

GENERAL NOTES

1. DRAWING DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK.
2. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER.
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARDS AND SPECIFICATIONS LATEST EDITION.
4. THE CONTRACTOR SHALL CONTACT ALL CONCERNED UTILITIES AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS.
5. THE LOCATIONS AND SIZES OF ALL EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE BASED ON THE BEST AVAILABLE INFORMATION. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITIES BY ELECTRONIC METHODS AND BY HAND EXCAVATION IN COORDINATION WITH ALL UTILITY COMPANIES, PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. ALL CONFLICTS OF EXISTING UTILITIES WITH PROPOSED IMPROVEMENTS SHALL BE RESOLVED BY THE OWNER/ENGINEER PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED. ALL PRIVATE UTILITIES THAT ARE SPECIFIED ON THESE PLANS TO BE RELOCATED SHALL BE DONE SO BY EACH INDIVIDUAL UTILITY COMPANY AT THE OWNER'S EXPENSE AND DIRECTION, UNLESS OTHER ARRANGEMENTS ARE PRE-NEGOTIATED.
6. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ANY UNDER-GROUND CONDUIT AND/OR PIPING REQUIRED FOR ELECTRIC POWER, TELEPHONE, CABLE TELEVISION, IRRIGATION, ETC. PRIOR TO BEGINNING SUBGRADE WORK. THE CONTRACTOR SHALL COORDINATE RELOCATION OF ALL EXISTING UTILITIES WITH THE APPLICABLE UTILITY COMPANIES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ELECTRIC COMPANY AND PAYING ALL NECESSARY FEES FOR HOLDING POWER POLES AND/OR LINES AFFECTED BY CONSTRUCTION ACTIVITIES. COST FOR THIS WORK SHALL BE INCLUDED IN THE BID UNIT PRICES FOR THIS PROJECT.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING UTILITIES AT ALL TIMES DURING CONSTRUCTION, INCLUDING PROVIDING DIRECT SUPPORT AND/OR SHORING EXCAVATED AREAS AS NECESSARY. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITY COMPANIES PRIOR TO ATTEMPTING ANY FACILITY SUPPORT. IF A UTILITY COMPANY REQUESTS THAT ONLY THEIR CREWS MAY SUPPORT THEIR FACILITIES, THEN THE CONTRACTOR SHALL PROVIDE FOR THE REQUIRED COORDINATION AND PAYMENT. COST FOR THIS WORK SHALL BE INCLUDED IN THE BID UNIT PRICES FOR THIS PROJECT.
9. ALL EXISTING WATER VALVES, FIRE HYDRANTS, WATER METERS/ SERVICES, AND APPURTENANCES AFFECTED BY CONSTRUCTION SHALL BE ADJUSTED AS NECESSARY. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
10. ALL WATER AND WASTEWATER SYSTEM CONSTRUCTION SHALL BE INSTALLED, INSPECTED AND TESTED IN ACCORDANCE WITH THE CITY OF WINTER HAVEN WATER AND WASTEWATER UTILITY SPECIFICATIONS, LATEST EDITION. IN CASE OF DISCREPANCIES BETWEEN THE CONSTRUCTION PLANS AND THE CITY OF WINTER HAVEN SPECIFICATIONS, THE MOST RESTRICTIVE SHALL APPLY.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED CLEARING AND GRUBBING. COST FOR THIS WORK SHALL BE INCLUDED IN THE BID UNIT PRICES FOR THIS PROJECT.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING OUT THE PIPE LINE LOCATION AND NOTIFYING THE ENGINEER AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF LAYOUT.
13. THE "TRENCH SAFETY ACT" SHALL BE INCORPORATED INTO THIS CONTRACT AS ENACTED BY THE LEGISLATURE OF THE STATE OF FLORIDA TO BE IN EFFECT AS OF OCTOBER 1, 1990.
14. ALL SHOP DRAWINGS FOR ALL CONSTRUCTION ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
15. ALL CONSTRUCTION DEWATERING (WELL POINTS, SUMPS, ETC) WILL REQUIRE A SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWM) WATER USE/DEWATERING PERMIT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING WATER USE/DEWATERING PERMITS AS APPLICABLE. COST FOR THIS WORK SHALL BE INCLUDED IN THE BID UNIT PRICES FOR THIS PROJECT.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GAINING COMPLETE FAMILIARITY WITH THE PROJECT SITE INCLUDING ACCESS LIMITATIONS, SUBSURFACE SOIL CONDITIONS AND GROUNDWATER TABLE LEVELS.
17. THE CONTRACTOR SHALL PROVIDE A QUALIFIED SUPERINTENDENT TO BE PRESENT AT THE PROJECT PRE-CONSTRUCTION MEETING AND TO REMAIN ON THE JOB SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED.
18. THE CONTRACTOR SHALL HAVE THE FOLLOWING AVAILABLE AT THE JOB SITE AT ALL TIMES: ONE COPY (1) OF THE CONTRACT DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS, AND ONE (1) COPY OF EACH REQUIRED CONSTRUCTION PERMIT.
19. THE CONTRACTOR SHALL RESTORE ALL DRAINAGE SWALES/DITCHES AND REPAIR OR REPLACE ALL DRAINAGE STRUCTURES (INLETS, CULVERTS, HEADWALLS, ETC) AFFECTED BY CONSTRUCTION ACTIVITIES. RESTORED DRAINAGE SWALES/DITCHES SHALL MEET ALL ORIGINAL CONDITIONS (INCLUDING LOCATION, GRADE, SOD TYPE, ETC). REPAIRED OR REPLACED DRAINAGE STRUCTURES SHALL MEET ALL ORIGINAL CONDITIONS (INCLUDING LOCATION, ELEVATION, SIZE, MATERIAL, ETC). PRE- AND POST-CONSTRUCTION AS-BUILT INFORMATION SHALL BE PROVIDED FOR ALL DISTURBED DRAINAGE FACILITIES. THE COST FOR DRAINAGE FACILITY RESTORATION/REPAIR/REPLACEMENT WORK (INCLUDING PRE- AND POST-CONSTRUCTION AS-BUILT INFORMATION) SHALL BE INCLUDED IN THE BID UNIT PRICES FOR THIS PROJECT.
20. THE CONTRACTOR SHALL RESTORE/REPLACE ALL EXISTING PAVEMENT, DRIVEWAYS, SIDEWALKS, MAILBOXES, SOD, LANDSCAPING, CONDUIT, CABLE, IRRIGATION SYSTEMS, ETC., AFFECTED BY CONSTRUCTION ACTIVITIES. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
21. SOD SHALL BE REPLACED FOR THE FULL WIDTH DISTURBED. SOD TYPE SHALL MATCH EXISTING UNLESS OTHERWISE SPECIFIED. COST FOR THIS WORK SHALL BE INCLUDED IN THE BID UNIT PRICES FOR THIS PROJECT.
22. CONCRETE AND ASPHALT DRIVEWAYS SHALL BE RESTORED/REPLACED FROM SAW CUT TO EDGE OF ROADWAY PAVEMENT. COST FOR THIS WORK SHALL BE INCLUDED IN THE BID UNIT PRICES FOR THIS PROJECT.
23. OMISSIONS FROM THE DRAWINGS OR SPECIFICATIONS OR THE MIS-DESCRIPTION OF DETAILS OF WORK WHICH ARE NECESSARY TO CARRY OUT THE INTENT OF THE DRAWINGS AND SPECIFICATIONS, OR WHICH ARE CUSTOMARILY PERFORMED SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING SUCH OMITTED AND MIS-DESCRIBED DETAILS OF THE WORK, BUT THEY SHALL BE PERFORMED AS IF FULLY AND CORRECTLY SET FORTH AND DESCRIBED ON THE DRAWINGS AND SPECIFICATIONS.

