WAWA @ WILDLIGHT

NASSAU COUNTY, FLORIDA

PREPARED FOR

WAWA FLORIDA, LLC

7022 TPC DRIVE SUITE 200
ORLANDO, FL 32822
561-564-7247

ETM
VISION ▪ EXPERIENCE ▪ RESULTS

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
CA - 00002584 LC - 0000316

DECEMBER 2022

LOCATION MAP
N.T.S.

DRAWING INDEX			
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JEA FLOW TEST

FLOW TEST DATE: 11/15/2022 @ 9:41 AM.

FLOW HYDRANT LOCATION
DAYDREAM AVE. 200' N OF S.R.200/A1A (538034)

STATIC RESIDUAL HYDRANT LOCATION
DAYDREAM AVE 270' S OF HOMEGROWN WAY (538035)

NUMBER OF PORTS:	2
DIAMETER OF PORTS (IN):	2.5
PITOT PRESSURE (PSI):	23
STATIC PRESSURE (PSI):	62
RESIDUAL PRESSURE (PSI):	42
FLOW AT TEST (GPM):	1619
FLOW AT 20 PSI (GPM):	2416

JEA DESIGN STANDARDS: 2023

JEA AVAILABILITY #: 2022-4147

SITE DATA

Building Type:	F85L F/B
Canopy Type:	Sloped
Canopy Configuration:	Stacked
# of MPD's:	8
Type of MPD's:	(4)3+1+1 & (4)3+1
# of Parking Places:	62
# of HCP:	4
# of Truck/Oversized Parking:	0
SF of Asphalt Inside of ROW:	44,399
SF of Lawn Area:	14,349
SF of Mulch Areas:	0

NOTE:
IF YOU DIG IN FLORIDA, YOU ARE REQUIRED TO CALL SUNSHINE STATE ONE-CALL OF FLORIDA, INC. 1-800-432-4770 FOR LOCATES. IT'S THE LAW.

VERTICAL DATUM USED FOR THIS PROJECT: NAVD88

PLANS PREPARED UNDER THE DIRECTION OF:
DALLAS SCHRIER
P.E. NUMBER: 94608

REVISIONS:
2023.03.14-REV. PER AGENCY COMMENTS
2023.04.28-REV. PER AGENCY COMMENTS

ETM NO. 19-086
DRAWN BY: RRS II
DESIGNED BY: DDS
CHECKED BY: DDS
DATE: NOVEMBER 2022

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COVER SHEET

WAWA @ WILDLIGHT FOR WAWA FLORIDA, LLC

DRAWING NUMBER
1

PLOTTED: May 1, 2023 - 2:00 PM, BY: Dallas Schrier

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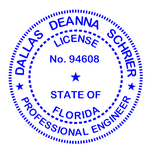

Digital Signature Dallas Deanna Schrier, P.E. 2023.05.01 15:29:07 -04'00'

THE FLORIDA PROFESSIONAL ENGINEER NAMED HEREIN SHALL BE RESPONSIBLE FOR THE DRAWINGS LISTED IN THIS BOX IN ACCORDANCE WITH RULE 61G15-23-003, F.A.C. THESE SHEETS HAVE BEEN SIGNED AND SEALED USING A DIGITAL SIGNATURE
BY: DALLAS SCHRIER P.E. NUMBER: 94608

ENGLAND-THIMS & MILLER, INC.
14775 OLD ST. AUGUSTINE ROAD
JACKSONVILLE, FLORIDA 32258
PHONE (904) 642-8990
CERTIFICATE OF AUTHORIZATION NUMBER: 00002584

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES

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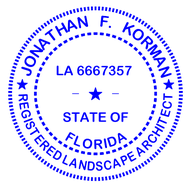

Digital Signature Jonathan Francis Korman, PLA 2023.05.01 15:26:36 -04'00'

THE FLORIDA REGISTERED LANDSCAPE ARCHITECT NAMED HEREIN SHALL BE RESPONSIBLE FOR THE DRAWINGS LISTED IN THIS BOX. THESE SHEETS HAVE BEEN SIGNED AND SEALED USING A DIGITAL SIGNATURE BY:
JONATHAN F. KORMAN, PLA L.A. NUMBER: 6667357

ENGLAND-THIMS & MILLER, INC.
14775 OLD ST. AUGUSTINE ROAD
JACKSONVILLE, FLORIDA 32258
PHONE (904) 642-8990
CERTIFICATE OF AUTHORIZATION NUMBER: 00002584

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SIGNATURE SHEET

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
1A

PLOTTED: May 1, 2023 – 2:00 PM, BY: Dallas Schrier

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GENERAL SITE NOTES:

1. 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 OF **THE CONTRACTOR'S** EMPLOYEES, AND FOR ANY DAMAGE TO PRIVATE PROPERTY OR PERSONS DURING THE COURSE OF THIS PROJECT. ALL COSTS ASSOCIATED WITH COMPLYING WITH OSHA REGULATIONS AND THE FLORIDA TRENCH SAFETY ACT MUST BE INCLUDED IN THE CONTRACTORS BID.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE JOB SITE PRIOR TO PREPARING THE BID **SO AS TO BE FAMILIAR** 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 THE CONSTRUCTION CONTRACT. THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA (811) FOR UTILITY LOCATES IN ACCORDANCE WITH STATE LAW PRIOR TO EXCAVATING. THE CONTRACTOR IS ALSO URGED TO TAKE COLOR PHOTOGRAPHS ALONG THE ROUTE OF OR WITHIN THE PROJECT TO RECORD EXISTING CONDITIONS PRIOR TO CONSTRUCTION, AND TO AID IN RESOLVING POSSIBLE FUTURE ISSUES THAT MAY OCCUR DUE TO THE CONSTRUCTION OF THE PROJECT.

3. THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING STRUCTURES, IMPROVEMENTS, UTILITIES, PROPERTY LINES, AND CONFIRM ALL PROPOSED DIMENSIONS AND ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION OR ORDERING ANY MATERIALS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A PERMANENT STAND OF SOD AND/OR GRASS PER **NASSAU COUNTY** STANDARDS AND MEETING THE NPDES FINAL STABILIZATION REQUIREMENTS.

5. 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 THAT WILL REQUIRE REMOVAL AND/OR TO ESTIMATE THE AMOUNT OF OFF SITE BORROW THAT WILL BE REQUIRED. FAILURE OF THE CONTRACTOR TO IDENTIFY/QUANTIFY THE AMOUNT OF UNSUITABLE MATERIAL TO BE REMOVED AND REPLACED DURING THE BID PROCESS WILL NOT RELIEVE THE CONTRACTOR OF COMPLETE PERFORMANCE UNDER THE CONSTRUCTION CONTRACT.

6. ALL MATERIALS AND WORKMANSHIP SHOWN ARE TO BE WARRANTED BY THE CONTRACTOR TO THE DEVELOPER AND **NASSAU COUNTY** FOR A PERIOD OF 12 MONTHS FROM DATE OF ACCEPTANCE BY THE OWNER AND **NASSAU COUNTY**.

7. THE LOCATION OF ALL EXISTING UTILITIES, STRUCTURES AND IMPROVEMENTS SHOWN ON THE DRAWINGS IS BASED ON LIMITED INFORMATION AND MAY NOT HAVE BEEN FIELD 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 WHICH **ARE SHOWN TO BE CONNECTED,** AND NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES.

8. UNLESS DIRECTED OTHERWISE BY THE OWNER OR THE ENGINEER, THE CONTRACTOR WILL CONTRACT WITH AN INDEPENDENT TESTING LABORATORY TO PERFORM MATERIAL TESTING AND SOIL TESTING IN ACCORDANCE WITH COUNTY REQUIREMENTS.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE REQUIRED FOR THE PROJECT INCLUDING **NASSAU** COUNTY RIGHT-OF-WAY PERMITS FOR WORK IN THE COUNTY RIGHT-OF-WAY OR EASEMENT. CONTRACTOR IS RESPONSIBLE FOR CONTROL OF SEDIMENTATION AND RUNOFF RESULTING FROM RAINFALL EVENTS DURING THE CONSTRUCTION OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH REGULATORY PERMITS ISSUED FOR THE PROJECT.

10. THE CONTRACTOR SHALL COORDINATE THE WORK WITHIN COUNTY OR STATE RIGHT-OF-WAY WITH THE APPROPRIATE AGENCIES FOR MAINTENANCE OF TRAFFIC AND METHOD OF CONSTRUCTION & REPAIR.

11. IF DEWATERING CAPACITY REQUIRES A CONSUMPTIVE USE PERMIT (C.U.P.) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE PERMIT THROUGH THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND THE ENGINEER FOR APPROVAL OF ALL DEWATERING OPERATIONS PRIOR TO COMMENCEMENT.

12. 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.

GENERAL SITE NOTES:

13. ALL AREAS SHOWN TO BE FILLED SHALL BE CLEARED AND GRUBBED IN ACCORDANCE WITH NASSAU COUNTY STANDARDS AND SHALL BE FILLED WITH CLEAN STRUCTURAL FILL COMPACTED AND TESTED IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL INVESTIGATION REPORT PREPARED BY **APEX COMPANIES, LLC, PROJECT #: 0730.2200172.0000 DATED: SEPTEMBER 16, 2022.**

14. CLEARING AND GRUBBING REQUIRED FOR ALL ROADWAY, UTILITIES, DITCHES, BERMS, RIGHTS-OF-WAYS AND EASEMENTS (INCLUDING ELECTRIC EASEMENTS) IS INCLUDED IN THIS PROJECT.

15. ALL ACCESS EASEMENTS ARE TO BE STABILIZED AND DRIVABLE.

16. ALL DEBRIS RESULTING FROM ALL ACTIVITIES SHALL BE DISPOSED OF OFF-SITE BY CONTRACTOR.

17. BURNING OF TREES, BRUSH AND OTHER MATERIAL SHALL BE APPROVED, PERMITTED AND COORDINATED WITH ST. JOHNS COUNTY FIRE MARSHALL AND ALL OTHER PERMITTING AUTHORITIES BY THE CONTRACTOR.

18. UNSUITABLE MATERIALS UNDER UTILITY OR STORM PIPE, STRUCTURES, PAVEMENT, BUILDING PADS, OR HARDSCAPE ELEMENTS SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL, PROPERLY COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.

19. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL SURVEY AND PROPERTY MONUMENTS. IF A MONUMENT IS DISTURBED, THE CONTRACTOR SHALL CONTRACT **AND PAY** THE SURVEYOR OF RECORD FOR REINSTALLATION OF THE MONUMENT.

20. ALL UNDERGROUND UTILITIES TO BE INSTALLED UNDER PAVEMENT MUST BE INSTALLED PRIOR TO PREPARATION OF SUBGRADE FOR PAVEMENT.

21. THE CONTRACTOR SHALL COORDINATE **CONSTRUCTION ACTIVITIES** WITH ALL OTHER CONTRACTORS. IN THE EVENT OF ANY CONFLICT WHATSOEVER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.

22. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL MATERIALS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PURCHASE OR CONSTRUCTION OF ANY UTILITY OR STORM PIPE OR STRUCTURE.

23. AUGER BORINGS PROVIDED BY **PROJECT GEOTECHNICAL ENGINEER (REFER TO GENERAL SITE NOTE 13).**

24. FLOOD ZONE BASED UPON FEMA INSURANCE RATE MAPS PANEL NO. **12089C0335F, DATED: 12-17-2010**

25. FOR SEDIMENT AND EROSION CONTROL PLANS, DETAILS AND NOTES REFER TO DRAWINGS **12 & 13.** THE CONTRACTOR IS TO COORDINATE WITH AUTHORITY FOR INSPECTIONS PRIOR TO CLEARING OPERATIONS.

26. TOPOGRAPHIC INFORMATION BASED ON **NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AS DETERMINED BY AERIAL TOPOGRAPHY CREATED BY AERIAL CARTOGRAPHERS OF AMERICA, INC. AND PROVIDED BY RAYONIER AND SUPPLEMENTED BY FARNER BARLEY & ASSOCIATES, INC**

27. BOUNDARY INFORMATION BASED ON SURVEY PROVIDED BY **FARNER BARLEY & ASSOCIATES, INC.**

28. ALL WORK AND MATERIALS SHALL BE IN COMPLETE ACCORDANCE WITH ALL RELATIVE SECTIONS OF **"COUNTY STANDARD SPECIFICATIONS FOR NASSAU COUNTY, FLORIDA", (LATEST VERSION) AND ALL CURRENT COUNTY STANDARD DETAILS. THE WORK SHALL BE PERFORMED AND TESTED IN ACCORDANCE WITH THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL INVESTIGATION REPORT PROVIDED BY PROJECT GEOTECHNICAL ENGINEER (SEE GENERAL NOTE 13 FOR INFORMATION), IF MORE STRINGENT THAN COUNTY REQUIREMENTS.**

29. ALL EXCESS SUITABLE AND UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR OWNER.

30. SUBMITTAL OF AS-BUILT SITE SURVEY, INCLUDING BENCHMARKS, IS REQUIRED IN COMPLIANCE WITH SECTION 6.04.00 OF THE ST. JOHNS COUNTY LAND DEVELOPMENT CODE AND SECTION 15, "AS-BUILTS" OF THE DEVELOPMENT REVIEW MANUAL PRIOR TO SCHEDULING A FINAL INSPECTION OF THE BUILDING BY THE BUILDING DEPARTMENT OR THE FIRE MARSHALL.

31. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE CIVIL ENGINEER TO DETERMINE IF THIS PROJECT IS WITHIN THE COUNTY'S JURISDICTION FOR INSPECTION. IF SO THEN, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE COUNTY FOR PRE-CONSTRUCTION MEETING AND INSPECTIONS.

32. FOR BOUNDARY, ROADWAY AND LOT GEOMETRY INFORMATION SEE PLAT.

33. PROJECT LOCATION: **NASSAU COUNTY, FLORIDA**

34. THESE PLANS WERE GENERATED UTILIZING AUTOCAD CIVIL 3D **2019.**

35. THESE PLANS ARE PREPARED IN GENERAL COMPLIANCE WITH THE **NASSAU COUNTY** LAND DEVELOPMENT CODE, **ADOPTED JANUARY 22, 2007.**

PAVING AND DRAINAGE NOTES:

1. ALL DRAINAGE STRUCTURES TO HAVE TRAFFIC BEARING GRATES.
2. ALL DRAINAGE PIPE JOINTS ARE TO BE FILTER FABRIC WRAPPED.
3. ALL INVERTS IN DRAINAGE STRUCTURES TO BE PRECAST OR BRICK WITH LAYER OF MORTAR BETWEEN EACH LAYER OF BRICK, OR REDDI-MIX CONCRETE WITH #57 STONE.
4. ALL PIPE LENGTHS ARE SCALED DIMENSIONS. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED TO CONFORM WITH COUNTY REQUIREMENTS AND SHALL BE CONSTRUCTED TO CONFORM WITH CURBING, PROPERTY LINES AND LOW POINTS AS SHOWN ON THE PLANS.
5. CONTRACTOR SHALL ENSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEAN AND FUNCTIONING PROPERLY AT TIME OF ACCEPTANCE.
6. "AS-BUILT" DRAWINGS – DRAINAGE AS-BUILTS PROVIDED TO NASSAU 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 NASSAU COUNTY STANDARDS AND SPECIFICATIONS AND SJRWMD REGULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROCESS THE AS-BUILT DRAWINGS FOR APPROVAL BY NASSAU COUNTY. IN ADDITION TO THE DRAINAGE SYSTEM THE "AS-BUILTS" SHALL SHOW THE ELEVATIONS AND LOCATION OF THE TOP OF BANK, WATER LEVEL, ANY POINTS OF CHANGE IN SLOPE, TOE OF SLOPE AND POND BOTTOM AT 100' MAXIMUM INTERVALS ALONG POND BANK FOR ALL POND CONSTRUCTION. ALL DIMENSIONS AND ELEVATIONS ON THE CONTROL STRUCTURE DETAILS SHALL BE SHOWN ON AS-BUILT DRAWINGS. ALL DEVIATIONS FROM PLANS SHALL BE CLEARLY INDICATED ON THE AS-BUILT DRAWINGS.
7. THE CONTRACTOR SHALL PROVIDE ACCESSIBLE CURB RAMPS AT ALL SIDEWALK AND CURB CONNECTIONS. RAMPS SHALL MEET ALL APPLICABLE ADA REQUIREMENTS.
8. FOR SPECIAL PAVING AND DRAINAGE DETAILS SEE DRAWING NO(S): **9A-9B** FOR ALL STANDARD DETAILS SEE NASSAU COUNTY STANDARD SPECIFICATIONS AND DETAILS, LATEST REVISION.
9. UNDERDRAIN SHOWN HEREON IS THE MINIMUM REQUIRED BASED ON GEOTECHNICAL REPORT, PREPARED BY **APEX COMPANIES, LLC DATED: SEPTEMBER 16, 2022**, FINAL DETERMINATION OF LIMITS OF UNDERDRAIN WILL BE MADE BASED ON TEST HOLE OBSERVATION AT TIME OF ROADWAY CONSTRUCTION.
10. ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING SILT FENCE, HAY BALES. AND FILTER FABRIC INSIDE DRAINAGE STRUCTURES SHALL BE REMOVED PRIOR TO FINAL INSPECTION, UNLESS OTHERWISE DIRECTED BY THE OWNER OR THE ENGINEER.
11. PAVEMENT MARKINGS SHOULD BE PLACED AS SHOWN ON THE PLANS AND DETAIL SHEETS.
12. ANY REQUIRED TEMPORARY MARKINGS MUST BE IN PLACE BEFORE OPENING LANES OF TRAFFIC. PAY ITEMS FOR TEMPORARY PAVEMENT MARKINGS ARE TO BE INCLUDED IN THE TABULATION OF QUANTITIES.
13. THE REMOVAL OF EXISTING PAVEMENT MARKINGS WILL BE CONSIDERED AN INCIDENTAL ITEM WITH NO ADDITIONAL COMPENSATION PROVIDED.
14. ALL PERMANENT PAVEMENT MARKINGS SHALL BE EXTRUDED THERMOPLASTIC AND MEET CURRENT NASSAU COUNTY SPECIFICATIONS AND/OR FDOT STANDARD SPECIFICATIONS, LATEST EDITION.
15. THERMOPLASTIC PAVEMENT MARKINGS ARE TO BE PLACED NO SOONER THAN 30 CALENDAR DAYS AFTER THE COMPLETION OF THE FINAL PAVEMENT LAYER.
16. A BITUMINOUS REFLECTIVE PAVEMENT MARKER (RPM) ADHESIVE MEETING CURRENT NASSAU COUNTY AND/OR FDOT SPECIFICATIONS SHALL BE USED ON ASPHALT ROADWAYS.
17. THE CONTRACTOR SHALL USE CLASS-B REFLECTIVE PAVEMENT MARKERS (RPM'S) INSTALLED TO MEET CURRENT NASSAU COUNTY SPECIFICATIONS AND/OR FDOT STANDARD SPECIFICATIONS.
18. REFLECTIVE PAVEMENT MARKERS THAT DO NOT CONFLICT WITH PERMANENT (THERMOPLASTIC) MARKINGS SHALL BE PLACED ON ALL FINAL ASPHALTIC CONCRETE SURFACES IMMEDIATELY AFTER THE TEMPORARY PERMANENT STRIPING IS IN PLACE.
19. PAVEMENT MARKINGS REMOVAL;
    - 19.a. PAINT BLACKOUT METHOD OF PAVEMENT MARKINGS REMOVAL IS NOT ACCEPTED.
    - 19.b. GRINDING OR HYDRO BLAST METHODS SHALL BE USED ON WEATHERED ASPHALT SURFACES.
    - 19.c. REMOVAL ON NEW ASPHALT SURFACES SHALL BE BY HYDRO BLAST METHOD ONLY.
20. 48 HOURS PRIOR TO INSTALLING ANY PAVEMENT MARKINGS ON ANY NASSAU COUNTY ROADWAY OR STREET, THE CONTRACTOR SHALL CONTACT THE NASSAU COUNTY CONSTRUCTION INSPECTOR AT ENGINEERING SERVICES AT PHONE NUMBER **(904) 530-6225**.
21. IN THE EVENT OF A CONFLICT BETWEEN THE SPECIFICATIONS OF NASSAU COUNTY AND THE SPECIFICATIONS OF THE FDOT, NASSAU COUNTY WILL PREVAIL.
22. STORMWATER PIPES SHALL BE VIDEOED/LASER PROFILED PER FDOT SECTION 430 PRIOR TO FINAL INSPECTION.

WATER, REUSE, & SEWER REQUIREMENTS

1. ALL WATER, REUSE WATER, SANITARY SEWER AND STORM SEWER CONSTRUCTION SHALL BE ACCOMPLISHED BY AN UNDERGROUND UTILITY CONTRACTOR, LICENSED UNDER THE PROVISIONS OF CHAPTER 489 FLORIDA STATUTES. THE CONTRACTOR SHALL FURNISH A COPY OF THE CURRENT LICENSE AND QUALIFIERS TO THE DESIGN ENGINEER PRIOR TO START OF CONSTRUCTION. ALL WATER, REUSE WATER AND SEWER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH JEA STANDARDS, DETAILS AND MATERIALS MANUAL (LATEST REVISIONS) UNLESS MORE STRINGENT STANDARDS ARE SPECIFIED.

2. FIRE PROTECTION MAINS (NON-JEA OWNED WATER SYSTEMS) SHALL BE C-900 PVC DR18 PIPE AND SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH NFPA REQUIREMENTS BY A FLORIDA LICENSED CONTRACTOR QUALIFIED TO INSTALL FIRE PROTECTION MAINS. LOCAL PERMITTING AND INSPECTION OF FIRE PROTECTION SYSTEM INSTALLATION, FLUSHING AND TESTING IS REQUIRED. CONTRACTOR IS RESPONSIBLE FOR LOCAL PERMIT, NOTICE, AND COMPLIANCE WITH PERMIT.

3. FINAL CONNECTION TO THE JEA SYSTEM MAY BE CONTINGENT UPON THE CONSTRUCTION, DEDICATION, AND FINAL ACCEPTANCE OF OFF-SITE SYSTEMS.

4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER (AND THE JEA IF REQUIRED) ON ALL STRUCTURES AND MATERIALS, FOR REVIEW AND APPROVAL PRIOR TO PURCHASE OR FABRICATION OF ANY UTILITY PIPE OR STRUCTURE.

5. UNSUITABLE MATERIALS UNDER UTILITY PIPES AND STRUCTURES SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL, PROPERLY COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.

6. MECHANICALLY RESTRAINED JOINTS ARE REQUIRED ON PRESSURE MAINS AT VALVES, FITTINGS AND DEAD ENDS IN ACCORDANCE WITH JEA STANDARDS.

7. CONTRACTOR SHALL FURNISH AND INSTALL LOCATE WIRING ON ALL PVC WATER MAINS, REUSE MAINS, FORCE MAINS, POLYETHYLENE AND PVC WATER SERVICES. INSTALLATION SHALL BE IN ACCORDANCE WITH JEA STANDARDS, DETAILS AND MATERIAL MANUAL, LATEST EDITION.

8. ALL POINTS OF CONNECTION FOR WATER, REUSE WATER AND SEWER MUST BE IN ACCORDANCE WITH THE AVAILABILITY RESPONSE FROM JEA.

9. F.D.E.P. PERMITS SUBMITTED THROUGH THE DEPARTMENT FOR PROCESSING SHALL BE IN CONFORMANCE WITH BOTH THE DESIGN PLANS AND THE WATER AND SEWER AVAILABILITY RESPONSE. ANY MINOR OR MAJOR DEVIATIONS BETWEEN THE PRELIMINARY DESIGN AND FINAL DESIGN SUBMITTAL SHALL REQUIRE REVISED F.D.E.P. PERMITS REFLECTING THESE CHANGES.

10. A JEA PRE-CONSTRUCTION CONFERENCE MUST BE HELD PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL CONTACT THE JEA NEW DEVELOPMENT PROJECT COORDINATOR: **CHRIS BARRINGTON OR JEA DESIGNEE AT (904) 665-4081** TO SCHEDULE THIS CONFERENCE.

11. A TAP APPLICATION FEE IS REQUIRED AND SHALL BE PAID @ **515 N. LAURA ST., 1ST FLOOR**. THIS MUST BE ACCOMPLISHED PRIOR TO CONNECTION TO THE JEA'S SYSTEM (WATER, SEWER, REUSE). IN ADDITION, CAPACITY FEES MUST BE PAID AT TIME OF OR PRIOR TO THE TAP FEE AND WILL BE BASED ON THE TOTAL NUMBER OF FIXTURE UNITS AND OR AVERAGE DAILY FLOWS.

12. THE CONTRACTOR SHALL MINIMIZE 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 AND UTILITY A MINIMUM OF 48 HOURS IN ADVANCE OF ANY INTERRUPTION OF SERVICE.

13. CONTRACTOR SHALL OBTAIN A COPY OF THE F.D.E.P. OR JEA WATER AND SEWER PERMITS FROM THE ENGINEER PRIOR TO START OF CONSTRUCTION AND MUST COMPLY WITH ALL CONDITIONS OF PERMIT(S).

14. ALL JEA ELECTRICAL CONDUIT WORK SHALL BE COMPLETED PRIOR TO THE PRESSURE TESTING OF WATER MAINS, REUSE MAINS AND SEWAGE FORCE MAINS. ALL PRESSURE TESTING AND PUMP TESTING SHALL BE WITNESSED BY JEA AND THE ENGINEER.

WATER AND REUSE MAINS

15. UNLESS OTHERWISE INDICATED, ALL WATER MAINS AND REUSE MAINS WILL BE PVC DR18, C-900/C-905 (AS APPROPRIATE) PIPE. ALL 2" MAINS SHALL BE HDPE CTS SDR 9.

16. WATER MAINS AND REUSE MAINS SHALL HAVE A MINIMUM OF 30" COVER UNDER UNPAVED AREAS AND 36" MINIMUM COVER FROM FINISHED GRADE UNDER PAVED AREAS UNLESS OTHERWISE SHOWN. ADDITIONAL COVER IS REQUIRED FOR VALVE INSTALLATION CLEARANCE FOR PIPE GREATER THAN 8 INCHES IN DIAMETER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT INSTALLED PIPING UNTIL FINAL ACCEPTANCE BY F.D.E.P AND JEA.

17. ALL WATER MAINS AND REUSE MAINS SHALL BE FLUSHED IN ACCORDANCE WITH, AND UNDER THE DIRECTION OF THE JEA.

18. HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATER MAINS AND REUSE MAINS AND HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATER MAINS AND REUSE MAINS TO OTHER UTILITIES SHALL BE IN ACCORDANCE WITH JEA AND F.D.E.P. REQUIREMENTS.

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 250 PSI WORKING PRESSURE AND 500 PSI TEST PRESSURE.

20. ALL NEW AND / OR RELOCATED WATER MAIN AND REUSE MAIN PIPE 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 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.

WATER, REUSE, & SEWER REQUIREMENTS

21. ALL FIRE HYDRANTS SHALL BE JEA STANDARD. FIRE HYDRANTS LOCATED WITHIN JEA RIGHT OF WAYS OR EASEMENTS SHALL BE PAINTED YELLOW. ALL PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED, OR IN ACCORDANCE WITH LOCAL REQUIREMENTS.

22. ALL FIRE HYDRANTS THAT ARE SUPPLIED BY A FIRE PUMP AND SUBJECT TO HIGH PRESSURE (IN EXCESS OF 60 P.S.I.) SHALL BE PAINTED GREEN WITH RED LETTERS "H.P." APPROXIMATELY 2" HIGH. THESE LETTERS SHALL BE STENCILED ON THE HYDRANT IN A CONSPICUOUS/ VISIBLE AREA.

23. ALL NEW FIRE HYDRANT INSTALLATIONS, PUBLIC AND PRIVATE, SHALL HAVE A BLUE F.D.O.T. TYPE REFLECTIVE PAVEMENT MARKER INSTALLED IN THE CENTER OF THE TRAFFIC LANE NEAREST THE NEW FIRE HYDRANT.

24. ALL WATER MAINS SHALL BE BACTERIOLOGICAL AND PRESSURE TESTED AT 150 PSI FOR 2 HOURS IN ACCORDANCE WITH AWWA STANDARDS AND JEA STANDARD REQUIREMENTS. NO CONNECTION TO THE 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. DISINFECTION SHALL BE IN ACCORDANCE WITH AWWA-C-651. REUSE MAINS REQUIRE PRESSURE TEST ONLY.

25. ALL BACKFLOW PREVENTERS SHALL BE IN ACCORDANCE WITH JEA CROSS CONNECTION CONTROL PROGRAM. BACKFLOW PREVENTERS MUST BE TESTED AFTER INSTALLATION BY A CERTIFIED TESTER AND ANNUALLY THEREAFTER. THE CONTRACTOR SHALL CONTACT JEA COORDINATOR OR JEA DESIGNEE. BACKFLOW PREVENTERS ON FIRE LINES OR COMBINATION FIRE/POTABLE MAINS SHALL BE HAVE FREEZE PROTECTION.

26. THE WATER TAPS DEPICTED ON THESE DESIGN PLANS SHALL BE CONSTRUCTED AS FOLLOWS: ALL POTABLE, REUSE, AND IRRIGATION WATER TAPS, FIRE LINE SERVICES AND FIRE HYDRANT INSTALLATIONS SHALL BE PERFORMED BY A LICENSED MASTER PLUMBER OR UNDERGROUND UTILITY CONTRACTOR UNDER THE FOLLOWING CONDITIONS:
    1.) THE TAPS ARE TO BE SCHEDULED 48 HOURS IN ADVANCE WITH JEA.
    2.) TAPS REQUIRING METER INSTALLATIONS OF SIZE 2" AND BELOW MUST INCLUDE THE SERVICE PIPE, METER BOX, AND CORP. STOP SIZED READY TO ACCEPT THE METER INSTALLATION BY JEA FORCES.
    3.) JEA FORCES WILL INSTALL THE METER UPON APPLICATION AND PAYMENT BY LICENSED MASTER PLUMBER OR UTILITY CONTRACTOR AT JEA WATER AND SEWER, 515 N. LAURA ST., 1ST FLOOR.
    4.) ALL TAPS REQUIRING METER INSTALLATIONS OF SIZE 3" AND ABOVE SHALL TERMINATE SIZED READY FOR VAULT, METER AND BYPASS INSTALLATION. VAULT FURNISHED BY CONTRACTOR. INSTALLATION BY JEA FORCES. SPECIAL ESTIMATE REQUIRED.

27. WATER METERS SHALL NOT BE LOCATED WITHIN PAVEMENT, CURB AND GUTTER OR DRIVEWAYS.

28. IF SOLVENT CONTAMINATION IS FOUND IN THE PIPE TRENCH, WORK SHALL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH APPROVAL OF THE PERMITTING AGENCY, DUCTILE IRON PIPE, FITTINGS AND SOLVENT RESISTANT GASKET MATERIAL SUCH AS FLUOROCARBON SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE PIPE SHALL EXTEND AT LEAST 100 FEET BEYOND ANY SOLVENT NOTED. ANY CONTAMINATED SOIL THAT IS EXCAVATED SHALL BE PLACED ON AN IMPERMEABLE MAT AND COVERED WITH A WATERPROOF COVERING. THE PROPER AUTHORITIES WILL BE NOTIFIED AND THE CONTAMINATED SOIL HELD FOR PROPER DISPOSAL.

SEWER

29. ALL SEWER MAINS, SERVICES, AND FITTINGS SHALL BE PVC (ASTM-3034) SDR 26 UNLESS OTHERWISE INDICATED. FORCE MAINS SHALL BE PVC DR 18 PIPE UNLESS OTHERWISE INDICATED. FORCE MAINS SHALL BE PRESSURE TESTED THE SAME AS WATER AND REUSE MAINS.

30. SANITARY SEWER SERVICES SHALL BE 6" PVC WITH A MINIMUM SLOPE OF 0.01 FEET PER FOOT AND SHALL BE TERMINATED AT THE RIGHT-OF-WAY LINE WITH A DEPTH OF 30" TO 60" UNLESS OTHERWISE DETAILED OR RESTRICTED DUE TO DEPTH OF SEWER MAIN. FORCE MAINS SHALL HAVE A MINIMUM COVER OF 30 INCHES IN UNPAVED AREAS AND 36 INCHES IN PAVED AREAS UNLESS OTHERWISE INDICATED. SEE FORCE MAIN PROFILE SHEET(S).

31. SEWER LINES AND FORCE MAINS ARE DESIGNED TO FINISHED GRADES AND SHALL BE PROTECTED UNTIL WORK IS COMPLETED AND ACCEPTED BY F.D.E.P AND JEA.

32. PRIOR TO THE PLACEMENT OF THE LIMEROCK BASE COURSE, THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER A SCHEDULE OF INVERT ELEVATIONS OF ALL SANITARY MANHOLES. THIS SCHEDULE SHALL BE PROVIDED BY THE REGISTERED LAND SURVEYOR SUBMITTING THE "AS-BUILT" DRAWINGS FOR THIS PROJECT.

33. THE CONTRACTOR SHALL INSTALL ANY ADDITIONAL AIR RELEASE VALVES AT CHANGES IN ELEVATION OF 2 FT. DUE TO ACTUAL FIELD CONDITIONS OR CONFLICTS NOT IDENTIFIED ON THESE DESIGN PLANS.

34. TELEVISION INSPECTION SHALL BE REQUIRED ON ALL GRAVITY SEWER MAINS. INSPECTION SHALL BE RECORDED ON VIDEO TAPE OR DVD. ALL LINES ARE TO BE CLEANED AND FLUSHED PRIOR TO INSPECTION. 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 AND ONE COPY OF THE VIDEO INSPECTION SHALL BE SUBMITTED TO THE JEA. 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/OR EXFILTRATION TESTING OF GRAVITY SEWERS MAY BE REQUIRED IF DEEMED NECESSARY BY THE ENGINEER. THE MAXIMUM ALLOWABLE INFILTRATION-EXFILTRATION RATE WILL BE 50 GALLONS PER INCH DIAMETER PER MILE PER DAY.

PAVING AND DRAINAGE LEGEND

WATER AND SEWER LEGEND

PLANS PREPARED UNDER THE DIRECTION OF:

DALLAS SCHRIER
P.E. NUMBER: 94608

REVISIONS:
2023.03.14–REV. PER AGENCY COMMENTS
2023.04.28–REV. PER AGENCY COMMENTS

ETM NO. 19–086
DRAWN BY: RRS II
DESIGNED BY: DDS
CHECKED BY: DDS
DATE: NOVEMBER 2022

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258

TEL: (904) 642-8990
FAX: (904) 646-9485

CA - 00002584 LC - 0000316

VISION ▪ EXPERIENCE ▪ RESULTS

GENERAL NOTES & LEGEND

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
2

PLOTTED: May 1, 2023 – 2:00 PM, BY: Dallas Schrier

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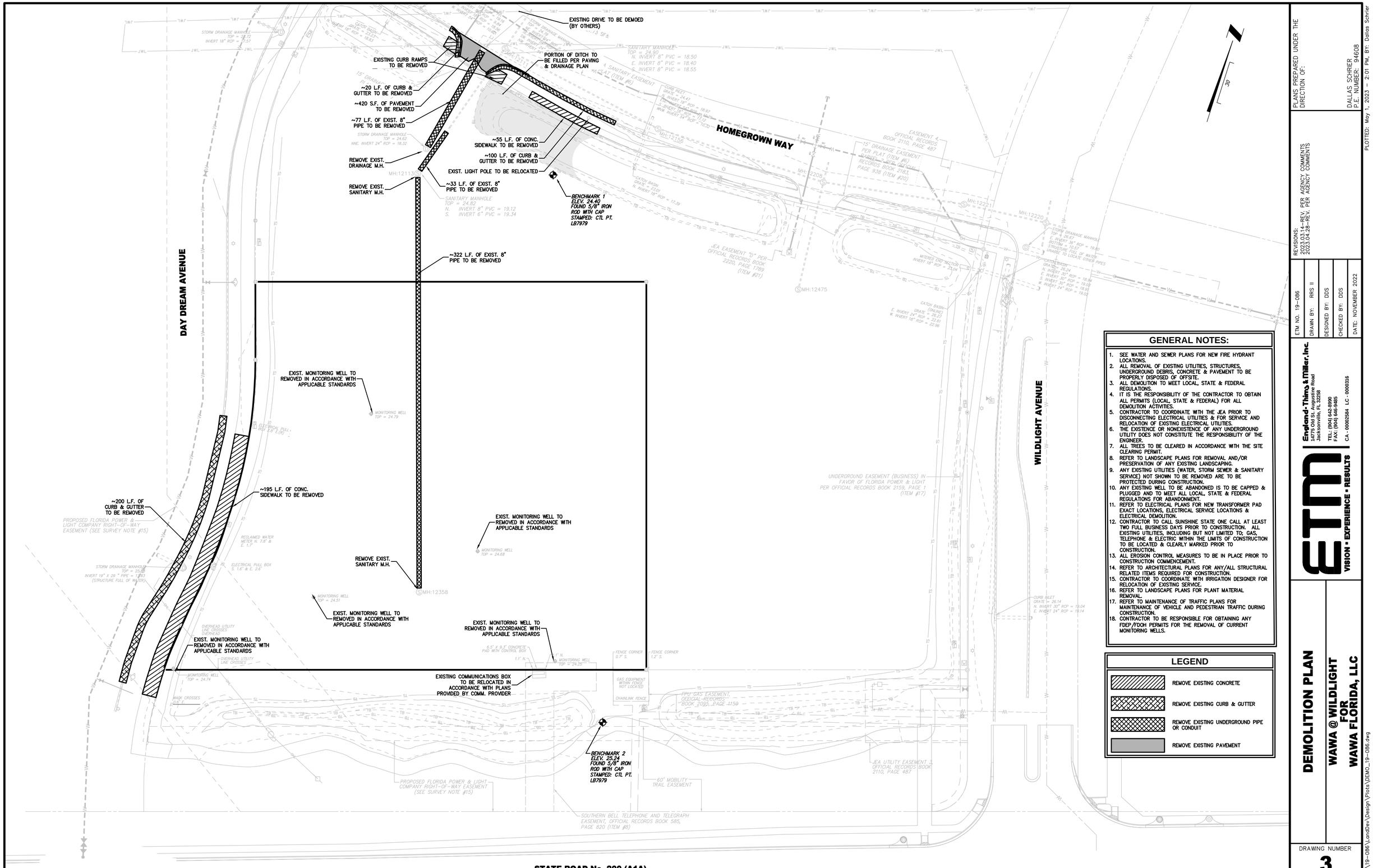

GENERAL NOTES:

1. SEE WATER AND SEWER PLANS FOR NEW FIRE HYDRANT LOCATIONS.
2. ALL REMOVAL OF EXISTING UTILITIES, STRUCTURES, UNDERGROUND DEBRIS, CONCRETE & PAVEMENT TO BE PROPERLY DISPOSED OF OFFSITE.
3. ALL DEMOLITION TO MEET LOCAL, STATE & FEDERAL REGULATIONS.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS (LOCAL, STATE & FEDERAL) FOR ALL DEMOLITION ACTIVITIES.
5. CONTRACTOR TO COORDINATE WITH THE JEA PRIOR TO DISCONNECTING ELECTRICAL UTILITIES & FOR SERVICE AND RELOCATION OF EXISTING ELECTRICAL UTILITIES.
6. THE EXISTENCE OR NONEXISTENCE OF ANY UNDERGROUND UTILITY DOES NOT CONSTITUTE THE RESPONSIBILITY OF THE ENGINEER.
7. ALL TREES TO BE CLEARED IN ACCORDANCE WITH THE SITE CLEARING PERMIT.
8. REFER TO LANDSCAPE PLANS FOR REMOVAL AND/OR PRESERVATION OF ANY EXISTING LANDSCAPING.
9. ANY EXISTING UTILITIES (WATER, STORM SEWER & SANITARY SERVICE) NOT SHOWN TO BE REMOVED ARE TO BE PROTECTED DURING CONSTRUCTION.
10. ANY EXISTING WELL TO BE ABANDONED IS TO BE CAPPED & PLUGGED AND TO MEET ALL LOCAL, STATE & FEDERAL REGULATIONS FOR ABANDONMENT.
11. REFER TO ELECTRICAL PLANS FOR NEW TRANSFORMER PAD EXACT LOCATIONS, ELECTRICAL SERVICE LOCATIONS & ELECTRICAL DEMOLITION.
12. CONTRACTOR TO CALL SUNSHINE STATE ONE CALL AT LEAST TWO FULL BUSINESS DAYS PRIOR TO CONSTRUCTION. ALL EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO; GAS, TELEPHONE & ELECTRIC WITHIN THE LIMITS OF CONSTRUCTION TO BE LOCATED & CLEARLY MARKED PRIOR TO CONSTRUCTION.
13. ALL EROSION CONTROL MEASURES TO BE IN PLACE PRIOR TO CONSTRUCTION COMMENCEMENT.
14. REFER TO ARCHITECTURAL PLANS FOR ANY/ALL STRUCTURAL RELATED ITEMS REQUIRED FOR CONSTRUCTION.
15. CONTRACTOR TO COORDINATE WITH IRRIGATION DESIGNER FOR RELOCATION OF EXISTING SERVICE.
16. REFER TO LANDSCAPE PLANS FOR PLANT MATERIAL REMOVAL.
17. REFER TO MAINTENANCE OF TRAFFIC PLANS FOR MAINTENANCE OF VEHICLE AND PEDESTRIAN TRAFFIC DURING CONSTRUCTION.
18. CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING ANY FDEP/FDOH PERMITS FOR THE REMOVAL OF CURRENT MONITORING WELLS.

