

STANDARD ABBREVIATION FOR ENTIRE PLAN SET	
AC	ACRES
ADA	AMERICANS WITH DISABILITY ACT
AHJ	AUTHORITY HAVING JURISDICTION
ARCH	ARCHITECTURAL
BC	BOTTOM OF CURB
BLDG	BUILDING
BM	BENCHMARK
CF	CUBIC FEET
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
C/O	CLEANOUT
CONC	CONCRETE
CY	CUBIC YARDS
DEP	DEPRESSED
DIP	DUCTILE IRON PIPE
ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
EW	ENDWALL
EX	EXISTING
FES	FLARED END SECTION
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
G	GRADE
GR	GRATE
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
HOR	HORIZONTAL
HW	HEADWALL
INT	INTERSECTION
INV	INVERT
LF	LINEAR FOOT
LOC	LIMITS OF CONSTRUCTION
LOD	LIMITS OF DISTURBANCE
LOW	LIMITS OF WORK
LP	LOW POINT
MAX	MAXIMUM
MIN	MINIMUM
MH	MANHOLE
MJ	MECHANICAL JOINT
OC	ON CENTER
PC	POINT OF CURVATURE
PCCR	POINT OF COMPOUND CURVATURE, CURB RETURN
PI	POINT OF INTERSECTION
PROP	PROPOSED
PT	POINT OF TANGENCY
PTCR	POINT OF TANGENCY, CURB RETURN
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INSERTION
PVT	POINT OF VERTICAL TANGENCY
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT OF WAY
S	SLOPE
SAN	SANITARY SEWER
SF	SQUARE FEET
STA	STATION
STM	STORM
SW	SIDEWALK
TC	TOP OF CURB
TPF	TREE PROTECTION FENCE
TYP	TYPICAL
UG	UNDERGROUND
VF	VERIFY IN FIELD
W/L	WATER LINE
±	PLUS OR MINUS
°	DEGREE
ø	DIAMETER
#	NUMBER