SERVICE CONNECTIONS, TESTING, AND DISINFECTION

POTABLE WATER SERVICE CONNECTIONS

- 1) THIS ARTICLE COVERS THE MATERIALS AND THE METHOD OF CONSTRUCTION THAT WILL BE UTILIZED IN THE INSTALLATION OF SERVICE CONNECTIONS TO THE WATER DISTRIBUTION SYSTEM. THE WORK COVERED BY THIS ARTICLE EXTENDS FROM THE CURB STOP LOCATED ONE FOOT (1') FROM THE PROPERTY TO THE BUILDING LINE. THIS WORK INCLUDES THE INSTALLATION OF SERVICE PIPE, AND CURB STOP.
- 2) SERVICES SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE DRAWINGS, AT RIGHT ANGLES TO THE CENTERLINE OF THE MAIN AND SHALL BE SPACED A MINIMUM OF FIVE FEET (5') FROM ANY SEWER LATERAL. NO SERVICES WILL BE PERMITTED IN DRIVEWAY AREAS. ALL PIPES, VALVES, AND FITTINGS SHALL HAVE A MINIMUM WORKING PRESSURE RATING OF 160 POUNDS PER SQUARE INCH. WATER SERVICE CONNECTIONS SHALL BE INSTALLED IN CONFORMANCE WITH THE CONSTRUCTION DETAILS AND WITHIN THE LIMITS OF WORK, AS SHOWN ON THE "WATER STANDARD" DRAWINGS. REUSE WATER SERVICE CONNECTIONS SHALL BE INSTALLED IN CONFORMANCE WITH THE CONSTRUCTION DETAILS AND WITHIN THE LIMITS OF WORK, AS SHOWN ON THE "REUSE STANDARD" DRAWINGS.
- 3) SERVICE PIPE: ALL SERVICE LINES SHALL BE PE TUBING, ACCEPTABLE POLY TUBING MANUFACTURERS ARE: CHARTER PLASTICS, ENDOT, DRISCOPEPE, AND VANGUARD PROGRAD.
- 4) BACKFLOW PREVENTER: THE BACKFLOW PREVENTER SHALL BE REDUCED PRESSURE ZONE. ACCEPTABLE MANUFACTURES ARE ; AMES, FEB, WATTS, WILKINS.

