

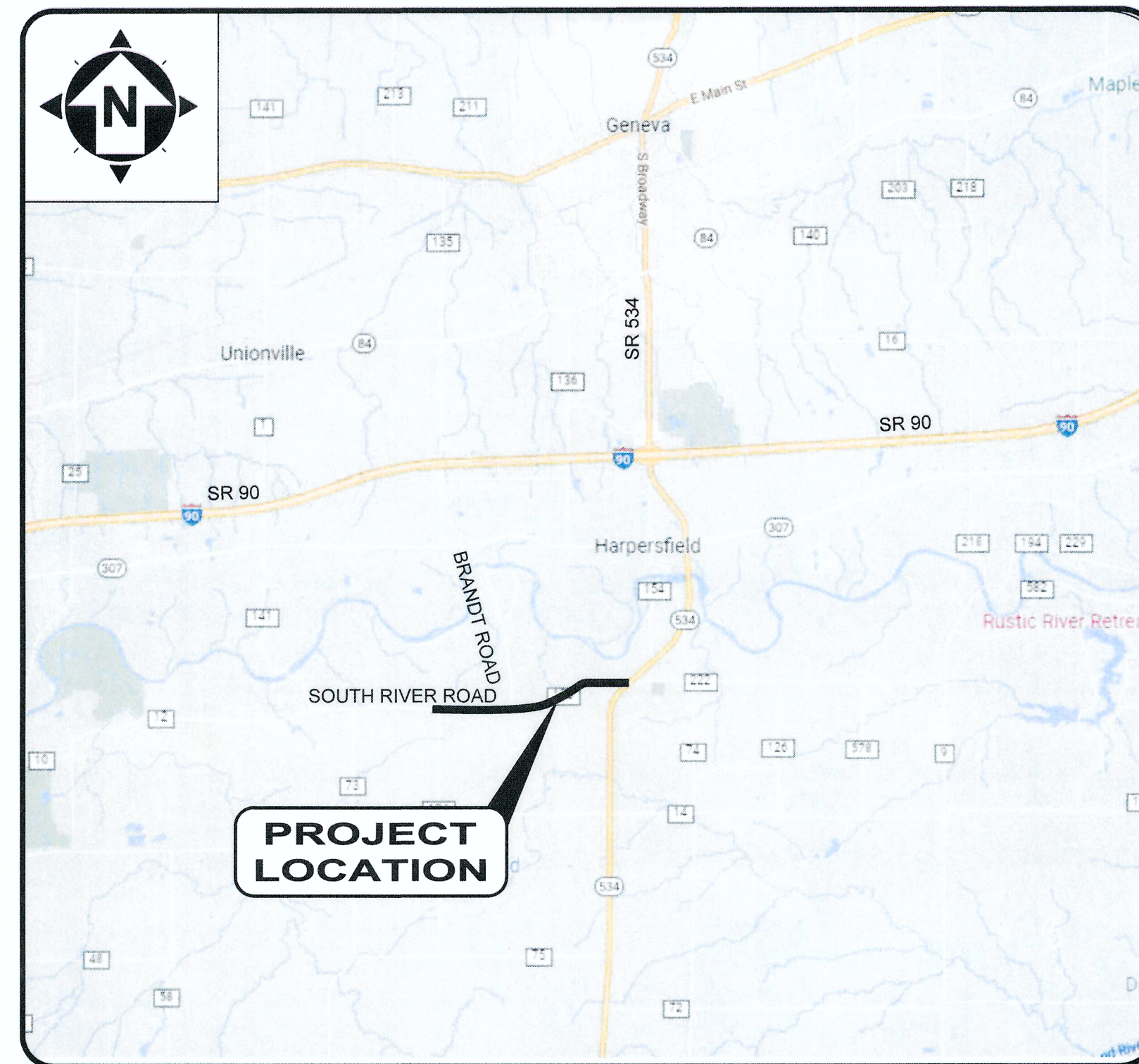
ASHTABULA COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES

SOUTH RIVER ROAD WATER LINE EXTENSION PROJECT

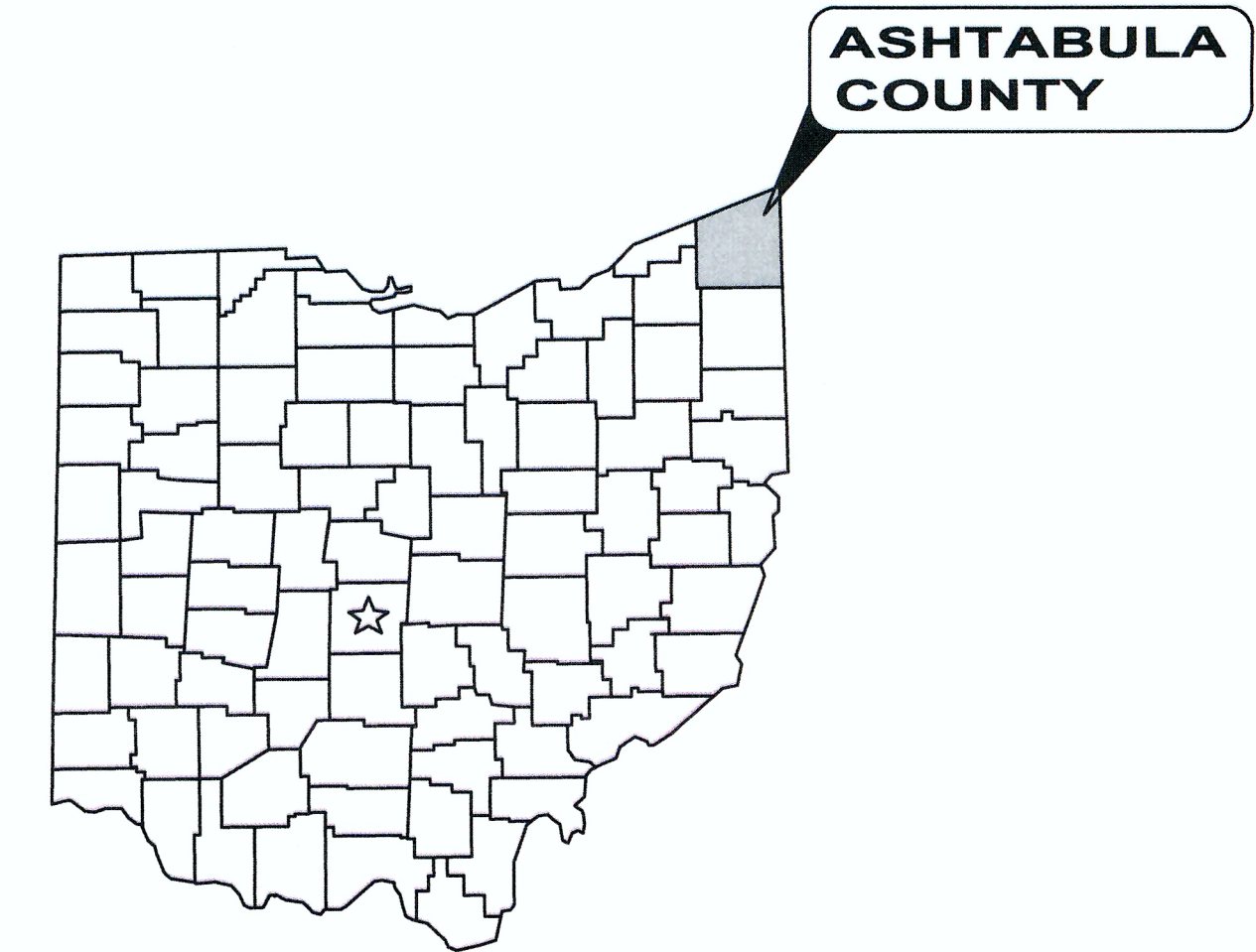


HARPERSFIELD TOWNSHIP, OHIO

APRIL 2023



LOCATION MAP
NOT TO SCALE



ASHTABULA COUNTY APPROVALS:

	5/9/23
KATHRYN L. WHITTINGTON, COUNTY COMMISSIONER	DATE
	5/9/23
CASEY R. KOZLOWSKI, COUNTY COMMISSIONER	DATE
	5/9/23
J.P. DUCRO IV, COUNTY COMMISSIONER	DATE

OHIO 811 DESIGN SERIAL NUMBER & UTILITY LIST:
XX - STATE ROUTE 534

OHIO UTILITY PROTECTION SERVICE: 106 WEST RYEN, ROOM 427 YOUNGSTOWN, OHIO 44051 (800) 362-2764	ALL-TEL: 360 HIGHLAND ROAD MACEDONIA, OHIO 44067 (800) 782-6206	ENVIRONMENTAL SERVICES: 36 W. WALNUT STREET JEFFERSON, OHIO 44047 (440) 576-3722 PHONE (440) 576-3781 FAX
CLEVELAND ELECTRIC ILLUMINATING CO.: 2210 SOUTH RIDGE ROAD ASHTABULA, OHIO 44004	SPRINT: PO BOX 3555 MANSFIELD, OHIO 44907 (800) 786-6272	TCI: 2904 STATE ROAD ASHTABULA, OHIO 44004 (440) 998-2148
THE EAST OHIO GAS COMPANY: 1010 WEST 30TH STREET ASHTABULA, OHIO 44004 (440) 992-5100		



- UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS.
- THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.

OWNER:

DOUG STARKEY, DIRECTOR OF ENVIRONMENTAL SERVICES
DATE: 5-3-2023

OFFICE:

ENVIRONMENTAL SERVICES
36 W. WALNUT STREET
JEFFERSON, OHIO 44047

ED SPOOR, LEAD PROJECT COORDINATOR - WATER
(440) 576-3722 PHONE
(440) 576-3781 FAX

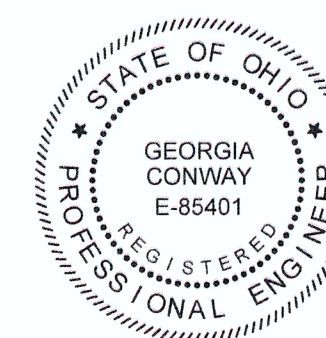
ENGINEER:

CT CONSULTANTS, INC.
8150 STERLING COURT
MENTOR, OH 44060

(440) 951-9000 PHONE
(440) 951-7487 FAX

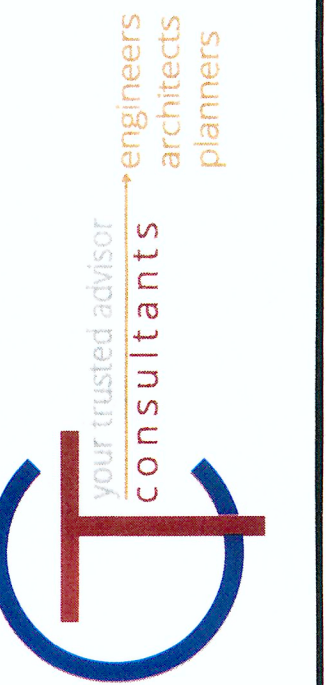
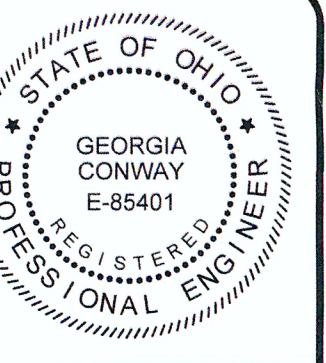
PROJECT SITE:

THE PROJECT SCOPE INCLUDES A PROPOSED WATERLINE EXTENSION, LOCATED OFF OF STATE ROUTE 534, ALONG SOUTH RIVER ROAD, FROM STOLTZ ROAD TO STATE ROUTE 534 IN HARPERSFIELD TOWNSHIP, OHIO 44041.



