

METROPOLITAN MINISTRIES

PASCO FAMILY HOUSING PROJECT

HOLIDAY, FLORIDA

(LIMITED SITE IMPROVEMENTS)

PARCEL ID No.: 19-26-16-0010-04000-0000
 DEVELOPER'S NAME: METROPOLITAN MINISTRIES
 LOCATION: 3214 US HWY 19
 HOLIDAY, FL 34691
 LAND USE CLASSIFICATION: R.O.R.
 F.A.R.: 0.60 MAXIMUM
 TRAFFIC ANALYSIS ZONE: 159
 MOBILITY FEE ASSESSMENT DISTRICT: A-1
 ZONING DISTRICT: C2
 PROPOSED DEVELOPMENT: TRANSITIONAL HOUSING
 (12 UNITS / 8730 SF - PHASE 1)
 (12 UNITS / 5384 SF - PHASE 2)
 (24 UNITS / 14,114 SF - TOTAL)

ACREAGE: 5.44 acre site (1.55 ac Project Area)
 RZ/SE/CU PETITION #: SE-3981 8/24/88
 PRESENT LAND USE: Existing Church (450 members)
 HURRICANE EVACUATION ZONE: LEVEL B (ORANGE)

100%
 CONSTRUCTION DRAWINGS
 ISSUE DATE: 10.17.14

REV	DATE	DESCRIPTION
1	1.9.15	Per Pasco comments (rev2014)
2	2.16.15	Utility relocations and AST (rev2)
3	2.24.15	Utility relocations (C2-C3.2)
4	3.11.15	per Utility comm. (C2-C3.2)
5	4.17.15	per Utility comm. (C2-C3.2)
6	5.11.15	add 12 Units (phase 2)

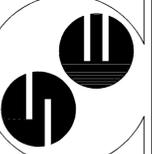
WITHOUT SIGNATURE
 ROLAND P. DOVE, P.E.
 P.E. NO. 36933
 DATE

Pasco Family
 Housing Project
 METROPOLITAN MINISTRIES
 Holiday, Florida 34691



CONTRACT DATE:
 September 2014

SPRING ENGINEERING, INC.
 ENGINEERING • LAND PLANNING • ARCHITECTURE
 3014 U.S. HWY 19, HOLIDAY, FL (727) 938-1516
 FL COA NO. 00005158 & LICENSE NO. AM-0001747



TITLE SHEET

DESIGNED BY: ATP
 DRAWN BY: ATP
 CHECKED BY: RPD

JOB NO. 2010-07H

SHEET NO.

T1

Owner/Developer:
 METROPOLITAN MINISTRIES
 3214 US Highway 19 N
 Holiday, Florida 34691
 (727) 937-3268
 Rev. Dan Campbell
 Brian Evjen, V.P. (brian.evjen@metromin.org)

Architect/Engineer:
 SPRING ENGINEERING, INC.
 3014 U.S. Highway 19
 Holiday, Florida 34691
 (727) 938-1516
 Roland P. Dove, P.E.
 Arthur Pollard (se1@verizon.net)

Surveyor:
 PRECISION SURVEYING & MAPPING, INC.
 5223 Hunters Ridge Drive
 New Port Richey, Fl. 34653
 (727) 841-8414
 Jon Robbins (jsr@psmfla.com)

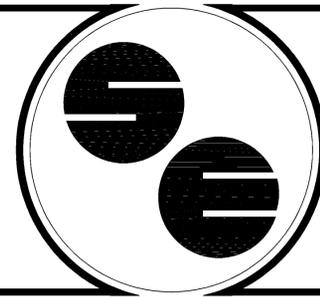
Location Map: Scale: 1"=500'

SECTION 19, TOWNSHIP 26 SOUTH, RANGE 16 EAST
 (Lat. 28.206 N, Lon. 82.738 W)

Index of Drawings:

T1	TITLE SHEET
C1	SURVEY/DEMOLITION PLAN
-	CSWMP/EROSION CONTROL PLAN
C2	SITE PLAN
C2.1	SITE AERIAL (200' OFF SITE)
C3	UTILITY PLAN
C3.1	UTILITY DETAILS
C3.2	UTILITY DETAILS
C4	PAVING, GRADING & DRAINAGE
C5	LANDSCAPE PLAN
C6	GENERAL NOTES
C7	DETAILS
C8	PLANTING & IRRIGATION DETAILS

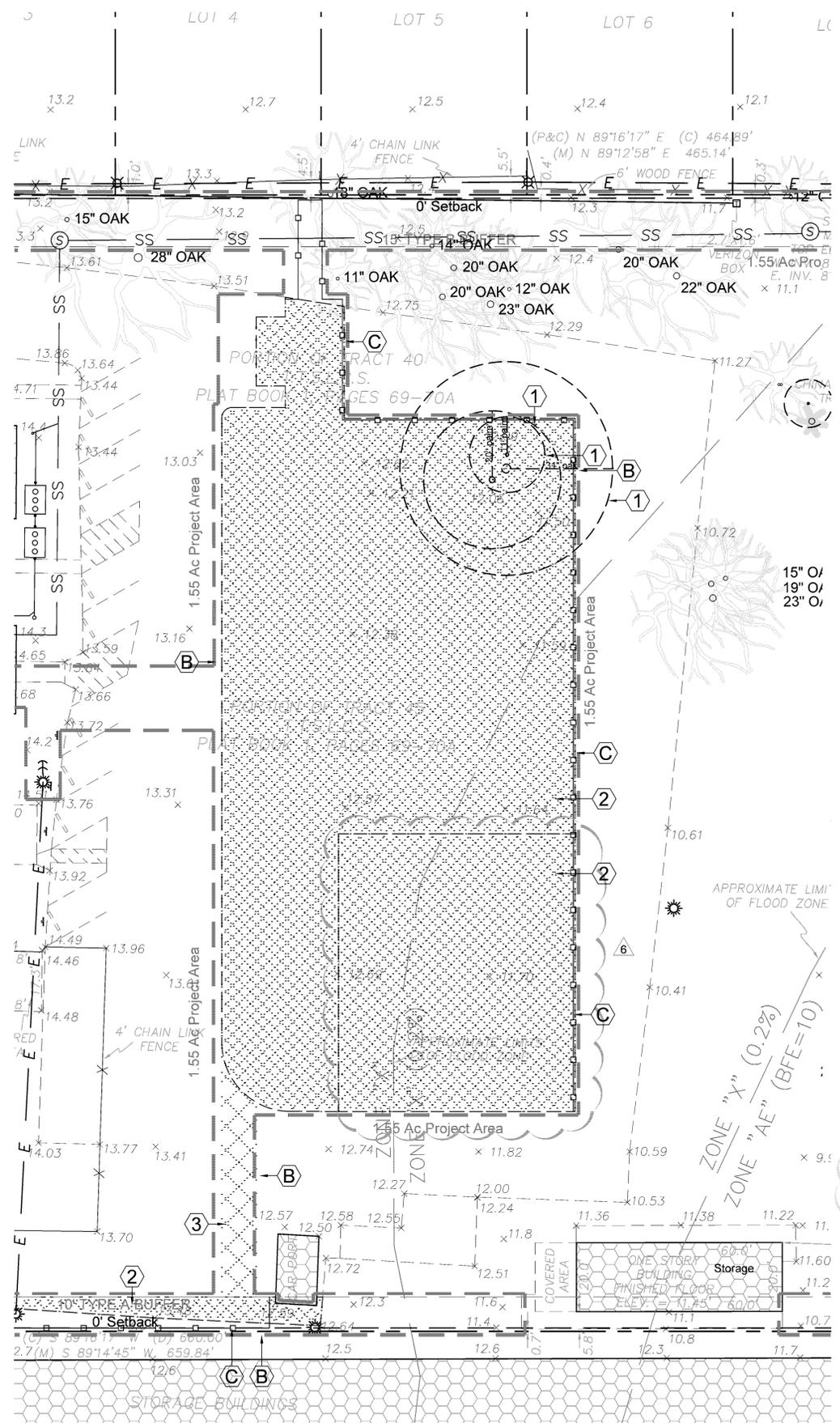
Simultaneous Preliminary/Construction Submittal



SPRING ENGINEERING, INC.
 ARCHITECTURE - ENGINEERING - LAND PLANNING
 3014 U.S. HWY. 19, HOLIDAY, FL. (727) 938-1516

REVISION 6: ADD 12 UNITS AND 8 PARKING SPACES FOR PHASE 2.
 REVISION 1: UPDATE SITE DATA, ADD E-MAIL ADDRESS

THIS DRAWING AND THE DESIGN SHOWN ARE THE PROPERTY OF SPRING ENGINEERING, INC. AND ARE NOT TO BE REPRODUCED, COPIED, PUBLISHED, OR USED IN WHOLE OR PART WITHOUT WRITTEN CONSENT. THEY ARE TO BE USED ONLY FOR THE SITE AND PROJECT IDENTIFIED AND SHALL BE RETURNED UPON REQUEST.



Survey & Demolition Plan

Scale: 1"=20'



OVERALL SITE PARKING CALCULATIONS
 The site serves two very different functions. On Sunday, it hosts a worship service at the 'Church' building with other buildings functioning as accessory uses. On weekdays, it functions as a community center with activities centered on the 'Kitchen' and 'Classroom'. We have provided parking calculations for the existing functions broken down by Sunday and Weekday functions.

(Sunday)
 5970 SF Church x 1/100 = 60 Spaces required

(Weekday)
 4151 SF Classrooms (Daycare for 7 teachers and 82 students @ maximum capacity) = 7 teacher spaces + 6 student spaces (82/15) = 13 Spaces required
 4166 SF Kitchen x 1/100 = 42 Spaces required

LESS THAN 60 PARKING SPACES ARE REQUIRED FOR THE CURRENT USES AND GREATER THAN 74 PARKING SPACES ARE PROVIDED AND WILL REMAIN UNDISTURBED DURING THE PROPOSED CONSTRUCTION. The Proposed housing project will add 24 new units requiring 24 new parking spaces, and will provide 25 new parking spaces.

OVERALL SITE FLOOR AREA RATIO
 The Maximum allowable F.A.R. is 0.60
 The Site currently contains:
 5971 SF Church
 4166 SF Kitchen (Fellowship Hall)
 4156 SF Office
 4151 SF Classroom
 1200 SF Storage
 Existing FAR is 0.08 (19,600 sf = 0.4519 acres, 0.45 ac / 5.44 ac site = 0.08)

With proposed 24 unit housing:
 14,114 sf Housing
 Proposed FAR is 0.14 (33,714 sf = 0.7740 acres, 0.77 ac / 5.44 ac site = 0.14)

LDC 905.2.C.3
 Avoid Utility Conflicts. Landscape installations shall be placed to avoid conflicting with the existing and/or proposed utilities, both underground and overhead.

All portions of a lot upon which development has commenced, but not continued for a period of thirty (30) days, shall be planted with a grass species or ground cover to prevent erosion and encourage soil stabilization. Adequate coverage, so as to suppress fugitive dust, shall be achieved within forty-five (45) days.

Survey & Demolition Plan

Scale: 1"=50'



ELEVATIONS, IF SHOWN, ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988. x5.4' DENOTES ELEVATION IN FEET ABOVE MEAN SEA LEVEL.

BEARINGS SHOWN HEREON ARE BASED UPON AN ASSUMED BEARING OF NORTH 01°25'29" EAST, FOR THE EASTERLY R/W LINE OF U.S. HIGHWAY 19.

CONTROL BENCH MARK: FOUND NATIONAL GEODETIC SURVEY DISK IN A CONCRETE HEADWALL MARKED "PAS 4 1983 BSM" LOCATED 1.25 MILES NORTH OF THE JUNCTION OF ALTERNATE 19 AND US 19 ON US 19, 42.8 WEST OF THE CENTERLINE OF THE SOUTHBOUND LANES. ELEVATION = 9.28' (NAVD 1988).

- 6 REVISION 6: ADD 12 UNITS AND 8 PARKING SPACES.
- 4 REVISION 4: REMOVE PROPOSED SANITARY EASEMENT.
- 1 REVISION 1: MAKE TREE SYMBOLS & LABELS CLEARER; ADD HATCH LEGEND TO KEYNOTES; LABEL EASEMENTS

KEY NOTES AND LEGEND

- (A) CSWMP: SITE AREA (5.44 Acres)
 - (B) PROJECT/CONSTRUCTION AREA (1.55 Acres)
 - (C) INSTALL 758 LF OF SILT FENCE.
 - (1) DEMOLITION: REMOVE EXISTING TREES (11" PALM, 21" PALM, 30" OAK).
 - (2) REMOVE 21,965 SF OF EXISTING PAVEMENT AND PREPARE GROUND FOR NEW STRUCTURES, PAVEMENT AND LANDSCAPED AREAS. ENSURE PLANTING BEDS ARE FREE OF PAVEMENT BASE COURSE AND BACKFILL WITH APPROPRIATE TOPSOIL.
 - (3) OPEN CUT 700 SF OF EXISTING PAVEMENT TO INSTALL NEW UTILITIES AND RESTORE PAVEMENT UPON COMPLETION.
- EXISTING ASPHALT PAVING.
- EXISTING BUILDINGS.

All bidders must visit the site to verify conditions before submitting bids.

LEGAL DESCRIPTION

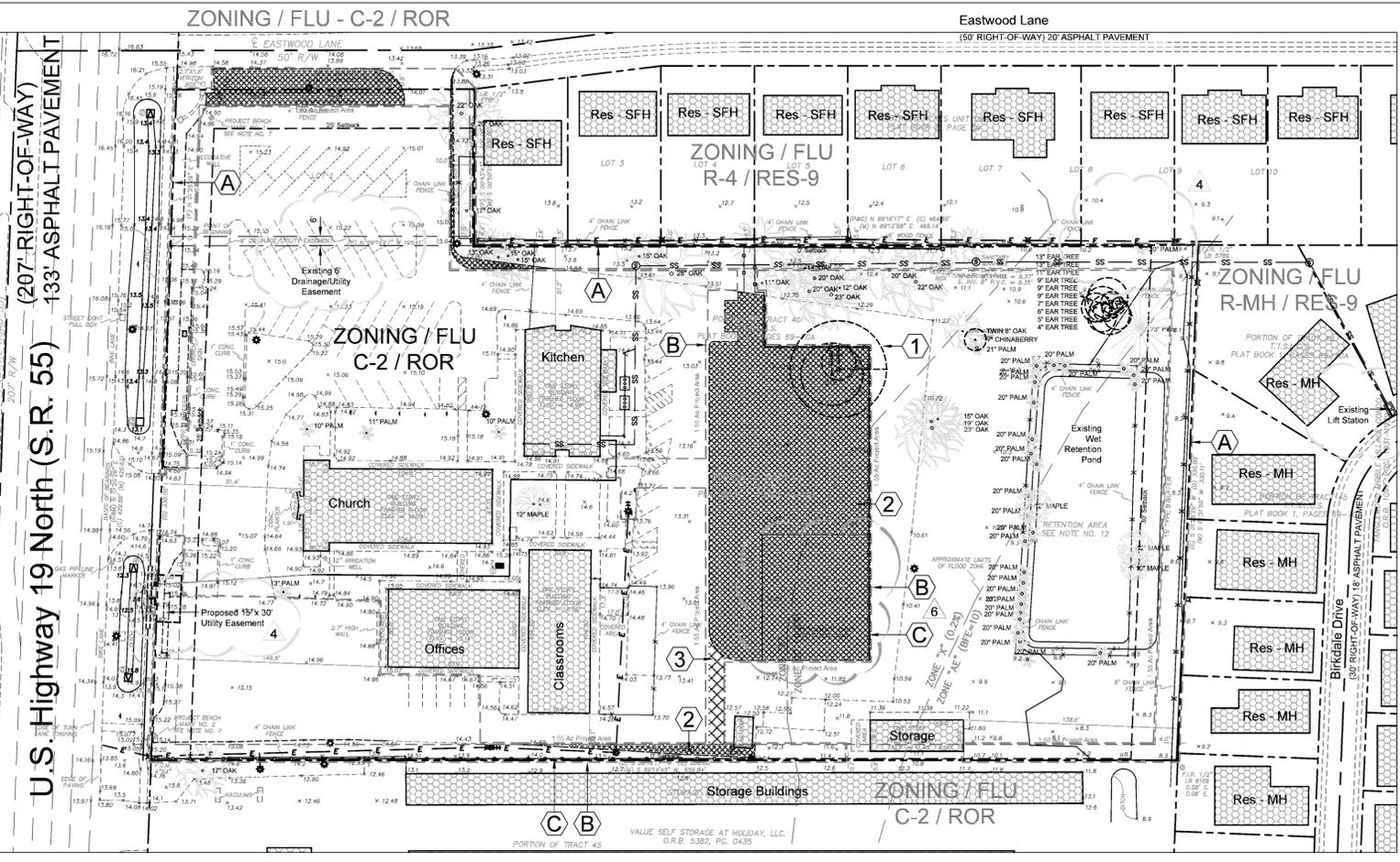
THOSE PARTS OF LOTS 40 AND 45, TAMPA AND TARPON SPRINGS LAND COMPANY, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGES 69, 69A, 70 AND 70A, PUBLIC RECORDS OF PASCO COUNTY, FLORIDA, LOCATED IN SECTION 19, TOWNSHIP 26 SOUTH, RANGE 16 EAST, DESCRIBED AS FOLLOWS:

COMMENCE AT A POINT ON THE EAST LINE OF U.S. HIGHWAY 19, 250 FEET SOUTH OF THE NORTH LINE OF SAID TRACT 40 FOR A POINT OF BEGINNING; THENCE RUN SOUTHERLY ALONG THE EAST RIGHT-OF-WAY LINE OF SAID U.S. HIGHWAY 19 A DISTANCE OF 330.00 FEET; THENCE EASTERLY ON A LINE PARALLEL TO THE NORTH LINE OF TRACT 40 A DISTANCE OF 660 FEET; THENCE NORTHERLY ON A LINE PARALLEL TO THE EAST RIGHT-OF-WAY LINE OF U.S. HIGHWAY 19 A DISTANCE OF 330 FEET; THENCE WESTERLY A DISTANCE OF 660 FEET TO THE POINT OF BEGINNING.

ALSO

LOT 1, EASTWOOD ACRES UNIT ONE, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 8, PAGE 59, PUBLIC RECORDS OF PASCO COUNTY, FLORIDA, RECORDED IN OFFICIAL RECORDS BOOK 8679, PAGE 3720.

THIS DRAWING AND THE DESIGN SHOWN ARE THE PROPERTY OF SPRING ENGINEERING, INC. AND ARE NOT TO BE REPRODUCED, COPIED, PUBLISHED, OR USED IN WHOLE OR PART WITHOUT WRITTEN CONSENT. THEY ARE TO BE USED ONLY FOR THE SITE AND PROJECT IDENTIFIED AND SHALL BE RETURNED UPON REQUEST.



