1 GALLON MATERIAL SHALL HAVE 12" SPREAD MINIMUM, ALL 3 GALLON MATERIAL TO HAVE 20-24" SPREAD MINIMUM.
27. ALL PLANTING AREAS WITHIN THE LIMITS OF WORK SHALL RECEIVE 100% COVERAGE BY AUTOMATIC IRRIGATION SYSTEM (DRIP PREFERRED) UNLESS OTHERWISE DIRECTED BY OWNER. SEE IRRIGATION PLANS FOR ADDITIONAL SPECIFICATIONS.
28. LANDSCAPE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER APPROPRIATE CONTRACTORS.
29. THE LANDSCAPE CONTRACTOR SHALL AT ALL TIMES KEEP THE JOB SITE CLEAN AND FREE FROM ACCUMULATION OF WASTE MATERIAL, DEBRIS, AND RUBBISH.
30. LANDSCAPE PLAN SHALL BE INSTALLED IN COMPLIANCE WITH ALL LOCAL CODES.
31. ON-SITE LAYOUT OF PLANT MATERIAL SHALL BE COORDINATED WITH LANDSCAPE ARCHITECT AT THE TIME OF INSTALLATION.
32. ALL PLANTS, MATERIALS, WORKMANSHIP, AND INVOICE APPROVAL ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
33. CONTRACTOR TO FLAG ALL PROPOSED TREE AND PALM LOCATIONS FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION.
34. LANDSCAPE ARCHITECT TO APPROVE ALL SHRUB AND GROUND COVER PLANTING LOCATION AND LAYOUT PRIOR TO INSTALLATION.
35. CONTRACTOR SHALL PROVIDE DIGITAL PHOTOGRAPHIC DOCUMENTATION DURING INSTALLATION FOR LANDSCAPE ARCHITECT'S REVIEW, WEEKLY.
36. LANDSCAPE CONTRACTOR TO INSURE ALL PLANT MATERIAL IS INSTALLED AT THE CORRECT ELEVATION, REFER TO GRADING PLAN.
37. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN OR COORDINATE WITH THE IRRIGATION CONTRACTOR AND LANDSCAPING MAINTENANCE SERVICES ALL PLANTING INCLUDING WATERING, MOWING, MULCHING, WEED, AND PEST CONTROL UNTIL FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT AND OWNER.
38. THE AWARDED LANDSCAPE CONTRACTOR SHALL SUBMIT A PROPOSED BID / CONTRACT WITH UNIT COST PRICING FOR ALL PLANT MATERIAL INCLUDING (WARRANTY, LABOR, TRANSPORTATION, RELOCATION, SITE MAINTENANCE AND PREPARATION) AS PER THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND OR PLANTING PLANS.
39. THE LANDSCAPE CONTRACTOR'S CONTRACT SHALL ACKNOWLEDGE ALL TERMS AND CONDITIONS SET FORTH UNDER THESE GENERAL LANDSCAPE NOTES AND SPECIFICATIONS.
40. THESE DRAWINGS, DOCUMENTS, AND ALL CONTENTS ARE THE PROPERTY OF RAYMOND JUNGLES, INC. ALL RIGHTS ARE RESERVED. UNAUTHORIZED USE OR PRODUCTION, IN PART OR WHOLE, FOR ANY PURPOSE IS UNLAWFUL AND PROHIBITED EXCEPT BY EXPRESS WRITTEN CONSENT.
41. IN ADDITION TO THE ABOVE PLANT LIST AND SPECIFICATIONS THERE IS TO BE AN ADDITIONAL \$20,000.00 WHOLESALE PLANT ALLOWANCE - LANDSCAPE ARCHITECT TO SELECT ACCENT SPECIMENS DURING NURSERY VISITS. LANDSCAPE ARCHITECT TO LAY OUT ACCENT PLANTS IN THE FIELD.
42. FINAL GRADES SHALL BE APPROVED IN THE FIELD BY LANDSCAPE ARCHITECT PRIOR TO PLANTING.

