

GENERAL NOTES

CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE NOTES AND SPECIFICATIONS CONTAINED HEREIN. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE CONFORMANCE TO THESE REQUIREMENTS BY ALL SUBCONTRACTORS.

1. THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:
BOUNDARY & TOPOGRAPHIC SURVEY, BY GEOPPOINT SURVEYING, INC DATED 08-18-15.

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT HE/HIS HAS THE LATEST EDITION OF THE DOCUMENTS REFERENCED ABOVE.

2. ALL HANDICAPPED PARKING SPACES SHALL BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE 'AMERICANS WITH DISABILITIES ACT' (ADA) CODE (42 U.S.C. SEC. 12101 ET SEQ. AND 42 U.S.C. SEC. 4151 ET SEQ.) OR THE REQUIREMENTS OF THE JURISDICTION WHERE THIS PROJECT IS TO BE CONSTRUCTED.

3. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE COMMENTS TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES. CONTRACTOR SHALL HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.

4. THE OWNER/CONTRACTOR SHALL BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

5. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE REQUIREMENTS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES HAVING JURISDICTION OVER THIS PROJECT.

6. THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF ANY SUCH DISCREPANCY BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.

7. THE BOUNDARY & TOPOGRAPHIC SURVEY, BY GEOPPOINT SURVEYING, INC. SHALL BE CONSIDERED A PART OF THESE PLANS.

8. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO THOMAS ENGINEERING GROUP BY THE OWNER AND OTHERS PRIOR TO THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE INFORMATION PROVIDED BY THOMAS ENGINEERING GROUP IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.

9. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO THE GIVING OF SUCH NOTIFICATION AND THE ENGINEER'S WRITTEN AUTHORIZATION OF SUCH ADDITIONAL WORK.

10. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL/BUILDING PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, EXACT BUILDING UTILITY LOCATIONS.

11. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE BUILDING LAYOUT BY CAREFUL REVIEW OF THE SITE PLAN AND LATEST ARCHITECTURAL PLANS (INCLUDING, BUT NOT LIMITED TO, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLAN, WHERE APPLICABLE). CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER, ARCHITECT AND SITE ENGINEER OF ANY DISCREPANCIES.

12. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ALL GOVERNMENTAL AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT.

13. THE CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT AND CONTIGUOUS STRUCTURES.

14. THE CONTRACTOR IS TO EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN. CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING THE APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, ETC. WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA.

15. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, DRAINAGE UTILITIES, PAVEMENT, STRIPING, CURB, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE ALL SIGNAL, INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY SHALL RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE EXISTING CONDITIONS, AND IN CONFORMANCE WITH APPLICABLE CODES. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.

16. ALL CONCRETE SHALL HAVE THE MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.

17. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS / MEANS FOR COMPLETION OF THE WORK DEPICTED NEITHER ON THESE PLANS, NOR FOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

18. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY NOR HAS THE ENGINEER OF RECORD BEEN RETAINED FOR SUCH PURPOSES.

19. ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME THOMAS ENGINEERING GROUP, AND ITS SUB-CONSULTANTS AS ADDITIONAL NAMED INSURERS AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THIS PROJECT HARMLESS AND INDEMNIFY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH THOMAS ENGINEERING GROUP WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEVAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS THOMAS ENGINEERING GROUP AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS.

20. THOMAS ENGINEERING GROUP WILL REVIEW AND APPROVE OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION METHODS COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THOMAS ENGINEERING GROUP'S SHOP DRAWING REVIEW WILL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO THE CONTRACTOR TO MAKE ANY CORRECTIONS. THIS SHALL NOT INDICATE THAT THOMAS ENGINEERING GROUP HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. THOMAS ENGINEERING GROUP WILL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT BROUGHT TO ITS ATTENTION, IN WRITING, BY THE CONTRACTOR. THOMAS ENGINEERING GROUP WILL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE BEEN RECEIVED.

21. NEITHER THE PROFESSIONAL ACTIVITIES OF THOMAS ENGINEERING GROUP, NOR THE PRESENCE OF THOMAS ENGINEERING GROUP OR ITS EMPLOYEES AND SUB-CONSULTANTS AT A CONSTRUCTION / PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. THOMAS ENGINEERING GROUP AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK AND/OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THOMAS ENGINEERING GROUP SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE NAMED AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE.

22. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER FOR SUCH DEVIATIONS, CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK DONE WHICH DEVIATES FROM THE PLANS, ALL FINES AND PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS RELATED TO SAME.

23. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL, EITHER IN THE R.O.W. OR ON SITE. THE COST FOR THIS ITEM SHOULD BE INCLUDED IN THE CONTRACTOR'S PRICE.

24. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CORRECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.

25. CONTRACTOR SHALL CONFIRM ADA ACCESSIBILITY PRIOR TO INSTALLING FINISHING COURSES OF SIDEWALKS AND PARKING AREAS.

26. UPON THE RECEIPT OF THE 'NOTICE TO PROCEED', THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD AND ARRANGE A RECONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, UTILITY OWNERS, THE OWNER AND THE ENGINEER OF RECORD.

27. ALL UTILITY EASEMENTS TO BE SECURED PRIOR TO CONSTRUCTION (IF REQUIRED) PRIOR TO CERTIFICATE OF OCCUPANCY. THESE EASEMENTS SHALL BE SKETCHED, DESCRIBED, AND RECORDED AT THE SOLE COST OF THE CONTRACTOR.

28. CONTRACTOR SHALL PROVIDE MINIMUM 48 HOUR NOTICE TO ENGINEER AND APPLICABLE AGENCIES FOR SCHEDULING INSPECTIONS.

29. PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD AND PASCO COUNTY FOR THE FOLLOWING: CATCH BASINS, FIRE HYDRANTS, VALVES, AND ALL REQUIRED ACCESSORIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL OTHER AGENCY APPROVALS IF REQUIRED.

30. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY.

31. MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH THE MANUAL OF TRAFFIC CONTROL BY PASCO COUNTY WHERE APPLICABLE PRIOR TO IMPLEMENTATION.

32. 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.

33. NO TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS PERMISSION FROM PASCO COUNTY.

34. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR FOR ANY NECESSARY CONSTRUCTION, PAVEMENT MARKING AND SIGNAGE OR PEDESTRIAN SIGNALIZATION AND/OR SIGNAL MODIFICATION TO ACCOMMODATE AN ALTERNATE SAFE WALK ROUTE. ALL RESTORED TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE GOVERNING AGENCY'S TRAFFIC ENGINEERING STANDARDS.

SANITARY SEWER NOTES:

- A. GENERAL:
1. DISTANCE AND LENGTHS SHOWN ON PLANS AND PROFILE DRAWINGS ARE REFERENCED TO THE CENTER OF STRUCTURES.
2. PRIOR TO COMMENCING CONSTRUCTION, CONTRACTOR TO TELETYPE EXISTING SANITARY SEWER LINE FROM POINT OF CONNECTION THROUGH TO THE NEXT SEQUENTIAL DOWNSTREAM RUN OF PIPE, ADDITIONALLY, PRIOR TO COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL TELETYPE THE NEWLY INSTALLED SANITARY SEWER MAIN TO ENSURE NO DIPS OR DEBRIS WITHIN LINE.
3. THE EXISTING OFF-SITE PUMP STATION WAS DESIGNED TO ACCOUNT FOR THE FLOWS ASSOCIATED WITH THE SUBJECT PARCEL, AND IS CAPABLE HANDLING THE PROPOSED DEVELOPMENT ACTIVITIES.

- B. MATERIALS:
1. ALL PVC SEWER PIPE AND FITTINGS SHALL BE NON-PRESSURE POLYVINYL CHLORIDE (PVC) PIPE CONFORMING TO ASTM D 3034, SDR 26, WITH PUSH-ON RUBBER GASKET JOINTS.
2. ALL FITTINGS AND ACCESSORIES SHALL BE AS MANUFACTURED OR SUPPLIED BY THE PIPE MANUFACTURER OR APPROVED EQUAL.
3. ALL SANITARY CLEANOUTS WITHIN PAVEMENT SHALL HAVE A LID THAT IS H20 LOADING.
C. INSTALLATION:
1. PIPE AND FITTINGS:
a. SEWER PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, AND THE UNI-BELL PLASTICS PIPE ASSOCIATION'S 'RECOMMENDED PRACTICE FOR THE INSTALLATION OF PVC SEWER PIPE'.
b. BEDDING AND INITIAL BACKFILL (12 INCHES) OVER SEWER MAINS AND SERVICES SHALL BE SAND WITH NO ROCK LARGER THAN 1" IN DIAMETER. PEAK ROCK OR 3/4" WASHED ROCK WILL BE USED IN WATER OR WHERE UNSUITABLE BEDDING EXISTS. ALL OTHER FILL SHALL NOT HAVE ROCK LARGER THAN 6" IN DIAMETER.

- 2. CLEANOUTS:
a. CLEANOUTS SHALL BE SET PLUMB TO LINE AND GRADE ON FIRM CLAY SUBGRADE PROVIDING UNIFORM BEARING UNDER THE BASE.
b. ALL OPENINGS AND JOINTS SHALL BE SEALED WATER-TIGHT.

- 3. SERVICE:
a. MINIMUM SLOPE OF ALL SERVICE LINES SHALL BE AS INDICATED IN THE FLORIDA BUILDING CODE.
b. SERVICE LATERALS SHALL TERMINATE AT A DEPTH 30" BELOW FINISHED GRADE OR AS INDICATED ON PLUMBING PLAN.
c. EACH SERVICE CONNECTION SHALL BE PLUGGED WATER-TIGHT WITH AN APPROVED PLUG.
d. THE END OF EACH SERVICE CONNECTION SHALL BE MARKED WITH A 2"x4" TREATED STAKE PAINTED RED, EXTENDING 18"(MIN) ABOVE GRADE.
e. CONTRACTOR SHALL ROUGH IN RISER TO 1 FOOT ABOVE FINISHED GRADE AND PLUG. AT PROJECT COMPLETION, CUT BACK TO FINISHED GRADE.
f. CONNECTION OF SERVICES TO BUILDING'S PLUMBING SHALL BE COORDINATED WITH THE COUNTY BUILDING AND ZONING DEPARTMENT, PLUMBING SECTION.

- D. TESTING:
1. AFTER CONSTRUCTION OF THE SEWER SYSTEM, THE ENGINEER MAY REQUIRE A VISUAL INFILTRATION AND/OR EXFILTRATION TEST TO BE PERFORMED ON THE ENTIRE SYSTEM OR ANY PART THEREOF.
2. AN AIR TEST MAY BE SUBSTITUTED FOR THE WATER EXFILTRATION TEST, UPON APPROVAL OF THE ENGINEER.
3. SEWER PIPE LEAKAGE ALLOWABLE SHALL NOT EXCEED 150 GALLONS PER DAY PER INCH DIAMETER PER MILE IN A TWO HOUR TEST PERIOD FOR ANY SECTION TESTED. NO VISIBLE LEAKAGE SHALL BE ALLOWED.
4. SANITARY SEWER SHALL BE TELEVIEWED AND LAMPED AT DEVELOPER'S EXPENSE, PRIOR TO FINAL ACCEPTANCE. OWNER / CONTRACTOR IS RESPONSIBLE FOR CORRECTING ANY DEFICIENCIES PRIOR TO CERTIFICATION TO ANY AGENCY.
5. VISIBLE INFILTRATION LEAKAGE INTO MANHOLES AND SEWER PIPE SHALL NOT BE PERMITTED.
6. CONTRACTOR IS RESPONSIBLE FOR CORRECTING ANY DEFICIENCIES PRIOR TO THE CERTIFICATION TO ANY AGENCY.

WATER DISTRIBUTION AND/OR SANITARY SEWER FORCE MAIN SYSTEM

- A. GENERAL:
1. NO CONNECTIONS TO THE EXISTING LINES SHALL BE MADE UNTIL PRESSURE TESTS, FOR THE WATER AND SEWER FORCE MAINS, AND BACTERIOLOGICAL TESTS HAVE BEEN PERFORMED AND THE SYSTEM IS ACCEPTABLE TO THE PASCO COUNTY UTILITIES DEPARTMENT AND COUNTY'S PUBLIC HEALTH UNIT.
2. BEDDING AND INITIAL BACKFILL FOR MAINS SHALL BE SAND WITH NO ROCKS LARGER THAN 1" IN DIAMETER
3. USE 'DETECTO' TAPE ON ALL PVC MAINS (18" ABOVE), AND USE 'NON-DETECTO' TAPE ON ALL D.I.P. MAINS (18" ABOVE).
4. A THREE (3) FOOT HORIZONTAL SEPARATION IS REQUIRED BETWEEN WATER MAINS AND OBSTRUCTIONS (I.E. CATCH BASINS, POWER POLES, ETC.). FIVE (5) FOOT OF SEPARATION IS REQUIRED BETWEEN WATER MAINS AND TREES.
5. CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH PASCO COUNTY UTILITIES ENGINEERING DIVISION STANDARDS AND SPECIFICATIONS.

- B. MATERIALS:
1. DUCTILE IRON PIPE (DIP) SHALL BE CLASS 52 UP TO 12" SIZE & CLASS 51 FOR 14" AND LARGER WITH INTERIOR CEMENT LINING AND BITUMINOUS COATED OUTSIDE. WATER MAIN & EPOXY LINED & COATED FORCE MAIN MANUFACTURED IN ACCORDANCE WITH ANSII/AWWA C151/A21-01 51-01 OR LATEST REVISION. THE PIPE SHALL BE BELL AND SPIGOT PUSH-ON TYPE UNLESS OTHERWISE NOTED ON THE PLANS.
2. ALL PVC MAINS SHALL BE SERIES 1120, CLASS 150 (DR 18) PRESSURE PIPE CONFORMING TO ANSII/AWWA C300-89 OR LATEST REVISION AND SHALL HAVE PUSH-ON JOINTS, AND IRON PIPE O.D. (PVC ON-SITE ONLY).
3. FITTINGS FOR MAINS 4" AND LARGER SHALL BE DUCTILE IRON MECHANICAL JOINT CONFORMING TO ANSII/AWWA C110/A21-10-93 OR LATEST REVISION, COMPLETE WITH GLANDS, GASKETS, BOLTS AND NUTS. ALL FITTINGS SHALL BE CEMENT LINED AND SEAL COATED WITH THE SAME MATERIALS AS THE PIPE & USE MEGALUG SERIES 1100 RESTRAINED JOINT ADAPTERS.
4. VALVES SHALL BE GATE VALVES, IRON BODY, FULLY RESILIENT SEAT, BRANDED AND UNDRIVING SYSTEM, RATED AT 200 PSI, AND CONFORMING TO ANSII/AWWA C502 OR LATEST REVISION, AND SHALL HAVE MECHANICAL JOINTS.

- a. GATE VALVES 4" AND LARGER SHALL BE MUELLER A-2360-20, RESILIENT SEATED GATE VALVES SHALL BE AMERICAN 500/2500 LINE OR CLOW P-6100, CONFORMING TO ANSII/AWWA C509-87.
b. TAPPING VALVES SHALL BE MUELLER H667 OR APPROVED EQUAL.
c. GATE VALVES 3" OR LESS SHALL BE NIBCO T-133 OR T-136 WITH MALLEABLE HAND WHEELS, NO SUBSTITUTIONS ALLOWED.
5. TAPPING SLEEVES SHALL BE MUELLER H615 OR APPROVED EQUAL PER PASCO COUNTY.
6. VALVE BOXES SHALL BE TYLER/JUNION 461-S OR APPROVED EQUAL PER PASCO COUNTY.

- 7. RETAINER GLANDS SHALL CONFORM TO ANSII/AWWA C111/A21-11-90 OR LATEST REVISION. ALL GLANDS SHALL BE MANUFACTURED FROM DUCTILE IRON AS LISTED BY UNDERWRITERS LABORATORIES FOR 250 PSI MINIMUM WATER PRESSURE RATING. CLOW CORPORATE MODEL F-1088 OR STANDARD FIRE PROTECTION EQUIPMENT COMPANY OR APPROVED EQUAL.
8. DRESSER COUPLINGS SHALL BE REGULAR BLACK COUPLINGS WITH PLAIN GASKETS FOR GALVANIZED STEEL PIPE. THEY SHALL BE DRESSER STYLE 90. NO SUBSTITUTIONS ALLOWED.

- 9. FIRE HYDRANTS SHALL HAVE A 5 1/4" MAIN VALVE OPENING. PUMPER NOZZLE TO BE 18" FROM FINISH GRADE. ALL HYDRANTS SHALL BE INSTALLED WITHIN THE CONTROL VALVE. FIRE HYDRANT SHALL COMPLY WITH ANSII/AWWA C502-85 (OR LATEST REVISION). HYDRANTS SHALL BE AMERICAN DARLING B-48-B WITH CHECK VALVE. BLUE REFLECTIVE PAVEMENT MARKING REQUIRED IN CENTER OF NEAREST DRIVING LANE FOR FIRE HYDRANTS.
C. SERVICE CONNECTION:
1. CORPORATION STOPS SHALL BE MANUFACTURED OF BRASS ALLOY IN ACCORDANCE WITH ASTM B-62 WITH THREADED ENDS, AS MANUFACTURED BY MUELLER OR APPROVED EQUAL.
2. CURB STOPS SHALL BE MUELLER OR APPROVED EQUAL.
3. METER STOPS SHALL BE 90° LOCK WING TYPE AND SHALL BE OF BRONZE CONSTRUCTION IN ACCORDANCE WITH ASTM B-62. METER STOPS SHALL BE CLOSED BOTTOM DESIGN AND RESILIENT 'O' RING END AND HIGHER EXTENDING LENGTH. METER STOPS SHALL BE EGGED WITH METER COUPLING NUT ON THE OUTLET SIDES, AS MANUFACTURED BY MUELLER OR APPROVED EQUAL.
4. SERVICE PIPING SHALL BE POLYETHYLENE TUBING.

- D. INSTALLATION:
1. GENERAL: CONNECTION OF ALL NEW SYSTEMS TO EXISTING MAINS SHALL BE DONE BY USING ONE OF THE FOLLOWING METHODS:
a. METHOD A PER PASCO COUNTY PUBLIC HEALTH UNIT STANDARDS, WHICH INVOLVES A REDUCED SIZE TEMPORARY CONNECTION BETWEEN THE EXISTING MAIN AND THE NEW ONE.
b. METHOD B PER PASCO COUNTY PUBLIC HEALTH UNIT STANDARDS, WHICH INVOLVES A DIRECT CONNECTION BETWEEN THE NEW EXISTING MAINS USING TWO GATE VALVES SEPARATED BY A SLEEVE WITH A VENT PIPE.
c. METHOD C APPROVED BY THE PASCO COUNTY PUBLIC HEALTH UNIT, WHICH INVOLVES A TAP WITH ONE GATE VALVE REQUIRING DISINFECTION OF THE NEW SYSTEM PRIOR TO CONDUCTING THE PRESSURE TEST.

- 2. BEDDING: BEDDING AND INITIAL BACKFILL (12 INCHES ABOVE PIPE) FOR ALL PIPE SHALL BE SAND WITH NO ROCK LARGER THAN 1" IN DIAMETER. PEAK ROCK OR 3/4" WASHED ROCK WILL BE USED IN WATER OR WHERE UNSUITABLE BEDDING EXISTS. AT THE DISCRETION OF THE PASCO COUNTY, ALL OTHER FILL SHALL NOT HAVE ROCK LARGER THAN 6" IN DIAMETER.

- 3. PVC PIPE:
a. PVC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE UNI-BELL PLASTIC PIPE ASSOCIATION'S GUIDE FOR INSTALLATION OF PVC PRESSURE PIPE FOR MUNICIPAL WATER DISTRIBUTION SYSTEMS.
b. PVC PIPE SHALL BE INSTALLED WITH A MINIMUM OF 36" COVER
c. DETECTOR TAPE SHALL BE INSTALLED THE FULL LENGTH OF ALL PVC MAINS APPROXIMATELY 18" ABOVE THE PIPE, COLOR SIDE UP.
4. DUCTILE PIPE:
a. D.I.P. SHALL BE INSTALLED IN ACCORDANCE WITH ANSII/AWWA C600-99 OR LATEST REVISION.
b. D.I.P. SHALL BE INSTALLED WITH A MINIMUM OF 30" COVER.
c. 'NON-DETECTOR' TAPE SHALL BE INSTALLED THE FULL LENGTH OF ALL D.I.P. MAINS APPROXIMATELY 18" ABOVE THE MAIN COLOR SIDE UP.
5. VALVES:
a. ALL VALVES SHALL BE INSTALLED WITH ADJUSTABLE CAST IRON VALVE BOXES WITH THE WORD 'WATER' OR 'SEWER' CAST IN THE COVER. A BRASS DISK INDICATING, SIZE, TYPE, KIND & OPERATOR INSTRUCTIONS SHALL BE INSTALLED ADJACENT TO VALVE BOX.
b. MAIN VALVES SHALL BE LOCATED ON AN EXTENSION OF THE RIGHT-OF-WAY LINE UNLESS DIMENSIONED OTHERWISE.
c. MAIN VALVES SHALL BE INSTALLED AHEAD FROM PARKING AREAS IF THIS IS UNAVOIDABLE. PROPER MEASURES SHALL BE TAKEN TO AVOID THE PARKING OF VEHICLES OVER THE VALVES. HYDRANT VALVES SHALL BE INSTALLED AS CLOSE TO THE MAIN AS POSSIBLE. VALVES LOCATED IN NON-PAVED AREAS OR IN PARKING STALLS REQUIRE A REFLECTIVE PAVEMENT MARKER ON THE CENTER OF THE NEAREST LANE OF PAVEMENT. WHITE REFLECTORS FOR THE WATER MAIN VALVES, GREEN REFLECTORS FOR FORCE MAIN VALVES. THE DISTANCE FROM THE TOP OF THE VALVE ACTUATOR NUT TO FINAL GRADE SHALL BE A MINIMUM OF 12 INCHES AND A MAXIMUM OF 18 INCHES.

- 6. SERVICE:
a. COVER OVER SERVICE LINES SHALL BE 10" MINIMUM, 36" MAXIMUM BELOW FINISHED GRADE AND 30" UNDER PAVEMENT.
b. SERVICES UP TO 2" SHALL BE POLYETHYLENE TUBING PER PASCO COUNTY.
c. METER STOPS SHALL HAVE 8" TO 10" COVER AS REQUIRED FOR PROPER METER/BOX INSTALLATION.
d. WATER SERVICES UNDER PAVEMENT SHALL BE ENCASED IN A SCHEDULE 80 PVC SLEEVE FOR THE FULL LENGTH OF THE PAVEMENT AND FOR 6" BEYOND THE END OF PAVEMENT. SHALL BE TWICE THE DIAMETER OF THE SERVICE PIPE.
e. THE END OF EACH SERVICE CONNECTION SHALL BE MARKED WITH A 2"x4" TREATED STAKE, PAINTED BLUE, EXTENDING 18" (MINIMUM) ABOVE GRADE UNLESS INDICATED OTHERWISE.

- E. TESTING:
1. BEFORE ANY PHYSICAL CONNECTIONS TO THE EXISTING WATER MAINS ARE MADE, THE COMPLETE WATER SYSTEM SHALL BE PRESSURE TESTED AND DISINFECTED/HYDROSTATIC TESTING OF NEW MAINS SHALL BE PERFORMED AT A MINIMUM STARTING PRESSURE OF 150 PSI FOR TWO HOURS. TESTING SHALL CONFORM WITH ANSII/AWWA C600-99 OR LATEST REVISION. THE PRESSURE TEST SHALL NOT VARY MORE THAN 1/4" PSI DURING THE TEST.
2. THE PRESSURE TEST SHALL BE WITNESSED BY A REPRESENTATIVE OF THE PASCO COUNTY ENGINEER OF RECORD.
3. BEFORE ACCEPTANCE FOR OPERATION, THE WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH THE ANSII/AWWA C651-92, 150 PSI MINIMUM STARTING TEST PRESSURE. BACTERIOLOGICAL SAMPLES APPROVED BY THE PASCO COUNTY PUBLIC HEALTH DEPARTMENT.
4. SAMPLING POINTS SHALL BE PROVIDED AT THE LOCATIONS SHOWN ON THE PLANS IF NOT SPECIFIED, SAMPLING POINTS SHALL BE PROVIDED AT INTERVALS OF 1500' MAXIMUM FOR LINES GREATER THAN 1500' IN LENGTH. PROVIDE A MINIMUM OF TWO SAMPLING POINTS PER MILE. ALL SAMPLING POINTS MUST BE APPROVED BY PASCO COUNTY PUBLIC HEALTH DEPARTMENT.
5. THE ALLOWABLE LEAKAGE SHALL BE LESS THAN THE NUMBER OF GALLONS PER HOUR AS DETERMINED BY THE FORMULA:

$$L = \frac{S \times D \times P}{148,000}$$

IN WHICH:
L = GALLONS THE ALLOWABLE LEAKAGE IN GALLONS PER HOUR.
S = EQUALS LENGTH OF PIPE (LINEAR FEET).
D = EQUALS NOMINAL DIAMETER OF PIPE (INCHES) AND P EQUALS THE MINIMUM TEST PRESSURE (POUNDS PER SQUARE INCH).

SEPARATION OF WATER AND SEWER MAINS

- A. SANITARY SEWERS, STORM SEWERS, AND FORCE MAINS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. SANITARY SEWERS, STORM SEWERS, AND FORCE MAINS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHENEVER POSSIBLE.
WHERE SANITARY SEWERS, STORM SEWERS, OR FORCE MAINS MUST CROSS A WATER MAIN WITH LESS THAN 18 INCHES VERTICAL DISTANCE, BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM 6" BIRTH SHELL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
ALL CROSSING SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING).
WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP, AND THE CROSSING SHALL BE ARRANGED TO MEET THE REQUIREMENTS ABOVE.

- B. A MINIMUM 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.
IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH FROM THE SEWER OR WATER MAIN. IF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SANITARY SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).

- C. ALL DIP SHALL BE CLASS 50 OR HIGHER. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE ENGINEER.

STORM DRAINAGE:

- A. GENERAL:
1. CATCH BASIN GRATES AND RIM ELEVATIONS AS SHOWN ON PLANS SHALL BE ADJUSTED TO CONFORM TO NEW OR EXISTING GRADES.
2. DISTANCES AND LENGTHS SHOWN ON PLANS REFERENCE THE CENTER OF STRUCTURES.
B. MATERIALS:
1. ALL HIGH DENSITY POLYETHYLENE PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF AASHTO M - 294 LATEST REVISIONS. ALL PIPING TO BE NON-PERFORATED TUBING, EXCEPT WHERE EXFILTRATION TRENCH IS PROPOSED.
2. ALL YARD DRAIN BASINS ARE TO BE HIGH DENSITY POLYETHYLENE PRODUCT AND SHALL MEET ASTM LATEST MINIMUM STANDARDS.
3. ALL DRAINAGE CATCH BASINS AND STRUCTURES SHALL BE PRECAST CONCRETE AND SHALL MEET THE REQUIREMENTS OF A.S.T.M. SPECIFICATION C-478 AND 64T UNLESS OTHERWISE NOTED IN THE PLANS. BLOCK CATCH BASINS WILL BE ALLOWED ONLY WITH APPROVAL OF THE ENGINEER. THE MINIMUM WALL AND SLAB THICKNESS SHALL BE 8 INCHES AND THE MINIMUM REINFORCING SHALL BE NO. 4 BARS AT 12 INCHES EACH WAY UNLESS OTHERWISE INDICATED. CONCRETE SHALL BE MINIMUM OF fc=3750 PSI AT 28 DAYS.
C. INSTALLATION:
1. PIPE SHALL BE PLACED ON A MINIMUM OF 8" STABLE GRANULAR MATERIAL FREE OF ROCK FORMATION AND OTHER OBSTRUCTIONS AND BE PROTECTED TO A UNIFORM GRADE AND LINE. PIPE JOINTS SHALL BE WRAPPED IN FILTER FABRIC.
2. BACKFILL MATERIAL SHALL BE WELL GRADED GRANULAR MATERIAL, WELL TAMPED IN LAYERS NOT TO EXCEED 6 INCHES TO A HEIGHT OF 12 INCHES ABOVE PIPE AS SHOWN ON THE PLANS.
3. PROVIDE A MINIMUM PROTECTIVE COVER OF 18 INCHES OVER STORM SEWER AND AVOID UNNECESSARY CROSSING BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL NOTIFY PASCO COUNTY ENGINEERING DEPARTMENT FDOT AND THE ENGINEER OF RECORD 7 BUSINESS DAYS BEFORE THE START OF THE CONSTRUCTION AND INSPECTION.
5. THE CONTRACTOR SHALL WRAP EACH JOINT WITH FILTER FABRIC.

