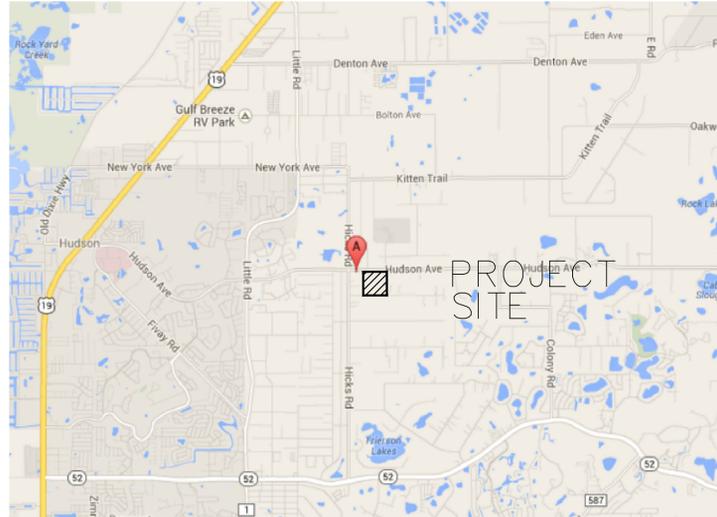


**SECTION 31 , TOWNSHIP 24 S, RANGE 17 E  
PARCEL I.D. # 31-24-17-0040-00000-0030  
PASCO COUNTY FLORIDIA**



LOCATION MAP



AERIAL MAP



**LEGAL DESCRIPTION**

LOT 3 OF HILLERY SUBDIVISION, AS PER MAP OR PLAT THEREOF RECORDED IN PLAT BOOK 14 ON PAGE 134 OF THE PUBLIC RECORDS OF PASCO COUNTY, FLORIDA, LESS THAT PORTION OF LOT 3 OF THE HILLERY SUBDIVISION IN SECTION 31, TOWNSHIP 24 SOUTH, RANGE 17 EAST, AS RECORDED IN PLAT BOOK 14, PAGE 134 OF THE PUBLIC RECORDS OF PASCO COUNTY, FLORIDA, DESCRIBED AS FOLLOWS: COMMENCE AT THE NORTHWEST CORNER OF SAID SECTION 31; THENCE NORTH 89° 35'19" EAST, ALONG THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 31, 498.87 FEET; THENCE SOUTH 00° 24'34" WEST, 33.00 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 00° 24'34" WEST 7.00 FEET; THENCE SOUTH 89° 35'19" WEST, 43.07 FEET; THENCE NORTH 00° 24'41" WEST, 7.00 FEET; THENCE NORTH 89° 35' 18" EAST, 43.17 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH

LOT 4 OF HILLERY SUBDIVISION, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 14, PAGE 134 OF THE PUBLIC RECORDS OF PASCO COUNTY, FLORIDA, LESS AND EXCEPT THOSE LANDS CONVEYED TO PASCO COUNTY IN OFFICIAL RECORDS 1981, PAGE 245 AND OFFICIAL RECORDS BOOK 1981, PAGE 247 FOR ROAD RIGHT-OF-WAY

**DESIGN PROFESSIONALS**

**CIVIL ENGINEER/PLANNER:**  
NORTHSIDE ENGINEERING SERVICES  
300 SOUTH BELCHER ROAD  
CLEARWATER, FLORIDA 33765  
727-443-2869  
HOUSH@NORTHSIDEENGINEERING.NET

**SURVEYOR:**  
KNOW IT NOW, INC. MAIL = 1497 MAIN ST. #321  
2011 HEIDELBERG AVE DUNEDIN, FL 34698  
PHONE: 727-415-8305 FAX: 727-736-2455  
FLORIDASURVEYOR@AOL.COM

**UTILITIES PROVIDERS**

**WATER :** PASCO COUNTY  
**SEWER:** PASCO COUNTY  
**FIRE:** PASCO COUNTY  
**ELECTRIC:** WITHLACOOCHIE RIVER ELEC. CO-OP  
**GAS:** CLEARWATER GAS  
**CABLE:** BRIGHTHOUSE / VERIZON

**FLOOD ZONE INFORMATION**

**COMMUNITY PANEL No.:** 1210C0182F  
**FLOOD ZONE:** ZONE X   
**DATE:** 9/26/14

**ZONING FUTURE LAND USE**

	ZONING	FUTURE LAND USE
SITE:	C-2	COM
NORTH:	C-2	ROR
SOUTH:	AR	RES-6
EAST:	C-2	COM
WEST:	C-2/AR	COM

**SITE DATA**

		EXISTING	PROPOSED	ALLOWED
ZONING:		C-2	C-2	C-2
FUTURE LAND USE:		COM	COM	COM
USAGE:		VACANT	RETAIL - RESTAURANT (SEE BELOW)	O.K.
LOT AREA:		77,885 S.F. 1.79 AC.	77,885 S.F. 1.79 AC.	O.K.
BUILDING COVERAGE: (S.F. & % OF GROSS SITE)		0	13,121 S.F. 16.9%	50%
GROSS FLOOR AREA (S.F.): F.A.R.:		0	13,121 S.F. 0.169	0.6
BUILDING SETBACKS:	(NORTH):	-	Building A - 63.7" Building B - 63.0"	25' FROM CENTER LINE
	(SOUTH):	-	Building A - 79.9" Building B - 42.3"	30'
	(EAST):	-	Building B - 30'	0'
	(WEST):	-	Building A - 26.4'	0'
BLDG. HEIGHT:		-	20' 1 STORY	20'
VEHICULAR USE AREA (V.U.A.)		0	29,065 S.F.	N/A
IMPERVIOUS SURFACE RATIO: (I.S.R.)		-	45,291 S.F. 0.58	0.90 MAX
OPEN SPACE: (S.F. & % OF GROSS SITE)		100%	22,244 S.F. 28.5%	10% MIN
PARKING LOT INTERIOR LANDSCAPE: (S.F. & % OF V.U.A.)		-	2,689 S.F. 9.25%	10% OF V.U.A.
PARKING:		-	PHASE 1 = 40 SPACES PROVIDED PHASE 2 = 18 SPACES PROVIDED	PHASE 1 = 40 SPACES REQUIRED PHASE 2 = 17 SPACES PROVIDED
PARKING CALCULATIONS :		PHASE 1 - BLDG. (A) RESTAURANT AREA = 2,204 S.F. @ 1/100 = 23 Spaces BLDG. (A) RETAIL AREA = 4,882 S.F. @ 1/300 = 17 Spaces PHASE 2 - BLDG. (B) RETAIL AREA = 5,000 S.F. @ 1/300 = 17 Spaces PARKING PROVIDED : PHASE 1 = 40 Spaces -- PHASE 2 = 18 (TOTAL = 58 Spaces)		

**INDEX OF SHEETS**

C1.1	CIVIL SITE DATA
C1.2	CIVIL SITE NOTES
C2.0	DEMOLITION PLAN
C2.1	PHASING PLAN
C3.0	STAKING SITE PLAN
C3.1	AUTOTURN PLAN
C4.0	GRADING & DRAINAGE PLAN
C5.0	UTILITIES PLAN
C5.1	LIFT STATION DETAILS
C6.0	CIVIL SITE DETAILS
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LS1.1A	LANDSCAPE BUFFER DETAIL
LS1.2	LANDSCAPING DETAILS

**AGENCY RESPONSE STAMPS**

GENERAL CONSTRUCTION NOTES

- 1. ALL DESIGN AND CONSTRUCTION MUST CONFORM TO THE MINIMUM STANDARDS SET DOWN IN PASCO COUNTY, FL. ZONING AND /OR RELATED ORDINANCES.
2. ALL ELEVATIONS ARE REFERENCED FROM N.A.V.D. 1988.
3. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR WILL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL CHECK THE PLANS FOR CONFLICTS AND DISCREPANCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICTS OR DISCREPANCIES BEFORE PERFORMING ANY WORK IN THE AFFECTED AREA.
5. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES, IN ADVANCE OF CONSTRUCTION, BY CALLING "SUNSHINE" AT 1-800-432-4770 MINIMUM OF 2 DAYS AND MAXIMUM OF 5 DAYS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES NOT INCLUDED IN THE "SUNSHINE" PROGRAM.
6. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION SAFETY.
7. ALL UNDERGROUND UTILITIES MUST BE IN PLACE AND TESTED AND INSPECTED PRIOR TO BASE AND SURFACE CONSTRUCTION.
8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION. SCHEDULE INSPECTIONS THROUGHOUT CONSTRUCTION AND THE CONTRACTOR SHALL PAY ANY FINE IMPOSED BY ANY AGENCY.
9. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE OWNER'S ENGINEER, SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS FOR THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. ALL SHOP DRAWINGS ARE TO BE REVIEWED AND APPROVED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER'S ENGINEER.
10. AT LEAST THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND APPROPRIATE AGENCIES, AND SUPPLY THEM WITH ALL REQUIRED SHOP DRAWINGS, THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED SCHEDULE, AND OTHER INFORMATION AS REQUIRED. ANY WORK PERFORMED PRIOR TO NOTIFYING THE ENGINEER, OR WITHOUT AGENCY INSPECTOR PRESENT, MAY BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
11. BACKFILL MATERIAL SHALL BE SOLIDLY TAMPED ABOVE PIPES IN 6" LAYERS UP TO A LEVEL OF AT LEAST ONE FOOT ABOVE THE TOP OF THE PIPE. IN AREAS TO BE PAVED, BACKFILL SHALL BE COMPACTED TO 100% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.
12. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF AT LEAST 3,000 P.S.I. IN 28 DAYS, UNLESS OTHERWISE NOTED.
13. ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THE WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION IS TO BE ALLOWED.
14. ALL DISTURBED AREAS WHICH ARE NOT TO BE SOODED, ARE TO BE SEEDED AND MULCHED TO DOD STANDARDS, AND MAINTAINED UNTIL A SATISFACTORY STAND OF GRASS, ACCEPTABLE TO THE REGULATORY AGENCY AND ENGINEER OF RECORD, HAVE BEEN OBTAINED. ANY WASHOUTS, REGRADING, RESEEDING, AND GRASSING WORK, AND OTHER EROSION WORK REQUIRED, WILL BE REQUIRED BY THE CONTRACTOR, AT HIS EXPENSE, UNTIL THE SYSTEM IS ACCEPTED FOR MAINTENANCE, BY THE REGULATORY AGENCY AND ENGINEER OF RECORD.
15. THE SOILS ENGINEER IS TO SUPPLY THE ENGINEER WITH A PHOTOCOPY OF ALL COMPACTION TESTS, AND ASPHALT RESULTS. THE SOILS ENGINEER IS TO CERTIFY TO THE ENGINEER OF RECORD THE TESTING REQUIREMENTS REQUIRED BY THE LOCAL REGULATORY AGENCY, AND THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT), FOR THE IMPROVEMENTS, AS REQUIRED BY THE ENGINEERING CONSTRUCTION DRAWINGS, HAVE BEEN SATISFIED.
16. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED PLANS AND PERMITS AT THE CONSTRUCTION SITE.
17. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS FOR CONSTRUCTION SITE SAFETY.
18. ALL SOODING, SEEDING AND MULCHING SHALL INCLUDE WATERING AND FERTILIZATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THESE AREAS UNTIL THE PROJECT IS COMPLETED AND ACCEPTED BY THE OWNER.
19. ALL PIPE LENGTHS ARE PLUS OR MINUS. PIPE MEASUREMENTS ARE CENTER TO CENTER OF STRUT OR FITTINGS. PIPE MEASUREMENTS FOR INTERED END SECTIONS ARE TO END OF PIPE.
20. EXISTING PAVEMENT SHALL BE SAW-CUT WHERE NEW PAVEMENT IS TO BE ADDED OR EXISTING PAVEMENT TO BE ELIMINATED.
21. ADJUSTMENTS OF INLETS, JUNCTION BOXES, MANHOLE TOPS, WATER VALVES, WATER METERS, ETC., SHALL BE INCLUDED IN THE CONTRACTOR'S BID AND NO CLAIM SHALL BE MADE AGAINST THE OWNER OR ENGINEER FOR THESE ADJUSTMENTS, IF REQUIRED.
22. ALL BACKFILL OVER ANY PIPE (STORM SEWER, SANITARY SEWER, OR WATERLINES) THAT IS INSTALLED UNDER ROADWAYS OR WITHIN THE EMBANKMENT OF THE ROADWAY, SHALL BE COMPACTED IN ACCORDANCE WITH F.D.O.T. STANDARD SPECIFICATIONS, SECTION 125-1.3 LATEST EDITION.
23. THE CONTRACTOR PERFORMING TRENCH EXCAVATION, IN EXCESS OF 3' FEET IN DEPTH, SHALL COMPLY WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION'S (FDOT) TRENCH EXCAVATION SAFETY STANDARDS, 29 C.F.R., S.1926.650, SUBPART P, INCLUDING: ALL SUBSEQUENT REVISIONS OR UPDATES TO THE STANDARDS AS ADOPTED BY THE DEPARTMENT OF LABOR AND EMPLOYMENT SECURITY (DLES).
24. CONTRACTOR TO COORDINATE THE POINTS OF CONNECTIONS OF THE UTILITIES WITH DIFFERENT SUBS. THE CONTRACTOR TO CONSTRUCT THE UNDERGROUND INFRASTRUCTURES (I.e. SANITARY SEWER, STORM SEWER, WATER LINES, FIRE LINES, ETC.) 5' OUTSIDE OF THE BLDG(S). THE PLUMBING CONTRACTOR IS TO CONNECT AND MEET THE INVERT ELEVATIONS OF THE SAID UTILITIES. ANY UTILITY WORK PERFORMED WITHIN 5' OF THE BLDG SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR. ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, ORDINANCES AND REQUIREMENTS.
25. ALL WORK SHALL BE PERFORMED AND FINISHED IN A WORKMANLIKE MANNER TO COMPLETE SATISFACTION OF THE ARCHITECT/ENGINEER IN ACCORDANCE WITH THE BEST RECOGNIZED TRADE PRACTICES.
26. DEVIATIONS TO THESE PLANS AND SPECIFICATIONS WITHOUT CONSENT OF THE ENGINEER MAY BE CAUSE FOR THE WORK TO BE UNACCEPTABLE. DEVIATIONS SHALL RECEIVE WRITTEN APPROVAL FROM THE ENGINEER.
27. SIGNS, BUFFER WALLS & FENCES ARE SUBJECT TO SEPARATE SUBMITTALS(S) AND PERMITTING. DEVIATIONS SHALL RECEIVE WRITTEN APPROVAL FROM THE ENGINEER. SAFE PAVED TRAFFIC TO BE MAINTAINED AT ALL TIMES.
28. ANY SIDEWALK WHICH BECOMES UNDERMINED MUST BE REMOVED AND REPLACED. SIDEWALKS TO BE RECONSTRUCTED WITHIN THREE DAYS AFTER REMOVAL. WHEN EXISTING SIDEWALK IS REMOVED IT IS TO BE REMOVED TO THE NEAREST JOINT. THIS APPLIES TO ALL SIDEWALKS.
29. SAW CUT EXISTING EDGE OF PAVEMENT PRIOR TO PLACING ASPHALT.
31. CONSTRUCTION EQUIPMENT IS NOT ALLOWED ON SITE UNTIL LANDSCAPE PERMIT IS IN HAND. THE HABITAT MANAGEMENT AND LANDSCAPE PERMIT IS IN HAND.

CLEARING AND GRUBBING NOTES

- 1. PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN ON THE CONSTRUCTION PLANS SHALL BE PROTECTED IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY'S TREE ORDINANCE AND DETAILS CONTAINED IN THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THESE TREES IN CONFORMITY WITH THE ORDINANCE.
2. THE CONTRACTOR IS TO PREPARE THE SITE PRIOR TO BEGINNING THE ACTUAL CONSTRUCTION IN ACCORDANCE WITH THE SOILS TESTING REPORT. COPIES OF THE SOILS REPORT ARE AVAILABLE THROUGH THE OWNER OR THE SOILS TESTING COMPANY. QUESTIONS REGARDING TESTING REQUIREMENTS DESCRIBED IN THE SOILS REPORT ARE TO BE DIRECTED TO THE SOILS TESTING COMPANY.
3. THE CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE, NECESSARY FOR CONSTRUCTION. DISTURBED AREAS WILL BE SEEDED, MULCHED, OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL IMMEDIATELY FOLLOWING CONSTRUCTION.
4. THE TOP 4" TO 6" OF GRASS REMOVED DURING CLEARING AND GRUBBING SHALL BE STOCKPILED AT A SITE DESIGNATED BY THE OWNER TO BE USED FOR LANDSCAPING PURPOSES, UNLESS OTHERWISE DIRECTED BY THE OWNER.
5. ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS. ONLY "GRADING BY HAND" IS PERMITTED WITHIN THE CANOPY LINE OF TREES THAT ARE TO REMAIN.
6. THE CONTRACTOR IS TO OBTAIN ALL NECESSARY PERMITS FOR REMOVING ANY EXISTING STRUCTURES.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES TO DISCONNECT OR REMOVE THEIR FACILITIES PRIOR TO REMOVING OR DEMOLISHING.
8. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAKING A VISUAL INSPECTION OF THE SITE AND WILL BE RESPONSIBLE FOR THE REMOVAL AND REMEDIATION OF ANY UNDERGROUND AND ABOVE GROUND STRUCTURES THAT WILL NOT BE INCORPORATED INTO THE NEW FACILITIES. SHOULD ANY DISCREPANCIES EXIST WITH THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING THE OWNER AND REQUESTING A CLARIFICATION OF THE PLANS PRIOR TO DEMOLITION.

EROSION AND SILTATION CONTROL NOTES

- 1. SEDIMENT TRAPPING MEASURES: SEDIMENT BASINS AND TRAPS, PERIMETER BERMS, FILTER FENCES, BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING WATER BODIES, MUST BE INSTALLED, CONSTRUCTED OR, IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE AND INSPECTED BY THE ENGINEER BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS.
2. PROTECTION OF EXISTING STORM SEWER SYSTEMS: DURING CONSTRUCTION, ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURITY MAT BALES, SOIL STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION.
3. SEDIMENTATION BASIN: THE CONTRACTOR SHALL BE RESPONSIBLE TO PROHIBIT DISCHARGE OF SILT THROUGH THE OUTFALL STRUCTURE DURING CONSTRUCTION OF ANY RETENTION AREA AND WILL BE REQUIRED TO CLEAN OUT THE RETENTION AREA BEFORE INSTALLING ANY CONTRACTOR SUBURBAN PIPE. IN ADDITION, PERMANENT RETENTION AREAS MUST BE TOTALLY CLEANED OUT AND OPERATE PROPERLY AT FINAL INSPECTION AND AT THE END OF THE WARRANTY PERIOD.
4. SWALES, DITCHES AND CHANNELS WITH ALL SWALES, DITCHES AND CHANNELS LEADING FROM THE SITE SHALL BE SODED WITHIN (3) DAYS OF EXCAVATION. ALL OTHER INTERIOR SWALES, ETC., INCLUDING DETENTION AREAS WILL BE SODED PRIOR TO ISSUANCE OF OTHER INFORMATION AS REQUIRED.
5. PROTECTION AND STABILIZATION OF SOIL STOCKPILES: FILL MATERIAL STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STOCKPILE MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILED MATERIAL MAY BE REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL UNSTABILIZED STOCKPILE REMAIN AFTER TRYING (30) CALENDAR DAYS.
6. MAINTENANCE: ALL EROSION AND SILTATION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND WILL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
7. REQUIRED EROSION CONTROL MEASURES MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. FAILURE TO INSTALL OR PROPER MAINTENANCE OF THESE BARRICADES WILL RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS, AS PROVIDED BY CHAPTERS 400-4 & 400-40 F.A.C. CAN RESULT IN A PENALTY NOT TO EXCEED \$10,000 PER OFFENSE WITH EACH DATE DURING WHICH SUCH VIOLATION OCCURS CONSTITUTING A OFFENSE.
8. ALL DISTURBED CONDITIONS SHALL BE RESTORED TO NATURAL CONDITIONS OR BETTER.
9. DURING CONSTRUCTION SEDIMENT IS TO REMAIN ON SITE. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF EROSION AND SEDIMENT CONTROL DEVICES PRIOR TO INITIATING AND DURING ALL PHASES OF LAND CLEARING AND CONSTRUCTION TO PREVENT SOIL EROSION AND SILTATION.

WATER SYSTEM SPECIFICATIONS AND NOTES

- 1. CONTRACTOR SHALL NOT BEGIN CONSTRUCTION ON ANY PART OF THE WATER SYSTEM UNLESS D.E.P. PERMIT HAS BEEN ISSUED.
2. ALL WATER SYSTEMS WORK SHALL HAVE A MINIMUM OF 36 INCHES OF COVER.
3. ALL WATER SYSTEM WORK SHALL CONFORM WITH LOCAL AND STATE REGULATORY STANDARDS AND SPECIFICATIONS.
4. ALL DUCTILE IRON PIPE SHALL BE CLASS 52 IN ACCORDANCE WITH ANSI A 21.50 (AWWA C 150) AND ANSI A 21.31 (AWWA C 151). PIPE SHALL RECEIVE EXTERIOR BITUMINOUS COATING IN ACCORDANCE WITH ANSI A 21.6, A 21.8 OR A 21.9 AND SHALL RECEIVE AN EXTERIOR BITUMINOUS COATING IN ACCORDANCE WITH ANSI A 21.4 (AWWA C 104-71).
5. ALL FITTINGS LARGER THAN 2" SHALL BE DUCTILE IRON CLASS 52 IN ACCORDANCE WITH ANSI C-110 WITH PRESSURE RATING OF 150 P.S.I. ALL FITTINGS SHALL BE GASKET MOUNTED JOINTS IN ACCORDANCE WITH ANSI C-111. FITTINGS SHALL BE GASKET MOUNTED JOINTS IN ACCORDANCE WITH ANSI C-111. FITTINGS SHALL BE GASKET MOUNTED JOINTS IN ACCORDANCE WITH ANSI C-111.
6. ALL PVC WATER MAINS 4" THROUGH 12" SHALL BE IN ACCORDANCE WITH ANSI C-900. PIPE SHALL BE CLASS 150 AND MEET THE REQUIREMENTS OF SDR 18 IN ALL APPLICATIONS.
7. WATER MAIN PIPING OF LESS THAN 4" SHALL BE PER ASTM D2241-89.
8. ALL FITTINGS 2" AND SMALLER SHALL BE SDR21.
9. ALL GATE VALVES 2" OR LARGER SHALL BE RESILIENT SEAT OR RESILIENT WEDGE MEETING THE REQUIREMENTS OF AWWA C509.
10. ALL FIRE HYDRANTS SHALL MEET THE REQUIREMENTS OF ANNA C502 AND SHALL BE APPROVED BY THE LOCAL UTILITY AND THE FIRE MARSHAL.
11. THE CONTRACTOR IS TO INSTALL TEMPORARY BLOW-OFFS AT THE END OF WATER SERVICE LATERALS TO ASSURE ADEQUATE FLUSHING AND DISINFECTION.
12. RESTRAINED JOINTS SHALL BE PROVIDED AT ALL FITTINGS AND HYDRANTS.
13. MATERIALS AND CONSTRUCTION METHODS FOR WATER DISTRIBUTION SYSTEM SHALL COMPLY WITH THE AMERICAN WATER WORKS ASSOCIATION STANDARDS.
14. THE IRRIGATION SYSTEM SHALL HAVE PURPLE COLOR PIPING AND LABELING ON THE PIPE TO INSURE DIFFERENTIATION FROM POTABLE WATER PIPING.

WATER SYSTEM INSPECTION, TESTING AND CERTIFICATION REQUIREMENTS

- 1. ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, CONNECTIONS, VALVES AND FIRE HYDRANTS, SHALL BE FULLY INSPECTED AND PRESSURE TESTED AND ACCEPTED BY NORTHSIDE ENGINEERING AND COUNTY/CITY INSPECTOR. CONTRACTOR TO NOTIFY NORTHSIDE ENGINEERING SERVICES AND PASCO COUNTY WATER DEPT. INSPECTORS 48 HOURS IN ADVANCE OF PERFORMING INSPECTIONS.
2. AFTER COMPLETION OF INSTALLATION OF NEW WATER MAINS, PRESSURE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH PASCO COUNTY WATER SYSTEM STANDARDS, SPECIFICATIONS AND CHLORINATION REQUIREMENTS. SAMPLING OF NEW WATER MAINS SHALL CONFORM WITH THE REQUIREMENTS AND RESULTS FORWARDED TO NORTHSIDE ENGINEERING SERVICES WITHIN 3 DAYS.
3. CONTRACTOR SHALL PROVIDE AND FORWARD TO NORTHSIDE ENGINEERING 6 COPIES OF THE CERTIFIED RECORD DRAWINGS PREPARED, SIGNED AND SEALED BY A LAND SURVEYOR. DRAWINGS SHALL SHOW THE EXACT LOCATION OF THE ENTIRE WATER AND FIRE NETWORK SYSTEM WITH THE TOP ELEVATION OF THE PIPES INDICATED IN CRITICAL LOCATIONS. CRITICAL LOCATIONS REFER TO AREAS WHERE WATER LINES CROSS SANITARY AND STORM PIPES, TO INSURE MIN. COVER, HORIZONTAL AND VERTICAL DIMENSIONS ARE MET. CRITICAL ELEVATIONS AND DIMENSIONS MUST MEET OR EXCEED MINIMUM CLEARANCE STANDARDS AS SET BY F.D.E.P., DEVIATION SHALL CONSTITUTE REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE.
4. ENGINEER WILL SUBMIT FINAL AS-BUILT, CHLORINATION TEST RESULTS ALONG WITH THE CERTIFICATION FORM TO F.D.E.P. TO OBTAIN CLEARANCE TO PLACE WATER SYSTEM INTO SERVICE.
5. CONTRACTOR UNDER NO CIRCUMSTANCES SHALL PLACE THE WATER/STORM SYSTEM INTO SERVICE UNLESS A LETTER OF CLEARANCE/CERTIFICATION HAS BEEN ISSUED BY F.D.E.P.
6. ANY DEVIATION FROM THE REQUIREMENTS AS STIPULATED HEREWITH COULD RESULT IN FINES AS DETERMINED BY F.D.E.P. WHICH SHALL BE PAID BY THE CONTRACTOR.

