

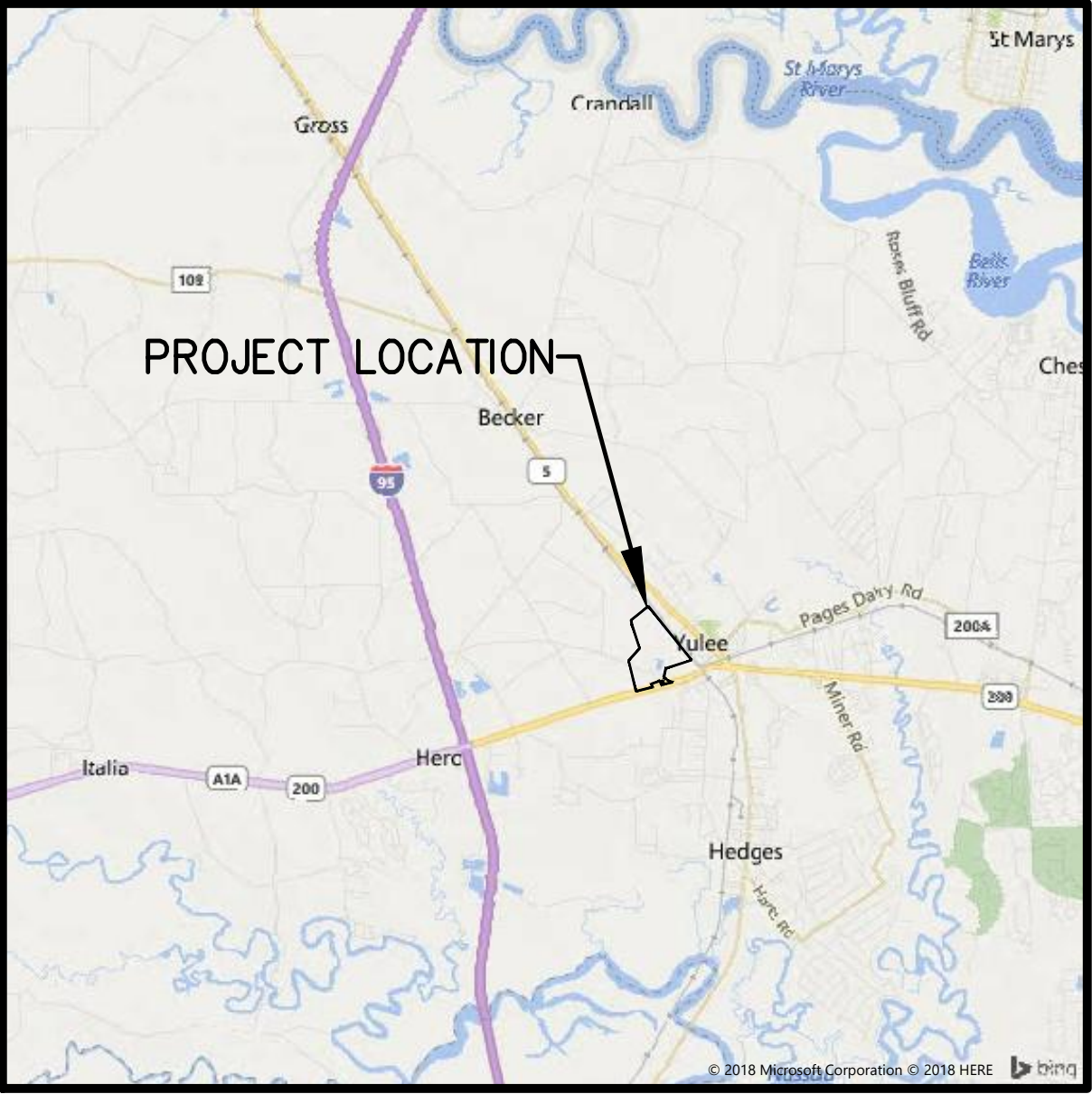
WILDLIGHT COMMERCE PARK PARCEL A NASSAU COUNTY, FLORIDA PREPARED FOR PATTILLO INDUSTRIAL REAL ESTATE

5170 PEACHTREE ROAD, BLDG. 100, STE. 400
ATLANTA, GEORGIA
678-926-5944



England-Thims & Miller, Inc.

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



LOCATION MAP
N.T.S.

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JEA AVAILABILITY NO. 2023-1009
NOTE:
1. THESE PLANS ARE DESIGNED IN ACCORDANCE WITH 2023 JEA STANDARDS.

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.

FIRE FLOW TEST
A FLOW TEST WAS CONDUCTED ON 03/23/2023.
THE FLOW HYDRANT LOCATION: A1A/SR 200 & STILL QUARTERS RD (76174)
THE STATIC RESIDUAL HYDRANT LOCATION: A1A/SR 200 & OLD YULEE RD (76173)
NUMBER OF PORTS 3
DIAMETER OF PORTS (INCH) 2.5
PITOT PRESSURE (PSI) 16
STATIC PRESSURE (PSI) 59
RESIDUAL PRESSURE (PSI) 41
THE FOLLOWING COMPUTATIONAL RESULTS BASED ON THE ABOVE VARIABLES AND NFPA SECTION 291 (2002 EDITION) ARE AS FOLLOWS:
FLOW AT TEST (GPM): 2,025
FLOW AT 20 PSI (GPM): 3,074
THESE RESULTS REFLECT SYSTEM CONDITIONS AT THE TIME OF THE TEST. FLOW WILL FLUCTUATE OVER TIME IN A DYNAMIC SYSTEM AND SHOULD BE TAKEN INTO CONSIDERATION WHEN INTERPRETING OR USING THIS DATA. IF YOU HAVE ANY QUESTIONS CONCERNING THIS MATTER, CONTACT CURTIS PERRIN VIA E-MAIL AT: PERRC@JEA.COM.

VERTICAL DATUM USED FOR
THIS PROJECT: NAVD 1988

COVER SHEET

WILDLIGHT COMMERCE PARK PARCEL A
FOR
PATTILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER
1

REVISIONS:

ETM NO. 19-239-07-001
DRAWN BY: JMB
DESIGNED BY: JMB
CHECKED BY: JZB
DATE: JULY 2023

England-Thims & Miller, Inc.
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ETM

VISION • EXPERIENCE • RESULTS

PLANS PREPARED UNDER THE
DIRECTION OF:

JON-MICHAEL BARQUIN
P.E. NUMBER: 94926

THIS DOCUMENT HAS BEEN ELECTRONICALLY SIGNED
AND SEALED BY JON-MICHAEL BARQUIN, P.E. ON
THE DATE ADJACENT TO THE SEAL.

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SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC
COPIES.

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: JON-MICHAEL BARQUIN P.E. NUMBER:94926

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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THIS DOCUMENT HAS BEEN ELECTRONICALLY SIGNED
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THE DATE ADJACENT TO THE SEAL.

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COPIES.

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 FRANCIS KORMAN L.A. NUMBER: 6667357

ENGLAND—THIMS & MILLER, INC.
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SIGNATURE SHEET

**WILDLIGHT COMMERCE PARK PARCEL A
FOR
PATTILLO INDUSTRIAL REAL ESTATE**

DRAWING NUMBER

2

REVISIONS:

ETM NO. 19-239-07-001

DRAWN BY: JMB

CHECKED BY: JZB

DATE: JULY 2023

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ETM
VISION • EXPERIENCE • RESULTS

PLANS PREPARED UNDER THE
DIRECTION OF:

JON—MICHAEL BARQUIN
P.E. NUMBER: 94926

PLOTTED: August 25, 2023 - 8:40 AM, BY: Jon-Michael Barquin

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 TO HIS 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 FOR THE PURPOSE OF FAMILIARIZING HIMSELF WITH THE NATURE AND THE EXTENT OF THE WORK AND LOCAL CONDITIONS, EITHER SURFACE OR SUB-SURFACE, WHICH MAY AFFECT THE WORK TO BE PERFORMED, AND THE EQUIPMENT, LABOR AND MATERIALS REQUIRED. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF COMPLETE PERFORMANCE UNDER 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 CONFORM 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. (SEE NASSAU COUNTY DEVELOPMENT REVIEW GENERAL NOTES #7 & #8.)
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 ARE TO BE WARRANTED BY THE CONTRACTOR TO THE OWNER AND THE NASSAU COUNTY FOR A PERIOD OF ONE YEAR 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. THE CONTRACTOR 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 FOR EXISTING UTILITIES TO WHICH HE SHALL CONNECT, 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:

12. 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 GEOTECHNICAL INVESTIGATION REPORT.
13. CLEARING AND GRUBBING REQUIRED FOR ALL ROADWAY, UTILITIES, DITCHES, BERMS, RIGHTS-OF-WAYS AND EASEMENTS (INCLUDING ELECTRIC EASEMENTS) ARE 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 NASSAU COUNTY FIRE MARSHAL 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 WITH 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 HIS CONSTRUCTION WITH ALL OTHER CONTRACTORS. IN THE EVENT OF ANY CONFLICT WHATSOEVER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.
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 ECS FLORIDA, LLC, DATED: 10/19/2022.
24. FLOOD ZONE BASED UPON FEMA INSURANCE RATE MAPS PANEL NOS. 1208900215G, DATED: 08/02/2017.
25. FOR SEDIMENT AND EROSION CONTROL PLANS, DETAILS AND NOTES REFER TO DRAWINGS 11-12. CONTRACTOR TO COORDINATE WITH AUTHORITY FOR INSPECTIONS PRIOR TO CLEARING OPERATIONS.
26. ELEVATIONS ARE BASED ON NAVD 1988.
27. TOPOGRAPHIC INFORMATION BASED ON SURVEY PROVIDED BY L.D. BRADLEY LAND SURVEYORS, DATED: 07/08/2022.
28. BOUNDARY INFORMATION BASED ON SURVEY PROVIDED BY L.D. BRADLEY LAND SURVEYORS, DATED: 07/08/2022.
29. S.U.E. (SUBSURFACE UTILITY ENGINEERING) PROVIDED BY ###, DATED: ###.
30. ALL WORK AND MATERIALS SHALL BE IN COMPLETE ACCORDANCE WITH ALL RELATIVE SECTIONS OF "NASSAU COUNTY LAND DEVELOPMENT CODE", (LATEST REVISION) AND ALL CURRENT COUNTY STANDARD DETAILS. THE WORK SHALL ALSO BE PERFORMED AND TESTED IN ACCORDANCE WITH THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL INVESTIGATION REPORT PROVIDED BY ECS FLORIDA, LLC, DATED: 10/19/2022, IF MORE STRINGENT THAN CITY REQUIREMENTS.
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. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF THE EXISTING SOIL IN ALL LANDSCAPE AREAS FROM CONTAMINATION, INCLUDING BUT NOT LIMITED TO BASE MATERIALS SUCH AS LIMEROCK, CRUSHED CONCRETE AND SHALL NOT BURY OR MIX BASE MATERIAL INTO SOILS USED FOR LANDSCAPE AREAS. LANDSCAPE AREAS INCLUDE ALL AREAS WITHIN THE LIMITS OF WORK THAT ARE SHOWN ON THE APPROVED LANDSCAPE PLANS TO BE COVERED BY PRESERVED VEGETATION, TURF, PLANT BEDS, MULCHED AREAS, AND TREES. CONTRACTOR SHALL PAY SPECIAL ATTENTION TO CLEAN-UP OF THE LANDSCAPED AREAS OF THE SITE THAT ARE ADJACENT TO ASPHALT PAVEMENT AND WHERE THE BASE MATERIAL IS STORED.
33. CONTRACTOR SHALL REMOVE ALL SURPLUS MATERIAL WITHIN 24' OF THE FINAL SURFACE FROM THE LANDSCAPE AREAS, IMMEDIATELY AFTER THE PLACEMENT OF THE BASE MATERIALS (LIMEROCK / CRUSHED CONCRETE, ETC.). CONTRACTOR SHALL ALSO ENSURE THAT ALL SOIL THAT IS CONTAMINATED WITH BASE MATERIALS, WASTE, CONSTRUCTION DEBRIS, FUEL OR OTHER HAZARDOUS MATERIALS IS REMOVED FROM THE SITE AND PROPERLY DISPOSED OF PROPERLY IN ACCORDANCE WITH STATE, LOCAL AND FEDERAL LAWS. CONTRACTOR SHALL REMOVE ALL CONTAMINATED SOIL AND REPLACE WITH TOP SOIL.
34. CONTRACTOR SHALL NOT INSTALL THE TOP LAYER OF SOIL OR FINISH GRADING LANDSCAPE AREAS UNTIL THESE AREAS HAVE BEEN REVIEWED BY THE PROJECT ENGINEER.
35. PROJECT LOCATION: NASSAU COUNTY, FLORIDA.
36. THESE PLANS WERE GENERATED UTILIZING AUTOCAD CIVIL 3D 2019.

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 #37 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. THE CONTRACTOR SHALL PROVIDE ACCESSIBLE CURB RAMPS AT ALL SIDEWALK AND CURB CONNECTIONS. RAMPS SHALL MEET ALL APPLICABLE ADA REQUIREMENTS.

NASSAU COUNTY DEVELOPMENT REVIEW GENERAL NOTES

1. ENGINEERING PLANS APPROVAL DOES NOT CONSTITUTE PERMISSION TO VIOLATE ANY ADOPTED FEDERAL, STATE, OR LOCAL LAW, CODE, OR ORDINANCE.
2. ALL WORK WITHIN THE PUBLIC STREETS AND RIGHT-OF-WAYS SHALL CONFORM TO NASSAU COUNTY LAND DEVELOPMENT CODES (LDC), FDOT STANDARD INDICES, FLORIDA GREENBOOK, NASSAU COUNTY ROADWAY AND DRAINAGE STANDARDS, AND NASSAU COUNTY STANDARD DETAILS AS NECESSARY. FOR ANY DISCREPANCY BETWEEN STANDARDS, THE MOST STRINGENT SHALL PREVAIL.
3. PER NASSAU COUNTY ROADWAY AND DRAINAGE STANDARDS, ORDINANCE 99-17 SECTION 6.2.4, SITE SHALL BE CONSTRUCTED PER APPROVED CONSTRUCTION DRAWINGS. ANY SUBSTANTIAL DEVIATION SHALL BE CONCURRENTLY REVIEWED BY ENGINEER OF RECORD AND NASSAU COUNTY DEVELOPMENT REVIEW COMMITTEE PRIOR TO FIELD CHANGES.
4. A PRE-CONSTRUCTION MEETING WITH NASSAU COUNTY ENGINEERING SERVICES CONSTRUCTION INSPECTOR IS REQUIRED. ATTENDEES SHALL BE NASSAU COUNTY, ENGINEER OF RECORD, CONTRACTOR, TESTING FIRM, PAVING FIRM, AND UTILITY COMPANIES PER NASSAU COUNTY ORDINANCE 99-17 SECTION 7.2.3. NASSAU COUNTY MAY CANCEL PRE-CONSTRUCTION MEETING IF ATTENDEE LIST IS INADEQUATE. NASSAU COUNTY ENGINEERING SERVICES CAN BE REACHED AT 904-530-6225.
5. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE ALL WORK WITH THE APPROPRIATE NASSAU COUNTY CONSTRUCTION INSPECTOR ASSIGNED TO THE PROJECT PER NASSAU COUNTY ORDINANCE 99-17 SECTION 7.2.
6. ALL WORK SHALL BE PERFORMED IN A SAFE MANNER. ALL SAFETY RULES AND GUIDELINES OF O.S.H.A. SHALL BE FOLLOWED. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ANY INJURIES TO HIS EMPLOYEES AND ANY DAMAGE TO PRIVATE PROPERTY OR PERSONS DURING THE COURSE OF THIS PROJECT.
7. PER NASSAU COUNTY ROADWAY AND DRAINAGE STANDARDS, ORDINANCE 99-17 SECTION 11.8.1, ANY DISTURBED AREAS WITHIN NASSAU COUNTY RIGHT-OF-WAY SHALL BE SOODED.
8. PER NASSAU COUNTY ROADWAY AND DRAINAGE STANDARDS, ORDINANCE 99-17 SECTION 7.4.1, AT THE TIME OF FINAL INSPECTION, GRASSING SHALL BE A MINIMUM OF SEVENTY PERCENT COVERAGE AND FULLY ESTABLISHED AND/OR SOODING TO BE ONE HUNDRED PERCENT COVERAGE AND STABILIZED.
9. ENGINEER OF RECORD APPROVED SHOP DRAWINGS SHALL BE PROVIDED TO NASSAU COUNTY CONSTRUCTION INSPECTOR A MINIMUM OF ONE WEEK BEFORE BEGINNING STRUCTURE INSTALLATION.
10. PARKING AT MAIL KIOSKS IS REQUIRED PER NASSAU COUNTY ROADWAY AND DRAINAGE STANDARDS, ORDINANCE 99-17 SECTION 8.4. MAIL KIOSK LOCATIONS ARE SUBJECT TO USPS POSTMASTER APPROVAL.
11. THE DEVELOPER'S CONTRACTOR IS THE SINGLE RESPONSIBLE PARTY FOR THE PROPER IMPLEMENTATION OF AN EROSION PROTECTION SEDIMENT CONTROL (EPCS) WITHIN EACH LOT OR CONSTRUCTION SITE. THIS INCLUDES THE RESPONSIBILITY FOR THE ACTIONS/IN ACTIONS OF EMPLOYEES, SUBCONTRACTORS, AND/OR SUPPLIERS.
12. SIDEWALKS TO BE PROVIDED AND BUILT IN ACCORDANCE FLORIDA BUILDING CODE. ALL PROPOSED SIDEWALKS SHALL MEET ADA REQUIREMENTS.
13. THE CONTRACTOR SHALL COMPLY WITH CURRENT FLORIDA ACCESSIBILITY STANDARDS FOR ALL WORK ON THIS PROJECT.
14. PER ORDINANCE 99-17 SECTION 8.5.1, MINIMUM COVER FOR WATER LINES AND FORCE MAINS UNDER PAVEMENT SHALL BE 42" AND 36" IN GREEN AREAS.
15. ALL WATER, SEWER, AND STORM WATER CONSTRUCTION WITHIN NASSAU COUNTY ROW SHALL BE ACCOMPLISHED BY AN UNDERGROUND UTILITY CONTRACTOR LICENSED UNDER THE PROVISIONS OF CHAPTER 409 OF THE FLORIDA STATUTES.
16. NO WORK SHALL BE PERMITTED BETWEEN THE HOURS OF 7:00 PM - 7:00AM WITHOUT PRIOR APPROVAL FROM NASSAU COUNTY ENGINEERING SERVICES.
17. ALL TREES REQUIRED TO BE PROTECTED SHALL BE FLAGGED FOR PROTECTION PRIOR TO CLEARING.
18. ALL GRADING AND PLACEMENT OF COMPACTED FILL SHALL BE IN ACCORDANCE WITH THE LATEST NASSAU COUNTY SPECIFICATIONS.
19. ANY DAMAGES (SIDEWALK, CURB, ASPHALT, DITCH GRADING, ET CETERA) WITHIN PUBLIC RIGHT-OF-WAY SHALL BE REPAIRED OR REPLACED IN ACCORDANCE WITH NASSAU COUNTY SPECIFICATIONS. PROPOSED REPAIR METHOD SHALL BE APPROVED BY NASSAU COUNTY ENGINEERING SERVICES.
20. ANY ASPHALT MILLINGS FROM NASSAU COUNTY ROW SHALL BE DELIVERED TO THE ROAD DEPARTMENT LAYDOWN YARD LOCATED ON GENE LASSEUR BOULEVARD OR PEA FARM ROAD. PLEASE CONTACT THE ROAD DEPARTMENT AT (904) 530-6175.
21. PER NASSAU COUNTY ORDINANCE 99-17 SECTION 7.4.2 AND 7.4.4, AS-BUILT DRAWINGS SHALL BE SUBMITTED TO NASSAU COUNTY BEFORE A FINAL INSPECTION CAN BE SCHEDULED. AS-BUILTS SUBMITTALS WILL BE IN ACCORDANCE WITH NASSAU COUNTY AS-BUILT REQUIREMENT CHECKLIST. AS-BUILT DRAWINGS SHALL BE CERTIFIED BY REQUIRED LICENSED SURVEYOR AND APPROVED BY ENGINEER OF RECORD.

NASSAU COUNTY STORMWATER DRAINAGE NOTES:

1. ALL STORMWATER DRAINAGE FACILITIES WITHIN PUBLIC RIGHT-OF-WAY AND PAVED AREAS, INCLUDING NASSAU COUNTY RIGHT-OF-WAY, TURN LANES, RESIDENTIAL ROADWAYS, DRIVE AISLES FOR MULTI-FAMILY DEVELOPMENTS, AND MAJOR DRIVE AISLES FOR COMMERCIAL DEVELOPMENTS SHALL BE LASER PROFILED PER FDOT SECTION 430.
2. A BUILDER CANNOT MODIFY THE COUNTY'S STORM WATER MANAGEMENT SYSTEM INCLUDING THE PIPES, INLETS, AREA DRAINS, DITCHES AND RELATED ELEMENTS TYPICALLY WITHIN THE STREET OR WITHIN A DRAINAGE EASEMENT WITHOUT THE PRIOR WRITTEN APPROVAL OF THE COUNTY ENGINEER OR DESIGNER.
3. DRAINAGE EASEMENTS AND DITCHES SHOULD REMAIN FREE OF STOCKPILED SOIL, SEDIMENT, MUD, CONSTRUCTION MATERIALS/WASTE, ET CETERA AT ALL TIMES. POSITIVE STORMWATER FLOW MUST BE MAINTAINED THROUGHOUT CONSTRUCTION.
4. THE CONTRACTOR SHALL TEMPORARILY OR PERMANENTLY STABILIZE BARE SOIL AREAS AND SOIL STOCKPILES WHEN THE AREA IS INACTIVE FOR FOURTEEN DAYS OR MORE OR HAS REACHED FINISHED GRADE.
5. PER ORDINANCE 99-17 SECTION 11.11.5.4, ALL GRAVITY FLOW PIPE INSTALLATIONS SHALL HAVE A SOIL TIGHT JOINT PERFORMANCE UNLESS SPECIFIC SITE FACTORS WARRANT WATER TIGHT JOINT PERFORMANCE.
6. PER ORDINANCE 99-17 SECTION 10.6.5.1, IMMEDIATELY INSTALL ADDITIONAL EROSION PROTECTION SEDIMENT CONTROL MEASURES IF SEDIMENT IS LEAVING YOUR SITE. FAILURE TO CONTAIN SEDIMENT TO YOUR SITE MAY RESULT IN DELAYED INSPECTIONS, NOTICES OF VIOLATION, CITATIONS, FINES, PENALTIES, AND/OR STOP WORK ORDERS.
7. PER 99-17 SECTION 10.12.A-E, STORMWATER MANAGEMENT FOR A PROJECT SHALL NOT HAVE ADVERSE EFFECTS ON ADJACENT PROPERTIES, DOWNSTREAM STRUCTURES, OR RIGHTS OF OTHER LANDOWNERS.

NASSAU COUNTY PAVING NOTES:

1. PER NASSAU COUNTY ROADWAY AND DRAINAGE STANDARDS, ORDINANCE 99-17 SECTION 12.2 AND 12.4, A CONSTRUCTION BOND AND 26-MONTH MAINTENANCE BOND MAY BE REQUIRED FOR ALL WORK WITHIN NASSAU COUNTY RIGHT-OF-WAY.
2. A PRE-PAVE MEETING IS REQUIRED PRIOR TO ANY PAVING OPERATIONS WITHIN NASSAU COUNTY ROW, RESIDENTIAL SUBDIVISIONS, OR MULTI-FAMILY DEVELOPMENTS.
3. APPROVED MIX DESIGNS SHALL BE PROVIDED TO NASSAU COUNTY CONSTRUCTION INSPECTOR 48 HOURS PRIOR TO PRE-PAVE MEETING OR PLACEMENT OF CONCRETE.
4. CONTRACTOR IS REQUIRED TO HAVE A CERTIFIED QC ASPHALT LEVEL II TECHNICIAN DURING ANY ASPHALT OPERATIONS WITHIN NASSAU COUNTY ROW, RESIDENTIAL SUBDIVISION, OR MULTI-FAMILY DEVELOPMENTS.
5. ALL BASES SHALL BE PRIMED IN ACCORDANCE WITH ORDINANCE 99-17 SECTION 11.5.2.3, NASSAU COUNTY STANDARD DETAILS, AND FDOT STANDARD SPECIFICATIONS.
6. SIGNAGE AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH NASSAU COUNTY STANDARDS, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND FDOT STANDARD PLANS.
7. MAINTENANCE OF TRAFFIC (MOT) SHALL BE IN COMPLIANCE WITH FDOT STANDARD INDEX 600 SERIES.
8. ALL WORK, MATERIALS, AND TESTING PERFORMED WITHIN NASSAU COUNTY RIGHT-OF-WAY AND SINGLE-FAMILY/MULTI-FAMILY DEVELOPMENTS SHALL BE IN ACCORDANCE WITH THE CURRENT REVISION OF NASSAU COUNTY'S ORDINANCE 99-17 AND ALL CURRENT NASSAU COUNTY STANDARD DETAILS.
9. PER ORDINANCE 99-17 SECTION 11.9.2, ALL PAVEMENT MARKINGS WITHIN NASSAU COUNTY ROW SHALL BE LEAD FREE THERMOPLASTIC MEETING NASSAU COUNTY AND FDOT STANDARD SPECIFICATION LATEST EDITION.
10. REMOVING PAVEMENT MARKINGS WITHIN NASSAU COUNTY ROW SHALL BE:
- a. GRINDING OR HYDRO-BLASTING ON WEATHERED ASPHALT SURFACES.
 - b. HYDRO-BLASTING ONLY ON NEW ASPHALT SURFACES.
 - c. PAINT BLACKOUT IS PROHIBITED.
11. PER ORDINANCE 99-17 SECTION 8.5.5, ANY DAMAGE TO PAVEMENT RESULTING FROM CONSTRUCTION OR PAVEMENT MARKING REMOVAL WITHIN PUBLIC ROW NOT PLANNED AS PART OF THE PROJECT SHALL BE MILLED AND OVERLAD FOR ENTIRE WIDTH OF ROADWAY AND LENGTH OF DAMAGE PLUS 50' IN EACH DIRECTION.
12. ALL UNDERGROUND UTILITIES, OR APPROPRIATE CONDUIT SLEEVES, THAT ARE TO BE INSTALLED UNDER PAVEMENT MUST BE INSTALLED PRIOR TO PREPARATION OF THE SUBGRADE FOR PAVEMENT.
13. SINGLE VERTICAL JOINTS IN ROADWAY CONSTRUCTION SHALL BE AVOIDED IN NASSAU COUNTY RIGHT-OF-WAY USING NASSAU COUNTY STANDARD DETAIL #26.
14. ALL DRAINAGE STRUCTURES SHALL HAVE TRAFFIC BEARING GRATES THAT MEET OR EXCEED THE RATING FOR THE FACILITIES EXPECTED TRAFFIC.
15. ALL CONCRETE SHALL BE A MINIMUM OF 3000 PSI WITHIN PUBLIC RIGHT-OF-WAY.

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 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 WRING 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, A TAP APPLICATION FEE MUST BE PAID AT TIME OF 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 HOPE 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 RUBBER 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 SOLDER 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.O.D.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 PREVENTORS SHALL BE IN ACCORDANCE WITH JEA CROSS CONNECTION CONTROL PROGRAM. BACKFLOW PREVENTORS MUST BE TESTED AFTER INSTALLATION BY A CERTIFIED TESTER AND ANNUALLY THEREAFTER. THE CONTRACTOR SHALL CONTACT JEA COORDINATOR OR JEA DESIGNEE: DAVID KAPLAN AT (904) 665-5522. BACKFLOW PREVENTORS 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 READY 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. REPAIR SHALL BE MADE WITHIN 24 HOURS. THE TRENCH SHALL BE 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 1.04% 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 BE 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 REINSPECTED 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

EXISTING PROPOSED

- SPOT ELEVATION
- CONTOURS
- BOUNDARY
- DRAINAGE DIVIDE
- STORM SEWER AND SIZE
- STORM SEWER INLET
- STORM SEWER MANHOLE
- MITERED END SECTION
- DRAINAGE FLOW ARROWS

EXISTING PROPOSED

- DITCH FLOW ARROWS
- STRUCTURE NUMBERS
- DRAINAGE AREA
- SOIL BORING LOCATION
- UNDERDRAIN
- CONCRETE SIDEWALK
- CONCRETE CURB AND GUTTER
- JURISDICTIONAL WETLANDS
- FILTER BARRIER
- COIR BALES

EXISTING PROPOSED

- SANITARY SEWER LINE
- SANITARY SEWER SERVICE
- SANITARY SEWER MANHOLE
- CLEANOUT
- FORCE MAIN
- WATER MAIN
- REUSE WATER MAIN
- FIRE PROTECTION MAIN

EXISTING PROPOSED

- FIRE HYDRANT
- FLUSHING HYDRANT
- GATE VALVE
- REDUCER
- TEE
- BEND
- WATER METER
- BACKFLOW PREVENTER

WATER AND SEWER LEGEND

GENERAL NOTES AND LEGEND

WILDLIGHT COMMERCE PARK PARCEL A

FOR PATILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER

3

REVISIONS:

ETM NO. 19-239-07-001

DRAWN BY: JMB

DESIGNED BY: JMB

CHECKED BY: JZB

DATE: JULY 2023

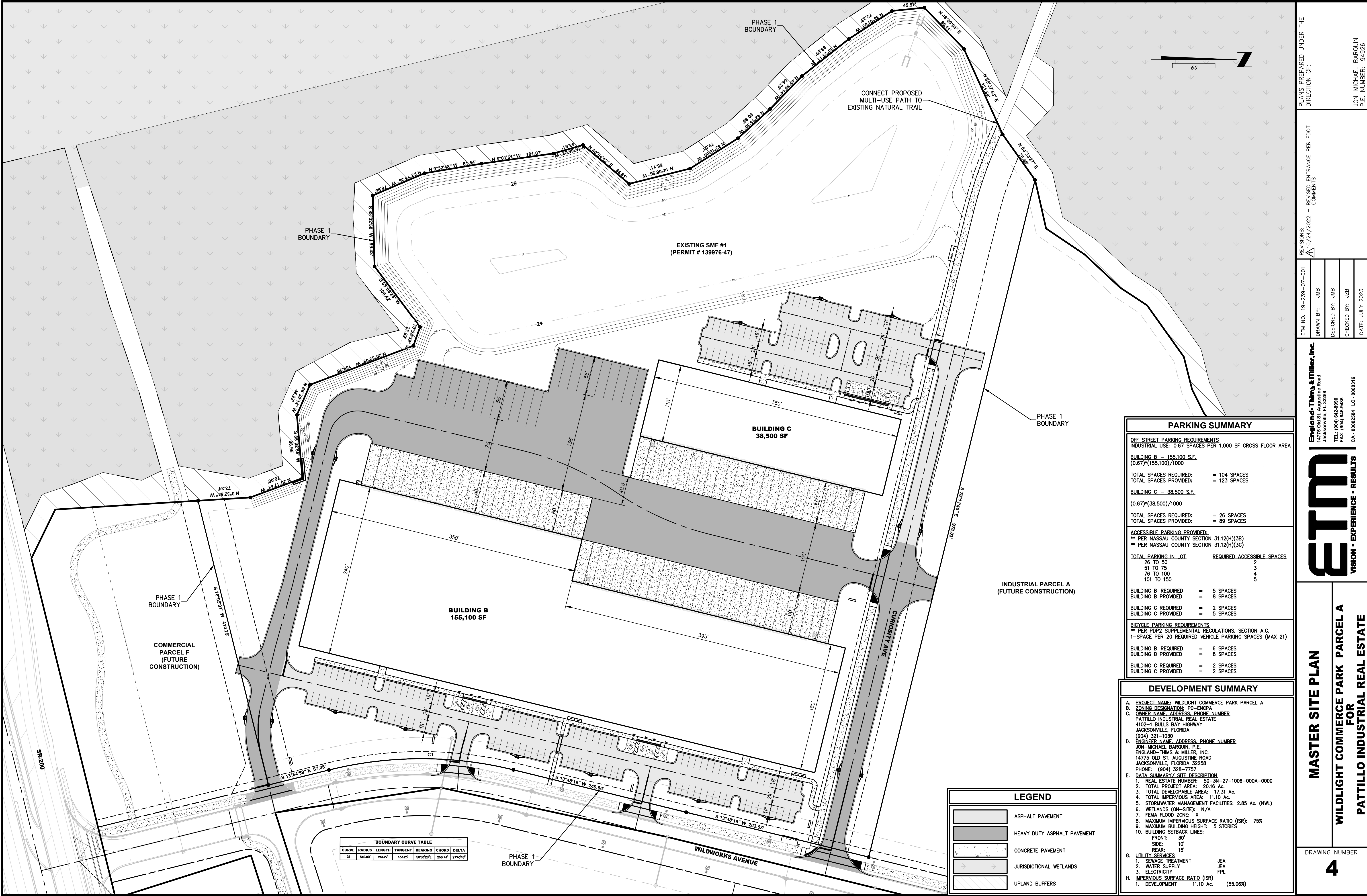
Englund-Thins & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32256
TEL: (904) 642-8890
FAX: (904) 646-9485
CA-00002584 LC-0000316

VISION • EXPERIENCE • RESULTS

PLANS PREPARED UNDER THE DIRECTION OF: JON-MICHAEL BARQUIN
P.E. NUMBER: 94926

FLOTTED: August 25, 2023

8:40 AM, BY: Jon-Michael Barquin



PARKING SUMMARY	
OFF STREET PARKING REQUIREMENTS	
INDUSTRIAL USE: 0.67 SPACES PER 1,000 SF GROSS FLOOR AREA	
BUILDING B — 155,100 S.F.	
(0.67)*(155,100)/1000	
TOTAL SPACES REQUIRED:	= 104 SPACES
TOTAL SPACES PROVIDED:	= 123 SPACES
BUILDING C — 38,500 S.F.	
(0.67)*(38,500)/1000	
TOTAL SPACES REQUIRED:	= 26 SPACES
TOTAL SPACES PROVIDED:	= 89 SPACES
ACCESSIBLE PARKING PROVIDED:	
** PER NASSAU COUNTY SECTION 31.12(H)(3B)	
** PER NASSAU COUNTY SECTION 31.12(H)(3C)	
TOTAL PARKING IN LOT	REQUIRED ACCESSIBLE SPACES
26 TO 50	2
51 TO 75	3
76 TO 100	4
101 TO 150	5
BUILDING B REQUIRED	= 5 SPACES
BUILDING B PROVIDED	= 8 SPACES
BUILDING C REQUIRED	= 2 SPACES
BUILDING C PROVIDED	= 5 SPACES
BICYCLE PARKING REQUIREMENTS	
** PER PDP2 SUPPLEMENTAL REGULATIONS, SECTION A.G.	
1-SPACE PER 20 REQUIRED VEHICLE PARKING SPACES (MAX 21)	
BUILDING B REQUIRED	= 6 SPACES
BUILDING B PROVIDED	= 8 SPACES
BUILDING C REQUIRED	= 2 SPACES
BUILDING C PROVIDED	= 2 SPACES

DEVELOPMENT SUMMARY	
A. PROJECT NAME: WILDLIGHT COMMERCE PARK PARCEL A	
B. ZONING DESIGNATION: PD-ENCPA	
C. OWNER NAME, ADDRESS, PHONE NUMBER	
PATILLO INDUSTRIAL REAL ESTATE	
4102-1 BULLS BAY HIGHWAY	
JACKSONVILLE, FLORIDA	
(904) 321-1030	
D. ENGINEER NAME, ADDRESS, PHONE NUMBER	
JON-MICHAEL BARQUIN, P.E.	
ENGLAND-THIMS & MILLER, INC.	
14775 OLD ST. AUGUSTINE ROAD	
JACKSONVILLE, FLORIDA 32258	
PHONE: (904) 328-7757	
E. DATA SUMMARY / SITE DESCRIPTION	
1. REAL ESTATE NUMBER: 50-3N-27-1006-000A-0000	
2. TOTAL PROJECT AREA: 20.16 Ac.	
3. TOTAL DEVELOPABLE AREA: 17.31 Ac.	
4. TOTAL IMPERVIOUS AREA: 11.10 Ac.	
5. STORMWATER MANAGEMENT FACILITIES: 2.85 Ac. (NWL)	
6. WETLANDS (ON-SITE): N/A	
7. FEMA FLOOD ZONE: X	
8. MAXIMUM IMPERVIOUS SURFACE RATIO (ISR): 75%	
9. MAXIMUM BUILDING HEIGHT: 5 STORIES	
10. BUILDING SETBACK LINES:	
FRONT: 30'	
SIDE: 10'	
REAR: 15'	
G. UTILITY SERVICES	
1. SEWAGE TREATMENT JEA	
2. WATER SUPPLY JEA	
3. ELECTRICITY FPL	
H. IMPERVIOUS SURFACE RATIO (ISR)	
1. DEVELOPMENT 11.10 Ac. (55.06%)	

LEGEND	
	ASPHALT PAVEMENT
	HEAVY DUTY ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	JURISDICTIONAL WETLANDS
	UPLAND BUFFERS

PLANS PREPARED UNDER THE DIRECTION OF:

REVISIONS:

ETM NO. 19-239-07-001

10/24/2022

REVISED ENTRANCE PER FOOT COMMENTS

DRAWN BY: JMB

DESIGNED BY: JMB

CHECKED BY: JZB

DATE: JULY 2023

ENGLAND-THIMS & MILLER, INC.

14775 Old St. Augustine Road

Jacksonville, FL 32258

TEL: (904) 642-8890

FAX: (904) 646-9485

CA - 00002584 LC - 0000316

ETM

VISION • EXPERIENCE • RESULTS

MASTER SITE PLAN

WILDLIGHT COMMERCE PARK PARCEL A

FOR

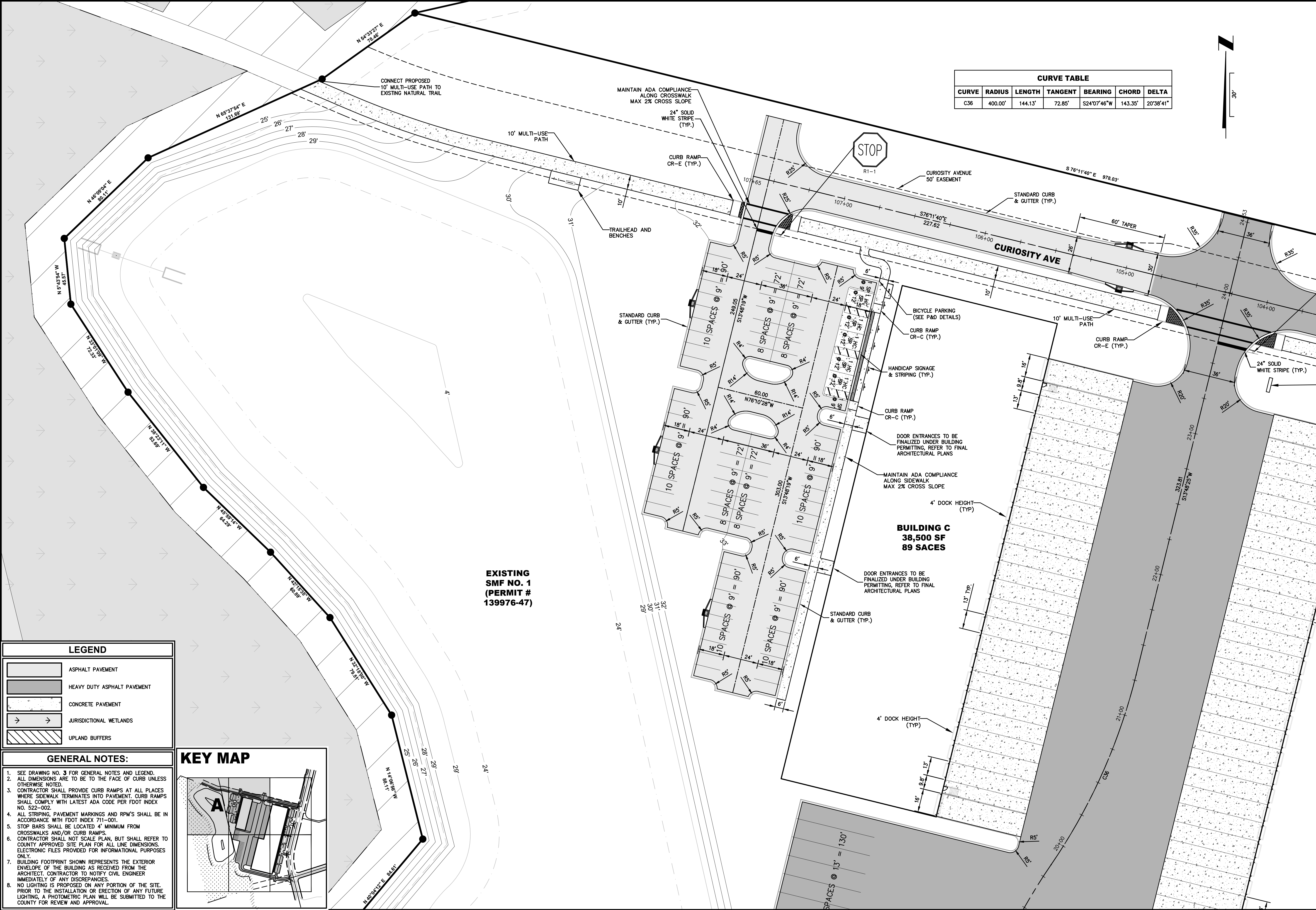
PATILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER

4

J: 2019\19-239\19-239-07\19-239-07-001\LandDev\Design\Plots\WSite_19-239-07-001.dwg

PLOTTED: August 25, 2023 — 8:40 AM, BY: Jon-Michael Barquin



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	BEARING	CHORD	DELTA
C36	400.00'	144.13'	72.85'	S24°07'46"W	143.35'	20°38'41"

LEGEND

ASPHALT PAVEMENT

HEAVY DUTY ASPHALT PAVEMENT

- GENERAL NOTES:
1. SEE DRAWING NO. 3 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.

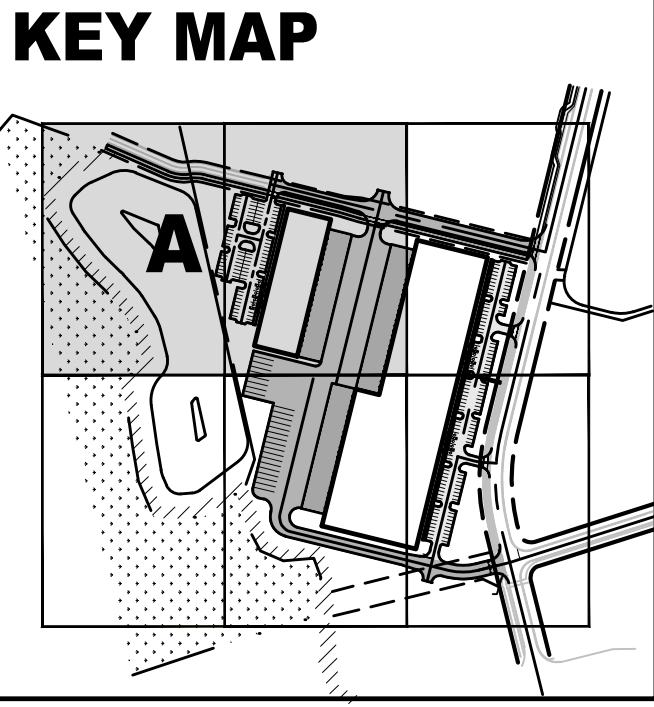
4. ALL STRIPING, PAVEMENT MARKINGS AND RPM'S SHALL BE IN ACCORDANCE WITH FDOT INDEX 711-001.

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.

8. NO LIGHTING IS PROPOSED ON ANY PORTION OF THE SITE. PRIOR TO THE INSTALLATION OR ERECTION OF ANY FUTURE LIGHTING, A PHOTOMETRIC PLAN WILL BE SUBMITTED TO THE COUNTY FOR REVIEW AND APPROVAL.



PLANS PREPARED UNDER THE DIRECTION OF:

ETM

England-Thins & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8890
FAX: (904) 646-9485
CA - 0002584 LC - 0000316

SITE GEOMETRY PLAN

WILDLIGHT COMMERCE PARK PARCEL A
FOR
PATTILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER

4A

REVISIONS:

ETM NO. 19-239-07-001

DRAWN BY: JMB

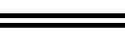
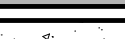
DESIGNED BY: JMB

CHECKED BY: JZB

DATE: JULY 2023

PLOTTED: August 25, 2023 - 8:41 AM, BY: Jon-Michael Barquin

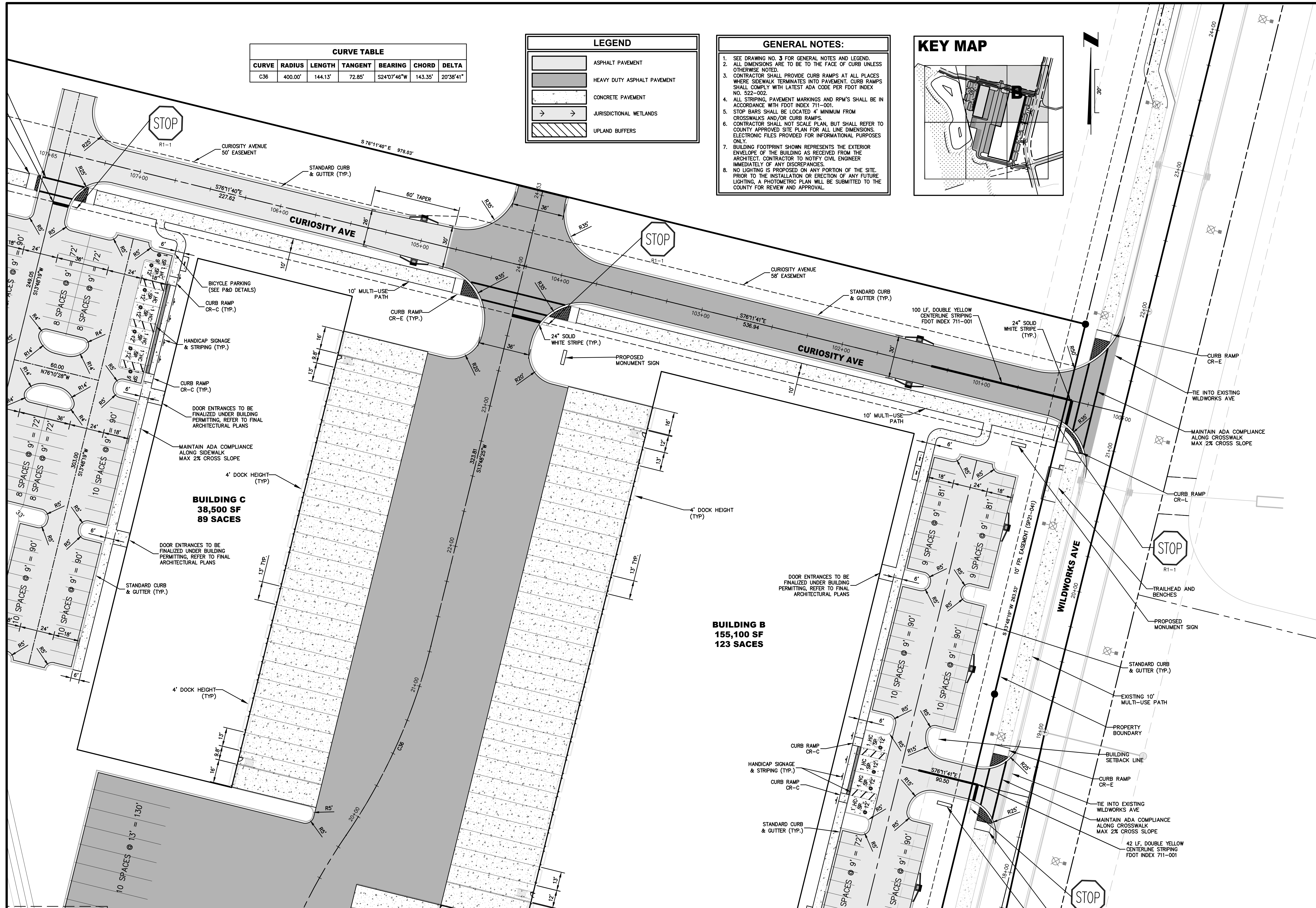
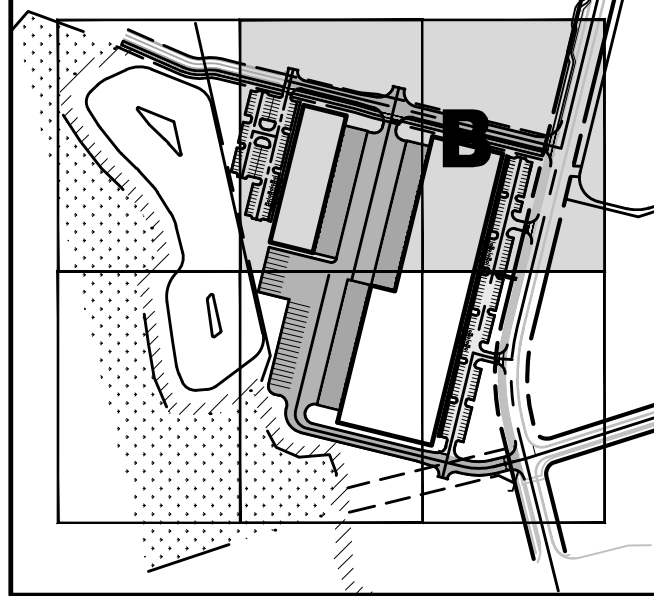
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	BEARING	CHORD	DELTA
C36	400.00'	144.13'	72.85'	S24°07'46"W	143.35'	20°38'41"

LEGEND	
	ASPHALT PAVEMENT
	HEAVY DUTY ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	JURISDICTIONAL WETLANDS
	UPLAND BUFFERS

GENERAL NOTES:

1. SEE DRAWING NO. **3** FOR GENERAL NOTES AND LEGEND, AND ALL DIMENSIONS ARE TO BE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
2. STOP MARKS SHALL PROVIDE CURB RAMP AT ALL PLACES WHERE SIDEWALK TERMINATES INTO PAVEMENT. CURB RAMP SHALL COMPLY WITH LATEST ADA CODE PER FDOT INDEX NO. 522-002.
3. ALL STRIPING, PAVEMENT MARKINGS AND RPM'S SHALL BE IN ACCORDANCE WITH FDOT INDEX 711-001.
4. STOP BARS SHALL BE LOCATED 4' MINIMUM FROM CROSSWALKS AND/OR CURB RAMP.
5. CONTRACTOR SHALL NOT SCALE PLAN, BUT SHALL REFER TO COUNTY PROVIDED 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 CITY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
8. NO LIGHTING IS PROPOSED ON ANY PORTION OF THE SITE. PRIOR TO THE INSTALLATION OR ERECTION OF ANY FUTURE LIGHTING PHOTOGRAPHIC EVIDENCE SHALL BE SUBMITTED TO THE COUNTY FOR REVIEW AND APPROVAL.

KEY MAP

PLANS PREPARED UNDER THE
DIRECTION OF:

REVISIONS:

ETM NO. 19-239-07-001

DRAWN BY: JMB

DESIGNED BY: JMB

CHECKED BY: JZB

DATE: JULY 2023

England-Thims & Miller, Inc.

ENGLEHARDT-HINTS & L...
14775 Old St. Augustine Road
Jacksonville, FL 32258

Jacksonville, FL 32258

TEL: (904) 642-8990

TEL: (904) 642-0990
FAX: (904) 646-9485

CA - 00002584 LC - 0000316

ETM
VISION • EXPERIENCE • RESULTS

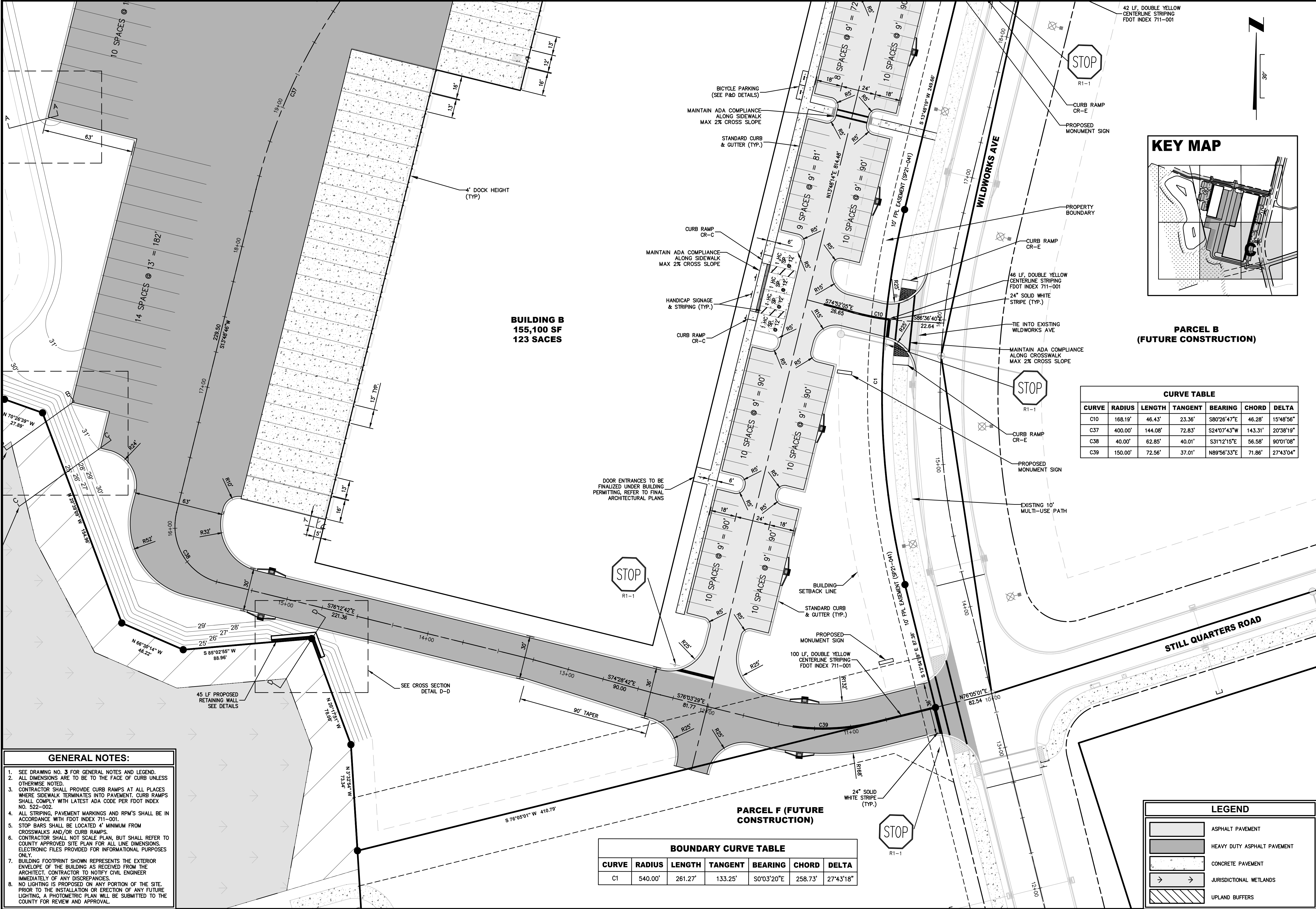
SITE GEOMETRY PLAN

**WILDLIGHT COMMERCE PARK PARCEL A
FOR
PATTILLO INDUSTRIAL REAL ESTATE**

DRAWING NUMBER

4B

T:\19\19-239\19-239-07\19-239-07-001\LandDev\Design\Plots\Geo_19-239-07-001.dwg

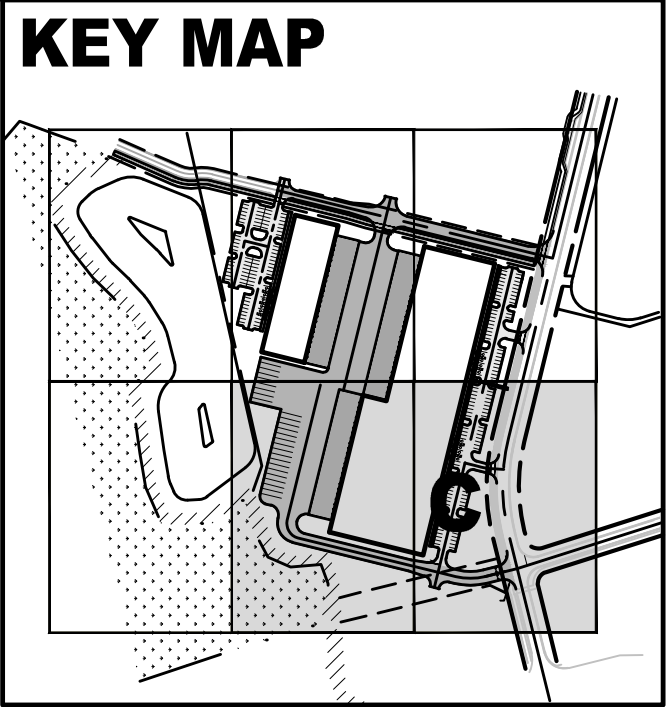


- GENERAL NOTES:**
- SEE DRAWING NO. 3 FOR GENERAL NOTES AND LEGEND.
 - ALL DIMENSIONS ARE TO BE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
 - CONTRACTOR SHALL PROVIDE CURB RAMP AT ALL PLACES WHERE SIDEWALK TERMINATES INTO PAVEMENT. CURB RAMP SHALL COMPLY WITH LATEST ADA CODE PER FDOT INDEX NO. 522-002.
 - ALL STRIPING, PAVEMENT MARKINGS AND RPM'S SHALL BE IN ACCORDANCE WITH FDOT INDEX 711-001.
 - STOP BARS SHALL BE LOCATED 4' MINIMUM FROM CROSSWALKS AND/OR CURB RAMP.
 - CONTRACTOR SHALL NOT SCALE PLAN, BUT SHALL REFER TO COUNTY APPROVED SITE PLAN FOR ALL LINE DIMENSIONS. ELECTRONIC FILES PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
 - BUILDING FOOTPRINT SHOWN REPRESENTS THE EXTERIOR ENVELOPE OF THE BUILDING AS RECEIVED FROM THE ARCHITECT. CONTRACTOR TO NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
 - NO LIGHTING IS PROPOSED ON ANY PORTION OF THE SITE. PRIOR TO THE INSTALLATION OR ERECTION OF ANY FUTURE LIGHTING, A PHOTOMETRIC PLAN WILL BE SUBMITTED TO THE COUNTY FOR REVIEW AND APPROVAL.