TREES AND PALMS GREATER THAN 6" DBH TO BE BRACED WITH PROPS:

1. CHOOSE THE CORRECT SIZE, LENGTH, AND NUMBER OF PROPS TO BE USED (PRESSURE TREATED (PT), TIMBER BAMBOO (GUADUA ANGUSTIFOLIA) 3" DIA.).
2. ALL (PRESSURE TREATED (PT) 2"x4", 4"x4"). STAKES SHALL BE PAINTED AS SPECIFIED BY THE LANDSCAPE ARCHITECT. WRAP AT LEAST 5 LAYERS OF BURLAP AROUND TRUNK OF THE PALM AT LEAST 4 INCHES WIDER THAN THE BATTENS BEING USED. BATTENS SHOULD BE MOUNTED AT A POINT 1/3 OF THE DISTANCE FROM GROUND TO THE CLEAR TRUNK OF THE TREE OR PALM, BUT NOT LESS THAN 4 FEET, WHICHEVER IS GREATER. ALL PAINT COLORS TO BE APPROVED BY LANDSCAPE ARCHITECT.
3. SELECT THE PROPER LENGTH AND SIZE OF BATTENS (PT 2"x4"x12"-16")
4. USE THE SAME NUMBER OF BATTENS AS PROPS BEING USED.
5. PLACE THE BATTENS VERTICALLY AND EVENLY SPACED AGAINST THE BURLAP.
6. SECURE THE BATTENS IN PLACE WITH METAL OR PLASTIC BANDING STRAPS. DO NOT NAIL TREE.
7. WEDGE LOWER END OF PROP INTO SOIL AND SECURE WITH A 2"x4"x30" STAKE. PROPS SHOULD BE INSTALLED AT A 30 TO 40 DEGREE ANGLE FROM THE BATTENS AND OF SUFFICIENT LENGTH TO REACH THE GROUND. NOTE: ON STRAIGHT TREES OR PALMS OR TREES, SPACE PROPS EQUAL DISTANCE AROUND TREE OR PALM ON CURVED (CHARACTER) PALMS OR TREES, SPACE PROPS AGAINST THE FRONT OF THE CURVE OF THE PALM.
8. CUT A SMOOTH ANGLE AT THE END OF THE PROPS. ALIGN WITH AND NAIL INTO BATTENS. DO NOT PENETRATE TREE OR PALM WITH NAILS.
9. IF IT APPEARS THAT ADDITIONAL CONSTRUCTION WORK WILL TAKE PLACE NEAR TO OR IN THE VICINITY OF THE NEWLY BRACED TREES OR PALMS, THEN PROPS ARE TO BE CLEARLY LABELED WITH THE STATEMENT, "DO NOT REMOVE."
10. PROPS ARE NOT TO BE REMOVED UNTIL APPROVED BY THE LANDSCAPE CONTRACTOR.

## TREES AND PALMS LESS THAN 6" DBH TO BE BRACED BY GUYING:

1. CHOOSE THE CORRECT SIZE AND NUMBER OF STAKES AND SIZE OF HOSE AND WIRE. GUYING SHALL BE COMPLETED WITHIN 48 HOURS OF PLANTING THE TREE.
2. CUT LENGTHS OF STAKING HOSE TO EXTEND 2 INCHES PAST TREE TRUNK WHEN WRAPPING AROUND.
3. SPACE STAKES EVENLY ON OUTSIDE OF WATER RING AND DRIVE EACH FIRMLY INTO THE GROUND. STAKES SHOULD BE DRIVEN AT A 30 DEGREE ANGLE WITH THE POINT OF THE STAKE TOWARD THE TREE UNTIL 4 TO 5 INCHES ARE LEFT SHOWING.
4. PLACE THE HOSE AROUND THE TRUNK JUST ABOVE THE LOWEST BRANCH.
5. THREAD THE WIRE THROUGH THE HOSE AND PAST THE STAKE, ALLOWING APPROXIMATELY 2 FEET OF EACH OF THE TWO ENDS BEYOND THE STAKE BEFORE CUTTING THE WIRE.
6. TWIST WIRE AT RUBBER HOSE TO KEEP IT IN PLACE.
7. PULL WIRE DOWN AND WIND BOTH ENDS AROUND STAKE TWICE. TWIST WIRE BACK ONTO ITSELF TO SECURE IT BEFORE CUTTING OFF THE EXCESS.
8. THE ABOVE PROCEDURES ARE TO BE FOLLOWED FOR EACH STAKE, KEEPING THE TREE STRAIGHT AT ALL TIMES.
9. THERE SHOULD BE A 1 TO 3 INCH SWAY IN THE TREE (THE WIRES SHOULD NOT BE PULLED TIGHT) FOR BEST ESTABLISHMENT.
10. FLAG THE GUY WIRES WITH SURVEYOR'S FLAGGING OR APPROVED EQUAL FOR SAFETY.
11. ANY WIRES ARE NOT TO BE REMOVED UNTIL APPROVED BY LANDSCAPE ARCHITECT.