LEGEND

- REMOVE EXISTING CONCRETE
- REMOVE EXISTING CURB & GUTTER
- REMOVE EXISTING UNDERGROUND PIPE OR CONDUIT
- REMOVE EXISTING PAVEMENT

PLANS PREPARED UNDER THE DIRECTION OF:

DALLAS SCHRIER
P.E. NUMBER: 94608

PLOTTED: May 1, 2023 – 2:01 PM, BY: Dallas Schrier

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DEMOLITION PLAN

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
3

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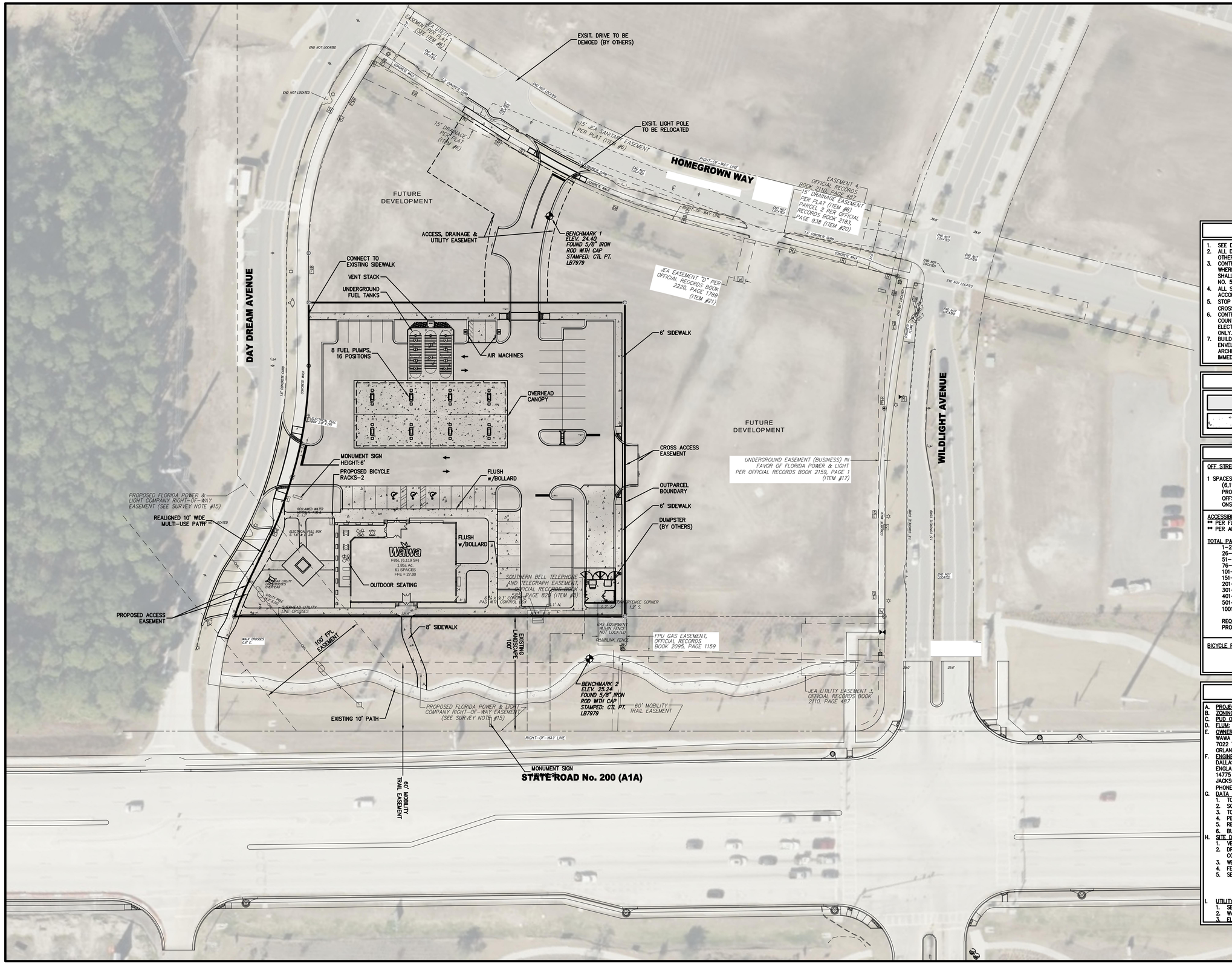

GENERAL NOTES:

1. SEE DRAWING NO. 2 FOR GENERAL NOTES AND LEGEND.
2. ALL DIMENSIONS ARE TO BE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL PROVIDE CURB RAMPS AT ALL PLACES WHERE SIDEWALK TERMINATES INTO PAVEMENT. CURB RAMPS SHALL COMPLY WITH LATEST ADA CODE PER FDOT INDEX NO. 522-002.
4. ALL STRIPING, PAVEMENT MARKINGS AND RPM'S SHALL BE IN ACCORDANCE WITH FDOT INDEX 711-001.
5. STOP BARS SHALL BE LOCATED 4' MINIMUM FROM CROSSWALKS AND/OR CURB RAMPS.
6. CONTRACTOR SHALL NOT SCALE PLAN, BUT SHALL REFER TO COUNTY APPROVED SITE PLAN FOR ALL LINE DIMENSIONS. ELECTRONIC FILES PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
7. BUILDING FOOTPRINT SHOWN REPRESENTS THE EXTERIOR ENVELOPE OF THE BUILDING AS RECEIVED FROM THE ARCHITECT. CONTRACTOR TO NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

LEGEND

- ASPHALT PAVEMENT
- CONCRETE PAVEMENT

PARKING REQUIREMENTS

OFF STREET PARKING REQUIREMENTS

1 SPACES PER 300 SF GROSS FLOOR AREA
(6,119/300) = 21 SPACES
PROVIDED = 59 SPACES (INCLUDES 2 HC SPACES)
OFFSITE = 8
ONSITE = 51

ACCESSIBLE PARKING REQUIREMENTS
** PER FLORIDA STATUTE 316.1955 & 316.1956
** PER ADAAG 208.2

TOTAL PARKING IN LOT	REQUIRED ACCESSIBLE SPACES
1-25	1
26-50	2
51-75	3
76-100	4
101-150	5
151-200	6
201-300	7
301-400	8
401-500	9
501-1000	2 PERCENT OF TOTAL (EACH LOT)
1001-OVER	20 PLUS 1 PER 100 OVER 1000

REQUIRED = 3 SPACES
PROVIDED = 3 SPACES

BICYCLE PARKING REQUIREMENTS

PARKING PROVIDED = 2 SPACES

DEVELOPMENT SUMMARY

A. PROJECT NAME: WAWA @ WILDLIGHT
B. ZONING DESIGNATION: PD-ENCPA
C. PUD ORDINANCE NUMBER:
D. FLUM: ENCPA
E. OWNER/DEVELOPER NAME, ADDRESS, PHONE NUMBER
WAWA FLORIDA, LLC
7022 TPC DRIVE SUITE 200
ORLANDO, FL 32822
F. ENGINEER NAME, ADDRESS, PHONE NUMBER
DALLAS SCHRIER P.E.
ENGLAND-THIMS & MILLER, INC.
14775 OLD ST. AUGUSTINE ROAD
JACKSONVILLE, FLORIDA 32258
PHONE: (904) 642-8990
G. DATA SUMMARY
1. TOTAL PROJECT AREA: 1.85 Ac.
2. SQUARE FOOTAGE OF BUILDING: 6,119 s.f.±
3. TOTAL IMPERVIOUS AREA: 1.48 Ac.±
4. PERVIOUS COVERAGE: 17%
5. REAL ESTATE NUMBER: 44-2N-27-1000-00TC-0000
6. BUILDING HEIGHT: 33'-4"
H. SITE DESCRIPTION
1. VEGETATION: GRASSED
2. DRAINAGE: SITE GRADED TOWARDS EXISTING SWALES THAT CONNECT TO MASTER STORMWATER INFRASTRUCTURE
3. WETLANDS: N/A
4. FEMA FLOOD ZONE: X
5. SETBACKS:
FRONT: 0'-15' MAX
SIDE: 0' MINIMUM
REAR: 5' MINIMUM
I. UTILITY SERVICES
1. SEWAGE TREATMENT JEA
2. WATER SUPPLY JEA
3. ELECTRICITY FPL

PLANS PREPARED UNDER THE DIRECTION OF:
DALLAS SCHRIER
P.E. NUMBER: 94608

REVISIONS:
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MASTER SITE PLAN

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
4

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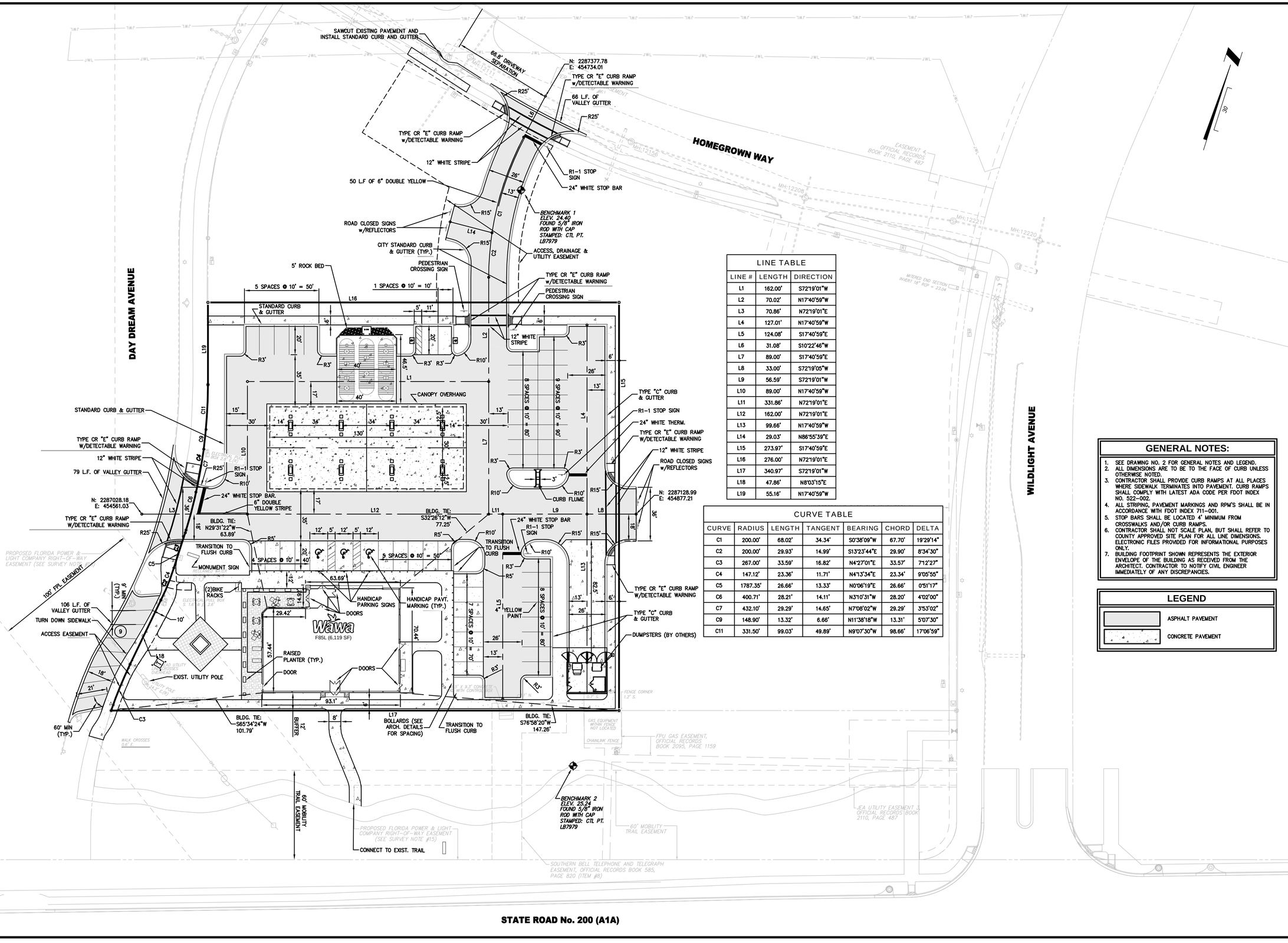

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	162.00'	S72°19'01"W
L2	70.02'	N17°40'59"W
L3	70.86'	N72°19'01"E
L4	127.01'	N17°40'59"W
L5	124.08'	S17°40'59"E
L6	31.08'	S10°22'46"W
L7	89.00'	S17°40'59"E
L8	33.00'	S72°19'05"W
L9	56.59'	S72°19'01"W
L10	89.00'	N17°40'59"W
L11	331.86'	N72°19'01"E
L12	162.00'	N72°19'01"E
L13	99.66'	N17°40'59"W
L14	29.03'	N86°55'39"E
L15	273.97'	S17°40'59"E
L16	276.00'	N72°19'01"E
L17	340.97'	S72°19'01"W
L18	47.86'	N8°03'15"E
L19	55.16'	N17°40'59"W

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	BEARING	CHORD	DELTA
C1	200.00'	68.02'	34.34'	S0°38'09"W	67.70'	19°29'14"
C2	200.00'	29.93'	14.99'	S13°23'44"E	29.90'	8°34'30"
C3	267.00'	33.59'	16.82'	N4°27'01"E	33.57'	7°12'27"
C4	147.12'	23.36'	11.71'	N4°13'34"E	23.34'	9°05'55"
C5	1787.35'	26.66'	13.33'	N0°06'19"E	26.66'	0°51'17"
C6	400.71'	28.21'	14.11'	N3°10'31"W	28.20'	4°02'00"
C7	432.10'	29.29'	14.65'	N7°08'02"W	29.29'	3°53'02"
C9	148.90'	13.32'	6.66'	N11°38'18"W	13.31'	5°07'30"
C11	331.50'	99.03'	49.89'	N9°07'30"W	98.66'	17°06'59"

GENERAL NOTES:

1. SEE DRAWING NO. 2 FOR GENERAL NOTES AND LEGEND.
2. ALL DIMENSIONS ARE TO BE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL PROVIDE CURB RAMPS AT ALL PLACES WHERE SIDEWALK TERMINATES INTO PAVEMENT. CURB RAMPS SHALL COMPLY WITH LATEST ADA CODE PER FDOT INDEX NO. 522-002.
4. ALL STRIPING, PAVEMENT MARKINGS AND RPM'S SHALL BE IN ACCORDANCE WITH FDOT INDEX 711-001.
5. STOP BARS SHALL BE LOCATED 4' MINIMUM FROM CROSSWALKS AND/OR CURB RAMPS.
6. CONTRACTOR SHALL NOT SCALE PLAN, BUT SHALL REFER TO COUNTY APPROVED SITE PLAN FOR ALL LINE DIMENSIONS. ELECTRONIC FILES PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
7. BUILDING FOOTPRINT SHOWN REPRESENTS THE EXTERIOR ENVELOPE OF THE BUILDING AS RECEIVED FROM THE ARCHITECT. CONTRACTOR TO NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

LEGEND

ASPHALT PAVEMENT

CONCRETE PAVEMENT

PLANS PREPARED UNDER THE DIRECTION OF:

DALLAS SCHRIER
P.E. NUMBER: 94608

PLOTTED: May 1, 2023 – 2:03 PM, BY: Dallas Schrier

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SITE GEOMETRY PLAN

WAWA @ WILDLIGHT FOR WAWA FLORIDA, LLC

DRAWING NUMBER
6

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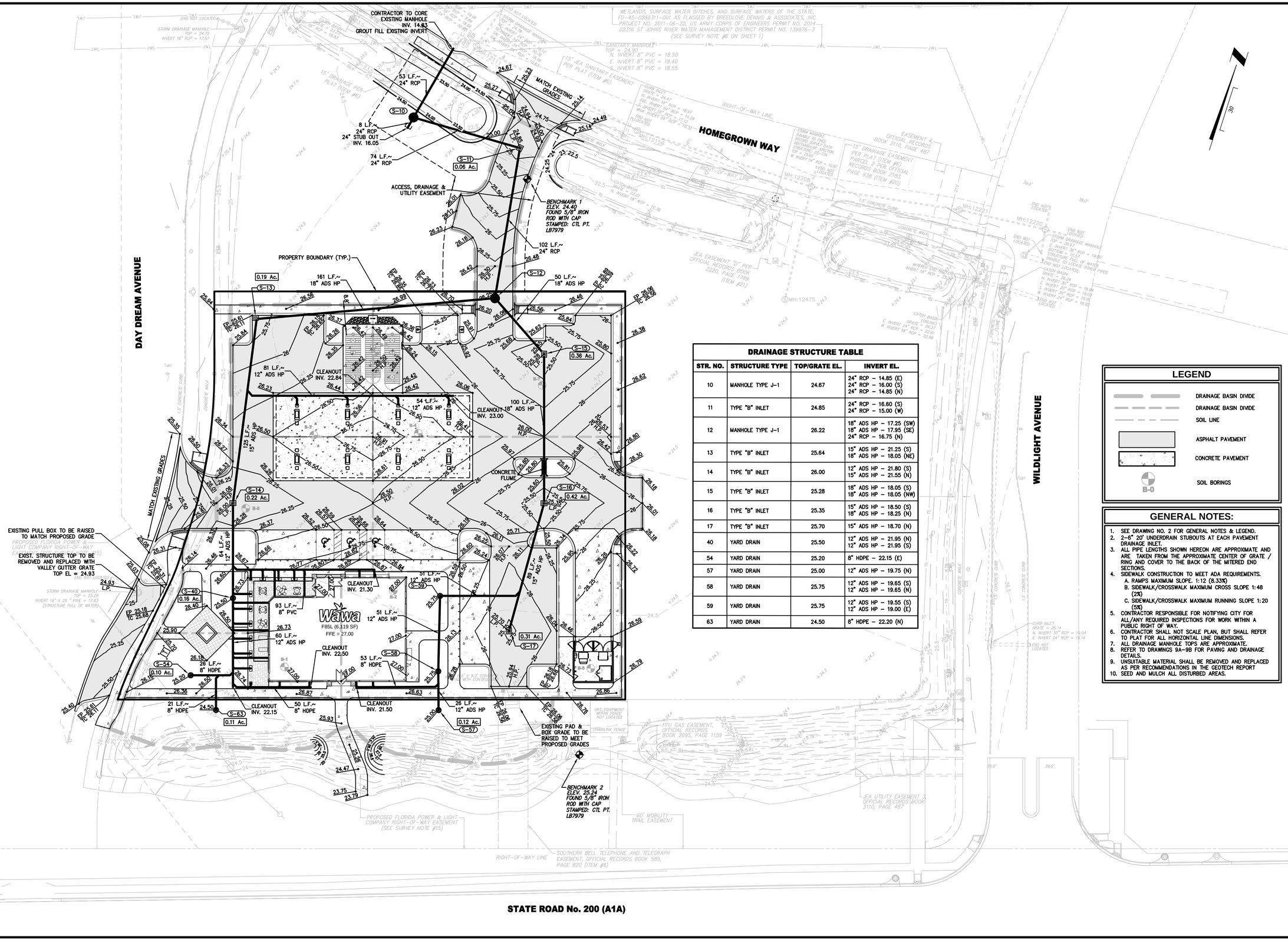

DRAINAGE STRUCTURE TABLE

STR. NO.	STRUCTURE TYPE	TOP/GRATE EL.	INVERT EL.
10	MANHOLE TYPE J-1	24.67	24" RCP – 14.85 (E) 24" RCP – 16.00 (S) 24" RCP – 14.85 (N)
11	TYPE "B" INLET	24.85	24" RCP – 16.60 (S) 24" RCP – 15.00 (W)
12	MANHOLE TYPE J-1	26.22	18" ADS HP – 17.25 (SW) 18" ADS HP – 17.95 (SE) 24" RCP – 16.75 (N)
13	TYPE "B" INLET	25.64	15" ADS HP – 21.25 (S) 18" ADS HP – 18.05 (NE)
14	TYPE "B" INLET	26.00	12" ADS HP – 21.80 (S) 15" ADS HP – 21.55 (N)
15	TYPE "B" INLET	25.28	18" ADS HP – 18.05 (S) 18" ADS HP – 18.05 (NW)
16	TYPE "B" INLET	25.35	15" ADS HP – 18.50 (S) 18" ADS HP – 18.25 (N)
17	TYPE "B" INLET	25.70	15" ADS HP – 18.70 (N)
40	YARD DRAIN	25.50	12" ADS HP – 21.95 (N) 12" ADS HP – 21.95 (S)
54	YARD DRAIN	25.20	8" HDPE – 22.15 (E)
57	YARD DRAIN	25.00	12" ADS HP – 19.75 (N)
58	YARD DRAIN	25.75	12" ADS HP – 19.65 (S) 12" ADS HP – 19.65 (N)
59	YARD DRAIN	25.75	12" ADS HP – 19.55 (S) 12" ADS HP – 19.00 (E)
63	YARD DRAIN	24.50	8" HDPE – 22.20 (N)

LEGEND

- DRAINAGE BASIN DIVIDE
- DRAINAGE BASIN DIVIDE
- SOIL LINE
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- B-0 SOIL BORINGS

GENERAL NOTES:

1. SEE DRAWING NO. 2 FOR GENERAL NOTES & LEGEND.
2. 2–6" 20' UNDERDRAIN STUBOUTS AT EACH PAVEMENT DRAINAGE INLET.
3. ALL PIPE LENGTHS SHOWN HEREON ARE APPROXIMATE AND ARE TAKEN FROM THE APPROXIMATE CENTER OF GRATE / RING AND COVER TO THE BACK OF THE MITERED END SECTIONS.
4. SIDEWALK CONSTRUCTION TO MEET ADA REQUIREMENTS.
   A. RAMPS MAXIMUM SLOPE: 1:12 (8.33%)
   B. SIDEWALK/CROSSWALK MAXIMUM CROSS SLOPE 1:48 (2%)
   C. SIDEWALK/CROSSWALK MAXIMUM RUNNING SLOPE 1:20 (5%)
5. CONTRACTOR RESPONSIBLE FOR NOTIFYING CITY FOR ALL/ANY REQUIRED INSPECTIONS FOR WORK WITHIN A PUBLIC RIGHT OF WAY.
6. CONTRACTOR SHALL NOT SCALE PLAN, BUT SHALL REFER TO PLAT FOR ALL HORIZONTAL LINE DIMENSIONS.
7. ALL DRAINAGE MANHOLE TOPS ARE APPROXIMATE.
8. REFER TO DRAWINGS 9A–9B FOR PAVING AND DRAINAGE DETAILS.
9. UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED AS PER RECOMMENDATIONS IN THE GEOTECH REPORT
10. SEED AND MULCH ALL DISTURBED AREAS.

PLANS PREPARED UNDER THE DIRECTION OF:

DALLAS SCHRIER
P.E. NUMBER: 94608

PLOTTED: May 1, 2023 – 2:04 PM, BY: Dallas Schrier

REVISIONS:
2023.03.14–REV. PER AGENCY COMMENTS
2023.04.28–REV. PER AGENCY COMMENTS

ETM NO. 19–086	DRAWN BY: RRS II	DESIGNED BY: DDS	CHECKED BY: DDS	DATE: NOVEMBER 2022

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
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ETM
VISION • EXPERIENCE • RESULTS

PAVING AND DRAINAGE PLAN

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
7

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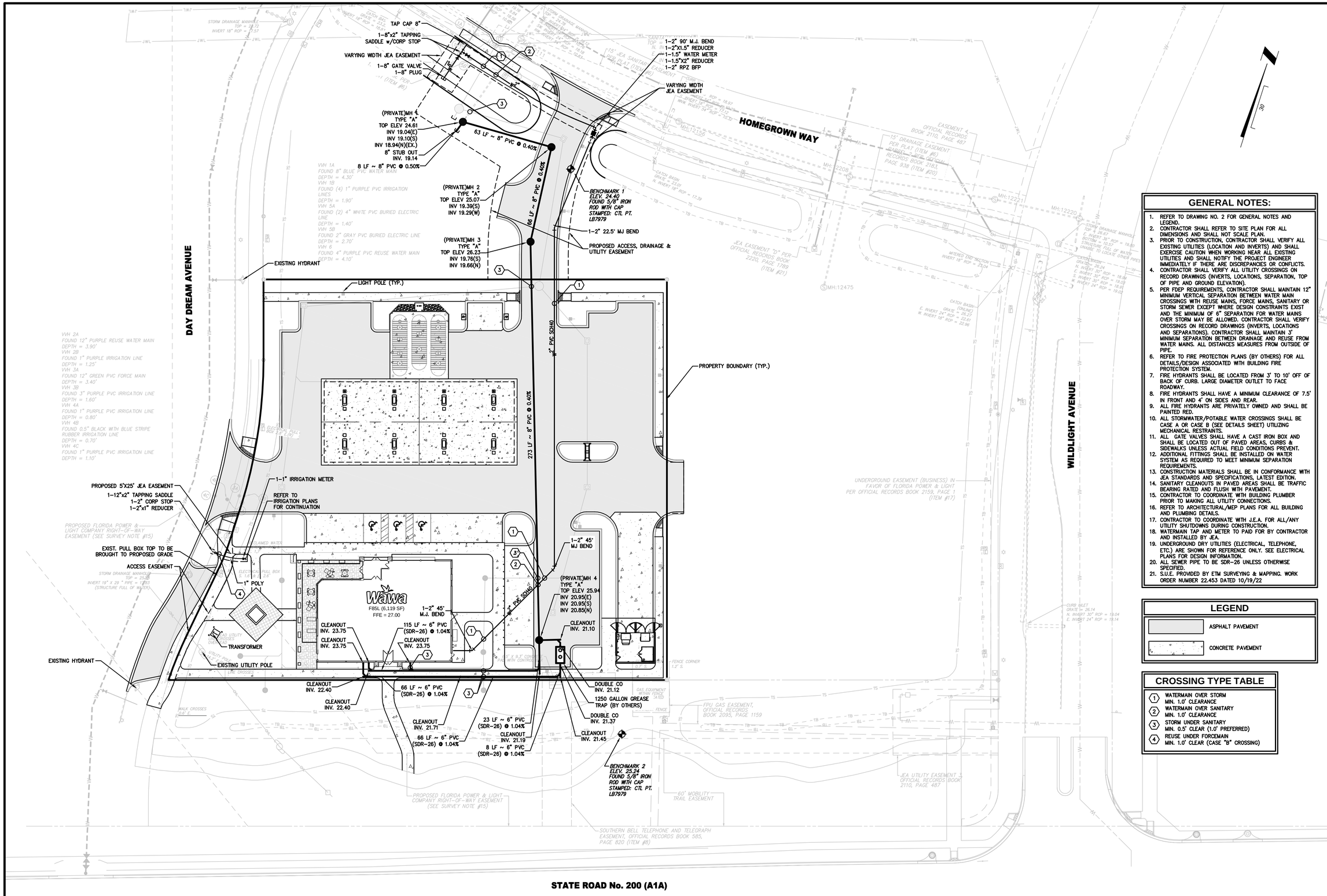

GENERAL NOTES:

1. REFER TO DRAWING NO. 2 FOR GENERAL NOTES AND LEGEND.
2. CONTRACTOR SHALL REFER TO SITE PLAN FOR ALL DIMENSIONS AND SHALL NOT SCALE PLAN.
3. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES (LOCATION AND INVERTS) AND SHALL EXERCISE CAUTION WHEN WORKING NEAR ALL EXISTING UTILITIES AND SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY IF THERE ARE DISCREPANCIES OR CONFLICTS.
4. CONTRACTOR SHALL VERIFY ALL UTILITY CROSSINGS ON RECORD DRAWINGS (INVERTS, LOCATIONS, SEPARATION, TOP OF PIPE AND GROUND ELEVATION).
5. PER FDEP REQUIREMENTS, CONTRACTOR SHALL MAINTAIN 12" MINIMUM VERTICAL SEPARATION BETWEEN WATER MAIN CROSSINGS WITH REUSE MAINS, FORCE MAINS, SANITARY OR STORM SEWER EXCEPT WHERE DESIGN CONSTRAINTS EXIST AND THE MINIMUM OF 6" SEPARATION FOR WATER MAINS OVER STORM MAY BE ALLOWED. CONTRACTOR SHALL VERIFY CROSSINGS ON RECORD DRAWINGS (INVERTS, LOCATIONS AND SEPARATIONS). CONTRACTOR SHALL MAINTAIN 3' MINIMUM SEPARATION BETWEEN DRAINAGE AND REUSE FROM WATER MAINS. ALL DISTANCES MEASURES FROM OUTSIDE OF PIPE.
6. REFER TO FIRE PROTECTION PLANS (BY OTHERS) FOR ALL DETAILS/DESIGN ASSOCIATED WITH BUILDING FIRE PROTECTION SYSTEM.
7. FIRE HYDRANTS SHALL BE LOCATED FROM 3' TO 10' OFF OF BACK OF CURB. LARGE DIAMETER OUTLET TO FACE ROADWAY.
8. FIRE HYDRANTS SHALL HAVE A MINIMUM CLEARANCE OF 7.5' IN FRONT AND 4' ON SIDES AND REAR.
9. ALL FIRE HYDRANTS ARE PRIVATELY OWNED AND SHALL BE PAINTED RED.
10. ALL STORMWATER/POTABLE WATER CROSSINGS SHALL BE CASE A OR CASE B (SEE DETAILS SHEET) UTILIZING MECHANICAL RESTRAINTS.
11. ALL GATE VALVES SHALL HAVE A CAST IRON BOX AND SHALL BE LOCATED OUT OF PAVED AREAS, CURBS & SIDEWALKS UNLESS ACTUAL FIELD CONDITIONS PREVENT.
12. ADDITIONAL FITTINGS SHALL BE INSTALLED ON WATER SYSTEM AS REQUIRED TO MEET MINIMUM SEPARATION REQUIREMENTS.
13. CONSTRUCTION MATERIALS SHALL BE IN CONFORMANCE WITH JEA STANDARDS AND SPECIFICATIONS, LATEST EDITION.
14. SANITARY CLEANOUTS IN PAVED AREAS SHALL BE TRAFFIC BEARING RATED AND FLUSH WITH PAVEMENT.
15. CONTRACTOR TO COORDINATE WITH BUILDING PLUMBER PRIOR TO MAKING ALL UTILITY CONNECTIONS.
16. REFER TO ARCHITECTURAL/MEP PLANS FOR ALL BUILDING AND PLUMBING DETAILS.
17. CONTRACTOR TO COORDINATE WITH J.E.A. FOR ALL/ANY UTILITY SHUTDOWNS DURING CONSTRUCTION.
18. WATERMAIN TAP AND METER TO PAID FOR BY CONTRACTOR AND INSTALLED BY JEA.
19. UNDERGROUND DRY UTILITIES (ELECTRICAL, TELEPHONE, ETC.) ARE SHOWN FOR REFERENCE ONLY. SEE ELECTRICAL PLANS FOR DESIGN INFORMATION.
20. ALL SEWER PIPE TO BE SDR-26 UNLESS OTHERWISE SPECIFIED.
21. S.U.E. PROVIDED BY ETM SURVEYING & MAPPING. WORK ORDER NUMBER 22.453 DATED 10/19/22

LEGEND

- ASPHALT PAVEMENT
- CONCRETE PAVEMENT

CROSSING TYPE TABLE

1	WATERMAIN OVER STORM MIN. 1.0' CLEARANCE
2	WATERMAIN OVER SANITARY MIN. 1.0' CLEARANCE
3	STORM UNDER SANITARY MIN. 0.5' CLEAR (1.0' PREFERRED)
4	REUSE UNDER FORCEMAIN MIN. 1.0' CLEAR (CASE "B" CROSSING)

PLANS PREPARED UNDER THE DIRECTION OF:
DALLAS SCHRIER
P.E. NUMBER: 94608
PLOTTED: May 1, 2023 – 2:05 PM, BY: Dallas Schrier

REVISIONS:
2023.03.14-REV. PER AGENCY COMMENTS
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ETM VISION • EXPERIENCE • RESULTS

WATER & SEWER PLAN

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
8

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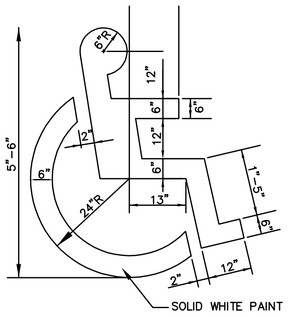
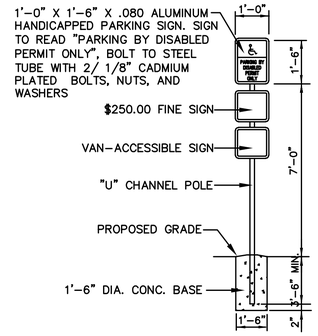


NOTE:
ALL PAINT AND STRIPING SHALL BE IN ACCORDANCE WITH FDOT STANDARDS AND SPECIFICATIONS

HANDICAP PAVEMENT MARKINGS

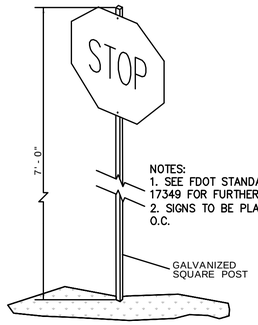
N.T.S.



NOTE:
HANDICAPPED PARKING SIGN SHALL CONFORM WITH CURRENT STATE AND LOCAL AND FEDERAL CODES AND REGULATIONS.

HANDICAP PARKING SIGN DETAIL

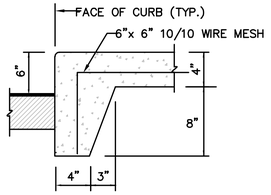
N.T.S.



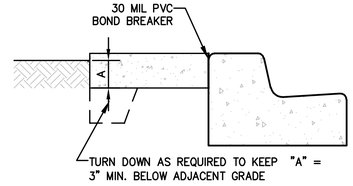
NOTES:
1. SEE FDOT STANDARD INDEX 17349 FOR FURTHER INFO.
2. SIGNS TO BE PLACED AT 8' O.C.

STREET SIGN

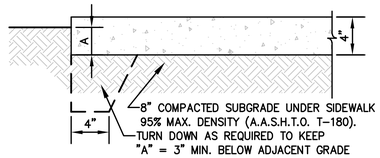
N.T.S.



AT ASPHALT PAVEMENT



AT CURB AND GUTTER

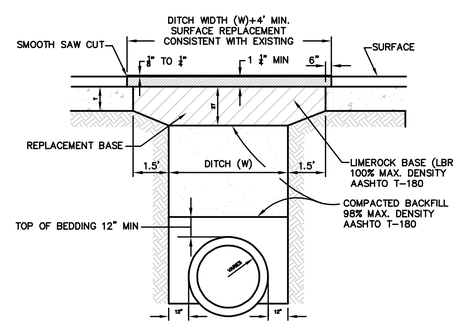


AT GRADE

NOTES:
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 CENTER.
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 MANUFACTURER'S RECOMMENDATIONS.
5. USE PREMOLDED ASPHALT-IMPREGNATED FIBERBOARD, 1/2" THICK CONFORMING TO ASTM D1751. CONTRACTION JOINT SHALL BE SAW CUT (1/4" WIDE BY 1" DEEP).
6. FINISHED SURFACE FOR CONCRETE SIDEWALK SHALL BE GRAY CONCRETE WITH LIGHT BROOM FINISH PERPENDICULAR TO LINE OF TRAFFIC (UNLESS OTHERWISE INDICATED ON PLANS).
7. PROVIDE CRACK CONTROL JOINTS @ (SAME AS WIDTH) O.C.
8. PROVIDE 16" STRIP SOD ADJACENT TO ALL EDGES OF SIDEWALK, CURB AND PAVEMENT AREAS.
9. CONCRETE COMPRESSION STRENGTH 3000 P.S.I. @ 28 DAYS UNLESS OTHERWISE APPROVED BY ENGINEER OF RECORD.
10. SIDEWALK TO BE CONSTRUCTED WITH SLOPES COMPLYING TO WITH LATEST ADA CODE AND FDOT INDEX 522-001. SIDEWALK MAX. VERTICAL SLOPE OF 5.0% AND MAX CROSS SLOPE OF 2.0%.

CONCRETE WALK

N.T.S.

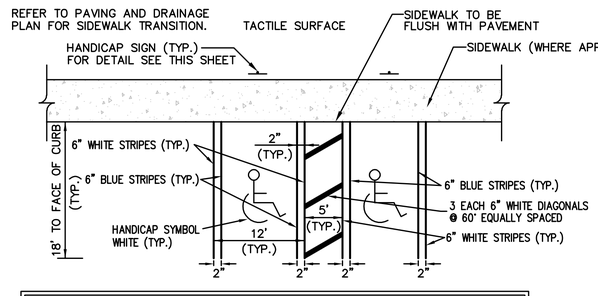


CITY STD CASE 10, P47
PERMANENT REPAIR

NOTE: IN SOME CASES PORTLAND CEMENT CONCRETE MAY BE CONSIDERED OR REQUIRED BY CITY ENGINEER FOR SURFACE REPLACEMENT.

PAVEMENT REPAIR

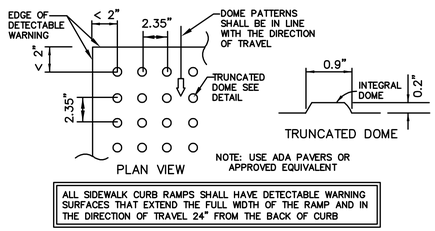
N.T.S.



NOTE:
1. HANDICAP RAMPS, SPACES AND SIGNAGE SHALL MEET AMERICAN NATIONAL STANDARD A117.1 AND ALL APPLICABLE CITY AND STATE REQUIREMENTS.
2. THE CONTRACTOR SHALL INSTALL DETECTABLE WARNING SURFACES IN ACCORDANCE WITH A.D.A. REQUIREMENTS. REFER TO FDOT STANDARD INDEX 304 FOR FURTHER INFORMATION.

UNIVERSAL HANDICAP PARKING DETAIL

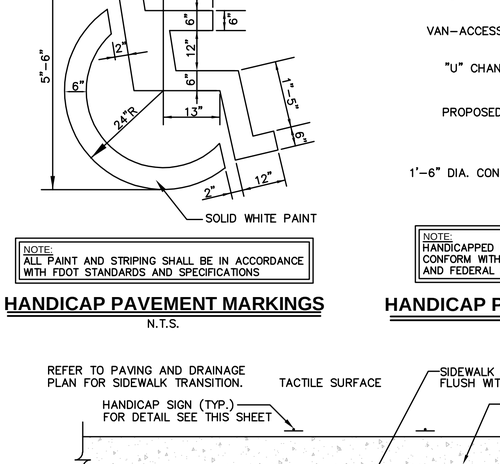
N.T.S.



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

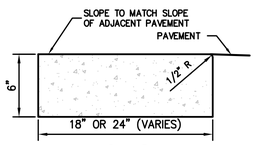
N.T.S.



NOTES:
1. HANDICAP RAMPS, SPACES AND SIGNAGE SHALL MEET AMERICAN NATIONAL STANDARD A117.1 AND ALL APPLICABLE CITY AND STATE REQUIREMENTS.
2. THE CONTRACTOR SHALL INSTALL DETECTABLE WARNING SURFACES IN ACCORDANCE WITH A.D.A. REQUIREMENTS. REFER TO FDOT STANDARD INDEX 304 FOR FURTHER INFORMATION.

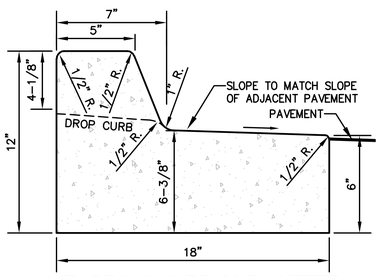
STANDARD HANDICAP RAMP DETAILS

N.T.S.



RIBBON CURB

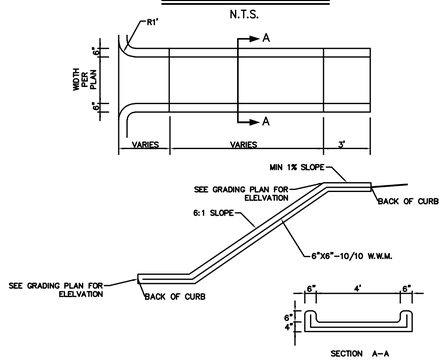
N.T.S.



TYPE "C" CURB AND GUTTER TO BE USED AT ALL MEDIANS

N.T.S.

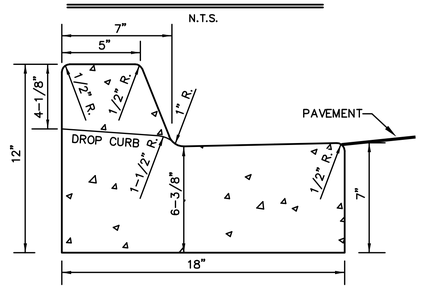
CURB AND CURB & GUTTER NOTES:
1. MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE LATEST FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. CONCRETE SHALL BE CLASS 1 CONCRETE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI UNLESS OTHERWISE APPROVED BY THE ENGINEER OF RECORD.
3. WHEN USED ON THE HIGH SIDE OF ROADWAY SECTIONS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. WHERE THIS CONDITION IS ENCOUNTERED, THE FRONT FACE VERTICAL DIMENSION SHALL REMAIN AS SHOWN FOR NORMAL SECTIONS SHOWN HEREON.



1. CONCRETE SPILLWAY TO BE 28 DAY, 2500 P.S.I., 4" THICK.
2. PLACE SOD AT LEAST 5' AROUND ALL STRUCTURE EDGES ABOVE STANDING WATER.
3. ALL EXPOSED CORNERS TO BE ROUNDED @ 3/4" MINIMUM RADIUS.

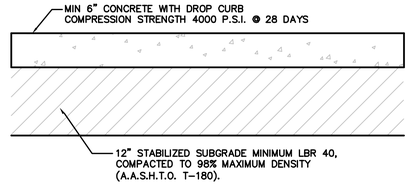
CONCRETE FLUME DETAIL

N.T.S.



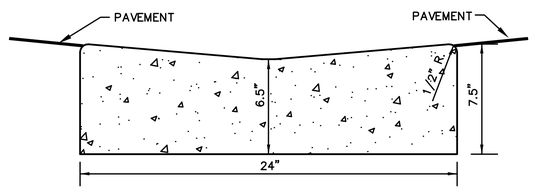
STANDARD CURB AND GUTTER

N.T.S.



CONCRETE PAVEMENT SECTION

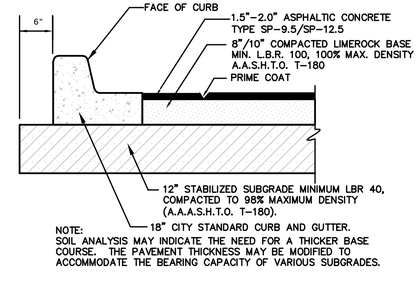
N.T.S.



CURB AND CURB & GUTTER NOTES:
1. MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE LATEST FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. CONCRETE SHALL BE CLASS 1 CONCRETE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI UNLESS OTHERWISE APPROVED BY THE ENGINEER OF RECORD.
3. 1/4" CRACK CONTROL JOINTS TO BE CUT AT 10' O.C.
4. 1/2" EXPANSION JOINTS TO BE AT 50' O.C. (MAX.)

CONCRETE VALLEY GUTTER

N.T.S.



NOTE:
SOIL ANALYSIS MAY INDICATE THE NEED FOR A THICKER BASE COURSE. THE PAVEMENT THICKNESS MAY BE MODIFIED TO ACCOMMODATE THE BEARING CAPACITY OF VARIOUS SUBGRADES.

TYPICAL PAVEMENT SECTION

N.T.S.

PLANS PREPARED UNDER THE DIRECTION OF:
DALLAS SCHRIER
P.E. NUMBER: 94608

PLOTTED: May 1, 2023 – 2:06 PM, BY: Dallas Schrier

REVISIONS:
2023.03.14-REV. PER AGENCY COMMENTS
2023.04.28-REV. PER AGENCY COMMENTS

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ETM
VISION - EXPERIENCE - RESULTS

PAVING AND DRAINAGE DETAILS

WAWA @ WILDLIGHT
FOR WAWA FLORIDA, LLC
FLORIDA

DRAWING NUMBER
9A

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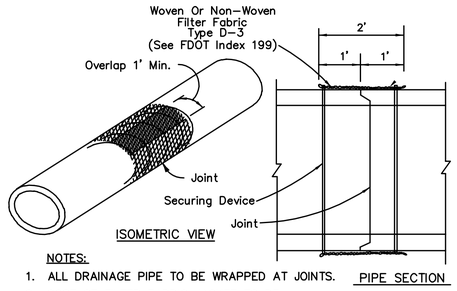
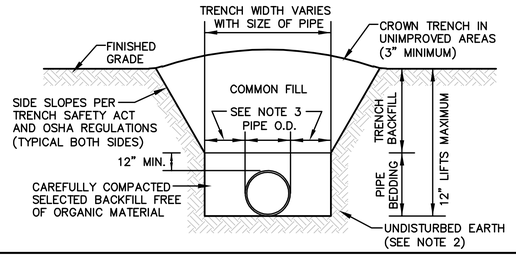


NOTES:
1. ALL DRAINAGE PIPE TO BE WRAPPED AT JOINTS.
2. COST OF FILTER FABRIC JACKET TO BE INCLUDED IN COST OF PIPE CULVERTS.

FILTER FABRIC JACKET

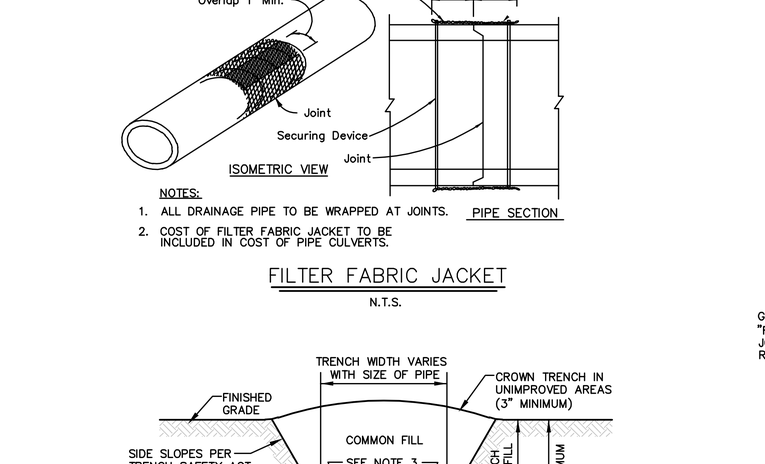
N.T.S.



NOTES:
1. TRENCH AND PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% MAX. DENSITY (AASHTO T-180).
2. USE TYPE B BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE COUNTY.
3. 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
4. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
5. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
6. REFER TO MANUAL FOR SHEETING AND BRACING IN EXCAVATIONS.
7. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES SURFACE RESTORATION WITHIN COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS

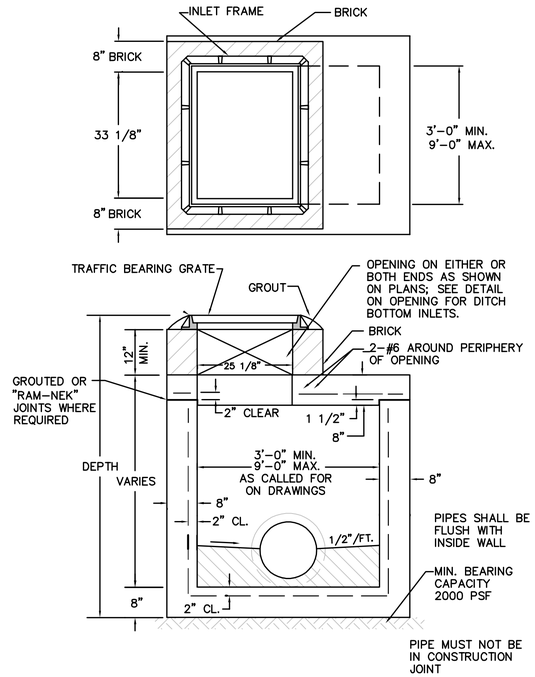
TYPE B BEDDING AND TRENCH DETAIL

N.T.S.



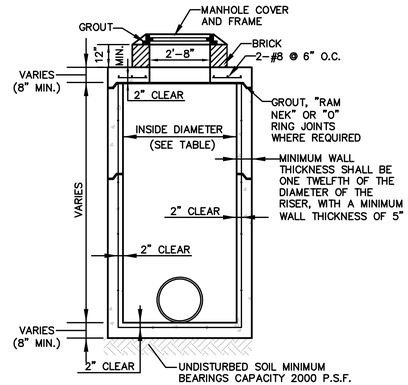
VALLEY GUTTER INLET FOUNDING DETAIL

N.T.S.



STORM SEWER TYPE "B" INLET

N.T.S.

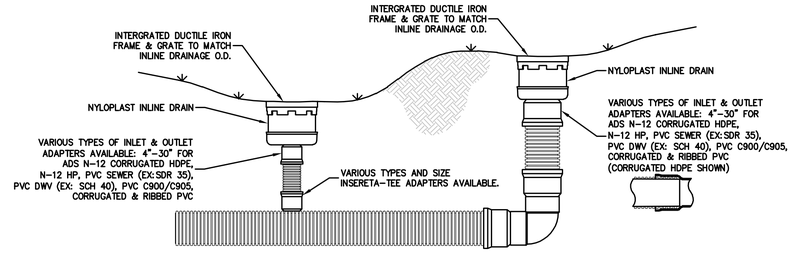


INSIDE DIAMETER TABLE							
J-1	J-1A	J-1B	J-1C	J-1D	J-1E	J-1F
4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"

NOTES:
1. CONCRETE DESIGN STRENGTH 4,000 PSI.
2. PRECAST IN ACCORDANCE WITH LATEST EDITIONS OF ASTM C 478.
3. PIPES SHALL BE FLUSH WITH INSIDE WALL.
4. IN PAVED AREAS FRAME AND GRATE MUST MATCH FINAL ASPHALT AND CROSS-SLOPE.
5. RING AND COVER SHALL BE TRAFFIC BEARING

STORM SEWER J-1 MANHOLE

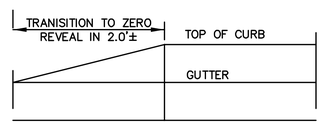
N.T.S.



NOTE:
1. CONTRACTOR SHALL USE FILTER WRAP AROUND ALL HDPE JOINTS PER MANUFACTURER'S RECOMMENDATIONS.
2. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
3. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5. DIMENSIONS ARE FOR REFERENCE ONLY. ACTUAL DIMENSIONS MAY VARY.
6. DIMENSIONS ARE IN INCHES.
7. SEE DRAWING NO. 7001-110-275 FOR N-12 HP BELL INFORMATION.
8. INSERTA-TEE ADAPTERS CREATE WATER TIGHT JOINT BETWEEN ADAPTER AND MAINLINE PIPE.

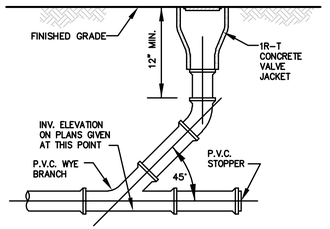
NYLOPLAST INLINE DRAIN SYSTEM USING INSERTA-TEE CONNECTION YARD DRAIN - STORM SEWER INLETS

NYLOPLAST OR APPROVED EQUIVALENT
N.T.S.



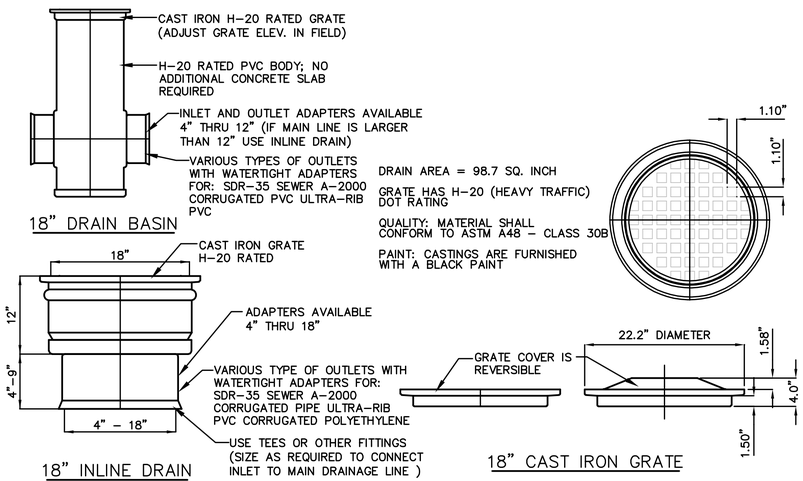
CURB TRANSITION DETAIL

N.T.S.



CLEAN OUT

N.T.S.



NOTE:
CONTRACTOR SHALL USE FILTER WRAP AROUND ALL HDPE JOINTS PER MANUFACTURER'S RECOMMENDATIONS

YARD DRAIN - HDPE STORM SEWER INLETS

NYLOPLAST OR APPROVED EQUIVALENT
N.T.S.

PLANS PREPARED UNDER THE DIRECTION OF:
DALLAS SCHRIER
P.E. NUMBER: 94608

PLOTTED: May 1, 2023 - 2:06 PM, BY: Dallas Schrier

REVISIONS:
2023.03.14-REV. PER AGENCY COMMENTS
2023.04.28-REV. PER AGENCY COMMENTS

ETM NO. 19-086
DRAWN BY: RRS II
DESIGNED BY: DDS
CHECKED BY: DDS
DATE: NOVEMBER 2022

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ETM
VISION • EXPERIENCE • RESULTS

PAVING AND DRAINAGE DETAILS

WAWA @ WILDLIGHT
FOR WAWA FLORIDA, LLC
FLORIDA

DRAWING NUMBER
9B

T:\2019\19-086\LandDev\Design\Plots\PDDT_19-086.dwg

NOT APPLICABLE | APPLICABLE

SURVEY AND LOCATE DATA:

☐ ☒ 1. ALL ELEVATIONS ARE BASED ON U.S.C.&G.S. DATUM AND SHOWN IN FEET.

