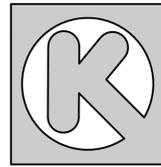


# PSP / CONSTRUCTION & STORMWATER MANAGEMENT PLAN



## FOR CIRCLE K

# CONVENIENCE STORE & GAS STATION

## US HWY 41 AND HALE ROAD

# PASCO COUNTY, FLORIDA

### SHEET INDEX

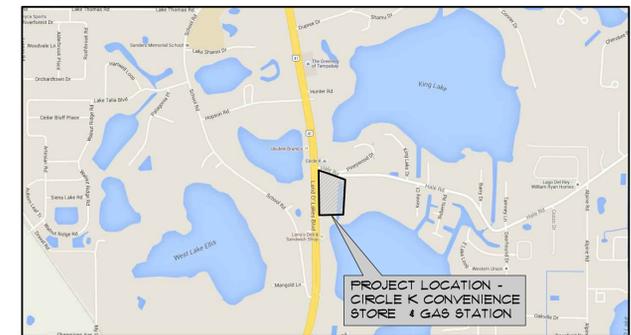
SHEET	TITLE	LATEST REVISION DATE
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C8C	PHOTOMETRIC PLAN	2-22-2016
	SURVEY	1-15-2015

A portion of Tract 25, WILLIS ESTATES, according to the plat thereof, recorded in Plat Book 4, Page 35, and a portion of Lot 16, MARJORY ESTATES, according to the plat thereof, recorded in Plat Book 4, Page 50, lying in the West 1/2 of the NE 1/4 of Section 13, Township 26 South, Range 18 East, Pasco County, Florida, described as follows:

Commence at the SE Corner of the NW 1/4 of the NE 1/4 of Section 13, Township 26 South, Range 18 East, Pasco County, Florida, thence S. 00°06'34"W. (assumed bearing) along the West boundary of the West 1/2 of the NE 1/4 of said Section 13, 20.00 feet for the Point of Beginning; thence continue S. 00°06'34"W., 278.01 feet; thence N. 89°32'41"W., 298.89 feet to the Easterly right-of-way line of Land O' Lakes Boulevard (S.R. #45) as it now exists; thence N. 00°39'17"W., along said Easterly right-of-way line, 256.26 feet to a point of curvature; said curve having a radius of 5779.58 feet, a delta of 01°10'54"; thence along said curve to the left, 119.20 feet, subtended by a chord of 119.20 feet, bearing N. 01°14'44"W., to an intersection with the Southerly occupied right-of-way line of Hale Road, as it now exists; thence along said Southerly right-of-way line the following six courses; 1) N. 63°57'34"E., 37.90 feet; 2) S. 82°24'02"E., 86.63 feet; 3) S. 71°44'56"E., 59.48 feet; 4) S. 54°44'17"E., 88.25 feet; 5) S. 13°36'22"E., 36.32 feet; 6) S. 89°52'13"E., 47.91 feet to the Point of Beginning.

LESS AND EXCEPT any portion lying within Hale Road as described in Order of Taking recorded in Official Records Book 4381, Page 157, of the Public Records of Pasco County, Florida.

### LEGAL DESCRIPTION



**LOCATION MAP**  
SECTION 13, TOWNSHIP 26 SOUTH, RANGE 18 EAST  
N.T.S.

### SURVEYOR:

EDDIE P. JENKINS SURVEYING & MAPPING, INC.  
4030 HIGHWAY 41 NORTH  
LAND O LAKES, FLORIDA 34639  
TELEPHONE: (813) 948-2666  
EMAIL: JENKINS.SURVEYING@VERIZON.NET

### OWNER/APPLICANT:

CIRCLE K STORES INC.  
12911 N. TELECOM PARKWAY  
TAMPA, FLORIDA 33637  
TELEPHONE: (813) 910-5304  
FAX: (813) 910-6912  
EMAIL: EGiunta@CircleK.com

SHEET C1  
E15-005



**FLORIDA ENGINEERING  
AND ENVIRONMENTAL SERVICES, INC.**

CERTIFICATE OF AUTHORIZATION: EB 5804  
4519 GEORGE ROAD, SUITE 130  
TAMPA, FLORIDA 33634  
PHONE: (813) 880-9106  
FAX: (813) 880-9055  
EMAIL: MSULLIVAN@flaengineering.com

MARK SULLIVAN, P.E.  
PROFESSIONAL ENGINEER NO. 41227

# CONSTRUCTION NOTES

## GENERAL NOTES :

1. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES, AFFECTING THIS WORK, PRIOR TO CONSTRUCTION.
2. PRIOR TO THE INITIATION OF SITE CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ANY EXISTING UTILITIES INCLUDING GAS, WATER, ELECTRIC, COMMUNICATIONS, CABLE TELEVISION, SANITARY AND STORM SEWERS, ON AND/OR ADJACENT TO THE SITE. REMOVE OR CAP SERVICES AS NECESSARY.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL CALL "SUNSHINE" AT 1-800-432-4770, AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, TO ARRANGE FOR FIELD LOCATIONS OF BURIED UTILITIES.
4. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED, BY THE CONTRACTOR OR SUB-CONTRACTORS, AS CALLED FOR IN THESE CONTRACT DOCUMENTS.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS SPECIFIED BY THE VARIOUS GOVERNMENTAL AGENCIES AND THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSPECTIONS/ REQUIREMENTS.
6. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, ON ALL PRECAST AND MANUFACTURED ITEMS, TO THE OWNER'S ENGINEER FOR APPROVAL. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
7. ALL UTILITY SERVICE STUB-OUTS (WATER, SANITARY SEWER, ETC.) ARE TO BE INSTALLED TO WITHIN 5' OF BUILDING(S), UNLESS OTHERWISE NOTED ON PLANS.
8. CONTRACTOR TO COORDINATE WITH THE APPLICABLE ELECTRIC UTILITY SUPPLIER REGARDING ANY NECESSARY RELOCATION(S) OF UNDERGROUND AND/OR OVERHEAD ELECTRIC FACILITIES, AND FOR THE LOCATION AND INSTALLATION OF TRANSFORMER PAD(S) AND ASSOCIATED ELECTRIC FACILITIES.
9. SAFETY:
  - A. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR OR HIS OR HER REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS/HER PERSONNEL.
  - B. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.
  - C. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF "THE STATE OF FLORIDA, MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS" SHALL BE FOLLOWED IN THE DESIGN, APPLICATION, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND CONSTRUCTION PERSONNEL FROM HAZARDS WITHIN THE PROJECT LIMITS.
  - D. ALL TRAFFIC CONTROL MARKINGS AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION.
  - E. ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT". THE CONTRACTOR SHALL INSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.  
IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.

10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AN "ON-SITE PIPING PERMIT" (IF REQUIRED) FOR CONSTRUCTION OF THE PROPOSED UTILITIES. THIS PERMIT MUST BE OBTAINED BY A DULY LICENSED PLUMBING CONTRACTOR (OR CLASS A GENERAL CONTRACTOR) PRIOR TO THE START OF CONSTRUCTION. THESE PLANS AND ANY SUBSEQUENT REVISIONS TO THESE PLANS, THAT ARE ISSUED BY THE ENGINEER, WILL BE SUBJECT TO THE APPROVAL CONDITIONS OF THIS PERMIT.
11. THE GRAPHIC INFORMATION DEPICTED ON THESE PLANS HAS BEEN COMPILED TO PROPORTION BY SCALE AS ACCURATELY AS POSSIBLE, HOWEVER, DUE TO REPRODUCTIVE DISTORTION, REDUCTION, AND/OR REVISIONS, INFORMATION CONTAINED HEREIN IS NOT INTENDED TO BE SCALED FOR CONSTRUCTION PURPOSES.
12. ALL SPECIFICATIONS AND DOCUMENTS REFERENCED HEREIN SHALL BE OF THE LATEST REVISION.
13. ALL UNDERGROUND UTILITIES MUST BE IN-PLACE, TESTED AND INSPECTED PRIOR TO BASE AND SURFACE CONSTRUCTION.
14. WORK PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH ANY OTHER WORK BEING PERFORMED ON SITE BY OTHER CONTRACTORS/SUBCONTRACTORS AND UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE GENERAL CONTRACTOR TO COORDINATE AND SCHEDULE HIS/HER ACTIVITIES ACCORDINGLY.

AS BUILT:

UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH THE OWNER'S ENGINEER WITH COMPLETE "AS-BUILT" INFORMATION, CERTIFIED BY A REGISTERED LAND SURVEYOR. THIS "AS-BUILT" INFORMATION SHALL INCLUDE INVERT ELEVATIONS, LOCATIONS OF STRUCTURES FOR ALL UTILITIES INSTALLED, AS WELL AS GRADE BREAK LOCATIONS AND ELEVATIONS FOR PROPOSED CONSTRUCTION. NO ENGINEER'S CERTIFICATIONS FOR CERTIFICATE OF OCCUPANCY (C.O.) PURPOSES WILL BE MADE UNTIL THIS INFORMATION HAS BEEN RECEIVED AND APPROVED BY THE OWNER'S ENGINEER.

## CLEARING AND SITE PREPARATION NOTES :

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF THE EROSION CONTROL DEVICES, AS SHOWN ON THE CONSTRUCTION PLANS, PRIOR TO ANY SITE CLEARING AND/OR DEMOLITION. REFER TO THE "EROSION CONTROL NOTES" SECTION CONTAINED HEREIN FOR ADDITIONAL REQUIREMENTS.
2. PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN, AS INDICATED ON THE CONSTRUCTION PLANS, SHALL BE PROTECTED IN ACCORDANCE WITH LOCAL TREE ORDINANCES, AND DETAILS CONTAINED IN THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE TREES IN GOOD CONDITION. NO TREES SHOWN TO REMAIN SHALL BE REMOVED WITHOUT WRITTEN APPROVAL FROM THE OWNER AND THE LOCAL AGENCY HAVING JURISDICTION OVER THESE ACTIVITIES.
3. THE CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, SODED OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL, IMMEDIATELY FOLLOWING CONSTRUCTION.
4. THE TOP 4" TO 6" OF GROUND REMOVED DURING CLEARING AND GRUBBING ACTIVITIES SHALL BE STOCKPILED, TO BE USED FOR LANDSCAPING PURPOSES, UNLESS OTHERWISE DIRECTED BY THE OWNER. REMAINING EARTHWORK THAT RESULTS FROM CLEARING AND GRUBBING OR SITE EXCAVATION IS TO BE UTILIZED ON-SITE. PROVIDED THE MATERIAL IS DEEMED SUITABLE BY THE OWNER'S SOILS TESTING COMPANY. EXCESS MATERIAL IS TO EITHER BE STOCKPILED ON-SITE, AS DIRECTED BY THE OWNER OR OWNER'S ENGINEER, OR REMOVED FROM THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING ANY EXCESS MATERIAL FROM THE SITE.
5. ALL EXISTING DEBRIS (ABOVE OR BELOW GROUND), CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE, BY THE CONTRACTOR, IN ACCORDANCE WITH APPLICABLE REGULATORY AGENCY REQUIREMENTS.
6. THE CONTRACTOR IS TO PREPARE THE SITE IN ACCORDANCE WITH THE SOILS REPORT PREPARED BY MCKENZIEN ENGINEERING, INC. DATED 5-28-09 (PROJECT NO. 08-10-06999). A COPY OF THE REPORT IS INCLUDED WITH THE PLAN SUBMITAL.

## EROSION CONTROL NOTES :

1. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIERS (MAY BALES OR SILTATION CURTAINS) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION, CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTORS IS TO REMOVE SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES.
2. THE CONTRACTOR SHALL LIMIT THE DISCHARGE OF TURBID WATERS OFF-SITE, OR INTO ON-SITE/OFF-SITE WETLANDS (IF APPLICABLE), TO NO MORE THAN 50 JTUS (JACKSON TURBIDITY UNITS) OR 29 NTUS (NEPHELOMETRIC TURBIDITY UNITS), ABOVE BACKGROUND LEVELS.
3. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABILIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION OR OTHER ACCEPTABLE METHODS.
4. CONTRACTOR SHALL INSPECT AND MAINTAIN ON A DAILY BASIS ALL EROSION/SEDIMENTATION CONTROL FACILITIES.
5. THE CONTRACTOR SHALL ENSURE THAT SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE-HALF THE DEPTH OF THE SILTATION CONTROL BARRIER SHALL BE IMMEDIATELY REMOVED AND PLACED IN UPLAND AREAS.
6. THE PROPOSED EROSION CONTROL BARRIERS MUST BE REMOVED FOLLOWING SOIL STABILIZATION.

## PAVING AND GRADING NOTES :

1. ALL DELETERIOUS SUBSURFACE MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS, ETC.) IS TO BE EXCAVATED AND REPLACED WITH SUITABLE/COMPACTED SOILS, AS DIRECTED BY THE OWNER, THE OWNER'S ENGINEER, OWNER'S SOILS TESTING COMPANY, AND PROJECT SPECIFICATIONS. DELETERIOUS MATERIAL IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING DELETERIOUS MATERIAL FROM THE SITE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. DEWATERING METHODS SHALL BE USED AS REQUIRED TO KEEP TRENCHES DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED.
3. ALL NECESSARY FILL AND EMBANKMENT THAT IS PLACED DURING CONSTRUCTION SHALL CONSIST OF MATERIAL SPECIFIED BY THE OWNER'S SOIL TESTING COMPANY OR ENGINEER AND BE PLACED AND COMPACTED ACCORDING TO THESE PLANS AND PROJECT SPECIFICATIONS.
4. PROPOSED SPOT ELEVATIONS REPRESENT FINISHED PAVEMENT OR GROUND SURFACE GRADES, UNLESS OTHERWISE NOTED.
5. IT MAY BE NECESSARY TO FIELD ADJUST PAVEMENT ELEVATIONS TO PRESERVE THE ROOT SYSTEMS OF TREES SHOWN TO BE SAVED. CONTRACTOR TO COORDINATE WITH OWNER'S ENGINEER PRIOR TO ANY ELEVATION CHANGES.
6. CONTRACTOR SHALL TRIM, TACK AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.
7. CURBING SHALL BE PLACED AT THE EDGES OF ALL PAVEMENT, UNLESS OTHERWISE NOTED. REFER TO THE LATEST EDITION OF F.O.D.O.T. "ROADWAY AND TRAFFIC DESIGN STANDARDS" FOR DETAILS AND SPECIFICATIONS OF ALL F.O.D.O.T. TYPE CURB AND GUTTERS CALLED FOR IN THESE PLANS.
8. PRIOR TO CONSTRUCTING CONCRETE PAVEMENT, THE CONTRACTOR IS TO SUBMIT A PROPOSED JOINTING PATTERN TO THE SOILS ENGINEER FOR APPROVAL.
9. CONTRACTOR TO PROVIDE A 1/2" TO 1" BITUMINOUS EXPANSION JOINT MATERIAL, WITH SEALER AT ABUTMENT OF CONCRETE AND OTHER MATERIALS (STRUCTURES, OTHER POURED CONCRETE, ETC.)
10. THE CONTRACTOR WILL STABILIZE BY SEED AND MULCH, SOD, OR OTHER APPROVED MATERIALS ANY DISTURBED AREAS WITHIN ONE WEEK FOLLOWING CONSTRUCTION OF THE UTILITY SYSTEMS AND PAVEMENT AREAS. CONTRACTOR SHALL MAINTAIN SUCH AREAS UNTIL FINAL ACCEPTANCE BY OWNER. CONTRACTOR TO COORDINATE WITH OWNER REGARDING TYPE OF MATERIAL, LANDSCAPING AND IRRIGATION REQUIREMENTS.

## TESTING AND INSPECTION REQUIREMENTS : (PAVING/GRADING):

1. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE TESTING WITH THE SOILS ENGINEER. TESTS WILL BE REQUIRED PURSUANT WITH THE SOILS REPORT, TESTING SCHEDULE LOCATED ON THESE PLANS, AND PROJECT SPECIFICATIONS. UPON COMPLETION OF WORK THE SOILS ENGINEER WILL SUBMIT CERTIFICATIONS TO THE OWNER AND THE OWNER'S ENGINEER STATING THAT ALL REQUIREMENTS HAVE BEEN MET.
2. A QUALIFIED TESTING LABORATORY SHALL PERFORM ALL TESTING NECESSARY TO ASSURE COMPLIANCE OF THE IN-PLACE MATERIALS AS REQUIRED BY THESE PLANS, THE VARIOUS AGENCIES AND PERMITS. CONDITIONS SHOULD ANY RETESTING BE REQUIRED DUE TO THE FAILURE OF ANY TESTS TO MEET THE REQUIREMENTS, THE CONTRACTOR WILL BEAR ALL COSTS OF SAID RETESTING.

## DRAINAGE SYSTEM NOTES :

1. STANDARD INDEXES REFER TO THE LATEST EDITION OF F.O.D.O.T. "ROADWAY AND TRAFFIC DESIGN STANDARDS".
2. ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE CLASS III (ASTM C-76) UNLESS OTHERWISE NOTED ON PLANS. ALL DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH F.O.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS UNLESS OTHERWISE NOTED ON PLANS.
3. PIPE LENGTHS SHOWN ARE APPROXIMATE AND TO CENTER OF DRAINAGE STRUCTURES, WITH THE EXCEPTION OF INTERFERED END AND FLARED END SECTIONS, WHICH ARE NOT INCLUDED IN LENGTHS.
4. ALL DRAINAGE STRUCTURE GRATES AND COVERS, EITHER EXISTING OR PROPOSED SHALL BE TRAFFIC RATED FOR 14,000 LBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NECESSARY UPGRADES TO EXISTING DRAINAGE STRUCTURES.
5. CONSTRUCTION OF THE STORMWATER MANAGEMENT SYSTEM MUST BE COMPLETE AND ALL DISTURBED AREAS STABILIZED IN ACCORDANCE WITH THE PERMITTED PLANS AND CONDITIONS PRIOR TO ANY OF THE FOLLOWING: ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY, INITIATION OF INTENDED USE OF THE INFRASTRUCTURE, OR TRANSFER OF RESPONSIBILITY FOR MAINTENANCE OF THE SYSTEM TO A LOCAL GOVERNMENT OR OTHER RESPONSIBLE ENTITY.

## TESTING AND INSPECTION REQUIREMENTS: (DRAINAGE):

1. THE STORM DRAINAGE PIPING SYSTEM SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER PRIOR TO THE PLACEMENT OF BACKFILL. CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION.
2. THE CONTRACTOR SHALL MAINTAIN AND PROTECT FROM MUD, DIRT, DEBRIS, ETC. THE STORM DRAINAGE SYSTEM UNTIL FINAL ACCEPTANCE OF THE PROJECT. THE STORM SYSTEM WILL BE REINSPECTED BY THE OWNER'S ENGINEER PRIOR TO APPROVAL FOR CERTIFICATE OF OCCUPANCY PURPOSES. THE CONTRACTOR MAY BE REQUIRED TO RECLEAN PIPES AND INLETS FOR THESE PURPOSES.

## SANITARY SYSTEM NOTES :

1. SANITARY SEWERS, FORCE MAINS, AND STORM SEWERS SHOULD ALWAYS CROSS UNDERNEATH WATER MAINS. INSTALLATIONS OF SANITARY SEWERS, FORCE MAINS AND STORM SEWERS, AT CROSSINGS OF WATER MAINS, SHALL BE PERFORMED SO AS 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. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS AND WATER JOINTS SHALL BE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN 10 FEET BETWEEN ANY TWO JOINTS.  
WHERE SANITARY SEWERS, FORCE MAINS, AND STORM SEWERS 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, DIP IS NOT REQUIRED FOR STORM SEWERS IF IT IS NOT AVAILABLE IN THE SIZE PROPOSED, SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF TEN (10) FEET BETWEEN ANY TWO (2) JOINTS. IN LIEU OF DIP, THE SANITARY SEWER MAY BE PLACED IN A SLEEVE FOR 20 FEET CENTERED ON THE POINT OF CROSSING. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE LEAK FREE AND MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF SIX (6) INCHES MUST BE MAINTAINED AT THE CROSSING.  
WHERE THERE IS NO ALTERNATIVE TO SEWER PIPES CROSSING OVER WATER MAINS, THE CRITERIA FOR MINIMUM SEPARATION OF 18 INCHES BETWEEN LINES, AND 10 FEET BETWEEN JOINTS CENTERED AT THE POINT OF CROSSING SHALL BE REQUIRED. THE WATER MAIN SHALL BE PLACED IN A SLEEVE FOR 20 FEET CENTERED ON THE POINT OF CROSSING. ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.
2. WHERE SANITARY SEWERS, FORCE MAINS, AND STORM SEWERS 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, DIP IS NOT REQUIRED FOR STORM SEWERS IF IT IS NOT AVAILABLE IN THE SIZE PROPOSED, SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF TEN (10) FEET BETWEEN ANY TWO (2) JOINTS. IN LIEU OF DIP, THE SANITARY SEWER MAY BE PLACED IN A SLEEVE FOR 20 FEET CENTERED ON THE POINT OF CROSSING. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE LEAK FREE AND MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF SIX (6) INCHES MUST BE MAINTAINED AT THE CROSSING.

## SANITARY SYSTEM NOTES (CON'T):

- WHERE THERE IS NO ALTERNATIVE TO SEWER PIPES CROSSING OVER WATER MAINS, THE CRITERIA FOR MINIMUM SEPARATION OF 18 INCHES BETWEEN LINES, AND 10 FEET BETWEEN JOINTS, CENTERED AT THE POINT OF CROSSING SHALL BE REQUIRED. THE WATER MAIN SHALL BE PLACED IN A SLEEVE FOR 20 FEET CENTERED ON THE POINT OF CROSSING. ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.
- ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (i.e. PIPES CENTERED ON THE CROSSING).
- WHERE A PROPOSED PIPE CONFLICTS WITH AN EXISTING PIPE, THE PROPOSED PIPE SHALL BE CONSTRUCTED OF DIP, AND THE CROSSING SHALL BE ARRANGED SO AS TO SATISFY THE REQUIREMENTS IDENTIFIED ABOVE.
- WHEN THE RECLAIMED WATER LINE IS TRANSPORTING WATER FOR PUBLIC ACCESS IRRIGATION: MAXIMUM OBTAINABLE SEPARATION OF RECLAIMED WATER LINES AND DOMESTIC WATER LINES SHALL BE PRACTICED. A MINIMAL HORIZONTAL SEPARATION OF FIVE FEET (CENTER TO CENTER) OR THREE FEET (OUTSIDE TO OUTSIDE) SHALL BE MAINTAINED BETWEEN RECLAIMED WATER LINES AND EITHER POTABLE WATER MAINS OR SEWAGE COLLECTION LINES. AN 18 INCH VERTICAL SEPARATION SHALL BE MAINTAINED AT CROSSINGS.
- WHEN THE RECLAIMED WATER LINE IS TRANSPORTING WATER FOR NON-PUBLIC ACCESS IRRIGATION: THE RECLAIMED WATER MAIN SHALL BE TREATED LIKE A SANITARY SEWER, AND A 10 FOOT HORIZONTAL AND 18 INCH VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN THE RECLAIMED WATER MAIN AND ALL EXISTING OR PROPOSED POTABLE WATER MAINS. NO MINIMUM SEPARATION IS REQUIRED BETWEEN THE RECLAIMED WATER MAIN AND SANITARY SEWERS, OTHER THAN NECESSARY TO ENSURE STRUCTURAL INTEGRITY AND PROTECTION OF THE LINES THEMSELVES.
2. A MINIMUM 10 FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER (INCLUDING FORCE MAINS) AND EXISTING OR PROPOSED WATER MAINS, IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE. THE DISTANCE FOR SEPARATION SHALL BE MEASURED EDGE TO EDGE.

- IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE INSTALLED IN A SEPARATE TRENCH OR IN AN UNDISTURBED EARTH SHELF, LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN, AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER LINE, AND WATER AND SEWER JOINTS SHALL BE STAGGERED.
- 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 SEWER OR FORCE MAIN SHALL BE CONSTRUCTED OF DIP (IF AVAILABLE IN THE SIZE PROPOSED), WITH A MINIMUM VERTICAL DISTANCE OF SIX (6) INCHES. THE WATER MAIN SHOULD ALWAYS BE LOCATED ABOVE THE SEWER JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (i.e. STAGGERED JOINTS).
3. ALL DIP PIPE SHALL BE CLASS 50 OR HIGHER. REFER TO NOTE #8 BELOW FOR ADDITIONAL DIP SPECIFICATIONS. ADEQUATE MEASURES AGAINST CORROSION SHALL BE UTILIZED.
  4. ALL PVC PIPE SHALL BE SOLID WALL POLYVINYL CHLORIDE PIPE AND COMPLY WITH ASTM D 3034 AND ALL APPLICABLE ASTM DOCUMENTS AS COVERED IN SECTION NO. 2 OF ASTM D 3034. MAIN LINES SHALL BE A MINIMUM OF 6" DIAMETER, AND LATERALS SHALL BE A MINIMUM 6" DIAMETER.
  5. ALL SANITARY SEWER MAINS, LATERALS AND FORCE MAINS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER, UNLESS OTHERWISE NOTED ON PLANS.
  6. ALL GRAVITY SEWERS MUST BE SDR 26 PVC PIPE, ELASTOMERIC GASKET JOINTS SHALL BE UTILIZED FOR PVC PIPE, AND SHALL COMPLY WITH ASTM F477, ASTM D3034 AND ASTM F678. JOINTS SHALL COMPLY WITH ASTM D3212.
  7. ALL ON-SITE PVC FORCE MAINS (IF REQUIRED) SHALL BE CLASS 200, DR 14 FOR 4" DIAMETER, AND CLASS 180, DR 18 FOR 6" TO 12" DIAMETER PIPE, IN ACCORDANCE WITH AWWA C900 STANDARDS. PVC FORCE MAIN PIPE SMALLER THAN 4" DIAMETER SHALL BE CLASS 200, SDR 21, IN ACCORDANCE WITH ASTM D 2241. FORCE MAINS SHALL BE SPIRAL WRAPPED WITH 2 INCH WIDE DARK GREEN STICK-ON VINYL TAPE. FORCE MAINS WITHIN THE RIGHT-OF-WAY SHALL BE CLASS 52 DIP, MINIMUM 4" DIAMETER.
  8. ALL SANITARY MANHOLES SHALL BE LOCATED NO MORE THAN 400 FEET APART AND SHALL CONFORM TO THE DETAILS CONTAINED HEREIN, AS WELL AS WITH ASTM F478.
  9. ALL DUCTILE IRON PIPE SHALL MEET REQUIREMENTS OF AWWA C151, ANSI SPEC. A21.51.
  10. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE PROVIDED WITH A VIRGIN POLYETHYLENE INTERIOR LINING COMPLYING WITH ASTM D 1248 (WJLS). THE HEAT BONDED TO THE INTERIOR OF ALL PIPES. ALL DIP PIPE SHALL HAVE A STANDARD OUTSIDE COATING COMPLYING WITH ASTM C151-8-1.
  11. ALL SLOPES FOR GRAVITY SEWER MAINS AND SERVICE CONNECTIONS SHALL COMPLY WITH THE FOLLOWING MINIMUM GRADES: 6" @ 1.00%, 8" @ 0.40%, MAXIMUM SLOPE = 2.00%.
  12. ALL SANITARY SEWER WORK SHALL CONFORM WITH THE PASCO COUNTY UTILITY DEPARTMENT WASTE WATER STANDARDS AND SPECIFICATIONS.
  13. PRIOR TO COMMENCING WORK WHICH REQUIRES CONNECTING PROPOSED FACILITIES TO EXISTING LINES OR APPURTENANCES, THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION(S) OF EXISTING CONNECTION POINT(S) AND NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
  14. SANITARY SEWER MAINS SHALL HAVE SUITABLE MAGNETIC LOCATOR TAPE(S) BURIED AT LEAST 18 INCHES ABOVE THE MAIN LINES.
  15. FORCE MAINS SHALL HAVE SUITABLE MAGNETIC LOCATOR TAPE(S) BURIED AT LEAST 18 INCHES ABOVE THE FORCE MAIN.

## TESTING AND INSPECTION REQUIREMENTS: (SANITARY):

1. ALL GRAVITY SEWER PIPING SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER AND APPLICABLE MUNICIPALITY/AGENCY. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION(S). THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS ASSOCIATED WITH A TELEVIEWED INSPECTION (TV) OF THE PROPOSED GRAVITY SEWER LINE CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE COPIES OF THE TV INSPECTION TAPE TO THE ENGINEER, THE OWNER AND THE APPLICABLE MUNICIPALITY/AGENCY.
2. THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATION TEST ON ALL GRAVITY SEWERS IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER OF RECORD AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. THE SCHEDULING, COORDINATION AND NOTIFICATION OF ALL PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.

## WATER SYSTEM NOTES :

1. SANITARY SEWERS, FORCE MAINS, AND STORM SEWERS SHOULD ALWAYS CROSS UNDERNEATH WATER MAINS. INSTALLATIONS OF SANITARY SEWERS, FORCE MAINS AND STORM SEWERS, AT CROSSINGS OF WATER MAINS, SHALL BE PERFORMED SO AS 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. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS AND WATER JOINTS SHALL BE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN 10 FEET BETWEEN ANY TWO JOINTS.  
WHERE SANITARY SEWERS, FORCE MAINS, AND STORM SEWERS 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, DIP IS NOT REQUIRED FOR STORM SEWERS IF IT IS NOT AVAILABLE IN THE SIZE PROPOSED, SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF TEN (10) FEET BETWEEN ANY TWO (2) JOINTS. IN LIEU OF DIP, THE SANITARY SEWER MAY BE PLACED IN A SLEEVE FOR 20 FEET CENTERED ON THE POINT OF CROSSING. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE LEAK FREE AND MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF SIX (6) INCHES MUST BE MAINTAINED AT THE CROSSING.  
WHERE THERE IS NO ALTERNATIVE TO SEWER PIPES CROSSING OVER WATER MAINS, THE CRITERIA FOR MINIMUM SEPARATION OF 18 INCHES BETWEEN LINES, AND 10 FEET BETWEEN JOINTS CENTERED AT THE POINT OF CROSSING SHALL BE REQUIRED. THE WATER MAIN SHALL BE PLACED IN A SLEEVE FOR 20 FEET CENTERED ON THE POINT OF CROSSING. ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.
2. ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (i.e. PIPES CENTERED ON THE CROSSING).  
WHERE A PROPOSED PIPE CONFLICTS WITH AN EXISTING PIPE, THE PROPOSED PIPE SHALL BE CONSTRUCTED OF DIP, AND THE CROSSING SHALL BE ARRANGED SO AS TO SATISFY THE REQUIREMENTS IDENTIFIED ABOVE.  
WHEN THE RECLAIMED WATER LINE IS TRANSPORTING WATER FOR PUBLIC ACCESS IRRIGATION: MAXIMUM OBTAINABLE SEPARATION OF RECLAIMED WATER LINES AND DOMESTIC WATER LINES SHALL BE PRACTICED. A MINIMUM HORIZONTAL SEPARATION OF FIVE (5) FEET (CENTER TO CENTER) OR THREE (3) FEET (OUTSIDE TO OUTSIDE) SHALL BE MAINTAINED BETWEEN RECLAIMED WATER LINES AND EITHER POTABLE WATER MAINS OR SEWAGE COLLECTION LINES. AN 18 INCH VERTICAL SEPARATION SHALL BE MAINTAINED AT CROSSINGS.

## WATER SYSTEM NOTES (CON'T):

- WHEN THE RECLAIMED WATER LINE IS TRANSPORTING WATER FOR NON-PUBLIC ACCESS IRRIGATION: THE RECLAIMED WATER MAIN SHALL BE TREATED LIKE A SANITARY SEWER, AND A 10-FT. HORIZONTAL AND 18 INCH VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN THE RECLAIMED WATER MAIN AND ALL EXISTING OR PROPOSED POTABLE WATER MAINS. NO MINIMUM SEPARATION IS REQUIRED BETWEEN THE RECLAIMED WATER MAIN AND SANITARY SEWERS, OTHER THAN NECESSARY TO ENSURE STRUCTURAL INTEGRITY AND PROTECTION OF THE LINES THEMSELVES.
2. A MINIMUM 10 FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER (INCLUDING FORCE MAINS) AND EXISTING OR PROPOSED WATER MAINS, IN PARALLEL INSTALLATIONS, WHENEVER POSSIBLE. THE DISTANCE FOR SEPARATION SHALL BE MEASURED EDGE TO EDGE.
- IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE INSTALLED IN A SEPARATE TRENCH OR IN AN UNDISTURBED EARTH SHELF, LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN, AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER LINE, AND WATER AND SEWER JOINTS SHALL BE STAGGERED.
- 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 SEWER OR FORCE MAIN SHALL BE CONSTRUCTED OF DIP (IF AVAILABLE IN THE SIZE PROPOSED), WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE LOCATED ABOVE THE SEWER JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (i.e. STAGGERED JOINTS).
3. ALL DIP PIPE SHALL BE CLASS 50 OR HIGHER. REFER TO NOTE #8 BELOW FOR ADDITIONAL DIP SPECIFICATIONS. ADEQUATE MEASURES AGAINST CORROSION SHALL BE UTILIZED.
  4. ALL WATER MAIN PIPE FITTINGS AND APPURTENANCES SHALL BE INSTALLED TO COMPLY WITH THE PASCO COUNTY WATER, WASTEWATER, AND REUSE SYSTEM CODE.
  5. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 36 INCHES OF COVER.
  6. ALL WATER SERVICE LINES, VALVES AND METERS SHALL BE INSTALLED TO COMPLY WITH THE PASCO COUNTY WASTEWATER AND REUSE SYSTEMS CODE.
  7. RESTRAINTS SHALL BE PROVIDED AT ALL FITTINGS AND HYDRANTS, IN ACCORDANCE WITH THE PASCO COUNTY, WASTEWATER AND REUSE SYSTEMS CODE.
  8. ALL DUCTILE IRON PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C151/A21.51. PIPE SHALL BE FURNISHED IN 18 OR 20 FOOT SECTIONS. PIPE THICKNESS SHALL BE CLASS 51, UNLESS OTHERWISE SPECIFIED.
  9. ALL WATER SYSTEM CONSTRUCTION UP TO AND INCLUDING POINT OF METERING AND BACK FLOW PREVENTION (IF REQUIRED), SHALL BE BUILT ACCORDING TO THE PREVIOUSLY REFERENCED STANDARDS AND SPECIFICATIONS.
  10. ALL ON-SITE FIRE HYDRANTS SHALL BE PAINTED WITH HIGH GRADE ENAMEL, FEDERAL SAFETY YELLOW (OSHA APPROVED), AND MUST BE LOCATED A MINIMUM OF 6 FEET FROM THE EDGE OF PAVEMENT OR BACK OF CURB, OTHERWISE BOLLARDS WILL BE REQUIRED FOR PROTECTION. ALL FIRE HYDRANTS SHALL COMPLY WITH AWWA STANDARDS C502-80 THEREOF.
  11. CONTRACTOR TO INSTALL TEMPORARY BLOWOFFS, AT THE END(S) OF PROPOSED WATER MAINS AND SERVICE LATERALS TO BUILDING(S), TO ASSURE ADEQUATE FLUSHING AND DISINFECTATION/CHLORINATION.
  12. ALL WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA MANUAL M23, CONCERNING HYDROSTATIC TESTING OF PIPE PIPING, OFF-SITE WATER SYSTEMS HYDROSTATIC TESTING SHALL BE WITHIN THE PASCO COUNTY INSPECTOR'S JURISDICTION.
  13. ALL WATER MAINS SHALL BE STERILIZED IN ACCORDANCE WITH THE APPLICABLE SECTION OF THE LATEST AWWA SPECIFICATION C651 AND APPLICABLE PASCO COUNTY WATER DEPARTMENT SPECIFICATIONS.
  14. ALL PVC WATER MAIN, 4" TO 12" DIAMETER PIPING, SHALL CONFORM TO AWWA C900 (DR 18) STANDARD SPECIFICATIONS, PRESSURE CLASS 150 PSI. ALL PVC WATER MAIN PIPING LESS THAN 4" DIAMETER SHALL BE PER ASTM D2241 (SDR 21), PRESSURE CLASS 200 PSI.
  15. ALL PVC WATER MAINS SHALL HAVE A SUITABLE MAGNETIC LOCATOR TAPE PLACED OVER THE WATER MAIN, BURIED NO LESS THAN 18 INCHES ABOVE MAIN LINES. THE TAPE SHALL BE AT LEAST 1.5-1.12 MILS THICK, 2 INCH MINIMUM WIDTH, AND MADE WITH AN ALUMINUM MATERIAL SANDWICHED BETWEEN 2 LAYERS OF POLYETHYLENE. IT SHALL HAVE IMPRINTED, IN PERMANENT BLACK INK WITH ONE (1) INCH TALL LETTERS, "CAUTION: WATER LINE BURIED BELOW" ON BLUE BACKGROUND. THE TAPE SHALL BE CONTINUOUS BETWEEN VALVES AND SECURED TO EACH VALVE, WHERE OTHER LINES OR SERVICE LINES JOIN THE WATER MAIN, THE TAPE USED FOR DETECTION OF THESE LINES SHALL BE SECURED TO THE MAIN LINE TAPE.
  16. FIRE LINES SHALL BE INSTALLED BY A CONTRACTOR, DULY LICENSED BY THE STATE OF FLORIDA FIRE MARSHALL'S OFFICE. CONTRACTOR TO VERIFY REQUIREMENTS PRIOR TO CONSTRUCTION OF THE FIRE PROTECTION SYSTEM.
  17. FIRE PROTECTION SHALL MEET ALL THE REQUIREMENTS OF THE APPLICABLE MUNICIPALITY OR COUNTY.

## TESTING AND INSPECTION REQUIREMENTS: (WATER)

1. ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, HYDRANTS, CONNECTIONS, AND VALVES SHALL REMAIN UNCOVERED UNTIL PROPERLY PRESSURE TESTED AND ACCEPTED BY THE OWNER'S ENGINEER.
2. PRESSURE TESTS TO BE IN ACCORDANCE WITH THE PASCO COUNTY WATER, WASTEWATER AND REUSE SYSTEMS CODE. CONTRACTOR TO NOTIFY THE OWNER'S ENGINEER AND APPLICABLE INSPECTORS 48 HOURS IN ADVANCE OF PERFORMING TESTS.
3. CONTRACTOR TO PERFORM CHLORINATION AND BACTERIOLOGICAL SAMPLING, AND OBTAIN CLEARANCE OF DOMESTIC FIRE LINE WATER SYSTEM(S). COPIES OF ALL BACTERIOLOGICAL TEST RESULTS ARE TO BE SUBMITTED TO THE OWNER'S ENGINEER FOR CERTIFICATION PURPOSES.

## CONSTRUCTION SITE WORK TESTING :

1. ALL SITE WORK CONSTRUCTION TESTING SHALL BE PERFORMED BY A CERTIFIED / LICENSED GEOTECHNICAL ENGINEERING FIRM.
2. ALL SITE WORK CONSTRUCTION TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROJECT'S GEOTECHNICAL REPORT AND / OR THE TESTING PARAMETERS OF THE LOCAL MUNICIPALITY / AGENCY HAVING JURISDICTION OVER THE SITE WORK. THE MORE STRINGENT REQUIREMENTS SHALL APPLY.
3. COPIES OF PASSING TEST RESULTS SHALL BE PROVIDED TO THE OWNER, ENGINEER OF RECORD, CONTRACTOR AND LOCAL MUNICIPALITY / AGENCY FOR PURPOSES, SUCH AS BUT NOT LIMITED TO, CERTIFICATION, AND ACCEPTANCE OF FACILITIES BY THE OWNER AND / OR MUNICIPALITY / AGENCY.
4. THE SERVICES OF A CONSTRUCTION TESTING GEOTECHNICAL FIRM SHALL BE RETAINED BY THE OWNER, UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS.
5. F.E.E.S. WILL NOT BE RESPONSIBLE FOR SCHEDULING, COORDINATION OR EVALUATION OF THE SOILS TESTING AND CERTIFICATIONS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE OWNER / OWNER TO MAKE THE NECESSARY ARRANGEMENTS DIRECTLY WITH THE SOILS TESTING LABORATORY / GEOTECHNICAL FIRM AND THE SITE CONTRACTOR.

CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING ITEMS RELATED TO CONSTRUCTION AS-BUILT SURVEYING, TESTING, AND PROVISION OF DOCUMENTS FOR ENGINEERING CERTIFICATIONS. THIS SHALL BE THE MINIMUM REQUIRED, AND WILL BE SUBJECT TO MODIFICATION BASED ON PERMITTING REQUIREMENTS.

- GENERAL:**
1. CONTRACTOR SHALL BECOME FAMILIAR WITH THE SPECIFIC REQUIREMENTS OF ALL SITE DEVELOPMENT PERMITS.
  2. CONTRACTOR SHALL PREPARE AND FILE THE NECESSARY EPA - NPDES PERMIT(S) FOR THIS PROJECT.

- WATER DISTRIBUTION SYSTEM:**
1. CONTRACTOR SHALL PROVIDE TWO (2) CONSECUTIVE DAYS OF PASSING BACTERIOLOGICAL TEST RESULTS FOR THE ONSITE WATER DISTRIBUTION SYSTEM.
  2. CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS CERTIFIED BY A REGISTERED LAND SURVEYOR FOR THE WATER / FIRE DISTRIBUTION SYSTEM, WHICH MUST IDENTIFY THE LOCATION OF EACH CHLORINE INJECTION AND BACTERIOLOGICAL TEST SAMPLE POINT(S).
  3. CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS NOTICE TO ENGINEER OF RECORD AND APPROPRIATE CITY/COUNTY INSPECTOR TO SCHEDULE ATTENDANCE AT THE REQUIRED ONSITE WATER DISTRIBUTION SYSTEM (2 HOUR MINIMUM) PRESSURE TEST.

- SANITARY SEWER COLLECTION / TRANSMISSION SYSTEM:**
1. CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS CERTIFIED BY A REGISTERED LAND SURVEYOR FOR THE SANITARY SEWER GRAVITY COLLECTION. AS-BUILT DATA SHALL INCLUDE, BUT NOT LIMITED TO, RIM, INVERT, PIPE LENGTH, SLOPE AND SIZE.
  2. CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS NOTICE TO THE ENGINEER OF RECORD IN ORDER TO SCHEDULE ATTENDANCE AT THE TELEVIEWED VIDEO INSPECTION OF THE PROPOSED GRAVITY SEWER SYSTEM. THE CONTRACTOR SHALL ALSO SUPPLY THE ENGINEER OF RECORD WITH A COPY OF THE ONSITE VHS TAPE AND LOG REPORT OF THE GRAVITY SEWER COLLECTION SYSTEM.

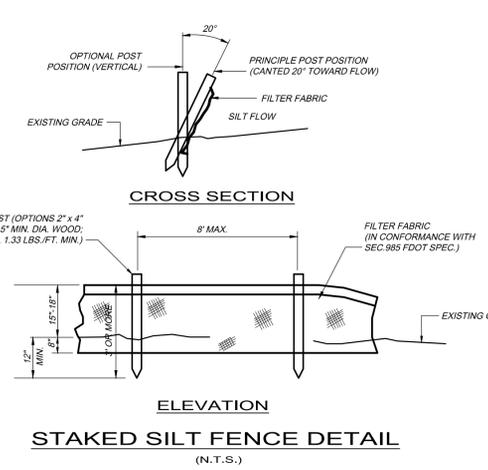
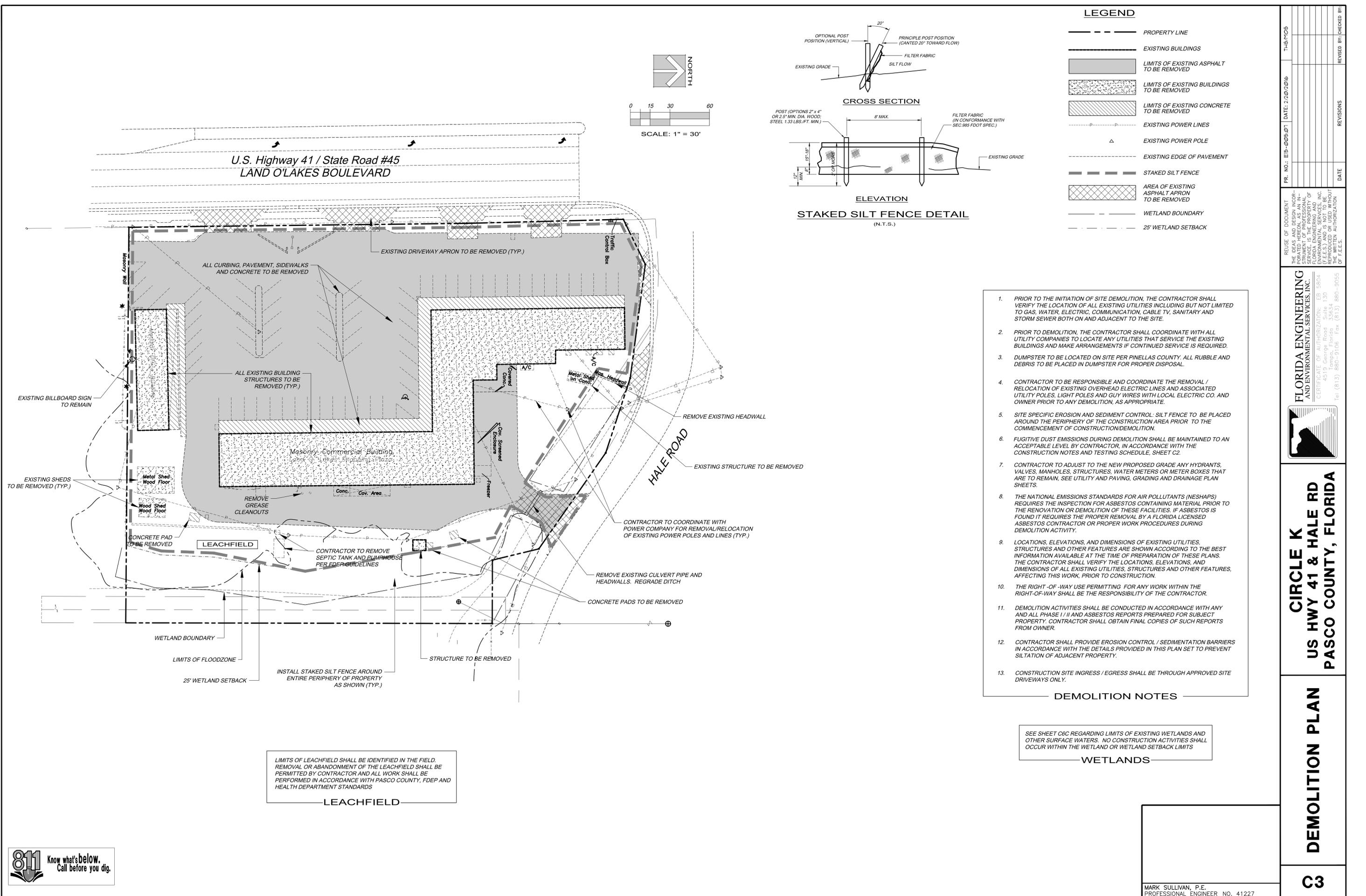
- PAVING, GRADING & DRAINAGE SYSTEM:**
1. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF CERTIFIED AS-BUILT DRAWINGS FOR THE PAVING, GRADING AND STORMWATER MANAGEMENT SYSTEM INCLUDING, BUT NOT LIMITED TO, INLET GRATES, PIPE SIZE, SLOPE, LENGTH AND INVERT DATA, POND ELEVATIONS, OUTFALL STRUCTURE AND DISCHARGE PIPING, PAVEMENT GRADES AND MARKINGS, FINISH FLOOR ELEVATIONS. THESE AS-BUILT DRAWINGS SHALL INCLUDE ANY IMPROVEMENTS MADE ONSITE AS WELL AS OFF-SITE.
  2. CONTRACTOR SHALL PROVIDE AS-BUILT BLUE PRINTS, AND MYLAR REPRODUCIBLE RECORD DRAWINGS CERTIFIED BY A REGISTERED LAND SURVEYOR OF THE OFF-SITE PORTION OF THE ROADWAY WITHIN PUBLIC R.O.W.

- OTHER:**
1. CONTRACTOR SHALL NOTE THAT THE REVIEW, APPROVAL AND ACCEPTANCE PROCESS FOR THE ENGINEERING CERTIFICATIONS BY THE APPROPRIATE AGENCIES TYPICALLY TAKES BETWEEN ONE (1) TO TWO (2) MONTHS. THIS PROCESS WILL AFFECT THE FINAL CERTIFICATE OF OCCUPANCY FOR THE PROJECT, AND CANNOT COMMENCE UNTIL THE SPECIFIC FACILITIES HAVE BEEN CONSTRUCTED, SURVEYED, INSPECTED, TESTED, AND ARE READY FOR CERTIFICATION.
  2. THIS LIST OF REQUIREMENTS DOES NOT ADDRESS ANY TESTING OR INSPECTIONS (IF REQUIRED), WHICH MIGHT BE NECESSARY AS A RESULT OF ANY BUILDING PERMIT OR ON-SITE PIPING PERMITS WHICH MAY NEED TO BE ACQUIRED BY THE CONTRACTOR, FOR PURPOSES OF CONSTRUCTING THE WATER DISTRIBUTION, SANITARY SEWER OR STORMWATER MANAGEMENT SYSTEM.

IF DURING CONSTRUCTION ACTIVITIES ANY EVIDENCE OF HISTORIC RESOURCES, INCLUDING BUT NOT LIMITED TO ABORIGINAL OR HISTORIC POTTERY, PREHISTORIC STONE TOOLS, BONE OR SHELL TOOLS, HISTORIC TRASH PITS, OR HISTORIC BUILDING FOUNDATION ARE DISCOVERED, WORK SHALL STOP TO AN IMMEDIATE STOP AND THE FLORIDA DEPARTMENT OF HISTORIC RESOURCES (STATE HISTORIC PRESERVATION OFFICER) AND PASCO COUNTY SHALL BE NOTIFIED WITHIN TWO WORKING DAYS OF THE RESOURCES FOUND ON THE SITE.

