



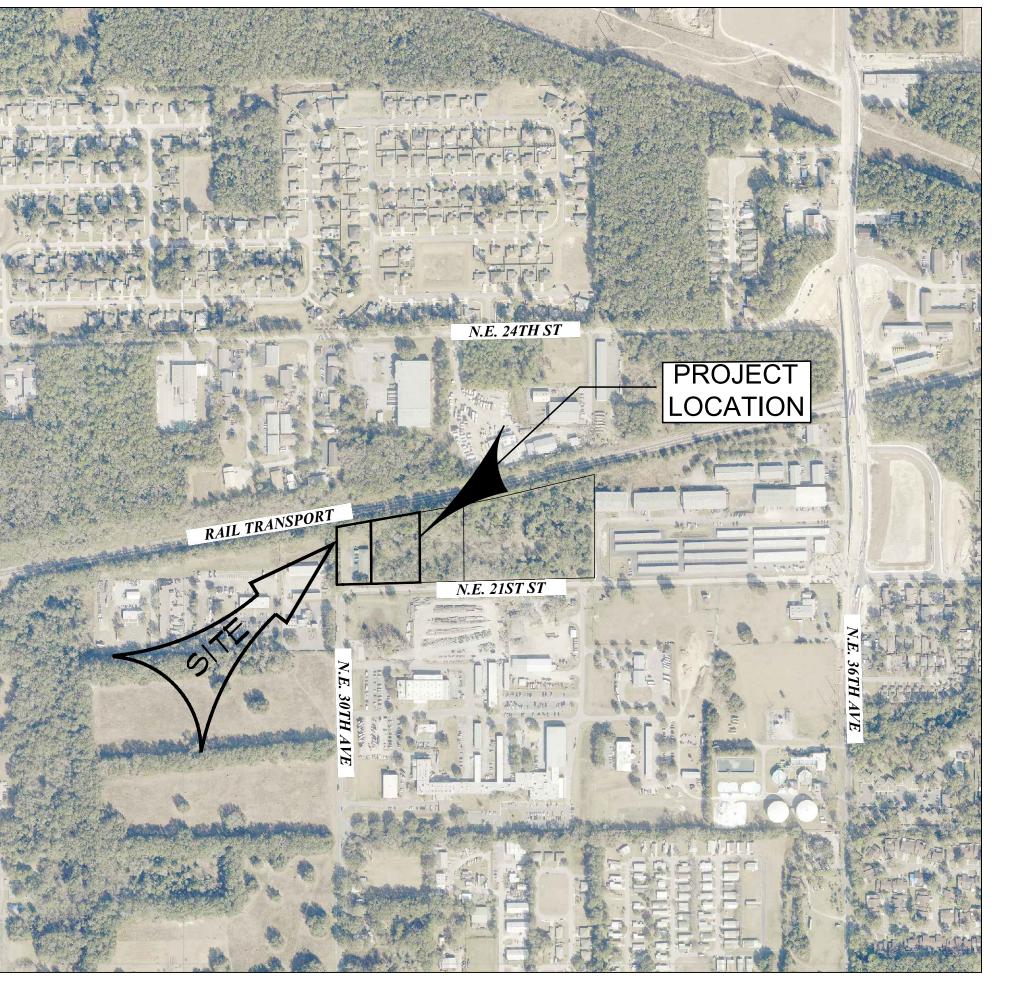






CITY OF OCALA NORTH COMPLEX

CITY OF OCALA, FLORIDA



VICINITY MAP 1" = 500'

OWNER/ DEVELOPER: CITY OF OCALA ENGINEERING & WATER RESOURCES DEPARTMENT 1805 NE 30TH AVE. BLDG 600 OCALA, FL, 34470 PHONE: (352) 351-6772

SURVEYOR: R. KELLY ROBERTS, P.S.M.

CITY OF OCALA 1805 NE 30TH AVE. BLDG 700 OCALA, FL, 34470 PHONE (352) 351-6741

CIVIL ENGINEER: TILLMAN AND ASSOCIATES ENGINEERING, L.L.C. JEFFREY MCPHERSON, P.E. 1720 SE 16TH AVE. BLDG. 100 OCALA, FLORIDA 34471 PHONE (352) 387-4540

GEOTECHNICAL CONSULTANT: GEO-TECH, INC. CONTACT: JONNY HEATH 1016 S.E. 3RD AVENUE OCALA, FLORIDA 34471 PHONE (352) 694-7711

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GENERAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF SIZE AND LOCATION OF ALL EXISTING UTILITIES AND RELATED CONSTRUCTION PRIOR TO COMMENCEMENT OR WORK.CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA, INC. AT 1-800-432-4770, IN ACCORDANCE WITH CHAPTER 556, FLORIDA STATUTES.
- 2. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE LATEST STANDARDS OF CITY OF OCALA AND FDOT.
- PAVEMENT STRIPING TO BE IN ACCORDANCE WITH CITY OF OCALA SPECIFICATIONS AND WITH THE FLORIDA D.O.T. ROADWAY & TRAFFIC STANDARDS, INDEX 17346.
- ALL TRAFFIC CONTROL SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. WHERE MUCK OR OTHER ORGANIC MATERIAL IS FOUND, IT SHALL BE REMOVED AND REPLACED BY GOOD QUALITY BACKFIL MATERIAL OBTAINED FROM THE GRADING OPERATIONS OR OTHER SOURCE APPROVED BY THE ENGINEER. THE ORGANIC MATERIAL SHALL BE THEN USED AS TOP DRESSING WHEN MIXED WITH CLEAN SANDY SOIL.
- ALL FINISHED GRADES AND ELEVATIONS ARE AS DENOTED BY THE APPLICABLE LEGEND. 7. AS PART OF THE CLEARING AND GRUBBING OPERATION, THE CONTRACTOR IS TO REMOVE EXISTING FACILITIES AND / OR FENCING FROM THE SITE AS SHOWN ON PLANS
- THE CONTRACTOR SHALL NOTIFY CITY OF OCALA ENGINEERING DIVISION AND TILLMAN AND ASSOCIATES ENGINEERING. LLC AT LEAST ONE WEEK BEFORE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR SHALL OBTAIN A CITY OF OCALA R/W PERMIT PRIOR TO COMMENCING WORK WITHIN CITY OF OCALA R/W's.
- 9. A MINIMUM SEPARATION OF 1.5 FEET BETWEEN THE LIMEROCK BASE AND THE HIGHEST GROUNDWATER ELEVATION SHALL BE MAINTAINED WITHIN THE RIGHT-OF-WAY. CONTRACTOR TO NOTIFY ENGINEER IF 1.5 FEET OF SEPARATION IS NOT ACHIEVED.
- 10. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 11. PER SECTION 82-371, CITY OF OCALA CODE OF ORDINANCES: FOR ANY WORK WITHIN PUBLIC RIGHT OF WAYS, A RIGHT OF WAY LIZATION PERMIT MUST BE OBTAINED FROM THE ENGINEERING DEPARTMENT A MINIMUM OF 5 BUSINESS DAYS PRIOR TO THE START OF CONSTRUCTION.
- 12. DUE TO THE CONCERN OF HUMAN BEAR CONFLICT, THE CONSTRUCTION SITE SHALL BE KEPT CLEAN WITH WILDLIFE-RESISTANT CONTAINERS FOR WORKERS TO USE FOR FOOD-RELATED AND OTHER WILDLIFE-ATTRACTANT REFUSE. ADDITIONALLY, FREQUENT TRASH REMOVAL IS REQUIRED WITH THE USE OF PROPER FOOD STORAGE AND REMOVAL ON WORK SITES

PAVING AND DRAINAGE NOTES

- 1. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCE BETWEEN CENTERLINES OF DRAINAGE STRUCTURES.
- ALL PAVEMENT RETURN RADII SHALL BE 25' AND MEASURED FROM THE INTERFACE TO THE CONCRETE CURB AND PAVEMENT SURFACE UNLESS OTHERWISE NOTED.
- 3. DITCH BOTTOM AND CONTROL STRUCTURE INLET GRATES SHALL BE SECURED WITH CHAIN AND EYEBOLT.
- 4. FIVE (5) FEET OF SOD IS REQUIRED AROUND ALL DITCH BOTTOM INLETS, MANHOLES, HEADWALLS AND MITERED END SECTIONS.
- 5. TOP ELEVATIONS OF MANHOLES IN GRASSED AREAS SHALL BE LOCATED AT FINISHED GRADE ELEVATION. AS AN ALTERNATIVE, CONTRACTOR MAY USE ALTERNATIVE PIPE MATERIALS IN LIEU OF RCP. HOWEVER, CONTRACTOR MUST RECEIVE
- APPROVAL OF ALTERNATIVE PIPE MATERIALS IN WRITING BY CITY OF OCALA AND TILLMAN & ASSOCIATES ENGINEERING, LLC PRIOR TO CONSTRUCTION. TOP SOIL WHICH HAS BEEN STRIPPED AND STOCK PILED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED ON ALL
- REGRADED SURFACES SO AS TO PROVIDE AT LEAST FOUR INCHES OF EVEN COVER TO ALL DISTURBED AREAS OF THE DEVELOPMENT AND SHALL BE STABILIZED BY SEEDING OR PLANTING
- ALL DISTURBED AREAS WITH SLOPES UP TO 6:1 SHALL BE SEEDED AND MULCHED. SLOPES STEEPER THAN 6:1 SHALL BE SODDED AND SLOPES 3:1 OR STEEPER SHALL HAVE THE SOD PEGGED.
- 9. SEE TABLE 2.0 FOR REQUIRED STORM PIPE COVER BENEATH AN UNPAVED SECTION. 10. SEE TABLE 3.0 FOR REQUIRED STORM PIPE COVER BENEATH RIGID PAVEMENT
- 11. SEE TABLE 4.0 FOR REQUIRED STORM PIPE COVER BENEATH FLEXIBLE PAVEMENT
- THE TABULATED VALUES ARE RECOMMENDED MINIMUM DIMENSIONS TO WITHSTAND ANTICIPATED HIGHWAY TRAFFIC LOADS. ADDITIONAL COVER MAY BE REQUIRED TO SUPPORT CONSTRUCTION EQUIPMENT LOADS OR HIGHWAY TRAFFIC LOADS BEFORE PAVEMENT IS COMPLETED. SOME SIZE THICKNESS COMBINATIONS MAY REQUIRE MINIMUM COVER GREATER THAN THOSE LISTED ABOVE. SEE FDOT INDEX 205, SHEETS 1-6.
- 13. ALL RCP STORM WATER PIPE SHALL MEET THE COVER & CLASS CRITERIA AS OUTLINED IN FDOT INDEX 205.
- 14. ALL STORM PIPE JOINTS SHALL BE WRAPPED AS SPECIFIED IN FDOT INDEX 280.
- 15. THE LAST FOOT OF STORM WATER POND SHALL NOT BE EXCAVATED UNTIL ALL DISTURBED AREAS ARE STABILIZED.
- 16. ANY FILL MATERIAL MUST BE APPROVED BY ENGINEER IN WRITING PRIOR TO PLACEMENT.
- SIGNIFICANT CARE MUST BE TAKEN WHEN GRADING RETENTION PONDS TO ENSURE THAT POND BOTTOMS DO NOT BECOME COMPACTED DURING CONSTRUCTION OR SEALED BY CONSTRUCTION SEDIMENT. IF SEDIMENTATION OR COMPACTION OF A POND BOTTOM OCCURS, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE THE DESIGN HYDRAULIC CONDUCTIVITY.
- 18. THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), REQUIRES ALL PROPERTY OWNERS TO PERFORM A STORMWATER SYSTEM INSPECTION TO ASSURE THE PONDS, INLETS, AND PIPES ON SITE ARE BEING WELL-MAINTAINED (E.G., PROPERLY MOWED AND CLEAR OF DEBRIS). THE INTENT IS TO GUARANTEE THAT CONTAMINATED RAIN RUN-OFF FROM THE PROPERTY WILL NOT ADVERSELY AFFECT THE SURROUNDING AREA.