PAVING:

- A. GENERAL:
1. ALL UNDERGROUND UTILITIES SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF PAVEMENT.
2. ALL EXISTING PAVEMENT, CUT OR DAMAGED BY CONSTRUCTION SHALL BE PROPERLY RESTORED AT THE CONTRACTOR'S EXPENSE.
3. WHERE ANY PROPOSED PAVEMENT IS TO BE CONNECTED TO EXISTING PAVEMENT, THE EXISTING EDGE OF PAVEMENT SHALL BE SAW CUT TO ENSURE A PROPER JOINT.
4. PRIME COAT SHALL BE APPLIED AT A RATE OF 0.25 GALLONS PER SQUARE YARD. PRIME AND TACK COAT FOR TACK SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF SECTIONS 300-1 THROUGH 300-7 OF FDOT STANDARDS AND SPECIFICATIONS.
B. MATERIALS:
1. LIME/ROCK BASE: (ASPHALT VEHICULAR PAVERS AREAS) LIME/ROCK BASE COURSE FOR PAVED DRIVEWAYS SHALL BE A MINIMUM 6" THICKNESS AND COMPACTED TO 98% MAXIMUM DRY DENSITY PER THE MODIFIED PROCTOR PROCEDURE (ASTM D1557) (SECTIONS 200 & 911). SUBSTITUTES SHALL BE PER FDOT SPECIFICATIONS AND PROVIDE EQUIVALENT STRUCTURAL NUMBER AS ABOVE (MIN LBR 100).
2. WEARING SURFACE (ASPHALT SURFACE ONLY): INSTALLATION OF THE 2" ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR TYPE SP9.5 OR TYPE SP12.5 ASPHALTIC CONCRETE, AND SHALL BE CONSTRUCTED WITH 2 LIFTS 1" TYPE SP9.5 & 1" TYPE SP12.5 ASPHALTIC CONCRETE WITH TACK COAT BETWEEN LIFTS. (VIRGIN ASPHALT TO BE USED FOR FINAL LIFT).

- 3. 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. 6 GAUGE WIRE MESH.
C. INSTALLATION:
1. SUB-BASE 12" STABILIZED SUB-BASE COMPACTED TO 98% OF MAX. DRY DENSITY BY THE MODIFIED PROCTOR PROCEDURE (ASTM D1557) (SECTIONS 160 & 914)
2. BASE COURSE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS PER SECTION T-180.
3. INSTALLATION OF THE WEARING SURFACE SHALL CONFORM WITH THE REQUIREMENTS OF THE O.D.T. STANDARD SPECIFICATIONS FOR TYPE S-I & S-II ASPHALTIC CONCRETE OR THE LATEST REVISION.

- D. TESTING:
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.
2. DENSITY TESTS SHALL BE TAKEN BY AN INDEPENDENT TESTING LABORATORY CERTIFIED BY THE STATE OF FLORIDA, WHERE DIRECTED BY THE ENGINEER.
3. ALL TESTING COSTS (PAVING) SHALL BE PAID FOR BY THE CONTRACTOR.
4. DENSITY TESTS ON THE BASE AND STABILIZED SUBGRADE SHALL BE SUPPLIED BY THE ENGINEER OF RECORD OF PASCO COUNTY, AND APPROVED BEFORE ANY BASE IS CONSTRUCTED.
5. DENSITY TESTS AND 'AS-BUILT'S' ON THE FINISHED BASE SHALL BE SUPPLIED BY THE CONTRACTOR.
6. LABORATORY PROCTOR COMPACTION TESTS (T-180) SHALL BE PERFORMED ON ALL MATERIAL, SUB-GRADE AND BASE. LIME/ROCK BEARING RATINGS, SIEVE ANALYSIS AND DENSITIES REQUIRED BY THE CONTRACT DOCUMENTS SHALL BE SUBMITTED TO PASCO COUNTY.

PAVEMENT MARKING & SIGNAGE:

ALL PAVEMENT MARKINGS AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE 'MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS,' LATEST EDITION, AND PASCO COUNTY ENGINEERING STANDARDS.

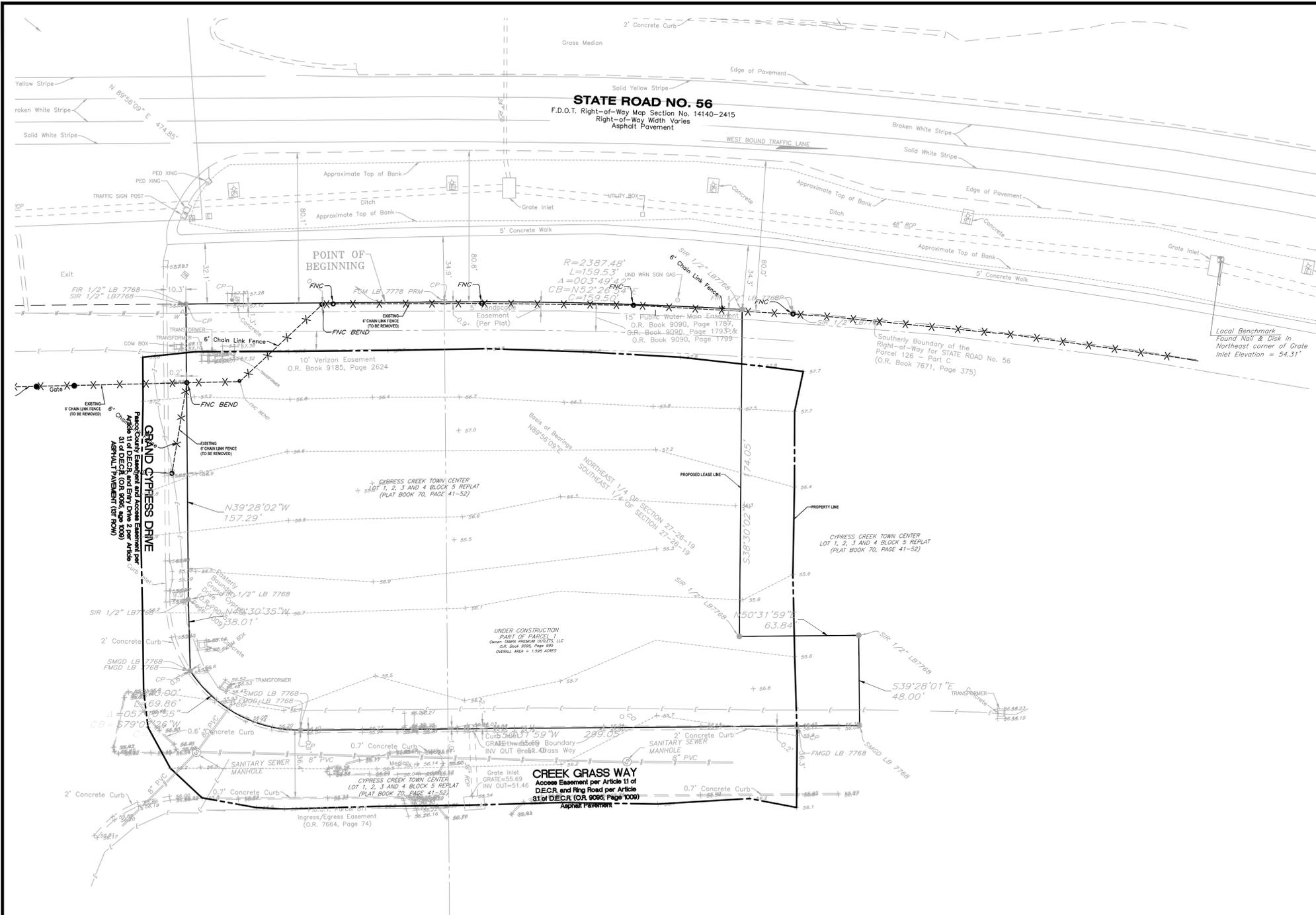
POLLUTION PREVENTION:

- 1. THE CONTRACTOR SHALL CONTINUOUSLY ENSURE THAT THE PERIMETER OF THE SITE, INCLUDING CONSTRUCTION ENTRANCES, IS SECURED FROM ALLOWING DEBRIS TO LEAVE THE SITE DUE TO CONSTRUCTION ACTIVITY OR RAINFALL EVENTS. A WEEKLY INSPECTION SHALL BE KEPT ON-SITE IN ACCORDANCE WITH THE NPDES PERMIT, BY BIDDING DOCUMENTS CONTRACTOR ACKNOWLEDGES HE/HIS IS AWARE OF NPDES GUIDELINES AND POLICIES AS WELL AS BEST MANAGEMENT PRACTICES AND ASSUMES SOLE RESPONSIBILITY FOR FINES IMPOSED BY GOVERNMENTAL AGENCIES DUE TO VIOLATIONS.

PROJECT RECORD DOCUMENTS:

- A. 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.
B. UPON COMPLETION OF DRAINAGE IMPROVEMENTS AND BASE CONSTRUCTION (AND BEFORE PLACING ASPHALT PAVEMENT) THE CONTRACTOR SHALL FURNISH THE ENGINEER OF RECORD 'AS-BUILT' PLANS FOR THESE IMPROVEMENTS SHOWING THE LOCATIONS AND APPLICABLE GRADES OF ALL DRAINAGE INSTALLATIONS AND THE FINISHED ROCK GRADES OF THE ROAD CROWN OR INVERT AND EDGES OF PAVEMENT AT 50 FOOT INTERVALS, INCLUDING LOCATIONS AND ELEVATIONS OF ALL HIGH AND LOW POINTS.
C. 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. PROJECT CHANGES SHALL BE IDENTIFIED BY A FORMAT APPROVED BY PASCO COUNTY PUBLIC UTILITIES ENGINEERING DEPARTMENT.

- D. 'AS-BUILT' INFORMATION OF GRAVITY SEWERS MUST CONTAIN LOCATION OF SERVICE LATERALS, STATIONING OF BOTH THE WYE, CLEAN-OUTS, AND THE SERVICE END MUST ALSO BE INCLUDED.
E. 'AS-BUILT' INFORMATION OF WATER DISTRIBUTION SYSTEMS MUST CONTAIN LOCATIONS OF ALL VALVES, FITTINGS, FIRE HYDRANTS SERVICES AND APPURTENANCES. TOP OF PIPE ELEVATIONS ALONG THE WATER MAIN ARE REQUIRED AT INTERVALS OF 100 FEET (MAXIMUM).
F. ALL 'AS-BUILT' INFORMATION ON ELEVATIONS SHALL BE CERTIFIED BY A FLORIDA PROFESSIONAL SURVEYOR & MAPPER
G. 'AS-BUILT'S' OF WATER LINES SHALL INCLUDE THE FOLLOWING INFORMATION:
1. TOP OF PIPE ELEVATIONS EVERY 100 LF.
2. LOCATIONS AND ELEVATIONS OF ALL FITTINGS INCLUDING BENDS, TEES, GATE VALVES, DOUBLE DETECTOR CHECK VALVES, FIRE HYDRANTS, ETC.
3. ALL THE INS TO EXISTING LINES SHALL BE 'AS-BUILT'.
4. THE ENDS OF ALL WATER SERVICES AT THE BUILDINGS OR HOMES SHALL BE 'AS-BUILT' OR WHERE THE WATER SERVICE TERMINATES.
H. 'AS-BUILT'S' OF ALL GRAVITY SANITARY SEWER LINES SHALL INCLUDE THE FOLLOWING INFORMATION:
1. RIMS, INVERTS AND LENGTH OF PIPING BETWEEN STRUCTURES AS WELL AS SLO



DEMOLITION NOTES:

- THOMAS ENGINEERING GROUP, LLC IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR IS TO PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
- ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AS WELL AS ALL FEDERAL, STATE AND LOCAL REGULATIONS. ANY DISCREPANCIES OR DEVIATIONS SHALL BE IDENTIFIED BY THE CONTRACTOR TO THOMAS ENGINEERING GROUP IN WRITING FOR RESOLUTION PRIOR TO INITIATION OF SITE ACTIVITY.
- PRIOR TO STARTING ANY DEMOLITION CONTRACTOR IS RESPONSIBLE FOR/TO:
 - THE CONTRACTOR SHALL OBTAIN A SUNSHINE STATE ONE CALL LOCATION CERTIFICATION PRIOR TO ANY EXCAVATION OR DEMOLITION. THE NUMBER IS 1-800-432-4770.
 - ENSURING COPIES OF ALL PERMITS AND APPROVALS MUST BE MAINTAINED ON SITE AND AVAILABLE FOR REVIEW.
 - INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE.
 - LOCATE/CAP ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE.
 - PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.
 - FAMILIARIZING THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER AND BEING RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
 - COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES.
 - A COMPLETE INSPECTION OF CONTAMINANTS BY A LICENSED ENVIRONMENTAL TESTING AGENCY, OF ALL BUILDINGS AND/OR STRUCTURES TO BE REMOVED. SAME SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS. ANY/ALL CONTAMINANTS SHALL BE REMOVED AND DISPOSED OF BY A FEDERALLY LICENSED CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. ALL ENVIRONMENTAL WORK INCLUDING HAZARDOUS MATERIAL, SOILS, ASBESTOS, OR OTHER REFERENCED OR IMPLIED HEREIN IS THE SOLE RESPONSIBILITY OF THE OWNER'S ENVIRONMENTAL CONSULTANT.
- THE CONTRACTOR SHALL PROVIDE ALL THE "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN AS A RESULT OF HIS ACTIVITIES. ALL REPAIRS SHALL USE NEW MATERIAL. THE REPAIRS SHALL RESTORE THE ITEM TO THE PRE-DEMOLITION CONDITION.
- IN THE ABSENCE OF SPECIFICATIONS, THE CONTRACTOR SHALL PERFORM EARTH MOVEMENT ACTIVITIES, DEMOLITION AND REMOVAL OF ALL FOUNDATION WALLS, FOOTINGS, AND OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE IN ACCORDANCE WITH DIRECTION BY OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
- EXPLOSIVES SHALL NOT BE USED WITHOUT PRIOR WRITTEN CONSENT OF BOTH THE OWNER AND APPLICABLE GOVERNMENTAL AUTHORITIES. ALL THE REQUIRED PERMITS AND EXPLOSIVE CONTROL MEASURES THAT ARE REQUIRED BY THE FEDERAL, STATE, AND LOCAL GOVERNMENTS SHALL BE IN PLACE PRIOR TO STARTING AN EXPLOSIVE PROGRAM. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES.
- CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL" AS WELL AS FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS OR ROADWAY RIGHTS-OF-WAY.
- CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY.
- DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROPERTY LINE WITHOUT WRITTEN PERMISSION OF THE OWNER, AND/OR APPROPRIATE GOVERNMENT AGENCY.
- USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.
- CONTRACTOR IS RESPONSIBLE TO SAFEGUARD SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
- THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL METHODS AND MEANS ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
- DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL TOWN, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES.
- CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING SITE IMPROVEMENTS AND UTILITIES. ALL DISCREPANCIES SHALL BE IDENTIFIED TO THE ENGINEER IN WRITING.
- ALL EXISTING UTILITIES BEING REMOVED SHALL BE DONE SO BY THE CONTRACTOR IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.

GENERAL UTILITY NOTES:

- THE CONTRACTOR / ENGINEER OF RECORD MUST CONTACT THE PASCO COUNTY UTILITIES TO SET UP THE PRE CONSTRUCTION MEETING.
- CONTRACTOR TO EXPOSE WATER MAIN AND FURNISH TAPPING VALVE AND SLEEVE FOR WATER METER TAP AND INSTALL 3" POLYETHYLENE (P.E.) WATER SERVICE LINE FROM MAIN TO METER.
- CONTRACTOR TO COORDINATE WITH PASCO COUNTY UTILITIES DEPT. PRIOR TO THE SELECTION AND ORDERING OF THE WATER METER AND/OR BACKFLOW PREVENTION DEVICE ASSEMBLIES.
- ALL NON-METALLIC PIPE WILL BE INSTALLED WITH 2 PAIR, 10 GAUGE, COPPER TRACER WIRE.
- ALL CONSTRUCTION WILL COMPLY WITH THE 2010 FFPC (NFPA 1 & 101, 2009).

THOMAS ENGINEERING GROUP
 CIVIL ENGINEERS - PROJECT MANAGERS - LAND PLANNING - LANDSCAPE ARCHITECTS
 OFFICES: 4950 W. KENNEDY BLVD., TAMPA, FLORIDA 33609
 1900 CORPORATE DR., FT. LAUDERDALE, FLORIDA 33334

REVISIONS			
REV	DATE	COMMENT	BY
1	12/01/15	UTILITY COORDINATION	HR
2	12/31/15	PER PASCO COUNTY COMMENTS	HR

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PROJECT No.: FT150034
 DRAWN BY: HR
 CHECKED BY: DTR
 DATE: 10/07/2015
 SCALE: AS NOTED
 CAD I.D.: FT150034-C-3-EX

PROJECT:
BJ'S CYPRESS CREEK TOWN CENTER
 FOR

 RESTAURANT BREWHOUSE
 PASCO COUNTY, FL

THOMAS ENGINEERING GROUP
 4950 W. KENNEDY BLVD, SUITE 600
 TAMPA, FLORIDA 33609
 Phone: (813) 379-4100
 Fax: (813) 379-4049
www.ThomasEngineeringGroup.com

STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 No. 77996
 DARRIN T.R. EYRE, P.E.
 January 14, 2016
 FLORIDA LICENSE No. 77996
 FLORIDA BUSINESS CERT. OF AUTH. No. 27528

SHEET TITLE:
EXISTING CONDITIONS & DEMOLITION PLAN
 SHEET NUMBER:
C-3
 OF

UTILITY CONTACTS:

COMMUNICATIONS
 BRIGHT HOUSE NETWORKS - EAST PASCO
 30432 S.R. 54
 WESLEY CHAPEL, FL 33643
 813-862-0522

PHONE
 VERIZON FLORIDA INC
 1909 US HWY 301 N
 TAMPA, FL 33619
 813-627-8343

SEWER & WATER
 PASCO COUNTY UTILITIES
 7530 LITTLE ROAD, ROOM 205
 NEW PORT RICHEY, FL 34654
 727-847-8145

GAS
 TECO PEOPLE'S GAS - TAMPA
 1400 CHANNELSIDE DRIVE
 TAMPA, FL 33605
 813-275-3743

ELECTRIC
 WITHLACOCOCHEE RIVER
 ELECTRIC COOPERATIVE
 P.O. BOX 278
 DADE CITY, FL 33526
 352-588-5115

FIRE RESCUE
 4111 LAND O' LAKES BLVD.
 SUITE 208
 LAND O' LAKES, FL 34639
 813-929-2750

DATUM NOTE:

BEARINGS SHOWN HEREON ARE GRID BEARINGS BASED ON NORTH BOUNDARY OF THE SOUTH 1/4 OF SECTION 27-26-19, HAVING A BEARING OF N89°56'09"E. THE GRID BEARINGS AND COORDINATES AS SHOWN HEREON REFER TO THE STATE PLANE COORDINATE SYSTEM, NORTH AMERICA HORIZONTAL DATUM OF 1983 (NAD 83-2011 ADJUSTMENT) FOR THE WEST ZONE OF FLORIDA, AS ESTABLISHED FROM A RTK GPS NETWORK.

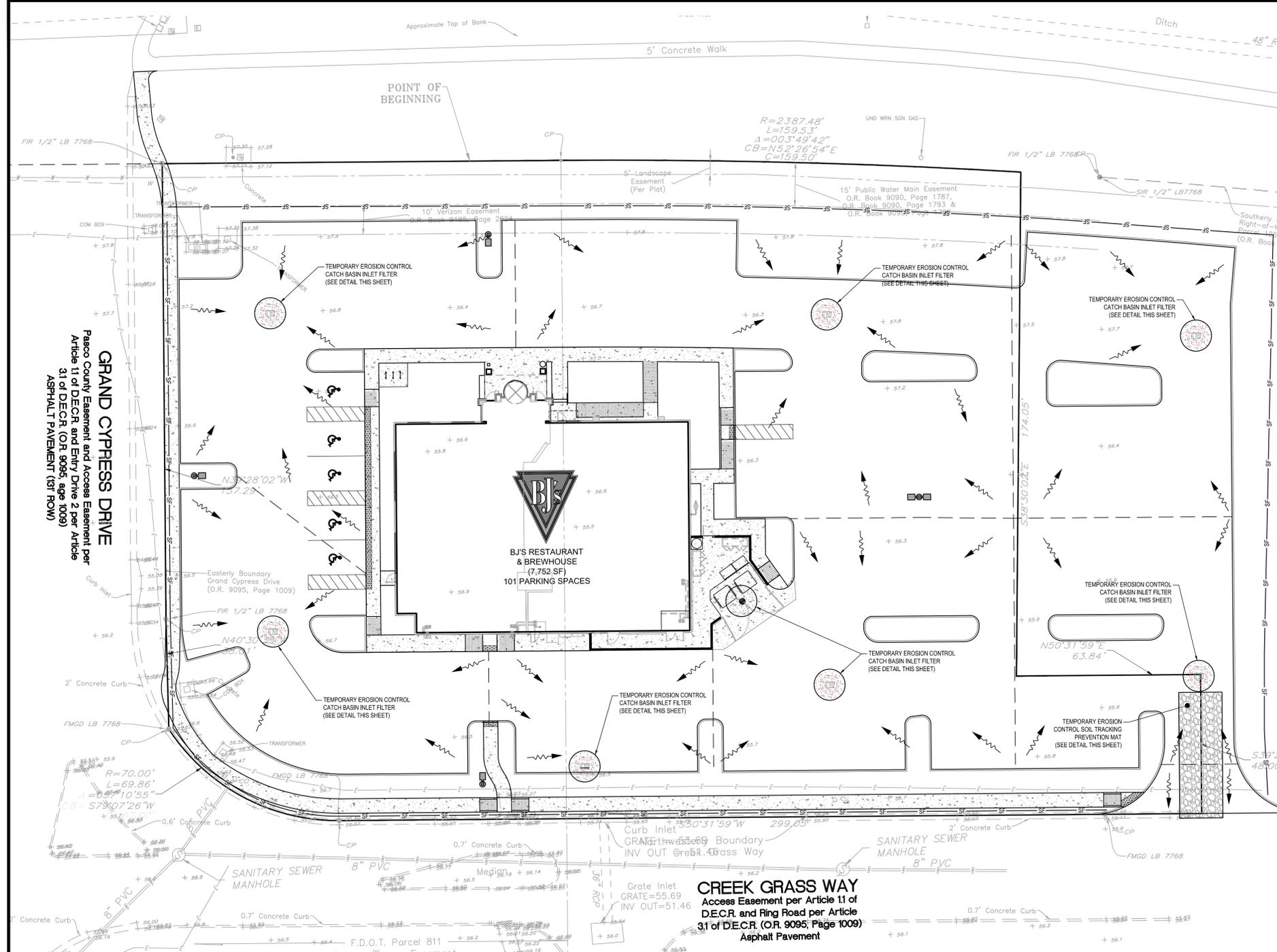
REFERENCE BENCHMARK:
 ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD). REFERENCE BENCHMARK IS A SURVEY DISK SET IN IN TOP OF CONCRETE MONUMENT STAMPED "D 680 2007" ELEVATION = 56.88' LOCATED 86.4' SOUTH OF THE APPROXIMATE CENTERLINE OF STATE ROAD 56, 54.3' SOUTHWEST OF POWER POLE NUMBER 40343750, 2.3' NORTH OF A HOG WIRE FENCE AND 1.8' NORTH OF CARSONITE WITNESS POST.

FEMA MAP INFORMATION:

THE SUBJECT PROPERTY LIES IN FLOOD ZONE "X" ACCORDING TO FLOOD INSURANCE RATE MAP, MAP NO. 12101C0408F FOR PASCO COUNTY, FLORIDA, COMMUNITY NO. 120220, DATED SEPTEMBER 26, 2014, AND ISSUED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

LEGEND

- PROPERTY LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM SEWER LINE
- EXISTING WATER MAIN
- EXISTING OVERHEAD UTILITY LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING STORM SEWER CATCH BASIN / MANHOLE
- EXISTING TREES TO REMAIN
- EXISTING SPOT GRADE
- EXISTING CONTOUR



EROSION AND SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
3. ADDITIONAL PROTECTION - ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINED DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
5. WIRE MESH SHALL BE LAD OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2" X 1/2" OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
6. FOOT NO. 1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED IN D-603. THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
7. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
8. BALES SHALL BE EITHER WIRE-TIED OR STUNG-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
9. BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.
10. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8 INCHES, AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
11. EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.
12. LOOSE STRAW SHOULD BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.
13. STRAW BALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
14. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
15. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.
16. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
17. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
18. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
19. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
20. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.
21. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
22. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/3 THE DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
23. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT SPECIFICATIONS AND CRITERIA.
24. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO SOUND LAND AND WATER MANAGEMENT FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION (F.D.E.R.) CHAPTER 6.
25. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAIL SHEET FOR TYPICAL CONSTRUCTION.
26. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.
27. SOIL SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
28. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
29. DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT.
30. ALL DISTURBED AREAS TO BE STABILIZED THROUGH COMPACTION, SILT SCREENS, HAY BALES, AND GRASSING. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID SOD.
31. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED.
32. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
33. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL WATER MANAGEMENT DISTRICT INQUIRIES, RELATIVE TO COMPLIANCE OF SRWMD FOR EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.

POLLUTION PREVENTION NOTES:

1. EROSION AND SEDIMENT CONTROL BMP'S IN ADDITION TO THOSE PRESENTED ON THESE PLANS SHALL BE IMPLEMENTED AS NECESSARY TO PREVENT TURBID DISCHARGES FROM FLOWING ONTO ADJACENT PROPERTIES OR ROADWAYS. OFF SITE STORMWATER CONVEYANCES OR RECEIVING WATERS. BMP'S SHALL BE DESIGNED, INSTALLED, AND MAINTAINED BY THE SITE OPERATOR TO ENSURE THAT OFF SITE SURFACE WATER QUALITY REMAINS CONSISTENT WITH STATE AND LOCAL REGULATIONS. THE OPERATOR IS THE ENTITY THAT OWNS OR OPERATES THE CONSTRUCTION ACTIVITY AND HAS AUTHORITY TO CONTROL THOSE ACTIVITIES AT THE PROJECT NECESSARY TO ENSURE COMPLIANCE.
2. OFF SITE SURFACE WATER DISCHARGES WITH TURBIDITY IN EXCESS OF 29 NEPHELOMETRIC TURBIDITY UNITS (NTU'S) ABOVE BACKGROUND LEVEL SHALL BE IMMEDIATELY CORRECTED. SUCH INCIDENTS SHALL BE REPORTED TO WATER RESOURCES WITHIN 24 HOURS OF THE OCCURRENCE. THE REPORT SHALL INCLUDE THE CAUSE OF THE DISCHARGE AND CORRECTIVE ACTIONS TAKEN.
3. THE OPERATOR SHALL ENSURE THAT ADJACENT PROPERTIES ARE NOT IMPACTED BY WIND EROSION, OR EMISSIONS OF UNCONFIRMED PARTICULATE MATTER IN ACCORDANCE WITH RULE 62-296.320(4)(C)1, F.A.C., BY TAKING APPROPRIATE MEASURES TO STABILIZE AFFECTED AREAS.
4. FUEL AND OTHER PETROLEUM PRODUCT SPILLS THAT ENTER STORMWATER DRAINS OR WATERBODIES, OR FUEL AND OTHER PETROLEUM PRODUCT SPILLS THAT ARE IN EXCESS OF 25 GALLONS SHALL BE CONTAINED, CLEANED UP, AND IMMEDIATELY REPORTED TO WATER RESOURCES. SMALLER GROUND SURFACE SPILLS SHALL BE CLEANED UP AS SOON AS PRACTICAL.
5. IF CONTAMINATED SOIL AND/OR GROUNDWATER IS DISCOVERED DURING DEVELOPMENT OF THE SITE, ALL ACTIVITY IN THE VICINITY OF THE CONTAMINATION SHALL IMMEDIATELY CEASE, AND WATER RESOURCES SHALL BE CONTACTED.
6. PRIOR TO DEMOLITION OF EXISTING ON SITE STRUCTURES AN ASBESTOS SURVEY AND/OR ASBESTOS NOTIFICATION MAY BE REQUIRED.