☐ ☒ 2. ELEVATIONS ARE BASED ON NAVD88.

☒ ☐ 3. LOCATION OF EXISTING UTILITIES OBTAINED BY SOFT DIG LOCATES WHERE SHOWN ON PLANS, OR INCLUDED WITH BID SPECS.

☐ ☒ 4. EXISTING WATER AND SEWER LINES ARE SHOWN AS PER FIELD LOCATES AND SUBDIVISION AS-BUILT PLANS.

☒ ☐ 5. UNDERGROUND UTILITIES WERE LOCATED UTILIZING GROUND PENETRATING RADAR (GPR) AND A DIGITAL LOCATOR. CONTRACTOR SHALL BE AWARE THAT IN SOME CASES UTILITIES HAVE BEEN LOCATED, AND SURVEY HAS BEEN COMPLETED ONLY ON ONE SIDE OF THE ROAD.

☐ ☒ 6. ALL PIPE LENGTHS SHOWN ON PLAN AND PROFILES ARE FROM CENTER TO CENTER OF MANHOLES, CATCH BASINS, INLETS ETC. OR ALONG THE CENTER LINE OF FORCE MAINS AND WATER MAINS.

☐ ☒ 7. INVERT ELEVATIONS SHOWN ON DRAWINGS REFER TO THE CENTERLINE OF MANHOLES, UNLESS OTHERWISE INDICATED.

☐ ☒ 8. THE LOCATION OF ALL EXISTING SEWER AND WATER SERVICE LINES MAY NOT BE INDICATED ON THESE PLANS. THE LOCATION OF NEW SERVICES SHALL BE VERIFIED IN THE FIELD.

☐ ☐ 9. BENCHMARK DATA: _____

PERMIT REQUIREMENTS (NOT ALL INCLUSIVE):

☐ ☒ 1. CONTRACTOR TO OBTAIN ALL REQUIRED RIGHT-OF-WAY PERMITS.

☐ ☒ 2. CONTRACTOR SHALL NOT OPEN CUT STREETS IN THE PROJECT AREA UNLESS SPECIFICALLY SHOWN ON PLANS

☐ ☒ 3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A CONSUMPTIVE USE PERMIT (C.U.P.) THROUGH THE ST. JOHNS WATER MANAGEMENT DISTRICT SHOULD DEWATERING ACTIVITIES BE REQUIRED.

☐ ☒ 4. THE DEPARTMENT OF TRANSPORTATION, RAILROAD COMPANIES AND C.O.J. ARE TO BE NOTIFIED IN ADVANCE OF CONSTRUCTION PER THEIR RESPECTIVE PERMIT CONDITIONS.

☐ ☒ 5. ALL WORK SHALL BE IN ACCORDANCE WITH BID DOCUMENTS, JEA WATER AND SEWER STANDARDS, DETAILS AND MATERIALS MANUAL, REV. 2018. AND CITY OF JACKSONVILLE STANDARD SPECIFICATIONS AND DETAILS AND ALL APPLICABLE STATE AND LOCAL REGULATIONS.

☐ ☒ 6. IF SOLVENT CONTAMINATION IS FOUND IN THE PIPE TRENCH, WORK SHALL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH APPROVAL OF THE PERMITTING AGENCY, DUCTILE IRON PIPE, FITTINGS AND SOLVENT RESISTANT GASKET MATERIAL SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE IRON PIPE SHALL EXTEND AT LEAST 100 FEET BEYOND ANY SOLVENT NOTED.

☐ ☒ 7. THE CONTRACTOR SHALL NOTIFY APPLICABLE UTILITY CONTACT PERSONNEL NOT LESS THAN ONE WEEK PRIOR TO CONSTRUCTION OF FACILITIES IN THEIR RESPECTIVE AREAS.

☐ ☒ 8. TREE PROTECTION SHALL BE IN ACCORDANCE WITH JACKSONVILLE ORDINANCE CODE 656 AND/OR AS DETAILED ON SPECIFIC PLAN SHEETS. NO TRIMMING OF OVERHANGING TREE LIMBS WILL BE ALLOWED. USE SMALLER EQUIPMENT IF NECESSARY.

☐ ☒ 9. THE CONTRACTOR SHALL LOCATE THE DRAINAGE INLET STRUCTURES IN THE PROJECT AREA AND ERECT SEDIMENTATION CONTROL DEVICES AS NECESSARY PER THE CITY OF JACKSONVILLE STORMWATER POLLUTION PREVENTION PLAN.

☐ ☒ 10. CONTRACTOR TO COORDINATE WORK WITH OTHER UTILITIES DURING CONSTRUCTION.

EXISTING UTILITY PROTECTION:

1. IN ORDER TO REDUCE THE DISRUPTION AND COST OF UTILITY DAMAGES OCCURRING IN THE DUVAL COUNTY RIGHT-OF-WAY AND EASEMENTS, THE CONTRACTOR SHALL PREVENT DAMAGES TO EXISTING UTILITIES CAUSED BY HIS WORK THROUGH FIELD VERIFICATION OF THE LOCATION OF THE EXISTING UTILITIES. IN THE CASE OF OPEN EXCAVATION, VERIFICATION MAY BE PERFORMED DURING THE CONTRACTORS WORK. IN THE CASE OF DIRECTIONAL DRILLING, VERIFICATION SHALL TAKE PLACE PRIOR TO MOBILIZATION OF THE DRILLING EQUIPMENT.

2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES AS NEEDED TO AVOID CONTACT. EXISTING UTILITIES SHALL BE EXPOSED USING DETECTION EQUIPMENT OR OTHER ACCEPTABLE MEANS. SUCH METHODS MAY INCLUDE BUT SHALL NOT BE LIMITED TO "SOFT DIG" EQUIPMENT AND GROUND PENETRATING RADAR (GPR). THE EXCAVATOR SHALL BE HELD LIABLE FOR DAMAGES CAUSED TO THE CITY'S/JEA'S INFRASTRUCTURE AND THE EXISTING FACILITIES OF OTHER UTILITY COMPANIES.

3. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND AVOID ALL UTILITIES, OTHER STRUCTURES AND OBSTRUCTIONS BOTH ABOVE AND BELOW GROUND SURFACE. ALL DAMAGE RESULTING FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

RESTORATION NOTES:

1. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR, REGISTERED IN THE STATE OF FLORIDA, TO REFERENCE AND RESTORE PROPERTY CORNERS AND LANDMARKS WHICH MAY BE DISTURBED BY CONSTRUCTION, KNOWN CORNER LOCATIONS ARE AVAILABLE FROM THE CITY OF JACKSONVILLE ENGINEERING DIVISION.

2. THE CONTRACTOR SHALL RESTORE/REPLACE ALL CULVERTS, HEADWALLS AND STORM DRAIN INLETS REMOVED OR DISTURBED BY THE CONSTRUCTION OPERATION.

3. TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION CONDITION IN ACCORDANCE WITH CITY OF JACKSONVILLE/FDOT STANDARD SPECIFICATIONS.

4. SIDEWALKS, DRIVEWAYS AND CURBING DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED IN ACCORDANCE WITH JACKSONVILLE STANDARD SPECIFICATIONS. SIDEWALKS REMOVED AND REPLACED IN CURB AND GUTTER AREAS AT INTERSECTIONS SHALL HAVE HANDICAP RAMPS INSTALLED. DRIVEWAYS AND SIDEWALKS SHALL BE SAWCUT ALONG THE RIGHT-OF-WAY LINE OR NEAREST JOINT AND REMOVED AND REPLACED TO THE EDGE OF STREET.

5. GRASS SOD SHALL BE FURNISHED AND PLACED IN THE AREAS DISTURBED OR DAMAGED BY THE CONSTRUCTION OPERATION.

6. ALL PAVEMENT REPAIR SHALL BE IN ACCORDANCE WITH THE CITY OF JACKSONVILLE/FDOT STANDARD DETAILS AND SPECIFICATIONS LATEST EDITION.

7. UNLESS OTHERWISE NOTED, REMOVE AND REPLACE EXISTING PAVEMENT AS PER C.O.J. CASE X (10) PAVEMENT REPLACEMENT DETAIL.

8. CONTRACTOR MUST MAINTAIN AND PRESERVE NEWLY GRADED AREAS AND REPAIR AREAS WHERE SETTLING AND EROSION HAVE OCCURRED.

UTILITY CONTACTS:

A. AT&T ~ GENERAL NUMBER——904-519-2529
B. AT&T ~ ADAM DUGAN ~ NORTH DISTRICT——904-781-0741
C. AT&T ~ BILL LAKE ~ SOUTH DISTRICT——904-303-8754
D. CITY OF JACKSONVILLE ~ PUBLIC WORKS DEPT——904-255-8762
E. CITY OF JACKSONVILLE ~ TRAFFIC OPERATIONS——904-387-8861
F. FLORIDA DEPT. OF TRANSPORTATION——904-360-5200
G. JEA ~ WATER COLLECTION & DISTRIBUTION ~ BOB ALLSBROOK——904-665-7299
H. JEA ~ SEWER COLLECTION & DISTRIBUTION ~ BOB ALLSBROOK——904-665-7299
I. JEA ~ GENERAL INFORMATION——904-665-6000
J. JEA ~ PROJECT OUTREACH——904-665-7500
K. JEA ~ POWER OUTAGES——904-665-6000
L. JEA ~ SEWER PROBLEMS——904-665-4802
M. JEA ~ WATER PROBLEMS——904-665-4801
N. JEA ~ WATER & SEWER LOCATES——904-665-8410
O. NASSAU COUNTY ~ PUBLIC WORKS ~ CHARLES HOUSTON——904-491-7334
P. ST. JOHNS COUNTY ~ RIGHT-OF-WAY PERMITTING ~ RICK MAULDIN——904-209-0134
Q. ST. JOHNS COUNTY ~ TRAFFIC SIGNALS ~ HANK MEIN——904-209-0173
R. COMCAST ~ EMERGENCY HOTLINE——904-380-6274
S. TECO/PEOPLES GAS ~ BEN MOBLEY——904-545-8958
T. SUNSHINE ONE CALL——811

NOT APPLICABLE | APPLICABLE

INSTALLATION NOTES:

☒ ☐ 1. CONTRACTOR TO REHABILITATE ALL MANHOLES ON PIPE BURST SEWERS VIA COATING/LINING PER JEA SPECIFICATION 446-2, UNLESS OTHERWISE NOTED ON THE PLANS.

☐ ☒ 2. CONTRACTOR TO RENEW, REHABILITATE, REPLACE OR REINSTALL AS APPLICABLE ALL SERVICE LATERALS TO R.O.W. LINE.

☐ ☒ 3. CONTRACTOR TO INSTALL SEWER SERVICE PIPING A MINIMUM OF 60 INCHES BELOW GRADE. WHERE NEW SANITARY SEWER MAIN IS LESS THAN 5 FEET DEEP, THE SEWER SERVICE PIPE SHALL BE INSTALLED AS DEEP AS POSSIBLE.

☐ ☒ 4. WHEN THE DISTANCE BETWEEN A POWER POLE AND THE TRENCH IS LESS THAN THE TRENCH DEPTH, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH JEA ELECTRICAL PERSONNEL TO SECURE POWER POLES. THE CONTACTS FOR JEA ARE AS FOLLOWS:
NORTHSIDE-EAST of US-1 MIKE CORBITT @ 665-7991 (mobile 662-0635)
NORTHSIDE-WEST of US-1 ANDY YEAGER @ 665-7998 (mobile 662-0622)
NORTHSIDE-BACKUP ALAN AINSLEY @ 665-7303 (mobile 662-6557)
SOUTHSIDE-SOUTH of BEACH BLVD. TOM KERNS @ 665-6847 (mobile 860-1687)
SOUTHSIDE-NORTH of BEACH BLVD. DERYL BASFORD @ 665-6855 (mobile 662-0616)
SOUTHSIDE-BACKUP EDDIE GALES @ 665-6855 (mobile 662-0616)
A MINIMUM OF TWO (2) WORKING DAYS NOTICE IS REQUIRED FOR AN OUTSIDE MEETING WITH JEA ELECTRICAL TO DISCUSS THE REQUIRED WORK. ADDITIONAL TIME WILL BE REQUIRED BY JEA ELECTRICAL FOR ANY REQUIRED WORK TO BE ACCOMPLISHED.

☐ ☒ 5. ALL NEW STORM DRAIN PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC.

☐ ☒ 6. THE DESIGN FOR THE PROJECT IS BASED UPON THE "OPEN-CUT" METHOD OF CONSTRUCTION. IF USING ALTERNATIVE MEANS OR METHODS, THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE STANDARDS FOR THAT MEANS OR METHOD.

☐ ☒ 7. THE CONTRACTOR SHALL MINIMIZE SERVICE INTERRUPTIONS AT SERVICE CONNECTIONS. THE MEANS AND METHODS SHALL BE LEFT TO THE DISCRETION OF THE CONTRACTOR, SUBJECT TO THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS. NO EXISTING ACTIVE SERVICE SHALL BE LEFT INTERRUPTED AT THE END OF THE WORK DAY.

☐ ☒ 8. CONTRACTOR SHALL PROVIDE ADDITIONAL CORPORATION STOPS FOR FILLING AND DRAINING PURPOSES DURING CONSTRUCTION AS NEEDED. CORPORATION STOPS ARE TO BE PLUGGED AND LEFT IN PLACE. INDICATE CORPORATION STOP LOCATIONS ON RECORD DRAWINGS (AS-BUILTS).

☒ ☐ 9. WATER AND SEWER SERVICES SHALL BE TRANSFERRED TO THE NEW MAIN UPON COMPLETION AND F.D.E.P./J.E.A. CERTIFICATION, AND PRIOR TO THE EXISTING MAINS BEING ABANDONED.

☐ ☒ 10. IF EXISTING VALVES ARE IN UNPAVED AREAS AND ARE TO BE TAKEN OUT OF SERVICE, THEY SHALL BE CLOSED AND THE VALVE BOX AND COVER SHALL BE REMOVED. IF THE VALVES ARE UNDER PAVED AREAS, THEY SHALL BE CLOSED, THE VALVE BOX GROUT FILLED AND THE COVER REMOVED.

☐ ☒ 11. CONTRACTOR SHALL REPLACE EXISTING WATER METER BOXES WHEN DEEMED NECESSARY BY THE JEA INSPECTOR.

☐ ☒ 12. CONTRACTOR TO PROVIDE ADDITIONAL DEPTH OF BURY VIA PIPE JOINT DEFLECTION TO ACCOMMODATE VALVE SELECTION PER JEA STANDARDS.

☐ ☒ 13. WATER METERS MAY REQUIRE RELOCATION FOR CONSTRUCTION, CONTRACTOR SHALL CONTACT JEA METER DEPARTMENT AND RELOCATE WATER METERS AS NECESSARY.

☐ ☒ 14. PRIOR TO COMMENCING ANY EXCAVATION OR GRADING, THE CONTRACTOR SHALL OBTAIN ALL GEOTECHNICAL AND TOPOGRAPHIC SURVEY DATA AND LOCATIONS OF ABOVE GROUND AND UNDERGROUND UTILITIES. SHOULD THE CONTRACTOR DISCOVER ANY INACCURACIES, ERRORS OR OMISSIONS IN THE SURVEY DATA, HE SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER IN ORDER THAT PROPER ADJUSTMENTS CAN BE ANTICIPATED AND ORDERED.

☒ ☐ 15. SHEET PILING WILL BE REQUIRED ON ALL EXCAVATIONS DEEPER THAN 16 FEET.

England-Thims & Miller, Inc.
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TEL: (904) 642-8990
FAX: (904) 646-9485
CA - 00002594 LC - 0000316
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NO.	BY	DATE	REVISIONS
6.			
5.			
4.			
3.			
2.			
1.			

THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE J.E.A. WE TAKE NO EXCEPTION TO THE DESIGN

DESIGNER:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

DESIGN ENGINEER
DALLAS SCHRIER
FLORIDA REGISTRATION NO.
94608

JEA Building Community sm

JEA STANDARD
GENERAL NOTES LEGEND, AND SHEET INDEX
WAWA @ WILDLIGHT

NO. SHEETS 5	PROJ. NO. 19-086	
SHEET NO. 5	DATE: JANUARY 2017	
DRAWING NO. 10A	SCALE: AS NOTED	

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T:\2019\19-086\LandDev\Design\Plots\JEA_GENN_19-086.dwg PLOTTED: May. 1, 23 - 2:07 PM, BY: Dallas Schrier

HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

PROPOSED UTILITY

CONFLICTING UTILITY	POTABLE WATER			WASTEWATER GRAVITY AND FORCE MAIN			RECLAIMED WATER			VACUUM SEWERS		
	HORIZ.	VERT.	JOINT SPACING*	HORIZ.	VERT.	JOINT SPACING*	HORIZ.	VERT.	JOINT SPACING*	HORIZ.	VERT.	JOINT SPACING*
POTABLE WATER	3' NOTE 1	12"	3' NOTE 2	6' to 10'	12" NOTE 5	6' NOTE 2	3'	12"	6' NOTE 2	3' to 10'	12"	3' NOTE 2
RECLAIMED WATER	3'	12"	6' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3'	12"	6' NOTE 2	3' NOTE 1	12"	3' NOTE 2
WASTEWATER (GRAVITY AND FORCE MAIN)	6' to 10'	12"	6' NOTE 2	3' NOTE 1	12"	6"	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
VACUUM SEWERS	3' to 10'	12"	3' NOTE 2	3' NOTE 1	12"	6"	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
RIGHT OF WAYS	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A
PERMANENT STRUCTURES (SIGNS, POLES, ETC.)	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A
STORM SEWERS	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
GAS	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
TREES	3'-6' NOTE 6	N/A	N/A	3'-6' NOTE 6	N/A	N/A	3'-6' NOTE 6	N/A	N/A	3'-6' NOTE 6	N/A	N/A
ALL OTHER UTILITIES	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2

NOTES:

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.

SEPARATION REQUIREMENTS FOR WATER, WASTEWATER AND RECLAIMED WATER MAINS

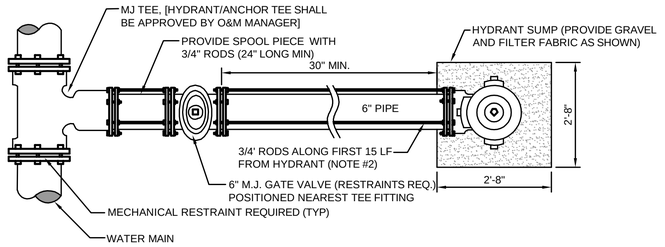
JANUARY 2023 PLATE W-10

WATER MAIN AND NON-WATER MAIN SEPARATION REQUIREMENTS - NOTES

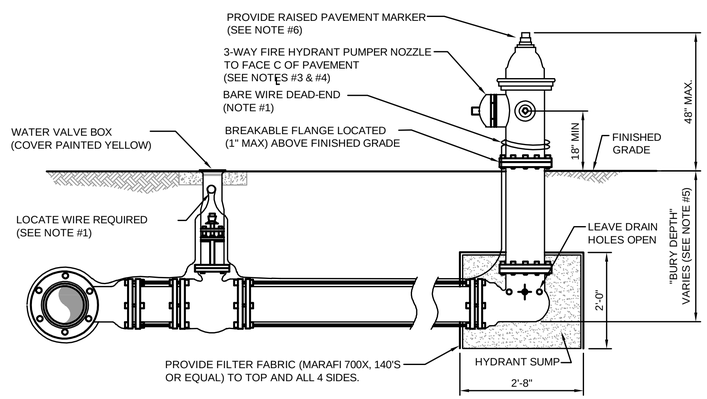
1. IT IS REQUIRED THAT "WATER MAINS" BE INSTALLED, CLEANED, DISINFECTED AND HAVE A SATISFACTORY BACTERIOLOGICAL SURVEY PERFORMED IN ACCORDANCE WITH THE LATEST APPLICABLE AWWA STANDARDS, CHAPTER 62-555, F.A.C. AND LATEST JEA WATER AND SEWER STANDARDS. FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER 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 2023 PLATE W-11



PLAN



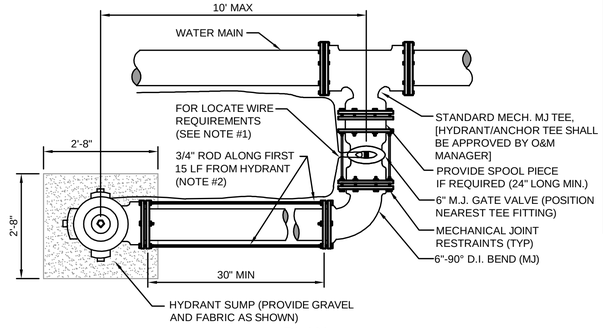
SECTION

NOTES:

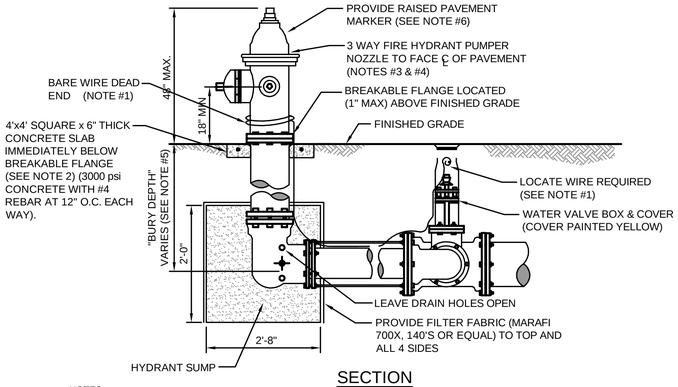
1. LOCATE WIRE SHALL BE ROUTED FROM THE VALVE TO THE HYDRANT AS SHOWN ABOVE LEAVING ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE. THE END OF THE WIRE SHALL BE SECURED TO THE PIPE MAIN. SEE SECTION 350, LOCATE WIRE INSTALLATION PARAGRAPH.
2. FIRE HYDRANTS SHALL BE INSTALLED BETWEEN BACK OF CURB AND FACE 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.
3. 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.
4. 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.
5. 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.
6. 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

JANUARY 2023 PLATE W-13



PLAN



SECTION

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.
2. FIRE HYDRANTS SHALL BE INSTALLED BETWEEN BACK OF CURB AND FACE OF SIDEWALK. ALL HYDRANTS SHALL BE LOCATED NO LESS THAN THREE (3) FEET FROM THE EDGE OF PAVEMENT OR BACK OF CURB OF THE ADJACENT ROADWAY AND NO LESS THAN THREE (3) FEET FROM ANY PHYSICAL FEATURE WHICH MAY OBSTRUCT ACCESS OR VIEW OF ANY HYDRANT UNLESS OTHERWISE APPROVED BY THE JEA. 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.
3. 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.
4. 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.
5. 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.
6. 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 LIMITED SPACE

JANUARY 2023 PLATE W-14

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
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DESIGN ENGINEER: DALLAS SCHRIER
FLORIDA REGISTRATION NO. 94608

DESIGNER:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Community℠

JEA STANDARD
WATER AND RECLAIMED DETAILS

WAWA @ WILDLIGHT

PROJ. NO. 19-086	DATE: JANUARY 2023	SCALE: AS NOTED
NO. SHEETS 5	SHEET NO. 1	DRAWING NO. 11A

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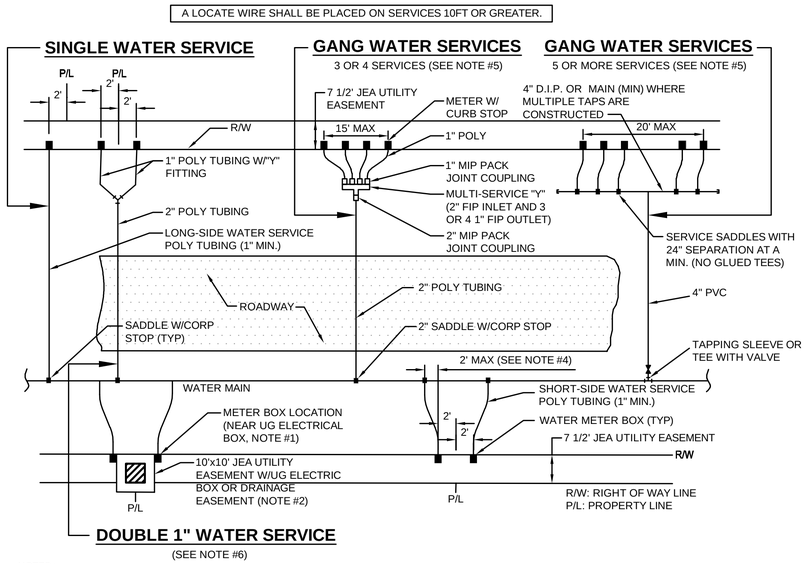
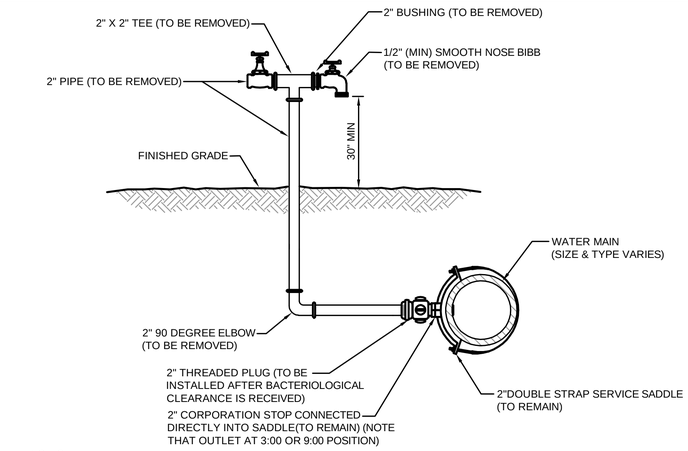


NOTES :

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 EASEMENT.
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 PRIOR TO CONSTRUCTION.
3. IF DRAINAGE OR OTHER EASEMENT LOCATED BETWEEN LOTS, METER BOXES SHALL BE LOCATED AT THE EASEMENT LINE BUT OUTSIDE THE EASEMENT AREA.
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 FUTURE.
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.
10. SERVICE SIZE SHALL BE SAME AS THE METER SIZE.

WATER OR RECLAIM SERVICE INSTALLATIONS 2" AND SMALLER METER

JANUARY 2023 PLATE W-1

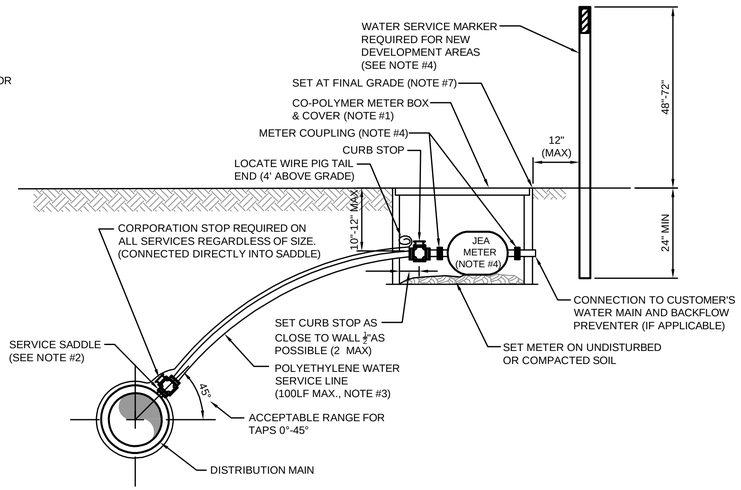


NOTES:

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 COORDINATOR (ERC) AND OTHER ASSOCIATED JEA STANDARDS.

2" TEMPORARY SAMPLE TAP FOR STUB OUT

JANUARY 2023 PLATE W-26

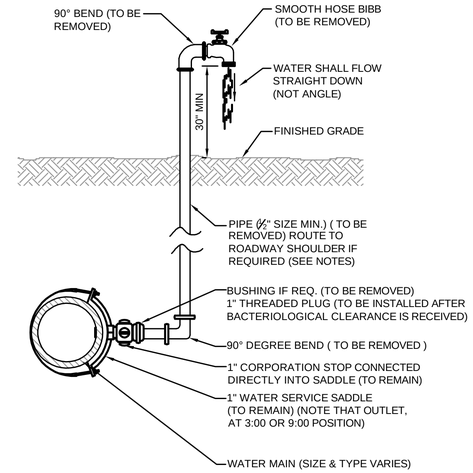


NOTES:

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.
4. 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.
6. 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 2023 PLATE W-2

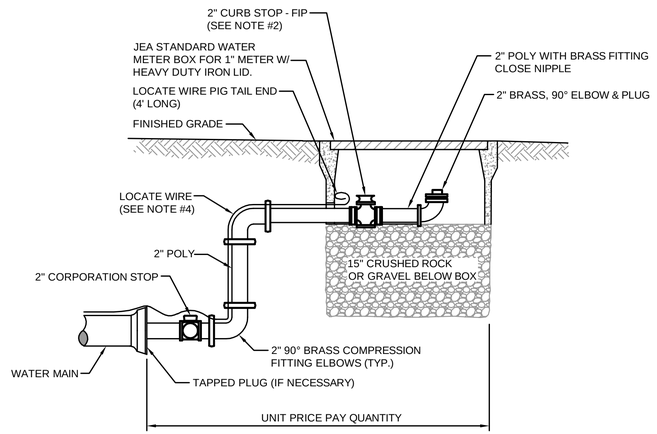


NOTES:

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.
5. THE CONTRACTOR SHALL COMPLY WITH ALL JEA RULES AND POLICIES AS AS OUTLINED BY JEA'S ENVIRONMENTAL RESPONSE COORDINATOR (ERC) AND OTHER ASSOCIATED JEA STANDARDS.

TEMPORARY SAMPLE TAP

JANUARY 2023 PLATE W-25



NOTES:

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

JANUARY 2023 PLATE W-28

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
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DATE:
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DATE:

DESIGN ENGINEER: DALLAS SCHRIER
FLORIDA REGISTRATION NO. 94608

JEA STANDARD
WATER AND RECLAIMED DETAILS

WAWA @ WILDLIGHT

PROJ. NO. 19-086
DATE: JANUARY 2023
SCALE: AS NOTED

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SHEET NO. 2
DRAWING NO. 11B

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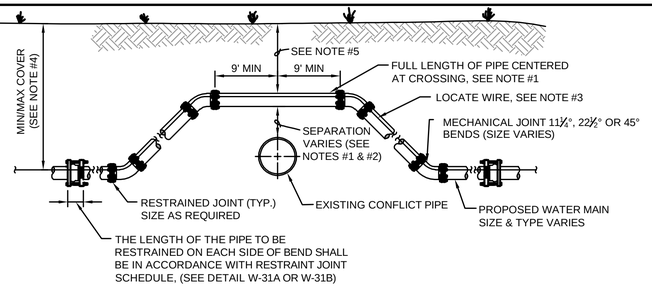


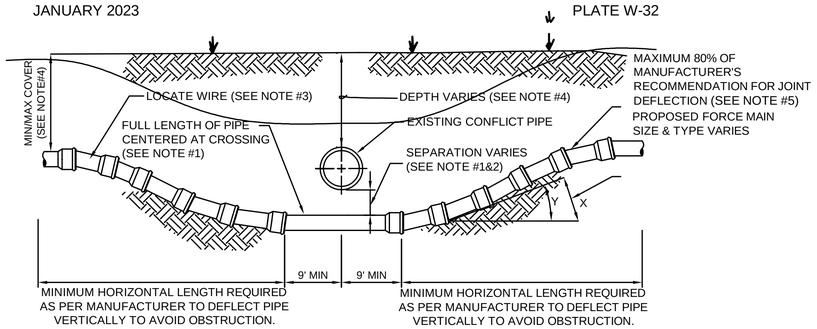
CASE "A" CROSSING

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

JANUARY 2023 — PLATE W-32



CASE "B" CROSSING

NOTES:

1. IF EXISTING CONFLICT PIPE IS A WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED. A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSING.
2. FOR OTHER LOCATION LIMITATIONS SEE DETAIL (W-10 & W-11).
3. LOCATING WIRE REQUIRED: SEE DETAIL W-44.
4. THE COVER OVER ALL PIPING LESS THAN 24" SIZE SHALL BE A MINIMUM OF 30" IN UNPAVED AREAS AND 36" IN PAVED AREAS WITH A MAXIMUM COVER OF 60" UNLESS APPROVED OTHERWISE BY JEA. COVER FOR PIPING 24" SIZE AND LARGER SHALL BE MINIMUM OF 36" (PAVED AND UNPAVED) AND MAXIMUM OF 84" UNLESS APPROVED OTHERWISE BY JEA. 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.
5. JEA ONLY ALLOWS 80% OF THE PIPE MANUFACTURER'S RECOMMENDATION FOR JOINT DEFLECTION. BENDING THE PIPE BARREL IS NOT ALLOWED. UNLESS OTHERWISE APPROVED BY JEA, THE MAXIMUM ARE LISTED IN TABLE BELOW. ONLY MANUAL FORCE CAN BE UTILIZED TO OBTAIN THESE JOINT DEFLECTION. ALL OFFSETS ARE BASED ON MINIMUM 20LF PIPE LENGTH.

MAXIMUM ALLOWED OFFSET FOR PIPE BY JOINT DEFLECTION

PVC PIPE

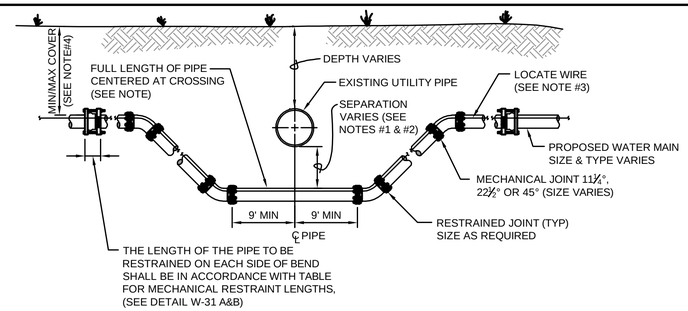
PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) ANGLE AT ONE BELL	RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
2	30	7°	158 FT
4	10	2.4°	480 FT
6	10	2.4°	480 FT
8	10	2.4°	480 FT
10	10	2.4°	480 FT
12	8.5	2°	564 FT
14 - 24	5	1.2°	960 FT
30 - 48	3.25	0.8°	1477 FT

DUCTILE IRON PIPE (Mechanical Joint)

PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) ANGLE AT ONE BELL	RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
-	-	-	-
4	27	6.5°	177 FT
6	24	5.7°	200 FT
8 - 12	17.5	4.2°	273 FT
14 - 16	12	2.9°	400 FT
18 - 20	10	2.4°	477 FT
24 - 30	8	1.9°	600 FT
36	7	1.7°	687 FT
42 - 48	6.7	1.6°	716 FT

ADJUSTMENT UNDER EXISTING UTILITIES PIPE JOINT DEFLECTION

JANUARY 2023 — PLATE W-40



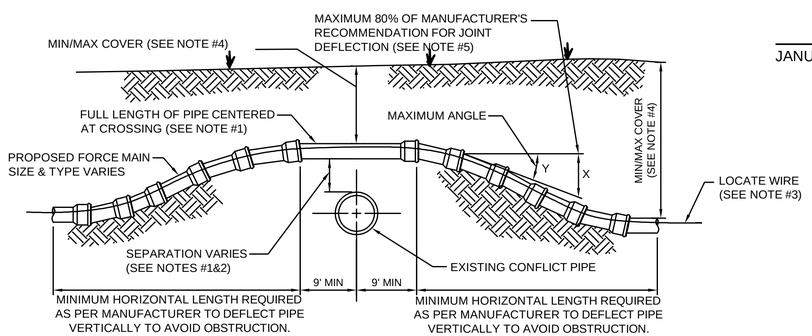
CASE "B" CROSSING

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 DETAILS (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 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.
5. IN LOCATIONS WHERE WATER/RECLAIM MAINS CROSS UNDER A BOX-CULVERT, OR 36-INCH DIAMETER AND LARGER STORM WATER MAIN, JEA WILL REQUIRE DIP TO BE UTILIZED FOR THE MAIN.

ADJUSTMENT UNDER EXISTING UTILITIES MECHANICAL RESTRAINTS

JANUARY 2023 — PLATE W-34



CASE "A" CROSSING

NOTES:

1. IF EXISTING CONFLICT PIPE IS A WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED. A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSING.
2. FOR OTHER LOCATION LIMITATIONS SEE DETAIL (S-10 & W-11).
3. LOCATING WIRE REQUIRED: SEE DETAIL W-44.
4. THE COVER OVER ALL PIPING LESS THAN 24" SIZE SHALL BE A MINIMUM OF 30" IN UNPAVED AREAS AND 36" IN PAVED AREAS WITH A MAXIMUM COVER OF 60" UNLESS APPROVED OTHERWISE BY JEA. COVER FOR PIPING 24" SIZE AND LARGER SHALL BE MINIMUM OF 36" (PAVED AND UNPAVED) AND MAXIMUM OF 84" UNLESS APPROVED OTHERWISE BY JEA. 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.
5. JEA ONLY ALLOWS 80% OF THE PIPE MANUFACTURER'S RECOMMENDATION FOR JOINT DEFLECTION. BENDING THE PIPE BARREL IS NOT ALLOWED. UNLESS OTHERWISE APPROVED BY JEA, THE MAXIMUM ARE LISTED IN TABLE BELOW. ONLY MANUAL FORCE CAN BE UTILIZED TO OBTAIN THESE JOINT DEFLECTION. ALL OFFSETS ARE BASED ON MINIMUM 20LF PIPE LENGTH.

MAXIMUM ALLOWED OFFSET FOR PIPE BY JOINT DEFLECTION

PVC PIPE

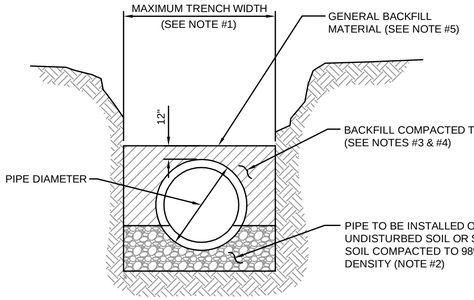
PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) ANGLE AT ONE BELL	RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
2	30	7°	158 FT
4	10	2.4°	480 FT
6	10	2.4°	480 FT
8	10	2.4°	480 FT
10	10	2.4°	480 FT
12	8.5	2°	564 FT
14 - 24	5	1.2°	960 FT
30 - 48	3.25	0.8°	1477 FT

DUCTILE IRON PIPE (Mechanical Joint)

PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) ANGLE AT ONE BELL	RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
-	-	-	-
4	27	6.5°	177 FT
6	24	5.7°	200 FT
8 - 12	17.5	4.2°	273 FT
14 - 16	12	2.9°	400 FT
18 - 20	10	2.4°	477 FT
24 - 30	8	1.9°	600 FT
36	7	1.7°	687 FT
42 - 48	6.7	1.6°	716 FT

ADJUSTMENT OVER EXISTING UTILITIES PIPE JOINT DEFLECTION

JANUARY 2023 — PLATE W-41



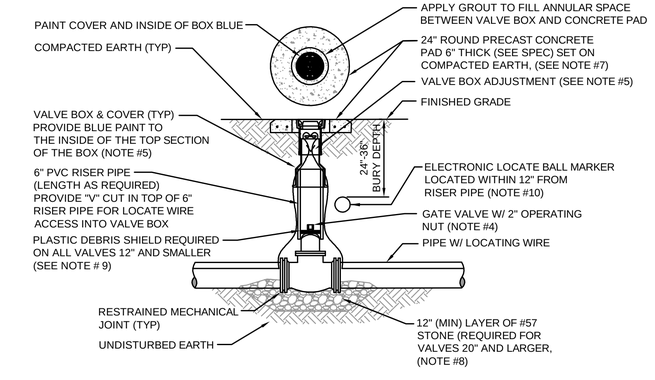
TYPICAL TRENCH

NOTES:

1. TRENCH SIDES SHALL BE APPROXIMATELY VERTICAL BETWEEN AN ELEVATION OF 1 FOOT ABOVE THE TOP OF THE PIPE AND THE CENTER LINE OF THE PIPE; OTHERWISE, TRENCH SIDES SHALL BE AS VERTICAL AS POSSIBLE OR AS REQUIRED BY OSHA STANDARDS. REFER TO THE MEASUREMENT AND PAYMENT SECTION (SECTION #801, PARAGRAPH #4)) TO DETERMINE MAXIMUM PAYLINE WIDTHS.
2. BELL HOLE SHALL BE DUG TO PERMIT THE ENTIRE STRAIGHT BARREL OF THE PIPE TO REST ON THE UNDISTURBED TRENCH BOTTOM. BOULDERS OR LOOSE ROCKS LARGER THAN 3/4 INCH IN SIZE WILL NOT BE PERMITTED IN BACKFILL UP TO 1 FOOT ABOVE THE TOP OF THE PIPE.
3. BACK FILL MATERIAL UP TO A LEVEL OF 1 FOOT OVER THE PIPE SHALL CONSIST OF AASHTO CLASS A-3 SOIL (SUITABLE SOIL) AND SHALL EXCLUDE CLAY MATERIALS AND LOOSE ROCKS LARGER THAN 3/4 INCH SIZE.
4. BACKFILL MATERIAL UP TO A LEVEL 1 FOOT OVER THE TOP OF PIPE OR BOTTOM OF STRUCTURES SHALL BE PLACED IN 6 INCH COMPACTED THICKNESS LAYERS AND SHALL BE COMPACTED TO 98% OF IT'S MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D1557.
5. SEE " EXCAVATION AND EARTHWORK", SECTION 408 FOR ADDITIONAL REQUIREMENTS INCLUDING REMOVAL AND REPLACEMENT OF UNSUITABLE SOILS, DEWATERING, COMPACTION REQUIREMENTS AND DENSITY TESTING OF COMPACTED SOILS.

OPEN CUT TRENCH FOR PRESSURE PIPE

JANUARY 2023 — IN CITY RIGHT OF WAY — PLATE W-42



NOTES:

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 ¼" HOLE IN BRASS TAG AND ATTACH TAG (TWIST WIRE AROUND TAG) TO THE END OF THE LOCATE WIRE. TAGS ARE NOT REQUIRED ON VALVES INSTALLED ON FIRE HYDRANT BRANCH LINES.
7. IN LIEU OF PRECAST CONCRETE PAD, A 6" THICK X 24" (ROUND OR SQUARE) POURED CONCRETE PAD W/2 - #4 REBAR AROUND PERIMETER, MAY BE USED.
8. GRAVEL SHALL BE PROVIDED UNDER ALL VALVES 20" AND LARGER. THE MINIMUM VERTICAL LIMIT OF GRAVEL IS 12" UNDER THE VALVE UP TO ¼ 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 AFC, BOXLOK OR APPROVED EQUAL.
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 2023 — PLATE W-18

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
CA - 00002594 LC - 0000516

ETM VISION • EXPERIENCE • RESULTS

NO.	BY	DATE	REVISIONS
4.			
3.			
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THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE J.E.A. WE TAKE NO EXCEPTION TO THE DESIGN

DESIGNER:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

DESIGN ENGINEER: DALLAS SCHRIER
FLORIDA REGISTRATION NO. 94608

JEA Building Community

JEA STANDARD
WATER AND RECLAIMED DETAILS

WAWA @ WILDLIGHT

PROJ. NO. 19-086
DATE: JANUARY 2023
SCALE: AS NOTED

NO. SHEETS 6
SHEET NO. 3
DRAWING NO. 11C

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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.
2. 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.
3. BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
4. 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) LEVEL. ASSUME 45 DEGREE BENDS.
5. 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).
7. 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.

LENGTH (L) TO BE RESTRAINED (SEE PLATE Nos. 38C & 38D FOR ADDITIONAL DETAILS)

NOMINAL PIPE SIZE (IN.)	HORIZONTAL BENDS				VERTICAL OFFSETS 45° BENDS (SEE NOTE 4)		VALVES OR DEAD ENDS
	90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	UPPER L (FT.)	LOWER L (FT.)	L (FT.)
4	21	9	5	3	17	3	47
6	30	13	6	3	23	4	66
8	38	16	8	4	30	6	86
10	45	19	9	5	36	7	103
12	53	22	11	6	43	8	121
14	61	26	13	6	50	9	140
16	66	28	14	7	55	10	154
18	73	30	15	8	60	11	170
20	79	33	16	8	66	12	186
24	79	33	16	8	77	15	185
30	93	39	19	10	97	17	222
36	106	39	21	11	107	20	257
42	117	49	24	12	120	24	289
48	144	53	26	13	133	26	321

REDUCERS

SIZE (IN.)	L (FT.)
6x4	34
8x6	36
8x4	62
10x8	35
10x6	63
12x10	36
12x8	64
16x12	66
16x10	92
20x18	35
20x16	66
20x12	117
24x20	56
24x18	80
24x16	101
30x24	78
30x20	121
36x30	78
36x24	141
42x36	75
42x30	140
48x42	75
48x36	139

TEES SEE NOTE 5

RUN SIZE (IN.)	BRANCH SIZE (IN.)	L (FT.)
4	4	F.O.
4	6 4 < LESS	10 F.O.
8	8 6 < LESS	29 F.O.
10	10 8 6 < LESS	45 13 F.O.
12	12 10 8 < LESS	62 32 F.O.
16	16 12 10 10 < LESS	94 39 5 F.O.
20	20 16 12 10 < LESS	125 76 14 F.O.
24	24 20 16 12 < LESS	124 84 36 F.O.
30	30 24 20 16 16 < LESS	159 104 60 5 F.O.
36	36 30 24 20 16 < LESS	192 142 83 33 F.O.
42	42 36 30 24 20 16 < LESS	223 178 124 59 5 F.O.
48	48 42 36 30 24 20 < LESS	253 209 162 104 34 F.O.

F.O. = FITTING ONLY

PVC PIPE RESTRAINT JOINT SCHEDULE

JANUARY 2023 PLATE W-31A

DUCTILE IRON 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.
2. ASSUMPTIONS: DUCTILE IRON PIPE (WITHOUT POLY WRAP), 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. FOR D.I.P. W/POLY WRAP, USE RESTRAINT JOINT SCHEDULE FOR PVC PIPE.
3. BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
4. 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) LEVEL. ASSUME 45 DEGREE BENDS.
5. 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 D.I.P. TRANSITIONS: THE D.I.P. PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).