## GRAPHIC LEGEND

PROPERTY LINE (PARCEL IN QUESTION)  
 OFF-SITE PROPERTY LINES  
 EXIST. CURB  
 EXIST. EDGE OF PAVEMENT  
 PROP. CURB  
 PROP. CURB TRANSITION  
 PROP. EDGE OF PAVEMENT  
 PROP. SAWCUT LINE  
 EXIST. CABLE LINE  
 PROP. CABLE LINE  
 EXIST. ELECTRIC LINE  
 PROP. ELECTRIC LINE  
 EXIST. FIBER OPTIC LINE  
 PROP. FIBER OPTIC LINE  
 EXIST. GAS LINE  
 PROP. GAS LINE  
 EXIST. OVERHEAD WIRES  
 PROP. OVERHEAD WIRES  
 EXIST. TELEPHONE LINE  
 PROP. TELEPHONE LINE  
 EXIST. WATER LINE  
 PROP. WATER LINE  
 EXIST. UNDERGROUND ELEC./TELE. SERVICE  
 (NO. & SIZE OF CONDUITS NOT DEFINED)  
 PROP. UNDERGROUND ELEC./TELE. SERVICE  
 (NO. & SIZE OF CONDUITS NOT DEFINED)  
 EXIST. SANITARY SEWER LINE  
 PROP. SANITARY SEWER LINE  
 EXIST. STORM DRAIN LINE  
 PROP. STORM DRAIN LINE  
 EXIST. MINOR CONTOUR & ELEVATION  
 EXIST. MAJOR CONTOUR & ELEVATION  
 PROP. FINISH GRADE CONTOUR & ELEVATION  
 PROP. LIMITATION OF DISTURBANCE  
 SOIL DELINEATION LINE  
 PROP. DIRECTION OF DRAINAGE FLOW ARROW  
 EXIST. SPOT ELEVATIONS  
 PROP. GRADE SPOT ELEV.  
 PROP. GRADE SPOT ELEV. (HIGH POINT)  
 PROP. GRADE SPOT ELEV. (MEET EXIST.)  
 PROP. TOP OF CURB & BOTTOM OF CURB ELEV.  
 PROP. FINISHED FLOOR ELEV.  
 PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE  
 OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO  
 BE ESTABLISHED BY WALL DESIGNER)  
 EXIST. CONCRETE UTILITY POLE  
 EXIST. WOOD UTILITY POLE  
 EXIST. GUY WIRE  
 EXIST. LIGHT POLE  
 EXIST. BUILDING LIGHT  
 EXIST. SHOE BOX LIGHT  
 EXIST. CORBA LIGHT POLE  
 EXIST. TRAFFIC SIGNAL POLE  
 EXIST. SANITARY MANHOLE  
 EXIST. STORM MANHOLE  
 EXIST. "B" INLET  
 EXIST. YARD INLET  
 EXIST. FLARED END SECTION  
 EXIST. HEADWALL  
 EXIST. MONITORING WELL  
 APPROX. TEST PIT LOCATION  
 EXIST. FIRE HYDRANT  
 EXIST. WATER VALVE  
 EXIST. WATER METER  
 EXIST. GAS VALVE  
 EXIST. GAS METER  
 EXIST. ELECTRIC PULLBOX  
 EXIST. ELECTRIC METER  
 EXIST. ELECTRIC BOX  
 EXIST. CLEAN OUT  
 EXIST. SEWER VALVE  
 EXIST. WELL  
 EXIST. WATER SHUT OFF VALVE  
 EXIST. TELEPHONE BOX  
 EXIST. CABLE TV BOX  
 PROP. WATER VALVE  
 PROP. GAS VALVE  
 PROP. STORM CLEANOUT  
 PROP. SANITARY CLEANOUT  
 PROP. AREA LIGHT  
 PROP. OUTLET CONTROL STRUCTURE  
 PROP. DRAINAGE MANHOLE  
 PROP. SANITARY SEWER MANHOLE  
 PROP. "C" INLET  
 PROP. "E" INLET  
 PROP. YARD INLET  
 PROP. FLARED END SECTION  
 PROP. MITERED END SECTION  
 PROP. HEADWALL