SANITARY SEWER SPECIFICATIONS AND NOTES

- 1. CONTRACTOR SHALL NOT BEGIN CONSTRUCTION OF ANY PORTION OF THE SANITARY SYSTEM UNLESS F.D.E.P. PERMIT HAS BEEN ISSUED.
2. ALL SANITARY SEWER MAINS & LATERALS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER.
3. ALL SANITARY SEWER MAINS & SERVICE LATERALS SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE, SDR 35 OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS.
4. ALL SANITARY SEWER WORK SHALL CONFORM WITH LOCAL & STATE REGULATORY STANDARDS, SPECIFICATIONS AND INSPECTIONS.
5. PRIOR TO COMMENCING WORK WHICH REQUIRES CONNECTING NEW LINES TO EXISTING LINES OR APPURTENANCES, THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF EXISTING CONNECTION POINTS AND NOTIFY NORTHSIDE ENGINEERING OF ANY CONFLICTS OR DISCREPANCIES.
6. PVC PIPE AND FITTINGS SHALL CONFORM TO ASTM SPECIFICATIONS DESIGNATION D-3045-740. SDR 35. INSTALLATION OF SDR 35 PIPE SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF ASTM SPECIFICATION SECTION D3231. ALL SANITARY SEWER PIPELINES SHALL BE:
7. ALL PVC FORCE MAINS SHALL BE CLASS 2000, SDR 21, COLOR GREEN, WITH A GREEN MAGNETIC TAPE A MINIMUM OF 2" WIDE, PLACED 1" BELOW THE PROPOSED GRADE. THE PRINTING ON THE MAGNETIC TAPE SHOULD READ "FORCEMAIN".

- 8. ALL DUCTILE IRON PIPE SHALL BE CLASS 52 IN ACCORDANCE WITH ANSI A 21.50 (AWWA C 150) AND ANSI A21.31 (AWWA C 151). DUCTILE IRON PIPE SHALL RECEIVE EXTERIOR BITUMINOUS COATING IN ACCORDANCE WITH ANSI A 21.6, A 21.8, OR A 21.9.
9. ALL SANITARY SEWER GRAVITY MAINS OR SANITARY SEWER FORCEMAINS THAT ARE TO BE EXCAVATED IN ACCORDANCE WITH THESE PLANS, OR AS DIRECTED BY THE OWNER'S ENGINEER, OR UNLESS OTHERWISE SPECIFIED, SHALL BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS.
10. ALL SANITARY SEWER MANHOLE COVERS SHALL BE TRAFFIC RATED FOR HS-20 LOADING.

SANITARY SEWER INSPECTION, TESTING AND CERTIFICATION REQUIREMENTS

- 1. ALL COMPONENTS OF THE SANITARY SEWER SYSTEM INCLUDING FITTINGS, WYE CONNECTIONS, CLEAN-OUTS, MANHOLES SHALL REMAIN UNCOVERED UNTIL PROPERLY INSPECTED, TESTED AND ACCEPTED BY NORTHSIDE ENGINEERING AND THE COUNTY/CITY INSPECTORS.
2. CONTRACTOR SHALL PROVIDE AND FORWARD TO NORTHSIDE ENGINEERING 6 COPIES OF THE CERTIFIED RECORD DRAWINGS PREPARED, SIGNED AND SEALED BY A LAND SURVEYOR. DRAWINGS SHALL SHOW THE EXACT LOCATION OF THE SANITARY AND FIRE NETWORK AND THE ENTIRE SANITARY SEWER SYSTEM. SAID DRAWINGS SHALL ALSO SHOW THE TOP AND INVERT ELEVATION OF THE STRUCTURES AS WELL AS THE INVERT ELEVATION OF THE SANITARY SEWER PIPES IN CRITICAL LOCATIONS. CRITICAL LOCATIONS REFER TO AREAS WHERE SANITARY SEWER LINES CROSS WATER, FIRE AND STORM PIPES. CRITICAL ELEVATIONS AND DIMENSIONS MUST MEET OR EXCEED MINIMUM CLEARANCE STANDARDS AS SET BY F.D.E.P. DEVIATION SHALL CONSTITUTE REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE.
3. AFTER COMPLETION OF INSTALLATION OF THE NEW SANITARY SEWER STRUCTURES AND PIPES, ALL GRAVITY SEWER PIPING SHALL BE SUBJECT TO A TELEVISION INSPECTION, PERFORMED BY THE COUNTY INSPECTOR AND THE OWNER'S NOTIFY NORTHSIDE ENGINEERING 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION.
4. THE CONTRACTOR SHALL PERFORM AN EXFILTRATION TEST ON ALL GRAVITY SEWERS INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AMERICAN WATER WORKS ASSOCIATION ALLOWABLE LEAKAGE RATE: 100 GPD PER INCH PIPE DIAMETER PER MILE. TEST RESULTS ARE TO BE SUBMITTED TO THE PASCO COUNTY FOR APPROVAL. FAILURE TO OBTAIN APPROVAL, IN ADDITION, PERMANENT RETENTION AREAS MUST BE TOTALLY CLEANED OUT AND OPERATE PROPERLY AT FINAL INSPECTION AND AT THE END OF THE WARRANTY PERIOD.
5. ALL FORCE MAINS SHALL BE SUBJECT TO A HYDROSTATIC PRESSURE TEST IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. COORDINATION AND NOTIFICATION OF ALL PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.
6. NORTHSIDE ENGINEERING WILL SUBMIT FINAL AS-BUILT AND EXFILTRATION TESTS TO THE COUNTY INSPECTOR AND THE OWNER'S NOTIFY NORTHSIDE ENGINEERING 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION.
7. CONTRACTOR UNDER NO CIRCUMSTANCES SHALL PLACE THE SANITARY SEWER SYSTEM INTO SERVICE UNLESS A LETTER OF CLEARANCE/CERTIFICATION HAS BEEN ISSUED BY F.D.E.P.
8. ANY DEVIATION FROM THE REQUIREMENTS AS STIPULATED HEREWITH COULD RESULT IN FINES AS DETERMINED BY F.D.E.P. WHICH SHALL BE PAID BY THE CONTRACTOR.

WATER/SERVER CLEARANCE REQUIREMENTS

- 62-555.314 LOCATION OF PUBLIC WATER SYSTEM MAINS
FOR THE PURPOSE OF THIS SECTION, THE PHASE "WATER MAINS" SHALL MEAN MAINS INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER, FIRE HYDRANT LEADS, AND SERVICE LINES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER.
(1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART II OF CHAPTER 62-610, F.A.C.
(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART II OF CHAPTER 62-610, F.A.C.
(c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED GRAVITY-OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART II OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
(d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.006(2), F.S., AND RULE 64E-6.002, F.A.C.
(e) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.
(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE PIPELINE. HOWEVER, IT IS PERMISSIBLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY-OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART II OF CHAPTER 62-610, F.A.C. SHALL BE LAID AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE, HOWEVER, IT IS PERMISSIBLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
(c) AT THE UTILITY CROSSING DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH WATER MAIN JOINT SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART II OF CHAPTER 62-610, F.A.C.
(2) SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES.
(a) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.
(b) EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET. WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE OR INLET UNLESS IT IS ECONOMICALLY SENSIBLE TO COMPLY WITH THIS REQUIREMENT (I.E., WHERE THERE IS A CONFLICT IN THE ROUTING OF A WATER MAIN AND A SANITARY SEWER AND WHERE ALTERNATIVE ROUTING OF THE WATER MAIN OR THE STORM SEWER IS NOT TECHNICALLY FEASIBLE OR IS NOT ECONOMICALLY SENSIBLE). THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THIS REQUIREMENT ONLY WHERE THE DEPARTMENT HAS BEEN NOTICED AND THE DEPARTMENT HAS PROVIDED IN THE PRELIMINARY DESIGN REPORT CONFLICT MANHOLES MUST FIRST BE IDENTIFIED AND REPORTED TO THE DEPARTMENT IN WRITING. THE DEPARTMENT SHALL PROVIDE AND MUST PROVIDE IN THE PRELIMINARY DESIGN REPORT OR DRAWINGS, SPECIFICATIONS, AND DESIGN DATA ACCOMPANYING THEIR PERMIT APPLICATION THE FOLLOWING INFORMATION:
(1) A STATEMENT IDENTIFYING THE PARTY RESPONSIBLE FOR MAINTAINING EACH CONFLICT MANHOLE.
(2) ASSURANCE OF COMPLIANCE WITH THE DESIGN AND CONSTRUCTION REQUIREMENTS IN SUB-PARAGRAPHS A. THROUGH D. BELOW.
(a) EACH WATER MAIN PASSING THROUGH A CONFLICT MANHOLE SHALL HAVE A FLEXIBLE, WATERTIGHT JOINT ON EACH SIDE OF THE MANHOLE TO ACCOMMODATE DIFFERENTIAL SETTING BETWEEN THE MAIN AND THE MANHOLE.
(b) WITHIN EACH CONFLICT MANHOLE, THE WATER MAIN PASSING THROUGH THE MANHOLE SHALL BE INSTALLED IN A WATERTIGHT CASING PIPE HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH) AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE).
(c) EACH CONFLICT MANHOLE SHALL HAVE AN ACCESS OPENING, AND SHALL BE SIZED, TO ALLOW FOR EASY CLEANING OF THE MANHOLE.
(d) GRABINGS SHALL BE INSTALLED AT ALL STORM SEWER INLETS UPSTREAM OF EACH CONFLICT MANHOLE TO PREVENT LARGE OBJECTS FROM ENTERING THE MANHOLE.
(3) SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART II OF CHAPTER 62-610, F.A.C. AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART II OF CHAPTER 62-610, F.A.C. AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.006(2), F.S., AND RULE 64E-6.002, F.A.C.
(3) EXCEPTIONS, WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THE REQUIREMENTS IN SUBSECTION (1) OR (2) ABOVE, THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THIS REQUIREMENT IF SUPPLIES OF WATER OR CONSTRUCTION PERMIT APPLICANTS PROVIDE TECHNICAL OR ECONOMIC JUSTIFICATION, AND THE DEPARTMENT HAS BEEN NOTICED AND THE DEPARTMENT HAS PROVIDED IN A SIMILAR LEVEL OF RELIABILITY AND PUBLIC HEALTH PROTECTION, ACCEPTABLE ALTERNATIVE CONSTRUCTION FEATURES, INCLUDING THE FOLLOWING:
(a) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN THE OTHER PIPELINE.
(1) USE OF PRESSURE-RATED PIPE CONFORMING TO THE AMERICAN WATER WORKS ASSOCIATION STANDARDS INCORPORATED INTO RULE 62-555.330, F.A.C., FOR THE OTHER PIPELINE IF IT IS A GRAVITY-OR, VACUUM-TYPE PIPELINE.
(2) USE OF WELDED, FUSED, OR OTHERWISE RESTRAINED JOINTS FOR EITHER THE WATER MAIN OR THE OTHER PIPELINE.
(b) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THREE FEET HORIZONTALLY FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND IS BEING LAID LESS THAN THE REQUIRED MINIMUM VERTICAL DISTANCE FROM THE OTHER PIPELINE.
(1) USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR THE WATER MAIN, AND
(2) USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR THE OTHER PIPELINE IF IT IS NEW AND IS CONVEYING WASTEWATER OR RECLAIMED WATER.

GRADING & DRAINAGE TESTING AND INSPECTION REQUIREMENTS

- 1. ALL DELETERIOUS SUBSTANCE MATERIAL, (I.E. MUCK, PEAT, BURED DEBRIS), IS TO BE EXCAVATED IN ACCORDANCE WITH THESE PLANS, OR AS DIRECTED BY THE OWNER'S ENGINEER, OR UNLESS OTHERWISE SPECIFIED, SHALL BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATING AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING, OR SHORING, AS NECESSARY. TRENCHES DEEPER THAN 4 FEET AND PERTURBANCES ARE BEING PLACED DEWATERING SHALL BE USED AS REQUIRED.
3. ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE CLASS III (ASTM C-76) UNLESS OTHERWISE NOTED ON PLANS. HAVE FABRIC WRAPS PER F.D.O.T. INDEX 280 STANDARDS, STRUCTURE OTHERWISE NOTED.
4. PVC STORM PIPE, 12" AND SMALLER SHALL CONFORM TO ANNA C-900, CLASS 150 STANDARDS, UNLESS OTHERWISE NOTED.
5. ALL DRAINAGE STRUCTURE GRATES AND COVERS WITHIN TRAFFIC AREAS SHALL BE TRAFFIC RATED FOR HS-20 LOADINGS.
6. MATERIALS AND CONSTRUCTION METHODS FOR STREETS AND STORM DRAINAGE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY.
7. ALL STORM STRUCTURES SHALL BE GROUTED TO THE INVERT (ELEVATION(S) OF THE STORM PIPE(S)). STORM PIPE SHALL BE SAW-CUT EVEN WITH THE STRUCTURE WALL(S). GROUT AROUND PIPES FOR WATER TIGHT AND SMOOTH FINISH.
8. THE STORM DRAINAGE PUMP AND FILTRATION SYSTEM SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S SOILS ENGINEER PRIOR TO THE PLACEMENT OF BACKFILL.
9. THE CONTRACTOR SHALL MAINTAIN THE STORM DRAINAGE SYSTEMS UNTIL FINAL ACCEPTANCE OF THE PROJECT.
10. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE APPLICABLE TESTING WITH THE SOILS ENGINEER. TESTS WILL BE REQUIRED PURSUANT WITH THE TESTING SCHEDULE FOUND IN THE ENGINEERING CONSTRUCTION DRAWINGS. UPON COMPLETION OF THE WORK, THE SOILS ENGINEER MUST SUBMIT CERTIFICATIONS TO THE OWNER'S ENGINEER STATING THAT ALL REQUIREMENTS HAVE BEEN MET.

STORM WATER AND DRAINAGE SYSTEM CRITERIA

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CAREFULLY REVIEWING THE EXISTING BUILDINGS AND CONSTRUCTION WITH STORM PIPES DIRECTED TO IT.
2. PROPOSED BERMS MUST BE PROPERLY CONSTRUCTED AND COMPACTED TO PROPERLY RETAIN STORM WATER IMPACTS.
3. CONTROL STRUCTURES MUST BE CONSTRUCTED WITH THEIR GREASE SEWER IN ACCORDANCE WITH THE REQUIREMENTS OF THE AMERICAN WATER WORKS ASSOCIATION. WHEN RETENTION POND IS ROUGH GRADED, CONTRACTOR SHALL NOT CONSTRUCT UNDERDRAIN AT FINAL STAGE - FLOOD UNDERDRAIN OPENING TEMPORARILY UNTIL FINAL PHASE.
4. ALL STORM STRUCTURES AND STORM PIPES MUST MEET SPECIFICATIONS AND CONSTRUCTION AS DETERMINED BY F.D.O.T. REFER TO DETAILS AND INDEXES SPECIFIED ON THESE PLANS.

PAVING NOTES

- 1. PRIOR TO CONSTRUCTING CONCRETE PAVEMENT, THE CONTRACTOR IS TO SUBMIT A PROPOSED JOINTING PATTERN TO THE OWNER'S ENGINEER FOR APPROVAL.
2. THE CONTRACTOR IS TO PROVIDE A 1/2" BITUMINOUS EXPANSION JOINT MATERIAL WITH SEALER, AT ADJUSTMENTS OF EXISTING STRIPES TO BE MAINTAINED.
3. ALL PAVEMENT MARKINGS SHALL BE MADE WITH TRAFFIC PAINT IN ACCORDANCE TO FDOT STANDARD SPECIFICATIONS 971-12. PARKING STALL STRIPING TO BE 4" WIDE PAINTED WHITE STRIPES.
4. THE CONTRACTOR IS TO INSTALL EXTRA BASE MATERIAL WHEN THE DISTANCE BETWEEN THE PAVEMENT AND THE TOP OF THE PIPE OR BELL IS LESS THAN TWELVE (12) INCHES.
5. STANDARD INDEXES REFER TO THE LATEST EDITION OF FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS."
6. THE CONSTRUCTION OF ASPHALT PAVEMENT WITHIN THE PROPERTY MUST MEET THE FOLLOWING CRITERIA:
A. LIGHT UTILITY:
- 1/2" ASPHALT TYPE 53 ON 6" BASE COMPACTED TO 80% OF MAX. DENSITY
- 1/2" ASPHALT TYPE 53 ON 6" BASE COMPACTED TO 80% OF MAX. DENSITY
- SUBGRADE TO BE COMPACTED TO 80% MAX. DENSITY AND STABILIZED TO LBR 4.
B. BASE LAYERS SHALL BE AS FOLLOWS:
- 1/2" ASPHALT TYPE 53 ON 6" BASE COMPACTED TO 80% OF MAX. DENSITY
- CERTIFIED LIME/ROCK AS PER FDOT SPECS.
- CERTIFIED SHEL L AS PER FDOT SPECS.
7. CONSTRUCTION OF CONCRETE PAVEMENT MUST MEET THE FOLLOWING CRITERIA:
A. VEHICULAR USE AREA:
- 6" THICK, 3000 PSI CONCRETE WITH 6X6X10 W.W.M. OVER COMPACTED GROUND TO 80% OF MAX. DENSITY.
B. SIDEWALK
- 4" THICK, 3000 PSI CONCRETE OVER COMPACTED GROUND TO 95% OF MAX. DENSITY.

RIGHT OF WAY NOTES

- 1. ALL R.O.W. INSTALLATIONS WILL BE IN ACCORDANCE WITH PRACTICES REFERENCED IN THESE PLANS.
2. ALL DESIGN AND CONSTRUCTION MUST CONFORM TO THE MINIMUM STANDARDS SET DOWN IN PASCO COUNTY LAND DEVELOPMENT, ZONING AND/OR RELATED ORDINANCES, AND MINIMUM TESTING FREQUENCY REQUIREMENTS.
3. SIGNS AND BARRICADES SHALL BE IN ACCORDANCE WITH THE US DEPARTMENT OF TRANSPORTATION'S MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE FLORIDA DEPARTMENT OF TRANSPORTATION'S DESIGN STANDARDS, INDEXES 600 THROUGH 670 (LATEST EDITIONS).
4. INSTALLATION INVOLVING CONCRETE AND ASPHALT DRIVEWAY, IN GOOD CONDITION MUST BE PROTECTED BY JACK AND BOLE OR FUSING. NO SETTING IS ALLOWED.
5. COMPACTION FOR PIPE BACKFILL SHALL COMPLY WITH AASHTO T-99(100%).
6. DISTURBED AREA WITHIN THE R.O.W. WILL BE COMPACTED TO 100% OF MAXIMUM DENSITY AND SODED.
7. ANY PORTION OF THE ROADWAY THAT SUSTAINS EXCESSIVE CONSTRUCTION RELATED DAMAGE, IN THE OPINION OF F.D.O.T. SHALL BE REPAIRED AT CONTRACTOR EXPENSE.
8. SAFE PEDESTRIAN TRAFFIC IS TO BE MAINTAINED AT ALL TIMES.
9. NO STOCKING OF MATERIAL IN ROADWAY OR ON SIDEWALKS; ALL DIRT OR DEBRIS TO BE REMOVED FROM THE ROADWAY AND SIDEWALKS. ROADS AND SIDEWALKS ARE TO BE SWEEP DAILY AS PART OF DAILY CLEAN-UP.
10. SAW CUT EXISTING EDGE-OF-PAVEMENT PRIOR TO CONSTRUCTION.
11. PROVIDE A MINIMUM OF 3' COVER OVER UTILITIES AT ALL DITCH CROSSINGS.
12. NO STREET SHALL BE CLOSED WITHOUT THE WRITTEN PERMISSION OF THE PASCO COUNTY TRAFFIC DIVISION AT LEAST 48 HOURS ADVANCE COORDINATION IS REQUIRED.
13. DRIVEWAY TO BE CONSTRUCTED TO FDOT INDEX 515.
14. EROSION CONTROL AND SHOULDER SOODING SHALL CONFORM TO FDOT INDEX #104.

TRENCH EXCAVATION SAFETY REQUIREMENTS

- 1. INCLUDE OSHA STANDARD 29 CFR, SECTION 1926.800 SUBPART P, WHICH IS TO BE MAINTAINED THROUGHOUT CONSTRUCTION.
2. THE CONTRACTOR SHALL PROVIDE WRITTEN ASSURANCE OF COMPLIANCE WITH THE ABOVE LAW.
3. A SEPARATE COST ITEM IDENTIFYING THE COST OF COMPLIANCE.
4. A TRENCH SAFETY SYSTEM SHALL BE DESIGNED BY THE CONTRACTOR, AND APPROVED BY THE ENGINEER. THE SYSTEM SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION TO AVOID FLOODING OF THE ADJACENT PROPERTIES. ANY FLOODING THAT MAY OCCUR DUE TO HIS WORK WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. THE USE OF ELECTRONICALLY STORED DATA IS INTENDED FOR INFORMATIONAL PURPOSES ONLY AND NOT TO BE USED FOR CONSTRUCTION. CONTRACTOR MUST UTILIZE SIGNED AND SEALED DOCUMENTS FOR CONSTRUCTION.

NOTE TO CONTRACTOR

- 1. THE CONTRACTOR SHALL PROVIDE CERTIFIED RECORD DRAWINGS, SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR. THE RECORD DRAWINGS SHALL SHOW FINAL GRADES FOR INLETS & PIPES WITH TOP & BOTTOM ELEVATIONS, INVERTS, & LOCATIONS OF ALL UTILITIES INCLUDING THE SANITARY SEWER AND WATER PIPING. THE CONTRACTOR SHALL PROVIDE TWO COPIES OF THE CERTIFIED RECORD DRAWINGS TO THE ENGINEER. THE AFOREMENTIONED RECORD DRAWINGS SHALL BE SUFFICIENT ENOUGH IN DETAIL TO BE ACCEPTABLE BY AGENCIES HAVING JURISDICTION.
2. TREE BARRICADES AND EROSION CONTROL MEASURES MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. ENCROACHMENT INTO OR FAILURE TO MAINTAIN THESE BARRICADES WILL RESULT IN ENFORCEMENT ACTION BY THE REGULATORY AGENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ANY REMAINING POSITIVE DRAINAGE THROUGHOUT CONSTRUCTION TO AVOID FLOODING OF THE ADJACENT PROPERTIES. ANY FLOODING THAT MAY OCCUR DUE TO HIS WORK WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
3. THE USE OF ELECTRONICALLY STORED DATA IS INTENDED FOR INFORMATIONAL PURPOSES ONLY AND NOT TO BE USED FOR CONSTRUCTION. CONTRACTOR MUST UTILIZE SIGNED AND SEALED DOCUMENTS FOR CONSTRUCTION.

