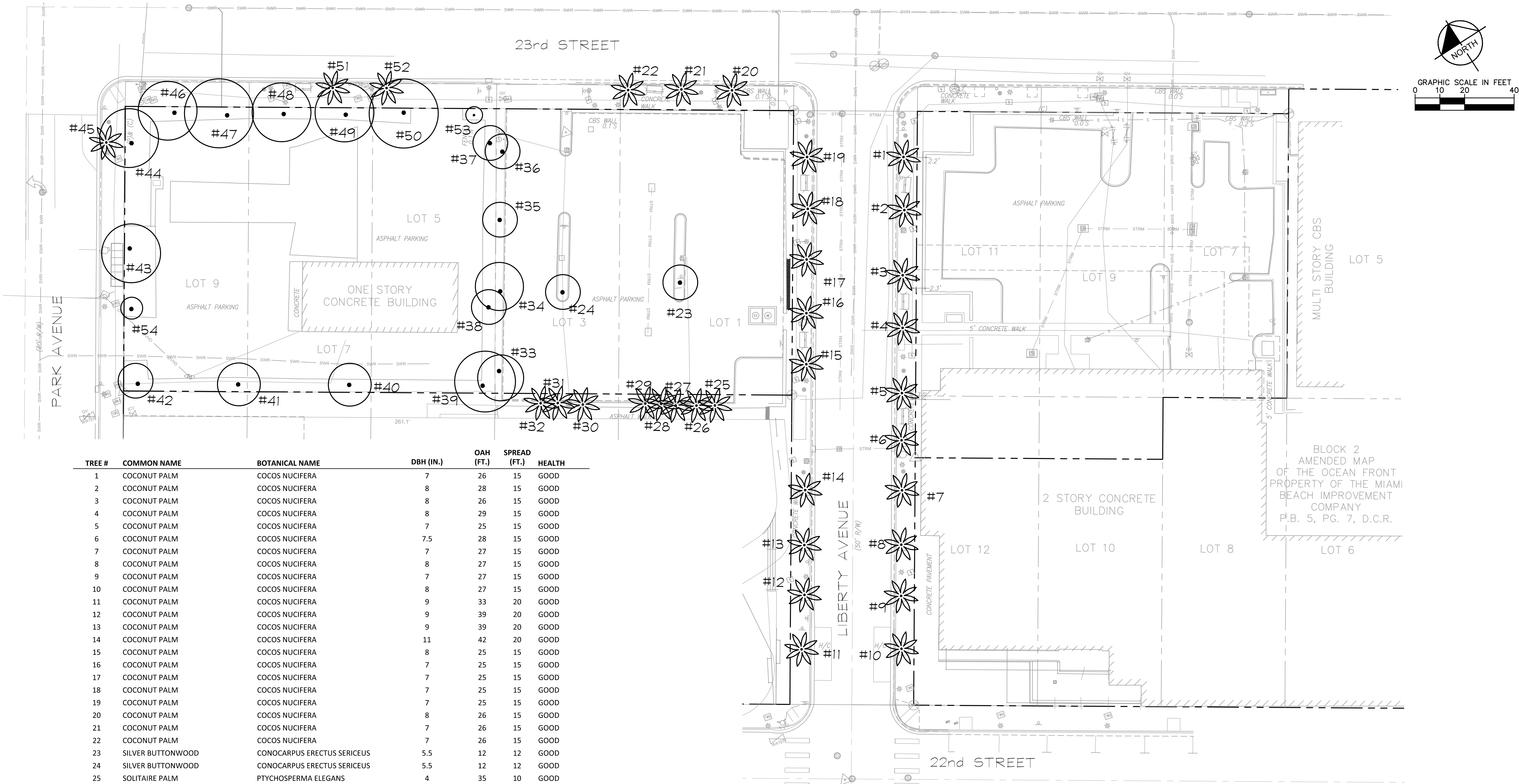


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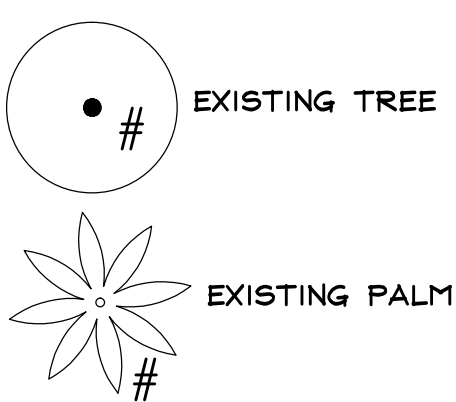


TREE #	COMMON NAME	BOTANICAL NAME	DBH (IN.)	OAH (FT.)	SPREAD (FT.)	HEALTH
1	COCONUT PALM	COCOS NUCIFERA	7	26	15	GOOD
2	COCONUT PALM	COCOS NUCIFERA	8	28	15	GOOD
3	COCONUT PALM	COCOS NUCIFERA	8	26	15	GOOD
4	COCONUT PALM	COCOS NUCIFERA	8	29	15	GOOD
5	COCONUT PALM	COCOS NUCIFERA	7	25	15	GOOD
6	COCONUT PALM	COCOS NUCIFERA	7.5	28	15	GOOD
7	COCONUT PALM	COCOS NUCIFERA	7	27	15	GOOD
8	COCONUT PALM	COCOS NUCIFERA	8	27	15	GOOD
9	COCONUT PALM	COCOS NUCIFERA	7	27	15	GOOD
10	COCONUT PALM	COCOS NUCIFERA	8	27	15	GOOD
11	COCONUT PALM	COCOS NUCIFERA	9	33	20	GOOD
12	COCONUT PALM	COCOS NUCIFERA	9	39	20	GOOD
13	COCONUT PALM	COCOS NUCIFERA	9	39	20	GOOD
14	COCONUT PALM	COCOS NUCIFERA	11	42	20	GOOD
15	COCONUT PALM	COCOS NUCIFERA	8	25	15	GOOD
16	COCONUT PALM	COCOS NUCIFERA	7	25	15	GOOD
17	COCONUT PALM	COCOS NUCIFERA	7	25	15	GOOD
18	COCONUT PALM	COCOS NUCIFERA	7	25	15	GOOD
19	COCONUT PALM	COCOS NUCIFERA	7	25	15	GOOD
20	COCONUT PALM	COCOS NUCIFERA	8	26	15	GOOD
21	COCONUT PALM	COCOS NUCIFERA	7	26	15	GOOD
22	COCONUT PALM	COCOS NUCIFERA	7	26	15	GOOD
23	SILVER BUTTONWOOD	CONOCARPUS ERECTUS SERICEUS	5.5	12	12	GOOD
24	SILVER BUTTONWOOD	CONOCARPUS ERECTUS SERICEUS	5.5	12	12	GOOD
25	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD
26	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD
27	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD
28	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD
29	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD
30	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD
31	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD
32	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD
33	SILVER BUTTONWOOD	CONOCARPUS ERECTUS SERICEUS	4	16	14	GOOD
34	SILVER BUTTONWOOD	CONOCARPUS ERECTUS SERICEUS	5.5	16	10	GOOD
35	SILVER BUTTONWOOD	CONOCARPUS ERECTUS SERICEUS	6	14	15	GOOD
36	SILVER BUTTONWOOD	CONOCARPUS ERECTUS SERICEUS	7	15	15	GOOD
37	WEEPING FIG	FICUS BENJAMINA	5.5 & 3.5	16	15	FAIR
38	WEEPING FIG	FICUS BENJAMINA	3+3+5+2.5+1+1+1+1	16	15	FAIR
39	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	17	35	28	GOOD
40	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	15	35	30	GOOD
41	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	13	35	30	GOOD
42	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	13	38	27	GOOD
43	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	21	35	35	GOOD
44	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	16	35	45	GOOD
45	COCONUT PALM	COCOS NUCIFERA	8	29	15	GOOD
46	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	10	30	25	GOOD
47	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	13	30	25	GOOD
48	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	21	35	25	GOOD
49	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	10	30	25	GOOD
50	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	15	30	25	GOOD
51	COCONUT PALM	COCOS NUCIFERA	8	29	15	GOOD
52	COCONUT PALM	COCOS NUCIFERA	7	29	15	GOOD
53	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	1.5	12	6	GOOD
54	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	1.5	12	6	GOOD

LEGEND:

DBH - Diameter at Breast Height
OAH - Overall Height

LEGEND:



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ARCHITECT OF RECORD:

WOLFBERG ALVAREZ



ARCHITECTURE-ENGINEERING

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DESIGN ARCHITECT:



Design - architecture urban interior graphic

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COLLINS PARK PARKING GARAGE
MIAMI BEACH, FL 33134
RFP No. 2016-204-KB

LICENSED PROFESSIONAL
GEORGE E. PUIG, PLA

FL LICENSE NUMBER
REG. #0001706

DATE:

ISSUE DATE
04/06/2018

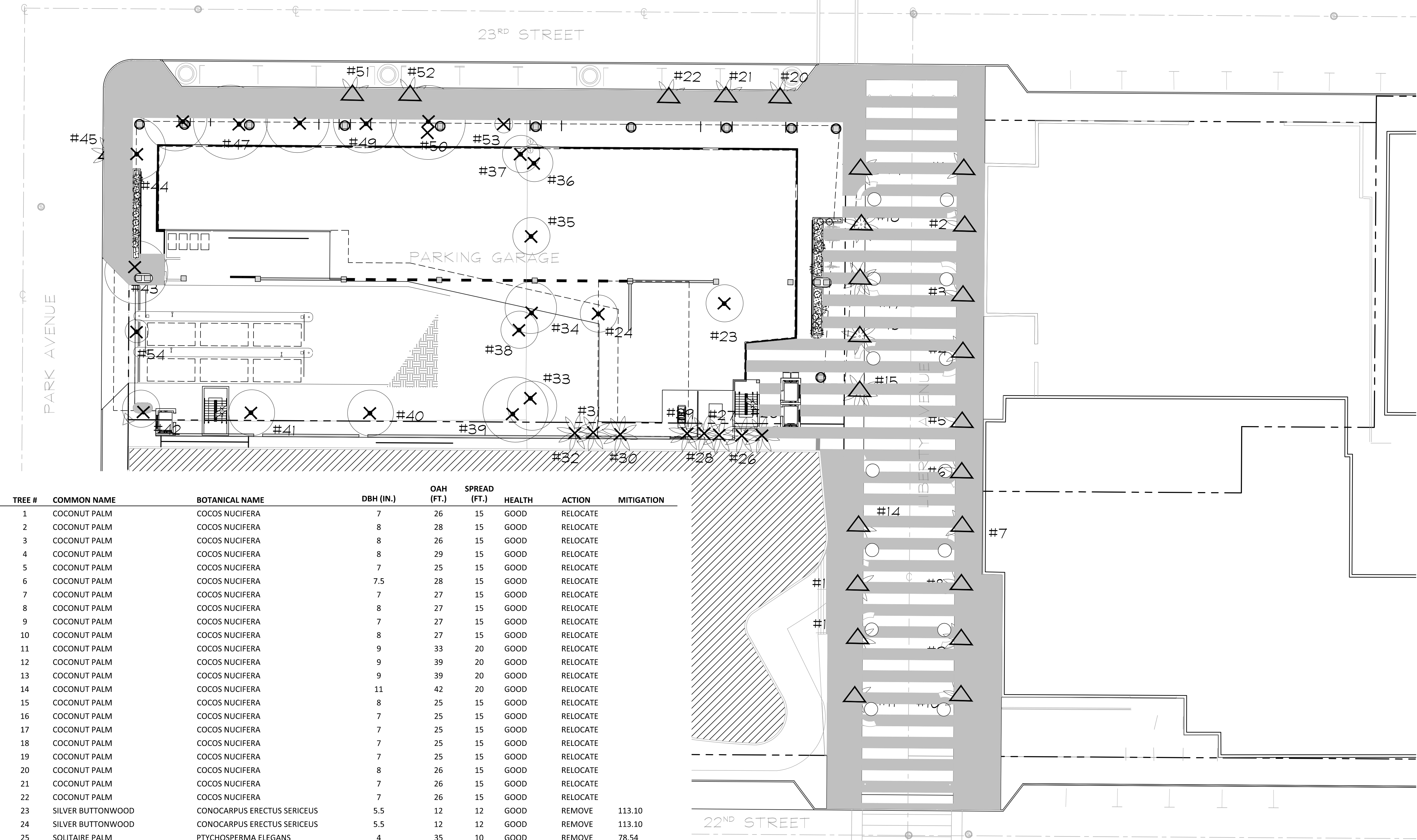
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TREE SURVEY

SHEET NUMBER

L-100

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TREE #	COMMON NAME	BOTANICAL NAME	DBH (IN.)	OAH (FT.)	SPREAD (FT.)	HEALTH	ACTION	MITIGATION
1	COCONUT PALM	COCOS NUCIFERA	7	26	15	GOOD	RELOCATE	
2	COCONUT PALM	COCOS NUCIFERA	8	28	15	GOOD	RELOCATE	
3	COCONUT PALM	COCOS NUCIFERA	8	26	15	GOOD	RELOCATE	
4	COCONUT PALM	COCOS NUCIFERA	8	29	15	GOOD	RELOCATE	
5	COCONUT PALM	COCOS NUCIFERA	7	25	15	GOOD	RELOCATE	
6	COCONUT PALM	COCOS NUCIFERA	7.5	28	15	GOOD	RELOCATE	
7	COCONUT PALM	COCOS NUCIFERA	7	27	15	GOOD	RELOCATE	
8	COCONUT PALM	COCOS NUCIFERA	8	27	15	GOOD	RELOCATE	
9	COCONUT PALM	COCOS NUCIFERA	7	27	15	GOOD	RELOCATE	
10	COCONUT PALM	COCOS NUCIFERA	8	27	15	GOOD	RELOCATE	
11	COCONUT PALM	COCOS NUCIFERA	9	33	20	GOOD	RELOCATE	
12	COCONUT PALM	COCOS NUCIFERA	9	39	20	GOOD	RELOCATE	
13	COCONUT PALM	COCOS NUCIFERA	9	39	20	GOOD	RELOCATE	
14	COCONUT PALM	COCOS NUCIFERA	11	42	20	GOOD	RELOCATE	
15	COCONUT PALM	COCOS NUCIFERA	8	25	15	GOOD	RELOCATE	
16	COCONUT PALM	COCOS NUCIFERA	7	25	15	GOOD	RELOCATE	
17	COCONUT PALM	COCOS NUCIFERA	7	25	15	GOOD	RELOCATE	
18	COCONUT PALM	COCOS NUCIFERA	7	25	15	GOOD	RELOCATE	
19	COCONUT PALM	COCOS NUCIFERA	7	25	15	GOOD	RELOCATE	
20	COCONUT PALM	COCOS NUCIFERA	8	26	15	GOOD	RELOCATE	
21	COCONUT PALM	COCOS NUCIFERA	7	26	15	GOOD	RELOCATE	
22	COCONUT PALM	COCOS NUCIFERA	7	26	15	GOOD	RELOCATE	
23	SILVER BUTTONWOOD	CONOCARPUS ERECTUS SERICEUS	5.5	12	12	GOOD	REMOVE	113.10
24	SILVER BUTTONWOOD	CONOCARPUS ERECTUS SERICEUS	5.5	12	12	GOOD	REMOVE	113.10
25	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD	REMOVE	78.54
26	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD	REMOVE	78.54
27	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD	REMOVE	78.54
28	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD	REMOVE	78.54
29	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD	REMOVE	78.54
30	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD	REMOVE	78.54
31	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD	REMOVE	78.54
32	SOLITAIRE PALM	PTYCHOSPERMA ELEGANS	4	35	10	GOOD	REMOVE	78.54
33	SILVER BUTTONWOOD	CONOCARPUS ERECTUS SERICEUS	4	16	14	GOOD	REMOVE	153.94
34	SILVER BUTTONWOOD	CONOCARPUS ERECTUS SERICEUS	5.5	16	10	GOOD	REMOVE	78.54
35	SILVER BUTTONWOOD	CONOCARPUS ERECTUS SERICEUS	6	14	15	GOOD	REMOVE	176.71
36	SILVER BUTTONWOOD	CONOCARPUS ERECTUS SERICEUS	7	15	15	GOOD	REMOVE	176.71
37	WEeping FIG	FICUS BENJAMINA	5.5 & 3.5	16	15	FAIR	REMOVE	176.71
38	WEeping FIG	FICUS BENJAMINA	3+3+5+2.5+1+1+1+1	16	15	FAIR	REMOVE	353.43
39	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	17	35	28	GOOD	REMOVE	615.75
40	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	15	35	30	GOOD	REMOVE	706.86
41	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	13	35	30	GOOD	REMOVE	706.86
42	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	13	38	27	GOOD	REMOVE	572.56
43	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	21	35	35	GOOD	REMOVE	1924.23
44	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	16	35	45	GOOD	REMOVE	1590.43
45	COCONUT PALM	COCOS NUCIFERA	8	29	15	GOOD	RELOCATE	
46	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	10	30	25	GOOD	REMOVE	490.87
47	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	13	30	25	GOOD	REMOVE	490.87
48	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	21	35	25	GOOD	REMOVE	981.75
49	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	10	30	25	GOOD	REMOVE	490.87
50	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	15	30	25	GOOD	REMOVE	490.87
51	COCONUT PALM	COCOS NUCIFERA	8	29	15	GOOD	RELOCATE	
52	COCONUT PALM	COCOS NUCIFERA	7	29	15	GOOD	RELOCATE	
53	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	1.5	12	6	GOOD	REMOVE	28.27
54	GREEN BUTTONWOOD	CONOCARPUS ERECTUS	1.5	12	6	GOOD	REMOVE	28.27

LEGEND:

EXISTING TREE TO BE RELOCATED

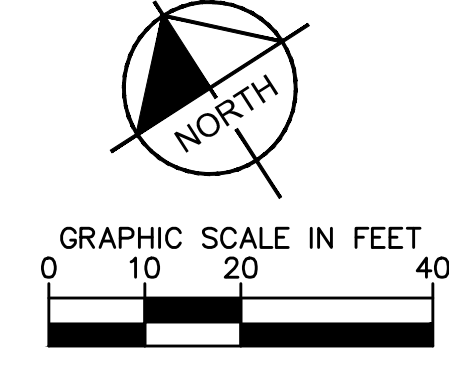
EXISTING TREE TO BE REMOVED

EXISTING PALM TO BE RELOCATED

EXISTING PALM TO BE REMOVED

EXISTING TREE LEGEND		NUMBER OF TREES
	REMOVE	29
	RELOCATE	25
	REMAIN	00

* REFER TO LANDSCAPE PLAN FOR PROPOSED TREE MITIGATION.



