

GENERAL NOTES AND SPECIFICATIONS

GENERAL SITE NOTES:

- THESE PLANS REPRESENT THE OVERALL SITE WORK IMPROVEMENTS REQUIRED FOR PROJECT CONSTRUCTION. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK AND TESTING AS SHOWN ON THESE PLANS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION. AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITE WORK CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS SHOWN ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
- THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUANTITY AND QUANTITY OF WORK REQUIRED. THE OWNER MAKES NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY AVAILABLE INFORMATION WHICH WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS, CORRELATE CONDITIONS WITH THE DRAWINGS AND RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL MAKE ADDITIONAL TOPOGRAPHIC SURVEYS HE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.
- THE CONTRACTOR SHALL, WHEN THEY DEEM NECESSARY, PROVIDE WRITTEN REQUESTS FOR INTERPRETATION (RFIS) TO THE OWNER AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITE WORK ITEMS. THE RFIS SHALL BE IN A FORM ACCEPTABLE TO OWNER AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF TWO WORK DAYS OR ADDITIONAL REASONABLE TIME FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE WORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS SPECIFIED ON THE PLANS.
- INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO CONSTRUCTION. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO CONSTRUCTION.
- THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL DRAINAGE AND UTILITY STRUCTURES AND MANUFACTURED PRODUCTS TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO COMMENCING WITH CONSTRUCTION.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL MAINTENANCE OF TRAFFIC MEASURES (INCLUDING DESIGN AND PERMITTING) AS REQUIRED BY THE LOCAL, COUNTY, OR STATE AGENCY HAVING JURISDICTION.
- THE CONTRACTOR IS REQUIRED TO KEEP DETAILED RECORDS OF THE CONSTRUCTION COMPLETED, SPECIFICALLY, ALL UNDERGROUND STRUCTURES, DRAINAGE, WATER, SANITARY, GAS, ELECTRIC, COMMUNICATIONS PIPING, CONDUIT OR APPURTENANCES AND ACCESSORIES AND ALL ABOVE GROUND FEATURES INCLUDING, BUT NOT LIMITED TO, FIRE HYDRANTS, WATER VALVES, DRAINAGE AND SEWER CLEANOUTS, LIGHT POLES AND SIGNS SHALL BE RECORDED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE THAT THE WORK IS PERFORMED. ELEVATIONS OF TOP OF WATER PIPING SHALL BE RECORDED AT ALL BENDS, TEES, AND AT ALL STORM DRAINAGE AND SANITARY SEWER CROSSINGS. SANITARY SEWER TOP OR BOTTOM OF PIPE ELEVATIONS SHALL BE RECORDED AT ALL CROSSINGS WITH WATER AND STORM DRAINAGE PIPING, FINISHED GRADE ELEVATIONS AT ALL WATER VALVES, FIRE HYDRANTS, SANITARY MANHOLES, DRAINAGE STRUCTURES AND CLEANOUT LOCATIONS WILL BE RECORDED. CURB AND PAVEMENT FINISHED GRADE ELEVATIONS AT ALL HIGH AND LOW POINTS, ALONG SWALES, CENTERLINES OF ROADS OR DRIVE AISLES, AND IN PARKING AREAS, SHALL BE RECORDED. AS-BUILT SURVEYS OF THESE ITEMS SHALL BE PROVIDED TO THE ENGINEER OF RECORD WITHIN 30 DAYS OF CONSTRUCTION COMPLETION AND PRIOR TO FINAL PAYMENT BY THE OWNER. THE ENGINEER OF RECORD RESERVES THE RIGHT TO REVIEW THE AS-BUILT SURVEYS AND REQUIRE THE COMPLETED WORK CORRECTED, WHERE DEFICIENCIES WITH RESPECT TO THE CONSTRUCTION DRAWINGS AND THE LOCAL, COUNTY AND STATE STANDARDS ARE NOT ADHERED TO BY THE CONTRACTORS WORK.