CONTRACTOR'S RESPONSIBILITY NOTE

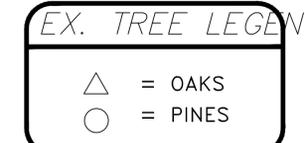
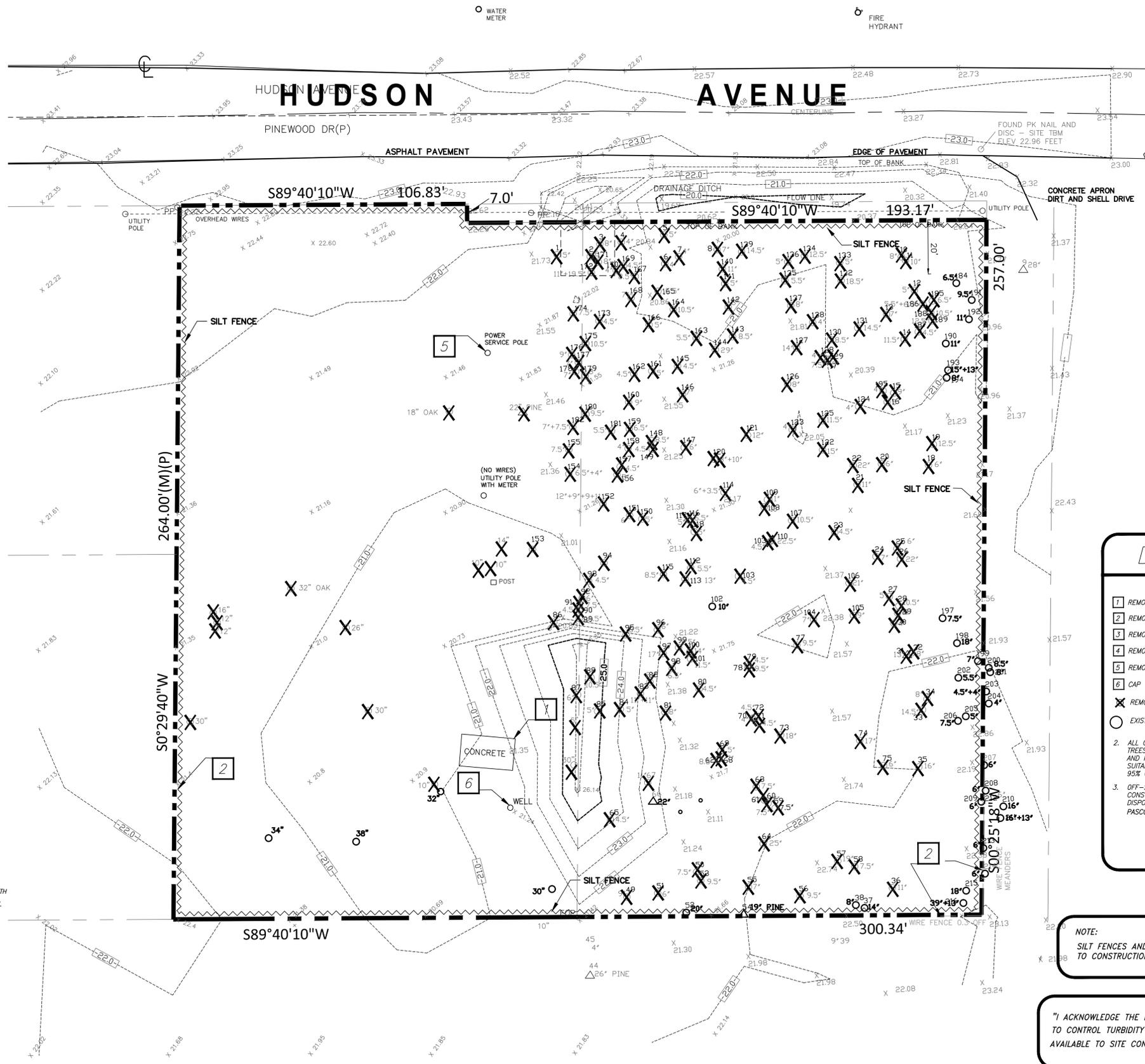
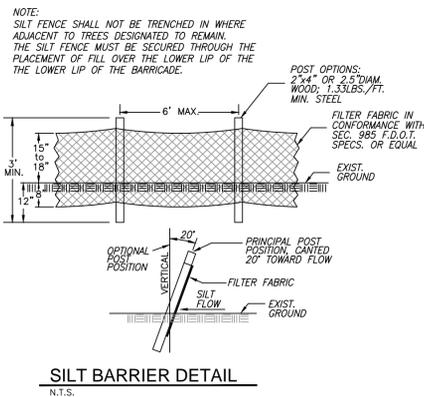
IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM A SURVEY (ACCOMPANIED BY THE ARCHITECT AND OWNER) OF THE ENTIRE PROJECT AREA INCLUDING BUILDING(S) AND SITE IMMEDIATELY UPON OCCUPYING THE WORK AREA AND BY PHOTOGRAPHIC AND WRITTEN CORRESPONDENCE DETAILING ANY AREAS THAT ARE NOT IN A FIRST CLASS CONDITION (SURFACES THAT ARE UNBROKEN, UNLESS PRESENT CONDITION AT THE TIME OF SURVEY, WITHOUT CRACKS, WITHOUT SPALLS, WITHOUT DISCREPANCIES, OF TEXTURE MATCHING ITS SURROUNDING, WITH NEW APPEARING FINISHES, AND OPERATING AS ORIGINALLY DESIGNED OR INTENDED TO OPERATE) WHEN THE SURVEY IS COMPLETED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE OWNER A COMPLETE PERMIT IN FIRST CLASS CONDITION MEETING INDUSTRY WIDE STANDARDS IN QUALITY AND PERFORMANCE THROUGHOUT THE ENTIRE PROJECT AREA. BUILDINGS AND SITE (REGARDLESS OF WHETHER AN AREA IS SPECIFICALLY IDENTIFIED WITHIN THE DRAWINGS AND SPECIFICATIONS OR NOT) UNLESS A PARTICULAR AREA HAS BEEN DESCRIBED IN THE AFOREMENTIONED PHOTOGRAPHS AND WRITTEN DETAILS. THE CONTRACTOR HAS THE RESPONSIBILITY TO PROTECT THE EXISTING BUILDING(S) UTILITIES AND SITE THROUGHOUT THE PROJECT TIME FRAME. SHOULD, DURING THE COURSE OF THE WORK, ANY AREA OF THE BUILDING(S) AND/OR UTILITIES AND/OR THE SITE BECOME DAMAGED AND THAT AREA WAS NOT SPECIFICALLY CALLED OUT TO BE A PART OF THE CONSTRUCTION, THE CONTRACTOR SHALL REPAIR AND/OR REPLACE THE DAMAGED AREA TO THE SATISFACTION OF THE ARCHITECT AND OWNER AT NO ADDITIONAL COST TO THE OWNER.

AS A PART OF THESE DOCUMENTS, A SITE SURVEY AND/OR SITE DATA, WHEN PROVIDED, AND ANY ADDITIONAL INFORMATION THAT MAY BE PROVIDED IS FOR INFORMATIONAL PURPOSES ONLY, THE OWNER HAS AGENT ASSUME NO RESPONSIBILITY FOR THEIR PREPARATION, COMPLETENESS OR ACCURATENESS AND THE CONTRACTOR IS FULLY

TREES ON SITE - TOTAL # OF INCHES						
Live Oaks			Other Trees Also Note Type			
Size (Inches)	No.	Total Inches-Onsite	Type	Size (Inches)	No.	Total Inches-Onsite
10	8	80	Pine	13	1	13
11	17	187	Pine	19	1	19
12	5	60	Pine	22	2	44
13	8	104				
14	3	42				
15	5	75				
16	4	64				
17	3	51				
18	3	54				
19	2	38				
20	2	40				
21	2	42				
22	3	66				
23	1	23				
25	1	25				
26	1	26				
29	1	29				
30	2	60				
34	1	34				
38	1	38				
39	1	39				
etc.			etc.			
Total Oak:		1177	Total Other:		76	

TREES INCHES TO BE REMOVED - 10" DBA AND LARGER						
Live Oaks			Other Trees Also Note Type			
Size (Inches)	No.	Total Inches-Onsite	Type	Size (Inches)	No.	Total Inches-Onsite
10	6	60	Pine	13	1	13
11	16	176	Pine	19	0	0
12	5	60	Pine	22	1	22
13	7	91				
14	2	28				
15	5	75				
16	4	64				
17	3	51				
18	1	18				
19	2	38				
20	1	20				
21	2	42				
22	3	66				
23	1	23				
25	1	25				
26	1	26				
29	1	29				
30	1	30				
34	0	0				
38	0	0				
39	0	0				
etc.			etc.			
Total Oak:		922	Total Other:		35	

TOTAL TREE INCHES TO BE SAVED						
Live Oaks			Other Trees			
Size (Inches)	No.	Total Inches	Type	Size (Inches)	No.	Total Inches
10	2	20	Pine	13	0	0
11	1	11	Pine	19	1	19
13	1	13	Pine	22	1	22
14	1	14				
18	2	36				
20	1	20				
30	1	30				
34	1	34				
38	1	38				
39	1	39				
etc.			ect.			
Total Oak:		255	Total Other:		41	



### DEMOLITION NOTES

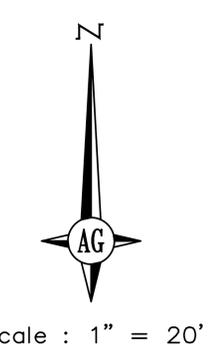
- REMOVE EX. CONC.
- REMOVE EX. FENCE
- REMOVE EX. BUILDING
- REMOVE ASPHALT & BASE
- REMOVE POWER POLE
- CAP WELL PER SWFMD REG.
- REMOVE EXISTING TREE
- EXISTING TREE TO REMAIN

DEMOLITION OF THE SITE INCLUDES THE REMOVAL/RELOCATION OF ALL EXISTING STRUCTURES WITHIN PROJECT AREA, PAVING AND BASE, UTILITY LINES (SANITARY SEWER, STORM PIPES, WATER LINES, POWER POLES, OVERHEAD AND UNDERGROUND POWER AND TELEPHONE CABLES, GAS LINES, TREES, SHRUBS, ETC.) AND IS NOT LIMITED TO WHAT'S SHOWN.

- ALL CAVITY & EXCAVATION RESULTING FROM REMOVAL OF TREES, SHRUBS, PIPES, INLETS, GREASE TRAPS, SIGN, AND POLE BASE SHALL BE FILLED WITH APPROVED SUITABLE MATERIAL AND COMPACTED IN 12" LIFTS TO 95% OF MAX DENSITY.
- OFF-SITE DISPOSAL OF STRUCTURES, UTILITIES AND CONSTRUCTION DEBRIS SHALL OCCUR IN SOLID WASTE DISPOSAL FACILITIES APPROVED BY F.D.E.P., AND PASCO COUNTY.

NOTE:  
SILT FENCES AND EROSION CONTROL MEASURES MUST BE IN PLACE PRIOR TO CONSTRUCTION AND BE MAINTAINED THROUGH THE PROJECT.

"I ACKNOWLEDGE THE PLACEMENT & LOCATION OF ALL MEASURES THIS PLAN REQUIRES TO CONTROL TURBIDITY & EROSION FOR THIS SITE. THIS PLAN SHALL BE MADE AVAILABLE TO SITE CONTRACTOR" DATE: \_\_\_\_\_  
(HOUSH GHOVAEE)



**ARCTURUS GROUP, LLC**  
 CIVIL ENGINEERS • SURVEYORS • LAND PLANNERS  
 2328 U.S. HIGHWAY 19 HOLIDAY, FLORIDA 34691  
 PHONE (727) 940-8888 FAX (727) 940-3549  
 info@arcturugroup.com

**AG**

PAT MONTICELLI, P.E.  
 F.P.E. NO. 54884

CERTIFICATE OF AUTHORIZATIONS EB 30625 & LB 8069

---

SPINOSO PLAZA  
 FOR: ANTHONY SPINOSO  
 10040 HUDSON AVE.  
 HUDSON, FL 34669

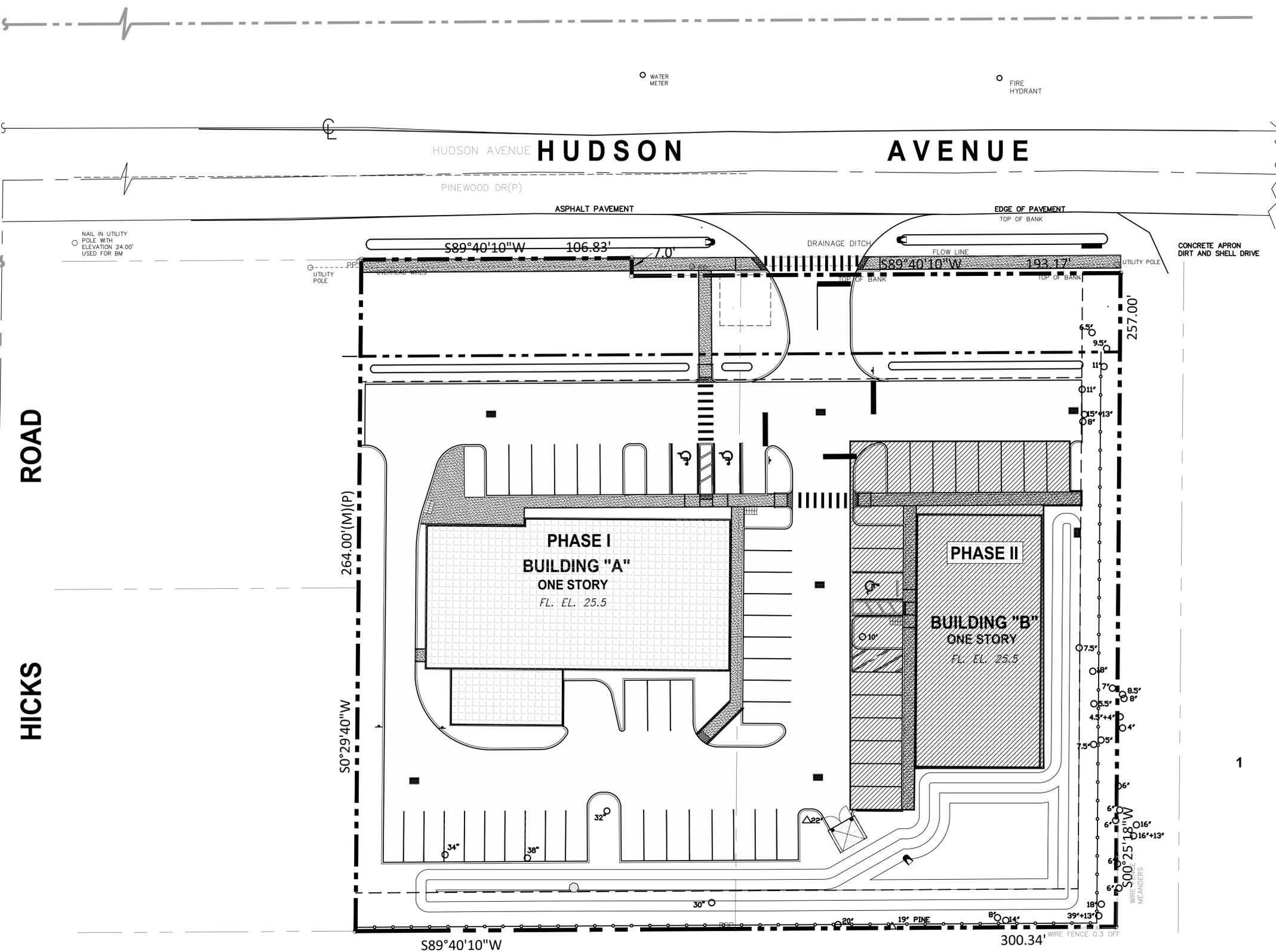
DEMOLITION PLAN

REVISIONS:	DATE
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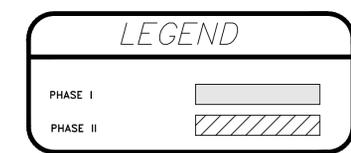
DATE: 04-23-15

PROJECT NO. 14000

DRAWING NO. C2.0



Scale : 1" = 20'



HICKS ROAD

HUDSON AVENUE

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 info@arcturusgroup.com

**AG**  
 PAT MONTECKI, P.E.  
 F.P.E. NO. 54684

SPINUSO PLAZA  
 FOR: ANTHONY SPINUSO  
 10040 HUDSON AVE.  
 HUDSON, FL 34669  
 PHASING PLAN

REVISIONS:	DATE
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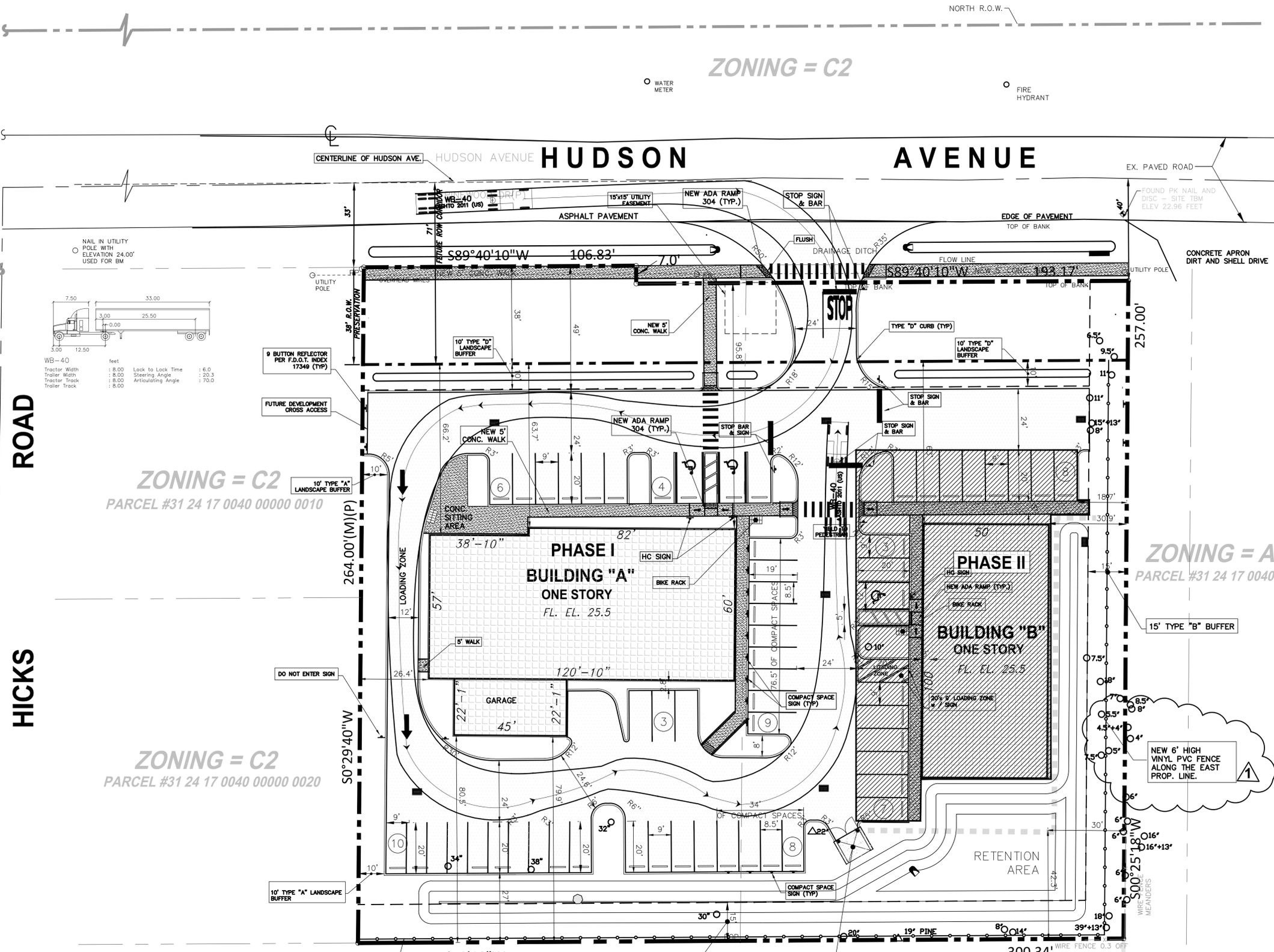
DATE  
04-23-15

PROJECT NO.  
14000

DRAWING NO.  
C2.1

CERTIFICATE OF AUTHORIZATIONS EB 30629 & LB 5069





ZONING = C2

HUDSON AVENUE

ZONING = C2

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ZONING = AR

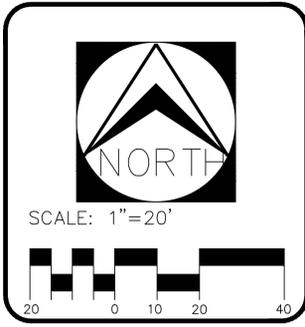
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ZONING = C2

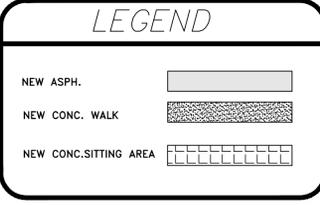
PARCEL #31 24 17 0040 00000 0020

ZONING = AR

PARCEL #31 24 17 00C0 00000 0000



**GENERAL NOTE:**  
 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  
 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



- STANDARD SITE PLAN NOTES**
- All utility construction shall comply with the Pasco County Standards for Design and Construction of Water and Wastewater Facilities Specifications, latest edition.
  - All on-site water and sewer facilities shall be owned and maintained by the owner-developer.
  - 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.
  - All proposed signs must be applied for, approved, and permitted on an individual basis apart from any ultimately approved site plan. Approval of this site plan does not constitute approval of any signage.
  - 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.
  - The architect/engineer certifies that the site has been designed in accordance with the Americans with Disabilities Act.
  - All on-site parking spaces will be striped and signed in accordance with the Manual on Uniform Traffic Control Devices, latest edition. Parking spaces, directional arrows, and stop bars shall be striped in WHITE. It shall be the owner/developer's responsibility to properly sign and stripe in accordance with applicable standards.
  - The owner/developer acknowledges that this approval does not include any work in the County right-of-way. All right-of-way work shall be a function of an approved Pasco Right-of-Way Use Permit.
  - All clear-site areas shall be kept free of any signage plantings, trees, etc. in excess of three-and-a-half (3-1/2) feet in height.
  - 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.
  - The owner/developer acknowledges that the site and its subsequent building permits shall comply with all rezoning/MPUD/PUD conditions.
  - All structures, including buffer walls, retaining walls, signage, etc. require building permits.

**LIGHTING NOTE:**  
 LIGHTING USED TO ILLUMINATE ANY PARKING AREA SHALL BE SO ARRANGED AS TO DIRECT AND/OR SHIELD LIGHT AWAY FROM ADJOINING RESIDENTIAL PREMISES AND R-O-W.

NEW 6" HIGH VINYL PVC FENCE ALONG THE SOUTH PROP. LINE.

NEW DUMPSTER (SEE DETAIL SHEET)

NEW 6" HIGH VINYL PVC FENCE ALONG THE EAST PROP. LINE.