SANITARY SEWER NOTES

- ALL MATERIALS AND CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE CITY OF OCALA MANUAL OF STANDARD SPECIFICATIONS FOR WASTEWATER CONSTRUCTION.
- ALL MANHOLES SHALL BE 4 FT. INSIDE DIAMETER.
- PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN MANHOLE CENTERLINE
- ALL SANITARY SERVICE LATERALS SHALL BE 6 INCH DIAMETER, UNLESS SPECIFIED OTHERWISE ON PLANS.
- INVERTS OF SANITARY SERVICE LATERALS AT THEIR CONNECTION TO SANITARY MANHOLES SHALL BE NO MORE THAN ONE (1) FOOT ABOVE THE MANHOLE INVERT.
- MINIMUM AS BUILT 8" PVC SEWER LINE SLOPE WILL BE 0.40% MINIMUM SLOPE OR WILL BE RELAID BY CONTRACTOR TO MEET THE MINIMUM SLOPE REQUIREMENT AT NO ADDITIONAL COST
- SEWER SERVICES ARE TO BE NOTED WITH AN "X" CUT INTO THE CURBING.
- PIPE MATERIAL IS ASTM D3034, SDR-26 UNLESS OTHERWISE NOTED.

PERFORMING THE TEST WITHOUT MECHANICAL PULLING DEVICES.

- A MINIMUM 1.04% SLOPE SHALL BE MAINTAINED ON THE SANITARY SEWER SERVICE LATERALS. AT NO TIME SHALL A SANITARY SEWER LATERAL HAVE A SLOPE OF 15% OR GREATER. 10. SANITARY SEWER GRAVITY MAINS ARE TO BE UPGRADED IN MATERIAL TO WATER MAIN STANDARDS AND
- HYDROSTATICALLY PRESSURE TESTED WITH WATER TO ENSURE JOINT TIGHTNESS IF EITHER OF THE HORIZONTAL OR VERTICAL MINIMUM REQUIRED CLEARANCE FROM A WATER MAIN CANNOT BE MAINTAINED OR IF THE SEWER MAIN IS ABOVE THE WATER MAIN
- 11. LEAKAGE TEST ARE SPECIFIED REQUIRING THAT
- A) THE LEAKAGE EXFILTRATION OR INFILTRATION DOES NOT EXCEED 200 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY FOR ANY SECTION OF THE SYSTEM B) EXFILTRATION OR INFILTRATION TESTS BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2 FEET. C) AIR TESTS, AS MINIMUM, CONFORM TO THE TEST PROCEDURE DESCRIBED IN ASTM C-924 FOR CONCRETE PIPE ASTM F-1417 FOR PLASTIC PIPE AND FOR OTHER MATERIALS APPROPRIATE TEST PROCEDURES. AIR TESTING, IF
- SPECIFIED FOR CONCRETE SEWER MANHOLES, CONFORMS TO THE TEST PROCEDURES DESCRIBED IN ASTM C-1244. DEFLECTION TESTS SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDED STANDARDS FOR WASTEWATER
- FACILITIES, CHAPTER 33.85, FOR ALL GRAVITY SANITARY SEWER LINES. TESTING IS REQUIRED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS TO PERMIT STABILIZATION OF THE SOIL-PIPE SYSTEM. TESTING REQUIREMENTS 1) NO PIPE SHALL EXCEED A DEFLECTION OF 5%
- 2) USING A RIGID BALL OR MANDREL FOR THE PIPE DEFLECTION TESTS WITH A DIAMETER NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER OF THE PIPE, DEPENDING ON WHICH IS SPECIFIED IN THE ASTM SPECIFICATION, INCLUDING THE APPENDIX, TO WHICH THE PIPE IS MANUFACTURED.

FIRE DEPARTMENT

- THE STRUCTURES BEING CONSTRUCTED ON THE PROPERTY WILL BE CONSTRUCTED UNDER THE NFPA 1 2015 EDITION OF FLORIDA FIRE PREVENTION CODE
- PER CITY OF OCALA CRITERIA: FIRE HYDRANTS MUST BE LOCATED SO AS NOT TO REQUIRE THE LAYING OF MORE THAN FIVE-HUNDRED (500) FEET OF HOSE CONNECTED TO SUCH HYDRANT, ALONG THE NEAREST PUBLIC RIGHT-OF-WAY, TO THE CENTER OF ANY BUILDABLE LOT OR PARCEL IN THE DEVELOPMENT
- ANY NEW HYDRANTS MUST BE ABLE TO SUPPLY 1000 G P.M. OF WATER AT 20 P.S.L AT ANY TIME OF THE DAY ANY NEW HYDRANTS SHALL BE TESTED BY THE CONTRACTOR IN THE PRESENCE OF THE FIRE DEPARTMENT PRIOR TO APPROVAL OF THE FIRE HYDRANTS BY THE FIRE DEPARTMENT. (NFPA 1 2015 EDITION OF FLORIDA FIRE PREVENTION CODE)
- EACH NEW FIRE HYDRANT SHALL BE CLOW MEDALLION WITH TOPS AND BONNETS POWDER COATED FROM FACTORY, SAFETY BLUE WHERE UNDERGROUND WATER MAINS AND HYDRANTS ARE TO BE PROVIDED, THEY SHALL BE INSTALLED,
- COMPLETED, AND IN SERVICE PRIOR TO CONSTRUCTION WORK. (NFPA 1 2015 EDITION OF FLORIDA FIRE PREVENTION CODE) THE ACCESS ROADS SHALL REMAIN CLEAR OF VEHICULAR OBSTRUCTIONS TO ALLOW ACCESS OF FIRE
- DEPARTMENT UNITS WHILE THE BUILDINGS ARE BEING CONSTRUCTED. (NFPA 1 2015 EDITION OF FLORIDA FIRE PREVENTION CODE)
- 7. IF LAND CLEARING OPERATIONS REQUIRE BURNING, A BURN PERMIT MUST BE OBTAINED FROM THE DEPARTMENT OF FORESTRY PRIOR TO BURNING ANY MATERIAL.
- ANY NEW FIRE HYDRANT INSTALLED MUST BE FLOWED & PAINTED BY CONTRACTOR PER NFPA 291.