GRAVITY SEWER

POLYVINYL CHLORIDE (PVC) PIPE:

1. QUALITY: USE HOMOGENEOUS POLYVINYL CHLORIDE PIPE THROUGHOUT THAT IS FREE FROM VISIBLE CRACKS, HOLES, FOREIGN INCLUSIONS OR OTHER INJURIOUS DEFECTS AND AS UNIFORM AS COMMERCIALY PRACTICAL IN COLOR, OPACITY, DENSITY, AND OTHER PHYSICAL PROPERTIES. USE INTEGRALLY FORMED BELL AND SPIGOT TYPE PIPE UNLESS OTHERWISE SPECIFIED. ALL PIPE AND FITTINGS SHALL HAVE A MAXIMUM STANDARD DIMENSION RATION (SDR) OF 26. REQUIREMENTS AND TEST METHODS OF MATERIALS, DIMENSIONS, WORKMANSHIP, FLATTENING RESISTANCE, PIPE STIFFNESS, EXTRUSION QUALITY, JOINING SYSTEMS AND MARKINGS FOR PVC PIPE AND FITTINGS 4 TO 15 INCHES IN DIAMETER, SHALL BE SDR 26 AND CONFORM TO ASTM D3034. REQUIREMENTS AND TEST METHODS FOR THE ABOVE ITEMS FOR PVC PIPE AND FITTINGS 18 INCHES THROUGH 27 INCHES IN DIAMETER SHALL CONFORM TO ASTM F679.
2. PVC PIPE JOINTS: (NOMINAL DIAMETERS OF 4 INCHES THROUGH 8 INCHES) FURNISH ALL PVC PIPE CRACKS, HOLES, FOREIGN INCLUSIONS OR OTHER INJURIOUS DEFECTS AND AS UNIFORM AS COMMERCIALY PRACTICAL IN COLOR, OPACITY, DENSITY, AND OTHER PHYSICAL PROPERTIES. USE INTEGRALLY FORMED BELL AND SPIGOT TYPE PIPE UNLESS OTHERWISE SPECIFIED. ALL PIPE AND FITTINGS SHALL HAVE A MAXIMUM STANDARD DIMENSION RATION (SDR) OF 26. REQUIREMENTS AND TEST METHODS OF MATERIALS, DIMENSIONS, WORKMANSHIP, FLATTENING RESISTANCE, PIPE STIFFNESS, EXTRUSION QUALITY, JOINING SYSTEMS AND MARKINGS FOR PVC PIPE AND FITTINGS 15 INCHES IN DIAMETER AND SMALLER SHALL CONFORM TO ASTM D3034. REQUIREMENTS AND TEST METHODS FOR THE ABOVE ITEMS FOR PVC PIPE AND FITTINGS 18 INCHES THROUGH 27 INCHES IN DIAMETER SHALL CONFORM TO ASTM F679.