**ARCTURUS GROUP, LLC**  
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 2328 U.S. HIGHWAY 19 HOLIDAY, FLORIDA 34691  
 PHONE (727) 940-8888 • FAX (727) 940-3549  
 info@arcturusgroup.com

**SPINUSO PLAZA**  
 FOR: ANTHONY SPINUSO  
 10040 HUDSON AVE.  
 HUDSON, FL 34669

**AUTO TURN PLAN**

REVISIONS:	DATE
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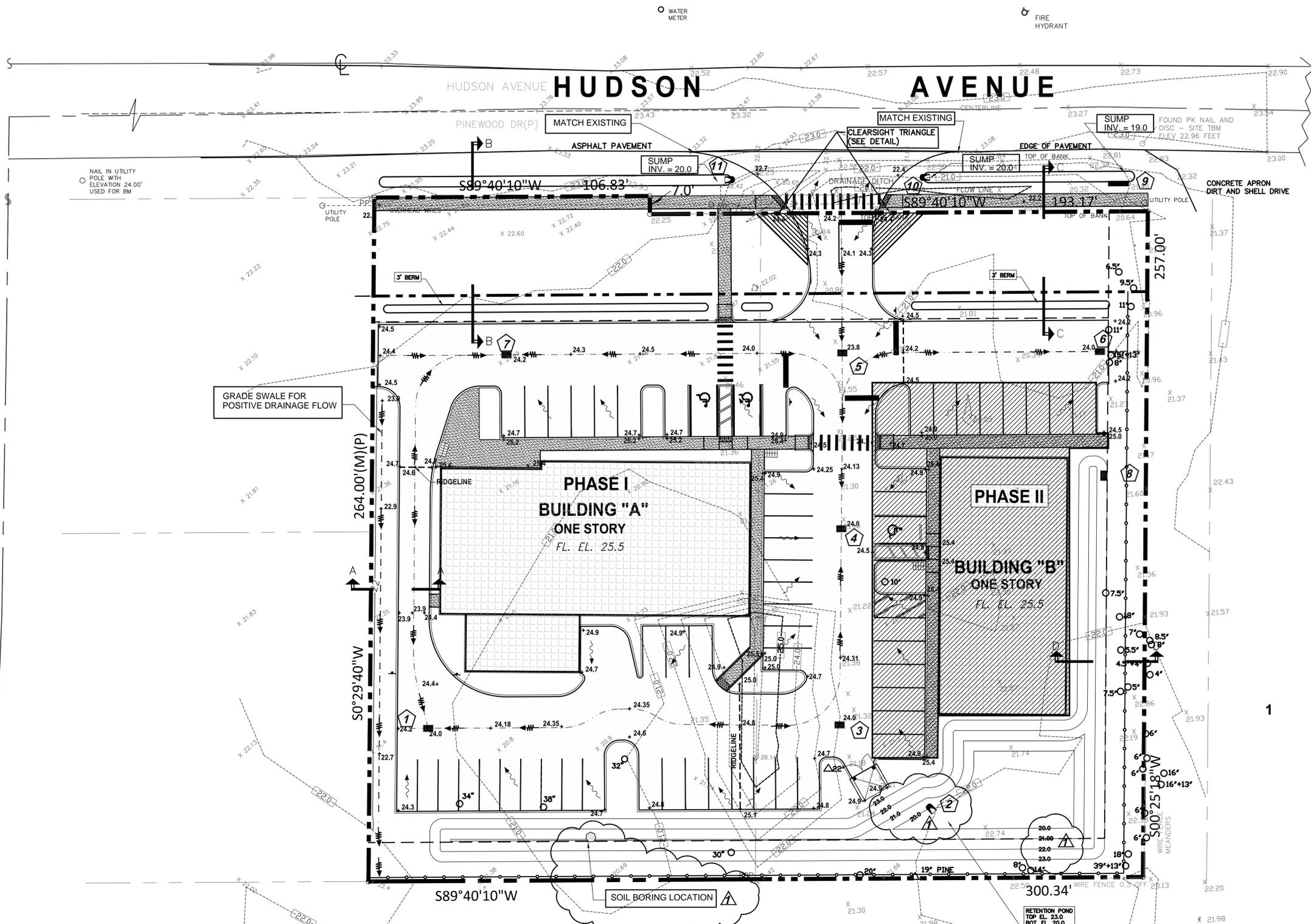
DATE: 04-23-15

PROJECT NO. 14000

DRAWING NO. C3.1

CERTIFICATE OF AUTHORIZATIONS EB 30820 & LB 8069

HICKS ROAD



Scale : 1" = 20'

### LEGEND

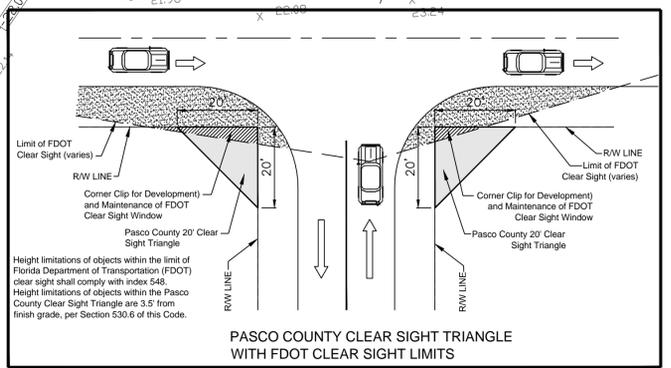
- EXIST. ELEVATION + 10.00
- NEW ELEVATION + 22.1
- EXIST. STORM SEWER
- NEW STORM SEWER
- EXISTING CONTOUR
- NEW CONTOUR
- EXIST. SAN. SEWER
- NEW SAN. SEWER
- EXIST. WATER SERVICE
- NEW INLET
- NEW SAN. MANHOLE
- NEW CLEAN-OUT(C.O.)
- TEMP. SILT BARRIER
- POINT OF CONNECTION OF NEW UTILITY TO EXIST.
- T.B.O. TEMPORARY BLOW-OFF
- T.&V. TAP AND VALVE

#### STORM STRUCTURE TABLE

#	STRUCTURE TYPE	GRADE EL.	INV. EL.
1	FDOT TYPE "F"	24.0	21.25
2	MITERED END SECTION	-	20.00
3	FDOT TYPE "F"	24.0	20.12
4	FDOT TYPE "F"	24.0	20.49
5	FDOT TYPE "F"	23.8	20.83
6	FDOT TYPE "F"	24.0	21.23
7	FDOT TYPE "C" INLET	24.2	21.48
8	CONTROL STRUCTURE	22.49 (DHW EL.)	19.40
9	HEADWALL	FDOT INDEX 250	19.0
10	MITERED END SECTION	-	20.5
11	MITERED END SECTION	-	20.5

#### STORM PIPE SCHEDULE

STRUCTURE FROM-TO	LENGTH (FT)	SIZE & TYPE	SLOPE
1-2	162	15" HDPE	0.5%
2-3	46	18"X30" ERCP	0.2%
3-4	75	18" HDPE	0.5%
4-5	67	18" HDPE	0.5%
5-6	102	12"X18" ERCP	0.4%
6-7	130	15" HDPE	0.5%
7-8	106	14"X23" ERCP	0.38%
8-9	72	14"X 23" ERCP	0%



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 PHONE (727) 940-8888 FAX (727) 940-3549  
 info@arcturusgroup.com

**AG**  
 PAT. MONTECALI, P.E.  
 F.P.E. NO. 54884

SPINUSO PLAZA FOR:  
 ANTHONY SPINUSO  
 10040 HUDSON AVE.  
 HUDSON, FL 34669

REVISIONS:	DATE	COUNTY COMMENTS
1	7/3/15	
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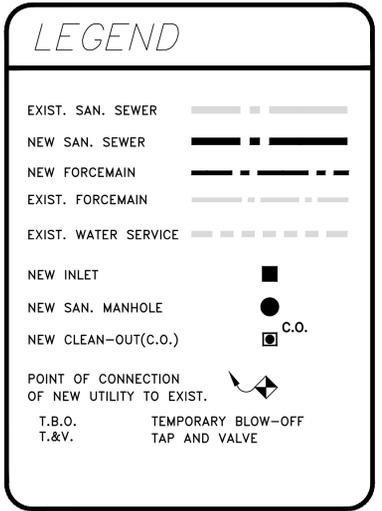
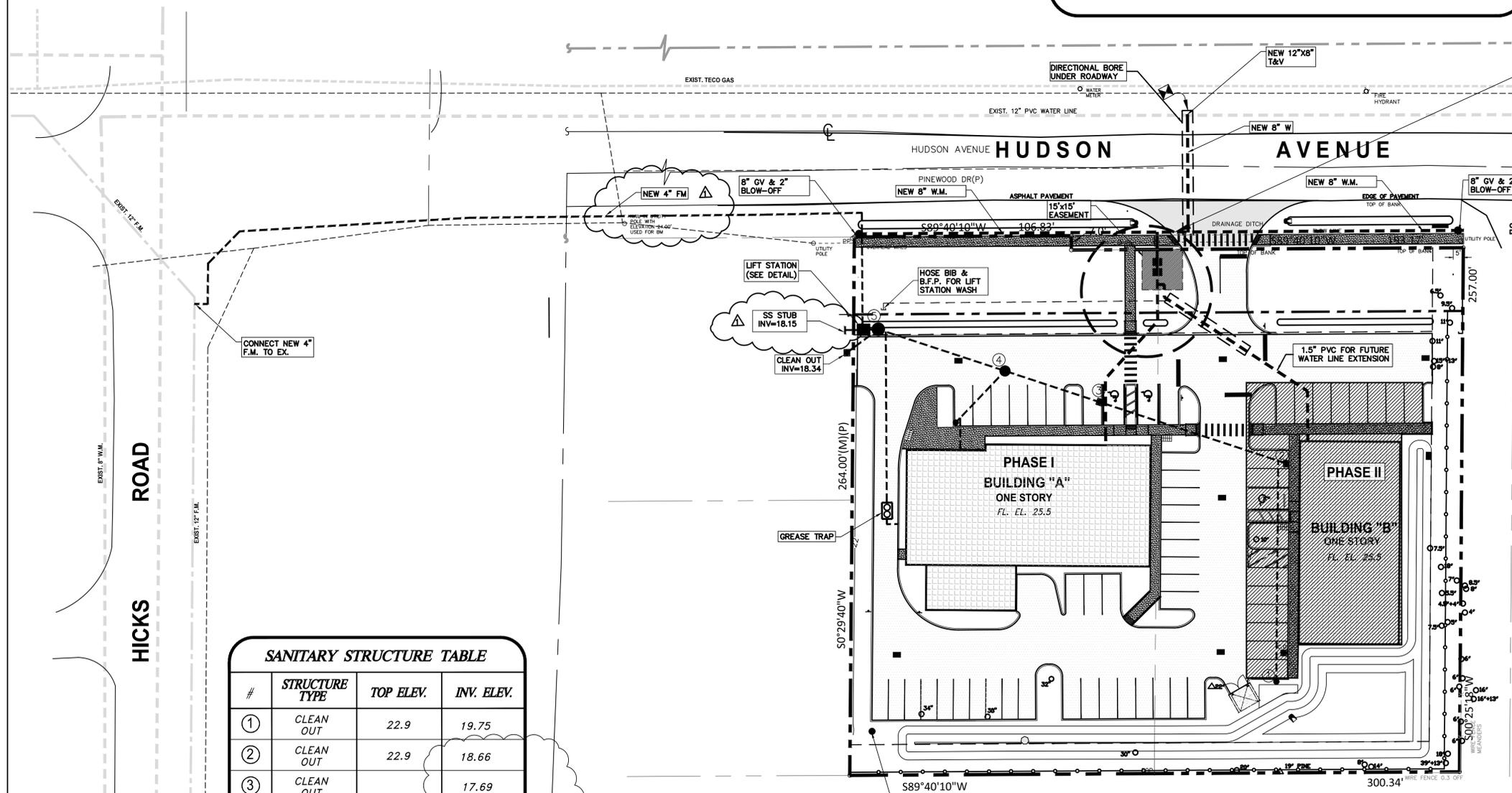
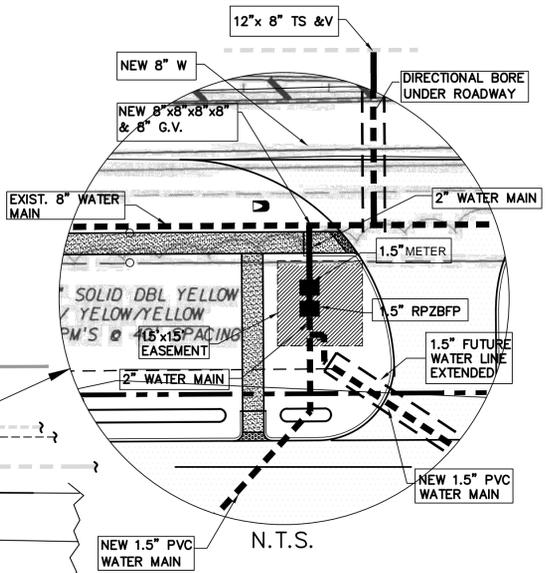
DATE: 04-23-15  
 PROJECT NO.: 14000  
 DRAWING NO.: C-4

REVISIONS:	DATE	COUNTY COMMENTS
1	7/3/15	
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DATE: 04-23-15  
 PROJECT NO.: 14000  
 DRAWING NO.: C-5.0

**PASCO COUNTY UTILITY NOTES:**

- FIRE HYDRANTS SHALL BE FLOW TESTED AND COLOR CODED BASED ON FLOW RESULTS.
- ALL UTILITY SYSTEM-DESIGNED MATERIALS AND WORKMANSHIP SHALL COMPLY WITH STANDARDS FOR DESIGN AND CONSTRUCTION OF WASTE, WASTEWATER AND RECLAIMED WATER FACILITIES SPECIFICATIONS, LATEST EDITION.
- CONNECTIONS INTO AN EXISTING COUNTY-OWNED SYSTEM SHALL BE VIA WET TAP. WET TAPS SHALL BE PERFORMED EXCLUSIVELY BY THE UTILITIES SERVICE BRANCH AT THE DEVELOPER'S EXPENSE. EXCAVATION, BACKFILL AND SURFACE RESTORATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. MATERIALS FOR WET TAPS LARGER THAN TWO INCHES SHALL BE PROVIDED AND INSTALLED BY THE PROJECT CONTRACTOR.
- THE UTILITIES SERVICE BRANCH SHALL NOT OWN OR MAINTAIN ON-SITE WATERLINES, SEWER LINES OR FACILITIES.



**SANITARY STRUCTURE TABLE**

#	STRUCTURE TYPE	TOP ELEV.	INV. ELEV.
①	CLEAN OUT	22.9	19.75
②	CLEAN OUT	22.9	18.66
③	CLEAN OUT		17.69
④	SAN MH	22.4	17.44
⑤	LIFT STATION	23.5	17.12

**SANITARY PIPE SCHEDULE**

STRUCTURE FROM-TO	LENGTH (FT)	SIZE & TYPE	SLOPE
① - ②	109	6" PVC C-900	1%
② - ③	97	6" PVC C-900	1%
③ - ④	49	8" PVC C-900	0.5%
④ - ⑤	65	8" PVC C-900	0.5%

**FIRE FLOW REQ.:**  
 POTABLE METER SIZE: 2 @ 1.5"  
 METER LOCATION: NORTH PROPERTY LINE, CENTER

**BLDG 1:**

FIXTURE	FIXTURE VALUE @ 35 PSI	X	NO. FIXTURES	FIXTURE VALUE
DRINKING FOUNTAIN, PUBLIC	2		1	2
KITCHEN SINK - 3/4" CONN.	7		4	28
LAVATORY - 1/2" CONN.	4		6	24
URINAL - PEDESTAL FLUSH VALVE	10		2	20
WATER CLOSET FLUSH VALVE	10		4	40
DISH WASHER 1" CONN.	25		2	50
HOSE CONN. 3/4"	10		2	20
HOSE (50 FT) - 3/4"	9		2	18
<b>TOTAL BLDG. 1</b>				<b>202, FLOW = 63 GPM</b>

**BLDG 2:**

FIXTURE	FIXTURE VALUE @ 35 PSI	X	NO. FIXTURES	FIXTURE VALUE
LAVATORY - 3/8" CONN.	2		8	16
WATER CLOSET TANK TYPE	3		8	24
HOSE CONN. 1/2"	6		2	12
HOSE (50 FT) - 3/4"	9		2	18
<b>TOTAL BLDG. 2</b>				<b>70, FLOW = 47 GPM</b>

**CONTRACTOR RESPONSIBILITIES**

2" Only - THIS EXCAVATED TRENCH MUST BE DRY OR THE TRENCH WILL REQUIRE ROCK AND 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.

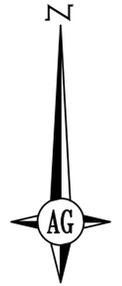
3" AND LARGER - THE CONTRACTOR WILL SUPPLY A TAPPING SADDLE BEING EPOXY COATED, A TAPPING VALVE WITH MECHANICAL JOINT AND THE EQUIPMENT TO PROVIDE, AND CONDUCT A PRESSURE TEST. COUNTY PERSONNEL WILL WITNESS THE PRESSURE TEST WHICH MUST BE AT 150 PSI FOR DURATION OF THIRTY MINUTES.

THE CONTRACTOR IS RESPONSIBLE FOR THE EXCAVATION BEFORE ANY COUNTY PERSONNEL WILL ENTER AN EXCAVATED AREA. IF THE TRENCH IS FOUR FEET INDEPTH OR DEEPER, IT WILL REQUIRE A TRENCH BOX OR SLOPING, AND A LADDER ACCORDING TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS.

THE TAPPING VALVE WILL REQUIRE A BLOCKING DEVICE MADE OF SUITABLE MATERIAL OR DEVICE, THIS BLOCKING DEVICE OR MATERIAL WILL BE PLACED UNDER THE VALVE AND REMAIN IN PLACE UNTIL THE TAP MACHINE IS REMOVED AND THE TAP IS COMPLETED.

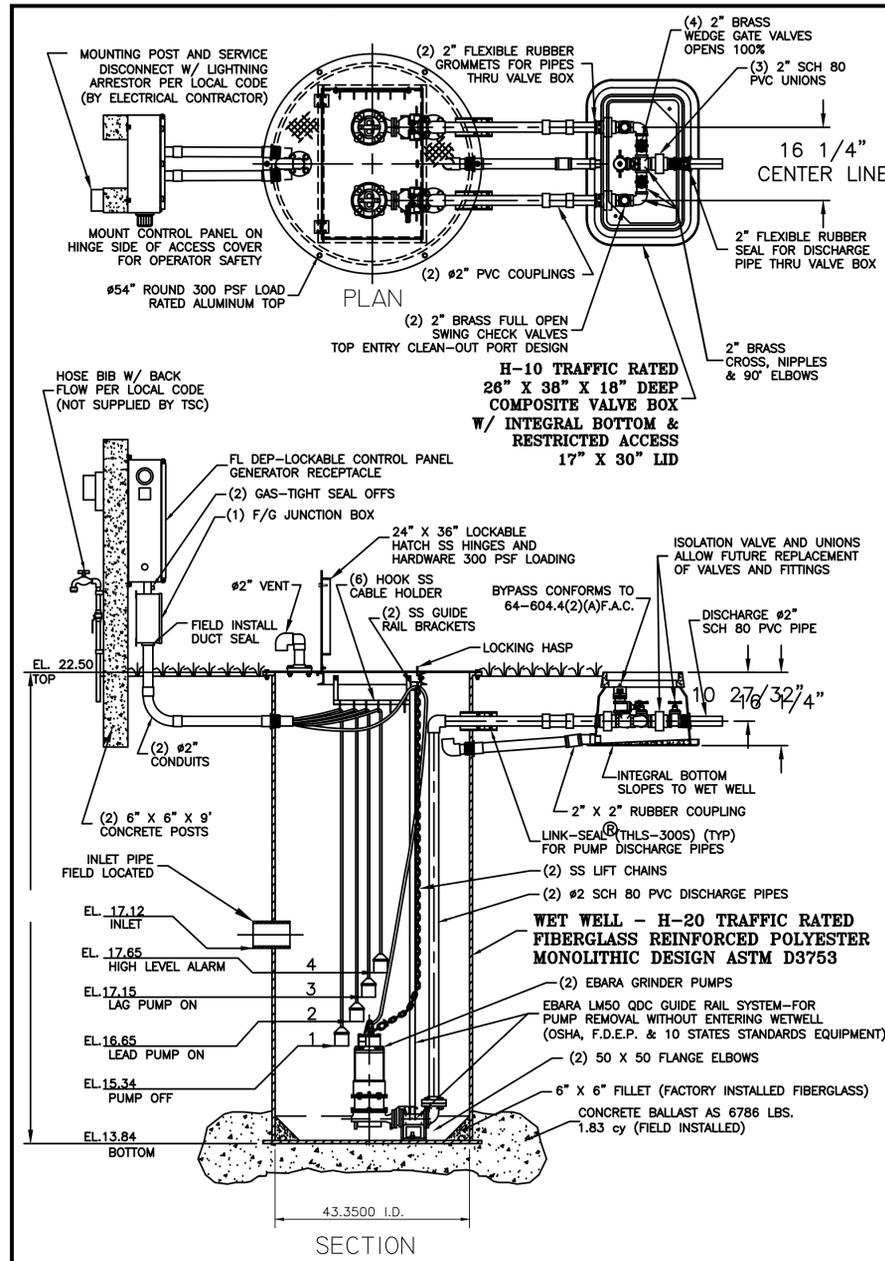
NOTE: IF THE CONTRACTOR HAS NOT FULFILLED HIS RESPONSIBILITIES, AS STATED ABOVE, PRIOR TO THE ARRIVAL OF PASCO COUNTY UTILITIES OPERATIONS AND MAINTENANCE TAPPING CREW, THERE WILL BE AN ADDITIONAL CHARGE OF \$95.00.

IF YOU HAVE ANY QUESTIONS REGARDING THIS INFORMATION, CONTACT NELSON D. HOLT, FIELD SUPERVISOR, UTILITIES SERVICE BRANCH, AT (727) 847-8145, OR E-MAIL nholt@pascocountyfl.net



Scale : 1" = 30'

TOTAL FV=272; UPPER CURVE = 70 GPM = 1.5" METER



**EBARA SEWAGE GRINDER PUMP  
48" DUPLEX STATION - 2" PIPING  
WITH SLIDE RAIL SYSTEM, V.B. AND F.D.E.P. PANEL  
TSC PRE-FAB PUMP SOLUTIONS®**

MODEL  
TSC2-48.0 R9.dwg ©

2. GROUT FILLET (1 TO 1 SLOPE TO "HOPPER" BOTTOM)  
1. HOSE BIBB WITH REDUCED PRESSURE BACK FLOW PREVENTER  
FIELD INSTALL BY CONTRACTOR

JOB: \_\_\_\_\_  
QS: \_\_\_\_\_

**GENERAL NOTES**

FURNISH AND INSTALL EBARA SUBMERSIBLE GRINDER PUMPS:

**DESIGN CONDITION:**

MODEL	50 DGFU	5 HP	HP
GPM	92	90	FT/TDH
VOLTAGE	230	THREE	PHASE
DISCHARGE	3"	5.75"	IMPELLER

**SEWAGE GRINDER PUMP:** RATED FOR TWENTY (20) STARTS PER HOUR.

- AIR FILLED MOTOR DESIGNED FOR SEWAGE APPLICATION WITH CLASS F INSULATION.
- DUAL MECHANICAL SHAFT SEALS (SILICON CARBIDE / SILICON CARBIDE) LOCATED OUT OF THE PUMPAGE, IN A SEPARATE OIL FILLED CHAMBER.
- HIGH TEMPERATURE BALL BEARINGS B-10 RATING OF 60,000 HOURS, UPPER BEARING - SINGLE ROW AND LOWER BEARINGS - DOUBLE ROW TYPE.
- PUMP SHAFT HORSEPOWER (BHP) SHALL NOT EXCEED MOTOR RATED HORSEPOWER THROUGHOUT THE ENTIRE OPERATING RANGE OF THE PUMP PERFORMANCE CURVE.
- SINGLE PHASE MOTORS SHALL BE DUAL WOUND, CAPACITOR START-RUN AND CAPABLE OF OPERATING ON 208/230 VOLT WITH A 10% TOLERANCE VOLTAGE (190 TO 260). THREE PHASE MOTORS SHALL BE DUAL WOUND AND CAPABLE OF OPERATING ON 208/230 VOLT WITH A 10% TOLERANCE VOLTAGE (190 TO 260) OR OPERATE ON 460 VOLT BY CHANGING THE MOTOR LEADS INSIDE THE PUMP.

**FIBERGLASS WET WELL:** SHALL BE A ONE PIECE UNIT WITH INTEGRAL BOTTOM, WALL AND UPPER FLANGE. THE ENTIRE FIBERGLASS WET WELL SHALL HAVE A DYNAMIC LOAD RATING OF 16,000 FT/LBS. EACH UNIT MUST BE SERIAL NUMBERED TO IDENTIFY THE TEST PROCEDURE. ASTM D 3753 & H-20 SPECIFICATIONS SHALL BE REQUIRED AS MINIMUM.

**ALUMINUM HATCH:** TSC MODEL-54R (54") ROUND WITH 24" X 36" LOCKABLE HATCH, REINFORCED FOR LOAD RATING OF 300 LBS/FT WITH HOLD OPEN SAFETY ARM, LOCKING DEVICE FOR HASP TYPE PADLOCK AND STAINLESS STEEL HARDWARE.

**VALVE BOX:** FIBERGLASS COMPOSITE (H-10 TRAFFIC RATED) WITH INTEGRAL BOTTOM. (FOR 1 1/4" AND 2" DISCHARGE PIPING SXS HEADER SYSTEM) SHALL BE 26" X 38" X 18" WITH 17" X 30" LIMITED ACCESS LID

**ACCESSORIES:** #304 S/S - GUIDE RAILS, UPPER GUIDE RAIL BRACKETS, CABLE HOLDER, ANCHOR BOLTS AND PUMP LIFTING CHAINS.

**VALVES:** SHALL BE SEWAGE SERVICE DESIGN BRASS SWING CHECK VALVES WITH TOP ENTRY CLEAN-OUT PORT AND BRASS WEDGE GATE VALVES OPEN 100%.

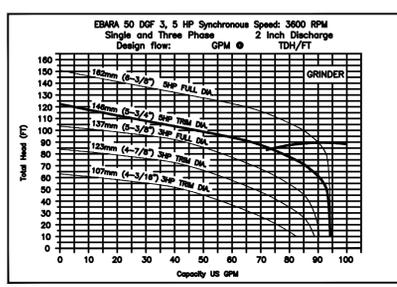
**PIPING:** 2" SCHEDULE 80 PVC.

**FLOAT SWITCHES:** UL LISTED SJ ELECTRO MODEL (SJ 30 SWENO).

PUMP SUPPLIER SHALL PROVIDE SUBMERSIBLE PUMPS, SLIDE RAIL ASSEMBLIES, CONTROL PANEL, JUNCTION BOX, FLOAT SWITCHES, ALUMINUM HATCH AND ACCESSORIES TO INSURE PROPER OPERATION AND WARRANTY.

THE COMPLETE PACKAGE PUMPING STATION SHALL HAVE PUMP BASES, SLIDE RAIL ASSEMBLIES AND DISCHARGE PIPING ASSEMBLED BY TECHNICAL SALES CORPORATION READY TO SHIP FOR FIELD INSTALLATION. THE MANUFACTURER OF PRE-FAB PUMP SOLUTIONS:  
TECHNICAL SALES CORPORATION, 4621 N. HALE AVE TAMPA, FL 33614 (813)876-9256

**Ebara Submersible Pumps**



PUMP PERFORMANCE CURVE

**CONTROL PANEL** - SHALL CONFORM TO FL DEP 64-604.42(A)

CONTROL PANEL SHALL BE TSC MODEL # 38-D IN NEMA 4X FIBERGLASS ENCLOSURE. THE PANEL SHALL MEET STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP), ENVIRONMENTAL PROTECTION COMMISSION (EPC) AND LOCAL CODE REQUIREMENTS GOVERNING PRIVATE LIFT STATIONS.