LENGTH (L) TO BE RESTRAINED (SEE PLATE Nos. 38C & 38D FOR ADDITIONAL DETAILS)

NOMINAL PIPE SIZE (IN.)	HORIZONTAL BENDS				VERTICAL OFFSETS 45° BENDS (SEE NOTE 4)		VALVES OR DEAD ENDS
	90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	UPPER L (FT.)	LOWER L (FT.)	L (FT.)
4	17	7	4	2	11	3	30
6	24	15	5	3	15	4	42
8	31	13	6	3	20	5	55
10	36	15	8	4	23	6	65
12	42	18	9	5	27	7	77
14	48	20	10	5	31	7	87
16	53	22	11	6	35	8	97
18	58	24	12	6	39	9	107
20	63	27	13	6	42	10	118
24	63	27	13	7	49	12	118
30	75	31	15	8	59	14	141
36	86	36	17	9	68	17	163
42	95	40	19	10	76	19	183
48	117	43	21	11	84	21	203

REDUCERS

SIZE (IN.)	L (FT.)
6x4	22
8x6	23
8x4	39
10x8	22
10x6	40
12x10	23
12x8	41
16x12	42
16x10	58
20x18	22
20x16	42
20x12	74
24x20	36
24x18	51
24x16	64
30x24	50
30x20	77
36x30	50
36x24	89
42x36	48
42x30	89
48x42	48
48x36	88

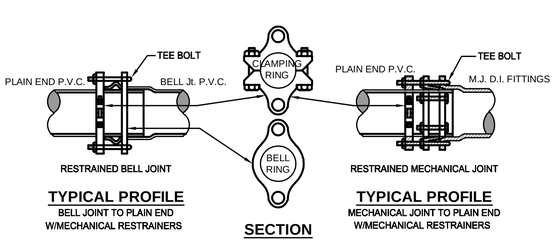
TEE SEE NOTE 5

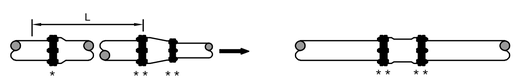
RUN SIZE (IN.)	BRANCH SIZE (IN.)	L (FT.)
4	4	F.O.
4	6 4 < LESS	6 F.O.
8	8 6 < LESS	19 F.O.
10	10 8 6 < LESS	29 9 F.O.
12	12 10 8 < LESS	40 21 F.O.
16	16 12 10 8 < LESS	60 25 3 F.O.
20	20 16 12 10 < LESS	79 48 9 F.O.
24	24 20 16 12 < LESS	79 54 23 F.O.
30	30 24 20 16 12 < LESS	101 66 38 4 F.O.
36	36 30 24 20 16 12 < LESS	122 90 53 21 1 F.O.
42	42 36 30 24 20 16 12 < LESS	141 113 79 38 3 1 F.O.
48	48 42 36 30 24 20 < LESS	160 133 103 66 22 F.O.

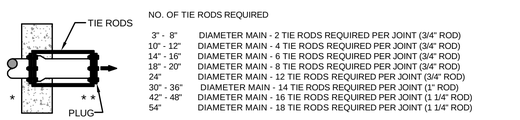
F.O. = FITTING ONLY

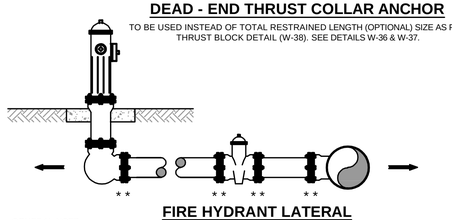
DUCTILE IRON PIPE RESTRAINT JOINT SCHEDULE

JANUARY 2023 PLATE W -31B







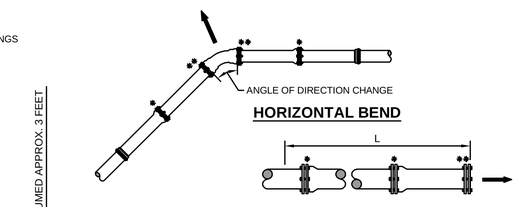


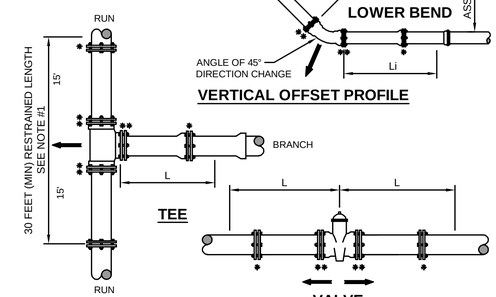
GENERAL NOTE:

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

JANUARY 2023 PLATE W-31C



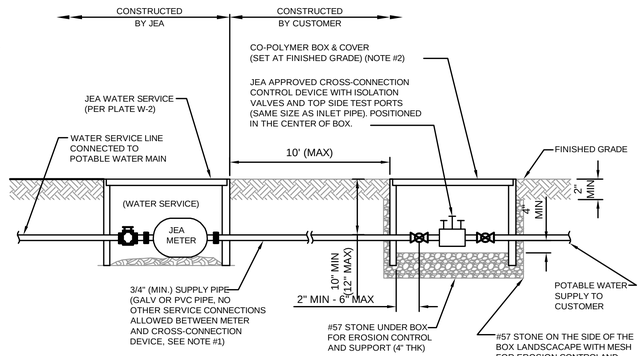


NOTES:

1. TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN.).
2. PAY ITEM "*" DENOTES A RESTRAINT WHICH IS PAID FOR ON A PER EACH BASIC.
3. PAY ITEM "**" DENOTES A RESTRAINT WHICH IS INCLUDED IN THE UNIT PRICE BID FOR FITTING OR VALVE.

MECHANICAL RESTRAINT DETAILS - II

JANUARY 2023 PLATE W-31D

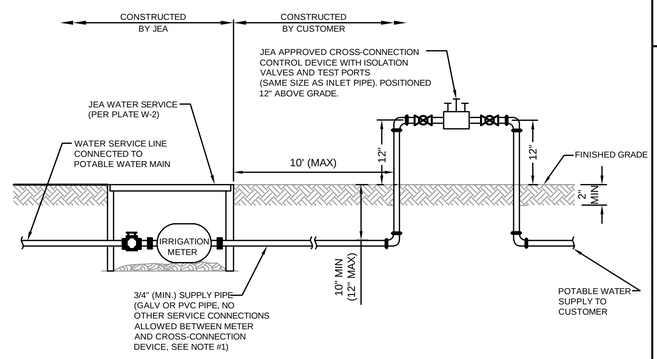


NOTES:

1. THE POTABLE WATER CUSTOMER IS REQUIRED TO INSTALL AND MAINTAIN A JEA APPROVED CROSS-CONNECTION DEVICE ON THEIR POTABLE WATER SERVICE LINE. OPERATION AND MAINTENANCE OF THIS CROSS-CONNECTION DEVICE SHALL COMPLY WITH JEA'S CROSS-CONNECTION CONTROL PROGRAM AND ASSOCIATED OPERATIONS POLICIES. ALL REDUCED PRESSURE ASSEMBLIES SHALL BE MOUNTED ABOVE GRADE.
2. ONLY DOUBLE CHECK VALVE ASSEMBLIES MAY BE INSTALLED BELOW GROUND. THESE DEVICES MAY BE INSTALLED IN A TYPICAL 1" (CO-POLYMER) METER BOX WITH SOLID LID (GENERIC LID WITH NO "JEA" LOGO, SEE ALSO W-3). THE SIZE OF BOX SHALL BE 12"x20", AT A MINIMUM. IT SHALL BE NOTED THAT IF THE HIGH MEAN GROUND WATER LEVEL FALLS INSIDE THIS BOX, THEN THE CROSS-CONNECTION CONTROL DEVICE MUST BE INSTALLED ABOVE GROUND. ACCEPTABLE DOUBLE CHECK VALVE ASSEMBLIES (BRONZE BODY WITH TWO CHECK VALVES, TWO BALL VALVES AND UNION CONNECTIONS BETWEEN BALL VALVES AND THE DEVICE). INCLUDE: WATTS U007M2QT, WILKINS 950XLTU OR JEA APPROVED EQUAL.
3. BACKFLOW PREVENTION DEVICES REQUIRED WHEN:
   IRRIGATION SYSTEMS - REQUIRED ON IRRIGATION SYSTEMS AT THE CONNECTION TO POTABLE SYATEM
   RESIDENTIAL SYSTEMS - REQUIRED ON WATER SERVICE IF RECLAIMED SERVICE WATER AVAILABLE TO SITE
   COMMERCIAL SITES - REQUIRED ON ALL WATER SERVICES
   INDUSTRIAL SITES - REQUIRED ON BOTH WATER AND RECLAIMED SERVICE ON, WATER SERVICE EVEN IF NO RECLAIMED
4. JEA IRRIGATION SERVICE CONNECTIONS REQUIRE ABOVE GRADE REDUCED PRESSURE BACKFLOW PREVENTERS. (SEE PLATE W-15A)

RECLAIM CROSS CONNECTION CONTROL DEVICE

JANUARY 2023 PLATE W-15



NOTES:

1. WATER SERVICE CONNECTIONS REQUIRE ABOVE GRADE REDUCED PRESSURE BACKFLOW PREVENTERS. (SEE PLATE W-15)
2. BACKFLOW PREVENTION DEVICES REQUIRED WHEN:
   IRRIGATION SYSTEMS - REQUIRED ON IRRIGATION SYSTEMS AT THE CONNECTION TO POTABLE SYSTEM
   RESIDENTIAL SYSTEMS - REQUIRED ON WATER SERVICE IF RECLAIMED SERVICE WATER AVAILABLE TO SITE
   COMMERCIAL SITES - REQUIRED ON ALL WATER SERVICES
   INDUSTRIAL SITES - REQUIRED ON BOTH WATER AND RECLAIMED SERVICE CONNECTIONS.
3. RESIDENTIAL IRRIGATION SERVICES MAY UTILIZE AN ALTERNATE BACKFLOW PREVENTER LOCATION IF THE FOLLOWING CONDITIONS EXITS:
   3.a. CUSTOMER HAS SUBMITTED A COMPLETED "CUSTOMER AFFIDAVIT" FORM AND
   3.b. THERE ARE NO ADDITIONAL CONNECTIONS BETWEEN THE METER AND THE BACKFLOW PREVENTER, AND
   3.c. THE ALTERNATE BACKFLOW LOCATION IS EASILY ACCESSIBLE TO JEA AND BACKFLOW TESTERS.

CROSS CONNECTION CONTROL DEVICE

JANUARY 2023 JEA IRRIGATION SERVICE CONNECTIONS PLATE W-15A

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
PHONE: (904) 642-8990
FAX: (904) 646-9485
VISION • EXPERIENCE • RESULTS
CA - 00002594 LC - 0000516

NO.	BY	DATE	REVISIONS
4.			
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DESIGN ENGINEER: DALLAS SCHRIER
FLORIDA REGISTRATION NO. 94608

DESIGNER:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Community

JEA STANDARD
WATER AND RECLAIMED DETAILS

WAWA @ WILDLIGHT

PROJ. NO.	19-066
DATE:	JANUARY 2023
SCALE:	AS NOTED
NO. SHEETS	6
SHEET NO.	4
DRAWING NO.	11D

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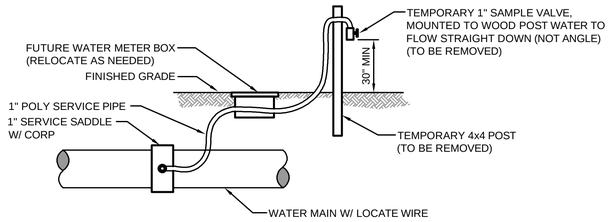


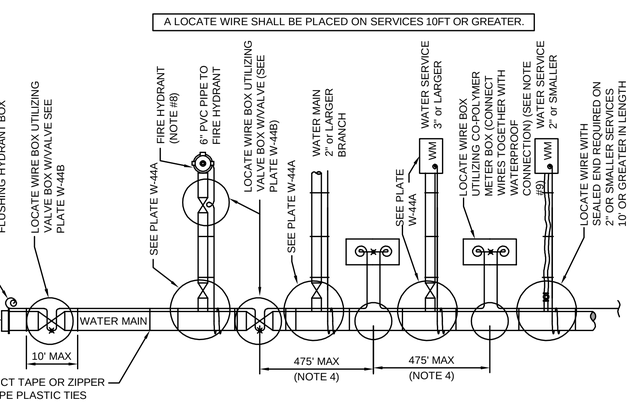
TEMPORARY SAMPLE TAP UTILIZING A NEW 1" WATER SERVICE

NOTES::

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 A

JANUARY 2023 PLATE W-24



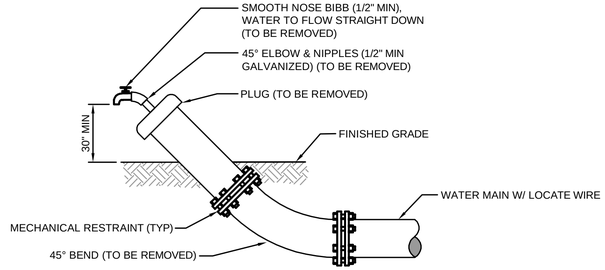
LOCATE WIRE SYSTEM

NOTES:

1. LOCATING WIRE TO BE INSTALLED IN EITHER THE ONE OR ELEVEN O'CLOCK POSITION ON ALL DUCTILE IRON OR 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)
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

JANUARY 2023 PLATE W-44



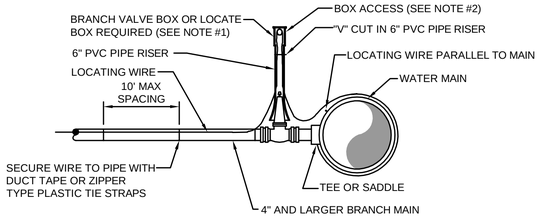
TEMPORARY SAMPLE TAP UTILIZING PLUG AT FLUSHING LOCATION

NOTES::

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.

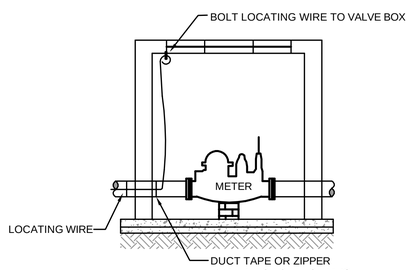
TEMPORARY SAMPLE TAP ALTERNATIVE METHOD B

JANUARY 2023 PLATE W-24A



BRANCH FORCE MAIN

(2" AND LARGER WATER MAIN OR 3" AND LARGER WATER SERVICE PIPE)



CONNECTION AT LARGE METER BOX

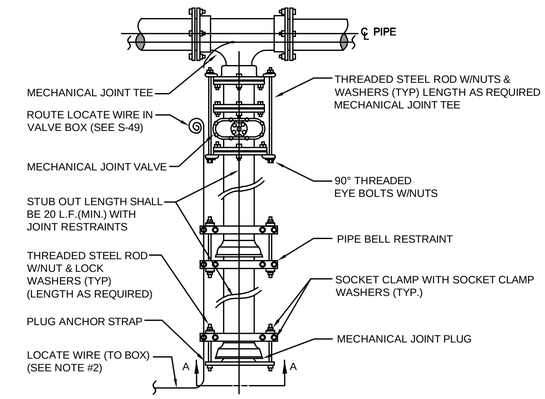
(3" OR LARGER SERVICE)

NOTES:

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 2023 PLATE W-44A



PLAN

SECTION "A-A"

NOTES:

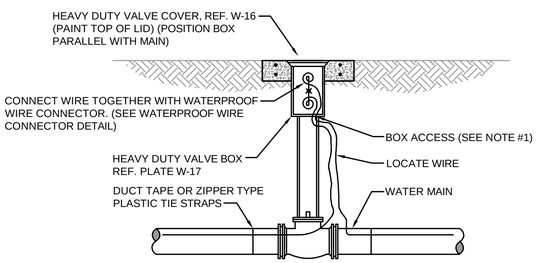
1. IN LIEU OF BELL/ROD RESTRAINTS, MECHANICAL JOINT RESTRAINTS MAY BE USED.
2. LOCATING WIRE REQUIRED, UTILIZING A LOCATE WIRE BOX INSTALLED AT PLUG LOCATION.
3. NUMBER OF TIE RODS REQUIRED IS AS FOLLOWS:

3" - 8"	DIAMETER MAIN - 2 TIE RODS REQUIRED PER JOINT (3/4" ROD)
10" - 12"	DIAMETER MAIN - 4 TIE RODS REQUIRED PER JOINT (3/4" ROD)
14" - 16"	DIAMETER MAIN - 6 TIE RODS REQUIRED PER JOINT (3/4" ROD)
18" - 20"	DIAMETER MAIN - 8 TIE RODS REQUIRED PER JOINT (3/4" ROD)
24"	DIAMETER MAIN -12 TIE RODS REQUIRED PER JOINT (3/4" ROD)
30" - 36"	DIAMETER MAIN -14 TIE RODS REQUIRED PER JOINT (1" ROD)
42" - 48"	DIAMETER MAIN -16 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)
54"	DIAMETER MAIN -18 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)

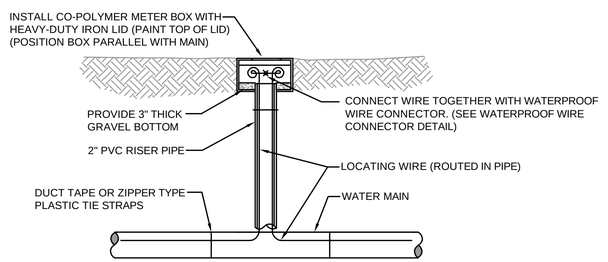
4. THE LOCATION OF THE DEAD END PLUG SHALL NOT BE UNDER PAVEMENT, IF POSSIBLE. THE STUB OUT SHALL EXTEND BEYOND THE INTERSECTION AREAS OR ROAD CROSSING BY 10 FEET (MIN.) WHERE POSSIBLE.

PLUGGED DEAD END USING MECHANICAL RESTRAINTS

JANUARY 2023 PLATE W-37



LOCATE WIRE BOX UTILIZING VALVE BOX



LOCATE WIRE BOX UTILIZING METER BOX

LOCATE WIRE BOX

JANUARY 2023 PLATE W-44B

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
CA - 00002594 LC - 0000316
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DESIGNER:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Community

JEA STANDARD
WATER AND RECLAIMED DETAILS

WAWA @ WILDLIGHT

PROJ. NO. 19-066
DATE: JANUARY 2023
SCALE: AS NOTED

NO. SHEETS 6
SHEET NO. 5
DRAWING NO. 11E

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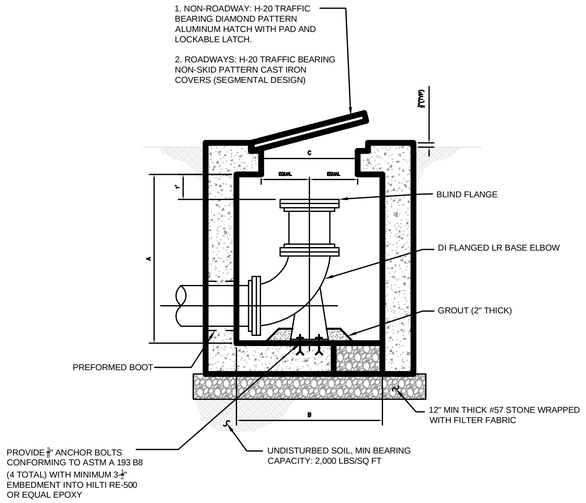
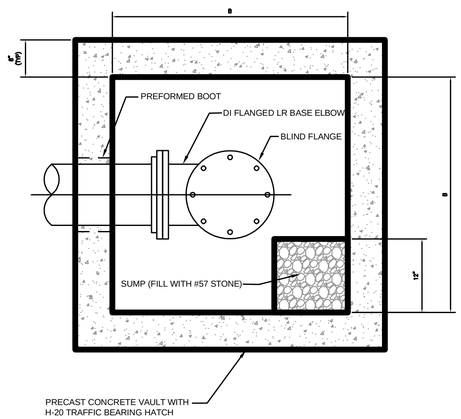


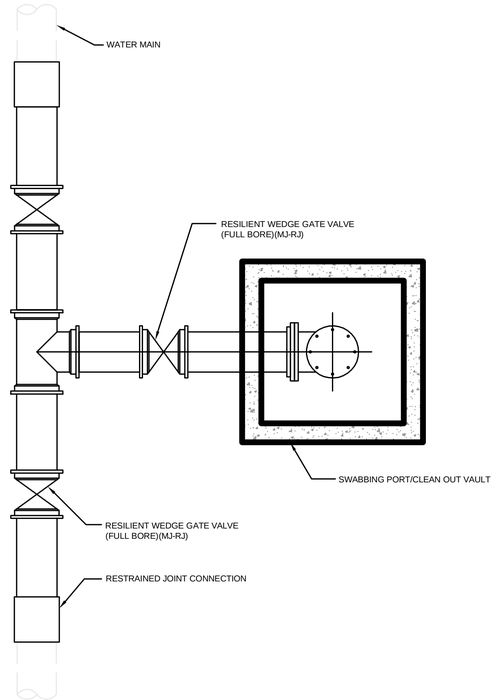
SWABBING PORT AND CLEAN OUT VAULT DETAIL - SECTION

JANUARY 2023 PLATE W-45



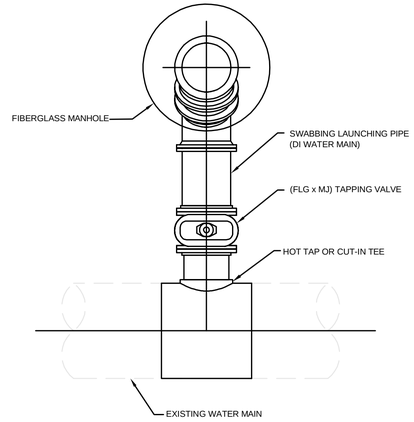
SWABBING PORT AND CLEAN OUT VAULT DETAIL - - PLAN

JANUARY 2023 PLATE W-45A



SWABBING LAUNCHING STATION DETAIL FOR NEW WATER MAIN UP TO 24"

JANUARY 2023 PLATE W-45B

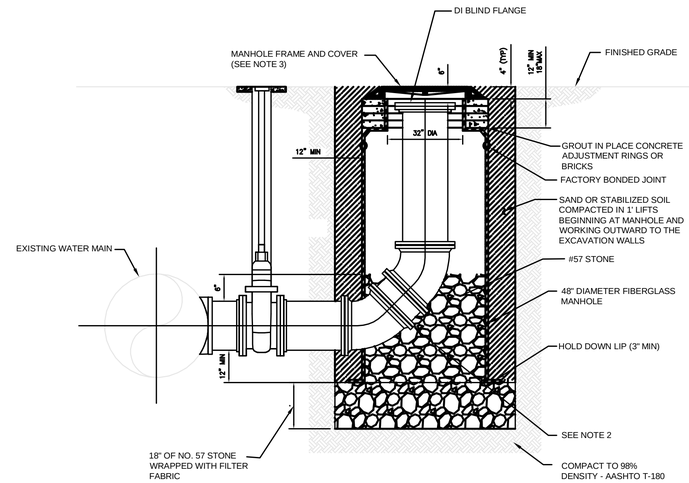


NOTES:

1. FOR HOT TAP CONNECTIONS ON EXISTING WATER MAINS 10" DIAMETER AND GREATER, DIAMETER OF TAPPING VALVE AND PIG LAUNCHING PIPE SHALL BE ONE NOMINAL SIZE LESS THAN EXISTING WATER MAIN.

SWABBING PIG LAUNCHING STATION DETAIL FOR WATER MAINS UP TO 24" - PLAN

JANUARY 2023 PLATE W-45C



NOTES:

1. PROVIDE ALL MATERIALS IN ACCORDANCE TO JEA WATER AND WASTEWATER STANDARD SPECIFICATIONS.
2. USE TWO VERTICAL 45 DEGREE MJ BENDS OR LONG RADIUS 90 DEGREE MJ BEND.
3. PROVIDE STANDARD JEA FRAME AND COVER.
4. RESTRAIN ALL JOINTS.

RETROFIT SWABBING LAUNCHING STATION DETAIL FOR WATER MAINS UP TO 24" - SECTION

JANUARY 2023 PLATE W-45D

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
CA - 00002594 LC - 0000516
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DESIGN ENGINEER: DALLAS SCHRIER
FLORIDA REGISTRATION NO. 94608

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DRAWN BY:
DATE:
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DATE:

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JEA STANDARD
WATER AND RECLAIMED DETAILS

WAWA @ WILDLIGHT

PROJ. NO. 19-066
DATE: JANUARY 2023
SCALE: AS NOTED

NO. SHEETS 6
SHEET NO. 6
DRAWING NO. 11F

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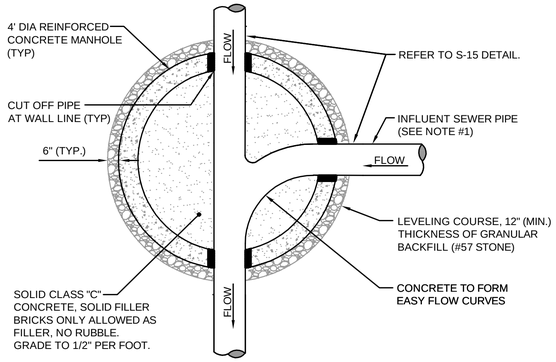
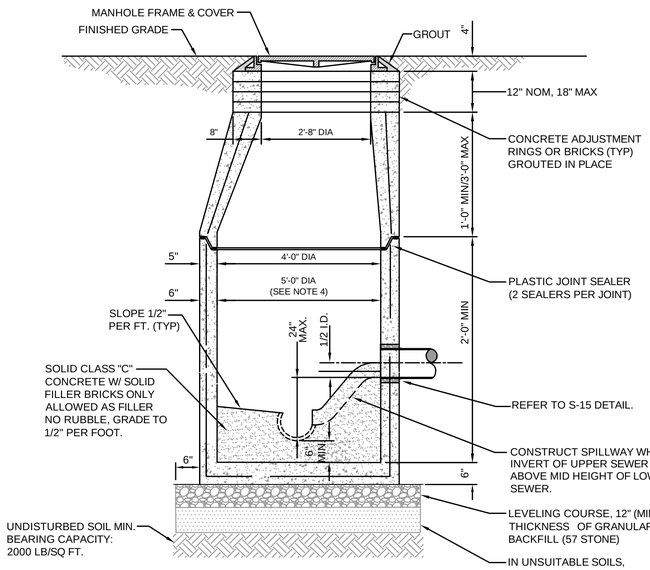


NOTES:

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)



SECTION VIEW (S-2)

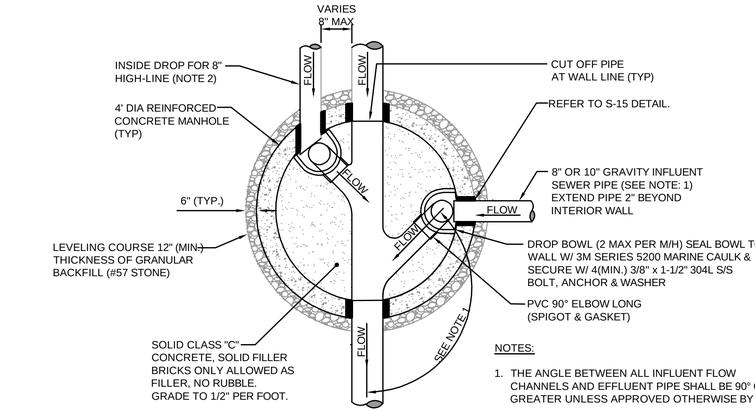
(FOR PLAN VIEW SEE S-3)

NOTES:

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.
2. 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.
6. 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 TYPE "A" MANHOLE 8"-21" SEWERS

JANUARY 2023 — PLATES S-2, S-3

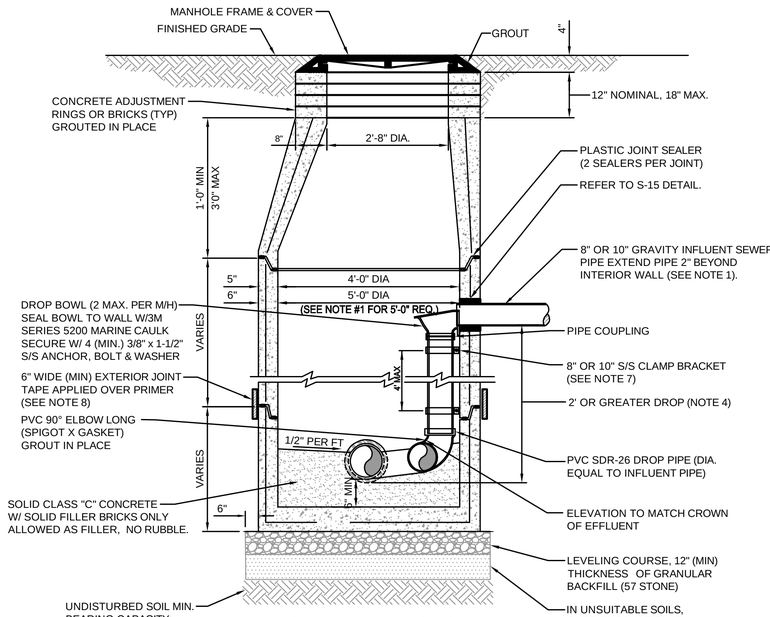


NOTES:

1. THE ANGLE BETWEEN ALL INFLUENT FLOW CHANNELS AND EFFLUENT PIPE SHALL BE 90° OR GREATER UNLESS APPROVED OTHERWISE BY JEA.
2. THE 8" HIGH-LINE, WHERE UTILIZED, SHALL ENTER THE MANHOLE ON-CENTER OR OFF-CENTER AS SHOWN ABOVE.

PLAN VIEW (S-5)

(FOR SECTION VIEW SEE S-4)



SECTION VIEW (S-4)

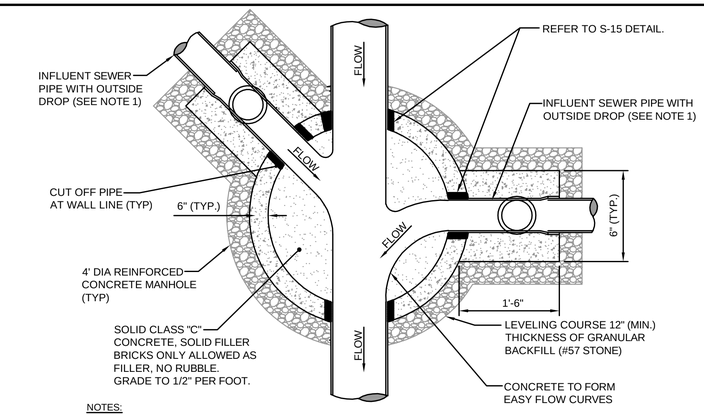
(FOR PLAN VIEW SEE S-5)

NOTES:

1. THIS ASSEMBLY IS FOR 8" OR 10" GRAVITY INFLUENT LINES ONLY. NO DROPS ALLOWED FOR FORCE MAINS. 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).
2. 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.
3. THE INTERIOR AND EXTERIOR OF MANHOLE AND THE INTERIOR OF ADJUSTMENT RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL.
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 SECTION IS OPTIONAL.
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 TYPE "B" MANHOLE 8"-10" SEWERS

JANUARY 2023 — PLATES S-4, S-5

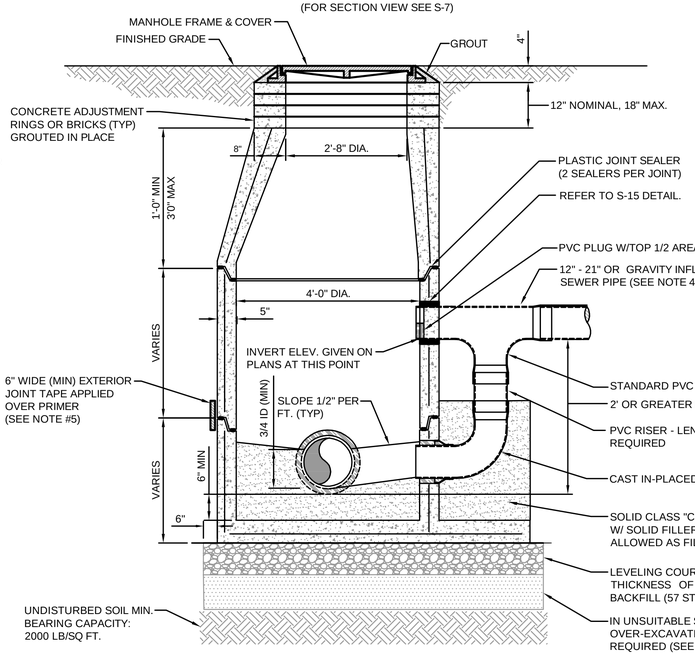


NOTES:

1. THE ANGLE BETWEEN ALL INFLUENT FLOW CHANNELS AND EFFLUENT PIPE SHALL BE 90° OR GREATER UNLESS APPROVED OTHERWISE BY JEA.
2. THE INTERIOR AND EXTERIOR OF THE MANHOLE AND THE INTERIOR OF THE ADJUSTMENT RINGS SHALL BE GIVEN 2 COATS OF BITUMINOUS WATERPROOFING MATERIAL.
3. IF SPECIALITY LINER IS TO BE INSTALLED ON INSIDE OF MANHOLE, THE BITUMINOUS WATERPROOFING MATERIAL SHALL BE OMITTED ON THE INSIDE.
4. TYPE "D" MANHOLES SHALL BE USED FOR 12" OR LARGER INFLUENT PIPES W/ 2' OR GREATER INFLUENT DROP.

PLAN VIEW (S-8)

(FOR SECTION VIEW SEE S-7)



SECTION VIEW (S-7)

(FOR PLAN VIEW SEE S-8)

NOTES:

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.
2. THE INTERIOR AND EXTERIOR OF MANHOLE AND THE INTERIOR OF THE ADJUSTMENT 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 SHALL BE, OMITTED ON INSIDE.
4. TYPE "D" MANHOLE SHALL BE USED FOR 12" OR LARGER INFLUENT PIPES W/ 2' OR GREATER INFLUENT DROP.
5. ALL M/H JOINTS BELOW THE TOP CONE SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTERIOR JOINT TAPE (W/PRIMER). TAPE ON THE CONE SECTION IS OPTIONAL.
6. 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 TYPE "D" MANHOLE 12"-21" SEWERS

JANUARY 2023 — PLATES S-7, S-8

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
CA - 00002594 LC - 0000316
VISION • EXPERIENCE • RESULTS

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4.			
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FLORIDA REGISTRATION NO. 94608

DESIGNER:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Communitysm

JEA STANDARD SANITARY SEWER DETAILS

WAWA @ WILDLIGHT

PROJ. NO.	19-086
DATE:	JANUARY 2023
SCALE:	AS NOTED

NO. SHEETS	5
SHEET NO.	1
DRAWING NO.	12A

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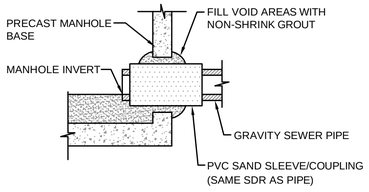
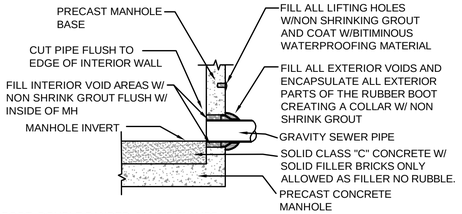


PVC SAND SLEEVE

(FOR EXISTING AND NEW M/H CONSTRUCTION)

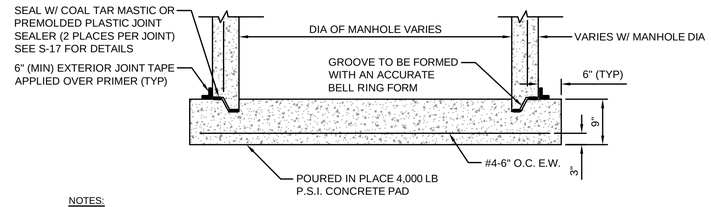


NOTES:

RUBBER BOOT, DOUBLE BANDED, 316 S/S CLAMPS, MEETING THE ASTM C923 STANDARD. Kor-N-Seal® I EX SERIES CONNECTOR WITH DOUBLE STAINLESS STEEL BANDS OR EQUAL

RUBBER BOOT

(FOR NEW M/H CONSTRUCTION ONLY, MAXIMUM DEPTH 15FT)



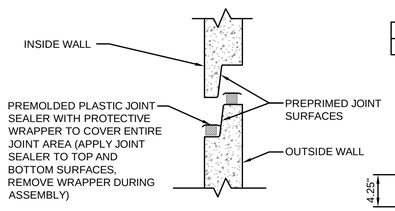
NOTES:

THE USE OF THE POURED IN PLACE MANHOLE BOTTOM SHALL BE MINIMIZED AND SHALL BE SPECIFICALLY APPROVED BY JEA PRIOR TO CONSTRUCTION.

MANHOLE BOTTOM

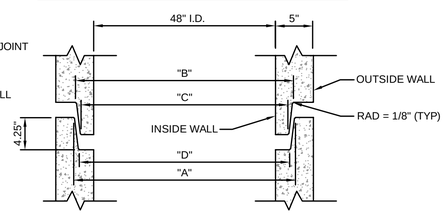
MANHOLE PIPE CONNECTION DETAIL

JANUARY 2023 PLATE S-15

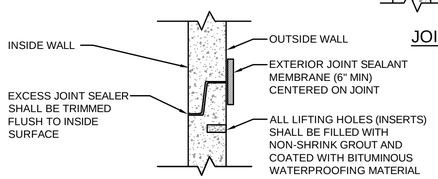


JOINT ASSEMBLY DETAIL

MANHOLE JOINT	"A"	"B"	"C"	"D
7° JOINT ANGLE	53.043	52.543	51.500	52.000



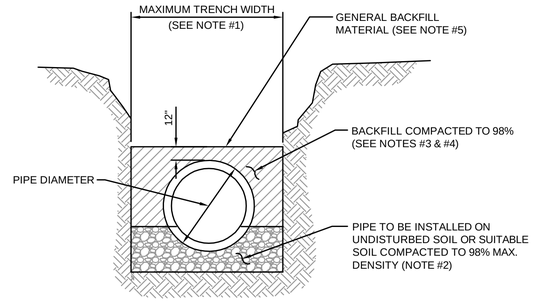
JOINT CONSTRUCTION DETAIL



COMPLETED JOINT DETAIL

PRECAST SEWER MANHOLE JOINT DETAIL

JANUARY 2023 PLATE S-17



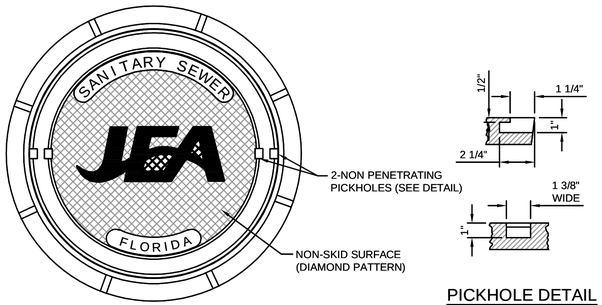
TYPICAL TRENCH

NOTES:

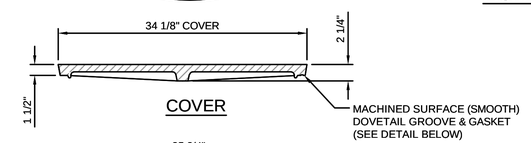
1. TRENCH SIDES SHALL BE APPROXIMATELY VERTICAL BETWEEN AN ELEVATION OF 1 FOOT ABOVE THE TOP OF THE PIPE AND THE CENTER LINE OF THE PIPE; OTHERWISE, TRENCH SIDES SHALL BE AS VERTICAL AS POSSIBLE OR AS REQUIRED BY OSHA STANDARDS. REFER TO THE MEASUREMENT AND PAYMENT SECTION (SECTION #801, PARAGRAPH #4)) TO DETERMINE MAXIMUM PAYLINE WIDTHS.
2. BELL HOLE SHALL BE DUG TO PERMIT THE ENTIRE STRAIGHT BARREL OF THE PIPE TO REST ON THE UNDISTURBED TRENCH BOTTOM. BOULDERS OR LOOSE ROCKS LARGER THAN 3/4 INCH IN SIZE WILL NOT BE PERMITTED IN BACKFILL UP TO 1 FOOT ABOVE THE TOP OF THE PIPE.
3. BACK FILL MATERIAL UP TO A LEVEL OF 1 FOOT OVER THE PIPE SHALL CONSIST OF AASHTO CLASS A-3 SOIL (SUITABLE SOIL) AND SHALL EXCLUDE CLAY MATERIALS AND LOOSE ROCKS LARGER THAN 3/4 INCH SIZE.
4. BACKFILL MATERIAL UP TO A LEVEL 1 FOOT OVER THE TOP OF PIPE OR BOTTOM OF STRUCTURES SHALL BE PLACED IN 6 INCH COMPACTED THICKNESS LAYERS AND SHALL BE COMPACTED TO 98% OF IT'S MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D1557.
5. SEE " EXCAVATION AND EARTHWORK", SECTION 408 FOR ADDITIONAL REQUIREMENTS INCLUDING REMOVAL AND REPLACEMENT OF UNSUITABLE SOILS, DEWATERING, COMPACTION REQUIREMENTS AND DENSITY TESTING OF COMPACTED SOILS.

OPEN CUT TRENCH FOR PRESSURE PIPE

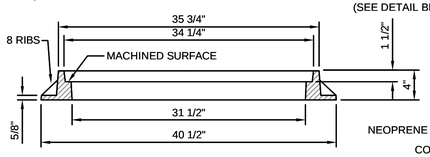
JANUARY 2023 IN CITY RIGHT -OF-WAY PLATE W-42



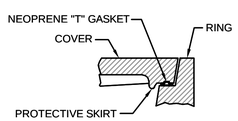
PICKHOLE DETAIL



COVER



RING



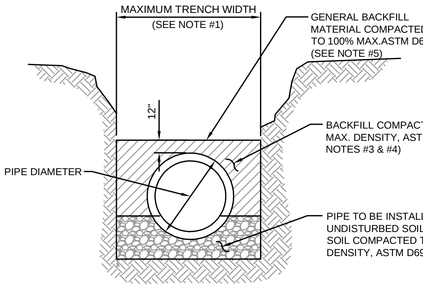
GROOVE & GASKET DETAIL

NOTES:

1. MATERIAL: ASTM A-48 CLASS 35B GRAY IRON.
2. RING WEIGHT 230 LBS APPROX.
3. COVER WEIGHT 230 LBS. APPROX.
4. ALL DIMENSIONS ARE SHOWN IN INCHES.
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).

SANITARY SEWER MANHOLE FRAME AND COVER

JANUARY 2023 PLATE S-1



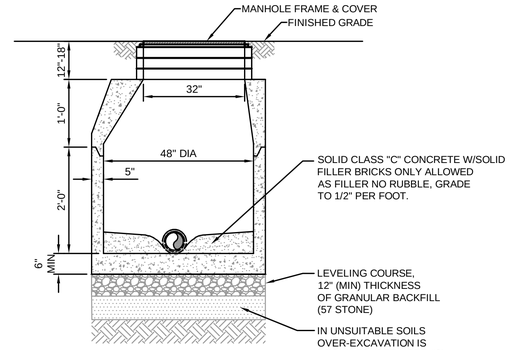
TYPICAL TRENCH

NOTES:

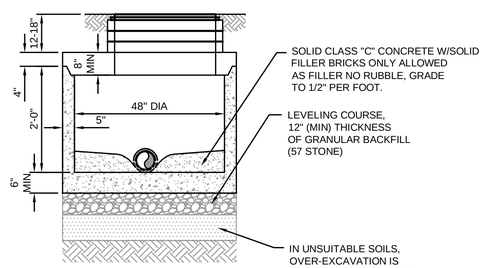
1. TRENCH SIDES SHALL BE APPROXIMATELY VERTICAL BETWEEN AN ELEVATION OF 1 FOOT ABOVE THE TOP OF THE PIPE AND THE CENTER LINE OF THE PIPE; OTHERWISE, TRENCH SIDES SHALL BE AS VERTICAL AS POSSIBLE OR AS REQUIRED BY OSHA STANDARDS. REFER TO THE MEASUREMENT AND PAYMENT SECTION (SECTION #801, PARAGRAPH #4)) TO DETERMINE MAXIMUM PAYLINE WIDTHS.
2. BELL HOLE SHALL BE DUG TO PERMIT THE ENTIRE STRAIGHT BARREL OF THE PIPE TO REST ON THE UNDISTURBED TRENCH BOTTOM. BOULDERS OR LOOSE ROCKS LARGER THAN 3/4 INCH IN SIZE WILL NOT BE PERMITTED IN BACKFILL UP TO 1 FOOT ABOVE THE TOP OF THE PIPE.
3. BACK FILL MATERIAL UP TO A LEVEL OF 1 FOOT OVER THE PIPE SHALL CONSIST OF AASHTO CLASS A-3 SOIL (SUITABLE SOIL) AND SHALL EXCLUDE CLAY MATERIALS AND LOOSE ROCKS LARGER THAN 3/4 INCH SIZE.
4. BACKFILL MATERIAL UP TO A LEVEL 1 FOOT OVER THE TOP OF PIPE OR BOTTOM OF STRUCTURES SHALL BE PLACED IN 6 INCH COMPACTED THICKNESS LAYERS AND SHALL BE COMPACTED TO 100% OF IT'S MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D698.
5. SEE " EXCAVATION AND EARTHWORK", SECTION 408 FOR ADDITIONAL REQUIREMENTS AND EXCEPTIONS INCLUDING REMOVAL AND REPLACEMENT OF UNSUITABLE SOILS, DEWATERING, COMPACTION REQUIREMENTS AND DENSITY TESTING OF COMPACTED SOILS.

OPEN CUT TRENCH FOR PRESSURE PIPE

JANUARY 2023 IN STATE ROAD RIGHT -OF-WAY PLATE W-42A



TYPE - "C" MANHOLE



TYPE - "C" MANHOLE WITH FLAT TOP

SECTION VIEWS

NOTES:

1. PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478WITH 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.
2. THE INTERIOR AND EXTERIOR OF MANHOLE AND INTERIOR OF ADJUSTMENT RINGS SHALL BE GIVEN TWO COAT OF BITUMINOUS WATERPROOFING MATERIAL.
3. 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 TYPE "C" MANHOLE 8"-21" SEWERS

JANUARY 2023 PLATE S-6

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
CA - 00002594 LC - 0000516
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NO.	BY	DATE	REVISIONS
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THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE J.E.A. WE TAKE NO EXCEPTION TO THE DESIGN

DESIGN ENGINEER: DALLAS SCHRIER
FLORIDA REGISTRATION NO. 94608

DESIGNER:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Community℠

JEA STANDARD SANITARY SEWER DETAILS

WAWA @ WILDLIGHT

PROJ. NO. 19-086 DATE: JANUARY 2023 SCALE: AS NOTED

NO. SHEETS 5 SHEET NO. 2 DRAWING NO. 12B

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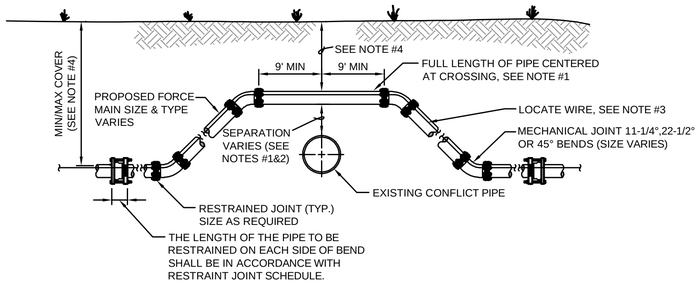


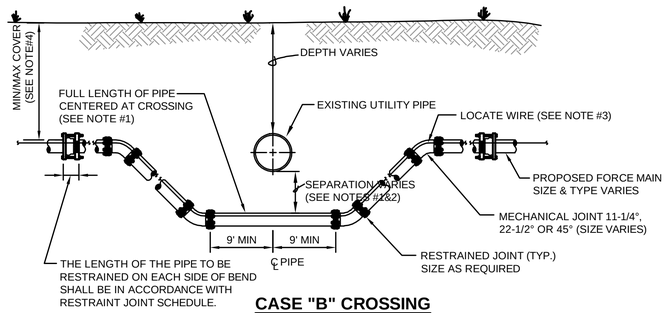
CASE "A" CROSSING

NOTES:

1. IF EXISTING CONFLICT PIPE IS A WATER OR RECLAIMED WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED. A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSINGS.
2. FOR OTHER LOCATION LIMITATIONS SEE DETAIL (S-26 & S-27).
3. LOCATING WIRE REQUIRED: SEE DETAIL S-49.
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 PRE-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. THE SOILS BETWEEN THE 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.