MAINTENANCE NOTES:

1. THROUGHOUT THE CONSTRUCTION PERIOD, ALL MUD/SILT TRACKED ONTO EXISTING FDOT ROADS FROM THE SITE DUE TO CONSTRUCTION SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR.
2. CATCH BASIN INLET AND CONCRETE STRUCTURE FILTERS SHALL BE MAINTAINED CLEAN AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD. WEEKLY INSPECTIONS WILL BE PERFORMED EVERY 7 CALENDAR DAYS. IF A FILTER HAS HOLES OR IS UNDAUNTED WITH SEDIMENT, THE FILTER WILL REQUIRE REPLACEMENT.
3. CONSTRUCTION ACCESS AND TRACKING MAT MUST BE MAINTAINED AS NECESSARY. REPLUSH CRUSHED AGGREGATE IF PRESENT LAYER IS FILLED WITH SEDIMENT, POOLING WATER OR HAS RUTS. A NEW LAYER MAY BE ADDED IF OLD LAYERS BECOME COMPACTED.
4. SILT FENCE IS TO BE INSPECTED DAILY BY CONTRACTOR AND EVERY 7 CALENDAR DAYS BY NPDES QUALIFIED INSPECTOR. IF REPAIRS OR REPLACEMENT IS NECESSARY, IT SHALL BE PERFORMED IMMEDIATELY. THE SILT FENCE SHOULD BE TRENCHED IN, BACK-FILLED, AND STAKED OR STAKED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. MAINTENANCE INCLUDES THE REMOVING OF BUILT-UP SEDIMENT. WHEN THE SEDIMENT ACCUMULATES TO 1/3 OF THE HEIGHT OF THE FENCE, CONTRACTOR MAY HAVE TO REMOVE, REPLACE, RETRENCH, OR RE-BACKFILL THE FENCE IF IT FAILS. IT WOULD ALSO BE NECESSARY TO REINSTALL IF ANY PORTION OF THE FENCING WAS DAMAGED BY CONSTRUCTION MACHINERY.
5. SEEDING OR RESEEDING MAY BE REQUIRED IMMEDIATELY TO AREAS WHICH HAVE BEEN DAMAGED BY RUNOFF.
6. THE CONTRACTOR SHALL CONTINUOUSLY ENSURE THAT THE PERIMETER OF THE SITE, INCLUDING CONSTRUCTION ENTRANCES, IS SECURED FROM ALLOWING DEBRIS TO LEAVE THE SITE DUE TO CONSTRUCTION ACTIVITY OR RAINFALL EVENTS. BY SIGNING DOCUMENTS CONTRACTOR ACKNOWLEDGES HE/SHE IS AWARE OF NPDES GUIDELINES AND POLICIES AS WELL AS BEST MANAGEMENT PRACTICES AND ASSUMES SOLE RESPONSIBILITY FOR FINES IMPOSED BY GOVERNMENTAL AGENCIES DUE TO VIOLATIONS.

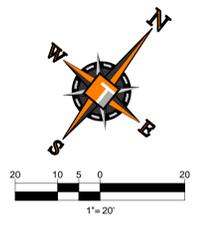
SEQUENCE OF CONSTRUCTION

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER PARKING, LAYDOWN, PORTABLE RESTROOMS, WHEELED WASTE DISPOSAL DUMPSTERS, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC. IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN THEIR LOCATIONS ON THE SITE MAP.

- PHASE 1**
1. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AND INSTALL SILT FENCE
 2. INSTALL INLET PROTECTION AT EXISTING INLET(S)
 3. PREPARE CLEARING AND GRUBBING OF THE SITE IF APPLICABLE
 4. INSTALL STORMWATER CONVEYANCE STRUCTURES AND CULVERTS. ENSURE THAT NEW INLETS ARE PROTECTED PRIOR TO MAKING THE OUTFALL CONNECTION
- PHASE 2**
1. PERFORM MASS GRADING, ROUGH GRADE TO ESTABLISH PROPOSED DRAINAGE PATTERNS
 2. START CONSTRUCTION OF THE PROPOSED BUILDING PAD AND STRUCTURES
 3. TEMPORARILY SEED WITH PURE LIVE SEED THROUGHOUT THE CONSTRUCTION DISTURBED AREAS THAT WILL BE INACTIVE FOR 7 DAYS OR MORE AS REQUIRED BY THE GENERIC PERMIT.

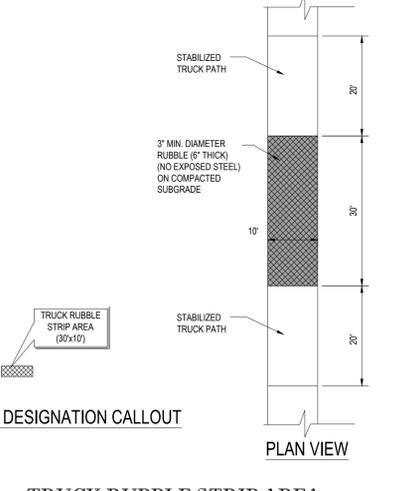
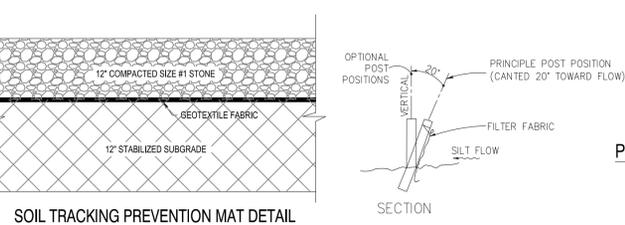
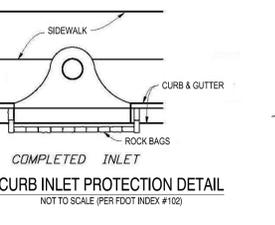
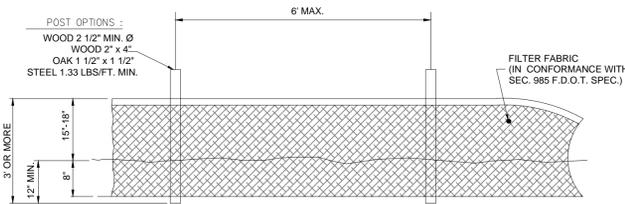
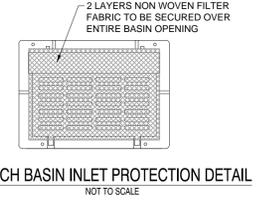
LEGEND:

- PROPERTY LINE
- EXISTING CATCH BASIN
- EXISTING STORM SEWER
- PROPOSED SILT FENCE (LIMITS OF SOIL DISTURBANCE)
- PROPOSED CHAIN LINK CONSTRUCTION FENCE
- PROPOSED INLET / STRUCTURE PROTECTION
- PROPOSED STORM SEWER
- PROPOSED ROOF DRAIN
- SOIL TRACKING PREVENTION MAT (SEE DETAIL ON THIS SHEET)
- PROPOSED DRAINAGE FLOW ARROW
- PROPOSED RIDGE LINE
- PROPOSED TREE PROTECTION FENCE



GRAND CYPRESS DRIVE
Pasco County Easement and Access Easement per Article 11 of D.E.C.R. and Entry Drive 2 per Article 31 of D.E.C.R. (O.R. 9095, Page 1009)
ASPHALT PAVEMENT (3" THK)

CREEK GRASS WAY
Access Easement per Article 11 of D.E.C.R. and Ring Road per Article 31 of D.E.C.R. (O.R. 9095, Page 1009)
Asphalt Pavement



HALT ALL ACTIVITIES AND CONTACT THE CONSULTANT TO PERFORM INSPECTION AND CERTIFICATION OF BMP'S. GENERAL CONTRACTOR SHALL SCHEDULE AND CONDUCT STORMWATER PRE-CONSTRUCTION MEETING WITH CONSULTANT AND ALL GROUND DISTURBING CONTRACTORS BEFORE PROCEEDING WITH CONSTRUCTION

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL DEWATERING PERMITS NECESSARY FOR CONSTRUCTION.
THE CONTRACTOR SHOULD ANTICIPATE TO ENCOUNTERING GROUNDWATER DURING EXCAVATION ACTIVITIES AND ADDRESS THE ANTICIPATED DEWATERING IN THEIR BID.

- NOTES:**
1. PRIOR TO THE START OF THE CLEARING AND GRUBBING, OR ANY SOIL DISTURBANCE CONTACT PASCO CO. STORMWATER MANAGEMENT AT (727) 834-3611 FOR A SOIL EROSION AND SEDIMENT CONTROL, PRE-INSPECTION MEETING.
 2. SILT FENCE TO BE CONSTRUCTED WHEREVER OFFSITE AREAS ARE LOWER THAN ADJACENT ONSITE ELEVATIONS.
 3. CATCH BASIN FABRIC TO BE PLACED ON AREA INLETS SUBJECT TO SEDIMENTATION FROM THIS PROJECT.
 4. ALL EROSION CONTROL DEVICES SUCH AS RUBBLE STRIPS, TURBIDITY BARRIERS, SILT FENCE AND OTHER BMP'S SHALL BE INSTALLED PRIOR TO DEMOLITION & CONSTRUCTION.
 5. CONTRACTOR TO INSTALL TURBIDITY BARRIER AT (2) LAKE OUTFALL LOCATIONS. TURBIDITY BARRIER TO BE INSTALLED PRIOR TO DEMOLITION AND CONSTRUCTION AND ARE TO REMAIN IN PLACE DURING CONSTRUCTION OPERATIONS.

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1000 CORPORATE DR.
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REVISIONS			
REV	DATE	COMMENT	BY
1	12/01/15	UTILITY COORDINATION	HR
2	12/31/15	PER PASCO COUNTY COMMENTS	HR

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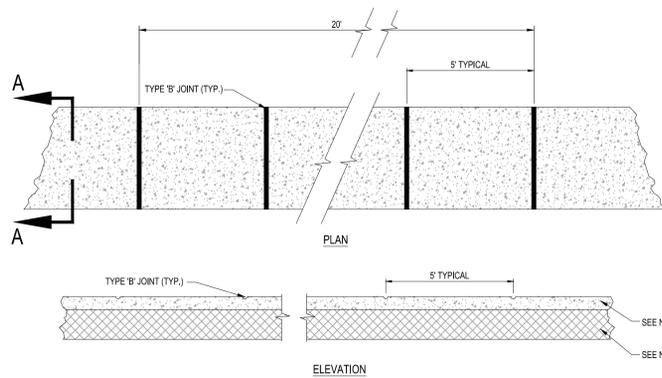
PROJECT No.: FT150034
DRAWN BY: HR
CHECKED BY: DTRE
DATE: 10/07/2015
SCALE: AS NOTED
CAD I.D.: FT150034-C-4-SE

PROJECT:
BJ'S CYPRESS CREEK TOWN CENTER
FOR
BJ'S RESTAURANT BREWHOUSE
WESLEY CHAPEL PASCO COUNTY, FL

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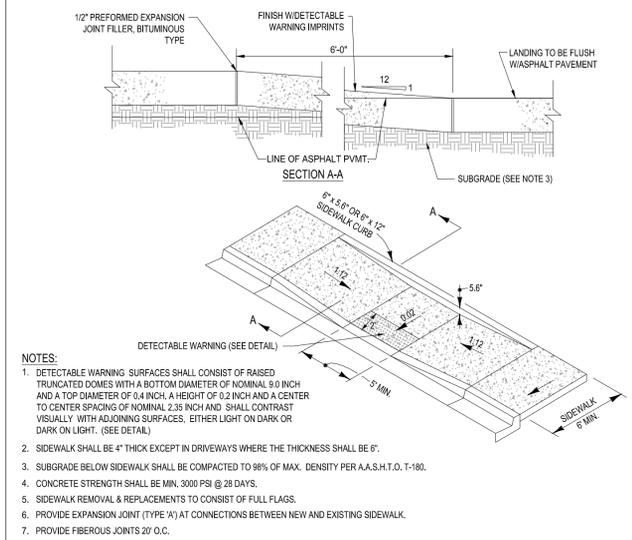
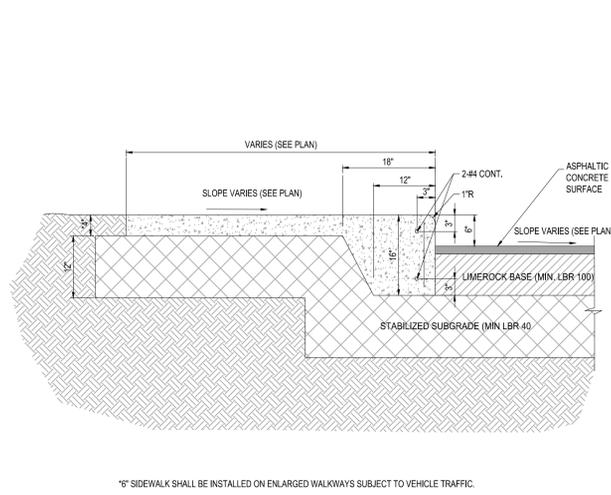
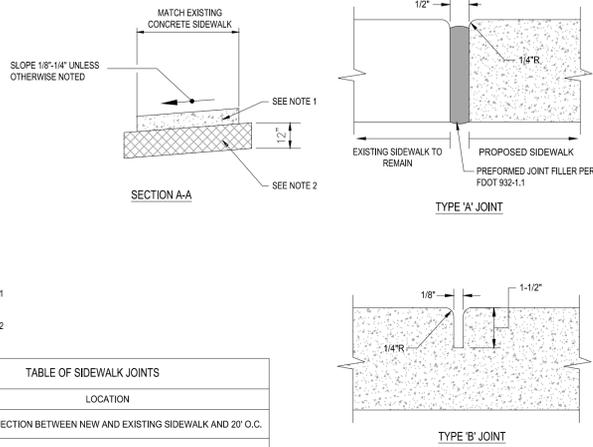
DARREN T.R. EYRE, P.E.
January 14, 2016
FLORIDA LICENSE No. 77996
FLORIDA BUSINESS CERT. OF AUTH. No. 27528

SHEET TITLE:
EROSION AND SEDIMENT CONTROL PLAN
SHEET NUMBER:
C-4
OF



- NOTES:
- SIDEWALK SHALL BE 4" THICK EXCEPT IN DRIVEWAYS WHERE THE THICKNESS SHALL BE 6".
 - SUBGRADE BELOW SIDEWALK SHALL BE COMPACTED TO 98% OF MAX. DENSITY PER A.A.S.H.T.O. T-180. (12" THICKNESS)
 - CONCRETE STRENGTH SHALL BE MIN. 3000 PSI @ 28 DAYS.
 - SIDEWALK REMOVAL & REPLACEMENTS TO CONSIST OF FULL FLAGS.
 - PROVIDE EXPANSION JOINT (TYPE 'A') AT CONNECTIONS BETWEEN NEW AND EXISTING SIDEWALK.

TABLE OF SIDEWALK JOINTS	
TYPE	LOCATION
'A'	AT CONNECTION BETWEEN NEW AND EXISTING SIDEWALK AND 20' O.C.
'B'	5 FEET CENTER TO CENTER ON SIDEWALKS.

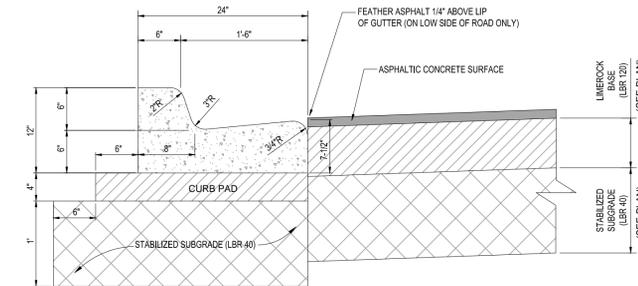


- NOTES:
- DETECTABLE WARNING SURFACES SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A BOTTOM DIAMETER OF NOMINAL 9.0 INCH AND A TOP DIAMETER OF 0.4 INCH. A HEIGHT OF 0.2 INCH AND A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCH AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT. (SEE DETAIL)
 - SIDEWALK SHALL BE 4" THICK EXCEPT IN DRIVEWAYS WHERE THE THICKNESS SHALL BE 6".
 - SUBGRADE BELOW SIDEWALK SHALL BE COMPACTED TO 98% OF MAX. DENSITY PER A.A.S.H.T.O. T-180.
 - CONCRETE STRENGTH SHALL BE MIN. 3000 PSI @ 28 DAYS.
 - SIDEWALK REMOVAL & REPLACEMENTS TO CONSIST OF FULL FLAGS.
 - PROVIDE EXPANSION JOINT (TYPE 'A') AT CONNECTIONS BETWEEN NEW AND EXISTING SIDEWALK.
 - PROVIDE FIBEROUS JOINTS 20' O.C.

1 SIDEWALK DETAILS
SCALE: NONE

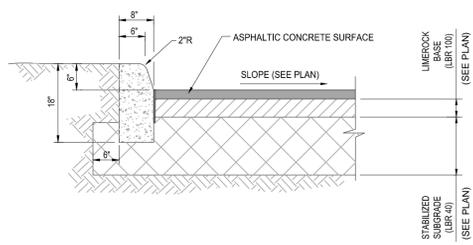
2 THICKENED EDGE SIDEWALK DETAIL
SCALE: NONE

3 ADA SIDEWALK RAMP DETAIL-FDOT INDEX 304
SCALE: NONE

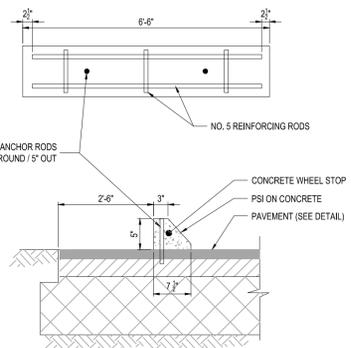


- NOTE:
- WHEN USED ON HIGH SIDE OF ROADWAYS THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE LIP SHALL BE 6" INSTEAD OF 7 1/2".
 - REFER TO FDOT INDEX 300 FOR NOTES AND DETAILS

8 TYPE "F" CURB & GUTTER DETAIL
SCALE: NONE

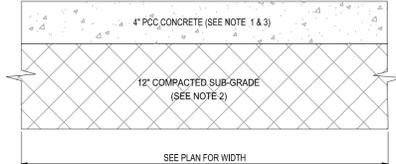


5 CONCRETE CURB (TYPE 'D') DETAIL
SCALE: NONE



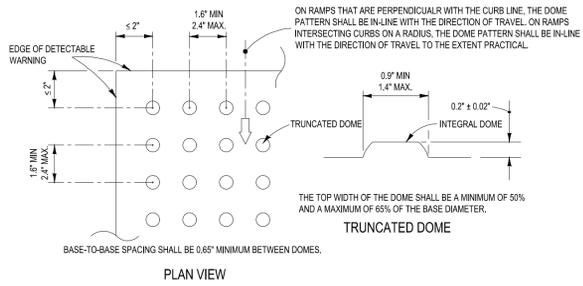
- NOTES:
- WHEEL STOP FORM SIZES MAY VARY DEPENDING ON MANUFACTURER.
 - WHEEL STOPS SHALL BE PAINTED BLUE AT HDCP SPACES, UNPAINTED AT REGULAR SPACES.
 - WHEEL STOP TO BE CENTERED IN PARKING SPACE.

6 CONCRETE WHEEL STOP
SCALE: NONE



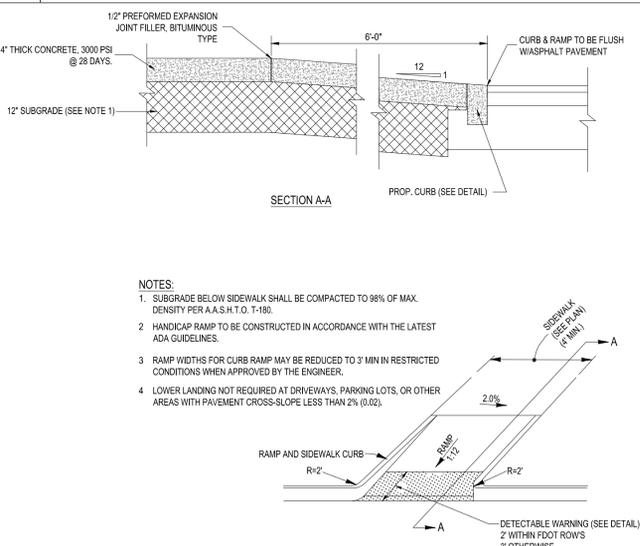
- NOTES:
- SIDEWALK SHALL BE 4" THICK EXCEPT IN DRIVEWAYS WHERE THE THICKNESS SHALL BE 6".
 - SUBGRADE BELOW SIDEWALK SHALL BE COMPACTED TO 98% OF MAX. DENSITY PER A.A.S.H.T.O. T-180.
 - CONCRETE STRENGTH SHALL BE MIN. 3000 PSI @ 28 DAYS.
 - SIDEWALK REMOVAL & REPLACEMENTS TO CONSIST OF FULL FLAGS.
 - PROVIDE EXPANSION JOINT (TYPE 'A') AT CONNECTIONS BETWEEN NEW AND EXISTING SIDEWALK.
 - PROVIDE FIBEROUS JOINTS 20' O.C.
 - ALL SIDEWALK WITHIN THE COUNTY RIGHT-OF-WAY TO BE 5' WIDE AND CONSTRUCTED OF FIBER REINFORCED CONCRETE.

7 TYPICAL CONCRETE SIDEWALK SECTION
SCALE: NONE



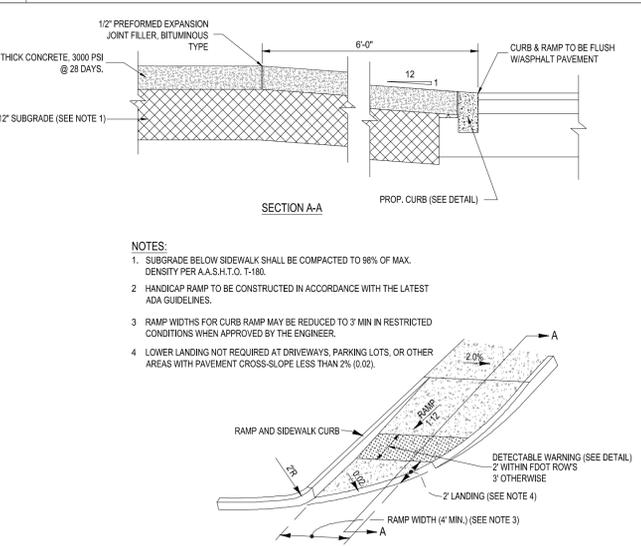
- ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24 INCHES (610 mm) FROM THE BACK OF CURB WITHIN FDOT ROWS AND 36 INCHES (914 mm) FROM THE BACK OF CURB AT ALL OTHER LOCATIONS. ALL WORK TO MEET FDOT STANDARD INDEX 304.

8 ADA RAMP DETECTABLE WARNING DETAIL
SCALE: NONE



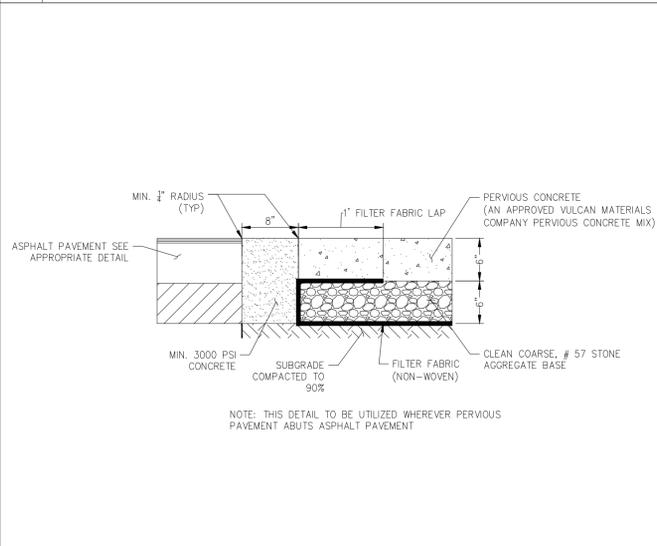
- NOTES:
- SUBGRADE BELOW SIDEWALK SHALL BE COMPACTED TO 98% OF MAX. DENSITY PER A.A.S.H.T.O. T-180.
 - HANDICAP RAMP TO BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADA GUIDELINES.
 - RAMP WIDTHS FOR CURB RAMP MAY BE REDUCED TO 3' MIN IN RESTRICTED CONDITIONS WHEN APPROVED BY THE ENGINEER.
 - LOWER LANDING NOT REQUIRED AT DRIVEWAYS, PARKING LOTS, OR OTHER AREAS WITH PAVEMENT CROSS-SLOPE LESS THAN 2% (0.02).

9 CURB RAMP CR-E DETAIL FDOT INDEX 304
SCALE: NONE



- NOTES:
- SUBGRADE BELOW SIDEWALK SHALL BE COMPACTED TO 98% OF MAX. DENSITY PER A.A.S.H.T.O. T-180.
 - HANDICAP RAMP TO BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADA GUIDELINES.
 - RAMP WIDTHS FOR CURB RAMP MAY BE REDUCED TO 3' MIN IN RESTRICTED CONDITIONS WHEN APPROVED BY THE ENGINEER.
 - LOWER LANDING NOT REQUIRED AT DRIVEWAYS, PARKING LOTS, OR OTHER AREAS WITH PAVEMENT CROSS-SLOPE LESS THAN 2% (0.02).