100%
 CONSTRUCTION DRAWINGS
 ISSUE DATE: 10.17.14

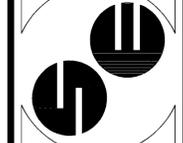
REV	DATE	DESCRIPTION
1	10.15.14	Per Pasco comments (10/20/14)
2	2.16.15	Utility relocation and AST (10/24/14)
3	2.24.15	Utility relocation (10/24/14)
4	3.11.15	per Utility comments (02-C3-C3.2)
5	4.17.15	per Utility comments (02-C3-C3.1)
6	5.11.15	add 12 Units (phase 2)

Pasco Family
 Housing Project
 METROPOLITAN MINISTRIES
 Holiday, Florida 34691



CONTRACT DATE:
 September 2014

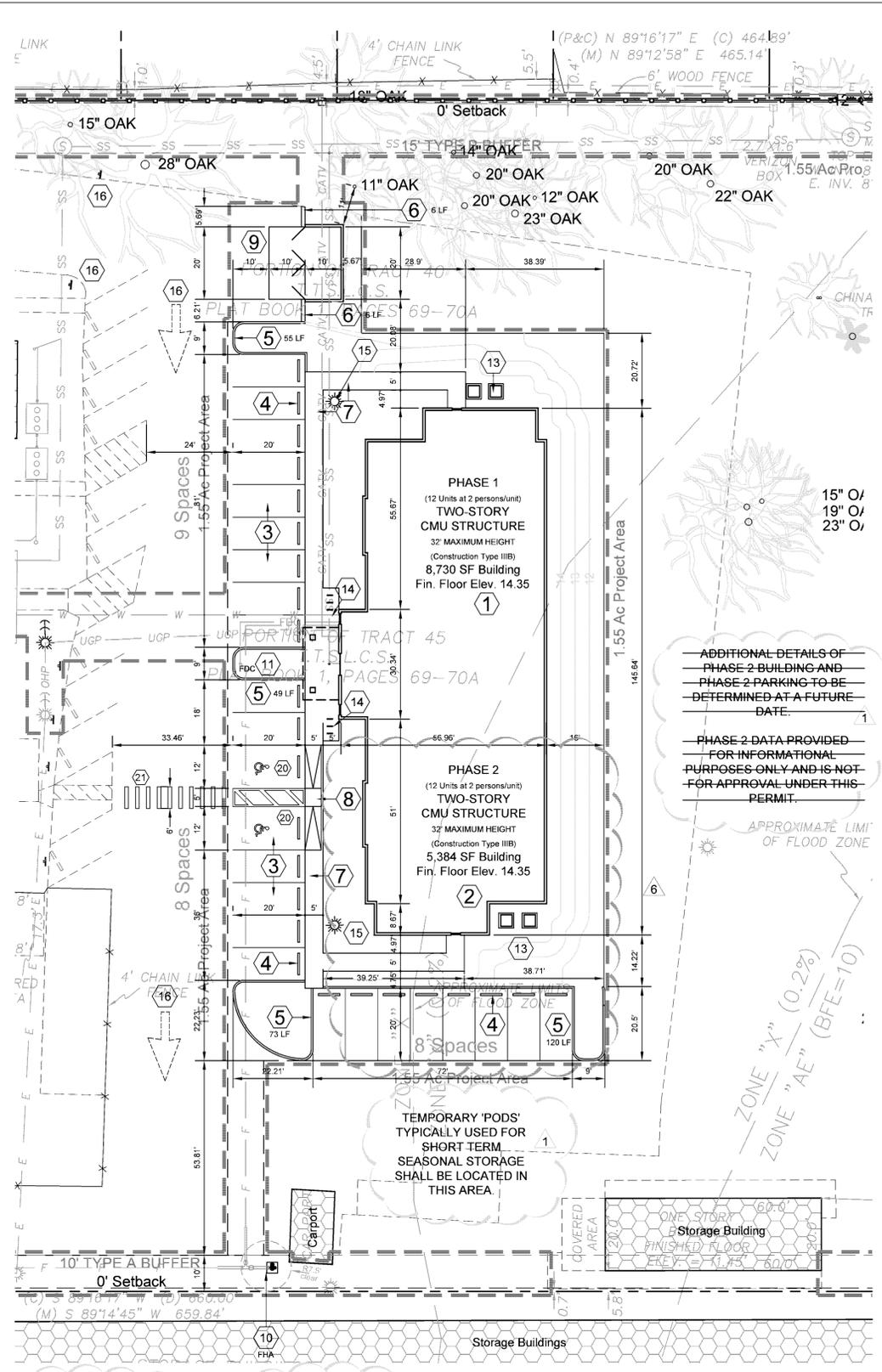
SPRING ENGINEERING, INC.
 ENGINEERING • LAND PLANNING • ARCHITECTURE
 3014 U.S. HWY 19, HOLIDAY, FL (727) 938-1516
 FL COA NO. 00005158 & LICENSE NO. AM-0001747



SURVEY AND
 DEMOLITION

DESIGNED BY: ATP
 DRAWN BY: ATP
 CHECKED BY: RPD
 JOB NO.
 2010-07H

SHEET NO.
C1



ADDITIONAL DETAILS OF PHASE 2 BUILDING AND PHASE 2 PARKING TO BE DETERMINED AT A FUTURE DATE.

PHASE 2 DATA PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND IS NOT FOR APPROVAL UNDER THIS PERMIT.

Detailed Site Plan



LDC 305.1 NEIGHBORHOOD MEETING HELD DEC 3, 2014 AT 6:00 PM AT 3214 US HWY 19, HOLIDAY, FL
LDC 306.1 NEIGHBORHOOD NOTICE WAS MAILED ON NOV 19, 2014. (SEE AFFIDAVIT)

LDC 430.18 ANY STORAGE AREAS INCLUDING "TEMPORARY" STORAGE, MODULAR UNITS, TRACTOR TRAILERS, PODS, COLLECTION BINS, OR THE LIKE ARE REQUIRED TO BE SCREENED. IF THERE IS A POSSIBILITY SUCH UNITS WILL BE USED IN THE FUTURE, THERE MUST BE AN AREA DESIGNATED FOR THEM ON THE SITE PLAN. SUCH UNITS CANNOT BE PLACED ON DESIGNATED PARKING SPACES, DRIVE AISLE AREAS, OPEN SPACE OR SIMILAR REQUIRED AREAS. THIRTY DAYS OR LONGER USE OF STORAGE AREAS REQUIRES A BUILDING PERMIT.

LDC 907.1 D.9 WHEEL STOPS OR OTHER DESIGN FEATURES, SUCH AS CURBING, SHALL BE USED SO THAT PARKED VEHICLES DO NOT EXTEND MORE THAN TWO (2) FEET INTO ANY LANDSCAPE OR BUFFER AREA NOR REDUCE AN ABUTTING SIDEWALK WIDTH TO LESS THAN FIVE (5) FEET.

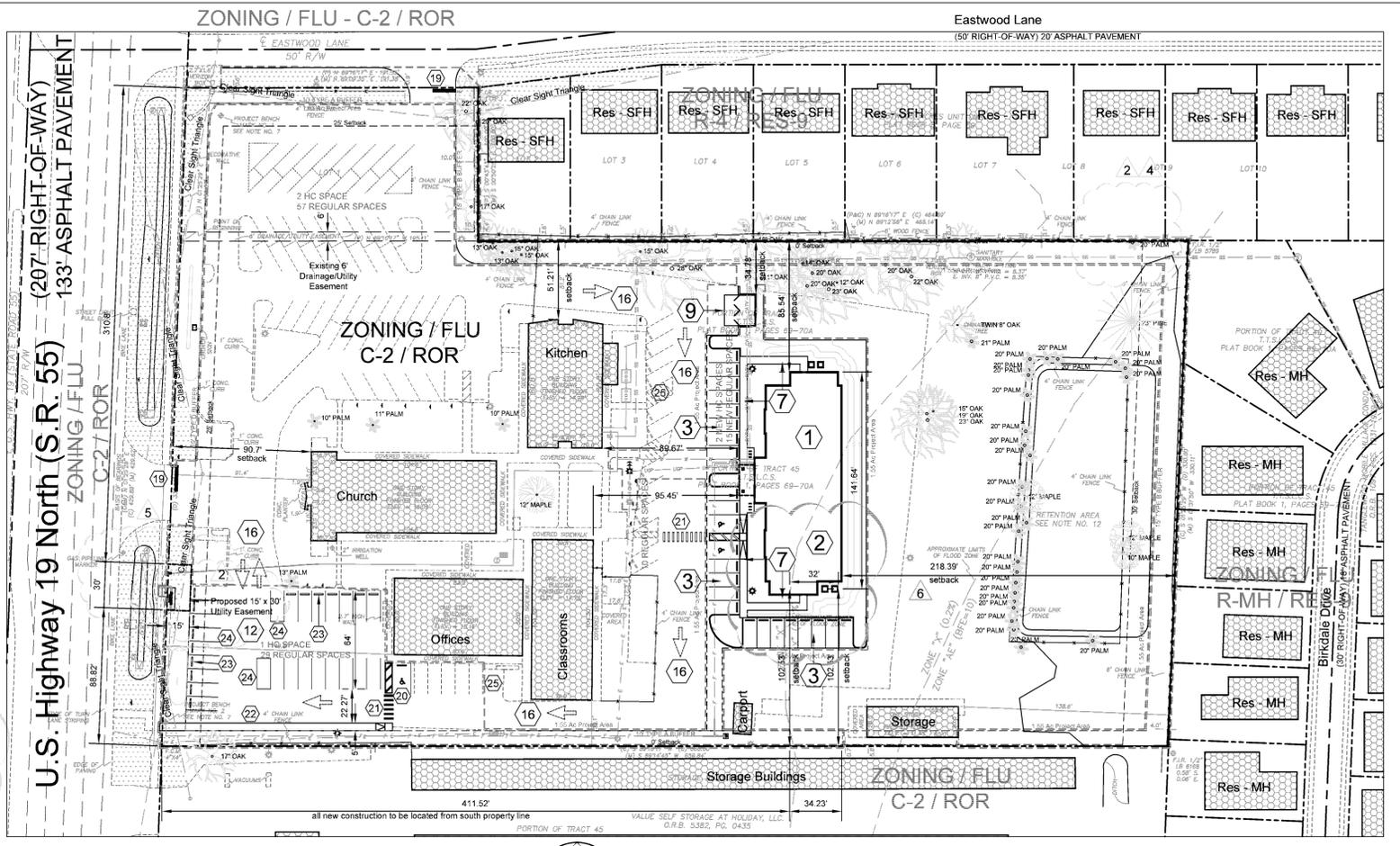
FS 316.0745 ALL TRAFFIC CONTROL, SIGNING AND MARKINGS ON PRIVATE PROPERTY OPENED TO THE GENERAL PUBLIC SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND FDOT STANDARDS.

ALL PARKING SPACES, PAVEMENT ARROWS AND STOP BARS SHALL BE STRIPED IN WHITE PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL HANDICAPPED PARKING SPACES SHALL BE SIGNED AND MARKED IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD INDEX.

REVISION 1: ADD SHEET C2-1. MAKE TREE SYMBOLS & LABELS CLEARER; REVISE PASCO COUNTY STD SITE PLAN NOTES & MOVE TO C2-1. UPDATE SITE DATA, LABEL EASEMENTS, BUILDING HEIGHT, ADJUST CURB WRAP; ADD CLEAR SIGHT TRIANGLES, STOP SIGNS/BARS, SIDEWALK TO BUS STOP.

REVISION 2: ADD 15'x20' UTILITY EASEMENT.



SITE KEY NOTES

- 1 NEW BUILDING (PHASE 1) 12 UNITS
- 2 12 ADDITIONAL UNITS (PHASE 2)
- 3 NEW ASPHALT PAVEMENT (5,364 SF)
- 4 NEW WHEELSTOPS, (QTY. 25)
- 5 NEW TYPE D CURB, (297 LF)
- 6 NEW RIBBON CURB, (12 LF)
- 7 NEW 5' WIDE x 4" THICK SIDEWALK, (1,444 SF INCL. HC RAMP)
- 8 NEW HC RAMP (FDOT INDEX 304: CR3) Reduced to 5' sidewalk width
- 9 NEW DUMPSTER ENCLOSURE
- 10 NEW FIRE HYDRANT ASSEMBLY
- 11 NEW FDC
- 12 NEW WATER CONNECTION (FIRE) IN A UTILITY EASEMENT
- 13 AC UNITS (COORDINATE WITH ARCHITECTURAL PLANS)
- 14 6 BIKE RACKS (CYCLESAFE PLASTISOL CLASSIC) - FOR 12 BIKES
- 15 NEW LIGHT POLES (BY DUKE ENERGY)
- 16 NEW "DO NOT ENTER" SIGNS AND TRAFFIC FLOW ARROWS (DO NOT PAINT ARROWS, FOR INFORMATIONAL PURPOSES ONLY)
- 17 NOT USED
- 18 EXISTING BUILDINGS
- 19 NEW STOP SIGN (R1-1) AND 24" WHITE PAINTED STOP BAR
- 20 NEW HANDICAPPED PARKING SPACE
- 21 NEW WHITE PAINTED SPECIAL EMPHASIS CROSSWALK
- 22 NEW 5' WIDE x 4" THICK SIDEWALK WITH TURNED DOWN EDGE (185 SF INCL. HC RAMP) (INSTALL 6" ABOVE EXISTING ASPHALT PAVEMENT)
- 23 NEW WHEELSTOPS (QTY. 17)
- 24 NEW 4" WHITE PAINTED PARKING LINES (RESTRIPED EXISTING PARKING TO ACCOMMODATE NEW LANDSCAPE BUFFERS)
- 25 EXISTING LOADING ZONE (10'x20' FOR SMALL TRUCKS)

SITE DATA

PARCEL I.D.: 19-26-16-0010-04000-0000 FUTURE LAND USE: ROR

ZONING DISTRICT: C2 CURRENT ZONING ACTION ON SITE: SE-3981 8/24/88

CURRENT USE: CHURCH (450 MEMBERS) COMMISSION DISTRICT: 3

PROPOSED DEVELOPMENT: TRANSITIONAL HOUSING (24 UNITS/13,710 SF-PHASE 1&2)

SETBACKS: FRONT: 25' SIDES: 0' REAR: 30'

F.A.R.: 0.80 MAX. (0.14 PROPOSED) % OF LOT COVERAGE: 50% MAXIMUM

ABUTTING ZONING / FLU: NORTH (EASTWOOD LANE): C-2 / ROR & RES-9 EAST: R-4 & RMH / RES-9 SOUTH: C-2 / ROR

MARKET AREA: WEST

IMPACT FEES: MOBILITY A-1 (URBAN SERVICE AREA TAZ 159)

PARKING REQUIREMENTS: (Sunday = 60/24 = 84 required; M-F = 13/42+24 = 79 required)

Residential Treatment Facility: (1 SPACE / RM) = 24 SPACES REQ.

Existing Church (assembly) = 60 Spaces Required

Existing Classroom (daycare) = 13 Spaces Required

Existing Kitchen (assembly) = 42 Spaces Required

EXISTING SPACES = 86 REGULAR (9'x20') & 3 HANDICAPPED (12'x20') PRESERVED

NEW SPACES = 23 REGULAR (9'x20') & 2 HANDICAPPED (12'x20') PROVIDED

BICYCLE SPACES: 25 x 0.02 = 0.50 REQUIRED (12 PROVIDED)

LANDSCAPING BUFFERING (TABLE 905.5 D):

FRONT (NORTH): TYPE A 10' AGAINST C2

SIDE (NORTH): TYPE B 15' AGAINST RESIDENTIAL

SIDE (SOUTH): TYPE A 10' AGAINST C2

REAR (EAST): TYPE B 15' AGAINST RESIDENTIAL

FRONT (WEST): TYPE D 15' WITH BERM AGAINST US HWY 19

10% BUILDING PERIMETER: 13,710 SF x 10% = 1,371 SF

VEHICLE USE AREA: TERMINAL ISLAND EACH 10 SPACES (4 PROVIDED)

NEIGHBORHOOD PARK: NO

WETLANDS: NONE

GOPHER HABITAT: NO LISTED SPECIES: NOT SIGNIFICANT

DRAINAGE ZONE: WEST PINELLAS ANCLOTE WATERSHED

FLOOD ZONE (PROJECT AREA): "X" & "X₁₀₀" (PANEL No. 120230-0353-F, 9-26-14)

FLOOD ZONE (SITE): "X", "X₁₀₀" & "AE" (BASE FLOOD ELEVATION 10.0)

FIRE PROTECTION: M.S.T.U.

UTILITIES (WATER): PASCO COUNTY (WASTEWATER): PCU / COLONIAL MANOR

ENGINEER'S CERTIFICATION

THIS IS TO CERTIFY THAT THE PUBLIC ROADWAY SYSTEM (US HWY 19) IS IN SUBSTANTIAL CONFORMANCE WITH THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE OF STREETS AND HIGHWAYS, STATE OF FLORIDA, LATEST EDITION.

SPECIAL INSTRUCTIONS

If during construction activities any evidence of the presence of State and Federally protected plant and/or animal species is discovered, work shall come to an immediate stop and Pasco County shall be notified within two working days of the plant and/or animal species found on the site.

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.

STANDARD FIRE PROTECTION NOTES

- a. All projects must comply with Pasco County Fire Hydrant Ordinance No. 46-51.
- b. Fire hydrants shall be installed and in service prior to the accumulation of combustibles.
- c. 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.
- d. 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.
- e. Gated entries require a Siren Operating System or a 3M Opticon system for emergency access.

THIS DRAWING AND THE DESIGN SHOWN ARE THE PROPERTY OF SPRING ENGINEERING, INC. AND ARE NOT TO BE REPRODUCED, COPIED, PUBLISHED, OR USED IN WHOLE OR PART WITHOUT WRITTEN CONSENT. THEY ARE TO BE USED ONLY FOR THE SITE AND PROJECT IDENTIFIED AND SHALL BE RETURNED UPON REQUEST.

100%
CONSTRUCTION DRAWINGS
ISSUE DATE: 10.17.14

REVISIONS

REV	DATE	DESCRIPTION
1	10.17.14	Per Pasco comments (10/14/14)
2	2.16.15	Utility easements and AST (10/14)
3	2.24.15	per Utility Utility and (10/14)
4	3.11.15	per Utility comments (C2-C3-C2)
5	4.17.15	per Utility comments (C2,C3,C3.1)
6	5.11.15	add 12 Units (phase 2)

ROLAND P. DOVE, P.E.
P.L. NO. 36933

PASCO FAMILY HOUSING PROJECT
METROPOLITAN MINISTRIES
HOLIDAY, FLORIDA 34691

CONTRACT DATE: September 2014

SPRING ENGINEERING, INC.
ENGINEERING • LAND PLANNING • ARCHITECTURE
3014 U.S. HWY 19, HOLIDAY, FL 32707 938-1516
FL COA NO. 00005158 & LICENSE NO. AM-0001747

DESIGNED BY: ATP
DRAWN BY: ATP
CHECKED BY: RPD
JOB NO.: 2010-07H
SHEET NO.: C2




Site Plan
 Scale: 1"=50'


PASCO STD SITE PLAN NOTES

1. All utility construction shall comply with the Pasco County Standards for Design and Construction of Water and Wastewater Facilities Specifications, latest edition.
2. 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 sign age.
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/developers' responsibility to properly sign and stripe the site in accordance with applicable standards.
8. The owner/developer acknowledges that this approval does not include any work in County right-of-way. All right-of-way work shall be a function of an approved Pasco County Right-of-Way Use Permit.
9. All clear-sight areas shall be kept free of any sign age, plantings, trees, etc. in excess of three-and-a-half (3.5) 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, lighting or lighting plan, etc. require separate building permits.

THIS DRAWING AND THE DESIGN SHOWN ARE THE PROPERTY OF SPRING ENGINEERING, INC. AND ARE NOT TO BE REPRODUCED, COPIED, PUBLISHED, OR USED IN WHOLE OR PART WITHOUT WRITTEN CONSENT. THEY ARE TO BE USED ONLY FOR THE SITE AND PROJECT IDENTIFIED AND SHALL BE RETURNED UPON REQUEST.