LAYING POLYVINYL CHLORIDE PIPE:

1. LAY PIPE IN ACCORDANCE WITH ASTM D2321.
2. BED THE PIPE TRUE TO LINE AND GRADE WITH UNIFORM AND CONTINUOUS SUPPORT FROM A FIRM BASE. DO NOT USE BLOCKING TO BRING PIPE TO GRADE. KEEP TRENCHES FREE OF WATER DURING THE LAYING OPERATION. LAY ALL PIPE WITHOUT BREAK; UPGRADE FROM STRUCTURE TO STRUCTURE, WITH THE BELL ENDS OF THE PIPE UPGRADE. LAY PIPE TO THE LINE AND GRADE GIVEN AND IN SUCH A MANNER AS TO FORM A CLOSE CONCENTRIC JOINT WITH THE ADJOINING PIPE AND PREVENT SUDDEN OFFSETS OF THE FLOW LINE. CLEAN THE INTERIOR OF THE SEWER PIPE OF ALL DIRT AND SUPERFLUOUS MATERIALS AND ALL DESCRIPTION AS THE WORK PROGRESSES. DO NOT FLUSH NEW LINE INTO THE DOWNSTREAM SYSTEM.
3. GRADE THE TRENCH BOTTOM TO PROVIDE A SMOOTH, FIRM, AND STABLE FOUNDATION AT EVERY POINT THROUGHOUT THE LENGTH OF THE PIPE. AT EACH JOINT IN THE PIPE, RECESS THE BOTTOM OF THE TRENCH IN THE FIRM FOUNDATION IN SUCH A MANNER AS TO RELIEVE THE BELL OF THE PIPE OF ALL LOADS, AND TO ENSURE CONTINUOUS BEARING ALONG THE PIPE BARREL. UPON THE FIRM FOUNDATION, SHOULD LARGE GRAVEL AND COBBLES BE ENCOUNTERED AT THE TRENCH BOTTOM OR PIPE SUB-GRADE REMOVE THEM FROM BENEATH THE PIPE AND REPLACE WITH CLEAN, GRANULAR MATERIAL, COMPACTED TO PROVIDE UNIFORM SUPPORT WITH A FIRM FOUNDATION. USE A DRAG TEMPLATE SHAPED TO CONFORM TO THE OUTER SURFACE OF THE PIPE WILL BE REQUIRED IF OTHER METHODS DO NOT GIVE SATISFACTORY RESULTS.

WIPE THE MATING SURFACES OF THE PIPE TO BE JOINED CLEAN OF ALL DIRT AND FOREIGN MATTER, AND APPLY AN APPROVED LUBRICANT. THEN, WITH THE SURFACES PROPERLY LUBRICATED, POSITION THE SPIGOT END OF THE PIPE INSIDE THE BELL AND APPLY PRESSURE UNTIL THE JOINT IS FULLY SEATED. FOR LARGER DIAMETER PIPE (WHERE A LEVER ATTACHMENT IS REQUIRED), TAKE THE NECESSARY PRECAUTIONS TO ENSURE AN UNDAMAGED PIPE INSTALLATION.

AT TIME WHEN THE PIPE LAYING IS NOT IN PROGRESS, CLOSE THE OPEN END OF THE PIPE WITH A TIGHT-FITTING CAP OR PLUG TO PREVENT THE ENTRANCE OF FOREIGN MATTER INTO THE PIPE. THESE PROVISIONS SHALL APPLY DURING THE NOON HOUR AS WELL AS OVERNIGHT. DO NOT USE THE SEWERS AS DRAINS FOR REMOVING WATER WHICH HAS INFILTRATED INTO THE TRENCHES.

IN ORDER TO PREVENT ACCIDENTAL USE OF THE NEW SEWER PRIOR TO COMPLETION AND ACCEPTANCE, SEAL THE INLET (OR OUTLET) TO EXISTING TIE-IN MANHOLE / SERVICE LINE WITH MECHANICAL SEALS. REMOVE PLUGS AT THE TIME OF FINAL INSPECTION.

DENSITY TEST:

1. ALL BACK FILL DENSITY TESTS SHALL BE CONDUCTED BY AN INDEPENDENT TESTING LAB. FOR TYPICAL PIPE TRENCHES, BACKFILL DENSITY TESTS SHALL BE PERFORMED AT 500 FOOT INTERVALS. FOR PIPE TRENCHES UNDER ROADWAYS, TURN-LANES, AND DRIVEWAY OPEN-CUTS, A MINIMUM OF ONE (1) BACKFILL DENSITY TEST SHALL BE PREFORMED AND THEREAFTER AT 50 FOOT (MAXIMUM) INTERVALS. TESTS SHALL BE CONDUCTED AT TOP OF THE PIPE AND FOR EVERY LAYER TO FINISH GRADE. CERTIFIED COPIES OF THE TEST REPORTS SHALL BE PROVIDED TO THE OWNER, COUNTY AND ENGINEER. DENSITY TEST SHALL MEET 100% OF MAXIMUM DENSITY OF AASHTO T-99 OR WITH PRIOR APPROVAL: 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.