10 CURB RAMP CR-G DETAIL FDOT INDEX 304
SCALE: NONE



- NOTE: THIS DETAIL TO BE UTILIZED WHEREVER PERVIOUS PAVEMENT ABUTS ASPHALT PAVEMENT

11 FLUSH CURB DETAIL
SCALE: NONE

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2	12/31/15	PER PASCO COUNTY COMMENTS	HR

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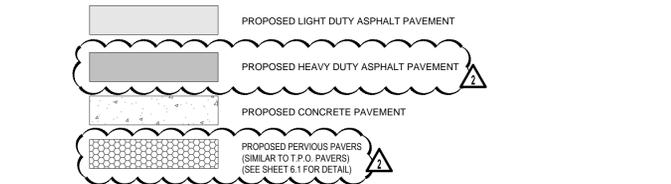
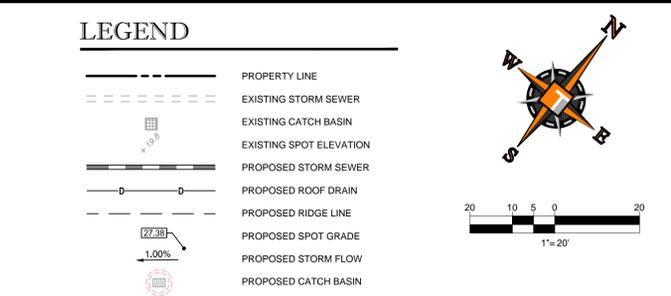
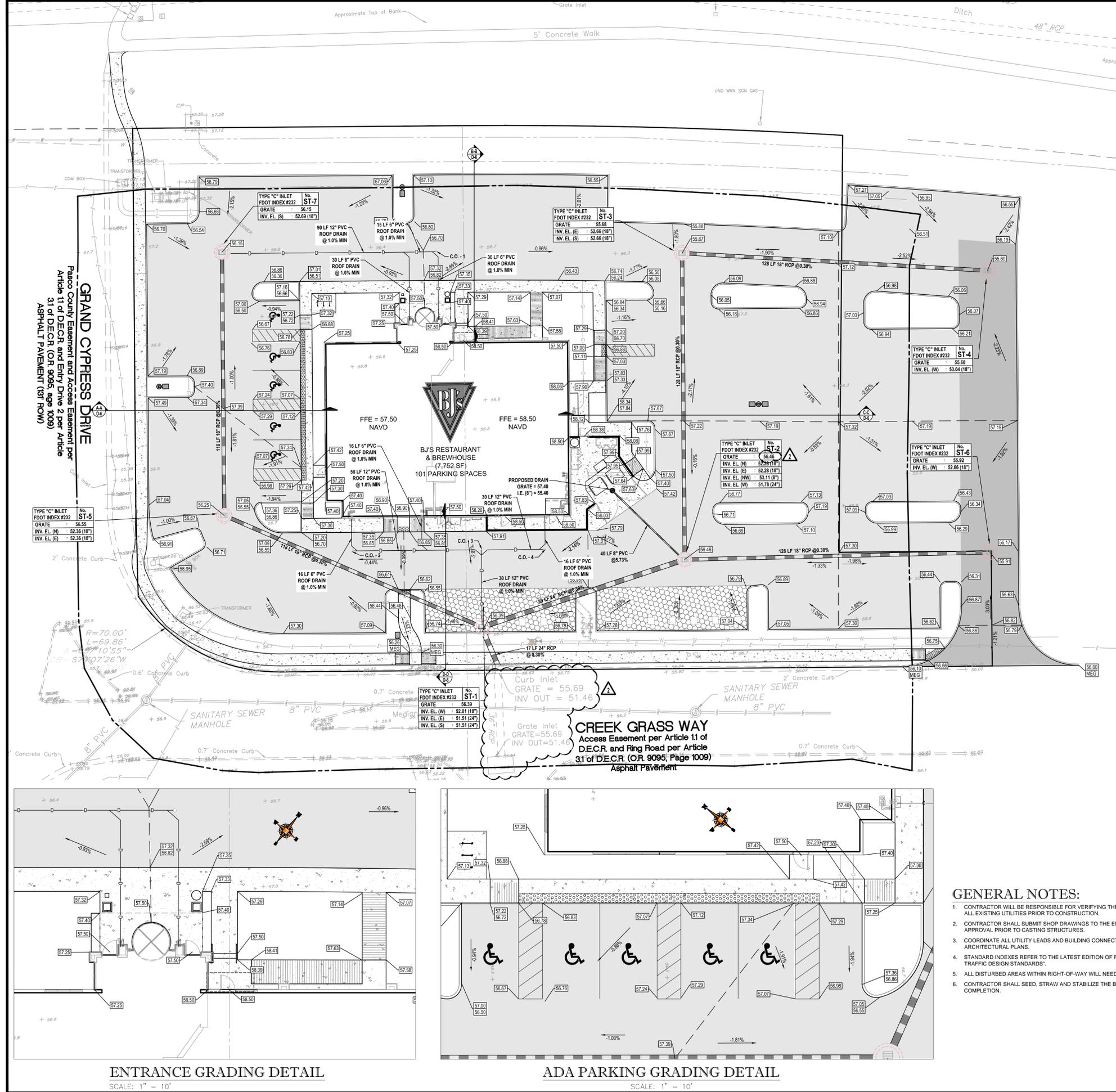
PROJECT No.: FT150034
DRAWN BY: HR
CHECKED BY: DTR
DATE: 10/07/2015
SCALE: AS NOTED
CAD I.D.: FT150034-C-6-SITE DTLS

PROJECT:
BJ'S CYPRESS CREEK TOWN CENTER
FOR
BJ'S RESTAURANT BREWHOUSE
WESLEY CHAPEL PASCO COUNTY, FL

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STATE OF FLORIDA
DARREN T.R. EYRE, P.E.
January 14, 2016
FLORIDA LICENSE No. 77996
FLORIDA BUSINESS CERT. OF AUTH. No. 27528

SHEET TITLE:
SITE DETAILS
SHEET NUMBER:
C-6
OF



- PAVING AND GRADING NOTES:**
- A. GENERAL:**
- ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE SURVEYOR'S BENCHMARKS AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUNDWORK.
 - ALL GRADES SHOWN REFERENCE PROPOSED ELEVATIONS AT EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED. "TC" = TOP OF CURB ELEVATION, "BC" = BOTTOM OF CURB ELEVATION (EDGE OF PAVEMENT), "MATCH" = PROPOSED GRADE TO MATCH EXISTING GRADE, "TW" = TOP OF RETAINING WALL ELEVATION, "BW" = BOTTOM OF RETAINING WALL ELEVATION.
 - THE ALTA/ACSM LAND TITLE SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.
 - THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF ANY SUCH DISCREPANCY BETWEEN GEOTECHNICAL REPORT AND PLANS, ETC.
 - 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.
 - WHERE ANY PROPOSED PAVEMENT IS TO BE CONNECTED TO EXISTING PAVEMENT, THE EXISTING EDGE OF PAVEMENT SHALL BE SAW CUT TO ENSURE A PROPER JOINT.
 - PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL OTHER AGENCY APPROVALS IF REQUIRED.
 - ALL AREAS WITHIN THE COUNTY RIGHT OF WAY DISTURBED THROUGH THE COURSE OF CONSTRUCTION WILL BE RE-GRADED AND SODDED.
- B. MATERIALS:**
- BASE COURSE SHALL BE ABC-3 PER F.O.D.T. SPECIFICATIONS, OR EQUIVALENT LIMEROCK THICKNESS W/ MIN. LBR-100 (MAX. 6" LIFTS).
 - ASPHALT SURFACES SHALL BE TYPE S-II ASPHALT CONCRETE, UNLESS OTHERWISE SPECIFIED ON THE PLANS, AND SHALL BE A MINIMUM OF 1-1/2" THICK, AND CONSTRUCTED IN TWO 3/4" LIFTS, WITH TACKCOAT BETWEEN LIFTS.
 - 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. 6 GAUGE WIRE MESH.
- C. INSTALLATION:**
- SUBGRADE FOR ROADWAY SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY (AASHTO T-180), TO A MIN. 12" AND SHALL HAVE A MINIMUM LBR 40.
 - BASE COURSE MATERIAL FOR PAVED AREAS SHALL BE A MINIMUM THICKNESS OF 6" PLACED IN ONE LIFT. BASE COURSE MATERIAL SHALL HAVE A MINIMUM MARSHALL STABILITY OF 1000, UNLESS OTHERWISE INDICATED (OR LBR-100).
 - BASE COURSE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
 - INSTALLATION OF THE WEARING SURFACE SHALL CONFORM TO THE REQUIREMENTS OF THE D.O.T. STANDARD SPECIFICATIONS FOR TYPE S-II ASPHALTIC CONCRETE OR THE LATEST REVISION.
- D. TESTING:**
- 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 OR OTHER DEFECTS EXCEEDING THIS LIMIT SHALL BE CORRECTED.
 - DENSITY TESTS SHALL BE TAKEN BY AN INDEPENDENT TESTING LABORATORY CERTIFIED BY THE STATE OF FLORIDA, WHERE DIRECTED BY THE ENGINEER.
 - ALL TESTING COSTS (PAVING) SHALL BE PAID FOR BY THE CONTRACTOR.
 - DENSITY TESTS ON THE STABILIZED SUBGRADE SHALL BE SUPPLIED TO THE ENGINEER OF RECORD AND GEOTECHNICAL ENGINEER, AND APPROVED BEFORE ANY BASE IS CONSTRUCTED.
 - DENSITY TESTS AND "AS-BUILTS" ON THE FINISHED BASE SHALL BE SUPPLIED TO THE GEOTECHNICAL ENGINEER, AND APPROVED BEFORE ANY ASPHALT PAVEMENT IS CONSTRUCTED.

- STORM DRAINAGE NOTES:**
- A. GENERAL:**
- DISTANCES AND LENGTHS OF PIPE SHOWN ON PLANS ARE REFERENCED TO THE CENTER OF STRUCTURES.
- B. MATERIALS:**
- REINFORCED CONCRETE PIPE (RCP) SHALL MEET THE REQUIREMENTS OF ASTM C-76, CLASS III, WALL THICKNESS "B", LATEST REVISION. RUBBER GASKETS OR OTHER JOINT SEALERS SHALL BE USED.
 - ALL PVC DRAINAGE PIPE AND FITTINGS SHALL BE NON-PRESSURE POLYVINYL CHLORIDE (PVC) PIPE CONFORMING TO ASTM D 3034, SDR 35, WITH PUSH-ON RUBBER GASKET JOINTS.
 - ALL HIGH DENSITY POLYETHYLENE PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF AASHTO M - 294 LATEST REVISIONS. ALL PIPING TO BE NON-PERFORATED TUBING.
 - PROPOSED "CURB INLET" STRUCTURES SHALL BE STANDARD FDOT TYPE '9' CURB INLET TOPS, PER FDOT INDEX #214.
 - PROPOSED "GRATE INLETS" SHALL BE STANDARD FDOT TYPE 'C' DITCH BOTTOM INLETS, PER FDOT INDEX #232.
 - PROPOSED CONTROL STRUCTURES SHALL BE STANDARD FDOT TYPE 'C' DITCH BOTTOM INLETS, PER FDOT INDEX #232. CONTROL STRUCTURES SHALL HAVE SKIMMERS ATTACHED ON ALL FOUR SIDES OF STRUCTURE AND BE INSTALLED PER FDOT INDEX #240.
 - PROPOSED BUBBLER STRUCTURES SHALL BE STANDARD FDOT TYPE 'C' DITCH BOTTOM INLETS, PER FDOT INDEX #232.
- C. INSTALLATION:**
- PIPE SHALL BE PLACED ON A MINIMUM OF 8 INCHES STABLE GRANULAR MATERIAL FREE OF ROCK FORMATION AND OTHER FOREIGN FORMATIONS, AND CONSTRUCTED TO A UNIFORM GRADE AND LINE.
 - BACKFILL MATERIAL SHALL BE WELL GRADED GRANULAR MATERIAL, WELL TAMPED IN LAYERS NOT TO EXCEED 6 INCHES TO A HEIGHT OF 12 INCHES ABOVE PIPE AS SHOWN ON THE PLANS.
 - PROVIDE A MINIMUM PROTECTIVE COVER OF 18 INCHES OVER STORM SEWER AND AVOID UNNECESSARY CROSSING BY HEAVY CONSTRUCTION VEHICLES DURING CONSTRUCTION.

DATUM NOTE:

BEARINGS SHOWN HEREON ARE GRID BEARINGS BASED ON NORTH BOUNDARY OF THE SOUTH 1/4 OF SECTION 27-26-19, HAVING A BEARING OF N89°56'09" E. THE GRID BEARINGS AND COORDINATES AS SHOWN HEREON REFER TO THE STATE PLANE COORDINATE SYSTEM, NORTH AMERICA HORIZONTAL DATUM OF 1983 (NAD 83-2011 ADJUSTMENT) FOR THE WEST ZONE OF FLORIDA, AS ESTABLISHED FROM A RTK GPS NETWORK.

REFERENCE BENCHMARK:

ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD). REFERENCE BENCHMARK IS A SURVEY DISK SET IN TOP OF CONCRETE MONUMENT STAMPED "D 680 2007 ELEVATION = 56.88" LOCATED 86.4' SOUTH OF THE APPROXIMATE CENTERLINE OF STATE ROAD 56, 54.3' SOUTHWEST OF POWER POLE NUMBER 40343750, 2.3' NORTH OF A HOG WIRE FENCE AND 1.8' NORTH OF CARSONITE WITNESS POST.

FEMA MAP INFORMATION:

THE SUBJECT PROPERTY LIES IN FLOOD ZONE "X" ACCORDING TO FLOOD INSURANCE RATE MAP, MAP NO. 121010409F FOR PASCO COUNTY, FLORIDA, COMMUNITY NO. 120230, DATED SEPTEMBER 26, 2014, AND ISSUED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

THOMAS ENGINEERING GROUP

CIVIL ENGINEERS - PROJECT MANAGERS - LAND PLANNING - LANDSCAPE ARCHITECTS

OFFICES:

- 4950 W. KENNEDY BLVD. TAMPA, FLORIDA 33609
- 1000 CORPORATE DR. FT. LAUDERDALE, FLORIDA 33304

STATE OF FLORIDA PROFESSIONAL ENGINEER LICENSE No. 77996

DARREN T.R. EYRE, P.E. January 14, 2016

FLORIDA LICENSE No. 77996

FLORIDA BUSINESS CERT. OF AUTH. No. 27528

REVISIONS

REV	DATE	COMMENT	BY
1	12/01/15	UTILITY COORDINATION	HR
2	12/31/15	PER PASCO COUNTY COMMENTS	HR

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PERMIT SET

PROJECT No.: FT150034
DRAWN BY: HR
CHECKED BY: DTR
DATE: 10/07/2015
SCALE: AS NOTED
CAD I.D.: FT150034-C7-950

PROJECT:

BJ'S CYPRESS CREEK TOWN CENTER

FOR

RESTAURANT BREWHOUSE

WESLEY CHAPEL PASCO COUNTY, FL

THOMAS ENGINEERING GROUP

4950 W. KENNEDY BLVD, SUITE 600 TAMPA, FLORIDA 33609

Phone: (813) 379-4100
Fax: (813) 379-4040

www.ThomasEngineeringGroup.com

STATE OF FLORIDA PROFESSIONAL ENGINEER LICENSE No. 77996

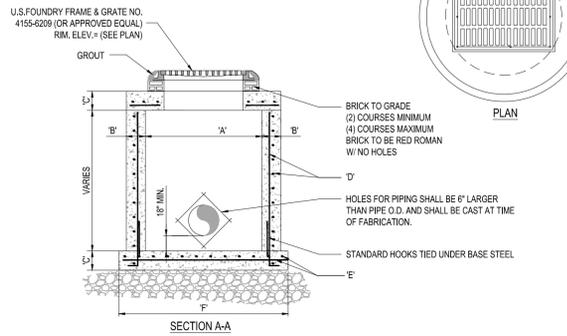
DARREN T.R. EYRE, P.E. January 14, 2016

FLORIDA LICENSE No. 77996

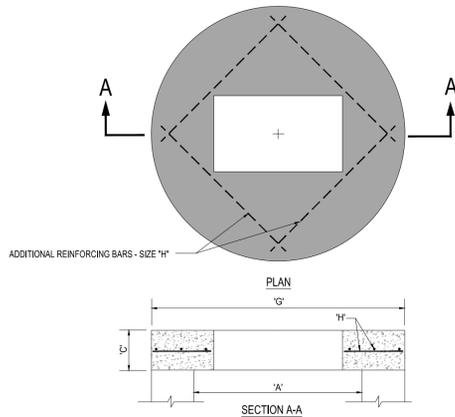
FLORIDA BUSINESS CERT. OF AUTH. No. 27528

SHEET TITLE: **PAVING, GRADING AND DRAINAGE PLAN**

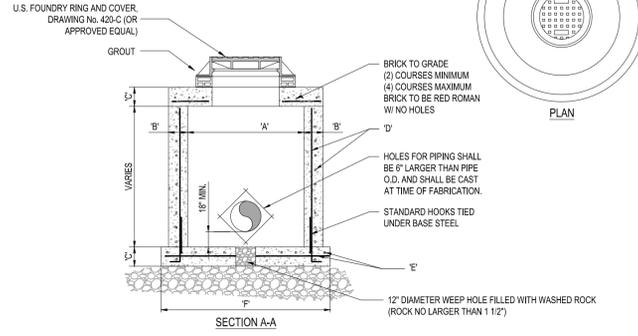
SHEET NUMBER: **C-7** OF



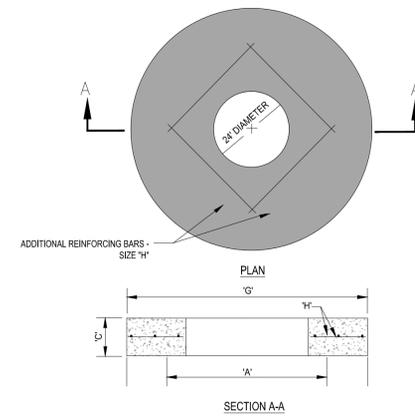
TYPE	"A"	"B"	"C"	"D"	"E"	"F"
C-4	4'-0" Ø	8"	8"	# 4 @ 12" C.C.E.W.	# 4 @ 12" C.C.E.W.	6'-4" Ø
C-5	5'-0" Ø	8"	8"	# 5 @ 12" C.C.E.W.	# 5 @ 12" C.C.E.W.	7'-4" Ø
C-6	6'-0" Ø	8"	8"	# 5 @ 12" C.C.E.W.	# 5 @ 6" C.C.E.W.	8'-4" Ø
C-7	7'-0" Ø	8"	8"	# 5 @ 12" C.C.E.W.	# 5 @ 6" C.C.E.W.	9'-4" Ø
C-8	8'-0" Ø	10"	10"	2-W.W.M. w/ # 4 @ 12" C.C. VERT	# 5 @ 6" C.C.E.W.	10'-8" Ø



TYPE	"A"	"C"	"G"	"H"
C-4	4'-0" Ø	8"	5'-4" Ø	# 4 @ 6" C.C.E.W.
C-5	5'-0" Ø	8"	6'-4" Ø	# 5 @ 8" C.C.E.W.
C-6	6'-0" Ø	8"	7'-4" Ø	# 5 @ 6" C.C.E.W.
C-7	7'-0" Ø	8"	8'-4" Ø	# 5 @ 6" C.C.E.W.
C-8	8'-0" Ø	10"	9'-8" Ø	# 5 @ 6" C.C.E.W.



TYPE	"A"	"B"	"C"	"D"	"E"	"F"
M-4	4'-0" Ø	8"	8"	# 4 @ 12" C.C.E.W.	# 4 @ 12" C.C.E.W.	6'-4" Ø
M-5	5'-0" Ø	8"	8"	# 5 @ 12" C.C.E.W.	# 5 @ 12" C.C.E.W.	7'-4" Ø
M-6	6'-0" Ø	8"	8"	# 5 @ 12" C.C.E.W.	# 5 @ 6" C.C.E.W.	8'-4" Ø
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M-7	7'-0" Ø	8"	8'-4" Ø	# 5 @ 6" C.C.E.W.
M-8	8'-0" Ø	10"	9'-8" Ø	# 5 @ 6" C.C.E.W.

1 PRECAST CIRCULAR CATCH BASIN

SCALE: NONE

2 PRECAST CONCRETE-TOP SLAB

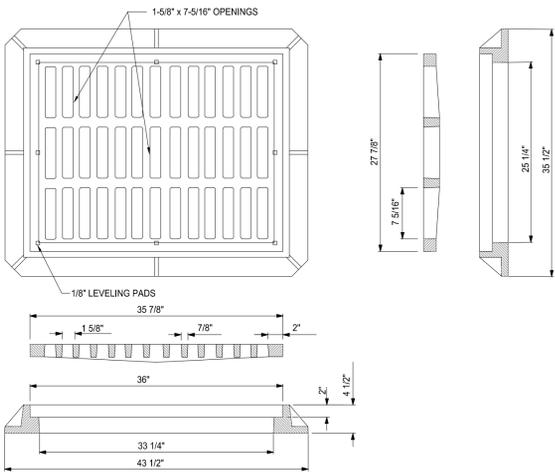
SCALE: NONE

3 PRECAST CIRCULAR DRAINAGE MANHOLE

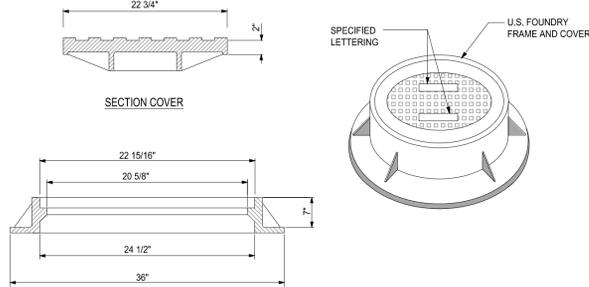
SCALE: NONE

4 PRECAST CONCRETE-TOP SLAB FOR DRAINAGE MANHOLES

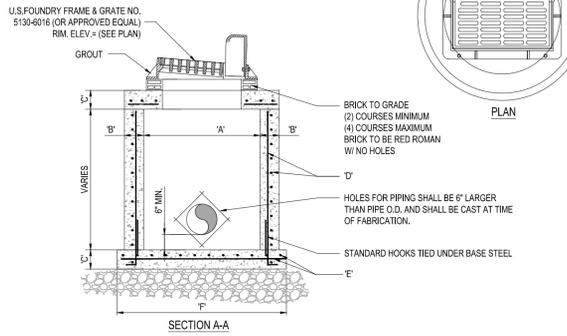
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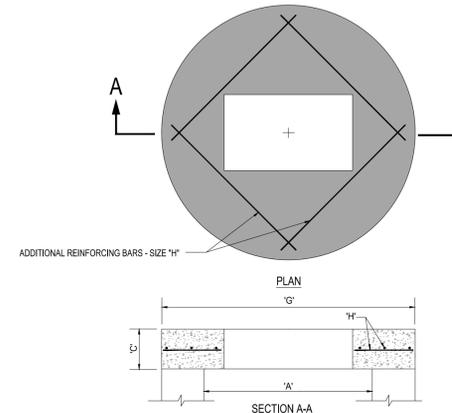
NOTE:
1. GRATE TO BE TYPE U.S.F. No. 4155-6209



NOTE:
1. RING AND COVER TO BE TYPE U.S.F. No. 420-C



TYPE	"A"	"B"	"C"	"D"	"E"	"F"
C-4	4'-0" Ø	8"	8"	# 4 @ 12" C.C.E.W.	# 4 @ 12" C.C.E.W.	6'-4" Ø
C-5	5'-0" Ø	8"	8"	# 5 @ 12" C.C.E.W.	# 5 @ 12" C.C.E.W.	7'-4" Ø
C-6	6'-0" Ø	8"	8"	# 5 @ 12" C.C.E.W.	# 5 @ 6" C.C.E.W.	8'-4" Ø
C-7	7'-0" Ø	8"	8"	# 5 @ 12" C.C.E.W.	# 5 @ 6" C.C.E.W.	9'-4" Ø
C-8	8'-0" Ø	10"	10"	2-W.W.M. w/ # 4 @ 12" C.C. VERT	# 5 @ 6" C.C.E.W.	10'-8" Ø



TYPE	"A"	"C"	"G"	"H"
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C-5	5'-0" Ø	8"	6'-4" Ø	# 5 @ 8" C.C.E.W.
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C-7	7'-0" Ø	8"	8'-4" Ø	# 5 @ 6" C.C.E.W.
C-8	8'-0" Ø	10"	9'-8" Ø	# 5 @ 6" C.C.E.W.

5 FRAME AND GRATE DETAIL

SCALE: NONE

6 MANHOLE FRAME DETAIL

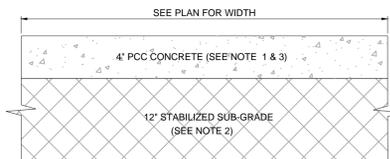
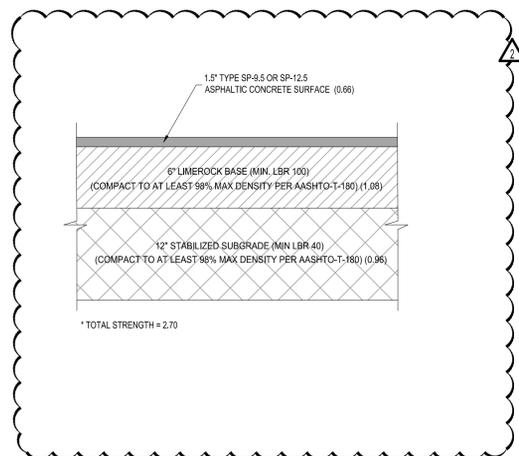
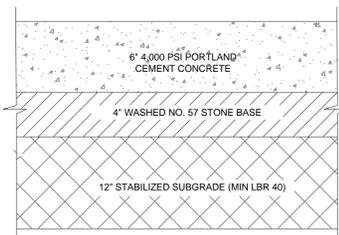
SCALE: NONE

7 PRECAST CIRCULAR CURB INLET

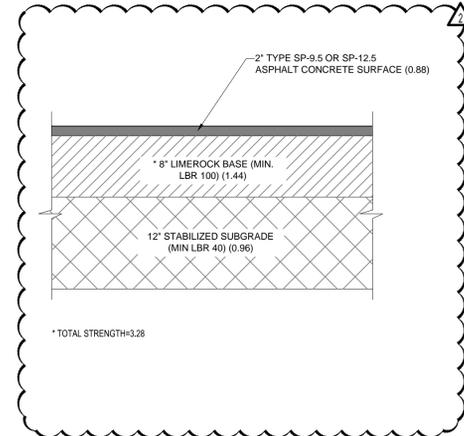
SCALE: NONE

8 PRECAST CONCRETE-TOP SLAB

SCALE: NONE



NOTES:
1. SIDEWALK SHALL BE 4\"/>



9 CONCRETE PAVEMENT DETAIL

SCALE: NONE

10 ASPHALTIC CONCRETE PAVEMENT DETAIL

SCALE: NONE

11 CONCRETE SIDEWALK DETAIL

SCALE: NONE

12 HEAVY DUTY ASPHALT PAVEMENT DETAIL

SCALE: NONE

THOMAS
ENGINEERING GROUP

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OFFICES:
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TAMPA, FLORIDA 33609

1000 CORPORATE DR.
FT. LAUDERDALE, FLORIDA 33334

REVISIONS			
REV	DATE	COMMENT	BY
1	12/01/15	UTILITY COORDINATION	HR
2	12/31/15	PER PASCO COUNTY COMMENTS	HR

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PROJECT No.: FT150034
DRAWN BY: HR
CHECKED BY: DTRE
DATE: 10/07/2015
SCALE: AS NOTED
CAD I.D.: FT150034-C-8-PGD DTLS

PROJECT:

BJ'S CYPRESS CREEK TOWN CENTER

FOR

RESTAURANT BREWHOUSE

WESLEY CHAPEL
PASCO COUNTY, FL

THOMAS
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STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE
No. 77996

DARREN T.R. EYRE, P.E.
January 14, 2016
FLORIDA LICENSE No. 77996
FLORIDA BUSINESS CERT. OF AUTH. No. 27528

SHEET TITLE:
PAVING, GRADING AND DRAINAGE DETAILS

SHEET NUMBER:
C-8
OF

SANITARY SEWER NOTES:

- A. GENERAL:**
- DISTANCE AND LENGTHS SHOWN ON PLANS AND PROFILE DRAWINGS ARE REFERENCED TO THE CENTER OF STRUCTURES.
 - PRIOR TO COMMENCING CONSTRUCTION, CONTRACTOR TO TELEVIEW EXISTING SANITARY SEWER LINE FROM POINT OF CONNECTION THROUGH THE NEXT SEQUENTIAL DOWNSTREAM RUN OF PIPE. ADDITIONALLY, PRIOR TO COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL TELEVIEW THE NEWLY INSTALLED SANITARY SEWER MAIN TO ENSURE NO DIPS OR DEBRIS WITHIN LINE.
 - THE EXISTING OFF-SITE PUMP STATION WAS DESIGNED TO ACCOUNT FOR THE FLOWS ASSOCIATED WITH THE SUBJECT PARCEL AND IS CAPABLE HANDLING THE PROPOSED DEVELOPMENT ACTIVITIES.
- B. MATERIALS:**
- ALL PVC SEWER PIPE AND FITTINGS SHALL BE NON-PRESSURE POLYVINYL CHLORIDE (PVC) PIPE CONFORMING TO ASTM D 3034, SDR 26, WITH PUSH-ON RUBBER GASKET JOINTS.
 - ALL FITTINGS AND ACCESSORIES SHALL BE AS MANUFACTURED OR SUPPLIED BY THE PIPE MANUFACTURER OR APPROVED EQUAL.
 - ALL SANITARY CLEANOUTS WITHIN PAVEMENT SHALL HAVE A LID THAT IS H₂O LOADING.
- C. INSTALLATION:**
- PIPE AND FITTINGS:**
 - SEWER PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, AND THE UNI-BELL PLASTICS PIPE ASSOCIATION'S "RECOMMENDED PRACTICE FOR THE INSTALLATION OF PVC SEWER PIPE".
 - BEDDING AND INITIAL BACKFILL (12 INCHES) OVER SEWER MAINS AND SERVICES SHALL BE SAND WITH NO ROCK LARGER THAN 1" IN DIAMETER. PEA ROCK OR 3/4" WASHED ROCK WILL BE USED IN WATER OR WHERE UNSUITABLE BEDDING EXISTS. ALL OTHER FILL SHALL NOT HAVE ROCK LARGER THAN 6" IN DIAMETER.
 - CLEANOUTS:**
 - CLEANOUTS SHALL BE SET PLUMB TO LINE AND GRADE ON FIRM CLEAN SUBGRADE PROVIDING UNIFORM BEARING UNDER THE BASE.
 - ALL OPENINGS AND JOINTS SHALL BE SEALED WATER-TIGHT.
 - SERVICE:**
 - MINIMUM SLOPE OF ALL SERVICE LINES SHALL BE AS INDICATED IN THE FLORIDA BUILDING CODE.
 - SERVICE LATERALS SHALL TERMINATE AT A DEPTH 30" BELOW FINISHED GRADE OR AS INDICATED ON PLUMBING PLAN.
 - EACH SERVICE CONNECTION SHALL BE PLUGGED WATER-TIGHT WITH AN APPROVED PLUG.
 - THE END OF EACH SERVICE CONNECTION SHALL BE MARKED WITH A 2"x4" TREATED STAKE PAINTED RED, EXTENDING 18"(MIN) ABOVE GRADE.
 - CONTRACTOR SHALL ROUGH IN RISER TO 1 FOOT ABOVE FINISHED GRADE AND PLUG. AT PROJECT COMPLETION, CUT BACK TO FINISHED GRADE.
 - CONNECTION OF SERVICES TO BUILDING'S PLUMBING SHALL BE COORDINATED WITH THE CITY'S BUILDING AND ZONING DEPARTMENT, PLUMBING SECTION.
 - TESTING:**
 - AFTER CONSTRUCTION OF THE SEWER SYSTEM, THE ENGINEER MAY REQUIRE A VISUAL INFILTRATION AND/OR EXFILTRATION TEST TO BE PERFORMED ON THE ENTIRE SYSTEM OR ANY PART THEREOF.
 - AN AIR TEST MAY BE SUBSTITUTED FOR THE WATER EXFILTRATION TEST, UPON APPROVAL OF THE ENGINEER.
 - SEWER PIPE LEAKAGE ALLOWABLE SHALL NOT EXCEED 150 GALLONS PER DAY PER INCH DIAMETER PER MILE IN A TWO HOUR TEST PERIOD FOR ANY SECTION TESTED. NO VISIBLE LEAKAGE SHALL BE ALLOWED.
 - SANITARY SEWER SHALL BE TELEVIEWED AND LAMPED AT DEVELOPER'S EXPENSE, PRIOR TO FINAL ACCEPTANCE. OWNER/ CONTRACTOR IS RESPONSIBLE FOR CORRECTING ANY DEFICIENCIES PRIOR TO CERTIFICATION TO ANY AGENCY.
 - VISIBLE INFILTRATION LEAKAGE INTO MANHOLES AND SEWER PIPE SHALL NOT BE PERMITTED.
 - CONTRACTOR IS RESPONSIBLE FOR CORRECTING ANY DEFICIENCIES PRIOR TO THE CERTIFICATION TO ANY AGENCY.