GEORGIA CONWAY, P.E.
P.E. No. 85401
DATE: 04/09/2024

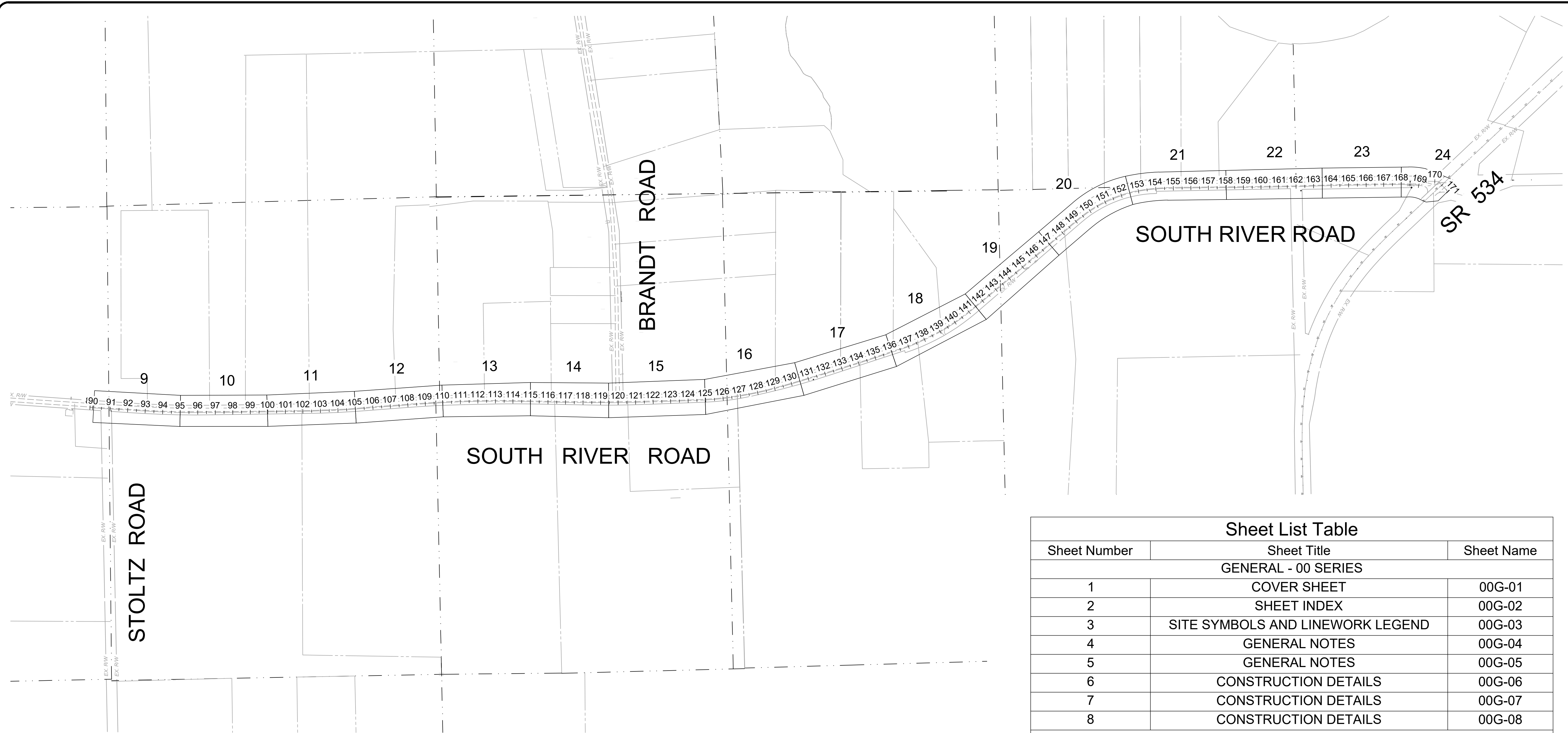
ENGINEER'S PROJECT No. 220544



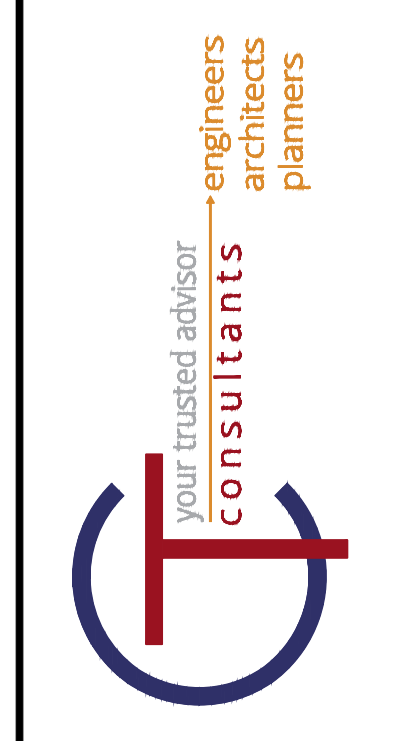
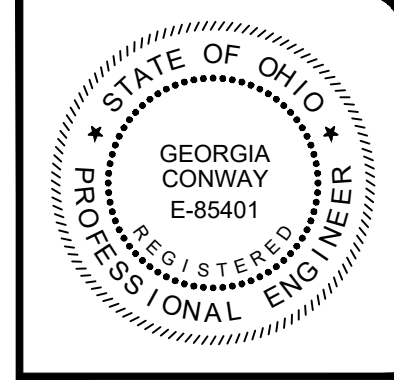
DATE	REVISION	NO	ISSUED FOR: EPA REVIEW	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
				02/17/2023			

ASHTABULA COUNTY	
DEPARTMENT OF ENVIRONMENTAL SERVICES	
SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT	
ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO	
GENERAL - 00 SERIES	COVER SHEET

PROJECT NO:	
220544	
DRAWING NAME	
00G-01	
SHEET	OF
1	24



Sheet List Table		
Sheet Number	Sheet Title	Sheet Name
GENERAL - 00 SERIES		
1	COVER SHEET	00G-01
2	SHEET INDEX	00G-02
3	SITE SYMBOLS AND LINEWORK LEGEND	00G-03
4	GENERAL NOTES	00G-04
5	GENERAL NOTES	00G-05
6	CONSTRUCTION DETAILS	00G-06
7	CONSTRUCTION DETAILS	00G-07
8	CONSTRUCTION DETAILS	00G-08
PLAN AND PROFILES - 01 SERIES: RIVER ROAD (STOLTZ TO SR 534)		
9	STA. 90+00 TO STA. 95+00	0G-01
10	STA. 95+00 TO STA. 100+00	0G-02
11	STA. 100+00 TO STA. 105+00	0G-03
12	STA. 105+00 TO STA. 110+00	0G-04
13	STA. 110+00 TO STA. 115+00	0G-05
14	STA. 115+00 TO STA. 119+50	0G-06
15	STA. 119+50 TO STA. 125+00	PP-07
16	STA. 125+00 TO STA. 130+50	PP-08
17	STA. 130+50 TO STA. 136+00	PP-09
18	STA. 136+00 TO STA. 141+50	PP-10
19	STA. 141+50 TO STA. 147+00	PP-11
20	STA. 147+00 TO STA. 152+50	PP-12
21	STA. 152+50 TO STA. 158+00	PP-13
22	STA. 158+00 TO STA. 163+50	PP-14
23	STA. 163+50 TO STA. 168+00	PP-15
24	STA. 168+00 TO END	PP-16



NO	REVISION	DATE

ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
GENERAL - 00 SERIES
SHEET INDEX

PROJECT NO:	
220544	
DRAWING NAME	
00G-02	
SHEET	OF
2	24

EXCAVATION, BACKFILL, AND COMPACTION:

- 1. ALL UTILITY LINES (i.e. STORM SEWERS, STORM LATERALS, SANITARY LATERALS, WATER MAINS, WATER SERVICE CONNECTIONS, GAS MAINS, GAS SERVICE CONNECTIONS, UNDERGROUND OBT CONDUITS, CABLE T.V. LINES) CROSSING THE PROPOSED IMPROVEMENTS, WHETHER SHOWN OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AND SUPPORTED WITH HARDWOOD PLANKS OR REMOVED AND REPLACED, RECONNECTED AND SUPPORTED ACROSS THE ENTIRE WIDTH OF THE TRENCH. NO ADDITIONAL COMPENSATION WILL BE PAID FOR THE ABOVE WORK. IF ANY OF THESE LINES ARE DAMAGED DURING CONSTRUCTION, THEY SHALL BE REPLACED.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER FORTY-EIGHT (48) HOURS IN ADVANCE OF BEGINNING WORK WHICH REQUIRES COMPACTION TESTING AND/OR PRE-POUR INSPECTION PRIOR TO PLACEMENT OF PAVEMENT. WORK WILL NOT BEGIN UNTIL TESTING AND/OR INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE ENGINEER.

MAINTENANCE OF TRAFFIC:

- 1. A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT AND ITEM 614 - TEMPORARY PAVEMENT MARKINGS. ACCESS TO ALL DRIVEWAYS SHALL ALSO BE MAINTAINED AT ALL TIMES EXCEPTING THE TIME WHEN CONCRETE CURB OR DRIVE APRONS ARE CURING.
2. PRIOR TO THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL SUBMIT TO THE COUNTY A PROPOSED PROJECT CONSTRUCTION SCHEDULE AND A DETAILED MAINTENANCE OF TRAFFIC PLAN. BOTH THE SCHEDULE AND MAINTENANCE OF TRAFFIC PLAN SHALL BE APPROVED BY THE COUNTY AND ODOT PRIOR TO THE START OF CONSTRUCTION.
3. MAINTAINING TRAFFIC SHALL BE IN ACCORDANCE WITH ODOT CONSTRUCTION & MATERIALS SPECIFICATIONS (CMS) ITEM 614 AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN SAFE AND SATISFACTORY LOCAL ACCESS, VEHICULAR AND PEDESTRIAN, TO ALL ABUTTING PROPERTIES WITHIN THE PROJECT. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND SUBSEQUENTLY REMOVE ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, BARRIERS, TEMPORARY PAVEMENT, LIGHTING, FLAGMEN, CONSTRUCTION SIGNING AND OTHER TRAFFIC CONTROLS SO AS TO AVOID DAMAGE AND/OR INJURY TO AND ENSURE THE SAFETY OF VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION BOTH WITHIN AND OUTSIDE OF THE PROJECT LIMITS.
5. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND ON THE ODOT STANDARD MAINTENANCE OF TRAFFIC DRAWINGS.

ENVIRONMENTAL PROTECTION - PROHIBITED CONSTRUCTION ACTIVITIES:

- 1. LOCATING STOCKPILE STORAGE AREAS IN ENVIRONMENTALLY SENSITIVE AREAS.
2. INDISCRIMINATE, ARBITRARY OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, WETLANDS, SURFACE WATERS OR OUTSIDE THE EASEMENT LIMITS.
3. PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, STREAM CORRIDORS, WETLANDS OR STORM SEWERS; ALL SUCH WATER WILL BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE.
4. DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE AND OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, WETLANDS, SURFACE WATERS, IMPOUNDMENTS OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO.
5. PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOW LINE OF ANY STREAM.
6. DAMAGING ANY VEGETATION OUTSIDE OF THE CONSTRUCTION AREA.
7. DISPOSAL OF TREES, BRUSH, AND OTHER DEBRIS IN ANY STREAM CORRIDORS, WETLANDS, SURFACE WATERS OR AT UNSPECIFIED LOCATIONS.
8. OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT.
9. STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED ON THE PLANS BY THE ENGINEER FOR SUCH PURPOSES.
10. RUNNING WELL POINT OR PUMP DISCHARGE LINES THROUGH PRIVATE PROPERTY OR PUBLIC PROPERTY AND RIGHTS-OF-WAY WITHOUT THE WRITTEN PERMISSION OF THE OWNER AND THE CONSENT OF THE ENGINEER.
11. OPERATIONS ENTAILING THE USE OF VIBRATORY HAMMERS OR COMPACTORS OUTSIDE THE HOURS OF 8:00 A.M. AND 4:30 P.M. OR OUTSIDE THE HOURS ALLOWED FOR CONSTRUCTION BY LOCAL ORDINANCES OR REGULATIONS.
12. CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE OR BOULEVARD WITHOUT THE PRIOR CONSENT OF MUNICIPAL OFFICIALS, STATE OF OHIO, THE ENGINEER, AND CLOSING CLEAR ACCESS:
- BY FIRE PROTECTION EQUIPMENT AND EMERGENCY VEHICLES.
- BY THE PUBLIC TO ANY COMMERCIAL OR PROFESSIONAL PLACE OF BUSINESS, QUASI-PUBLIC OR PUBLIC ESTABLISHMENT, OR PLACE OF RESIDENCE.
- BY VEHICLES TO DRIVEWAYS WITHOUT THE PROVISION OF ALTERNATIVE MEANS OF BUILDING INGRESS AND EGRESS.

WATER MAIN SPECIFICATIONS & NOTES:

- 1. WATER MAINS (3" THROUGH 36") SHALL BE PVC AWWA C909.
RESTRAINED PUSH-ON JOINTS SHALL BE COMPLETELY BOLTLESS; MCWANE SUPER-LOCK, AMERICAN FLEX-RING, U.S. PIPE TR FLEX, OR AS APPROVED. RESTRAINED MECHANICAL JOINTS SHALL BE MEGALUG AS MANUFACTURED BY EBAA IRON, INC., OR AS APPROVED, OF DUCTILE IRON AND WITH A WORKING PRESSURE OF AT LEAST 250 PSI AND A MINIMUM SAFETY FACTOR OF 2:1. MINIMUM LENGTH OF CUT PIECES OF WATER MAIN THAT MAY BE REUSED IS 5 LF.
2. FITTINGS SHALL BE DUCTILE IRON AND MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C153/A21.53 (FOR COMPACT FITTINGS). ALL FITTINGS AND ACCESSORIES SHALL BE FURNISHED WITH MECHANICAL TYPE JOINTS IN ACCORDANCE WITH ANSI/AWWA C111/A21.11.
ALL FITTINGS, BENDS, TEES, PLUGS, ETC. SHALL BE TIED TO THE WATER MAIN WITH EITHER M.J. TYPE CONNECTIONS, TIE RODS OR MEGA-LUGS. TIE RODS SHALL BE 3/4" DIAMETER STAINLESS STEEL. FOR 8" DIAMETER PIPE USE FOUR RODS.
3. POLYETHYLENE ENCASEMENT SHALL BE AN 8 MIL. THICK POLYETHYLENE TUBE MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C105/A21.5. POLYETHYLENE ADHESIVE TAPE, 2" WIDE, SHALL BE USED TO SEAL ALL JOINTS.
4. GATE VALVES SHALL BE RESILIENT SEAT, NON-RISING STEM WITH MECHANICAL JOINT TYPE ENDS WHICH MEET THE REQUIREMENTS OF AWWA C509. MECHANICAL JOINT ENDS SHALL COMPLY WITH AWWA C111; EXCEPT FOR TAPPING VALVES. THE OPERATING NUT SHALL BE 2" SQUARE, WHICH OPENS TO THE LEFT. VALVES SHALL COME EQUIPPED WITH A DOUBLE O-RING SEAL STUFFING BOX AND HAVE AN EPOXY COATING ON ALL EXTERIOR SURFACES WHICH COMPLIES WITH AWWA C550.
5. VALVE BOXES SHALL BE CAST IRON, TWO PIECE SCREW TYPE, 5/4" DIA. CONFORMING TO ASTM A-126. EACH PIECE SHALL BE COATED, INSIDE AND OUTSIDE WITH A COAL-TAR PITCH VARNISH, SIMILAR TO THAT USED FOR COATING CAST IRON PIPE. HEIGHT RANGE OF BOX ASSEMBLED SHALL BE 36" TO 60". EACH BOX SHALL INCLUDE A CAST IRON LID WITH THE WORD "WATER" CAST INTO THE TOP. ALL VALVE BOXES SHALL INCLUDE ONE 1 1/2" VALVE BOX RISER.
6. TAPPING SLEEVES SHALL HAVE A STAINLESS STEEL BODY WITH A DUCTILE IRON FLANGED OUTLET WHICH COMPLIES WITH ANSI B16.1, CLASS 125 AND WITH MSS SP-60. THE GASKET SHALL COMPLETELY SURROUND THE INSIDE OF THE STAINLESS STEEL BODY. THE SLEEVE SHALL COME EQUIPPED WITH A 1/2" NPT BRASS TEST PLUG. MAXIMUM WORKING PRESSURE FOR 4" - 12" SIZES (250 psig) AND FOR 14" - 24" SIZES (200 psig).
TAPPING VALVES SHALL MEET OR EXCEED ALL APPLICABLE REQUIREMENTS OF ANSI/AWWA C509. THE INLET FLANGE SHALL COMPLY WITH ANSI B16.1, CLASS 125 DRILLING. THE MECHANICAL JOINT OUTLET SHALL COMPLY WITH ANSI/AWWA C111. THE VALVE SHALL HAVE A NON-RISING STEM (NRS). THE OPERATING NUT SHALL BE 2" SQUARE, WHICH OPENS TO THE LEFT. VALVES SHALL COME EQUIPPED WITH A DOUBLE O-RING SEAL STUFFING BOX AND HAVE AN EPOXY COATING ON ALL EXTERIOR SURFACES WHICH COMPLIES WITH AWWA C550.

- 8. WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA C600. ALL TEST RESULTS MUST BE APPROVED BY THE COUNTY BEFORE INSTALLATION OF WATER SERVICES. COST SHALL BE SUBSIDIARY TO THE INSTALLATION OF WATER MAIN. TEST PRESSURE SHALL BE 150 PSI.
9. WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651. COST SHALL BE SUBSIDIARY TO THE INSTALLATION OF WATER MAIN.
10. THE PROPOSED WATER SYSTEM SHALL MAINTAIN A MINIMUM STATIC PRESSURE OF 35psi DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.
11. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.
12. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 10 FOOT HORIZONTAL SEPARATION AND 18 INCH VERTICAL SEPARATION BETWEEN THE PROPOSED WATER MAIN AND EXISTING STORM SEWERS AS MEASURED FROM OUTSIDE EDGE TO OUTSIDE EDGE UNLESS NOTED ON THE PLAN AND PROFILE SHEETS.
13. THE CONTRACTOR SHALL NOT OPERATE OR TURN ANY EXISTING WATER VALVE. IF VALVES NEED TO BE OPENED OR CLOSED HE SHALL NOTIFY THE COUNTY.
14. ALL ROUGH GRADING TO WITHIN SIX (6) INCHES OF FINISH GRADE SHALL BE COMPLETED OVER THE PROPOSED WATER MAIN PRIOR TO ITS INSTALLATION.
15. THE LOCATION OF EXISTING WATER UTILITIES AS SHOWN ON THESE PLANS WERE DETERMINED FROM AVAILABLE DATA AT THE TIME OF FIELD SURVEYING IN ACCORDANCE WITH SECTION 153.63 OF THE OHIO REVISED CODE.
16. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS, PAYING ALL FEES, AND FOLLOWING ALL REQUIREMENTS ASSOCIATED WITH THE PERMITS. THE COUNTY ASSUMES NO LIABILITY FOR NOT FOLLOWING THE ABOVE.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OHIO UTILITY PROTECTION SERVICE (OUPS) AS REQUIRED BY LAW.
18. NO WATERLINE TIE-INS SHALL BE DONE ON FRIDAYS OR THE DAY BEFORE A COUNTY HOLIDAY.
19. DEFLECT WATER MAIN AS REQUIRED TO MAINTAIN ALIGNMENT AS SHOWN ON PLANS. MAXIMUM DEFLECTION IS 3 DEGREES PER JOINT.
20. TEMPORARY BLOW-OFF AND FLUSHING ASSEMBLY:
A. PIPE SHALL BE TYPE K COPPER WITH COMPRESSION FITTINGS.
B. CORPORATION STOPS SHALL BE GROUND KEY DESIGN, CAST FROM A BRASS ALLOY AND CONFORM TO AWWA C800. INLET END SHALL HAVE AWWA TAPER THREADS. OUTLET END SHALL HAVE COPPER COMPRESSION QUARTER BEND CONNECTION. ALL TAPS SHALL BE MADE ON TOP OF THE WATER MAIN. CORPORATION STOPS AND QUARTER BENDS SHALL BE BLOCKED.
C. CURB VALVES (STOPS) SHALL BE ONE PIECE DESIGN, CAST FROM A BRASS ALLOY, CONFORM TO AWWA C800, HAVE A MAXIMUM WORKING PRESSURE OF 175 PSIG AND HAVE A QUARTER TURN CHECK. BOTH ENDS SHALL HAVE COPPER COMPRESSION FITTINGS.
D. LOCATIONS SHALL BE AS SHOWN ON THE DRAWINGS. AT A MINIMUM, CONTRACTOR SHALL INSTALL ADDITIONAL ASSEMBLIES AS NEEDED TO EXHAUST AIR AND TO COMPLY WITH REGULATIONS REGARDING PRESSURE TESTING, BACTERIA SAMPLING AND FLUSHING.
E. AT COMPLETION OF TESTING, CLOSE CORPORATION STOP, REMOVE COPPER PIPING AND INSERT PLUG ON CORPORATION STOP.
F. NO SEPARATE PAYMENT SHALL BE MADE FOR TEMPORARY BLOW-OFFS AND FLUSHING ASSEMBLIES.
21. FIRE HYDRANTS SHALL BE POST TYPE WITH A BREAKABLE FLANGE DESIGN. THE MAIN VALVE SHALL BE 5 1/2", OPENING LEFT WITH ONE 4 1/2" STEAMER/PUMPER NOZZLE AND TWO 2 1/2" HOSE NOZZLES, ALL WITH NATIONAL STANDARD THREADS UNLESS OTHERWISE SPECIFIED. THE OPENING NUT SHALL BE PENTAGONAL IN SHAPE. HYDRANTS SHALL HAVE A 6" MECHANICAL JOINT TYPE SHOE WITH A 5'-0" BURY DEPTH. HYDRANTS SHALL BE SHIPPED WITH A RED UPPER BARREL, WHITE BONNET, AND CAPS ON ALL NOZZLES MEETING ALL STANDARDS OF AWWA C502.

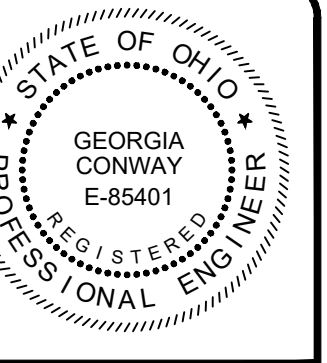
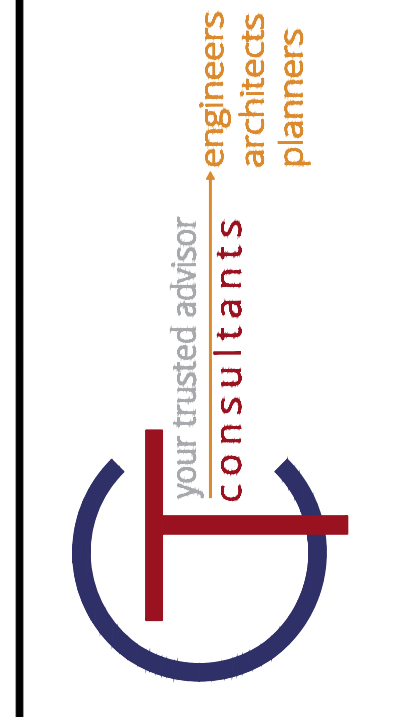
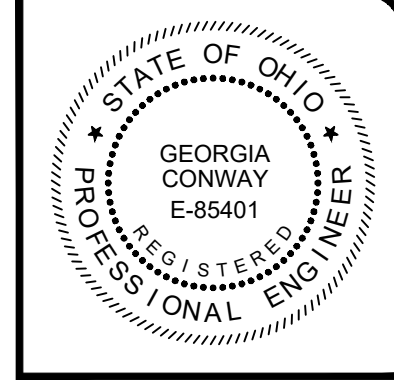