100%
CONSTRUCTION DRAWINGS
ISSUE DATE: 10.17.14

REV	DATE	DESCRIPTION
1	1.18.15	per Pasco comments (rev2014)
2	2.16.15	Utility relocations and AST (rev2014)
3	2.24.15	Utility relocations and AST (rev2014)
4	3.11.15	per Utility comments (C2-C2.2)
5	4.17.15	per Utility comments (C2-C2.3, C2.3.1)
6	5.11.15	add 12 Units (phase 2)

WITHOUT SIGNATURE AND CROSS
 ROLAND P. DOVE, P.E.
 P.E. NO. 36933
 DATE

Pasco Family Housing Project
METROPOLITAN MINISTRIES
 Holiday, Florida 34691



CONTRACT DATE:
September 2014

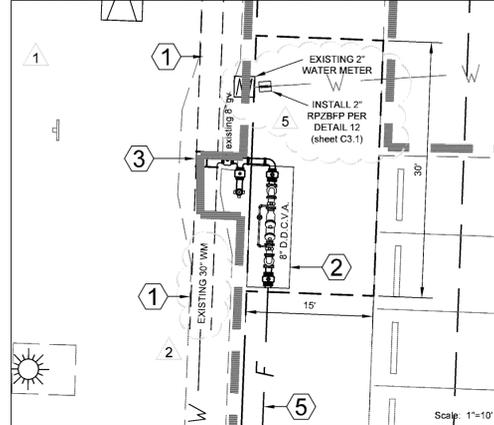
SPRING ENGINEERING, INC.
 ENGINEERING • LAND PLANNING • ARCHITECTURE
 3014 U.S. HWY 19, HOLIDAY, FL (727) 938-1516
 FL COA NO. 00005158 & LICENSE NO. AM-0001747



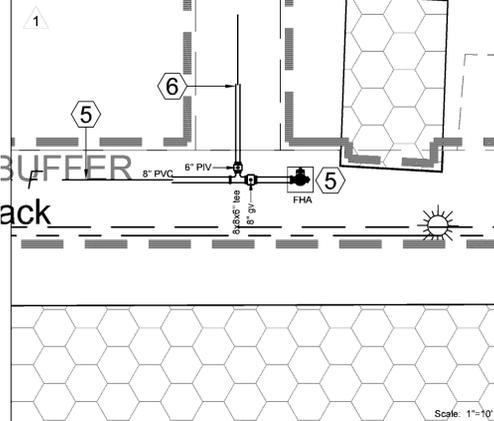
SITE PLAN
 DESIGNED BY: ATP
 DRAWN BY: ATP
 CHECKED BY: RPD
 JOB NO. 2010-07H

SHEET NO.
C2-1

WATER SERVICE CONNECTION



FIRE HYDRANT ASSEMBLY



UTILITY KEY NOTES

- 1 WATER (PCU): EXISTING 30" DIP WATER MAIN.
- 2 NEW 15' x 30' UTILITY EASEMENT (POTABLE AND FIRE)
- 3 FIRE SERVICE CONNECTION: REMOVE EXISTING FIRE HYDRANT. INSTALL NEW 8"x8" TEE WITH EXISTING FHA (RELOCATED), 8" BEND, 8" DOUBLE-DETECTOR CHECK VALVE ASSEMBLY, CONCRETE SLAB.
- 4 POTABLE WATER SERVICE: INSTALL 2"x2" TEE IN EXISTING POTABLE WATER LINE; 2" GV, 90 LF OF 2" PVC (SCH 40) WATER LINE TO NEW BUILDING.
- 5 NEW FIRE HYDRANT: INSTALL 450 LF OF 8" PVC (C900 DR14) FIRE LINE; 8" x 6" TEE; 8" GV AND FHA. PER LDC 904.3.D, the distribution system for the fire protection water system shall be designed to deliver 1000 GPM flow for a period of not less than two (2) hours with a residual pressure of twenty (20) pounds per square inch.
- 6 FIRE SERVICE: INSTALL 6" PIV, 200 LF OF 6" PVC (C900 DR14) FIRE LINE TO NEW BUILDING.
- 7 FDC: INSTALL 40 LF NEW OF 6" PVC (C900 DR14) TO NEW FDC (4" STORZ) AS INDICATED AND PER FIRE MARSHAL.
- 8 SANITARY (PCU): EXISTING 6" PVC SANITARY MAIN AT APPROX. EL 9.0 (FIELD VERIFY).
- 9 NEW SANITARY LATERAL: CONNECT TO EXISTING SANITARY SEWER WITH 6"x6" WYE AND 148 LF OF 6" PVC (SDR 35) SANITARY LATERAL AT 1% MINIMUM SLOPE; INSTALL (2) CLEANOUTS.
- 10 ELECTRIC (DUKE): EXISTING ELECTRIC POLES, OHP AND POLE MOUNTED TRANSFORMERS.
- 11 NEW POLE, OHP AND POLE MOUNTED TRANSFORMER (BY DUKE ENERGY).
- 12 CONTRACTOR TO INSTALL 83 LF OF 4" CONDUIT (SCH 40 GREY) FROM THE NEW POWER POLE TO THE NEW BUILDING. CONTRACTOR SHALL PROVIDE WIRING FROM THE NEW BUILDING TO THE BASE OF THE NEW POLE. ELECTRIC SERVICE CONTRACTOR TO INSTALL SERVICE PER ALL STATE AND LOCAL CODES, POWER COMPANY, N.F.P.A. AND N.E.C. STANDARDS AND COORDINATE WITH THE POWER COMPANY TO VERIFY THE TRANSFORMER LOCATION, SIZE, ORIGIN OF SERVICE AND ALL STANDARDS FOR WORK. (COORDINATE WITH DUKE ENERGY AND THE ARCHITECTURAL PLANS). THE CONTRACTOR HAS THE OPTION TO EITHER DIRECTIONAL BORE THE CONDUIT UNDER THE EXISTING PAVEMENT OR TO OPEN CUT AND RESTORE THE PAVEMENT AS APPROVED CONSTRUCTION ALTERNATIVES.
- 13 CABLE/PHONE (VERIZON): EXISTING PHONE/CATV WIRE.
- 14 VERIZON TO INSTALL NEW CONNECTION BOX. (COORDINATE WITH VERIZON)
- 15 NEW PHONE SERVICE: INSTALL 140 LF OF TWO 2" CONDUITS (SCH 40, GREY) FROM POINT OF CONNECTION (EXISTING TELEPHONE SERVICE) TO NEW BUILDING. CONTRACTOR TO COORDINATE LENGTH AND LOCATION WITH TELEPHONE COMPANY. VERIFY EXACT ROUTING AND TERMINATION REQUIREMENTS WITH TELEPHONE COMPANY BEFORE STARTING WORK. CONTRACTOR TO COORDINATE WITH OTHER UTILITIES AND UTILIZE SHARED TRENCHING IF PERMITTED. GENERAL CONTRACTOR TO COORDINATE WITH DEVELOPER AND UTILITY COMPANY ON POINT OF CONNECTION.

ENGINEER STATEMENT:
The existing sanitary pump station is capable of handling the proposed development activities.

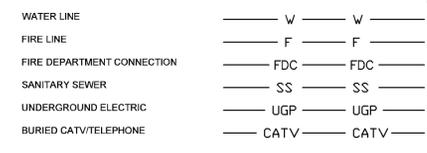
PASCO COUNTY NOTES:
1. "All utility system design materials and workmanship shall comply with *Standards for Design and Construction of Water, Wastewater, and Reclaimed Water Facilities Specifications*, latest edition."
2. "Connections into an existing County-owned system shall be via wet tap. Wet taps shall be performed exclusively by the Utility Services Branch at the developer's expense. Excavation, backfill, and surface restoration shall be the contractor's responsibility. Material for wet taps larger than two inches shall be provided and installed by the project contractor."
3. "Contractor's Responsibilities" regarding wet taps two inches and larger shall be as follows:
• 2" Only - This excavated trench must be dry or the trench will require rock and a pump to be in place. The minimum distance from the face of the valve to the wall of the trench is to be six feet.
• 3" and Larger - The contractor will supply a tapping saddle being epoxy coated, a tapping valve with mechanical joint and the equipment to provide, and conduct a pressure test. County personnel will witness the pressure test which must be at 150 psi for duration of thirty minutes.
• The contractor is responsible for the excavation before any County personnel will enter an excavated area. If the trench is four feet in depth or deeper, it will require a trench box or shoring, and a ladder according to Occupational Safety and Health Administration (OSHA) standards.
• The tapping valve will require a blocking device made of suitable material or device. This blocking device or material will be placed under the valve and remain in place until the tap machine is removed and the tap is completed.
• Note: If the contractor has not fulfilled his responsibilities, as stated above, prior to the arrival of Pasco County Utilities Operations and Maintenance tapping crew, there will be an additional charge of \$95.00.
If you have any questions regarding this information, contact Nelson D. Holt, Field Supervisor, Utilities Services Branch, at (727) 847-8145, or e-mail nholtd@pascocountyfl.net

4. "The Utilities Services Branch shall not own or maintain on-site waterlines, sewer lines, or facilities," unless otherwise approved by the Utilities Services Branch.
5. Fire hydrants shall be flow-tested and color-coded based on flow results.
6. Any lighting used to illuminate any parking area shall be so arranged as to direct and/or shield light away from adjoining residential premises and right-of-way.

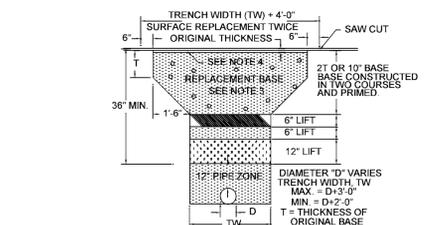
REVISION 5: REVISE UTILITY EASEMENT; ADD POTABLE WATER 2" RPZBFP LABEL 6" SS MAIN
REVISION 3: MOVE UTILITY DATA TABLE TO SHEET C3.2 AND EXPAND
REVISION 2: LABEL EXISTING UTILITY SIZE

REVISION 1: MAKE TREE SYMBOLS & LABELS CLEARER; ADD OPEN CUT/BACKFILL PAVEMENT DETAIL; EXTENSIVE REVISIONS TO UTILITY KEYNOTES 1-7; WATER CONNECTION DETAIL AND FIRE HYDRANT ASSEMBLY DETAIL; EXTENSIVE REVISIONS TO POTABLE WATER LINE AND FIRE LINE SIZE AND LOCATION; ADD LEGEND

LEGEND



OPEN CUT PAVEMENT DETAIL

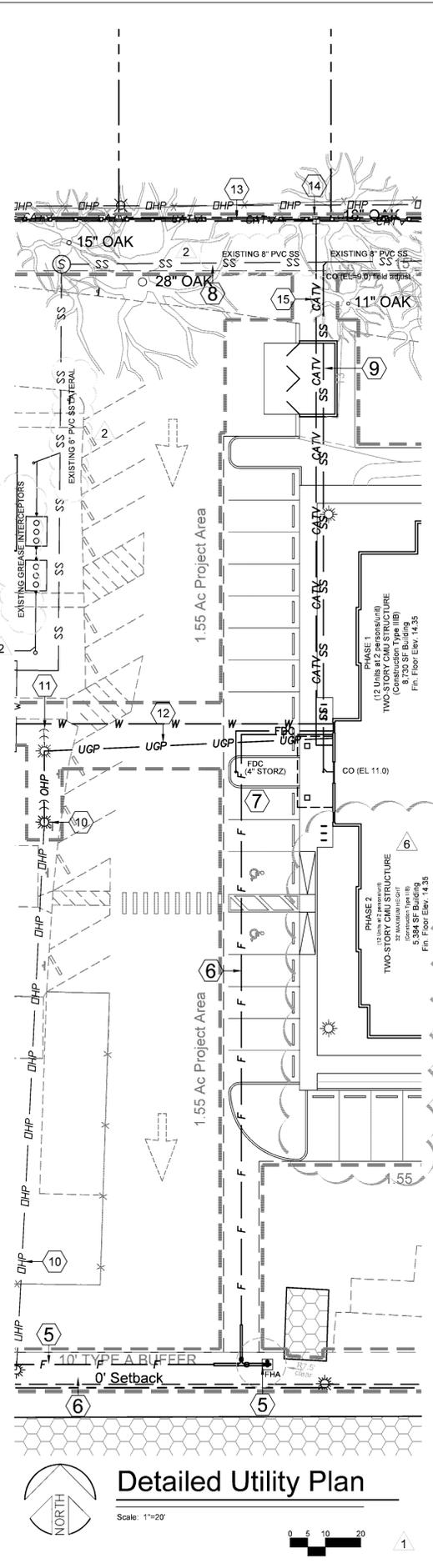


- TRENCH BACKFILL**
1. BASE AND BACKFILL MATERIALS SHALL BE EITHER OF THE SAME TYPE AND COMPOSITION AS THE MATERIALS REMOVED, OR OF EQUAL OR GREATER STRUCTURAL ADEQUACY. MATERIAL CONTAMINATED WITH DELETERIOUS SUBSTANCES DURING EXCAVATION SHALL NOT BE USED.
 2. THE AREA OF THE TRENCH ABOVE THE PIPE ZONE AND BELOW THE BASE COURSE MUST BE BACKFILLED AND COMPACTED IN LAYERS NOT EXCEEDING TWELVE INCHES, EXCEPT THAT THE LAST TWO LIFTS SHALL NOT EXCEED SIX INCHES PER LIFT.
 3. BASE MATERIAL SHALL BE PLACED IN TWO COURSES AND EACH TESTED TO MEET SPECIFIED DENSITY.
 4. REPLACEMENT ASPHALT SHALL BE TWICE THE ORIGINAL PAVEMENT THICKNESS WITH A MINIMUM OF TWO INCHES AND BE OF TYPE S-1 OR S-3.
 5. IF PAVEMENT HAS SHOULDER, SHOULDER TO EXTEND EIGHT FEET FROM EDGE OF PAVEMENT. USE LBR 30 (OR BETTER) BACK-FILL MATERIAL IN TOP 24 INCHES OF TRENCH.
 6. ALL FILL UP TO THE SPRING LINE OF THE PIPE MUST BE HAND TAMPED.

48 HOURS BEFORE YOU DIG "CALL SUNSHINE" 1-800-432-4770

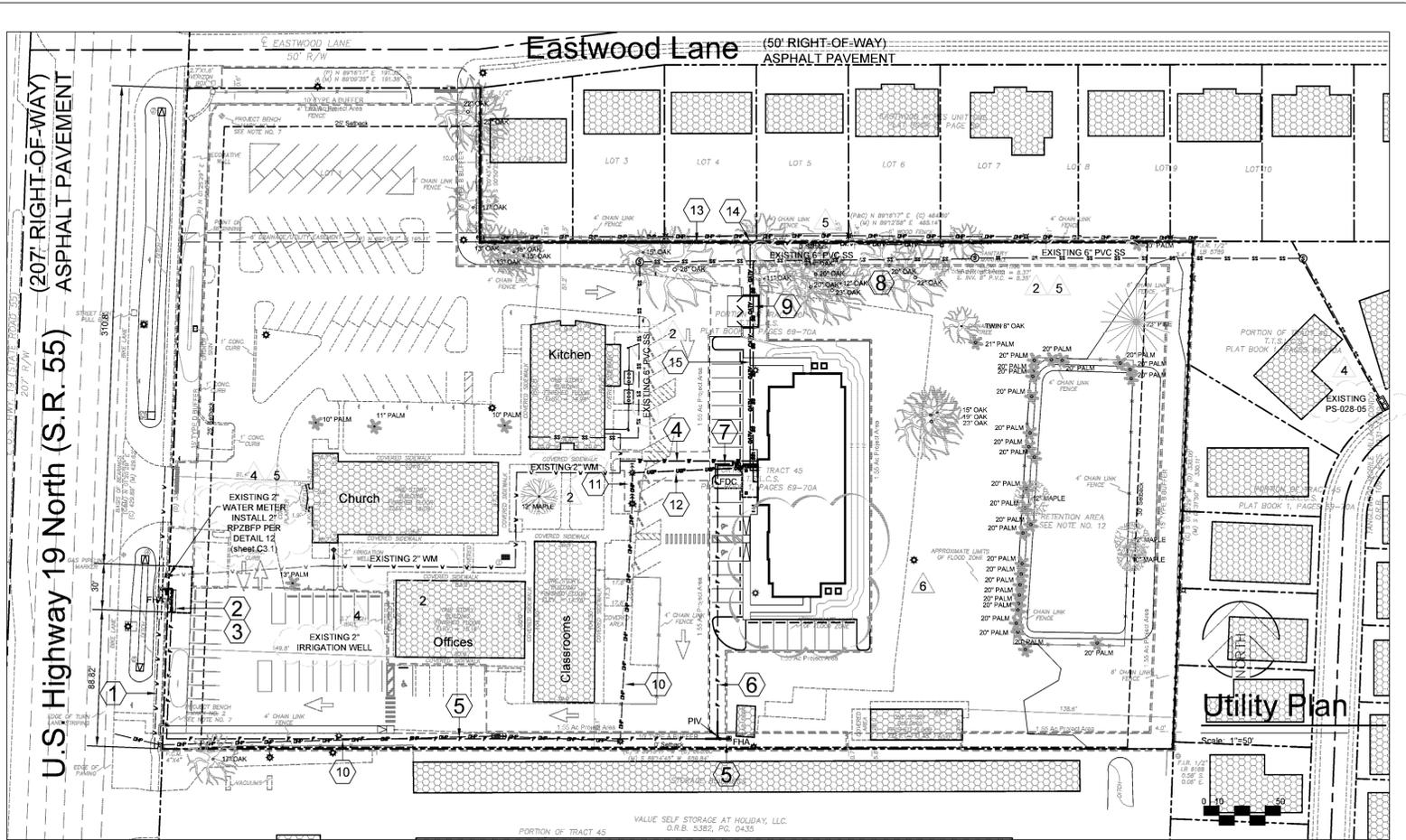


THIS DRAWING AND THE DESIGN SHOWN ARE THE PROPERTY OF SPRING ENGINEERING, INC. AND ARE NOT TO BE REPRODUCED, COPIED, PUBLISHED, OR USED IN WHOLE OR PART WITHOUT WRITTEN CONSENT. THEY ARE TO BE USED ONLY FOR THE SITE AND PROJECT IDENTIFIED AND SHALL BE RETURNED UPON REQUEST.



Detailed Utility Plan

Scale: 1"=20'

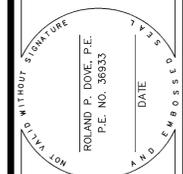


Utility Plan

100% CONSTRUCTION DRAWINGS
ISSUE DATE: 10.17.14

REVISIONS

REV	DATE	DESCRIPTION
1	1.9.15	per Pasco comments (rev2014)
2	2.16.15	Utility easement and AST (C3.4b)
3	2.24.15	per Utility comments (C3-C3.2)
4	3.11.15	per Utility comments (C2-C3.1)
5	4.17.15	per Utility comments (C2-C3.1)
6	5.11.15	add 12 Units (phase 2)

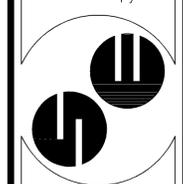


Pasco Family Housing Project
METROPOLITAN MINISTRIES
Holiday, Florida 34691



CONTRACT DATE: September 2014

SPRING ENGINEERING, INC.
ENGINEERING • LAND PLANNING • ARCHITECTURE
3014 U.S. HWY 19, HOLIDAY, FL (727) 938-1516
FL COA NO. 00005158 & LICENSE NO. AM-0001747



UTILITY PLAN
DESIGNED BY: ATP
DRAWN BY: ATP
CHECKED BY: RPD
JOB NO. 2010-07H
SHEET NO. C3

MATERIALS

ITEM	QUANT	DESCRIPTION
1	1	3" 4" 6" 8" DOUBLE CHECK VALVE/BFP ASSEMBLY WITH DETECTOR ASSEMBLY
2	2	3" 4" 6" 8" BEND, 90° FLANGE x FLANGE
3	2	3" 4" 6" 8" SPOOL PIECE (1/2" x 1/2" O.D.P.)
4	2	3" 4" 6" 8" BEND, 90° M.P.
5	4	3" 4" 6" 8" GLAND RETAINER M. (METALLIC)
6	2	3" 4" 6" 8" VALVE, GATE E.L.C. x T.L.S. RESILIENT
7	2	WELL E.L.C. 8"
8	1	SUPPORT (AS NEEDED)
9	1	CONCRETE SLAB 1/4" THICK - 48" WIDE MIN.

NOTE:
 - NO RODS OR EYE BOLT RETAINERS PERMITTED ABOVE GROUND.
 - BFP ASSEMBLY TO BE INSTALLED LEVEL & PLUMB.
 - MINIMUM CLEARANCE OF 36" TO BE MAINTAINED AROUND ENTIRE DEVICE FOR TESTING.
 - ENTIRE ASSEMBLY TO BE PAINTED SAFETY BLUE.
 - DETECTOR BY-PASS ASSEMBLY TO BE FACTORY INSTALLED AND CERTIFIED.
 - ALL MECHANICAL JOINTS SHALL BE RESTRAINED WITH METALLIC OR APPROVED EQUAL BELL JOINT RESTRAINERS SHALL BE PROVIDED ON ALL UNDERGROUND PIPING AS SPECIFIED IN JOINT RESTRAINT TABLE DETAIL.
 - ALL ABOVE GROUND PIPING SHALL BE FLANGED DUCTILE IRON PIPE (60 GALVANIZED OR PVC).
 - ITEM 3 SHALL BE FIELD CUT TO PROPER LENGTH TO ACHIEVE DESIGNATED GROUND CLEARANCE.
 - IF SO SPECIFIED, ENTIRE ASSEMBLY TO BE ENCLOSED IN 6" CHAIN LINK FENCE.
 - BFP DEVICE MUST BE LISTED WITH THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH.

