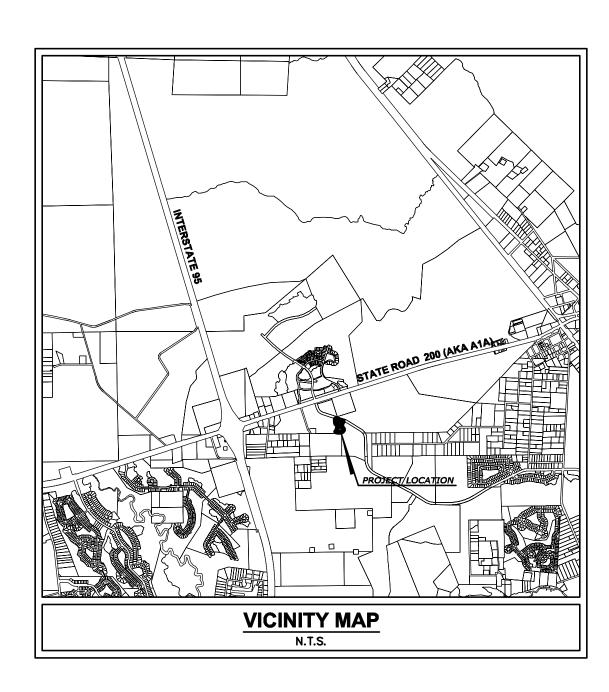
# **NASSAU COUNTY**

PREPARED FOR SS STORAGE, LLC 2963 DUPONT AVENUE JACKSONVILLE, FL 32217 PHONE: (904) 732-9400

76040 WILLIAM BURGESS BLVD YULEE, FL 32097



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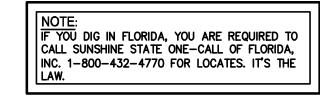
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10060 SKINNER LAKE DR., SUITE 500 JACKSONVILLE, FLORIDA 32246 (904) 265-3030 FAX: (904) 265-3031

FLORIDA REGISTRY 3650 L.A. NUMBER: LC26000311 www.cwieng.com

ALL WATER AND SEWER UTILITY CONSTRUCT SHALL BE ACCOMPLISHED IN ACCORDANCE VIJEA PLANS BEARING THE JEA APPROVAL STAIL AND BE IN POSSESSION OF THE CONTRACTOR ALL TIMES.

NOTE: PLANS HAVE BEEN DESIGNED USING 2021 JEA STANDARDS



JEA AVAILABILITY NO. 2021-0659

Planning Engineering Landscape Architecture
10060 Skinner Lake Drive, Suite 500 Jacksonville, Florida 32246
(904) 265-3030 FAX: (904) 265-3031 www.cwieng.com

COVER SHEET

STORAGE

VASSAU COUNTY

PREPARED FOR

AUTUMN HUBSCH P.E. NUMBER: 72939

Project No.:
21-01-0034

Designed: Drawn:
AMH DCG
Checked: O.C.:
JEW RCW

Date:
JANUARY 2022

Scale:

Sheet

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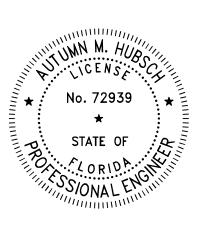
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CONNELLY & WICKER INC. 10060 SKINNER LAKE DR., SUITE 500 JACKSONVILLE, FL 32246 PHONE 904.265.3030 FAX 904.265.3031 CA NO. 3650 LA NO. LC26000311 ALFRED B. PITTMAN, RLA NO. 0001601

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

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| L1           | LANDSCAPE PLAN            |
| L2           | LANDSCAPE SPECIFICATIONS  |
| L3           | IRRIGATION SPECIFICATIONS |

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Wicker Inc. **∞** Connelly

WILDLIGHT SOUTH STORAGE NASSAU COUNTY PREPARED FOR SS STORAGE, LLC

Project No.:
21-01-0034

Designed: Dro
AMH D
Checked: O.C
JEW R
Date:
JANUARY 2022

Scale:

#### **GENERAL NOTES:**

- ALL WORK AND MATERIALS SHALL BE IN COMPLETE ACCORDANCE WITH ALL RELATIVE SECTIONS OF COUNTY STANDARDS, (LATEST REVISION) AND ALL CURRENT COUNTY STANDARD DETAILS. CONTRACTOR SHALL COMPLY WITH CURRENT A.D.A. CODE FOR ALL WORK ON THIS PROJECT.
- 2. ALL WORK SHALL BE PERFORMED IN A SAFE MANNER. ALL SAFETY RULES AND GUIDELINES OF O.S.H.A. SHALL BE FOLLOWED. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ANY INJURIES TO HIS EMPLOYEES, AND ANY DAMAGE TO PRIVATE PROPERTY OR PERSONS DURING THE COURSE OF THIS PROJECT. ALL COSTS ASSOCIATED WITH COMPLYING WITH O.S.H.A. REGULATIONS AND THE FLORIDA TRENCH SAFETY ACT MUST BE INCLUDED IN THE CONTRACTORS BID.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE JOB SITE PRIOR TO PREPARING THE BID FOR THE PURPOSE OF FAMILIARIZING HIMSELF WITH THE NATURE AND THE EXTENT OF THE WORK AND LOCAL CONDITIONS, EITHER SURFACE OR SUB-SURFACE, WHICH MAY AFFECT THE WORK TO BE PERFORMED, AND THE EQUIPMENT, LABOR AND MATERIALS REQUIRED. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF COMPLETE PERFORMANCE UNDER THIS CONTRACT. THE CONTRACTOR IS ALSO URGED TO TAKE COLOR PHOTOGRAPHS THROUGHOUT 3. ALL PIPE LENGTHS ARE SCALED DIMENSIONS. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED THE PROJECT AREA TO RECORD EXISTING CONDITIONS PRIOR TO CONSTRUCTION, AND TO AID IN RESOLVING POSSIBLE FUTURE COMPLAINTS THAT MAY OCCUR DUE TO CONSTRUCTION OF THE PROJECT.
- 4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EITHER CONDUCT ANY FIELD EXPLORATION OR ACQUIRE ANY GEOTECHNICAL ASSISTANCE REQUIRED TO ESTIMATE THE AMOUNT OF UNSUITABLE MATERIAL REQUIRED TO BE REMOVED AND/OR TO ESTIMATE THE AMOUNT OF OFF SITE BORROW THAT WILL BE REQUIRED.
- 5. ALL IMPROVEMENTS SHOWN ARE TO BE WARRANTED BY THE CONTRACTOR TO THE DEVELOPER AND THE COUNTY FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY THE OWNER
- 6. ELEVATIONS ARE BASED ON NORTH AMERICAN DATUM OF 1988 (NAVD88) AS DETERMINED BY MELROSE SURVEYING AND MAPPING INC.
- 7. FOR BOUNDARY, ROADWAY AND LOT GEOMETRY INFORMATION SEE PLAT.
- 8. THE CONTRACTOR WILL CONTRACT WITH AN INDEPENDENT TESTING LABORATORY TO PERFORM MATERIAL TESTING AND SOIL TESTING IN ACCORDANCE WITH COUNTY REQUIREMENTS. THIS SHALL INCLUDE DENSITY TESTS IN ALL PAVEMENT AREAS AND IN ALL UTILITY TRENCHES LOCATED IN PAVEMENT AREAS CONCRETE TESTING AND ALL OTHER MATERIAL TESTING. PRIOR TO LIMEROCK PLACEMENT, THE PROJECT GEOTECHNICAL ENGINEER SHALL MAKE RECOMMENDATIONS FOR UNDERDRAIN PLACEMENT.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE FOR THE PROJECT INCLUDING COUNTY RIGHT-OF-WAY PERMITS FOR WORK IN THE COUNTY RIGHT-OF-WAY OR EASEMENT.
- 10. THE CONTRACTOR SHALL COORDINATE THE WORK WITHIN COUNTY OR STATE RIGHT-OF-WAY WITH THE PROPER AGENCIES FOR MAINTENANCE OF TRAFFIC AND METHOD OF CONSTRUCTION AND REPAIR.
- 11. ALL PUBLIC DRAINAGE EASEMENTS SHALL BE "UNOBSTRUCTED" EASEMENTS. ALL "UNOBSTRUCTED" EASEMENTS TO BE CLEAR AND DRIVEABLE.
- 12. "AS-BUILT" DRAWINGS AS-BUILTS TO THE COUNTY AND THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT ARE REQUIRED TO BE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR THEREFORE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTRACT WITH A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA FOR THE PREPARATION, FIELD LOCATIONS, CERTIFICATION AND SUBMITTAL OF "AS-BUILT" DRAWINGS IN ACCORDANCE WITH CURRENT COUNTY STANDARDS AND SPECIFICATIONS AND S.J.R.W.M.D. REGULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROCESS THE "AS-BUILT" DRAWINGS FOR APPROVAL BY THE COUNTY. A-BUILTS ARE TO BE PREPARED IN ACCORDANCE WITH NASSAU COUNTY REQUIREMENT CHECKLIST.
- 13. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION WITH ALL OTHER CONTRACTORS IN THE EVENT OF ANY CONFLICT WHATSOEVER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.
- CLEARING AND GRUBBING REQUIRED FOR ALL ROADWAY, UTILITIES, DITCHES, AND BERMS INCLUDED IN THIS PROJECT, AND THE CLEARING AND GRUBBING OF ALL RIGHT-OF-WAY OR EASEMENTS SHALL BE CONSIDERED AS PART OF THE PROJECT.
- 15. ALL AREAS SHOWN TO BE FILLED SHALL BE CLEARED AND GRUBBED IN ACCORDANCE WITH COUNTY STANDARDS AND SHALL BE FILLED WITH CLEAN STRUCTURAL FILL COMPACTED AND TESTED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION REPORT.
- 16. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL SURVEY AND PROPERTY MONUMENTS. IF A MONUMENT IS DISTURBED. THE CONTRACTOR SHALL CONTRACT WITH THE SURVEYOR OF RECORD FOR REINSTALLATION OF THE MONUMENT.
- 17. ALL DEBRIS RESULTING FROM ALL ACTIVITIES SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR.
- 18. ALL EXCESS SUITABLE AND UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR UNLESS DIRECTED OTHERWISE BY ENGINEER OR OWNER.
- ALL EXISTING TREES TO REMAIN SHALL BE PRESERVED AND PROTECTED.
- 20. BURNING OF TREES, BRUSH AND OTHER MATERIAL SHALL BE APPROVED, PERMITTED AND COORDINATED WITH COUNTY FIRE MARSHAL.
- 21. ROADWAY UNDERDRAINS SHALL BE AS REQUIRED ON THE PLANS OR AS MAY BE DETERMINED NECESSARY BY THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF HIGH GROUND WATER CONDITIONS ARE PRESENT DURING THE PREPARATION OF THE PAVEMENT SUB-BASE.
- 22. PROVIDE CONTRACTION JOINTS AT 10' O.C. AND EXPANSION JOINTS AT 50' O.C. ON ALL EXTERIOR SIDEWALKS AND CURBING.
- 23. MAINTENANCE OF TRAFFIC SHALL CONFORM TO F.D.O.T. STANDARD INDEX 600, LATEST EDITION.
- 24. ALL SIGNING AND PAVEMENT MARKINGS SHALL BE THERMOPLASTIC AND IN ACCORDANCE WITH F.D.O.T. STANDARD INDEXES 11860, 17346, AND 17352.
- 25. ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE PROPOSED ROADWAY/SITE DEVELOPMENT SHALL BE REMOVED BY THE CONTRACTOR UTILIZING METHOD APPROVED BY THE COUNTY.
- 26. ALL STORM PIPE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- 27. ALL ROADWAY AND DRAINAGE CONSTRUCTION AND CONSTRUCTION WITHIN NASSAU COUNTY RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE NASSAU COUNTY ROADWAY AND DRAINAGE STANDARDS — ORDINANCE 99-17. THE CONTRACTOR NOTIFY ALL UTILITIES PRIOR TO CONSTRUCTION FOR VERIFICATION AND LOCATION OF ALL UTILITIES.
- 28. NASSAU COUNTY DEVELOPMENT REVIEW INSPECTOR SHALL BE CONTACTED 24 HRS PRIOR TO ALL NECESSARY SITE WORK INSPECTIONS AND 5 DAYS PRIOR TO THE FINAL INSPECTION.
- CONTRACTOR TO HIRE QC OR INDEPENDENT CONTRACTOR DURING ALL ASPHALT WORK.
- 30. CONTRACTOR TO MAKE A CUT IN THE CURB AND GUTTER EVERY FIVE FEET.
- 31. CONTRACTOR WILL BE REQUIRED TO SCHEDULE A WALK THROUGH OF THE SITE WITH THE DEVELOPER AND THE COUNTY 11 MONTHS AFTER COMPLETION OF WORK. THE CONTRACTOR WILL ALSO BE RESPONSIBLE TO FIX ANY PROBLEMS SEEN FIT BY THE COUNTY AT THIS TIME AT THEIR OWN EXPENSE.

- THE LOCATION OF ALL EXISTING UTILITIES, STRUCTURES AND IMPROVEMENTS SHOWN ON THE DRAWINGS IS BASED ON LIMITED INFORMATION AND MAY NOT HAVE BEEN VERIFIED. THE LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY RESPECTIVE UTILITY OWNERS AND FIELD VERIFY LOCATIONS OF EXISTING UTILITIES AND OTHER IMPROVEMENTS PRIOR TO COMMENCING ANY CONSTRUCTION. IF THE LOCATIONS SHOWN ARE CONTRARY TO THE ACTUAL LOCATIONS, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER OF THE DISCREPANCY. THIS DISCREPANCY SHOULD BE RESOLVED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN AREAS NEAR EXISTING UTILITIES AND IMPROVEMENTS AND SHALL BE RESPONSIBLE FOR AND SHALL REPAIR OR PAY FOR ALL DAMAGE MADE TO EXISTING UTILITIES OR OTHER IMPROVEMENTS. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL GRADES, INVERTS AND TYPE OF MATERIAL OF EXISTING UTILITIES TO WHICH HE SHALL
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL MATERIALS, IF REQUIRED, TO THE ENGINEER FOR REVIEW AND APPROVAL, PRIOR TO SUBMITTAL TO THE COUNTY AND JEA, AND PRIOR TO PURCHASE OR CONSTRUCTION OF ANY UTILITY PIPE OR STRUCTURE.
- TO CONFORM WITH COUNTY REQUIREMENTS AND SHALL BE CONSTRUCTED TO CONFORM WITH CURBING, PROPERTY LINES AND LOW POINTS AS SHOWN ON THE PLANS.
- 4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEAN AND FUNCTIONING PROPERLY AT TIME OF ACCEPTANCE.
- 5. ALL DRAINAGE STRUCTURES TO HAVE TRAFFIC BEARING GRATES. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEAN AND FUNCTIONING PROPERLY AT TIME OF
- 6. ALL DRAINAGE STRUCTURES TO HAVE TRAFFIC BEARING GRATES.
- 7. UNSUITABLE MATERIALS UNDER WATER, SEWER PIPE, STORM PIPE OR STRUCTURES SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL, PROPERLY COMPACTED.
- 8. ALL UNDERGROUND UTILITIES MUST BE INSTALLED PRIOR TO PREPARATION OF SUBGRADE FOR
- 9. ALL WATER AND SEWER CONSTRUCTION WITHIN THE COUNTY SHALL BE ACCOMPLISHED BY AN UNDERGROUND UTILITY CONTRACTOR LICENSED UNDER THE PROVISIONS OF CHAPTER 489 OF THE
- 10. SANITARY SEWER SERVICES SHALL BE 6" OR 8" PVC WITH A MINIMUM SLOPE OF 0.006 OR 0.004 FEET PER FOOT RESPECTIVELY AND SHALL BE TERMINATED AT THE BUILDING CLEANOUT AT THE DEPTH SHOWN ON THE PLANS.
- 11. WATER LINES SHALL HAVE A MINIMUM OF 36" COVER FROM FINISHED GRADE UNLESS OTHERWISE SHOWN. ALL WATER MAINS SHALL BE FLUSHED IN ACCORDANCE WITH AWWA C651 DISINFECTION STANDARDS. UNDER PAVEMENT AND IN COUNTY RIGHT-OF-WAY, THE MINIMUM DEPTH IS 42" UNDER PAVED AREAS AND 36" UNDER NON-PAVED AREAS FOR SANITARY SEWER MAINS AND WATER MAINS.
- 12. ALL POTABLE PVC PIPE 3 INCHES IN DIAMETER OR LESS SHALL BE LISTED AS NSF-pw AND SHALL BE MARKED AS SUCH.
- 13. WATER AND SEWER LINES ARE DESIGNATED TO FINISHED GRADES AND SHALL BE PROTECTED UNTIL FINISHED WORK IS COMPLETE.
- 14. A FULL UNCUT LENGTH OF WATER MAIN PIPE (USUALLY 20 FEET) SHALL BE CENTERED AT THE POINT OF CROSSING OF ALL WATER AND SEWER (INCLUDING STORM) LINES AT THE POINT OF CROSSINGS REGARDLESS OF VERTICAL SEPARATIONS.
- 15. IN THE CASE WHERE SOLVENT CONTAMINATION IS FOUND IN THE TRENCH, WORK WILL BE STOPPED AND THE PROPER AUTHORITIES SHALL BE NOTIFIED. WITH THE APPROVAL OF THE FLORIDA HEALTH DEPARTMENT, DUCTILE IRON PIPE, FITTINGS AND APPROVED SOLVENT RESISTANT GASKET MATERIAL SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE IRON PIPE WILL EXTEND AT LEAST 100 FEET BEYOND ANY DISCOVERED SOLVENT.
- 16. IN REGARD TO THE REQUEST FOR A LETTER OF RELEASE TO PLACE THE POTALBE WATER CONSTRUCTION INTO SERVICE, THE BACTERIOLOGICAL SAMPLE POINTS WILL BE INDICATED IN RED OR PINK ON THE RECORD OR AS-BUILT DRAWINGS. THE SAMPLE NUMBERS WILL CORRESPOND TO THOSE ON THE BACTERIOLOGICAL SAMPLE LAB SHEETS.
- 17. THE RECORD OR AS-BUILT DRAWINGS SUBMITTED AT THE TIME OF REQUEST FOR A LETTER OF RELEASE TO PLACE THE CONSTRUCTION INTO SERVICE WILL CLEARLY DEPICT THE VERTICAL CLEARANCES BETWEEN WATER AND SEWER (INCLUDING STORM) LINES AT ALL CROSSINGS.
- 18. UNLESS OTHERWISE NOTED, ALL WATER MAINS SHALL BE PVC DR18, C-900 AND ALL WATER MAINS 2" OR SMALLER SHALL BE HDPE MANUFACTURED OF PE 4710 MEETING THE APPLICABLE STANDARDS OF ASTM D3350, ASTM D2239 AND NSF-14. HDPE TUBING SHALL BE COPPER TUBE SIZE SDR-9 AND INSERTS SHALL BE 316 STAINLESS STEEL.
- 19. ALL GATE VALVES SHALL BE JEA STANDARD. VALVES SHALL BE MECHANICAL JOINT, CAST IRON, BRONZE FITTED WITH RESILIENT SEAT. ALL VALVES SHALL OPEN BY TURNING TO THE LEFT. VALVES SHALL BE RATED AT 200 PSI WORKING PRESSURE AND 400 PSI TEST PRESSURE.
- 20. ALL WATER MAINS SHALL BE BACTERIOLOGICAL AND PRESSURE TESTED AT 150 PSI FOR 2 HOURS IN ACCORDANCE WITH AWWA C-600 STANDARDS. NO CONNECTION TO EXISTING POTABLE WATER SYSTEM SHALL BE ALLOWED UNTIL ALL PROPOSED WATER LINES HAVE BEEN PRESSURE TESTED. DISINFECTED. AND CLEARED FOR SERVICE. THE ENGINEER MUST BE NOTIFIED 48 HOURS PRIOR TO PERFORMING THE PRESSURE TEST AND MUST BE PRESENT.
- 21. ALL FORCE MAINS SHALL BE BE PRESSURE TESTED AT 150 PSI FOR 2 HOURS IN ACCORDANCE WITH AWWA C-600 STANDARDS
- 22. A UTILITY COMPANY PRECONSTRUCTION CONFERENCE MUST BE HELD PRIOR TO COMMENCEMENT OF WATER OR SEWER WORK. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY TO SCHEDULE THIS CONFERENCE.
- 23. THE CONTRACTOR SHALL AVOID SERVICE INTERRUPTIONS AND MAINTAIN ANY EXISTING WATER AND SEWER SERVICE TO MEET THE SYSTEM DEMANDS AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF AFFECTED CUSTOMERS OF THE UTILITY A MINIMUM OF 48 HOURS IN ADVANCE OF ANY INTERRUPTION OF SERVICE.
- 24. ALL NEW AND/OR RELOCATED WATER MAIN PIPES AND FITTINGS SHALL NOT CONTAIN MORE THAN EIGHT PERCENT LEAD AND ALL PACKING AND JOINT MATERIALS USED IN THE JOINTS SHALL CONFORM WITH ALL APPLICABLE AWWA STANDARDS. ALL NEW AND/OR RELOCATED WATER SERVICES AND PLUMBING SHALL CONTAIN NO MORE THAN EIGHT PERCENT LEAD AND ALL SOLDERS AND FLUX SHALL CONTAIN NO MORE THAN 0.2 PERCENT LEAD.
- 25. CONNECTION IS CONTINGENT UPON CONSTRUCTION, DEDICATION AND FINAL ACCEPTANCE OF THE OFFSITE WATER TRANSMISSION SYSTEM AND SEWER COLLECTION SYSTEM WITHIN THE LIMITS OF THIS
- 26. WATER AND SEWER CAPACITY FEES SHALL BE REQUIRED AT TIME OF METER APPLICATION. FEES WILL BE BASED ON TOTAL NUMBER OF PLUMBING FIXTURE UNITS SHOWN OR LISTED ON BUILDING PLANS.
- 27. ALL PIPES CONFORM TO THE APPROPRIATE AWWA STANDARDS AND SPECIFICATIONS. 28. ALL PIPING AND ASSOCIATED APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE
- LATEST JEA STANDARDS, DETAILS & MATERIALS MANUAL, CURRENT REVISION. 29. METER MUST BE APPLIED AND PAID FOR BY A LICENSED MASTER PLUMBER OR UTILITY CONTRACTOR.

APPLICATION IS TO BE MADE AT 515 NORTH LAURA STREET, 1st FLOOR, CUSTOMER SERVICE

- 30. ALL WATER MAIN PRESSURE AND LEAKAGE TESTING SHALL BE IN ACCORDANCE WITH AWWA C600-87 AND JEA'S APPLICABLE STANDARDS AND SPECIFICATIONS. ALL WATER MAIN DISINFECTING SHALL BE IN ACCORDANCE WITH AWWA C651 AND JEA'S APPLICABLE STANDARDS AND SPECIFICATIONS.
- 31. REMOVED.
- 32. THE TAPS ARE TO BE SCHEDULED 48 HOURS ON ADVANCE BY CONTACTING YOUR JEA INSPECTOR.
- 33. ALL NEW PRIVATE ONSITE FIRE HYDRANTS SHALL BE PAINTED RED. 34. A WATER SUPPLY FOR FIRE PROTECTION. EITHER TEMPORARY OR PERMANENT SHALL BE MADE
- AVAILABLE AS SOON AS COMBUSTIBLE MATERIALS ACCUMULATE.
- 35. WHERE UNDERGROUND WATER MAINS AND HYDRANTS ARE TO BE PROVIDED. THEY SHALL BE INSTALLED, COMPLETED, AND IN SERVICE PRIOR TO VERTICAL CONSTRUCTION WORK.
- 36. UNDERGROUND MAINS INSTALLATION REQUIRES SEPARATE PERMIT.
- 37. FINAL INSPECTION OF MANHOLES AND TELEVISION INSPECTION OF GRAVITY SEWER SHALL BE REQUIRED PRIOR TO PLACING WASTEWATER COLLECTION SYSTEM INTO SERVICE.

- 38. MECHANICAL RESTRAINING JOINTS ARE REQUIRED IN ACCORDANCE WITH JEA STANDARDS WHERE WATER MAINS ARE TERMINATED AND AT ALL BENDS, REDUCERS, VALVES AND TEES.
- 39. TELEVISION INSPECTION SHALL BE REQUIRED ON ALL GRAVITY SEWER MAINS. GRAVITY SEWER LINE SHALL BE VIDEO TAPED TRAVELING UPSTREAM PULLING A MANDREL WITHOUT THE AID OF A MECHANICAL PULLING DEVICE. ALL LINES TO BE CLEANED AND FLUSHED PRIOR TO BEING VIDEO TAPED. A FULL WRITTEN REPORT AS TO THE CONDITION OF THE PIPE WITH PERTINENT DATA SUCH AS DISTANCE BETWEEN MANHOLES, LOCATION OF SERVICES, ETC. SHALL BE SUBMITTED TO THE OWNER AND ENGINEER PRIOR TO ACCEPTANCE. ALL DEFECTIVE AREAS AND ITEMS SHALL BE REPLACED OR REPAIRED PRIOR TO FINAL ACCEPTANCE. ALL REPAIRED SECTIONS MUST BE RE-INSPECTED PRIOR TO ACCEPTANCE. THE MAXIMUM DEFLECTION SHALL NOT EXCEED 7.5% OF THE NOMINAL DIAMETER IN ACCORDANCE WITH JEA STANDARDS. INFILTRATION AND EXFILTRATION TESTING OF GRAVITY SEWERS SHALL BE IN ACCORDANCE WITH UTILITY COMPANY SPECIFICATIONS. THE MAXIMUM ALLOWABLE RATE WILL BE 50 GALLONS PER INCH DIAMETER PER MILE PER DAY. PIPE DEFLECTION SHALL NOT EXCEED 80% OF MANUFACTURER'S MAXIMUM DEFLECTION RATING.
- 40. HORIZONTAL SEPARATION BETWEEN WATER MAINS, VALVES, FITTINGS AND SANITARY OR STORM SEWER SHALL BE IN ACCORDANCE WITH F.D.E.P. REGULATIONS. WHERE PARALLEL WATER AND SEWER (INCLUDING STORM) LINES HAVE LESS THAN 6 FEET HORIZONTAL SEPARATION, FULL-UNCUT LENGTHS OF WATER QUALITY PIPE (I.E. 18 AWWA C-900 FOR NEWLY INSTALLED SEWER & DR25 AWWA C-900 WATER) WILL BE USED WITH JOINTS STAGGERED AT 10 FOOT INTERVALS OR THEY WILL BE PLACED ON AN UNDISTURBED SHELF OR IN A SEPARATE TRENCH WITH A MINIMUM VERTICAL SEPARATION OF AT LEASE 18 INCHES, IT IS PREFERABLE TO HAVE THE WATER MAINS LOCATED ABOVE THE SEWER AND WITH 6 FEET OF SEPARATION WHERE POSSIBLE.
- 41. POINT OF CROSSING OF ALL WATER AND SEWER (INCLUDING STORM) LINES AT THE POINT OF CROSSING SHALL BE IN ACCORDANCE WITH F.A.C. RULE 62-555.314. WHERE IT IS NOT POSSIBLE FOR WATER AND SEWER (INCLUDING STORM) LINES TO CROSS WITH A MINIMUM O F18 INCHES OF VERTICAL CLEARANCE, A FULL UNCUT LENGTH OF WATER QUALITY PIPE (I.E. DR 18 AWWW C-900 FOR NEWER INSTALLED SEWER AND DR 25 AWWA C-900 WATER) WHICH IS USUALLY 20 FEET LONG WILL BE CENTERED ON THE POINT OF CROSSING. THE CONTRACTOR SHALL FIELD VERIFY THE VERTICAL SEPARATION AND INCLUDE THAT INFORMATION ON THE ASBUILT SURVEY. THE MINIMUM VERTICAL SEPARATION BETWEEN WATER AND SEWER (INCLUDING STORM) PIPES IS 18 INCHES IS NOT POSSIBLE WILL BE 6 INCHES OUTSIDE DIAMETER TO OUTSIDE DIAMETER. IT IS PREFERABLE TO HAVE THE WATER MAIN ABOVE THE SEWER LINES AND AT LEAST 18 INCHES VERTICAL SEPARATION.
- 42. ANY MANHOLE ADJUSTED AFTER LIMEROCK BASE HAS BEEN COMPACTED SHALL BE BACKFILLED WITH FLOWABLE FILL.
- 43. UNDER PAVEMENT AND IN ROADWAY RIGHT-OF-WAY, THE MINIMUM DEPTH REQUIREMENT UNDER PAVEMENT IS 42" AND 36" IN UNPAVED AREAS FOR WATER AND SEWER MAINS.

#### DRAINAGE NOTES

- 1. CONTRACTOR SHALL VERIFY EXISTING ELEVATION AT CONNECTION POINTS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES. THE CONTRACTOR SHALL COORDINATE THE GRADING AND DRAINAGE CONSTRUCTION WITH ALL OTHER CONSTRUCTION.
- 2. SEE GEOTECHNICAL REPORT FOR SITE PREPARATION REQUIREMENTS. PAVEMENT SUBGRADE SHALL HAVE ALL UNSUITABLE MATERIAL REMOVED AND BACKFILLED WITH SUITABLE MATERIAL PER THE GEOTECHNICAL REPORT. ANY UNSUITABLE MATERIAL ENCOUNTERED SHALL BE REMOVED FROM THE
- 3. A QUALIFIED SOILS LABORATORY SHALL BE ON SITE DURING EXCAVATING TO DETERMINE THE SUITABILITY OF THE EXISTING SUBGRADE AND EXISTING ONSITE MATERIAL PRIOR TO BEGINNING ANY FILLING OPERATION. BORROW MATERIAL TO BE TESTING AND RESULTS PROVIDED FOR CLOSEOUT
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBGRADE, LIMEROCK AND ASPHALT TESTING S REQUIRED BY NASSAU COUNTY.
- 5. THE CONTRACT SHALL FURNISH SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. ALL CONSTRUCTION AND MATERIAL SHALL CONFORM WITH THE NASSAU COUNTY
- 6. THE CONTRACTOR SHALL STAKE THE STORM SEWER SYSTEM AND THE SANITARY SEWER SYSTEM AND SHALL NOTIFY THE ENGINEER OF AN CONFLICTS PRIOR TO THE INSTALLATION OF ANY PIPE.
- 7. ALL UNDERGROUND UTILITIES SHALL BE INSTALLED PRIOR TO PREPARATION OF SUBGRADE FOR
- 8. ALL RCP PIPE SHALL MEET THE REQUIREMENTS OF astm C-76.
- 9. ALL PIPE LENGTH ARE APPROXIMATE AND MEASURE TO THE CENTER OF THE STRUCTURE OR MITERED
- 10. ALL DRAINAGE PIPE JOINTS IN THE NASSAU COUNTY DRAINAGE EASEMENTS AND DRAINAGE RIGHT-OF-WAYS ARE TO BE FILTER WRAPPED.
- 11. CUT AND FILL SLOPES ARE NOT TO EXCEED 4:1 UNLESS OTHERWISE NOTED.
- 12. SLOPES OF NEW POND SHALL BE SODDED TO ONE FOOT (VERTICAL) BELOW NORMAL WATER LINE. 18 INCHES OF SOD IS REQUIRED ALONG EDGE OF PAVEMENT IN ACCORDANCE WITH NASSAU COUNTY ROADWAY AND DRAINAGE STANDARDS SECTION 11.8.2. CONSTRUCTION AREAS WITHIN COUNTY RIGHT-OF-WAY AND EASEMENTS SHALL BE TREATED WITH SOD TO PROTECT THESE AREAS FROM EROSION. GRASSES SHALL BE ARGENTINE BAHIA, BERMUDA OR AN APPROVED ALTERNATIVE.
- 13. STORMWATER COLLECTION SYSTEM DESIGN IS BASED ON THE 5-YEAR STORM EVENT (RATIONAL METHOD). STORMWATER DETENTION PONDS HAVE BEEN DESIGNED TO ATTENUATE PEAK FLOWS FOR THE 25-YEAR STORM EVENT (SCS METHOD).
- 14. ALL ARES SHOWN TO BE FILLED SHALL BE CLEARED AND GRUBBED IN ACCORDANCE WIT NASSAU COUNTY STANDARDS AND SHALL BE FILLED WITH CLEAN FILL COMPACTED AND TESTED IN ACCORDANCE WITH THE GEOTECHNCIAL REPORT.
- 15. ALL DEBRIS RESULTING FROM ALL ACTIVITIES SHALL BE DISPOSED OF OFF-SITE BY CONTRACTOR.
- 16. ALL EXISTING TREES TO REMAIN SHALL BE PROTECTED AND PRESERVED.
- 17. BURNING OF TREES, BRUSH AND OTHER MATERIAL SHALL BE APPROVED, PERMITTED AND COORDINATED WITH THE NASSAU COUNTY FIRE MARSHALL.
- 18. CLEARING AND GRUBBING LIMITS SHALL INCLUDE ALL AREAS DISTURBED BY GRADING OPERATION. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UNDISTURBED AREAS, ALL PROPERTY CORNERS,A ND REPLACE ALL PINS ELIMINATED OR DAMAGE DURING CONSTRUCTION.
- 19. PROPOSED SPOT ELEVATIONS REPRESENT FINISHED GROUND SURFACE GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 20. THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS AS OUTLINED IN THE GENERAL NPDES PERMIT THE CONTRACTOR OBTAINS FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- 21. STORM WATER PIPE TO BE VIDEO INSPECTED IN ACCORDANCE WITH NASSAU COUNTY REQUIREMENTS.

