

1. APPLICABLE CODES

- 1.1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE STANDARD AND SPECIFICATIONS OF THE CITY OF MIAMI BEACH AND ALL OTHER LOCAL, STATE AND NATIONAL CODES WHERE APPLICABLE EXCEPT WITHIN DEPARTMENT OF TRANSPORTATION (D.O.T.) R/W WHEREIN FLORIDA DEPARTMENT OF TRANSPORTATION (F.D.G.T.) GOVERNS.
- 1.2. ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER AND IN STRICT COMPLIANCE WITH ALL THE REQUIREMENTS OF FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AND ALL STATE AND LOCAL SAFETY AND HEALTH REGULATIONS.
- 1.3. ALL ELEVATIONS SHOWN ON THE CONSTRUCTION DRAWINGS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM 1929, (NGVD) UNLESS OTHERWISE NOTED.
- 1.4. THE CITY OF MIAMI BEACH WATER AND SEWER DEPARTMENT WATER AND SEWER SPECIFICATIONS SHALL DICTATE WHEN IN CONFLICT WITH ANY OF THE FOLLOWING SPECIFICATIONS.
- 1.5. ALL MATERIALS AND CONSTRUCTION WITHIN THE D.O.T. R/W SHALL CONFORM TO THE D.O.T. "DESIGN STANDARDS" (2015) AND "STANDARD SPECIFICATIONS" (2015).
- 1.6. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE MAINTENANCE OF TRAFFIC (M.O.T) PLAN PRIOR TO CONSTRUCTION. THE CONSULTANT'S ENGINEER SHALL ENSURE THAT THE M.O.T PLAN FOR THE PROJECT CONFORMS WITH STANDARD INDEX SERIES 600, APPLICABLE INDEX FOR WORK BEING PERFORMED. THE CONTRACTOR SHALL ENSURE THE M.O.T. PLAN IS IMPLEMENTED EXACTLY AS APPROVED.

2. PRECONSTRUCTION RESPONSIBILITIES

- 2.5. UPON THE RECEIPT OF THE "NOTICE TO PROCEED", THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD AND ARRANGE A PRECONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, UTILITY OWNERS, THE OWNER AND THE ENGINEER OF RECORD.
- 2.6. THE CONTRACTOR SHALL OBTAIN A SUNSHINE STATE ONE CALL OF FLORIDA, INC. CERTIFICATION NUMBER AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION, CALL 1-800-432-4770.
- 2.7. ALL UTILITY EASEMENTS TO BE SECURED PRIOR TO CONSTRUCTION (IF REQUIRED).
- 2.8. LOCATION OF EXISTING FACILITIES AS SHOWN ON CONSTRUCTION DRAWINGS ARE DRAWN FROM AVAILABLE RECORDS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE FACILITIES SHOWN OR FOR ANY FACILITY NOT SHOWN. THE CONTRACTOR SHALL VERIFY, IF POSSIBLE, THE ELEVATIONS AND LOCATIONS OF ANY EXISTING FACILITIES PRIOR TO CONSTRUCTION. IF AN EXISTING FACILITY IS FOUND TO CONFLICT WITH THE PROPOSED CONSTRUCTION UPON EXCAVATION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD SO THAT APPROPRIATE MEASURES CAN BE TAKEN TO RESOLVE THE PROBLEM.
- 2.9. THE CONTRACTOR MUST CALL THE CITY OF MIAMI BEACH AT LEAST 48 HOURS BEFORE ANY EXCAVATION WITHIN THE R/W TO DETERMINE THE LOCATION TO OF THE EXISTING TRAFFIC SIGNAL INTERCONNECT CABLE.

3. INSPECTIONS

- 3.1. THE CONTRACTOR SHALL NOTIFY THE CITY OF MIAMI BEACH, AND ANY OTHER GOVERNMENTAL AGENCIES HAVING JURISDICTION AT LEAST 24 HOURS PRIOR TO BEGINNING CONSTRUCTION AND PRIOR TO THE INSPECTION OF THE FOLLOWING ITEMS, WHERE APPLICABLE:
- 3.1.1. CLEARING AND FILLING
 - 3.1.2. STORM DRAINAGE SYSTEM
 - 3.1.3. SANITARY SEWER SYSTEM
 - 3.1.4. WATER DISTRIBUTION SYSTEM
 - 3.1.5. SUBGRADE
 - 3.1.6. LIMEROCK BASE
 - 3.1.7. ASPHALTIC CONCRETE
 - 3.1.8. SIDEWALK
 - 3.1.9. FINAL

4. SHOP DRAWINGS

- 4.1. PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD AND THE CITY OF MIAMI BEACH FOR THE FOLLOWING: SANITARY MANHOLES, STORM DRAIN MANHOLES, CATCH BASINS, FIRE HYDRANTS, PIPING, VALVES AND ALL REQUIRED ACCESSORIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL OTHER AGENCY APPROVALS IF REQUIRED.

5. TEMPORARY FACILITIES

- 5.1. TEMPORARY FACILITIES:
- 5.1.1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY.
- 5.2. TRAFFIC REGULATION:
- 5.2.1. MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH MANUAL TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
- 5.2.2. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
- 5.2.3. NO TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS PERMISSION OF THE CITY OF MIAMI BEACH.
- 5.2.4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR FOR ANY NECESSARY CONSTRUCTION, PAVEMENT MARKING AND SIGNAGE OR ANY PEDESTRIAN SIGNALIZATION AND/OR SIGNAL MODIFICATION TO ACCOMMODATE AN ALTERNATE SAFE WALK ROUTE.

6. STORM DRAINAGE

- 6.1. GENERAL:
- 6.1.1. DISTANCES AND LENGTHS SHOWN ON PLANS ARE REFERENCED TO THE CENTER OF STRUCTURES.
- 6.2. MATERIALS:
- 6.2.1. HIGH-DENSITY POLYETHYLENE (H.D.P.E.) SHALL MEET THE REQUIREMENTS OF ASTM F2619 / F2619M, LATEST REVISION.
- 6.2.2. REINFORCED CONCRETE PIPE (R.C.P.) SHALL MEET THE REQUIREMENTS OF ASTM C-76, LATEST REVISION. RUBBER GASKETS OR OTHER MANUFACTURER SUPPLIED JOINT SEALER SHALL BE USED.
- 6.2.3. CORRUGATED ALUMINUM PIPE (C.A.P.) SHALL BE HELICAL TYPE, CONFORMING TO ASTM B209 AND AASHTO M196, AS MANUFACTURED BY KAISER ALUMINUM, INC., OR APPROVED EQUAL. THE CORRUGATION PATTERN AND GAUGE SHALL BE AS FOLLOWS:
- | DIA. | CORRUGATION | GAUGE |
|------------|---------------|-------|
| 12" to 21" | 2 2/3" x 1/2" | 16 |
| 24" to 27" | 2 2/3" x 1/2" | 16 |
| 30" | 2 2/3" x 1/2" | 14 |
| 36" to 54" | 3" x 1" | 14 |
| 60" to 78" | 3" x 1" | 12 |

- 6.2.4. PIPE COUPLINGS FOR C.A.P. SHALL BE 12" WIDE (MINIMUM) 24" FOR 60" DIAMETER OR LARGER. SPLIT BANDS OF THE SAME ALLOY AS THE PIPE MAY BE ONE GAUGE LIGHTER THAN THE PIPE. POLYURETHANE OR OTHER MANUFACTURER SUPPLIED SEALANT SHALL BE USED WITH THE COUPLINGS.
- 6.2.5. FIELD JOINTS IN THE PIPE SHALL BE MADE WITH ALUMINUM SPIRAL RIB PIPE FORMED FROM COILED ALUMINUM SHEETS AND SHALL CONFORM TO ASTM B2-09 AND AASHTO M196, AS APPROVED BY KAISER ALUMINUM, INC., OR APPROVED EQUAL.
- 6.2.6. ALL DRAINAGE CATCH BASINS AND STRUCTURES SHALL BE PRECAST CONCRETE AS MANUFACTURED BY U.S. PRECAST CORPORATION, UNLESS OTHERWISE NOTED ON THE PLANS. BLOCK CATCH BASINS WILL BE ALLOWED ONLY WITH APPROVAL OF THE ENGINEER.