BOUNDARY CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	BEARING	CHORD	DELTA
C1	540.00'	261.27'	133.25'	S0°03'20"E	258.73'	27°43'18"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	BEARING	CHORD	DELTA
C10	168.19'	46.43'	23.36'	S80°26'47"E	46.28'	15°48'56"
C37	400.00'	144.08'	72.83'	S24°07'43"W	143.31'	20°38'19"
C38	40.00'	62.85'	40.01'	S31°12'15"E	56.58'	90°01'08"
C39	150.00'	72.56'	37.01'	N89°56'33"E	71.86'	27°43'04"

LEGEND	
	ASPHALT PAVEMENT
	HEAVY DUTY ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	JURISDICTIONAL WETLANDS
	UPLAND BUFFERS



**PARCEL B
(FUTURE CONSTRUCTION)**

PLANS PREPARED UNDER THE DIRECTION OF:

REVISIONS:

ETM NO. 19-239-07-001

DRAWN BY: JMB

DESIGNED BY: JMB

CHECKED BY: JZB

DATE: JULY 2023

England-Thins & Miller, Inc.

14775 Old St. Augustine Road

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SITE GEOMETRY PLAN

WILDLIGHT COMMERCE PARK PARCEL A

FOR

PATILLO INDUSTRIAL REAL ESTATE

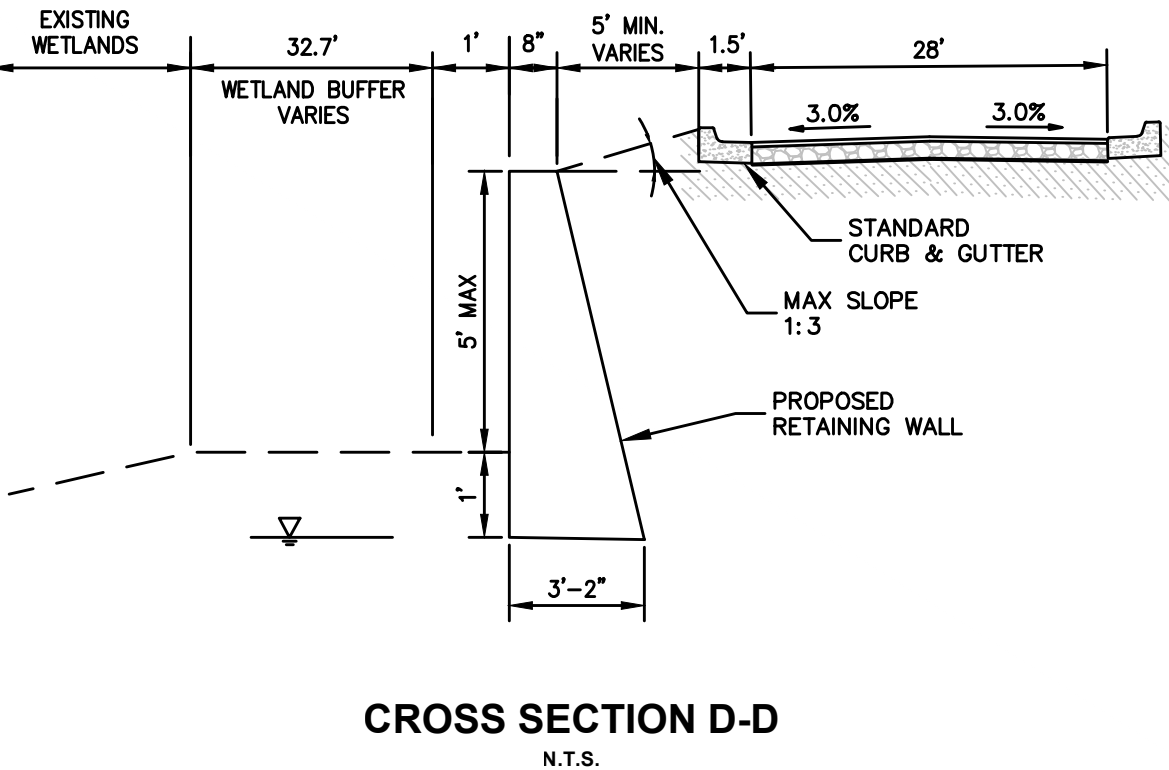
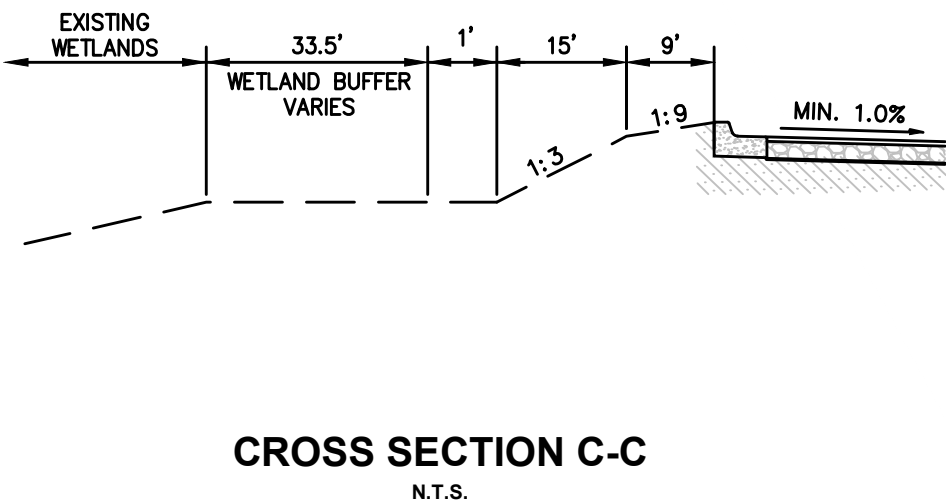
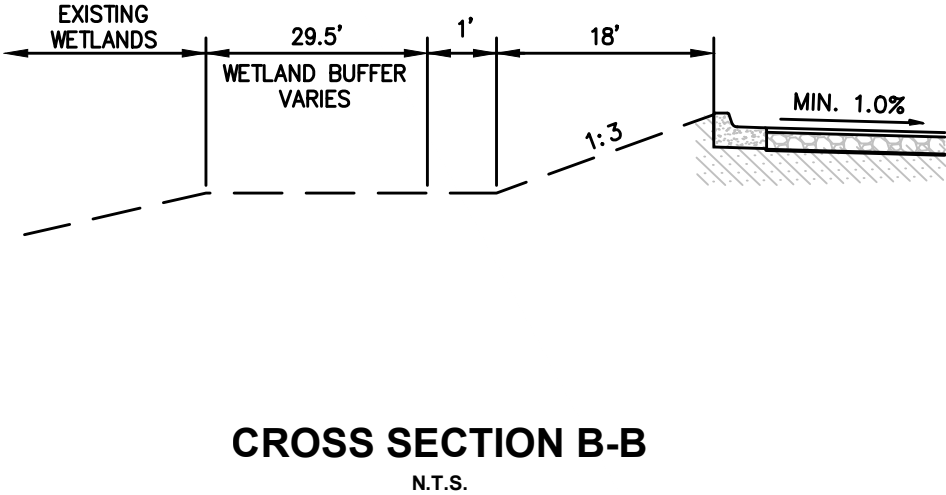
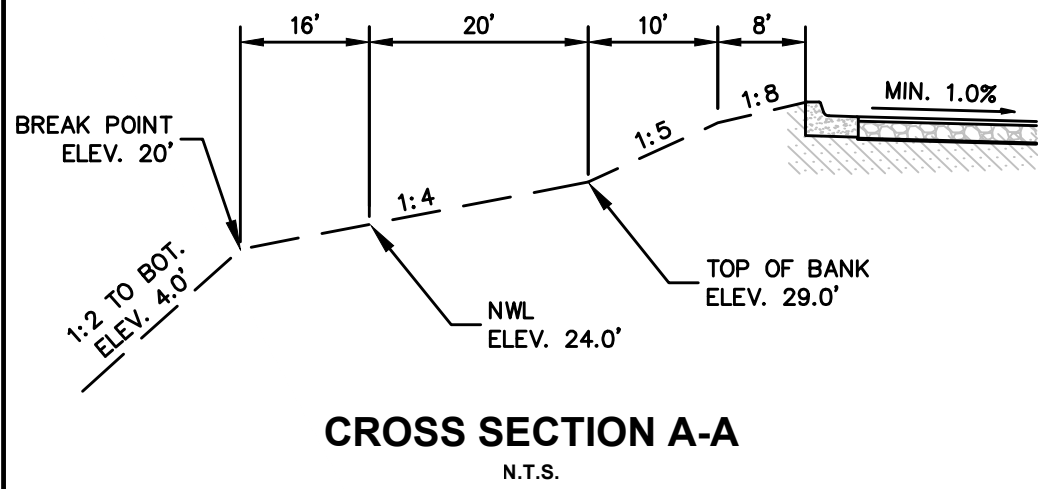
DRAWING NUMBER

4C

NOTED: August 25, 2023 - 8:41 AM, BY: Jon-Michael Barquin

PLOTTED: August 25, 2023 - 8:41 AM, BY: Jon-Michael Barquin

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	BEARING	CHORD	DELTA
C37	400.00'	144.08'	72.83'	S24°07'43"W	143.31'	20°38'19"
C38	40.00'	62.85'	40.01'	S31°12'15"E	56.58'	90°01'08"

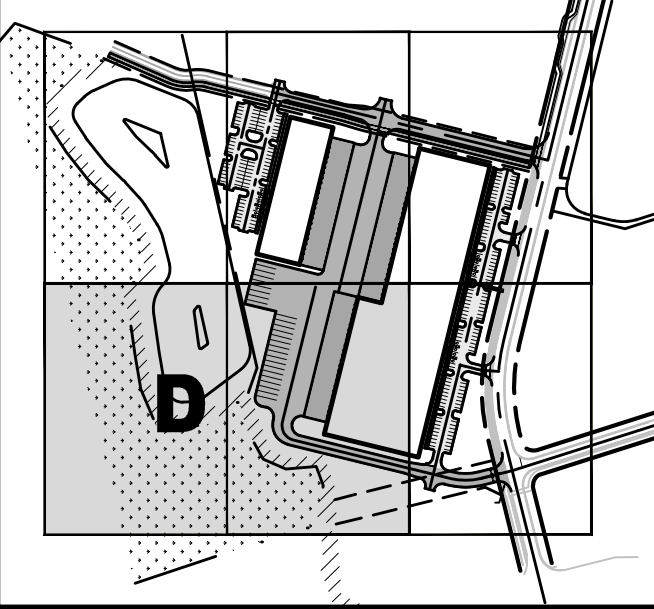


- GENERAL NOTES:**
- SEE DRAWING NO. 3 FOR GENERAL NOTES AND LEGEND.
 - ALL DIMENSIONS ARE TO BE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
 - CONTRACTOR SHALL PROVIDE CURB RAMPS AT ALL PLACES WHERE SIDEWALK TERMINATES INTO PAVEMENT. CURB RAMPS SHALL COMPLY WITH LATEST ADA CODE PER FDOT INDEX NO. 522-002.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

LEGEND	
	ASPHALT PAVEMENT
	HEAVY DUTY ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	JURISDICTIONAL WETLANDS
	UPLAND BUFFERS

EXISTING
SMF NO. 1
(PERMIT #
139976-47)

KEY MAP



SITE GEOMETRY PLAN
WILDLIGHT COMMERCE PARK PARCEL A
FOR
PATILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER
4D

ETM
VISION • EXPERIENCE • RESULTS

England • Thins & Miller, Inc.

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Jacksonville, FL 32258
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CA - 00002584 LC - 0000316

ETM NO. 19-239-07-001

DRAWN BY: JMB

DESIGNED BY: JMB

CHECKED BY: JZB

DATE: JULY 2023

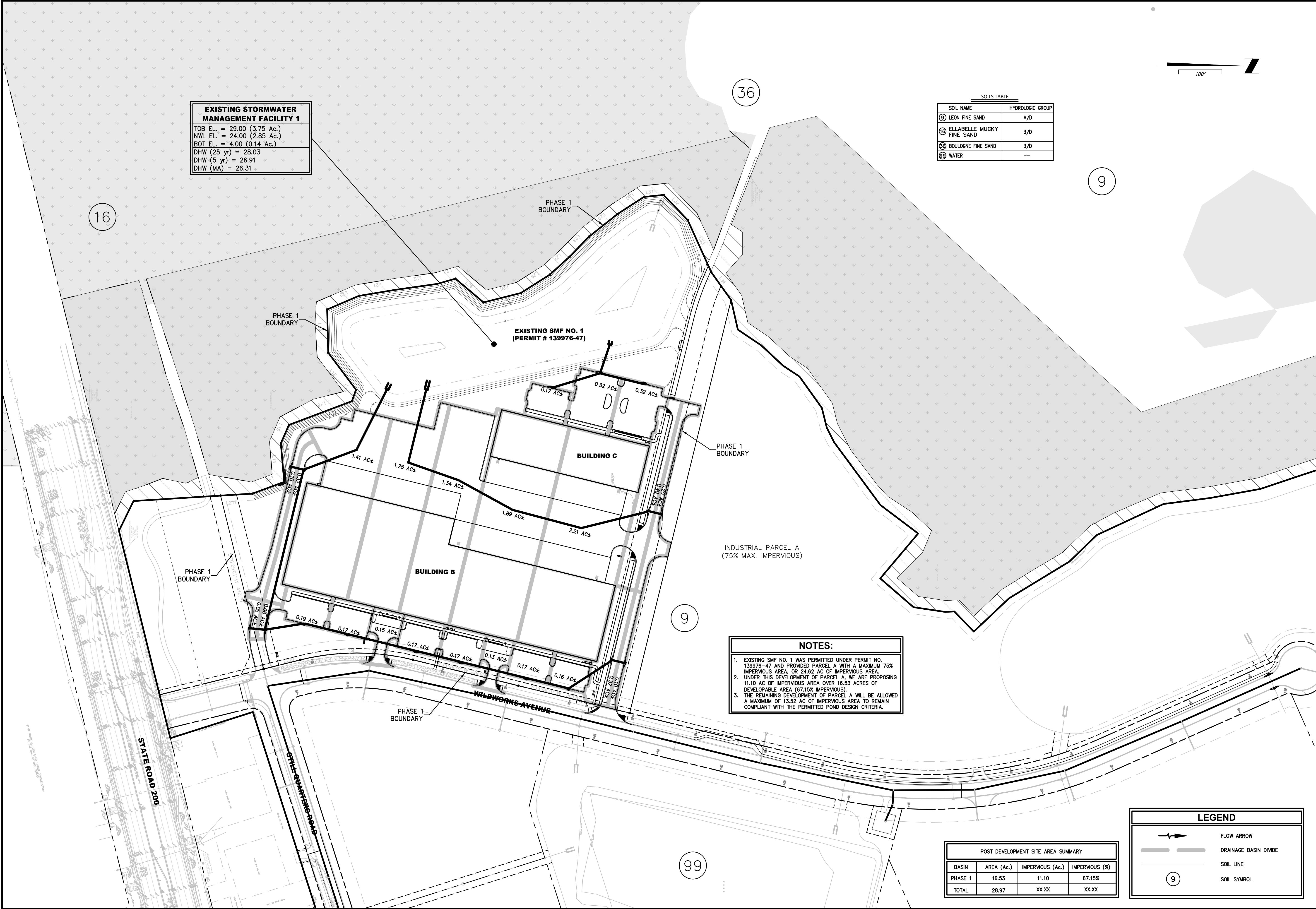
REVISIONS:

PLANS PREPARED UNDER THE
DIRECTION OF:

JON-MICHAEL BARQUIN
P.E. NUMBER: 94926

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PLOTTED: August 25, 2023 - 8:41 AM, BY: Jon-Michael Barquin

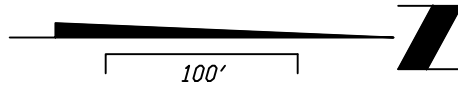


EXISTING STORMWATER MANAGEMENT FACILITY 1	
TOB EL. = 29.00 (3.75 Ac.)	
NWL EL. = 24.00 (2.85 Ac.)	
BOT EL. = 4.00 (0.14 Ac.)	
DHW (25 yr) = 28.03	
DHW (5 yr) = 26.91	
DHW (MA) = 26.31	

SOILS TABLE	
SOIL NAME	HYDROLOGIC GROUP
⑨ LEON FINE SAND	A/D
⑩ ELLABELLE MUCKY FINE SAND	B/D
⑪ BOULOGNE FINE SAND	B/D
⑫ WATER	--

36

9



9

NOTES:

- EXISTING SMF NO. 1 WAS PERMITTED UNDER PERMIT NO. 139976-47 AND PROVIDED PARCEL A WITH A MAXIMUM 75% IMPERVIOUS AREA, OR 24.62 AC OF IMPERVIOUS AREA.
- UNDER THIS DEVELOPMENT OF PARCEL A, WE ARE PROPOSING 11.10 AC OF IMPERVIOUS AREA OVER 16.53 ACRES OF DEVELOPABLE AREA (67.15% IMPERVIOUS).
- THE REMAINING DEVELOPMENT OF PARCEL A WILL BE ALLOWED A MAXIMUM OF 13.52 AC OF IMPERVIOUS AREA TO REMAIN COMPLIANT WITH THE PERMITTED POND DESIGN CRITERIA.

POST DEVELOPMENT SITE AREA SUMMARY			
Basin	Area (Ac.)	Impervious (Ac.)	Impervious (%)
PHASE 1	16.53	11.10	67.15%
TOTAL	28.97	XX.XX	XX.XX

LEGEND	
	FLOW ARROW
	DRAINAGE BASIN DIVIDE
	SOIL LINE
	SOIL SYMBOL

PLANS PREPARED UNDER THE DIRECTION OF:

REVISIONS:

ETM NO. 19-239-07-001

DRAWN BY: JMB

DESIGNED BY: JMB

CHECKED BY: JZB

DATE: JULY 2023

England-Thins & Miller, Inc.

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ETM

VISION • EXPERIENCE • RESULTS

POST DEVELOPMENT PLAN

WILDLIGHT COMMERCE PARK PARCEL A

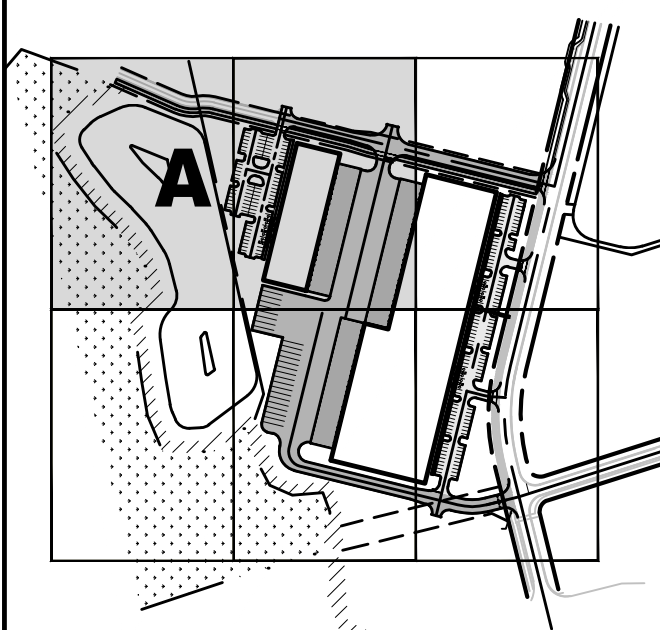
FOR

PATILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER

5

KEY MAP



LEGEND

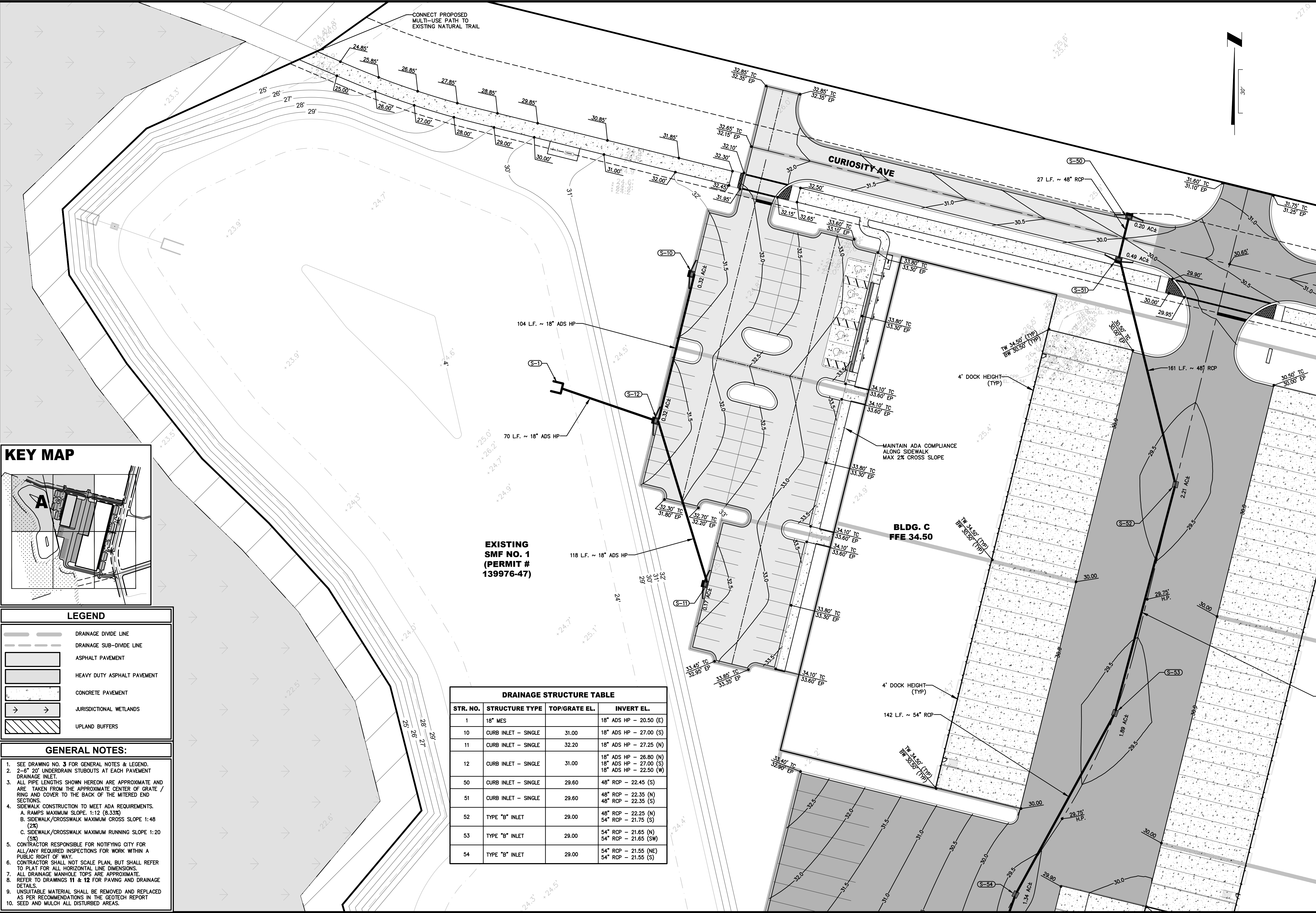
	DRAINAGE DIVIDE LINE
	DRAINAGE SUB-DIVIDE LINE
	ASPHALT PAVEMENT
	HEAVY DUTY ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	JURISDICTIONAL WETLANDS
	UPLAND BUFFERS

GENERAL NOTES:

- SEE DRAWING NO. 3 FOR GENERAL NOTES & LEGEND.
- 2-6" 20' UNDERDRAIN STUBOUTS AT EACH PAVEMENT DRAINAGE INLET.
- 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.
- 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%)
- CONTRACTOR RESPONSIBLE FOR NOTIFYING CITY FOR ALL/ANY REQUIRED INSPECTIONS FOR WORK WITHIN A PUBLIC RIGHT OF WAY.
- CONTRACTOR SHALL NOT SCALE PLAN, BUT SHALL REFER TO PLAT FOR ALL HORIZONTAL LINE DIMENSIONS.
- ALL DRAINAGE MANHOLE TOPS ARE APPROXIMATE.
- REFER TO DRAWINGS 11 & 12 FOR PAVING AND DRAINAGE DETAILS.
- UNSATURABLE MATERIAL SHALL BE REMOVED AND REPLACED AS PER RECOMMENDATIONS IN THE GEOTECH REPORT
- SEED AND MULCH ALL DISTURBED AREAS.

DRAINAGE STRUCTURE TABLE			
STR. NO.	STRUCTURE TYPE	TOP/GRATE EL.	INVERT EL.
1	18" MES		18" ADS HP - 20.50 (E)
10	CURB INLET - SINGLE	31.00	18" ADS HP - 27.00 (S)
11	CURB INLET - SINGLE	32.20	18" ADS HP - 27.25 (N)
12	CURB INLET - SINGLE	31.00	18" ADS HP - 26.80 (N) 18" ADS HP - 27.00 (S) 18" ADS HP - 22.50 (W)
50	CURB INLET - SINGLE	29.60	48" RCP - 22.45 (S)
51	CURB INLET - SINGLE	29.60	48" RCP - 22.35 (N) 48" RCP - 22.35 (S)
52	TYPE "B" INLET	29.00	48" RCP - 22.25 (N) 54" RCP - 21.75 (S)
53	TYPE "B" INLET	29.00	54" RCP - 21.65 (N) 54" RCP - 21.65 (SW)
54	TYPE "B" INLET	29.00	54" RCP - 21.55 (NE) 54" RCP - 21.55 (S)

EXISTING
SMF NO. 1
(PERMIT #
139976-47)



PLANS PREPARED UNDER THE
DIRECTION OF:

JON-MICHAEL BARQUIN
P.E. NUMBER: 94926

REVISIONS:

ETM NO. 19-239-07-001
DRAWN BY: JMB
DESIGNED BY: JMB
CHECKED BY: JZB
DATE: JULY 2023

England-Thins & Miller, Inc.
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Jacksonville, FL 32258
TEL: (904) 642-8890
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CA 00002584 LC 0000316

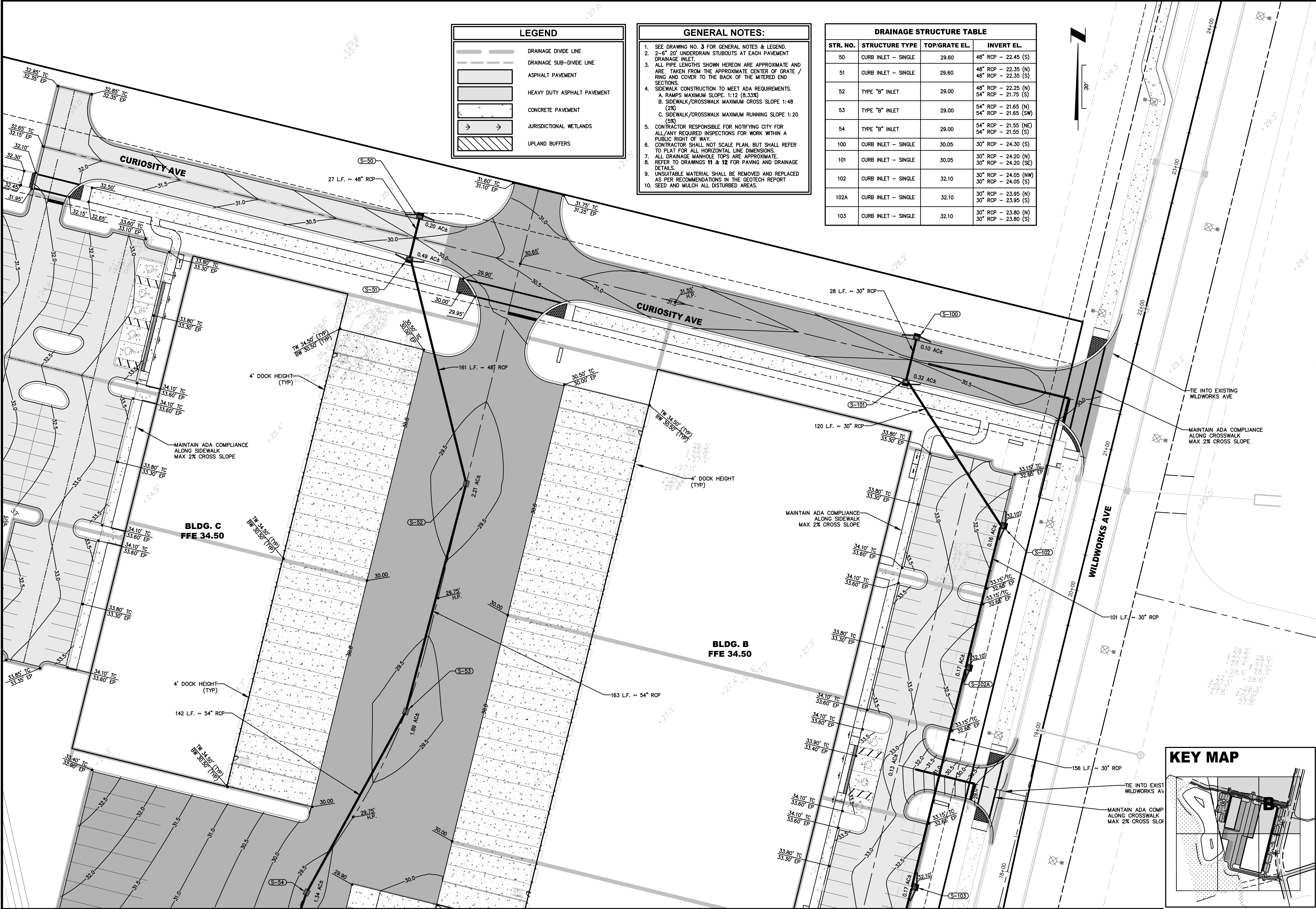
ETM
VISION • EXPERIENCE • RESULTS

PAVING & DRAINAGE PLAN

WILDLIGHT COMMERCE PARK PARCEL A
FOR
PATTILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER
6A

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LEGEND	
	DRAINAGE DIVIDE LINE
	DRAINAGE SUB-DIVIDE LINE
	ASPHALT PAVEMENT
	HEAVY DUTY ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	JURISDICTIONAL WETLANDS
	UPLAND BUFFERS

- GENERAL NOTES:**
- SEE DRAWING NO. 3 FOR GENERAL NOTES & LEGEND.
 - 2'-6" 20' UNDERDRAIN STUBOUTS AT EACH PAVEMENT DRAINAGE INLET.
 - 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.
 - 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%)
 - CONTRACTOR RESPONSIBLE FOR NOTIFYING CITY FOR ALL/ANY REQUIRED INSPECTIONS FOR WORK WITHIN A PUBLIC RIGHT OF WAY.
 - CONTRACTOR SHALL NOT SCALE PLAN, BUT SHALL REFER TO PLAN FOR ALL HORIZONTAL LINE DIMENSIONS.
 - ALL DRAINAGE MANHOLE TOPS ARE APPROXIMATE. REFER TO DRAWINGS 11 & 12 FOR PAVING AND DRAINAGE DETAILS.
 - UNSATISFACTORY MATERIAL SHALL BE REMOVED AND REPLACED AS PER RECOMMENDATIONS IN THE GEOTECH REPORT
 - SEED AND MULCH ALL DISTURBED AREAS.

DRAINAGE STRUCTURE TABLE			
STR. NO.	STRUCTURE TYPE	TOPI/GRATE EL.	INVERT EL.
50	CURB INLET - SINGLE	29.60	48" RCP - 22.45 (S)
51	CURB INLET - SINGLE	29.60	48" RCP - 22.35 (N) 48" RCP - 22.35 (S)
52	TYPE "B" INLET	29.00	48" RCP - 22.25 (N) 54" RCP - 21.75 (S)
53	TYPE "B" INLET	29.00	54" RCP - 21.65 (N) 54" RCP - 21.65 (SW)
54	TYPE "B" INLET	29.00	54" RCP - 21.55 (NE) 54" RCP - 21.55 (S)
100	CURB INLET - SINGLE	30.05	30" RCP - 24.30 (S)
101	CURB INLET - SINGLE	30.05	30" RCP - 24.20 (N) 30" RCP - 24.20 (SE)
102	CURB INLET - SINGLE	32.10	30" RCP - 24.05 (NW) 30" RCP - 24.05 (S)
102A	CURB INLET - SINGLE	32.10	30" RCP - 23.95 (N) 30" RCP - 23.95 (S)
103	CURB INLET - SINGLE	32.10	30" RCP - 23.80 (N) 30" RCP - 23.80 (S)

PLANS PREPARED UNDER THE DIRECTION OF:

REVISIONS:

ETM NO. 19-239-07-001

DRAWN BY: JMB

DESIGNED BY: JMB

CHECKED BY: JZB

DATE: JULY 2023

England-Thins & Miller, Inc.

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Jacksonville, FL 32258

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CA: 0002554 LC: 0000316

ETM

VISION • EXPERIENCE • RESULTS

PAVING & DRAINAGE PLAN

WILDLIGHT COMMERCE PARK PARCEL A

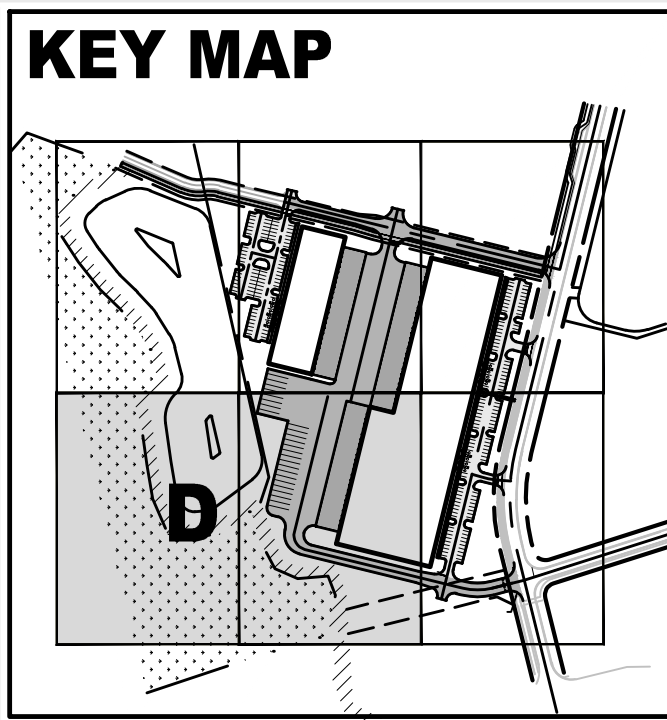
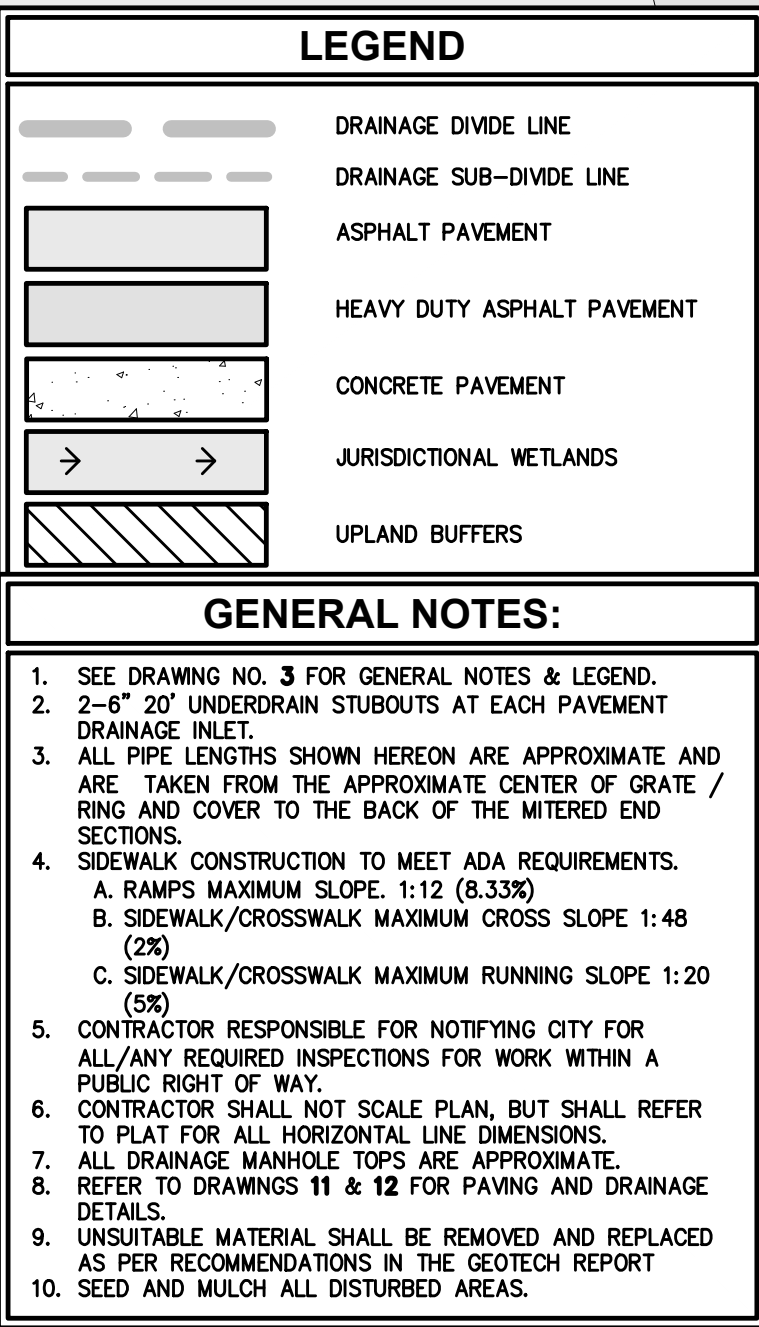
FOR

PATILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER

6B





DRAINAGE STRUCTURE TABLE			
STR. NO.	STRUCTURE TYPE	TOP/GRATE EL.	INVERT EL.
2	54" MES		54" RCP - 17.50 (E)
3	36" MES		36" RCP - 19.00 (SE)
54	TYPE "B" INLET	29.00	54" RCP - 21.55 (NE) 54" RCP - 21.55 (S)
55	TYPE "B" INLET	29.00	54" RCP - 21.45 (N) 54" RCP - 18.50 (W)
108	CURB INLET - SINGLE	29.00	30" RCP - 23.00 (E) 18" RCP - 24.90 (S) 36" RCP - 22.50 (N)
108A	CURB INLET - SINGLE		18" RCP - 25.00 (N)
109	TYPE "B" INLET	29.00	36" RCP - 22.35 (S) 36" RCP - 21.00 (NW)

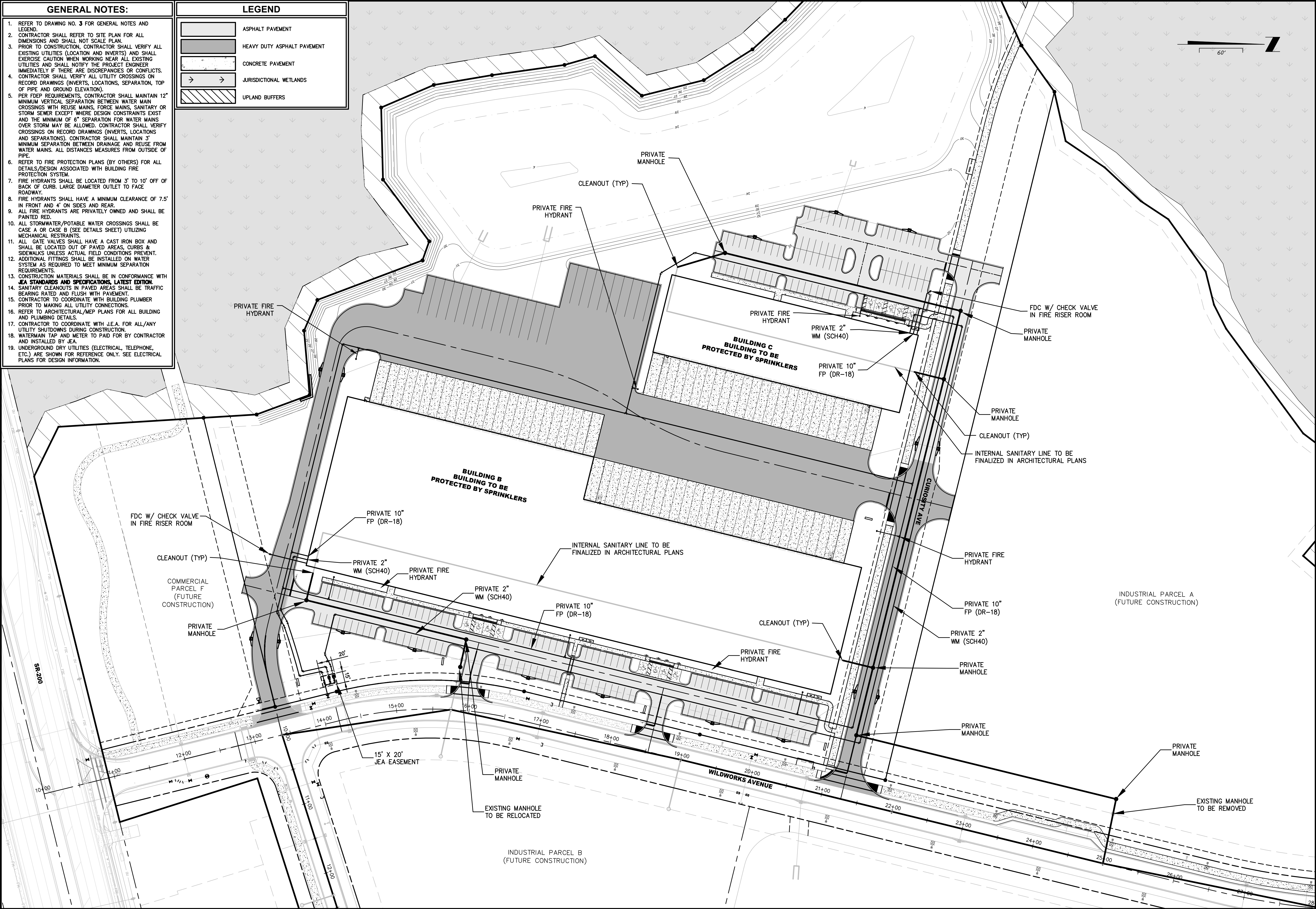


PAVING & DRAINAGE PLAN		ETM VISION • EXPERIENCE • RESULTS	England, Thims & Miller, Inc. 14775 Old St. Augustine Road Jacksonville, FL 32258 TEL: (904) 642-8990 FAX: (904) 646-9485 CA - 0002584 LC - 0000316	REVISIONS:	PLANS PREPARED UNDER THE DIRECTION OF:
WILDLIGHT COMMERCE PARK PARCEL A FOR PATTILLO INDUSTRIAL REAL ESTATE				ETM NO. 19-239-07-001	
DRAWING NUMBER 6D				DRAWN BY: JMB	
				DESIGNED BY: JMB	
				CHECKED BY: JZB	
				DATE: JULY 2023	
					JON-MICHAEL BARQUIN P.E. NUMBER: 94926

T: \\2019\\19-239\\19-239-07\\19-239-07-001\\Design\\Plots\\PD_19-239-07-001.dwg

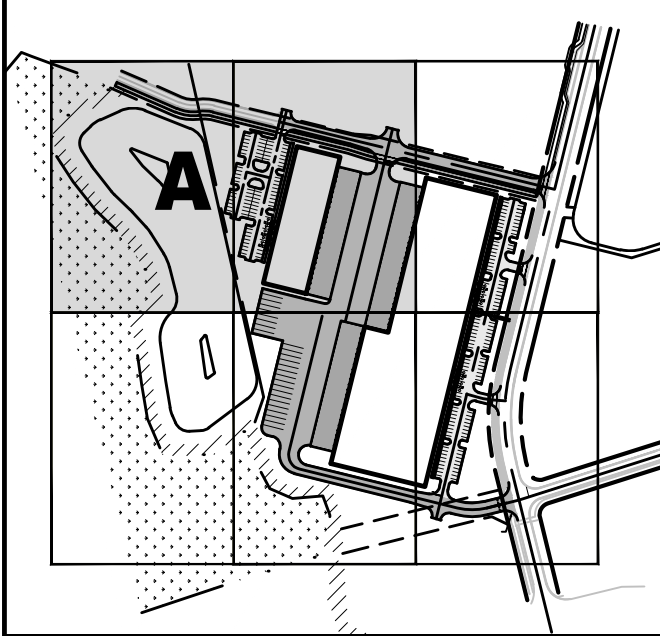
- GENERAL NOTES:**
1. REFER TO DRAWING NO. 3 FOR GENERAL NOTES AND LEGEND.
 2. CONTRACTOR SHALL REFER TO SITE PLAN FOR ALL DIMENSIONS AND SHALL NOT SCALE PLAN.
 3. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES (LOCATION AND INVERTS) AND SHALL EXERCISE CAUTION WHEN WORKING NEAR 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. ADDITIONAL FITTINGS SHALL BE INSTALLED ON WATER SYSTEM AS REQUIRED TO MEET MINIMUM SEPARATION REQUIREMENTS.
 12. CONSTRUCTION MATERIALS SHALL BE IN CONFORMANCE WITH JEA STANDARDS AND SPECIFICATIONS, LATEST EDITION.
 13. SANITARY CLEANOUTS IN PAVED AREAS SHALL BE TRAFFIC BEARING RATED AND FLUSH WITH PAVEMENT.
 14. CONTRACTOR TO COORDINATE WITH BUILDING PLUMBER PRIOR TO MAKING ALL UTILITY CONNECTIONS.
 15. REFER TO ARCHITECTURAL/MEP PLANS FOR ALL BUILDING AND PLUMBING DETAILS.
 16. CONTRACTOR TO COORDINATE WITH J.E.A. FOR ALL/ANY UTILITY SHUTDOWNS DURING CONSTRUCTION.
 17. WATERMAIN TAP AND METER TO PAID FOR BY CONTRACTOR AND INSTALLED BY JEA.
 18. UNDERGROUND DRY UTILITIES (ELECTRICAL, TELEPHONE, ETC.) ARE SHOWN FOR REFERENCE ONLY. SEE ELECTRICAL PLANS FOR DESIGN INFORMATION.

LEGEND	
	ASPHALT PAVEMENT
	HEAVY DUTY ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	JURISDICTIONAL WETLANDS
	UPLAND BUFFERS



ETM VISION • EXPERIENCE • RESULTS	MASTER UTILITY PLAN	
	WILDLIGHT COMMERCE PARK PARCEL A FOR PATTILLO INDUSTRIAL REAL ESTATE	
	DRAWING NUMBER 7	
	PLANS PREPARED UNDER THE DIRECTION OF: JON-MICHAEL BARQUIN PE NUMBER 94926	
REVISIONS:		
ETM NO. 19-239-07-001	DRAWN BY: JMB	DESIGNED BY: JMB
	CHECKED BY: NDB	DATE: JULY 2023
England-Thins & Miller, Inc. 14775 Old St. Augustine Road Jacksonville, FL 32258 TEL: (904) 642-8890 FAX: (904) 646-9485 CA - 0002554 LC - 0000316		
PLOTTED: August 25, 2023 - 8:43 AM, BY: Jon-Michael Barquin		

KEY MAP



FIRE PROTECTION SYSTEMS
(FROM FD BACKFLOW PREVENTOR TO BUILDING)

1. FIRE PROTECTION FOR THE PURPOSE OF THESE PLANS IS ANY UNDERGROUND WATER LINE NOT OWNED AND MAINTAINED BY A PUBLIC UTILITY AS WELL AS ANY PRIVATE FIRE SERVICE MAIN AND PIPE AND ITS APPURTENANCES ON PRIVATE PROPERTY (1) BETWEEN A SOURCE OF WATER AND THE BASE OF THE SYSTEM RISER FOR WATER-BASED FIRE PROTECTION SYSTEMS, (2) BETWEEN A SOURCE OF WATER AND INLETS TO FOAM-MAKING SYSTEMS, (3) BETWEEN A SOURCE OF WATER AND THE BASE ELBOW OF PRIVATE HYDRANTS OR MONITOR NOZZLES AND (4) USED AS FIRE PUMP SUCTION AND DISCHARGE PIPING, (5) BEGINNING AT THE INLET SIDE OF THE CHECK VALVE ON A GRAVITY OR PRESSURE TANK.
2. THIS SHALL ALSO APPLY TO COMBINED SERVICE MAINS USED TO CARRY WATER FOR FIRE SERVICE AND OTHER USES. I.E. DOMESTIC.
3. CONSTRUCTION STANDARDS
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NFPA 1963 (2019 ed) STANDARD FOR FIRE HOSE CONNECTIONS
4. A COPY THESE APPROVED ENGINEERED PLANS SHALL ACCOMPANY A REQUIRED FIRE MARSHAL UNDERGROUND PERMIT SUBMITTED BY A CERTIFIED CONTRACTOR, THIS UNDERGROUND PERMIT WILL REQUIRE ADDITIONAL DETAILS AND SPECS AT THE TIME OF SUBMITTAL TO THE FIRE MARSHALS' OFFICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A PERMIT FROM THE FIRE MARSHAL'S OFFICE PRIOR TO THE START OF SITE CONSTRUCTION IN ACCORDANCE WITH THE ABOVE REFERENCED STANDARDS.
5. CONTRACTORS INSTALLING THE UNDERGROUND PIPING IN ACCORDANCE WITH THE ABOVE REFERENCE STANDARDS FOR A FIRE PROTECTION SYSTEM USING WATER AS THE EXTINGUISHING AGENT BEGINNING AT THE POINT AT WHICH THE PIPING IS USED EXCLUSIVELY FOR FIRE PROTECTION AND ENDING NO MORE THAN 1 FOOT ABOVE THE FLOOR SHALL BE REQUIRED TO HAVE A CLASS I, II, OR V FIRE PROTECTION CONTRACTORS LICENSE PURSUANT TO CHAPTER 633, FLORIDA STATUTES. GENERAL CONTRACTORS ARE REMINDED THAT THEY ARE RESPONSIBLE FOR VERIFYING THAT THEIR SUBCONTRACTORS HOLD THE REQUIRED LICENSES. CONTRACTORS FOUND TO BE VIOLATING THIS REQUIREMENT MAY BE REPORTED TO THE DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION AND/OR THE STATE FIRE MARSHAL'S REGULATORY LICENSING SECTION.
6. NOTE: MINIMUM WORKING PRESSURE OF THE UNDERGROUND PIPING SHALL BE 150 PSI. NFPA 24 REQUIRES PVC PIPING TO BE C-900 DR18 PIPE WITH MANUFACTURING LISTING FOR FIRE PROTECTION.
7. ALL FIRE LINES MUST BE INSPECTED BY THE FIRE MARSHAL'S OFFICE PRIOR TO BACKFILL. THE CODE REQUIRES ALL JOINTS EXPOSED FOR INSPECTION WITH FILL IN-BETWEEN JOINTS. ALL PIPING AND ATTACHED APPURTENANCES SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT 200 PSI OR 50 PSI IN EXCESS OF THE SYSTEM WORKING PRESSURE, WHICHEVER IS GREATER, AND SHALL MAINTAIN THAT PRESSURE WITHOUT LOSS FOR 2 HOURS.