### **EROSION & SEDIMENT CONTROL NOTES:**

- 1. THESE PLANS INDICATE THE MINIMUM EROSION & SEDIMENT CONTROL MEASURES REQUIRED FOR THIS PROJECT. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL-A GUIDE TO SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (F.D.E.P.) CHAPTER 6. THE CONTRACTOR SHALL PROVIDE EROSION PROTECTION AND TURBIDITY CONTROL AS REQUIRED TO INSURE CONFORMANCE TO STATE AND FEDERAL WATER QUALITY STANDARDS AND MAY NEED TO INSTALL ADDITIONAL CONTROLS TO CONFORM TO AGENCIES REQUIREMENTS. IF A WATER QUALITY VIOLATION OCCURS, THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ALL DAMAGE AND ALL COSTS WHICH MAY RESULT INCLUDING LEGAL FEES, CONSULTANT FEES, CONSTRUCTION COSTS AND
- 2. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS AND SPECIFICATIONS AND THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT SPECIFICATIONS AND CRITERIA.
- 3. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A PERMANENT STAND OF SOD AND/OR

- GRASS PER COUNTY STANDARDS AND MEETING THE N.P.D.E.S. FINAL STABILIZATION REQUIREMENTS.
- 5. IF DEWATERING CAPACITY REQUIRES A CONSUMPTIVE USE PERMIT (C.U.P.) IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO OBTAIN THE PERMIT THROUGH THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.
- 6. PRIOR TO COMMENCEMENT OF CONSTRUCTION AND EXCAVATION ACTIVITIES, THE CONTRACTOR SHALL PERFORM GROUNDWATER TESTING IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY FEDERAL REGISTER, PAGE 42739, PART 1A.3, TO DETERMINE PETROLEUM CONTAMINATION LEVELS. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING N.P.D.E.S. PERMIT, IF REQUIRED, IN ORDER TO DISCHARGE ANY GROUNDWATER ENCOUNTERED DURING CONSTRUCTION AND DEWATERING OPERATIONS
- 7. 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR WILL SUBMIT A "NOTICE OF INTENT" TO THE EPA IN ACCORDANCE WITH NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
- 8. THE CONTRACTOR SHALL WRAP STORM SEWER GRATES IN FILTER FABRIC TO PREVENT SEDIMENTATION OF THE STORM SEWER SYSTEM. CONTRACTOR SHALL MAINTAIN THE FILTER FABRIC UNTIL THE ASPHALT/CONCRETE PAVEMENT IS PLACED.
- 9. THE CONTRACTOR SHALL PROTECT ALL STORMWATER BASINS AND/OR SWALES FROM SEDIMENTATION DURING CONSTRUCTION USING NECESSARY SEDIMENT CONTROL BARRIERS.
- 10. IN THE EVENT OF DELAYS IN CONSTRUCTION, THE CONTRACTOR SHALL SEED ALL AREAS AND MAINTAIN EROSION CONTROL BARRIERS IN PLACE TO PREVENT EROSION, SILTATION AND AND INCREASE RUNOFF.

### PAVING AND DRAINAGE LEGEND SPOT ELEVATION CONTOURS BOUNDARY DRAINAGE DIVIDE STORM SEWER AND SIZE — — — ST-- STORM SEWER INLET ---- ST-- STORM SEWER MANHOLE MITERED END SECTION ---ST--DRAINAGE FLOW ARROWS DITCH FLOW ARROWS S-10 STRUCTURE NUMBERS DRAINAGE AREA SOIL BORING LOCATION **— —** UD **— —** UNDERDRAIN CONCRETE SIDEWALK CONCRETE CURB AND GUTTER ===== JURISDICTIONAL WETLANDS

—X——X— SILT FENCE

HAY BALES

| WATER AND SEWER LEGEND                            |  |                        |  |  |  |  |  |
|---|--|------------------------|--|--|--|--|--|
| _EXISTING   | PROPOSED                                 |                        |  |  |  |  |  |
| SAN <mark>8"</mark>                               |  | SANITARY SEWER LINE    |  |  |  |  |  |
| — — SAN <mark>8"</mark> —                         | SAN                                      | SANITARY SEWER SERVICE |  |  |  |  |  |
| ——————————————————————————————————————            | <del></del>                              | SANITARY SEWER MANHOLE |  |  |  |  |  |
| o— — —  | -  | CLEANOUT               |  |  |  |  |  |
| — — FM <u>4"</u> — —                              | ——— FM <mark>4"</mark>                   | FORCE MAIN             |  |  |  |  |  |
| w <mark>8"</mark>                                 | w <u>8"</u>                              | WATER MAIN             |  |  |  |  |  |
| — — RW <u>8"</u> — —                              |  | REUSE WATER MAIN       |  |  |  |  |  |
| — — — FP <u>8"</u> — —                            | ——FP <mark>8"</mark>                     | FIRE PROTECTION MAIN   |  |  |  |  |  |
| <del>\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\</del> |  | FIRE HYDRANT           |  |  |  |  |  |
| □- w <sup>2</sup> " -                             | <b></b> W <sup>2</sup> "                 | FLUSHING HYDRANT       |  |  |  |  |  |
| ——→—w <u>8"</u> —                                 | <b>───</b> ₩ <mark>8"</mark>             | GATE VALVE             |  |  |  |  |  |
| ————w <u>8"</u> —                                 | ₩ <u>8"</u>                              | REDUCER                |  |  |  |  |  |
| + <sup>†</sup> w <u>8"</u>                        | <u>                                 </u> | TEE                    |  |  |  |  |  |
| + <sub>+ w</sub> 8" −                             | <b>4</b> -w <u>8"</u>                    | BEND                   |  |  |  |  |  |
| M— w <sup>2</sup> — —                             | <b>M</b> —w <sup>2</sup> "               | WATER METER            |  |  |  |  |  |
| ()-w <sup>8"</sup> -                              | — <b>()</b> —w <sup>8"</sup> —           | BACKFLOW PREVENTER     |  |  |  |  |  |

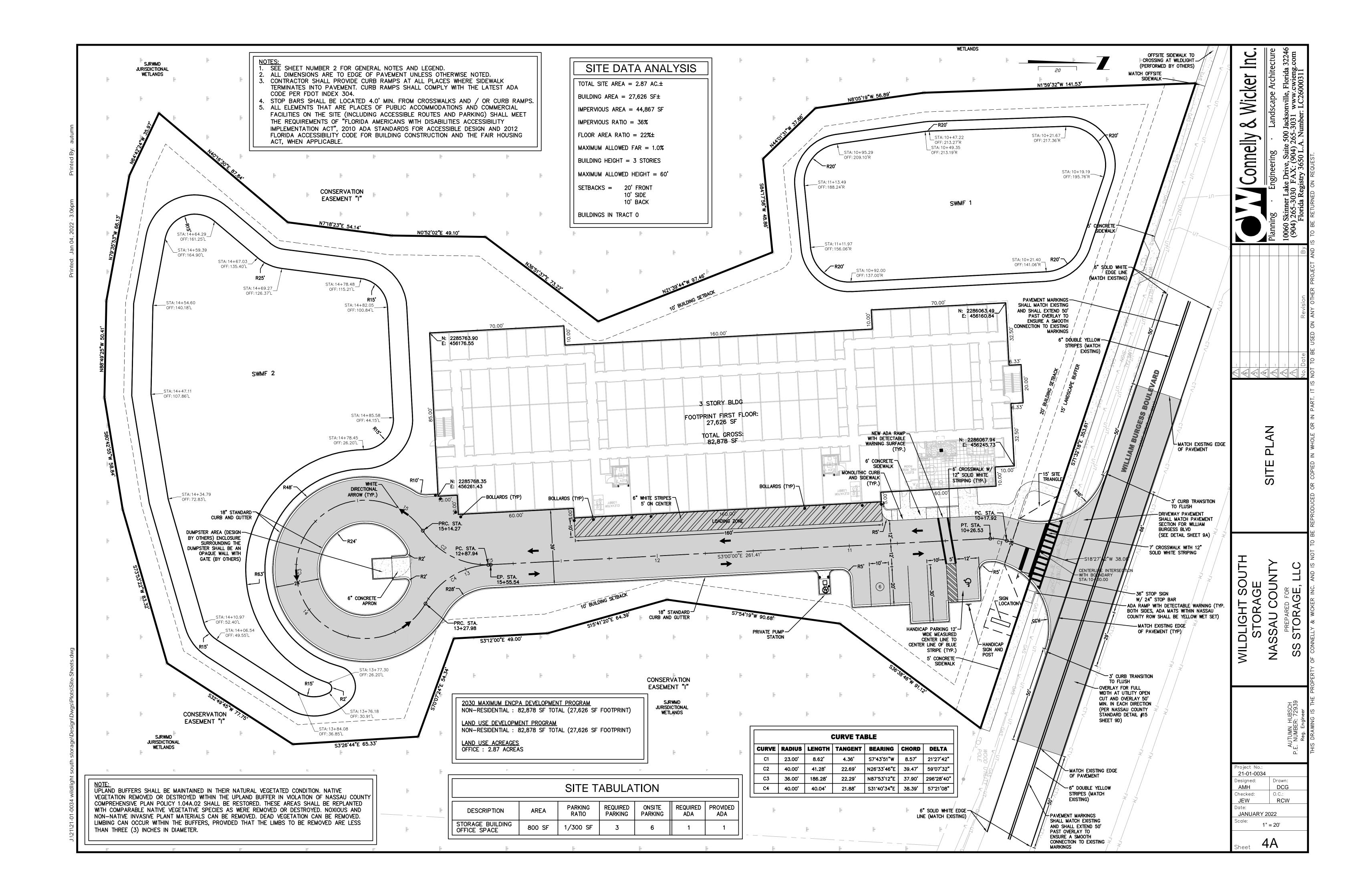
|                  | COMPANY | CONTACT / TELEPHONE #       | Project No.: 21-01-0034 Designed: |
|------------------|---------|-----------------------------|-----------------------------------|
| WATER SERVICE    | JEA     | CHRIS BARRINGTON / 665-4081 | AMH Checked:                      |
| SEWER SERVICE    | JEA     | CHRIS BARRINGTON / 665-4081 | JEW Date:                         |
| ELECTRIC SERVICE | FP&L    | ROBERT HADDOCK/ 225-3003    | JANUARY 2                         |
| TELEPHONE        | AT&T    | MARVIN FISHER / 727-1544    | Scale:                            |
| CABLE            | COMCAST | LARRY WINBURN / 380-7574    | Sheet 3                           |

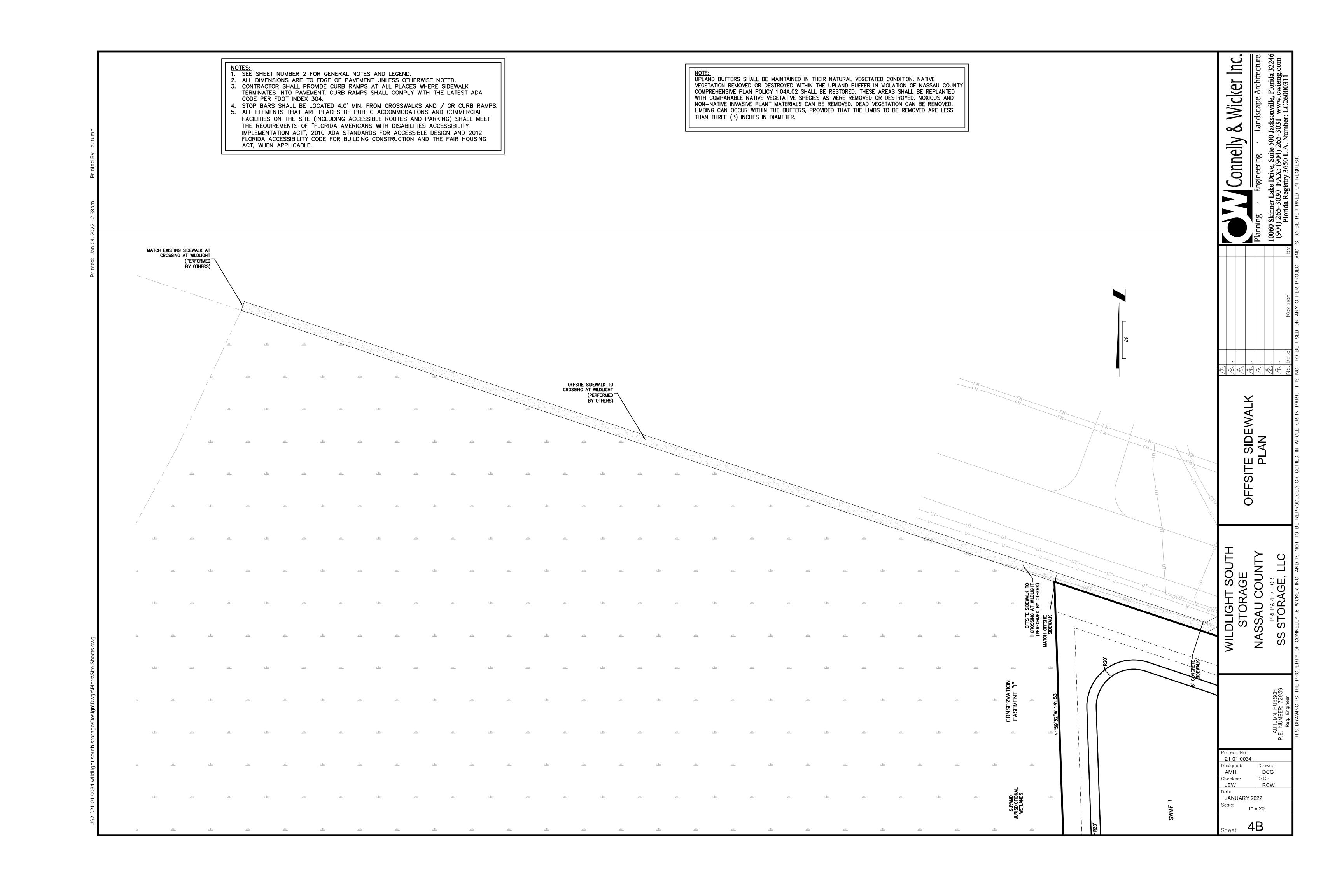
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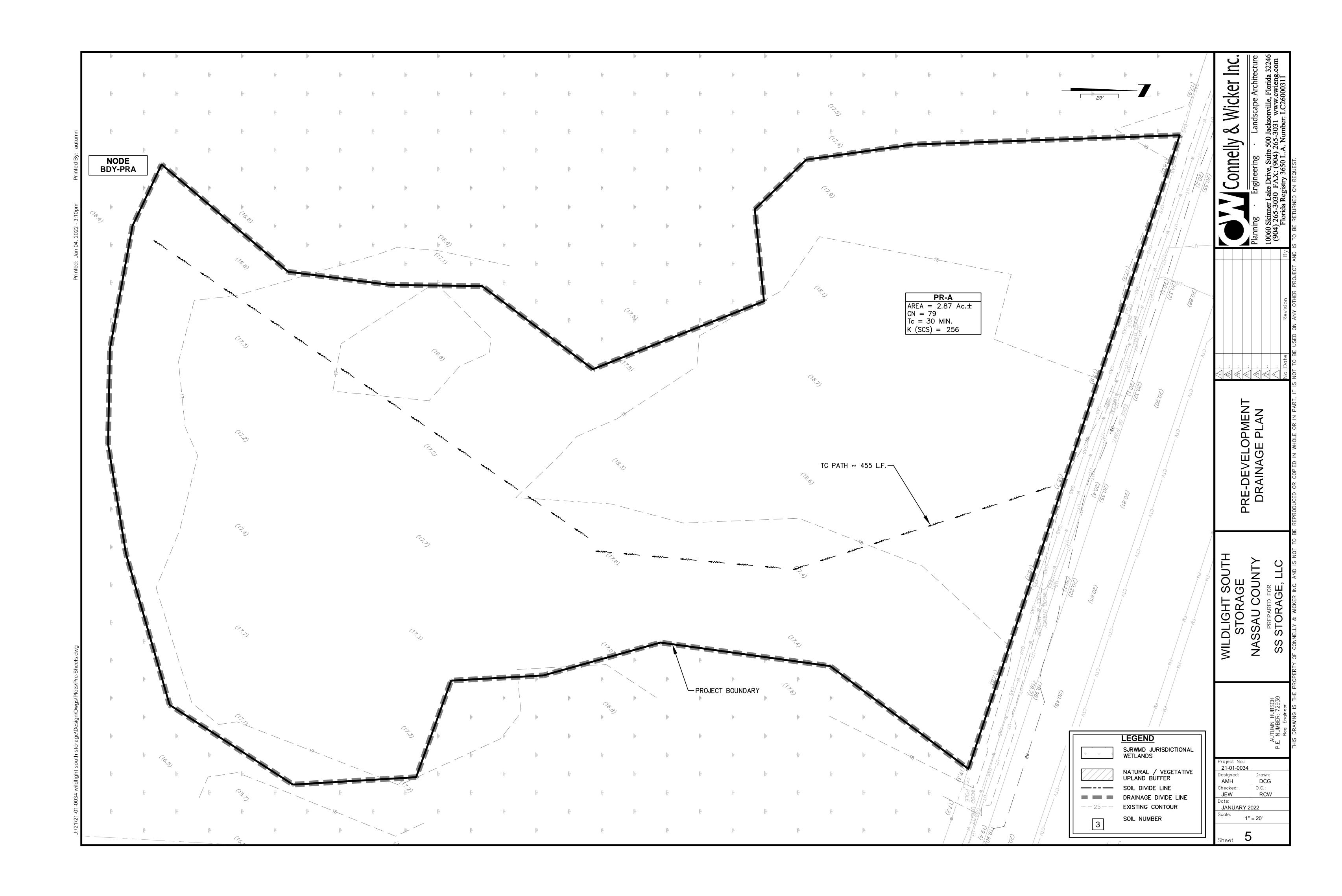
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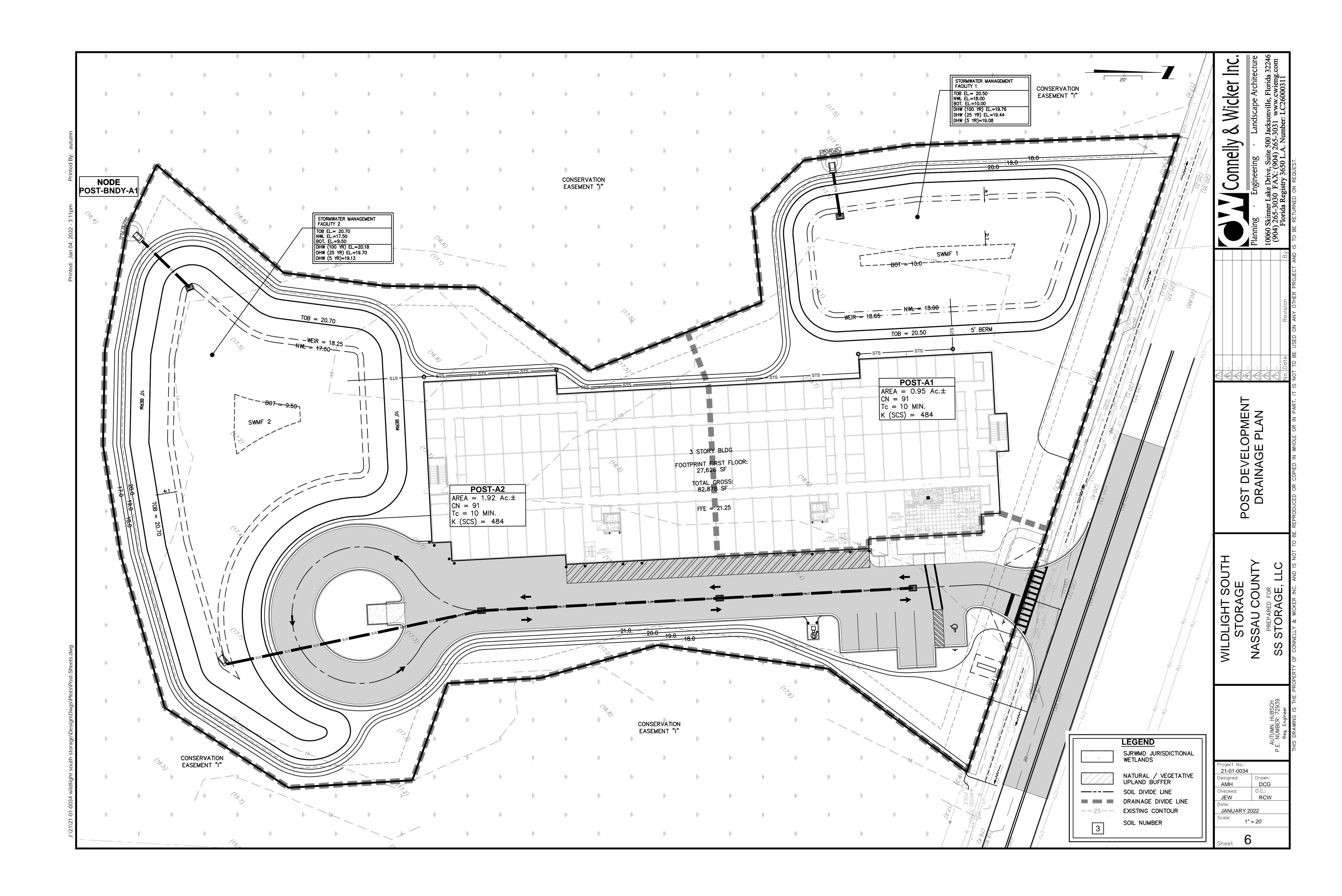
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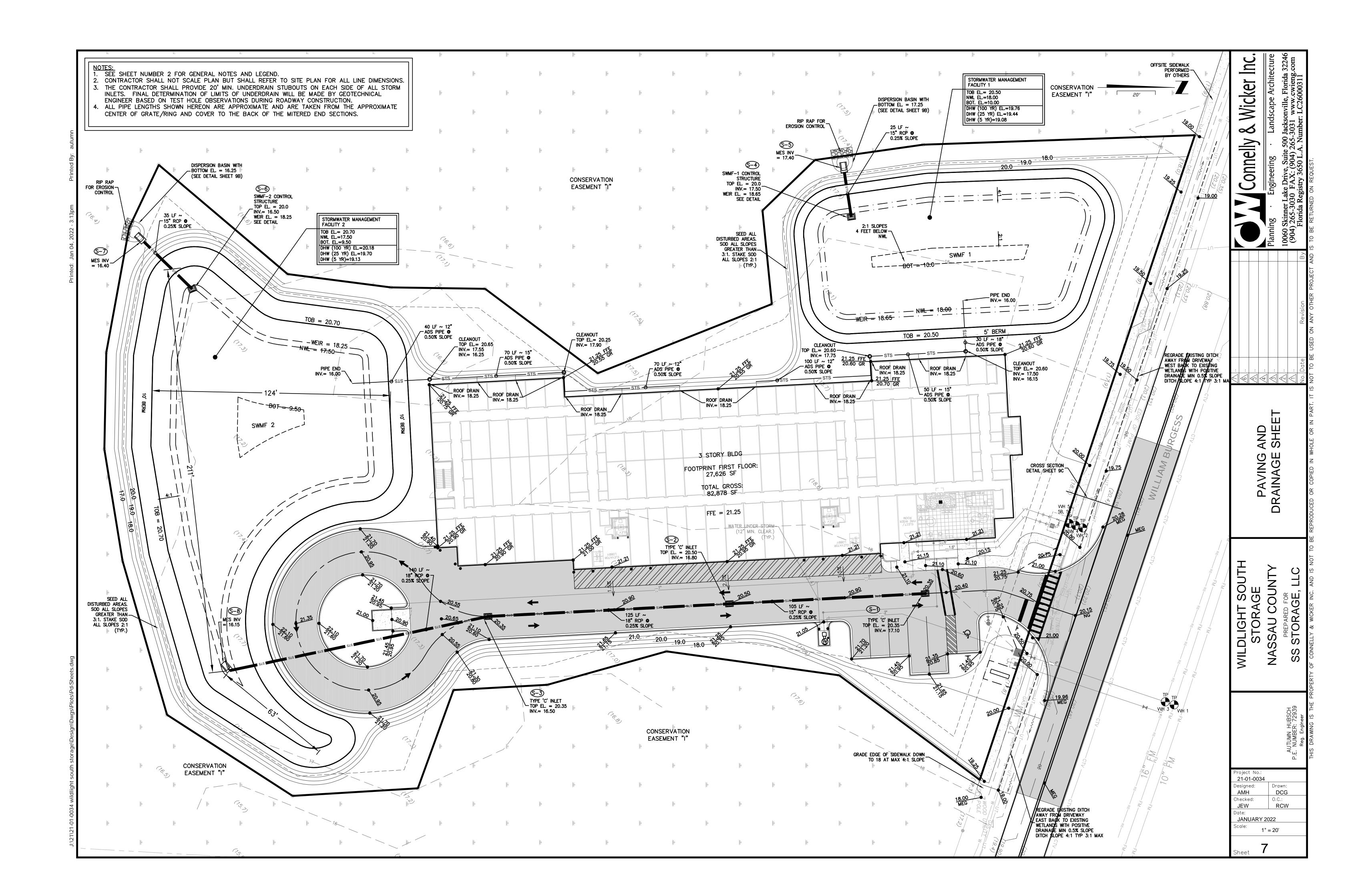
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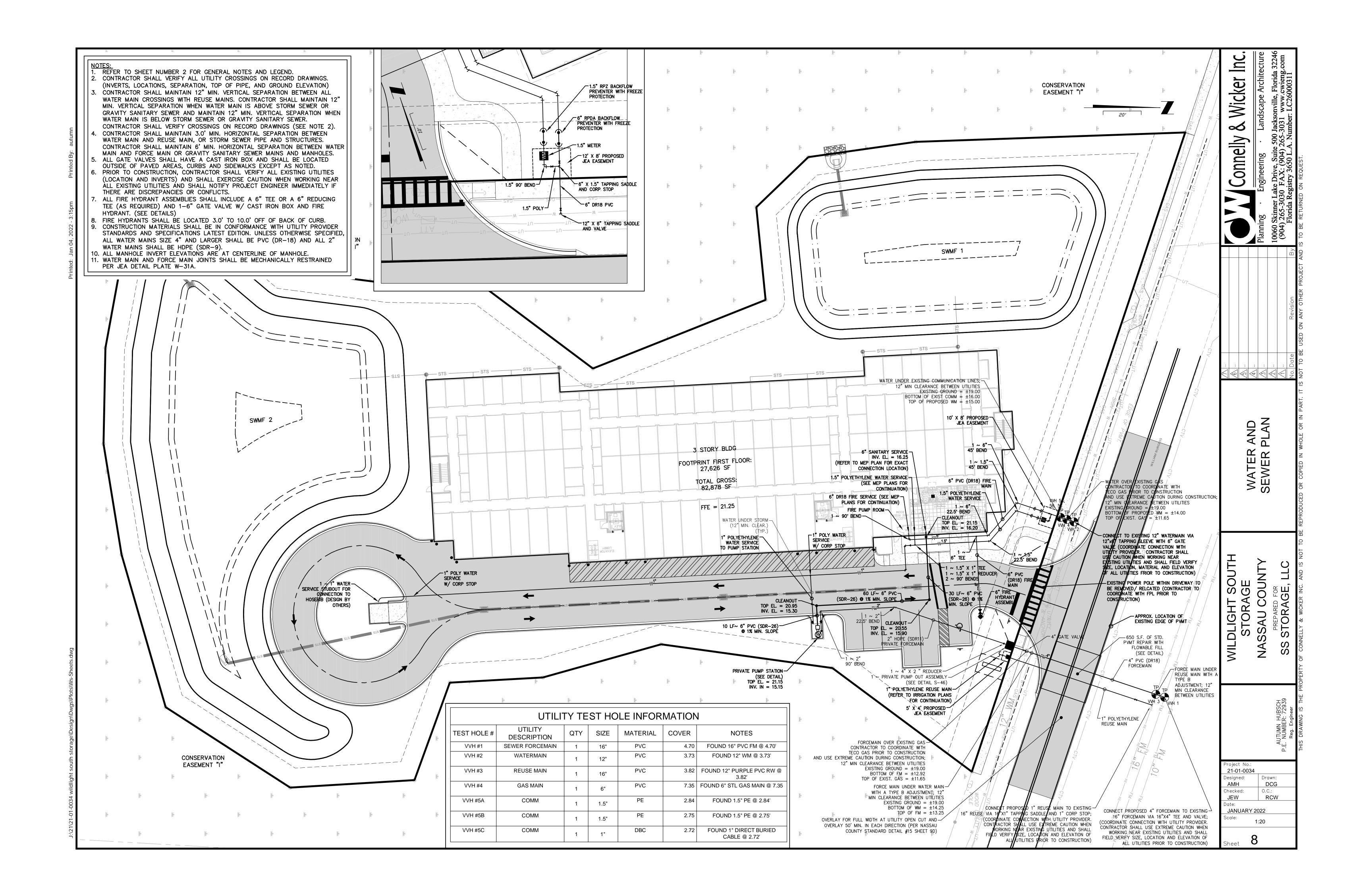


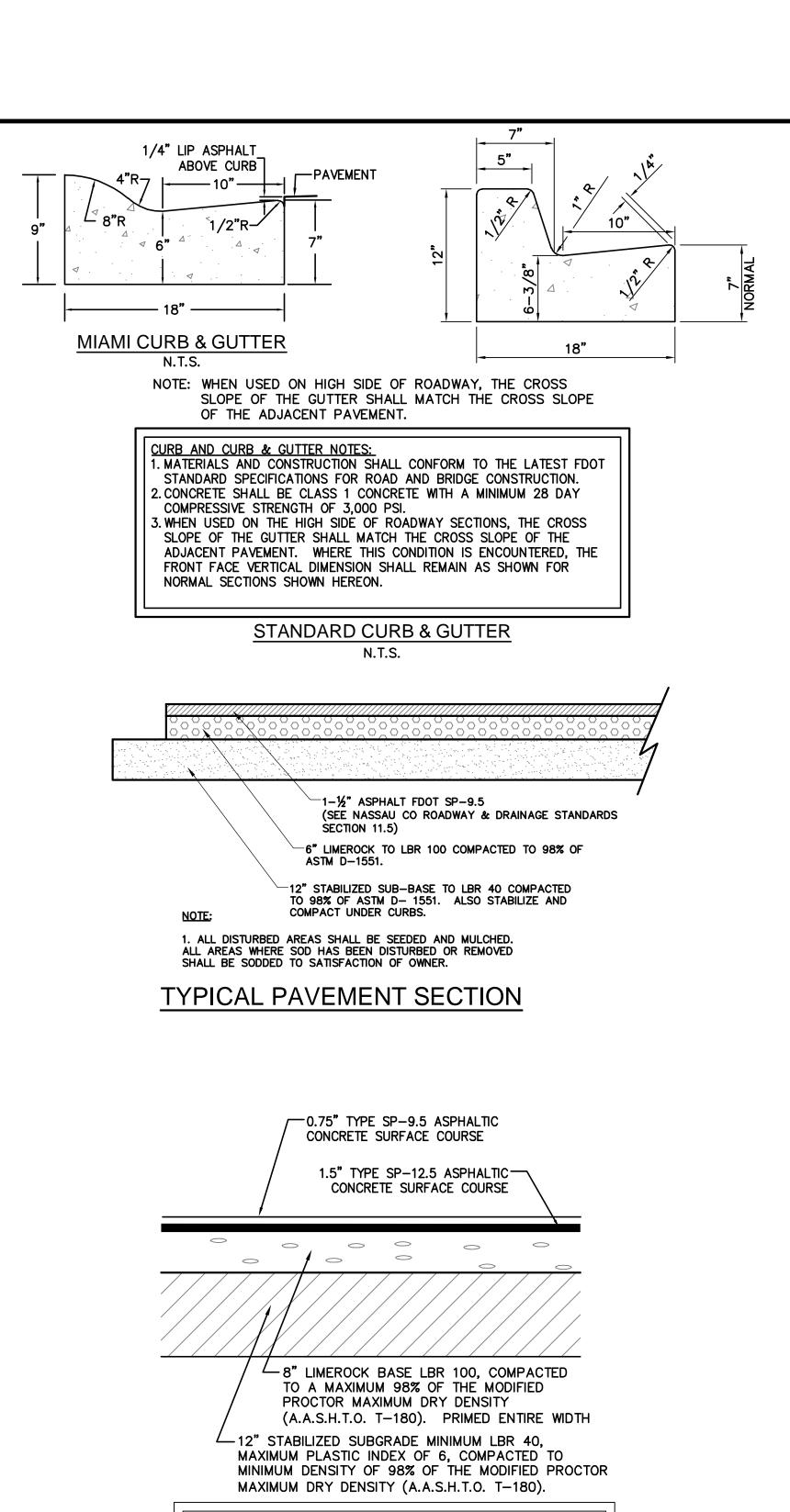


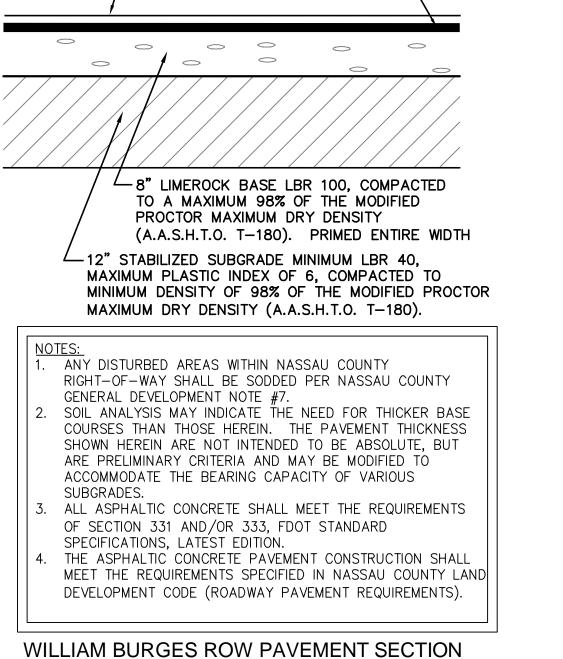




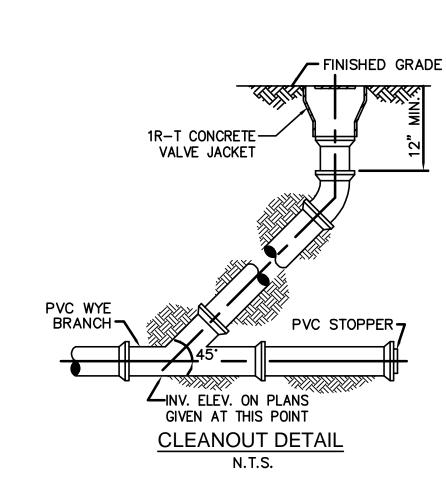


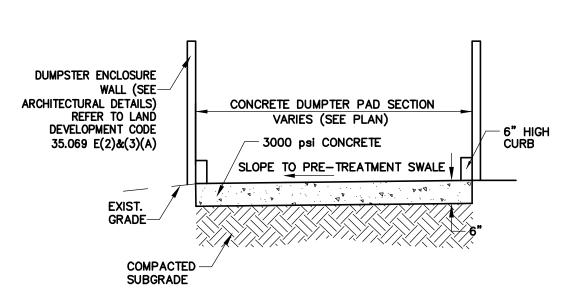




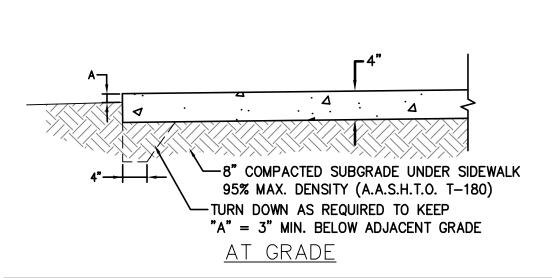


N.T.S.