WATER MAIN CONSTRUCTION NOTES

- 1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN COMPLIANCE WITH AWWA STANDARDS AS WELL AS THE CITY OF OCALA MANUAL OF STANDARDS AND SPECIFICATIONS FOR WATER MAIN CONSTRUCTION.
- 2. SEPARATION REQUIREMENTS (SEE TABLE 1.0-UTILITY SEPARATIONS)
- 2.1. HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS, SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES AND ON-SITE SEWAGE TREATMENT AND DISPOSAL
- LEAST 3' BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
- 2.1.2. NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST 3' AND PREFERABLY 10' BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
- LEAST 6' AND PREFERABLY 10' BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER. WASTEWATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610 F.A.C., THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BI REDUCED TO 3' WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6" ABOVE THE TOP OF THE SEWER.
- 2.2. VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS. NASTEWATER OR STORM WATER FORCE MAINS OR RECLAIMED WATER PIPELINES:
- 2.2.1. NEW OR RELOCATED UNDERGROUND WATER MAINS CROSSING ANY GRAVITY OR VACUUM-TYPE SANITARY SEWER PIPE SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 6" AND PREFERABLY 12" ABOVE OR AT LEAST 12" BELOW THE OUTSIDE OF THE OTHER PIPE. IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE
- 2.2.2. NEW OR RELOCATED UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12" ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
- 2.2.3. AT THE UTILITY CROSSINGS DESCRIBED IN THE ABOVE PARAGRAPHS, ONE FULL LENGTH OF WATER MAIN PIPE 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 3' FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORM WATER FORCE MAINS OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST 6' FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
- 2.3. NO WATER MAIN SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF A SANITARY SEWER MANHOLE OR A STORM SEWER MANHOLE
- 2.4. NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST 3' FROM ANY EXISTING OR PROPOSED STORM SEWER. STORM WATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610. F.A.C., AT LEAST 3' BUT PREFERABLY 10' FROM ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER. WASTEWATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. AND AT LEAST 10' FROM ANY EXISTING OR PROPOSED ON-SITE SEWAGE TREATMENT OR DISPOSAL SYSTEM AS DEFINED IN SECTION 381.0065(2), F.S. AND RULE 64E-6.002, F.A.C..
- 2.5. EXCEPTIONS / MITIGATION: ADHERENCE TO THE ABOVE CONSTRAINTS AND SEPARATIONS IN THE ABOVE ITEMS SHALL BE COMPLIED WITHOUT EXCEPTION. IF FOR SOME REASON WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE THAT THE ABOVE ITEMS CANNOT BE COMPLIED WITH. CONTRACTOR IS TO STOP WORK AND NOTIFY THE ENGINEER OF RECORD FOR THE APPROPRIATE SOLUTION. THE SOLUTION WILL BE SUBMITTED TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR APPROVAL PRIOR TO WORK COMMENCEMENT.
- 3. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN FITTINGS OF BRANCHES AND MAINS
- 4. DEFLECTIONS AT PIPE JOINTS SHALL NOT EXCEED THOSE RECOMMENDED BY THE PIPE MANUFACTURER.
- 5. ALL GATE VALVES SHALL BE EQUIPPED WITH AN ADJUSTABLE CAST IRON VALVE BOX WITH COVER, WITH THREADED EXTENSION WHERE NEEDED.
- 6. ALL PUBLIC WATER SYSTEMS COMPONENTS, EXCLUDING FIRE HYDRANTS, THAT SHALL BE INSTALLED UNDER THIS PROJECT, AND THAT SHALL COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NSF INTERNATIONAL STANDARD 61 AND SHALL BE MARKED WITH NSF SEAL OF APPROVAL.
- 7. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT SHALL BE COLOR CODED MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(b)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. ALL DUCTILE IRON WATER MAINS SHALL BE MARKED WITH A CONTINUOUS STRIPE LOCATED WITHIN THE TOP 90 DEGREES OF THE PIPE. SAID STRIPE SHALL BE A MINIMUM 2 INCHES IN WIDTH AND SHALL BE BLUE IN COLOR IF PAINT IS USED INSTEAD OF TAPE. BACKFILL SHALL NOT BE PLACED FOR 30 MINUTES FOLLOWING PAINT APPLICATION, FOR PIPE WITH AN INTERNAL DIAMETER OF 24" OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES A LONG EACH SIDE OF THE PIPE AS WELL AS A LONG THE TOP OF THE PIPE.
- 8. ALL NON-METALLIC WATER MAINS SHALL BE INSTALLED WITH A CONTINUOUS, INSULATED 14 GAUGE COPPER WIRE INSTALLED DIRECTLY ON TOP OF THE PIPE FOR LOCATION PURPOSES. SEE STANDARD DRAWINGS. IN ADDITION, ALL PVC WATER MAINS SHALL BE A SOLID BLUE COLOR.
- 9. MARK DRINKING WATER SERVICES WITH 4" x 4" x 8' PT POST PAINTED BLUE ON END.
- 10. PIPE MATERIALS: ALL PIPES, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS, AND METERS INSTALLED UNDER THIS PROJECT SHALL CONFORM TO APPLICABLE AWWA STANDARDS.
- A. PVC WATER MAINS 4 INCHES TO 12 INCHES SHALL BE IN ACCORDANCE WITH AWWA C900. LATEST EDITION AND SHALL BE DR18. PVC WATER MAINS 14 INCHES TO 36 INCHES SHALL BE IN ACCORDANCE WITH AWWA C905, LATEST EDITION AND SHALL BE DR18. PVC PIPES LESS THAN 4 INCHES ARE NOT ALLOWED IN CITY OF OCALA. IN OTHER JURISDICTIONS, THEY SHALL BE IN ACCORDANCE WITH ASTM D1785 (SCHEDULE 40, 80, 120) OR ASTM D2241 SDR 21. MINIMUM WORKING PRESSURE FOR ALL PVC SHALL BE 150 PSI. ALL PVC PIPE SHALL HAVE THE SAME O.D. AS DUCTILE IRON PIPE. PVC PIPE JOINTS SHALL BE IN ACCORDANCE WITH ASTM D3139 AND AWWA STANDARDS.
- B. DUCTILE IRON PIPE SHALL CONFORM TO ANSI A21.51/AWWA C151 AND SHALL BE A MINIMUM OF CLASS 50. DUCTILE IRON IOINTS SHALL BE IN ACCORDANCE WITH ANSI A21 11 AND AWWA C111 ALL SERVICES SHALL BE POLYETHYLENE TUBING, CLASS 160 AND SHALL BE IN ACCORDANCE WITH AWWA C901.
- 11. WATER MAIN CONNECTION SHALL BE MADE UNDER THE SUPERVISION OF THE CITY OF OCALA UTILITIES DIVISION. ALL VALVES SHALL BE OPERATED BY CITY OF OCALA PERSONNEL ONLY. WATER MAINS ARE TO BE DISINFECTED PER ANSIWWA C651-92 AND CITY OF OCALA UTILITIES DIVISION MANUAL OF STANDARDS AND SPECIFICATIONS FOR WASTEWATER AND WATER MAIN CONSTRUCTION SECTION 51.6 WHICH INCLUDES A FULL FLUSH.
- 12. ALL VALVES SHALL BE LOCATED IN NON PAVED AREAS, UNLESS SPECIFIED ON PLANS.
- 13. FIRE HYDRANT LEADS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 6" AND SHALL INCLUDE AN AUXILIARY VALVE. 14. IF AGGRESSIVE SOIL CONDITIONS ARE FOUND DURING CONSTRUCTION, WATER MAINS SHALL BE PROTECTED THROUGH THE USE OF CORROSION RESISTANT MATERIALS, THROUGH ENCASEMENT OF THE WATER MAINS IN POLYETHYLENE, OR THROUGH PROVISION OF CATHODIC PROTECTION
- 15. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT SHALL CONTAIN NO MORE THAN 8.0% LEAD, AND ANY SOLDER OR FLUX USED IN THIS PROJECT SHALL CONTAIN NO MORE THAN 0.2% LEAD.
- 16. WHERE NEW OR ALTERED DEAD-END WATER MAINS INCLUDED IN THIS PROJECT CANNOT BE AVOIDED, THEY SHALL BE PROVIDED WITH A FIRE FLUSHING HYDRANT OR BLOW-OFF FOR FLUSHING PURPOSES.
- 17. ALL FIRE HYDRANTS THAT WILL BE INSTALLED UNDER THIS PROJECT SHALL BE LOCATED AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN, PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., OR VACUUM - TYPE SANITARY SEWER; AT LEAST SIX FEET FROM ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE - TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
- 18. WATER SERVICES ARE TO TERMINATE 1' OUTSIDE ROW ALONG THE PROPERTY LINE.
- AWWA STANDARDS. FIRE HYDRANTS CONNECTED TO THE DESIGNATED FIRE LINE SHALL BE PAINTED PER JURISDICTION. 21. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(b)3,F.A.C, USING BLUE AS A 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 PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE WILL HAVE BLUE STRIPED APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS 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 INSTALLATION OF THE PIPE. THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES 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.
- 22. THE OPEN END OF THE AIR RELIEF PIPE FROM ALL AUTOMATIC AIR RELIEF VALVES WILL BE EXTENDED TO AT LEAST ONE FOOT ABOVE GRADE AND WILL BE PROVIDED WITH A SCREENED, DOWNWARD-FACING ELBOW. [FAC 62-555.320(21)(b)3, AND RSWW
- FOUND IN TRENCHES WILL BE REMOVED FOR A DEPTH OF AT LEAST SIX INCHES BELOW THE BOTTOM OF UNDERGROUND PIPE. [FAC 62-555.320(21)(b)3. AND RSWW 8.5.2]
- PREVENT MOVEMENT. [FAC 62-555.320(21)(b)3, AND RSWW 8.5.4] 25. NEW OR ALTERED WATER MAIN INSTALLATION AND PRESSURE AND LEAKAGE TESTING. SHALL BE PROVIDED IN ACCORDANCE WITH
- 26. NEW OR ALTERED WATERMAINS, INCLUDING FIRE HYDRANT LEADS AND SERVICE LINES THAT WILL BE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER, SHALL BE DISINFECTED AND
- APPLICABLE AWWA STANDARDS. PVC WATER MAIN INSTALLATION AND TESTING SHALL CONFORM TO AWWA C605. DUCTILE IRON WATER MAIN INSTALLATION AND TESTING SHALL CONFORM TO AWWA C600.

BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH AWWA C651.

- 62-555.320(21)(b)3]

- ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.) [FAC

- 23. A CONTINUOUS AND UNIFORM BEDDING WILL BE PROVIDED IN TRENCHES FOR UNDERGROUND PIPE: BACKFILL MATERIAL WILL BE TAMPED IN LAYERS AROUND UNDERGROUND PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE: AND UNSUITABLY SIZED STONES (AS DESCRIBED IN APPLICABLE AWWA STANDARDS OR MANUFACTURERS' RECOMMENDED INSTALLATION PROCEDURES)

- 2.1.1. NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT
- 2.1.3. NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT
- 20. PROPOSED FIRE HYDRANTS CONNECTED TO THE POTABLE WATER MAIN, FOR THIS PROJECT, SHALL BE PAINTED PER NFPA AND
- 24. ALL WATER MAIN TEES, BENDS, PLUGS, AND HYDRANTS WILL BE PROVIDED WITH THRUST BLOCKS OR RESTRAINED JOINTS TO