GENERAL NOTES:

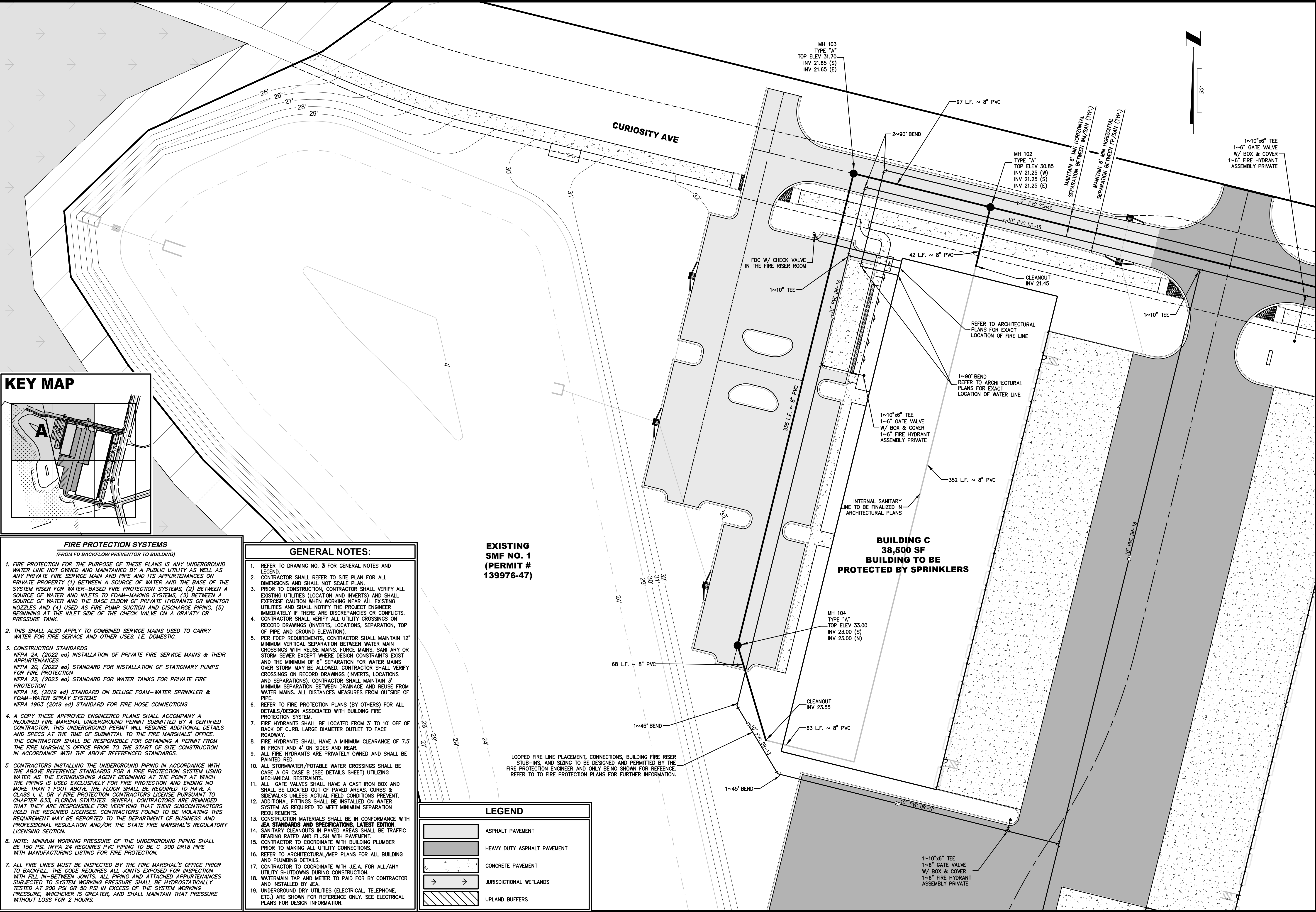
1. REFER TO DRAWING NO. 3 FOR GENERAL NOTES AND LEGEND.
2. CONTRACTOR SHALL REFER TO SITE PLAN FOR ALL DIMENSIONS AND SHALL NOT SCALE PLAN.
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5. PER FDEP REQUIREMENTS, CONTRACTOR SHALL MAINTAIN 12" MINIMUM VERTICAL SEPARATION BETWEEN WATER MAIN CROSSINGS 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.
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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.

EXISTING
SMF NO. 1
(PERMIT #
139976-47)

LEGEND

- | | |
|--|-----------------------------|
| | ASPHALT PAVEMENT |
| | HEAVY DUTY ASPHALT PAVEMENT |
| | CONCRETE PAVEMENT |
| | JURISDICTIONAL WETLANDS |
| | UPLAND BUFFERS |

LOOPED FIRE LINE PLACEMENT, CONNECTIONS, BUILDING FIRE RISER STUB-INS, AND SIZING TO BE DESIGNED AND PERMITTED BY THE FIRE PROTECTION ENGINEER AND ONLY BEING SHOWN FOR REFERENCE. REFER TO TO FIRE PROTECTION PLANS FOR FURTHER INFORMATION.



PLANS PREPARED UNDER THE
DIRECTION OF:

REVISIONS:

ETM NO. 19-239-07-001

DRAWN BY: JMB

DESIGNED BY: JMB

CHECKED BY: JZB

DATE: JULY 2023

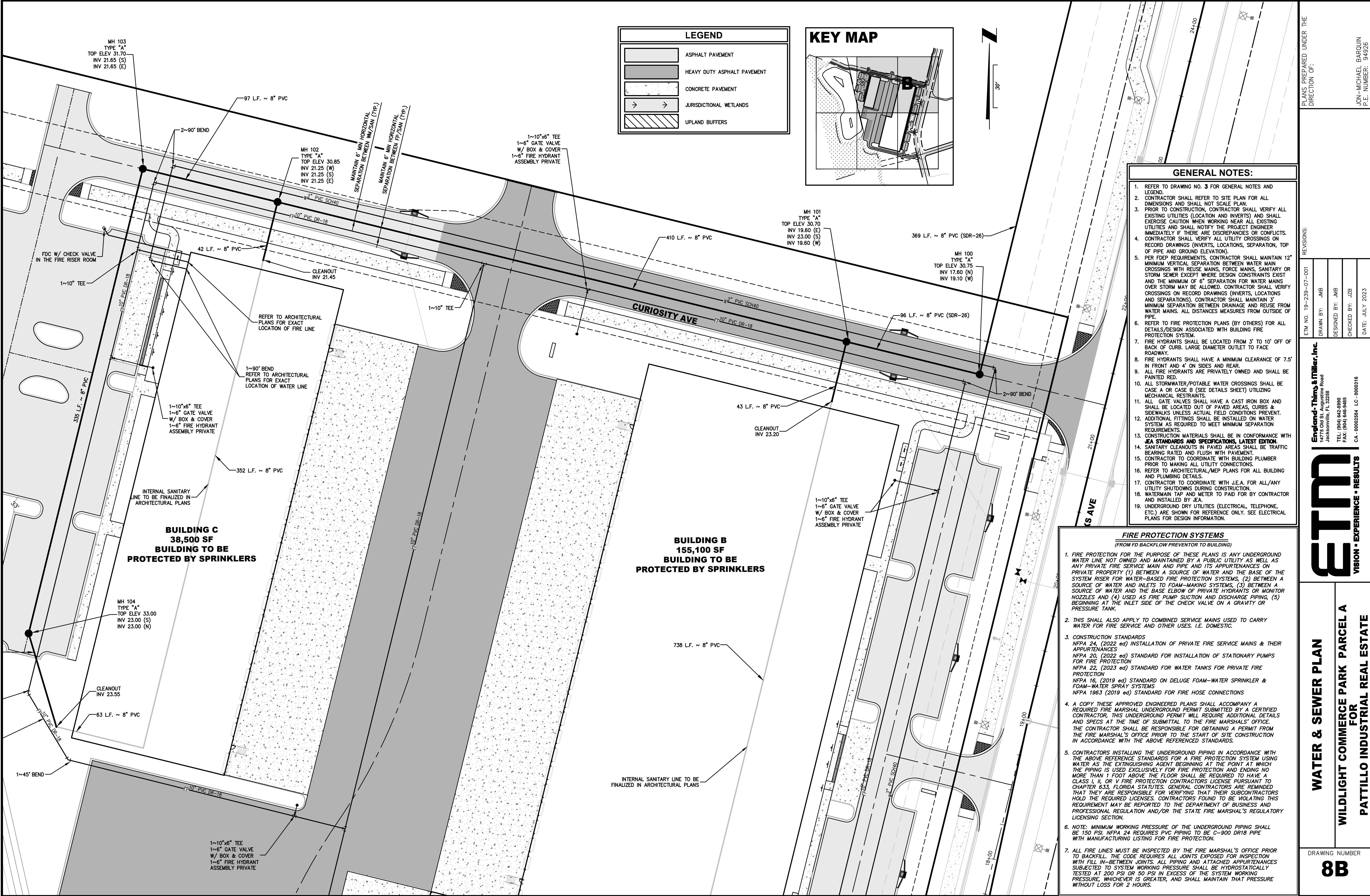
England-Thins & Miller, Inc.
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Jacksonville, FL 32258
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CA 00002584 LC 0000316

ETM
VISION • EXPERIENCE • RESULTS

WATER & SEWER PLAN

WILDLIGHT COMMERCE PARK PARCEL A
FOR
PATTILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER
8A



PLANS PREPARED UNDER THE DIRECTION OF:

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VISION • EXPERIENCE • RESULTS

WATER & SEWER PLAN

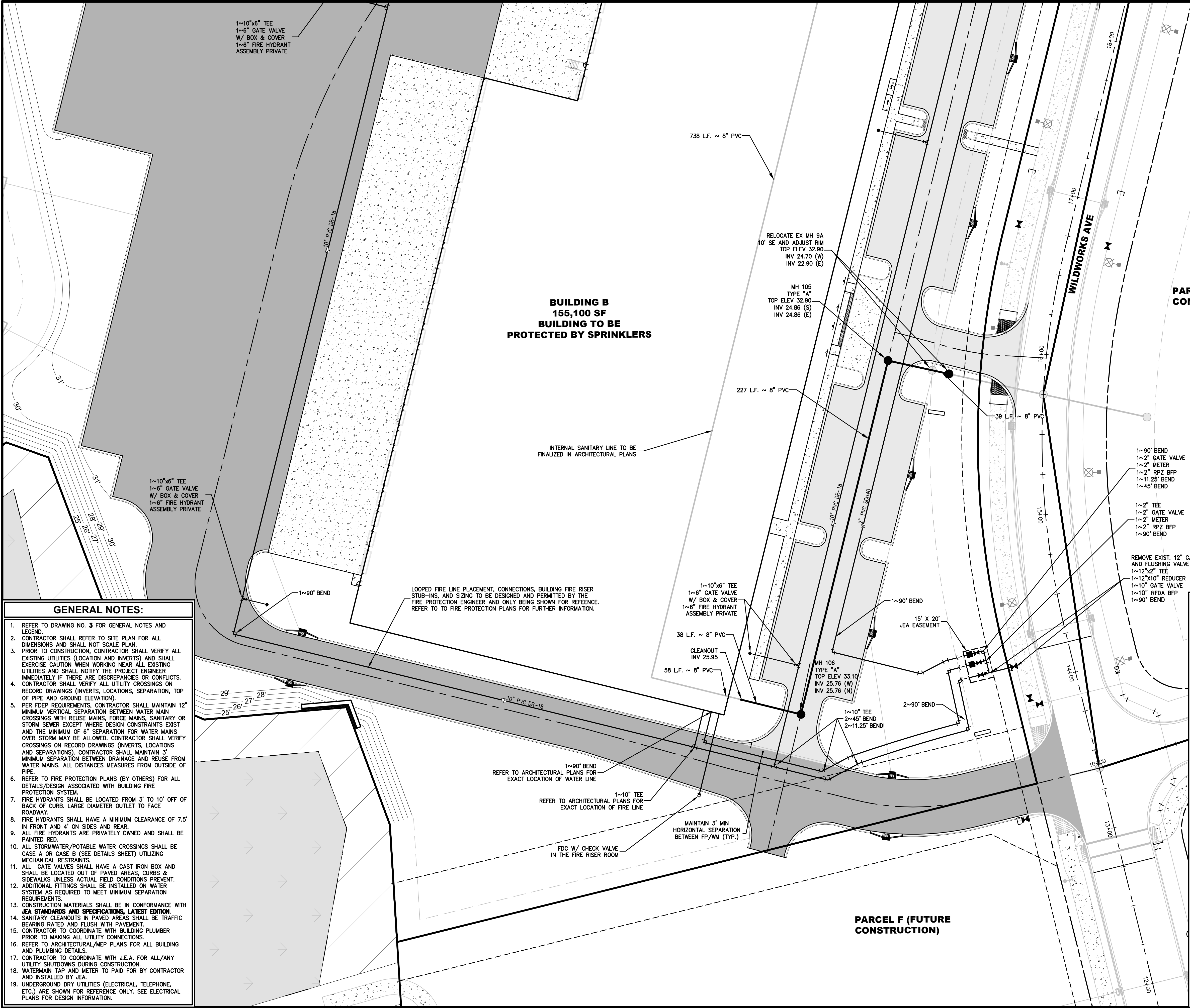
WILDLIGHT COMMERCE PARK PARCEL A

FOR

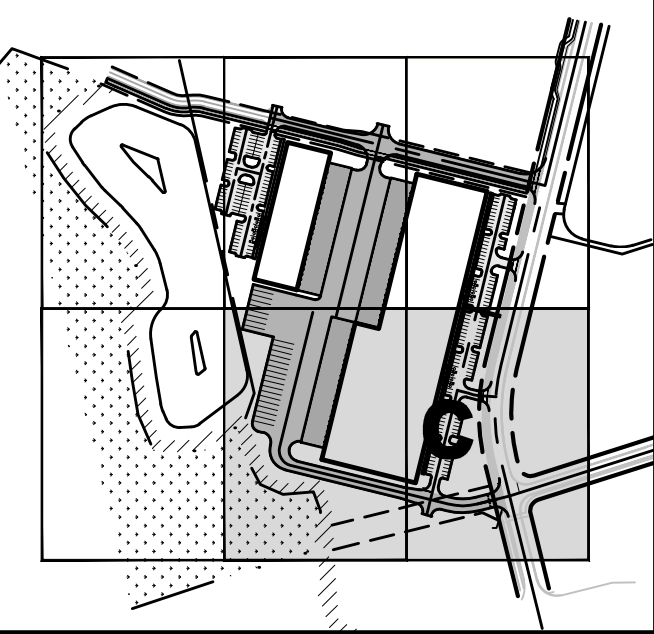
PATTILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER

8B



KEY MAP



PARCEL B (FUTURE CONSTRUCTION)

LEGEND	
	ASPHALT PAVEMENT
	HEAVY DUTY ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	JURISDICTIONAL WETLANDS
	UPLAND BUFFERS

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Revisions:

1	14775 Old St. Augustine Road Jacksonville, FL 32258
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England-Thins & Miller, Inc.

WATER & SEWER PLAN

WILDLIGHT COMMERCE PARK PARCEL A

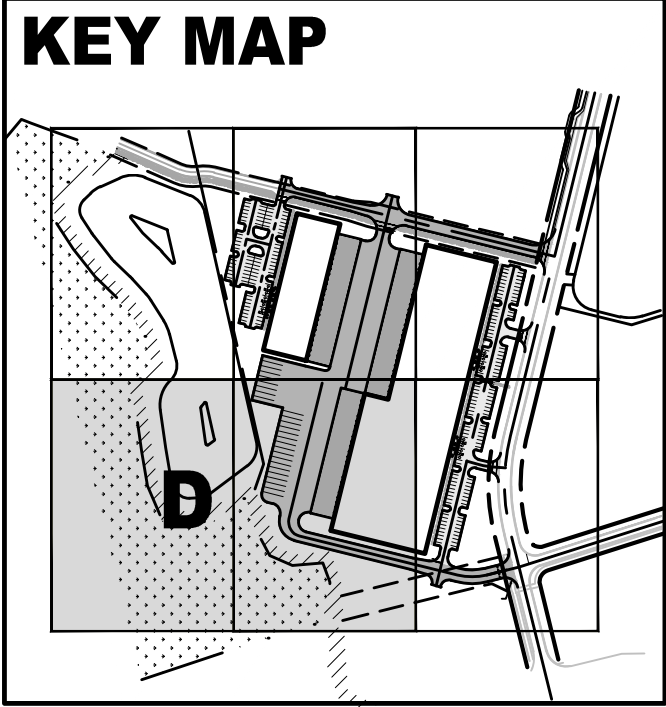
FOR

PATILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER

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VISION • EXPERIENCE • RESULTS



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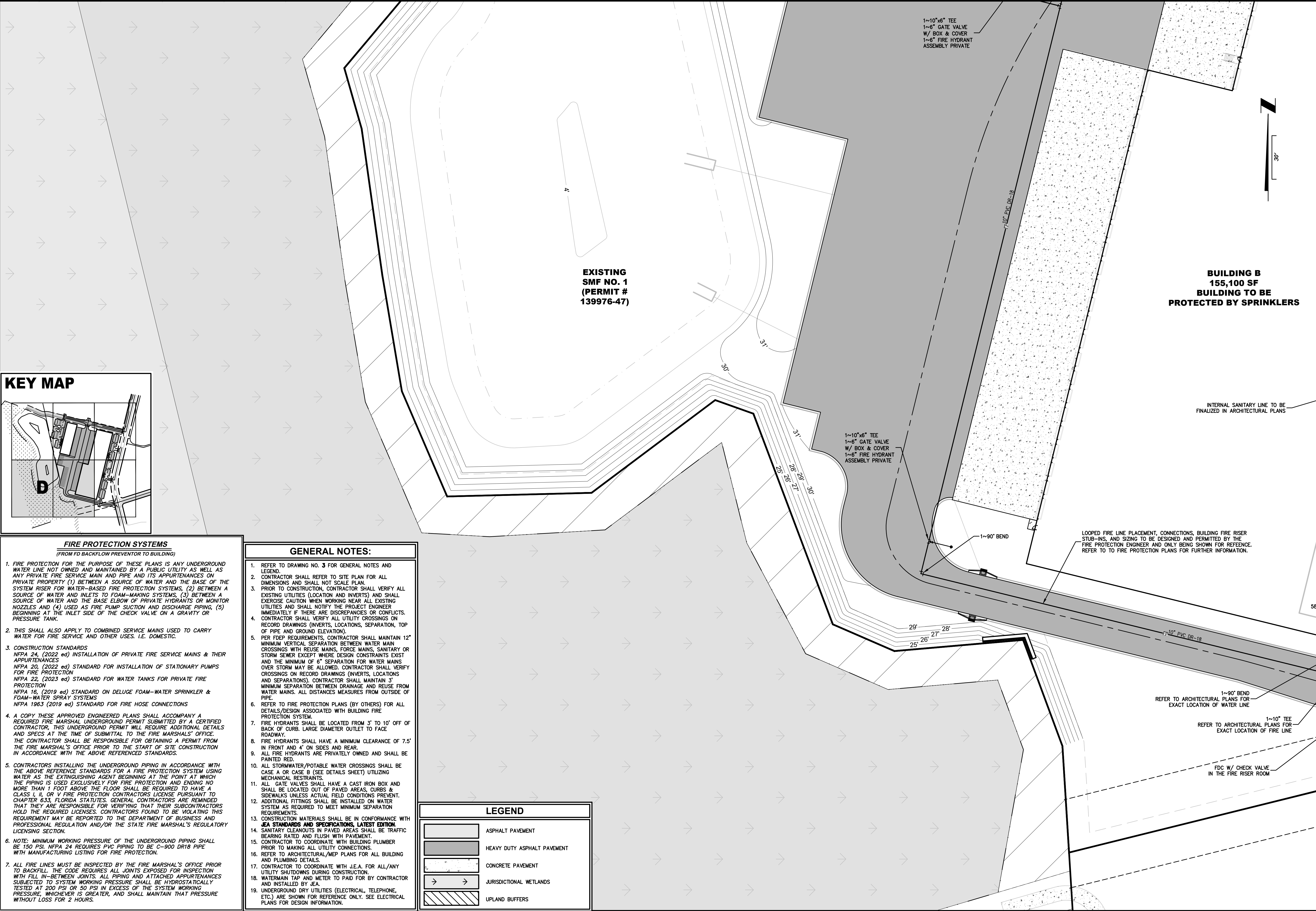
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LEGEND	
	ASPHALT PAVEMENT
	HEAVY DUTY ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	JURISDICTIONAL WETLANDS
	UPLAND BUFFERS



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WATER & SEWER PLAN

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FOR
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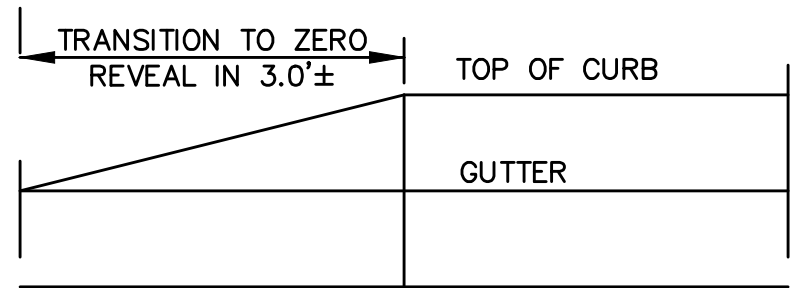
ETM

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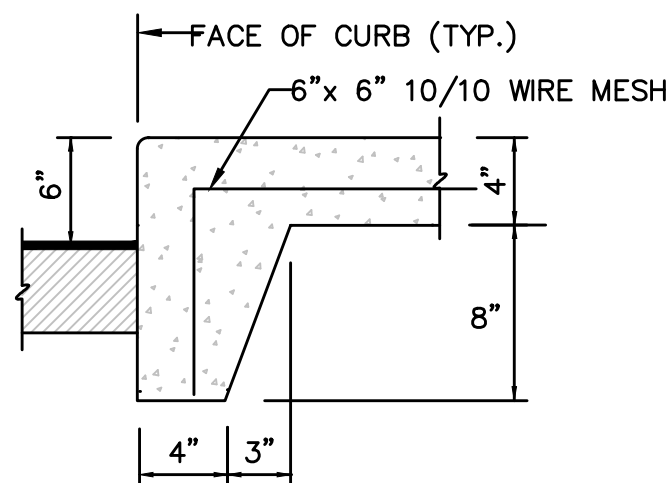
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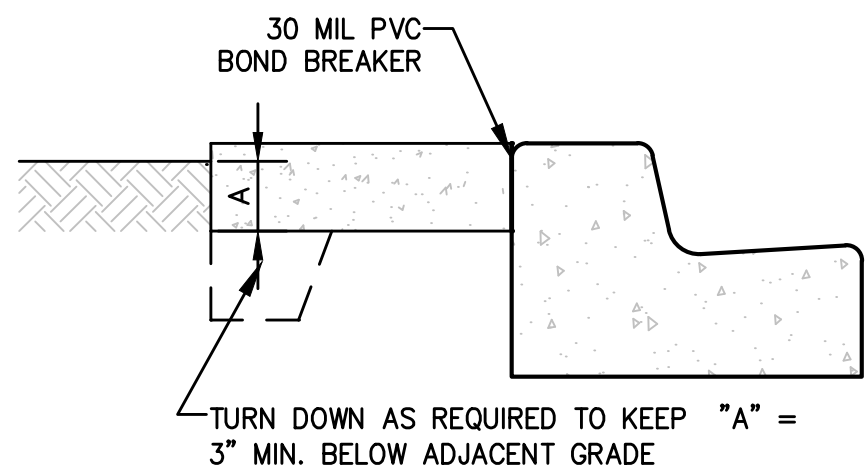
NOTE: FOR ALL STANDARD DETAILS, SEE NASSAU COUNTY STANDARDS SPECIFICATIONS AND DETAILS, LATEST REVISIONS.



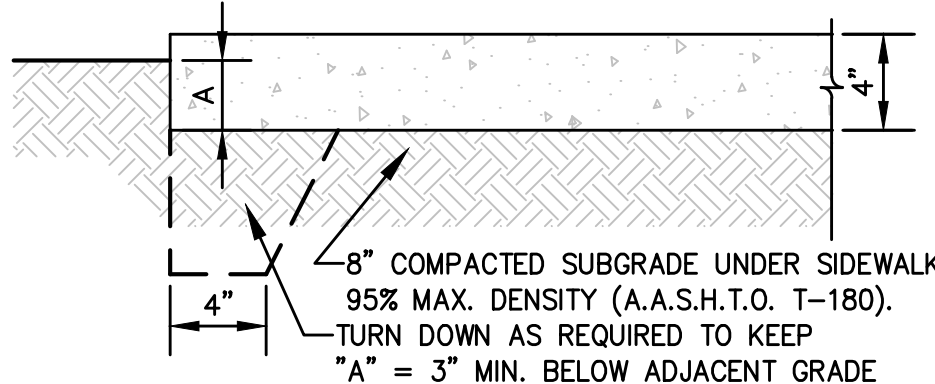
SECTION
CURB TRANSITION DETAIL
N.T.S.



AT ASPHALT PAVEMENT



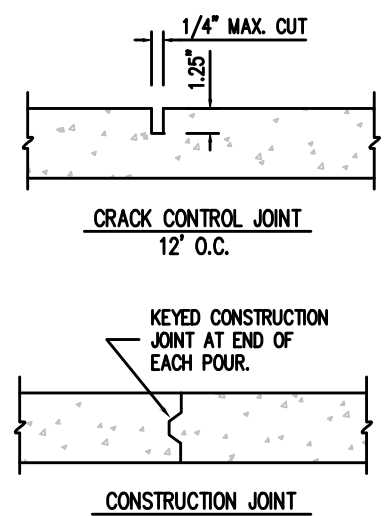
AT CURB AND GUTTER



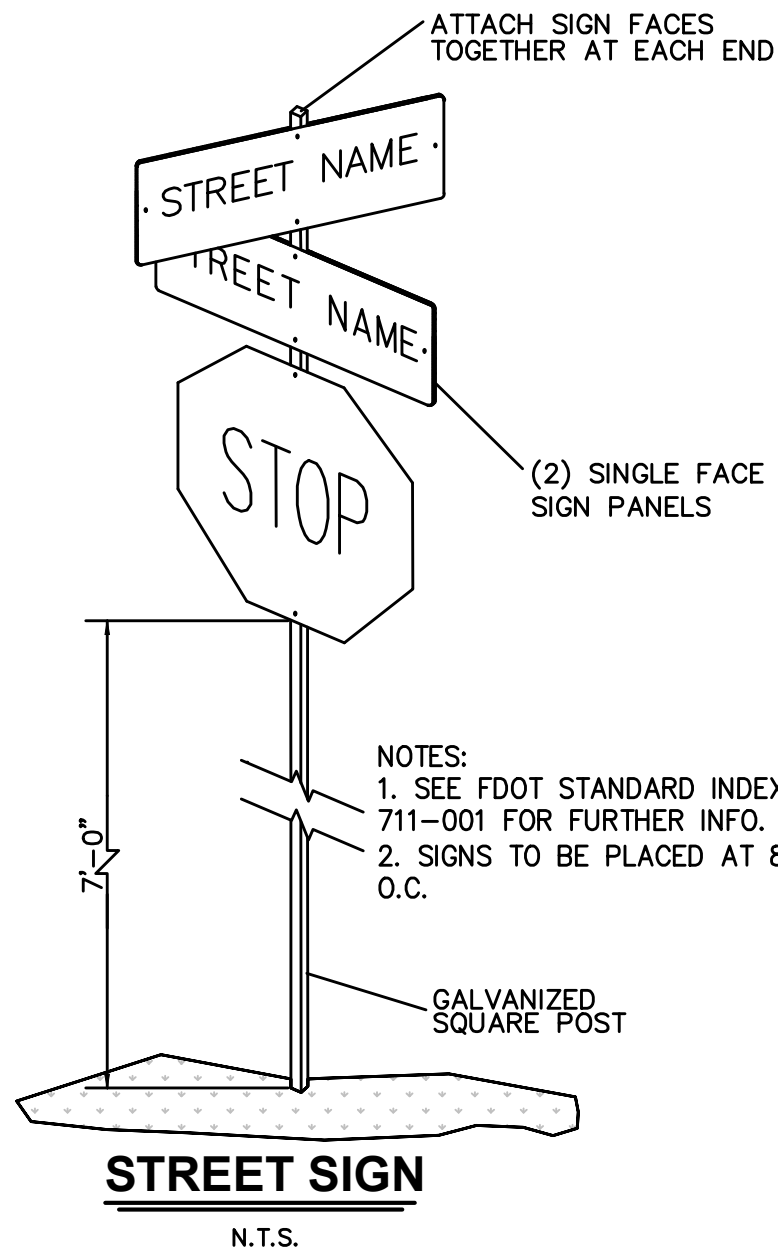
AT GRADE

- 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 MANUFACTURERS 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%.

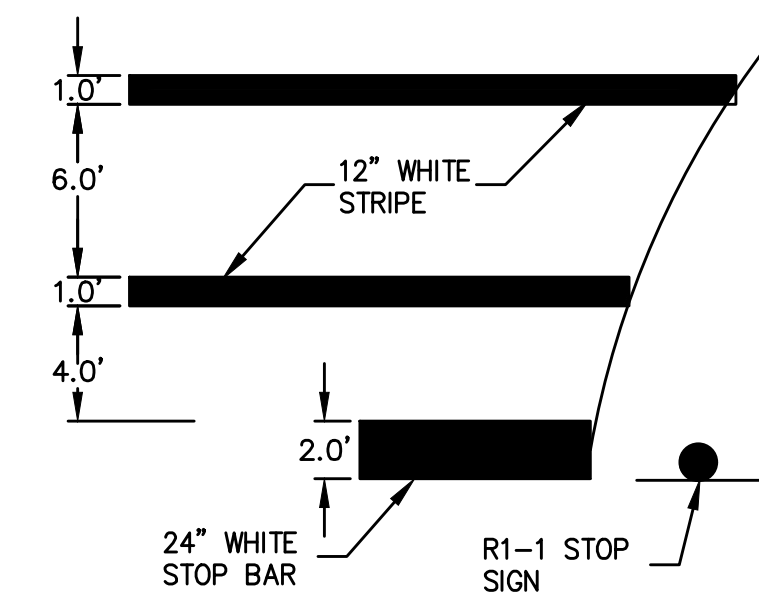
CONCRETE WALK
N.T.S.



CONCRETE JOINT DETAIL
N.T.S.

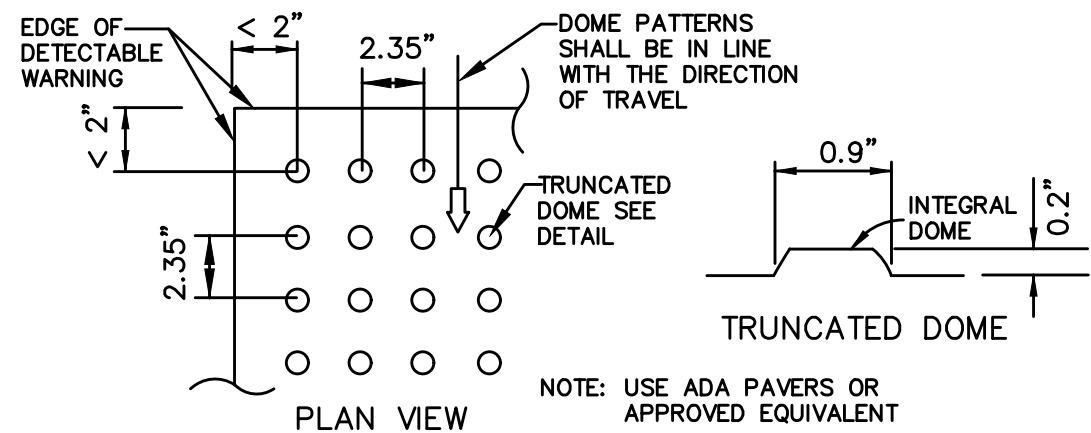


STREET SIGN
N.T.S.



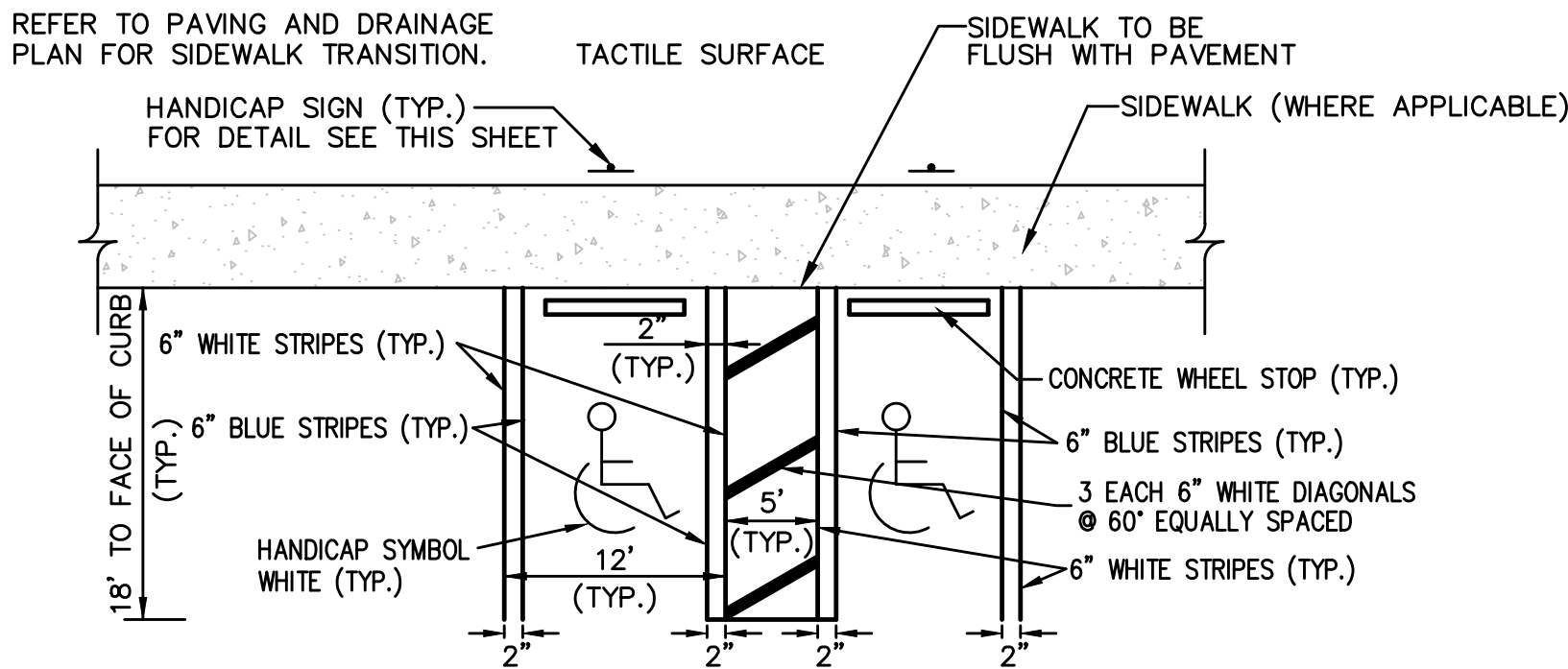
NOTE:
ALL PAINT AND STRIPING SHALL BE IN ACCORDANCE WITH FDOT STANDARDS AND SPECIFICATIONS

STOP BAR AT CROSS WALK
N.T.S.



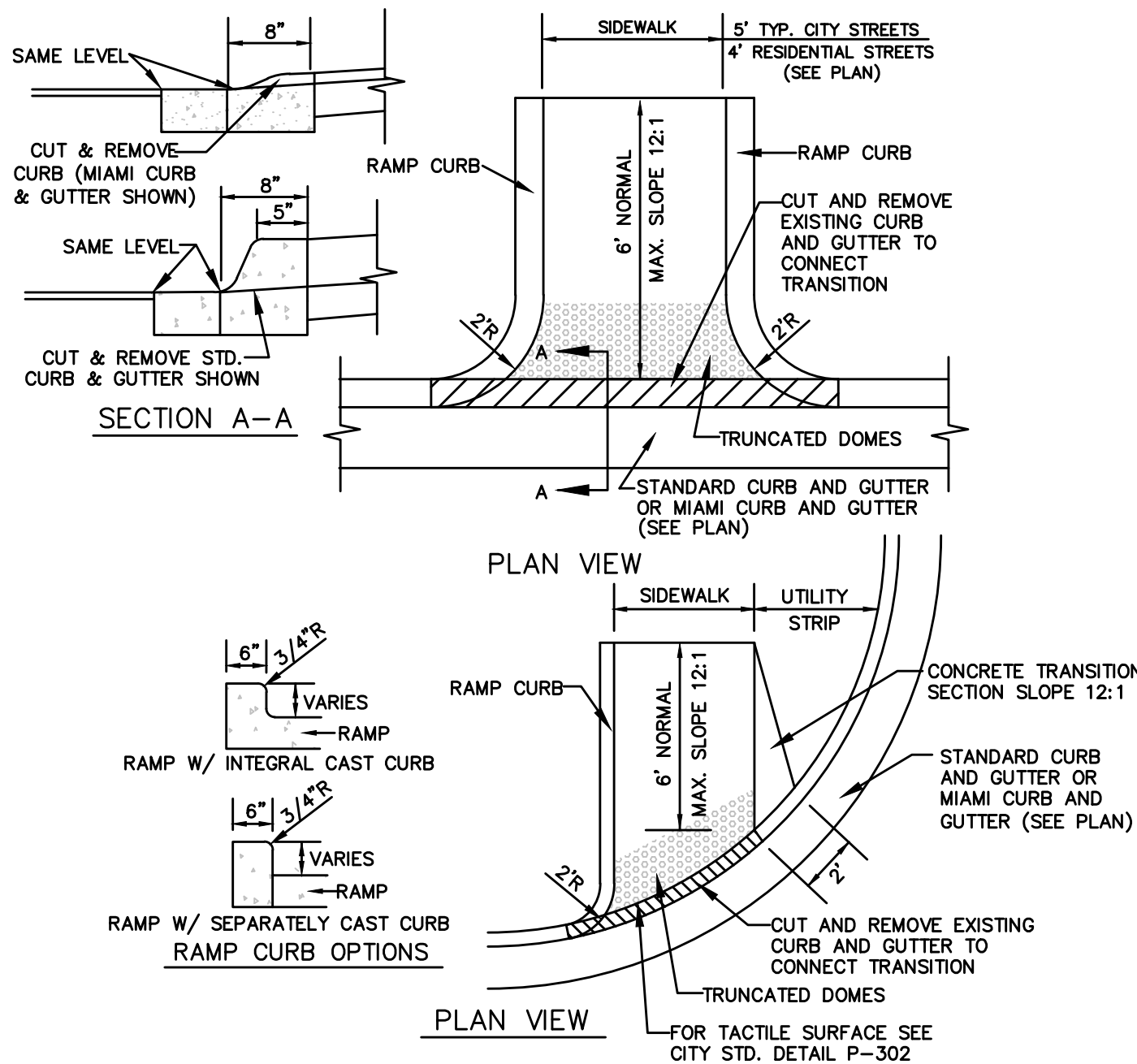
- NOTES:
1. ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24" FROM THE BACK OF CURB
 2. DETECTABLE WARNING MATS WITHIN NASSAU COUNTY SHALL CONSIST OF YELLOW WET-SET MATS.

CURB RAMP DETECTABLE WARNING



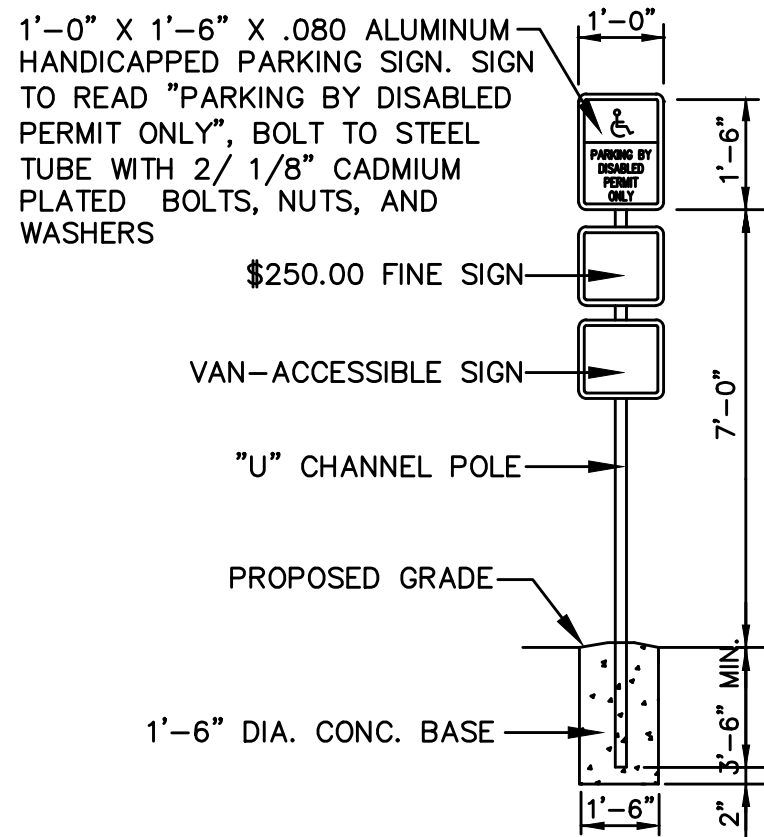
- NOTE:
1. HANDICAP RAMPS, SPACES AND SIGNAGE SHALL MEET AMERICAN NATIONAL STANDARD A117.1 AND ALL APPLICABLE CITY AND STATE REQUIREMENTS.
 2. THE CONTRACTOR SHALL INSTALL DETECTABLE WARNING SURFACES IN ACCORDANCE WITH A.D.A. REQUIREMENTS. REFER TO FDOT STANDARD INDEX 522-002 FOR DETECTABLE WARNING PLACEMENT.
 3. ALL PAINT AND STRIPING SHALL BE IN ACCORDANCE WITH FDOT INDEX 711-001.

UNIVERSAL HANDICAP PARKING DETAIL
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 502-002 FOR FURTHER INFORMATION.

STANDARD HANDICAP RAMP DETAILS
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.

PAVING & DRAINAGE DETAILS

**WILDLIGHT COMMERCE PARK PARCEL A
FOR
PATTILLO INDUSTRIAL REAL ESTATE**

DRAWING NUMBER
9A

REVISIONS:

ETM NO. 19-239-07-001

DRAWN BY: JMB

DESIGNED BY: JMB

CHECKED BY: JZB

DATE: JULY 2023

England-Thins & Miller, Inc.

14775 Old St. Augustine Road

Jacksonville, FL 32258

TEL: (904) 642-8890

FAX: (904) 646-9485

CA - 00002584 LC - 0000316

ETM
VISION • EXPERIENCE • RESULTS



- N.T.S.



9B

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 NAVD 1988.
- ☐

☐
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.
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☐
9. BENCHMARK DATA: _____

PERMIT REQUIREMENTS (NOT ALL INCLUSIVE):

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1. CONTRACTOR TO OBTAIN ALL REQUIRED RIGHT-OF-WAY PERMITS.
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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.
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7. THE CONTRACTOR SHALL NOTIFY APPLICABLE UTILITY CONTACT PERSONNEL NOT LESS THAN ONE WEEK PRIOR TO CONSTRUCTION OF FACILITIES IN THEIR RESPECTIVE AREAS.
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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.
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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.-----904-255-8786

E. CITY OF JACKSONVILLE ~ TRAFFIC ENGINEERING -----904-255-7533

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:

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1. CONTRACTOR TO REHABILITATE ALL MANHOLES ON PIPE BURST SEWERS VIA COATING/LINING PER JEA SPECIFICATION 446-2, UNLESS OTHERWISE NOTED ON THE PLANS.
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2. CONTRACTOR TO RENEW, REHABILITATE, REPLACE OR REINSTALL AS APPLICABLE ALL SERVICE LATERALS TO R.O.W. LINE.
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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.
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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.
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5. ALL NEW STORM DRAIN PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC.
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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.
- ☐

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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.
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☐
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.
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11. CONTRACTOR SHALL REPLACE EXISTING WATER METER BOXES WHEN DEEMED NECESSARY BY THE JEA INSPECTOR.
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12. CONTRACTOR TO PROVIDE ADDITIONAL DEPTH OF BURY VIA PIPE JOINT DEFLECTION TO ACCOMMODATE VALVE SELECTION PER JEA STANDARDS.
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13. WATER METERS MAY REQUIRE RELOCATION FOR CONSTRUCTION, CONTRACTOR SHALL CONTACT JEA METER DEPARTMENT AND RELOCATE WATER METERS AS NECESSARY.
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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.
14175 Old St. Augustine Road
Jacksonville, FL 32218
P: (904) 665-7303
FAX: (904) 665-9485
CA - 0000284 LC - 0000316

ETM

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

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

DESIGN ENGINEER:
JON-MICHAEL BARQUIN
FLORIDA REGISTRATION NO.
94926

NO. SHEETS
1
SHEET NO.
1
DRAWING NO.
10A

PROJ. NO.
19-239-07-001
DATE:
JANUARY 2017
SCALE:
AS NOTED

JEA STANDARD
GENERAL NOTES LEGEND, AND SHEET INDEX
WILDLIGHT COMMERCE PARK PARCEL A

JEA
Building CommunitySM

NO. BY DATE REVISIONS
1
2
3
4

T:\2019\19-239\19-239-07\19-239-07-001\LandDev\Design\Plots\JEA-Notes_19-239-07-001.dwg PLOTTED: Aug. 23, 2023 8:44 AM BY: Jon-Michael Barquin

T:\2019\19-239\19-239-07\19-239-07-001\LandDev\Design\Plots\JEA-Water_19-239-07-001.dwg
Current Layout Tab = JEA STANDARD WATER MAIN DETAILS
Fri Aug 25, 2023 - 08:44

HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

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:

- 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.
- THE MINIMUM JOINT SPACING REQUIRED FROM CROSSING FROM OTHER UTILITIES WHILE STILL MAINTAINING MINIMUM VERTICAL SEPARATION.
- DISTANCES GIVEN ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
- NO WATER PIPE SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF SANITARY OR STORM WATER MANHOLE OR STRUCTURES.
- 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.
- REFER TO POTABLE WATER PIPING- SECTION 350, III.4.11.

SEPARATION REQUIREMENTS FOR WATER, WASTEWATER AND RECLAIMED WATER MAINS

JANUARY 2021

PLATE W-10

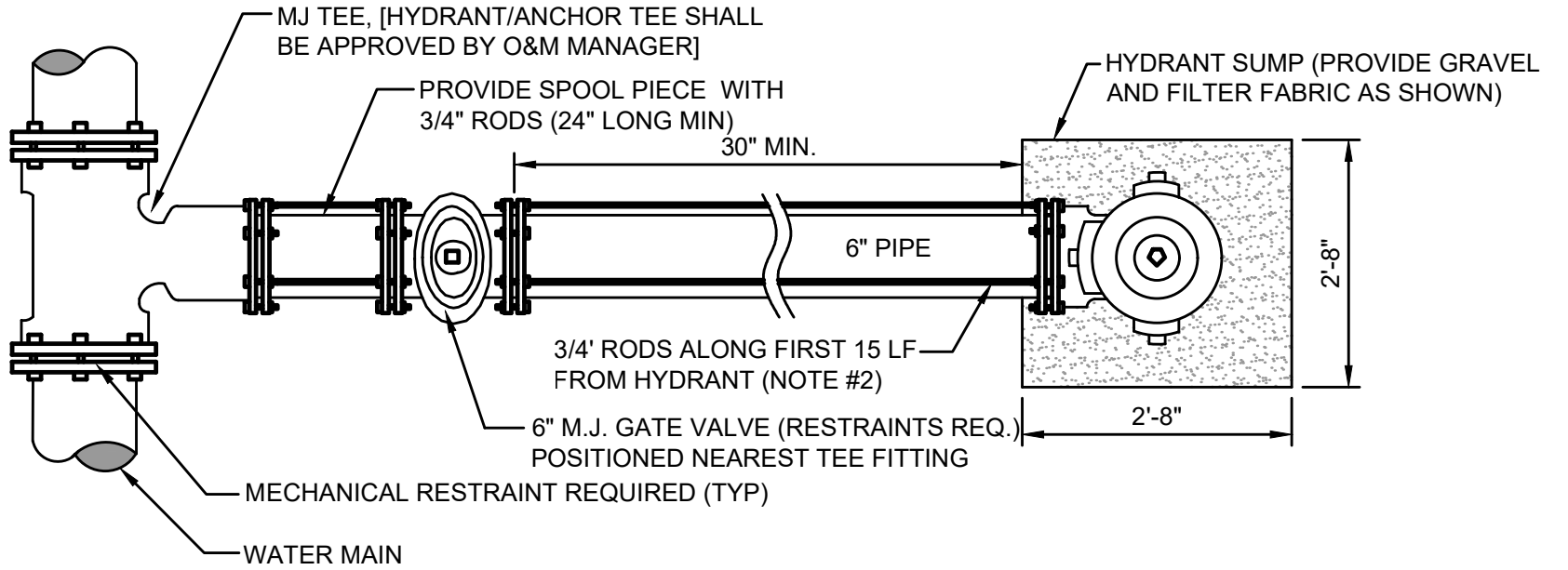
WATER MAIN AND NON-WATER MAIN SEPARATION REQUIREMENTS - NOTES

- 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.
- 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.
- 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).
- 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.
- 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.
- 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.
- 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.
- WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN THE OTHER PIPELINE, THE CONTRACTOR SHALL CONSULT THE DESIGN ENGINEER TO OBTAIN APPROVAL OF ANY ALTERNATIVE CONSTRUCTION METHODS, PRIOR TO CONSTRUCTION.

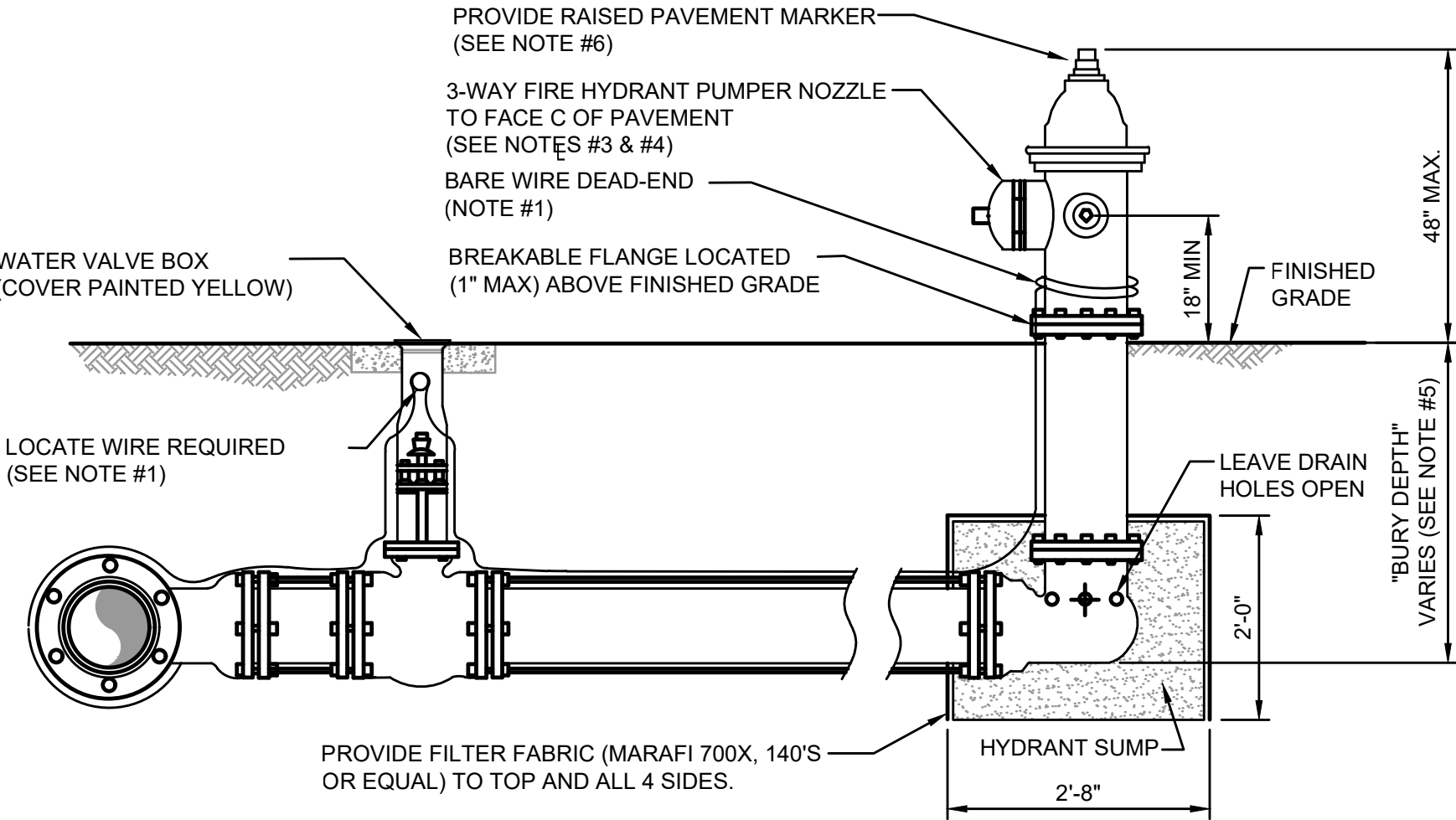
NOTES ON UTILITY SEPARATION REQUIREMENTS

JANUARY 2021

PLATE W-11



PLAN



SECTION

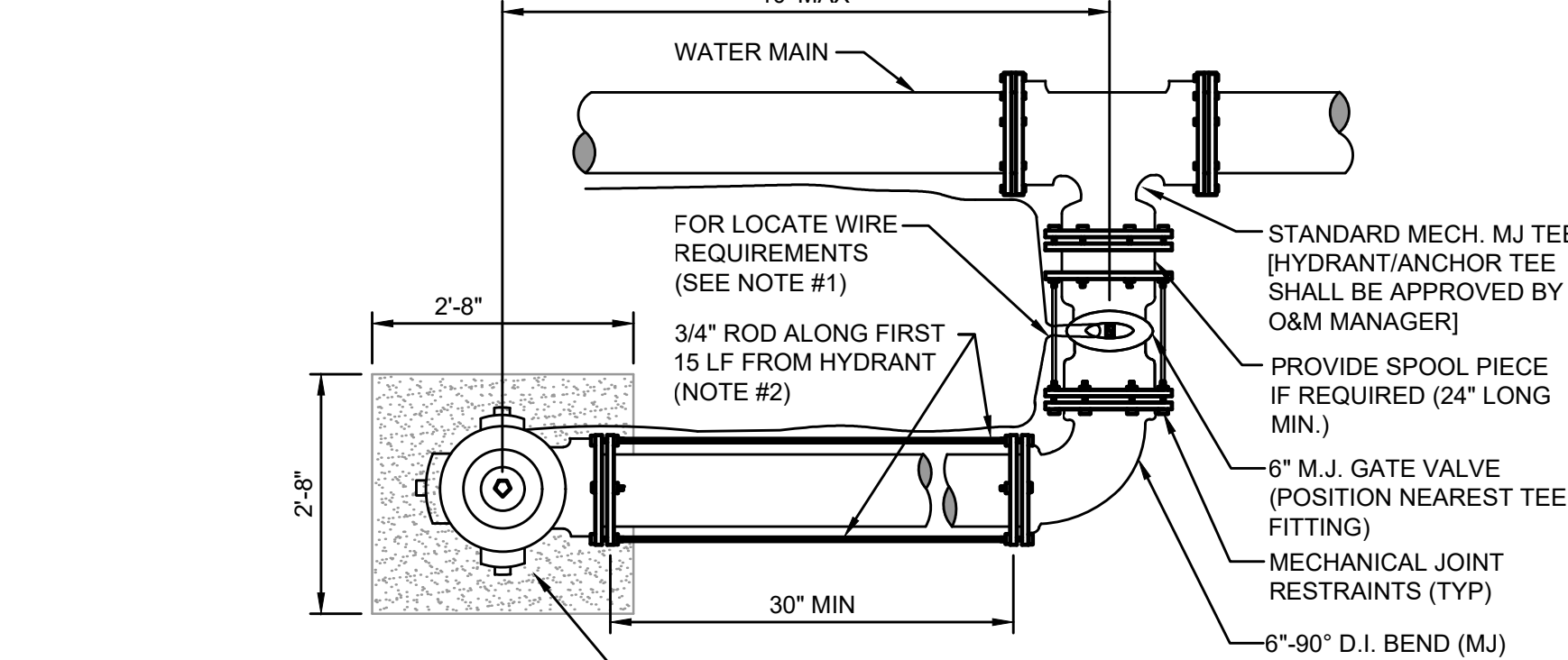
NOTES:

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

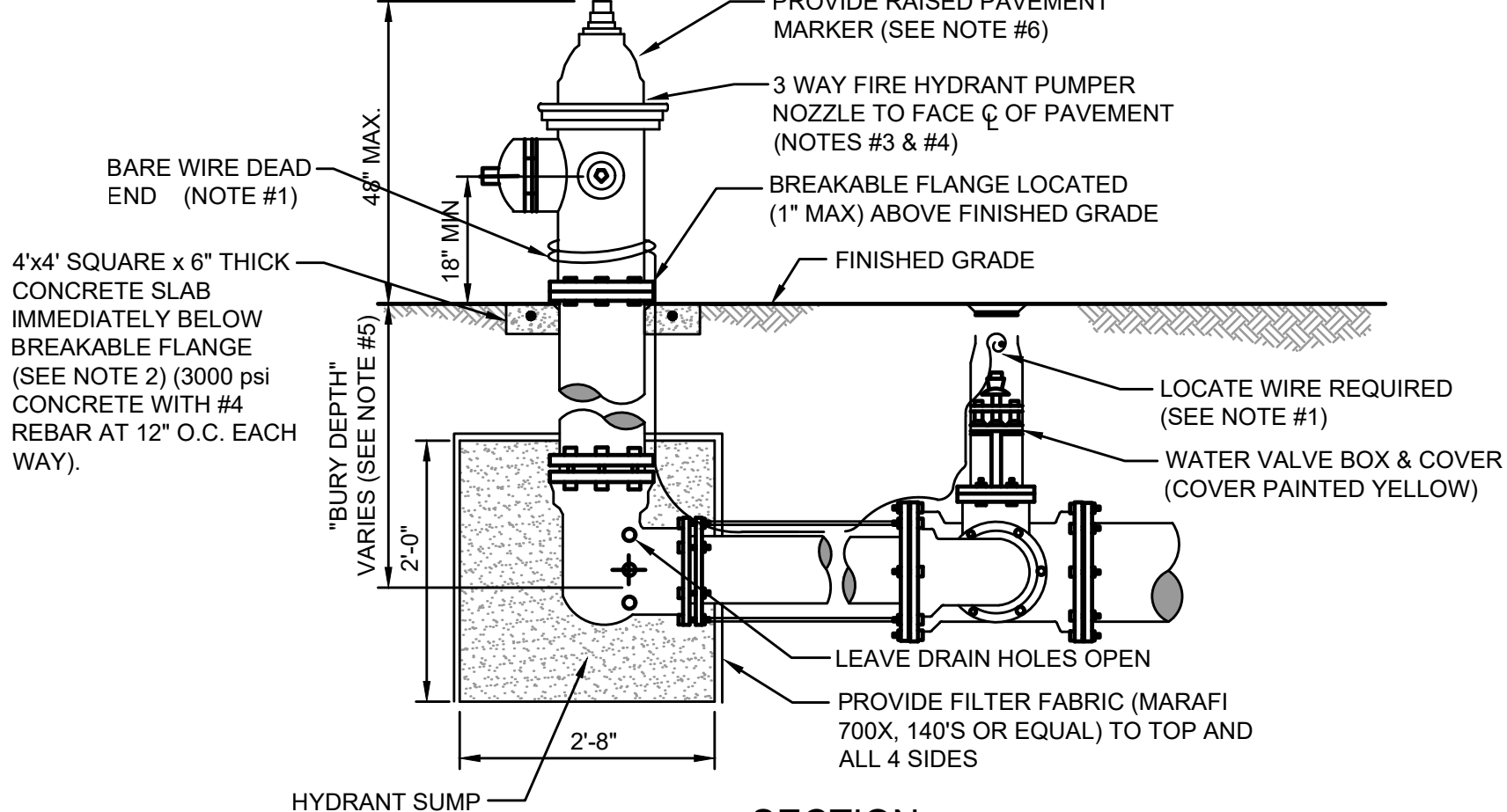
FIRE HYDRANT INSTALLATION USING MECHANICAL JOINT TEE

JANUARY 2021

PLATE W-13



PLAN



SECTION

NOTES:

- 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.
- 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.
- OPERATION OF THE FIRE HYDRANT SHALL BE EITHER FULL OPEN POSITION OR TOTALLY CLOSED POSITION. THE HYDRANT SHALL NOT BE UTILIZED TO THROTTLE OUTLET FLOW.
- PRIOR TO PROJECT FINAL INSPECTION, THE HYDRANT AND ALL ABOVE GROUND PIPING SHALL BE RE-OILED, GREASED AND REPAINTED (RUS- KIL ENAMEL-INTERNATIONAL YELLOW OR EQUAL). PRIVATELY OWNED AND MAINTAINED FIRE HYDRANTS SHALL BE PAINTED RED.
- FIRE HYDRANTS SHALL BE ORDERED WITH PROPER "BURY DEPTH" TO MEET ACTUAL FIELD CONDITIONS. THIS IS ESPECIALLY IMPORTANT FOR BRANCH LINES WHICH TEE-OFF A 12" OR LARGER WATER MAIN. UNLESS APPROVED OTHERWISE BY JEA, THE INSTALLATION OF (45°) BENDS IS NOT ACCEPTABLE WHEN UTILIZED TO CORRECT AN IMPROPERLY FURNISHED HYDRANT. THE USE OF HYDRANT EXTENSIONS SHOULD BE MINIMIZED.
- BLUE REFLECTIVE MARKERS SHALL BE INSTALLED IN SUCH A MANNER THAT THE REFLECTIVE FACE OF THE MARKER IS PERPENDICULAR TO A LINE PARALLEL TO THE ROADWAY CENTERLINE. THE BLUE REFLECTIVE MARKERS SHALL BE PLACED IN THE CENTER OF THE TRAVEL LANE, DIRECTLY ACROSS FROM AND ADJACENT TO EACH FIRE HYDRANT.