## WATER & SEWER UTILITY NOTES

- ALL CONSTRUCTION SHALL MEET OR EXCEED THE A/E/HI REQUIREMENTS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS UNLESS OTHERWISE NOTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE SPECIFICATIONS AND DETAILS FROM THE LOCAL AGENCY.
2. THE CONTRACTOR SHALL CONSTRUCT GRAVITY SEWER LATERALS, MANHOLES AND GRAVITY SEWER LINES AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS AND JURISDICTIONAL AGENCY REQUIREMENTS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
3. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE EXACTLY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE ANY WORK COMMENCES IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXCAVATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SINK OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE WAY TO USE FOR SUCH WORK.
4. DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERPROOF PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE PLANS.
5. ALL PHASES OF INSTALLATION, INCLUDING UNLOADING, TRENCHING, LAYING AND BACK FILLING, SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING OF ANY D.I.P. FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER OR OWNER, RENDERS IT UNFIT FOR USE, SHALL NOT BE USED. ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMEDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLES BEING DELIVERED TO THE SITE.
7. ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AREAS TO RECEIVE PAVING SHALL BE COMPLETELY BACK FILLED IN ACCORDANCE WITH THE GOVERNING JURISDICTIONAL AGENCY'S SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
8. UNDERGROUND LINES SHALL BE AS-BUILT BY A STATE OF FLORIDA PROFESSIONAL LAND SURVEYOR BEFORE BACK FILLING.
9. CONTRACTOR SHALL PERFORM, AT HIS OWN EXPENSE, ANY AND ALL TESTS REQUIRED BY THE SPECIFICATIONS AND/OR ANY AGENCY HAVING JURISDICTION. THESE TESTS MAY INCLUDE, BUT NOT BE LIMITED TO, INFILTRATION AND EXFILTRATION, TELEVISION INSPECTION AND A MANHOLE TEST ON GRAVITY SEWER. A COPY OF THE TEST RESULTS SHALL BE PROVIDED TO THE UTILITY PROVIDER, OWNER AND JURISDICTIONAL AGENCY AS REQUIRED.
10. ALL PIPES AND CONNECTIONS ARE TO BE RESTRAINED IN ACCORDANCE WITH THE DETAILS OR JURISDICTIONAL AGENCY REQUIREMENTS, WHICHEVER IS MOST STRINGENT.
11. ALL LINES LABELED "FIRE" SHALL BE INSTALLED BY A CERTIFIED FIRE SPRINKLER INSTALLER.
12. ALL WATER DISTRIBUTION SYSTEM MATERIALS (INCLUDING SERVICES) AND INSTALLATION SHALL CONFORM TO THE SPECIFICATIONS OF THE LOCAL WATER PROVIDER AS PROVIDED IN THEIR STANDARD SPECIFICATIONS MANUAL AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN SPECIFICATION MANUALS PRIOR TO BIDDING THE PROJECT.
13. ALL POTABLE WATER PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH F.A.C. 62-555.320(21)(B)3, USING BLUE AS THE PREDOMINANT COLOR. UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL. BLUE PIPE WILL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL. PIPE STRIPPED DURING THE MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXES OF THE PIPE. THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING AND AFTER INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXES OF THE PIPE, AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OR 24" OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.
14. ALL WATER MAINS ARE DESIGNED FOR A MINIMUM WORKING PRESSURE OF 150 PSI, HAVE COMPRESSION TYPE BELL JOINTS AND BE EITHER ANSI/AWWA C-151/A21.51-02 DUCTILE IRON PIPE (D.I.P.), CLASS 50 FOR 6" DIAMETER PIPE AND LARGER AND CLASS 51 IF PIPE DIAMETER IS SMALLER THAN 6" OR ANSI/AWWA C-300-97, PVC PIPE WITH A MAXIMUM SDR OF 18. ALL D.I.P. WATER MAINS SHALL BE CEMENT LINED AND SEAL COATED IN ACCORDANCE WITH AWWA C-1100. ALL D.I.P. FORCE MAINS SHALL BE COATED OUTSIDE WITH A BITUMINOUS COATING APPROXIMATELY ONE MIL THICK IN ACCORDANCE WITH ANSI Z151-1. A FORCE MORTAR LINING IS NOT APPROPRIATE FOR THIS APPLICATION. ALL D.I.P. FORCE MAINS AND GRAVITY SEWER MAINS SHALL BE COATED INSIDE WITH POLYBOND VIRGON POLYETHYLENE OR PROTECTOR 401 CERAMIC EPOXY COMPLYING WITH A.S.T.M. DESIGNATION D 1248 AND HAVE A MINIMUM "N" VALUE OF 0.012. SEE PROJECT SPECIFICATIONS MANUAL FOR MORE DETAILS. ALL D.I.P. PIPE SHALL BE LAID WITH A MINIMUM OF 30" CLEAR COVER. ALL PVC PIPE SHALL BE LAID WITH A MINIMUM OF 36" CLEAR COVER.
15. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT WILL 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 VACUUM-TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER; A HORIZONTAL DISTANCE OF AT LEAST SIX INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER; A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER IF THE BOTTOM OF THE WATER MAIN WILL BE LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER; A HORIZONTAL DISTANCE OF AT LEAST SIX INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WESTFATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER.
16. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12 INCHES BELOW THE OTHER PIPELINE; NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER PIPELINE.
17. THE WATER SYSTEM SHALL BE CLEANED OF DEBRIS, FLUSHED AND TESTED FOR A PERIOD OF NOT LESS THAN 2 HOURS AT A MINIMUM STARTING PRESSURE OF 150 PSI WITH AN ALLOWABLE LEAKAGE NOT TO EXCEED THE ALLOWABLE GAL/HR IN ACCORDANCE WITH ANSI/AWWA C-600-05 STANDARD SECTION 4.2.2.
- $(\text{EQUATION } Q = L \cdot D \cdot P)$   
148,000
- Q = ALLOWABLE LEAKAGE, GALLONS/HOUR  
L = LENGTH OF PIPE TESTED, FEET  
D = NOMINAL DIAMETER, INCHES  
P = AVERAGE TEST PRESSURE, LB/IN GAUGE
18. AFTER THE PRESSURE TEST, THE SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH ANSI/AWWA C651-05 STD. BACTERIOLOGICAL TESTS SHALL BE TAKEN TWO (2) CONSECUTIVE DAYS, AT LEAST 24 HOURS APART AND SHALL BE AT LEAST ONE SAMPLE PER 1,200 FEET OF MAIN IN THE SYSTEM. THE SAMPLE SHALL HAVE A HETEROLOGIC PLATE COUNT (HPC) LESS THAN 500 CFU/ML AND SHALL BE FREE OF COLIFORM BACTERIA.
19. WATER SYSTEM PRESSURE TESTS SHALL BE FOR 2 HOURS AT LINE PRESSURE AFTER THE 150 PSI TEST & DISINFECTED. DISINFECTED SHALL BE IN ACCORDANCE WITH ANSI/AWWA C651-05 STD.
20. AT THE TIME OF BACTERIOLOGICAL SAMPLING, CHLORINE RESIDUAL DEFORMATION SHALL BE MADE TO INSURE THAT CHLORINE CONCENTRATION IN THE MAINS IS NOT LOWER THAN 2.0 MG/L (50.0 MG/GAL) OR 0.4 MG/L (10.0 MG/GAL) COMBINED MAXIMUM OR LESS THAN 0.2 MG/L (5.0 MG/GAL) FREE CHLORINE. THE RESULT SHALL BE REPORTED ALONG WITH THE BACTERIOLOGICAL TEST RESULTS. ALL TESTING SHALL BE COORDINATED AND PAID FOR BY THE CONTRACTOR.
21. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING UTILITY & DRAIN CONNECTION LOCATIONS. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME. SERVICE SIZES TO BE DETERMINED BY ARCHITECT.
22. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILIZATION OF ANY EXISTING UTILITY MAIN, STRUCTURES AND/OR APPURTENANCES DURING CONNECTION.
23. LOCATION & LAYOUT OF GAS, ELECTRIC & TELECOMMUNICATION UTILITY LINES AND SERVICES SHOWN ON THESE PLANS ARE SCHEMATIC IN NATURE. ACTUAL LOCATION & LAYOUT OF THESE UTILITIES & SERVICES ARE TO BE PER THE APPROPRIATE UTILITY PROVIDER.
24. ALL BUILDING FEATURES AND DIMENSIONS TO BE COORDINATED WITH ARCHITECTURAL PLANS ON THE APPROVED BUILDING PERMIT PLAN SET. ANY DISCREPANCIES WITH THE CIVIL CONSTRUCTION DOCUMENTS PLANS TO BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.
25. ALL SEWER AND WATER FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATORY AGENCY'S RULES AND REGULATIONS.
26. ALL PROPOSED UTILITIES TO BE INSTALLED UNDERGROUND UNLESS OTHERWISE NOTED.
27. PIPE LENGTHS ON THIS PLAN HAVE BEEN MEASURED AS THE DISTANCE BETWEEN THE CENTER POINT OF THE TWO CONNECTED STRUCTURES.