CREATED: 02/24/13
 REVISIONS:
 PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL.
PASCO COUNTY UTILITIES **DETAIL 10**

MATERIALS

ITEM	QUANT	DESCRIPTION
1	1	BACKFLOW PREVENTER ASSEMBLY, REDUCED PRESSURE TYPE
2	2	UNIONS - GALV.
3	2	TRIPPLES - BRASS
4	2	ELBOWS - GALV. 90°
5	2	PIPER - GALV.
6	1	CONCRETE SLAB
7	1	BALL VALVE - BRASS OR S.S. PROVIDED WITH BFP ASSY.

NOTE:
 - FIELD ADJUST AND CUT ITEM 5 TO THE PROPER LENGTH.
 - 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.

CREATED: 02/24/13
 REVISIONS:
 PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL.
PASCO COUNTY UTILITIES **DETAIL 12**

MATERIALS

ITEM	QUANT	DESCRIPTION
1	1	3/4" 1" 1 1/2" 2" POLYETHYLENE TUBING
2	1	3/4" 1" 1 1/2" 2" BRASS UNIONS
3	1	3/4" 1" 1 1/2" 2" BRASS ELBOWS
4	1	3/4" 1" 1 1/2" 2" BRASS TRIPPLES
5	1	3/4" 1" 1 1/2" 2" BRASS BALL VALVE
6	1	3/4" 1" 1 1/2" 2" BRASS WELDED END ELBOW
7	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
8	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
9	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
10	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
11	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
12	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
13	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
14	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
15	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
16	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
17	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
18	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
19	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
20	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
21	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
22	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
23	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
24	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
25	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
26	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
27	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
28	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
29	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
30	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
31	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
32	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
33	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
34	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
35	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
36	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
37	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
38	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
39	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
40	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
41	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
42	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
43	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
44	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
45	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
46	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
47	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
48	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
49	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
50	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
51	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
52	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
53	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
54	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
55	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
56	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
57	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
58	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
59	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
60	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
61	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
62	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
63	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
64	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
65	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
66	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
67	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
68	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
69	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
70	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
71	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
72	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
73	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
74	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
75	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
76	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
77	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
78	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
79	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
80	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
81	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
82	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
83	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
84	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
85	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
86	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
87	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
88	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
89	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
90	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
91	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
92	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
93	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
94	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
95	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
96	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
97	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
98	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
99	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
100	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
101	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
102	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
103	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
104	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
105	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
106	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
107	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
108	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
109	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
110	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
111	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
112	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
113	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
114	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
115	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
116	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
117	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
118	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
119	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
120	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
121	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
122	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
123	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
124	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
125	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
126	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
127	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
128	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
129	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
130	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
131	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
132	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
133	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
134	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
135	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
136	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
137	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
138	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
139	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
140	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
141	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
142	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
143	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
144	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
145	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
146	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
147	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
148	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
149	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
150	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
151	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
152	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
153	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
154	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
155	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
156	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
157	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
158	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
159	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
160	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
161	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
162	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
163	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
164	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
165	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
166	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
167	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
168	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
169	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
170	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
171	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
172	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
173	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
174	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
175	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
176	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
177	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
178	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
179	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
180	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
181	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
182	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
183	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
184	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
185	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
186	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
187	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
188	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
189	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
190	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
191	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
192	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
193	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
194	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
195	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
196	1	3/4" 1" 1 1/2" 2" BRASS WELDED END UNION
197	1	3/4" 1" 1 1/2" 2" BRASS WELDED END TRIPPLE
198	1	3/4" 1" 1 1/2" 2" BRASS WELDED END BALL VALVE
199	1	3/4"

REV	DATE	DESCRIPTION
1	11.05.15	per Pasco comments (rev2014)
2	2.16.15	Utility revision and AST (Cakab)
3	2.24.15	update Utility and Curb (Cakab)
4	3.11.15	per Utility comment (C3-C3.2)
5	4.17.15	per Utility comment (C2-C3.3.1)
6	5.11.15	add 12 Units (phase 2)

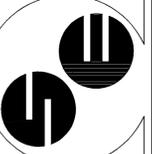
WITHOUT SIGNATURE
DATE: _____
AND EMBROIDER
ROLAND P. DOVE, P.E.
P.E. NO. 36933

Pasco Family
Housing Project
METROPOLITAN MINISTRIES
Holiday, Florida 34691



CONTRACT DATE:
September 2014

SPRING ENGINEERING, INC.
ENGINEERING • LAND PLANNING • ARCHITECTURE
3014 U.S. HWY 19, HOLIDAY, FL (727) 938-1516
FL COA. NO. 00005158 & LICENSE NO. AM-0001747

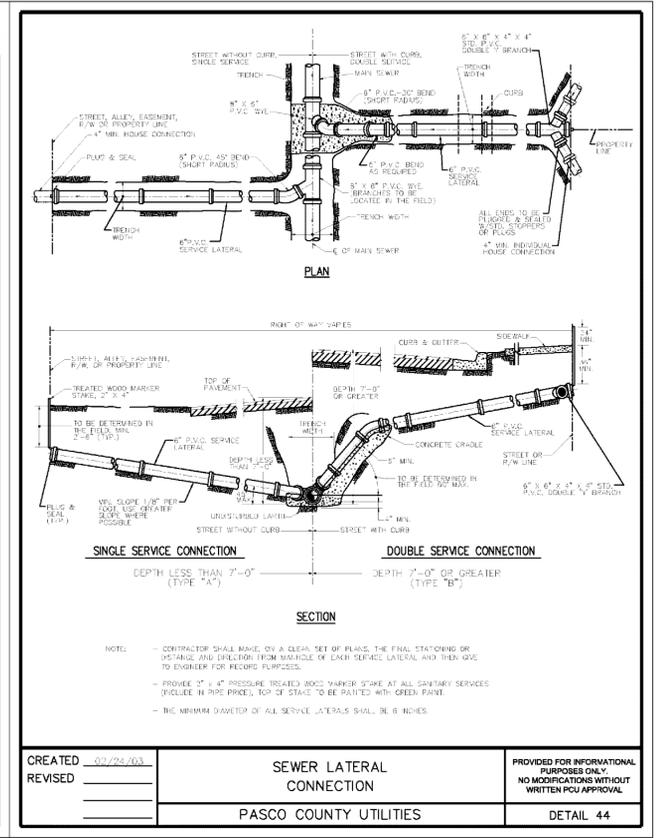


UTILITY DETAILS

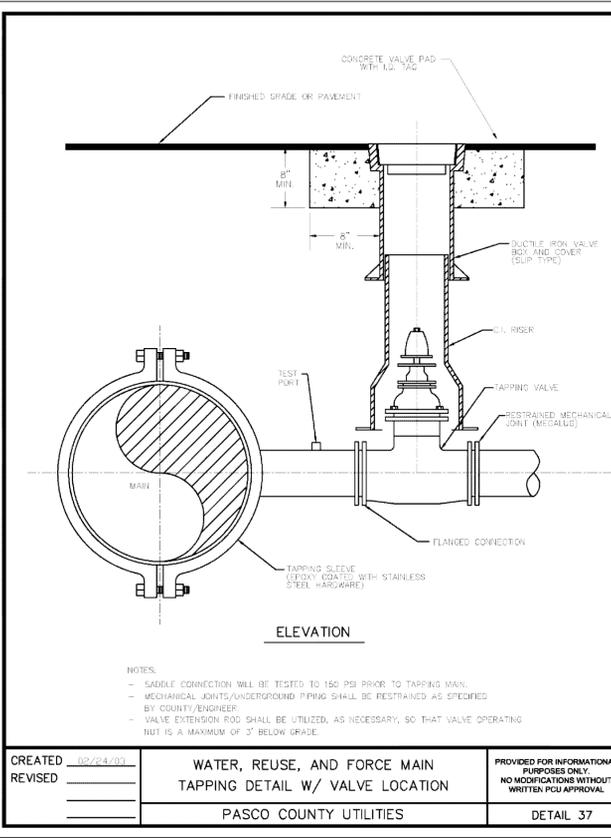
DESIGNED BY: ATP
DRAWN BY: ATP
CHECKED BY: RPD
JOB NO.
2010-07H

SHEET NO.
C3.2

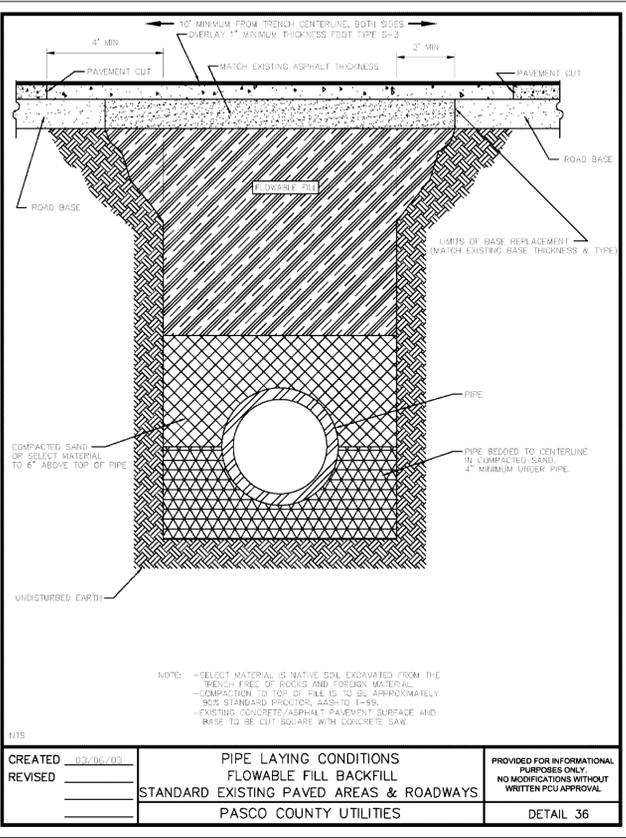
THIS DRAWING AND THE DESIGN SHOWN ARE THE PROPERTY OF SPRING ENGINEERING, INC. AND ARE NOT TO BE REPRODUCED, COPIED, PUBLISHED, OR USED IN WHOLE OR PART WITHOUT WRITTEN CONSENT. THEY ARE TO BE USED ONLY FOR THE SITE AND PROJECT IDENTIFIED AND SHALL BE RETURNED UPON REQUEST.



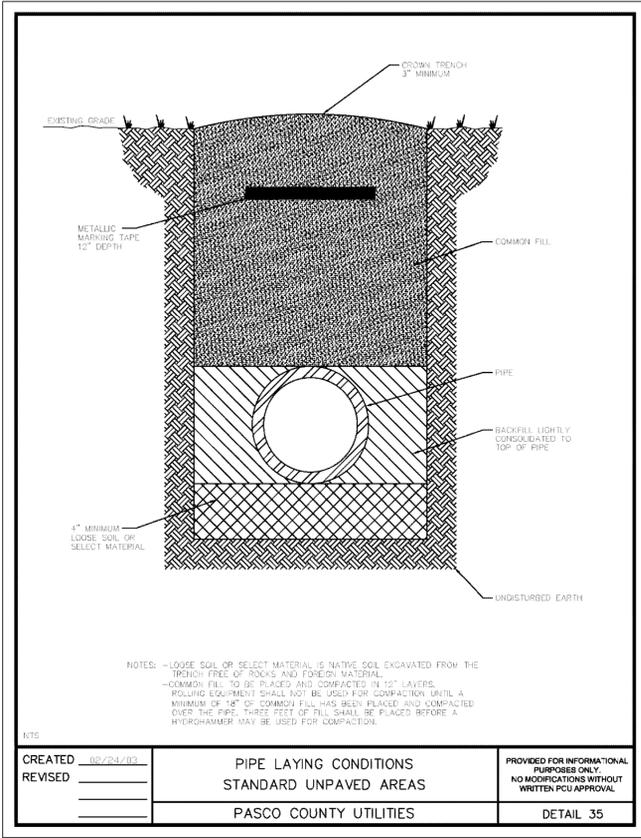
CREATED 02/24/03	SEWER LATERAL CONNECTION	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL.
REVIS	PASCO COUNTY UTILITIES	DETAIL 44



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



CREATED 03/06/03	PIPE LAYING CONDITIONS FLOWABLE FILL BACKFILL STANDARD EXISTING PAVED AREAS & ROADWAYS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL.
REVIS	PASCO COUNTY UTILITIES	DETAIL 36



CREATED 02/24/03	PIPE LAYING CONDITIONS STANDARD UNPAVED AREAS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL.
REVIS	PASCO COUNTY UTILITIES	DETAIL 35

UTILITY TABLE

Service Requirements: X Water X Sewer X Fire
AWWA Fixture Units Per Attached Data Sheet -387-495 (entire site)
Sewer Service Provider: Pasco X
Anticipated Water Consumption (GPD) 8,047 (entire site)
Maximum Flow (GPM) 82-90 (entire site)
Irrigation / Reuse (GPD) 0 (use existing irrigation well)
Fire flow required (GPM) 300 (24 housing units only)
Fire line size 6" (24 housing units only)
Number of on site hydrants if applicable 2 (1 existing +1 proposed)

FIRE FLOW REQUIREMENTS:
Maintenance fire flow requirement = 2500 gpm (NFPA 1 annex H)
50% reduction for sprinklered building = 1250 gpm
No booster pumps, additives or storage tanks will be used.
Private Fire Line Sizing:
Total sprinkler/standpipe/hose demand = 300 gpm.

Hydrants Flow (both operating simultaneously)
Existing = 1490 gpm at 72 psi
Proposed = 1490 gpm at 47 psi

PASCO COUNTY UTILITIES
DATA SHEET FOR SIZING WATER METERS
Property Identification No. 19-26-16-0010-04000-0000

Type of Occupancy: TRANSITIONAL HOUSING (Proposed)

Fixture:	Value at 35 psi	x	No. of Fixtures	=	Fixture Value
Drinking Fountain - Cooler	1	x	2	=	2
Lavatory - 3/8"	2	x	47 29	=	34 58
Laundry Tray - 3/4"	7	x	1	=	7
Shower head (shower only)	4	x	42 24	=	48 96
Wash Sink	4	x	1	=	4
Water Closet - Tank Type	3	x	15 27	=	45 81
Washing Machine - 3/4"	10	x	4	=	40
Hose Connection - 3/4"	10	x	3	=	30
Combined Fixture Value Total				=	240 318

Type of Occupancy: CHURCH (Existing)

Fixture:	Value at 35 psi	x	No. of Fixtures	=	Fixture Value
Lavatory - 3/8"	2	x	5	=	10
Urinal - Flush Valve	2	x	10	=	20
Water Closet - Tank Type	3	x	4	=	12
Combined Fixture Value Total				=	42

Type of Occupancy: CLASSROOMS (Existing)

Fixture:	Value at 35 psi	x	No. of Fixtures	=	Fixture Value
Laundry Tray - 1/2"	3	x	1	=	3
Lavatory - 3/8"	2	x	10	=	20
Urinal - Flush Valve	2	x	10	=	20
Washing Machine - 1/2"	5	x	1	=	5
Water Closet - Tank Type	3	x	5	=	15
Combined Fixture Value Total				=	63

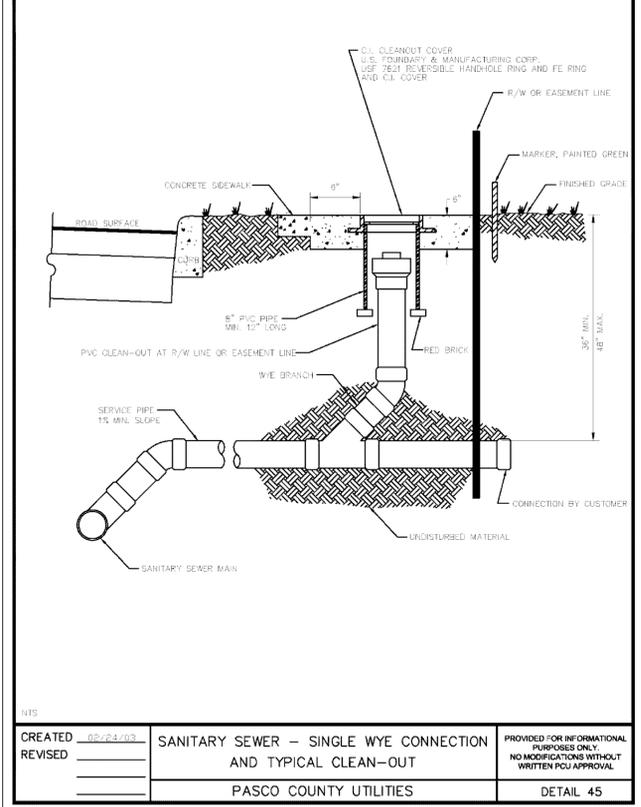
Type of Occupancy: KITCHEN (Existing)

Fixture:	Value at 35 psi	x	No. of Fixtures	=	Fixture Value
Drinking Fountain - Cooler	1	x	2	=	2
Food Service (2.8 gpm)	1*	x	1	=	1
Interior Hose Bib	2.5*	x	6	=	15
Lavatory - 3/8"	1.5*	x	6	=	9
Urinal	5*	x	1	=	5
Wall Hydrant - 1/2"	2.5*	x	3	=	7.5
Water Closet - Tank Type	2.5*	x	6	=	15
Combined Fixture Value Total				=	54.5

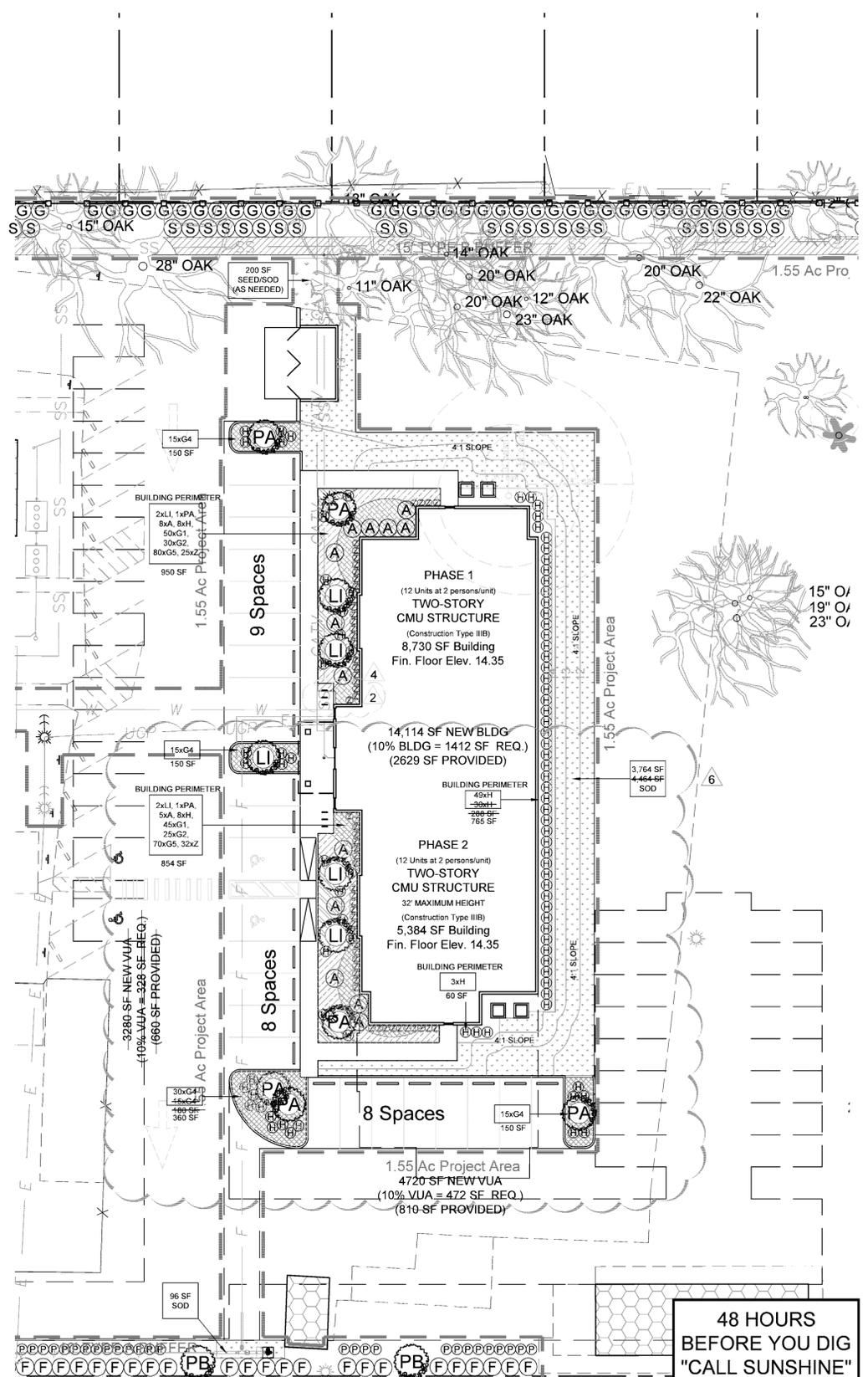
* Data From 2013 approved plans

Type of Occupancy: OFFICE (Existing)