ADJUSTMENT OVER EXISTING UTILITIES MECHANICAL RESTRAINTS

JANUARY 2023 PLATE S-39



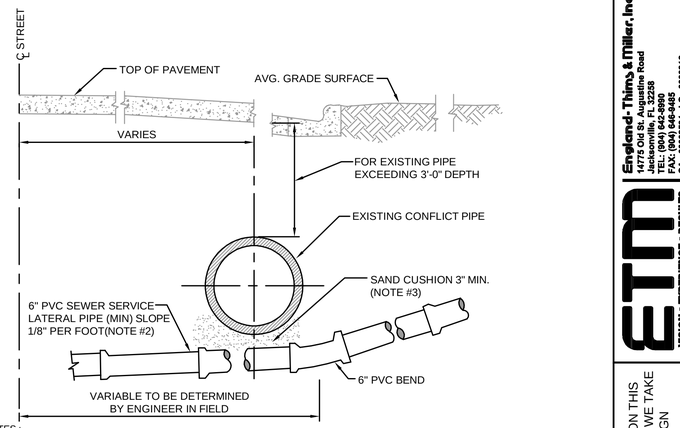
CASE "B" CROSSING

NOTES:

1. IF EXISTING CONFLICT PIPE IS A WATER OR RECLAIMED WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED.A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSINGS.
2. FOR OTHER LOCATION LIMITATIONS SEE DETAIL (S-26 & S-27).
3. LOCATING WIRE REQUIRED: SEE DETAIL S-49.
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 PRE-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. THE SOILS BETWEEN THE 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.

ADJUSTMENT UNDER EXISTING UTILITIES MECHANICAL RESTRAINTS

JANUARY 2023 PLATE S-41

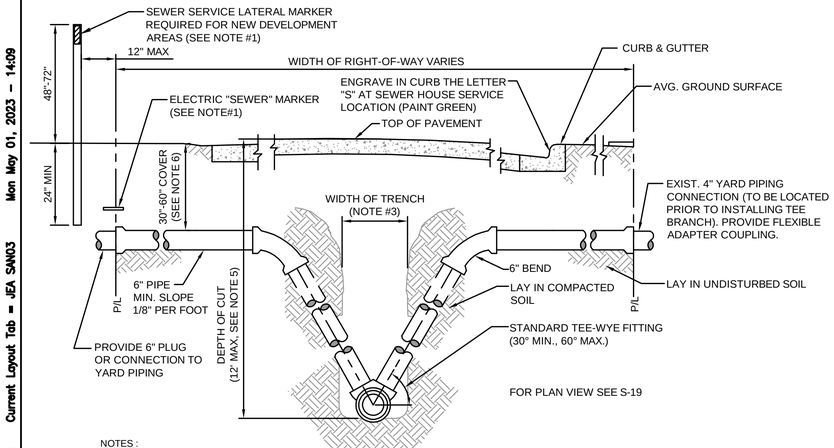


NOTES :

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 2023 PLATE S-24

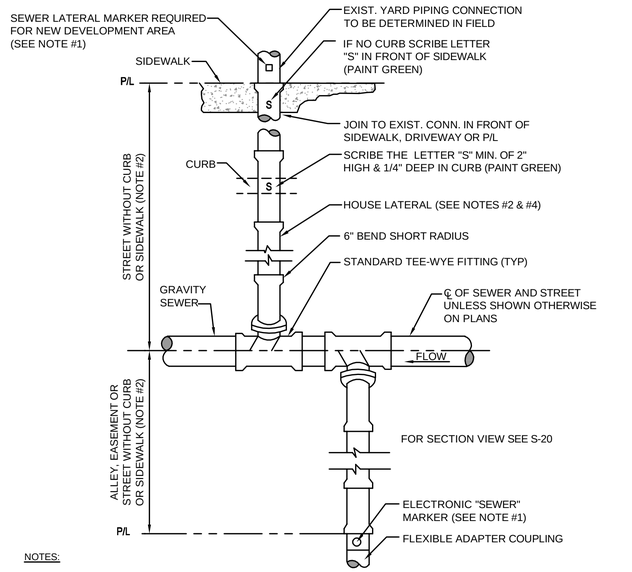


NOTES :

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"NOT" IN USE". 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.
4. ALL GRAVITY SEWER MAINS AND ASSOCIATED SEWER LATERAL PIPE AND FITTINGS (INCLUDING THE TEE-WYE FITTING) SHALL BE PVC SDR-26.
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 2023 PLATE S-20

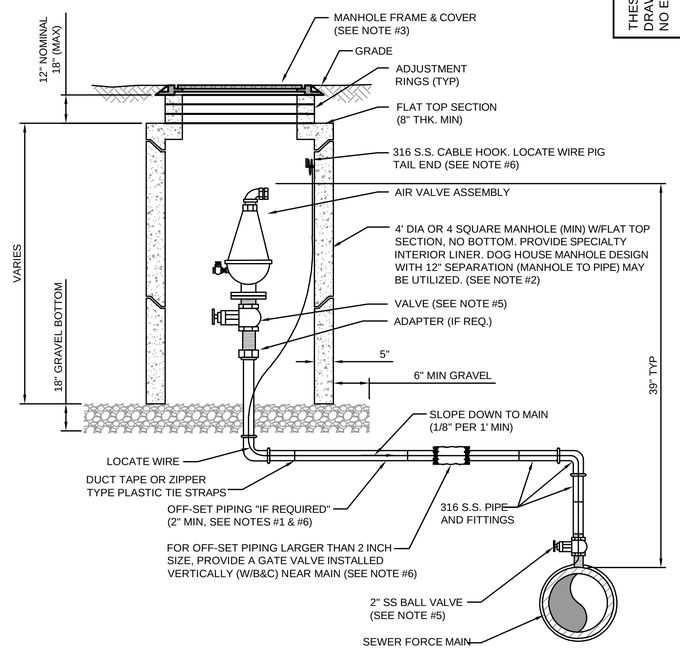


NOTES:

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"NOT" IN USE". 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

JANUARY 2023 PLATE S-19



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

JANUARY 2023 PLATE S-29

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
CA - 00002594 LC - 0000316
VISION • EXPERIENCE • RESULTS

NO.	BY	DATE	REVISIONS
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THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE J.E.A. WE TAKE NO EXCEPTION TO THE DESIGN

DESIGN ENGINEER: DALLAS SCHRIER
FLORIDA REGISTRATION NO. 94608

DESIGNER:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Community

JEA STANDARD SANITARY SEWER DETAILS

WAWA @ WILDLIGHT

PROJ. NO. 19-066
DATE: JANUARY 2023
SCALE: AS NOTED

NO. SHEETS 5
SHEET NO. 3
DRAWING NO. 12C

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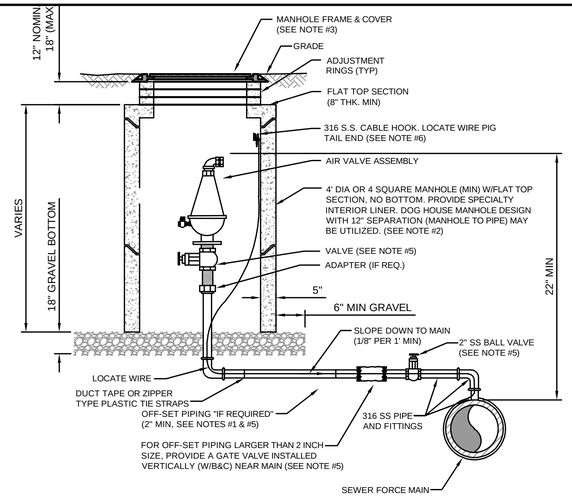
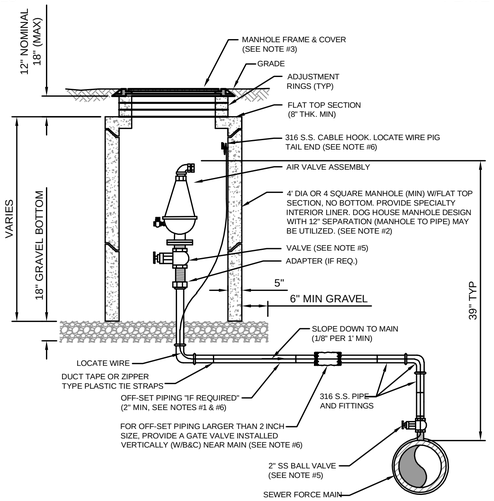


NOTES:

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.

OPTIONAL LOW PROFILE AIR VALVE ASSEMBLY INSIDE MANHOLE

JANUARY 2023 PLATE S-29A

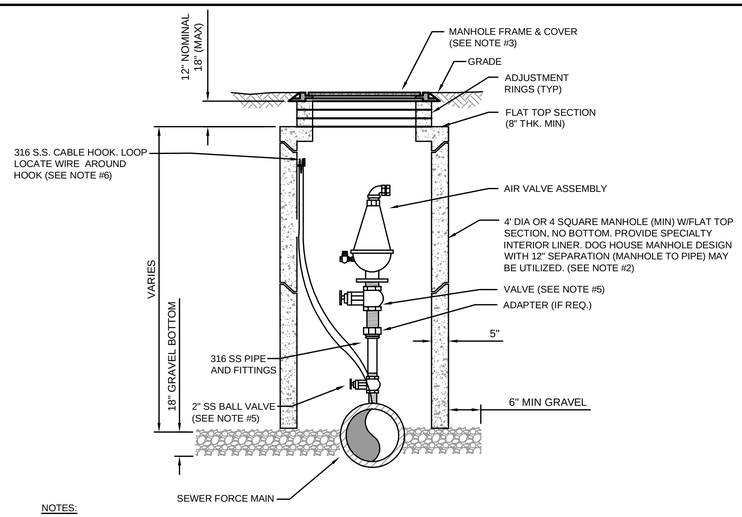


NOTES:

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

JANUARY 2023 PLATE S-29



NOTES:

1. THE AIR ASSEMBLY MANHOLE SHALL BE LOCATED OUTSIDE OF THE ROADWAY PAVEMENT AREA (I.E. LOCATED IN NON-TRAFFIC AREAS).
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 IN ROW

JANUARY 2023 PLATE S-29B

LENGTH (L) TO BE RESTRAINED (SEE PLATE Nos. 38C & 38D FOR ADDITIONAL DETAILS)

NOMINAL PIPE SIZE (IN.)	HORIZONTAL BENDS 90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	VERTICAL OFFSETS 45° BENDS (SEE NOTE 4) UPPER L (FT.)	LOWER L (FT.)	VALVES OR DEAD ENDS L (FT.)
4	21	9	5	3	17	3	47
6	30	13	6	3	23	4	66
8	38	16	8	4	30	6	86
10	45	19	9	5	36	7	103
12	53	22	11	6	43	8	121
14	61	26	13	6	50	9	140
16	66	28	14	7	55	10	154
18	73	30	15	8	60	11	170
20	79	33	16	8	66	12	186
24	79	33	16	8	77	15	185
30	93	39	19	10	97	17	222
36	106	39	21	11	107	20	257
42	117	49	24	12	120	24	289
48	144	53	26	13	133	26	321

REDUCERS SIZE (IN.)	L (FT.)
6x4	34
8x6	36
8x4	62
10x8	35
10x6	63
12x10	36
12x8	64
16x12	66
16x10	92
20x18	35
20x16	66
20x12	117
24x20	56
24x18	80
24x16	101
30x24	78
30x20	121
36x30	78
36x24	141
42x36	75
42x30	140
48x42	75
48x36	139

TEES SEE NOTE 5 RUN SIZE (IN.)	BRANCH SIZE (IN.)	L (FT.)
4	4	F.O.
4	6 4 < LESS	10 F.O.
8	8 6 < LESS	29 F.O.
10	10 8 6 < LESS	45 13 F.O.
12	12 10 8 < LESS	62 32 F.O.
16	16 12 10 10 < LESS	94 39 5 F.O.
20	20 16 12 10 < LESS	125 76 14 F.O.
24	24 20 16 12 < LESS	124 84 36 F.O.
30	30 24 20 16 16 < LESS	159 104 60 5 F.O.
36	36 30 24 20 16 < LESS	192 142 83 33 F.O.
42	42 36 30 24 20 16 < LESS	223 178 124 59 5 F.O.
48	48 42 36 30 24 20 < LESS	253 209 162 104 34 F.O.

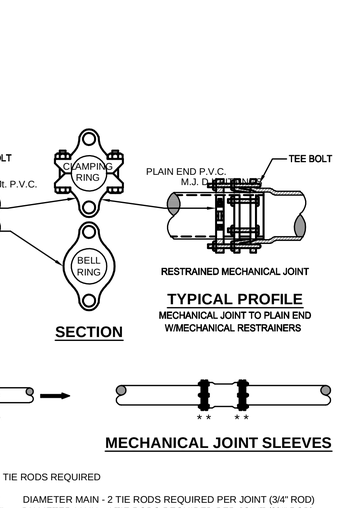
F.O. = FITTING ONLY

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.
2. 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.
3. BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
4. 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) LEVEL. ASSUME 45 DEGREE BENDS.
5. 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).
7. 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 2023 PLATE S-38A



NO. OF TIE RODS REQUIRED

3" - 8"	DIAMETER MAIN - 2 TIE RODS REQUIRED PER JOINT (3/4" ROD)
10" - 12"	DIAMETER MAIN - 4 TIE RODS REQUIRED PER JOINT (3/4" ROD)
14" - 16"	DIAMETER MAIN - 6 TIE RODS REQUIRED PER JOINT (3/4" ROD)
18" - 20"	DIAMETER MAIN - 8 TIE RODS REQUIRED PER JOINT (3/4" ROD)
24"	DIAMETER MAIN - 12 TIE RODS REQUIRED PER JOINT (3/4" ROD)
30" - 36"	DIAMETER MAIN - 14 TIE RODS REQUIRED PER JOINT (1" ROD)
42" - 48"	DIAMETER MAIN - 16 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)
54"	DIAMETER MAIN - 18 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)

DEAD - END THRUST COLLAR ANCHOR

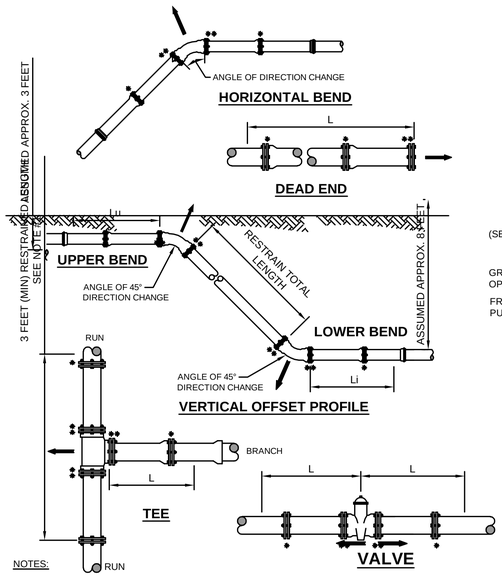
TO BE USED INSTEAD OF TOTAL RESTRAINED LENGTH (OPTIONAL) SIZE AS PER THRUST BLOCK DETAIL (W-38). SEE DETAILS W-36 & W-37.

GENERAL NOTE:

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

JANUARY 2023 PLATE S-38C

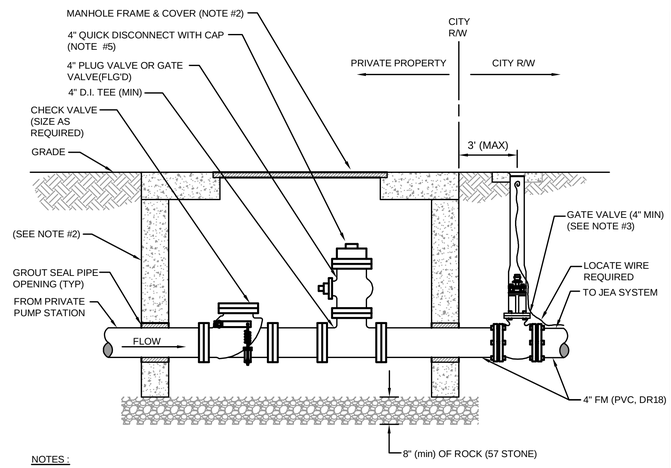


NOTES:

1. TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 6 FEET (MIN.). THE PROJECT ENGINEER CAN INCREASE THIS LENGTH TO REDUCE THE NUMBER OF RESTRAINS REQUIRED. ANY CHANGES TO THIS TABLE MUST BE SUMMITTED TO JEA FOR APPROVAL.
2. PAY ITEM "*" DENOTES A RESTRAINT WHICH IS PAID FOR ON A PER EACH BASIC.
3. PAY ITEM "**" DENOTES A RESTRAINT WHICH IS INCLUDED IN THE UNIT PRICE BID FOR FITTING OR VALVE.

MECHANICAL RESTRAINT DETAILS - II

JANUARY 2023 PLATE S-38D



NOTES :

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 TYPE COVER).
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 APPROVAL.
5. QUICK DISCONNECT WITH CAP SHALL BE ALUMINUM AND BE POSITIONED DIRECTLY UNDER MANHOLE LID FOR ACCESS.

PRIVATE PUMP OUT ASSEMBLY

JANUARY 2023 PLATE S-46

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TELEPHONE: (904) 642-8990
FAX: (904) 646-9485
CA - 00002594 LC - 0000516
VISION • EXPERIENCE • RESULTS

NO.	BY	DATE	REVISIONS
4.			
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THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE J.E.A. WE TAKE NO EXCEPTION TO THE DESIGN

DESIGNER:
DRAWN BY:
DATE:
CHECKED BY:
DATE:
DESIGN ENGINEER: DALLAS SCHRIER
FLORIDA REGISTRATION NO. 94608

JEA Building Community

JEA STANDARD
SANITARY SEWER DETAILS

WAWA @ WILDLIGHT

PROJ. NO. 19-086
DATE: JANUARY 2023
SCALE: AS NOTED
NO. SHEETS 5
SHEET NO. 4
DRAWING NO. 12D

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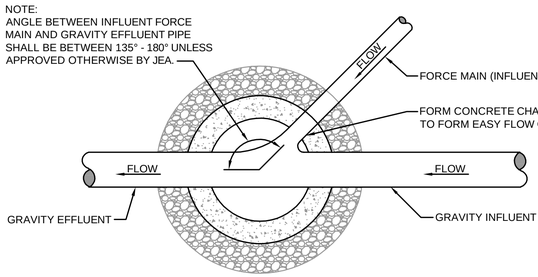
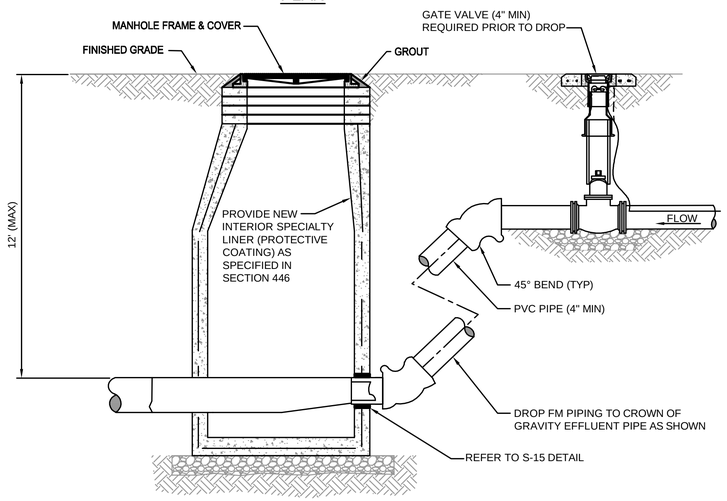
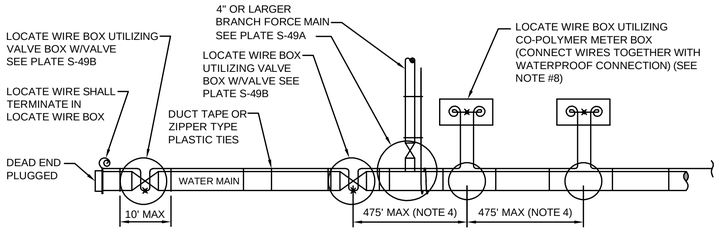


PLAN



SECTION



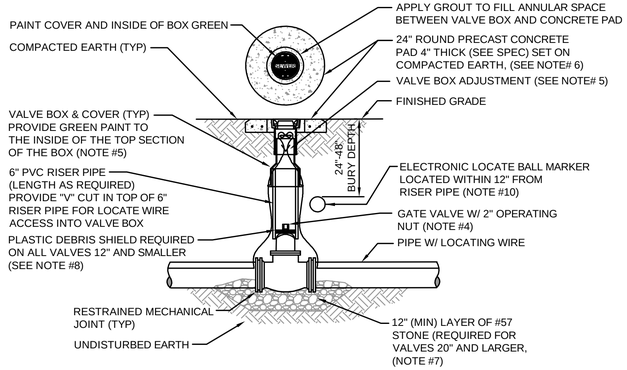
LOCATE WIRE SYSTEM

NOTES:

1. LOCATING WIRE TO BE INSTALLED IN EITHER THE ONE OR ELEVEN O'CLOCK POSITION ON ALL DUCTILE IRON OR 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. "@" 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 2023 PLATE S-49

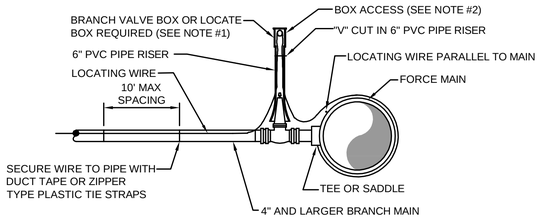


NOTES:

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 DETAIL S-49).
3. A "V" CUT SHALL BE CARVED IN THE CURB CLOSEST/(ASPHALT IF NO CURB) ADJACENT TO ALL BELOW GRADE VALVES. THE "V" CUT IS TO BE PAINTED GREEN.
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 "SEWER", VALVE SIZE, DIRECTION AND TURNS TO OPEN & VALVE TYPE. PROVIDE A ¼" HOLE IN BRASS TAG AND ATTACH TAG (TWIST WIRE AROUND TAG) TO THE END OF THE LOCATE WIRE. TAGS ARE NOT REQUIRED ON VALVES INSTALLED ON FIRE HYDRANT BRANCH LINES.
7. IN LIEU OF PRECAST CONCRETE PAD, A 6" THICK X 24" (ROUND OR SQUARE) POURED CONCRETE PAD W/2 - #4 REBAR AROUND PERIMETER, MAY BE USED.
8. GRAVEL SHALL BE PROVIDED UNDER ALL VALVES 20" AND LARGER. THE MINIMUM VERTICAL LIMIT OF GRAVEL IS 12" UNDER THE VALVE UP TO ⅓ 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 AFC, BOXLOK OR APPROVED EQUAL.
10. ALL VALVES SHALL BE INSTALLED WITH AN ELECTRIC LOCATE MARKER. MARKER SHALL BE 4" DIA. COLOR CODED BALL MARKER (3M-1404XR FOR SEWER).

SEWER VALVE DETAIL

JANUARY 2023 PLATE S-30



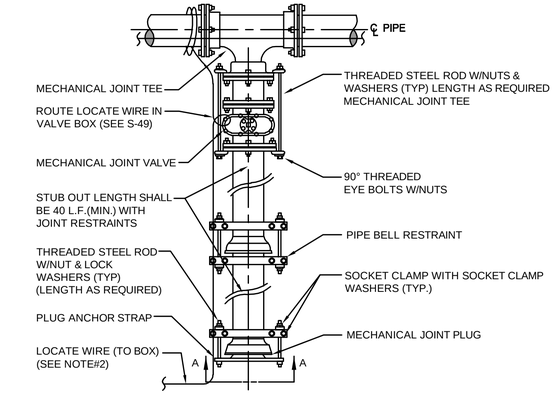
BRANCH FORCE MAIN
(4" AND LARGER SEWER MAIN)

NOTE:

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 2023 PLATE S-49A



PLAN

SECTION "A-A"

NOTES:

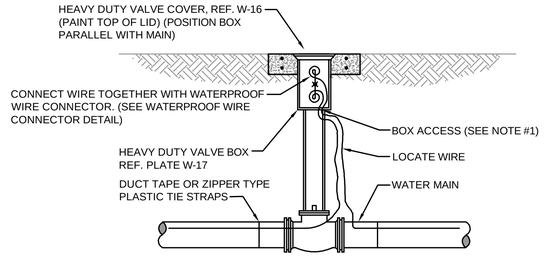
1. IN LIEU OF BELL/ROD RESTRAINTS, MECHANICAL JOINT RESTRAINTS MAY BE USED.
2. LOCATING WIRE REQUIRED, UTILIZING A LOCATE WIRE BOX INSTALLED AT PLUG LOCATION.
3. NUMBER OF TIE RODS REQUIRED IS AS FOLLOWS:

3" - 8"	DIAMETER MAIN - 2 TIE RODS REQUIRED PER JOINT (3/4" ROD)
10" - 12"	DIAMETER MAIN - 4 TIE RODS REQUIRED PER JOINT (3/4" ROD)
14" - 16"	DIAMETER MAIN - 6 TIE RODS REQUIRED PER JOINT (3/4" ROD)
18" - 20"	DIAMETER MAIN - 8 TIE RODS REQUIRED PER JOINT (3/4" ROD)
24"	DIAMETER MAIN -12 TIE RODS REQUIRED PER JOINT (3/4" ROD)
30" - 36"	DIAMETER MAIN -14 TIE RODS REQUIRED PER JOINT (1" ROD)
42" - 48"	DIAMETER MAIN -16 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)
54"	DIAMETER MAIN -18 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)

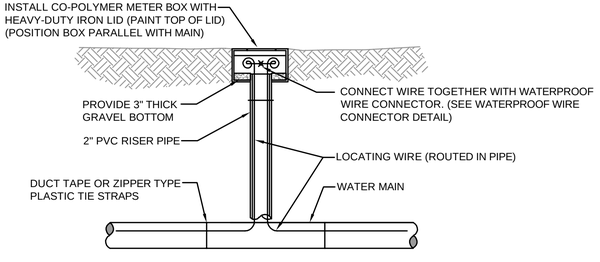
4. THE LOCATION OF THE DEAD END PLUG SHALL NOT BE UNDER PAVEMENT, IF POSSIBLE. THE STUB OUT SHALL EXTEND BEYOND THE INTERSECTION AREAS OR ROAD CROSSING BY 10 FEET (MIN.) WHERE POSSIBLE.

PLUGGED DEAD END USING MECHANICAL RESTRAINTS

JANUARY 2023 PLATE S-44



LOCATE WIRE BOX UTILIZING VALVE BOX



LOCATE WIRE BOX UTILIZING METER BOX

LOCATE WIRE BOX

JANUARY 2023 PLATE S-49B

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
CA - 00002594 LC - 0000516
VISION • EXPERIENCE • RESULTS

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DESIGN ENGINEER: DALLAS SCHRIER
FLORIDA REGISTRATION NO. 94608

DESIGNER:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Community sm

JEA STANDARD SANITARY SEWER DETAILS

WAWA @ WILDLIGHT

PROJ. NO. 19-066
DATE: JANUARY 2023
SCALE: AS NOTED

NO. SHEETS 5
SHEET NO. 5
DRAWING NO. 12E

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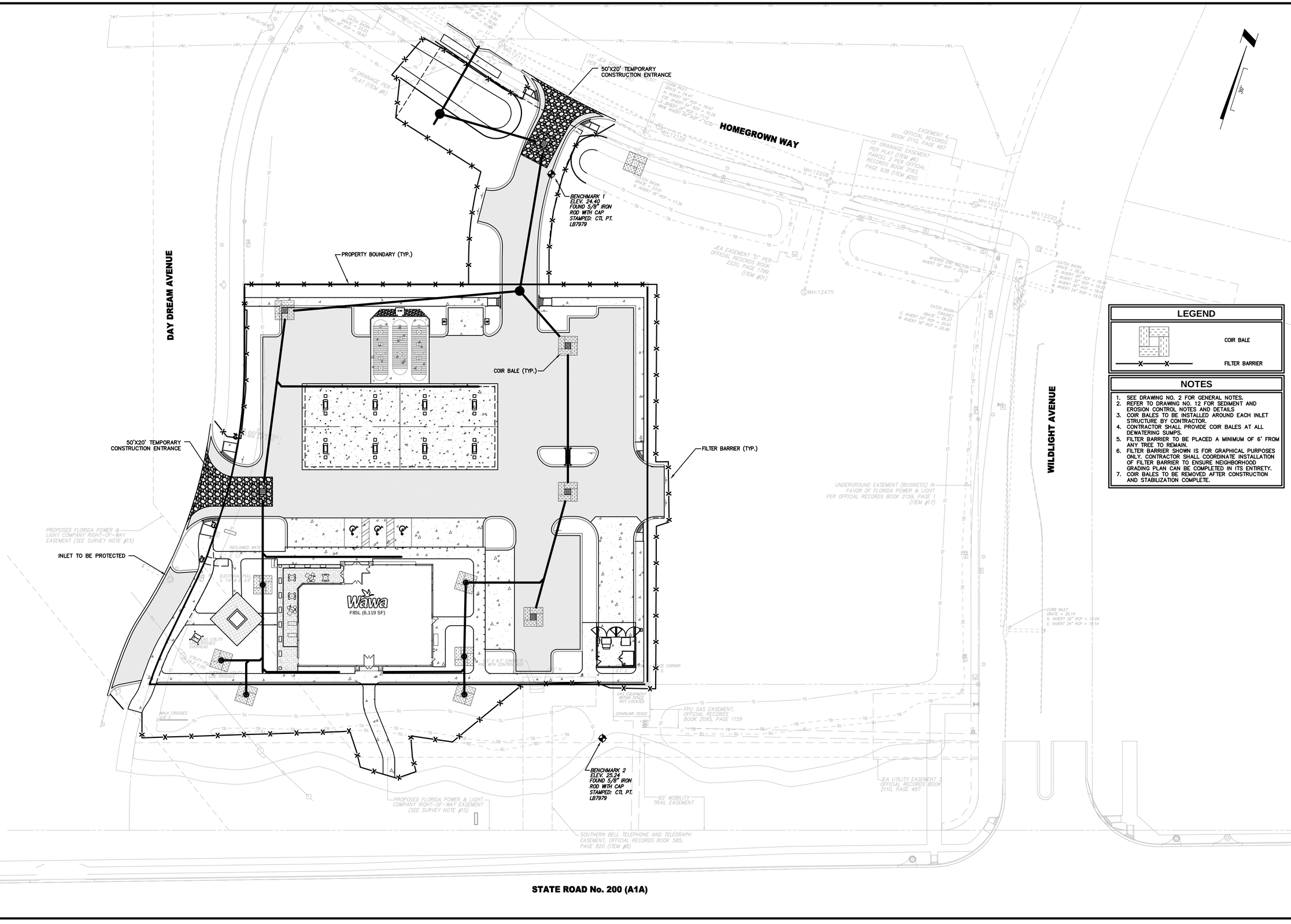

LEGEND

COIR BALE

FILTER BARRIER

NOTES

1. SEE DRAWING NO. 2 FOR GENERAL NOTES.
2. REFER TO DRAWING NO. 12 FOR SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
3. COIR BALES TO BE INSTALLED AROUND EACH INLET STRUCTURE BY CONTRACTOR.
4. CONTRACTOR SHALL PROVIDE COIR BALES AT ALL DEWATERING SUMPS.
5. FILTER BARRIER TO BE PLACED A MINIMUM OF 6' FROM ANY TREE TO REMAIN.
6. FILTER BARRIER SHOWN IS FOR GRAPHICAL PURPOSES ONLY. CONTRACTOR SHALL COORDINATE INSTALLATION OF FILTER BARRIER TO ENSURE NEIGHBORHOOD GRADING PLAN CAN BE COMPLETED IN ITS ENTIRETY.
7. COIR BALES TO BE REMOVED AFTER CONSTRUCTION AND STABILIZATION COMPLETE.

PLANS PREPARED UNDER THE DIRECTION OF:

DALLAS SCHRIER
P.E. NUMBER: 94608

PLOTTED: May 1, 2023 – 2:11 PM, BY: Dallas Schrier

REVISIONS:
2023.03.14-REV. PER AGENCY COMMENTS
2023.04.28-REV. PER AGENCY COMMENTS

ETM NO. 19-086	DRAWN BY: RRS II	DESIGNED BY: DDS	CHECKED BY: DDS	DATE: NOVEMBER 2022

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VISION • EXPERIENCE • RESULTS

SEDIMENT AND EROSION CONTROL PLAN

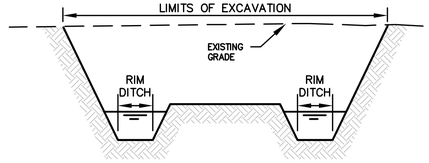
WAWA @ WILDLIGHT FOR WAWA FLORIDA, LLC

DRAWING NUMBER
12

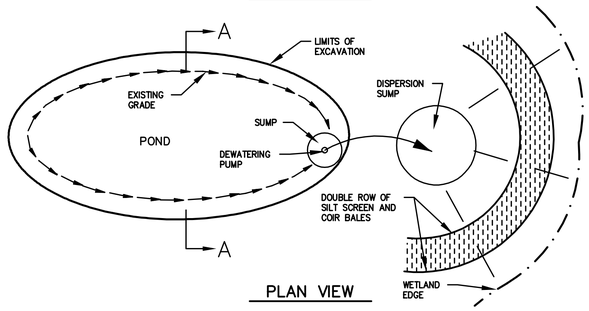
T:\2019\19-086\LandDev\Design\Plots\SEC_19-086.dwg

SEDIMENT AND EROSION CONTROL NOTES

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.
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 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
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 IMMEDIATELY.
20. STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS REQUIRED.
21. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE 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 REGULATIONS.
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 QUALITY DEGRADATION. SEE DETAILS (THIS SHEET) FOR TYPICAL CONSTRUCTION.
25. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
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 MANAGEMENT DISTRICT.
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, NASSAU COUNTY 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)



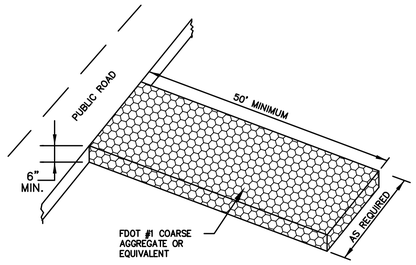
SECTION A–A



PLAN VIEW

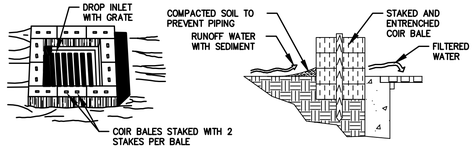
TEMPORARY DEWATERING DETAIL

N.T.S.



STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

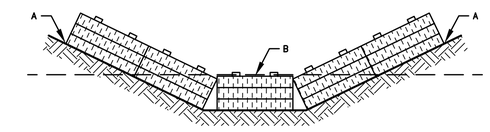


SPECIFIC APPLICATION

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

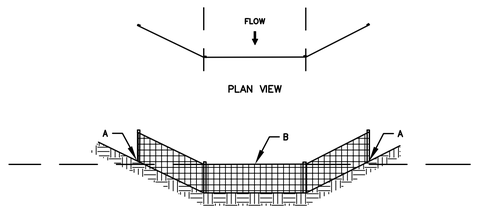
N.T.S.



POINTS A SHOULD BE HIGHER THAN POINT B

PROPER PLACEMENT OF COIR BALE IN A DRAINAGE WAY

N.T.S.



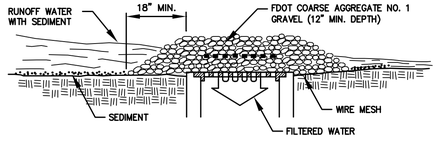
PLAN VIEW

SECTION VIEW

POINTS A SHOULD BE HIGHER THAN POINT B

PROPER PLACEMENT OF A FILTER BARRIER IN DRAINAGE WAY

N.T.S.

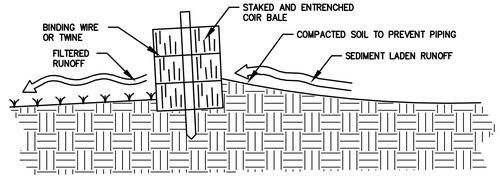


SPECIFIC APPLICATION

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.

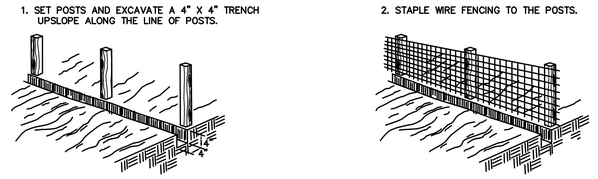
GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER

N.T.S.



CROSS-SECTION OF A PROPERLY INSTALLED COIR BALE

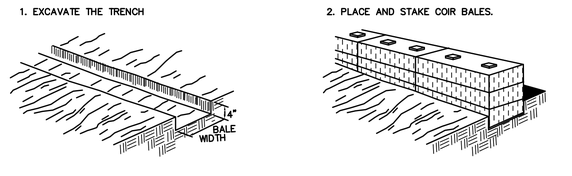
N.T.S.



EXTENSION OF FABRIC AND WIRE INTO THE TRENCH.

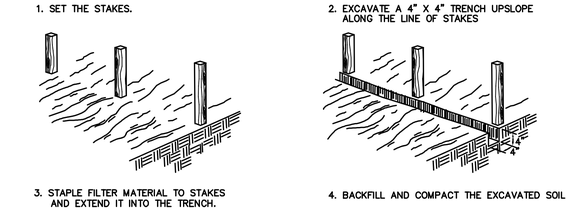
CONSTRUCTION OF SILT FENCE

N.T.S.



CONSTRUCTION OF A COIR BALE BARRIER

N.T.S.



CONSTRUCTION OF A FILTER BARRIER

N.T.S.

PLANS PREPARED UNDER THE DIRECTION OF:
DALLAS SCHRIER
P.E. NUMBER: 94608

PLOTTED: May 1, 2023 – 2:11 PM, BY: Dallas Schrier

REVISIONS:
2023.03.14–REV. PER AGENCY COMMENTS
2023.04.28–REV. PER AGENCY COMMENTS

ETM NO. 19–086	DRAWN BY: RRS II	DESIGNED BY: DDS	CHECKED BY: DDS	DATE: NOVEMBER 2022

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ETM VISION • EXPERIENCE • RESULTS

SEDIMENT AND EROSION CONTROL DETAILS

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
13

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OWNER'S REQUIREMENTS

SITE DESCRIPTION

PROJECT NAME AND LOCATION:
WAWA @ WILDLIGHT
NASSAU COUNTY, FLORIDA

OWNER/DEVELOPER NAME AND ADDRESS:

WAWA FLORIDA, LLC
7022 TPC DRIVE SUITE 200
ORLANDO, FL 32822
561-564-7247

DESCRIPTION:

THIS PROJECT WILL CONSIST OF:

CONSTRUCTION OF AN 1.85 Ac. COMMERCAL DEVELOPMENT. CONSTRUCTION WILL CONSIST OF INSTALLATION OF UNDERGROUND UTILITIES, CLEARING, GRADING, STORMWATER MANAGEMENT FACILITIES ROADWAYS, PARKING AREAS AND ASSOCIATED CONSTRUCTION.

SOIL DISTURBING ACTIVITIES WILL INCLUDE:
CLEARING AND GRUBBING; INSTALLING A STABILIZED CONSTRUCTION ENTRANCE, PERIMETER, AND OTHER EROSION AND SEDIMENT CONTROLS; GRADING; STORM SEWER, UTILITIES, AND BUILDING FOUNDATION; CONSTRUCTION OF CURB AND GUTTER, ROAD, AND PARKING AREAS; AND PREPARATION FOR FINAL PLANTING AND SEEDING.

GENERALIZED RUNOFF CURVE NUMBERS (REFER TO DRAINAGE CALCULATIONS FOR ACTUAL CURVE NUMBER FOR EACH BASIN)

1. PRE-CONSTRUCTION = 80±
2. DURING CONSTRUCTION = 95±
3. POST-CONSTRUCTION = 80±

SOILS:
* SEE ATTACHED FOR SOILS DATA

SITE MAPS:
* SEE ATTACHED DWG. No. 7 FOR POST DEVELOPMENT GRADES, AREAS OF SOILS, DISTURBANCE, LOCATION OF SURFACE WATERS, WETLANDS, PROTECTED AREAS, MAJOR STRUCTURAL AND NONSTRUCTURAL CONTROLS AND STORM WATER DISCHARGE POINTS.
* SEE ATTACHED DWG. No. 11 AND 12 FOR LOCATION OF TEMPORARY STABILIZATION PRACTICES, AND TURBIDITY BARRIERS

SITE AREA:
1. TOTAL AREA OF SITE = 1.85 Ac.±
2. TOTAL AREA TO BE DISTURBED = 1.85 Ac.±

NAME OF RECEIVING WATERS: HEADWATERS OF NASSAU RIVER

CONTROLS

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN OFF. DWG. No. 12 AND 13 HAVE BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS. IT IS THE CONTRACTORS RESPONSIBILITY TO INSTALL AND MAINTAIN THE CONTROLS AS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL, STATE AND LOCAL LAWS. REFER TO "CONTRACTORS REQUIREMENTS" FOR A VERBAL DESCRIPTION OF THE CONTROLS THAT MAY BE IMPLEMENTED.

AREAS WHICH ARE NOT DEVELOPED BUT WILL BE REGRADED SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE.

REFER TO " CONTRACTORS REQUIREMENTS" FOR THE TIMING OF CONTROL/MEASURES.

CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

IN AN EFFORT TO ENSURE COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS REGARDING EROSION AND TURBIDITY CONTROLS, THE FOLLOWING PERMITS HAVE BEEN OBTAINED.

D.E.P. DREDGE/FILL PERMIT #_____
C.O.E. DREDGE/FILL PERMIT #_____
S.J.R.W.M.D. M.S.S.W. PERMIT #_____

POLLUTION PREVENTION PLAN CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNED: _____

TITLE: _____
CORPORATE OFFICER, GENERAL PARTNER, PROPRIETOR, EXECUTIVE OFFICER, OR RANKING ELECTED OFFICIAL

DATE: _____

GENERAL

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE EROSION 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 INTO OPERATION.

SEQUENCE OF MAJOR ACTIVITIES:

THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE
2. INSTALL SILT FENCES AND HAY BALES AS REQUIRED
3. CLEAR AND GRUB FOR DIVERSION SWALES/DIKES AND SEDIMENT BASIN
4. CONSTRUCT SEDIMENTATION BASIN
5. CONTINUE CLEARING AND GRUBBING
6. STOCK PILE TOP SOIL IF REQUIRED
7. 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 INSTALL PERMANENT SEEDING/SOD AND PLANTING
12. COMPLETE FINAL PAVING
13. REMOVE ACCUMULATED SEDIMENT FROM BASINS
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 SEDIMENT AND EROSION CONTROL PLAN (DRAWING NO. 12)

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 REQUIRED,TO ENSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION 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 REGULATORY AGENCIES.

EROSION AND SEDIMENT CONTROLS
STABILIZATION PRACTICES

1. 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.
3. 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.
4. 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.
5. 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.
6. 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.

CONTRACTOR'S REQUIREMENTS

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 THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
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 OR SODDED.

STRUCTURAL PRACTICES

1. 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 LIMITATIONS:
   A. THE SEDIMENT TRAP MAY BE CONSTRUCTED EITHER INDEPENDENTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION DIKE.
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.

SANITARY WASTE
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	Wood
Asphalt	Petroleum Based Products	Masonry Blocks
Tar	Cleaning Solvents	Roofing Materials
Detergents	Paints	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.

GOOD HOUSEKEEPING

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 ENCLOSURE.
* 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:

PETROLEUM PRODUCTS

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

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 PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS

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 REPORT.
* 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.
* 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 REPAIRED.
* 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 INSPECTOR
  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 ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
* PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE. SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

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 OF CONTRACTOR & ALL SUBS	RESPONSIBLE FOR/DUTIES
		GENERAL CONTRACTOR
		SUB-CONTRACTOR
		SUB-CONTRACTOR
		SUB-CONTRACTOR
		SUB-CONTRACTOR

PLANS PREPARED UNDER THE DIRECTION OF:
DALLAS SCHRIER
P.E. NUMBER: 94608

PLOTTED: May 1, 2023 – 2:11 PM, BY: Dallas Schrier

REVISIONS:
2023.03.14-REV. PER AGENCY COMMENTS
2023.04.28-REV. PER AGENCY COMMENTS

ETM NO. 19-086	DRAWN BY: RRS II	DESIGNED BY: DDS	CHECKED BY: DDS	DATE: NOVEMBER 2022

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ETM
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STORMWATER POLLUTION PREVENTION PLAN

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
14

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WAWA @ WILDLIGHT

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

THIS IS THE CONTRACTORS CERTIFICATION REQUIRED BY THE EPA'S NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES), STORM WATER POLLUTION PREVENTION PLAN FOR CONSTRUCTION SITES OVER 5 ACRES. THIS CERTIFICATION MUST BE COMPLETED WEEKLY AND AFTER EVERY RAINFALL EVENT OVER 0.25 INCHES

INSPECTOR: _____

INSPECTOR'S QUALIFICATIONS:

_____

_____

_____

_____

DAYS SINCE LAST RAINFALL: _____ AMOUNT OF LAST RAINFALL _____ INCHES

STABILIZATION MEASURES

INSPECTION AREA (DESCRIPTION OF LOCATION)	DATE SINCE LAST DISTURBED	DATE OF NEXT DISTURBANCE	STABILIZED ? (YES/NO)	STABILIZED WITH	CONDITION

STABILIZATION REQUIRED:

_____

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE _____

WAWA @ WILDLIGHT

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

STRUCTURAL CONTROLS

DATE: _____

EARTH DIKES/SWALES

DIKE OR SWALE	FROM	TO	IS DIKE/SWALE STABILIZED ?	IS THERE EVIDENCE OF WASHOUT OR OVERTOPPING

MAINTENANCE REQUIRED FOR EARTH DIKE/SWALE:

_____

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE _____

CATCH BASIN/CURB INLET/OUTFALL TURBIDITY CONTROLS

STRUCTURE/ OUTFALL	ARE TURBIDITY CONTROLS IN PLACE	ANY EVIDENCE OF CLOGGING/WASHOUT OR BYPASSING ?	ARE TURBIDITY CONTROLS IN NEED OF REPLACING	DOES SILT NEED TO BE REMOVED FROM AROUND CONTROL

MAINTENANCE REQUIRED FOR CATCH BASIN/CURB INLETS/OUTFALLS TURBIDITY CONTROLS:

_____

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE _____

WAWA @ WILDLIGHT

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

SEDIMENT BASIN

DEPTH OF SEDIMENT IN BASIN	DEPTH OF SEDIMENT SIDE BASIN	ANY EVIDENCE OF OVERTOPPING OF THE EMBANKMENT ?	CONDITION OF OUTFALL FROM SEDIMENT BASIN

MAINTENANCE REQUIRED FOR SEDIMENT BASIN:

_____

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE _____

OTHER CONTROLS

STABILIZED CONSTRUCTION ENTRANCE

DOES MUCH SEDIMENT GET TRACKED ON TO ROAD ?	IS THE GRAVEL CLEAN OR IS IT FILLED WITH SEDIMENT?	DOES ALL TRAFFIC USE THE STABILIZED ENTRANCE TO LEAVE THE SITE ?	IS THE CULVERT BENEATH THE ENTRANCE WORKING? (IF APPLICABLE)

MAINTENANCE REQUIRED FOR STABILIZED CONSTRUCTION ENTRANCE:

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE _____

WAWA @ WILDLIGHT

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

REASONS FOR CHANGES:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE: _____

DATE: _____

DRAWING NUMBER **15**

STORMWATER CONTRACTORS CERTIFICATE

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

ETM
VISION • EXPERIENCE • RESULTS

England-Thims & Miller, Inc.
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Jacksonville, FL 32258

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ETM NO.	19-086
DRAWN BY:	RRS II
DESIGNED BY:	DDS
CHECKED BY:	DDS
DATE:	NOVEMBER 2022

REVISIONS:
2023.03.14-REV. PER AGENCY COMMENTS
2023.04.28-REV. PER AGENCY COMMENTS

PLANS PREPARED UNDER THE DIRECTION OF:

DALLAS SCHRIER
P.E. NUMBER: 94608

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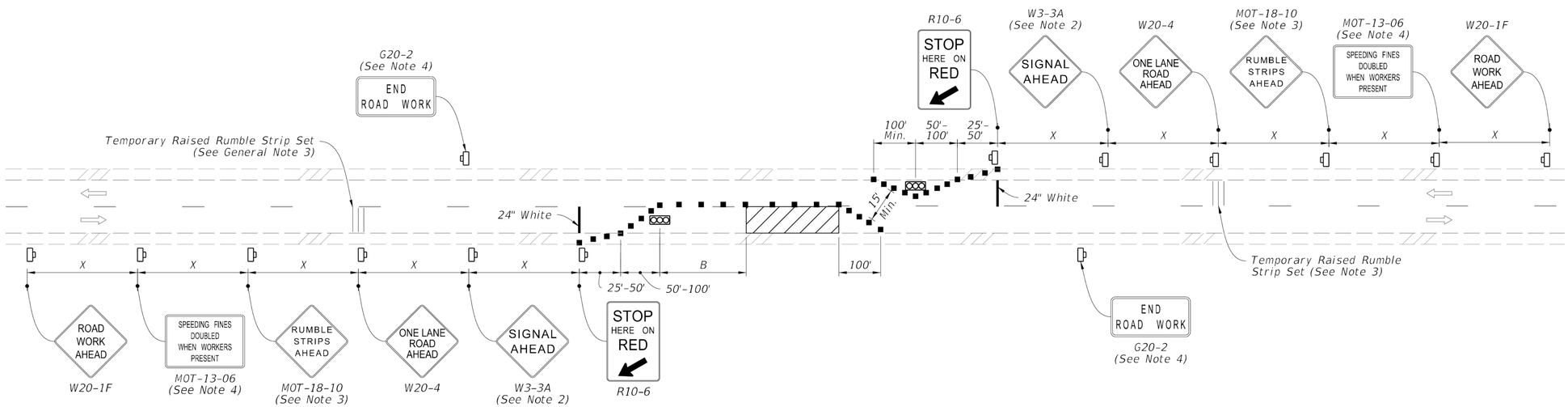
PLOTTED: May 1, 2023 – 2:12 PM, BY: Dallas Schrier



NOTES:

1. L = Taper Length
   B = Buffer Length
   X = Work Zone Sign Distance
   See Index 102-600 for "L", "B", "X", and channelizing device spacing values.