6.3. INSTALLATION:

- 6.3.1. PIPE SHALL BE PLACED ON A MINIMUM OF 8" STABLE GRANULAR MATERIAL FREE OF ROCK FORMATION AND OTHER FOREIGN FORMATIONS, AND CONSTRUCTED TO A UNIFORM GRADE AND LINE.
- 6.3.2. BACKFILL MATERIAL SHALL BE WELL GRADED GRANULAR MATERIAL, WELL TAMPED TO A HEIGHT OF 12 INCHES ABOVE PIPE AS SHOWN ON THE PLANS. TAMPING TO BE DONE IN LAYERS NOT TO EXCEED 12 INCHES.
- 6.3.3. PROVIDE A MINIMUM PROTECTIVE COVER OF 18 INCHES OVER STORM SEWER AND AVOID UNNECESSARY CROSSING BY HEAVY CONSTRUCTION VEHICLES DURING CONSTRUCTION.
- 6.3.4. THE CONTRACTOR SHALL NOTIFY THE CITY OF MIAMI BEACH ENGINEERING DIVISION AT LEAST 7 DAYS PRIOR TO THE START OF THE CONSTRUCTION AND INSPECTION.

7. PAVING AND SIDEWALKS

7.1. GENERAL:

- 7.1.1. ALL MUCK AND YIELDING MATERIAL WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REMOVED AND REPLACED WITH CLEAN FILL MATERIAL WHICH SHALL BE COMPACTED AND SHAPED TO CONFORM TO THE REQUIRED SECTION. COMPACTED AREAS, AS SHOWN ON THE PLANS AND OR AS DETERMINED BY THE ENGINEER, SHALL BE COMPACTED TO NOT LESS THAN 98% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE, AS DETERMINED BY AASHTO T-180, LATEST REVISION. AREAS TO BE STABILIZED, AS DETERMINED BY THE ENGINEER, SHALL HAVE A MINIMUM LBR-40.
- 7.1.2. ALL UNDERGROUND UTILITIES SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF LIMEROCK BASE.
- 7.1.3. ALL EXISTING PAVEMENT, CUT OR DAMAGED BY CONSTRUCTION, SHALL BE PROPERLY RESTORED AT THE CONTRACTOR'S EXPENSE.
- 7.1.4. WHERE ANY PROPOSED PAVEMENT IS TO BE CONNECTED TO EXISTING PAVEMENT, THE EXISTING EDGE OF PAVEMENT SHALL BE SAW CUT.

7.2. MATERIALS:

- 7.2.1. BASE COURSE SHALL BE CRUSHED LIMEROCK WITH A MINIMUM OF 70% CARBONATES OF CALCIUM AND MAGNESIUM.
- 7.2.2. ASPHALT SURFACES SHALL BE TYPE S-III ASPHALTIC CONCRETE, UNLESS OTHERWISE SPECIFIED ON THE PLANS. TWO (2) SHALL BE A MINIMUM OF 1-1/2" THICK, A AND SHALL BE APPLIED IN (2) 3/4" LIFTS.
- 7.2.3. MINIMUM SIDEWALK CONSTRUCTION SHALL BE 4 INCH THICK CONCRETE, MINIMUM 3000psi COMPRESSIVE STRENGTH AT 28 DAYS. SAWCUT CONSTRUCTION JOINTS 5 FOOT O.C. WITHIN 48 HOURS OF PLACING, EXPANSION JOINTS SHALL BE 20 FOOT O.C.
- 7.2.4. CURBS AND GUTTERS: CONCRETE 3000psi COMPRESSIVE STRENGTH AT 28 DAYS. SAWCUT CONSTRUCTION JOINTS 10 FOOT O.C. WITHIN 48 HOURS OF PLACING.
- 7.2.5. REINFORCED CONCRETE SLABS SHALL BE CONSTRUCTED OF CLASS I CONCRETE WITH A MINIMUM STRENGTH OF 3,000 PSI AND SHALL BE REINFORCED WITH A 6" x 6" NO. 10 GAUGE WIRE MESH.

7.3. INSTALLATION:

- 7.3.1. SUBGRADE FOR PAVEMENT AREAS SHALL BE COMPACTED TO A MINIMUM OF 98% OF THE MAXIMUM DENSITY (AASHTO T-99(c)), AND SHALL HAVE A MINIMUM LBR 40.
- 7.3.2. BASE COURSE MATERIAL FOR PAVED AREAS SHALL BE AS SHOWN ON PLANS FOR VARIOUS LOCATIONS.
- 7.3.3. BASE COURSE MATERIAL FOR CURBS AND GUTTERS SHALL BE A MINIMUM THICKNESS OF 6 INCH.
- 7.3.4. BASE COURSE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS PER AASHTO T-180 AND SHALL HAVE A MINIMUM LBR OF 100.
- 7.3.5. INSTALLATION OF THE WEARING SURFACE SHALL CONFORM WITH THE REQUIREMENTS OF THE D.O.T. STANDARD SPECIFICATIONS FOR TYPE S-3 ASPHALTIC CONCRETE.

7.4. TESTING:

- 7.4.1. THE FINISHED SURFACE OF THE BASE COURSE AND THAT OF THE WEARING SURFACE SHALL NOT VARY MORE THAN 1/4" FROM THE TEMPLATE. ANY IRREGULARITIES EXCEEDING THIS LIMIT SHALL BE CORRECTED.
- 7.4.2. DENSITY TESTS SHALL BE TAKEN BY AN INDEPENDENT TESTING LABORATORY CERTIFIED BY THE STATE OF FLORIDA, WHERE DIRECTED BY THE ENGINEER.
- 7.4.3. ALL TESTING COSTS (PAVING) SHALL BE PAID FOR BY THE CONTRACTOR.
- 7.4.4. DENSITY TESTS ON THE STABILIZED SUBGRADE SHALL BE SUPPLIED TO THE ENGINEER OF RECORD AND APPROVED BEFORE ANY LIMEROCK BASE IS CONSTRUCTED.
- 7.4.5. DENSITY TESTS AND AS-BUILTS ON THE FINISHED LIMEROCK BASE SHALL BE SUPPLIED TO THE ENGINEER OF RECORD, AND APPROVED BEFORE ANY ASPHALT PAVEMENT IS CONSTRUCTED.

8. PROJECT CLOSEOUT

8.1. CLEANING UP:

- 8.1.1. DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER, AND UPON FINAL CLEAN-UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE SWEEP BROOM CLEAN.
- 8.1.2. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS WORK, EQUIPMENT, OR EMPLOYEES, TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS. TO THAT END, THE CONTRACTOR SHALL DO, AS REQUIRED, ALL NECESSARY HIGHWAY, DRIVEWAY, WALK AND LANDSCAPING WORK. SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION.

- 8.1.3. WHERE MATERIAL OR DEBRIS HAS WASHED OR FLOWED INTO OR HAS BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED AND SATISFACTORILY DISPOSED OF DURING THE PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION.

- 8.2. ALL PROPERTY MONUMENTS OR PERMANENT REFERENCES, REMOVED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED BY A STATE OF FLORIDA REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.

- 8.3. ALL UNPAVED SURFACES DISTURBED AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED BEFORE THE CONSTRUCTION.

9. ENGINEER'S AS-BUILT REQUIREMENTS

9.1. AS-BUILTS OF WATER LINES SHALL INCLUDE THE FOLLOWING INFORMATION:

- 9.1.1. TOP OF PIPE ELEVATIONS EVERY 100 LF.
- 9.1.2. LOCATIONS AND ELEVATIONS OF ALL FITTINGS INCLUDING BENDS, TEES, GATE VALVES, DOUBLE DETECTOR CHECK VALVES, FIRE HYDRANTS, ETC.
- 9.1.3. ALL TIE INS TO EXISTING LINES SHALL BE AS-BUILT.
- 9.1.4. THE ENDS OF ALL WATER SERVICES AT THE BUILDINGS OR HOMES SHALL BE AS-BUILT OR WHERE THE WATER SERVICE TERMINATES.