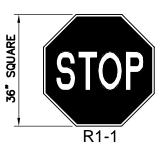
CONCRETE DUMPSTER PAD SECTION N.T.S.



1. CONSTRUCT STRAIGHT JOINTS WITH FACE PERPENDICULAR TO SURFACE OF CONCRETE. TRAVERSE JOINTS SHALL BE AT RIGHT ANGLES TO CENTERLINE UNLESS OTHERWISE INDICATED ON PLANS. 2. PROVIDE EXPANSION JOINTS AT 100' INTERVAL MAXIMUM SPACING ON 3. PROVIDE EXPANSION JOINTS FILLER FOR JOINTS ABUTTING CURBS, CATCH BASINS, MANHOLES, INLETS STRUCTURES, WALKS AND OTHER FIXED OBJECTS UNLESS OTHERWISE INDICATED ON PLANS. 4. EXTEND JOINTS FILLER FULL WIDTH AND DEPTH OF JOINT, AND 1/2" BELOW FINISHED SURFACE. PLACE SEALANT OVER JOINT FILLER PER MANUFACTURERS RECOMMENDATIONS. 5. USE PREMOLDED ASPHALT-IMPREGNATED FIBERBOARD, 1/2" THICK CONFORMING TO ASTM D1751. 6. CONTRACTION JOINT SHALL BE SAW CUT (1/4" WIDE BY 1" DEEP). 7. FINISHED SURFACE FOR CONCRETE SIDEWALK SHALL BE GRAY CONCRETE WITH LIGHT BROOM FINISH PERPENDICULAR TO LINE OF TRAFFIC. 8. PROVIDE CRACK CONTROL JOINTS (SAME AS WIDTH) O.C. 9. PROVIDE 16" STRIP SOD ADJACENT TO ALL EDGES OF SIDEWALK, CURB AND PAVEMENT AREAS. 10. CONCRETE COMPRESSION STRENGTH 3000 P.S.I. 

28 DAYS SIDEWALK TO BE CONSTRUCTED WITH SLOPES COMPLYING TO WITH LATEST ADA CODE AND FDOT INDEX 304. SIDEWALK MAX VERTICAL SLOPE OF 5.0% AND MAX CROSS SLOPE OF 2.0%

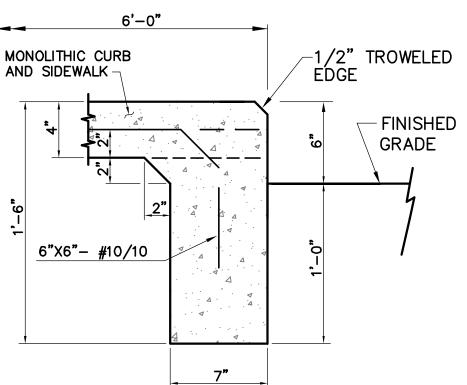
> **CONCRETE WALK** N.T.S.



THE STOP SIGN SHALL BE OCTAGON WITH WHITE MESSAGE AND BORDER ON A RED BACKGROUND. IT SHALL BE OF HIGH-INTENSITY DIAMOND GRADE SHEETING MATERIAL.

THE POSTS AND BRACKETS WILL BE PER FDOT STANDARD INDEX 11860 AND 11861. ALL SIGNS INSTALLED SHALL CONFORM TO THE CRITERIA IN THE MUTCD AND FDOT STANDARDS AND SPECIFICATIONS.

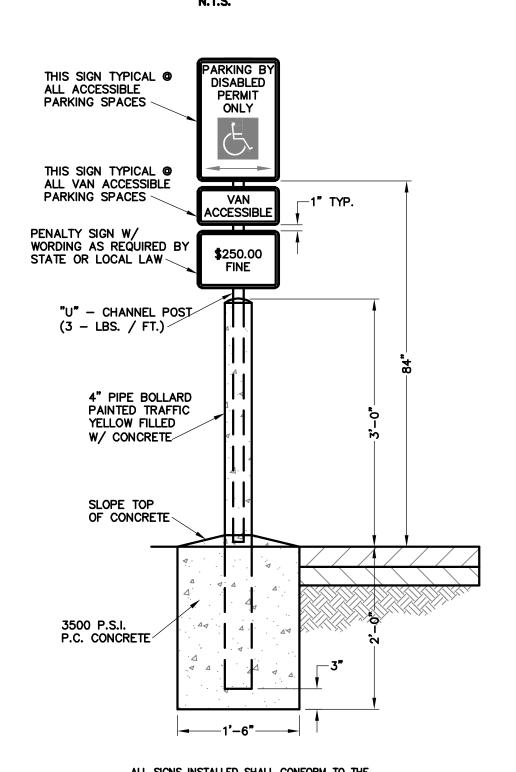
STOP SIGN DETAIL N.T.S.



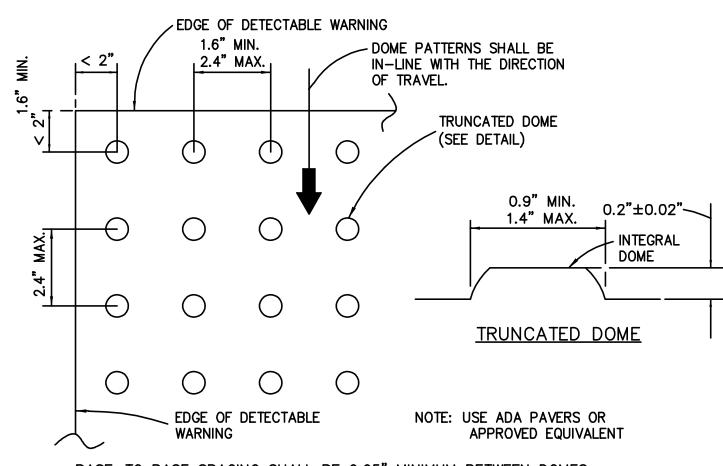
1. PROVIDE TROWELED JOINTS IN SIDEWALK EQUALLY SPACED AT INTERVALS APPROX. EQUAL TO THE

2. PROVIDE 1/2" EXPANSION JOINT WITH PRE MOLDED EXPANSION JOINT FILLER AT ALL INTERSECTIONS, STRUCTURES OR BUILDINGS AND AT A MAXIMUM SPACING OF 40 FEET.

MONOLITHIC CURB & SIDEWALK DETAIL



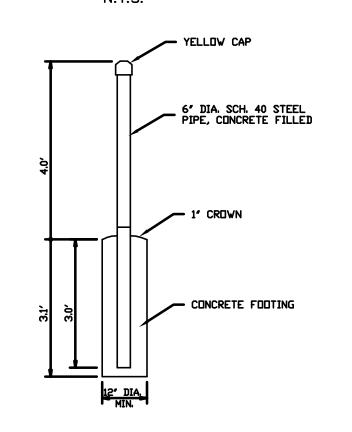
ALL SIGNS INSTALLED SHALL CONFORM TO THE CRITERIA IN THE MUTCD AND FDOT STANDARDS AND ACCESSIBLE PARKING SIGN



BASE-TO BASE SPACING SHALL BE 0.65" MINIMUM BETWEEN DOMES.

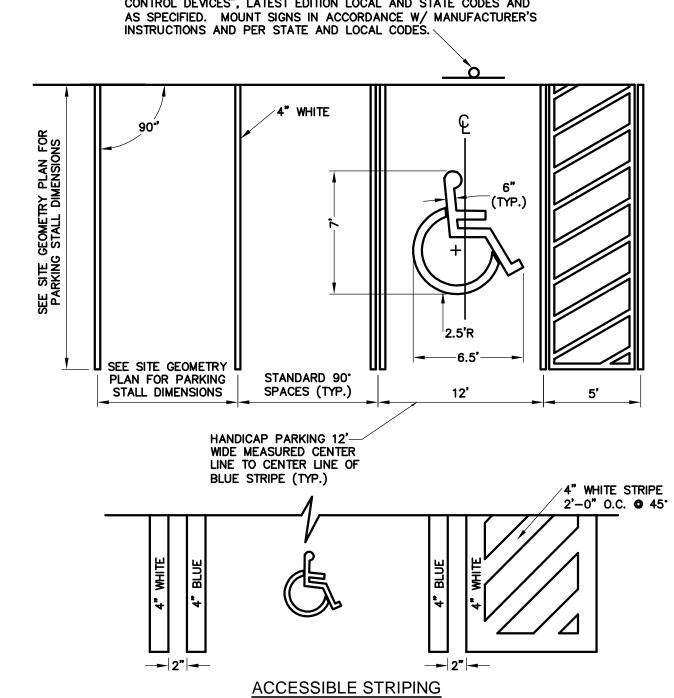
PLAN VIEW ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24" FROM THE BACK OF CURB

> **CURB RAMP DETECTABLE WARNING** N.T.S.



BOLLARD DETAIL NOT TO SCALE

ALL SIGNS SHALL COMPLY W/ U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION LOCAL AND STATE CODES AND AS SPECIFIED. MOUNT SIGNS IN ACCORDANCE W/ MANUFACTURER'S



HANDICAP STRIPING

N.T.S.



21-01-0034 Designed: DCG AMH Checked: RCW JEW JANUARY 2022 N/A

AVING

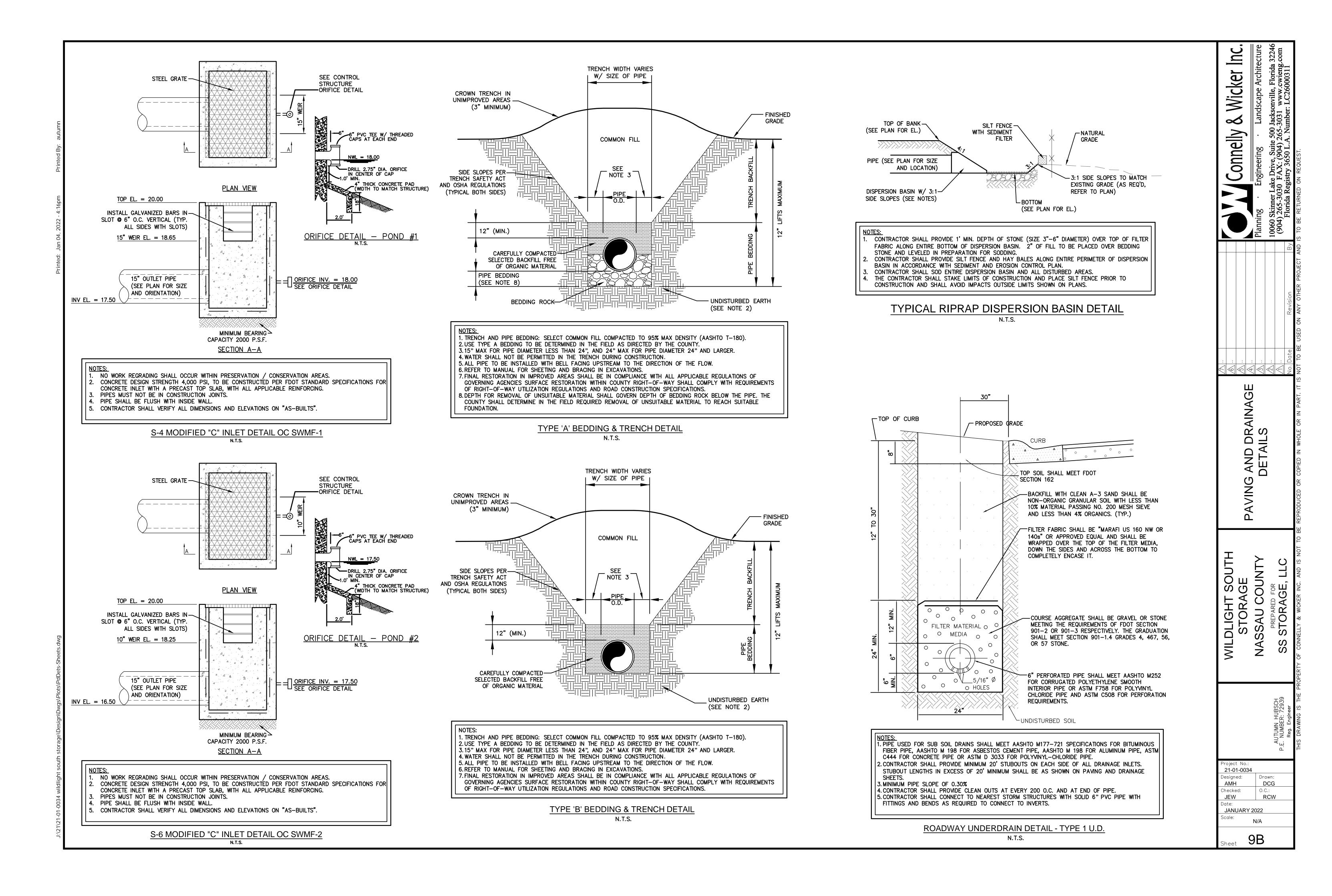
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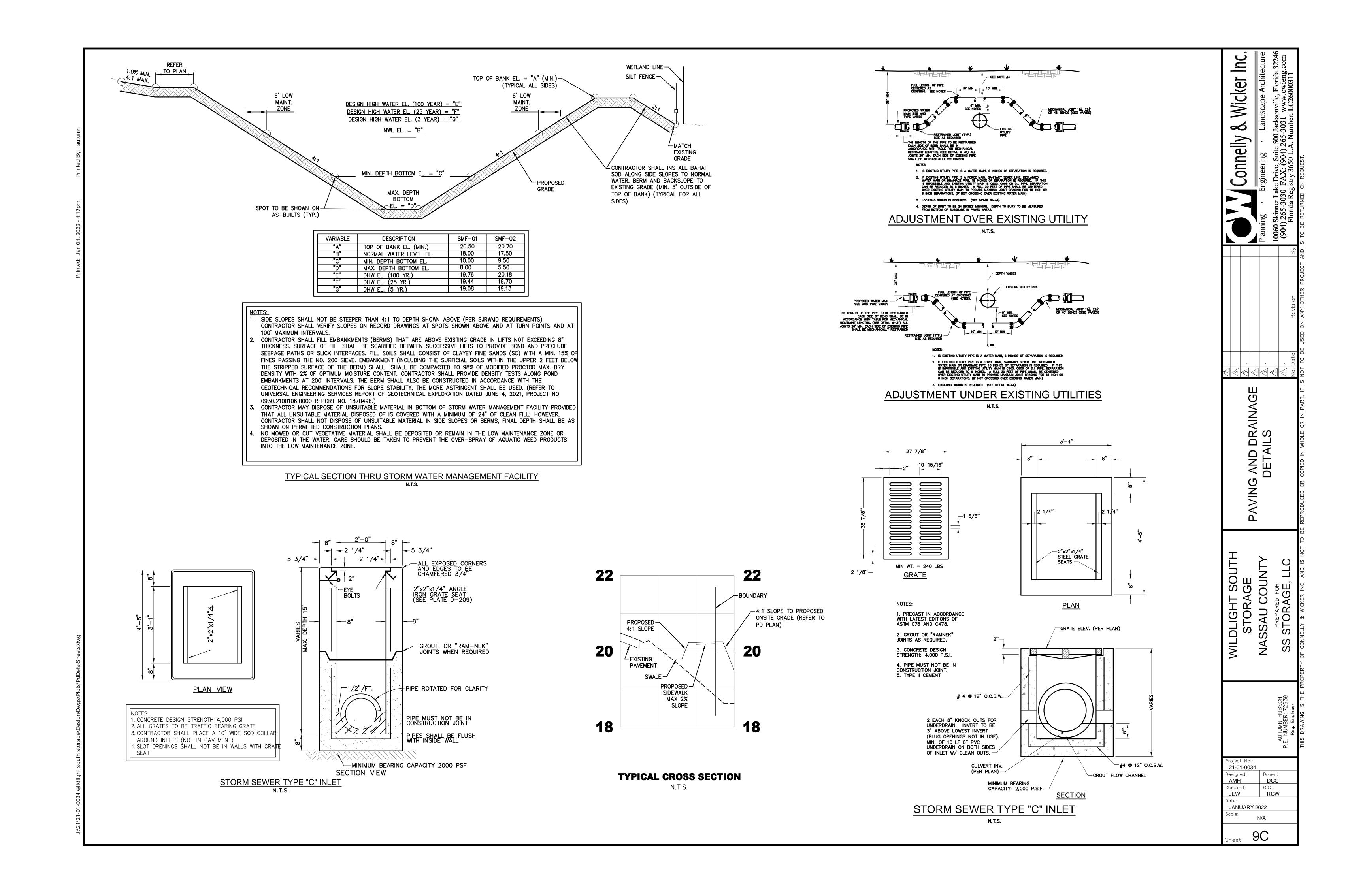
DR.

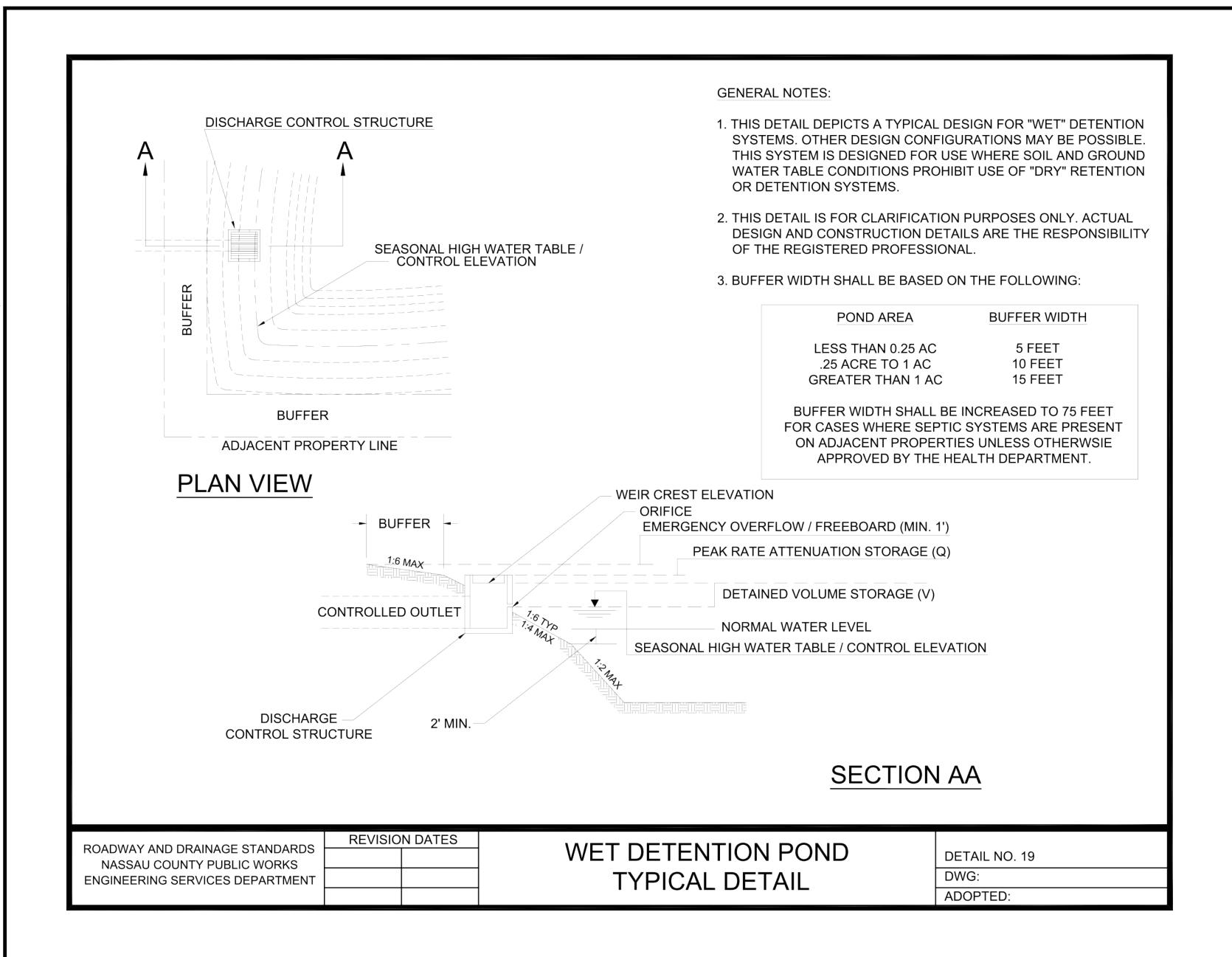
Wicker

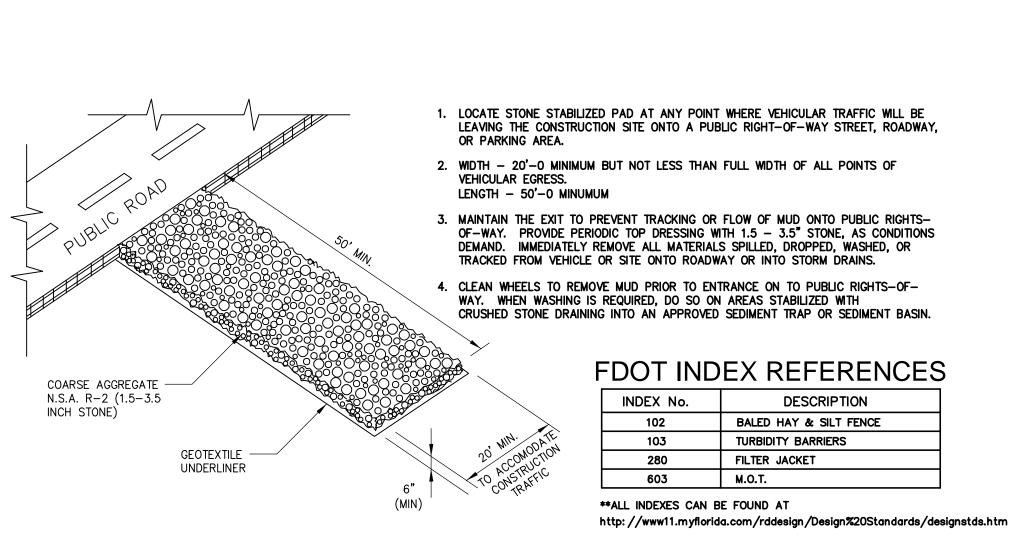
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Connelly





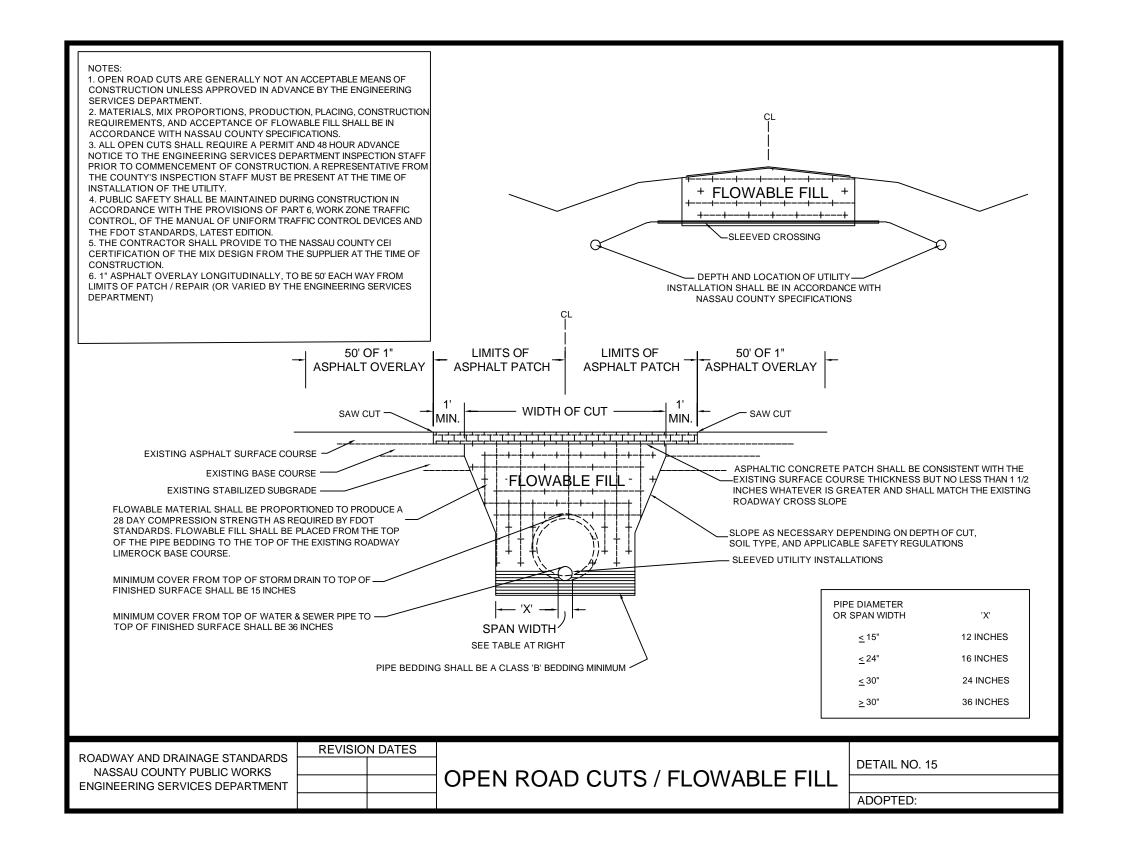




NOTES: COIR BALES ARE NOT ALLOWED IN NASSAU COUNTY.

TEMPORARY CONSTRUCTION EXIT DETAIL

NTS



Wicker 00 Connelly Ŋ **PAVING** WILDLIGHT STORAC MIL 21-01-0034 Designed: DCG AMH

Checked:

JANUARY 2022

N/A

JEW

RCW

# **Development Review General Notes:**

- 1. Engineering Plans approval does not constitute permission to violate any adopted Federal, State, or Local law, code, or ordinance.
- 2. All work within the public streets and right-of-ways shall conform to Nassau County Land Development Codes (LDC), FDOT Standard Indices, Florida Greenbook, Nassau County Roadway and Drainage Standards, and Nassau County Standard Details as necessary. For any discrepancy between standards, the most stringent shall prevail.
- 3. Per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 6.2.4, site shall be constructed per approved construction drawings. Any substantial deviation shall be concurrently reviewed by Engineer of Record and Nassau County Development Review Committee prior to field changes.
- 4. A pre-construction meeting with Nassau County Engineering Services Construction Inspector is required. Attendees shall be Nassau County, Engineer of Record, Contractor, Testing firm, Paving firm, and utility companies per Nassau County Ordinance 99-17 Section 7.2.3. Nassau County may cancel pre-construction meeting if attendee list is inadequate. Nassau County Engineering Services can be reached at 904-530-6225.
- The contractor shall schedule and coordinate all work with the appropriate Nassau County Construction Inspector assigned to the project per Nassau County Ordinance 99-17 Section 7.2.
- 6. All work shall be performed in a safe manner. All safety rules and guidelines of O.S.H.A. shall be followed. The contractor shall be wholly responsible for any injuries to his employees and any damage to private property or persons during the course of this project.
- 7. Per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 11.8.1, any disturbed areas within Nassau County Right-of-Way shall be sodded.
- 8. Per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 7.4.1, at the time of final inspection, grassing shall be a minimum of seventy percent coverage and fully established and/or sodding to be one hundred percent coverage and stabilized.
- 9. Engineer of Record approved shop drawings shall be provided to Nassau County Construction Inspector a minimum of one week before beginning structure installation.
- 10. Parking at mail kiosks is required per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 8.4. Mail kiosk locations are subject to USPS Postmaster approval.

- 11. The developer's contractor is the single responsible party for the proper implementation of an Erosion Protection Sediment Control (EPSC) within each lot or construction site. This includes the responsibility for the actions/inactions of employees, subcontractors, and/or suppliers.
- 12. Sidewalks to be provided and built in accordance Florida Building Code. All proposed sidewalks shall meet ADA requirements.
- 13. The Contractor shall comply with current Florida accessibility standards for all work on this project.
- 14. Per Ordinance 99-17 Section 8.5.1, minimum cover for water lines and force mains under pavement shall 42" and 36" in green areas.
- 15. All water, sewer, and storm water construction within Nassau County ROW shall be accomplished by an underground utility contractor licensed under the provisions of Chapter 409 of the Florida Statutes.
- 16. No work shall be permitted between the hours of 7:00 PM 7:00AM without prior approval from Nassau County Engineering Services.
- 17. All trees required to be protected shall be flagged for protection prior to clearing.
- 18. All grading and placement of compacted fill shall be in accordance with the latest Nassau County Specifications.
- 19. Any damages (sidewalk, curb, asphalt, ditch grading, et cetera) within Public Right-of-Way shall be repaired or replaced in accordance with Nassau County Specifications. Proposed repair method shall be approved by Nassau County Engineering Services.
- 20. Any asphalt millings from Nassau County ROW shall be delivered to the Road Department Laydown yard located on Gene Lasserre Boulevard or Pea Farm Road. Please contact the Road Department at (904) 530-6175.
- 21. Per Nassau County Ordinance 99-17 Section 7.4.2 and 7.4.4, as-built drawings shall be submitted to Nassau County before a final inspection can be scheduled. As-builts submittals will be in accordance with Nassau County as-built requirement checklist. As-built drawings shall be certified by required licensed surveyor and approved by Engineer of Record.

ROADWAY AND DRAINAGE STANDARDS
NASSAU COUNTY
ENGINEERING SERVICES DEPARTMENT

REVISION DATES

DEVELOPMENT REVIEW
GENERAL NOTE SHEET: 1

DWG:
ISSUED: 12/09/2020

ND DRAINAGE

A.:

Connelly & Wicker Inc.

A.:

Planning Engineering Landscape Architecture

10060 Skinner Lake Drive, Suite 500 Jacksonville, Florida 32246

(904) 265-3030 FAX: (904) 265-3031 www.cwieng.com

Florida Registry 3650 L.A. Number: 1.026000311

T SOUTH AGE SOUNTY

WILDLIGHT SOUTH STORAGE NASSAU COUNTY

Dougle AUTUMN HUBSCH
P.E. NUMBER: 72938

Project No.:
21-01-0034

Designed: Drawn:
AMH DCG
Checked: O.C.:
JEW RCW
Date:
JANUARY 2022

Scale: N/A

et 9E

# **Stormwater Drainage Notes:**

- All stormwater drainage facilities within Public Right-of-Way and paved areas, including Nassau County Right-of-Way, turn lanes, residential roadways, drive aisles for multi-family developments, and major drive aisles for commercial developments shall be laser profiled per FDOT Section 430.
- A builder cannot modify the County's storm water management system including the pipes, inlets, area drains, ditches and related elements typically within the street or within a drainage easement without the prior written approval of the County Engineer or designee.
- Drainage easements and ditches should remain free of stockpiled soil, sediment, mud, construction materials/waste, et cetera at all times. Positive stormwater flow must be maintained throughout construction.
- The contractor shall temporarily or permanently stabilize bare soil areas and soil stockpiles when the area is inactive for fourteen days or more or has reached finished grade.
- Per Ordinance 99-17 Section 11.11.5.4, all gravity flow pipe installations shall have a soil tight joint performance unless specific site factors warrant watertight joint performance.
- Per Ordinance 99-17 Section 10.6.5.1, immediately install additional Erosion Protection Sediment Control measures if sediment is leaving your site. Failure to contain sediment to your site may result in delayed inspections, notices of violation, citations, fines, penalties, and/or stop work orders.
- Per 99-17 Section 10.1.2.a-e, stormwater management for a project shall not have adverse effects on adjacent properties, downstream structures, or rights of other landowners.