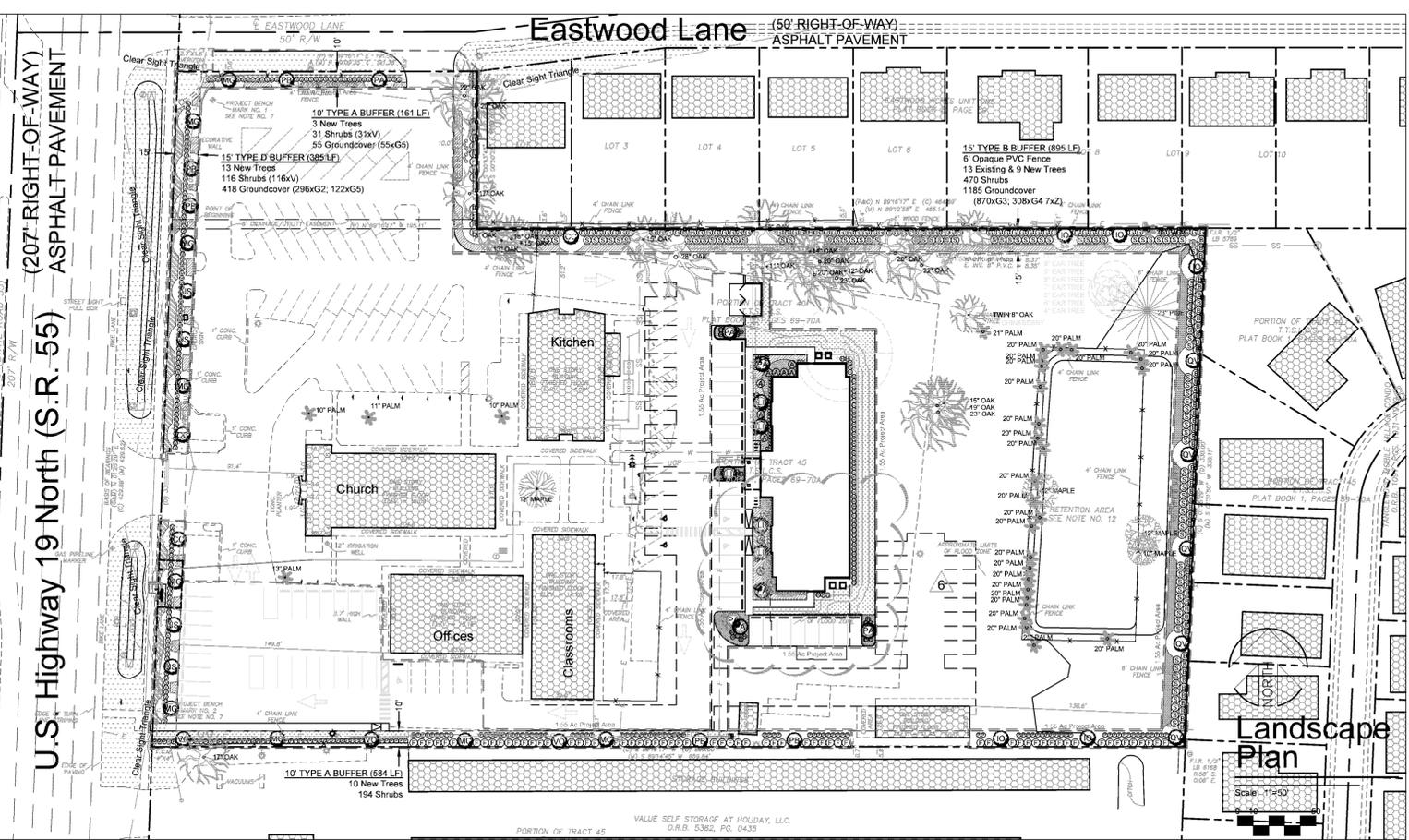
Fixture:	Value at 35 psi	x	No. of Fixtures	=	Fixture Value
Lavatory - 3/8"	2	x	4	=	8
Water Closet - Tank Type	3	x	3	=	9
Combined Fixture Value Total				=	17



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



48 HOURS BEFORE YOU DIG "CALL SUNSHINE" 1-800-432-4770



PLANTING LEGEND

Symbol	No.	Scientific Name	Common Name	Mature Size	Size Requirements	FLORIDA NATIVE	DROUGHT TOLERANT
CC	3	<i>Cercis canadensis</i>	Redbud	30H x 30W		YES	YES
IO	5	<i>Ilex opaca</i>	American Holly	40H x 25W		YES	YES
JS	4	<i>Juniperus silicicola</i>	Red Cedar	40H x 25W		YES	YES
MG	6	<i>Magnolia grandiflora</i>	Southern Magnolia	50H x 35W		YES	YES
PB	5	<i>Persea borbonia</i>	Redbay	50H x 40W		YES	YES
QV	5	<i>Quercus virginiana</i>	Live Oak	70H x 90W		YES	YES
(below power lines, near buildings and in parking islands)							
LI	→ 5	<i>Lagerstroemia indica 'Muskegee'</i> or <i>'Natchez'</i> or <i>'Tuskegee'</i>	Crape Myrtle	20H x 20W		NO	YES
MC	3	<i>Myrica caribea</i>	Wax Myrtle	20H x 20W		YES	YES
PA	→ 7	<i>Prunus angustifolia</i>	Chickasaw Plum	20H x 20W		YES	YES
VO	3	<i>Viburnum obovatum</i>	Walter's Viburnum	25H x 10W		YES	YES
NEW SHRUBS							
A	→ 13	<i>Abelia x grandiflora</i>	Glossy Abelia	6' tall		NO	YES
B	53	<i>Callicarpa americana</i>	Beautyberry	8' tall	Minimum 18" height at installation; 24" within 1 year.	YES	YES
F	78	<i>Forestiera segretata</i>	Florida Privet	10' tall	3 gallon, spaced no more than 60" on center at installation.	YES	YES
G	70	<i>Ilex glabra</i>	Galberry	10' tall		YES	YES
S	98	<i>Serenia repens</i>	Saw Palmetto	8' tall		YES	YES
H	→ 93	<i>Ilex vomitoria 'Schillings'</i>	Schillings Holly	3' tall	Minimum 18" height at installation; 24" within 1 year.	NO	YES
P	129	<i>Plumbago auriculata</i>	Plumbago	4' tall	3 gallon, spaced no more than 36" on center at installation. (Dwarf species minimum 14" height at installation.)	NO	YES
V	147	<i>Viburnum odoratissimum</i>	Sweet Viburnum	20' tall		NO	YES
NEW GROUNDCOVER							
G1	→ 95	<i>Aspidistra elatior</i>	Cast Iron Plant	2' tall	1 gallon @ 24" o.c.	NO	YES
G2	→ 351	<i>Borrichia frutescens</i>	Sea Oxeeye Daisy	2' tall	1 gallon @ 24" o.c.	YES	YES
G3	870	<i>Caltha rosea</i>	Periwinkle	1' tall	4.5" / quart pot @ 18" o.c.	NO	YES
G4	→ 439	<i>Helianthus debilis</i>	Beach Sunflower	1' tall	1 gallon @ 24" o.c.	YES	YES
G5	→ 328	<i>Ruellia carolinensis</i>	Ruellia	1' tall	1 gallon @ 24" o.c.	YES	YES
Z	→ 64	<i>Zamia pumila</i>	Coontie	3' tall	3 gallon @ 24" o.c.	YES	YES
SOD	-	<i>Paspalum notatum</i>	Bahia sod	-	-	NO	YES

LDC 530.22 & 530.23 ANY STORAGE AREAS (INCLUDING "TEMPORARY" STORAGE, MODULAR UNITS, TRACTOR-TRAILERS, PODS, COLLECTION BINS, OR THE LIKE) ARE TO BE SCREENED. IF THERE IS A POSSIBILITY SUCH UNITS WILL BE USED IN THE FUTURE, THERE MUST BE AN AREA DESIGNATED FOR THEM ON THE SITE PLAN. SUCH UNITS CANNOT BE PLACED ON DESIGNATED PARKING SPACES, DRIVE AISLE AREAS, OPEN SPACE OR SIMILAR REQUIRED AREAS. THIRTY (30) DAYS OR LONGER USE OF STORAGE AREAS REQUIRES A BUILDING PERMIT.

LDC 905.2.C INVASIVE SPECIES: THE PLANTING OF SPECIES LISTED IN RULE 5B 57.007, FAC, AS AMENDED, OR CLASSIFIED AS INVASIVE BY THE FLORIDA PEST CONTROL COUNCIL, IS PROHIBITED. INVASIVE SPECIES LOCATED WITHIN THE AREA OF THE PROJECT PROPOSED TO BE DEVELOPED ARE REQUIRED TO BE REMOVED.

LDC 905.2.C.1 A MINIMUM OF THIRTY (30) PERCENT OF THE PLANT MATERIALS, OTHER THAN TREES AND TURF GRASS, USED TO FULFILL THE LANDSCAPE REQUIREMENTS SHALL BE NATIVE FLORIDIAN SPECIES. A MAXIMUM OF FIFTY (50) PERCENT OF THE PLANT MATERIALS USED, OTHER THAN TREES, MAY BE NON-DROUGHT TOLERANT. THE USE OF TURFGRASS VARIETIES WITH EXCELLENT DROUGHT TOLERANCE MAY EXCEED THE FIFTY (50) PERCENT LIMITATION.

LDC 905.2.C.2 GROUNDCOVER PLANTS SHALL BE SPACES TO PRESENT A FINISHED APPEARANCE AND OBTAIN A REASONABLY COMPLETE COVERAGE WITHIN ONE (1) YEAR. NON-LIVING GROUND COVER, SUCH AS MULCH, GRAVEL, ROCKS, ETC., SHALL BE USED IN CONJUNCTION WITH LIVING PLANTS TO SUPPRESS FUGITIVE DUST.

LDC 907.1.D.9 WHEEL STOPS OR OTHER DESIGN FEATURES, SUCH AS CURBING, SHALL BE USED SO THAT PARKED VEHICLES DO NOT EXTEND MORE THAN TWO (2) FEET INTO ANY LANDSCAPE OR BUFFER AREA NOR REDUCE AN ADJUTING SIDEWALK WIDTH TO LESS THAN FIVE (5) FEET.

INTERNAL LANDSCAPE AREA REQUIREMENT
 TOTAL NEW BUILDING AREA = 14,114 SF
 TOTAL NEW VEHICLE USE AREA = 4720 SF
 INTERNAL LANDSCAPE AREA REQUIRED (10% of VUA) = 472 SF
 INTERNAL LANDSCAPE AREA PROVIDED = 810 SF
 INTERNAL LANDSCAPE AREA TREE REQUIREMENT = 472 SF @ 1 TREE PER 200 SF = 3 TREES REQ (6 TREES PROVIDED)

PERIMETER PLANTING AREA CALCULATIONS
 TOTAL NEW BUILDING AREA = 14,114 SF
 10% PERIMETER PLANTING AREA = 1412 SF REQUIRED (2629 SF PROVIDED)
 BUILDING PERIMETER (409 LF) WITH LANDSCAPING = 366 LF (89%)

NATIVE SHRUB AND GROUNDCOVER REQUIREMENT
 30% OF SHRUBS AND GROUNDCOVER ARE REQUIRED TO BE NATIVE
 1481 OF 2828 SHRUBS AND GROUNDCOVER ARE NATIVE = 52%

GRASSED AREA
 MAXIMUM OF 30% OF REQUIRED LANDSCAPE AREA TO BE GRASS
 854 SF OF 28,693 SF OF REQUIRED LANDSCAPING IS GRASS = 3% GRASS

PALM TREES
 PALM TREES MAY BE SUBSTITUTED FOR TREES UP TO 30% AT 3 PALMS / 1 TREE
 0 TREE CREDITS ARE PALMS

TREES TO BE REPLACED
 EXISTING TREE (QUANTITY) TOTAL DBH
 31" OTHER (OAK) (1) 31/3 = 10.3"
 PALMS (2) NOT APPLICABLE
 INVASIVE EXOTICS (3) NOT APPLICABLE

82 INCHES OF REPLACEMENT TREES ARE INSTALLED FOR EXISTING TREES TO BE REMOVED.
 0 INCHES OF REPLACEMENT TREE REQUIREMENTS SHALL BE MET THROUGH PASCO COUNTY TREE FUND.

LANDSCAPE BUFFER REQUIREMENTS
 BUFFER ALONG US HIGHWAY 19 = TYPE D - 15' WIDE MINIMUM
 1 TREE PER 30 LINEAR FEET WITH A CONTINUOUS HEDGE
 18" BERM EXCEPT WITHIN CLEAR SIGHT TRIANGLES
 385 LINEAR FEET @ 1 TREE PER 30 FEET = 13 TREES REQUIRED AND PROVIDED

BUFFER ALONG EASTWOOD LANE = TYPE A - 10' WIDE MINIMUM
 1 TREE PER 60 LINEAR FEET WITH A CONTINUOUS HEDGE
 161 LINEAR FEET @ 1 TREE PER 60 FEET = 3 TREES REQUIRED AND PROVIDED

BUFFER ALONG SOUTH PROPERTY BOUNDARY = TYPE A - 10' WIDE MINIMUM
 1 TREE PER 60 LINEAR FEET WITH A CONTINUOUS HEDGE
 584 LINEAR FEET @ 1 TREE PER 60 FEET = 10 TREES REQUIRED AND PROVIDED

BUFFER ALONG NORTH AND EAST PROPERTY BOUNDARY = TYPE B - 15' WIDE MINIMUM
 6' TALL OPAQUE FENCE
 1 TREE PER 60 LINEAR FEET
 895 LINEAR FEET @ 1 TREE PER 60 FEET = 15 TREES REQUIRED AND PROVIDED
 (NOTE: A CONTINUOUS DOUBLE HEDGE AT 5' O.C. WAS PROVIDED FOR ADDITIONAL BUFFERING)

DROUGHT TOLERANT REQUIREMENT
 MAXIMUM 50% PLANT MATERIAL OTHER THAN TREES ARE ALLOWED TO BE NON-DROUGHT TOLERANT
 0% OF SHRUBS AND GROUNDCOVER IS NON-DROUGHT TOLERANT

MAINTENANCE OF LANDSCAPING
 THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPING.
 PASCO COUNTY WILL NOT BE RESPONSIBLE FOR ANY LANDSCAPE MAINTENANCE ON THIS PROJECT OR SITE.

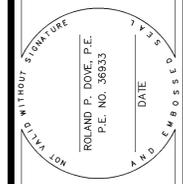
REVISION 6: ADD 12 UNITS & 8 PARKING SPACES. UPDATE INTERIOR AND BUILDING LANDSCAPING. UPDATE PLANT COUNTS & LANDSCAPE CALCULATIONS.

REVISION 1: VIRTUALLY EVERY ITEM ON THIS SHEET HAS BEEN CHANGED, INCLUDING PLANT SPECIES, QUANTITY, LOCATION, DATA TABLE, CALCULATIONS AND NOTES.

THIS DRAWING AND THE DESIGN SHOWN ARE THE PROPERTY OF SPRING ENGINEERING, INC. AND ARE NOT TO BE REPRODUCED, COPIED, PUBLISHED, OR USED IN WHOLE OR PART WITHOUT WRITTEN CONSENT. THEY ARE TO BE USED ONLY FOR THE SITE AND PROJECT IDENTIFIED AND SHALL BE RETURNED UPON REQUEST.

REVISIONS

REV	DATE	DESCRIPTION
1	1.9.15	Per Pasco comments (rev2014)
2	2.16.15	Utility relocation and AST (rev4)
3	2.24.15	per Utility Utility and Concess
4	3.11.15	per Utility comments (C2-C3-C4)
5	4.17.15	per Utility comments (C2-C3-C3.1)
6	5.11.15	add 12 Units (phase 2)



Pasco Family Housing Project
 METROPOLITAN MINISTRIES
 Holiday, Florida 34691



CONTRACT DATE: September 2014

SPRING ENGINEERING, INC.
 ENGINEERING • LAND PLANNING • ARCHITECTURE
 3014 U.S. HWY 19, HOLIDAY, FL (727) 938-1516
 FL COA NO. 00005158 & LICENSE NO. AM-0001747



LANDSCAPE PLAN
 DESIGNED BY: ATP
 DRAWN BY: ATP
 CHECKED BY: RPD
 JOB NO.

2010-07H
 SHEET NO. C5

OVERALL GENERAL NOTES

A. THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK PRIOR TO BIDDING AND DETERMINE THE EXACT LOCATION OF THE UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY SUNSHINE @ (800)432-4770 AND THE UTILITY COMPANIES IN THE AREA AT LEAST 48 HOURS BEFORE COMMENCING WORK. REPAIR AND REPLACEMENT OF ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTED BEFORE COMMENCING CONSTRUCTION UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. COST TO BE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION TO BE ALLOWED. THE INFORMATION CONTAINED ON THIS EXISTING CONDITIONS PLAN WAS PROVIDED BY THE SURVEYOR - SPRING ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY OR COMPLETENESS.

B. ALL WORK SHALL BE LEFT IN SUCH A MANNER THAT IT IS SAFE TO THE PUBLIC. THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES. SIGNS AND BARRICADES TO BE ACCORDING TO F.D.O.T. MANUAL OF SAFE PRACTICES, REFERENCE F.D.O.T. INDEXES 500 THROUGH 550 AND 770'S PER ROADWAY AND TRAFFIC DESIGN STANDARDS LATEST EDITION OF D.C. INDEXES 100 THROUGH 116. THERE WILL BE NO ON-SITE BURNING.

C. THE CONTRACTOR SHALL REFER TO THE CONTRACT DOCUMENTS FOR ADDITIONAL CONTROL AND SCOPE OF WORK. THE CONTRACTOR SHALL PROVIDE SPRING ENGINEERING, INC. WITH AS-BUILT DRAWINGS AND SURVEYS UPON COMPLETION OF ALL WORK.

D. THE CONTRACTOR IS REQUIRED TO HAVE A LICENSED PROFESSIONAL SURVEYOR DO ALL BUILDING LAYOUT, CURB & ROADWAY, AND GRADE STAKING. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO STARTING ANY WORK. THE CONTRACTOR SHALL CONTACT THE ENGINEER'S OFFICE IMMEDIATELY ON ANY CONFLICTS ARISING DURING CONSTRUCTION OF ANY IMPROVEMENTS SHOWN ON THESE DRAWINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONSULT WITH THE ENGINEER FOR MAKING ANY AND ALL REQUIRED INTERPRETATIONS OF THE PLANS. HOWEVER, THIS IN NO WAY RELIEVES THE CONTRACTOR OF HIS RESPONSIBILITY FOR CONSTRUCTING THE PROJECT TO ACCOMPLISH THE INTENT OF THE PLANS. ALL ELEVATIONS REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988.