I. APPLICABLE CODES:

- ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF PALM BEACH COUNTY ENGINEERING AND PUBLIC WORKS DEPARTMENT, PALM BEACH COUNTY WATER UTILITIES DEPARTMENT, AND ALL OTHER APPLICABLE LOCAL, STATE AND NATIONAL CODES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER AND IN STRICT COMPLIANCE WITH ALL THE REQUIREMENTS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 OR LATEST EDITION, AND ALL STATE AND LOCAL SAFETY AND HEALTH REGULATIONS.
- ALL ELEVATIONS SHOWN ON THE CONSTRUCTION DRAWINGS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988, (N.A.V.D.), UNLESS OTHERWISE NOTED.
- EXISTING TOPOGRAPHIC AND CADASTRAL INFORMATION SHOWN ON THESE DRAWINGS ARE BASED ON THE BOUNDARY SURVEY PREPARED BY ARCADIS U.S. INC. DATED MAY 05, 2010.
- AS-BUILT INFORMATION SHOWN ON THESE DRAWINGS ARE BASED ON THE ENGINEER OF RECORD AND ENGINEER OF RECORD AND SANITARY IMPROVEMENTS PLANS PREPARED BY ARCADIS LAWSON, NOBLE & WEBB, INC. DATED JUNE 24, 2015.

II. PRECONSTRUCTION RESPONSIBILITIES:

- THE INFORMATION PROVIDED IN THESE PLANS IS TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF THE WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT ANY INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED AND UPON WHICH THEIR BIDS WILL BE BASED.
- 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.
- THE CONTRACTOR SHALL CONTACT "SUNSHINE ONE-CALL OF FLORIDA" BY CALLING 1-800-432-4770 AT LEAST 48 HOURS PRIOR TO COMMENCING ANY EXCAVATION OR CONSTRUCTION IN ORDER TO PROVIDE FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES ON-SITE AND OFF-SITE.
- THE CONTRACTOR SHALL COORDINATE WITH UTILITIES TO ARRANGE FOR RELOCATION AND TEMPORARY SUPPORT OF UTILITY FEATURES, ETC. AS NECESSARY TO COMPLETE THE WORK, IF APPLICABLE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ANY AND ALL EXISTING UTILITIES ON THIS PROJECT.
- LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES AS SHOWN ON THE DRAWINGS WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE AT THE TIME THE PLANS WERE PREPARED BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC., WITHIN THE PROJECT AREA WHICH WERE INSTALLED AND CONSTRUCTED AFTER THE PREPARATION OF THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE FACILITIES SHOWN OR FOR ANY FACILITIES NOT SHOWN. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING FACILITIES, STRUCTURES AND OTHER FEATURES (WHETHER SHOWN ON THE PLANS OR NOT) AFFECTING THE WORK.

III. INSPECTION AND TESTING:

- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD AS WELL AS ANY OTHER GOVERNMENTAL AGENCIES HAVING JURISDICTION AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL GIVE THE ENGINEER OF RECORD AT LEAST 48 HOURS ADVANCE NOTICE OF, AND THE ENGINEER OF RECORD MUST BE PRESENT TO WITNESS, THE FOLLOWING:
 - PRESSURE TESTING OF THE WATER DISTRIBUTION SYSTEM.
 - EXPLORATION TEST OF THE SANITARY SEWER SYSTEM.
 - FINAL INSPECTION OF THE WATER, SEWER, PAVING, GRADING AND DRAINAGE.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL APPLICABLE REGULATORY AGENCIES FOR INSPECTION REQUIREMENTS.

IV. SHOP DRAWINGS:

- PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD AND ANY OTHER GOVERNMENTAL AGENCIES REQUIRING THEM. THESE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL OTHER NECESSARY SHOP DRAWING APPROVALS IF REQUIRED.