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AA 002416 EB 002354

DESIGN ARCHITECT:

Design - architecture urban interior graphic

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COLLINS PARK PARKING GARAGE

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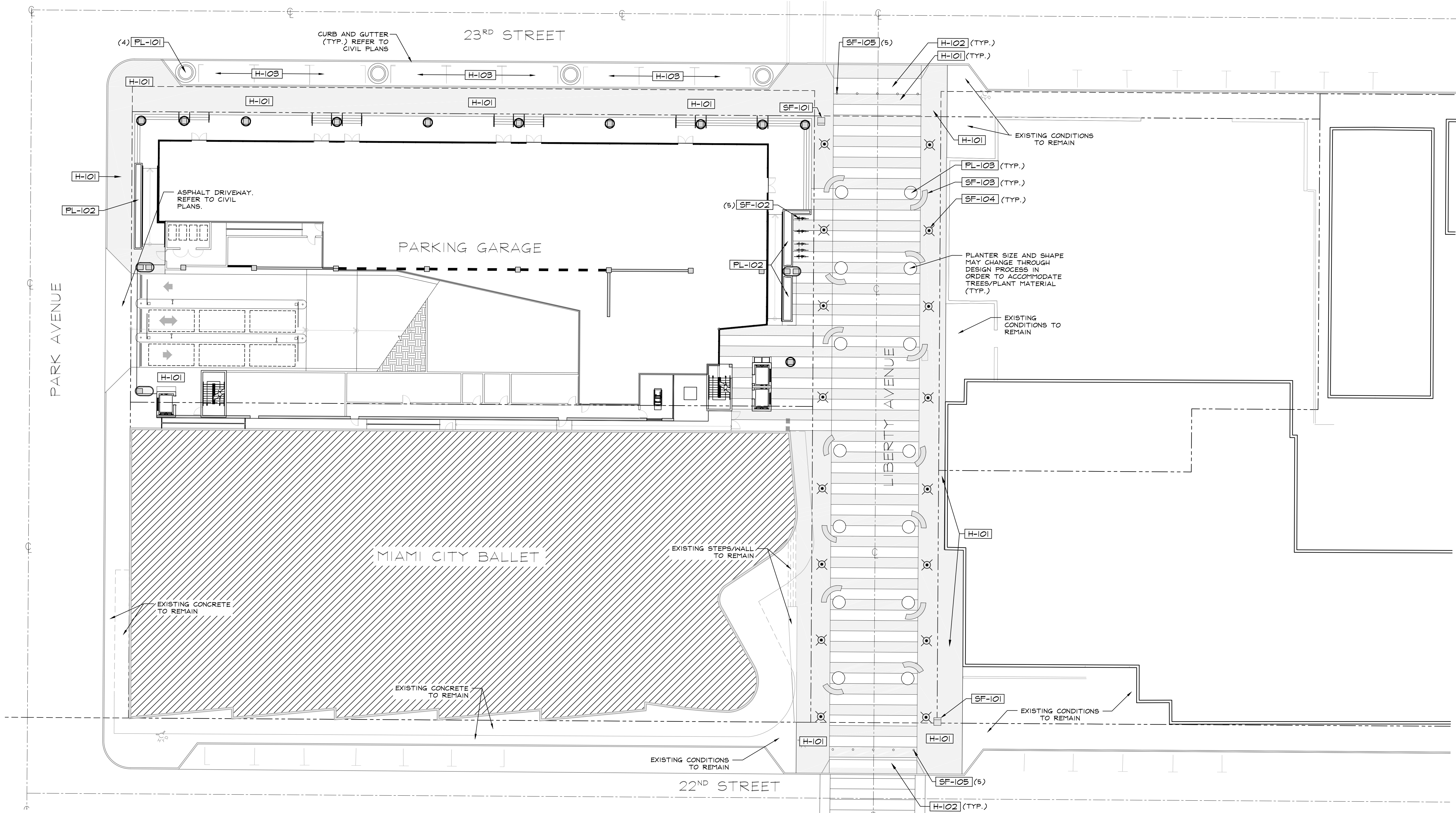
LICENSED PROFESSIONAL
GEORGE E. PUIG, PLA

SEAL FL LICENSE NUMBER
REG. #0001706

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TREE DISPOSITION	
SHEET NUMBER	
L-200	

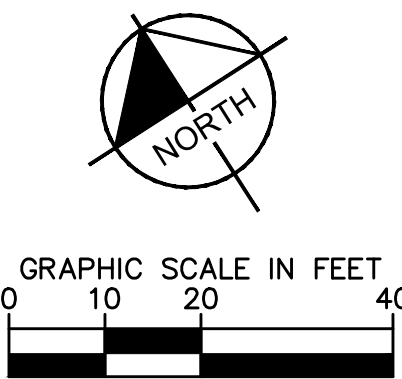
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REFERENCE NOTES SCHEDULE

SYMBOL	HARDSCAPE DESCRIPTION
[H-101]	MIAMI BEACH RED 4" CONCRETE
[H-102]	GREY 4" CONCRETE
[H-103]	ON-STREET PARKING (REFER TO CIVIL PLANS)
SYMBOL	PLANTER DESCRIPTION
[PL-101]	PLANTER CUT-OUTS
[PL-102]	RAISED PLANTER (REFER TO ARCHITECTURAL DRAWINGS)
[PL-103]	5' DIAMETER FLUSH PLANTER CUT-OUT
SYMBOL	SITE FURNISHING DESCRIPTION
[SF-101]	TRASH RECEPTACLE
[SF-102]	BIKE RACK
[SF-103]	CUSTOM PRECAST CONCRETE BENCH
[SF-104]	LIGHT POLE & FIXTURE
[SF-105]	REMOVABLE BOLLARD

MANUFACTURER	MODEL
LANDSCAPE FORMS	CHASE PARK LITTER
MADRAX	ORION
TECTURA DESIGNS	
BESA	7120B (ASYMMETRICAL)
CALPIPE	SSFC6080



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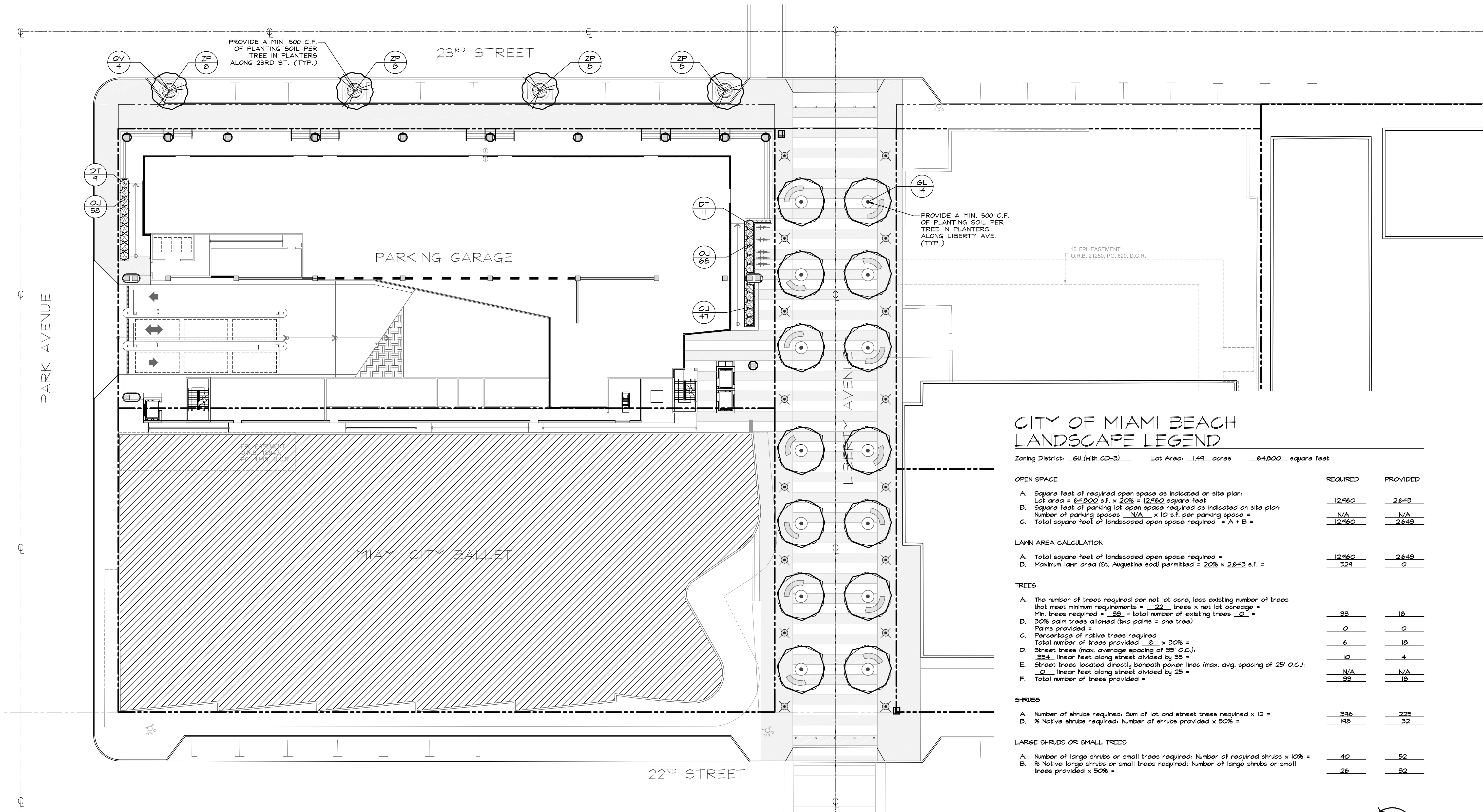
ARCHITECT OF RECORD:
WOLFBERG ALVAREZ
W
ARCHITECTURE+ENGINEERING
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CORAL GABLES, FL 33314
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WOLFBERGALVAREZ.COM
AA 002416 EB 002354