9.2. AS-BUILTS OF ALL GRAVITY SANITARY SEWER LINES SHALL INCLUDE THE FOLLOWING INFORMATION:

- 9.2.1. RIMS, INVERTS AND LENGTH OF PIPING BETWEEN STRUCTURES AS WELL AS SLOPES.
- 9.2.2. THE STUB ENDS OF ALL SEWER LATERALS SHALL BE LOCATED AND IF THERE ARE ANY CLEANOUTS INSTALLED ON THE SEWER LATERALS THEN THE INVERT ELEVATION OF THESE CLEANOUTS SHALL BE OBTAINED.
- 9.2.3. LIFT STATION AS-BUILTS SHALL CONSIST OF TOP OF WET WELL ELEVATION, INVERT ELEVATION OF THE INCOMING LINE, BOTTOM OF THE WET WELL AND AS-BUILTS OF THE COMPOUND AREA.
- 9.3. AS-BUILTS OF ALL DRAINAGE LINES SHALL INCLUDE THE FOLLOWING INFORMATION:
- 9.3.1. RIMS, INVERTS AND LENGTH OF PIPING BETWEEN STRUCTURES AND WEIR ELEVATIONS IF APPLICABLE.
- 9.3.2. THE SIZE OF THE PIPING SHALL BE VERIFIED BY THE SURVEY CREW AT THE TIME OF AS-BUILT.
- 9.3.3. DRAINAGE WELL STRUCTURE AS-BUILTS SHALL INCLUDE, BUT NOT BE LIMITED TO, TOP OF CASING ELEVATION, TOP AND BOTTOM ELEVATIONS OF THE BAFFLE WALLS, RIM ELEVATIONS AND INVERTS OF PIPING.

9.4. ALL ROCK AS-BUILTS FOR PARKING LOT AREAS SHALL CONSIST OF THE FOLLOWING:

- 9.4.1. ROCK ELEVATIONS AT ALL HIGH AND LOW POINTS, AND AT ENOUGH INTERMEDIATE POINTS TO CONFIRM SLOPE CONSISTENCY.
- 9.4.2. ROCK AS-BUILTS SHALL BE TAKEN AT ALL LOCATIONS WHERE THERE IS A FINISH GRADE ELEVATION SHOWN ON THE DESIGN PLANS.
- 9.4.3. ALL CATCH BASIN AND MANHOLE RIM ELEVATIONS SHALL BE SHOWN.
- 9.4.4. ELEVATIONS AROUND ISLAND AREAS WILL ALSO BE REQUIRED.

- 9.4.5. WHERE CONCRETE IS TO BE USED AS A FINISHED PRODUCT FOR THE ROADWAY OR PARKING LOT ROCK AS-BUILTS WILL BE REQUIRED AS INDICED ABOVE AS WELL AS AS-BUILTS ON THE FINISHED CONCRETE AT LOCATIONS WHERE THERE IS A FINISH GRADE ELEVATION SHOWN ON THE DESIGN PLANS. F AS-BUILTS SHALL BE TAKEN ON ALL PAVED AND UNPAVED SWALES, PRIOR TO PLACEMENT OF ASPHALT OR TOPSOIL/SOD, AT ENOUGH INTERMEDIATE POINTS TO CONFIRM SLOPE CONSISTENCY AND CONFORMANCE TO THE PLAN DETAILS.

- 9.5. RETENTION AREA AS-BUILT ELEVATIONS SHALL BE TAKEN AT THE BOTTOM OF THE RETENTION AREA AND AT THE TOP OF BANK, IF THERE ARE CONTOURS INDICATED ON THE DESIGN PLANS, THEN THEY SHALL BE AS-BUILT AS WELL.

- 9.6. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL PREPARE RECORD DRAWINGS, "AS-BUILTS", ON FULL SIZE, 24" X 36" REPRODUCIBLE MATERIAL. WHERE WATER AND SEWER INFORMATION ARE ON THE SAME PAGE THE WATER LINE SHALL BE AS-BUILT BY STATION AND OFFSET UTILIZING THE SANITARY SEWER SYSTEM AS THE BASE LINE. IF IT IS NOT PRACTICAL TO UTILIZE THE SEWER SYSTEM AS A BASE LINE THEN THE SURVEYOR SHALL CONTACT THE ENGINEER OF RECORD SO THAT A SUBSTITUTE BASELINE MAY BE CHOSEN. ALL RECORD DRAWING "AS-BUILT", INFORMATION SHALL BE PUT ON THE LATEST ENGINEERING DRAWINGS. ONE (1) SET OF REPRODUCIBLE RECORD DRAWINGS, "AS-BUILTS", SHALL BE SUBMITTED ALONG WITH EIGHT (8) SETS OF BLUE OR BLACKLINE DRAWINGS. THESE DRAWINGS SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL LAND SURVEYOR. ADDITIONALLY, AN ELECTRONIC COPY OF THESE RECORD DRAWINGS, "AS-BUILTS", SHALL BE SUBMITTED TO THE ENGINEER OF RECORD IN AUTOCAD, VERSION 2014.

PRIVATE RESIDENCE
15 E SAN MARINO DR
MIAMI BEACH, FL 33139



3325 S. UNIVERSITY DRIVE, SUITE 111
DAVIE, FLORIDA 33328
(954)318-0624 (954)358-0190 FAX
CERTIFICATE OF AUTHORIZATION No. 9808

GENERAL NOTES AND SPECIFICATIONS

ROBERT J. ROSS, P.E.
FLORIDA P.E. No. 59485
DATE:9/6/2018

SCALE:

SHEET No. c1.0

Calculation of Minimum and Maximum Yards

PROPERTY CONDITIONS

Waterfront Lot (Yes/No)	YES
Corner property (Yes/No)	NO
Sidewalk (yes/no)	NO
Sidewalk elevation at the centerline of the front of the property	
Crown of road at center of property (if no sidewalk exists or is proposed)	6.170
Flood Elevation	9.000
Freeboard (provided)	4.670

INTERIOR SIDEYARD CONDITIONS

Inidcate yes only for the condition that applies

Max. Yard Elevation

Yes	Default Condon unless one of the below applies Maximum Yard Elevation	8.670
	Is the average grade of adjacent lot along the abutting side yard equal or greater than adjusted grade?	10.085
	Is the abutting property vacant?	10.085
	Is their a joint agreement between abutting properties, for a higher elevation, not to exceed flood elevation?	9.000

REAR YARD CONDITIONS

Inidcate yes only for the condition that applies

Max. Yard Elevation

Yes	Default Condon unless one of the below applies Maximum Yard Elevation	8.670
	Is the average grade of adjacent lot along the abutting side yard equal or greater than adjusted grade?	10.085
	Is the abutting property vacant?	10.085
	Is their a joint agreement between abutting properties, for a higher elevation, not to exceed flood elevation?	9.000

RESULTS

Grade	6.17
Adjusted Grade	7.585
30" above Grade	8.67
Future Crown of Road	5.25
Future Adjusted Grade	7.625
Minimum Freeboard Elev.	10.000
Maximum Freeboard Elev.	14.000
Minimum Yard Elevation	6.56
Min. Garage elevation (for a detached or attached garage, not under the house	7.585
Minimum garage ceiling elevation	18.000

Front Yard	
Min Yard Elevation	6.560
Max Yard Elevation	8.670
Interior Side	
Min Yard Elevation	6.560
Max Yard Elevation	8.670
Interior Side	
Min Yard Elevation	6.560
Max yard Elevation	8.670
Waterfront	
Min Yard Elevation	6.560
Max Yard Elevation	13.670

<div>Interior Side Yard</div> <div>Minimum Yard Elevation: 6.560</div> <div>Maximum Yard Elevation:8.670</div>	<div>Waterfront</div> <div>Minimum Yard Elevation: 6.560</div> <div>Maximum Yard Elevation: 13.670</div>	<div>Interior Side</div> <div>Minimum Yard Elevation: 6.560</div> <div>Maximum Yard Elevation:8.670</div>
<div>Front Yard</div> <div>Minimum Yard Elevation: 6.560</div> <div>Maximum Yard Elevation: 8.670</div>		

MR	9/6/18			
DESIGNED BY	DATE			
MG	9/6/18			
DRAWN BY	DATE			
MR	9/6/18			
CHECKED BY	DATE			
RR	9/6/18			
APPROVED BY	DATE	No.	DATE	REVISIONS

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15 E SAN MARINO DR
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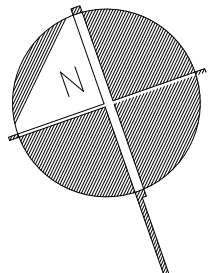
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GRADE TABULATIONS AS PROVIDED BY
CITY OF MIAMI BEACH

SCALE:

SHEET No. c1.1



SCALE: Custom



LEGEND

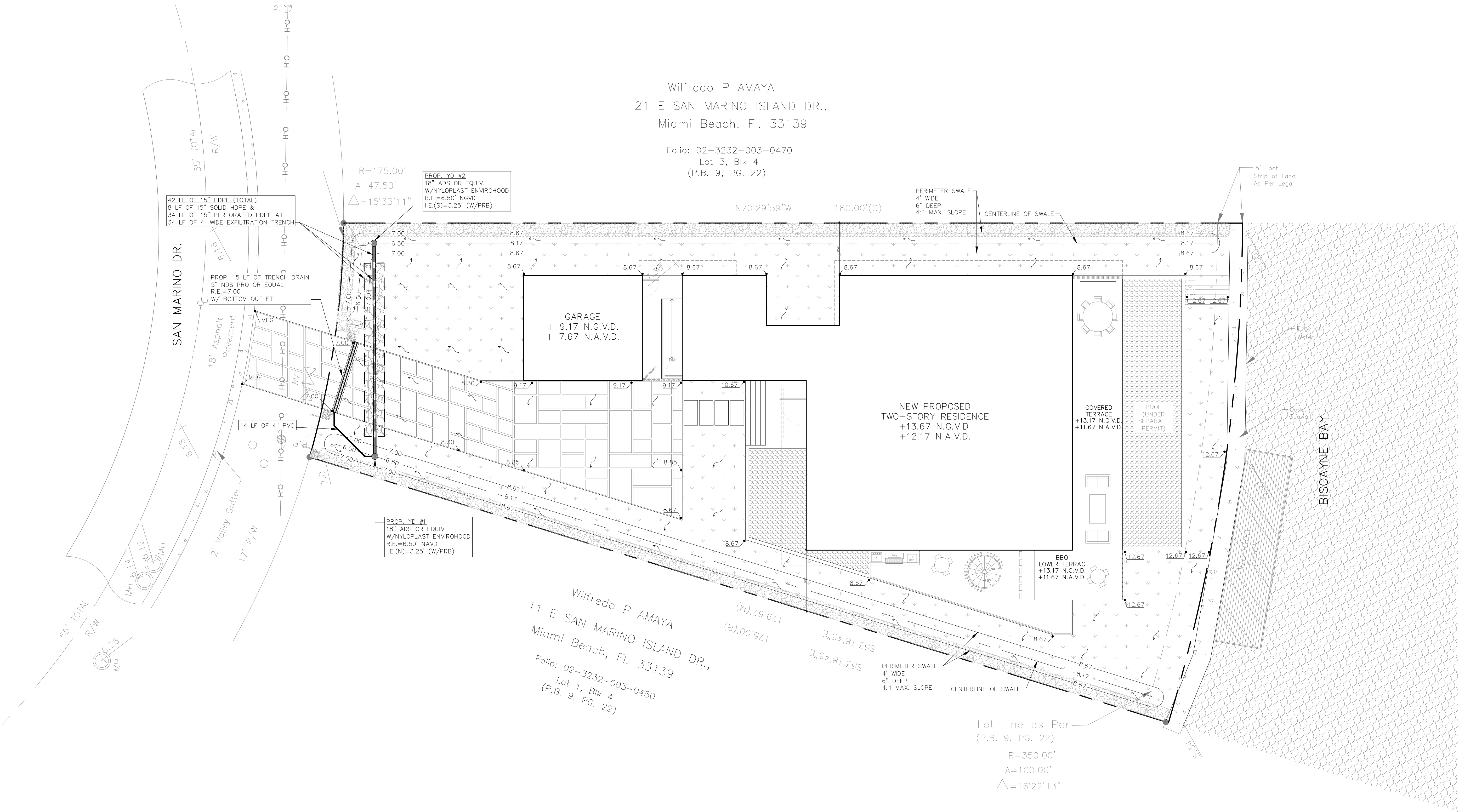
- PROPERTY LINE
- STM EXISTING DRAINAGE
- SAN EXISTING SANITARY SEWER
- W EXISTING WATER
- PROPOSED BUILDING
- PROPOSED SOD RESTORATION
- PROPOSED CONTOUR
- FLOW ARROW
- PROPOSED GRADE
- MATCH EXISTING GRADE
- PROPOSED DRAINAGE
- PROPOSED DRAINAGE W/ EXFILTRATION TRENCH
- PROPOSED YARD DRAIN (YD)

CITY OF MIAMI BEACH PUBLIC WORKS NOTES:

- REMOVE AND REPLACE SIDEWALK ALONG THE ENTIRE PROPERTY.
- RECONSTRUCT SWALE/SOD ALONG THE ENTIRE PROPERTY.
- MILL AND RESURFACE 2 INCHES AVERAGE USING TYPE S-III ASPHALT MIX DESIGN ON THE DRIVING LANE (10 FOOT WIDE) ALONG THE ENTIRE PROPERTY.
- ANY WORK AND/OR IMPROVEMENTS FROM/TO THE RIGHT-OF-WAY WILL REQUIRE A SEPARATE CMB PUBLIC WORKS DEPARTMENT RIGHT-OF-WAY CONSTRUCTION PERMIT.
- ALL CONSTRUCTION AND/OR USE OF EQUIPMENT IN THE RIGHT-OF-WAY WILL REQUIRE A SEPARATE CITY OF MIAMI BEACH PUBLIC WORKS DEPARTMENT RIGHT-OF-WAY CONSTRUCTION PERMIT PRIOR TO START OF CONSTRUCTION.

NOTES:

- EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE LOCATIONS AND HAVE BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- CONTRACTOR TO FIELD VERIFY ANY CONFLICTS WITH TREES AND/OR UTILITIES AND DRAINAGE. CONTRACTOR TO NOTIFY ENGINEER OF ANY CONFLICTS BEFORE PROCEEDING WITH ANY SOLUTION TO THE CONFLICT.
- CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO SAFEGUARD ALL EXISTING STRUCTURES AND UTILITIES. ANY DAMAGE DONE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NOT EXPENSE TO THE SUBJECT UTILITY. CALL "SUNSHINE" 48 HOURS BEFORE DIGGING.
- CONTRACTOR IS TO RESTORE ANY CURB, LANDSCAPE, ASPHALT, ETC. (NOT SCHEDULED FOR DEMOLITION) DAMAGED DURING CONSTRUCTION TO A CONDITION EQUAL TO WHAT IS EXISTING.
- ALL EXISTING AND PROPOSED ELEVATIONS SHOWN ON THE CONSTRUCTION DOCUMENTS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD).



MR	9/6/18			
DESIGNED BY	DATE			
MG	9/6/18			
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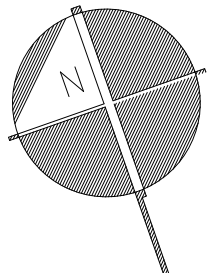
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PAVING GRADING AND DRAINAGE PLAN