V. TEMPORARY FACILITIES:

- TEMPORARY FACILITIES:
 - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR PROVIDE TEMPORARY WATER SERVICE, SANITARY FACILITIES, ELECTRIC, AND OTHER NECESSARY SERVICES.
 - THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE ACCESS ENTRANCE TO COMMERCIAL PROPERTIES AT ALL TIMES, IF APPLICABLE.
 - THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER OVER THE STRUCTURES AND DITCHES DURING ALL PHASES OF CONSTRUCTION, IF APPLICABLE.
- TRAFFIC REGULATION:
 - THE CONTRACTOR SHALL PROVIDE ALL WARNING SIGNALS, SIGNS, LIGHTS AND FLAGPERSONS AS NECESSARY FOR THE MAINTENANCE OF TRAFFIC WITHIN PUBLIC RIGHT-OF-WAYS IN ACCORDANCE WITH THE PALM BEACH COUNTY ENGINEERING AND PUBLIC WORKS DEPARTMENT.
 - 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.
 - NO TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS PERMISSION FROM THE PALM BEACH COUNTY ENGINEERING AND PUBLIC WORKS DEPARTMENT.

VI. PROJECT CLOSE-OUT:

- CLEANING UP:
 - 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 SWEEPED BROOM CLEAN.

- THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS WORK, EQUIPMENT AND/OR EMPLOYEES TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS.
- THE CONTRACTOR SHALL REPLACE ALL PAVING, STABILIZED EARTH, CURBS, DRIVEWAYS, SIDEWALKS, FENCES, MAILBOXES, SIGNS AND ANY OTHER IMPROVEMENTS REMOVED DURING CONSTRUCTION WITH THE SAME TYPE OF MATERIAL, AND TO THE CONDITION WHICH EXISTED PRIOR TO THE BEGINNING OF OPERATIONS.
- WHERE MATERIAL OR DEBRIS HAS WASHED OR FLOWED INTO, OR HAVE 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.
- 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.

PROJECT RECORD DOCUMENTS:

- DURING THE DAILY PROGRESS OF THE JOB, THE CONTRACTOR SHALL RECORD ON HIS SET OF CONSTRUCTION DRAWINGS THE EXACT LOCATION, LENGTH AND ELEVATION OF ANY FACILITY NOT BUILT EXACTLY ACCORDING TO PLANS.
- UPON COMPLETION OF DRAINAGE IMPROVEMENTS AND LIMEROCK BASE CONSTRUCTION (AND BEFORE PLACING ASPHALT PAVEMENT OR CONCRETE PAVEMENT) THE CONTRACTOR SHALL FURNISH THE ENGINEER OF RECORD "AS-BUILT" PLANS FOR THESE IMPROVEMENTS, SHOWING THE LOCATIONS AND PERTINENT GRADES OF ALL DRAINAGE INSTALLATIONS AND THE FINISHED ROCK GRADES OF THE ROAD CROWN AND EDGES OF PAVEMENT AT 25 FEET INTERVALS.
- UPON COMPLETION OF CONSTRUCTION, AND PRIOR TO FINAL PAYMENT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD ONE COMPLETE SET OF ALL "AS-BUILT" CONTRACT DRAWINGS. THESE DRAWINGS SHALL BE MARKED TO SHOW "AS-BUILT" CONSTRUCTION CHANGES AND DIMENSIONS, LOCATIONS AND ELEVATIONS OF ALL IMPROVEMENTS.
- "AS-BUILT" INFORMATION ON WATER MAINS AND GRAVITY SEWERS MUST BE PROVIDED IN ACCORDANCE WITH THE PALM BEACH COUNTY UTILITIES DEPARTMENT STANDARD AS-BUILT REQUIREMENTS.
- "AS-BUILT" INFORMATION SHALL BE CERTIFIED BY A FLORIDA REGISTERED LAND SURVEYOR.

VII. EARTHWORK AND COMPACTION:

- EARTHWORK AND COMPACTION SHALL BE PERFORMED IN ACCORDANCE WITH PALM BEACH COUNTY ENGINEERING AND PUBLIC WORKS DEPARTMENT STANDARDS.