E. PERMITS: NO CONSTRUCTION SHALL COMMENCE UNTIL ALL APPLICABLE PERMITS HAVE BEEN APPROVED. A RIGHT-OF-WAY USE PERMIT IS REQUIRED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY WITHIN THE RIGHT-OF-WAY, AND NO IRRIGATION SYSTEM OR LANDSCAPING SHALL BE INSTALLED IN ANY PUBLIC RIGHT-OF-WAY WITHOUT ISSUANCE OF APPROPRIATE PERMIT. 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 SIGN.

SITE GENERAL NOTES

S1. STRIPING: HANDICAPPED 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. ALL ON-SITE PARKING SPACES SHALL 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 THE SITE IN ACCORDANCE WITH APPLICABLE STANDARDS.

S2. CONCRETE: CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS. PORTLAND CEMENT SHALL CONFORM TO ASTM C150. AGGREGATE SHALL CONFORM TO ASTM C33. WIRE FABRIC SHALL CONFORM TO ASTM A185. READY MIXED CONCRETE SHALL CONFORM TO ASTM C-94. SIX INCHES, 10 GAUGE WIRE FABRIC SHALL BE USED IN SLABS THICKER THAN FOUR INCHES. STANDARD THICKNESS SHALL BE FOUR INCHES, EXCEPT AT DRIVEWAYS WHERE THE THICKNESS SHALL BE SIX INCHES. SURFACES SHALL BE FREE FROM TROWEL OR MACHINE MARKS. SURFACE VARIATIONS SHALL NOT EXCEED 1/4" UNDER A 10 FOOT STRAIGHTEDGE. EDGE OF SLABS SHALL HAVE A SMOOTH FINISH. SIDEWALKS SHALL HAVE A BROOM FINISH.

P, G & D GENERAL NOTES

P1. PAVING: ALL PAVING SURFACES IN INTERSECTIONS AND ADJACENT SECTIONS SHALL BE GRADED TO DRAIN POSITIVELY IN THE DIRECTION SHOWN BY THE FLOW ARROWS ON THE PLANS AND TO PROVIDE A SMOOTH TRANSITION WITH NO BREAKS IN GRADE AND NO STEEP OR REVERSE CROSS SLOPES. AT APPROACHES TO AND INTERSECTIONS WITH EXISTING GRADES, IT MAY BE NECESSARY AND ADVISABLE TO MAKE MINOR LOCAL FIELD ADJUSTMENTS TO ACCOMPLISH THE PURPOSES OUTLINED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE POSITIVE DRAINAGE AND SEE THAT WE MAY MAKE ANY AND ALL REQUIRED INTERPRETATIONS OF THE PLANS OR GIVE SUPPLEMENTARY INSTRUCTIONS TO ACCOMPLISH THE INTENT OF THE PLANS. ASPHALTIC CONCRETE SHALL CONFORM TO THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION LATEST EDITION. FOR MATERIALS AND METHOD OF CONSTRUCTION. ALL ROADWAY BASES SHALL BE PRIMED AND, IF REQUIRED, A TACK COAT SHALL BE APPLIED. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION LATEST EDITION. TEST REPORTS FOR SUBGRADE, BASE, ASPHALT AND BASE COURSE AND CONCRETE SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL. SEE SPECIFICATIONS FOR SPECIFIC TESTING REQUIREMENTS.

P2. GRADING AND BACKFILL: THE GRADING SHOWN ON THESE PLANS IS INTENDED TO EXPRESS THE GENERAL GRADING INTENT OF THE PROJECT. THE CONTRACTOR IS EXPECTED TO GRADE THE ENTIRE SITE TO PROVIDE POSITIVE DRAINAGE IN ALL AREAS THROUGHOUT THE SITE. SMOOTH TRANSITIONS SHALL BE PROVIDED BETWEEN CONTOURS OR SPOT ELEVATIONS AS SHOWN ON THE PLANS TO ACCOMPLISH THE GRADING INTENT. ALL SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER FINAL GRADING HAS BEEN COMPLETED. CONTRACTOR TO GRADE PROPERTY SO THAT GRADING MEETS ADJACENT PROPERTY AND RIGHT-OF-WAY ELEVATIONS. CONTRACTOR SHALL NOTIFY THE OWNER AND SET PRIOR TO DEMOBILIZATION OF GRADING EQUIPMENT TO DETERMINE THAT THE GRADING INTENT HAS BEEN ACHIEVED. ALL FILL MATERIAL SHALL BE SOIL OR SOIL/ROCK MIXTURE WHICH IS FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCE. IT SHALL BE PREDOMINATELY GRANULAR WITH A MAXIMUM PARTICLE SIZE OF TWO INCHES AND A PLASTICITY INDEX OF 12 OR LESS. ALL BACKFILL WITHIN THE ROADWAY, OVER ANY PIPE THAT IS TO BE INSTALLED UNDER THE ROADWAY OR WITH EMBANKMENTS, ETC. IS TO BE COMPACTED TO 100% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO AND PER F.D.O.T. SPECIFICATIONS, SECTION 125.8.3, LATEST EDITION.

P3. DRAINAGE: ALL DRAINAGE STRUCTURES MUST BE CONSTRUCTED PER FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN STANDARDS, MITERED END SECTION AS PER D.O.T. INDEX NO. 272 AND NO. 273. ALL PIPE LENGTHS ARE PLUS OR MINUS AND MEASUREMENTS ARE TO THE CENTER OF STRUCTURES. OWNER SHALL MAINTAIN RETENTION AREAS.

UTILITY GENERAL NOTES

U1. UTILITIES: ALL UNDERGROUND UTILITIES MUST BE INSTALLED BEFORE BASE AND SURFACE COURSES ARE CONSTRUCTED. SITE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL UTILITIES IN ACCORDANCE WITH LOCAL CODES, WHETHER INDICATED ON THE PLANS OR NOT. CHECK WITH THE LOCAL GOVERNMENT PRIOR TO BID SUBMISSION. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MINIMIZE INTERRUPTIONS OF EXISTING UTILITY SERVICE DURING CONSTRUCTION AND CONNECTION OF PROPOSED SERVICE LINES. CONFLICTS BETWEEN WATER LINES AND STORM/SANITARY SEWER SYSTEMS ARE TO BE RESOLVED BY ADJUSTING WATER LINES AS NECESSARY. CONTRACTOR SHALL MAINTAIN A MINIMUM OF TEN FOOT (10') HORIZONTAL SEPARATION OR 18" VERTICAL SEPARATION WHERE UNDERGROUND SERVICES CONFLICT. PIPE MEASUREMENTS ARE TO CENTER OF STRUCTURES AND ALL LENGTHS ARE PLUS OR MINUS.

U2. WATERMANS: ALL NEW WATERMANS, PIPES, FITTINGS, VALVES, PACKING AND JOINTING MATERIALS SHALL CONFORM WITH ALL APPLICABLE AWWA STANDARDS AND THE STATE PLUMBING CODE AND SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS AND/OR THE MANUFACTURER'S RECOMMENDED PROCEDURES. ALL WATER MAIN PIPES AND FITTINGS SHALL CONTAIN NO MORE THAN EIGHT PERCENT LEAD. ALL STONES FOUND IN WATER MAIN TRENCHES SHALL BE REMOVED TO A DEPTH OF AT LEAST SIX INCHES BELOW THE BOTTOM OF THE PIPE. CONTINUOUS AND UNIFORM BEDDING TO BE PROVIDED AND BACKFILL MATERIAL SHALL BE TAMPED IN LAYERS AROUND THE PIPE AND FITTINGS AND TWELVE INCHES (12") ABOVE THE TOP OF THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE. ALL NEW WATER MAINS SHALL BE PRESSURE AND LEAK TESTED PER AWWA STANDARD 900 AND DISINFECTED PER AWWA STANDARD C651 AND RULE 62.555.345 F.A.C. ALL FOUR INCH (4") AND LARGER WATER MAINS TO BE C-900 P.V.C. AND ALL THREE INCH (3") AND SMALLER WATER MAINS TO BE SCHEDULE 40 P.V.C. WATER MAIN TO BE 3" (MIN.) BELOW PROPOSED GRADE.

U3. SANITARY SEWERS: ALL SANITARY SEWER MAINS TO BE PVC (SDR-35).

U4. WATER AND SEWER CONFLICTS

CASE 1: WATER MAIN AND SANITARY SEWER LINES PARALLEL
1. ALL WATER LINES THAT ARE PARALLEL TO SANITARY SEWER LINES SHALL BE SEPARATED BY A MINIMUM CLEARANCE OF 10 FEET.
2. ALL WATER LINES THAT ARE PARALLEL TO SANITARY SEWER LINES AND ARE SEPARATED BY A DISTANCE OF LESS THAN 10 FEET SHALL BE CONSTRUCTED ACCORDING TO EITHER OPTION A, B OR C BELOW.
OPTION A - CONSTRUCT WATER LINE A MINIMUM OF 18" ABOVE THE SEWER AND TO ONE SIDE. WATER LINES AND SEWER LINES SHALL BE MADE OF DUCTILE IRON PIPE AND ALL JOINTS SHALL BE STAGGERED.
OPTION B - CASE THE WATER MAINS IN STEEL CASING.
OPTION C - CASE THE WATER MAINS IN CONCRETE.

CASE 2: WATER MAINS AND SEWER LINES CROSSING
1. A MINIMUM COVER OF 3' SHALL BE USED ON ALL WATER MAINS.
2. A MINIMUM VERTICAL SEPARATION OF 18" SHALL BE REQUIRED BETWEEN CROSSING WATER MAINS AND SANITARY SEWER LINES.
3. WHEN A VERTICAL SEPARATION OF 18" IS NOT POSSIBLE, THE WATER MAIN SHALL EITHER BE CASED IN STEEL OR CASED IN CONCRETE OR CENTER A LENGTH OF PIPE TO PREVENT WATER MAIN JOINTS FROM BEING WITHIN 10 FEET OF THE SANITARY SEWER LINE.

LANDSCAPE GENERAL NOTES

ALL PLANT MATERIALS USED SHALL CONFORM TO THE STANDARDS FOR FLORIDA NO. 1 OR BETTER AS GIVEN IN GRADES AND STANDARDS FOR NURSERY PLANTS, PART 1, 1963 AND PART II, STATE OF FLORIDA DEPT. OF AGRICULTURE, TALLAHASSEE. ALL PLANT MATERIAL WILL BE GUARANTEED FOR ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE BY ARCHITECT. PLANTS AND TREES LOCATED BY SCALING OFF PLANS. INSTALLER SHALL INSPECT SITE PRIOR TO BEGINNING PLANTING OPERATIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES. INSTALLER SHALL IMMEDIATELY NOTIFY ARCHITECT IF ANY CONFLICTS OCCUR BETWEEN PROPOSED LOCATION OF TREES CALLED FOR ON THE PLANS AND ANY UNDERGROUND UTILITIES OR SUBSURFACE STRUCTURES. INSTALLER SHALL NOTIFY ARCHITECT OF ANY CONDITION THAT WOULD PREVENT THE HEALTHY GROWTH OF PLANT SPECIES CALLED FOR ON THESE PLANS PRIOR TO CONTRACT AWARD. ALL LANDSCAPE AREAS AND GRADED SWALES ARE TO BE SODDED WITH BAHIA UNLESS NOTED OTHERWISE. THE GROUND IS TO BE PROPERLY PREPARED AND FERTILIZED PRIOR TO LAYING SOD. THERE SHALL BE A CRISP LINE SEPARATING PLANT BEDS FROM ALL SOD AREAS. SOD TO BE STAKED AS NECESSARY TO PREVENT EROSION. CONTRACTOR TO SOD ALL DISTURBED AREAS DUE TO PROPOSED CONSTRUCTION.

- ALL PALMS AND TREES SHALL HAVE STRAIGHT TRUNKS WITH NO TWISTS, KNOTTING OR OTHER DEFECTIVE CHARACTERISTICS.
- SOD SHALL BE 95% WEED FREE BAHIA, INSTALLED WITH TIGHT JOINTS.
- ALL DIMENSIONS SHALL BE FIELD CHECKED BY THE LANDSCAPE CONTRACTOR PRIOR TO CONSTRUCTION WITH ANY DISCREPANCIES REPORTED TO THE ARCHITECT.
- ALL MATERIALS SHALL BE AS SPECIFIED ON THE PLANS. IF MATERIALS, LABOR OR INSTALLATION TECHNIQUES DO NOT ADHERE TO THE SPECIFICATIONS, THEY WILL BE REJECTED BY THE ARCHITECT WITH SPECIFIED MATERIALS AND INSTALLATION CARRIED OUT BY THE LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST.
- NO SUBSTITUTIONS OF MATERIALS OR CHANGES TO THE DRAWINGS OR SPECIFICATIONS SHALL BE MADE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ITEMS AS SHOWN OR DESCRIBED ON THIS PLAN AND SPECIFICATIONS.
- ALL PROPOSED LANDSCAPE AND SOD AREAS CONTAINING TURF OR WEEDS SHALL BE TREATED WITH "ROUND-UP" PER MANUFACTURER'S SPECIFICATIONS.
- LANDSCAPE CONTRACTOR SHALL PROVIDE ALL NECESSARY SITE PREPARATION REQUIRED TO READY THE SITE FOR PLANTING AS SPECIFIED. REPORT ANY HORTICULTURAL UNSUITABLE SOIL CONDITIONS TO ARCHITECT FOR REVIEW WITH OWNER AND GC.
- THE LANDSCAPE CONTRACTOR SHALL WARRANT AND GUARANTEE ALL MATERIALS AND LABOR FOR A PERIOD OF 1 YEAR FOR SHRUBS AND GROUNDCOVER, PALMS AND TREES. WARRANTY AND GUARANTEE PERIOD SHALL BEGIN UPON DATE OF COMPLETION.
- ALL REPAIRS AND/OR REPLACEMENTS SHALL BE MADE BY THE LANDSCAPE CONTRACTOR WITHIN 10 WORKING DAYS UPON NOTIFICATION OF ANY DEFICIENCIES BY THE OWNER OR THEIR REPRESENTATIVE.
- ALL QUESTIONS REGARDING THE LANDSCAPE PLANS AND SPECIFICATIONS SHALL BE DIRECTED TO THE ARCHITECT AT (727) 938-1516.

PLANTING SOILS:
ALL PLANTING PITS SHALL BE BACKFILLED WITH TOPSOIL MIX CONSISTING OF FIFTY (50) PERCENT SAND, FORTY (40) PERCENT MUCK AND TEN (10) PERCENT HUMUS OR PEAT. BY VOLUME, WELL MIXED WITH APPROPRIATE FERTILIZER MIXED. CONTRACTOR SHALL INSPECT AND TEST SOILS PRIOR TO INSTALLATION OF PLANT MATERIALS TO DETERMINE SOIL QUALITY IN REGARDS TO PH, DRAINAGE, NUTRIENTS AND TEXTURE. CONTRACTOR SHALL MODIFY EXISTING SOILS TO PROVIDE A GROWING MEDIA SUITABLE FOR PROPER HORTICULTURAL PLANT GROWTH. ADDITIONAL SOIL AMENDMENTS, FERTILIZATION, PH ADJUSTMENTS, AND PROPER DRAINAGE SHALL BE PROVIDED PRIOR TO INSTALLATION OF ANY MATERIALS.

MULCH:
ALL EXPOSED AREAS IN PLANTING BEDS, INCLUDING HEDGE ROWS, SHALL BE KEPT WEED FREE AND MULCHED TO A MINIMUM OF THREE (3) INCHES DEPTH, EXCEPT THAT TWO (2) INCHES SHALL BE REQUIRED IN ANNUAL BEDS. MULCH SHALL BE REPLISHED, AS NEEDED, TO MEET THIS REQUIREMENT. MULCH SHALL BE 100% PINE BARK.

FERTILIZATION:
ALL TREES AND SHRUBS SHALL HAVE AN APPLICATION OF 20-15-5 SLOW RELEASE FERTILIZER AT TIME OF PLANTING AND PRIOR TO INSTALLATION OF PLANT PIT BACKFILL. FERTILIZER SHALL BE PLACED UNIFORMLY AROUND THE ROOT BALL AT A DEPTH THAT IS BETWEEN THE MIDDLE AND BOTTOM OF THE ROOT BALL. FOLLOW MANUFACTURER RECOMMENDATIONS FOR APPLICATION RATES.

TREE PROTECTION/MAINTENANCE NOTES
PROTECTIVE BARRIERS AND THE USE OF OTHER MEASURES TO PREVENT TREE DAMAGE (PESTICIDE APPLICATION, ROOT PRUNING, INTENSIVE MULCHING TO REDUCE SOIL COMPACTING, ET CETERA) WILL BE REQUIRED AS NECESSARY. ANY STACKING OF SOILS, DEBRIS, CONSTRUCTION MATERIALS, VEHICLES, AND ET CETERA WITHIN THE REQUIRED BARRICADES IS STRICTLY PROHIBITED. ANY TREE LOSSES INCURRED DURING CONSTRUCTION MAY BE SUBJECT TO REPLACEMENT PENALTIES. TREES SHALL BE TRIMMED BY PERFORMING PROPER PRUNING CUTS TO ANSI A300 STANDARDS PRIOR TO BUILDING PERMIT. TREES SHALL BE TRIMMED OR PRUNED IN SUCH A MANNER SO AS NOT TO ALTER THEIR NATURAL FORM, GROWTH HABIT OR CHARACTER AND SHALL NOT BE PRUNED INTO UNNATURAL SHAPES, INCLUDING CIRCLES, OVALS, SQUARES AND OTHER HARD-EDGED GEOMETRIC SHAPES. NOT MORE THAN ONE-THIRD OF THE TREE CANOPY SHALL BE TRIMMED OR PRUNED IN ANY YEAR UNLESS IT IS DEAD. TREE TOPPING IS NOT ALLOWED UNDER ANY CIRCUMSTANCE. HAND CLEAR EXISTING VEGETATION TO BE REMOVED UNDER THE CANOPIES OF EXISTING TREES PRIOR TO BUILDING PERMIT.

EXOTIC SPECIES REMOVAL
ALL EXOTIC SPECIES, I.E., BRAZILIAN PEPPER (SCHINUS TEREBINTHIFOLIUS), PUNK TREES (MELALEUCA QUINQUENERVA) AND CHINESE TALLOW (SAPUM SIBIFERRUM) MUST BE REMOVED OVER THE ENTIRE PROPERTY OWNERSHIP AS A CONDITION OF SITE DEVELOPMENT. WHERE NECESSARY DUE TO THEIR PROXIMITY TO PROTECTED PLANT MATERIAL, HAND REMOVAL WILL BE REQUIRED. SHOULD THIS REMOVAL BE TO A DEGREE THAT A POTENTIAL FOR EROSION IS CREATED, THE AREA MUST BE RE-STABILIZED WITH SUITABLE MATERIAL.

100%
CONSTRUCTION DRAWINGS
ISSUE DATE: 10.17.14

REV	DATE	DESCRIPTION
1	10.15.14	per Pasco comments (rev 2014)
2	2.16.15	Utility relocations and AST (C&A)
3	2.24.15	Utility relocations (C2-C&A.2)
4	3.11.15	per Utility comments (C2-C&A.2)
5	4.17.15	per Utility comments (C2-C&A.3.1)
6	5.11.15	add 12 Units (phase 2)

0 10.17.14 Initial Submittal (Pasco County)

WITHOUT SIGNATURE

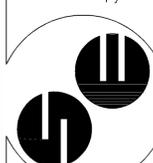
ROLAND P. DOVE, P.E.
P.E. NO. 36933

DATE: 10.17.14
AND EROSION

Pasco Family
Housing Project
METROPOLITAN MINISTRIES
Holiday, Florida 34691

CONTRACT DATE:
September 2014

SPRING ENGINEERING, INC.
ENGINEERING • LAND PLANNING • ARCHITECTURE
3014 U.S. HWY 19, HOLIDAY, FL 32771 938-1516
FL COA NO. 00005158 & LICENSE NO. AM-0001747



GENERAL NOTES

DESIGNED BY: ATP
DRAWN BY: ATP
CHECKED BY: RPD
JOB NO.