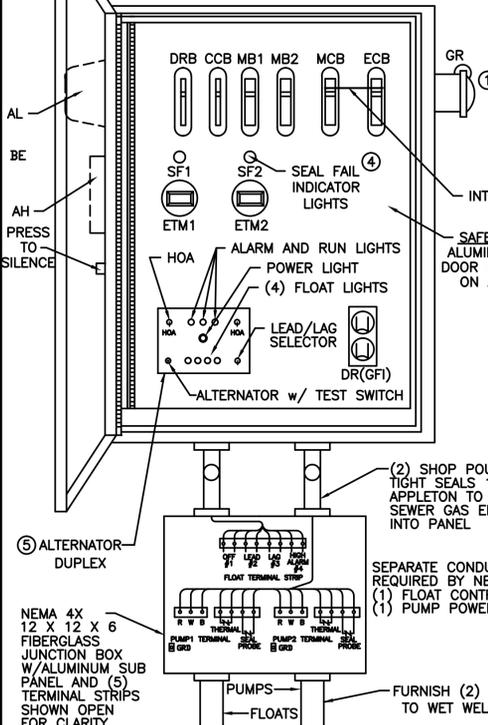
FLOAT SWITCHES AND CONTROL SYSTEM SHALL BE UL LISTED AND INTRINSICALLY SAFE. ALL COMPONENTS SHALL BE UL LISTED.

A JUNCTION BOX IS REQUIRED, WITH SHOP POURED SEALS BETWEEN BOX AND CONTROL PANEL TO PREVENT SEWER GAS ENTRY INTO CONTROL PANEL.

ELECTRICAL CONTRACTOR TO PROVIDE SERVICE DISCONNECT WITH LIGHTNING ARRESTOR MOUNTED PER LOCAL CODES.

THE CONTROL PANEL SHALL BE SUITABLY INSTALLED TO PREVENT SETTLING OR TIPPING.

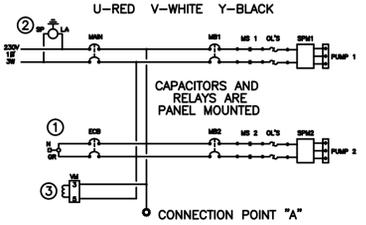
**CONTROL PANEL LAYOUT**



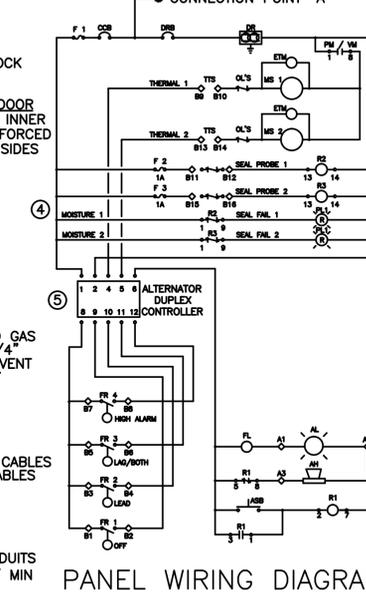
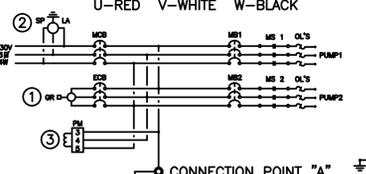
**LEGEND**

- AH ALARM HORN
- AL ALARM LIGHT
- ASB ALARM SILENCE BUTTON
- ATS ALTERNATOR W/ TEST SWITCH
- CCB CONTROL CIRCUIT BREAKER
- DR DUPLEX RECEPTACLE
- DRB DUPLEX RECEPTACLE BREAKER
- ECB EMERGENCY CIRCUIT BREAKER
- ETM ELAPSED TIME METER
- F FUSE
- FL FLASHER
- FS FLOAT SWITCH (REGULATOR)
- GR GENERATOR RECEPTACLE
- GRD GROUND
- HOA HAND-OFF-AUTOMATIC SELECTOR
- LA LIGHTNING ARRESTOR
- MB MOTOR BREAKER
- MCB MAIN CIRCUIT BREAKER
- MS MOTOR STARTER
- N NEUTRAL
- OL'S OVERLOAD HEATERS
- PM PHASE MONITOR
- PTS PUMP TERMINAL STRIP
- R RELAY
- RC RUN CAPACITOR
- RD DISCHARGE RESISTOR
- RL PUMP RUN INDICATORS
- RTS REGULATOR TERMINAL STRIP
- SC START CAPACITOR
- SF SEAL FAIL (SHAFT)
- SR START RELAY
- SP SURGE PROTECTOR
- TTS THERMAL TERMINAL STRIP

**SINGLE PHASE WIRING DIAGRAM**



**THREE PHASE WIRING DIAGRAM**



**PANELS SHALL CONFORM TO FLORIDA DEP 64-604.400**

- GENERATOR RECEPTACLE FOR EMERGENCY POWER CONNECTION WITH INTERLOCK
- SURGE PROTECTION AND LIGHTNING PROTECTION ON ALL INCOMING LEGS
- PHASE PROTECTION SHALL BE PROVIDED
- SHAFT SEAL FAIL DETECTION
- ALTERNATOR W/ TEST SWITCH

PANEL MANUFACTURER SHALL BE A "UL" LISTED SHOP.

**TSC DUPLEX GRINDER PUMP STATION  
FIBERGLASS WET WELL**

**TECHNICAL SALES CORPORATION**

TSC PRE-FAB PUMP SOLUTIONS®

WATERWORKS & WASTEWATER SPECIALTIES

Representing Innovative Manufacturers

MODEL TSC2-48.0

4621 N. HALE AVENUE PH (813)876-9256  
TAMPA, FL 33614 FAX (813)874-1194  
EMAIL: Sales@TSCtampa.com  
REV-9 SCALE: N.T.S.

48" DUPLEX GRINDER STATION-2" PIPING W/ SLIDE RAIL SYSTEM, VALVE BOX AND F.D.E.P. PANEL TSC2-48.0 R9

**ARCTURUS GROUP, LLC**

CIVIL ENGINEERS • SURVEYORS • LAND PLANNERS

2528 U.S. HIGHWAY 10, HOLDAWAY, FLORIDA 34681  
PHONE (727) 940-8888 FAX (727) 940-3549  
info@arcturusgroup.com

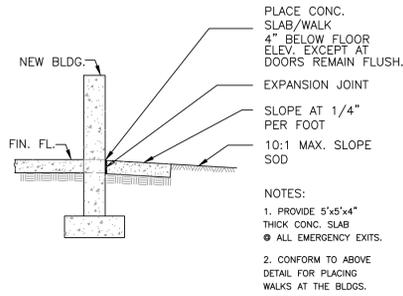
**SPINUSO PLAZA**

ANTHONY SPINUSO  
10040 HUDSON AVE.  
HUDSON, FL 34669

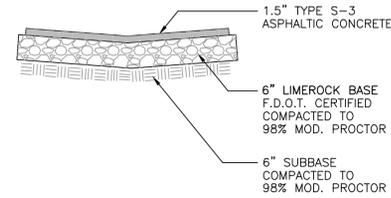
**LIFT STATION DETAILS**

DATE	7/3/15
REVISIONS:	
1	COUNTY COMMENTS
2	
3	
4	
5	
6	

DATE	04-23-15
PROJECT NO.	14000
DRAWING NO.	C5.1

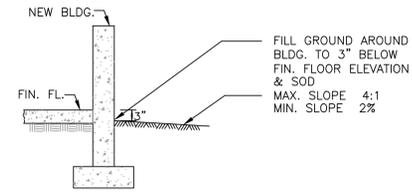


PLACEMENT OF CONCRETE SLAB AT ALL BUILDINGS  
N.T.S.

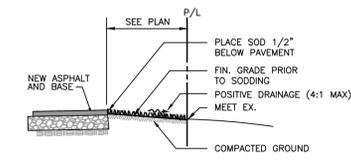


PARKING & DRIVEWAY SECTION  
N.T.S.

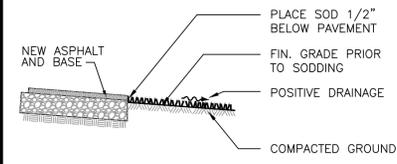
SEE PAVING NOTES ON SHEET C1.2 FOR SPECIFICATIONS



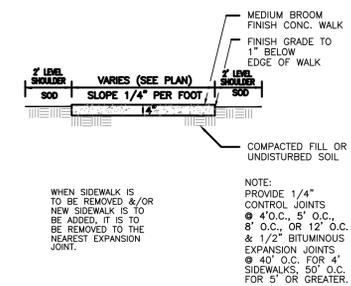
GROUND PREPARATION AT ALL BUILDINGS  
N.T.S.



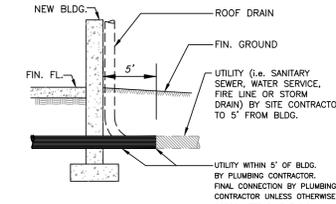
GROUND TRANSITION AT THE PROPERTY LINE  
N.T.S.



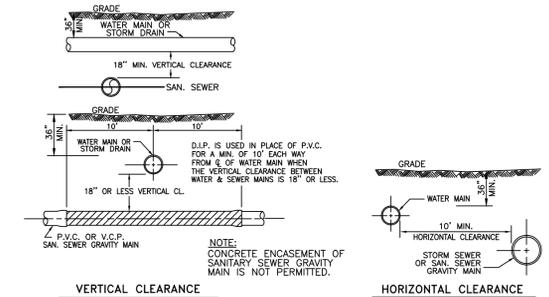
PLACEMENT OF SOD AT PAVEMENT  
N.T.S.



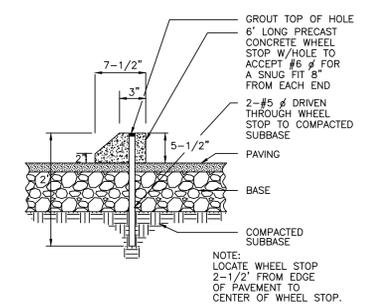
CONCRETE WALK DETAIL  
N.T.S.



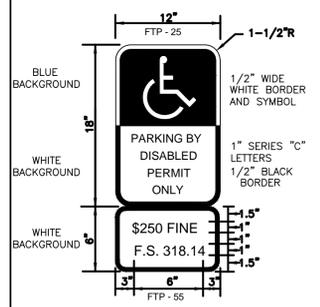
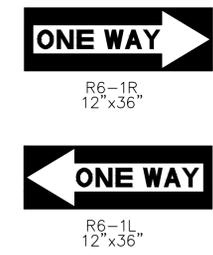
UTILITY CONNECTION AT ALL BUILDINGS  
N.T.S.



WATER MAIN & SANITARY SEWER CLEARANCES  
N.T.S.



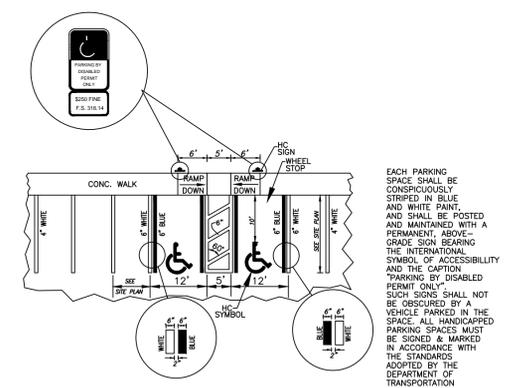
WHEEL STOP DETAIL  
N.T.S.



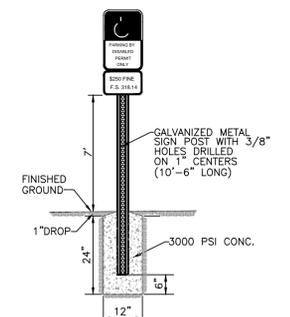
HANDICAP PARKING SIGN DETAIL  
N.T.S.



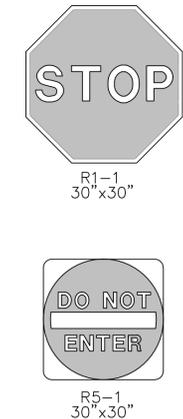
HANDICAPPED PAVEMENT SYMBOL  
N.T.S.



HANDICAP PARKING STRIPING DETAIL  
N.T.S.



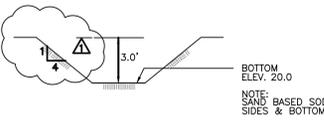
SIGN POST DETAIL  
N.T.S.



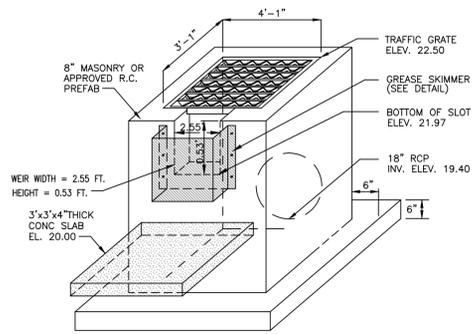
REVISIONS:	DATE	COUNTY	COMMENTS
1	7/3/15		
2			
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6			

DATE: 04-23-15  
 PROJECT NO.: 14000  
 DRAWING NO.: C-6

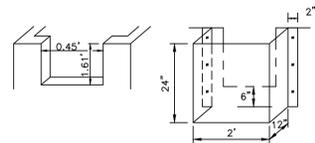
SHWT=13.0  
 DHW=22.49  
 TRT VOL EL=21.97



**RETENTION BASIN DETAIL**  
 N.T.S.

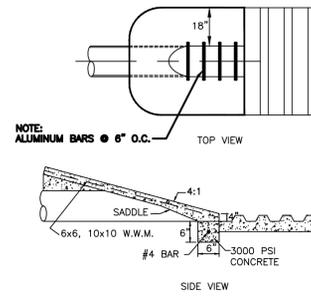


**CONTROL STRUCTURE**  
 N.T.S.

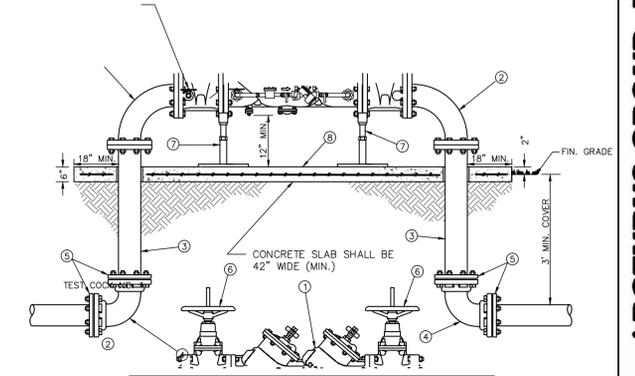


GREASE BAFFLE TO BE  
 1/4" THICK ALUMINUM  
 W/STAINLESS STEEL ANCHORS

**SLOT & GREASE  
 BAFFLE DETAIL**  
 N.T.S.



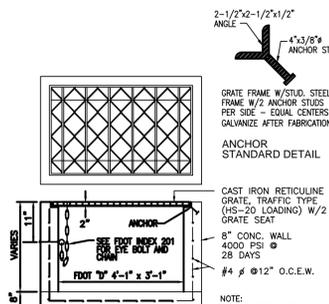
**MITERED END SECTION DETAIL**  
 N.T.S.



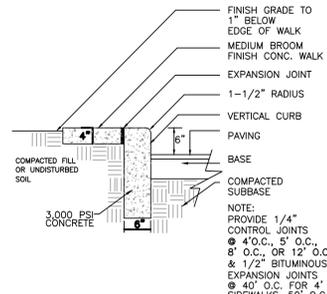
ITEM QUANT.		DESCRIPTION
1	1	3" 4" 6" 8" DOUBLE CHECK VALVE/BFP ASSEMBLY WITH DETECTOR ASSEMBLY
2	2	3" 4" 6" 8" BEND, 90° FLANGE x FLANGE
3	2	3" 4" 6" 8" SPOOL PIECE FLG. x PE. D.I.P.
4	2	3" 4" 6" 8" BEND, 90° M.J. x M.J.
5	4	3" 4" 6" 8" GLAND, RETAINER M.J. (MEGALUG)
6	2	3" 4" 6" 8" VALVE, GATE FLG. x FLG. RESILIENT WEDGE O.S. & Y
7	2	SUPPORT (AS NEEDED)
8	1	CONCRETE SLAB (6" THICK - 42" WIDE MIN.)

- NOTE:
- NO TIE RODS OR EYE BOLT RETAINERS PERMITTED ABOVE GROUND.
  - B.F.P. 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 MEGALUGS 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 (NO 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.

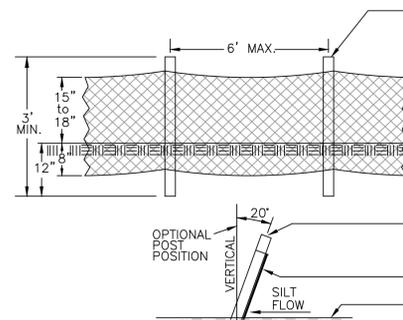
**DOUBLE DETECTOR CHECK VALVE  
 ASSEMBLY/BACKFLOW PREVENTER**  
 (SINGLE SERVICE: 3", 4", 6", 8", 10")  
 PASCO COUNTY UTILITIES



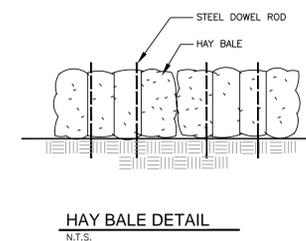
**INLET DETAIL**  
 N.T.S.



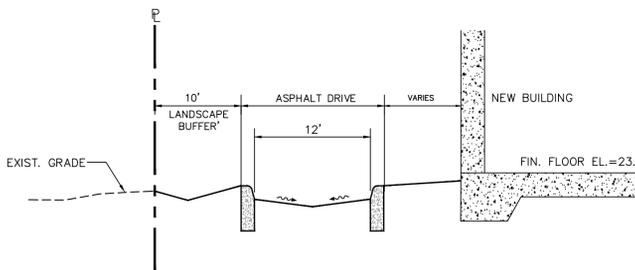
**CURB/WALK DETAIL**  
 N.T.S.



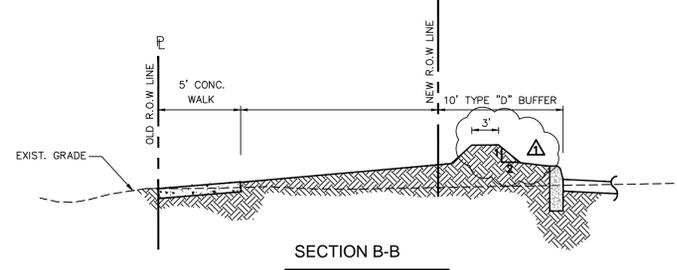
**SILT BARRIER DETAIL**  
 N.T.S.



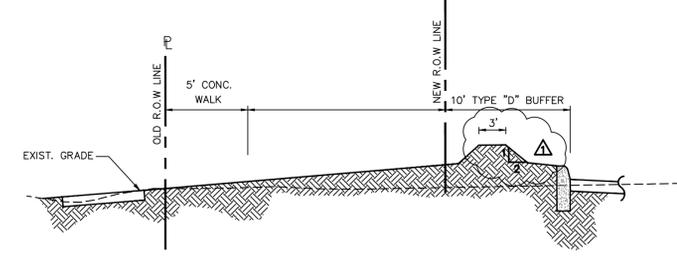
**HAY BALE DETAIL**  
 N.T.S.



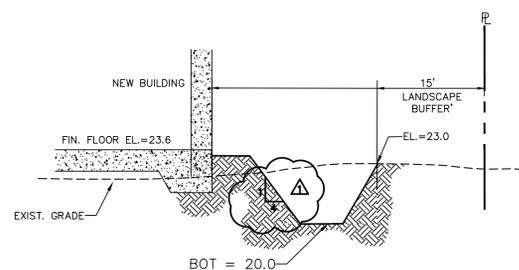
**SECTION A-A**  
 N.T.S.



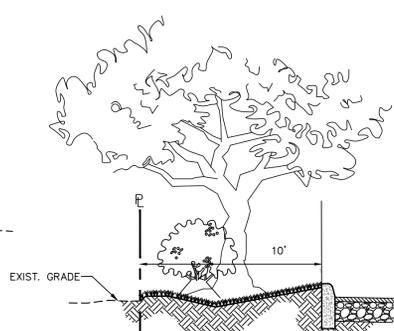
**SECTION B-B**  
 N.T.S.



**SECTION C-C**  
 N.T.S.

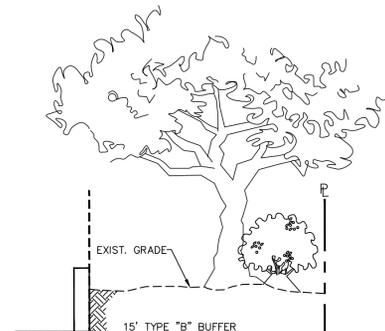


**SECTION D-D**  
 N.T.S.



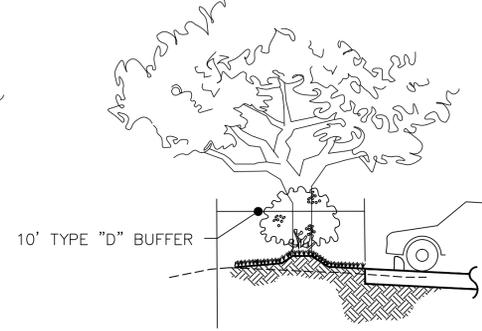
**TYPE "A" BUFFER**  
 N.T.S.

TYPE "A": TEN (10) FT. WIDE, TREES MAXIMUM 60 FEET ON CENTER, AND A CONTINUOUS ROW OF EVERGREEN SHRUBS A MIN. OF 18 INCHES IN HEIGHT.



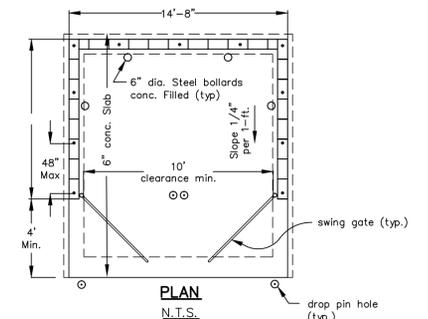
**TYPE "B" BUFFER**  
 N.T.S.

TYPE "B": TEN (15) FT. WIDE, TREES MAXIMUM 60 FEET ON CENTER, AND A CONTINUOUS ROW OF EVERGREEN SHRUBS A MIN. OF 18 INCHES IN HEIGHT.

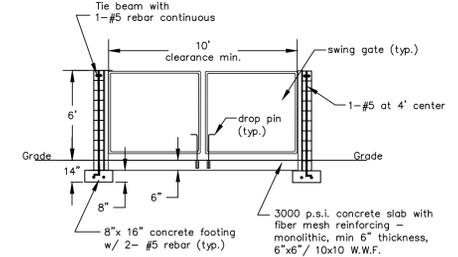


**TYPE "D" BUFFER**  
 N.T.S.

TYPE "D": TEN (10) FT. WIDE, TREES MAXIMUM 30 FEET ON CENTER, AND A CONTINUOUS ROW OF EVERGREEN SHRUBS A MIN. OF 34 INCHES MIN. IN HEIGHT ON A 18" HEIGHT BERM.