MARK SULLIVAN, P.E.  
PROFESSIONAL ENGINEER NO. 41227

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CERTIFICATE OF AUTHORIZATION: EB 5804			
4519 George Road Suite 130 Tampa, Florida 33634 Tel: (813) 880-9106 Fax: (813) 880-9055			
			
<b>CIRCLE K CONSTRUCTION</b>			
<b>US HWY 41 &amp; HALE RD</b>			
<b>PASCO COUNTY, FLORIDA</b>			
<b>NOTES</b>			
<b>Q2</b>			



**LEGEND**

- PROPERTY LINE
- EXISTING BUILDINGS
- ▨ LIMITS OF EXISTING ASPHALT TO BE REMOVED
- ▩ LIMITS OF EXISTING BUILDINGS TO BE REMOVED
- ▧ LIMITS OF EXISTING CONCRETE TO BE REMOVED
- EXISTING POWER LINES
- △ EXISTING POWER POLE
- EXISTING EDGE OF PAVEMENT
- STAKED SILT FENCE
- ▨ AREA OF EXISTING ASPHALT APRON TO BE REMOVED
- WETLAND BOUNDARY
- 25' WETLAND SETBACK

- DEMOLITION NOTES**
1. PRIOR TO THE INITIATION OF SITE DEMOLITION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, COMMUNICATION, CABLE TV, SANITARY AND STORM SEWER BOTH ON AND ADJACENT TO THE SITE.
  2. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO LOCATE ANY UTILITIES THAT SERVICE THE EXISTING BUILDINGS AND MAKE ARRANGEMENTS IF CONTINUED SERVICE IS REQUIRED.
  3. DUMPSTER TO BE LOCATED ON SITE PER PINELLAS COUNTY. ALL RUBBLE AND DEBRIS TO BE PLACED IN DUMPSTER FOR PROPER DISPOSAL.
  4. CONTRACTOR TO BE RESPONSIBLE AND COORDINATE THE REMOVAL / RELOCATION OF EXISTING OVERHEAD ELECTRIC LINES AND ASSOCIATED UTILITY POLES, LIGHT POLES AND GUY WIRES WITH LOCAL ELECTRIC CO. AND OWNER PRIOR TO ANY DEMOLITION, AS APPROPRIATE.
  5. SITE SPECIFIC EROSION AND SEDIMENT CONTROL: SILT FENCE TO BE PLACED AROUND THE PERIPHERY OF THE CONSTRUCTION AREA PRIOR TO THE COMMENCEMENT OF CONSTRUCTION/DEMOLITION.
  6. FUGITIVE DUST EMISSIONS DURING DEMOLITION SHALL BE MAINTAINED TO AN ACCEPTABLE LEVEL BY CONTRACTOR, IN ACCORDANCE WITH THE CONSTRUCTION NOTES AND TESTING SCHEDULE, SHEET C2.
  7. CONTRACTOR TO ADJUST TO THE NEW PROPOSED GRADE ANY HYDRANTS, VALVES, MANHOLES, STRUCTURES, WATER METERS OR METER BOXES THAT ARE TO REMAIN, SEE UTILITY AND PAVING, GRADING AND DRAINAGE PLAN SHEETS.
  8. THE NATIONAL EMISSIONS STANDARDS FOR AIR POLLUTANTS (NESHAPS) REQUIRES THE INSPECTION FOR ASBESTOS CONTAINING MATERIAL PRIOR TO THE RENOVATION OR DEMOLITION OF THESE FACILITIES. IF ASBESTOS IS FOUND IT REQUIRES THE PROPER REMOVAL BY A FLORIDA LICENSED ASBESTOS CONTRACTOR OR PROPER WORK PROCEDURES DURING DEMOLITION ACTIVITY.
  9. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES, AFFECTING THIS WORK, PRIOR TO CONSTRUCTION.
  10. THE RIGHT-OF-WAY USE PERMITTING FOR ANY WORK WITHIN THE RIGHT-OF-WAY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
  11. DEMOLITION ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH ANY AND ALL PHASE I / II AND ASBESTOS REPORTS PREPARED FOR SUBJECT PROPERTY. CONTRACTOR SHALL OBTAIN FINAL COPIES OF SUCH REPORTS FROM OWNER.
  12. CONTRACTOR SHALL PROVIDE EROSION CONTROL / SEDIMENTATION BARRIERS IN ACCORDANCE WITH THE DETAILS PROVIDED IN THIS PLAN SET TO PREVENT SILTATION OF ADJACENT PROPERTY.
  13. CONSTRUCTION SITE INGRESS / EGRESS SHALL BE THROUGH APPROVED SITE DRIVEWAYS ONLY.

SEE SHEET C6C REGARDING LIMITS OF EXISTING WETLANDS AND OTHER SURFACE WATERS. NO CONSTRUCTION ACTIVITIES SHALL OCCUR WITHIN THE WETLAND OR WETLAND SETBACK LIMITS

**WETLANDS**

LIMITS OF LEACHFIELD SHALL BE IDENTIFIED IN THE FIELD. REMOVAL OR ABANDONMENT OF THE LEACHFIELD SHALL BE PERMITTED BY CONTRACTOR AND ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH PASCO COUNTY, FDEP AND HEALTH DEPARTMENT STANDARDS

**LEACHFIELD**

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**CIRCLE K**  
**US HWY 41 & HALE RD**  
**PASCO COUNTY, FLORIDA**

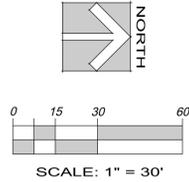
**DEMOLITION PLAN**

**C3**

MARK SULLIVAN, P.E.  
 PROFESSIONAL ENGINEER NO. 41227

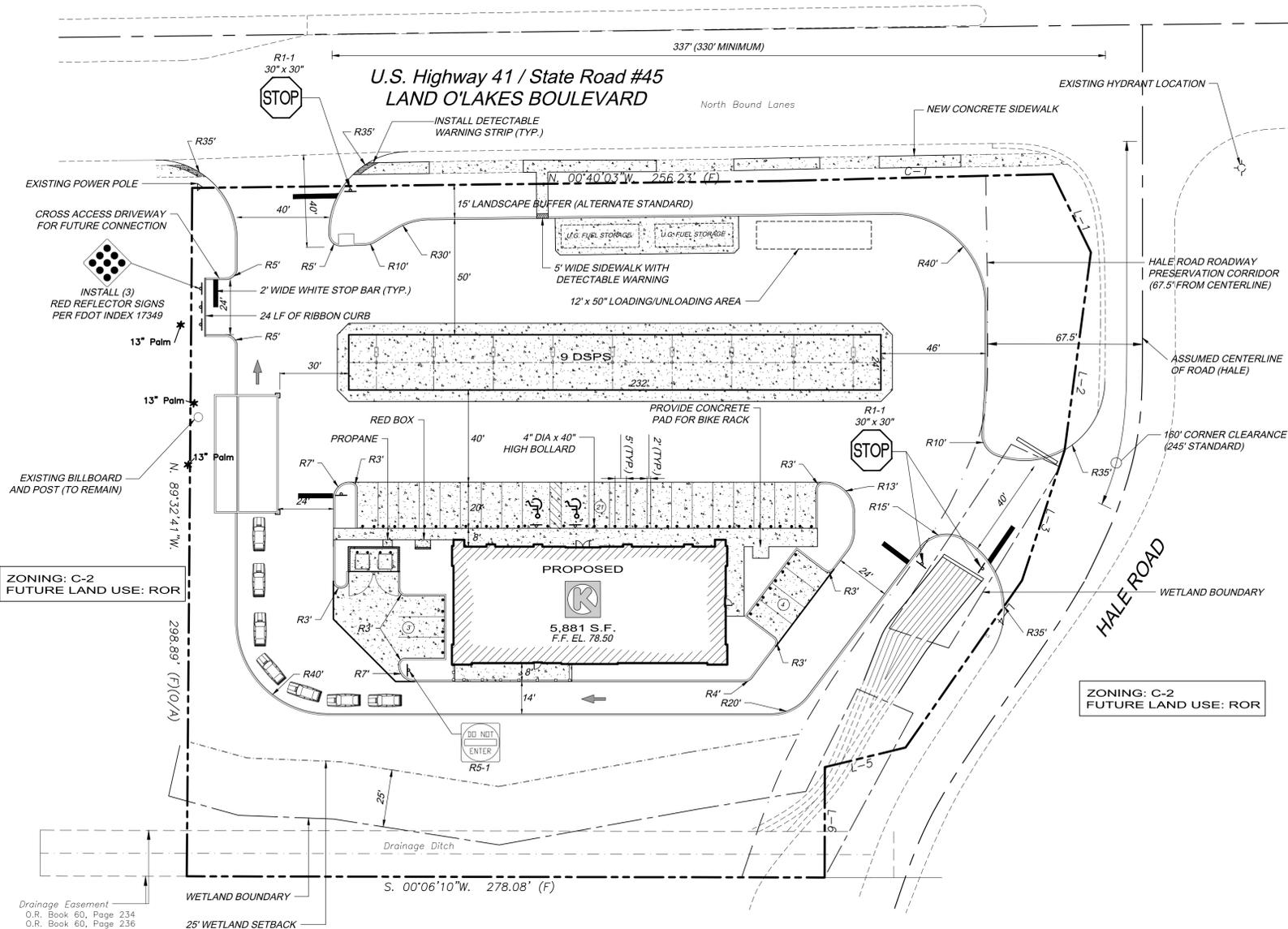


ZONING: C-2  
FUTURE LAND USE: ROR



South Bound Lanes

North Bound Lanes



ZONING: R-3  
FUTURE LAND USE: RES-6

Drainage Easement  
O.R. Book 60, Page 234  
O.R. Book 60, Page 236

VERTICAL DATUM FOR THIS PROJECT IS REFERENCED TO SURVEY PERFORMED BY EDDIE P. JENKINS SURVEYING & MAPPING, INC. DATED FEB. 2, 2015.

ELEVATIONS BASED ON:  
NGD BENCHMARK DESIGNATION: J 659  
ELEVATION = 77.41'  
NAVD 1988

T.B.M. #1  
F.P.K.&D, F.D.O.T.  
ELEVATION = 76.15'  
NAVD 1988

VERTICAL DATUM

**SITE DATA:**

PARCEL NUMBER: 13-26-18-0030-02500-0090  
SITE ADDRESS: 4710 LAND O'LAKES BLVD  
PROJECT SITE AREA (CIRCLE K): 106,286 S.F. OR 2.44 ACRES MORE OR LESS  
ZONING: C-2 GENERAL COMMERCIAL DISTRICT  
FUTURE LAND USE DESIGNATION: ROR  
TRANSPORTATION CORRIDOR: US HWY 41 / LAND O'LAKES BLVD  
EXISTING USE: SHOPPING PLAZA  
RZ/SE/CU PETITION #:  
PETITION ACTION: CU79-03 DATE: 11/27/1979 REQUEST:  
CU07-17 DATE: 7/10/2007

**ABUTTING ZONING:**

NORTH: C-2 (ROR)  
SOUTH: C-2 (ROR)  
EAST: R-3 (RES-6)  
WEST: C-2 (ROR)

BUILDING HEIGHT: 1 FLOOR, 21' MAX.

BUILDING SIZE: STORE: 5,881 SF  
CARWASH: 1,437 SF

PROPOSED DEVELOPMENT TYPE: CONVENIENCE STORE AND GAS STATION  
# OF UNITS / S.F.: 5,881 S.F. (CONVENIENCE STORE)  
1,437 S.F. (CAR WASH)

**AUTOMOBILE PARKING:**

REQUIRED: 1 SPACE / 250 S.F. GFA  
5,881 S.F. / 250 S.F. = 24 SPACES

PROVIDED: STANDARD (9' x 20') = 26 SPACES  
HANDICAP (12' x 20') = 2 SPACES  
TOTAL = 28 SPACES

**BICYCLE PARKING:**

REQUIRED: 0.02 SPACES PER REQUIRED AUTOMOBILE PARKING SPACES  
0.02 x 25 = 0.5 SPACE

PROVIDED: (1) MULTI SLOT BICYCLE RACK

FLOOD ZONE: THIS IS TO CERTIFY THAT THE PROPERTY HEREON FALLS WITHIN FLOOD ZONE "X" & "AE", AS SHOWN ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 12101C0402F DATED 09/26/14.

**LANDSCAPE BUFFERING:**

YARD	MINIMUM	PROPOSED
NORTH	20' - TYPE "G"	15' - TYPE "B"
SOUTH	15' - TYPE "B"	20' - TYPE "C"
EAST	20' - TYPE "C"	15' - TYPE "G"
WEST	20' - TYPE "G"	15' - TYPE "G"

(Submitted Request for Alternate Standard)

**SITE AREAS:**

	PROPOSED	EXISTING
STORE:	5,881 S.F. 0.13 AC.	15,105 S.F. 0.35 AC. 14%
CARWASH:	1,437 S.F. 0.03 AC.	---
ASPHALT / CURB:	42,077 S.F. 0.97 AC.	52,750 S.F. 1.21 AC. 50%
CONCRETE:	16,460 S.F. 0.38 AC.	5,248 S.F. 0.12 AC. 5%
TOTAL IMPERVIOUS:	65,855 S.F. 1.51 AC. 62%	73,103 S.F. 1.68 AC. 69%
TOTAL PEROVIOUS:	40,431 S.F. 0.93 AC. 38%	33,183 S.F. 0.76 AC. 31%
TOTAL SITE:	106,286 S.F. 2.44 AC. 100%	106,286 S.F. 2.44 AC. 100%

FLOOR AREA RATIO (FAR):  $(5,881 \text{ S.F.} + 1,437 \text{ S.F.}) / 43,560 \text{ S.F./AC.} = 0.0688 \text{ OR } 0.07$   
2.44 AC.

MAXIMUM ALLOWABLE FAR = 0.60

IF DURING CONSTRUCTION ACTIVITIES ANY EVIDENCE OF THE PRESENCE OF STATE AND FEDERALLY PROTECTED PLANT AND/OR ANIMAL SPECIES IS DISCOVERED THAT WOULD RESULT IN A TAKE, WORK SHALL COME TO AN IMMEDIATE STOP AND PASCO COUNTY SHALL BE NOTIFIED WITHIN TWO WORKING DAYS. WORK MAY RESUME IF CONSTRUCTION ACTIVITIES ARE CONSISTENT WITH STATE AND / OR FEDERAL RULES, GUIDELINES OR ALL PERTINENT PERMITS HAVE BEEN OBTAINED.

**STATEMENT**

ALL DIMENSIONS SHOWN AT PROPOSED CURBS ARE TO THE ADJACENT EDGE OF PAVEMENT.

**DIMENSION CLARIFICATION**

ALL SIGNAGE AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.

**SIGNAGE & PAVEMENT MARKING**

- ALL PROJECTS MUST COMPLY WITH PASCO COUNTY FIRE HYDRANT ORDINANCE NO. 46-51.
- FIRE HYDRANTS SHALL BE INSTALLED AND IN SERVICE PRIOR TO THE ACCUMULATION OF COMBUSTIBLES.
- PER THE 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.

**PASCO COUNTY STANDARD  
FIRE PROTECTION NOTES**

**LEGEND**

- PROPERTY LINE
- PROPOSED BUILDING
- EXISTING EDGE OF PAVEMENT
- PROPOSED FDOT TYPE "D" CURB
- WETLAND BOUNDARY
- 25' WETLAND SETBACK
- PROPOSED CONCRETE PAVEMENT

ALL UTILITY CONSTRUCTION SHALL COMPLY WITH THE PASCO COUNTY STANDARDS FOR DESIGN AND CONSTRUCTION OF WATER AND WASTEWATER FACILITIES SPECIFICATIONS, LATEST EDITION.

ALL ON-SITE WATER AND SEWER FACILITIES SHALL BE OWNED AND MAINTAINED BY THE OWNER-DEVELOPER.

3. INSTALLATION OF FUEL STORAGE TANKS REQUIRES REVIEW AND APPROVAL BY THE FIRE MARSHAL AND THE ISSUANCE OF A SEPARATE BUILDING PERMIT. APPROVAL OF THE SITE PLAN DOES NOT CONSTITUTE APPROVAL OF THE LOCATION OF THE FUEL TANKS.

4. ALL PROPOSED SIGNS MUST BE APPLIED FOR, APPROVED, AND PERMITTED ON AN INDIVIDUAL BASIS APART FROM ANY ULTIMATELY APPROVED SITE PLAN. APPROVAL OF THIS SITE PLAN DOES NOT CONSTITUTE APPROVAL OF ANY SIGNAGE.

5. HANDICAP PARKING SPACES WILL BE PROPERLY SIGNED AND STRIPED IN ACCORDANCE WITH FLORIDA STATUTE 316, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, OR OTHER APPLICABLE STANDARDS.

6. THE ARCHITECT/ENGINEER CERTIFIES THAT THE SITE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT.

7. ALL ON-SITE PARKING SPACES WILL BE STRIPED AND SIGNED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. PARKING SPACES, DIRECTIONAL ARROWS, AND STOP BARS SHALL BE STRIPED IN WHITE. IT SHALL BE THE OWNER/DEVELOPER'S RESPONSIBILITY TO PROPERLY SIGN AND STRIPE IN ACCORDANCE WITH APPLICABLE STANDARDS.

8. THE OWNER/DEVELOPER ACKNOWLEDGES THAT THIS APPROVAL DOES NOT INCLUDE ANY WORK IN THE COUNTY RIGHT-OF-WAY. ALL RIGHT-OF-WAY WORK SHALL BE A FUNCTION OF AN APPROVED PASCO RIGHT-OF-WAY USE PERMIT.

9. ALL CLEAR-SITE AREAS SHALL BE KEPT FREE OF ANY SIGNAGE PLANTINGS, TREES, ETC. IN EXCESS OF THREE-AND-A-HALF (3-1/2) FEET IN HEIGHT.

10. NO IRRIGATION SYSTEM OR LANDSCAPING SHALL BE INSTALLED IN ANY COUNTY OR STATE RIGHT-OF-WAY WITHOUT ISSUANCE OF APPROPRIATE RIGHT-OF-WAY USE PERMIT.

11. THE OWNER/DEVELOPER ACKNOWLEDGES THAT THE SITE AND ITS SUBSEQUENT BUILDING PERMITS SHALL COMPLY WITH ALL REZONING/MPUD/PUD CONDITIONS.

12. ALL STRUCTURES, INCLUDING BUFFER WALLS, RETAINING WALLS, SIGNAGE, ETC. REQUIRE BUILDING PERMITS.

**PASCO COUNTY - STANDARD SITE PLAN NOTES**

IF DURING CONSTRUCTION ACTIVITIES ANY EVIDENCE OF HISTORIC RESOURCES, INCLUDING BUT NOT LIMITED TO ABORIGINAL OR HISTORIC POTTERY, PREHISTORIC STONE TOOLS, BONE OR SHELL TOOLS, HISTORIC TRASH PITS, OR HISTORIC BUILDING FOUNDATION, ARE DISCOVERED, WORK SHALL COME TO AN IMMEDIATE STOP AND THE FLORIDA DEPARTMENT OF HISTORIC RESOURCES (STATE HISTORIC PRESERVATION OFFICER) AND PASCO COUNTY SHALL BE NOTIFIED WITHIN TWO WORKING DAYS OF THE RESOURCES FOUND ON THE SITE.

**HISTORICAL RESOURCES STATEMENT**

SEE SHEET C6C REGARDING LIMITS OF EXISTING WETLANDS AND OTHER SURFACE WATERS. NO CONSTRUCTION ACTIVITIES SHALL OCCUR WITHIN THE WETLAND OR WETLAND SETBACK LIMITS

**WETLANDS**

PR. NO.: E1B-002507 DATE: 2/20/2016

REVISIONS	DATE	REVISIONS	CHECKED BY

FLORIDA ENGINEERING AND ENVIRONMENTAL SERVICES, INC.  
CERTIFICATE OF AUTHORIZATION: EB 5804  
4519 George Road Suite 130  
Tampa, Florida 33634  
Tel: (813) 880-9106 Fax: (813) 880-9055

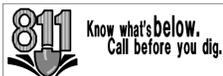


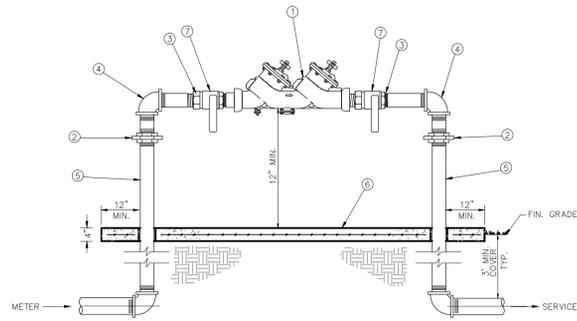
**CIRCLE K  
US HWY 41 & HALE RD  
PASCO COUNTY, FLORIDA**

**SITE PLAN**

**C4**

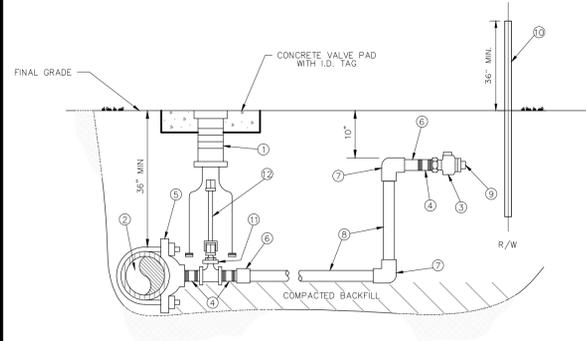
MARK SULLIVAN, P.E.  
PROFESSIONAL ENGINEER NO. 41227





ITEM	QUANT.	DESCRIPTION
1	1	BACKFLOW PREVENTER ASSEMBLY, DOUBLE CHECK VALVE
2	2	UNIONS - GALV.
3	2	NIPPLES - BRASS
4	2	ELBOWS - GALV. 90°
5	2	RISER - GALV.
6	*	CONCRETE SLAB
7	2	BALL VALVES - BRASS OR S.S. (PROVIDED WITH BFP ASS'Y)

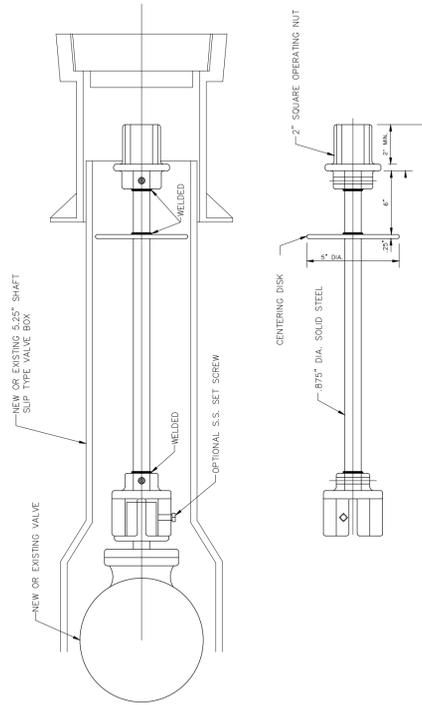
NOTE: - FIELD ADJUST AND CUT ITEM 5 TO THE PROPER LENGTH.  
 - BFP DEVICE TO BE INSTALLED LEVEL AND PLUMB  
 - MINIMUM CLEARANCE OF 24" TO BE MAINTAINED AROUND DEVICE FOR TESTING.  
 - ENTIRE ASSEMBLY TO BE PAINTED SAFETY BLUE.  
 - CONCRETE SLAB TO EXTEND 12" MIN. AROUND ENTIRE DEVICE.  
 - DEVICE MUST BE LISTED WITH THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH.