## EXISTING UTILITIES

EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE COMMENCING ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.

## **INTERRUPTION OF EXISTING UTILITIES**

ANY CONSTRUCTION WORK THAT REQUIRES INTERRUPTION OF SERVICE TO ANY CUSTOMER SHALL BE DONE SO WITH A MINIMUM OF SEVENTY-TWO (72) HOUR NOTICE TO, AND WRITTEN APPROVAL BY THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE LOCAL JURISDICTIONAL AGENCIES AND OTHER GOVERNING AGENCIES, AND OTHER AFFECTED UTILITIES PRIOR TO SCHEDULING THE SHUTDOWN TO ASSESS THE SCOPE OF WORK. ALL SYSTEM SHUTDOWNS SHALL BE SCHEDULED AT THE REQUEST OF THE CONTRACTOR AT SUCH TIME THAT SYSTEM DEMAND IS LOW. THIS GENERALLY REQUIRES NIGHT WORK BY THE CONTRACTOR. AT THE TIME OF THE SHUTDOWN, AN INSPECTION BY A REPRESENTATIVE OF THE UTILITY, ALL COST OF THE SHUTDOWN SHALL BE BORNE BY THE UTILITY. THE SHUT DOWN SHALL BE PROVIDED, MINIMUM, FORTY-EIGHT (48) HOURS WRITTEN NOTIFICATION BY THE CONTRACTOR.

## SURVEY DATA

1. THE CONTRACTOR SHALL PROTECT ALL PERMANENT REFERENCE MONUMENTS AND TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO SURVEY MARKERS DURING CONSTRUCTION. ANY SURVEY MARKERS DAMAGED DURING CONSTRUCTION WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
2. BENCHMARK LOCATION AND ELEVATION ARE AS REPRESENTED BY SURVEYOR AT THE TIME OF SURVEY. CONTRACTOR SHALL VERIFY ITS CORRECTNESS AT TIME OF CONSTRUCTION.
3. ALL ELEVATIONS ON THE PLANS OR REFERENCED IN THE SPECIFICATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D. 1988).