1. LANDSCAPE: SUBMIT PHOTOGRAPHS OF ALL MATERIALS WITH SCALE REFERENCE. INDICATE GROWER'S LOCATION AND ANY LEAD TIME FOR ROOT PRUNING OR PREPARATION.

## DESIGN REVIEW BOARD

4540 NORTH BAY  
ROAD GARDEN

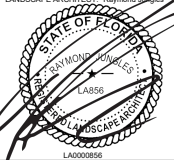
4540 North Bay Road, Miami Beach, FL 33140

REVISIONS:

[illegible]

No.	Date	Description
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LANDSCAPE ARCHITECT: Raymond Jungles




SHEET TITLE:

### PLANTING NOTES & SPECIFICATIONS

Scale: N/A  
Drawn By: VA, JL  
Checked By: JS  
Date: 08/02/2021  
SHEET NUMBER:

**L-114**







**MODEL PL-15 12V 30W TA 5W LED PL-15**

*Simply Elegant by Design™*


<b>Model</b> PL-15	
Material	T-1 Aluminum or SS
Maximum Voltage	30 volt, 5 volt LED
Input Voltage	12V (power transformer required)
Mounting	Attachment or Drop-In 1" x 3" square
Finish/Frame	Aluminum: Brush
Fluorescent	Aluminum: Standard, Clear, Matte
Lens	Standard: Frosted Glass
Mounting	1/2" x 3/4" (see order example)
Height	12" or 20"
Socket	GY-6.35 (see PL-15 Pinchalls)
Pinchalls	See
Coordination	With brother's fixtures: LA-1000
Weight	6.5, 10.5 lbs. (volume added)
Weight/Box	Recess: 3.0 lbs. Volume: 3.0 lbs.
Warranty	Recess: 20 Years Aluminum: 10 Years
Dimensions	1 1/2" square x 10.5" x 12"




Mounting Hole (1/2" x 3/4")




**Finish:**  
Aluminum



**Finish:**  
Brush



**Finish:**  
Stainless Steel



**Finish:**  
Polished Brass


**ORDERING LOGIC:**

Model: PL-15

Finish: A - Aluminum  
          S - SS

Height: 12 - 12"    20 - 20"

Finish: 12 - 12"    20 - 20"




**MODULAR DESIGN:**

The PL-15 path light is available in aluminum or stainless steel. The components that connect and the lens are mounted from separate locations. This method is a great design choice for the user. The user can choose the finish and the color of the lens. The user can choose the finish and the color of the lens. The user can choose the finish and the color of the lens.

**Mounting Hole Options:**

1/2" x 3/4"    1/2" x 3/4"    1/2" x 3/4"

**ORDERING EXAMPLE:** PL-15 - B - 20 - SS



Exceller Lighting, Inc. • 3807 L. Boudry Drive • Fresno, CA 93727 • T-808.338.331 • F-808.338.501 • [cs@excellerlighting.com](mailto:cs@excellerlighting.com)

**A** **PATH LIGHT**  
Scale: N.T.S.

[illegible]