ITEM	QUANT.	DESCRIPTION
1	1	BOX, VALVE CAST IRON SLIP TYPE
2	*	4" & LARGER PIPE, PVC (DR-18) OR D.I.P. (CLASS 50)
3	2	1 1/2" 2" CURB STOP BALL VALVE W/ LOCK WINGS (FIP x FIP OR FIP x CTS)
4	3	1 1/2" 2" NIPPLE, BRASS OR STAINLESS STEEL
5	1	1 1/2" 2" SADDLE, SERVICE (L.P. THREADS)
6	2	1 1/2" 2" ADAPTER (PVC SCH 40 / SLIP x FPT OR BRASS MIP x CTS)
7	2	1 1/2" 2" 90° ELBOW (SLIP x SLIP) SCH 40 (NOT REQUIRED FOR HDPE)
8	*	1 1/2" 2" PIPE, PVC (SCH 40) OR HDPE (3408) - LENGTH VARIES
9	1	1 1/2" 2" PLUG, THREADED (W/ TEFLON TAPE)
10	1	2" x 4" P.T. MARKER STAKE
11	1	2" GATE VALVE, IRON BODY W/ SQUARE NUT
12	1	VALVE EXTENSION ROD, AS REQUIRED (3' MAX. BELOW GRADE)

NOTE: - A VALVE BOX SHALL BE REQUIRED ON ALL GATE VALVES.  
 - SERVICE SADDLES SHALL BE INSTALLED ON ALL TAPS TO P.V.C. (DR-18) WATER MAINS.  
 - 2" GATE VALVE TO BE RESILIENT WEDGE IRON BODY TYPE WITH 2" OPERATING UNIT.  
 - SADDLES 4" AND LARGER TO BE DUCTILE IRON DUAL STRAP TYPE.  
 - 1 1/2" BRASS REDUCER BUSHING REQUIRED WITH ITEM NO. 11 FOR 1 1/2" SERVICE.  
 - MARKER STAKES PAINTED SAFETY BLUE FOR WATER, PURPLE FOR REUSE.  
 - 4" DIAMETER CASING REQUIRED FOR ROAD CROSSINGS

NOTE: ALL VALVE BOXES SHALL INCLUDE CONCRETE PAD W/ I.D. TAG



CREATED 02/24/03  
 REVISED

CREATED 02/24/03  
 REVISED

WATER AND REUSE LATERAL SERVICE  
 1 1/2" OR 2"  
 SERVICE LATERAL PVC (SCHEDULE 40)  
 PASCO COUNTY UTILITIES

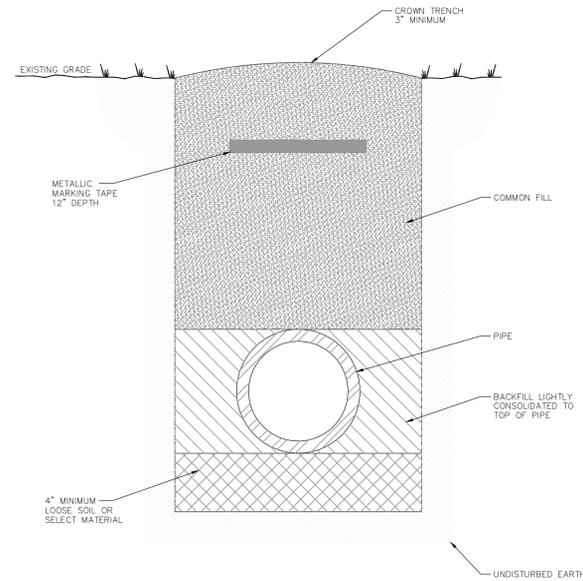
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 DETAIL 21

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL  
 DETAIL 29

CREATED 02/24/03  
 REVISED

VALVE BOX DETAIL  
 SLIP TYPE  
 PASCO COUNTY UTILITIES

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 DETAIL 30

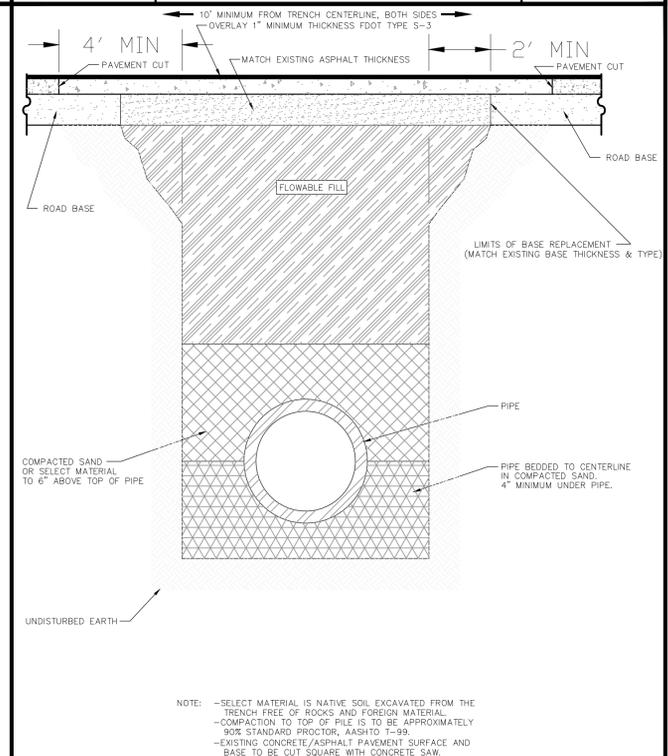


NTS  
 NOTES: - LOOSE SOIL OR SELECT MATERIAL IS NATIVE SOIL EXCAVATED FROM THE TRENCH FREE OF ROCKS AND FOREIGN MATERIAL.  
 - COMMON FILL TO BE PLACED AND COMPACTED IN 12" LAYERS.  
 - ROLLING EQUIPMENT SHALL NOT BE USED FOR COMPACTION UNTIL A MINIMUM OF 18" OF COMMON FILL HAS BEEN PLACED AND COMPACTED OVER THE PIPE. THREE FEET OF FILL SHALL BE PLACED BEFORE A HYDROHAMMER MAY BE USED FOR COMPACTION.

CREATED 02/24/03  
 REVISED

PIPE LAYING CONDITIONS  
 STANDARD UNPAVED AREAS  
 PASCO COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL  
 DETAIL 35



NTS  
 NOTES: - SELECT MATERIAL IS NATIVE SOIL EXCAVATED FROM THE TRENCH FREE OF ROCKS AND FOREIGN MATERIAL.  
 - COMPACTION TO TOP OF PIPE IS TO BE APPROXIMATELY 90% STANDARD PROCTOR, AASHTO T-99.  
 - EXISTING CONCRETE/ASPHALT PAVEMENT SURFACE AND BASE TO BE CUT SQUARE WITH CONCRETE SAW.

CREATED 03/06/03  
 REVISED

PIPE LAYING CONDITIONS  
 FLOWABLE FILL BACKFILL  
 STANDARD EXISTING PAVED AREAS & ROADWAYS  
 PASCO COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL  
 DETAIL 36



MARK SULLIVAN, P.E.  
 PROFESSIONAL ENGINEER NO. 41227

CIRCLE K  
 US HWY 41 & HALE RD  
 PASCO COUNTY, FLORIDA

UTILITY DETAILS

C5A

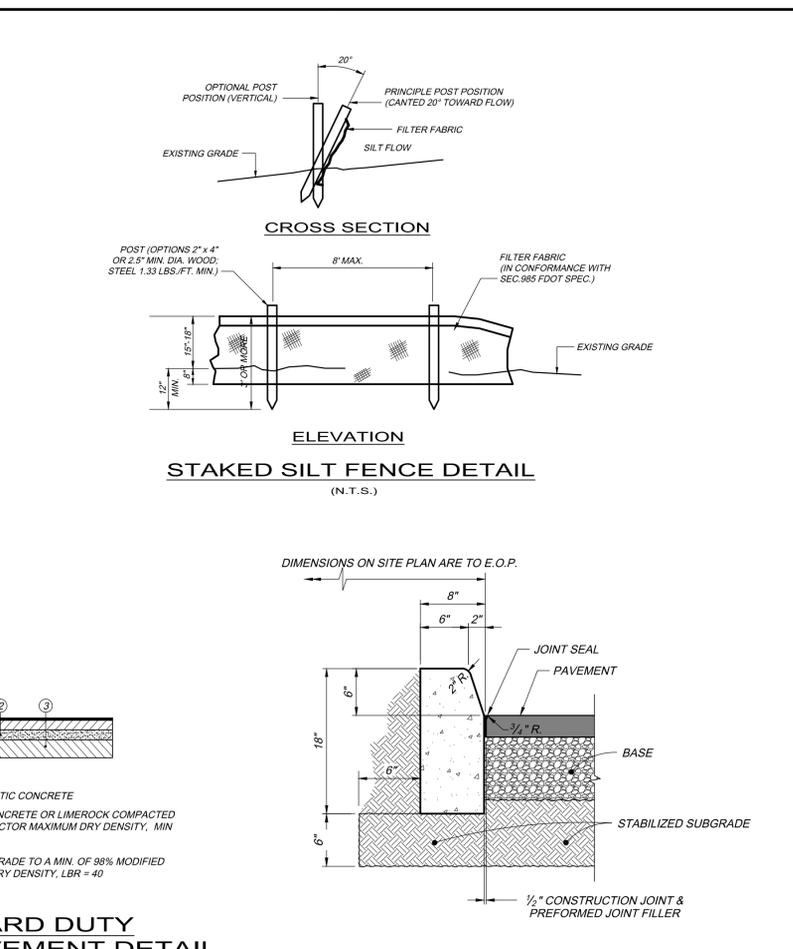
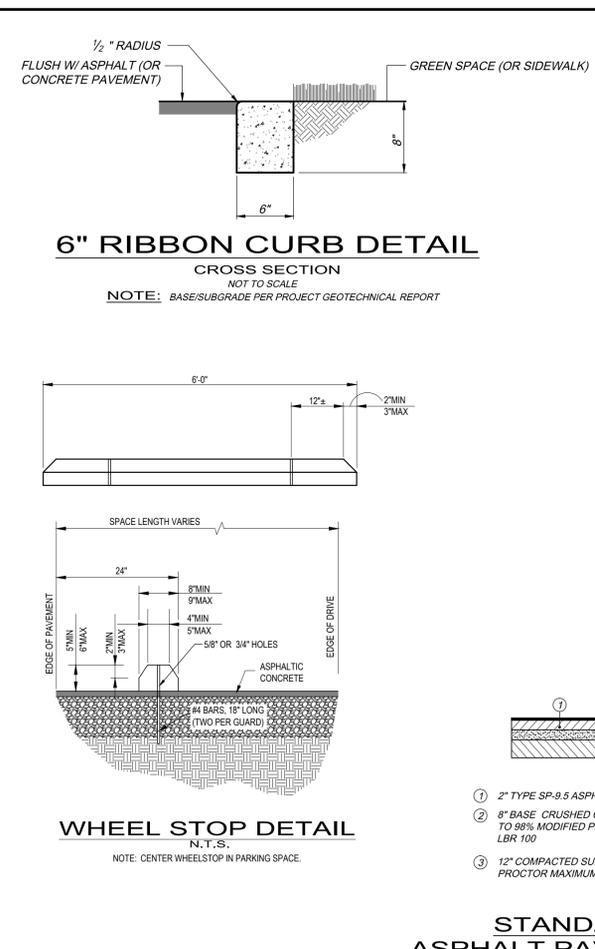
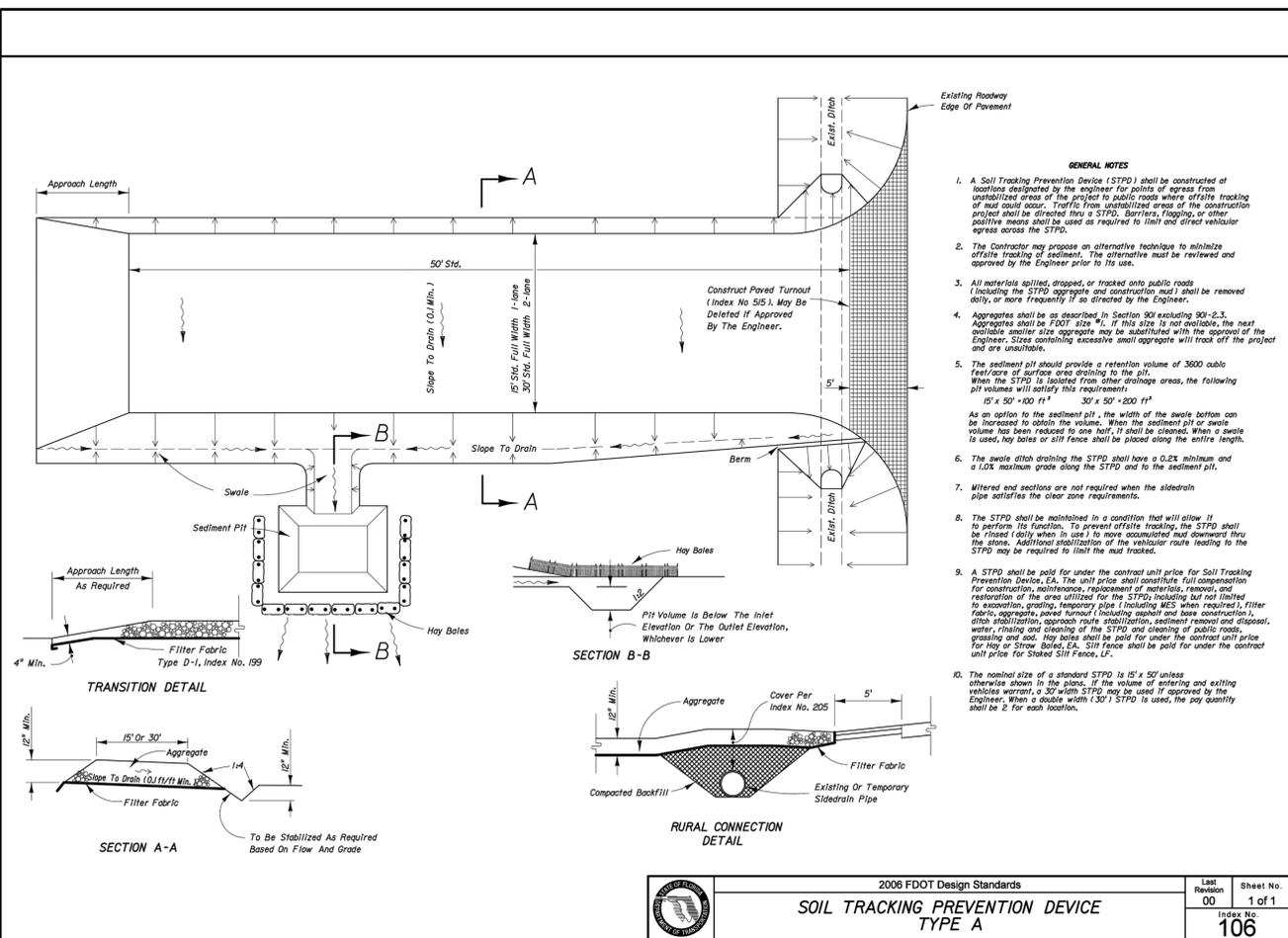
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 4519 George Road Suite 130  
 Tampa, Florida 33634  
 Tel: (813) 880-9106 Fax: (813) 880-9055



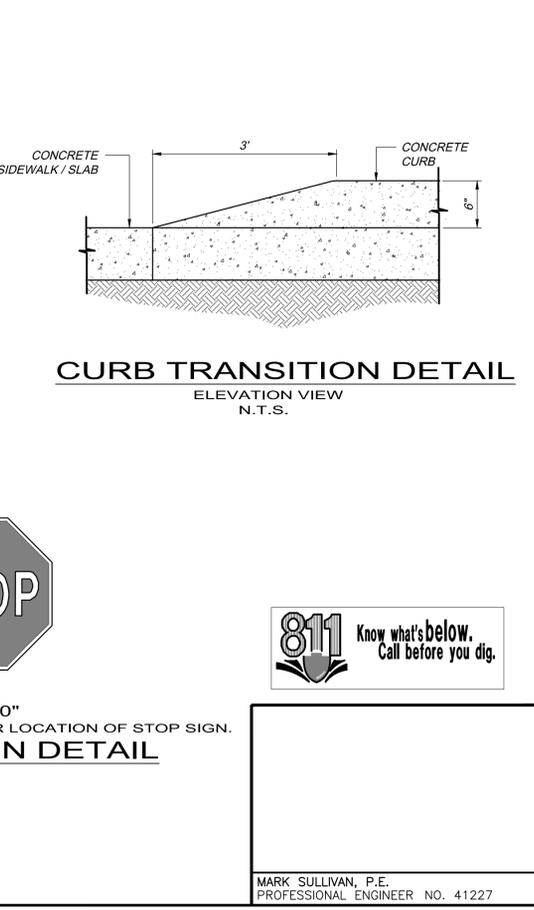
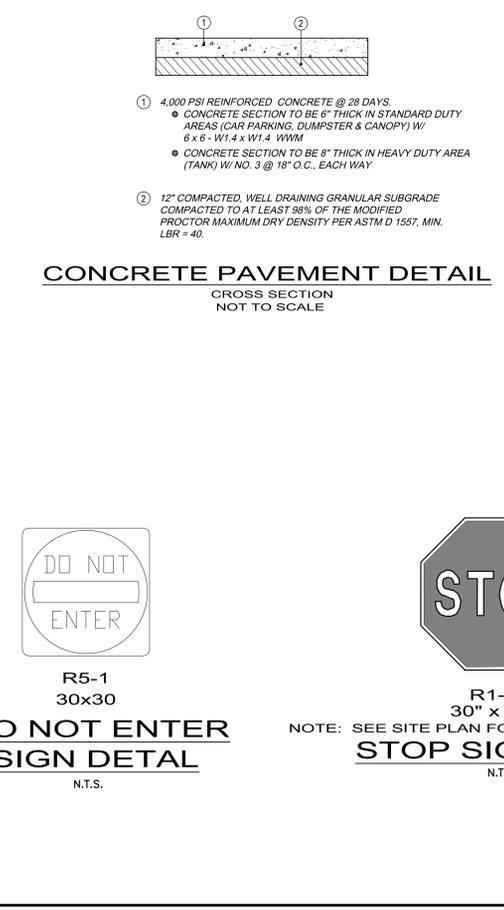
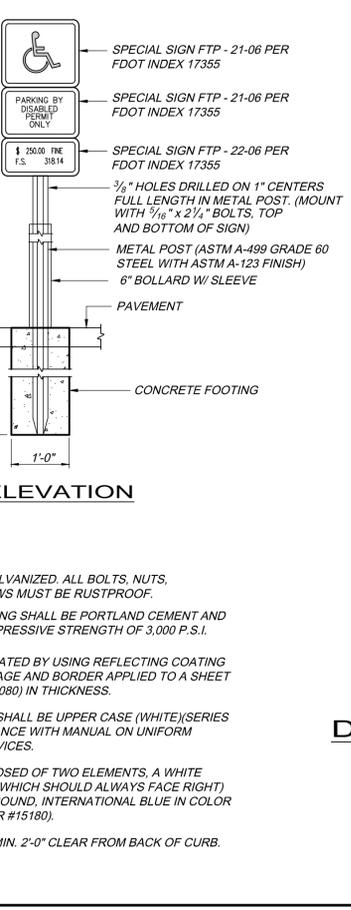
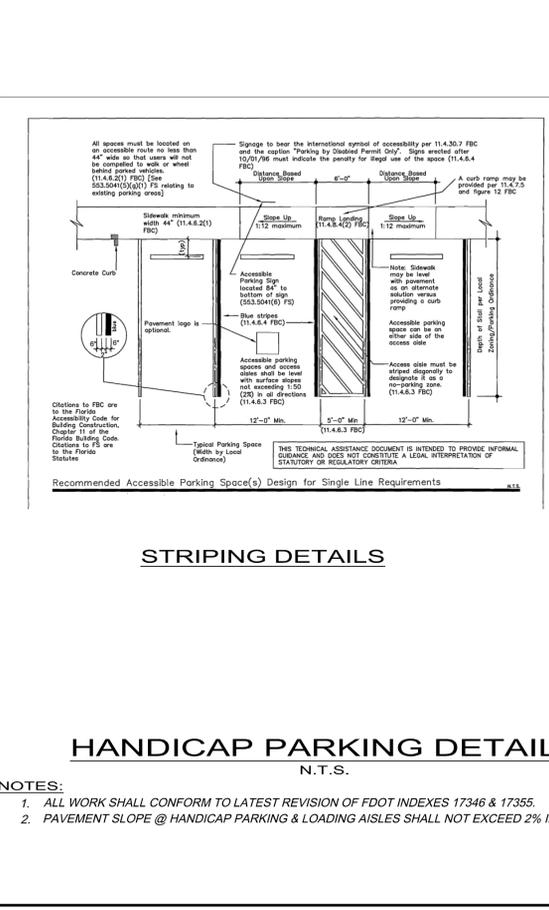
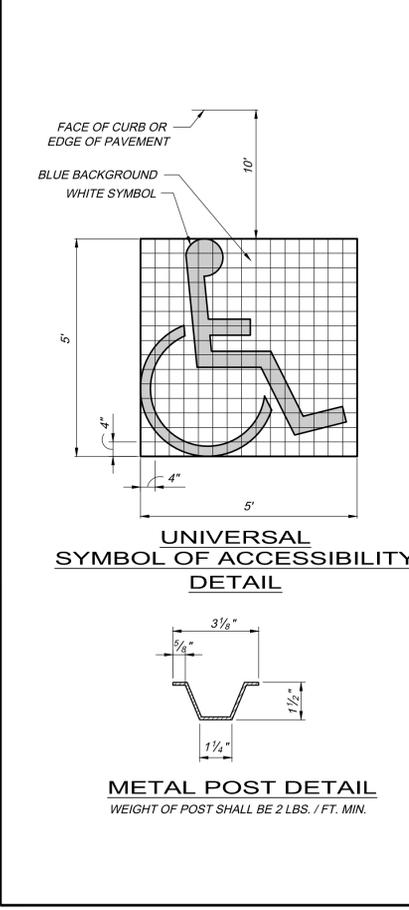
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PR. NO.: EIB-002507 DATE: 2/20/06 TH-87M03

REVISIONS	DATE	REVISIONS	REVISOR	CHECKED BY:



SOIL TRACKING DEVICE- INDEX NO. 106  
N.T.S.



PR. NO.: EIB-025071 DATE: 2/20/2016

TH-87003

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**CIRCLE K**  
**US HWY 41 & HALE RD**  
**PASCO COUNTY, FLORIDA**

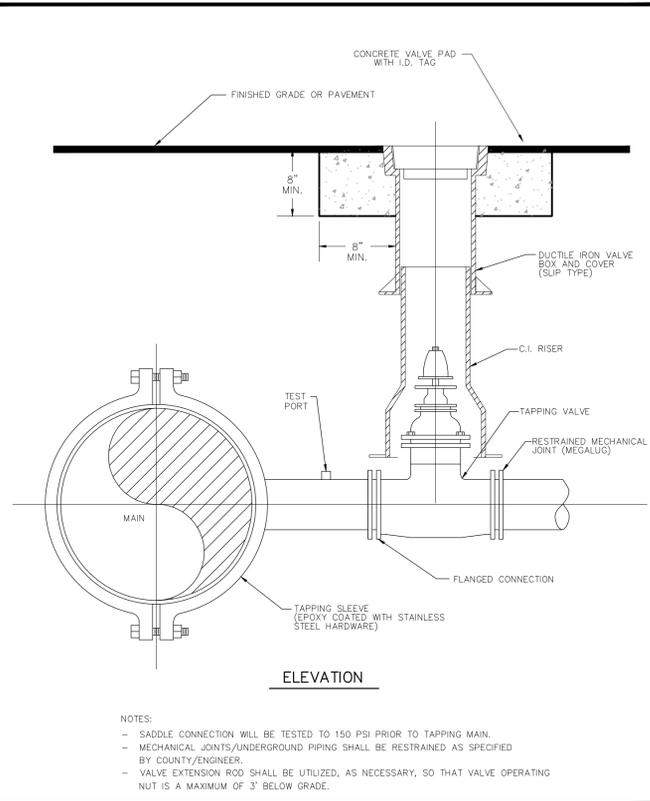
**SITE DETAILS**

**C4B**

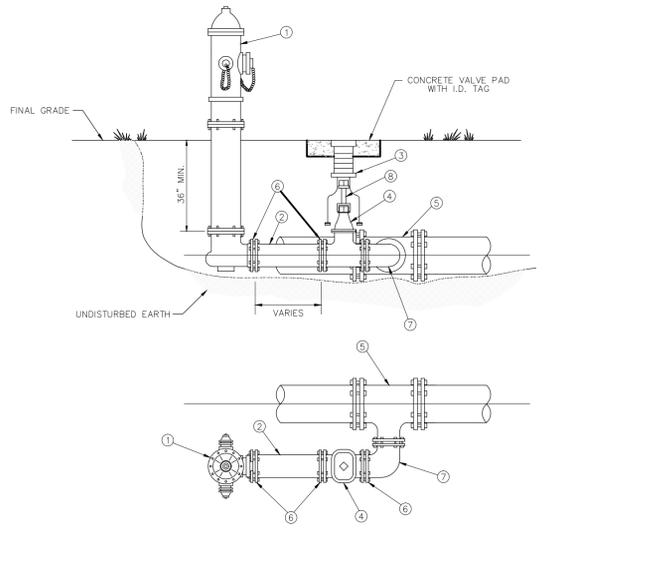
MARK SULLIVAN, P.E.  
 PROFESSIONAL ENGINEER NO. 41227



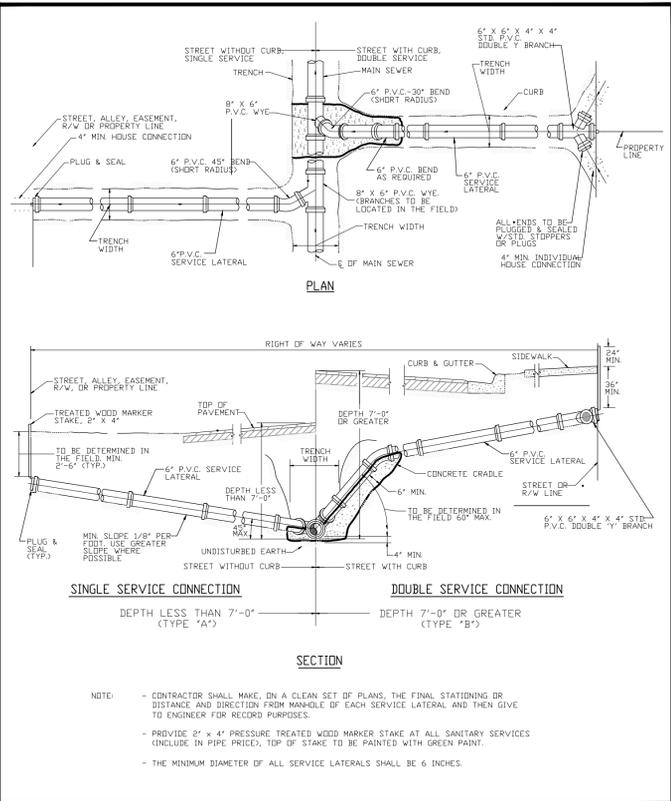




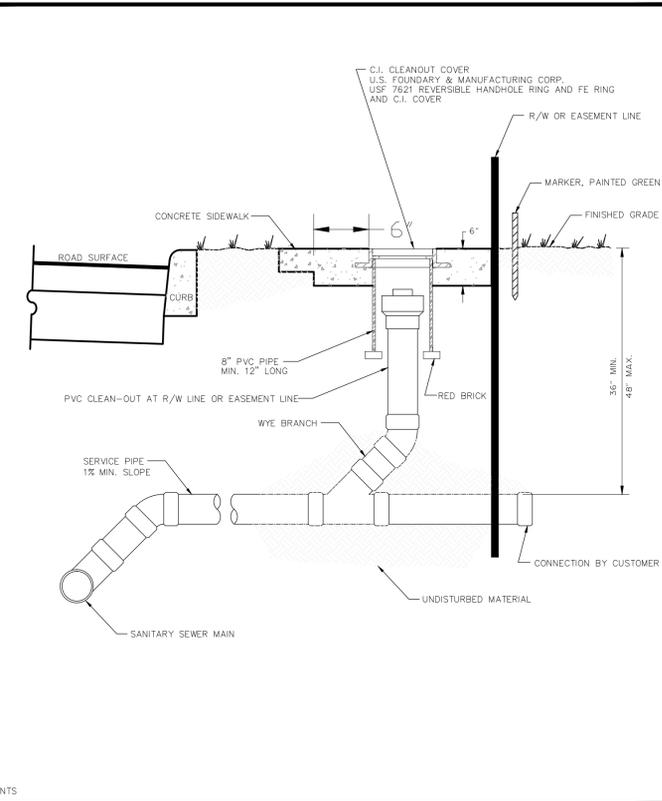
CREATED REVISED	02/24/03	<b>WATER, REUSE, AND FORCE MAIN TAPPING DETAIL W/ VALVE LOCATION</b>	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
		PASCO COUNTY UTILITIES	DETAIL 37