DESIGN ARCHITECT:
Shulman + Associates
Design - architecture urban interior graphic

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MIAMI BEACH, FL 33134
RFP No. 2016-204-KB

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GEORGE E. PUIG, PLA
FL LICENSE NUMBER
REG. #0001706
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HARDSCAPE PLAN
SHEET NUMBER
L-300

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PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	CAL.	SIZE
	SL	14	BURSERA SIMARUBA	JUMBO LIMBO	F6	9.5" CAL MIN	22' HT.
	QV	4	QUERCUS VIRGINIANA	SOUTHERN LIVE OAK	F6	9.5" CAL MIN	22' HT MIN
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	SPACING	SIZE
	DT	20	DRACAENA TARZANII	TARZAN DRACAENA	CONT.	SEE PLAN	MULTI-TRUNK/6' HT. MIN.
SHRUB AREAS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	SPACING	SIZE
	ZP	32	ZAMIA PUMILA	COONTIE	CONT.	24" O.C.	24" HT
GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	SIZE	SPACING
	OJ	173	OPHIOPOGON JAPONICUS	MONDO GRASS	CONT.	12" OC	10" HT

TOTAL MITIGATION CREDIT REQUIRED: 11,084 SF.

TOTAL MITIGATION CREDIT PROVIDED ON-SITE: 5,400 SF (18 TREES X 300 CREDITS)
TOTAL MITIGATION CREDIT PROVIDED OFF-SITE (CITY PARK): 5,700 SF (19 NEW/PROPOSED TREES X 300 CREDITS)
+ 25 TREES/PALMS RELOCATED (SEE TREE DISPOSITION PLAN FOR TREE/PALM INFORMATION)
EXACT SPECIES AND LOCATION OF OFF-SITE TREES/PALMS TO BE DETERMINED AT LATER DATE.

TOTAL PROPOSED MITIGATION PROVIDED (ON-SITE + OFF-SITE): 11,100 SF

CITY OF MIAMI BEACH
LANDSCAPE LEGEND

Zoning District: SU (with CD-3) Lot Area: 1.49 acres 64,800 square feet

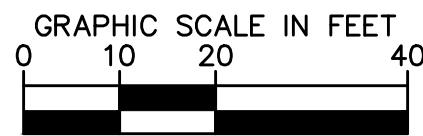
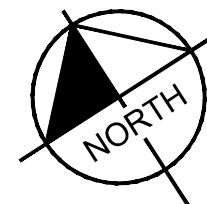
OPEN SPACE	REQUIRED	PROVIDED
A. Square feet of required open space as indicated on site plan: Lot area = 64,800 s.f. x 20% = 12,960 square feet	12,960	2,643
B. Square feet of parking lot open space required as indicated on site plan: Number of parking spaces <u>N/A</u> x 10 s.f. per parking space =	N/A	N/A
C. Total square feet of landscaped open space required = A + B =	12,960	2,643

LAWN AREA CALCULATION	REQUIRED	PROVIDED
A. Total square feet of landscaped open space required =	12,960	2,643
B. Maximum lawn area (St. Augustine sod) permitted = 20% x 2,643 s.f. =	529	0

TREES	REQUIRED	PROVIDED
A. The number of trees required per net lot acre, less existing number of trees that meet minimum requirements = <u>22</u> trees x net lot acreage = Min. trees required = <u>33</u> - total number of existing trees <u>0</u> =	33	18
B. 30% palm trees allowed (two palms = one tree) Palms provided =	0	0
C. Percentage of native trees required Total number of trees provided <u>18</u> x 30% =	6	18
D. Street trees (max. average spacing of 35' O.C.): <u>354</u> linear feet along street divided by 35 =	10	4
E. Street trees located directly beneath power lines (max. avg. spacing of 25' O.C.): <u>0</u> linear feet along street divided by 25 =	N/A	N/A
F. Total number of trees provided =	33	18

SHRUBS	REQUIRED	PROVIDED
A. Number of shrubs required: Sum of lot and street trees required x 12 =	396	225
B. % Native shrubs required: Number of shrubs provided x 50% =	198	32

LARGE SHRUBS OR SMALL TREES	REQUIRED	PROVIDED
A. Number of large shrubs or small trees required: Number of required shrubs x 10% =	40	52
B. % Native large shrubs or small trees required: Number of large shrubs or small trees provided x 50% =	26	32



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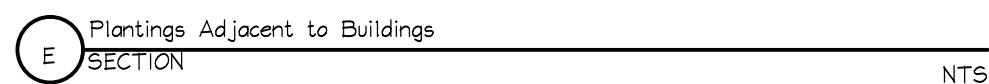
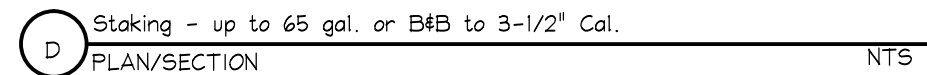
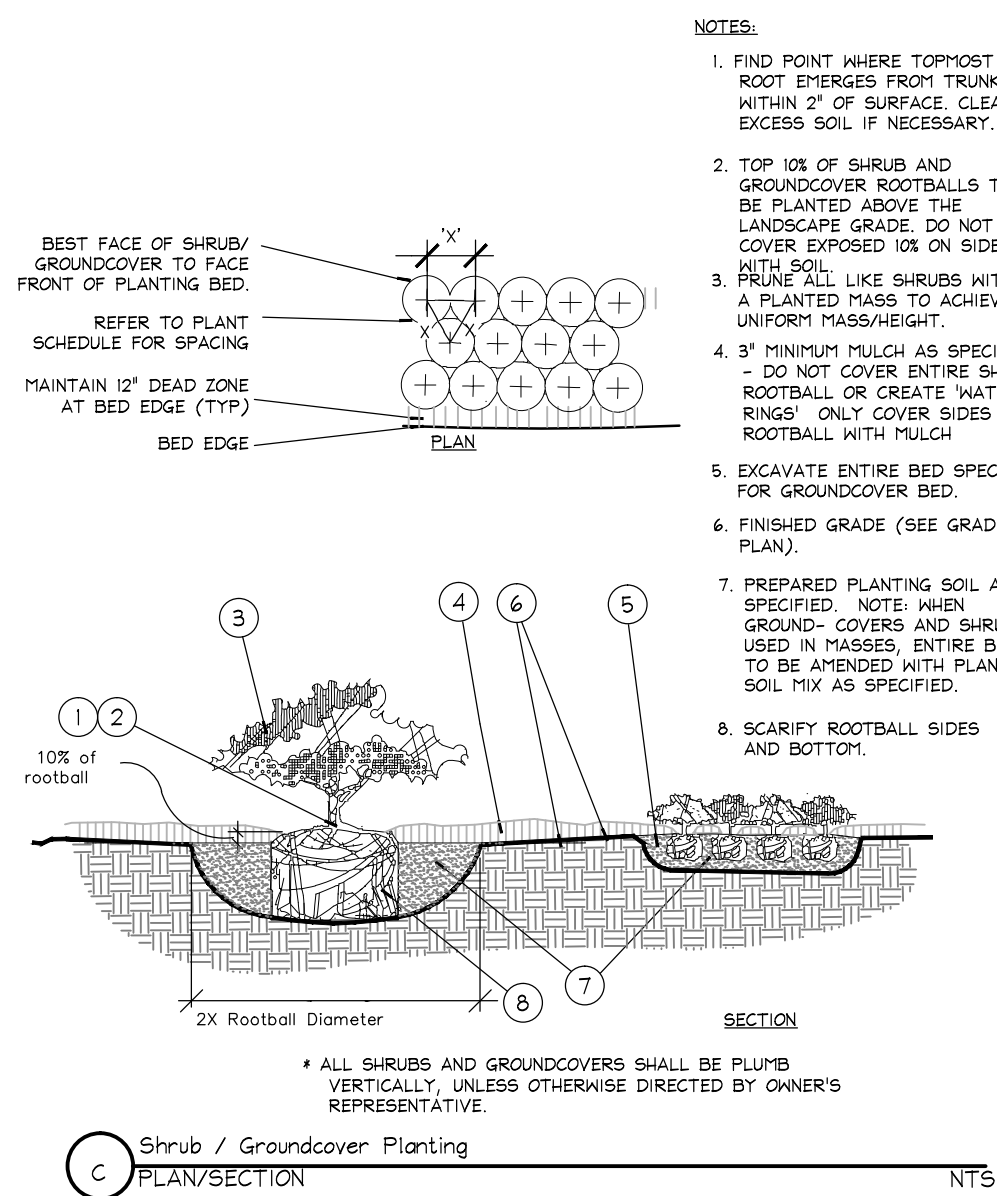
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LANDSCAPE PLAN