**B** UP LIGHT  
Scale: N.T.S.



**eXcell**  
LIGHTING, INC.

**MODEL IN-GL 12VAG/DC 8W LED MODULE IN-GL**

*Slightly different by design*

**Model** IN-GL

**Length** 1.42 inches (36.29 mm Adjustable)

**Voltage** 12V Single Drive

**Chip Voltage** 18V 12.2V/DC (no load/warm up)

**Colors** 2700K, 3000K, CRI > 80

**Material** Cast Iron/steel top & Powder Coat

**Connectors** 2-pin/5-pin

**Features** Natural, Clear/Black or Powder Coat

**Mounting** 20-30 degree (vertical 180 degree optional)

**Weight** 140-145 grams (without 180 degree optional)

**Lens** Tempered Clear Glass lens

**ET Rating** ENEC

**Compliance** with CE mark

**Warranty** 3 yr 120,000 Hour/50,000 Cycles

**Inputs** 8 pins

**Voltages** 28 Vac

**Dimmable** 0% to 100% or 0% to 100%



**Single 2 Pin Driver**  
Cold Lead (2x)

**20-30 DEGREE**

**HETAL**  
Cast Brass



**ORDERING CODE**

**Model** IN-GL

**Size** 8-16mm

**Accessory** 0-None

**Part Color** 0-None    **PCB Color** Clear

**Warranty** 3 yr

**Wet Entry** 1-12V Single Cord  
2-12V Dual Cord

**Finish:**

BB - Black	BBZ - Black Texture
DB - Bronze	DBZ - Bronze Texture
WH - White	WHZ - White Texture
BL - Silver	BLZ - Silver Texture
GR - Grey	GRZ - Grey Texture



**FLUSH LENS FEATURE:**

To include the impact of natural objects laid back on the table top, use our Flush Lens & Lens to select our Model IN-GL.

**HOT-ARM FEATURE:**

Our hot-arms feature allows the LED module to be installed without the need for any wiring to be hot tapping or any hot tapping.

**ORDERING CODE:** IN-GL-B-P-4-PC-1-18T-5T

\*See Model sheet for actual model code to be installed



Excelsior Lighting, Inc. • 2007 N. Randy Drive • Peoria, CA 93727 • P: 533.534.541 • F: 533.534.551 • [excelsiorlighting.com](mailto:excelsiorlighting.com)

**C IN-GROUND UP LIGHT**  
Scale: N.T.S.

[illegible]

**D WALL WASH UP LIGHT**  
Scale: N.T.S.

## FLEXIBLE OPTIONS

**NEW! Wallwasher**  
 Available in 10W, 20W, 30W

**White Only**  
 Available in 10W, 20W, 30W

## BETTER ILLUMINATION

120° 10W  
 Greater Beam Spread

Normal Beam

1 Traditional wallwasher light

2 Paradyne Beam Spread light

## ENERGY SAVINGS

50Watts

27Watts

**BETTER ILLUMINATION**  
**95%<sup>+</sup>**  
 LESS ENERGY

## BARELY VISIBLE

Barely Visible







10.5" (26.7cm) Dia. 2" H.

**Go beyond ancient lighting!**  
 Paradyne Par Luminaire offers one of the only nonincandescent lighting ideas designed for general pool and spa lighting.

**E POOL LIGHT**  
Scale: N.T.S.

[illegible]

**F TREE MOUNTED DOWN LIGHT**  
Scale: N.T.S.

 <p><b>Ekelux</b> ILLUMINATING IDEAS</p>	<p><b>Model</b> MT-14</p> <p><b>Canopy Material</b> Mechanical Aluminum Canopies</p> <p><b>Mount</b> Mount</p> <p><b>Step Length</b> Available in 4", 6", or 10"</p> <p><b>Canopy Color</b> 33-37 inch finish step</p> <p><b>Installation</b> Stainless Steel</p> <p><b>Finish</b> Brushed Powder Coat</p> <p><b>Weight</b> 8 lbs.</p> <p><b>Certification</b> Wet location listing, UL1008</p> <p><b>Warranty</b> 30 Years</p> <p><b>Dimensions</b> 2 3/4" dia. canopy, 7" wide strap</p>	<p><b>Four Strap with Canopy</b></p> <p><i>Strap holder by Design*</i></p>  <p><b>Strap is Strap Holder</b> <b>Coat Finish (SS)</b></p>	<p><b>MT-14</b></p>
			
