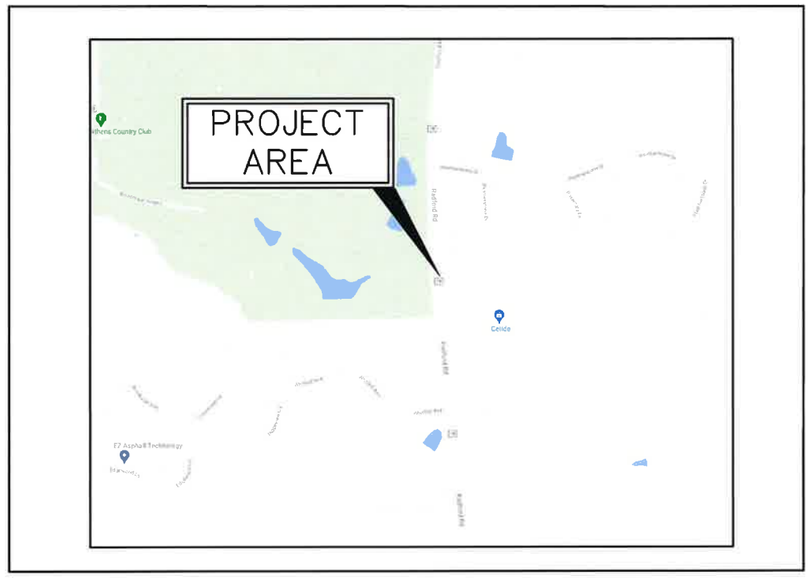
ATHENS COUNTY, OHIO
ATHENS COUNTY

U.S. 50 SANITARY SEWER IMPROVEMENTS PHASE 6 & 7



LOCATION MAP
NOT TO SCALE

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COMMISSION MEMBERS:
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CHRIS CHMIEL
CHARLIE ADKINS
DIRECTOR: RICH KASLER
CLERK: JOANN ROCKHOLD

UNDERGROUND UTILITIES
Two Working Days
BEFORE YOU DIG
Call 811
OHIO UTILITIES PROTECTION SERVICE

NON-MEMBERS
MUST BE CALLED DIRECTLY

PROJECT NO. 2128-4507.00

T-01

ATHENS COUNTY, OHIO
ATHENS COUNTY COMMISSIONERS
U.S. 50
SANITARY SEWER IMPROVEMENTS

PHASE 6 & 7
TITLE SHEET

STATE OF OHIO GARY D. SILCOTT, JR. E63906 PROFESSIONAL ENGINEER

GARY D. SILCOTT, JR. P.E. E63906

DLZ
30681 RED ROCK COURT LOGAN, OHIO 43138
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CIVIL MAPPING SYMBOLOGY

- EMBANKMENT SLOPE (CUT)
- EMBANKMENT SLOPE (FILL)
- H:V — EMBANKMENT SLOPE RIGHT ARROW RIGHT
- H:V — EMBANKMENT SLOPE LEFT ARROW LEFT
- 123 — SPOT ELEVATION/POINT #
- SURVEY BENCHMARK
- CP-X — SURVEY CONTROL POINT
- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- SECTION CORNER MONUMENT
- SECTION CORNER NO MONUMENT
- X — IDENTIFICATION AND APPROXIMATE LOCATION OF SOIL TEST HOLE
- X — TEST PIT
- X — SOIL BORING
- BUOY
- FLOW ARROW
- WATER LEVEL IN SECTION/PROFILE
- TIDE GAUGE
- EXISTING UTILITY POLE
- DOWNGUY
- X — EXTERIOR UTILITY JUNCTION BOX
- XXX — INTERSTATE HIGHWAY SYMBOL
- XXX — US HIGHWAY SYMBOL
- XXX — STATE HIGHWAY SYMBOL
- HAY BALE SILT CHECK
- TEMPORARY SEDIMENT TRAP
- X — PIEZOMETER
- RAIL SIGNAL
- RAIL SWITCH
- SIGN
- In — TIRE TREDDLE
- TRAFFIC ARM WITH CARD READER
- TRAFFIC ARM MECHANICAL SWING

- CO — CLEANOUT
- CULVERT END SYMBOL (WITH CULVERT SHOWN BETWEEN SYMBOLS)
- X — FIRE HYDRANT
- F — FUEL OIL METER
- F — FUEL OIL MANHOLE
- F — FUEL OIL VAULT
- GT — GREASE TRAP
- GC — GRIT CHAMBER
- HEADWALL
- I — INDUSTRIAL WASTE WATER METER
- I — INDUSTRIAL WASTE WATER MANHOLE
- G — NATURAL GAS METER
- G — NATURAL GAS RECEIVER
- G — NATURAL GAS TRAP
- G — NATURAL GAS LINE VAULT
- MW — MONITORING WELL
- X — POST INDICATOR VALVE
- PS X — PUMP STATION
- S — SANITARY MANHOLE
- ST — SEPTIC TANK
- X — TANK BELOW GROUND
- X — TANK HORIZONTAL ABOVE GROUND
- X — TANK VERTICAL ABOVE GROUND

- CB — STORM CATCH BASIN
- CB — STORM ROUND CATCH BASIN
- D — STORM DRAINAGE MANHOLE
- WATER/AIR VENT
- W — WATER BACKFLOW PREVENTER
- WATER BLOWOFF
- W — WATER METER
- W — WATER SHUTOFF
- WS — WATER SOFTENER
- W — WATER VALVE VAULT
- VALVE

UTILITY/CIVIL LINE SYMBOLOGY

- PIPELINE
- LARGE PIPELINE
- UTILITY BENEATH STRUCTURE
- RAILROAD
- CENTERLINE
- BOTTOM OF DITCH
- PROPERTY LINE
- EASEMENT
- LIMITS OF CONSTRUCTION
- ROW
- EXISTING CONTOUR (MINOR)
- 25 — EXISTING CONTOUR W/ELEVATION (MAJOR)
- EXISTING FENCE
- EXISTING VEGETATION/BRUSH LINE
- X — FENCE – BARB WIRE
- FENCE – CHAIN LINK
- X — FENCE – FIELD
- FENCE – OTHER
- FENCE – WOOD
- XX — FENCE – WOVEN WIRE
- FLOOD LIMIT (25 YEAR)
- FLOOD LIMIT (50 YEAR)
- FLOOD LIMIT (100 YEAR)
- FLOOD LIMIT (200 YEAR)
- FLOOD LIMIT (500 YEAR)
- HIGHWAY GUARDRAIL
- LEVEE TOP
- LEVEE TOE
- NEW CONTOUR (MINOR)
- 25 — NEW CONTOUR (MAJOR)
- ROCK BERM
- SILT FENCE
- TOE OF SLOPE
- TOP OF SLOPE
- FO — FIBER OPTIC
- IW — FUEL OIL
- G — NATURAL GAS
- IW — INDUSTRIAL WASTE WATER
- SANITARY SEWER
- SD — STORM SEWER
- W — DOMESTIC WATER
- NPW — DOMESTIC WATER NON-POTABLE

STANDARD DRAWINGS

SEWER STANDARD DRAWINGS:
Sa.S-1
Sa.S-2
Sa.S-3
Sa.S-4
Sa.S-5
Sa.S-6
Sa.S-7
Sa.S-8
Sa.S-9
Sa.S-10
Sa.S-11
Sa.S-12
Sa.S-13
Sa.S-14
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Sa.S-25
Sa.S-26
Sa.S-27
Sa.S-28
Sa.S-29
Sa.S-30
Sa.S-31
Sa.S-32
Sa.S-33
Sa.S-34
Sa.S-35

MOT STANDARD DRAWINGS:
1540
1550
MT-95.45
MT-101.70
MT-101.75
MT-105.10

GENERAL NOTES:

1. THIS IS A STANDARD CIVIL SYMBOLOGY SHEET. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.

2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.

DLZ
30661 RED ROCK COURT LOGAN, OHIO 43138
(740) 380-2828 1-866-558-2828
FAX (740) 380-3535

ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.
PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

SYMBOLS AND ABBREVIATIONS

0 1" 2"

FILENAME 00G-01.dwg
SCALE 1"=50'
SHEET 00G-01

ATHENS COUNTY ENGINEERS NOTES:

1. ALL SAFETY PRECAUTIONS NECESSARY TO PROTECT THE TRAVELING PUBLIC SHALL BE TAKEN.
2. NO DIRT OR OTHER WASTE MATERIAL SHALL BE LEFT ON THE ROAD SURFACES.
3. DAMAGED CULVERTS SHALL BE REPLACED.
4. BRIDGE LOAD LIMITS SHALL BE OBSERVED AND CONFORMED TO, AS SPECIFIED AT ANY GIVEN BRIDGE.
5. DRAINAGE DITCHES WILL BE OPENED AND RESTORED AT THE CLOSE OF EACH DAY'S WORK.
6. SAID UTILITY SHALL BE LOCATED 36 INCHES UNDER THE DITCH LINE.
7. OVERHEAD UTILITY LINES SHALL BE A MINIMUM OR 18 FEET ABOVE THE ROAD SURFACE.
8. POLES, JUNCTION BOXES, AND GUY WIRES SHALL BE PLACED TO THE BACK EDGE OF THE RIGHT-OF-WAY.
9. ELECTRICITY LINES BURIED WITHIN COUNTY OR TOWNSHIP RIGHT-OF-WAYS SHALL BE ENCASED IN STEEL CONDUIT.
10. THE COUNTY ENGINEER'S OFFICE (OR TOWNSHIP CLERK FOR TOWNSHIP ROADS) SHALL BE NOTIFIED NOT LESS THAN ONE (1) OR MORE THAN THREE (3) WORKING DAYS BEFORE WORK IS STARTED ON COUNTY OR TOWNSHIP ROADS. THE COUNTY ENGINEER'S OFFICE OR TOWNSHIP CLERK SHALL ALSO BE GIVEN NOT LESS THAN ONE (1) WORKING DAY NOTICE AS TO WHEN THE JOB WILL BE COMPLETED, SO THAT AN INSPECTION CAN TAKE PLACE BEFORE THE WORK CREW LEAVES THE SITE.

GENERAL NOTES:

1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO ATHENS COUNTY REGULATIONS AND SPECIFICATIONS.
2. ALL GRAVITY SEWER SHALL HAVE A MINIMUM 3 FEET OF COVER AND ALL FORCE MAIN SEWER SHALL HAVE A MINIMUM 4 FEET OF COVER.
3. ANY PART OF THE WORK THAT IS NECESSARY OR REQUIRED TO MAKE EACH INSTALLATION SATISFACTORY AND OPERABLE FOR ITS INTENDED PURPOSE TO THE SATISFACTION OF THE OWNER AND ENGINEER, EVEN THOUGH IT IS NOT SPECIFICALLY INCLUDED IN THE DRAWINGS, SHALL BE PERFORMED AS INCIDENTAL WORK AS IF IT WERE SHOWN ON THE DRAWINGS.
4. THE CONTRACTOR SHALL NOTIFY EACH RESIDENT 48 HOURS PRIOR TO EXCAVATING ON HIS/HER PROPERTY AND ADVISE THE RESIDENT ON THE ESTIMATED TIME OF CONSTRUCTION. THE CONTRACTOR SHALL CLEAN UP AS CONSTRUCTION PROGRESSES.
5. ALL PIPE AND TRENCH BACKFILL WITHIN RIGHT-OF-WAY SHALL BE CONTROLLED (FLOWABLE) LOW STRENGTH DENSITY BACKFILL AS SPECIFIED.
6. CONTACT ATHENS COUNTY ENGINEER'S OFFICE (OWNER) REPRESENTATIVE BEFORE MAKING ANY DEVIATIONS GREATER THAN REASONABLE CONSTRUCTION TOLERANCES FROM THE PLANS OR SPECIFICATIONS.
7. RIGHT-OF-WAY AND PROPERTY LINES SHOWN ARE PLOTTED FROM DEEDS AND PLATS OF RECORD AND ARE APPROXIMATE AND NOT THE RESULT OF A FIELD BOUNDARY SURVEY.
8. THE CONTRACTOR SHALL LIMIT THEIR WORK AREA TO THE EASEMENTS SHOWN ON THESE PLANS UNLESS WRITTEN PERMISSION IS GIVEN BY THE PROPERTY OWNER AND APPROVED BY ATHENS COUNTY.
9. THE CONTRACTOR SHALL CLEAN UP THE WORK SITE AT THE END OF EACH DAY, SWEEPING THE STREET OF ANY DEBRIS, DISPOSING OF TRASH, AND KEEPING THE SITE AS CLEAN TO THE SATISFACTION OF ATHENS COUNTY.
10. THE LOCATIONS OF THE PROPOSED AND/OR EXISTING SANITARY SERVICE LATERALS SHOWN ARE APPROXIMATE.
11. CONTRACTOR TO PROVIDE CONSTRUCTION STAKING. CONTRACTOR IS RESPONSIBLE FOR PROTECTING STAKES AND ANY ADDITIONAL RE-STAKING AS NEEDED.
12. CONTRACTOR IS REQUIRED TO REPLACE ANY FENCING THAT IS REMOVED WITH AN EQUAL OR BETTER QUALITY FENCING TO ATHENS COUNTY SATISFACTION.
13. ROOF DRAINS, FOUNDATIONS DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEMS ARE PROHIBITED.
14. THE CONTRACTOR WILL BE RESPONSIBLE FOR A 1-YEAR MAINTENANCE PERIOD BEGINNING FROM FINAL PROJECT COMPLETION.
15. CONTRACTOR SHALL ESTABLISH AN ACCEPTABLE GROWTH OF GRASS (AS DEFINED IN SPECIFICATIONS) FOR ALL AREAS DISTURBED DURING THE COURSE OF CONSTRUCTION, AS APPLICABLE.
16. PRIOR TO THE SCHEDULED DATE FOR THE PRE-CONSTRUCTION MEETING THE CONTRACTOR SHALL SUBMIT TO OWNER'S REPRESENTATIVE FOR REVIEW A CONSTRUCTION SCHEDULE THAT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING AS REQUESTED BY ATHENS COUNTY:
    - A.) ANTICIPATED START AND COMPLETION DATES
    - B.) SEQUENCE AND PHASING OF CONSTRUCTION
    - C.) STAGING AREAS FOR MATERIALS AND EQUIPMENT
    - D.) ACCESS POINTS AND STONE CONSTRUCTION ENTRANCES
    - E.) LIST OF SUBCONTRACTORS AND MATERIAL SUPPLIERS
    - F.) POINTS OF CONTACT AND EMERGENCY PHONE NUMBERS
    - G.) PROOF OF INSURANCE AND BONDING STATUS
17. ALL NON-PERMANENT STRUCTURES (SHEDS, SWINGS, PLAY EQUIPMENT, ETC.) THAT ENCROACH ON CONSTRUCTION SHALL BE TEMPORARILY REMOVED AND REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. IF ANY OF THESE ITEMS ARE DAMAGED DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE TO RESTORE THE ITEMS IN AS GOOD OR BETTER CONDITION AS THEY WERE IN AT THE START OF THE PROJECT.
18. ALL WORK SHALL BE COORDINATED WITH ATHENS COUNTY OPERATIONS STAFF. ATHENS COUNTY HAS PRIMARY RESPONSIBILITY AND AUTHORITY OVER CONTROL AND OPERATION OF THE SEWER CONVEYANCE FACILITIES.
19. ROCK EXCAVATION: THE FIRST 3 FEET OF ROCK ENCOUNTERED DURING ANY EXCAVATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, BEYOND A 3 FEET DEPTH OF ROCK, THE CONTINGENCY QUANTITY WILL BE USED.
20. THE OWNER WILL PAY TO BRING ELECTRIC SERVICE TO LIFT STATION SITES. ALL OTHER ELECTRIC WORK FROM CONNECTION TO THE NEW SERVICE TO THE LIFT STATION SHALL BE INCLUDED IN THE LIFT STATION LUMP SUM PRICE.
21. CONTRACTOR SHALL PROVIDE ADDITIONAL SUB-BASE SUPPORT FOR LIFT STATION STRUCTURES PER THE GEOTECHNICAL REPORT RECOMMENDATION.
22. CONTRACTOR SHALL PROVIDE STRUCTURE LINING FOR ALL WET WELLS AND MANHOLES THAT ARE ACCEPTING FORCE MAIN FLOWS FROM REGIONAL LIFT STATION. COST FOR LINING SHALL BE INCLUDED IN ALTERNATE BID ITEM.
23. LATERALS TO BE FREE BORED ON COUNTY ROADS (RADFORD ROAD, BAKER ROAD)

UTILITY NOTES:

1. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES, AS INDICATED ON THE DRAWINGS, ARE FOR INFORMATIONAL PURPOSES ONLY. NO RESPONSIBILITY IS ASSUMED FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION. ALL UTILITIES MUST BE MARKED AND THEIR HORIZONTAL AND VERTICAL LOCATION FIELD VERIFIED BY THE CONTRACTOR PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL NOT CUT OR DISCONNECT ANY EXISTING UTILITIES WITHOUT PRIOR APPROVAL FROM THE APPROPRIATE AGENCY.
2. EXISTING UNDERGROUND UTILITIES AND SERVICES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ACCORDING TO KNOWN INFORMATION AVAILABLE. THE LOCATIONS SHOWN ARE INTENDED ONLY AS GUIDE AND CANNOT BE GUARANTEED TO BE ACCURATE OR COMPLETE. DURING CONSTRUCTION THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING UTILITIES, WHETHER SHOWN ON THE CONTRACT DRAWINGS OR NOT. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR RESTORATION OF SAME TO THE SATISFACTION OF THE OWNER OR UTILITY OWNER AT THE CONTRACTOR'S SOLE EXPENSE. ELECTRIC SERVICE, GAS SERVICE, WATER SERVICE, TELEPHONE AND CABLE SERVICE, AND OTHER UTILITY LINES MAY BE LOCATED IN THE PROXIMITY OF THE WORK AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR:
    - A.) CONTACTING THE INDIVIDUAL UTILITY OWNERS TEN (10) DAYS PRIOR TO CONSTRUCTION AND ADVISING THEM OF THE WORK TO TAKE PLACE.
    - B.) SOLICITING THEIR AID IN LOCATING AND PROTECTING OR RELOCATING ANY UTILITY THAT MAY INTERFERE WITH CONSTRUCTION.
    - C.) ALL DAMAGE TO ANY EXISTING UTILITY, AND REPAIR THEREOF.
    - D.) CONTACTING THE OHIO UTILITY PROTECTION SERVICE (OUPS) 1-800-362-2764 OR 811) 48 HOURS MINIMUM PRIOR TO CONSTRUCTION.
    - E.) CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO RESTORE ALL EXISTING UTILITIES WETHER SHOWN OR NOT, ENCOUNTERED OR DISTURBED DURING CONSTRUCTION TO BEFORE CONSTRUCTION CONDITIONS OR BETTER, AS ACCEPTABLE TO THE UTILITY OWNER.
3. WHERE POTENTIAL ELEVATION CONFLICTS MAY OCCUR WITH EXISTING UTILITIES, THE CONTRACTOR SHALL UNCOVER SUCH UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION IN ORDER THAT EXACT ELEVATIONS MAY BE DETERMINED AND THE NECESSARY ADJUSTMENT MADE. IF ANY ADJUSTMENTS NEED TO BE MADE IN THE ALIGNMENT OF THE PIPE THE CONTRACTOR SHALL CONTACT OWNER'S REPRESENTATIVE. THE UTILITY IS THE RESPONSIBILITY OF THE CONTRACTOR. THE COST FOR ANY ADJUSTMENTS IN THE GRADE WILL BE NEGOTIATED BETWEEN THE OWNER, THE CONTRACTOR, AND OWNER'S REPRESENTATIVE.
4. THE FOLLOWING ARE KNOWN OWNERS OF UTILITIES IN THE PROJECT AREA, AND SHALL BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION TO FIELD-LOCATE SAID UTILITIES:

AEP
850 TECH CENTER DR
GAHANNA, OH 43230
BRENT GATES
614-883-6802

COLUMBIA GAS OF OHIO
843 PIATT AVE
CHILLICOTHE, OH 45601
MICHAEL PAULUS
740-772-9129

COLUMBIA TRANSMISSION
301 MAPLE STREET
PO BOX 330
SUGAR GROVE, OH 43155
JIM SCOTT: 740-746-2234
CHARLES MURRAY: 740-746-2295

LE-AX WATER DISTRICT
6000 INDUSTRIAL DR
ATHENS, OH 45701
TRAVIS ANDERSON
740-594-0123

TIME WARNER CABLE
3760 INTERCHANGE RD
COLUMBUS, OH 43204
KEVIN RICH
CC: STEPHEN RAY
KEVIN RICH: 614-481-5263
STEPHEN RAY: 614-255-6271

FRONTIER COMMUNICATIONS
754 W UNION ST
JEFF SCHOONOVER
740-992-2415

AT&T TRANSMISSION
PO BOX 440264
MIAMI, FL 33144
305-270-4022

OHIO UNIVERSITY (OHIO UNIVERSITY FACILITIES MANAGEMENT)
49 FACTORY ST
ATHENS, OH 45701
JAY NORTH
740-593-9157

CITY OF ATHENS ENGINEER'S OFFICE
30 CURRAN DRIVE
ATHENS, OH 45701
JESSICA ADINE
740-593-7636

WINDSTREAM OHIO
2165 STATE ROUTE 133 SOUTH
BLANCHESTER, OHIO 45107
LEON TAYLOR
937-725-5358

HORIZON CHILLICOTHE TELEPHONE
68 E MAIN ST
CHILLICOTHE, OH 45601
JIM LUMP
740-772-8256

ALEXANDER TOWNSHIP
BRIAN GRUBBS
740-590-0092

ATHENS TOWNSHIP
TED LINSCOTT
740-707-5182

5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING SUPPORT OR TEMPORARY RELOCATION OF ALL EXISTING OVERHEAD UTILITIES AFFECTED BY THE PROPOSED CONSTRUCTION.
    - A.) WHERE HIGH PRESSURE OIL FILLED PIPE TYPE CABLE INSTALLATION ARE EXPOSED OR OTHERWISE INTERFERED WITH BY THE CONTRACTOR, PROTECTION BY THE CONTRACTOR WILL REQUIRED AGAINST DAMAGE TO THE COATING OR SUPPORTING THERMAL SAND ENVELOPE.
    - B.) WHERE CONCRETE ENCASED CONDUIT SYSTEMS OR DIRECT BURIED CABLE SYSTEMS ARE EXPOSED OR OTHERWISE INTERFERED WITH, THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY TO PROTECT THE SYSTEM AS NECESSARY AGAINST DAMAGE. AS SOON AS FEASIBLE, THE CONTRACTOR SHALL TAKE ADDITIONAL APPROPRIATE STEPS TO PROVIDE PERMANENT MEASURES TO RESTORE SUPPORT. THE METHODS USED SHALL BE BASED ON CONDITIONS TO BE DETERMINED BY THE UTILITY.
    - C.) WHERE POLE OR ANCHORS THAT SUPPORT OVERHEAD ELECTRIC FACILITIES ARE EXPOSED OR OTHERWISE INTERFERED WITH, THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY TO PROTECT THEM FROM DAMAGE AND PROVIDE TEMPORARY SUPPORT TO INSURE THE INTEGRITY OF THE SYSTEM. AS SOON AS FEASIBLE, THE CONTRACTOR SHALL TAKE ADDITIONAL APPROPRIATE STEPS TO PROVIDE PERMANENT MEASURES TO RESTORE SUPPORT. THE METHODS USED SHALL BE BASED ON CONDITIONS TO BE DETERMINED BY THE UTILITY.
    - D.) WHERE THE DEPTH OF EXCAVATION FOR THE PROPOSED WORK IS GREATER THAN 5 FEET, THE CONTRACTOR SHALL SHEET AND SHORE THE TRENCH AND COORDINATE WITH THE UTILITY TO CONTINUOUSLY MAINTAIN THE SUPPORT OF ELECTRIC FACILITIES AT LOCATIONS WHERE THE ELECTRIC FACILITIES ARE WITHIN THE ZONE OF INFLUENCE ADJACENT TO THE EXCAVATION AS DETERMINED BY THE NATURAL ANGLE OF THE REPOSE OF THE SOIL.
    - E.) ALL DAMAGE TO ELECTRIC FACILITIES AND SERVICES REQUIRING ADJUSTMENTS, RELOCATIONS AND/OR REPAIRS WILL BE MADE AT THE CONTRACTOR'S COST. CONTRACTOR SHALL NOT BACKFILL EXPOSED ELECTRIC FACILITIES UNTIL THE COMPANY HAS INSPECTED ITS FACILITY OR PERFORMED ANY ADJUSTMENTS AND/OR MAINTENANCE THAT MAY BE REQUIRED.
6. WASTEWATER FACILITIES SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE.
7. BEFORE PROCEEDING WITH THE WORK THE CONTRACTOR SHALL CONFER WITH ALL PUBLIC OR PRIVATE COMPANIES, AGENCIES OR DEPARTMENTS THAT OWN AND OPERATE UTILITIES IN THE VICINITY OF THE CONSTRUCTION.

PAVING NOTES:

1. ALL BITUMINOUS PAVEMENT CUTS SHALL BE SAW CUT AND NEATLY PATCHED TO MATCH EXISTING PAVEMENT SECTION.
2. ALL CONCRETE PAVEMENT CUTS SHALL BE SAW CUT AND REPLACED FROM EXPANSION JOINT TO EXPANSION JOINT.
3. CONTRACTOR SHALL RESTORE DISTURBED PAVEMENT AFTER CONSTRUCTION, SHALL MINIMIZE INCONVENIENCE TO TRAFFIC DURING CONSTRUCTION, AND SHALL PROVIDE SMOOTH TRANSITIONS TO EXISTING PAVEMENT. PAVING MATERIALS AND CONSTRUCTION THEREOF SHALL BE IN ACCORDANCE WITH THE ATHENS COUNTY STANDARD SPECIFICATIONS AND THE PROJECT SPECIFICATIONS.
4. CONSTRUCTION ACCESS ROADS, EXISTING PAVEMENT OR GRAVEL ROADS, AND DRIVEWAYS AND PARKING LOTS IF REMOVED, DISTURBED, OR DAMAGED BY CONTRACTOR'S WORK SHALL BE MAINTAINED BY CONTRACTOR AND RESTORED OR REPLACED TO EXISTING OR BETTER THAN PRE-CONSTRUCTION CONDITIONS AFTER WORK IS COMPLETE.
5. PERMANENT PAVEMENT REPLACEMENT: THIS QUANTITY AND PAY ITEM SHALL BE USED TO PAY FOR THE PERMANENT PAVEMENT REPLACEMENT REQUIRED ON ALL COUNTY ROADS. THE ALLOWABLE PAYABLE QUANTITY FOR THIS ITEM SHALL BE DICTATED BY THE LIMITS SHOWN IN THE STANDARD DRAWINGS.
6. PAVEMENT RESURFACING: THIS QUANTITY AND PAY ITEM SHALL BE USED TO PAY FOR THE PAVEMENT RESURFACING ON ALL TOWNSHIP ROADS. ALL TOWNSHIP ROADS SHALL BE FILLED WITH COMPACTED 304 AGGREGATE TO THE TOP OF EXISTING PAVEMENT TO BE USED AS TEMPORARY PAVEMENT AND SHALL SIT FOR NO LESS THAN 90 DAYS AND NO MORE THAN 180 DAYS BEFORE PAVEMENT RESURFACING IS PERFORMED. PER THE STANDARD DRAWING FOR PAVEMENT REPLACEMENT ON TOWNSHIP ROADS, THE PAVEMENT THICKNESS OVER THE SEWER TRENCH SHALL BE 3" THICK WHILE THE REST OF THE ROADWAY (NOT INCLUDING THE BERM) SHALL GET AN OVERLAY OF 2" THICK PAVEMENT. ALL COSTS FOR THE TEMPORARY 304 PLACEMENT AND REMOVAL, AS WELL AS ALL COSTS FOR THE PAVEMENT RESURFACING INCLUDING TACK COAT SHALL BE INCLUDED IN THE BID PRICE FOR THE PAVEMENT RESURFACING QUANTITY.

SAFETY ADVISORY NOTES:

1. PROTECTION OF PERSONS AND PROPERTY: BARRICADE OPEN EXCAVATIONS OCCURRING AS PART OF THIS WORK AS REQUIRED TO MAINTAIN VEHICULAR AND PEDESTRIAN SAFETY. PROVIDE ALL NECESSARY BARRIERS, WARNING LIGHTS, SIGNAGE, FLAGMEN, AND OTHER MEASURES AS REQUIRED TO MAINTAIN PUBLIC SAFETY AS DESIGNATED ON THE PLANS, DIRECTED BY THE OWNER, AND AS RECOMMENDED BY OTHER AUTHORITIES HAVING JURISDICTION.

STORM AND SANITARY SEWER NOTES:

1. ATHENS COUNTY STANDARDS FOR CONSTRUCTION APPLY TO THE PUBLIC SANITARY, STORM, AND STREET SYSTEM. THE CONTRACTOR SHALL PERFORM ALL TESTING REQUIRED TO MEET THE APPROVAL OF ATHENS COUNTY AS PART OF THE SANITARY SEWER LF BID ITEM.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING MANHOLES TO MATCH FINISHED GRADE ELEVATIONS.
3. PRIOR TO CONNECTING TO EXISTING SANITARY SEWER MANHOLES OR OTHER STRUCTURES, THE CONTRACTOR SHALL GIVE THE OWNER'S REPRESENTATIVE A 72 HOUR (3 DAYS) ADVANCE NOTICE.
4. THE CONTRACTOR SHALL RECORD THE LOCATION OF ALL SANITARY SERVICES INSTALLED BY HIM UPON A SET OF DRAWINGS SUPPLIED TO HIM SPECIFICALLY FOR THIS PURPOSE BY THE OWNER. LOCATION OF SERVICES SHALL BE WHERE EXISTING ARE LOCATED, IF ANY AT ALL. THE DRAWINGS SHALL BE RETURNED TO THE OWNERS REPRESENTATIVE WHEN ALL SERVICES HAVE BEEN INSTALLED.
5. ALL TESTING MUST BE WITNESSED BY THE OWNERS REPRESENTATIVE. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF HIS INTENTIONS TO CONDUCT PERFORMANCE TESTING AT LEAST 72 HOURS (3 DAYS) BEFORE ANY SCHEDULED TEST, WRITTEN RESULTS OF EACH TEST MUST BE PROVIDED FOR ATHENS COUNTY RECORDS.
6. ALL LINES PRIOR TO TESTING SHALL BE RODDED OUT WITH THE APPROPRIATE TOOLS FOR THE REMOVAL OF ALL DIRT, TRASH, OR DEBRIS.
7. EACH SANITARY AND STORM MANHOLE SHALL BE TESTED IN ACCORDANCE WITH ATHENS COUNTY REQUIREMENTS FOR A VACUUM TEST. EACH MANHOLE MUST SUCCESSFULLY PASS THIS TEST BEFORE ACCEPTANCE BY THE OWNER.
8. DETAILED DESIGN AND CONSTRUCTION OF ALL PRECAST STRUCTURES IS THE RESPONSIBILITY OF THE CONTRACTOR. ATHENS COUNTY STANDARDS (OR OTHERS AS SPECIFIED) SHALL BE FOLLOWED FOR CONSTRUCTION OF ALL PRECAST STRUCTURES. IF PLAN CONFIGURATIONS PREVENT ADHERENCE TO THESE STANDARDS THE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION OF THE STRUCTURE FOR DESIGN REVISIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, PROVISION FOR GRADE RINGS TO ADJUST MANHOLE LIDS, MINIMUM ALLOWABLE DISTANCE BETWEEN OR ABOVE PIPES AND THE DISTANCE BETWEEN BOTTOM SLABS AND PIPE INVERTS.
9. CONTRACTOR SHALL PROVIDE BYPASS PUMPING PER SANITATION ATHENS COUNTY SPECIFICATION DURING CONSTRUCTION TO MAINTAIN SEWER SYSTEM IN SERVICE NO OPEN EXCAVATION SHALL BE ALLOWED OVERNIGHT. CONTRACTOR TO PROVIDE PLATES OVER ANY OPEN EXCAVATIONS AT THE END OF EACH WORK DAY.
10. SANITARY SEWER SYSTEM INSTALLATION: ALL SHORING, DEWATERING AND ROCK EXCAVATION COSTS REQUIRED FOR THE PROPER AND COMPLETE INSTALLATION OF THE SANITARY SEWER SYSTEM SHALL BE INCLUDED IN THE VARIOUS SEWER BID ITEMS. NO ADDITIONAL COSTS WILL BE PAID FOR THESE ITEMS.
11. WATERLINE CROSSINGS SHALL BE ARRANGED SO THAT SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM WATER MAIN JOINTS

TRAFFIC CONTROL NOTES:

1. CONTRACTOR SHALL COMPLY WITH THE APPLICABLE ENCROACHMENT PERMIT.
2. ACCESS STREETS SHALL BE MAINTAINED CLEAN AND FREE OF MUD AND ROCKS.

RAILROAD GENERAL NOTES:

1. CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF NORFOLK SOUTHERN'S NSCE-8 SPECIFICATIONS.
2. PIPELINE AND CROSSING TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH LAST APPROVED AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION SPECIFICATIONS FOR PIPELINES CONVEYING FLAMMABLE AND NON-FLAMMABLE SUBSTANCES.
3. BLASTING NOT PERMITTED.

TEMPORARY TRAFFIC CONTROL ITEMS:

1. ALL TEMPORARY TRAFFIC CONTROL (TTC) DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (CURRENT EDITION). COPIES ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF CONTRACTS, 1980 WEST BROAD STREET, COLUMBUS, OHIO 43223. NOTE: ALL DEVICES SHALL COMPLY, FOR CONDITION AND LOCATION, WITH THE CURRENT EDITION OF THE NCHRP 350 AND MASH CRASH TESTING GUIDELINES.
2. CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY COUNTY. IF THE CONTRACTOR DOES NOT COMPLY WITH THE STANDARDS, INCLUDING THE INSTALLATION OF TEMPORARY PAVEMENT MARKINGS AND THE REMOVAL OF CONFLICTING TRAFFIC CONTROLS, THEIR PERMIT SHALL BE REVOKED AND ALL WORK SHALL BE TERMINATED. TEMPORARY PAVEMENT MARKINGS TO INCLUDE, BUT NOT LIMITED TO, CHANNELIZING LINES, EDGE LINES, AND CENTERLINES SHALL BE INSTALLED AND MAINTAINED ON ALL CONSTRUCTION OPERATIONS LASTING A MINIMUM OF 14 CALENDAR DAYS OR AS DIRECTED BY THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR THE PROJECT ENGINEER.
3. THE CONTRACTOR SHALL GIVE ADVANCE NOTIFICATION (WRITTEN AND VERBALLY) TO COUNTY, INFORMING THEM OF ALL UPCOMING MAINTENANCE OF TRAFFIC CHANGES ON A WEEKLY BASIS. NOTIFICATION SHALL INCLUDE, BUT NOT BE LIMITED TO, WHAT, WHERE, WHEN, AND HOW PEDESTRIAN AND VEHICULAR TRAFFIC WILL BE AFFECTED, AND THE TEMPORARY TRAFFIC CONTROL PROCEDURES THE CONTRACTOR IS PLANNING TO USE. THE TYPE OF TRAFFIC CHANGE SHALL DETERMINE THE LENGTH OF ADVANCE NOTIFICATION REQUIRED:

TYPE OF CHANGE	ADVANCE NOTIFICATION NEEDED
DETOURS/ROAD CLOSURES NOTIFICATION PRIOR TO CLOSURE.	30-DAY
LANE CLOSURES LASTING 2 WEEKS OR MORE	2-WEEKS
LANE CLOSURES OF LESS THAN 2 WEEKS	3-DAYS
LANE CLOSURES OF 2 DAYS OR LESS	1-DAY

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFE MOVEMENT OF PEDESTRIANS THROUGH, AROUND, OR DETOURED AWAY FROM THE CONSTRUCTION SITE. TRAFFIC CONTROL FOR PEDESTRIAN MOVEMENT SHALL BE AS PER FIGURES 6H-28 (TA-28) AND 6H-29 (TA-29) OF PART VI OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. WHEN NOT SHOWN ON A SIGNED PLAN, ALL SIDEWALK DIVERSIONS AND TEMPORARY MID-BLOCK CROSSINGS SHALL BE PRE-APPROVED BY THE PROJECT ENGINEER OR COUNTY. ACCESS FOR PEDESTRIAN AND VEHICULAR TRAFFIC TO ALL ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.

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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.
PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

GENERAL NOTES

0 1" 2"
FILENAME 00G-03.dwg
SCALE NONE
SHEET 00G-02

5. MAINTAINING TRAFFIC DURING HOLIDAYS AND SPECIAL EVENTS
NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING DESIGNATED HOLIDAYS OR SPECIAL EVENTS. THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. CONTACT THE COUNTY FOR EVENT DATES, LOCATIONS, AND SCHEDULE. HOLIDAYS WILL CONSIST OF CHRISTMAS, NEW YEARS, FOURTH OF JULY, MEMORIAL DAY, LABOR DAY, AND THANKSGIVING.

6. THE CONTRACTOR SHALL MAINTAIN ALL PERMANENT TRAFFIC CONTROLS NOT IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROLS THROUGHOUT THIS PROJECT. PERMANENT TRAFFIC CONTROLS MAY BE TEMPORARILY RELOCATED OR COVERED, AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGED, OR IMPROPERLY PLACED SIGNS.

7. ANY WORK DONE BY THE COUNTY, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF TEMPORARY TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTORS' EXPENSE.

8. THE ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL THE CRITICAL PERMANENT TRAFFIC CONTROLS ARE IN PLACE, OR UNTIL TEMPORARY TRAFFIC CONTROLS APPROVED BY THE ENGINEER, ARE INSTALLED. THE CRITICAL PERMANENT TRAFFIC CONTROLS ARE STOP, YIELD, ONE WAY, DO NOT ENTER, RESTRICTED TURN SIGNS AND ALL STREET NAME SIGNS. OTHER CRITICAL SIGNS MAY BE NOTED ON THE PLANS AS WELL. THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE PREMATURE REMOVAL OF TEMPORARY TRAFFIC CONTROLS.

ITEM 614 – MAINTAINING TRAFFIC, LUMP SUM:

ALL COSTS THAT CONSIST OF MAINTAINING AND PROTECTING VEHICULAR AND PEDESTRIAN TRAFFIC ACCORDING TO THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (OMUTCD), AND PER THE REQUIREMENTS DESIGNATED IN THE PLAN INCLUDING ALL LAW ENFORCEMENT OFFICER (LEO) AND FLAGGER HOURS SHALL BE INCLUDED IN THE LUMP SUM ITEM 614.

IN ADDITION TO THE REQUIREMENTS HEREIN, AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, A UNIFORMED LAW ENFORCEMENT OFFICER (LEO) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC UNDER THE FOLLOWING CONDITIONS:

- WORK WITHIN A SIGNALIZED INTERSECTION, DEFINED AS THE AREA BOUNDED BY THE REAR X-WALK LINES
- WHEN FLAGGING WITHIN THE INTERSECTION OF TWO ARTERIAL ROADWAYS
- WHEN SPECIFIED IN THE MAINTENANCE OF TRAFFIC PLAN OR AS WHEN DIRECTED BY THE PROJECT ENGINEER
- WHEN SHIFTING TRAFFIC LEFT OF CENTER, THROUGH A SIGNALIZED INTERSECTION, WITHOUT SHIFTING SIGNAL HEADS

A FLAGGER SHALL BE UTILIZED TO ASSIST IN CONTROLLING TRAFFIC WHILE EQUIPMENT IS ENTERING OR EXITING AN INTERSECTION OR WORK ZONE. THE CONTRACTOR MAY UTILIZE HIS OWN FLAGGER OR LEO UNDER PAY ITEM 614 MAINTAINING TRAFFIC, LUMP SUM.
FLAGGERS AND LEO'S SHALL BE EQUIPPED ACCORDING TO THE STANDARDS FOR FLAGGING TRAFFIC CONTAINED IN THE OMUTCD. FLAGGING OPERATIONS PERFORMED BY LEO'S OR DESIGNATED FLAGGERS SHALL ONLY BE PERMITTED AS LONG AS ALL TRAFFIC CONTROL IS IN PLACE ACCORDING TO FIGURE 6H-10 (TA-10) IN THE OHIO MANUAL. PATROL CARS SHALL NOT BE USED IN FLAGGING OPERATIONS.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S WITH OR WITHOUT PATROL CARS FOR TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE.

LEO'S SHALL BE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. LEO'S SHALL NOT HAVE THE AUTHORITY TO CHANGE, EDIT OR MODIFY ANY MAINTENANCE OF TRAFFIC SCHEME WITHOUT THE PERMISSION OF THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR PROJECT ENGINEER UNLESS AN EMERGENCY DEVELOPS.

IF A SAFETY HAZARD DEVELOPS, A LEO MAY BE ASSIGNED BY THE COUNTY AT THE CONTRACTOR'S EXPENSE.

ITEM 614 – LAW ENFORCEMENT OFFICER (LEO) WITH PATROL CAR, AS PER PLAN
IN ADDITION TO LEO AND FLAGGER HOURS INCLUDED IN ITEM 614 MAINTAINING TRAFFIC, LUMP SUM; THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER OR AN ACCEPTABLE REPRESENTATIVE FOR THE COUNTY THE OFFICIAL PATROL CAR WITH TOP MOUNTED EMERGENCY FLASHING LIGHTS SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE. THE CONTRACTOR SHALL BE PAID FOR THIS BID ITEM ONLY IF DIRECTED BY THE ENGINEER.

TEMPORARY TRAFFIC CONTROL:

1. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO CLOSURE OF A ROADWAY. THE MESSAGE SHALL ADVISE THE MOTORIST OF THE DATES, TIMES, AND DURATION OF THE CLOSURE. THE PCMS SHALL REMAIN IN PLACE FOR 7 DAYS AFTER THE START OF THE CLOSURE.

2. A TTC PLAN (TTCP) INCLUDING PEDESTRIAN CONTROL SHALL BE SUBMITTED TO THE THE COUNTY AT THE PRE-CONSTRUCTION MEETING OR A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO BEGINNING WORK. COPIES OF THE APPROVED TTCP SHALL BE GIVEN TO THE PROJECT ENGINEER AND KEPT ON SITE ALONG WITH THE STREET CLOSURE/OCCUPANCY PERMIT.

3. TYPE C STEADY-BURN OR TYPE D 360-DEGREE STEADY-BURN WARNING LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS, AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT. ONLY 42" REFLECTORIZED CHANNELIZING DEVICES (CONES) SHALL BE PERMITTED FOR NIGHTTIME WORK WITH THE APPROVAL OF THE TTC COORDINATOR PER O.D.O.T. STANDARDS.

4. A FLASHING ARROW PANEL (48" X 96"-TYPE C) SHALL BE USED IN LANE CLOSURES AS PER THE OHIO MANUAL.

5. ALL TRENCHES WITHIN THE ROAD RIGHT OF WAY SHALL BE BACKFILLED OR SECURELY PLATED PER 2013 STD. DWG. 1441 DURING NON-WORKING HOURS.

6. ALL EXISTING TRAFFIC LANES SHALL BE FULLY OPEN TO TRAFFIC AT ALL TIMES ON:
REFER TO MOT TABLE FOR TRAFFIC PATTERNS.

7. TWO-WAY, TWO-LANE (ONE-LANE EACH DIRECTION) TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF EXISTING, PROPOSED, OR TEMPORARY PAVEMENT PER FIGURE 6H-32 TYPICAL APPLICATION 32 (TA-32) OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

8. TWO-WAY, ONE-LANE TRAFFIC MAY BE MAINTAINED DURING CONSTRUCTION OPERATIONS ON REFER TO TABLE ON SHEET 75, PER FIGURE 6H-10 (TA-10) OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

THE CONTRACTOR SHALL CONTACT OHIO UTILITY PROTECTION SERVICE (OUPS) TO LOCATE AND MARK ALL UNDERGROUND TRAFFIC CONTROL CABLES PRIOR TO THE BEGINNING OF ANY WORK WITHIN 450 FEET OF ANY SIGNALIZED INTERSECTION(S) OR WITHIN ANY POSTED AREA WHERE THE DEPARTMENT HAS UNDERGROUND CABLE.

9. THE ROADWAY OR ANY SECTION OF ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL ALL TEMPORARY, NON-REFLECTIVE, BLACKOUT TAPE HAS BEEN COMPLETELY REMOVED FROM NON-CONFLICTING PERMANENT PAVEMENT MARKINGS FOR THAT AREA OF THE ROADWAY, OR UNLESS OTHERWISE DIRECTED IN WRITING BY THE ENGINEER. THIS IS SUPPLEMENTAL AND SHALL BE PAID FOR THROUGH THE 614-LUMP SUM.

10. WHENEVER YELLOW CENTERLINES OR TURN-LANE LINES ARE PAVED OVER, REMOVED, OR OTHERWISE UNSERVICEABLE, THE CONTRACTOR SHALL INSTALL CLASS II TEMPORARY STRIPING (MINIMUM 4' LONG SEGMENTS). TEMPORARY PAINT SHALL BE USED ON ALL MILLED SURFACES. TEMPORARY TAPE SHALL BE USED ON ALL FINAL COURSES OF ASPHALT. PAINT OR TAPE MAY BE USED ON INTERMEDIATE COURSES OF ASPHALT. IF APPROVED BY THE ENGINEER, DRUMS WITH STEADY BURNING TYPE C OR TYPE D 360 DEGREE WARNING LIGHTS AND "KEEP RIGHT" SIGNS MAY BE SUBSTITUTED FOR CENTERLINE MARKINGS.

11. CLASS II TEMPORARY STRIPING (MINIMUM 4' LONG SEGMENTS) SHALL BE AS PER ITEM 614 – WORK ZONE PAVEMENT MARKING AND SHALL BE PLACED WITHIN ONE (1) FOOT LONGITUDINAL TOLERANCE OF THE PERMANENT STRIPE(S). ALL TEMPORARY STRIPING NOT TO WITHIN ONE (1) FOOT TOLERANCE SHALL BE REMOVED AND REPLACED IN THE PROPER LOCATION BY THE CONTRACTOR. CLASS II TEMPORARY STRIPING SHALL BE OF THE APPROPRIATE COLOR AND SPACED A MAXIMUM OF FORTY (40) FEET CENTER TO CENTER.

EXISTING PERMANENT TRAFFIC CONTROL:

1. ANY WORK DONE BY THE COUNTY, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF PERMANENT TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTORS' EXPENSE.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REINSTALLATION AND/OR REPLACEMENT OF ALL PERMANENT TRAFFIC CONTROL DEVICES DAMAGED OR REMOVED DURING CONSTRUCTION. PERMANENT TRAFFIC CONTROL NO LONGER IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE REPLACED IMMEDIATELY.

3. THE CONTRACTOR SHALL REPLACE ALL PAVEMENT MARKINGS, INCLUDING RAISED PAVEMENT MARKERS (RPM) SHOWN IN CONFLICT, REMOVED DUE TO CONSTRUCTION OR MAINTENANCE OF TRAFFIC SET UP, DESTROYED, OR RENDERED UNSERVICEABLE BY THE PROJECT ENGINEER. RPM REPLACEMENT SHALL BE PER THE REQUIREMENTS LISTED ON THIS SHEET. ALL PAVEMENT MARKING MATERIALS SHALL BE REPLACED IN-LIKE KIND IF NOT SHOWN IN THE PLAN OR PERMIT INCLUDING RAISED PAVEMENT MARKERS. ALL PAVEMENT MARKINGS SHALL BE REPLACED IN FULL. NO PARTIAL LENGTH OR SECTIONS OF PAVEMENT MARKINGS SHALL BE REPLACED WITHOUT REMOVING THE ENTIRE MARKING BY USE OF THE WATER BLAST METHOD. REMOVAL BY ABRASIVE WHEEL GRINDING SHALL ONLY BE APPROVED BY THE PUBLIC SERVICE PAVEMENT MARKING MANAGER.

EXISTING PERMANENT TRAFFIC CONTROL:

1. ALL OVERHEAD CABLE, AND DOWN GUYS OR BACK GUYS SHALL NOT BLOCK ANY PORTION OF A TRAFFIC SIGNAL, TRAFFIC CONTROL SIGN, OR OTHER TRAFFIC CONTROL DEVICE SUCH THAT VISIBILITY OR OPERATION OF THE TRAFFIC CONTROL DEVICE IS IMPAIRED.

2. ALL PERMANENT PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS AS SHOWN ON THIS PLAN SHALL BE INSTALLED BY THE CONTRACTOR AT THE PROJECTS EXPENSE. THE PROJECT ENGINEER SHALL BE NOTIFIED TO DIRECT APPROPRIATE PERSONNEL A MINIMUM OF FORTY-EIGHT (48) HOURS (EXCLUDING SAT. & SUN.) PRIOR TO THE INSTALLATION OF PERMANENT MARKINGS TO INSPECT AND APPROVE THE PAVEMENT MARKING LAYOUT PRIOR TO PLACING THE PERMANENT MARKINGS.

3. PERMANENT STRIPING OR CLASS I TEMPORARY STRIPING SHALL BE INSTALLED NO LATER THAN FOURTEEN (14) CALENDAR DAYS AFTER THE

FINAL PAVING COURSE IS COMPLETED. THE PAVING CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE STRIPING CONTRACTOR TO INSURE THE PERMANENT STRIPING IS INSTALLED WITHIN THE FOURTEEN (14) CALENDAR DAY LIMIT.

RAISED PAVEMENT MARKER SPACING:
NORMAL:

CENTERLINES	80' TWO-WAY YELLOW
LANE LINES	80' TWO-WAY WHITE/RED
EDGE LINES	80' ONE-WAY WHITE
CHANNELIZING LINES	20' TWO-WAY WHITE/RED
TWO WAY LEFT TURN LANE	40' BOTH SIDES TWO-WAY YELLOW

APPROACH TO STOP OR SIGNAL:
(MEASURED FROM STOPLINE OR RADIUS TANGENT POINT)

EDGELINES	12@20' / 9@40' / 5@80'
LANE LINES	12@20' / 9@40' / 80' NORMAL SPACING
CENTERLINES	12@20' / 9@40' / 80' NORMAL SPACING

THROUGH STREET APPROACH:

EDGE LINE	11@80' ONE-WAY WHITE
LANE LINE	21@40'/ 80' NORMAL SPACING TWO-WAY WHITE/RED
CENTERLINE	21@40'/80' NORMAL SPACING TWO-WAY YELLOW

DEPARTURE FROM THROUGH STREET, SIGNAL OR STOP CONDITION

LANE LINE	5@80' TWO-WAY WHITE/RED
EDGE LINE	5@80' ONE-WAY WHITE

TWO-WAY LEFT TURN;z
(STOP CONDITION OR APPROACH TO A SIGNAL)
APPROACH 2WLT MARKINGS 12@20'/ NORMAL SPACING BOTH SIDES TWO-WAY YELLOW

1. SEE GENERAL POLICY AND PROCEDURE ON STREET SELECTION FOR RAISED PAVEMENT
MARKERS DATED 1/1/2014 OR LATEST.

2. EDGE LINE RPMS FALL WITHIN THE LIMITS OF A DRIVEWAY, THEY ARE TO BE RELOCATED
LONGITUDINALLY A MAXIMUM OF TEN PERCENT (10%) OF THE NORMAL SPACING. IF
RELOCATION IS STILL WITHIN DRIVEWAY LIMITS, THE EFFECTED RPM SHALL NOT BE
INSTALLED.

3. RPM'S SHALL NOT BE INSTALLED OVER PAVEMENT MARKING WITHOUT THE ENGINEER'S
APPROVAL.

4. WHITE EDGE LINE RPMS SHALL NOT BE INSTALLED ADJACENT TO CURBS EVEN IF EDGE
LINE EXISTS.

5. RPMS SHALL NOT BE INSTALLED WITHIN INTERSECTIONS.

6. RPMS SHALL NOT BE INSTALLED ON BRIDGE DECKS.

7. RPMS SHALL NOT BE INSTALLED ON DOTTED LINES. DOTTED LINE LENGTHS (2'LINE WITH
6' SPACE) OR (3'LINE WITH 9'SPACE)

8. DIVERGING TAPERS (RETURNS) SHALL HAVE A MINIMUM OF THREE (3) EVENLY SPACED
TWO-WAY YELLOW RPM'S IF NORMAL SPACING DOES NOT PROVIDE FOR AT LEAST THREE.

9. RPM'S SHALL NOT BE PLACED WITHIN CROSSWALKS, SCHOOL SYMBOLS OR RAIL ROAD
MARKINGS.

10. RPM'S SHALL NOT BE PLACED WITHIN ROUND-ABOUTS.

IF THE PROJECT REQUIRES TREES MUST BE CUT, THIS MUST OCCUR BETWEEN OCTOBER 1 AND MARCH 31. THREATENED AND ENDANGERED BATS ARE HIGHLY-DEPENDENT UPON TREES INCLUDING DEAD AND DYING TREES OF SPECIES WITH EXFOLIATING BARK, CREVICES, CAVITIES OR HOLLOW AREAS FORMED FROM BROKEN BRANCHES OR TOPS. IF TREES MUST BE CUT DURING THE PROHIBITED TIME PERIOD, A NET SURVEY MUST BE CONDUCTED TO DETERMINE THE PRESENCE OR ABSENCE OF INDIANA BATS PRIOR TO CUTTING.

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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.
PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

GENERAL NOTES

0 1" 2"

FILENAME 00G-03.dwg
SCALE NONE
SHEET 00G-03

ITEM	SPEC NO.	DESCRIPTION	EST. QUAN	UNIT	14C-01	14C-02	14C-03	14C-04	15C-01	15C-02	15C-03	15C-04	15C-05	15C-06	15C-07	16C-01	16C-02	16C-03	16C-04	16C-05	16C-06	16C-07	16C-08	16C-09
1		STD Manhole	44.00	EA	4	2	4		5	4	2	2				6	1	4	2	2	3	1	2	
2		Drop Manhole	8.00	EA	2		1			1									1	1	1	1		
3		2" Force Main	1446.00	LF				655																791
4		3" Force Main	3061.00	LF									905	1000	1156									
5		8" SDR -35 Sanitary Sewer	8973.00	LF	823	210	1037		1237	1069	725	577				853	222	554	299	399	385	300	283	
6		8" Sanitary Sewer DR-9 (HDD)	1247.00	LF	128													343	214	214	348			
7		6" SDR-35 Sanitary Lateral	2167.50	LF	228	59.5	208		309	429	177	122				190	60	28	58	72	145	36	46	
8		6" SDR-35 Sanitary Lateral (HDD)	97.00	LF																	97			
9		Wyes	89.00	EA	5	3	8		9	11	8	5				16	5	2	2	3	6	3	3	
10		Grinder Pump Station	3.00	EA	1				1							1								
11		Rip Rap	25.92	CY														22.22				3.7		
13		D/W Repair Concrete	26.65	SY				12.77	13.88															
14		D/W Repair Gravel	58.98	CY												58.98								
15	201	Clearing and Grubbing	1	LS																				
16	207	Temporary Erosion and Sediment Control	1	LS																				
17	301	6" Asphalt Concrete Base	519.98	CY	33.24	16.55	83.72		80.6	109.57	77.05	60.11				13.21			7.95	4.88	33.1			
18	441	2" Asphalt Concrete Surface	130.26	CY	11.3	5.62	28.46		27.4	37.25						4.62			2.7	1.66	11.25			
19	441	1.75" Type 2 Int. -County Roads	41.15	CY							23.12	18.03												
20	441	1.25" Type 1 Surf. - County Roads	27.44	CY							15.41	12.03												
21	611	8" and Smaller Pipe Replacement	115.00	LF	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	10	10	10
22	611	12" Pipe Replacement	10.00	LF						10														
23	611	18" Pipe Replacement	5.00	LF			5																	
24	659	Seeding and Mulching	9711.49	SY	1624.44	148.89	555.56		1226.67	317.78						246.67	555.56	1230.36	1013.33	1304.45	230.00	628.89	628.89	
25	659	Fertilizer	0.88	Ton	0.15	0.01	0.05		0.11	0.03						0.02	0.05	0.11	0.09	0.12	0.02	0.06	0.06	
26	703	Compacted Granular Backfill	9203.85	CY	391.78	186.91	1213.07		1491.03	1635.76	1192.93	1384.05				662.45		67.99	129.24	66.78	750.56	22.04	9.26	
27	614	Maintenance of Traffic	1	LS																				
28		Mobilization	1	LS																				
29		Construction Layout	1.00	LS																				
30		Air Release Valve	4.00	EA									1	1	1									1

DLZ

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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

PHASE 6 QUANTITIES

0 1" 2"

FILENAME 00G-04 Phase 6&7.dwg

SCALE NONE

SHEET **00G-04**

ITEM	ITEM NO.	DESCRIPTION	EST. QUAN	UNIT	17C-01	17C-02	17C-03	17C-04	17C-05	17C-06	17C-07	17C-08	17C-09	17C-10	17C-11	17C-12	18C-01	18C-02	18C-03	18C-04	18C-05	18C-06	19C-01	19C-02	19C-03	19C-04	19C-05
1		STD Manhole	60.00	EA	4	4	3	4	4	6	3	2	4	3			4	4	4	1			4	4	2		
xref		Drop Manhole	10.00	EA			2	1	1		2			3			1										
3		2" Force Main	4278.00	LF																	1290	887				1250	851
4		4" Force Main	1335.00	LF											550	785											
5		4" Force Main (HDD)	170.00	LF											170												
6		16" Casing Pipe for Jack & Bore	221.00	LF	221																						
7		8" Carrier Pipe for Jack & Bore	221.00	LF	221																						
8		8" SDR -35 Sanitary Sewer	12155.00	LF	382	1295	1083	328	466	786	651	432	725	837			1157	711	880	247			885	695	595		
9		8" C900 Sanitary Sewer	565.00	LF							332	160		73													
10		8" Sanitary Sewer DR-9 (HDD)	2740.00	LF	660		162	634	524	360									400								
11		6" SDR-35 Sanitary Lateral	2069.00	LF	124	29	48	33	384	40	17	21	370				233	51	77	44			294	114	190		
12		6" SDR-35 Sanitary Lateral (HDD)	755.00	LF	470			49	25					211													
13		Wyes	98.00	EA	14	1	2	5	8	4	1	1	8	7			6	5	7	3			13	5	8		
14		Residental Grinder Pump	6.00	EA									2	1										2	1		
15		1 1/4" FM for GP	1445.00	LF									471	125										702	147		
16		Lift Station	1.00	EA						1																	
17		Grinder Pump Station	2.00	EA														1						1			
19		D/W Repair Concrete	65.00	SY					22.22		16.11		26.67														
20		D/W Repair Gravel	1.60	CY					1.6																		
21	201	Clearing and Grubbing	1	LS																							
22	207	Temporary Erosion and Sediment Control	1	LS																							
23	301	6" Asphalt Concrete Base	626.58	CY				2.78			60.28	40.33	87.69	95.98			101.15			2.04			96.05	74.63	65.65		
24	441	2" Asphalt Concrete Surface	126.90	CY									29.81	32.64			29.47			0.69			8.92	25.37			
25	441	1.75" Type 2 Int. -County Roads	71.65	CY				0.83			18.08	12.1											20.94		19.7		
26	441	1.25" Type 1 Surf. - County Roads	47.78	CY				0.56			12.06	8.07											13.96		13.13		
27	611	8" and Smaller Pipe Replacement	230.00	LF	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
28	611	12" Pipe Replacement	39.00	LF							29		5												5		
29	611	15" Pipe Replacement	10.00	LF						5		5															
30	611	30" Pipe Replacement	5.00	LF			5																				
31	611	48" Pipe Replacement	5.00	LF				5																			
32	614	Maintenance of Traffic	1	LS																							
33	659	Seeding and Mulching	16771.12	SY	986.67	2910	2460	1027.78	1035.56	2104.44	737.78	16.67	1027.77				448.89	1560	1955.56	500							
34	659	Fertilizer	1.44	Ton	0.09	0.26	0.22	0.09	0.09	0.19	0.07	0.01	0.01				0.04	0.14	0.18	0.05							
35	703	Compacted Granular Backfill	12016.17	CY	560			77.78		31.48	700.47	351.21	1583.09	1276.57			1460.78			41.39		6.67	2726.32	1797.34	1403.07		
36		Construction Layout	1.00	LS																							
37		Air Release Valve	3.00	EA											1						1					1	
38		Meter Manhole	1.00	EA											1												
39		Rip Rap	25.91	CY			11.11	7.4	7.4																		
40		Guardrail Remove and Replace	232.00	LF							232																
41		Mobilization	1	LS																							

DLZ

30861 RED ROCK COURT LOGAN, OHIO 43138
(740) 380-2828 1-866-558-2828
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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

PHASE 7 QUANTITIES

0 1" 2"

FILENAME 00G-04 Phase 6&7.dwg

SCALE NONE

SHEET 00G-05

SEDIMENT AND EROSION CONTROL:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, INSPECTING, MAINTAINING, AND REMOVING ALL TEMPORARY EROSION AND SEDIMENT CONTROLS FOR THE WORK AS REQUIRED BY GOVERNING LOCAL, STATE AND FEDERAL AGENCIES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PREPARING AND COMPLYING WITH A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL PROVIDE TWO COPIES OF THE SWPPP TO THE OWNER AT THE PRECONSTRUCTION MEETING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF ALL PERMIT FEES ASSOCIATED WITH THE EROSION AND SEDIMENT CONTROLS. ALL EXPENDITURES REQUIRED FOR THIS WORK SHALL BE PAID FOR UNDER THE LUMP SUM CONTRACT PRICE FOR ITEM SPECIAL – SEDIMENT AND EROSION CONTROL. IF NO SPECIFIC ITEM FOR EROSION CONTROL IS LISTED IN THE CONTRACT DOCUMENTS, THEN THE COST SHALL BE INCLUDED IN THE VARIOUS SANITARY ITEMS.

CONTRACTOR RESPONSIBILITY: DETAILS HAVE BEEN PROVIDED ON THE PLANS IN AN EFFORT TO HELP THE CONTRACTOR PROVIDE EROSION AND SEDIMENTATION CONTROL. EROSION AND SEDIMENTATION CONTROL MEASURES QUANTIFIED ARE BE CONSIDERED A MINIMUM. ADDITIONAL OR ALTERNATE DETAILS MAY BE FOUND IN THE O.D.N.R. MANUAL "RAINWATER AND LAND DEVELOPMENT". THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING NECESSARY AND ADEQUATE MEASURES FOR PROPER CONTROL OF EROSION AND SEDIMENT RUNOFF FROM THE SITE ALONG WITH PROPER MAINTENANCE AND INSPECTION IN COMPLIANCE WITH THE NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

PRIOR TO CONSTRUCTION OPERATIONS IN A PARTICULAR AREA, ALL SEDIMENTATION AND EROSION CONTROL FEATURES SHALL BE IN PLACE. FIELD ADJUSTMENTS WITH RESPECT TO LOCATIONS AND DIMENSIONS MAY BE MADE BY THE ENGINEER.

THE CONTRACTOR SHALL PLACE INLET AND CHANNEL PROTECTION FOR EROSION CONTROL IMMEDIATELY AFTER CONSTRUCTION OF THE INLETS OR CHANNELS WHICH ARE NOT TRIBUTARY TO A SEDIMENT BASIN OR DAM.

IT MAY BECOME NECESSARY TO REMOVE PORTIONS OF THE BARRIER DURING CONSTRUCTION TO FACILITATE THE GRADING OPERATIONS IN CERTAIN AREAS. HOWEVER, THE BARRIER SHALL BE IN PLACE IN THE EVENING OR DURING ANY INCLEMENT WEATHER.

INDISCRIMINATE OR ARBITRARY OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, ANY SURFACE WATER, OR OUTSIDE THE EASEMENT LIMITS IS PROHIBITED.

PUMPING OF SEDIMENT–LADEN WATER FROM TRENCHES OR OTHER EXCAVATION DIRECTLY INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, OR STORM SEWERS IS PROHIBITED; ALL SUCH WATER SHALL BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO DISCHARGING INTO ANY DRAIN OR WATERCOURSE.

ALL APPLICABLE RECOMMENDATIONS IN ATHENS COUNTY STORM WATER, SEDIMENT AND EROSION CONTROL REGULATIONS SHALL BE FOLLOWED BY THE CONTRACTOR.

THE CONTRACTOR SHALL GIVE SPECIAL ATTENTION TO PROPER PIPELINE CONSTRUCTION, PROTECTION OF STREAMS AND RIPARIAN AREAS, AND THE PREVENTIVE AND MITIGATIVE MEASURES OUTLINED IN THE DRAWINGS AND SPECIFICATIONS. FAILURE TO COMPLY WITH THESE MEASURES WILL RESULT IN PENALTIES, WHICH MAY INCLUDE STOP WORK ORDERS AND WITHHOLDING OF PAYMENT. THE RESIDENT PROJECT REPRESENTATIVE WILL PERIODICALLY AND ROUTINELY VERIFY THAT THE APPROPRIATE MEASURES ARE BEING FOLLOWED. AREAS OF CONSTRUCTION IN AND AROUND STREAM BANKS AND OTHER AREAS SUBJECT TO EROSION ARE A PARTICULAR CONCERN. CONTRACTOR IS ADVISED TO USE SPECIAL CARE WITHIN SUCH AREAS TO PROTECT NATURAL FEATURES AND TO PROVIDE CAREFUL RESTORATION.

CLEAR CUTTING WILL NOT BE PERMITTED. CLEARING AND GRUBBING SHALL NOT COMMENCE UNTIL THE CONTRACTOR IS PREPARED TO START CONSTRUCTION, AND EROSION CONTROL MEASURES ARE INSTALLED AND IN PLACE. CONTRACTOR SHALL BE RESPONSIBLE TO DISPOSE OF ALL STUMPS, BRUSH, DEBRIS, AND TREES IN A LEGAL AND ENVIRONMENTALLY SOUND MANNER. ITEMS SHALL BE REMOVED ONLY AS DIRECTED BY THE OWNER OR ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE NECESSARY MATERIAL AND LABOR TO FOLLOW THE IMPACT PREVENTION AND MITIGATION MEASURES OUTLINED IN THE DRAWINGS AND SPECIFICATIONS. MEASURES OUTLINED ARE GUIDELINES; ANY ALTERNATES PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL AT LEAST TWO (2) WEEKS PRIOR TO CONSTRUCTION IN ANY AFFECTED AREA.

THE CONTRACTOR SHALL AVOID ANY UNNECESSARY DAMAGES TO TREES. CLEAR–CUTTING IS NOT PERMITTED WITHIN TEMPORARY CONSTRUCTION LIMIT OR EASEMENT AREAS WITHOUT THE PRIOR APPROVAL OF THE OWNER AND ENGINEER; THIS INCLUDES WORK AND STAGING AREAS OBTAINED BY THE CONTRACTOR BY MEANS OF PRIVATE AGREEMENT WITH PROPERTY OWNERS. TREE BRANCHES WHICH OVERHANG THE CONSTRUCTION LIMITS AND WHICH INTERFERE WITH THE OPERATION OF EQUIPMENT SHALL BE TIED BACK TO AVOID DAMAGE. WHERE INJURY TO BRANCHES IS UNAVOIDABLE, THE BRANCHES SHALL BE SAWED OFF NEATLY AT THE TRUNK OR MAIN BRANCH AND THE CUT AREA SHALL BE PAINTED WITH APPROVED TREE PAINT IMMEDIATELY. ANY TREES DAMAGED BEYOND SAVING SHALL BE REMOVED BY CONTRACTOR AT HIS OWN EXPENSE. IN THE CASE OF TREES LOCATED OUTSIDE THE CONSTRUCTION LIMIT AREA, RESTITUTION ACCEPTABLE TO THE PROPERTY OWNER SHALL BE PROVIDED BY THE CONTRACTOR.

PROVIDE AND MAINTAIN EROSION PROTECTION ALONG CLEARED SLOPED AREAS, CREEK CROSSING SITES, EXPOSED AREAS WITHIN 25 FEET OF TOP OF STREAM BANKS, AND ANY OTHER EROSION PRONE AREAS AS DIRECTED BY THE OWNER OR ENGINEER. THIS REQUIREMENT PERTAINS ALSO TO HAUL AND ACCESS ROADS. NOTE DETAILS FOR EROSION PROTECTION ELSEWHERE WITHIN THE DRAWINGS AND SPECIFICATIONS. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO INITIAL LAND DISTURBANCE ACTIVITIES OR AS SOON AS PRACTICAL.

THE CONTRACTOR SHALL CONTROL WASTES, GARBAGE, DEBRIS, WASTEWATER, AND OTHER SUBSTANCES ON THE SITE IN SUCH A WAY THAT THEY SHALL NOT BE TRANSPORTED FROM THE SITE BY THE ACTION OF WINDS, STORM WATER RUNOFF, OR OTHER FORCES. PROPER DISPOSAL OR MANAGEMENT OF ALL WASTES AND UNUSED BUILDING MATERIAL, APPROPRIATE TO THE NATURE OF THE WASTE OR MATERIAL, IS REQUIRED. COMPLIANCE IS REQUIRED WITH ALL STATE OR LOCAL REGULATIONS REGARDING WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC SYSTEMS.

REMOVE ONLY THOSE TREES REQUIRED FOR ACTUAL CONSTRUCTION. WHEN CONSTRUCTION IS ADJACENT TO STREAMS, MAINTAIN BANK COVER BY DEPOSITING EXCAVATED MATERIALS ON THE SIDE OF THE TRENCH AWAY FROM THE STREAM. MAINTAIN A VEGETATION COVER BETWEEN TRENCH AND TOP OF BANK WHEREVER POSSIBLE.

IMMEDIATELY FOLLOWING TRENCH BACKFILL, ROUGH GRADE ALL DISTURBED AREAS AND PERMANENTLY STABILIZE EACH DISTURBED AREA WITH PERENNIAL VEGETATION INSTALLED ACCORDING TO THE LANDSCAPING SECTION OF THE SPECIFICATIONS. IF FINAL GRADING AND SEEDING WILL NOT OCCUR WITHIN 15 DAYS, ALL DISTURBED AREAS SHALL BE TEMPORARILY SEEDED AND/OR MULCHED IMMEDIATELY.

FINAL GRADING SHALL BE CONSISTENT WITH PRE–CONSTRUCTION TOPOGRAPHY. FINAL GRADING SHALL BE COMPLETED IN ANY GIVEN AREA AS SOON AS IT IS NO LONGER NEEDED FOR TRAFFICKING OF EQUIPMENT AND MATERIALS. FINAL RESTORATION SHALL IMMEDIATELY FOLLOW FINAL GRADING.

WHEN WORKING ADJACENT TO A WATERWAY, THE CONTRACTOR SHALL MAINTAIN A BUFFER ZONE OF UNDISTURBED VEGETATION BETWEEN THE WORK AREA AND THE WATERWAY. IF A BUFFER ZONE OF VEGETATION CANNOT PREVENT SILTATION OF THE WATERWAY, SILT BARRIERS SHALL ALSO BE INSTALLED BY THE CONTRACTOR IN THESE AREAS TO PREVENT SEDIMENT–LADEN RUNOFF FROM ENTERING THE WATERWAY.

ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DISPOSED OF WITHIN THIRTY DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY PRACTICES ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION.

IF WORK IS SUSPENDED FOR ANY REASON, THE CONTRACTOR SHALL MAINTAIN THE EROSION AND SEDIMENTATION CONTROLS DURING THE SUSPENSION AT NO ADDITIONAL COST TO THE OWNER.

"TEMPORARY SEEDING" NO AREA FOR WHICH GRADING HAS BEEN COMPLETED OR WHERE A DENUDED AREA WILL REMAIN IDLE FOR MORE THAN 21 DAYS SHALL BE LEFT UNSEEDED FOR LONGER THAN 7 DAYS. IF PERMANENT SEED IS NOT APPLIED AT THIS TIME, TEMPORARY SEEDING SHALL BE DONE AT THE FOLLOWING RATES:

MARCH 1 TO AUGUST 15
SEED: OATS 2 LBS./1,000 SQ.FT.
FERTILIZER: (12:12:12) 25 LBS./1,000 SQ.FT.
MULCH:(STRAW OR HAY) 2 TONS/ACRE

AUGUST 15 TO NOVEMBER 1
SEED: ANNUAL RYE 2 LBS./1,000 SQ.FT.
FERTILIZER: (12:12:12) 25 LBS./1,000 SQ.FT.
MULCH:(STRAW OR HAY) 2 TONS/ACRE

NOVEMBER 1 TO MARCH 1
MULCH (ONLY):(SRRAW OR HAY) 2 TONS/ACRE

"PERMANENT SEEDING" SHALL BE DONE BETWEEN MARCH 15 AND SEPTEMBER 15. IF SEEDING IS DONE BETWEEN SEPTEMBER 15 AND MARCH 15, IT SHALL BE CLASSIFIED AS "TEMPORARY SEEDING." PERMANENT SEED SHALL BE 40% KENTUCKY BLUEGRASS, 40% CREEPING RED FESCUE, 20% ANNUAL RYEGRASS. PERMANENT SEEDING SHALL CONSIST OF FERTILIZING, WATERING AND SEEDING RATES INDICATED UNDER ITEM 659. SEEDING SHALL BE APPLIED WITHIN TWO (2) DAYS AFTER FINAL GRADING OR FOLLOWING SEED BED PREPARATION.

RATES OF APPLICATION OF ITEM 659:
SEED: 4 LBS./1,000 SQ.FT.
FERTILIZER: (12:12:12) 20 LBS./1,000 SQ.FT.
MULCH: STRAW (HAY) 2 TONS/ACRE (3 TONS/ACRE)

THE COST FOR TEMPORARY CHANNELS, SEDIMENT DAMS, SEDIMENT BASINS, AND OTHER APPURTENANT EARTHMOVING OPERATIONS SHALL BE INCLUDED IN THE PRICE BID FOR EROSION AND SEDIMENTATION CONTROL QUANTITIES.

NOT ALL DETAILS SHOWN ON THIS SHEET MAY BE REQUIRED FOR THIS PROJECT.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT OFF–SITE TRACKING OF SEDIMENTS BY VEHICLES AND EQUIPMENT IS MINIMIZED. ALL SUCH OFF–SITE SEDIMENT SHALL BE CLEANED UP DAILY. CONSTRUCTION OF STABILIZED CONSTRUCTION ENTRANCES ARE A PART OF THAT RESPONSIBILITY.

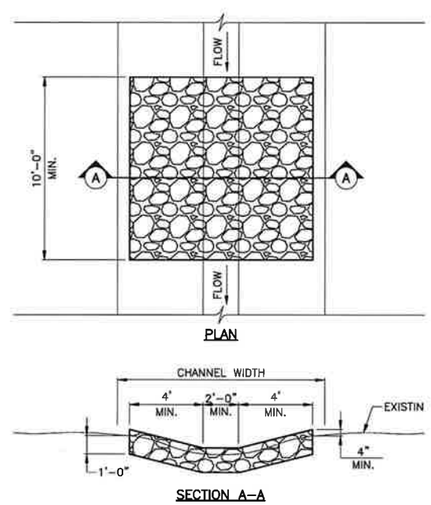
STREET CLEANING (ON AN AS–NEEDED BASIS) IF REQUIRED THROUGH THE DURATION OF THIS CONSTRUCTION PROJECT. THIS INCLUDES SWEEPING, POWER CLEANING AND (IF NECESSARY) MANUAL REMOVAL OF DIRT OR MUD IN THE STREET GUTTERS.

ALL EROSION & SEDIMENT CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATION AT THE DIRECTION OF ATHENS COUNTY AND/OR OHIO EPA.

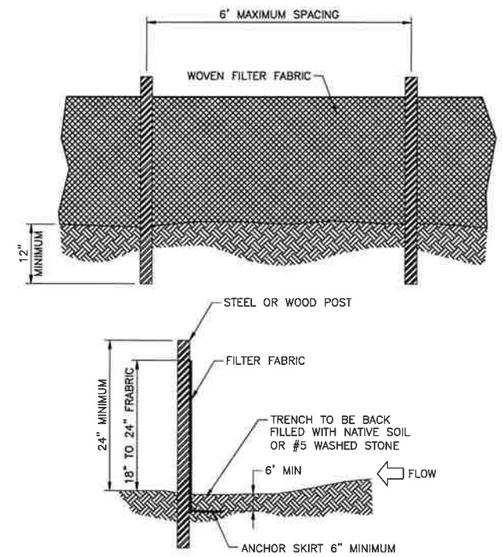
OEPA NOI #: OGC03477*AG

PLAN DESIGNER: ENTITY: DLZ OHIO, INC.
ADDRESS: 30661 RED ROCK COURT LOGAN, OHIO 43138
CONTACT NAME: GARY SILCOTT
PHONE: 740–380–2828
EMAIL: GSILCOTT@DLZ.COM

OWNER: ENTITY: ATHENS COUNTY
ADDRESS: 15 S. COURT STREET, ATHENS, OH 45701
CONTACT: RICH KASLER
PHONE: (740) 593–7146



RIP RAP INSTALLATION DETAIL
SCALE: NONE



TEMPORARY SILT FENCE
SCALE: NONE

SILT FENCE NOTES:

1. THE FENCE SHOULD BE PLACED ACROSS THE SLOPE ALONG A LINE OF UNIFORM ELEVATION (PERPENDICULAR TO THE DIRECTION OF FLOW). THE FENCE SHOULD BE LOCATED A LEAST 10–FEET FROM THE TOE OF STEEP SLOPES TO PROVIDE SEDIMENT STORAGE AND ACCESS FOR MAINTENANCE AND CLEANOUT. THE ENDS SHOULD BE TURNED UP SLOPE TO CREATE TIE–BACKS FOR PONDING WATER.
2. A FLAT–BOTTOM TRENCH APPROXIMATELY 6–INCHES WIDE AND 6–INCHES DEEP, OR A V–SHAPED TRENCH 8–INCHES DEEP SHOULD BE EXCAVATED. ON THE DOWNSLOPE SIDE OF THE TRENCH, DRIVE THE 2–INCH X 2–INCH WOOD POSTS AT LEAST 12–INCHES INTO THE GROUND, SPACING THEM NO FURTHER THAN 6–FEET APART. STEEL POSTS SHALL BE 1.33 LBS PER LINEAR FOOT.
3. POSTS SHOULD BE INSTALLED, WITH 1– TO 2–INCHES OF THE POST PROTRUDING ABOVE THE TOP OF THE FABRIC AND NO MORE THAN 3–FEET OF THE POST SHOULD PROTRUDE ABOVE THE GROUND. THE MINIMUM FENCE HEIGHT (HEIGHT OF FILTER FABRIC ABOVE GRADE) SHALL BE 18–INCHES. THE MAXIMUM FENCE HEIGHT (HEIGHT OF FILTER FABRIC ABOVE GRADE) SHALL BE 24–INCHES.
4. THE FILTER FABRIC SHOULD BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHOULD BE WRAPPED TOGETHER ONLY AT A SUPPORT POST WITH BOTH ENDS SECURELY FASTENED TO THE POST, WITH A MINIMUM 6–INCH OVERLAP.
5. EXTRA–STRENGTH FILTER CLOTH (50 POUNDS/LINEAR INCH MINIMUM TENSILE STRENGTH) SHOULD BE USED. A 2–INCH WIDE LATHE SHALL BE STAPLED OVER THE FILTER FABRIC TO SECURELY FASTEN IT TO THE UPSLOPE SIDE OF THE POSTS. THE STAPLES USED SHOULD BE 1.5–INCH HEAVY–DUTY WIRE STAPLES SPACED A MAXIMUM OF 8–INCHES APART.
6. PLACE THE BOTTOM 12–INCHES OF THE FILTER FABRIC INTO THE 6–INCH DEEP TRENCH, EXTENDING THE REMAINING 6–INCHES TOWARDS THE UPSLOPE SIDE OF THE TRENCH AND BACKFILL THE TRENCH WITH SOIL OR GRAVEL AND COMPACT.
7. REINFORCED SILT FENCE SHALL USE STEEL POSTS AND 6–INCH BY 6–INCH 14 GAUGE WIRE MESH. THE WIRE MESH SHALL BE FASTENED TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1–INCH LONG, TIE WIRES, OR HOG RINGS. EXTEND THE MESH 6–INCHES INTO THE TRENCH. THE FILTER FABRIC SHALL BE FASTENED TO THE FENCE ON THE UPSLOPE SIDE OF THE WIRE MESH.
8. SILT FENCE MOVED TO PROVIDE CONSTRUCTION ACCESS SHALL BE REINSTALLED BY THE END OF THE WORKDAY.
9. SILT FENCE SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BMP'S ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHOULD BE REMOVED OR STABIUZED ON SITE. DISTURBED AREAS RESULTING FROM FENCE REMOVAL SHALL BE PERMANENTLY STABILIZED PER FINAL RESTORATION REQUIREMENTS.

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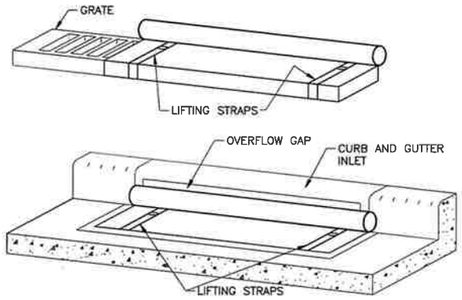
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.
PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

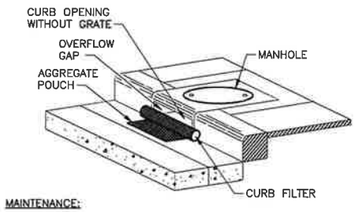
EROSION CONTROL GENERAL NOTES

0 1" 2"
FILENAME 00ER-01.dwg
SCALE NONE
SHEET **ER-01**



CURB INLET PROTECTION - WITH GRATE

SCALE: NONE



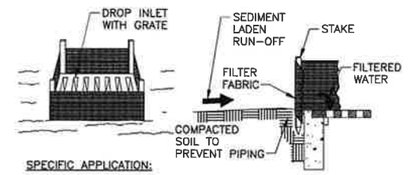
MAINTENANCE:

REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM THE SURFACE AND VICINITY OF THE UNIT AFTER EACH STORM EVENT

IF USING OPTION OIL ABSORBENTS, REMOVE AND REPLACE ABSORBENTS WHEN THEY NEAR SATURATION.

CURB INLET PROTECTION - WITHOUT GRATE

SCALE: NONE

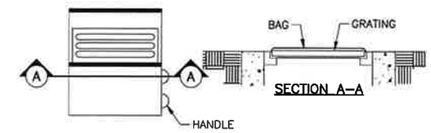


SPECIFIC APPLICATION:

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

CATCH BASIN PROTECTION - FILTER FABRIC

SCALE: NONE

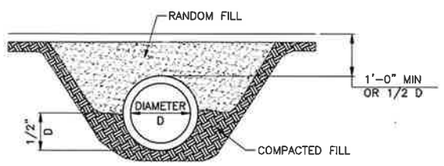


MAINTENANCE:

WITH A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL REMOVE SILT AND OTHER DEBRIS OFF SURFACE AFTER EACH EVENT.

CATCH BASIN PROTECTION

SCALE: NONE



SECTION VIEW

NOTES:

MINIMUM DIAMETER FOR ANY CULVERT IS 12"; OTHERWISE CULVERT SHALL BE SIZED FOR ANTICIPATED PEAK FLOW. PLACE CULVERT SO BOTTOM IS AT SAME LEVEL AS BOTTOM OF DITCH OR ADJOINING SLOPE. CULVERTS SHALL BE PLACED WITH A SLOPE OF 2 TO 4%. LOWER END SHALL BE AT LEAST 2" BELOW UPPER END.

EXTEND CULVERT 12" BEYOND BASE OF ROAD FILL ON BOTH SIDES. FIRMLY PACK FILL AROUND CULVERT, ESPECIALLY THE BOTTOM HALF.

PROVIDE SUITABLE OUTLET PROTECTION* AND, WHERE APPROPRIATE, INLET PROTECTION.

INSPECT CULVERT WEEKLY: REMOVE ANY FLOW OBSTRUCTIONS AND MAKE NECESSARY REPAIRS IMMEDIATELY.

THIS DETAIL MAY BE USED FOR DITCH RELIEF CULVERTS AND FOR CROSSINGS OF ROADSIDE DITCHES. IT IS NOT APPROPRIATE FOR STREAM CROSSINGS.

* FOR STEEP SLOPE (>2H:1V) OUTFALLS, A MINIMUM 20 FOOT LONG R–5 APRON IS RECOMMENDED FOR TEMPORARY ACCESS ROADS WHERE THE RECOMMENDED CULVERT SPACING IS USED. FOR PERMANENT ACCESS ROADS, A MINIMUM R–6 ROCK SIZE IS RECOMMENDED.

DITCH RELIEF CULVERT

SCALE: NONE

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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

EROSION CONTROL DETAILS

0 1" 2"

FILENAME 00ER-01.dwg

SCALE NONE

SHEET **ER-02**

STRUCTURE TABLE - SITE 14			
Structure Identification	Northing	Easting	Rim
14-01	476148.10	2064252.38	753.5
14-02	475980.45	2064265.77	740.8
14-03	475936.53	2064363.21	734.73
14-04	476019.78	2064482.06	720
14-05	476100.25	2064744.50	690.01
14-06	476043.72	2064859.66	692.2
14-07	475869.57	2064366.14	749.72
14-08	475836.37	2064505.36	758.86
14-09	476624.79	2064422.63	700.09
14-10	476293.02	2064642.56	690.18
14-11	476140.12	2064933.99	689.86
14-12	476271.36	2065121.08	713.08
14-VV	476078.26	2064991.05	683.72
14-WW	476065.40	2064985.96	683.72

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PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

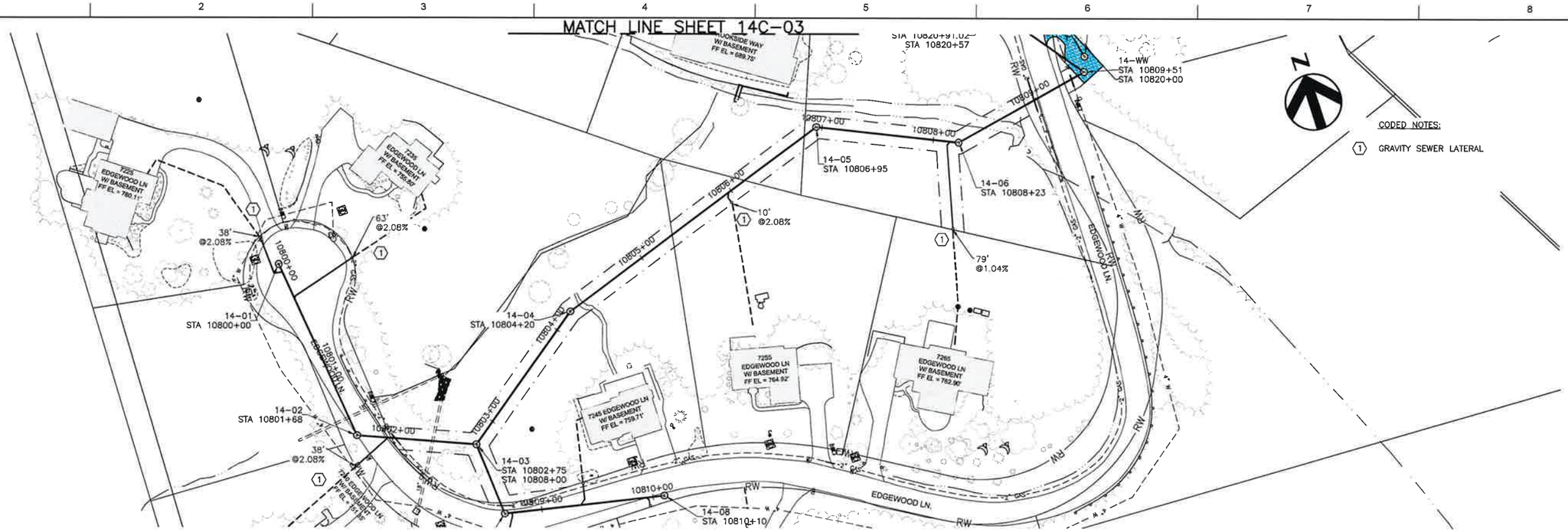
EDGEWOOD LIFT STATION
SHEET INDEX AND STRUCTURE TABLE

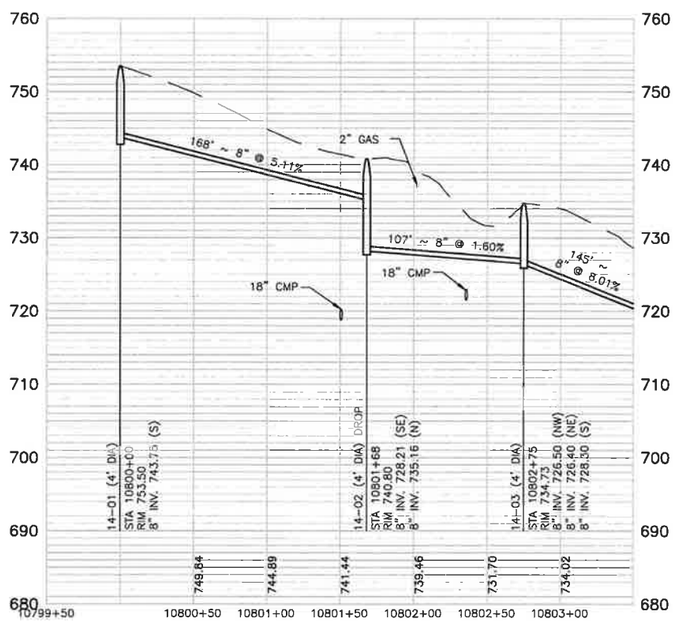
0 1" 2"

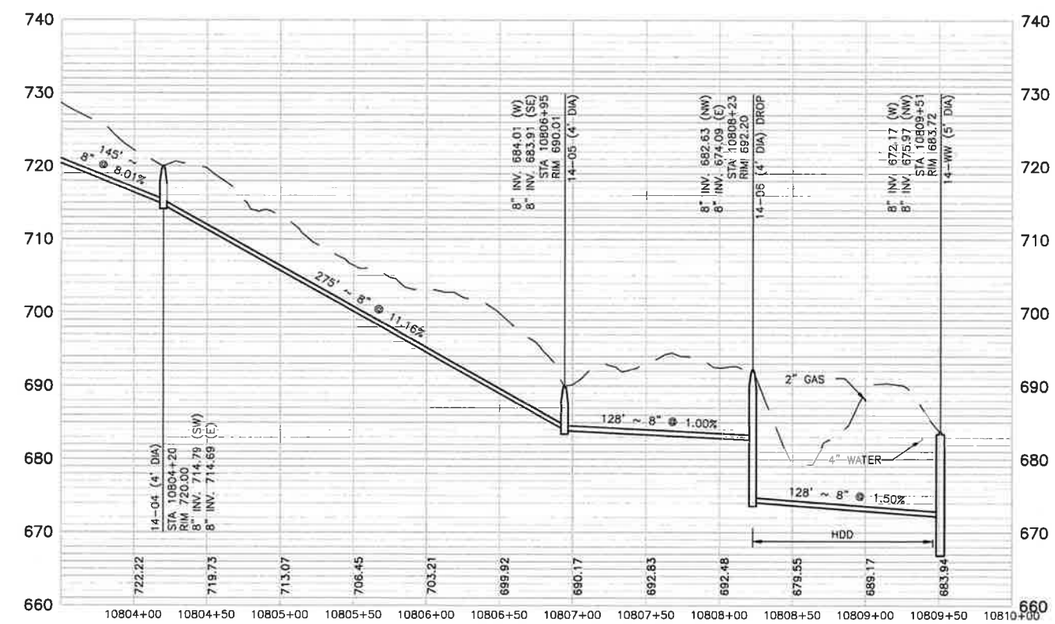
FILENAME 14C-00.dwg

SCALE 1"=200'

SHEET 14C-00







DLZ
30861 RED ROCK COURT LOGAN, OHIO 43138
(740) 380-2828 1-866-558-2828
FAX (740) 380-3535

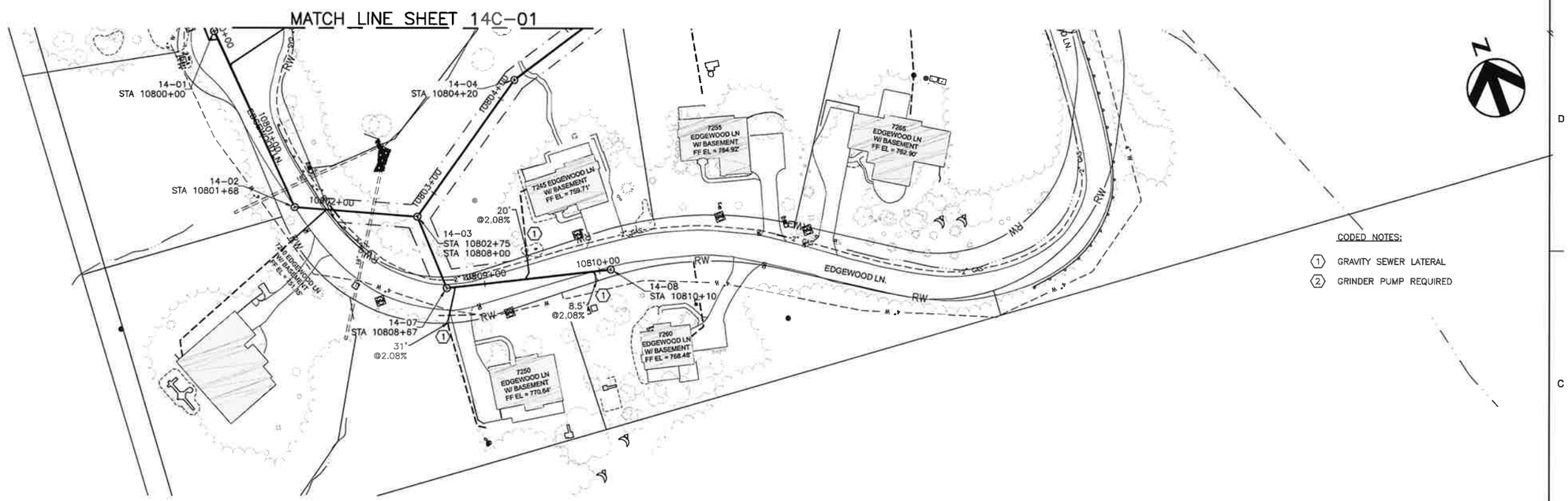
ISSUE	DATE	DESCRIPTION

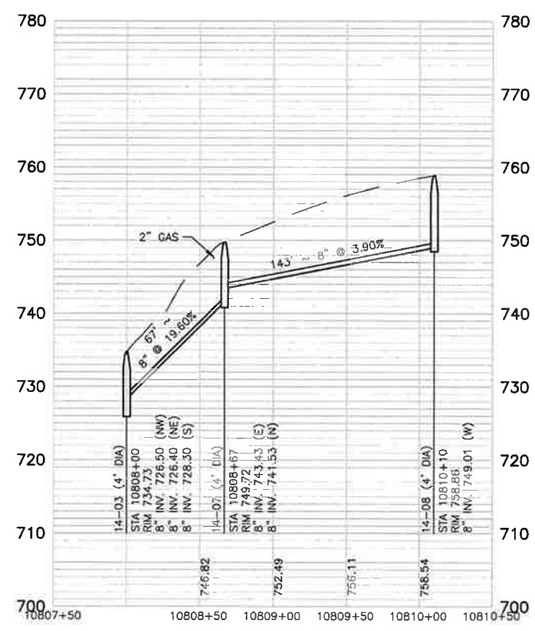
PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

EDGEWOOD LN.
LIFT STATION

FILENAME	14C-01.dwg	SHEET	14C-01
SCALE	1" = 50'		





DLZ
30661 RED ROCK COURT LOGAN, OHIO 43138
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FAX (740) 380-3535

ISSUE	DATE	DESCRIPTION

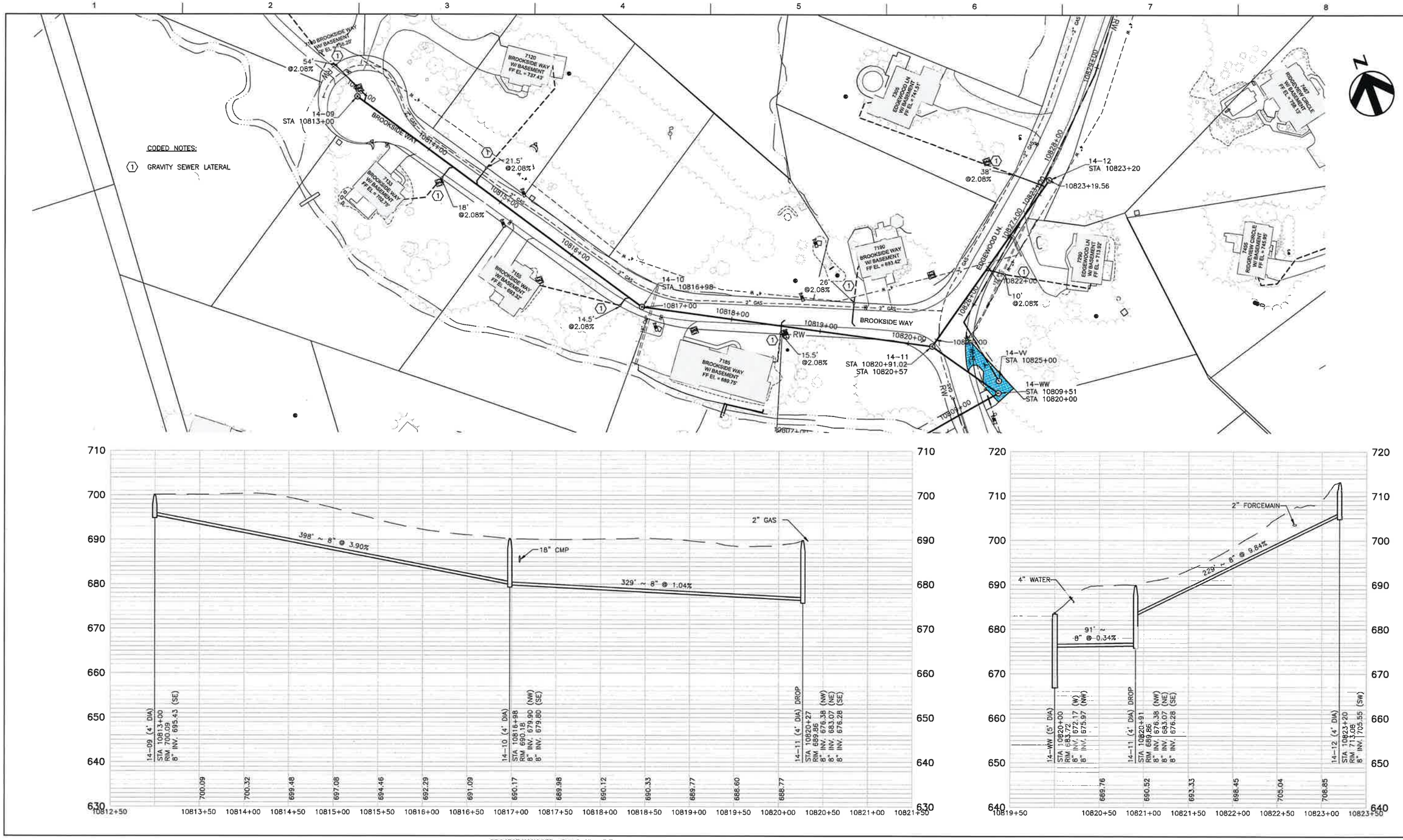
PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

EDGEWOOD LN.
LIFT STATION

0 1" 2"

FILENAME	14C-01.dwg
SCALE	1" = 50'
SHEET	14C-02



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ISSUE	DATE	DESCRIPTION

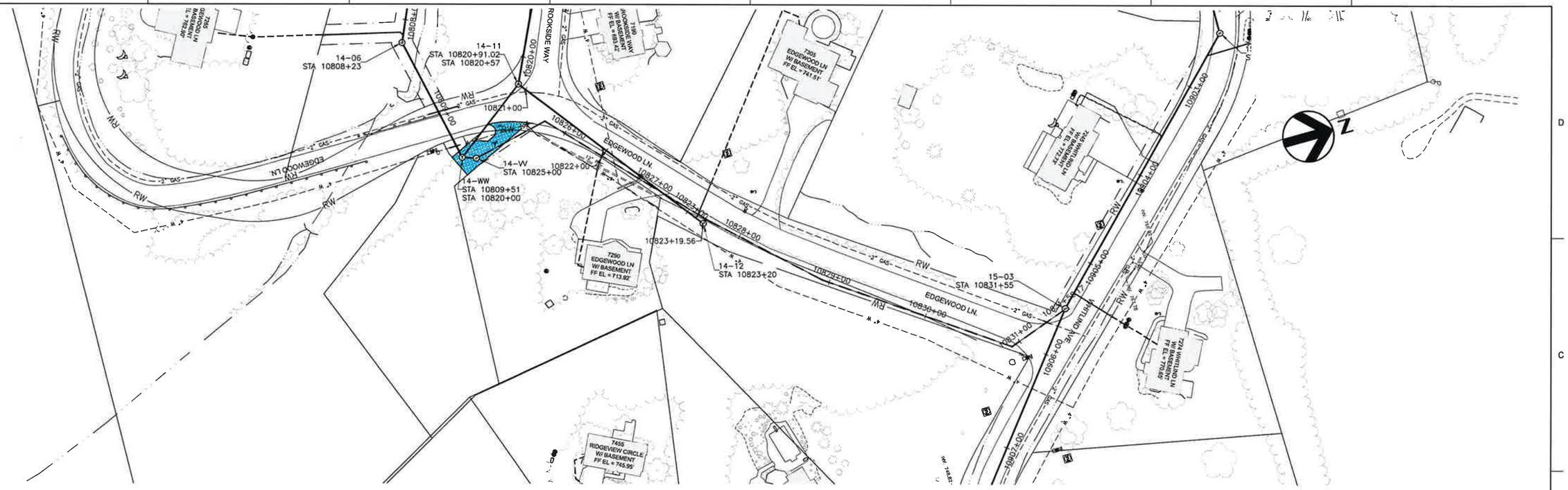
PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

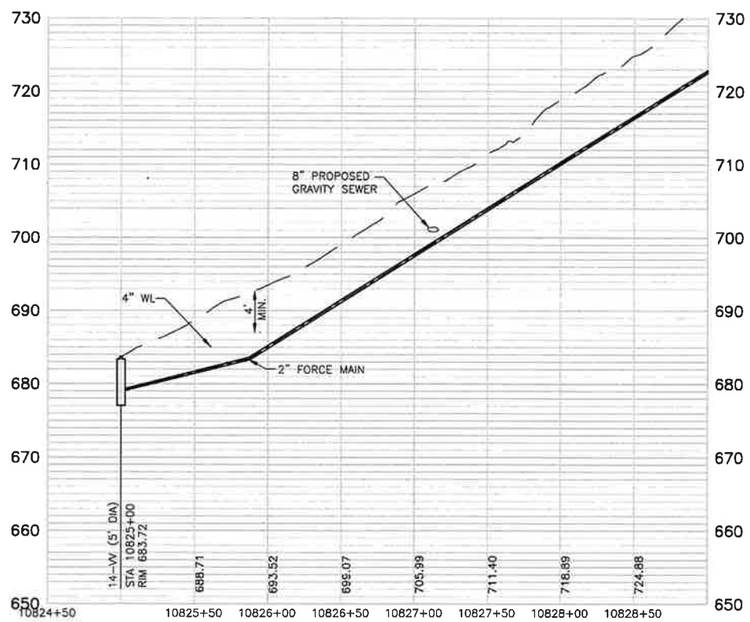
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

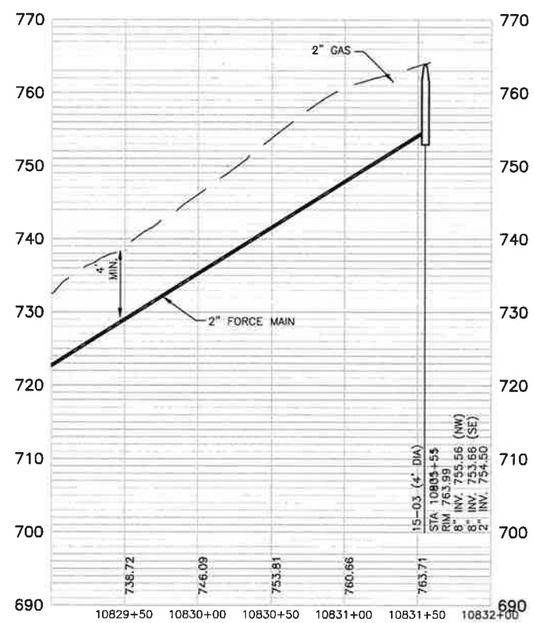
EDGEWOOD LN.
LIFT STATION

0 1" 2"

FILENAME	14C-01.dwg
SCALE	1" = 50'
SHEET	14C-03







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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

EDGEWOOD LN.
FORCE MAIN

0 1" 2"

FILENAME 14C-01.dwg

SCALE 1" = 50'

SHEET **14C-04**

STRUCTURE TABLE - SITE 15			
Structure Identification	Northing	Easting	Rim
15-01	476824.82	2064858.98	773.69
15-02	476813.37	2065097.99	777.64
15-03	476585.38	2065310.46	763.99
15-04	476376.72	2065554.80	738.85
15-05	476446.90	2065885.11	709.75
15-06	476093.81	2065471.32	739.78
15-07	476423.93	2066061.76	716.91
15-08	476277.70	2066202.58	734.79
15-09	476215.67	2066326.81	738.79
15-10	476243.37	2066606.72	734.69
15-11	475848.85	2066646.82	744.29
15-12	475522.26	2066680.43	748.32
15-13	476817.09	2066543.93	743.64
15-14	476419.66	2066588.36	743.87
15-VV	476433.71	2065922.43	703.29
15-WW	476439.82	2065911.16	708.8

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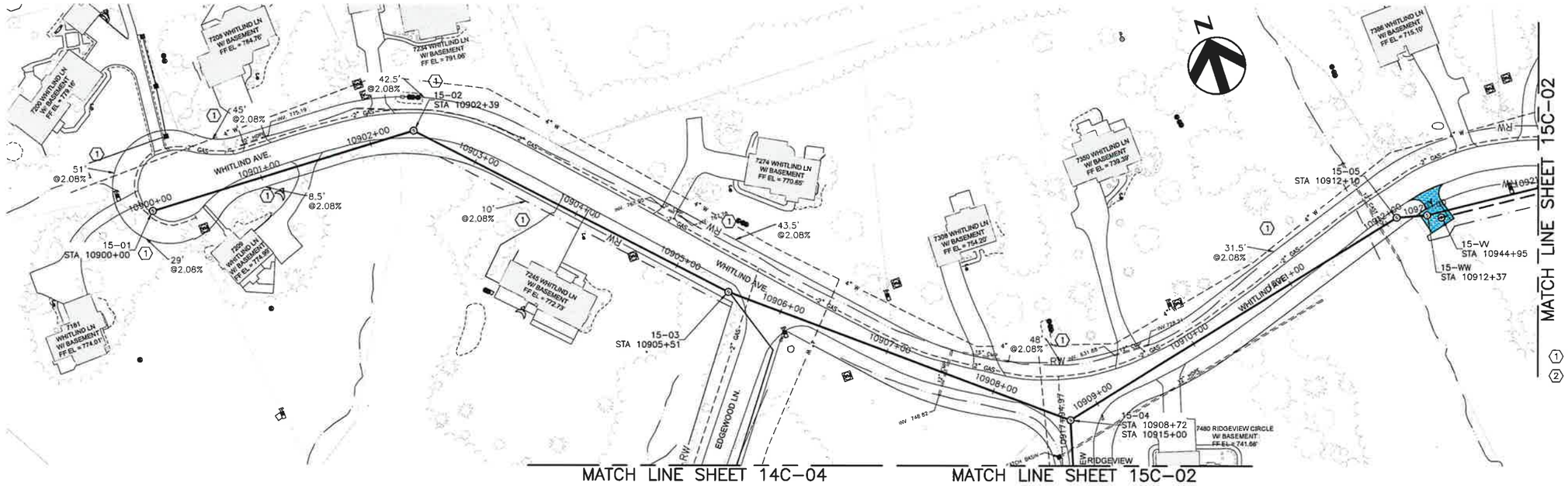
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.
PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

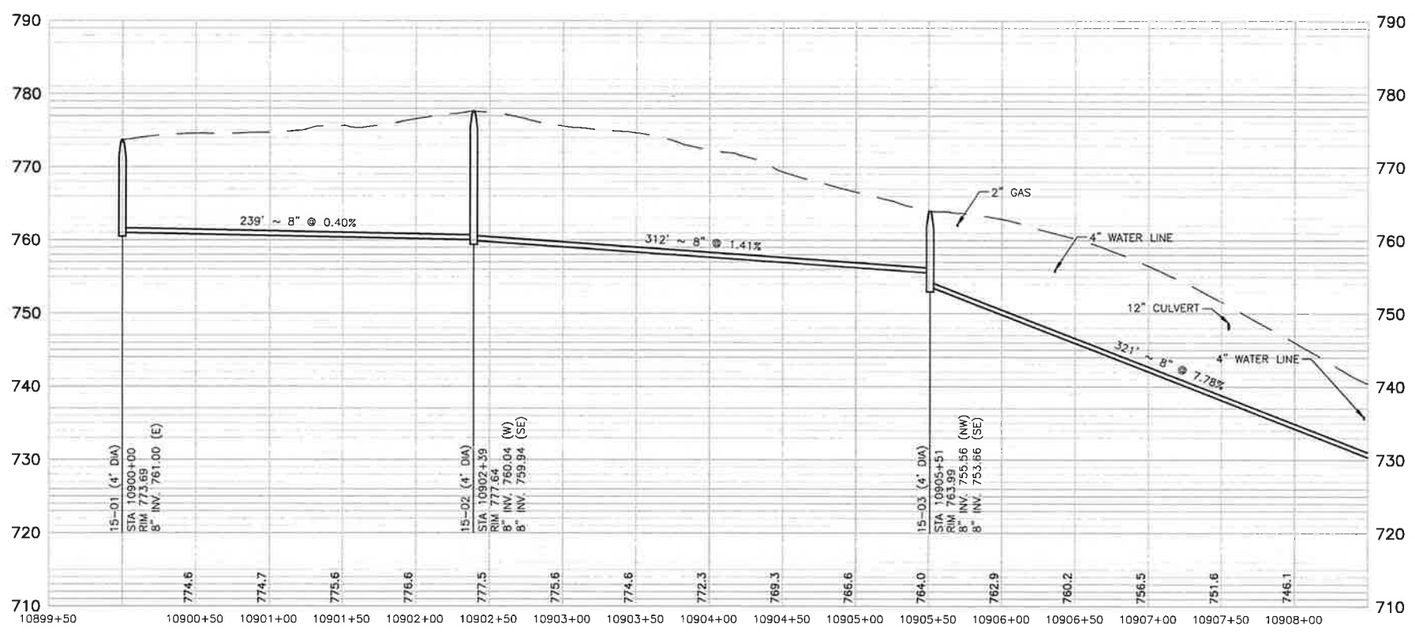
WHITLAND LIFT STATION
SHEET INDEX AND STRUCTURE TABLE

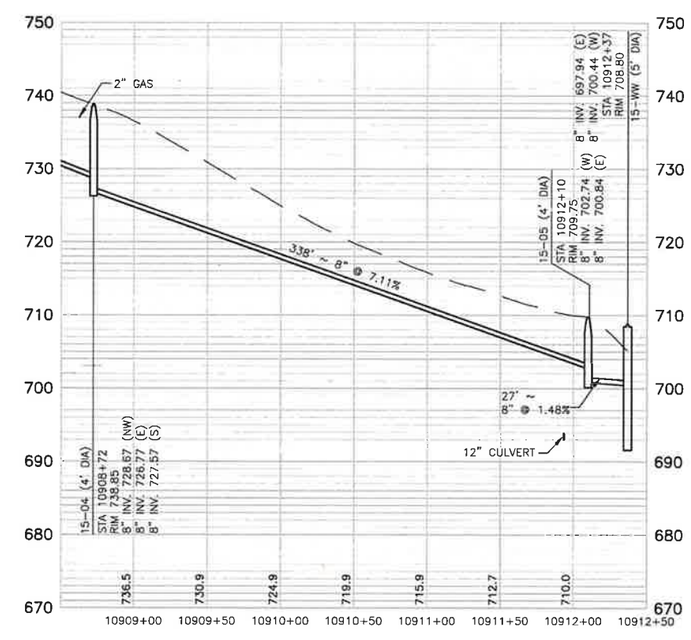
0 1" 2"
FILENAME 15C-00.dwg
SCALE 1" = 200'
SHEET 15C-00



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. GRINDER PUMP REQUIRED





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ISSUE	DATE	DESCRIPTION

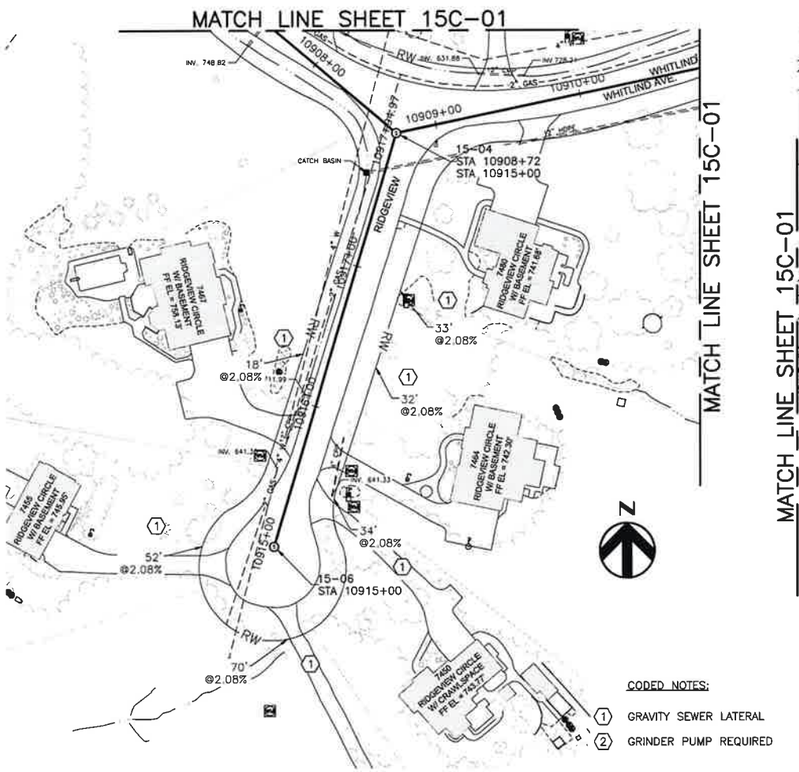
PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

WHIITLIND LIFT STATION
ML1

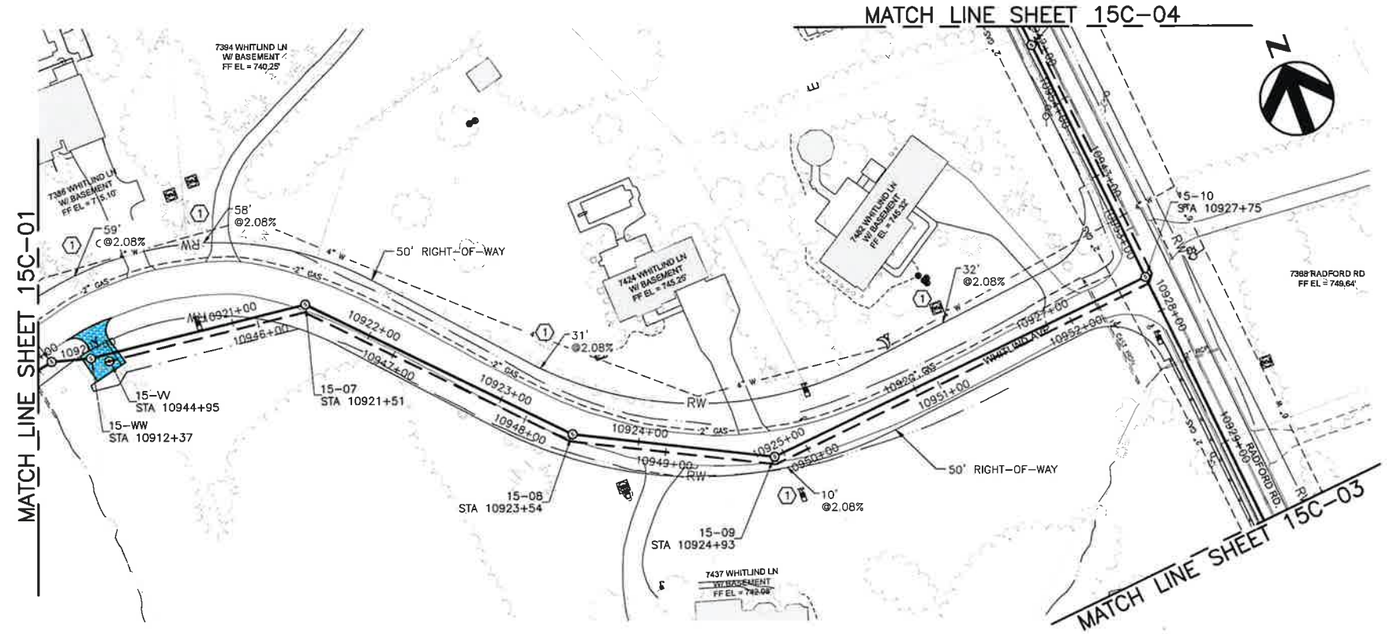
0 1" 2"

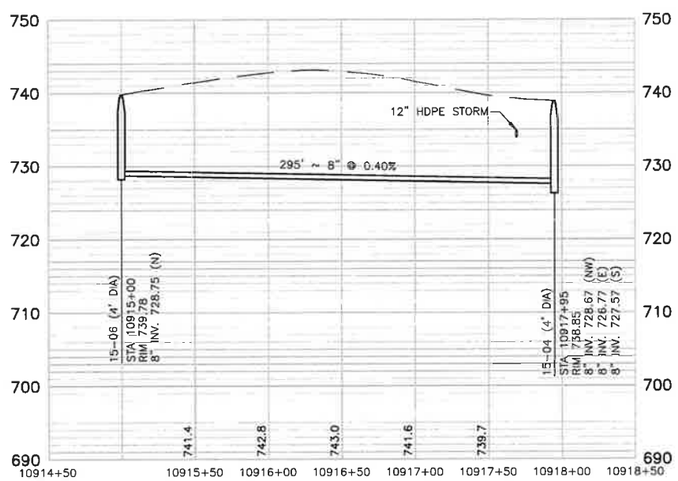
FILENAME	15C-01.dwg
SCALE	1" = 50'
SHEET	15C-01



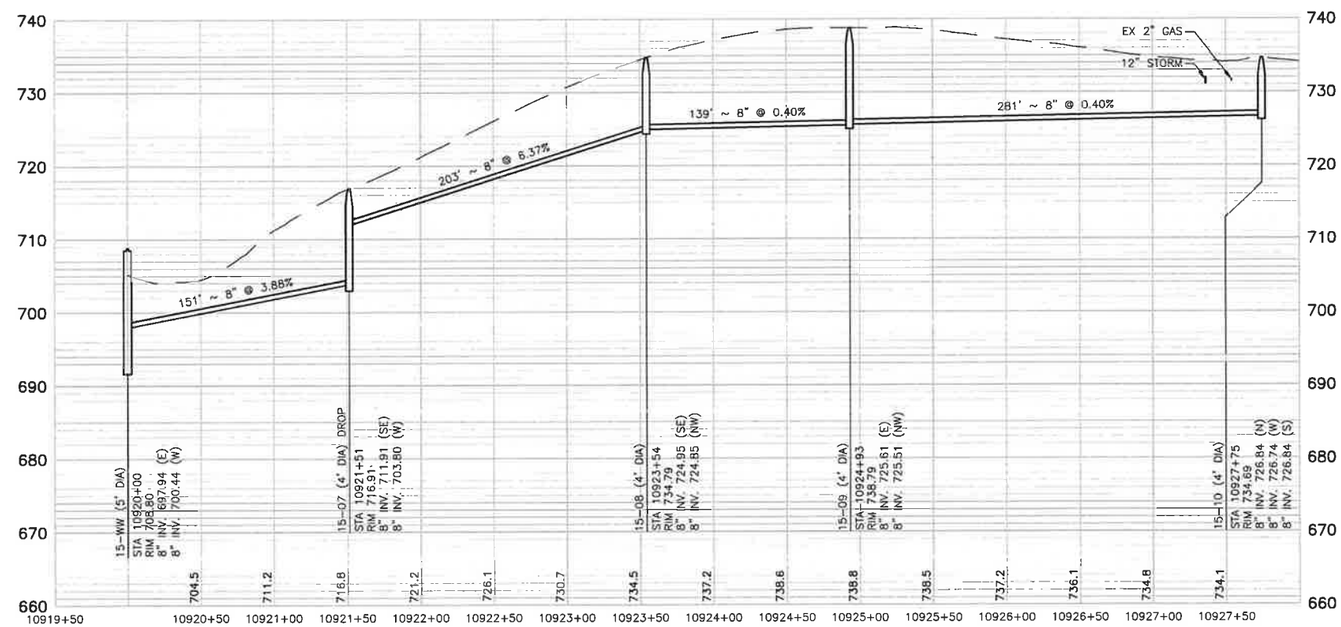
CODED NOTES:

1. GRAVITY SEWER LATERAL
2. GRINDER PUMP REQUIRED





ML1-BR1



ML2

DLZ
30661 RED ROCK COURT LOGAN, OHIO 43138
(740) 380-2828 1-866-558-2828
FAX (740) 380-3535

ISSUE	DATE	DESCRIPTION

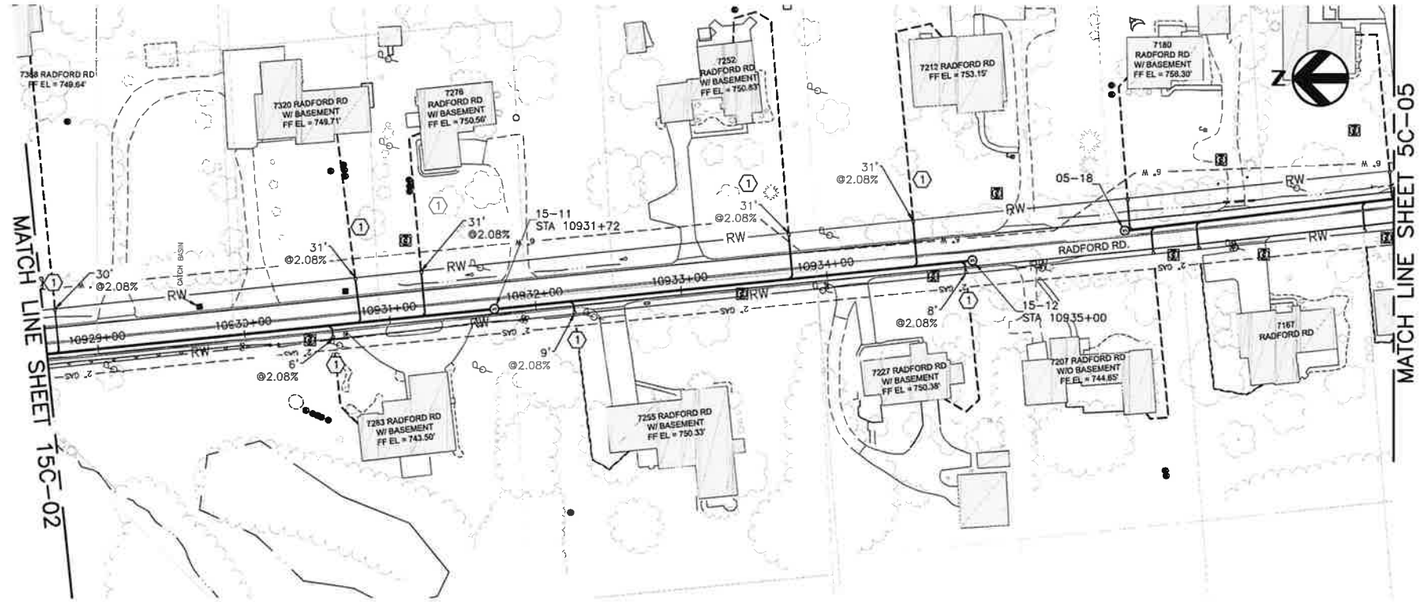
PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

WHITLIND LIFT STATION
ML1-BR1 AND ML2

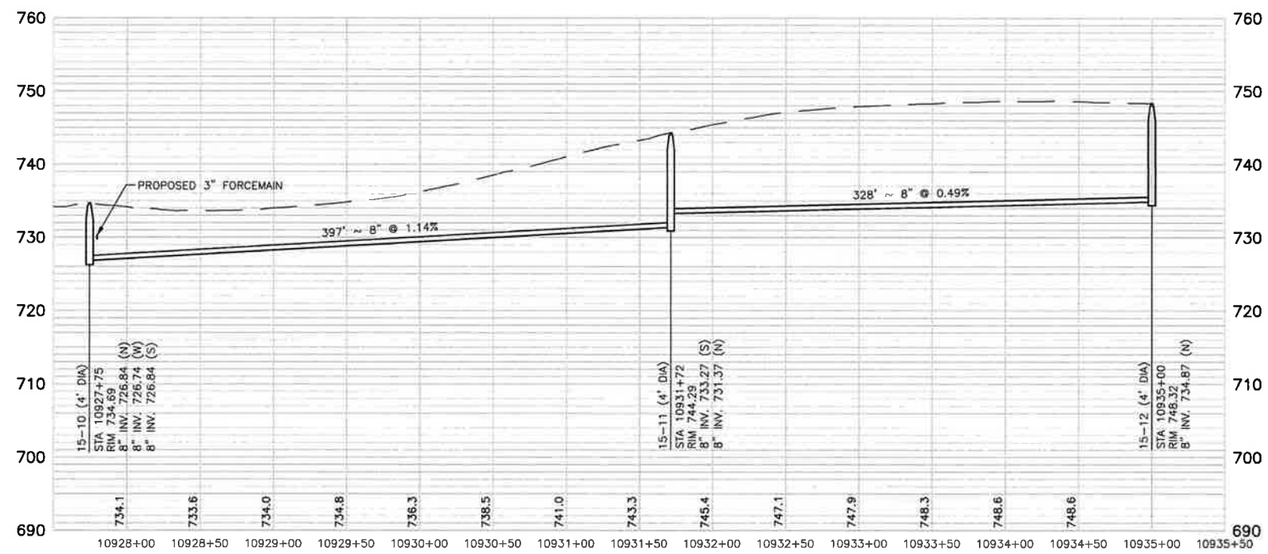
0 1" 2"

FILENAME	15C-01.dwg
SCALE	1" = 50'
SHEET	15C-02



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. GRINDER PUMP REQUIRED



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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

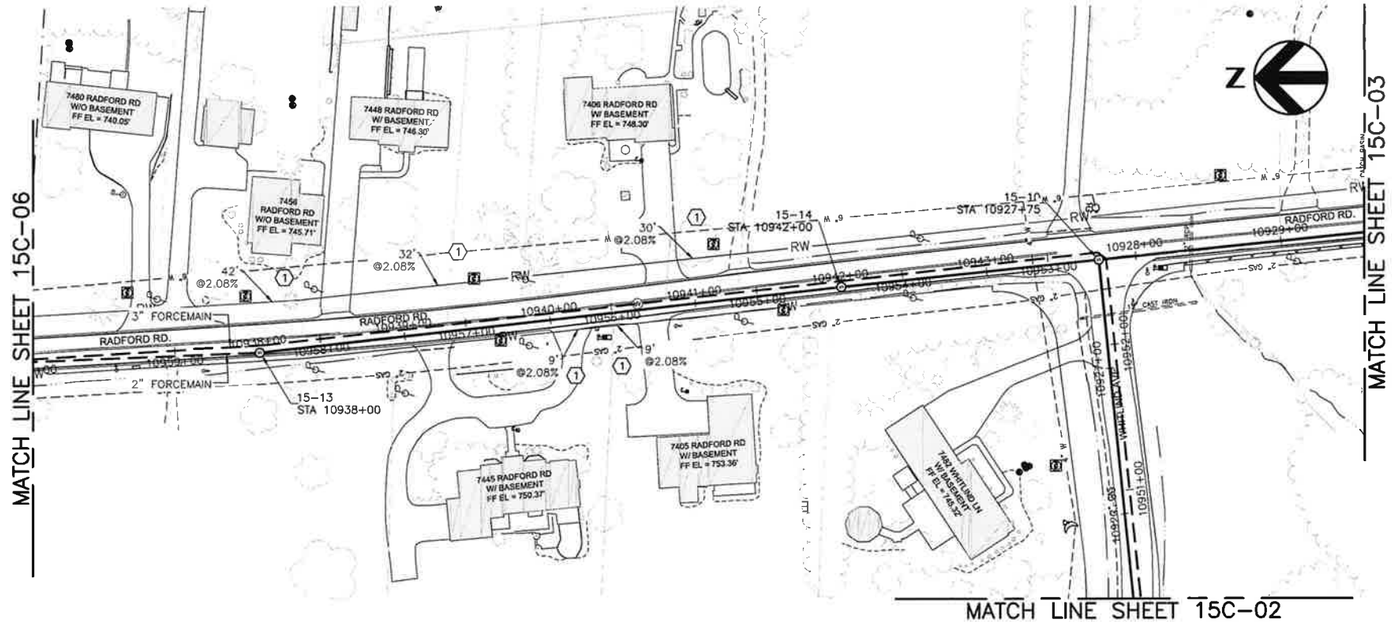
WHITLIND LIFT STAITON ML2

0 1" 2"

FILENAME 15C-01.dwg

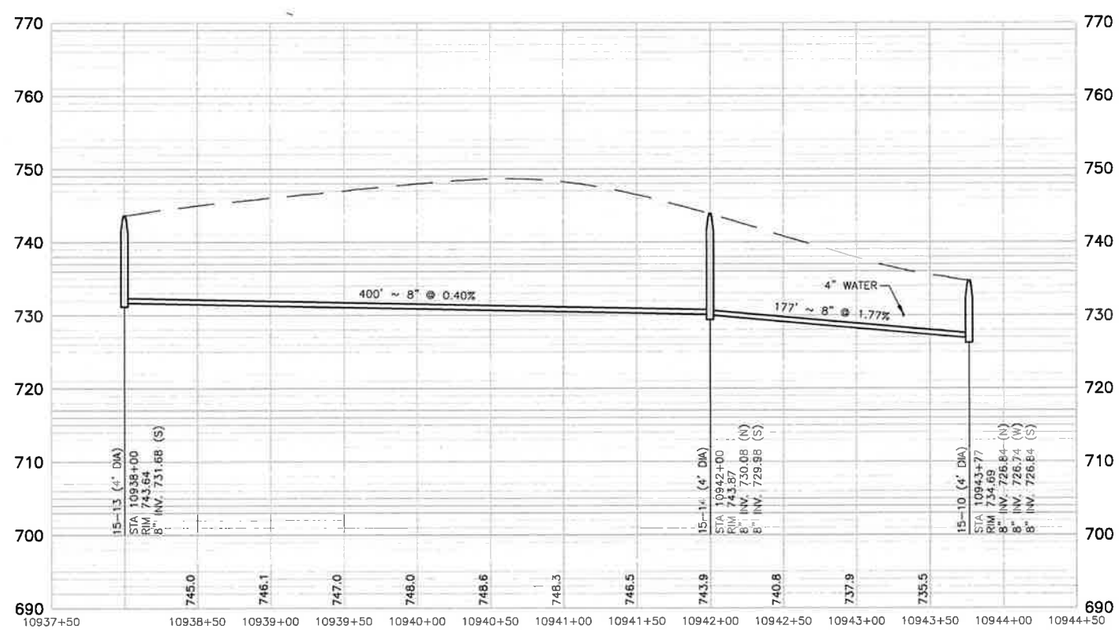
SCALE 1" = 50'

SHEET **15C-03**



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. GRINDER PUMP REQUIRED



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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

WHITLIND LIFT STAITON ML2-BR1

0 1" 2"

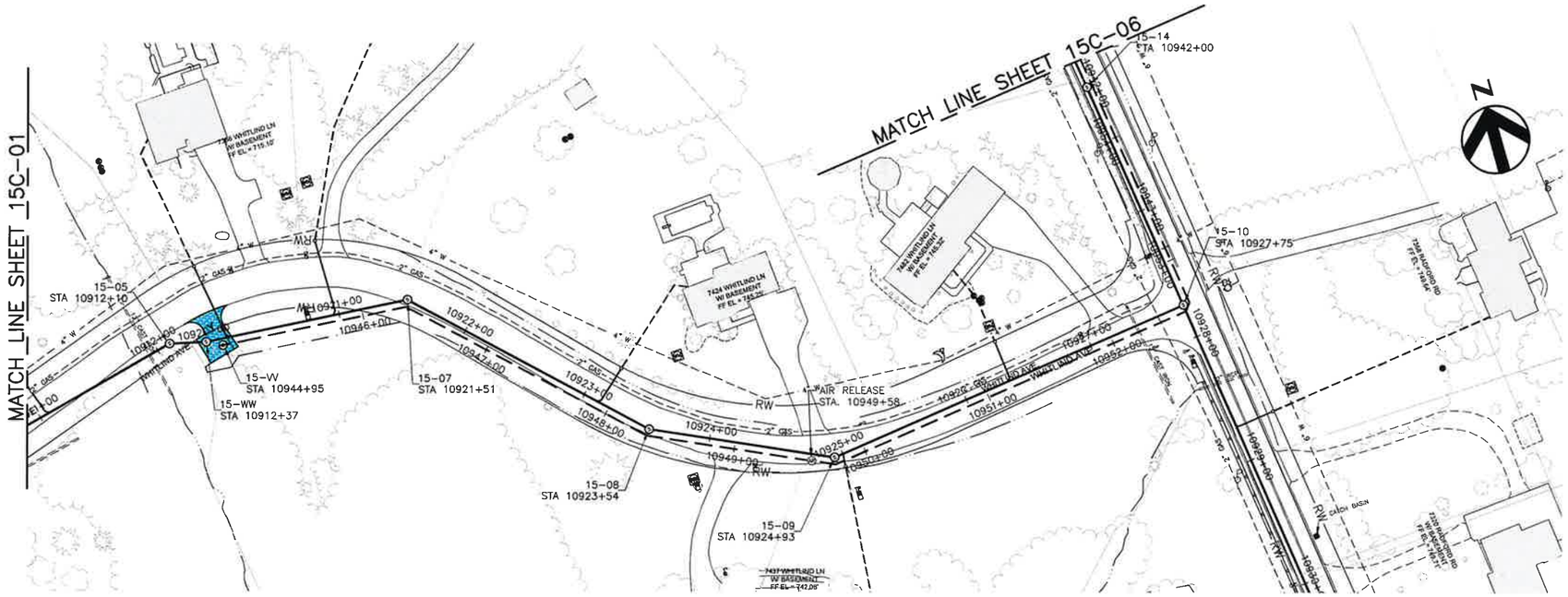
FILENAME 15C-01.dwg

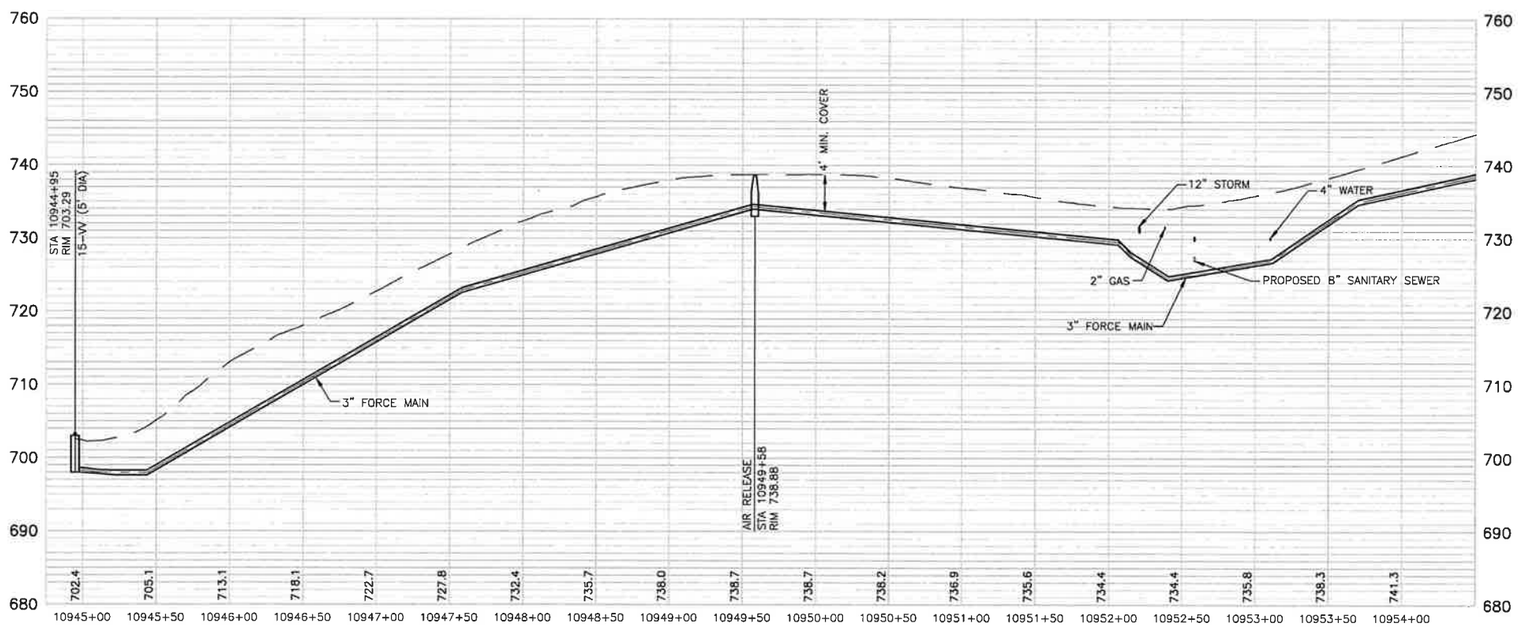
SCALE 1" = 50'

SHEET **15C-04**

CODED NOTES:

1. GRAVITY SEWER LATERAL





DLZ

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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

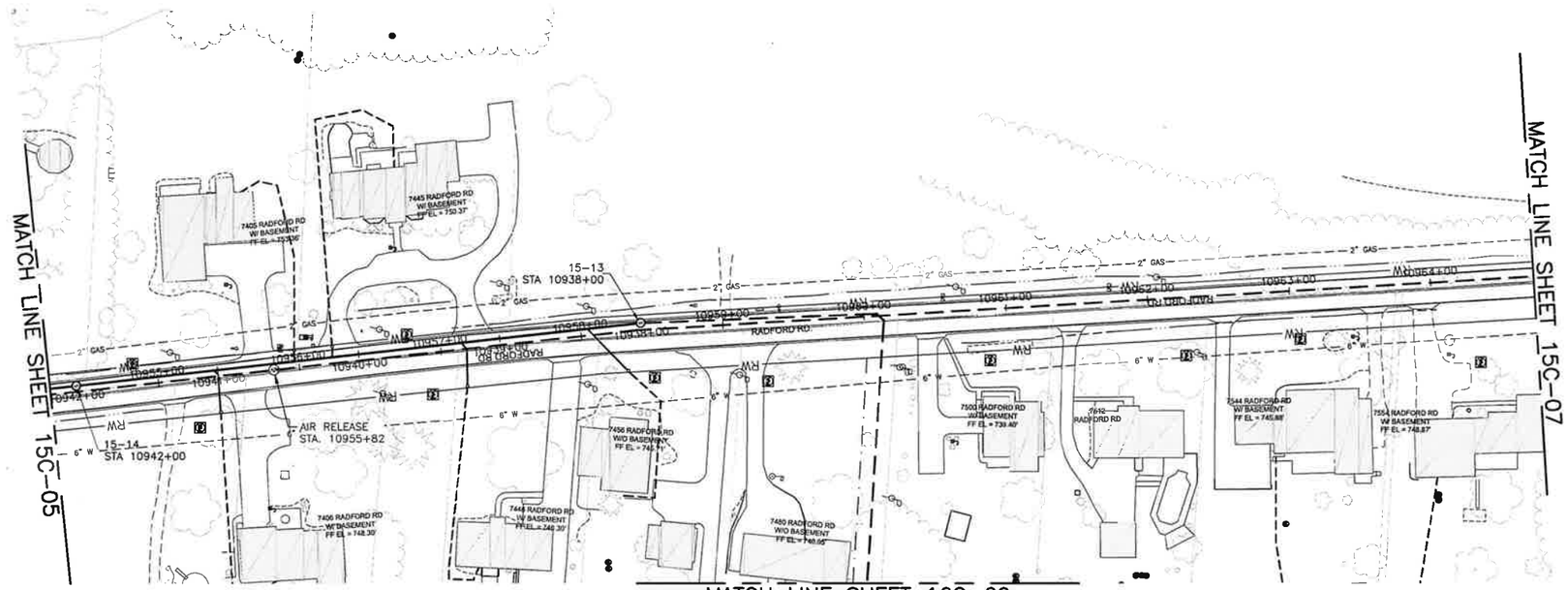
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

WHITLIND LIFT STATION
FORCE MAIN

0 1" 2"

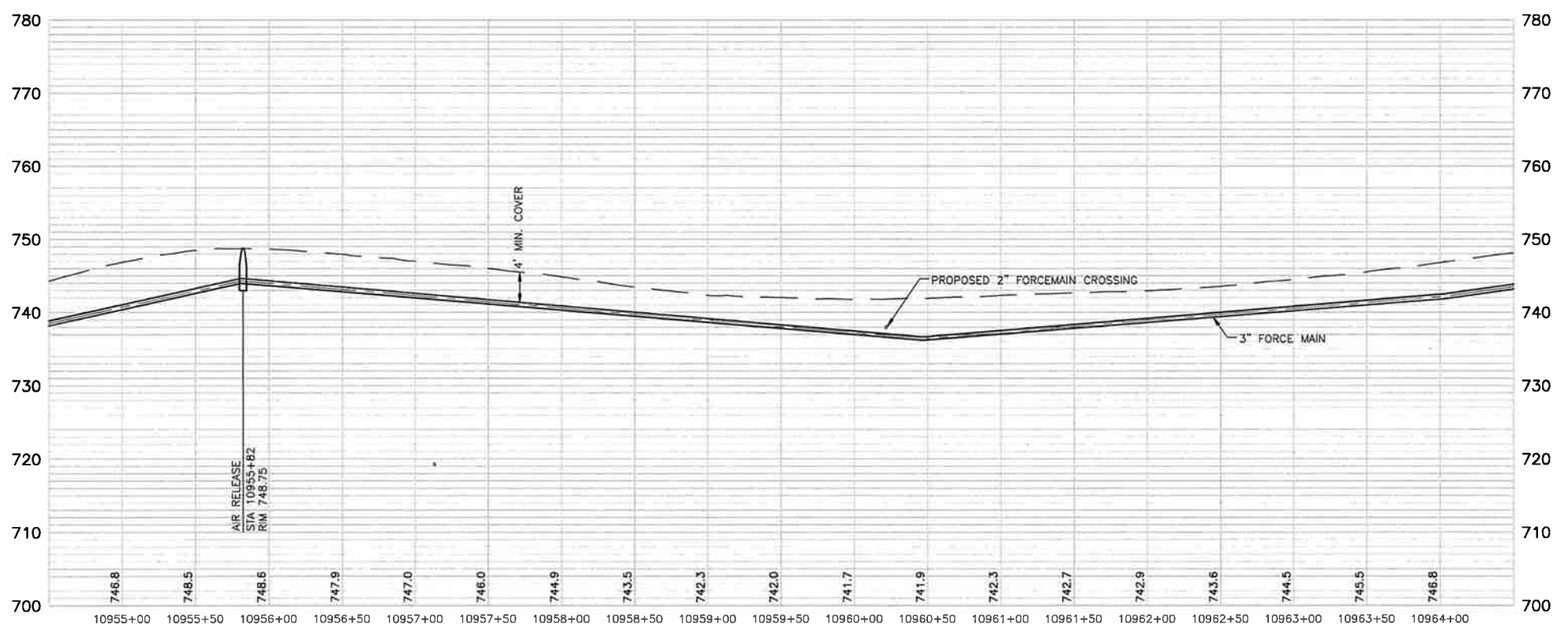
FILENAME	15C-01.dwg
SCALE	1" = 50'

SHEET **15C-05**



CODED NOTES:

(1) GRAVITY SEWER LATERAL



DLZ
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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

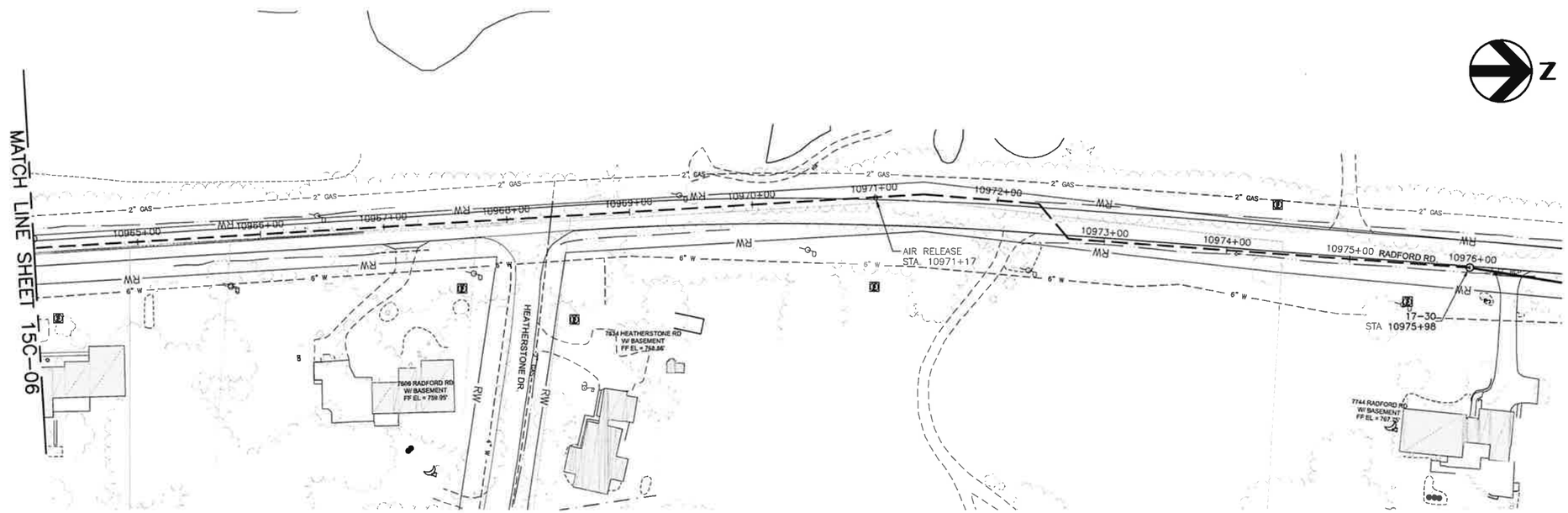
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

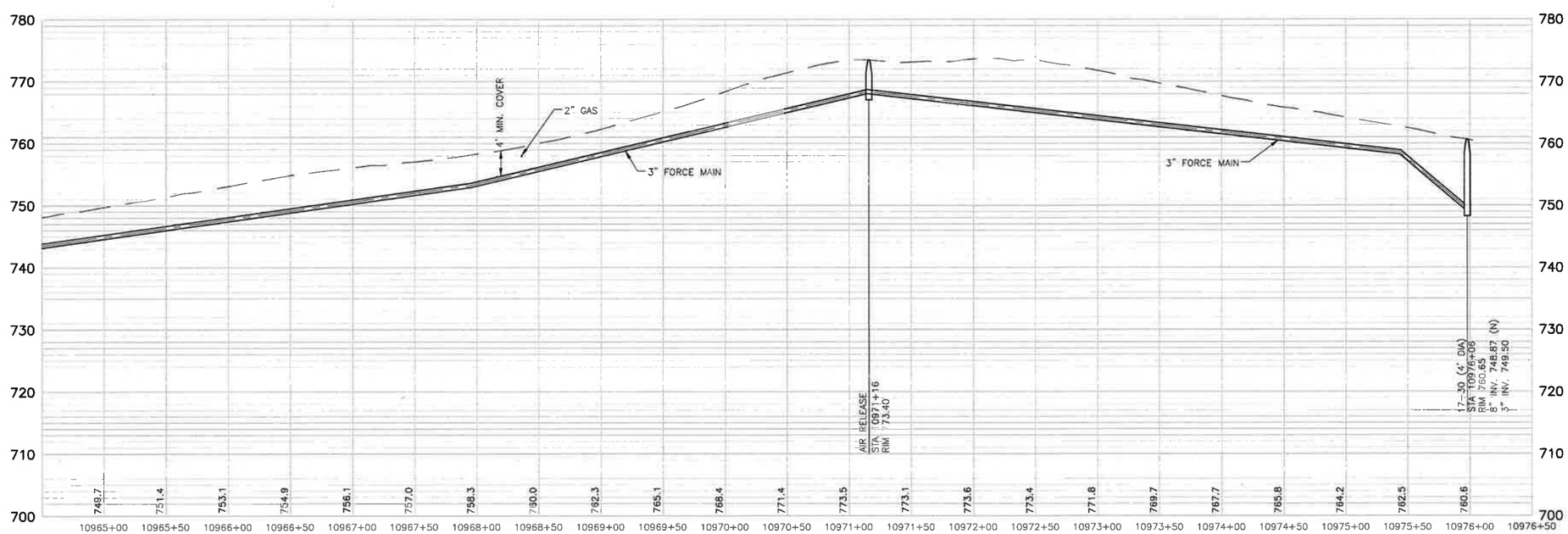
WHITLIND LIFT STATION
FORCE MAIN

0 1" 2"

FILENAME	15C-01.dwg
SCALE	1" = 50'

SHEET **15C-06**





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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

WHITLIND LIFT STATION
FORCE MAIN

0 1" 2"

FILENAME 15C-01.dwg
SCALE 1" = 50'

SHEET **15C-07**

STRUCTURE TABLE - SITE 16			
Structure Identification	Northing	Easting	Rim
16-01	477885.32	2066727.69	770.47
16-02	477758.88	2066746.39	753.85
16-03	477746.30	2066835.88	743.50
16-04	477623.74	2066839.81	735.48
16-05	477364.38	2066848.11	730.42
16-06	477332.74	2066930.97	714.81
16-07	477554.78	2066923.55	724.56
16-08	477152.50	2067174.41	706.02
16-09	477126.91	2067516.49	708.65
16-10	477121.26	2067591.94	702.63
16-11	477306.72	2067759.81	717.44
16-12	477489.69	2067828.78	737.67
16-13	477468.71	2067929.89	738.49
16-14	477425.21	2068139.41	781.56
16-15	477261.79	2067220.81	714.94
16-16	477659.97	2067224.28	746.21
16-17	477709.17	2067306.72	765.91
16-18	477639.61	2067833.79	756.56
16-19	477837.12	2067840.38	801.73
16-20	477889.20	2067943.90	801.79
16-21	477786.81	2068192.40	803.21
16-22	476869.97	2066968.06	726.95
16-23	477065.55	2066954.09	704.81
16-24	477324.70	2066764.83	739.67
16-25	477213.05	2066782.81	729.70
16-VV	477161.74	2066954.47	704.85
16-WW	477169.53	2066946.70	706.59

DLZ
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ISSUE	DATE	DESCRIPTION

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PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

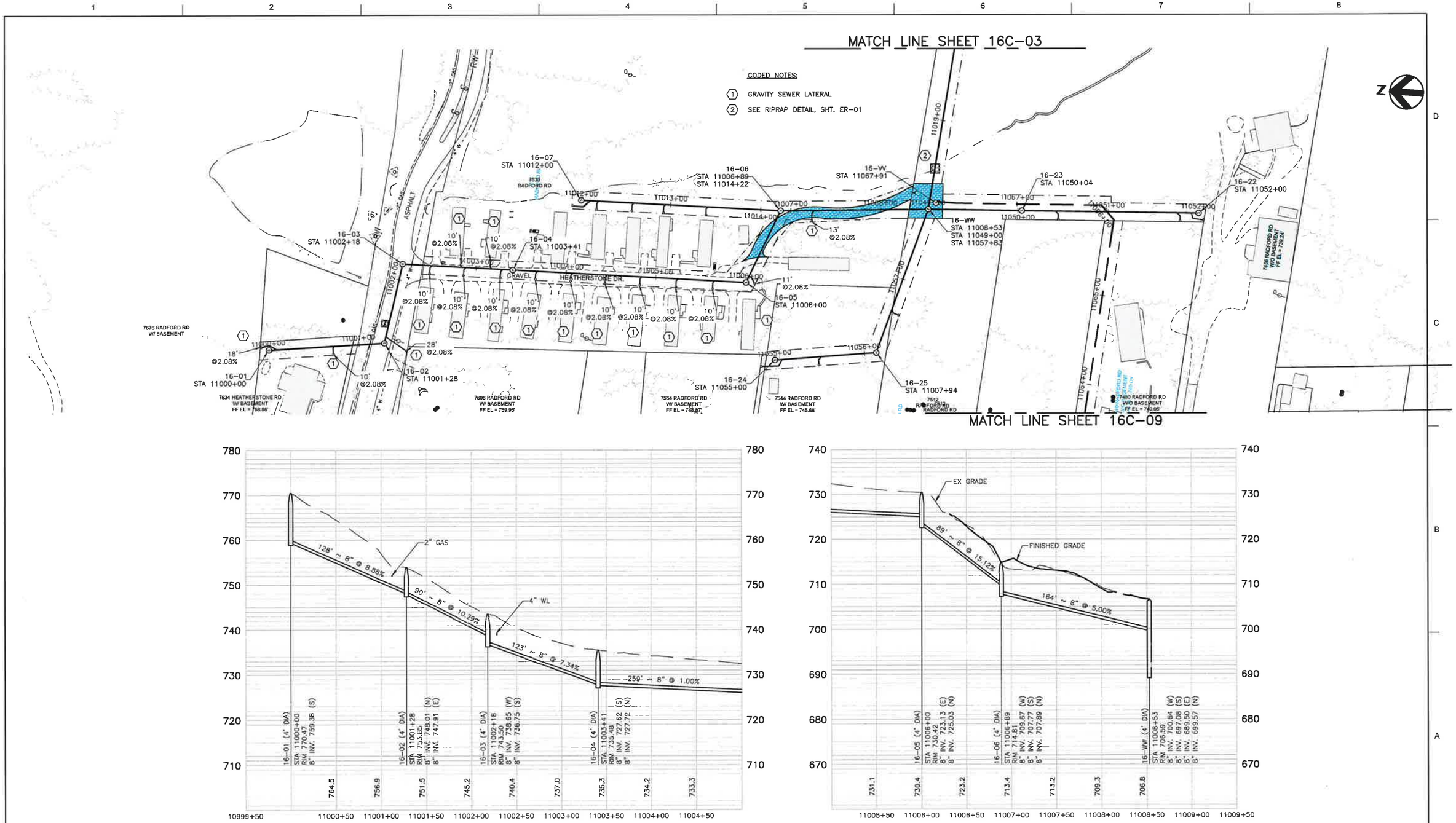
HEATHERSTONE LIFT STATION
SHEET INDEX AND STRUCTURE TABLE

0 1" 2"

FILENAME 16C-00.dwg

SCALE 1" = 200'

SHEET 16C-00



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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

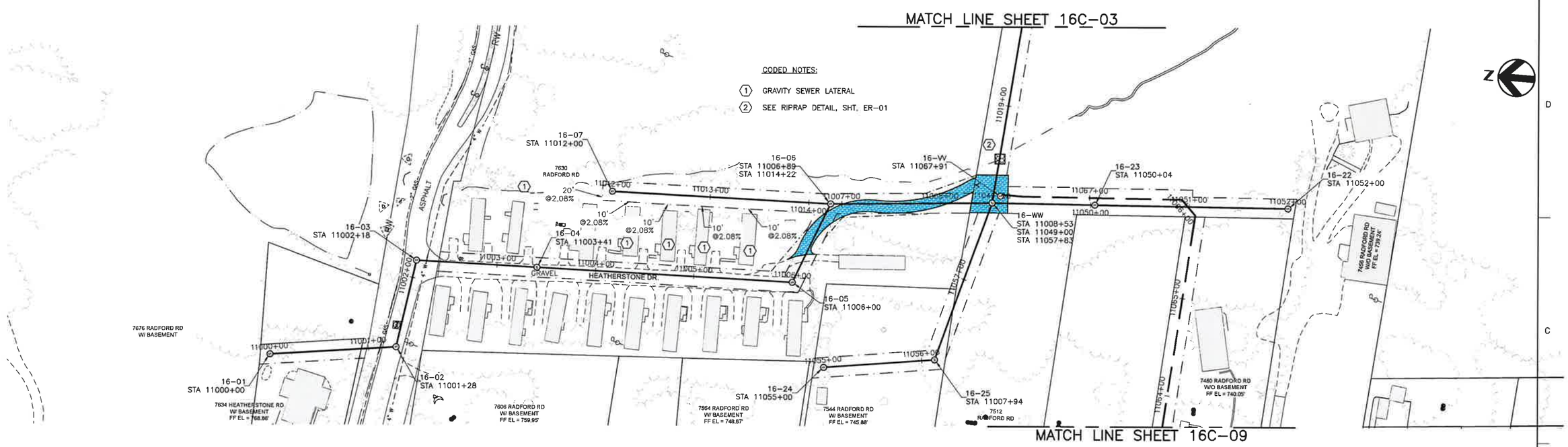
PROJECT NUMBER 2128-4507.00

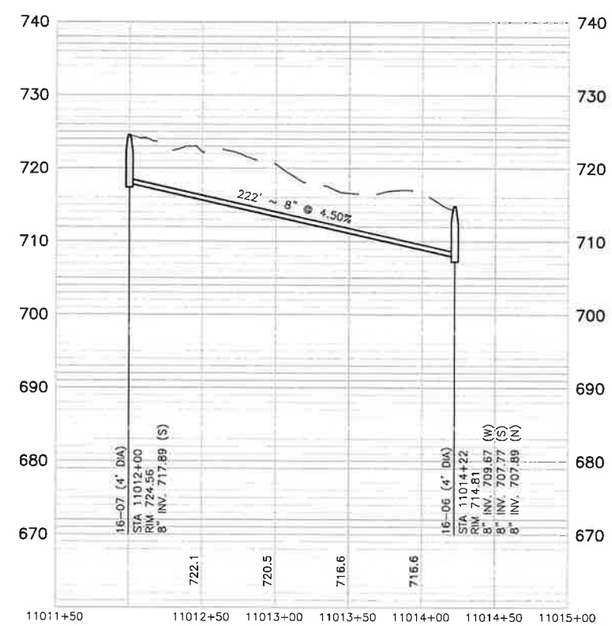
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

HEATHERSTONE LIFT STATION
ML1

FILENAME 16C-01.dwg
SCALE 1" = 50'

SHEET **16C-01**





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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

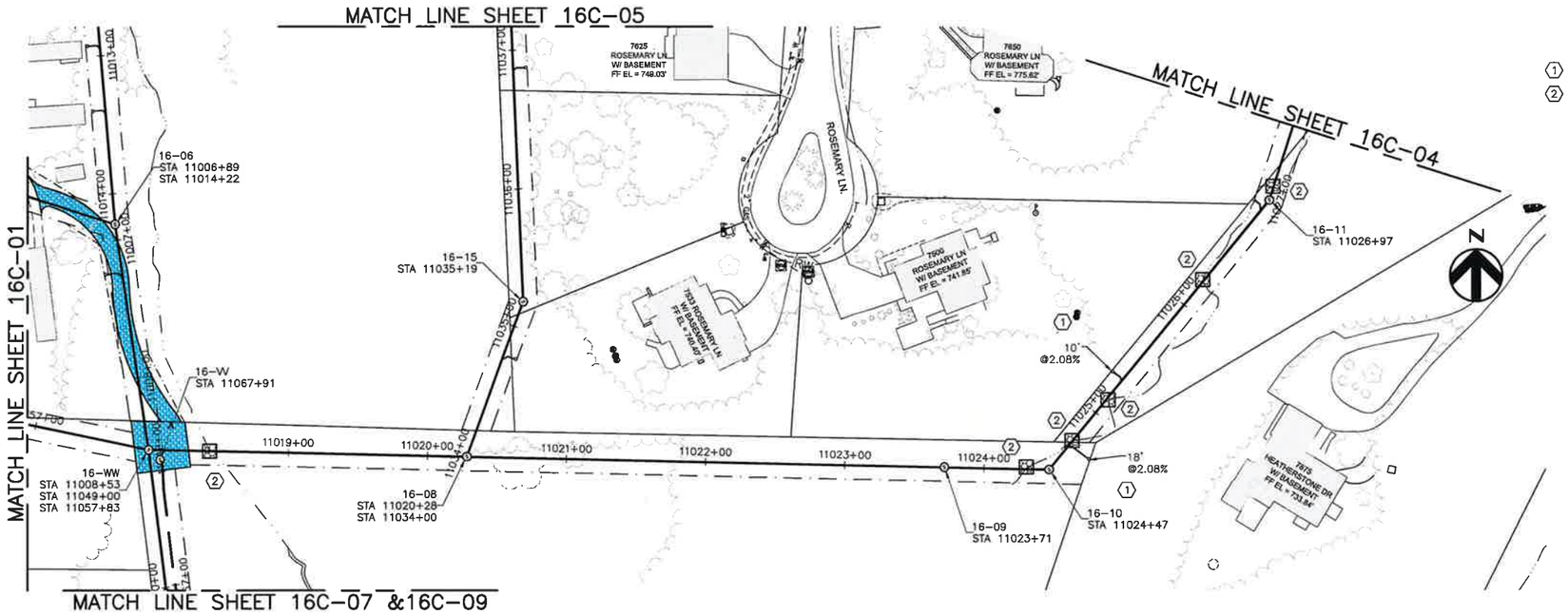
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

HEATHERSTONE LIFT STATION
ML1-BR1

0 1" 2"

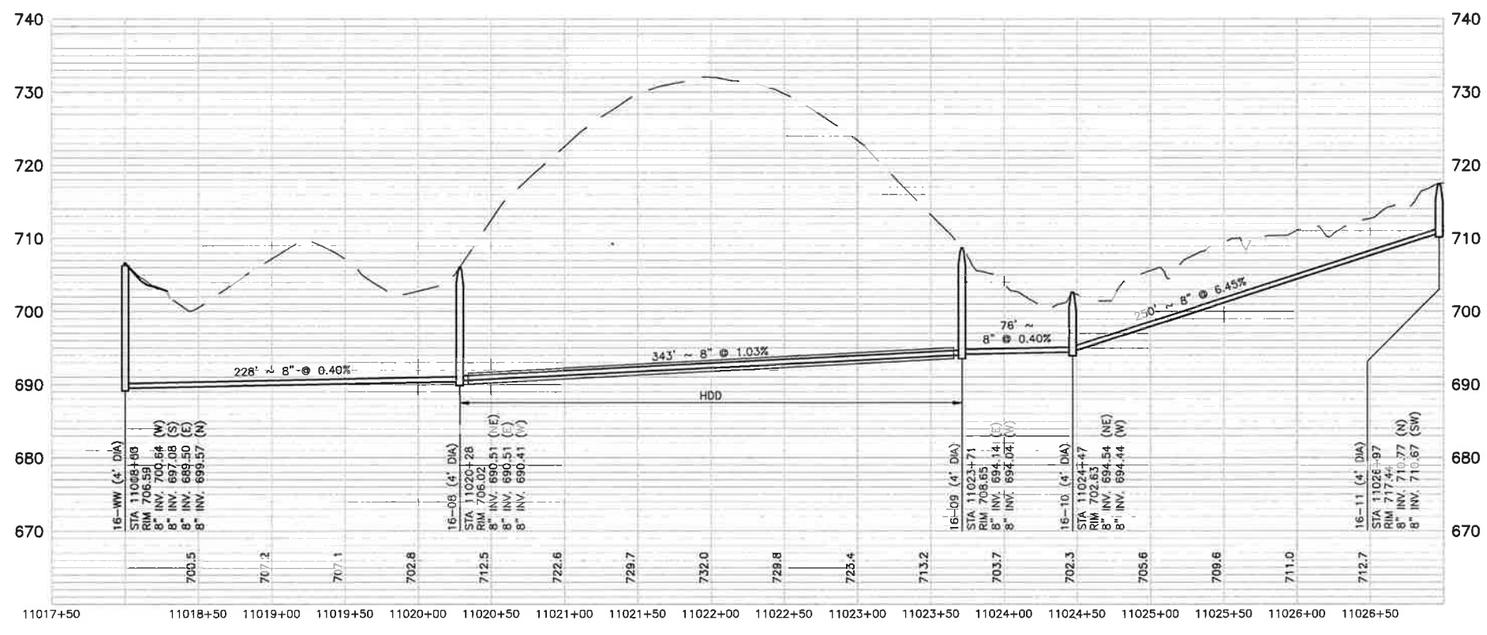
FILENAME 16C-01.dwg
SCALE 1" = 50'

SHEET **16C-02**



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. SEE RIPRAP DETAIL, SHT. ER-01



DLZ
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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

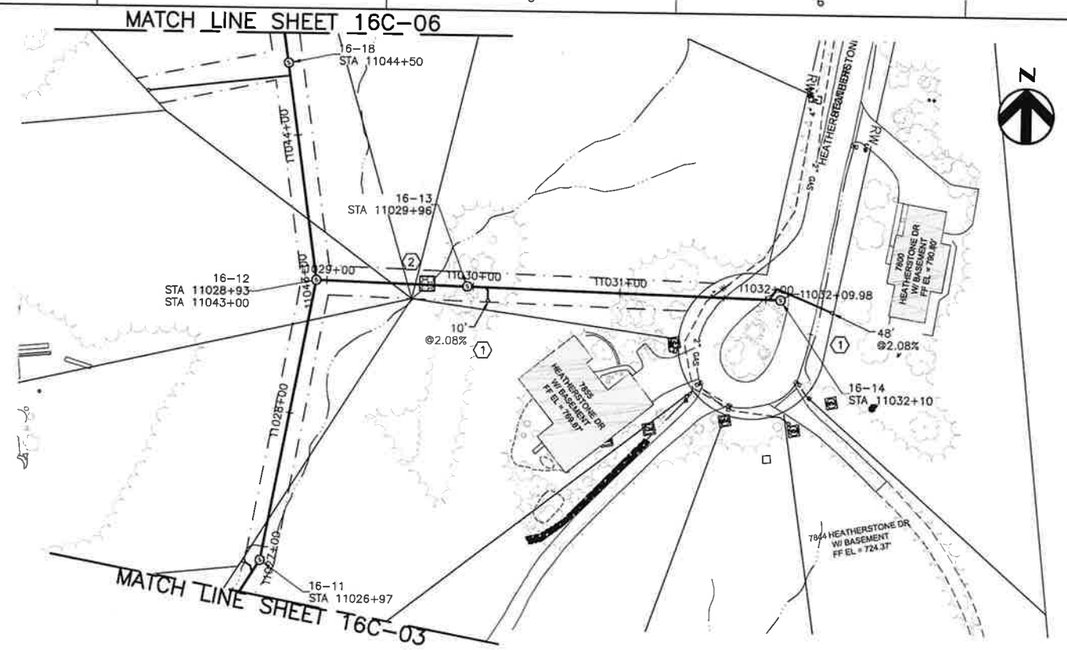
HEATHERSTONE LIFT STATION
ML2

0 1" 2"

FILENAME 16C-01.dwg

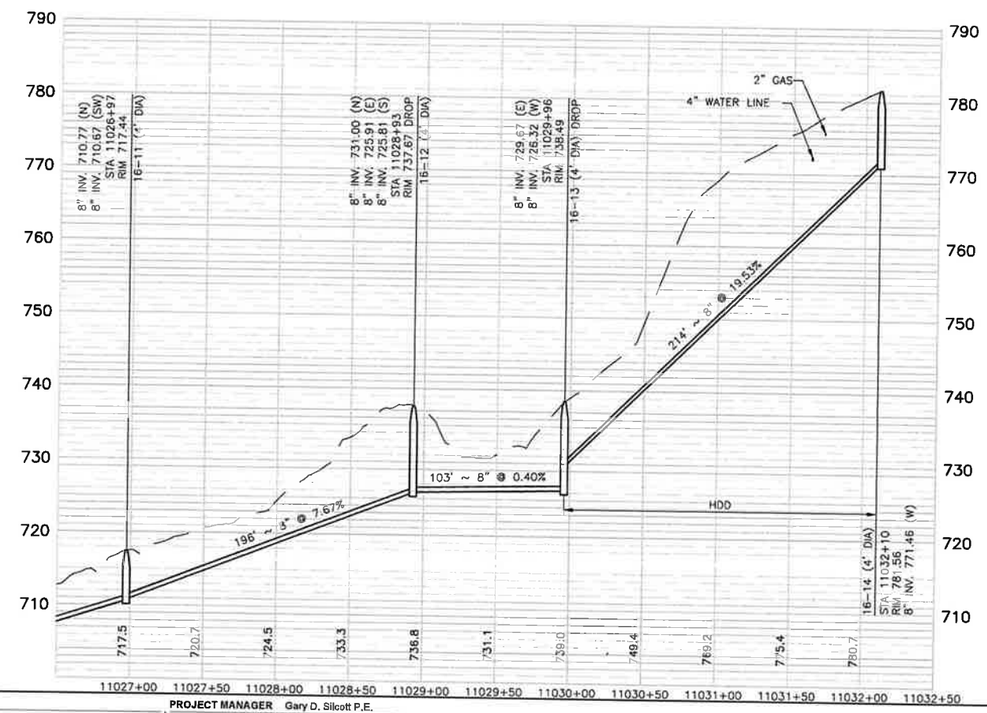
SCALE 1" = 50'

SHEET **16C-03**



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. SEE RIPRAP DETAIL, SHT. ER-01



DLZ
30661 RED ROCK COURT LOGAN, OHIO 43138
(740) 380-2828 1-866-558-2828
FAX (740) 380-3535

ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

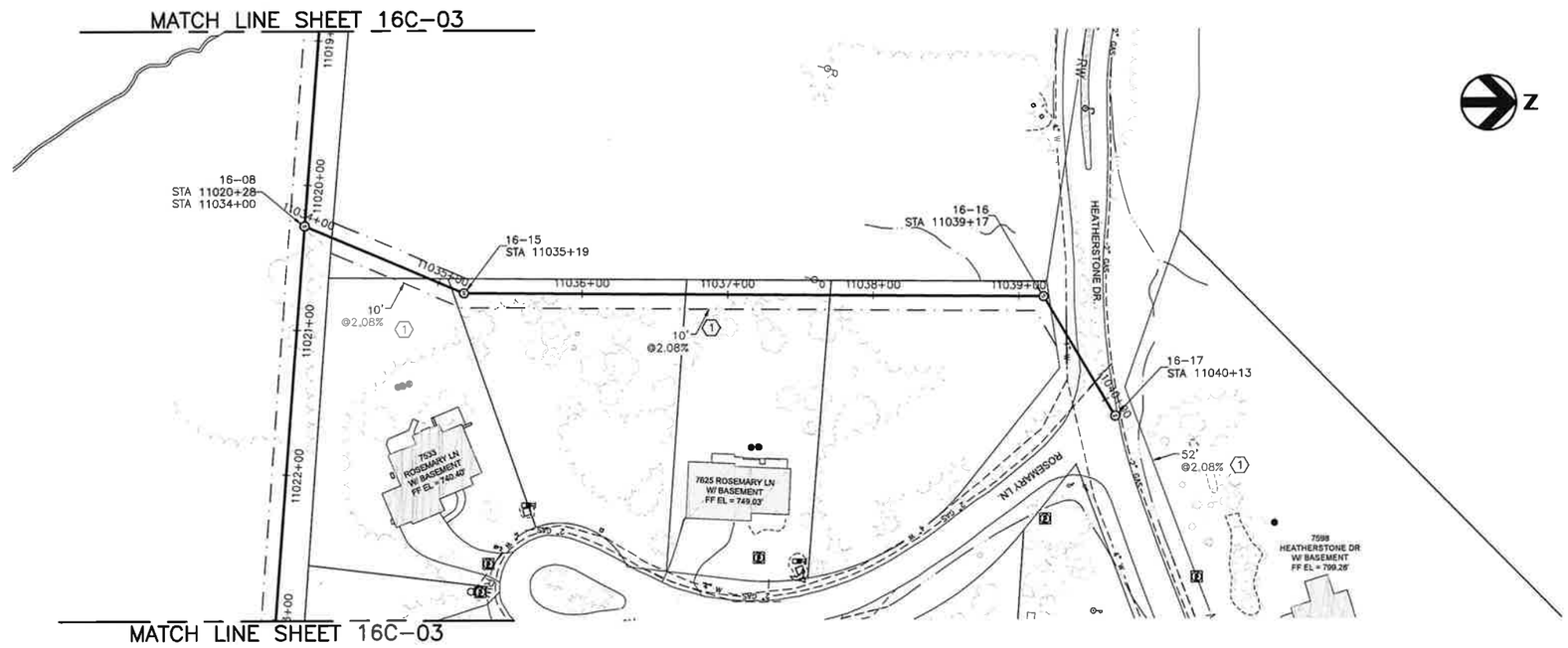
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

HEATHERSTONE LIFT STATION
ML2

0 1" 2"

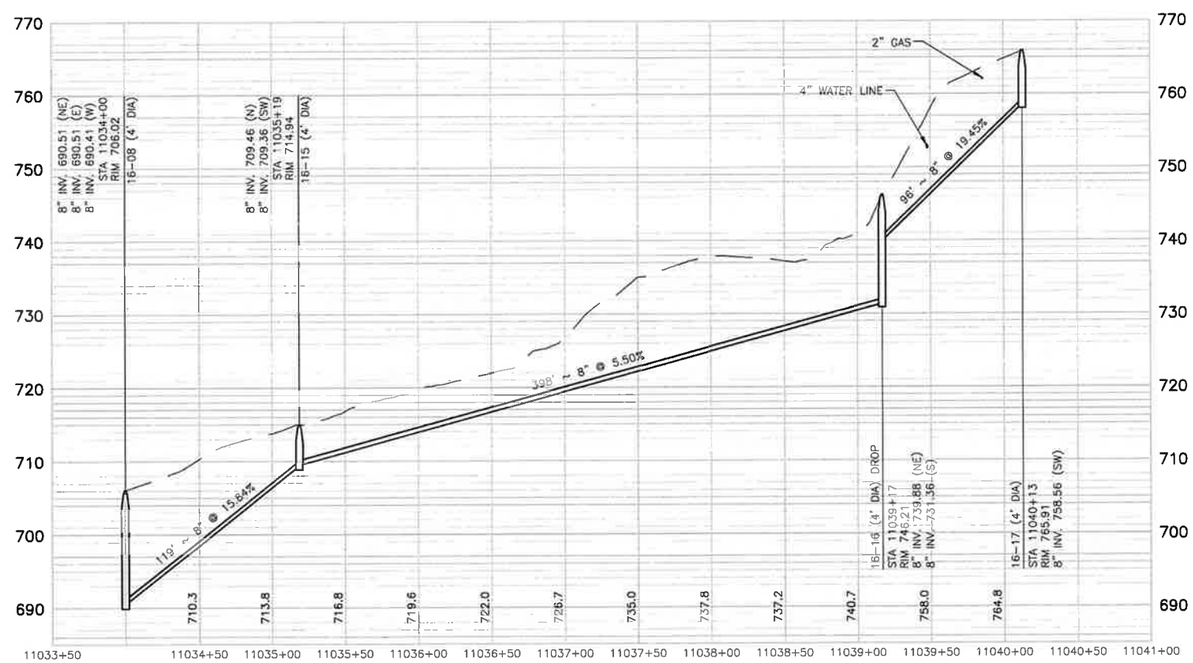
FILENAME 16C-01.dwg
SCALE 1" = 50'

SHEET **16C-04**



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. GRINDER PUMP REQUIRED



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30661 RED ROCK COURT LOGAN, OHIO 43138
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FAX (740) 380-3535

ISSUE	DATE	DESCRIPTION

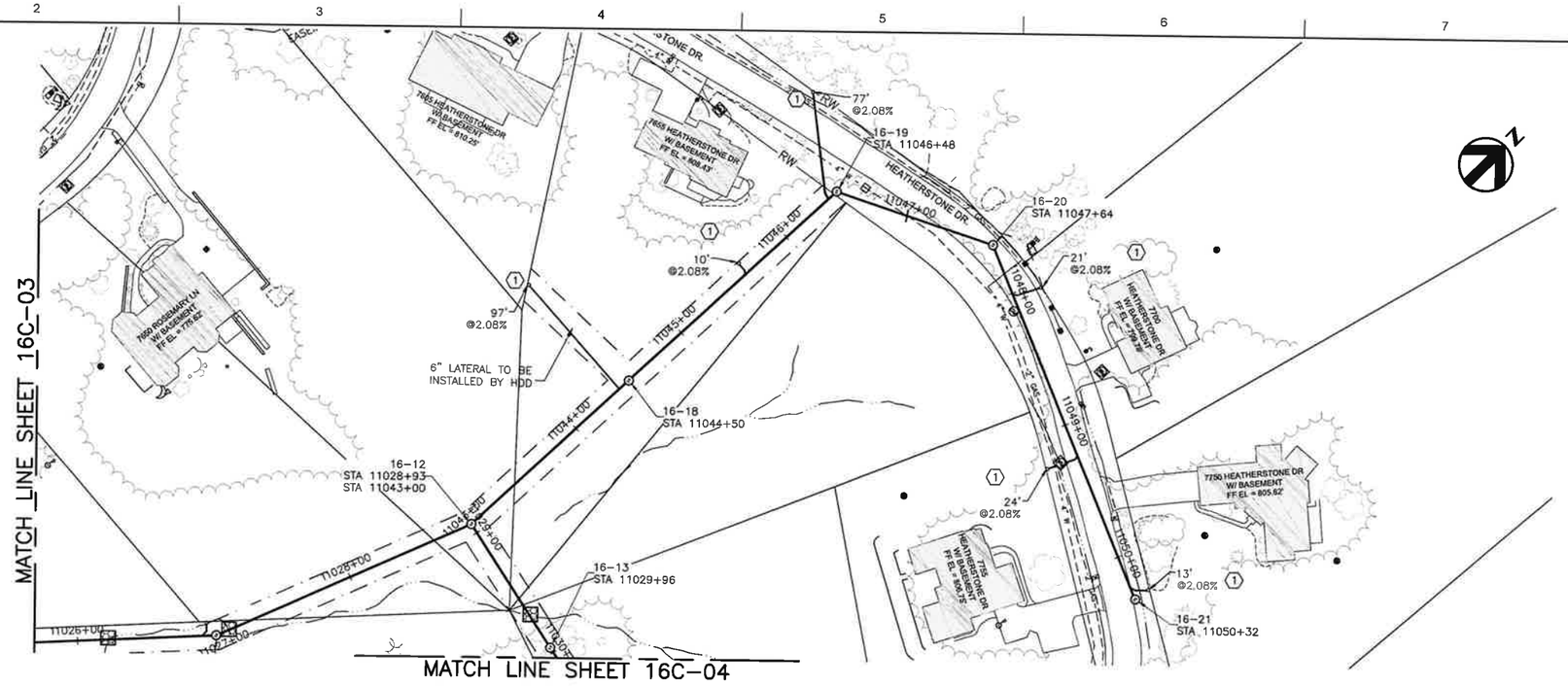
PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

HEATHERSTONE LIFT STATION
ML2-BR1

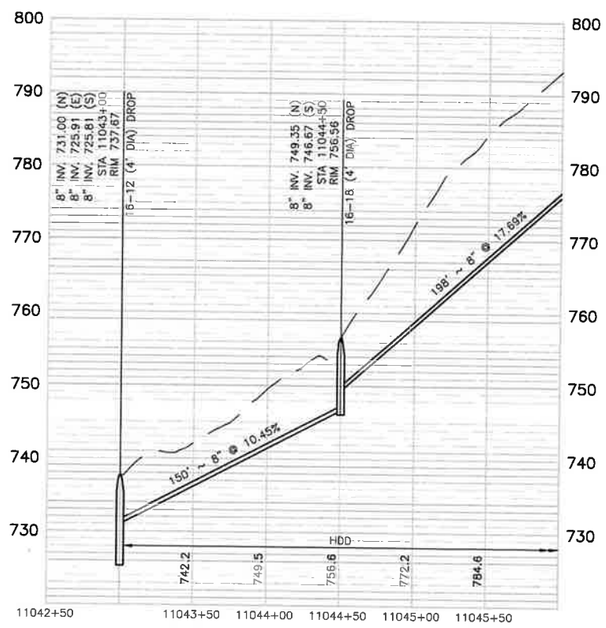
0 1" 2"

FILENAME	16C-01.dwg
SCALE	1" = 50'
SHEET	16C-05

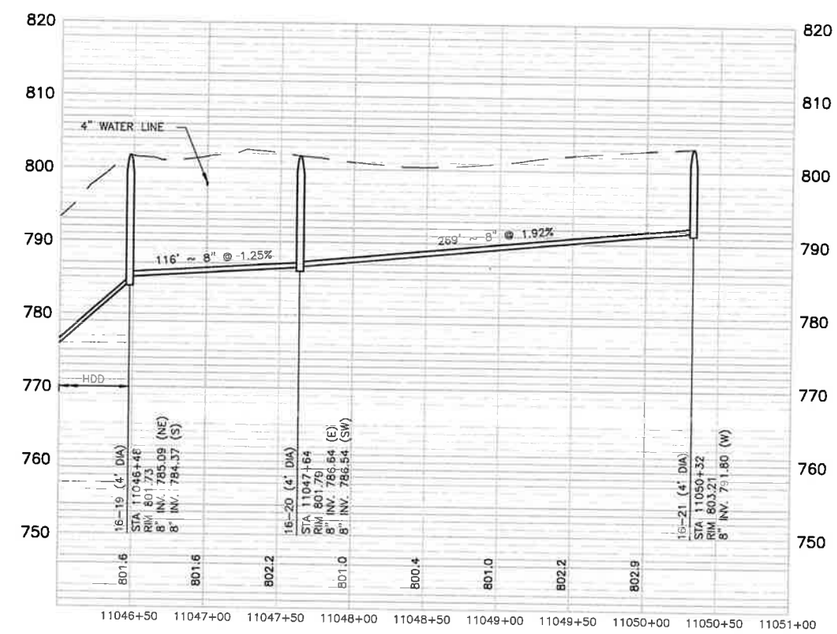


CODED NOTES:

1. GRAVITY SEWER LATERAL
2. SEE RIPRAP DETAIL, SHT. ER-01



ML2-BR2



DLZ
30661 RED ROCK COURT LOGAN, OHIO 43138
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FAX (740) 380-3535

ISSUE	DATE	DESCRIPTION

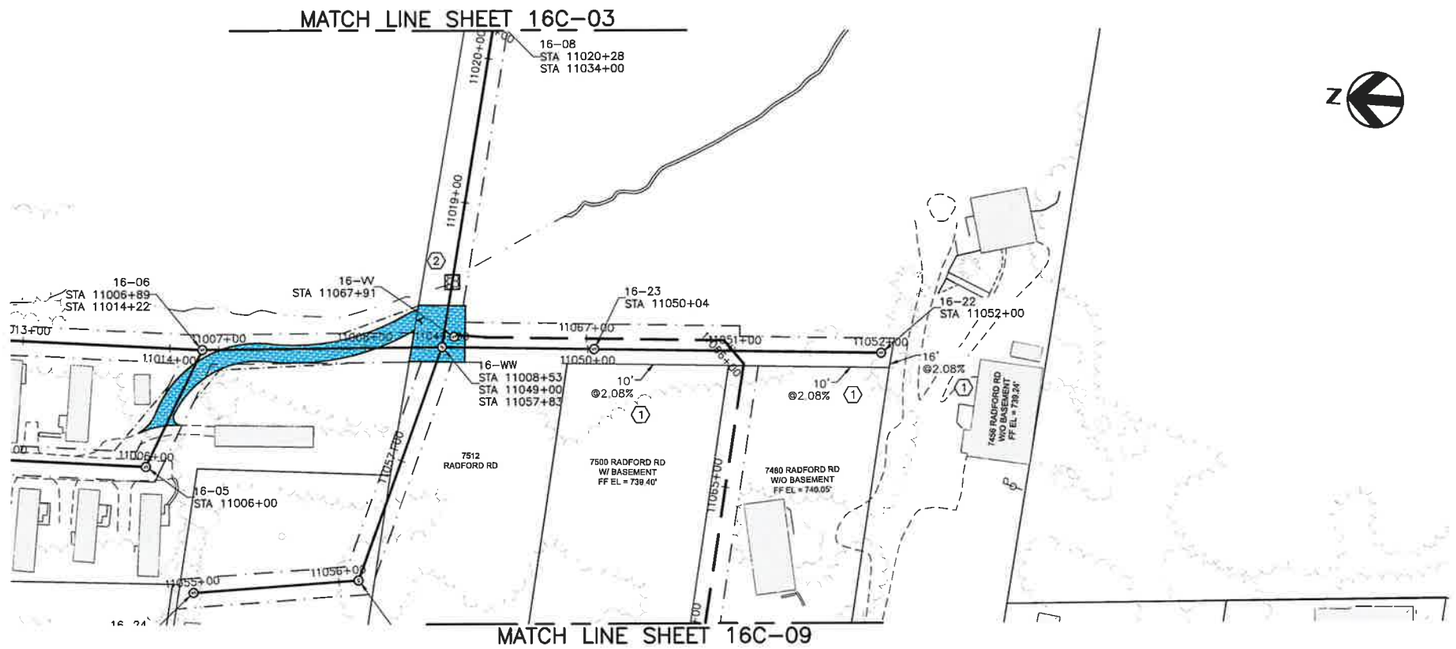
PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

HEATHERSTONE LIFT STATION
ML2-BR2

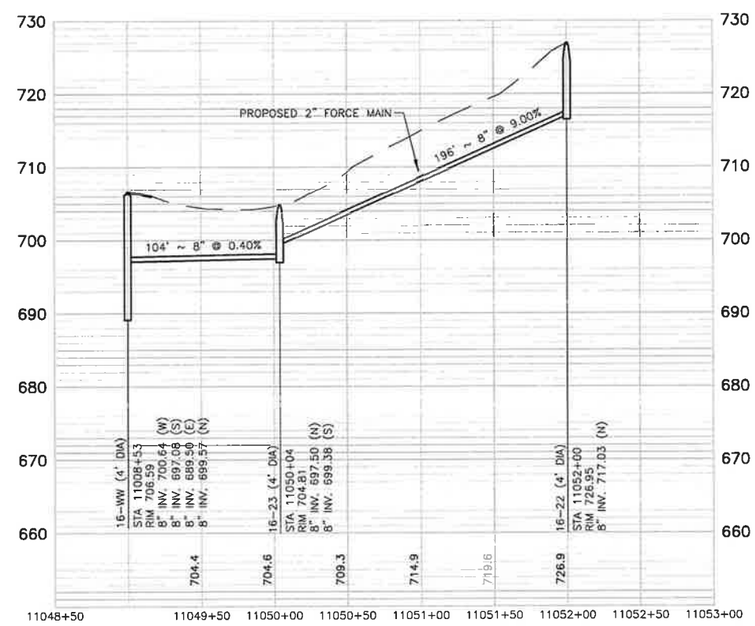
0 1" 2"

FILENAME	16C-01.dwg	SHEET	16C-06
SCALE	1" = 50'		



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. SEE RIPRAP DETAIL, SHT. ER-01



DLZ
30861 RED ROCK COURT LOGAN, OHIO 43138
(740) 380-2828 1-866-558-2828
FAX (740) 380-3535

ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

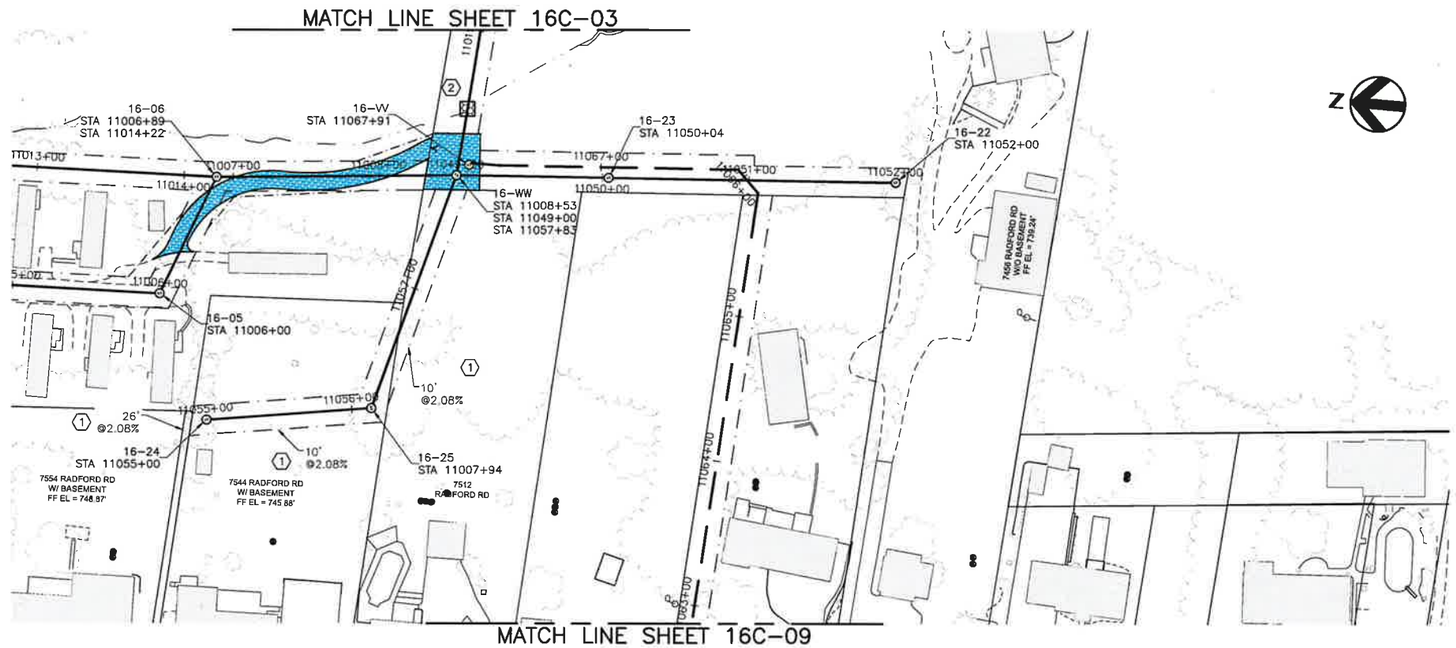
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

HEATHERSTONE LIFT STATION
ML3

0 1" 2"

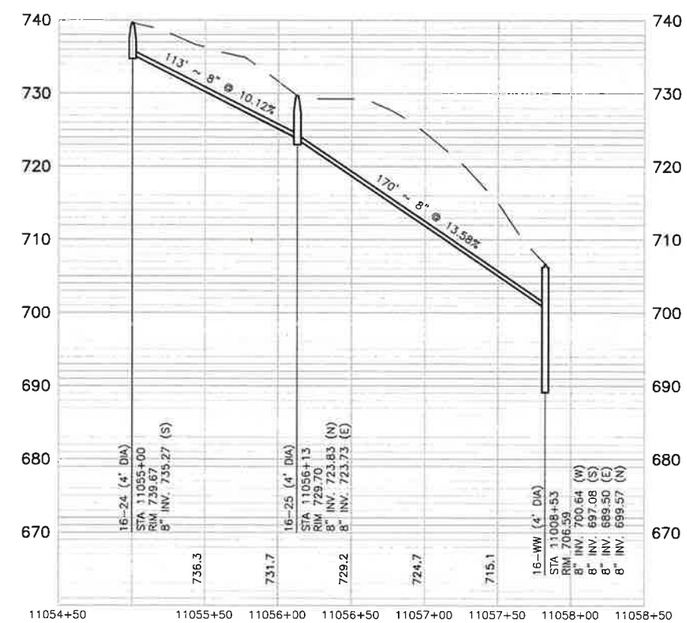
FILENAME 16C-01.dwg
SCALE 1" = 50'

SHEET **16C-07**



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. SEE RIPRAP DETAIL, SHT. ER-01



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30661 RED ROCK COURT LOGAN, OHIO 43138
(740) 380-2828 1-866-558-2828
FAX (740) 380-3535

ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

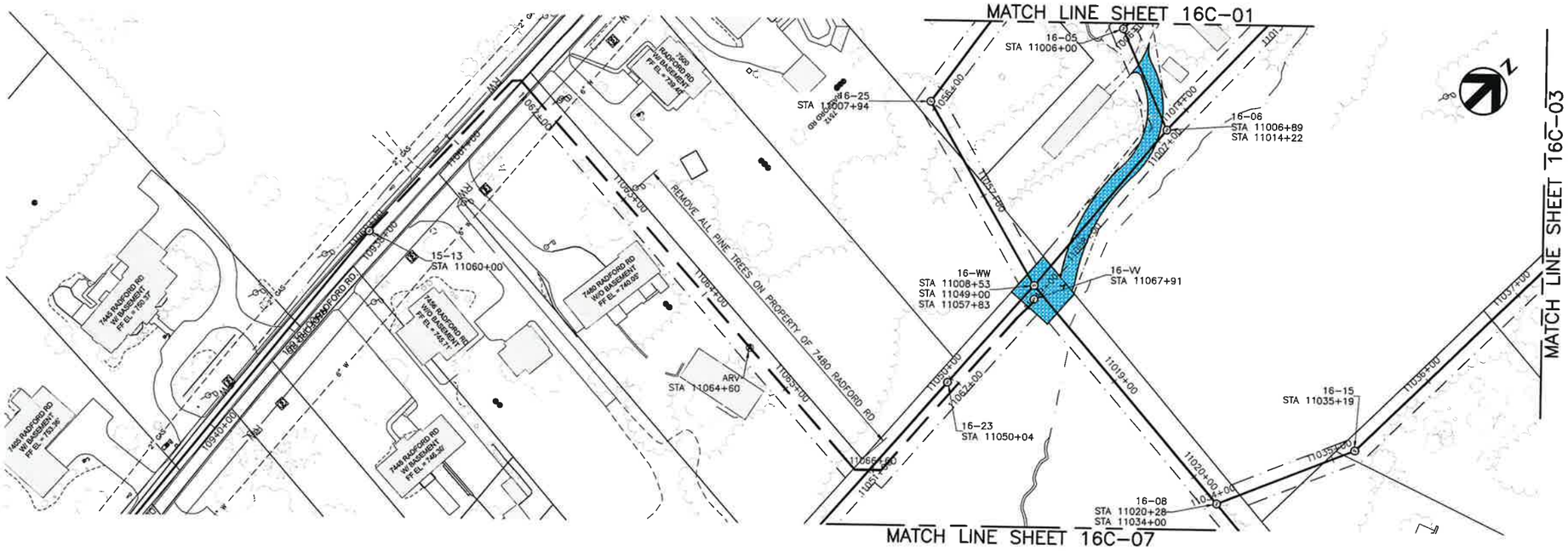
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

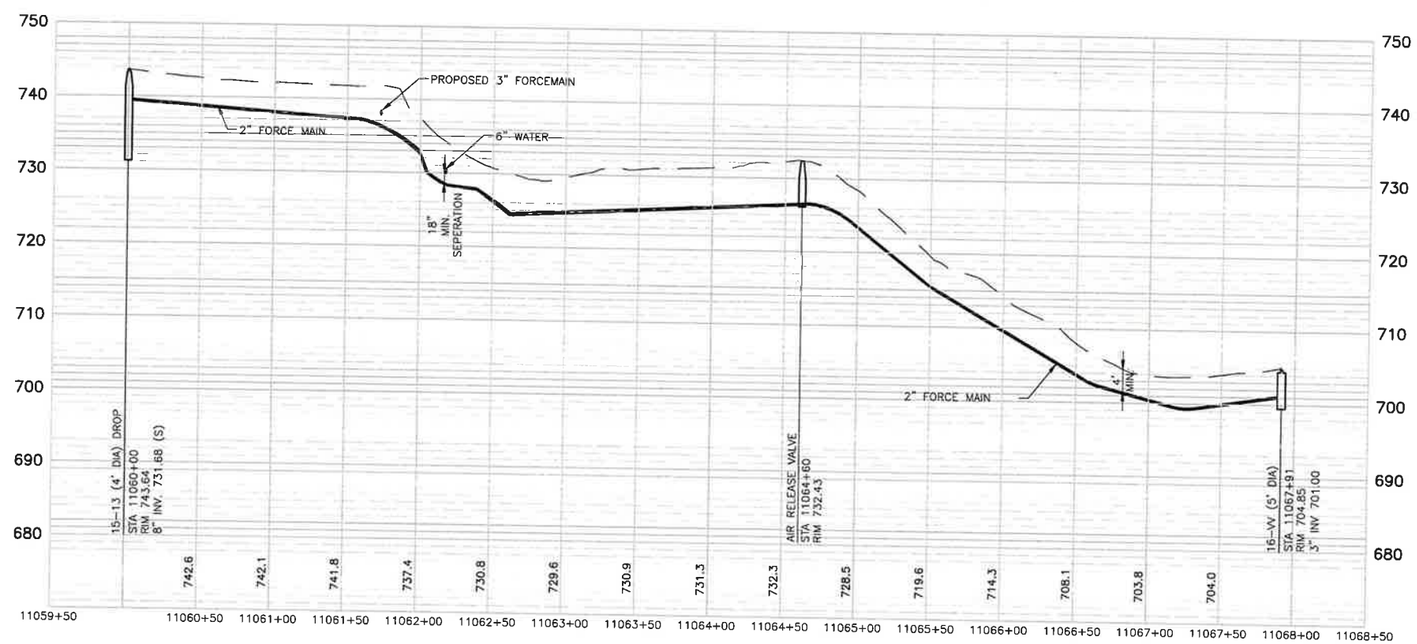
HEATHERSTONE LIFT STATION
ML4

0 1" 2"

FILENAME 16C-01.dwg
SCALE 1" = 50'

SHEET **16C-08**





CODED NOTES:

1. GRAVITY SEWER LATERAL
2. GRINDER PUMP REQUIRED

DLZ
30661 RED ROCK COURT LOGAN, OHIO 43138
(740) 380-2828 1-866-558-2828
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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

HEATHERSTONE LIFT STATION
FORCE MAIN

FILENAME 16C-01.dwg
SCALE 1" = 50'

SHEET 16C-09

STRUCTURE TABLE - SITE 17			
Structure Identification	Northing	Easting	Rim
17-01	479732.65	2062835.35	837.00
17-02	479760.43	2063216.39	839.83
17-03	479755.29	2063565.54	836.03
17-04	479737.54	2063876.37	826.32
17-05	479823.86	2064080.45	813.93
17-06	479803.05	2064387.15	784.99
17-07	479768.32	2064592.79	772.39
17-08	479733.58	2064798.44	769.99
17-09	479721.74	2065085.91	763.30
17-10	479699.51	2065367.48	742.49
17-11	479707.56	2065556.63	733.49
17-12	479673.37	2065846.86	710.00
17-13	479657.09	2066007.46	703.28
17-14	479637.10	2066342.90	689.97
17-15	479618.52	2066608.21	683.33
17-16	479652.70	2066942.16	675.93
17-17	479722.58	2067144.79	671.55
17-18	479704.33	2067255.93	674.54
17-19	479785.62	2067422.64	670.08
17-20	479916.27	2067608.22	666.11
17-21	480196.13	2067893.51	660.14
17-22	480296.42	2068067.80	659.29
17-23	480359.30	2068088.12	658.46
17-24	480491.92	2068382.93	660.66
17-25	480422.68	2068551.23	650.89
17-25B	480451.28	2068628.04	649.95
17-26	480516.86	2068610.51	649.55
17-27	480687.08	2068926.17	650.71
17-28	480605.13	2069064.93	650.00
17-29	480726.67	2069317.42	645.00
17-30	478556.58	2066531.56	760.65
17-31	478883.15	2066590.47	748.63
17-31A	478943.58	2066625.27	745.83
17-32	479144.32	2066897.73	726.90
17-33	479325.60	2067060.10	708.65
17-34	479516.63	2067198.29	689.27
17-35	479598.06	2067230.06	681.86
17-36	478846.12	2066647.03	742.97
17-37	478734.16	2066944.84	768.45
17-38	478532.29	2067005.44	800.04
17-39	478505.77	2067130.41	804.51
17-40	479161.10	2067264.12	721.35
17-41	479004.95	2067319.15	742.00
17-42	478883.40	2067440.42	747.32
17-43	478852.62	2067513.79	753.59
17-44	479213.57	2067323.22	721.30
17-45	479319.22	2067431.29	747.13
17-MM	480909.59	2069271.41	648.62
17-WW	480890.76	2069261.67	647.02

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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

S.R. 56 - UNION STREET LIFT STATION
SHEET INDEX AND STRUCTURE TABLE

0 1" 2"

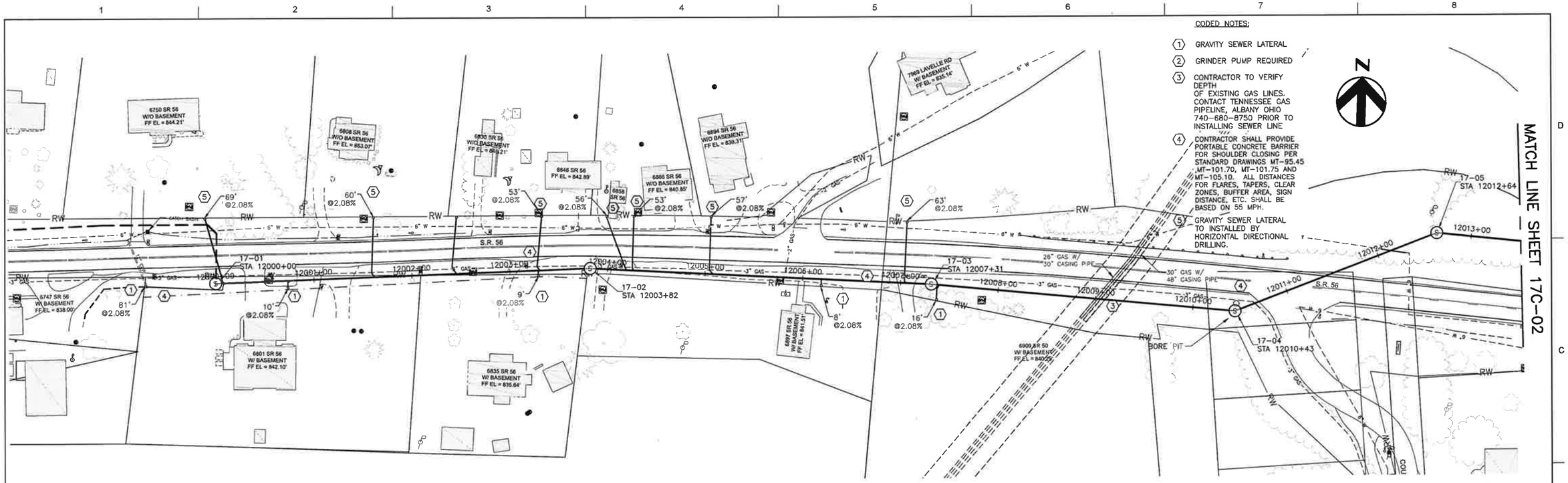
FILENAME 17C-00.dwg

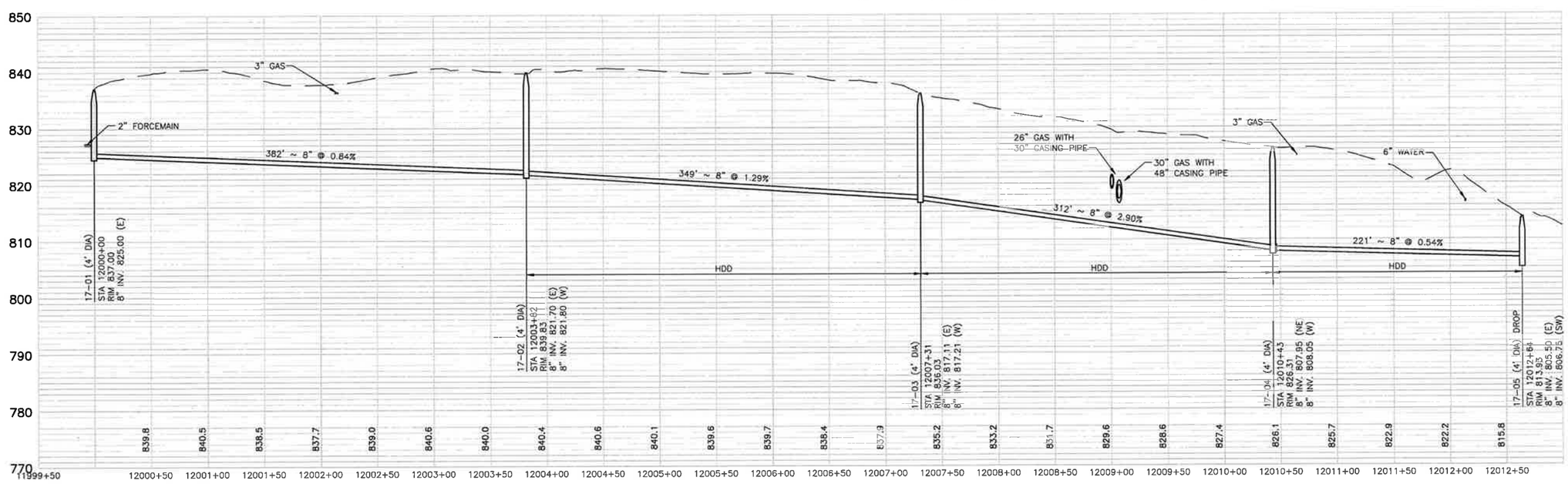
SCALE 1" = 250'

SHEET 17C-00

CODED NOTES:

1. GRAVITY SEWER LATERAL
2. GRINDER PUMP REQUIRED
3. CONTRACTOR TO VERIFY DEPTH OF EXISTING GAS LINES. CONTACT TENNESSEE GAS PIPELINE, ALBANY OHIO 740-680-8750 PRIOR TO INSTALLING SEWER LINE
4. CONTRACTOR SHALL PROVIDE PORTABLE CONCRETE BARRIER FOR SHOULDER CLOSING PER STANDARD DRAWINGS MT-95.45 ,MT-101.70, MT-101.75 AND MT-105.10. ALL DISTANCES FOR FLARES, TAPERS, CLEAR ZONES, BUFFER AREA, SIGN DISTANCE, ETC. SHALL BE BASED ON 55 MPH.
5. GRAVITY SEWER LATERAL TO INSTALLED BY HORIZONTAL DIRECTIONAL DRILLING.





DLZ

30661 RED ROCK COURT LOGAN, OHIO 43138
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FAX (740) 380-3535

ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

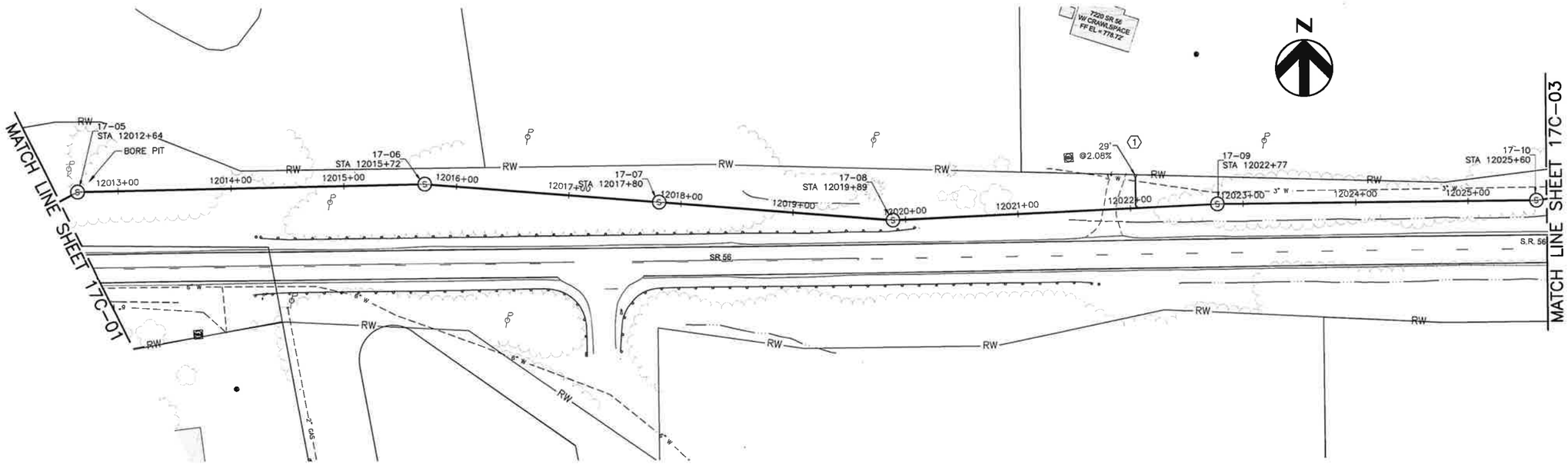
S.R. 56 LIFT STATION ML1

0 1" 2"

FILENAME 17C-01 Revision NEW.dwg

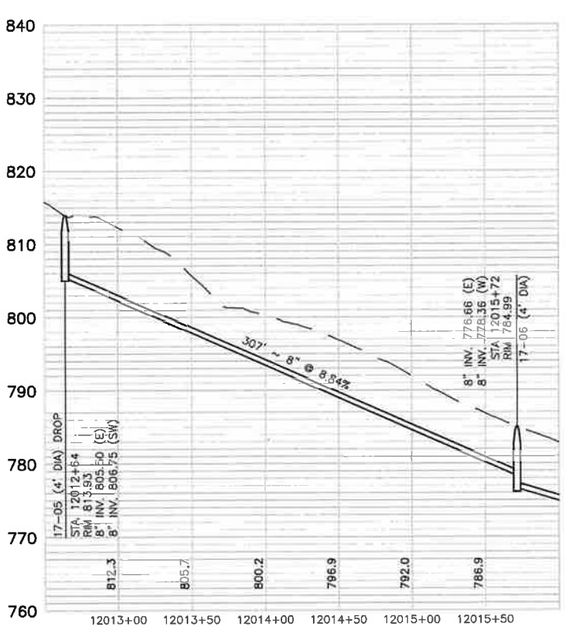
SCALE 1"=50'

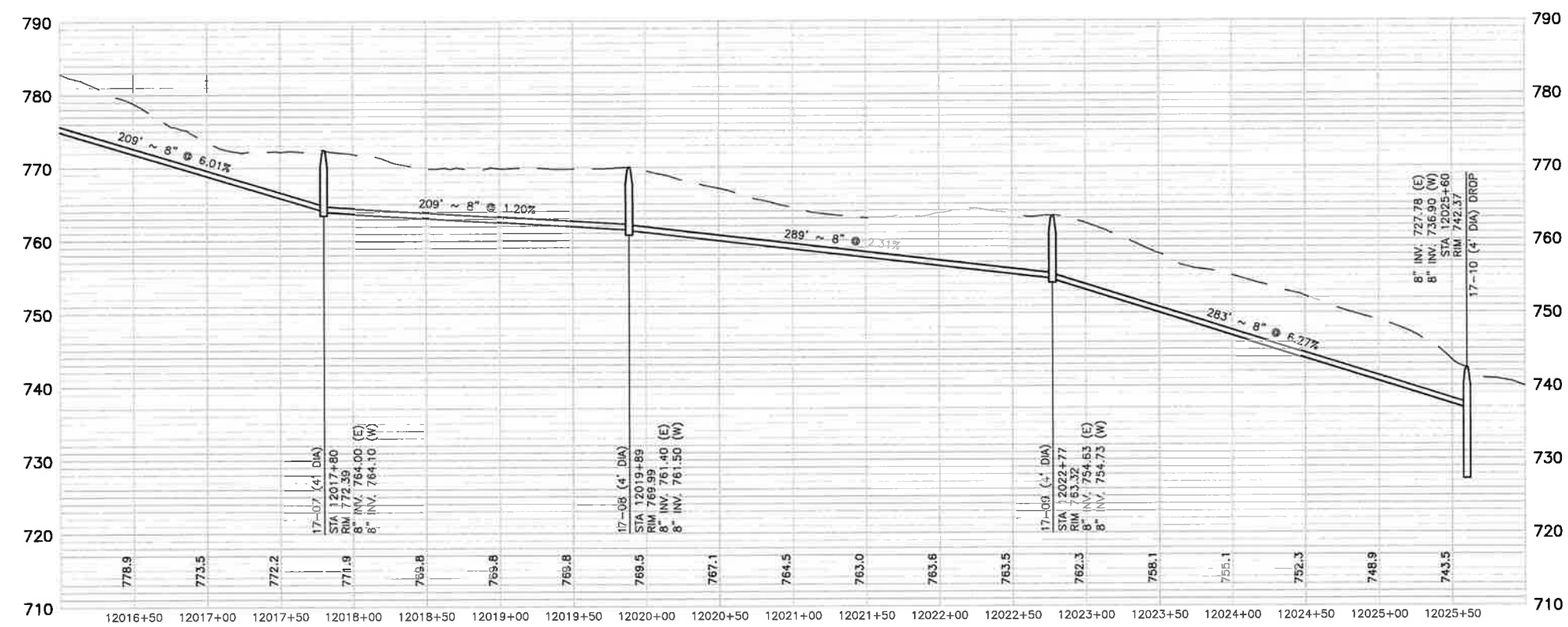
SHEET **17C-01**



CODED NOTES:

1 GRAVITY SEWER LATERAL





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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

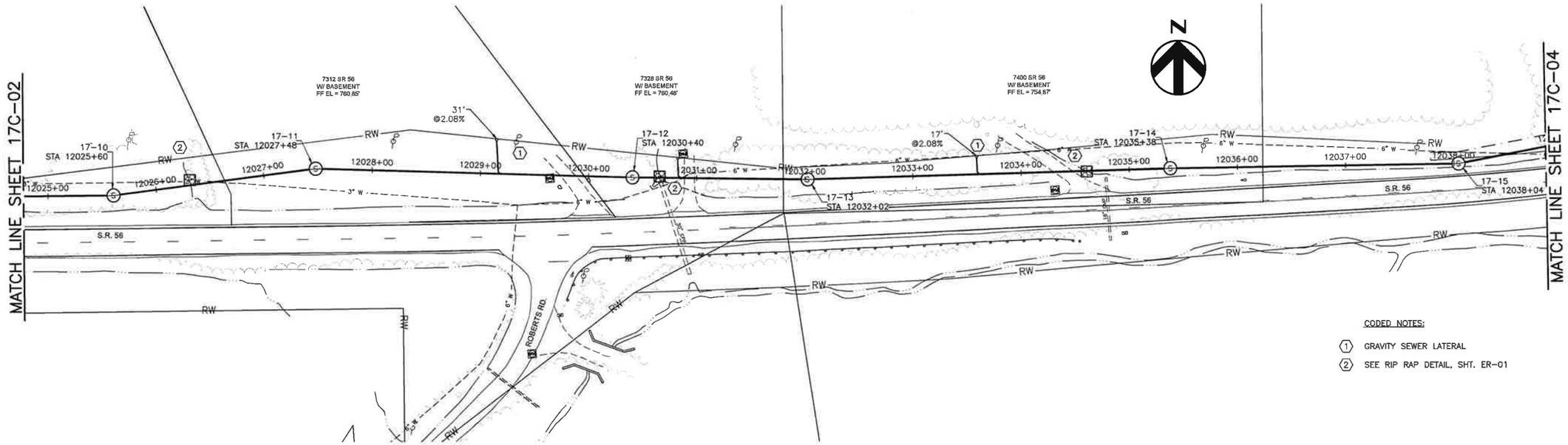
S.R. 56 LIFT STATION ML1

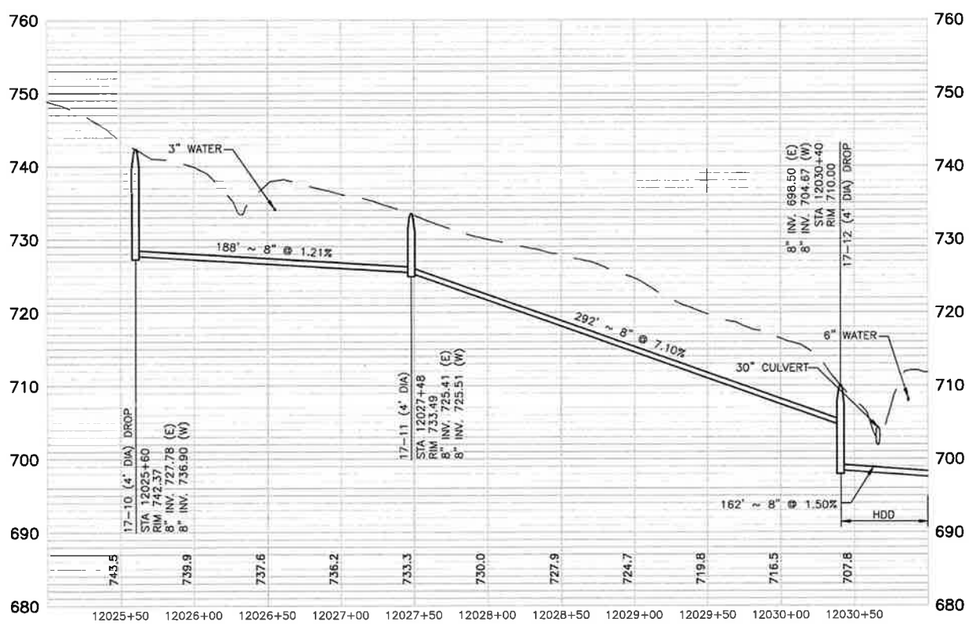
0 1" 2"

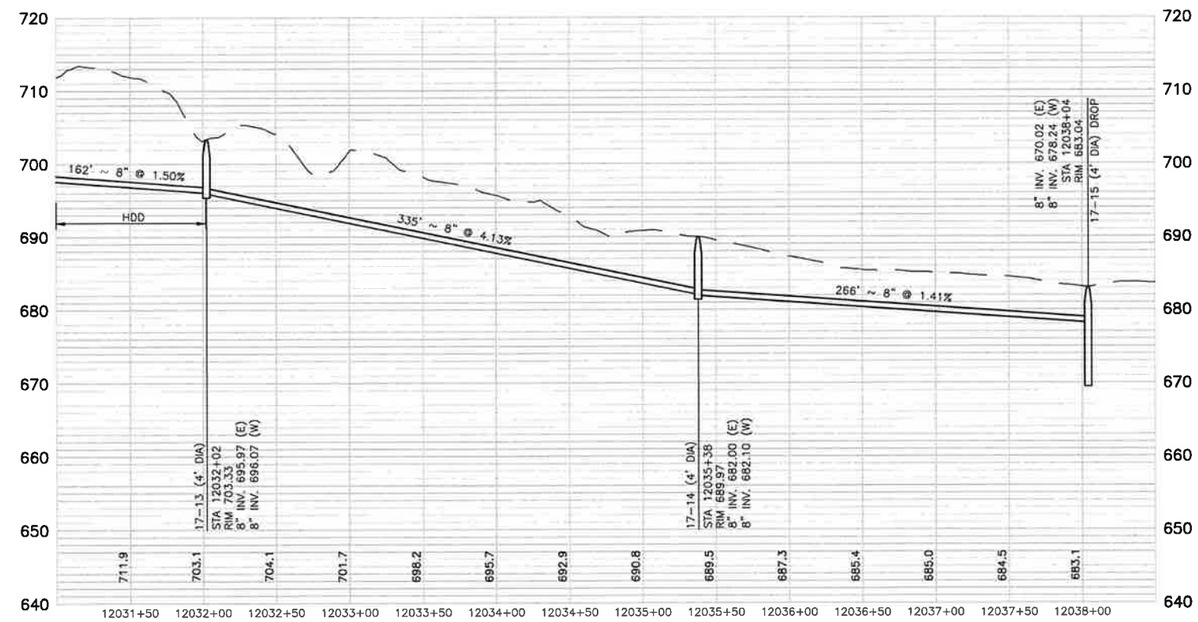
FILENAME 17C-01 Revision NEW.dwg

SCALE 1"=50'

SHEET **17C-02**







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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

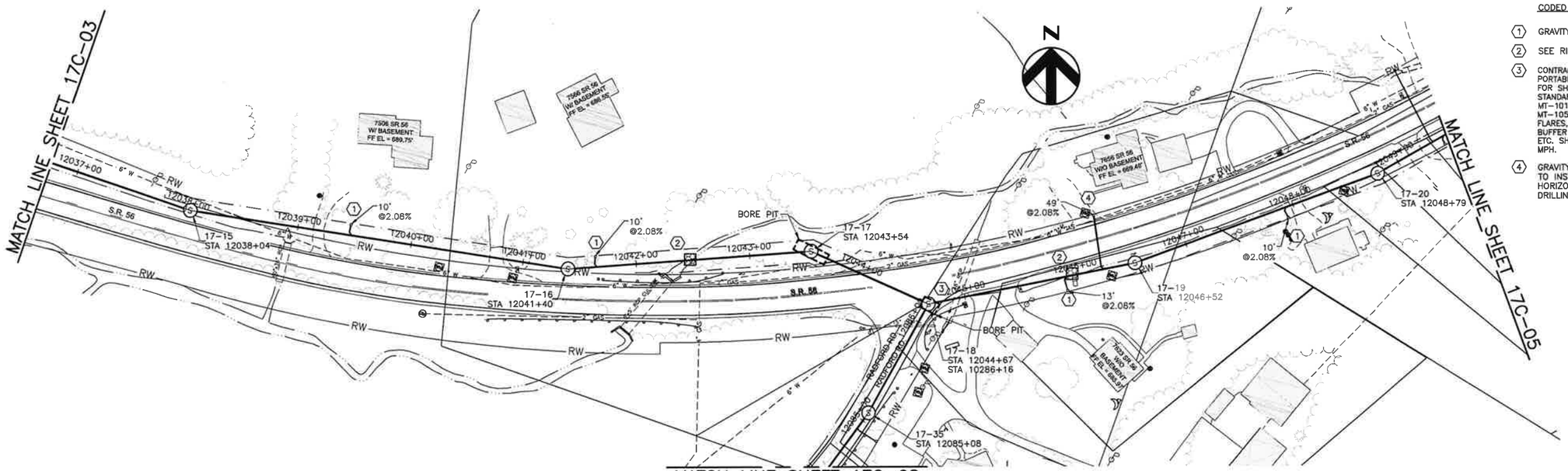
S.R. 56 LIFT STATION ML1

0 1" 2"

FILENAME 17C-01 Revision NEW.DWG

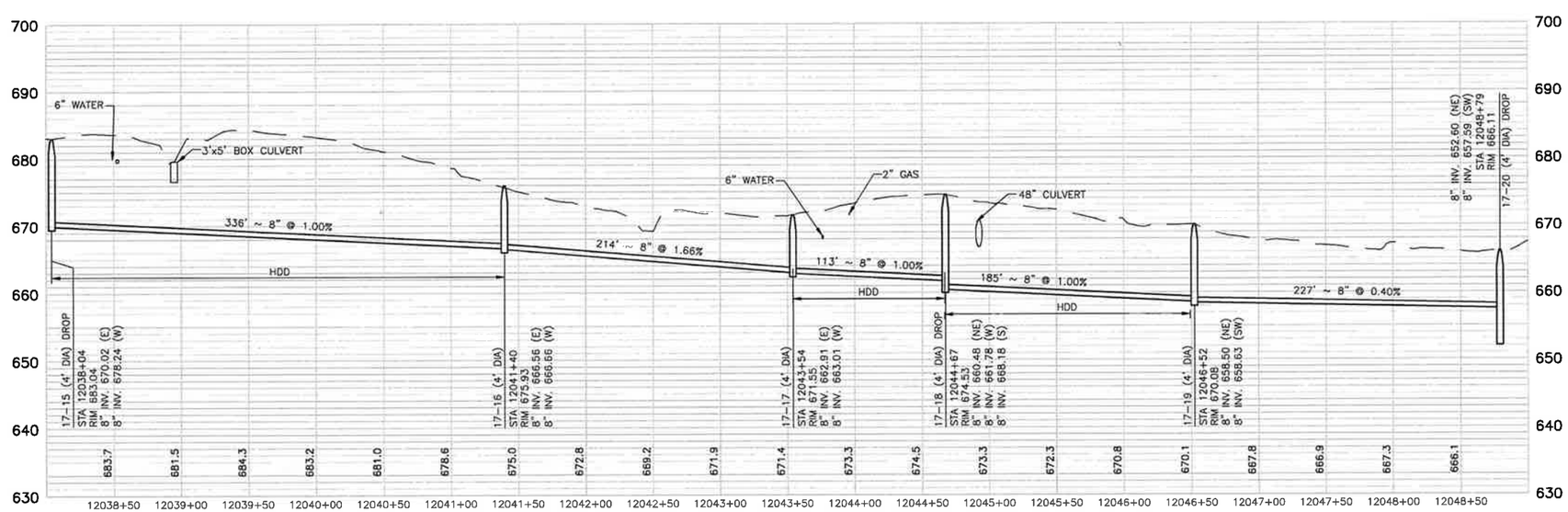
SCALE 1"=50'

SHEET **17C-03**



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. SEE RIP RAP, DETAIL ER-01
3. CONTRACTOR SHALL PROVIDE PORTABLE CONCRETE BARRIER FOR SHOULDER CLOSING PER STANDARD DRAWINGS MT-95.45 MT-101.70, MT-101.75 AND MT-105.10. ALL DISTANCES FOR FLARES, TAPERS, CLEAR ZONES, BUFFER AREA, SIGN DISTANCE, ETC. SHALL BE BASED ON 55 MPH.
4. GRAVITY SEWER LATERAL TO INSTALLED BY HORIZONTAL DIRECTIONAL DRILLING.



DLZ
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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

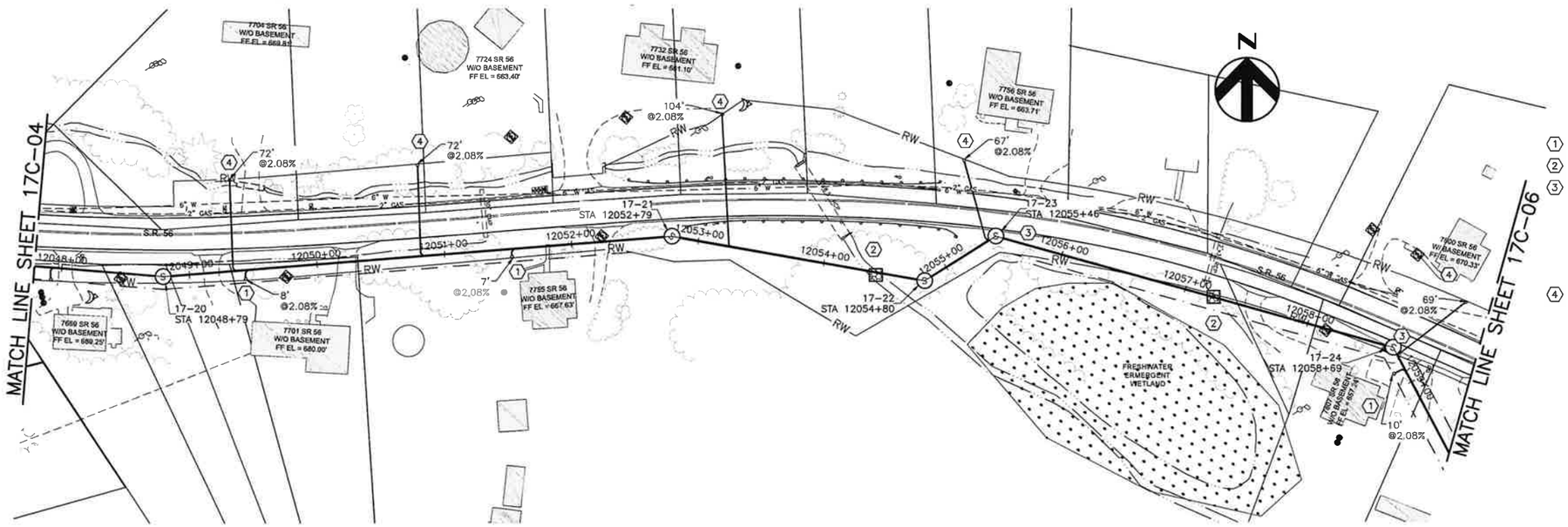
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

S.R. 56 LIFT STATION ML1

0 1" 2"

FILENAME 17C-01 Revision NEW.DWG
SCALE 1"=50'

SHEET **17C-04**



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. SEE RIPRAP DETAIL, SHT. ER-01
3. CONTRACTOR SHALL PROVIDE PORTABLE CONCRETE BARRIER FOR SHOULDER CLOSING PER STANDARD DRAWINGS MT-95.45, MT-101.70, MT-101.75 AND MT-105.10. ALL DISTANCES FOR FLARES, TAPERS, CLEAR ZONES, BUFFER AREA, SIGN DISTANCE, ETC. SHALL BE BASED ON 55 MPH.
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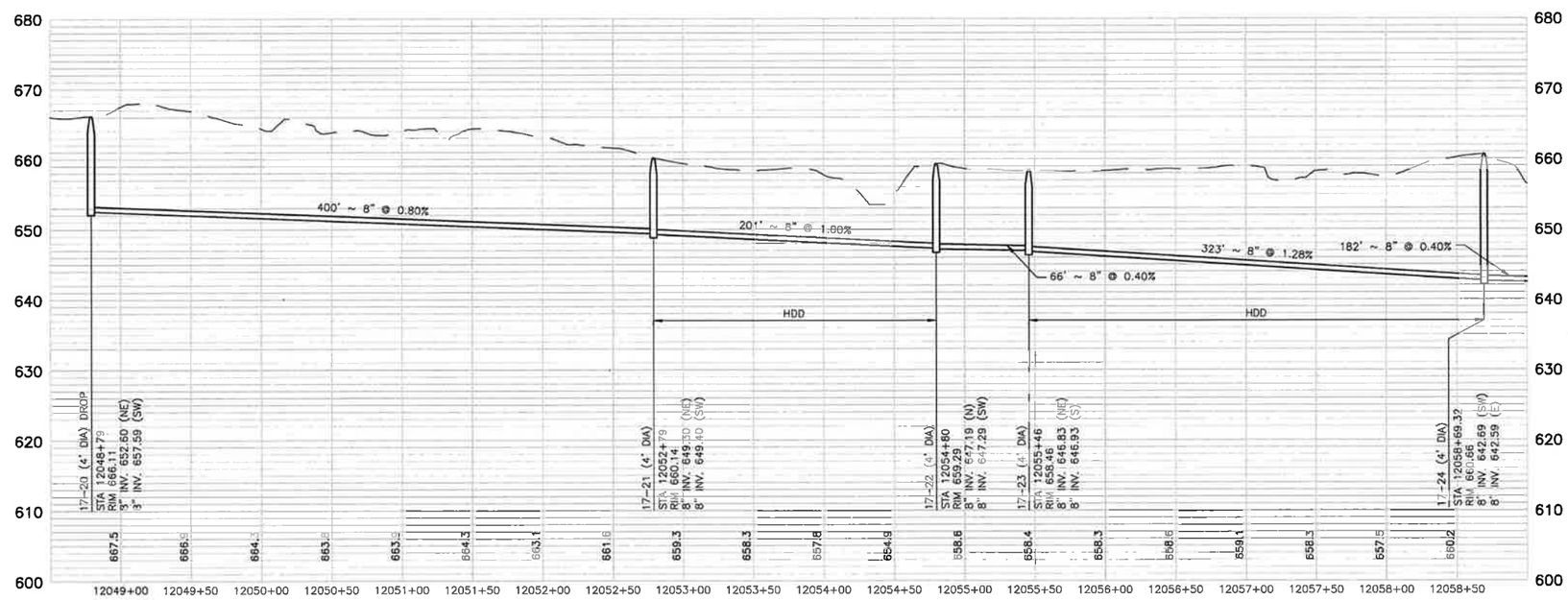


DLZ
30661 RED ROCK COURT LOGAN, OHIO 43138
(740) 380-2828 1-866-558-2828
FAX (740) 380-3536

ISSUE	DATE	DESCRIPTION

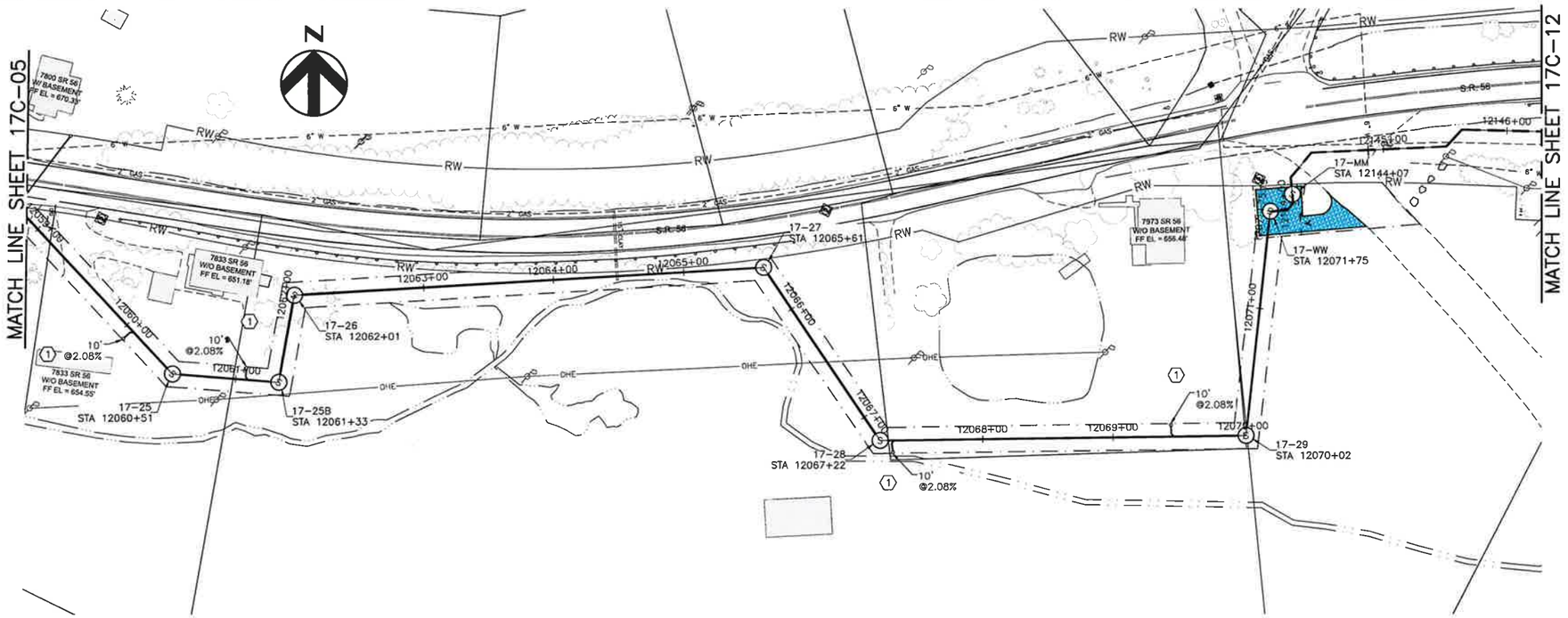
PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

S.R. 56 LIFT STATION ML1

0 1" 2"

FILENAME 17C-01 Revision NEW.dwg
SCALE 1"=50'
SHEET **17C-05**



CODED NOTES:

1. GRAVITY SEWER LATERAL
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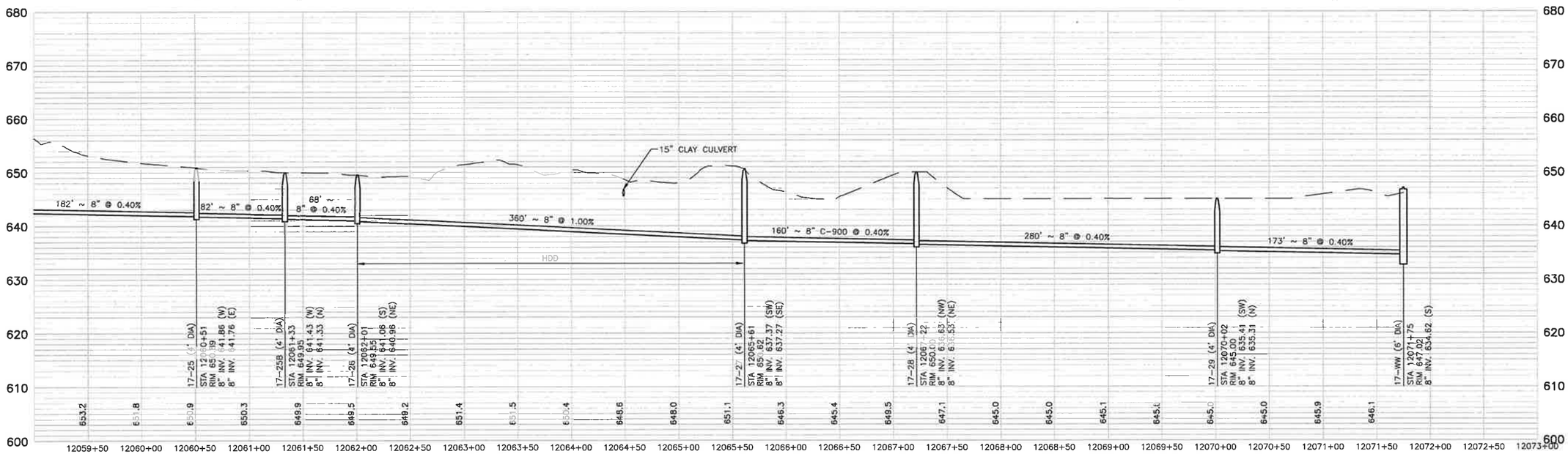

DLZ
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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

S.R. 56 LIFT STATION ML1

0 1" 2"

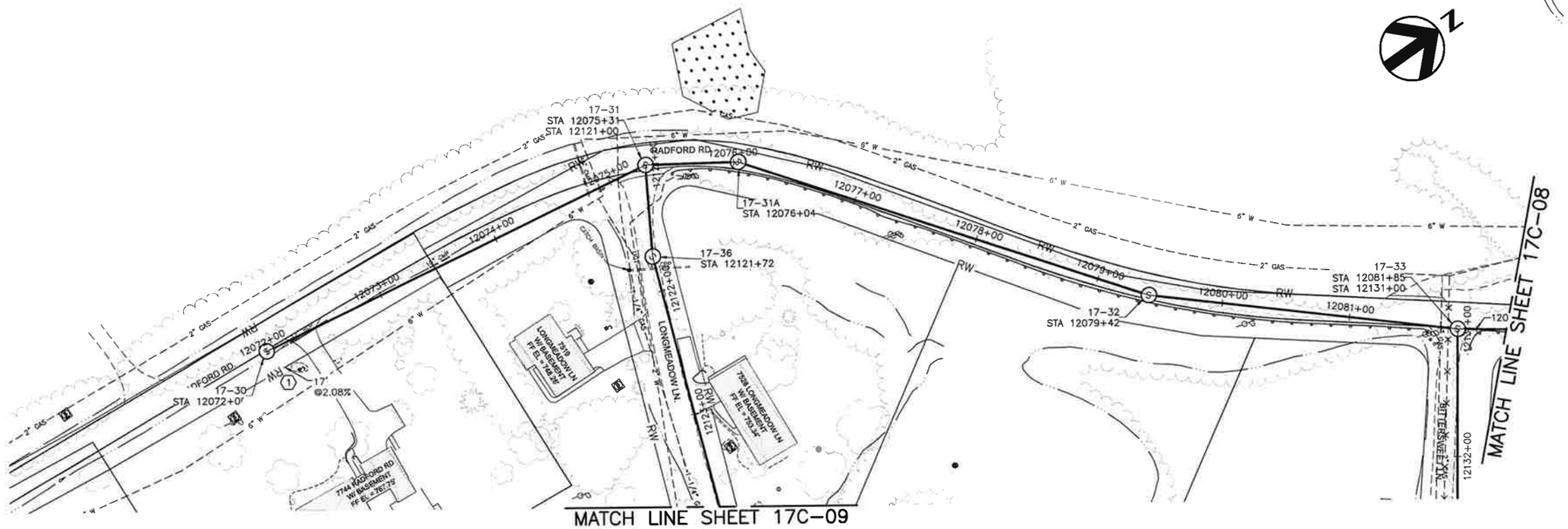
FILENAME 17C-01 Revision NEW.dwg

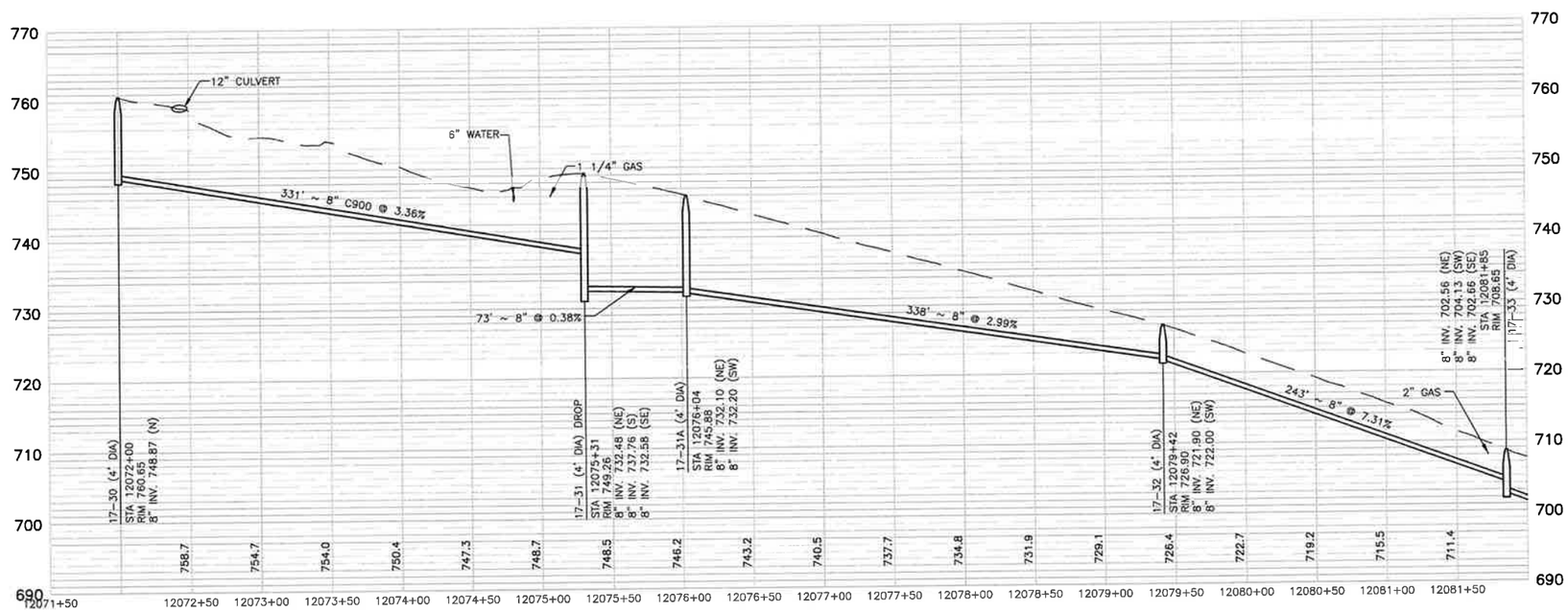
SCALE 1"=50'

SHEET **17C-06**

CODED NOTES:

1. GRAVITY SEWER LATERAL
2. GRINDER PUMP REQUIRED





DLZ

30661 RED ROCK COURT LOGAN, OHIO 43138
(740) 380-2828 1-866-558-2828
FAX (740) 380-3535

ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

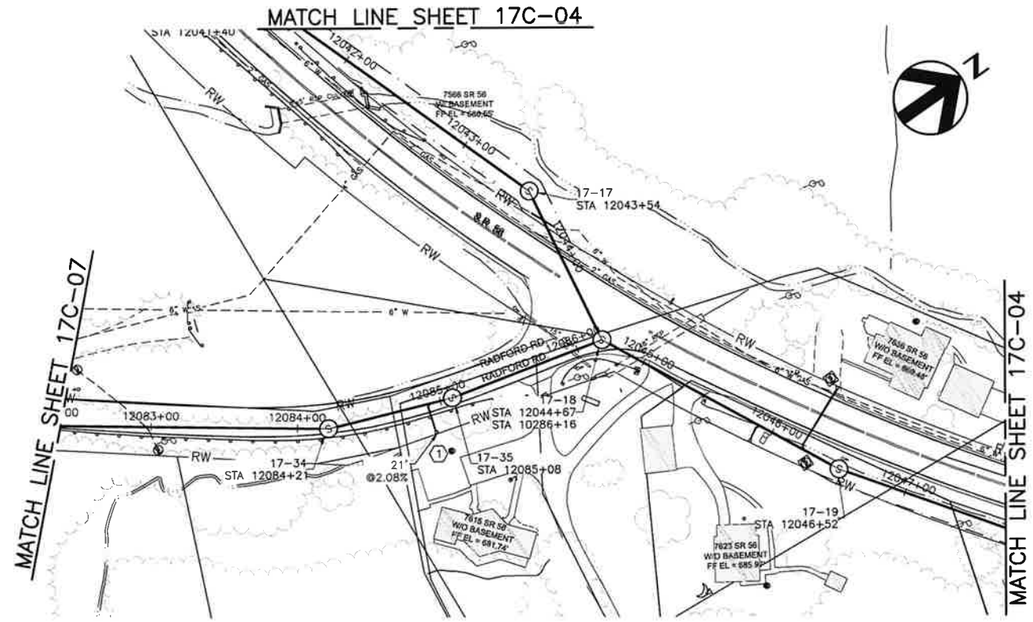
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

S.R. 56 LIFT STATION
ML1-BR2

0 1" 2"

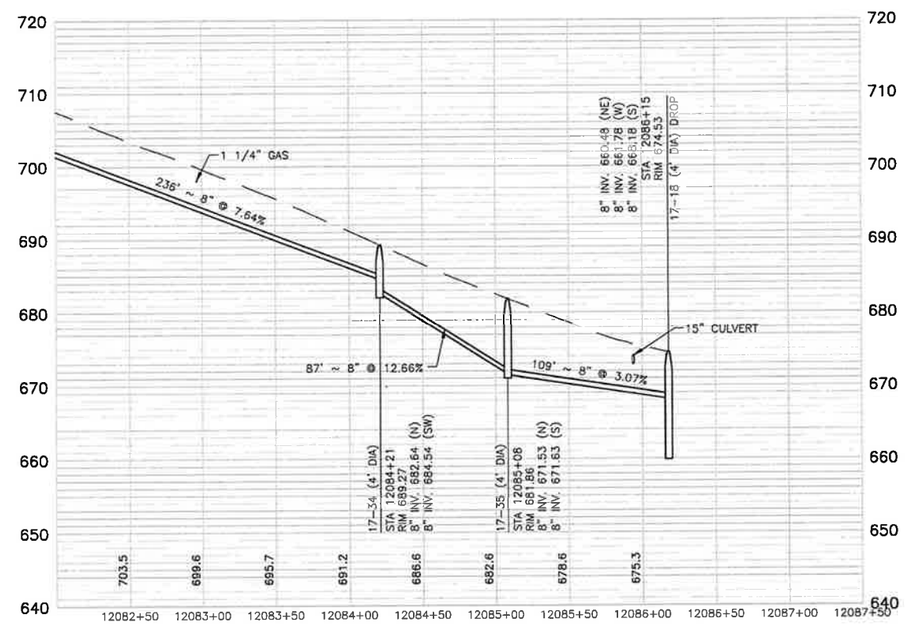
FILENAME 17C-01 Revision NEW.dwg
SCALE 1"=50'

SHEET **17C-07**



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. SEE RIPRAP DETAIL, SHT. ER-01



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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

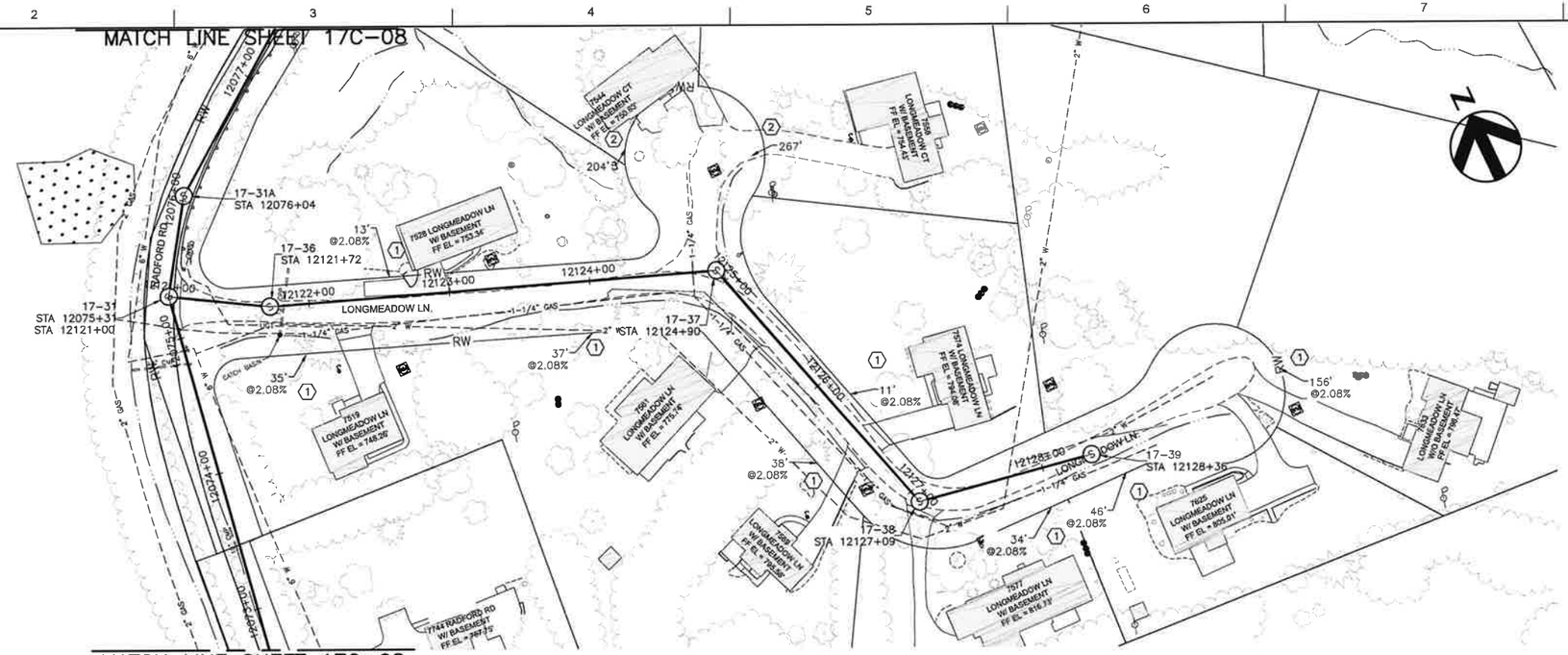
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

S.R. 56 LIFT STATION
ML1-BR2

0 1" 2"

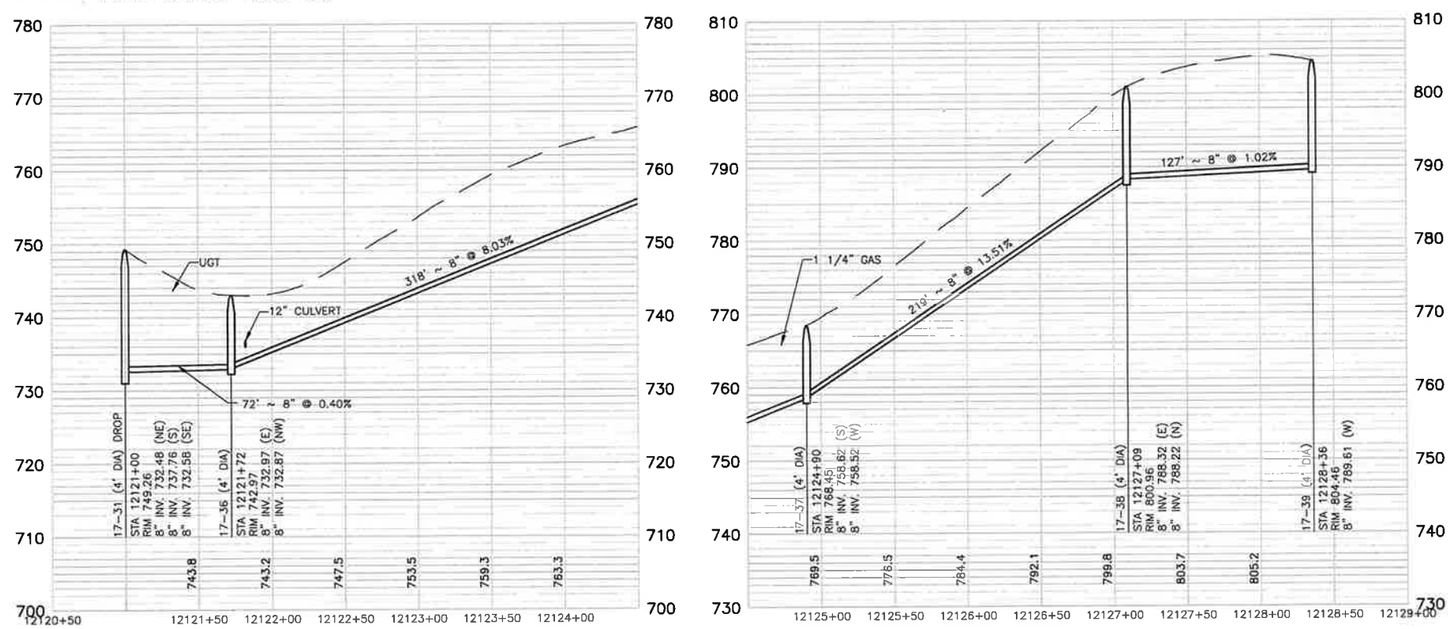
FILENAME 17C-01 Revision NEW.dwg
SCALE 1"=50'

SHEET **17C-08**



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. GRINDER PUMP REQUIRED



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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

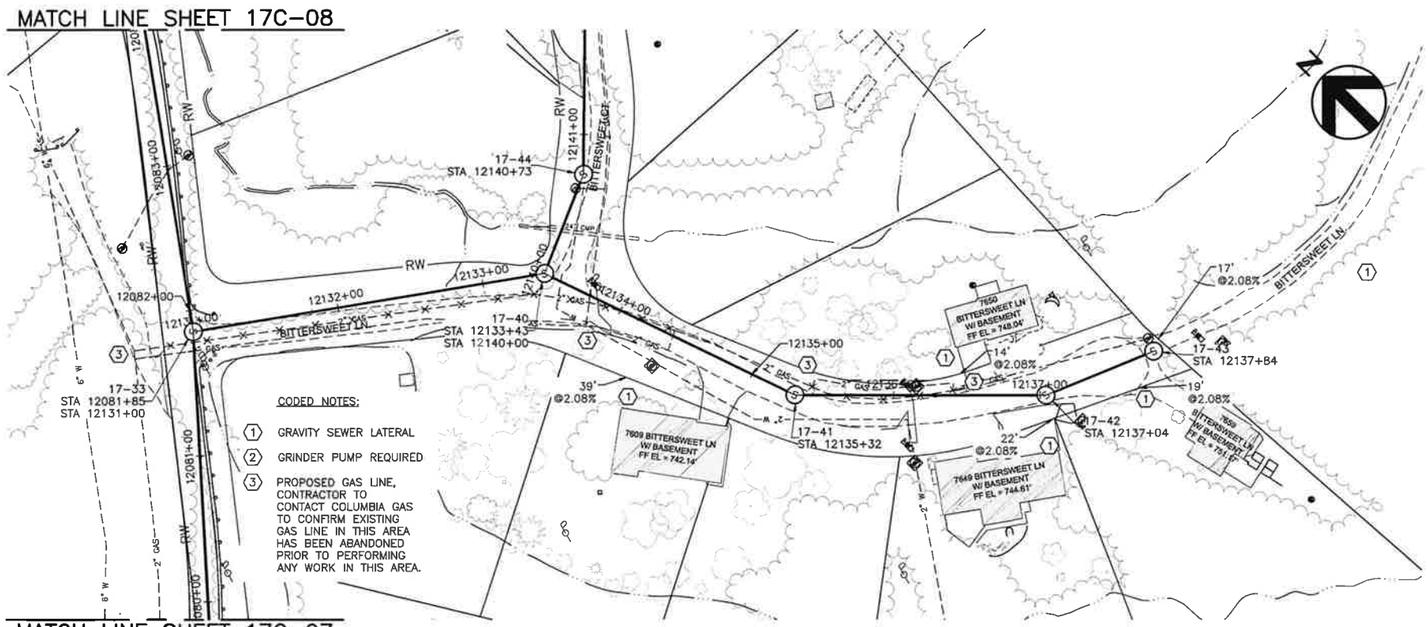
S.R. 56 LIFT STATION ML1-BR1-TB1

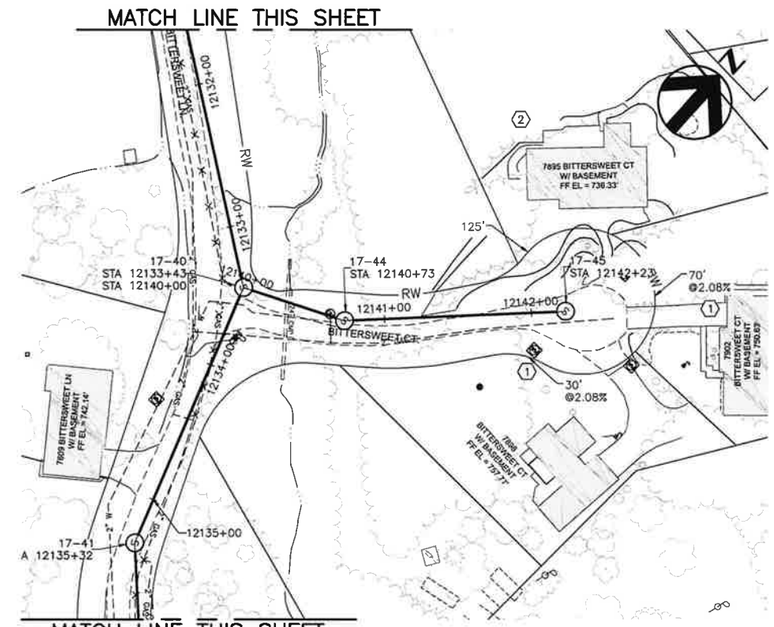
0 1" 2"

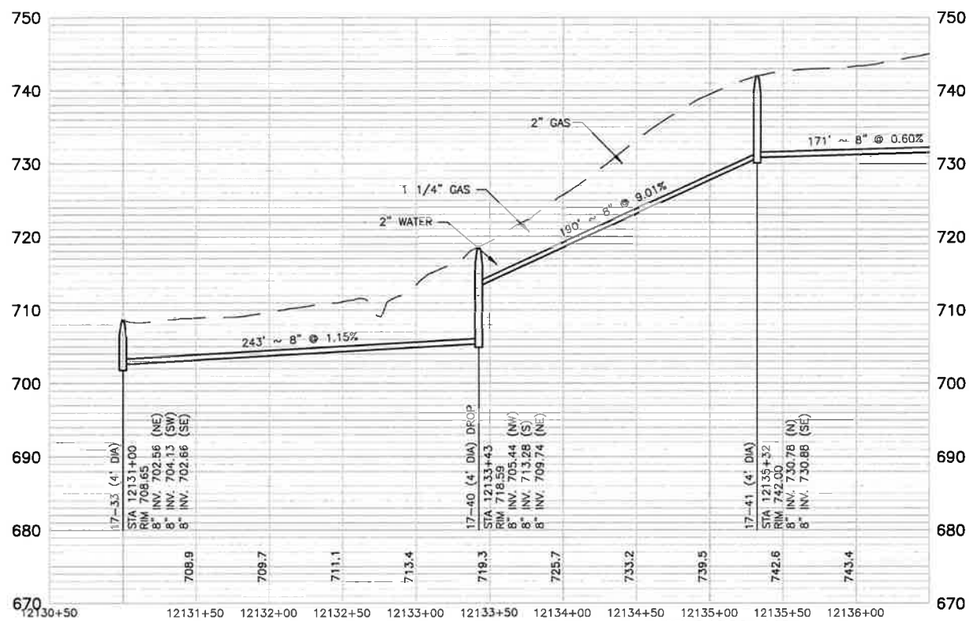
FILENAME 17C-01 Revision NEW.dwg

SCALE 1"=50'

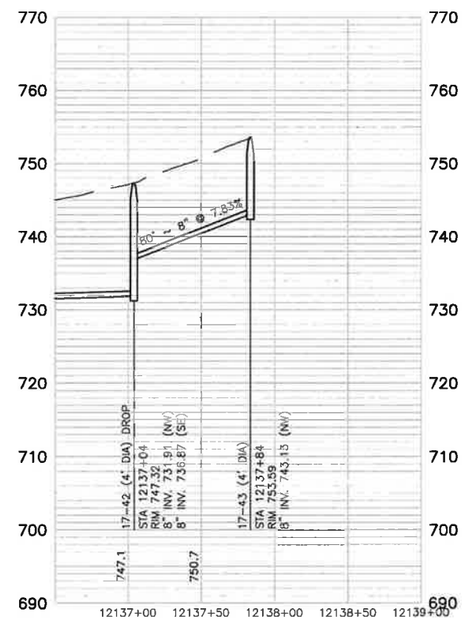
SHEET **17C-09**

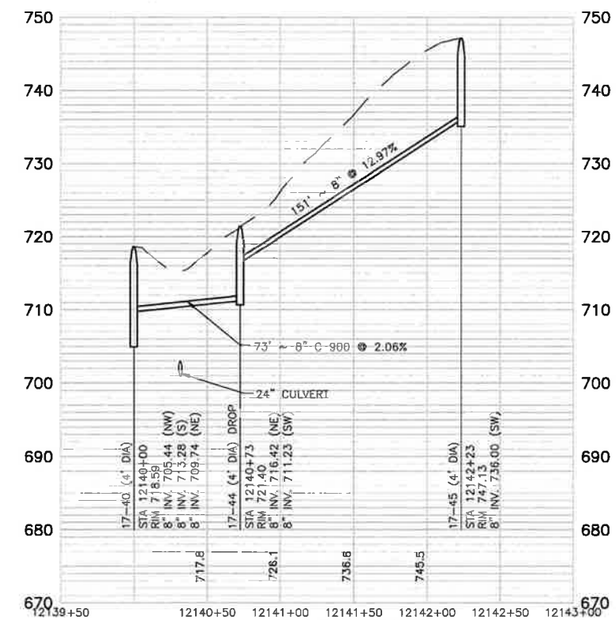






ML1-BR2-TB2





ML1-BR2-TB2-BR

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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

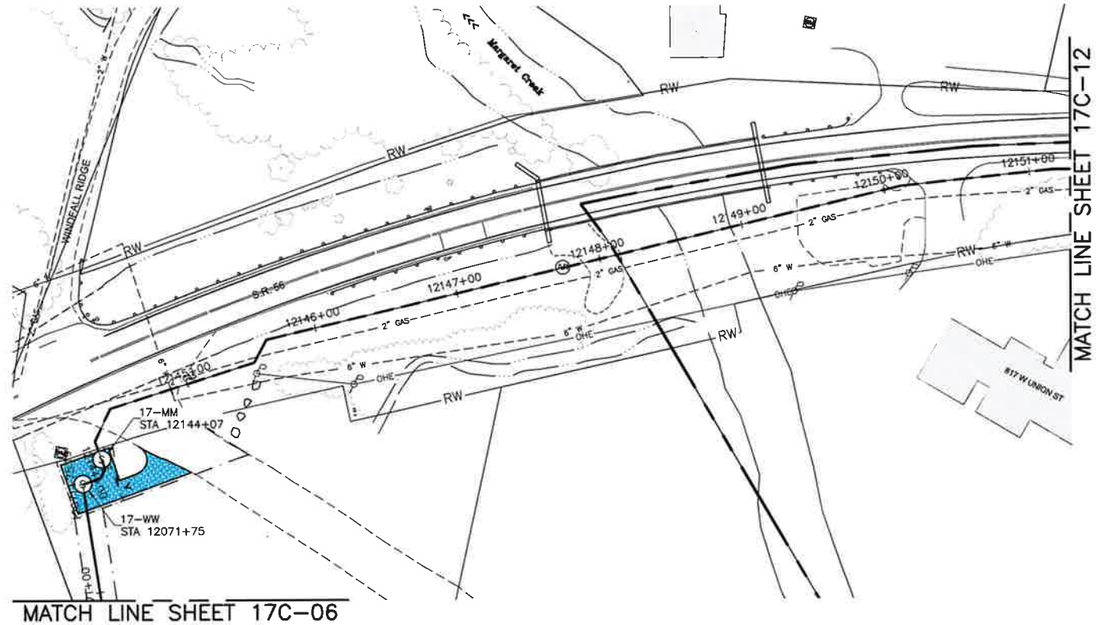
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

S.R. 56 LIFT STATION ML1-BR2-TB2 & ML1-BR2-TB2-BR

FILENAME 17C-01 Revision NEW.dwg

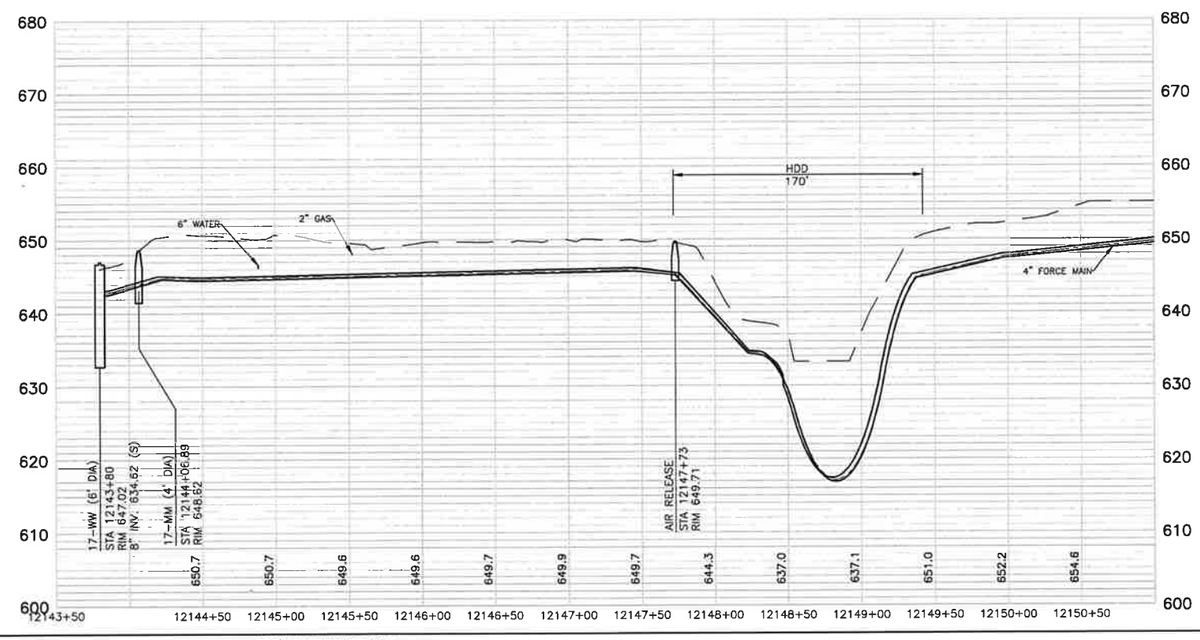
SCALE 1"=50'

SHEET **17C-10**



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. SEE RIPRAP DETAIL, SHT. ER-01



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ISSUE	DATE	DESCRIPTION

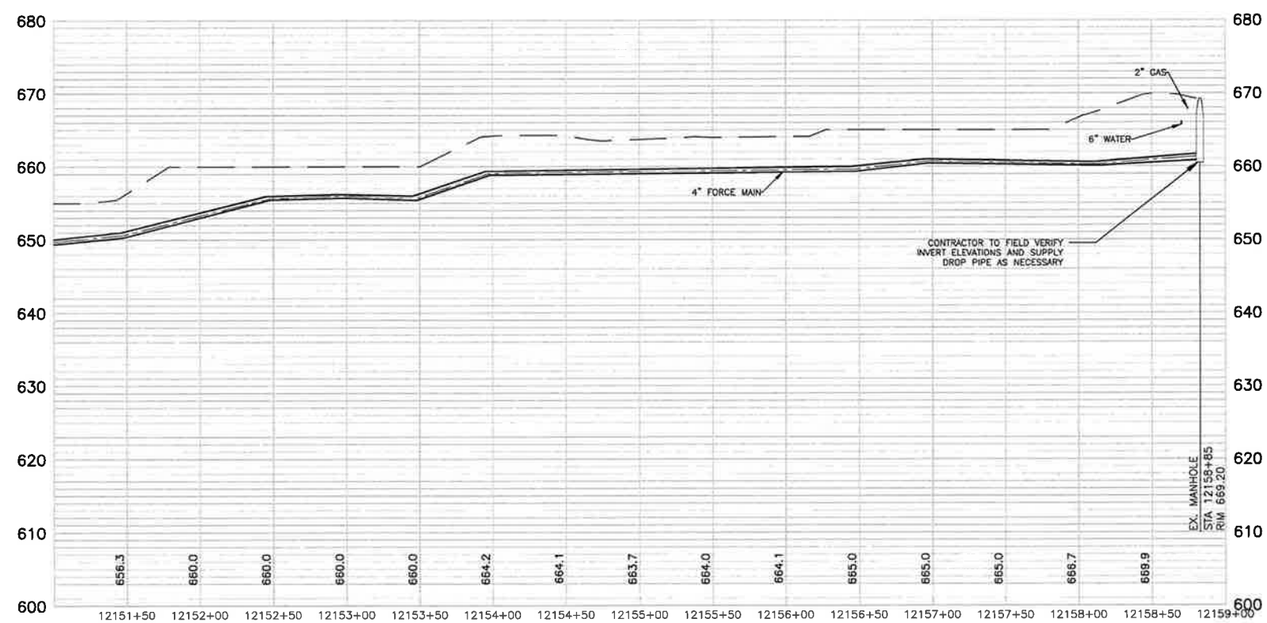
PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

S.R. 56 LIFT STATION
FORCE MAIN

0 1" 2"

FILENAME 17C-01 Revision NEW.dwg
SCALE 1"=50'
SHEET **17C-11**



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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

S.R. 56 LIFT STATION FORCE MAIN

0 1" 2"

FILENAME 17C-01 Revision NEW.dwg
SCALE 1"=50'

SHEET **17C-12**

SR 56
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S
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18C-01
18C-02
18C-03
18C-04
18C-05
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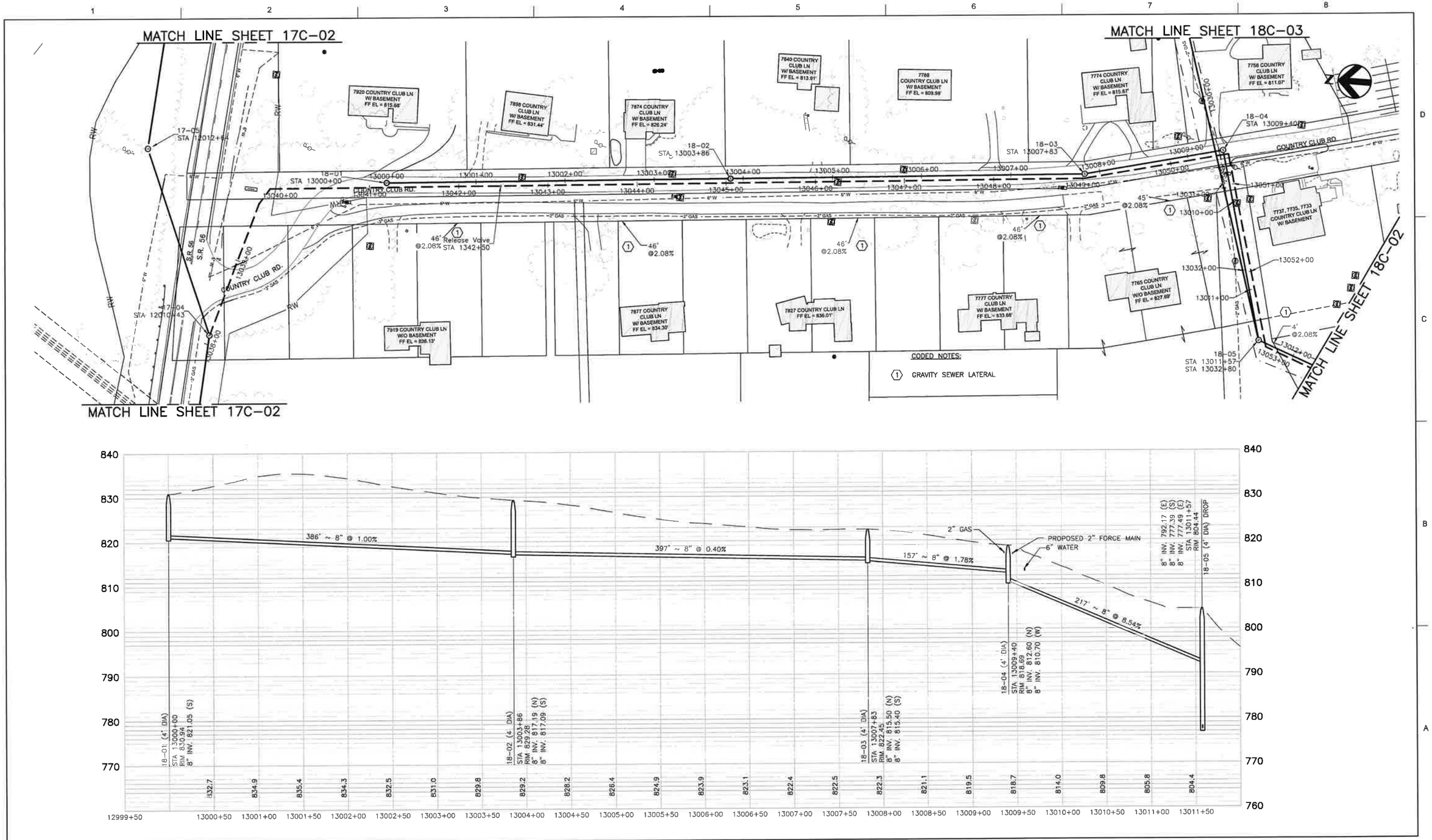
18C-40



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ISSUE	DATE	DESCRIPTION

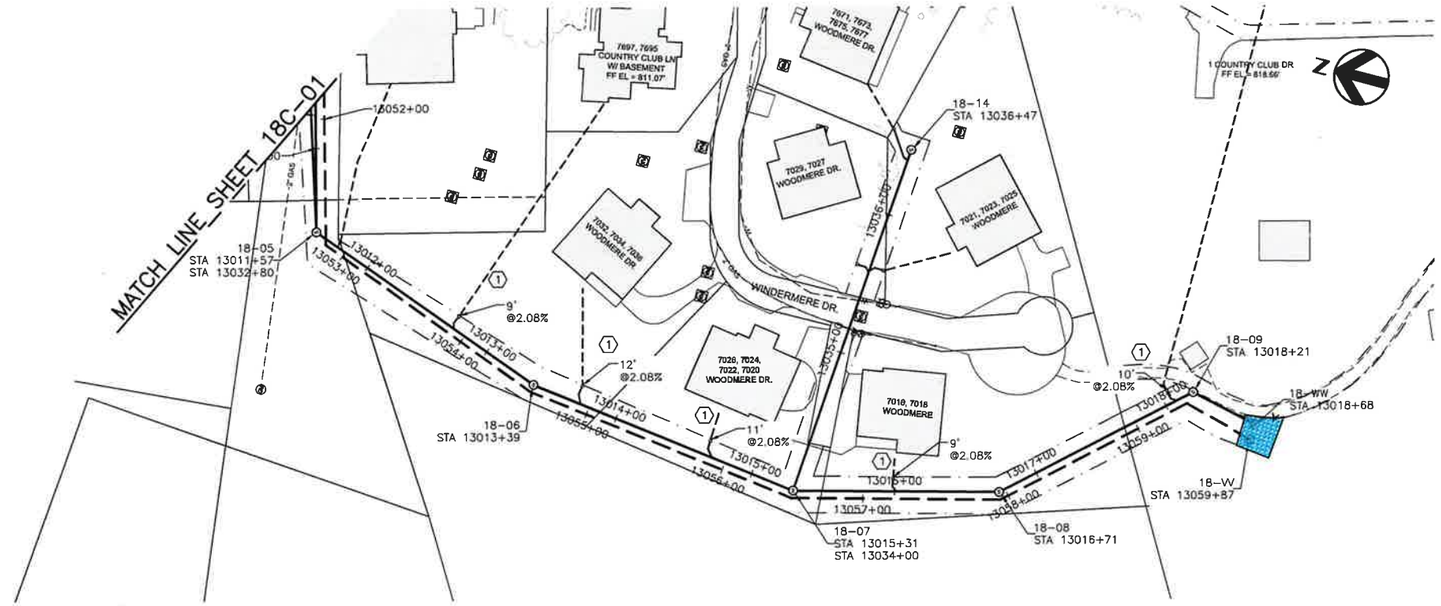
PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

COUNTRY CLUB LIFT STATION ML1

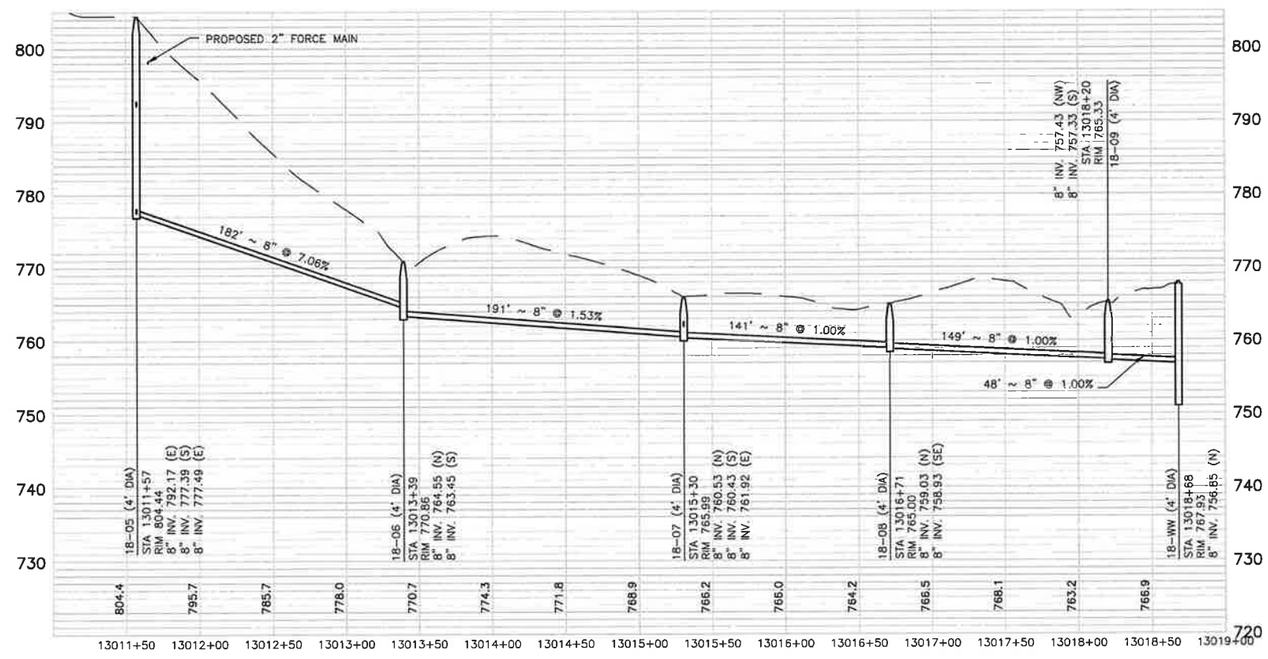
0 1" 2"

FILENAME 18C-01.dwg
SCALE 1"=50'
SHEET **18C-01**



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. GRINDER PUMP REQUIRED



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ISSUE	DATE	DESCRIPTION

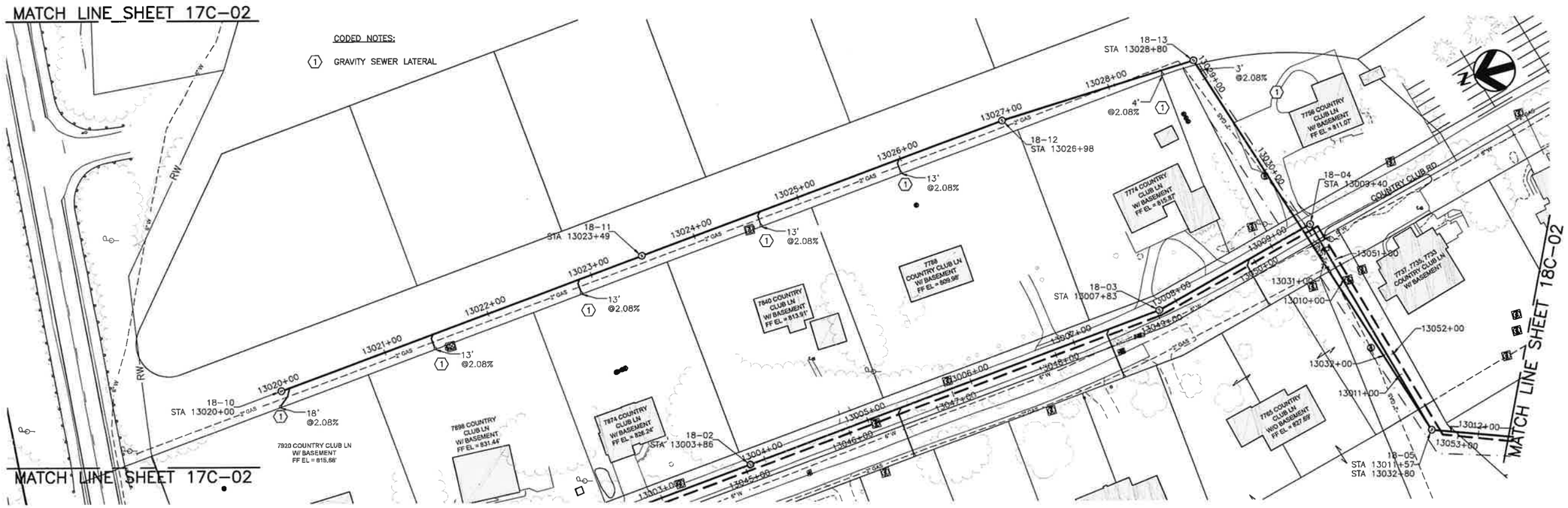
PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

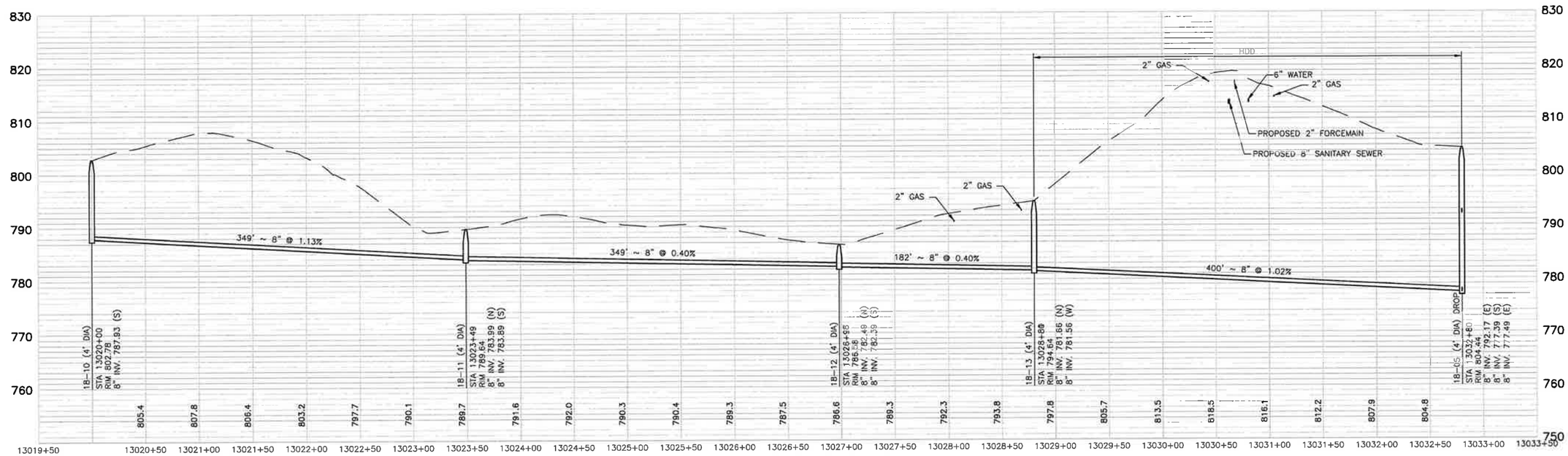
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

COUNTRY CLUB LIFT STATION ML1

0 1" 2"

FILENAME 18C-01.dwg
SCALE 1"=50'
SHEET **18C-02**





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ISSUE	DATE	DESCRIPTION

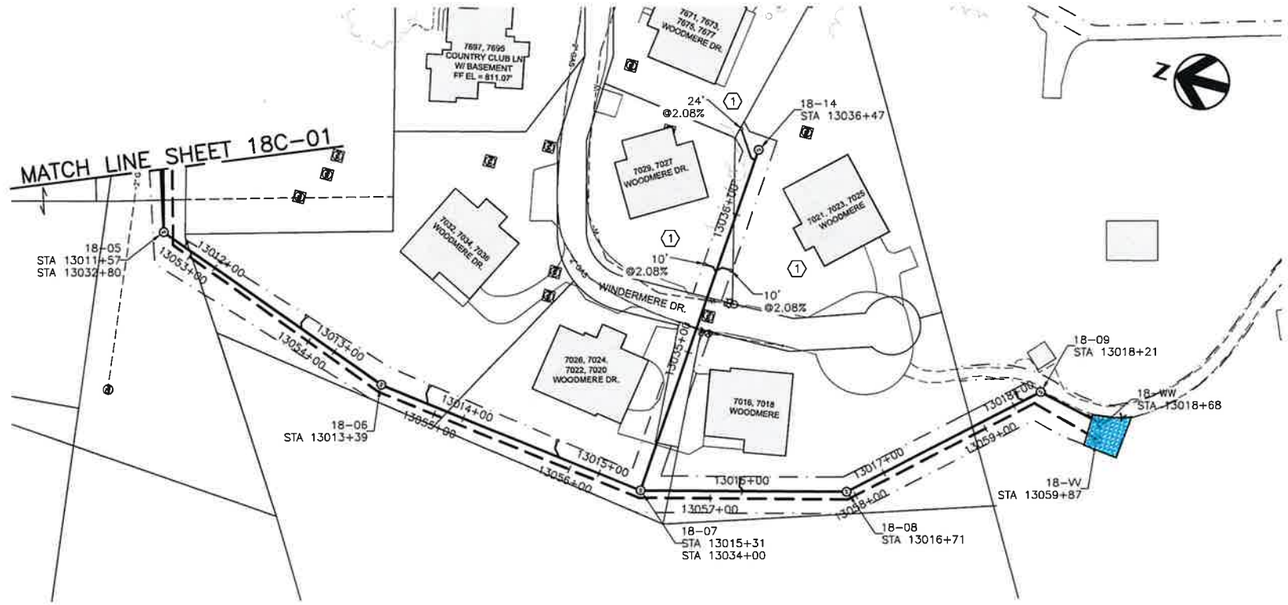
PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

COUNTRY CLUB LIFT STATION
ML1-BR1

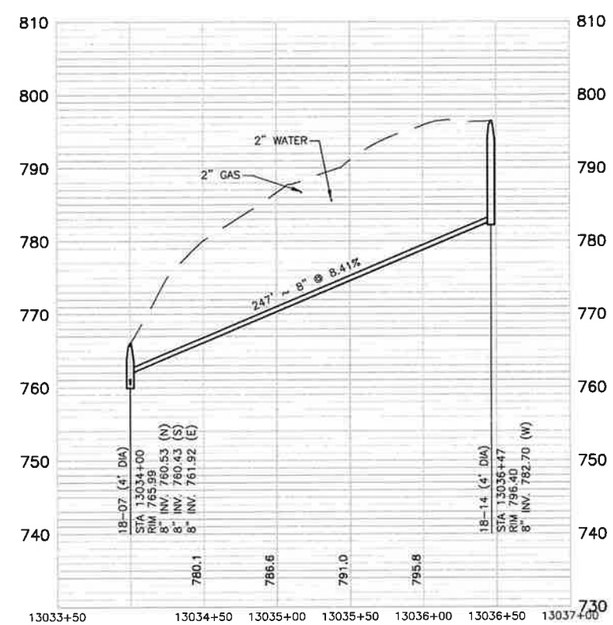
0 1" 2"

FILENAME	18C-01.dwg	SHEET	18C-03
SCALE	1"=50'		



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. GRINDER PUMP REQUIRED



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30861 RED ROCK COURT LOGAN, OHIO 43138
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FAX (740) 380-3535

ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

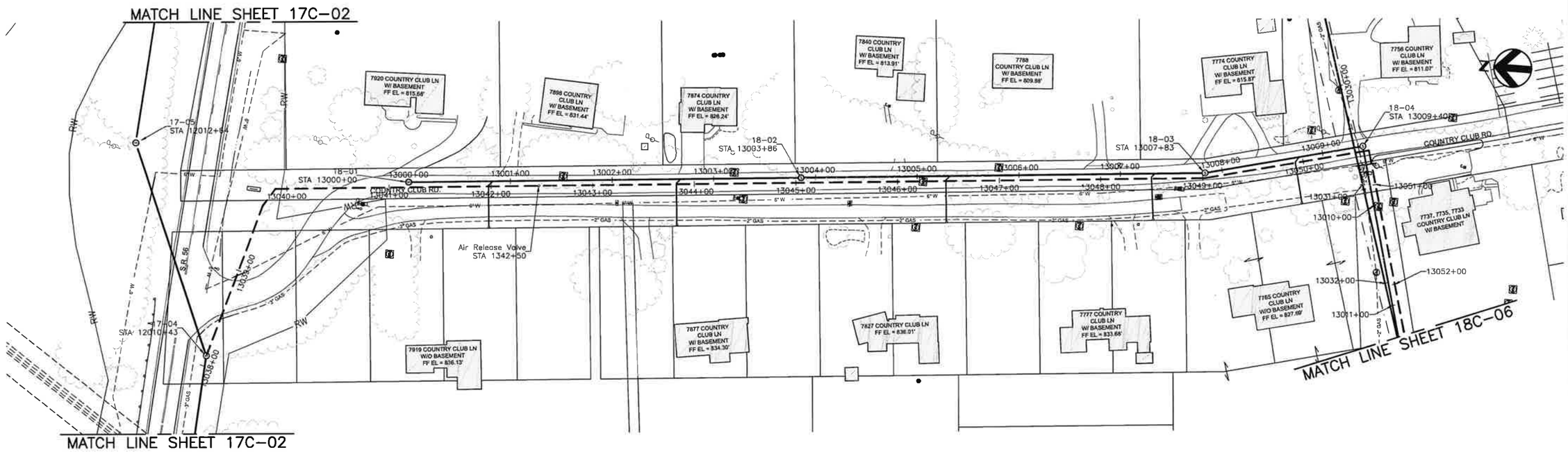
PROJECT NUMBER 2128-4507.00

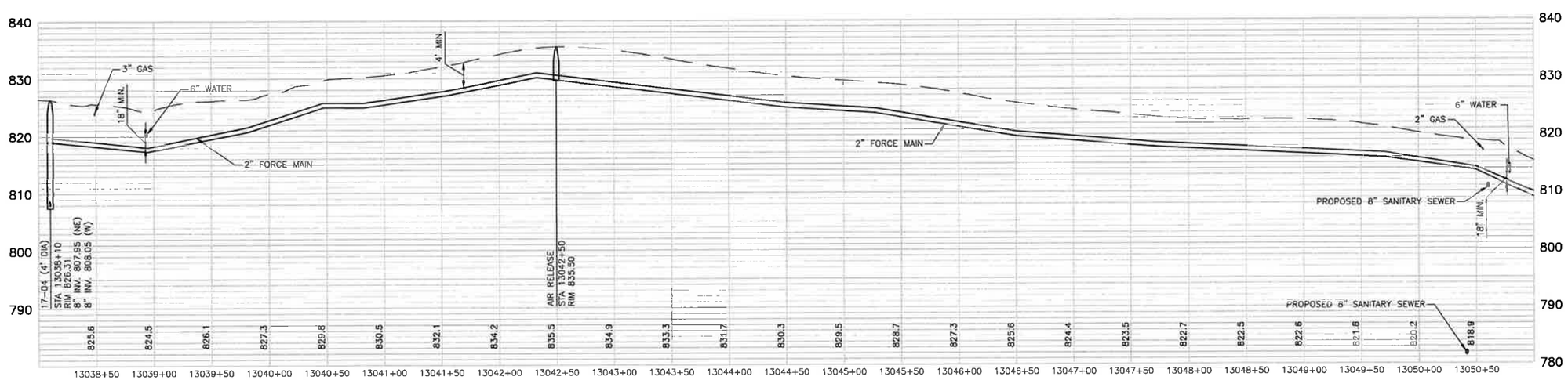
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

COUNTRY CLUB LIFT STATION
ML1-BR2

FILENAME 18C-01.dwg
SCALE 1"=50'

SHEET **18C-04**





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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

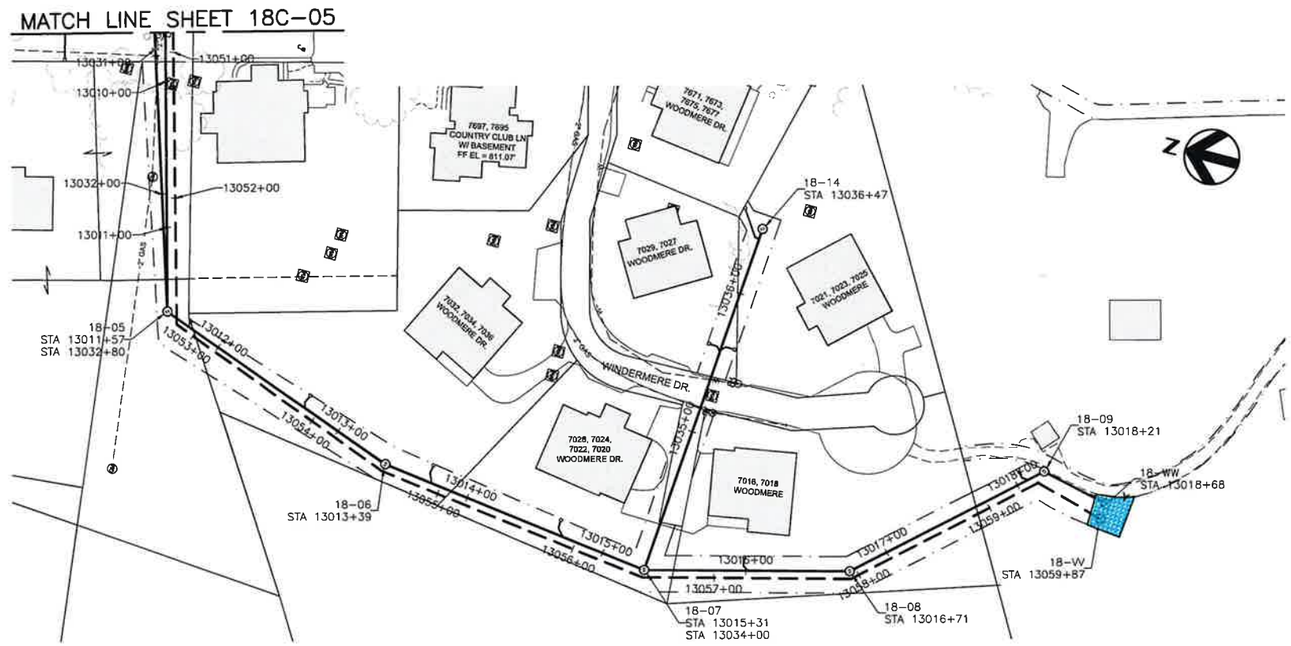
COUNTRY CLUB LIFT STATION FORCE MAIN

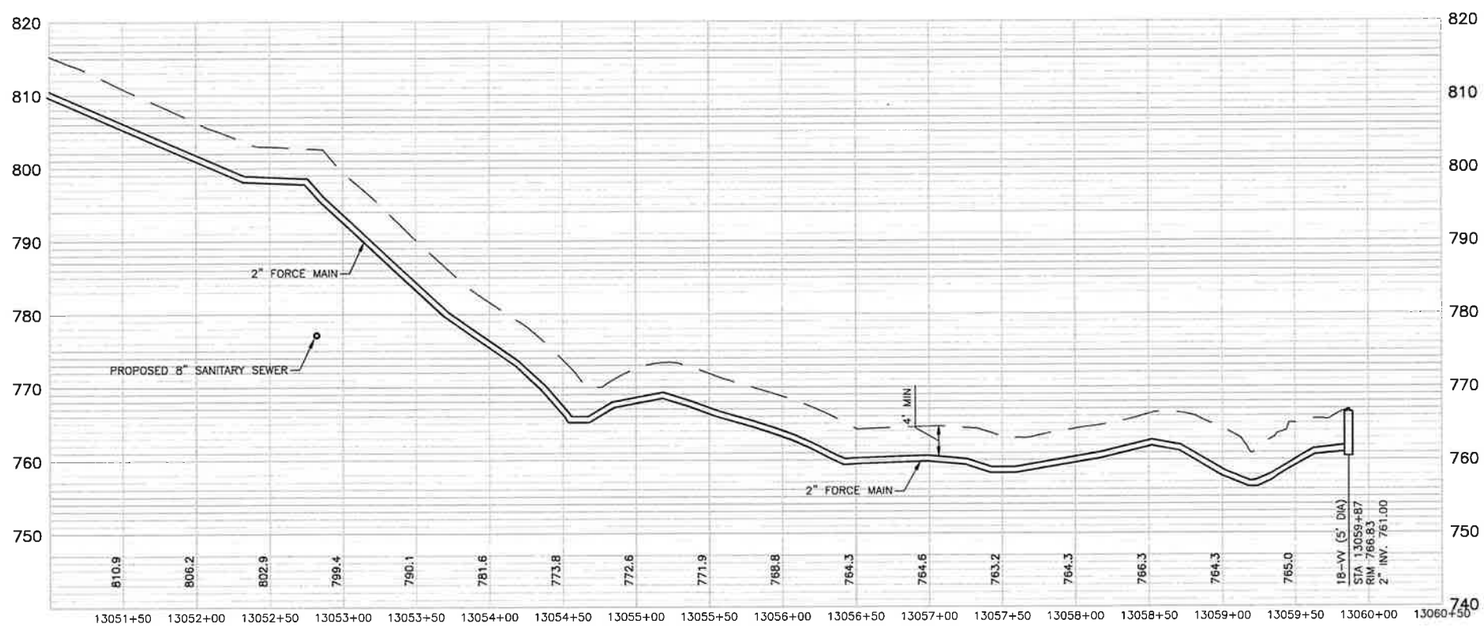
0 1" 2"

FILENAME 18C-01.dwg

SCALE 1"=50'

SHEET 18C-05





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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

COUNTRY CLUB LIFT STATION FORCE MAIN

0 1" 2"

FILENAME	18C-01.dwg	SHEET	18C-06
SCALE	1"=50'		

STRUCTURE TABLE - SITE 19			
Structure Identification	Northing	Easting	Rim
19-01	481092,22	2062142,30	866,77
19-02	480953,61	2062282,21	864,56
19-03	480867,47	2062333,57	866,05
19-04	480554,53	2062436,01	853,20
19-05	480587,33	2062692,44	851,98
19-06	480620,47	2062951,26	844,60
19-07	480650,81	2063183,77	835,33
19-08	480670,62	2063362,97	832,46
19-09	479969,22	2062507,89	843,47
19-10	480249,96	2062510,89	854,16
19-VV	480699,53	2063365,48	829,74
19-WW	480690,56	2063364,70	830,60

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ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

KRAMER RD LIFT STATION
SHEET INDEX AND STRUCTURE TABLE

0 1" 2"

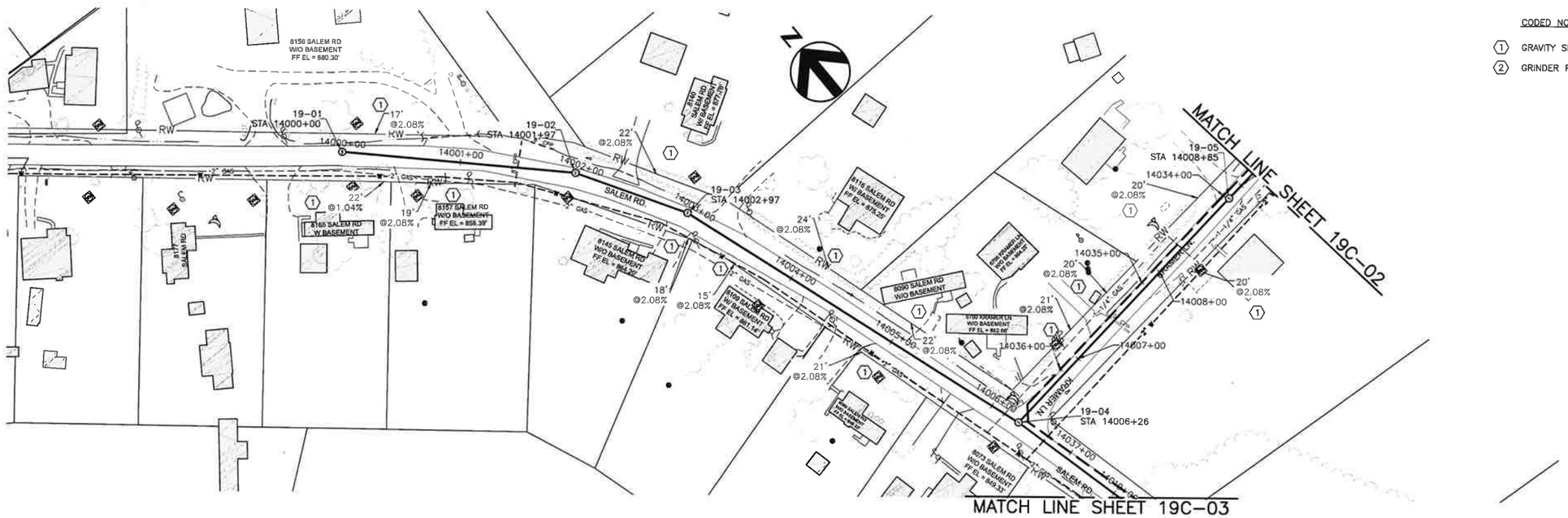
FILENAME 19C-00.dwg

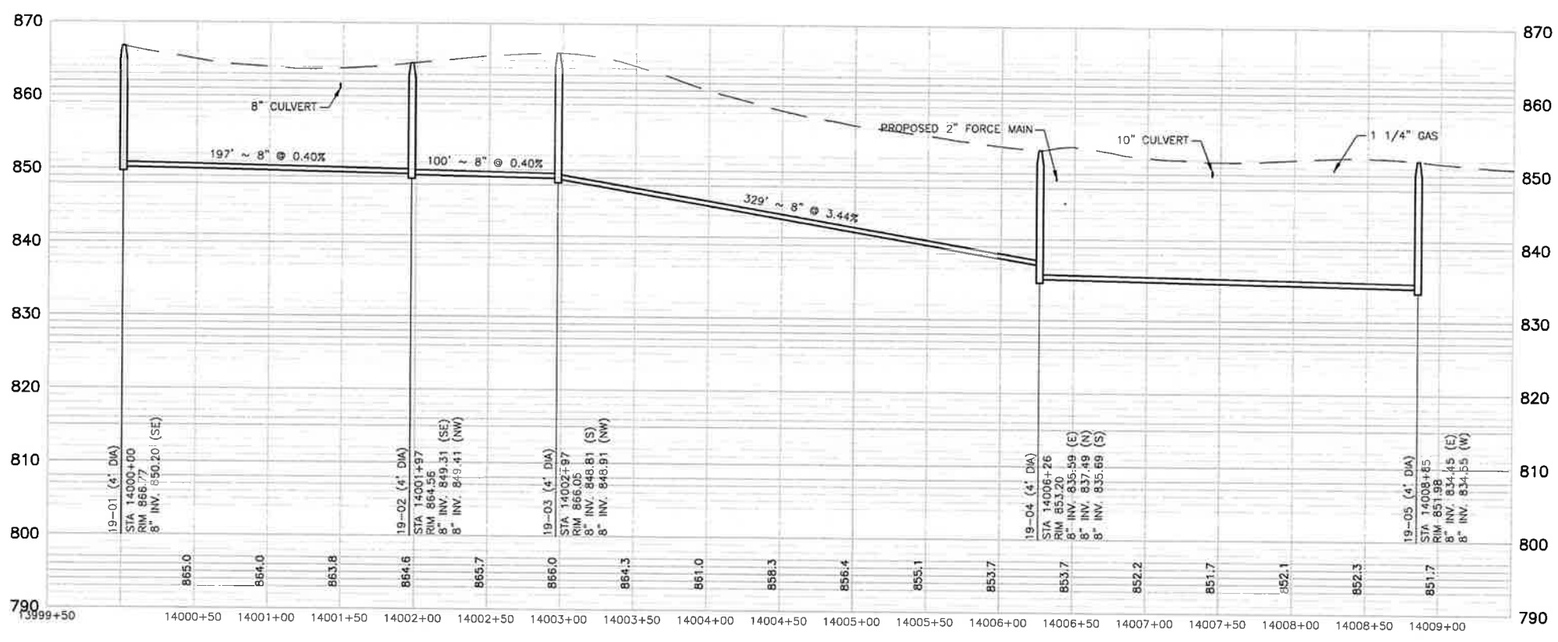
SCALE 1" = 250'

SHEET 19C-00

CODED NOTES:

1. GRAVITY SEWER LATERAL
2. GRINDER PUMP REQUIRED





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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

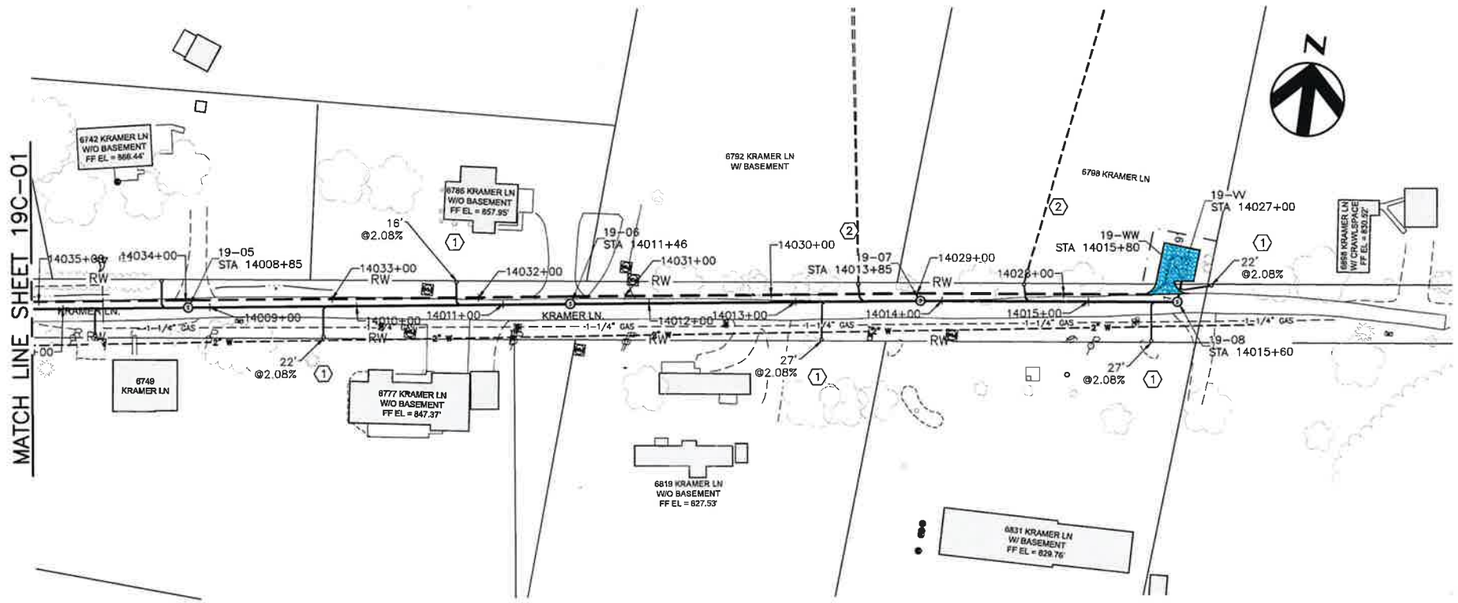
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

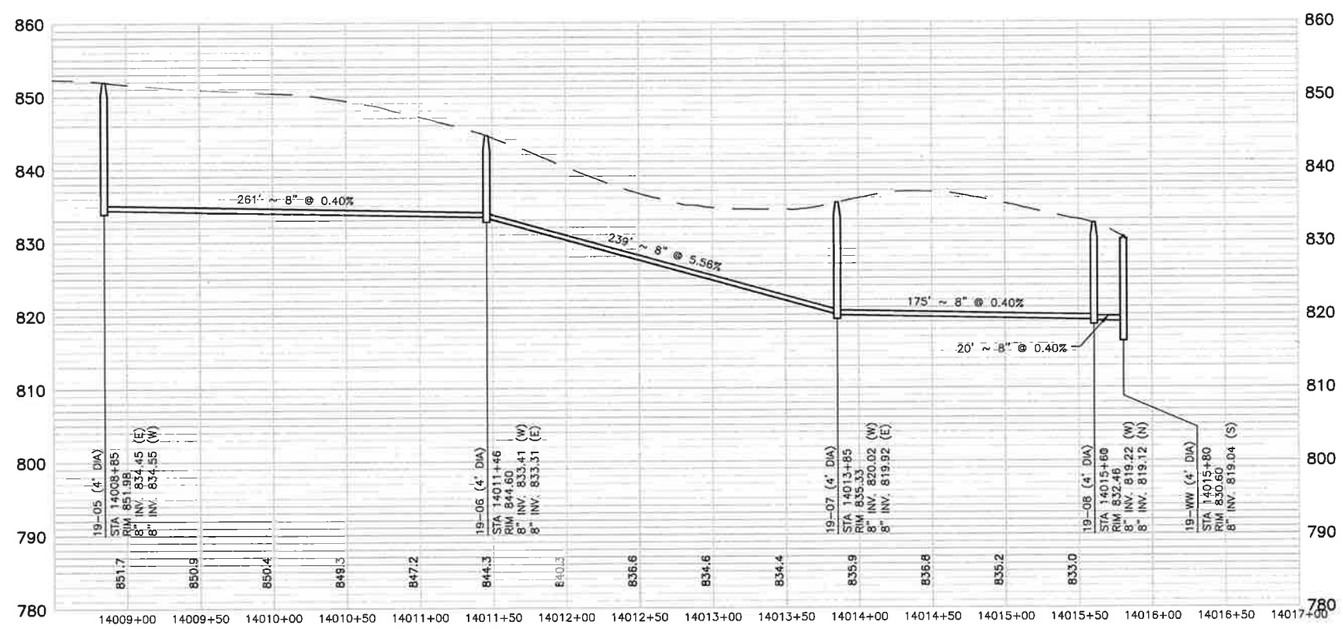
KRAMER LIFT STATION ML1

FILENAME 19C-01.dwg
SCALE 1"=50'
SHEET **19C-01**

CODED NOTES:

1. GRAVITY SEWER LATERAL
2. GRINDER PUMP REQUIRED





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ISSUE	DATE	DESCRIPTION

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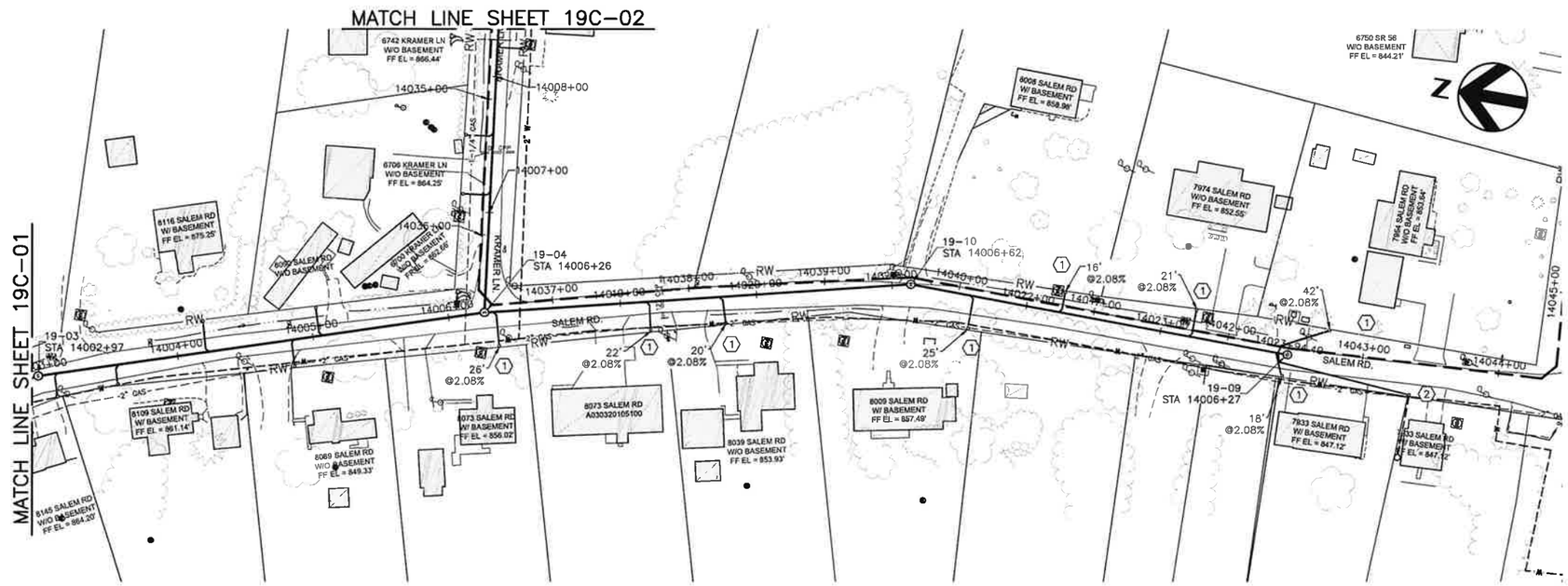
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

KRAMER LIFT STATION ML1

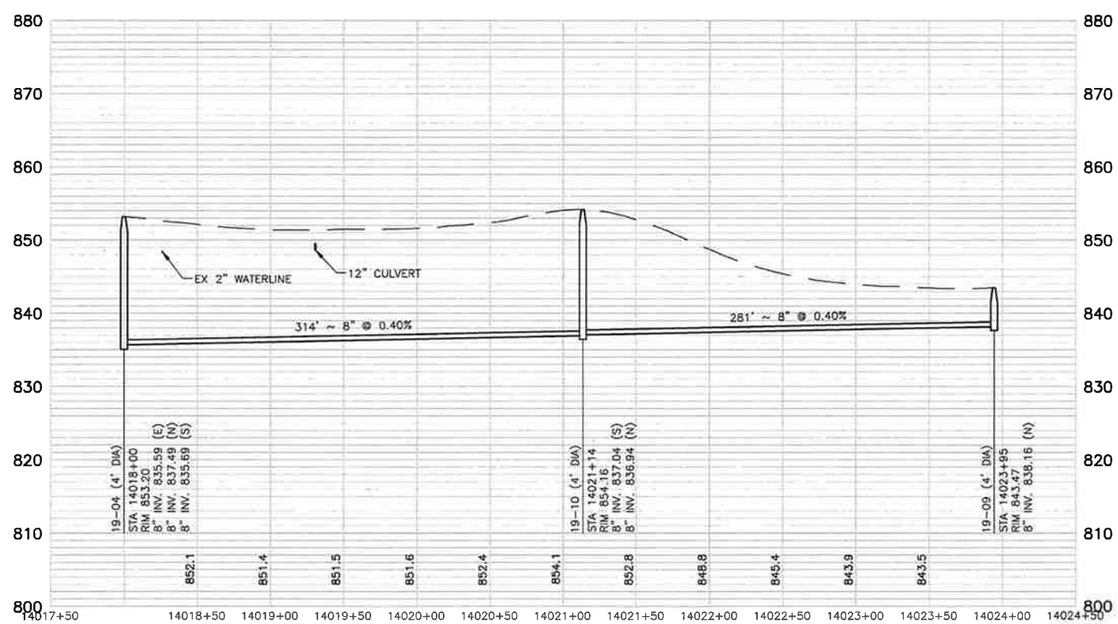
0 1" 2"

FILENAME	19C-01.dwg	SHEET	19C-02
SCALE	1"=50'		



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. GRINDER PUMP REQUIRED



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ISSUE	DATE	DESCRIPTION

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PROJECT NUMBER 2128-4507.00

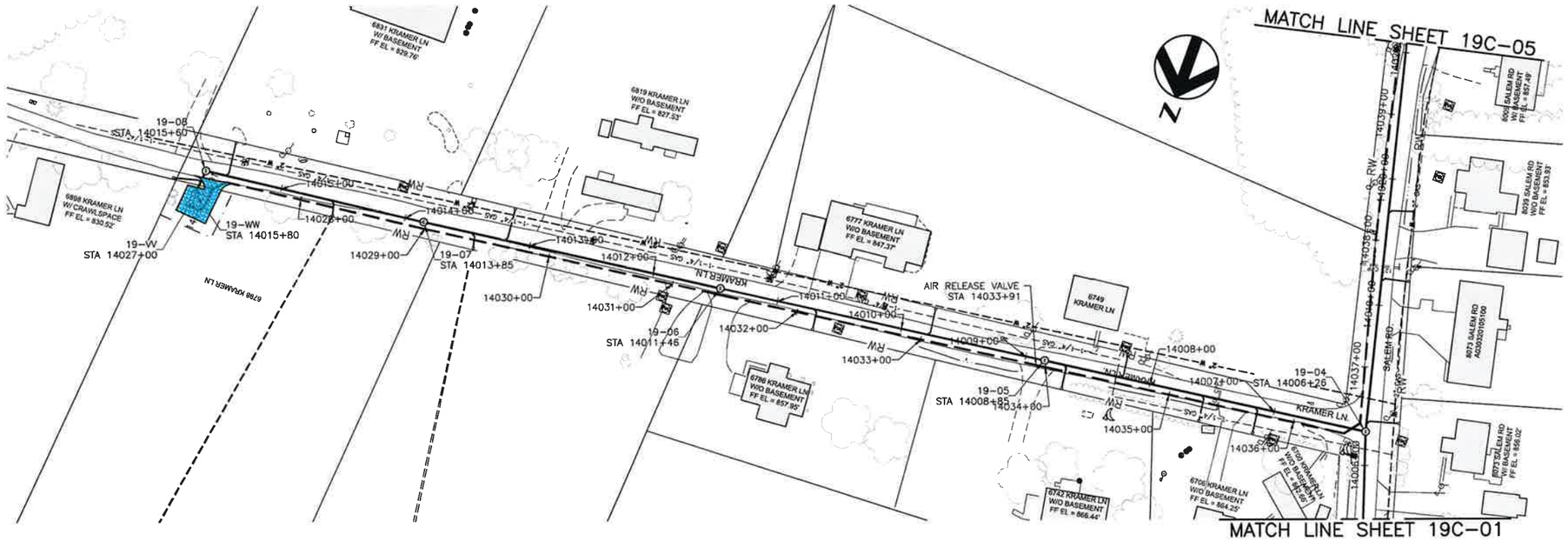
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

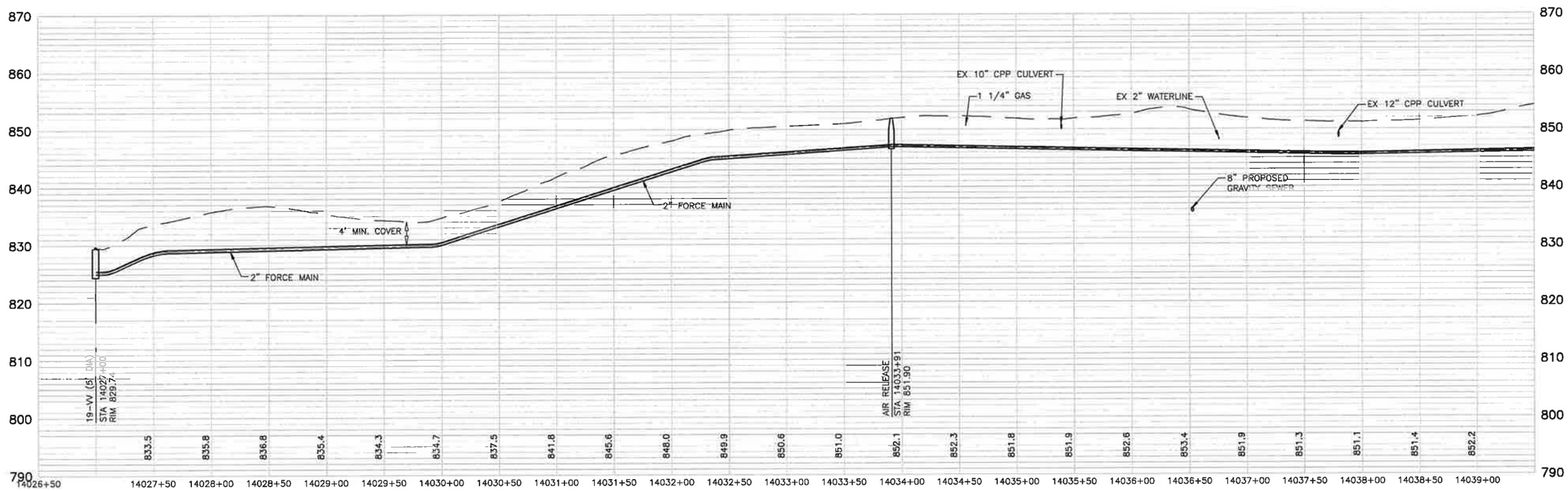
KRAMER LIFT STATION
ML1-BR1

0 1" 2"

FILENAME 19C-01.dwg
SCALE 1"=50'

SHEET **19C-03**





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ISSUE	DATE	DESCRIPTION

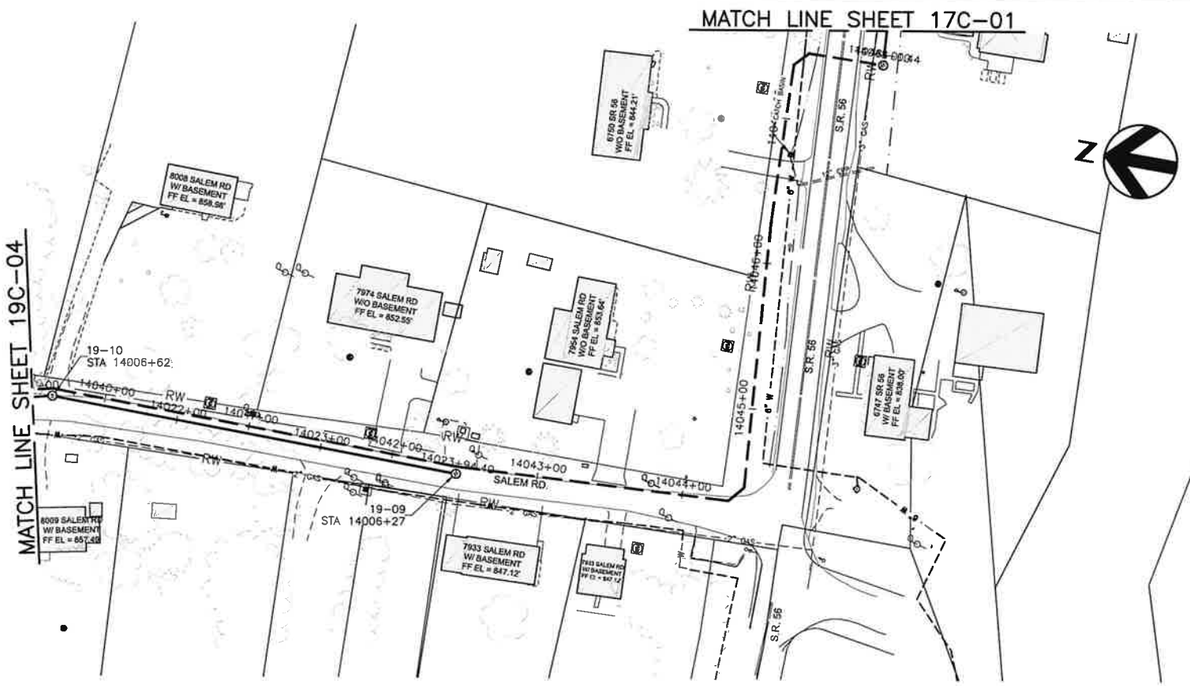
PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

KRAMER LIFT STATION
FORCE MAIN

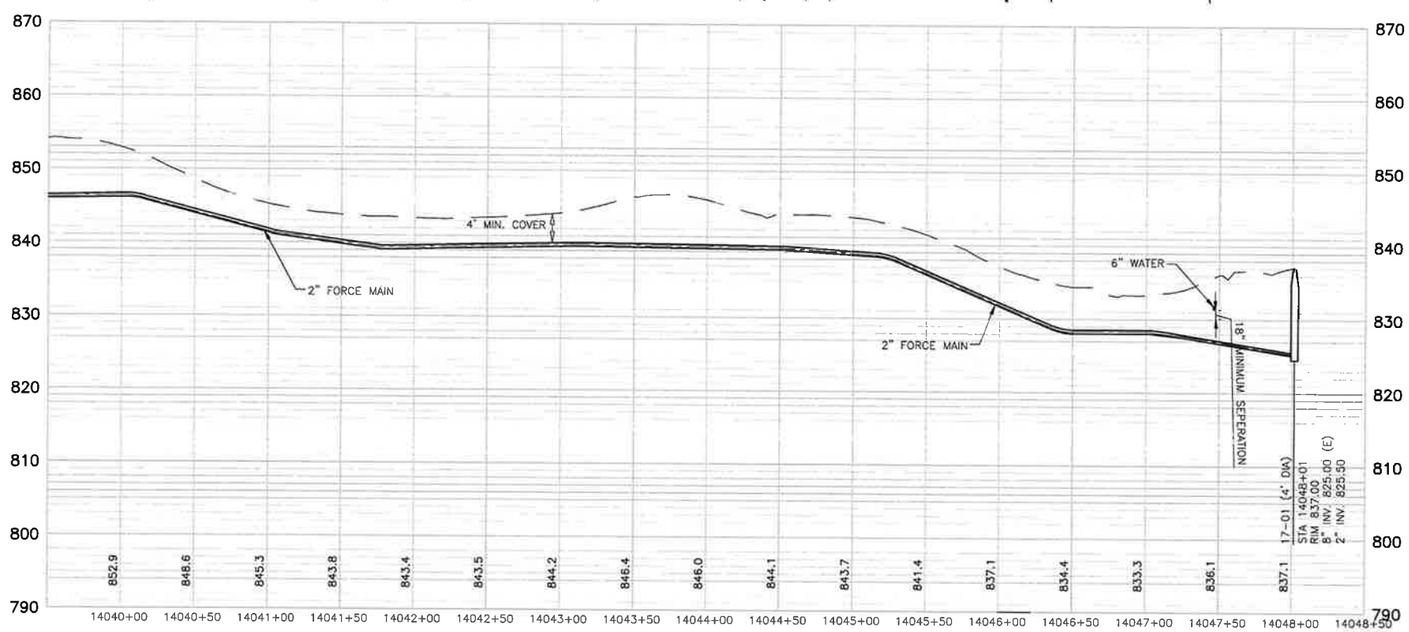
0 1" 2"

FILENAME	19C-01.dwg	SHEET	19C-04
SCALE	1"=50'		



CODED NOTES:

1. GRAVITY SEWER LATERAL
2. SEE RIPRAP DETAIL, SHT. ER-01



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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER Gary D. Silcott P.E.

PROJECT NUMBER 2128-4507.00

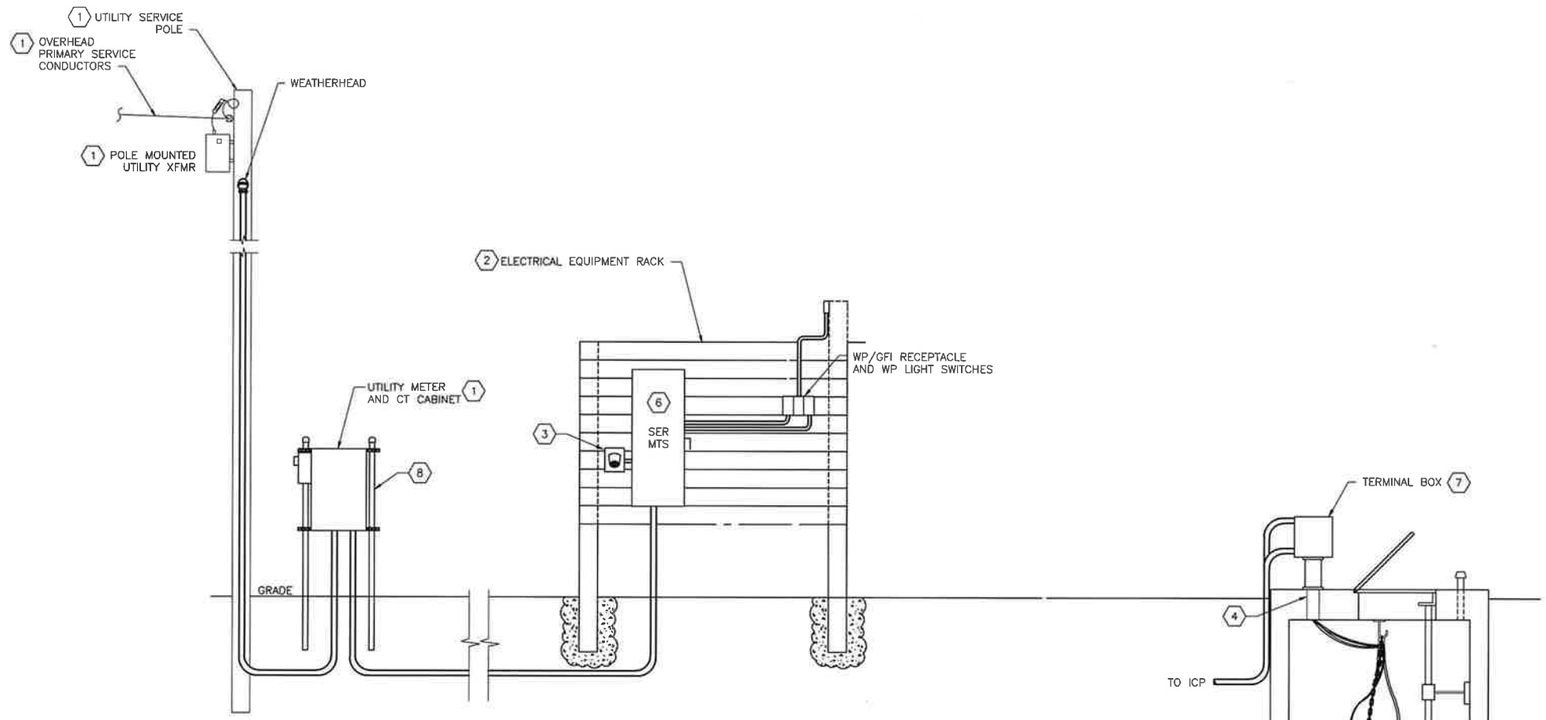
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

KRAMER LIFT STATION
FORCE MAIN

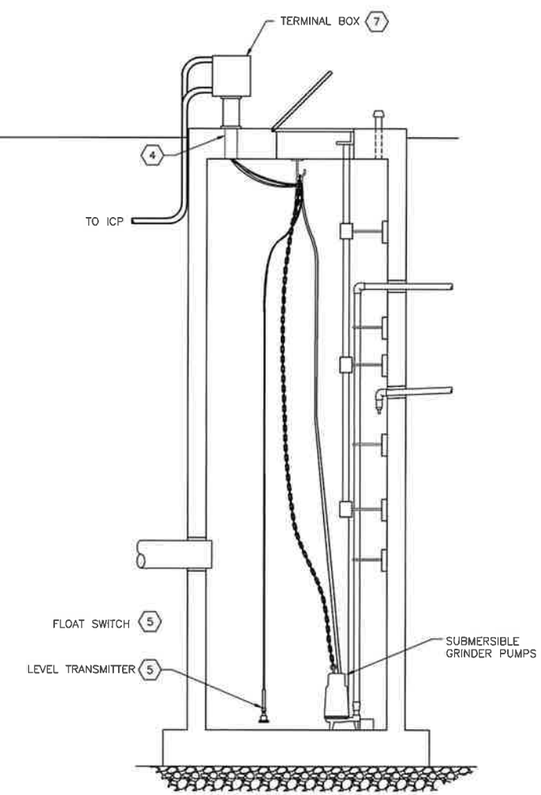
0 1" 2"

FILENAME 19C-01.dwg
SCALE 1"=50'

SHEET **19C-05**



ELECTRICAL EQUIPMENT RACK



WETWELL

GENERAL NOTES:

1. PERFORM ALL WORK IN COMPLIANCE WITH APPLICABLE REQUIREMENTS OF GOVERNING AGENCIES HAVING JURISDICTION AND WITH LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND NATIONAL FIRE PROTECTION ASSOCIATION (NFPA).
2. LABEL ALL FIELD WIRING TO CLEARLY INDICATE STATION COMPONENT.
3. REFER TO LIFT STATION SINGLE LINE DIAGRAM FOR CONDUIT AND WIRE REQUIREMENTS.
4. ALL PANELS AND BOXES CONDUIT PENETRATIONS SHALL BE FROM THE SIDE OR BOTTOM.
5. POWER PLAN TYPICAL FOR HEBBARDSVILLE, BAKER, BENNITA, W. BENTBROOK, ERVIN, BEECHWOOD, CAROL, ELLIOTSVILLE, WHITLAND, AND U.S. 56 LIFT STATIONS.

CODED NOTES: (#)

1. NEW UTILITY SERVICE. SCHEDULE, COMPENSATE, AND COORDINATE ALL WORK RELATED TO ELECTRICAL UTILITY SERVICE.
2. ELECTRICAL EQUIPMENT RACK. REFER TO SHEET 20E-02 FOR DETAILS.
3. PIN AND SLEEVE RECEPTACLE OR GENERATOR CONNECTION BOX. REFER TO ONE LINE DIAGRAMS FOR TYPE.
4. CORE WET WELL LID.
5. LEVEL TRANSMITTER. REFER TO SHEET 20E-02 FOR MOUNTING DETAIL.
6. SERVICE ENTRANCE RATED MANUAL TRANSFER SWITCH OR AUTOMATIC TRANSFER SWITCH. REFER TO SINGLE LINE DIAGRAMS FOR TYPE.
7. LIFT STATION TERMINAL BOX. REFER TO SHEET LS-01 FOR MOUNTING DETAIL.
8. UTILITY METER AND CT CABINET EQUIPMENT RACK. REFER TO SHEET 20E-02 FOR DETAIL.

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ISSUE	DATE	DESCRIPTION

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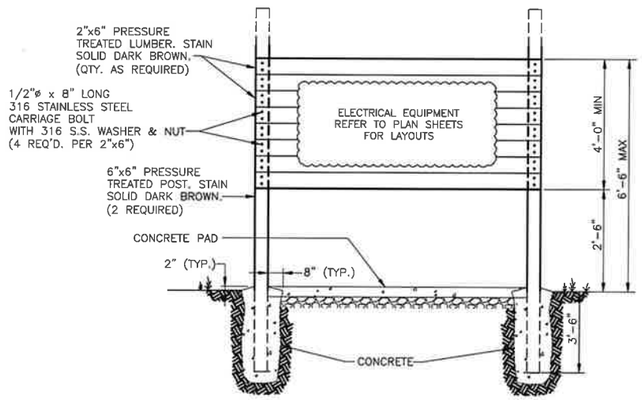
PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

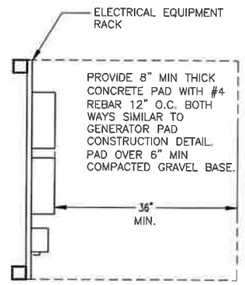
277/480V 3Ø
LIFT STATION
POWER PLAN

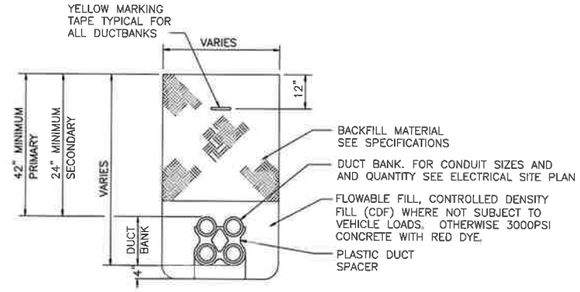
0 1" 2"
FILENAME 20E-01 Elliotsville.dwg
SCALE NONE
SHEET **20E-01**



ELECTRICAL EQUIPMENT RACK DETAIL

NO SCALE

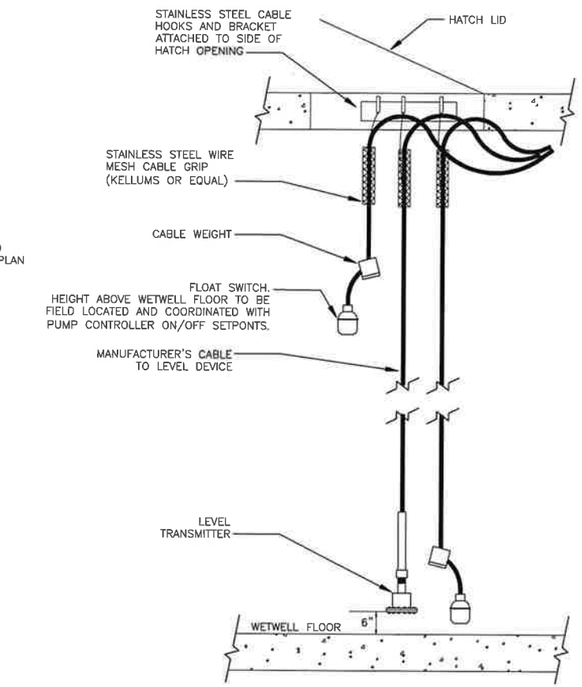




NOTES:
1. PROVIDE PLASTIC DUCT SPACERS AT A MINIMUM OF 8' INTERVALS. SECURE DUCT TO SPACERS AND ANCHOR EACH SPACER.
2. ALL SPARE DUCTS SHALL BE PLUGGED WITH A STANDARD DUCT PLUG FITTING.

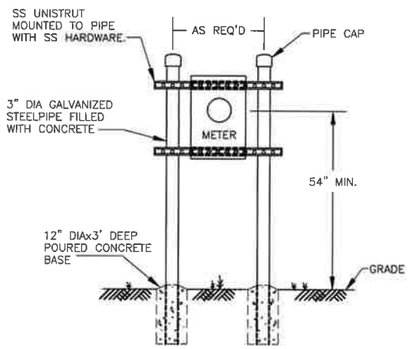
TRENCHING DETAIL

NO SCALE



LEVEL DEVICE INSTALLATION DETAIL

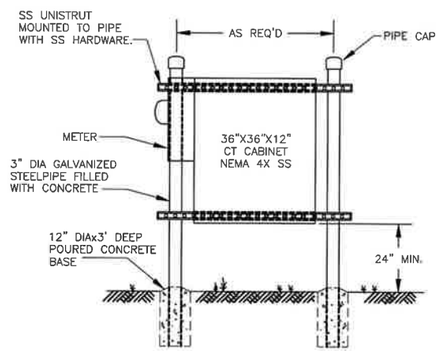
NO SCALE



NOTES:
1. SEE ONE LINE DIAGRAM FOR CONDUIT AND WIRE DETAILS.
2. INSTALL METER PER UTILITY COMPANY REQUIREMENTS.

UTILTIY METER EQUIPMENT RACK

NO SCALE



NOTES:
1. SEE ONE LINE DIAGRAM FOR CONDUIT AND WIRE DETAILS.
2. INSTALL METER AND CT CABINET PER UTILITY COMPANY REQUIREMENTS.

UTILTIY METER AND CT CABINET EQUIPMENT RACK

NO SCALE

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ISSUE	DATE	DESCRIPTION

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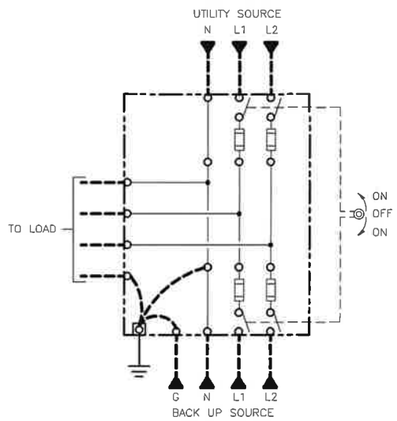
PROJECT NUMBER 2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

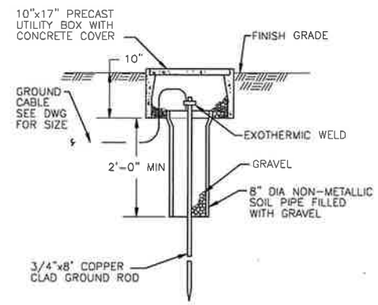
ELECTRICAL DETAILS I

FILENAME 20E-22.dwg
SCALE NONE
SHEET 20E-02



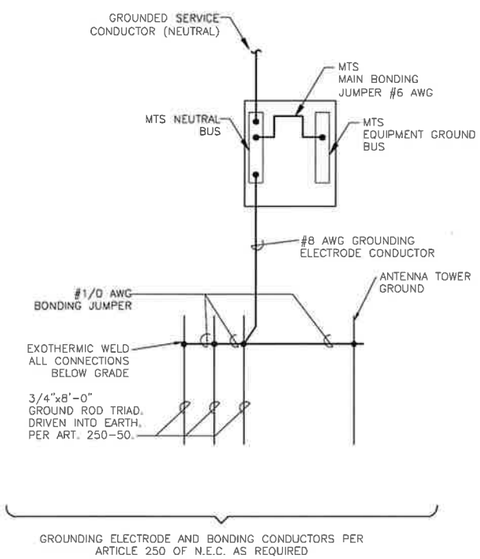
120/240V MTS SCHEMATIC DIAGRAM

NO SCALE



GROUND ROD AND TEST WELL DETAIL

NO SCALE



GROUNDING AND BONDING DIAGRAM (100A SERVICE)

NO SCALE

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ISSUE	DATE	DESCRIPTION

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ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

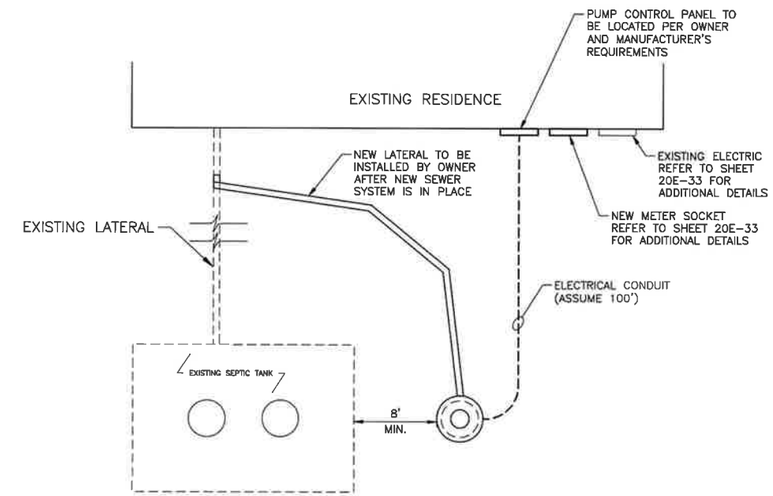
ELECTRICAL DETAILS II

0 1" 2"

FILENAME 20E-23.dwg

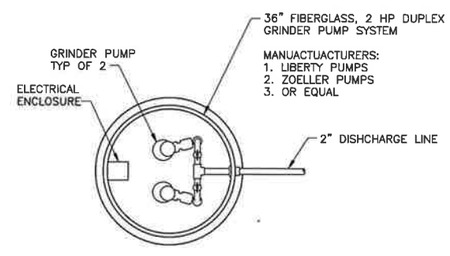
SCALE NONE

SHEET **20E-03**



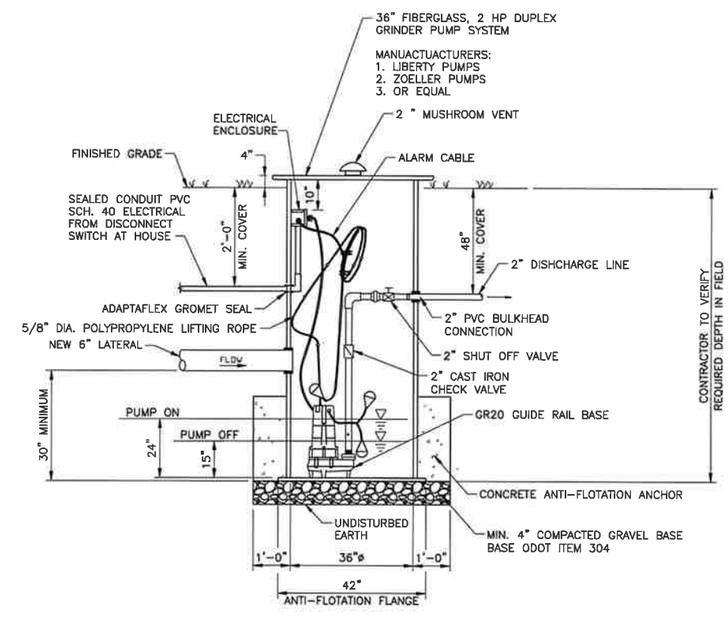
TYPICAL SITE PLAN

SCALE: NONE



TYPICAL GRINDER PUMP PLAN

SCALE: NONE



TYPICAL GRINDER PUMP SECTION

SCALE: NONE

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ISSUE	DATE	DESCRIPTION

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ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

INDIVIDUAL GRINDER PUMP DETAILS

0 1" 2"

FILENAME 22C-01.dwg

SCALE AS NOTED

SHEET 20G-01

SITE PLAN

SCALE: 1" = 5'

DLZ

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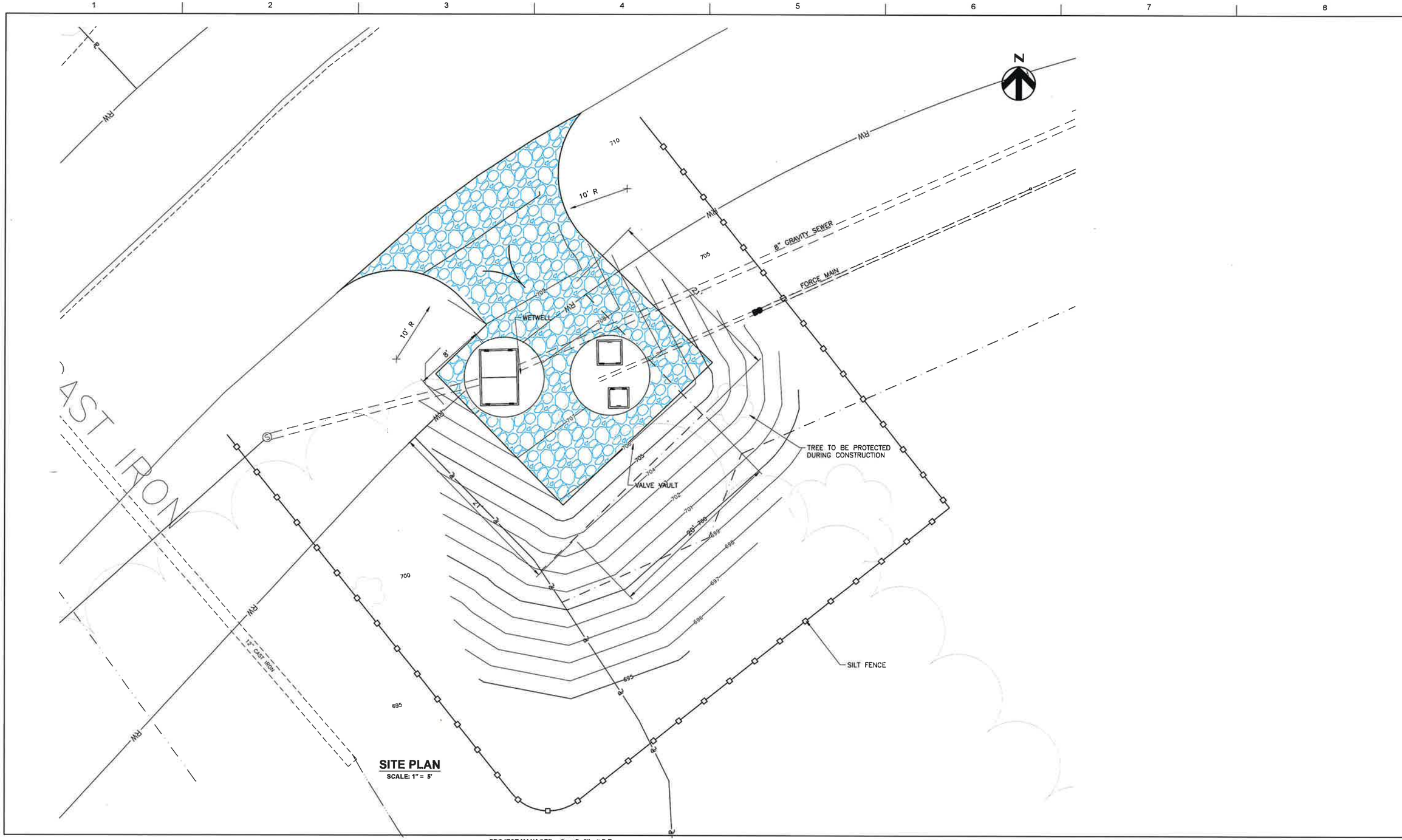
ISSUE	DATE	DESCRIPTION		
			PROJECT MANAGER	Gary D. Silcott P.E.
			PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

EDGEWOOD GRINDER PUMP
PLAN AND DETAILS

0 1" 2"

FILENAME	22C-01.dwg	SHEET	20C-14
SCALE	AS NOTED		



SITE PLAN

SCALE: 1" = 5'

DLZ

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ISSUE	DATE	DESCRIPTION

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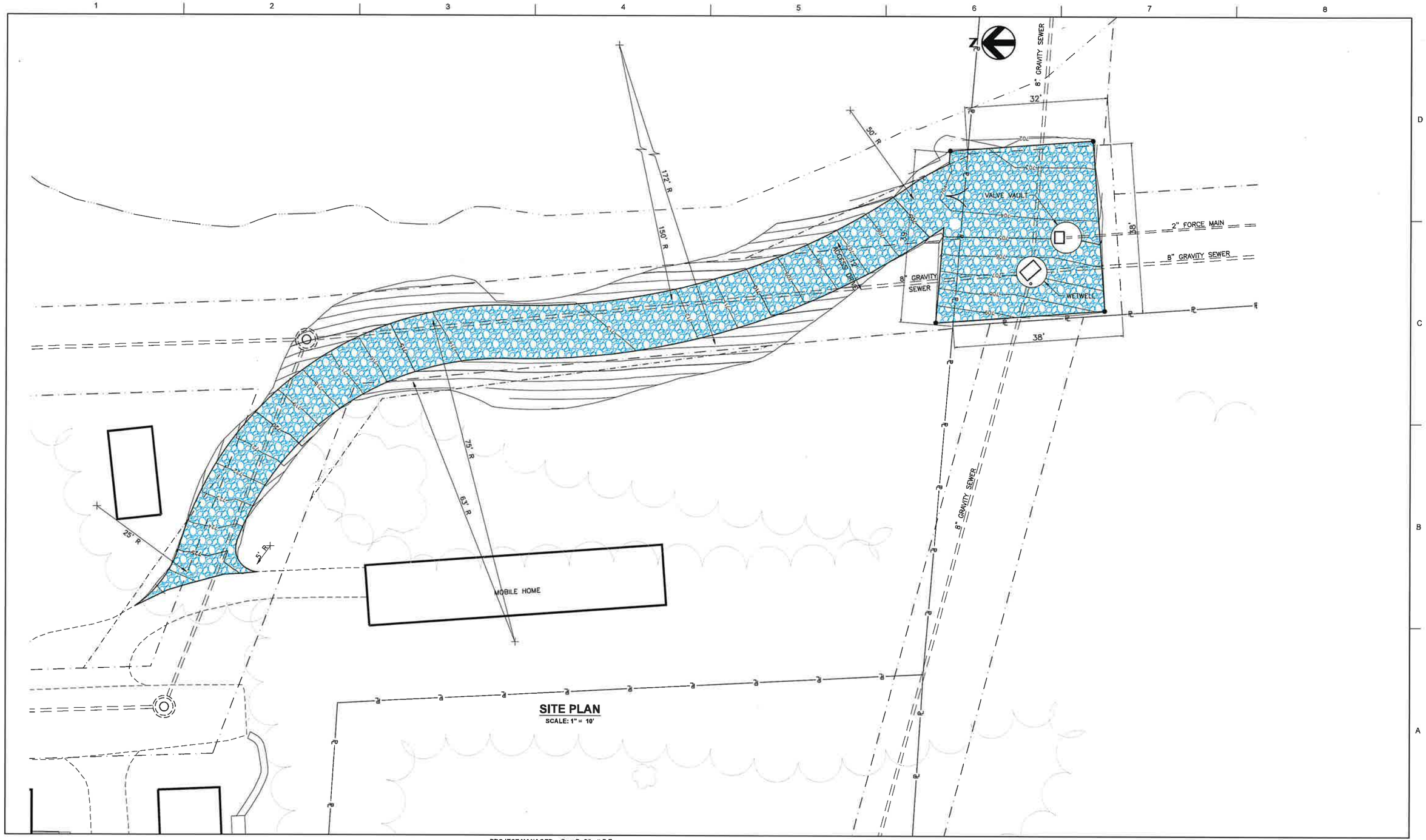
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

WHITLAND GRINDER PUMP SITE
PLAN AND DETAILS

0 1" 2"

FILENAME	22C-01.dwg	SHEET	20C-15
SCALE	AS NOTED		



SITE PLAN
SCALE: 1" = 10'

DLZ
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FAX (740) 380-3535

ISSUE	DATE	DESCRIPTION

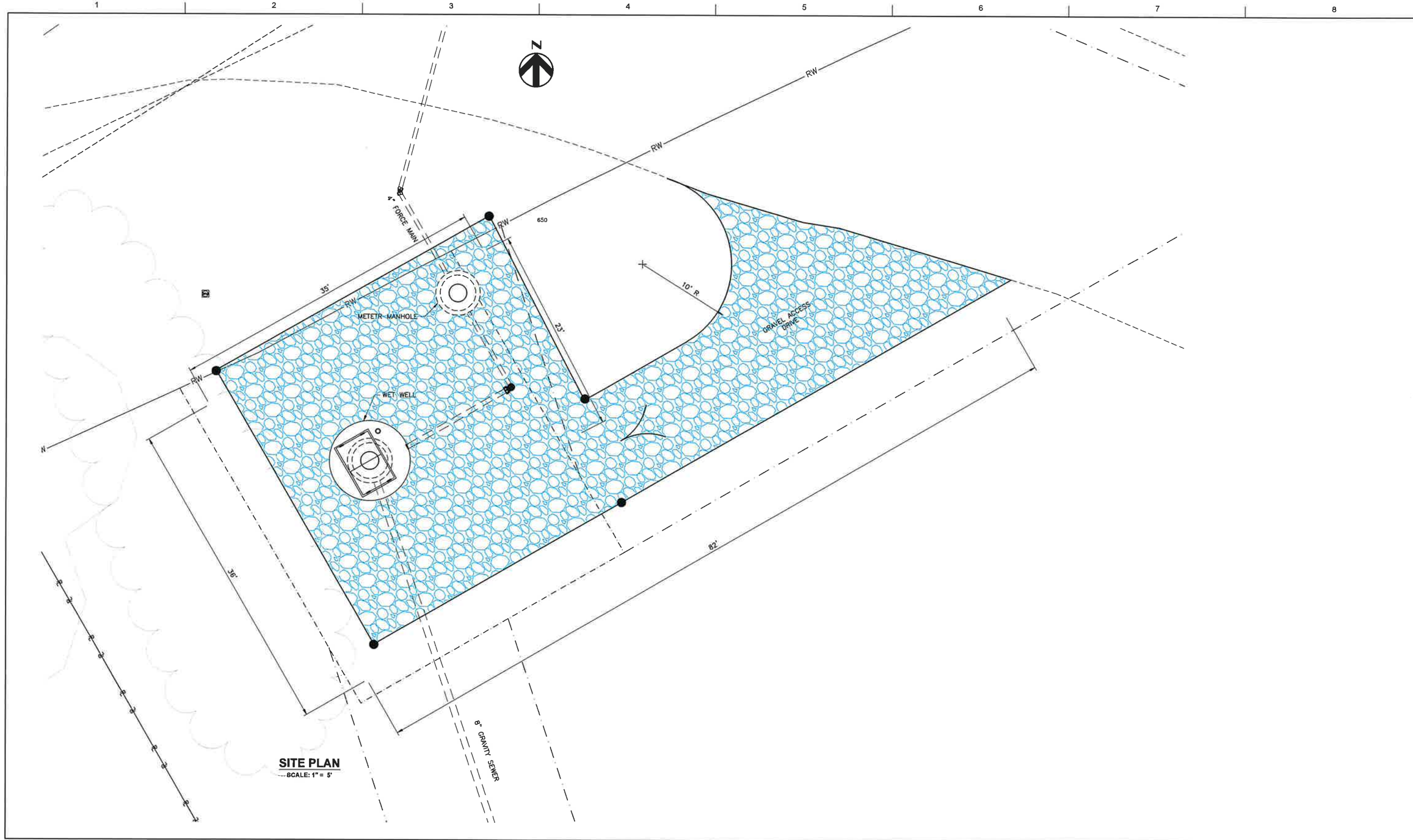
PROJECT MANAGER	Gary D. Silcott P.E.
PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

HEATHERSTONE GRINDER PUMP SITE
PLAN AND DETAILS

0 1" 2"

FILENAME	22C-01.dwg
SCALE	AS NOTED
SHEET	20C-16



SITE PLAN
SCALE: 1" = 5'

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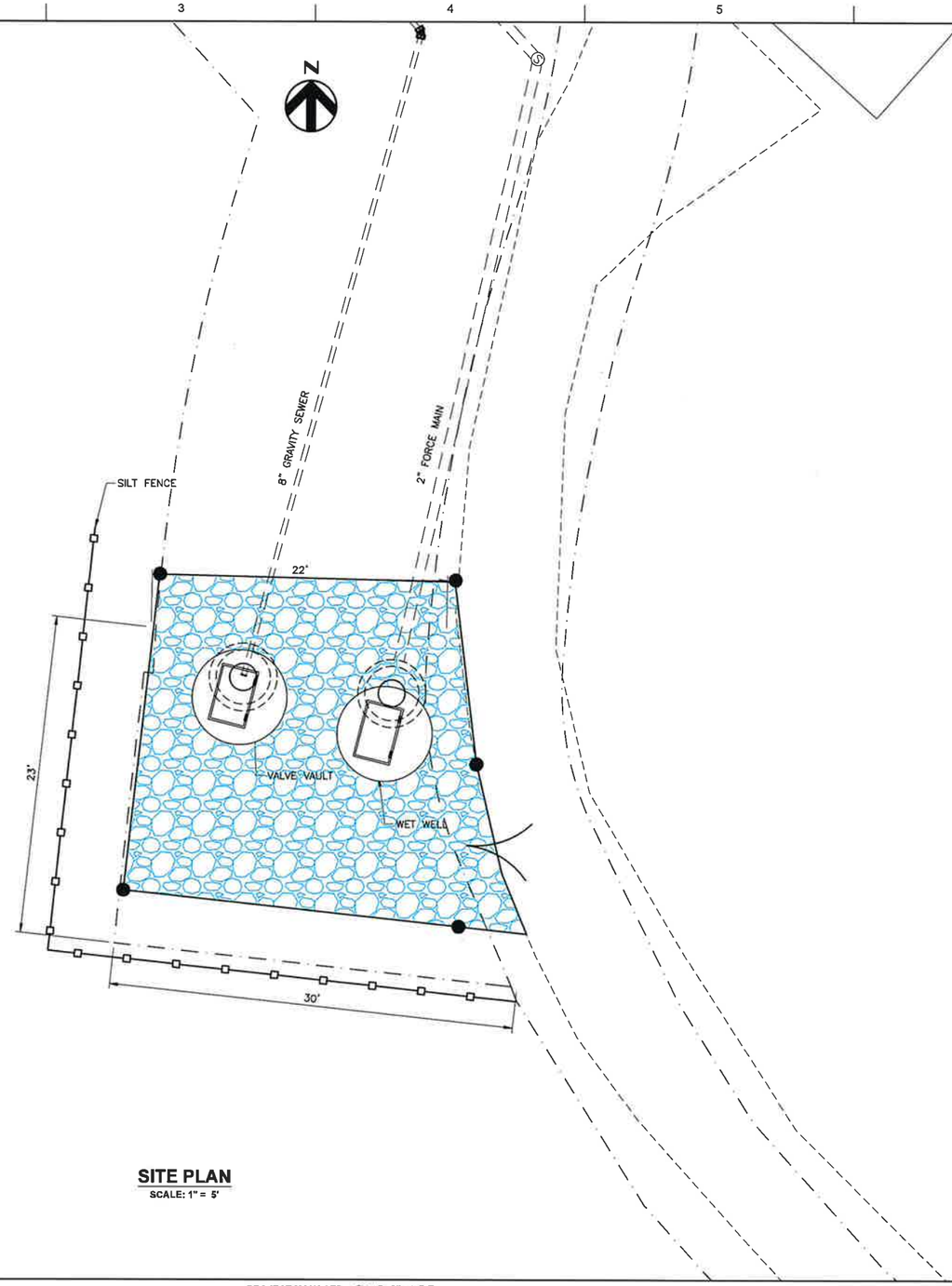
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

U.S. 56 LIFT STATION SITE PLAN AND DETAILS

0 1" 2"

FILENAME 22C-01.dwg
SCALE AS NOTED
SHEET 20C-17



SITE PLAN
SCALE: 1" = 5'

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ISSUE	DATE	DESCRIPTION

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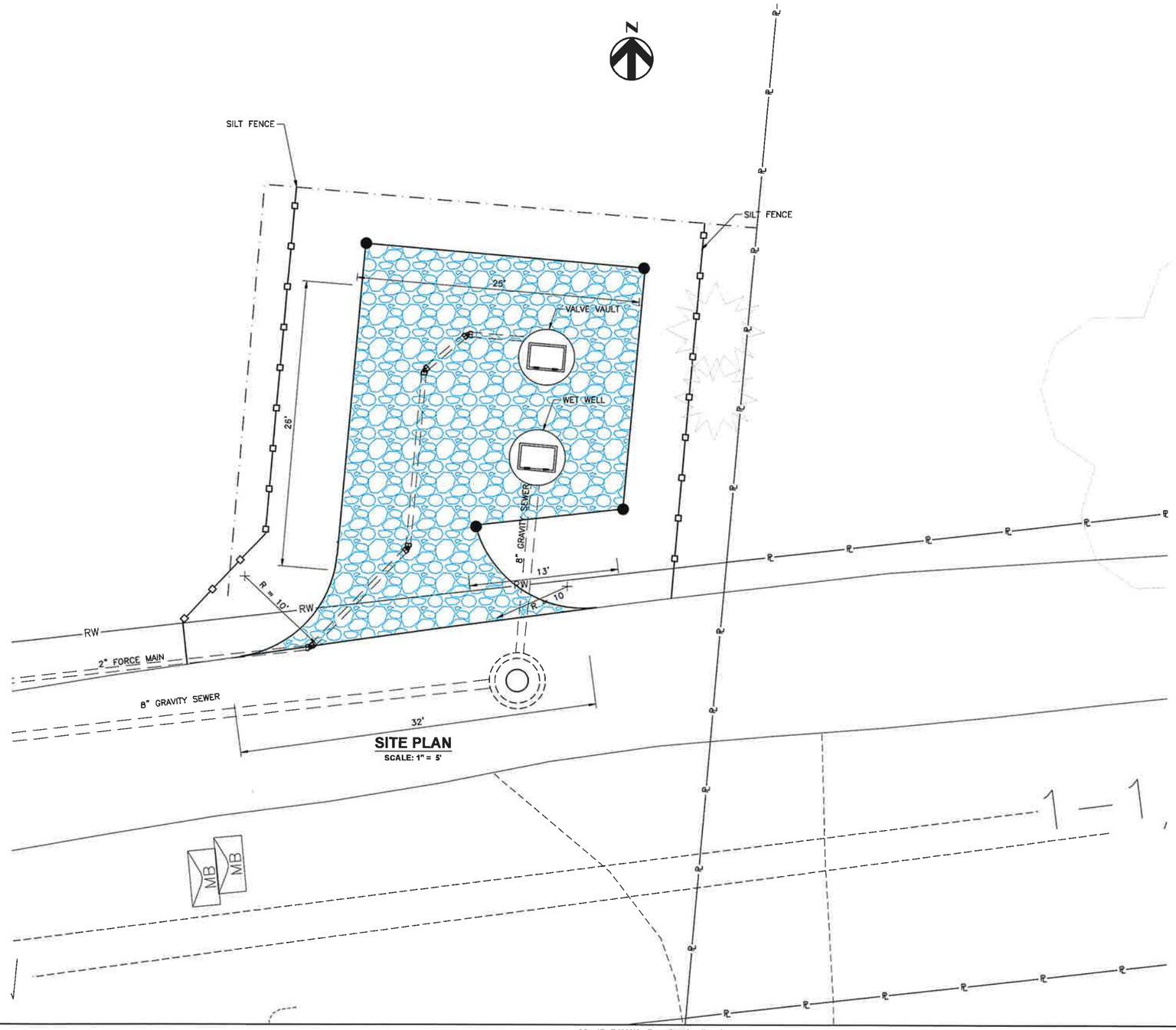
ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

COUNTRY CLUB GRINDER PUMP
SITE PLAN AND DETAILS

0 1" 2'

FILENAME	22C-01.dwg	SHEET	20C-18
SCALE	AS NOTED		



SITE PLAN
SCALE: 1" = 5'

DLZ
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ISSUE	DATE	DESCRIPTION		
			PROJECT MANAGER	Gary D. Silcott P.E.
			PROJECT NUMBER	2128-4507.00

ATHENS COUNTY
U.S. 50 SANITARY SEWER IMPROVEMENTS

KRAMER GRIND PUMP SITE
PLAN AND DETAILS

0 1" 2"

FILENAME	22C-01.dwg	SHEET	20C-19
SCALE	AS NOTED		

The lift station wet well shall be constructed of standard precast concrete O-ring joint manhole sections and bottoms as provided by United Precast or equivalent and/or as modified herewith. A padlock shall be provided by the Contractor matching the owner's standard. The Ductile Iron Pipe in the wet well shall be AWWA 151 or ANSI A21.51, Class 53 Ductile Iron Pipe with flanged or mechanical joints. Fittings shall be AWWA C 110, Class 250. Material and equipment meeting the requirements listed herein shall be provided and installed along with all necessary accessories to provide a complete serviceable facility. The Contractor shall submit six (6) copies of all shop and equipment drawings for approval prior to ordering or installing any equipment or materials.

Two submersible sewage pumps shall be provided. Each unit shall be capable of pumping Ⓐ gallons per minute at Ⓑ feet total dynamic head, while operating on Ⓒ volts, cycle, Ⓓ phase power. The pump speed shall not exceed Ⓔ rpm. The pumps and discharge piping shall be designed to pass solids up to 3 inches in diameter. Pump and motor case shall be made from heavy close-grain cast iron with stainless steel shaft and fittings. The impeller shall be of the solids-handling type designed to pump raw sewage and wastewater. Each motor shall have two mechanical seals installed in tandem with an oil chamber between pump and motor. Motor shall have built-in thermal over-temperature protection with automatic reset. The motor shall be sized to be non-overloading throughout the curve exclusive of the service factor. The inner seal chamber of each pump shall have two moisture sensing probes. Each pump shall have sufficient multi-conductor cable, with ground wire, power leads, thermal detector leads, and moisture sensor leads. Pumps shall be Gorman Rupp, Usemco or approved equivalent, and supplied with manufacturer's standard five (5) year minimum warranty.

Scope : Work covered by this specification shall include all labor and material required to extend electric and telephone services to the proposed lift station(s). It is the intent of this specification that the Contractor also provide incidental items that may not be delineated herein but are required for a complete and operable system.

Existing Conditions : The Contractor shall visit the site and become familiar with all existing conditions which may affect his work and he must consider some as part of his bid, No additional compensation will be allowed for the Contractor's failure to become aware of existing conditions.

Permit and Inspection : The Contractor is required to obtain and pay for all permits and inspections required in the prosecution of this contract. The Contractor is also required to hold a valid Qualification Certificate as issued by the State of Ohio, Department of Industrial Relations, Ohio Construction Industry Examining Board. In the event that there is no local inspecting authority, the Contractor shall procure a Certificate of Plan Approval and necessary inspection from the State of Ohio, Department of Industrial Relations, Division of Factory and Building Inspection as required by law.

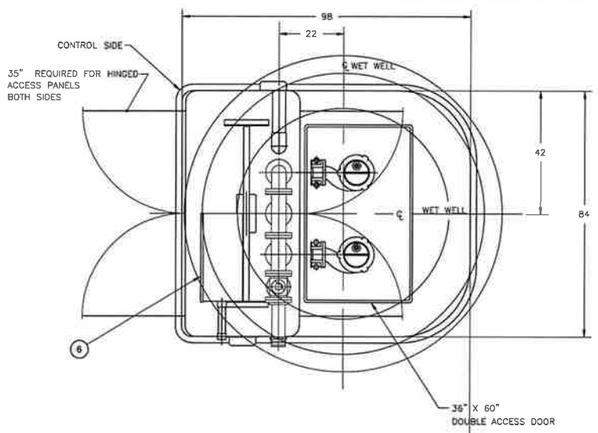
Codes : All electrical work for this project shall be installed in accordance with the latest editions of the National Electric Code (NEC) and all state and local codes. Said codes shall be considered the minimum standard for materials and methods not otherwise covered in this specifications.

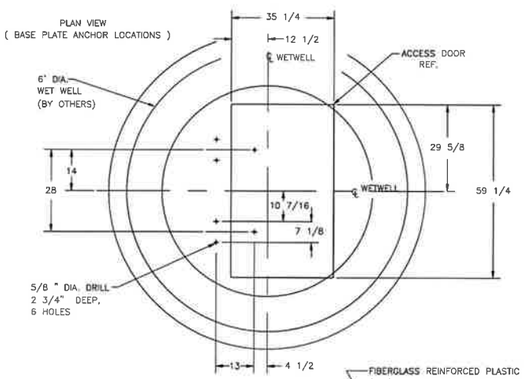
Grounding : Ground all electrical equipment furnished or connected under this contract in accordance with Article 250 of the NEC. Size all grounding conductors as required by the appropriate tables in said article.

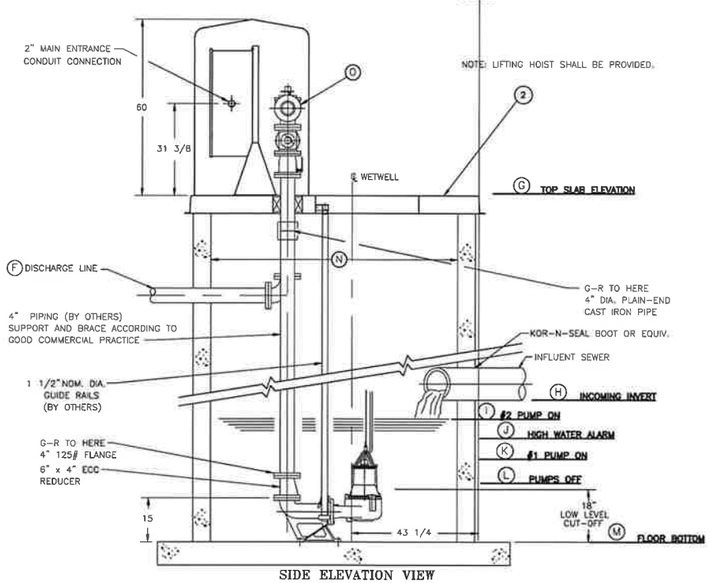
Conduit : All wiring shall be installed in conduit. Rigid galvanized steel conduit shall be used for above grade wiring and schedule 40 PVC may be used for wiring installed below grade.

Wire : All wire shall be stranded copper with THHN insulation. Conductors sizes shall be selected so that the maximum voltage drop does not exceed 3% of the nominal service voltage for the entire length of the circuit involved. Calculations shall be based on resistance values stated in Chapter 9 of NEC. Minimum control power wire shall be 14 ga, Minimum control circuit wire shall be 16 ga, All control wire shall be Type MTH or THW, 600V.

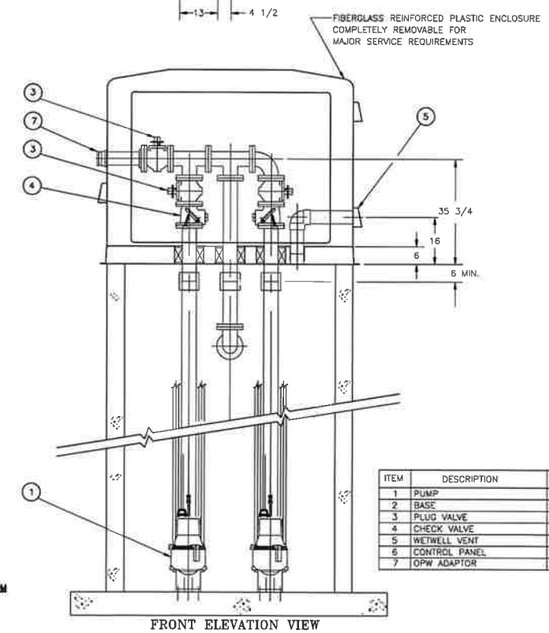
Service Disconnect : Furnish and install a service entrance rated (per Article 230-66 NEC), NEMA 3R, fused disconnect switch at the lift station site. Provide one class RK-5 and one additional spare fuse for each fuse holder in said disconnect. Service disconnect and fuses shall be sized appropriately for the voltage and load to which they are connected. Fuses shall comply with other requirements listed in this specification. A surge arrester shall be installed on the load side of service entrance disconnect. The service disconnect shall be pad lockable in the off and on position. Service disconnect is not furnished as part of the packaged lift station.







SIDE ELEVATION VIEW



FRONT ELEVATION VIEW

ITEM	DESCRIPTION	MAT'L & SIZE
1	PUMP	CAST IRON
2	BASE	CAST CONCRETE/FIBERGLASS ENCAPSULATED
3	PLUG VALVE	CAST IRON 4"
4	CHECK VALVE	CAST IRON 4"
5	WETWELL VENT	PVC 4"
6	CONTROL PANEL	STAINLESS STEEL
7	OPW ADAPTOR	ALUMINUM 4"

Manual Transfer Switch : Provide a double throw NEMA 3R manual transfer switch with the same number of poles and voltage rating as the aforementioned service disconnect. The amperage rating shall be the same as the service disconnect or stand-by generator output, which ever is the higher. If the transfer switch selection is based on the output of the generator, it shall be fused with the same type and size fuses used in the service disconnect. Manual Transfer Switch is not furnished as part of the packaged lift station.

Generator Receptacle : Furnish and install a generator receptacle compatible with the owner's stand-by generator. If the owner does not presently have a stand-by generator, provide a receptacle and mating plug of the same voltage, amperage and number of poles as the service disconnect. The generator receptacle and plug shall be suitable for reverse service. Generator receptacle is not furnished as part of the packaged lift station.

Power Company : The service entrance equipment, conductors and installation shall be in accordance with the local electric utility company requirements. The Contractor shall provide all labor and material not furnished by said utility company.

Telephone Company : Contractor shall provide an empty conduit with pull wire, grounding and telephone terminal interface as required by the local telephone company for installation of the telephone circuit to the proposed telephone dialer or telemetering.

Control Panel : The pump control panel shall be fabricated by a company with at least five (5) years experience in the manufacturing of similar control panels and shall comply with the following:

1. The enclosure will be NEMA 1 stainless steel and be UL listed. The selector switches, pilot lights, elapsed time totalizers, push buttons, duplex GFI receptacle and other through the panel components shall be mounted in a dead front swing out panel housed within the enclosure. Motor circuit protectors, circuit breakers, starters, relays, transformer, alternator and terminal strips will be mounted on a sub-panel behind the aforementioned swing out panel.
2. Motor circuit protectors shall be provided for each pump motor and a circuit breaker for the control power transformer. They shall be of the proper ampacity for the load to which they are connected and have operating mechanisms extending through the dead front swing out panel.
3. Control power transformer size shall be 3KVA sized for the sum of all loads connected including the mentioned duplex receptacle, Provide separate fusing or circuit breakers for the control circuit and the duplex receptacle.
4. Motor starters shall be soft start type & properly sized for the motors they serve and shall be NEMA rated with interchangeable overload heaters. IEC starters and adjustable trip overload relays are not approved and shall not be substituted.
5. Selector switches, push buttons and pilot lights shall be NEMA style 30.5 mm oiltite series. IEC or miniature series are not acceptable. Pilot lights shall be push-to-test transformer type with #755 or 1866 lamps.
6. In accordance with the requirements of "Ten State Standards," provide intrinsically safe relays for all wetwell float switches. Low current interpose relays shall be wired to the output of the intrinsically safe relays for transient protection of said relays. All other relays shall be NEMA rated.
7. Provide an alternator to automatically alternate pump operation. In addition to the automatic alternator, provide a three position selector switch to override said alternator and manually select the lead and lag pumps.
8. Control and interconnecting wiring shall be copper, type MTW, neatly bundled and in plastic wireway. Provide insulated crimp lugs as required. Terminals with more than one wire each must be approved for that purpose.
9. Integral motor thermal protection and pump seal failure detectors shall be included as part of the pump package. And shall be wired in accordance with the pump manufacturer's recommendation.
10. Elapsed time totalizers shall be provided for each pump motor. They shall be non-resetable hour meters and wired parallel to the holding coil of the motor starter.
11. Provide audible and visual alarms to indicate high level in the wet well. Include the necessary relays and push buttons to silence the audible alarm while maintaining the visual alarm until the alarm condition has been corrected.
12. The level controller shall be Nemo 4X G-R "EP 2000 or equal, capable of operating as air bubbler, submersible transducer, ultrasonic transmitter or floats, unless otherwise specified. Level controller will utilize the air bubbler to monitor the wet - well water level and permit the operator to read and set level set points from the controller. Under no circumstances should changing levels require entrance to the wet well unless floats are being utilized. Level controller shall operate on 12VDC and retain memory using a lithium-ion battery. Level controller shall utilize a digital back lit LCD screen and membrane type switches, and capable of controlling 8 set points.

Float Switches : Furnish and install (1) float switch in the wet well for redundant high water alarm at the level indicated on the contract drawings. Float switches shall be mercury tube type encapsulated in polyurethane resin with an outer seal of vinyl and equal to Buskirk and Owens #1900 or #1901. Float switch shall be suspended via anchor and pvc chain and wired in parallel to the primary level control system.

Terminal Box : Connection of pump power cables to the control panel shall be accomplished by extending through the station floor and directly into the panel without the use of a separate junction box. Penetrations through the station floor shall be sealed around cables with compression type cable seals. A Nema 4X junction box shall be provided for connection of the redundant high water alarm float cables complete with compression cable seal. Compression cable seals shall provide necessary cable strain relief.

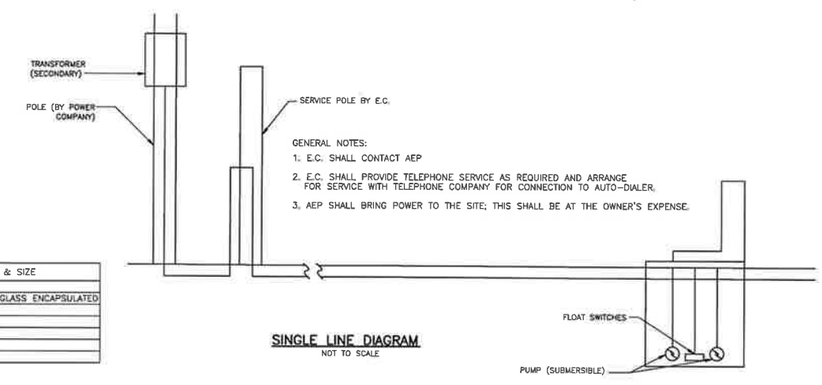
Wet well : Furnish and install appropriately sized strain relief for pump cords. Strain relief shall be installed to facilitate easy removal of the Strain relief shall be installed to facilitate easy removal of the pumps or floats without entering the wet well.

Fuses : Provide and install Class RK-5 fuses for each fused disconnect. Fuses shall be sized in accordance with the requirements of the NEC. Provide 3 spare fuses of each size installed and deliver same to the owner's representative.

Fasteners and Hardware : All fasteners and hardware for this installation shall be galvanized or stainless steel. Use P-1000 galvanized Unistrut or equal for mounting the disconnect at the well site. The use of perforated and/or painted structural materials is prohibited.

Telephone Dialer : Furnish and install a Sensaphone 1400, Verbatim, or approved equivalent telephone dialer to monitor fault conditions at the proposed lift station. Connect power and telephone circuits to said dialer through an Isotel FDG0023 surge protector. Provide programming and battery back-up as directed by the Engineer. Install the telephone dialer and surge protection along with a Daytona 2E919 strip heater, a Daytona 2E552 thermostat, a duplex GFI outlet, and a heavy duty touch tone telephone in an adequately sized NEMA 4 stainless steel enclosure. The enclosure shall be pad lockable with hinged cover. Dialer/Telemetry is not furnished as part of the packaged lift station. The package lift station manufacturer shall provide the following control contacts for Dialer/Telemetry interface; high water alarm, Pump 1 and Pump 2 "Run", & low water alarm.

LIFT STATION DATA	PLAN VIEW SHEET NUMBER	PUMP SIZE G.P.M. Ⓐ	TOTAL DYNAMIC HEAD Ⓑ	LIFT STATION VOLTAGE Ⓒ	LIFT STATION PHASE Ⓓ	PUMP MAXIMUM R.P.M. Ⓔ	DISCHARGE PIPING SIZE Ⓕ	TOP SLAB ELEVATION Ⓖ	INCOMING INVERT(S) Ⓗ	No. 2 PUMP ON Ⓘ	HIGH WATER ALARM Ⓙ	No. 1 PUMP ON Ⓚ	PUMPS OFF Ⓛ	FLOOR BOTTOM ELEVATION Ⓜ	LIFT STATION DIAMETER Ⓝ	BYPASS DIAMETER Ⓞ
SITE 17	17C-06	100	60	480	3 ø	1750	4"	647.02	634.62	634.50	634.25	633.75	630.50	629.00	6'-0"	3"



GENERAL NOTES:

1. E.C. SHALL CONTACT AEP
2. E.C. SHALL PROVIDE TELEPHONE SERVICE AS REQUIRED AND ARRANGE FOR SERVICE WITH TELEPHONE COMPANY FOR CONNECTION TO AUTO-DIALER.
3. AEP SHALL BRING PORTER TO THE SITE; THIS SHALL BE AT THE OWNER'S EXPENSE.

SINGLE LINE DIAGRAM
NOT TO SCALE

PROJECT NO. 2128-4507.00

LS-01

ATHENS COUNTY, OHIO
ATHENS COUNTY COMMISSIONERS
U.S. 50
SANITARY SEWER IMPROVEMENTS

LIFT STATION DETAILS

UNDERGROUND UTILITIES
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REVISIONS

DATE	DESCRIPTION	BY

DLZ
5981 BEO RIDGE CENTRE LOGAN, OHIO 43138
(740) 385-5855 (800) 462-9855
FAX (740) 385-5835

DESIGN GDS
DRAWN JJB
SCALE AS SHOWN

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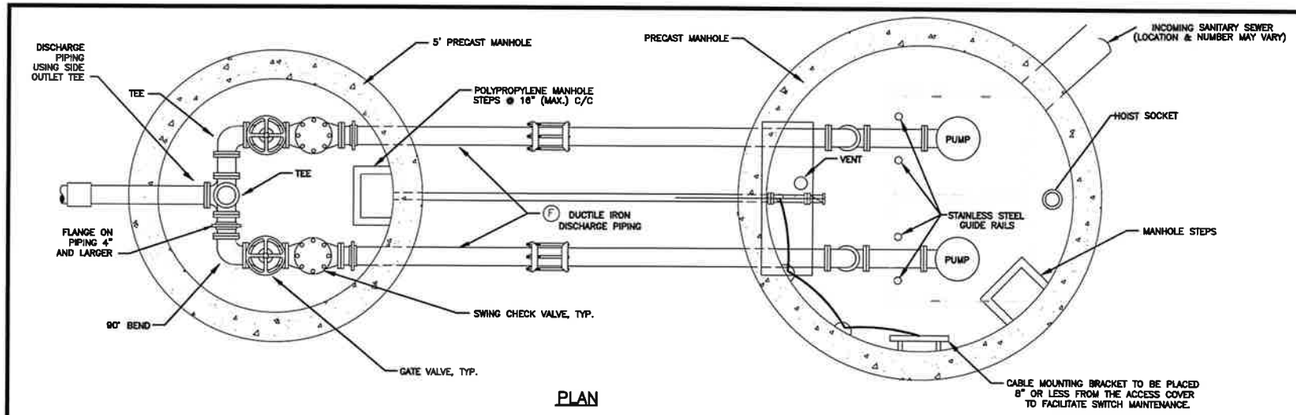
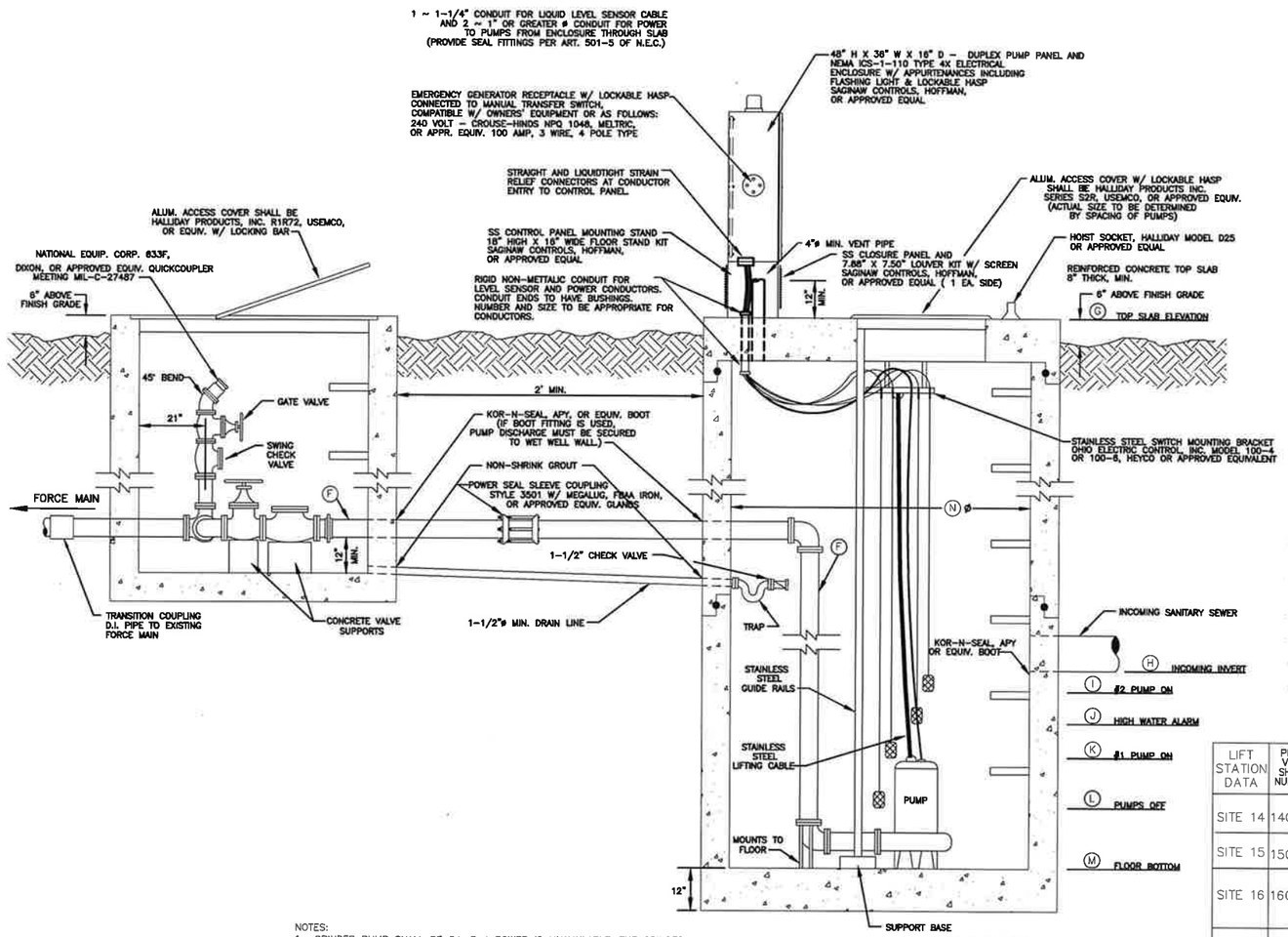


PLAN



NOTES:
1. GRINDER PUMP SHALL BE 3ø, 3 ø POWER IS UNAVAILABLE, THE GRINDER PUMP STATION CONTROL PANEL SHALL INCLUDE VFD'S TO CONVERT POWER TO 3ø.
2. GP WILL REQUIRE A 1" CLA-VAL SERIES 33A OR APPROVED EQUIVALENT COMBINATION AIR RELEASE/VACUUM BREAKER VALVE ON HEADER PIPE WITH DRAIN BACK TO WET WELL.

GRINDER PUMP NOTES

The lift station wet well and valve vault shall be constructed of standard precast concrete O-ring joint manhole sections and bottoms using an 8" precast reinforced concrete top slab as provided by United Precast, E.C Babbert, or equivalent and/or as modified herewith. A padlock shall be provided by the Contractor matching the owner's standard. The Ductile Iron Pipe in the wet well and valve vault shall be AWWA C 151 or ANSI A21.51, Class 53 Ductile Iron Pipe with flanged or mechanical joints. Fittings shall be AWWA C 110, Class 250. Material and equipment meeting the requirements listed herein shall be provided and installed along with all necessary accessories to provide a complete serviceable facility. The Contractor shall submit six (6) copies of all shop and equipment drawings for approval prior to ordering or installing any equipment or materials. The top slab shall not be poured until the openings and anchor bolts spacing are determined from the approved shop drawings of the electrical enclosure and equipment. The electrical conduit, 1" pipes, and anchor bolts shall be galvanized. The opening shall be caulked after installation of the pipe and fittings.

Two submersible sewage pumps shall be provided. Each unit shall be capable of pumping (A) gallons per minute at (B) feet total dynamic head, while operating on (C) volts, 60 cycle, (D) phase power. The pump speed shall not exceed (E) rpm. The pumps and discharge piping shall be designed to pass solids up to 3 inches in diameter. Pump and motor case shall be made from heavy close-grain cast iron with stainless steel shaft and fittings. The impeller shall be of the solids-handling type designed to pump raw sewage and wastewater. Each motor shall have two mechanical seals installed in tandem with an oil chamber between pump and motor. Motor shall have built-in thermal over-temperature protection with automatic reset. The motor shall be sized to be non-overloading throughout the curve exclusive of the service factor. The inner seal chamber of each pump shall have two moisture sensing probes. Each pump shall have sufficient multi-conductor cable, with ground wire, power leads, thermal detector leads, and moisture sensor leads. Pumps shall be Myers, ABS Pirahna, or approved equiv. Submersible Non Clog Pump, and supplied with manufacturer's standard five (5) year minimum warranty.

Scope : Work covered by this specification shall include all labor and material required to extend new electric and telemetry services to the proposed lift station(s). It is the intent of this specification that the Contractor also provide incidental items that may not be delineated herein but are required for a complete and operable system.

Existing Conditions : The Contractor shall visit the site and become familiar with all existing conditions which may affect his work and he must consider same as part of his bid. No additional compensation will be allowed for the Contractor's failure to become aware of

Permit and Inspection : The Contractor is required to obtain and pay for all permits and inspections required in the prosecution of this contract. The Contractor is also required to hold a valid Qualification Certificate as issued by the State of Ohio, Department of Industrial Relations, Ohio Construction Industry Examining Board. In the event that there is no local inspecting authority, the Contractor shall procure a Certificate of Plan Approval and necessary inspection from the State of Ohio, Department of Industrial Relations, Division of Factory and Building Inspection as required by law.

Codes : All electrical work for this project shall be installed in accordance with the latest editions of the National Electric Code (NEC) and all state and local codes. Said codes shall be considered the minimum standard for materials and methods not otherwise covered

Grounding : Ground all electrical equipment furnished or connected under this contract in accordance with Article 250 of the NEC. Size all grounding conductors as required by the appropriate tables in said article.

Conduit : All wiring shall be installed in conduit. Rigid galvanized steel conduit shall be used for above grade wiring and schedule 40 PVC may be used for wiring installed below grade.

Wire : All wire shall be stranded copper with THHN/THWN insulation. Conductors sizes shall be selected so that the maximum voltage drop does not exceed 3% of the nominal service voltage for the entire length of the circuit involved. Calculations shall be based on resistance values stated in Chapter 9 of NEC.

Service Disconnect : Furnish and install a service entrance rated (per Article 230-66 NEC), NEMA 3R, fused disconnect switch at the lift station site. Provide one class RK-5 and one additional spare fuse for each fuse holder in said disconnect. Service disconnect and fuses shall be sized appropriately for the voltage and load to which they are connected. Fuses shall comply with other requirements listed in this specification. A surge arrester shall be installed on the load side of service entrance disconnect. The service disconnect shall be padlockable in the off and on position.

Manual Transfer Switch : Provide a double throw NEMA 3R manual transfer switch with the same number of poles and voltage rating as the aforementioned service disconnect. The amperage rating shall be the same as the service disconnect or stand-by generator output, which ever is the higher. If the transfer switch selection is based on the output of the generator, it shall be fused with the same type and size fuses used in the service disconnect. The manual transfer switch shall be mounted in the control panel. The manual transfer The manual transfer switch shall incorporate a positive mechanical interlock with the service disconnect device.

Generator Receptacle : Furnish and install a generator receptacle compatible with the owner's stand-by generator. If the owner does not presently have a stand-by generator, provide a receptacle and mating plug of the same voltage, amperage and number of poles as the service disconnect. The generator receptacle and plug shall be suitable for reverse service. The receptacle shall be mounted on the control panel.

Power Company : The service entrance equipment, conductors and installation shall be in accordance with the local electric utility company requirements. The Contractor shall provide all labor and material not furnished by said utility company.

Control Panel : The pump control panel shall be fabricated by a company with at least five (5) years experience in the manufacturing of similar control panels and shall comply with the following:

1. The enclosure will be NEMA 4X stainless steel with a blank outer door. The selector switches, pilot lights, elapsed time totalizers, push buttons, duplex GFI receptacle and other through the panel components shall be mounted in a dead front swing out panel housed within the enclosure. Motor circuit protectors, circuit breakers, starters, relays, transformer, alternator and terminal strips will be mounted on a sub-panel behind the aforementioned swing out panel.
2. Motor circuit protectors shall be provided for each pump motor and a circuit breaker for the control power transformer. They shall be of the proper ampacity for the load to which they are connected and have operating mechanisms extending through the dead front swing out panel.
3. Control power transformer size shall be adequate for the sum of all loads connected plus an additional 500 VA for the above mentioned duplex receptacle. Provide separate fusing or circuit breakers for the control circuit and the duplex receptacle.
4. Motor starters shall be properly sized for the motors they serve and shall be NEMA rated with interchangeable overload heaters. IEC starters and adjustable trip overload relays are not approved and shall not be substituted.
5. Selector switches, push buttons and pilot lights shall be NEMA style 30.5 mm oiltite series. IEC or miniature series are not acceptable. Pilot lights shall be push-to-test transformer type with #755 or 1866 lamps.
6. In accordance with the requirements of "Ten State Standards," provide intrinsically safe relays for all wetwell float switches. Low current interpose relays shall be wired to the output of the intrinsically safe relays for transient protection of said relays. All other relays shall be NEMA rated.
7. Provide an alternator to automatically alternate pump operation. In addition to the automatic alternator, provide a three position selector switch to override said alternator and manually select the lead and lag pumps.
8. Control and interconnecting wiring shall be copper, type MTW, neatly bundled and in plastic wireway. Provide insulated crimp lugs as required. Terminals with more than one wire each must be approved for that purpose.
9. Integral motor thermal protection and pump seal failure detectors may be included as part of the pump package. When these are provided, they shall be wired in accordance with the pump manufacturer's recommendation.
10. Elapsed time totalizers shall be provided for each pump motor. They shall be non-resetable hour meters and wired parallel to the holding coil of the motor starter.
11. Provide audible and visual alarms to indicate high level in the wet well. Include the necessary relays and push buttons to silence the audible alarm while maintaining the visual alarm until the alarm condition has been corrected.
12. Provide a Blower for panel ventilation with panel mounted inlet including louvers and filter ass'y. Inlet and blower are to be located at upper side of panel. The outlet ventilation opening is to be located on the lower panel side opposite the inlet opening. The outlet opening is to be covered with a louver and screen ass'y. The ventilation blower is to be thermostatically controlled.
13. Provide a control panel heater with thermostatically controlled switches.

Float Switches : Furnish and install 5 float switches in the wetwell for control of the pumps and alarm at the levels indicated on the contract drawings. Float switches shall be mercury tube type encapsulated in polyurethane resin with an outer seal of vinyl and equal to Buskirk and Owens #1900 or #1901, Flyght, or approved equivalent.

Wetwell : Furnish and install appropriately sized stainless steel strain relief for pump and float switch cords. Suspend strain relief from stainless steel hooks or other supporting devices anchored near the hatch. Strain relief shall be installed to facilitate easy removal of the pumps or floats without entering the wetwell.

Hoist : Furnish one portable stainless steel hoist sized for use at all grinder pump stations. Hoist shall accept cable end as provided in wet well for pump removal. Grinder pump station hoist shall be Halliday Series DA or approved equal.

Fuses : Provide and install Class RK-5 fuses for each fused disconnect. Fuses shall be sized in accordance with the requirements of the NEC. Provide 3 spare fuses of each size installed and deliver same to the owner's representative.

Fasteners and Hardware : All fasteners and hardware for this installation shall be galvanized or stainless steel. Use P-1000 galvanized Unistrut or equal for mounting the disconnect at the well site. The use of perforated and/or painted structural materials is prohibited.

Telemetry : Furnish and install a Sensaphone Express II, Verbatim, or approved equiv. telephone dialer to monitor fault conditions at the proposed lift station. Connect power and telephone circuits to said dialer through an Isotel FDG0023 surge protector. Provide programming and battery back-up as directed by the Engineer. Install the telephone dialer and surge protection along with a Daytona 2E919, ULANET, or approved equiv. strip heater, a Daytona 2E552, ULANET, or approved equiv. thermostat, a duplex GFI outlet, and a heavy duty touch tone telephone in an adequately sized NEMA 4 stainless steel enclosure. The enclosure shall be padlockable with hinged cover.

LIFT STATION DATA	PLAN VIEW SHEET NUMBER	PUMP SIZE G.P.M. (A)	TOTAL DYNAMIC HEAD (B)	LIFT STATION VOLTAGE (C)	LIFT STATION PHASE (D)	PUMP MAXIMUM R.P.M. (E)	DISCHARGE PIPING SIZE (F)	TOP SLAB ELEVATION (G)	INCOMING INVERT(S) (H)	No. 2 PUMP ON (I)	HIGH WATER ALARM (J)	No. 1 PUMP ON (K)	PUMPS OFF (L)	FLOOR BOTTOM ELEVATION (M)	LIFT STATION DIAMETER (N)	BYPASS DIAMETER (O)
SITE 14	14C-01	20	102	480	3 ø	3450	2"	683.72	672.17 675.97	672.00	671.75	671.25	670.75	669.25	5'-0"	2"
SITE 15	15C-01	50	92	480	3 ø	3450	3"	708.80	697.94 700.44	697.75	697.50	697.00	695.75	694.25	5'-0"	3"
SITE 16	16C-01	25	55	480	3 ø	3450	2"	706.59	700.64 697.08 689.50 699.57	689.25	689.00	688.50	687.50	686.00	4'-0"	2"
SITE 18	18C-02	20	112	480	3 ø	3450	2"	767.93	756.85	756.75	756.50	756.00	755.25	753.75	4'-0"	2"
SITE 19	19C-02	20	52	480	3 ø	3450	2"	830.60	819.04	819.00	818.75	818.25	817.50	816.00	4'-0"	2"

PROJECT NO. 2128-4507.00

GP-01

ATHENS COUNTY, OHIO
ATHENS COUNTY COMMISSIONERS
U.S. 50
SANITARY SEWER IMPROVEMENTS

GRINDER STATION DETAILS

UNDERGROUND UTILITIES
Two Working Days
BEFORE YOU DIG
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NON-MEMBERS MUST BE CALLED DIRECTLY

REVISIONS

DATE	DESCRIPTION	BY

DLZ
30981 IRIS RIDGE COURT LOCKE, OHIO 49118
(906) 337-2222 FAX (740) 385-3235

DESIGN GDS
DRAWN JJR
SCALE AS SHOWN

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