2. Optionally, use "Signal Ahead" signs with symbols (W3-3) instead of "Signal Ahead" signs with text (W3-3A).

3. Use temporary raised rumble strips in accordance with Index 102-603.

4. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign distances, may be omitted when the work operation will be in place for 24 hours or less.

5. For the maximum distance between temporary traffic signals, do not exceed the distance at which the temporary traffic signals can safely communicate. When the distance temporary traffic signals is greater than 0.25 miles, use a combination of a pilot vehicle and manually-controlled temporary traffic signals.

6. Monitor temporary traffic signals by having one or more workers present during operation. In the event of a temporary traffic signal failure, use flaggers to control traffic.

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Temporary Traffic Signal
- Lane Identification and Direction of Traffic

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	TWO-LANE ROADWAY, LANE CLOSURE USING TEMPORARY TRAFFIC SIGNALS	INDEX	SHEET
11/01/22						102-606	1 of 1

2/2/2023 10:37:26 AM

PLANS PREPARED UNDER THE DIRECTION OF:
DALLAS SCHRIER
P.E. NUMBER: 94608

PLOTTED: May 1, 2023 – 2:12 PM, BY: Dallas Schrier

REVISIONS:
2023.03.14-REV. PER AGENCY COMMENTS
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ETM NO. 19-086
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ETM VISION • EXPERIENCE • RESULTS

MAINTENANCE OF TRAFFIC

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
16A

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NOTE:

1. This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work on the shoulder.

2. L = Taper Length
   X = Work Zone Sign Spacing
   B = Buffer Length
   See Index 102-600 for "L", "X", "B", and channelizing device spacing values.

3. Where work activities are between 2' and 15' from the edge of traveled way, the Engineer may omit signs and channelizing devices for work operations 60 minutes or less.

4. When four or more work vehicles enter the through traffic lanes in a one hour period (excluding establishing and terminating the work area), use a flagger or lane closure to accommodate work vehicle ingress and egress.

5. For work less than 2' from the traveled way and work zone speed is greater than 45 MPH, use a lane closure.

6. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" Signs (G20-2) along with the associated work zone sign spacing distances may be omitted when the work operation is in place for 24 hours or less.

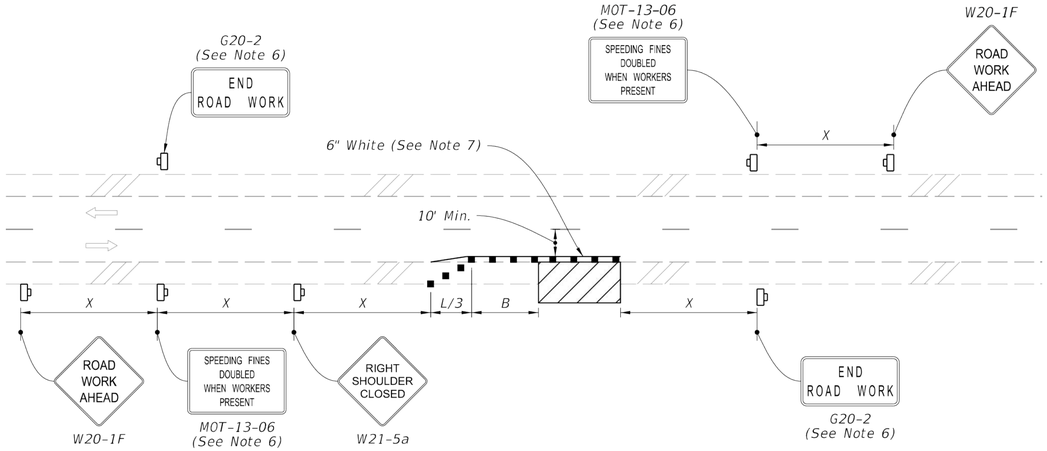
7. Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.

8. Omit "Shoulder Closed" signs (W21-5a) along with associated work zone sign spacing distances for work on the median.

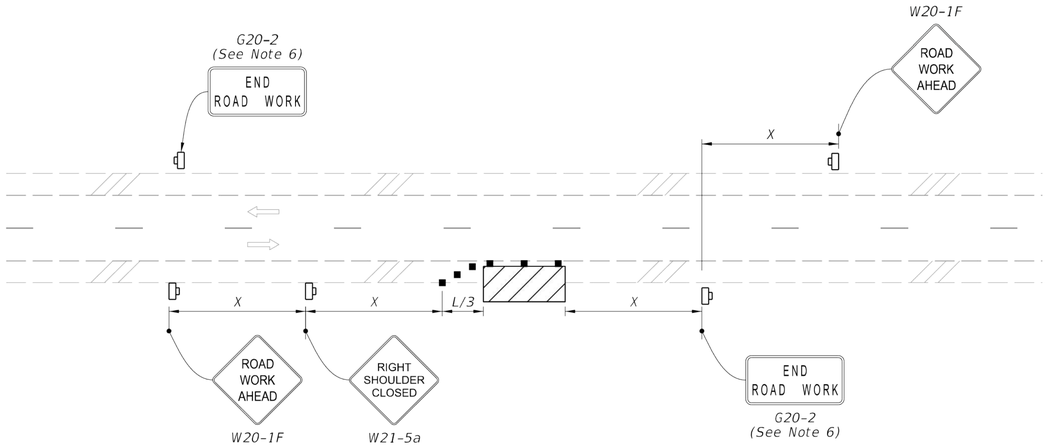
9. When there is no paved shoulder, the "Worker" sign (W21-1) may be used instead of the "Shoulder Closed" sign (W21-5a).

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Lane Identification and Direction of Traffic



TWO-LANE ROADWAY
SHOULDER WORK LESS THAN 2' FROM THE TRAVELED WAY
WITH WORK ZONE SPEED OF 45 MPH OR LESS



TWO-LANE ROADWAY
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2023-24 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER	INDEX	SHEET
11/01/21					102-602	1 of 2

2/2/2023 10:33:35 AM

PLANS PREPARED UNDER THE DIRECTION OF:
DALLAS SCHRIER
P.E. NUMBER: 94608

PLOTTED: May 1, 2023 – 2:13 PM, BY: Dallas Schrier

REVISIONS:
2023.03.14-REV. PER AGENCY COMMENTS
2023.04.28-REV. PER AGENCY COMMENTS

ETM NO. 19-086
DRAWN BY: RRS II
DESIGNED BY: DDS
CHECKED BY: DDS
DATE: NOVEMBER 2022

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
REG - 2384 LC - 0000316

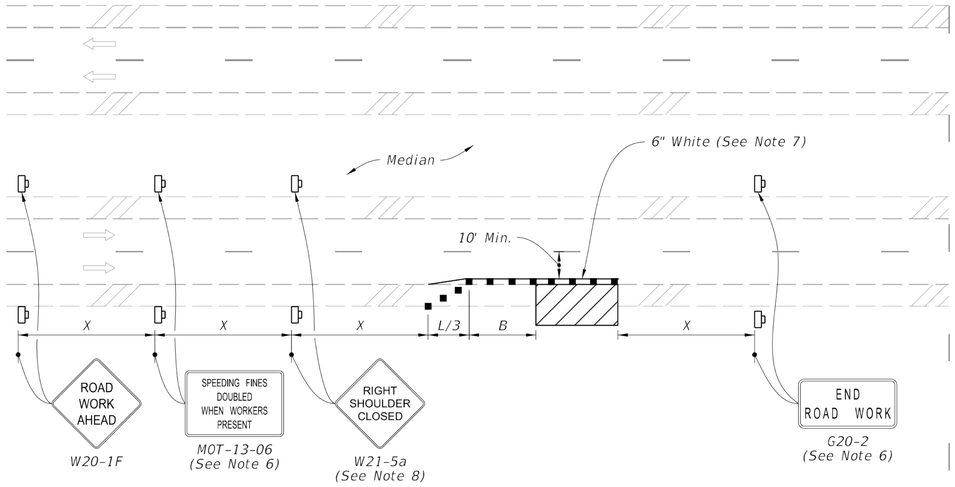
ETM
VISION • EXPERIENCE • RESULTS

MAINTENANCE OF TRAFFIC

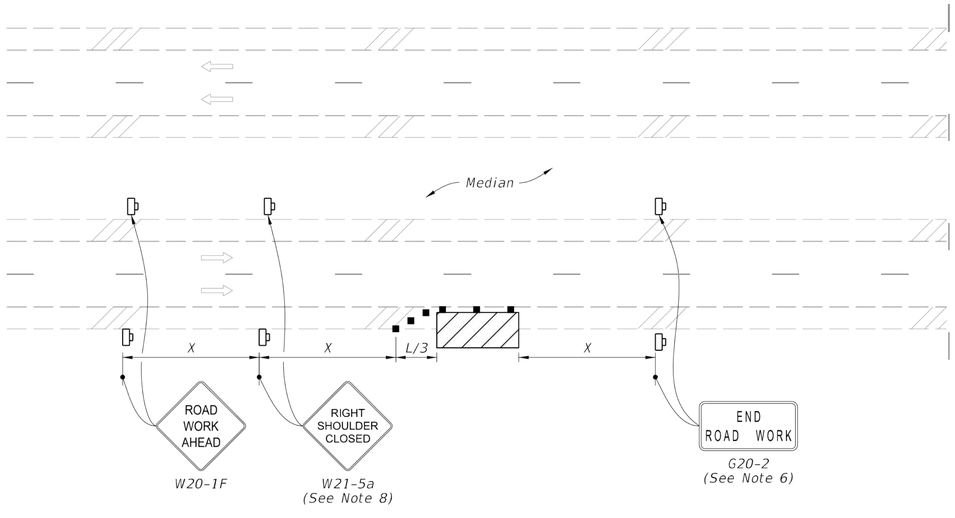
WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
16B

T:\2019\19-086\LandDev\Design\Plots\MOT_19-086.dwg



MULTILANE ROADWAY
SHOULDER WORK LESS THAN 2' FROM THE TRAVELED WAY WITH WORK ZONE SPEED OF 45 MPH OR LESS



SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Lane Identification and Direction of Traffic

MULTILANE ROADWAY
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER	INDEX	SHEET
11/01/20						102-602	2 of 2

2/2/2023 10:33:38 AM

PLANS PREPARED UNDER THE DIRECTION OF:
DALLAS SCHRIER
P.E. NUMBER: 94608

REVISIONS:
2023.03.14-REV. PER AGENCY COMMENTS
2023.04.28-REV. PER AGENCY COMMENTS

ETM NO. 19-086
DRAWN BY: RRS II
DESIGNED BY: DDS
CHECKED BY: DDS
DATE: NOVEMBER 2022

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
REG - 2984 LC - 0000316

ETM VISION - EXPERIENCE - RESULTS

MAINTENANCE OF TRAFFIC

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

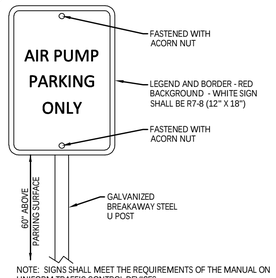
DRAWING NUMBER
16C

PLOTTED: May 1, 2023 – 2:13 PM, BY: Dallas Schrier

T:\2019\19-086\LandDev\Design\Plots\MOT_19-086.dwg

WAWA SIGNAGE/STRIPING DETAILS

REV. JUNE 7,2022

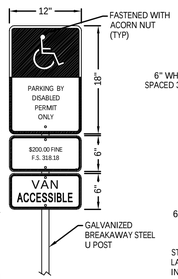


NOTE: SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

AIR PARKING SIGN

NTS

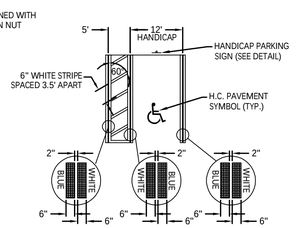
NOTES:
1. ALL LETTERS ARE 1" SERIES "C" PER MUTCD.
2. TOP PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
3. BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
4. FINE NOTIFICATION SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND & BORDER. CONTRACTOR SHALL VERIFY FINE AMOUNT & ORD. NO.
5. ONE (1) SIGN REQUIRED FOR EACH PARKING SPACE.
6. INSTALLATION HEIGHT OF SIGN SHALL BE 60" ABOVE THE FINISHED GRADE TO THE BOTTOM OF THE SIGN. ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
7. SIGN POST TO BE GALVANIZED BREAKAWAY STEEL U POST.
8. SIGN TO BE FASTENED TO POST WITH ACORN NUT.



HANDICAP PARKING SIGN

NTS

SIGNAGE AND STRIPING NOTES:
1. ALL STANDARD PARKING STRIPES ARE TO BE 4" YELLOW
2. ARROWS SHOWN IN DRIVE AISLES ARE FOR INFORMATION ONLY AND SHALL NOT BE PAINTED.



STRIPING, SPACING, AND CURB RAMPS SHALL COMPLY WITH THE LATEST STATE OF FLORIDA ACCESSIBILITY CODE & FDOT STANDARD INDEX 711-001

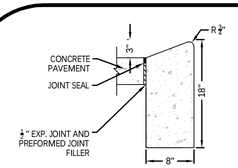
NOTE: ALL SIGNS TO USE ACORN BOLTS.

HANDICAP STRIPING DETAIL

NTS

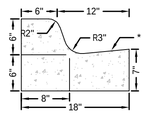
WAWA CURB DETAILS

REV. JUNE 19, 2017



WAWA TYPE B1 CURB

NTS



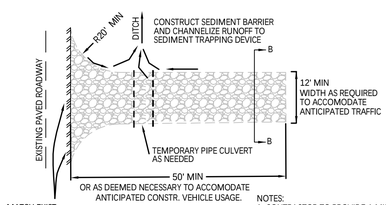
*NOTE:
WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.

WAWA TYPE F1 CURB

NTS

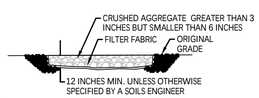
EROSION CONTROL DETAILS

REV. JULY 28, 2016



PLAN VIEW

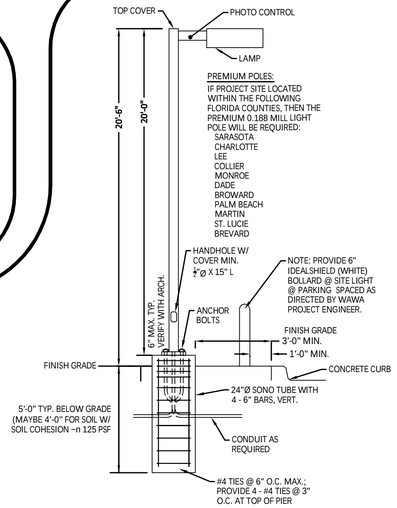
NOTES:
1. CONTRACTOR TO PROVIDE A MINIMUM OF 1 STABILIZED ENTRANCE.
2. ALL OTHER STATE AND LOCAL JURISDICTION TO BE CONTRACTED AND ADHERED TO.



SECTION VIEW

STABILIZED CONSTRUCTION ENTRANCE / EXIT (TYPE 1)

NTS



NOTE: THIS DETAIL IS NOT CERTIFIED. FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO PROVIDE SHOP DRAWINGS CERTIFIED BY STRUCTURAL ENGINEER.

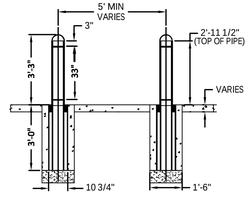
PLACEMENT: POLE SHALL BE PLACED AT PARKING STRIPE AT HEAD OF SPACE.

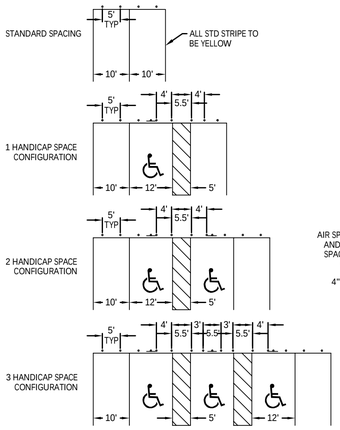
LIGHT POLE WITH STANDARD ANCHORING DETAIL

NTS

WAWA GENERAL DETAILS

REV. MAY 20, 2019

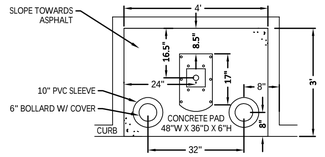




NOTE: ALL DIMENSIONS MEASURED TO CENTER OF BOLLARD. BOLLARD SPACING IS 5' UNLESS OTHERWISE NOTED.

BOLLARD SPACING/DIMENSION DETAIL

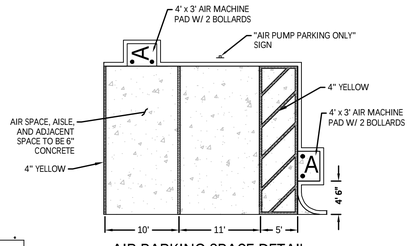
NTS



PLAN VIEW

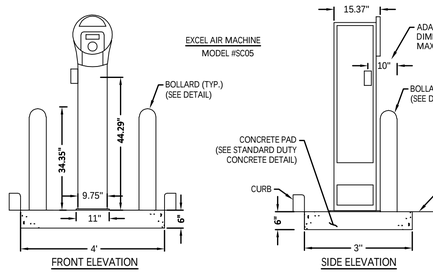
AIR PUMP STAND

NTS



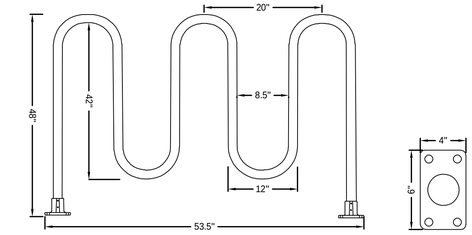
AIR PARKING SPACE DETAIL

NTS



FRONT ELEVATION

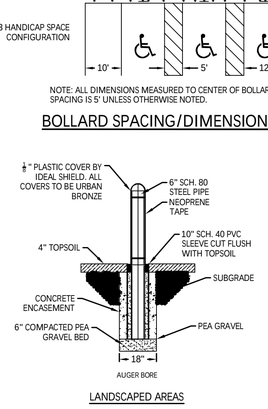
SIDE ELEVATION



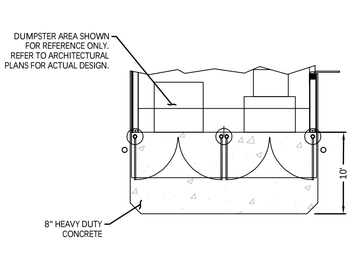
MADE OF ROLLED ALUMINUM:	1 1/2" SCHEDULE 40 ALUMINUM WITH 1 7/8" O.D.
STANDARD LENGTHS:	60" SECTION FITS UP TO 5 BIKES
STANDARD HEIGHT:	46"
INSTALLATION OPTIONS:	SURFACE MOUNT
FINISHING OPTIONS:	STANDARD CLEAR ANODIZED
MANUFACTURED BY:	IDEAL SHIELD 2525 CLARK ST DETROIT, MI 48209 PHONE: 1-866-825-8659

STANDARD BICYCLE RACK DETAIL

NTS

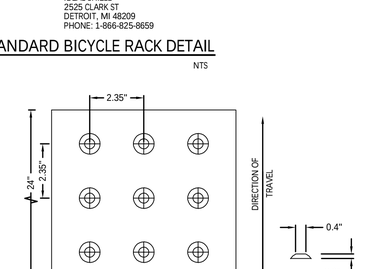


LANDSCAPED AREAS



REMOTE DUMPSTER CONCRETE APRON

NTS

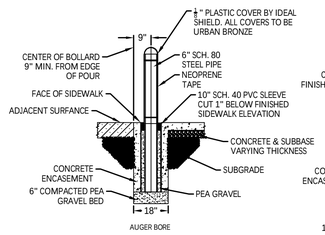


NOTE: SIDEWALK RAMPS TO MEET ADA, FDOT DESIGN STANDARDS, AND LOCAL SPECIFICATIONS.

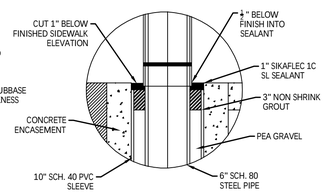
ADA DETECTABLE CURB WARNING DETAIL

ADA DOME TOOL DESIGN - STAMPCRETE INTERNATIONAL.

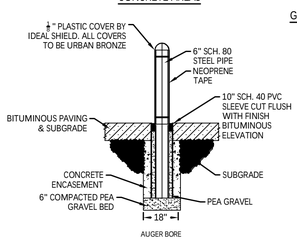
NTS



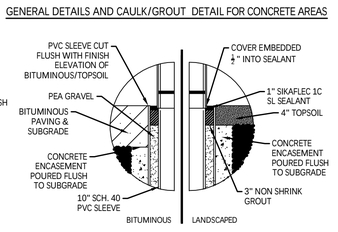
CONCRETE AREAS



GENERAL DETAILS AND CAULK/GROUT DETAIL FOR CONCRETE AREAS



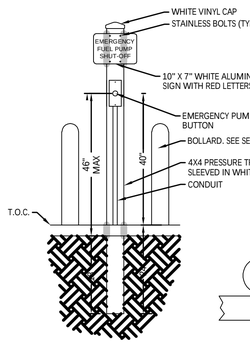
BITUMINOUS AREAS



CAULK/GROUT DETAIL FOR LANDSCAPED & BITUMINOUS AREAS

BOLLARD DETAIL

NTS



FRONT ELEVATION

PLAN VIEW

EMERGENCY PUMP SHUTOFF DETAIL

NTS

PLANS PREPARED UNDER THE DIRECTION OF:
DALLAS SCHRIER
P.E. NUMBER: 94608

PLOTTED: May 1, 2023 – 2:14 PM, BY: Dallas Schrier

REVISIONS:
2023.03.14 - REV. PER AGENCY COMMENTS
2023.04.28 - REV. PER AGENCY COMMENTS

ETM NO. 19-086	DRAWN BY: RRS II	DESIGNED BY: DDS	CHECKED BY: DDS	DATE: NOVEMBER 2022

England-Thims & Miller, Inc.
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FAX: (904) 646-9485
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ETM
VISION • EXPERIENCE • RESULTS

WAWA SITE DETAILS

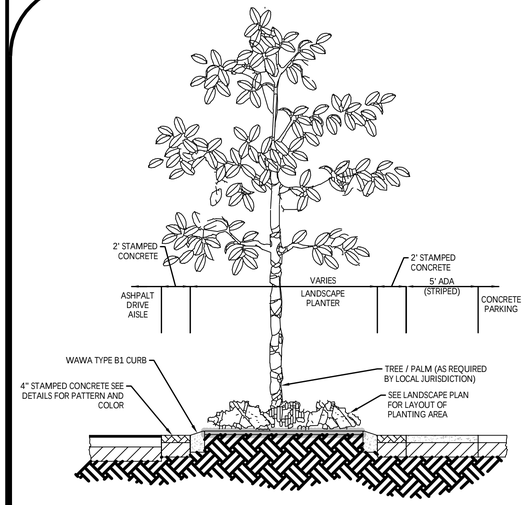
WAWA @ WILDLIGHT FOR WAWA FLORIDA, LLC

DRAWING NUMBER
17

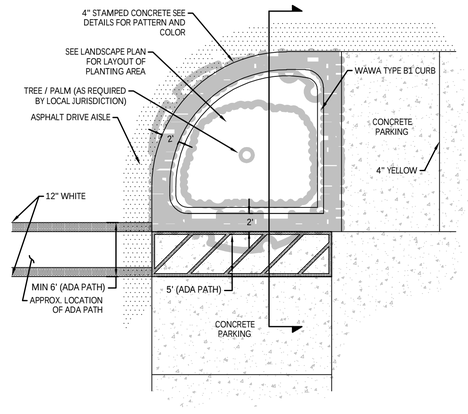
T:\2019\19-086\LandDev\Design\Plots\WAWA DETAILS_19-086.dwg

WAWA PLANTER DETAILS

REV. JULY 28, 2016



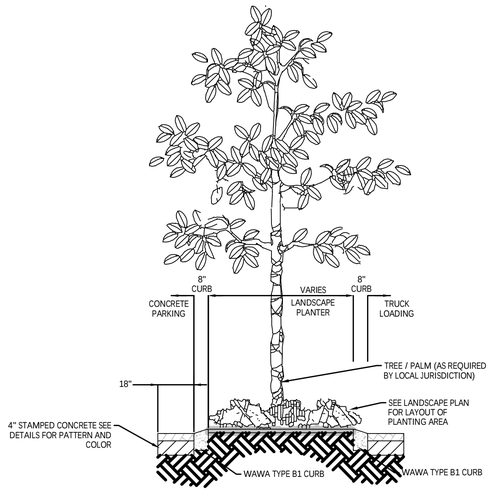
SECTION



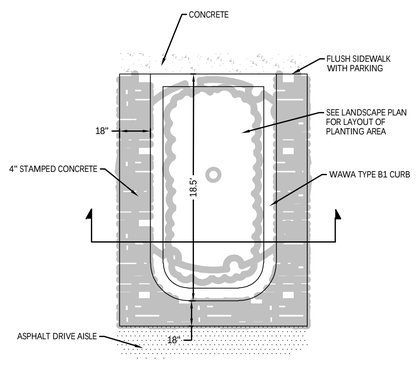
PLAN

CORNER ISLAND LANDSCAPE DETAIL

NTS



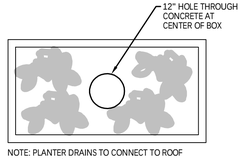
SECTION



PLAN

PARKING ISLAND LANDSCAPE DETAIL

NTS



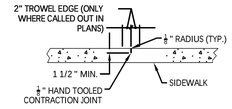
NOTE: PLANTER DRAINS TO CONNECT TO ROOF DRAIN MANIFOLD. SEE DETAIL.

PLANTER BOX DRAINAGE DETAIL

NTS

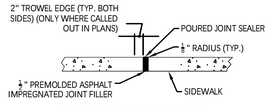
WAWA PAVEMENT DETAILS

REV. JUNE 7,2022



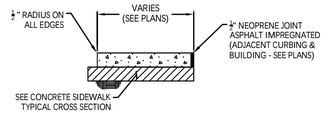
NOTE: CONTRACTION JOINTS TO BE SPACED AT A WIDTH OF WALKWAY OR A MAX. OF 10'.

CONTRACTION JOINTS



NOTE: EXPANSION JOINTS TO BE SPACED AT A MAX. OF 30'.

EXPANSION JOINTS

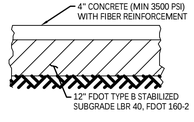


NOTE: TO BE CONSTRUCTED PER FDOT INDEX 522-001 & FDOT SPECIFICATIONS (SECTION 350)

SIDEWALK

SIDEWALK DETAILS

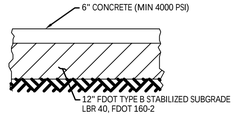
NTS



NOTE: TO BE CONSTRUCTED PER WAWA & FDOT SPECIFICATIONS (SECTION 350) AND GEOTECHNICAL ENGINEERING REPORT

CONCRETE SIDEWALK TYPICAL CROSS SECTION

NTS

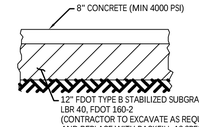


NOTE: TO BE CONSTRUCTED PER WAWA & FDOT SPECIFICATIONS (SECTION 350) AND GEOTECHNICAL ENGINEERING REPORT

STANDARD DUTY CONCRETE PAVEMENT TYPICAL CROSS SECTION

PARKING AT BUILDING & AIR PUMP

NTS

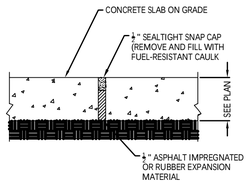


NOTE: TO BE CONSTRUCTED PER WAWA & FDOT SPECIFICATIONS (SECTION 350) AND GEOTECHNICAL ENGINEERING REPORT

HEAVY DUTY CONCRETE PAVEMENT TYPICAL CROSS SECTION

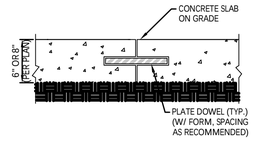
CANOPY AREA, LOADING ZONE & TANK FIELD AREA REMOTE DUMPSTER APRON

NTS

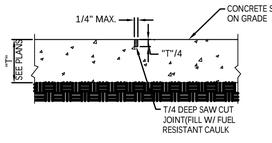


ISOLATION JOINT DETAIL

AT STRUCTURES SUCH AS GAS ISLANDS, BUILDING CANOPY COLUMNS, BOLLARDS ETC.



CONSTRUCTION JOINT DETAIL

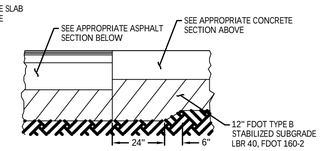


CONTROL JOINT DETAIL

NOTE: SEE ARCHITECT SPECIFICATIONS FOR COMPLETE CONCRETE DETAILS.

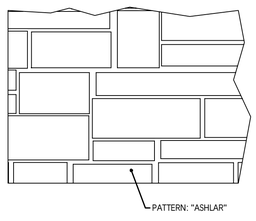
CONCRETE JOINT DETAILS

NTS



ASPHALT TO CONCRETE TRANSITION DETAIL

NTS



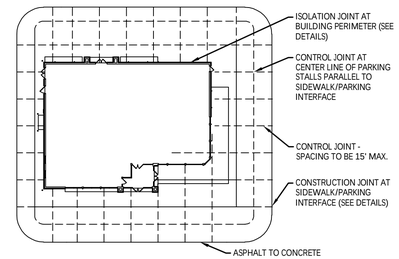
NOTES:

1. SEE PAVEMENT SECTION FOR PAVEMENT DETAILS TO BE STANDARD DUTY CONCRETE IN NON-VEHICULAR AREAS. TO MEET CONCRETE CROSSWALK DETAIL FOR CROSSWALKS IF APPLICABLE.
2. FINAL COLOR TO BE COORDINATED WITH WAWA PRIOR TO INSTALLATION.
3. THE STAMPED CONCRETE FIELD IS "ASHLAR" PATTERN. USE INCRETE COLOR-INTEGRATED CONCRETE "DESERT TAN" WITH THE FOLLOWING STEP-BY-STEP TREATMENT:
   - A. 100% BROADCAST DRY SHAKE HARDENER "DESERT TAN", FOLLOWED BY:
   - B. 30%-35% BROADCAST DRY SHAKE HARDENER "COCOA", THEN HARD TROWEL.
   - C. USE RELEASE POWDER "PEACH" IN MOLD. KEEP SOME OF THE COLOR IN GROUT JOINTS AND HIGHLIGHTS.
   - D. USE PENETRATING, NON-GLOSSY SEALER SUCH AS CLEAR SEAL BY INCRETE SYSTEMS

PATTERN: "ASHLAR"

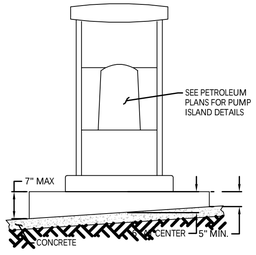
STAMPED CONCRETE DETAIL

NTS



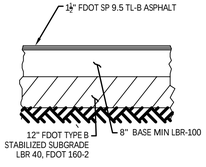
JOINT LAYOUT DETAIL

NTS



PUMP ISLAND GRADING DETAIL

NTS

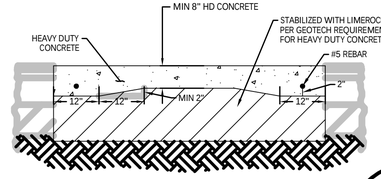


BASE:
1. FDOT SHELL ROCK, BANK RUN SHELL, LIMEROCK, CRUSHED CONCRETE OR CEMENT COQUINA BASE. LBR-100
2. BASE TO MEET LOCAL, FDOT, GEOTECHNICAL REPORT & WAWA SPECIFICATIONS

NOTES
1. TO BE CONSTRUCTED PER FDOT SPECIFICATIONS (SECTIONS 330, 200, & 160), GEOTECHNICAL ENGINEERING REPORT, AND WAWA SPECIFICATIONS.
2. INTENDED FOR SANDY AND GRAVEL SUB-GRADES CAPABLE OF ACHIEVING A LBR OF 10 OR GREATER (SN OF 2.60). A SUB-GRADE WITH LESS THAN 9 LBR WILL REQUIRE A SPECIFIC SUB-BASE AND PAVEMENT DESIGN.

STANDARD DUTY ASPHALT PAVEMENT TYPICAL CROSS SECTION

NTS



STAMPING OPTION TO BE DETERMINED BY CIVIL ENGINEER & WAWA

- ☑ NOT STAMPED/ COLORIZED (PREFERRED)
- ☐ STAMPED, SEE DETAIL FOR PATTERN & COLOR

CONCRETE CROSSWALK DETAIL

NTS

PLANS PREPARED UNDER THE DIRECTION OF:

DALLAS SCHRIER
P.E. NUMBER: 94608

PLOTTED: May 1, 2023 – 2:14 PM, BY: Dallas Schrier

REVISIONS:
2023.03.14 - REV. PER AGENCY COMMENTS
2023.04.28 - REV. PER AGENCY COMMENTS

ETM NO. 19-086	DRAWN BY: RRS II	DESIGNED BY: DDS	CHECKED BY: DDS	DATE: NOVEMBER 2022

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
REG - 2384 LC - 0000316

ETM VISION • EXPERIENCE • RESULTS

WAWA SITE DETAILS

WAWA @ WILDLIGHT FOR WAWA FLORIDA, LLC

DRAWING NUMBER
18

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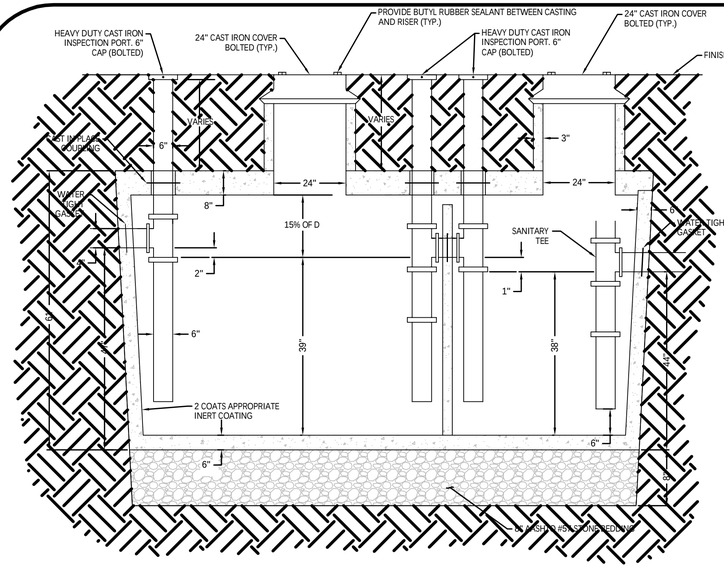
WAWA UTILITY DETAILS

REV. JULY 28, 2016



NOTE: 1250 GALLON (2 COMPARTMENT) TANK

GREASE TRAP DETAIL

NTS

ALL INLET AND OUTLET PIPES SHALL BE INSTALLED NO MORE THAN 6" FROM THE BOTTOM OF THE GREASE TRAP. TANK TAPERS TOP TO BOTTOM AND IS TRAPEZOIDAL IN CROSS SECTION.
TANK IS 5000 PSI CONCRETE-STEEL REINFORCED (@ 28 DAYS) CONCRETE CONFORMS TO ACI 318-16-4.5.1 AND 318-16-4.5.2, ASTM A615 AND A185

-DIMENSION: 10'7" INTERIOR/ 11'7" EXTERIOR LENGTH x 5'2" INTERIOR/ 6'2"" EXTERIOR WIDTH

NOTES:

1) WHEN LOCATED IN DRIVEWAYS OR PAVED AREAS, GREASE TRAP TO BE DESIGNED FOR APPROPRIATE LOAD BEARING CONDITIONS. GREASE TRAP SHALL BE CAPABLE OF WITHSTANDING HS-20 LOADING.

2) ALL PIPE PENETRATIONS SHALL BE WATERTIGHT.

3) GREASE TRAP SHALL BE PROVIDED WITH GAS-TIGHT MANHOLE COVERS, IN ACCORDANCE WITH TOWNSHIP STANDARD SPECIFICATIONS.

4) PRECAST CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH 5000 PSI.

5) EXTERIOR CONCRETE SURFACES BELOW GRADE SHALL HAVE 2 COATS OF COAL TAR EPOXY.

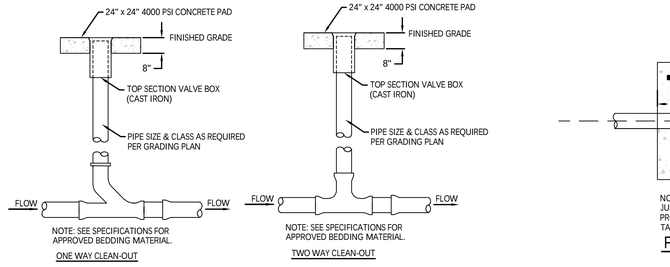
6) SPECIFIC SEALANT DETAIL AT CONCRETE RISER TO CONCRETE VAULT INTERFACE SHALL BE WATERTIGHT. AT A MINIMUM, THE JOINT SHALL BE SEALED WITH BUTYL RUBBER SEALANT (KENT SEAL #2 OR APPROVED EQUIVALENT) AND THE EXTERIOR OF THE JOINT SHALL BE SEALED WITH NON-SHRINK GROUT IN CONFORMANCE WITH THE TOWNSHIP STANDARD GREASE TRAP DETAIL.

7) TANK SHALL BE TESTED FOR WATER TIGHTNESS BY FILLING FOR 24 HRS. TO SOAK, THEN TOPPED OFF, AND THEN WATCHED FOR 24 HRS. NO DROP IN WATER IS ALLOWED.

8) CAST IRON SHALL BE BOLTED TO CONCRETE WITH MASTIC TAPE (KENT SEAL OR APPROVED EQUIVALENT) SEALANT.

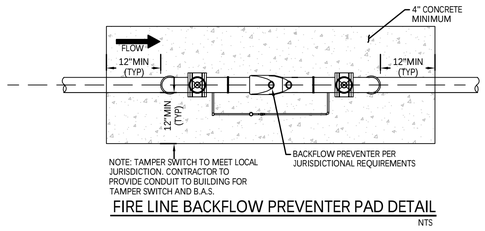
9) MAXIMUM EARTH COVER=5.0', HS-20 LOADING.

10) INLET AND OUTLET EQUIPPED WITH PIPE SEALS.



CLEAN OUT DETAIL

NTS

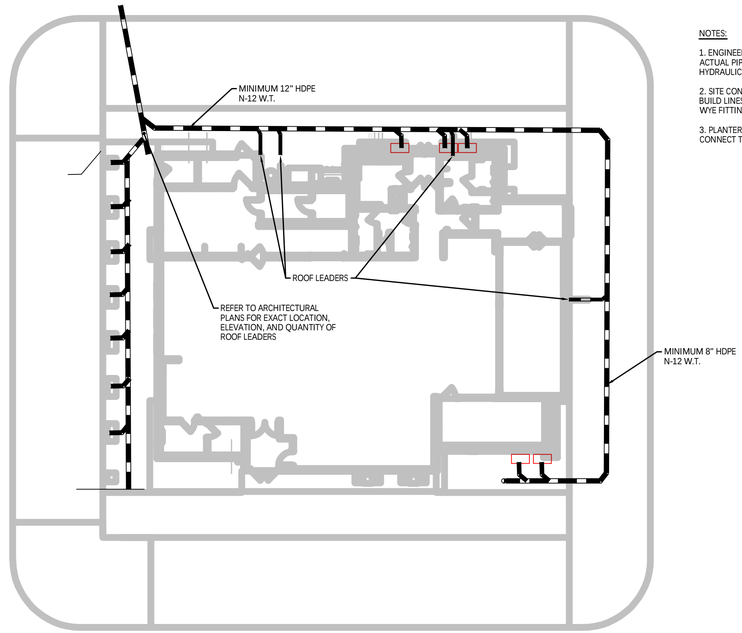


FIRE LINE BACKFLOW PREVENTER PAD DETAIL

NTS

WAWA DRAINAGE DETAILS

REV. MAY 15, 2019



NOTES:

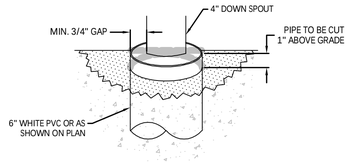
1. ENGINEER TO SPECIFY ACTUAL PIPE SIZE PER HYDRAULIC CALCULATIONS.