2010-07H

SHEET NO.
C6

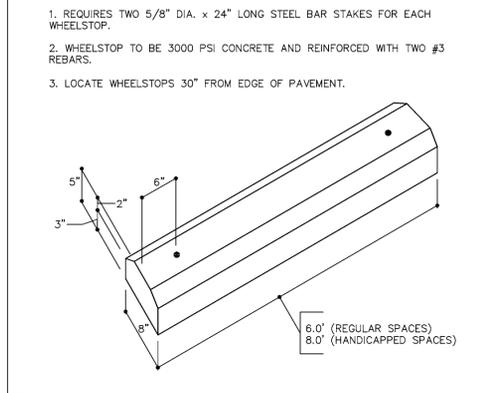
THIS DRAWING AND THE DESIGN SHOWN ARE THE PROPERTY OF SPRING ENGINEERING, INC. AND ARE NOT TO BE REPRODUCED, COPIED, PUBLISHED, OR USED IN WHOLE OR PART WITHOUT WRITTEN CONSENT. THEY ARE TO BE USED ONLY FOR THE SITE AND PROJECT IDENTIFIED AND SHALL BE RETURNED UPON REQUEST.

TESTING SCHEDULE GUIDE FOR FLORIDA

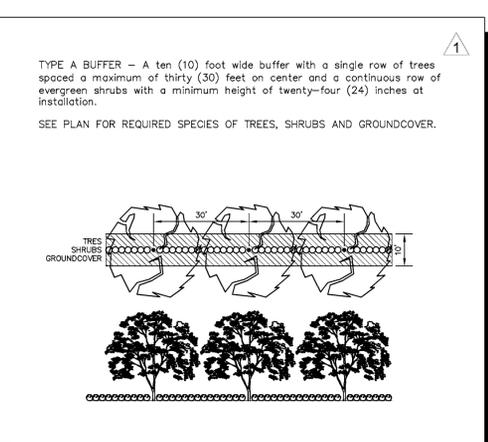
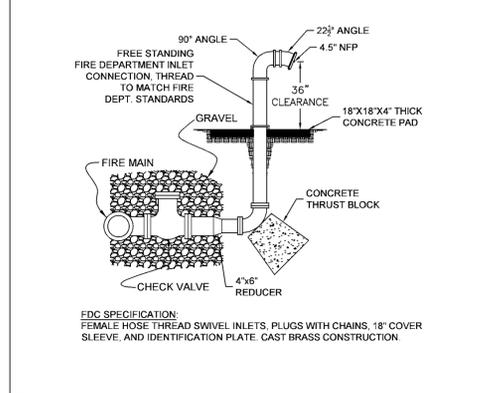
ITEM	TEST TYPE	TEST I.D.	REQUIREMENTS	FREQUENCY
EMBANKMENT	MAXIMUM DENSITY OPTIMUM MOISTURE FIELD DENSITY	AASHTO T180 ASTM D1557	N/A	PER SOIL TYPE
		AASHTO T191, T204, T238 ASTM D1556, D2937, D2922	95% OF MAXIMUM DENSITY	ONE PER 2,500 S.F. HORIZONTALLY ** ALTERNATING LIFTS (12")
UTILITY TRENCH BACKFILL UNDER ROADWAYS AND STRUCTURES	MAXIMUM DENSITY OPTIMUM MOISTURE FIELD DENSITY	AASHTO T180 ASTM D1557	N/A	PER SOIL TYPE
		AASHTO T191, T204, T238 ASTM D1556, D2937, D2922	95% OF MAXIMUM DENSITY	ONE PER 2,500 S.F. HORIZONTALLY ** EVERY 2' VERTICALLY D2922 - AT LEAST ONE FOR EACH PIPE RUN
BACKFILL OF STRUCTURES	MAXIMUM DENSITY OPTIMUM MOISTURE FIELD DENSITY	AASHTO T180 ASTM D1557	N/A	PER SOIL TYPE
		AASHTO T191, T204, T238 ASTM D1556, D2937, D2922	95% OF MAXIMUM DENSITY	ONE PER 2,500 S.F. EVERY 2' VERTICALLY
SUBGRADE	BEARING VALUES	LBR - FLA. D.O.T.	LBR = 40 MIN.	ONE PER SOIL TYPE CHECK POINT LBR AT 500 L.F. HORIZONTALLY
		AASHTO T180 ASTM D1557	N/A	ONE PER SOIL TYPE
BASE	BEARING VALUES	LBR - FLA. D.O.T.	LBR = 100 MIN.	ONE PER SOURCE OR AS MATERIAL CHECKS CHECK POINT LBR AT 500 L.F. HORIZONTALLY
		AASHTO T180 ASTM D1557	N/A	ONE PER SOURCE
SOIL CEMENT BASE MIX DESIGN (TO BE USED IF SEPARATION BETWEEN SHWT AND BOTTOM OF BASE IS < 1.5')	PORTLAND CEMENT ASSOC. SPECIFICATIONS MAXIMUM DENSITY OPTIMUM MOISTURE COMPRESSIVE STRENGTH SPECIMENS TEST CORES FIELD DENSITY & THICKNESS	AASHTO T134 (STANDARD) PORTLAND CEMENT ASSOC. SPECIFICATIONS	N/A	ONE PER SOIL TYPE DAILY
		AASHTO T191, T238 ASTM D1556, D2922 AASHTO T27, T98 ASTM T190 ASTM C138, D423, D424	300 PSI AT 7-DAYS TYPE DAILY ** 450 PSI AT 21-DAYS SET OF COMPRESSIVE ** 95% OF MAXIMUM DENSITY	ONE SET OF 3 PER SOIL TYPE ONE SET OF 3 PER SOIL TYPE ONE PER 2,500 S.F. HORIZONTALLY
ASPHALTIC CONCRETE	MATERIALS QUALITY BITUMEN CONTENT GRADATION FIELD DENSITY LOS ANGELES ABRASION THICKNESS	AASHTO T164 ASTM D2172	PER SPECIFICATIONS	95% OF LAB DENSITY
		AASHTO T96-77 ASTM C131-81 N/A	PER SPECIFICATIONS	ONE PER DAY ONE PER 2,500 S.F. HORIZONTALLY

NOTES:
 * THE CONTRACTOR SHALL NOT PAVE OVER SOIL CEMENT BASE UNTIL A 30-DAY CURING HAS ELAPSED.
 ** MAXIMUM STRENGTH LIMITS, AS ESTABLISHED BY SOILS TESTING COMPANY, SHALL NOT BE EXCEEDED.
 *** SHOULD ANY OF THE INFORMATION PROVIDED HEREIN CONFLICT WITH EITHER THE RECOMMENDATION OF THE GEOTECHNICAL ENGINEER, AND/OR THE GEOTECHNICAL REPORT, THEN THE AFOREMENTED RECOMMENDATIONS WILL SUPERCEDE THIS "TESTING SCHEDULE GUIDE".

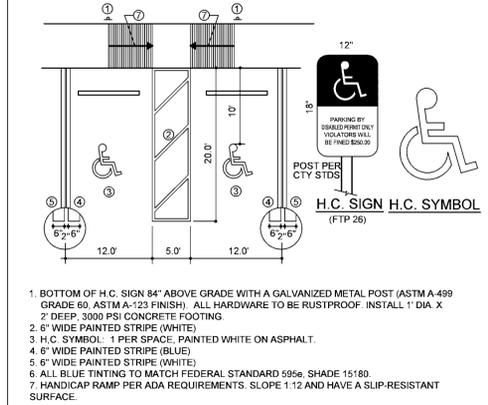
WHEEL STOP DETAIL



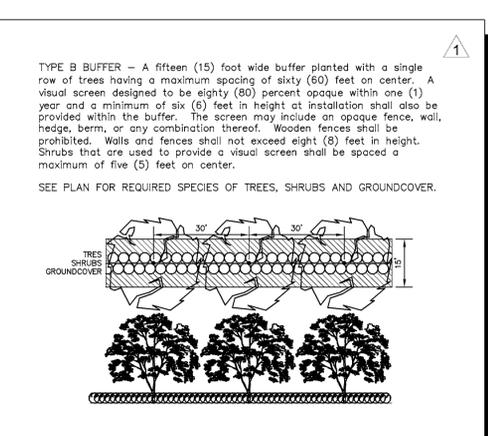
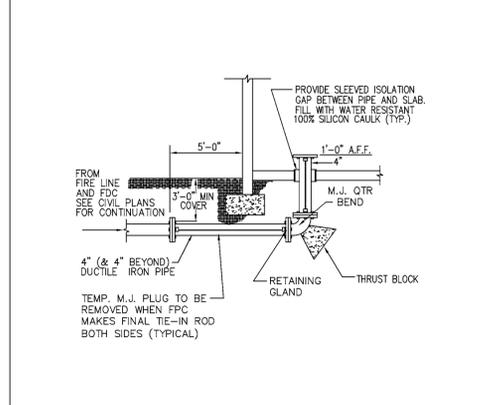
FDC DETAIL



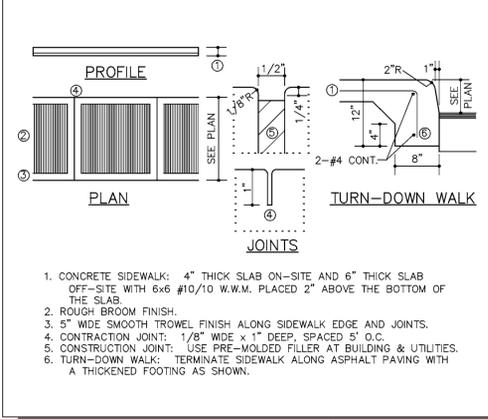
HANDICAPPED PARKING DETAIL



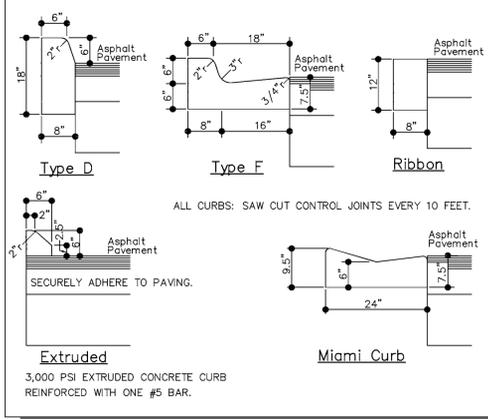
SPRINKLER RISER DETAIL



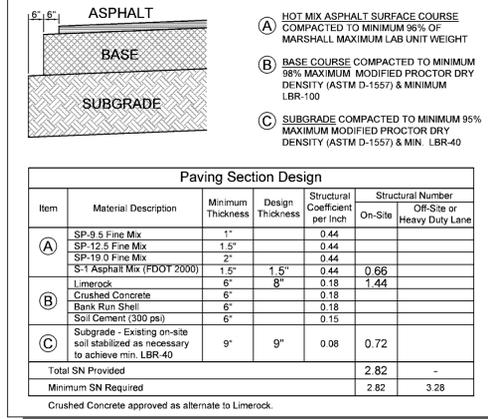
SIDEWALK DETAIL



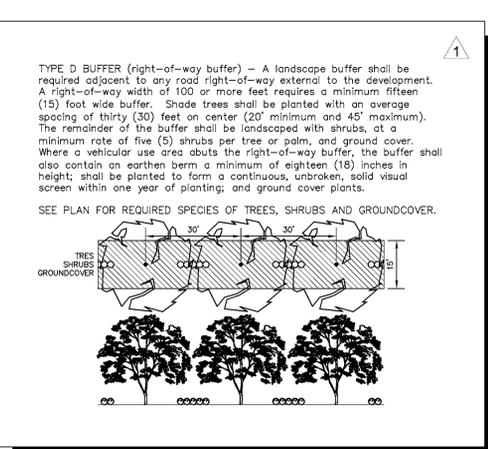
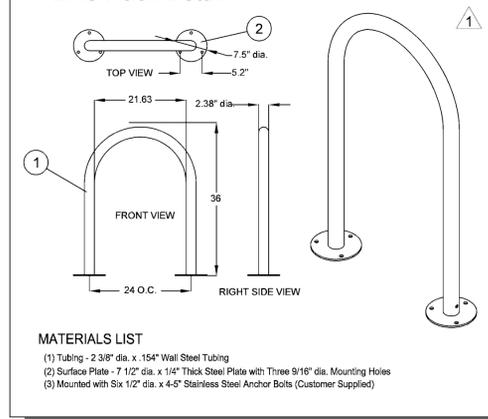
CURB DETAIL



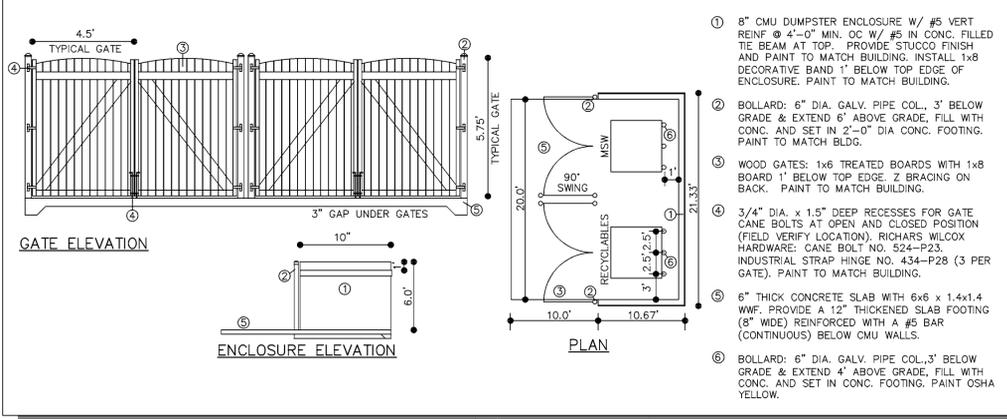
ASPHALT PAVING



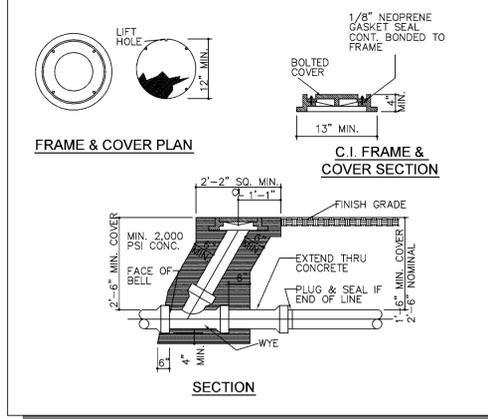
Bike Rack Detail



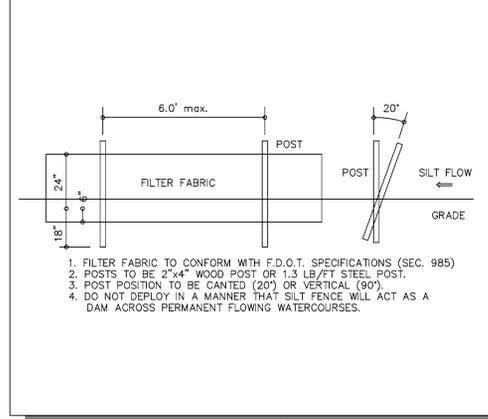
DOUBLE DUMPSTER ENCLOSURE



CLEANOUT DETAIL



SILT FENCE



100%
CONSTRUCTION DRAWINGS
ISSUE DATE: 10.17.14

REV. DATE DESCRIPTION

1	10.15	Per Pasco comments (rev 2014)
2	2.16.15	Utility relocations and AST (C648)
3	2.24.15	Utility relocations and AST (C648)
4	3.11.15	per Utility comments (C2-C3-C4)
5	4.17.15	per Utility comments (C2-C3-C4)
6	5.11.15	add 12 Units (phase 2)

REVISIONS

WITHOUT SIGNATURE

ROLAND P. DOVE, P.E.
P.E. NO. 36933

DATE

1 2 3 4 5 6

A N D E M B O S S

Pasco Family
Housing Project
METROPOLITAN MINISTRIES
Holiday, Florida 34691

CONTRACT DATE:
September 2014

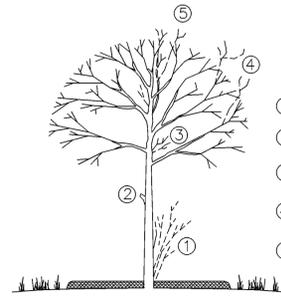
SPRING ENGINEERING, INC.
ENGINEERING • LAND PLANNING • ARCHITECTURE
3014 U.S. HWY 19, HOLIDAY, FL (727) 938-1516
FL COA NO. 00005158 & LICENSE NO. AM-0001747

DESIGNED BY: ATP
DRAWN BY: ATP
CHECKED BY: RPD
JOB NO.
2010-07H
SHEET NO.
C7

DETAILS

THIS DRAWING AND THE DESIGN SHOWN ARE THE PROPERTY OF SPRING ENGINEERING, INC. AND ARE NOT TO BE REPRODUCED, COPIED, PUBLISHED, OR USED IN WHOLE OR PART WITHOUT WRITTEN CONSENT. THEY ARE TO BE USED ONLY FOR THE SITE AND PROJECT IDENTIFIED AND SHALL BE RETURNED UPON REQUEST.

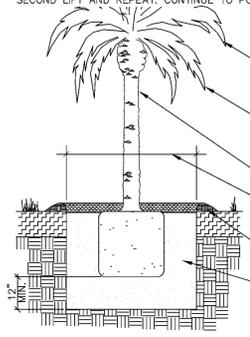
DASHED LINES ILLUSTRATE BRANCHES AND STUMPS THAT ARE TO BE REMOVED. DO NOT REMOVE THE LEADER.



- 1 REMOVE SUCKERS & SHOOTS AT BASE OF TREE
- 2 MAKE CLEAN CUTS ON OLD STUBS, IF PRESENT
- 3 REMOVE ENTIRE SUPPLY OF TWIGS & BUDS ON TRUNK
- 4 SHAPE TREE BY REMOVING DAMAGED & MISSHAPEN BRANCHES
- 5 REMOVE CROSS BRANCHES & THOSE DEVELOPING INTO SECONDARY LEADERS

1 DECIDUOUS TREE PRUNING

IF ROOTBALL IS WRAPPED IN NON-BIODEGRADABLE BURLAP, REMOVE ENTIRE WRAP AFTER IT IS PLACED IN PIT. WHEN BACKFILLING, PLACE PLANTING SOIL IN TWO LIFTS. AFTER FIRST LIFT, PUDDLE SOIL IN WITH WATER TO REMOVE ALL AIR POCKETS. PLACE SECOND LIFT AND REPEAT. CONTINUE TO PUDDLE AND FILL AS NECESSARY.



- FOR BARE ROOT, FIELD DUG OR BALL & BURLAP SPECIMENS: FRONDS SHALL REMAIN TIED FOR 3 MONTHS AFTER PLANTING.
- FOR CONTAINER GROWN TREES: SHIPPING FROND TIES MAY BE REMOVED AFTER INSTALLATION. TIES SHALL BE ORGANIC TWINE ONLY.
- SET TRUNK VERTICAL, PLUMB
- 3 TIMES WIDTH OF ROOT BALL OR 12" MIN. CLEARANCE AROUND ROOTBALL.
- PROVIDE 3" HIGH SOIL SAUCER AND MULCH RING
- BACKFILL SHALL BE SALT FREE WASHED RIVER SAND. ALL BACKFILL SHALL BE WATER-JETTED FOR FIRM COMPACTION.