**PLAN**  
 N.T.S.



**ELEVATION**  
 N.T.S.

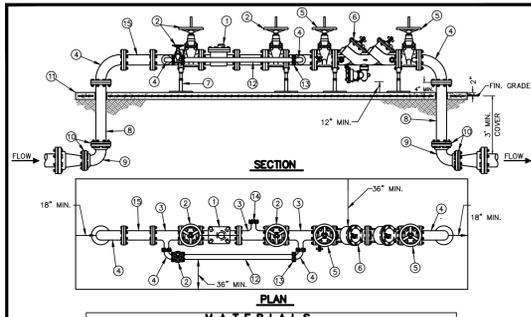
**DUMPSTER DETAIL**

REVISIONS:	DATE	COUNTY	COMMENTS
1	7/3/15		
2			
3			
4			
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6			

DATE  
 04-23-15

PROJECT NO.  
 14000

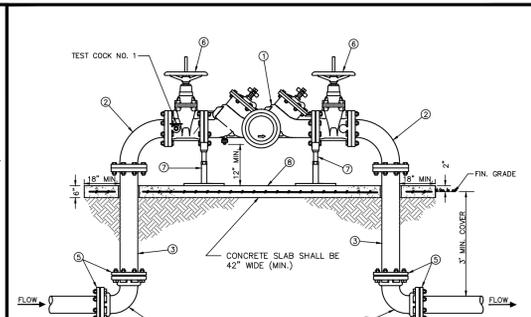
DRAWING NO.  
 C-6.1



ITEM	QUANT.	DESCRIPTION
1	1	WATER METER 3" THRU 12"
2	3	VALVE, GATE RESILIENT WEDGE W/ HAND WHEEL FLG x FLG
3	3	TEE, FLG x FLG x FLG
4	4	BEND, 90° FLG x FLG
5	2	VALVE, GATE FLG x FLG RESILIENT SEAT O, S & Y
6	1	BACK FLOW PREVENTER - R.P.P. PRINCIPLE
7		SUPPORTS (AS NEEDED)
8	2	SPOOL PIECE FLG x PE D.I.P.
9	2	BEND, 90° M.J. x M.J.
10	4	GLAND, RETAINER M.J. (MEGALUG OR EQUAL)
11	1	CONCRETE SLAB 6" THICK W/ 6"x6" 10'/10' WELDED WIRE
12	1	BT-PASS PIPE 6" FLG x PE
13	1	FMMA SERIES 2100 MEGALUG
14	1	FLRO FLANGE TAPPED 2" 2" 2" GALV. FLG
15	1	SPOOL PIECE FLG x FLG - LENGTH TO BE 8 PIPE DIAMETERS

NOTE:  
 - NO THE RODS OR EYE BOLT RESTAINERS PERMITTED ABOVE GROUND.  
 - METER & B.F.P. ASSEMBLY TO BE INSTALLED LEVEL & PLUMB.  
 - METER BY-PASS TO BE SIZED NO LESS THAN 1/2 METER SIZE.  
 - ENTIRE ASSEMBLY TO BE PAINTED SAFETY BLUE.  
 - B.F.P. TO BE SIZED EQUAL TO OR GREATER THAN METER SIZE.  
 - MECHANICAL JOINTS SHALL BE RESTRAINED AS SPECIFIED BY COUNTY/ENGINEER.  
 - BELL JOINT RESTRAINERS SHALL BE PROVIDED ON ALL UNDERGROUND PIPING AS SPECIFIED IN THE JOINT RESTRAINT TABLE DETAIL.  
 - ALL ABOVE GROUND PIPING SHALL BE FLANGED DUCTILE IRON PIPE (NO GALVANIZED OR PVC)  
 - PASCO COUNTY SHALL HAVE THE OPTION OF REQUIRING THE 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.  
 - FOR REUSE METER, DELETE BACKFLOW PREVENTER & PAINT ENTIRE ASSEMBLY PURPLE.  
 - INLET AND DISCHARGE PIPING SHALL BE SIZED IDENTICAL TO METER INLET SIZE

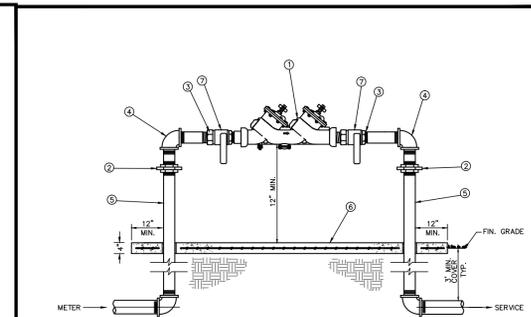
CREATED 02/24/03  
 REVISED \_\_\_\_\_  
 BULK METER INSTALLATION - WITH SINGLE B.F.P.  
 PASCO COUNTY UTILITIES  
 PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL.  
 DETAIL 1



ITEM	QUANT.	DESCRIPTION
1	1	3", 4", 6", 8" BFP, REDUCED PRESSURE PRINCIPLE WITH DETECTOR ASSEMBLY
2	2	3", 4", 6", 8" BEND, 90° FLANGE x FLANGE
3	2	3", 4", 6", 8" SPOOL PIECE FLG. x PE D.I.P.
4	2	3", 4", 6", 8" BEND, 90° M.J. x M.J.
5	4	3", 4", 6", 8" GLAND, RETAINER M.J. (MEGALUG)
6	2	3", 4", 6", 8" VALVE, GATE FLG. x FLG. RESILIENT WEDGE O.S. & Y.
7	2	SUPPORT (AS NEEDED)
8	1	CONCRETE SLAB (6" THICK)

NOTE:  
 - NO THE RODS OR EYE BOLT RESTAINERS PERMITTED ABOVE GROUND.  
 - B.F.P. ASSEMBLY TO BE INSTALLED LEVEL & PLUMB.  
 - B.F.P. ASSEMBLY TO BE MAINTAINED AROUND DEVICE FOR TESTING.  
 - MINIMUM CLEARANCE OF 36" TO BE MAINTAINED AROUND DEVICE.  
 - ENTIRE ASSEMBLY TO BE PAINTED SAFETY BLUE.  
 - DETECTOR BY-PASS ASSEMBLY TO BE FACTORY INSTALLED AND CERTIFIED.  
 - ALL MECHANICAL JOINTS SHALL BE RESTRAINED WITH MEGALUGS 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 (NO 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.

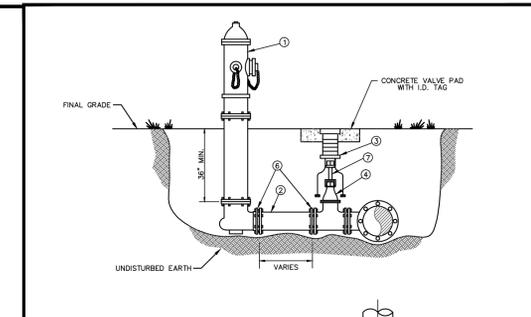
CREATED 02/24/03  
 REVISED \_\_\_\_\_  
 REDUCED PRESSURE BACKFLOW PREVENTER (SINGLE SERVICE: 3", 4", 6", 8")  
 PASCO COUNTY UTILITIES  
 PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL.  
 DETAIL 10



ITEM	QUANT.	DESCRIPTION
1	1	BACKFLOW PREVENTER ASSEMBLY, DOUBLE CHECK VALVE
2	2	UNIONS - GALV.
3	2	FLANGES - GALV. 90°
4	2	RISER - GALV.
5	2	CONCRETE SLAB
6	2	SUPPORT (AS NEEDED)
7	2	CONCRETE SLAB (6" THICK)

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

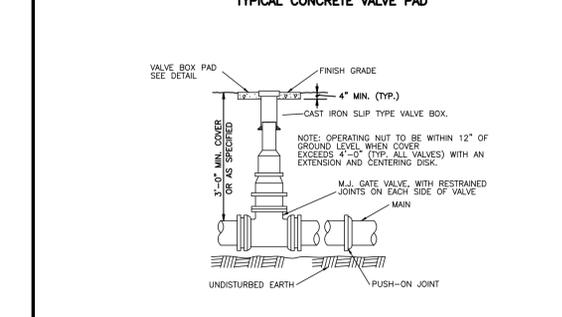
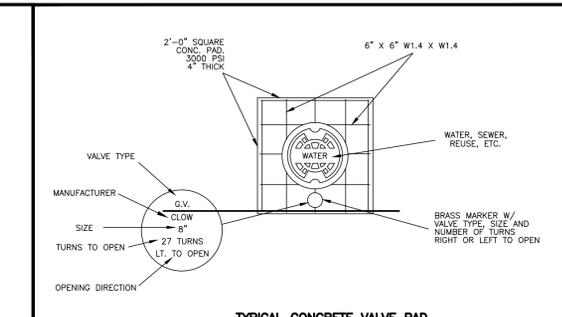
CREATED 02/24/03  
 REVISED N.T.S.  
 DOUBLE CHECK VALVE ASSEMBLY/BACKFLOW PREVENTER (SINGLE SERVICE: 3/4", 1", 1-1/2", 2")  
 PASCO COUNTY UTILITIES  
 PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL.  
 DETAIL 12



ITEM	QUANT.	DESCRIPTION
1	1	HYDRANT, FIRE (6" VALVE MIN), PAINTED YELLOW
2	1	6" PIPE, PVC (DR-18)
3	1	BOX, VALVE SLIP TYPE
4	1	6" VALVE, GATE, M.J. RESILIENT WEDGE
5	1	TEE, ANCHORING, M.J.
6	1	8" RESTRAINER GLAND (MEGALUG)
7	1	VALVE EXTENSION ROD, AS NECESSARY (3" MAX. BELOW GRADE)

NOTE:  
 - N.T.S.

CREATED 02/24/03  
 REVISED \_\_\_\_\_  
 FIRE HYDRANT PERPENDICULAR TO THE MAIN  
 PASCO COUNTY UTILITIES  
 PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL.  
 DETAIL 27



CREATED 02/24/03  
 REVISED \_\_\_\_\_  
 VALVE BOX DETAIL SLIP TYPE  
 PASCO COUNTY UTILITIES  
 PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL.  
 DETAIL 30

PIPE RESTRAINT LENGTHS IN FEET COMMON FITTINGS					
WATER MAINS - TEST PRESSURE 150 PSI					
PIPE SIZE	FITTING TYPE				
	11-1/4"	22-1/2"	45"	90"	DEAD END
4"	2'	4'	8'	20'	45'
6"	3'	6'	12'	28'	63'
8"	4'	7'	15'	36'	82'
10"	4'	9'	18'	43'	98'
12"	5'	10'	21'	50'	116'
16"	6'	13'	26'	63'	148'
20"	7'	15'	31'	76'	179'
24"	9'	17'	36'	87'	208'

FORCE MAINS - TEST PRESSURE 100 PSI					
PIPE SIZE	FITTING TYPE				
	11-1/4"	22-1/2"	45"	90"	DEAD END
4"	1'	3'	6'	13'	30'
6"	2'	4'	8'	19'	42'
8"	2'	5'	10'	24'	55'
10"	3'	6'	12'	29'	66'
12"	3'	7'	14'	34'	77'
16"	4'	8'	18'	42'	99'
20"	5'	10'	21'	50'	119'
24"	6'	11'	24'	58'	139'

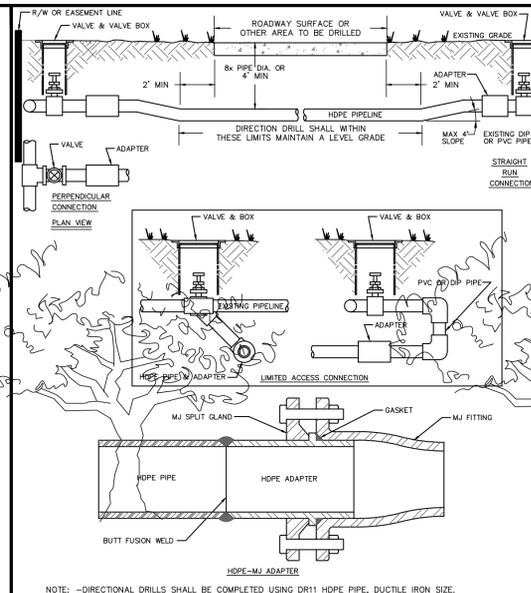
RESTRAINT LENGTHS ARE MEASURED FROM THE CENTER LINE OF THE FITTING ALONG THE PIPE IN BOTH DIRECTIONS (EXCEPT DEAD ENDS).

CREATED 02/24/03  
 REVISED \_\_\_\_\_  
 RESTRAINED JOINT TABLE COMMON FITTINGS  
 PASCO COUNTY UTILITIES  
 PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL.  
 DETAIL 31

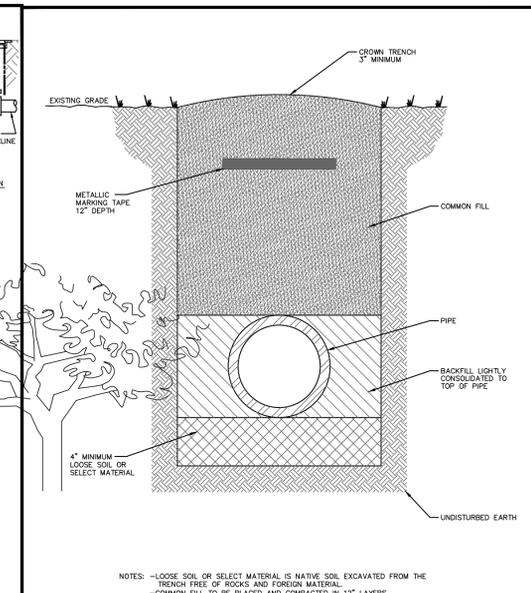
PIPE RESTRAINT LENGTHS IN FEET TEES (BRANCH SIDE)									
WATER MAINS - TEST PRESSURE 150 PSI									
RUN SIZE	BRANCH SIZE								
	3"	4"	6"	8"	10"	12"	16"	20"	24"
3"	6'	14'	30'	—	—	—	—	—	—
4"	2'	11'	28'	44'	—	—	—	—	—
6"	1'	2'	22'	40'	52'	—	—	—	—
8"	1'	1'	16'	35'	48'	62'	—	—	—
10"	1'	1'	10'	30'	44'	58'	83'	—	—
12"	1'	1'	25'	40'	55'	80'	103'	—	—
16"	1'	1'	14'	31'	48'	75'	98'	119'	—
20"	1'	1'	22'	40'	68'	94'	116'	—	—
24"	1'	1'	31'	48'	83'	89'	111'	—	—

RESTRAINT LENGTHS ARE MEASURED FROM THE CENTER LINE OF THE TEE ALONG THE BRANCH FOR THE DISTANCE INDICATED. A MINIMUM OF 5 FEET OF RESTRAINED PIPE MUST BE INSTALLED ON BOTH RUNS OF THE TEE. MEGALUG TYPE RESTRAINERS ARE REQUIRED ON ALL JOINTS.

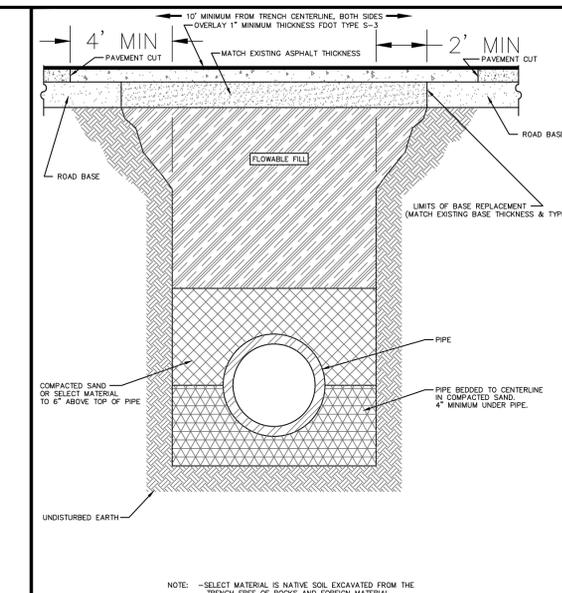
CREATED 02/24/03  
 REVISED \_\_\_\_\_  
 RESTRAINED JOINT TABLE TEES (BRANCH SIDE)  
 PASCO COUNTY UTILITIES  
 PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL.  
 DETAIL 32



CREATED 03/06/03  
 REVISED \_\_\_\_\_  
 DIRECTIONAL DRILLING  
 PASCO COUNTY UTILITIES  
 PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL.  
 DETAIL 34

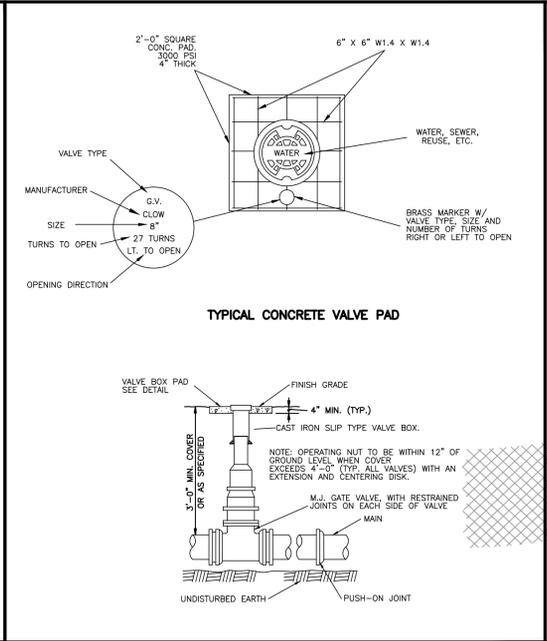
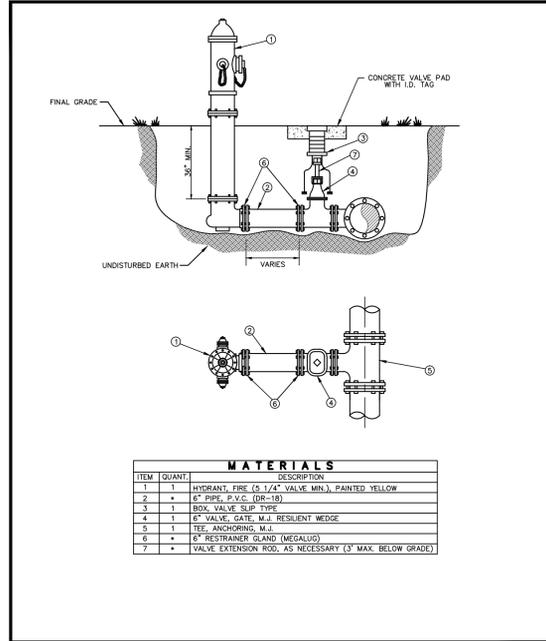


CREATED 02/24/03  
 REVISED \_\_\_\_\_  
 PIPE LAYING CONDITIONS STANDARD UNPAVED AREAS  
 PASCO COUNTY UTILITIES  
 PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL.  
 DETAIL 35



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

REVISIONS:	DATE
1	
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**PIPE RESTRAINT LENGTHS IN FEET COMMON FITTINGS**

**WATER MAINS - TEST PRESSURE 150 PSI**

PIPE SIZE	FITTING TYPE				
	11-1/4°	22-1/2°	45°	90°	DEAD END
4"	2'	4'	8'	20'	45'
6"	3'	6'	12'	28'	63'
8"	4'	7'	15'	36'	82'
10"	4'	9'	18'	43'	98'
12"	5'	10'	21'	50'	116'
16"	6'	13'	26'	63'	148'
20"	7'	15'	31'	76'	179'
24"	9'	17'	36'	87'	208'

**FORCE MAINS - TEST PRESSURE 100 PSI**

PIPE SIZE	FITTING TYPE				
	11-1/4°	22-1/2°	45°	90°	DEAD END
4"	1'	3'	6'	13'	30'
6"	2'	4'	8'	19'	42'
8"	2'	5'	10'	24'	55'
10"	3'	6'	12'	29'	66'
12"	3'	7'	14'	34'	77'
16"	4'	8'	18'	42'	99'
20"	5'	10'	21'	50'	119'
24"	6'	11'	24'	58'	139'

RESTRAINT LENGTHS ARE MEASURED FROM THE CENTER LINE OF THE FITTING ALONG THE PIPE IN BOTH DIRECTIONS (EXCEPT DEAD ENDS).

**PIPE RESTRAINT LENGTHS IN FEET TEES (BRANCH SIDE)**

**WATER MAINS - TEST PRESSURE 150 PSI**

RUN SIZE	BRANCH SIZE								
	3"	4"	6"	8"	10"	12"	16"	20"	24"
3"	6'	14'	30'	—	—	—	—	—	—
4"	2'	11'	28'	44'	—	—	—	—	—
6"	1'	2'	22'	40'	52'	—	—	—	—
8"	1'	1'	16'	35'	48'	62'	—	—	—
10"	1'	1'	10'	30'	44'	58'	83'	—	—
12"	1'	1'	1'	3'	25'	40'	55'	80'	103'
16"	1'	1'	1'	1'	14'	31'	48'	75'	98'
20"	1'	1'	1'	1'	22'	40'	69'	94'	116'
24"	1'	1'	1'	1'	11'	31'	63'	89'	111'

RESTRAINT LENGTHS ARE MEASURED FROM THE CENTER LINE OF THE TEE ALONG THE BRANCH FOR THE DISTANCE INDICATED. A MINIMUM OF 5 FEET OF RESTRAINED PIPE MUST BE INSTALLED ON BOTH RUNS OF THE TEE. MEGALUG TYPE RESTRAINERS ARE REQUIRED ON ALL JOINTS.

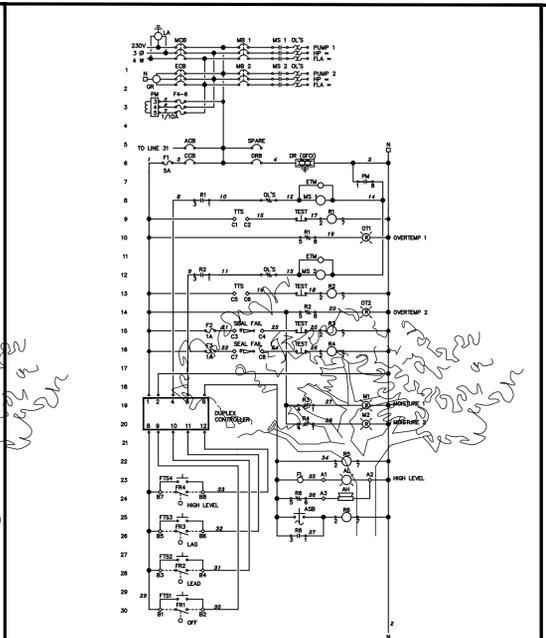
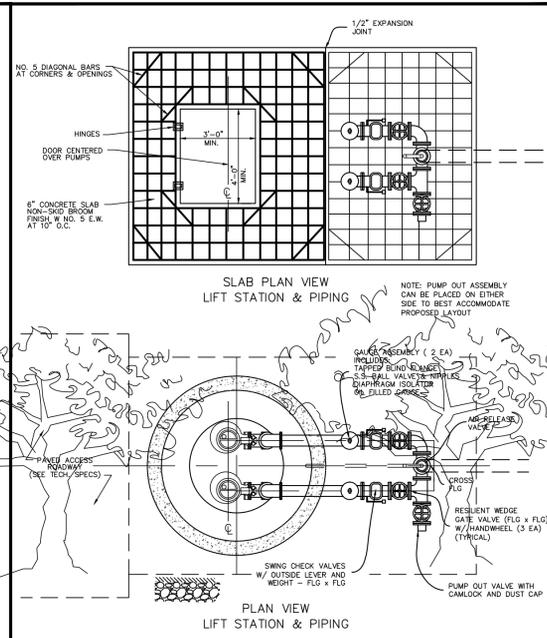
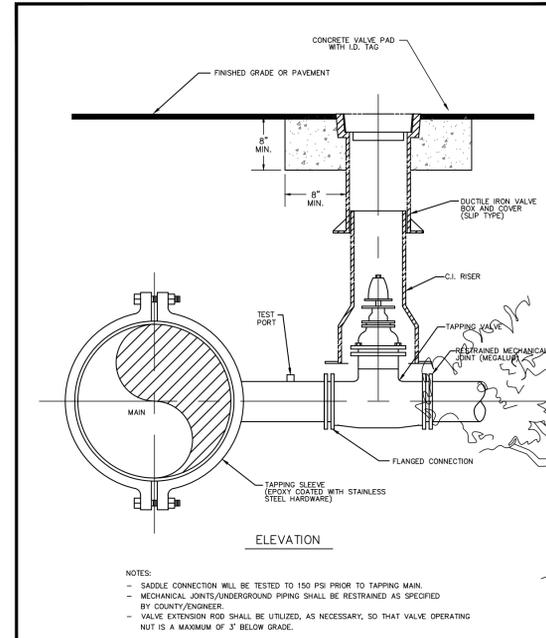
CREATED 02/24/03  
REVISED  
FIRE HYDRANT  
PENDICULAR TO THE MAIN  
PASCO COUNTY UTILITIES  
DETAIL 27

CREATED 02/24/03  
REVISED  
VALVE BOX DETAIL  
SLIP TYPE  
PASCO COUNTY UTILITIES  
DETAIL 30

CREATED 02/24/03  
REVISED  
RESTRAINED JOINT TABLE  
COMMON FITTINGS  
PASCO COUNTY UTILITIES  
DETAIL 31

CREATED 02/24/03  
REVISED  
RESTRAINED JOINT TABLE  
TEES (BRANCH SIDE)  
PASCO COUNTY UTILITIES  
DETAIL 32

N.T.S.