CONTRACTOR'S RESPONSIBILITIES:

- (REGARDING WET TAPS 2" AND LARGER)
- 2" ONLY** - THIS EXCAVATED TRENCH MUST BE DRY OR THE TRENCH WILL REQUIRE ROCK AND A PUMP TO BE IN PLACE. THE MINIMUM DISTANCE FROM THE FACE OF THE VALVE TO THE WALL OF THE TRENCH IS TO BE SIX FEET.
 - 3" AND LARGER** - THE CONTRACTOR WILL SUPPLY A TAPPING SADDLE BEING EPOXY COATED, A TAPPING VALVE WITH MECHANICAL JOINT AND THE EQUIPMENT TO PROVIDE, AND CONDUCT A PRESSURE TEST. COUNTY PERSONNEL WILL WITNESS THE PRESSURE TEST WHICH MUST BE AT 150 PSI FOR DURATION OF THIRTY MINUTES.
 - THE CONTRACTOR IS RESPONSIBLE FOR THE EXCAVATION BEFORE ANY COUNTY PERSONNEL WILL ENTER AN EXCAVATED AREA. IF THE TRENCH IS FOUR FEET IN DEPTH OR DEEPER, IT WILL REQUIRE A TRENCH BOX FOR SLOPING, AND A LADDER ACCORDING TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS.
 - THE TAPPING VALVE WILL REQUIRE A BLOCKING DEVICE MADE OF SUITABLE MATERIAL OR DEVICE. THIS BLOCKING DEVICE OR MATERIAL WILL BE PLACED UNDER THE VALVE AND REMAIN IN PLACE UNTIL THE TAP MACHINE IS REMOVED AND THE TAP IS COMPLETED.
 - NOTE: IF THE CONTRACTOR HAS NOT FULFILLED HIS RESPONSIBILITIES, AS STATED ABOVE, PRIOR TO THE ARRIVAL OF PASCO COUNTY UTILITIES OPERATIONS AND MAINTENANCE TAPPING CREW, THERE WILL BE AN ADDITIONAL CHARGE OF \$92.00.

PASCO COUNTY UTILITY NOTES:

- ALL UTILITY SYSTEM-DESIGN MATERIALS AND WORKMANSHIP SHALL COMPLY WITH STANDARDS FOR DESIGN AND CONSTRUCTION OF WATER, WASTEWATER, AND RECLAIMED WATER FACILITIES SPECIFICATIONS, LATEST EDITION.
- THE UTILITIES SERVICES BRANCH SHALL NOT OWN OR MAINTAIN ON-SITE WATERLINES, SEWER LINES, OR FACILITIES, UNLESS OTHERWISE APPROVED BY THE UTILITIES SERVICES BRANCH.

UTILITY CONTACTS:

COMMUNICATIONS
 BRIGHT HOUSE NETWORKS - EAST PASCO
 30432 S.R. 54
 WESLEY CHAPEL, FL 33543
 813-862-0522

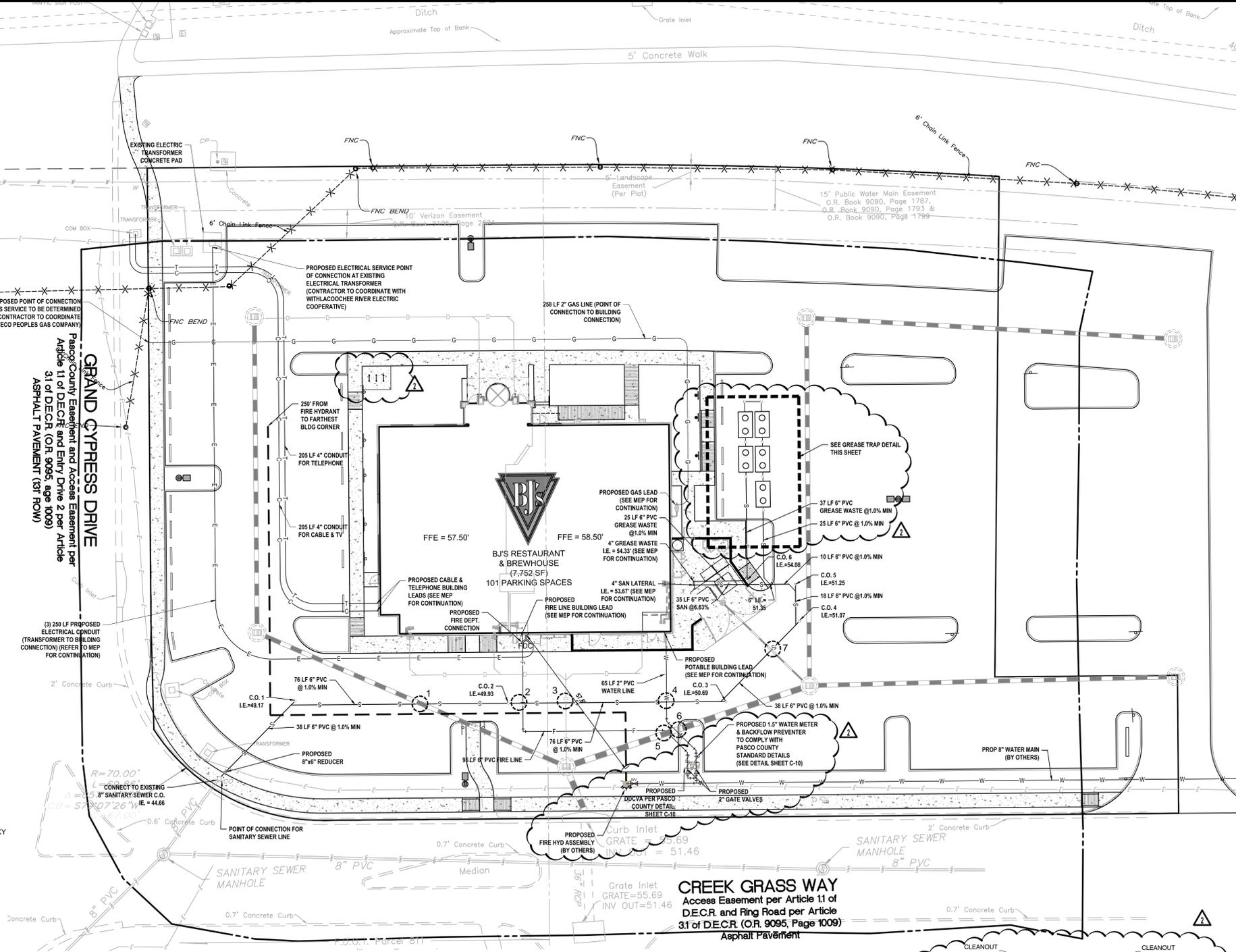
PHONE
 VERIZON FLORIDA INC
 1905 US HWY 301 N
 TAMPA, FL 33619
 813-627-8343

SEWER & WATER
 PASCO COUNTY UTILITIES
 7530 LITTLE ROAD, ROOM 205
 NEW PORT RICHEY, FL 34654
 727-847-8145

GAS
 TECO PEOPLE'S GAS - TAMPA
 1400 CHANNELSIDE DRIVE
 TAMPA, FL 33605
 813-275-3743

ELECTRIC
 WITHLACOCHEE RIVER
 ELECTRIC COOPERATIVE
 P.O. BOX 278
 DADE CITY, FL 33526
 352-588-5115

FIRE RESCUE
 4111 LAND O'LAKES BLVD
 SUITE 28
 LAND O'LAKES, FL 34639
 813-929-2750



DATUM NOTE:

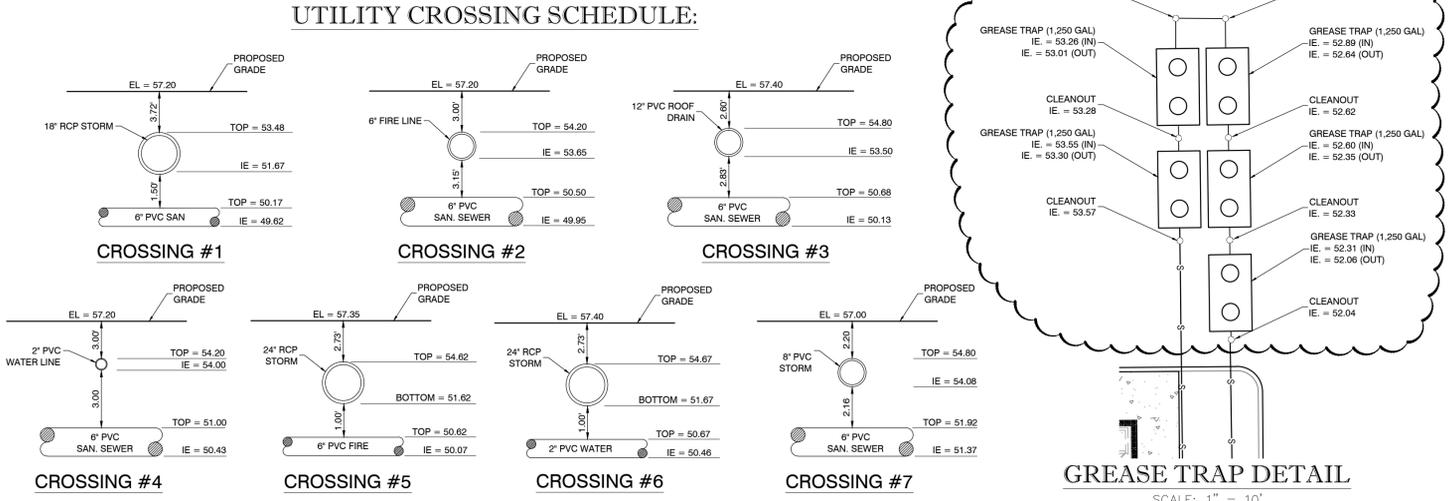
BEARINGS SHOWN HEREON ARE GRID BEARINGS BASED ON NORTH BOUNDARY OF THE SOUTH 1/4 OF SECTION 27-28-19, HAVING A BEARING OF N89°50'09\"/>

REFERENCE BENCHMARK:
 ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD), REFERENCE BENCHMARK IS A SURVEY DISK SET IN TOP OF CONCRETE MONUMENT STAMPED "D 680 2007" ELEVATION = 56.88' LOCATED 86.4' SOUTH OF THE APPROXIMATE CENTERLINE OF STATE ROAD 56, 54.3' SOUTHWEST OF POWER POLE NUMBER 40343750, 2.3' NORTH OF A HOG WIRE FENCE AND 1.8' NORTH OF CARSONITE WITNESS POST.

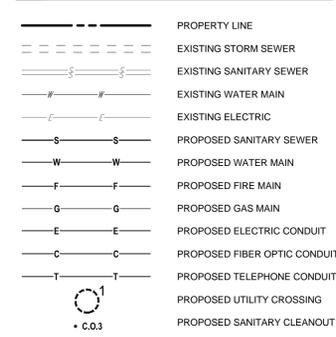
FEMA MAP INFORMATION:

THE SUBJECT PROPERTY LIES IN FLOOD ZONE "X" ACCORDING TO FLOOD INSURANCE RATE MAP, MAP NO. 12101C0409F FOR PASCO COUNTY, FLORIDA, COMMUNITY NO. 129230, DATED SEPTEMBER 26, 2014, AND ISSUED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

A SEPARATE PLAN AND PERMIT, ISSUED TO A CONTRACTOR LICENSED BY THE FLORIDA STATE FIRE MARSHAL'S OFFICE, IS REQUIRED FOR THE INSTALLATION OF UNDERGROUND FIRE LINES.



LEGEND



FIRE PROTECTION NOTES:

- ALL PROJECTS MUST COMPLY WITH PASCO COUNTY FIRE HYDRANT ORDINANCE NO. 46-51.
- FIRE HYDRANTS MUST BE INSTALLED AND IN SERVICE PRIOR TO THE ACCUMULATION OF COMBUSTIBLES.
- PER NATIONAL FIRE PROTECTION ASSOCIATION, NFPA 1: 16.4.3.1.3: WHERE UNDERGROUND WATER MAINS AND HYDRANTS ARE TO BE PROVIDED, THEY SHALL BE INSTALLED, COMPLETED AND IN SERVICE PRIOR TO CONSTRUCTION WORK.
- PER NFPA-1, 18.3.4.1: CLEARANCES OF 7 1/2 FEET IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANT WITH A 4 FOOT CLEARANCE TO THE REAR MUST BE MAINTAINED AT ALL TIMES.
- GATED ENTRIES REQUIRE A SIREN OPERATING SYSTEM OR A 3M OPTICOM SYSTEM FOR EMERGENCY ACCESS.
- FIRE HYDRANTS SHALL BE FLOW-TESTED AND COLOR-CODED BASED ON FLOW RESULTS.

WATER SERVICE NOTES:

- IN CONSIDERATION OF PASCO COUNTY'S AGREEMENT TO PROVIDE POTABLE WATER AND/OR RECLAIMED WATER TO THE SUBJECT PROPERTY, DEVELOPER/OWNER, AND ITS SUCCESSORS AND ASSIGNS, AGREE TO THE FOLLOWING:
 - IN THE EVENT OF PRODUCTION FAILURE OR SHORTFALL BY TAMPA BAY WATER, AS SET FORTH IN SECTION 3.19 OF THE INTERLOCAL AGREEMENT CREATING TAMPA BAY WATER, DEVELOPER/OWNER SHALL TRANSFER TO PASCO COUNTY ANY AND ALL WATER USE PERMITS OR WATER USE RIGHTS THE DEVELOPER/OWNER MAY HAVE TO USE OR CONSUME SURFACE OR GROUND WATER WITHIN PASCO COUNTY.
 - PRIOR TO THE DEVELOPER/OWNER SELLING WATER OR WATER USE PERMITS OR WATER USE RIGHTS, DEVELOPER/OWNER SHALL NOTIFY PASCO COUNTY, AND PASCO COUNTY SHALL HAVE A RIGHT OF FIRST REFUSAL TO PURCHASE SUCH WATER OR WATER USE PERMITS OR WATER USE RIGHTS.
- CONNECTIONS INTO AN EXISTING COUNTY-OWNED SYSTEM SHALL BE VIA WET TAP. WET TAPS SHALL BE PERFORMED EXCLUSIVELY BY THE UTILITIES SERVICES BRANCH AT THE DEVELOPER'S EXPENSE. EXCAVATION, BACKFILL, AND SURFACE RESTORATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. MATERIAL FOR WET TAPS LARGER THAN TWO INCHES SHALL BE PROVIDED AND INSTALLED BY THE PROJECT CONTRACTOR.

WATER DISTRIBUTION NOTES:

- CONTRACTOR SHALL FOLLOW GUIDELINES AND PROCEDURES OUTLINED BY UTILITY PROVIDER, AND HAVE UTILITY PROVIDER'S MANUAL ON-SITE AT ALL TIMES. THIS POLICY MANUAL SHALL BE CONSIDERED PART OF THE CONSTRUCTION DOCUMENTS AS IT PERTAINS TO APPROVED MATERIALS, INSTALLATION METHODS, INSPECTION NOTIFICATION AND AS-BUILT/PROJECT CLOSEOUT REQUIREMENTS.
- ALL HIGH DENSITY POLYETHYLENE PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF AASHTO M - 294 LATEST REVISIONS. ALL PIPING TO BE NON-PERFORATED TUBING.

C.O. REQUIREMENT NOTES:

PRIOR TO THE ISSUANCE OF THE C.O., THE FOLLOWING MUST BE SUBMITTED TO UTILITIES SERVICE BRANCH: TWO (2) SIGNED AND SEALED RECORD DRAWINGS AND TWO (2) PDF, AUTOCAD R13 ELECTRONIC, 2000 VERSION DISC IN COLOR FOR THE ENTIRE SYSTEM.

THOMAS ENGINEERING GROUP
 CIVIL ENGINEERS - PROJECT MANAGERS - LAND PLANNING - LANDSCAPE ARCHITECTS
 OFFICES:
 4950 W. KENNEDY BLVD.
 TAMPA, FLORIDA 33609
 1000 CORPORATE DR.
 FT. LAUDERDALE, FLORIDA 33334

REVISIONS

REV	DATE	COMMENT	BY
1	12/01/15	UTILITY COORDINATION	HR
2	12/31/15	PER PASCO COUNTY COMMENTS	HR

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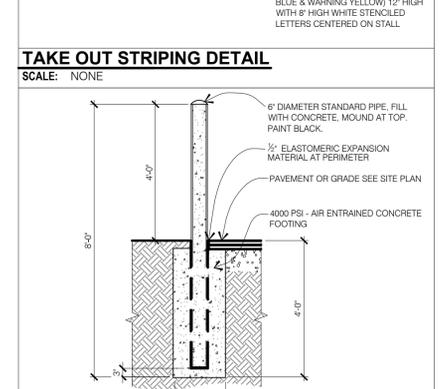
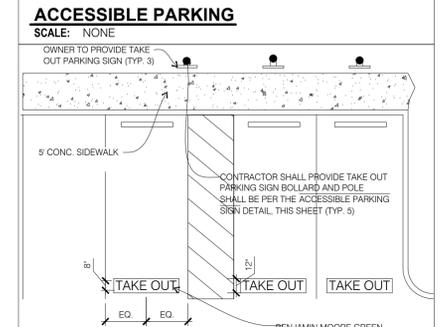
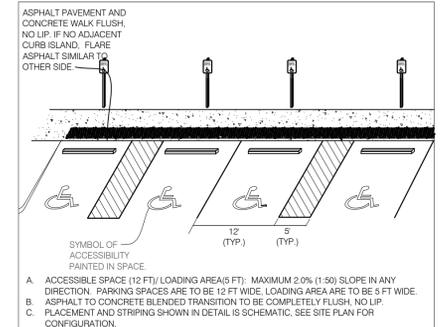
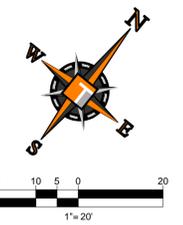
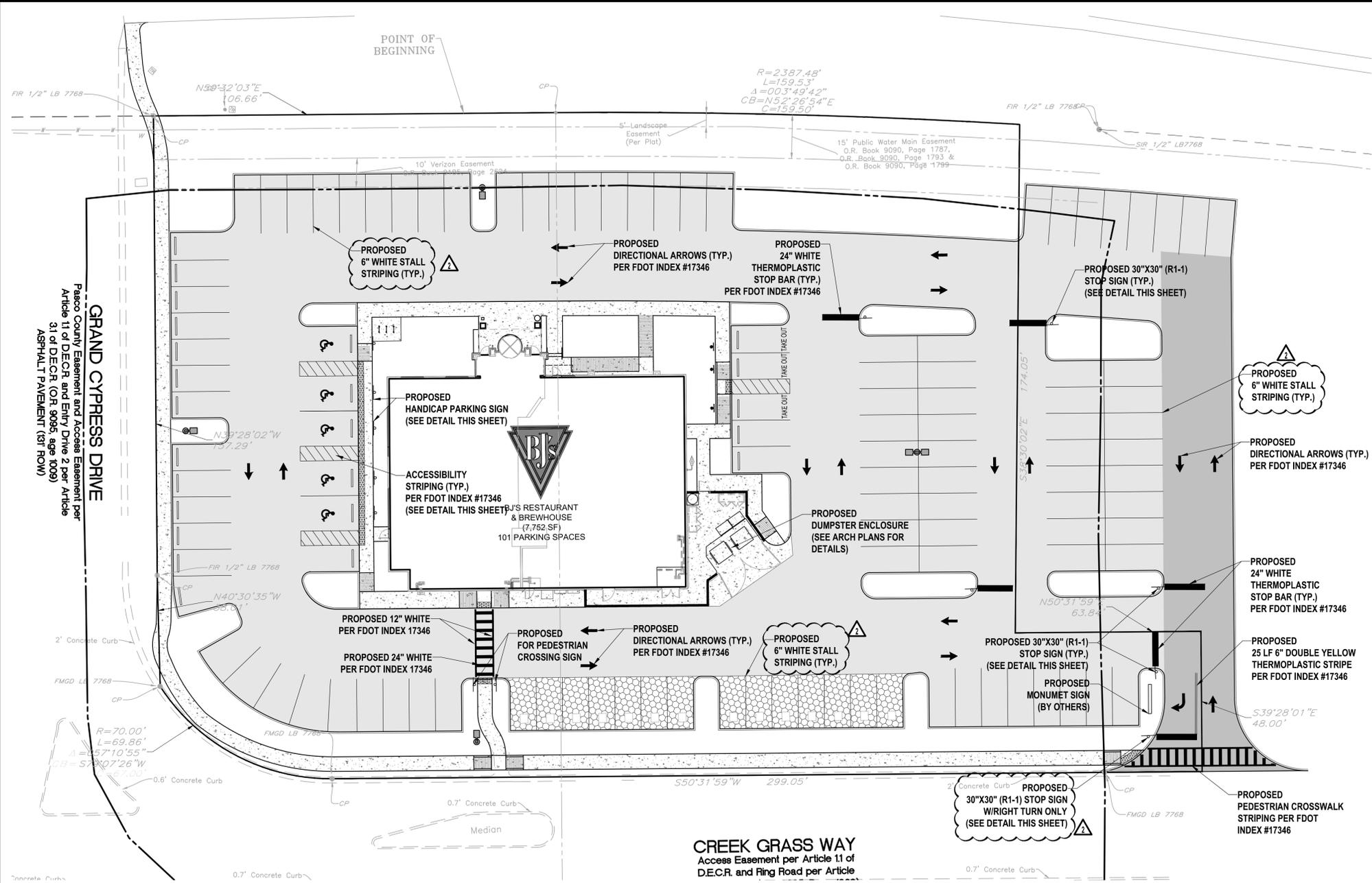
PERMIT SET
 PROJECT No.: FT150034
 DRAWN BY: HR
 CHECKED BY: DTR
 DATE: 10/07/2015
 SCALE: AS NOTED
 CAD I.D.: FT150034-C-9-UP

PROJECT:
BJ'S CYPRESS CREEK TOWN CENTER
 FOR
BJ'S RESTAURANT BREWHOUSE
 WESLEY CHAPEL
 PASCO COUNTY, FL

THOMAS ENGINEERING GROUP
 4950 W. KENNEDY BLVD, SUITE 600
 TAMPA, FLORIDA 33609
 Phone: (813) 379-4100
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STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 No. 77996
 DARRIN T.R. EYRE, P.E.
 January 14, 2016
 FLORIDA LICENSE No. 77996
 FLORIDA BUSINESS CERT. OF AUTH. No. 27528

SHEET TITLE:
UTILITY PLAN
 SHEET NUMBER:
C-9
 OF



NOTES
 A. CONCRETE FOUNDATION DIMENSIONS ARE MINIMUM REQUIREMENTS. LOCAL BUILDING CODES OR FROST LINE MAY REQUIRE GREATER DEPTH.
SINGLE BOLLARD
 SCALE: 1/2"=1'-0"

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REVISIONS

REV	DATE	COMMENT	BY
1	12/01/15	UTILITY COORDINATION	HR
2	12/31/15	PER PASCO COUNTY COMMENTS	HR

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PERMIT SET

PROJECT No.: FT150034
 DRAWN BY: HR
 CHECKED BY: DTR
 DATE: 10/07/2015
 SCALE: AS NOTED
 CAD I.D.: FT150034-C-11-0965

PROJECT:
BJ'S CYPRESS CREEK TOWN CENTER
 FOR

RESTAURANT BREWHOUSE
 WESLEY CHAPEL
 PASCO COUNTY, FL

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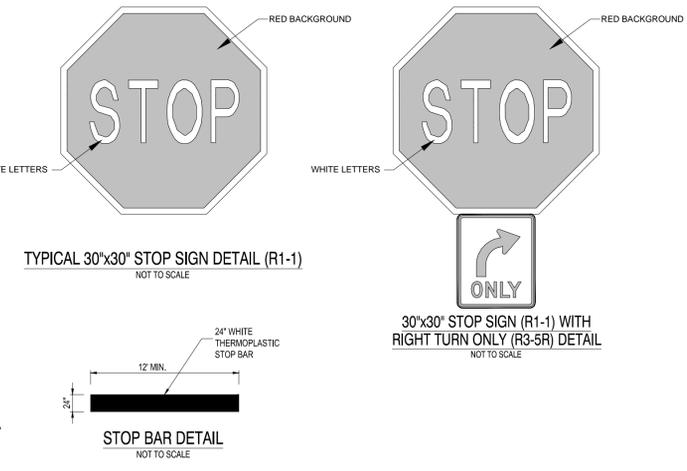
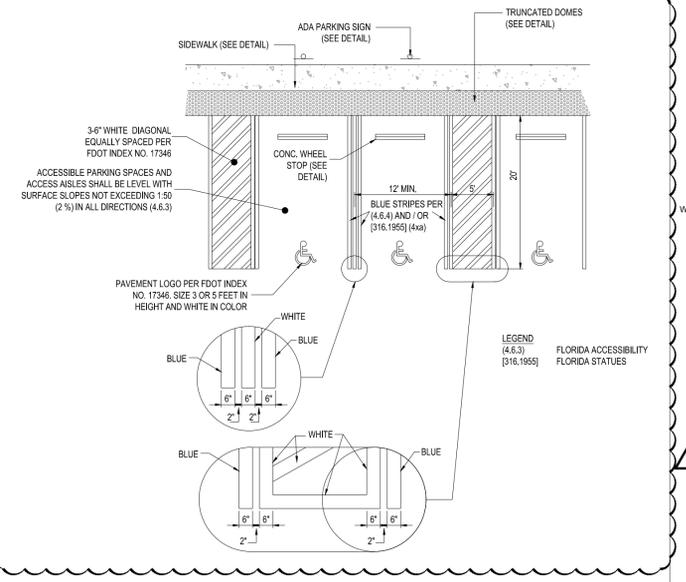
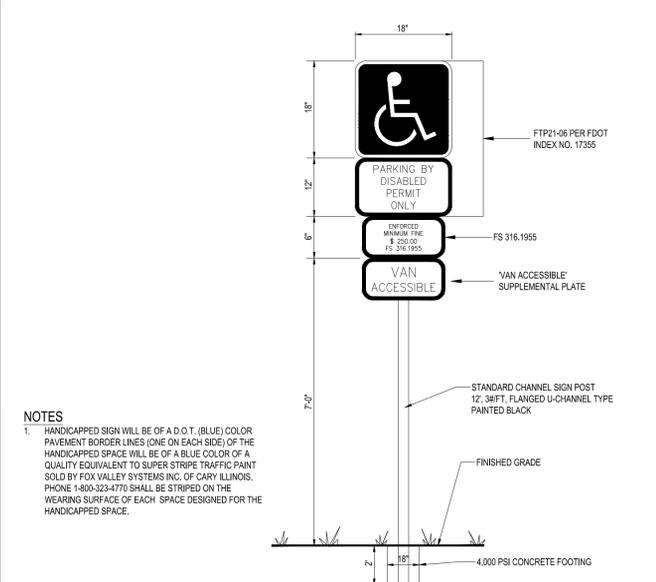
DIRECT THOMAS REASON FOR LICENSE
 No. 77996
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 DARRIN T.R. EYRE, P.E.
 January 14, 2016
 FLORIDA LICENSE No. 77996
 FLORIDA BUSINESS CERT. OF AUTH. No. 27528

SHEET TITLE:
PAVEMENT MARKING & SIGNAGE PLAN

SHEET NUMBER:
C-11
 OF

FIRE DEPARTMENT NOTES
 THE FOLLOWING IS REQUIRED FOR TEMPORARY ACCESS SIGNAGE FOR NEW CONSTRUCTION SITES:
 A. SIGNAGE SIGN SHALL READ "FIRE DEPARTMENT ACCESS" AND SHALL INCLUDE SITE ADDRESS, OR RANGE OF ADDRESSES, FOR ALL COMMERCIAL SITES AND RESIDENTIAL MODEL HOMES.
 B. SIZE: THE TWO-SIDED SIGN PLATE SHALL BE A MINIMUM OF 4'x4' FEET.
 C. COLOR: THE SIGN SHALL HAVE A RED BACKGROUND WITH A WHITE LEGEND.
 D. LETTERING FOR THE SIGN SHALL BE FOUR INCH.
 E. ADDRESS ON SIGN SHALL BE TWO AND ONE HALF INCH.
 F. LOCATION: SIGN SHALL BE INSTALLED AT EACH POINT OF ENTRY.
 G. TOP OF SIGN SHALL BE SIX FEET ABOVE GRADE ON POSTS

FIRE LANE SIGNS SHALL BE INSTALLED ON OR ALONG A BOUNDARY OF ALL FIRE LANES. THE NUMBER, PLACEMENT AND DESIGN OF SIGNS SHALL BE DETERMINED BY THE FFPC OR THE FIRE MARSHAL:
 A. SIGN SIZE: 12 INCHES WIDE BY 18 INCHES HIGH
 B. LETTERING SIZE: 2" HIGH
 C. COLORS: WHITE BACKGROUND WITH RED LETTERS MESSAGE
 D. FIRE LANE - "NO PARKING FIRE LANE BY ORDER OF THE FIRE DEPARTMENT."
 E. FIRE LANE WITH FDC - "NO PARKING FIRE DEPARTMENT CONNECTION" OR "NO PARKING -- FDC"
 F. SPACE BETWEEN SIGNS: 60 FEET
 G. SIGN HEIGHT: 7 FEET ABOVE GRADE AT BOTTOM OF SIGN H. NUMBER OF SIGN FACES: SIGNS MOUNTED ON A POST SHALL BE DOUBLE-FACED



A SEPARATE PLAN AND PERMIT, ISSUED TO A CONTRACTOR LICENSED BY THE FLORIDA STATE FIRE MARSHAL'S OFFICE, IS REQUIRED FOR THE INSTALLATION OF UNDERGROUND FIRE LINES.