VIII. STORM DRAINAGE:

- GENERAL:
 - CATCH BASIN GRATES AND RIM ELEVATIONS AS SHOWN ON PLANS SHALL BE ADJUSTED TO CONFORM TO NEW OR EXISTING GRADES.
 - DRAWINGS ARE REFERENCED TO THE CENTER OF STRUCTURES.
 - ALL STORM DRAINAGE MATERIALS AND INSTALLATION SHALL CONFORM TO THE APPLICABLE PALM BEACH COUNTY ENGINEERING AND PUBLIC WORKS DEPARTMENT AND PALM BEACH COUNTY WATER UTILITIES DEPARTMENT SPECIFICATIONS.
- PERFORATED PIPE SHALL TERMINATE 4"-0" FROM THE DRAINAGE STRUCTURE. THE REMAINING 4"-0" SHALL BE NON-PERFORATED PIPE.
- PROVIDE A MINIMUM PROTECTIVE COVER OF 24 INCHES OVER STORM SEWER AND AVOID UNNECESSARY CROSSING BY HEAVY CONSTRUCTION VEHICLES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL PROTECT EXISTING AND COMPLETED DRAINAGE STRUCTURES AND EXFILTRATION SYSTEM FROM CONTAMINATION OF SILT AND CONSTRUCTION DEBRIS. PLACE PLYWOOD OR FILTER FABRIC BETWEEN THE FRAME AND INLET GRATE UNTIL CONSTRUCTION OPERATIONS ARE FINISHED. (SEE STORMWATER POLLUTION PREVENTION PLAN)

IX. PAVING:

- GENERAL:
 - ALL UNDERGROUND UTILITIES SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF LIMEROCK BASE.
 - ALL EXISTING PAVEMENT, CUT OR DAMAGED BY CONSTRUCTION SHALL BE PROPERLY RESTORED AT THE CONTRACTOR'S EXPENSE.
 - ALL ROAD CROSSINGS ARE OPEN CUT UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - WHERE ANY PROPOSED PAVEMENTS ARE TO BE CONNECTED TO EXISTING PAVEMENT, THE EXISTING GRADE OF PAVEMENT SHALL BE MAINTAINED.
 - PAVEMENT REPAIRS SHALL BE PERFORMED AS PER PALM BEACH COUNTY ENGINEERING AND PUBLIC WORKS DEPARTMENT STANDARDS.

MATERIALS AND INSTALLATION:

- ALL WORKS CONFORM TO THE APPLICABLE PALM BEACH COUNTY ENGINEERING AND PUBLIC WORKS DEPARTMENT SPECIFICATIONS.
- ALL DUCTILE IRON PIPE SHALL BE PRESSURE CLASS 350 IN ACCORDANCE WITH ANS A 21.51 (AWWA C151) AND PIPE SHALL RECEIVE EXTERIOR BITUMINOUS COATING IN ACCORDANCE WITH ANS A 21.4 (AWWA C104).
- ALL FITTINGS 3" OR LARGER SHALL BE MECHANICAL JOINT, DUCTILE IRON PRESSURE CLASS 350 IN ACCORDANCE WITH ANS A 21.10 AND A 21.11 (AWWA C10 AND AWWA C111 RESPECTIVELY). FITTINGS SHALL BE CEMENT MORTAR LINED AND BITUMINOUS COATED IN ACCORDANCE WITH AWWA C104 AND AWWA C151 RESPECTIVELY.
- THE CONTRACTOR SHALL INSTALL TEMPORARY BLOW-OFFS AT THE END OF WATER SERVICE LATERALS TO ASSURE ADEQUATE FLUSHING AND DISINFECT ION.
- ALL PVC WATER MAINS 4" THROUGH 12" SHALL BE IN ACCORDANCE WITH AWWA C900. PIPE SHALL BE CLASS 150 AND MEET THE REQUIREMENTS OF SDR 18 IN ACCORDANCE WITH ASTM D-2241.
- WATER MAIN PIPING LARGER THAN 2" AND SMALLER THAN 4" SHALL BE PRESSURE CLASS 200 AND MEET THE REQUIREMENTS OF SDR 21 IN ACCORDANCE WITH ASTM D2241 UNLESS SPECIFIED OTHERWISE.
- ALL PIPE AND FITTINGS 2" AND SMALLER SHALL BE SCHEDULE 40 PVC WITH SOLVENT WELDED SLEEVE TYPE JOINTS.
- ALL GATE VALVES 2" OR LARGER SHALL BE RESILIENT SEAT OR RESILIENT WEDGE MEETING THE REQUIREMENTS OF AWWA C509
- ALL FIRE HYDRANTS SHALL MEET THE REQUIREMENTS OF AWWA C502 AND SHALL BE APPROVED BY THE LOCAL UTILITY AND FIRE MARSHAL.
- THE CONTRACTOR SHALL PROVIDE CERTIFIED AS-BUILTS AS DESCRIBED IN AS-BUILT REQUIREMENTS ON THIS SHEET.