- FORCE MAIN NOTES
- 1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN COMPLIANCE WITH THE CITY OF OCALA MANUAL OF STANDARDS AND SPECIFICATIONS FOR FORCE MAIN CONSTRUCTION.
- 2. PIPE LENGTHS SHOWN IN REPRESENT SCALED DISTANCES BETWEEN FITTINGS OF BRANCHES AND MAINS.
- 3. DEFLECTIONS AT PIPE JOINTS SHALL NOT EXCEED THOSE RECOMMENDED BY THE PIPE MANUFACTURER. 4. VALVES SHALL BE EQUIPPED WITH AN ADJUSTABLE CAST IRON VALVE BOX WITH COVER, WITH THREADED
- EXTENSIONS WHERE NEEDED, UNLESS OTHERWISE NOTED.
- 5. ALL PVC FORCE MAIN SHALL BE AS SPECIFIED IN THE CONTRACT DOCUMENTS, MARKED WITH THE SEAL OF APPROVAL OF THE NATIONAL SANITATION FOUNDATION (NSF)
- 6. ALL NON-METALLIC FORCE MAINS SHALL BE INSTALLED WITH A CONTINUOUS. INSULATED 14 GAUGE COPPER WIRE INSTALLED DIRECTLY ON TOP OF THE PIPE FOR LOCATION PURPOSES. SEE STANDARD DRAWINGS, IN ADDITION, ALL PVC FORCE MAINS SHALL BE EITHER A SOLID GREEN COLOR OR WHITE WITH GREEN LETTERING. ALL LETTERING SHALL APPEAR LEGIBLY ON PIPE AND SHALL RUN THE ENTIRE LENGTH OF THE PIPE. LETTERING SHALL READ AS IS ACCEPTABLE FOR THE INTENDED USE.
- 7. HYDROSTATIC & LEAKAGE TESTING OF THE FORCE MAIN SHALL BE DONE IN ACCORDANCE WITH THE AWWA STANDARDS. HYDROSTATIC TESTING TO BE DONE IN ACCORDANCE WITH AWWA C-600. 8. PIPE MATERIALS
- PVC SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA STANDARD C900, LATEST EDITION. THE PVC SHALL HAVE A MINIMUM WORKING PRESSURE OF 100 PSI AND SHALL HAVE A DIMENSION RATIO (DR) OF 25 UNLESS OTHERWISE NOTED. PIPE SHALL BE THE SAME O.D. AS DUCTILE IRON PIPE. PVC JOINT - SHALL BE IN ACCORDANCE WITH ASTM D3139. DUCTILE IRON JOINT - SHALL BE IN ACCORDANCE WITH ANSI A21.11 AND AWWA C111
- 9. AIR RELEASE VALVES SHALL BE REQUIRED AT ALL HIGH POINTS IN THE PROPOSED FORCE MAIN, AS SHOWN ON PLANS. HIGH POINTS IN THE FORCE MAIN ARE DEFINED AS A CHANGE IN ELEVATION TWICE THE DIAMETER OF THE PIPE. 10. ALL FORCE MAINS TO BE CONSTRUCTED WITH A MINIMUM OF 3' FEET OF COVER.
- 11. TESTING OF THE SEWAGE COLLECTION SYSTEM IS AS FOLLOWS:
- A. ALL GRAVITY SEWER MAINS REQUIRE LOW PRESSURE AIR TESTING IN ACCORDANCE WITH THE LATEST UNI-BELL STANDARD FOR LOW PRESSURE AIR TESTS, AIR TEST, AS A MINIMUM, SHALL CONFORM TO THE TEST PROCEDURES DESCRIBED IN ASTM SPECIFICATIONS, ASTM F1417 FOR PLASTIC PIPE.
- B. ALL SEWER MAINS SHALL BE LAMPED BY A <u>CITY OF OCALA</u> REPRESENTATIVE. C. ALL MANHOLES SHALL BE INSPECTED FOR INFILTRATION, ALIGNMENT, FLOW CHANNEL CONSTRUCTION AND COAL TAR EPOXY PAINT THROUGHOUT
- HYDRO-STATIC TESTS CONSISTING OF A HYDROSTATIC PRESSURE TEST AND HYDROSTATIC LEAKAGE TEST SHALL BE CONDUCTED ON ALL NEWLY INSTALLED SEWER FORCE MAIN SYSTEM PRESSURE PIPES AND APPURTENANCES IN ACCORDANCE WITH AWWA C600 OR M23 AS APPLICABLE. THE PRESSURE SHALL BE 150 PSI FOR TWO (2) HOURS.
- E. DEFLECTION TEST ARE REQUIRED FOR ALL FLEXIBLE PIPE EXCLUDING FORCE MAINS. TESTS SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.D MEASURED FROM THE INTERFACE TO THE CONCRETE CURB AND PAVEMENT SURFACE UNLESS OTHERWISE NOTED.

REUSE NOTES

- 1. ALL REUSE AND EFFLUENT REUSE PIPING TO BE OWNED AND MAINTAINED BY <u>CITY OF OCALA</u> SHALL BE A SOLID PURPLE COLOR.
- 2. REUSE AND EFFLUENT REUSE MAINS SHALL BE PVC CONFORMING TO AWWA C-900, DR 18 FOR PIPE SIZES 4"-12". pipes 14" & LARGER SHALL BE AWWA C-905, DR 18. ALL COUPLINGS, CLEANING COMPOUNDS, SOLVENTS, LUBRICANTS, AND PIP PREPARATION, FOR LAYING SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURERS LATEST RECOMMENDATIONS. 3. DEPTH OF REUSE AND EFFLUENT REUSE LINES TO BE 36" BELOW FINISHED GRADE.
- 4. REUSE AND EFFLUENT REUSE MAINS TO BE LOCATED 5' FROM BACK OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE
- 5. ALL REUSE AND EFFLUENT REUSE MAINS UNDER PAVEMENT SHALL BE DUCTILE IRON PIPE AND SHALL EXTEND 5' BEYOND THE EDGE OF PAVEMENT OR BACK OF CURB. 6. ALL IRRIGATION SLEEVING UNDER PAVEMENT SHALL EXTEND 5' BEYOND THE EDGE OF PAVEMENT OR BACK OF CURB

EROSION CONTROL NOTES

- DURING CONSTRUCTION. THE CONTRACTORS SHALL TAKE ALL REASONABLE MEASURES TO INSURE AGAINST POLLUTING. SILTING OR DISTURBING TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING SURFACE WATERS. SUCH MEASURES SHALL BE APPROVED BY THE PROJECT ENGINEER AND MAY INCLUDE, BUT NOT LIMITED TO, CONSTRUCTION OF EMPORARY EROSION CONTROL STRUCTURES SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, OR SILT BARRIERS. 2. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL EROSION CONTROL MEASURES AS SHOWN ON THE EROSION CONTROL
- PLAN.
- SODDING OF DETENTION PONDS SHOULD BE ACCOMPLISHED WITHIN 14 DAYS OF POND GRADING TO MINIMIZE EROSIO POTENTIAL. 4. AT A MINIMUM, THE RETENTION/DETENTION STORAGE AREA MUST BE EXCAVATED WITHIN ONE FOOT PRIOR TO BUILDING
- CONSTRUCTION OR PLACEMENT OF IMPERVIOUS SURFACE WITHIN THE AREA TO BE SERVED BY THOSE FACILITIES. TO PREVENT REDUCTION IN STORAGE VOLUME AND PERCOLATION RATES. ALL ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE STORAGE AREA PRIOR TO FINAL GRADING AND STABILIZATION.
- 5. IF DURING CONSTRUCTION, THE PROPOSED EROSION SYSTEM DOES NOT PERFORM SATISFACTORILY, ALTERNATIVES AND ADDITIONAL METHODS OF PROTECTION SHALL BE IMPLEMENTED BY THE CONTRACTOR IN ORDER TO COMPLY WITH S.J.R.W.M.D. AND FDEP EROSION CONTROL COSTS INCLUDING ANY COSTS ASSOCIATED WITH COMPLIANCE ISSUES AND ENFORCEMENT ACTIONS
- 6. CONTRACTOR IS RESPONSIBLE FOR SUBMITTING NPDES IF REQUIRED.
- 7. A 2' STRIP OF SOD SHALL BE PLACED BEHIND BACK OF CURB. 8. ALL SODDED AND/OR SEEDED AREAS MUST BE WATERED AS NECESSARY DURING CONSTRUCTION AND 2 MONTHS AFTER COMPLETION OF CONSTRUCTION IN ORDER TO ENSURE STABILIZATION AND SURVIVAL.

CLEARANCES

- 1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING 90 DAYS PRIOR TO THE ANTICIPATED COMPLETION OF CONSTRUCTION AND/OR CERTIFICATION OF COMPLETION APPROVAL DATE.
- 2. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH SIGNED AND SEALED AS-BUILTS OF ALL UTILITY IMPROVEMENTS, PRESSURE TESTS, BACTERIOLOGICAL TESTS, AND ANY OTHER INFORMATION NECESSARY FOR THE CLEARANCE APPROVALS WITH F.D.E.P. AND THE LOCAL UTILITY PROVIDER. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER 60 DAYS RIOR TO THE ANTICIPATED COMPLETION OF CONSTRUCTION AND/OR CERTIFICATION OF COMPLETION APPROVAL
- 3. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH SIGNED AND SEALED AS-BUILTS OF ALL STORM WATER SYSTEM IMPROVEMENTS AND ANY OTHER INFORMATION NECESSARY FOR THE CLEARANCE APPROVALS WITH S.J.R.W.M.D. AND THE LOCAL UTILITY PROVIDER. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER 60 DAYS RIOR TO THE ANTICIPATED COMPLETION OF CONSTRUCTION AND/OR CERTIFICATION OF COMPLETION APPROVAL DATE.

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (1)	JOINT SPACING @ CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORMWATER FORCE MAIN, RECLAIMED WATER (2)	Water Main 3 ft. minimum	Water Main 12 inches is the minimum, except for storm sewer, then 6 inches is the minimum and 12 inches is preferred	ALTERNATE 3 FT. MINIMUM
VACUUM SANITARY SEWER	Water Main 10 ft. preferred 3 ft. minimum	Water Main 12 inches is preferred 6 inches minimum	ALTERNATE 3 FT. MINIMUM
GRAVITY OR PRESSURE SANITARY SEWER, SANITARY SEWER FORCE MAIN, RECLAIMED WATER (2)	Water Main 10 ft. preferred 6 ft. minimum (3)	Water Main 12 inches is the minimum, except for gravity sewer, then 6 inches is the minimum and 12 inches is preferred	ALTERNATE 6 FT. MINIMUM
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10 ft. minimum	—	—
SEPARATION IS 12 INCHES. 2. RECLAIMED WATER REGULAT	ED UNDER PART III OF CHAPTER 6 SEWER WHERE THE BOTTOM OF	TER MAIN MUST BE BELOW OTHER PIPE 52-610, F.A.C. THE WATER MAIN IS LAID AT LEAST 6 II	

4. RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. Disclaimer - This document is provided for your convenience only. Please refer to F.A.C. Rule 62-555.314 for additional construction requirements.