SCALE: Custom

SHEET No. c2.0

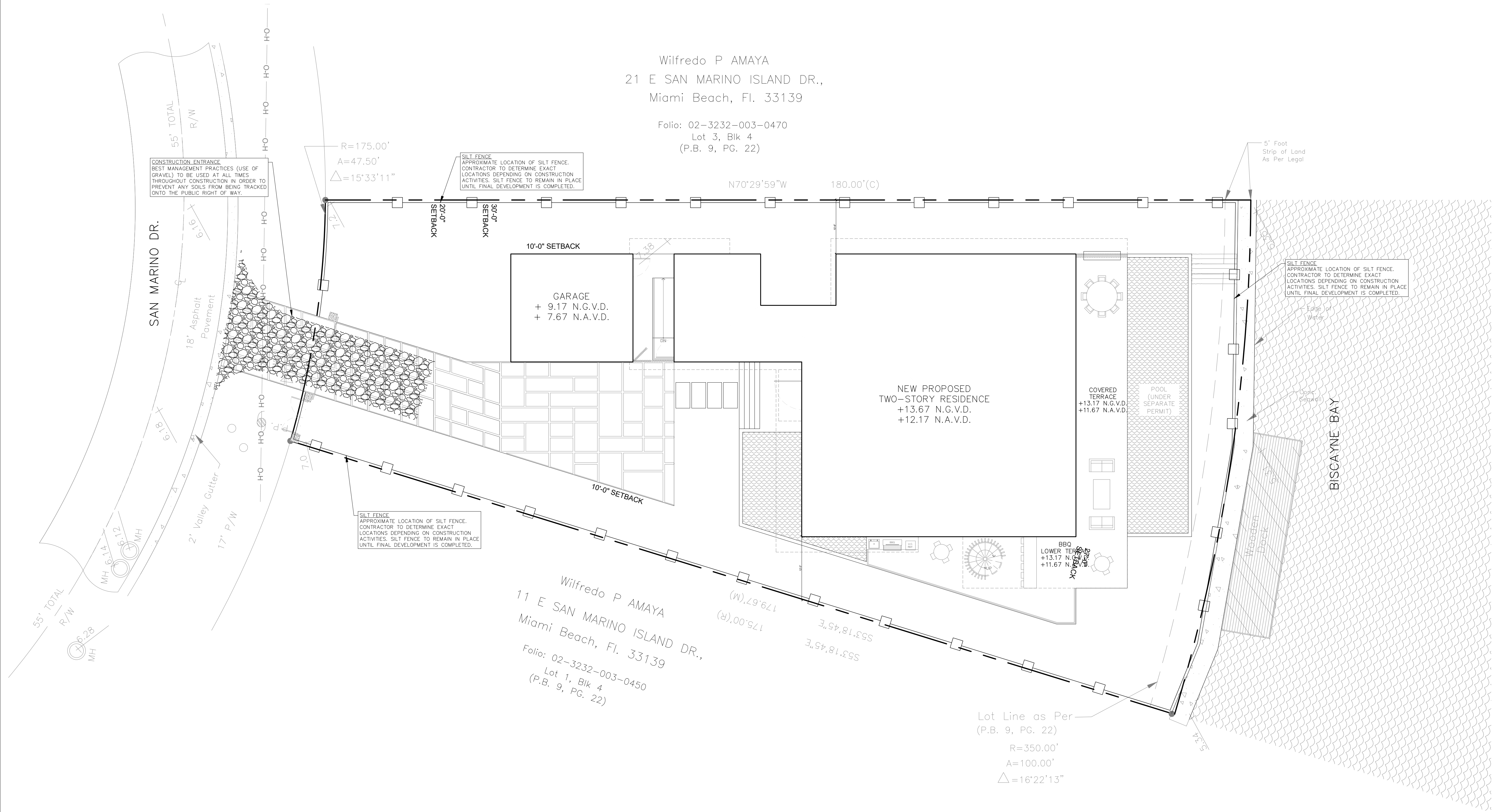


SCALE: 1"=10'



LEGEND

- EXISTING PROPERTY LINE
- |- SILT FENCE
- [Pattern] CONSTRUCTION ENTRANCE (GRAVEL)



MR	9/6/18			
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15 E SAN MARINO DR
MIAMI BEACH, FL 33139



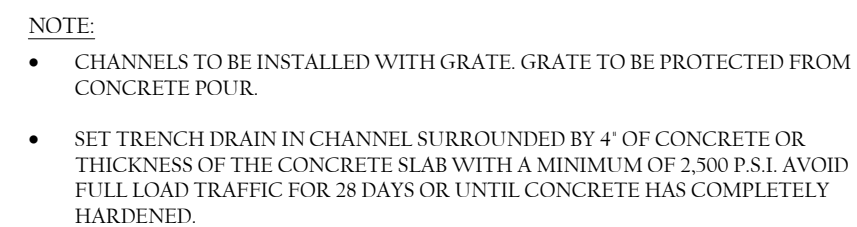
3325 S. UNIVERSITY DRIVE, SUITE 111
DAVIE, FLORIDA 33328
(954)318-0624 (954)358-0190 FAX
CERTIFICATE OF AUTHORIZATION No. 9808

ROBERT J. ROSS, P.E.
FLORIDA P.E. No. 59485
DATE: 9/6/2018

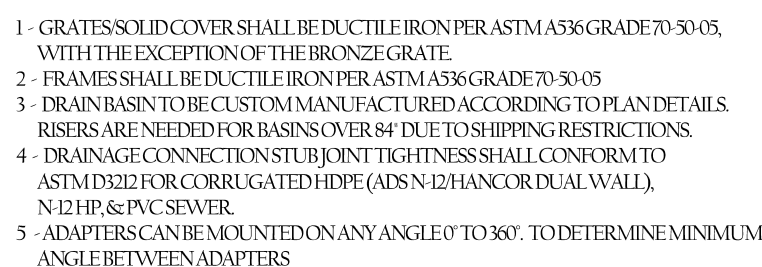
POLLUTION PREVENTION CONTROL PLAN

SCALE: 1"=10'

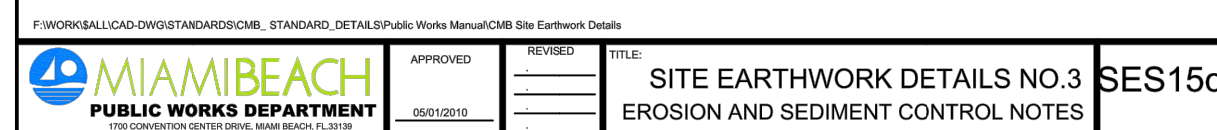
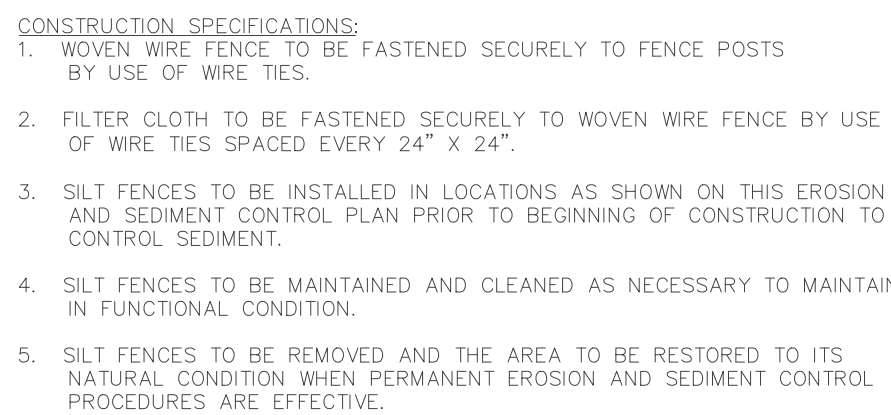
SHEET No. C3.0



NTS



NTS



PRIVATE RESIDENCE
15 E SAN MARINO DR
MIAMI BEACH, FL 33139



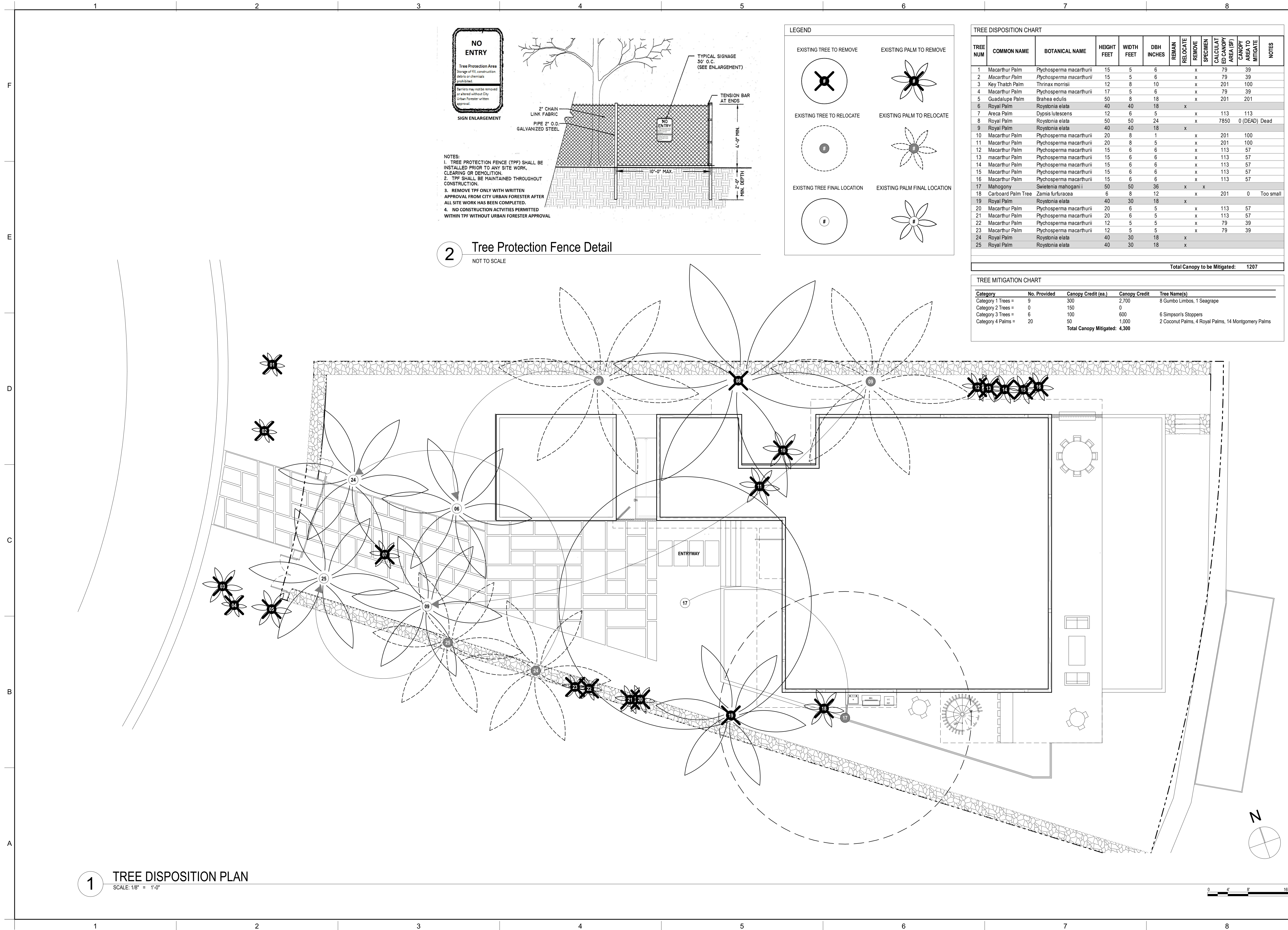
3325 S. UNIVERSITY DRIVE, SUITE 111
DAVE, FLORIDA 33328
(954)318-0624 (954)358-0190 FAX
CERTIFICATE OF AUTHORIZATION No. 9808






