X. TESTING:

- DENSITY TESTS SHALL BE TAKEN BY AN INDEPENDENT TESTING LABORATORY, CERTIFIED BY THE STATE OF FLORIDA. RESULTS OF DENSITY TESTS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA AND PROVIDED TO THE ENGINEER OF RECORD FOR REVIEW.

XI. WATER DISTRIBUTION SYSTEM:

- GENERAL:
 - ALL MATERIALS, INSTALLATION AND TESTING UNDER THIS PROJECT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PALM BEACH COUNTY WATER UTILITIES DEPARTMENT.
 - ANY EXISTING PUBLIC WATER SERVICE WITHIN THE PROPERTY IN CONFLICT WITH THE PROPOSED DEVELOPMENT MUST BE REMOVED AFTER ANY ASSOCIATED EASEMENT IS CLOSED AND RELEASED AS APPLICABLE.
 - ALL PROP WATER & FORCE MAINS AND FITTINGS TO BE RESTRAINED PER GS 2.0.
- MATERIALS INSTALLATION AND TESTING:
 - FOLLOW PBCWUD SPECIFICATIONS FOR WATER MAINS
 - IN ADDITION SEE PBCWUD NOTES ON THIS SHEET.

XII. SANITARY SEWER COLLECTION SYSTEM:

- GENERAL:
 - ALL MATERIALS AND LABOR UNDER THIS PROJECT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PALM BEACH COUNTY WATER UTILITIES DEPARTMENT.
 - MANHOLE RIM ELEVATIONS AS SHOWN ON PLANS SHALL BE ADJUSTED TO CONFORM TO NEW OR EXISTING GRADES.
 - DISTANCES AND LENGTHS SHOWN ON PLANS AND PROFILE DRAWINGS ARE REFERENCED TO THE CENTER OF STRUCTURES.
 - ANY EXISTING PUBLIC SEWER SEWER EASEMENT WITHIN THE PROPERTY IN CONFLICT WITH THE PROPOSED DEVELOPMENT MUST BE REMOVED AFTER ANY ASSOCIATED EASEMENT IS CLOSED AND RELEASED AS APPLICABLE.
 - ALL PROP WATER & FORCE MAINS AND FITTINGS TO BE RESTRAINED PER GS 2.0.
- MATERIALS, INSTALLATION AND TESTING:
 - FOLLOW PBCWUD SPECIFICATIONS FOR GRAVITY SANITARY SEWER SYSTEMS.
 - IN ADDITION, SEE PBCWUD NOTES ON THIS SHEET.

XIII. PAVEMENT MARKINGS AND SIGNING:

- PAVEMENT MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND PALM BEACH COUNTY LOCAL T-1.

PALM BEACH COUNTY TRAFFIC NOTES:

- CONTRACTOR SHALL CONTACT PALM BEACH COUNTY TRAFFIC OPERATIONS AT 561-233-3900, MONDAY-THURSDAY (48 HOURS) PRIOR TO CONSTRUCTION IF WORK IS BEING DONE WITHIN 10 FEET OF ANY SIGNAL EQUIPMENT.
- DAMAGE TO LOOPS OR SIGNAL EQUIPMENT CAUSED BY CONSTRUCTION OF THIS PROJECT MUST BE REPAIRED OR REPLACED AT ORIGINAL OR BETTER CONDITION AT NO COST TO PALM BEACH COUNTY.