FIRE HYDRANT INSTALLATION LIMITED SPACE

JANUARY 2021

PLATE W-14

England-Thims & Miller, Inc.
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Jacksonville, FL 32228
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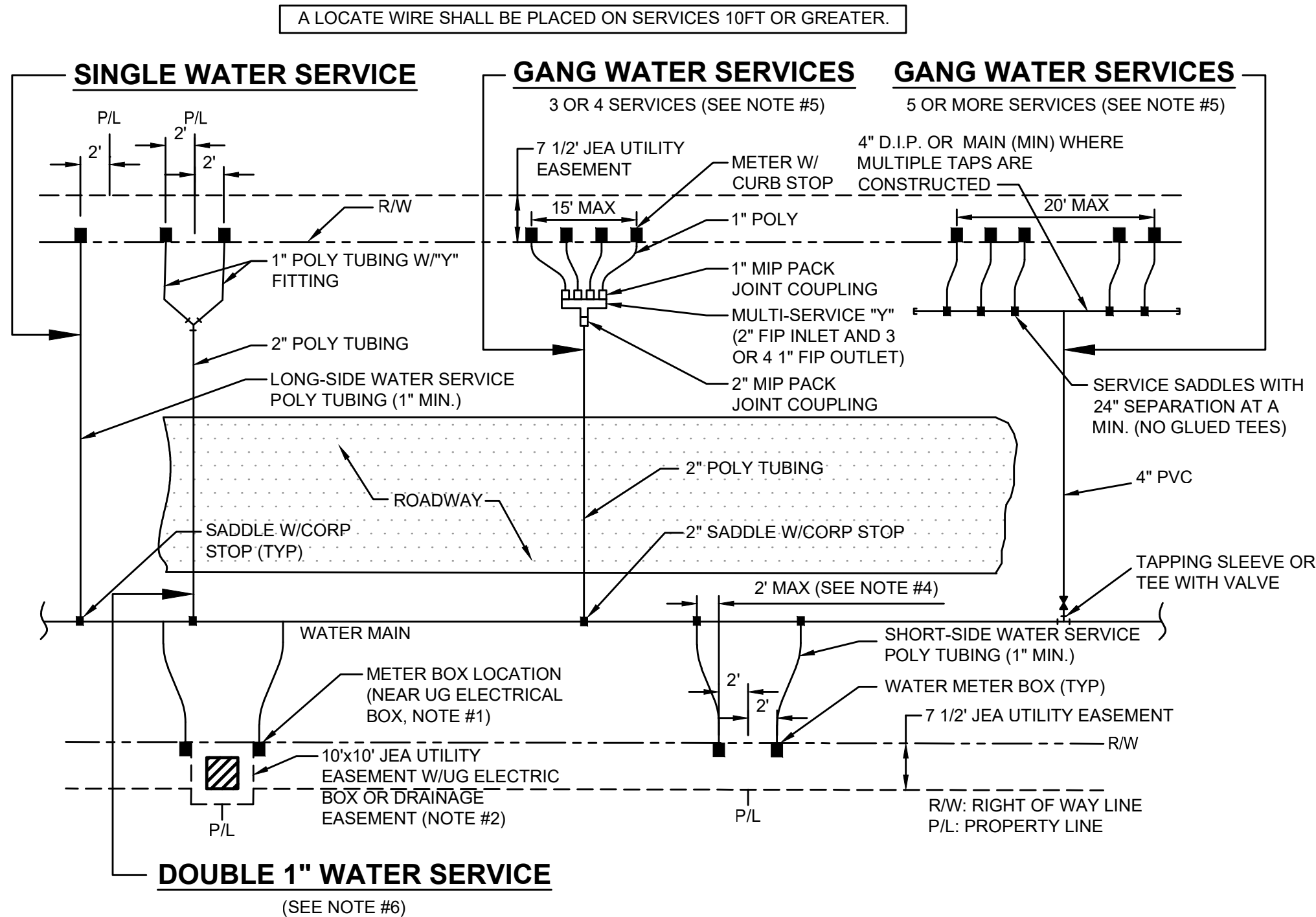
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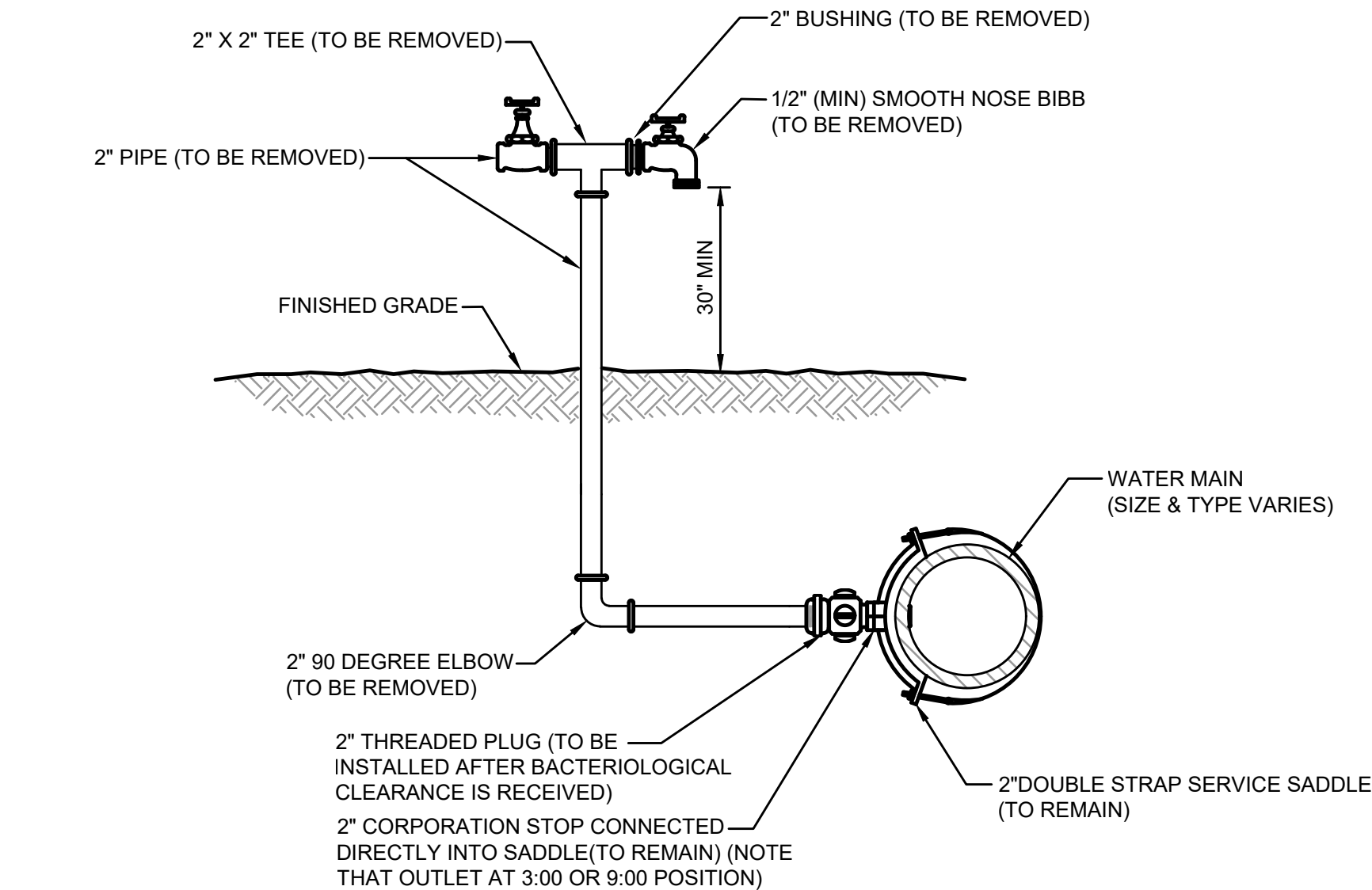


- NOTES:**
- THE SKETCHES ABOVE INDICATE TYPICAL WATER SERVICE AND METER BOX LOCATIONS. ACTUAL LOCATIONS OF BOXES MAY VARY SLIGHTLY ACCORDING TO FIELD CONDITIONS ENCOUNTERED. TYPICALLY, THE METER BOX SHALL LOCATED AT THE R/W LINE BUT INSIDE THE 7 1/2' ELECTRIC EASEMENT.
 - UNLESS SPECIFIED OTHERWISE 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-384, 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.
 - IF DRAINAGE OR OTHER EASEMENT LOCATED BETWEEN LOTS, METER BOXES SHALL BE LOCATED AT THE EASEMENT LINE BUT OUTSIDE THE EASEMENT AREA.
 - 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.
 - GANG WATER SERVICES: FOR 3 OR 4 SERVICES IN ONE AREA, A DUCTILE 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.
 - DOUBLE 1" WATER SERVICES IS ALLOWED FOR SHORT SIDE OR LONG SIDE SERVICES AND WHERE SHOWN ON THE DRAWINGS.
 - 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).
 - No 2" AND SMALLER WATER SERVICE TAPS PERMITTED ON WATER MAINS WHICH ARE 20" AND LARGER SIZE.
 - 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.
 - SERVICE SIZE SHALL BE SAME AS THE METER SIZE.

WATER OR RECLAIM SERVICE INSTALLATIONS 2" AND SMALLER METER

JANUARY 2021

PLATE W-1



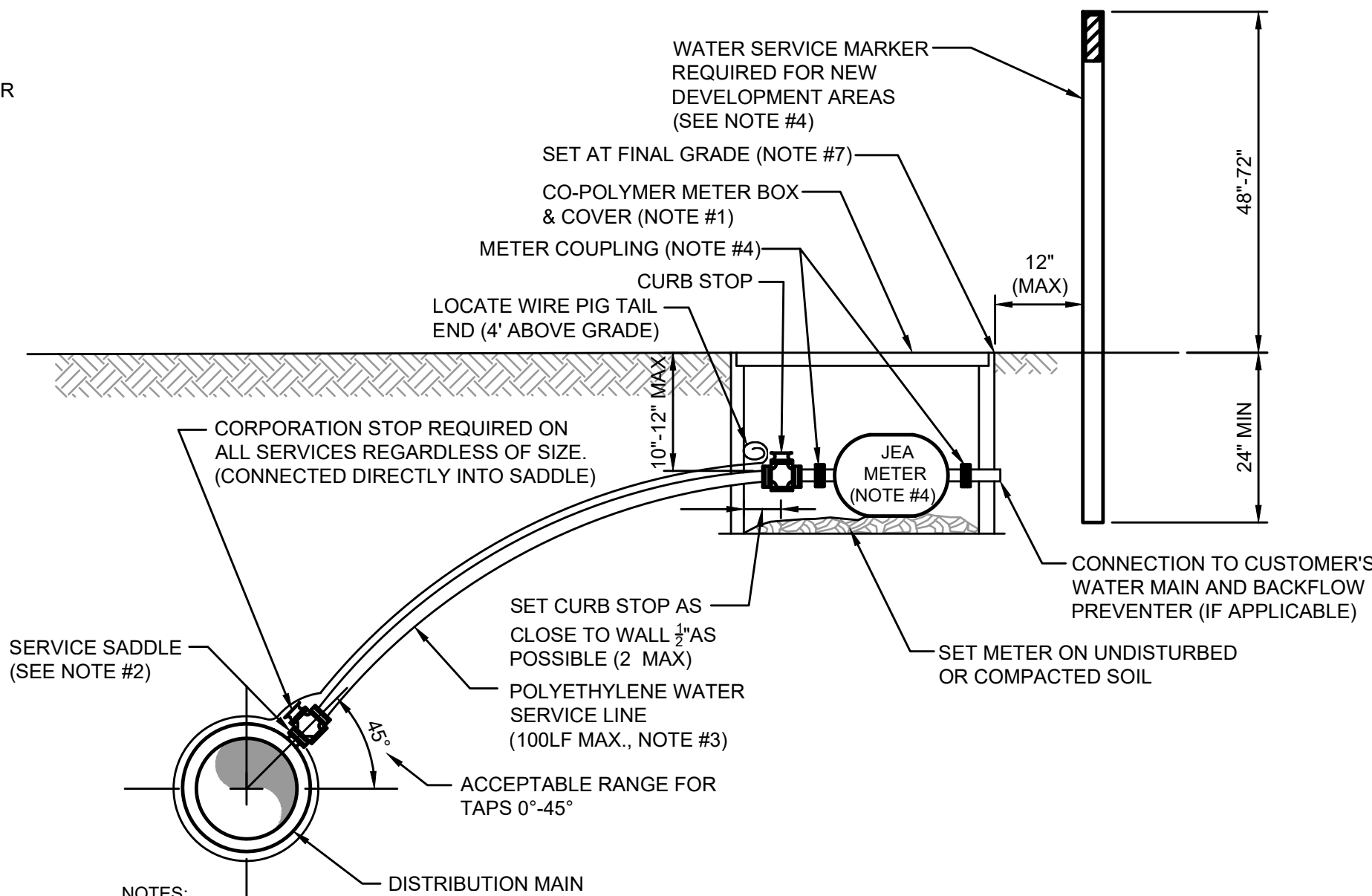
NOTES:

- LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROADWAY SHOULDERS (NON-TRAFFIC AREAS).
- ALL PIPE & FITTING SHALL BE GALVANIZED MATERIAL OR PVC (S-40).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTING (AS NOTED) AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED
- 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 2021

PLATE W-26



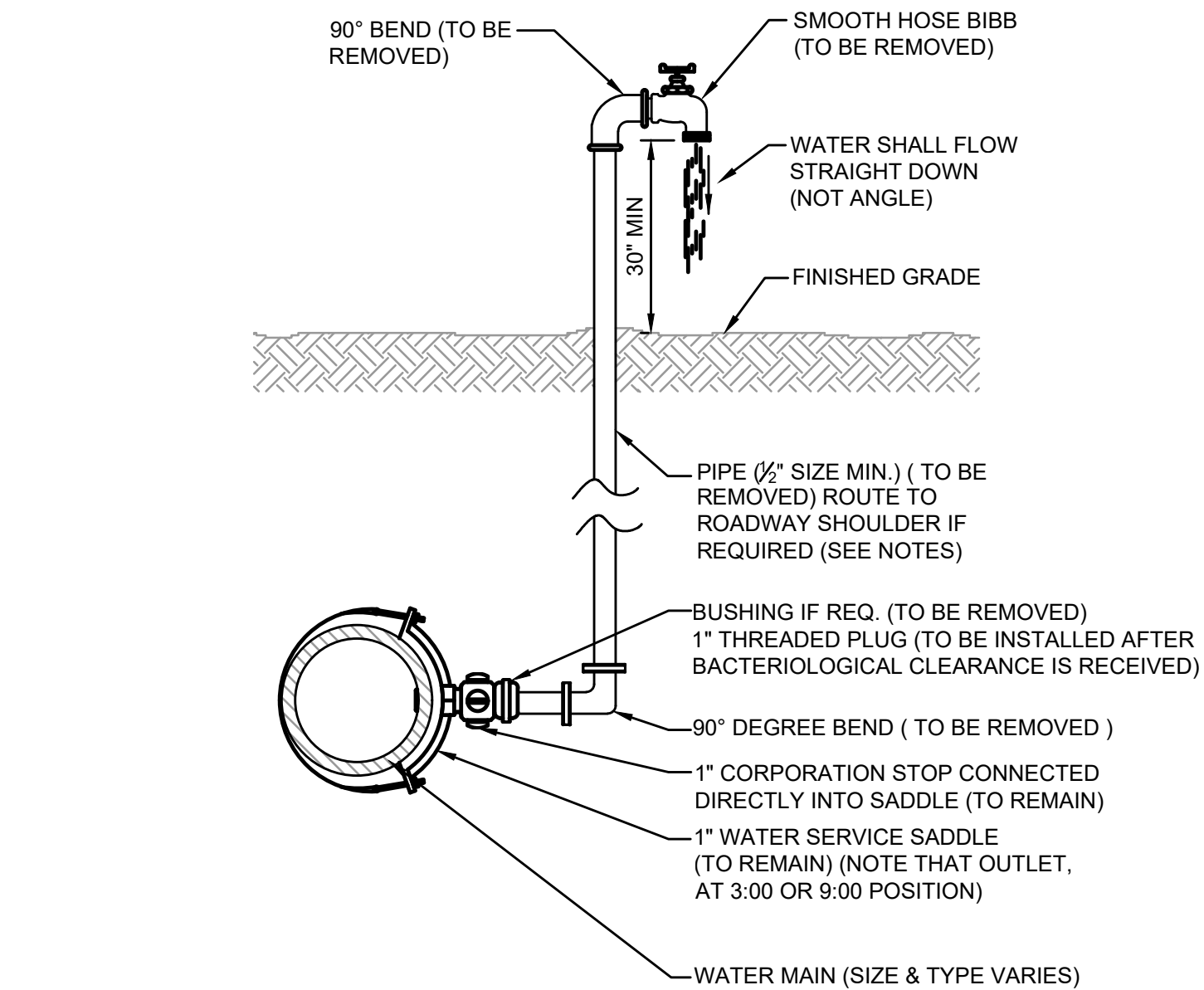
NOTES:

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

WATER SERVICE DETAIL- 2" AND SMALLER METER

JANUARY 2021

PLATE W-2



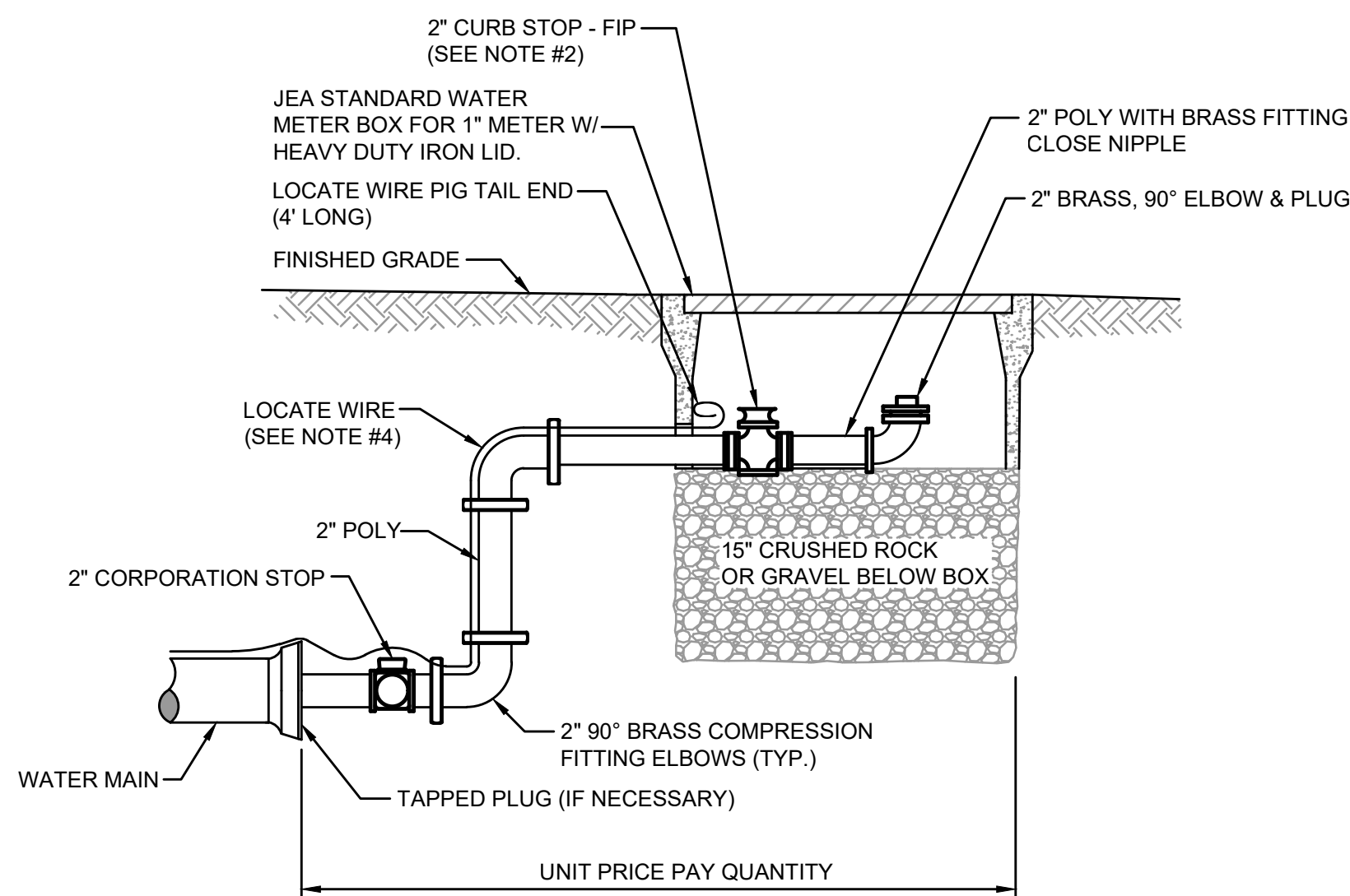
NOTES:

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

TEMPORARY SAMPLE TAP

JANUARY 2021

PLATE W-25



NOTES:

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

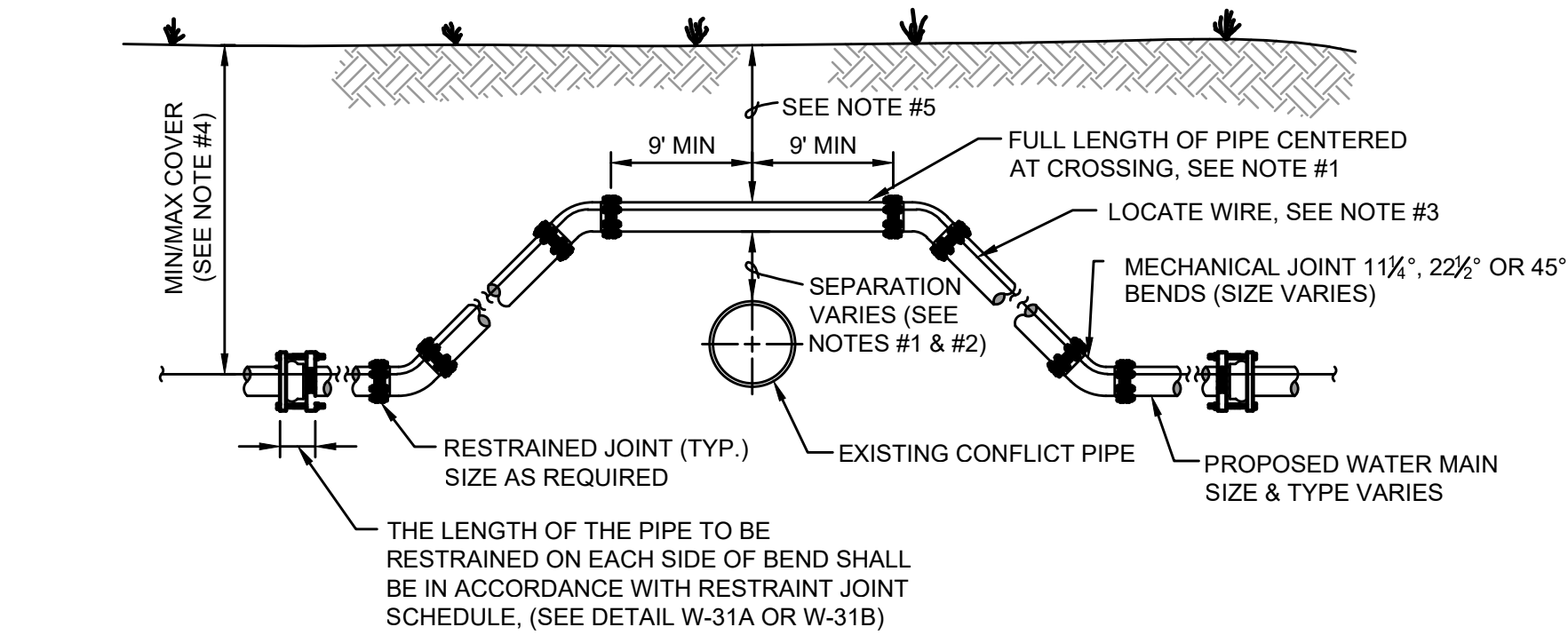
FLUSHING VALVE BELOW GRADE

JANUARY 2021

PLATE W-28

England • Thims & Miller, Inc. 14775 Old St. Augustine Road Jacksonville, FL 32238 TEL: (904) 946-1300 FAX: (904) 946-9485 CA - 00002884 LC - 0000316			
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CASE "A" CROSSING

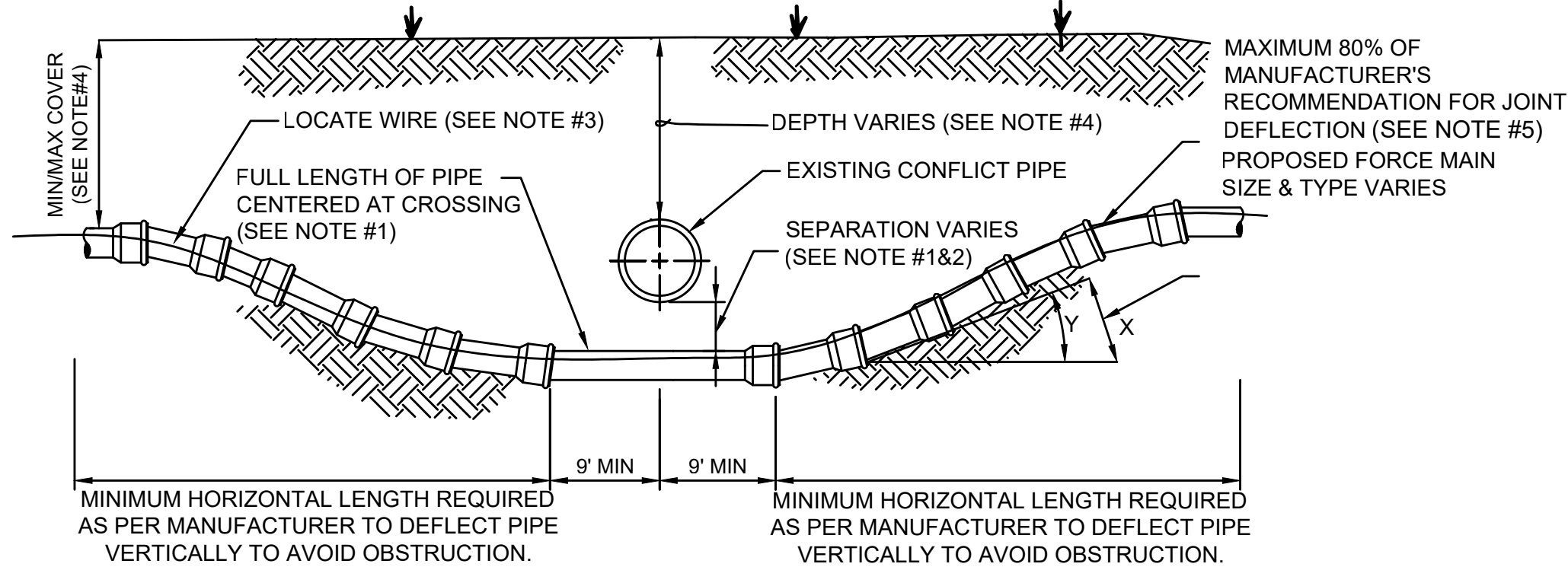
NOTES:

- 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.
- FOR MINIMUM VERTICAL SEPARATION REQUIREMENTS SEE DETAIL (W-10 AND W-11).
- LOCATING WIRE REQUIRED: SEE DETAIL W-44.
- 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.
- 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 2021

PLATE W-32



CASE "B" CROSSING

NOTES:

- 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.
- FOR OTHER LOCATION LIMITATIONS SEE DETAIL (W-10 & W-11).
- LOCATING WIRE REQUIRED: SEE DETAIL W-44.
- 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.
- JE A 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

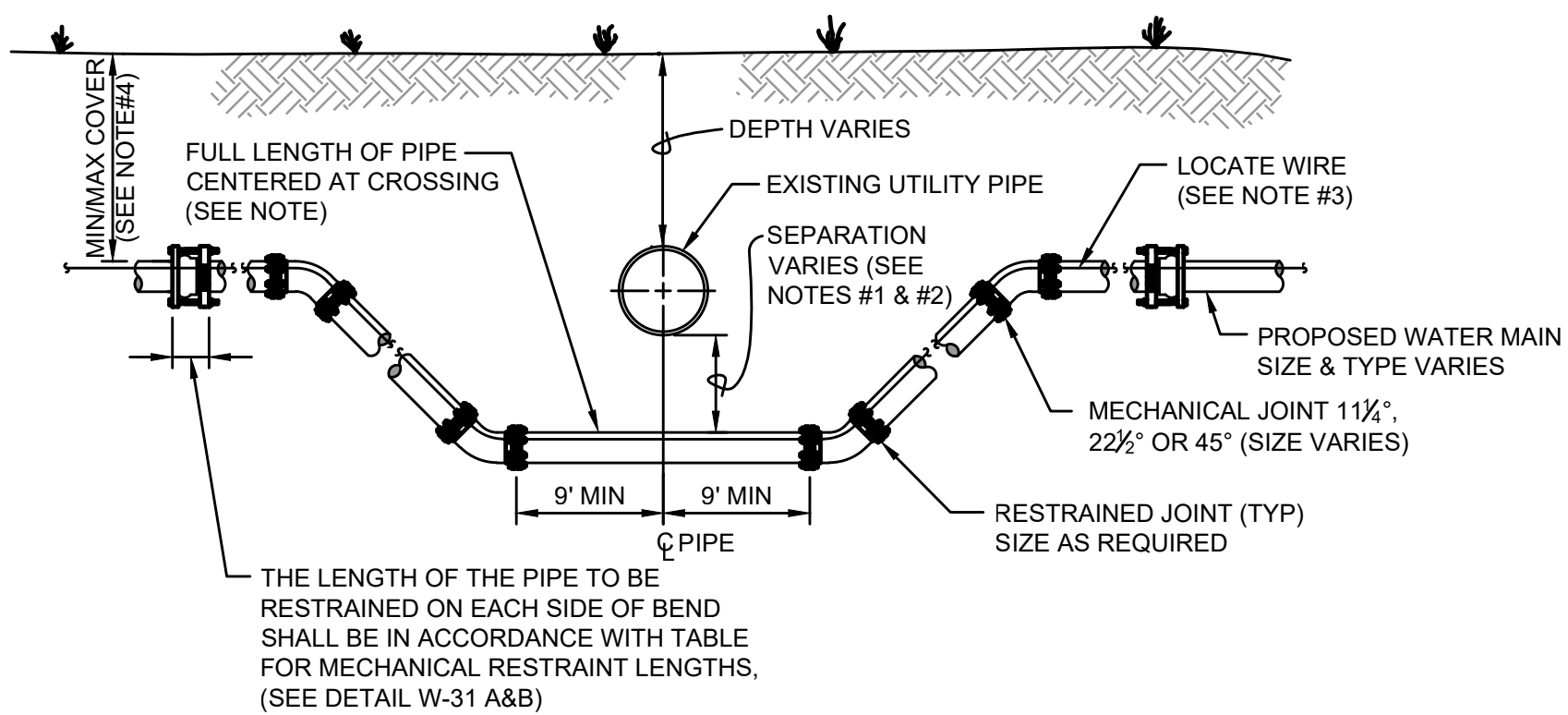
PVC PIPE			
PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) ANGLE AT ONE BELL	RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
2	30	7°	158 FT
4	10	2.4°	480 FT
6	10	2.4°	480 FT
8	10	2.4°	480 FT
10	10	2.4°	480 FT
12	8.5	2°	564 FT
14 - 24	5	1.2°	960 FT
30 - 48	3.25	0.8°	1477 FT

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 2021

PLATE W-40



CASE "B" CROSSING

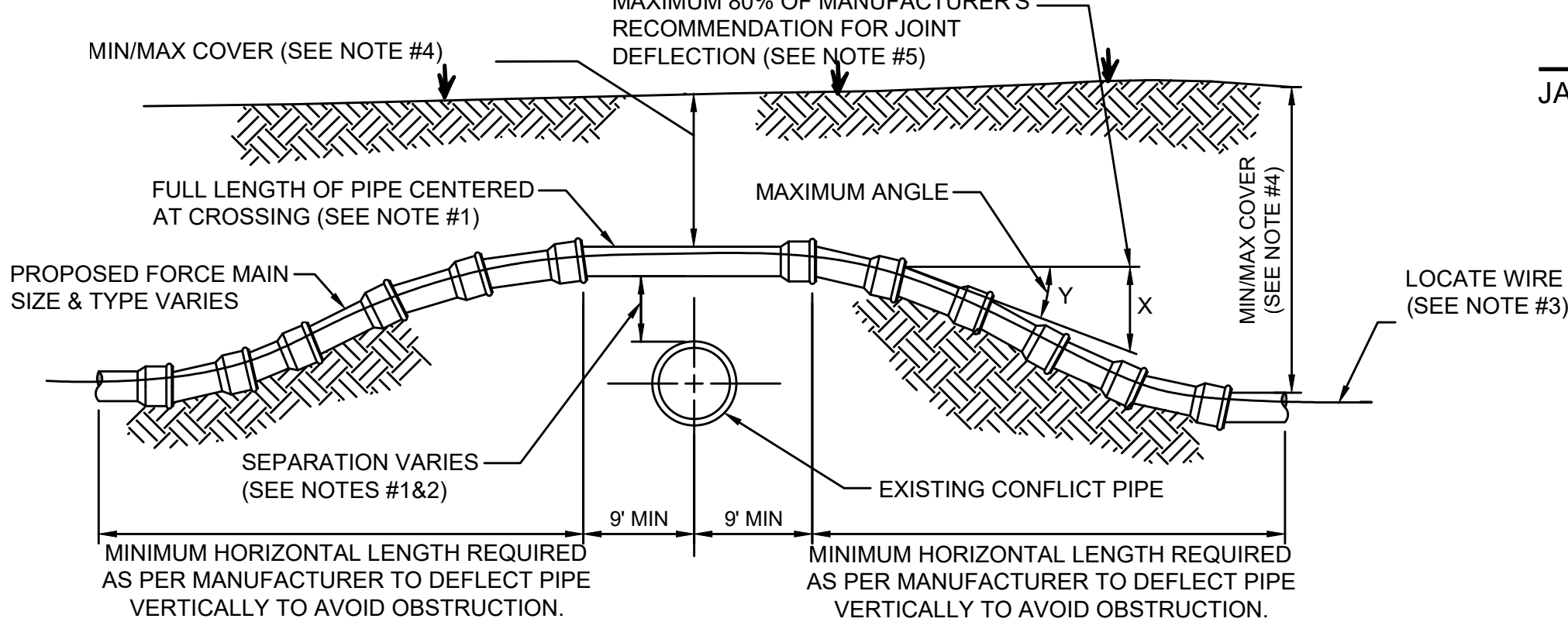
NOTES:

- 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
- FOR MINIMUM VERTICAL SEPARATION REQUIREMENTS SEE DETAILS (W-10 AND W-11)
- LOCATING WIRE REQUIRED: SEE DETAIL W-44.
- THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREA, 36" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60", UNLESS APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY JEA.
- 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 2021

PLATE W-34



CASE "A" CROSSING

NOTES:

- 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.
- FOR OTHER LOCATION LIMITATIONS SEE DETAIL (S-10 & W-11).
- LOCATING WIRE REQUIRED: SEE DETAIL W-44.
- 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.
- JE A 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

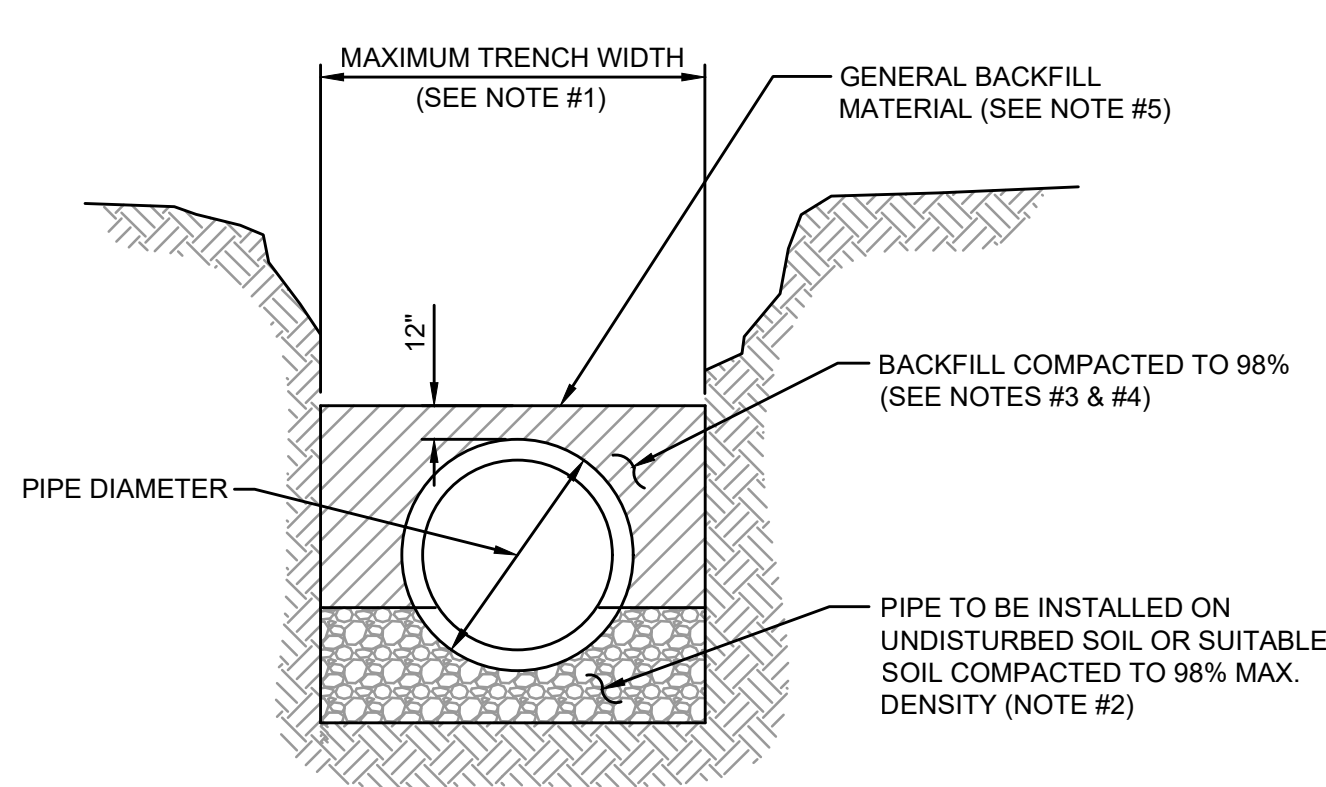
PVC PIPE			
PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) ANGLE AT ONE BELL	RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
2	30	7°	158 FT
4	10	2.4°	480 FT
6	10	2.4°	480 FT
8	10	2.4°	480 FT
10	10	2.4°	480 FT
12	8.5	2°	564 FT
14 - 24	5	1.2°	960 FT
30 - 48	3.25	0.8°	1477 FT

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 2021

PLATE W-41



TYPICAL TRENCH

NOTES:

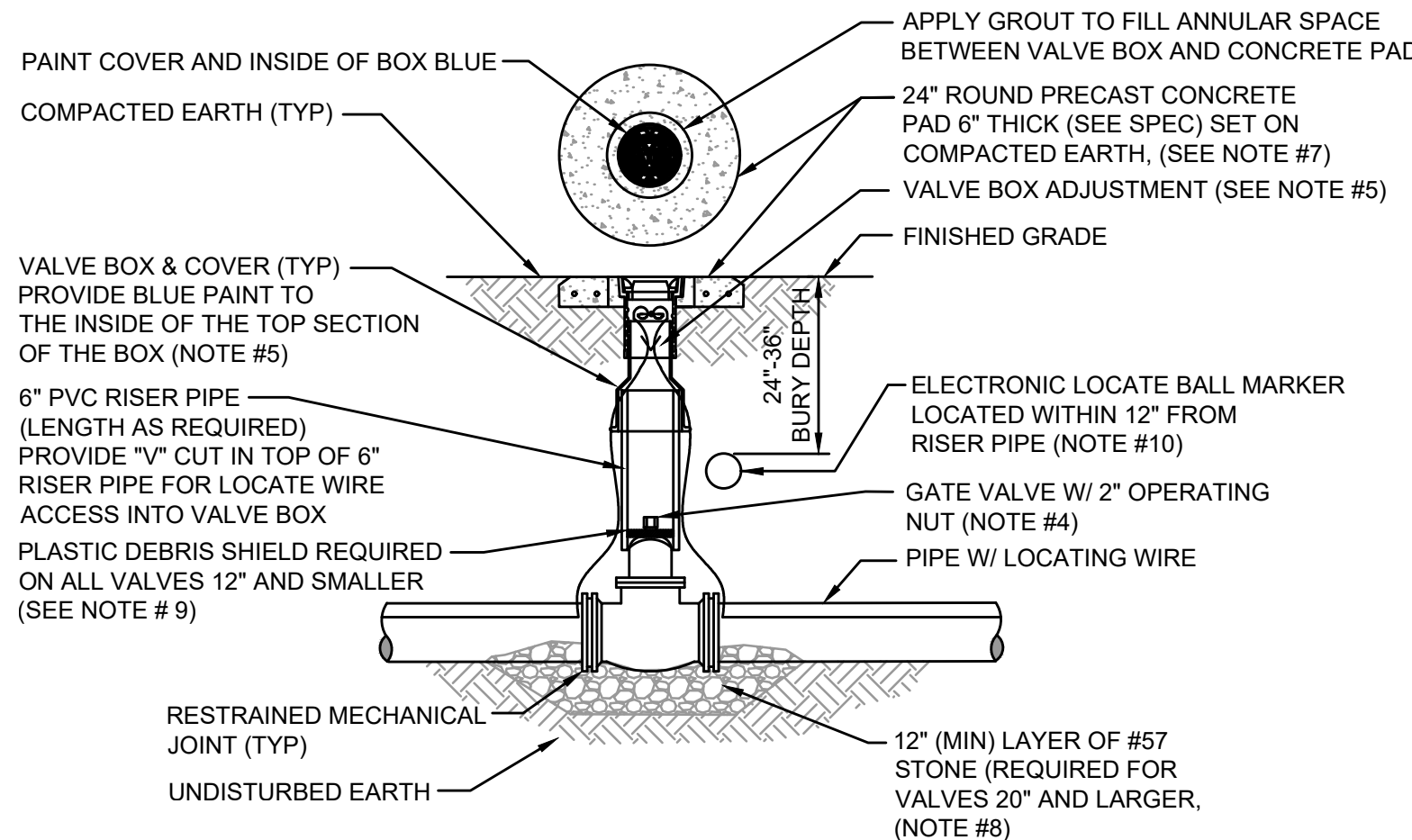
- TRENCH SIDES SHALL BE APPROXIMATELY VERTICAL BETWEEN AN ELEVATION OF 1 FOOT ABOVE THE TOP OF THE PIPE AND THE CENTER LINE OF THE PIPE; OTHERWISE, TRENCH SIDES SHALL BE AS VERTICAL AS POSSIBLE OR AS REQUIRED BY OSHA STANDARDS. REFER TO THE MEASUREMENT AND PAYMENT SECTION (SECTION #801, PARAGRAPH #4)) TO DETERMINE MAXIMUM PAYLINE WIDTHS.
- 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.
- 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.
- 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.
- 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 2021

IN CITY RIGHT OF WAY

PLATE W-42



NOTES:

- 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.
- LOCATING WIRE IS REQUIRED ON ALL PRESSURE PIPING (SEE DETAILW-44).
- 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.
- 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.
- 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.
- BRASS IDENTIFICATION TAG INDICATING "WATER", VALVE SIZE, DIRECTION AND TURNS TO OPEN & VALVE TYPE. PROVIDE A 3/8" 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.
- 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.
- GRAVEL SHALL BE PROVIDED UNDER ALL VALVES 20" AND LARGER. THE MINIMUM VERTICAL LIMIT OF GRAVEL IS 12" UNDER THE VALVE UP TO 1/3 THE OVERALL HEIGHT OF THE VALVE.
- 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.
- ALL VALVES SHALL BE INSTALLED WITH AN ELECTRIC LOCATE MARKER. MARKER SHALL BE 4" DIA. COLOR CODED BALL MARKER (3M-1403XR FOR WATER AND 1408XR FOR RECLAIMED WATER).

WATER VALVE INSTALLATION DETAIL

JANUARY 2021

PLATE W-18

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32228
TEL: (904) 646-9485
FAX: (904) 646-9485
CA - 0000284 LC - 0000316

ETM
VISION • EXPERIENCE • RESULTS

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

REVISIONS		DESIGN ENGINEER	JON-MICHAEL BARQUIN	FLORIDA REGISTRATION NO.	94926
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PVC PIPE RESTRAINT NOTES:

- THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THE ABOVE SCHEDULE, AT A MINIMUM.
- ASSUMPTIONS: PVC PIPE, SAFETY FACTOR=1.5, TEST PRESSURE=150PSI, SOIL=GM OR SM, TRENCH TYPE 3, DEPTH OF COVER=30 INCHES FOR 20" AND SMALLER PIPE SIZE OR 36 INCHES FOR 24" AND LARGER PIPE SIZE.
- BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
- VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM. PER THE DETAILS, Lu IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL, Li IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL. ASSUME 45 DEGREE BENDS.
- 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.
- HDPE TO PVC TRANSITIONS: THE PVC PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).
- THE INSTALLATION OF BELL HARNESS RESTRAINTS AT PVC JOINTS (DR-18 & 25 PIPE) SHALL BE COMPLETED PER THE MANUFACTURERS RECOMMENDATION, WHICH INCLUDES NOT OVER TIGHTENING THE PARALLEL RODS/NUTS. THESE NUTS SHOULD ONLY BE SNUG TIGHT. THE HOME MARKS ON THE PIPE SHOULD ALWAYS BE VISIBLE AFTER THE RESTRAINT IS INSTALLED. OVERHOMING THE JOINT MAY CAUSE A FAILURE AT THE BELL RESULTING IN A SERVICE OUTAGE.

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		REDUCERS	TEES SEE NOTE 5									
	90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	UPPER L (FT.)	LOWER L (FT.)	UPPER L (FT.)	LOWER L (FT.)		SIZE (IN.)	L (FT.)	RUN SIZE (IN.)	BRANCH SIZE (IN.)	L (FT.)					
4	21	9	5	3	17	3	47	6x4	34	4	4	F.O.							
6	30	13	6	3	23	4	66	8x6	36	4	6	10	F.O.						
8	38	16	8	4	30	6	86	8x4	62	8	4 < LESS	8	F.O.						
10	45	19	9	5	36	7	103	10x8	35	8	6 < LESS	8	29	F.O.					
12	53	22	11	6	43	8	121	10x6	63	10	10	10	45						
14	61	26	13	6	50	9	140	12x10	36	12	8	13	F.O.						
16	66	28	14	7	55	10	154	12x8	64	12	6 < LESS	10	32	F.O.					
18	73	30	15	8	60	11	170	16x12	66	16	12	62							
20	79	33	16	8	66	12	186	16x10	92	16	8 < LESS	10	32	F.O.					
24	79	33	16	8	77	15	185	20x18	35	20	16	94							
30	93	39	19	10	97	17	222	20x16	66	20	12	39							
36	106	39	21	11	107	20	257	20x12	117	20	10 < LESS	5	F.O.						
42	117	49	24	12	120	24	289	24x20	56	24	10 < LESS	20	125						
48	144	53	26	13	133	26	321	24x18	80	24	10 < LESS	12	14	F.O.					
								24x16	101	24	10 < LESS	20	124						
								30x24	78	24	12 < LESS	20	84						
								30x20	121	24	16	36	F.O.						
								36x30	78	30	16 < LESS	20	159						
								36x24	141	30	24	104							
								42x36	75	30	20	60							
								42x30	140	30	16 < LESS	5	F.O.						
								48x42	75	36	20 < LESS	24	33	F.O.					
								48x36	139	36	16 < LESS	20	83	F.O.					
										42	42	223							
										36	36	178							
										24	30	124							
										20	24	59							
										16 < LESS	20	5	F.O.						
										48	48	253							
										42	42	209							
										162	36	162							
										24	30	104							
										20 < LESS	24	34	F.O.						