1 ACCESSIBLE PARKING SIGN
 SCALE: NONE

2 ACCESSIBLE PARKING SPACE - ADA COMPLIANT
 SCALE: NONE

LANDSCAPING SHALL BE PLANTED IN SUCH A MANNER AS NOT TO IMPEDE THE ACCESS FOR MAINTENANCE AND STORM-WATER RUN-OFF FLOW TO OR IN A DITCH, SWALE, OR POND

ALL THE TREES OVERHANG TO THE PUBLIC RIGHT OF WAY/OR TREES WITHIN THE ROW SHALL BE TRIMMED AND PRUNED TO MAINTAIN A MINIMUM VERTICAL CLEAR HEIGHT OF 8' FROM THE FINISHED GROUND SURFACE OF THE SIDEWALK TO THE BOTTOM OF CANOPY, 16.6' CLEAR HEIGHT ABOVE THE ROADWAY PATHS

STATE ROAD NO. 56
 F.D.O.T. Right-of-Way Map Section No. 14140-2415
 Right-of-Way Width Varies
 Asphalt Pavement

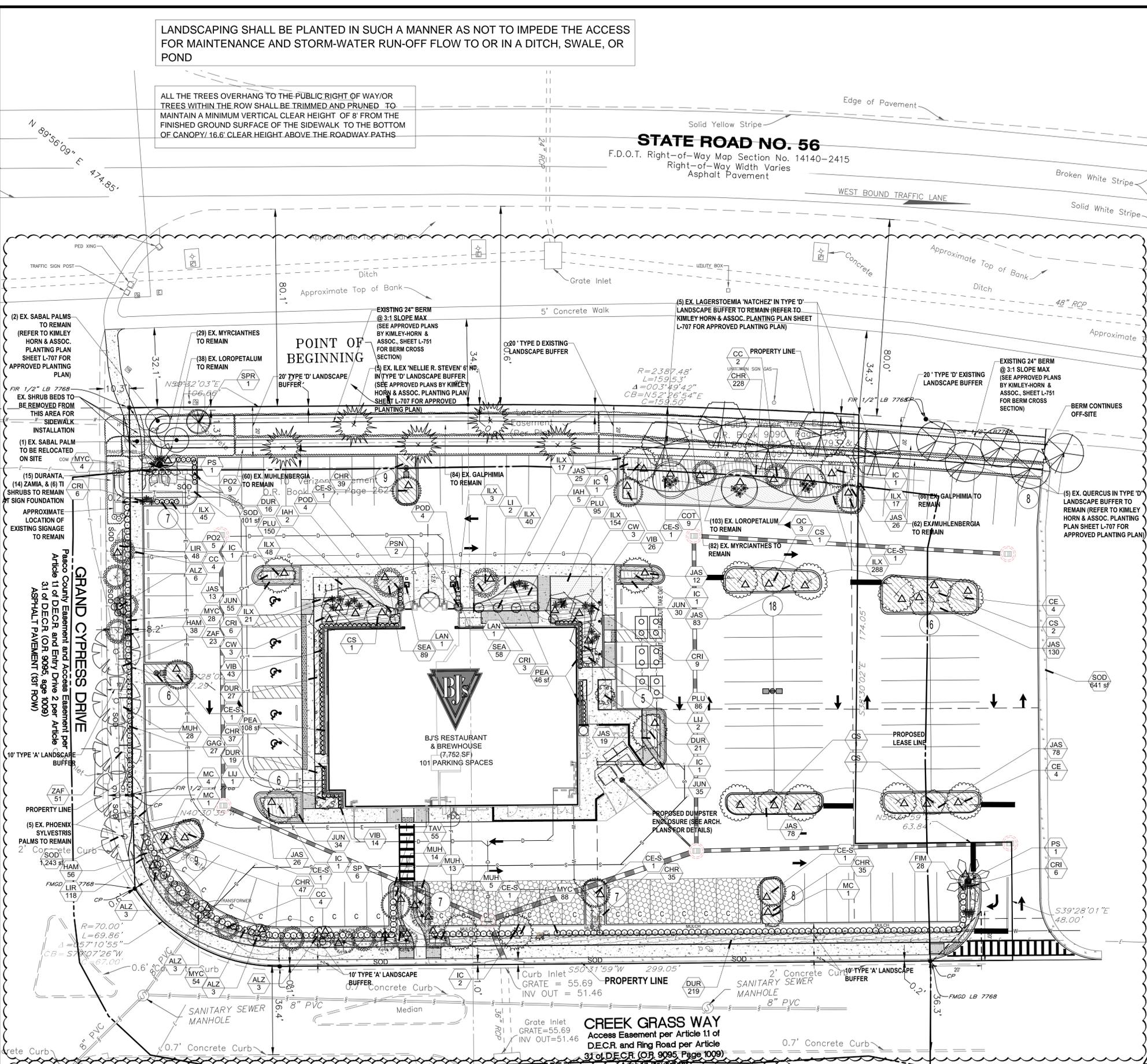
PLEASE REFER TO SHEETS L-2 FOR PLANTING DETAILS, CODE CHART AND PLANTING SCHEDULE, AND SHEET L-3 GENERAL NOTES.

NOTE: ALL ABOVE GROUND MECHANICAL EQUIPMENT SUCH AS, BUT NOT LIMITED TO, EXTERIOR UTILITY BOXES, METERS, AND TRANSFORMERS NOT CURRENTLY KNOWN OR DEPICTED SHALL BE VISUALLY SCREENED. IN ANY EVENT, THE TYPE OF SCREENING MUST MATCH THE OVERALL HEIGHT FOR THE TYPE OF EQUIPMENT BEING SCREENED. THESE PLANTS MAY NOT BE ACCOUNTED FOR ON THE PLANT LIST FOUND ON SHEET L-5 AND THE CONTRACTOR SHALL MAKE ALLOWANCES FOR EXTRA PLANT MATERIALS AT LARGER SIZES THAN ARE CURRENTLY SHOWN. BACK FLOW PREVENTERS SHALL BE PAINTED TO MATCH THE PRINCIPAL STRUCTURE.

ALL LANDSCAPED AREAS TO BE FULLY COVERED BY AUTOMATIC IRRIGATION SYSTEM AS PER CITY CODES AND REQUIREMENTS. SEE SEPARATE IRRIGATION PLANS FOR FURTHER INFORMATION.

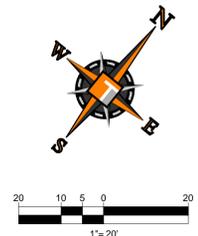
ALL COMPACTED SOIL, ROAD ROCK AND EXCESS DEBRIS SHALL BE REMOVED AND A 24" LAYER OF SOIL FAVORABLE TO TREE AND SHRUB GROWTH AND SUSTAINABILITY EXISTS OVER ALL PLANTING AREAS. SOIL COMPOSITION SHOULD CONTAIN 2-4% OR ORGANIC MATTER WITH REMOVAL OF ANY LARGE ROCKS OR DEBRIS, LARGER THAN A LEMON.

NOTE: EXISTING TYPE 'D' BUFFER INSTALLED PER PREVIOUSLY APPROVED PLANS BY KIMLEY-HORN & ASSOCIATES, SHEET L-707 WITH TYPE 'D' BUFFER CROSS SECTION SHOWN WITH SAME SET OF PLANS, SHEET L-751 (DATED 06/08/14, PROJECT NUMBER 048982004, PREPARED FOR TAMPA PREMIUM OUTLETS, LLC AND JG CYPRESS CREEK, LLC)



OWNER OF PROPERTY SHALL BE RESPONSIBLE FOR MAINTENANCE OF LANDSCAPING MATERIALS; REFER TO GENERAL NOTES ON SHEET L-3

SITE TRIANGLE SHALL BE UNOBSTRUCTED AND SHALL BE INSPECTED AND MAINTAINED IN CONFORMANCE WITH FDOT INDEX 546; SEE THE ATTACHED FDOT INDEX 546 DETAIL ON SHEET L-2



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 1000 CORPORATE DR.
 FT. LAUDERDALE, FLORIDA 33334

REVISIONS			
REV	DATE	COMMENT	BY
1	12/01/2015	UTILITY COORDINATION	HR
2	12/31/2015	PER PASCO COUNTY COMMENTS	RJK

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PERMIT SET
 PROJECT No.: FT150034
 DRAWN BY: RJK
 CHECKED BY: MDG
 DATE: 10/07/2015
 SCALE: AS NOTED
 CAD I.D.: FT150034-LANDSCAPE

PROJECT:
BJ'S CYPRESS CREEK TOWN CENTER
 FOR

RESTAURANT BREWHOUSE
 WESLEY CHAPEL PASCO COUNTY, FL

THOMAS ENGINEERING GROUP
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MICHAEL D. GROSSWIRTH
 FL LIC. LA666871
 PROFESSIONAL LANDSCAPE ARCHITECT
 January 8, 2016
 FLORIDA BUSINESS CERT. OF AUTH. No. 27528

SHEET TITLE:
LANDSCAPE PLAN
 SHEET NUMBER:
L-1
 OF

TREES	CODE	QTY	COMMON NAME	BOTANICAL NAME	SPECIFICATIONS	CAL/DBH	HEIGHT	SPREAD	NATIVE	REMARKS	DROUGHT TOLERANT
	CC	10	Cassia	Cassia surattensis	B & B	3" Cal	10' Ht	4'-5'	Yes		YES
	CE	8	Buttonwood	Conocarpus erectus	B & B	4" Cal	14-16' Ht	5-6'	Yes		YES
	CE-S	8	Silver Button Wood	Conocarpus erectus sericeus	B & B	4" Cal	8' Ht	5'	Yes	3' CT, DOUBLE	YES
	CS	6	Orange Geiger Tree	Cordia sebestena	B & B	2" Cal	10' Ht	5'	Yes	4' CT	YES
	CW	6	White Flowering Dogwood	Cornus florida 'White'	B & B	4" Cal	8' Ht	3-4'	Yes		YES
	IC	8	Dahoon Holly	Ilex cassine	B & B	4" Cal	14-16' Ht	5'	Yes	4' CT	YES
	LI	2	Crape Myrtle Coral Pink	Lagerstroemia x "Tuscarora"	B & B	2" Cal	6-10' Ht	3-4'	No	STANDARD	YES
	MC	6	Wax Myrtle	Myrica cerifera	B & B	3" Cal	8' Ht	4-5'	Yes	3' CT	YES
	OC	3	Cathedral Live Oak	Quercus virginiana 'Cathedral'	B & B	6" Cal	16-18' ca	5-6'	Yes		YES
PALM TREES	CODE	QTY	COMMON NAME	BOTANICAL NAME	SPECIFICATIONS	CAL/DBH	HEIGHT	SPREAD	NATIVE	REMARKS	DROUGHT TOLERANT
	PS	2	Wild Date Palm	Phoenix sylvestris	B & B		10' c.l.		No	10' of wood to nut	YES
	SP	6	Cabbage Palmetto	Sabal palmetto	B & B		10-14' c.l. staggered	10'	Yes	10-14' staggered clear trunk	YES
RELOCATED PALMS	CODE	QTY	COMMON NAME	BOTANICAL NAME	SPECIFICATIONS	CAL/DBH	HEIGHT	SPREAD	NATIVE	REMARKS	DROUGHT TOLERANT
	SPR	1	Cabbage Palmetto	Sabal palmetto	B & B		varies	10'	Yes		YES
SHRUBS	CODE	QTY	COMMON NAME	BOTANICAL NAME	SPECIFICATIONS	SPACING	HEIGHT	SPREAD	NATIVE	REMARKS	DROUGHT TOLERANT
	ALZ	18	Variegated Shell Ginger	Alpinia zerumbet	NA	As Shown	24"-30"	18"-24"	No		YES
	COT	9	Red Sister Ti Plant	Cordyline terminalis 'Red Sister'	7 gal	As Shown	30"	24"	No	3 ppp	YES
	CRU	30	Sangria Spiller Lily	Criminum 'Sangria'	15 gal	As Shown	24"	30"	No		YES
	GAG	27	Thyatis	Gaehimia glauca	NA	24"	24"	18"-24"	Yes		YES
	IAH	7	East Palatka Holly	Ilex attenuata	NA	As Shown	42"	30"	Yes	Full to base	YES
	LJJ	3	Japanese Privet	Ligustrum japonicum	B & B	multi-trunk	6' Ht	6'	No	3' CT	YES
	MYC	174	Compact Simpson's Stopper	Mycianthes fragrans 'compacta'	NA	30"	36"	24"	Yes	full to base	YES
	POZ	14	Shrubby Yew	Podocarpus macrophyllus maki	3 gal	24"	48"	24"	No		YES
	PDD	8	Shrubby Yew	Podocarpus macrophyllus maki	3 gal	24"	24"	24"	No	24"x24"	YES
	PSN	2	Wild Coffee	Psychotria nervosa	10 gal	As Shown	5-6' Ht	3-4'	Yes		YES
	VIB	63	Sandankwa Viburnum	Viburnum suspensum	NA	24"	24"	24"	No	Full to base	YES
SHRUB AREAS	CODE	QTY	COMMON NAME	BOTANICAL NAME	SPECIFICATIONS	SPACING	HEIGHT	SPREAD	NATIVE	REMARKS	DROUGHT TOLERANT
	CHR	421	Red Tip Coccolupum	Chrysobalanus icaco 'Red Tip'	3 gal	24"	18"	18"	Yes	Full to base	YES
	DUR	302	Sky Flower	Duranta repens 'Dwarf Golden'	3 gal	24"	16-18"	16-18"	Yes		YES
	HAM	94	Fire Bush	Hamelia patens	3 gal	24"	18-24"	18-24"	Yes	Full to base	YES
	JAS	490	Southern Wax Jasmine	Jasminum simplicifolium	3 gal	24"	18"	18"	No	Full to base	YES
	MUH	60	Pink Muhly Grass	Muhlenbergia capillaris	3 gal	18"	14-16"	14-16"	Yes	Full to base	YES
	PLU	331	Plumbago	Plumbago auriculata	3 gal	24"	18"	18"	No	Soft blue flowers	YES
	ZAF	74	Coonde	Zamia floridana	n/a	24"	18"	18"	Yes	Full	YES
GROUND COVERS	CODE	QTY	COMMON NAME	BOTANICAL NAME	SPECIFICATIONS	SPACING	HEIGHT	SPREAD	NATIVE	REMARKS	DROUGHT TOLERANT
	FIM	28	Green Island Ficus	Ficus microcarpa 'Green Island'	n/a	18"	14-16"	14-16"	No		YES
	ILX	633	Dwarf Schillings Holly	Ilex vomitoria 'Schillings Dwarf'	3 gal	18"	14-16"	14-16"	Yes		YES
	JUN	154	Shore Juniper	Juniperus conferta	3 gal	18"	12"	12"	No		YES
	LAN	2	Wild Sage	Lantana involucrata	1 gal	18"	12"	12"	Yes		YES
	LIR	166	Lily Turf	Liriope muscari	1 gal	18"	12-14"	10-12"	No	Full clumps	YES
	SEA	147	Seasonal Annuals	TBD	1 gal	12"	12"	12"	n/a		YES
	TAV	55	Variegated Dwarf Jasmine	Trachelospermum asiaticum 'Variegata'	n/a	12"	8-10"	10-12"	No		YES
MISCELLANEOUS	CODE	QTY	COMMON NAME	BOTANICAL NAME	SPECIFICATIONS	SPACING	HEIGHT	SPREAD	NATIVE	XERIC	REMARKS
	PEA	153 sf	Pea Gravel	Pea Gravel	rock						
SOD/SEED	CODE	QTY	COMMON NAME	BOTANICAL NAME	SPECIFICATIONS	SPACING	HEIGHT	SPREAD	NATIVE	XERIC	REMARKS
	SOD	1,985 sf	St. Augustine Grass	Stenotaphrum secundatum	sod				No	Low	

Pasco County Landscaping Standard Notes (Pasco LDC 905.2)

- Maintenance Responsibility.** The County is not responsible for maintenance of any landscaping unless approved through a County maintenance agreement. (LDC 905.2-C.1.a)
- Clear-Sight Triangle.** Where a driveway/accessway intersects a road right-of-way or where two (2) road rights-of-way intersect, vegetation, structures, and non-vegetative visual screens shall not be located so as to interfere with the clear-sight triangle as defined in this Code or the Florida Department of Transportation, Manual of Uniform Minimum Standards, most recent edition (Green Book), whichever is more restrictive. (LDC 905.2-C.1.b)
- Sustainable Practices.** Landscaping shall be installed so that landscaping materials meet the concept of right material/right place. Installed trees and plants shall be grouped into zones according to water, soil, climate, and light requirements. Plant groupings based on water requirements are drought tolerant, natural, and oasis. (LDC 905.2-C.1.c)
- Diversity.** A maximum of 50 percent of the plant materials used, other than trees, may be non-drought tolerant. A minimum of 30 percent of the plant materials, other than trees and turfgrass, used to fulfill the requirements of this subsection shall be native Florida species, suitable for growth in the county. (LDC 905.2-C.1.d)
- Diversity.** No one plant species of shrubs or ground cover plants, excluding turfgrass, shall constitute more than 25 percent coverage of the overall landscape area. (LDC 905.2-C.1.d.5)
- Quality.** All plant materials shall be Florida No. 1 grade per "Grades and Standards for Nursery Plants," Florida Department of Agriculture and Consumer Services (FDACS), which is incorporated herein by reference. (LDC 905.2-C.1.g)
- Avoid Easements.** Trees shall not be planted within any easement so as to interfere with the use of that easement, nor under any present or planned overhead utility, nor in any rights-of-way without County approval through the associated review process. (LDC 905.2-C.3.a)
- Mulch shall be used in conjunction with living plant materials so as to cover exposed soil. Mulch shall be installed to a minimum depth of three (3) inches. The mulch should not be placed directly against the plant stem or tree trunk. Mulch shall not be required for annual beds. Stone or gravel may be used to cover a maximum of 20 percent of the landscaped area. (LDC 905.2-C.3.d)
- Quality Practices.** All landscaping shall be installed in accordance with standards and practices of the Florida Nursery, Growers, and Landscape Association and the Florida Chapter of the International Society of Arboriculture. (LDC 905.2-C.3.b)
- All portions of a lot upon which development has commenced, but not continued for a period of 30 days, shall be planted with a grass species or ground cover to prevent erosion and encourage soil stabilization. Adequate coverage, so as to suppress fugitive dust, shall be achieved within 45 days. (LDC 905.2-C.3.g)
- All required landscaping shall be maintained in a healthy condition in perpetuity in accordance with this Code. (LDC 905.2-E.2)
- Ongoing maintenance to prevent the establishment of prohibited exotic species is required. (LDC 905.2-E.4)

REQUIRED DEVELOPMENT CALCULATIONS - Pasco County Development Standards - CHAPTER 900

PROJECT: COSTCO - WESLEY CHAPEL, FLORIDA TOTAL SITE AREA: 84,467 sq. ft. (1.94 Acres)

INTERNAL LANDSCAPE AREA REQUIREMENT
 TOTAL VEHICLE USE AREA = 56,445 SF
 INTERNAL LANDSCAPE AREA REQUIRED = 5,645 SF (10%)
 INTERNAL LANDSCAPE AREA PROVIDED = 5,674.18 SF (10.1%)

VEHICLE USE AREA LANDSCAPING
 TOTAL PARKING ISLANDS (INCL. TERMINAL ISLANDS) = 23 TREE ISLANDS
 SHADE TREES IN PARKING ISLANDS REQUIRED = 23 TREES
 SHADE TREES IN PARKING ISLANDS PROVIDED = 23 TREES

INTERNAL LANDSCAPE AREA TREE REQUIREMENT
 5,645 SF @ (1) TREE PER 200 SF = 29 TREES REQUIRED
 = 29 TREES PROVIDED

Δ = INTERNAL LANDSCAPE TREES
 NOTES:
 1) LANDSCAPE AREAS ON THE PARKING AREA PERIMETER OR IN THE INTERNAL ISLANDS MUST EQUAL OR EXCEED A MINIMUM OF 10% OF THE TOTAL PAVED SURFACE AREA.
 2) (1) TREE MUST BE PLANTED OR RETAINED PER 200 SF OF INTERNAL PARKING AREA
 3) NO PARKING SPACE MAY BE MORE THAN 100 FEET FROM A TREE IN A PERMEABLE ISLAND, PENINSULA, OR MEDIAN OF 8-FT MIN. WIDTH

PERIMETER PLANTING AREA CALCULATIONS
 TOTAL BUILDING AREA = 7,752 SF +/-
 10% PERIMETER PLANTING AREA = 776 SF +/- (10%)
 BUILDING PERIMETER LANDSCAPE AREA TO BE PROVIDED: = 776 SF +/- (10%)
 BUILDING PERIMETER W/ LANDSCAPING: = 176.6 SF (50%)

BUILDING 1 LANDSCAPING
 BUILDING PERIMETER LANDSCAPE AREA TO BE PROVIDED: = 776 SF +/- (10%)
 BUILDING PERIMETER W/ LANDSCAPING: = 176.6 SF (50%)

PROVIDED:
 BUILDING PERIMETER LANDSCAPE AREA TO BE PROVIDED: = 2,081.3 SF +/- (26.8%)
 BUILDING PERIMETER W/ LANDSCAPING: = 192.04 SF (54.4%)

NATIVE SHRUB & GROUND COVER REQUIREMENT
 NOTES:
 1) PERIMETER LANDSCAPE AREAS MUST BE A MINIMUM OF 5' WIDE TO BE USED TO MEET THIS REQUIREMENT
 2) PERIMETER PLANTING AREA MUST BE A MINIMUM OF 50% OF BUILDING PERIMETER
 3) THE PLANTING AREA SHOULD BE "GROUND FLOOR AREA"
 4) PERIMETER PLANTING AREAS MUST EQUAL A MINIMUM OF 10% OF THE AREA OF THE BUILDINGS

OVERALL SITE: 30% SHRUBS & GROUND COVER ARE REQUIRED TO BE NATIVE
 1,916 OF 3,332 SHRUBS / GROUND COVER ARE NATIVE = 57.5%

GRASSED AREA
 OVERALL SITE: MAX. 30% OF REQUIRED LANDSCAPE AREA TO BE GRASS
 9.8% OF LANDSCAPE AREA IS GRASS TOTAL GREEN SPACE: 20,254 S.F.
 TOTAL SOD: 1,985 S.F.