# **Paving Notes:**

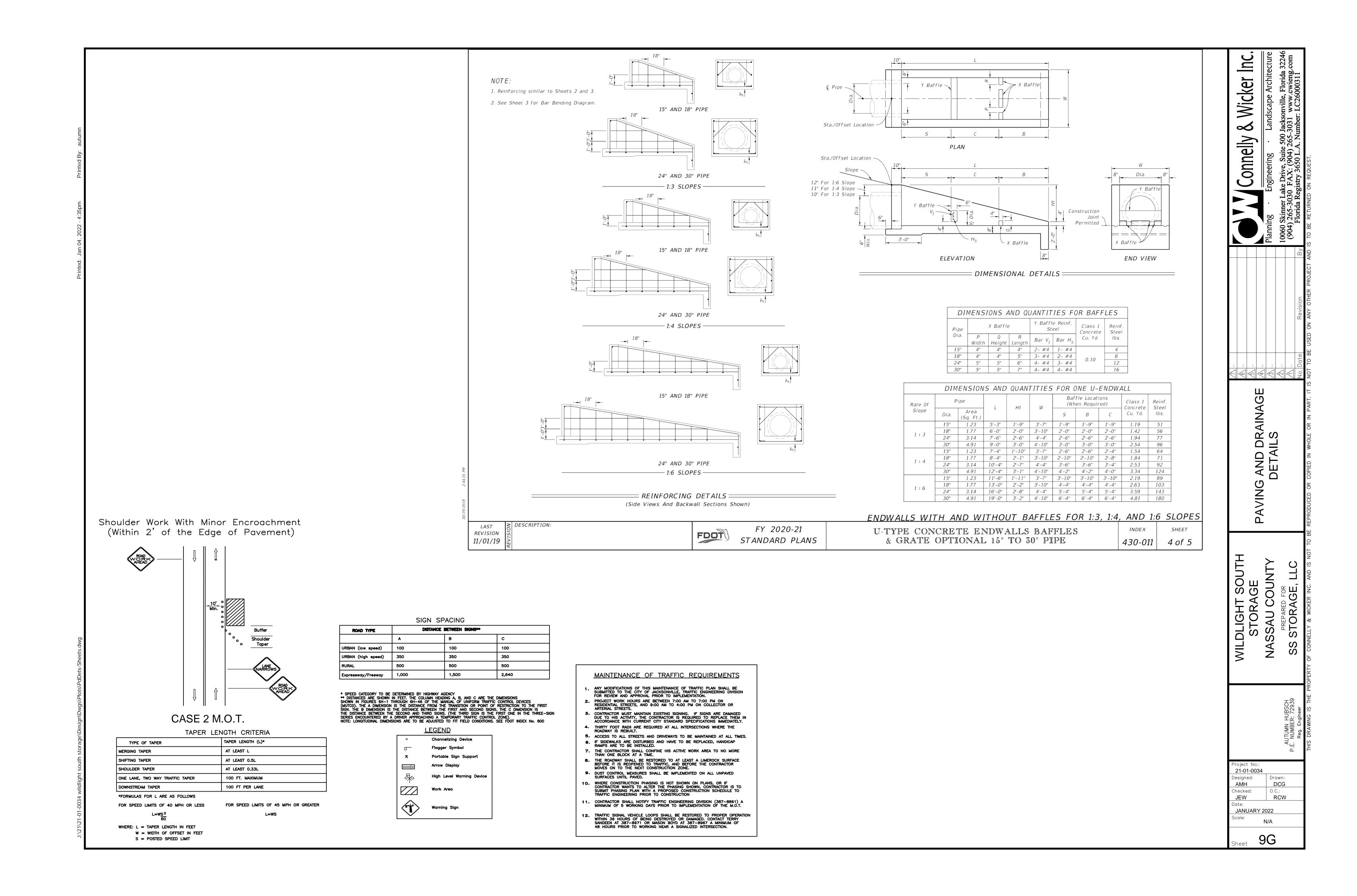
- Per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 12.2 and 12.4, a construction bond and 26-month maintenance bond will be required for all work within Nassau County Right-of-Way.
- A pre-pave meeting is required prior to any paving operations within Nassau County ROW, residential subdivisions, or multi-family developments.
- Approved mix designs shall be provided to Nassau County Construction Inspector 48 hours prior to pre-pave meeting or placement of concrete.

- Contractor is required to have a Certified QC Asphalt Level II Technician during any asphalt operations within Nassau County ROW, residential subdivision, or multi-family developments.
- All bases shall be primed in accordance with Ordinance 99-17 Section 11.5.2.3, Nassau County Standard Details, and FDOT Standard Specifications.
- Signage and pavement markings shall be in compliance with Nassau County Standards, Manual on Uniform Traffic Control Devices (MUTCD), and FDOT Standard Plans.
- Maintenance of Traffic (MOT) shall be in compliance with FDOT Standard Index 600 Series.
- All work, materials, and testing performed within Nassau County right-of-way and single-family/multi-family developments shall be in accordance with the current revision of Nassau County's Ordinance 99-17 and all current Nassau County Standard Details.
- Per Ordinance 99-17 Section 11.9.2, all pavement markings within Nassau County ROW shall be lead free thermoplastic meeting Nassau County and FDOT Standard Specification Latest Edition.
- Removing pavement markings within Nassau County ROW shall be:
  - Grinding or hydro-blasting on weathered asphalt surfaces.
  - Hydro-blasting only on new asphalt surfaces.
  - Paint Blackout is prohibited.
- 11. Per Ordinance 99-17 Section 8.5.5, any damage to pavement resulting from construction or pavement marking removal withinPublic ROW not planned as part of the project shall be milled and overlaid for entire width of roadway and length of damage plus 50' in each direction.
- 12. All underground utilities, or appropriate conduit sleeves, that are to be installed under pavement must be installed prior to preparation of the subgrade for pavement.
- 13. Single Vertical Joints in roadway construction shall be avoided in Nassau County Right-of-Way using Nassau County Standard Detail #26.
- 14. All drainage structures shall have traffic bearing grates that meet or exceed the rating for the facilities expected traffic.
- All concrete shall be a minimum of 3000 psi within Public Right-of-Way.

|  | REVISION DATES |                       |                    |
|--|----------------|-----------------------|--------------------|
| ROADWAY AND DRAINAGE STANDARDS NASSAU COUNTY |                | STORMWATER DRAINAGE & | NOTE SHEET: 2      |
| ENGINEERING SERVICES DEPARTMENT              |                | PAVING NOTES          | DWG:               |
|  |                |                       | ISSUED: 12/09/2020 |

Wicker Inc. Connelly AND DRAINAGE ETAILS HT SOUTH RAGE COUNTY WILDLIGHT STORA( NASSAU CC

21-01-0034 Drawn: DCG 0.C.: **RCW** JANUARY 2022 N/A



| PROPOSED UTILITY   |                 |          |                   |                 |                      |                   |                 |       |                   |                 |       |                   |
|--|-----------------|----------|-------------------|-----------------|----------------------|-------------------|-----------------|-------|-------------------|-----------------|-------|-------------------|
|  | PO              | ΓABLE WA | TER               |                 | STEWATE<br>Y AND FOR |                   | RECLAIMED WATER |       |                   | VACUUM SEWERS   |       |                   |
| CONFLICTING UTILITY  | HORIZ.          | VERT.    | JOINT<br>SPACING* | HORIZ.          | VERT.                | JOINT<br>SPACING* | HORIZ.          | VERT. | JOINT<br>SPACING* | HORIZ.          | VERT. | JOINT<br>SPACING* |
| POTABLE WATER  | 3'<br>NOTE 1    | 12"      | 3'<br>NOTE 2      | 6' to 10'       | 12"<br>NOTE 5        | 6'<br>NOTE 2      | 3'              | 12"   | 6'<br>NOTE 2      | 3' to 10'       | 12"   | 3'<br>NOTE 2      |
| RECLAIMED WATER  | 3'              | 12"      | 6'<br>NOTE 2      | 3'<br>NOTE 1    | 12"                  | 3'<br>NOTE 2      | 3'              | 12"   | 6'<br>NOTE 2      | 3'<br>NOTE 1    | 12"   | 3'<br>NOTE 2      |
| WASTEWATER<br>(GRAVITY AND FORCE MAIN)                     | 6' to 10'       | 12"      | 6'<br>NOTE 2      | 3'<br>NOTE 1    | 12"                  | 6"                | 3'<br>NOTE 1    | 12"   | 3'<br>NOTE 2      | 3'<br>NOTE 1    | 12"   | 3'<br>NOTE 2      |
| VACUUM SEWERS  | 3' to 10'       | 12"      | 3'<br>NOTE 2      | 3'<br>NOTE 1    | 12"                  | 6"                | 3'<br>NOTE 1    | 12"   | 3'<br>NOTE 2      | 3'<br>NOTE 1    | 12"   | 3'<br>NOTE 2      |
| RIGHT OF WAYS  | 3'<br>NOTE 1    | N/A      | N/A               | 3'<br>NOTE 1    | N/A                  | N/A               | 3'<br>NOTE 1    | N/A   | N/A               | 3'<br>NOTE 1    | N/A   | N/A               |
| PERMANENT STRUCTURES<br>(BUILDINGS, SIGNS, POLES,<br>ETC.) | SEE<br>NOTE 7   | N/A      | N/A               | SEE<br>NOTE 7   | N/A                  | N/A               | SEE<br>NOTE 7   | N/A   | N/A               | SEE<br>NOTE 7   | N/A   | N/A               |
| STORM<br>SEWERS  | 3'<br>NOTE 1    | 12"      | 3'<br>NOTE 2      | 3'<br>NOTE 1    | 12"                  | 3'<br>NOTE 2      | 3'<br>NOTE 1    | 12"   | 3'<br>NOTE 2      | 3'<br>NOTE 1    | 12"   | 3'<br>NOTE 2      |
| GAS  | 3'<br>NOTE 1    | 12"      | 3'<br>NOTE 2      | 3'<br>NOTE 1    | 12"                  | 3'<br>NOTE 2      | 3'<br>NOTE 1    | 12"   | 3'<br>NOTE 2      | 3'<br>NOTE 1    | 12"   | 3'<br>NOTE 2      |
| TREES  | 3'-6'<br>NOTE 6 | N/A      | N/A               | 3'-6'<br>NOTE 6 | N/A                  | N/A               | 3'-6'<br>NOTE 6 | N/A   | N/A               | 3'-6'<br>NOTE 6 | N/A   | N/A               |
| ALL OTHER<br>UTILITIES                                     | 3'<br>NOTE 1    | 12"      | 3'<br>NOTE 2      | 3'<br>NOTE 1    | 12"                  | 3'<br>NOTE 2      | 3'<br>NOTE 1    | 12"   | 3'<br>NOTE 2      | 3'<br>NOTE 1    | 12"   | 3'<br>NOTE 2      |

- 1. THIS SEPARATION REQUIREMENT IS TO PROVIDE ACCESSIBILITY FOR CONSTRUCTION AND MAINTENANCE. THREE FEET OF HORIZONTAL SEPARATION IS THE MINIMUM FOR PIPES WITH THREE FEET OF COVER. FOR PIPES INSTALLED AT GREATER DEPTH, PROVIDE AN ADDITIONAL FOOT OF SEPARATION FOR EACH ADDITIONAL FOOT OF DEPTH.
- 2. THE MINIMUM JOINT SPACING REQUIRED FROM CROSSING FROM OTHER UTILITIES WHILE STILL MAINTAINING MINIMUM VERTICAL SEPARATION.
- 3. DISTANCES GIVEN ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
- 4. NO WATER PIPE SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF SANITARY OR STORM WATER MANHOLE OR STRUCTURES.
- 5. WATER MAIN SHOULD CROSS ABOVE OTHER PIPES WHENEVER POSSIBLE. WHEN WATER MAIN MUST BE BELOW OTHER UTILITY PIPING, THE MINIMUM SEPARATION SHALL BE 12 INCHES.
- 6. REFER TO POTABLE WATER PIPING- SECTION 350, III.4.11.
- 7. SEE SECTION 350, III.4.10 FOR MINIMUM SEPARATION REQUIREMENTS FROM PIPE TO STRUCTURES

# SEPARATION REQUIREMENTS FOR WATER, WASTEWATER AND RECLAIMED WATER MAINS

JANUARY 2021

PLATE W-10

### WATER MAIN AND NON-WATER MAIN SEPARATION REQUIREMENTS - NOTES

- 1. IT IS REQUIRED THAT "WATER MAINS" BE INSTALLED, CLEANED, DISINFECTED AND HAVE A SATISFACTORY BACTERIOLOGICAL SURVEY PERFORMED IN ACCORDANCE WITH THE LATEST APPLICABLE AWWA STANDARDS, CHAPTER 62-555, F.A.C. AND LATEST JEA WATER AND SEWER STANDARDS. FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER; FIRE HYDRANT LEADS; AND SERVICE LINES THAT HAVE AN INSIDE DIAMETER OF THREE (3) INCHES OR GREATER. IN ADDITION. THE PHRASE "RECLAIMED WATER" REFERS TO THE WATER REGULATED UNDER PART III OF CHAPTER 62-610. F.A.C.
- 2. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER.
- 3. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, 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. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS MAY BE REDUCED TO THREE (3) FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX (6) INCHES ABOVE THE TOP OF THE SEWER (SPECIAL CASE).
- 4. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX (6) INCHES, AND PREFERABLE TWELVE (12) INCHES, ABOVE OR AT LEAST TWELVE (12) INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
- 5. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS A LEAST TWELVE (12) INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
- 6. AT THE UTILITY CROSSINGS DESCRIBED IN NOTES 4 AND 5 ABOVE, 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 THREE (3) FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER, AND AT LEAST SIX (6) FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINE CONVEYING RECLAIMED WATER.
- 7. NEW OR RELOCATED FIRE HYDRANTS SHALL BE LOCATED SO THAT THE HYDRANTS ARE AT LEAST THREE (3) FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER; AT LEAST THREE (3) FEET, AND PREFERABLY TEN (10) FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, FROM ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER OR WASTEWATER FORCE MAIN.
- 8. WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN THE OTHER PIPELINE, THE CONTRACTOR SHALL CONSULT THE DESIGN ENGINEER TO OBTAIN APPROVAL OF ANY ALTERNATIVE CONSTRUCTION METHODS, PRIOR TO CONSTRUCTION.

# NOTES ON UTILITY SEPARATION REQUIREMENTS

JANUARY 2021 PLATE W-11

## WATER METER BOX DIMENSIONS (3" - 20" METERS) $_{\hbox{NOTES:}}$

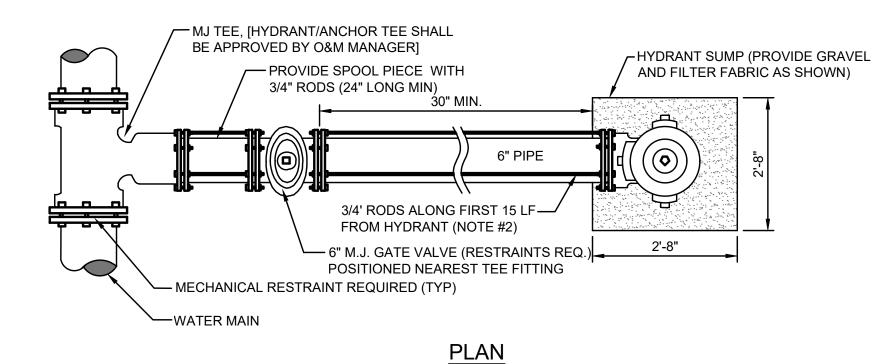
| Meter<br>Descript              |                       | Polymer Concrete Box<br>Non-Traffic Rated (Note 1)                       |
|--------------------------------|-----------------------|--|
| Туре                           | SIZE                  | Width x Length x Depth<br>(O.D.)   |
| C-2 or<br>T-2<br>Omni<br>Style | 3"<br>4"<br>6"        | 36" x 60" x 48"<br>36" x 60" x 48"<br>48" x 72" x 48"                    |
| Fire<br>Meter                  | 4"<br>6"<br>8"<br>10" | 48" x 72" x 48"<br>48" x 96" x 48"<br>48" x 96" x 48"<br>48" x 96" x 48" |
| * Include                      | es 6" Thic            | k Bottom   |

<u>POLYMER CONCRETE BOXES</u> SHALL ONLY BE PROVIDED IN NON-TRAFFIC (INCLUDING NOT IN DRIVEWAYS) LOCATIONS. FRP/ POLYMER CONCRETE METER BOX & COVER (BY ARMOURCAST PRODUCTS COMPANY): BOX AND THE EXTENSION IF REQUIRED, SHALL BE MANUFACTURED USING FIBERGLASS REINFORCED MATERIALS AND POLYMER CONCRETE. THE BODY OF THE BOX WITH NO BOTTOM SHALL BE MANUFACTURED USING FIBERGLASS REINFORCED MATERIALS, COMPRISED FROM POLYESTER RESINS AND FIBERGLASS MATTING. THE TOP COLLAR AND DURING THE MANUFACTURING PROCESS AND WHILE THE POLYMER CONCRETE IS IN A SOFTENED STATE, THE BODY SHALL BE MARRIED TO THE COLLAR BY INSERTING IT INTO THE COLLAR'S FORM. THE BOX AND COVER SHALL HAVE A LOAD RATING OF A8 (ASTM C857). THE BOX SHALL CONFORM TO THESE DESIGN FUNCTIONS AND DIMENSIONAL REQUIREMENTS AND INCLUDE LIFTING STUDS. BOX EXTENSIONS SHALL BE PROVIDED FOR ALL DEEP INSTALLATIONS THE BOX SHALL BE A 2-PIECE ASSEMBLY INCLUDING MOLDED/RAISED JEA LOGO (LOGO ON BOTH PIECES). RECESSED HOLES (APPROXIMATELY 2" DIAMETER) DESIGNED TO FIT A SCHLUMBERGER ANTENNA USED WITH A METER INTERFACE UNIT (MIU). TWO COVER HOLD-DOWN BOLTS (1/2 - 13NC S.S. PENTAHEAD BOLTS). TORSION ASSISTED COMPONENTS AND TEXTURED NON-SKID SURFACE. A 2" PVC PLUG SHALL BE PROVIDED FOR EACH 2"-HOLE WHICH CAN BE COMPRESSED (TIGHT FIT) INTO THE 2" HOLE FOR TEMPORARY CLOSURE OF THE HOLE.

2. <u>FOR WATER METERS LARGER THAN 6" OR FIRE MAINS LARGER THAN 10" SIZE</u>, PLEASE CONTACT JEA METER SHOP FOR

# WATER METER BOX DIMENSIONS 3" - 20" METERS

PLATE W-8 JANUARY 2021



PROVIDE RAISED PAVEMENT MARKER-

### (SEE NOTE #6) 3-WAY FIRE HYDRANT PUMPER NOZZLE -TO FACE C OF PAVEMENT (SEE NOTES #3 & #4) BARE WIRE DEAD-END — (NOTE #1) BREAKABLE FLANGE LOCATED WATER VALVE BOX (COVER PAINTED YELLOW) (1" MAX) ABOVE FINISHED GRADE GRADE LOCATE WIRE REQUIRED — LEAVE DRAIN (SEE NOTE #1) HOLES OPEN

## **SECTION**

PROVIDE FILTER FABRIC (MARAFI 700X, 140'S

OR EQUAL) TO TOP AND ALL 4 SIDES.

NOTES:

1. LOCATE WIRE SHALL BE ROUTED FROM THE VALVE TO THE HYDRANT AS SHOWN ABOVE LEAVING ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE. THE END OF THE WIRE SHALL BE SECURED TO THE PIPE MAIN. SEE SECTION 350, LOCATE WIRE INSTALLATION PARAGRAPH.

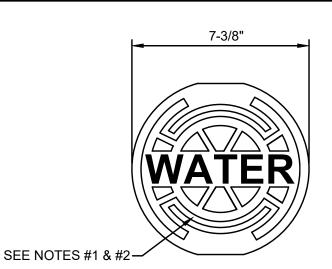
**HYDRANT SUMP-**

2'-8"

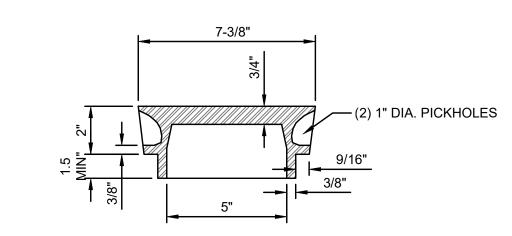
- FIRE HYDRANTS SHALL BE INSTALLED BETWEEN BACK OF CURB AND FACE OF SIDEWALK AND NOT WITHIN SWALE/DITCH AREAS. THE DISTANCE RANGE FROM EDGE OF ADJACENT PAVEMENT, BACK OF CURB AND FACE OF SIDEWALK SHALL BE IN COMPLIANCE WITH LOCAL COUNTY FIRE DEPARTMENT RULES AND AS APPROVED BY JEA AND APPLICABLE PERMITTING AGENCIES. DISTANCE SHALL BE MEASURED TO THE CLOSEST PART OF THE FIRE HYDRANT (I.E. THE PUMPER NOZZLE). THE MAXIMUM DISTANCE (BACK OF CURB) SHALL BE IN COMPLIANCE WITH LOCAL COUNTY FIRE DEPARTMENT RULES AND AS APPROVED BY JEA. FOR OTHER LOCATION LIMITATIONS SEE PLATES W-10 AND W-11. IF PIPING BETWEEN TEE AND HYDRANT IS LONGER THAN 80 LF, AN ADDITIONAL 6" GATE VALVE IS REQUIRED AT THE HYDRANT LOCATION (PROVIDE 30" SEPARATION). ALL PIPING, VALVES AND FITTINGS ALONG THE HYDRANT BRANCH MAIN WHICH IS WITHIN 15 LF OF THE HYDRANT SHALL BE RESTRAINED UTILIZING ONLY TWO 3/4" DIA (THREADED ENDS) STEEL RODS AND EYE BOLTS (NO JOINT RESTRAINT DEVICES REQUIRED). A SPLIT SERRATED RING WITH RESTRAINT EARS (EBAA 15 PF06 or EQUAL) MAYBE USED IN THIS ASSEMBLY. ALL OTHER JOINTS ALONG THE HYDRANT BRANCH MAIN OUTSIDE OF THE FIRST 15 LF SHALL INCLUDE JOINT RESTRAINTS.
- OPERATION OF THE FIRE HYDRANT SHALL BE EITHER FULL OPEN POSITION OR TOTALLY CLOSED POSITION. THE HYDRANT SHALL NOT BE UTILIZED TO THROTTLE OUTLET FLOW.
- PRIOR TO PROJECT FINAL INSPECTION, THE HYDRANT AND ALL ABOVE GROUND PIPING SHALL BE RE-OILED, GREASED AND REPAINTED (RUS- KIL ENAMEL-INTERNATIONAL YELLOW OR EQUAL). PRIVATELY OWNED AND MAINTAINED FIRE HYDRANTS SHALL BE PAINTED RED.
- FIRE HYDRANTS SHALL BE ORDERED WITH PROPER "BURY DEPTH" TO MEET ACTUAL FIELD CONDITIONS. THIS IS ESPECIALLY IMPORTANT FOR BRANCH LINES WHICH TEE-OFF A 12" OR LARGER WATER MAIN. UNLESS APPROVED OTHERWISE BY JEA, THE INSTALLATION OF (45°) BENDS IS NOT ACCEPTABLE WHEN UTILIZED TO CORRECT AN IMPROPERLY FURNISHED HYDRANT. THE USE OF HYDRANT EXTENSIONS SHOULD BE MINIMIZED.
- BLUE REFLECTIVE MARKERS SHALL BE INSTALLED IN SUCH A MANNER THAT THE REFLECTIVE FACE OF THE MARKER IS PERPENDICULAR TO A LINE PARALLEL TO THE ROADWAY CENTERLINE. THE BLUE REFLECTIVE MARKERS SHALL BE PLACED IN THE CENTER OF THE TRAVEL LANE, DIRECTLY ACROSS FROM AND ADJACENT TO EACH FIRE HYDRANT.

# FIRE HYDRANT INSTALLATION USING MECHANICAL JOINT TEE

PLATE W-13 JANUARY 2021



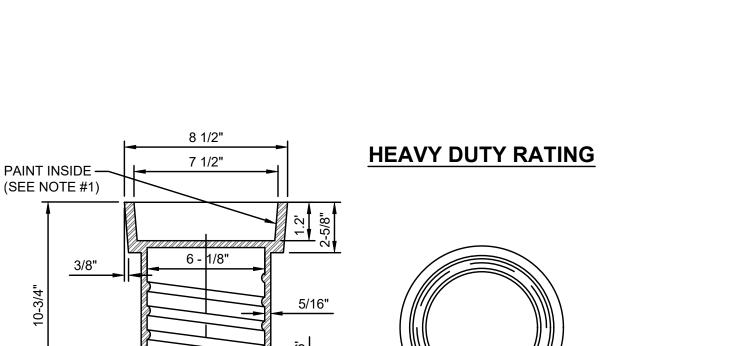
**HEAVY DUTY RATING** 

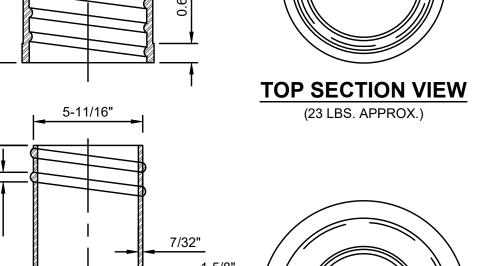


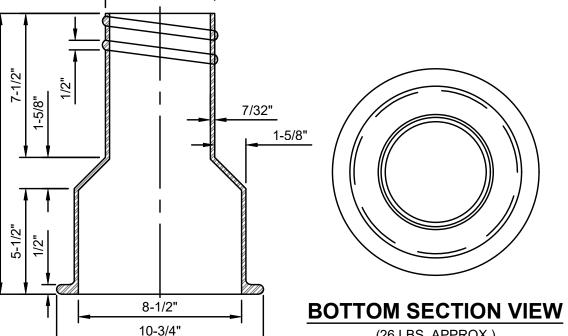
- 1. PAINT TOP OF THE COVER WITH ENAMEL PAINT (BLUE COLOR) FOR WATER.
- FOR "REUSE" PAINT TOP PANTONE PURPLE.
- LID WEIGHT: APPROX. 12 LBS.

# WATER SYSTEM VALVE BOX COVER

PLATE W-16 JANUARY 2021







NOTES:

- 1. PAINT THE INSIDE OF THE TOP SECTION OF THE BOX WITH APPLICABLE COLOR (BLUE OR PURPLE)
- 2. HEAVY DUTY RATING (TOTAL WEIGHT APPROX. 50 LBS.)
- 3. REFERENCE SECTION 351, PARAGRAPH X.2.

# WATER SYSTEM VALVE BOX

JANUARY 2021 PLATE W-17

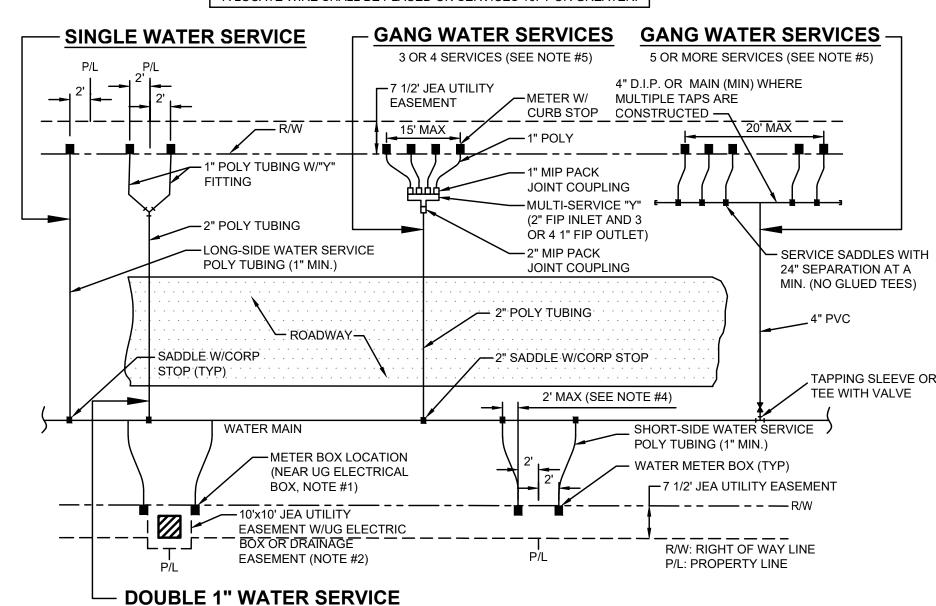
Connelly

- 1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROAD SHOULDERS.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTINGS (AS NOTED) AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.
- 3. THE CONTRACTOR SHALL UTILIZE THE ABOVE ALTERNATIVE METHODS FOR CONSTRUCTION OF TEMPORARY SAMPLE POINTS IN ALL AREAS, WHERE POSSIBLE.
- 4. THE CONTRACTOR SHALL COMPLY WITH ALL JEA RULES AND POLICIES AS OUTLINED BY THE JEA'S ENVIRONMENTAL RESPONSE COORDINATOR (ERC) AND OTHER ASSOCIATED JEA STANDARDS.

# TEMPORARY SAMPLE TAP ALTERNATIVE METHOD B

JANUARY 2021 PLATE W-24A

A LOCATE WIRE SHALL BE PLACED ON SERVICES 10FT OR GREATER.



1. THE SKETCHES ABOVE INDICATE TYPICAL WATER SERVICE AND METER BOX LOCATIONS. ACTUAL LOCATIONS OF BOXES MAY VARY SLIGHTLY ACCORDING TO FIELD CONDITIONS ENCOUNTERED. TYPICALLY, THE METER BOX SHALL LOCATED AT THE R/W LINE BUT INSIDE THE 7 1/2' ELECTRIC

- 2. UNLESS SPECIFIED OTHERWISE BY THE APPLICABLE COUNTY (NASSAU, CLAY OR ST. JOHNS COUNTY), THE METER BOX SHALL BE LOCATED IN THE JEA 7 1/2' UTILITY EASEMENT, AND TWO FEET INSIDE OF THE PROLONGATION OF ONE OF THE SIDE PROPERTY LINES. IF A CONFLICT EXISTS WITH OTHER UTILITIES, THE METER BOX MAY BE ADJUSTED TO FOUR FEET (MAX.) INSIDE PROPERTY LINES (IN LIEU OF TWO FEET). UNLESS APPROVED OTHERWISE BY JEA, THE WATER METER BOX SHALL BE LOCATED IN NON-TRAFFIC AREAS (NOT IN SIDEWALKS OR DRIVEWAYS). IF THE METER BOX IS APPROVED BY JEA TO BE LOCATED IN A DRIVEWAY OR SIDEWALK, THEN THE CONSTRUCTION SHALL MEET STANDARD DETAIL NUMBERS W-3&4, AT A MINIMUM (SEE W-3 AND W-4 FOR THE REQUIREMENTS OF SPECIAL ORDER POLYMER BOX AND TOP). SET TOP OF BOX AT FINISHED GRADE. IF AN UNAPPROVED METER BOX IS IDENTIFIED BY JEA, THEN THE CONTRACTOR OR CUSTOMER SHALL BE RESPONSIBLE FOR THE COST OF RELOCATING ANY METER BOX WHICH IS LOCATED IN THE SIDEWALK OR DRIVEWAY OR THE COST TO PROVIDE THE CORRECT METER BOX. JEA SHALL APPROVE ALL DEVIATIONS TO THE ABOVE
- 3. IF DRAINAGE OR OTHER EASEMENT LOCATED BETWEEN LOTS, METER BOXES SHALL BE LOCATED AT THE EASEMENT LINE BUT OUTSIDE THE EASEMENT
- 4. FOR SINGLE SERVICES, THE HORIZONTAL DISTANCE (PERPENDICULAR TO THE MAIN)BETWEEN THE SERVICES SADDLE AND THE METER BOX SHALL BE 2 FEET MAXIMUM. FOR DOUBLE 1" SERVICES, THE 2" POLY MAIN SHALL BE LOCATED CENTERED BETWEEN THE TWO METER BOXES. LOCATE WIRE IS REQUIRED ON ALL SERVICES 10' OR GREATER IN LENGTH. IF LOCATE WIRE IS REQUIRED, THE WIRE SHALL RUN FROM THE METER BOX (W/ PIG TAIL) TO THE MAIN (DEAD END SHALL BE TAPED WITH NO CONNECTION TO MAIN WIRE WITH THE LAST 24 INCHES STRIPED OF INSULATION/BARE WIRE AS GROUND). ALL EXCEPTIONS TO THIS REQUIREMENT MUST BE APPROVED BY JEA. THIS WILL ASSIST IN LOCATING EXISTING SERVICE LINES IN THE
- 5. GANG WATER SERVICES: FOR 3 OR 4 SERVICES IN ONE AREA, A DUCTICLE IRON PIPE (D.I.P.) WATER MAIN EXTENSION W/LOCATE WIRE MAY BE UTILIZED ON EITHER SHORT-SIDE OR LONG SIDE SERVICES WHERE SHOWN ON THE DRAWINGS. LOCATE WIRE SHALL EXTEND FROM ONE METER BOX TO CORP STOP AT WATER MAIN. FOR 5 OR MORE SERVICES IN ONE AREA, A WATER MAIN EXTENSION W/LOCATE WIRE MAY BE UTILIZED ON EITHER SHORT-SIDE OR LONG SIDE SERVICES WHERE SHOWN ON THE DRAWINGS (TAPS STAGGERED AND AT 2 FEET ON CENTER-MIN). FOR WATER SUPPLY HEADERS WHERE 5 OR MORE TAPS ARE CONSTRUCTED, THE HEADER PIPE SHALL BE 4" AT A MINIMUM. EXAMPLE: CONSTRUCT A 4" MAIN PVC CROSSING THE STREET FOR 5 RESIDENTIAL CUSTOMERS, UTILIZING 4" DIP, 4" PIPE, 4"X1" SADDLES AND 1" CORP STOPS (NO GLUED TEE FITTINGS). THE 4" OR LARGER D.I.P. WATER MAIN MUST BE SIZED AND DESIGNED BY THE P.E. ENGINEER.
- 6. DOUBLE 1" WATER SERVICES IS ALLOWED FOR SHORT SIDE OR LONG SIDE SERVICES AND WHERE SHOWN ON THE DRAWINGS.
- 7. A 1" IRRIGATION SERVICE MAYBE TAPPED INTO THE (1" MIN) DOMESTIC WATER SERVICE LINE (WHICH SERVES THE SAME CUSTOMER) UTILIZING A 1" BRONZE "Y" FITTING. (IN AREAS WHERE NO RECLAIMED WATER IS AVAILABLE).
- 8. No 2" AND SMALLER WATER SERVICE TAPS PERMITTED ON WATER MAINS WHICH ARE 20" AND LARGER SIZE.
- 9. RECLAIMED WATER METER BOXES OR SERVICES SHALL BE CONSTRUCTED SIMILAR TO THE ABOVE AND SHALL BE LOCATED, AT A MIN. OF 10' FROM THE POTABLE WATER SERVICE, AND/OR BOX AND NOT ALLOWED IN CONCRETE OR ASPHALT UNLESS APPROVED OTHERWISE BY JEA.