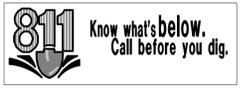
CREATED REVISED	02/24/03	<b>FIRE HYDRANT PARALLEL TO THE MAIN</b>	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
		PASCO COUNTY UTILITIES	DETAIL 26



CREATED REVISED	02/24/03	<b>SEWER LATERAL CONNECTION</b>	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
		PASCO COUNTY UTILITIES	DETAIL 44



CREATED REVISED	02/24/03	<b>SANITARY SEWER - SINGLE WYE CONNECTION AND TYPICAL CLEAN-OUT</b>	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
		PASCO COUNTY UTILITIES	DETAIL 45



MARK SULLIVAN, P.E.  
PROFESSIONAL ENGINEER NO. 41227

TH-87M03  
PR. NO.: EIB-020507 DATE: 2/20/06  
REVISIONS  
DATE  
REVISOR

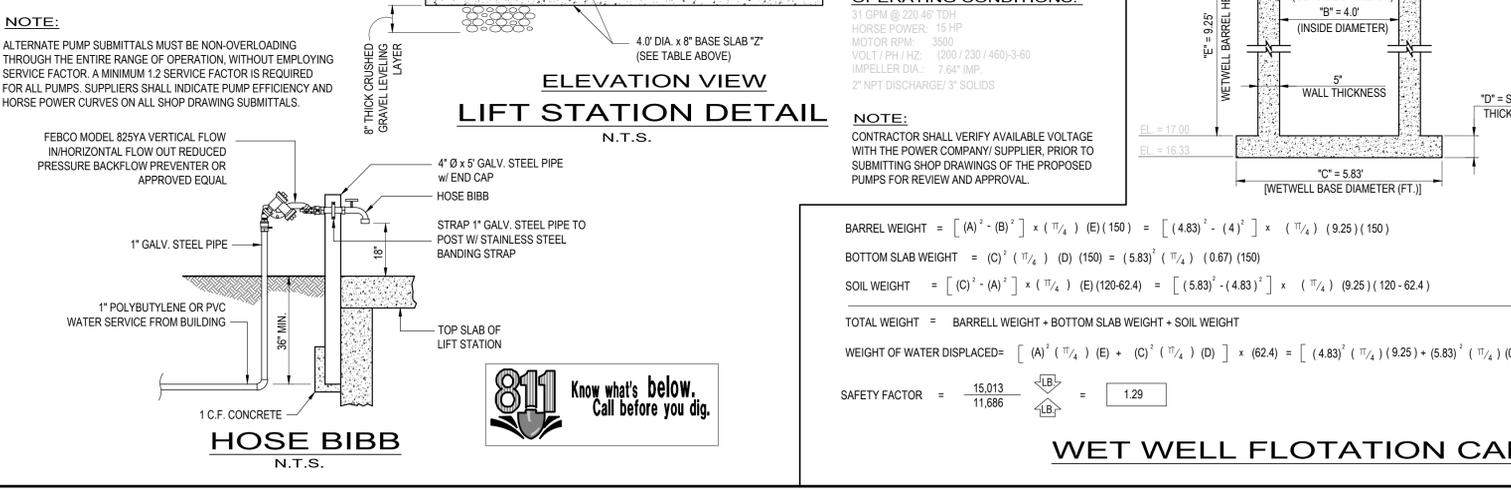
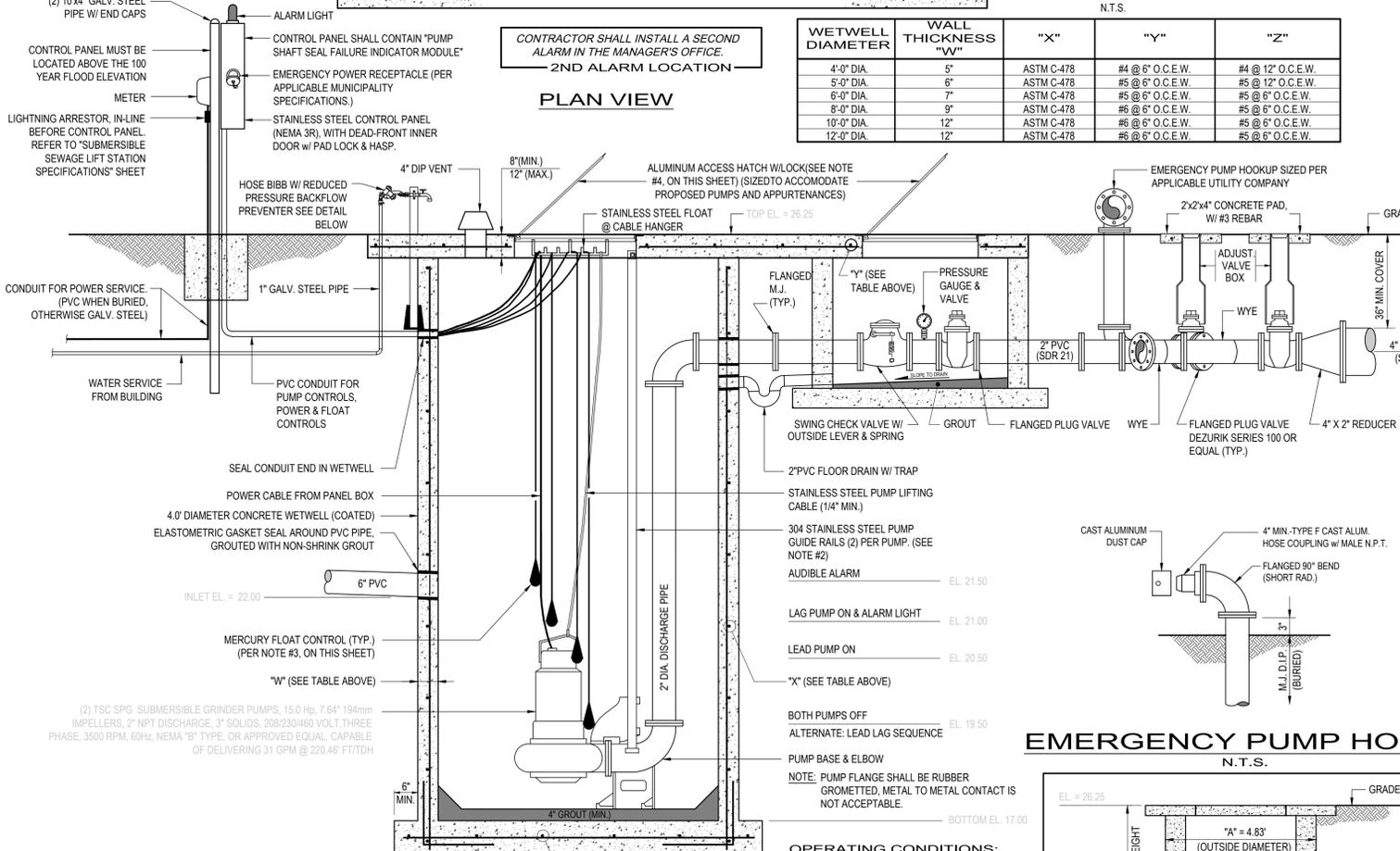
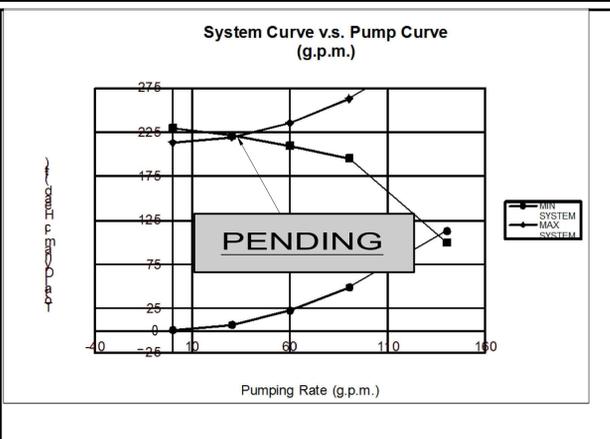
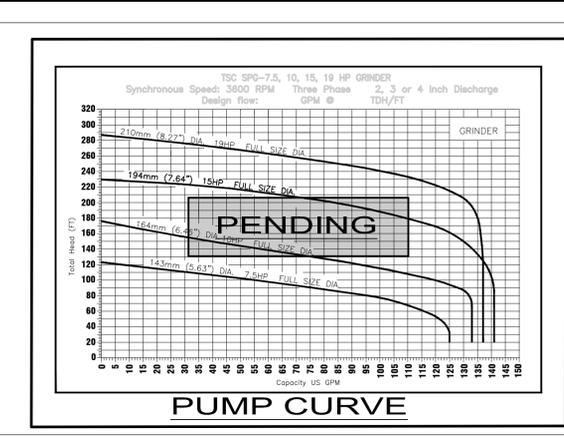
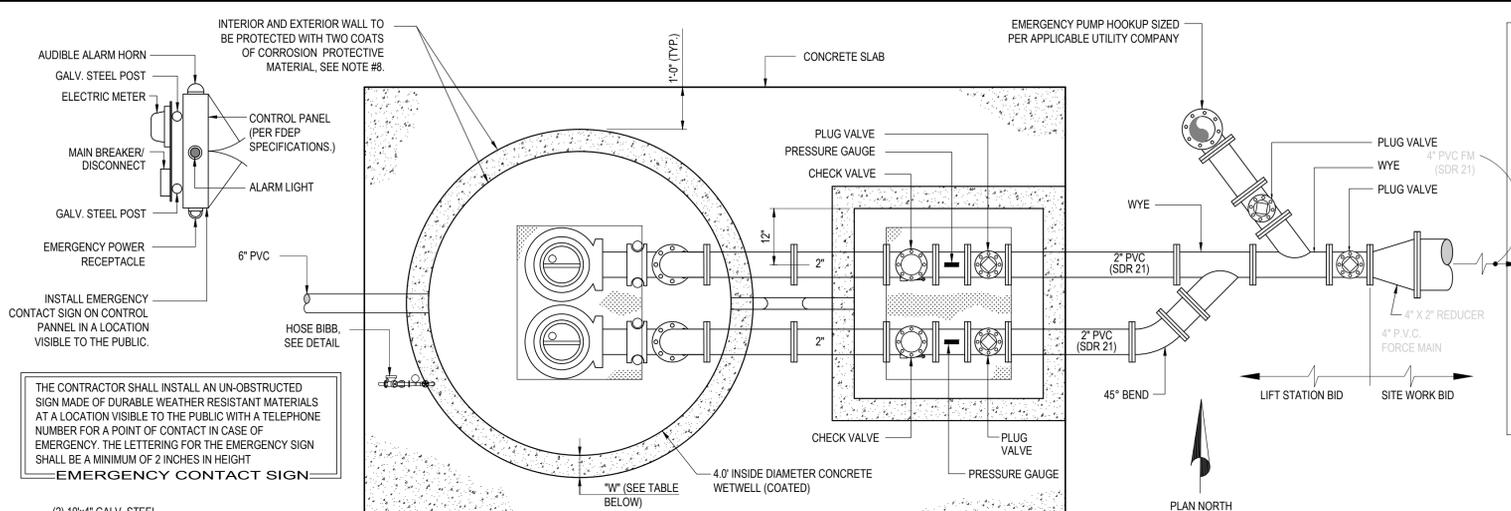
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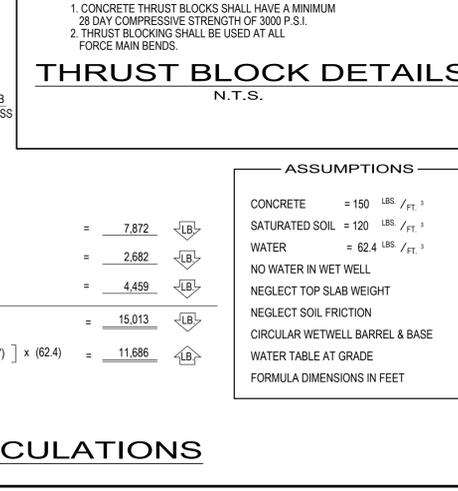
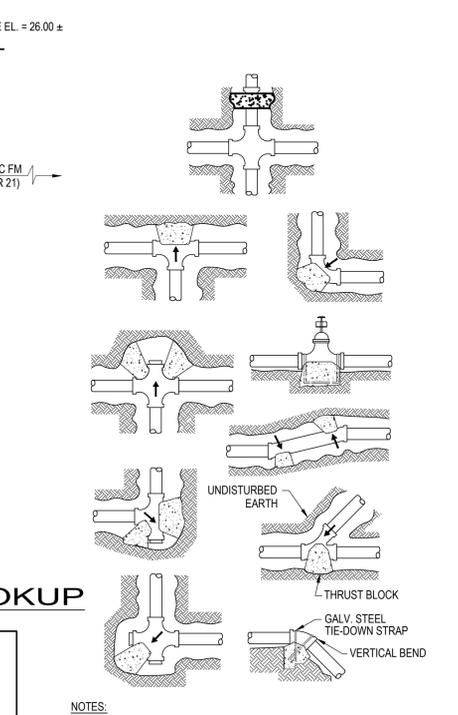
**CIRCLE K  
US HWY 41 & HALE RD  
PASCO COUNTY, FLORIDA**

**UTILITY DETAILS**

**C5B**



**DESIGN DETAILS OF LIFT STATION AND PUMPS ARE PENDING PASCO COUNTY CONFIRMATION OF POINT OF CONNECTION AND TDH OF COUNTY FORCE MAIN**



WETWELL DIAMETER	WALL THICKNESS "W"	"X"	"Y"	"Z"
4'-0" DIA.	5"	ASTM C-478	#4 @ 6" O.C.E.W.	#4 @ 12" O.C.E.W.
5'-0" DIA.	6"	ASTM C-478	#5 @ 6" O.C.E.W.	#5 @ 12" O.C.E.W.
6'-0" DIA.	7"	ASTM C-478	#5 @ 6" O.C.E.W.	#5 @ 6" O.C.E.W.
8'-0" DIA.	9"	ASTM C-478	#6 @ 6" O.C.E.W.	#5 @ 6" O.C.E.W.
10'-0" DIA.	12"	ASTM C-478	#6 @ 6" O.C.E.W.	#5 @ 6" O.C.E.W.
12'-0" DIA.	12"	ASTM C-478	#6 @ 6" O.C.E.W.	#5 @ 6" O.C.E.W.

**OPERATING CONDITIONS:**  
 31 GPM @ 220.46' TDH  
 HORSE POWER: 15 HP  
 MOTOR RPM: 3500  
 VOLT / PH / HZ: (200 / 230 / 460)-3-Ø  
 IMPELLER DIA.: 7.64" IMP  
 2" NPT DISCHARGE/ 3" SOLIDS

**NOTE:**  
 CONTRACTOR SHALL VERIFY AVAILABLE VOLTAGE WITH THE POWER COMPANY/ SUPPLIER, PRIOR TO SUBMITTING SHOP DRAWINGS OF THE PROPOSED PUMPS FOR REVIEW AND APPROVAL.

**WET WELL FLOTATION CALCULATIONS**

$$\text{BARREL WEIGHT} = [(A)^2 - (B)^2] \times (\pi/4) \times (E) (150) = [(4.83)^2 - (4)^2] \times (\pi/4) \times (9.25) (150) = 7.872 \text{ (LB)}$$

$$\text{BOTTOM SLAB WEIGHT} = (C)^2 \times (\pi/4) \times (D) (150) = (5.83)^2 \times (\pi/4) \times (0.67) (150) = 2.882 \text{ (LB)}$$

$$\text{SOIL WEIGHT} = [(C)^2 - (A)^2] \times (\pi/4) \times (E) (120-62.4) = [(5.83)^2 - (4.83)^2] \times (\pi/4) \times (9.25) (120 - 62.4) = 4.459 \text{ (LB)}$$

$$\text{TOTAL WEIGHT} = \text{BARREL WEIGHT} + \text{BOTTOM SLAB WEIGHT} + \text{SOIL WEIGHT} = 15.013 \text{ (LB)}$$

$$\text{WEIGHT OF WATER DISPLACED} = [(A)^2 \times (\pi/4) \times (E) + (C)^2 \times (\pi/4) \times (D)] \times (62.4) = [(4.83)^2 \times (\pi/4) \times (9.25) + (5.83)^2 \times (\pi/4) \times (0.67)] \times (62.4) = 11.686 \text{ (LB)}$$

$$\text{SAFETY FACTOR} = \frac{15.013}{11.686} = 1.29$$

**SYSTEM CURVE vs. PUMP CURVE**

**LIFT STATION NOTES:**

- WET WELL: SHALL BE PRECAST CONCRETE MEETING STANDARD SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE MANHOLE, A.S.T.M. C-478, LATEST REVISION. CONCRETE SHALL BE MADE WITH TYPE II ACID RESISTANT CEMENT AND SHALL ATTAIN A COMPRESSIVE STRENGTH OF 4,000 p.s.i. AT 28 DAYS. JOINTS SHALL BE SEALED WITH RAM-NEK OR EQUAL FLEXIBLE SEALER CONFORMING TO FEDERAL SPECIFICATION SS-S-00210. THE MORE STRINGENT OF EITHER THE CRITERIA ABOVE, OR THE "SUBMERSIBLE SEWAGE LIFT STATION SPECIFICATIONS" SHEET CONTAINED WITHIN THIS PLAN SET.
- PUMPS SHALL HAVE (2) 1" 304 STAINLESS STEEL GUIDE RAILS FOR LESS THAN 4" DISCHARGE PUMPS, OR TWO (2) 2" 304 STAINLESS STEEL GUIDE RAILS FOR 4" OR LARGER DISCHARGE PUMPS, TWO PER PUMP.
- LEVEL CONTROLS: SHALL BE MODEL S300, ANCHOR SCIENTIFIC ROTO FLOAT, OR EQUAL MERCURY SWITCH LIQUID LEVEL REGULATORS, EACH PROVIDED WITH 30" CONTINUOUS ELECTRIC CABLE AND WEIGHTS, IN ACCORDANCE WITH "SUBMERSIBLE PUMP SEWAGE LIFT STATION SPECIFICATIONS" SHEET.
- WET WELL ACCESS COVER: SHALL HAVE A MINIMUM CLEAR OPENING OF 30" x 48" (FOR NON-CLOG PUMPS) AND 24" x 37" (FOR GRINDER PUMPS). ACCESS COVERS SHALL BE AS MANUFACTURED BY U.S. FOUNDRY OR EQUAL. ACCESS FRAME AND COVERS SHALL BE FABRICATED OF 300 p.s.f. ALUMINUM. FRAME SHALL SUPPORT GUIDE RAILS AND CABLE HOLDER FOR ELECTRICAL WIRING. CABLE HOLDER SHALL BE CONSTRUCTED OF STAINLESS STEEL. COVERS SHALL BE PROVIDED WITH LIFTING HANDLE AND SAFETY LATCH TO HOLD COVER IN OPEN POSITION. LOCKING HASPS SHALL BE FURNISHED FOR EACH COVER. STAINLESS STEEL HARDWARE SHALL BE USED THROUGHOUT. ALL SURFACES IN CONTACT WITH CONCRETE SHALL HAVE A SHOP COAT OF ZINC CHROMATIC PRIMER, APPROVED ALKALI RESISTANT PAINT OR OTHER APPROVED PROTECTIVE COATING. COVER MUST BE COMPATIBLE WITH PUMPS, AND BE IN ACCORDANCE WITH "SUBMERSIBLE PUMP SEWAGE LIFT STATION SPECIFICATIONS" SHEET.
- VALVE VAULT ACCESS COVER: SHALL HAVE A MINIMUM CLEAR OPENING OF 48" x 48" (FOR NON-CLOG PUMPS) AND 24" x 37" (FOR GRINDER PUMPS). ACCESS COVERS SHALL BE U.S. FOUNDRY MANUFACTURED OR EQUAL. DOOR LEAF SHALL BE 1/4" ALUMINUM DIAMOND PATTERN PLATE, TO WITHSTAND A LIVE LOAD OF 300 p.s.f. CHANNEL FRAME SHALL BE 1/4" ALUMINUM WITH ANCHOR FLANGE AROUND THE PERIMETER. COVER SHALL BE PROVIDED WITH LIFTING HANDLE AND SAFETY LATCH TO HOLD COVER IN OPEN POSITION. A LOCKING HASP SHALL BE FURNISHED FOR EACH COVER. STAINLESS STEEL HARDWARE WILL BE USED THROUGHOUT. ALL SURFACES IN CONTACT WITH CONCRETE SHALL HAVE A SHOP COAT OF ZINC CHROMATIC PRIMER, APPROVED ALKALI RESISTANT PAINT OR OTHER APPROVED PROTECTIVE COATING. REFER TO "SUBMERSIBLE PUMP SEWAGE LIFT STATION SPECIFICATIONS" SHEET.
- ELECTRICAL SERVICE ENTRANCE: PROVIDE METER SOCKET AND MAIN DISCONNECT MEETING APPLICABLE ELECTRIC CODES AND REQUIREMENTS OF POWER COMPANY. LIGHTNING ARRESTOR AND VOLTAGE SURGE SUPPRESSOR TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR. REFER TO "SUBMERSIBLE PUMP SEWAGE LIFT STATION SPECIFICATIONS" SHEET.
- CONTROL PANEL: SHALL BE EQUIPPED WITH INDIVIDUAL DISCONNECTS, ACROSS THE LINE MAGNETIC STARTERS, THREE POLE OVERLOAD PROTECTION, ELECTRICAL ALTERNATOR, AUTOMATIC TRANSFER TO NON-OPERATING PUMP, OVERLOAD RESETS, H.O.A. PUMP OPERATING SELECTOR SWITCH, ELAPSED TIME METERS FOR EACH PUMP, TERMINAL BOARD WITH CONNECTIONS FOR HIGH LEVEL ALARMS. ALL COMPONENTS SHALL BE U.S. FOUNDRY MANUFACTURED OR EQUAL. PANEL SHALL BE PROVIDED WITH ALUMINUM DEAD FRONT INNER DOOR DESIGN. PROVISIONS FOR PADLOCKING PANEL SHALL BE PROVIDED. PANEL INCLUDES GF CONVENIENCE OUTLET, MAIN AND EMERGENCY BREAKERS, 100 AMP GENERATOR RECEPTACLE, HIGH LEVEL ALARM WITH HORN AND SILENCER SWITCH, AND SEAL FAILURE MODULES.
- PAINT: INSIDE AND OUTSIDE OF WET WELL SHALL BE PAINTED WITH TWO COATS OF "POXITAR" OR EQUAL APPLIED AS PER MANUFACTURER'S RECOMMENDATIONS.
- VALVE VAULT: PRECAST CONCRETE. OUTSIDE DIMENSIONS AS REQUIRED TO HOUSE VALVES. VALVE VAULT PRECASTER SHALL COORDINATE DIRECTLY WITH CONTRACTOR AND PUMP SUPPLIER, PRIOR TO SUBMITTING SHOP DRAWINGS FOR REVIEW AND APPROVAL.
- STEEL PLACED IN TOP SLAB SHALL INCLUDE DIAGONAL BARS AND OPENINGS. STEEL IS CONTINUOUS AND SLAB IS SOLID.
- CONTRACTOR TO CONFIRM SERVICE ARRANGEMENTS WITH POWER COMPANY BEFORE COMMENCING WORK. CONTRACTOR TO RUN UNDERGROUND WIRING TO NEAREST TRANSFORMER OR HAND HOLE.
- ALL FASTENERS ON FLANGES AND ETC. INSIDE WET WELL WILL BE STAINLESS STEEL. ALL FLANGE CONNECTIONS SHALL BE "MECHANICAL JOINT" (M.J.) FLANGES.
- DIMENSIONS BETWEEN CENTERLINE OF PIPES ARE STANDARD FOR PIPE SIZES SPECIFIED.
- SHOP DRAWINGS OF ENTIRE INSTALLATION MUST BE APPROVED BY ENGINEER OF RECORD PRIOR TO PLACEMENT OF ORDER.
- PLUG VALVES SHALL BE CONSTRUCTED WITH RESILIENT FACED PLUGS. ON BY-PASS LINES, VALVES SHALL BE BURIED WITH ACCESS THROUGH CAST IRON VALVE BOXES. VALVES SHALL HAVE A 2" OPERATOR NUT. ONE (1) 5' LONG WRENCH SHALL BE PROVIDED TO THE APPLICABLE UTILITY COMPANY PER LIFT STATION.
- ALL EXPOSED AND EMBEDDED CONDUITS TO BE SCHEDULE 80 PVC.
- ALL EXPOSED METAL SHALL BE PAINTED WITH TWO (2) COATS OF EXTERIOR BLACK ENAMEL PAINT.
- PRESSURE METAL GAGES SHALL BE STAINLESS STEEL WITH STAINLESS STEEL DIAPHRAGM, 4-1/2" DIA AND A RANGE FROM 0 TO 200 FEET. GAUGE SHALL BE IN ACCORDANCE WITH "SUBMERSIBLE PUMP SEWAGE LIFT STATION SPECIFICATIONS" SHEET.
- CHECK VALVES SHALL BE NON-SLAMMING, LEVER AND SPRING OPERATED, SWING TYPE, 150 P.S.I. WWP (MINIMUM).
- PADLOCKS FOR ACCESS COVERS AND CONTROL PANEL SHALL BE MASTER NO. 4 BRASS PADLOCK, KEYS ALIKE, FURNISH TWO (2) KEYS PER LOCK. BOLTS IN LOCKING DEVICE SHALL BE STAINLESS STEEL.
- COMPACTION OF FILL AROUND PERIMETER OF WETWELL SHALL BE DONE IN 12" LIFTS. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ENGINEER OF RECORD WITH CERTIFIED IN FIELD SOILS TESTING REPORTS FOR FILL COMPACTION, PRIOR TO INSTALLING PUMP STATION EQUIPMENT AND GRAVITY SEWER LINES.
- THE CONTRACTOR IS RESPONSIBLE TO SCHEDULE A PUMP STATION "START UP" TEST. SAID TEST MUST BE PERFORMED BY THE PUMP SUPPLIER AND WITNESSED BY THE ENGINEER OF RECORD AND CONTRACTOR. NO CERTIFICATIONS OF THE WASTEWATER SYSTEM WILL BE PREPARED OR SUBMITTED UNTIL THE PUMP TEST IS COMPLETED TO THE SATISFACTION OF THE ENGINEER OF RECORD.
- REFER TO THE "SUBMERSIBLE SEWAGE LIFT STATION SPECIFICATIONS" SHEET FOR ADDITIONAL REQUIREMENTS. SHOULD ANY INFORMATION FOUND ON SAID SHEET CONTRADICT DETAILS OR INFORMATION DEPICTED ON THIS DRAWING, THE REQUIREMENTS FOUND ON SAID SHEET SHALL SUPERCEDE THIS DRAWING.
- PROVIDE PHASE PROTECTION FOR THE PUMPS.