SHEET NUMBER

L-400



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April 05, 2018
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L-451 Landscape SPECIFICATIONS
Sheet Set:Collins Garage
Plotted By:Pastre, Nicole

GENERAL LANDSCAPE SPECIFICATIONS AND NOTES

A. SCOPE OF WORK

1. THE WORK CONSISTS OF: FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS, AS INCLUDED IN THE PLANT LIST, AND AS HEREIN SPECIFIED.
2. WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL CONTRACT PLANTING AREAS UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER.

B. PROTECTION OF EXISTING STRUCTURES

ALL EXISTING BUILDINGS, WALKS, WALLS, PAVING, PIPING, OTHER SITE CONSTRUCTION ITEMS, AND PLANTING ALREADY COMPLETED OR ESTABLISHED SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER, AT NO COST TO THE OWNER.

C. PROTECTION OF EXISTING PLANT MATERIALS OUTSIDE LIMIT OF WORK

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE, CAUSED BY CARELESS EQUIPMENT OPERATION, MATERIAL STOCKPILING, ETC. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIP-LINE AND SPILLING OIL, GASOLINE, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIP-LINE. NO MATERIALS SHALL BE BURNED WHERE HEAT WILL DAMAGE ANY PLANT. EXISTING TREES KILLED OR DAMAGED SO THAT THEY ARE MISSHAPEN AND/ OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF ONE HUNDRED DOLLARS (\$100) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PERCENT PER INCH OVER FOUR (4) INCHES CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES. CALIPER SHALL BE MEASURED SIX (6) INCHES ABOVE GROUND LEVEL FOR TREES UP TO AND INCLUDING FOUR (4) INCHES IN CALIPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL FOR TREES OVER FOUR (4) INCHES IN CALIPER.

D. MATERIALS

1. GENERAL

MATERIALS LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL. UPON SUBMITTALS/ APPROVAL, DELIVERY OF MATERIALS MAY COMMENCE.

MATERIAL	SUBMITTAL
MULCH	PRODUCT DATA
TOPSOIL MIX	AMENDMENT MIX/ PRODUCT DATA/ TEST RESULTS
PLANTS	PHOTOGRAPHS OF ONE (1) OF EACH SPECIES (OR TAGGED IN NURSERY) INDICATE SIZES (HEIGHT/WIDTH) AND QUALITY PER SPEC. CLIENT-REQUESTED TAGGING MAY SUBSTITUTE PHOTOS.
FERTILIZER	PRODUCT DATA
INNOCULANT	PRODUCT DATA
HERBICIDE	PRODUCT DATA

2. PLANT MATERIALS

A. PLANT SPECIES AND SIZE SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS. NOMENCLATURE SHALL CONFORM TO STANDARDIZED PLANT NAMES, 1942 EDITION. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS, LATEST EDITION, PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. ALL PLANTS SHALL BE FLORIDA GRADE NO. 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY. ALL PLANTS SHALL BE HEALTHY, VIGOROUS, SOUND, WELL-BRANCHED, AND FREE OF DISEASE AND INSECTS, INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES FOR PLANTING IN ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE OWNER. WHERE ANY REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, THE PLANTS FURNISHED SHALL BE NORMAL FOR THE VARIETY. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY WITH APPROVAL FROM OWNER OR OWNER'S REPRESENTATIVE. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN PERMISSION FROM THE OWNER'S REPRESENTATIVE

B. MEASUREMENTS: THE HEIGHT AND/OR WIDTH OF TREES SHALL BE MEASURED FROM THE GROUND OR ACROSS THE NORMAL SPREAD OF BRANCHES WITH THE PLANTS IN THEIR NORMAL POSITION. THIS MEASUREMENT SHALL NOT INCLUDE THE IMMEDIATE TERMINAL GROWTH. PLANTS LARGER IN SIZE THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED IF APPROVED BY THE OWNER. IF THE USE OF LARGER PLANTS IS APPROVED, THE BALL OF EARTH OR SPREAD OF ROOTS SHALL BE INCREASED IN PROPORTION TO THE SIZE OF THE PLANT.

C. INSPECTION: PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, OR UPON DELIVERY TO THE SITE, AS DETERMINED BY THE OWNER, FOR QUALITY, SIZE, AND VARIETY; SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF ROOT BALLS OR ROOTS, LATENT DEFECTS OR INJURIES. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE. NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE.

E. SOIL MIXTURE (PLANTING MEDIUM, PLANTING MIX, TOPSOIL MIX)

1. SOIL MIXTURE (PLANTING MEDIUM FOR PLANT PITS) SHALL CONSIST OF TWO PARTS OF TOPSOIL AND ONE PART SAND, AS DESCRIBED BELOW.
2. TOPSOIL FOR USE IN PREPARING SOIL MIXTURE FOR BACKFILLING PLANT PITS SHALL BE FERTILE, FRIABLE, AND OF A LOAMY CHARACTER; REASONABLY FREE OF SUBSOIL, CLAY LUMPS, BRUSH WEEDS AND OTHER LITTER; FREE OF ROOTS, STUMPS, STONES LARGER THAN 2" IN ANY DIRECTION, AND OTHER EXTRANEIOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT DECOMPOSED ORGANIC MATTER AND A PH BETWEEN 5.5 AND 7.0 - SUBMIT SAMPLE AND PH TESTING RESULTS FOR APPROVAL.
3. SAND SHALL BE COARSE, CLEAN, WELL-DRAINING, NATIVE SAND. CONTRACTOR SHALL SUBMIT RESULTS OF SOIL TESTS FOR TOPSOIL AND SAND PROPOSED FOR USE UNDER THIS CONTRACT FOR APPROVAL BY THE OWNER.
4. TREES SHALL BE PLANTED IN THE EXISTING NATIVE SOIL ON SITE, UNLESS DETERMINED TO BE UNSUITABLE - AT WHICH POINT THE CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT TO DISCUSS ALTERNATE RECOMMENDATION PRIOR TO PLANTING.
5. CONTRACTOR TO SUBMIT SAMPLES OF SOIL MIXTURE FOR OWNER'S REPRESENTATIVE APPROVAL PRIOR TO PLANT INSTALLATION OPERATIONS COMMENCE.

F. WATER

WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN AN ADEQUATE PLANT GROWTH AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN-MADE ELEMENTS DETRIMENTAL TO PLANTS. WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE FROM THE OWNER, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR ITS USE BY HIS TANKS, HOSES, SPRINKLERS, ETC., IF SUCH WATER IS NOT AVAILABLE AT THE SITE. THE CONTRACTOR SHALL PROVIDE SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER. *WATERING/IRRIGATION RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.

G. FERTILIZER

CONTRACTOR SHALL PROVIDE FERTILIZER APPLICATION SCHEDULE TO OWNER, AS APPLICABLE TO SOIL TYPE, PLANT INSTALLATION TYPE, AND SITE'S PROPOSED USE. SUGGESTED FERTILIZER TYPES SHALL BE ORGANIC OR OTHERWISE NATURALLY-DERIVED.

*FERTILIZER RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.