FAINT JOINT SCHEDULE

PLATE W-31A

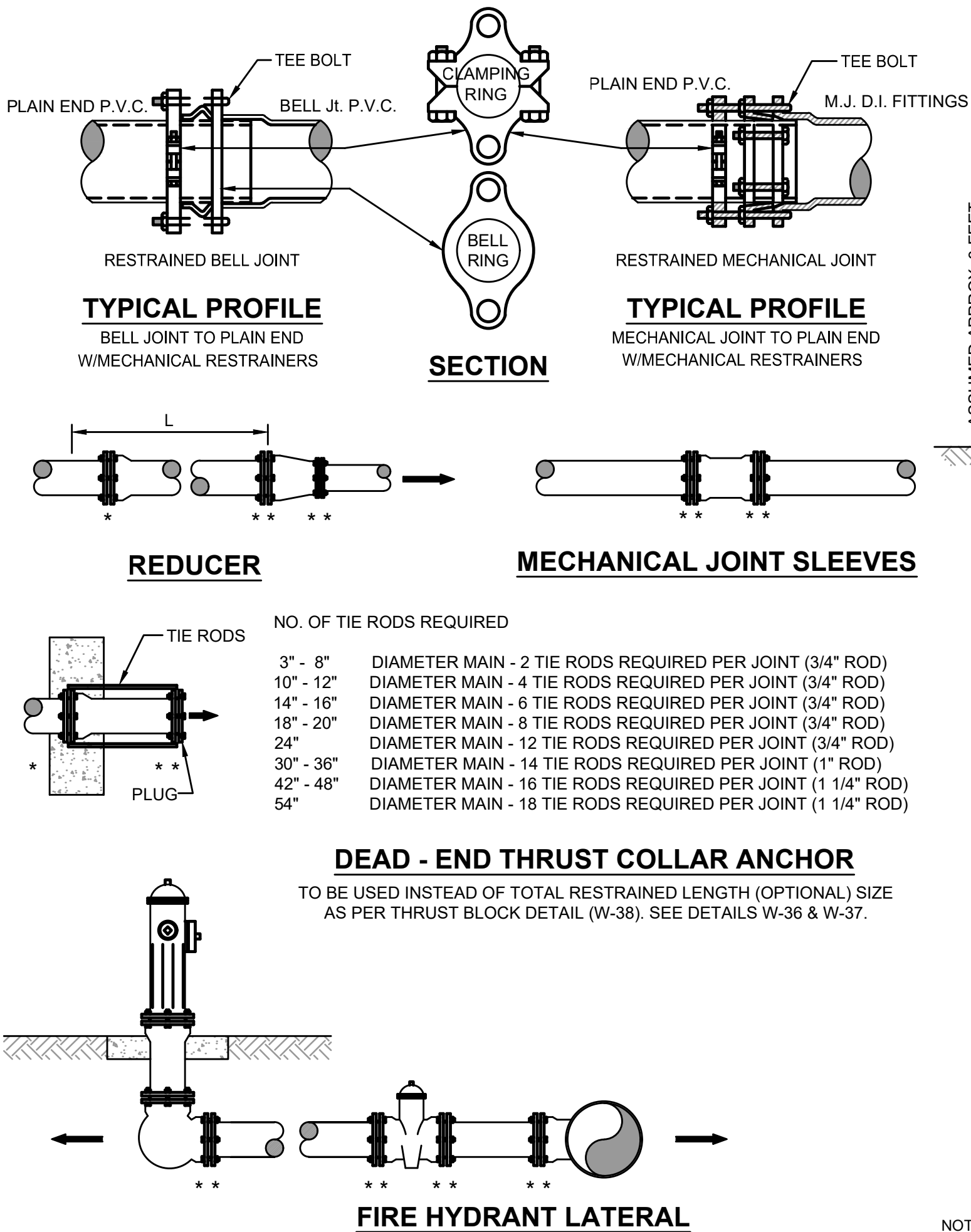
F.O. = FITTING ONLY

F.O. = FITTING ONLY

PVC PIPE RESTRAINT JOINT SCHEDULE

JANUARY 2021

PLATE W-31A



MECHANICAL RESTRAINT DETAILS - I

JANUARY 2021

PLATE W-31C

MECHANICAL RESTRAINT DETAILS - II

JANUARY 2021

PLATE W-31D

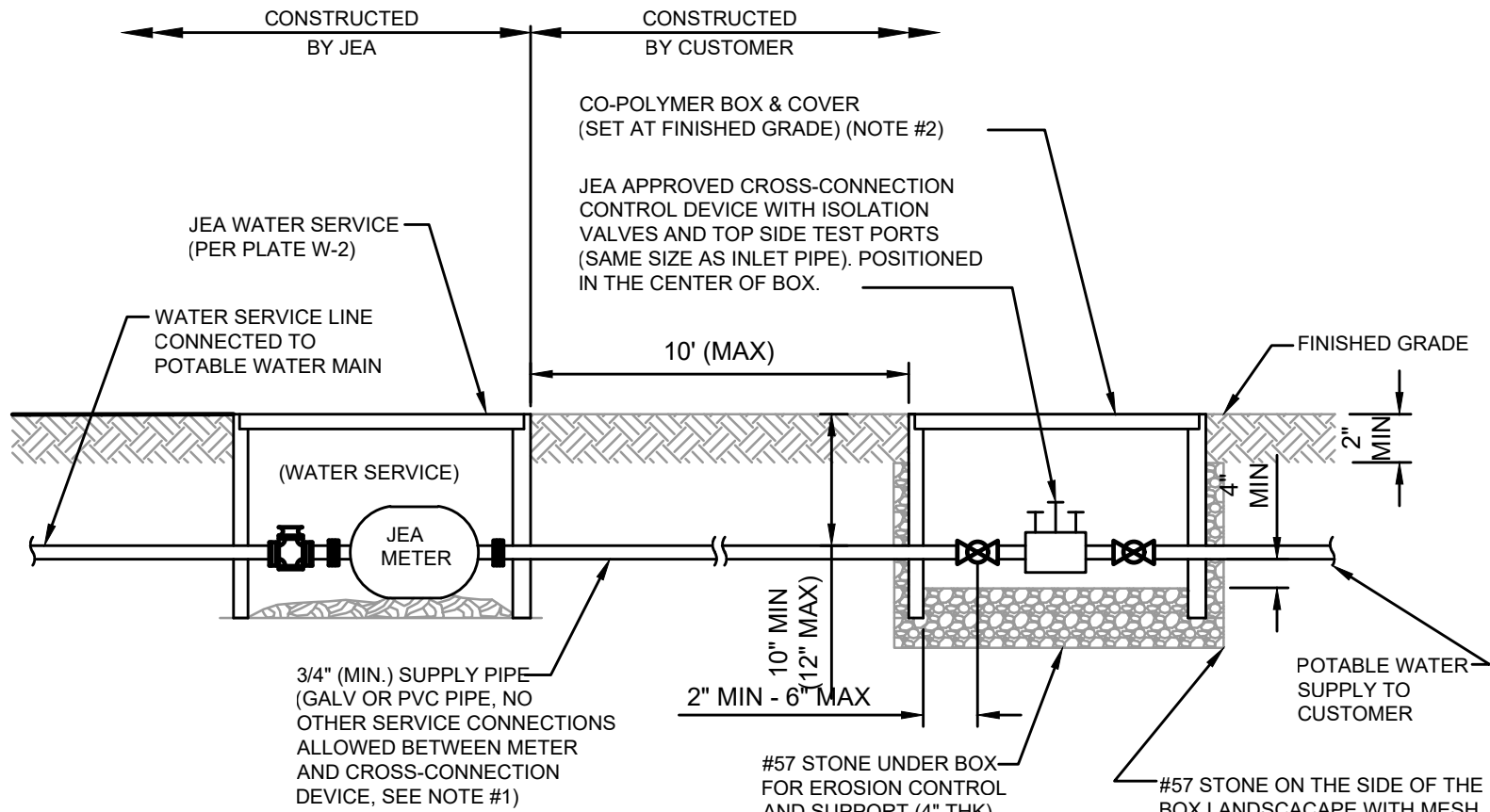
DUCTILE IRON PIPE RESTRAINT NOTES:

- THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THE ABOVE SCHEDULE, AT A MINIMUM.
- ASSUMPTIONS: 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.
- BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
- VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM. PER THE DETAILS, Lu IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL, Li IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL. ASSUME 45 DEGREE BENDS.
- 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.
- HDPE TO D.I.P. TRANSITIONS: THE D.I.P. PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).

DUCTILE IRON PIPE RESTRAINT JOINT SCHEDULE

JANUARY 2021

PLATE W-31B



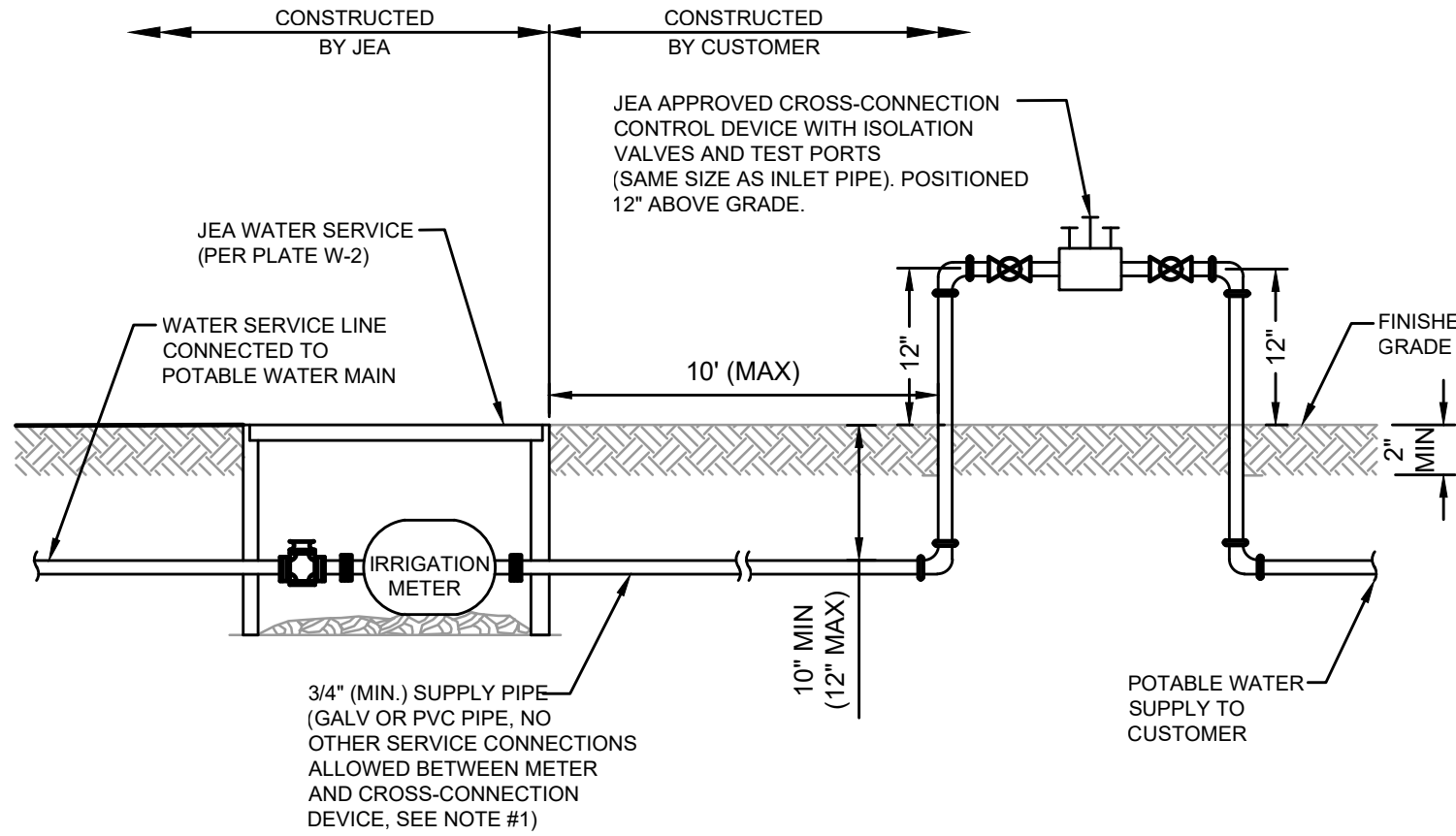
NOTES:

- 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.
- 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.
- 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 ON, WATER SERVICE EVEN IF NO RECLAIMED.
- JEA IRRIGATION SERVICE CONNECTIONS REQUIRE ABOVE GRADE REDUCED PRESSURE BACKFLOW PREVENTERS. (SEE PLATE W-15A)

RECLAIM CROSS CONNECTION CONTROL DEVICE

JANUARY 2021

PLATE W-15



NOTES:

- WATER SERVICE CONNECTIONS REQUIRE ABOVE GRADE REDUCED PRESSURE BACKFLOW PREVENTERS. (SEE PLATE W-15)
- 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.
- RESIDENTIAL IRRIGATION SERVICES MAY UTILIZE AN ALTERNATE BACKFLOW PREVENTER LOCATION IF THE FOLLOWING CONDITIONS EXIST:
 - CUSTOMER HAS SUBMITTED A COMPLETED "CUSTOMER AFFIDAVIT" FORM AND
 - THERE ARE NO ADDITIONAL CONNECTIONS BETWEEN THE METER AND THE BACKFLOW PREVENTER, AND
 - THE ALTERNATE BACKFLOW LOCATION IS EASILY ACCESSIBLE TO JEA AND BACKFLOW TESTERS.

CROSS CONNECTION CONTROL DEVICE

JANUARY 2021

JEA IRRIGATION SERVICE CONNECTIONS PLATE W-15A

England-Thims & Miller, Inc.
14175 Old St. Augustine Road
Jacksonville, FL 32228
Phone: (904) 646-9485
Fax: (904) 646-9485
CA - 0000284, LC - 0000316

VISION - EXPERIENCE - RESULTS

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

DESIGNER: JEA STANDARD
DRAWN BY: JEA STANDARD
DATE: JANUARY 2021
CHECKED BY: JEA STANDARD
DATE: JANUARY 2021

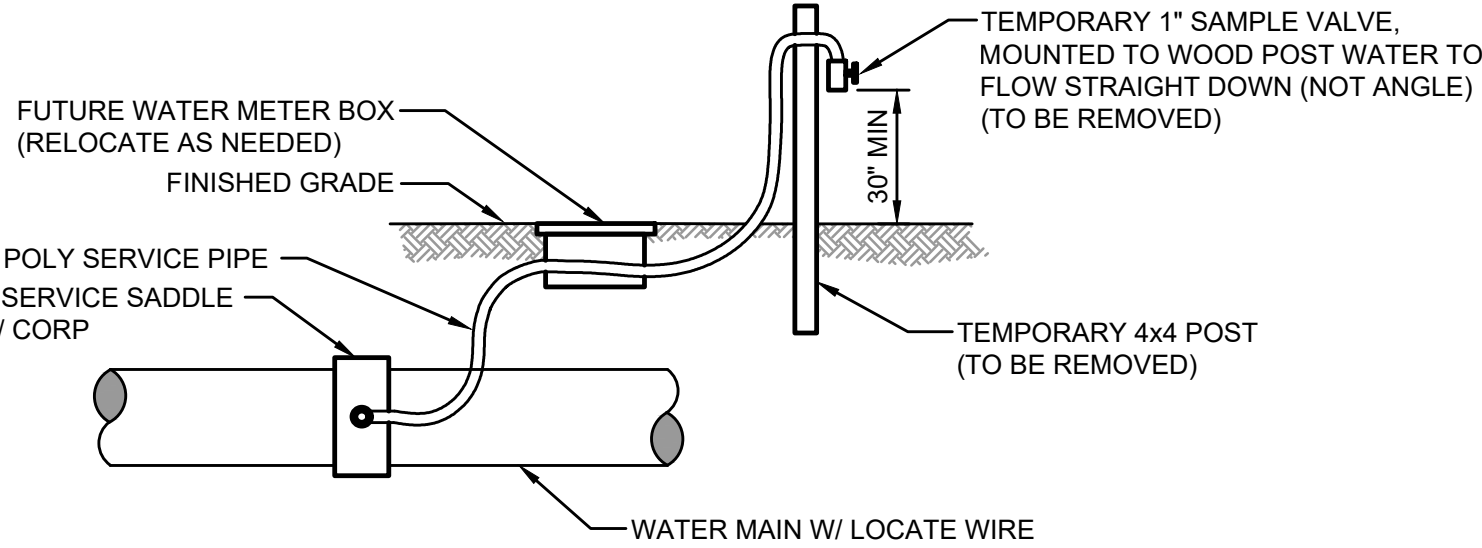
WATER AND RECLAIM DETAILS
WILDLIGHT COMMERCE PARK PARCEL A

PROJ. NO. 19-239-07-001
SHEET NO. 4
DRAWING NO. 10E

DATE: JANUARY 2021
SCALE: AS NOTED

DESIGN ENGINEER: JON-MICHAEL BARQUIN
FLORIDA REGISTRATION NO. 94926

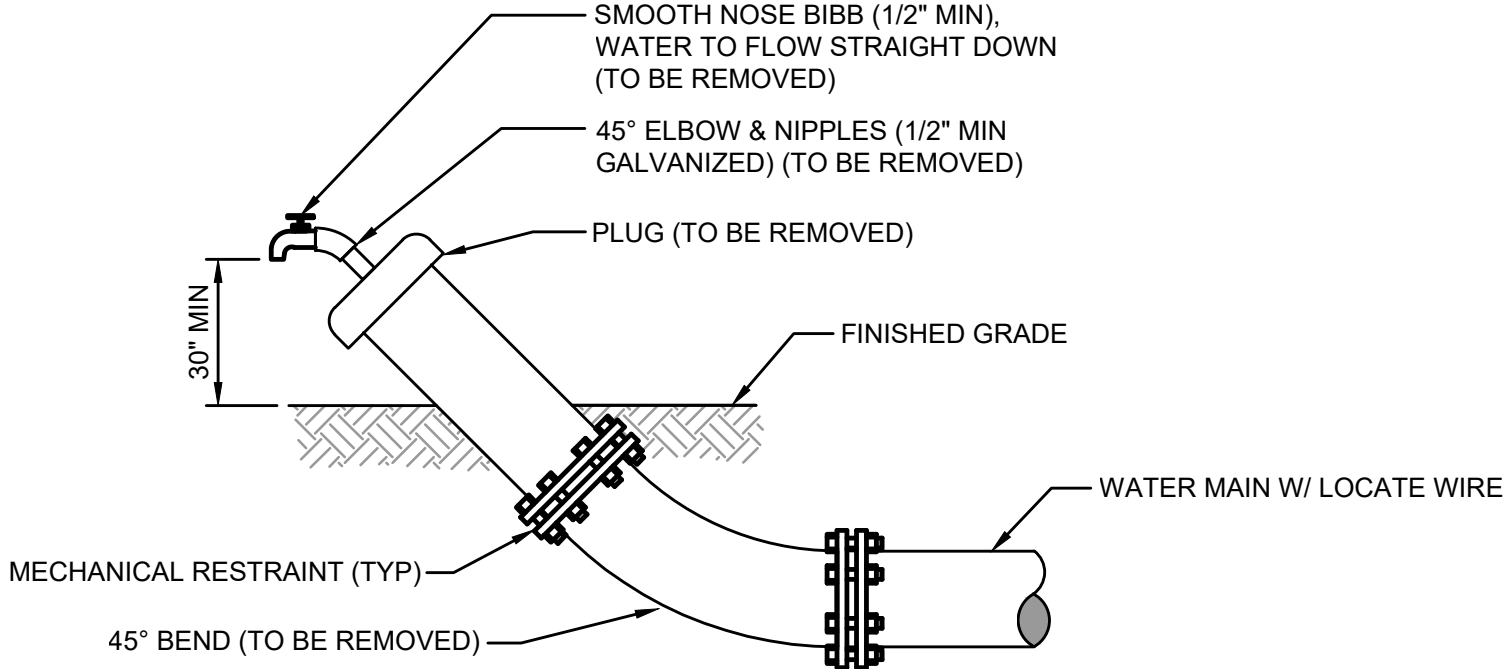
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TEMPORARY SAMPLE TAP UTILIZING A NEW 1" WATER SERVICE

NOTES::

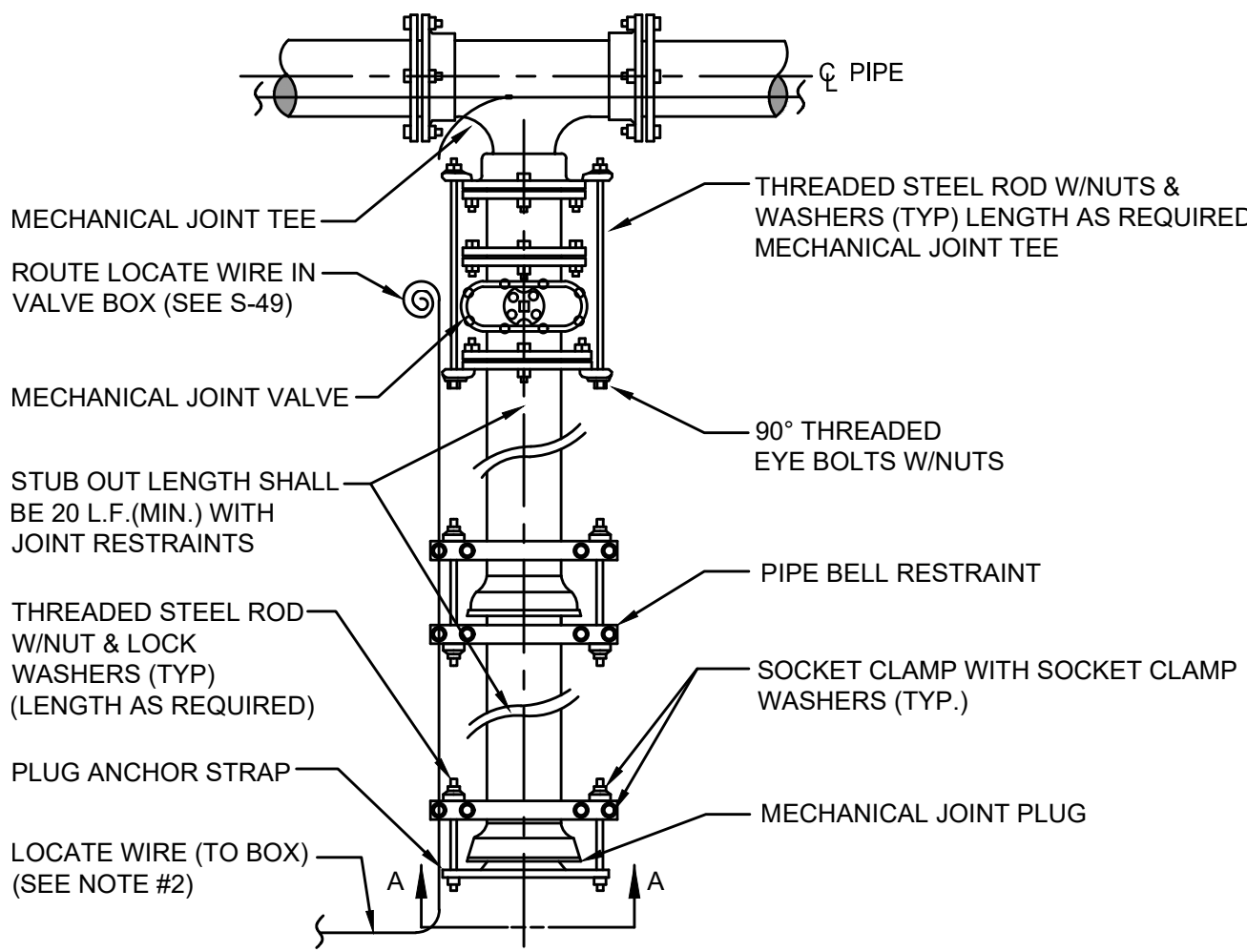
1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROAD SHOULDERS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTINGS (AS NOTED) AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.
3. THE CONTRACTOR SHALL UTILIZE THE ABOVE ALTERNATIVE METHODS 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 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.



PLAN

SECTION "A-A"

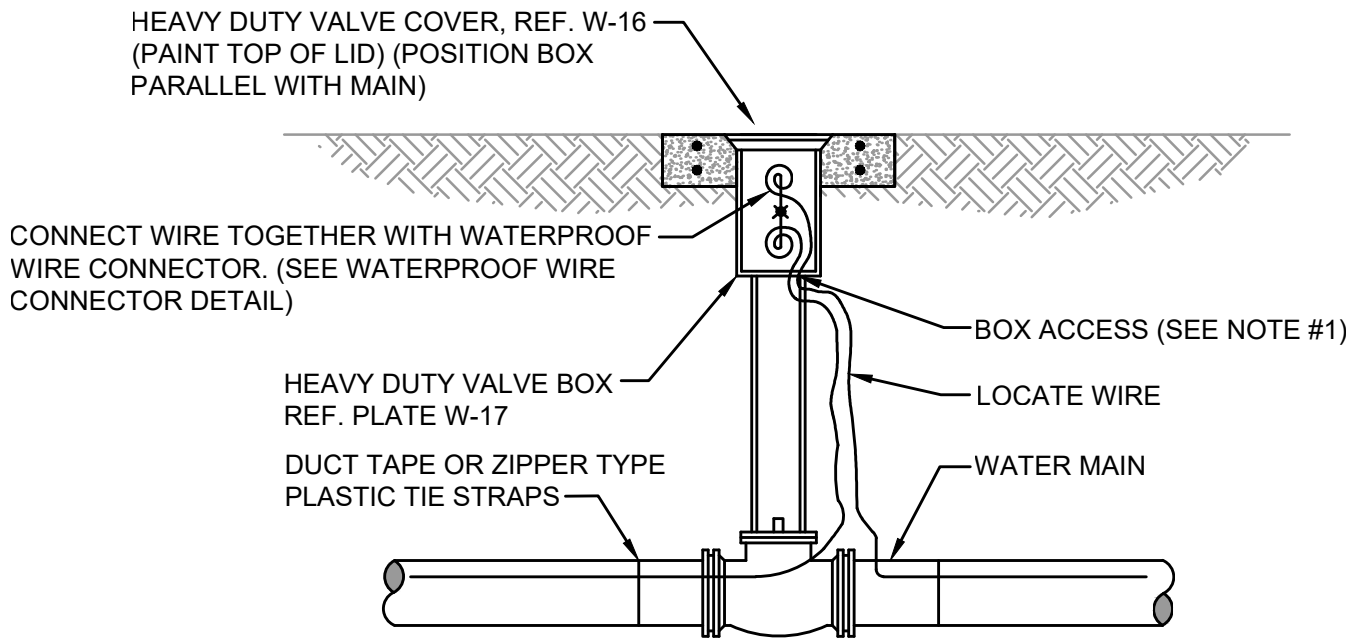
NOTES:

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.

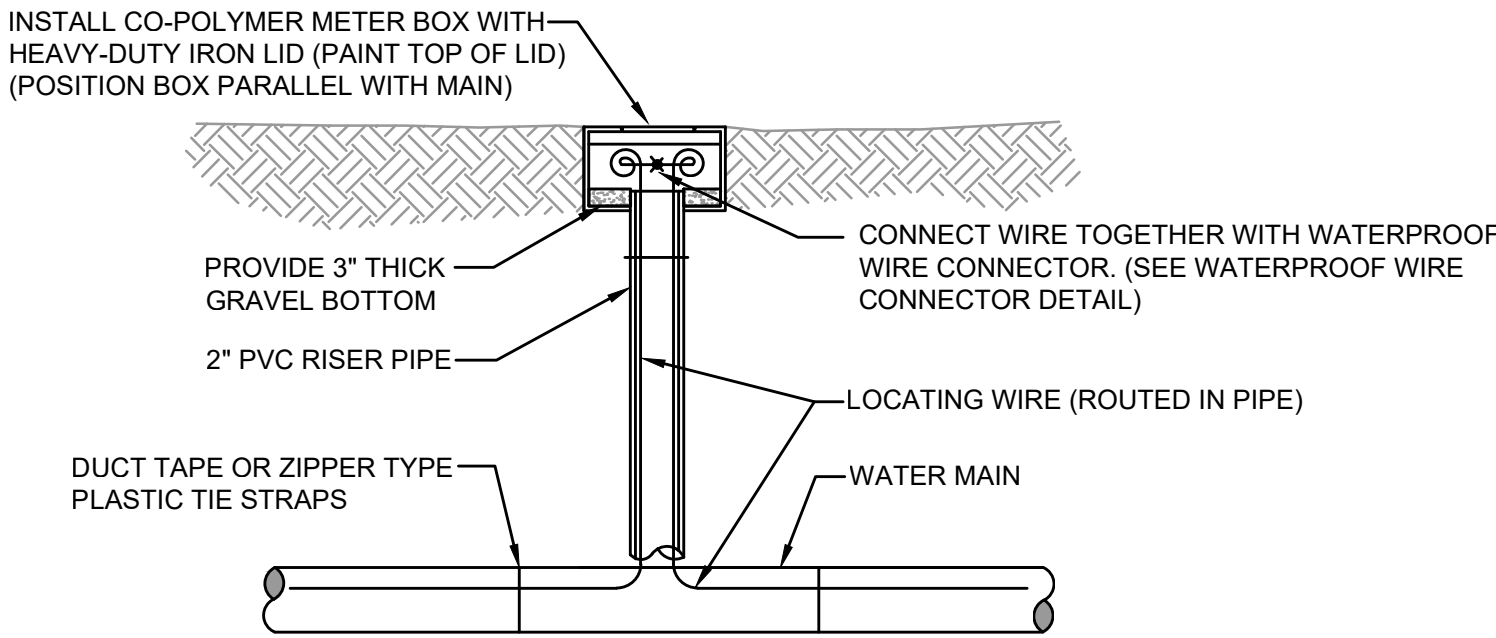
PLUGGED DEAD END USING MECHANICAL RESTRAINTS

JANUARY 2021

PLATE W-37



LOCATE WIRE BOX UTILIZING VALVE BOX

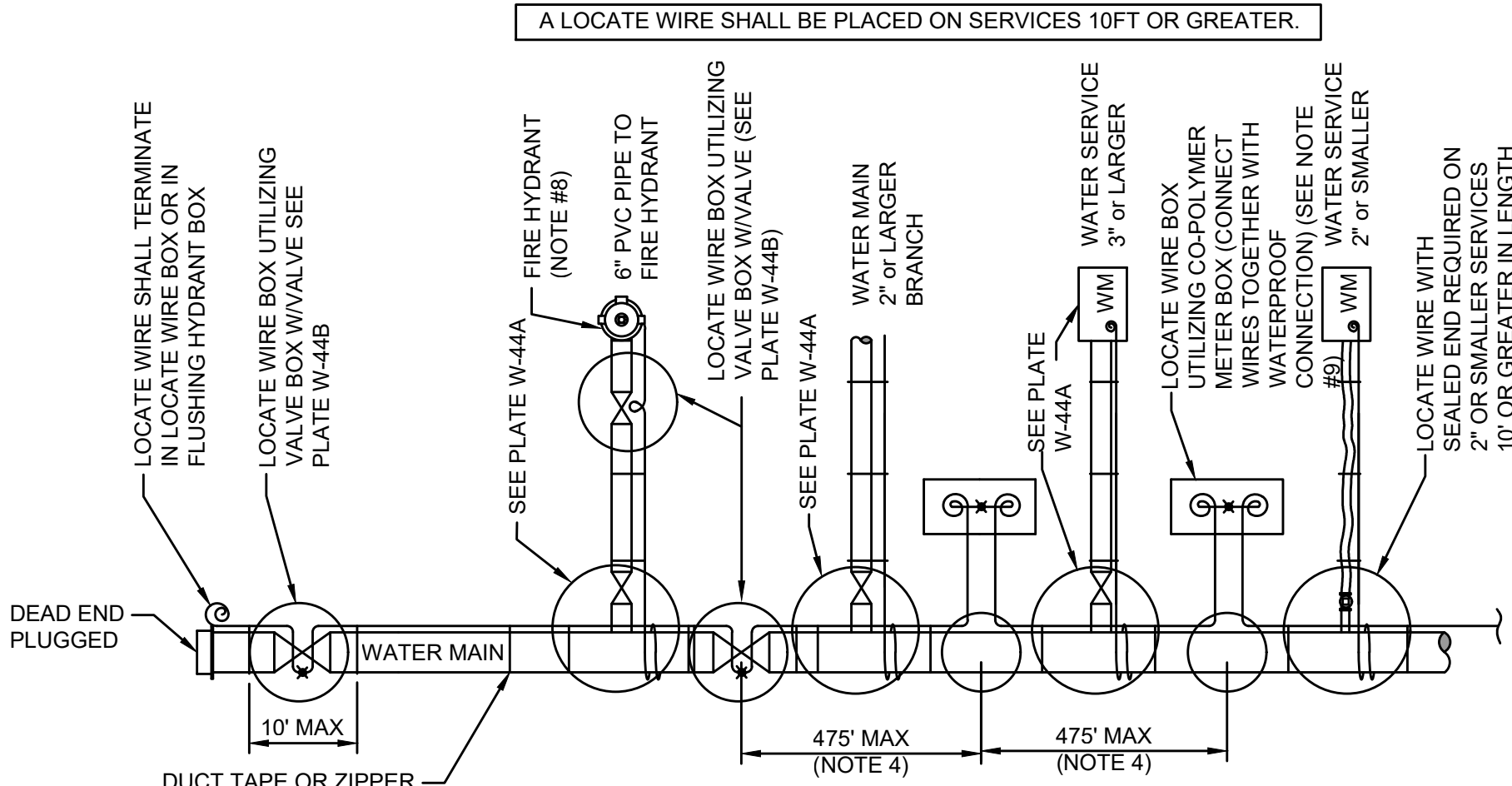


LOCATE WIRE BOX UTILIZING METER BOX

LOCATE WIRE BOX

JANUARY 2021

PLATE W-44B



LOCATE WIRE SYSTEM

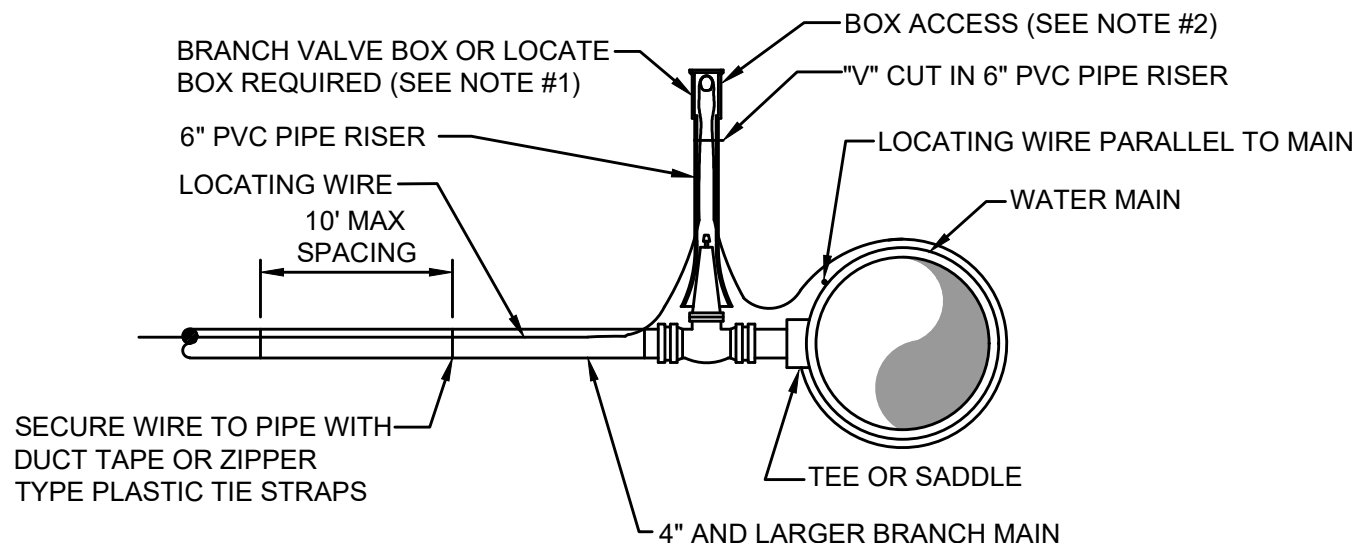
NOTES:

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. * 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.

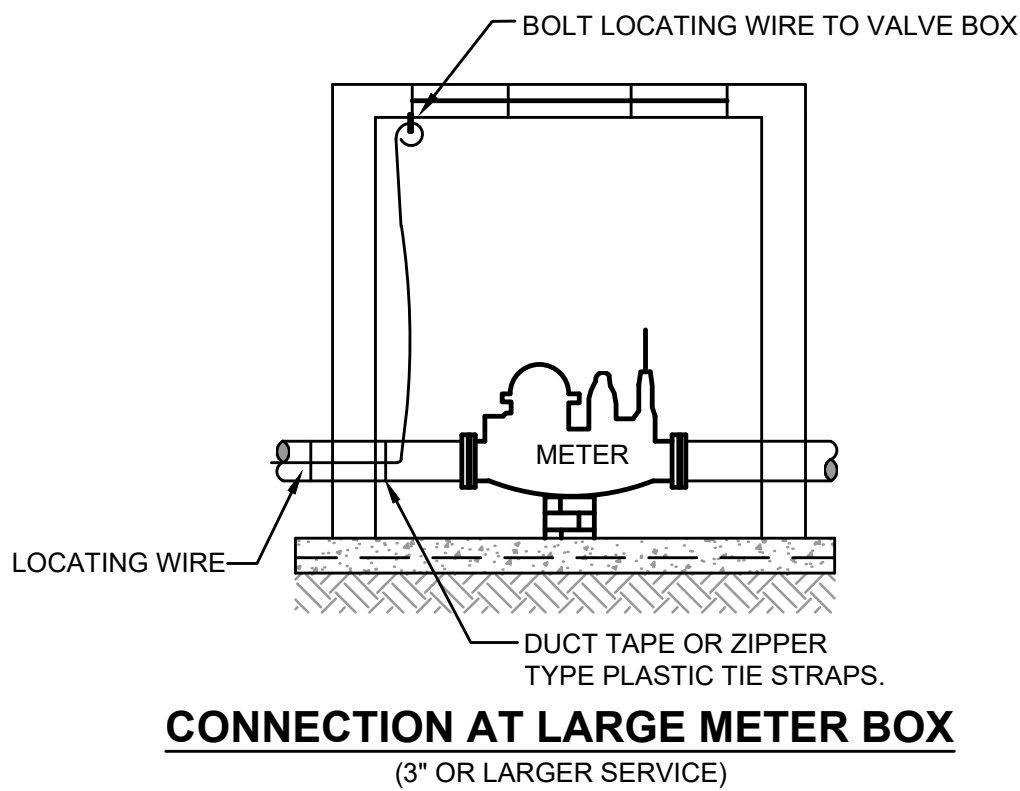
LOCATE WIRE CONSTRUCTION FOR WATER MAINS

JANUARY 2021

PLATE W-44



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 2021

PLATE W-44A

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32228
TEL: (904) 646-3888
FAX: (904) 646-9485
CA - 00002884 LC - 0000316

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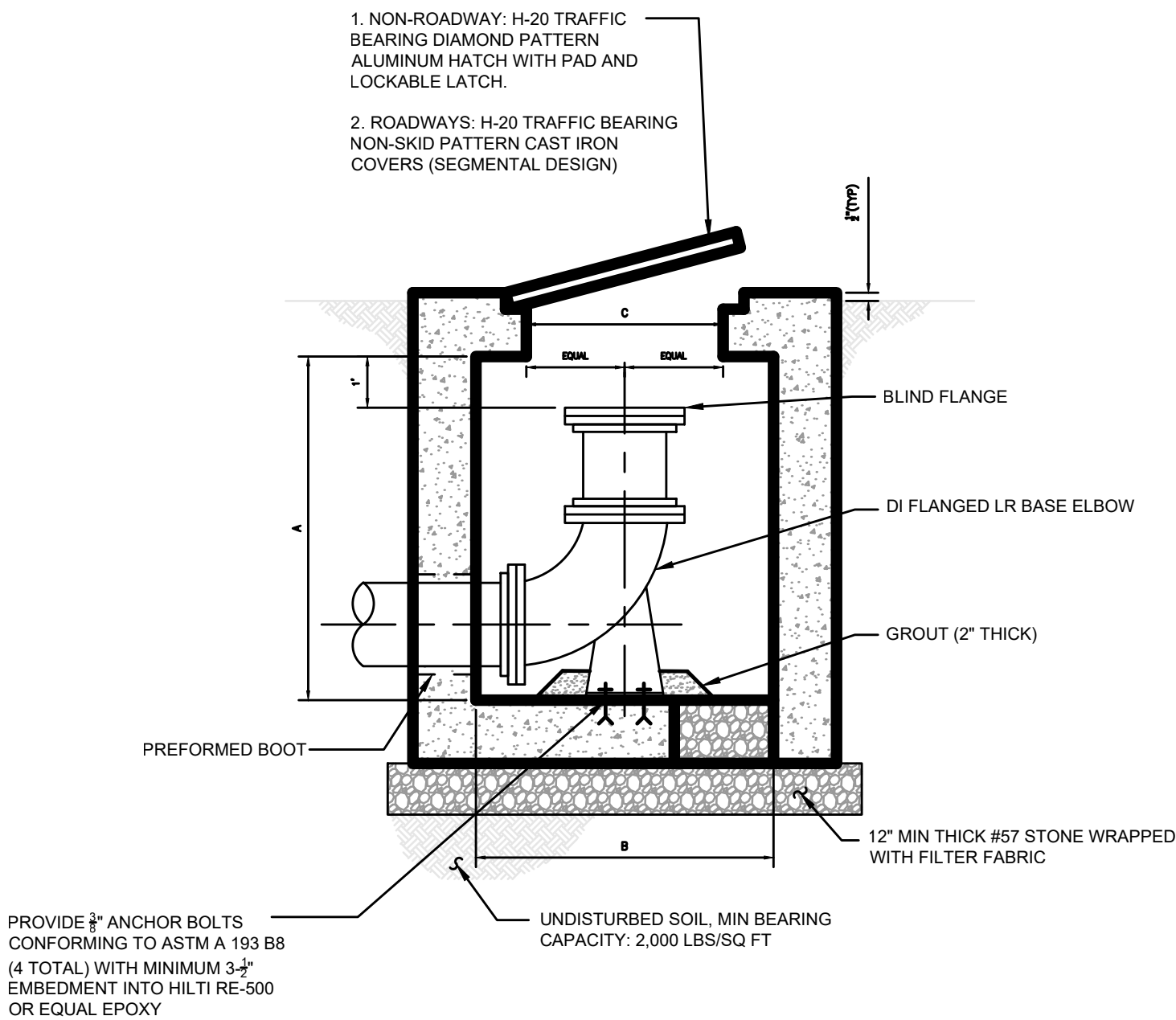
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DRAWN BY:
DATE:
CHECKED BY:
DATE:

DESIGN ENGINEER
JON-MICHAEL BARQUIN
FLORIDA REGISTRATION NO.
94926

JEA STANDARD
WATER AND RECLAIM DETAILS
WILDLIGHT COMMERCE PARK PARCEL A

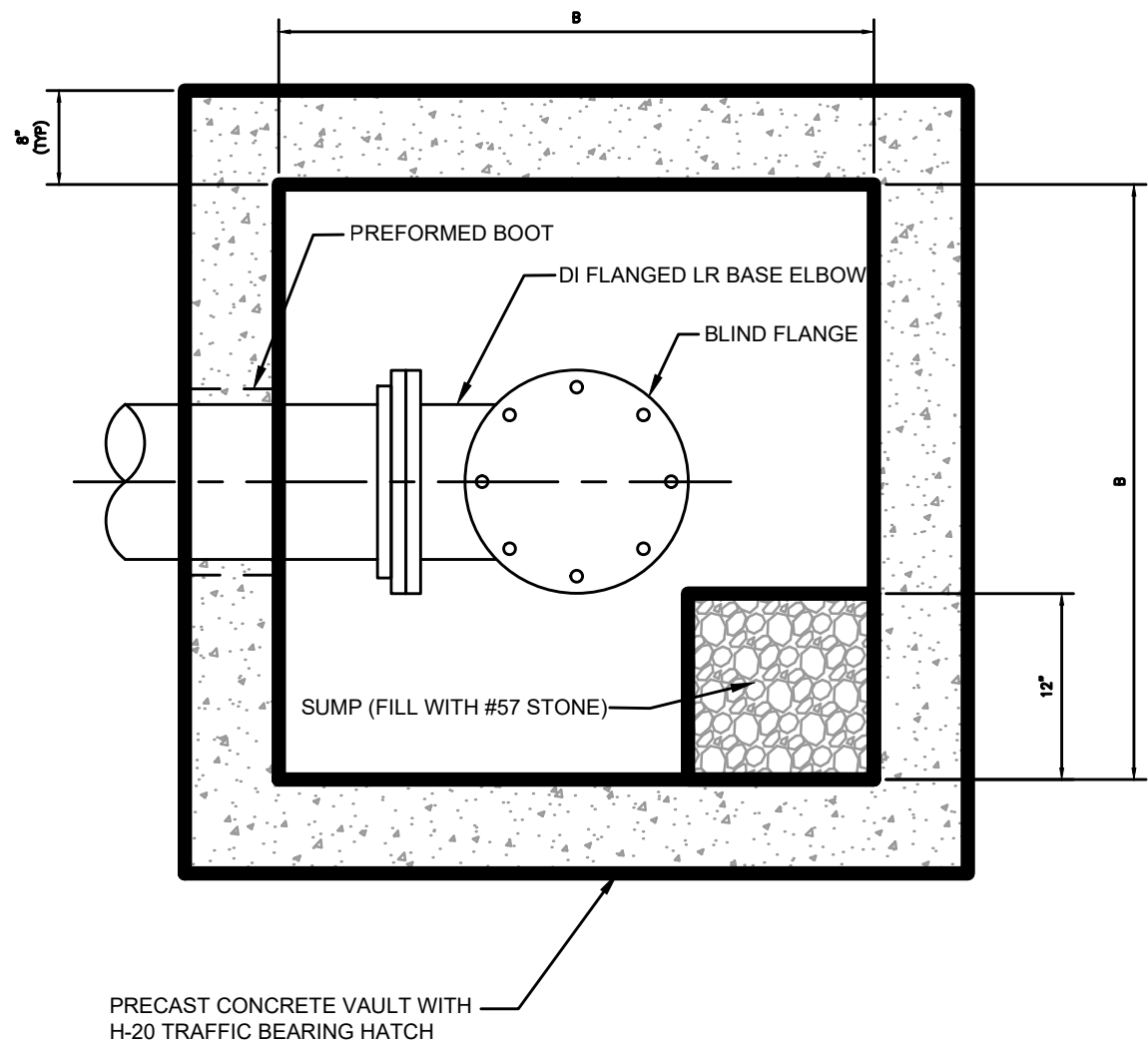
PROJ. NO.: 19-239-07-001
DATE: JANUARY 2021
SCALE: AS NOTED

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SHEET NO.
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DRAWING NO.
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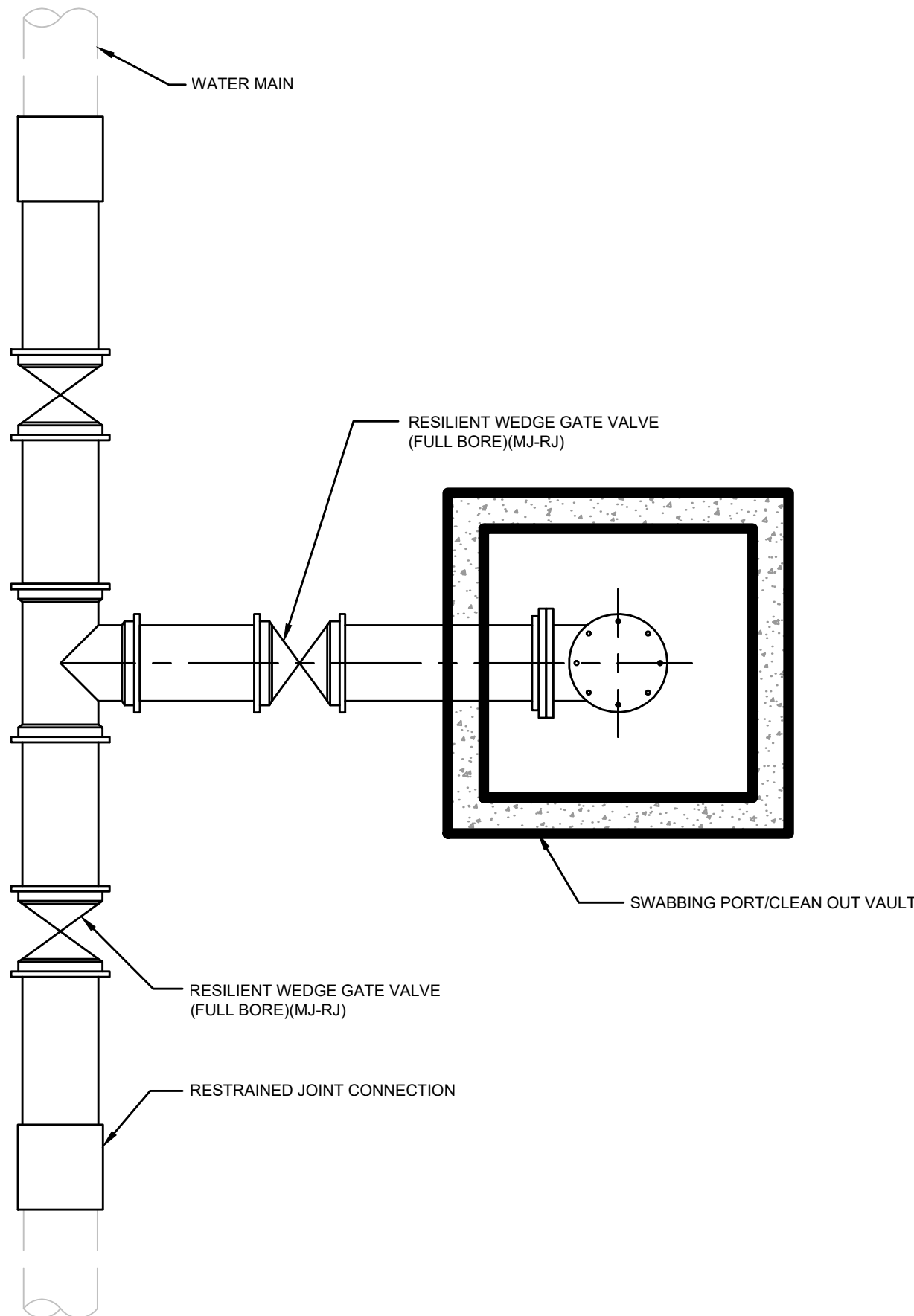
SWABBING PORT AND CLEAN OUT VAULT DETAIL - SECTION

JANUARY 2021 PLATE W-45



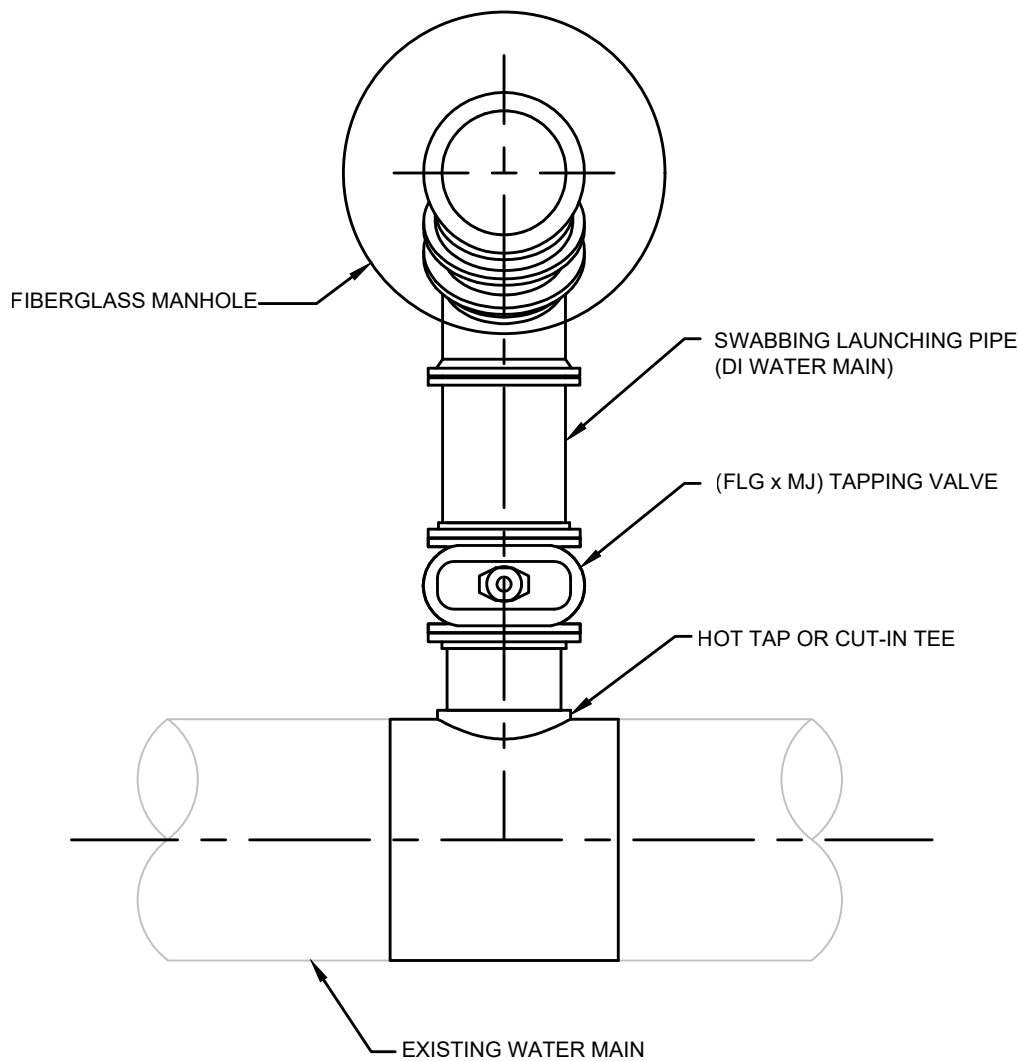
SWABBING PORT AND CLEAN OUT VAULT DETAIL - PLAN

JANUARY 2021 PLATE W-45A



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

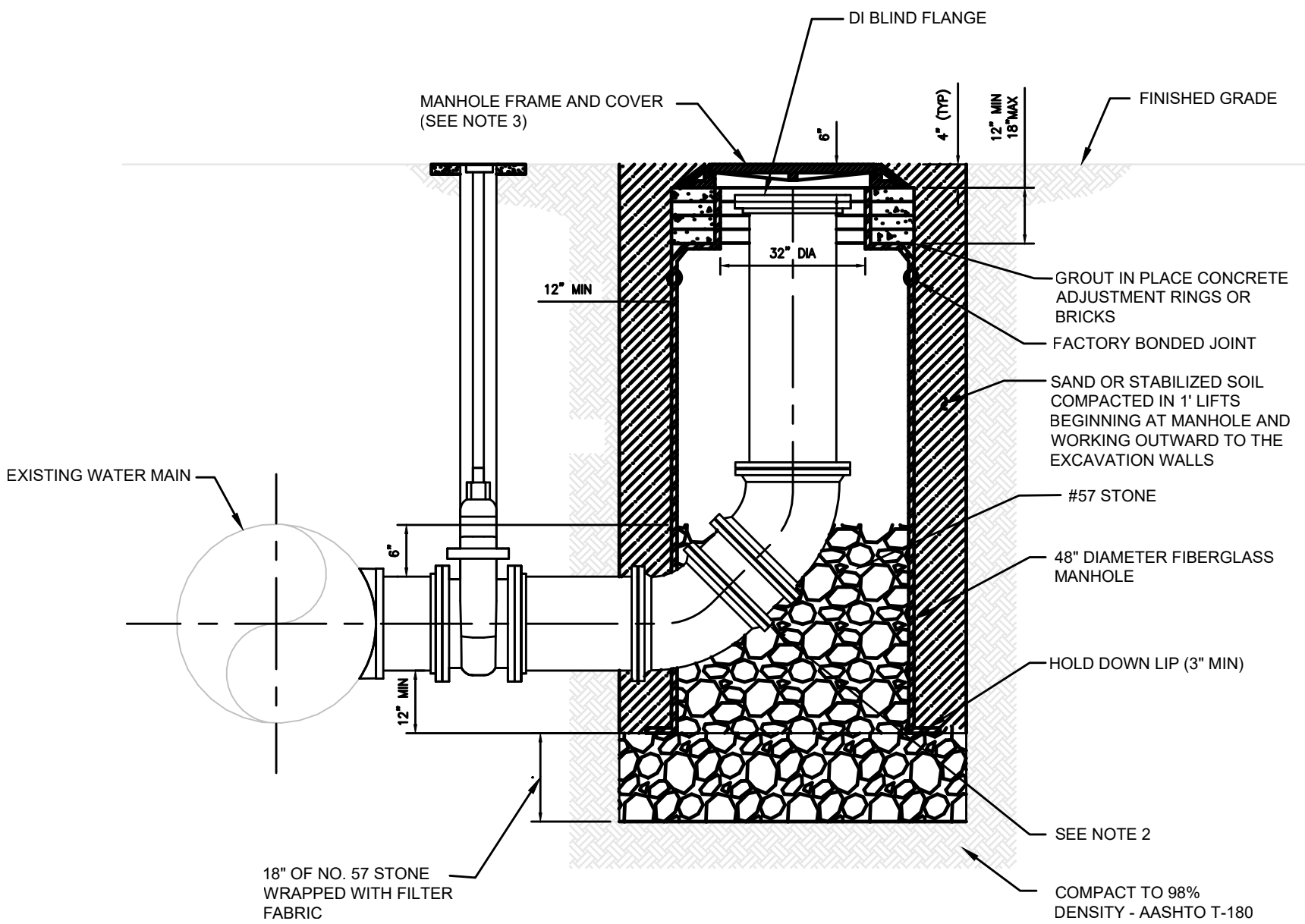
JANUARY 2021 PLATE W-45B



- NOTES:
- 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 2021 PLATE W-45C



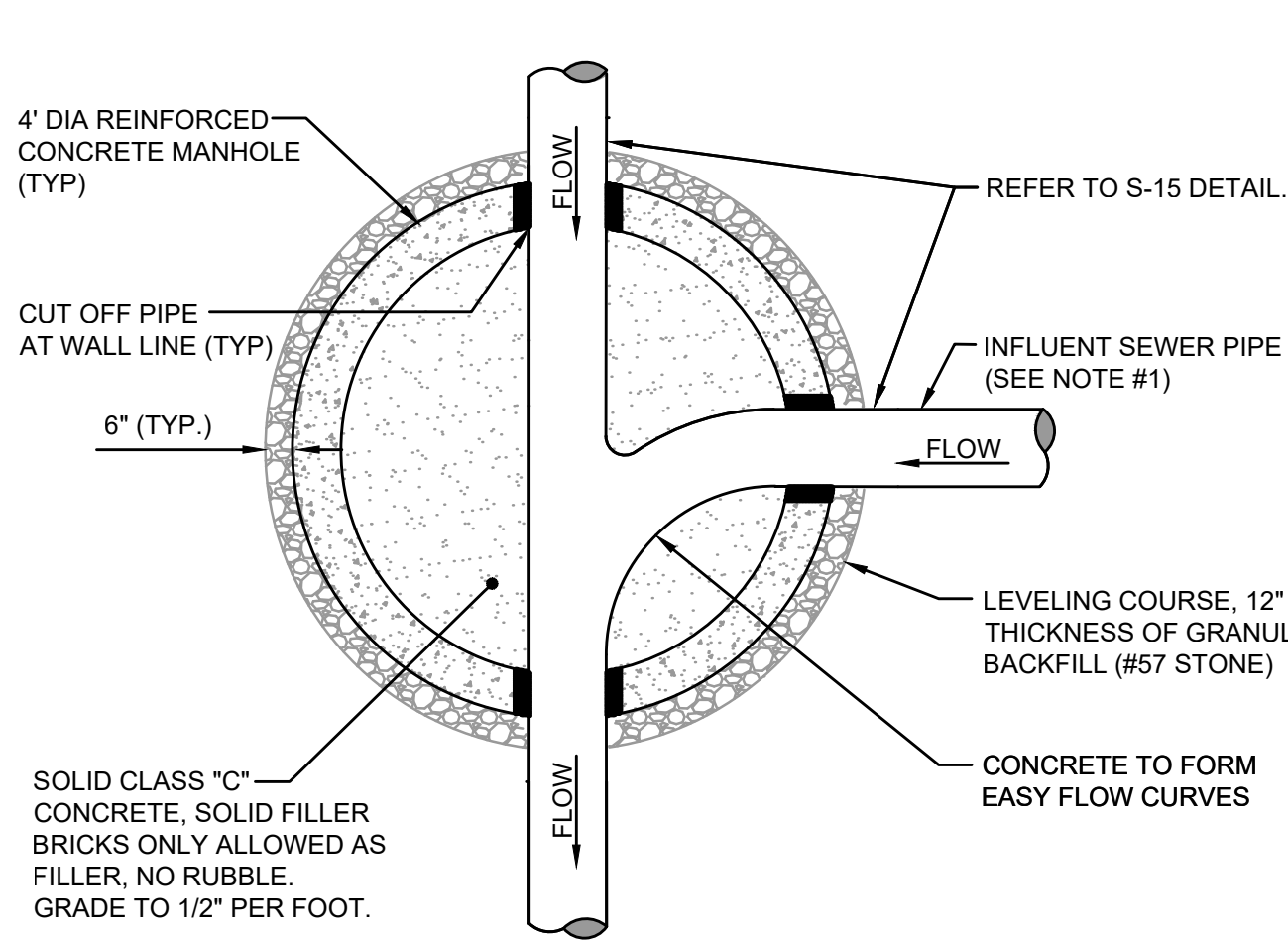
- NOTES:
- PROVIDE ALL MATERIALS IN ACCORDANCE TO JEA WATER AND WASTEWATER STANDARD SPECIFICATIONS.
 - USE TWO VERTICAL 45 DEGREE MJ BENDS OR LONG RADIUS 90 DEGREE MJ BEND.
 - PROVIDE STANDARD JEA FRAME AND COVER.
 - RESTRAIN ALL JOINTS.