**ASSUMPTIONS**

CONCRETE	= 150	lbs / ft. <sup>3</sup>
SATURATED SOIL	= 120	lbs / ft. <sup>3</sup>
WATER	= 62.4	lbs / ft. <sup>3</sup>
NO WATER IN WET WELL		
NEGLECT TOP SLAB WEIGHT		
NEGLECT SOIL FRICTION		
CIRCULAR WETWELL BARREL & BASE		
WATER TABLE AT GRADE		
FORMULA DIMENSIONS IN FEET		

PR. NO.: EIB-020501 DATE: 2/20/2016

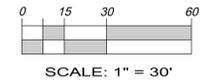
FLORIDA ENGINEERING AND ENVIRONMENTAL SERVICES, INC.  
 CERTIFICATE OF AUTHORIZATION: EB 5804  
 4519 George Road Suite 130  
 Tampa, Florida 33634  
 Tel: (813) 880-9106 Fax: (813) 880-9055

**CIRCLE K**  
**US HWY 41 & HALE RD**  
**PASCO COUNTY, FLORIDA**

**LIFT STATION DETAILS**

**C5C**





### LEGEND

- PROPERTY LINE
- PROPOSED BUILDING
- EXISTING EDGE OF PAVEMENT
- PROPOSED FDOT TYPE "D" CURB
- WETLAND BOUNDARY
- 25' WETLAND SETBACK
- PROPOSED CONCRETE PAVEMENT
- E.O.P. EDGE OF PAVEMENT
- PROPOSED ELEVATION
- PROPOSED STORM SEWER
- PROPOSED STORM STRUCTURE
- PROPOSED STORM STRUCTURE NUMBER
- EXISTING ELEVATION
- PROPOSED CLEANOUT

STORM STRUCTURE TABLE					
STRUCTURE NUMBER	DESCRIPTION	ELEVATIONS	PIPE SIZE OUT	PIPE LENGTH OUT	PIPE SLOPE OUT
ST-1	FDOT CURB INLET TYPE 9 INDEX NO. 214	GRATE EL. = 77.00 INV. EL. = 74.22 (E)	12"x18" ERCP	70 L.F.	0.20%
ST-2	FDOT CURB INLET TYPE 9 INDEX NO. 214	GRATE EL. = 77.00 INV. EL. = 74.31 (W)	12"x18" ERCP 8" HDPE	90 L.F.	0.20%
ST-3	FDOT CURB INLET TYPE 9 INDEX NO. 214	GRATE EL. = 77.00 INV. EL. = 74.13 (W,E)	12"x18" ERCP	40 L.F.	0.20%
ST-4	FDOT CURB INLET TYPE 9 INDEX NO. 214	GRATE EL. = 77.00 INV. EL. = 74.22 (E)	12"x18" ERCP	80 L.F.	0.20%
ST-5	FDOT CURB INLET TYPE 9 INDEX NO. 214	GRATE EL. = 77.00 INV. EL. = 74.20 (S)	12"x18" ERCP	40 L.F.	0.20%
ST-5A	MANHOLE	GRATE EL. = 77.85 INV. EL. = 74.06 (N,S,E,W)	18" RCP	32 L.F.	0.20%
ST-6	FDOT CURB INLET TYPE 9 INDEX NO. 214	GRATE EL. = 77.00 INV. EL. = 74.14 (NW)	12"x18" ERCP	40 L.F.	0.20%
ST-7	FDOT CURB INLET TYPE 9 INDEX NO. 214	GRATE EL. = 77.00 INV. EL. = 74.34 (W)	12"x18" ERCP	100 L.F.	0.20%
ST-8	MANHOLE	GRATE EL. = 77.70 INV. EL. = 74.06 (N)	12"x18" ERCP 18" RCP	9 L.F.	0.20%
ST-9	MITTERED END SECTION INDEX NO. 261	EL. = 68.10			
ST-10	CONTROL STRUCTURE PER DETAIL ON SHEET C6A	TOP EL. = 77.50 INV. EL. =	18" RCP	13 L.F.	--%

**NOTE:** CONTRACTOR SHALL SUBMIT SHOP DRAWINGS THROUGH THE OWNER, FOR REVIEW BY THE ENGINEER, PRIOR TO PRE-CASTING OR CONSTRUCTION. SHOP DRAWING SUBMITTAL MUST INCLUDE ALL STORMTECH FACILITIES, INCLUDING NYOPLAST STRUCTURES.

PR. NO.: EIB-020501 DATE: 2/20/2016

REVISIONS

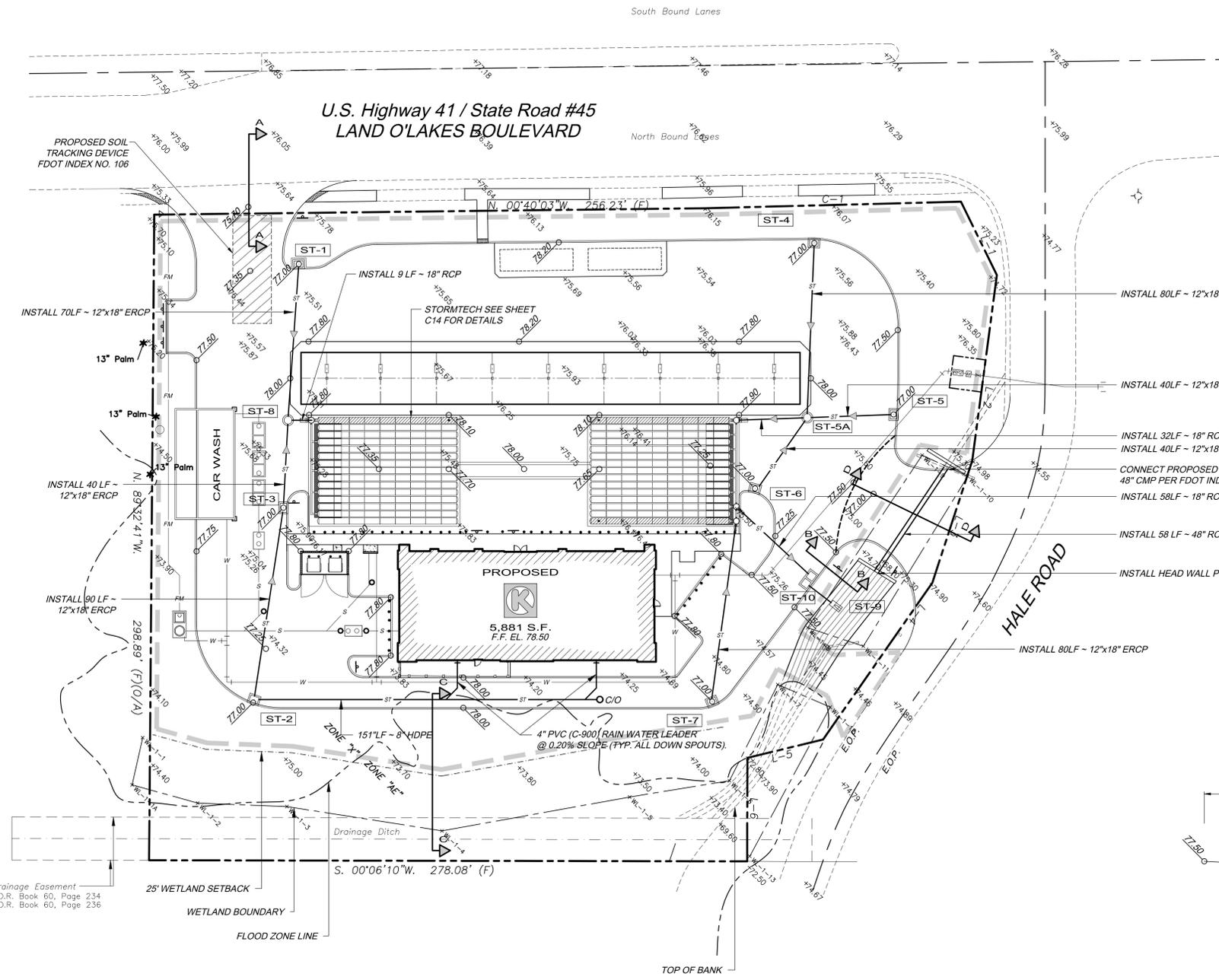
DATE

REVISOR

CHECKED BY

TH-87-MOS

FLORIDA ENGINEERING AND ENVIRONMENTAL SERVICES, INC.  
 CERTIFICATE OF AUTHORIZATION: EB 5804  
 4519 George Road Suite 130  
 Tampa, Florida 33634  
 Tel (813) 880-9106 Fax (813) 880-9055



SEE SHEET C6C REGARDING LIMITS OF EXISTING WETLANDS AND OTHER SURFACE WATERS. NO CONSTRUCTION ACTIVITIES SHALL OCCUR WITHIN THE WETLAND OR WETLAND SETBACK LIMITS

THIS IS TO CERTIFY THAT THE PROPERTY HEREON FALLS WITHIN FLOOD ZONE "X" & "AE", AS SHOWN ON THE FLOOD INSURANCE RATE MAP: COMMUNITY PANEL NUMBER: 12101C0402F DATED: 09/26/14

SHOULD ANY NOTICEABLE SOIL SLUMPING OR SINKHOLE FORMATION BECOME EVIDENT, THE APPLICANT / DEVELOPER SHALL IMMEDIATELY NOTIFY THE COUNTY, TAMPA BAY WATER (TBW), AND SWFWMD, AND ADOPT ONE OR MORE OF THE FOLLOWING PROCEDURES AS DETERMINED TO BE APPROPRIATE BY THE COUNTY AND SWFWMD:

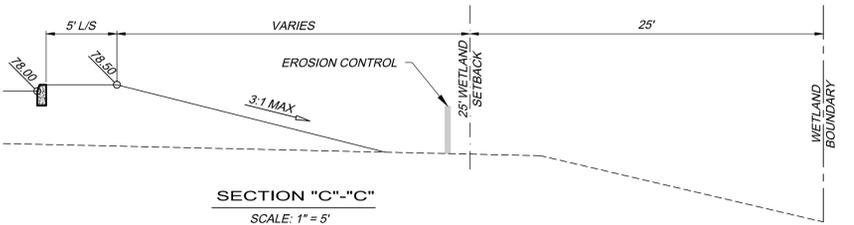
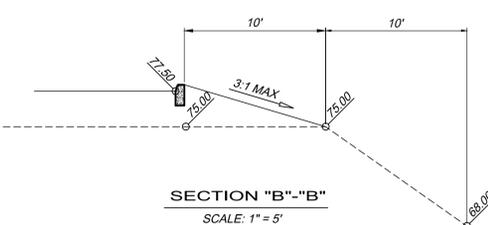
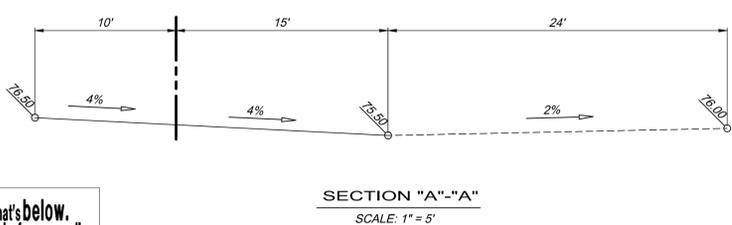
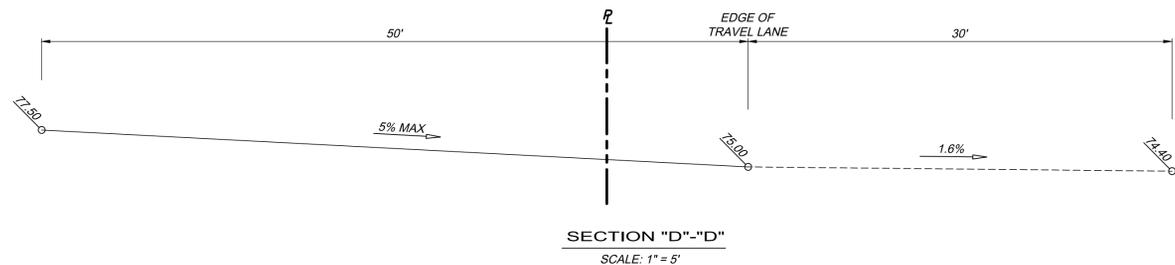
1. If the slumping or sinkhole formation becomes evident before or during construction activities, stop all work (except for mitigation activities) in the affected area and remain stopped until the County and SWFWMD approve resuming construction activities.
2. Take immediate measures to ensure no surface water drains into the affected areas.
3. Visually inspect the affected areas.
4. Excavate and backfill or grout as required to fill the affected area and prevent further subsidence.
5. Use soil reinforcement materials in the backfilling operation, when appropriate.
6. If the affected area is in the vicinity of a water-retention area, maintain a minimum distance of two feet from the bottom of the retention pond to the surface of the lime-rock or karst connection.
7. If the affected area is in the vicinity of a water-retention area and the above methods do not stabilize the collapse, relocate the retention area.

DISCHARGE OF STORM-WATER INTO DEPRESSIONS WITH DIRECT OR DEMONSTRATED HYDROLOGIC CONNECTION TO THE FLORIDAN AQUIFER SHALL BE PROHIBITED.

ELEVATIONS BASED ON:  
 NAD 83 BENCHMARK  
 DESIGNATION: J 659  
 ELEVATION = 77.41'  
 NAVD 1988

T.B.M.#1  
 F.P.K.&D. F.D.O.T.  
 ELEVATION = 76.15'  
 NAVD 1988

VERTICAL DATUM



MARK SULLIVAN, P.E.  
 PROFESSIONAL ENGINEER NO. 41227

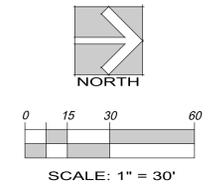
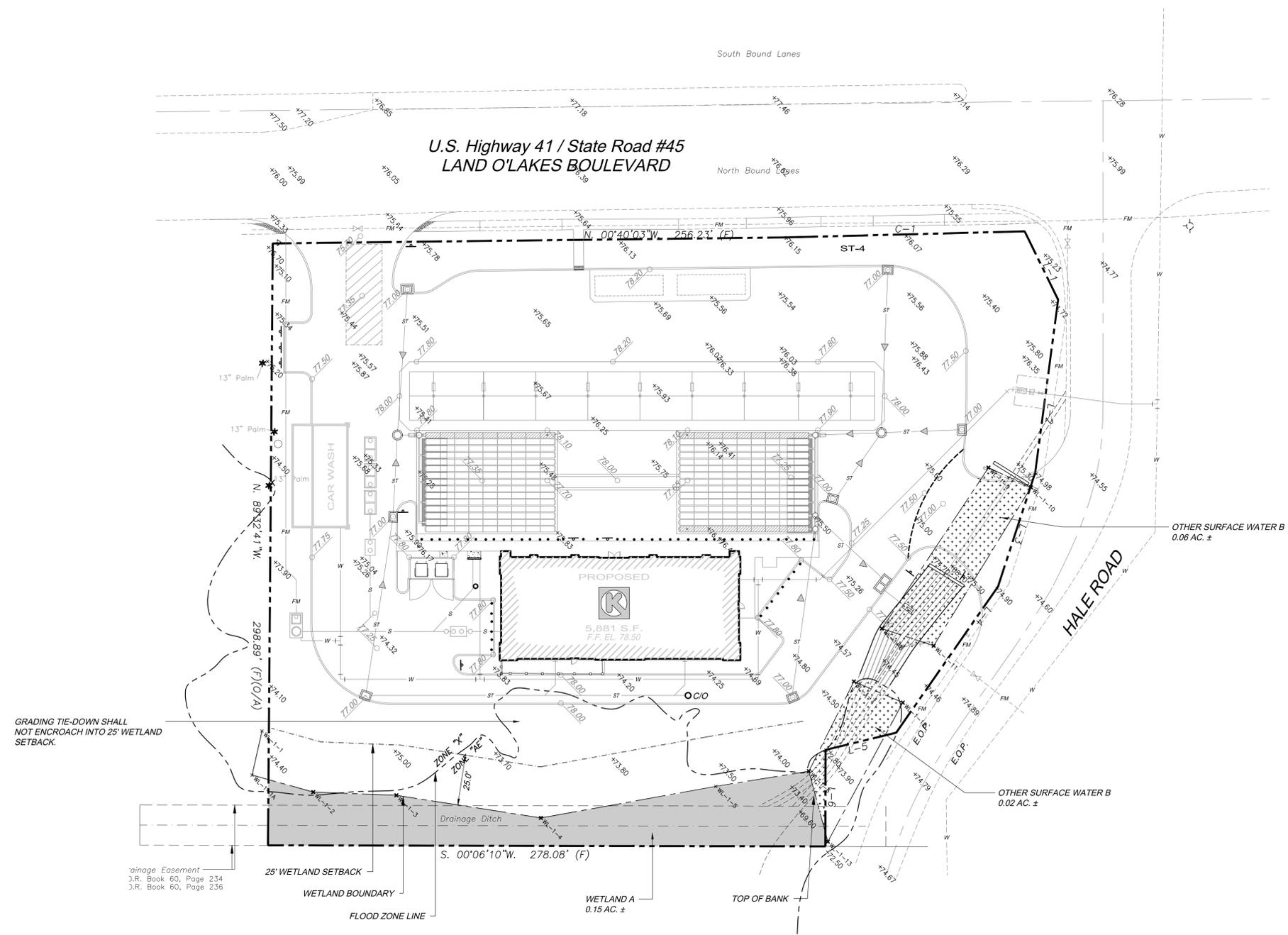
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**US HWY 41 & HALE RD**  
**PASCO COUNTY, FLORIDA**

**PAVING, GRADING AND DRAINAGE PLAN**

**06**







- LEGEND**
- PROPERTY LINE
  - PROPOSED BUILDING
  - EXISTING EDGE OF PAVEMENT
  - WETLAND BOUNDARY
  - 25' WETLAND SETBACK
  - LIMITS OF WETLAND (EXISTING)
  - LIMITS OF OTHER SURFACE WATERS (EXISTING)
  - WETLAND POINT AND OTHER SURFACE WATER POINT

THE WETLAND AND OTHER SURFACE WATERS SHOWN ON THIS SHEET HAVE BEEN APPROVED BY S.W.F.W.M.D. FOR FORMAL DETERMINATION OF WETLANDS AND OTHER SURFACE WATERS UNDER PETITION NO. 713565/42042202.000, APPROVAL DATE- SEPTEMBER 08, 2015.

WETLAND / OTHER SURFACE WATER NOTE

GRADING TIE-DOWN SHALL NOT ENCR OACH INTO 25' WETLAND SETBACK.

Drainage Easement  
J.R. Book 60, Page 234  
J.R. Book 60, Page 236

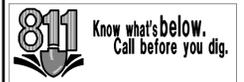
25' WETLAND SETBACK  
WETLAND BOUNDARY  
FLOOD ZONE LINE

WETLAND A  
0.15 AC. ±

TOP OF BANK

OTHER SURFACE WATER B  
0.02 AC. ±

OTHER SURFACE WATER B  
0.06 AC. ±



MARK SULLIVAN, P.E.  
PROFESSIONAL ENGINEER NO. 41227

PR. NO.:	EIB-0205	DATE:	2/27/2016
TH-87M03			

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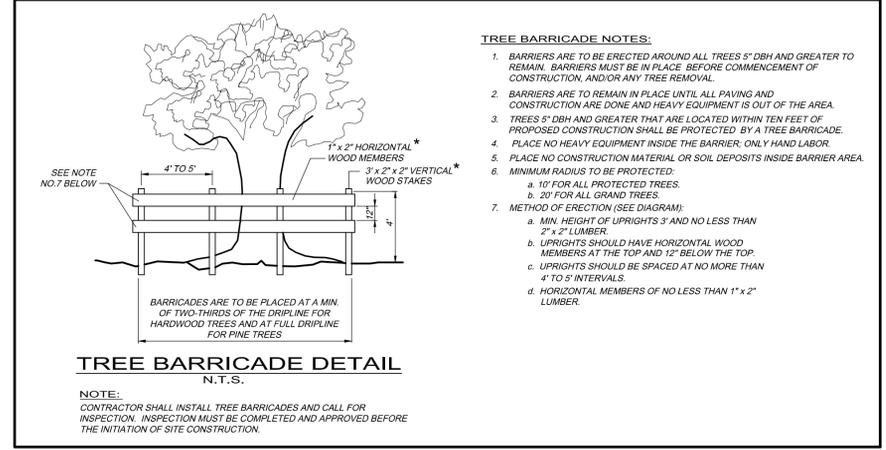
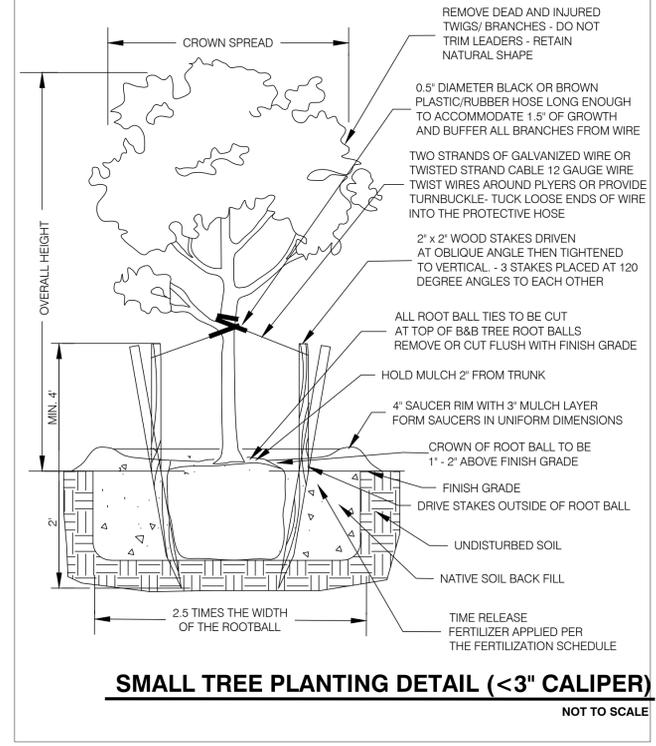
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PASCO COUNTY, FLORIDA**

**SWFMD WETLAND AND OTHER SURFACE WATERS EXHIBIT**

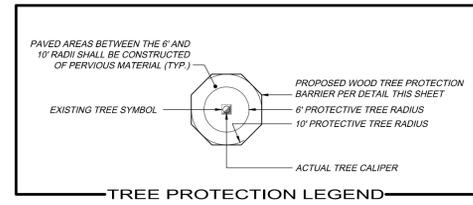
**C6C**



- NOTES:**
1. STAKING DETAIL ONLY FOR TREES WITH LESS THAN 3" CALIPER MEASUREMENTS. SEE ALTERNATE STAKING DETAIL FOR TREES 3 INCH OR GREATER CALIPER (LARGE TREE PLANTING/STAKING).
  2. OTHER TREE STAKING SYSTEMS MAY BE ACCEPTABLE IF APPROVED BY THE LANDSCAPE ARCHITECT (727) 343-1809.
  3. LANDSCAPE CONTRACTOR SHALL REMOVE STAKING AND GUYING MATERIALS AFTER ONE YEAR.