2. SITE CONTRACTOR TO BUILD LINES TO INDIVIDUAL WYE FITTINGS.

3. PLANTER DRAINS ARE TO CONNECT TO MANIFOLD.

ROOF DRAIN MANIFOLD DETAIL

NTS



ROOF DRAIN CONNECTION DETAIL

NTS

PLANS PREPARED UNDER THE DIRECTION OF:
DALLAS SCHRIER
P.E. NUMBER: 94608

PLOTTED: May 1, 2023 – 2:14 PM, BY: Dallas Schrier

REVISIONS:
2023.03.14 - REV. PER AGENCY COMMENTS
2023.04.28 - REV. PER AGENCY COMMENTS

ETM NO. 19-086
DRAWN BY: RRS II
DESIGNED BY: DDS
CHECKED BY: DDS
DATE: NOVEMBER 2022

England-Thims & Miller, Inc.
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WAWA SITE DETAILS

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
19

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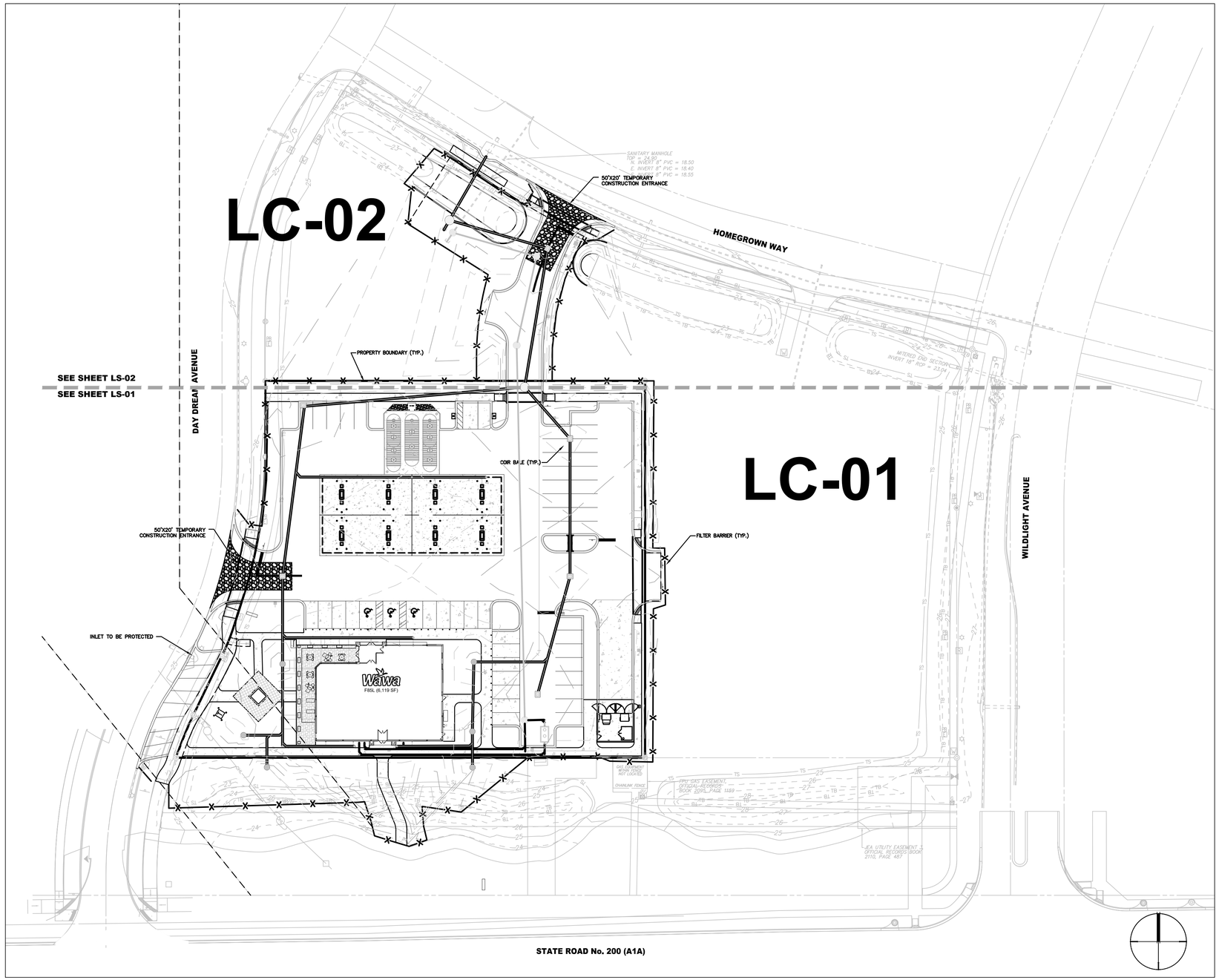
WAWA @ WILDLIGHT

LANDSCAPE ARCHITECTURE DOCUMENTS



INDEX PLAN

LANDSCAPE SHEET INDEX:

SHEET NO.:	DRAWING DESCRIPTION
LC-00	LANDSCAPE COVER SHEET
LC-01	LANDSCAPE PLAN
LC-02	LANDSCAPE PLAN
LC-03	LANDSCAPE SCHEDULE AND NOTES
LC-04	LANDSCAPE SPECIFICATIONS AND DETAILS
LC-05	LANDSCAPE CODE SUMMARY
LC-06	LANDSCAPE RAISED PLANTER NOTES AND LAYOUTS

PLANS PREPARED UNDER THE DIRECTION OF:

JONATHAN F. KORMAN, PLA
L.A. NUMBER: 6667357

PLOTTED: May 1, 2023 – 3:13 PM, BY: Jon Korman

REVISIONS:
03.08.2023 - PER NASSAU COUNTY
2023.04.28 - REV. PER AGENCY COMMENTS

ETM NO. 19-086
DRAWN BY: JK
DESIGNED BY: JK
CHECKED BY: JK
DATE: NOVEMBER 2022

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LANDSCAPE COVER

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
LC-00

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SEE SHEET LS-02
SEE SHEET LS-01

DAY DREAM AV

QVH (1)
VD (70)
LNS-2 (1)
QVH (1)
LNS-2 (1)
QVH (1)
MCA (125)
LNS-2 (1)
50'X20' TEMPORARY CONSTRUCTION ENTRANCE
JB (49)
PROPOSED FPL EASEMENT
TD-4 (1)
WAWA MONUMENT SIGN
MCA (110)
JB (88)
SOD-D (419 sf)
MCA (69)
INLET TO BE PROTECTED
PROPOSED FPL EASEMENT
SOD-D (331 sf)
MCA (48)
LT2 (5)
LME (17)
MCA (122)
SOD-D (997 sf)
CV (6)
MCA (82)

MGB (1)
SOD-D (599 sf)
SP-14 (1)
MGB (1)
TFA (16)
COIR BALE (TYP.)
TFA (41)
SP-14 (1)
SP-16 (1)
SP-12 (1)
SOD-D (148 sf)
TD-4 (1)
SOD-D (148 sf)
TD-4 (1)
QVH (1)
PP2 (10)
LME (70)
FILTER BARRIER (TYP.)
QVH (1)
SOD-D (205 sf)
PP2 (22)
SP-16 (1)
SP-14 (1)
SP-12 (1)
SOD-D (286 sf)
TD-4 (1)
SOD-D (267 sf)
IS (27)
LNS-2 (3)

DTV (4)
VD (19)
DTV (4)
LME (19)
DTV (99)
TD-4 (1)
PLANTER, TYPE A
PLANTER, TYPE D
PLANTER, TYPE B
PLANTER, TYPE C
PLANTER, TYPE D
Wawa
F85L (6,119 SF)
VD (87)
LME (19)
SP-16 (1)
SP-14 (1)
SP-12 (1)
DTV (9)
DTV (6)
VD (20)
DTV (6)
DTV (6)
VD (20)
IV (3)
JB (87)
LME (46)
PP2 (11)
TD-4 (1)
GAS EQUIPMENT WITHIN FENCE NOT LOCATED
CHAINLINK FENCE
EXISTING GAS EQUIPMENT SCREENED WITH EXISTING EVERGREEN SHRUB HEDGE
FPU GAS EASEMENT, OFFICIAL RECORDS BOOK 2095, PAGE 1159

EXISTING NATIVE LANDSCAPE FRONTAGE BUFFER TO BE RESTORED TO EXISTING STATE AFTER ALL SITE GRADING AND DISTURBANCE ACTIVITIES, NATIVE TREES AND NATIVE GRASSES

EXISTING NATIVE LANDSCAPE FRONTAGE BUFFER TO BE RESTORED TO EXISTING STATE AFTER ALL SITE GRADING AND DISTURBANCE ACTIVITIES, NATIVE TREES AND NATIVE GRASSES

DISTURBANCE OF THE EXISTING LANDSCAPE BUFFER ALONG SR-200 SHALL BE MINIMUM NECESSARY TO ALLOW THE SIDEWALK CONNECTION AND ADJACENT PLANTINGS. DISTURBED PLANTS TO BE RE-PURPOSED IN SAME GENERAL AREA.

TFA (118)
TFA (138)

DISTURBANCE OF THE EXISTING LANDSCAPE BUFFER ALONG SR-200 SHALL BE MINIMUM NECESSARY TO ALLOW THE SIDEWALK CONNECTION AND ADJACENT PLANTINGS. DISTURBED PLANTS TO BE RE-PURPOSED IN SAME GENERAL AREA.

PLANT SCHEDULE

	CODE	COMMON NAME
NATIVE PALM TREES		
	SP-12	CABBAGE PALMETTO
	SP-14	CABBAGE PALMETTO
	SP-16	CABBAGE PALMETTO
NATIVE TREES	CODE	COMMON NAME
	CV	WHITE FRINGETREE
	MGB	BRACKEN S SOUTHERN MAGNOLIA
	QVH	HIGH RISE LIVE OAK
	TD-4	BALD CYPRESS
SMALL TREES	CODE	COMMON NAME
	LNS-2	WHITE STANDARD TRUNK CRAPE MYRTLE
	LT2	TONTO CRAPE MYRTLE
SHRUBS	CODE	COMMON NAME
	PP2	PRINGLES DWARF YEW PODOCARPUS
NATIVE SHRUBS	CODE	COMMON NAME
	IV	YAUPON HOLLY
NATIVE SHRUB AREAS	CODE	COMMON NAME
	IS	SCHILLINGS YAUPON HOLLY
	MCA	PINK MUHLY
	TFA	DWARF FAKAHATCHEE GRASS
	VD	DWARF WALTER'S VIBURNUM 'DENSA'
GROUND COVERS	CODE	COMMON NAME
	DTV	VARIGATED FLAX LILY
	JB	BLUE PACIFIC JUNIPER
	LME	LIRIOPE
SOD/SEED	CODE	COMMON NAME
	SOD-D	EMERALD ZOYSIA

0' 15' 30' 60'
1"=30'-0"

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PLANS PREPARED UNDER THE DIRECTION OF:
JONATHAN F. KORMAN, PLA
L.A. NUMBER: 6667357

REVISIONS:
2023.03.14 - REV. PER AGENCY COMMENTS
2023.04.28 - REV. PER AGENCY COMMENTS

PLOTTED: May 1, 2023 – 3:13 PM, BY: Jon Korman

ETM NO. 19-086
DRAWN BY: JK
DESIGNED BY: JK
CHECKED BY: JK
DATE: NOVEMBER 2022

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LANDSCAPE PLAN

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
LC-01

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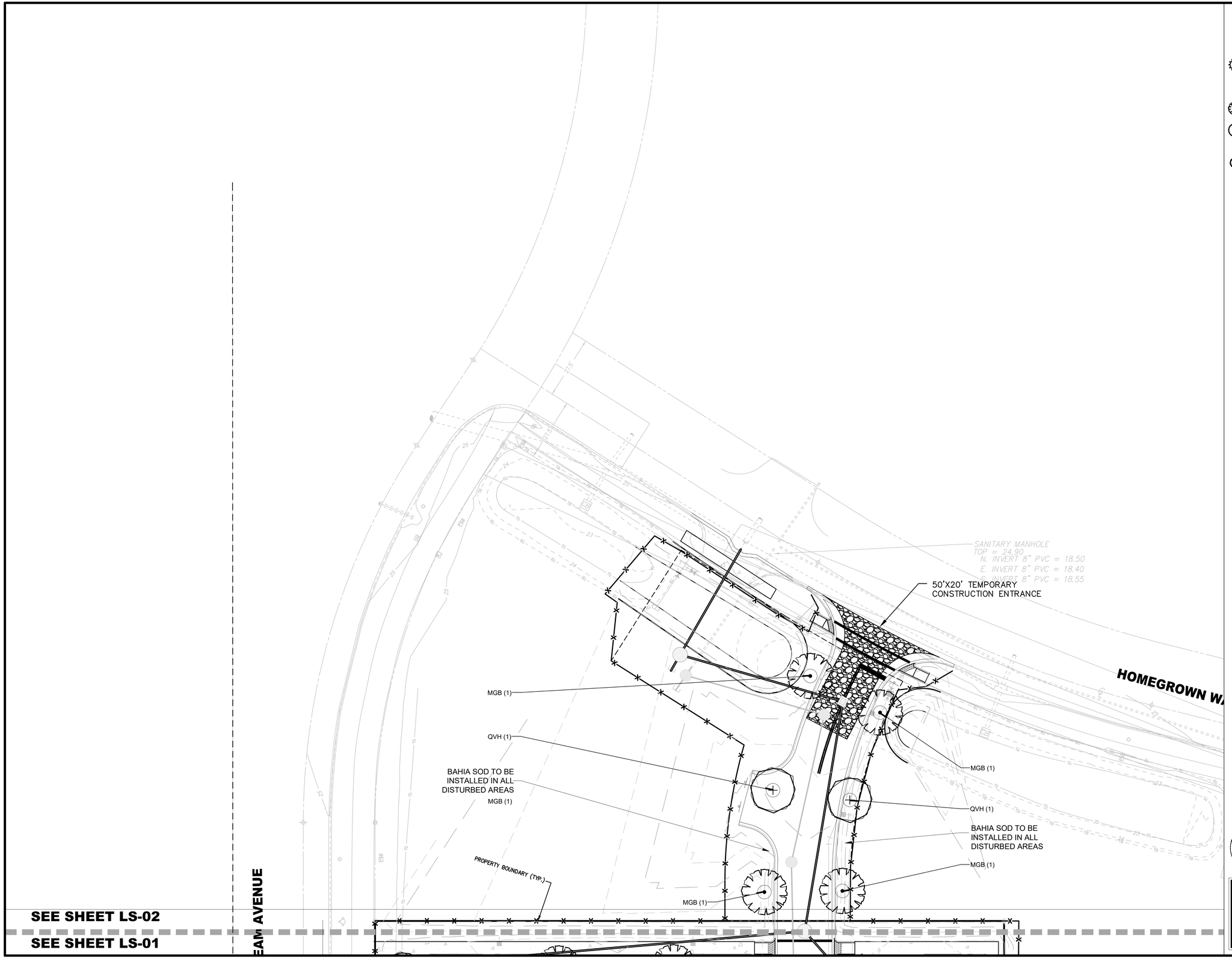

PLANT SCHEDULE

NATIVE PALM TREES	CODE	COMMON NAME
	SP-12	CABBAGE PALMETTO
	SP-14	CABBAGE PALMETTO
	SP-16	CABBAGE PALMETTO
NATIVE TREES	**CODE**	**COMMON NAME**
	CV	WHITE FRINGETREE
	MGB	BRACKEN'S SOUTHERN MAGNOLIA
	QVH	HIGH RISE LIVE OAK
	TD-4	BALD CYPRESS
SMALL TREES	**CODE**	**COMMON NAME**
	LNS-2	WHITE STANDARD TRUNK CRAPE MYRTLE
	LT2	TONTO CRAPE MYRTLE
SHRUBS	**CODE**	**COMMON NAME**
	PP2	PRINGLES DWARF YEW PODOCARPUS
NATIVE SHRUBS	**CODE**	**COMMON NAME**
	IV	YAUPON HOLLY
NATIVE SHRUB AREAS	**CODE**	**COMMON NAME**
	IS	SCHILLINGS YAUPON HOLLY
	MCA	PINK MUHLY
	TFA	DWARF FAKAHATCHEE GRASS
	VD	DWARF WALTER'S VIBURNUM 'DENSA'
GROUND COVERS	**CODE**	**COMMON NAME**
	DTV	VARIGATED FLAX LILY
	JB	BLUE PACIFIC JUNIPER
	LME	LIRIOPE
SOD/SEED	**CODE**	**COMMON NAME**
	SOD-D	EMERALD ZOYSIA

0' 15' 30' 60'
1"=30'-0"

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PLANS PREPARED UNDER THE DIRECTION OF:

LANDSCAPE PLAN
L.A. NUMBER: 6667357

REVISIONS:
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CHECKED BY: JK
DATE: NOVEMBER 2022

LANDSCAPE PLAN

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
LC-02

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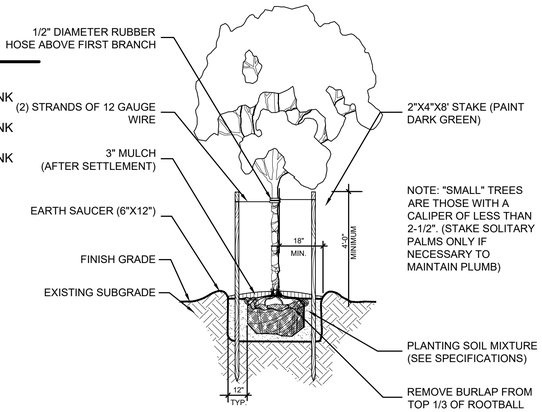
LANDSCAPE SCHEDULE AND NOTES:

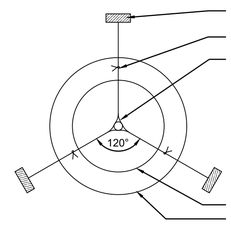
PLANT SCHEDULE

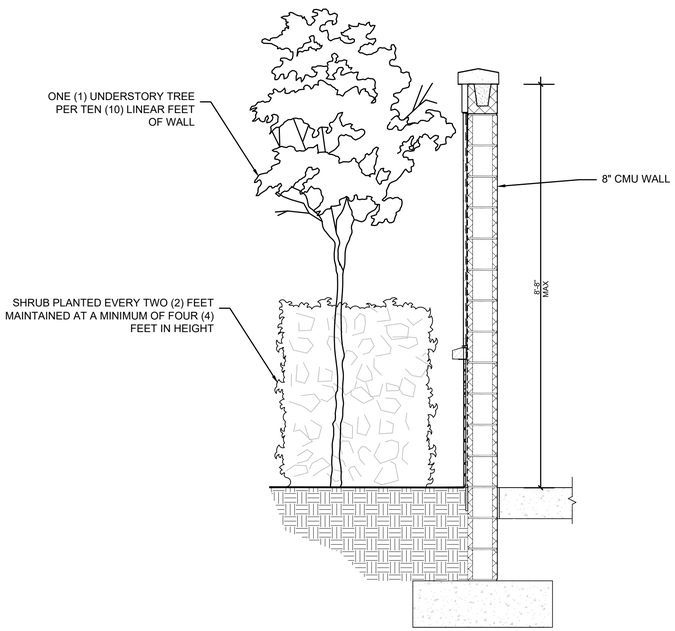
NATIVE PALM TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE		REMARKS
SP-12	3	SABAL PALMETTO	CABBAGE PALMETTO	FG		12` CT		HURRICANE CUT, SLICK TRUNK
SP-14	4	SABAL PALMETTO	CABBAGE PALMETTO	FG		14` C.T.		HURRICANE CUT, SLICK TRUNK
SP-16	3	SABAL PALMETTO	CABBAGE PALMETTO	FG		16` CT.		HURRICANE CUT, SLICK TRUNK
NATIVE TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**CAL**	**SIZE**		**REMARKS**
CV	6	CHIONANTHUS VIRGINICUS	WHITE FRINGETREE	SIZE AS NEEDED	2" CAL.	5-6` HT. X 3-4` SPD.		
MGB	6	MAGNOLIA GRANDIFLORA `BRACKENS BROWN BEAUTY`	BRACKEN`S SOUTHERN MAGNOLIA	SIZE AS NEEDED	4"CAL	16` HT. X 6` SPD.		FULL TO GROUND
QVH	7	QUERCUS VIRGINIANA `HIGH RISE`	HIGH RISE LIVE OAK	SIZE AS NEEDED	4"CAL	14-16` HT X 5` SPD		
TD-4	6	TAXODIUM DISTICHUM	BALD CYPRESS	SIZE AS NEEDED	4"CAL	14-16` HT X 6` SPD		
SMALL TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**CAL**	**SIZE**		**REMARKS**
LNS-2	6	LAGERSTROEMIA X `NATCHEZ`	WHITE STANDARD TRUNK CRAPE MYRTLE	SIZE AS NEEDED	2" CAL.	10`-12` HT X 3`-4` SPD		
LT2	5	LAGERSTROEMIA INDICA X FAURIEI 'TONTO'	TONTO CRAPE MYRTLE	45 GAL				
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**SPACING**	**SIZE**	**SPACING**	**REMARKS**
PP2	43	PODOCARPUS MACROPHYLLUS 'PRINGLES'	PRINGLES DWARF YEW PODOCARPUS	7 GAL., 2.5` O.C. 30" HT., 24" SPR			30" o.c.	
NATIVE SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**SPACING**	**SIZE**	**SPACING**	**REMARKS**
IV	3	ILEX VOMITORIA	YAUPON HOLLY	7 GAL., 3` HT. MIN.			48" o.c.	
NATIVE SHRUB AREAS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**SPACING**	**SIZE**	**SPACING**	**REMARKS**
IS	27	ILEX VOMITORIA 'SCHILLINGS'	SCHILLINGS YAUPON HOLLY	7 GAL	24" O.C.		24" o.c.	
MCA	529	MUHLENBERGIA CAPILLARIS	PINK MUHLY	1 GAL			30" o.c.	
TFA	313	TRIPSACUM FLORIDANA	DWARF FAKAHATCHEE GRASS	1 GAL			36" o.c.	
VD	216	VIBURNUM OBOVATUM 'DENSA'	DWARF WALTER'S VIBURNUM 'DENSA'	3 GAL.	30" O.C.		30" o.c.	24" HT. & SPD. MIN.
GROUND COVERS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**SPACING**	**SIZE**	**SPACING**	**REMARKS**
DTV	134	DANIELLIA TASMANICA `VARIEGATA`	VARIGATED FLAX LILY	1 GAL.			24" o.c.	
JB	224	JUNIPERUS CONFERTA `BLUE PACIFIC`	BLUE PACIFIC JUNIPER	3 GAL			30" o.c.	
LME	171	LIRIOPE MUSCARI `EMERALD GODDESS`	LIRIOPE	1 GAL.			24" o.c.	
SOD/SEED	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**SPACING**	**SIZE**	**SPACING**	**REMARKS**
SOD-D	3,400 SF	ZOYSIA JAPONICA `EMERALD`	EMERALD ZOYSIA	SOD				
MULCH 3" DEPTH	TBD	HARDWOOD MULCH, COCO BROWN COLOR						



NASSAU COUNTY TREE PLANTING DETAIL

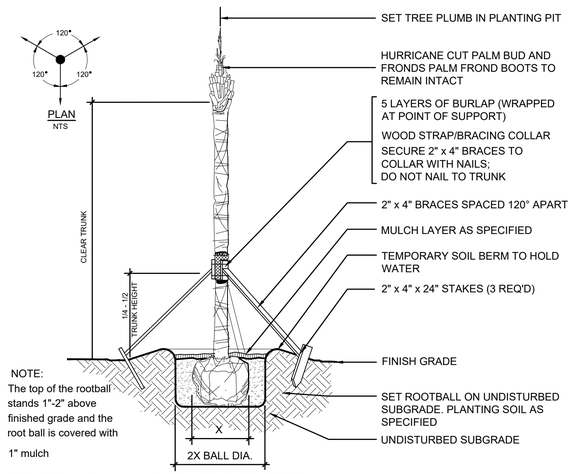
SCALE: NTS





TRASH COMPOUND SCREENING- CMU WALL AND LANDSCAPING

SCALE: NTS



SABAL PALM PLANTING DETAIL

SCALE: NTS

PLANS PREPARED UNDER THE DIRECTION OF:
JONATHAN F. KORMAN, PLA
L.A. NUMBER: 6667357

PLOTTED: May 1, 2023 – 3:13 PM, BY: Jon Korman

REVISIONS:
2023.03.14-REV. PER AGENCY COMMENTS
2023.04.28-REV. PER AGENCY COMMENTS

ETM NO. 19-086
DRAWN BY: JK
DESIGNED BY: JK
CHECKED BY: JK
DATE: NOVEMBER 2022

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ETM VISION • EXPERIENCE • RESULTS

LANDSCAPE SPECIFICAITONS AND DETAILS

WAWA @ WILDLIGHT FOR WAWA FLORIDA, LLC

DRAWING NUMBER
LC-03

T:\2019\19-086\Landscape\Plot\LC Plot_19-086.dwg

LANDSCAPE SPECIFICATIONS:

PART 1 GENERAL NOTES

1.1 Scope. This section includes all planting of shrubs, trees, ground covers, and other supplementary work shown on the drawings and specified herein, complete.

1.2 Applicable Documents. The following publications, specifications, and standards of the issues listed in this paragraph (including the amendments and addenda designated), but referred to hereinafter by basic designation only, form a part of this specification to the extent required by the references thereto.

1.3 Publication of Reference. Publications as herein listed shall be held in basic reference:
- 1.3.1 Grades and Standards for Nursery Plants, Parts I and II, State Department of Agriculture and/or State Plant Board of Florida, Seagle Building, Gainesville, Florida.
- 1.3.2 State of Florida Fertilizer Law, Office of the Secretary of State, Tallahassee, Florida.
- 1.3.3 American Standard for Nursery Stock (ANSI Z6Ø.1—), American Association of Nurserymen.
- 1.3.4 Tree Care Operations (ANSI Z133.1—)
- 1.3.5 Guideline Specifications to Sodding, America Sod Producers Association (ASPA).

1.4 Substitutions of Plant Material. If a plant is found to be unavailable, submit proof of non—availability and a proposal for use of equivalent material. When authorized, adjustment of contract amount will be made. No substitutions will otherwise be authorized. To prove non—availability, The Contractor must provide at least five (5) letters from growers or dealers from the States of Florida and Georgia explaining the non—availability of the plant material. Substitutions made without prior approval may be rejected after planting and any replacement of materials will be at the contractors expense.

1.5 On—Site Conditions and Adjustments. The locations of plants, as shown on the plans, are approximate. Planting shall be adjusted to fit actual as—built conditions on the site, including but not limited to separation from hardscapes and utilities as governed by municipal codes. Any changes in locations caused thereby shall be made without additional cost to the Owner, Owner's Representative, or Landscape Architect. The Contractor shall immediately notify the Owner's Representative when conditions detrimental to plant growth are encountered, such as rubble fill, lime rock, or obstructions; and when field conditions are different than portrayed on the plans prior to planting. The Owner or Owner's Representative may adjust the layout or location of specified plant materials to avoid these areas without additional costs.

1.6 Coordination of Plantings. Coordinate all landscape work with the Owner's Representative and other contractors. Plant trees and shrubs after final grades are established and prior to planting of lawns, unless otherwise directed by the Owners Representative.

1.7 Fine Grading. Provide fine grading necessary to establish finish grade in all landscape areas. Fine grading shall include only minor grading to correct random or infrequent grade irregularities of 12" or less; unless otherwise noted on plans.

1.8 Liability of Contractor. The contractor shall be liable for any and all damages to property that result from his performance, including damage to preserved trees. He shall, without extra cost, mitigate or restore to original condition any areas and/or construction damaged, defaced, disturbed, or destroyed by him or his workmen.

1.9 Tree Tagging. A tree tagging trip may be requested by Owner's Representative prior to approval of plant material. Landscape contractor shall be responsible for providing transportation and accommodations if necessary.

1.1Ø Inferior Materials. Contractor shall be responsible for rejecting inferior materials. Materials in a damaged or unhealthy state may be rejected by the Owners Representative if necessary.

1.11 Onsite Debris. Contractor shall be responsible for removing and disposing of offsite all stones over 1" in diameter, sticks, roots, and other extraneous matter in planted areas to a depth of 2'. If debris is excessive and results from construction waste please contact owners representative for appropriate actions.

PART 2 SUBMITTALS

2.1 Soil Testing for Plant Material. The Contractor shall be responsible for testing soils in planted areas to confirm that soil is suitable for healthy plant growth.

2.2 Seed Certification. All seed must comply with regulatory agencies for fertilizer and herbicide composition.

2.3 Inspection Certificates, Manufacturer's Data. Upon request of Owners representative copies of inspection certificates or manufacturer's data shall be provided for any material used onsite; in addition to existing materials found onsite.

PART 3 MATERIALS

3.1 General Plant Materials Requirements. Provide state inspected, nursery grown plants, unless otherwise specified. Conform to the plant schedule, "Florida Department of Agriculture Grades and Standards for Nursery Plants", local landscape ordinance, and, where applicable, to ANSI Z60.1 All plant materials shall be nursery grown, Florida No.1 stock. Any material not consistent with Florida Number 1 standards may be rejected after planting and replacement of materials will be at the contractors expense. All materials shall be healthy, vigorous, free of diseases and insects, pruned for best shape without appearance of "de—horning", and without symptoms of nutritional deficiency. Furnish plants grown under climatic conditions similar to those in the locality of the project. All plants must be true of variety, cultivars, and/or species. Plants must measure according to sizing requirements detailed on the drawings. Plants must be naturally bushy, dense, in good foliage, well branched, and of good appearance. The nursery/nurseries from which they are derived shall be under regulatory inspection by the Florida State Department of Agriculture and/or the Florida State Plant Board or an equivalent agency, if derived from outside the State of Florida. Plants entering from outside the State of Florida must bear the entry certificate of the State Department of Agriculture of the State of Florida. All plant materials will be subject to approval of the Owner or Owner's Representative for quality, size and color.

3.2 Soil Additives. Contractor shall be responsible for adding peat, humus, fertilizer, manure, pH adjusters or any other commercially accepted soil additive to insure normal, healthy plant growth.

3.3 Balled and Burlapped Trees. Ensure that field grown material follows local industry standards for root pruning, digging, balling and burlapping, etc. All balled and burlapped materials must be hardened off before shipment. All materials are subject to approval by the Owners Representative prior to shipping to project site.

3.4 Spaded Trees. Trees shall have been spaded from a commercial nursery field that has been inspected by The Department of Agriculture and Consumer Services within the last 9 months. The Contractor shall provide a copy of the most recent Nursery, Stock dealer and Special Inspection Report for verification upon Owners Representative request. Ball size shall be at least one size greater than recommended by ANSI Z60.1, American Standard for Nursery Stock, unless otherwise specified. Spaded material is subject to approval and tagging by the Owner's Representative prior to shipping to project site.

3.5 Container Plants. Provide container grown plants with sufficient roots to hold the container soil together after removal from the container. Root bound plants and plants with inadequate root systems are not acceptable.

3.6 Surface Mulch. Plans shall specify mulch type. Mulch shall be in a non—decomposed state; not more than one (1) season old.

3.7 Herbicides, Insecticides. Chemical sprays, dusts, or gaseous compounds used on or around plant materials, including but not limited to trees, shall be approved for such uses by the environmental protection agency and the Florida department of agriculture and consumer services. Such materials as may be used shall not constitute a hazard to human health or interfere with site working conditions and habitation.

3.8 General Seed Requirements. Where seeding may be required on the plans, the seed required shall comply with all minimum provisions of the Florida seed certification and testing law. Noxious weed seeds shall be non—existent and foreign materials shall not exceed two percent. All disturbed areas not shown as sodded shall be seeded.

3.9 General Sod Requirements. See plan for specified sod. All sod shall be healthy, strongly rooted and not less than two (2) years old, free of weeds and undesirable native grasses in 16" x 24" pads, 1—1/2" thick. Sod shall conform to "nursery grown" grade as established by American Sod Producers Association (ASPA). Sod shall be considered free of weeds if less than 5 weeds are found per 1Ø0 square feet of area. Brown, dry, irregularly smooth, and/or un—fresh sod will be rejected.

PART 4 PLANTING PROCEDURES

4.1 General. Prior to commencement of any work, the landscape contractor shall inspect the site, locate planting areas, placement of guying devices, locate electrical cables, conduits, and other underground and above utilities so that proper precautions and procedures may be followed during and throughout construction. The contractor shall become familiar with other job trade activity which has an impact upon his work or upon which his work has an impact and shall arrange to carefully coordinate his work with other trades through the owner's representative on—site. All planting practices listed herein shall insure healthy plant growth.

4.2 Layout. The location of plants and planting beds, as shown on these plans, are approximate. The locations and bed lines shall be staked on the project site by the contractor and approved by the owner's representative before any plant pits or beds are dug. The contractor is responsible for verifying that proper setbacks, as defined by local codes and rules, are provided between trees and their proximity to utilities and hardscapes. Unless otherwise noted, no tree shall be planted closer than four feet to a hardscape surface. The owner's representative may adjust plant material locations to meet field conditions. Contractor shall make minor adjustments without additional cost to the owner.

4.3 Finish Grades. The landscape contractor is responsible for all fine grading and preparation for planting. Finish grades (top of soil) for all sod areas after settlement shall be one—half inch below the top of abutting curbs, walks, walls and abutments. The finish grade of all plant beds prior to mulching shall be three inches below finish grade of sod, abutting curbs, walks and walls. Three inches of mulch shall be added after planting.

4.4 Planting Seasons/Times. The planting of plant materials and lawns may proceed at any time, period, or season agreed upon by the contractor and the owner or owner's representative.

4.5 Plant Pits. The contractor shall excavate plant pits, unless otherwise approved, according to the drawings.

4.6 Setting Plants. Each plant shall be established in a manner consistent with plant details. All plants shall be set plumb and straight. Plants shall be established to a depth that is not greater than that at which they grew when in the nursery container or field. All back fill shall be tamped and worked firmly under and around the root ball to fill all voids.

4.7 Soil Preparation for Trees, Shrubs and Groundcover. All areas to be planted shall be prepared in a manner to insure normal, vigorous and healthy growth of plant material.

4.8 Staking. All trees are to be staked unless otherwise instructed by owner or owner's representative. Refer general staking details on the drawings. Materials used shall insure healthy plant growth.

4.9 Mulching. All plant beds and plant saucers shall be uniformly covered with a three—inch (3") layer of mulch. Hedges shall be mulched the full width of the hedge bed. Contain mulch within landscape borders.

4.1Ø Sod. All areas to be either seeded, sprigged, or sodded shall be prepared in a manner to insure normal, vigorous and healthy growth.

- 4.1Ø.1 Fine grade lawn areas to smooth, even surface with loose, uniformly fine texture. Roll, rake and drag lawn areas, remove ridges and fill depressions with topsoil as required to meet finish grades. In areas to be sodded, allow for sod thickness.
- 4.1Ø.2 Sod Installation. Lay sod in straight, parallel rows to form a solid mass with tightly fitted joints, without overlap. Stagger strips to offset joints. Work topsoil into minor cracks. On 1:3 slopes or greater, lay sod with long dimension of pads parallel to contours and stake sod as necessary to stabilize. Drive sod stakes flush with top of sod.
- 4.1Ø.3 Sprigging and Seeding. Sprigging/seeding shall be done in a manner to insure a quick grow in period achieving a uniform green lawn prior to final acceptance.

PART 5 MAINTENANCE

5.1 Plant Material. Maintain all plant materials until final acceptance. Maintenance shall include all required watering, cultivation, weeding, mowing, pruning, wound dressing, immediate replacement of dead and unacceptable material, straightening plants which lean or sag, adjustments of plants which are planted too low, and any other procedure consistent with good horticultural practice necessary to insure normal, vigorous and healthy growth of all planting under this contract.

5.2 Lawn. Maintain lawns until final acceptance. Reset settled or eroded sod areas to proper grade. Fill open joints with topsoil. Keep sod free of insects and disease.

PART 6 FINAL INSPECTION AND ACCEPTANCE

6.1 Final Cleanup. Upon final completion of work and before inspection and acceptance, all aspects of the project site shall be thoroughly and completely cleaned of debris, stains, materials, defacements, and temporary facilities. Likewise, any repairs, which are the obligation of this contractor, shall be completed.

6.2 Initial Inspection and Acceptance. Inspection shall be made by the owner or owner's representative within (1Ø) ten days of written notification from the contractor that installation is complete. If all work and materials meet specifications project will be accepted as is. Materials and work not in compliance with specifications shall be rejected by owners representative and replaced by the contractor within (15) fifteen days of notification by owner's representative. Notification will graphically depict all rejected material on plans. Upon replacement of all rejected work and materials by the contractor the owner's representative shall conduct a final inspection within ten (1Ø) days of written notification from the contractor that all rejected work has been replaced according to specifications. Approval will be granted upon the acceptance of all replaced material noted on plans. After final acceptance, the landscape contractor will not be responsible for damage to work resulting from:neglect by owner, damage by others; abnormal weather conditions such as floods, excessive wind, severe freezing or abnormal rains; or other activities clearly beyond the landscape contractor's control.

PART 7 GUARANTEE

7.1 Guarantee. All plant materials and trees installed by the contractor shall be guaranteed for 365 days from the date of final inspection and acceptance. The contractor shall replace at no additional cost to the owner, all plant materials which die and/or which are not healthy and in a good growing condition during the guarantee period. Replacement of such material shall occur within ten (1Ø) days from owner's written notification to the contractor. The 365 day guarantee period for replaced plant materials shall commence on the date of acceptance of the replaced item or items of plant material. The contractor shall not be required to replace, repair, or restore any portion of the work that is damaged, defaced, disturbed, and/or destroyed by others after final acceptance.

NOTE: IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY WITH THE LANDSCAPE ARCHITECT THAT THEY ARE USING THE MOST CURRENT PLAN SET FOR BIDDING AND INSTALLATION. FAILURE TO VERIFY CURRENT PLAN SET COULD RESULT IN CORRECTIVE WORK, INCLUDING DESIGN REVISIONS AND PERMITTING FEES TO BE PERFORMED AT THE CONTRACTORS EXPENSE.

NASSAU COUNTY NOTES:

1) ALL PLANTS WILL BE FULLY IRRIGATED AS PER 37.05(G)(1).

2) ALL TREES PLANTED WILL BE STAKED OR GUYED FOR A PERIOD OF AT LEAST 6 MONTHS AS PER 37.05(B)(2).

3) 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 AS PER 37.05(J).

4) THE PROPERTY OWNER WILL REPLACE, PER THE LANDSCAPE PLAN ON SHEET LC—Ø1, ANY LANDSCAPING IN THE PERIMETER STRIP DEEMED NECESSARY BY JEA TO BE REMOVED UPON JEA'S ACCESSING OF UNDERGROUND UTILITIES IN THIS AREA.

LANDSCAPING CALCULATIONS

Item			Square Feet	Acres	Percentage
		Gross Site Area	80,586	1.85	100%
Total Impervious Surface Calculations	Total building Area		6,119		8%
	Total Paved Area	Asphalt	34,733		43%
		Concrete	27,193		34%
	Total Surface Area of Stormwater Pond at Top of Bank		0		0%
	Jurisdictional Wetlands		0		0%
	TOTAL IMPERVIOUS SURFACE >>>		68,045		84%

Area of Perimeter Landscape Strip (s) - 37.05.D		Length	Avg. Width	Square Feet
	Local Road - 10' Width (Day Dream Ave.)	90	10	900
	*Overhead restriction present	0		0
	Local Road - 10' Width (Day Dream Ave.)	108	10	1,080
	Total Perimeter Strip Area >>>			1,980

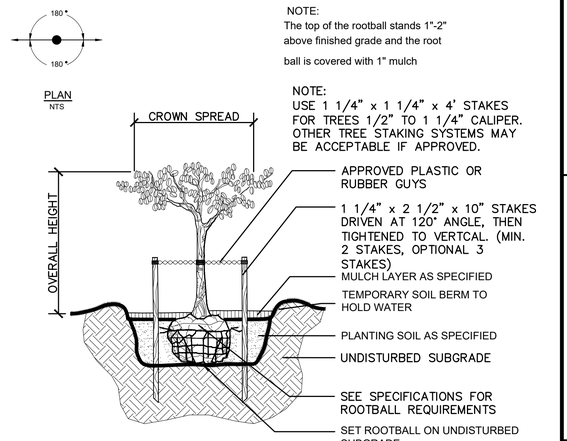
Open Space Calculations 37.05.C.3	Square Feet	Required Open space Trees	Provided Open Space Trees Requirements *[including Uncomplimentary Land Use Buffer and Interior Landscaping (37.05.F LDC)]*
Gross Site Area	80,586		
Site Area Less Perimeter Strip(s)	78,606		
Required Open Space	7,861	16	
Provided Open Space	12,893		18

Sec. 37.06 Buffer Requirements		Width (ft.)	Area (Sqft.)	Trees Required	Screening Required
	High Density	none	0	0	No
	Medium Density	none	0	0	No
	Low Density	none	0	0	No

One and two-family dwellings. Each single-family and two-family lot must provide at least one (1) tree per three thousand (3,000) square feet of lot area for the first quarter acre of lot area. For lots exceeding one-quarter (¼) acre, one (1) tree for every additional one-quarter (¼) acre, or major fraction thereof, must be preserved or planted. Existing canopy trees, sabal palms and pine trees may be used to satisfy this requirement, in whole or in part, provided that they have a minimum caliper of four (4) inches DBH.

Multi-family, mobile home park and travel trailer parks. In addition to the use buffer and perimeter landscaping adjacent to a right-of-way requirements found in this section, each multi-family, mobile home park and travel trailer park must plant or preserve an additional one tree for every two (2) dwelling units.

Non-residential developments. In addition to the buffer and perimeter landscaping adjacent to a right-of-way requirements found in this section, each commercial and/or industrial development must provide a minimum of ten (10) percent of the lot or parcel as pervious green space planted with one or more species of tree listed in Tables 37-1 or 37-2 for every five hundred (500) square feet of such green space.

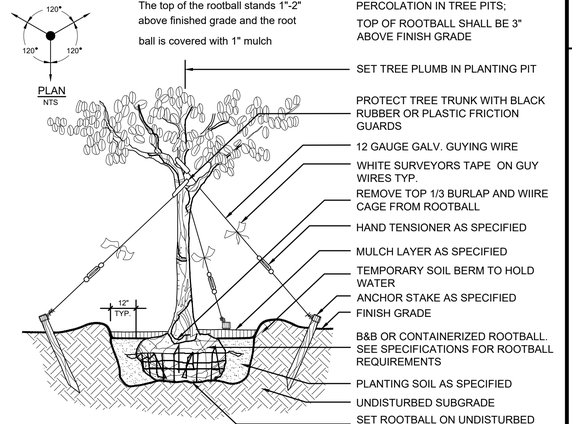


NOTE:
The top of the rootball stands 1"-2" above finished grade and the root ball is covered with 1" mulch

NOTE:
USE 1 1/4" x 1 1/4" x 4' STAKES FOR TREES 1/2" TO 1 1/4" CALIPER. OTHER TREE STAKING SYSTEMS MAY BE ACCEPTABLE IF APPROVED.

SMALL TREE PLANTING DETAIL (1" TO 3-1/2" CALIPER)

SCALE: NTS



NOTE:
The top of the rootball stands 1"-2" above finished grade and the root ball is covered with 1" mulch

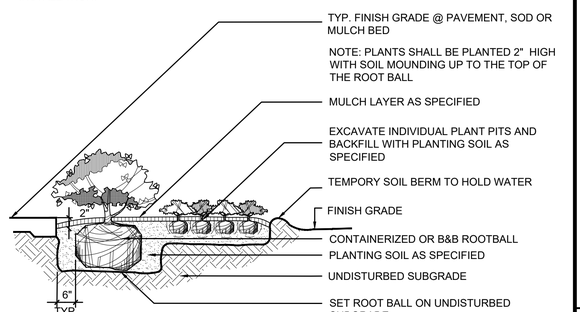
NOTES: CONTRACTOR TO ASSURE PERCOLATION IN TREE PITS;
TOP OF ROOTBALL SHALL BE 3" ABOVE FINISH GRADE

LARGE TREE PLANTING DETAIL (4" CALIPER AND LARGER)

SCALE: NTS

NOTE:
WHEN GROUNDCOVER AND SHRUBS ARE USED IN MASS, PREPARE ENTIRE BED TO RECEIVE PLANTING SOIL AND PLANT MATERIAL AS SPECIFIED.

CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.