GENERAL DETAILS

ROBERT J. ROSS, P.E.
FLORIDA P.E. No. 59485
DATE: 9/6/2018

SCALE:

SHEET No. C4.C



	1	2	3	4	5	6	7	8	
F									<div>ULU</div> <div>1621 Bay Rd Miami Beach, FL 33139 (786) 554 - 5337 www.ulustudio.com</div> <div>ULU STUDIO LLC</div>
E									
D									
									
	COCCOLOBA UVIFERA	BURSERA SIMARUBA	MYRCIANTHES FRAGRANS	VEITCHIA MONTGOMERYANA	COCOS NUCIFERA				
C									
	STEPHANOTIS FLORIBUNDA	TRACHELOSPERMUM JASMINOIDES	FICUS PUMILA	ALCANTAREA 'ODORATA'	MONSTERA DELICIOSA	ALOCASIA ODORA 'CALIDORA'	COCCOLOBA UVIFERA	PODOCARPUS MACROPHYLLUS	
B									
A	ERNODIA LITTORALIS	PHILODENDRON 'BURLE MARX'	AGAVE ATTENUATA	PHILODENDRON XANADU	ZAMIA PUMILA	HYMENOCALLIS LATIFOLIA	ARACHIS GLABRATA	CHRYSOBALANUS ICACO	
	1	2	3	4	5	6	7	8	

SAN MARINO RESIDENCE

15 E SAN MARINO DR
Miami Beach, FL 33139

SEAL

RUDOLF UHLEMANN
LA 6667213

ISSUE DATE: 09/07/18

REVISIONS:

ID	DATE	DESCRIPTION

DRAWN/CHECKED: RU

DRB FINAL SUBMITTAL

PROJECT NUMBER: 1804

PLANT PALETTE

L2.0

ULU

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ULU STUDIO LLC

SAN MARINO RESIDENCE

15 E SAN MARINO DR
Miami Beach, FL 33139

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PLANT PALETTE

L2.0

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
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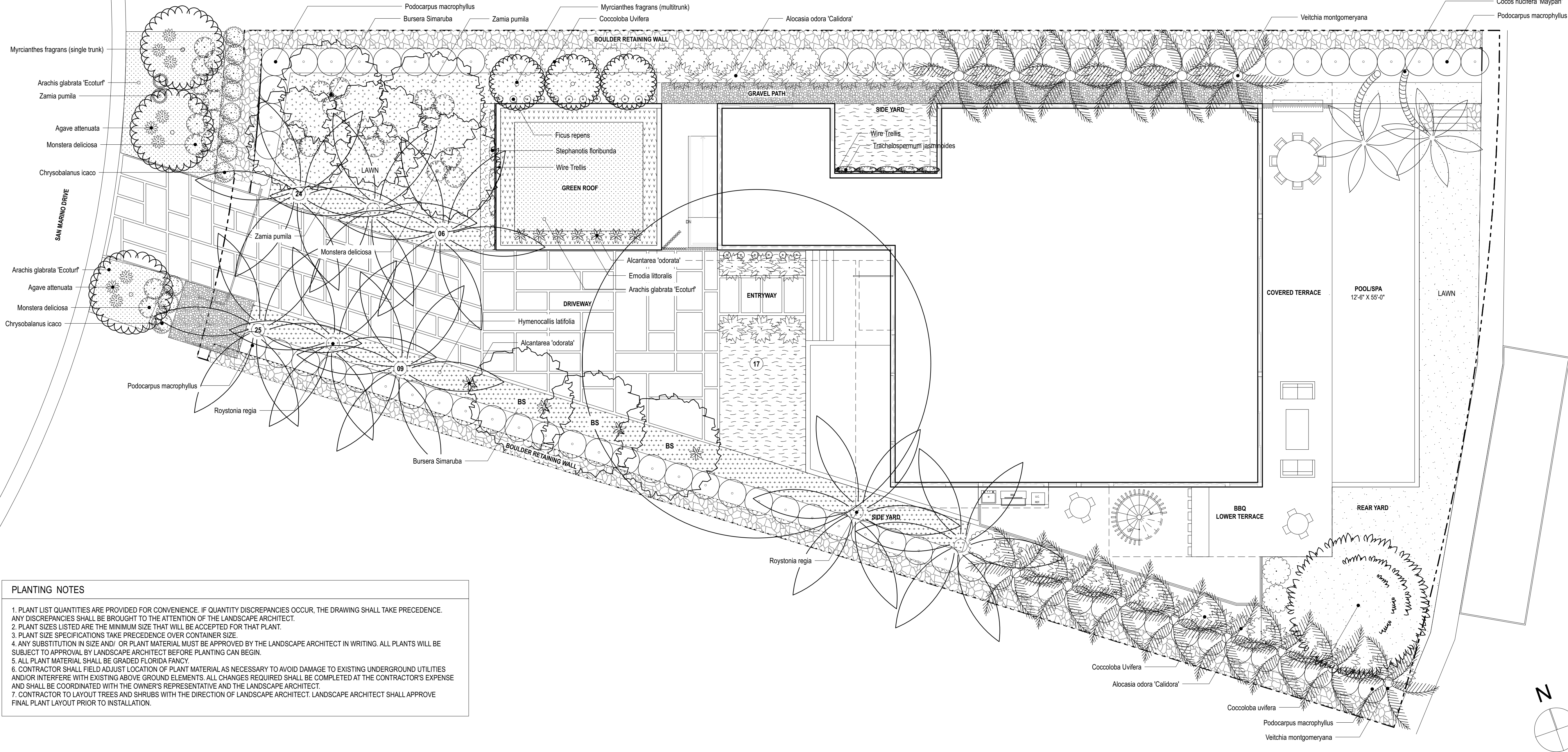
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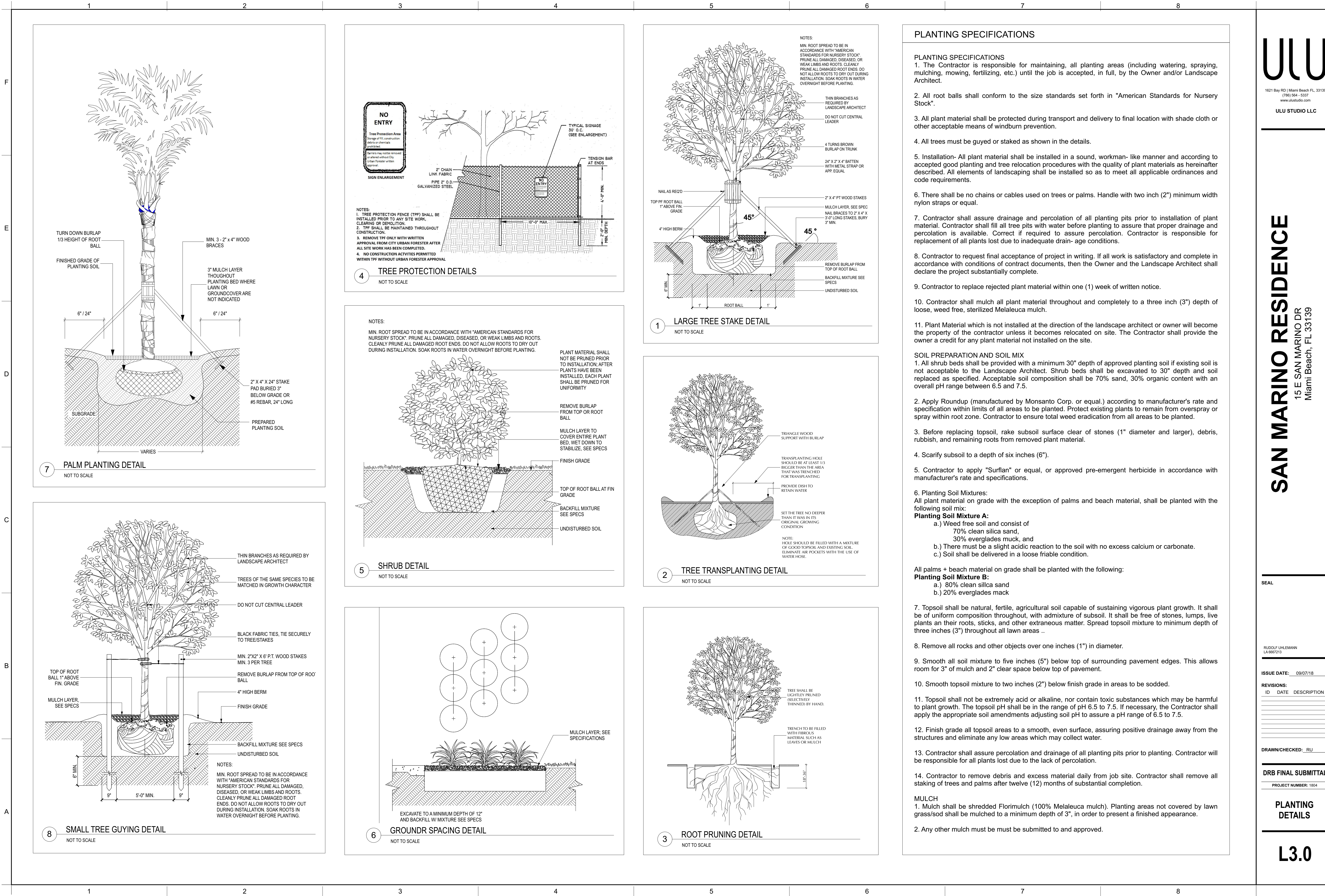
Shrub/Groundcover Schedule											
Symbol	ID	QTY	Botanical Name	Common Name	Size	Height	Spr.	Spac.	Native	Area (sf)	Remark
	ag	737	Arachis glabrata 'Ecoturf'	Perennial Peanut	1G	12"	12"	12"	N	638	
	el	177	Emodia littoralis	Golden Creeper	1G	12"	12"	12"	Y	153	
	hl	286	Hymenocallis latifolia	Spider Lily	3G	24"	18"	18"	Y	558	
	pb	24	Philodendron 'Burle Marx'	Philodendron Burle Marx	3G	12"	12"	18"	N	47	
	px	127	Philodendron xanadu	Philodendron xanadu	3G	24"	24"	24"	N	440	
	zp	330	Zamia pumila	Coontie	7G	24"	24"	18"	Y	644	
Lawn & Permeable Surfaces											
Symbol	ID	Botanical Name		Common Name		Area (SF)					
		Pervious Gravel		-		346					
		Lawn		Stenotaphrum secundatum		1,058					