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

JANUARY 2021 PLATE W-45D

England, Thims & Miller, Inc. 14775 Old St. Augustine Road Jacksonville, FL 32228 FAX: (904) 946-9485 CA - 00002884 LC - 0000316	
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DESIGNER: JON-MICHAEL BARQUIN FLORIDA REGISTRATION NO. 94926	DESIGN ENGINEER: JON-MICHAEL BARQUIN FLORIDA REGISTRATION NO. 94926
DESIGNED BY: DATE:	CHECKED BY: DATE:
NO. SHEETS 6	SHEET NO. 6
PROJ. NO. 19-239-07-001	DATE: JANUARY 2021
SCALE: AS NOTED	
DRAWING NO. 106	
JEA STANDARD WATER AND RECLAIM DETAILS WILDLIGHT COMMERCE PARK PARCEL A	

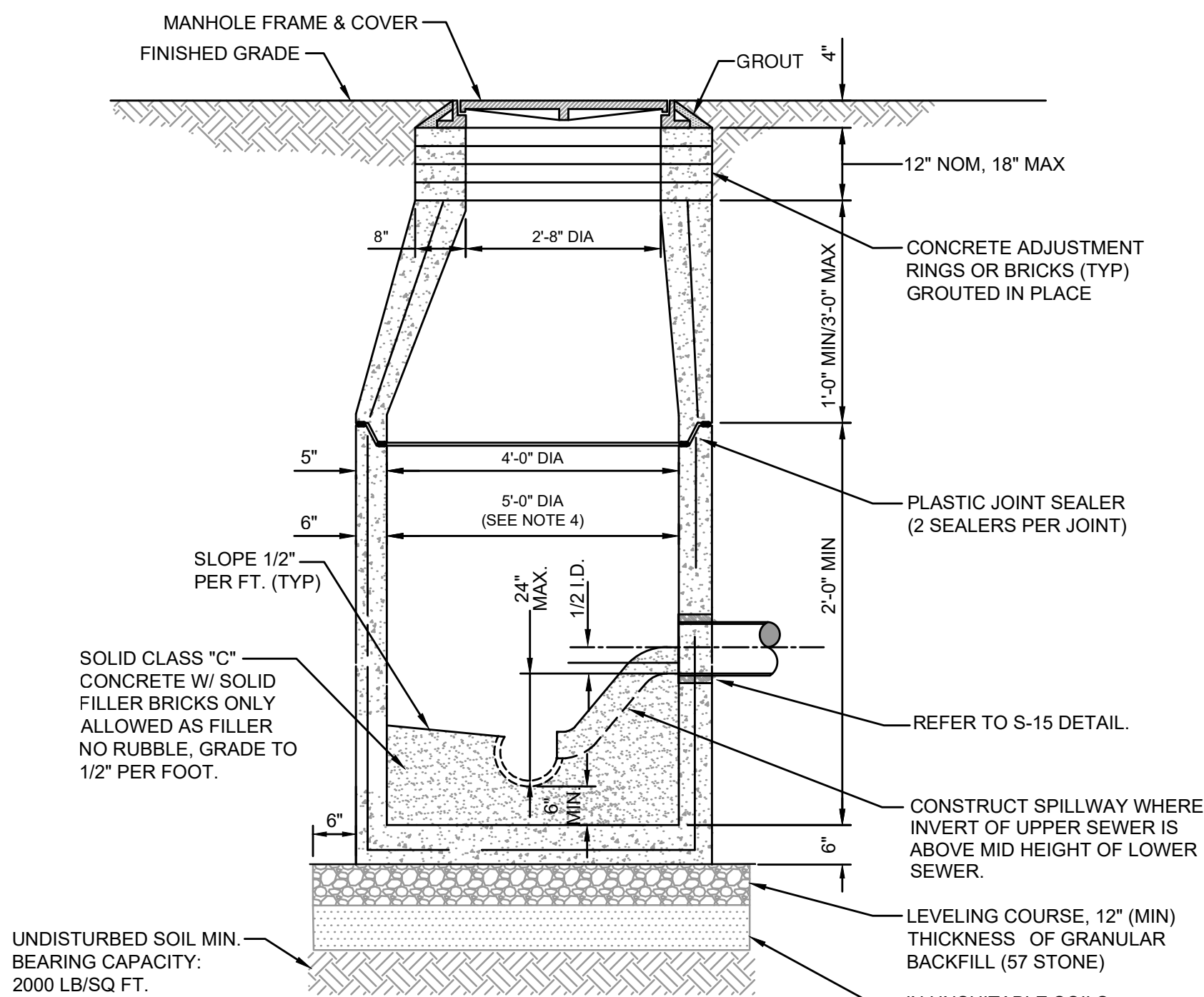
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- NOTES:**
1. THE ANGLE BETWEEN ALL INFLUENT FLOW CHANNELS AND EFFLUENT PIPE SHALL BE BETWEEN 90° - 180° UNLESS OTHERWISE APPROVED BY JEA.

PLAN VIEW (S-3)

(FOR SECTION VIEW SEE S-2)



SECTION VIEW (S-2)

(FOR PLAN VIEW SEE S-3)

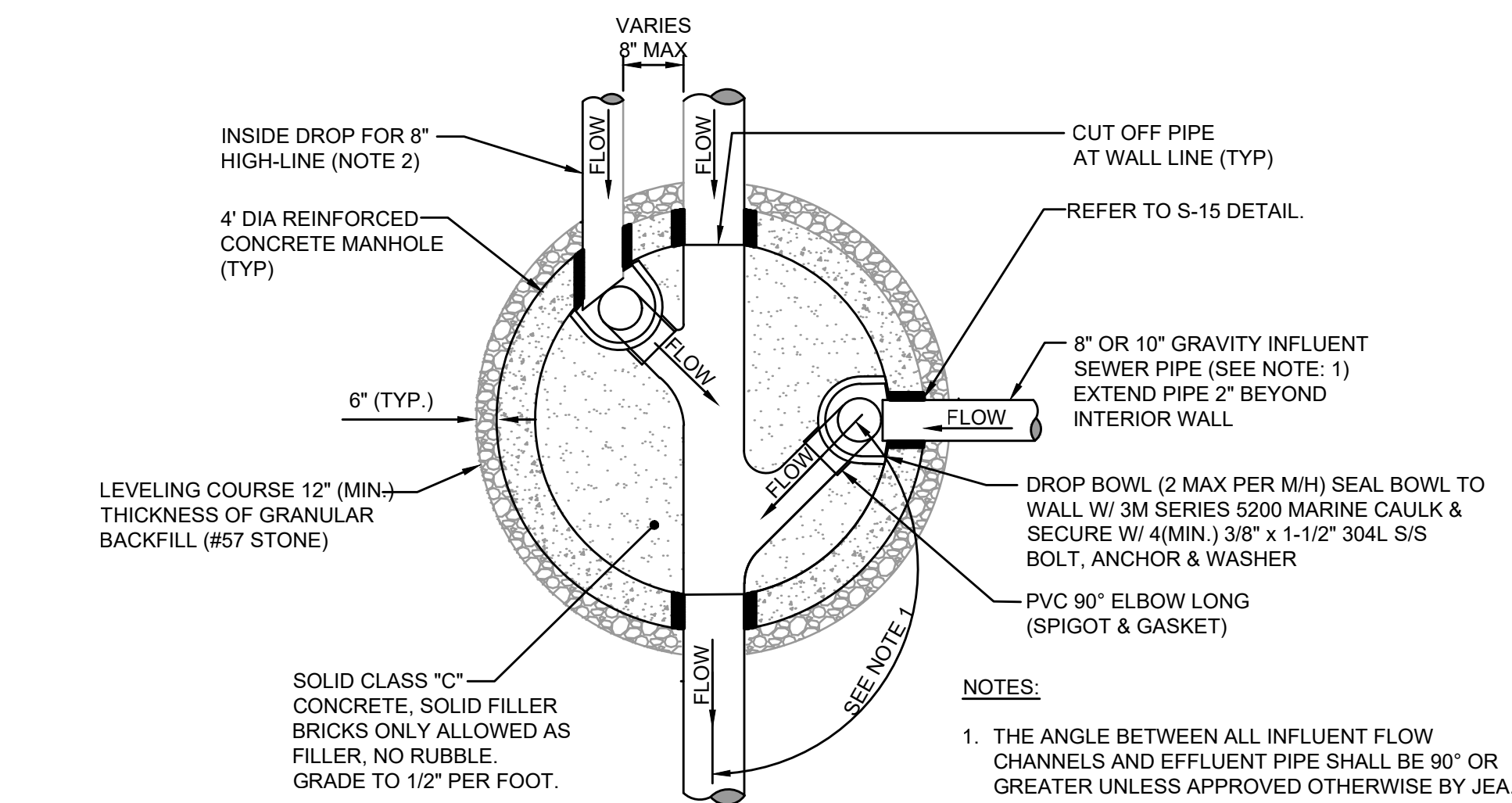
NOTES:

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 2021

PLATES S-2, S-3

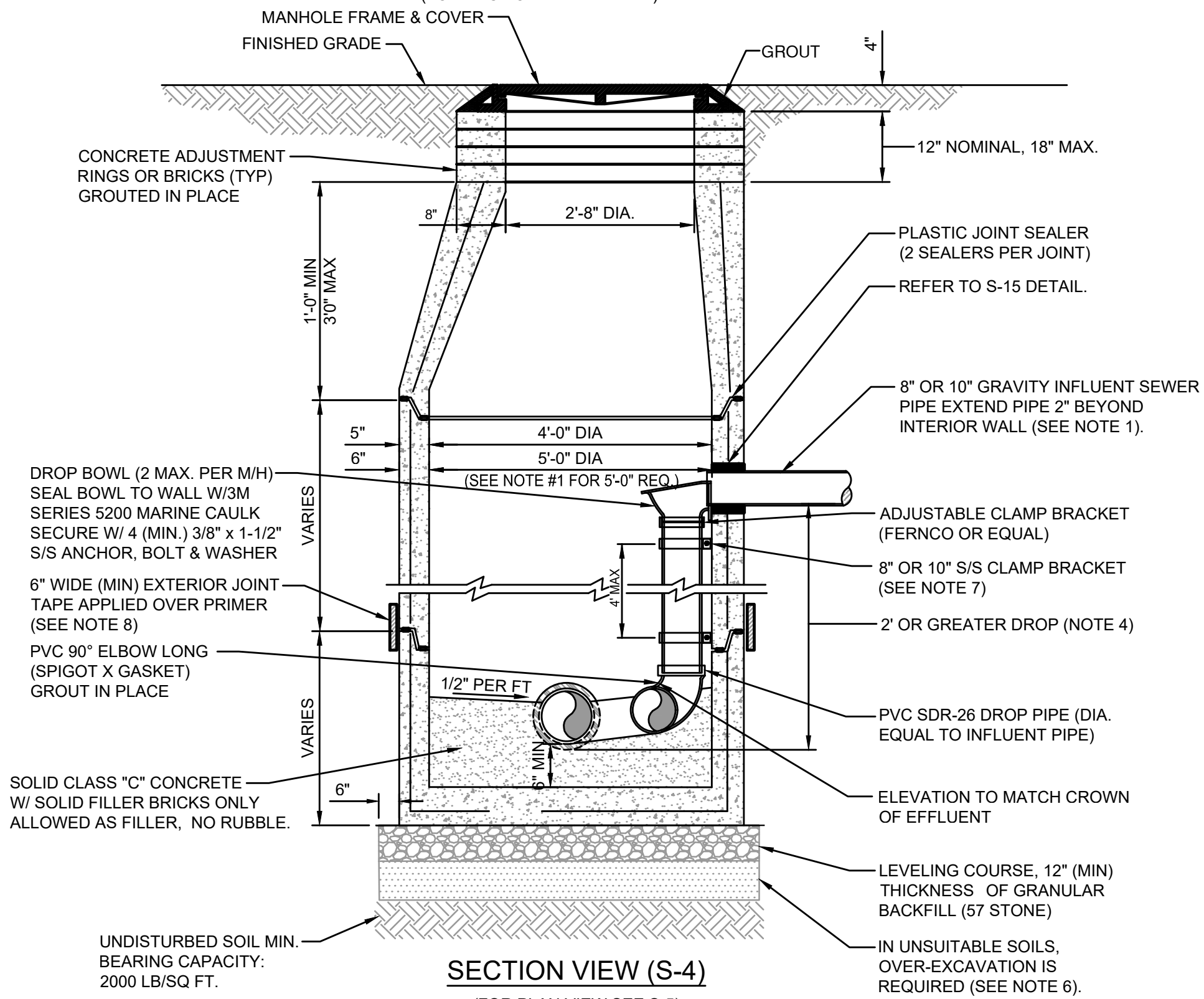


NOTES:

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)

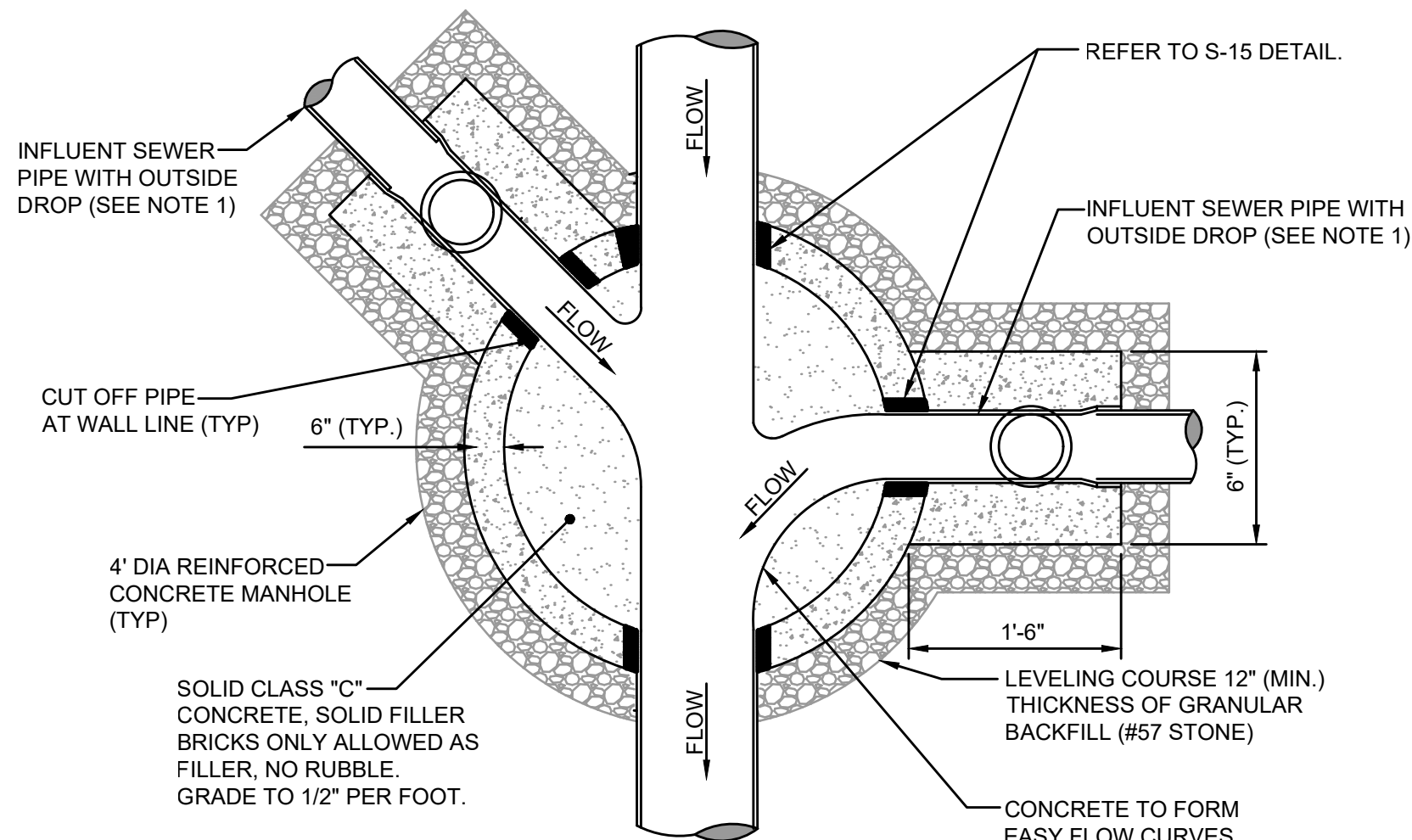
NOTES:

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 MH WALL WITH (2) 3/8" X 1" BOLT, ANCHOR & WASHER PER BRACKET ASSY. ALL 304 OR 316 STAINLESS STEEL MATERIALS.
8. ALL MH 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 2021

PLATES S-4, S-5

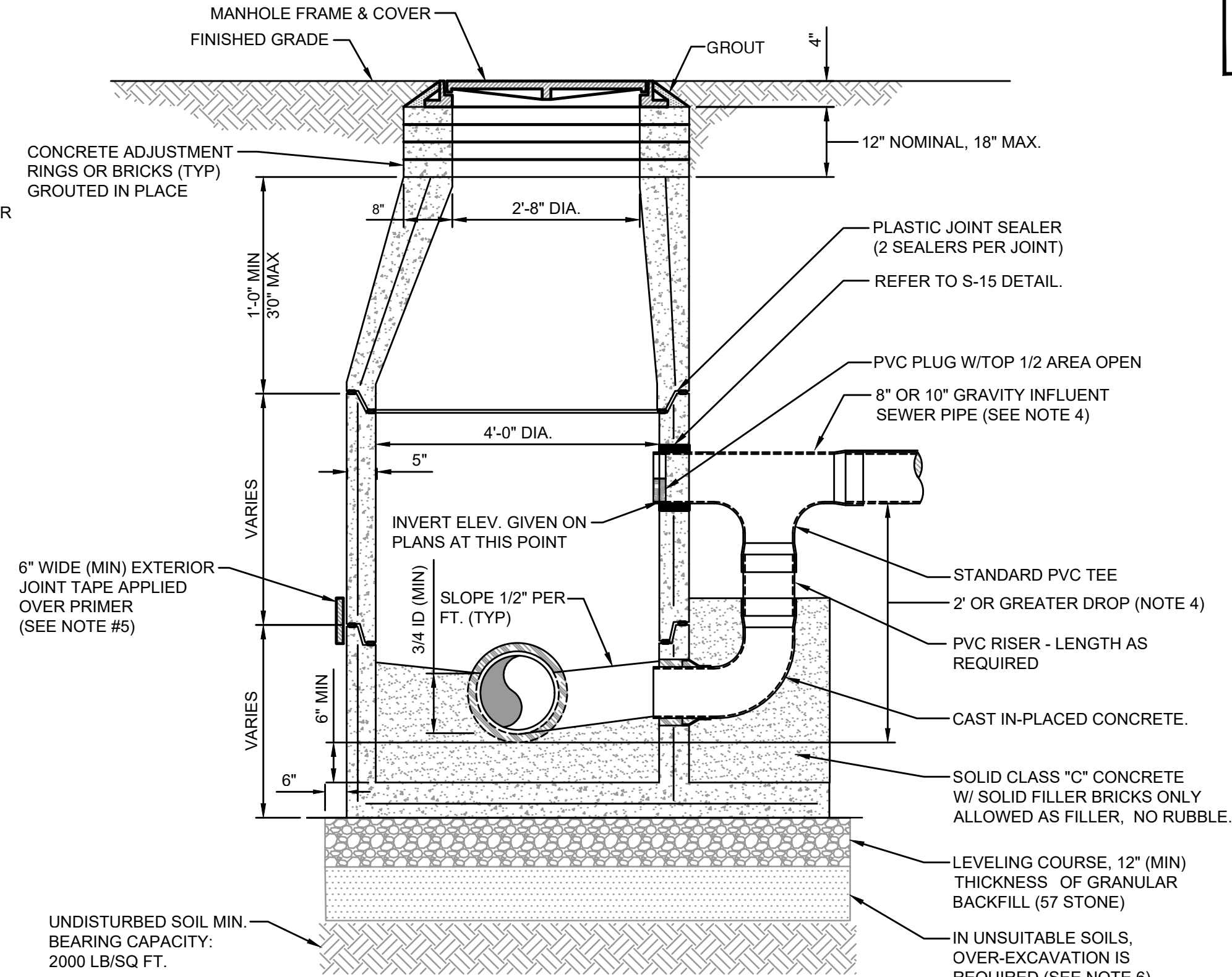


NOTES:

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 SPECIALTY 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 MH 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

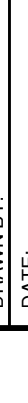
JANUARY 2021

PLATES S-7, S-8

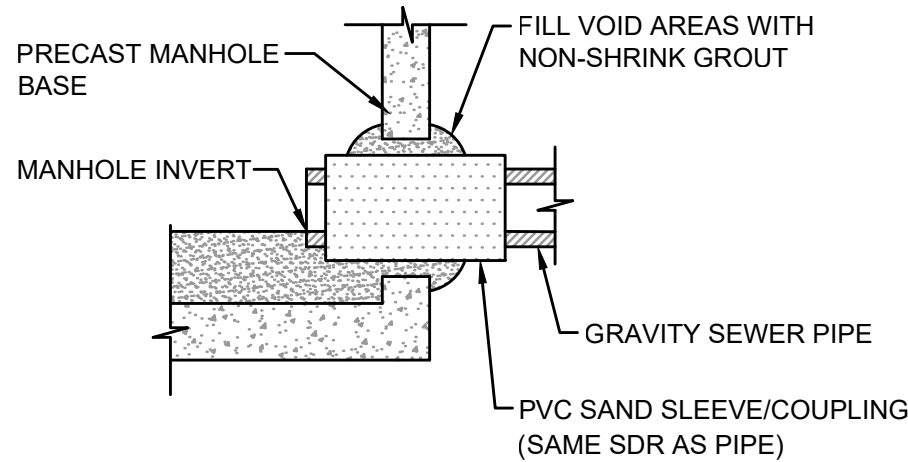
England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32228
P: (904) 946-1300
FAX: (904) 946-9485
CA - 00002884 LC - 0000316

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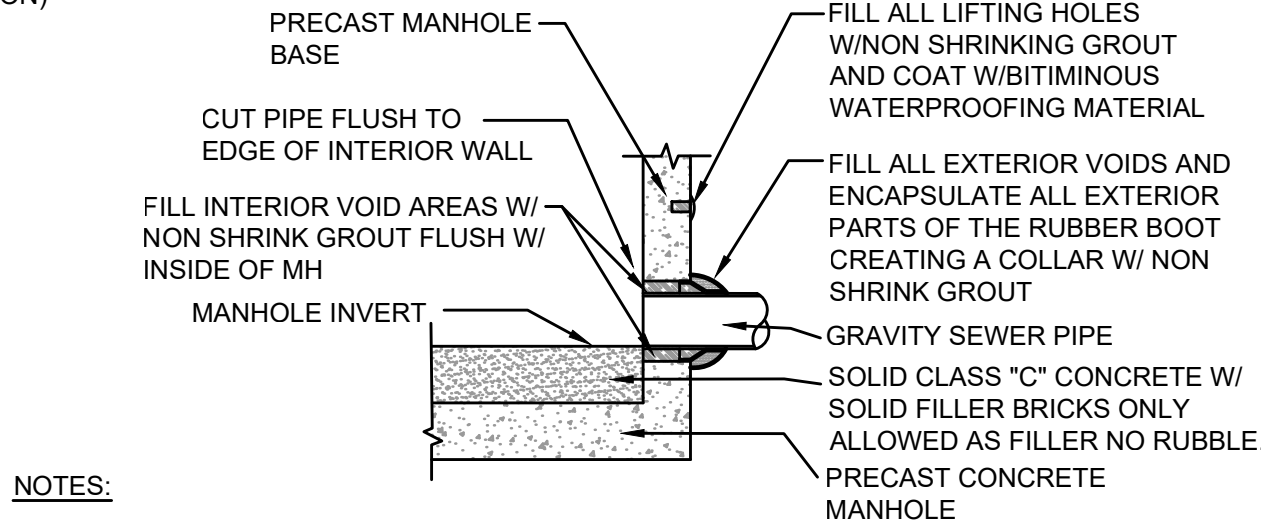
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								FLORIDA REGISTRATION NO.		4							
										3							
										2							
DRAWING NO. 10H		SCALE: AS NOTED		WILDLIGHT COMMERCE PARK PARCEL A				94926		1							

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Fri Aug 25, 2023 - 08:45
Aries Alucard



PVC SAND SLEEVE
(FOR EXISTING AND NEW M/H CONSTRUCTION)

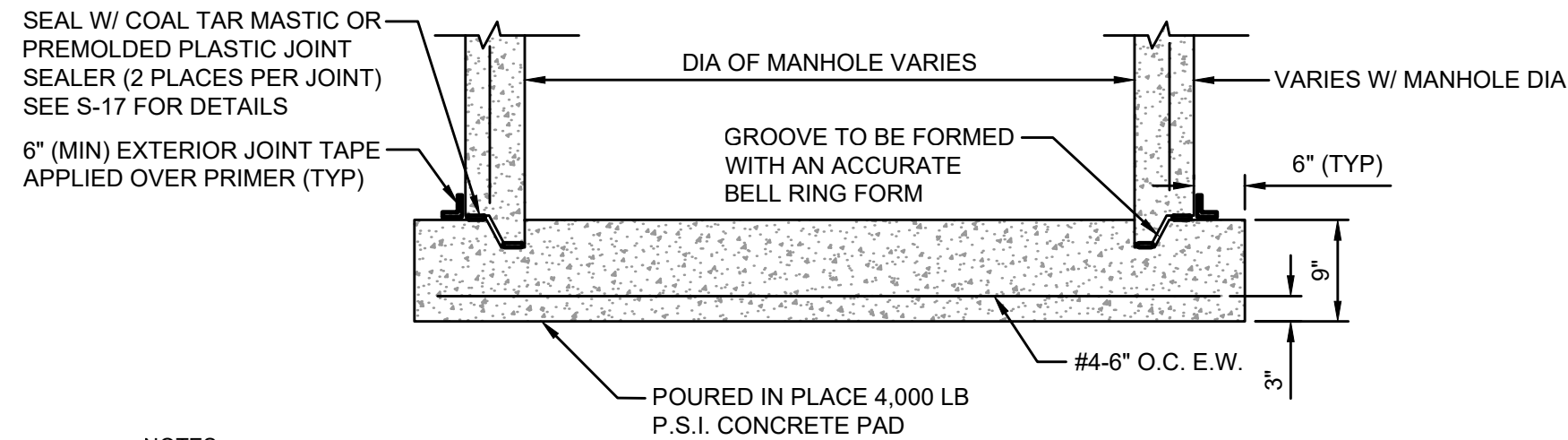


NOTES:

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:

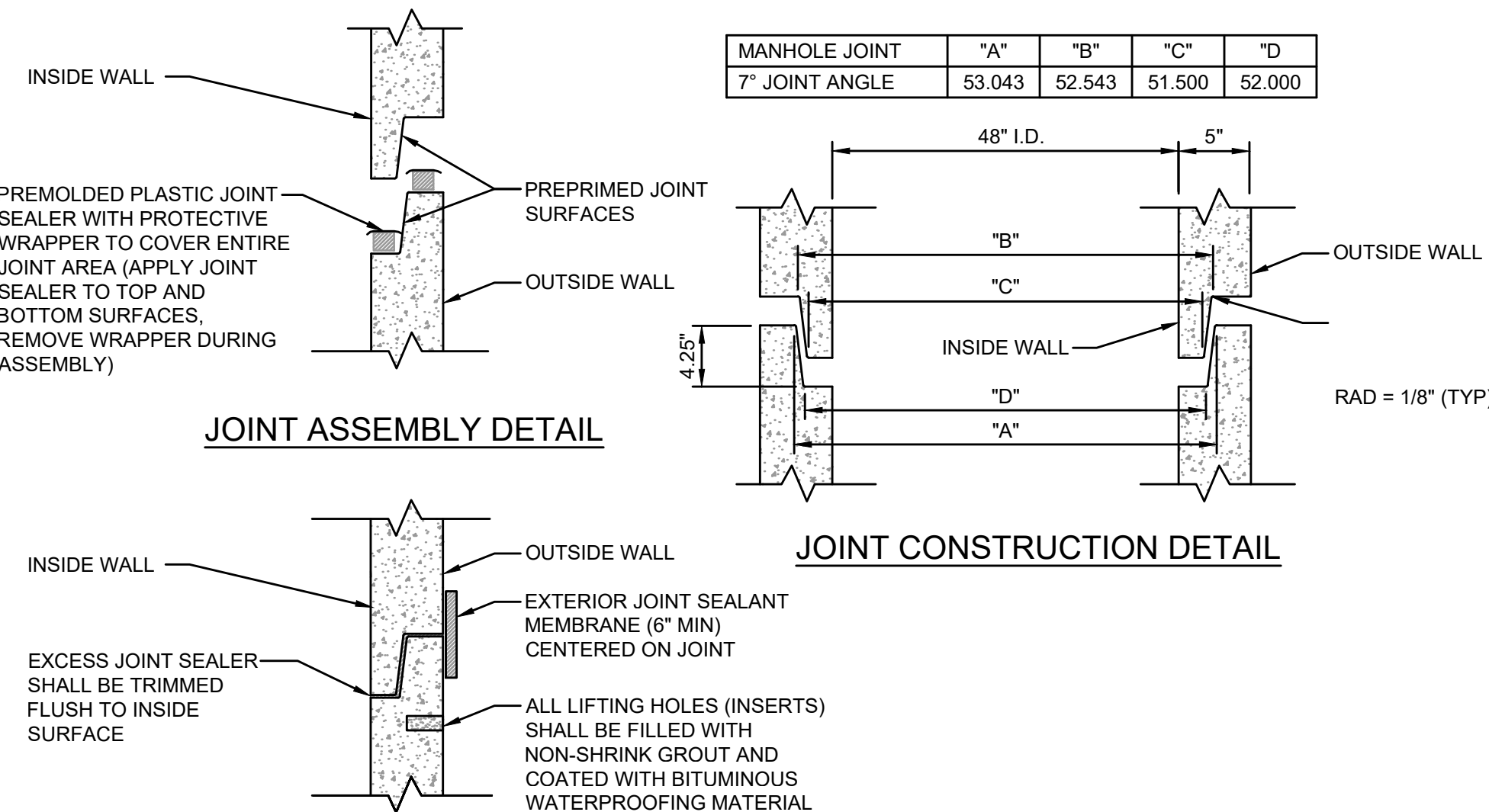
THE USE OF THE POURED IN PLACE MANHOLE BOTTOM SHALL BE MINIMIZED AND SHALL BE SPECIFICALLY APPROVED BY JEA PRIOR TO CONSTRUCTION.

MANHOLE BOTTOM

MANHOLE PIPE CONNECTION DETAIL

JANUARY 2021

PLATE S-15

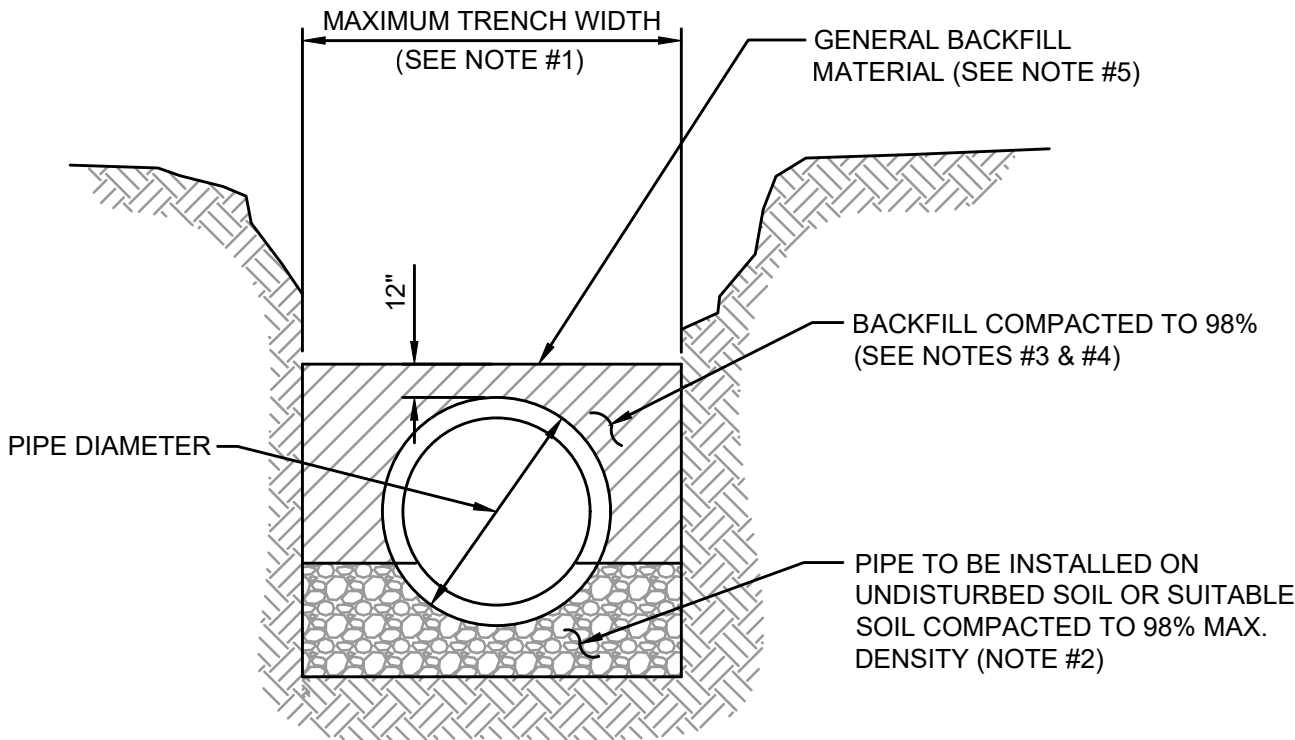


COMPLETED JOINT DETAIL

PRECAST SEWER MANHOLE JOINT DETAIL

JANUARY 2021

PLATE S-17



TYPICAL TRENCH

NOTES:

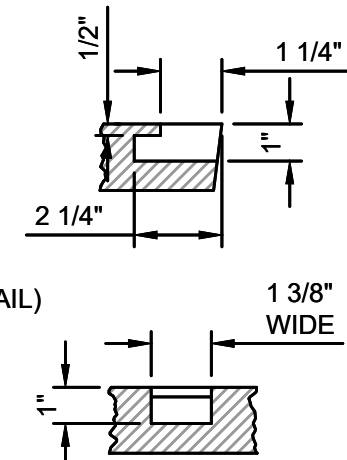
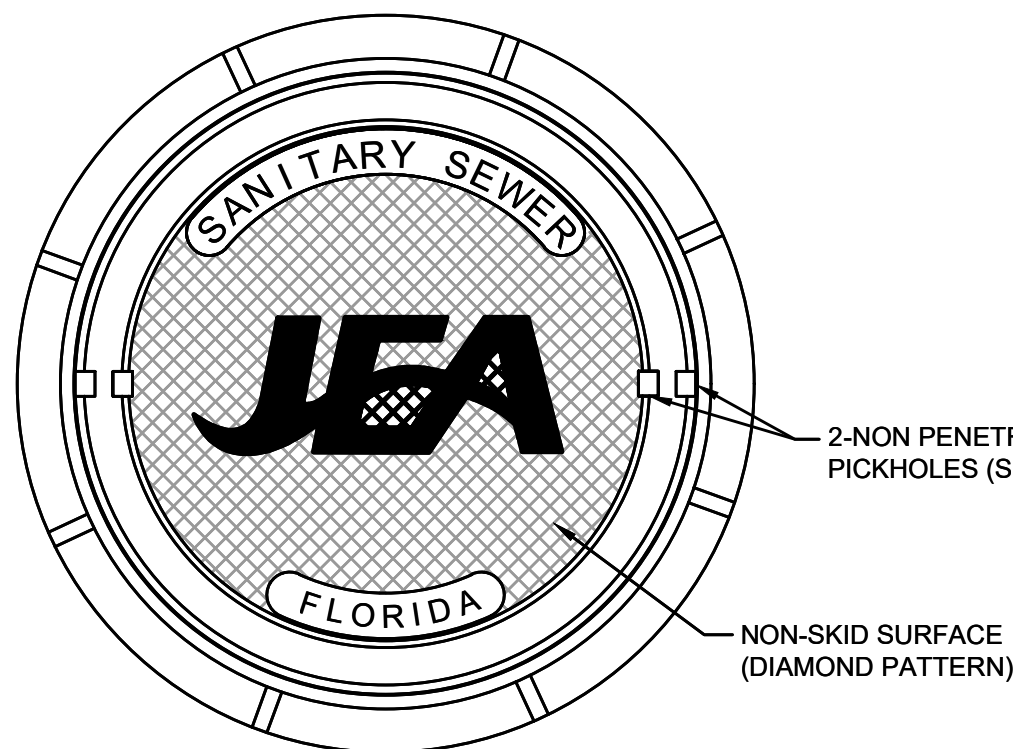
- TRENCH SIDES SHALL BE APPROXIMATELY VERTICAL BETWEEN AN ELEVATION OF 1 FOOT ABOVE THE TOP OF THE PIPE AND THE CENTER LINE OF THE PIPE; OTHERWISE, TRENCH SIDES SHALL BE AS VERTICAL AS POSSIBLE OR AS REQUIRED BY OSHA STANDARDS. REFER TO THE MEASUREMENT AND PAYMENT SECTION (SECTION #801, PARAGRAPH #4)) TO DETERMINE MAXIMUM PAYLINE WIDTHS.
- 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.
- 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.
- 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.
- 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

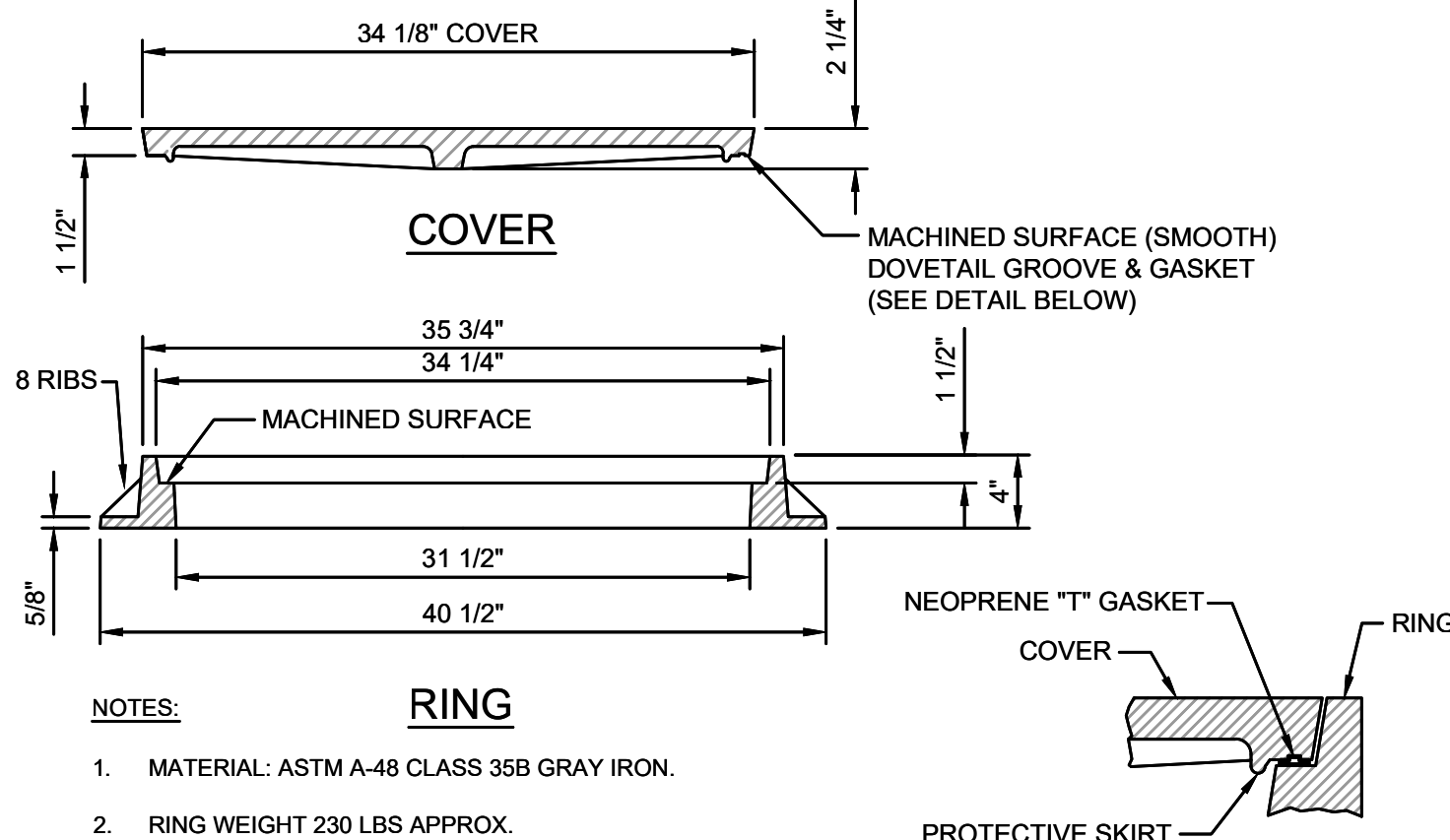
JANUARY 2021

IN CITY RIGHT -OF-WAY

PLATE W-42



PICKHOLE DETAIL



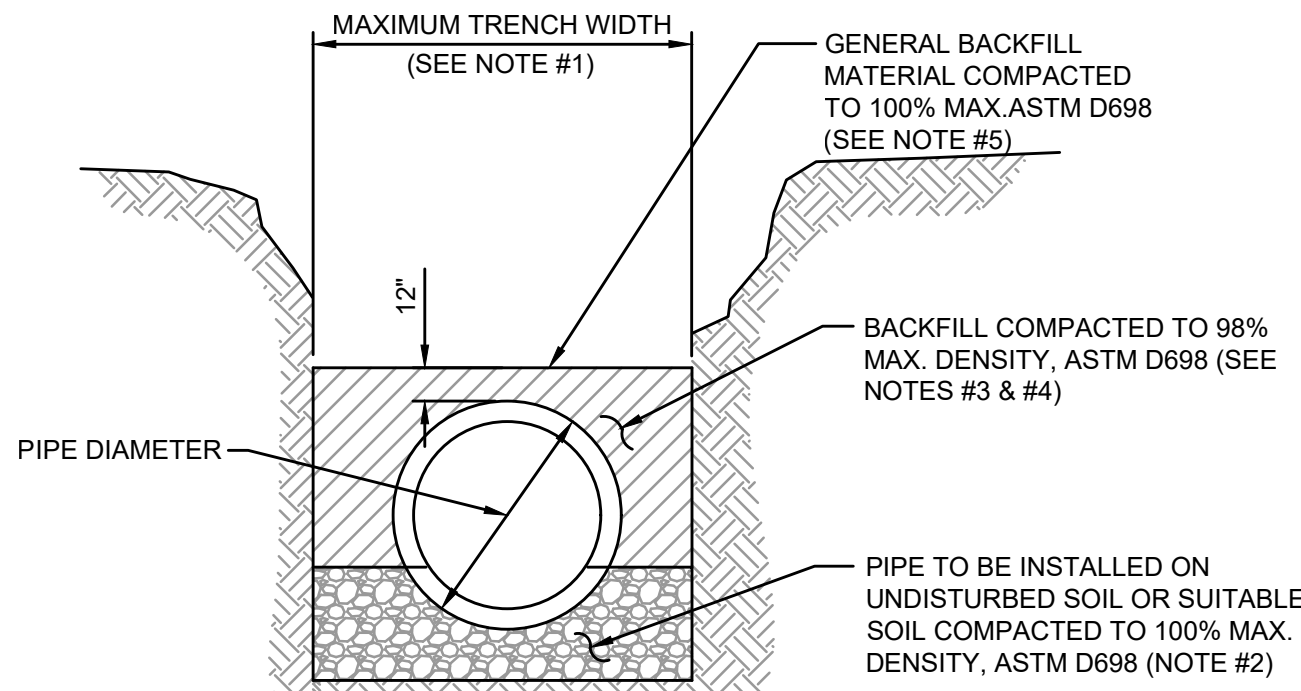
NOTES:

- MATERIAL: ASTM A-48 CLASS 35B GRAY IRON.
- RING WEIGHT 230 LBS APPROX.
- COVER WEIGHT 230 LBS. APPROX.
- ALL DIMENSIONS ARE SHOWN IN INCHES.
- FOR MANHOLES WHICH WILL BE MAINTAINED BY JEA (INCLUDING UTILITY DEDICATION PROJECTS), THE COVER SHALL INCLUDE THE "JEA" LOGO AND A NEOPRENE GASKET.
- 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 2021

PLATE S-1



TYPICAL TRENCH

NOTES:

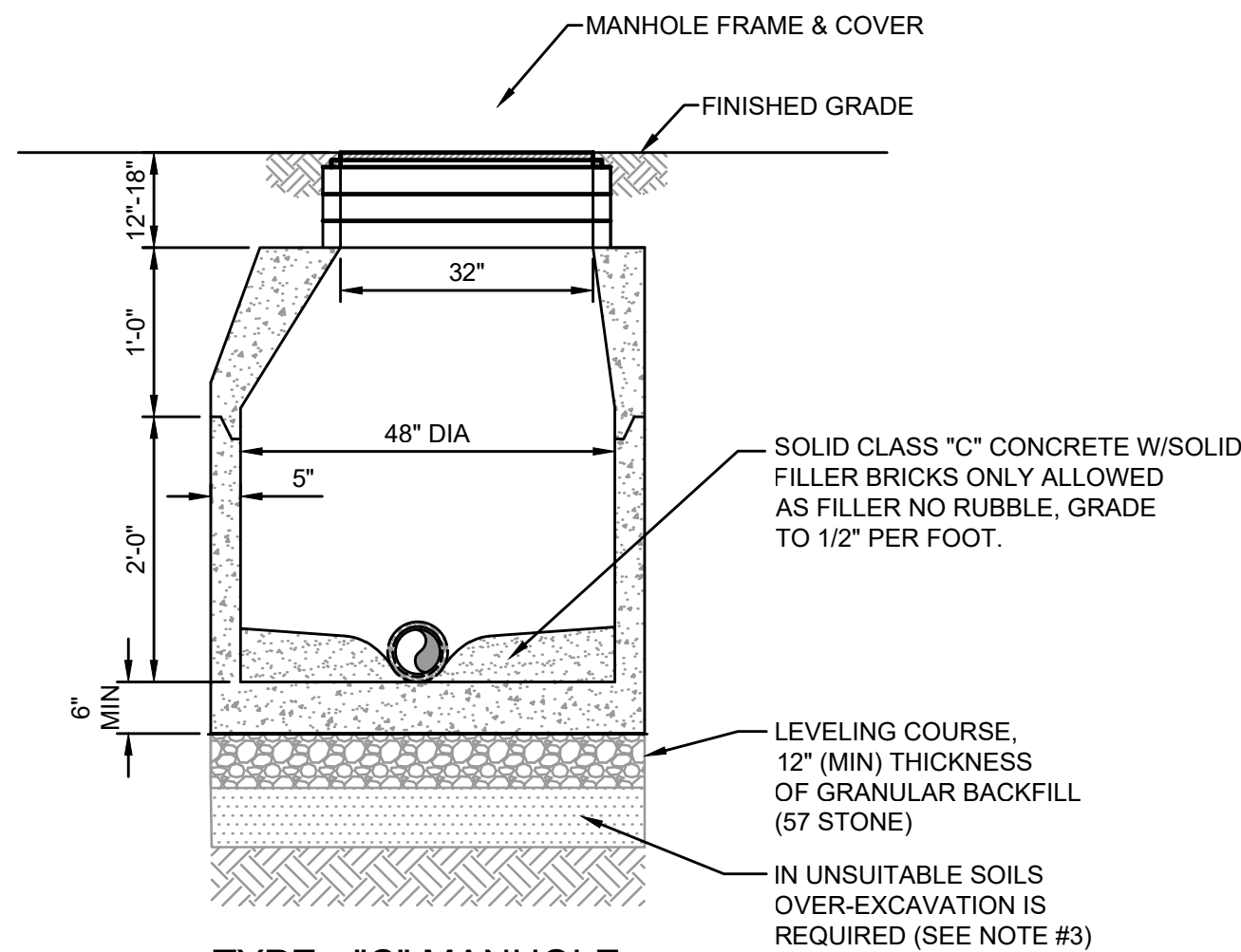
- TRENCH SIDES SHALL BE APPROXIMATELY VERTICAL BETWEEN AN ELEVATION OF 1 FOOT ABOVE THE TOP OF THE PIPE AND THE CENTER LINE OF THE PIPE; OTHERWISE, TRENCH SIDES SHALL BE AS VERTICAL AS POSSIBLE OR AS REQUIRED BY OSHA STANDARDS. REFER TO THE MEASUREMENT AND PAYMENT SECTION (SECTION #801, PARAGRAPH #4)) TO DETERMINE MAXIMUM PAYLINE WIDTHS.
- 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.
- 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.
- 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.
- 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

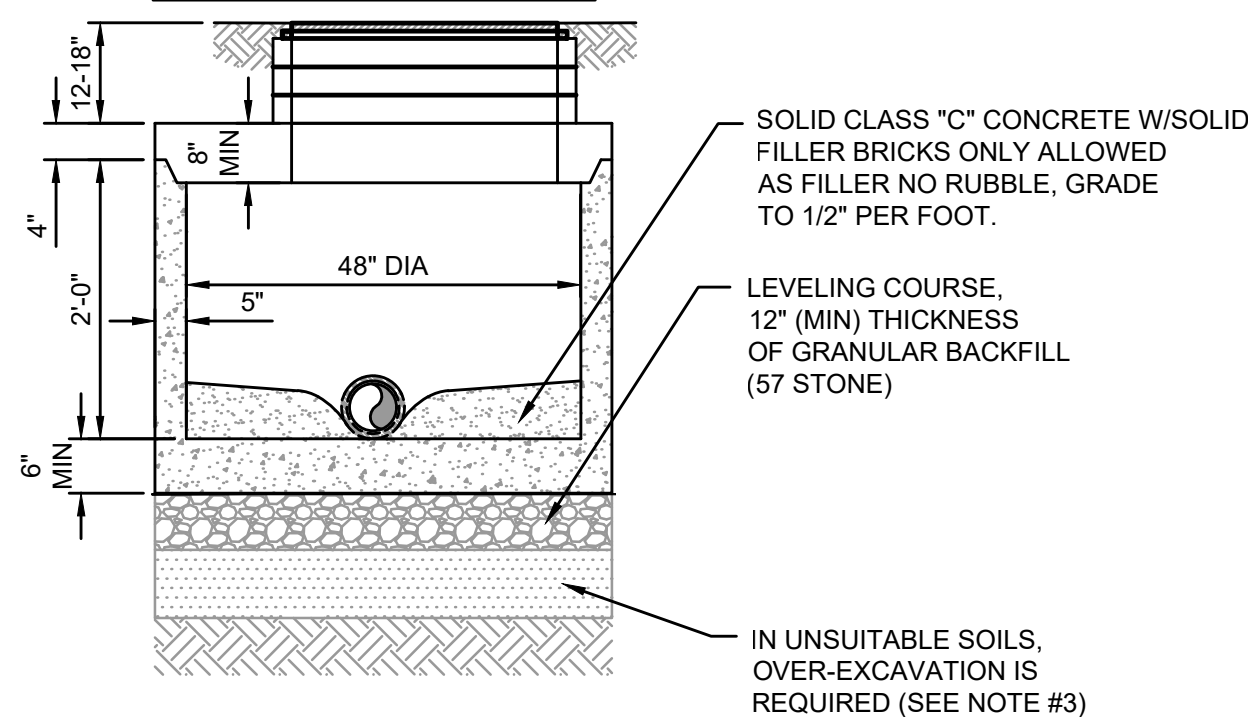
JANUARY 2021

IN STATE ROAD RIGHT -OF-WAY

PLATE W-42A



TYPE - "C" MANHOLE



**TYPE - "C" MANHOLE WITH FLAT TOP
SECTION VIEWS**

NOTES:

- PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. CONC., TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
- THE INTERIOR AND EXTERIOR OF MANHOLE AND INTERIOR OF ADJUSTMENT RINGS SHALL BE GIVEN TWO COAT OF BITUMINOUS WATERPROOFING MATERIAL.
- 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 2021

PLATE S-6



THESE DETAILS AS SHOWN ON THIS
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NO EXCEPTION TO THE DESIGN

DESIGNER	JON-MICHAEL BARQUIN
DRAWN BY	
DATE	
CHECKED BY	
DATE	

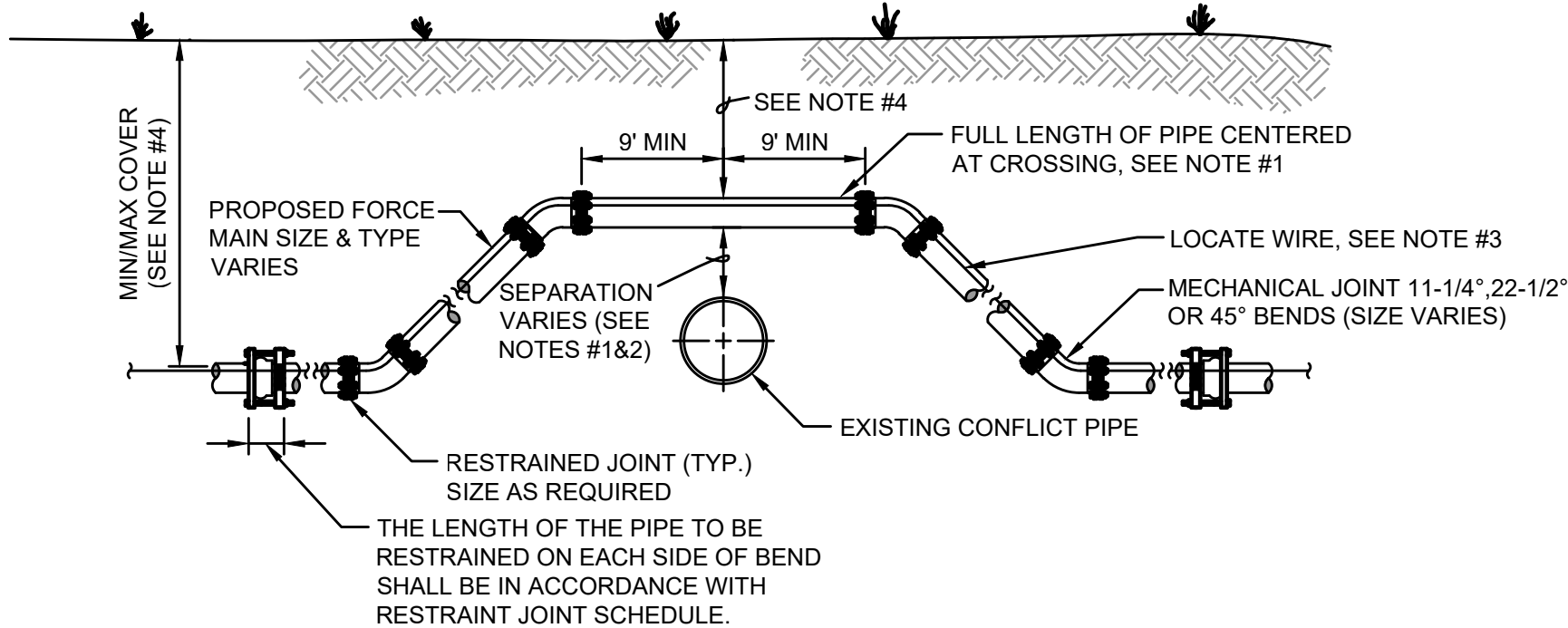


JEA STANDARD
SANITARY SEWER DETAILS
WILDLIGHT COMMERCE PARK PARCEL A

NO. SHEETS	5
SHEET NO.	2
DRAWING NO.	101
PROJ. NO.	19-239-07-001
DATE	JANUARY 2021
SCALE	AS NOTED

NO.	BY	DATE	REVISIONS
1			
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4			

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CASE "A" CROSSING

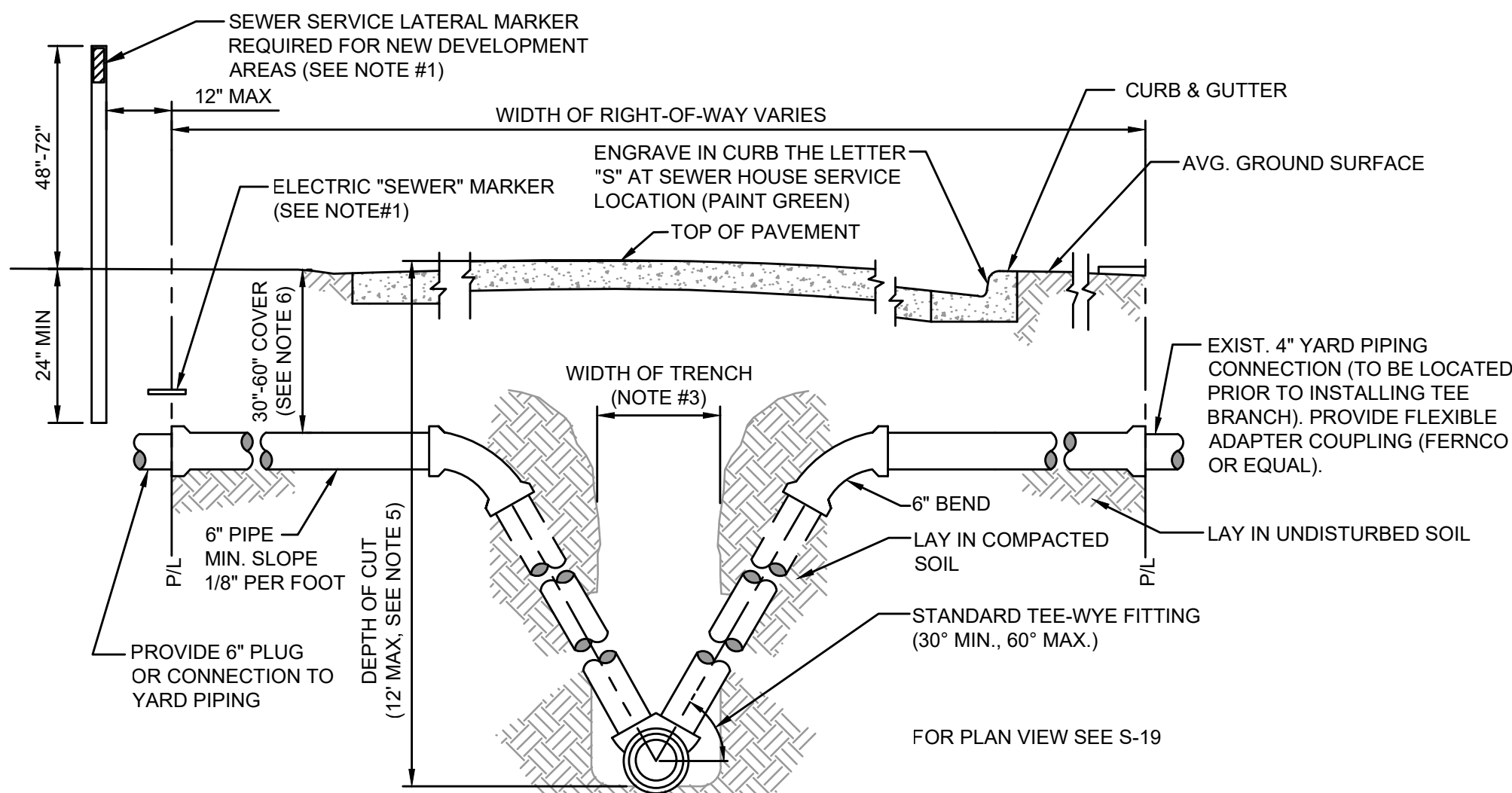
NOTES:

- 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.
- FOR OTHER LOCATION LIMITATIONS SEE DETAIL (S-26 & S-27).
- LOCATING WIRE REQUIRED: SEE DETAIL S-49.
- 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.
- 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 2021

PLATE S-39



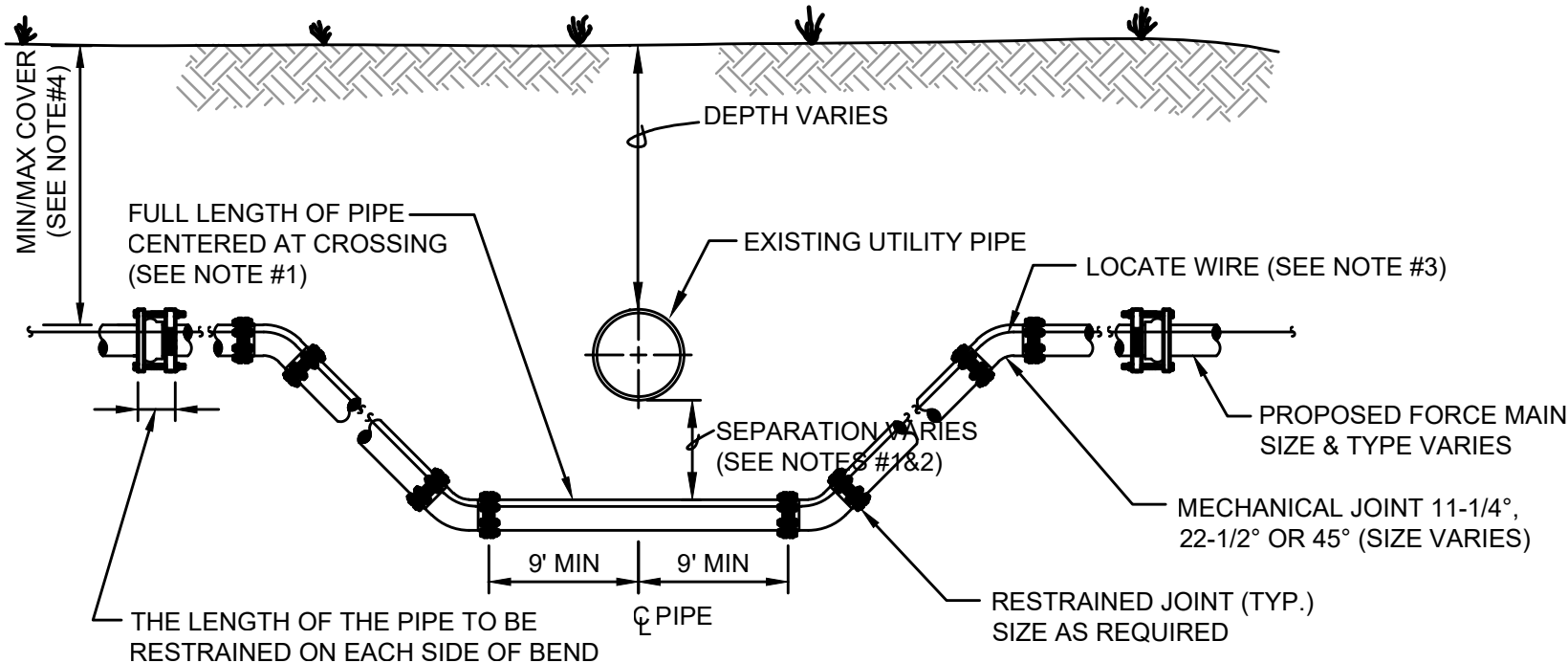
NOTES:

- 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.
- 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).
- SEE MEASUREMENT AND PAYMENT SECTION FOR MAXIMUM PAYMENT WIDTHS.
- ALL GRAVITY SEWER MAINS AND ASSOCIATED SEWER LATERAL PIPE AND FITTINGS (INCLUDING THE TEE-WYE FITTING) SHALL BE PVC SDR-26.
- 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.
- 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.
- THE SEWER SERVICE LATERAL SHALL BE CONSTRUCTED AT A DEPTH TO ALLOW A GRAVITY CONNECTION BY THE CUSTOMER, WHERE POSSIBLE (CONTINGENT UPON MEETING THE CUSTOMER'S ON-SITE CONDITIONS AND LOCAL CONSTRUCTION STANDARDS). A LATERAL REQUIRING MORE THAN 60" OF COVER MUST BE APPROVED, PRIOR TO CONSTRUCTION, BY JEA.

HOUSE LATERAL - SECTION VIEW

JANUARY 2021

PLATE S-20



CASE "B" CROSSING

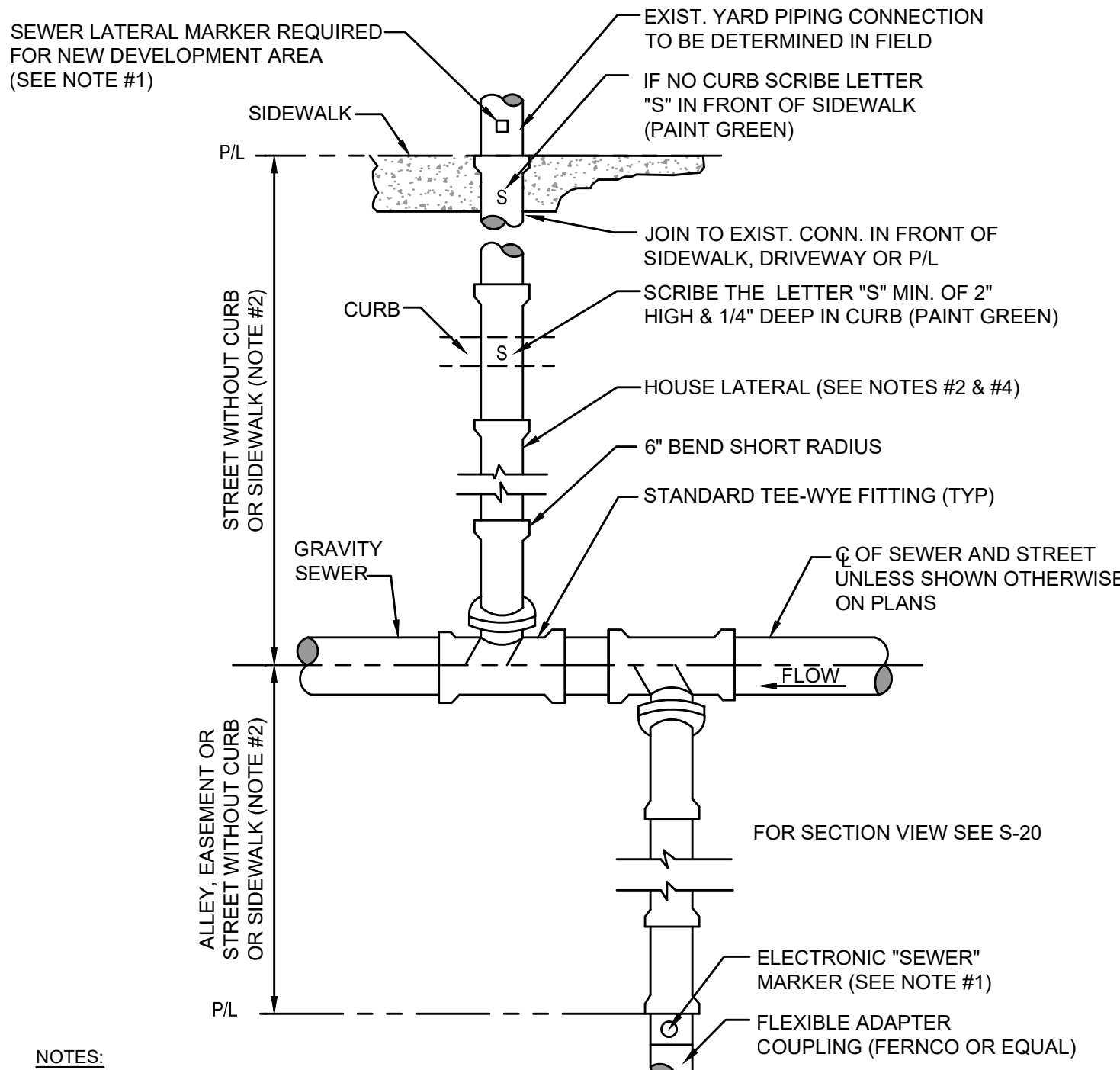
NOTES:

- 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.
- FOR OTHER LOCATION LIMITATIONS SEE DETAIL (S-26 & S-27).
- LOCATING WIRE REQUIRED: SEE DETAIL S-49.
- 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.
- 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 2021

PLATE S-41



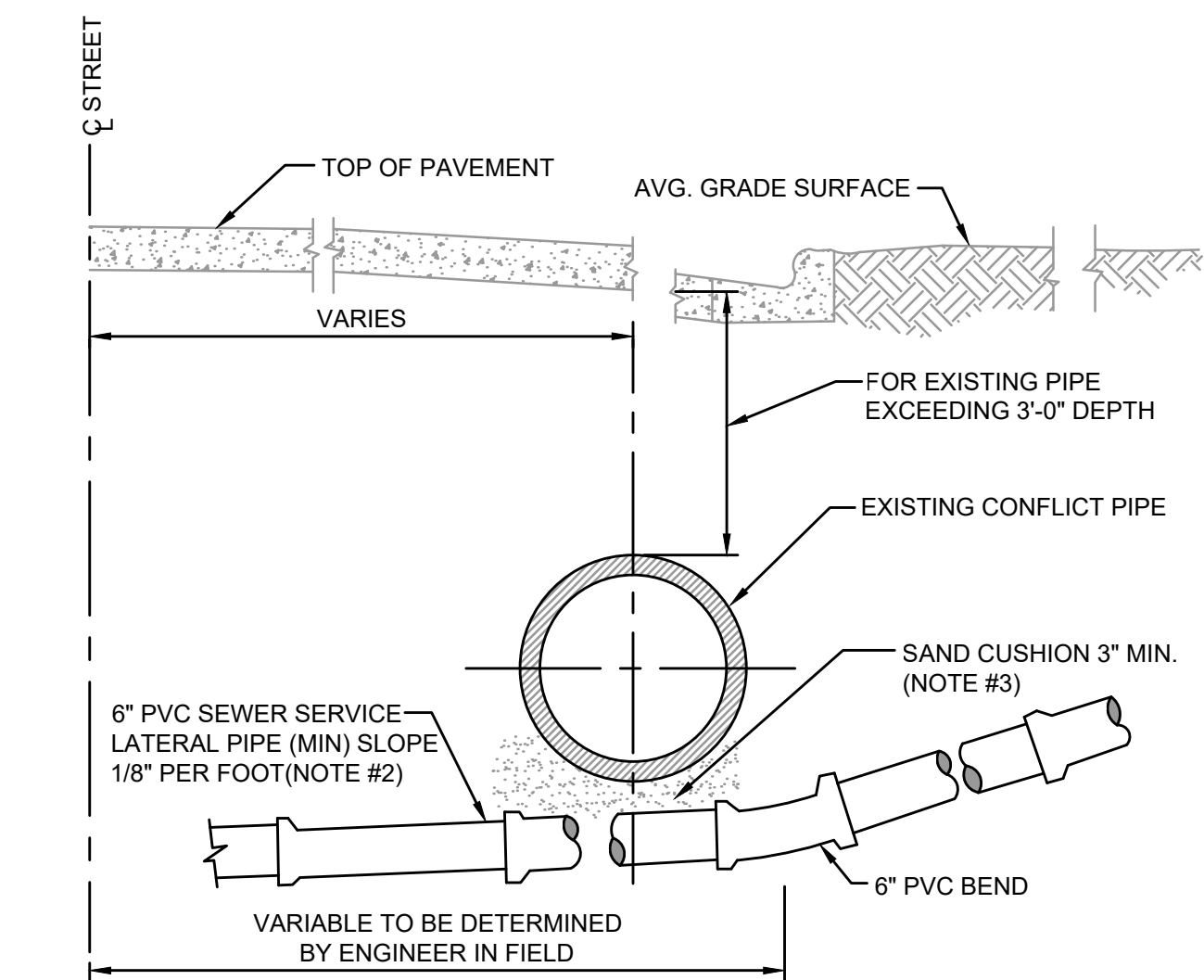
NOTES:

- 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.
- 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).
- NO SEWER SERVICE CONNECTIONS PERMITTED ON GRAVITY SEWER PIPE WHICH ARE 16" AND LARGER.
- 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 2021

PLATE S-19



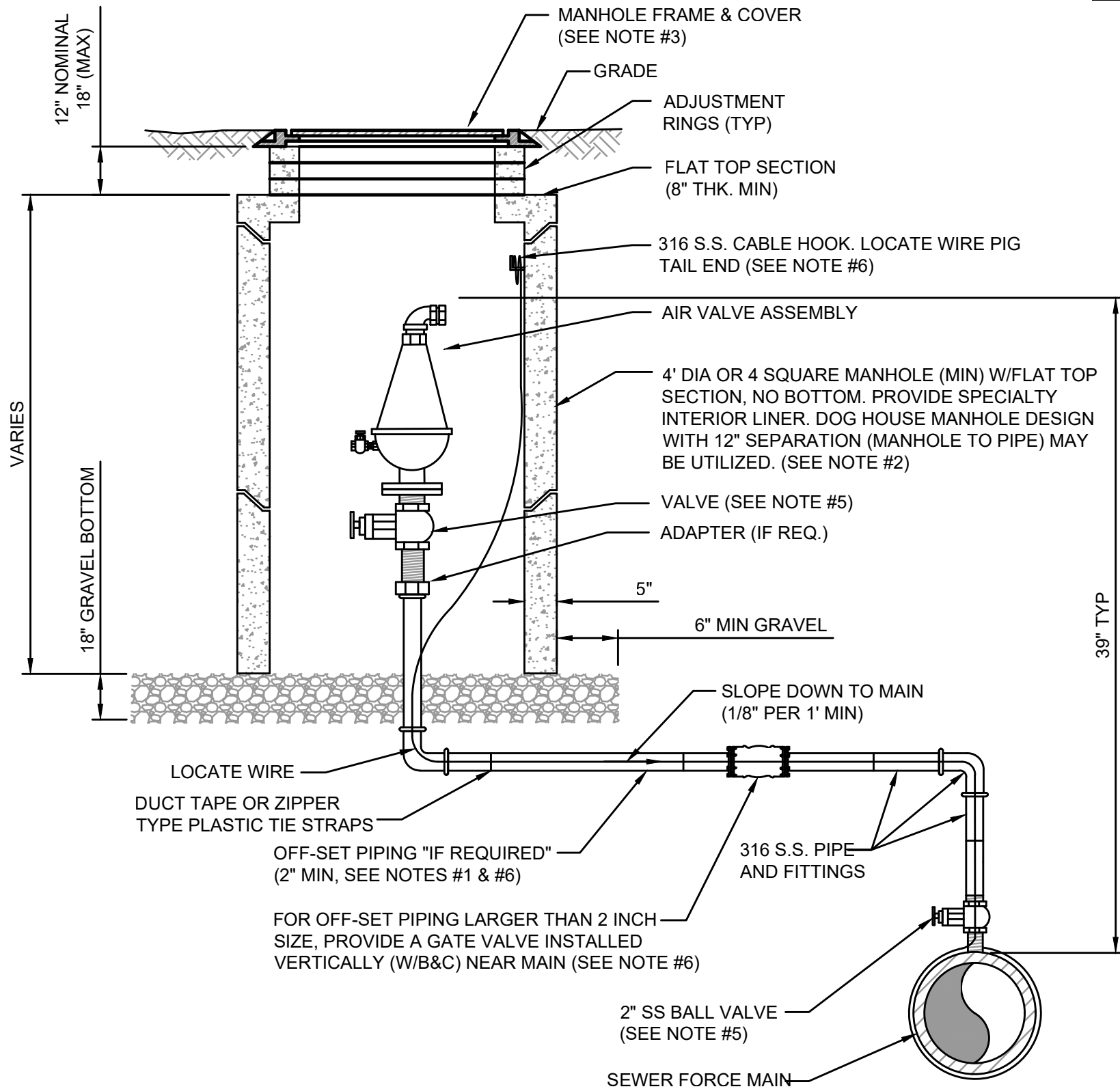
NOTES:

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

HOUSE LATERAL UNDER CONFLICT PIPE

JANUARY 2021

PLATE S-24



NOTES:

- 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.
- 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.
- 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).
- 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.
- 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.
- LOCATE WIRE SHALL HAVE ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE.

AIR VALVE ASSEMBLY INSIDE MANHOLE

JANUARY 2021

PLATE S-29

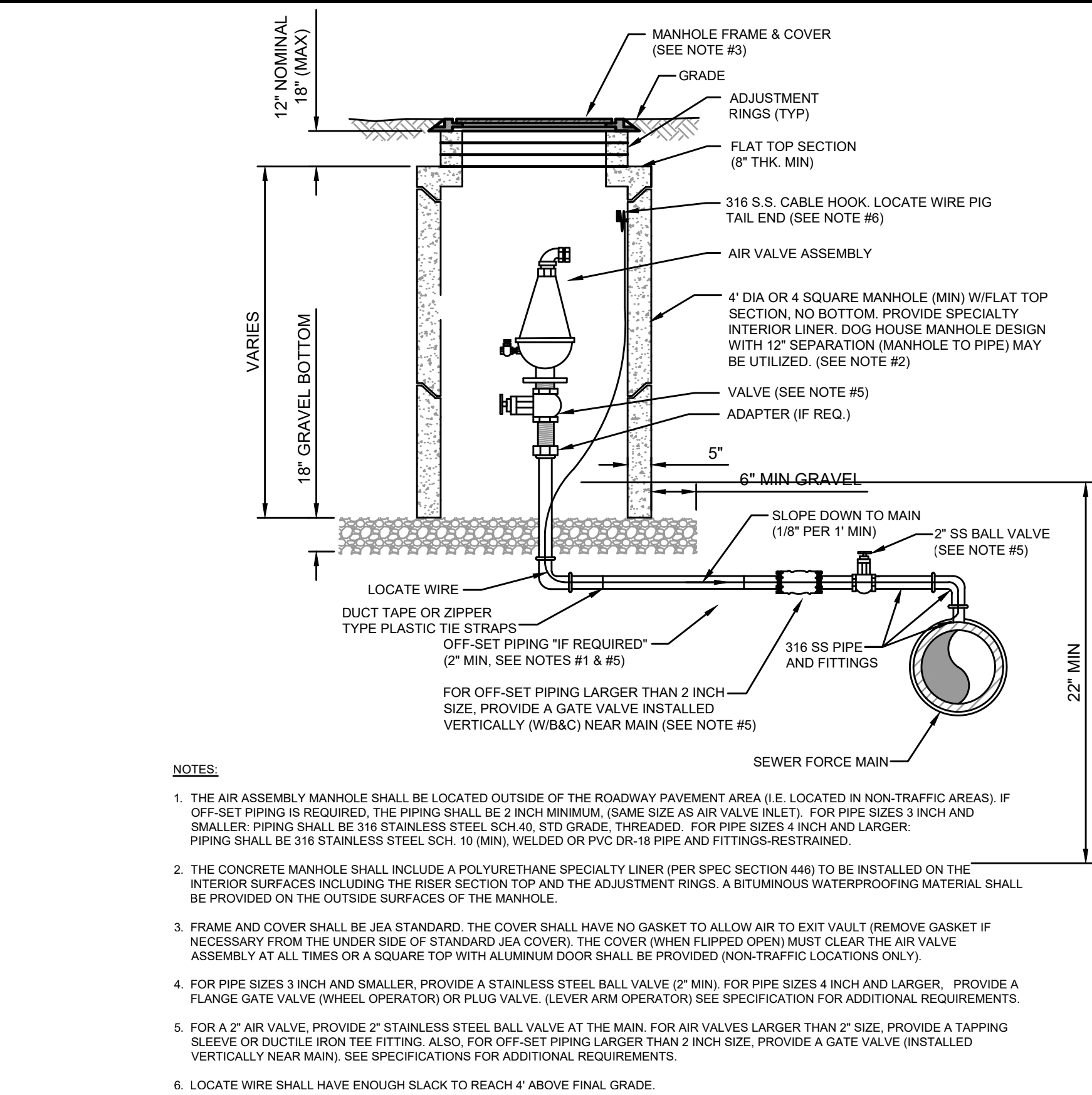
England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32228
TEL: (904) 946-9445
FAX: (904) 946-9445
CA - 0000284 LC - 0000316

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NO EXCEPTION TO THE DESIGN

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SHEET NO. 3		DATE: JANUARY 2021		SANITARY SEWER DETAILS				DRAWN BY:		JON-MICHAEL BARQUIN				
DRAWING NO. 10J		SCALE: AS NOTED		WILDLIGHT COMMERCE PARK PARCEL A				CHECKED BY:		FLORIDA REGISTRATION NO.				
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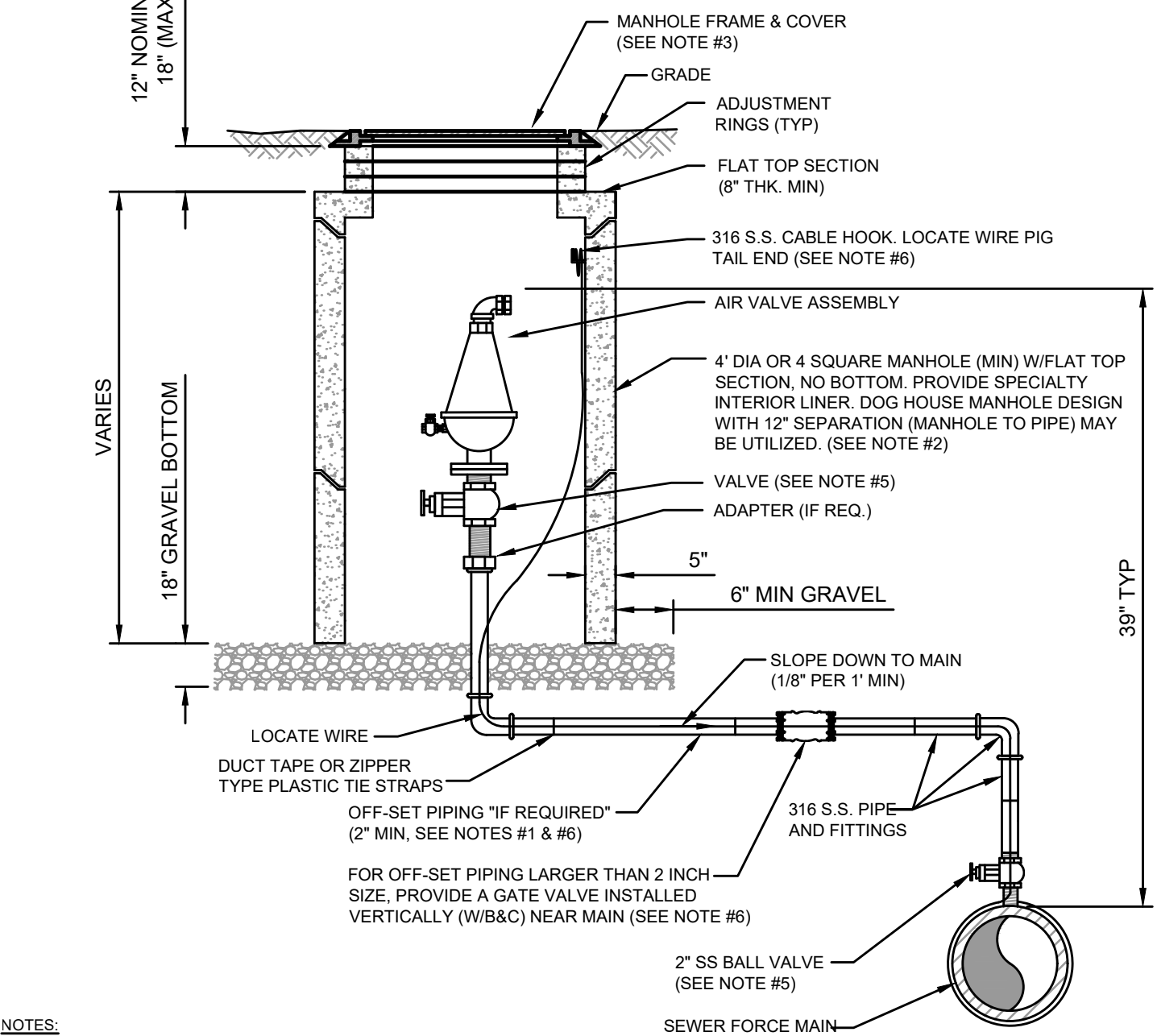
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OPTIONAL LOW PROFILE AIR VALVE ASSEMBLY INSIDE MANHOLE

JANUARY 2021

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

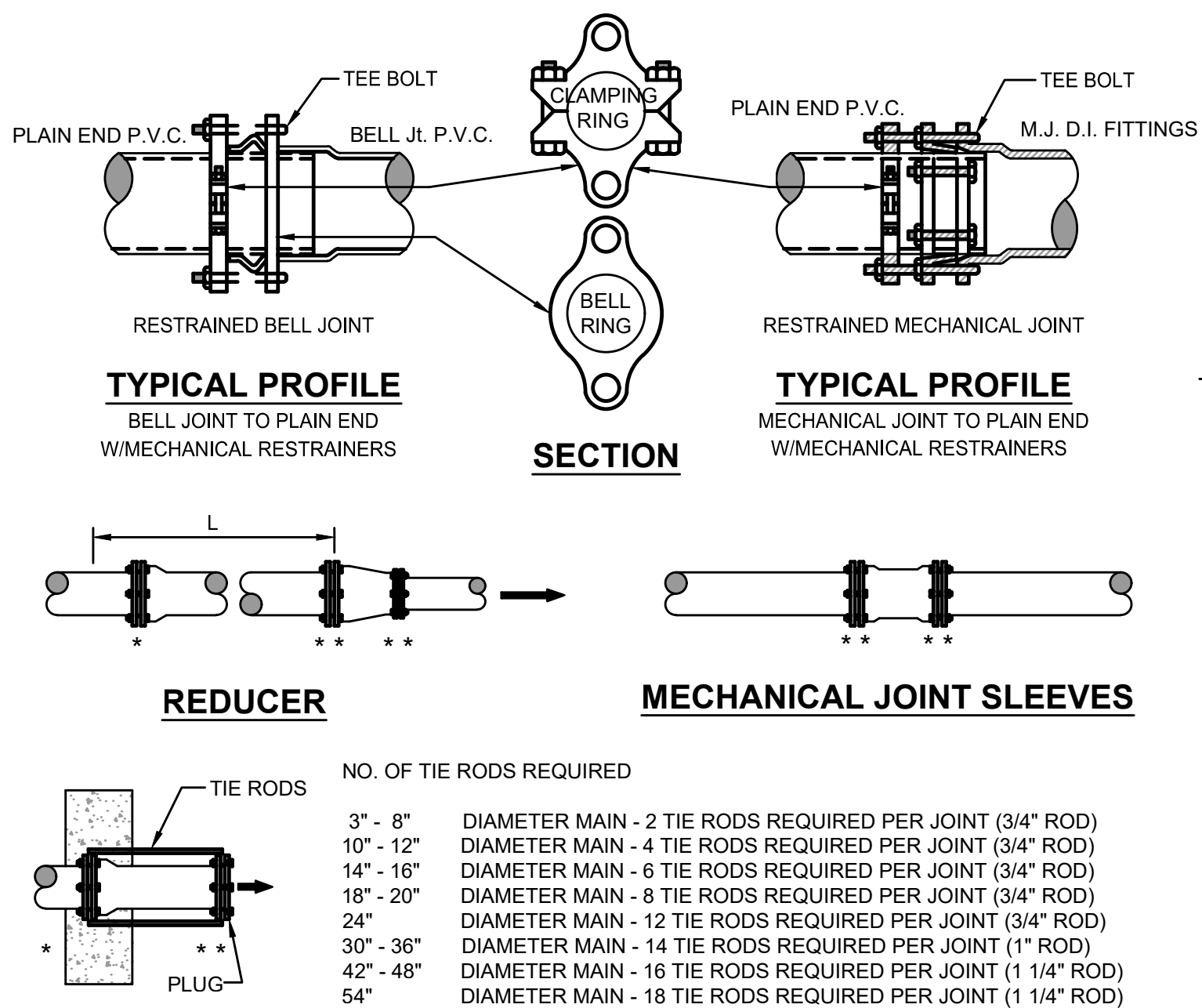
JANUARY 2021

PLATE S-29

AIR VALVE ASSEMBLY INSIDE MANHOLE IN ROW

JANUARY 2021

PLATE S-29B



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.

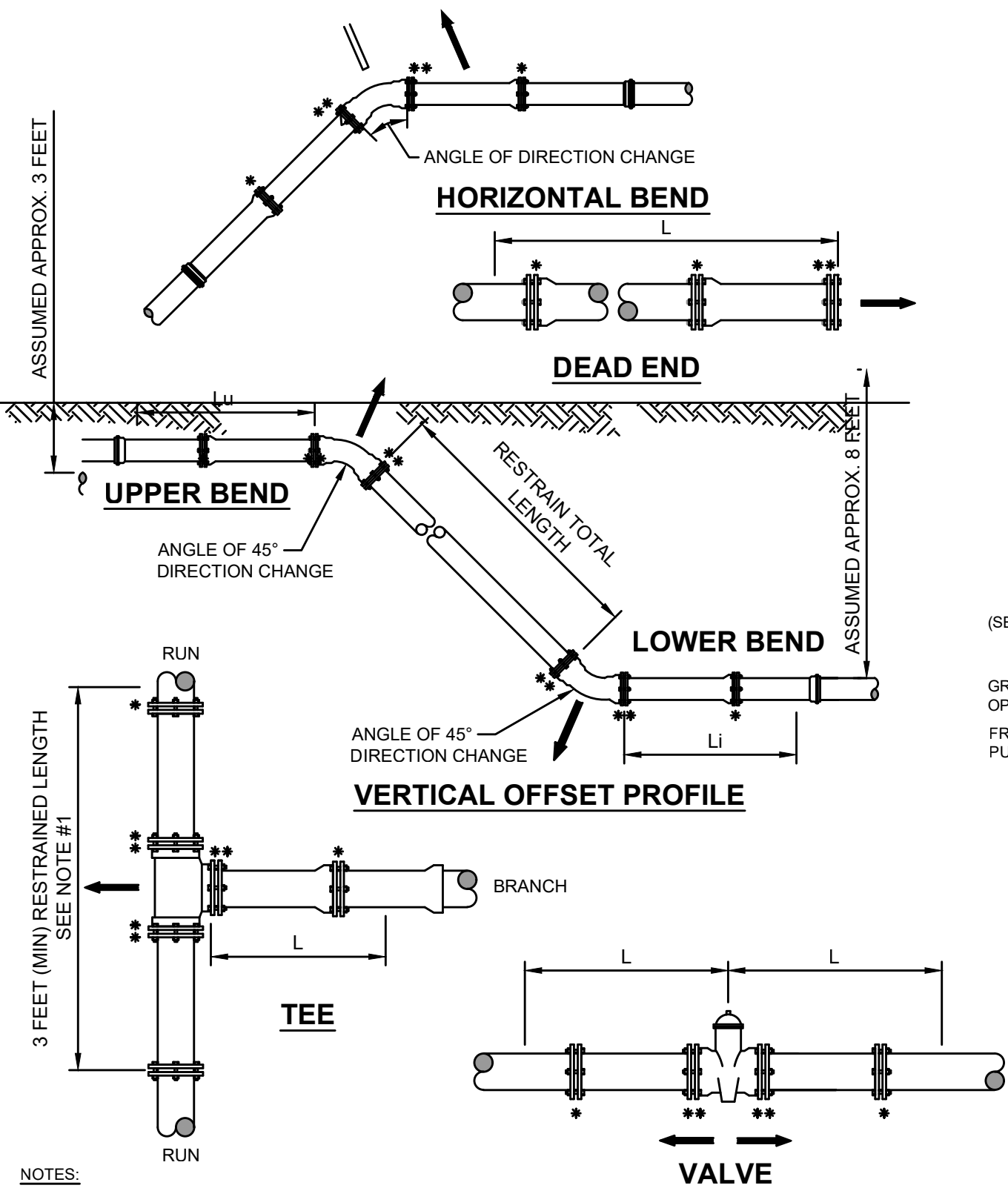
GENERAL NOTE:

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 2021

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 SUBMITTED TO JEA FOR APPROVAL.
2. PAY ITEM *** DENOTES A RESTRAINT WHICH IS PAID FOR ON A PER EACH BASIS.
3. PAY ITEM **** DENOTES A RESTRAINT WHICH IS INCLUDED IN THE UNIT PRICE BID FOR FITTING OR VALVE.

MECHANICAL RESTRAINT DETAILS - II

JANUARY 2021

PLATE S-38D

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 L (FT.)	REDUCERS		TEES SEE NOTE 5					
	90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	UPPER L (FT.)	LOWER L (FT.)		SIZE (IN.)	L (FT.)	RUN SIZE (IN.)	BRANCH SIZE (IN.)	L (FT.)			
4	21	9	5	3	17	3	47	6x4	34	4	4	F.O.			
6	30	13	6	3	23	4	66	8x6	36	4	6	F.O.			
8	38	16	8	4	30	6	86	8x4	62	8	4 < LESS	F.O.			
10	45	19	9	5	36	7	103	10x8	35	8	6 < LESS	F.O.			
12	53	22	11	6	43	8	121	10x6	63	10	10	45	13		
14	61	26	13	6	50	9	140	12x10	36	12	12	62	32		
16	66	28	14	7	55	10	154	16x12	66	16	16	84	39		
18	73	30	15	8	60	11	170	16x10	92	16	12 < LESS	F.O.	5		
20	79	33	16	8	66	12	186	20x18	35	20	20	125	76		
24	79	33	16	8	77	15	185	20x12	117	24	24	142	83		
30	93	39	19	10	97	17	222	24x20	56	30	30	178	124		
36	106	39	21	11	107	20	257	24x18	80	36	36	162	104		
42	117	49	24	12	120	24	289	24x16	101	42	42	203	253		
48	144	53	26	13	133	26	321	30x24	78	48	48	259	310		

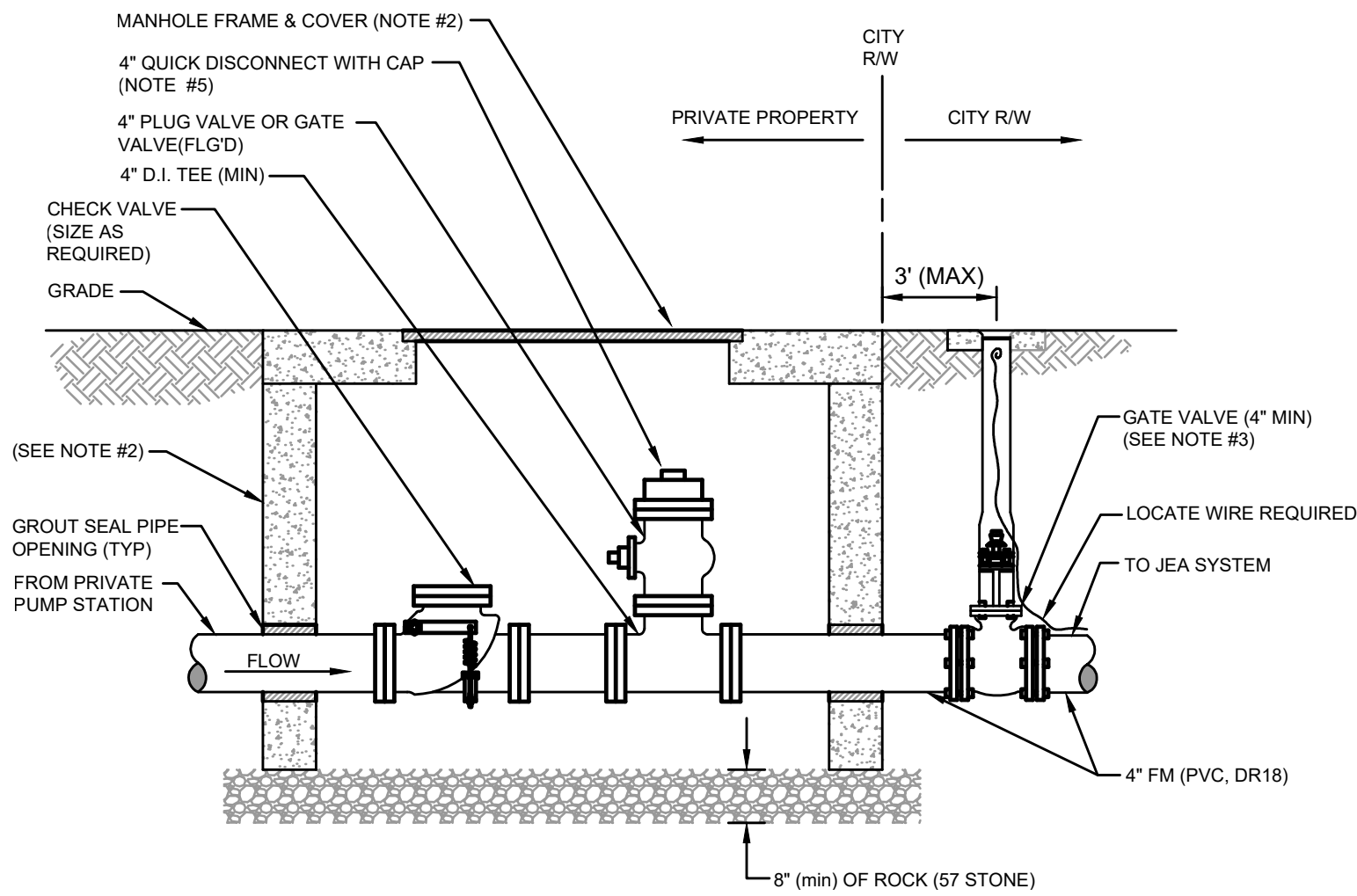
PVC PIPE RESTRAINT NOTES:

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, L_u IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL, L_l 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. OVERLOOING THE JOINT MAY CAUSE A FAILURE AT THE BELL RESULTING IN A SERVICE OUTAGE.

PVC PIPE RESTRAINT JOINT SCHEDULE

JANUARY 2021

PLATE S-38A



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/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 2021

PLATE S-46

England-Thims & Miller, Inc.
14776 Old St., Augustine Road
Jacksonville, FL 32228
TEL: (904) 946-9300
FAX: (904) 946-9485
CA - 0000284, LC - 0000316

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DRAWING ARE BY THE JEA. WE TAKE
NO EXCEPTION TO THE DESIGN

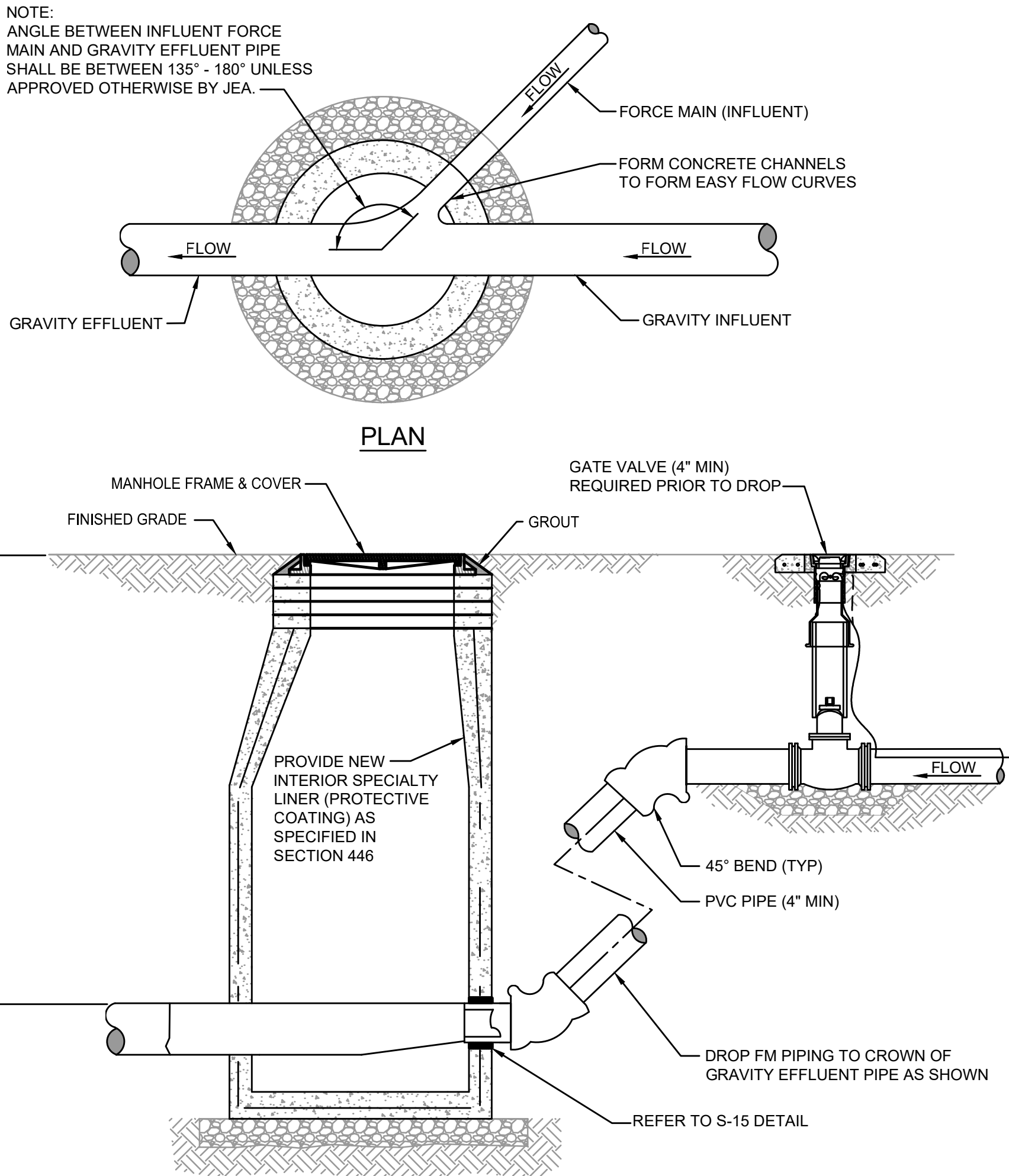
DESIGNER: JON-MICHAEL BARQUIN
DRAWN BY: JON-MICHAEL BARQUIN
DATE: 1/25/2021
CHECKED BY: JON-MICHAEL BARQUIN
DATE: 1/25/2021

JEA STANDARD
SANITARY SEWER DETAILS
WILDLIGHT COMMERCE PARK PARCEL A

PROJ. NO.: 19-238-07-001
DATE: JANUARY 2021
SCALE: AS NOTED

NO. SHEETS: 5
SHEET NO.: 4
DRAWING NO.: 10K

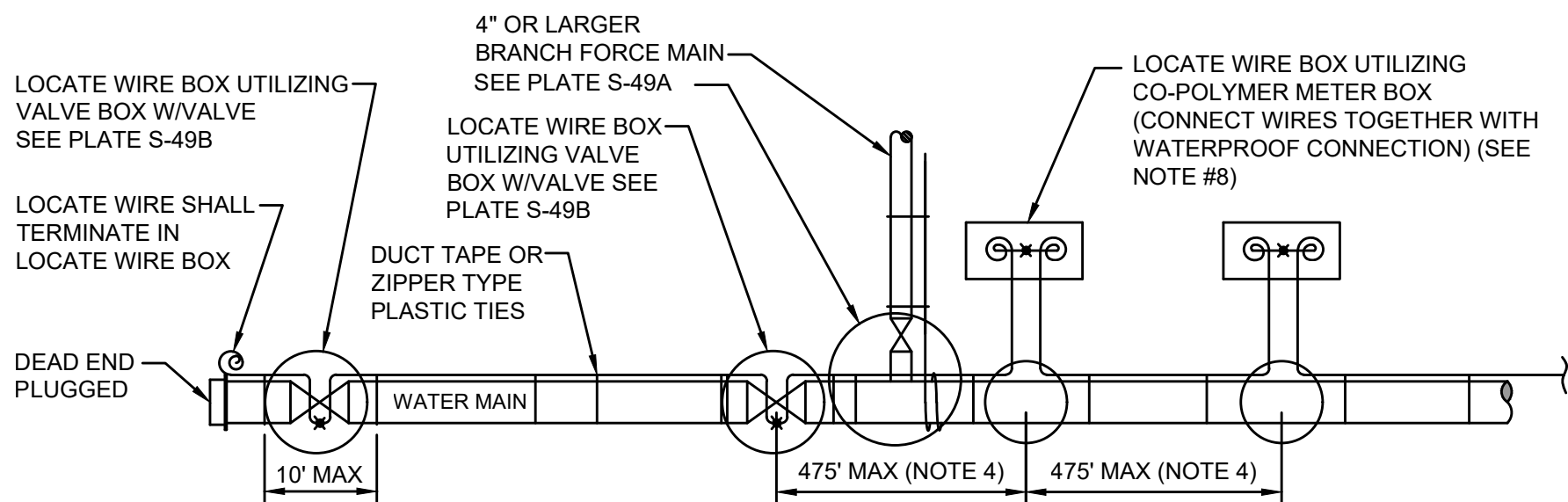
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TYPICAL FORCE MAIN CONNECTION TO MANHOLE

JANUARY 2021

PLATE S-18



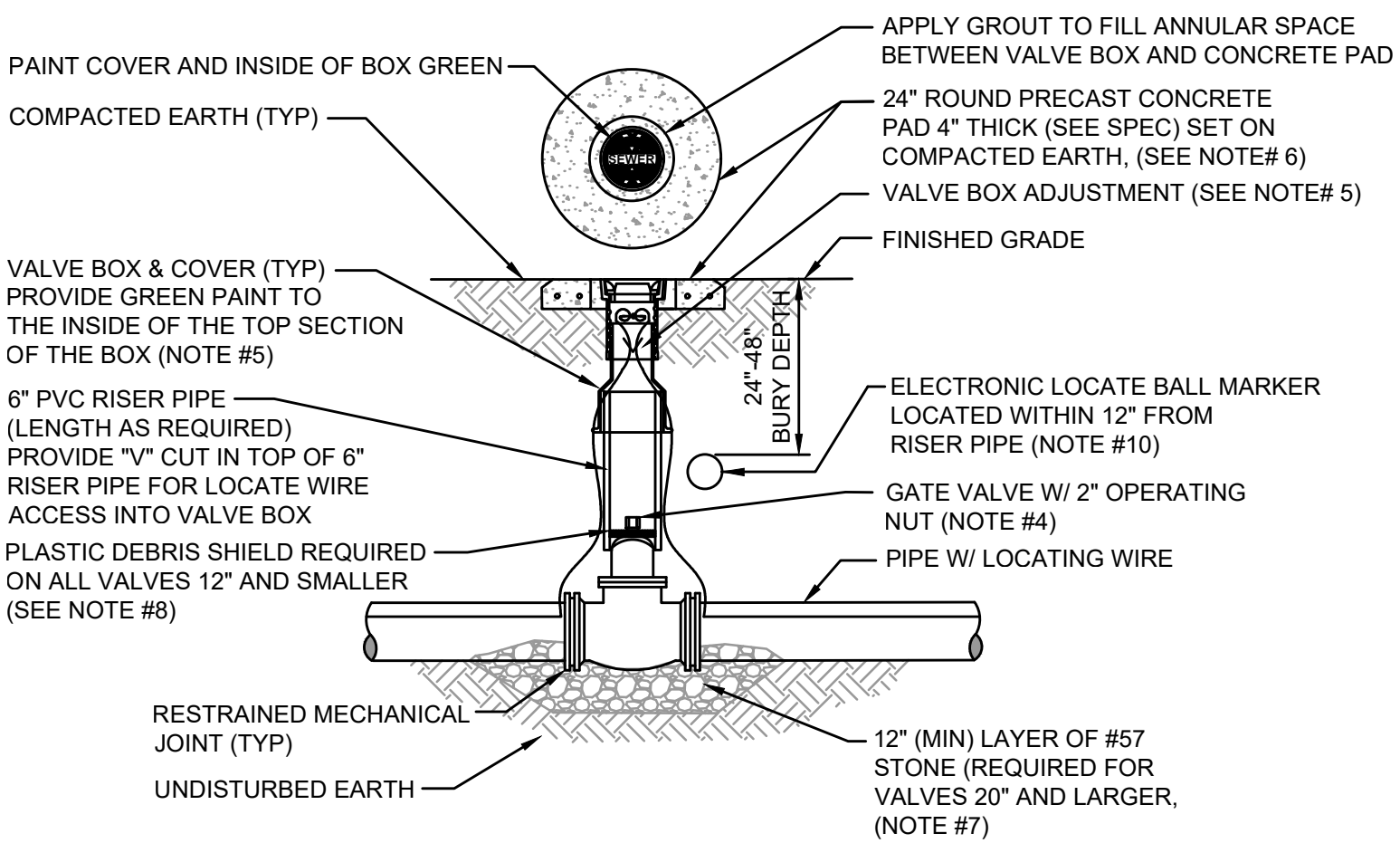
NOTES:

- 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).
- 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.
- 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.
- 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.
- LOCATING WIRE SHALL BE 12 GAUGE COPPER WIRE WITH .03 INCHES (MINIMUM) HDPE INSULATION THICKNESS, 0.141 INCHES (MINIMUM) 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.
- X INDICATES THAT THE WIRES ARE CONNECTED TOGETHER WITH WATERPROOF CONNECTION. (SEE DETAIL W-49B)
- ⊗ INDICATES A WIRE PIG-TAIL (24" LONG)
- AN "LW" CUT SHALL BE CARVED IN THE CONCRETE CURB AND PAINTED AT ALL LOCATE WIRE BOXES.
- FOUR LANES OF TRAFFIC (HAVING TWO LANES OF TRAFFIC IN EACH DIRECTION) OR GREATER THE LOCATE WIRE AND VALVE BOX SHALL BE OFF-SET TO THE RIGHT-OF-WAY.