PLATE W-1

10. SERVICE SIZE SHALL BE SAME AS THE METER SIZE.

JANUARY 2021

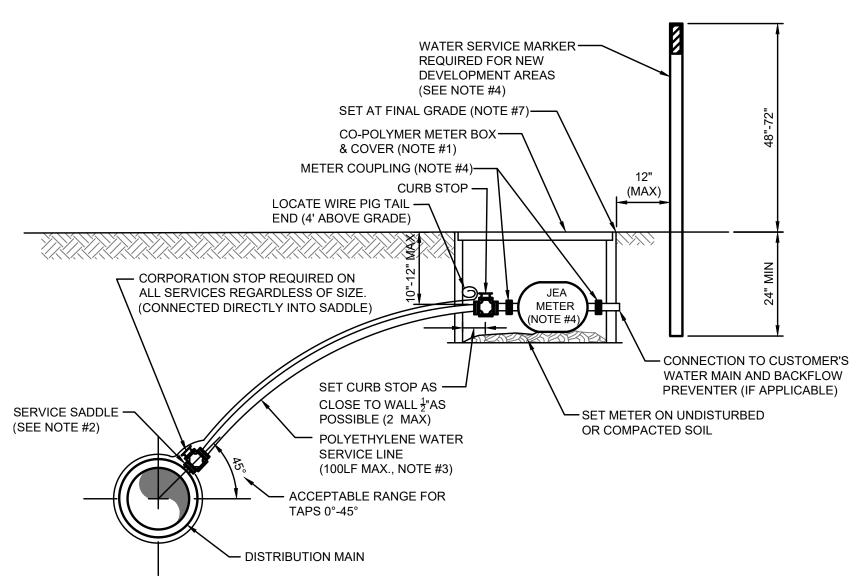
WATER OR RECLAIM SERVICE INSTALLATIONS 2" AND SMALLER METER

-2" BUSHING (TO BE REMOVED) 2" X 2" TEE (TO BE REMOVED)— - 1/2" (MIN) SMOOTH NOSE BIBB (TO BE REMOVED) 2" PIPE (TO BE REMOVED)-FINISHED GRADE -— WATER MAIN (SIZE & TYPE VARIES) 2" 90 DEGREE ELBOW-(TO BE REMOVED) 2" THREADED PLUG (TO BE -INSTALLED AFTER BACTERIOLOGICAL - 2"DOUBLE STRAP SERVICE SADDLE CLEARANCE IS RECEIVED) (TO REMAIN) 2" CORPORATION STOP CONNECTED -DIRECTLY INTO SADDLE(TO REMAIN) (NOTE THAT OUTLET AT 3:00 OR 9:00 POSITION)

- 1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROADWAY SHOULDERS (NON-TRAFFIC AREAS).
- 2. ALL PIPE & FITTING SHALL BE GALVANIZED MATERIAL OR PVC (S-40).
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTING (AS NOTED) AFTER
- BACTERIOLOGICAL CLEARANCE IS RECEIVED
- 4. THE CONTRACTOR SHALL COMPLY WITH ALL JEA RULES AND POLICES AS OUTLINED BY THE JEA'S ENVIRONMENTAL RESPONSE

## 2" TEMPORARY SAMPLE TAP FOR STUB OUT

JANUARY 2021 PLATE W-26



- 1. SEE PLATE W-1 FOR METER LOCATION REQUIREMENTS.
- 2. SINGLE BAND SADDLES SHALL BE UTILIZED ON NEW 1" WATER SERVICES WHICH ARE INSTALLED ON A DRY 10" SIZE OR SMALLER WATER MAIN (NEW WATER MAIN CONSTRUCTION). FOR WET TAPS OR WATER MAINS 12" SIZE AND LARGER, A DOUBLE BAND SADDLE IS REQUIRED. BRASS SADDLES MAY BE UTILIZED ON NEW 1 INCH AND SMALLER WATER SERVICES WHICH ARE INSTALLED ON A DRY 10 INCH OR SMALLER PVC WATER MAIN.
- 3. NO OPEN CUT UNDER ROADWAY PAVING ALLOWED UNLESS THE ROADWAY IS BEING RECONSTRUCTED OR IF DIRECTED OTHERWISE BY J.E.A. CONSTRUCT POLY LINE WITH 24" (MIN.) COVER UNDER ROADWAYS. THE POLY WATER SERVICE LINE SHALL BE SAME SIZE AS THE METER (1" MINIMUM) AND BE INSTALLED PERPENDICULAR TO THE MAIN AND NOT EXCEED 100LF UNLESS APPROVED OTHERWISE BY JEA.
- INSTALL PVC PLUG IN ALL CURB STOPS IF WATER SERVICE IS "NOT IN USE" (I.E.: IF NO METER IS INSTALLED). WATER SERVICES SERVING VACANT LOTS (SERVICE NOT IN USE), SHALL INCLUDE A "W" CUT INTO THE CURB (CLOSEST TO THE METER BOX), AND PAINTED BLUE (PAINTED PURPLE FOR RECLAIMED WATER). IN ADDITION, FOR NEW DEVELOPMENT AREAS WHERE THE WATER SERVICE IS "NOT IN USE", A LANDSCAPE TIMBER OR 3x3 MIN. P.T. POST (TOP PAINTED BLUE OR PURPLE FOR RECLAIMED WATER). THE REMOVAL OR TRANSFER OF A WATER SERVICE SHALL INCLUDE BRASS METER COUPLINGS (HEX ON BARREL TYPE).
- 5. NO 2" AND SMALLER WATER SERVICE TAPS PERMITTED ON WATER MAINS WHICH ARE 20" AND LARGER SIZE
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF THE METER OR ELECTRONIC DEVICES IF DAMAGED BY THE CONTRACTOR DURING THE CONSTRUCTION PERIOD.
- 7. METER BOX AND TOP SHALL BE CLEAR OF ALL DEBRIS TO ALLOW FULL ACCESS TO BOX (i.e. NO DIRT, TRASH OR OTHER DEBRIS PLACED ON TOP OF BOX).
- 8. LOCATE WIRING REQUIRED ON ALL SERVICES 10' OR GREATER IN LENGTH. SEE PLATE W-44.

WATER SERVICE DETAIL- 2" AND SMALLER METER JANUARY 2021

90° BEND (TO BE ---(TO BE REMOVED) REMOVED) WATER SHALL FLOW STRAIGHT DOWN (NOT ANGLE) FINISHED GRADE ── PIPE (½" SIZE MIN.) ( TO BE REMÔVED) ROUTÉ TO ROADWAY SHOULDER IF REQUIRED (SEE NOTES) -BUSHING IF REQ. (TO BE REMOVED) 1" THREADED PLUG (TO BE INSTALLED AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED) -90° DEGREE BEND ( TO BE REMOVED ) 1" CORPORATION STOP CONNECTED DIRECTLY INTO SADDLE (TO REMAIN) -1" WATER SERVICE SADDLE (TO REMAIN) (NOTE THAT OUTLET, AT 3:00 OR 9:00 POSITION) -WATER MAIN (SIZE & TYPE VARIES)

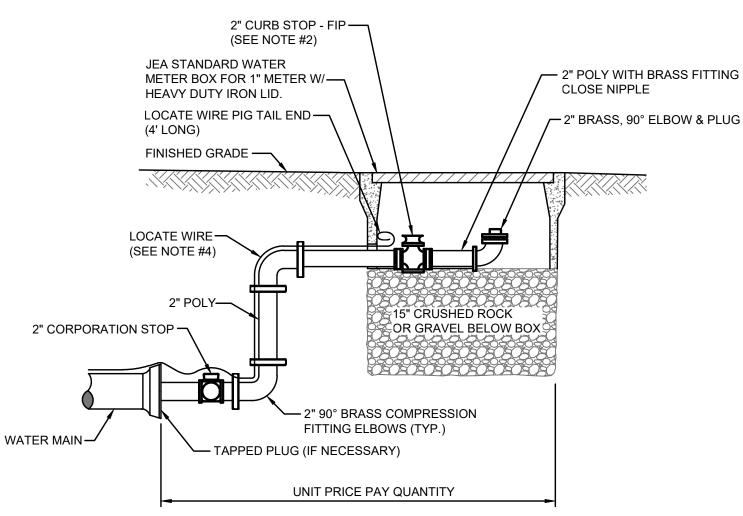
- SMOOTH HOSE BIBB

- 1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROADWAY SHOULDERS (NON-TRAFFIC AREAS).
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTINGS (AS NOTED), AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.
- 3. PIPE AND FITTINGS SHALL BE PVC (SCH. 40) OR GALV. MATERIAL
- 4. THE USE OF THE ABOVE CONSTRUCTION FOR A TEMPORARY SAMPLE POINT SHALL BE LIMITED TO AREAS WHERE A SAMPLE TAP BY ALTERNATIVE METHODS (SEE W-24) IS NOT FEASIBLE OR IF DIRECTED OTHERWISE BY JEA.
- THE CONTRACTOR SHALL COMPLY WITH ALL JEA RULES AND POLICIES AS AS OUTLINED BY JEA'S ENVIRONMENTAL

# TEMPORARY SAMPLE TAP

JANUARY 2021 PLATE W-25

RESPONSE COORDINATOR (ERC) AND OTHER ASSOCIATED JEA STANDARDS.



JANUARY 2021

- 1. PIPE SHALL BE POLYETHYLENE. FITTINGS SHALL BE BRASS.
- 2. THE 2" CURB STOP SHALL BE ALL BRONZE. FITTINGS SHALL BE BRASS
- 3. ANY RECLAIMED WATER VALVE SHALL HAVE RECLAIMED EMBLEM.
- 4. LOCATE WIRE FOR 10' OR GREATER IN LENGTH. 5. CANNOT BE PLACED UNDER CONCRETE OR PAVEMENT.
- 6. PLACE 2 FEET PAST LAST WATER MAIN SERVICE CONNECTION.

FLUSHING VALVE BELOW GRADE

PLATE W-28

onnelly

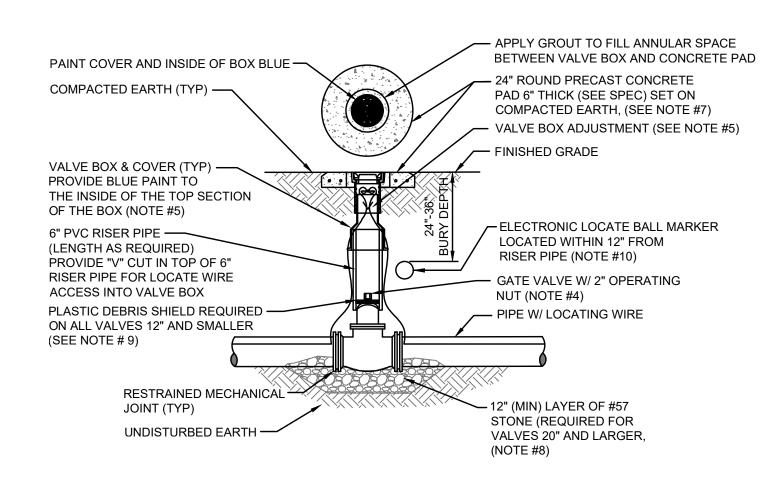
#### **CASE "A" CROSSING**

#### NOTES:

- 1. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557.
- 2. FOR MINIMUM VERTICAL SEPARATION REQUIREMENTS SEE DETAIL (W-10 AND W-11).
- 3. LOCATING WIRE REQUIRED: SEE DETAIL W-44.
- 4. THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREAS, 36" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60", UNLESS APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY JEA.
- 5. IF UTILITY CONFLICT IS LOCATED IN A NON-TRAFFIC AREA (NO TRAFFIC LOADS) AND THE NEW PIPE IS D.I.P., THEN THE MINIMUM COVER MAY BE REDUCED TO 24 INCHES (ONLY IN THE AREA OF THE CONFLICT).

# ADJUSTMENT OVER EXISTING UTILITIES MECHANICAL RESTRAINTS

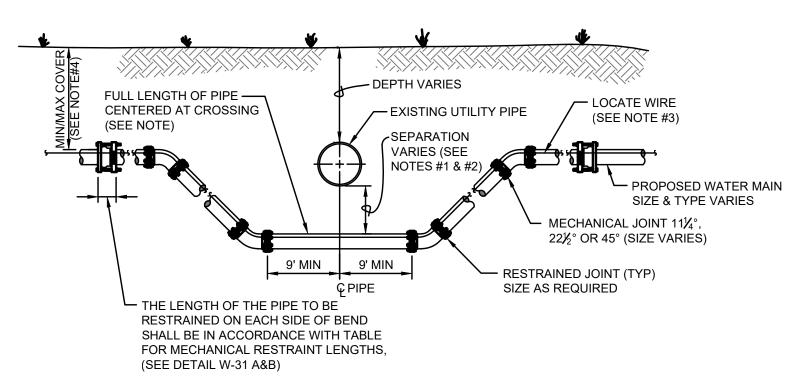
PLATE W-32 JANUARY 2021



- 1. FOR UNPAVED LOCATIONS, A PRECAST CONCRETE VALVE PAD SHALL BE PROVIDED AND INSTALLED FLUSH WITH GRADE. CONCRETE PAD IS NOT REQUIRED FOR VALVE LOCATED IN THE ROADWAY, UNLESS SHOWN OR NOTED OTHERWISE
- 2. LOCATING WIRE IS REQUIRED ON ALL PRESSURE PIPING (SEE DETAILW-44).
- 3. A "V" CUT SHALL BE CARVED IN THE CURB CLOSEST/ADJACENT/( ASPHALT IF NO CURB) TO ALL BELOW GRADE VALVES. THE "V" CUT IS TO BE PAINTED BLUE WATER/PURPLE RECLAIMED.
- 4. IN PAVED AREAS, INSTALL VALVE AT A DEPTH TO ALLOW A 12" MIN. DISTANCE BETWEEN THE VALVE COVER PLATE AND THE TOP OF THE VALVE OPERATING NUT. OUTSIDE OF PAVED AREAS (GRASS), INSTALL VALVE AT A DEPTH TO ALLOW A 6" MINIMUM DISTANCE BETWEEN THE VALVE COVER AND THE TOP OF THE VALVE OPERATING NUT. OPERATING NUT/STEM EXTENSION SHALL BE PROVIDED (WHERE APPLICABLE) SO THAT THE OPERATING NUT WILL BE NO MORE THAN 30 INCHES BELOW FINISHED GRADE.
- 5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS. ROUTE LOCATE WIRES THRU A "V" CUT IN THE TOP OF THE 6" PVC RISER PIPE FOR LOCATE WIRE ACCESS INTO VALVE BOX. THE LOCATE WIRES WITH A 24" LONG PIG-TAIL AT THE TOP SHALL BE CONNECTED TOGETHER WITH A WIRE NUT.
- 6. BRASS IDENTIFICATION TAG INDICATING "WATER", VALVE SIZE, DIRECTION AND TURNS TO OPEN & VALVE TYPE. PROVIDE A  $\frac{1}{4}$ " HOLE IN BRASS TAG AND ATTACH TAG (TWIST WIRE AROUND TAG) TO THE END OF THE LOCATE WIRE. TAGS ARE NOT REQUIRED ON VALVES
- 7. IN LIEU OF PRECAST CONCRETE PAD, A 6" THICK X 24" (ROUND OR SQUARE) POURED CONCRETE PAD W/2 #4 REBAR AROUND
- 8. GRAVEL SHALL BE PROVIDED UNDER ALL VALVES 20" AND LARGER. THE MINIMUM VERTICAL LIMIT OF GRAVEL IS 12" UNDER THE VALVE UP TO  $\frac{1}{3}$  THE OVERALL HEIGHT OF THE VALVE.
- 9. FOR VALVES 12 INCH AND SMALLER, PROVIDE A WHITE OR BLACK PLASTIC DEBRIS SHIELD WHICH INSTALLS BELOW THE OPERATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE OPERATING NUT AND MINIMIZE INFILTRATION. SHIELD SHALL BE BY
- 10. ALL VALVES SHALL BE INSTALLED WITH AN ELECTRIC LOCATE MARKER. MARKER SHALL BE 4" DIA. COLOR CODED BALL MARKER (3M-1403XR FOR WATER AND 1408XR FOR RECLAIMED WATER).

# WATER VALVE INSTALLATION DETAIL

JANUARY 2021 PLATE W-18

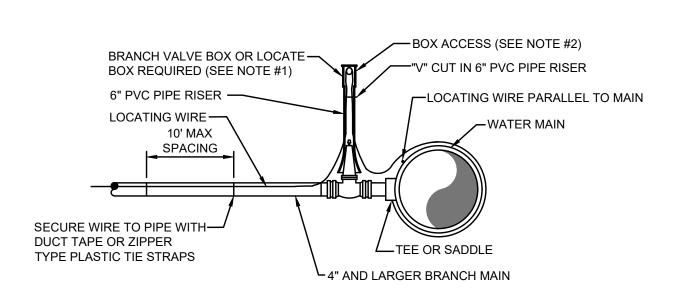


### **CASE "B" CROSSING**

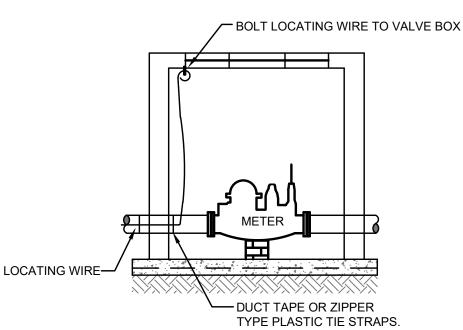
- 1. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557
- 2. FOR MINIMUM VERTICAL SEPARATION REQUIREMENTS SEE DETAILS (W-10 AND W-11)
- 3. LOCATING WIRE REQUIRED: SEE DETAIL W-44.
- THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREA, 36" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60", UNLESS APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY JEA.

# ADJUSTMENT UNDER EXISTING UTILITIES MECHANICAL RESTRAINTS

JANUARY 2021 PLATE W-34



#### **BRANCH FORCE MAIN** (2" AND LARGER WATER MAIN OR 3" AND LARGER WATER SERVICE PIPE)

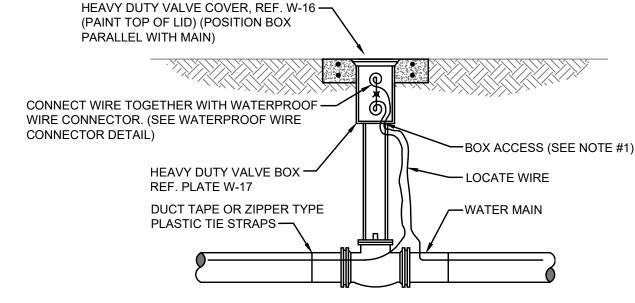


### **CONNECTION AT LARGE METER BOX** (3" OR LARGER SERVICE)

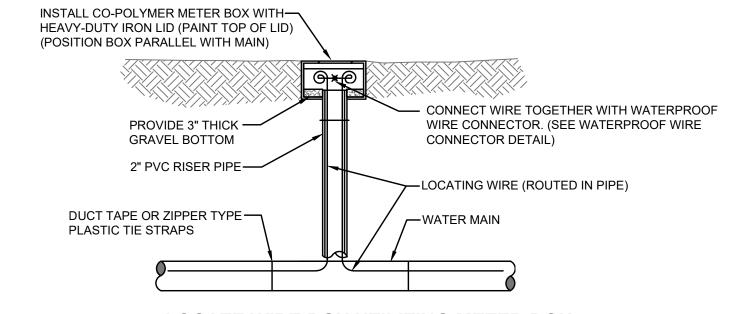
- 1. NOTE THAT THE BRANCH WIRE IS NOT CONNECTED TO THE MAIN WIRE.
- 2. LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A "V" CUT IN THE 6" PVC RISER PIPE SECTION (SEE W-18).
- 3. LOCATE WIRE SHALL HAVE ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE AND LOCATE POINTS.

# LOCATE WIRE FOR BRANCH MAIN

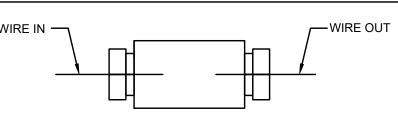
JANUARY 2021 PLATE W-44A



### LOCATE WIRE BOX UTILIZING VALVE BOX



# LOCATE WIRE BOX UTILIZING METER BOX

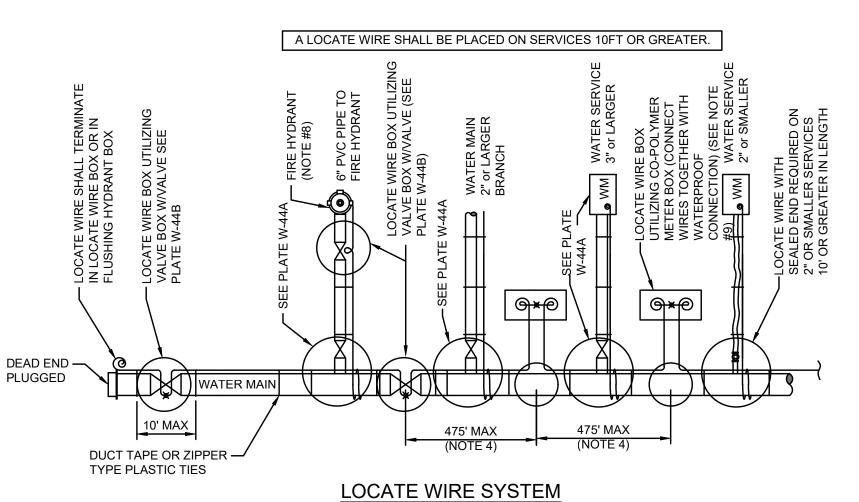


### WATERPROOF WIRE CONNECTOR DETAIL

- 1. LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A "V" CUT IN THE 6" PVC RISER PIPE (SEE W-18).
- 2. LOCATE WIRE SHALL HAVE ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE AND LOCATE POINTS.
- 3. LOCATE WIRE CONNECTION SHALL ONLY BE A 2 WAY CONNECTION.

# LOCATE WIRE BOX

JANUARY 2021 PLATE W-44B



#### 1. LOCATING WIRE TO BE INSTALLED IN EITHER THE ONE OR ELEVEN O'CLOCK POSITION ON ALL DUCTILE IRON 0R PVC (PRESSURE MAINS). LOCATE WIRE SHALL ALSO BE INSTALLED ON ALL (HDPE) POLY MAIN PIPING (1:00 OR 11:00 POSITION, IF POSSIBLE).

- 2. SECURE LOCATING WIRE TO PVC & D.I.P. WATER MAIN BY USE OF DUCT TAPE OR ZIPPER TYPE PLASTIC TIE STRAPS SPACED AT A MAXIMUM DISTANCE OF TEN (10') AND AT EACH SIDE OF BELL JOINT OR FITTING.
- 3. THE ENTIRE LOCATING SYSTEM SHALL BE SUBJECTED TO TESTING TO DETERMINE ITS RELIABILITY. WHERE INSTALLED UNDER
- PAVEMENT AREAS, TESTING SHALL BE DONE PRIOR TO THE PLACEMENT OF PAVEMENT, UNLESS APPROVED OTHERWISE BY JEA.
- 4. LOCATING WIRE SHALL TERMINATE WITHIN AN ACTIVE VALVE BOX ( WITH A VALVE ) OR A METER BOX ( IF NO VALVE ) AT 475' INTERVALS. SEE DETAIL PLATE W-44B. WIRE CONNECTIONS BELOW GROUND (OUTSIDE OF A BOX) SHALL BE AVOIDED.
- 5. REFER TO SECTION 350 FOR LOCATE WIRE SPECIFICATIONS.
- 6. "x" INDICATES THAT THE WIRES ARE CONNECTED TOGETHER WITH A WATERPROOF CONNECTION. (SEE DETAIL W-44B)
- 7. "@" INDICATES A WIRE PIG-TAIL (4' LONG)

JANUARY 2021

- 8. FOR FIRE HYDRANT LOCATE WIRE REQUIREMENTS AND EXCLUSIONS, SEE PLATES W-12,13 AND 14.
- 9. AN "LW" CUT SHALL BE CARVED IN THE CONCRETE CURB AND PAINTED AT ALL LOCATE WIRE BOXES.
- 10. FOUR LANES OF TRAFFIC (HAVING TWO LANES OF TRAFFIC IN EACH DIRECTION) OR GREATER THE LOCATE WIRE AND VALVE BOX SHALL BE OFF-SET TO THE RIGHT-OF-WAY.

# LOCATE WIRE CONSTRUCTION FOR WATER MAINS

PLATE W-44

Wicker Connelly

### PVC PIPE RESTRAINT NOTES:

- 1. THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THE ABOVE SCHEDULE, AT A MINIMUM.
- ASSUMPTIONS: PVC PIPE, SAFETY FACTOR=1.5, TEST PRESSURE=150PSI, SOIL=GM OR SM, TRENCH TYPE 3, DEPTH OF COVER=30 INCHES FOR 20" AND SMALLER PIPE SIZE OR 36 INCHES FOR 24" AND LARGER PIPE SIZE.
- BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
- VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM. PER THE DETAILS, Lu IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL. Li IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER)
- TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN). SEE SCHEDULE ABOVE FOR RESTRAINT LENGTH ON TEE "BRANCH" LINE.
- 6. HDPE TO PVC TRANSITIONS: THE PVC PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).
- THE INSTALLATION OF BELL HARNESS RESTRAINTS AT PVC JOINTS (DR-18 & 25 PIPE) SHALL BE COMPLETED PER THE MANUFACTURERS RECOMMENDATION, WHICH INCLUDES NOT OVER TIGHTENING THE PARALLEL RODS/NUTS. THESE NUTS SHOULD ONLY BE SNUG TIGHT. THE HOME MARKS ON THE PIPE SHOULD ALWAYS BE VISIBLE AFTER THE RESTRAINT IS INSTALLED. OVERHOMING THE JOINT MAY CAUSE A FAILURE AT THE BELL RESULTING IN A SERVICE OUTAGE.

# PVC PIPE RESTRAINT JOINT SCHEDULE

JANUARY 2021

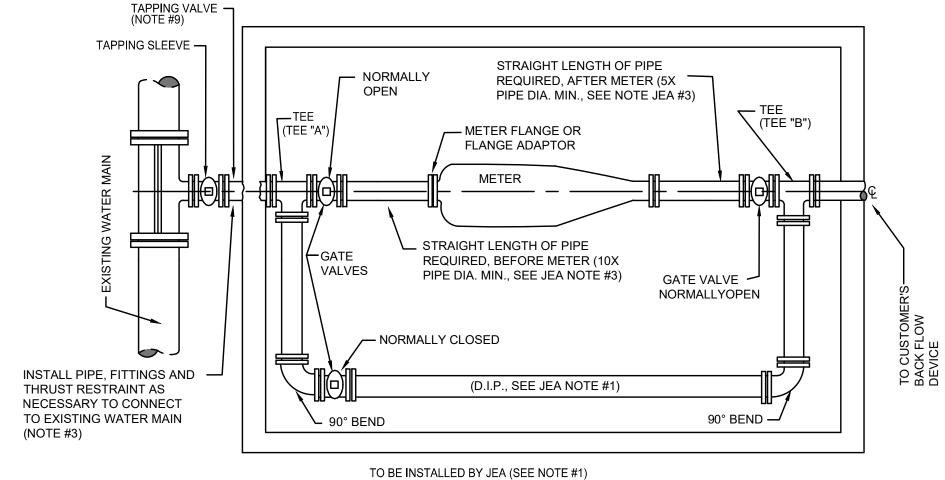
PLATE W-31A

**UPPER BEND** 

BE A TOTAL DISTANCE OF 30 FEET (MIN.).

ANGLE OF 45° -

DIRECTION CHANGE



## **CONTRACTOR NOTES:**

1. FOR "PRE-PAVE" INSTALLATIONS, THE CONTRACTOR SHALL CONSTRUCT TAP AND WATER MAIN PIPING (PVC OR D.I.P.) BETWEEN TAPPING VALVE AND R/W PROVIDING AN UN-INSTALLED (OPEN) PIPE SECTION WITH A "MINIMUM LAYING LENGTH" AS SHOWN ABOVE FOR THE METER BOX AND BY PASS PIPING. THE FINISHED GRADE GRADE AT THE PROPOSED METER VAULT SHALL BE FLAT. CONTRACTOR SHALL PROVIDE METER BOX. JEA WILL INSTALL METER BOX AND METER ASSEMBLY (INCLUDING METER, THREE (3) GATE VALVES AND ASSOCIATED DUCTILE IRON PIPE ALL THE SAME SIZE).

MIN. LAYING LENGTH REQUIRED

3" & 4" METERS.....14'

6" & 8" METERS.....20'

10" METERS......24'

(D.I.P. REQUIRED, SEE JEA NOTES #1 & #2)

- FOR "FULL-TAP" METER ASSEMBLY, JEA WILL PROVIDE AND INSTALL THE TAP, METER BOX AND ALL OF THE ABOVE PIPING WITHIN THE R/W.
- 3. FOR BOX DETAILS SEE PLATES W-7 AND W-8.
- 4. ALL POTABLE PIPE AND FITTINGS TO BE SAME SIZE AS METER. IF UTILIZING HDPE PIPE.
- MECHANICAL RETAINER GLAND RESTRAINTS OR MEGA LUGS SHALL BE UTILIZED TO RESTRAIN ALL JOINTS. THE USE OF THRUST BLOCKS, TIE RODS AND/OR BELL/ROD RESTRAINTS SHALL ONLY BE USED IF SPECIFICALLY APPROVE BY JEA MANAGEMENT.
- 6. PIPE FROM TAP TO R/W LINE SHALL BE RESTRAINED.
- 7. MAXIMUM COVER OF LARGE WATER METERS SHALL BE 36" (FROM TOP OF PIPE TO GRADE).
- 8. LOCATING WIRING REQUIRED FROM EXISTING WATER MAIN TO METER BOX. SEE PLATE W-44.
- 9. FOR METERS LARGER THAN 10" SIZE, PLEASE CONTACT JEA METER SHOP FOR ADDITIONAL REQUIREMENTS.
- 10. EACH SERVICE (FIRE MAIN, POTABLE WATER, ETC.) SHALL INCLUDE A SEPARATE ISOLATION VALVE (TAPPING VALVE OR GATE VALVE, BELOW GROUND TYPE) LOCATED PRIOR TO TEE "A". ALSO, UN-METERED FIRE MAIN SERVICES SHALL INCLUDE A SEPARATE ISOLATION VALVE (TAPPING VALVE OR GATE
- 11. FOR TYPICAL MANIFOLD INSTALLATION, SEE PLATE NO. W-9.
- 12. SERVICE SIZE SHALL BE SAME AS THE METER SIZE.

JANUARY 2021

### **JEA NOTES:**

- 1. ALL POTABLE PIPING BETWEEN TEE FITTINGS (TEE "A" AND TEE "B") SHALL BE DR18 OR CLASS 150 D.I.P., INCLUDING BY-PASS PIPING.
- 2. ALL POTABLE VALVES AND FITTINGS TO BE DUCTILE IRON RESTRAINED JOINT.
- MINIMUM LENGTH OF TEN (10) PIPE DIAMETERS OF STRAIGHT PIPE TO BE INSTALLED ON INLET SIDE OF METER AND FIVE (5) PIPE DIAMETERS OF STRAIGHT PIPE TO BE INSTALLED ON OUTLET SIDE OF METER.
- 4. ALL METER INSTALLATIONS REQUIRE A TEST TEE TO BE INSTALLED BETWEEN THE METER AND VALVE ON CONSUMER SIDE OF METER.

# WATER METER INSTALLATION DETAILS 3" - 20" METERS

PLATE W-6



2. PAY ITEM "\*" DENOTES A RESTRAINT WHICH IS PAID FOR ON A PER EACH BASIC.

1. TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL

3. PAY ITEM "\*\*" DENOTES A RESTRAINT WHICH IS INCLUDED IN THE UNIT PRICE BID FOR FITTING OR VALVE.

ANGLE OF 45° -

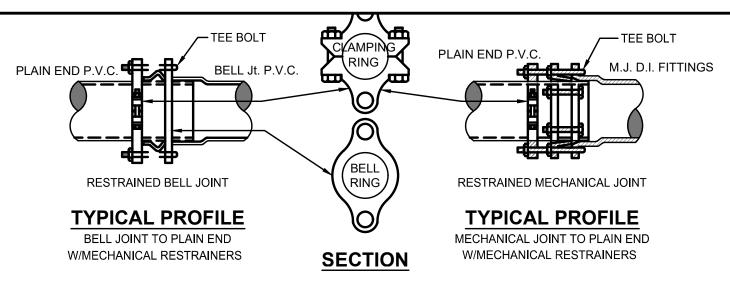
**VERTICAL OFFSET PROFILE** 

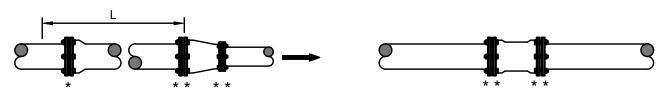
► ANGLE OF DIRECTION CHANGE

**HORIZONTAL BEND** 

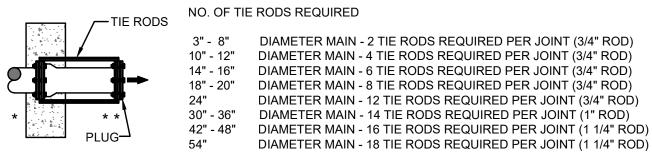
**DEAD END** 

**LOWER BEND** 





#### REDUCER **MECHANICAL JOINT SLEEVES**



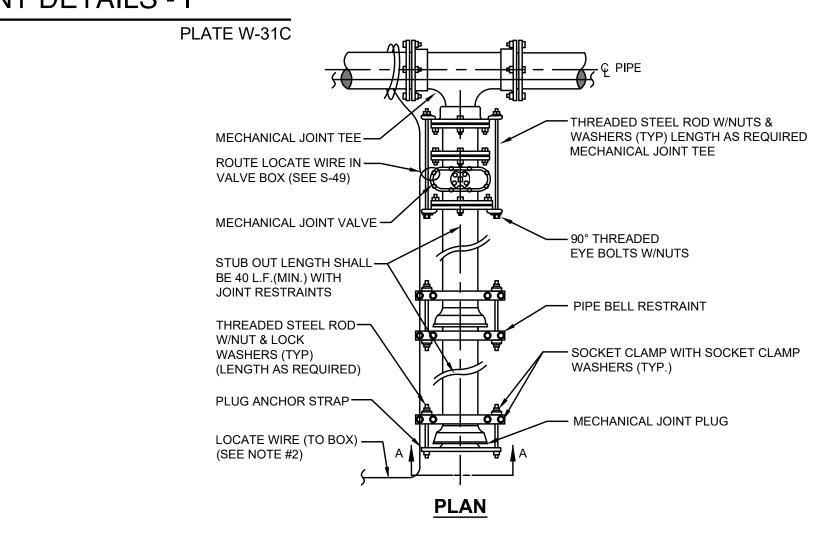
# **DEAD - END THRUST COLLAR ANCHOR** TO BE USED INSTEAD OF TOTAL RESTRAINED LENGTH (OPTIONAL) SIZE AS PER THRUST BLOCK DETAIL (W-38). SEE DETAILS W-36 & W-37.