AS-BUILT NOTES

- THE CONTRACTOR SHALL SUBMIT A CERTIFIED SET OF RECORD DRAWINGS TO TH ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING INFORMA ON THE APPROVED PLANS CONCURRENTLY WITH CONSTRUCTION PROGRESS. RE DRAWINGS SUBMITTED TO THE ENGINEER AS PART OF THE PROJECT ACCEPTANC SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS.
- A. DRAWINGS SHALL BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION.
- B. DRAWINGS SHALL SHOW ACTUAL LOCATION OF ALL UNDERGROUND AND ABOVE GROUND STORM DRAINAGE. WATER, REUSE AND WASTEWATER PIPING AND RELATED APPURTENANCES. ALL PIPING LOCATIONS INCLUDING HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES AND APPURTENANCES SHALL BE CLEARLY SHOWN AND REFERENCED TO PERMANENT SURFACE IMPROVEMENTS. DRAWINGS SHALL ALSO SHOW ACTUAL INSTALLED PIPE MATERIAL. CLASS. ETC.
- C. DRAWINGS SHALL CLEARLY SHOW ALL FIELD CHANGES OF DIMENSION AND DETAIL INCLUDING CHANGES MADE BY FIELD ORDER OR BY CHANGE D. DRAWINGS SHALL CLEARLY SHOW ALL DETAILS NOT ON ORIGINAL CONTRACT DRAWINGS, BUT CONSTRUCTED IN THE FIELD, ALL
- FOUIPMENT AND PIPING RELOCATION SHALL BE CLEARLY SHOWN E. LOCATION OF ALL INLETS AND MANHOLES, HYDRANTS, VALVES AND VALVE BOXES SHALL BE SHOWN. ALL VALVES SHALL BE REFERENCED FROM AT LEAST TWO PREFERABLY THREE PERMANENT POINTS. F. DIMENSIONS BETWEEN ALL INLETS AND MANHOLES SHALL BE VERIFIED
- AND SHOWN. THE INVERTS AND GRADE ELEVATIONS OF ALL INLETS. CONTROL STRUCTURES AND MANHOLES SHALL BE SHOWN. G. CONTRACTOR SHALL PROVIDE AS-BUILT SURVEY FOR POND GRADING SPOT ELEVATIONS SHALL BE TAKEN AT TOP OF BANK, POND BOTTOM, AND ALL GRADE BREAKS AT 50' INTERVALS. H. DRAWINGS SHALL CLEARLY INDICATE VERTICAL AND HORIZONTAL
- SEPARATION BETWEEN WATER MAIN AND STORM DRAINAGE/SANITARY SEWER/RECLAIM WATER MAINS AT POINTS OF CROSSING IN ACCORDANCE WITH FDEP CRITERIA. I. WHERE THE WATER MAIN CROSSES OTHER UTILITIES (STORM, GRAVITY SEWER, FORCE MAIN AND RECLAIMED WATER), THE CERTIFIED AS-BUILT DRAWINGS SHALL CLEARLY INDICATE THE CONSTRUCTED ELEVATIONS IN SUCH A WAY THAT THE VERTICAL SEPARATION BETWEEN THE WATER MAIN AND OTHER UTILITIES MAY BE VERIFIED BY THE ENGINEER. FAILURE TO PROVIDE THIS INFORMATION WILL RESULT IN THE CONTRACTOR
- EXCAVATING AND SURVEYING THE UTILITIES AT NO ADDITIONAL COST TO THE OWNER. J. WHERE THE WATER MAIN CROSSES OTHER UTILITIES (STORM, GRAVITY SEWER, FORCE MAIN AND RECLAIMED WATER), THE CERTIFIED AS-BUILT DRAWINGS SHALL CLEARLY INDICATED THE LOCATIONS OF PIPE JOINTS IN SUCH A MANNER AS TO DEMONSTRATE THE PIPE IS CENTERED AT ALL THE CROSSING FAILURE TO PROVIDE THIS INFORMATION WILL RESULT IN THE CONTRACTOR EXCAVATING AND SURVEYING THE UTILITIES AT NO
- ADDITIONAL COST TO THE OWNER. EACH SHEET OF THE PLANS SHALL BE SIGNED, SEALED AND DATED BY REGISTERE SURVEYOR WITH A NOTE READING "THESE AS-BUILT DRAWINGS ACCURATELY DEPICT THE ACTUAL IMPROVEMENTS AS CONSTRUCTED"

ELECTRICAL NOTES:

- LOAD DATA IS NOT SUBMITTED AS SOON AS POSSIBLE.
- REQUIREMENTS, TEMPORARY CONSTRUCTION POWER, TRANSFORMER LOCATION, AND METER LOCATION. REFERENCE OUS SPL23-45109.
- 70-602).
- 5. UNDERGROUND ELECTRICAL SERVICE WILL BE AT THE CUSTOMER'S EXPENSE (SEC. 70-584 AND SEC. 70-603). 6. ALL ELECTRICAL UTILITY FACILITIES SHALL BE INCLUDED ON THE SITE PLAN PRIOR TO SITE PLAN APPROVAL (INCLUDE YELLOW AND BLACK FACILITY ID NUMBER).
- (SEC. 70-585 AND SEC. 70-587).
- 9. STREETLIGHTS, IF REQUIRED, WILL BE ADDED AT A ONE TIME CHARGE TO THE CUSTOMER. ESTIMATED COST WILL BE PROVIDED AS PART OF THE ACTUAL ELECTRICAL SERVICE DESIGN (SEC 70-624) 10. CONSTRUCTION FOR TEMPORARY SERVICE LOCATION TO BE DETERMINED BY OCALA UTILITY SERVICES.
- 11. THE FINAL APPROVED REVISED SITE PLAN IS TO BE EMAILED TO JKERR@OCALAFL.ORG USING THE ABOVE MENTIONED OUS SITE PLAN REFERENCE NUMBER. 12. ADDITIONAL REQUIREMENTS ARE CONTAINED I CHAPTER 70, ARTICLE VI AND ARTICLE VII OF THE OCALA CODE OF ORDINANCES.
- 13. ANY INSTALLATION OF BILLBOARDS/SIGNS SHALL COMPLY WITH THE LATEST NESC AND OSHA REGULATIONS PERTAINING TO PROXIMITY TO OVERHEAD POWER LINES. NO BILLBOARDS OR SIGNS SHALL BE PLACED IN ANY ELECTRICAL UTILITY EASEMENT WITH THE PERMISSION OF THE UTILITY.

TABLE 2.0 - STORM PI	PE COVER (U	NPAVED)
UNPAVE	o —	
MINIM	IUM COVER	
PIPE TYPE/SIZE & SHAPE	COMMERCIAL	NON-COMMER
CONCRETE *		
ROUND & ELLIPTICAL	12"	3"
CORRUGATED STEEL		
	40" [45"]	40" [40"]
12" - 30" ROUND	18" [15"]	12" [12"]
36"- 48" ROUND 54" - 72" ROUND	18" (12") [15"] 18" (12") [15"]	12" (12") [12 15" (12") [12
78" - 96" ROUND	(18") [27"]	(12") [12"]
102" & LARGER ROUND	24" [33"]	18" [21"]
15" - 30" ARCH EQUIVALENT	18" [18"]	10 [21]
36" - 48" ARCH EQUIVALENT	24" (12") [21"]	18" (12") [1
54" - 72" ARCH EQUIVALENT	30" (18") [24"]	24" (12") [18
78" - 96" ARCH EQUIVALENT	(24") [27"]	(18") [21"]
102" & LARGER ARCH EQUIVALENT	(30")	(24")
CORRUGATED ALUMINUM		
12" - 24" ROUND	21" [21"]	15" [15"]
30" - 48" ROUND	24" (18") [21"]	18" (12") [1
54" - 72" ROUND	30" (24") [27"]	24" (18") [2
78" - 102" ROUND	(30") [33"]	(24") [27"]
108" & LARGER ROUND	36"	30"
15" - 24" ARCH EQUIVALENT	27" [24"]	24" [21"]
30" - 48" ARCH EQUIVALENT	33" (21") [27"]	27" (15") [2
54" - 72" ARCH EQUIVALENT	36" (24") [30"]	30" (18") [24
78" - 90" ARCH EQUIVALENT	(30") [36"]	(24") [30"]
96" - 102" ARCH EQUIVALENT	(36")	(30")
CORRUGATED POLYETHYLENE		
15" - 48" ROUND	21"	15"
POLYVINYL CHLORIDE		
15" - 48" ROUND	21"	15"
VALUES SHOWN IN PARENTHESIS () ARE FOR 3" X SPECIFIED TO UTILIZE THE LESSER COVER. VALUES SHOWN IN BRACKETS [] APPLY TO TYPE 1 SPECIFIED TO UTILIZE THE LESSER COVER. *FOR PIPE CLASS "S" WITH DIAMETERS OF 12" TO	L-R (SPIRAL RIB) PIPE WHICH	

THE	TABLE 3.0 -STORM PIPE COVER (RIGID PAVEMENT)												
MATION RECORD NCE													
ND	RIGID PAV (DOWELED JOINTS AND GOOD CON												
V	MINIMUM COVER												
δE													
	PIPE TYPE/SIZE & SHAPE	MINIMUM COVER											
	CONCRETE *												
	ROUND & ELLIPTICAL	9"											
	CORRUGATED STEEL *												
,	15"-72" ROUND & ARCH EQUIVALENT	9"											
	78" & LARGER ROUND AND ARCH EQUIVALENT	15"											
	CORRUGATED ALUMINUM												
l	15" - 72" ROUND AND ARCH EQUIVALENT	9"											
E	78" - 102" ROUND AND ARCH EQUIVALENT	15"											
0	108" & LARGER ROUND	18"											
	CORRUGATED POLYETHYLENE												
	15" - 48" ROUND	9"											
N	POLYVINYL CHLORIDE												
	15" - 48" ROUND	9"											
RED DEPICT	*FOR PIPE CLASS "S" WITH DIAMETERS OF 12" TO 30", THE MINIMUM HEIGHT OF FILL IS 3'.	·											

1. CUSTOMER MUST SUBMIT THE OCALA UTILITY SERVICE (OUS) COMMERCIAL LOAD DATA AND THE OUS GENERAL INFORMATION SHEET TO THE GROWTH MANAGEMENT DEPARTMENT PRIOR TO ANY SITE PERMITS BEING ISSUED. DATA SHEETS MUST BE APPROVED BY OUS ENGINEERING PRIOR TO ANY SITE PERMITS BEING ISSUED. MATERIAL LEAD TIMES MAY CAUSE A DELAY IN OBTAINING SERVICE, IF 2. CUSTOMER MUST CONTACT THE OCALA UTILITY SERVICES ENGINEERING DIVISION AT (352 351-6620 AT LEAST (6) SIX WEEKS PRIOR TO THE START OF CONSTRUCTION TO DISCUSS PERMANENT SERVICE 3. TREES CAN NOT BE PLANTED AROUND, OVER, OR UNDER ANY EXISTING OR PROPOSED POWER LINES. THIS INCLUDES ANY LINES DESIGNED AFTER FINAL SITE PLAN APPROVA

4. FOR ALL UNDERGROUND ELECTRICAL POWER LINES ON PRIVATE PROPERTY. A (10) TEN FOOT ELECTRICAL DISTRIBUTION EASEMENT WILL BE REQUIRED. FOR OVER HEAD CONSTRUCTION. A (20) TWENTY FOOT EASEMENT WILL BE REQUIRED. ALSO, FOR ANY OVERHEAD POWER LINES, BOTH EXISTING AND PROPOSED, A (10) FOOT TREE-TRIMMING EASEMENT WILL BE REQUIRED (SEC. 70-585 AND SEC.