<p><b>METALS</b></p> <p>304 V.I. Aluminum Canopy with Stainless Steel Mount and Hook</p> 			
<p><b>ORDERING LOGIC:</b></p> <p><b>Model</b> MT - 14</p> <p><b>Mount</b> A - Aluminum</p> <p><b>Size</b> S - Standard L - Long</p> <p><b>Canopy:</b> 1 - One 2 - Two 3 - Three</p> <p><b>Step Length:</b> 4" - 4" 6" - 6" 10" - 10"</p> <p><b>Finish:</b> SS - Brush BF - Brush WT - White 80 - 800g</p>			
<p><b>ORDERING EXAMPLE:</b> MT-14-A-L-1-40-BK</p>		<p><b>NEW DESIGN</b></p> <p>Optional locking canopy. Rotational locking not allow different sizes from each other. The future incentive for easy installation and wiring.</p> 	
<p>Ekelux Lighting, Inc. • 2027 N. Bundy Drive, Folsom, CA 95757 • T- 505.346.1051 F- 505.346.1051 • <a href="http://www.ekeluxlighting.com">www.ekeluxlighting.com</a></p>			

**G WATER FEATURE UPLIGHT**  
Scale: N.T.S.

[illegible]

**H WATER FEATURE LIGHT**  
Scale: N.T.S.


**PENTAIR**



# MICROBRITE®

COLOR AND WHITE LED LIGHT

## The Most Compact, Brilliant Pool and Spa Wall Fitting LED Light Available.

Once you experience the ultimate lighting option, MicroBrite Color and White LED Lights provide exceptional brilliance and superior quality. Because they're only 3.6 inches long, the industry's smallest, they give you freedom to add lighting to areas never before possible. MicroBrite LED Lights give you more room for innovation.

### KEY FEATURES

- **Brilliant LED Performance in a Small Package.** From 1 to 2.2 lumens per inch and vibrant colors from a light bulb LED technology.
- **Opens Up New Lighting Design Possibilities.** For decorative and wall lighting options where others don't.
- **Network Upgrade for Fiber Optic Lighting.** Suitable to retrofit into many pools with fiber optic applications.
- **Simple, Straight Installation.** Install in any moment. In any pool and setting.


**pentair**

**TRIMARK**

**PENTAIRPOOL.COM**

**I RECESSED STEP LIGHT**  
Scale: N.T.S.

[illegible]

## GENERAL NOTES

1. PROPOSED LANDSCAPE LIGHTING IS TO BE SUBTLE, ACCENTUATE SPECIMEN AND OTHER KEY PLANT MATERIAL, AND PROVIDE WAYFINDING. LIGHTING FOR SPORTS COURTS OR OTHER ATYPICAL FEATURE LIGHTING IS NOT PROPOSED.
2. ALL FIXTURES TO BE INSTALLED PER THE NATIONAL ELECTRICAL CODE (N.E.C.). THE N.E.C. SHALL GOVERN AND SUPERCEDE ALL SPECIFICATIONS.
3. CONTRACTOR TO COORDINATE EXACT FIXTURE LOCATION WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
4. CONTRACTOR TO VERIFY TRANSFORMER QUANTITIES AND LOCATIONS PRIOR TO INSTALLATION.
5. ALL VISIBLE HARDWARE CONNECTIONS TO BE APPROVED BY LANDSCAPE ARCHITECT.
6. NO LAMP SUBSTITUTIONS SHALL BE PERMITTED UNLESS APPROVED BY LANDSCAPE ARCHITECT.
7. PERFORMANCE ENHANCING LENSES TO BE SPECIFIED AND APPROVED BY LANDSCAPE ARCHITECT. PRISMATIC SPREAD LENSES TO BE USED FOR WIDE BEAM ANGLES.
8. TRANSFORMERS SHALL BE MULTI-MATIC MAGNETIC STAINLESS STEEL.
9. PRIOR TO PURCHASING MATERIALS, CONTRACTOR SHALL PROVIDE SUBMITTALS TO LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL.
10. WIRE SHALL BE UV RESISTANT DIRECT BURIAL LIGHTING CABLE INSTALLED A

MINIMUM OF 6" BELOW GRADE. CONTRACTOR SHALL ALLOW FOR AN ADDITIONAL 15% LOAD ON EACH CIRCUIT.