FIRE HYDRANT LATERAL

JANUARY 2021

- 1. PAY ITEM " \* " DENOTES A RESTRAINT WHICH IS PAID FOR ON A PER EACH BASIS.
- 2. PAY ITEM " \*\* " DENOTES A RESTRAINT WHICH IS INCLUDED IN THE UNIT PRICE BID FOR FITTING OR VALVE.
- 3. INDICATES DIRECTION OF THRUST FORCE.

# MECHANICAL RESTRAINT DETAILS - I





## **SECTION "A-A"**

- 1. IN LIEU OF BELL/ROD RESTRAINTS, MECHANICAL JOINT RESTRAINTS MAY BE USED.
- 2. LOCATING WIRE REQUIRED, UTILIZING A LOCATE WIRE BOX INSTALLED AT PLUG LOCATION.
- 3. NUMBER OF TIE RODS REQUIRED IS AS FOLLOWS: DIAMETER MAIN - 2 TIE RODS REQUIRED PER JOINT (3/4" ROD) DIAMETER MAIN - 4 TIE RODS REQUIRED PER JOINT (3/4" ROD) DIAMETER MAIN - 6 TIE RODS REQUIRED PER JOINT (3/4" ROD) DIAMETER MAIN - 8 TIE RODS REQUIRED PER JOINT (3/4" ROD) DIAMETER MAIN -12 TIE RODS REQUIRED PER JOINT (3/4" ROD) DIAMETER MAIN -14 TIE RODS REQUIRED PER JOINT (1" ROD) DIAMETER MAIN -16 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)
- 4. THE LOCATION OF THE DEAD END PLUG SHALL NOT BE UNDER PAVEMENT, IF POSSIBLE. THE STUB OUT SHALL EXTEND BEYOND THE INTERSECTION AREAS OR ROAD CROSSING BY 10 FEET (MIN.) WHERE POSSIBLE.

DIAMETER MAIN -18 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)

# PLUGGED DEAD END USING

PLATE W-37 JANUARY 2021

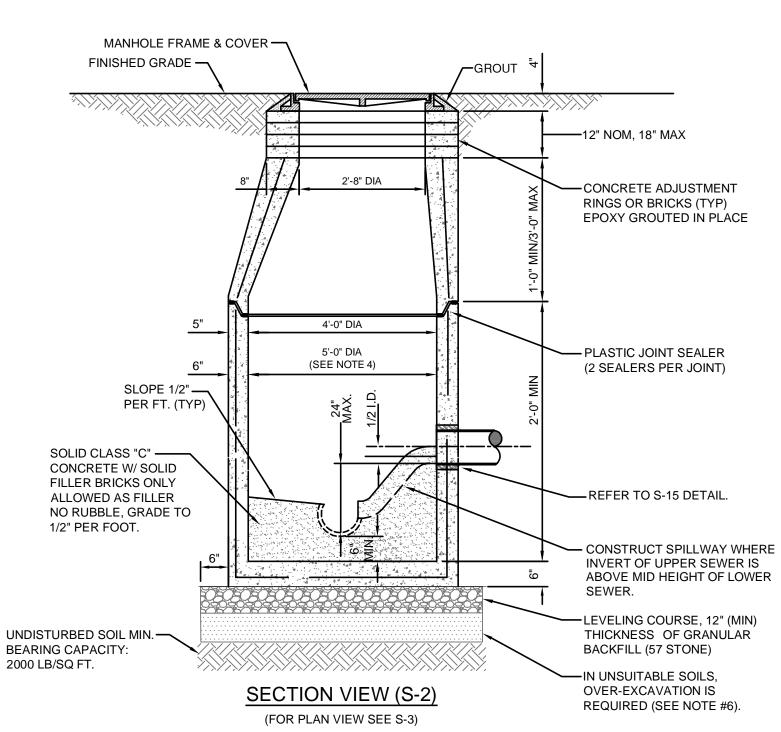
MECHANICAL RESTRAINTS

Connelly

1. THE ANGLE BETWEEN ALL INFLUENT FLOW CHANNELS AND EFFLUENT PIPE SHALL BE BETWEEN 90° - 180° UNLESS OTHERWISE APPROVED BY JEA.

### PLAN VIEW (S-3) (FOR SECTION VIEW SEE S-2, S-2A)

PLATE S-3 JANUARY 2021



- 1. PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. CONC., TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
- THE INTERIOR AND EXTERIOR OF MANHOLE AND ADJUSTING RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL.
- 3. IF SPECIALTY LINER IS TO BE INSTALLED ON INSIDE SURFACE OF MANHOLE, THE BITUMINOUS WATERPROOFING MATERIAL SHALL BE OMITTED ON THE INSIDE.
- 4. JUNCTION MANHOLE (CLOSEST TO WETWELL) SHALL BE 5' DIA WITH SPECIALTY LINER.
- 5. ALL MANHOLE JOINTS BELOW THE TOP COVER SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTERIOR JOINT TAPE (WITH PRIMER). TAPE ON THE CONE SECTION IS OPTIONAL. SEE PLATE S-17.
- IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 24" (AT A MIN.) AND BACKFILLED WITH AASHTO CLASS A-3 SOIL (COMPACTED TO 98%, ASTM D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).

# SANITARY SEWER CONCRETE TYPE "A" MANHOLE 8"-21" SEWERS

JANUARY 2021 PLATES S-2, S-3

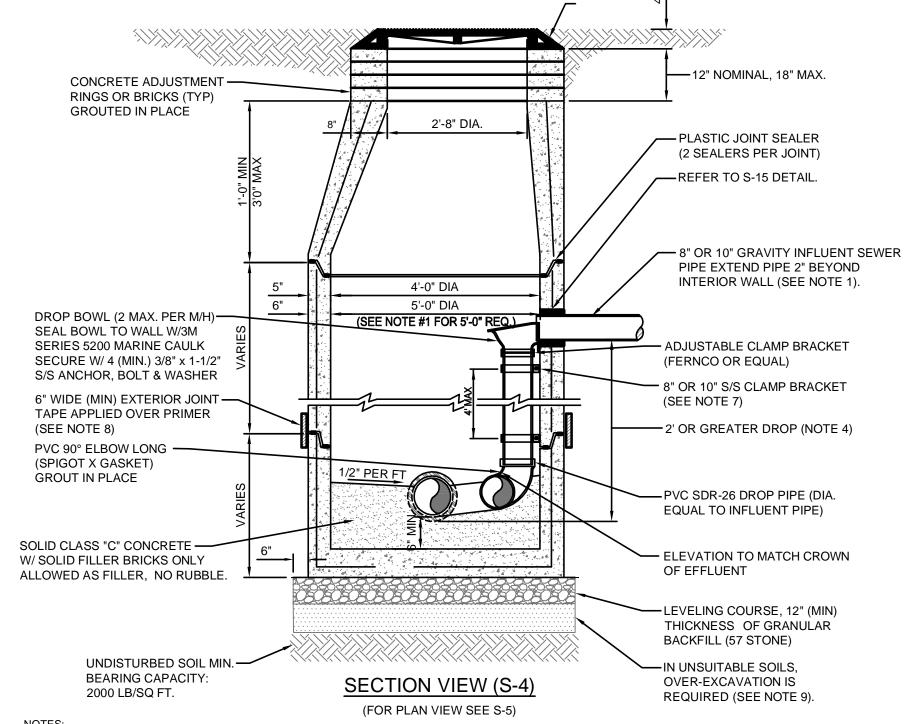
- CUT OFF PIPE INSIDE DROP FOR 8" -AT WALL LINE (TYP) HIGH-LINE (NOTE 2) REFER TO S-15 DETAIL. 4' DIA REINFORCED-CONCRETE MANHOLE - 8" OR 10" GRAVITY INFLUENT SEWER PIPE (SEE NOTE: 1) EXTEND PIPE 2" BEYOND 6" (TYP.) INTERIOR WALL DROP BOWL (2 MAX PER M/H) SEAL BOWL TO LEVELING COURSE 12" (MIN.) WALL W/ 3M SERIES 5200 MARINE CAULK & THICKNESS OF GRANULAR SECURE W/ 4(MIN.) 3/8" x 1-1/2" 304L S/S BACKFILL (#57 STONE) **BOLT, ANCHOR & WASHER** - PVC 90° ELBOW LONG (SPIGOT & GASKET) SOLID CLASS "C"— CONCRETE, SOLID FILLER BRICKS ONLY ALLOWED AS 1. THE ANGLE BETWEEN ALL INFLUENT FLOW FILLER, NO RUBBLE. CHANNELS AND EFFLUENT PIPE SHALL BE 90° OR GRADE TO 1/2" PER FOOT GREATER UNLESS APPROVED OTHERWISE BY JEA. 2. THE 8" HIGH-LINE, WHERE UTILIZED, SHALL ENTER THE MANHOLE OFF-CENTER AS SHOWN ABOVE. PLAN VIEW (S-5) (FOR SECTION VIEW SEE S-4)

JANUARY 2021 PLATE S-5

MANHOLE JOINT INSIDE WALL 7° JOINT ANGLE 53.043 52.543 51.500 52.000 PREPRIMED JOINT PREMOLDED PLASTIC JOINT — SURFACES SEALER WITH PROTECTIVE WRAPPER TO COVER ENTIRE JOINT AREA (APPLY JOINT —OUTSIDE WALL SEALER TO TOP AND **BOTTOM SURFACES,** REMOVE WRAPPER DURING INSIDE WALL-ASSEMBLY) JOINT ASSEMBLY DETAIL "Δ" JOINT CONSTRUCTION DETAIL INSIDE WALL : -EXTERIOR JOINT SEALANT MEMBRANE (6" MIN) **CENTERED ON JOINT** EXCESS JOINT SEALER-SHALL BE TRIMMED ALL LIFTING HOLES (INSERTS) FLUSH TO INSIDE SHALL BE FILLED WITH SURFACE NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL COMPLETED JOINT DETAIL

# PRECAST CONCRETE SEWER MANHOLE JOINT DETAIL

JANUARY 2021 PLATE S-17



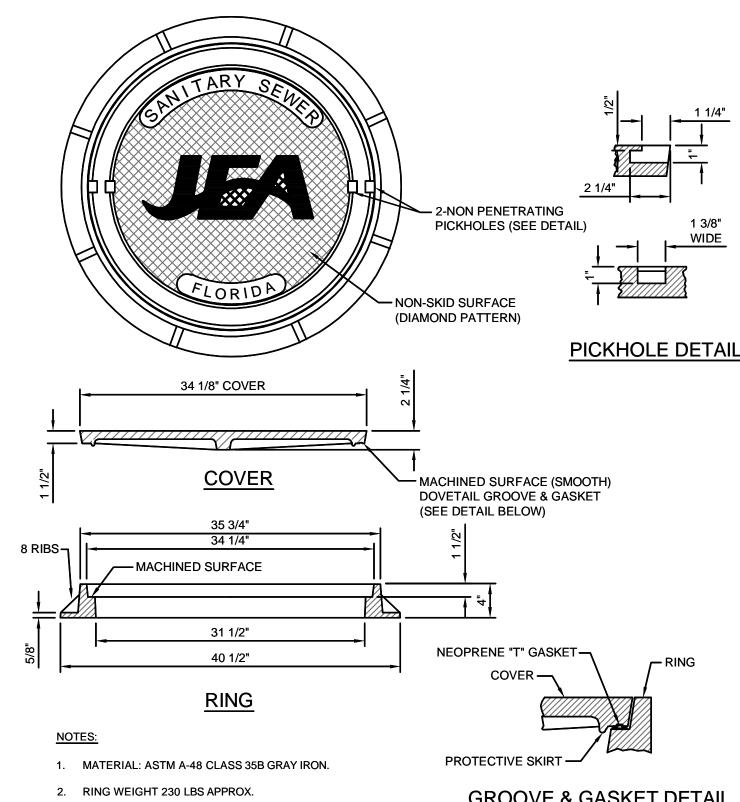
SECTION IS OPTIONAL.

- THIS ASSEMBLY IS FOR 8" OR 10" GRAVITY INFLUENT LINES ONLY. NEW CONSTRUCTION ONLY NO FORCE MAINS LARGER THAN 6". MAXIMUM OF 2 INSIDE DROP BOWLS PER MANHOLE. A 5'-0" DIA. MANHOLE (6" THICK WALLS) IS REQUIRED IF TWO INSIDE DROPS ARE CONSTRUCTED WITH ONE OR BOTH BEING 10" SIZE. DROP BOWL BY RELINER OR APPROVED EQUAL REQUIRED. THE INSIDE DROP FOR AN 8" HIGH-LINE SHALL BE CONSTRUCTED SIMILAR TO ABOVE (SEE PLATE S-5).
- PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. CONC., TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
- THE INTERIOR AND EXTERIOR OF MANHOLE AND THE INTERIOR OF ADJUSTMENT RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS
- 4. TYPE "B" MANHOLE MUST BE USED FOR 2' OR GREATER INFLUENT PIPE DROPS.
- 5. THE DROP BOWL ASSEMBLY SHALL BE INSTALLED PRIOR TO APPLICATION OF SPECIALTY LINING MATERIAL.
- 6. A TYPE "D" MANHOLE SHALL BE UTILIZED WHEN THREE OR MORE (2' OR GREATER) DROPS ARE INVOLVED OR WHEN INFLUENT PIPES AREA LARGER THAN 10" IN SIZE.
- 7. ADJUSTABLE CLAMPING BRACKET (MIN. 2 PER DROP BOWL ASSY). 1-1/2" WIDE, 11 GA. W/ 3/8" DIA. 18-8 PINCH BOLTS AND NUTS. SECURE TO M/H WALL WITH (2) 3/8" X 1" BOLT, ANCHOR & WASHER PER BRACKET ASSY. ALL 304 OR 316 STAINLESS STEEL MATERIALS.
- 8. ALL M/H JOINTS BELOW THE TOP CONE SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTERIOR JOINT TAPE (W/PRIMER). TAPE ON THE CONE
- 9. IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 24" (AT A MIN.) AND BACKFILLED WITH AASHTO CLASS A-3 SOIL (COMPACTED TO 98%, ASTM

D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).

# SANITARY SEWER CONCRETE TYPE "B" MANHOLE 8"-10" SEWERS

JANUARY 2021 PLATES S-4, S-5



**GROOVE & GASKET DETAIL** 

COVER WEIGHT 230 LBS. APPROX.

4. ALL DIMENSIONS ARE SHOWN IN INCHES.

JANUARY 2021

- 5. FOR MANHOLES WHICH WILL BE MAINTAINED BY JEA (INCLUDING UTILITY DEDICATION PROJECTS), THE COVER SHALL INCLUDE THE "JEA" LOGO AND A NEOPRENE GASKET.
- 6. FOR MANHOLES WHICH WILL BE MAINTAINED BY PARTIES OTHER THAN JEA (SUCH AS PRIVATE SEWER COLLECTION SYSTEMS, PRIVATE (FORCE MAIN) PUMP OUT BOX AND SYSTEMS NOT MAINTAINED BY JEA), THE COVER SHALL INCLUDE "SANITARY SEWER" GENERIC LETTERING (NO "JEA" LOGO OR NEOPRENE GASKET).

PLATE S-1

# SANITARY SEWER MANHOLE FRAME AND COVER

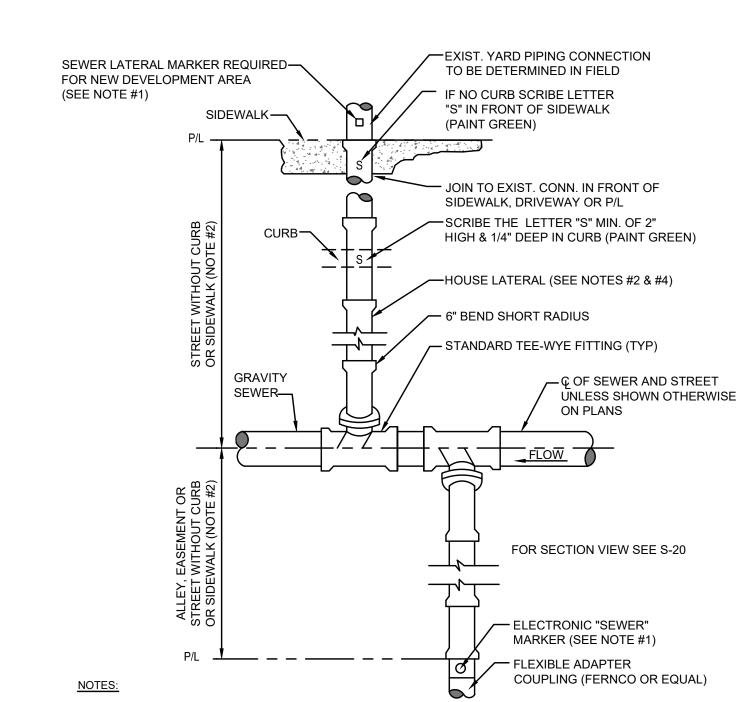
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- 1. SEWER PUMP-OUT BOX SHALL BE CONSTRUCTED ON PRIVATE PROPERTY AND LOCATED AT THE R/W LINE. THE PREFERRED CONSTRUCTION LAYOUT IS SHOWN ABOVE.
- 2. ASSEMBLY TO BE ENCLOSED WITHIN A 48"x48" (MIN) PRECAST CONCRETE BOX WITH OPEN BOTTOM W/H-20 TRAFFIC LOADING COVER OR TYPE "C" MANHOLE OPEN BOTTOM WITH FRAME AND COVER (NON-JEA LOGO
- 3. A JEA APPROVED GATE VALVE (4" MIN) SHALL BE PROVIDED AT THE R/W LINE FOR ALL FORCE MAIN PIPING WHICH EXCEEDS 15' LINEAR FEET WITHIN THE CITY R/W AREA. THE GATE VALVE AT THE R/W LINE IS NOT REQUIRED WHERE THE CONNECTION (CONNECTION AT JEA MAIN) IS LOCATED ON THE SAME SIDE OF THE STREET AS THE PUMP-OUT BOX (SHORT-SIDE SERVICE) AND CONSIST OF 15 LINEAR FEET OR LESS WITHIN THE CITY R/W AREA.
- 4. NO CONNECTIONS PERMITTED INTO JEA FORCE MAINS WHICH ARE GREATER THAN 12" WITHOUT PRIOR JEA
- 5. QUICK DISCONNECT WITH CAP SHALL BE ALUMINUM AND BE POSITIONED DIRECTLY UNDER MANHOLE LID

# PRIVATE PUMP OUT ASSEMBLY

PLATE S-46 JANUARY 2021



- 1. TO MARK THE LOCATION OF THE 6" PLUG FOR NEW SERVICE: FOR PROJECTS WHERE NO CONCRETE CURB EXIST, AN ELECTRONIC "SEWER" MARKER IS REQUIRED FOR ALL LATERALS WHICH ARE BEING INSTALL FOR FUTURE USE AT A MAX DEPTH OF 3' AT FINISH GRADE. FOR NEW DEVELOPMENT AREAS WHERE THE SEWER LATERAL IS "NOT IN USE", A LANDSCAPE TIMBER OR 3x3 MIN. P.T. POST (TOP PAINTED GREEN) SHALL BE INSTALLED. WHERE REQUIRED BY JEA OR NO CONCRETE CURB EXIST, AN ELECTRONIC "SEWER" MARKER SHALL BE INSTALLED TO MARKER SHALL ALSO BE INSTALLED..
- 2. THE MINIMUM SIZE OF ALL HOUSE LATERALS SHALL BE 6 INCHES. THE MAXIMUM LENGTH OF A HOUSE LATERAL SHALL BE 60 FEET (LENGTH BETWEEN SEWER MAIN OR MANHOLE TO CUSTOMERS PROPERTY LINE).
- 3. NO SEWER SERVICE CONNECTIONS PERMITTED ON GRAVITY SEWER PIPE WHICH ARE 16" AND LARGER.
- 4. ALL GRAVITY SEWER MAINS AND ASSOCIATED SEWER LATERAL PIPE AND FITTINGS (INCLUDING THE TEE-WYE FITTING) SHALL BE PVC SDR-26.

# HOUSE LATERAL - PLAN VIEW

PLATE S-19 JANUARY 2021

— MANHOLE FRAME & COVER (SEE NOTE #3) ADJUSTMENT RINGS (TYP) FLAT TOP SECTION (8" THK. MIN) - 316 S.S. CABLE HOOK. LOCATE WIRE PIG TAIL END (SEE NOTE #6) — AIR VALVE ASSEMBLY 4' DIA OR 4 SQUARE MANHOLE (MIN) W/FLAT TOP SECTION, NO BOTTOM. PROVIDE SPECIALTY INTERIOR LINER. DOG HOUSE MANHOLE DESIGN WITH 12" SEPARATION (MANHOLE TO PIPE) MAY BE UTILIZED. (SEE NOTE #2) — VALVE (SEE NOTE #5) 6" MIN GRAVEL — SLOPE DOWN TO MAIN (1/8" PER 1' MIN) LOCATE WIRE -DUCT TAPE OR ZIPPER TYPE PLASTIC TIE STRAPS OFF-SET PIPING "IF REQUIRED" — 316 S.S. PIPE AND FITTINGS (2" MIN, SEE NOTES #1 & #6) FOR OFF-SET PIPING LARGER THAN 2 INCH-SIZE, PROVIDE A GATE VALVE INSTALLED VERTICALLY (W/B&C) NEAR MAIN (SEE NOTE #6) 2" SS BALL VALVE — (SEE NOTE #5)

SEWER FORCE MAIN-

# NOTES:

- 1. THE AIR ASSEMBLY MANHOLE SHALL BE LOCATED OUTSIDE OF THE ROADWAY PAVEMENT AREA (I.E. LOCATED IN NON-TRAFFIC AREAS). IF OFF-SET PIPING IS REQUIRED, THE PIPING SHALL BE 2 INCH MINIMUM, (SAME SIZE AS AIR VALVE INLET). FOR PIPE SIZES 3 INCH AND SMALLER: PIPING SHALL BE 316 STAINLESS STEEL SCH.40, STD GRADE, THREADED. FOR PIPE SIZES 4 INCH AND LARGER: PIPING SHALL BE 316 STAINLESS STEEL SCH. 10 (MIN), WELDED OR PVC DR-18 PIPE AND FITTINGS-RESTRAINED.
- 2. THE CONCRETE MANHOLE SHALL INCLUDE A POLYURETHANE SPECIALTY LINER (PER SPEC SECTION 446) TO BE INSTALLED ON THE INTERIOR SURFACES INCLUDING THE RISER SECTION TOP AND THE ADJUSTMENT RINGS. A BITUMINOUS WATERPROOFING MATERIAL SHALL BE PROVIDED ON THE OUTSIDE SURFACES OF THE MANHOLE.
- 3. FRAME AND COVER SHALL BE JEA STANDARD. THE COVER SHALL HAVE NO GASKET TO ALLOW AIR TO EXIT VAULT (REMOVE GASKET IF NECESSARY FROM THE UNDER SIDE OF STANDARD JEA COVER). THE COVER (WHEN FLIPPED OPEN) MUST CLEAR THE AIR VALVE ASSEMBLY AT ALL TIMES OR A SQUARE TOP WITH ALUMINUM DOOR SHALL BE PROVIDED (NON-TRAFFIC LOCATIONS ONLY).
- 4. FOR PIPE SIZES 3 INCH AND SMALLER, PROVIDE A STAINLESS STEEL BALL VALVE (2" MIN). FOR PIPE SIZES 4 INCH AND LARGER, PROVIDE A FLANGE GATE VALVE (WHEEL OPERATOR) OR PLUG VALVE. (LEVER ARM OPERATOR) SEE SPECIFICATION FOR ADDITIONAL REQUIREMENTS.
- 5. FOR A 2" AIR VALVE, PROVIDE 2" STAINLESS STEEL BALL VALVE AT THE MAIN. FOR AIR VALVES LARGER THAN 2" SIZE, PROVIDE A TAPPING SLEEVE OR DUCTILE IRON TEE FITTING. ALSO, FOR OFF-SET PIPING LARGER THAN 2 INCH SIZE, PROVIDE A GATE VALVE (INSTALLED VERTICALLY NEAR MAIN). SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- 6. LOCATE WIRE SHALL HAVE ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE.

# AIR VALVE ASSEMBLY INSIDE MANHOLE

PLATE S-29 JANUARY 2021

— CURB & GUTTER CONNECTION (TO BE LOCATED PRIOR TO INSTALLING TEE BRANCH). PROVIDE FLEXIBLE ADAPTER COUPLING (FERNCO

ENGRAVE IN CURB THE LETTER -AVG. GROUND SURFACE "S" AT SEWER HOUSE SERVICE — ELECTRIC "SEWER" MARKER LOCATION (PAINT GREEN) (SEE NOTE#1) TOP OF PAVEMENT - EXIST. 4" YARD PIPING WIDTH OF TRENCH (NOTE #3) OR EQUAL). —LAY IN UNDISTURBED SOIL LAY IN COMPACTED MIN. SLOPE △ 1/8" PER FOOT STANDARD TEE-WYE FITTING (30° MIN., 60° MAX.) - PROVIDE 6" PLUG YARD PIPING FOR PLAN VIEW SEE S-19

WIDTH OF RIGHT-OF-WAY VARIES

- 1. TO MARK THE LOCATION OF THE 6" PLUG FOR NEW SERVICE: FOR PROJECTS WHERE NO CONCRETE CURB EXIST, AN ELECTRONIC "SEWER" MARKER IS REQUIRED FOR ALL LATERALS WHICH ARE BEING INSTALL FOR FUTURE USE AT A MAX DEPTH OF 3' AT FINISH GRADE. FOR NEW DEVELOPMENT AREAS WHERE THE SEWER LATERAL IS "NOT IN USE", A LANDSCAPE TIMBER OR 3x3 MIN. P.T. POST (TOP PAINTED GREEN) SHALL BE INSTALLED. WHERE REQUIRED BY JEA OR NO CONCRETE CURB EXIST, AN ELECTRONIC "SEWER" MARKER SHALL BE INSTALLED TO MARKER SHALL ALSO BE INSTALLED.
- 2. THE MINIMUM SIZE OF ALL HOUSE LATERALS SHALL BE 6 INCHES. THE MAXIMUM LENGTH OF A HOUSE LATERAL SHALL BE 60 FEET (LENGTH BETWEEN SEWER MAIN OR MANHOLE TO CUSTOMERS PROPERTY LINE).
- 3. SEE MEASUREMENT AND PAYMENT SECTION FOR MAXIMUM PAYMENT WIDTHS.

SEWER SERVICE LATERAL MARKER

AREAS (SEE NOTE #1)

12" MAX

REQUIRED FOR NEW DEVELOPMEN

- 4. ALL GRAVITY SEWER MAINS AND ASSOCIATED SEWER LATERAL PIPE AND FITTINGS (INCLUDING THE TEE-WYE FITTINGS) SHALL BE
- 5. UNLESS APPROVED OTHERWISE BY A JEA O&M MANAGER, NO GRAVITY SEWER MAIN WITH SEWER SERVICE LATERALS SHALL BE CONSTRUCTED WITH A "DEPTH OF CUT" GREATER THAN 12 FEET.
- 6. SEWER SERVICE LATERALS ASSOCIATED WITH GRAVITY SEWER MAINS WHICH ARE DEEPER THAN 12 FEET, MUST BE ROUTED TO A GRAVITY SEWER HIGH-LINE, A MANHOLE OR OTHER JEA APPROVED METHOD.
- 7. THE SEWER SERVICE LATERAL SHALL BE CONSTRUCTED AT A DEPTH TO ALLOW A GRAVITY CONNECTION BY THE CUSTOMER, WHERE POSSIBLE (CONTINGENT UPON MEETING THE CUSTOMER'S ON-SITE CONDITIONS AND LOCAL CONSTRUCTION STANDARDS). A LATERAL REQUIRING MORE THAN 60" OF COVER MUST BE APPROVED, PRIOR TO CONSTRUCTION, BY JEA.

HOUSE LATERAL - SECTION VIEW

JANUARY 2021 PLATE S-20

S 

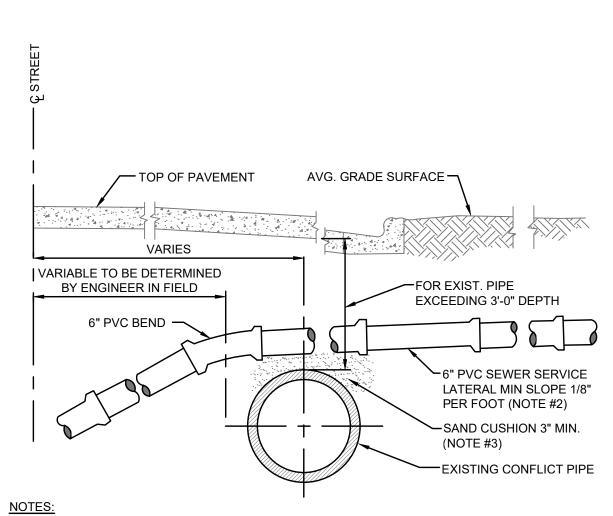
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## LOCATE WIRE SYSTEM

- 1. LOCATING WIRE TO BE INSTALLED IN EITHER THE ONE OR ELEVEN O'CLOCK POSITION ON ALL DUCTILE IRON 0R PVC (PRESSURE MAINS). LOCATE WIRE SHALL ALSO BE INSTALLED ON ALL (HDPE) POLY MAIN PIPING (1:00 OR 11:00 POSITION, IF POSSIBLE).
- 2. SECURE LOCATING WIRE TO PVC FORCE MAIN BY USE OF DUCT TAPE OR ZIPPER TYPE PLASTIC TIE STRAPS SPACED AT A MAXIMUM DISTANCE OF TEN (10') AND AT EACH SIDE OF BELL JOINT OR FITTING.
- 3. THE ENTIRE LOCATING SYSTEM SHALL BE SUBJECTED TO TESTING TO DETERMINE ITS RELIABILITY. WHERE INSTALLED UNDER PAVEMENT AREAS, TESTING SHALL BE DONE PRIOR TO THE PLACEMENT OF PAVEMENT, UNLESS APPROVED OTHERWISE BY JEA.
- 4. LOCATING WIRE SHALL TERMINATE WITHIN AN ACTIVE VALVE BOX ( WITH A VALVE ) OR A METER BOX ( IF NO VALVE ) AT 475' INTERVALS. SEE DETAIL PLATE S-49B. WIRE CONNECTIONS BELOW GROUND (OUTSIDE OF A BOX) SHALL BE AVOIDED.
- 5. LOCATING WIRE SHALL BE 12 GAUGE COPPER WIRE WITH .03 INCHES (MINUMUM) HDPE INSULATION THICKNESS, 0.141 INCHES (MINIMUN) O.D. RATED BREAK LOAD 250LBS., UF RATED (DIRECT BURIAL), GREEN COLOR. FOR HDD INSTALLATIONS, THE LOCATE WIRE SHALL BE COPPER CODED STEEL AS SPECIFIED IN SPEC. SECTION 750.
- 6. "X" INDICATES THAT THE WIRES ARE CONNECTED TOGETHER WITH WATERPROOF CONNECTION. (SEE DETAIL W-49B)
- 7. "O" INDICATES A WIRE PIG-TAIL (24" LONG)
- 8. AN "LW" CUT SHALL BE CARVED IN THE CONCRETE CURB AND PAINTED AT ALL LOCATE WIRE BOXES.
- 9. FOUR LANES OF TRAFFIC (HAVING TWO LANES OF TRAFFIC IN EACH DIRECTION) OR GREATER THE LOCATE WIRE AND VALVE BOX SHALL BE OFF-SET TO THE RIGHT-OF-WAY.

# LOCATE WIRE CONSTRUCTION FOR FORCE MAINS

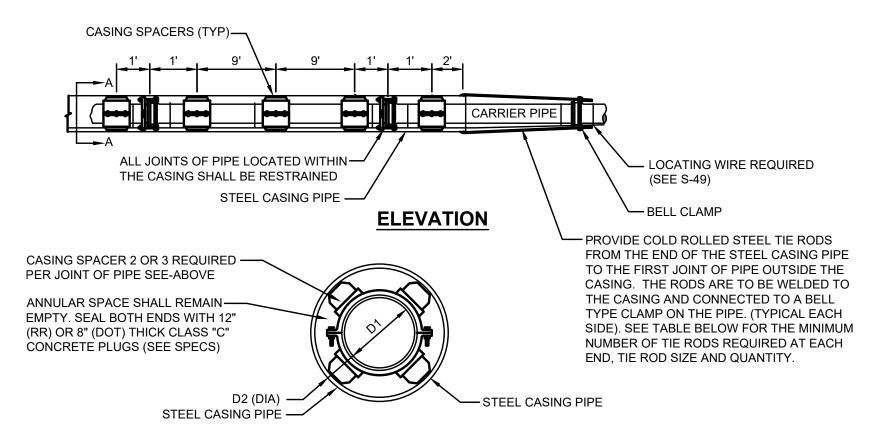
JANUARY 2021



- 1. ALTERNATE GRADIENT FOR 6 INCH LATERAL SEWERS AT CONFLICTS WITH EXISTING UTILITIES.
- 2. FLATTER SLOPES MUST BE PRE-APPROVED BY JEA O&M MANAGER (ONLY) PRIOR TO CONSTRUCTION.
- 3. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557.