7. METER LOCATION WILL BE DESIGNATED BY OCALA UTILITY SERVICES (SEC. 70-587). HOWEVER, DESIRED LOCATION MAY BE NOTED ON SITE PLAN.

8. THE REQUESTED SERVICE IS 208_ VOLT, 3_ PHASE. REQUESTED SERVICE VOLTAGE IS NOT GUARANTEED TO BE SUPPLIED, HOWEVER, OUS WILL TRY TO ACCOMMODATE THE REQUEST WHEN PASSABLE

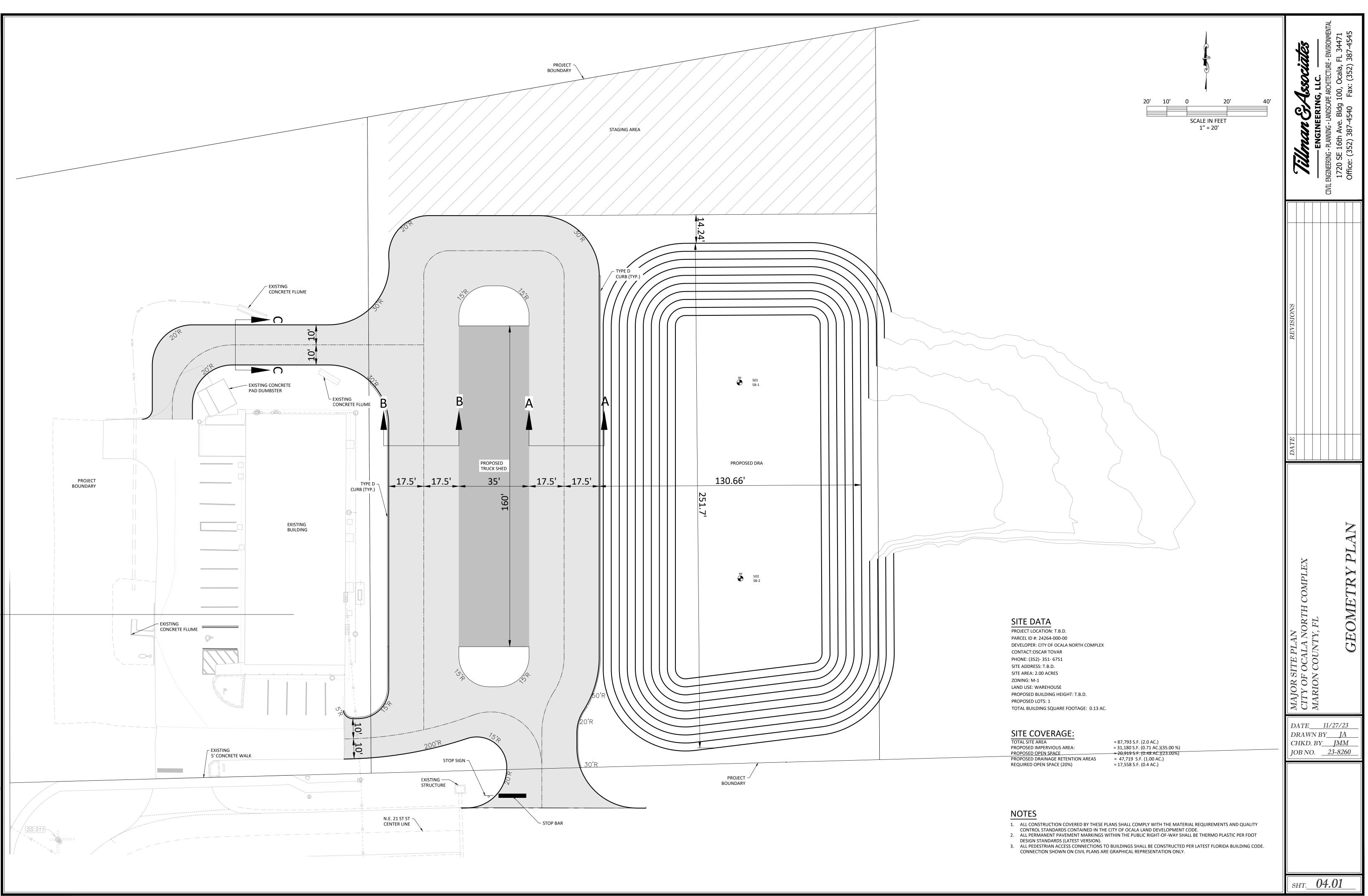
FLEXIBLE PAVEMENT OR RIGID PAV JOINTS NOT DOWELED CONDITION (FRAC	OR POOR
۲	CTURED)]
PIPE TYPE/SIZE & SHAPE	MINIMUM COVER
CONCRETE *	
ROUND & ELLIPTICAL	7"
CORRUGATED STEEL *	
12"-30" ROUND	12" [12"]
36"-48" ROUND	18" (12") [15"]
54"-72" ROUND	21" (15") [18"]
78"-96" ROUND	(18") [27"]
102 & LARGER ROUND	(24") [33"]
15"-30" ARCH EQUIVALENT	18" [18"]
36"-48" ARCH EQUIVALENT	24" (12") [18"]
54"-72" ARCH EQUIVALENT	27" (15") [24"]
78"-96" ARCH EQUIVALENT	(18") [30"]
102" & LARGER ARCH EQUIVALENT	(24")
CORRUGATED ALUMINUM	
12"-24" ROUND	15" [12"]
	18" (12") [18"]
54"-72" ROUND	24" (18") [24"]
78"-102" ROUND	(24") [30"]
108" & LARGER	(30")
15"-24" ARCH EQUIVALENT	24" [21"]
30"-48" ARCH EQUIVALENT	27" (15") [24"]
54"-72" ARCH EQUIVALENT	30" (18") [27"]
78"-90" ARCH EQUIVALENT	(24") [30"]
96"-102" ARCH EQUIVALENT	(30")
CORRUGATED POLYETHYLENE	
15" - 30" ROUND	15"
	151
VALUES SHOWN IN PARENTHESIS () ARE FOR 3" X 1" WHICH MUST BE SPECIFIED TO UTILIZE THE LESSER C VALUES SHOWN IN BRACKETS [] APPLY TO TYPE 1-R WHICH MUST BE SPECIFIED TO UTILIZE THE LESSER C	OVER. (SPIRAL RIB) PIPE OVER.
	CONCRETE * ROUND & ELLIPTICAL CORRUGATED STEEL * 12"-30" ROUND 36"-48" ROUND 36"-48" ROUND 54"-72" ROUND 102 & LARGER ROUND 102 & LARGER ROUND 102 & LARGER ROUND 15"-30" ARCH EQUIVALENT 36"-48" ARCH EQUIVALENT 54"-72" ARCH EQUIVALENT 102" & LARGER ARCH EQUIVALENT 30"-48" ROUND 108" & LARGER 15"-24" ARCH EQUIVALENT 30"-48" ARCH EQU