EX. TREE LEGEND

- = OAKS
- = PINES



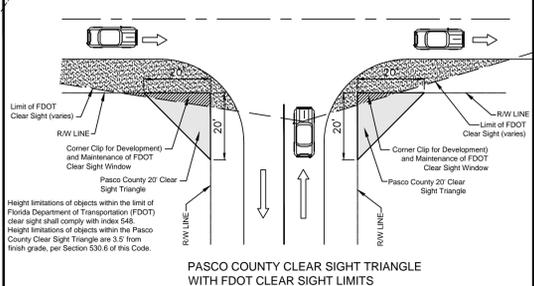
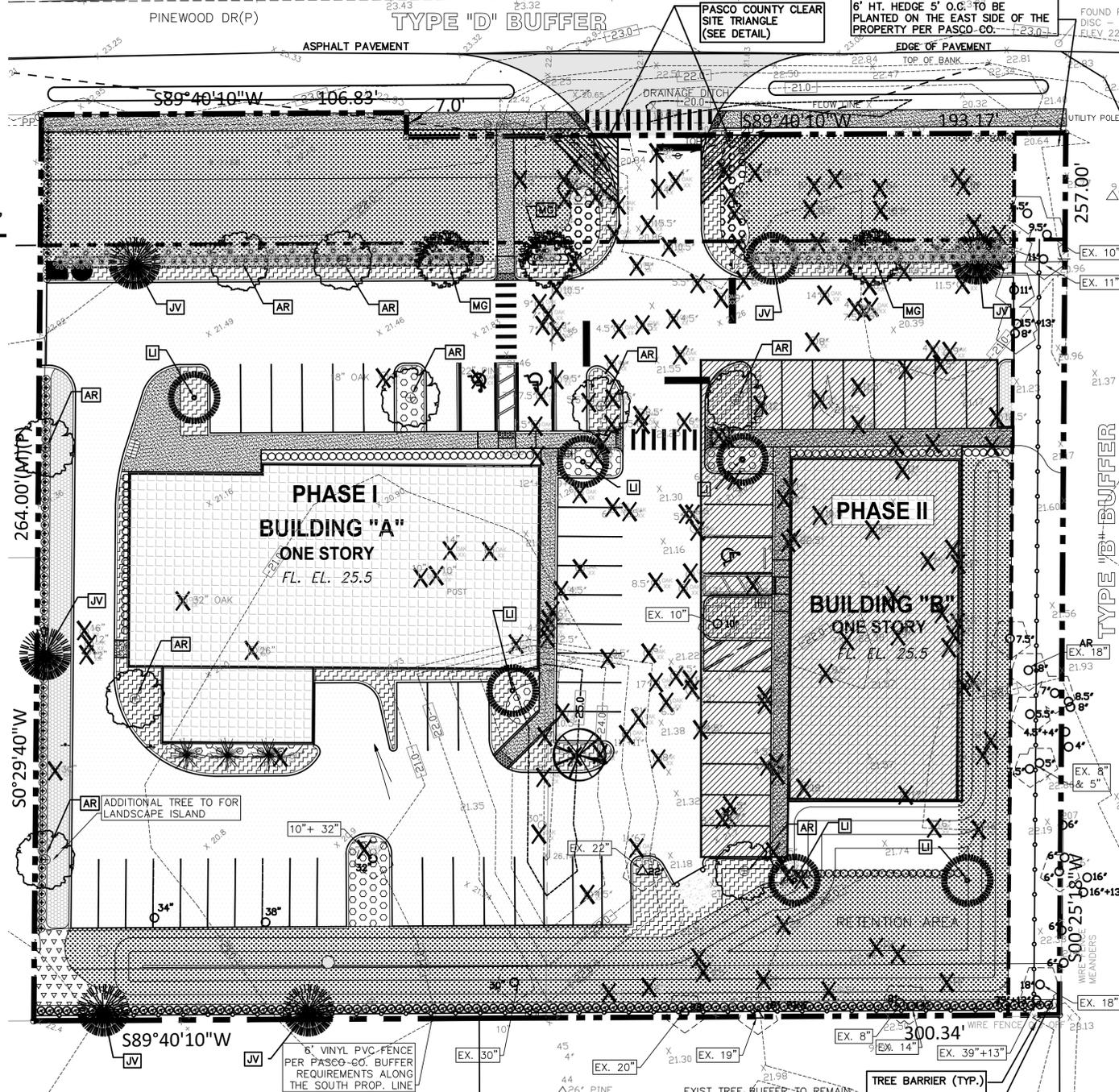
Scale : 1" = 30'

TREES ON SITE - TOTAL # OF INCHES						
Live Oaks			Other Trees Also Note Type			
Size (Inches)	No.	Total Inches-Onsite	Type	Size (Inches)	No.	Total Inches-Other Onsite
10	8	80	Pine	13	1	13
11	17	187	Pine	19	1	19
12	5	60	Pine	22	2	44
13	8	104				
14	3	42				
15	5	75				
16	4	64				
17	3	51				
18	3	54				
19	2	38				
20	2	40				
21	2	42				
22	3	66				
23	1	23				
25	1	25				
26	1	26				
29	1	29				
30	2	60				
34	1	34				
38	1	38				
39	1	39				
etc.						
Total Oak:		1177	Total Other:		76	

TREES INCHES TO BE REMOVED - 10" DBA AND LARGER						
Live Oaks			Other Trees Also Note Type			
Size (Inches)	No.	Total Inches-Onsite	Type	Size (Inches)	No.	Total Inches-Other Onsite
10	6	60	Pine	13	1	13
11	16	176	Pine	19	0	0
12	5	60	Pine	22	1	22
13	7	91				
14	2	28				
15	5	75				
16	4	64				
17	3	51				
18	1	18				
19	2	38				
20	1	20				
21	2	42				
22	3	66				
23	1	23				
25	1	25				
26	1	26				
29	1	29				
30	1	30				
34	0	0				
38	0	0				
39	0	0				
etc.						
Total Oak:		922	Total Other:		36	

TOTAL TREE INCHES TO BE SAVED						
Live Oaks			Other Trees			
Size (Inches)	No.	Total Inches	Type	Size (Inches)	No.	Total Inches
10	2	20	Pine	13	0	0
11	1	11	Pine	19	1	19
13	1	13	Pine	22	1	22
14	1	14				
18	2	36				
20	1	20				
30	1	30				
34	1	34				
38	1	38				
39	1	39				
etc.						
Total Oak:		255	Total Other:		41	

- LANDSCAPE NOTES:**
- TREES TO BE PLANTED SHALL BE FLORIDA GRADE NO. 1 OR BETTER PURSUANT TO THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, DIVISION OF PLANT INDUSTRY, GRADES AND STANDARDS FOR NURSERY PLANTS, WHICH IS INCORPORATED HEREIN BY REFERENCE.
  - LANDSCAPE INSTALLATIONS SHALL BE PLACED TO AVOID CONFLICT WITH THE EXISTING AND/OR PROPOSED UTILITIES, BOTH UNDERGROUND AND OVERHEAD.
  - ALL TREES SHALL BE PLANTED ACCORDING TO THE FLORIDA CHAPTER, INTERNATIONAL SOCIETY OF ARBORICULTURE STANDARDS FOR PLANTING, WHICH IS INCORPORATED HEREIN BY REFERENCE. ALL TREES MUST BE MAINTAINED IN GOOD CONDITION AND PLANTED IN LOCATIONS WITH ADEQUATE OPEN SPACE TO ALLOW FOR MATURE TREE-CANOPY DEVELOPMENT.
  - TREES SHALL NOT BE PLANTED WITHIN ANY EASEMENT SO AS TO INTERFERE WITH THE USE OF THAT EASEMENT, NOR UNDER ANY PRESENT OR PLANNED OVERHEAD UTILITY, NOR IN ANY RIGHTS-OF-WAY WITHOUT COUNTY APPROVAL THROUGH THE ASSOCIATED REVIEW PROCESS.
  - MULCH SHALL BE USED IN CONJUNCTION WITH LIVING PLANT MATERIALS SO AS TO COVER EXPOSED SOIL. MULCH SHALL BE INSTALLED TO A MINIMUM DEPTH OF THREE (3) INCHES. THE MULCH SHOULD NOT BE PLACED DIRECTLY AGAINST THE PLANT STEM OR TREE TRUNK. MULCH SHALL NOT BE REQUIRED FOR ANNUAL BEDS. STONE OR GRAVEL MAY BE USED TO COVER A MAXIMUM OF TWENTY (20) PERCENT OF THE LANDSCAPED AREA.
  - ALL LANDSCAPING SHALL BE INSTALLED IN ACCORDANCE WITH STANDARDS AND PRACTICES OF THE FLORIDA NURSERY GROWERS AND LANDSCAPE ASSOCIATION AND THE FLORIDA CHAPTER OF THE INTERNATIONAL SOCIETY OF ARBORICULTURE.
  - 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.



**CLEAR SIGHT TRIANGLE**  
 WHERE A DRIVEWAY/ACCESSWAY INTERSECTS A ROAD OR R.O.W. OR WHERE TWO (2) ROAD R.O.W.'S INTERSECT, VEGETATION, STRUCTURES AND NON-VEGETATIVE VISUAL SCREENS SHALL NOT INTERFERE WITH THE CLEAR-SIGHT TRIANGLE AS DEFINED IN THE PASCO COUNTY LAND DEVELOPMENT CODE OF THE FLORIDA DEPARTMENT OF TRANSPORTATION, MANUAL OF UNIFORM MINIMUM STANDARDS, MOST RECENT EDITION (GREEN BOOK), WHICHEVER IS MORE RESTRICTIVE.

PLANT LIST						
TREES SYMBOL	NO.	SCIENTIFIC NAME	COMMON NAME	SIZE REQUIREMENTS	NATIVE FLORIDA	DROUGHT TOLERANT
	3	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	MIN. 7 CALIBER MIN. 6' HEIGHT AT INSTALLATION MATURE SPREAD OF GREATER THAN 20' MULTIPLE TRUNKS TO BE A MIN. OF 3 TRUNKS AT 4' BACK & HEIGHT AT INSTALLATION (4'-5" o.g.)	Y	Y
	3	CHAMAECYPARIS HUMILIS	TRIPLE BURBERIAN PINE PALM		Y	Y
	10	ACER RUBRUM	RED MAPLE WASHINGTON		Y	Y
	5	LIQUIDAMBAR STYRACIA	JAPANESE REDBERRY		Y	Y
	3	LIQUIDAMBAR STYRACIA	GRAPE MORTLE		Y	Y
	5	JUNIPERUS VIRGINIANA	SOUTHERN RED CEDAR		Y	Y

SHRUBS						
SYMBOL	NO.	SCIENTIFIC NAME	COMMON NAME	SIZE REQUIREMENTS	NATIVE FLORIDA	DROUGHT TOLERANT
	10	YUCCA SPENSERIANA	SANDWICH PALM	MIN. 10' HEIGHT AT INSTALLATION 2" WITHIN 1 YEAR	Y	N
	2	YUCCA SPENSERIANA	SWEET YUCCA	MIN. 10' HEIGHT AT INSTALLATION SPACED FOR SPECIES BUT NO MORE THAN 3" ON CENTER AT INSTALLATION	Y	N
	10	YUCCA SPENSERIANA	WALTERS YUCCA	MAX. 30 PERCENT OF REQUIRED LANDSCAPED AREA MAY BE GRASS	Y	Y
	10	YUCCA SPENSERIANA	FIRE BUSH	MAX. 25 PERCENT COVERAGE OF OVERALL LANDSCAPED AREA (SHRUBS & GROUND COVER)	Y	Y
	10	YUCCA SPENSERIANA	SWEET YUCCA	2" MIN. HEIGHT	Y	N

GROUND COVER						
SYMBOL	S.F.	SCIENTIFIC NAME	COMMON NAME	SIZE REQUIREMENTS	NATIVE FLORIDA	DROUGHT TOLERANT
	1000	HELIANTHUS SCABER	BEACH SUNFLOWER	MAX. 30 PERCENT OF REQUIRED LANDSCAPED AREA MAY BE GRASS	N	Y
	30	MELISSA LUTENSIS	MULEY GRASS	PLANTS SHALL BE SPACED TO PRESENT A PENETRATED APPEARANCE AND OBTAIN A MINIMUM COVERAGE WITHIN ONE (1) YEAR. NEW LIVING GROUND COVER SUCH AS INFLOR GRASSES, ROCKS, ETC. SHALL BE USED IN CONJUNCTION WITH LIVING PLANTS TO SUPPRESS FUGITIVE DUST.	N	N
	120	LYRICHIA MUSCARI	IRIS BLUE LILYP		Y	Y
	1000	DIANELLA YANAMONICA	FLAX LILY		Y	Y
	1000	DIANELLA YANAMONICA	PENSACOLA BAHIA GRASS		Y	N

**INTERNAL LANDSCAPE AREA REQUIREMENT**  
 TOTAL VEHICLE USE AREA: 26,722 S.F.  
 INTERNAL LANDSCAPE AREA REQUIRED: 2,872 S.F.  
 INTERNAL LANDSCAPE AREA PROVIDED: 11,142 S.F.

NOTES:  
 1) LANDSCAPED AREAS ON THE PARKING AREA PERMETER OR IN THE INTERNAL ISLANDS MUST EQUAL OR EXCEED A MINIMUM OF TEN (10) PERCENT OF THE TOTAL PAVED SURFACE AREA.  
 2) EACH 6'x20' LANDSCAPED ISLAND SHALL PROVIDE A MINIMUM OF ONE (1) SHADE TREE, SHRUBS AND GROUND COVER.  
 3) EACH 6'x40' LANDSCAPED ISLAND SHALL PROVIDE A MINIMUM OF TWO (2) SHADE TREES, SHRUBS AND GROUND COVER.

**INTERNAL LANDSCAPE AREA TREE REQUIREMENT**  
 2,872 S.F. @ 1 TREE PER 200 S.F. = 14 TREES REQUIRED

NOTES:  
 1) LANDSCAPED AREAS ON THE PARKING AREA PERMETER OR IN THE INTERNAL ISLANDS MUST EQUAL OR EXCEED A MINIMUM OF TEN (10) PERCENT OF THE TOTAL PAVED SURFACE AREA.  
 2) ONE (1) TREE MUST BE PLANTED OR RETAINED PER 200 S.F. OF INTERNAL PARKING.  
 3) NO PARKING SPACE MAY BE MORE THAN 100 FEET FROM A TREE PLANTED IN A PERMEABLE ISLAND, PENINSULA OR MEDIAN OF AN EIGHT-FOOT MINIMUM WIDTH.

**PERIMETER PLANTING AREA CALCULATIONS**  
 TOTAL BUILDING AREA: 13,183 S.F.  
 10% PERIMETER PLANTING AREA: 1,318 S.F.  
 (REQUIRED AND PROVIDED)

**BUILDING 'A' LANDSCAPING**  
 PER CODE: BUILDING PERIMETER LANDSCAPE AREA TO BE PROVIDED: 713.5 S.F. (10%)  
 PROVIDED: BUILDING PERIMETER LANDSCAPE AREA TO BE PROVIDED: 713.5 S.F. (10%)

**BUILDING 'B' LANDSCAPING**  
 PER CODE: BUILDING PERIMETER LANDSCAPE AREA TO BE PROVIDED: 600 S.F. (10%)  
 PROVIDED: BUILDING PERIMETER LANDSCAPE AREA TO BE PROVIDED: 600 S.F. (10%)

**NATIVE SHRUB & GROUND COVER REQUIREMENT**  
 OVERALL SITE: 30% SHRUBS AND GROUND COVER ARE REQUIRED TO BE NATIVE.  
 475 OF 475 SHRUBS AND GROUND COVER ARE NATIVE = 100% NATIVE

**GRASSED AREA**  
 ALL GRASS AREAS WILL BE DROUGHT TOLERANT BAHIA GRASS

**PALM TREES**  
 OVERALL SITE: PALM TREES MAY BE SUBSTITUTED FOR TREES UP TO 30% AT 3 PALMS / 1 TREE.  
 1 OF X TREE CREDITS ARE PALMS = XX% PALMS

**TREES TO BE REPLACED**  
 EXISTING TREE QUANTITY TOTAL DBH

**LANDSCAPE BUFFER REQUIREMENT**  
 BUFFER ALONG WEST BOUNDARY TYPE "A" - 10' WIDE MINIMUM, 1 TREE PER 60 LINEAR FEET WITH CONTINUOUS ROW OF EVERGREEN SHRUBS PLANTED AT 18" HEIGHT.  
 257 LINEAR FEET @ 1 TREE PER 60 FEET REQUIRED AND PROVIDED

**BUFFER ALONG HUDSON AVENUE TYPE "D" - 10' WIDE MINIMUM, 1 TREE PER 30 LINEAR FEET WITH STAGGERED DOUBLE ROW HEDGE. BUFFER PLANTS TO BE ATOP 18" EARTHEN BERM WHERE ADJACENT TO VEHICLE USE AREA.**  
 300 LINEAR FEET @ 1 TREE PER 30 FEET REQUIRED AND PROVIDED

**BUFFER ALONG EAST BOUNDARY TYPE "B" - 15' WIDE MINIMUM, 1 TREE PER 60 LINEAR FEET WITH HEDGE ROW PLANTED AT 6' HEIGHT AND MAXIMUM OF 5' O.C.**  
 257 LINEAR FEET @ 1 TREE PER 60 FEET REQUIRED AND PROVIDED

**BUFFER ALONG SOUTH BOUNDARY TYPE "B" - 15' WIDE MINIMUM, 1 TREE PER 60 LINEAR FEET WITH HEDGE ROW PLANTED AT 6' HEIGHT AND MAXIMUM OF 5' O.C. OR 6' HEIGHT VINYL WALL.**  
 300 LINEAR FEET @ 1 TREE PER 60 FEET REQUIRED AND PROVIDED

**WATER MANAGEMENT REQUIREMENT**  
 MINIMUM 5' WIDE PLANTING AREA TO BE MAINTAINED BETWEEN RETENTION POND AND PUBLIC R.O.W. OR ADJACENT PARCEL.  
 1 TREE PER 50 LINEAR FEET. NOT APPLICABLE

**DROUGHT TOLERANT REQUIREMENT**  
 OVERALL SITE: MAX. 50% PLANT MATERIAL OTHER THAN TREES ARE ALLOWED TO BE NON-DROUGHT TOLERANT.  
 121 OF 4,022 SHRUBS AND GROUND COVER ARE NON-DROUGHT TOLERANT = 3%

**LANDSCAPE MAINTENANCE**  
 ALL ON SITE LANDSCAPING SHALL BE MAINTAINED BY THE PROPERTY OWNER.

**LANDSCAPE IRRIGATION**  
 ALL LANDSCAPING WATERING SHALL BE BY AN IRRIGATION SYSTEM BY OTHERS.

**ARCTURUS GROUP, LLC**  
 CIVIL ENGINEERS • SURVEYORS • LAND PLANNERS  
 2328 U.S. HIGHWAY 19 HOLIDAY, FLORIDA 34681  
 PHONE (727) 940-8888 FAX (727) 940-3549  
 info@arcturusgroup.com

**SPINUSO PLAZA**  
 FOR: ANTHONY SPINUSO  
 10040 HUDSON AVE.  
 HUDSON, FL 34669

**LANDSCAPING PLAN**

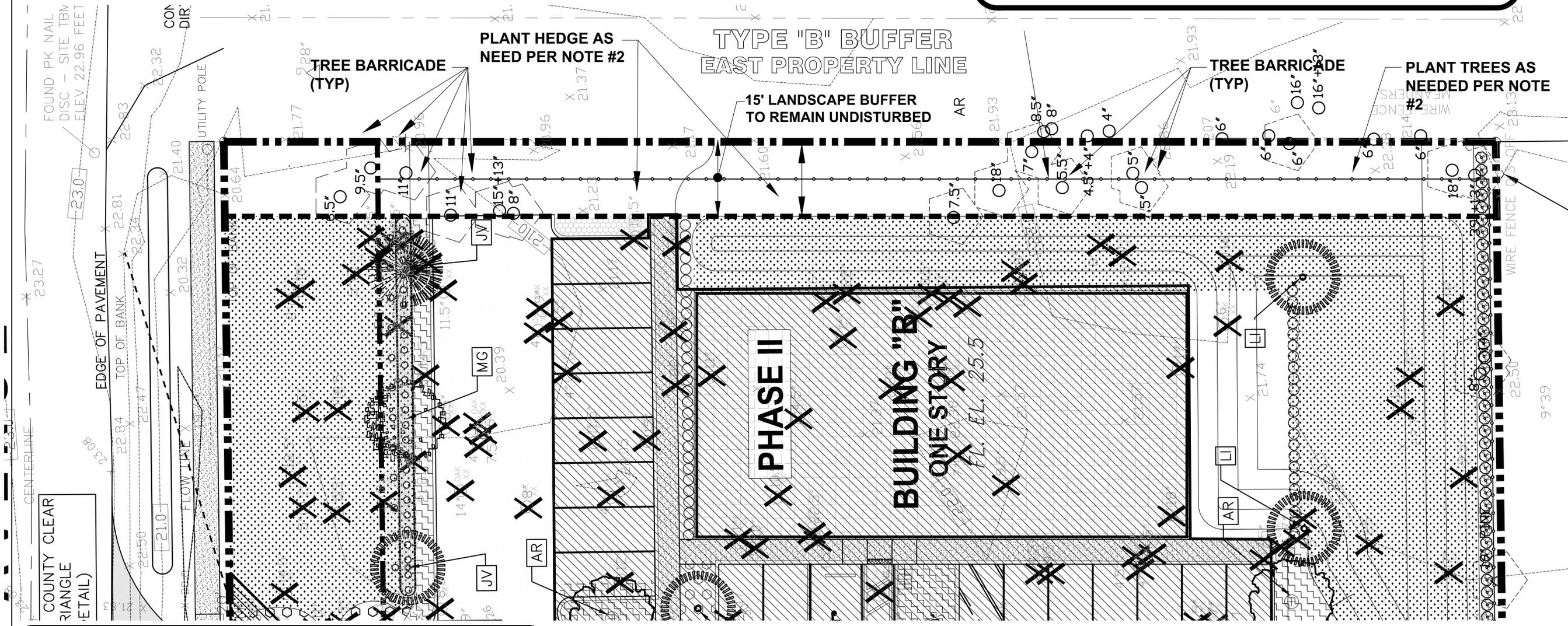
DATE	REVISIONS:
	1
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DATE: 04-23-15

PROJECT NO.: 14000

DRAWING NO.: LS 1.1

**NOTE:**  
 1. A 15' BUFFER TO BE LEFT UNDISTURBED AS A NATURAL BUFFER ALONG THE EAST PROPERTY LINE.  
 2. NEW HEDGE AND TREES TO BE PLANTED AS NEEDED TO CREATE (80) PERCENT OPAQUE WITHIN ONE (1) YEAR.



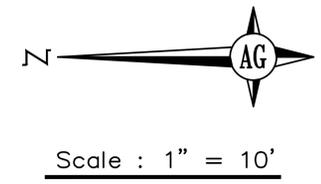
- LANDSCAPE NOTES:**
- TREES TO BE PLANTED SHALL BE FLORIDA GRADE NO.1 OR BETTER PURSUANT TO THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, DIVISION OF PLANT INDUSTRY, GRADES AND STANDARDS FOR NURSERY PLANTS, WHICH IS INCORPORATED HEREIN BY REFERENCE.
  - LANDSCAPE INSTALLATIONS SHALL BE PLACED TO AVOID CONFLICT WITH THE EXISTING AND/OR PROPOSED UTILITIES, BOTH UNDERGROUND AND OVERHEAD.
  - ALL TREES SHALL BE PLANTED ACCORDING TO THE FLORIDA CHAPTER, INTERNATIONAL SOCIETY OF ARBORICULTURE STANDARDS FOR PLANTING, WHICH IS INCORPORATED HEREIN BY REFERENCE. ALL TREES MUST BE MAINTAINED IN GOOD CONDITION AND PLANTED IN LOCATIONS WITH ADEQUATE OPEN SPACE TO ALLOW FOR MATURE TREE-CANOPY DEVELOPMENT.
  - TREES SHALL NOT BE PLANTED WITHIN ANY EASEMENT SO AS TO INTERFERE WITH THE USE OF THAT EASEMENT, NOR UNDER ANY PRESENT OR PLANNED OVERHEAD UTILITY, NOR IN ANY RIGHTS-OF-WAY WITHOUT COUNTY APPROVAL THROUGH THE ASSOCIATED REVIEW PROCESS.
  - MULCH SHALL BE USED IN CONJUNCTION WITH LIVING PLANT MATERIALS SO AS TO COVER EXPOSED SOIL. MULCH SHALL BE INSTALLED TO A MINIMUM DEPTH OF THREE (3) INCHES. THE MULCH SHOULD NOT BE PLACED DIRECTLY AGAINST THE PLANT STEM OR TREE TRUNK. MULCH SHALL NOT BE REQUIRED FOR ANNUAL BEDS. STONE OR GRAVEL MAY BE USED TO COVER A MAXIMUM OF TWENTY (20) PERCENT OF THE LANDSCAPED AREA.
  - ALL LANDSCAPING SHALL BE INSTALLED IN ACCORDANCE WITH STANDARDS AND PRACTICES OF THE FLORIDA NURSERY GROWERS AND LANDSCAPE ASSOCIATION AND THE FLORIDA CHAPTER OF THE INTERNATIONAL SOCIETY OF ARBORICULTURE.
  - 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.

PLANT LIST						
TREES SYMBOL	NO.	SCIENTIFIC NAME	COMMON NAME	SIZE REQUIREMENTS	NATIVE FLORIDA	DROUGHT TOLERANT
MG	3	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	MIN. 7' CALIPER MIN. 9' HEIGHT AT INSTALLATION MATURE SPREAD OR GREATER THAN 20'	Y	Y
CH	3	CHAMBEROPUS FEMINALE	TURKISH EUROPEAN FERN PALM	MIN. 7' CALIPER MIN. 9' HEIGHT AT INSTALLATION MATURE SPREAD OR GREATER THAN 20'	Y	Y
AR	10	ACER RUBRUM	RED MAPLE	MIN. 7' CALIPER MIN. 9' HEIGHT AT INSTALLATION MATURE SPREAD OR GREATER THAN 20'	Y	Y
BD	5	ELAEAGARPUS DELICIFENS	JAPANESE BLUEBERRY	MIN. 7' CALIPER MIN. 9' HEIGHT AT INSTALLATION MATURE SPREAD OR GREATER THAN 20'	Y	Y
LI	3	LACINSTRORHIZA INULCA	CRANE MYRTLE	MIN. 7' CALIPER MIN. 9' HEIGHT AT INSTALLATION MATURE SPREAD OR GREATER THAN 20'	Y	Y
JV	3	JUNIPERUS VIRGINIANA	SOUTHERN RED CEDAR	MIN. 7' CALIPER MIN. 9' HEIGHT AT INSTALLATION MATURE SPREAD OR GREATER THAN 20'	Y	Y
SHRUBS						
SYMBOL	NO.	SCIENTIFIC NAME	COMMON NAME	SIZE REQUIREMENTS	NATIVE FLORIDA	DROUGHT TOLERANT
○	10	YBURENIA SCARPENSUM	SANDALWOOD	MIN. 10' HEIGHT AT INSTALLATION 2" MIN. 1" YEAR EMERALD SPECIES	Y	N
⊕	2	OSBAYTSSUMUM	SWEET YBURENIA	MIN. 10' HEIGHT AT INSTALLATION 2" MIN. 1" YEAR EMERALD SPECIES	Y	N
⊕	18	YBURENIA OBVATUM	WALTERS YBURENIA	MIN. 10' HEIGHT AT INSTALLATION 2" MIN. 1" YEAR EMERALD SPECIES	Y	N
⊕	5	HAMELIA PATENS	FIRE BUSH	MAX. 30 PERCENT OF REQUIRED LANDSCAPED AREA MAY BE GRASSED	Y	Y
⊕	15	OSBAYTSSUMUM	SWEET YBURENIA	MAX. 25 PERCENT COVERAGE OF OVERALL LANDSCAPED AREA (GRASS & GROUND COVER)	Y	N

NOTE: HAMELIA PATENS (FIRE BUSH) TO BE PLANTED 6' HT. & 5' O.C.