INFILTRATION TEST:

1. IF EXCESSIVE GROUNDWATER IS ENCOUNTERED, CLOSE THE END OF THE SEWER AT THE UPPER STRUCTURE SUFFICIENTLY TO PREVENT THE ENTRANCE OF WATER, AND DISCONTINUE PUMPING OF GROUNDWATER FOR AT LEAST THREE DAYS BEFORE TESTING FOR INFILTRATION. THE INFILTRATION SHALL NOT EXCEED 0.2 GALLONS PER HOUR, PER INCH OF DIAMETER, PER 100 FEET OF MAIN SEWER NOT INCLUDING THE LENGTH OF SERVICE LATERALS. WHERE ANY INFILTRATION IN EXCESS OF THIS AMOUNT IS DISCOVERED, REPAIR OR REPLACE THE SEWER UNTIL THE AMOUNT OF INFILTRATION IS REDUCED TO LESS THAN THE SPECIFIED AMOUNT. IF THE INFILTRATION IS LESS THAN THE SPECIFIED AMOUNT, STOP ANY INDIVIDUAL LEAKS THAT ARE OBSERVED. ALL TESTS MUST BE COMPLETED BEFORE STREET OR TRENCH IS RESURFACED.

CLEANING OF SEWERS

1. AT CONCLUSION OF WORK, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE NEW PIPE LINE BY FLUSHING WITH WATER OR OTHER MEANS TO REMOVE ALL DIRT, STONES, PIECES OF WOOD OR OTHER MATERIAL WHICH MAY HAVE ENTERED DURING THE CONSTRUCTION PERIOD. IF, AFTER THIS CLEANING, OBSTRUCTIONS REMAIN, THEY SHALL BE REMOVED AND CLEANED AND THIS IS THE RESPONSIBILITY OF THE CONTRACTOR.

AS-BUILTS

"AS-BUILT" INFORMATION REQUIRED FROM CONTRACTOR

FOR THE WATER, WASTEWATER, RECLAIMED WATER, AND STORM WATER UTILITIES, THE CONTRACTOR IS REQUIRED TO PROVIDE "AS-BUILT" INFORMATION TO THE ENGINEER THROUGHOUT THE PROJECT DURATION ALLOWING TIME FOR ADDITIONAL INFORMATION AND COMPREHENSIVE AS-BUILT PREPARATION. THE INFORMATION IS TO BE DETERMINED BY A REGISTERED LAND SURVEYOR AND A SEALED COPY AND ELECTRONIC FILE (AUTOCAD REL-13, MINIMUM VERSION) OF THE INFORMATION IS TO BE TRANSMITTED TO THE TOWN AND ENGINEER. THE TYPE OF INFORMATION REQUIRED VARIES FOR EACH TYPE OF UTILITY AND IS DETAILED BELOW. IT IS PREFERABLE FOR ALL DISTANCES FROM THE UTILITIES AND THE LOCATIONS MEASURED FROM TO BE LESS THAN 100 FEET.

BOTH COORDINATES OF THE UTILITY FEATURES (i.e., VALVES, FITTINGS, FIRE HYDRANTS, AND OTHER APPURTENANCES) AND DIRECT SEPARATION MEASUREMENTS MUST BE PROVIDED.

DIGITAL FILES MUST BE SUBMITTED IN STATE PLANE COORDINATES NAD 83 FLORIDA WEST ZONE U.S. FOOT. EOR TO PROVIDE CITY A CADD FILE OF ALL ASBUILTS.

IT IS IMPORTANT THAT THE AS-BUILT INFORMATION BE PROVIDED ON A TIMELY BASIS. FURTHER, INTERIM RELEASES OF UTILITIES ARE OFTEN NECESSARY, EACH REQUIRING A SEPARATE AS-BUILT SUBMITTAL TO THE ENGINEER. IT IS RECOMMENDED THAT THE GENERAL CONTRACTOR OR OWNER BE CONTACTED FOR CONSTRUCTION SCHEDULING PRIOR TO JOB COSTING. THE TOWN AND ENGINEER BOTH RESERVE THE RIGHT TO REQUEST INFORMATION NOT INCLUDED HEREIN WITHOUT RESPONSIBILITY FOR COST.