- TREE BARRICADE NOTES:**
1. BARRIERS ARE TO BE ERRECTED AROUND ALL TREES 5" DBH AND GREATER TO REMAIN. BARRIERS MUST BE IN PLACE BEFORE COMMENCEMENT OF CONSTRUCTION, AND/OR ANY TREE REMOVAL.
  2. BARRIERS ARE TO REMAIN IN PLACE UNTIL ALL PAVING AND CONSTRUCTION ARE DONE AND HEAVY EQUIPMENT IS OUT OF THE AREA.
  3. TREES 5" DBH AND GREATER THAT ARE LOCATED WITHIN TEN FEET OF PROPOSED CONSTRUCTION SHALL BE PROTECTED BY A TREE BARRICADE.
  4. PLACE NO HEAVY EQUIPMENT INSIDE THE BARRIER, ONLY HAND LABOR.
  5. PLACE NO CONSTRUCTION MATERIAL OR SOIL DEPOSITS INSIDE BARRIER AREA.
  6. MINIMUM RADIUS TO BE PROTECTED:
    - a. 10' FOR ALL PROTECTED TREES.
    - b. 20' FOR ALL GRAND TREES.
  7. METHOD OF ERECTION (SEE DIAGRAM):
    - a. MIN. HEIGHT OF UPRIGHTS 3' AND NO LESS THAN 2" LUMBER.
    - b. UPRIGHTS SHOULD HAVE HORIZONTAL WOOD MEMBERS AT THE TOP AND 12" BELOW THE TOP.
    - c. UPRIGHTS SHOULD BE SPACED AT NO MORE THAN 4' TO 5' INTERVALS.
    - d. HORIZONTAL MEMBERS OF NO LESS THAN 1" x 2" LUMBER.

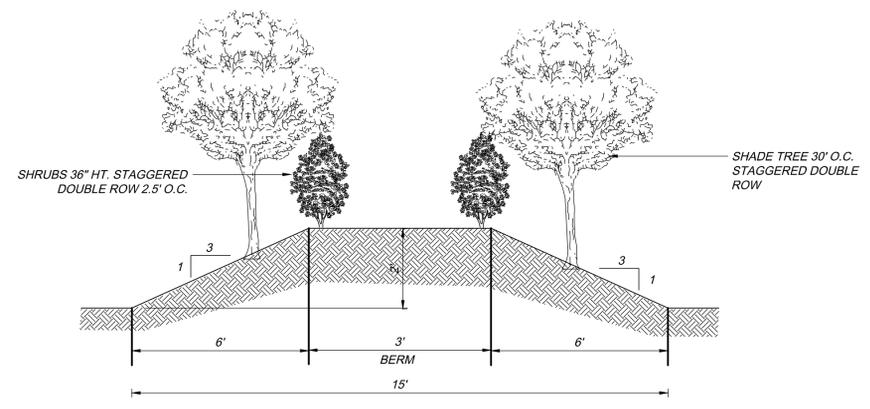
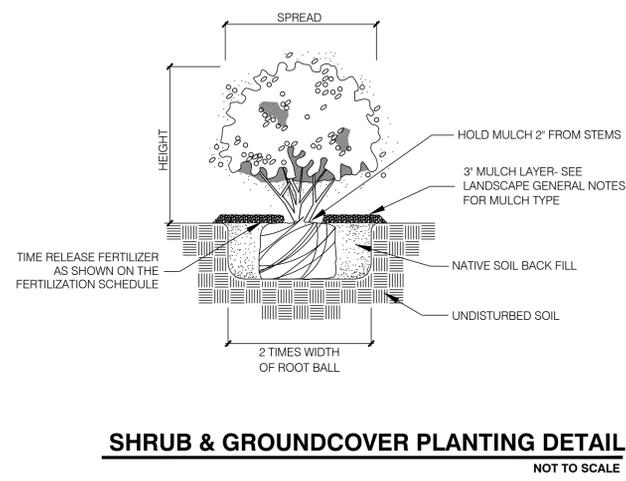


- TREE PROTECTION STANDARDS**
1. PROTECTIVE BARRICADES SHALL BE PLACED AROUND ALL PROTECTED TREES AND GRAND TREES DURING SITE CLEARING TO CREATE A PROTECTIVE RADIUS AND SHALL REMAIN IN PLACE UNTIL LAND ALTERATION, SITE CLEARING AND CONSTRUCTION ACTIVITIES ARE COMPLETE. BARRICADES FOR THE PROTECTIVE RADIUS SHALL BE ERRECTED AT A MINIMUM DISTANCE OF TEN (10) FEET FROM THE EDGE OF TRUNK OF PROTECTED TREES AND TWENTY (20) FEET FROM THE EDGE OF TRUNK OF GRAND TREES.
  2. A MINIMUM DISTANCE OF TEN (10) FEET FROM ALL PROTECTED TREES AND TWENTY (20) FEET FROM ALL GRAND TREES SHALL BE MAINTAINED WHEN INSTALLING UNDERGROUND UTILITIES. IF THIS RESULTS IN UNREASONABLE HANDSHIP, A SOIL AUGER SHALL BE USED TO TUNNEL UNDER THE ROOT SYSTEMS.
  3. INSTALLATION OF ARTIFICIAL BARRIERS SUCH AS PROTECTIVE BARRICADES, FENCES, POSTS OR WALLS SHALL NOT DESTROY OR IRREVERSIBLY HARM THE ROOT SYSTEM OF PROTECTED AND GRAND TREES. FOOTERS FOR WALLS SHALL END AT THE POINT WHERE LARGER ROOTS ARE ENCOUNTERED, AND ROOTS SHALL BE BRIDGED. HOLES AND TRENCHES LOCATED CLOSE TO PROTECTED TREES OR GRAND TREES SHALL BE ADJUSTED TO AVOID MAJOR ROOTS.
  4. ALL ROOTS TO BE REMOVED DURING THE SITE CLEARING PHASE SHALL BE SEVERED CLEAN AT THE PERIMETER OF THE DESIGNATED PROTECTIVE RADIUS.
  5. A TWO INCH LAYER OF MULCH SHALL BE APPLIED OVER THE SURFACE OF EXPOSED ROOTS OF PROTECTED TREES AND GRAND TREES DURING THE SITE CLEARING PHASE.
  6. A PROTECTIVE DRY WELL AND DRAINAGE/AERATION SYSTEM SHALL BE PROVIDED WHERE PROTECTED TREES OR GRAND TREES WILL BE ADVERSELY AFFECTED BY RAISING THE GRADE.
  7. A PROTECTIVE RETAINING WALL SHALL BE CONSTRUCTED AT THE PERIMETER OF THE PROTECTIVE TREE RADIUS AROUND PROTECTIVE TREE OR GRAND TREE WHERE THE PROTECTED OR GRAND TREE WILL BE ADVERSELY AFFECTED BY LOWERING THE GRADE.
  8. ALL TRIMMING OF PROTECTED TREES AND GRAND TREES DURING DEVELOPMENT SHALL BE DONE BY A QUALIFIED, LICENSED TREE SERVICE.

- LANDSCAPE NOTES**
1. ALL PLANT MATERIAL SHALL BE FLORIDA #1 OR BETTER AND SHALL BE PLANTED ACCORDING TO PROPER NURSERY PROCEDURES.
  2. PLANT QUANTITIES SHOWN ON LANDSCAPE PLAN AND MATERIALS LIST ARE QUANTITIES TO BE GUARANTEED FOR A PERIOD OF NO LESS THAN 90 DAYS FROM TIME OF INSTALLATION.
  3. PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF NO LESS THAN 90 DAYS FROM TIME OF INSTALLATION.
  4. SOO SHALL BE PLACED IN ALL PERVIOUS AREAS WITHIN THE SITE PROPERTY LINES, EXCEPT FOR PROPOSED LANDSCAPING BEDS.
  5. SOODING OF PERVIOUS AREAS WITHIN THE RIGHT-OF-WAY SHALL BE AT THE DIRECTION OF THE OWNER.
  6. LANDSCAPED AREAS SHALL CONSIST OF AT LEAST SIXTY (60) PERCENT NATIVE PLANT MATERIAL AND/OR PLANT MATERIAL ADAPTED TO LOCAL CLIMATIC AND EDAPHIC CONDITIONS. RECOMMENDED TREES, PROTECTED TREES AND PLANT MATERIAL SHALL BE PLANTED IN SUCH A WAY AS TO CONSERVE, PRESERVE AND ENHANCE LAND USES, NATURAL LAND FEATURES AND NATURAL AND AESTHETIC VALUES. NON-LIVING NATURAL MATERIAL WHICH PERMITS PERCOLATION MAY ALSO BE USED AS NECESSARY MATERIAL IN LANDSCAPING.
  7. ALL TURF BEDS AND INDIVIDUAL TREES IN TURF AREAS SHOULD HAVE A LAYER OF MULCH, A MINIMUM DEPTH OF THREE (3) INCHES. ORGANIC IS PREFERRED, AND IT SHOULD NOT BE PLACED DIRECTLY AGAINST THE PLANT STEM OR TREE TRUNK.
  8. THE HEDGING MUST BE AT LEAST TWO (2) FEET IN HEIGHT AT TIME OF PLANTING.
  9. TURF AND GRASS SHALL BE CLEAN AND FREE OF WEED, NOXIOUS PESTS AND DISEASE. GRASS SEED SHALL BE DELIVERED TO THE JOB SITE IN BAGS WITH STATE DEPARTMENT OF AGRICULTURE TAGS ATTACHED.
  10. ALL LANDSCAPED AREAS MUST ALLOW FOR ACCESS TO PUBLIC AND PRIVATE UTILITY FACILITIES FOR MAINTENANCE PURPOSES.

**ROOT PRUNING**

ALL ROOT PRUNING SHALL BE IN ACCORDANCE WITH ANZI-300 AND THE NATURAL ARBORIST ASSOCIATION. CONTRACTOR SHALL MARK ALL AREAS OF ROOT PRUNING, THEN CALL FOR INSPECTION. AFTER APPROVAL OF ROOT PRUNING AREAS, CONTRACTOR SHALL PERFORM PRUNING AND CALL FOR FINAL INSPECTION. ROOT PRUNING SHALL INCLUDE FUNGICIDE TREATMENT.



PR. NO.: EIB-00501 DATE: 2/20/06

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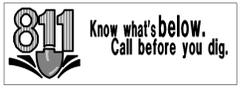
FLORIDA ENGINEERING AND ENVIRONMENTAL SERVICES, INC.  
CERTIFICATE OF AUTHORIZATION: EB 5804  
4519 George Road Suite 130  
Tampa, Florida 33634  
Tel: (813) 880-9106 Fax: (813) 880-9055

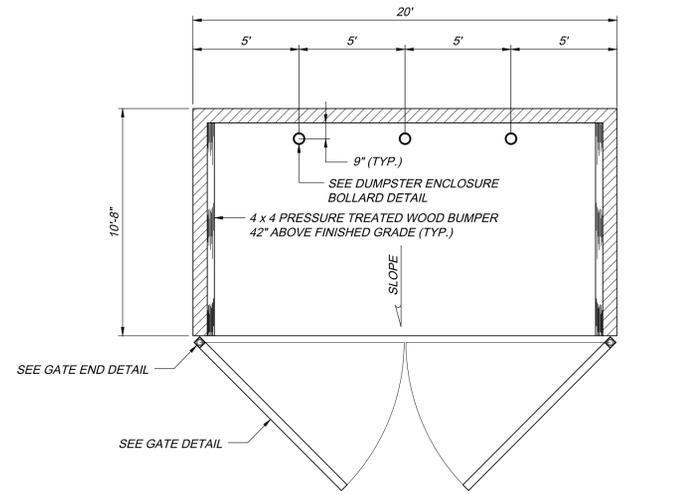
**CIRCLE K**  
**US HWY 41 & HALE RD**  
**PASCO COUNTY, FLORIDA**

**LANDSCAPING DETAILS**

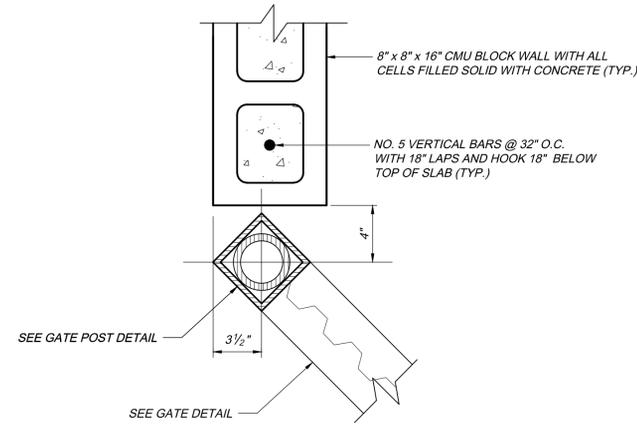
**C7A**

MARK SULLIVAN, P.E.  
PROFESSIONAL ENGINEER NO. 41227

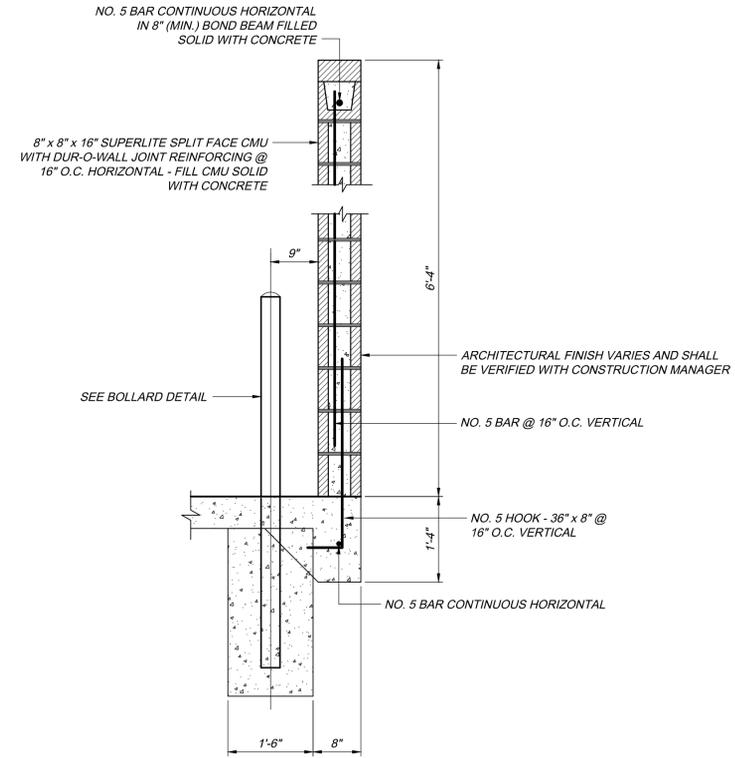




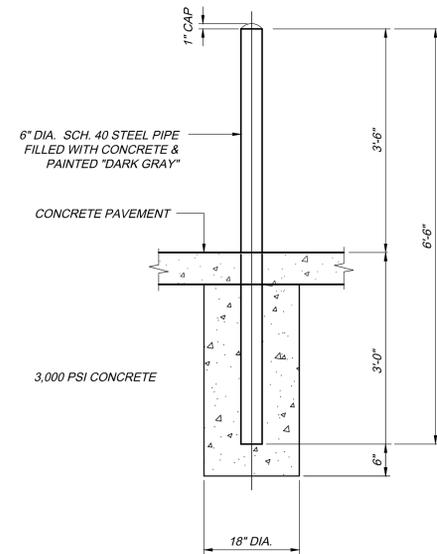
**DUMPSTER ENCLOSURE PLAN**  
NOT TO SCALE



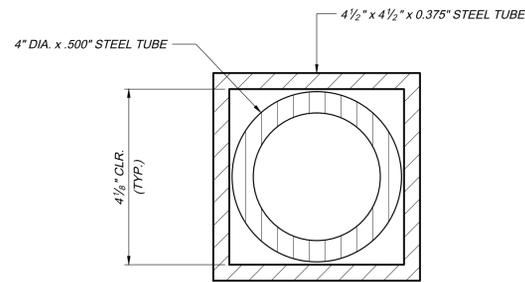
**GATE END DETAIL**  
NOT TO SCALE



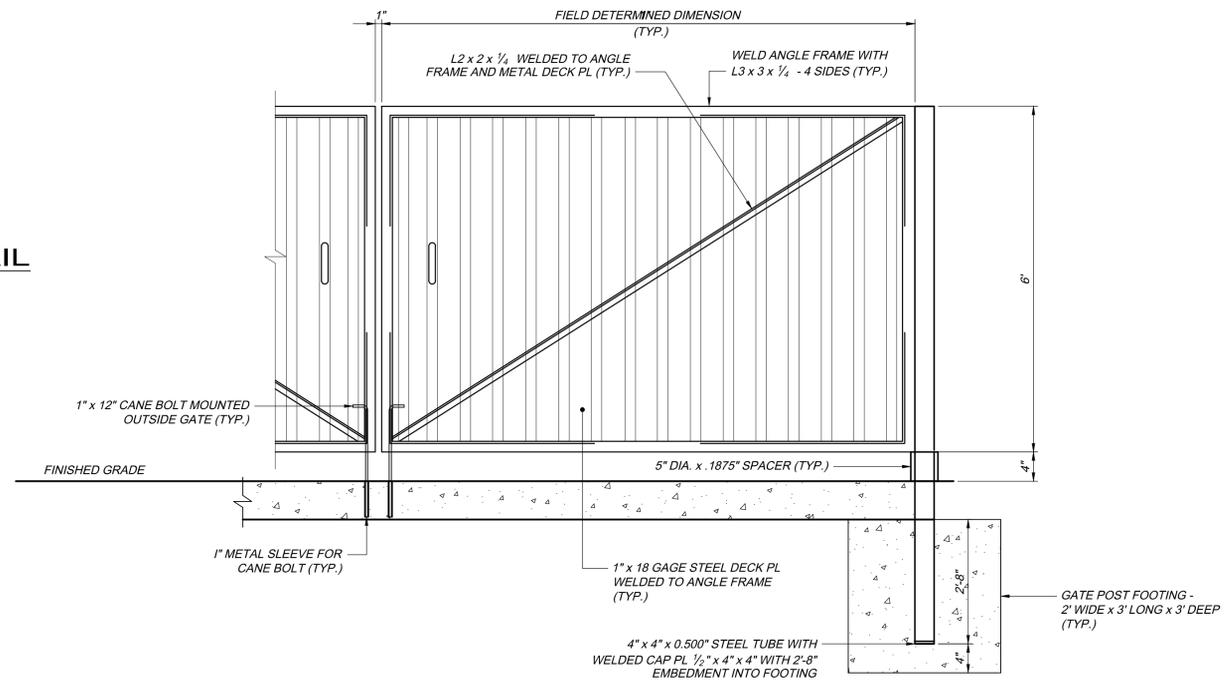
**DUMPSTER ENCLOSURE WALL SECTION**  
NOT TO SCALE



**DUMPSTER ENCLOSURE BOLLARD DETAIL**  
NOT TO SCALE



**GATE POST DETAIL**  
NOT TO SCALE



**GATE DETAIL**  
NOT TO SCALE

PR. NO.	DATE	REVISIONS	DATE	REVISOR	CHECKED BY
EIB-020501	2/20/2016				

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Tampa, Florida 33634  
Tel: (813) 880-9106 Fax: (813) 880-9055



**CIRCLE K  
US HWY 41 & HALE RD  
PASCO COUNTY, FLORIDA**

**CIRCLE K DUMPSTER  
ENCLOSURE**



TH-87/MOS	PR. NO.: EIB-00507	DATE: 2/20/2016	REVISIONS	REVISOR	CHECKED BY

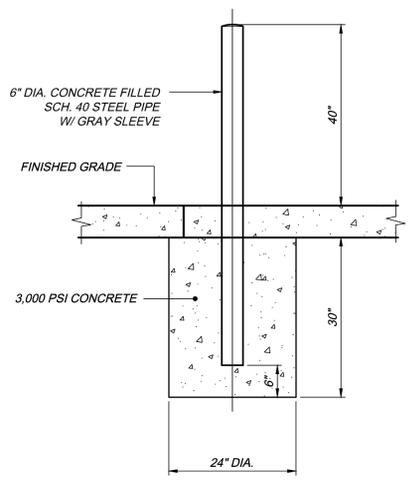
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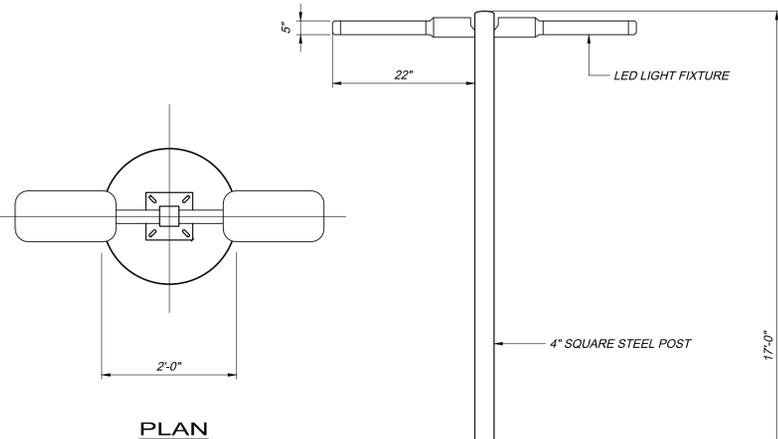
**CIRCLE K**  
**US HWY 41 & HALE RD**  
**PASCO COUNTY, FLORIDA**

**CIRCLE K**  
**SITE DETAILS**

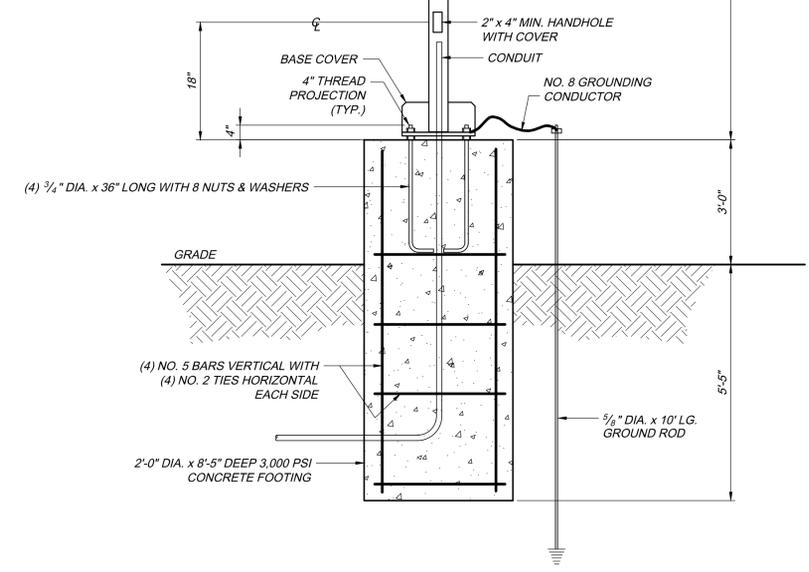
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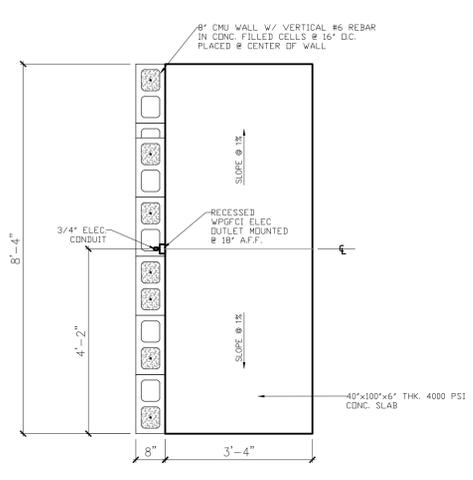
**PARKING STALL BOLLARD DETAIL**  
 (N.T.S.)