SEWER SYSTEM NOTES (01/08/08 PER PBCWUD):

- ALL WATER MAINS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER.
- ALL WATER SYSTEM WORK SHALL CONFORM TO APPLICABLE LOCAL, STATE AND FEDERAL REGULATORY STANDARDS AND SPECIFICATIONS.
- CONFLICTS BETWEEN WATER AND STORM OR SANITARY SEWER SHALL BE RESOLVED BY ADJUSTING THE WATER LINES AS REQUIRED PER PALM BEACH COUNTY WATER UTILITY DEPARTMENT REQUIREMENTS. SEE CLEARANCE REQUIREMENTS ON THIS SHEET.
- MATERIALS AND CONSTRUCTION METHODS FOR WATER DISTRIBUTION SYSTEMS SHALL BE IN ACCORDANCE WITH ALL LOCAL REGULATIONS, PLANS, AND SPECIFICATIONS FOR CONSTRUCTION. LATEST REVISION THEREOF, AND SUPPLEMENTAL SPECIFICATIONS THERETO. APPROVAL AND CONSTRUCTION OF ALL POTABLE WATER SERVICE MAIN EXTENSIONS AND CONNECTIONS MUST BE COORDINATED THROUGH THE LOCAL REGULATORY AGENCY.
- ALL DUCTILE IRON PIPE SHALL BE PRESSURE CLASS 350 IN ACCORDANCE WITH ANS A 21.51 (AWWA C151) AND PIPE SHALL RECEIVE EXTERIOR BITUMINOUS COATING IN ACCORDANCE WITH ANS A 21.4 (AWWA C104).
- ALL FITTINGS 3" OR LARGER SHALL BE MECHANICAL JOINT, DUCTILE IRON PRESSURE CLASS 350 IN ACCORDANCE WITH ANS A 21.10 AND A 21.11 (AWWA C10 AND AWWA C111 RESPECTIVELY). FITTINGS SHALL BE CEMENT MORTAR LINED AND BITUMINOUS COATED IN ACCORDANCE WITH AWWA C104 AND AWWA C151 RESPECTIVELY.
- THE CONTRACTOR SHALL INSTALL TEMPORARY BLOW-OFFS AT THE END OF WATER SERVICE LATERALS TO ASSURE ADEQUATE FLUSHING AND DISINFECT ION.
- ALL PVC WATER MAINS 4" THROUGH 12" SHALL BE IN ACCORDANCE WITH AWWA C900. PIPE SHALL BE CLASS 150 AND MEET THE REQUIREMENTS OF SDR 18 IN ACCORDANCE WITH ASTM D-2241.
- WATER MAIN PIPING LARGER THAN 2" AND SMALLER THAN 4" SHALL BE PRESSURE CLASS 200 AND MEET THE REQUIREMENTS OF SDR 21 IN ACCORDANCE WITH ASTM D2241 UNLESS SPECIFIED OTHERWISE.
- ALL PIPE AND FITTINGS 2" AND SMALLER SHALL BE SCHEDULE 40 PVC WITH SOLVENT WELDED SLEEVE TYPE JOINTS.
- ALL GATE VALVES 2" OR LARGER SHALL BE RESILIENT SEAT OR RESILIENT WEDGE MEETING THE REQUIREMENTS OF AWWA C509
- ALL FIRE HYDRANTS SHALL MEET THE REQUIREMENTS OF AWWA C502 AND SHALL BE APPROVED BY THE LOCAL UTILITY AND FIRE MARSHAL.
- THE CONTRACTOR SHALL PROVIDE CERTIFIED AS-BUILTS AS DESCRIBED IN AS-BUILT REQUIREMENTS ON THIS SHEET.