H. MULCH

MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT, AND APPLIED AT A MINIMUM DEPTH OF 3 INCHES. CLEAR MULCH FROM EACH PLANT'S CROWN (BASE). TYPE OF MATERIAL: 'FLORIMULCH' OR SHREDDED, STERILE EUCALYPTUS MULCH

1. DIGGING AND HANDLING

1. PROTECT ROOTS OR ROOT BALLS OF PLANTS AT ALL TIMES FROM SUN, DRYING WINDS, WATER AND FREEZING, AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT DAMAGE DURING TRANSIT. TREES TRANSPORTED MORE THAN TEN (10) MILES OR WHICH ARE NOT PLANTED WITHIN THREE (3) DAYS OF DELIVERY TO SITE SHALL BE SPRAYED WITH AN ANTITRANSPIRANT PRODUCT ("WILT-PRUF" OR EQUAL) TO MINIMIZE TRANSPIRATIONAL WATER LOSS.
2. BALLED AND BURLAPPED PLANTS (B&B) SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBROUS AND FEEDING ROOTS OF THE PLANTS. NO PLANTS MOVED WITH A ROOT BALL SHALL BE PLANTED IF THE BALL IS CRACKED OR BROKEN. PLANTS BALLED AND BURLAPPED OR CONTAINER GROWN SHALL NOT BE HANDLED BY STEMS.
3. PLANTS MARKED 'BRI' IN THE PLANT LIST SHALL BE DUG WITH BARE ROOTS, COMPLYING WITH FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS, CURRENT EDITION. CARE SHALL BE EXERCISED THAT THE ROOTS DO NOT DRY OUT DURING TRANSPORTATION AND PRIOR TO PLANTING.
4. PROTECTION OF PALMS (IF APPLICABLE): ONLY A MINIMUM OF FRONDS SHALL BE REMOVED FROM THE CROWN OF THE PALM TREES TO FACILITATE MOVING AND HANDLING. CLEAR TRUNK (CT) SHALL BE AS SPECIFIED AFTER THE MINIMUM OF FRONDS HAVE BEEN REMOVED. ALL PALMS SHALL BE BRACED PER PALM PLANTING DETAIL.
5. EXCAVATION OF TREE PITS SHALL BE PERFORMED USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS, FOOTERS AND PREPARED SUB- BASES.

J. CONTAINER GROWN STOCK

1. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION, FLORIDA #1 OR BETTER.
2. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. CONTAINER GROWN STOCK SHALL NOT BE HANDLED BY THEIR STEMS.
3. PLANT ROOTS BOUND IN CONTAINERS ARE NOT ACCEPTABLE.
4. SUBSTITUTION OF NON-CONTAINER GROWN MATERIAL FOR MATERIAL EXPLICITLY SPECIFIED TO BE CONTAINER GROWN WILL NOT BE PERMITTED WITHOUT WRITTEN APPROVAL IS OBTAINED FROM THE OWNER OR OWNER'S REPRESENTATIVE.

K. COLLECTED STOCK

WHEN THE USE OF COLLECTED STOCK IS PERMITTED AS INDICATED BY THE OWNER OR OWNER'S REPRESENTATIVE, THE MINIMUM SIZES OF ROOTBALLS SHALL BE EQUAL TO THAT SPECIFIED FOR THE NEXT LARGER SIZE OF NURSERY GROWN STOCK OF THE SAME VARIETY.

L. NATIVE STOCK

PLANTS COLLECTED FROM WILD OR NATIVE STANDS SHALL BE CONSIDERED NURSERY GROWN WHEN THEY HAVE BEEN SUCCESSFULLY RE-ESTABLISHED IN A NURSERY ROW AND GROWN UNDER REGULAR NURSERY CULTURAL PRACTICES FOR A MINIMUM OF TWO (2) GROWING SEASONS AND HAVE ATTAINED ADEQUATE ROOT AND TOP GROWTH TO INDICATE FULL RECOVERY FROM TRANSPLANTING INTO THE NURSERY ROW.

M. MATERIALS LIST

QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN THE PLANS AND THE PLANT LIST QUANTITY, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO BIDDING OR INSTALLATION. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE

N. FINE GRADING

1. FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF LAWN AND PLANTING AREAS THAT HAVE BEEN ROUGH GRADED BY OTHERS. BERMING AS SHOWN ON THE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL FINE GRADE THE LAWN AND PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE ALLOWING FOR THICKNESS OF SOD AND/OR MULCH DEPTH. THIS CONTRACTOR SHALL FINE GRADE BY HAND AND/OR WITH ALL EQUIPMENT NECESSARY INCLUDING A GRADING TRACTOR WITH FRONT-END LOADER FOR TRANSPORTING SOIL WITHIN THE SITE.
3. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED FOR POSITIVE DRAINAGE TO SURFACE/SUBSURFACE STORM DRAIN SYSTEMS. AREAS ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS. REFER TO CIVIL ENGINEER'S PLANS FOR FINAL GRADES.

O. PLANTING PROCEDURES

1. CLEANING UP BEFORE COMMENCING WORK: THE CONTRACTOR SHALL CLEAN WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBJECTIONABLE MATTER. ALL MORTAR, CEMENT, AND TOXIC MATERIAL SHALL BE REMOVED FROM THE SURFACE OF ALL PLANT BEDS. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH SOIL CONDITIONS BENEATH THE SOIL WHICH WILL IN ANY WAY ADVERSELY AFFECT THE PLANT GROWTH, HE SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. FAILURE TO DO SO BEFORE PLANTING SHALL MAKE THE CORRECTIVE MEASURES THE RESPONSIBILITY OF THE CONTRACTOR.
2. VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS (LINES AND TANKS), WATER, SANITARY SEWER, STORMWATER SYSTEMS, CABLE, AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES. CALL NATIONAL ONE CALL - 811 - TO LOCATE UTILITIES.

3. SUBGRADE EXCAVATION: CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED LIMEROCK AND LIMEROCK SUB-BASE FROM ALL LANDSCAPE PLANTING AREAS TO A MINIMUM DEPTH OF 36". CONTRACTOR IS RESPONSIBLE TO BACKFILL THESE PLANTING AREAS TO ROUGH FINISHED GRADE WITH CLEAN TOPSOIL FROM AN ON-SITE SOURCE OR AN IMPORTED SOURCE. IF LIMEROCK OR OTHER ADVERSE CONDITIONS OCCUR IN PLANTED AREAS AFTER 36" DEEP EXCAVATION BY THE CONTRACTOR, AND ADEQUATE PERCOLATION CAN NOT BE ACHIEVED, CONTRACTOR SHALL UTILIZE PLANTING DETAIL THAT ADDRESSES POOR DRAINAGE.

4. FURNISH NURSERY'S CERTIFICATE OF COMPLIANCE WITH ALL REQUIREMENTS AS HEREIN SPECIFIED AND REQUIRED. INSPECT AND SELECT PLANT MATERIALS BEFORE PLANTS ARE DUG AT NURSERY OR GROWING SITE.

5. GENERAL: COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. CONFORM TO ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE. UPON ARRIVAL AT THE SITE, PLANTS SHALL BE THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS STORED ON-SITE SHALL NOT REMAIN UNPLANTED FOR A PERIOD EXCEEDING TWENTY-FOUR (24) HOURS. AT ALL TIMES, METHODS CUSTOMARY IN GOOD HORTICULTURAL PRACTICES SHALL BE EXERCISED.

6. THE WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE PLANTING WITH IRRIGATION WORK TO ASSURE AVAILABILITY OF WATER AND PROPER LOCATION OF IRRIGATION APPURTENANCES AND PLANTS.

7. ALL PLANTING PITS SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH THE USA STANDARD FOR NURSERY STOCK 260.1, UNLESS SHOWN OTHERWISE ON THE DRAWINGS, AND BACKFILLED WITH THE PREPARED PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION E. TEST ALL TREE PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE PERCOLATION IS AVAILABLE. NO ALLOWANCE WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER PERCOLATION. IF POOR PERCOLATION EXISTS, UTILIZE "POOR DRAINAGE CONDITION" PLANTING DETAIL. TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLUSHED INTO PLACE WITH A SLOW, FUL HOSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURES AND UNDER THE SUPERVISION OF A QUALIFIED LANDSCAPE FOREMAN. PROPER "JETTING IN" SHALL BE ASSURED TO ELIMINATE AIR POCKETS AROUND THE ROOTS. "JET STICK" OR EQUAL IS RECOMMENDED.
8. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS AND BUILDING STRUCTURES WHILE INSTALLING TREES.

9. SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION E OF THESE SPECIFICATIONS.

10. TREES AND SHRUBS SHALL BE SET STRAIGHT AT AN ELEVATION THAT, AFTER SETTLEMENT, THE PLANT CROWN WILL STAND ONE (1) TO TWO (2) INCHES ABOVE GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PIT. PLANTING SOIL MIXTURE SHALL BE BACKFILLED, THOROUGHLY TAMPED AROUND THE BALL, AND SETTLED BY WATER (AFTER TAMPING).

11. AMEND PINE AND OAK PLANT PITS WITH ECTOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. ALL OTHER PLANT PITS SHALL BE AMENDED WITH ENDOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. PROVIDE PRODUCT INFORMATION SUBMITTAL PRIOR TO INOCULATION.

12. FILL HOLE WITH SOIL MIXTURE, MAKING CERTAIN ALL SOIL IS SATURATED. TO DO THIS, FILL HOLE WITH WATER AND ALLOW TO SOAK MINIMUM TWENTY (20) MINUTES, STIRRING IF NECESSARY TO GET SOIL THOROUGHLY WET. PACK LIGHTLY WITH FEET. ADD MORE WET MIX TO DO NOT COVER TOP OF BALL WITH SOIL MIXTURE, ONLY WITH MULCH. ALL BURLAP, ROPE, WIRES, BASKETS, ETC., SHALL BE REMOVED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAP SHALL BE PULLED FROM UNDERNEATH.

13. PRUNING: TREES SHALL BE PRUNED, AT THE DIRECTION OF THE OWNER OR OWNER'S REPRESENTATIVE, TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL SOFT WOOD OR SUCKER GROWTH AND ALL BROKEN OR BADLY DAMAGED BRANCHES SHALL BE REMOVED WITH A CLEAN CUT. ALL PRUNING TO BE PERFORMED BY LICENSED ARBORIST, IN ACCORDANCE WITH ANSI A-300.

14. SHRUBS AND GROUND COVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED ON THE PLANT LIST. CULTIVATE ALL PLANTING AREAS TO A MINIMUM DEPTH OF 6", REMOVE AND DISPOSE ALL DEBRIS. MIX TOP 4" TO ACHIEVE SOIL MIXTURE AS SPECIFIED IN SECTION E. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.

15. TREE GUYING AND BRACING SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. IF THE CONTRACTOR AND OWNER DECIDE TO WAIVE THE TREE GUYING AND BRACING, THE OWNER SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING AND AGREE TO INDEMNIFY AND HOLD HARMLESS THE LANDSCAPE ARCHITECT IN THE EVENT UNSUPPORTED TREES PLANTED UNDER THIS CONTRACT FALL AND DAMAGE PERSON OR PROPERTY.
16. MULCHING: PROVIDE A THREE INCH (MINIMUM) LAYER OF SPECIFIED MULCH OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUND COVER, VINE BED, AND TREE PIT PLANTED UNDER THIS CONTRACT.

17. HERBICIDE WEED CONTROL: ALL PLANT BEDS SHALL BE KEPT FREE OF NOXIOUS WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER, "ROUND-UP" SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL TO ALL PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S PRECAUTIONS AND SPECIFICATIONS. PRIOR TO FINAL INSPECTION, TREAT ALL PLANTING BEDS WITH AN APPROVED PRE-EMERGENT HERBICIDE AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER. (AS ALLOWED BY JURISDICTIONAL AUTHORITY)

P. LAWN SODDING

1. THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODDING COMPLETE, IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A TURF GRASS LAWN ACCEPTABLE TO THE OWNER.
2. LAWN BED PREPARATION: ALL AREAS THAT ARE TO BE SODDED SHALL BE CLEARED OF ANY ROUGH GRASS, WEEDS, AND DEBRIS, AND THE GROUND BROUGHT TO AN EVEN GRADE. THE ENTIRE SURFACE SHALL BE ROLLED WITH A ROLLER WEIGHING NOT MORE THAN ONE-HUNDRED (100) POUNDS PER FOOT OF WIDTH. DURING THE ROLLING, ALL DEPRESSIONS CAUSED BY SETTLEMENT SHALL BE FILLED WITH ADDITIONAL SOIL, AND THE SURFACE SHALL BE REGRADED AND ROLLED UNTIL PRESENTING A SMOOTH AND EVEN FINISH TO THE REQUIRED GRADE.
3. SOIL PREPARATION: PREPARE LOOSE BED FOUR (4) INCHES DEEP. HAND RAKE UNTIL ALL BUMPS AND DEPRESSIONS ARE REMOVED. WET PREPARED AREA THOROUGHLY.
4. SODDING

- A. THE CONTRACTOR SHALL SOD ALL AREAS THAT ARE NOT PAVED OR PLANTED AS DESIGNATED ON THE DRAWINGS WITHIN THE CONTRACT LIMITS, UNLESS SPECIFICALLY NOTED OTHERWISE.
- B. THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE PLANT BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETAL TYPE, AND FREE FROM WEEDS, FUNGUS, INSECTS AND DISEASE OF ANY KIND.

- C. SOD PANELS SHALL BE LAID TIGHTLY TOGETHER SO AS TO MAKE A SOLID SODDED LAWN AREA. SOD SHALL BE LAID UNIFORMLY AGAINST THE EDGES OF ALL CURBS AND OTHER HARDSCAPE ELEMENTS, PAVED AND PLANTED AREAS. ADJACENT TO BUILDINGS, A 24 INCH STONE MULCH STRIP SHALL BE PROVIDED - REFER TO DETAILS. IMMEDIATELY FOLLOWING SOD LAYING, THE LAWN AREAS SHALL BE ROLLED WITH A LAWN ROLLER CUSTOMARILY USED FOR SUCH PURPOSES, AND THEN THOROUGHLY IRRIGATED. IF, IN THE OPINION OF THE OWNER, TOP-DRESSING IS NECESSARY AFTER ROLLING TO FILL THE VOIDS BETWEEN THE SOD PANELS AND TO EVEN OUT INCONSISTENCIES IN THE SOD, CLEAN SAND, AS APPROVED BY THE OWNER'S REPRESENTATIVE, SHALL BE UNIFORMLY SPREAD OVER THE ENTIRE SURFACE OF THE SOD AND THOROUGHLY WATERED IN. FERTILIZE INSTALLED SOD AS ALLOWED BY PROPERTY'S JURISDICTIONAL AUTHORITY.

5. DURING DELIVERY, PRIOR TO, AND DURING THE PLANTING OF THE LAWN AREAS, THE SOD PANELS SHALL AT ALL TIMES BE PROTECTED FROM EXCESSIVE DRYING AND UNNECESSARY EXPOSURE OF THE ROOTS TO THE SUN. ALL SOD SHALL BE STACKED SO AS NOT TO BE DAMAGED BY SNEAKING OR EXCESSIVE HEAT AND MOISTURE.

6. LAWN MAINTENANCE:

- A. WITHIN THE CONTRACT LIMITS, THE CONTRACTOR SHALL PRODUCE A DENSE, WELL ESTABLISHED LAWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RE-SODDING OF ALL ERODED, SUNKEN OR BARE SPOTS (LARGER THAN 12"x12") UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE. REPAIRED SODDING SHALL BE ACCOMPLISHED AS IN THE ORIGINAL WORK (INCLUDING REGRADING IF NECESSARY).

- B. CONTRACTOR RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SOD/LAWN UNTIL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. PRIOR TO AND UPON ACCEPTANCE, CONTRACTOR TO PROVIDE WATERING/IRRIGATION SCHEDULE TO OWNER. OBSERVE ALL APPLICABLE WATERING RESTRICTIONS AS SET FORTH BY THE PROPERTY'S JURISDICTIONAL AUTHORITY.

Q. CLEANUP

UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE BROOM-CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

R. PLANT MATERIAL MAINTENANCE

ALL PLANTS AND PLANTING INCLUDED UNDER THIS CONTRACT SHALL BE MAINTAINED BY WATERING, CULTIVATING, SPRAYING, AND ALL OTHER OPERATIONS (SUCH AS RE-STAKING OR REPAIRING GUY SUPPORTS) NECESSARY TO INSURE A HEALTHY PLANT CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE. MAINTENANCE AFTER THE CERTIFICATION OF ACCEPTABILITY SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS IN THIS SECTION. CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE TO COVER LANDSCAPE AND IRRIGATION MAINTENANCE FOR A PERIOD OF 90 CALENDAR DAYS COMMENCING AFTER ACCEPTANCE.

S. MAINTENANCE (ALTERNATE BID ITEM)

CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE FOR MAINTENANCE FOLLOWING THE INITIAL 90-DAY MAINTENANCE PERIOD ON A COST-PER-MONTH BASIS.

T. FINAL INSPECTION AND ACCEPTANCE OF WORK

FINAL INSPECTION AT THE END OF THE WARRANTY PERIOD SHALL BE ON PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY REPLACEMENT AT THIS TIME SHALL BE SUBJECT TO THE SAME ONE (1) YEAR WARRANTY (OR AS SPECIFIED BY THE LANDSCAPE ARCHITECT OR OWNER IN WRITING) BEGINNING WITH THE TIME OF REPLACEMENT AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.

U. WARRANTY

1. THE LIFE AND SATISFACTORY CONDITION OF ALL PLANT MATERIAL INSTALLED BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE.
2. REPLACEMENT: ANY PLANT NOT FOUND IN A HEALTHY GROWING CONDITION AT THE END OF THE WARRANTY PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOON AS WEATHER CONDITIONS PERMIT. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED PLANTED AND MULCHED AS SPECIFIED UNDER "PLANTING", AT NO ADDITIONAL COST TO THE OWNER.
3. IN THE EVENT THE OWNER DOES NOT CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE (AND IRRIGATION) MAINTENANCE, THE CONTRACTOR IS ENCOURAGED TO VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE YEAR WARRANTY PERIOD TO EVALUATE MAINTENANCE PROCEDURES BEING PERFORMED BY THE OWNER, AND SHALL NOTIFY THE OWNER IN WRITING OF MAINTENANCE PROCEDURES OR CONDITIONS WHICH THREATEN VIGOROUS AND HEALTHY PLANT GROWTH. IT IS SUGGESTED SUCH SITE VISITS SHALL BE CONDUCTED A MINIMUM OF ONCE PER MONTH FOR A PERIOD OF TWELVE (12) MONTHS FROM THE DATE OF ACCEPTANCE.