5 PALM TREE PLANTING DETAIL

IRRIGATION GENERAL NOTES

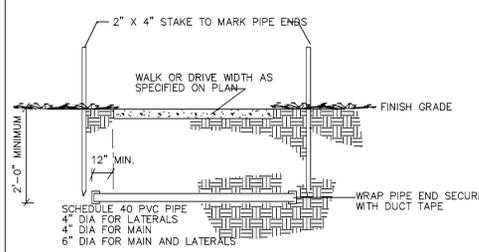
11. PLAN IS DIAGRAMMATIC ONLY. FINAL LOCATION OF LINES AND HEADS SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE ARCHITECT. LINES SHALL BE IN A COMMON TRENCH WHEREVER POSSIBLE. THE POINT OF CONNECTION SHALL BE AS INDICATED ON THE PLANS.
12. THE CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS AND ENSURE THAT ALL LOCAL CODES ARE MET.
13. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL PERMITS REQUIRED FOR INSTALLATION OF THE IRRIGATION SYSTEM AS DEPICTED IN THESE PLANS.
14. CONTRACTOR SHALL VERIFY AVAILABLE FLOW AND PRESSURE DOWNSTREAM FROM THE POINT-OF-CONNECTION PRIOR TO SYSTEM INSTALLATION. CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY IF AVAILABLE FLOW IS LESS THAN REQUIRED TO RUN THE LARGEST ZONE. CONTRACTOR SHALL NOT PROCEED ANY FURTHER WITH INSTALLATION OF THE SYSTEM UNTIL NECESSARY REVISIONS HAVE BEEN DETERMINED BY THE ARCHITECT.
15. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR DIFFERENCES IN DIMENSIONS EXIST THAT MIGHT HAVE BEEN UNKNOWN DURING ENGINEERING. SUCH OBSTRUCTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY AT NO COST TO THE OWNER.
16. ALL SPRINKLER EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
17. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL SPRINKLER MATERIALS, INCLUDING PIPE, WITH THE LANDSCAPE DRAWINGS TO AVOID INTERFERING WITH THE PLANTING OF TREES, SHRUBS OR OTHER PLANTS.
18. IT IS THE INTENT OF THESE DRAWINGS TO INDICATE A COMPLETE IRRIGATION SYSTEM INSTALLED AND READY FOR USE WITHOUT FURTHER COST TO THE OWNER.
19. ALL VALVES ARE TO BE LOCATED IN PLANTING AREAS WHEREVER POSSIBLE AND IN LOCKABLE VALVE BOXES.
20. ALL ELECTRICAL WIRE FROM CONTROLLER TO VALVES SHALL BE 12 GAUGE UL DIRECT BURIAL OR LARGER AS REQUIRED BY LENGTH PER MANUFACTURER'S SPECIFICATIONS.
21. BACKFILL FOR TRENCHING SHALL BE COMPACTED TO A DRY DENSITY EQUAL TO THE UNDISTURBED ADJACENT SOIL AND SHALL CONFORM TO ADJACENT GRADES WITHOUT DIPS, HUMPS, OR OTHER IRREGULARITIES.
22. A MINIMUM OF TWO WORKING DAYS PRIOR TO PERFORMING ANY DIGGING, CALL SUNSHINE AT 1-800-432-4770 FOR INFORMATION ON THE LOCATION OF NATURAL GAS LINES, ELECTRICAL CABLES, TELEPHONE CABLES, ETC.
23. CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS.
24. INSTALL PIPE AND CONTROL WIRES IN LANDSCAPE BEDS AND COMMON TRENCHES WHERE POSSIBLE.
25. INSTALL ALL PIPE AND CONTROL WIRE, WHICH RUNS UNDER PAVING, WITHIN SCH 40 PVC SLEEVES 2" DIA. MINIMUM SIZE AS REQUIRED TO ALLOW INSTALLATION WITHOUT BINDING. PROVIDE (1) SLEEVE PER PIPE. PROVIDE SEPARATE SLEEVES FOR CONTROL WIRE.
26. SCHEDULE 40 PVC IS REQUIRED FOR ALL PRESSURE LINES AND UNDER ALL PAVED AREAS. PIPING MUST BE INSTALLED A MIN. OF 12" UNDERGROUND FOR NON PRESSURE IRRIGATION LINES AND 18" UNDERGROUND FOR CONSTANT PRESSURE IRRIGATION LINES.
27. ALL IRRIGATION MATERIALS AND INSTALLATION SHALL COMPLY WITH THE UNIFORM PLUMBING CODE.

- FLUSHING AND TESTING**
28. PIPING SHALL BE COMPLETELY FLUSHED OF FOREIGN PARTICLES BEFORE ATTACHING IRRIGATION COMPONENTS AND DRAIN VALVES.
 29. AFTER FLUSHING, AND WHEN ALL VALVES AND QUICK COUPLERS ARE IN PLACE, ALL MAIN SUPPLY LINES SHALL BE TESTED AT 100 POUNDS PER SQUARE INCH (100 PSI) WITH VALVES CLOSED. MAINTAIN PRESSURE FOR A PERIOD OF NOT LESS THAN (4) CONSECUTIVE HOURS. ALL JOINTS SHOWING LEAKS SHALL BE CLEANED, REMADE AND TESTED.
 30. AFTER FLUSHING, LATERAL PIPES SHALL BE TESTED WITH RISERS CAPPED AND DRAIN VALVES CLOSED. THE TEST SHALL BE MADE AT MAXIMUM OPERATING PRESSURE FOR A PERIOD OF NOT LESS THAN (1) HOUR. ALL JOINTS SHOWING LEAKS SHALL BE CLEANED, REMADE, AND TESTED. ALL TESTING SHALL BE DONE IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE PRIOR TO BACKFILL OVER PIPING.
 31. OPERATIONAL TESTING: PERFORM OPERATIONAL TESTING AFTER HYDROSTATIC TESTING IS COMPLETED. DEMONSTRATE TO THE ARCHITECT THAT THE SYSTEM MEETS COVERAGE REQUIREMENTS (100%) AND THAT AUTOMATIC CONTROLS FUNCTION PROPERLY.

- SUBMITTALS**
32. COMPLETE WARRANTY CARDS FOR AUTOMATIC CONTROLLER AND OTHER IRRIGATION MATERIAL (CONTROLLER KEYS, ETC.) SHALL BE DELIVERED TO OWNER.
 33. CONTRACTOR SHALL PREPARE AND ISSUE TO THE OWNER (AT COMPLETION OF THE INSTALLATION) AN ANNUAL CHART INDICATING LOCATION, OPERATING DATES, CYCLES, AND TIME FOR EACH ZONE.

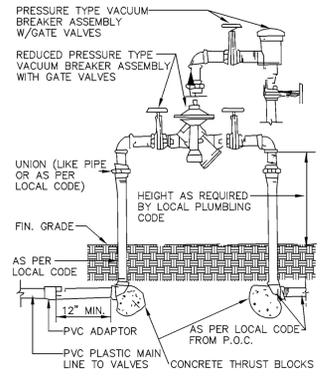
GUARANTEE/FINAL ACCEPTANCE

34. CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE THE IRRIGATION SYSTEM FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. MANUFACTURER WARRANTIES SHALL ONLY EXCEED THIS GUARANTEE AND CONTRACTOR SHALL BE LIABLE FOR REPAIRS/REPLACEMENT OF FAILED MATERIAL/WORKMANSHIP.



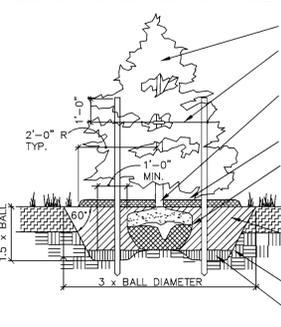
NOTE: INSERT # 4 REBAR SECTION OR OTHER METAL OBJECT INSIDE PIPE END PRIOR TO TAPING TO FACILITATE FUTURE FINDINGS OF SLEEVE WITH METAL DETECTOR. REMOVE REBAR PRIOR TO USING SLEEVE.

13 SLEEVE UNDER WALK OR ROAD



17 RP/PRESSURE TYPE VAC. BREAKER

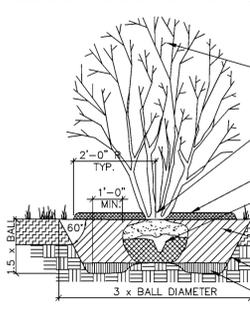
IF ROOTBALL IS WRAPPED IN NON-BIODEGRADABLE BURLAP, REMOVE ENTIRE WRAP AFTER IT IS PLACED IN PIT. WHEN BACKFILLING, PLACE PLANTING SOIL IN TWO LIFTS. AFTER FIRST LIFT, PUDDLE SOIL IN WITH WATER TO REMOVE ALL AIR POCKETS. PLACE SECOND LIFT AND REPEAT. CONTINUE TO PUDDLE AND FILL AS NECESSARY.



- DO NOT REMOVE LEADER
- LODGE POLE STAKE, GALVANIZED STEEL WIRE, AND BLACK RUBBER HOSE AS SPECIFIED
- PLANT TREES AT SAME GROUND LEVEL THEY WERE GROWN IN THE NURSERY
- 3" ORGANIC MULCH AS SPECIFIED
- REMOVE TOP 1/3 OF BURLAP, TWINE, ROPE AND BASKET FROM ROOTBALL
- FINISHED GRADE
- BACKFILL WITH PLANTING SOIL MIXTURE (REMOVE ALL DEBRIS, SEE NOTE)
- SCARIFY SIDES OF PLANTING HOLE
- BREAK 6" SUB-SOIL AS NECESSARY

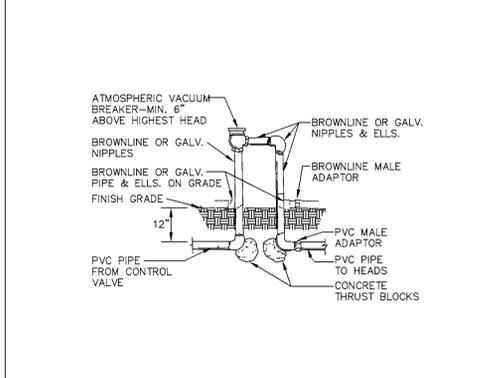
2 EVERGREEN TREE PLANTING DETAIL

IF ROOTBALL IS WRAPPED IN NON-BIODEGRADABLE BURLAP, REMOVE ENTIRE WRAP AFTER IT IS PLACED IN PIT. WHEN BACKFILLING, PLACE PLANTING SOIL IN TWO LIFTS. AFTER FIRST LIFT, PUDDLE SOIL IN WITH WATER TO REMOVE ALL AIR POCKETS. PLACE SECOND LIFT AND REPEAT. CONTINUE TO PUDDLE AND FILL AS NECESSARY.

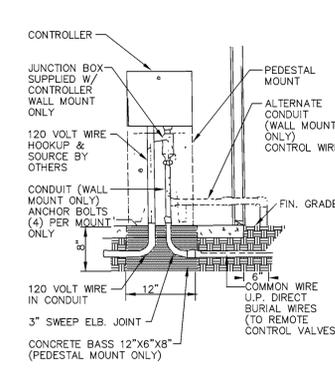


- DO NOT REMOVE LEADER(S), PRUNE BRANCHES IF BROKEN OR DAMAGED ONLY-SEE DETAIL THIS SHEET
- PLANT TREES AT SAME GROUND LEVEL THEY WERE GROWN IN THE NURSERY
- 3" ORGANIC MULCH AS SPECIFIED
- REMOVE TOP 1/3 OF BURLAP, TWINE, ROPE AND BASKET FROM ROOTBALL
- FINISHED GRADE
- BACKFILL WITH SOIL FROM PLANT PIT (REMOVE ALL DEBRIS, SEE NOTE)
- SCARIFY SIDES OF PLANTING HOLE
- BREAK 6" SUB-SOIL AS NECESSARY

6 MULTI-STEMMED TREE DETAIL

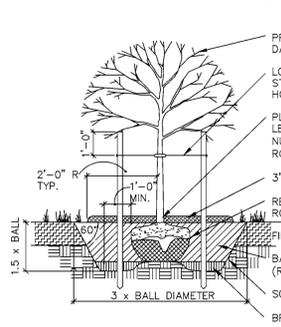


14 ATMOSPHERIC VACUUM BREAKER



18 CONTROLLER DETAIL

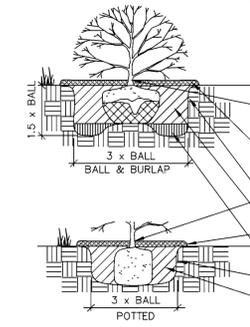
IF ROOTBALL IS WRAPPED IN NON-BIODEGRADABLE BURLAP, REMOVE ENTIRE WRAP AFTER IT IS PLACED IN PIT. WHEN BACKFILLING, PLACE PLANTING SOIL IN TWO LIFTS. AFTER FIRST LIFT, PUDDLE SOIL IN WITH WATER TO REMOVE ALL AIR POCKETS. PLACE SECOND LIFT AND REPEAT. CONTINUE TO PUDDLE AND FILL AS NECESSARY.



- PRUNE BRANCHES IF BROKEN OR DAMAGED-SEE DETAIL THIS SHEET
- LODGE POLE STAKE, GALVANIZED STEEL WIRE, AND BLACK RUBBER HOSE AS SPECIFIED
- PLANT TREES AT SAME GROUND LEVEL THEY WERE GROWN IN THE NURSERY (GRAFT LOCATED HERE FOR ROOTSTOCK)
- 3" ORGANIC MULCH AS SPECIFIED
- REMOVE TOP 1/3 OF BURLAP, TWINE, ROPE AND BASKET FROM ROOTBALL
- FINISHED GRADE
- BACKFILL WITH SOIL FROM PLANT PIT (REMOVE ALL DEBRIS, SEE NOTE)
- SCARIFY SIDES OF PLANTING HOLE
- BREAK 6" SUB-SOIL AS NECESSARY

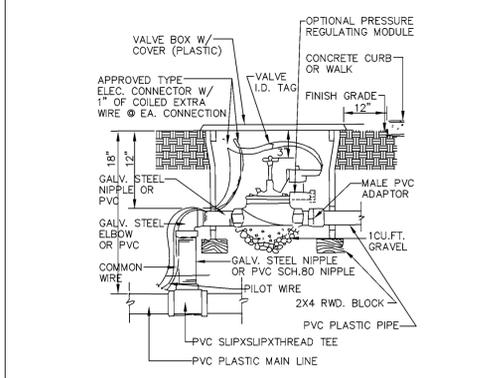
3 CANOPY TREE (2" or less) DETAIL

REMOVE ALL CONTAINERS AND BURLAP, TWINE, ROPE AND BASKET. PRUNE ROOTS IF BALL IS ROOTBOUND. WHEN BACKFILLING PLANT PIT, PLACE PLANTING SOIL IN TWO LIFTS. AFTER FIRST LIFT, PUDDLE SOIL IN WITH WATER TO REMOVE ALL AIR POCKETS. PLACE SECOND LIFT AND REPEAT. CONTINUE TO PUDDLE AND FILL AS NECESSARY.

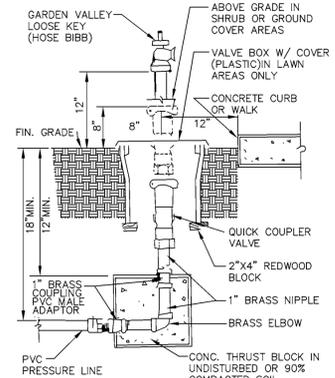


- PLANT SHRUBS AT SAME GROUND LEVEL THEY WERE GROWN IN THE NURSERY (B&B)
- 3" ORGANIC MULCH AS SPEC'D
- FINISHED GRADE
- SCARIFY SIDES OF PLANTING HOLE
- BACKFILL WITH SOIL FROM PLANT PIT (REMOVE ALL DEBRIS, SEE NOTE)
- BREAK 6" SUB-SOIL AS NECESSARY
- SET TOP OF ROOT CROWN 1" ABOVE FINISHED GRADE (POTTED)
- 3" ORGANIC MULCH AS SPEC'D
- FINISHED GRADE
- SCARIFY SIDES OF PLANTING HOLE
- BACKFILL WITH SOIL FROM PLANT PIT (REMOVE ALL DEBRIS, SEE NOTE)

7 SHRUB PLANTING DETAIL

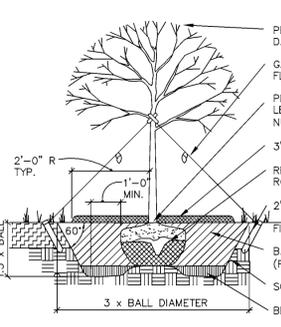


15 REMOTE CONTROL VALVE DETAIL



19 QUICK COUPLER /HOSE BIBB DETAIL

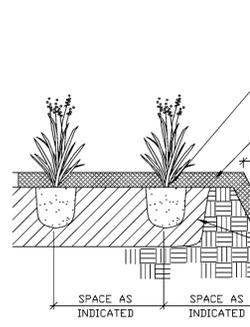
IF ROOTBALL IS WRAPPED IN NON-BIODEGRADABLE BURLAP, REMOVE ENTIRE WRAP AFTER IT IS PLACED IN PIT. WHEN BACKFILLING, PLACE PLANTING SOIL IN TWO LIFTS. AFTER FIRST LIFT, PUDDLE SOIL IN WITH WATER TO REMOVE ALL AIR POCKETS. PLACE SECOND LIFT AND REPEAT. CONTINUE TO PUDDLE AND FILL AS NECESSARY.



- PRUNE BRANCHES IF BROKEN OR DAMAGED-SEE DETAIL THIS SHEET
- GALVANIZED STEEL WIRE, SAFETY FLAGGING AND BLACK RUBBER HOSE
- PLANT TREES AT SAME GROUND LEVEL THEY WERE GROWN IN THE NURSERY (GRAFT LOCATED HERE)
- 3" ORGANIC MULCH AS SPECIFIED
- REMOVE TOP 1/3 OF BURLAP, TWINE, ROPE AND BASKET FROM ROOTBALL
- FINISHED GRADE
- BACKFILL WITH SOIL FROM PLANT PIT (REMOVE ALL DEBRIS, SEE NOTE)
- SCARIFY SIDES OF PLANTING HOLE
- BREAK 6" SUB-SOIL AS NECESSARY

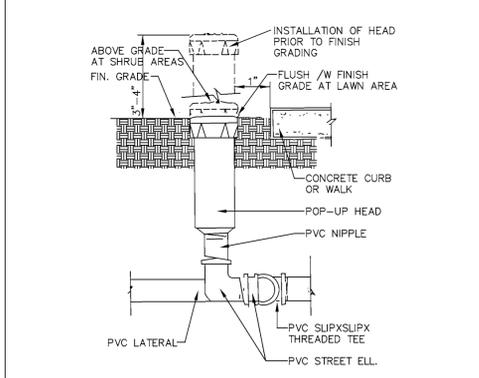
4 CANOPY TREE (2"+ cal.) DETAIL

PLANT PERENNIALS AT THE SAME LEVEL THEY WERE GROWN IN THE NURSERY



- 2"-3" ORGANIC MULCH AS REQUIRED
- PROVIDE 4" DEEP x 8"-8" WIDE MULCH POCKET/EDGE
- FINISHED GRADE
- 4" TOPSOIL FOR ALL SEEDED/SODDED AREAS (MINIMUM)
- PLANTING SOIL MIXTURE AS SPECIFIED
- SPACE AS INDICATED

8 GROUNDCOVER PLANTING DETAIL



16 4" & 6" POP-UP LAWN/SHRUB HEAD

THIS DRAWING AND THE DESIGN SHOWN ARE THE PROPERTY OF SPRING ENGINEERING, INC. AND ARE NOT TO BE REPRODUCED, COPIED, PUBLISHED, OR USED IN WHOLE OR PART WITHOUT WRITTEN CONSENT. THEY ARE TO BE USED ONLY FOR THE SITE AND PROJECT IDENTIFIED AND SHALL BE RETURNED UPON REQUEST.

100%
CONSTRUCTION DRAWINGS
ISSUE DATE: 10.17.14

REV	DATE	DESCRIPTION
1	1.9.15	Per Pasco comments (rev 2014)
2	2.16.15	Utility relocations and AST (C&A&B)
3	2.24.15	Utility relocations (C&A&B)
4	3.11.15	per Utility comments (C&A&B)
5	4.17.15	per Utility comments (C&A&B)
6	5.11.15	add 12 Units (phase 2)

ROLAND P. DOVE, P.E.
P.E. NO. 36933
DATE: 10.17.14
SCALE: 1" = 1'-0"

Pasco Family
Housing Project
METROPOLITAN MINISTRIES
Holiday, Florida 34691

CONTRACT DATE:
September 2014

SPRING ENGINEERING, INC.
ENGINEERING • LAND PLANNING • ARCHITECTURE
3014 U.S. HWY 19, HOLIDAY, FL (727) 938-1516
FL COA NO. 00005158 & LICENSE NO. AM-0001747

SE
PLANTING AND IRRIGATION DETAILS

DESIGNED BY: ATP
DRAWN BY: ATP
CHECKED BY: RPD
JOB NO. 2010-07H

SHEET NO. **C8**