PALM TREES:
 OVERALL SITE: PALMS MAY BE SUBSTITUTED FOR TREES UP TO 30% (@ 3 PALMS: 1 TREE) & (@ 1 PHOENIX PALM: 1 TREE)
 10 OF 81 TREE CREDITS ARE PALMS = 12.3% PALMS

TREES TO BE REPLACED:
 SEE TREE MITIGATION TABLE

LANDSCAPE BUFFER REQUIREMENT:
BUFFER 1
 BUFFER TO NORTH ALONG S.R.56: TYPE 'D'; TWENTY (20) FT WIDE. TREES ON AVG. 30' APART. MAX. 45 FT O.C. & (5) SHRUBS PER TREE, & A 18" BERM W/ A PLANTINGS A TOTAL OF MIN. 3' HT BETWEEN ROW & V 384.63 IF +/- @ (1) TREE PER 30 FT
 REQUIRED: 13 TREES
 PROVIDED: 15 TREES (EXISTING/RELOCATE ON SITE)

BUFFER 2
 BUFFER TO SOUTH ALONG CREEK GRASS WAY: TYPE 'A'; TEN (10) FT WIDE, TREES MAX. 60 FT O.C. & A CONTINUOUS ROW OF EVERGREEN SHRUBS A MIN. OF 18" IN HEIGHT AT INSTALLATION 335.31 IF +/- @ (1) TREE PER 30 FT
 REQUIRED: 7 TREES
 PROVIDED: 7 TREES

BUFFER 2
 BUFFER TO WEST ALONG GRAND CYPRESS DRIVE: TYPE 'A'; TEN (10) FT WIDE, TREES MAX. 60 FT O.C. & A CONTINUOUS ROW OF EVERGREEN SHRUBS A MIN. OF 18" IN HEIGHT AT INSTALLATION 195.3 IF +/- @ (1) TREE PER 30 FT
 REQUIRED: 4 TREES
 PROVIDED: 7 TREES

WATER MANAGEMENT REQUIREMENT:
 MINIMUM 5' PLANTING AREA TO BE MAINTAINED BETWEEN RETENTION POND & PUBLIC R.O.W OR ADJACENT PARCEL, (1) TREE / 50 LF
 NOT APPLICABLE

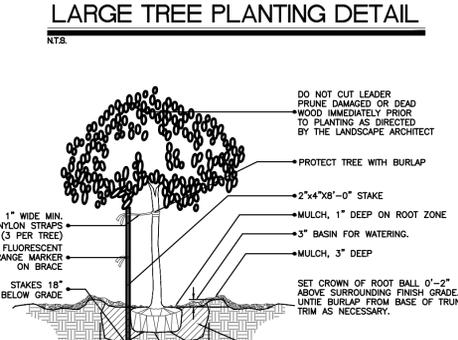
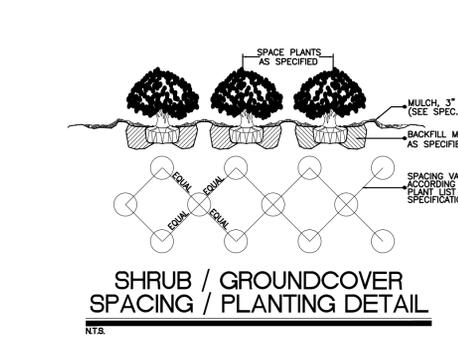
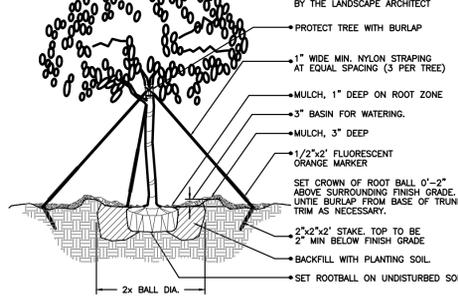
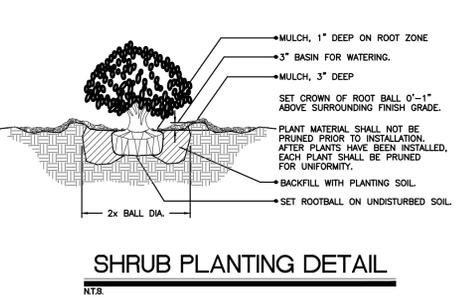
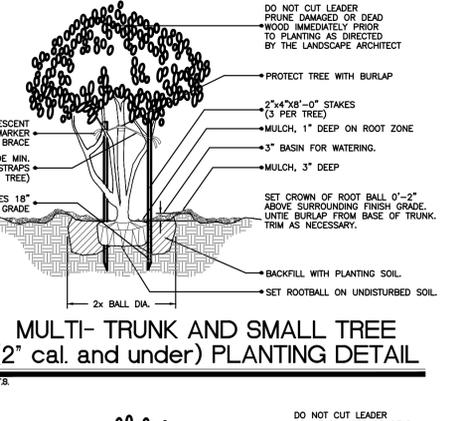
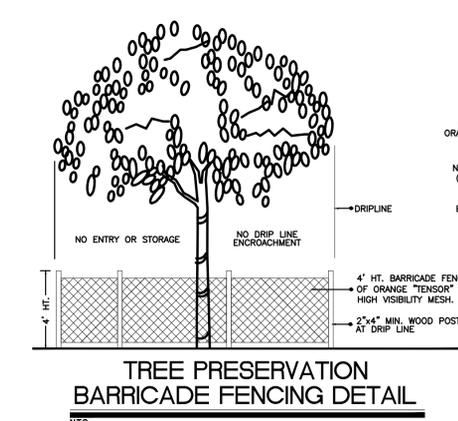
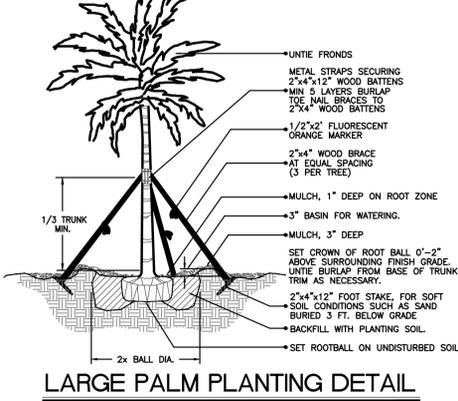
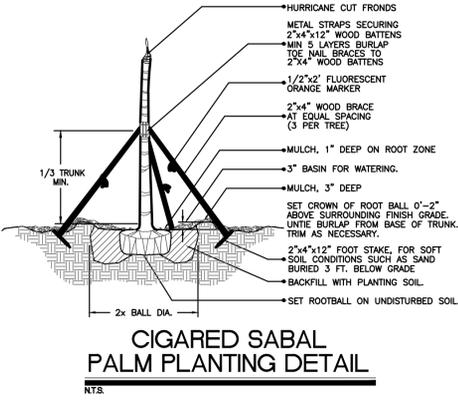
DROUGHT TOLERANT REQUIREMENT:
 OVERALL SITE: MAX. 50% PLANT MATERIAL OTHER THAN TREES ARE ALLOWED TO BE NON-DROUGHT TOLERANT
 0 OF 3,332 SHRUBS & GROUND COVER ARE NON-DROUGHT TOLERANT = 0%

NOTE: TABULATIONS INCLUDE (20) EXISTING/RELOCATED TREES
NOTE: ALL TREE & AREA CALCULATIONS INCLUDE ENTIRE SITE & LEASED PORTION

TOTAL INCHES OF REMOVAL (FOR 286.7 AC DRI)	TOTAL INCHES OF RESTAURANT REPLACEMENT REQUIRED (FOR 286.7 AC DRI)	TREES PROVIDED (REFER TO PLANT SCHEDULE FOR FULL SPECIFICATIONS)	TOTAL INCHES PROVIDED IN EXCESS OF CODE
0m - 10.271" Other = 8.119"	12.977"	CASSIA (TREES): 10 @ 3" = 10" GREEN BUTTWOOD (SHADE TREES): 8 @ 4" = 10" SILVER BUTTWOOD (TREES): 8 @ 4" = 10" DOODWOOD (SHADE TREES): 8 @ 4" = 10" ILEX (TREES): 8 @ 4" = 10"	88"

OWNER OF PROPERTY SHALL BE RESPONSIBLE FOR MAINTENANCE OF LANDSCAPING MATERIALS; REFER TO GENERAL NOTES ON SHEET L-3

ANY PLANT MATERIALS OF WHATSOEVER TYPE AND KIND REQUIRED BY THESE REGULATIONS SHALL BE REPLACED WITHIN THIRTY (30) DAYS OF THEIR DEMISE AND/OR REMOVAL.



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 1000 CORPORATE DR.
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REV	DATE	COMMENT	BY
1	12/01/2015	UTILITY COORDINATION	HR
2	12/31/2015	PER PASCO COUNTY COMMENTS	RJK

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 DRAWN BY: RJK
 CHECKED BY: MDG
 DATE: 10/07/2015
 SCALE: AS NOTED
 CAD I.D.: FT150034-LANDSCAPE

FOR
BJ'S CYPRESS CREEK TOWN CENTER
RESTAURANT BREWHOUSE
 WESLEY CHAPEL PASCO COUNTY, FL

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 January 8, 2016
 FLORIDA BUSINESS CERT. OF AUTH. NO. 27528

SHEET TITLE:
LANDSCAPE NOTES & DETAILS
 SHEET NUMBER:
L-2
 OF

LANDSCAPE GENERAL 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 PLANTING AREAS OF THIS CONTRACT UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER.

B. PROTECTION OF EXISTING STRUCTURES

1. ALL EXISTING BUILDINGS, WALKS, WALLS, PAVING, PIPING, AND OTHER ITEMS OF CONSTRUCTION AND PLANTING ALREADY COMPLETED OR ESTABLISHED SHALL BE PROTECTED FROM DAMAGE BY THIS CONTRACTOR. UNLESS OTHERWISE SPECIFIED, ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.

C. PROTECTION OF EXISTING PLANT MATERIALS OUTSIDE LIMIT OF WORK

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS, EXISTING OR OTHERWISE, CAUSED BY CARELESS OPERATION OF EQUIPMENT, STOCKPILING OF MATERIALS, ETC. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIP—LINE OR THE SPILLING OF OIL, GASOLINE, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIP—LINE.

2. NO MATERIALS SHALL BE BURNED WHERE THE HEAT WILL DAMAGE ANY PLANT. TREES KILLED OR DAMAGED SO THAT THEY ARE MISAPPEARING AND/OR UNUSUALLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF ONE HUNDRED DOLLARS (\$100) PER CALIBER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY PERCENT (20%) PER INCH OVER FOUR INCHES (4") CALIBER AND AGREED LIQUIDATED DAMAGES, OR AS MAY BE REQUIRED BY THE REGULATING GOVERNMENT AGENCY, WHICHEVER IS GREATER. CALIPER SHALL BE MEASURED AT BREAST HEIGHT OR FOUR FEET (4') ABOVE SURROUNDING GROUND.

D. MATERIALS

1. SUBMITTALS: GENERAL SAMPLES OF PLANTING MATERIALS AS LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL, ON THE SITE OR AS OTHERWISE DETERMINED BY THE OWNER, UPON APPROVAL OF SAMPLES, DELIVERY OF MATERIALS MAY BEGIN.

MATERIALS SAMPLE SUBMITTALS

MULCH ONE (1) CUBIC FOOT

TOPSOIL ONE (1) REPRESENTATIVE SAMPLE OF EACH VARIETY

2. PLANT MATERIALS
a) GENERAL PLANT SPECIES AND SIZE SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS. NOMENCLATURE SHALL CONFORM TO STANDARDIZED PLANT NAMES. IN ADDITION, ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS' PARTS I AND II, LATEST EDITION PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. ALL PLANTS SHALL BE FLORETTED, 1) AS AN ABSOLUTE MINIMUM UNLESS OTHERWISE SUPERCEDED BY A FLORIDA FANCY DESIGNATION, AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY, ALL PLANTS SHALL BE FRESHLY DUG, SOUND, UNWOUND, WELL-BRANCHED AND FREE FROM DISEASE, INSECTS, AND INSECT EGGS AND LARVAE, AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES FOR PLANTING IN ROWS SHALL BE HAND TRIMMED AND PRUNED TO MEET THE PLANT LIST. 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 UPON THE APPROVAL OF THE OWNER.

b) MEASUREMENTS: THE HEIGHT AND/OR WIDTH OF TREES SHALL BE MEASURED FROM THE TOP OF ROOTBALL (TRUNK FLARE) AND/OR ACROSS THE AVERAGE 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. COLOR, QUALITY, SIZE, AND VARIETY OF PLANTS SHALL NOT BE SUPERCEDED BY THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF BALLS OR ROOTS, LATENT DEFECTS OR INJURIES, PRESENCE OF INSECTS, AND OTHER CONDITIONS THAT MAY HAVE OCCURRED SINCE THE NURSERY INSPECTION. ALL PLANTS AND MATERIALS TO BE SUBMITTED FOR APPROVAL. REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE.

d) AMENDED PLANTING SOIL: PLANTING SOIL FOR USE IN BACK FILLING PLANTING HOLES SHALL BE FORTY PERCENT (40%) TOPSOIL AND SIXTY PERCENT (60%) SAND AND BE FERTILE, FRAGILE, AND OF A LOW VISCOSITY. THIS RESTRICTION SHALL APPLY TO SUBSOIL MATERIALS, AND OBTAINED FROM A WELL-DRAINED, ARABLE SITE. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT DECOMPOSED ORGANIC MATTER AND SHALL BE FREE FROM HEAVY CLAY, LIME, STONES, LIMBS, AND OTHER PLANTS' ROOTS OR OTHER FOREIGN MATERIALS, OR NOXIOUS WEEDS. IT SHALL NOT CONTAIN TOXIC SUBSTANCES WHICH WOULD BE HARMFUL TO PLANT GROWTH. PH RANGE SHALL BE 5.0 TO 7.0 INCLUSIVE.

e) SAND SHALL BE CLEAN, WELL DRAINING NATIVE SAND. IF REQUESTED, CONTRACTOR SHALL AT ANY TIME AND AT NO COST TO OWNER SUBMIT RESULTS OF SOIL TESTS FOR TOPSOIL AND SAND PROPOSED FOR USE UNDER THIS CONTRACT FOR APPROVAL BY OWNER.

E. WATER

1. WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN AN ADEQUATE LEVEL OF PLANTS 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 SUCH SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER.

F. COMMERCIAL FERTILIZER

1. COMMERCIAL FERTILIZER SHALL BE A COMPLETE FORMULA. IT SHALL BE UNIFORM IN COMPOSITION, DRY AND FREE FLOWING. THIS FERTILIZER SHALL BE DELIVERED TO THE SITE IN THE ORIGINAL UNOPENED CONTAINERS, EACH BEARING THE MANUFACTURER'S GUARANTEED STATEMENT OF ANALYSIS.

FIFTY PERCENT (50%) OF THE NITROGEN SHALL BE DELIVERED FROM NATURAL ORGANIC SOURCES. THE FOLLOWING FERTILIZERS SHALL BE USED AND APPLIED AT RATES AS SUGGESTED BY MANUFACTURER'S SPECIFICATIONS.

1. SHRUBS AND TREES — MILORGANITE, OR APPROVED EQUAL
2. ANNUALS AND GROUNDCOVERS — OSMOCOTE/SIERRA BLEND 14—14—14
3. SOD — 8—8—8

IN ADDITION TO SURFACE APPLIED FERTILIZERS, ALL CONTAINER GROWN AND FIELD GROWN PLANT MATERIAL SHALL RECEIVE "AGRIFORM" PLANTING TABLETS 24—10—5 FORMULA, 21 GRAM OR EQUAL. THESE TABLETS SHALL BE PLACED AT THE RATE AND DEPTH SPECIFIED BY MANUFACTURER.

G. MULCH

1. MULCH SHALL BE FROM SHREDDED WOOD DERIVED FROM MELALEUCA OR OTHER INVASIVE TREE SPECIES AND SHALL BE TREATED TO EFFECTIVELY ELIMINATE ALL SEEDS, SPORES, ETC. AND RENDER THEM BARREN.

2. MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT, AND APPLIED AT A DEPTH OF THREE INCHES (3").

3. MULCH SHALL BE GRADED 'B' SHREDDED, AND SHALL BE APPLIED EVENLY AND SMOOTH TO PLANTED AREAS.

4. NO RED OR COLORED MULCH SHALL BE ACCEPTED UNLESS SPECIFIED ACCORDINGLY. NO CYPRESS MULCH SHALL BE USED.

H. DIGGING AND HANDLING

1. PROTECT ROOT SYSTEMS OR ROOTBALLS OF PLANTS AT ALL TIMES FROM SUN AND DRYING WINDS. WATER EROSION, AND OTHER HARMFUL CRITERIA AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY COVERED TO PREVENT BREAKING AND DRYING OUT DURING LOADING, TRANSIT, AND UNLOADING/PLANTING. 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

ANTI-TRANSPIRANT PRODUCT ("WILT-PRO" OR EQUAL) TO MINIMIZE TRANSPIRATIONAL WATER LOSS.

2. BALLED AND BURLAPPED PLANTS (BBB) SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBRILS AND FEEDING ROOTS OF THE PLANTS, AND IN ACCORDANCE WITH "GRADES AND STANDARDS FOR NURSERY PLANTS" FLORIDA PUBLICATION. NO PLANT WITH A ROOTBALL SHALL BE PLANTED IF THE BALL IS CRACKED OR BROKEN OR BURLAP IS DAMAGED OR BURLED-OR CONTAINER GROWN SHALL NOT BE HANDLED BY STEMS.

3. PLANTS MARKED "BR" IN THE PLANT LIST SHALL BE DUG WITH BARE ROOTS. THE ROOTS SHALL NOT BE CUT WITHIN THE MINIMUM SPREAD SPECIFIED IN THE PLANT LIST. CARE SHALL BE EXERCISED THAT THE ROOTS DO NOT DRY OUT IN MOVING 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 BY "GRADES AND STANDARDS FOR NURSERY PLANTS" FLORIDA PUBLICATION. UNLESS OTHERWISE SPECIFIED, MINIMAL PRUNING OF FRONDS, PRIMARILY TO REACH A "CLEAR TRUNK" SPECIFICATION, MAY CONSTITUTE REJECTION. OR ALL PALMS SUBJECT TO SUCH PRACTICE, LINESIDE OR "SHAVING" OF ROOTBALLS TO MEET "CLEAR TRUNK" CRITERIA MAY CONSTITUTE REJECTION ON SITE. ALL PALMS SHALL BE BRACED PER PALM PLANTING DETAIL ON THE PLANTING DETAILS SHEET.

5. EXCAVATION OF PLANTING HOLES SHALL BE DONE USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS, FOOTERS, AND PREPARED SUB—BASES.

I. CONTAINER GROWN STOCK

1. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL—ROOTED PLANTS AND 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, AND SHALL MEET MINIMUM SPECIFICATIONS IN THE PLANT LIST.

2. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUPERVENING LONG FOR NEW FIBRILS ROOTS TO BE 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 SHALL NOT BE ACCEPTABLE.

4. SUBSTITUTION OF NON—CONTAINER GROWN MATERIAL FOR MATERIAL EXPLICITLY SPECIFIED TO BE CONTAINER GROWN WILL NEED AUTHORIZATION FROM THE OWNER.

J. COLLECTED STOCK

1. WHEN THE USE OF COLLECTED STOCK IS PERMITTED AS INDICATED ON THE PLANT LIST SCHEDULE, THE MINIMUM SIZES OF ROOT BALLS SHALL BE EQUAL TO THAT SPECIFIED FOR THE NEXT LARGER SIZE OF NURSERY GROWN STOCK OF THE SAME VARIETY.

K. NATIVE STOCK

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

L. MATERIALS LIST

1. QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN A BIDDER'S TAKE OFF AND THE PLANT LIST QUANTITIES, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO THE SUBMISSION OF BIDS. DRAWINGS SHALL TAKE PRECEDENCE. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE.

M. 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. BERMS AS SHOWN ON THE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE 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 MULCH DEPTH. THIS CONTRACTOR SHALL FINE GRADE BY HAND AND/OR WITH ALL EQUIPMENT NECESSARY TO FINE GRADE CONTRACTOR WITH FRONT—END LOADER FOR TRANSPORTING SOIL WITHIN THE SITE.

3. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER. AREAS ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS.

N. PLANTING PROCEDURES

1. CLEANING UP BEFORE COMPLETION WORK: THE CONTRACTOR SHALL CLEAN UP WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBSCURABLE MATTER, ALL MORTAR, CEMENT, AND TOXIC MATERIALS. SHALL BE REMOVED FROM THE SITE. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH SOIL CONDITIONS BENEATH THE SOIL WHICH WILL IN ANY WAY AFFECT THE VIABILITY OF THE PLANTS TO BE INSTALLED, HE/SHE SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNER'S CONSTRUCTION MANAGER OR DESIGNEE.

2. VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS LINES AND TANKS, WATER, SANITARY SEWER, STORM WATER LINES, CABLE AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES.

3. SUBGRADE EXCAVATION: CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED LIMEROCK AND LIMEROCK SUB—BASE FROM ALL PLANTING AREAS. PLANTING AREAS TO MINIMUM DEPTH OF APPROXIMATELY 20% GREATER THAN RECOMMENDED PLANTING SOIL DEPTH. 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 CONDITIONS OCCUR IN PLANTED AREAS AFTER DEEP EXCAVATION BY CONTRACTOR, AND POSITIVE DRAINAGE CAN NOT BE ACHIEVED, CONTRACTOR SHALL UTILIZE PLANTING DETAIL THAT ADDRESSES POOR DRAINAGE OR CONTACT OWNER'S CONSTRUCTION MANAGER OR DESIGNEE FOR RESOLUTION.

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 FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. CONFORM TO ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE. PLANTS SHALL BE PROTECTED UPON ARRIVAL AT THE SITE BY BEING THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS SHALL NOT REMAIN UNPROTECTED FOR A PERIOD EXCEEDING TWENTY—FOUR (24) HOURS. AT ALL TIMES WORKMANLIKE METHODS CUSTOMARY IN GOOD HORTICULTURAL PRACTICES SHALL BE EXERCISED.

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

7. ALL PLANTING HOLES SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH THE USA STANDARD TO NURSERY STOCK 280.1, UNLESS SHOWN OTHERWISE ON THE DRAWINGS, AND BACKFILLED WITH THE PREPARED PLANTING SOIL AS SPECIFIED HEREIN BEFORE (SEE MATERIALS SECTION 2) TEST ALL TREE TITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE. PERCOLATION IS AVAILABLE. NO ALLOWANCE WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER DRAINAGE. IF POOR DRAINAGE EXISTS, UTILIZE PLANTING DETAIL THAT ADDRESSES THIS CONDITION. TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLUSHED INTO PLACE WITH A SLOW, FULL HOSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURE AND UNDER THE SUPERVISION OF A QUALIFIED PLANTING FORMAL. PROPER JETTING IN SHALL BE ASSURED TO ELIMINATE AIR POCKETS AROUND THE ROOTS. SET STOCK OR EQUAL, AS RECOMMENDED.

8. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS, CURBS, PAVING, AND OTHER HARDSCAPE MATERIALS WHILE INSTALLING TREES.

9. SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION (I) MATERIALS) OF THESE SPECIFICATIONS. IN ADDITION, EACH PLANTING HOLE SHALL RECEIVE 21—GRAM "AGRIFORM" PLANTING TABLETS PER MANUFACTURER'S SPECIFICATIONS OR AS FOLLOWS:
— TWO (2) TABLETS PER 1 GAL. PLANT
— THREE (3) TABLETS PER 3 GAL. PLANT
— FOUR (4) TABLETS PER 10 GAL. PLANT
— LARGER MATERIAL

— TWO (2) TABLETS PER HALF INCH (1/2") OF TRUNK CALIPER

10. TREES AND SHRUBS SHALL BE SET STRAIGHT AND AT SUCH A LEVEL THAT AFTER SETTLEMENT, THE TOP OF THE ROOT SYSTEM (FOR SHRUBS AND GROUNDCOVER) OR OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBRILS AND FEEDING ROOTS OF THE PLANTS, AND IN ACCORDANCE WITH "GRADES AND STANDARDS FOR NURSERY PLANTS" FLORIDA PUBLICATION, SHALL BE SET IN THE CENTER OF THE PLANTING HOLE. PLANTING SOIL MIXTURE SHALL BE BACKFILLED AND THOROUGHLY TAMPED AROUND THE BALL AND SHALL BE SETTLED BY WATER AFTER TAMPING.

11. 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, TURNING SOIL IF NECESSARY TO GET SOIL THOROUGHLY WET. PACK LIGHTLY WITH FEET OR OTHER TAMING DEVICE. ADD MORE SOIL MIXTURE. DO NOT COVER TOP OF BALL WITH SOIL MIXTURE, ONLY WITH MULCH. ALL BURLAP, ROPE, WIRES, ETC., SHALL BE PULLED FROM UNDERNEATH.

12. PRUNING: FOR DAMAGED OR BROKEN LIMBS, EACH TREE SHALL BE PRUNED TO PRESERVE THE NATURAL CHARACTER. OF THE SPECIES. ALL SUCKER GROWTH SHALL BE REMOVED PRIOR TO PLANTING. PRUNING SHOULD BE DONE PRIOR TO PLANTING.

13. SHRUBS AND GROUNDCOVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED IN THE PLANT LIST. CULTIVATE ALL MASS PLANTING AREAS TO A MINIMUM DEPTH OF 6". REMOVE AND DISPOSED ALL DEBRIS, TILL 4" OF PLANTING SOIL MIX INTO THE NEWLY FILLED PLANTING BED FOR GENERAL NUTRIENT DISBURSEMENT. MASS PLANTING BED IS NOW READY TO RECEIVE HOLES FOR NEW PLANTS. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.

14. TREE GUYING AND BRACING SHALL BE INSTALLED BY THE LANDSCAPE CONTRACTOR IN ACCORDANCE WITH THE PLANS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. TREES SHALL USE ARBORLITE AS PER DETAIL SHEET. PALMS SHALL USE WOOD BRACING PER DETAIL SHEET.

15. MULCHING: PROVIDE A THREE INCH (3") MINIMUM LAYER OF SPECIFIED MULCH OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUNDCOVER AND VINE BED, AND TREE PIT FOR TREES AND PALMS. MIN. THREE INCH (3") FROM EDGE OF TRUNKS) — UNLESS OTHER REQUIRED BY LOCAL CODES AND SPECIFIED AS SUCH.

16. SYSTEMIC HERBICIDE WEED CONTROL: ALL PLANT BEDS SHALL BE KEPT FREE OF NOXIOUS WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER OR THEIR DESIGNEE, A SYSTEMIC HERBICIDE SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL, NOT AT PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S PRECAUTIONS AND SPECIFICATIONS. AFTER MULCH HAS BEEN APPLIED TO PLANTING BEDS AND TREE RINGS, TREAT ALL MULCHED AREAS WITH AN APPROVED PRE—EMERGENT HERBICIDE AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER.

O. LAWN SODDING

STANDARD SPECIFICATION V. LAWN BEDS OTHERWISE NOTED. (SEE AUGUSTINE SOD 50)

1. THE WORK CONSISTS OF FLOTTED BED PREPARATION, SOIL PREPARATION, AND SODDING.

COMPLETE IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A GRASS LAWN ACCEPTABLE TO THE OWNER AND GOVERNING AGENCIES.

2. PREPARATION: ALL AREAS THAT ARE TO BE SODDED SHALL BE CLEARED OF ANY ROUGH GRASS, WEEDS, AND DEBRIS, AND THE SOIL BROUGHT TO AN EVEN PREPARED GRADE TO ALLOW FOR SOIL PREPARATION BELOW.

3. SOIL PREPARATION: PREPARE LOOSE BED FOUR INCHES (4") DEEP. APPLY FERTILIZER AT A RATE OF TWENTY (20) POUNDS PER ONE THOUSAND (1000) SQUARE FEET. FERTILIZER SHALL BE UNIFORM. UTILIZE COMMERCIAL BROADCAST SPREADERS. MIX FERTILIZER THOROUGHLY WITH THE SOIL TO A DEPTH OF THREE INCH (3") HAND RAKE UNTIL ALL BULMS AND DEPRESSIONS ARE REMOVED. WET PREPARED AREA THOROUGHLY TO PREPARE FOR SOD INSTALLATION.

4. SODDING: THE CONTRACTOR SHALL SOD ALL PERVIOUS AREAS THAT ARE NOT PAVED OR PLANTED AS DESIGNATED ON THE DRAWINGS WITHIN THE CONTRACT LIMITS TO CREATE A UNIFORM, NEW TURF BLANKET FOR THE SITE.

5. THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETY TYPE, AND FREE FROM WEEDS, FUNGUS, INSECTS, AND DISEASE. SOIL ROLLERS SHALL BE USED TO TIGHTLY TOGETHER TO MAKE A SOLID, SODDED LAWN AREA.

b) SOD SHALL BE LAID IN ROWS, WITH EVERY OTHER ROW STAGGERED HALFWAY BETWEEN THE NEXT TO INSURE NO CONTINUOUS STACKED JOINTS. SEAM JOINTS OF SOD TO INSURE A TIGHT FIT AT JOINTS.

c) SOD SHALL BE LAID UNIFORMLY AGAINST THE EDGES OF ALL CURBS AND OTHER HARDSCAPE ELEMENTS. PAVED AND PLANTED ADJACENT TO BUILDINGS, A FOUR INCH (4") MULCH STRIP SHALL BE PROVIDED. IMMEDIATELY FOLLOWING SOD LAYING, THE LAWN AREAS SHALL BE ROLLED WITH A LAWN ROLLER.

CUSTOMER. USE OF SUCH ROLLERS AND THEN THOROUGHLY IRRIGATED TO THOROUGHLY MOISTEN THE SOIL BENEATH. IF, IN THE OPINION OF THE OWNER, THE ROLLING AND WATERING ATTENTION IS NOT SUFFICIENT TO FILL THE VOIDS BETWEEN THE SOD PANELS AND TO EVEN OUT INCONSISTENCIES IN THE SOD, CLEAN SAND AS APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER SHALL BE UNIFORMLY SPREAD OVER THE ENTIRE SURFACE OF THE SOD AND THOROUGHLY WATERED IN.

6. 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 INSTALLED DURING THE DAY OF ITS ARRIVAL.

6. LAWN MAINTENANCE:

a) WITHIN THE SITE, THE CONTRACTOR SHALL PRODUCE A DENSE, WELL ESTABLISHED LAWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RE—SODDING OF ALL BARE, SUNKEN OR BARE SPOTS UNTIL CERTIFICATION OF ACCEPTABILITY BY OWNER OR AS IN THE ORIGINAL WORK SCOPE AND PROCESS (INCLUDING REGARDING, IF NECESSARY).

b) WATER EVERY DAY FOR FOURTEEN (14) SUCCESSIVE DAYS, THEN WATER THREE (3) TIMES PER WEEK AT EVEN INTERVALS UNTIL FULLY ESTABLISHED OR UNTIL AUTOMATIC IRRIGATION SYSTEM IS FULLY OPERATIONAL AND PROGRAMMED ACCORDINGLY. COORDINATE WATERING SCHEDULE WITH NATURAL RAINFALL. RAINFALL EVENTS IN DURATION OF TWENTY (20) MINUTES OR MORE THAT PRODUCE MORE THAN A HALF INCH (1/2") OF PRECIPITATION WILL NEGATE THE NEED FOR WATERING THE FOLLOWING DAY IF PREVIOUSLY SCHEDULED. ALL WATERING SHALL BE OF SUFFICIENT QUANTITY TO WET OR RESTORE WATER TO A DEPTH OF FOUR INCHES (4").

P. CLEANUP

1. 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.