## MINIMUM REQUIRED "AS-BUILT" INFORMATION

- ALL AS-BUILT INFORMATION SUBMITTED TO THE ENGINEER SHALL BE SUFFICIENTLY ACCURATE, CLEAR AND LEGIBLE TO SATISFY THE ENGINEER THAT THE INFORMATION PROVIDES A TRUE REPRESENTATION OF THE IMPROVEMENTS CONSTRUCTED.
2. STORM DRAINAGE:
- A. TOP ELEVATION OF EACH MANHOLE FRAME AND COVER / GRATE AS WELL ALL OTHER STRUCTURES (HEADWALLS, CONTROL STRUCTURES, ETC.).
  - B. INVERT ELEVATION OF EACH LINE ENTERING AND LEAVING EACH STRUCTURE, INCLUDING UNDERDRAIN PIPES.
  - C. INVERTS OF ALL MITERED END SECTIONS
  - D. ACTUAL LENGTH AND GRADE OF PIPE BETWEEN THE STRUCTURES
  - E. INVERT ELEVATION AND TWO HORIZONTAL TIES FROM PERMANENT VISIBLE OBJECTS TO ALL STORM STUB-OUTS.
  - F. CONTRACTOR SHALL PROVIDE ACCURATE AS-BUILT DIMENSIONS AND ELEVATIONS OF THE STORM WATER MANAGEMENT AREAS IMMEDIATELY AFTER FINAL GRADING AND PRIOR TO SEEDING OR SOODING OF THE SLOPES. AT A MINIMUM, THE CONTRACTOR SHALL PROVIDE CROSS SECTIONS ON ALL SIDES OF THE WATER MANAGEMENT AREAS AT 100-FOOT INTERVALS. THE CROSS SECTIONS SHALL BE PROVIDED FROM TOP OF BANK TO THE SLOPE BREAK BELOW CONTROL ELEVATION. THE ENGINEER'S APPROVAL IS REQUIRED PRIOR TO GRASSING OF THE BANK. IF ANY MODIFICATIONS ARE SPECIFIED, ADDITIONAL AS-BUILTS MAY BE REQUIRED.
3. UTILITY CROSSING SEPARATION INFORMATION FOR THAT PROVIDED ON THE PLANS VERIFYING:
- A. FINISHED GRADE AT THE LOCATION OF THE CROSSING WITH SIZE AND MATERIAL OF EACH PIPE
  - B. BOTTOM ELEVATION OF TOP PIPE
  - C. TOP ELEVATION OF BOTTOM PIPE
  - D. CLEARANCE BETWEEN EACH PIPE
4. ALL OTHER REQUIREMENTS LISTED SHALL CONFORM TO THE AHJ DOCUMENTATION.
- A. LOCATIONS AND DEPTHS OF UNDERGROUND UTILITIES.
  - B. REVISIONS TO ROUTING OF PIPING AND CONDUITS.
  - C. REVISIONS TO ELECTRICAL CIRCUITRY.
  - D. ACTUAL EQUIPMENT LOCATIONS.
  - E. CHANGES MADE BY CHANGE ORDER OR CONSTRUCTION CHANGE DIRECTIVE.
  - F. CHANGES MADE FOLLOWING ENGINEER'S WRITTEN ORDERS.
  - G. DETAILS NOT ON THE ORIGINAL CONTRACT DRAWINGS.
  - H. FIELD RECORDS FOR VARIABLE AND CONCEALED CONDITIONS.
  - I. ALL SLEEVES, FITTINGS, TEES, BENDS, VALVES, ETC. SHALL BE LOCATED BY STATION/OFFSET (OR METHOD APPROVED BY ENGINEER) AND ELEVATION OF TOP OF PIPE FOR ALL CONSTRUCTED SLEEVING. AS-BUILTS FOR ALL SLEEVING DEPICTING TOP OF PIPE AT 100-FOOT INTERVALS MUST BE PROVIDED.
  - J. RECORD DRAWINGS SHALL INDICATE AS-BUILT DATA FOR EVERY ELEVATION SHOWN ON THE PLANS.
  - K. IF A NEW BENCHMARK LOCATION IS ESTABLISHED, CONTRACTOR SHALL PROVIDE A BENCH LOOP CLOSURE TO THE CLOSEST EXISTING BENCHMARKS IN BOTH DIRECTIONS. ALL BENCHMARK DATA SHALL BE SUBMITTED BY A REGISTERED LAND SURVEYOR.
  - L. IDENTIFICATION OF ADDENDUM ITEMS ISSUED DURING BIDDING PERIOD.
  - M. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL AS-BUILT DATA FOR UTILITIES AND SLEEVING IS COLLECTED PRIOR TO PAVEMENT SECTION CONSTRUCTION. PRELIMINARY UTILITY AS-BUILTS MUST BE PROVIDED TO THE ENGINEER FOR REVIEW PRIOR TO PAVEMENT SECTION CONSTRUCTION.
  - N. PRESSURE SYSTEMS (WATER, FORCE MAIN AND RECLAIMED):
    - i. ACTUAL LENGTHS BETWEEN BRANCHES AND VALVES ALONG THE MAIN RUN.
    - ii. TOP OF PIPE AND FINISHED GRADE ELEVATIONS AT 100' INTERVALS.
    - iii. LOCATE WITH MEASUREMENTS FROM PERMANENT VISIBLE OBJECTS ALL FITTINGS/ACCESSORIES NOT VISIBLE FROM THE SURFACE (MINIMUM TWO POINT TIES).
  - W. AS-BUILT INFORMATION SUBMITTED TO THE ENGINEER SHALL BE SUFFICIENTLY ACCURATE, CLEAR AND LEGIBLE TO SATISFY THE ENGINEER THAT THE INFORMATION PROVIDES A TRUE REPRESENTATION OF THE IMPROVEMENTS CONSTRUCTED.
  - V. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD COMPLETE SETS OF AS-BUILT CONSTRUCTION DRAWINGS AS REQUIRED FOR SUBMITTAL AND APPROVAL. THESE DRAWINGS SHALL BE MARKED TO SHOW "AS-BUILT" CONSTRUCTION CHANGES AND DIMENSIONED LOCATIONS AND ELEVATIONS OF ALL IMPROVEMENTS AND SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR.
  - VI. ALL OTHER REQUIRED PRESSURE PIPE INFORMATION IN ACCORDANCE WITH THE AS-BUILT REQUIREMENTS OF AHJ.