NOTE:
SEE SHEET L0.0 FOR CITY OF MIAMI BEACH LANDSCAPE LEGEND

Shrub Schedule											
Symbol	ID	Qty	Botanical Name	Common Name	Size	Height	Spr.	Spac.	Native	Remarks	
	Aa	9	Agave attenuata	Spineless Century Plant	5G	18"	24"	plan	N		
	Ao	11	Alcantarea 'odorata'	Bromeliad	10G	18"	24"	36"	N		
	Ao	37	Alocasia odora 'Calidora'	Giant Elephant Ear	15G	5'	3'	36"	N		
	Ci	11	Chrysobalanus icaco	Horizontal Cocoplum	7G	36"	36"	36"	Y		
	Cu	20	Cocoloba Uvifera	Sea Grape	15G	8'	4'	48"	Y		
	FR	18	Ficus repens	Creeping Fig	1G	12"	12"	12"	N		
	Md	29	Monstera deliciosa	Swiss Cheese Vine	15G	4'	3'		N		
	Pm	78	Podocarpus macrophyllus	Plume Pine	25G	6'	3'		N		
	Sf	5	Stephanotis floribunda	Bridal Wreath	15G	6'	3'		N		
	Tj	5	Trachelospermum jasminoides	Confederate Jasmine	15G	6'	3'		N		
	Zp	2	Zamia pumila	Coontie	7G	24"	14"	24"	Y		

Tree Schedule									
Symbol	ID	Qty	Botanical Name	Common Name	Cal	Height	Spr.	Native	Remarks
	BS	8	Bursera Simaruba	Gumbo Limbo	6" min	16' min	10'	Y	Collected Specimen
	CN	2	Cocos nucifera 'Maypan'	Coconut Palm		15'-25'	12'	N	curved trunk
	CU	1	Cocoloba uvifera	Seagrape	18"	25'	20'	Y	Collected Specimen
	MFM	3	Myrcianthes fragrans (multitrunk)	Simpson's Stopper	4"	12'	8'	Y	Collected Specimen; multitrunk; 5 trunks min
	MFS	3	Myrcianthes fragrans (single trunk)	Simpson's Stopper	2"	18'	12'	Y	6' CT, Single trunk; Collected specimen
	RR	4	Roystonea regia	Royal Palm		40'	40'	Y	
	VA	14	Veitchia montgomeryana	Montgomery Palm		16'-18'	20'	N	
Existing Tree Schedule									
Sym	ID		Botanical Name	Common Name	DBH	Height	Spr.	Remarks	
	06		Roystonea elata	Royal Palm	18"	40'	40'	Protect during construction. See Sheet L1.0 / 2	
	09		Roystonea elata	Royal Palm	18"	40'	40'	Protect during construction. See Sheet L1.0 / 2	
	17		Swietenia mahogani	American Mahogany	36"	50'	50'	Protect during construction. See Sheet L1.0 / 2	
	24		Roystonea elata	Royal Palm	18"	40'	30'	Protect during construction. See Sheet L1.0 / 2	
	25		Roystonea elata	Royal Palm	18"	40'	30'	Protect during construction. See Sheet L1.0 / 2	





MODEL: P10 PATH LIGHT SERIES

- APPLICATION:
- Paths, Walkways, Patios and Small Areas
- CONSTRUCTION:
- 6061 Aluminum - Clear Anodized (SSA Model)
 - 6061 Aluminum - High Performance Extruded (AB, BLK Models)
 - High Performance C380 Solid Brass (BR Model)
 - Tempered Mineral Glass Protective Lens
- LED LIFE EXPECTANCY (TM-21 DATA):
- Greater than 60,000 hours (greater than 20 years at 8 hours per day)
- DRIVER SYSTEM:
- External Driver reduces heat while extending the life of electronic components
- INPUT VOLTAGE RANGE:
- 10.5 to 18 Volts AC or DC
- INSTALLATION AND HARDWARE:
- LV180 Ground Stake Included
- LEAD WIRES:
- UL100 18 AWG Tinned Copper Wire
 - 46 inch length
- ELECTRONICS WARRANTY:
- 20 Years
- POWER CONSUMPTION/AVAILABLE MODELS:
- See Power Consumption / Model Availability Table (next page)

- AVAILABLE FINISHES:
- Architectural Bronze (AB) • C380 Solid Brass (BR)
 - Stainless Aluminum (SSA) • Black (BLK)