# HOUSE LATERAL OVER CONFLICT PIPE

PLATE S-23 JANUARY 2021



## **SECTION "A-A"**

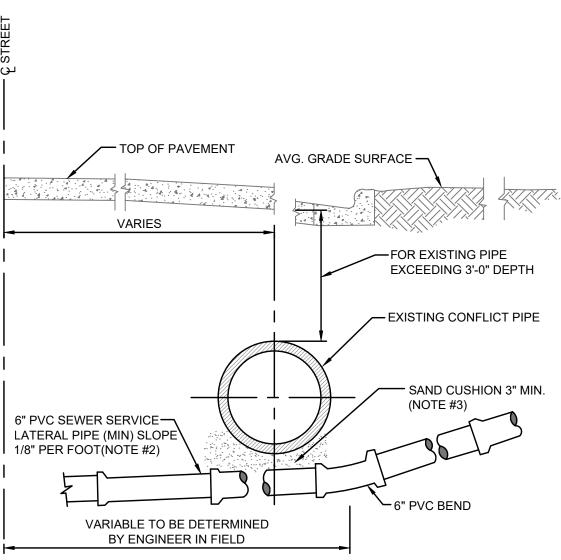
| CARRIER TYPE AND CASING PIPE SIZES (MIN) IN INCHES |      |       |       |       |       |       |       |       |       |       |       |       |        |        |
|--|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| CARRIER PIPE NO. DIA. (D <sub>1</sub> )            | 4    | 6     | 8     | 10    | 12    | 14    | 16    | 18    | 20    | 24    | 30    | 36    | 42     | 48     |
| CASING PIPE NOM. DIA. (D <sub>2</sub> )            | 14   | 16    | 20    | 20    | 24    | 30    | 30    | 30    | 36    | 42    | 48    | 54    | 60     | 66     |
| WALL THICKNESS RAILROAD-(FEC)                      | 0.25 | 1.25  | 0.375 | 0.375 | 0.375 | 0.50  | 0.50  | 0.50  | 0.562 | 0.625 | 0.625 | 0.688 | 0.781  | 0.781  |
| WALL THICKNESS RAILROAD-(CSX)                      | 0.25 | 0.281 | 0.375 | 0.375 | 0.375 | 0.469 | 0.469 | 0.469 | 0.562 | 0.625 | 0.688 | 0.781 | 0.844  | 0.938  |
| WALL THICKNESS DOT                                 | 0.25 | 0.25  | 0.25  | 0.25  | 0.25  | 0.312 | 0.312 | 0.312 | 0.375 | 0.50  | 0.50  | 0.50  | 0.50   | 0.50   |
| NUMBER OF TIE RODS (EACH END)                      | 2    | 2     | 2     | 4     | 4     | 6     | 6     | 8     | 8     | 12    | 14    | 14    | 16     | 16     |
| TIE ROD SIZE (DIA.)                                | 3/4" | 3/4"  | 3/4"  | 3/4"  | 3/4"  | 3/4"  | 3/4"  | 3/4"  | 3/4"  | 3/4"  | 1"    | 1"    | 1 1/4" | 1 1/4" |

### PIPE MAIN CROSSINGS FOR RAILROADS OR HIGHWAYS

- MIN. COVER TO TOP OF CASING; a) FDOT-3.0' b)RAILROAD-5.5' TO BASE OF RAIL, 4.5' FOR SECONDARY OR INDUSTRIAL TRACKS. EXCEPT FOR F..E.C. (SEE NOTE 3)
- THE INSIDE DIAMETER OF THE CASING PIPE SHALL BE A MINIMUM OF 4 INCHES GREATER THAN THE OUTSIDE DIAMETER OF THE CARRIER PIPE BELL OR COUPLING. HOWEVER, A MINIMUM OF 6 INCHES IS REQUIRED FOR FLORIDA EAST COAST R.R. CROSSINGS.
- 3. THE MINIMUM COVER FOR CASING UNDER FLORIDA EAST COAST RAILROAD SHALL BE 5.0 FEET BELOW THE BOTTOM OF TIES FOR ALL TRACKS.
- ALL JOINTS WITHIN CARRIES PIPE SHALL BE MECHANICAL RESTRAINED JOINTS.
- FOR STREET USES WHICH ARE NOT DOT OR RAILROAD, USE DOT CASING THICKNESS UNLESS OTHERWISE INDICATED BY ENGINEER.
- CASING PIPE SHALL BE FURNISHED IN NOMINAL 8 FOOT LENGTHS (MIN.) UNLESS OTHERWISE INDICATED ON THE DRAWING OR APPROVED BY JEA.
- PIPE TO BE USED AS A CASING SHALL CONFORM TO EITHER ASTM STANDARD A139 FOR "ELECTRIC FUSION (ARC) WELDED STEEL PIPE". WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI OR "API SPECIFICATION API-5LX, GRADE X-42 WELDED STEEL PIPE".

## TYPICAL CASING DETAIL - SEWER

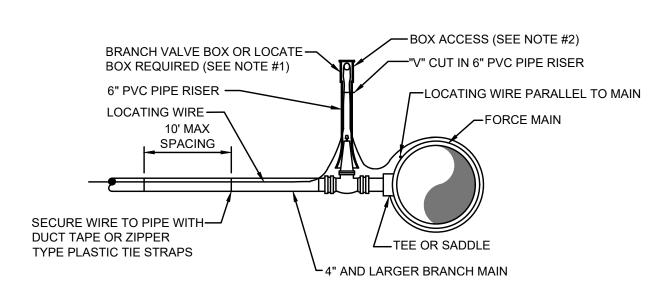
PLATE S-25 JANUARY 2021



- 1. ALTERNATE GRADIENT FOR 6 INCH LATERAL SEWERS AT CONFLICTS WITH EXISTING UTILITIES.
- 2. FLATTER SLOPE MUST BE PRE-APPROVED BY JEA O&M MANAGER (ONLY) PRIOR TO CONSTRUCTION
- 3. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557.

# HOUSE LATERAL UNDER CONFLICT PIPE

JANUARY 2021 PLATE S-24

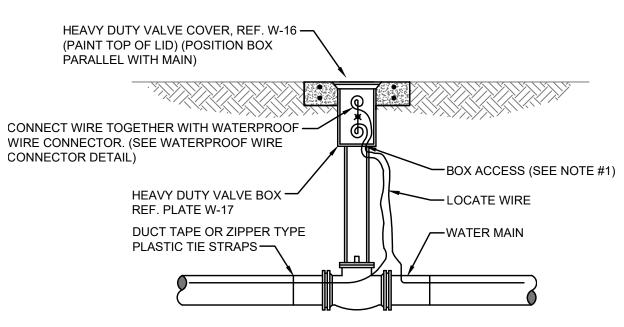


### **BRANCH FORCE MAIN** (4" AND LARGER SEWER MAIN)

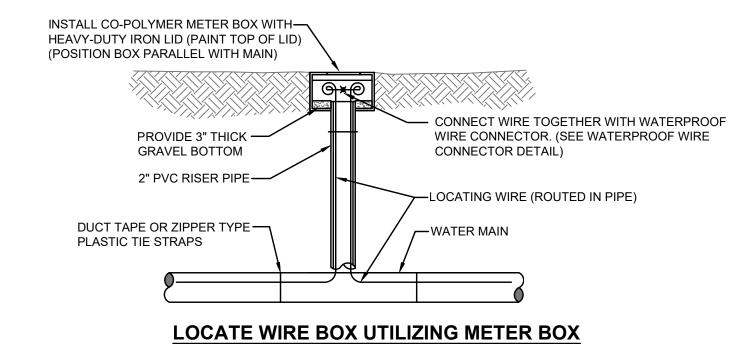
- 1. NOTE THAT THE BRANCH WIRE IS NOT CONNECTED TO THE MAIN WIRE.
- 2. LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A "V" CUT IN THE 6" PVC RISER PIPE SECTION (SEE S-30).
- 3. LOCATE WIRE BOX SHALL BE INSTALLED OUTSIDE OF SIDEWALKS, DRIVEWAYS AND PAVEMENT.
- 4. "@" INDICATES A WIRE PIG-TAIL (4' LONG)

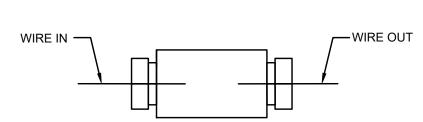
# LOCATE WIRE FOR BRANCH MAIN

JANUARY 2021 PLATE S-49A



### LOCATE WIRE BOX UTILIZING VALVE BOX





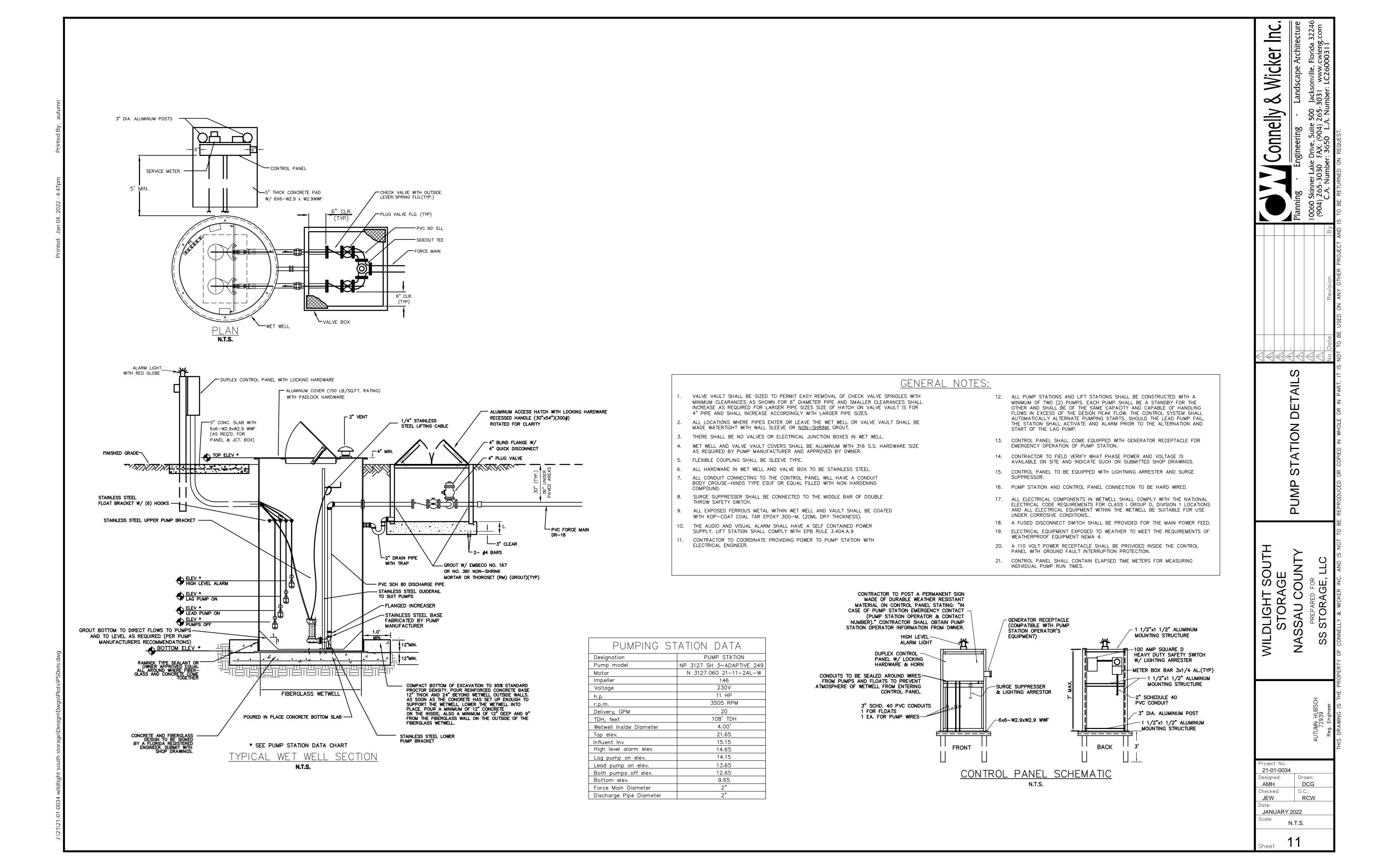
## WATERPROOF WIRE CONNECTOR DETAIL

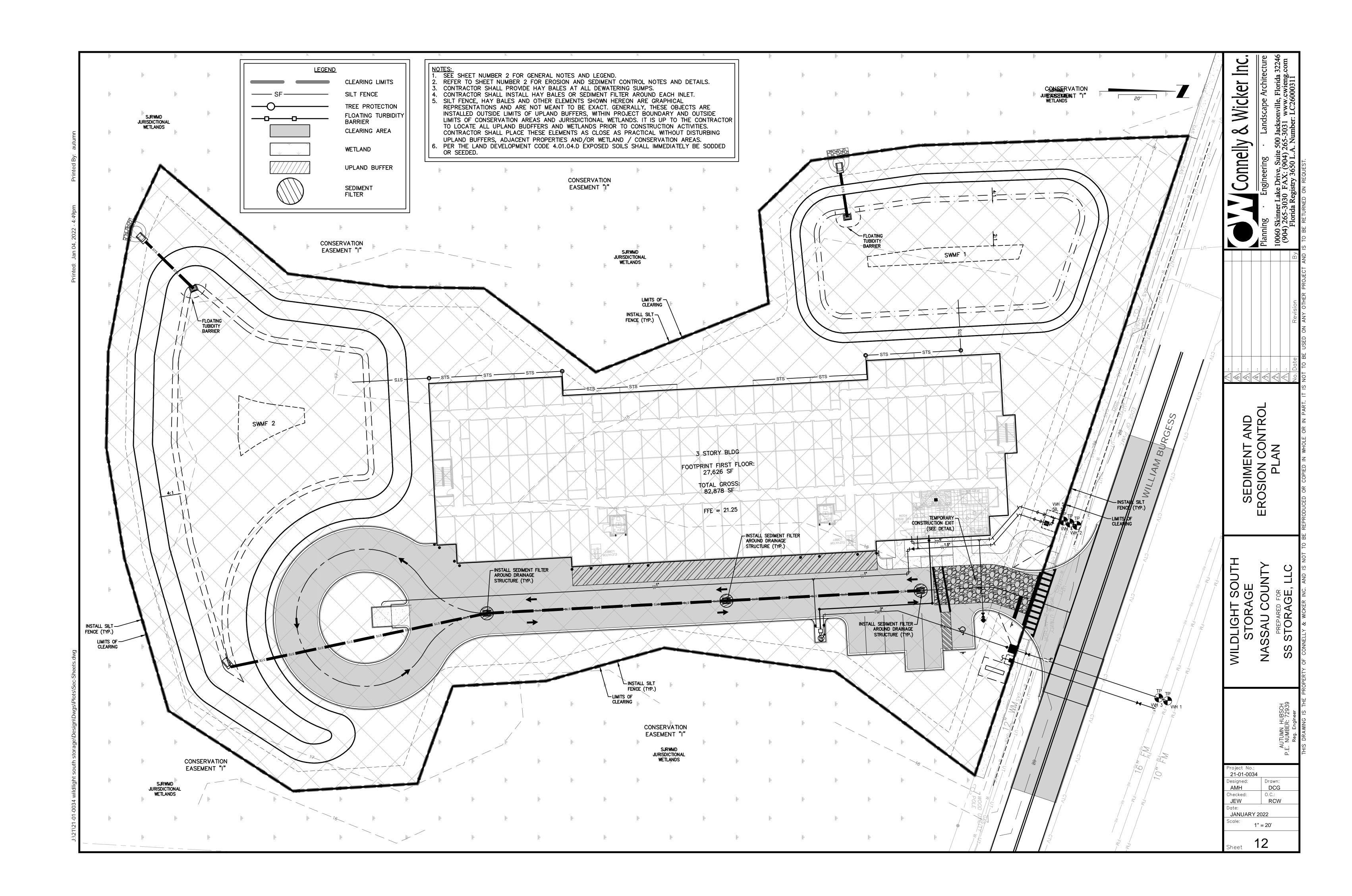
- 1. LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A "V" CUT IN THE 6" PVC RISER PIPE (SEE W-18).
- 2. LOCATE WIRE SHALL HAVE ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE AND LOCATE POINTS.
- 3. LOCATE WIRE CONNECTION SHALL ONLY BE A 2 WAY CONNECTION.

# LOCATE WIRE BOX

JANUARY 2021 PLATE S-49B

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# 1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON—SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.

SEDIMENT AND EROSION CONTROL NOTES

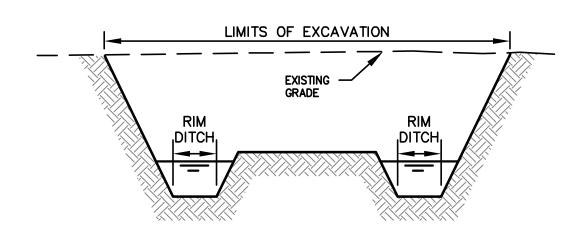
- 2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
- 3. ADDITIONAL PROTECTION ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
- 4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
- 5. WIRE MESH SHALL BE LAID OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS REQUIRED, THE STRIPS SHALL BE OVERLAPPED.
- 6. FDOT NO. 1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED ON SEDIMENT FILTER DETAIL (SEE DETAIL THIS SHEET). THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHÈS OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES
- 7. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
- 8. BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
- 9. BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.
- 10. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 4 INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
- 11. EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.
- 12. LOOSE COIR SHOULD BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.
- 13. COIR BALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
- 14. CLOSE ATTENTION SHALL BE GIVEN TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
- 15. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.
- 16. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. IT MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY
- ONE-HALF THE HEIGHT OF THE BARRIER. 17. ANY SEDIMENT DEPOSITS REMAINING IN PLACE, AFTER THE COIR BALE OR FILTER BARRIERS, AND OR SILT FENCES ARE NO LONGER REQUIRED, SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
- 18. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- 19. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED
- 20. STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS
- 21. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- 22. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT RULES AND
- 23. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF
- ENVIRONMENTAL REGULATION (F.D.E.P.) CHAPTER 6. 24. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER
- 25. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.

QUALITY DEGRADATION. SEE DETAILS (THIS SHEET) FOR TYPICAL

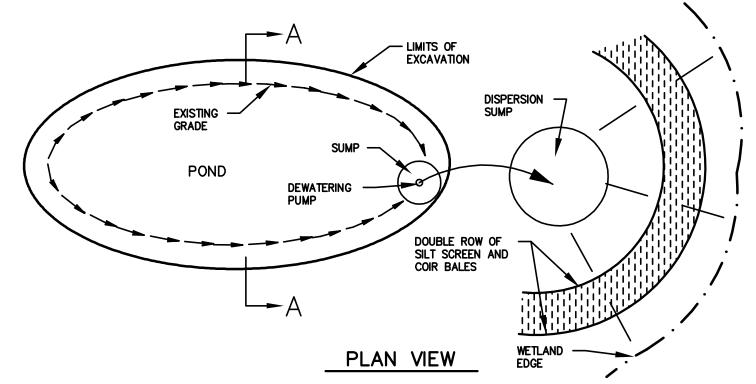
- 26. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
- 27. DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE ST. JOHNS RIVER WATER
- 28. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED AND MULCHED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED. CONTRACTOR SHALL USE ADDITIONAL MEASURES TO STABILIZE DISTURBED AREAS THROUGH COMPACTION, SILT SCREENS, COIR BALES, AND GRASSING. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID SOD.
- 29. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL SHALL REMAIN IN PLACE UNTIL AFTER COMPLETION OF CONSTRUCTION, AND REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED.
- 30. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
- 31. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL WATER MANAGEMENT DISTRICT INQUIRIES, RELATIVE TO COMPLIANCE OF SJRWMD FOR EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.
- 32. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS AND PRESERVATION EASEMENTS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION.
- 33. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A PERMANENT STAND OF SOD AND/OR GRASS PER THE CONTRACT DOCUMENTS AND MEETING THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, XXXXXXXX AND NPDES FINAL STABILIZATION REQUIREMENTS.
- 34. THESE PLANS INCLUDING THE POLLUTION PREVENTION PLAN INDICATE THE MINIMUM EROSION & SEDIMENT CONTROL MEASURES REQUIRED FOR THIS PROJECT. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO

SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (F.D.E.P.) CHAPTER 6. CONTRACTOR SHALL PROVIDE EROSION PROTECTION AND TURBIDITY CONTROL AS REQUIRED TO INSURE CONFORMANCE TO STATE AND FEDERAL WATER QUALITY STANDARDS AND MAY NEED TO INSTALL ADDITIONAL CONTROLS TO CONFORM TO AGENCIES REQUIREMENTS. IF A WATER QUALITY VIOLATION OCCURS, THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ALL DAMAGE AND ALL COSTS WHICH MAY RESULT INCLUDING LEGAL FEES, CONSULTANT FEES, CONSTRUCTION COSTS, AND FINES.

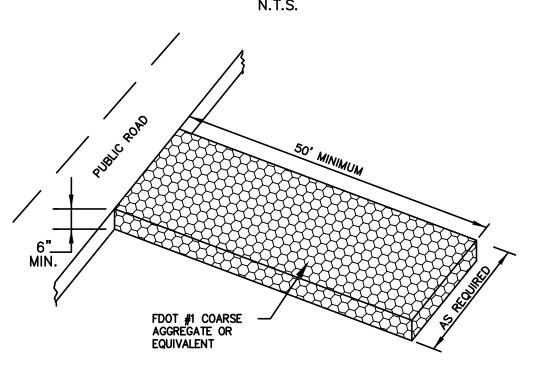
35. 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR WILL SUBMIT A "NOTICE OF INTENT" TO THE EPA IN ACCORDANCE WITH NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM RULES AND REGULATIONS. (FOR ANY CONSTRUCTION NOT COVERED BY THE OWNER'S "NOTICE OF INTENT" PERMIT)



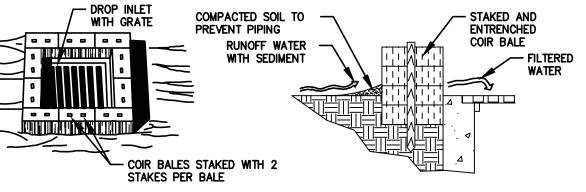
# SECTION A-A



# TEMPORARY DEWATERING DETAIL



# STABILIZED CONSTRUCTION ENTRANCE

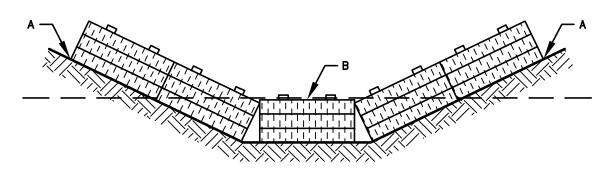


### SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5 PERCENT) WHERE SHEET OR OVERLAND FLOWS (NOT EXCEEDING 0.5 cfs) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

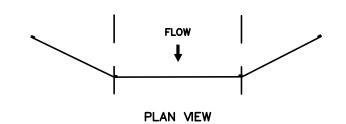
COIR BALE DROP INLET SEDIMENT FILTER

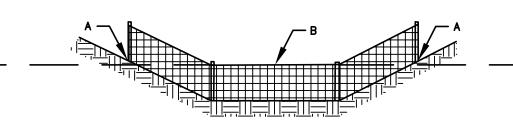
N.T.S.



POINTS A SHOULD BE HIGHER THAN POINT B

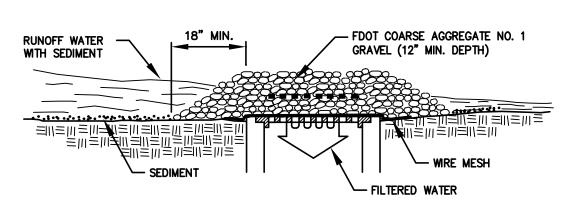
# PROPER PLACEMENT OF COIR BALE IN A DRAINAGE WAY





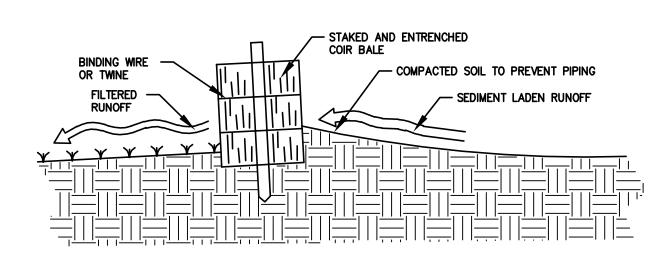
SECTION VIEW POINTS A SHOULD BE HIGHER THAN POINT B

# PROPER PLACEMENT OF A FILTER BARRIER IN DRAINAGE WAY N.T.S.

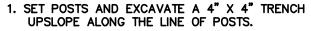


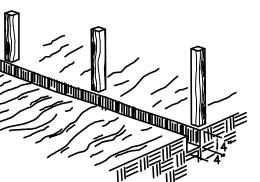
### SPECIFIC APPLICATION THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

# **GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER** N.T.S.

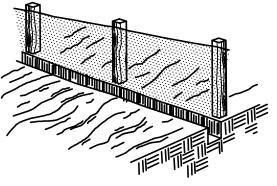


# **CROSS-SECTION OF A PROPERLY INSTALLED COIR BALE**

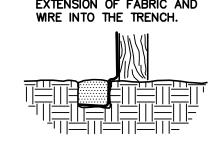




3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.

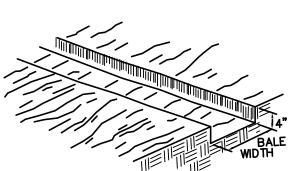


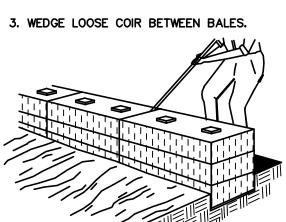
EXTENSION OF FABRIC AND

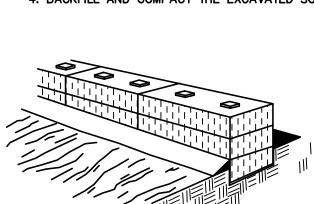


# **CONSTRUCTION OF SILT FENCE**

1. EXCAVATE THE TRENCH

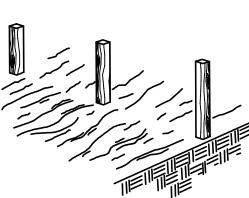




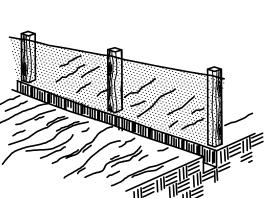


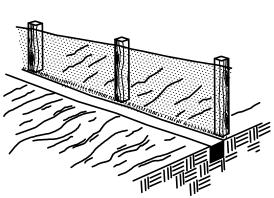
# CONSTRUCTION OF A COIR BALE BARRIER

1. SET THE STAKES.



3. STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.

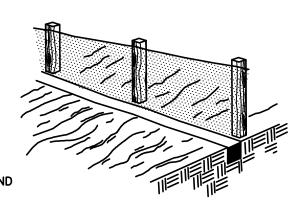




CONSTRUCTION OF A FILTER BARRIER

2. STAPLE WIRE FENCING TO THE POSTS.

4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



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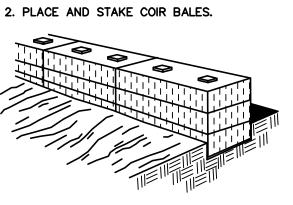
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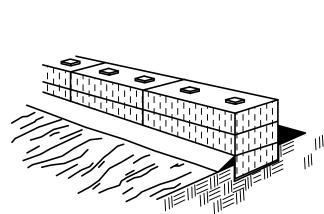
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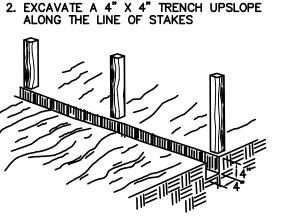
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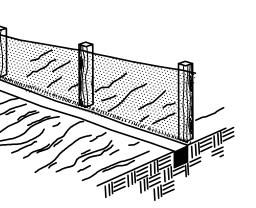


4. BACKFILL AND COMPACT THE EXCAVATED SOIL.





4. BACKFILL AND COMPACT THE EXCAVATED SOIL



21-01-0034 esigned: Drawn: AMH DCG Checked: JEW **RCW** JANUARY 2022

CORPORATE OFFICER, GENERAL PARTNER, PROPRIETOR,

EXECUTIVE OFFICER, OR RANKING ELECTED OFFICIAL

CONTRACTOR'S REQUIREMENTS

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE EROSION THAT MAY CONTRIBUTE SEDIMENT TO THE INLET. AND TURBIDITY CONTROL PLAN. IN ADDITION THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS. DEPENDING ON THE NATURE OF MATERIALS AND METHODS OF CONSTRUCTION THE CONTRACTOR MAY BE REQUIRED TO ADD FLOCCULANTS TO THE RETENTION SYSTEM PRIOR TO PLACING THE SYSTEM

#### SEQUENCE OF MAJOR ACTIVITIES:

**GENERAL** 

- THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:
- INSTALL STABILIZED CONSTRUCTION ENTRANCE INSTALL SILT FENCES AND HAY

BALES AS REQUIRED

- CLEAR AND GRUB FOR DIVERSION SWALES/DIKES AND SEDIMENT
- CONSTRUCT SEDIMENTATION
- CONTINUE CLEARING AND STOCK PILE TOP SOIL IF REQUIRED

PERFORM PRELIMINARY GRADING

- ON SITE AS REQUIRED
- 8. STABILIZE DENUDED AREAS AND STOCKPILES AS SOON AS PRACTICABLE
- 9. INSTALL UTILITIES, STORM SEWER, CURBS & GUTTER 10. APPLY BASE TO PARKING AREAS 11. COMPLETE GRADING AND
- SEEDING/SOD AND PLANTING 12. COMPLETE FINAL PAVING 13. REMOVE ACCUMULATED

SEDIMENT FROM BASINS

INSTALL PERMANENT

- 14. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ANY TEMPORARY DIVERSION SWALES/DIKES AND RESEED/SOD AS REQUIRED
- NOTE: VERTICAL CONSTRUCTION OF THE BUILDING WILL BE TAKING PLACE DURING ALL THE SEQUENCE STEPS LISTED ABOVE

#### TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE SILT FENCES AND HAY BALES, STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASIN WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED PERMANENTLY IN ACCORDANCE WITH THE PLANS. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDIMENT TRAPS AND THE EARTH DIKE/SWALES WILL BE REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH THE PAVING AND DRAINAGE PLAN (DRAWING NO. 7)

CONTROLS

IT IS THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE SEDIMENT AND EROSION CONTROL PLAN. IT IS ALSO THE CONTRACTORS RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED. MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION AND TURBIDITY CONTROLS SHOWN ON THE SEDIMENT AND EROSION CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES, AS AND TURBIDITY CONTROL REQUIREMENTS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR AS REQUIRED BY THE EROSION AND SEDIMENT CONTROL PLAN AND AS REQUIRED TO MEET THE SEDIMENT AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE

#### EROSION AND SEDIMENT CONTROLS STABILIZATION PRACTICES

REGULATORY AGENCIES.

- STRAW BALE BARRIER: STRAW BALE BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
- A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT. B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES. C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS.
- D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF STRAW BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT, IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE AGAINST WASHOUT.
- 2. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
  - A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT. B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
- BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.
- LEVEL SPREADER: A LEVEL SPREADER MAY BE USED WHERE SEDIMENT-FREE STORM RUNOFF IS INTERCEPTED AND DIVERTED AWAY FROM THE GRADED AREAS ONTO UNDISTURBED STABILIZED AREAS. THIS PRACTICE APPLIES ONLY IN THOSE SITUATIONS WHERE THE SPREADER CAN BE CONSTRUCTED ON UNDISTURBED SOIL AND THE AREA BELOW THE LEVEL LIP IS STABILIZED. THE WATER SHOULD NOT BE ALLOWED TO RECONCENTRATE AFTER RELEASE.
- STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.
- EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 10 ACRES. THIS REQUIREMENT MAY BE WAIVED FOR LARGE PROJECTS WITH AN EROSION CONTROL PLAN WHICH DEMONSTRATES THAT OPENING OF ADDITIONAL AREAS WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.

- 7. INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT -LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS
- 8. TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 7 DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING.
- 9. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN PARAGRAPH 8 ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH.
- 10. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED OR HYDROMULCHED OR OTHER SUITABLE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.
- 11. TEMPORARY REGRASSING: IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.
- 12. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.
- 13. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.
- 14. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM, BE SEEDED. THE SEEDING MIX MUST PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL VEGETATION. SLOPES STEEPER THAN 4:1 SHALL BE SEEDED AND MULCHED

#### STRUCTURAL PRACTICES

- TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY.
- 2. TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP IS USUALLY INSTALLED IN AN DRAINAGEWAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA WITH THE FOLLOWING
- A. THE SEDIMENT TRAP MAY BE CONSTRUCTED EITHER INDEPENDENTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION
- 3. OUTLET PROTECTION: APPLICABLE TO THE OUTLETS OF ALL PIPES AND PAVED CHANNEL SECTIONS WHERE THE VELOCITY OF FLOW AT DESIGN CAPACITY OF THE OUTLET WILL EXCEED THE PERMISSIBLE VELOCITY OF THE RECEIVING CHANNEL OR AREA.
- 4. SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES AT ONE TIME, THE PROPOSED STORM WATER PONDS (OR TEMPORARY PONDS) WILL BE CONSTRUCTED FOR USE AS SEDIMENT BASINS. THESE SEDIMENT BASINS MUST PROVIDE A MINIMUM OF 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED UNTIL FINAL STABILIZATION OF THE SITE. THE 3.600 CUBIC FEET OF STORAGE AREA PER ACRE DRAINED DOES NOT APPLY TO FLOWS FROM OFFSITE AREAS AND FLOWS FROM ONSITE AREAS THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE DISTURBED AREA AND THE SEDIMENT BASIN, ANY TEMPORARY SEDIMENT BASINS CONSTRUCTED MUST BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR STRUCTURAL FILL. ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

### OTHER CONTROLS

#### WASTE DISPOSAL WASTE MATERIALS

ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT. THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

### HAZARDOUS WASTE

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

### OFFSITE VEHICLE TRACKING

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

INVENTORY FOR POLLUTION PREVENTION PLAN

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION:

Concrete

Fertilizers Petroleum Based Products Cleaning Solvents Detergents Paints

Masonry Blocks Roofing Materials Metal Studs

#### SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE

OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

\* AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED

TO DO THE JOB. \* ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER

\* PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.

\* SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.

\* WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.

\* MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.

\* THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

HAZARDOUS PRODUCTS

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

\* PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE. \* ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.

\* IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

#### PRODUCT SPECIFIC PRACTICES

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY SEALABLE PLASTIC BIN TO AVOID SPILLS.

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

### CONCRETE TRUCKS

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

### SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL

INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, LIQUID ABSORBENT (i.e. KITTY LITTER OR EQUAL), SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL.

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED. THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE

OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE, IN THE OFFICE TRAILER ONSITE.

MAINTENANCE/INSPECTION PROCEDURES EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

- THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.
- \* NO MORE THAN 10 ACRES OF THE SITE WILL BE DENUDED AT ONE TIME WITHOUT WRITTEN PERMISSION FROM THE ENGINEER. \* ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT,

THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATION OR

- SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.25 INCHES OR GREATER. \* ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING
- ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF
- \* BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
- \* SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
- $^{\circ}$  THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB.
- \* DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY
- \* TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
- \* A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM SHALL BE COMPLETED BY THE THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER

POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT

THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED. THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE. \* THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR

MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND

\* PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE. SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND

SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE

- NON-STORM WATER DISCHARGES
- \* IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:
- \* WATER FROM WATER LINE FLUSHING
- \* PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR
- HAZARDOUS MATERIALS HAVE OCCURRED). \* UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).
- ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

### CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

## DEWATERING

PRIOR TO ANY DISCHARGE OF GROUND WATER (DEWATERING) FROM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT TO WATERS OF THE STATE (INCLUDING, BUT NOT LIMITED TO. WETLANDS, SWALES AND MUNICIPAL STORM SEWERS). THE CONTRACTOR SHALL TEST THE EFFLUENT (WATER TO BE DISCHARGED) IN ACCORDANCE WITH RULE 62-621.300(2). F.A.C. IF THE TEST RESULTS ON THE EFFLUENT ARE BELOW THE SCREENING VALUES OF RULE 62-621.300(2), F.A.C., THE CONTRACTOR SHALL SUBMIT A SUMMARY OF THE PROPOSED CONSTRUCTION ACTIVITY AND THE TEST RESULTS TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION DISTRICT OFFICE, WITHIN ONE (1) WEEK AFTER DISCHARGE BEGINS. THE CONTRACTOR SHALL CONTINUE TO SAMPLE THE EFFLUENT AS REQUIRED THROUGHOUT THE PROJECT AND COMPLY WITH ALL CONDITIONS OF RULE 62-621.300(2), F.A.C. IF THE GROUND WATER EXCEEDS THE SCREENING VALUES OF RULE 62-621.300(2), F.A.C., THE CONTRACTOR SHALL COMPLY WITH OTHER APPLICABLE RULES AND REGULATIONS PRIOR TO DISCHARGE OF THE EFFLUENT (GROUND WATER) TO SURFACE WATERS OF THE STATE.

|   | SIGNATURE | BUSINESS NAME AND ADDRESS<br>OF CONTRACTOR & ALL SUBS | RESPONSIBLE FOR/DUTIES |
|---|-----------|---|------------------------|
|   |           |   | GENERAL CONTRACTOR     |
|   |           |   | SUB-CONTRACTOR         |
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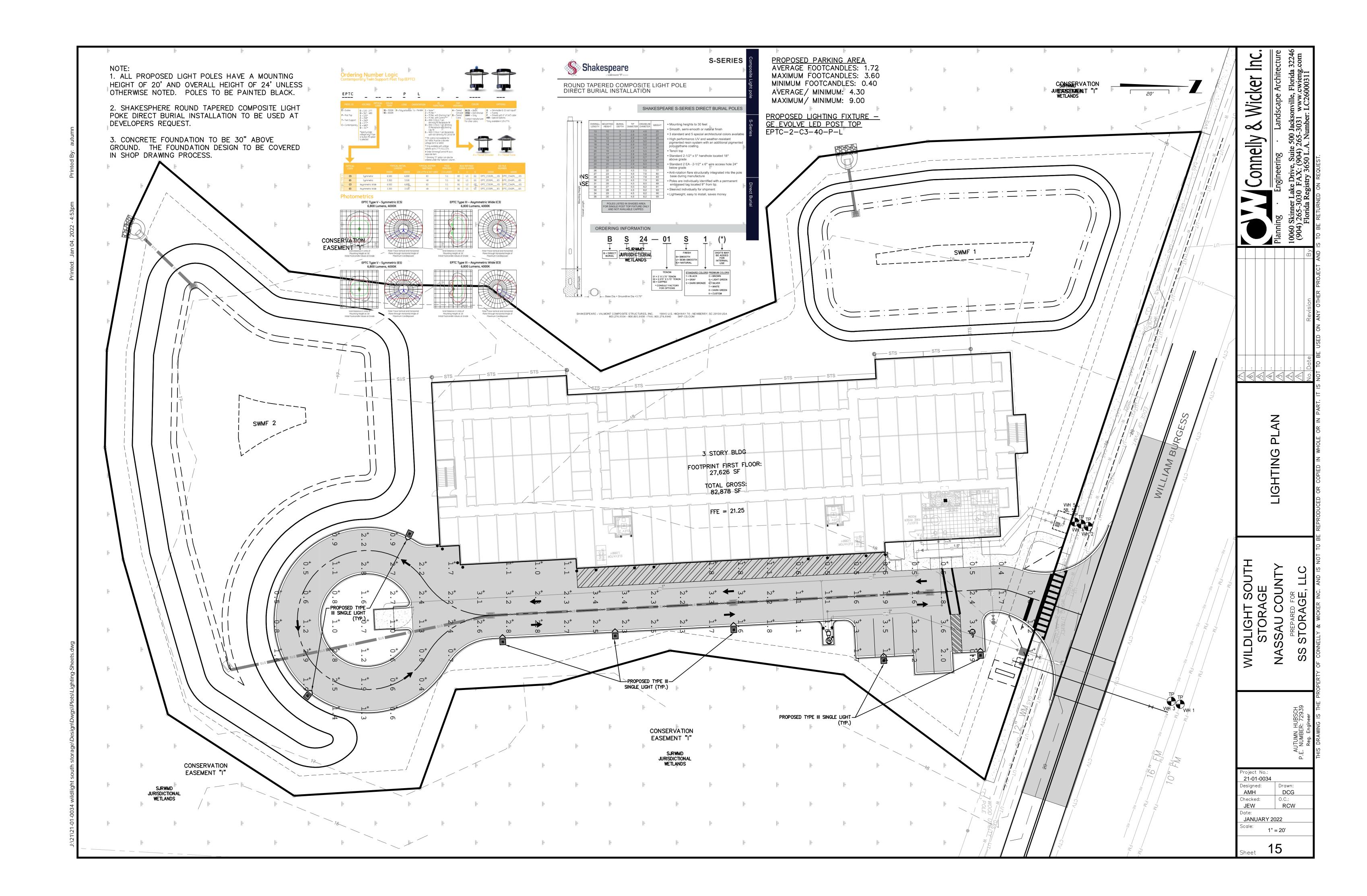
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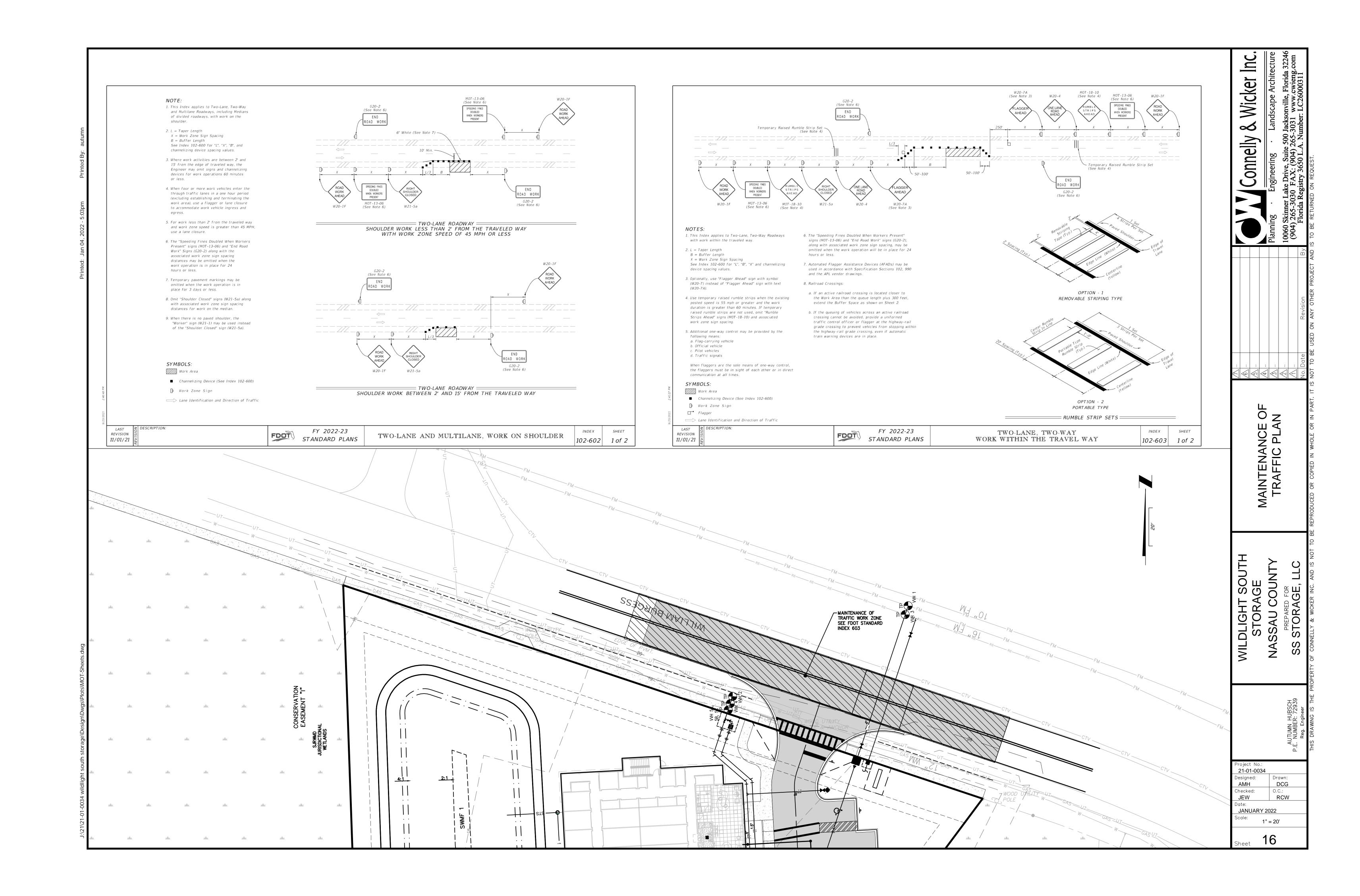
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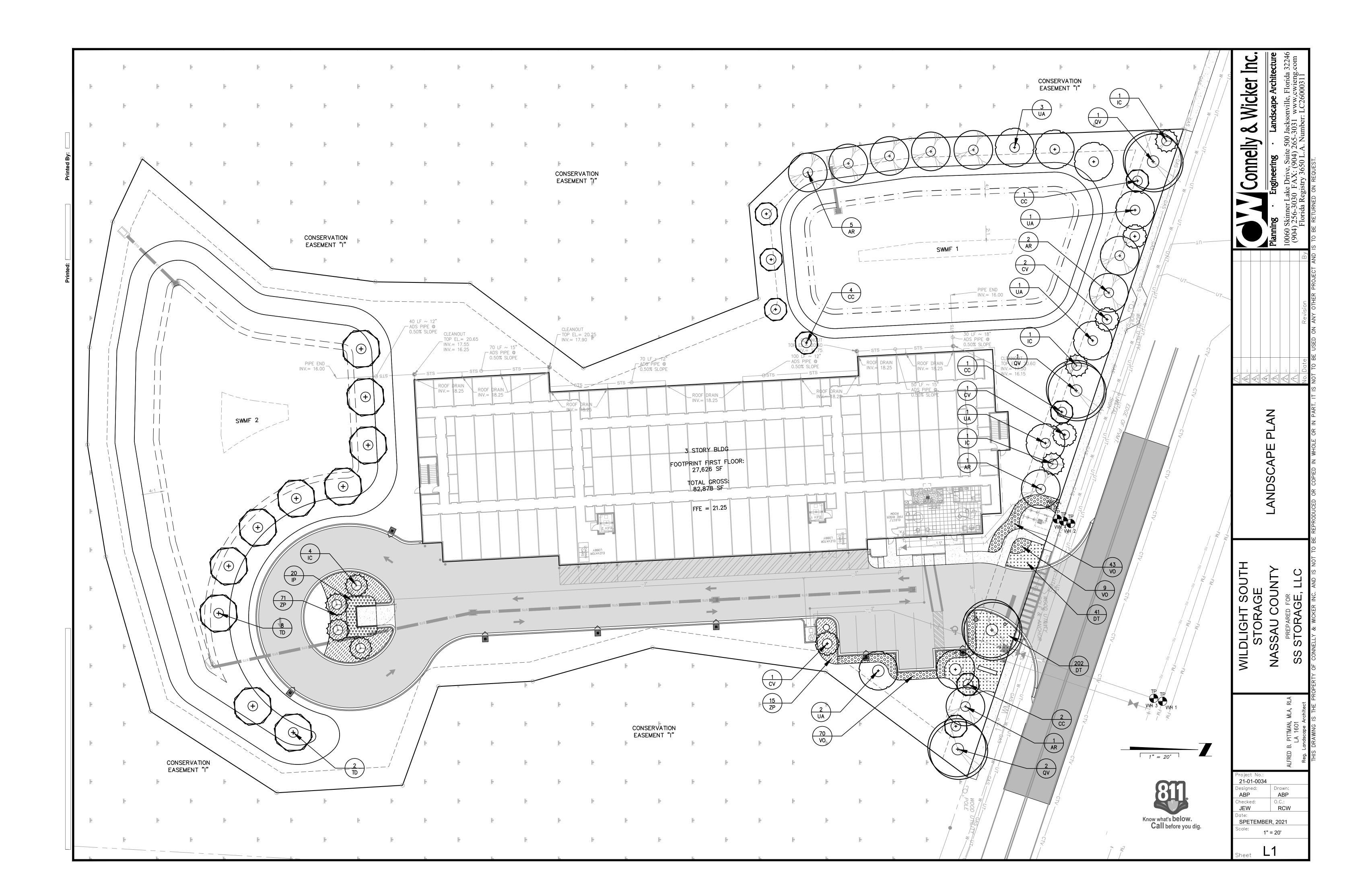
21-01-0034 DCG

AMH Checked: RCW JEW JANUARY 2022

Desianed:







# LANDSCAPE SPECIFICATIONS

#### GENERAL INSTALLATION INSTRUCTIONS

- 1. Contractor shall furnish all labor, materials, and insurance to complete the work as shown in the plan.
- 2. Contractor is responsible for acquiring all required permits and associated fees to
- 3. Contractor shall locate and visibly mark all buried utilities prior to construction and notify the landscape architect of any conflicts.
- 4. Contractor shall demolish and remove from the premises all pavement, sod and other materials required to implement the plan.
- 5. All work shall be completed in a timely manner and in accordance with standard industry practices.
- 6. Contractor shall coordinate a work plan with the owner or agent and the landscape architect prior to starting work and shall comply with all state and federal requirements for work safety.
- 7. Contractor shall coordinate an approved staging area with the owner prior to starting the work and shall maintain a clean and orderly site throughout the construction period and shall properly dispose of all trash and removed materials.
- Contractor shall proceed with approved work in an orderly and timely fashion.
- Contractor shall prevent offsite erosion, both by wind and rain, during construction using adequate means such as silt fencing, hay bales, and drain socks.
- 10. Contractor shall provide all new materials in first quality condition.
- 11. Substitutions shall be rejected unless approved by the landscape architect prior to installation.
- 12. Contractor shall repair and/or replace at contractor's cost and in an expedient manner any utilities, pipes, conduit, cables, fences, pavement, plant material, or any other existing property within or abutting the project site damaged by contractor during the course of the project.
- 13. Contractor shall notify the owner and landscape architect at least one week in advance for a substantial completion inspection. The landscape architect shall provide a punch list to the contractor outlining items to be completed by the contractor. Contractor shall complete punch list items in timely manner before calling for a final inspection by the owner and the landscape architect.
- 14. Final payment for the work shall not be issued until a final inspection is completed and approved by the landscape architect and/or the owner.
- 15. All work shall be warranted against defects and failure for at least 1 year following the final acceptance.
- 16. Contractor shall clean site of all construction debris, materials, and trash. Disturbed areas shall be fine-graded and landscaped according to the plans, or sodded with specified sod. Site must be clean and neat before a final acceptance and payment will be issued.

### TREE AND EXISTING VEGETATION PROTECTION

- 1. Contractor shall ensure protection of exiting trees and plants to be preserved within the project area and along the project boundaries prior to all clearing or construction activity using a tree barricade as specified in the plans, or if not specified in the plans, according to Florida Department of Transportation Index Number 544 **Landscape Installation** (http://www.fdot.gov). A silt fence may serve as a barricade where such measures are required and provide full protection of the critical protection zone as defined in Index 544.
- Provide 6" pine straw mulch to uniformly cover all bare, cleared, eroded, or disturbed areas within each tree protection area. Keep mulch 12" away from base of each tree. 3. Notify the landscape architect prior to any construction activity where protection
- cannot be provided or must be modified to due to conflicting construction activity.
- 4. Notify the landscape architect prior to site clearing and construction of any trees or otherwise valuable plants not noted on the plans that may warrant protection, especially large trees located on adjacent properties whose roots and canopy occupy space within the project area.
- 5. Tree barricade shall remain in place for the duration of the project until landscape installation commences whereupon the contractor may remove barricades as needed to prepare final grades and install landscaping according to the plans. Remaining tree barricades shall be removed at the completion of the project.

### PLANT INSTALLATION

- Install all plants according to Florida Department of Transportation Index Number **544** Landscape Installation (http://www.fdot.gov).
- Do not install groundcovers or shrubs on top of or into the rootball of new trees. Contractor shall verify project site conditinos and final quantities based on the plans
- prior to bidding and pricing. In the occurrence of a discrepancy between the plans and the plant list, the plans shall take precedence.
- 5. All plants shall be Florida No. 1 Grade or better according to the Florida Grades and

4. All plants shall conform to the specifications on the plant list or plant schedule.

- 6. All plants shall be nursery-grown containerized or b&b stock.

- All plants shall be in good health, vigorous, evenly branched, and thickly foliated when in leaf. All plants shall be free of disease, insects, including eggs and larvae, as well as have a healthy, developed root system. They should also be free of physical damage or adverse conditions that would prevent thriving growth.
- 8. Plant material, tree locations, and bed outlines shall be staked or flagged on site by the contractor and shall be adjusted as required to fit actual as-built conditions on site and approved by the owner or owner's representative prior to installation.
- 9. Unless otherwise specified, all existing plant material within the areas of new construction as shown on the plans shall be removed and properly disposed of off of the project site. Plant material outside of these areas shall remain and shall be replaced with like kind if killed or damaged via landscape installation activities (see general installation instructions and tree and existing vegetation protection).
- 10. Planting beds shall be shovel-cut to form a uniform, clean line between beds and
- 11. Remove all synthetic material surrounding the rootball, including strapping, and remove all material including burlap and wire basket from top third of root ball prior to backfilling. Failure to take these measures will result in rejection of the installed tree.
- 12. Shade trees shall be planted a minimum of 4 feet from any edge of pavement and 15 feet from overhead electric lines as measured from the at-grade centerline (refer to local provider to verify specific requirements).
- 13. All plant material shall be warranted for a period of one year from the date of Final Acceptance of the work and not the date on which it was installed.
- 14. Contractor shall provide all fine surface grading preparation for planting and shall maintain all finished grade requirements according to the plans, and ensure positive drainage. Report any drainage problems associated with finished grade or finished soil characteristics to the owner and the landscape architect.
- 15. Coordinate construction of planting areas with installation of irrigation system or hose bibs as specified.
- 16. Contractor shall provide mulch for all newly installed landscape areas. Provide a minimum 5' diameter mulch ring for all installed trees. Provide uniform coverage for all landscape beds at the specified depth maintain at least 6" clearance from all woody trunks and stems.
- 16.1. Mulch shall be pine straw.
- 16.2. Mulch shall be 6" uniform depth.
- 17. Install sod as specified in the plans, according to the Florida Department of Transportation Standard Specification Section 570 Performance Turf (http://www.fdot.gov) unless otherwise stated herein.
- 18. Contractor shall provide certified, healthy sod, free of weeds, disease, fungus, insects, or nematodes.
- 18.1. Sod shall be 18.1.4 below:
- Celebration bermuda (Cynodon dactylon 'Celebration')
- Argentine bahia (Paspalum notatum 'Argentine')
- Palmetto St. Augustine (Stenotaphurum secundatum 'Palmetto')
- 18.1.4. Empire zovsia (Zovsia japonica 'Empire')
- 19. Contractor shall provide plant maintenance during the construction period through Final Acceptance and the owner shall provide maintenance during the warranty period following Final Acceptance, unless otherwise specified in the contract documents.
- 20. Contractor shall maintain all staking and guying materials and correct tree leaning or tilting during the warranty period. Contractor shall ensure that tree trunks and branches are not damaged or growth restricted by strapping or guying materials. Contractor shall be responsible for removal of all above-ground staking and guying material at the end of the warranty period.

# <u>SOILS</u>

- Contractor shall minimize soil compaction to all new planting areas by limiting access to those areas designated for planting purposes only. Contractor shall not store, clean, or empty equipment or materials within any area specified for preservation or new plant installation.
- 2. Prior to plant installation, contractor shall conduct a soil test in at least three locations on the site that best represent the plant distribution and conditions shown on the planting plan. The soil test shall be conducted by an independent laboratory qualified to test soils. The test shall be conducted to determine:
- 2.1. Soil type
- 2.2. Soil pH
- 2.3. Nutrient content Recommended amendments
- 3. Contractor shall furnish a copy of the soil report(s) along with the contractor's recommended amendments to the landscape architect and the owner prior to initiating plant installation. Contractor shall not initiate plant installation without a written or verbal response from the landscape architect or owner indicating receipt of the report and agreement with the amendment approach.
- 4. At a minimum, contractor shall provide 5-8 percent organic pine bark compost uniformly throughout the planting soils prior to plant installation. Do not apply synthetic fertilizer to any planting area without the approval of the landscape architect or owner.

# NASSAU COUNTY CODE REQUIREMENTS

#### **DEVELOPMENT TYPE: Office**

PROTECTED TREE PRESERVATION/REPLACEMENT

MINIMUM LANDSCAPE Site Use: Non-residentia Site Area: (125,017 sf (2.87 AC) Required Green Space (10%): 12,502 sf Provided Green Space: 21,433 sf

Provided Trees: 50 PERIMETER LANDSCAPING ADJACENT TO PUBLIC R.O.W.

Required Trees (1/500 SF Landscape Area): 25

William Burgess Blvd. ROW: 325 If Road Classification: Major Collector Required Canopy Trees (3/100 lf): 10 Provided Canopy Trees: 11 Required Understory Trees (3/100 LF): 10 Provided Understory Trees: 10

Required Landscape Area (15 sf/lf): 4,875 sf Provided Landscape Area: 5,841 sf

**DUMPSTER SCREENING** Dumpster perimeter: 40 lf Required Trees (1/10 lf): 4 Provided Trees: 4 Required Shrubs (1/2 lf): 20

INTERIOR LANDSCAPING Provided

Provided Shrubs: 20

TREE GENUS/SPECIES DISTRIBUTION (50% max genus, 25% max species)

| Qty | Tree Genus  | Pct   |
|-----|-------------|-------|
| 09  | Acer        | 18%   |
| 80  | Cercis      | 16%   |
| 04  | Chionanthus | 08%   |
| 07  | llex        | 14%   |
| 04  | Quercus     | 08%   |
| 10  | Taxodium    | 20%   |
| 08  | Ulmus       | 16%   |
| 50  | Total       | 100%* |

| Qty | Tree Species | Pct         |
|-----|--------------|-------------|
| 09  | Acer         | 18%         |
| 80  | Cercis       | 16%         |
| 04  | Chionanthus  | 08%         |
| 07  | llex         | 14%         |
| 04  | Quercus      | 08%         |
| 10  | Taxodium     | 20%         |
| 80  | Ulmus        | <u> 16%</u> |
| 50  | Total        | 100%*       |

\*May not equal 100 due to rounding

**DEVELOPMENT BUFFERS** 

**UPLAND BUFFERS** 

ONE AND TWO UNIT FAMILY DWELLINGS

DEVELOPMENT BUFFERS PER TABLE 37-5

SEE SHEET L3 FOR TREE PLANTING DETAIL

NASSAU COUNTY LANDSCAPE NOTES 37.05 J The property owner is responsible for the maintenance of all landscape areas, including irrigation, mowing, trimming, fertilizing, & carrying out the activities to keep the plant material in a healthy and growing condition, maintain visual clearance, & allow passage of vehicles & pedestrians on public roads & non-exclusive easements.

37.05 B2 All trees planted will be staked or guyed for a period of at least 6 months. 37.05 G1 All plants will be fully irrigated.

LDC 37.03 C: Upland buffers shall be maintained in their natural vegetated condition. Native vegetation removed or destroyed within the upland buffer in violation of Nassau County Comprehensive Plan Policy 1.04A.02 shall be restored. These areas shall be replanted with comparable native vegetative species as were removed or destroyed. Noxious and non-native invasive plant materials can be removed. Dead vegetation can be removed. Limbing can occur within the buffers, provided that the limbs to be removed are less than three (3) inches in diameter."



# CODE-REQUIRED PLANT LIST

| QTY | ABV | BOTANICAL NAME                 | COMMON NAME          | SIZE                             | SPACING  | TYPE       | ORIGIN | DROUGHT<br>TOLLER. | COMP/<br>AREA |
|-----|-----|--------------------------------|----------------------|----------------------------------|----------|------------|--------|--------------------|---------------|
|     |     |                                |                      | TREES                            |          |            |        |                    |               |
| 9   | AR  | Acer rubrum                    | Red maple            | 4" cal / 14-16' ht               | As shown | Canopy     | Native | High               | 18 %          |
| 8   | CC  | Cercis canadensis              | Eastern redbud       | 3" cal / 8-10' ht                | As shown | Understory | Native | High               | 16 %          |
| 4   | CV  | Chionanthus virginicus         | Fringe tree          | 3" cal / 8-10' ht                | As shown | Understory | Native | High               | 08 %          |
| 7   | IC  | Ilex cassine                   | Dahoon holly         | 3" cal / 8-10' ht                | As shown | Understory | Native | High               | 14 %          |
| 4   | QV  | Quercus virginiana             | Live oak             | 4" cal / 14-16' ht               | As shown | Canopy     | Native | High               | 08%           |
| 10  | TD  | Taxodium distichum             | Bald cypress         | 4" cal / 13-15' ht               | As shown | Canopy     | Native | High               | 20%           |
| 8   | UA  | Ulmus alata                    | Winged elm           | 4" cal / 13-15' ht               | As shown | Canopy     | Native | High               | 16 %          |
| 50  |     |                                |                      |                                  |          |            | Totals |                    | 100 %*        |
|     |     |                                | SHF                  | RUBS AND GROUNDCOVERS            |          |            |        |                    |               |
| 243 | DT  | Daniella tasmanica 'Variegata' | Variegated flax lily | 1 gal / 10-12" ht                | 2' OC    |            | Native | High               |               |
| 20  | IP  | Illicium parviflora            | Yellow anise         | 7 gal / 24-30" ht                | 2' OC    |            | Native | High               |               |
| 122 | VO  | Viburnum obovatum              | Walter's viburnum    | 3 gal /18-24" ht / FTG           | 2.5' OC  |            | Native | High               |               |
| 86  | ZP  | Zamia pumila                   | Coontie palm         | 3 gal /18-24" ht / 6 fronds min. | 3.5' OC  |            | Native | High               |               |
|     |     |                                |                      | SOD                              |          |            |        |                    |               |
|     | SOD | Zoysia japonica 'Empire'       | Empire Zoysia        | Certified solid sod              | SF       | Exotic     | Exotic | Medium             |               |

<sup>\*</sup>May not equal 100 due to rounding

Wicker Jacks 3031 ಎ Connelly APE TIONS LAND SPECIFI LDLIGHT SOUTH STORAGE ASSAU COUNTY  $\preceq$ 21-01-0034 esigned: Drawn: ABP Checked: RCW JEW SPETEMBER, 2021 Custom

# IRRIGATION SPECIFICATIONS

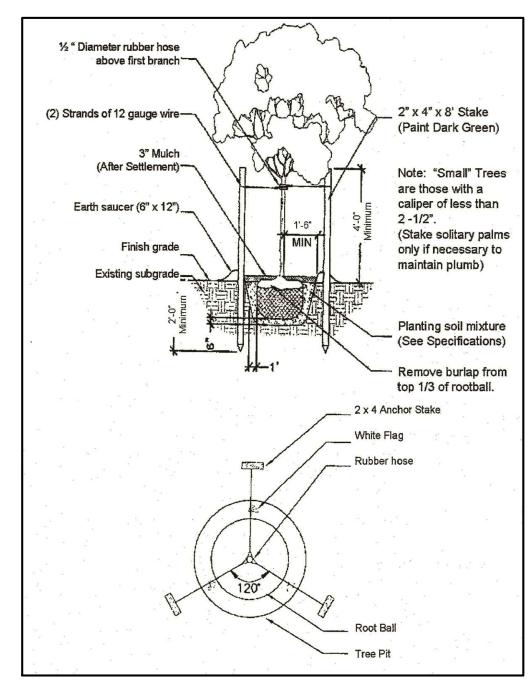
#### **IRRIGATION INSTALLATION**

- 1. Contractor shall provide a fully automated irrigation system to ensure 100% head-to-head coverage of all landscaped areas within the project area.
- 2. Irrigation source shall be 2.3 below.
- 2.1. Retention pond
- 2.2. Municipal potable source with irrigation meter
- 2.3. Municipal re-use source
- 2.4. New shallow/groundwater well
- 2.5. Existing shallow/groundwater well
- 2.6. New deep/artesian/aquafer well
- 2.7. Existing deep/artesian/aquafer well
- 3. Upon completion, contractor shall submit a scaled, clear and legible as-built plan of the installed irrigation system showing location of all components and sleeves to the owner (and municipal authority if required).
- 4. Contractor shall provide a reduced-pressure backflow preventer, mounted in a rectangular valve box on the serving side and adjacent to the meter, and shall provide freeze protection.
- 5. All pipe and wire under paving shall be placed in Schedule 40 PVC sleeves from the full pavement coverage length and shall be at least 24" below finished grade.
- 6. Main lines shall be installed at least 18" below finished grade and lateral lines shall be installed at least 12" below finished grade.
- 7. Contractor shall reroute piping to avoid existing plants and tree roots and hand-dig pipes under or through tree roots within the canopy area of existing trees that cannot be avoided. Mechanical trenching through tree roots within the canopy area of preserved trees shall not be permitted.
- 8. Contractor shall be responsible for all applicable permits and fees.
- 9. Contractor shall comply with all state and local codes and shall clarify any discrepancies on the plan prior to bidding.
- 10. Prior to final acceptance, contractor shall show owner or maintenance superintendent how to operate and maintain the system.
- 11. Contractor shall furnish all warranty, maintenance equipment, and operating instructions.

# ST. JOHNS RIVER WATER MANAGEMENT DISTRICT LAWN AND IRRIGATION RULE:

Irrigation of new landscape is allowed at any time of day on any day for the initial 30 days following installation, and every other day for the next 30 days, for a total of one 60-day period, provided the irrigation is limited to the minimum amount necessary for establishment.





NASSAU COUNTY TREE PLANTING DETAIL

|                | V. V. Connelly & Wicker Inc.   | A COUNTRY S VAICACI IIIC. |  | Planning · Engineering · Landscape Architecture | 10060 Skinner Lake Drive, Suite 500 Jacksonville, Florida 32246 | (904) 256-3030 FAX: (904) 265-3031 www,cwieng.com | Florida Registry 3650 L.A. Number: LC26000311 |  |
|----------------|--|---------------------------|--|---|---|---|---|--|
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|                |  | Z                         | <<br>(   | <u> </u>  |   |   |   | 1  |
|                |  | IRRIGATION                |  | OPECIFICATIONS AND                              | TREE PLANTING DETAIL  |   |   |  |
|                | WILDLIGHI SOUTH  | STORAGE IRRIGATION        |  | NASSAU COUNTY   SPECIFICATIONS A                | PREPAREN FOR TREE PLANTING DE                                   |   |   | יין עס ביין אין עבייעס עס מבטוועסטעעע בע באיר טי עוני טווי עבייטאוי י אייידיוויסס בס אבעריי  |
|                | WILDLIGHT SOUTH  |                           |  |   |   |   | rchitect                                      | TARREST TO STATE AND STATE OF THE PROPERTY OF  |
| Pr<br>De<br>Ch | oject<br>21-0<br>3<br>3<br>4<br>8<br>9<br>1<br>9<br>1<br>9<br>1<br>9<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | STORAGE                   | ::<br>::<br>::<br>::<br>::<br>::<br>::<br>::<br>::<br>::<br>::<br>::<br>:: | NASSAU COUNTY                                   | awn: ABP C:: W NWATIG a GEN CO.                                 | LA 1601   |   | THE GO IN THE SERVICE OF SERVICE AND SERVI |