PALM BEACH COUNTY WATER UTILITY DEPARTMENT REQUIREMENTS FOR WATER UTILITY CLEARANCES (01/08/08 PER PBCWUD):

- THE FOLLOWING HORIZONTAL SEPARATION (WALL TO WALL) REQUIREMENTS SHALL BE MET:
 - 10' TO BUILDINGS, EXFILTRATION TRENCHES, ROOF OVERHANGS, CANOPIES, WALLS, FOUNTAINS, AND OTHER STRUCTURES.
 - 10' TO WASTEWATER LINES (MIN. 6" MAY BE APPROVED IN SPECIAL CASES)
 - 10' TO DRAINAGE PIPES (MIN. 3" MAY BE APPROVED IN SPECIAL CASES)
 - 4' TO POWER POLES, LIGHT POLES AND OTHER PUBLIC UTILITY LINES
 - 3' TO DRAINAGE STRUCTURES AND RECLAIMED WATER LINES
- THE FOLLOWING VERTICAL SEPARATION REQUIREMENTS SHALL BE MET:
 - 12" SEPARATION BETWEEN ALL PIPES SHOULD BE MAINTAINED. A MINIMUM OF 6" VERTICAL SEPARATION IS ACCEPTABLE, HOWEVER, IF IT IS NOT POSSIBLE TO MAINTAIN 12" AND IF THE WATER MAIN CROSSES OVER A STORM OR WASTEWATER GRAVITY MAIN, WHEN THERE IS NO ALTERNATIVE TO THE WATER MAIN PASSING UNDER A WASTEWATER MAIN, AND WHEN THE WATER MAIN CROSSES OVER OR UNDER RECLAIMED WATER MAIN OR FORCE MAIN, A MINIMUM OF 12" VERTICAL CLEARANCE SHALL BE MAINTAINED.
 - WM SHALL CROSS OVER OTHER PIPES UNLESS NOT FEASIBLE.

WATER CLEARANCE REQUIREMENTS (01/08/08 PER PBCWUD):

- NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDING THIS PROJECT WILL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE INSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED WATER MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE INSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER (OR A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER IF THE BOTTOM OF THE WATER MAIN IS TO BE LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE OTHER PIPE); AND A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE INSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM." THESE REQUIREMENTS SHALL BE MET ALONG WITH PALM BEACH COUNTY WATER UTILITY DEPARTMENT REQUIREMENTS FOR UTILITY CLEARANCES, WHICHEVER IS MORE RESTRICTIVE. REFER TO PALM BEACH COUNTY WATER UTILITY DEPARTMENT CLEARANCE REQUIREMENTS ON THIS SHEET.
- NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12 INCHES BELOW THE OTHER PIPELINE; AND NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER PIPELINE. THESE REQUIREMENTS SHALL BE MET ALONG WITH PALM BEACH COUNTY WATER UTILITY DEPARTMENT REQUIREMENTS FOR UTILITY CLEARANCES, WHICHEVER IS MORE RESTRICTIVE. REFER TO PALM BEACH COUNTY WATER UTILITY DEPARTMENT CLEARANCE REQUIREMENTS ON THIS SHEET.

SEWER SYSTEM NOTES (01/08/08 PER PBCWUD):