ORDERING CODES

CHOOSE 1 ITEM FROM EACH COLUMN BELOW FOR P10 SSA			
Model #	Finish	Light Output	
P10			
AB	SSA	2700K	2700K Warm White
BLK	SSA	3000K	3000K Neutral White
BR	SSA	4000K	4000K Arctic
SSA	SSA	5000K	5000K Blue
SSA	SSA	6000K	6000K Royal Blue
SSA	SSA	7000K	7000K Green
SSA	SSA	8000K	8000K Red

MODEL: V2 VISIONARY SERIES

- APPLICATION:
- Up Light, Shadowing, Wall Wash, Silhouettes, Architectural Accents
- CONSTRUCTION:
- 6061 Aluminum - Clear Anodized (SSA Model)
 - 6061 Aluminum - High Performance Extruded (AB, BLK Models)
 - High Performance C380 Solid Brass (BR Model)
 - Tempered Mineral Glass Protective Lens
- LED LIFE EXPECTANCY (TM-21 DATA):
- Greater than 60,000 hours (greater than 20 years at 8 hours per day)
- DRIVER SYSTEM:
- External Driver reduces heat while extending the life of electronic components
- INPUT VOLTAGE RANGE:
- 10.5 to 18 Volts AC or DC
- INSTALLATION AND HARDWARE:
- LV180 Ground Stake Included
 - All stainless steel hardware
- LEAD WIRES:
- UL100 18 AWG Tinned Copper Wire
 - 46 inch length
- ELECTRONICS WARRANTY:
- 20 Years
- CERTIFICATION:
- UL1838 Low Voltage Landscape Lighting
- POWER CONSUMPTION/AVAILABLE MODELS:
- See Power Consumption / Model Availability Table (next page)

- AVAILABLE FINISHES:
- C380 Solid Brass (BR) • Black (BLK)
 - Stainless Aluminum (SSA)

ORDERING CODES

CHOOSE 1 ITEM FROM EACH COLUMN BELOW FOR V2 SSA BLK			
Model #	Wattage	Options	Finish
V2	10	1 (for 12V)	SSA
V2	20	2 (for 24V)	SSA
V2	30	4 (for 48V)	SSA
V2	40	4 (for 48V)	SSA

MODEL: WW WALL WASHER

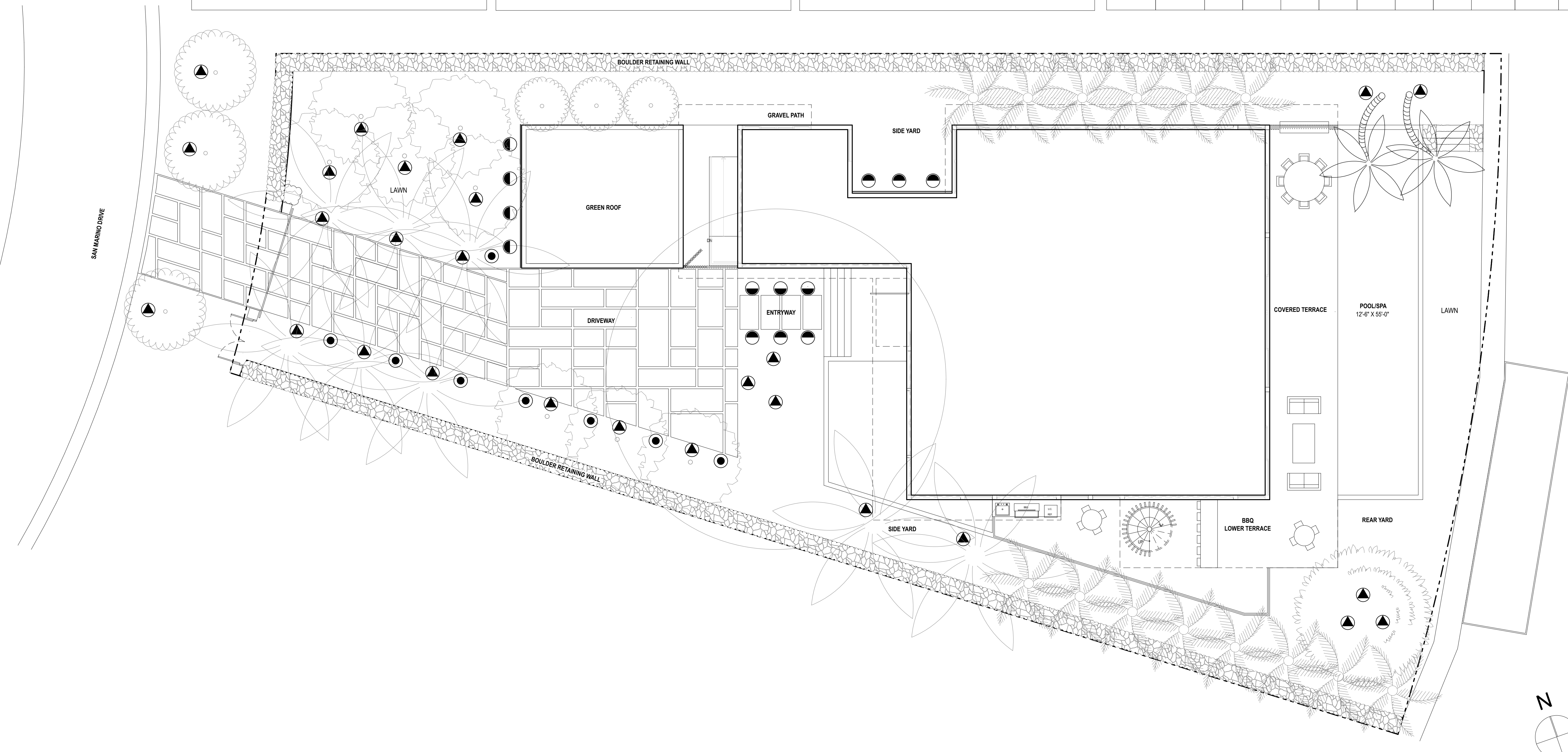
- APPLICATION:
- Up Light, Shadowing, Wall Wash, Silhouettes, Architectural Accents
- CONSTRUCTION:
- 6061 Aluminum - Clear Anodized (SSA Model)
 - 6061 Aluminum - High Performance Extruded (AB, BLK Models)
 - High Performance C380 Solid Brass (BR Model)
 - Tempered Mineral Glass Protective Lens
- LED LIFE EXPECTANCY (TM-21 DATA):
- Greater than 60,000 hours (greater than 20 years at 8 hours per day)
- DRIVER SYSTEM:
- External Driver reduces heat while extending the life of electronic components
- INPUT VOLTAGE RANGE:
- 10.5 to 18 Volts AC or DC (100W-500W equivalent models)
 - 12 to 18 Volts AC or DC (75W equivalent model)
- INSTALLATION AND HARDWARE:
- LV180 Ground Stake Included
 - All stainless steel hardware
- LEAD WIRES:
- UL100 18 AWG Tinned Copper Wire
 - 46 inch length
- ELECTRONICS WARRANTY:
- 20 Years
- CERTIFICATION:
- UL1838 Low Voltage Landscape Lighting
- POWER CONSUMPTION/AVAILABLE MODELS:
- See Power Consumption / Model Availability Table (next page)

- AVAILABLE FINISHES:
- Architectural Bronze (AB) • C380 Solid Brass (BR)
 - Black (BLK) • Stainless Aluminum (SSA)

ORDERING CODES

CHOOSE 1 ITEM FROM EACH COLUMN BELOW FOR WW P10 BLK			
Model #	Wattage	Options	Finish
WW	35	1 (for 12V)	SSA
WW	50	2 (for 24V)	SSA
WW	75	4 (for 48V)	SSA

Lighting schedule										
2D Symbol	Light Fixture	Quantity	Manufact	Model	Voltage	Lamp	Watts	Color Temp	Material	Finish
	Path Light	8	Garden Light LED	P10	12V	LED	8 Watts	3000 K	Solid Brass	Brass
	Spot Light	27	Garden Light LED	V2	12V	LED	8 Watts	3000 K	Solid Brass	Brass
	Wall Washer	13	Garden Light LED	WW	12 vac	LED	20 watt	3000 K	Solid Brass	Brass



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SEAL

RUDOLF UHLEMANN
LA 6667213

ISSUE DATE: 09/07/18

REVISIONS:

ID	DATE	DESCRIPTION

DRAWN/CHECKED: RU

DRB FINAL SUBMITTAL

PROJECT NUMBER: 1804

LIGHTING PLAN

L4.0