AS A MINIMUM, THE FOLLOWING INFORMATION SHALL BE PROVIDED:

POTABLE AND RECLAIMED WATER:

- 1.) TYPICAL MEASUREMENTS BETWEEN EDGE OF PAVEMENT OR OTHER ABOVE-GROUND, PERMANENT FEATURES ARE TO BE PROVIDED FOR ALL WATER MAINS.
- 2.) LOCATION OF WATER SERVICE VALVES AND FITTINGS AS MEASURED FROM TWO POINTS (I.E., EDGE OF PAVEMENT AND BUILDING CORNER--OR PROPERTY LINE FOR RESIDENCE).
- 3.) ELEVATION OF THE WATER MAINS, SEWER MAINS, AND STORM WATER MAINS WHERE CROSSINGS WITH SEWER OR STORM WATER LINES OCCUR.
- 4.) LOCATION OF ALL MAINLINE VALVES, BACKFLOW PREVENTERS, FITTINGS/ELBOWS AND AIR RELEASE VALVES SHOWING TWO DISTANCES FROM PERMANENT, ABOVE-GROUND FEATURES.
- 5.) THE DEPTH FROM THE TOP OF THE VALVE BOX COVER TO THE ACTIVATION NUT (SHOULD NOT BE MORE THAN 6 FEET).

WASTEWATER:

- 1.) LOCATION OF SEWER CLEAN-OUTS AS MEASURED FROM TWO POINTS (I.E., EDGE OF PAVEMENT AND BUILDING CORNER--OR PROPERTY LINE FOR RESIDENCES).
- 2.) LOCATIONS OF ALL MAINLINE VALVES, AIR RELEASE VALVES, ELBOWS/FITTINGS, AND CHECK VALVES SHOWING TWO DISTANCES FROM PERMANENT, ABOVE-GROUND FEATURES.

STORMWATER:

- 1) INVERT ELEVATIONS AT EACH END OF EACH PIPE MUST BE PROVIDED, AS WELL AS THE RIM AND GRATE ELEVATION OF THE STORM STRUCTURES.
- 2) ALL ELEVATIONS OF CONTROL STRUCTURES SHALL BE PROVIDED (GRATES, WEIRS, V-NOTCHES, OVERFLOWS, SKIMMER, BLEED-DOWN ORIFICES, ETC.). IN ADDITION, PROVIDE FINAL DIMENSIONS (WEIR WIDTH, ORIFICE DIAMETER, ETC.).
- 3.) FOR EACH STORM WATER RETENTION/DETENTION POND, AT LEAST FOUR SPOT ELEVATION SHOTS AT THE BASE OF THE POND AND AT LEAST FOUR SPOT ELEVATION SHOTS AT THE TOP OF BANK SHALL BE PROVIDED ALONG WITH THE COORDINATES OF EACH POINT OR DIMENSIONS TO EACH POINT. WHERE PONDS ARE GREATER THAN 50 FEET IN ANY DIMENSION, PROVIDE INTERMEDIATE POINTS AT NO GREATER SEPARATION THAN 50 FEET. ADDITIONALLY, THE DIMENSIONS ACROSS THE POND BOTTOM (LENGTH AND WIDTH) AND THE ELEVATION(S) FOR THE LOW POINT OF THE POND BERM SHALL BE PROVIDED.
- 4.) THE INVERT ELEVATION OF STORM PIPES AT MITERED END SECTIONS SHALL BE PROVIDED.
- 5.) PROVIDE TYPICAL SPOT ELEVATIONS WITHIN THE PROJECT SITE AS DETERMINED BY THE ENGINEER (I.E., PAVEMENT SHOTS, TOP OF CURB, ETC.).
- 6.) DIMENSIONS, ELEVATIONS, CONTOURS, FINAL GRADES OR CROSS SECTIONS SUFFICIENT TO DETERMINE CONTRIBUTING DRAINAGE AREAS, FLOW DIRECTIONS, AND CONVEYANCE OF RUNOFF TO THE SYSTEM DISCHARGE POINTS OR OF SYSTEMS UTILIZED TO DIVERT OFF-SITE RUNOFF AROUND OR THROUGH THE NEW SYSTEM.
- 7.) A BENCHMARK SHALL BE DETERMINED AT EACH MAJOR WATER CONTROL STRUCTURE. 8.) THE WATER LEVEL FOR ANY EXISTING WATER, IDENTIFIED WITH THE DATE OF SURVEY. 9.) IN WETLAND MITIGATION OR RESTORATION AREAS, SHOW, IN PAIR VIEW, THE SPATIAL DISTRIBUTION OF PLANTINGS CONSTRUCTED BY ZONE (IF PLANTINGS ARE REQUIRED BY PERMIT) WITH A LIST OF ALL SPECIES PLANTED, IN EACH ZONE, NUMBERS OF ALL SPECIES, SIZES, DATES PLANTED, AND IDENTIFICATION OF SOURCE MATERIAL. ALSO, THE DIMENSIONS, ELEVATIONS, CONTOURS, AND REPRESENTATIVE CROSS-SECTIONS DEPICTING THE CONSTRUCTION.