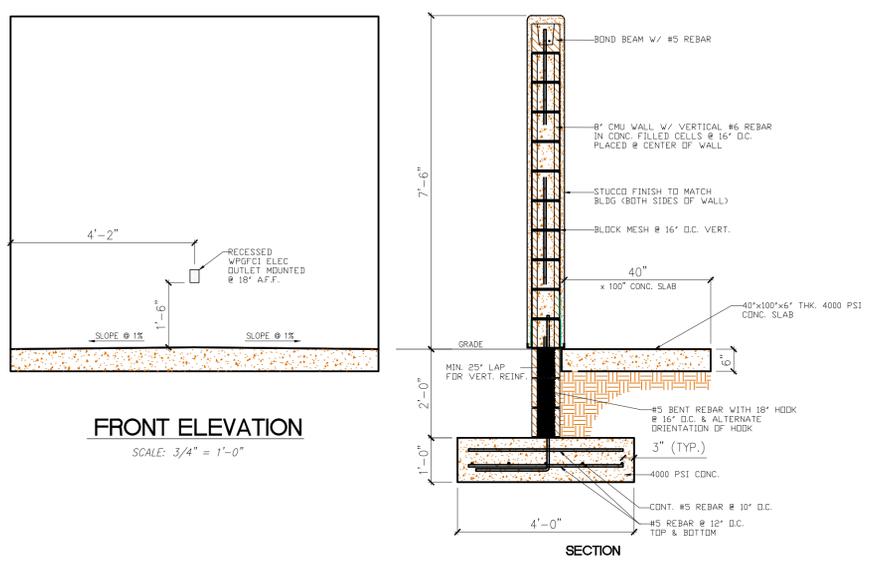
**PLAN**



**ELEVATION**  
**AREA LIGHT DETAIL**  
 NOT TO SCALE



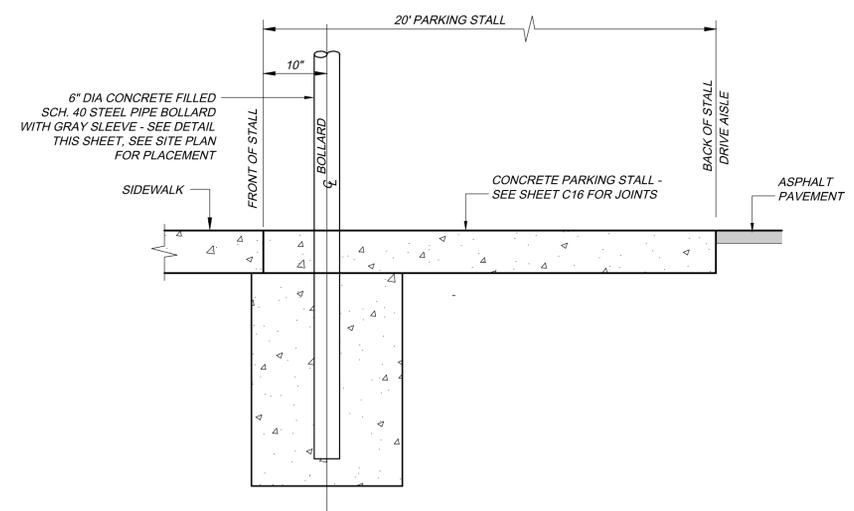
**PLAN VIEW**



**FRONT ELEVATION**  
 SCALE: 3/4" = 1'-0"

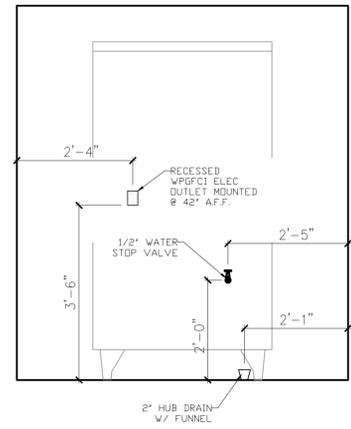
**SECTION**

**TYPICAL ICE MERCHANDISER WALL/SLAB DETAIL**  
 SCALE: 3/4" = 1'-0"

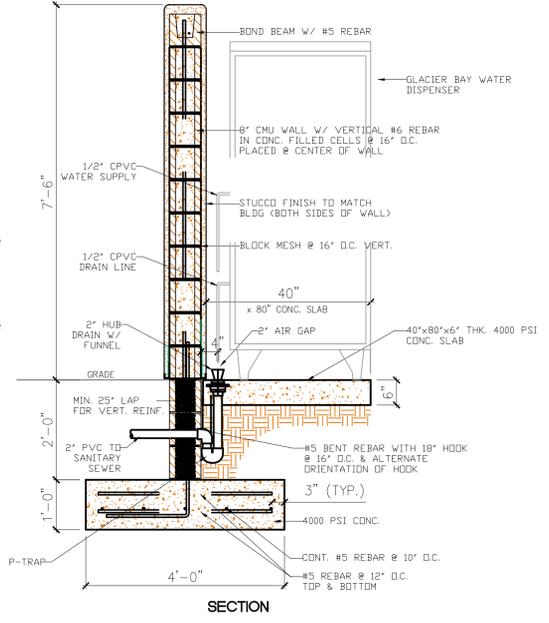


**ELEVATION**

**PARKING STALL DETAIL**  
 NOT TO SCALE



**REDBOX/GLACIER BAY**  
**FRONT ELEVATION**  
 SCALE: 3/4" = 1'-0"



**SECTION**

**TYPICAL REDBOX/GLACIER BAY**  
**WALL/SLAB DETAIL**  
 SCALE: 3/4" = 1'-0"

**APPLICABLE CODES:**  
 BUILDING: 2010 FLORIDA BUILDING CODE  
 WIND: ASCE 7-10, 146 MPH, EXPOSURE C, IMP. FACT. 1.0  
 SOILS: DESIGN BEARING CAPACITY (FBC 1818.1)  
 ALLOWABLE BEARING CAPACITY (FBC 1818.2)  
 BY WAY OF RECOGNIZED TESTS



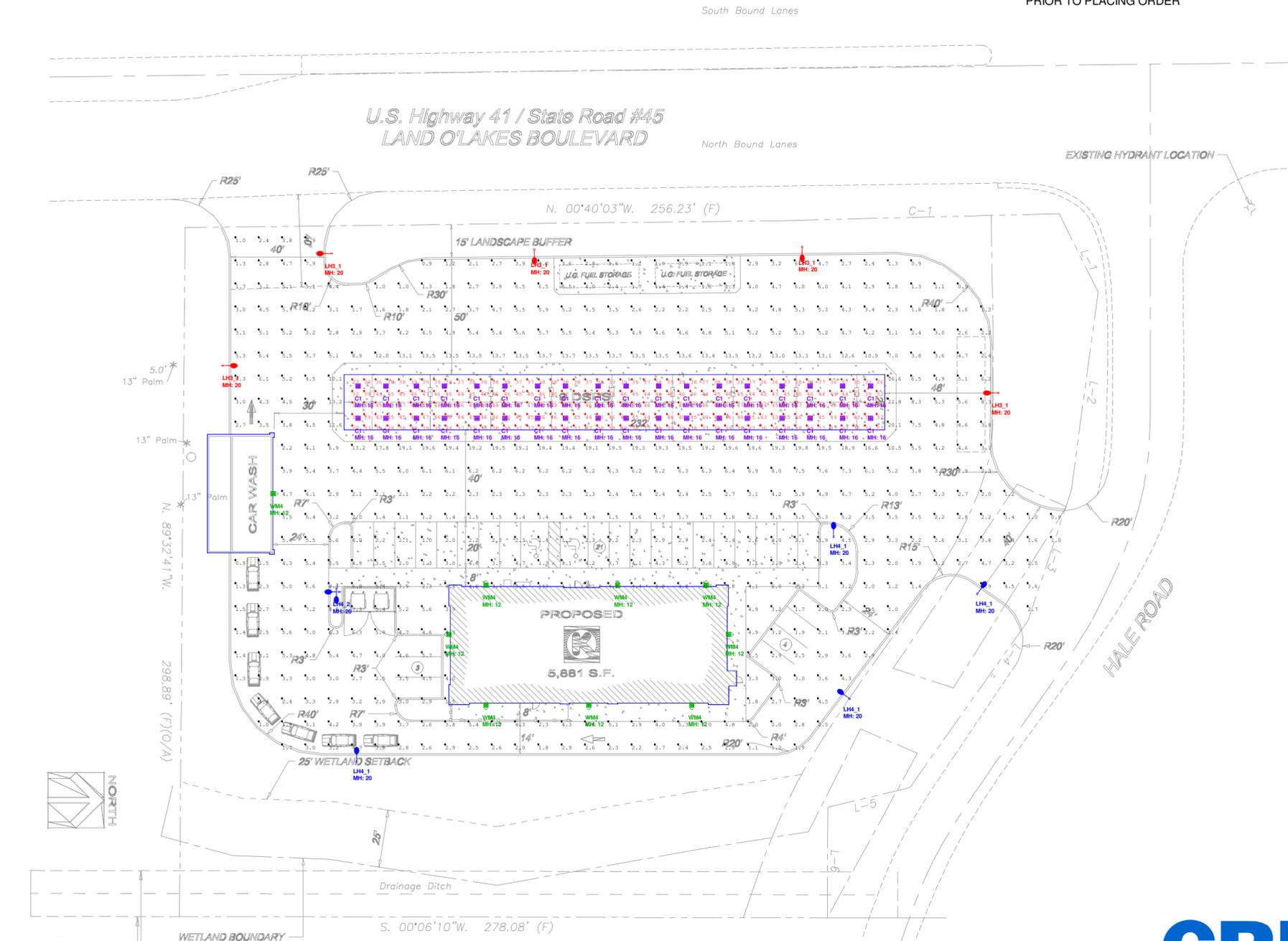
Luminaire Schedule							
Symbol	Qty	Label	Arrangement	Lumens/Lamp	LLF	Lum. Watts	Description
	36	C1	SINGLE	13000	0.870	120	CPY250-A-DM-F-B-UL-WH
	5	LH3_1	SINGLE	13922	0.890	136	STR-LWY-3ME-HT-1-F-UL-xx-A-57K
	4	LH4_1	SINGLE	14076	0.890	136	STR-LWY-4ME-HT-1-F-UL-xx-A-57K
	1	LH4_2	2 @ 90	14076	0.890	136	STR-LWY-4ME-HT-1-F-UL-xx-A-57K
	9	WM4	WALL MOUNT	6216	0.940	70	SEC-EDG-4M-WM-04-E-UL-xx-525

Footcandles calculated using predicted lumen values after 50K hours of operation					
Label	Avg	Max	Min	Avg/Min	Max/Min
Canopy	41.73	49	26	1.61	1.88
Pavement	4.75	22.8	0.9	5.28	25.33

FIXTURE MOUNTING HEIGHTS:  
 POLE MOUNTED - 20' AFG (17' POLE + 3' BASE)  
 CANOPY - 16' AFG  
 WALL MOUNT - 12' AFG

ADDITIONAL EQUIPMENT REQUIRED:  
 (10) PS2S17CTxx (17' x 4" x 0.125" STEEL SQUARE POLE, TENON MOUNT)  
 (9) PD-1H4xx SINGLE LEDWAY TENON FOR 4" SQ POLE  
 (1) PD-2H4(90)xx 2@90° LEDWAY TENON FOR 4" SQ POLE  
 PROPOSED POLES MEET 140MPH SUSTAINED WIND LOADS

\*\*\*CUSTOMER TO VERIFY MOUNTING, VOLTAGE, AND COLOR PRIOR TO PLACING ORDER



Drainage Easement  
 O.R. Book 60, Page 234  
 O.R. Book 60, Page 236



1200 92nd Street - Sturtevant, WI 53177  
 www.cree.com - (800) 236-6800

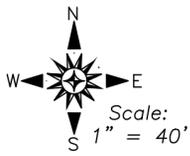
Project Name: HALE RD CIRCLE K - PASCO COUNTY, FL SR No. 11614

Date: 1/20/2016 Scale: 1"=40' Footcandles calculated at grade

Filename: RJ160120PAFLJE.AGI Layout by: JACOB EDLER

Illumination results shown on this lighting design are based on project parameters provided to Cree, Inc. used in conjunction with luminaire test procedures conducted under laboratory conditions. Actual project conditions differing from these design parameters may affect field results. The customer is responsible for verifying dimensional accuracy along with compliance with any applicable electrical, lighting, or energy code.



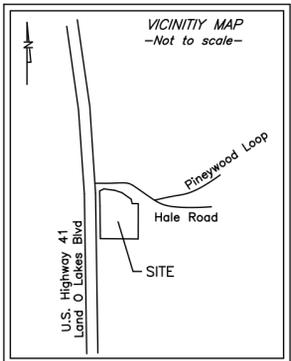
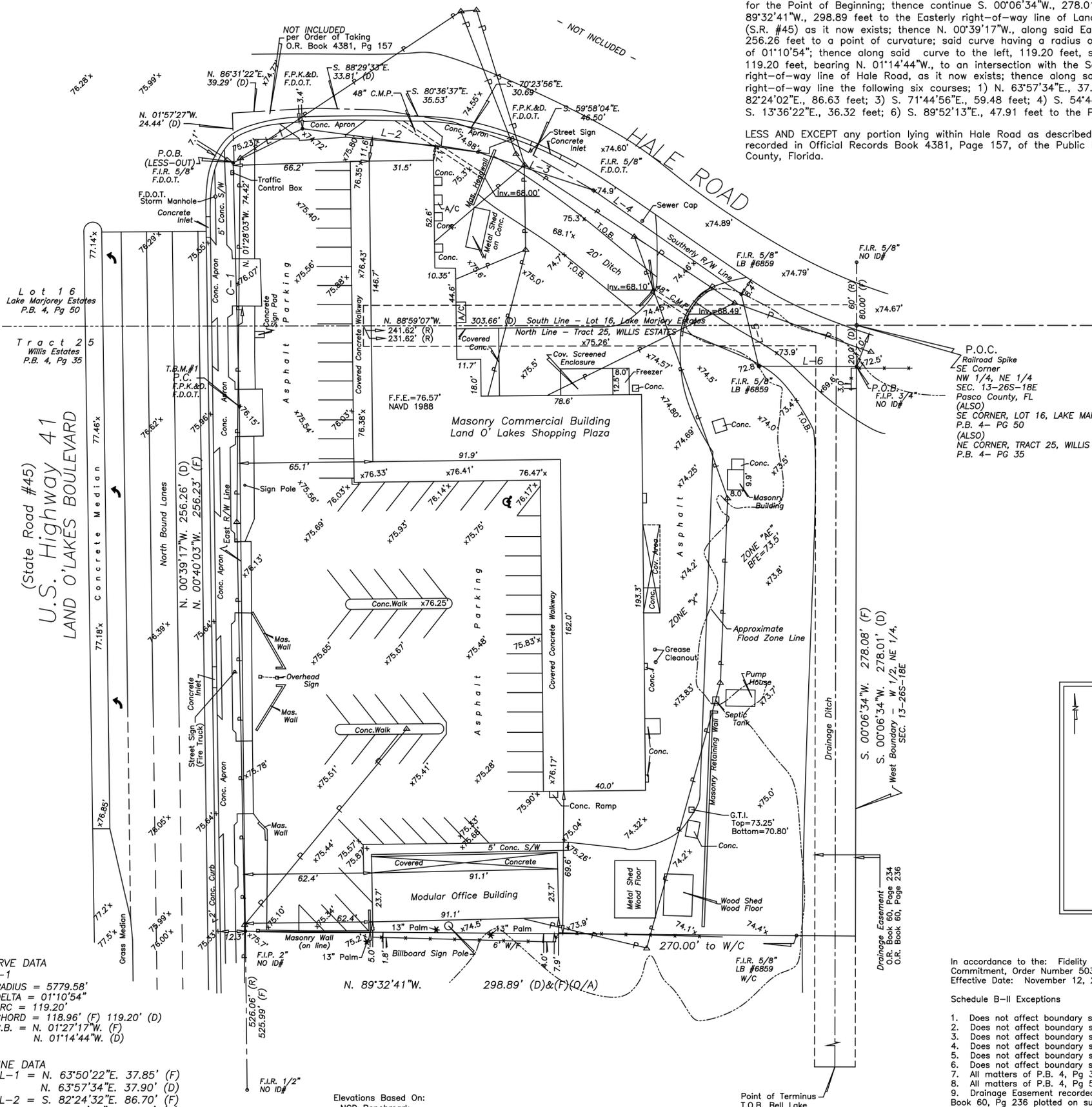


**DESCRIPTION:**

A portion of Tract 25, WILLIS ESTATES, according to the plat thereof, recorded in Plat Book 4, Page 35, and a portion of Lot 16, MARJORY ESTATES, according to the plat thereof, recorded in Plat Book 4, Page 50, lying in the West 1/2 of the NE 1/4 of Section 13, Township 26 South, Range 18 East, Pasco County, Florida, described as follows:

Commence at the SE Corner of the NW 1/4 of the NE 1/4 of Section 13, Township 26 South, Range 18 East, Pasco County, Florida, thence S. 00°06'34"W. (assumed bearing) along the West boundary of the West 1/2 of the NE 1/4 of said Section 13, 20.00 feet for the Point of Beginning; thence continue S. 00°06'34"W., 278.01 feet; thence N. 89°32'41"W., 298.89 feet to the Easterly right-of-way line of Land O' Lakes Boulevard (S.R. #45) as it now exists; thence N. 00°39'17"W., along said Easterly right-of-way line, 256.26 feet to a point of curvature; said curve having a radius of 5779.58 feet, a delta of 01°10'54"; thence along said curve to the left, 119.20 feet, subtended by a chord of 119.20 feet, bearing N. 01°14'44"W., to an intersection with the Southerly occupied right-of-way line of Hale Road, as it now exists; thence along said Southerly right-of-way line the following six courses; 1) N. 63°57'34"E., 37.90 feet; 2) S. 82°24'02"E., 86.63 feet; 3) S. 71°44'56"E., 59.48 feet; 4) S. 54°44'17"E., 88.25 feet; 5) S. 13°36'22"E., 36.32 feet; 6) S. 89°52'13"E., 47.91 feet to the Point of Beginning.

LESS AND EXCEPT any portion lying within Hale Road as described in Order of Taking recorded in Official Records Book 4381, Page 157, of the Public Records of Pasco County, Florida.



**CURVE DATA**  
 C-1  
 RADIUS = 5779.58'  
 DELTA = 01°10'54"  
 ARC = 119.20'  
 CHORD = 118.96' (F) 119.20' (D)  
 C.B. = N. 01°27'17"W. (F)  
 N. 01°14'44"W. (D)

**LINE DATA**  
 L-1 = N. 63°50'22"E. 37.85' (F)  
 N. 63°57'34"E. 37.90' (D)  
 L-2 = S. 82°24'32"E. 86.70' (F)  
 S. 82°24'02"E. 86.63' (D)  
 L-3 = S. 71°48'49"E. 59.47' (F)  
 S. 71°44'56"E. 59.48' (D)  
 L-4 = S. 55°00'00"E. 88.55' (F)  
 S. 54°44'17"E. 88.25' (D)  
 L-5 = S. 13°40'55"E. 36.32' (F)  
 S. 13°36'22"E. 36.32' (D)  
 L-6 = S. 89°57'44"E. 47.87' (F)  
 S. 89°52'13"E. 47.91' (D)

Elevations Based On:  
 NGD Benchmark  
 Designation: J 659  
 Elevation = 77.41'  
 NAVD 1988

T.B.M.#1  
 F.P.K.&D, F.D.O.T.  
 Elevation = 76.15'  
 NAVD 1988

In accordance to the: Fidelity National Title Insurance Company  
 Commitment, Order Number 5033716, Customer Reference 14-899,  
 Effective Date: November 12, 2014 7:00AM

Schedule B-II Exceptions

- Does not affect boundary survey.
- All matters of P.B. 4, Pg 35 shown on survey.
- All matters of P.B. 4, Pg 50 shown on survey.
- Drainage Easement recorded in O.R. Book 60, Pg 234 & O.R. Book 60, Pg 236 plotted on survey.
- Does not affect boundary survey.

LEGAL DESCRIPTION OF PROPERTY SHOWN HEREON IS ONE AND THE SAME AS FOUND ON: Fidelity National Title Insurance Company  
 Commitment, Order Number 5033716, Customer Reference 14-899,  
 Effective Date: November 12, 2014 7:00AM

**SURVEYOR'S NOTES**

- This is a Boundary Survey, made on the ground under the supervision of a Florida Registered Land Surveyor, Field Survey was completed on 01/15/15
- Bearings are based on the West boundary of NE 1/4, NW 1/4, SEC. 13-26-18 as: S. 00°06'10"W., assumed.
- No underground utilities, underground encroachments or building foundations were measured or located as a part of this survey, unless otherwise shown. trees and shrubs not located, unless otherwise shown.
- This survey was conducted for the purpose of a Boundary Survey only, and is not intended to delineate the regulatory jurisdiction of any federal, state, regional or local agency, board, commission of other similar matters of public record, not depicted on this survey.
- This survey was conducted without the benefit of an abstract of title, therefore, there may be other easements, rights-of-way, setback lines, agreements, reservations, restrictions, or other similar matters of public record, not on this survey.
- Flood zone determination based upon a scaled interpretation of the Flooded Insurance rate map as shown hereon, prior to construction Building Department should be contacted for verification of Flood Zone.
- Attention is directed to the fact that this survey may have been reduced or enlarged in size due to reproduction, this should be taken into consideration when obtaining scaled data.
- Re-use of this survey for purposes other than it was intended, without written verification, will be at the re-users sole risk and without liability to the surveyor. Nothing herein shall be construed to give any rights or benefits to anyone other than those certified to.
- This survey is not valid without the signature and the original raised seal of a Florida licensed surveyor and mapper.

**LEGENDS AND ABBREVIATIONS**

F.I.P.=FOUND IRON PIPE	F.C.M.=FOUND CONCRETE MONUMENT	R/W=RIGHT-OF-WAY	(D)=DEED
F.I.R.=FOUND IRON ROD	F.F.E.=FINISHED FLOOR ELEVATION	P.B.=PLAT BOOK	(F)=FIELD
F.N.D.=FOUND	P.O.B.=POINT OF BEGINNING	P.G.=PAGE	(P)=PLAT
S.P.K.=SET NAIL & DISK	P.O.C.=POINT OF COMMENCEMENT	W/F=WOOD FENCE	CH=CHORD
A/C=AIR CONDITIONER	G.T.I.=GRATE TOP INLET	C/L=CHAIN LINK	A=ARC
-P=-OVERHEAD POWER	O.R.=OFFICIAL RECORD BOOK	S/W=SIDEWALK	D/W=DRIVEWAY
-T=-OVERHEAD TELEPHONE	D.B.=DEED BOOK	(C)=CALCULATED	COV.=COVERED
MAS=MASONRY	F.P.K.&D.=FOUND NAIL AND DISK	(R)=RECORD	R/W = RIGHT OF WAY
CONC.=CONCRETE	P.C.P.=PERMEMENT CONTROL POINT	C.B.=CHORD BEARING	TYP. = TYPICAL
X-100=TYPICAL ELEVATION	P.C.=POINT OF CURVATURE	RES.=RESIDENCE	ELEV. = ELEVATION
N/R=NOT RECOVERABLE	C.M.P. = CORREGATED METAL PIPE	P/A=POOL PUMP ASSEMBLY	N/A = NOT APPLICABLE
F.N.D.=FOUND	R.C.P. = REINFORCED CONCRETE PIPE	W/C=WITNESS CORNER	
F/W=WOOD FENCE	M.E.S.=MITERED END SECTION		
	P.R.M. = PERMEMENT REFERENCE MONUMENT		
	N.G.V.D.=NATIONAL GEODETIC VERTICAL DATUM		

Certified To:  
 Circle K Stores Inc.  
 Fidelity National Title Insurance Company  
 Compass Land & Title, LLC

**FLOOD ZONE CERTIFICATE:**  
 This is to certify that the property hereon falls within Flood Zone "X" & "AE", as shown on the Flood Insurance Rate Map: Community Panel Number 12101C0402F dated 09/26/14

DATE	REVISION	DATE	REVISION
<b>Eddie P. Jenkins</b>			
<b>SURVEYING &amp; MAPPING, INC.</b>			
4030 HIGHWAY 41 NORTH - LAND O LAKES, FL 34639 PHONE (813) 948-2666 FAX (813) 435-1763 jenkins.surveying@verizon.net - www.jenkins-surveying.com			
P.C.	D.S., DM	PROJ. NO.	0402-52
DRAFT	C.J.	MISC.	Boundary
Q.C.	E.P.J.	FILE	
F.B.	LL.	SHEET 1	OF 1
SEC. 13	TWP. 26 S	RGE. 18 E	

I HEREBY CERTIFY THAT THE SURVEY REPRESENTED HEREON MEETS THE "MINIMUM TECHNICAL STANDARDS" FOR LAND SURVEYING IN THE STATE OF FLORIDA: CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE.

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2011 Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 3, 4, 7(a), 8, 11(a), of Table A thereof. The field work was completed on: 01/15/2015.  
 Date of Plat of Map: 02/02/2015

Eddie P. Jenkins P.L.S.  
 Registration Number 5334  
 Certificate of Authorization # LB6859  
 State of Florida