- ALL SANITARY SEWER MAINS AND LATERALS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER.
- ALL SANITARY SEWER WORK SHALL CONFORM TO APPLICABLE LOCAL REGULATORY STANDARDS AND SPECIFICATIONS.
- PRIOR TO COMMENCING WORK WHICH REQUIRES CONNECTING NEW WORK TO EXISTING LINES OR APPURTENANCES, THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF EXISTING CONNECTION POINT AND NOTIFY ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
- PVC PIPE AND FITTINGS SHALL CONFORM TO ASTM SPECIFICATION DESIGNATION D-3034, SDR 26. THE JOINTS SHALL CONFORM TO ASTM D-3212. INSTALLATION OF SDR 26 PIPE SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF ASTM SPECIFICATION SECTION D2321. ALL SANITARY SEWER PIPELINES SHALL BE SOLID GREEN IN COLOR.
- ALL PVC FORCE MAINS SHALL BE PRESSURE C900, SDR 18, COLOR GREEN, WITH A GREEN MAGNETIC TAPE A MINIMUM OF 2" WIDE PLACED 1 FOOT BELOW THE PROPOSED GRADE. THE PRINTING ON THE MAGNETIC TAPE SHALL READ "FORCE MAIN"
- ALL DUCTILE IRON PIPE SHALL BE PRESSURE CLASS 350 IN ACCORDANCE WITH ANS A 21.51-91 (AWWA C151) AND PIPE SHALL RECEIVE EXTERIOR BITUMINOUS COATING IN ACCORDANCE WITH ANS A 21.51 (AWWA C151) AND SHALL BE CEMENT MORTAR LINED, STANDARD THICKNESS IN ACCORDANCE WITH ANS A 21.4 (AWWA C104).
- ALL SANITARY SEWER GRAVITY MAINS OR SANITARY SEWER FORCE MAINS THAT REQUIRE DIP ARE TO BE CERAMIC EPOXY LINED.
- ALL SANITARY SEWER RIMS AND COVERS SHALL BE TRAFFIC RATED FOR H-20 LOADING.
- THE CONTRACTOR SHALL PROVIDE CERTIFIED AS-BUILTS AS DESCRIBED IN AS-BUILT REQUIREMENTS ON THIS SHEET.

HEALTH DEPARTMENT NOTES

WATER MAIN HORIZONTAL SEPARATIONS

- SEPARATIONS SHALL BE MEASURED OUTSIDE EDGE TO OUTSIDE EDGE BETWEEN WATER MAINS AND, STORM SEWERS, STORMWATER, FORCE MAINS, OR RECLAIMED WATER LINES, SHALL BE 3 FT MINIMUM.
- BETWEEN WATER MAINS AND VACUUM TYPE SEWER PREFERABLY 10 FT AND AT LEAST 3 FT MINIMUM.
- GRAVITY OR PRESSURE SANITARY SEWERS, WASTEWATER FORCE MAINS OR RECLAIMED WATER PREFERABLY 10 FT AND AT LEAST 6 FT. MAY BE REDUCED TO 3 FT WHERE BOTTOM OF WATER MAINS IS AT LEAST 6 FEET ABOVE TOP OF SEWER.
- 10 FT TO ANY PART OF ON-SITE SEWER TREATMENT OR DISPOSAL SYSTEM.

WATER MAIN VERTICAL SEPARATIONS

- SEPARATIONS BETWEEN WATER MAINS AND GRAVITY SEWER, VACUUM TYPE SEWER, OR STORM SEWERS PREFERABLY 12 INCHES, OR AT LEAST 6 INCHES IF ABOVE OR AT LEAST 12 INCHES BELOW.
- PRESSURE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR RECLAIMED WATER, AT LEAST 12 INCHES ABOVE OR BELOW.
- *NOTE: CENTER 1-FULL LENGTH OF WATER MAIN PIPE AT CROSSING. ALTERNATIVELY, ALL JOINTS ARE AT LEAST 3 FEET FROM JOINTS IN VACUUM, STORM OR STORM FORCE MAINS. AT LEAST 6 FEET FROM JOINTS IN GRAVITY OR PRESSURE SEWERS, WASTEWATER OR FORCE MAINS OR RECLAIMED WATER.

Date	Description	No.
REVISIONS		

SIGNATURE: MICHAEL CARR
DATE SIGNED: _____
PROFESSIONAL ENGINEER FL Lic. No. 72424

LANGAN
110 East Broward Boulevard, Suite 1500, Fort Lauderdale, FL 33301
T: 954.320.2100 F: 954.320.2101 www.langan.com
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering and Environmental Services, Inc.
Langan, Inc.
Langan International LLC
Collectively known as Langan
FL CERTIFICATE OF AUTHORIZATION No. 00006601

Project: **SOUTHERN PALM CROSSING**
VILLAGE OF ROYAL PALM BEACH
PALM BEACH, FLORIDA
Drawing Title: **GENERAL NOTES**

Project No. 330025601	Drawing No. G1004
Date: 6/19/2017	
Scale:	
Drawn By: MJB	Checked By: MPC

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