LOCATE WIRE CONSTRUCTION FOR FORCE MAINS

JANUARY 2021

PLATE S-49



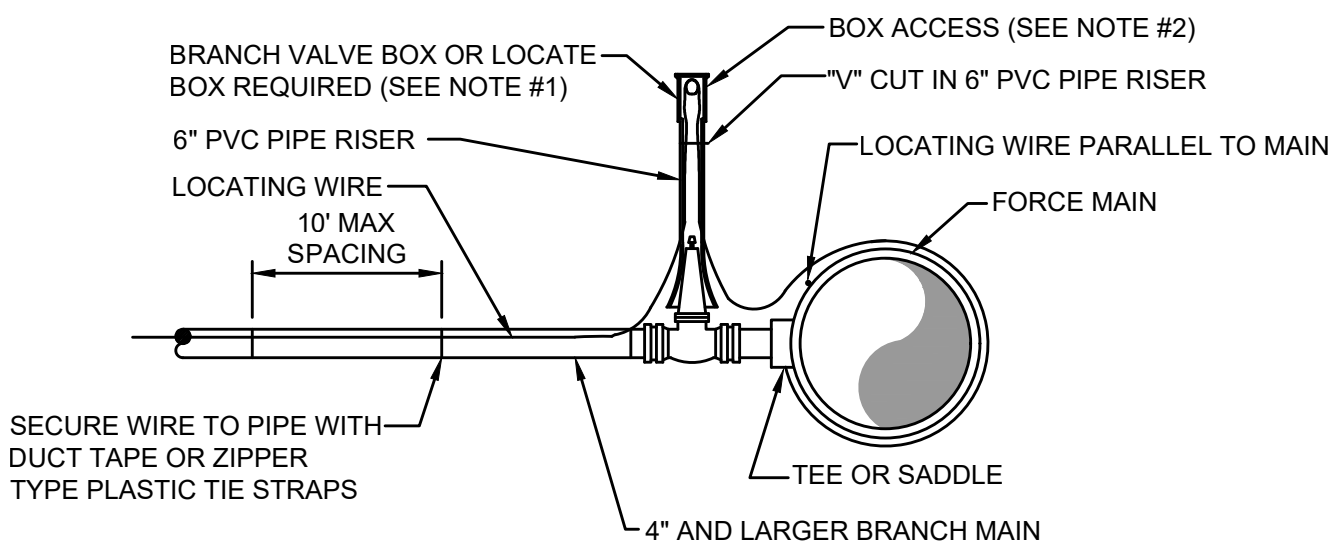
NOTES:

- 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.
- LOCATING WIRE IS REQUIRED ON ALL PRESSURE PIPING (SEE DETAIL S-49).
- 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.
- 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.
- 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.
- BRASS IDENTIFICATION TAG INDICATING "SEWER", VALVE SIZE, DIRECTION AND TURNS TO OPEN & VALVE TYPE. PROVIDE A 1/2" 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.
- 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.
- GRAVEL SHALL BE PROVIDED UNDER ALL VALVES 20" AND LARGER. THE MINIMUM VERTICAL LIMIT OF GRAVEL IS 12" UNDER THE VALVE UP TO 1/2 THE OVERALL HEIGHT OF THE VALVE.
- 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.
- 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 2021

PLATE S-30



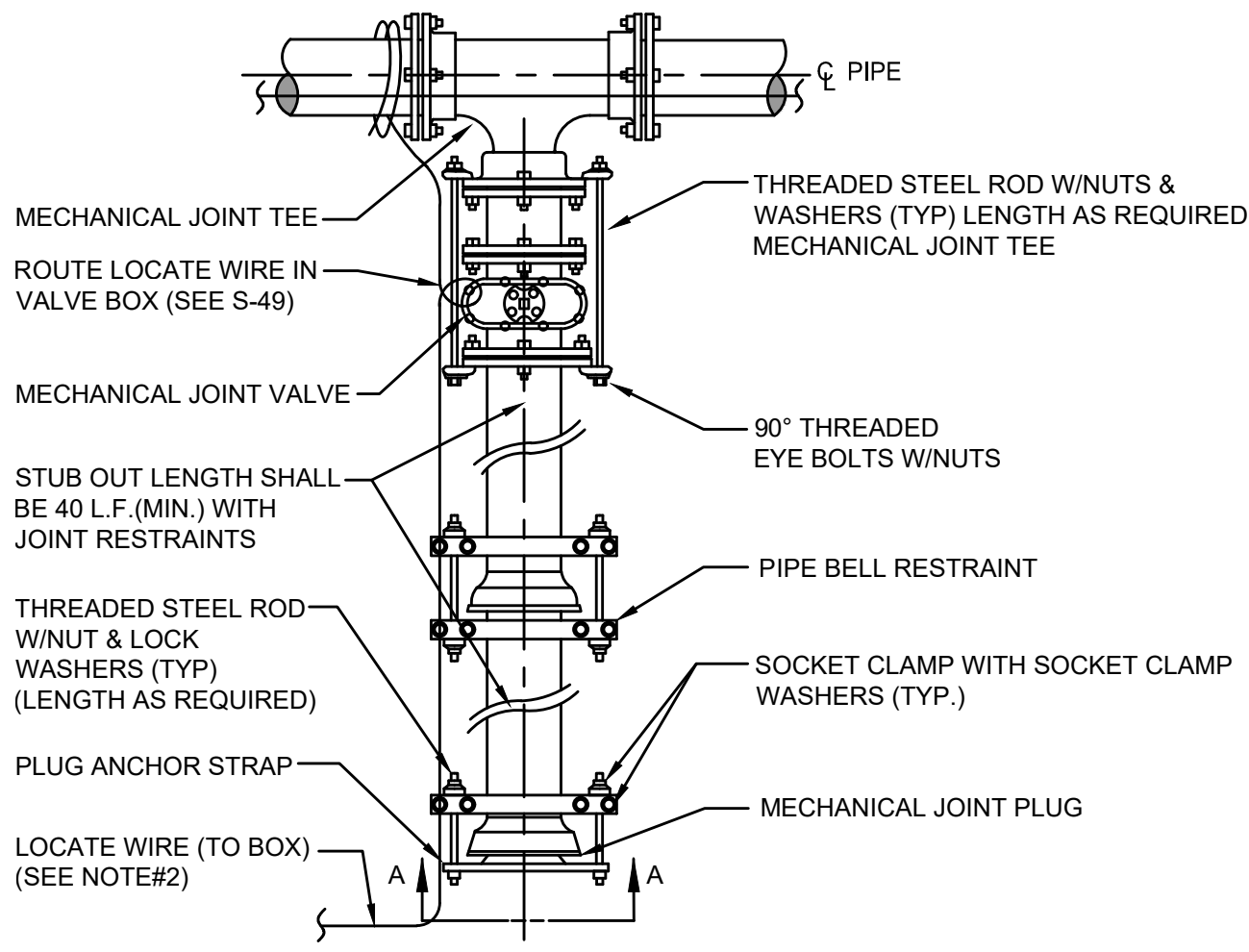
NOTE:

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

LOCATE WIRE FOR BRANCH MAIN

JANUARY 2021

PLATE S-49A



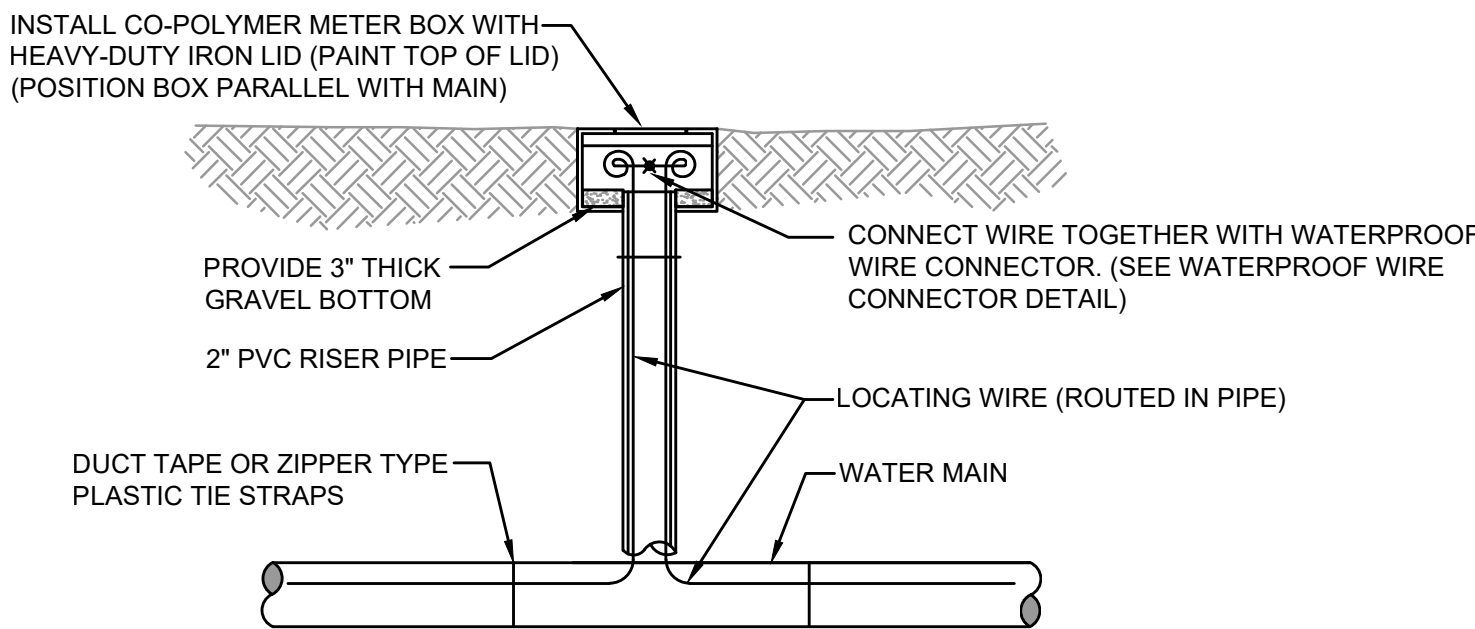
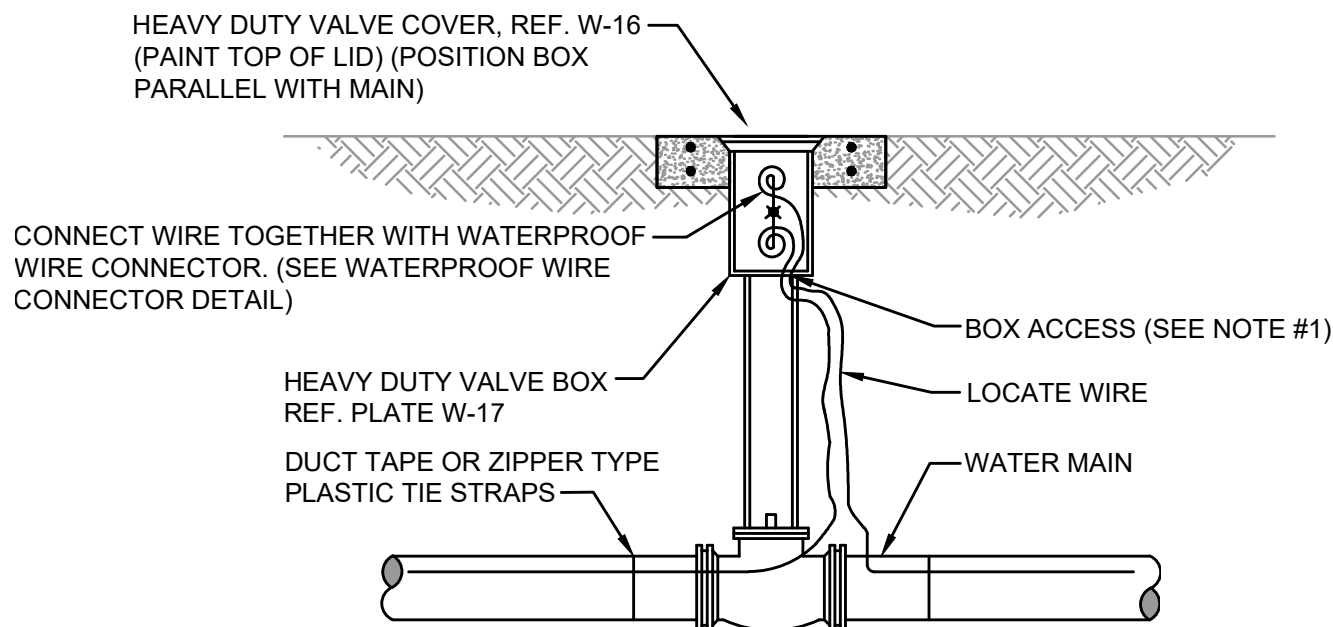
NOTES:

- IN LIEU OF BELL/ROD RESTRAINTS, MECHANICAL JOINT RESTRAINTS MAY BE USED.
- LOCATING WIRE REQUIRED, UTILIZING A LOCATE WIRE BOX INSTALLED AT PLUG LOCATION.
- 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)
- 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 2021

PLATE S-44



LOCATE WIRE BOX

JANUARY 2021

PLATE S-49B

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32228
FAX: (904) 546-9485
CA - 00002884 LC - 0000316

ETM
VISION • EXPERIENCE • RESULTS

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

DESIGNER:
DESIGNED BY:
DATE:
CHECKED BY:
DATE:

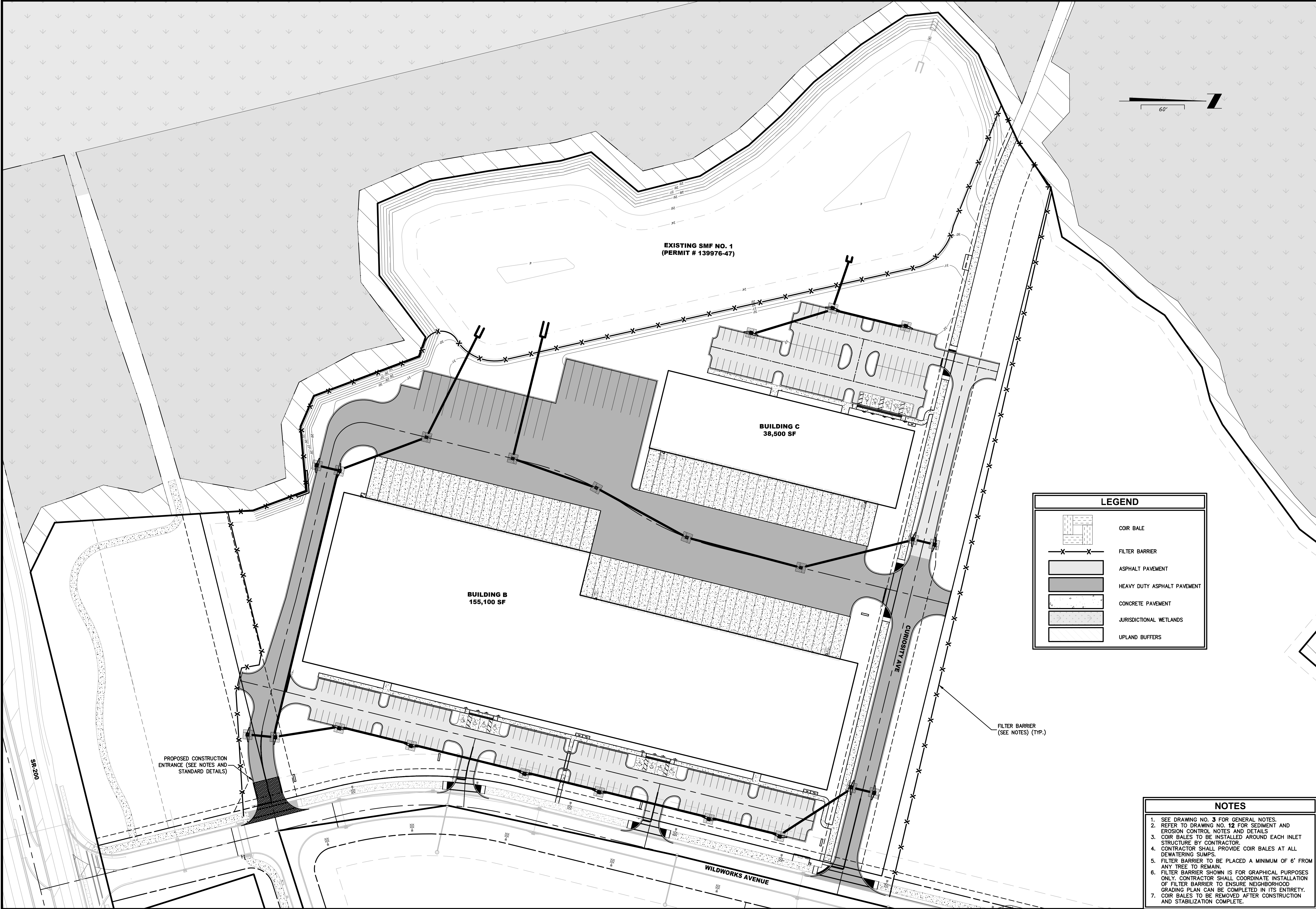
DESIGN ENGINEER
JON-MICHAEL BARQUIN
FLORIDA REGISTRATION NO.
94926

JEA STANDARD
SANITARY SEWER DETAILS
WILDLIGHT COMMERCE PARK PARCEL A

NO. SHEETS
5
SHEET NO.
5
DRAWING NO.
10L

PROJ. NO.
19-239-07-001
DATE:
JANUARY 2021
SCALE:
AS NOTED

REVISIONS
NO.
BY
DATE



LEGEND

COIR BALE

FILTER BARRIER

ASPHALT PAVEMENT

HEAVY DUTY ASPHALT PAVEMENT

CONCRETE PAVEMENT

JURISDICTIONAL WETLANDS

UPLAND BUFFERS

NOTES

1. SEE DRAWING NO. 3 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. COIR BALES TO BE REMOVED AFTER CONSTRUCTION AND STABILIZATION COMPLETE.

7.

SEDIMENT & EROSION CONTROL PLAN

WILDLIGHT COMMERCE PARK PARCEL A
FOR
PATTILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER
11

England-Thins & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8890
FAX: (904) 646-9485
CA - 00002584 LC - 0000316

ETM
VISION • EXPERIENCE • RESULTS

REVISIONS:

ETM NO. 19-239-07-001

DRAWN BY: JMB

DESIGNED BY: JMB

CHECKED BY: JZB

DATE: JULY 2023

PLANS PREPARED UNDER THE
DIRECTION OF:
JON-MICHAEL BARQUIN
P.E. NUMBER: 94926

FLOTTED: August 25, 2023 - 8:46 AM, BY: Jon-Michael Barquin

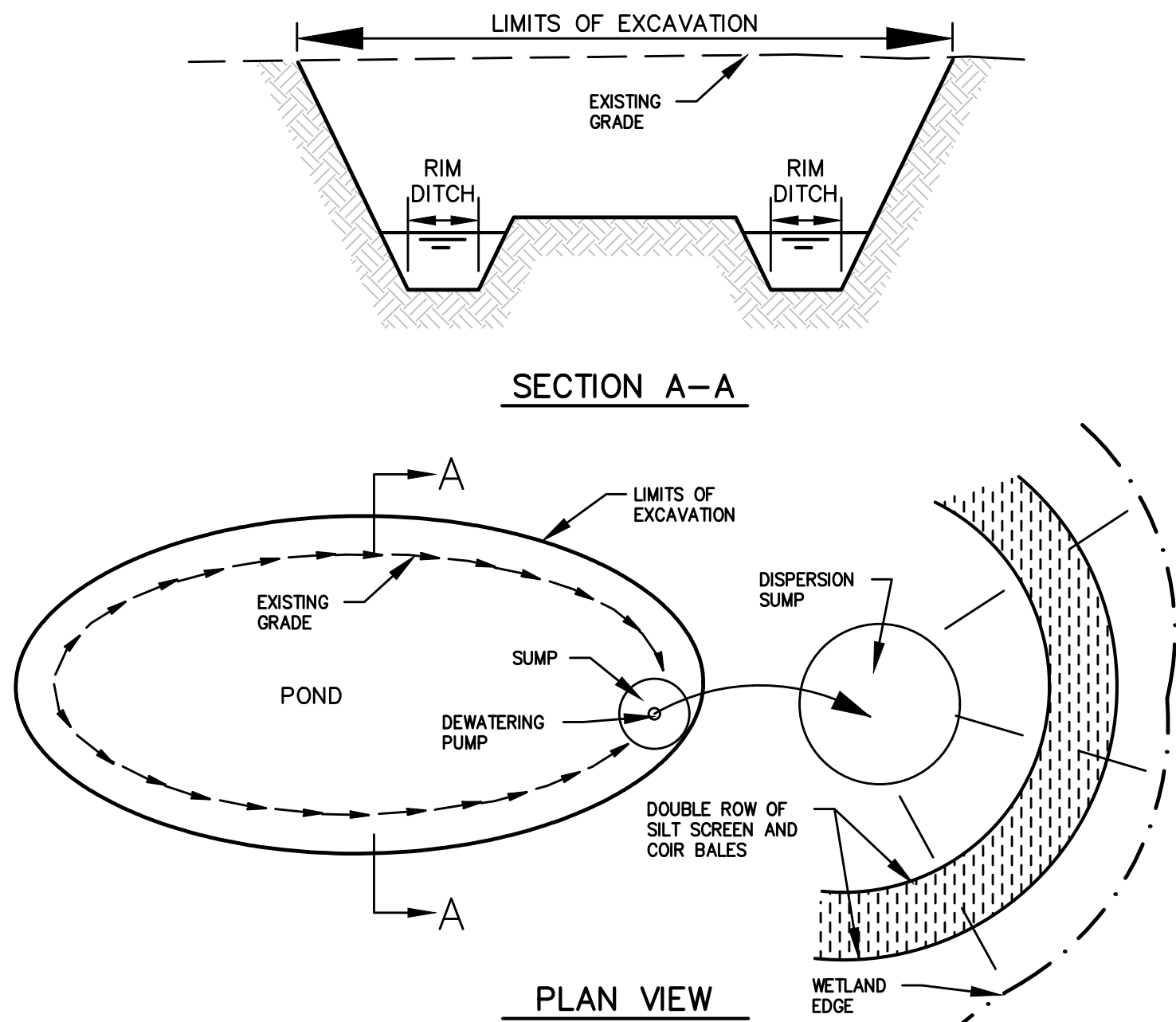
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SEDIMENT AND EROSION CONTROL NOTES

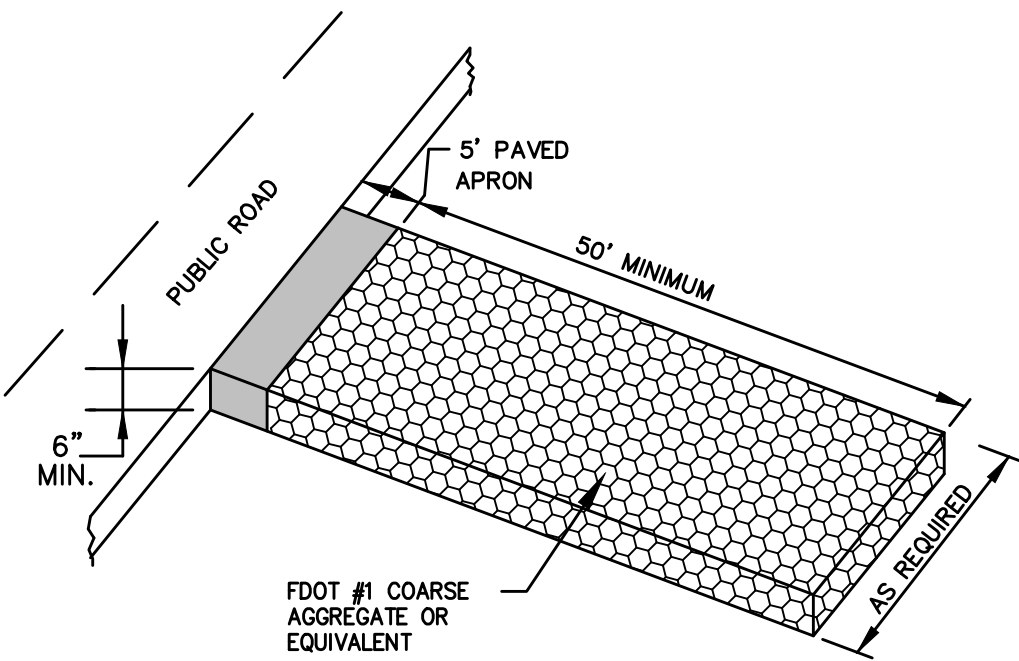
1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF 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 SURVMD 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, XXXXXXXXXX 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.

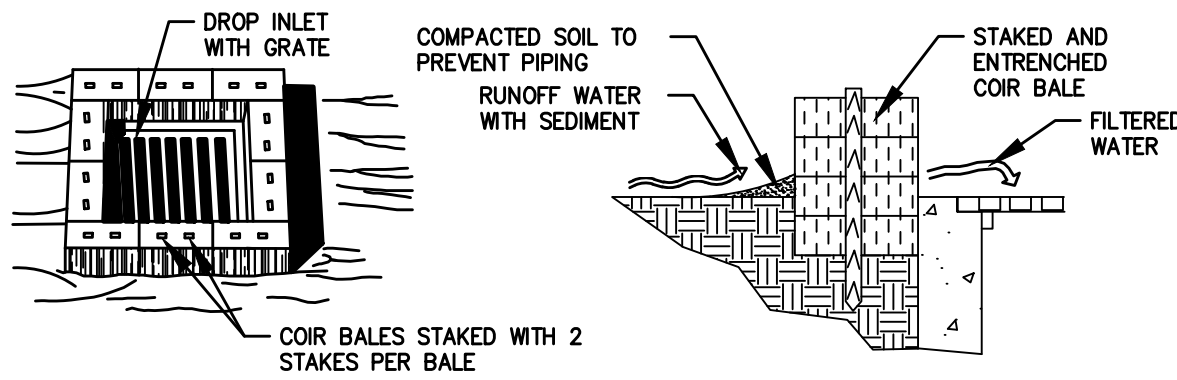
35. 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR WILL SUBMIT A "NOTICE OF INTENT" TO THE EPA IN ACCORDANCE WITH NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM RULES AND REGULATIONS. (FOR ANY CONSTRUCTION NOT COVERED BY THE OWNER'S "NOTICE OF INTENT" PERMIT)



TEMPORARY DEWATERING DETAIL
N.T.S.

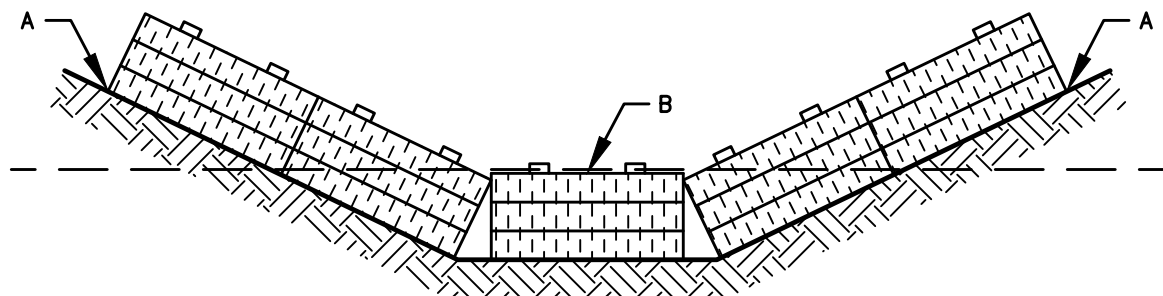


STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



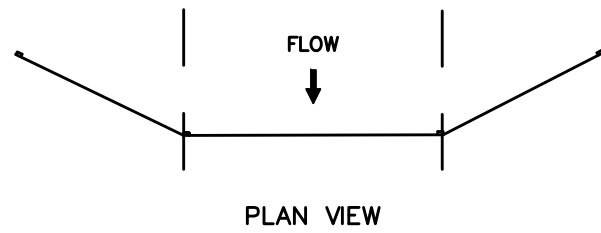
SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5 PERCENT) WHERE SHEET OR OVERLAND FLOWS (NOT EXCEEDING 0.5 cfs) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR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

COIR BALE DROP INLET SEDIMENT FILTER
N.T.S.



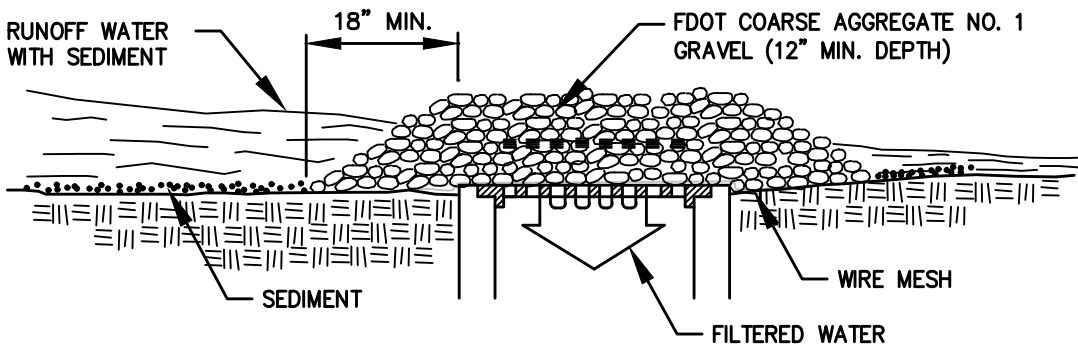
POINTS A SHOULD BE HIGHER THAN POINT B

PROPER PLACEMENT OF COIR BALE
IN A DRAINAGE WAY
N.T.S.



SECTION VIEW
POINTS A SHOULD BE HIGHER THAN POINT B

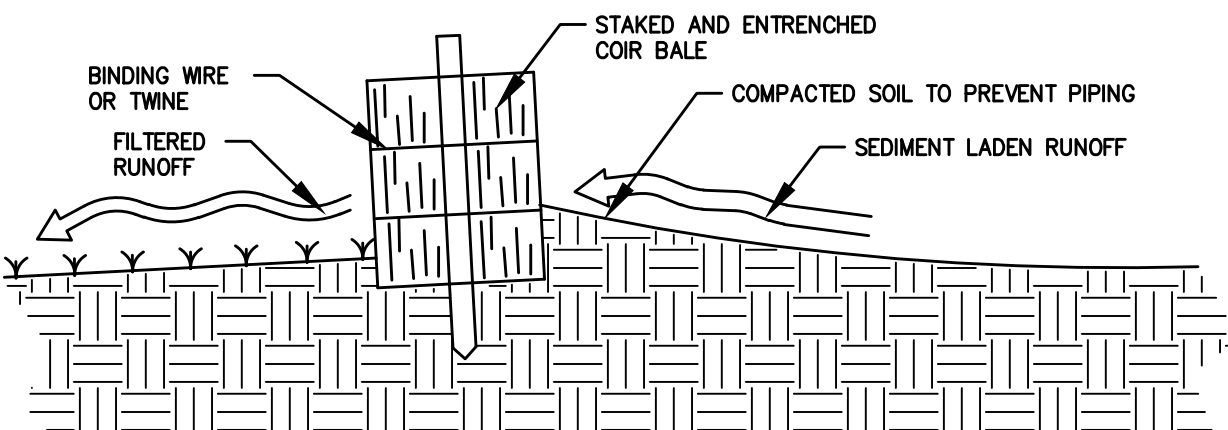
PROPER PLACEMENT OF A
FILTER BARRIER IN DRAINAGE WAY
N.T.S.



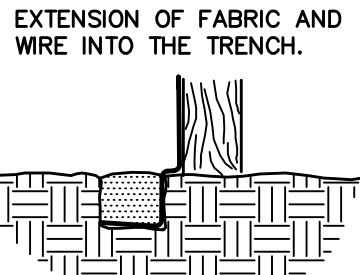
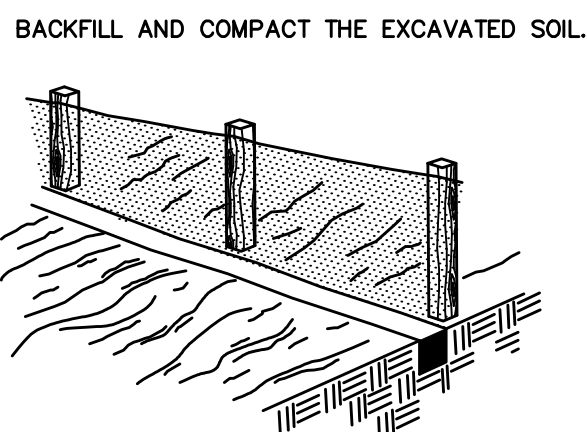
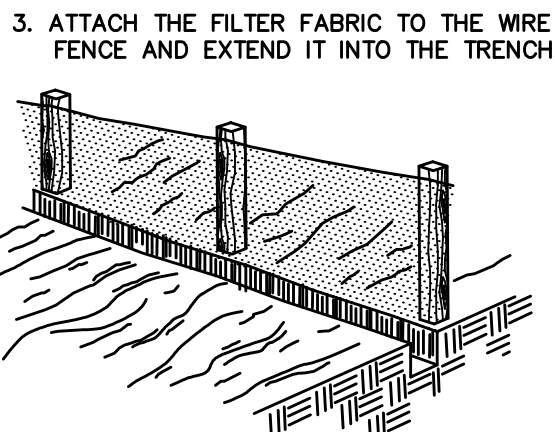
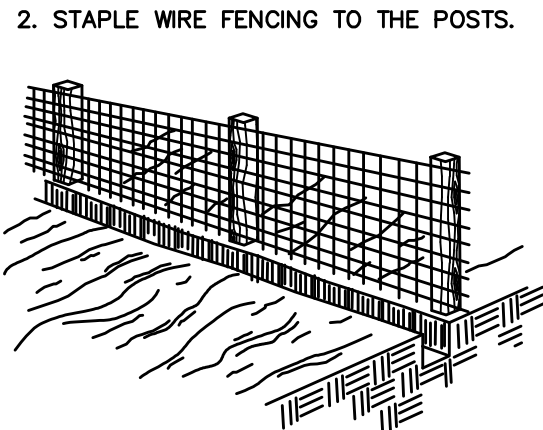
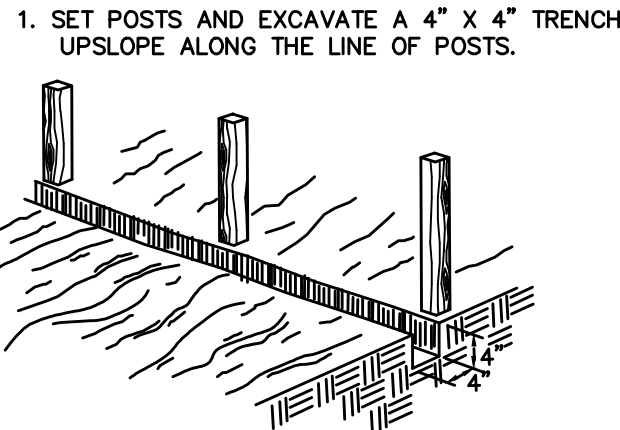
SPECIFIC APPLICATION

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.

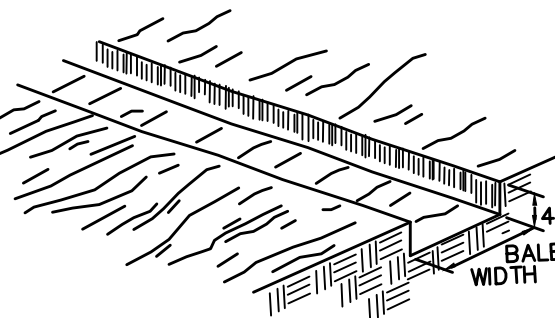


CROSS-SECTION OF A PROPERLY
INSTALLED COIR BALE
N.T.S.

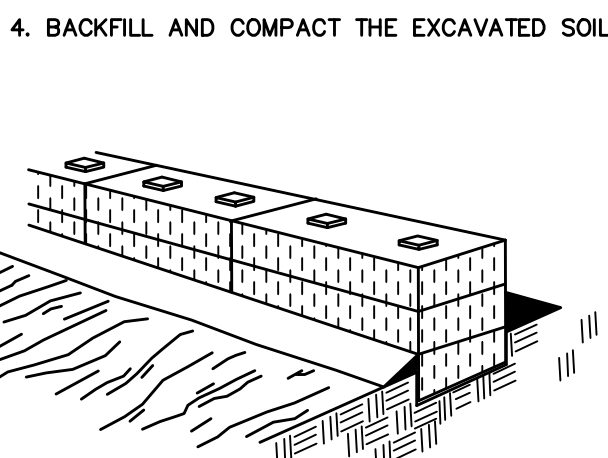
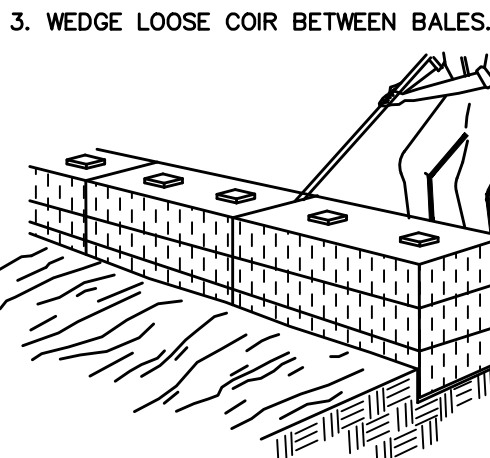
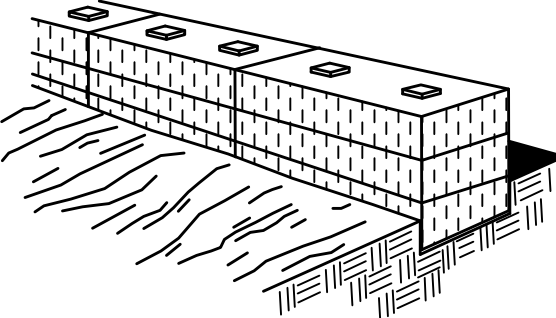


CONSTRUCTION OF SILT FENCE
N.T.S.

1. EXCAVATE THE TRENCH

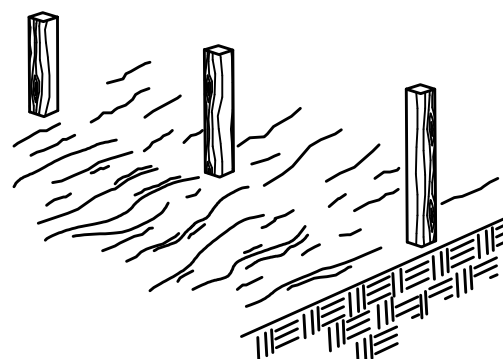


2. PLACE AND STAKE COIR BALES.

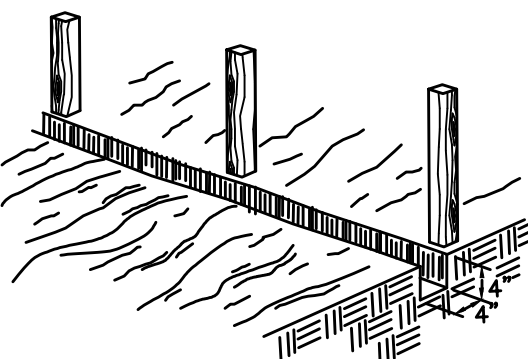


CONSTRUCTION OF A COIR BALE BARRIER
N.T.S.

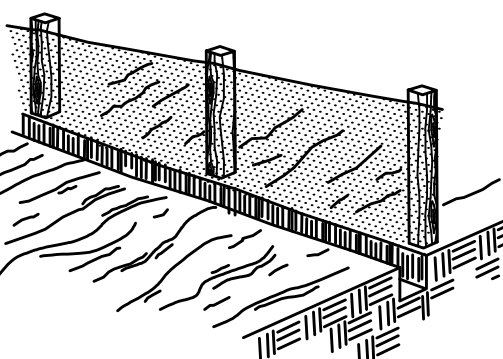
1. SET THE STAKES.



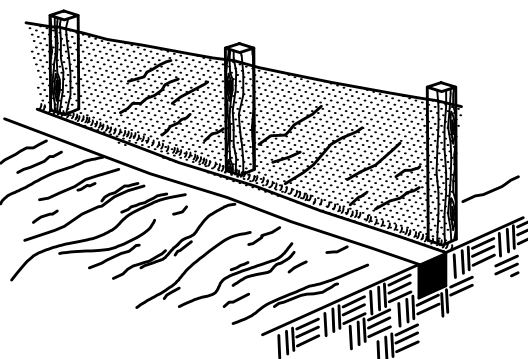
2. EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES



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



4. BACKFILL AND COMPACT THE EXCAVATED SOIL



CONSTRUCTION OF A FILTER BARRIER
N.T.S.

PLANS PREPARED UNDER THE
DIRECTION OF:

REVISIONS:

ETM NO. 19-239-07-001	DRAWN BY: JMB	DESIGNED BY: JMB	CHECKED BY: JZB	DATE: JULY 2023
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England-Thins & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8800
FAX: (904) 646-9485
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ETM
VISION • EXPERIENCE • RESULTS

SEDIMENT & EROSION CONTROL
DETAILS
WILDLIGHT COMMERCE PARK PARCEL A
FOR
PATTILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER
12

OWNER'S REQUIREMENTS

SITE DESCRIPTION

PROJECT NAME AND LOCATION:
WILDLIGHT COMMERCE PARK PARCEL A
NASSAU COUNTY, FLORIDA

OWNER/DEVELOPER NAME AND ADDRESS:

PATILLO INDUSTRIAL REAL ESTATE
5170 PEACHTREE ROAD, BLDG. 100,
STE. 400
ATLANTA, GEORGIA
678-926-5944

DESCRIPTION:

THIS PROJECT WILL CONSIST OF:

CONSTRUCTION OF THE MASTER INFRASTRUCTURE FOR A FUTURE INDUSTRIAL COMMERCE PARK. CONSTRUCTION WILL CONSIST OF INSTALLATION OF UNDERGROUND UTILITIES, CLEARING, GRADING, STORMWATER MANAGEMENT FACILITIES, ROADWAYS, AND ASSOCIATED CONSTRUCTION.

SOIL DISTURBING ACTIVITIES WILL INCLUDE:
CLEARING AND GRUBBING; INSTALLING A STABILIZED CONSTRUCTION ENTRANCE, PERIMETER, AND OTHER EROSION AND SEDIMENT CONTROLS; GRADING; EXCAVATION FOR THE SEDIMENTATION POND, STORM SEWER, UTILITIES; CONSTRUCTION OF CURB AND GUTTER, AND ROAD; 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 = 75±
2. DURING CONSTRUCTION = 85±
3. POST-CONSTRUCTION = 94±

SOILS:
* SEE ATTACHED FOR SOILS DATA

SITE MAPS:
* SEE ATTACHED DWG. No. 4A-4D 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.

SITE AREA:
1. TOTAL AREA OF SITE = 31.82 AC±
2. TOTAL AREA TO BE DISTURBED = 15.90 AC±

NAME OF RECEIVING WATERS: TRIBUTARY OF LOFTON CREEK

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	9. INSTALL UTILITIES, STORM SEWER, CURBS & GUTTER.
2. INSTALL SILT FENCES AND HAY BALES AS REQUIRED	10. APPLY BASE TO PARKING AREAS
3. CLEAR AND GRUB FOR DIVERSION SWALES/DIKES AND SEDIMENT BASIN	11. COMPLETE GRADING AND INSTALL PERMANENT SEEDING/SOD AND PLANTING
4. CONSTRUCT SEDIMENTATION BASIN	12. COMPLETE FINAL PAVING
5. CONTINUE CLEARING AND GRUBBING	13. REMOVE ACCUMULATED SEDIMENT FROM BASINS
6. STOCK PILE TOP SOIL IF REQUIRED	14. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ANY TEMPORARY DIVERSION SWALES/DIKES AND RESEED/SOD AS REQUIRED
7. PERFORM PRELIMINARY GRADING ON SITE AS REQUIRED	
8. STABILIZE DENUDEED AREAS AND STOCKPILES AS SOON AS PRACTICABLE	

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 EROSION AND SEDIMENT CONTROL DETAILS (DRAWING NO. 14).

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. STOCKPIILING 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

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 SHOWN 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 DENUDE 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 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

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 SWEEP 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 TARP/AULIN.

PLANS PREPARED UNDER THE DIRECTION OF:

REVISIONS:

ETM NO. 19-239-07-001

DRAWN BY: JMB

DESIGNED BY: JMB

CHECKED BY: JZB

DATE: JULY 2023

England-Thins & Miller, Inc.

14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8800
FAX: (904) 646-9485
CA - 00002584 LC - 0000316

STORMWATER POLLUTION PREVENTION PLAN

WILDLIGHT COMMERCE PARK PARCEL A FOR PATILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER

13

PLOTTED: August 25, 2023 - 8:47 AM, BY: Jon-Michael Barquin

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WILDLIGHT COMMERCE PARK PARCEL A

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

THIS IS THE CONTRACTORS CERTIFICATION REQUIRED BY THE EPA'S NATIONAL SWPPP. THIS CERTIFICATION IS REQUIRED FOR ALL CONSTRUCTION SITES OVER 1 ACRE. 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 _____

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WILDLIGHT COMMERCE PARK PARCEL A

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 _____

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WILDLIGHT COMMERCE PARK PARCEL A

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 WASHOUTS 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 _____

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WILDLIGHT COMMERCE PARK PARCEL A

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:

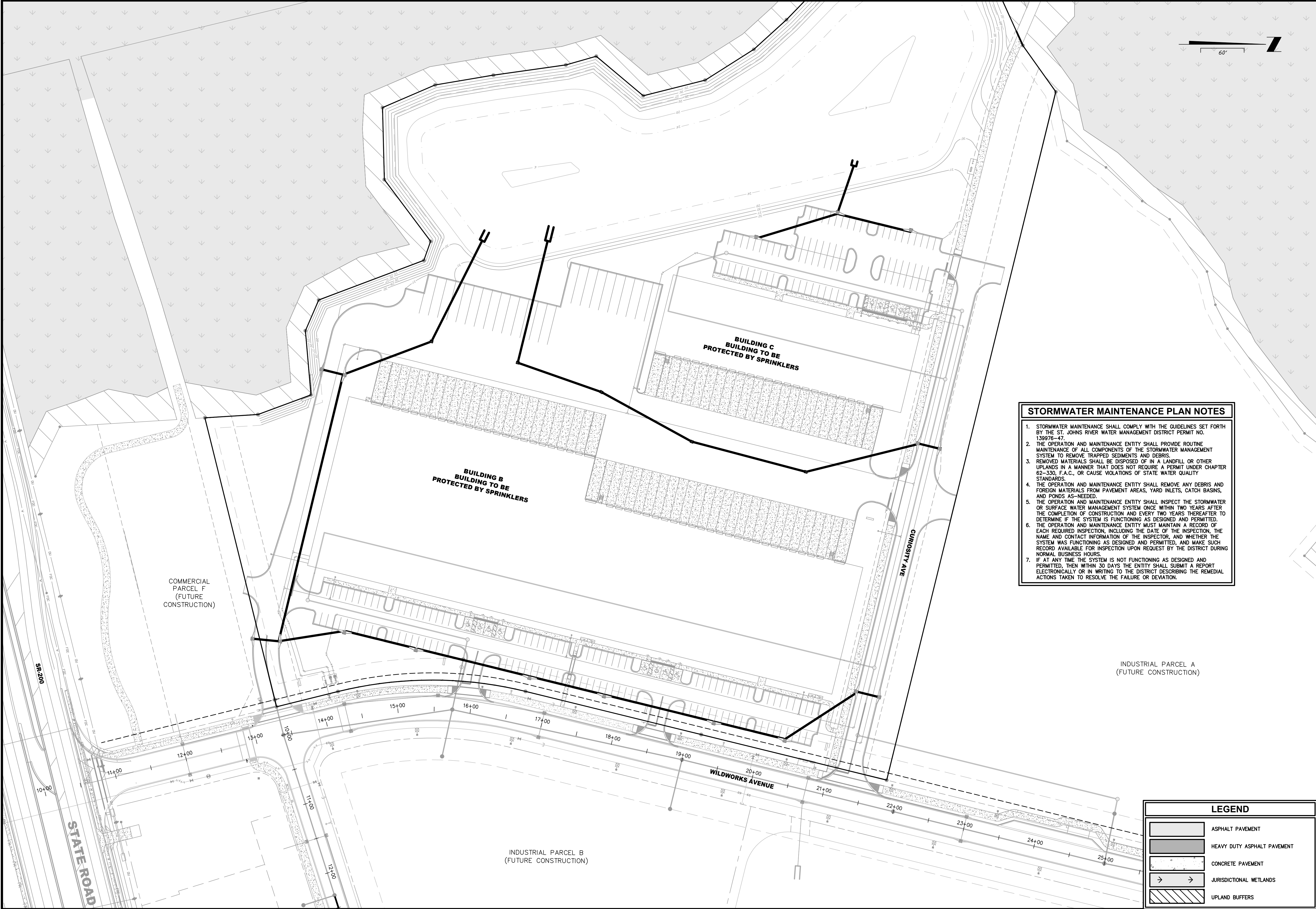
REASONS FOR CHANGES:

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION AND THAT I AM A PERSON WHOSE BUSINESS OR PROFESSION IS TO PROVIDE POLLUTION PREVENTION SERVICES. I HAVE 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 PENALTIES FOR PROVIDING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE: _____

DATE: _____

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- STORMWATER MAINTENANCE PLAN NOTES**
1. STORMWATER MAINTENANCE SHALL COMPLY WITH THE GUIDELINES SET FORTH BY THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT PERMIT NO. 139976-47.
 2. THE OPERATION AND MAINTENANCE ENTITY SHALL PROVIDE ROUTINE MAINTENANCE OF ALL COMPONENTS OF THE STORMWATER MANAGEMENT SYSTEM TO REMOVE TRAPPED SEDIMENTS AND DEBRIS.
 3. REMOVED MATERIALS SHALL BE DISPOSED OF IN A LANDFILL OR OTHER UPLANDS IN A MANNER THAT DOES NOT REQUIRE A PERMIT UNDER CHAPTER 62-330, F.A.C., OR CAUSE VIOLATIONS OF STATE WATER QUALITY STANDARDS.
 4. THE OPERATION AND MAINTENANCE ENTITY SHALL REMOVE ANY DEBRIS AND FOREIGN MATERIALS FROM PAVEMENT AREAS, YARD INLETS, CATCH BASINS, AND PONDS AS-NEEDED.
 5. THE OPERATION AND MAINTENANCE ENTITY SHALL INSPECT THE STORMWATER OR SURFACE WATER MANAGEMENT SYSTEM ONCE WITHIN TWO YEARS AFTER THE COMPLETION OF CONSTRUCTION AND EVERY TWO YEARS THEREAFTER TO DETERMINE IF THE SYSTEM IS FUNCTIONING AS DESIGNED AND PERMITTED.
 6. THE OPERATION AND MAINTENANCE ENTITY MUST MAINTAIN A RECORD OF EACH REQUIRED INSPECTION, INCLUDING THE DATE OF THE INSPECTION, THE NAME AND CONTACT INFORMATION OF THE INSPECTOR, AND WHETHER THE SYSTEM WAS FUNCTIONING AS DESIGNED AND PERMITTED, AND MAKE SUCH RECORD AVAILABLE FOR INSPECTION UPON REQUEST BY THE DISTRICT DURING NORMAL BUSINESS HOURS.
 7. IF AT ANY TIME THE SYSTEM IS NOT FUNCTIONING AS DESIGNED AND PERMITTED, THEN WITHIN 30 DAYS THE ENTITY SHALL SUBMIT A REPORT ELECTRONICALLY OR IN WRITING TO THE DISTRICT DESCRIBING THE REMEDIAL ACTIONS TAKEN TO RESOLVE THE FAILURE OR DEVIATION.

LEGEND	
	ASPHALT PAVEMENT
	HEAVY DUTY ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	JURISDICTIONAL WETLANDS
	UPLAND BUFFERS

STORMWATER MAINTENANCE PLAN

WILDLIGHT COMMERCE PARK PARCEL A
FOR
PATTILLO INDUSTRIAL REAL ESTATE

DRAWING NUMBER

15

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CA - 00002584 LC - 0000316

VISION • EXPERIENCE • RESULTS

ETM

REVISIONS:

ETM NO. 19-239-07-001	JMB
DRAWN BY:	JMB
DESIGNED BY:	JMB
CHECKED BY:	NDB
DATE:	JULY 2023

PLANS PREPARED UNDER THE DIRECTION OF:

JON-MICHAEL BARQUIN
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