MAJOR SITE PLAN DATE LATE REVISIONS CITY OF OCALA NORTH COMPLEX EVISIONS EVISIONS MARION COUNTY, FL EVISIONS EVISIONS GENERAL NOTES EVISIONS EVISIONS	RTH COMPLEX FL VERAL NOTES
DRTH COMPLEX FL NERAL NOTES	MAJOR SITE PLAN CITY OF OCALA NORTH COMPLEX MARION COUNTY, FL MARION COUNTY, FL DATE
MAJOR SITE PLAN CITY OF OCALA NORTH COMPLEX MARION COUNTY, FL GENERAL NOTES	DATE <u>11/13/23</u> MAJOR SITE P CITY OF OCAL MARION COURT CHKD. BA TWW
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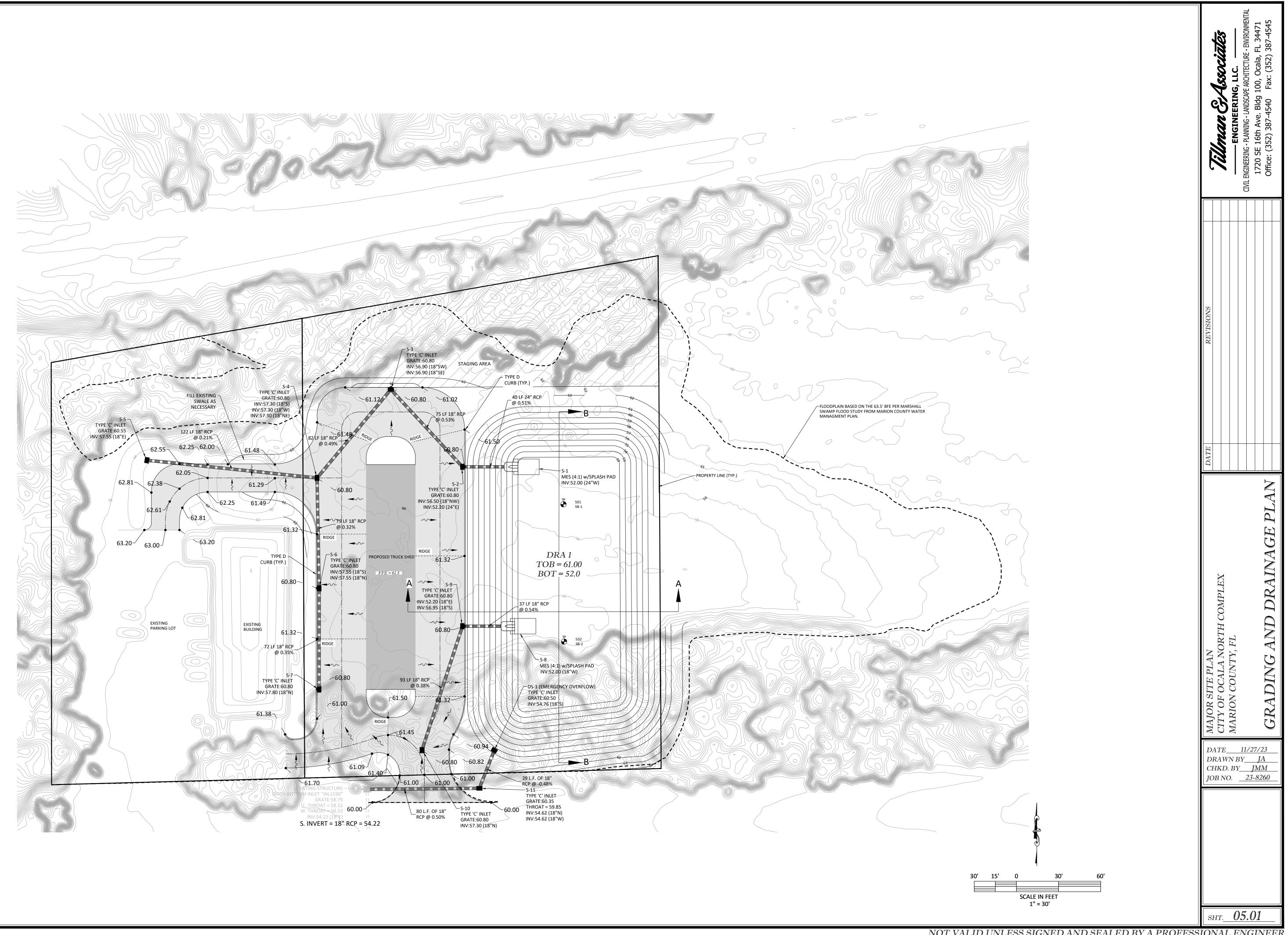
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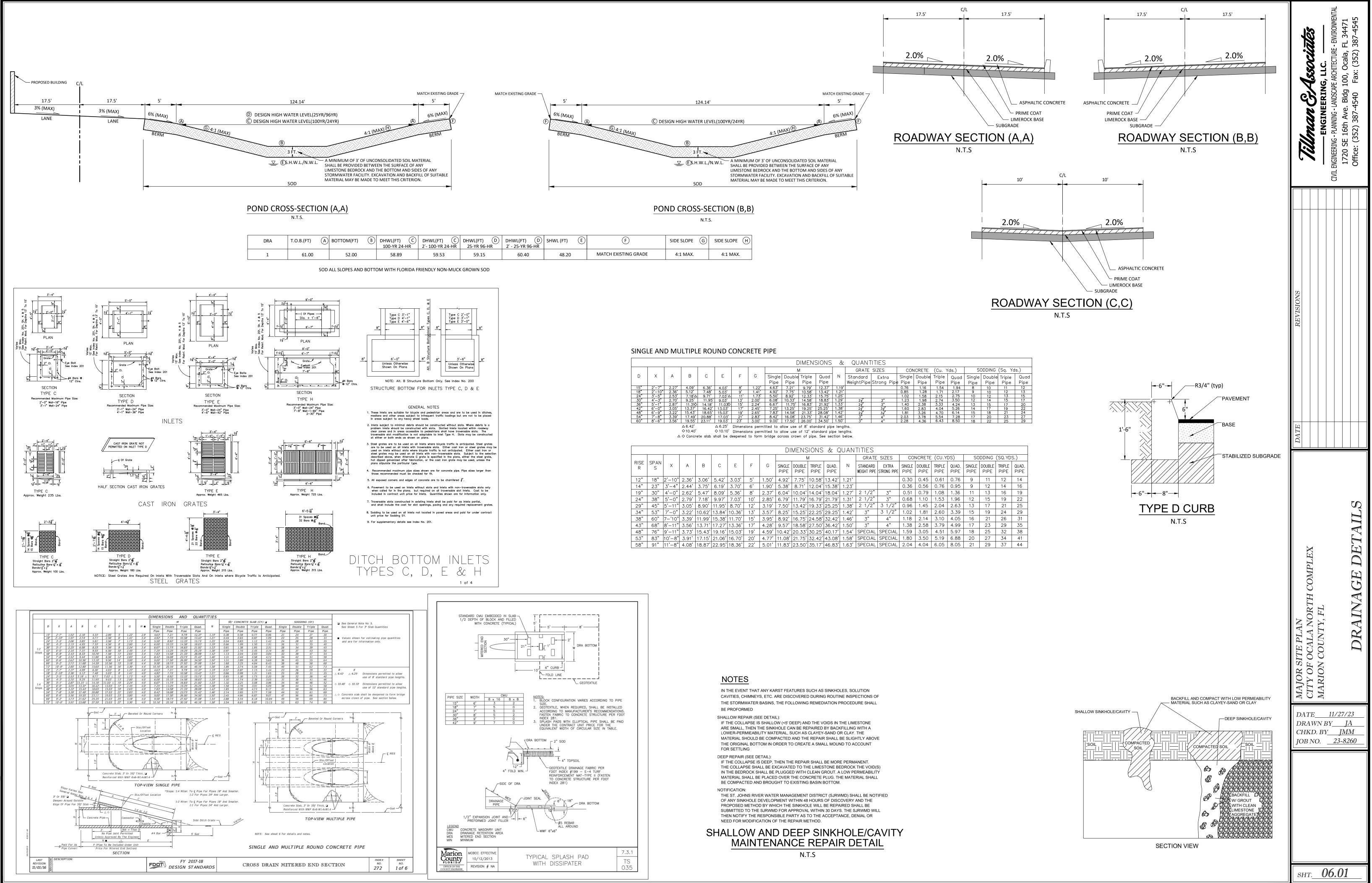
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NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER



NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER



C) R	DHWL(FT) D 25-YR 96-HR	DHWL(FT) D 2° - 25-YR 96-HR	SHWL (FT) E	F	SIDE SLOPE G	SIDE SLOPE (H)
	59.15 60.40		48.20	MATCH EXISTING GRADE	4:1 MAX.	4:1 MAX.

									L	IMEN	210112	8	QUANT	THES				
									Ν	Л			GRATE	SIZES	CON	NCRETE	(Cu. Y	′ds.)
D	Х	А	В	С	E	F	G	Single	Double	Triple	Quad	N	Standard	Extra	Single	Double	Triple	Quad
								Pipe	Pipe	Pipe	Pipe		WeightPipe	Strong Pipe	e Pipe	Pipe	Pipe	Pipe
15"	2'-7"	2.27'	4.09'	6.36'	4.03'	8'	1.22'	4.63'	7.21'	9.79'	12.37'	1.19'			0.76	1.16	1.54	1.94
18"	2'-10"	2.36'	5.12'	7.48'	5.03'	9'	1.41'	4.92'	7.75'	10.58'	13.42'	1.21'			0.85	1.28	1.71	2.17
24"	3'-5"	2.53'	7.18'∆	9.71'	7.03'∆	11'	1.73'	5.50'	8.92'	12.33'	15.75'	1.25'			1.02	1.58	2.15	2.75
30"	4'-3"	2.70'	9.25'	11.95'	9.03'	13'	2.00'	6.08'	10.33'	14.58'	18.83'	1.29'	2 <u>1</u> ″	3"	1.23	1.98	2.74	3.50
	36" 5'-1" 2.87' 11.31 ⁽²⁾ 14.18' 11.03 ⁽²⁾ 15' 2.24' 6.67' 11.75' 16.83' 21.92' 1.33' 2 ¹ / ₂ " 3" 1.40 2.38 3.33 4.2													4.24				
42"	6'-0"	3.05'	13.37'	16.42'	13.03'	17'	2.45'	7.25'	13.25'	19.25'	25.25'	1.38'	2 <u>1</u> ″	$3\frac{1}{2}$	1.60	2.83	4.04	5.26
48"	6'-9"	3.22'	15.43'	18.65'	15.03'	19'	2.65'	7.83'	14.58'	21.33'	28.08'	1.42'	21	$3\frac{1}{2}''$	1.81	3.26	4.70	6.14
54"	7'–8"	3.39'	17.49'	20.88'	17.03'	21'	2.83'	8.42'	16.08'	23.75'	31.42'	1.46'	3"	4"	2.03	3.78	5.54	7.28
60"	8'-6"	3.56'	19.55'	23.11'	19.03'	23'	3.00'	9.00'	17.50'	26.00'	34.50'	1.50'	3"	4"	2.28	4.36	6.43	8.50
			△6.42'		△ 6.25'	Dimensio	ons permi	itted to a	llow use	of 8'sta	ndard pip	e lengt	hs.					
			◇10.40'		♦ 10.10'	Dimensio	ons permi	itted to a	Ilow use	of 12'st	andard pi	ipe leng	iths.					
		^	♦ Concrete	te slah s	hall he d	eenened	to form	bridge ac	ross crow	n of nine		ction b	elow					