## PHASING NOTES

1. CONTRACTOR MAY PHASE EROSION AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH SITE CONSTRUCTION PHASING.
2. CONTRACTOR SHALL ENSURE THAT THE CONSTRUCTION AREA IS SEPARATED FROM THE AREA NOT UNDER CONSTRUCTION WITH A TEMPORARY CHAIN LINK FENCE AND ENSURE THE SAFETY OF THE PUBLIC.

## SEQUENCE OF CONSTRUCTION

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAYDOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.

PHASE 1:


1. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AND INSTALL SILT FENCE, TURBIDITY BARRIER AND INLET PROTECTION. CONTRACTOR TO OBTAIN APPROVAL FROM JURISDICTION HAVING AUTHORITY THAT ALL SOIL EROSION CONTROL MEASURES WERE INSTALLED PROPERLY.
2. PERFORM CLEARING AND GRUBBING AND DEMOLITION.

PHASE 2:  
1. PERFORM MASS GRADING. ROUGH GRADE TO ESTABLISH PROPOSED DRAINAGE PATTERNS.

2. CONSTRUCT PROPOSED DRAINAGE INFRASTRUCTURE.
3. TEMPORARILY SEED WITH PURE LIVE SEED, THROUGHOUT CONSTRUCTION, DISTURBED AREAS THAT WILL BE INACTIVE FOR 7 DAYS OR MORE OR AS REQUIRED BY GENERIC PERMIT.
4. CONSTRUCT PROPOSED IMPROVEMENTS.
5. COMPLETE FINAL GRADING AND FINAL STABILIZATION.
6. REMOVE TEMPORARY EROSION CONTROL MEASURES.

## NOTES

1. CONTRACTOR TO CONSIDER POTENTIAL DOWNERING ACTIVITIES WHEN PREPARING BID DOCUMENTS FOR THIS PROJECT.
2. CONTRACTOR SHALL OBTAIN ANY NECESSARY DOWNERING PERMITS AS SITE CONDITIONS AND CONSTRUCTION ACTIVITIES REQUIRE.
3. CONTRACTOR TO USE B.M.P.'S TO ENSURE COMPLIANCE WITH NPDES AND WATER MANAGEMENT DISTRICT REGULATIONS FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES AND DOWNERING OPERATIONS.
4. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR, OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.

		<b>DYNAMIC</b> ENGINEERING - PLANNING TRAFFIC • SURVEY • ZONING	
		PROJECT: <b>LT 20, LLC</b> <b>PROPOSED WAREHOUSE ADDITION</b> PARCEL ID# 4842-26-00-0371 115 NW 16TH STREET POMPANO BEACH, BROWARD COUNTY, FL 33060	

<b>THIS PLAN SET IS FOR PERMITTING PURPOSES          ONLY AND MAY NOT BE USED FOR CONSTRUCTION</b>		DRAWN BY: _____ SRM	DESIGNED BY: _____ EC	CHECKED BY: _____ AP	DATE: _____
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<b>DYNAMIC</b> <b>ENGINEERING</b>	
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<h1 style="margin: 0;">ÁNGEL PIÑERO</h1>	
PROFESSIONAL ENGINEER FLORIDA LICENSE NO. 88047 DATE: _____	

		<b>PROTECT YOURSELF</b>	
<b>Know what's below</b> <b>Call before you dig.</b>		ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO EXCAVATE THE EARTH'S SURFACE ANYWHERE IN ANY STATE.	
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: <a href="http://WWW.CALL811.COM">WWW.CALL811.COM</a>			

TITLE: <h2 style="margin: 0;">GENERAL NOTES</h2>	
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SCALE: (H) NOT TO (V) SCALE	DATE: 04/15/2025
PROJECT No: 5758-25-01613	

SHEET No: <h1 style="margin: 0;">C0.02</h1>	Rev. #: 
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