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355 ALHAMBRA CIRCLE, SUITE 1400, CORAL GABLES, FL 33134
PHONE: 305-673-2025
WWW.KIMLEY-HORN.COM CA 00000696

Sunshine811

Call 811 or www.sunshine811.com two full business days before digging to have utilities located and marked.

Check positive response codes before you dig!

DESIGN-BUILDER:



9499 NE 2nd AVE, SUITE 205
MIAMI SHORES, FL 33138
T 305.757.7707 F 305.757.7701

ARCHITECT OF RECORD:

WOLFBERG ALVAREZ



75 VALENCIA AVE., SUITE 1050
CORAL GABLES, FL 33314
V 305.666.5474
F 305.666.4984
WOLFBERGALVAREZ.COM
AA 002416 EB 002354

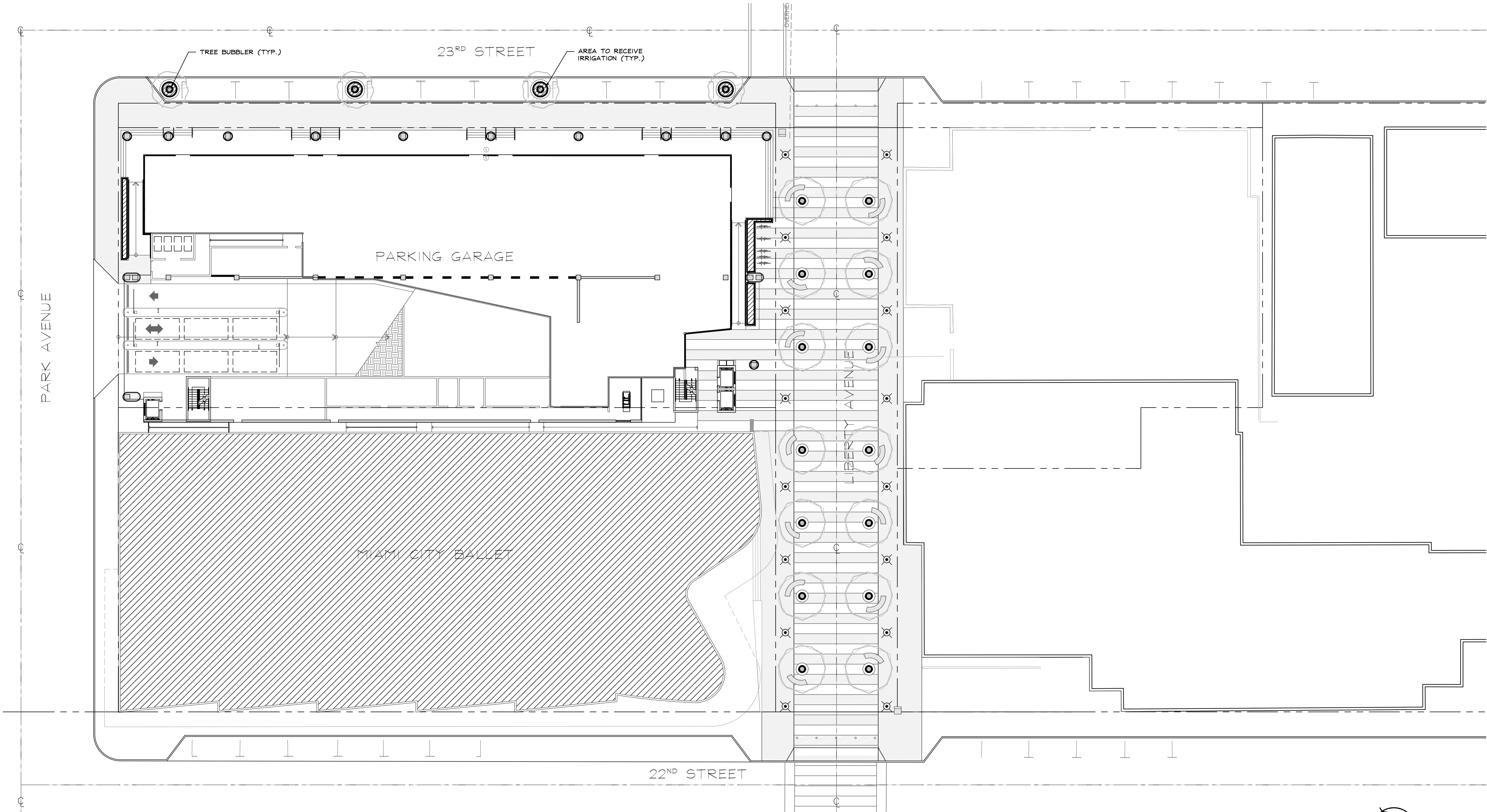
DESIGN ARCHITECT:



CITY OF MIAMI BEACH
COLLINS PARK PARKING GARAGE
MIAMI BEACH, FL 33134
RFP No. 2016-204-KB

LICENSED PROFESSIONAL	
GEORGE E. PUIG, PLA	
SEAL	FL LICENSE NUMBER
	REG. #0001706
DATE:	
ISSUE DATE	
04/06/2018	
NO.	REVISION DATE
DRAWING TITLE	
LANDSCAPE SPECIFICATIONS	
SHEET NUMBER	
L-451	

Plotted By: Pastre, Nicole Sheet Set: Collins Garage Layout: L-500 IRRIGATION PLAN April 05, 2018 03:51:41pm O:\City of Miami Beach\RFO Collins Parking Garage\Landscape\CADD\PlanSheets\L-500 IRRIGATION PLAN.dwg

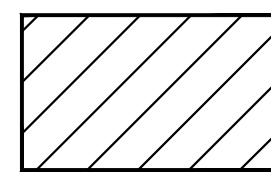


IRRIGATION NOTES

- IRRIGATION HEADS FOR SHRUBS AND GROUNDCOVERS: RAINBIRD SHRUB SPRAY 6.0" - 12.0" POP-UP SPRINKLER.
- IRRIGATION BUBBLERS FOR TREES AND PALMS: RAINBIRD FLOOD BUBBLER ON IRS FLAX HOSE
- VALVE: RAINBIRD PESB-PRS-D: 1", 1 1/2", 2" PLASTIC INDUSTRIAL VALVES, LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION, WITH PRESSURE REGULATING MODULE, AND SCRUBBER TECHNOLOGY FOR RELIABLE PERFORMANCE IN DIRTY WATER IRRIGATION APPLICATIONS.
- BACKFLOW PREVENTER: FEBCO 825Y, REDUCED PRESSURE BACKFLOW PREVENTER
- CONTROLLER: RAINBIRD ESP8LXME-LXMM WITH (3) ESPLXMSM4 44 STATION CAPABLE COMMERCIAL CONTROLLER, MOUNTED ON A POWDER-COATED METAL CABINET.
- ALL PROPOSED TREES AND SHRUBS SHALL BE IRRIGATED BY A 100% AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.

- IRRIGATION SPRINKLER ZONES SHALL BE SEPARATED FOR HIGH AND LOW WATER REQUIREMENTS AND OPERATION ON DIFFERENT WATERING CYCLES.
- IRRIGATION OVERTHROW TO IMPERVIOUS AREAS AND NATURAL AREAS SHALL BE MINIMIZED.
- A RAIN SENSOR SHALL BE INSTALLED WITH THE IRRIGATION CONTROL SYSTEM.
- IRRIGATED AREAS SHALL BE FULLY IRRIGATED WITH SPRAY HEADS AND ROTORS SPACED TO PROVIDE HEAD TO HEAD COVERAGE.
- ALL PROPOSED TREES AND PALMS SHALL BE IRRIGATED WITH TWO BUBBLERS.
- PROPOSED SOD WILL REQUIRE 100% COVERAGE, HEAD TO HEAD IRRIGATION.

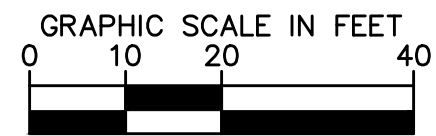
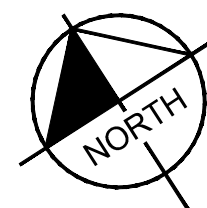
IRRIGATION KEY



AREA TO RECEIVE IRRIGATION:
TOTAL AREA OF LANDSCAPE TO BE IRRIGATED = ±1,375 SF



TREE BUBBLER



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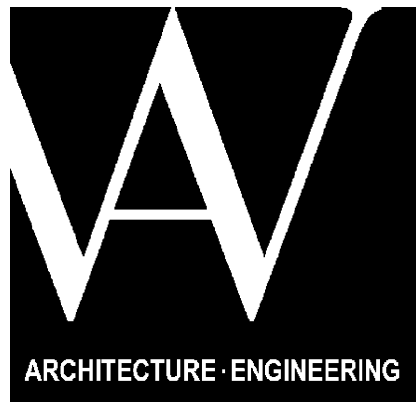
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GEORGE E. PUIG, PLA

FL LICENSE NUMBER
REG. #0001706

DATE:

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DRAWING TITLE
IRRIGATION PLAN

SHEET NUMBER

L-500