11. DIRECT BURIAL WIRE SHALL BE PROTECTED BY 2" LENGTH PVC SLEEVE AT EDGE OF EVERY LANDSCAPE BED LINE.
12. ALL CONNECTORS USED SHALL BE KING INNOVATION SILICONE WATER-RESISTANT WIRE NUT CONNECTORS.
13. CONTRACTOR SHOULD VERIFY ALL ESTIMATED QUANTITIES OF MATERIAL SHOWN ON THE LANDSCAPE ARCHITECT'S DRAWINGS PRIOR TO SUBMITTING A BID.
14. NO CHANGE OR SUBSTITUTION SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT. ANY REVISION OR MODIFICATIONS TO THE LIGHTING PLAN MUST HAVE PRIOR APPROVAL BY THE LANDSCAPE ARCHITECT & OWNER.
15. CHANGES MAY OCCUR DURING THE NORMAL COURSE OF IMPLEMENTATION. VERBAL CHANGE ORDERS WILL NOT BE HONORED. ANY CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT IN WRITING AS A CHANGE ORDER TO BE REVIEWED AND APPROVED IN WRITING BY OWNER/CLIENT.
16. LIGHTING CONTRACTOR SHALL LOCATE AND VERIFY ALL UNDERGROUND UTILITIES OR STRUCTURES PRIOR TO DIGGING. LIGHTING CONTRACTOR SHALL REPAIR ALL DAMAGES TO UNDERGROUND UTILITIES, AND OR CONSTRUCTION

CAUSED BY LIGHTING INSTALLATION, AT NO COST TO THE OWNER.  
LIGHTING CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER  
APPROPRIATE CONTRACTORS.

18. LIGHTING PLAN SHALL BE INSTALLED IN COMPLIANCE WITH ALL LOCAL CODES.
19. ON-SITE LAYOUT OF LIGHT FIXTURES SHALL BE COORDINATED WITH LANDSCAPE ARCHITECT AT THE TIME OF INSTALLATION.
20. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY PERMITS OR APPROVALS FROM THE FEDERAL, STATE OR LOCAL GOVERNMENT REQUIRED FOR THE WORK INCLUDED IN THIS CONTRACT AND ON THESE DRAWINGS.
21. THESE DRAWINGS, DOCUMENTS, AND ALL CONTENTS ARE THE PROPERTY OF RAYMOND JUNGLES, INC. ALL RIGHTS ARE RESERVED. UNAUTHORIZED USE OR PRODUCTION, IN PART OR WHOLE, FOR ANY PURPOSE IS UNLAWFUL AND PROHIBITED EXCEPT BY EXPRESS WRITTEN CONSENT.
22. CONTRACTOR SHALL POWER, AND CONFIRM VIA TESTING THE VOLTAGE OF EACH FIXTURE TO ENSURE THAT IT MEETS MANUFACTURER'S SPECIFICATIONS.
23. ANY AND ALL WATER FEATURE LIGHTING FIXTURES SHALL BE 12 VOLT MAXIMUM AND BE GROUNDED.
24. CONTRACTOR SHALL FURNISH ALL WARRANTY DOCUMENTATION TO OWNER AT COMPLETION OF JOB.
25. CONTRACTOR SHALL HAVE LIGHTING INSTALLATION PERMITTED AND

INSPECTED BY THE GOVERNING REGULATORY AGENCY. APPROVAL  
DOCUMENTATION SHALL BE FURNISHED TO THE LANDSCAPE ARCHITECT &  
OWNER.

26. CONTRACTOR SHALL DISCUSS OWNER PREFERENCES FOR SCENE OPTIONS AND DIMMING CONTROLS PRIOR TO LIGHTING INSTALLATION.
27. TRANSFORMER CAPACITY TO BE DETERMINED BY CONTRACTOR AND APPROVED BY LANDSCAPE ARCHITECT.
28. TRANSFORMERS SHALL BE COMPATIBLE WITH IN-HOUSE CONTROLS.
29. LAMP TYPES SHALL BE AN LED LIGHT SOURCE, UNLESS NOTED OTHERWISE, AND APPROVED BY LANDSCAPE ARCHITECT.
30. ALL FIXTURES SHALL BE ON A DIMMER CONTROL MODULE WITH SCENE OPTIONS.
31. INDIVIDUAL FIXTURE TYPES SHALL BE ON DEDICATED/SEGREGATED CIRCUITS AND TRANSFORMERS.