R S L L L L PIPE																				
RISE RSPAN SXABCEFGSINGLE PIPEDUBLE PIPETRIPLE PIPEQUAD. PIPENSTANDARD WEIGHT PIPEEXTRA STANDARDSINGLE PIPEDOUBLE PIPETRIPLE PIPEQUAD. PIPENSTANDARD WEIGHT PIPEEXTRA STANDARDSINGLE PIPEDOUBLE PIPETRIPLE PIPEQUAD. PIPENSTANDARD WEIGHT PIPEEXTRA STANDARDSINGLE PIPEDOUBLE PIPETRIPLE PIPEQUAD. PIPENSTANDARD WEIGHT PIPEEXTRA STANDARDSINGLE PIPEDOUBLE PIPETRIPLE PIPEQUAD. PIPENSTANDARD WEIGHT PIPEEXTRA STANDARDSINGLE PIPEDOUBLE PIPETRIPLE PIPEQUAD. PIPENSTANDARD WEIGHT PIPEEXTRA STANDARDSINGLE PIPEDOUBLE PIPETRIPLE PIPEQUAD. PIPENSTANDARD WEIGHT PIPEEXTRA STANDARDSINGLE PIPEDOUBLE PIPETRIPLE PIPEQUAD. PIPENSTANDARD WEIGHT PIPEEXTRA STANDARDSINGLE PIPEDOUBLE PIPETRIPLE PIPEQUAD. PIPENSTANDARD WEIGHT PIPEEXTRA STANDARDSINGLE PIPEDOUBLE PIPETRIPLE PIPEQUAD. PIPENSTANDARD LOU'EXTRA STANDARDSINGLE PIPEDUBLE PIPETRIPLE PIPEQUAD. PIPENSTANDARD LOU'EXTRA STANDARDSINGLE PIPEDUBLE PIPETRIPLE PIPEQUAD. PIPENSTANDARD LOU'<		DIMENSIONS & QUANTITIES																		
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14" 23" 3'-4" 2.44' 3.75' 6.19' 3.70' 6' 1.90' 5.38' 8.71' 12.04' 15.38' 1.23' 0.36 0.56 0.76 0 19" 30" 4'-0" 2.62' 5.47' 8.09' 5.36' 8' 2.37' 6.04' 10.04' 14.04' 18.04' 1.27' 2 1/2" 3" 0.51 0.79 1.08 2' 24" 38" 5'-0" 2.79' 7.18' 9.97' 7.03' 10' 2.85' 6.79' 11.79' 16.79' 21.79' 1.31' 2 1/2" 3" 0.68 1.10' 1.53' 2.94' 38" 5'-11" 3.05' 8.90' 11.95' 8.70' 12' 3.19' 7.50' 13.42' 19.33' 25.25' 1.38' 2 1/2" 3 1/2" 1.45' 2.04 ' 2 34" 53" 7'-0" 3.22' 10.62' 13.84' 10.36' 13' 3.57' 8.25' 15.25' 22.25' 1.42' 3" 3 1/2" </td <td></td> <td>1</td> <td>X</td> <td>А</td> <td>В</td> <td>С</td> <td>E</td> <td>F</td> <td>G</td> <td></td> <td></td> <td></td> <td></td> <td>Ν</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>QUAD PIPE</td>		1	X	А	В	С	E	F	G					Ν						QUAD PIPE
19" 30" 4'-0" 2.62' 5.47' 8.09' 5.36' 8' 2.37' 6.04' 10.04' 14.04' 18.04' 1.27' 2 1/2" 3" 0.51 0.79 1.08 1 24" 38" 5'-0" 2.79' 7.18' 9.97' 7.03' 10' 2.85' 6.79' 11.79' 16.79' 21.79' 1.31' 2 1/2" 3" 0.68 1.10 1.53 1.53' 29" 45" 5'-11" 3.05' 8.90' 11.95' 8.70' 12' 3.19' 7.50' 13.42' 19.33' 25.25' 1.38' 2 1/2" 3 1/2" 0.96 1.45 2.04 2 34" 53" 7'-0" 3.22' 10.62' 13.84' 10.36' 13' 3.57' 8.25' 15.25' 22.25' 1.42' 3" 3 1/2" 1.00 1.81 2.60 3' 38" 60" 7-10" 3.39' 11.99' 15.38' 1.70' 15' 3.95' 8.92' 16.75' 24.58' 32.42' 1.46' 3" 4" <td>12"</td> <td>18"</td> <td>2'-10"</td> <td>2.36'</td> <td>3.06'</td> <td>5.42'</td> <td>3.03'</td> <td>5'</td> <td>1.50'</td> <td>4.92'</td> <td>7.75'</td> <td>10.58'</td> <td>13.42'</td> <td>1.21'</td> <td></td> <td></td> <td>0.30</td> <td>0.45</td> <td>0.61</td> <td>0.76</td>	12"	18"	2'-10"	2.36'	3.06'	5.42'	3.03'	5'	1.50'	4.92'	7.75'	10.58'	13.42'	1.21'			0.30	0.45	0.61	0.76
24" 38" 5'-0" 2.79' 7.18' 9.97' 7.03' 10' 2.85' 6.79' 11.79' 16.79' 21.79' 1.31' 2 1/2" 3" 0.68 1.10 1.53 7' 29" 45" 5'-11" 3.05' 8.90' 11.95' 8.70' 12' 3.19' 7.50' 13.42' 19.33' 25.25' 1.38' 2 1/2" 3 0.68 1.10 1.53 7' 34" 53" 7'-0" 3.22' 10.62' 13.84' 10.36' 13' 3.57' 8.25' 15.25' 22.25' 29.25' 1.42' 3" 3 1/2" 1.81 2.04 2' 38" 60" 7-10" 3.39' 11.99' 15.38' 1.70' 15' 3.95' 8.92' 16.75' 24.58' 32.42' 1.46' 3" 4" 1.18 2.14 3.10 4''' 43" 68" 8'-11" 3.56' 13.71' 17.27' 13.36' 17' 4.28' 9.57' 18.58' 27.50' 36.42'	14"	23"	3'-4"	2.44'	3.75'	6.19'	3.70'	6'	1.90'	5.38'	8.71'	12.04'	15.38'	1.23'			0.36	0.56	0.76	0.95
29" 45" 5'-11" 3.05' 8.90' 11.95' 8.70' 12' 3.19' 7.50' 13.42' 19.33' 25.25' 1.38' 2 1/2" 3 1/2" 0.96 1.45 2.04 2 34" 53" 7'-0" 3.22' 10.62' 13.84' 10.36' 13' 3.57' 8.25' 15.25' 22.25' 29.25' 1.42' 3" 3 1/2" 1.02 1.81 2.60 3 38" 60" 7-10" 3.39' 11.99' 15.38' 11.70' 15' 3.95' 8.92' 16.75' 24.58' 32.42' 1.46' 3" 4" 1.18 2.14 3.10 4 43" 68" 8'-11" 3.56' 13.71' 17.27' 13.36' 17' 4.28' 9.57' 18.58' 27.50' 36.42' 1.50' 3" 4" 1.38 2.58 3.79 4 48" 76" 9'-11" 3.73' 15.43' 19.16' 15.03' 19' 4.59' 10.42' 20.33' 30.25' 4	19"	30"	4'-0"	2.62'	5.47'	8.09'	5.36'	8'	2.37'	6.04'	10.04'	14.04'	18.04'	1.27'	2 1/2"	3"	0.51	0.79	1.08	1.36
34" 53" 7'-0" 3.22' 10.62' 13.84' 10.36' 13' 3.57' 8.25' 15.25' 22.25' 29.25' 1.42' 3" 3 1/2" 1.02 1.81 2.60 3'' 38" 60" 7-'10" 3.39' 11.99' 15.38' 11.70' 15' 3.95' 8.92' 16.75' 24.58' 32.42' 1.46' 3" 4" 1.18 2.14 3.10 4'' 43" 68" 8'-11" 3.56' 13.71' 17.27' 13.36' 17' 4.28' 9.57' 18.58' 27.50' 36.42' 1.50' 3" 4" 1.38 2.58 3.79 4 48" 76" 9'-11" 3.73' 15.43' 19.16' 15.03' 19' 4.59' 10.42' 20.33' 30.25' 40.17' 1.54' SPECIAL SPECIAL 1.59' 3.05 4.51' 5 53" 83" 10'-8" 3.91' 17.15' 21.06' 16.70' 20' 4.77' 11.08' 21.75' 32.42' 43.08' 1.58'	24"	38"	5'-0"	2.79'	7.18'	9.97'	7.03'	10'	2.85'	6.79'	11.79'	16.79 '	21.79'	1.31'	2 1/2"	3"	0.68	1.10	1.53	1.96
38" 60" 7-'10" 3.39' 11.99' 15.38' 11.70' 15' 3.95' 8.92' 16.75' 24.58' 32.42' 1.46' 3" 4" 1.18 2.14 3.10 4" 43" 68" 8'-11" 3.56' 13.71' 17.27' 13.36' 17' 4.28' 9.57' 18.58' 27.50' 36.42' 1.50' 3" 4" 1.38 2.58 3.79 4" 48" 76" 9'-11" 3.73' 15.43' 19.16' 15.03' 19' 4.59' 10.42' 20.33' 30.25' 40.17' 1.54' SPECIAL SPECIAL 1.59 3.05 4.51' 5 53" 83" 10'-8" 3.91' 17.15' 21.06' 16.70' 20' 4.77' 11.08' 21.75' 32.42' 43.08' 1.58' SPECIAL SPECIAL 1.59' 3.05 4.51' 5 53" 83" 10'-8" 3.91' 17.15' 21.06' 16.70' 20' 4.77' 11.08' 21.75' 32.42' 43.08' 1.58'	29"	45"	5'-11"	3.05'	8.90'	11.95'	8.70'	12'	3.19'	7.50'	13.42'	19.33'	25.25'	1.38'	2 1/2"	3 1/2"	0.96	1.45	2.04	2.63
43" 68" 8'-11" 3.56' 13.71' 17.27' 13.36' 17' 4.28' 9.57' 18.58' 27.50' 36.42' 1.50' 3" 4" 1.38 2.58 3.79 4 48" 76" 9'-11" 3.73' 15.43' 19.16' 15.03' 19' 4.59' 10.42' 20.33' 30.25' 40.17' 1.54' SPECIAL SPECIAL 1.59 3.05 4.51 5 53" 83" 10'-8" 3.91' 17.15' 21.06' 16.70' 20' 4.77' 11.08' 21.75' 32.42' 43.08' 1.58' SPECIAL SPECIAL 1.80 3.50 5.19 6	34"	53"	7'-0"	3.22'	10.62'	13.84'	10.36'	13'	3.57'	8.25'	15.25'	22.25'	29.25'	1.42'	3"	3 1/2"	1.02	1.81	2.60	3.39
48" 76" 9'-11" 3.73' 15.43' 19.16' 15.03' 19' 4.59' 10.42' 20.33' 30.25' 40.17' 1.54' SPECIAL SPECIAL 1.59 3.05 4.51 53" 53" 83" 10'-8" 3.91' 17.15' 21.06' 16.70' 20' 4.77' 11.08' 21.75' 32.42' 43.08' 1.58' SPECIAL SPECIAL 1.80 3.50 5.19 6	38"	60"	7–'10"	3.39'	11.99'	15.38'	11.70'	15'	3.95'	8.92'	16.75'	24.58'	32.42'	1.46'	3"	4"	1.18	2.14	3.10	4.05
53" 83" 10'-8" 3.91' 17.15' 21.06' 16.70' 20' 4.77' 11.08' 21.75' 32.42' 43.08' 1.58' SPECIAL SPECIAL 1.80 3.50 5.19	43"	68"	8'-11"	3.56'	13.71'	17.27'	13.36'	17'	4.28'	9.57'	18.58'	27.50'	36.42'	1.50'	3"	4"	1.38	2.58	3.79	4.99
	48"	76"	9'-11"	3.73'	15.43'	19.16'	15.03'	19'	4.59'	10.42'	20.33'	30.25'	40.17'	1.54'	SPECIAL	SPECIAL	1.59	3.05	4.51	5.97
58" 91" 11'-8" 4 08' 18 87' 22 95' 18 36' 22' 5 01' 11 83' 23 50' 35 17' 46 83' 1 63' SPECIAL SPECIAL 2 04 4 04 6 05 8	53"	83"	10'-8"	3.91'	17.15'	21.06'	16.70'	20'	4.77'	11.08'	21.75'	32.42'	43.08'	1.58'	SPECIAL	SPECIAL	1.80	3.50	5.19	6.88
	58"	91"	11'-8"	4.08'	18.87'	22.95'	18.36'	22'	5.01'	11.83'	23.50'	35.17'	46.83'	1.63'	SPECIAL	SPECIAL	2.04	4.04	6.05	8.05

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER