



VICINITY MAP
SCALE: 1" = 500'



PROJECT SCOPE
THIS PROJECT CONSISTS OF:
NEIGHBORHOOD DRAINAGE UPGRADES
STREAM CULVERT UPGRADES
NEIGHBORHOOD SANITARY AND WATER REPLACEMENTS

LYON AND IVY ROAD STORM DRAINAGE AND UTILITY IMPROVEMENTS

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COVER SHEET
PLAN TYPE: COVER
SHEET NUMBER: C001



REV. #	DESCRIPTION	REV. BY	DATE
CONSTRUCTION SET			

ENGINEER:
TIMMONS GROUP
5410 TRINITY ROAD SUITE 102
RALEIGH NC 27607
PHONE: (984) 255-2360
FAX: (919) 859-5663
CONTACT: CHRIS ROGERS, PE, CFM

SURVEYOR:
4D SITE SOLUTIONS
409 CHICAGO DR SUITE 112,
FAYETTEVILLE, NC 28306
PHONE: (910) 426-6777
FAX: (910) 426-5777

PROJECT CONTACTS CITY OF FAYETTEVILLE	
Engineering	Byron Reeves, PE, CFM Assistant Public Services Director - Engineering 433 Hay Street, Fayetteville, NC 28301 (910) 433-1301 byronreeves@fayettevillenc.gov
Construction Management	Jeff Riddle, PLS Construction Manager 339 Alexander Street, Fayetteville, NC 28301 (910) 433-1661 jeffreyriddle@fayettevillenc.gov
Traffic Services	Lee Jernigan, PE Assistant Public Services Director - Traffic 339 Alexander Street, Fayetteville, NC 28301 (910) 433-1153 leejernigan@fayettevillenc.gov



Know what's below.
Call before you dig.

CONSTRUCTION APPROVAL	
Construction Management	
Engineering	
Parks & Recreation	
Real Estate	
Street Maintenance	
Traffic Services	
Utilities - Electrical Services	
Utilities - Sewer Services	
Utilities - Water Services	

PROJECT NO. 54960.001
SUB-LEDGER NO. _____
DRAWN: SHANE VANDERGRIFT
DESIGN: CHRIS ROGERS
CHECK: DAVID DUNGAN
APPROVED: _____
PROJECT: IVY AND LYON ROAD
NAME: DRAINAGE IMPROVEMENTS
SCALE: N/A
DATE: 03/08/2024

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GENERAL NOTES:

CONTRACTOR IS NOT TO INTERRUPT ANY UTILITY SERVICES TO RESIDENCES WITHOUT PRIOR PERMISSION FROM THE CITY OR UTILITY AUTHORITY.

CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES INSIDE THE LIMITS OF DISTURBANCE. THE CONTRACTOR IS RESPONSIBLE FOR HAVING ALL UTILITIES LOCATED 48 HOURS PRIOR TO MOBILIZATION TO THE SITE.

CONTRACTOR SHALL FOLLOW OSHA GUIDELINES AND UTILITY OWNER GUIDELINES WHEN WORKING NEAR UTILITIES.

ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO CITY OF FAYETTEVILLE, STATE OF NORTH CAROLINA, AND ALL OTHER APPLICABLE STANDARD SPECIFICATIONS.

CONTRACTORS SHALL VERIFY ALL DIMENSIONS IN FIELD. ANY DISCREPANCIES THEREOF SHALL BE REPORTED TO THE OWNER AND ENGINEER PRIOR TO PROCEEDING WITH THE WORK.

NO TREES OR SHRUBS NOT SHOWN FOR REMOVAL ON THE PLANS SHALL BE REMOVED WITHOUT AN APPROVAL FROM THE CITY THROUGH A PLAN REVISION. WORK SHALL NOT COMMENCE WITHOUT THIS APPROVAL.

BASE TOPOGRAPHIC AND PLANIMETRIC INFORMATION GENERATED FROM FIELD SURVEYS WITHIN THE PROJECT BOUNDARY SUPPLEMENTED WITH NCFMP GIS DATA.

BENCHMARK CONTROLS ARE SHOWN ON THE EXISTING CONDITIONS PLAN. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING THE CONSTRUCTION SURVEY.

PLAN VERTICAL DATUM: NAVD 1988

PLAN HORIZONTAL DATUM: NC STATE PLANE COORDINATES NAD 1983.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGED ITEMS DURING CONSTRUCTION INCLUDING BUT NOT LIMITED TO, EXISTING ROADS, SIDEWALKS, CURBING, LANDSCAPING, RESIDENTIAL STRUCTURES, ACCESSORY STRUCTURES, MAILBOXES, ETC.

CONTRACTOR SHALL MAKE EVERY EFFORT TO PREVENT DAMAGE TO TREES WITHIN THE PROJECT AREA THAT ARE NOT PLANNED FOR REMOVAL. IN THE EVENT OF DAMAGE, REPAIR ANY DAMAGE TO THE CROWN, TRUNK, OR ROOT SYSTEM IMMEDIATELY.

ROOTS: REPAIR ROOTS BY CUTTING OFF DAMAGED AREAS AND PAINTING THEM WITH TREE PAINT. SPREAD PEAT MOSS OR MOIST TOPSOIL OVER EXPOSED ROOTS.

TREE BARK: REPAIR DAMAGE TO BARK BY TRIMMING AROUND DAMAGED AREA, TAPER THE CUT TO PROVIDE DRAINAGE, AND PAINT WITH TREE PAINT.

TREE LIMBS: CUT OFF ALL DAMAGED TREE LIMBS ABOVE THE TREE COLLAR AT THE TRUNK OR MAIN BRANCH. USE A SEPARATE CUT TO AVOID PEELING BARK FROM HEALTHY AREA OF THE TREE.

CONTRACTOR SHALL PROVIDE SUBMITTALS AND SHOP DRAWINGS FOR ALL MATERIALS, STRUCTURES, PIPES, FITTINGS, ETC. AS SHOWN ON THE PLANS AND INCLUDED IN THE SPECIFICATIONS IN ACCORDANCE WITH CITY OF FAYETTEVILLE REQUIREMENTS.

ACCESS, STAGING AND STOCKPILE AREA NOTES:

CONSTRUCTION EQUIPMENT SHALL BE LIMITED TO ONLY AREAS WITHIN THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS. ALL PARKING IS TO BE LIMITED TO THE STREET.

ALL AREAS OUTSIDE THE SHOWN LIMITS OF DISTURBANCE AREA TO REMAIN IN THEIR NATURAL CONDITION. THE CONTRACTOR SHALL ESTABLISH STOCKPILE AREAS WITHIN LOD AS SHOWN ON THE PLANS TO CARRY OUT THE WORK. STOCKPILE AREAS MAY BE ADJUSTED WITHIN THE LOD SO LONG AS APPROPRIATE.

SEDIMENTATION AND EROSION CONTROL MEASURES ARE PROVIDED IN ACCORDANCE WITH NCDCEQ EROSION CONTROL REQUIREMENTS. NO PAYMENT SHALL BE MADE TO REPAIR SURFACES AS A RESULT OF STOCKPILE ACTIVITIES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS MATERIALS DELIVERED TO THE PROJECT SITE.

MATERIALS NOTES:

THE CONTRACTOR IS RESPONSIBLE FOR STOCKPILING ALL MATERIALS AS STATED ABOVE.

SITE SPOIL: ALL EXCESS EXCAVATED MATERIALS (TO INCLUDE BURIED UTILITIES INTENDED FOR REMOVAL) OTHER THAN TOPSOIL SHALL BE CONSIDERED SITE SPOIL AND SHALL BECOME THE PROPERTY OF THE CONTRACTOR TO PROPERLY DISPOSE OFFSITE IN AN APPROVED PERMITTED LANDFILL OR RELATED PERMITTED FACILITY.

THE CONTRACTOR SHALL COORDINATE WITH THE OWNER(S) REGARDING THE RELOCATION, REMOVAL, STORAGE, AND RESETTling, OR REPLACEMENT OF ANY PRIVATELY OWNED STRUCTURES INCLUDING BUT NOT LIMITED TO FENCES, SHEDS, PLAYSETS, PLANTING AREAS, MAIL BOXES, ETC.

EROSION CONTROL NOTES:

THE CONTRACTOR SHALL EXERCISE PRECAUTIONS THROUGHOUT THE CONSTRUCTION SEQUENCE TO PREVENT EROSION AND OFF-SITE SEDIMENT. EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE PROJECT PLANS, CITY OF FAYETTEVILLE GUIDELINES, AND AS DIRECTED BY THE ENGINEER. ALL SEDIMENTATION AND EROSION CONTROLS ARE TO BE BUILT TO CITY OF FAYETTEVILLE AND NCDCEQ STANDARDS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES DURING CONSTRUCTION. THE MEASURES SHALL BE MAINTAINED CONTINUOUSLY, RELOCATED WHEN AND AS NECESSARY, AND SHALL BE CHECKED FOR MAINTENANCE ISSUES PER SELF-INSPECTION REQUIREMENTS.

THE CONTRACTOR SHALL PROVIDE GROUND STABILIZATION IN ACCORDANCE WITH NCG01 REQUIREMENTS (THIS SHEET).

THE CONTRACTOR SHALL KEEP ALL SURROUNDING PUBLIC ROADWAYS AND DRAINAGE SYSTEMS FREE FROM ALL SEDIMENT AND CONSTRUCTION DEBRIS AT ALL TIMES. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER EXCESS SEDIMENT IS REMOVED.

DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL EROSION CONTROL MEASURES NOT SHOWN ON THE PLANS BUT NECESSARY TO CONTROL EXCESS SEDIMENT.

PROJECT AREA SOILS:

- CUMBERLAND AND HOKE COUNTY SURVEY 1981:
o BLANEY-URBAN LAND COMPLEX
o FACEVILLE-URBAN LAND COMPLEX
o JOHNSTON LOAM
o VAUCLUSE LOAMY SAND

RECEIVING WATERCOURSE: LITTLE CROSS CREEK (WS-IV,C/A)

NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM:

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED.

RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS TOOK EFFECT OCTOBER 1, 2010. THE SELF-INSPECTION PROGRAM IS SEPARATE FROM THE WEEKLY SELF-MONITORING PROGRAM OF THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. THE FOCUS OF THE SELF-INSPECTION REPORT IS THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES ACCORDING TO THE APPROVED PLAN.

THE INSPECTIONS MUST BE CONDUCTED AFTER EACH PHASE OF THE PROJECT AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH NCGS 113A-54.1 AND 15A NC 48-0131. THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FROM HTTPS://DEQ.NC.GOV/ABOUT/DIVISIONS/ENERGY-MINERAL-LAND-RESOURCES/EROSION-SEDIMENT-CONTROL/FORMS.

IF YOU HAVE QUESTIONS OR CANNOT ACCESS THE FORM, PLEASE CONTACT THIS OFFICE AT (910)433-3300.

CONSTRUCTION SEQUENCE:

GENERAL SITE PREPARATION

THE CONTRACTOR SHALL SUBMIT AN ELECTRONIC NOTICE OF INTENT (E-NOI) TO OBTAIN THE CERTIFICATE OF COVERAGE (COC). THE E-NOI IS AVAILABLE AT HTTPS://DEQCS.DEQ.NC.GOV/FORMS/INCG01-NOI

THE CONTRACTOR IS REQUIRED TO PERFORM AN INITIAL INSPECTION OF THE SITE AND TO TAKE PHOTOGRAPHS AND VIDEO OF THE PROPOSED CONSTRUCTION, STAGING, AND STOCKPILE AREAS BEFORE DISTURBING THE SITE IN ACCORDANCE WITH THE GENERAL CONDITIONS. APPROVAL TO INSTALL EROSION AND SEDIMENT CONTROL SHALL NOT BE GRANTED UNTIL THE CONTRACTOR HAS RECEIVED WRITTEN APPROVAL FROM NCDCEQ DEMLR.

PERFORM ALL UTILITY IDENTIFICATION AND MARKING/FLAGGING AS NECESSARY.

COORDINATE WITH UTILITY COMPANIES TO RELOCATE OR PROTECT UTILITIES.

STAKE CONSTRUCTION LIMITS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL A PLAN BOX AT A VISIBLE LOCATION WITHIN THE SITE TO KEEP TWO COPIES OF THE APPROVED EROSION CONTROL PLANS, NPDES REPORTS, 30 DAYS OF RAINFALL DATA, ETC. POST THE EROSION CONTROL PERMIT IN A VISIBLE LOCATION ON THE PLAN BOX. THE PLAN BOX WILL BE RELOCATED AS NECESSARY DURING THE PROGRESS OF CONSTRUCTION.

CONSTRUCT ADDITIONAL EROSION CONTROL MEASURES NECESSARY AS SHOWN ON THE EROSION CONTROL PLAN. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION THROUGHOUT THE CONSTRUCTION OF THE PROJECT TO PREVENT EROSION AND OFF-SITE SEDIMENTATION. WHEN THE MEASURES ARE COMPLETE CALL FOR AN INSPECTION BY THE OWNER.

IDENTIFY STAGING AND STOCKPILE AREAS AS SHOWN ON PLANS. ALL EXCAVATED MATERIAL SHALL BE STOCKPILED WITHIN STAGING AREAS OR THE LIMITS OF DISTURBANCE FOR LATER USE AS FILL MATERIAL OR DISPOSAL. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING APPROPRIATE STABILIZATION MEASURES AROUND THE STOCKPILE AREA(S) TO PREVENT EROSION AND SEDIMENTATION. ANY STOCKPILE MUST BE

STABILIZED IF INACTIVE FOR MORE THAN 7 CALENDAR DAYS.

SELF-INSPECTIONS FOR EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE PERFORMED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF EVERY EVENT OF GREATER THAN 1 INCH. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN MEASURES AS DESIGNED. ALL EESS MEASURES SHALL BE MAINTAINED AS SPECIFIED IN THE CONSTRUCTION DETAILS ON THIS PLAN. A RAIN GAUGE SHALL BE INSTALLED AT THE PROJECT SITE FOR MONITORING.

STAGE 01 MCGOUGAN ROAD IMPROVEMENTS

INSTALL EROSION CONTROL MEASURES TO INCLUDE SILT FENCE, TREE PROTECTION FENCING, CHECK DAM, TIRE WASH STATION, AND PUMP-AROUND OPERATIONS. PROVIDE "CLEAN-WATER" PUMP-AROUND FOR NORMAL AND STORM FLOW UPSTREAM OF THE WORK AREA AND DISCHARGE DOWNSTREAM OF THE WORK AREA. PROVIDE "WORK AREA DEWATERING PUMPING" AND DISCHARGE THROUGH A SILT BAG.

MOBILIZE CONSTRUCTION EQUIPMENT.

COORDINATE UTILITY RELOCATION FOR GAS MAIN AND UNDERGROUND DRY UTILITIES AS NECESSARY.

REPLACE EXISTING 12-INCH CAST IRON WATER MAIN WITH 12-INCH DUCTILE IRON PIPE (DIP) AND RESTRAINT OR THRUST BLOCKING AT BENDS. ENSURE THE NEW LINE IS TESTED IN ACCORDANCE WITH THE SPECIFICATIONS. PROVIDE TEMPORARY WATER SERVICE TO ALL AFFECTED PROPERTIES THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

BEGIN DEMOLITION OF EXISTING BOX CULVERT AND EXISTING 18-INCH RCP OUTFALL. ENSURE WORK AREA IS PROPERLY DEWATERED THROUGH A SILT BAG DURING CONSTRUCTION OPERATIONS.

COMPLETE INSTALLATION OF WATER MAIN.

PERFORM STREAM AND FLOODPLAIN BENCH GRADING. ENSURE THE STREAM BANK IS STABLE WITH ROCK TOE PROTECTION AND MATTING AS SHOWN ON THE PLANS. AVOID IMPACTING THE STREAM BED. RESTORE TO ORIGINAL CONDITION.

INSTALL PROPOSED BOX CULVERTS, HEADWALLS AND PROPOSED 18-INCH RCP OUTFALL.

STAGE 02 IVY ROAD IMPROVEMENTS

INSTALL EROSION CONTROL MEASURES TO INCLUDE CONSTRUCTION ENTRANCE, SILT FENCE, TREE PROTECTION FENCING, CHECK DAM, TIRE WASH STATION, AND PUMP-AROUND OPERATIONS. PROVIDE "CLEAN-WATER" PUMP-AROUND FOR NORMAL AND STORM FLOW UPSTREAM OF THE WORK AREA AND DISCHARGE DOWNSTREAM OF THE WORK AREA. PROVIDE "WORK AREA DEWATERING PUMPING" AND DISCHARGE THROUGH A SILT BAG.

MOBILIZE CONSTRUCTION EQUIPMENT.

COORDINATE UTILITY RELOCATION FOR UNDERGROUND DRY UTILITIES AS NECESSARY.

REPLACE EXISTING 6-INCH CAST IRON WATER MAIN WITH 8-INCH DUCTILE IRON PIPE (DIP) AND RESTRAINT OR THRUST BLOCKING AT BENDS. ENSURE THE NEW LINE IS TESTED IN ACCORDANCE WITH THE SPECIFICATIONS. PROVIDE TEMPORARY WATER SERVICE TO ALL AFFECTED PROPERTIES THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

BEGIN SANITARY SEWER PUMP-AROUND OPERATIONS.

BEGIN DEMOLITION OF SANITARY SEWER MAIN, EXISTING HEADWALLS, AND BOX CULVERT.

PERFORM STREAM GRADING AND ENSURE THE STREAM BANK IS STABLE WITH ROCK TOE OR MATTING AS SHOWN ON THE PLANS. AVOID IMPACTING THE STREAM BED. RESTORE TO ORIGINAL CONDITION.

INSTALL PROPOSED BOX CULVERTS AND HEADWALLS.

COMPLETE INSTALLATION OF WATER MAIN.

INSTALL NEW SANITARY SEWER MAIN.

SPECIAL NOTE: THE SANITARY SEWER MAIN CAN BE REPLACED PRIOR TO THE CULVERT REPLACEMENT, BUT THE CONTRACTOR SHALL TAKE MEASURES TO PROTECT THE NEW SEWER PIPE DURING INSTALLATION OF THE NEW BOX CULVERT. PROVIDE TEMPORARY SANITARY SEWER SERVICE TO ALL AFFECTED PROPERTIES DURING CONSTRUCTION ACTIVITIES.

STAGE 03 ROGERS DRIVE AND LYON ROAD

INSTALL EROSION CONTROL MEASURES TO INCLUDE SILT FENCE, TREE PROTECTION FENCING, CHECK DAMS, TIRE WASH STATION, AND PUMP-AROUND OPERATIONS. PROVIDE "CLEAN-WATER" PUMP-AROUND FOR NORMAL AND STORM FLOW UPSTREAM OF THE WORK AREA AND DISCHARGE DOWNSTREAM OF THE WORK AREA. PROVIDE "WORK AREA DEWATERING PUMPING" AND DISCHARGE THROUGH A SILT BAG.

COORDINATE RELOCATION OF THE EXISTING UTILITY POLE AT THE CORNER OF LOTS 13 AND 14 ON THE NORTH SIDE OF LYON ROAD.

MOBILIZE CONSTRUCTION EQUIPMENT.

REPLACE EXISTING CURB INLET ON SOUTH SIDE OF ROGERS DRIVE. REMOVE EXISTING 15-INCH RCP AND REPLACE WITH 15-INCH RCP AT ELEVATIONS SHOWN ON THE PLANS.

RESTORE NORTHERN STREAM BANK AND STABILIZE THE STREAM BANK WITH RIPRAP ARMOR AND MATTING AS SHOWN ON THE PLANS.

PLACE PROPOSED EMBEDDED STONE RIFLE IN THE STREAM BED.

BEGIN DEMOLITION OF THE EXISTING HEADWALL AND 42-INCH RCP BEGINNING AT THE DOWNSTREAM END. INSTALL PROPOSED HEADWALL A1.

PERFORM STREAM BANK STABILIZATION AND TIE-IN WITH THE PROPOSED HEADWALL. MINIMIZE DISTURBANCE TO THE BANK AS MUCH AS POSSIBLE AND PROVIDE RIPRAP ARMOR AS SHOWN ON THE PLANS.

PROTECT FOUNDATIONS OF HOUSES AND POOL DURING CONSTRUCTION WITH APPROPRIATE BRACING/SHEET PILES (TO BE DESIGNED BY STRUCTURAL ENGINEER AND PROVIDED TO THE CITY OF REVIEW AND APPROVAL).

CONTINUE INSTALLATION OF THE PROPOSED 48-INCH RCP AND JUNCTION BOX A2 BETWEEN LOTS 13 AND 14. BACKFILL AND STABILIZE AS WORK PROGRESSES.

REMOVE THE EXISTING BLIND JUNCTION BOXES AND CURB INLETS.

INSTALL PROPOSED CURB INLET A3.

INSTALL THE PROPOSED 36-INCH RCP FROM THE EXISTING STORM DRAINAGE MANHOLE (SDMH #10359) TO CURB INLET A3. USE FLOWABLE FILL TO GROUT THE EXISTING PIPES TO BE ABANDONED.

INSTALL THE PROPOSED 48-INCH RCP AND CURB INLET A4.

ENSURE PUMP-AROUND IS IN PLACE FOR THE STREAM ON THE SOUTH SIDE OF LYON ROAD.

REMOVE THE REMAINING SECTION OF 36-INCH RCP AND THE HEADWALL.

INSTALL THE REMAINING 48-INCH RCP AND PROPOSED HEADWALL A5. MINIMIZE IMPACTS TO STREAM BANK AND BED. RESTORE TO ORIGINAL CONDITION.

REPLACE EXISTING 12-INCH CAST IRON WATER MAIN WITH 12-INCH DIP AND RESTRAINT OR THRUST BLOCKING AT BENDS. ENSURE THE NEW LINE IS TESTED IN ACCORDANCE WITH THE SPECIFICATIONS. PROVIDE TEMPORARY WATER SERVICE TO ALL AFFECTED PROPERTIES THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

REMOVE AND REPLACE SANITARY SEWER MAIN AS SHOWN ON THE PLANS. PROVIDE TEMPORARY SEWER SERVICE TO ALL AFFECTED PROPERTIES THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

REPLACE ALL SITE FEATURES REMOVED FOR CONSTRUCTION TO INCLUDE ALL DRIVEWAYS, DRIVEWAY APRONS, ACCESSORY BUILDINGS, FENCES, MAILBOXES, AND ANY OTHER FEATURE REMOVED.

STAGE 04 MCKIMMON ROAD

INSTALL EROSION CONTROL MEASURES TO INCLUDE SILT FENCE, TREE PROTECTION FENCING, CHECK DAMS, TIRE WASH STATION, AND PUMP-AROUND OPERATIONS. PROVIDE "CLEAN-WATER" PUMP-AROUND FOR NORMAL AND STORM FLOW UPSTREAM OF THE WORK AREA AND DISCHARGE DOWNSTREAM OF THE WORK AREA. PROVIDE "WORK AREA DEWATERING PUMPING" AND DISCHARGE THROUGH A SILT BAG.

MOBILIZE CONSTRUCTION EQUIPMENT.

INSTALL SANITARY SEWER CIPP LINER PRIOR TO CONDUCTING LAND-DISTURBING ACTIVITIES FOR STAGE 04. ENSURE LINER IS PROPERLY CURED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

BEGINNING AT THE DOWNSTREAM END, REMOVE THE EXISTING HEADWALL AND 24-INCH RCP.

PERFORM STREAM GRADING. ENSURE THE STREAM BANK IS STABLE WITH ROCK TOE PROTECTION. AVOID IMPACTING THE STREAM BED. RESTORE TO ORIGINAL CONDITION.

INSTALL PROPOSED HEADWALL A6 AND 36-INCH RCP AS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL LOCATE BURIED EXISTING STORM DRAINAGE MANHOLE (SDMH #9781). IF LOCATION AND PIPE ORIENTATION VARIES FROM THE PLANS, COORDINATE WITH THE OWNER ON PROPOSED STRUCTURE AND PIPE ORIENTATION. OTHERWISE, INSTALL JUNCTION BOX A7. PROVIDE CONNECTION TO EXISTING CURB INLET CI #9676.

INSTALL PROPOSED 36-INCH RCP AND PROPOSED YARD INLET A9. PROTECT FOUNDATIONS OF HOUSES DURING CONSTRUCTION WITH APPROPRIATE BRACING/SHEET PILES (TO BE DESIGN BY STRUCTURAL ENGINEER AND PROVIDED FOR CITY REVIEW AND APPROVAL).

THE CONTRACTOR SHALL LOCATE THE BLIND JUNCTION BOX. COORDINATE WITH THE OWNER ON PROPOSED LOCATION AND PROXIMITY OR CONFLICT WITH ANY OTHER UNDERGROUND UTILITIES OR SITE FEATURES.

REPLACE EXISTING 6-INCH CAST IRON WATER MAIN WITH 8-INCH DIP AND RESTRAINT OR THRUST BLOCKING AT BENDS. ENSURE THE NEW LINE IS TESTED IN ACCORDANCE WITH THE SPECIFICATIONS. PROVIDE TEMPORARY WATER SERVICE TO ALL AFFECTED PROPERTIES THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

REMOVE AND REPLACE SANITARY SEWER MAIN AS SHOWN ON THE PLANS. PROVIDE TEMPORARY SEWER SERVICE TO ALL AFFECTED PROPERTIES THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

REPLACE ALL SITE FEATURES REMOVED FOR CONSTRUCTION TO INCLUDE ALL DRIVEWAYS, DRIVEWAY APRONS, ACCESSORY BUILDINGS, FENCES, MAILBOXES, AND ANY OTHER FEATURE REMOVED.

GENERAL SITE COMPLETION

COMPLETE SITE SEEDING AND PLANTING FOR EACH WORK AREA AS DESCRIBED IN THE CONSTRUCTION PLANS AND SPECIFICATIONS.

PERIMETER MEASURES MUST BE LEFT IN PLACE UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED. AFTER EACH WORK AREA SITE IS PERMANENTLY STABILIZED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND PROVIDE PERMANENT SEEDING WHERE TEMPORARY MEASURES HAVE BEEN REMOVED AND GROUND COVER IS NOT ADEQUATE.

DURING OPERATION, SILT BAGS WILL BE CONTINUOUSLY MONITORED.

REPAIR AREAS USED FOR CONSTRUCTION ACCESS, CONSTRUCTION ACTIVITIES AND STOCKPILE LOCATIONS. REMOVE CONSTRUCTION ENTRANCES.

SEED AND MULCH STAGING AREAS, STOCKPILE AREAS, ALL HAUL/ACCESS ROADS AND ANY REMAINING NON-VEGETATED AREAS.

COMPLETE SITE CLEANUP AND STABILIZATION AS CALLED FOR ON THE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL SWEEP AND COLLECT ALL SEDIMENT THAT IS TRACKED OUT OF THE PROJECT AREA.

EROSION CONTROL DEVICES SHALL BE REMOVED FROM THEIR RESPECTIVE LOCATIONS ONLY WHEN THE STABILIZATION OF THE ADJACENT GROUND HAS BEEN ESTABLISHED.

OBTAIN FINAL APPROVALS FROM CITY OF FAYETTEVILLE AND NCDCEQ DEMLR.

DEMOLIBLIZE.

WHEN VEGETATION IS ESTABLISHED CONTACT NCDCEQ LAND QUALITY INSPECTOR FOR FINAL INSPECTION AND CERTIFICATE OF COMPLIANCE.

UPON RECEIPT OF THE CERTIFICATE OF COMPLIANCE THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

WHEN THE PROJECT IS COMPLETE, THE PERMITEE SHALL CONTACT DEMLR TO CLOSE OUT THE E&S PLAN. AFTER DEMLR INFORMS THE PERMITEE OF THE PROJECT CLOSE OUT, VIA INSPECTION REPORT, THE PERMITEE SHALL VISIT DEQ.NC.GOV/NOI TO SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (E-NOI).

A \$100 ANNUAL GENERAL PERMIT FEE WILL BE CHARGED UNTIL THE E-NOI HAS BEEN FILLED OUT.

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Table with 3 columns: Site Area Description, Required Ground Stabilization Timelines (many calendar days after ceasing land disturbance), and Timeframe variations. Includes rows for perimeter dikes, high quality water, slopes steeper than 3:1, slopes 3:1 to 4:1, and areas with slopes flatter than 4:1.

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Table with 2 columns: Temporary Stabilization and Permanent Stabilization. Lists methods like straw/grass seed, hydroseeding, riprap, silt fences, etc.

POLYCARBAMIDES (PAMs) AND FLOCCULANTS

- 1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMs/Flocculants.
2. Apply flocculants at or before the times listed on the Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMs/Flocculants and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

- 1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (except when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEANING WASTE

- 1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

- 1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drains inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sealed and placed appropriately for the needs of site.
5. Present the disposal of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

- 1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relief from portable toilet to silt fence or place on a gravel pad and surround with sand bags.
2. Provide stabilization or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material.
4. Provide a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

- 1. Show erosion protection on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is deemed as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Table with 3 columns: Inspect, Frequency, and Inspector records must include: (a) Range, number, and location of all good working; (b) E&S Measures; (c) Nonconformances; (d) Violations of site; (e) Ground stabilization; (f) Ground stabilization measures.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&S Plan Documentation
The approved E&S plan as well as any approved deviation shall be kept on the site. The approved E&S plan must be kept up-to-date through the coverage under this permit. The following items pertaining to the E&S plan shall be kept on site and available for inspection at all times during normal business hours:
(a) Each E&S measure has been installed and does not significantly deviate from the location, dimensions and relative elevations shown on the approved E&S plan.
(b) A phase of grading has been completed.
(c) Ground cover is stabilized and installed in accordance with the approved E&S plan.
(d) The maintenance and repair requirements have been performed.
(e) Corrective actions have been taken to E&S measures.

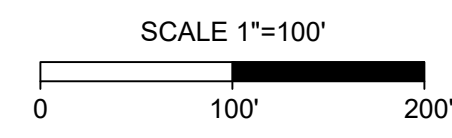
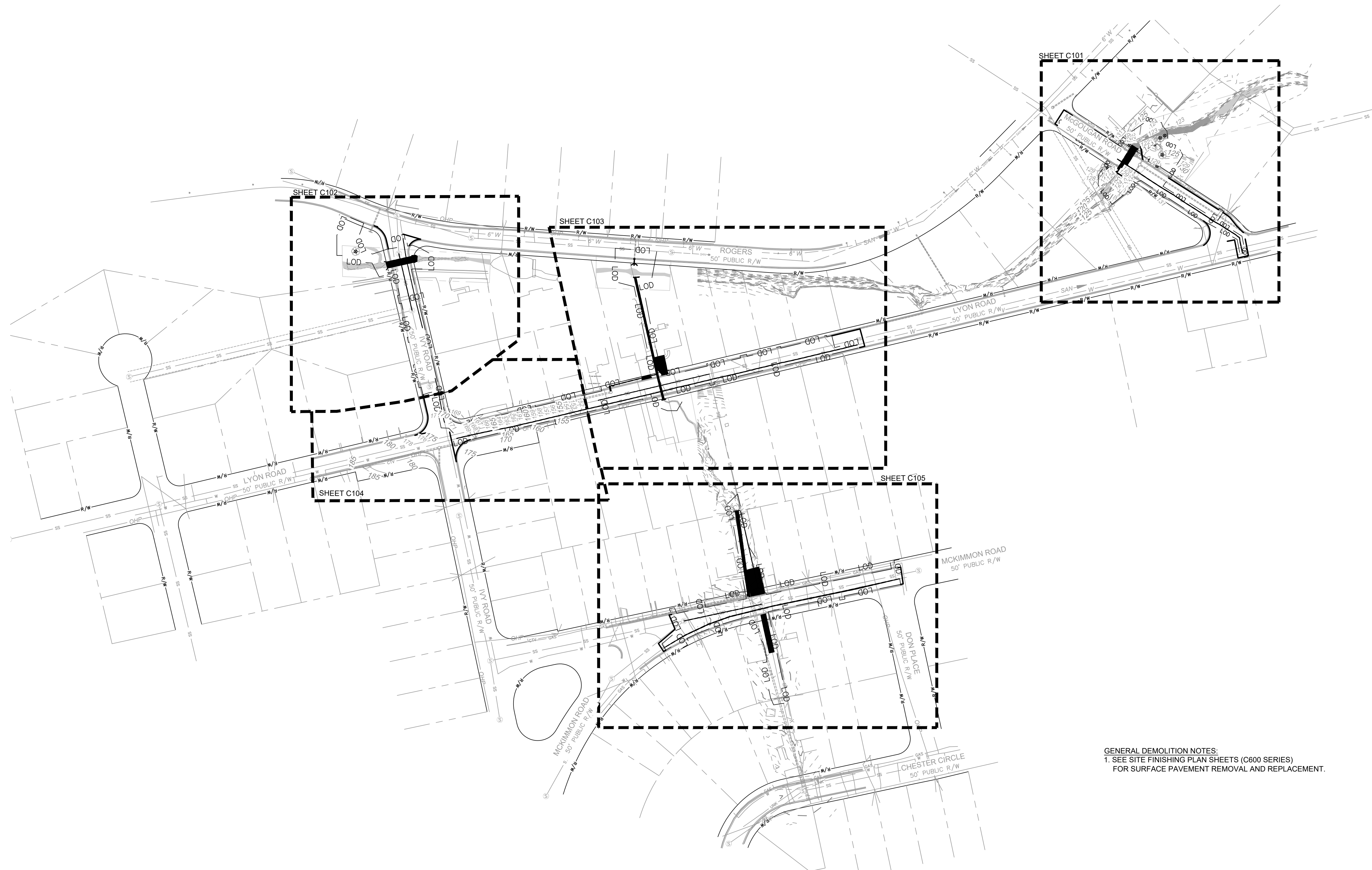
SECTION C: REPORTING

1. Occurrences that Must be Reported
Permittee shall report the following occurrences:
(a) Visible sediment deposition in a stream or wetland.
(b) Oil spills #:
• They are 25 gallons or more,
• They are less than 25 gallons but cannot be cleaned up within 24 hours,
• They cause sheen on surface waters (regardless of volume), or
• They are within 100 feet of surface waters (regardless of volume).
(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 145-215.85.
(d) Anticipated bypasses and unanticipated bypasses.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

- (a) Within 24 hours, on oral or electronic notification.
(b) Within 72 hours, a report that contains a description of the occurrence, the location and action taken to address the cause of the occurrence.
(c) If the stream is named on the NC 303(a) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if E&S measures are modified after initial installation.
(d) Within 24 hours, on oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(e) A report of best management practices of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(f) Within 24 hours, on oral or electronic notification.
(g) Within 72 hours, a report that includes an evaluation of the quality and effect of the bypass.
(h) Noncompliance with the conditions of this permit that may endanger health or the environment.
(i

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GENERAL DEMOLITION NOTES:
1. SEE SITE FINISHING PLAN SHEETS (C600 SERIES)
FOR SURFACE PAVEMENT REMOVAL AND REPLACEMENT.

DRAWN : SHANE VANDERGRIFT	PROJECT : IVY AND LYON ROAD
DESIGN : CHRIS ROGERS	NAME : DRAINAGE IMPROVEMENTS
CHECK : DAVID DUNCAN	SCALE : 1"=100'
APPROVED :	DATE : 03/08/2024

PROJECT NO. 54960.001
SUB-LEDGER NO. _____

REV. #	DESCRIPTION	REV. BY	DATE

CONSTRUCTION SET



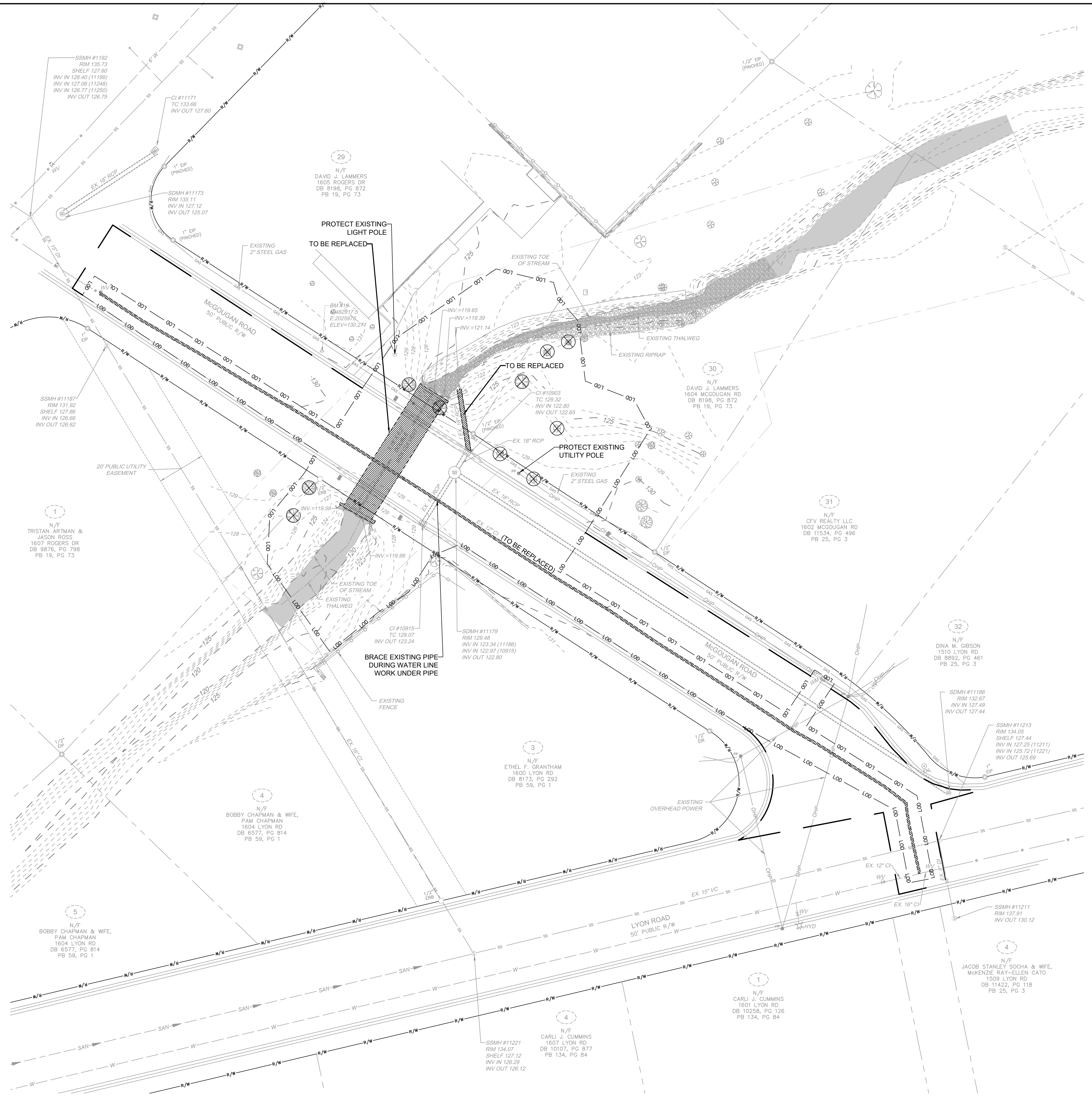
FAYETTEVILLE:
AMERICA'S CAN DO CITY

ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501

OVERALL
EXISTING CONDITIONS
AND DEMOLITION

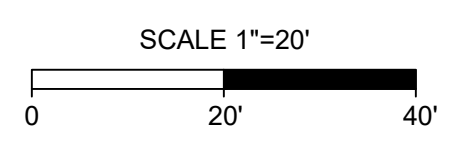
PLAN TYPE:
DEMO

SHEET NUMBER:
C100



LEGEND

-166-----	EXISTING MINOR CONTOURS
-165-----	EXISTING MAJOR CONTOURS
-----	RIGHT OF WAY
-----	PROPERTY LINE
-----	STREAM CENTERLINE
-----	EXISTING STORM DRAINAGE
-----	EXISTING WATERLINE
-----	EXISTING SANITARY SEWER
-----	EXISTING OVERHEAD POWER LINE
-----	EXISTING GAS
-----	EXISTING FENCE
-----	EXISTING SPLIT RAIL FENCE
-----	EXISTING TREE
-----	DEMO - TO BE REPLACED
-----	LIMIT OF DISTURBANCE
-----	SURVEY BENCH MARK



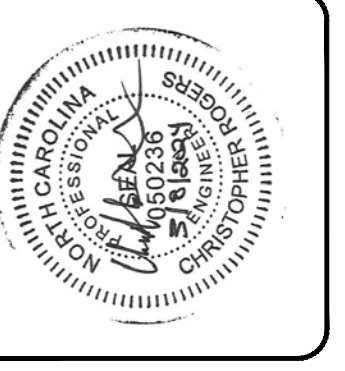
EXISTING CONDITIONS
AND DEMOLITION

PLAN TYPE: DEMO

SHEET NUMBER: C101

FAYETTEVILLE:
AMERICA'S CAN DO CITY

ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501



CONSTRUCTION SET

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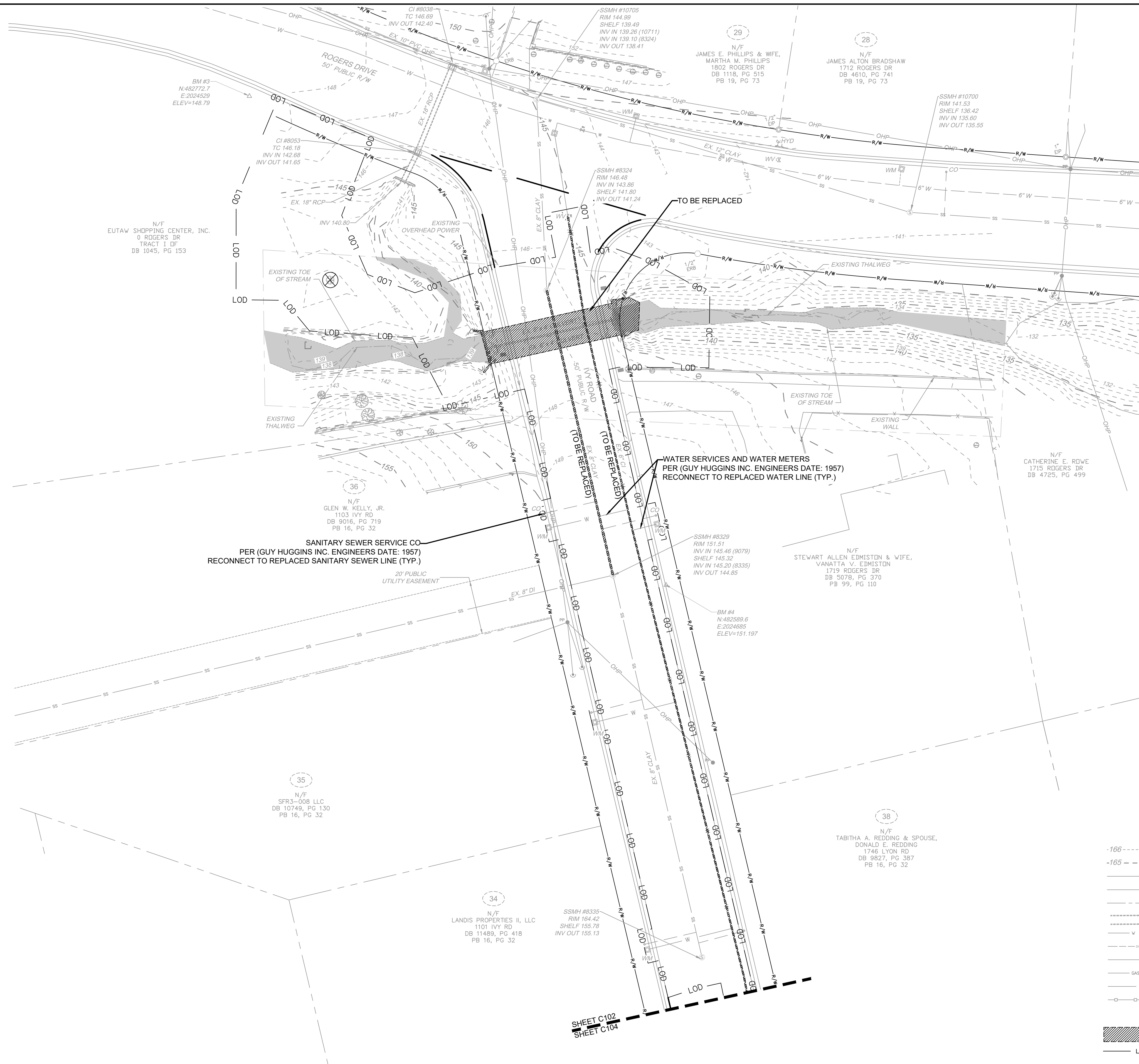
PROJECT NO. 54960.001
SUB-LEDGER NO. _____

DRAWN : SHANE VANDERGRIFT
DESIGN : CHRIS ROGERS
CHECK : DAVID DUNGAN
APPROVED : _____

PROJECT: IVY AND LYON ROAD
NAME: DRAINAGE IMPROVEMENTS
SCALE: 1"=20'
DATE: 03/08/2024

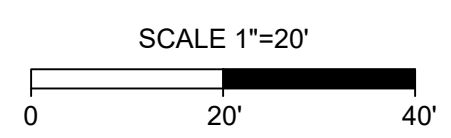
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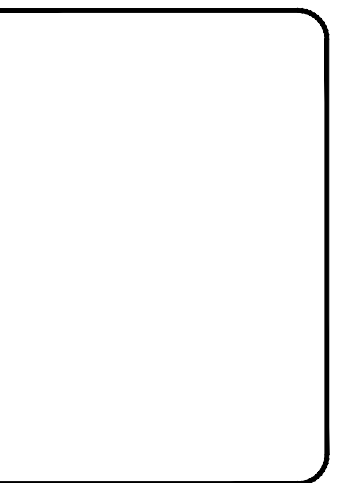


LEGEND

-166 - - - - -	EXISTING MINOR CONTOURS
-165 - - - - -	EXISTING MAJOR CONTOURS
-----	RIGHT OF WAY
-----	PROPERTY LINE
-----	STREAM CENTERLINE
-----	EXISTING STORM DRAINAGE
-----	EXISTING WATERLINE
-----	EXISTING SANITARY SEWER
-----	EXISTING OVERHEAD POWER LINE
-----	EXISTING GAS
-----	EXISTING FENCE
-----	EXISTING SPLIT RAIL FENCE
-----	EXISTING TREE
-----	DEM-O - TO BE REPLACED
LOD LOD	LIMIT OF DISTURBANCE
△	SURVEY BENCH MARK



EXISTING CONDITIONS AND DEMOLITION
PLAN TYPE: DEMO
SHEET NUMBER: C102



FAYETTEVILLE:
AMERICA'S CAN DO CITY
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ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501

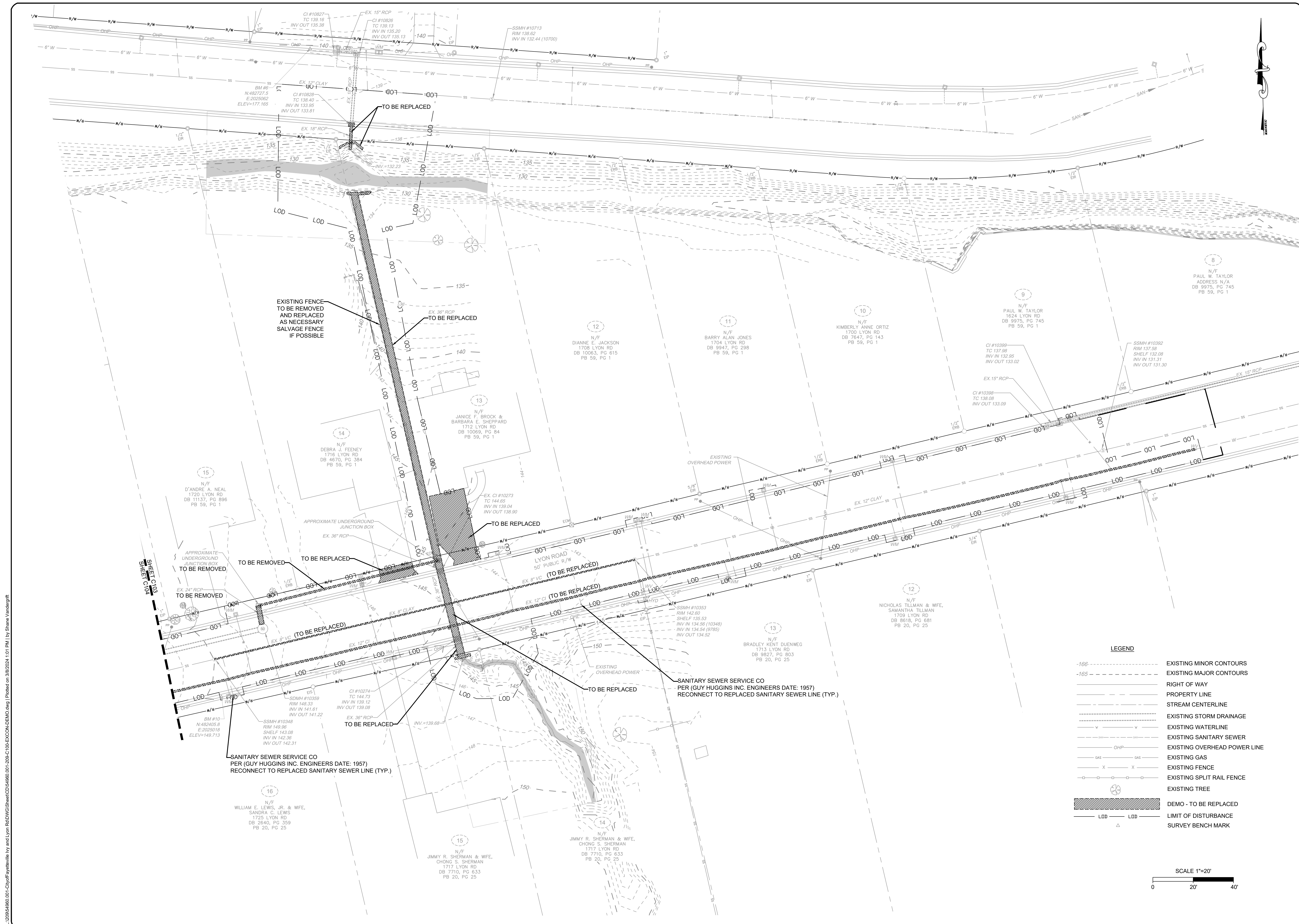


CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

PROJECT: IVY AND LYON ROAD DRAINAGE IMPROVEMENTS
 DRAWN: SHANE VANDERGRIFT
 DESIGN: CHRIS ROGERS
 CHECK: DAVID DUNGAN
 APPROVED: _____
 SCALE: 1"=20'
 DATE: 03/08/2024

PROJECT NO. 54960.001
 SUB-LEDGER NO. _____



EXISTING CONDITIONS AND DEMOLITION

PLAN TYPE: DEMO

SHEET NUMBER: C103

AMERICA'S CAN DO CITY

FAYETTEVILLE:
ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28401



CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

PROJECT NO. 54960.001
SUB-LEDGER NO. _____

PROJECT: IVY AND LYON ROAD
NAME: DRAINAGE IMPROVEMENTS
SCALE: 1"=20'
DATE: 03/08/2024

DRAWN: SHANE VANDERGRIFT
DESIGN: CHRIS ROGERS
CHECK: DAVID DUNGAN
APPROVED: _____

LEGEND

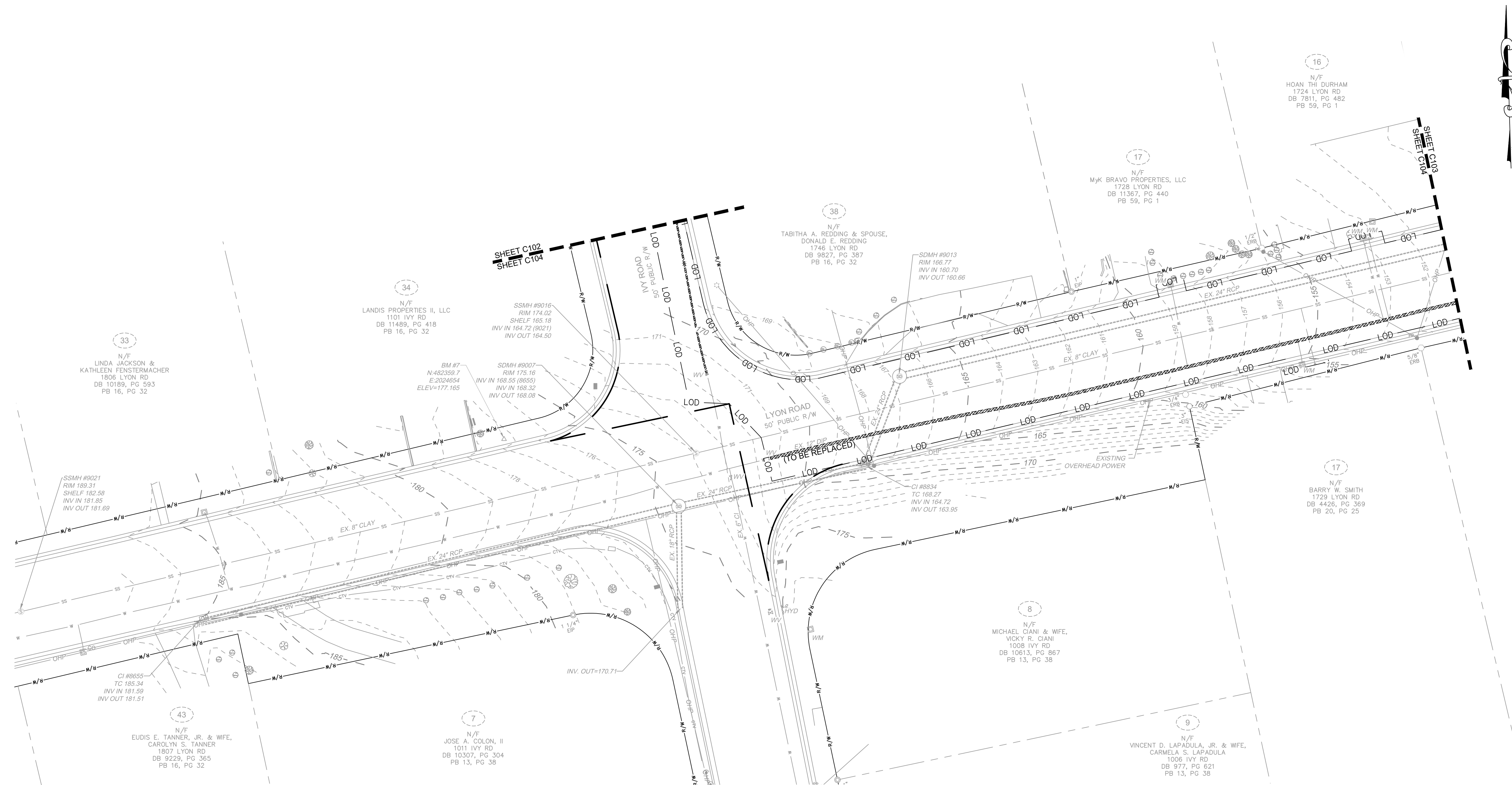
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-165 - - - - -	EXISTING MAJOR CONTOURS
---	RIGHT OF WAY
---	PROPERTY LINE
---	STREAM CENTERLINE
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---	EXISTING WATERLINE
---	EXISTING SANITARY SEWER
---	EXISTING OVERHEAD POWER LINE
---	EXISTING GAS
X X	EXISTING FENCE
○ ○	EXISTING SPLIT RAIL FENCE
⊗	EXISTING TREE
▨	DEMO - TO BE REPLACED
LOD LOD	LIMIT OF DISTURBANCE
△	SURVEY BENCH MARK

SCALE 1"=20'

0 20' 40'

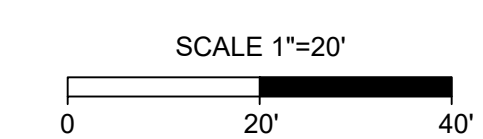
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LEGEND

-166 - - - - -	EXISTING MINOR CONTOURS
-165 - - - - -	EXISTING MAJOR CONTOURS
—————	RIGHT OF WAY
—————	PROPERTY LINE
—————	STREAM CENTERLINE
—————	EXISTING STORM DRAINAGE
—————	EXISTING WATERLINE
—————	EXISTING SANITARY SEWER
—————	EXISTING OVERHEAD POWER LINE
—————	EXISTING GAS
—————	EXISTING FENCE
—————	EXISTING SPLIT RAIL FENCE
—————	EXISTING TREE
—————	DEMO - TO BE REPLACED
—————	LIMIT OF DISTURBANCE
△	SURVEY BENCH MARK



EXISTING CONDITIONS
AND DEMOLITION

PLAN TYPE: DEMO

SHEET NUMBER: C104

FAYETTEVILLE:
AMERICA'S CAN DO CITY

ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501



CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

DRAWN : SHANE VANDERGRIFT

PROJECT : IVY AND LYON ROAD DRAINAGE IMPROVEMENTS

DESIGN : CHRIS ROGERS

CHECK : DAVID DUNGAN

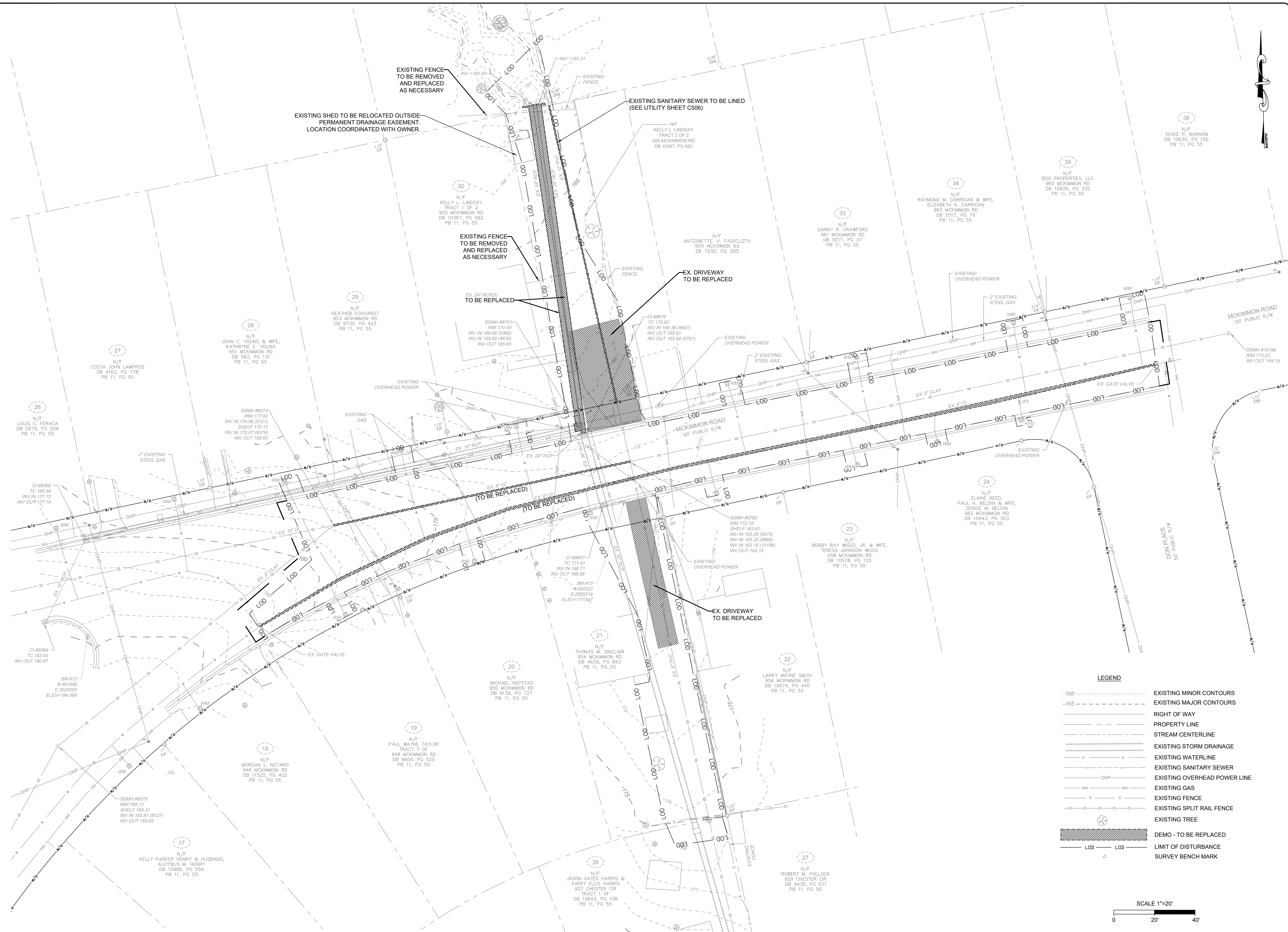
APPROVED : DATE : 03/08/2024

SCALE : 1"=20'

PROJECT NO. : 54960.001

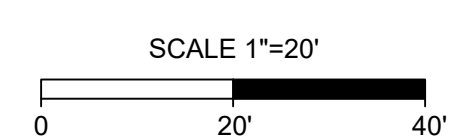
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LEGEND

-166 - - - - -	EXISTING MINOR CONTOURS
-165 - - - - -	EXISTING MAJOR CONTOURS
—————	RIGHT OF WAY
—————	PROPERTY LINE
—————	STREAM CENTERLINE
—————	EXISTING STORM DRAINAGE
—————	EXISTING WATERLINE
—————	EXISTING SANITARY SEWER
—————	EXISTING OVERHEAD POWER LINE
—————	EXISTING GAS
—————	EXISTING FENCE
—————	EXISTING SPLIT RAIL FENCE
—————	EXISTING TREE
—————	DEMO - TO BE REPLACED
—————	LIMIT OF DISTURBANCE
—————	SURVEY BENCH MARK



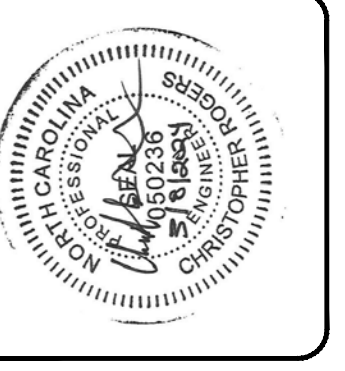
EXISTING CONDITIONS AND DEMOLITION

PLAN TYPE: DEMO

SHEET NUMBER: C105

FAYETTEVILLE:
AMERICA'S CAN DO CITY

ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501



CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

PROJECT: IVY AND LYON ROAD	DRAINAGE IMPROVEMENTS
NAME: DRAINAGE IMPROVEMENTS	SCALE: 1"=20'
DESIGN: CHRIS ROGERS	DATE: 03/08/2024
CHECK: DAVID DUNGAN	
APPROVED:	

PROJECT NO. 54960.001

SUB-LEDGER NO.

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MAINTENANCE OF TRAFFIC NOTES

1. PRIOR TO THE SCHEDULING OF A PRE-CONSTRUCTION CONFERENCE, THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A DETAILED MAINTENANCE OF TRAFFIC CONTROL PLAN (MOT) WITH THE CONTRACTOR'S PERMIT APPLICATION TO WORK IN THE RIGHT-OF-WAY. THE MOT SHALL BE A DRAWING OR AERIAL PHOTO WITH SITE SPECIFIC DETAILS. THESE SHALL INCLUDE BUT ARE NOT LIMITED TO: TRAFFIC SIGNS, DIRECTIONAL SIGNS, DESTINATION SIGNAGE, CHANNELIZING DEVICES, WATER-FILLED BARRIERS, PORTABLE MESSAGE BOARDS WITH MESSAGES TO BE DISPLAYED AND TIMES AND DURATIONS OF DISPLAYED MESSAGES. ADDITIONALLY, THE MOT SHALL DISPLAY THE EXACT LOCATION OF ALL SIGNS AND/OR DEVICES INCLUDING SPACING FOR EACH SIGN AND/OR DEVICE, SPACING BEING APPROPRIATE FOR THE WORK ZONE LOCATION AND POSTED SPEED LIMITS. ALL MOT PLANS SHALL CONFORM TO THE CURRENT ISSUE OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. CONTRACTORS SHOULD CONSIDER THESE ITEMS WHEN BIDDING PROJECT FOR CONSTRUCTION. FOLLOWING APPROVAL OF THE PLAN, A REPRODUCIBLE DRAWING SHALL BE SUBMITTED TO THE OFFICE OF PUBLIC SERVICE FOR USE AND DISTRIBUTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE SIGNING, DELINEATION PAVEMENT MARKINGS AND ANY OTHER TRAFFIC CONTROL DEVICES NECESSARY TO PERFORM THE WORK. UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL IMMEDIATELY REMOVE ALL SUCH TEMPORARY DEVICES.
3. NO LANE CLOSURES AND/OR WORK IN THE RIGHT OF WAY, INCLUDING GRADING, SIDEWALK, CURB AND GUTTER, AND DRIVEWAY APRON INSTALLATION WILL BE ALLOWED WITHOUT A PERMIT. SEQUENCE OF CONSTRUCTION SHOULD MINIMIZE LANE AND INTERSECTION CLOSURES TO THE MAXIMUM EXTENT PRACTICAL.
4. EMERGENCY VEHICLE ACCESS SHALL BE MAINTAINED AT ALL TIMES WITHOUT EXCEPTION.

MAINTENANCE OF TRAFFIC SEQUENCE OF CONSTRUCTION

SEE EROSION CONTROL SEQUENCE OF CONSTRUCTION ON SHEET C002 FOR DETAILS OF CONSTRUCTION.

STAGE 01 (MCGOUGAN ROAD AND LYON ROAD IMPROVEMENTS):

CONSTRUCTION CONSISTS OF THE REPLACEMENT OF THE EXISTING BOX CULVERT AND UTILITIES IMPROVEMENTS INCLUDE THE REPLACEMENT OF THE EXISTING WATER MAIN AND SEWER MAIN. THE WATER MAIN WILL BE REPLACED STARTING AT THE EXISTING 12-INCH CAST IRON PIPE AT LYON ROAD UP TO THE EXISTING WATER VALVE JUST EAST OF ROGERS DRIVE. THE STREETS WILL BE CLOSED TO THROUGH-TRAFFIC FOR THE DURATION OF THE CONSTRUCTION WHICH WILL INVOLVE UTILITY TRENCHING AND GRADING ADJACENT TO THE ROADWAY AT THE CULVERT LOCATION. LOCAL TRAFFIC DURING THIS PHASE WILL BE ALLOWED TO ACCESS THE RESIDENCES AS MUCH AS POSSIBLE THROUGH THE USE OF STEEL UTILITY TRENCH PLATES OR OTHER MEANS OF SECURING THE WORKSITE AT THE END OF DAY.

LYON ROAD TRAFFIC SHALL BE MAINTAINED ACCORDING TO TA-20 AS PRESCRIBED IN THE CURRENT VERSION OF THE MUTCD. DETOURED TRAFFIC WILL USE MCKIMMON ROAD, ANARINE ROAD, AND EDENWOOD DRIVE TO BYPASS THE WORK AREA AT THE INTERSECTION OF LYON ROAD AND MCGOUGAN ROAD.

MCGOUGAN ROAD TRAFFIC SHALL BE MAINTAINED ACCORDING TO TA-20 AS PRESCRIBED IN THE CURRENT VERSION OF THE MUTCD. DETOURED TRAFFIC WILL USE IVY ROAD AND ROGERS DRIVE TO BYPASS THE WORK AREA.

STAGE 02 (IVY ROAD IMPROVEMENTS):

CONSTRUCTION CONSISTS OF THE REPLACEMENT OF THE EXISTING BOX CULVERT AND UTILITIES IMPROVEMENTS INCLUDE THE REPLACEMENT OF THE EXISTING WATER MAIN AND SEWER MAIN. THE STREET WILL BE CLOSED TO THROUGH-TRAFFIC FOR THE DURATION OF THE CONSTRUCTION WHICH WILL INVOLVE UTILITY TRENCHING AND GRADING ADJACENT TO THE ROADWAY AT THE CULVERT LOCATION. LOCAL TRAFFIC DURING THIS PHASE WILL BE ALLOWED TO ACCESS THE RESIDENCES AS MUCH AS POSSIBLE THROUGH THE USE OF STEEL UTILITY TRENCH PLATES OR OTHER MEANS OF SECURING THE WORKSITE AT THE END OF DAY.

IVY ROAD TRAFFIC SHALL BE MAINTAINED ACCORDING TO TA-20 AS PRESCRIBED IN THE CURRENT VERSION OF THE MUTCD. DETOURED TRAFFIC WILL USE MCGOUGAN ROAD TO BYPASS THE WORK AREA.

STAGE 03A (ROGERS DRIVE STORM DRAINAGE SYSTEM IMPROVEMENTS):

CONSTRUCTION CONSISTS OF THE REPLACEMENT OF THE CURB INLET AND PIPE. THE EASTBOUND LANE WILL BE CLOSED FOR THE DURATION OF THE CONSTRUCTION WHICH WILL INVOLVE UTILITY TRENCHING AND GRADING ADJACENT TO THE ROADWAY AT THE PIPE LOCATION.

TRAFFIC SHALL BE MAINTAINED ACCORDING TO TA-11 AS PRESCRIBED IN THE CURRENT VERSION OF THE MUTCD.

STAGE 03B (LYON ROAD STORMWATER AND UTILITIES IMPROVEMENTS):

CONSTRUCTION CONSISTS OF THE REPLACEMENT OF THE EXISTING STORMWATER OUTFALL FROM THE UPSTREAM HEADWALL SOUTH OF LYON ROAD BETWEEN 1713 AND 1717 LYON ROAD TO THE OUTFALL BEHIND 1716 AND 1712 LYON ROAD. THE WATER MAIN FROM IVY ROAD TO 1701 LYON ROAD WILL BE REPLACED. THE SANITARY SEWER MAIN WILL BE REPLACED FROM THE MANHOLE AT 1725 LYON ROAD TO 1708 LYON ROAD. THE IMPROVEMENTS WILL INVOLVE TRENCHING IN THE ROADWAY ALONG THE FRONTAGE OF MULTIPLE RESIDENCES. TRENCHING AND UTILITY REPLACEMENT SHOULD BE PERFORMED PROGRESSIVELY TO ALLOW LOCAL TRAFFIC TO ACCESS THE RESIDENCES THROUGH THE USE OF STEEL UTILITY TRENCH PLATES OR OTHER MEANS OF SECURING THE WORKSITE AT THE END OF DAY. THE ROAD WILL BE CLOSED TO THROUGH-TRAFFIC FOR THE DURATION OF CONSTRUCTION.

LYON ROAD TRAFFIC SHALL BE MAINTAINED ACCORDING TO TA-20 AS PRESCRIBED IN THE CURRENT VERSION OF THE MUTCD. DETOURED TRAFFIC WILL USE ROGERS DRIVE TO BYPASS THE WORK AREA.

STAGE 04A (MCKIMMON ROAD WATER MAIN REPLACEMENT):

CONSTRUCTION CONSISTS OF THE REPLACEMENT OF THE EXISTING WATER MAIN FROM THE VALVE AT THE INTERSECTION WITH DON PLACE TO A VALVE AT THE WYE-INTERSECTION WHERE MCKIMMON ROAD SPLITS IN FRONT OF 946 MCKIMMON ROAD. THE IMPROVEMENTS WILL INVOLVE TRENCHING IN THE ROADWAY ALONG THE FRONTAGE OF MULTIPLE RESIDENCES. TRENCHING AND UTILITY REPLACEMENT SHOULD BE PERFORMED PROGRESSIVELY TO ALLOW LOCAL TRAFFIC TO ACCESS THE RESIDENCES THROUGH THE USE OF STEEL UTILITY TRENCH PLATES OR OTHER MEANS OF SECURING THE WORKSITE AT THE END OF DAY. THE ROAD WILL BE CLOSED TO THROUGH-TRAFFIC FOR THE DURATION OF CONSTRUCTION.

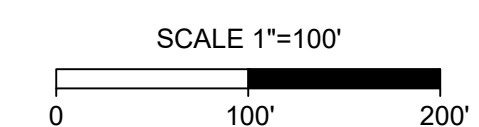
MCKIMMON ROAD TRAFFIC SHALL BE MAINTAINED ACCORDING TO TA-20 AS PRESCRIBED IN THE CURRENT VERSION OF THE MUTCD. DETOURED TRAFFIC WILL USE ANARINE ROAD, EDENWOOD DRIVE, LYON ROAD, AND IVY ROAD DRIVE TO BYPASS THE WORK AREA.

DON PLACE TRAFFIC SHALL BE MAINTAINED ACCORDING TO TA-20 AS PRESCRIBED IN THE CURRENT VERSION OF THE MUTCD. DETOURED TRAFFIC WILL USE CHESTER CIRCLE AND MCPHERSON ROAD TO BYPASS THE WORK AREA.

STAGE 04B (MCKIMMON ROAD STORMWATER AND SANITARY SEWER IMPROVEMENTS):

CONSTRUCTION CONSISTS OF THE REPLACEMENT OF THE EXISTING STORMWATER OUTFALL FROM THE HEADWALL BEHIND 955 AND 959 MCKIMMON ROAD TO THE INLET AND JUNCTION BOX ON THE NORTH SIDE OF MCKIMMON ROAD. A PROPOSED JUNCTION BOX WILL BE INSTALLED ON THE NORTH SIDE OF MCKIMMON ROAD AND A 36-INCH RCP WILL BE INSTALLED PARALLEL TO THE EXISTING 30-INCH RCP. ADDITIONAL INLETS WILL BE INSTALLED IN THE REAR YARDS OF 954 AND 959 MCKIMMON ROAD. THE EXISTING SANITARY SEWER MAIN WILL BE REPLACED FROM THE MANHOLE AT THE WYE-INTERSECTION OF MCKIMMON ROAD TO THE MANHOLE AT 959 MCKIMMON ROAD. THE IMPROVEMENTS WILL INVOLVE TRENCHING IN THE ROADWAY ALONG THE FRONTAGE OF MULTIPLE RESIDENCES. TRENCHING AND UTILITY REPLACEMENT SHOULD BE PERFORMED PROGRESSIVELY TO ALLOW LOCAL TRAFFIC TO ACCESS THE RESIDENCES THROUGH THE USE OF STEEL UTILITY TRENCH PLATES OR OTHER MEANS OF SECURING THE WORKSITE AT THE END OF DAY. THE ROAD WILL BE CLOSED TO THROUGH-TRAFFIC FOR THE DURATION OF CONSTRUCTION.

MCKIMMON ROAD TRAFFIC SHALL BE MAINTAINED ACCORDING TO TA-20 AS PRESCRIBED IN THE CURRENT VERSION OF THE MUTCD. DETOURED TRAFFIC WILL USE ANARINE ROAD, EDENWOOD DRIVE, LYON ROAD, AND IVY ROAD DRIVE TO BYPASS THE WORK AREA.



OVERALL
TRAFFIC CONTROL

PLAN TYPE:
TRAF

FAYETTEVILLE:
AMERICA'S CAN DO CITY

ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501



REVISIONS		REV. BY	DATE
REV. #	DESCRIPTION		

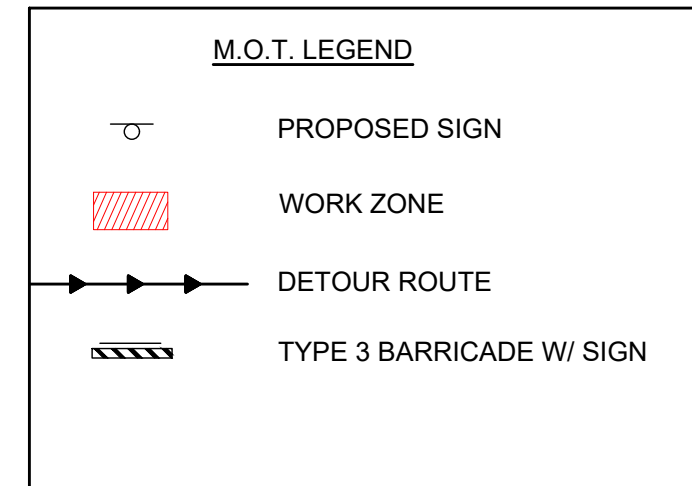
CONSTRUCTION SET

PROJECT NO. 54960.001
SUB-LEDGER NO. _____

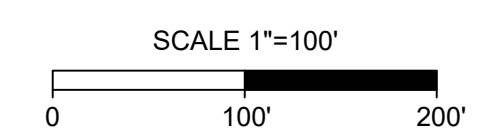
PROJECT: IVY AND LYON ROAD
NAME: DRAINAGE IMPROVEMENTS
SCALE: 1"=100'
DATE: 03/08/2024

DRAWN: SHANE VANDERGRIFT
DESIGN: CHRIS ROGERS
CHECK: DAVID DUNGAN
APPROVED:

L:\2024\1960.001-CityofFayetteville Ivy and Lyon Road\DWG\Sheet\CD54960.001-209-C200-TRAF.dwg | Plotted on 3/19/2024 1:02 PM | by Shane Vandergrift

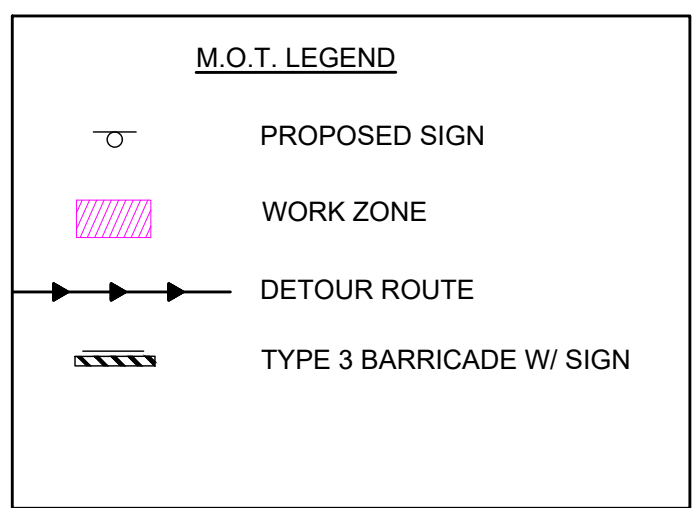
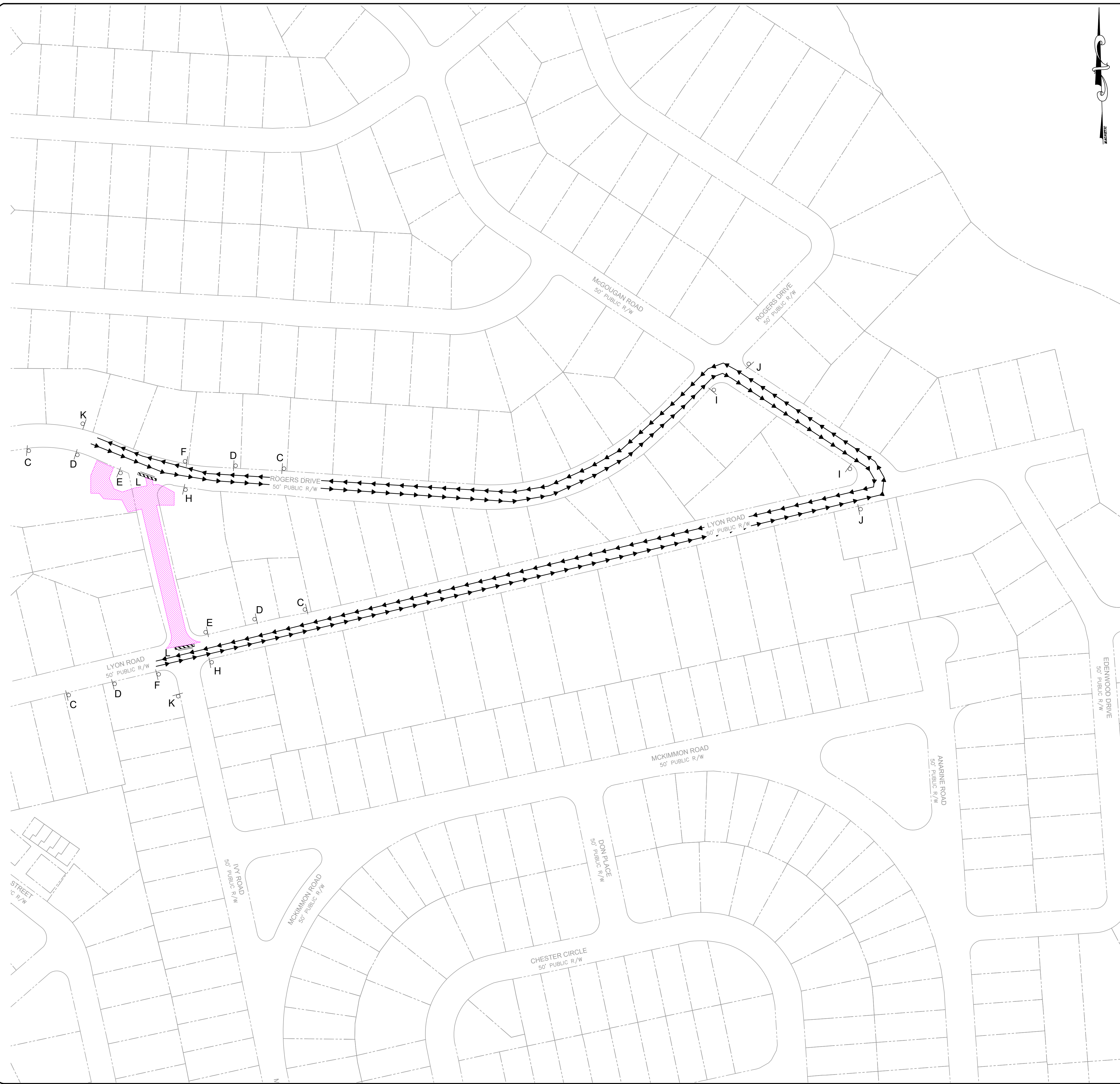


W20-1 30"x30" A	W20-7 30"x30" B	W20-3 30"x30" C
W20-2 30"x30" D	R3-1 24"x24" E	R3-2 24"x24" F
ROAD CLOSED TO THRU TRAFFIC	DETOUR	DETOUR
R11-4 60"x30" M4-8 24"x14" G	M4-8 24"x12" H	M4-9R 30"x24" I
DETOUR	ROAD CLOSED	ROAD CLOSED
M4-9L 30"x24" J	M4-8a 24"x18" K	R11-2 48"x30" L
ONE LANE ROAD AHEAD	TO ONCOMING TRAFFIC	TO ONCOMING TRAFFIC
W20-4 30"x30" M	W3-2 30"x30" N	R01-02 36"x36"x36" R01-02AP 36"x30" O
W1-4 30"x30" P		

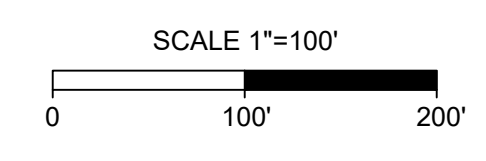


<p>FAYETTEVILLE: AMERICA'S CAN DO CITY</p> <p>ENGINEERING DIVISION ENGINEERING & INFRASTRUCTURE DEPARTMENT 439 HAY STREET FAYETTEVILLE, NC 28501</p>	<p>TRAFFIC CONTROL</p> <p>PLAN TYPE: TRAF</p> <p>SHEET NUMBER: C201</p>								
<p>CONSTRUCTION SET</p>									
<p>PROJECT: IVY AND LYON ROAD</p> <p>NAME: BRANAGE IMPROVEMENTS</p> <p>SCALE: 1"=100'</p> <p>DATE: 03/08/2024</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV. #</th> <th>DESCRIPTION</th> <th>REV. BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REV. #	DESCRIPTION	REV. BY	DATE				
REV. #	DESCRIPTION	REV. BY	DATE						
<p>PROJECT NO.: 54960.001</p> <p>SUB-LEDGER NO.: _____</p>									

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W20-1 30"x30" A	W20-7 30"x30" B	W20-3 30"x30" C
W20-2 30"x30" D	R3-1 24"x24" E	R3-2 24"x24" F
ROAD CLOSED TO THRU TRAFFIC DETOUR	DETOUR	DETOUR
R11-4 60"x30" M4-8 24"x14" G	M4-8 24"x12" H	M4-9R 30"x24" I
DETOUR	END DETOUR	ROAD CLOSED
M4-9L 30"x24" J	M4-8a 24"x18" K	R11-2 48"x30" L
ONE LANE ROAD AHEAD	ONE LANE ROAD AHEAD	TO ONCOMING TRAFFIC
W20-4 30"x30" M	W3-2 30"x30" N	R01-02 36"x36"x36" R01-02AP 36"x30" O
W1-4 30"x30" P		



CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

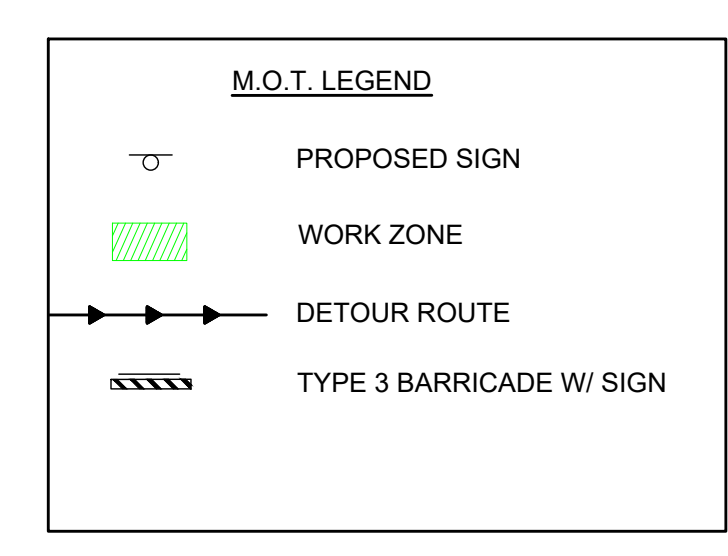
PROJECT : SHANE VANDERGRIFT
 PROJECT : IVY AND LYON ROAD
 DRAWN : SHANE VANDERGRIFT
 NAME : DRAINAGE IMPROVEMENTS
 CHECK : CHRIS ROGERS
 SCALE : 1"=100'
 APPROVED : DAVID DUNGAN
 DATE : 03/08/2024

PROJECT NO. : 54960.001
 SUB-LEDGER NO. : _____

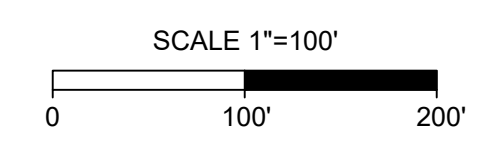
TRAFFIC CONTROL
 PLAN TYPE : TRAF
 SHEET NUMBER : C202

FAYETTEVILLE:
 AMERICA'S CAN DO CITY
 ENGINEERING DIVISION
 ENGINEERING & INFRASTRUCTURE DEPARTMENT
 439 HAY STREET FAYETTEVILLE, NC 28501

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W20-1 30"x30" A	W20-7 30"x30" B	W20-3 30"x30" C
W20-2 30"x30" D	R3-1 24"x24" E	R3-2 24"x24" F
R11-4 60"x30" G	M4-8 24"x12" H	M4-9R 30"x24" I
M4-9L 30"x24" J	M4-8a 24"x18" K	R11-2 48"x30" L
W20-4 30"x30" M	W3-2 30"x30" N	R01-02 36"x36"x36" R01-02AP 36"x30" O
W1-4 30"x30" P		



PROJECT : SHANE VANDERGRIFT
 DESIGN : CHRIS ROGERS
 CHECK : DAVID DUNCAN
 APPROVED : _____

REV. #	REVISIONS	DESCRIPTION	REV. BY	DATE



FAYETTEVILLE:
 AMERICA'S CAN DO CITY
ENGINEERING DIVISION
 ENGINEERING & INFRASTRUCTURE DEPARTMENT
 439 HAY STREET FAYETTEVILLE, NC 28501

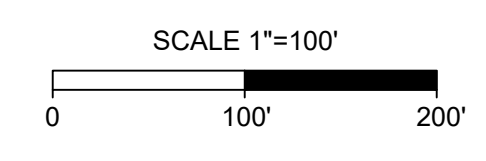
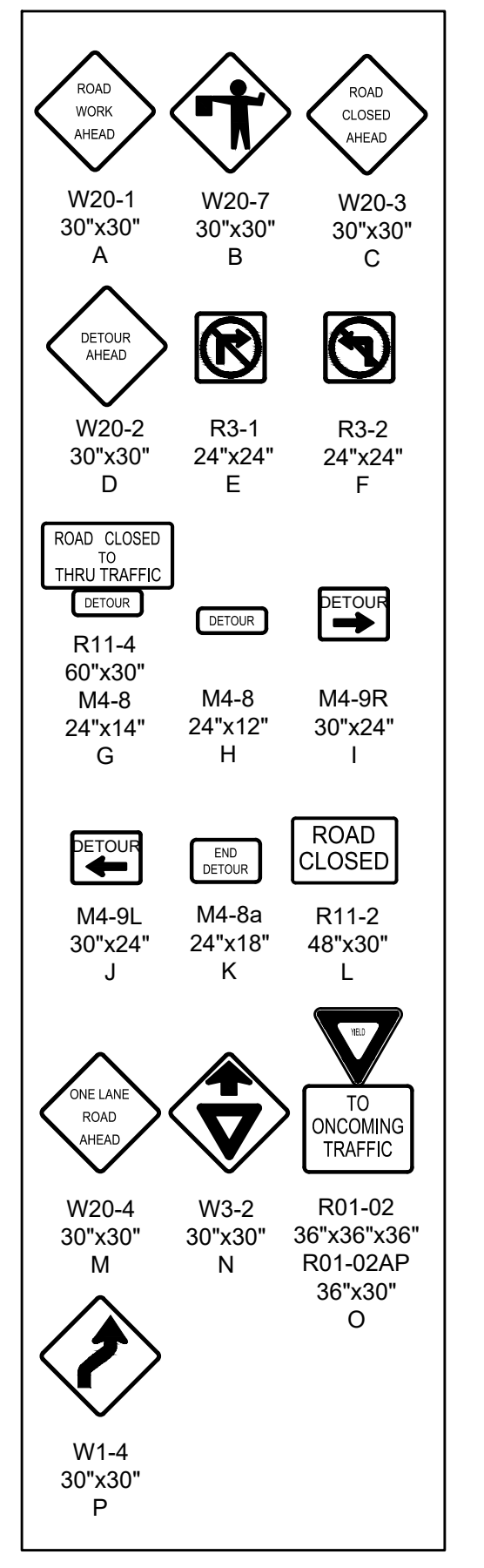
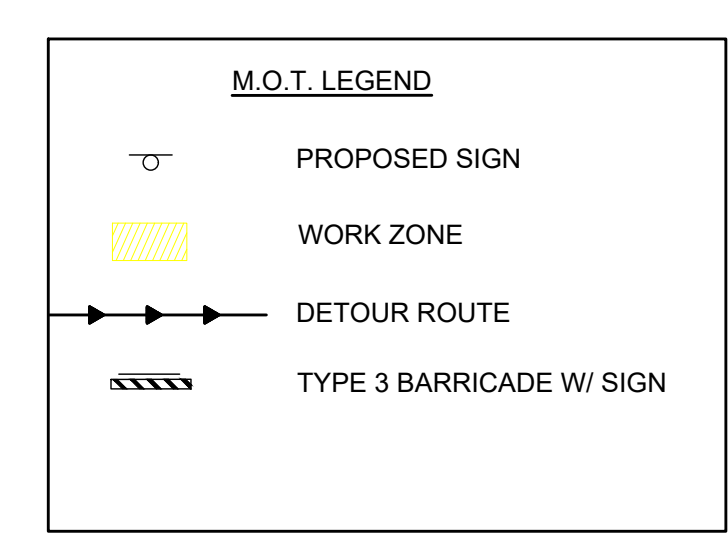
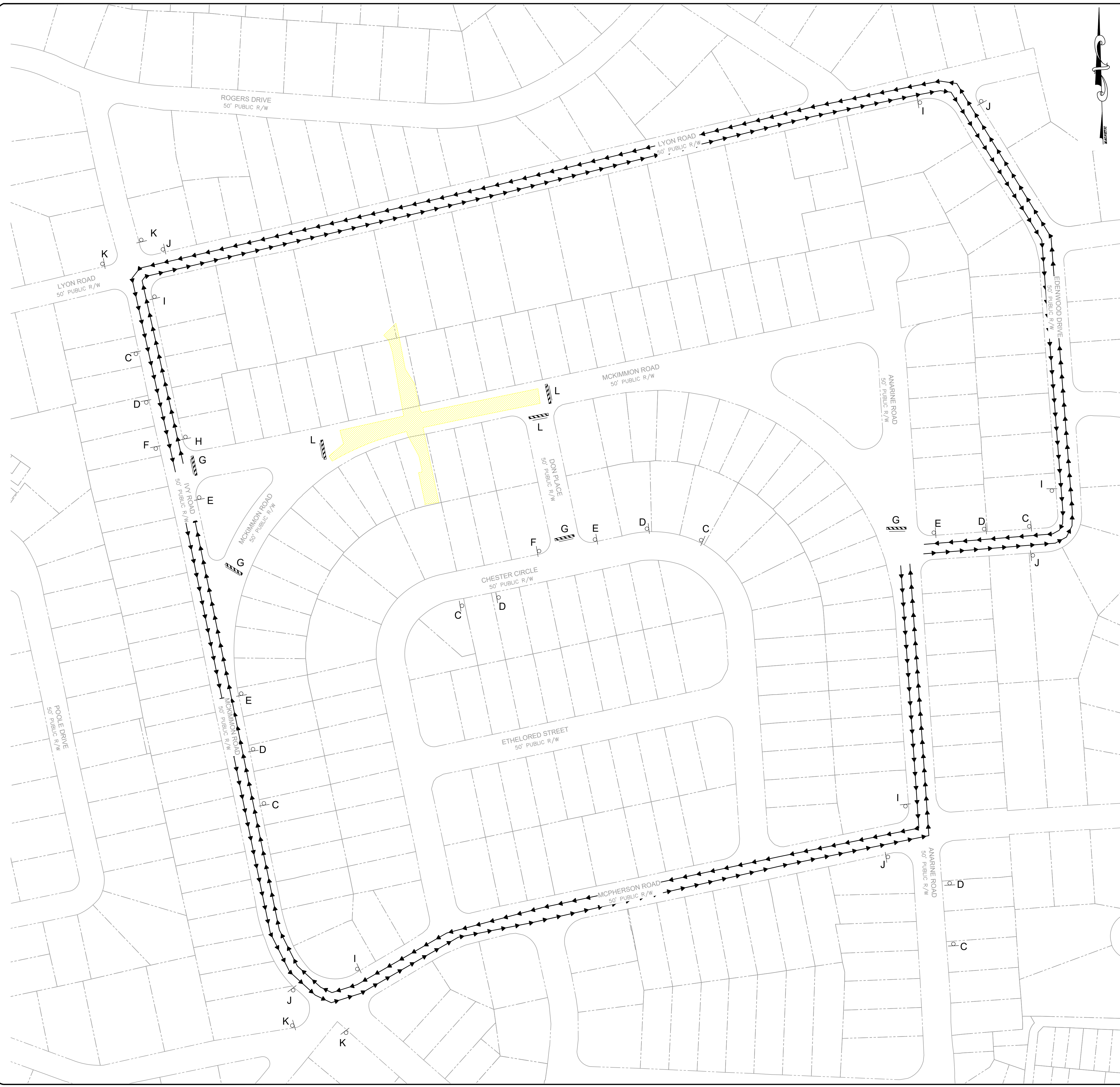
TRAFFIC CONTROL

PLAN TYPE: TRAF
 SHEET NUMBER: C203

CONSTRUCTION SET

PROJECT NO. : 54960.001
 SUB-LEDGER NO. : _____

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PROJECT: IVY AND LYON ROAD
 DRAWN: SHANE VANDERGRIFT
 DESIGN: CHRIS ROGERS
 CHECK: DAVID DUNCAN
 APPROVED: _____
 NAME: BRANAGE IMPROVEMENTS
 SCALE: 1"=100'
 DATE: 03/08/2024

REV. #	DESCRIPTION	REVISIONS	REV. BY	DATE



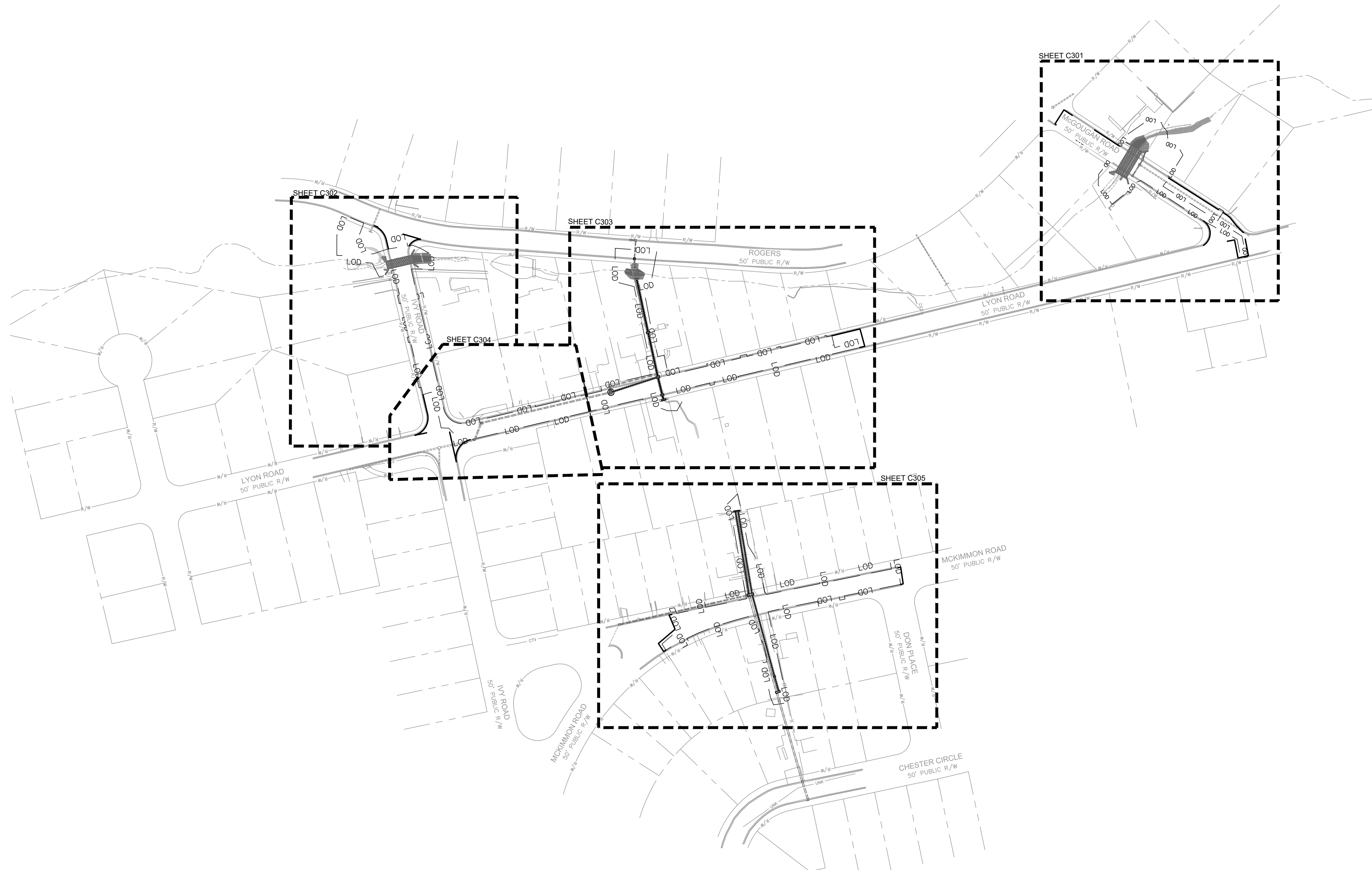
FAYETTEVILLE:
 AMERICA'S CAN DO CITY
ENGINEERING DIVISION
 ENGINEERING & INFRASTRUCTURE DEPARTMENT
 439 HAY STREET FAYETTEVILLE, NC 28501

CONSTRUCTION SET

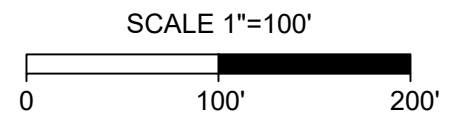
TRAFFIC CONTROL
 PLAN TYPE: TRAF
 SHEET NUMBER: C204

PROJECT NO. 54960.001
 SUB-LEDGER NO. _____

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LIMITS OF DISTURBANCE: 2.24 ACRES



DRAWN : SHANE VANDERGRIFT
 DESIGN : CHRIS ROGERS
 CHECK : DAVID DUNCAN
 APPROVED :

REV. #	DESCRIPTION	REV. BY	DATE

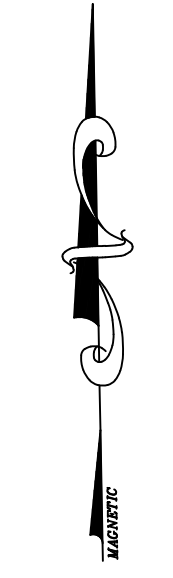
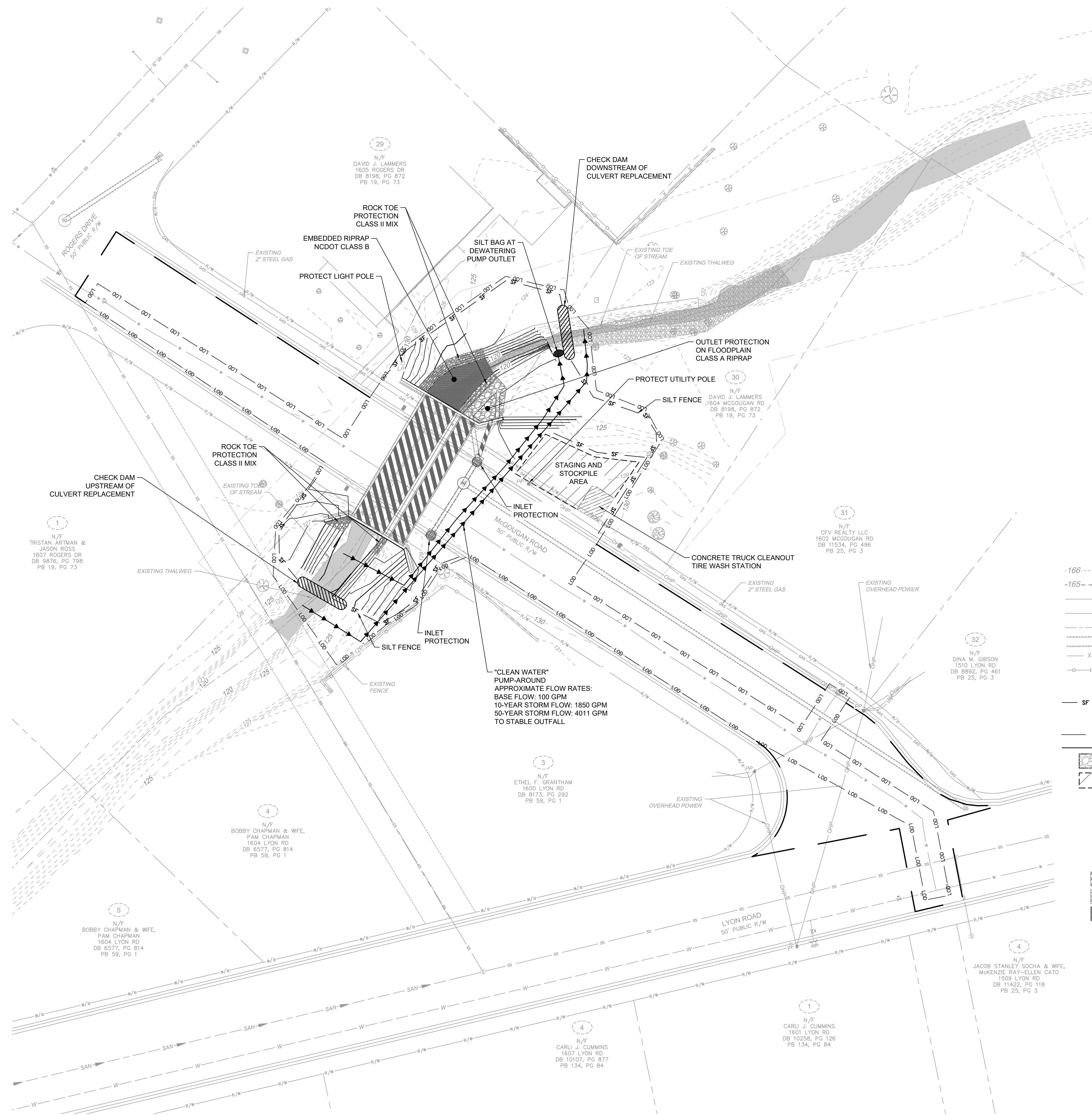


FAYETTEVILLE:
 AMERICA'S CAN DO CITY
ENGINEERING DIVISION
 ENGINEERING & INFRASTRUCTURE DEPARTMENT
 439 HAY STREET FAYETTEVILLE, NC 28501

OVERALL
 EROSION CONTROL
 PLAN TYPE
 EROSION
 SHEET NUMBER
 C300

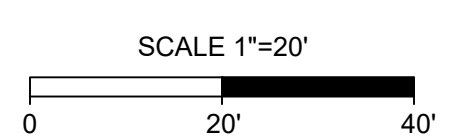
PROJECT NO. 54960.001
 SUB-LEDGER NO. _____

CONSTRUCTION SET



LEGEND

- - - - - 166 - - - - - EXISTING MINOR CONTOURS
- - - - - 165 - - - - - EXISTING MAJOR CONTOURS
- _____ RIGHT OF WAY
- _____ PROPERTY LINE
- _____ STREAM CENTERLINE
- _____ EXISTING STORM DRAINAGE
- x - x - x - EXISTING FENCE
- o - o - o - EXISTING SPLIT RAIL FENCE
- _____ EXISTING TREE
- SF - SF - SF - SILT FENCE
- SILT FENCE OUTLET
- LOD --- LIMITS OF DISTURBANCE
- TP TREE PROTECTION
- CONSTRUCTION ENTRANCE
- STAGING AREA
- CONCRETE TRUCK CLEANOUT
- TIRE WASH STATION
- INLET PROTECTION
- CHECK DAM WATTLE
- COMPOST SOCK
- SILT BAG
- ROCK TOE
- RIRRAP
- EMBEDDED RIRRAP



"CLEAN WATER" PUMP-AROUND
 APPROXIMATE FLOW RATES:
 BASE FLOW: 100 GPM
 10-YEAR STORM FLOW: 1850 GPM
 50-YEAR STORM FLOW: 4011 GPM
 TO STABLE OUTFALL

1
 N/F
 TRISTAN ARTMAN &
 JASON ROSS
 1607 ROGERS DR
 DB 9876, PG 79B
 PB 19, PG 73

29
 N/F
 DAVID J. LAMMERS
 1805 ROGERS DR
 DB 8198, PG 872
 PB 19, PG 73

30
 N/F
 DAVID J. LAMMERS
 1604 MCGOUGAN RD
 DB 8198, PG 872
 PB 19, PG 73

31
 N/F
 CFV REALTY LLC
 1602 MCGOUGAN RD
 DB 11534, PG 496
 PB 25, PG 3

32
 N/F
 DINA M. GIBSON
 1510 LYON RD
 DB 8892, PG 461
 PB 25, PG 3

3
 N/F
 ETHEL F. GRANTHAM
 1600 LYON RD
 DB 8173, PG 292
 PB 59, PG 1

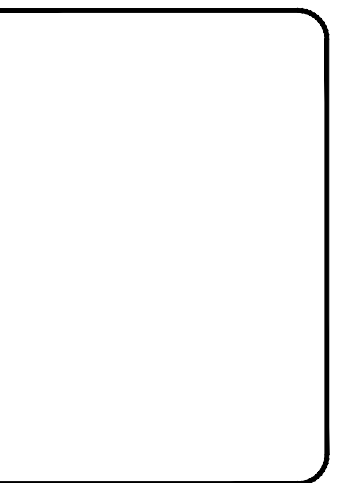
4
 N/F
 BOBBY CHAPMAN & WIFE,
 PAM CHAPMAN
 1604 LYON RD
 DB 6577, PG 814
 PB 59, PG 1

5
 N/F
 BOBBY CHAPMAN & WIFE,
 PAM CHAPMAN
 1604 LYON RD
 DB 6577, PG 814
 PB 59, PG 1

4
 N/F
 JACOB STANLEY SOCHA & WIFE,
 MCKENZIE RAY-ELLEN CATO
 1509 LYON RD
 DB 11422, PG 118
 PB 25, PG 3

1
 N/F
 CARLI J. CUMMINS
 1601 LYON RD
 DB 10258, PG 126
 PB 134, PG 84

EROSION CONTROL
 PLAN TYPE
 EROSION
 SHEET NUMBER
 C301



FAYETTEVILLE:
 AMERICA'S CAN DO CITY
ENGINEERING DIVISION
 ENGINEERING & INFRASTRUCTURE DEPARTMENT
 439 HAY STREET FAYETTEVILLE, NC 28501



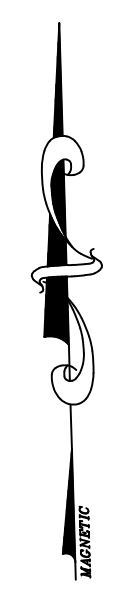
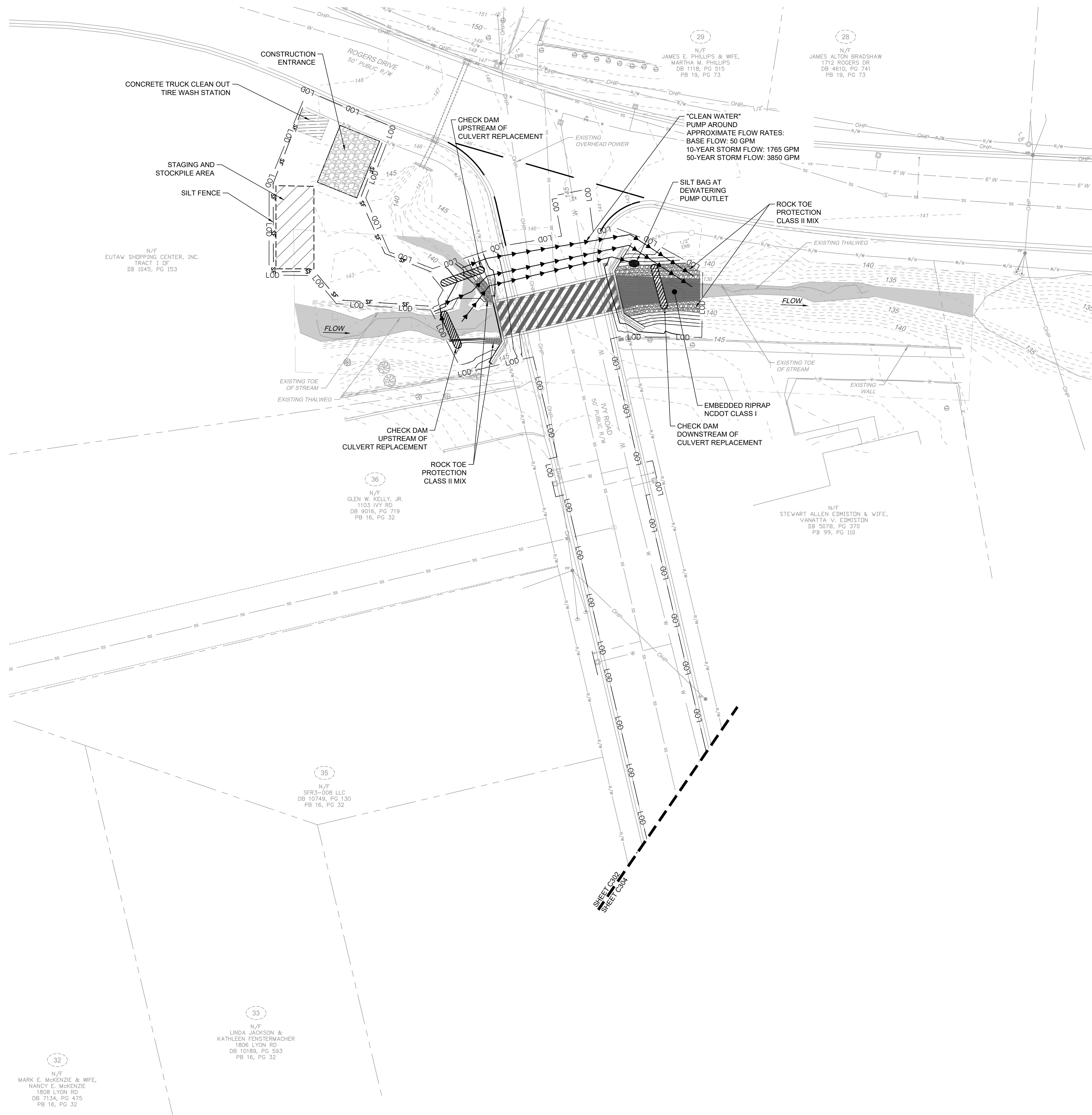
REV. #	DESCRIPTION	REV. BY	DATE

PROJECT: IVY AND LYON ROAD
 NAME: DRAINAGE IMPROVEMENTS
 SCALE: 1"=20'
 DATE: 03/08/2024

PROJECT NO. 54960.001
 SUB-LEDGER NO. _____

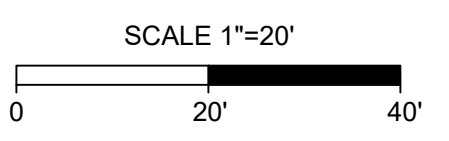
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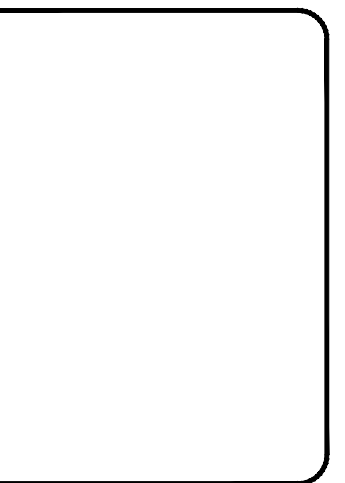


LEGEND

-166	EXISTING MINOR CONTOURS
-165	EXISTING MAJOR CONTOURS
---	RIGHT OF WAY
---	PROPERTY LINE
---	STREAM CENTERLINE
---	EXISTING STORM DRAINAGE
X X	EXISTING FENCE
o o	EXISTING SPLIT RAIL FENCE
o	EXISTING TREE
SF	SILT FENCE
SF	SILT FENCE OUTLET
LDD	LIMITS OF DISTURBANCE
TP	TREE PROTECTION
[Pattern]	CONSTRUCTION ENTRANCE
[Pattern]	STAGING AREA
[Pattern]	CONCRETE TRUCK CLEANOUT
[Pattern]	TIRE WASH STATION
[Pattern]	INLET PROTECTION
[Pattern]	CHECK DAM WATTLE
[Pattern]	COMPOST SOCK
[Pattern]	SILT BAG
[Pattern]	ROCK TOE
[Pattern]	RIRPAP
[Pattern]	EMBEDDED RIRPAP



EROSION CONTROL
 PLAN TYPE: EROSION
 SHEET NUMBER: C302



FAYETTEVILLE:
 AMERICA'S CAN DO CITY
 ENGINEERING DIVISION
 ENGINEERING & INFRASTRUCTURE DEPARTMENT
 439 HAY STREET FAYETTEVILLE, NC 28501



CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

DRAWN : SHANA VANDERGRIFT
 PROJECT : IVY AND LYON ROAD
 NAME : DRAINAGE IMPROVEMENTS
 CHECK : CHRIS ROGERS
 SCALE : 1"=20'
 DESIGN : DAVID DUNGAN
 DATE : 03/08/2024
 APPROVED :
 PROJECT NO. : 54960.001
 SUB-LEDGER NO. :

32
 N/F
 MARK E. MCKENZIE & WIFE,
 NANCY E. MCKENZIE
 1808 LYON RD
 DB 7134, PG 475
 PB 16, PG 32

33
 N/F
 LINDA JACKSON &
 KATHLEEN FENSTERMACHER
 1806 LYON RD
 DB 10189, PG 393
 PB 16, PG 32

35
 N/F
 SFR3-008 LLC
 DB 10749, PG 130
 PB 16, PG 32

36
 N/F
 GLEN W. KELLY, JR.
 1103 IVY RD
 DB 9016, PG 719
 PB 16, PG 32

N/F
 STEWART ALLEN EDMISTON & WIFE,
 VANAITTA W. EDMISTON
 DB 5078, PG 370
 PB 99, PG 110

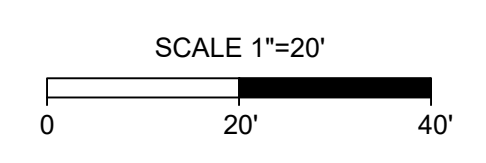
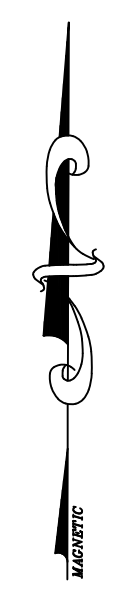
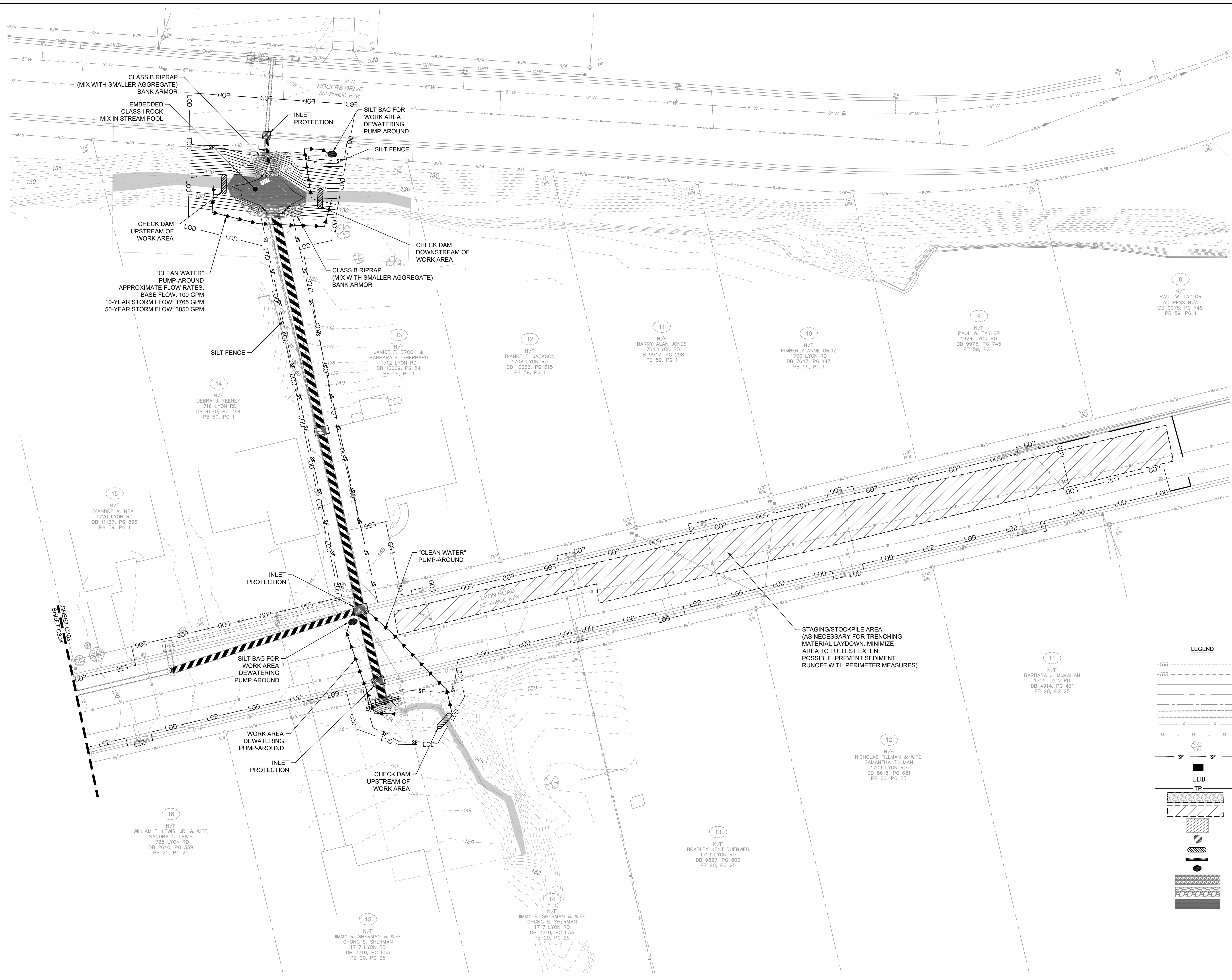
N/F
 AN ROKA
 50' PUBLIC R/W
 DB 10189, PG 393
 PB 16, PG 32

N/F
 JAMES E. PHILLIPS & WIFE,
 MARTHA M. PHILLIPS
 DB 1118, PG 515
 PB 19, PG 73

N/F
 JAMES ALTON BRADSHAW
 1712 ROGERS DR
 DB 4610, PG 741
 PB 19, PG 73

N/F
 EUTAW SHOPPING CENTER, INC.
 TRACT 1 OF
 DB 1045, PG 153

L:\2024\1980.001-CityofFayetteville\Ivy and Lyon\Road\DWG\Sheet\CD\54960.001_209-C303-EROSION.dwg | Plotted on 3/28/2024 2:24 PM | by Shane Vandergrift



LEGEND

-166	EXISTING MINOR CONTOURS
-165	EXISTING MAJOR CONTOURS
---	RIGHT OF WAY
---	PROPERTY LINE
---	STREAM CENTERLINE
---	EXISTING STORM DRAINAGE
X X	EXISTING FENCE
-o-o-	EXISTING SPLIT RAIL FENCE
⊗	EXISTING TREE
SF	SILT FENCE
SF	SILT FENCE OUTLET
LOD	LIMITS OF DISTURBANCE
TP	TREE PROTECTION
[Hatched Box]	CONSTRUCTION ENTRANCE
[Hatched Box]	STAGING AREA
[Hatched Box]	CONCRETE TRUCK CLEANOUT
[Hatched Box]	TIRE WASH STATION
[Hatched Box]	INLET PROTECTION
[Hatched Box]	CHECK DAM WATTLE
[Hatched Box]	COMPOST SOCK
[Hatched Box]	SILT BAG
[Hatched Box]	ROCK TOE
[Hatched Box]	RIRPAP
[Hatched Box]	EMBEDDED RIRPAP

STAGING/STOCKPILE AREA (AS NECESSARY FOR TRENCHING MATERIAL LAYDOWN. MINIMIZE AREA TO FULLEST EXTENT POSSIBLE. PREVENT SEDIMENT RUNOFF WITH PERIMETER MEASURES)

EROSION CONTROL
PLAN TYPE: EROSION
SHEET NUMBER: C303

FAYETTEVILLE:
AMERICA'S CAN DO CITY

ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501



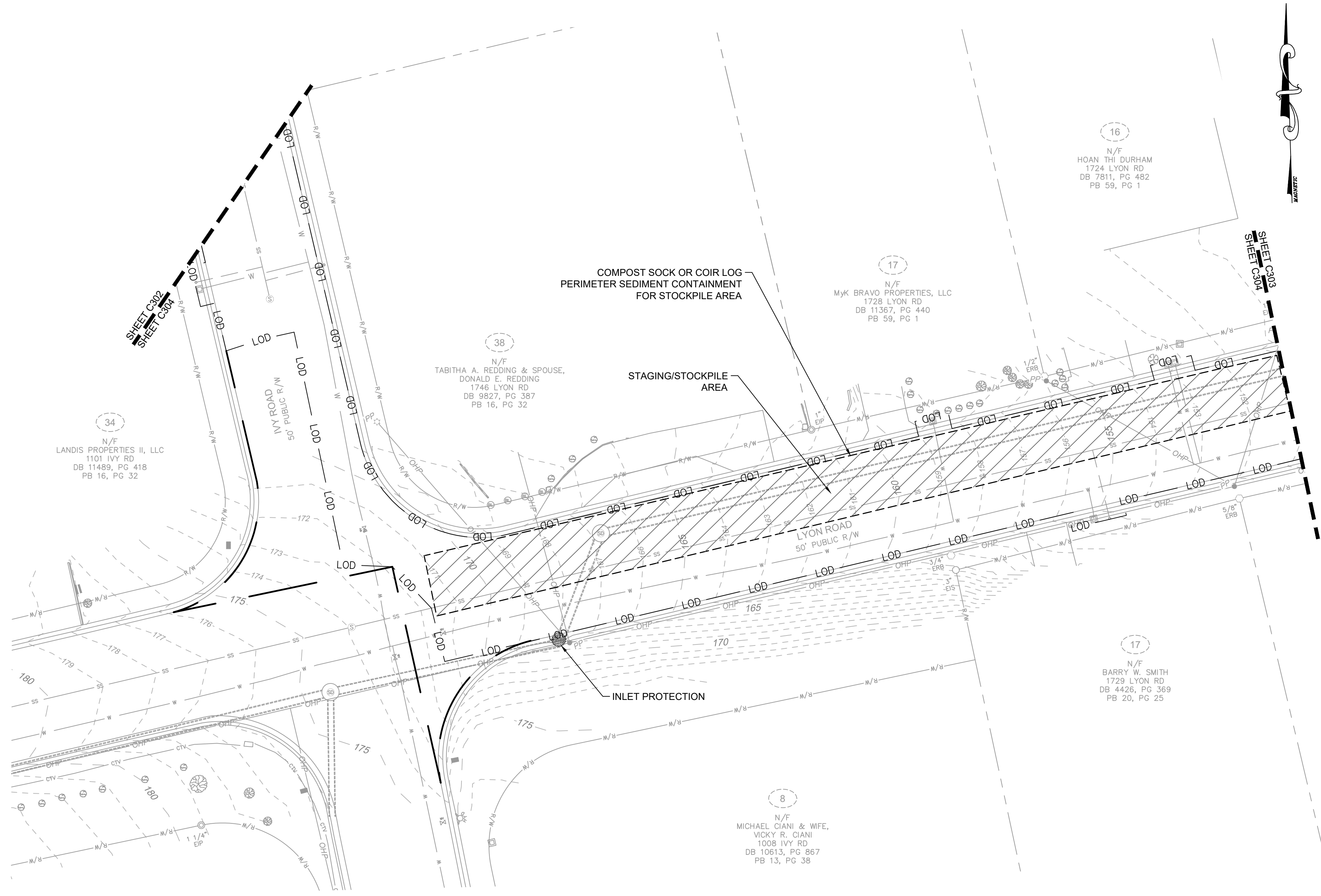
CONSTRUCTION SET

REV. #	DESCRIPTION	REVISIONS	REV. BY	DATE

PROJECT NO. 54960.001
SUB-LEDGER NO. _____

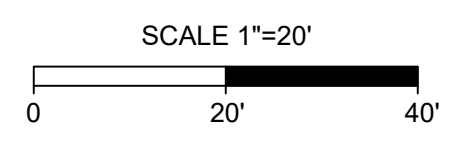
PROJECT: IVY AND LYON ROAD DRAINAGE IMPROVEMENTS
NAME: DRAINAGE IMPROVEMENTS
SCALE: 1"=20'
CHECK: CHRIS ROGERS
DATE: 03/08/2024
APPROVED: _____

L:\2019\54960.00-CityofFayetteville\IVY and LYON RD\DWG\Sheet\CD\54960.001-209-C304-EROSION.dwg | Plotted on 3/8/2024 2:24 PM | by Shane Vandergrift



LEGEND

-166 - - - - -	EXISTING MINOR CONTOURS
-165 - - - - -	EXISTING MAJOR CONTOURS
---	RIGHT OF WAY
---	PROPERTY LINE
---	STREAM CENTERLINE
---	EXISTING STORM DRAINAGE
X X	EXISTING FENCE
○ ○	EXISTING SPLIT RAIL FENCE
○ ○	EXISTING TREE
SF	SILT FENCE
■	SILT FENCE OUTLET
LOD	LIMITS OF DISTURBANCE
TP	TREE PROTECTION
[Pattern]	CONSTRUCTION ENTRANCE
[Pattern]	STAGING AREA
[Pattern]	CONCRETE TRUCK CLEANOUT
[Pattern]	TIRE WASH STATION
[Pattern]	INLET PROTECTION
[Pattern]	CHECK DAM WATTLE
[Pattern]	COMPOST SOCK
[Pattern]	SILT BAG
[Pattern]	ROCK TOE
[Pattern]	RIRPAP
[Pattern]	EMBEDDED RIPRAP



PROJECT: IVY AND LYON ROAD	REV. #	REVISIONS	REV. BY
NAME: DRAINAGE IMPROVEMENTS		DESCRIPTION	DATE
DESIGN: CHRIS ROGERS			
CHECK: DAVID DUNCAN			
APPROVED:			
SCALE: 1"=20'	CONSTRUCTION SET		
DATE: 03/08/2024			
PROJECT NO. 54960.001			
SUB-LEDGER NO.			



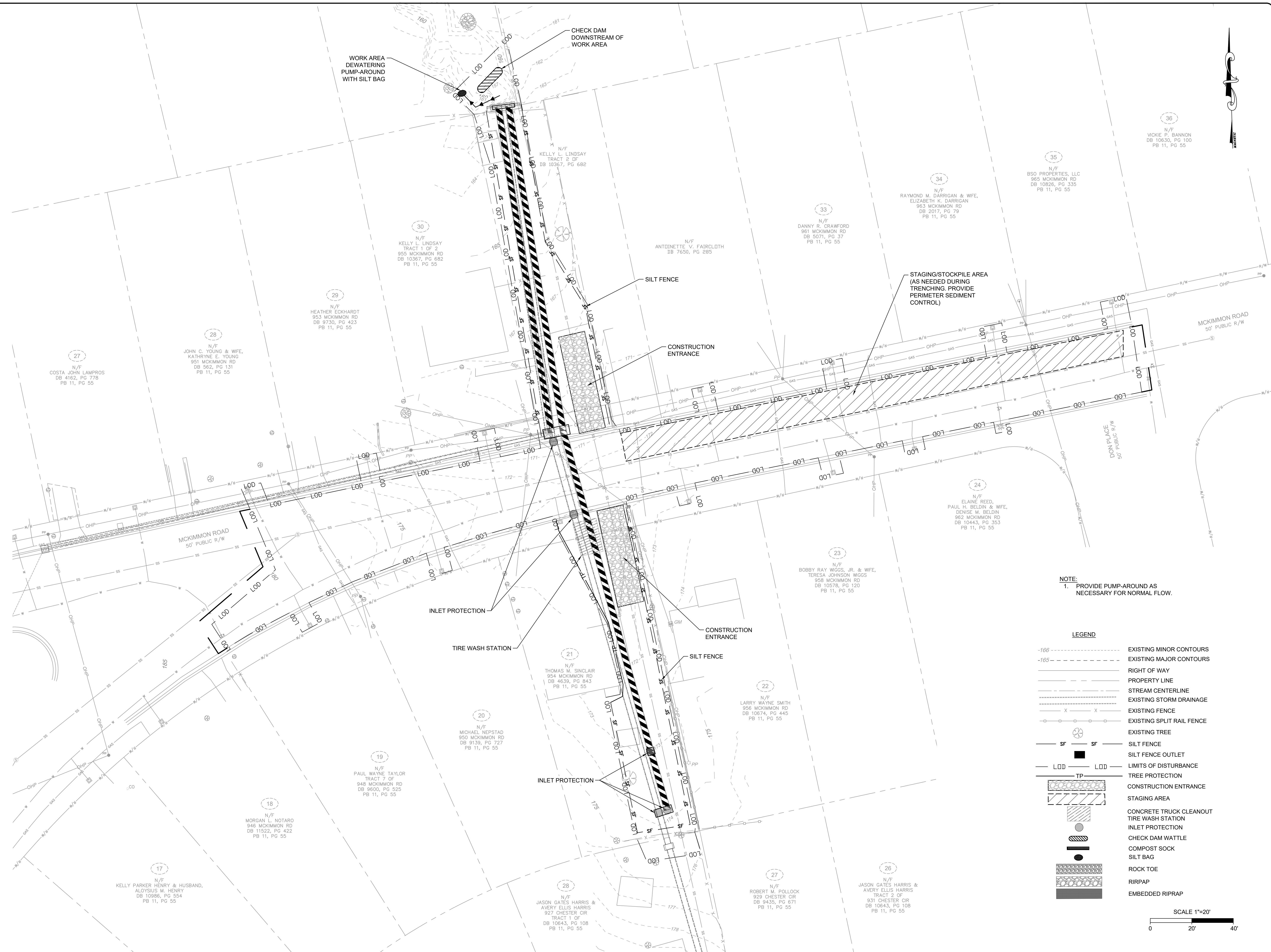
FAYETTEVILLE:
AMERICA'S CAN DO CITY

ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501

EROSION CONTROL

PLAN TYPE: EROSION
SHEET NUMBER: C304

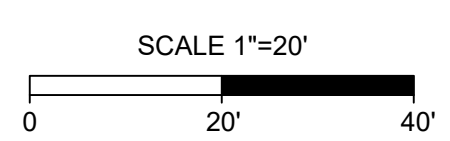
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NOTE:
1. PROVIDE PUMP-AROUND AS NECESSARY FOR NORMAL FLOW.

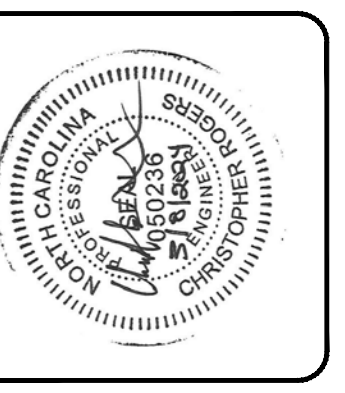
LEGEND

-166 - - - - -	EXISTING MINOR CONTOURS
-165 - - - - -	EXISTING MAJOR CONTOURS
—————	RIGHT OF WAY
—————	PROPERTY LINE
—————	STREAM CENTERLINE
—————	EXISTING STORM DRAINAGE
—————	EXISTING FENCE
— X — X —	EXISTING SPLIT RAIL FENCE
— O — O —	EXISTING TREE
— SF — SF —	SILT FENCE
— SF — SF —	SILT FENCE OUTLET
— LOD — LOD —	LIMITS OF DISTURBANCE
— TP — TP —	TREE PROTECTION
—————	CONSTRUCTION ENTRANCE
—————	STAGING AREA
—————	CONCRETE TRUCK CLEANOUT
—————	TIRE WASH STATION
—————	INLET PROTECTION
—————	CHECK DAM WATTLE
—————	COMPOST SOCK
—————	SILT BAG
—————	ROCK TOE
—————	RIRPAP
—————	EMBEDDED RIRPAP



EROSION CONTROL
PLAN TYPE: EROSION
SHEET NUMBER: C305

FAYETTEVILLE:
AMERICA'S CAN DO CITY
ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501

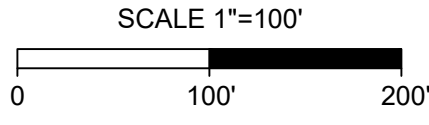
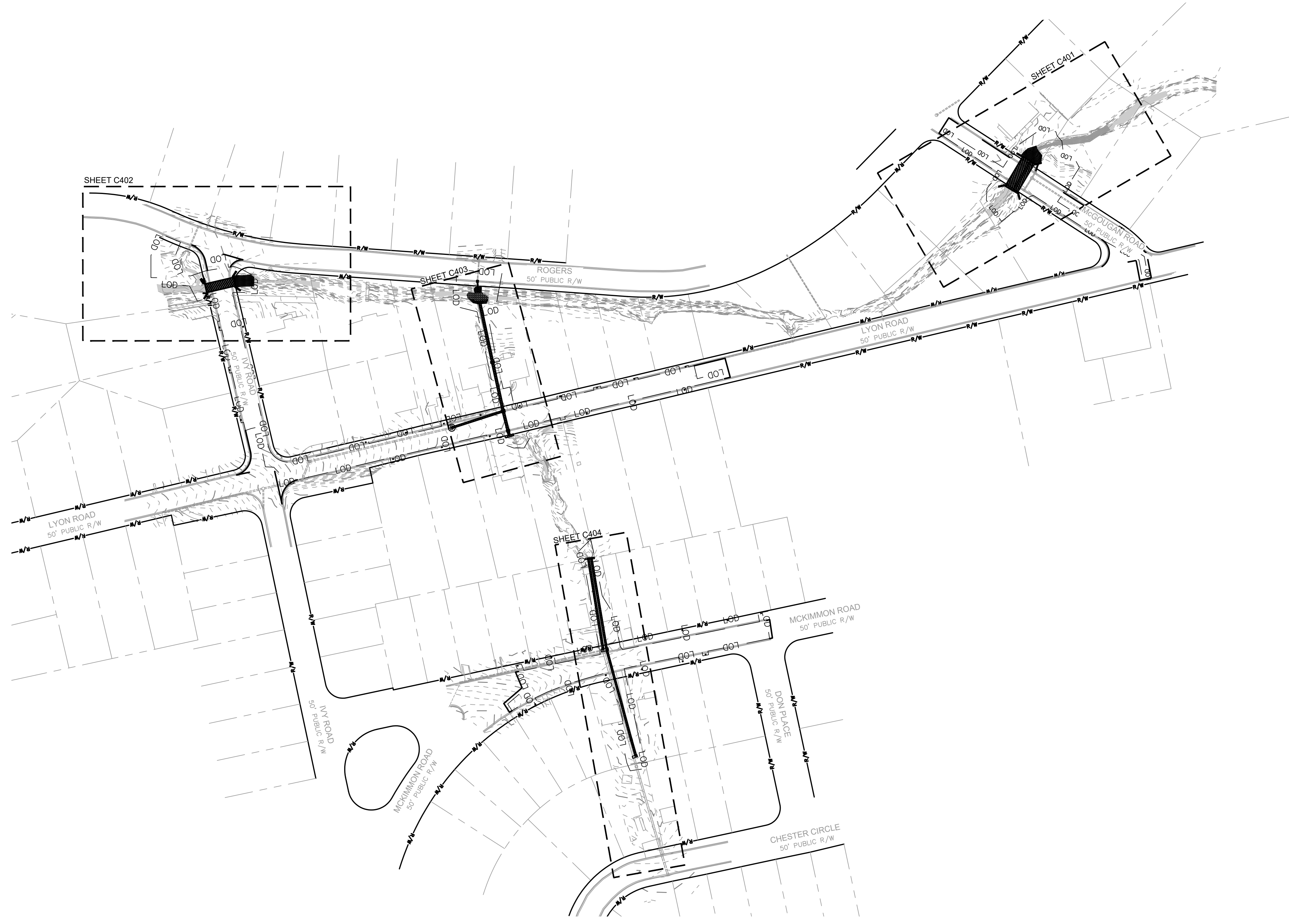


CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

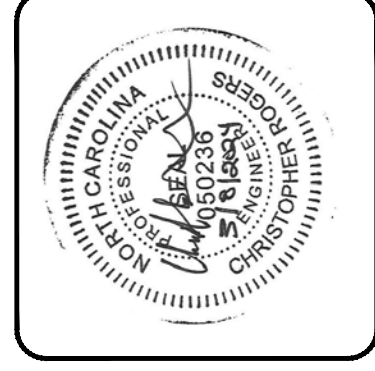
PROJECT NO. 54960.001
SUB-LEDGER NO. _____
PROJECT: IVY AND LYON ROAD
DESIGN: CHRIS ROGERS
CHECK: DAVID DUNGAN
APPROVED: _____
NAME: DRAINAGE IMPROVEMENTS
SCALE: 1"=20'
DATE: 03/08/2024

L:\2019\54960.001-CityofFayetteville by and Lyon\RD\DWG\SHEET\CD\54960.001-209-C400-GRAD.dwg | Printed on 3/8/2024, 1:04 PM | by Shana Vandergriff



DRAWN : SHANE VANDERGRIFT
 DESIGN : CHRIS ROGERS
 CHECK : DAVID DUNCAN
 APPROVED :

REV. #	DESCRIPTION	REV. BY	DATE



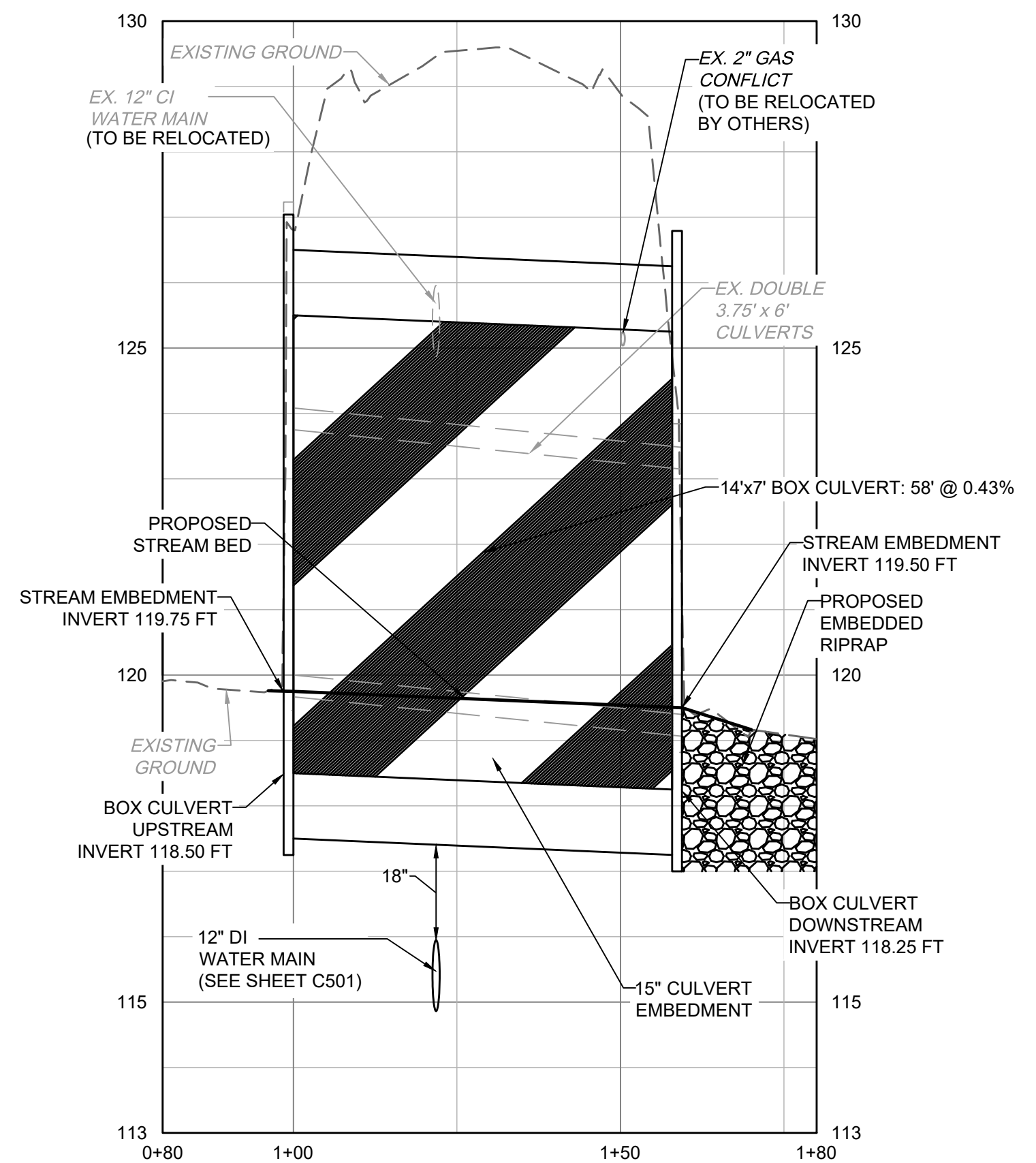
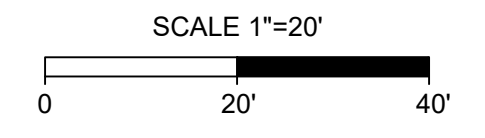
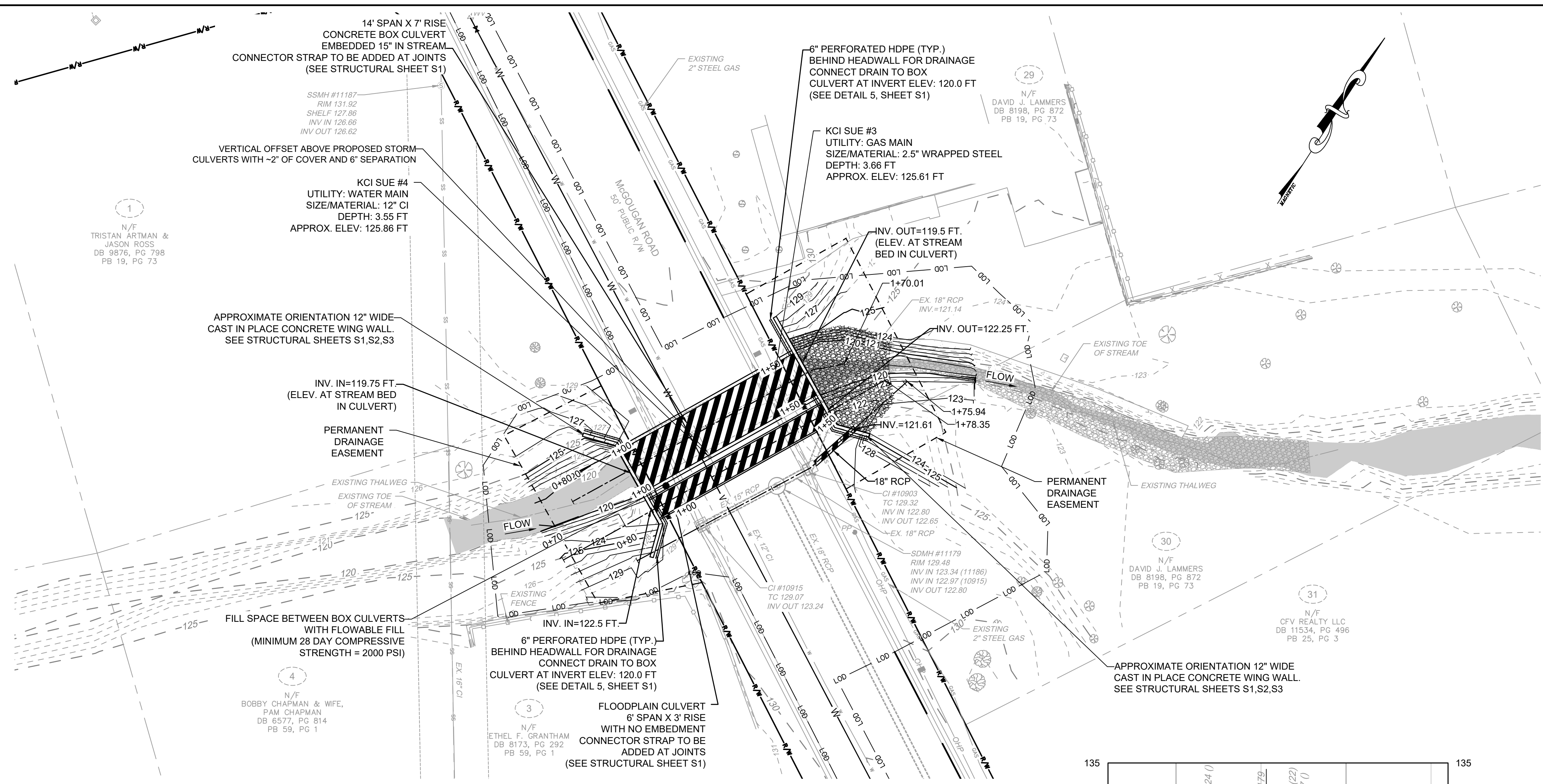
FAYETTEVILLE:
 AMERICA'S CAN DO CITY
 ENGINEERING DIVISION
 ENGINEERING & INFRASTRUCTURE DEPARTMENT
 439 HAY STREET FAYETTEVILLE, NC 28501

PLAN TYPE:
STORM

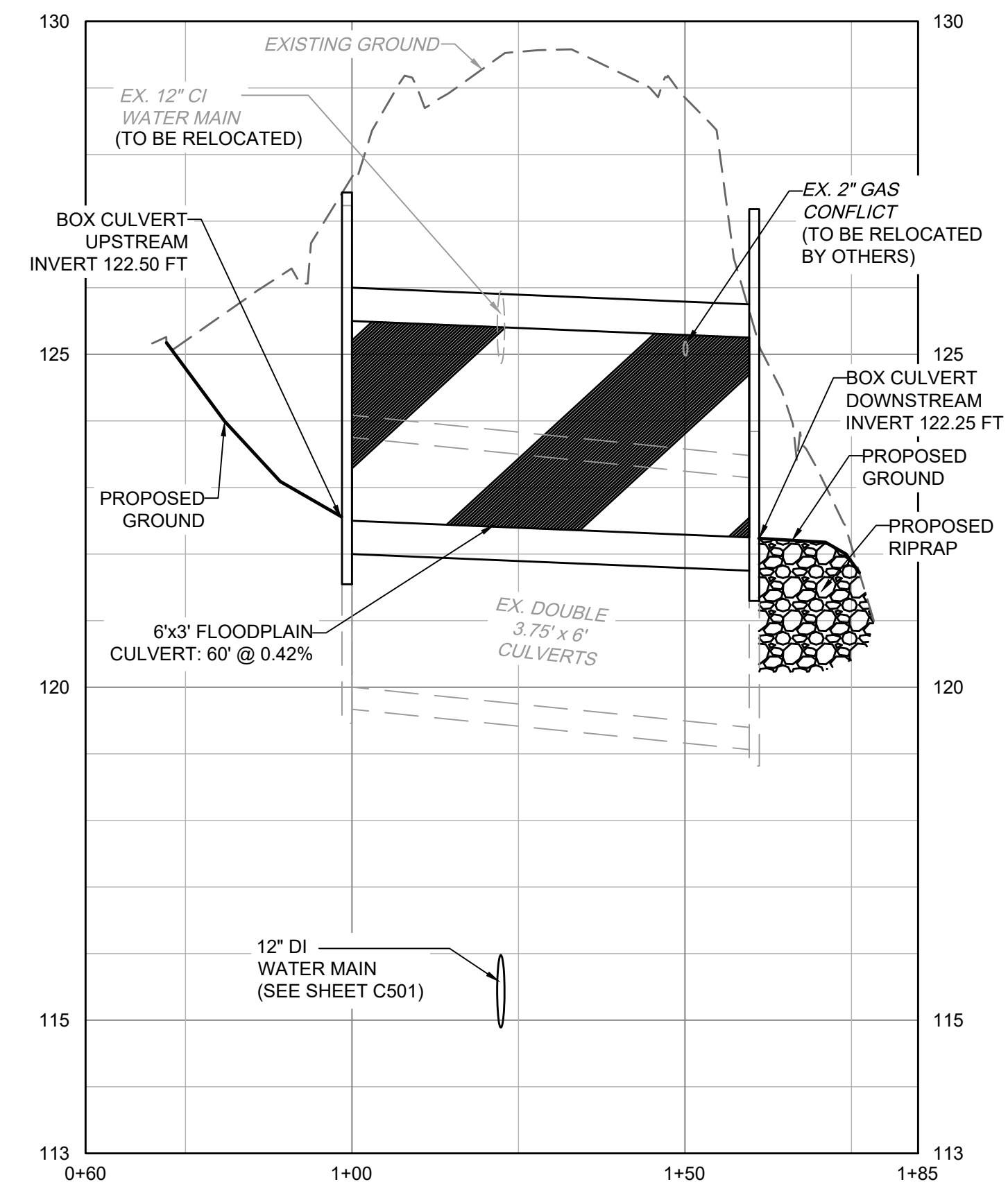
PROJECT NO. 54960.001
 SUB-LEDGER NO. _____

GRADING AND
 STORM DRAINAGE
 OVERALL PLAN VIEW

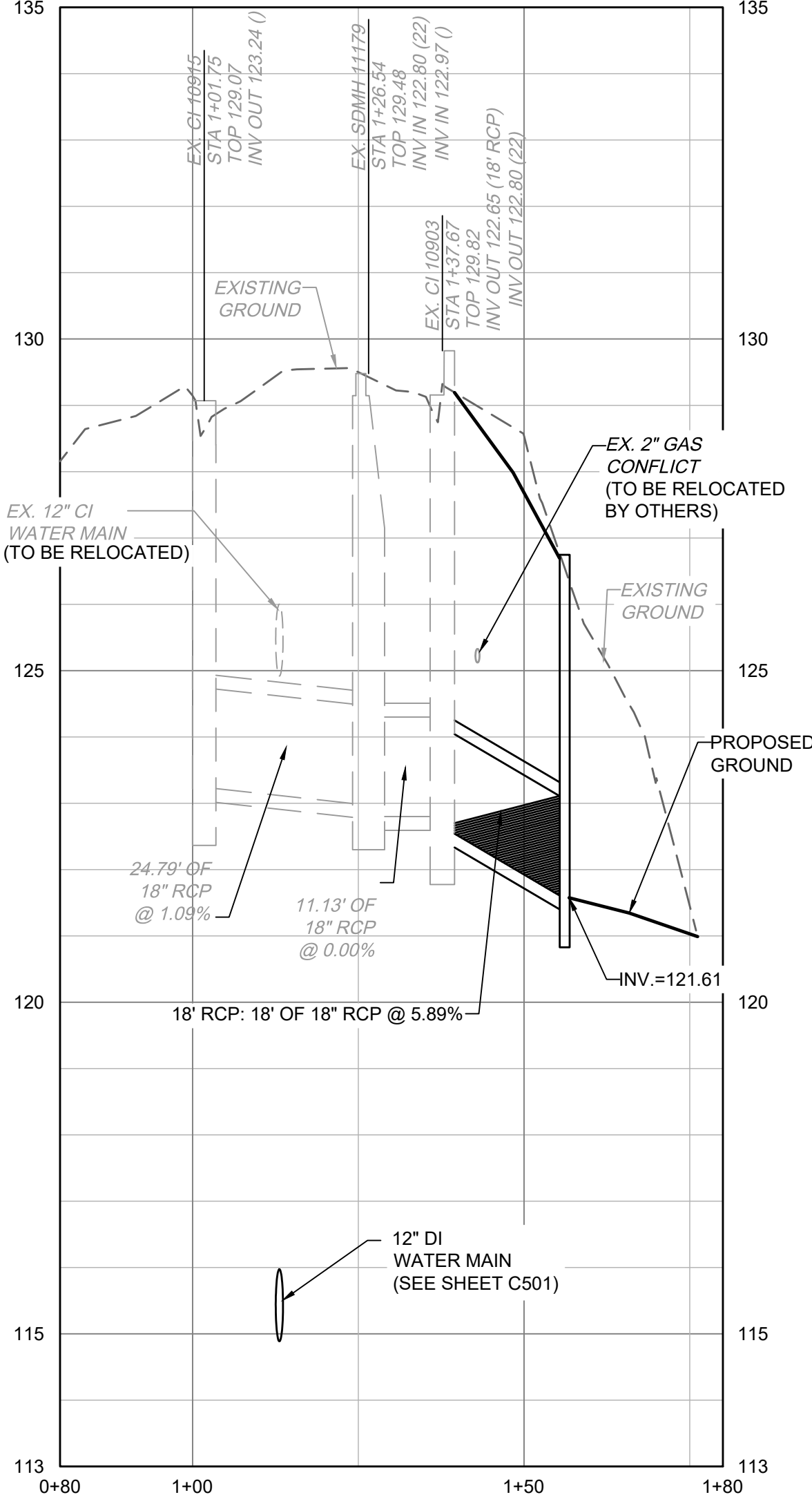
SHEET NUMBER
C400



MCGOUGAN RD - 14' x 7' BOX CULVERT



MCGOUGAN RD - 6' x 3' FLOODPLAIN CULVERT

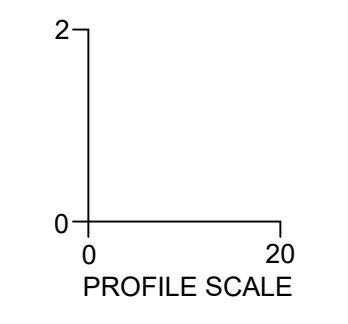


MCGOUGAN RD - 18" RCP

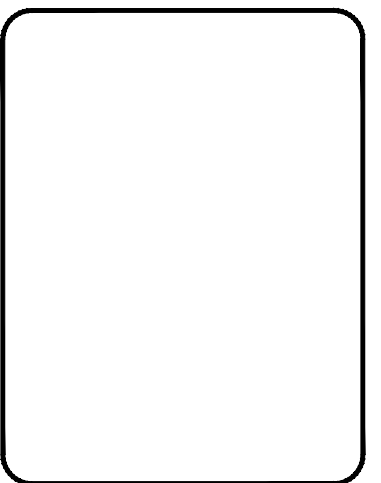
NOTE:
CONTRACTOR TO PROVIDE VIBRATION MONITORING, SHEETING, SHORING AND BRACING DURING INSTALLATION AND REMOVAL. CRITICAL AREAS INCLUDE CLOSE PROXIMITIES TO HOUSE FOUNDATIONS AND EXISTING POOL. CONTRACTOR TO PROVIDE STAMPED/SEALED DRAWINGS FOR BRACING.

LEGEND

---	EXISTING MINOR CONTOURS
---	EXISTING MAJOR CONTOURS
---	RIGHT OF WAY
---	PROPERTY LINE
---	STREAM CENTERLINE
---	PERMANENT EASEMENT
---	EXISTING STORM DRAINAGE
---	EXISTING WATERLINE
---	EXISTING SANITARY SEWER
---	LDD
---	LDD
---	EXISTING OVERHEAD POWER LINE
---	EXISTING GAS
---	EXISTING FENCE
---	EXISTING SPLIT RAIL FENCE
---	EXISTING TREE



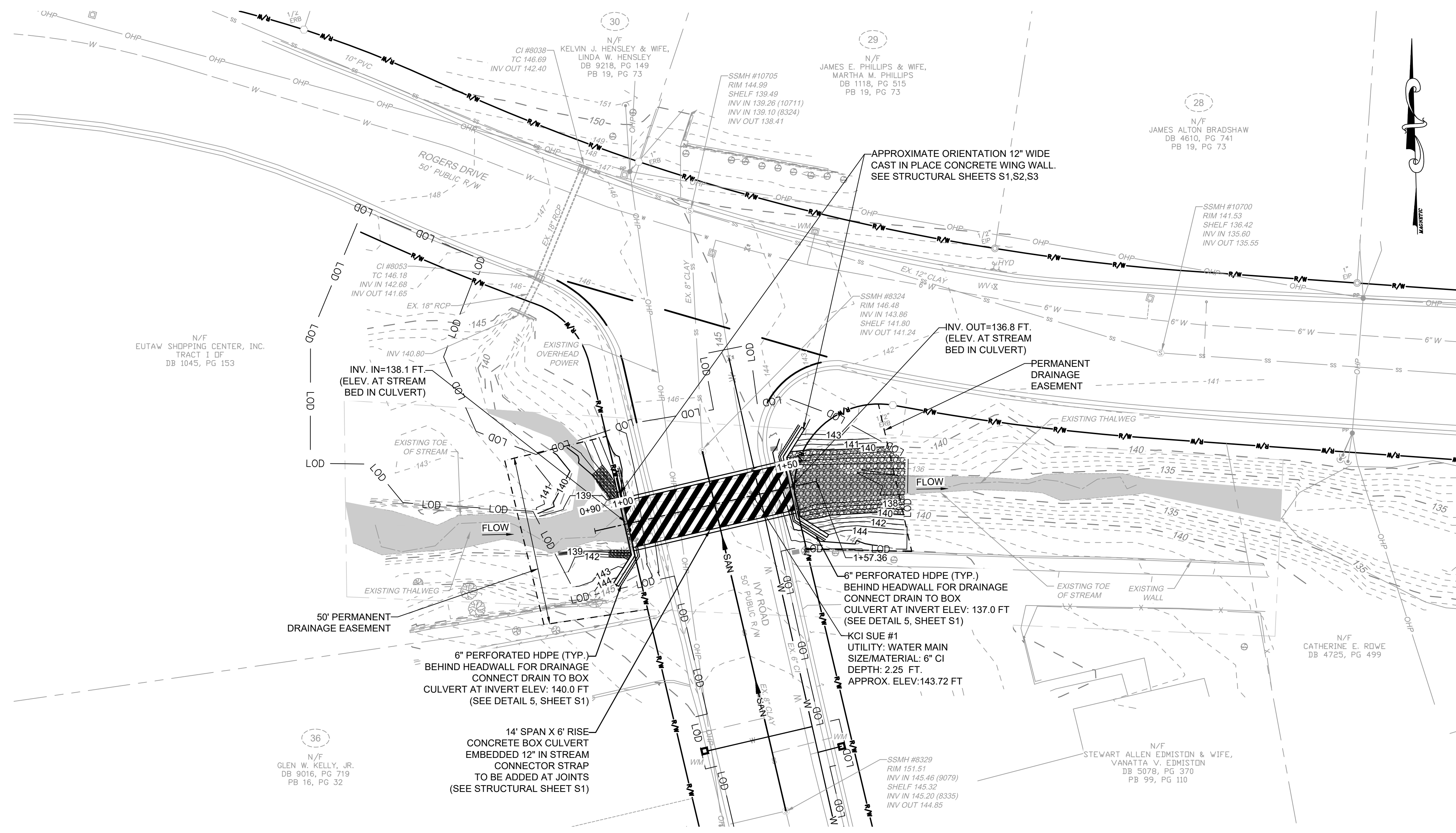
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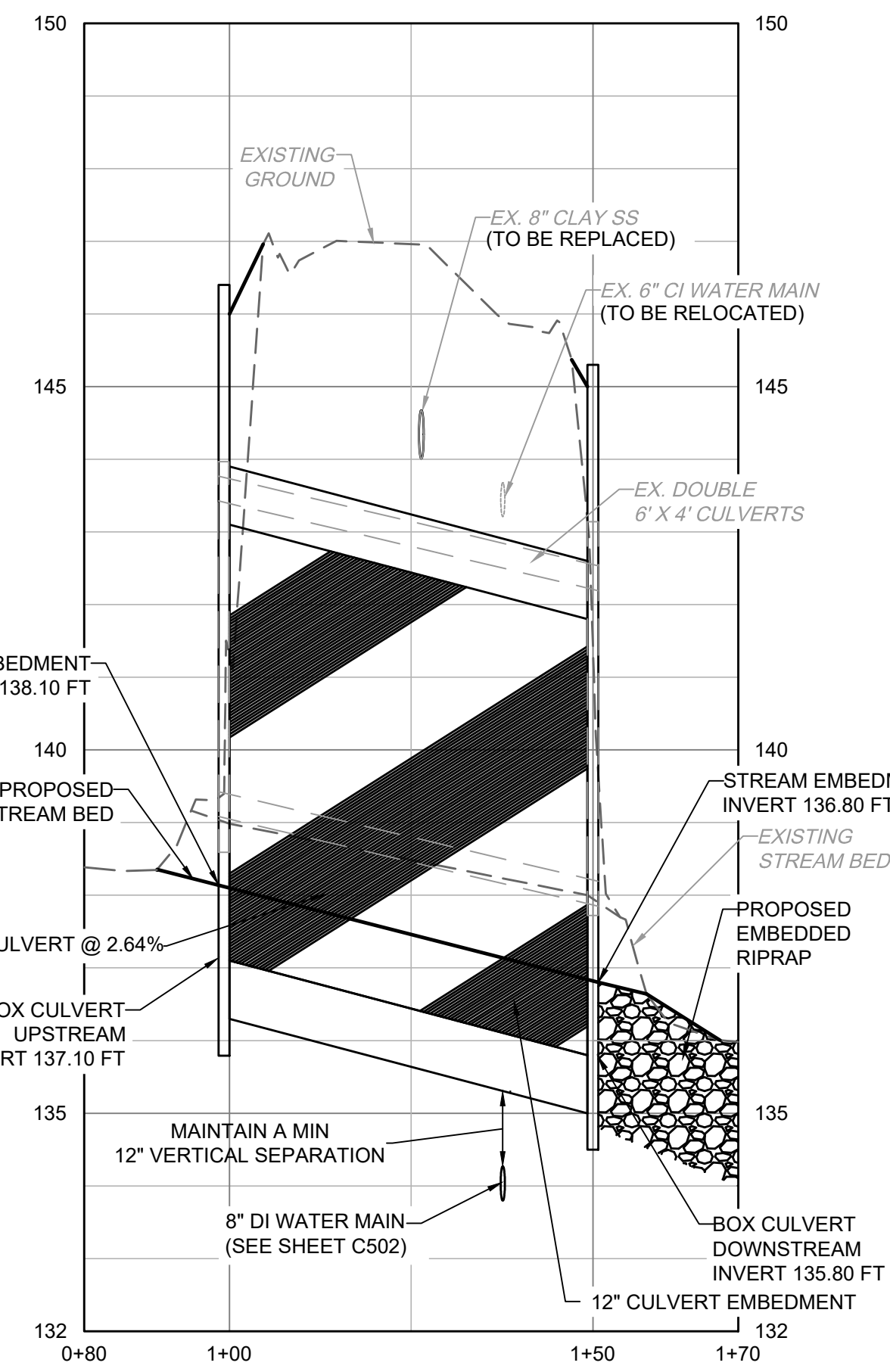
CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

DRAWN : SHANE VANDERGRIFT	PROJECT : IVY AND LYON ROAD
CHECK : DAVID DUNGAN	NAME : DRAINAGE IMPROVEMENTS
APPROVED :	SCALE : 1"=20'
	DATE : 03/08/2024
PROJECT NO. : 54960.001	
SUB-LEDGER NO. :	



SCALE 1"=20'



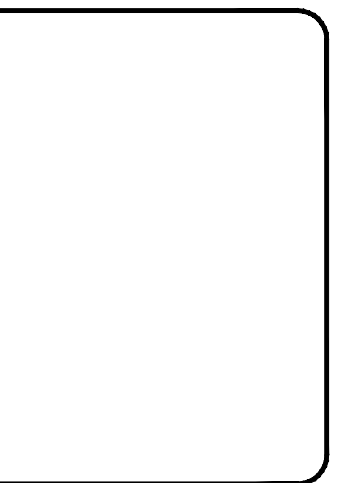
IVY RD - 14' x 6' BOX CULVERT

NOTE:
CONTRACTOR TO PROVIDE VIBRATION MONITORING, SHEETING, SHORING AND BRACING DURING INSTALLATION AND REMOVAL. CRITICAL AREAS INCLUDE CLOSE PROXIMITIES TO HOUSE FOUNDATIONS AND EXISTING POOL. CONTRACTOR TO PROVIDE STAMPED/SEALED DRAWINGS FOR BRACING.

LEGEND

---	EXISTING MINOR CONTOURS
---	EXISTING MAJOR CONTOURS
---	RIGHT OF WAY
---	PROPERTY LINE
---	STREAM CENTERLINE
---	PERMANENT EASEMENT
---	EXISTING STORM DRAINAGE
---	EXISTING WATERLINE
---	EXISTING SANITARY SEWER
---	LIMITS OF DISTURBANCE
---	EXISTING OVERHEAD POWER LINE
---	EXISTING GAS
---	EXISTING FENCE
---	EXISTING SPLIT RAIL FENCE
---	EXISTING TREE

GRADING AND STORM DRAINAGE
PLAN TYPE: STORM
SHEET NUMBER: C402



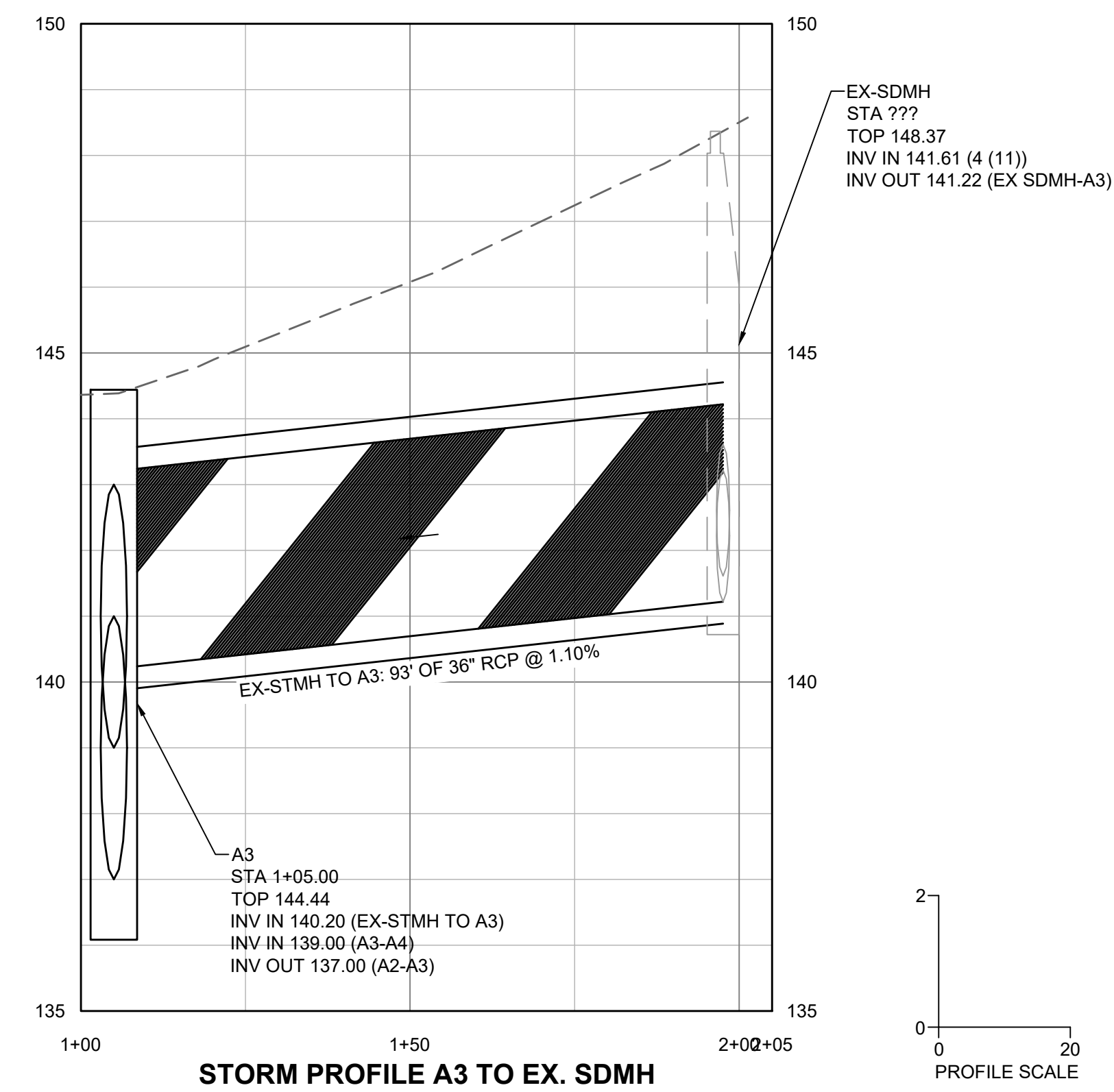
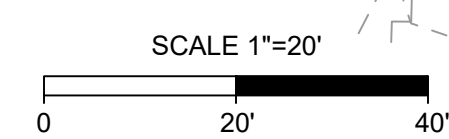
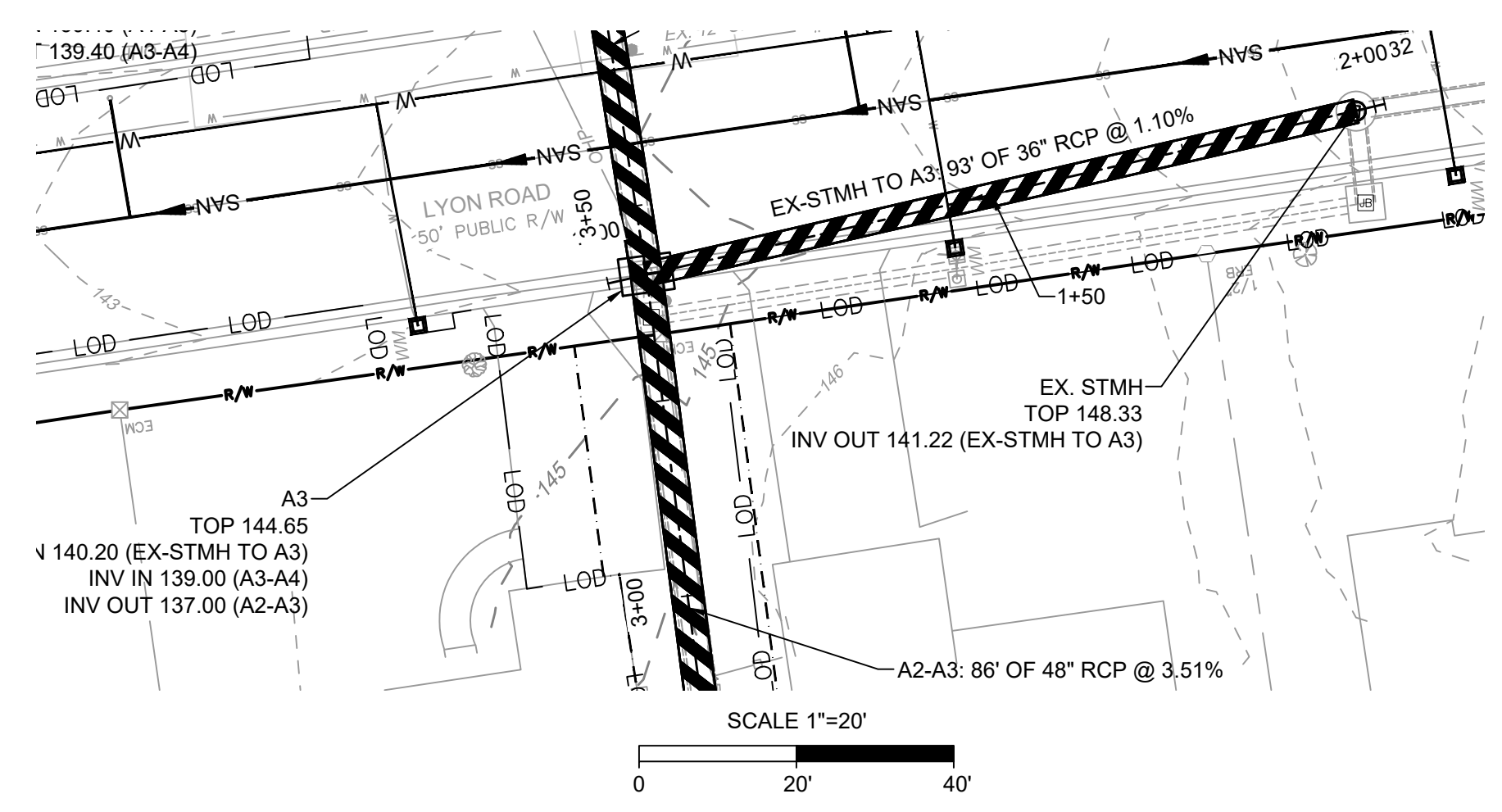
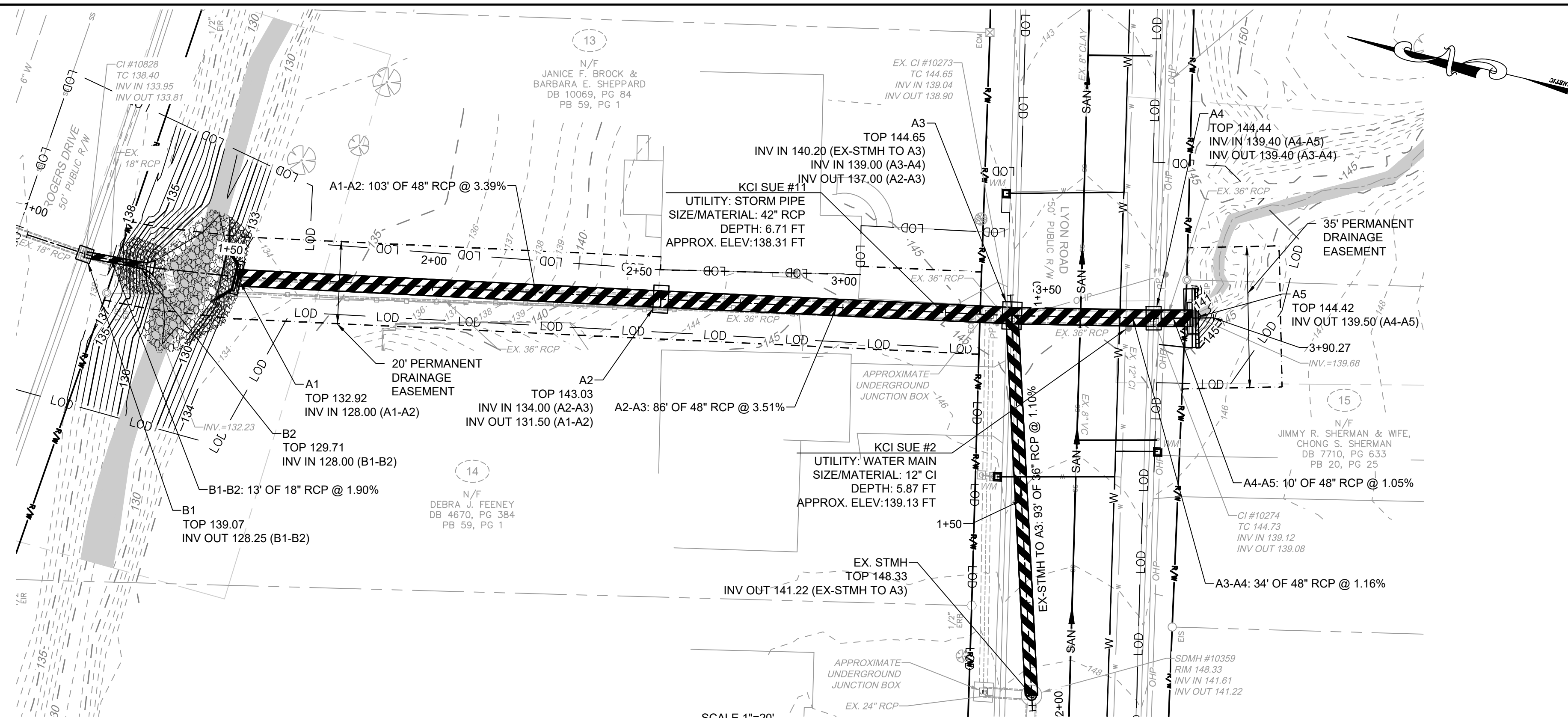
FAYETTEVILLE:
AMERICA'S CAN DO CITY
ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501



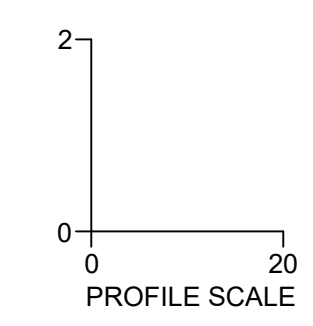
CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

PROJECT NO. 54960.001
SUB-LEDGER NO. _____



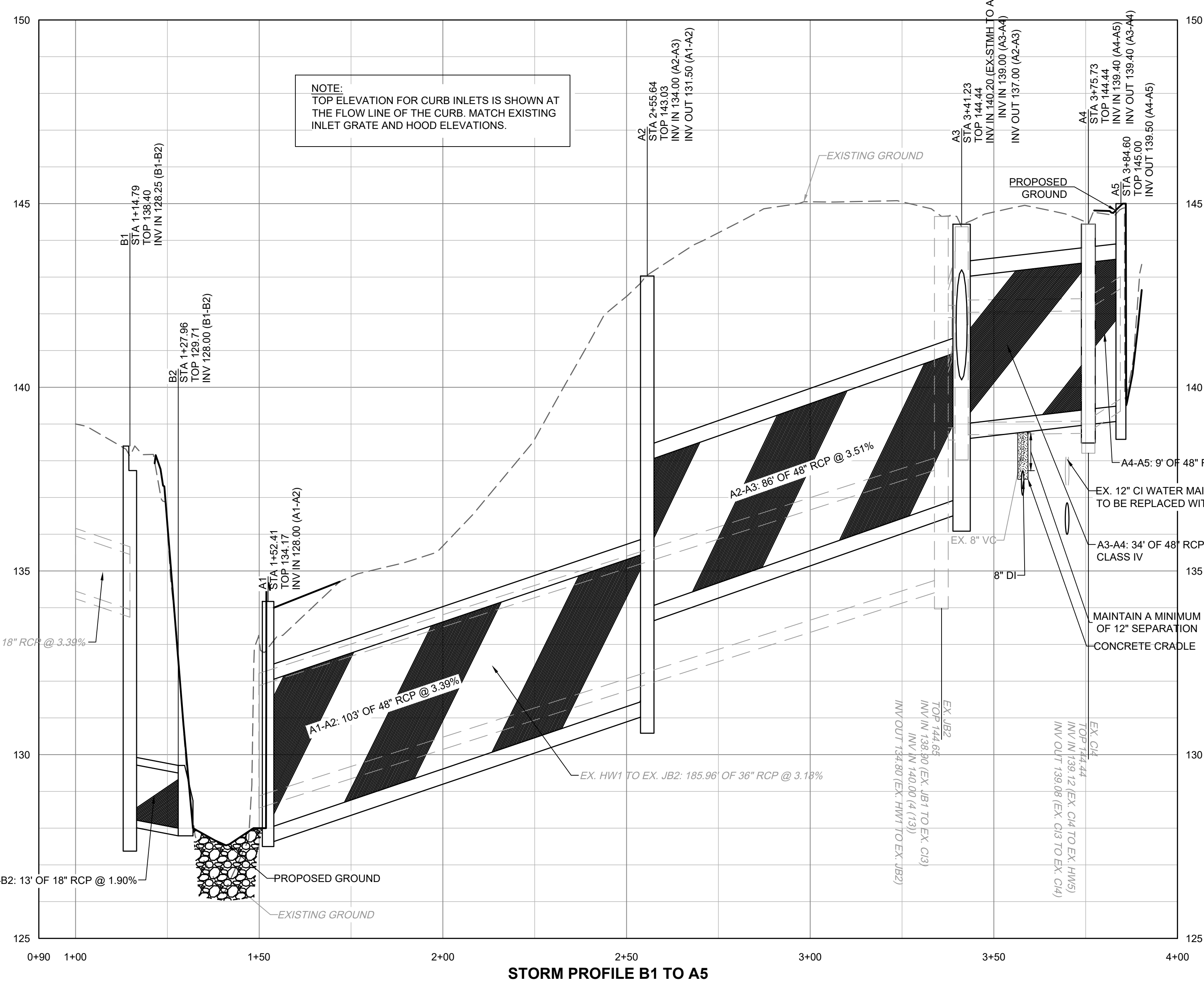
STORM PROFILE A3 TO EX. SDMH



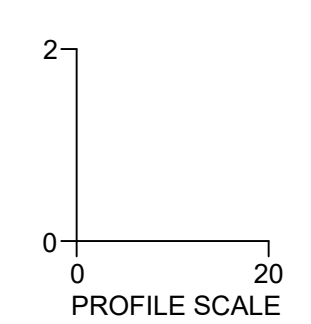
NOTE: CONTRACTOR TO PROVIDE VIBRATION MONITORING, SHEETING, SHORING AND BRACING DURING INSTALLATION AND REMOVAL. CRITICAL AREAS INCLUDE CLOSE PROXIMITIES TO HOUSE FOUNDATIONS AND EXISTING POOL. CONTRACTOR TO PROVIDE STAMPED/SEALED DRAWINGS FOR BRACING.

LEGEND

- EXISTING MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- RIGHT OF WAY
- PROPERTY LINE
- STREAM CENTERLINE
- PERMANENT EASEMENT
- EXISTING WATERLINE
- EXISTING SANITARY SEWER
- LIMITS OF DISTURBANCE
- EXISTING OVERHEAD POWER LINE
- EXISTING GAS
- EXISTING FENCE
- EXISTING SPLIT RAIL FENCE
- EXISTING TREE



STORM PROFILE B1 TO A5



NOTE: TOP ELEVATION FOR CURB INLETS IS SHOWN AT THE FLOW LINE OF THE CURB. MATCH EXISTING INLET GRATE AND HOOD ELEVATIONS.

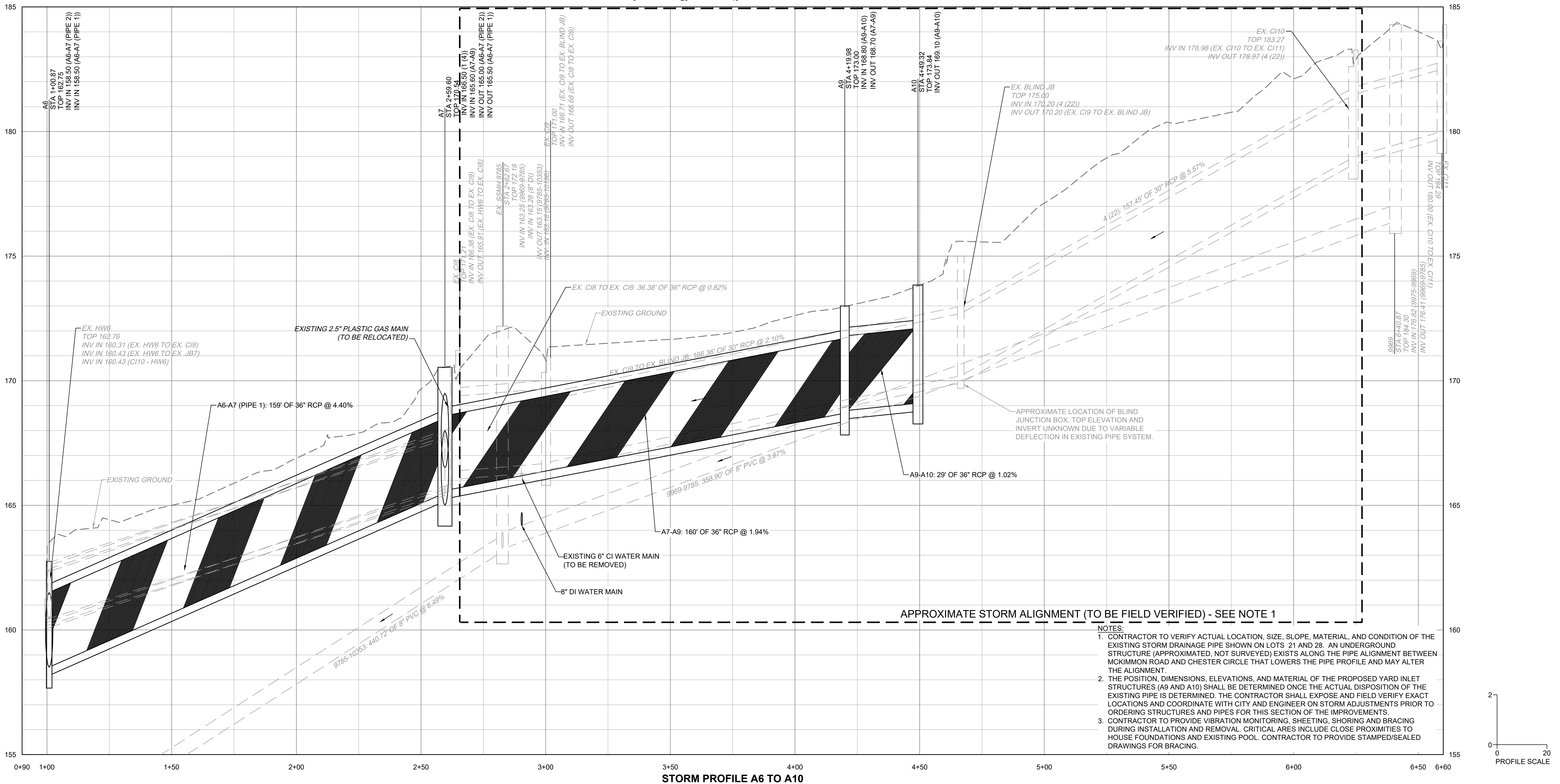
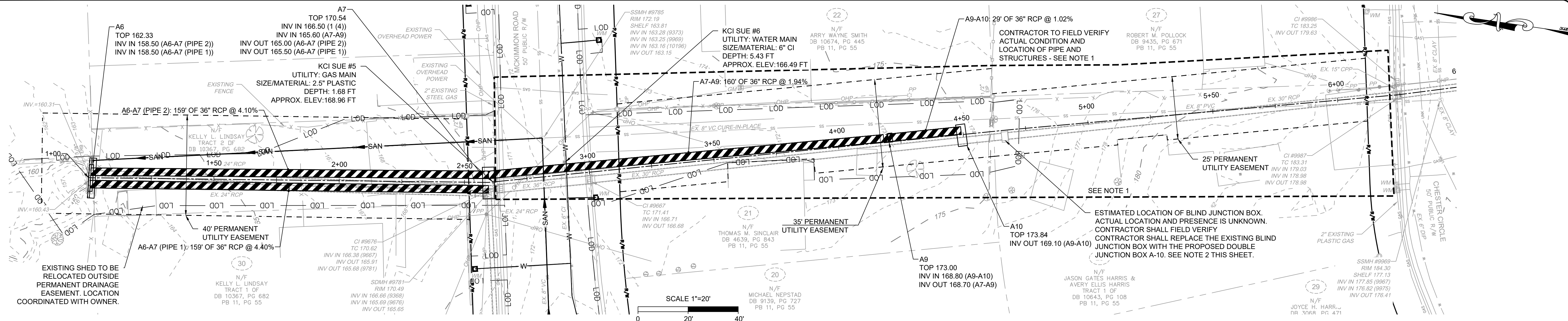
GRADING AND STORM DRAINAGE
PLAN TYPE: STORM
SHEET NUMBER: C403

FAYETTEVILLE:
AMERICA'S CAN DO CITY
ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501



REV. #	DESCRIPTION	REV. BY	DATE

PROJECT NO. 54960.001
SUB-LEDGER NO. _____

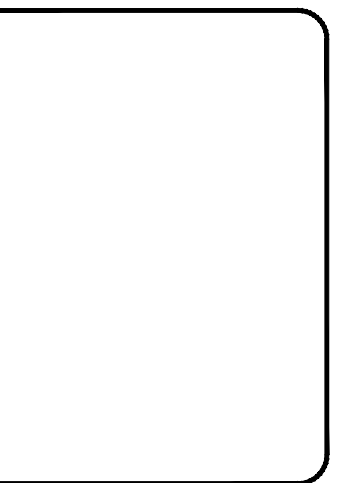


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GRADING AND STORM DRAINAGE

PLAN TYPE: **STORM**

SHEET NUMBER: **C404**



FAYETTEVILLE:
AMERICA'S CAN DO CITY

ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28401



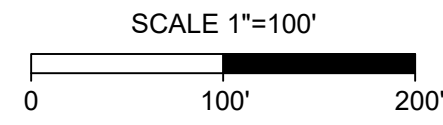
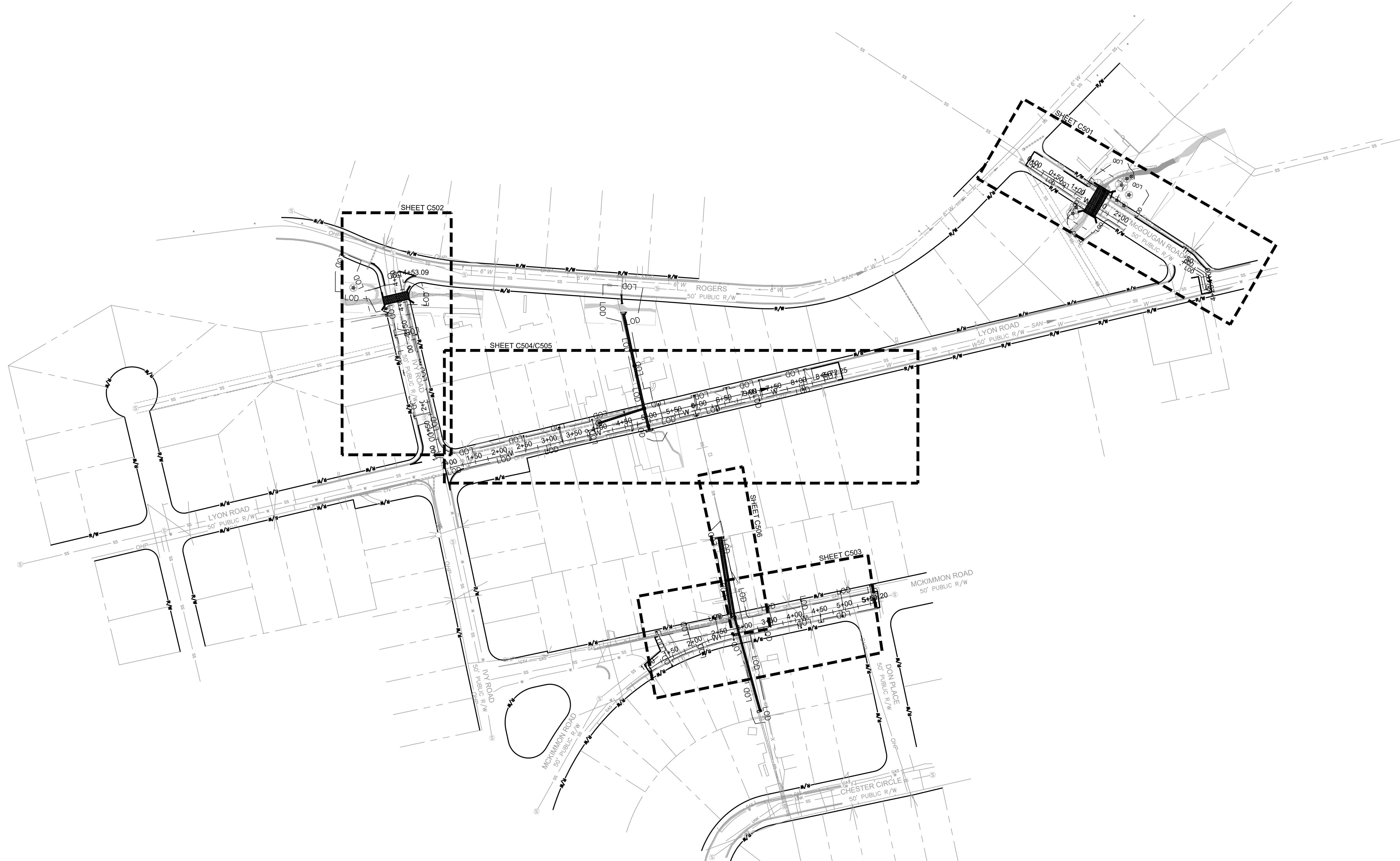
CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

DRAWN : SHANA VANDERGRIFT	PROJECT : 54960.001
DESIGN : CHRIS ROGERS	NAME : DRAINAGE IMPROVEMENTS
CHECK : DAVID DUNGAN	SCALE : 1"=20'
APPROVED :	DATE : 03/08/2024

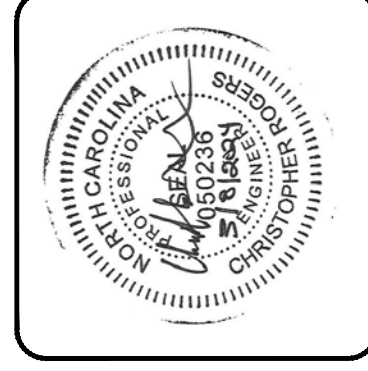
PROJECT NO. 54960.001
SUB-LEDGER NO. _____

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DRAWN : SHANE VANDERGRIFT
 DESIGN : CHRIS ROGERS
 CHECK : DAVID DUNCAN
 APPROVED :

REV. #	DESCRIPTION	REV. BY	DATE

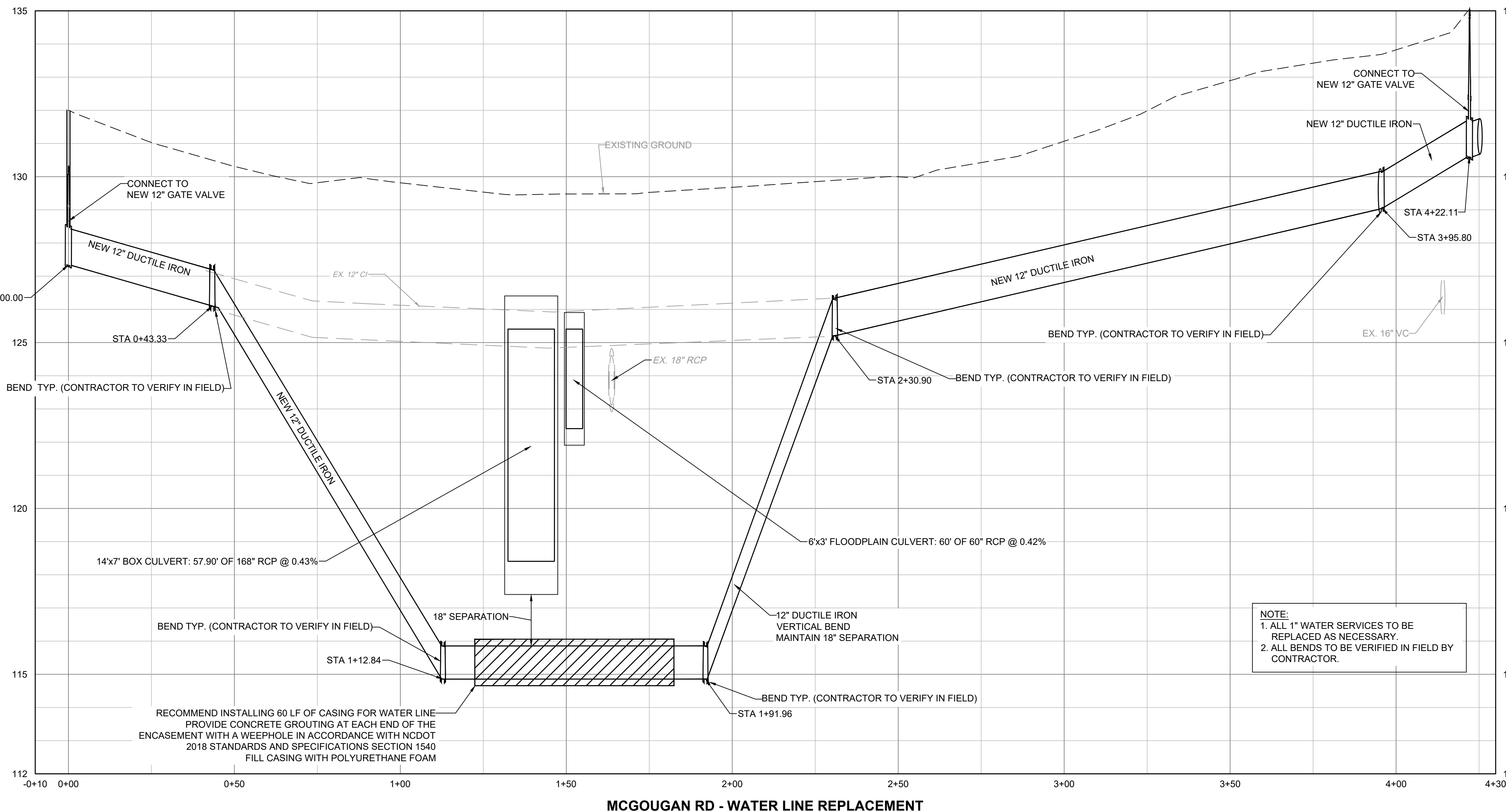
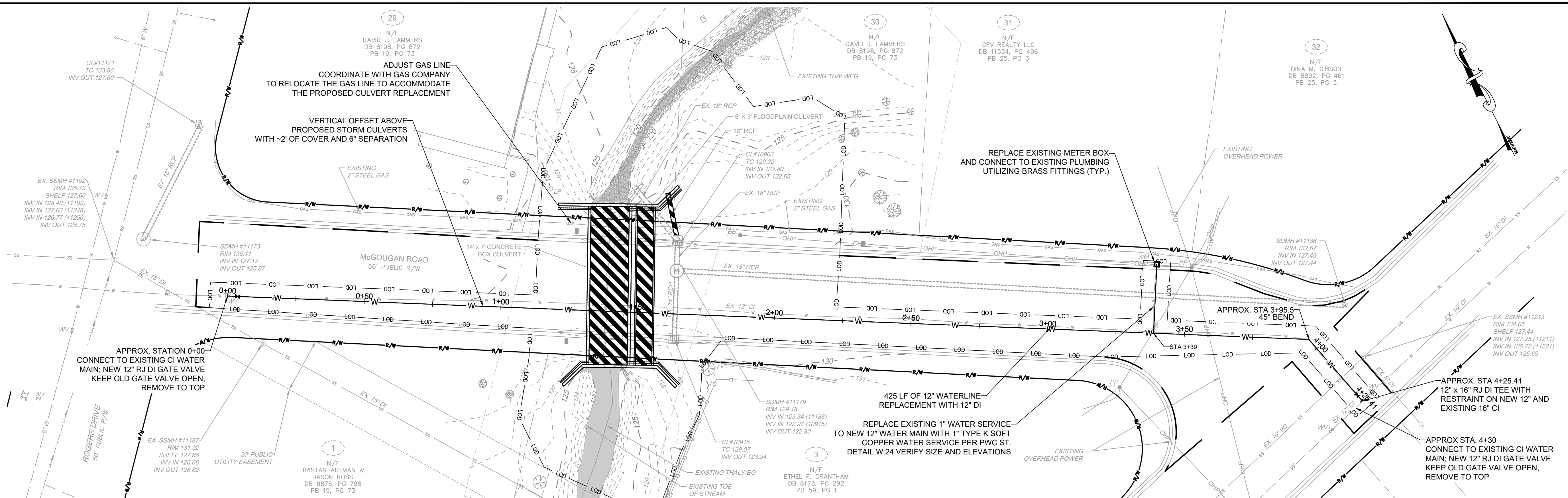


FAYETTEVILLE:
 AMERICA'S CAN DO CITY
ENGINEERING DIVISION
 ENGINEERING & INFRASTRUCTURE DEPARTMENT
 439 HAY STREET FAYETTEVILLE, NC 28501

CONSTRUCTION SET

PROJECT NO. 54960.001
 SUB-LEDGER NO. _____

OVERALL
 UTILITY REPLACEMENT
 PLAN TYPE: UTILITY
 SHEET NUMBER: C500



NOTE:
1. CONTRACTOR TO PROVIDE VIBRATION MONITORING, SHEETING, SHORING AND BRACING DURING INSTALLATION AND REMOVAL
CONTRACTOR TO PROVIDE STAMPED/SEALED DRAWINGS FOR BRACING.
2. WATER SERVICES, SANITARY SEWER LATERALS AND CLEANOUT LOCATIONS AND STATIONING ARE APPROXIMATE. CONTRACTOR IS TO FIELD VERIFY.

LEGEND

-166 - - - - -	EXISTING MINOR CONTOURS
-165 - - - - -	EXISTING MAJOR CONTOURS
---	RIGHT OF WAY
---	PROPERTY LINE
---	STREAM CENTERLINE
---	EXISTING STORM DRAINAGE
---	EXISTING WATERLINE
---	EXISTING SANITARY SEWER
---	EXISTING OVERHEAD POWER LINE
---	EXISTING GAS
X X	EXISTING FENCE
○ ○ ○ ○	EXISTING SPLIT RAIL FENCE
⊗	EXISTING TREE
W	PROPOSED WATERLINE REPLACEMENT
SAN	PROPOSED SEWER REPLACEMENT
LDD	LIMITS OF DISTURBANCE

UTILITY REPLACEMENT

PLAN TYPE: UTILITY

SHEET NUMBER: C501

AMERICA'S CAN DO CITY

FAYETTEVILLE:
ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501



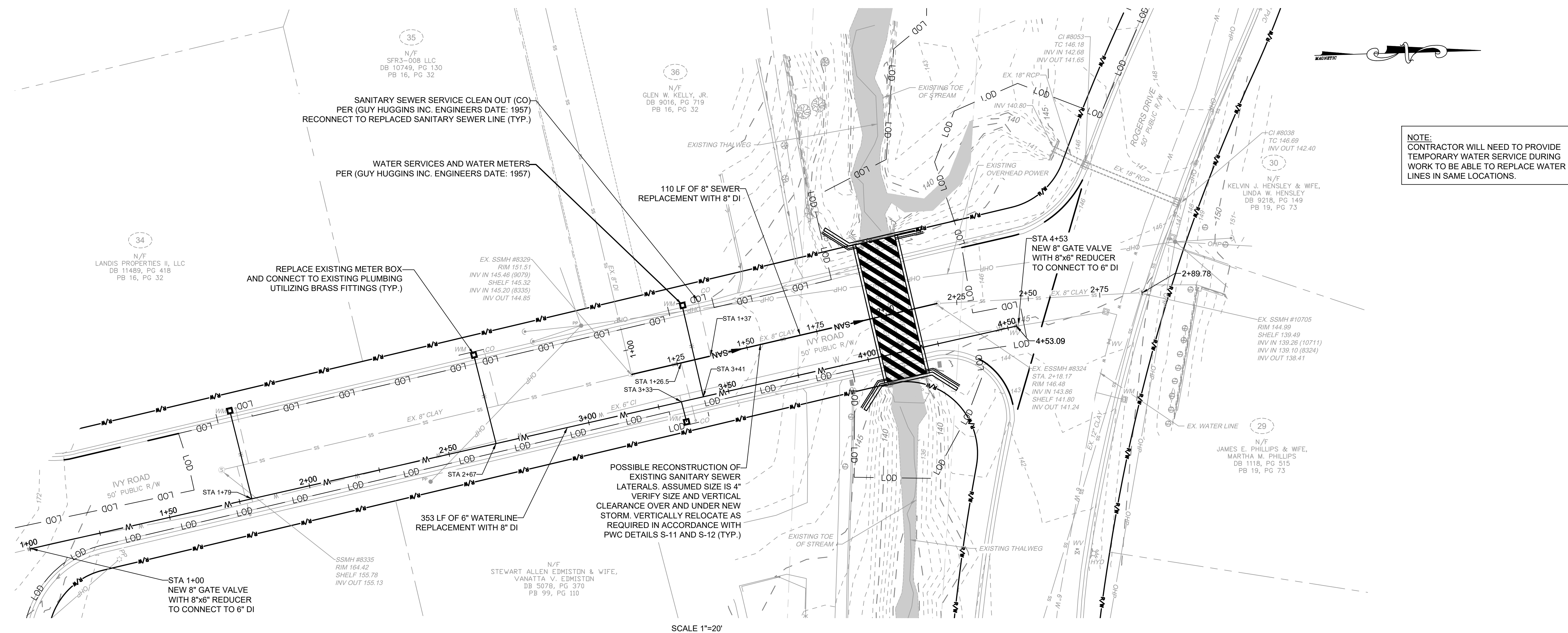
CONSTRUCTION SET

REV. #	REVISIONS	DESCRIPTION	REV. BY	DATE

PROJECT NO. 54960.001
SUB-LEDGER NO. _____

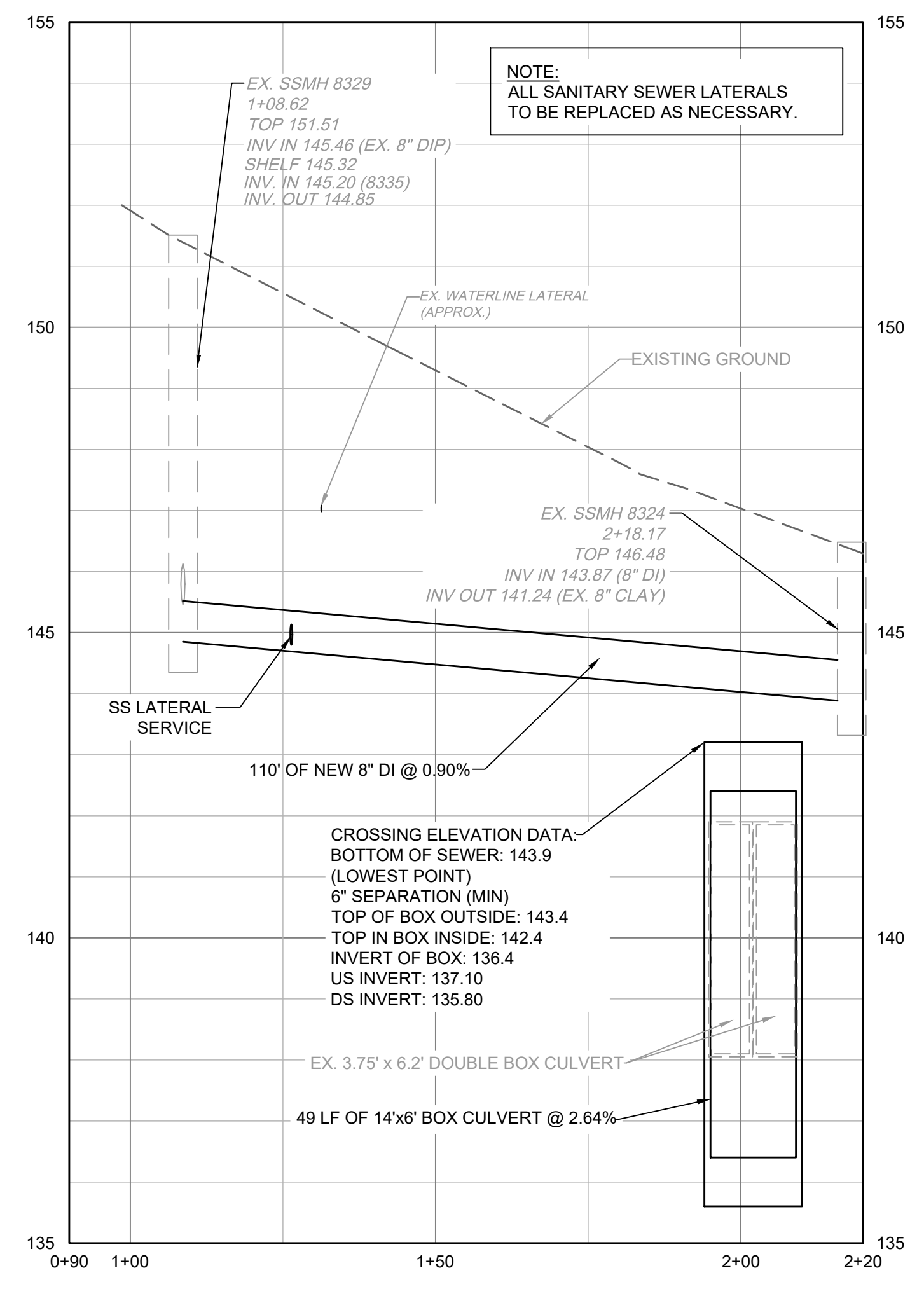
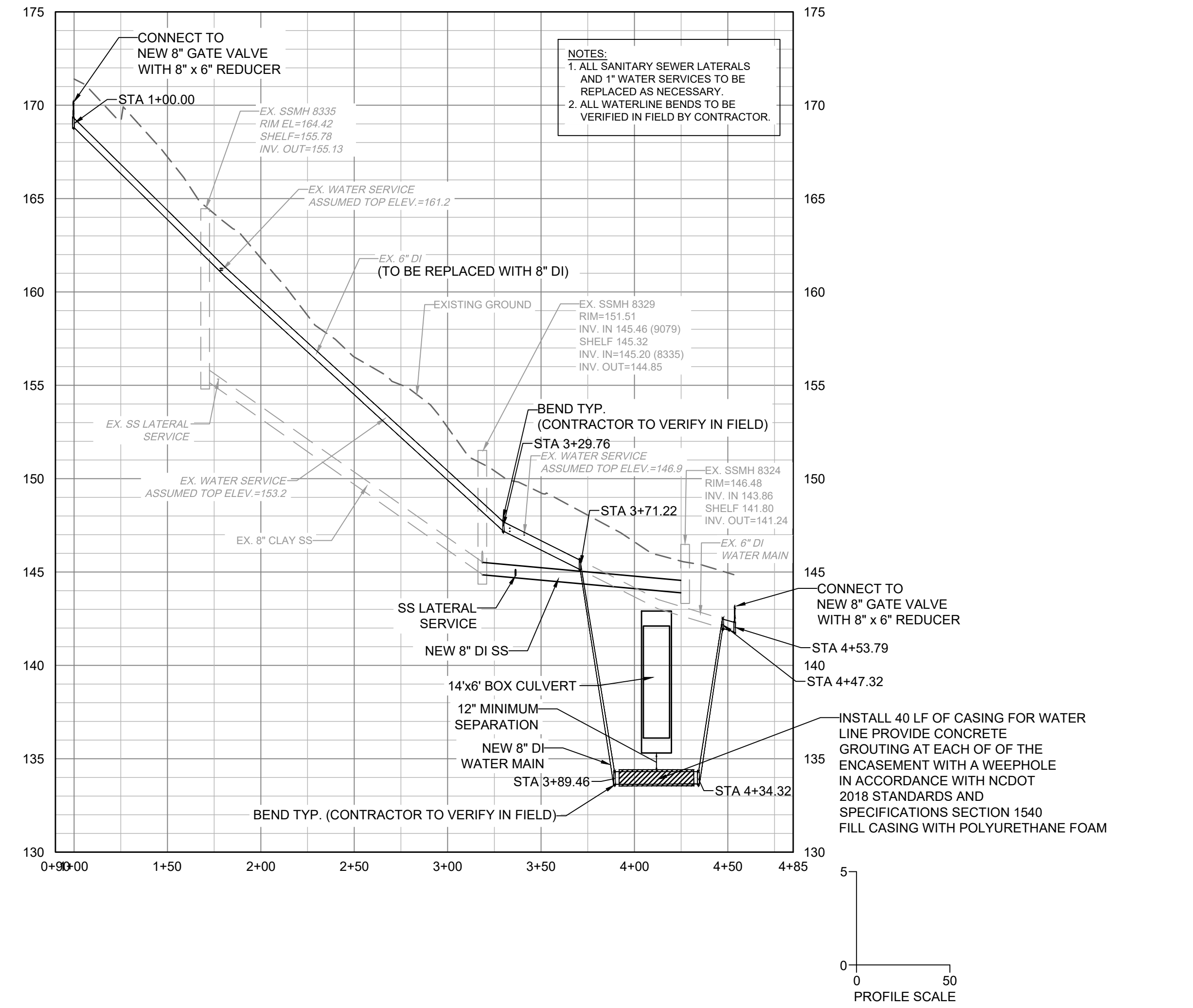
PROJECT: IVY AND LYON ROAD BRIDGE IMPROVEMENTS
NAME: BRIDGE IMPROVEMENTS
SCALE: 1"=20'
CHECK: DAVID DUNGAN
DATE: 03/08/2024
APPROVED: _____

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NOTE:
CONTRACTOR WILL NEED TO PROVIDE TEMPORARY WATER SERVICE DURING WORK TO BE ABLE TO REPLACE WATER LINES IN SAME LOCATIONS.

NOTE:
1. CONTRACTOR TO PROVIDE VIBRATION MONITORING, SHEETING, SHORING AND BRACING DURING INSTALLATION AND REMOVAL. CONTRACTOR TO PROVIDE STAMPED/SEALED DRAWINGS FOR BRACING.
2. WATER SERVICES, SANITARY SEWER LATERALS AND CLEANOUT LOCATIONS AND STATIONING ARE APPROXIMATE. CONTRACTOR IS TO FIELD VERIFY.



LEGEND

-166 - - - - -	EXISTING MINOR CONTOURS
-165 - - - - -	EXISTING MAJOR CONTOURS
---	RIGHT OF WAY
---	PROPERTY LINE
---	STREAM CENTERLINE
---	EXISTING STORM DRAINAGE
---	EXISTING WATERLINE
---	EXISTING SANITARY SEWER
---	EXISTING OVERHEAD POWER LINE
---	EXISTING GAS
---	EXISTING FENCE
---	EXISTING SPLIT RAIL FENCE
---	EXISTING TREE
---	PROPOSED WATERLINE REPLACEMENT
---	PROPOSED SEWER REPLACEMENT
---	LIMITS OF DISTURBANCE

UTILITY REPLACEMENT

PLAN TYPE: UTILITY

SHEET NUMBER: C502

FAYETTEVILLE:
AMERICA'S CAN DO CITY

ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28401



CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

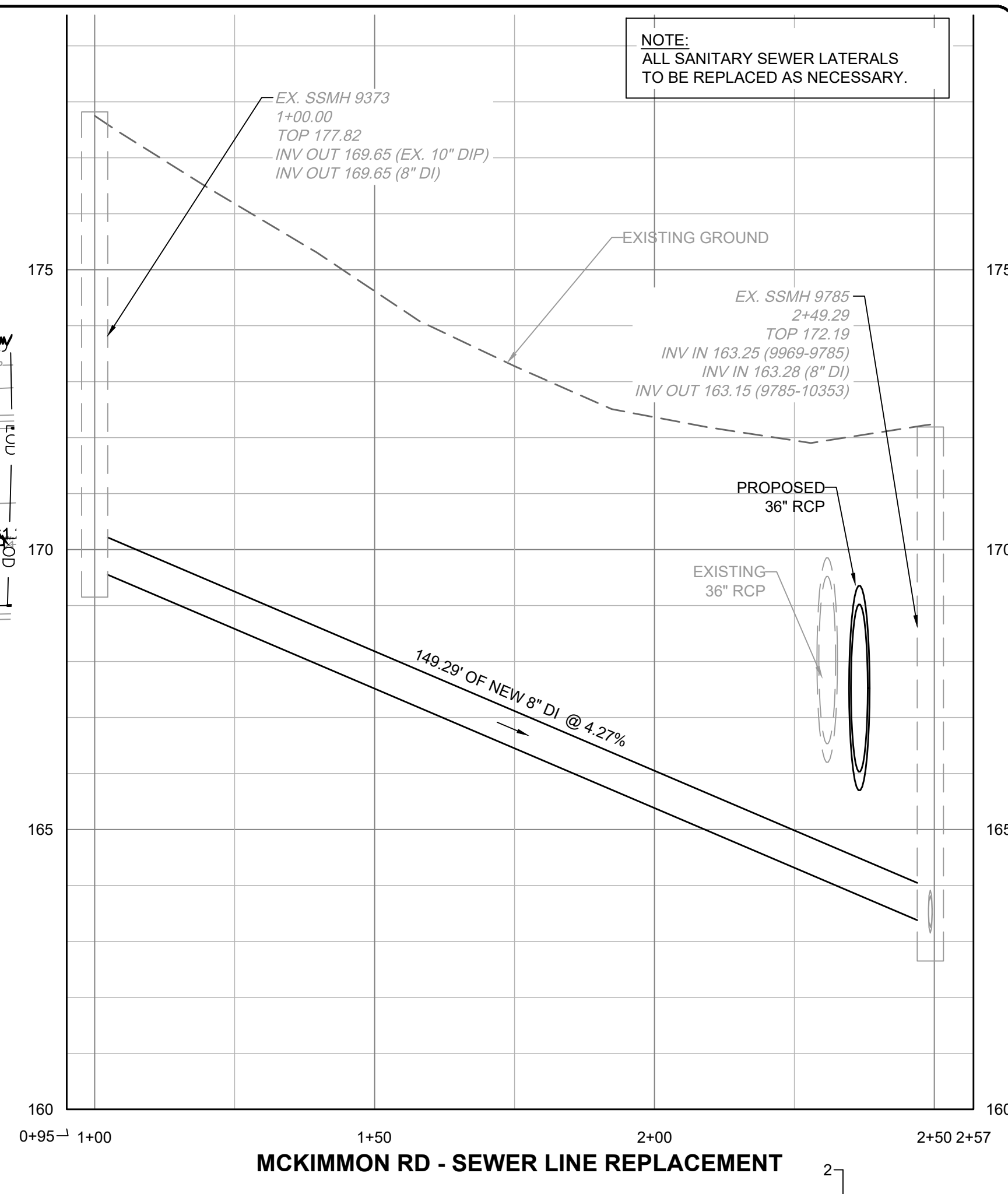
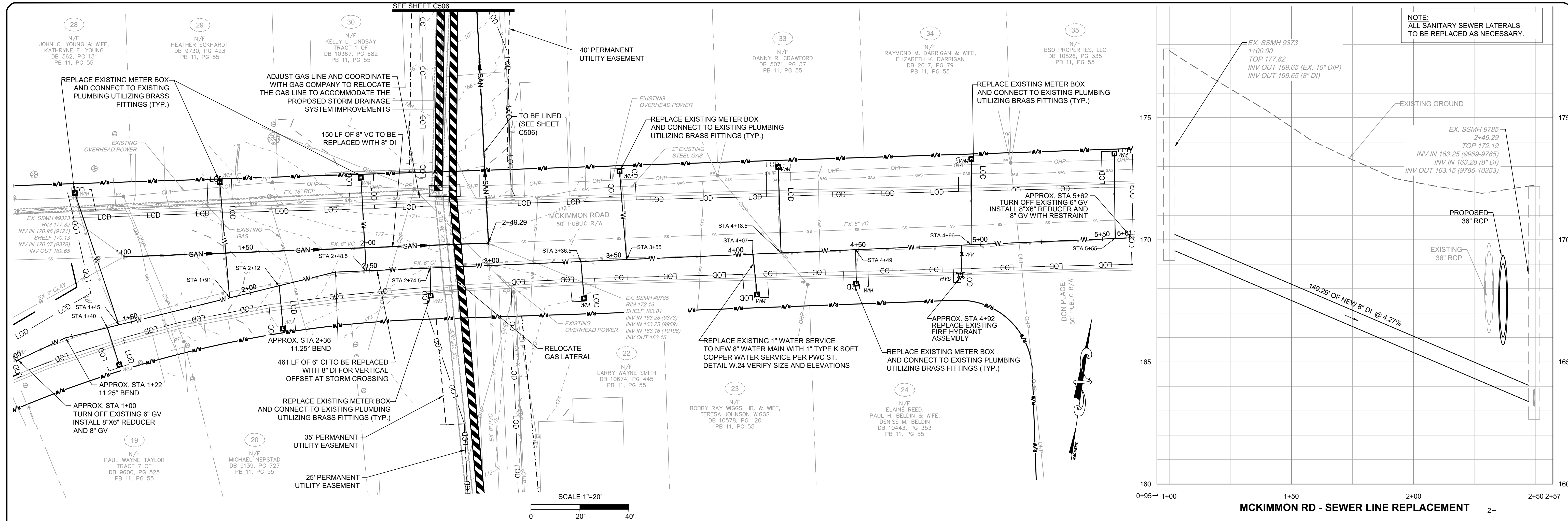
PROJECT NO. 54960.001

SUB-LEDGER NO. _____

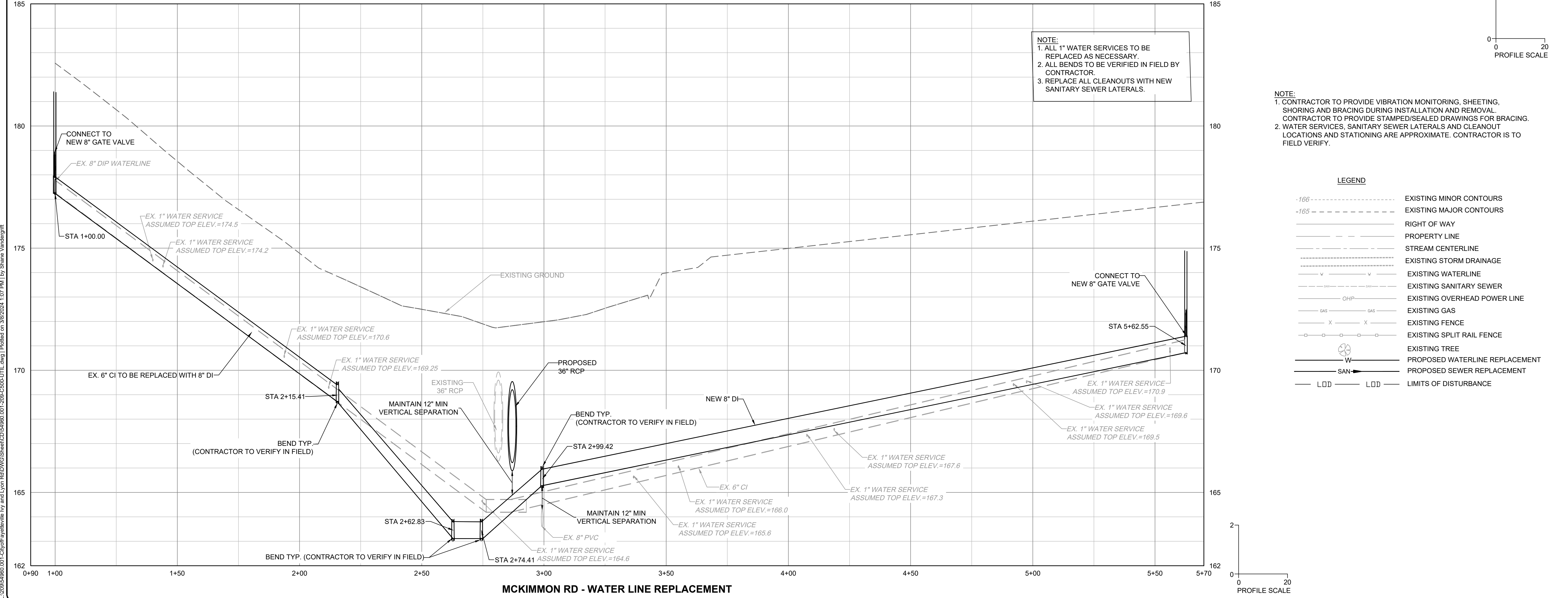
PROJECT: IVY AND LYON ROAD BRIDGE IMPROVEMENTS
NAME: AS NOTED
SCALE: AS NOTED
DATE: 03/08/2024

DRAWN: SHANE VANDERGRIFT
CHECK: CHRIS ROGERS
DESIGN: DAVID DUNCAN
APPROVED: _____

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MCKIMMON RD - SEWER LINE REPLACEMENT



MCKIMMON RD - WATER LINE REPLACEMENT

NOTE:
 1. ALL 1" WATER SERVICES TO BE REPLACED AS NECESSARY.
 2. ALL BENDS TO BE VERIFIED IN FIELD BY CONTRACTOR.
 3. REPLACE ALL CLEANOUTS WITH NEW SANITARY SEWER LATERALS.

NOTE:
 1. CONTRACTOR TO PROVIDE VIBRATION MONITORING, SHEETING, SHORING AND BRACING DURING INSTALLATION AND REMOVAL. CONTRACTOR TO PROVIDE STAMPED/SEALED DRAWINGS FOR BRACING.
 2. WATER SERVICES, SANITARY SEWER LATERALS AND CLEANOUT LOCATIONS AND STATIONING ARE APPROXIMATE. CONTRACTOR IS TO FIELD VERIFY.

LEGEND

-166 - - - - -	EXISTING MINOR CONTOURS
-165 - - - - -	EXISTING MAJOR CONTOURS
---	RIGHT OF WAY
---	PROPERTY LINE
---	STREAM CENTERLINE
- - - - -	EXISTING STORM DRAINAGE
- - - - -	EXISTING WATERLINE
- - - - -	EXISTING SANITARY SEWER
- - - - -	EXISTING OVERHEAD POWER LINE
- - - - -	EXISTING GAS
- - - - -	EXISTING FENCE
- - - - -	EXISTING SPLIT RAIL FENCE
- - - - -	EXISTING TREE
- - - - -	PROPOSED WATERLINE REPLACEMENT
- - - - -	PROPOSED SEWER REPLACEMENT
- - - - -	LDD
- - - - -	LOD
- - - - -	LIMITS OF DISTURBANCE

UTILITY REPLACEMENT

SHEET NUMBER
C503

PLAN TYPE
UTILITY

FAYETTEVILLE:
AMERICA'S CAN DO CITY

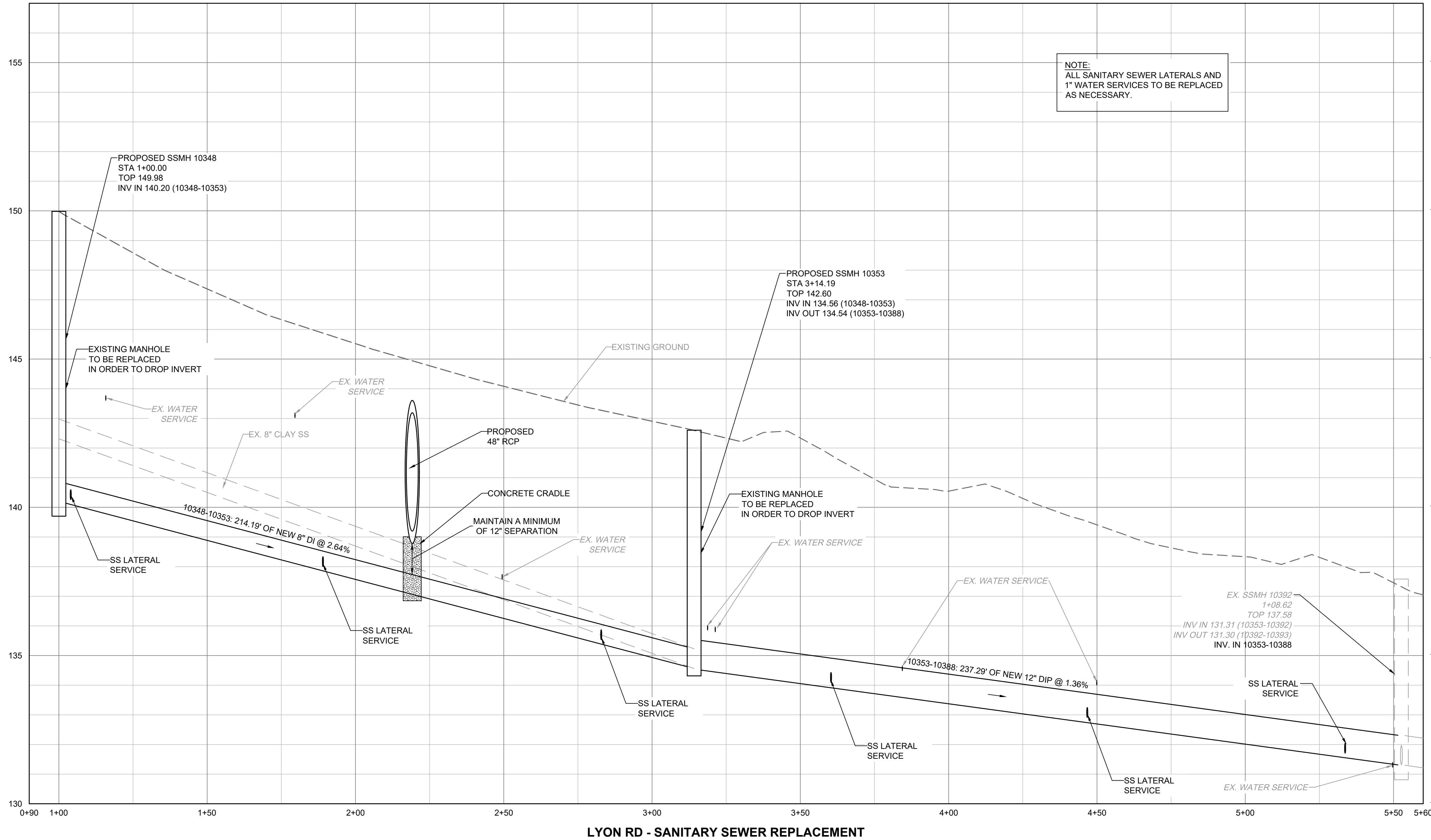
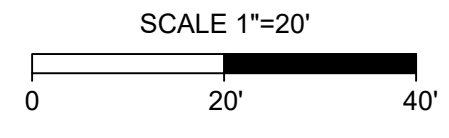
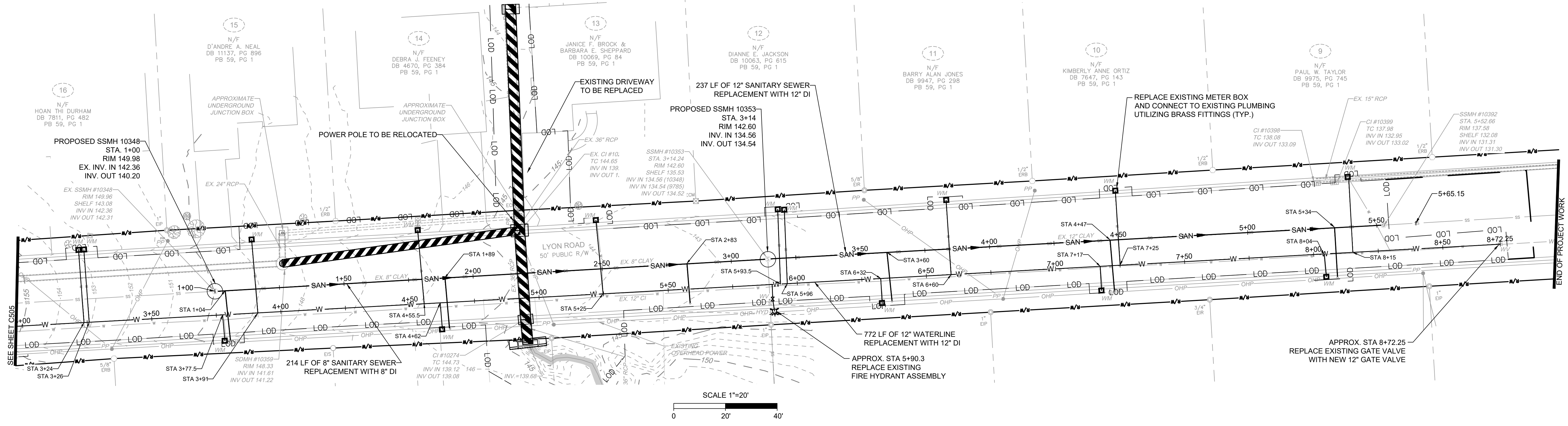
ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
433 HAY STREET FAYETTEVILLE, NC 28501

REV. #	REVISIONS	DESCRIPTION	REV. BY	DATE

CONSTRUCTION SET

PROJECT: IVY AND LYON ROAD	PROJECT NO.: 54960.001
DESIGN: CHRIS ROGERS	SUB-LEDGER NO.:
CHECK: DAVID DUNCAN	
APPROVED: 03/08/2024	

L:\30954960.00-CityofFayetteville\Ivy and Lyon Road\DWG\Sheets\CD54960.001-209-C500-JTL.dwg | Plotted on 3/8/2024 1:07 PM | by Shane Vandergrift



NOTE:
ALL SANITARY SEWER LATERALS AND
1\"/>

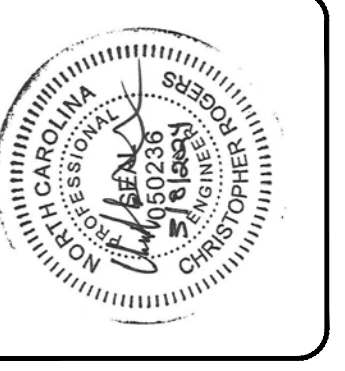
- NOTE:
1. CONTRACTOR TO PROVIDE VIBRATION MONITORING, SHEETING, SHORING AND BRACING DURING INSTALLATION AND REMOVAL. CONTRACTOR TO PROVIDE STAMPED/SEALED DRAWINGS FOR BRACING.
2. WATER SERVICES, SANITARY SEWER LATERALS AND CLEANOUT LOCATIONS AND STATIONING ARE APPROXIMATE. CONTRACTOR IS TO FIELD VERIFY.

LEGEND

-166-----	EXISTING MINOR CONTOURS
-165-----	EXISTING MAJOR CONTOURS
---	RIGHT OF WAY
---	PROPERTY LINE
---	STREAM CENTERLINE
---	EXISTING STORM DRAINAGE
---	EXISTING WATERLINE
---	EXISTING SANITARY SEWER
---	EXISTING OVERHEAD POWER LINE
---	EXISTING GAS
X X	EXISTING FENCE
---	EXISTING SPLIT RAIL FENCE
---	EXISTING TREE
---	PROPOSED WATERLINE REPLACEMENT
---	PROPOSED SEWER REPLACEMENT
---	LIMITS OF DISTURBANCE

UTILITY REPLACEMENT
PLAN TYPE: UTILITY
SHEET NUMBER: C504

FAYETTEVILLE:
AMERICA'S CAN DO CITY
ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
433 HAY STREET FAYETTEVILLE, NC 28501

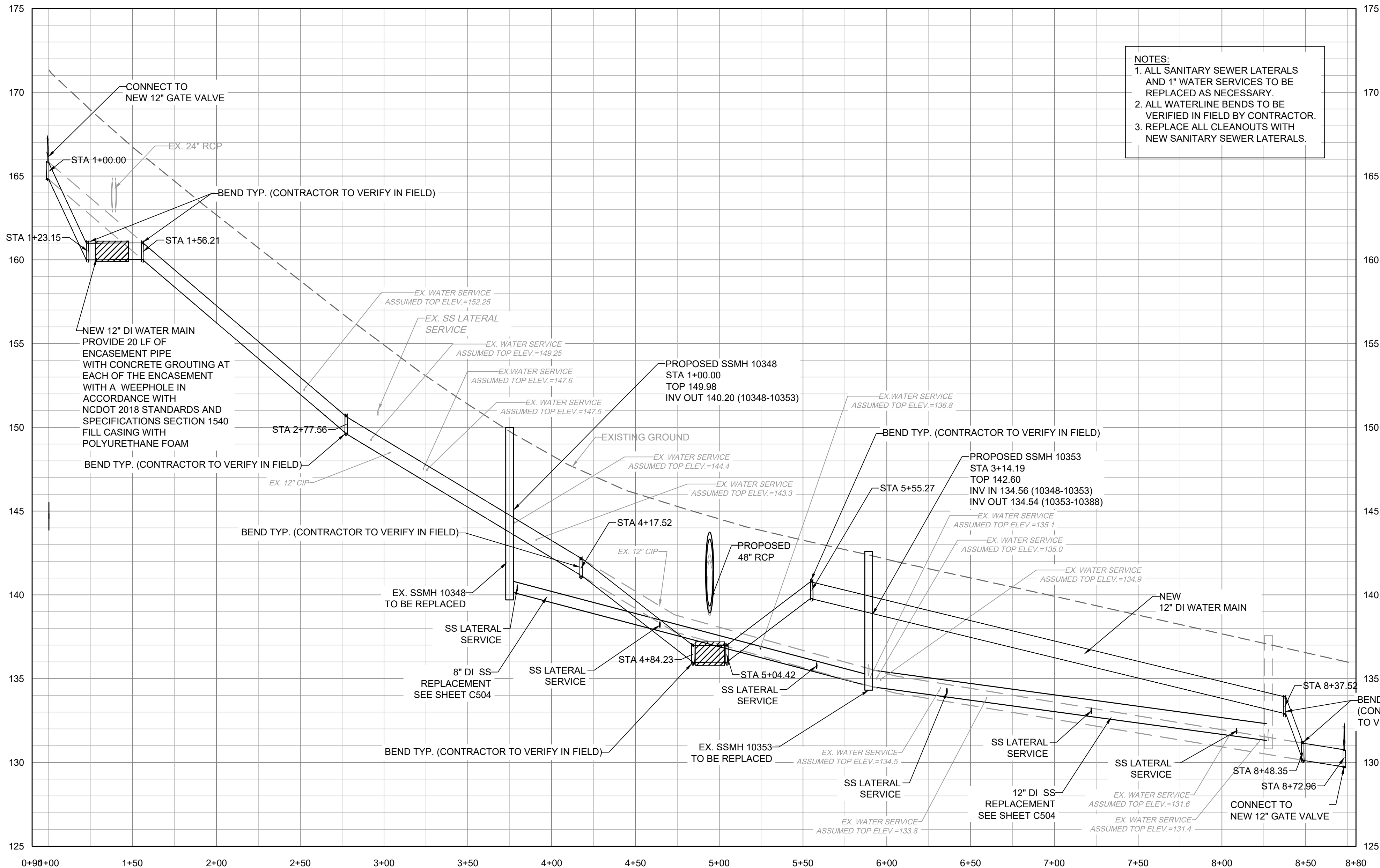
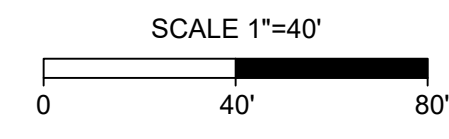
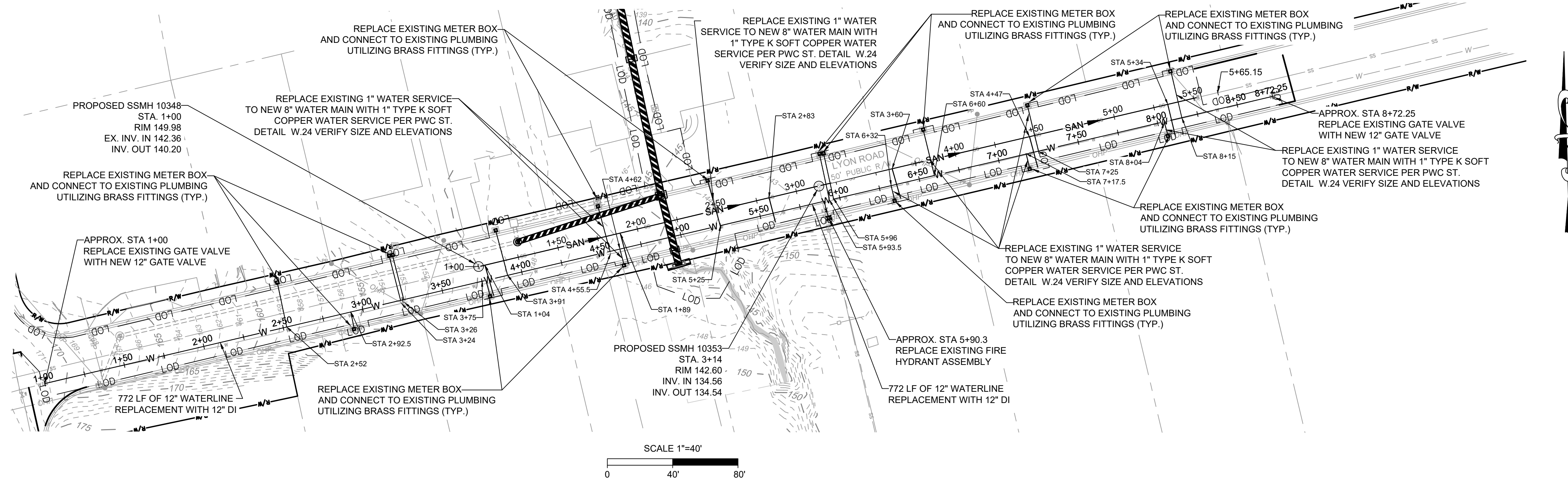


CONSTRUCTION SET

REV. #	REVISIONS	DESCRIPTION	REV. BY	DATE

DRAWN : SHANE VANDERGRIFT
DESIGN : CHRIS ROGERS
CHECK : DAVID DUNCAN
APPROVED :
PROJECT NO. 54960.001
SUB-LEDGER NO. _____

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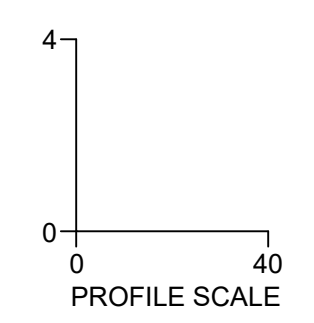


NOTES:
 1. ALL SANITARY SEWER LATERALS AND 1\"/>

NOTE:
 1. CONTRACTOR TO PROVIDE VIBRATION MONITORING, SHEETING, SHORING AND BRACING DURING INSTALLATION AND REMOVAL. CONTRACTOR TO PROVIDE STAMPED/SEALED DRAWINGS FOR BRACING.
 2. WATER SERVICES, SANITARY SEWER LATERALS AND CLEANOUT LOCATIONS AND STATIONING ARE APPROXIMATE. CONTRACTOR IS TO FIELD VERIFY.

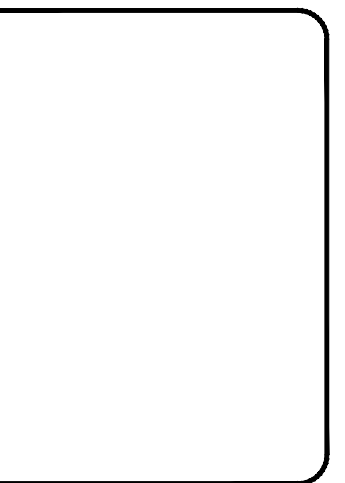
LEGEND

-166 - - - - -	EXISTING MINOR CONTOURS
-165 - - - - -	EXISTING MAJOR CONTOURS
---	RIGHT OF WAY
---	PROPERTY LINE
---	STREAM CENTERLINE
---	EXISTING STORM DRAINAGE
---	EXISTING WATERLINE
---	EXISTING SANITARY SEWER
---	EXISTING OVERHEAD POWER LINE
---	EXISTING GAS
X X X X	EXISTING FENCE
---	EXISTING SPLIT RAIL FENCE
---	EXISTING TREE
---	PROPOSED WATERLINE REPLACEMENT
---	PROPOSED SEWER REPLACEMENT
---	LIMITS OF DISTURBANCE

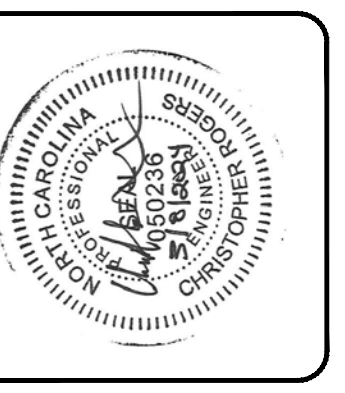


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UTILITY REPLACEMENT
 PLAN TYPE: UTILITY
 SHEET NUMBER: C505



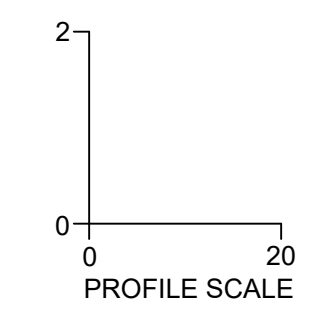
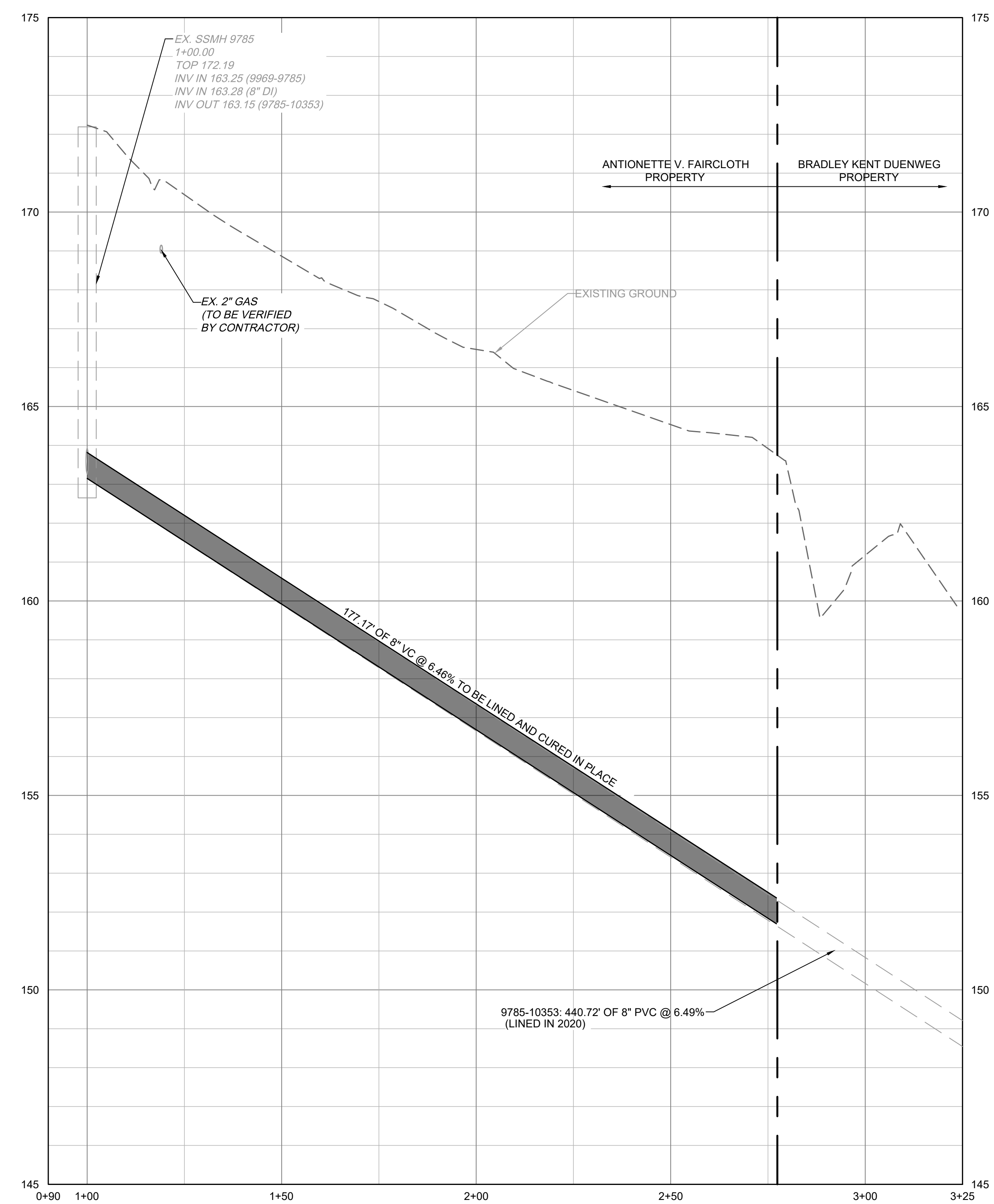
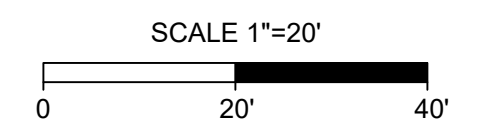
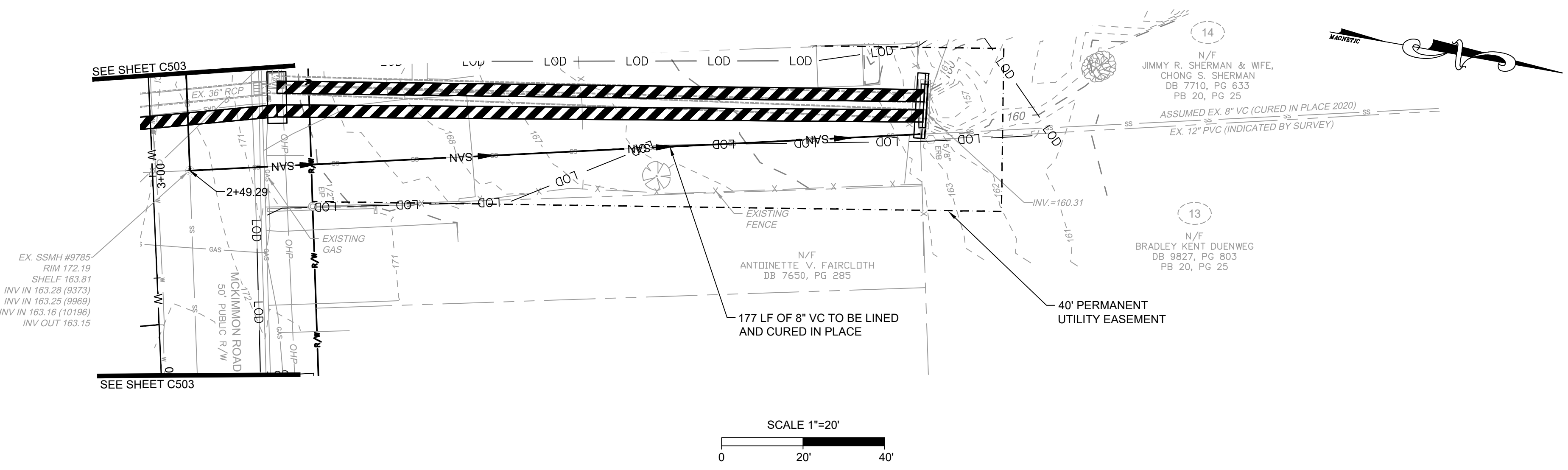
FAYETTEVILLE:
 AMERICA'S CAN DO CITY
ENGINEERING DIVISION
 ENGINEERING & INFRASTRUCTURE DEPARTMENT
 439 HAY STREET FAYETTEVILLE, NC 28301



CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

PROJECT NO. 54960.001
 SUB-LEDGER NO. _____



NOTE:
CONTRACTOR TO PROVIDE CIPP LINER SUBMITTAL FOR ENGINEER REVIEW. LINER SHALL COMPLY WITH CITY OF FAYETTEVILLE DETAILS, STANDARDS, AND SPECIFICATIONS, AS APPLICABLE.

LEGEND

-166 - - - - -	EXISTING MINOR CONTOURS
-165 - - - - -	EXISTING MAJOR CONTOURS
—————	RIGHT OF WAY
—————	PROPERTY LINE
—————	STREAM CENTERLINE
—————	EXISTING STORM DRAINAGE
—————	EXISTING WATERLINE
—————	EXISTING SANITARY SEWER
—————	EXISTING OVERHEAD POWER LINE
—————	EXISTING GAS
—————	EXISTING FENCE
—————	EXISTING SPLIT RAIL FENCE
—————	EXISTING TREE
—————	PROPOSED WATERLINE REPLACEMENT
—————	PROPOSED SEWER REPLACEMENT
—————	LIMITS OF DISTURBANCE

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UTILITY REPLACEMENT
PLAN TYPE: UTILITY
SHEET NUMBER: C506

CONSTRUCTION SET

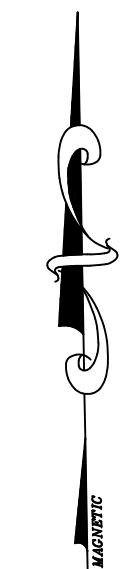
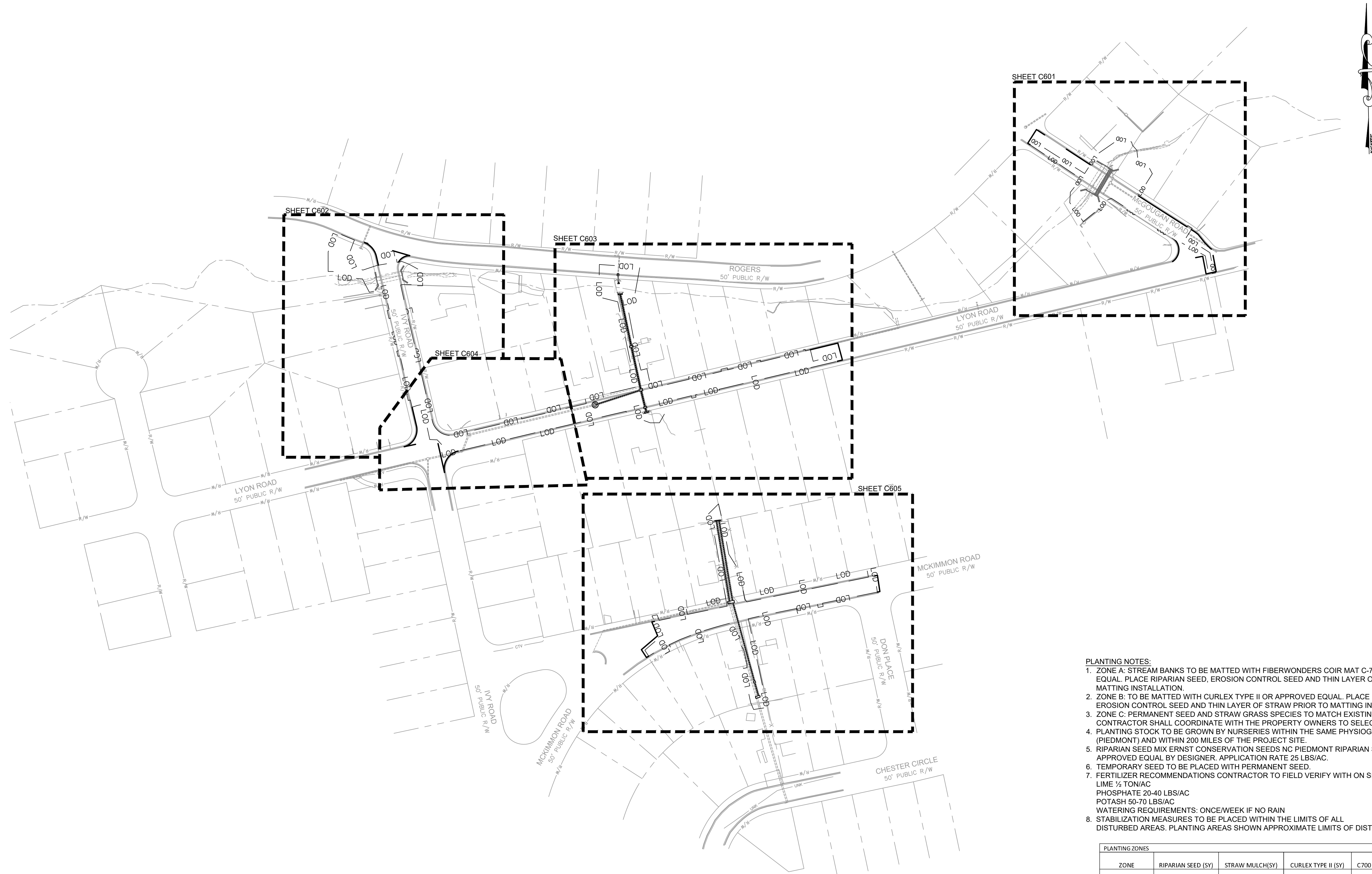
FAYETTEVILLE:
AMERICA'S CAN DO CITY
ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501



REV. #	REVISIONS	DESCRIPTION	REV. BY	DATE

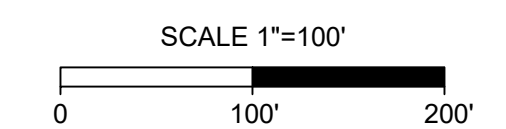
DRAWN : SHANE VANDERGRIFT
DESIGN : CHRIS ROGERS
CHECK : DAVID DUNCAN
APPROVED :
PROJECT NO. 54960.001
SUB-LEDGER NO.

L:\30954960.00\Civil\Fayetteville by and Lyon Rd\DWG\Sheet\CD\54960.001-209-C600-SITE.dwg | Plotted on 3/6/2024 1:08 PM | by Shane Vandergrift



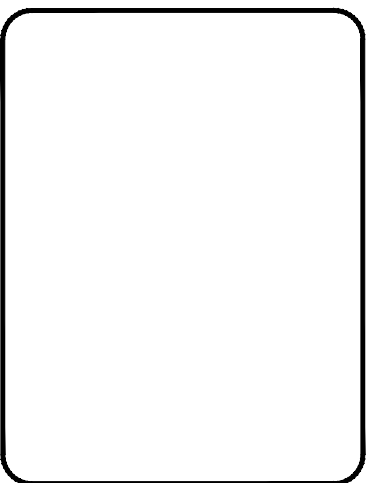
- PLANTING NOTES:**
1. ZONE A: STREAM BANKS TO BE MATTED WITH FIBERWONDERS COIR MAT C-700 OR APPROVED EQUAL. PLACE RIPARIAN SEED, EROSION CONTROL SEED AND THIN LAYER OF STRAW PRIOR TO MATTING INSTALLATION.
 2. ZONE B: TO BE MATTED WITH CURLEX TYPE II OR APPROVED EQUAL. PLACE RIPARIAN SEED EROSION CONTROL SEED AND THIN LAYER OF STRAW PRIOR TO MATTING INSTALLATION.
 3. ZONE C: PERMANENT SEED AND STRAW GRASS SPECIES TO MATCH EXISTING LAWN TURF. CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNERS TO SELECT APPROVED SEED.
 4. PLANTING STOCK TO BE GROWN BY NURSERIES WITHIN THE SAME PHYSIOGRAPHIC REGION (PIEDMONT) AND WITHIN 200 MILES OF THE PROJECT SITE.
 5. RIPARIAN SEED MIX ERNST CONSERVATION SEEDS NC PIEDMONT RIPARIAN SEED MIX OR APPROVED EQUAL BY DESIGNER. APPLICATION RATE 25 LBS/AC.
 6. TEMPORARY SEED TO BE PLACED WITH PERMANENT SEED.
 7. FERTILIZER RECOMMENDATIONS CONTRACTOR TO FIELD VERIFY WITH ON SITE SOIL CONDITIONS:
LIME 1/2 TON/AC
PHOSPHATE 20-40 LBS/AC
POTASH 50-70 LBS/AC
WATERING REQUIREMENTS: ONCE/WEEK IF NO RAIN
 8. STABILIZATION MEASURES TO BE PLACED WITHIN THE LIMITS OF ALL DISTURBED AREAS. PLANTING AREAS SHOWN APPROXIMATE LIMITS OF DISTURBANCE.

PLANTING ZONES				
ZONE	RIPARIAN SEED (SY)	STRAW MULCH(SY)	CURLEX TYPE II (SY)	C700 MATTING (SY)
A	760			760
B	1235		1235	
C		1305		
Totals	1995	1305	1235	760



OVERALL
SITE FINISHING PLAN

PLAN TYPE: SITE
SHEET NUMBER: C600



FAYETTEVILLE:
AMERICA'S CAN DO CITY

ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501



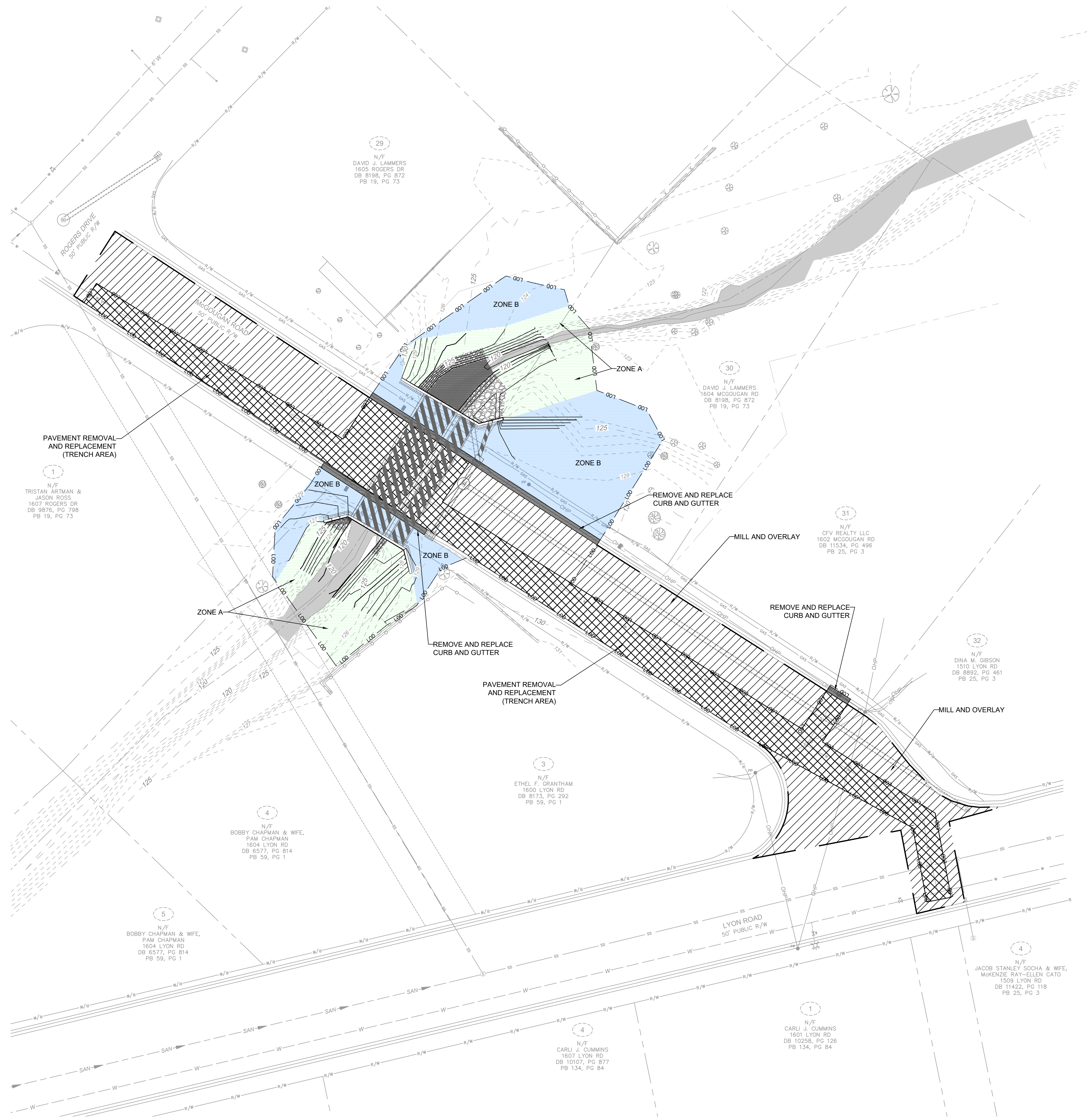
REV. #	DESCRIPTION	REV. BY	DATE

CONSTRUCTION SET

PROJECT: IVY AND LYON ROAD
DRAWN: SHANE VANDERGRIFT
DESIGN: CHRIS ROGERS
CHECK: DAVID DUNGAN
APPROVED: _____

PROJECT NO.: 54960.001
SUB-LEDGER NO.: _____

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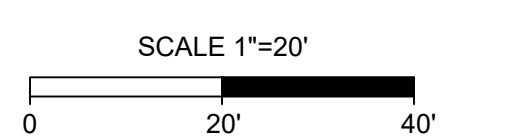


- PLANTING NOTES:**
1. ZONE A: STREAM BANKS TO BE MATTED WITH FIBERWONDERS COIR MAT C-700 OR APPROVED EQUAL. PLACE RIPARIAN SEED, EROSION CONTROL SEED AND THIN LAYER OF STRAW PRIOR TO MATTING INSTALLATION.
 2. ZONE B: TO BE MATTED WITH CURLEX TYPE II OR APPROVED EQUAL. PLACE RIPARIAN SEED EROSION CONTROL SEED AND THIN LAYER OF STRAW PRIOR TO MATTING INSTALLATION.
 3. ZONE C: PERMANENT SEED AND STRAW GRASS SPECIES TO MATCH EXISTING LAWN TURF. CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNERS TO SELECT APPROVED SEED.
 4. PLANTING STOCK TO BE GROWN BY NURSERIES WITHIN THE SAME PHYSIOGRAPHIC REGION (PIEDMONT) AND WITHIN 200 MILES OF THE PROJECT SITE.
 5. RIPARIAN SEED MIX ERNST CONSERVATION SEEDS NC PIEDMONT RIPARIAN SEED MIX OR APPROVED EQUAL BY DESIGNER. APPLICATION RATE 25 LBS/AC.
 6. TEMPORARY SEED TO BE PLACED WITH PERMANENT SEED.
 7. FERTILIZER RECOMMENDATIONS CONTRACTOR TO FIELD VERIFY WITH ON SITE SOIL CONDITIONS:
LIME 1/2 TON/AC
PHOSPHATE 20-40 LBS/AC
POTASH 50-70 LBS/AC
WATERING REQUIREMENTS: ONCE/WEEK IF NO RAIN
 8. STABILIZATION MEASURES TO BE PLACED WITHIN THE LIMITS OF ALL DISTURBED AREAS. PLANTING AREAS SHOWN APPROXIMATE LIMITS OF DISTURBANCE.

PLANTING ZONES				
ZONE	RIPARIAN SEED (SY)	STRAW MULCH(SY)	CURLEX TYPE II	C700 MATTING (SY)
A	362			362
B	575		575	
Totals	937	0	575	362

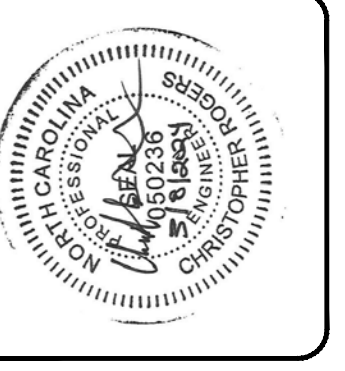
LEGEND

- 165 - - - - - EXISTING MINOR CONTOURS
- 165 - - - - - EXISTING MAJOR CONTOURS
- RIGHT OF WAY
- PROPERTY LINE
- STREAM CENTERLINE
- EXISTING STORM DRAINAGE
- EXISTING FENCE
- EXISTING SPLIT RAIL FENCE
- EXISTING TREE
- LIMITS OF CONSTRUCTION
- LIMITS OF DISTURBANCE
- LDD - - - - - LIMITS OF DISTURBANCE
- [Cross-hatched pattern] PAVEMENT REMOVAL AND REPLACEMENT
- [Diagonal lines pattern] MILL AND OVERLAY
- [Horizontal lines pattern] CURB AND GUTTER REMOVAL AND REPLACEMENT
- [Stippled pattern] CONCRETE SIDEWALK/DRIVEWAY REPLACEMENT
- [Dotted pattern] GRAVEL DRIVEWAY REPLACEMENT
- [Light green fill] ZONE A PLANTING
- [Light blue fill] ZONE B PLANTING
- [Red fill] ZONE C PLANTING
- [Stippled pattern] ROCK TOE
- [Cross-hatched pattern] RIPRAP
- [Dark grey fill] EMBEDDED RIPRAP



SITE FINISHING
PLAN TYPE: SITE
SHEET NUMBER: C601

FAYETTEVILLE:
AMERICA'S CAN DO CITY
ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501



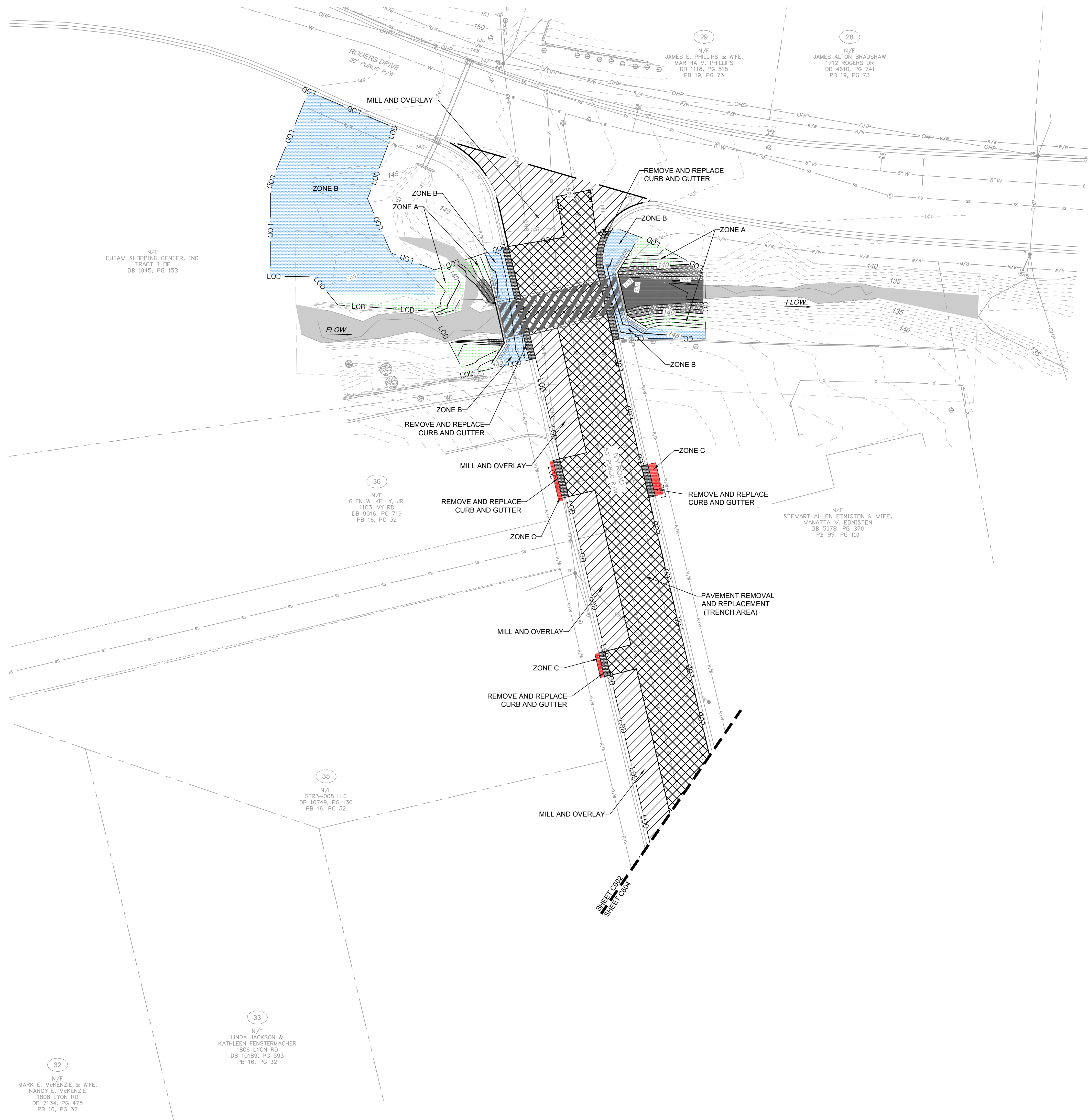
CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

DRAWN : SHANE VANDERGRIFT
PROJECT : IVY AND LYON ROAD
DESIGN : CHRIS ROGERS NAME : DRAINAGE IMPROVEMENTS
CHECK : DAVID DUNCAN SCALE : 1"=20'
APPROVED : DATE : 03/08/2024

PROJECT NO. : 54960.001
SUB-LEDGER NO. : _____

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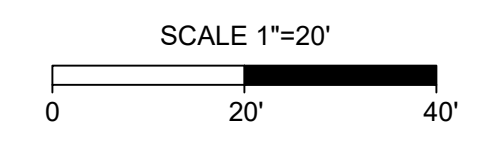


- PLANTING NOTES:**
1. ZONE A: STREAM BANKS TO BE MATTED WITH FIBERWONDERS COIR MAT C-700 OR APPROVED EQUAL. PLACE RIPARIAN SEED, EROSION CONTROL SEED AND THIN LAYER OF STRAW PRIOR TO MATTING INSTALLATION.
 2. ZONE B: TO BE MATTED WITH CURLEX TYPE II OR APPROVED EQUAL. PLACE RIPARIAN SEED EROSION CONTROL SEED AND THIN LAYER OF STRAW PRIOR TO MATTING INSTALLATION.
 3. ZONE C: PERMANENT SEED AND STRAW GRASS SPECIES TO MATCH EXISTING LAWN TURF. CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNERS TO SELECT APPROVED SEED. (PIEDMONT) AND WITHIN 200 MILES OF THE PROJECT SITE.
 4. RIPARIAN SEED MIX ERNST CONSERVATION SEEDS NC PIEDMONT RIPARIAN SEED MIX OR APPROVED EQUAL BY DESIGNER. APPLICATION RATE 25 LBS/AC.
 5. RIPARIAN SEED MIX ERNST CONSERVATION SEEDS NC PIEDMONT RIPARIAN SEED MIX OR APPROVED EQUAL BY DESIGNER. APPLICATION RATE 25 LBS/AC.
 6. TEMPORARY SEED TO BE PLACED WITH PERMANENT SEED.
 7. FERTILIZER RECOMMENDATIONS CONTRACTOR TO FIELD VERIFY WITH ON SITE SOIL CONDITIONS:
LIME 1/2 TON/AC
PHOSPHATE 20-40 LBS/AC
POTASH 50-70 LBS/AC
WATERING REQUIREMENTS: ONCE/WEEK IF NO RAIN
 8. STABILIZATION MEASURES TO BE PLACED WITHIN THE LIMITS OF ALL DISTURBED AREAS. PLANTING AREAS SHOWN APPROXIMATE LIMITS OF DISTURBANCE.

PLANTING ZONES				
ZONE	RIPARIAN SEED (SY)	STRAW MULCH(SY)	CURLEX TYPE II (SY)	C700 MATTING (SY)
A	125			125
B	462		462	
C		8		
Totals	587	8	462	125

LEGEND

- 166 - - - - - EXISTING MINOR CONTOURS
- 165 - - - - - EXISTING MAJOR CONTOURS
- RIGHT OF WAY
- PROPERTY LINE
- STREAM CENTERLINE
- EXISTING STORM DRAINAGE
- X X X X X EXISTING FENCE
- X X X X X EXISTING SPLIT RAIL FENCE
- ○ ○ ○ ○ EXISTING TREE
- LIMITS OF CONSTRUCTION
- LIMITS OF DISTURBANCE
- [Cross-hatched] PAVEMENT REMOVAL AND REPLACEMENT
- [Diagonal lines] MILL AND OVERLAY
- [Hatched] CURB AND GUTTER REMOVAL AND REPLACEMENT
- [Dotted] CONCRETE SIDEWALK/DRIVEWAY REPLACEMENT
- [Stippled] GRAVEL DRIVEWAY REPLACEMENT
- [Green] ZONE A PLANTING
- [Blue] ZONE B PLANTING
- [Red] ZONE C PLANTING
- [Stippled] ROCK TOE
- [Stippled] RIPRAP
- [Stippled] EMBEDDED RIPRAP



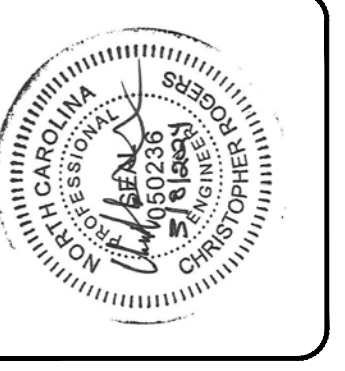
SITE FINISHING

PLAN TYPE: **SITE**

SHEET NUMBER: **C602**

FAYETTEVILLE:
AMERICA'S CAN DO CITY

ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28501

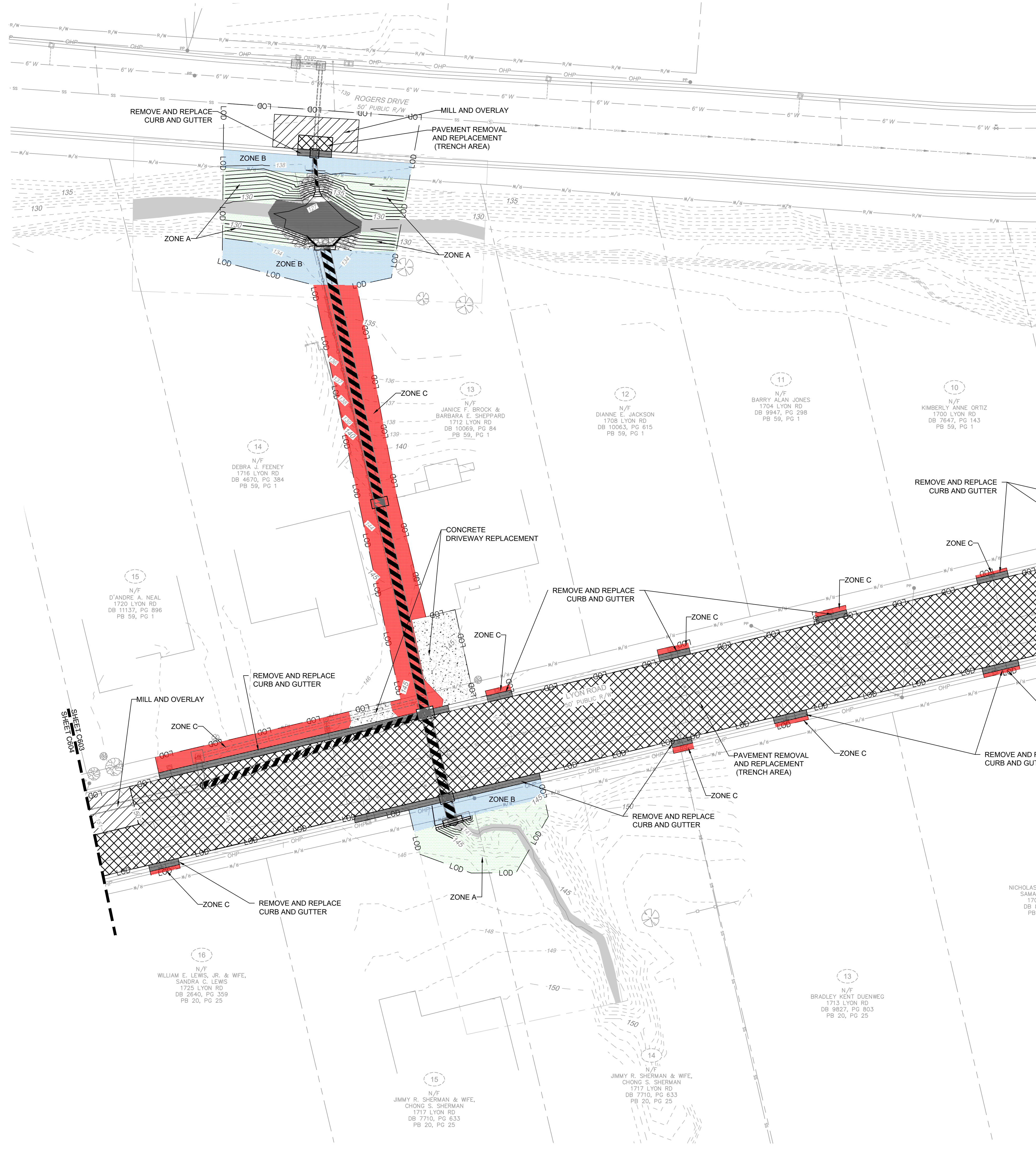


CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

DRAWN : SHANE VANDERGRIFT
PROJECT : IVY AND LYON ROAD
DESIGN : CHRIS ROGERS NAME : DRAINAGE IMPROVEMENTS
CHECK : DAVID DUNCAN SCALE : 1"=20'
APPROVED : DATE : 03/08/2024

PROJECT NO. : 54960.001
SUB-LEDGER NO. : _____



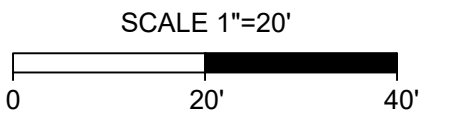
- PLANTING NOTES:**
1. ZONE A: STREAM BANKS TO BE MATTED WITH FIBERWONDERS COIR MAT C-700 OR APPROVED EQUAL. PLACE RIPARIAN SEED, EROSION CONTROL SEED AND THIN LAYER OF STRAW PRIOR TO MATTING INSTALLATION.
 2. ZONE B: TO BE MATTED WITH CURLEX TYPE II OR APPROVED EQUAL. PLACE RIPARIAN SEED, EROSION CONTROL SEED AND THIN LAYER OF STRAW PRIOR TO MATTING INSTALLATION.
 3. ZONE C: PERMANENT SEED AND STRAW GRASS SPECIES TO MATCH EXISTING LAWN TURF. CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNERS TO SELECT APPROVED SEED.
 4. PLANTING STOCK TO BE GROWN BY NURSERIES WITHIN THE SAME PHYSIOGRAPHIC REGION (PIEDMONT) AND WITHIN 200 MILES OF THE PROJECT SITE.
 5. RIPARIAN SEED MIX ERNST CONSERVATION SEEDS NC PIEDMONT RIPARIAN SEED MIX OR APPROVED EQUAL BY DESIGNER. APPLICATION RATE 25 LBS/AC.
 6. TEMPORARY SEED TO BE PLACED WITH PERMANENT SEED.
 7. FERTILIZER RECOMMENDATIONS CONTRACTOR TO FIELD VERIFY WITH ON SITE SOIL CONDITIONS:
LIME 1/2 TON/AC
PHOSPHATE 20-40 LBS/AC
POTASH 50-70 LBS/AC
 8. WATERING REQUIREMENTS: ONCE/WEEK IF NO RAIN
STABILIZATION MEASURES TO BE PLACED WITHIN THE LIMITS OF ALL DISTURBED AREAS. PLANTING AREAS SHOWN APPROXIMATE LIMITS OF DISTURBANCE.

PLANTING ZONES	RIPARIAN SEED (SY)	STRAW MULCH(SY)	CURLEX TYPE II (SY)	C700 MATTING (SY)
A	232			232
B	196		196	
C		368		
Totals	428	368	196	232

- 9 N/F PAUL W. TAYLOR 1624 LYON RD DB 9975, PG 745 PB 59, PG 1
- 10 N/F KIMBERLY ANNE ORTIZ 1700 LYON RD DB 7647, PG 143 PB 59, PG 1
- 11 N/F BARRY ALAN JONES 1704 LYON RD DB 8947, PG 298 PB 59, PG 1
- 12 N/F DIANNE E. JACKSON 1708 LYON RD DB 10063, PG 615 PB 59, PG 1
- 13 N/F JANICE F. BROOK & BARBARA E. SHEPPARD 1712 LYON RD DB 10069, PG 84 PB 59, PG 1
- 14 N/F DEBRA J. FEENEY 1716 LYON RD DB 4670, PG 384 PB 59, PG 1
- 15 N/F D'ANDRE A. NEAL 1720 LYON RD DB 11137, PG 896 PB 59, PG 1
- 16 N/F WILLIAM E. LEWIS, JR. & WIFE, SANDRA C. LEWIS 1725 LYON RD DB 2640, PG 359 PB 20, PG 25
- 17 N/F JIMMY R. SHERMAN & WIFE, CHONG S. SHERMAN 1717 LYON RD DB 7710, PG 633 PB 20, PG 25
- 18 N/F JIMMY R. SHERMAN & WIFE, CHONG S. SHERMAN 1717 LYON RD DB 7710, PG 633 PB 20, PG 25
- 19 N/F BRADLEY KENT DUENWEG 1713 LYON RD DB 9827, PG 803 PB 20, PG 25
- 20 N/F NICHOLAS TILLMAN & WIFE, SAMANTHA TILLMAN 1709 LYON RD DB 8618, PG 681 PB 20, PG 25
- 21 N/F BARBARA J. McMAHAN 1705 LYON RD DB 4914, PG 431 PB 20, PG 25

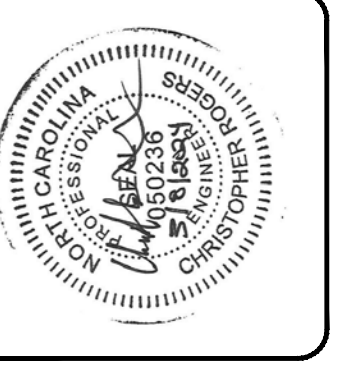
LEGEND

- 166 - - - - - EXISTING MINOR CONTOURS
- 165 - - - - - EXISTING MAJOR CONTOURS
- RIGHT OF WAY
- PROPERTY LINE
- STREAM CENTERLINE
- EXISTING STORM DRAINAGE
- X X X EXISTING FENCE
- o o o EXISTING SPLIT RAIL FENCE
- o o EXISTING TREE
- LOD LOD LIMITS OF CONSTRUCTION
- LOD LOD LIMITS OF DISTURBANCE
- [Cross-hatch pattern] PAVEMENT REMOVAL AND REPLACEMENT
- [Diagonal lines] MILL AND OVERLAY
- [Stippled pattern] CURB AND GUTTER REMOVAL AND REPLACEMENT
- [Dotted pattern] CONCRETE SIDEWALK/DRIVEWAY REPLACEMENT
- [Horizontal lines] GRAVEL DRIVEWAY REPLACEMENT
- [Green shading] ZONE A PLANTING
- [Blue shading] ZONE B PLANTING
- [Red shading] ZONE C PLANTING
- [Red line] ROCK TOE
- [Stippled pattern] RIPRAP
- [Cross-hatch pattern] EMBEDDED RIPRAP



SITE FINISHING
 PLAN TYPE: SITE
 SHEET NUMBER: C603

FAYETTEVILLE:
 AMERICA'S CAN DO CITY
 ENGINEERING DIVISION
 ENGINEERING & INFRASTRUCTURE DEPARTMENT
 439 HAY STREET FAYETTEVILLE, NC 28501



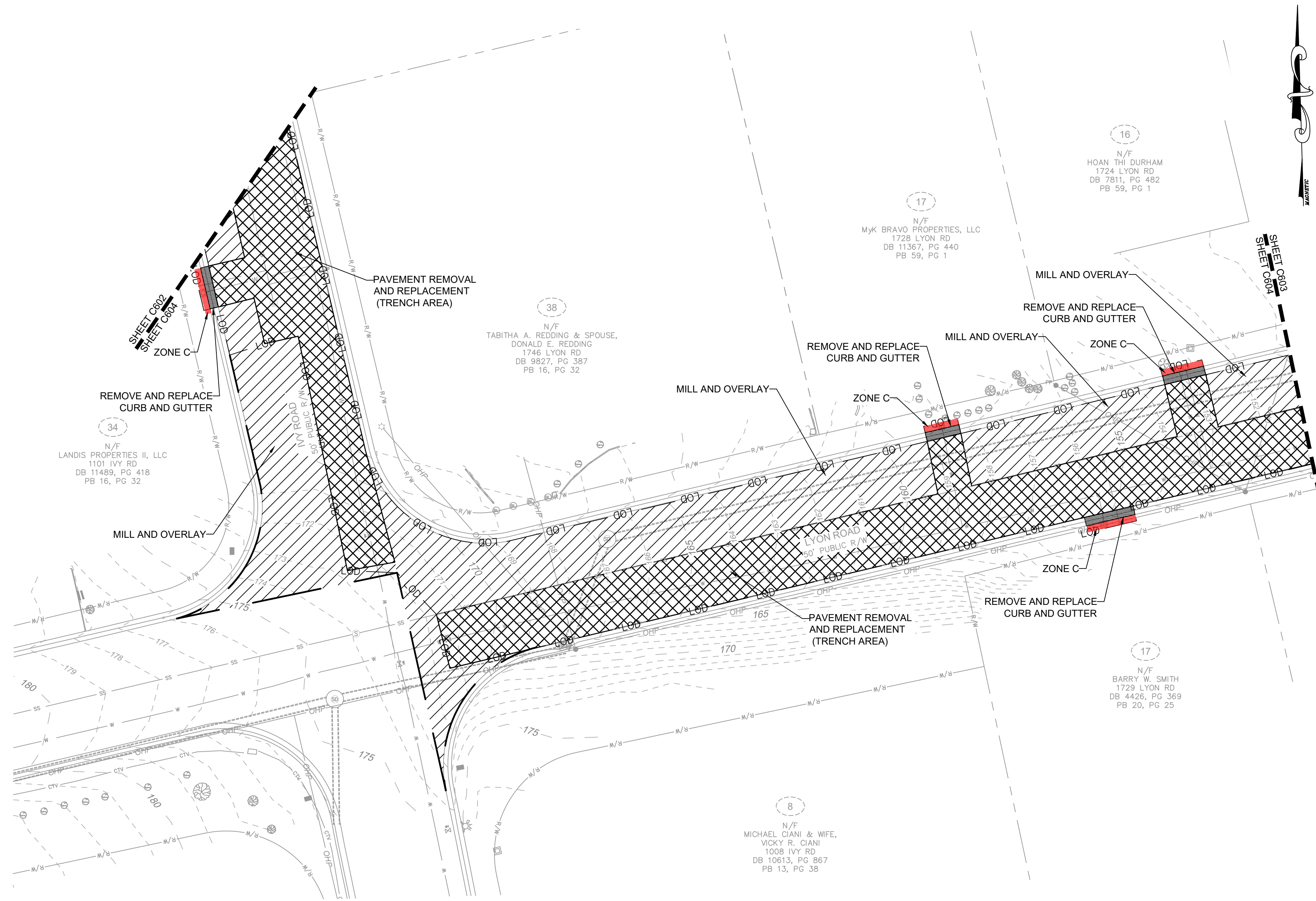
CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

PROJECT NO. 54960.001
 SUB-LEDGER NO. _____
 PROJECT: IVY AND LYON ROAD DRAINAGE IMPROVEMENTS
 NAME: DRAINAGE IMPROVEMENTS
 CHECK: CHRIS ROGERS
 SCALE: 1"=20'
 APPROVED: DAVID DUNCAN
 DATE: 03/08/2024

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PLANTING NOTES:

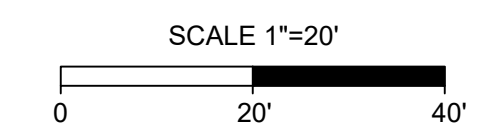
1. ZONE A: STREAM BANKS TO BE MATTED WITH FIBERWONDERS COIR MAT C-700 OR APPROVED EQUAL. PLACE RIPARIAN SEED, EROSION CONTROL SEED AND THIN LAYER OF STRAW PRIOR TO MATTING INSTALLATION.
2. ZONE B: TO BE MATTED WITH CURLEX TYPE II OR APPROVED EQUAL. PLACE RIPARIAN SEED EROSION CONTROL SEED AND THIN LAYER OF STRAW PRIOR TO MATTING INSTALLATION.
3. ZONE C: PERMANENT SEED AND STRAW GRASS SPECIES TO MATCH EXISTING LAWN TURF. CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNERS TO SELECT APPROVED SEED.
4. PLANTING STOCK TO BE GROWN BY NURSERIES WITHIN THE SAME PHYSIOGRAPHIC REGION (PIEDMONT) AND WITHIN 200 MILES OF THE PROJECT SITE.
5. RIPARIAN SEED MIX ERNST CONSERVATION SEEDS NC PIEDMONT RIPARIAN SEED MIX OR APPROVED EQUAL BY DESIGNER. APPLICATION RATE 25 LBS/AC.
6. TEMPORARY SEED TO BE PLACED WITH PERMANENT SEED.
7. FERTILIZER RECOMMENDATIONS CONTRACTOR TO FIELD VERIFY WITH ON SITE SOIL CONDITIONS:
LIME 1/2 TON/AC
PHOSPHATE 20-40 LBS/AC
POTASH 50-70 LBS/AC
WATERING REQUIREMENTS: ONCE/WEK IF NO RAIN
STABILIZATION MEASURES TO BE PLACED WITHIN THE LIMITS OF ALL DISTURBED AREAS. PLANTING AREAS SHOWN APPROXIMATE LIMITS OF DISTURBANCE.

PLANTING ZONES

ZONE	RIPARIAN SEED (SY)	STRAW MULCH(SY)	CURLEX TYPE II (SY)	C700 MATTING (SY)
C		11		
Totals	0	11	0	0

LEGEND

- 166----- EXISTING MINOR CONTOURS
- 165----- EXISTING MAJOR CONTOURS
- RIGHT OF WAY
- PROPERTY LINE
- STREAM CENTERLINE
- EXISTING STORM DRAINAGE
- X X EXISTING FENCE
- o o EXISTING SPLIT RAIL FENCE
- o o EXISTING TREE
- LIMITS OF CONSTRUCTION
- LDD LDD LIMITS OF DISTURBANCE
- [Cross-hatch] PAVEMENT REMOVAL AND REPLACEMENT
- [Diagonal hatch] MILL AND OVERLAY
- [Horizontal hatch] CURB AND GUTTER REMOVAL AND REPLACEMENT
- [Dotted] CONCRETE SIDEWALK/DRIVEWAY REPLACEMENT
- [Stippled] GRAVEL DRIVEWAY REPLACEMENT
- [Green] ZONE A PLANTING
- [Blue] ZONE B PLANTING
- [Red] ZONE C PLANTING
- [Rock toe symbol] ROCK TOE
- [Riprap symbol] RIPRAP
- [Embedded riprap symbol] EMBEDDED RIPRAP



SITE FINISHING
 PLAN TYPE: SITE
 SHEET NUMBER: C604

FAYETTEVILLE:
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 439 HAY STREET FAYETTEVILLE, NC 28501

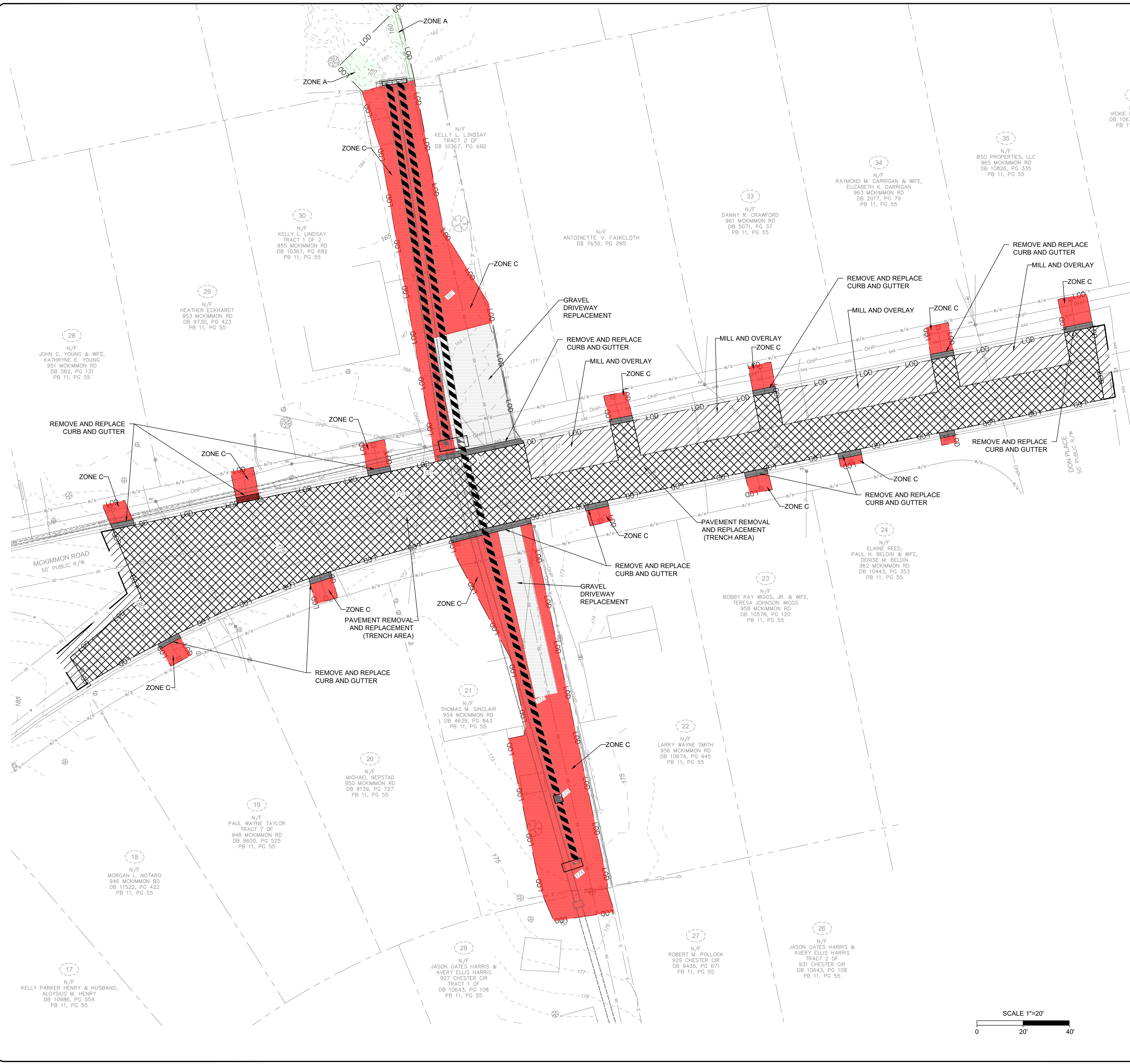


REV. #	DESCRIPTION	REV. BY	DATE

CONSTRUCTION SET

PROJECT NO. 54960.001
 SUB-LEDGER NO. _____
 PROJECT: IVY AND LYON ROAD DRAINAGE IMPROVEMENTS
 DRAWN: SHANE VANDERGRIFT
 DESIGN: CHRIS ROGERS
 CHECK: DAVID DUNGAN
 APPROVED: _____
 NAME: DRANGE IMPROVEMENTS
 SCALE: 1"=20'
 DATE: 03/08/2024

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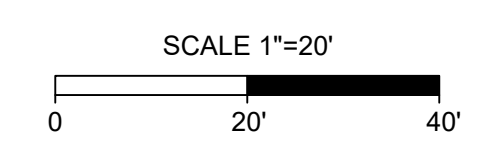


- PLANTING NOTES:**
- ZONE A: STREAM BANKS TO BE MATTED WITH FIBERWONDERS COIR MAT C-700 OR APPROVED EQUAL. PLACE RIPARIAN SEED, EROSION CONTROL SEED AND THIN LAYER OF STRAW PRIOR TO MATTING INSTALLATION.
 - ZONE B: TO BE MATTED WITH CURLEUX TYPE II OR APPROVED EQUAL. PLACE RIPARIAN SEED, EROSION CONTROL SEED AND THIN LAYER OF STRAW PRIOR TO MATTING INSTALLATION.
 - ZONE C: PERMANENT SEED AND STRAW GRASS SPECIES TO MATCH EXISTING LAWN TURF. CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNERS TO SELECT APPROVED SEED. PLANTING STOCK TO BE GROWN BY NURSERIES WITHIN THE SAME PHYSIOGRAPHIC REGION (PIEDMONT) AND WITHIN 200 MILES OF THE PROJECT SITE.
 - RIPIARIAN SEED MIX ERNST CONSERVATION SEEDS NC PIEDMONT RIPARIAN SEED MIX OR APPROVED EQUAL BY DESIGNER. APPLICATION RATE 25 LBS/AC.
 - TEMPORARY SEED TO BE PLACED WITH PERMANENT SEED.
 - FERTILIZER RECOMMENDATIONS CONTRACTOR TO FIELD VERIFY WITH ON SITE SOIL CONDITIONS: LIME 1/2 TON/AC, PHOSPHATE 20-40 LBS/AC, POTASH 50-70 LBS/AC.
 - WATERING REQUIREMENTS: ONCE/WEEK IF NO RAIN.
 - STABILIZATION MEASURES TO BE PLACED WITHIN THE LIMITS OF ALL DISTURBED AREAS. PLANTING AREAS SHOWN APPROXIMATE LIMITS OF DISTURBANCE.

PLANTING ZONES	RIPIARIAN SEED (SY)	STRAW MULCH(SY)	CURLEUX TYPE II (SY)	C700 MATTING (SY)
A	38			38
C		918		
Totals	38	918	0	38

LEGEND

- 166 - - - - - EXISTING MINOR CONTOURS
- 165 - - - - - EXISTING MAJOR CONTOURS
- _____ RIGHT OF WAY
- _____ PROPERTY LINE
- _____ STREAM CENTERLINE
- _____ EXISTING STORM DRAINAGE
- _____ EXISTING FENCE
- _____ EXISTING SPLIT RAIL FENCE
- _____ EXISTING TREE
- _____ LIMITS OF CONSTRUCTION
- _____ LIMITS OF DISTURBANCE
- _____ PAVEMENT REMOVAL AND REPLACEMENT
- _____ MILL AND OVERLAY
- _____ CURB AND GUTTER REMOVAL AND REPLACEMENT
- _____ CONCRETE SIDEWALK/DRIVEWAY REPLACEMENT
- _____ GRAVEL DRIVEWAY REPLACEMENT
- _____ ZONE A PLANTING
- _____ ZONE B PLANTING
- _____ ZONE C PLANTING
- _____ ROCK TOE
- _____ RIPRAP
- _____ EMBEDDED RIPRAP



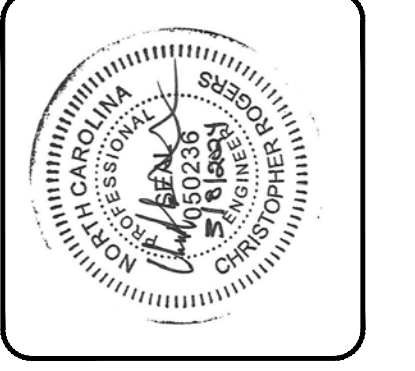
SITE FINISHING

PLAN TYPE: **SITE**

SHEET NUMBER: **C605**

FAYETTEVILLE:
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439 HAY STREET FAYETTEVILLE, NC 28401



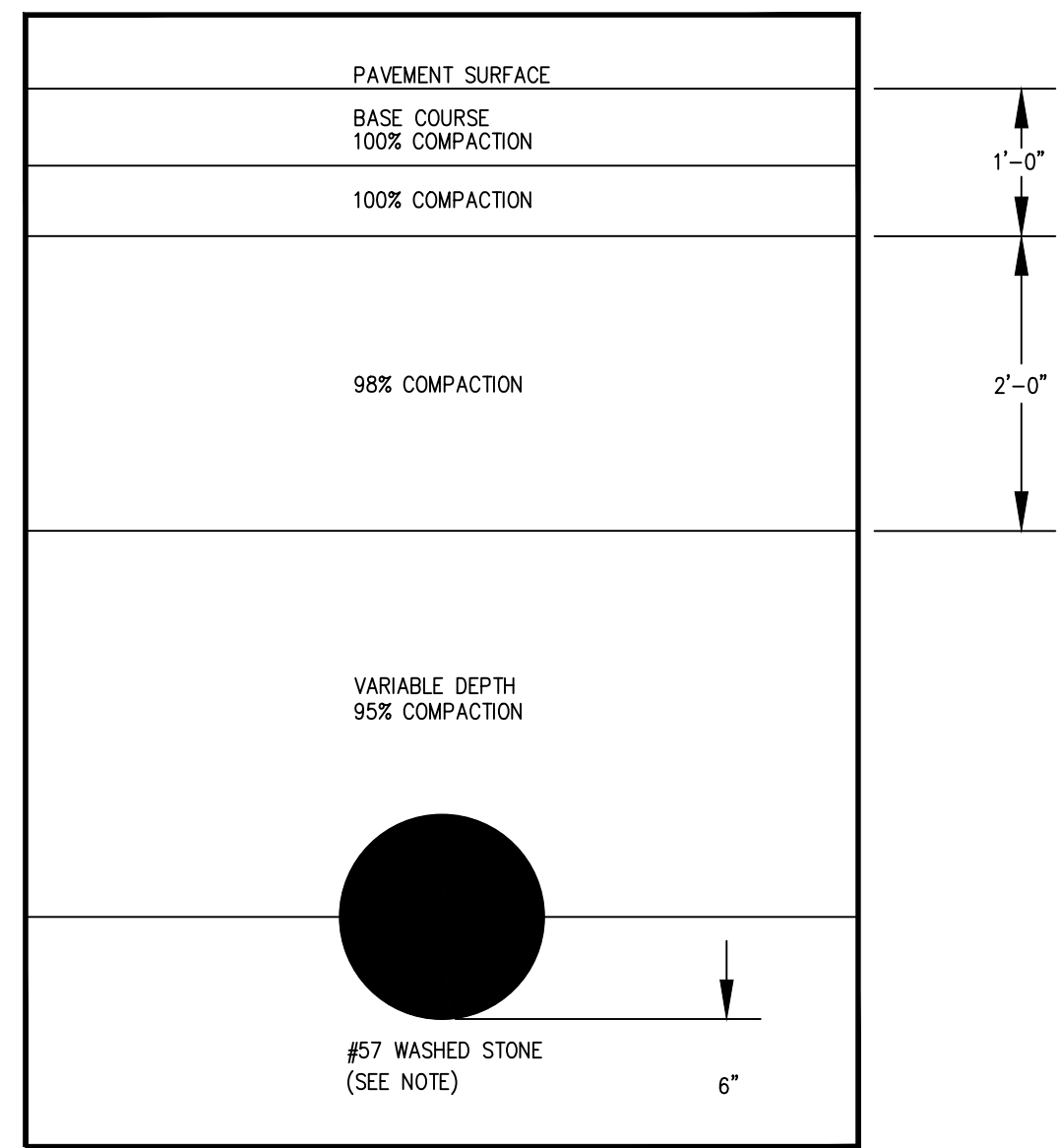
CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

PROJECT NO. **54960.001**

SUB-LEDGER NO. _____

PROJECT: IVY AND LYON ROAD
NAME: DRAINAGE IMPROVEMENTS
SCALE: 1"=20'
DATE: 03/08/2024



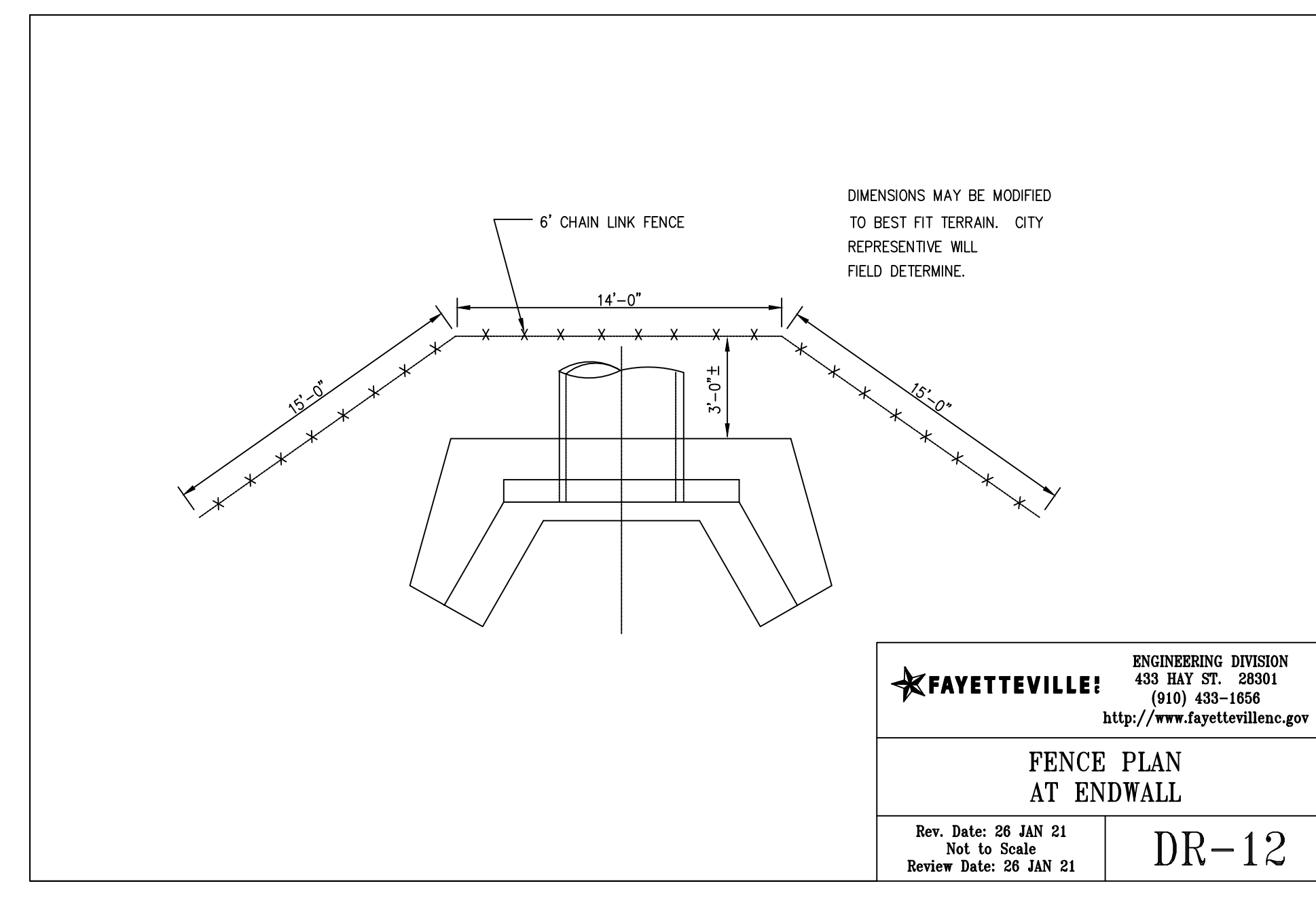
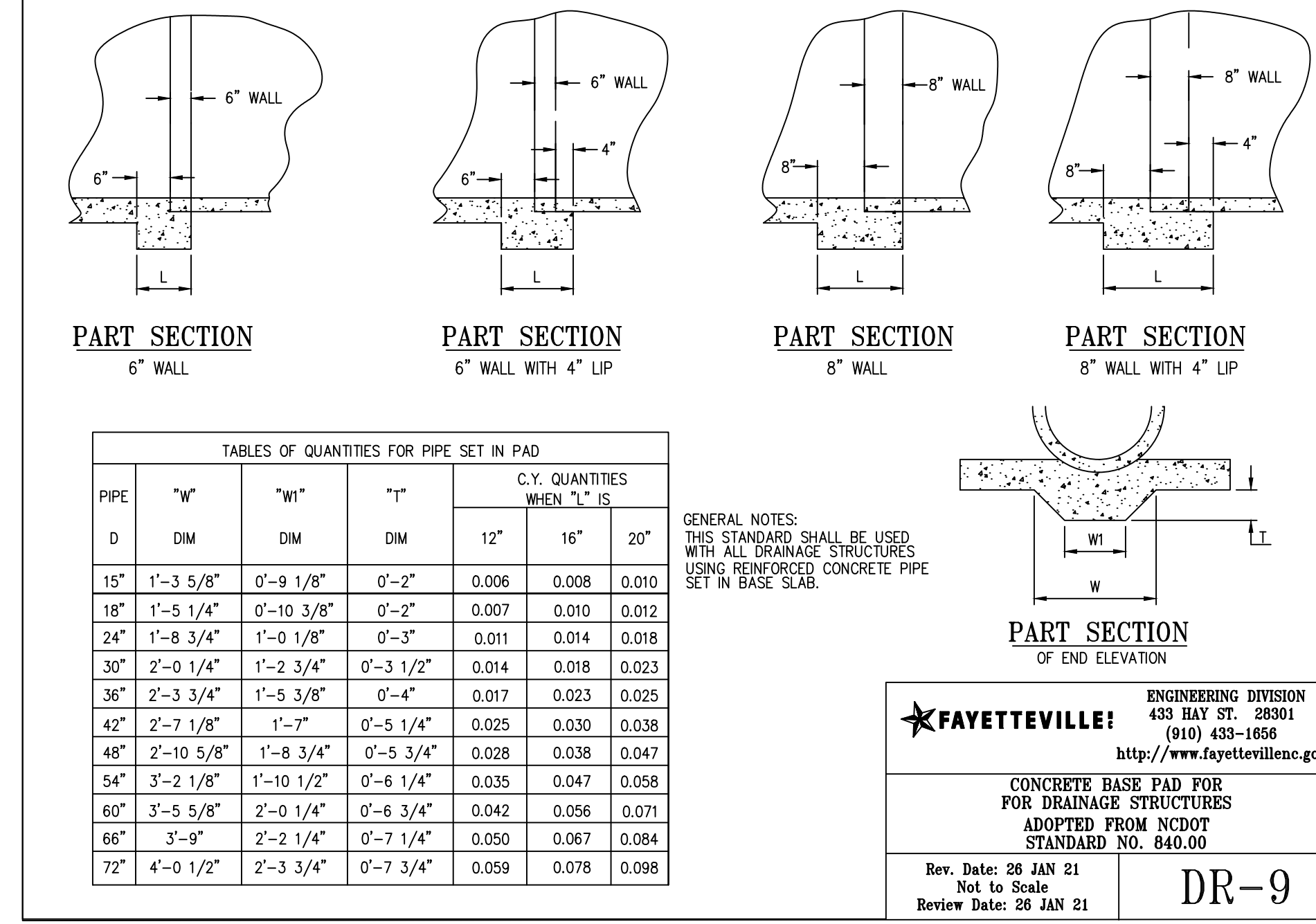
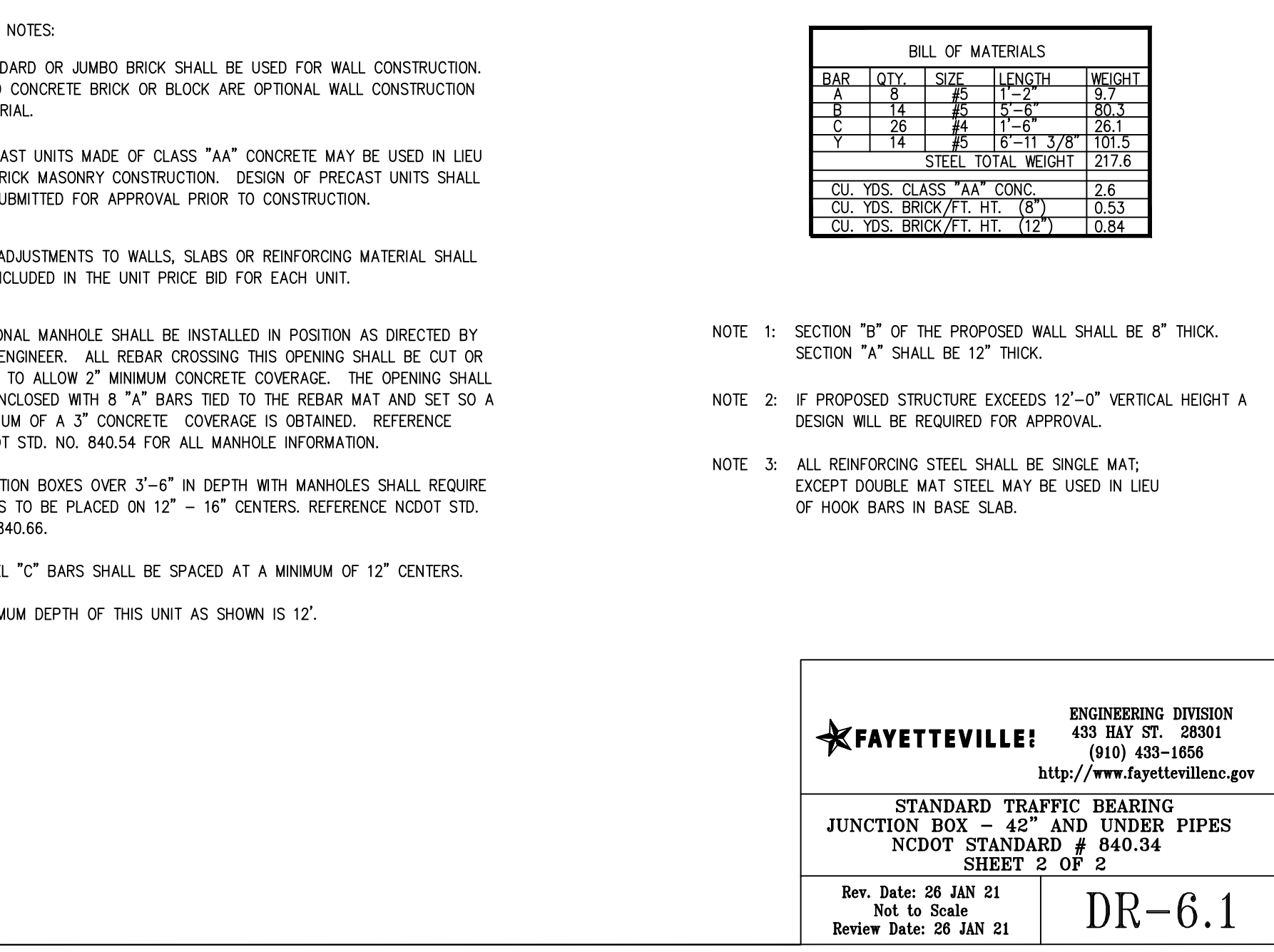
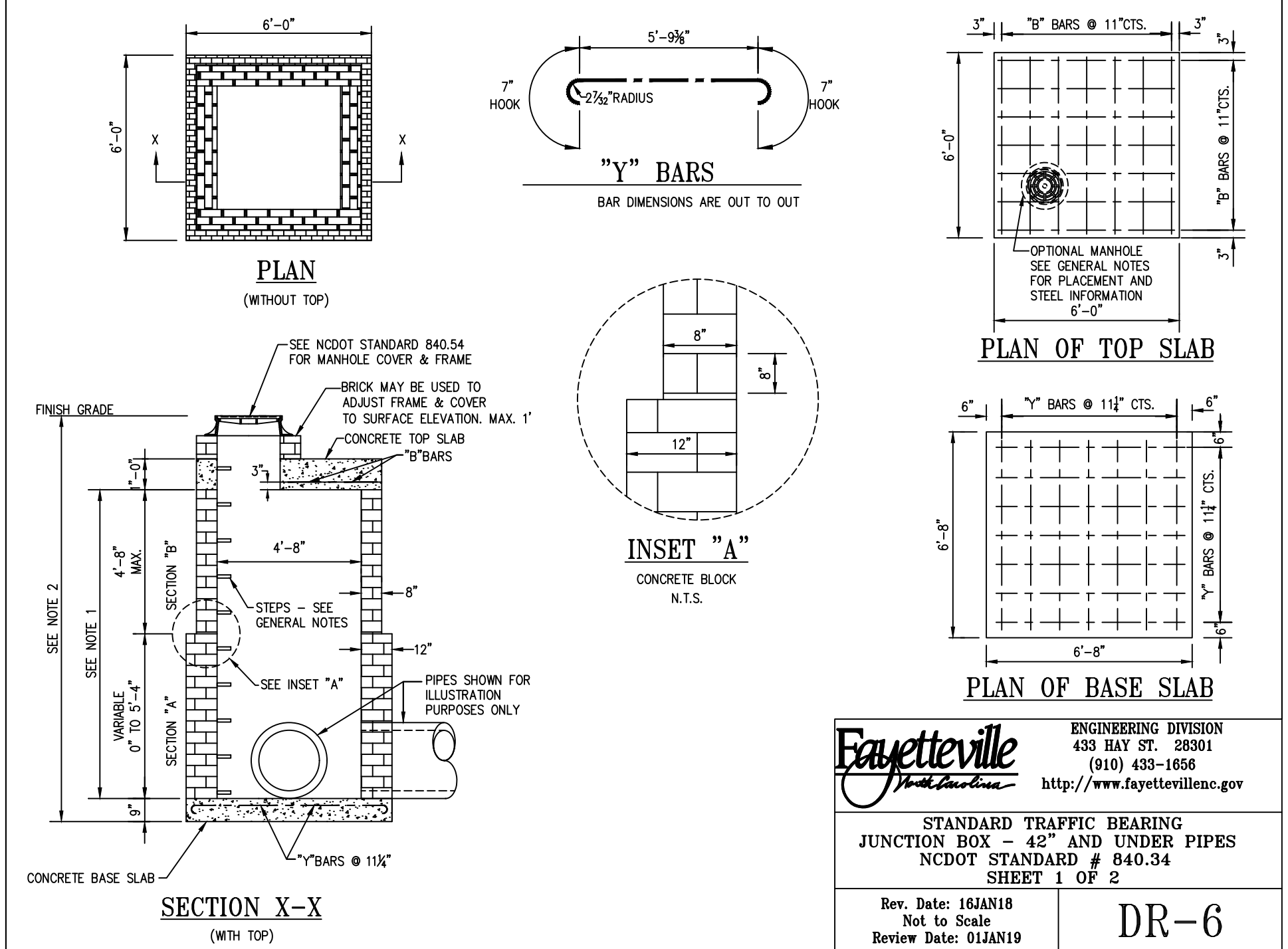
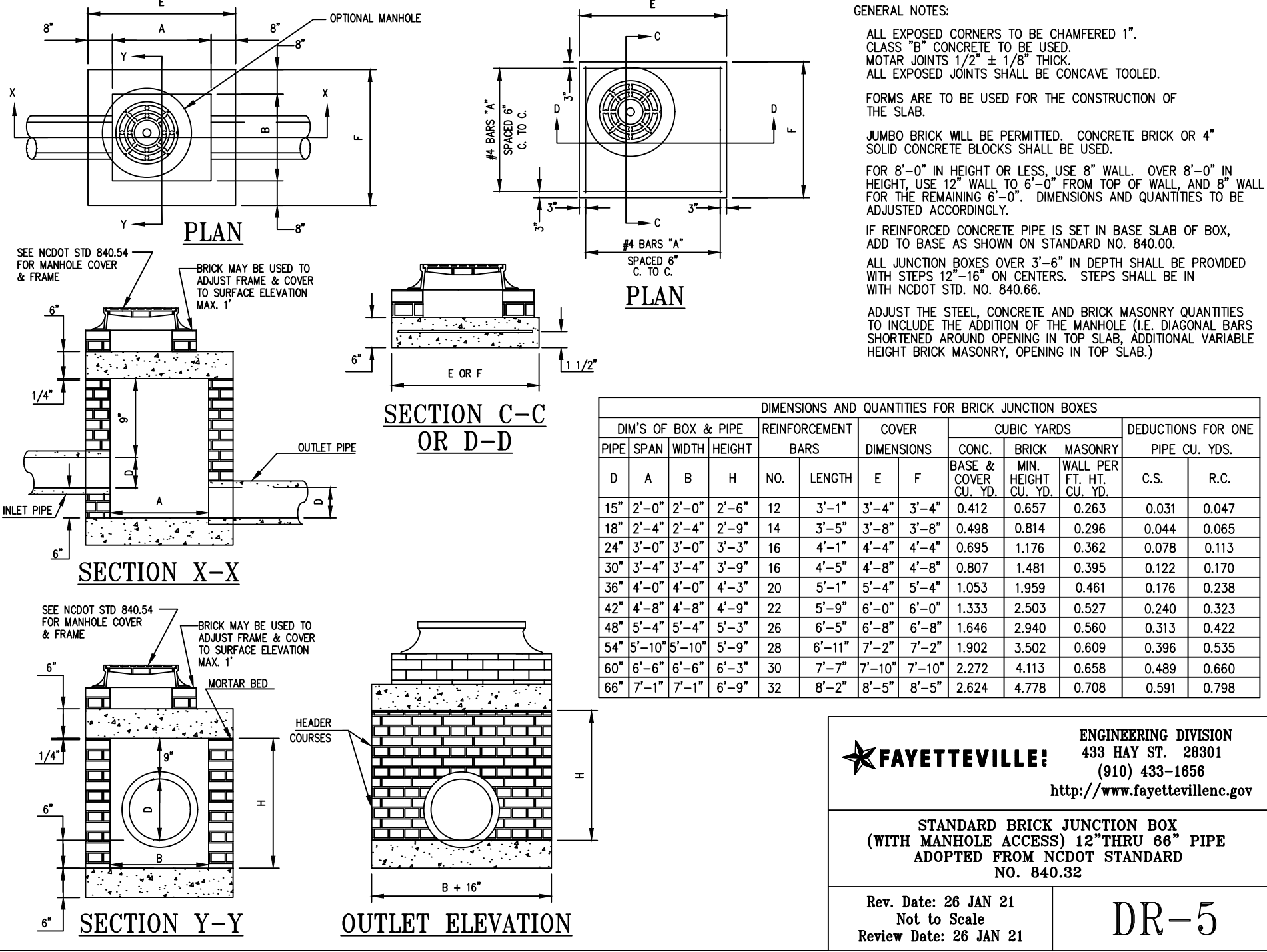
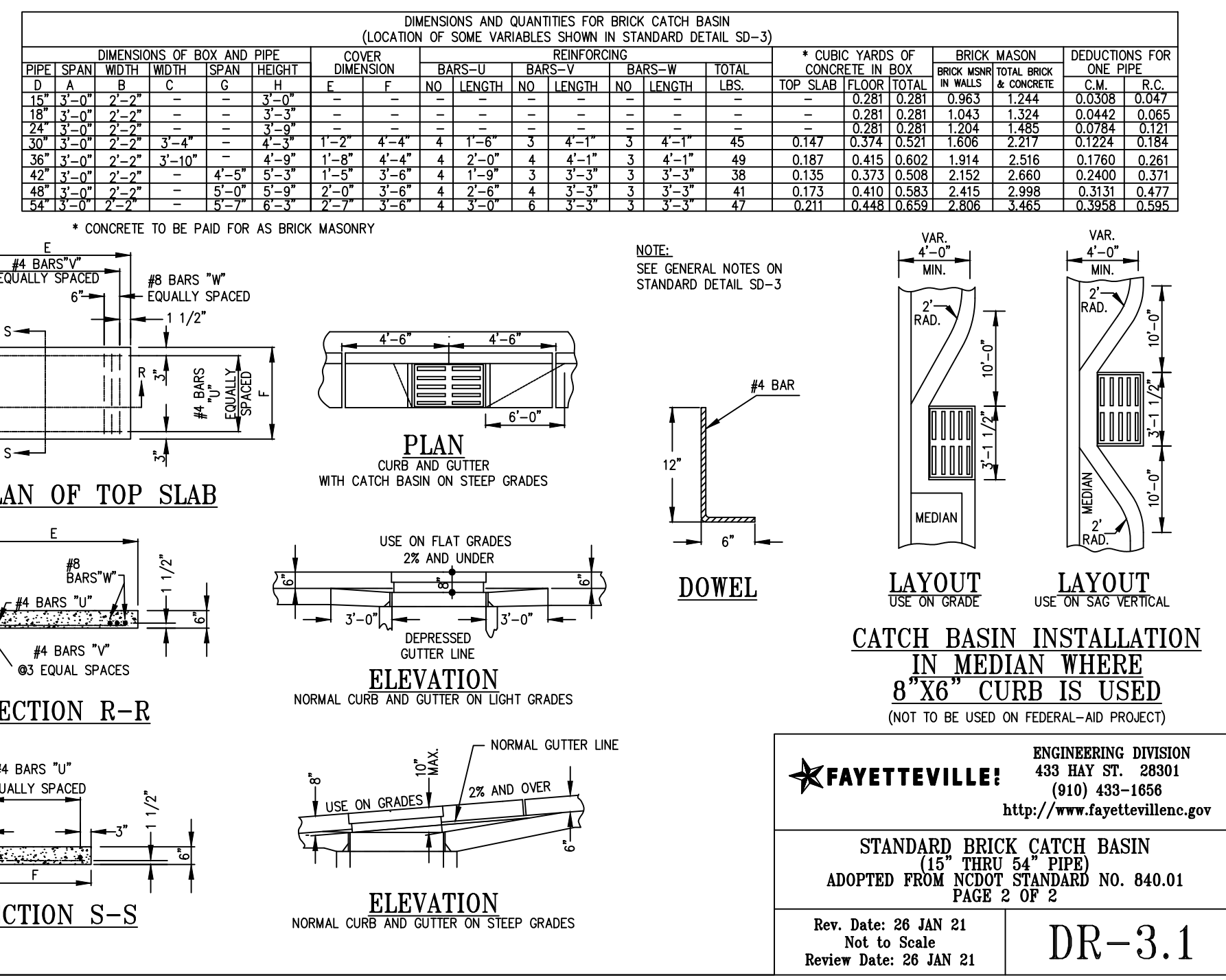
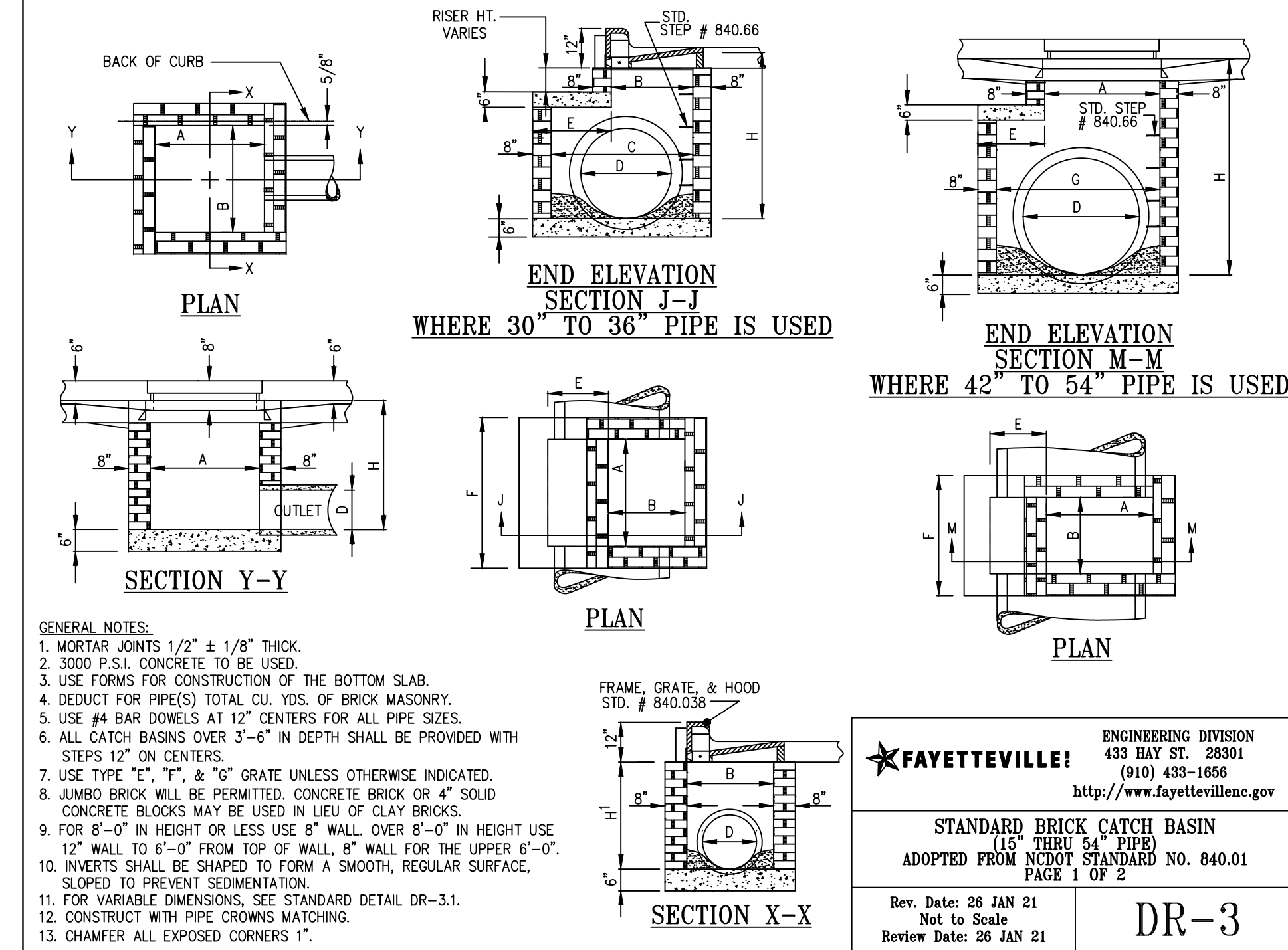
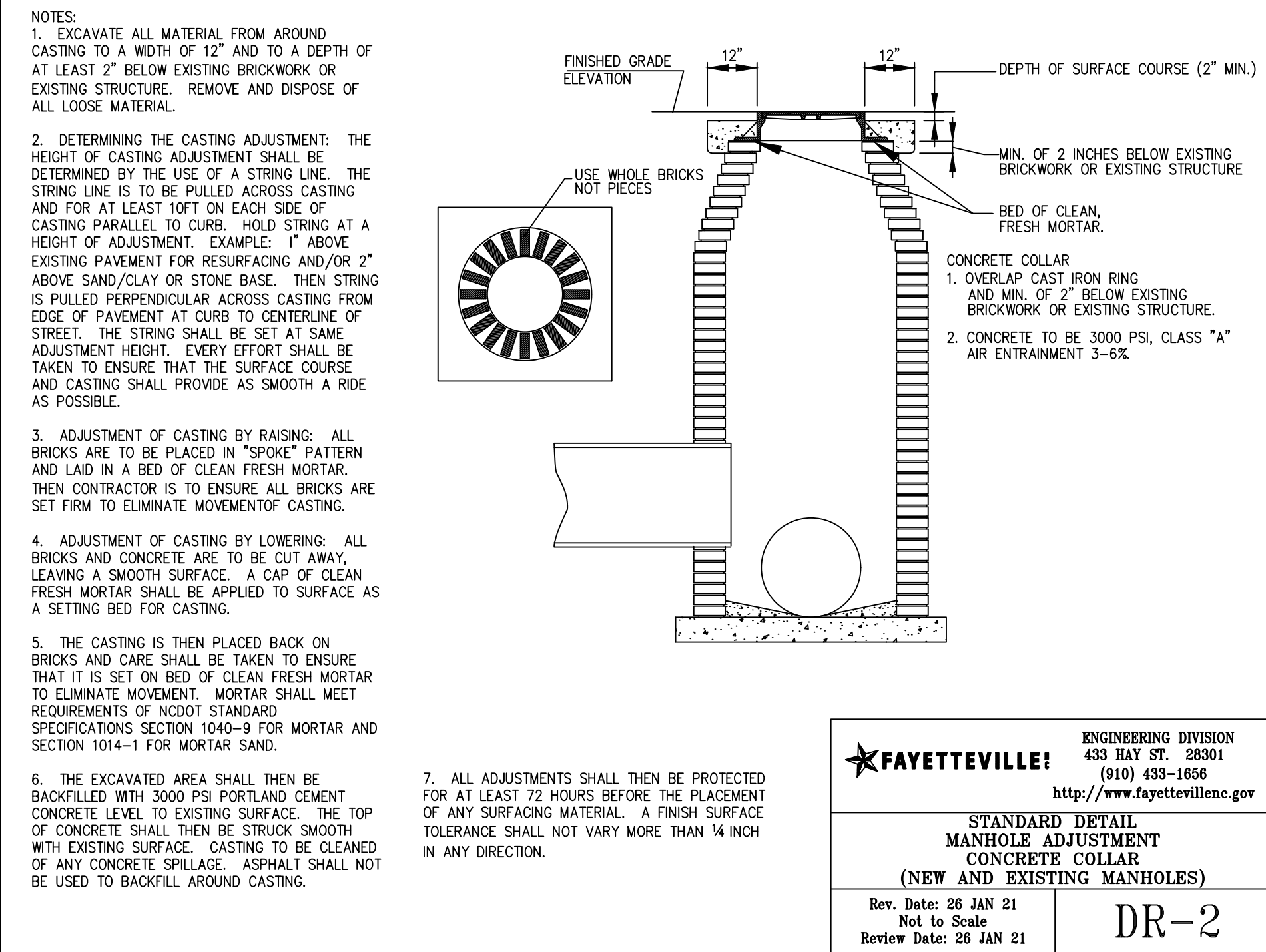
NOTES:
1. STONE BEDDING FOR PIPE IS REQUIRED UNLESS OTHERWISE APPROVED BY CITY ENGINEER OR THEIR DESIGNEE.

FAYETTEVILLE! ENGINEERING DIVISION
433 HAY ST. 28301
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<http://www.fayettevilenc.gov>

TYPICAL STORM DRAIN COMPACTION

Rev. Date: 26 JAN 21
Not to Scale
Review Date: 29 JAN 21

DR-1



FAYETTEVILLE!
AMERICA'S CAN DO CITY

ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
433 HAY STREET FAYETTEVILLE, NC 28301

CONSTRUCTION SET

PROJECT NO. 54960.001
SUB-LEDGER NO. _____

REVISIONS:

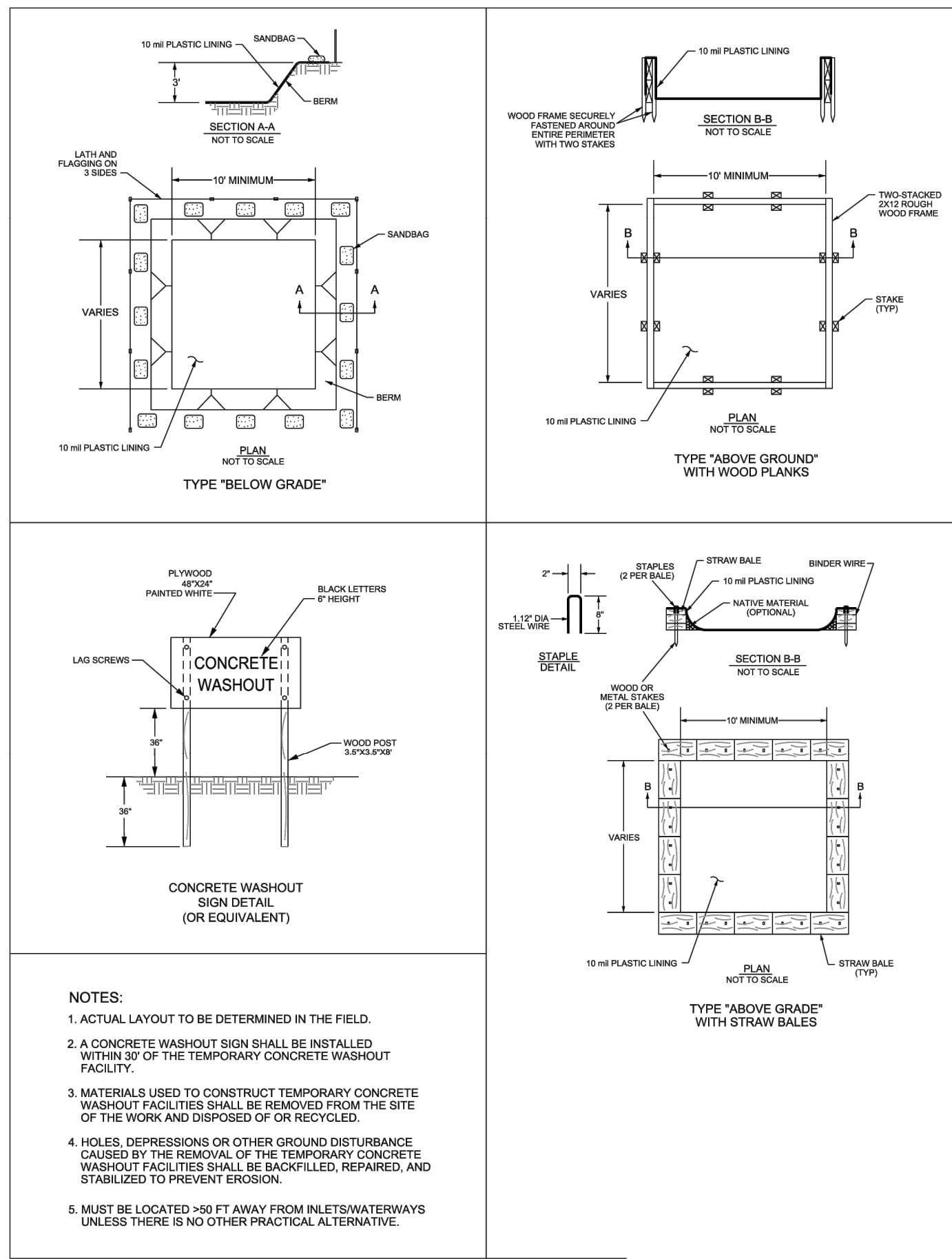
REV. #	DESCRIPTION	REV. BY	DATE

PROJECT: IVY AND LYON ROAD
DESIGN: CHRIS ROGERS
CHECK: DAVID DUNGAN
APPROVED: _____
SCALE: NTS
DATE: 03/08/2024

PROJECT NAME: DRAINAGE IMPROVEMENTS
SCALE: NTS
DATE: 03/08/2024

SHEET NUMBER
C701

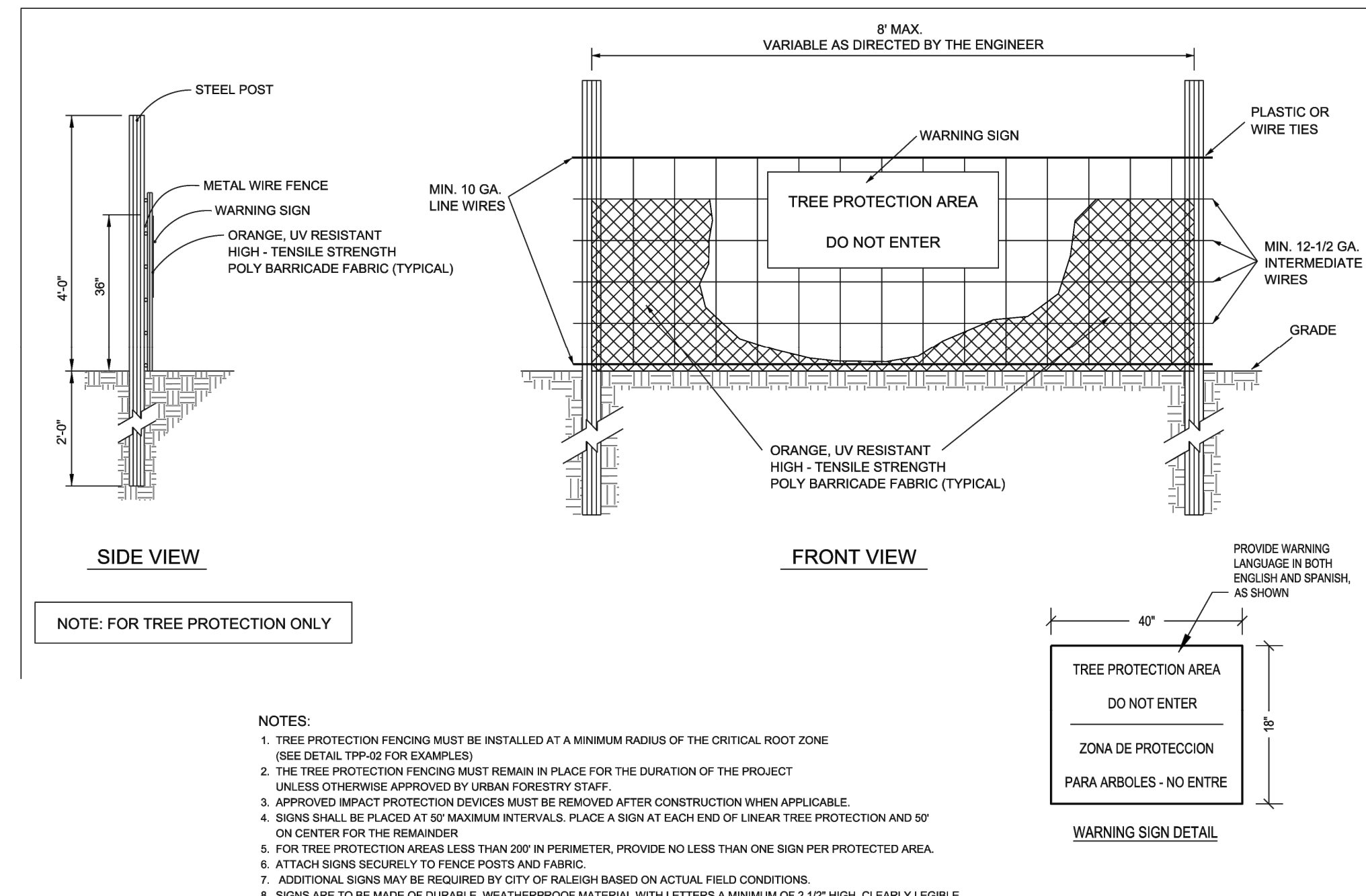
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- NOTES:**
1. ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
 2. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
 3. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
 4. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.
 5. MUST BE LOCATED >50 FT AWAY FROM INLETS/WATERWAYS UNLESS THERE IS NO OTHER PRACTICAL ALTERNATIVE.

CONCRETE TRUCK WASHOUT

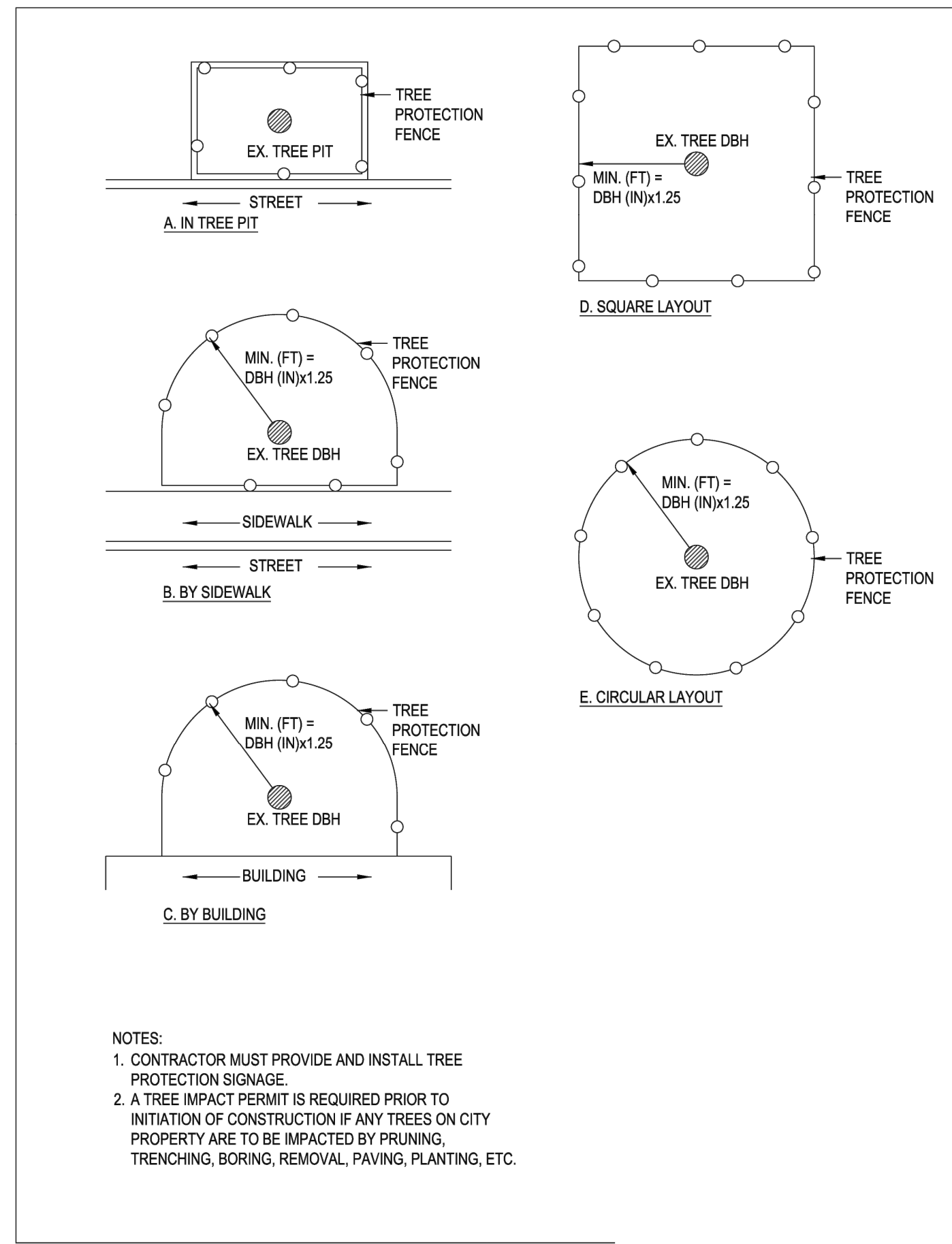
No Scale



- NOTES:**
1. TREE PROTECTION FENCING MUST BE INSTALLED AT A MINIMUM RADIUS OF THE CRITICAL ROOT ZONE (SEE DETAIL TRP-02 FOR EXAMPLES)
 2. THE TREE PROTECTION FENCING MUST REMAIN IN PLACE FOR THE DURATION OF THE PROJECT UNLESS OTHERWISE APPROVED BY URBAN FORESTRY STAFF.
 3. APPROVED IMPACT PROTECTION DEVICES MUST BE REMOVED AFTER CONSTRUCTION WHEN APPLICABLE.
 4. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 90° ON CENTER FOR THE REMAINDER.
 5. FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTED AREA.
 6. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
 7. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF RALEIGH BASED ON ACTUAL FIELD CONDITIONS.
 8. SIGNS ARE TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL WITH LETTERS A MINIMUM OF 2 1/2" HIGH, CLEARLY LEGIBLE AND SPACED AS SHOWN.

TREE PROTECTION

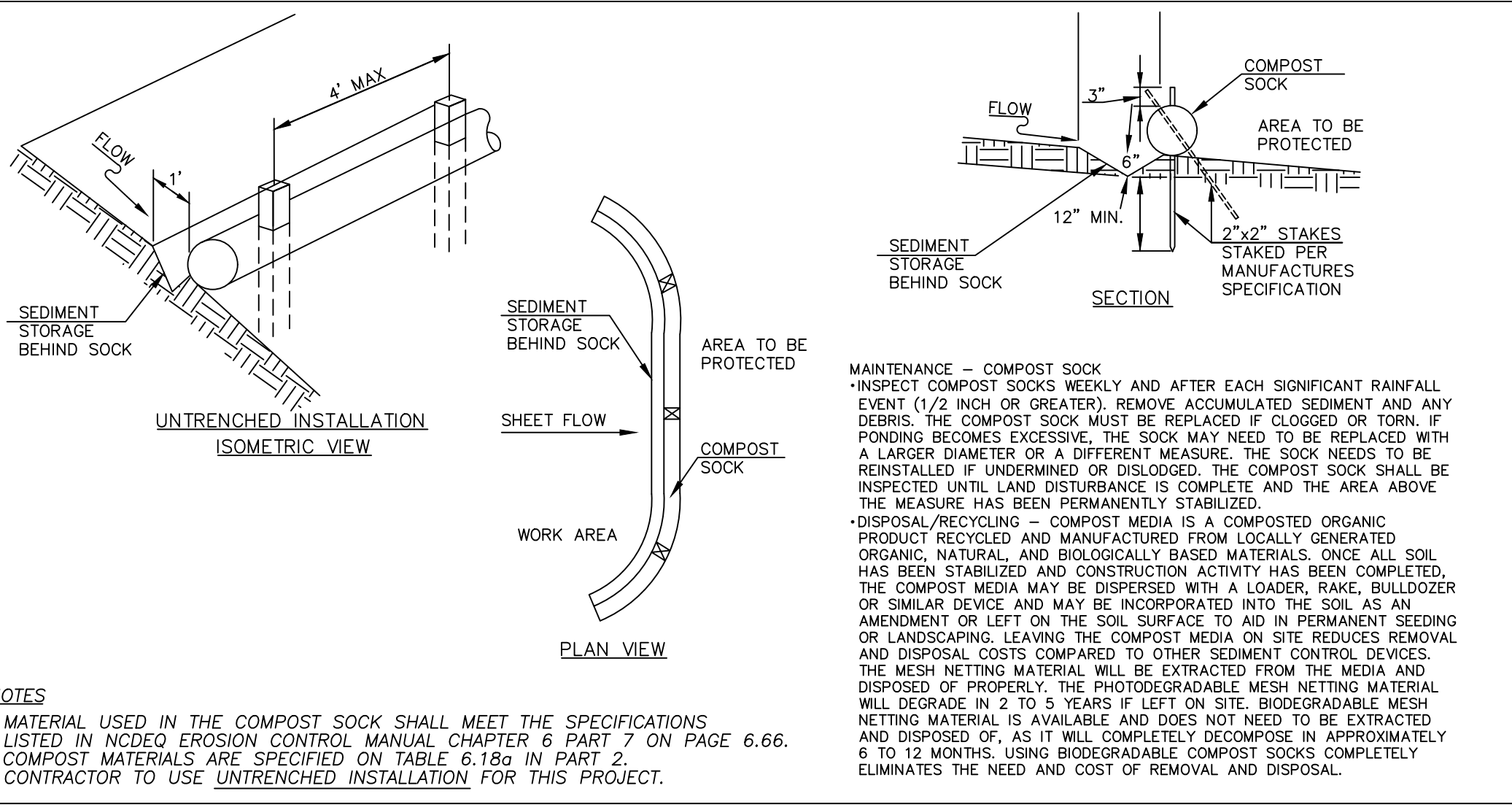
No Scale



- NOTES:**
1. CONTRACTOR MUST PROVIDE AND INSTALL TREE PROTECTION SIGNAGE.
 2. A TREE IMPACT PERMIT IS REQUIRED PRIOR TO INITIATION OF CONSTRUCTION IF ANY TREES ON CITY PROPERTY ARE TO BE IMPACTED BY PRUNING, TRENCHING, BORING, REMOVAL, PAVING, PLANTING, ETC.

TREE PROTECTION

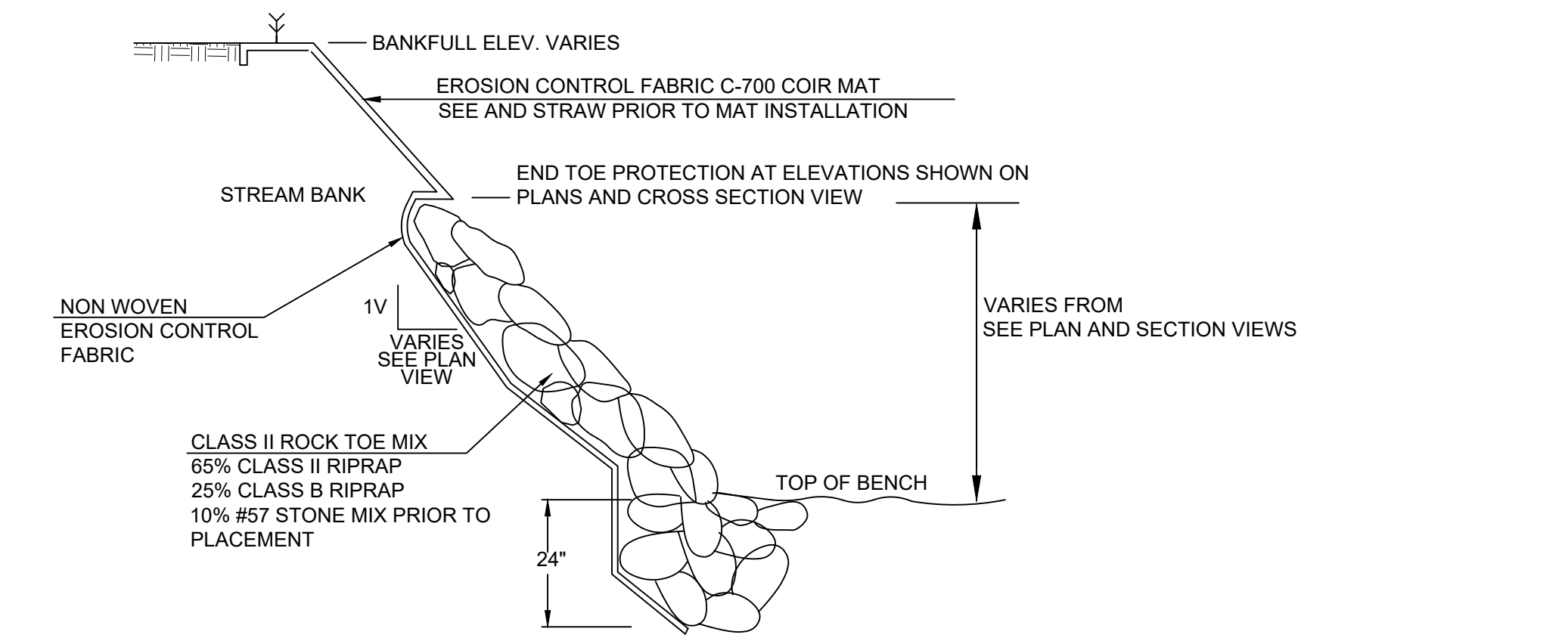
No Scale



- NOTES:**
1. MATERIAL USED IN THE COMPOST SOCK SHALL MEET THE SPECIFICATIONS LISTED IN NCDCE EROSION CONTROL MANUAL CHAPTER 6 PART 7 ON PAGE 6.66. COMPOST MATERIALS ARE SPECIFIED ON TABLE 6.10a IN PART 2.
 2. CONTRACTOR TO USE UNTRENCHED INSTALLATION FOR THIS PROJECT.

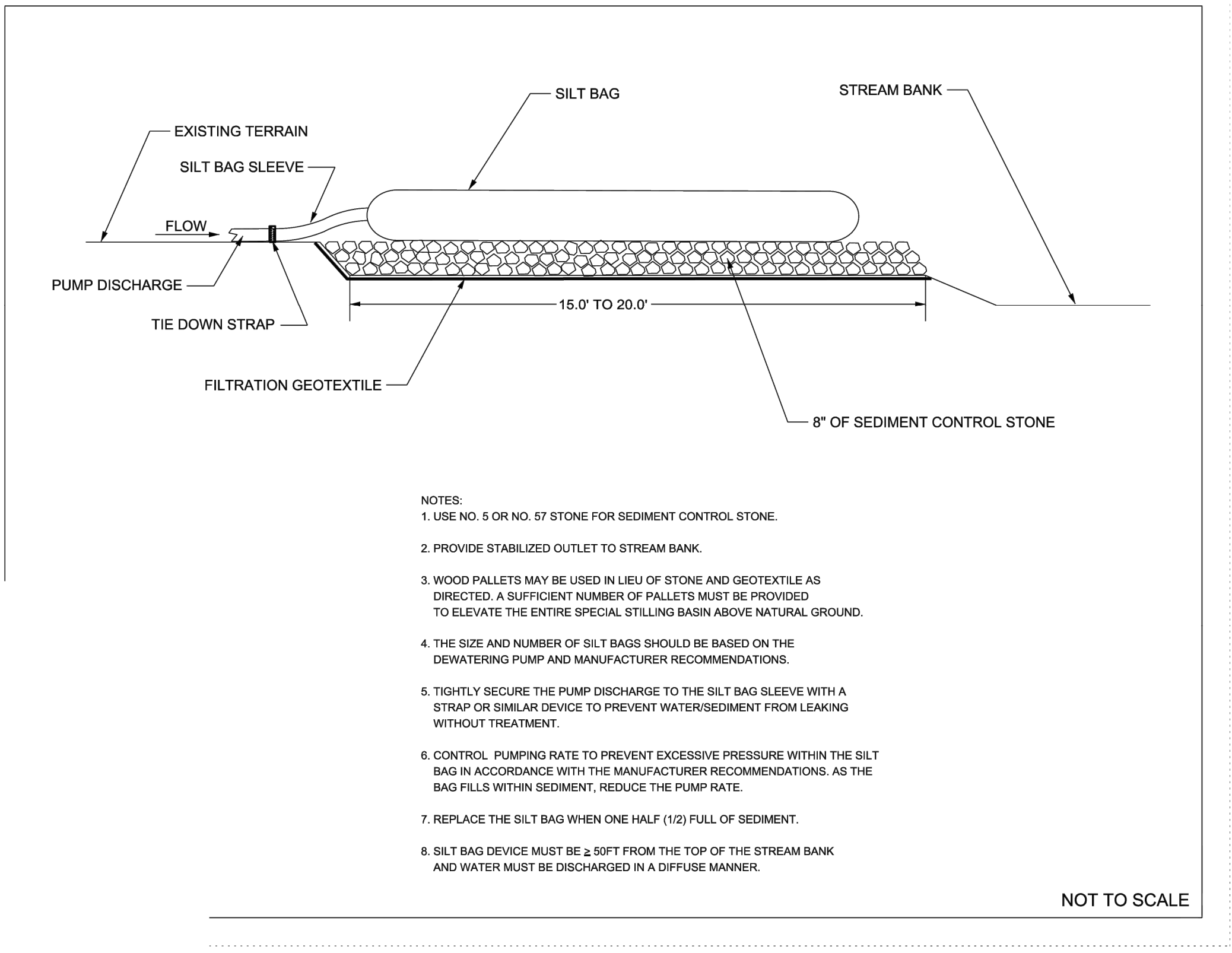
COMPOST SOCK

No Scale



ROCK TOE PROTECTION

No Scale



- NOTES:**
1. USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.
 2. PROVIDE STABILIZED OUTLET TO STREAM BANK.
 3. WOOD PALLETS MAY BE USED IN LIEU OF STONE AND GEOTEXTILE AS DIRECTED. A SUFFICIENT NUMBER OF PALLETS MUST BE PROVIDED TO ELEVATE THE ENTIRE SPECIAL STILLING BASIN ABOVE NATURAL GROUND.
 4. THE SIZE AND NUMBER OF SILT BAGS SHOULD BE BASED ON THE DEWATERING PUMP AND MANUFACTURER RECOMMENDATIONS.
 5. TIGHTLY SECURE THE PUMP DISCHARGE TO THE SILT BAG SLEEVE WITH A STRAP OR SIMILAR DEVICE TO PREVENT WATER/SEDIMENT FROM LEAKING WITHOUT TREATMENT.
 6. CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE SILT BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITHIN SEDIMENT, REDUCE THE PUMP RATE.
 7. REPLACE THE SILT BAG WHEN ONE HALF (1/2) FULL OF SEDIMENT.
 8. SILT BAG DEVICE MUST BE ≥ 50FT FROM THE TOP OF THE STREAM BANK AND WATER MUST BE DISCHARGED IN A DIFFUSE MANNER.

SILT BAG

No Scale

Table 6.10a Temporary Seeding Specifications for Winter and Early Spring		Table 6.10a Temporary Seeding Specifications for Summer	
Seeding Mixture Species	Rate (lb/acre)	Seeding Mixture Species	Rate (lb/acre)
Rye Grain	30	German Millet	15
Seeding Dates		Seeding Dates	
Mountains >2500 ft.	15-Feb to 15-May	Mountains	15-May to 15-Aug
<2500 ft.	1-Feb to 1-May	Piedmont	1-May to 15-Aug
Piedmont	1-Jan to 1-May	Coastal Plain	15-Apr to 15-Aug
Coastal Plain	1-Dec to 15-Apr		
Soil Amendments		Soil Amendments	
Follow recommendations of soil tests or apply 2 ton/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer		Follow recommendations of soil tests or apply 2 ton/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer	
Mulch		Mulch	
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting or a mulch anchoring tool. Use 400 gallons of tack per acre or straw covered with pinned netting.		Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting or a mulch anchoring tool. Use 400 gallons of tack per acre or straw covered with pinned netting.	
Maintenance		Maintenance	
Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or damage.		Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or damage.	

PLANTING NOTES:

1. STREAM BANKS TO BE MATTED WITH COIR MAT C-700 OR APPROVED EQUAL. PLACE RIPARIAN SEED, EROSION CONTROL SEED AND THIN LAYER OF STRAW PRIOR TO MATTING INSTALLATION IN.
2. PLANTING STOCK TO BE GROWN BY NURSERIES WITHIN THE SAME PHYSIOGRAPHIC REGION (PIEDMONT) AND WITHIN 200 MILES OF THE PROJECT SITE.
3. RIPARIAN ERNST SEED MIX OR APPROVED EQUAL BY DESIGNER. APPLICATION RATE 25 LBS/AC.
4. TEMPORARY SEED TO BE PLACED WITH PERMANENT SEED.
5. FERTILIZER RECOMMENDATIONS CONTRACTOR TO FIELD VERIFY WITH ON SITE SOIL CONDITIONS:
6. LIME 1/2 TON/AC
7. PHOSPHATE 20-40 LBS/AC
8. POTASH 50-70 LBS/AC
9. WATERING REQUIREMENTS ONCE/WEEK IF NO RAIN
10. STABILIZATION MEASURES TO BE PLACED WITHIN THE LIMITS OF ALL DISTURBED AREAS. PLANTING AREAS SHOWN APPROXIMATE LIMITS OF DISTURBANCE.

Table 6.10a Temporary Seeding Specifications for Fall	
Seeding Mixture Species	Rate (lb/acre)
Rye Grain	30
Seeding Dates	
Mountains	15-Aug to 15-Dec
Coastal Plain and Piedmont	15-Aug to 30-Dec
Soil Amendments	
Follow recommendations of soil tests or apply 2 ton/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer	
Mulch	
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting or a mulch anchoring tool. Use 400 gallons of tack per acre or straw covered with pinned netting.	
Maintenance	
Repair and refertilize damaged areas immediately. Topdress with 50lb/acre of nitrogen in March. If it is necessary to extent temporary cover beyond June 15, overseed with 50lb/acre Kobe (Piedmont and Coastal Plain) late February or early March	

SEEDING SPECIFICATIONS

No Scale

DETAILS

PLAN TYPE: **DETAILS**

SHEET NUMBER: **C704**

FAYETTEVILLE:
AMERICA'S CAN DO CITY

ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28401

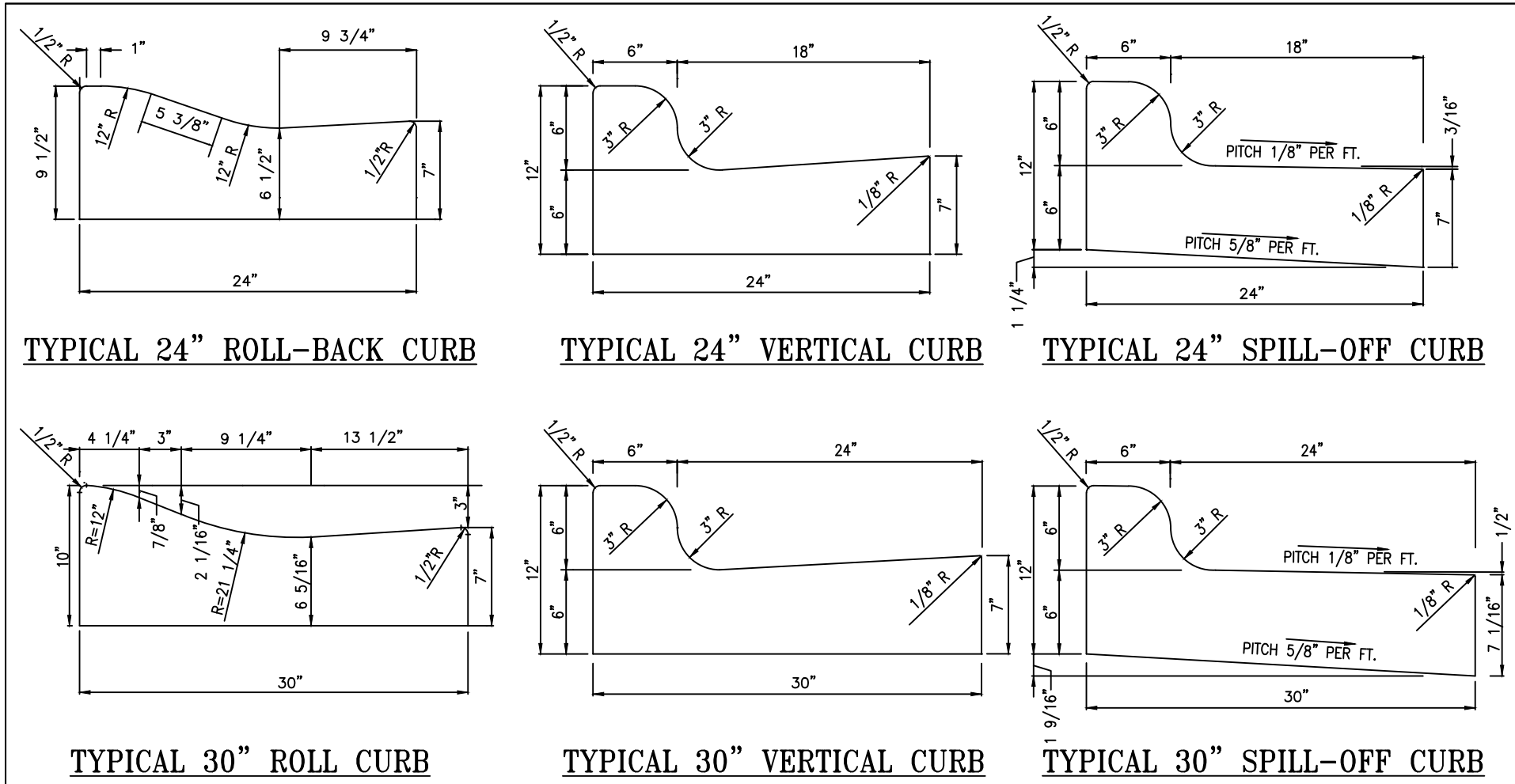


CONSTRUCTION SET

REV. #	DESCRIPTION	REV. BY	DATE

PROJECT: IVY AND LYON ROAD DRAINAGE IMPROVEMENTS	SCALE: NTS
DESIGN: SHANE VANDERGRIET	DATE: 03/08/2024
CHECK: CHRIS ROGERS	
APPROVED: DAVID DUNGAN	
PROJECT NO. 54960.001	
SUB-LEDGER NO.	

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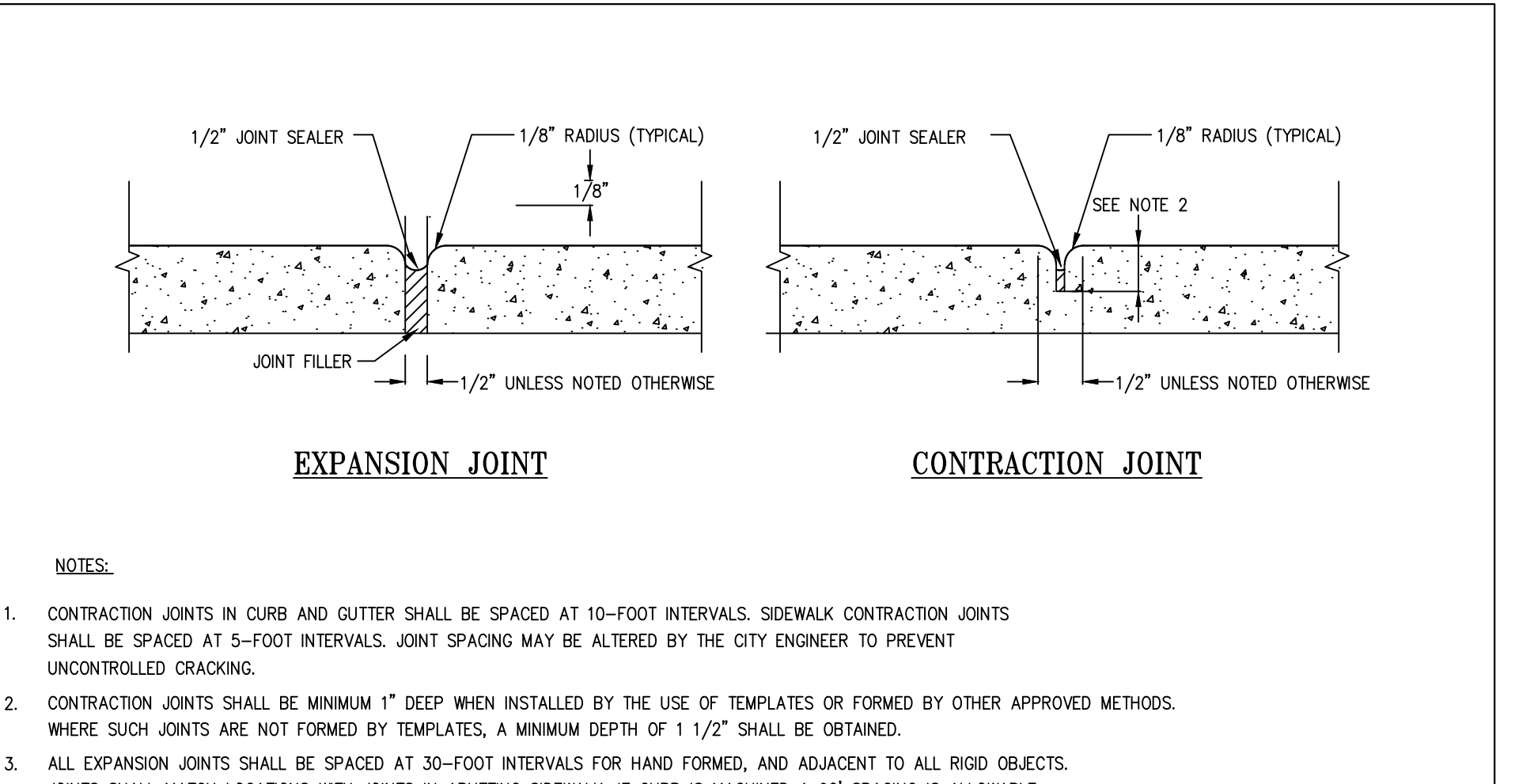


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24" AND 30" CURB DETAILS

Rev. Date: 28 JAN 21
 Not to Scale
 Review Date: 28 JAN 21

SD-1

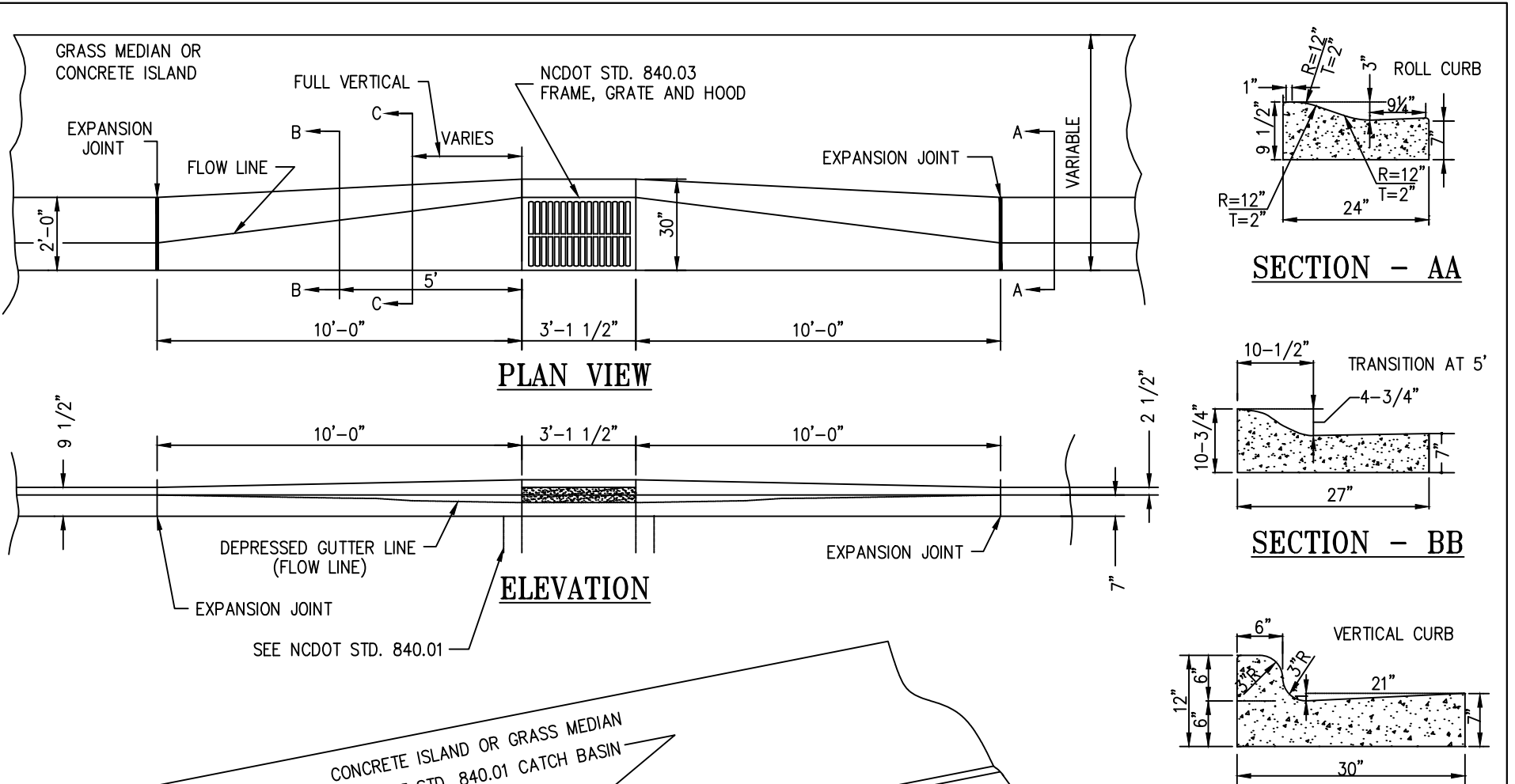


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CONTRACTION AND EXPANSION JOINT

Rev. Date: 28 JAN 21
 Not to Scale
 Review Date: 28 JAN 21

SD-3

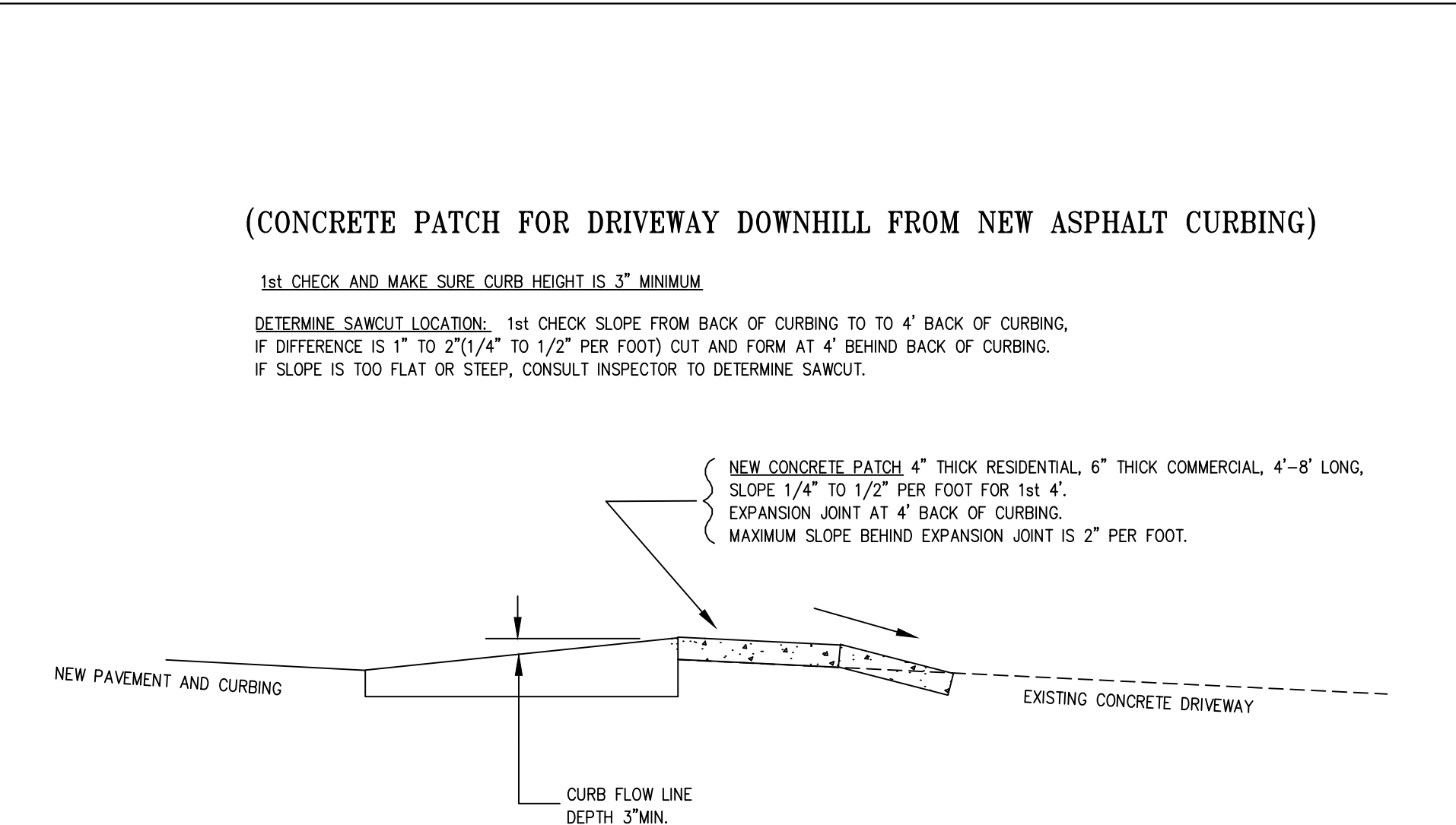


FAYETTEVILLE! ENGINEERING DIVISION
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<http://www.fayettevilenc.gov>

STANDARD CATCH BASIN TRANSITION FOR 24" ROLL CURB AND GUTTER ADOPTED FROM NCDOT STANDARD NO. 852.05

Rev. Date: 28 JAN 21
 Not to Scale
 Review Date: 28 JAN 21

SD-4

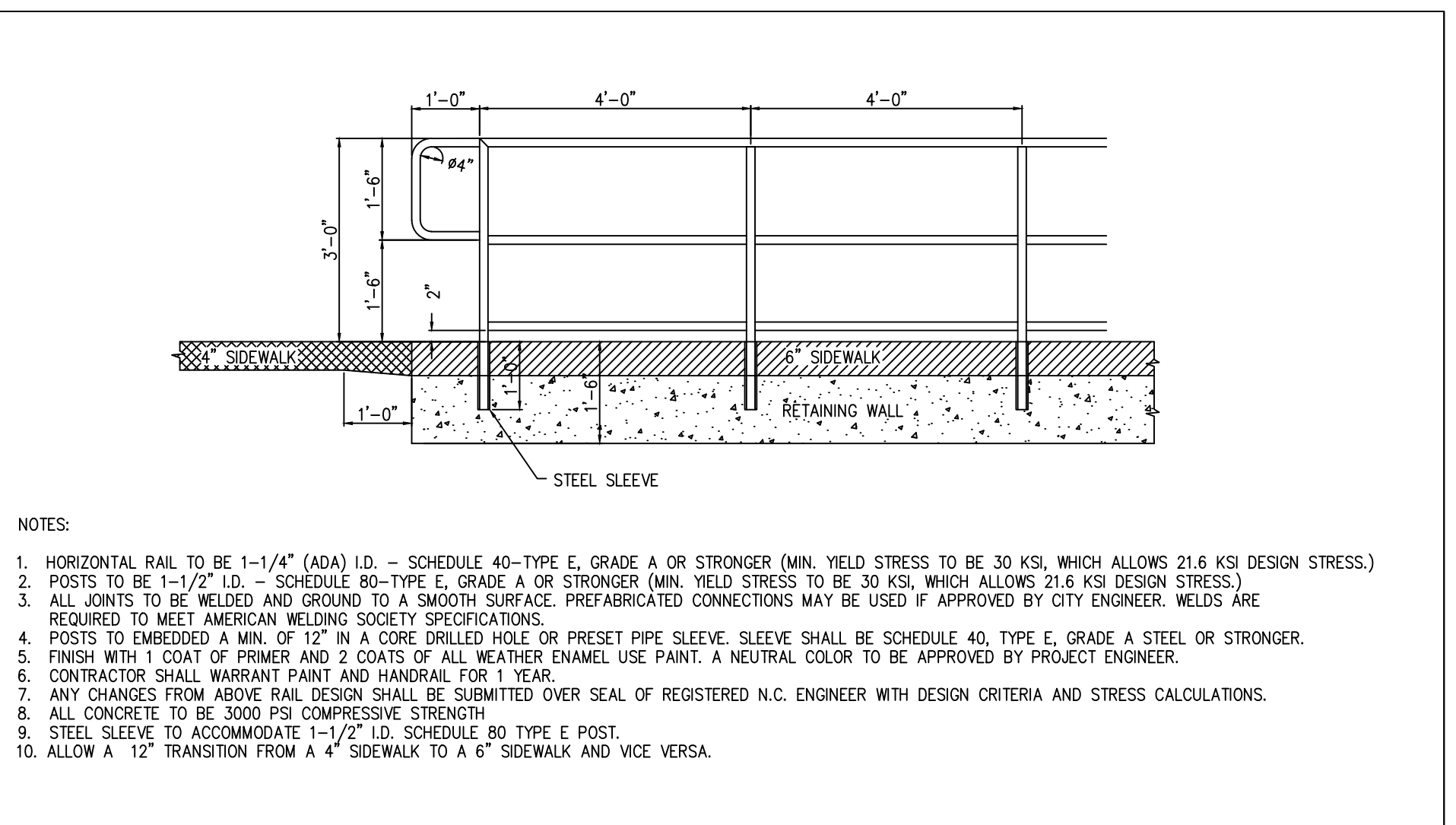


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 (910) 433-1656
<http://www.fayettevilenc.gov>

DRIVEWAY CONNECTIONS TO OVERLAP OR RAISED CURBING (DOWNHILL DRIVEWAY) PAGE 2 OF 2

Rev. Date: 28 JAN 21
 Not to Scale
 Review Date: 28 JAN 21

SD-6.1

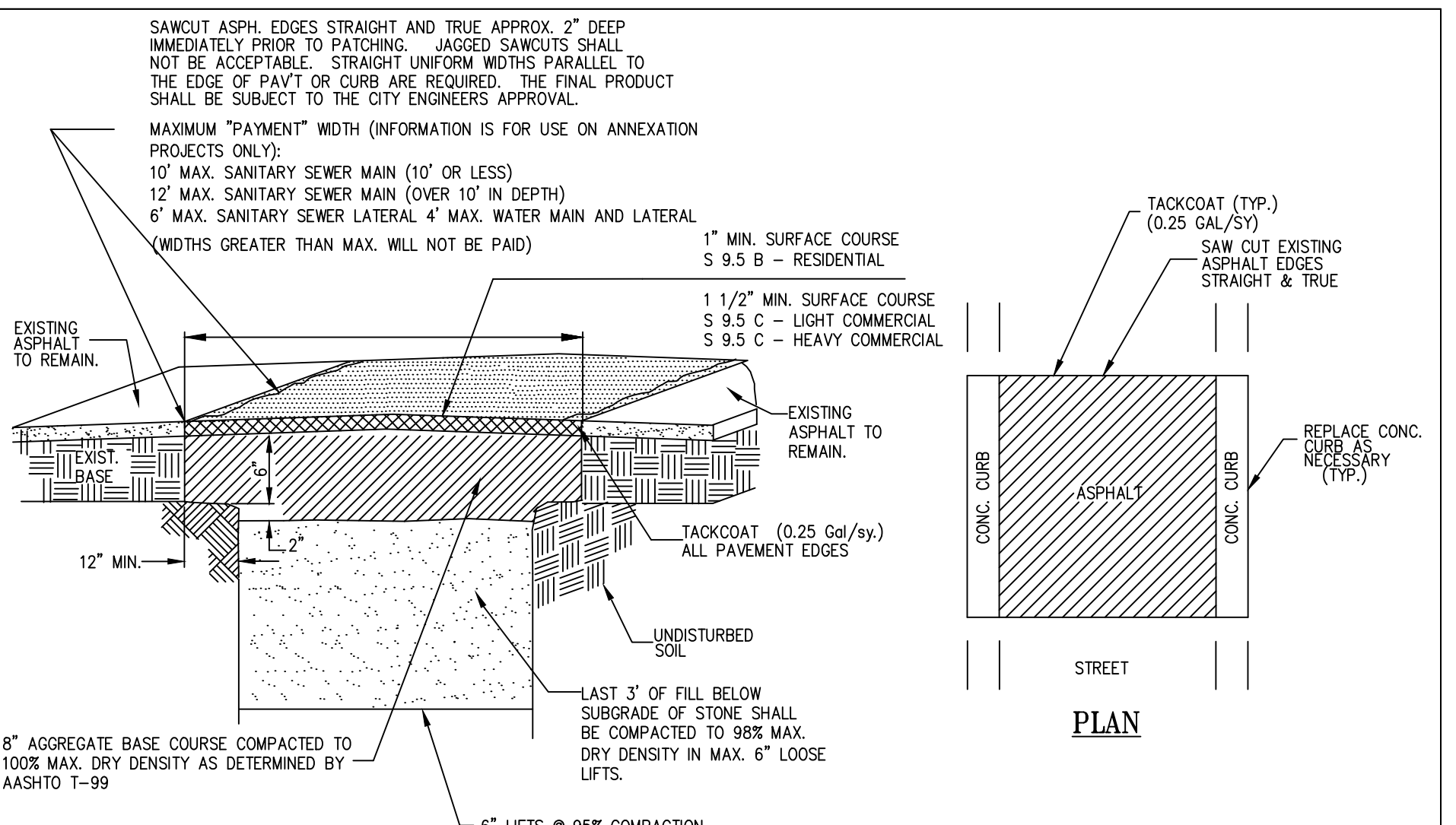


FAYETTEVILLE! ENGINEERING DIVISION
 433 HAY ST. 28301
 (910) 433-1656
<http://www.fayettevilenc.gov>

PIPE HANDRAIL

Rev. Date: 28 JAN 21
 Not to Scale
 Review Date: 28 JAN 21

SD-10

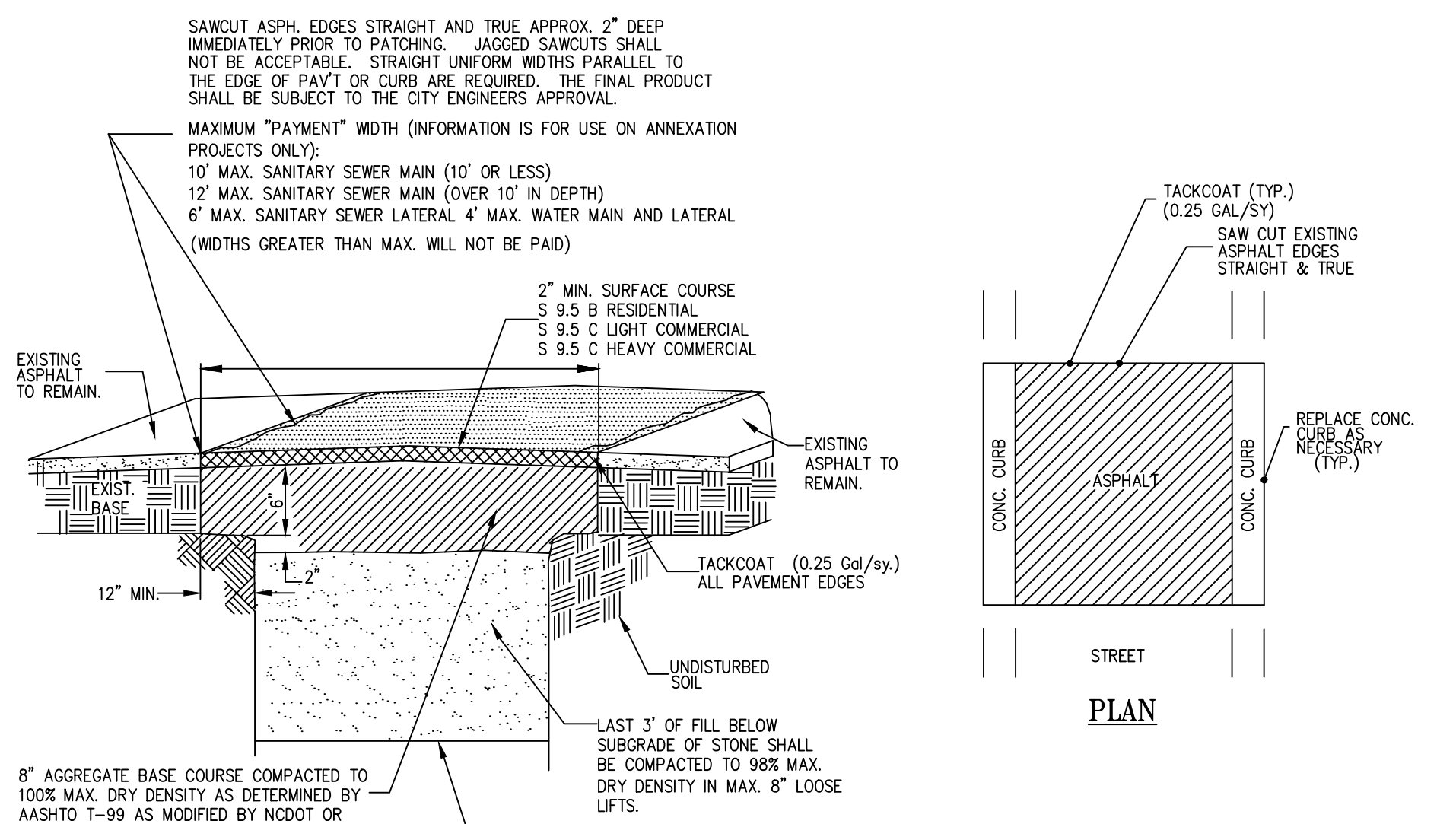


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 433 HAY ST. 28301
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<http://www.fayettevilenc.gov>

TYPICAL TEMPORARY SAWCUT AND PAVEMENT PATCH PAGE 1 OF 3

Rev. Date: 28 JAN 21
 Not to Scale
 Review Date: 28 JAN 21

SD-11

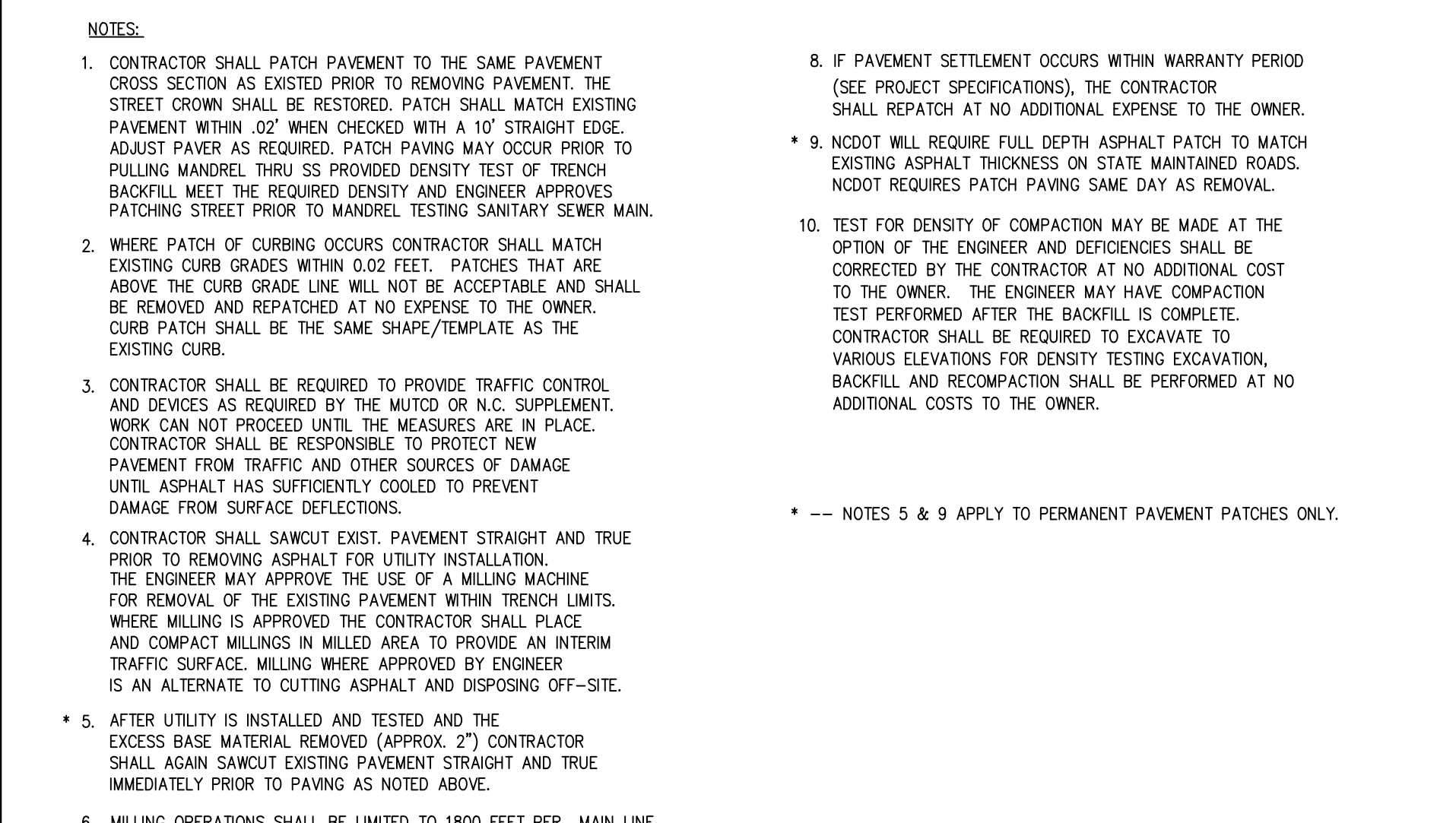


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TYPICAL PERMANENT SAWCUT AND PAVEMENT PATCH PAGE 2 OF 3

Rev. Date: 28 JAN 21
 Not to Scale
 Review Date: 28 JAN 21

SD-11.1

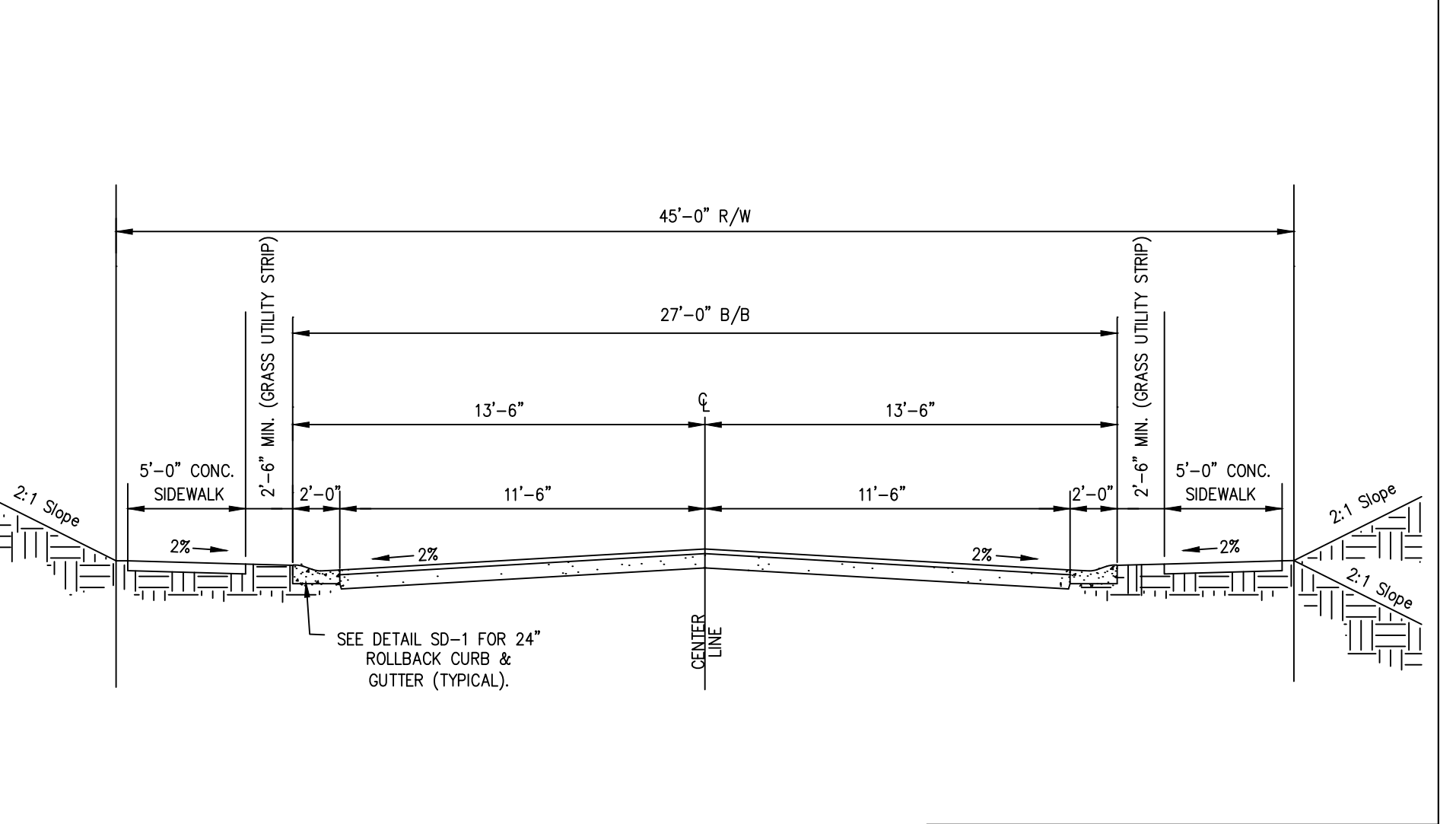


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NOTES FOR TYPICAL PERMANENT AND TEMPORARY SAWCUT AND PAVEMENT PATCH PAGE 3 OF 3

Rev. Date: 28 JAN 21
 Not to Scale
 Review Date: 28 JAN 21

SD-11.2



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TYPICAL MINIMUM STANDARD 2 LANE STREET SECTION FOR RESIDENTIAL USE

Rev. Date: 28 JAN 21
 Not to Scale
 Review Date: 28 JAN 21

SD-14

DETAILS

PLAN TYPE: **DETAILS**

SHEET NUMBER: **C705**

FAYETTEVILLE! AMERICA'S CAN DO CITY

ENGINEERING DIVISION
 ENGINEERING & INFRASTRUCTURE DEPARTMENT
 433 HAY STREET FAYETTEVILLE, NC 28301

FAYETTEVILLE! AMERICA'S CAN DO CITY

ENGINEERING DIVISION
 ENGINEERING & INFRASTRUCTURE DEPARTMENT
 433 HAY STREET FAYETTEVILLE, NC 28301

CONSTRUCTION SET

REVISIONS

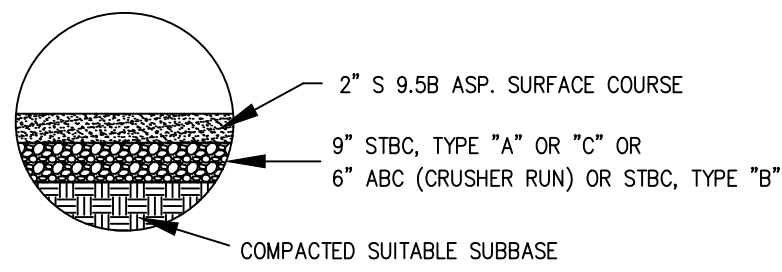
REV. #	DESCRIPTION	REV. BY	DATE

PROJECT NO. 54960.001
 SUB-LEDGER NO. _____

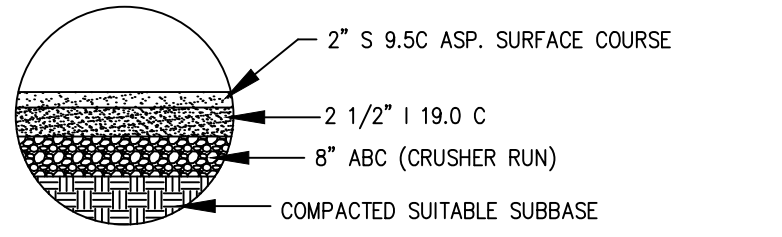
DRAWN BY: SHANE VANDERGRIFT
 DESIGN: CHRIS ROGERS
 CHECK: DAVID DUNGAN
 APPROVED: _____

PROJECT: IVY AND LYON ROAD
 NAME: DRAINAGE IMPROVEMENTS
 SCALE: NTS
 DATE: 03/08/2024

TYPICAL RESIDENTIAL CROSS SECTION



TYPICAL LIGHT & HEAVY COMMERCIAL CROSS SECTION



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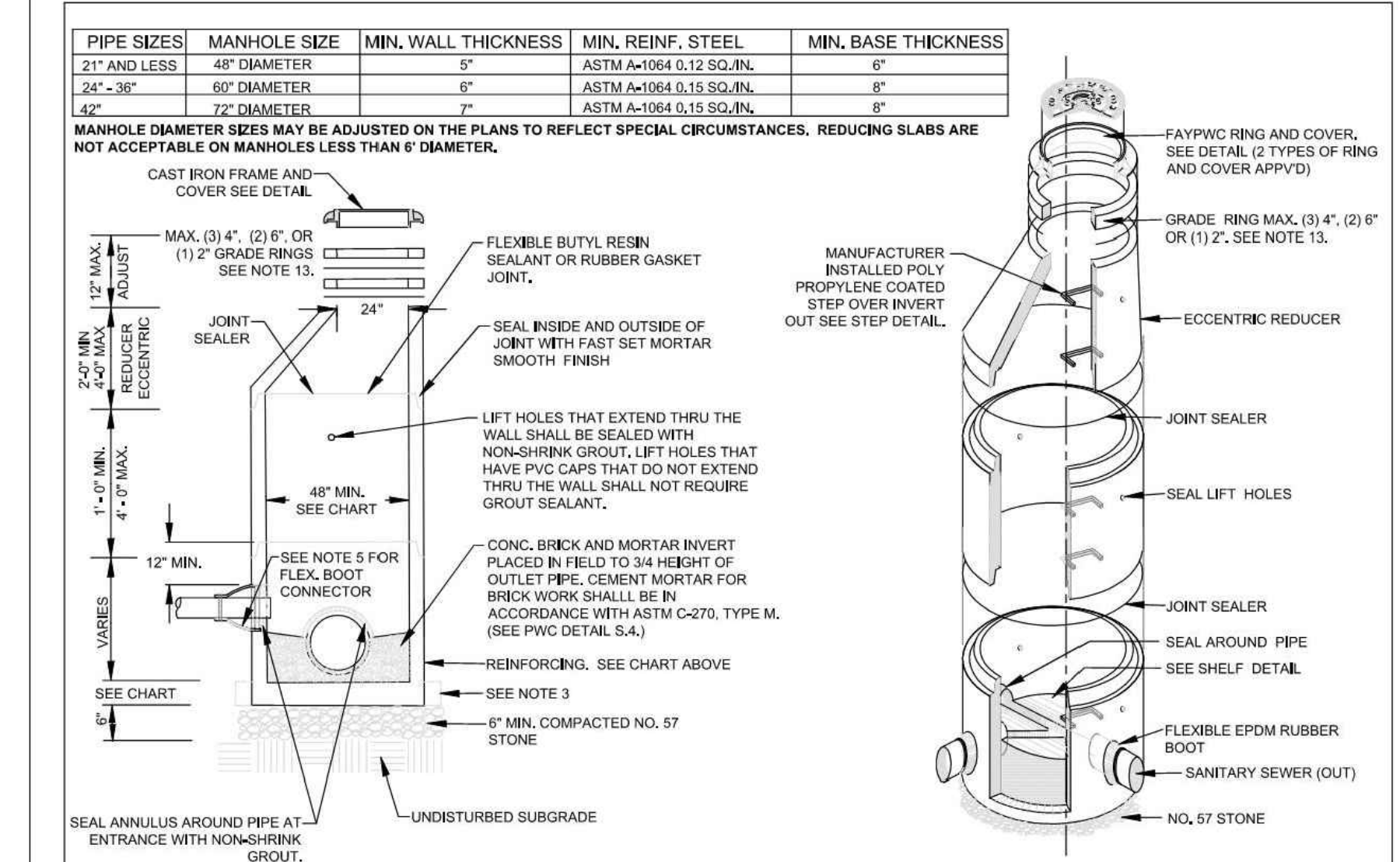
TYPICAL CROSS SECTIONS FOR ALL CITY PAVEMENT

Rev. Date: 26 JAN 21
Not to Scale
Rev. Date: 26 JAN 21 **SD-16.2**

- ALL SEWER MAINS, LATERALS, AND APPURTENANCES SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH FAYETTEVILLE FAYPWC STANDARDS.
- CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- CONSTRUCTION STAKING IS REQUIRED FOR ALL FAYPWC WATER AND SEWER UTILITY INSTALLATIONS. CUT SHEETS, SIGNED AND SEALED BY A P.E. SHALL BE PROVIDED TO THE FAYPWC WATER RESOURCES ENGINEERING DEPARTMENT AND THE CONTRACTOR IN ADVANCE OF CONSTRUCTION FOR FAYPWC WATER AND SEWER UTILITIES.
- CONTRACTOR SHALL MAINTAIN A COPY OF THE SIGNED AND SEALED CUT SHEET ON THE JOB SITE. CONSTRUCTION ON FAYPWC WATER AND SEWER UTILITIES CANNOT BEGIN UNTIL THE CONTRACTOR POSSESSES, ON SITE, A SIGNED AND SEALED CUT SHEET FROM THE PROFESSIONAL LAND SURVEYOR.
- ALL NEW WATER AND SEWER MAINS, LATERALS, AND APPURTENANCES SHALL BE TESTED AND/OR DISINFECTED IN ACCORDANCE WITH FAYETTEVILLE FAYPWC STANDARDS PRIOR TO PLACING INTO SERVICE.
- CONTRACTOR SHALL COORDINATE TESTING AND INSPECTION WITH THE FAYETTEVILLE FAYPWC PROJECT COORDINATOR.
- ALL DUCTILE IRON PIPE IN SANITARY SEWER SERVICE SHALL HAVE AN INTERIOR LINING OF PROTECTO 401 OR APPROVED EQUAL.
- ALL NEW MANHOLES ARE TO BE VACUUM-TESTED IN ACCORDANCE WITH FAYETTEVILLE FAYPWC STANDARDS.
- CONTRACTOR SHALL REPAIR ALL SEWER LATERALS AND MAINS DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY REPORT ALL SEWER MAIN AND LATERAL BREAKS TO THE FAYPWC PROJECT COORDINATOR. THE CONTRACTOR SHALL INITIATE IMMEDIATE REPAIRS IN ACCORDANCE WITH FAYPWC STANDARDS.
- TRANSFER OF SEWER SERVICES SHALL BE ACCOMPLISHED AS FOLLOWS:
 - INSTALL AND TEST NEW MAINS, MANHOLES, AND LATERALS. CLEANOUTS SHALL BE INSTALLED 10' INSIDE R/W UNLESS OTHERWISE DIRECTED BY P.W.C.
 - CONNECT EXISTING PLUMBING TO NEW LATERAL UTILIZING THE NECESSARY FITTINGS AS DIRECTED BY FAYPWC.
 - AFTER ALL SERVICES HAVE BEEN TRANSFERRED TO THE NEW MAIN, THE EXISTING SEWER SYSTEM SHALL BE ABANDONED IN ACCORDANCE WITH FAYPWC REQUIREMENTS.
- CONTRACTOR SHALL ABANDON ("KILL-OUT") ANY EXISTING SEWER SERVICES THAT WILL NOT BE UTILIZED BY UNCOVERING THE EXISTING LATERAL AT THE MAIN, CUT AND PLUG AT BOTH ENDS, REMOVE THE EXISTING CLEANOUT AND CONNECTION, AND PLUG THE TAP OR TEE AT THE MAIN. FOR LATERALS THAT CONNECT TO A MANHOLE AND ARE TO BE ABANDONED ("KILL-OUT"), THE LATERAL SHALL BE REMOVED FROM THE MANHOLE AND THE REMAINING VOID IN THE MANHOLE SHALL BE FILLED WITH BLOCK AND MORTAR.
- SEWER PLUGS SHALL BE INSTALLED TO ELIMINATE ANY DEBRIS OR OTHER MATERIAL FROM ENTERING THE ACTIVE SEWER SYSTEM. UPON ACCEPTANCE OF THE NEW SEWER SYSTEM, THE CONTRACTOR SHALL CLEAN THE NEW MAINS, REMOVE ALL DEBRIS, AND THEN REMOVE THE PLUGS.
- ALL EXISTING UTILITIES IMPACTED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISHED GRADE, IN ACCORDANCE WITH FAYPWC REQUIREMENTS.
- ALL WORK ON FAYPWC SEWER UTILITIES (MAINS, LATERALS, ETC) SHALL BE PERFORMED BY A LICENSED UTILITY CONTRACTOR. THE FAYETTEVILLE PUBLIC WORKS COMMISSION SHALL OBSERVE AND APPROVE ALL WORK ON FAYPWC SEWER UTILITIES. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH FAYPWC REQUIREMENTS.
- SEPARATION REQUIREMENTS:
 - LATERAL SEPARATION OF SEWER AND WATER MAINS:** WATER MAINS SHALL BE LAD AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWER MAIN/LATERAL, UNLESS LOCAL CONDITIONS OR BARRIERS PROVIDE TO A 10 FOOT LATERAL SEPARATION. IN WHICH CASE:
 - THE WATER MAIN IS LAD IN A SEPARATE TRENCH WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18-INCHES ABOVE THE TOP OF THE SEWER MAN/LATERAL.
 - THE WATER MAIN IS LAD IN THE SAME TRENCH AS THE SEWER MAN/LATERAL WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18-INCHES ABOVE THE TOP OF THE SEWER MAN/LATERAL.
 - CROSSING WATER MAIN OVER A SEWER:** WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER MAN/LATERAL, THE WATER MAIN SHALL BE LAD AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18-INCHES ABOVE THE TOP OF THE SEWER MAN/LATERAL.
 - CROSSING WATER MAIN UNDER A SEWER:** WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER MAN/LATERAL, A MINIMUM OF 24-INCHES OF SEPARATION SHALL BE PROVIDED. BOTH THE WATER MAIN AND THE SEWER MAN/LATERAL SHALL BE CONSTRUCTED OF DUCTILE IRON MATERIAL AND WITH JOINTS TRANSFERRED TO NEW LATERAL UTILIZING THE NECESSARY FITTINGS AS DIRECTED BY FAYPWC.
 - CROSSING STORM DRAINAGE LINES:** A MINIMUM OF 24-INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN SEWER AND STORM DRAINAGE LINES. UNLESS DUCTILE IRON PIPE IS USED, IF DUCTILE IRON PIPE IS USED, A MINIMUM OF SIX(6) INCHES OF SEPARATION SHALL BE MAINTAINED, UNLESS OTHERWISE APPROVED BY FAYPWC.

GENERAL NOTES SANITARY SEWER UTILITY		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. S.1	DWG. BY: FAYPWC		1	01/18	ADDED NOTES 5, 8
	DATE: JAN. 01, 2024	APPROVED BY: M.M.M.		2	06/21	ADDED NOTES 1-8 AND RENUMBERED
				3	11/23	REVISED NOTE 15

51-SEWER-NOTES.dwg



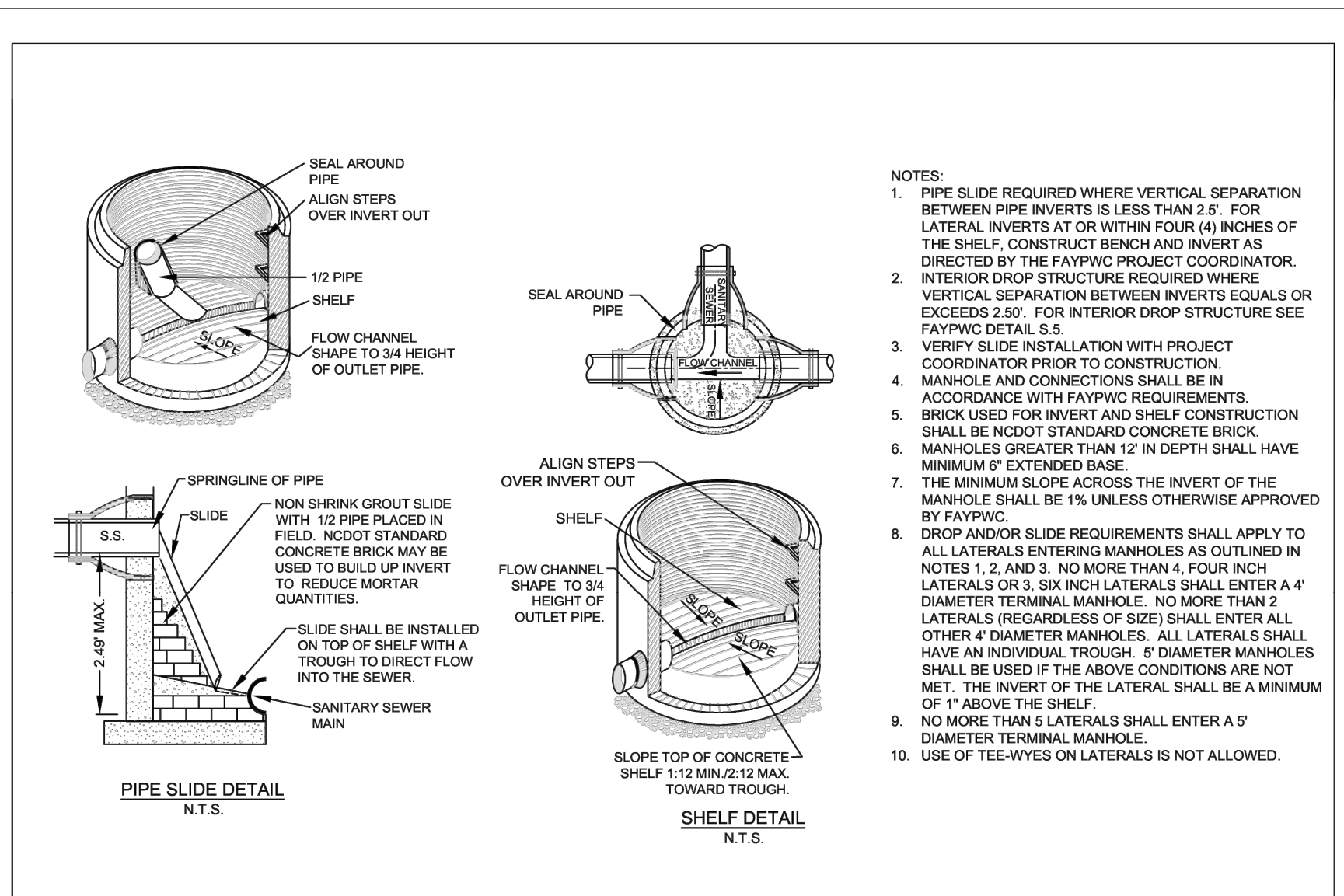
STANDARD MANHOLE N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 2	DWG. NO. S.2	DWG. BY: FAYPWC		1	02/07	CREATED S.2A ADDED NOTES 13-17
	DATE: JAN. 01, 2024	APPROVED BY: M.M.M.		2	07/13	ADDED SHEET 2 OF 2
				3	01/01/24	CLARIFIED NOTES REGARDING MORTAR FOR BENCH AND INVERT.

52-STANDARD-MANHOLE.dwg

- NOTES:
- PRECAST REINFORCED CONCRETE: MANHOLES SHALL BE IN ACCORDANCE WITH ASTM C-478.
 - MINIMUM CONCRETE COMPRESSIVE STRENGTH SHALL BE 4,000 PSI.
 - MANHOLES GREATER THAN 12" DEPTH SHALL HAVE MINIMUM 6" EXTENDED BASE.
 - FLEXIBLE BUTYL RESIN JOINT SEALANT SHALL BE IN ACCORDANCE WITH ASTM C990. RUBBER GASKET JOINTS SHALL BE IN ACCORDANCE WITH ASTM C-443.
 - FLEXIBLE EPDM RUBBER BOOT CONNECTORS SHALL BE IN ACCORDANCE WITH ASTM C923. INSTALLED BY MANUFACTURER WITH STAINLESS STEEL COMPRESSION RING AND TAKE-UP CLAMP. THE FLEXIBLE BOOT CONNECTOR SHALL BE TIGHTENED ON THE MAIN BY MEANS OF A SINGLE STAINLESS STEEL PIPE CLAMP.
 - CONNECTIONS TO EXISTING MANHOLES SHALL BE BY CORING MANHOLE AND FIELD INSTALLING A FLEXIBLE EPDM RUBBER BOOT CONNECTOR. DO NOT ALLOW DEBRIS TO ENTER SYSTEM.
 - MORTAR USED FOR SEALING JOINTS AND LIFT HOLES SHALL BE QUICK SETTING, NON-SHRINK GROUT MIXED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. MORTAR USED TO CONSTRUCT INVERTS AND SHELF SHALL BE IN ACCORDANCE WITH ASTM C-270, TYPE M, IN ACCORDANCE WITH PWC SPECIFICATION SECTION 03301.
 - MANHOLE STEPS SHALL BE IN ACCORDANCE WITH ASTM C478 AND OSHA REGULATIONS. ALIGN STEPS WITH INVERT OUT.
 - PRECAST INVERTS ARE NOT ALLOWED.
 - VERTICAL DROPS BETWEEN THE INFLOW PIPES AND OUTFLOW PIPES SHALL REQUIRE THE FOLLOWING:
 - GREATER THAN 2.5' SEE DROP STRUCTURE DETAIL (MIN. 5' DIAMETER MIN REQUIRED).
 - LESS THAN 2.5' SEE PIPE SLIDE DETAIL.
 - AN ECCENTRIC CONE SHALL BE UTILIZED ON ALL MANHOLES, UNLESS OTHERWISE APPROVED BY FAYPWC.
 - INVERT ON PLANS IS TO MANHOLE CENTERLINE.
 - GRADE RINGS SHALL NOT BE USED FOR ABOVE GRADE ADJUSTMENTS (IE: OUTFALL AREAS). USE OF GRADE RINGS ARE ALLOWABLE IN YARD AREAS AND PAVEMENT, WHERE THE RING AND COVER ARE AT GROUND LEVEL. GRADE RINGS CAN BE EITHER CONCRETE OR HDPE. HDPE GRADE RINGS SHALL MEET THE REQUIREMENTS OF ASTM 4796 FOR MATERIAL QUALITY, AND PERFORMANCE. HDPE GRADE RINGS SHALL BE MANUFACTURED BY LAOTEC, INC. OR APPROVED EQUAL.
 - THE MINIMUM SLOPE AGAINST THE INVERT OF THE MANHOLE SHALL BE 1%, UNLESS OTHERWISE APPROVED BY FAYPWC. STANDING WATER IN INVERT OF MANHOLE IS NOT ACCEPTABLE.
 - THE EXTERIOR MANHOLE RISER JOINTS, INCLUDING THE JOINT AT THE CONE, SHALL BE SEALED ON THE OUTSIDE BY AN APPROVED JOINT WRAP. THE WRAP SHALL BE IN ACCORDANCE WITH FAYPWC SPECIFICATIONS.
 - MANHOLE BOOT FOR 4-INCH LATERALS, SHOULD IT BE NECESSARY TO INSTALL A 4-INCH LATERAL INTO A MANHOLE, THE RUBBER BOOT THAT THE LATERAL IS INSERTED INTO SHALL BE SECURELY FASTENED TO THE CORE HOLE BY UTILIZING A STAINLESS STEEL BAND THAT IS TIGHTENED USING A JACK OR A TORQUE WRENCH (DIRECT DRIVE). BOTH STANDARD SIZE AND STEP DOWN BOOTS ARE ALLOWED. THE TORQUE WRENCH SHALL BE SUPPLIED BY THE MANUFACTURER. NO OTHER TYPE BANDS OR METHOD OF SECURING THE BOOT TO THE MANHOLE SHALL BE ACCEPTED.
 - FOR FOUR (4) INCH SDR 26 LATERALS, THE PIPE OUTSIDE DIAMETER RANGE OF THE BOOT SHALL BE 3.5-INCHES TO 4.3-INCHES.
 - FOR FOUR (4) INCH DUCTILE IRON LATERALS, THE PIPE OUTSIDE DIAMETER RANGE OF THE BOOT SHALL EITHER BE 3.5" OR 4.125-INCHES TO 4.8-INCHES.
 - IN ALL CASES, THE BOOT SHALL BE TIGHTENED ON THE LATERAL BY MEANS OF A SINGLE STAINLESS STEEL PIPE CLAMP.
 - THE LATERAL INVERT SHALL BE AT THE TOP OF THE SHELF.
 - NO MORE THAN 4, FOUR-INCH LATERALS OR 3, SIX-INCH LATERALS SHALL ENTER A 4' DIAMETER TERMINAL MANHOLE. NO MORE THAN 2 LATERALS (REGARDLESS OF SIZE) SHALL ENTER ALL OTHER 4' DIAMETER MANHOLES. ALL LATERALS SHALL HAVE AN INDIVIDUAL TROUGH. 5' DIAMETER MANHOLES SHALL BE USED IF THE ABOVE CONDITIONS ARE NOT MET.
 - NO MORE THAN 5 LATERALS SHALL ENTER A 5' DIAMETER MANHOLE.
 - USE OF TEE-WYES ON LATERALS IS NOT ALLOWED.
 - ALL MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH FAYPWC STANDARDS.

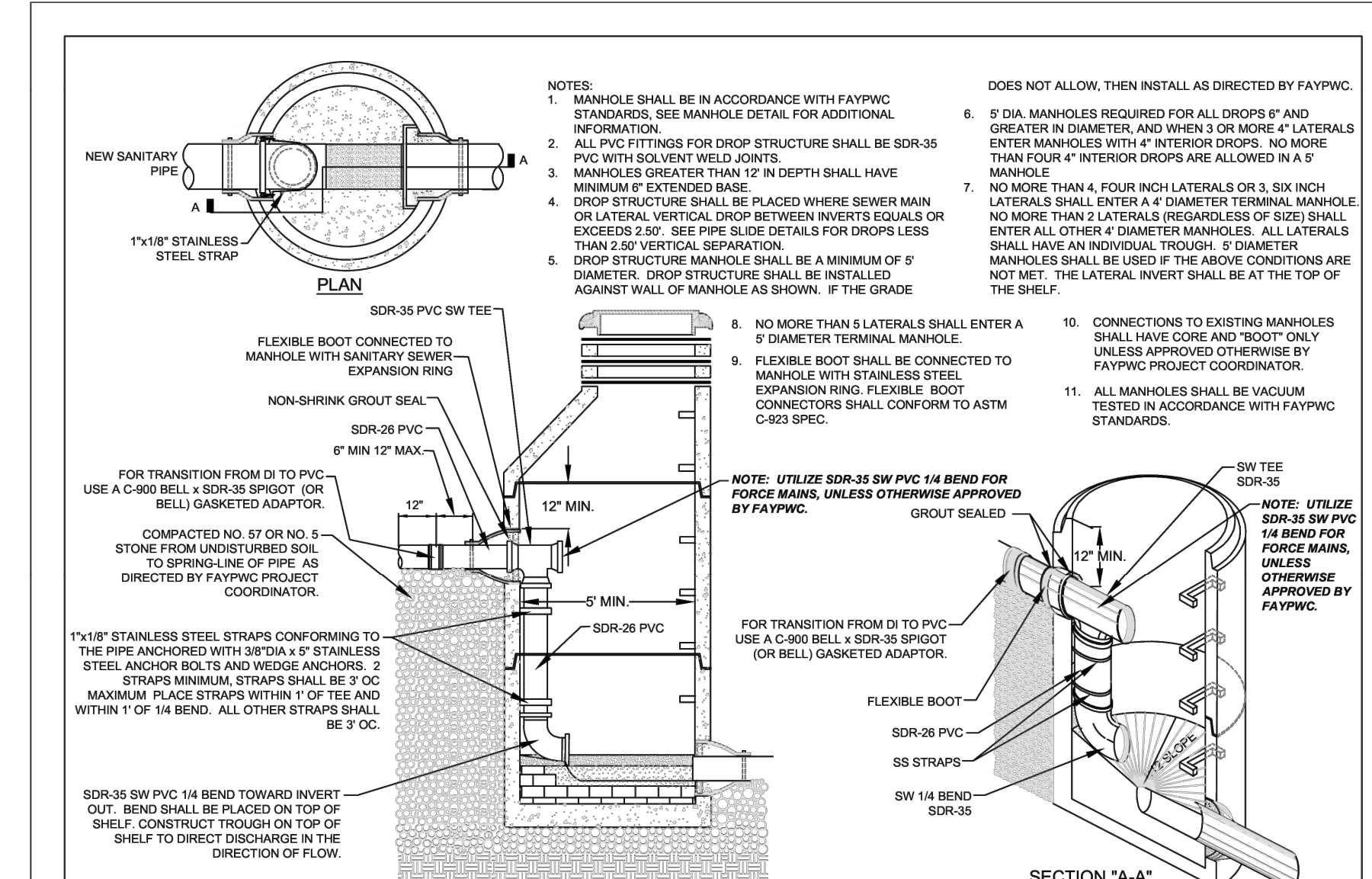
STANDARD MANHOLE N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 2 OF 2	DWG. NO. S.2	DWG. BY: FAYPWC		1	07/13	REVISED NOTES 9, 10, 11, 15, CONVERTED TO S.2 SHEET 2 OF 2
	DATE: JAN. 01, 2024	APPROVED BY: M.M.M.		2	01/01/18	REVISED NOTES 10, 18
				3	01/01/24	REVISED NOTES 5, 7, 16.

52-STANDARD-MANHOLE.dwg



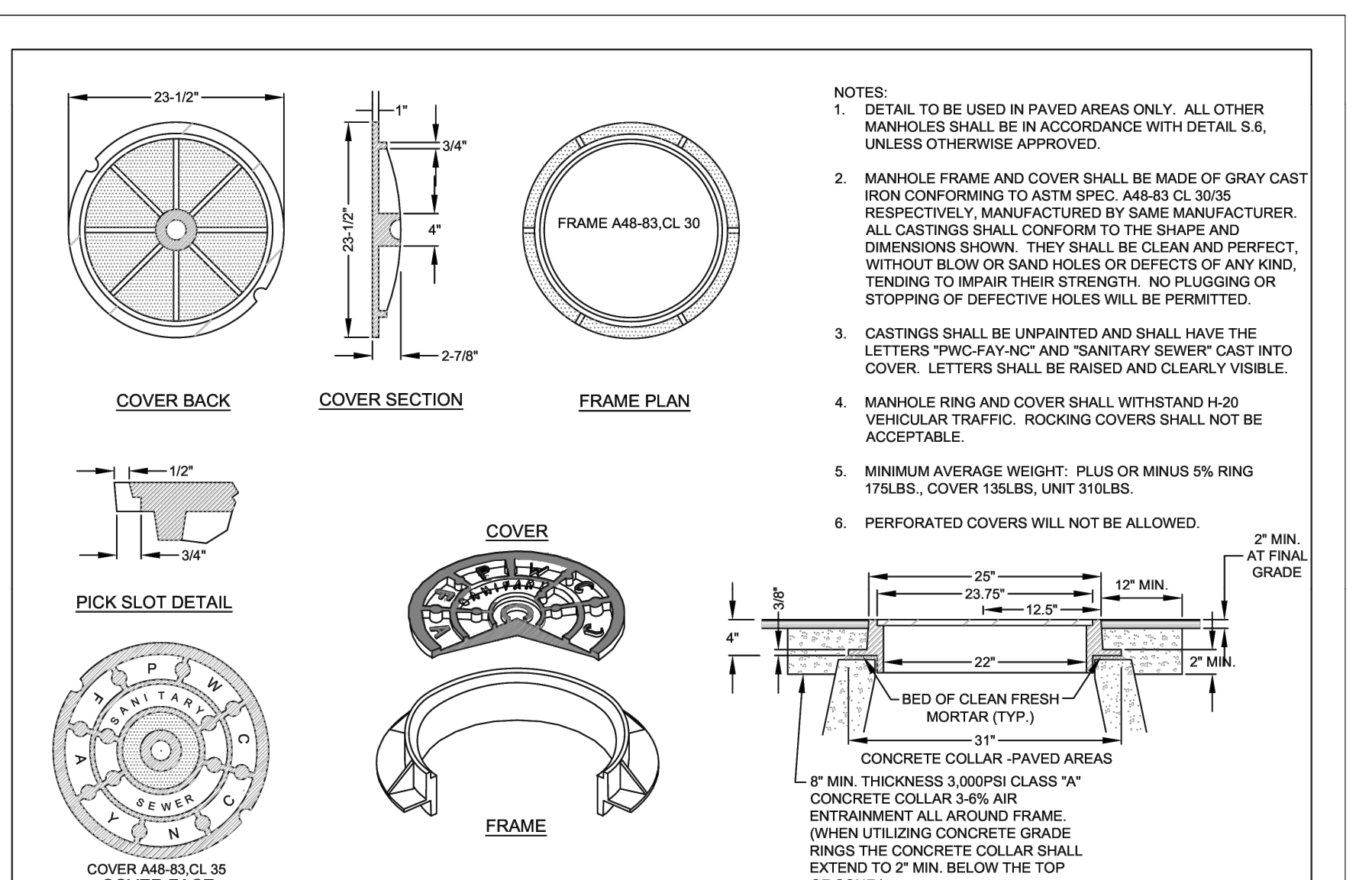
PIPE SLIDE AND SHELF DETAILS N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. S.4	DWG. BY: FAYPWC		1	01/05	ADDED NOTE 8
	DATE: JAN. 01, 2024	APPROVED BY: M.M.M.		2	02/07	REVISED NOTE 8, SLIDE DETAIL, ADDED NOTES 10, 11, 12
				3	01/18	DELETED MORTAR SLIDE, REVISED NOTES

54-SLIDE.dwg



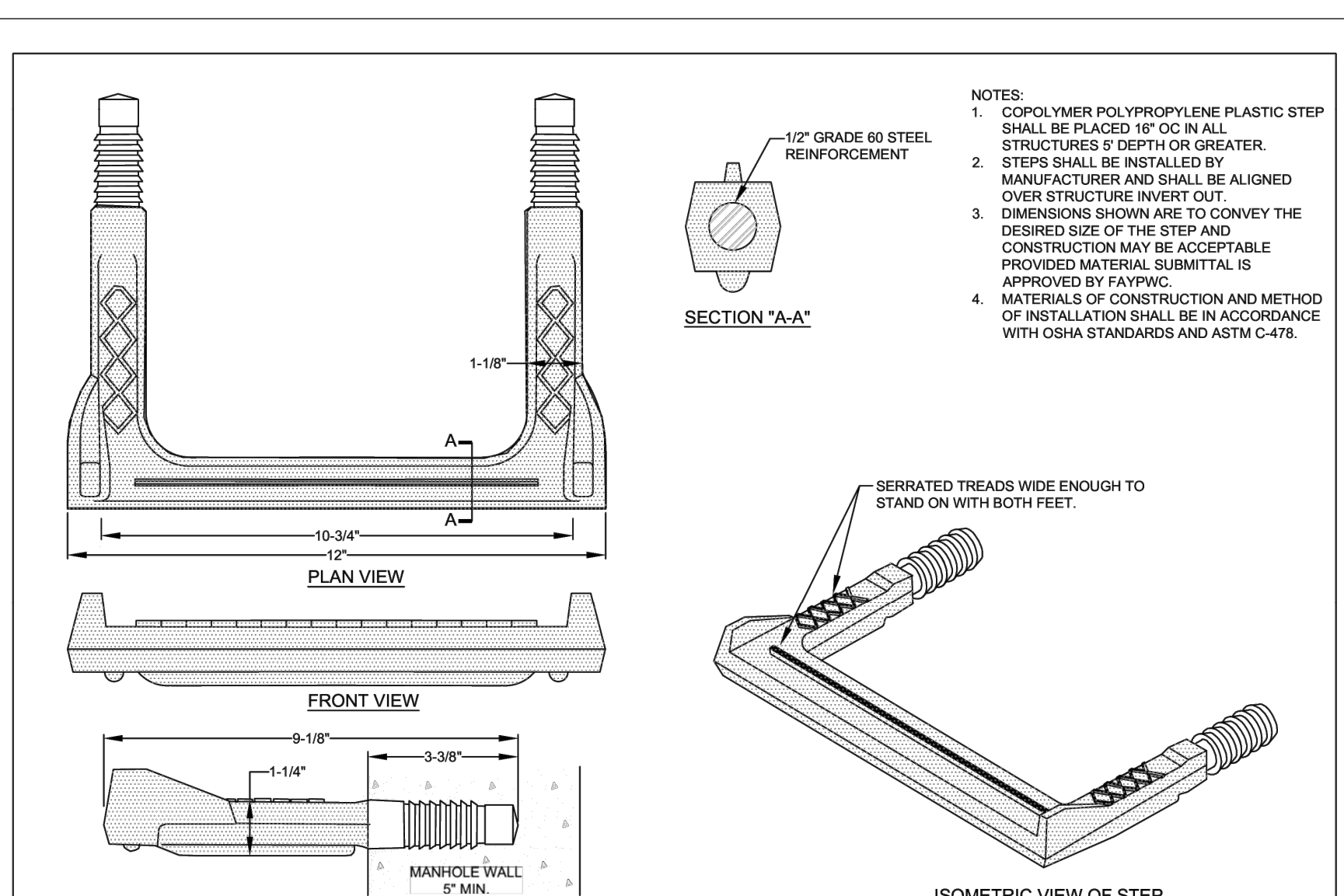
INTERIOR DROP STRUCTURE SEWER MAINS AND LATERALS		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. S.5	DWG. BY: FAYPWC		4	11/08	REVISED FITTING MATERIAL
	DATE: JAN. 01, 2024	APPROVED BY: M.M.M.		5	07/12	REVISED NOTES 5, 8, AND HUB ON INVERT
				6	07/14	ADDED FORCE MAIN NOTE

55-DROP-MH.dwg



STANDARD TRAFFIC AREA MANHOLE RING AND COVER N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. S.7	DWG. BY: FAYPWC		1	01/05	CHANGED NON TRAFFIC DETAIL
	DATE: JAN. 01, 2024	APPROVED BY: M.M.M.		2	07/08	ADDED NOTE ON CONCRETE COLLAR
				3	02/07	REMOVED NON TRAFFIC AREA AND REVISED NOTES
				4	07/08	REVISED ASPHALT THICKNESS

57-RING-COVER.dwg

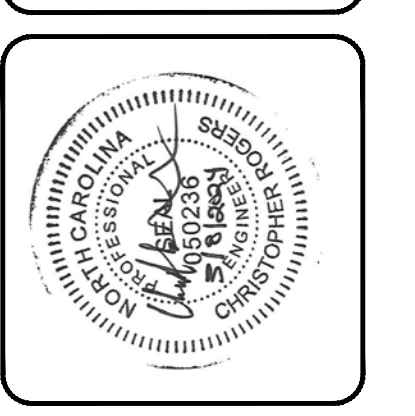


STRUCTURE STEP N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. S.8	DWG. BY: FAYPWC				
	DATE: JAN. 01, 2024	APPROVED BY: M.M.M.				

58-STEP.dwg

DETAILS
DETAILS
SHEET NUMBER
C706
PLAN TYPE

FAYETTEVILLE! AMERICA'S CAN DO CITY
ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
433 HAY STREET FAYETTEVILLE, NC 28301



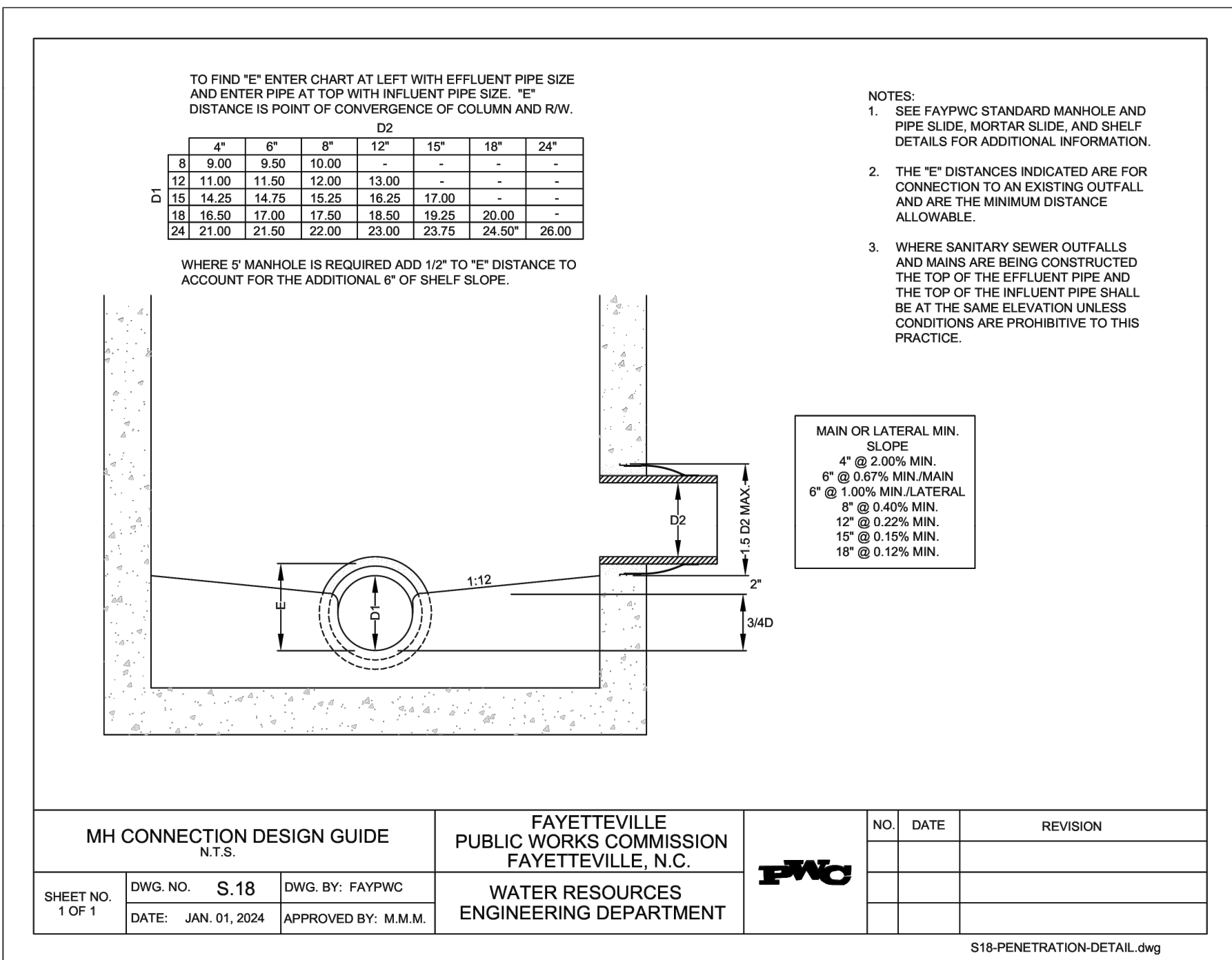
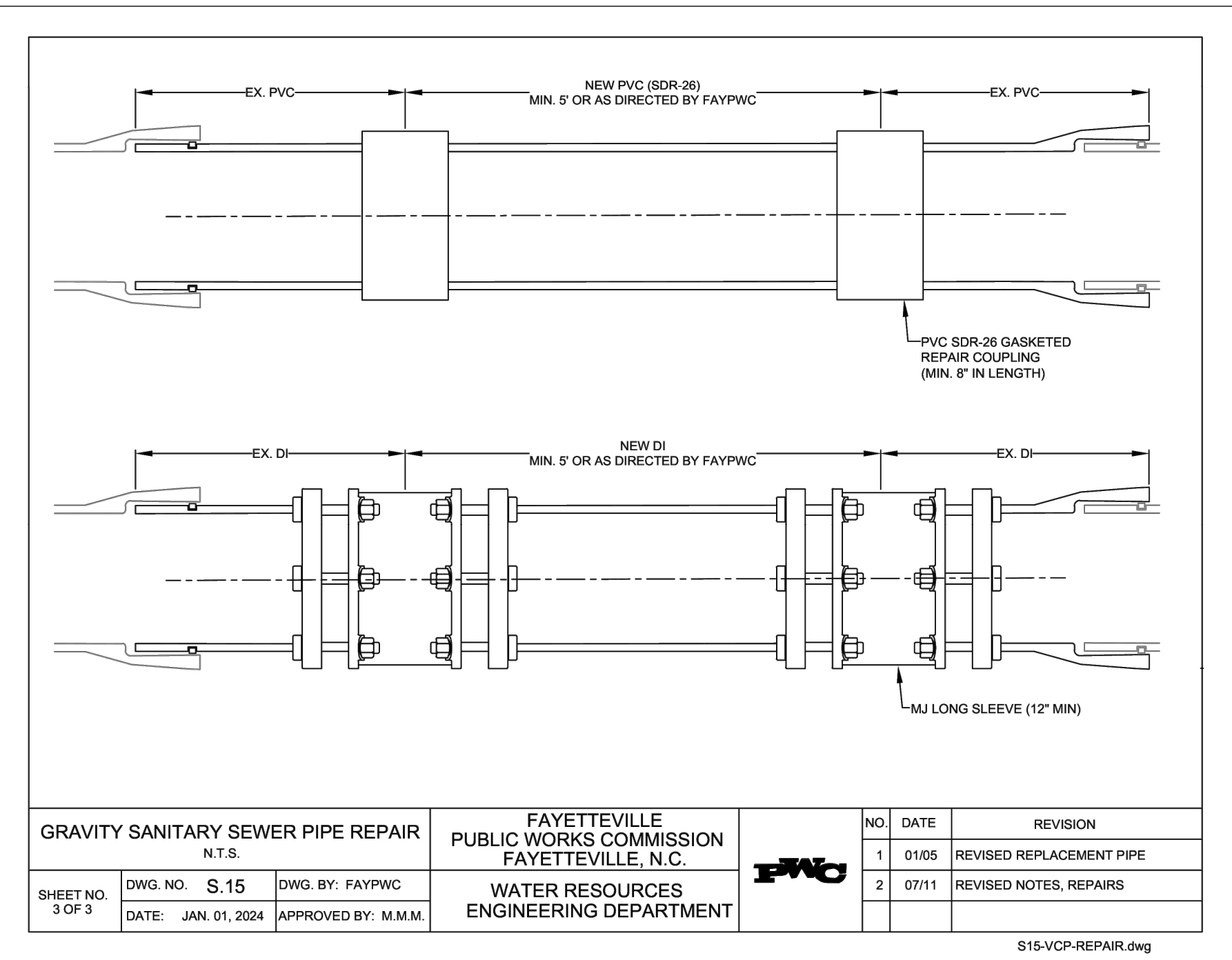
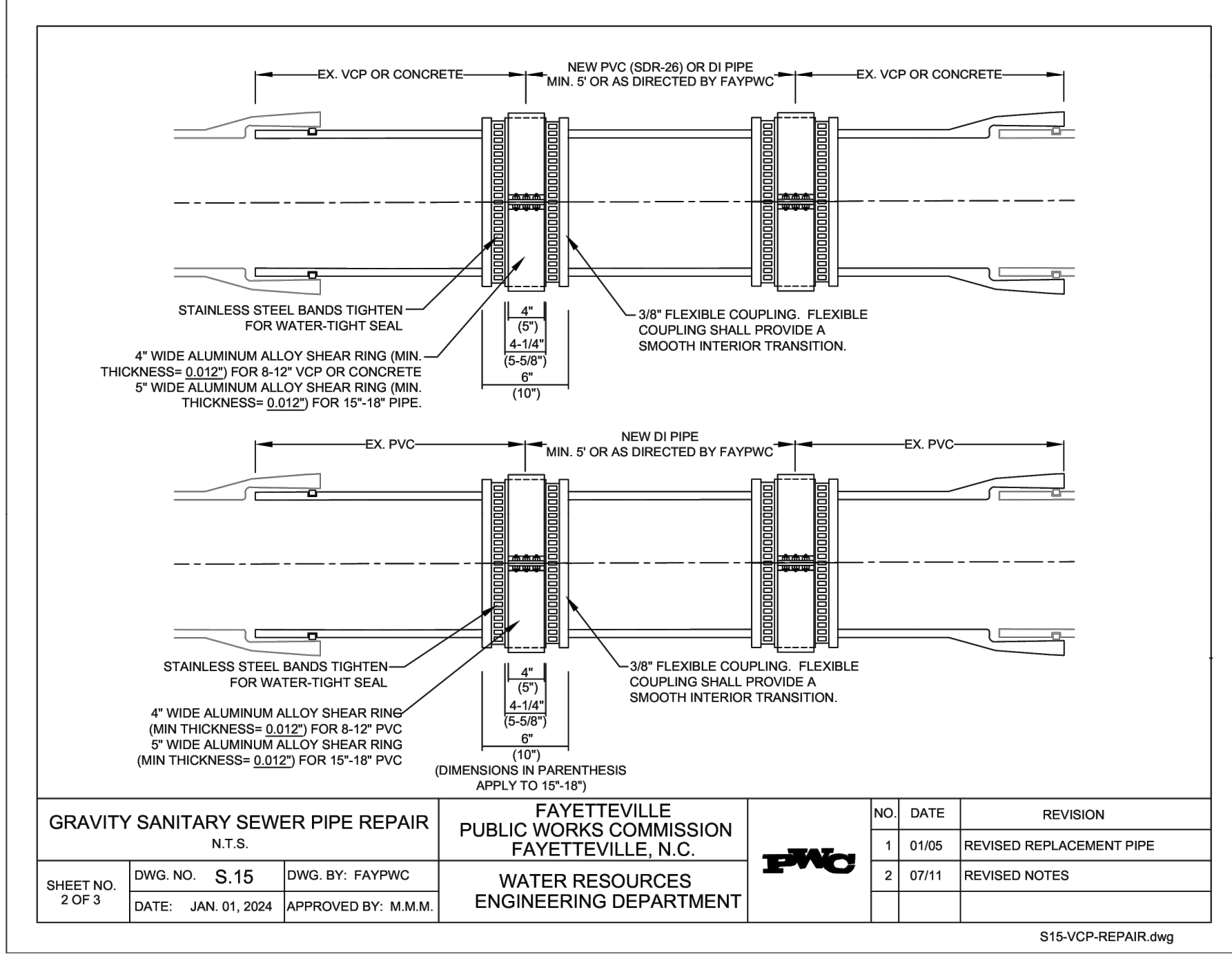
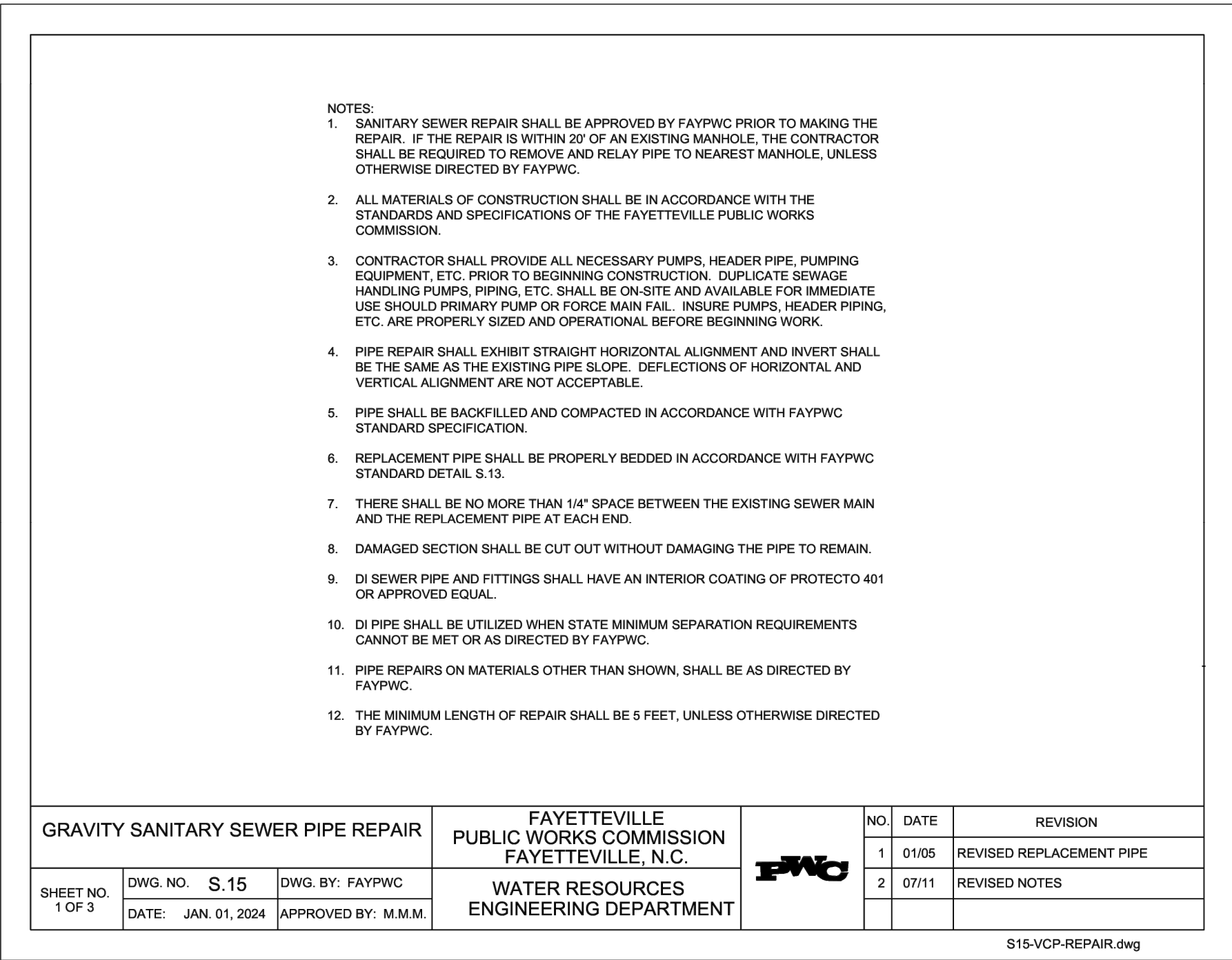
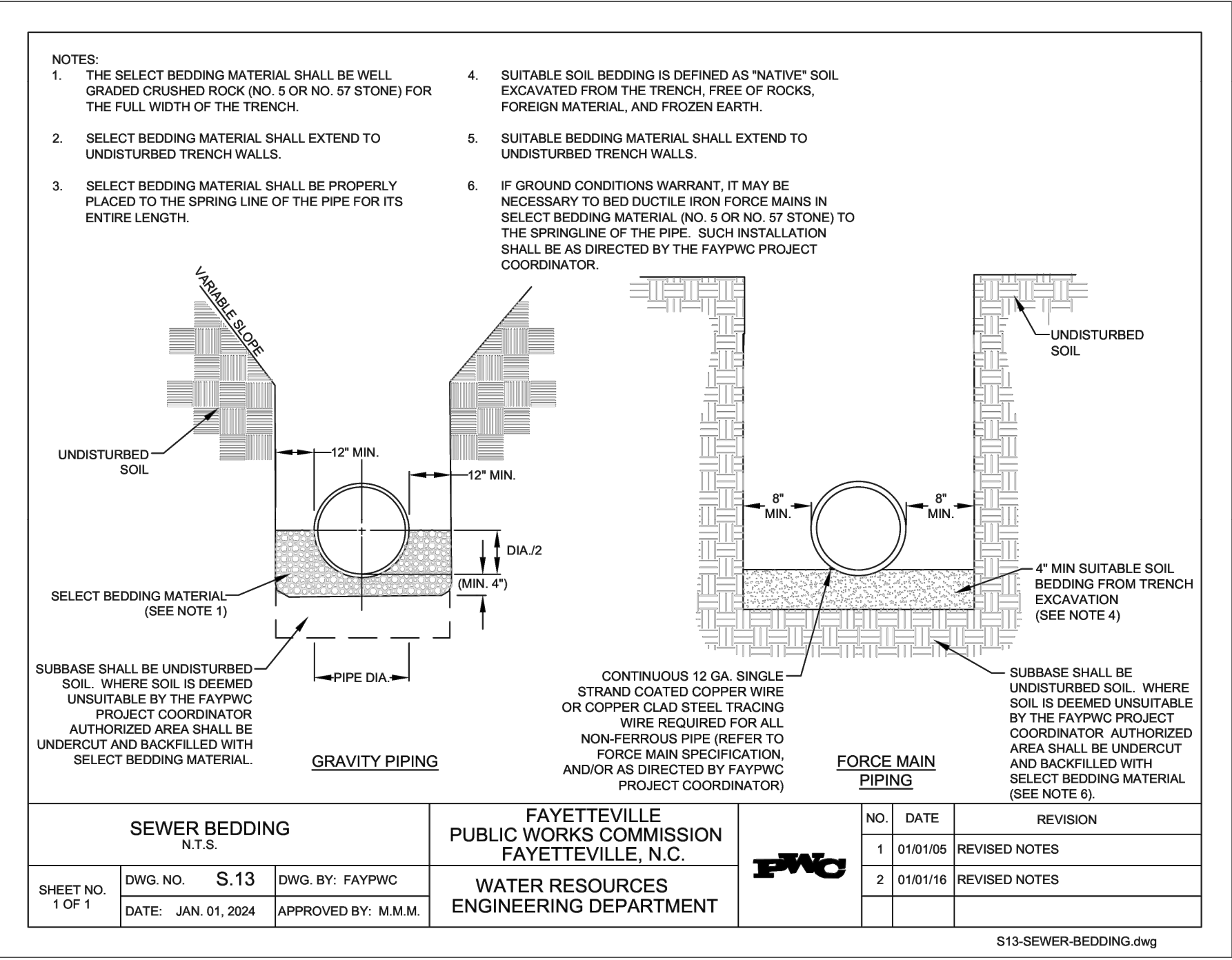
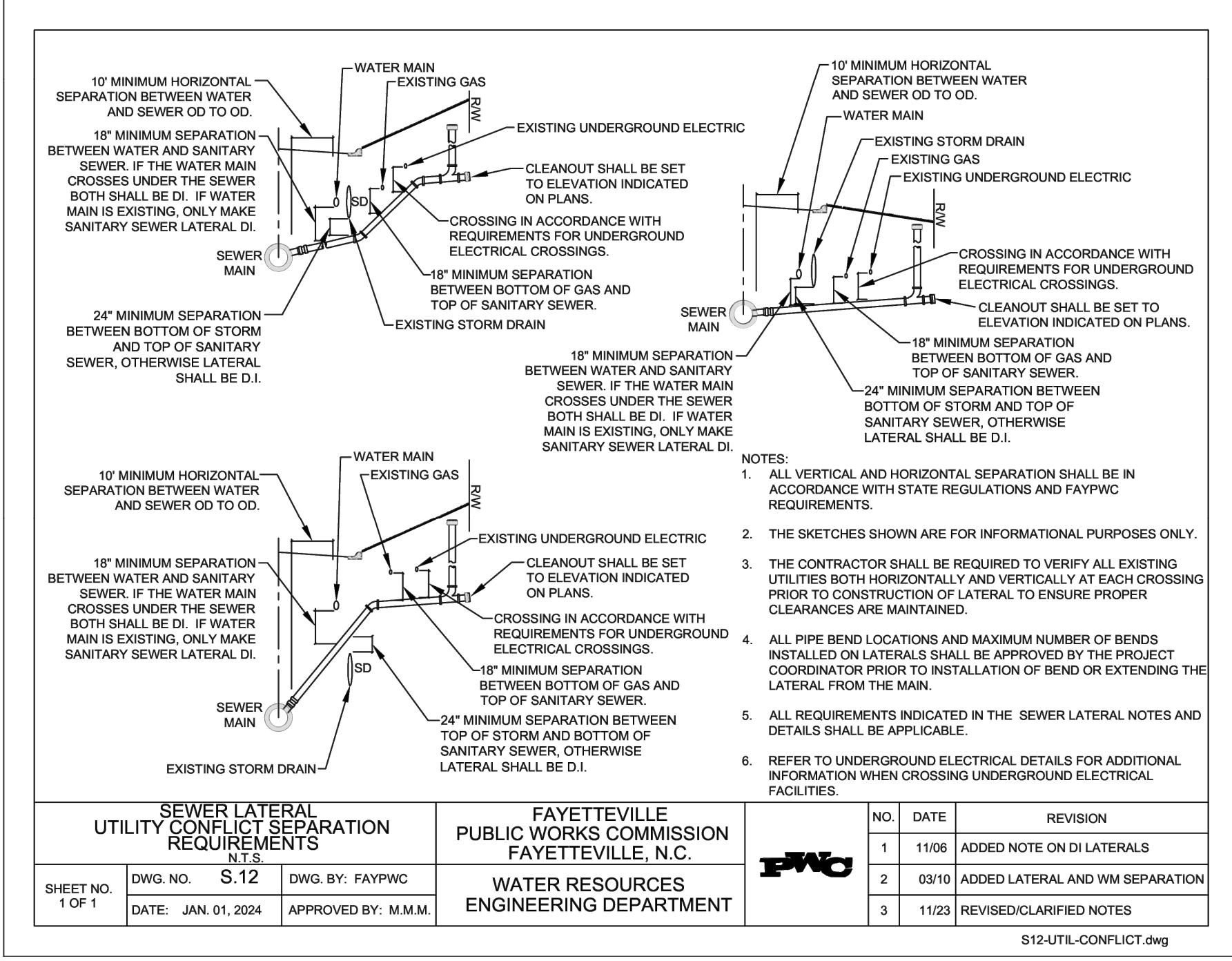
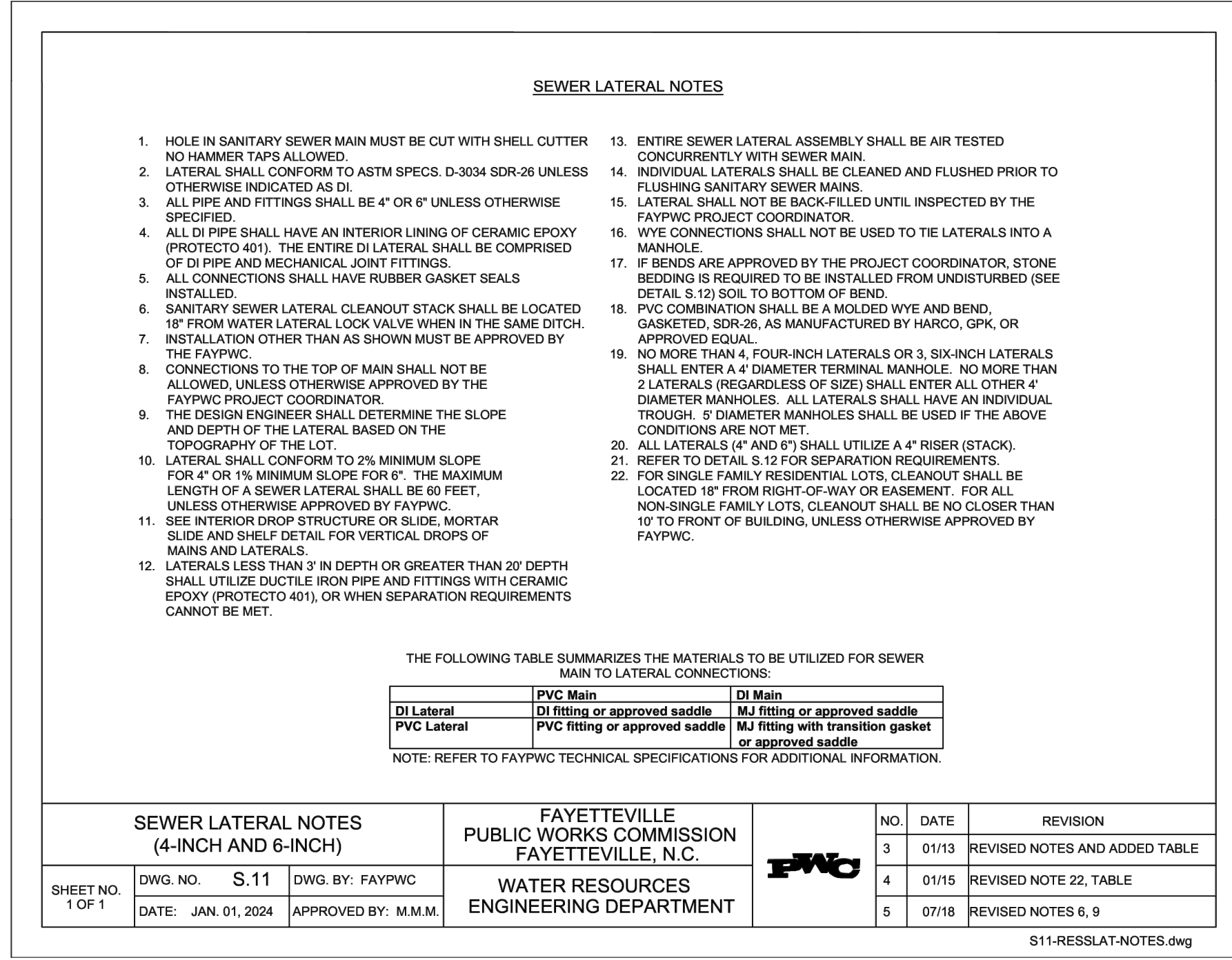
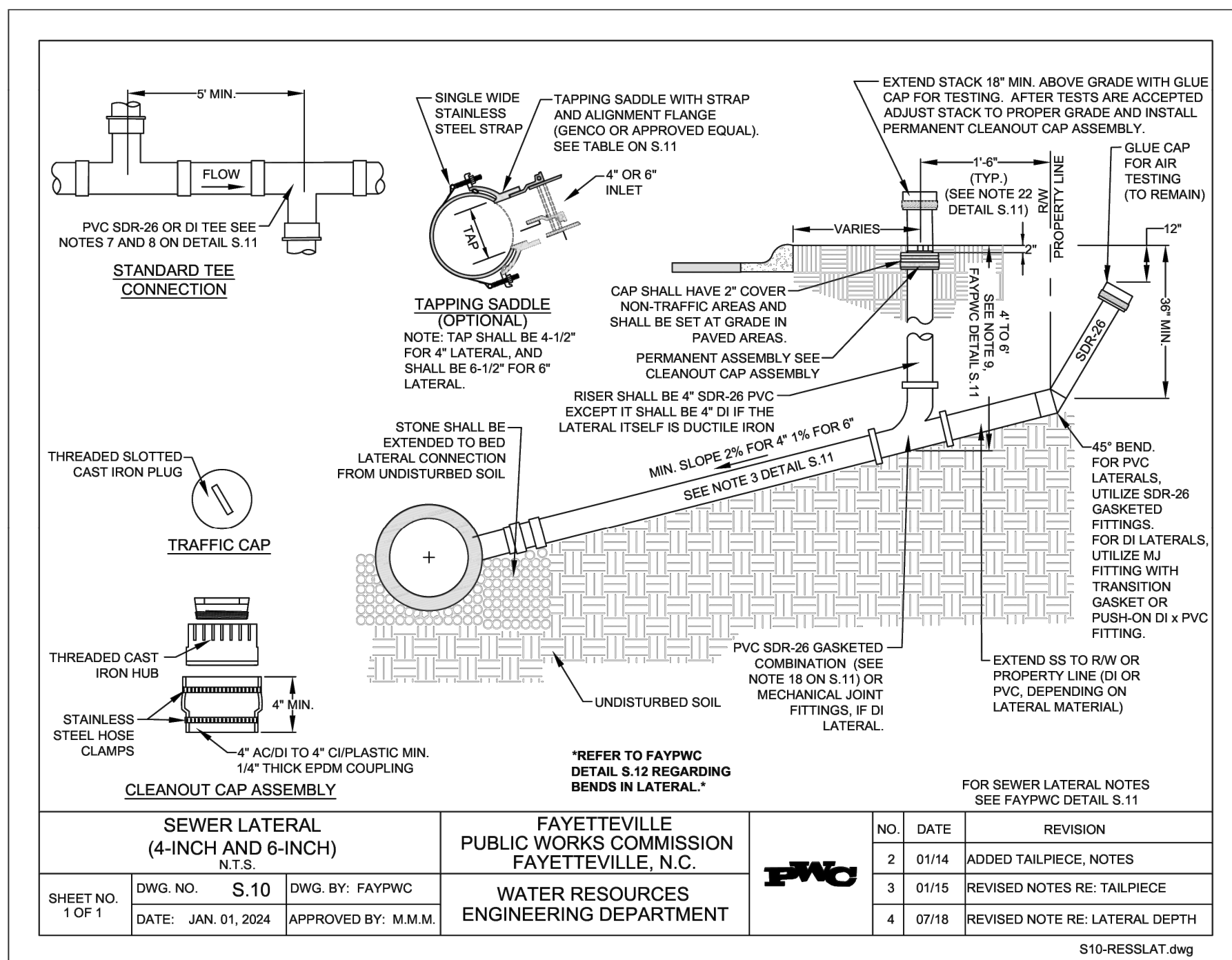
REV. #	REVISIONS	REV. BY	DATE
	DESCRIPTION		

CONSTRUCTION SET

PROJECT: IVY AND LYON ROAD
DRAWN: SHANE VANDERGRIFT
CHECK: CHRIS ROGERS
DESIGN: DAVID DUNGAN
APPROVED: [Signature]

PROJECT NO. 54960.001
SUB-LEDGER NO. [Blank]

DATE: 03/08/2024
SCALE: N.T.S.



DETAILS
PLAN TYPE: DETAILS
SHEET NUMBER: C707

DETAILS

FAYETTEVILLE:
AMERICA'S CAN DO CITY
ENGINEERING DIVISION
ENGINEERING & INFRASTRUCTURE DEPARTMENT
439 HAY STREET FAYETTEVILLE, NC 28401



CONSTRUCTION SET

REV. # REVISIONS DESCRIPTION

PROJECT NO. 54960.001
SUB-LEDGER NO. _____

PROJECT: IVY AND LYON ROAD
NAME: DRAINAGE IMPROVEMENTS
CHECK: CHRIS ROGERS
DESIGN: DAVID DUNGAN
DATE: 03/08/2024

1. ALL WATER MAINS, LATERALS AND APPURTENANCES SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH FAYETTEVILLE PWC STANDARDS.

2. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3. CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS NOTICE FOR ALL WATER OUTAGES.

4. CONSTRUCTION STAKING IS REQUIRED FOR ALL PWC WATER AND SEWER UTILITY INSTALLATIONS. CUT SHEETS, SIGNED AND SEALED BY A NC PLS. SHALL BE PROVIDED TO THE PWC WATER RESOURCES ENGINEERING DEPARTMENT AND THE CONTRACTOR IN ADVANCE OF CONSTRUCTION FOR PWC WATER AND SEWER UTILITIES.

5. CONTRACTOR SHALL MAINTAIN A COPY OF THE SIGNED AND SEALED CUT SHEET ON THE JOB SITE. CONSTRUCTION OF PWC WATER AND SEWER UTILITIES CANNOT BEGIN UNTIL THE CONTRACTOR POSSESSES, ON SITE, A SIGNED AND SEALED CUT SHEET FROM THE PROFESSIONAL LAND SURVEYOR.

6. ALL NEW WATER AND SEWER MAINS, LATERALS, AND APPURTENANCES SHALL BE TESTED AND/OR DISINFECTED IN ACCORDANCE WITH FAYETTEVILLE PWC STANDARDS PRIOR TO PLACING INTO SERVICE.

7. CONTRACTOR SHALL COORDINATE TESTING AND INSPECTION WITH THE FAYETTEVILLE PWC PROJECT COORDINATOR.

8. CONTRACTOR SHALL REPAIR ALL WATER LATERALS AND MAINS DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL REPORT IMMEDIATELY ALL WATER MAIN AND LATERAL BREAKS TO THE PWC PROJECT COORDINATOR. THE CONTRACTOR SHALL INITIATE IMMEDIATE REPAIRS IN ACCORDANCE WITH PWC STANDARDS. CONTRACTOR SHALL NOT OPERATE PWC WATER MAIN VALVES WITHOUT PWC APPROVAL AND SHALL COORDINATE ALL VALVE CLOSINGS WITH PWC.

9. THE CONTRACTOR SHALL NOT USE HOUSE HOSE BIBBS OR ANY OTHER METHOD OF BLOW OFF WHICH ALLOWS DOMESTIC WATER CONTAINING SEDIMENTS OR HIGH LEVELS OF CHLORINE TO PASS THRU RESIDENTS METERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES RESULTING FROM ALLOWING "DIRTY" WATER TO ENTER RESIDENTS PLUMBING SYSTEM, SUCH AS WATER HEATERS, STAINED CLOTHING, CLOSED SCREENS, ETC.

10. TRANSFER OF WATER SERVICES SHALL BE ACCOMPLISHED AS FOLLOWS:
 A. INSTALL, TEST AND STERILIZE NEW MAIN AND LATERALS. LATERALS SHALL BE INSTALLED BY INSERTING RIGHT OF WAY UNLESS OTHERWISE SPECIFIED BY PWC.
 B. TRANSFER EXISTING METER TO NEW METER BOX AND THE NEW WATER LATERAL TO EXISTING DOMESTIC SERVICE LINE USING BRASS FITTINGS. SAME METER NUMBER SHALL BE INSTALLED ON SAME ADDRESS AND/OR CUSTOMER. BLOW OFF SERVICE AT HOSE BIBB ON HOUSE ONLY AFTER METER HAS BEEN TRANSFERRED.
 C. AFTER ALL SERVICES ARE TRANSFERRED TO THE NEW SYSTEM, SHUT OFF VALVE ON EXISTING SYSTEM AND ABANDON EXISTING MAINS IN ACCORDANCE WITH PWC REQUIREMENTS.
 D. CONTRACTOR SHALL SUPPLY NEW METER BOXES AND DISPOSE OF EXISTING METER BOXES.

11. CONTRACTOR SHALL ABANDON ("KILL-OUT") ANY EXISTING WATER SERVICES THAT WILL NOT BE UTILIZED BY CUTTING THE SERVICE AT THE MAIN, PLACING THE COPPER END, AND TURNING OFF THE COPPER AT THE METER BOX. THE ABANDONED SERVICE IS TO BE CUT OR GRATED, AND BURIED A MINIMUM OF 3 FEET BELOW GRADE.

12. ALL EXISTING UTILITIES IMPACTED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISHED GRADE, IN ACCORDANCE WITH PWC REQUIREMENTS.

13. ALL WORK ON PWC WATER UTILITIES (MAINS, LATERALS, ETC) SHALL BE PERFORMED BY A LICENSED UTILITY CONTRACTOR. THE FAYETTEVILLE PUBLIC WORKS COMMISSION SHALL OBSERVE AND APPROVE ALL WORK ON PWC WATER UTILITIES. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH PWC REQUIREMENTS.

14. SEPARATION REQUIREMENTS:
 A. LATERAL SEPARATION OF SEWERS AND WATER MAINS: WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWER MANHOLE, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 14" TO 18" LATERAL SEPARATION. IN WHICH CASE:
 I. THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MANHOLE, OR
 II. THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER MANHOLE WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MANHOLE.
 B. CROSSING A WATER MAIN OVER A SEWER: WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER MANHOLE, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MANHOLE.
 C. CROSSING WATER MAIN UNDER A SEWER: WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER MANHOLE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES RESULTING FROM ALLOWING "DIRTY" WATER TO ENTER RESIDENTS PLUMBING SYSTEM, SUCH AS WATER HEATERS, STAINED CLOTHING, CLOSED SCREENS, ETC.

WATER UTILITY NOTES		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.	NO.	DATE	REVISION
1	01/01/18	ADDED NOTES 6, 8			
2	06/01/21	ADDED NOTES 1-7 AND RENUMBERED			
3	11/23	REVISED NOTES 10, 14			

W1-WATER-UTILITY-NOTES.dwg

D. CROSSING STORM DRAINAGE LINE: A MINIMUM OF 12-INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN A WATER LINE CROSSING OVER A STORM DRAINAGE LINE UNLESS DUCTILE IRON PIPE IS USED. IN ADDITION, THREE AND A HALF (3 1/2) FEET OF COVER MUST BE MAINTAINED OVER THE WATER MAIN OR IT SHALL BE DUCTILE IRON. IF DUCTILE IRON PIPE IS USED THEN TWO AN A HALF (2 1/2) FEET OF COVER MUST BE MAINTAINED OVER THE WATER MAIN AND A MINIMUM OF 12-INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND THE STORM DRAINAGE LINE. WHERE A WATER MAIN CROSSES UNDER A STORM DRAINAGE LINE THE MINIMUM OF TWELVE (12) INCHES OF VERTICAL SEPARATION SHALL BE MAINTAINED AND THE WATER MAIN SHALL BE DUCTILE IRON FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING.

15. WATER OUTAGES: THE CONTRACTOR SHALL SCHEDULE A COORDINATION MEETING WITH THE PWC PROJECT COORDINATOR AND PROJECT ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO ANY PLANNED WATER OUTAGE. THE COORDINATION MEETING SHALL BE CONDUCTED PRIOR TO ANY NOTICES BEING ISSUED. ADDITIONALLY, THE CONTRACTOR SHALL LOCATE VERTICALLY AND HORIZONTALLY ANY UTILITIES WITHIN THE WORK AREA IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS. THE LOCATIONS OF ALL UTILITIES WITHIN THE WORK AREA SHALL BE DETERMINED PRIOR TO THE COORDINATION MEETING. ANY CONFLICTS WITH THE PENDING WORK AND THE EXISTING UTILITIES SHALL BE IDENTIFIED AND A PLAN FOR RESOLVING ANY CONFLICTS SHALL BE PRESENTED. THE PURPOSE OF THIS COORDINATION MEETING IS TO ENSURE THAT THE CONTRACTOR HAS A GOOD UNDERSTANDING OF THE REQUIREMENTS RELATED TO THE PENDING OUTAGE, VERIFY THAT THERE ARE NO UTILITY CONFLICTS THAT WILL PREVENT THE WORK FROM BEING COMPLETED, ALL EQUIPMENT IS IN GOOD WORKING ORDER, ALL EQUIPMENT IS FUNCTIONAL, ALL MATERIALS ARE ON SITE, ALL NECESSARY TOOLS ARE ON SITE, DISCUSS ANY NECESSARY CONTINGENCY PLANS, AND ANY OTHER ITEMS NECESSARY TO ENSURE THAT THE FAYETTEVILLE PUBLIC WORKS COMMISSION HAS CONFIDENCE THAT THE WORK CAN BE ACCOMPLISHED WITHIN THE GIVEN TIME PERIOD. SHOULD, FOR ANY REASON, THE FAYETTEVILLE PUBLIC WORKS COMMISSION DEEM THAT THE CONTRACTOR IS NOT PREPARED FOR THE PROPOSED OUTAGE, THE OUTAGE NOTIFICATION WILL NOT BE DISTRIBUTED AND THE OUTAGE SHALL BE POSTPONED A MINIMUM OF TWO (2) WEEKS. THE FAYETTEVILLE PUBLIC WORKS COMMISSION WILL PROVIDE WRITTEN NOTIFICATION TO THE CONTRACTOR OF THIS DECISION. NO ADDITIONAL CONTRACT TIME WILL BE GRANTED FOR THIS DELAY. SHOULD THE CONTRACT TIME EXPIRE WITHIN THAT TWO (2) WEEK PERIOD, THE FAYETTEVILLE PUBLIC WORKS COMMISSION RESERVE THE RIGHT TO ABANDON LIQUIDATED DAMAGES, AS OUTLINED IN THESE CONTRACT DOCUMENTS.

ONCE THE WATER OUTAGE NOTIFICATIONS HAVE BEEN ISSUED, A FOLLOW-UP COORDINATION MEETING WITH THE PWC PROJECT COORDINATOR AND PROJECT ENGINEER SHALL BE HELD A MINIMUM OF 24 HOURS PRIOR TO THE SCHEDULED PURPOSE OF THIS MEETING IS TO VERIFY THAT THE CONTRACTOR IS PREPARED TO PROCEED WITH THE OUTAGE, AND THAT ALL EQUIPMENT, MATERIALS, TOOLS, AND ALL OTHER INCIDENTALS ARE ON THE PROJECT SITE AND FUNCTIONING. IF FOR ANY REASON THE FAYETTEVILLE PUBLIC WORKS COMMISSION DEEMS THAT THE CONTRACTOR IS NOT PREPARED, THE OUTAGE SHALL BE POSTPONED AND ALL CUSTOMERS IMMEDIATELY NOTIFIED OF THE CANCELLATION. THE OUTAGE SHALL BE POSTPONED A MINIMUM OF TWO (2) WEEKS. NO ADDITIONAL CONTRACT TIME WILL BE GRANTED FOR THIS DELAY. SHOULD THE CONTRACT TIME EXPIRE WITHIN THAT TWO (2) WEEK PERIOD, THE FAYETTEVILLE PUBLIC WORKS COMMISSION RESERVE THE RIGHT TO ABANDON LIQUIDATED DAMAGES, AS OUTLINED IN THESE CONTRACT DOCUMENTS.

THE CONTRACTOR SHALL COMPLETE THE REQUIRED WORK WITHIN THE ALLOTTED TIME. THE FAYETTEVILLE PUBLIC WORKS COMMISSION SHALL ASSESS A PENALTY OF \$500 PER 15-MINUTE INTERVAL ON ANY PORTION THEREOF UNTIL WATER SERVICE IS RESTORED. THIS PENALTY WILL BE DEDUCTED FROM THE CONTRACTORS PAY APPLICATION OR BE BILLED DIRECTLY TO THE CONTRACTOR. THE PENALTY MAY BE WAIVED FOR CIRCUMSTANCES BEYOND THE CONTRACTORS CONTROL, AS DETERMINED BY THE FAYETTEVILLE PUBLIC WORKS COMMISSION. THE PWC PROJECT COORDINATOR AND/OR PROJECT ENGINEER RESERVE THE RIGHT TO CANCEL OR POSTPONE THE OUTAGE AT ANY GIVEN TIME, IF DEEMED NECESSARY.

WATER UTILITY NOTES		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.	NO.	DATE	REVISION
1	01/01/18	ADDED NOTES 6, 8			
2	06/01/21	ADDED NOTES 1-7 AND RENUMBERED			
3	11/23	REVISED NOTES 10, 14			

W1-WATER-UTILITY-NOTES.dwg

1" WATER SERVICE LATERAL N.T.S.

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	07/06	RESIZED METER COUPLING
2	07/13	REVISED NOTE RE: TRACER WIRE
3	07/17	REVISED NOTES

W2-WLAT.dwg

NOTES:
 1. ALL MATERIALS SHALL BE APPROVED BY FAYFWPC. SEE DRAWING W-4 SHEET 2 OF 2 FOR METER BOX LID DETAIL.
 2. METER BOX SHALL NOT BE LOCATED WHERE IN-20 LOADINGS CAN IMPACT BOX OR COVER.
 3. FOR 1" WATER LATERAL INSTALLATION, SEE FAYFWPC DETAIL W-2.
 4. DIMENSIONS ± 1/16 IN. U.O.

1-INCH METER BOX LID N.T.S.

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	03/10	CHANGED BOX DIMENSIONS

W4-1IN-METERBOX.dwg

1-INCH METER BOX LID N.T.S.

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	07/07	REVISED LID
1	03/10	CHANGED BOX AND LID DIMENSIONS
2	01/15	REVISED LID

W4-1IN-METERBOX.dwg

GATE VALVE N.T.S.

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	6/06	ADDED NOTE NO. 9
2	7/09	CLARIFIED NOTES

W6-GATEVALVE.dwg

VALVE BOX N.T.S.

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	07/09	ADDED NOTES 7, 8, AND CLARIFIED NOTES
2	01/14	REVISED NOTES 1, 4, 6

W7-VALVEBOX.dwg

VALVE BOX PROTECTOR RING N.T.S.

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	07/09	ADDED NOTES 7, 8, AND CLARIFIED NOTES
2	01/14	REVISED NOTES 1, 4, 6

W8-CONC-PROTECTOR-RING.dwg

TAPPING VALVE N.T.S.

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

VALVE SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	R	S	T	URNS OPEN	WEIGHT W/ACC
4	4-3/8	5-7/8	10-1/2	11-7/2	9	7-1/2	4-7/8	4-3/8	4-29/32	2-1/2	7-1/2	9	14-1/8	9	8-3/4	1/4	14	119
6	6-7/8	6-1/4	11	12-6/8	11	9-1/2	6-7/8	6-5/8	6-1/4	3	2-1/2	9-1/2	11	17-5/8	11-3/4	1/4	21	176
8	8-1/2	7-1/4	11-3/8	13-3/4	13-1/4	11-3/4	8-3/4	8-5/32	8-5/32	2-1/2	11-3/4	13-1/2	21	14-1/4	8-7/8	1/4	28	274
12	12	8-1/4	13-1/8	17-3/4	16-1/4	17-3/8	12-1/2	12-5/16	12-5/16	3	17-1/2	19	33	14	19	1/4	37	375
16	16	8-1/2	16-1/8	17-7/8	21-7/8	23	21	17-7/8	16-15/16	3-1/2	21-1/4	23-1/2	38-5/8	26-1/8	18-1/8	1/4	55	1140
24	24	10-1/2	14-1/4	17-7/8	21-7/2	31-3/4	30	16-7/8	24-15/16	26-1/8	31-7/2	32	44-5/8	37-5/8	20-1/8	1/4	126	3229

NO.	DATE	REVISION
1	07/09	ADDED NOTE 10, REVISED 4 AND 5
2	07/13	REVISED NOTES 4, 8, 10

W9-M-J-TAPPING-VALVE.dwg

PROJECT NO. 54960.001
 SUB-LEDGER NO. _____

REVISIONS

REV. #	DESCRIPTION	REV. BY	DATE

CONSTRUCTION SET

PROJECT: IVY AND LYON ROAD
 DESIGN: CHRIS ROGERS
 CHECK: DAVID DUNGAN
 APPROVED: _____

SCALE: N.T.S.
 DATE: 03/09/2024

DRAWN: SHANE VANDERGRIFT
 SHEET NUMBER: C708
 PLAN TYPE: DETAILS

Typical Traffic Control
Crosswalk Closure and Pedestrian Detour Operation
(Figure TTC-36.1)

NOTES

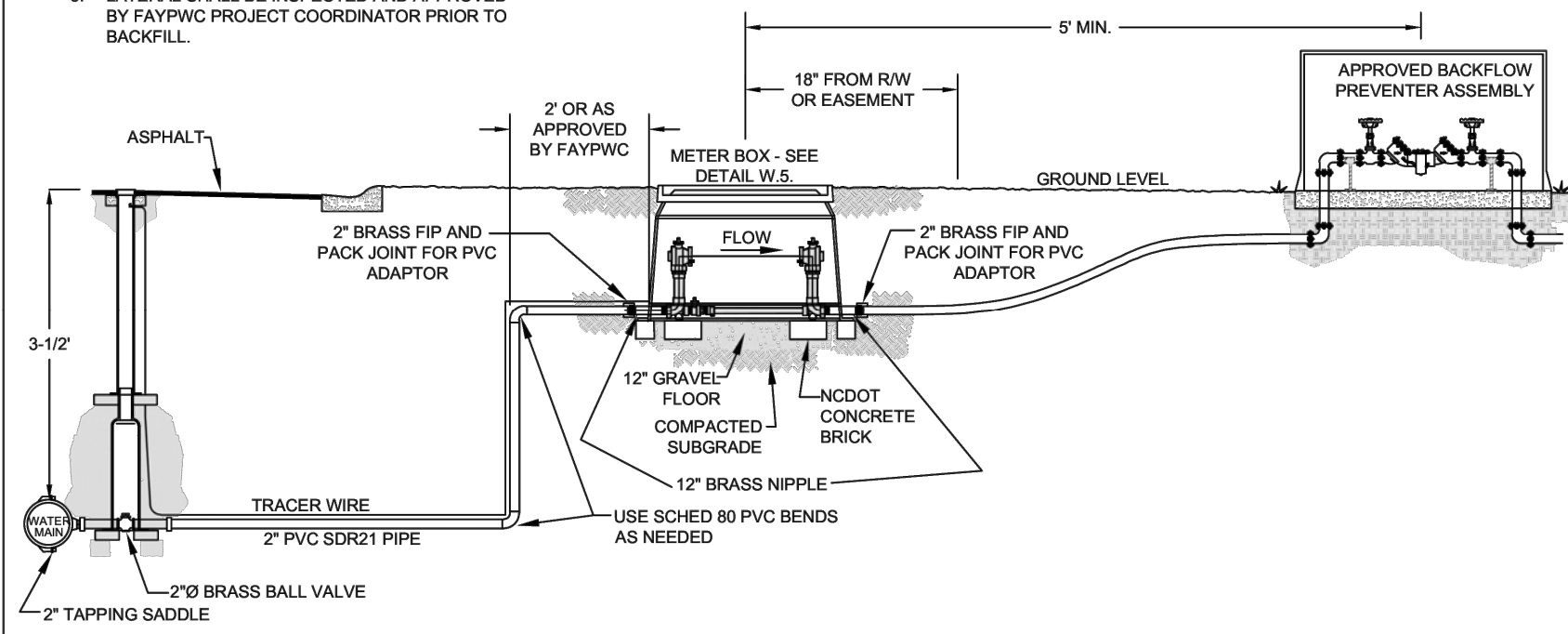
- Standard:**
- When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.
 - Curb parking shall be prohibited for at least 50 feet in advance of the midblock crosswalk.
- Guidance:**
- Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.
 - Pedestrian traffic signal displays controlling closed crosswalks should be covered or deactivated.
 - Temporary markings should be considered for operations exceeding three days in duration.
- Option:**
- Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS (W5-1) signs, may be used to control vehicular traffic.
 - For nighttime closures, Type A Flashing warning lights may be used on barricades supporting signs and closing sidewalks.
 - In order to maintain the systematic use of the fluorescent yellow-green background for pedestrian, bicycle, and school warning signs in a jurisdiction, the fluorescent yellow-green background for pedestrian, bicycle, and school warning signs may be used in TTC zones.
- Standard:**
- All sidewalk closures shall be closed with Type 3 Barricades.
- Support:**
- Refer to Sections 3B-16 through 3B-18 of the 2009 MUTCD and the Virginia Supplement to the MUTCD for crosswalk lines, yield lines and other related TTC devices that may be used to control vehicular traffic at midblock crosswalks.

DETAILS

PLAN TYPE: DETAILS

SHEET NUMBER: C710

- NOTES:**
- FOR USE WITH 1-1/2" OR 2" DOMESTIC METER.
 - METER BOX AND SETTER SHALL BE IN ACCORDANCE WITH FAYPWC DETAIL W.5.
 - MINIMUM 5' BETWEEN THE METER AND THE BACKFLOW PREVENTER.
 - IF THE METER BOX IS LOCATED LESS THAN 5' AWAY FROM THE MAIN, THE 2" PIPING AND FITTINGS SHALL BE BRASS FROM THE TAP TO THE METER.
 - LATERAL SHALL BE INSPECTED AND APPROVED BY FAYPWC PROJECT COORDINATOR PRIOR TO BACKFILL.
 - ALL MATERIALS SHALL BE APPROVED BY FAYPWC.
 - LOCATION OF BOX SHALL BE AS DETERMINED BY FAYPWC PROJECT COORDINATOR. IN NO CASE SHALL BOX BE INSTALLED CLOSER THAN 5' TO BUILDING.
 - CONTRACTOR SHALL INSTALL TRACING WIRE INTO BOX. A MINIMUM OF 2' OF WIRE SHALL BE IN BOX.



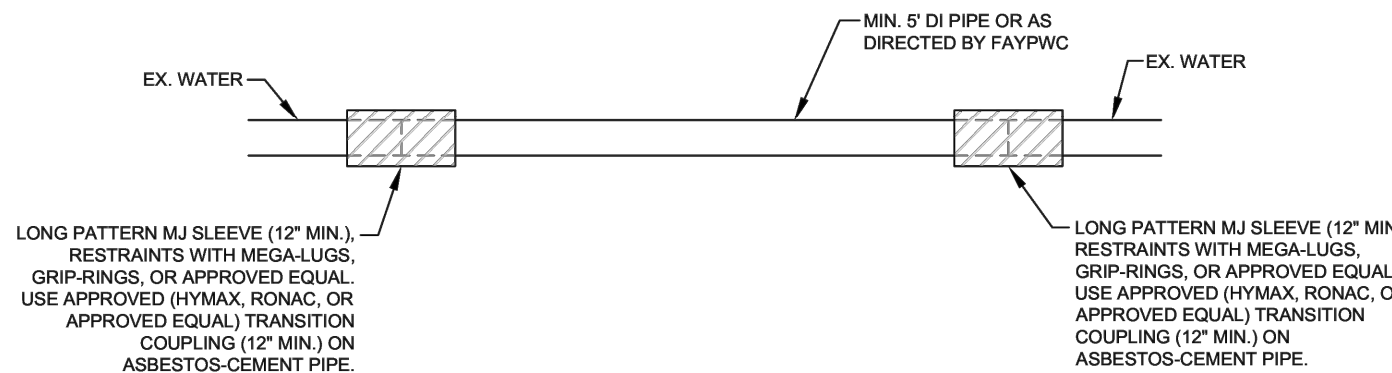
2" DOMESTIC LATERAL N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
				1	07/01/17	REVISED NOTES

SHEET NO. 1 OF 1
 DWG. NO. W.30
 DATE: JAN. 01, 2024
 APPROVED BY: M.M.M.

FAYETTEVILLE
 PUBLIC WORKS COMMISSION
 WATER RESOURCES
 ENGINEERING DEPARTMENT

W30-2IN-DOMESTIC-LATERAL.dwg

- NOTES:**
- ALL PIPE AND FITTINGS SHALL BE APPROVED BY FAYPWC.
 - CONTRACTOR TO COORDINATE NECESSARY OUTAGES WITH FAYPWC AND AFFECTED CUSTOMERS. MINIMUM 48 HOUR NOTICE REQUIRED.
 - NEW WATER MAIN TO BE SWABBED WITH A CHLORINE SOLUTION AND FLUSHED PRIOR TO PLACING INTO SERVICE.
 - ALL NEW FITTINGS AND PIPE TO BE RESTRAINED UTILIZING MEGA-LUGS, GRIP-RINGS, OR APPROVED EQUAL.
 - ALL PIPES TO BE DUCTILE IRON.
 - FAYPWC PROJECT COORDINATOR TO BE PRESENT DURING WORK.
 - BACKFILL AND COMPACT IN ACCORDANCE WITH THE APPLICABLE AGENCY REQUIREMENTS.
 - PROVIDE STONE BEDDING (NO. 5 OR NO. 57 STONE) TO SUPPORT REPAIRED WATER MAIN, AS APPROVED BY FAYPWC PROJECT COORDINATOR.
 - MJ RESTRAINTS ARE NOT ALLOWED ON PVC PIPE.
 - DIMENSIONS ARE GIVEN AS GENERAL GUIDANCE. EXACT DIMENSIONS ARE SUBJECT TO CHANGE BASED ON FIELD CONDITIONS AND AS DIRECTED BY FAYPWC.
 - ALL MATERIALS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF FAYPWC.
 - PIPE REPAIR SHALL EXHIBIT STRAIGHT HORIZONTAL AND VERTICAL ALIGNMENT. DEFLECTORS ON HORIZONTAL AND VERTICAL ALIGNMENT ARE NOT ACCEPTABLE.
 - THERE SHALL BE NO MORE THAN 1/4" SPACE BETWEEN THE EXISTING WATER MAIN AND THE REPLACEMENT PIPE AT EACH END.
 - DAMAGED SECTION SHALL BE CUT OUT WITHOUT DAMAGING THE PIPE TO REMAIN.
 - PIPE REPAIRS ON MATERIALS OTHER THAN SHOWN, SHALL BE AS DIRECTED BY FAYPWC.
 - THE MINIMUM LENGTH OF REPAIR SHALL BE 5 FEET, UNLESS OTHERWISE DIRECTED BY FAYPWC.

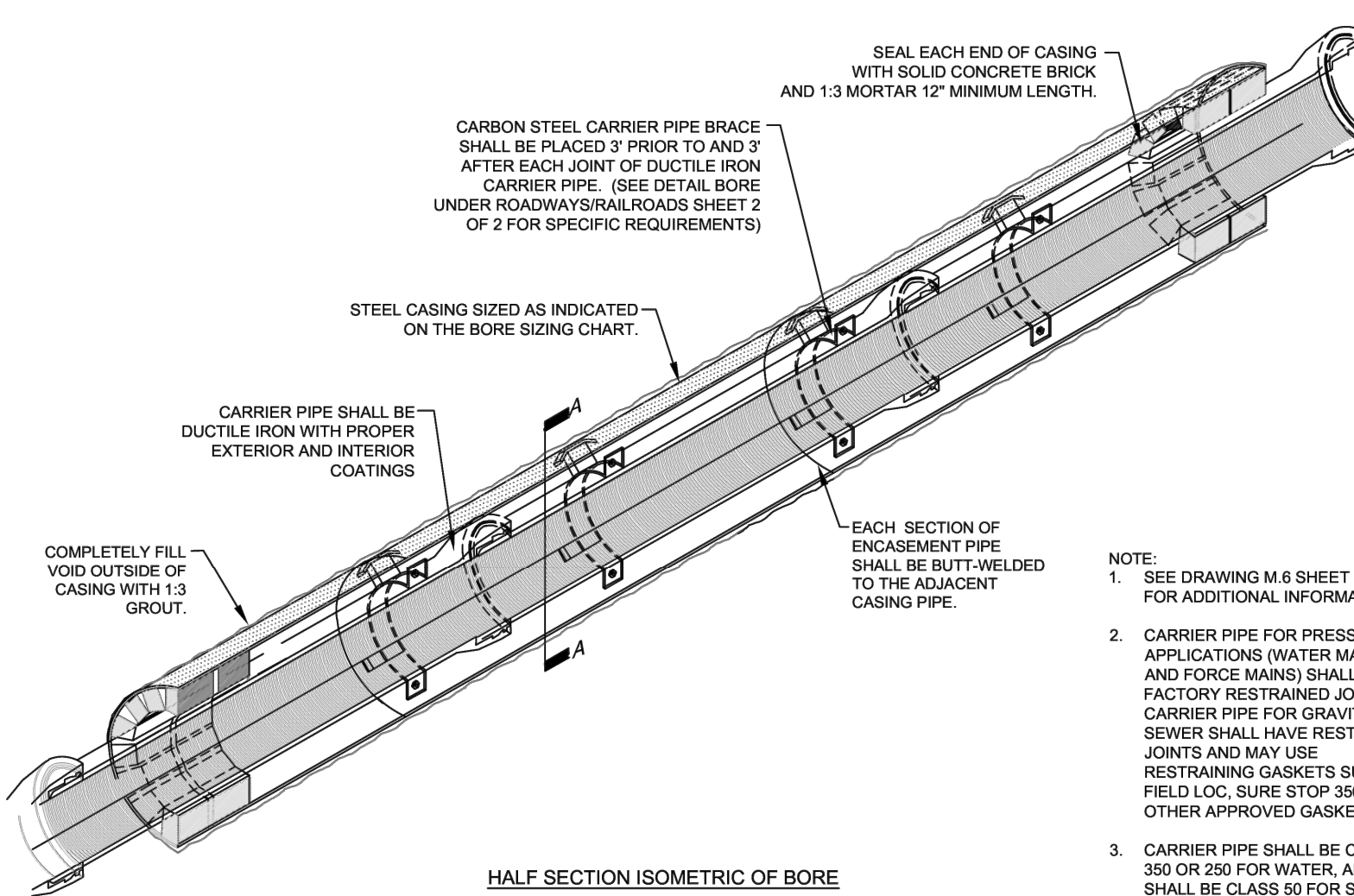


PIPE REPAIR DETAIL N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
				1		

SHEET NO. 1 OF 1
 DWG. NO. W.31
 DATE: JAN. 01, 2024
 APPROVED BY: M.M.M.

FAYETTEVILLE
 PUBLIC WORKS COMMISSION
 WATER RESOURCES
 ENGINEERING DEPARTMENT

W31-PIPE-REPAIR-DETAIL.dwg



BORE UNDER ROADWAYS/RAILROADS N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
				1	01/05	ADDED NOTES 2 AND 3
				2	10/09	CLARIFIED RESTRAINT REQUIREMENTS

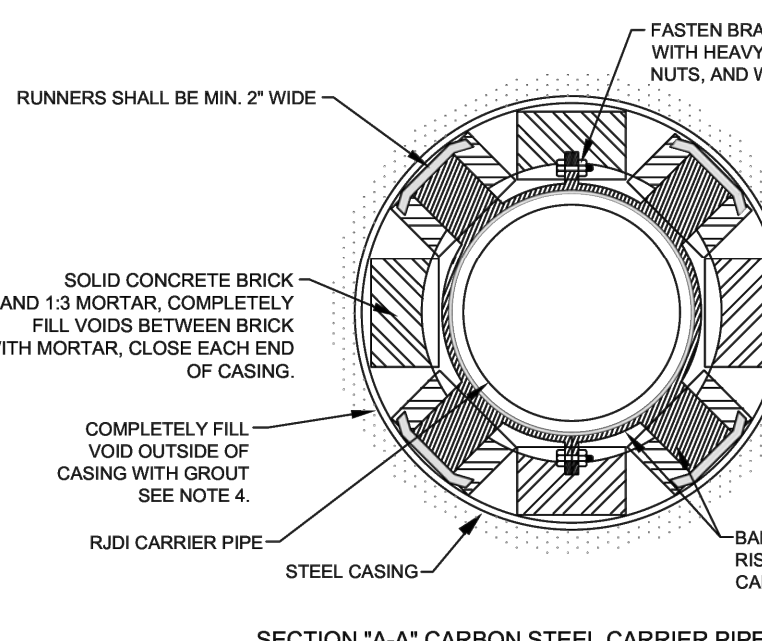
SHEET NO. 1 OF 2
 DWG. NO. M.6
 DATE: JAN. 01, 2024
 APPROVED BY: M.M.M.

FAYETTEVILLE
 PUBLIC WORKS COMMISSION
 WATER RESOURCES
 ENGINEERING DEPARTMENT

M6-BORE-ROAD-RAIL.dwg

CARRIER PIPE SIZE	ROADWAYS*		RAILROADS
	MIN. CASING SIZE	MIN. WALL THICKNESS	
4"	10"	0.188"	0.188"
6"	12"	0.25"	0.281"
8"	16"	0.25"	0.281"
12"	24"	0.25"	0.375"
16"	30"	0.312"	0.469"
18"	30"	0.312"	0.469"
24"	36"	0.375"	0.531"
30"	42"	0.500"	0.625"
36"	48"	0.500"	0.688"

*CONTRACTOR MAY SUBSTITUTE A LARGER SIZE CASING PIPE HAVING THE MINIMUM WALL THICKNESS SHOWN FOR SEWER MAINS. ALL ADDITIONAL COSTS SHALL BE INCLUDED IN THE NET PRICE BID FOR BORING AND JACKING.



BORE UNDER ROADWAYS/RAILROADS N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
				1	02/11/04	ADDED 6" CARRIER PIPE TO BORE SIZING CHART
				2	07/10	REVISED NOTES, SIZING CHART

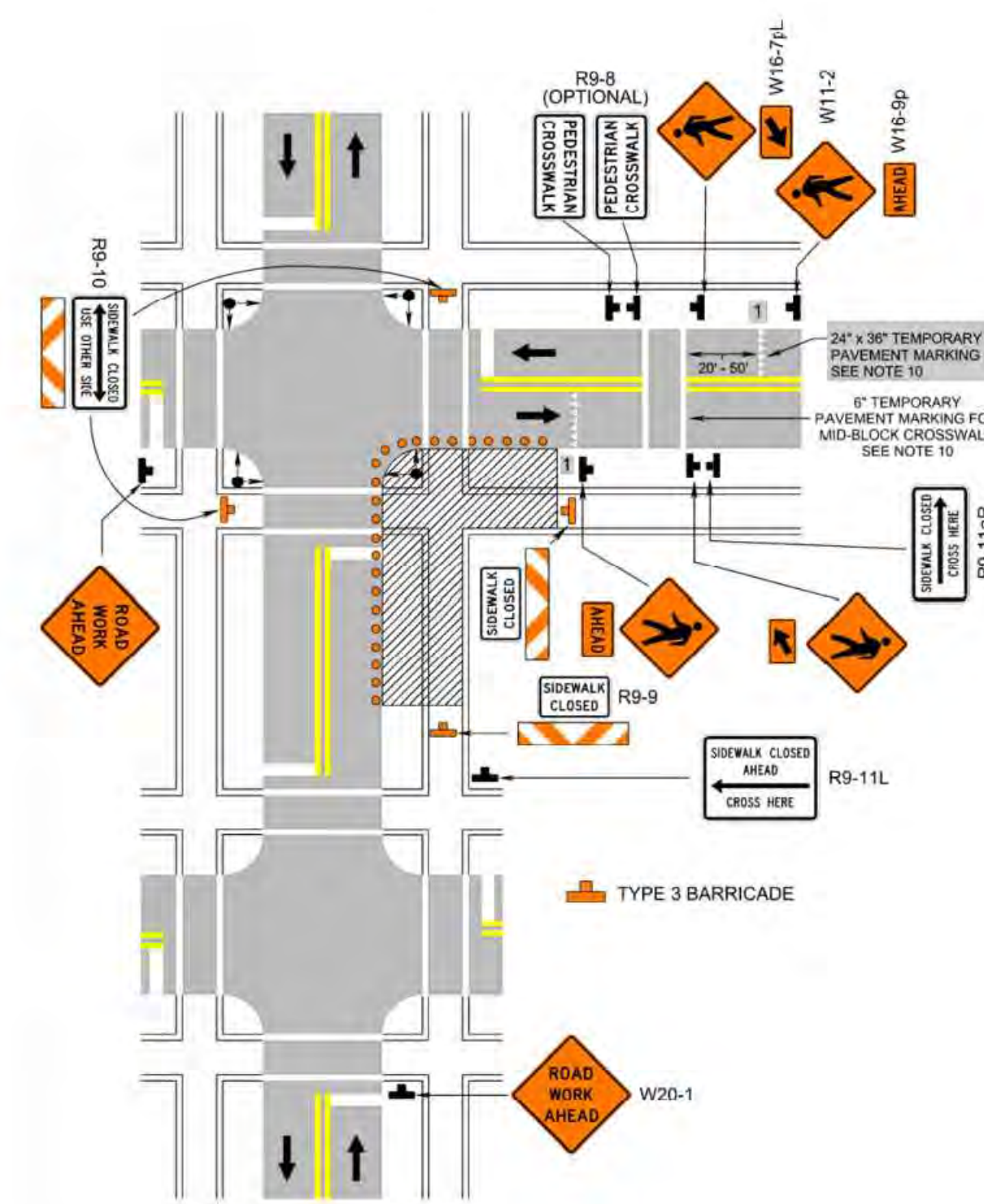
SHEET NO. 2 OF 2
 DWG. NO. M.6
 DATE: JAN. 01, 2024
 APPROVED BY: M.M.M.

FAYETTEVILLE
 PUBLIC WORKS COMMISSION
 WATER RESOURCES
 ENGINEERING DEPARTMENT

M6-BORE-ROAD-RAIL.dwg

1: Revision 1 - 4/1/2015

Crosswalk Closure and Pedestrian Detour Operation
(Figure TTC-36.1)



1: Revision 1 - 4/1/2015



REV. #	DESCRIPTION	REV. BY	DATE

CONSTRUCTION SET

DRAWN : SHANE VANDERGRIFT	PROJECT : IVY AND LYON ROAD
DESIGN : CHRIS ROGERS	NAME : DRAINAGE IMPROVEMENTS
CHECK : DAVID DUNGAN	SCALE : N.T.S.
APPROVED :	DATE : 03/08/2024
PROJECT NO. : 54960.001	
SUB-LEDGER NO. :	