PARKING:

- 1.) AS-BUILT ELEVATIONS SHOULD BE TAKEN ON PARKING CENTERLINES, AT ALL INTERSECTIONS, AND AT ALL BREAKS IN GRADE.
- 2.) ROAD CENTERLINE AND EDGES SHOULD BE SHOWN AT 100' INTERVALS (MINIMUM).
- 3.) CRITICAL ELEVATIONS SHOULD BE TAKEN IN DITCHES AND SWALES TO DETERMINE THAT THEY HAVE BEEN CONSTRUCTED ESSENTIALLY ACCORDING TO THE PLAN.

CITY OF WINTER HAVEN STANDARD NOTES:

- 1.TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL BE INSTALLED PRIOR TO OPENING A NEW OR MODIFIED ROAD.
- 2.THE APPLICANT SHALL BE RESPONSIBLE FOR OBTAINING APPROPRIATE PERMITS FOR ANY WORK IN COUNTY OR FDOT RIGHT-OF-WAY (RIGHT-OF-WAY USE PERMIT) AND TO PROVIDE COPIES OF SUCH PERMITS TO THE CITY ENGINEER.
- 3.ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF WINTER HAVEN SPECIFICATIONS AS APPLICABLE.
- 4.CHANGES FROM PLANS OR SPECIFICATIONS SUBSTANTIALLY AFFECTING CONFORMANCE TO STANDARDS OR PERFORMANCE OF SYSTEMS MUST BE SUBMITTED IN A WRITTEN REQUEST BY THE ENGINEER OF RECORD AND RECEIVE WRITTEN APPROVAL BY THE CITY ENGINEER PRIOR TO THE IMPLEMENTATION OF SUCH CHANGES, UNLESS OTHERWISE PROVIDED FOR IN THE CITY OF WINTER HAVEN LAND DEVELOPMENT CODE OR THE CITY OF WINTER HAVEN UTILITIES SPECIFICATIONS. MAJOR MODIFICATIONS MAY REQUIRE REVIEW AND APPROVAL BY THE CITY.
- 5.THE CONTRACTOR SHALL NOTIFY CITY OF WINTER HAVEN INSPECTIONS STAFF AT LEAST FIVE (5) WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND PRIOR TO ANY ACTIVITY REQUIRING INSPECTION, INCLUDING SITE PAVING.
- 6.TO SCHEDULE THE REQUIRED PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL CONTACT THE CITY OF WINTER HAVEN ENGINEERING DEPARTMENT OFFICE.
- 7.AT THE COMPLETION OF CONSTRUCTION, AND PRIOR TO BENEFICIAL USE OF ANY FACILITY OR SYSTEM, AS-BUILT RECORD DRAWINGS SHALL BE SUBMITTED AND APPROVED IN ACCORDANCE WITH CITY OF WINTER HAVEN UTILITIES CODE.

2015 POLK COUNTY LAND DEVELOPMENT DIVISION STANDARD NOTES:

1. TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL BE INSTALLED PRIOR TO OPENING A NEW OR MODIFIED ROAD. FOR PUBLIC ROADS, THE APPLICANT SHALL PAY THE COST OF ROAD TRAFFIC SIGNS FOR INSTALLATION BY THE POLK COUNTY TRANSPORTATION DIVISION.
2. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE POLK COUNTY LAND DEVELOPMENT CODE (LDC) APPENDIX A AND THE POLK COUNTY UTILITIES CODE, AS APPLICABLE.
3. CHANGES FROM PLANS OR SPECIFICATIONS SUBSTANTIALLY AFFECTING CONFORMANCE TO STANDARDS OR PERFORMANCE OF SYSTEMS MUST BE SUBMITTED IN A WRITTEN REQUEST BY THE ENGINEER OF RECORD AND RECEIVE WRITTEN APPROVAL BY THE COUNTY ENGINEER PRIOR TO THE IMPLEMENTATION OF SUCH CHANGES. (LDC: CH7, SEC 704.E.2)
4. THE CONTRACTOR SHALL NOTIFY POLK COUNTY INSPECTIONS STAFF (863-534-6449) AT LEAST FIVE (5) WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND PRIOR TO ANY ACTIVITY REQUIRING INSPECTION, INCLUDING SITE PAVING. (LDC: CH7, SEC 704.E.3)
5. TO SCHEDULE THE REQUIRED PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL CONTACT THE POLK COUNTY LAND DEVELOPMENT DIVISION, OFFICE OF THE COUNTY ENGINEER AT (863-534-6449).
6. AT THE COMPLETION OF CONSTRUCTION, AND PRIOR TO BENEFICIAL USE OF ANY FACILITY OR SYSTEM, RECORD DRAWINGS SHALL BE SUBMITTED AND APPROVED. (LDC: APPENDIX A, SEC. A406.C AND UTILITIES CODE: CH.2, PART 3.01)
7. ALL EXCAVATION SHALL BE IN ACCORDANCE WITH THE TRENCH SAFETY ACT PER OSHA STANDARDS.
8. THE CONTRACTOR SHALL ADOPT AND IMPLEMENT MAINTENANCE OF TRAFFIC FOR ALL WORK WITHIN RIGHT-OF-WAY IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) LATEST EDITIONS, EVIDENCE OF WHICH SHALL BE PROVIDED AT THE REQUIRED PRE-CONSTRUCTION MEETING.