Q. PLANT MATERIAL MAINTENANCE

1. ALL PLANTS AND PLANTING MATERIALS 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 CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER OR OWNER'S DESIGNEE. 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 NINETY (90) CALENDAR DAYS COMMENCING AFTER ACCEPTANCE (SEE NEXT SECTION).

R. MAINTENANCE (ALTERNATE BID ITEM)

1. CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE FOR LANDSCAPE AND IRRIGATION MAINTENANCE FOLLOWING THE INITIAL 90—DAY MAINTENANCE PERIOD ON A COST PER MONTH BASIS.

S. GUARANTEE

1. THE LIFE AND SATISFACTORY CONDITION OF ALL PLANT MATERIAL INSTALLED BY THE CONTRACTOR SHALL BE GUARANTEED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE OWNER OR OWNER'S DESIGNEE.

2. THE LIFE AND SATISFACTORY CONDITION OF ALL SOD INSTALLED BY THE CONTRACTOR SHALL BE GUARANTEED BY THE CONTRACTOR FOR A MINIMUM OF NINETY (90) CALENDAR DAYS, COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE OWNERS OR OWNER'S DESIGNEE.

3. REPLACEMENT: ANY PLANT NOT IN A HEALTHY, THRIVING GROWING CONDITION SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOON AS WEATHER CONDITIONS PERMIT. SHOULD THE OWNER ELECT, TREES AND PALMS MAY BE GIVEN A PERIOD OF NINETY (90) DAYS BEFORE REMOVAL TO ALLOW THE CONTRACTOR TO RE—STRUCTURE THE TREE OR PALM IN QUESTION AND BRING IT TO A THRIVING, HEALTHY CONDITION. ALL REPLACEMENTS SHALL BE PLANTS OF LIKE KIND, CONDITION AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED, PLANTED, AND MULCHED AS SPECIFIED WITHIN THESE SPECIFICATIONS. AT NO ADDITIONAL COST TO THE OWNER, ANY REPAIRS FROM THIS REPLACEMENT MATERIAL, SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY. REPLACEMENT MATERIAL SHALL BE GUARANTEED TO A ONE (1) YEAR PERIOD FROM THE DAY OF REPLACEMENT.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY PLANT MATERIAL THAT THE OWNER SHOULD REPLACE. REPLACEMENT MATERIAL SHALL BE GUARANTEED TO A ONE (1) YEAR PERIOD FROM THE DAY OF REPLACEMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY PLANT MATERIAL THAT THE OWNER SHOULD REPLACE. REPLACEMENT MATERIAL SHALL BE GUARANTEED TO A ONE (1) YEAR PERIOD FROM THE DAY OF REPLACEMENT.

MATERIALS, AT A RATE OF THE ORIGINAL CONTRACT BID RATE, IN LIEU OF AN ADDITIONAL REPLACEMENT.

4. IN THE EVENT THE OWNER ELECTS NOT TO CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE (AND IRRIGATION) MAINTENANCE, THE CONTRACTOR IS ENCOURAGED TO VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE (1) YEAR WARRANTY PERIOD TO EVALUATE MAINTENANCE PROCEDURES BEING PERFORMED BY THE OWNER OR THEIR DESIGNEE, AND SHALL NOTIFY THE OWNER IN WRITING OF MAINTENANCE PROCEDURES OR CONDITIONS WHICH THREATEN VIGOROUS AND HEALTHY PLANT GROWTH OF ITEMS UNDER REPLACEMENT WARRANTY. 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.

T. FINAL INSPECTION AND ACCEPTANCE OF WORK

1. FINAL INSPECTION BY OWNER OR THEIR DESIGNEE AT THE END OF THE GUARANTEE PERIOD SHALL INCLUDE PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY PLANTS NOT MEETING THE CRITERIA OF HEALTHY, VIGOROUS, AND THRIVING AT THIS TIME, AND THAT HAVE NOT ALREADY BEEN REPLACED PREVIOUSLY UNDER SAID WARRANTY, SHALL BE SUBJECT TO THE SAME ONE (1) YEAR GUARANTEE (OR AS SPECIFIED BY THE OWNER IN WRITING) BEGINNING WITH THE TIME OF RE—ACCEPTANCE AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.

U. GRADING & DRAINAGE NOTES

1. PRIOR TO COMMENCING ANY EXCAVATION WORK, THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN ACCORDANCE WITH THE "DIG SAFE" NOTIFICATION PROCEDURES PROMOTED BY THE RESPECTIVE UTILITY COMPANIES IN FLORIDA, CALL FLORIDA SUNSHINE AT 811.

2. CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY INTO EXISTING, PROVIDING VERTICAL CURVES OR ROUNDINGS AT ALL TOP AND BOTTOM OF SLOPES.

3. FITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST FITCH TO DRAIN AT A MINIMUM OF ONE—EIGHTH INCH (1/8") PER FOOT. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE OWNER PRIOR TO CONTINUING WORK.

4. WHERE NEW PAVING OR EARTHWORK MEETS EXISTING PAVING OR EARTHWORK, SMOOTH, V. BLEND LINE AND GRADE OF EXISTING WITH NEW, WHERE EXISTING VEGETATION IS TO REMAIN, MEET EXISTING GRASSES, DO NOT FILL ABOVE BASKAL FLOOR OF EXISTING TREES.

V. UTILITY PLAN NOTES

1. CONTRACTOR SHALL INSTALL SCHEDULE 40 PVC CONDUIT (SLEEVES) FOR ALL IRRIGATION PIPING UNDER ALL PAVEMENT AREAS TO CONNECT ALL LANDSCAPE AREAS.

W. SITE PREPARATION

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL MEET THE OWNER AND IDENTIFY TREES AND SHRUBS WHICH ARE TO BE PROTECTED AS WELL AS THOSE WHICH ARE TO BE REMOVED. DO NOT REMOVE WITHOUT A CLEAR UNDERSTANDING OF EXISTING CONDITIONS TO BE PRESERVED.

2. TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED BY THE INSTALLATION OF FENCING AT THE DRIP LINE OR AS DIRECTED BY THE OWNER (SEE LANDSCAPE DETAIL SHEET). PROTECTIVE FENCING SHALL BE INSTALLED PRIOR TO CONSTRUCTION. PROTECTIVE FENCING SHALL BE SUFFICIENT TO PREVENT CONSTRUCTION EQUIPMENT FROM COMPACTING SOIL AT THE ROOT ZONE AND DAMAGING TRUNKS AND BRANCHES.

3. IF, IN ORDER TO PERFORM EXCAVATION WORK, IT SHOULD BECOME NECESSARY TO CUT ROOTS OF PLANTS TO BE SAVED, SUCH ROOTS SHOULD BE CUT NEATLY WITH A SMOOTH CLEAN CUT BY A SHARP SAW, COVERED WITH BURLAP, AND KEPT MOIST UNTIL ROOTS ARE BAKED FRESH. TEARS OR JAGGED CUTS TO ROOTS ARE UNACCEPTABLE.

4. TREE AND SHRUB REMOVAL SHALL INCLUDE THE FILLING, CUTTING, GRUBBING OUT OF ENTIRE ROOT SYSTEMS AND SATISFACTORY OFF—SITE DISPOSAL OF ALL TREES, SHRUBS, STUMPS, VEGETATIVE AND EXTRANEOUS DEBRIS PRODUCED BY THE REMOVAL OPERATION.

5. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE INSIDE AND OUTSIDE THE LIMITS OF CONSTRUCTION DUE TO HIS CONTRACT OPERATIONS.

6. ALL REFUSE, DEBRIS, UNSUITABLE MATERIALS AND MISCELLANEOUS MATERIALS TO BE REMOVED SHALL BE LEGALLY DISPOSED OF OFF—SITE BY CONTRACTOR.

7. ALL INVASIVE EXOTIC VEGETATION SHALL BE DISPOSED OF OR TREATED AS PER THE LOCAL OR REGIONAL GOVERNING AUTHORITIES, REQUIREMENTS OR RECOMMENDATIONS.

X. ROOT CONTROL BARRIER

1. ROOT CONTROL PRODUCT SHALL BE A BIOLOGICAL BARRIER PRODUCT. PRODUCT SHALL BE 610—BARRIER ROOT CONTROL SYSTEM, AS MANUFACTURED BY BBA FIBERWEEDBARRIER, INC. AND DISTRIBUTED BY HORT ENTERPRISES, INC. HORT ENTERPRISES, INC. P.O. BOX 2448 POMPANO BEACH, FL 33061 1—800—966—4678

2. PRODUCT SHALL BE A BIOLOGICAL BARRIER UTILIZING LIME—RELEASE CAPSULES INTEGRATED INTO A GEOTEXTILE FABRIC. ACTIVE HERBICIDE SHALL BE TRIFLURALIN, AND MINIMUM TIME RELEASE OF EFFECTIVE PRODUCT SHALL BE 1—5 YEARS IN THE MOST ADVERSE CONDITIONS FOR SUCH A PRODUCT.

3. PRODUCT SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS FOR ROOT CONTROL SYSTEMS.

4. USE PRODUCT WHERE TREES ARE WITHIN EIGHT FEET (8') OR LESS OF HARDSCAPE SURFACES INCLUDING CURBS, SIDEWALKS, STEPS, AND ROADWAYS.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	Rain Bird 1806-PRS 15 Strip Series Turf Spray 6" pop up with pressure regulator.	5	30
	Rain Bird 1806-PRS 8 Series MPR Turf Spray 6" pop up with pressure regulator.	4	30
	Rain Bird 1806-PRS 15 Strip Series Turf Spray 6" pop up with pressure regulator.	82	30
	Rain Bird 1806-PRS 10 Series MPR Turf Spray 6" pop up with pressure regulator.	7	30
	Rain Bird 1806-PRS 12 Series MPR Turf Spray 6" pop up with pressure regulator.	4	30
	Rain Bird 1806-PRS 15 Series MPR Turf Spray 6" pop up with pressure regulator.	3	30
	Rain Bird 1806-PRS ADJ Turf Spray 6" pop up with pressure regulator.	1	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
	Rain Bird 3500-S Shrub Rotor, adjustable and full circle	5	25	1.06	23'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird MDCFCAP Dripline Flush Valve cap in compression fitting coupler.	7
	Rain Bird AR Valve Kit 1" Air Relief Valve kit with 6" drip valve box.	7
	Area to Receive Dripline Rain Bird XFD-P-06-18 (18) XFD On-Surface Pressure Compensating Landscape Dripline. 0.6GPH emitters at 18.0" O.C. Dripline laterals spaced at 18.0" apart, with emitters offset for triangular pattern. UV Resistant. Purple Tubing for Non-Potable Water.	24.5 s.f.
	Area to Receive Dripline Rain Bird XFD-P-06-18 (18) (2) XFD On-Surface Pressure Compensating Landscape Dripline. 0.6GPH emitters at 18.0" O.C. Dripline laterals spaced at 18.0" apart, with emitters offset for triangular pattern. UV Resistant. Purple Tubing for Non-Potable Water.	2,158 s.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PESBR-PRS-D 1", 1-1/2", and 2" Durable Chlorine-Resistant Valves for Reclaimed Water Applications. With Scrubber Mechanism Technology, Purple Flow Control Handle, and Pressure Regulator Module.	7
	Nibco P-619-RW 2" to 12" cast iron gate valve, same size as mainline pipe where located. Resilient wedge non-rising stem flow control with IPS push-on ends.	2
	Zurn 950XL 1" Double Check Valve Assembly	1
	Rain Bird ESP8LXMEF-LXMM with (01) ESPLXMSM4 12 Station Capable Commercial Controller. Mounted on a Powder-Coated Metal Cabinet. Flow Sensing and Water Management Capabilities.	1
	Rain Bird RSD-BEX Rain Sensor, with bracket, extension wire	1
	Water Meter 1-1/2" 3" Reclaim Water Line to New 1.5" Water Meter	1
	Irrigation Lateral Line: Polyethylene and PVC Class 160 Polyethylene SDR-7 up to 1-1/4, then PVC Class 160 SDR 26 for 1-1/2" and larger. Only lateral transition pipe sizes 1" and above are indicated on the plan, with all others being 3/4" in size.	2,420 l.f.
	Irrigation Mainline: Polyethylene and PVC Class 200	1,114 l.f.
	Pipe Sleeve: PVC Schedule 80 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of mainline or construction.	533.6 l.f.

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	WIRE	PSI	PSI @ POC	GPM	HEAD ELEV	VALVE ELEV	PRECIP
1	Rain Bird PESBR-PRS-D	1"	Area for Dripline	582.8	53.37	53.51	4.89	0.00 ft	0.00 ft	0.45 in/h
2	Rain Bird PESBR-PRS-D	1"	Area for Dripline	567.1	53.48	53.63	5.37	0.00 ft	0.00 ft	0.45 in/h
3	Rain Bird PESBR-PRS-D	1-1/2"	Turf Spray	403.2	33.76	37.03	32.08	0.00 ft	0.00 ft	0.59 in/h
4	Rain Bird PESBR-PRS-D	1-1/2"	Turf Spray	123.2	34.26	39.50	33.93	0.00 ft	0.00 ft	1.98 in/h
5	Rain Bird PESBR-PRS-D	1-1/2"	Turf Spray	123.2	34.02	39.08	34.80	0.00 ft	0.00 ft	1.51 in/h
6	Rain Bird PESBR-PRS-D	1-1/2"	Turf Spray	261.6	34.23	38.11	33.48	0.00 ft	0.00 ft	1.94 in/h
7	Rain Bird PESBR-PRS-D	1-1/2"	Turf Spray	386.7	34.36	37.37	32.74	0.00 ft	0.00 ft	1.57 in/h
	Common Wire			1,114						

WATERING SCHEDULE

NUMBER	MODEL	TYPE	PRECIP	IN/WEEK	MIN/WEEK	GAL/WEEK	GAL/DAY
1	Rain Bird PESBR-PRS-D	Area for Dripline	0.45 in/h	1	133	650.5	
2	Rain Bird PESBR-PRS-D	Area for Dripline	0.45 in/h	1	133	713.8	
3	Rain Bird PESBR-PRS-D	Turf Spray	0.59 in/h	1	102	3,272	
4	Rain Bird PESBR-PRS-D	Turf Spray	1.98 in/h	1	31	1,052	
5	Rain Bird PESBR-PRS-D	Turf Spray	1.51 in/h	1	40	1,392	
6	Rain Bird PESBR-PRS-D	Turf Spray	1.94 in/h	1	31	1,038	
7	Rain Bird PESBR-PRS-D	Turf Spray	1.57 in/h	1	39	1,277	
	TOTALS:				509	9,395	

CRITICAL ANALYSIS

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P.O.C. NUMBER: 01
Water Source Information: 3" Reclaim Water Line to New 1.5" Water Meter

FLOW AVAILABLE
Water Meter Size: 1-1/2"
Flow Available: 75.00 gpm

PRESSURE AVAILABLE
Static Pressure at POC: 65.00 psi
Elevation Change: 2.00 ft
Service Line Size: 3"
Length of Service Line: 20.00 ft
Pressure Available: 64.00 psi

DESIGN ANALYSIS
Maximum Station Flow: 34.80 gpm
Flow Available at POC: 75.00 gpm
Residual Flow Available: 40.20 gpm

Critical Station: 2
Design Pressure: 50.00 psi
Elevation Loss: 0.00 psi
Friction Loss: 0.56 psi
Fittings Loss: 0.01 psi
Loss through Valve: 2.90 psi
Pressure Req. at Critical Station: 53.48 psi
Loss for Fittings: 0.00 psi
Loss for Main Line: 0.05 psi
Loss for POC to Valve Elevation: 0.00 psi
Loss for Backflow: 5.50 psi
Loss for Water Meter: 0.10 psi
Critical Station Pressure at POC: 59.13 psi
Pressure Available: 64.00 psi
Residual Pressure Available: 4.87 psi

NOTE A:
POINTS OF CONNECTION SHALL BE FROM CITY EFFLUENT WATER SOURCE. ALL EQUIPMENT TO HAVE PURPLE CAPS, HANDLES, ETC. AND BE CLEARLY IDENTIFIED AS USING EFFLUENT WATER. VERIFY THE ACTUAL LOCATION, SIZE AND WATER PRESSURE IN THE FIELD PRIOR TO STARTING WORK. IF ANY OF THE POC INFORMATION SHOWN ON THESE DRAWING IS FOUND TO BE DIFFERENT THAN THE ACTUAL POC INFORMATION GATHERED IN THE FIELD, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT AND IRRIGATION CONSULTANT. SHOULD THE CONTRACTOR FAIL TO VERIFY THE POC INFORMATION ANY CHANGES REQUIRED BY LOW PRESSURE OR VOLUME SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

MINIMUM PRESSURE REQUIRED 34.02 PSI
DESIGN WATER PRESSURE 65 PSI
MAXIMUM SYSTEM DEMAND 34.80 GPM

NOTE B:
CONTROLLER IS AS SPECIFIED. CONTRACTOR TO VERIFY CONDITION AND FINAL LOCATION OF CONTROLLER AND ELECTRICAL POC SHALL BE CONFIRMED WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.

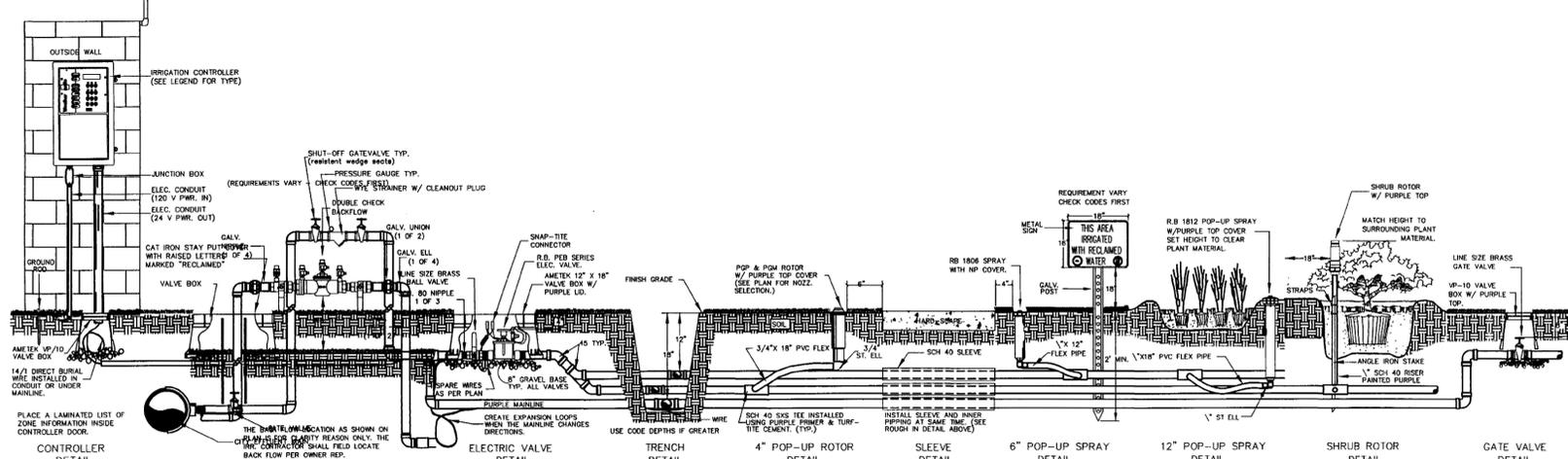
NOTE C:
MAINLINE AND RELATED EQUIPMENT SHOWN WITHIN PAVING FOR CLARITY ONLY, ACTUAL MAINLINE AND RELATED EQUIPMENT LOCATION TO BE WITHIN PLANTERS AND A MINIMUM OF 18" OFF ADJACENT HARDSCAPE AND OTHER OBSTACLES TYP.

NOTE D:
CONTRACTOR SHALL ADJUST ALL HEADS AS REQUIRED TO ACCOMMODATE ANY VERTICAL OBSTRUCTIONS THAT MAY OCCUR, INCLUDING BUT NOT LIMITED TO LIGHT POLES, FIRE HYDRANTS, ETC. VERIFY ALL HEAD LAYOUT WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.

NOTE E:
BUBBLERS AND LATERAL LINES ARE SHOWN WITHIN PAVING FOR CLARITY ONLY, ACTUAL LOCATION TO BE WITHIN PLANTER. BUBBLERS SHALL BE ALIGNED WITH TREES AND AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE. CONFIRM ALL LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.

IRRIGATION NOTES

- ALL LOCAL MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL OBTAIN THE PERTINENT ENGINEERING OR ARCHITECTURAL PLANS BEFORE BEGINNING WORK.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK.
- THIS DESIGN IS DIAGRAMMATIC. ALL EQUIPMENT SHOWN IN PAVED AREAS IS FOR DESIGN CLARITY ONLY AND IS TO BE INSTALLED WITHIN PLANTING AREAS.
- THE CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY EQUIPMENT AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN CONDITIONS EXIST THAT WERE NOT EVIDENT AT THE TIME THESE PLANS WERE PREPARED. ANY SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO ANY WORK OR THE IRRIGATION CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY FIELD CHANGES DEEMED NECESSARY BY THE OWNER.
- INSTALL ALL EQUIPMENT AS SHOWN IN THE DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH LOCAL CITY, COUNTY AND STATE REQUIREMENTS FOR BOTH EQUIPMENT AND INSTALLATION.
- ACTUAL LOCATION FOR THE INSTALLATION OF THE BACKFLOW PREVENTER AND THE AUTOMATIC CONTROLLER IS TO BE DETERMINED IN THE FIELD BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
- CONTRACTOR IS TO PROVIDE AN ADDITIONAL PILOT WIRE FROM CONTROLLER ALONG ENTIRETY OF MAIN LINE TO THE LAST RCV ON EACH AND EVERY LEG OF MAIN LINE. LABEL SPARE WIRES AT BOTH ENDS.
- ALL PIPE UNDER PAVED AREAS TO BE INSTALLED IN SLEEVING TWICE THE DIAMETER OF THE PIPE CARRIED. SEE LEGEND FOR TYPE. ALL WIRE UNDER PAVED AREAS TO BE INSTALLED IN A SCH. 40 SLEEVE THE SIZE REQUIRED TO EASILY PULL WIRE THROUGH. ALL SLEEVES TO BE INSTALLED WITH A MINIMUM DEPTH AS SHOWN ON THE SLEEVING DETAILS. SLEEVES TO EXTEND AT LEAST 12" PAST THE EDGE OF THE PAVING.
- ALL QUICK COUPLER AND REMOTE CONTROL VALVES TO BE INSTALLED IN SHRUB OR GROUND COVER AREAS WHERE POSSIBLE. ALL QUICK COUPLER AND REMOTE CONTROL VALVES TO BE INSTALLED AS SHOWN ON THE INSTALLATION DETAILS. INSTALL ALL QUICK COUPLER AND REMOTE CONTROL VALVES WITHIN 18" OF HARDSCAPE.
- ALL HEADS ARE TO BE INSTALLED WITH THE NOZZLE, SCREEN AND ARCS SHOWN ON THE PLANS. ALL HEADS ARE TO BE ADJUSTED TO PREVENT OVERSPRAY ONTO BUILDINGS, WALLS, FENCES AND HARDSCAPE. THIS INCLUDES, BUT NOT LIMITED TO, ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW, REPLACEMENT OF PRESSURE COMPENSATING SCREENS, REPLACEMENT OF NOZZLES WITH MORE APPROPRIATE RADIUS UNITS AND THE REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNITS.
- THE CONTRACTOR SHALL USE PROPER GROUNDING TECHNIQUES FOR GROUNDING THE CONTROLLER AND RELATED EQUIPMENT PER MANUFACTURERS SPECIFICATIONS. THOMAS ENGINEERING GROUP RECOMMENDS MEASURING FOR PROPER GROUND AT LEAST ONCE ANNUALLY, AND NECESSARY ADJUSTMENTS MADE TO COMPLY WITH MANUFACTURER SPECIFICATIONS.
- CONTRACTOR TO RECERTIFY EXISTING PUMP AND PVB IF APPLICABLE.



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REVISIONS			
REV	DATE	COMMENT	BY
1	12/01/2015	UTILITY COORDINATION	HR
2	12/31/2015	PER PASCO COUNTY COMMENTS	RJK

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PROJECT No.: FT150034
 DRAWN BY: RJK
 CHECKED BY: MDG
 DATE: 10/07/2015
 SCALE: AS NOTED
 CAD I.D.: FT150034-IRRIGATION

PROJECT:
BJ'S CYPRESS CREEK TOWN CENTER
 FOR

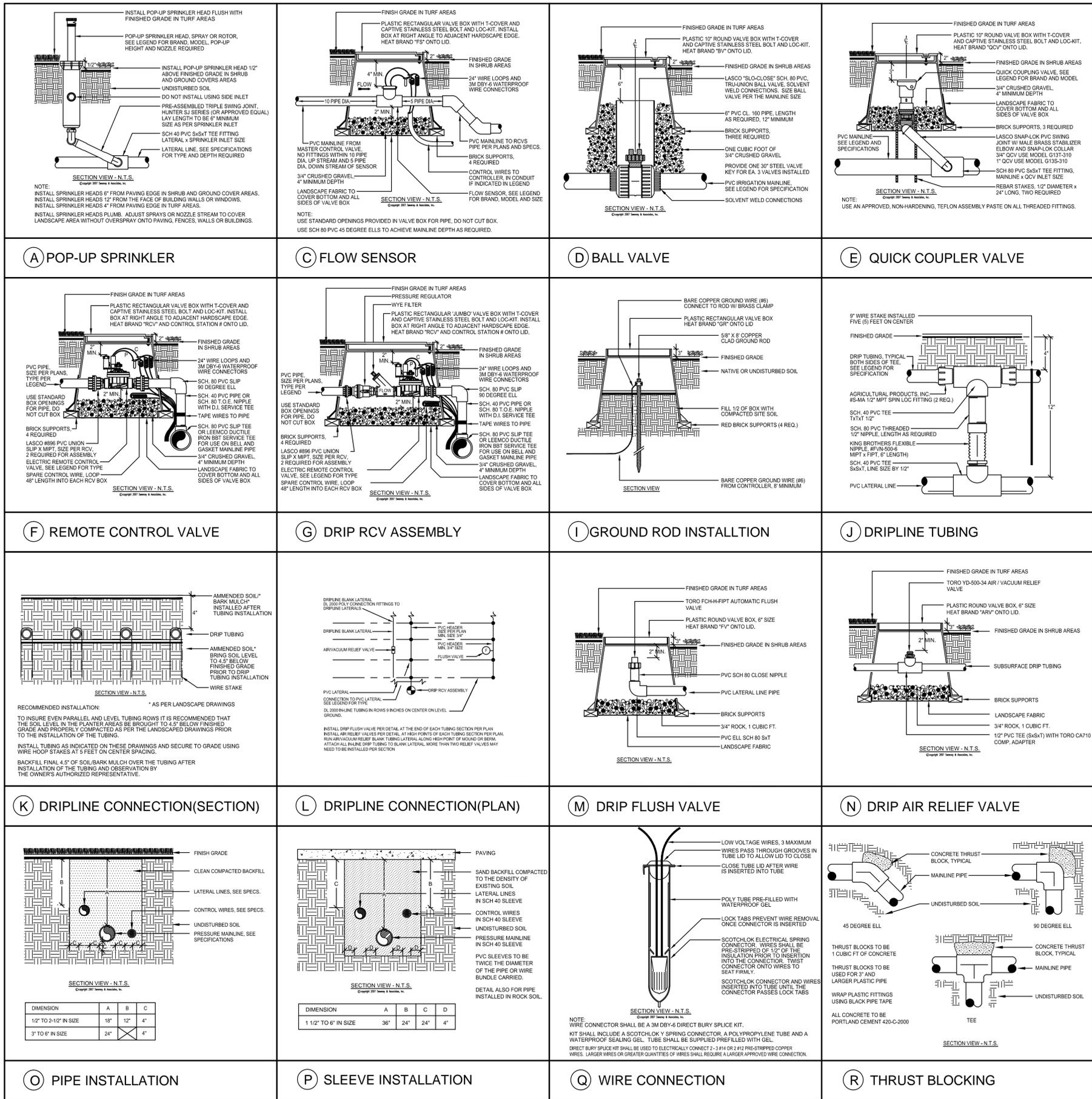
RESTAURANT BREWHOUSE
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 January 8, 2016
 FLORIDA BUSINESS CERT. OF AUTH. NO. 27528

IRRIGATION NOTES & SCHEDULES

SHEET NUMBER:
L-5
 OF



THOMAS
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FOR

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SHEET TITLE:
IRRIGATION DETAILS

SHEET NUMBER:
L-6
OF