NOTE:
The top of the rootball stands 1"-2" above finished grade and the root ball is covered with 1" mulch

SHRUB AND GROUNDCOVER PLANTING DETAIL

SCALE: NTS

PLANS PREPARED UNDER THE DIRECTION OF:
JONATHAN F. KORMAN, PLA
L.A. NUMBER: 6667357

REVISIONS:
2023.03.14—REV. PER AGENCY COMMENTS
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ETM VISION - EXPERIENCE - RESULTS

LANDSCAPE SPECIFICATIONS AND DETAILS

WAWA @ WILDLIGHT FOR WAWA FLORIDA, LLC

DRAWING NUMBER
LC-04

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LANDSCAPE CODE SUMMARY

Article 37 - NATURAL RESOURCE PROTECTION

REFERENCE	DESCRIPTION	NOTES/ COMPLIANCE?
Section 37.02. - NATIVE CANOPY TREE PROTECTION (UNINCOPORATED AMELIA ISLAND)		
37.02.D.1	A tree inventory and retention/landscape plan has been prepared, pursuant to section 5.2(10) and 5.3 of the Nassau County Development Review Regulations.	N/A
37.02.D.2	The removal of healthy native canopy trees may be allowed for construction purposes where all reasonable alternatives have been documented and exhausted for relocating the specific construction.	N/A
37.02.D.3	The removal/replacement of native canopy trees that are twenty-four (24) inches dbh or greater is strongly discouraged. Therefore, all reasonable alternatives or methods that are available, such as design modifications, shall be closely examined before removal.	N/A
37.02.D.5	The removal of protected native canopy trees shall be allowed, as determined by the development review committee, if one (1) or more of the following conditions exists: Street Opening, Utilities and Drainage, Property Access, Property Use, Hazard, Poor Tree.	N/A
37.02.E.1	All new Class II, III and IV residential developments shall submit a streetscape plan, including proposed tree retention and landscaping.	N/A
37.02.F.1	The minimum number of protected native canopy trees to be preserved upon any development site is equal to forty-five (45) percent of caliper inches within the development site. A protected native canopy tree is defined as a healthy tree as determined by an ISA certified arborist listed in Table 37-4[A] and is at least six (6) inches dbh in size. Healthy trees (and other vegetation) lying within designated conservation areas, jurisdictional wetlands and adjacent upland buffers must be retained but are not counted in the minimum preservation requirement. As an incentive for property owners to retain large trees, the preservation of any tree that is eightieth percentile or larger in inches dbh (of all qualifying/protected native canopy trees on the proposed development site) will generate a bonus credit value of one hundred twenty-five (125) percent of the diameter of the preserved tree. In all cases, qualifying preserved and replacement trees are credited toward the minimum landscaping requirement of each property upon which they are located. Included in the forty-five (45) percent of caliper inches for preservation shall include a perimeter preservation requirement for any six-inch or larger, healthy Table 37-1 tree located within a required roadway buffer and/or within ten (10) feet of a ROW. Perimeter preservation trees can only be removed as per section 37.02(C) or 37.02(D)5.	N/A
37.02.F.2	Unique development scenarios that prevent the forty-five (45) percent preservation or perimeter preservation requirement from being met will require replacement on an inch for inch (dbh) basis with native canopy trees but only if approved by the planning and zoning board.	N/A
37.02.F.3	All replacement native canopy trees shall be a minimum of three (3) inches dbh, at the time of planting.	N/A
37.02.F.4	Replacement trees shall be planted on-site, if practical, otherwise the developer shall donate to the county and plant the required trees on public property, or alternatively, on private property where a conservation easement exists, subject to approval by the planning and zoning board.	N/A
37.02.F.5	All replacement trees shall be in good health, conform to the standards for Florida No. 1 or better.	N/A
37.02.H.1	Credit on a one (1) tree for one (1) tree basis toward the minimum tree requirements shall be given for each native canopy tree retained on site.	N/A
37.02.H.2	Any native canopy trees planted to meet the minimum tree requirements shall be a minimum of three (3) inches dbh, ten (10) feet tall, and five (5) feet wide at the time of planting.	N/A
37.05.B	All installed trees, shrubs and groundcovers shall conform to the standards for Florida Grade #1 or better.	YES

REFERENCE	DESCRIPTION	NOTES/ COMPLIANCE?
Section 37.05. - LANDSCAPING		
37.05.B.1	The minimum number of trees required by this section shall be either qualifying existing trees preserved on-site or more than one species listed in Tables 37-1 or 37-2. new landscaping should not include more than fifty (50) percent of any one genus or twenty-five (25) percent of any one species. All trees shall be planted in a minimum dimension of ten (10) feet. This minimum planting area must be free of all pavement and vehicle overhang in order to prevent possible tree damage. All trees shall have a minimum trunk diameter, measured six (6) inches above ground level, in accordance with Table 37-3.	YES
37.05.B.2	Shrubs shall have a minimum height of eighteen (18) inches when planted. When planted as a hedge, the maximum spacing is 30 inches on center. All shrubs used for visual screening shall be of a plant species that is capable of reaching a height of four (4) feet within twenty-four (24) months under normal growing conditions.	YES
37.05.B.3	Groundcovers shall be planted in such manner as to present a finished appearance and complete coverage within one (1) year after planting.	YES
37.05.C.1	One and two-family dwellings. Each single-family and two-family lot must provide at least one (1) tree per three thousand (3,000) square feet of lot area for the first quarter acre of lot area. For lots exceeding one-quarter (¼) acre, one (1) tree for every additional one-quarter (¼) acre, or major fraction thereof, must be preserved or planted. Existing canopy trees, sabal palms and pine trees may be used to satisfy this requirement, in whole or in part, provided that they have a minimum caliper of four (4) inches DBH. When trees are planted to meet the minimum requirement they must be more than one species of tree listed in Tables 37-1 or 37-2 and meeting the material standards of this section. The foregoing represent the entire requirement applicable to individual one and two-family dwellings.	N/A
37.05.C.2	Multi-family, mobile home park and travel trailer parks. In addition to the use buffer and perimeter landscaping adjacent to a right-of-way requirements found in this section, each multi-family, mobile home park and travel trailer park must plant or preserve an additional one tree for every two (2) dwelling units. When trees are planted to meet the minimum requirement they must be more than one species of tree listed in Tables 37-1 or 37-2 and meeting the material standards of this section.	N/A
37.05.C.3	Non-residential developments. In addition to the buffer and perimeter landscaping adjacent to a right-of-way requirements found in this section, each commercial and/or industrial development must provide a minimum of ten (10) percent of the lot or parcel as pervious green space planted with one or more species of tree listed in Tables 37-1 or 37-2 for every five hundred (500) square feet of such green space.	YES
37.05.D.1	A1A/S.R. 200, U.S. Highway 1 and U.S. 301. A strip parallel to the right-of-way line having an average width of twenty-five (25) feet and a minimum width of ten feet along the entire street frontage except for permitted driveways. This perimeter landscaping strip shall contain a minimum of three (3) canopy trees per one hundred (100) linear feet of property frontage and three (3) understory trees per one hundred (100) linear feet of property frontage. The canopy trees shall consist of more than one (1) species listed in Tables 37-1 or 37-2. Planted trees are not meant to be spaced evenly but rather randomly distributed by species.	N/A
37.05.D.2	Other arterial and collector roadways. All other arterial and collector roadways, as identified by the comprehensive plan, shall provide a strip parallel to the right-of-way line having an average width of fifteen (15) feet and a minimum width of seven and one-half (7½) feet along the entire street frontage except for permitted driveways. This perimeter landscaping strip shall contain a minimum of three (3) canopy trees per one hundred (100) linear feet of property frontage and three (3) understory trees per one hundred (100) linear feet of property frontage. The canopy trees shall consist of more than one species listed in Tables 37-1 or 37-2. Planted trees are not meant to be spaced evenly but rather randomly distributed by species within the largest open spaces.	N/A

REFERENCE	DESCRIPTION	NOTES/ COMPLIANCE?
37.05.D.3	Local streets. A strip parallel to the street line having a minimum width of ten (10) feet along the entire street frontage except for permitted driveways. This perimeter landscaping strip shall contain a minimum of two (2) canopy trees per one hundred (100) linear feet of property frontage and three (3) understory trees per one hundred (100) linear feet of property frontage. The canopy trees shall consist of more than one species listed in Tables 37-1 or 37-2.	YES
37.05.D.5	Except for one- and two-family dwellings, all off-street parking areas, drive aisles, and paved storage areas lying within fifty (50) feet of, and visible from any street right-of-way, the perimeter landscaping requirement of this section shall also include shrubs	YES
37.05.D.6	Dumpsters and mechanical equipment shall be screened through the use of a wall, which is one hundred (100) percent opaque in conjunction with landscaping. Minimum landscaping shall include one (1) shrub every two (2) feet. The shrub shall be maintained at a minimum of four (4) feet in height. One (1) canopy tree or understory tree per ten (10) linear feet of wall or fence unless said fence or wall is less than eight (8) feet in length. Where a transformer pad is located along a public right-of-way, it shall be screened using a hedge meeting the standards of section 37.05.B.2 of this Code along the sides visible from the right-of-way.	YES
37.05.D.7	Use of understory trees (ref. Table 37-4 LDC) are permitted in lieu of native canopy trees listed in Table 37-1 and 37-2 as determined to be practical by the director of planning and economic opportunity or designee because of overhead utility lines or other overhead restrictions that cannot otherwise be mitigated through design modifications. Understory trees may be permitted at a rate of one (1) tree for every fifteen (15) feet of site/lot frontage along the right-of-way or street. At the time of planting, Crape Myrtles shall be a minimum of eight (8) feet in height and measure three (3) caliper inches if a single trunk or an aggregate of six (6) inches if a multi-trunk.	YES
37.05.D.8	Perimeter landscape strips required by this section shall not be encumbered by a utility easement, unless 1) the utilities are located underground; 2) will not prevent trees from reaching maturity; and, 3) approval for tree planting is granted by the utility provider in writing, on utility provider letterhead, to Nassau County. The perimeter landscape strip required by this section shall not include any portion of a stormwater management facility, borrow-pit, fishing pond or similar excavation.	YES
37.05.D.10	Back flow preventer(s) and lift stations shall generally be to the side or rear of a building. Where they cannot be placed at the side or rear of a building, it shall be screened from public rights-of-way through the use of shrubs planted as a hedge meeting the standards of section 37.05.B.2 of the Code.	YES
37.05.E.1	At the intersection of two (2) streets, all landscaping within that area defined by the Florida Department of Transportation sight triangle, as outlined in the FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System shall be installed and maintained below three (3) feet in height or above eight (8) feet in height.	YES
37.05.E.2	When a driveway intersects a right-of-way, clear unobstructed cross visibility shall be provided within the site triangle formed by such intersection. The sight triangle shall be measured from the point of intersection, fifteen (15) feet along the access way and then fifteen (15) feet along the right-of-way, with the third side being a line connecting the two (2) points. Cross visibility within the sight triangle shall be unobstructed between the height of three (3) feet and eight (8) feet measured from the ground line. Only ground cover type plants shall be allowed within the sight triangle.	YES
37.05.F.1	Except for one- and two-family dwellings, all off-street parking areas shall contain interior landscaping islands at a ratio of one (1) island for each ten (10) parking spaces. Rows of parking spaces abutting a sidewalk adjacent to a building are exempt from required landscape islands except for terminal islands at the end of each row.	YES

REFERENCE	DESCRIPTION	NOTES/ COMPLIANCE?
37.05.F.2	Each separate interior landscaped island shall contain a minimum of one hundred sixty-six (166) square feet and shall be at least ten (10) feet wide as measured from back of curb. A minimum of one (1) canopy tree shall be planted in each interior landscaping island.	YES
37.05.H.2	Fifty (50) percent of the plants used in all vehicular use area landscape designs should be drought tolerant and located in groupings according to zones designated by the water requirements.	YES
37.05.H.3	Turf grass areas should be consolidated and limited to those areas on the site that receive pedestrian traffic, provide for recreational uses, provide soil erosion control such as berms, slopes and swales, where turf grass is used as a design unifier or other similar practical use.	YES
37.05.H.4	All planting areas shall be mulched with approximately three (3) inches of organic mulch, such as pine bark or shredded hardwood chips.	YES
Section 37.06. - BUFFERS BETWEEN CERTAIN USES		
37.06.4.a	Medium and fast growing canopy trees shall be chosen from Table 37-1 having a dense, evergreen crown to provide maximum visual separation between abutting properties.	N/A
37.06.4.b	Shrubs shall be spaced to provide a natural appearance and inhibit free movement of pedestrian traffic except at a mutually agreed upon pedestrian connection. Where screening is proposed consisting of a fence or wall, shrubs are not required.	N/A
37.06.4.c	Where screening is required, it shall consist of one or more of the following materials: A five (5) foot masonry wall stuccoed on the side facing the abutting property; A solid six (6) foot fence constructed of resistant materials such as vinyl, cypress or pressure treated wood; Existing dense vegetation; A berm three (3) feet in height located entirely within the buffer and having the requisite number of shrubs planted along the crown.	N/A
Section 37.05. - IRRIGATION		
37.05.H.1	All plantings shall be grouped in zones according to water requirements and shall be irrigated in zones separating high use areas from drought tolerant zones. The zones are as follows:	N/A
37.05.H.1.a	High water use zone: A zone containing plants which are associated with moist soils and require supplemental water in addition to natural rainfall to survive. This zone includes most turf grasses.	N/A
37.05.H.1.b	Moderate water use zone: A zone containing plants which survive on natural rainfall with supplemental water during seasonal dry periods.	N/A
37.05.H.1.c	Low water use zone: A zone containing plants which survive on natural rainfall without supplemental water.	N/A

PLANS PREPARED UNDER THE DIRECTION OF:
JONATHAN F. KORMAN, PLA
L.A. NUMBER: 6667357

PLOTTED: May 1, 2023 – 3:13 PM, BY: Jon Korman

REVISIONS:
2023.03.14-REV. PER AGENCY COMMENTS
2023.04.28-REV. PER AGENCY COMMENTS

ETM NO. 19-086
DRAWN BY: JK
DESIGNED BY: JK
CHECKED BY: JK
DATE: NOVEMBER 2022

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
REG - 2584 LC - 0000316

ETM
VISION • EXPERIENCE • RESULTS

LANDSCAPE CODE SUMMARY

WAWA @ WILDLIGHT
FOR
WAWA FLORIDA, LLC

DRAWING NUMBER
LC-05

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RAISED LANDSCAPE PLANTER NOTES AND LAYOUTS:

RAISED LANDSCAPE PLANTER - PLANTING OPTIONS

TYPICAL PLANTER SEASONAL SPECIES:

PLANTER LAYOUT "A"

WARM SEASON NORTH/ CENTRAL FLORIDA	COOL SEASON NORTH/ CENTRAL FLORIDA
1. YELLOW TALL MARIGOLD	1. ORANGE TALL SNAPDRAGON
2. PINK PORTULACA	2. YELLOW PANSY
3. ORANGE ZINNIA	3. WHITE ALYSSUM
4. ELLIOTT'S PURPLE LOVE GRASS	4. ELLIOTT'S PURPLE LOVE GRASS
5. PINK PENTAS	5. YELLOW CALENDULA
6. ORANGE PLUME CELOSIA	6. RED PETUNIA
7. YELLOW DAHLBERG DAISY	7. PINK PANSY

PLANTER LAYOUT "B"

WARM SEASON NORTH/ CENTRAL FLORIDA	COOL SEASON NORTH/ CENTRAL FLORIDA
1. BLACK-EYED SUSAN	1. PINK TALL SNAPDRAGON
2. PINK BEGONIA	2. YELLOW CALENDULA
3. RED SALVIA	3. RED PANSY
4. ELLIOTT'S PURPLE LOVE GRASS	4. ELLIOTT'S PURPLE LOVE GRASS
5. WHITE PENTAS	5. YELLOW PANSY
6. YELLOW PLUME CELOSIA	6. PINK PETUNIA
7. PINK BEGONIA	7. SHASTA DAISY

PLANTER LAYOUT "C"

WARM SEASON NORTH/ CENTRAL FLORIDA	COOL SEASON NORTH/ CENTRAL FLORIDA
1. TALL PINK ZINNIA	1. YELLOW TALL SNAPDRAGON
2. ORANGE PLUME CELOSIA	2. WHITE CANDYTUFT
3. YELLOW DAHLBER DAISY	3. PINK ALYSSUM
4. ELLIOTT'S PURPLE LOVE GRASS	4. ELLIOTT'S PURPLE LOVE GRASS
5. RED PENTAS	5. YELLOW PANSY
6. PINK PORTULACA	6. WHITE PETUNIA
7. WHITE BEGONIA	7. PINK DIANTHUS

PLANTER LAYOUT "D"

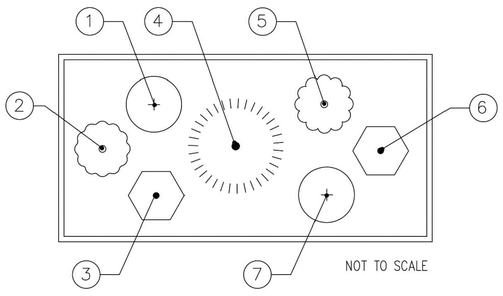
WARM SEASON NORTH/ CENTRAL FLORIDA	COOL SEASON NORTH/ CENTRAL FLORIDA
1. YELLOW TALL MARIGOLD	1. PINK TALL SNAPDRAGON
2. PINK PORTULACA	2. YELLOW CALENDULA
3. ORANGE ZINNIA	3. RED PANSY
4. PINK PENTAS	4. YELLOW PANSY
5. DWF. WHITE FOUNTAIN GRASS	5. DWF. WHITE FOUNTAIN GRASS

WARM SEASON SOUTH FLORIDA	COOL SEASON SOUTH FLORIDA
1. RED SALVIA	1. RED SALVIA
2. PINK PORTULACA	2. WHITE PETUNIA
3. YELLOW ZINNIA	3. YELLOW ALYSSUM
4. WHITE PENTAS	4. BLUE DAZE
5. DWF. WHITE FOUNTAIN GRASS	5. DWF. WHITE FOUNTAIN GRASS

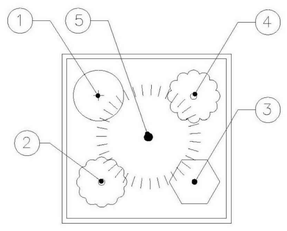
LANDSCAPE CONTRACTOR SHALL SUPPLY AND INSTALL 9, 24"X48" WIDE BOULEVARD SERIES PLANTERS BY ALLIED MOLDED PRODUCTS, INC. MODEL NO. 1RECLP482424;COLOR: GLOSSY WHITE FINISH: GEL COAT

LANDSCAPE CONTRACTOR SHALL PROVIDE THE OWNER/LANDSCAPE ARCHITECT THE MATERIALS AND PRICES FOR THE LANDSCAPING IN PLANTERS PRIOR TO CONSTRUCTION FOR REVIEW.

TYPICAL PLANTER PLAN



TYPE D PLANTER PLAN



PLANTER NOTES:

1. CONTRACTOR SHALL SUPPLY AND INSTALL 24" HT. X 48" WIDE BOULEVARD SERIES RAISED PLANTER BY ALLIED MOLDED PRODUCTS, INC. MODEL NO. 1RECLP482424; COLOR: GLOSSY WHITE; FINISH: GEL COAT.
2. IN FLORIDA, MOST ANNUALS ONLY LAST ONE SEASON AND ARE DIVIDED INTO TWO TYPES: WARM SEASON AND COOL SEASON. WARM-SEASON (TENDER) ANNUALS ARE DAMAGED BY FROSTS OR FREEZES AND SHOULD BE PLANTED AFTER THE LAST FROST DATE- TYPICALLY MARCH 15 FOR NORTH FLORIDA AND FEBRUARY15 FOR CENTRAL FLORIDA; FROSTS AND FREEZES ARE RARE IN SOUTH FLORIDA. COOL-SEASON (HARDY) ANNUALS ARE INTOLERANT OF HEAT, RAINFALL, AND HUMIDITY. THEY ARE PLANTED IN FALL AND USUALLY EXPIRE WITH THE ONSET OF SUMMER (LATE MAY/JUNE). IN ORDER TO PROVIDE SEASONAL COLOR IN THE PLANTERS CONTRACTOR SHALL PROVIDE ANNUAL/ PERENNIAL FLOWER PLANTINGS TWO (2) TIMES A YEAR. THESE TWO (2) PLANTINGS SHALL OCCUR IN EARLY MARCH (FOR WARM SEASON ANNUALS) AND EARLY OCTOBER (FOR COOL SEASON ANNUALS) TO MAINTAIN A CLEAN AND COLORFUL APPEARANCE.
3. ANNUAL/ PERENNIAL FLOWER PLANTINGS SHALL BE A MINIMUM OF 1 GAL POTS. CHOOSE COMPACT PLANTS WITH HEALTHY, UNBLEMISHED LEAVES, GOOD GREEN COLOR, AND LOTS OF FLOWER BUDS. IT IS NOT NECESSARY THAT THEY BE IN BLOOM AT THE TIME OF INSTALLATION. COMBINATIONS OF SEVERAL FLOWER COLORS AND PLANT FORMS ARE APPROPRIATE FOR A "COTTAGE GARDEN" RAISED PLANTER LOOK.
4. THE MOST IMPORTANT STEP IN ESTABLISHING ANNUALS AND PERENNIALS IS PREPARING THE PLANTING BED. APPLY SEVERAL INCHES OF ORGANIC MATTER TO THE SOIL SURFACE AND WORK INTO THE TOP 10 TO12 INCHES. A SOIL PH OF 5.5 TO 6.5 IS RECOMMENDED. MANY COUNTY EXTENSION OFFICES TEST SOIL AND MAKE PH RECOMMENDATIONS. NEXT, SPRINKLE A CONTROLLED-RELEASE FERTILIZER SUCH AS OSMOCOTE®, DYNAMITE, OR OTHER SIMILAR PRODUCT AT THE RATE INDICATED ON THE LABEL. THOROUGHLY MIX IT INTO THE TOP 6 INCHES OF SOIL. ORGANIC MATTER HELPS THE SOIL RETAIN MOISTURE, AND CONTROLLED-RELEASE FERTILIZER PROVIDES A CONTINUOUS NUTRIENT SUPPLY OVER AN EXTENDED PERIOD OF TIME. PRODUCT LABELS NORMALLY SPECIFY THE TIME SPAN THAT THE FERTILIZER WILL BE RELEASED (E.G., 3-4 MONTHS). CHOOSE A RELEASE TIME SUITED TO THE LIFE SPAN OF THE ANNUALS BEING PLANTED.
5. HAND- WATER THE ANNUALS WELL BEFORE AND AFTER PLANTING. SPACING OF PLANTS SHOULD BE BASED ON THE MATURE SIZE OF THE PLANT. HAND-WATER NEWLY PLANTED ANNUALS AS NEEDED. APPLY RON-STAR PRE-EMERGENT HERBICIDE PER MANUFACTURER'S DIRECTIONS AND 2" LAYER OF PINE BARK MULCH FINES.

PLANS PREPARED UNDER THE DIRECTION OF:
JONATHAN F. KORMAN, PLA
L.A. NUMBER: 6667357

REVISIONS:
2023.04.28-REV. PER AGENCY COMMENTS

ETM NO. 19-086
DRAWN BY: JK
DESIGNED BY: JK
CHECKED BY: JK
DATE: NOVEMBER 2022

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
REG - 2584 LC - 0000316

VISION • EXPERIENCE • RESULTS

RAISED LANDSCAPE PLANTER NOTES AND LAYOUTS
WAWA @ WILDLIGHT FOR WAWA FLORIDA, LLC

DRAWING NUMBER
LC-06

PLOTTED: May 1, 2023 – 3:13 PM, BY: Jon Korman

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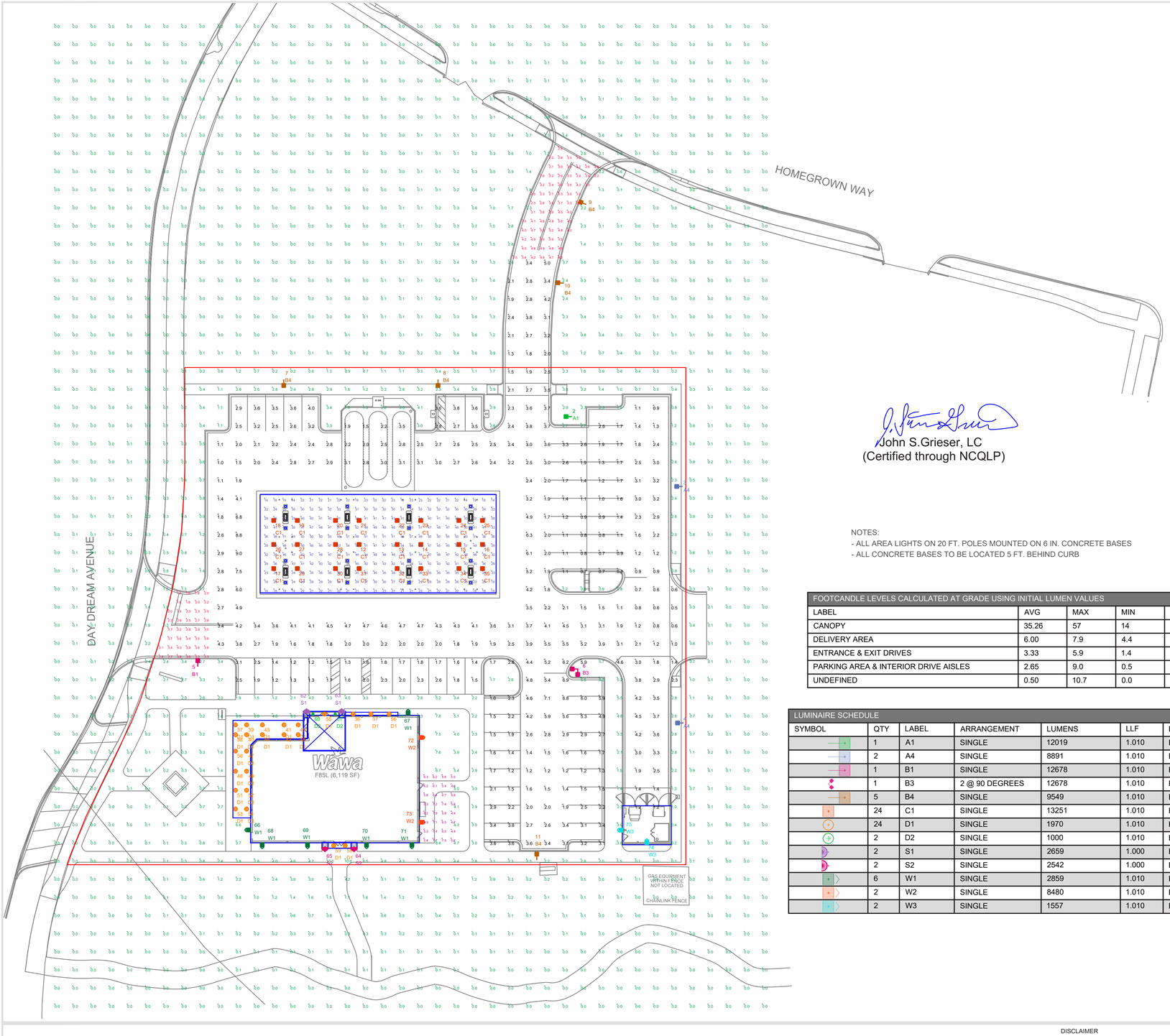


THIS SITE IS LOCATED IN A REGION WHERE
LIGHTING IS REGULATED BY LOCAL ORDINANCES

John S.Grieser, LC
(Certified through NCQLP)

NOTES:
- ALL AREA LIGHTS ON 20 FT. POLES MOUNTED ON 6 IN. CONCRETE BASES
- ALL CONCRETE BASES TO BE LOCATED 5 FT. BEHIND CURB

LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
2	A1	20.5
3	A4	20.5
4	A4	20.5
5	B1	20.5
6	B3	20.5
7	B4	20.5
8	B4	20.5
9	B4	20.5
10	B4	20.5
11	B4	20.5
12	C1	19.32
13	C1	19.32
14	C1	19.32
15	C1	19.32
16	C1	19.32
17	C1	21.53
18	C1	17.11
19	C1	17.11
20	C1	17.11
21	C1	17.11
22	C1	17.11
23	C1	17.11
24	C1	17.11
25	C1	17.11
26	C1	19.32
27	C1	19.32
28	C1	19.32
29	C1	21.53
30	C1	21.53
31	C1	21.53
32	C1	21.53
33	C1	21.53
34	C1	21.53
35	C1	21.53
36	D1	9
37	D1	9
38	D1	9

LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
39	D1	9
40	D1	9
41	D1	9
42	D1	9
43	D1	9
44	D1	9
45	D1	9
46	D1	9
47	D1	9
48	D1	9
49	D1	9
50	D1	9
51	D1	9
52	D1	9
53	D1	9
54	D1	9
55	D1	13.5
56	D1	9
57	D1	9
58	D1	9
59	D1	9
60	D2	13.5
61	D2	13.5
62	S1	9
63	S1	9
64	S2	8.5
65	S2	8.5
66	W1	15
67	W1	15
68	W1	15
69	W1	15
70	W1	15
71	W1	15
72	W2	15
73	W2	15
74	W3	8
75	W3	8

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
CANOPY	35.26	57	14	2.52	4.07
DELIVERY AREA	6.00	7.9	4.4	1.36	1.80
ENTRANCE & EXIT DRIVES	3.33	5.9	1.4	2.38	4.21
PARKING AREA & INTERIOR DRIVE AISLES	2.65	9.0	0.5	5.30	18.00
UNDEFINED	0.50	10.7	0.0	N.A.	N.A.

LUMINAIRE SCHEDULE										
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	MANUFACTURER	CATALOG LOGIC
	1	A1	SINGLE	12019	1.010	B3-U0-G3	134.2	134.2	Cree Lighting	ARE-EDG-3M-DA-06-E-UL-XX-700-57K
	2	A4	SINGLE	8891	1.010	B1-U0-G2	134	268	CREE, INC.	ARE-EDG-3MB-DA-06-E-UL-XX-700-57K
	1	B1	SINGLE	12678	1.010	B3-U0-G2	134	134	Cree Inc.	ARE-EDG-4M-DA-06-E-UL-XX-700-57K
	1	B3	2 @ 90 DEGREES	12678	1.010	B3-U0-G2	134	268	Cree Inc.	ARE-EDG-4M-DA-06-E-UL-XX-700-57K
	5	B4	SINGLE	9549	1.010	B1-U0-G2	134	670	CREE, INC.	ARE-EDG-4MB-DA-06-E-UL-XX-700-57K
	24	C1	SINGLE	13251	1.010	B3-U0-G1	134	3216	CREE, INC.	CAN-304-SL-RD-06-E-UL-XX-700-57K
	24	D1	SINGLE	1970	1.010	B2-U0-G0	24	576	Cree Lighting	KR6R-20L-935-12-XX + KR6T-SSGC-FF
	2	D2	SINGLE	1000	1.010	B1-U0-G0	13	26	Cree Lighting	KR4R-9L-935-12-XX + KR4T-SSGC-FF
	2	S1	SINGLE	2659	1.000	B0-U5-G2	20	40	FC/SSL Lighting	FCWS7170-XXX-35K-2500-CRI85-XX-D
	2	S2	SINGLE	2542	1.000	B0-U4-G2	20	40	FC/SSL Lighting	FCWS7168-UNV-35K-2500-CRI85-XX-D
	6	W1	SINGLE	2859	1.010	B0-U0-G1	50	300	CREE INC.	SEC-EDG-4MB-WM-02-E-UL-XX-700-57K
	2	W2	SINGLE	8480	1.010	B1-U0-G2	134	268	CREE INC.	SEC-EDG-4MB-WM-06-E-UL-XX-700-57K
	2	W3	SINGLE	1557	1.010	B0-U0-G1	25	50	CREE, INC.	SEC-EDG-3MB-WM-02-E-UL-XX-350-57K

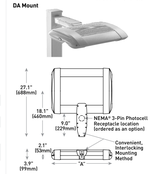
RED LEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

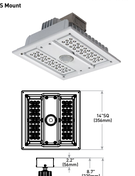
REV.	BY	DATE	DESCRIPTION
R1	JSG	3/7/23	REMOVE POLE #1 FROM ISLAND. RESPACE POLES

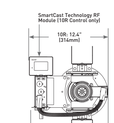
SCALE:	LAYOUT BY:
1" = 30'	LMP
DWG SIZE:	DATE:
D	02/17/23

PROJECT NAME:
WAWA #5408
NASSAU COUNTY, FL
DRAWING NUMBER:
RL-8568-S1-R1

Wawa







		QTY	LABEL	DESCRIPTION
AREA	🟩	1	A1	ARE-EDG-3M-DA-06-E-UL-XX-700-57K
	🟦	2	A4	ARE-EDG-3MB-DA-06-E-UL-XX-700-57K
	🟪	1	B1	ARE-EDG-4M-DA-06-E-UL-XX-700-57K
	🟪	1	B3	ARE-EDG-4M-DA-06-E-UL-XX-700-57K
	🟫	5	B4	ARE-EDG-4MB-DA-06-E-UL-XX-700-57K

ADDITIONAL FIXTURE INFO

THE EDGE® Series
LED Area/Flood Luminaire

THE EDGE® LED Area/Flood Luminaire

		QTY	LABEL	DESCRIPTION
CANOPY	🟥	24	C1	CAN-304-SL-RD-06-E-UL-XX-700-57K

ADDITIONAL FIXTURE INFO

SLOPE ADAPTER

304 Series™
LED Recessed Canopy Luminaire

304 Series™ LED Recessed Canopy Luminaire

		QTY	LABEL	DESCRIPTION
DOWNLIGHT	🟧	24	D1	KR6R-20L-935-12-XX + KR6T-SSGC-FF
	🟩	2	D2	KR4R-9L-935-12-XX + KR4T-SSGC-FF

ADDITIONAL FIXTURE INFO

KR Series
KR6™ & KR4™ LED Specification Downlights

KR6™ & KR4™ LED Specification Downlights

		QTY	LABEL	DESCRIPTION
WALL MOUNTED	🟪	2	S1	FCWS7170-XXX-35K-2500-CRI85-XX-D

FCWS7170

FCWS7170
Ordering Information

		QTY	LABEL	DESCRIPTION
WALL MOUNTED	🟪	2	S2	FCWS7168-UNV-35K-2500-CRI85-XX-D

FCWS7168

FCWS7168
Ordering Information

REDLEONARD
ASSOCIATES

1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

PROJECT NAME:
WAWA #5408
NASSAU COUNTY, FL
DRAWING NUMBER:
RL-8568-S1-R1

Wawa

	QTY	LABEL	DESCRIPTION
WALL MOUNTED	6	W1	SEC-EDG-4MB-WM-02-E-UL-XX-700-57K
	2	W2	SEC-EDG-4MB-WM-06-E-UL-XX-700-57K
	2	W3	SEC-EDG-3MB-WM-02-E-UL-XX-350-57K

ADDITIONAL FIXTURE INFO

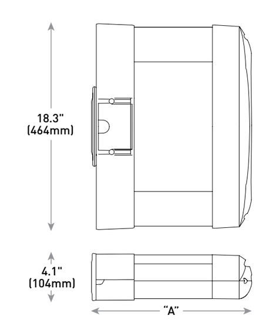
THE EDGE® Series

LED Security Wall Pack Luminaire

Rev. Date: V8 09/03/2021

Product Description

THE EDGE® wall mount luminaire has a slim, low profile design. The luminaire end caps are made from rugged die cast aluminum with integral, weathertight LED driver compartments and high performance aluminum heat sinks specifically designed for LED applications. Housing is rugged aluminum. Includes a lightweight mounting box for installation over standard and mud ring single gang J-Boxes. Secures to wall with four 3/16" (5mm) screws (by others). Conduit entry from top, bottom, sides and rear. Allows mounting for uplight or downlight. Designed and approved for easy through-wiring. Includes leaf/debris guard.
Applications: General area and security lighting



Performance Summary

- Patented NanoOptic® Product Technology
- Assembled in the U.S.A. of U.S. and imported parts
- **CRI:** Minimum 70 CRI (4000K & 5700K); 80 CRI (3000K); 90 CRI (5000K)
- **CCT:** Turtle Friendly Amber, 3000K (+/- 300K), 4000K (+/- 300K), 5000K (+/- 500K), 5700K (+/- 500K) standard
- **Limited Warranty†:** 10 years on luminaire/10 years on Colorfast DeltaGuard® finish/1 year on accessories

† See http://creelighting.com/warranty for warranty terms

LED Count (x10)	Dim. "A"	Weight
02	9.9" (251mm)	20 lbs. (9.1kg)
04	11.9" (303mm)	22 lbs. (10.0kg)
06	13.9" (353mm)	25 lbs. (11.3kg)
08	15.9" (404mm)	27 lbs. (12.2kg)
10	17.9" (455mm)	31 lbs. (14.1kg)
12	19.9" (505mm)	32 lbs. (14.5kg)

Accessories

Field-Installed		
Bird Spikes XA-BRDSPK	**Beauty Plate** WM-PLT12** - 12" (305mm) Square WM-PLT14** - 14" (356mm) Square - Covers holes left by incumbent wall packs	**Hand-Held Remote** XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

** Must specify color

Ordering Information

Example: SEC-EDG-2M-WM-06-E-UL-SV-700

SEC-EDG		WM		E				
Product	**Optic**	**Mounting**	**LED Count (x10)**	**Series**	**Voltage**	**Color Options**	**Drive Current**	**Options**
SEC-EDG	**2M** Type II Medium **2MB** Type II Medium w/BLS **2S** Type II Short **2SB** Type II Short w/BLS **3M** Type III Medium **3MB** Type III Medium w/BLS **4M** Type IV Medium **4MB** Type IV Medium w/BLS	**WM** Wall Mount	**02** **04** **06** **08** **10** **12**	**E**	**UL** Universal 120-277V **UH** Universal 347-480V **34** 347V	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**350** 350mA **525** 525mA -Available with 20-80 LEDs **700** 700mA -Available with 20-60 LEDs	**DIM 0-10V Dimming** - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current - Not available with PML option **F Fuse** - Compatible only with 120V, 277V or 347V (phase to neutral) - Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) - Refer to PML spec sheet for availability with PML options - When code dictates fusing, use time delay fuse **P Photocell** - Must specify UL or 34 voltage **PML Programmable Multi-Level** - Refer to PML spec sheet for details - Intended for downlight applications with 0° tilt **30K 3000K Color Temperature** - Minimum 80 CRI - Color temperature per luminaire **40K 4000K Color Temperature** - Minimum 70 CRI - Color temperature per luminaire **50K 5000K Color Temperature** - Minimum 90 CRI - Color temperature per luminaire **TRL Amber Turtle Friendly LEDs** - Available only with 350mA - 600nm dominant wavelength - Additional shielding (by others) may be required for Florida Fish and Wildlife Conservation Commission compliance

CREE LIGHTING

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

Product Specifications

CONSTRUCTION & MATERIALS

- Slim, low profile design
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartment and high performance aluminum heat sinks specifically designed for LED applications
- Housing is rugged aluminum
- Furnished with low copper, light weight mounting box designed for installation over standard and mud ring single gang J-Boxes
- Luminaire can also be direct mounted to a wall and surface wired
- Secures to wall with four 3/16" (5mm) screws (by others)
- Conduit entry from top, bottom, sides, and rear
- Allows mounting for uplight or downlight
- Designed and approved for easy through-wiring
- Includes leaf/debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultradurable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver and white are available
- **Weight:** See Dimensions and Weight Chart on page 1

ELECTRICAL SYSTEM

- **Input Voltage:** 120–277V or 347–480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral weathertight J-Box with leads (wire nuts) for easy power hook up
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- **Maximum 10V Source Current:** 20 LED (350mA): 10mA; 20LED (525 & 700 mA) and 40-120 LED: 0.15mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Enclosure rated IP66 per IEC 60529 when ordered without P or PML options
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified with select SKUs. Refer to https://www.designlights.org/search/ for most current information
- Meets Buy American requirements within ARRA
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*

LED Count (x10)	CCT	System Watts 120-480V	Total Current (A)					
			120V	208V	240V	277V	347V	480V
350mA								
02	30K/40K/50K/57K	25	0.21	0.13	0.11	0.10	0.08	0.07
	TRL	19	0.16	0.09	0.08	0.07	0.05	0.04
04	30K/40K/50K/57K	46	0.36	0.23	0.21	0.20	0.15	0.12
	TRL	35	0.29	0.17	0.15	0.13	0.10	0.07
06	30K/40K/50K/57K	66	0.52	0.31	0.28	0.26	0.20	0.15
	TRL	50	0.41	0.24	0.21	0.18	0.14	0.10
08	30K/40K/50K/57K	90	0.75	0.44	0.38	0.34	0.26	0.20
	TRL	68	0.57	0.33	0.28	0.25	0.20	0.14
10	30K/40K/50K/57K	110	0.92	0.53	0.47	0.41	0.32	0.24
	TRL	83	0.69	0.40	0.35	0.30	0.24	0.17
12	30K/40K/50K/57K	130	1.10	0.63	0.55	0.48	0.38	0.28
	TRL	99	0.82	0.48	0.41	0.36	0.28	0.21
525mA								
02	30K/40K/50K/57K	37	0.30	0.19	0.17	0.16	0.12	0.10
04	30K/40K/50K/57K	70	0.58	0.34	0.31	0.28	0.21	0.16
06	30K/40K/50K/57K	101	0.84	0.49	0.43	0.38	0.30	0.22
08	30K/40K/50K/57K	133	1.13	0.66	0.58	0.51	0.39	0.28
700mA								
02	30K/40K/50K/57K	50	0.41	0.25	0.22	0.20	0.15	0.12
04	30K/40K/50K/57K	93	0.78	0.46	0.40	0.36	0.27	0.20
06	30K/40K/50K/57K	134	1.14	0.65	0.57	0.50	0.39	0.29

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%

THE EDGE® Series Ambient Adjusted Lumen Maintenance[1]

Ambient	CCT	Initial LMF	25K hr Reported[2] LMF	50K hr Reported[2] LMF	75K hr Reported[2] / Estimated[3] LMF	100K hr Estimated[3] LMF
5°C (41°F)	30K/40K/50K/57K	1.04	1.03	1.03	1.03[2]	1.03
	TRL	1.06	1.06	1.06	1.06[3]	1.06
10°C (50°F)	30K/40K/50K/57K	1.03	1.02	1.02	1.02[2]	1.02
	TRL	1.04	1.04	1.04	1.04[3]	1.04
15°C (59°F)	30K/40K/50K/57K	1.02	1.01	1.01	1.01[2]	1.01
	TRL	1.03	1.03	1.03	1.03[3]	1.03
20°C (68°F)	30K/40K/50K/57K	1.01	0.99	0.99	0.99[2]	0.99
	TRL	1.01	1.01	1.01	1.01[3]	1.01
25°C (77°F)	30K/40K/50K/57K	1.00	0.98	0.98	0.98[2]	0.98
	TRL	1.00	1.00	1.00	1.00[3]	1.00

[1] Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the Temperature Zone Reference Document for outdoor average nighttime ambient conditions.
[2] In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.
[3] Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

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CREE LIGHTING

RED LEONARD ASSOCIATES
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513-574-9500 | redleonard.com

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Wawa

AREA

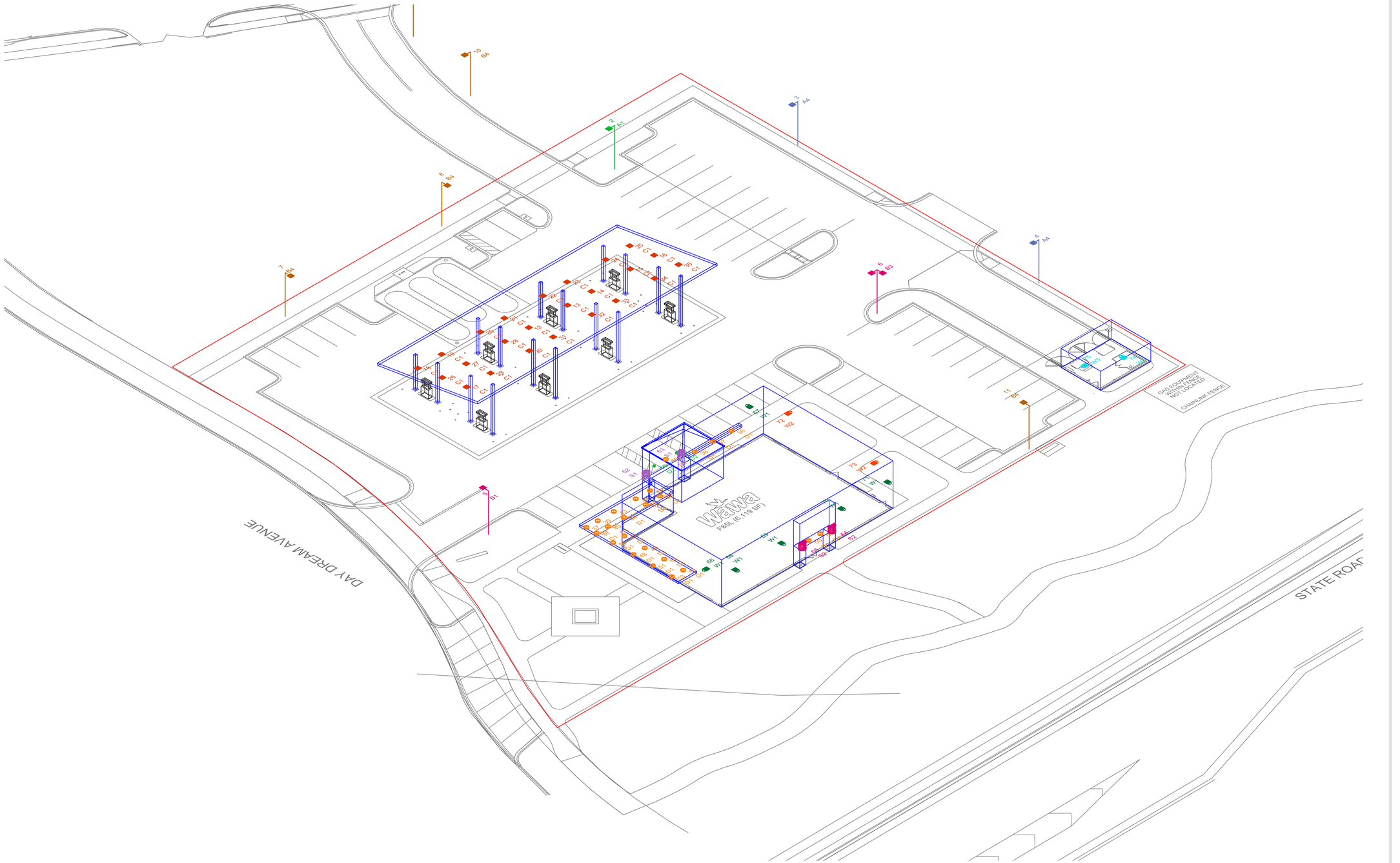
CANOPY

DOWNLIGHT

WALL MOUNTED

WALL MOUNTED

WALL MOUNTED



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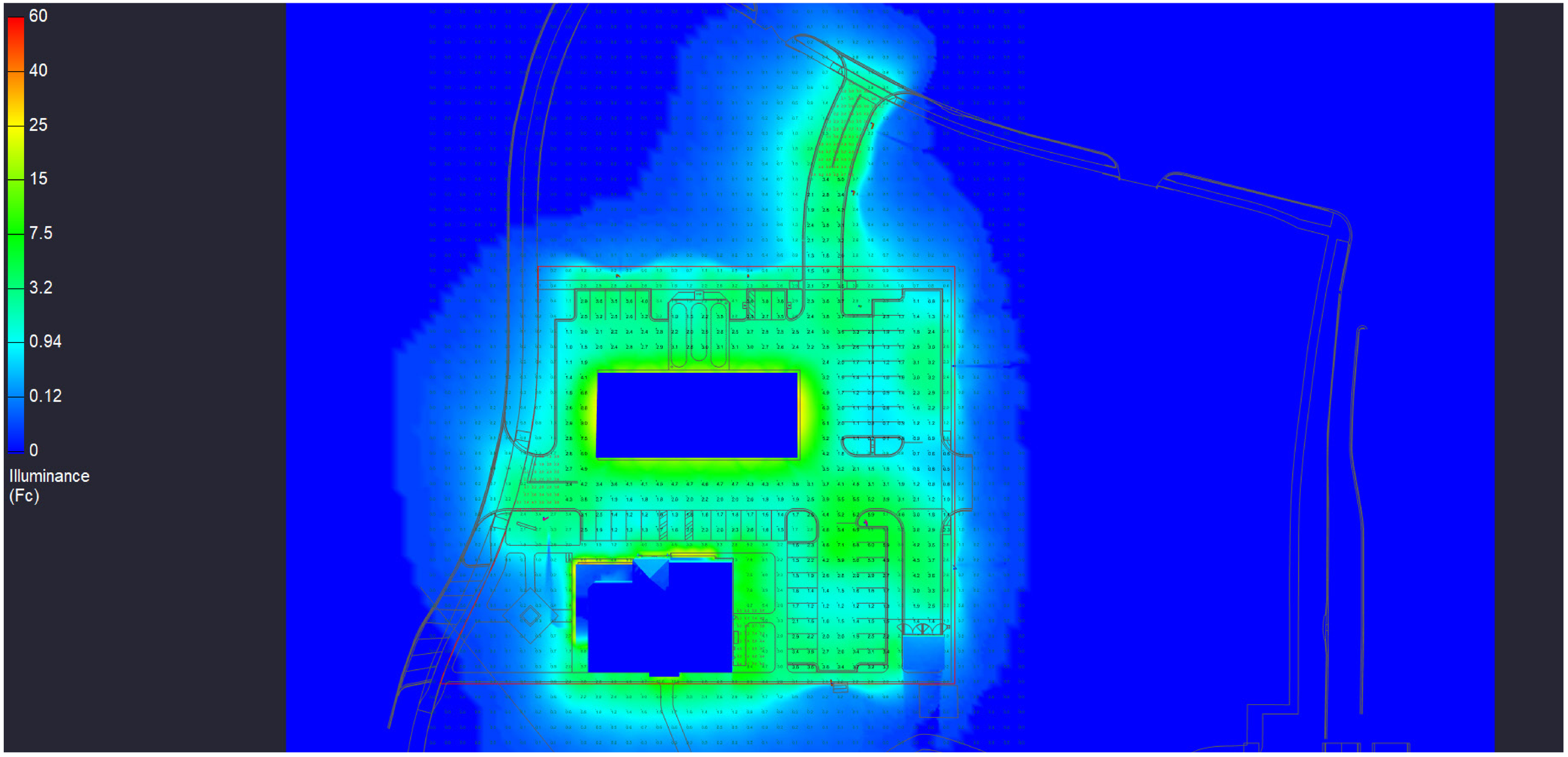

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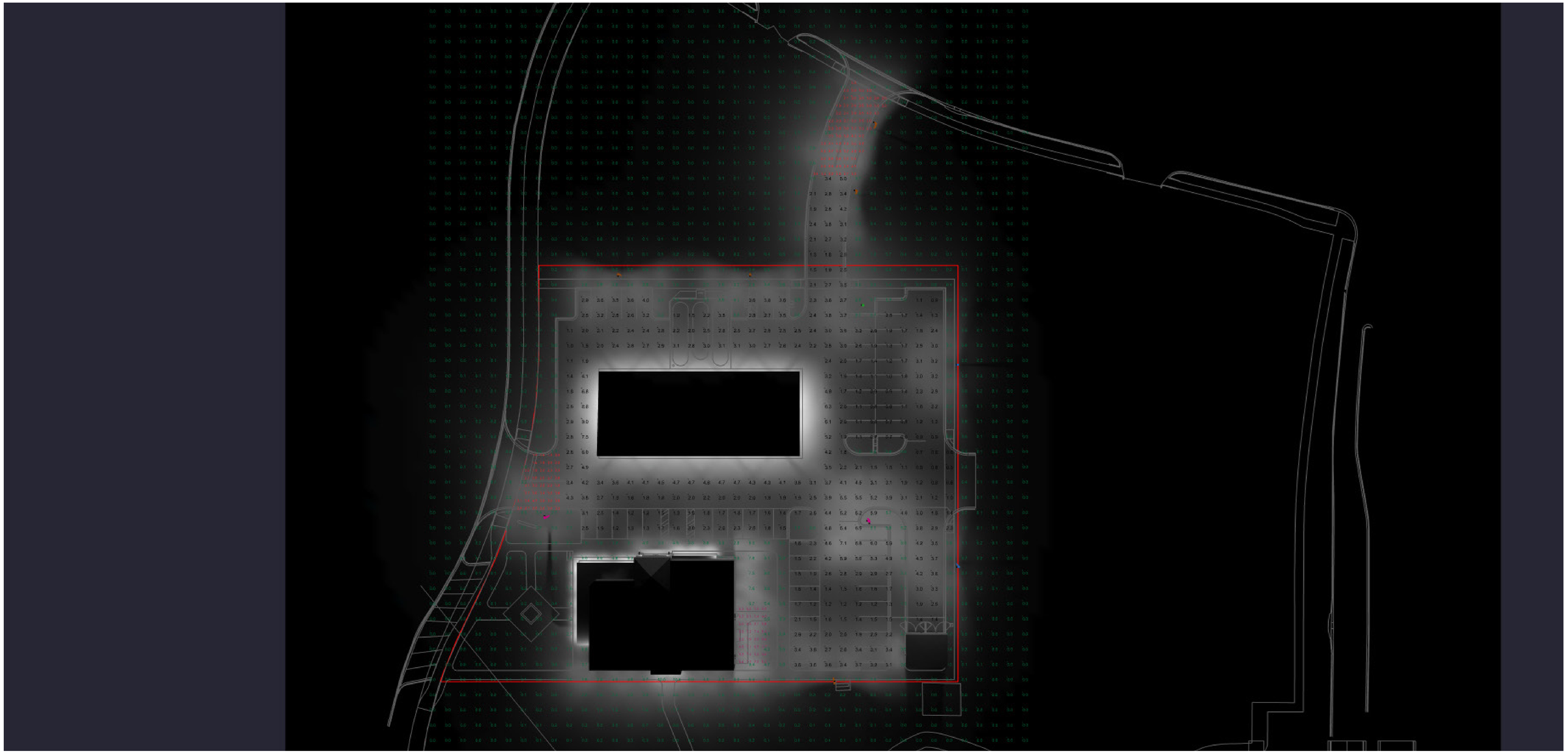

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