CITY OF WINTER HAVEN STANDARD NOTES:

1. ALL POTABLE WATER MAINS AND SERVICES THAT ARE PROPOSED TO BE ABANDONED OR REMOVED SHALL BE PROPERLY CAPPED AND REMOVED OR ABANDONED UNDER THE CITY'S SUPERVISION. THE CONTRACTOR SHALL COORDINATE WITH THE CITY'S INSPECTOR.
2. WHEN REUSE WATER BECOMES READILY AVAILABLE IN THE VICINITY OF THIS PROJECT, I.E., WITHIN 500 FEET TO ANY PROPERTY CORNER, AS SPECIFIED IN THE CITY'S ORDINANCE, THE OWNER SHALL CONNECT TO THE REUSE WATER MAIN TO PROVIDE FOR IRRIGATION NEEDS.
3. WET TAPS SHALL BE UNDER THE CITY'S SUPERVISION AND THE CONTRACTOR SHALL COORDINATE WITH THE CITY'S INSPECTOR.
4. PLEASE NOTE THAT ANY UTILITY WORK WITHIN POLK COUNTY R/W REQUIRES A POLK COUNTY UTILITY PERMIT.
5. ALL DISTURBED AREAS WITHIN THE SIDEWALK, CURB AND GUTTER, ROAD PAVEMENT SHALL BE RESTORED TO ITS ORIGINAL OR BETTER CONDITIONS
6. UPON COMPLETION OF ALL PUBLIC UTILITY IMPROVEMENTS AND BEFORE ACCEPTANCE BY THE CITY, THE DEVELOPER'S ENGINEER SHALL SUBMIT "AS-BUILT DRAWING" FOR ALL PUBLIC WATER AND SANITARY SEWER MAINS IMPROVEMENTS. STATE PLANE COORDINATES FOR ALL PUBLIC WATER MAIN INSTALLATIONS ARE REQUIRED. AS-BUILT DRAWINGS MUST BE SUBMITTED IN AUTOCAD FORMAT, AND A HARD COPY SIGNED, SEALED AND DATED BY THE ENGINEER OF RECORD.
7. UPON COMPLETION OF ALL PUBLIC UTILITY IMPROVEMENTS AND BEFORE ACCEPTANCE BY THE CITY, THE DEVELOPER SHALL PROVIDE A ONE (1) YEAR MAINTENANCE GUARANTEE.

GENERAL NOTES

WESTWOOD AT WINTER HAVEN  
A MULTI-FAMILY COMMUNITY  
WINTER HAVEN, FLORIDA

**CARTER**  
**ENGINEERING**  
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DRAWN BY: DESIGNED BY: CHECKED BY: D.C.C. ISSUE DATE: FIELD DATE:

NO.	DATE	APPR.	REVISIONS

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NO. 31915  
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SIGNED AND SEALED BY:  
DATE: 07/19  
SUBMITTAL PRINTED  
COPIES OF ALL NOT  
CONSIDERED ADOPTED  
DIGITAL SIGNATURE  
ANY ELECTRONIC  
SIGNATURES



IMPORTANT:

ALL SERVICE LATERALS, VALVES, FIRE HYDRANTS, FITTINGS, INLETS, ETC... SHOWN HEREON ARE GRAPHICAL SYMBOLS ONLY AND NOT TO SCALE. REFER TO DETAIL SHEETS FOR EXACT LOCATION, SIZE AND OTHER SPECIFICS.

PROJECT No.	SHEET #
278	
PLOT DATE	C2.0
Oct. 07, 2019-17:04	