GROUND COVER						
SYMBOL	S.F.	SCIENTIFIC NAME	COMMON NAME	SIZE REQUIREMENTS	NATIVE FLORIDA	DROUGHT TOLERANT
○	14219	HELANTHUS DEBILIS	BEACH SUNFLOWER	MAX. 30 PERCENT OF REQUIRED LANDSCAPED AREA MAY BE GRASSED	N	Y
▽	30	MULLENBERGIA CAPILLARIS	MULEY GRASS	PLANTS SHALL BE SPACED TO PRESENT A TENSED 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.	N	N
□	120	LIRIOPE MURCURI	BIG BLUE LIRIOPE	PLANTS SHALL BE SPACED TO PRESENT A TENSED 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.	Y	Y
□	43657	DIANELLA TASMANICA	FLAX LILY	PLANTS SHALL BE SPACED TO PRESENT A TENSED 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.	Y	Y
□	212157	PASPALUM PECCOLLA	PENSACOLA BAHIA GRASS	PLANTS SHALL BE SPACED TO PRESENT A TENSED 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.	Y	N

○ TREE BARRICADE  
 ⊗ EXISTING TREE TO BE REMOVED (SEE DEMO PLAN)



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**AG**

PAT MONTICINI, P.E.  
 P.E. NO. 54864

**SPINUSO PLAZA**  
 FOR:  
 ANTHONY SPINUSO  
 10040 HUDSON AVE.  
 HUDSON, FL 34669

**LANDSCAPE BUFFER DETAIL**

DATE	
REVISIONS:	
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DATE: 04-23-15

PROJECT NO.: 14000

DRAWING NO.: LS 1.1A

**HABITAT MANAGEMENT AND LANDSCAPING PERMITS:**

1. A HABITAT MANAGEMENT AND LANDSCAPING PERMIT IS REQUIRED FOR THE DEVELOPMENT OF THIS PROJECT. APPLICATION SHOULD NOT BE MADE UNTIL FINAL ADMINISTRATIVE APPROVAL HAS BEEN GRANTED.

a. AN APPLICATION AND AN EXTRA COPY OF THE APPROVED FINAL APPLICATION PLAN MUST BE SUBMITTED TO THIS DEPARTMENT IN ORDER TO PROCESS THE PERMIT.

b. ALL EXOTIC SPECIES, I.E. BRAZILIAN PEPPER (SCHINUS TEREBINTHIFOLIUS), PINK TREES (MELALEUCA QUINQUENERVIA), AND CHINESE TALLOW (SAPIUM SEBIFERUM) MUST BE REMOVED 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 RESTABILIZED WITH SUITABLE MATERIAL.

c. ONCE FINAL ADMINISTRATIVE APPROVAL (FAA) HAS BEEN GRANTED, A BARRICADE INSPECTION CAN BE SCHEDULED. WHEN THE BARRICADES HAVE BEEN APPROVED THE PERMIT CAN BE TYPED AND RELEASED.

**TREE PROTECTION AND PRESERVATION:**

TREE BARRICADES AND EROSION CONTROL MEASURE REQUIREMENTS:

1. TREE BARRICADES AND/OR SILT SCREENS OR HAYBALES SHALL BE REQUIRED ALONG THE EDGES OF VEGETATED AREAS TO BE PROTECTED PRIOR TO THE ISSUANCE OF HABITAT MANAGEMENT AND LANDSCAPE PERMITS. THE LOCATION OR EROSION CONTROL MEASURES ARE SHOWN ON THE CONSTRUCTION DRAWINGS.

2. ALL DESIRABLE TREES MUST BE RETAINED WHEREVER POSSIBLE. IT WILL BE REQUIRED THAT PROPOSED IMPROVEMENTS (I.E. BUILDINGS, WALKWAYS, DRIVEWAYS, POND BANKS, DRAINAGE SYSTEMS, ETC.) BE ADJUSTED TO RETAIN DESIRABLE TREES. GRADE CHANGES MUST BE SENSITIVE TO TREES REMAINING. IN GENERAL, NO GRADE CHANGES SHOULD OCCUR WITHIN THE CANOPY DRIP LINE OF PINE TREES AND 2/3 THE CANOPY DRIP LINE OF HARDWOOD TREES TO BE SAVED.

**LANDSCAPING**

1. EACH LANDSCAPING AND REPLANT TREE MUST BE PLANTED WITHIN AN OPEN SPACE PLANTER WITH SUITABLE GROUND COVER. LANDSCAPE TREES MUST BE PLANTED IN SAME VICINITY AS VEHICULAR USE AREAS IN ORDER TO BREAK THE MONOTONY OF UNBROKEN EXPANSES OF PAVING. TREES MUST NOT BE PLANTED WITHIN MAINTENANCE OF EASEMENTS.

2. THE USE OF XERISCAPE DESIGN MUST BE UTILIZED FOR THE REQUIRED LANDSCAPE DESIGN. THE DESIGN DEMONSTRATES THE USE OF A LOW VOLUME IRRIGATION SYSTEM, ORGANIC MULCHES, DROUGHT AND COLD TOLERANT PLANT MATERIAL, ZONING OF PLANT MATERIAL BY WATER REQUIREMENTS, SOIL AMENDMENTS (IF NECESSARY) AND THE PRACTICAL USE OF TURF.

3. NEW LANDSCAPING MUST BE PROTECTED FROM VEHICULAR MOVEMENT BY WHEEL STOPS, RAILROAD TIES, OR OTHER SUITABLE BARRIER, WHERE POSSIBLE, THE AREA BETWEEN THE BARRIER AND LANDSCAPE MATERIAL SHOULD REMAIN AS GREENSPACE.

4. LARGE TREE SPECIES PROPOSED FOR INSTALLATION MUST BE A MINIMUM OF 15 FEET AWAY FROM BUILDINGS, SIGNS, FENCES, LIGHT POLES, UTILITY LINES AND ANY OTHER OBSTRUCTIONS THAT MAY IMPAIR NATURAL GROWTH.

5. TREES PROPOSED FOR INSTALLATION MUST NOT BE IN CONFLICT WITH PROPOSED OR EXISTING UTILITY LINES OR STRUCTURES, EASEMENTS OR OTHER AREAS WHICH MAY REQUIRE EXCAVATION IN THE EVENT OF SYSTEM FAILURE. THESE FEATURES SUCH AS THE WATER LINES MUST REMAIN OUTSIDE THE PLANTER AREA.

6. SOILS WITHIN PLANTER BEDS MUST BE SUITABLE FOR PROPOSED PLANTED MATERIAL WITH REGARDS TO pH, SOIL TEXTURE, SOIL STRUCTURE, AND SEASONAL HIGH WATER TABLE.

7. ALL LANDSCAPE MATERIAL MUST BE FLORIDA GRADE #1 OR BETTER.

8. ALL REQUIRED TREES MUST BE A MINIMUM OF 6' HIGH, 1-1/2" CALIPER AT TIME OF PLANTING.

9. ALL HEDGES MUST BE 24" HIGH AT THE TIME OF PLANTING, PLANTED AT 30" ON CENTER, AND BE MAINTAINED AT A MINIMUM OF 3' IN HEIGHT.

**IRRIGATION NOTES**

1. SHALLOW WELLS, OPEN SURFACE WATER BODIES, OR RECLAIMED WATER MUST BE USED AS A SOURCE OF IRRIGATION WATER. THE DISTRIBUTION SYSTEM FOR IRRIGATION MUST NOT BE CONNECTED TO COUNTY OR MUNICIPAL WATER SOURCES, UNLESS IT CAN BE DEMONSTRATED THAT THESE SOURCES ARE NOT AVAILABLE.

2. IRRIGATION SYSTEMS MUST UTILIZE LOW VOLUME DESIGNS SUCH AS LOW TRACTORY HEADS OR SOAKER HOSES TO PROVIDE DIRECT APPLICATION AND LOW EVAPORATION. SYSTEMS THAT OVERSPRAY AREAS THAT DO NOT REQUIRE IRRIGATION, SUCH AS PAVED AREAS WILL NOT BE ACCEPTABLE. HIGH IRRIGATION NEED AREAS MUST NOT OVERSPRAY LOW NEED AREAS.

3. HIGH WATER DEMAND LANDSCAPE AREAS SUCH AS TURF MUST BE SERVED BY A SEPARATE IRRIGATION ZONE THAN LOW WATER NEED PLANTER BEDS, OR MULCHED AREAS WITH TREES. IN NO CASE, SHALL ANY PLANTED VEGETATION AREA BE MORE THAN 50' FROM A WATER SUPPLY HOSE BIBB.

4. AUTOMATIC IRRIGATION SYSTEMS MUST BE OPERATED BY AN IRRIGATION SYSTEMS MUST BE OPERATED BY AN IRRIGATION CONTROLLER CAPABLE OF DIFFERENTIATING BETWEEN THE SCHEDULES OF HIGH AND LOW WATER DEMAND AREAS. CONTROLLERS MUST HAVE MULTIPLE CYCLE START CAPACITY AND A FLEXIBLE CALENDAR PROGRAM ABLE TO BE SET TO COMPLY WITH LOCAL OR WATER MANAGEMENT DISTRICT IMPOSED RESTRICTIONS.

5. AUTOMATIC IRRIGATION SYSTEMS MUST BE EQUIPPED WITH RAIN SENSOR DEVICE OR SWITCH WHICH WILL OVERRIDE THE IRRIGATION CYCLE OF THE SPRINKLER SYSTEM WHEN ADEQUATE RAINFALL HAS OCCURRED.

**IRRIGATION NOTES (CONTINUED)**

THE IRRIGATION CONTRACTOR SHALL PROVIDE AN UNDERGROUND IRRIGATION SYSTEM TO COVER 100% OF ALL ON SITE PLANTING AREA. THIS SYSTEM SHALL CONTAIN BUT NOT LIMITED TO THE FOLLOWING:

1. UNDERGROUND PIPING, SHALL BE PVC SCHEDULE 40 OR BETTER.
2. SEVEN (7) DAY PROGRAMMABLE TIME CLOCK TO ACTIVATE ZONES.
3. SPRINKLER HEADS COMPATIBLE WITH THE TYPE OF PLANTING.
4. ELECTRIC VALVES.
5. GAUGE 1/4 UF COPPER WIRE.
6. FIBERGLASS OR PLASTIC ZONE VALVE BOXES.

WHERE PIPING IS UNDER DRIVEWAY AND CONCRETE WALKS, THE PIPES SHALL BE INSTALLED IN SCHEDULE 40 SLEEVES 18" BELOW GRADE.

MATERIALS SUPPLIED SHALL BE EQUAL TO THOSE MANUFACTURED BY RAIN BIRD OR APPROVED EQUAL.

THE CONTRACTOR SHALL SUBMIT A SYSTEM LAY-OUT ALONG WITH CATALOG SHEETS OF ALL COMPONENTS IN THE SYSTEM TO THE OWNER FOR APPROVAL PRIOR TO INSTALLATION.

THE ENTIRE SYSTEM SHALL BE GUARANTEED BY THE CONTRACTOR FOR ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE ARCHITECT/ENGINEER.

ANY AND ALL USE OF HOSE BIBBS IN ASSOCIATION WITH NON-POTABLE WATER SUPPLIES SHALL BE IN FULL COMPLIANCE WITH SDCCI STANDARD PLUMBING CODE, CHAPTER VI CRITERIA REFERENCE COLOR CODING OF ABOVE GRADE RISER PIPING AND LABEL/TAGGING OF OUTLETS AS NON-POTABLE WATER SUPPLY.

ANY BUILDING TO BE DEMOLISHED IS SUBJECT TO NOTIFICATION TO THE AIR TOXICS SECTION OF THE COUNTY DEPARTMENT OF ENVIRONMENTAL MANAGEMENT PRIOR TO ANY DEMOLITION OF BUILDINGS.

**XERISCAPING**

1. ORGANIC MULCHES AND/OR DROUGHT TOLERANT GROUNDCOVERS WITHIN PROPOSED LANDSCAPE PLANTER BEDS.

2. DROUGHT AND COLD TOLERANT PLANT MATERIAL.

3. GROUPING OR ZONING PLANT MATERIAL BASE ON SIMILAR WATER REQUIREMENTS AND THE LOCATION OF PROPOSED IRRIGATION WATERING SYSTEMS.

4. THE USE OF SOIL TESTING TO IDENTIFY SOIL CONDITIONS NECESSARY FOR THE CONTINUED SURVIVAL OF PROPOSED LANDSCAPING.

5. ORGANIC SOIL AMENDMENTS (SUCH AS TOP SOILS, MANURE'S, PEAT AND COMPOSTED MATERIALS) MIXED EXISTING SOILS WITHIN LANDSCAPING PLANTER BEDS TO DEPTHS CONSISTENT WITH THE ROOT DEPTH OF PROPOSED PLANTED MATERIAL (USE ONLY IF EXISTING SOIL CONDITIONS WARRANT THESE AMENDMENTS).

6. THE PRESERVATION AND INCORPORATION OF EXISTING PLANT COMMUNITIES ON SITE INTO THE LANDSCAPE PLAN.

7. THE MINIMAL USE OF TURF GRASSES WHICH REQUIRE FREQUENT IRRIGATION.

8. LOW-MAINTENANCE DESIGN.

**TREE & SHRUB PLANTING DETAILS**

1. THE ROOT MASS FORM OF EACH TREE PROPOSED FOR INSTALLATION SHALL BE BALLED OR BURLAPPED. BARE ROOT TREES ARE NOT ACCEPTABLE. ALL NONBIODEGRADABLE WRAPPINGS WILL BE REMOVED AND BURLAP WILL BE FOLDED DOWN TO ENHANCE WATER ABSORPTION. IF WIRE BASKETS ARE USED IN CONJUNCTION WITH BALLED AND BURLAPPED TREES THE FIRST FEW ROWS OF EACH BASKET WILL BE REMOVED AT THE TIME OF INSTALLATION.

2. SUPPORTING APPARATUS SHALL BE REMOVED AFTER 1 COMPLETE GROWING SEASON. ALSO THE FLEXIBLE ATTACHMENTS SHALL BE USED WHERE SUPPORT WIRES ARE WRAPPED AROUND TREE TRUNKS/STEMS TO PREVENT CAMBIAL DAMAGE.

3. PLANTING HOLES ASSOCIATED WITH PROPOSED TREES MUST SLOPED (NOT COMPACTED) AND A MINIMUM OF 18-24 INCHES WIDER THAN THE DIAMETER OF THE ROOT BALL. TREES SHALL BE INSTALLED SUCH THAT THE TOP OF THE ROOT MASS IS LEVEL WITH THE SURFACE OF THE PLANTING HOLE. TREES SHOULD BE INSTALLED 3 - 5 INCHES ABOVE GRADE ON SITES CONTAINING CLAY. A 2 - 3 INCH LAYER OF ORGANIC MULCH MUST ALSO BE PLACED OVER THE ENTIRE SURFACE. BE PLACED OVER THE ENTIRE SURFACE OF EACH PLANTING HOLE. TO PREVENT FUNGAL INFECTION MULCH SHOULD BE PULLED BACK A FEW INCHES FROM THE BASE OF EACH TREE.

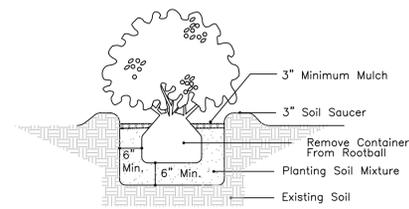
4. IF ON SITE SOIL CONDITIONS ARE SUCH THAT SOIL AMENDMENTS WILL BE NECESSARY, THE PLANTING MUST INCLUDE SOIL MIXTURE THROUGHOUT THE ENTIRE SECTION OF EACH PLANTER AREA TO A DEPTH CONSISTENT WITH THE ROOT DEVELOPMENT OF PROPOSED PLANT MATERIAL.

5. PLANTERS ADJACENT TO OR WITHIN VEHICULAR USE AREAS MUST BE CONSTRUCTED SUCH THAT LIMEROCK, ASPHALT, CONCRETE OR ANY OTHER OBSTRUCTIONS DO NOT EXTEND UNDER THE SURFACE INTO THE PLANTING AREAS.

6. THE PRACTICE OF TREE TRUNK WRAPPING AND THE APPLICATION OF PAINTS/TAR ONTO PRUNED TREE BRANCHES IS NOT RECOMMENDED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURAL.

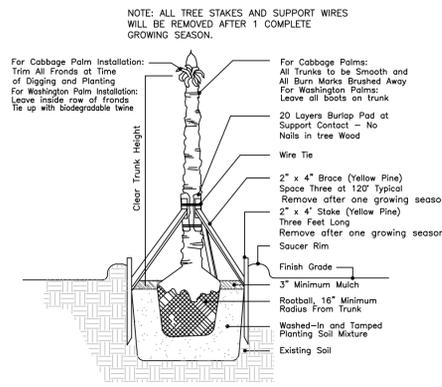
7. PLEASE NOTE THAT THE USE OF FERTILIZERS DURING PLANT INSTALLATION IS NOT APPROVED. SCIENTIFIC EVIDENCE INDICATES THAT FERTILIZATION (SPECIFICALLY THE APPLICATION OF NITROGEN) OF TREES/SHRUBS WITHIN THE FIRST GROWING SEASON INHIBITS ROOT GROWTH. THE LANDSCAPE BUFFER STRIP MUST BE CONSTRUCTED SUITABLE FOR PLANT MATERIAL INSTALLATION.

**TREE & SHRUB PLANTING DETAILS**



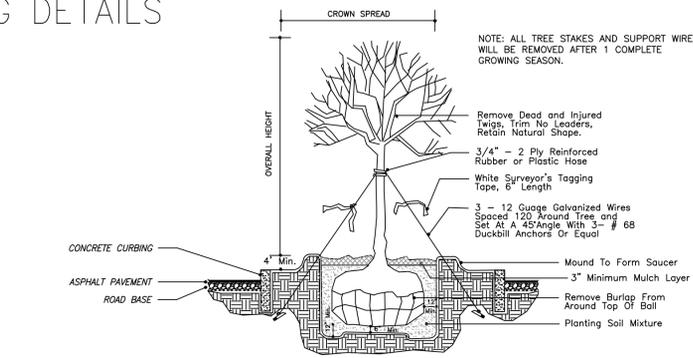
**SHRUB PLANTING DETAIL**

N.T.S.



**PALM STAKING & PLANTING DETAIL**

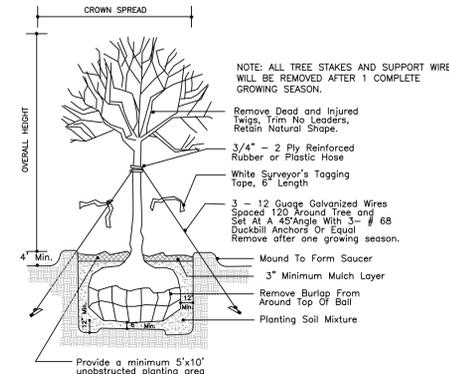
N.T.S.



**TREE STAKING & PLANTING DETAIL**

ADJACENT TO OR WITHIN V.U.A.

N.T.S.



**TREE STAKING & PLANTING DETAIL**

N.T.S.

**PROTECTIVE BARRIER REQUIREMENT AND SPECIFICATIONS**

PROTECTIVE BARRIERS are used during land alteration and construction activities to protect trees and natural areas to be retained on a site.

PROTECTIVE BARRIERS must be erected around TREES to be retained within an area where land alterations and construction activities will occur as well as along NATURAL AREAS where such areas are adjacent to permitted land alteration or construction activities. A PROTECTIVE BARRIER must remain in place until the land alteration and construction activities are completed or until commencement of grade finishing and sodding. No ground disturbance must occur within the barricaded area.

1. TREES - To restrict access into the area within the DRIPLINE of a tree, a physical structure not less than 3 feet in height, comprised of wood or other suitable material, is placed around the tree at the DRIPLINE, except where land alteration or construction activities are approved within the dripline. See Ordinance 90-6; Sec. 4.B.3.m.

The DRIPLINE of a tree is the imaginary, vertical line that extends downward from the outermost tips of the tree's branches to the ground. Fig. A.

BARRIER SPECIFICATIONS FOR TREES:

Four corner upright stakes of no less than 2"x2" lumber connected by horizontal members of no less than 1"x4" lumber.

2. NATURAL AREAS - To restrict access into areas where land alteration and construction activities are not authorized; a physical structure not less than 3 feet in height is placed along the perimeter of such areas.

BARRIER SPECIFICATIONS FOR NATURAL AREAS:

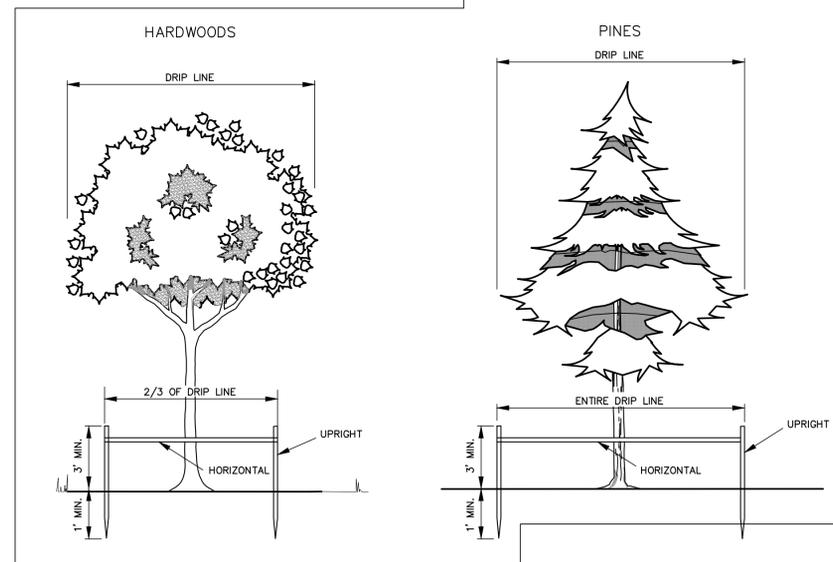
Upright stakes of no less than 2"x2" lumber spaced no more than 25' apart and connected by twine flagged with plastic surveying tape at regular intervals of 5' - 10'. Fig. C. Other methods of demarcation will be considered depending upon the characteristics of the site.

WHY A BARRIER

1. To protect all above ground portions of trees and other significant vegetation from mechanical damage.
2. To protect root systems from compaction.
3. To provide awareness of protected areas to equipment operators.

WHY IT WORKS

A tree's chance for survival is greatly enhanced if no construction material, heavy equipment or stockpiling of soil is allowed inside the barrier; only hand labor.



**TREE BARRICADES**

**SPECIFICATIONS - WOOD BARRIER**

1. MINIMUM RADIUS TO BE PROTECTED:
  - A. HARDWOODS - 2/3 DRIPLINE.
  - B. CONIFERS & SABAL PALMS - ENTIRE DRIPLINE.
2. UPRIGHTS - NO LESS THAN 2" x 2" LUMBER.
3. HORIZONTALS - NO LESS THAN 1" x 4" LUMBER.
4. BARRIERS SHALL BE ERRECTED AROUND ALL PROTECTED TREES AND PALMS, AND INSPECTED BY CITY REPRESENTATIVE BEFORE CONSTRUCTION BEGINS.
5. UPRIGHT POSTS ARE TO BE AT LEAST 4 FEET IN LENGTH WITH A MINIMUM OF 1 FOOT ANCHORED IN GROUND AND 3 FEET ABOVE GROUND.
6. BARRIERS TO REMAIN IN PLACE UNTIL ALL PAVING, CONSTRUCTION AND HEAVY EQUIPMENT IS OUT OF AREA. FURTHER INFORMATION MAY BE OBTAINED FROM THE LAND RESOURCE SPECIALIST AT 562-4741.



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DATE  
 04-23-15

PROJECT NO.  
 14000

DRAWING NO.  
 LS 1.2