Table with 2 columns: NO, REVISION, and DATE.

Table with 5 columns: ISSUED FOR: EPA REVIEW, DATE: 02/17/2023, DESIGNED BY: PAB, DRAWN BY: PAB, CHECKED BY: GBC.

ASHTABULA COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO GENERAL - 00 SERIES GENERAL NOTES

Table with 2 columns: PROJECT NO: 220544, DRAWING NAME: 00G-04, SHEET: 4, OF: 24.



NO	REVISION	DATE

ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: PAB	DRAWN BY: PAB	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
 DEPARTMENT OF ENVIRONMENTAL SERVICES
 SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
 ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
 GENERAL - 00 SERIES
 GENERAL NOTES

PROJECT NO:	
220544	
DRAWING NAME	
00G-05	
SHEET	OF
5	24

GENERAL:

- THE CONTRACTOR SHALL PERFORM ALL OF THE WORK AND FURNISH ALL OF THE LABOR AND MATERIALS NECESSARY FOR THE FINAL COMPLETION OF THIS CONTRACT IN THE MANNER AND UNDER THE CONDITIONS HEREIN SPECIFIED AND PROVIDED AND IN ACCORDANCE WITH THE CONTRACT DRAWINGS.
- THE CONTRACTOR SHALL NOTIFY ASHTABULA COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE A PRE-CONSTRUCTION MEETING. NO WORK SHALL BEGIN UNTIL A PRE-CONSTRUCTION MEETING HAS BEEN HELD.
- A PRE-CONSTRUCTION VIDEO TAPE OF THE PROJECT AREA WILL BE REQUIRED AND SUBMITTED TO THE ENGINEER BEFORE CONSTRUCTION BEGINS.
- ACCESS TO ALL DRIVEWAYS WILL BE MAINTAINED AT ALL TIMES EXCEPT THE TIME WHEN UTILITY INSTALLATION AND PAVEMENT REPLACEMENT WILL NOT PERMIT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING A SITE FOR DISPOSAL OF ALL EXCAVATED MATERIAL THAT IS UNSUITABLE FOR USE AS BACKFILL AND ALL OTHER EXCESS EXCAVATED MATERIALS. THE CONTRACTOR SHALL PROVIDE THE COUNTY WITH THE LOCATION OF THE DISPOSAL SITE AND WRITTEN PERMISSION FOR USE OF THE SITE FROM THE PROPERTY OWNER.
- ALL OVER-THE-ROAD VEHICLES USED ON THE PROJECT BY ALL CONTRACTORS AND SUBCONTRACTORS WILL BE CLEARLY MARKED SHOWING ITS COMPANY SYMBOL.
- BEFORE THE COUNTY WILL APPROVE AND ACCEPT THE WORK AND RELEASE THE GUARANTY RETAINER, THE CONTRACTOR WILL FURNISH CONCORD TOWNSHIP A WRITTEN REPORT INDICATING THE RESOLUTION OF ANY AND ALL PROPERTY DAMAGE CLAIMS FILED WITH THE CONTRACTOR BY ANY PARTY DURING THE CONSTRUCTION PERIOD. THE INFORMATION TO BE SUPPLIED SHALL INCLUDE, BUT NOT BE LIMITED TO, NAME OF CLAIMANT, DATE FILED WITH CONTRACTOR, NAME OF INSURANCE COMPANY AND/OR ADJUSTOR HANDLING CLAIM, HOW CLAIM WAS RESOLVED AND IF CLAIM WAS NOT RESOLVED FOR THE THE FULL AMOUNT, A STATEMENT INDICATING THE REASON FOR SUCH ACTION.
- MATERIALS FOR "AS-DIRECTED" ITEMS SHALL NOT BE ORDERED OR DELIVERED TO THE PROJECT SITE OR WORK PERFORMED UNTIL AUTHORIZED BY THE ENGINEER.
- ALL SHOP DRAWINGS WILL BE SUBMITTED TO THE ENGINEER FOR CHECKING.
- THE CONTRACTOR SHALL PERFORM WORK AS TO NOT DISTURB, DAMAGE OR DESTROY ANY MAILBOX, PAPERBOX, TELEPHONE OR POWER POLES, SIGNS, LANDSCAPING ITEMS, ETC.. ANY ITEM DAMAGED OR DESTROYED SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ANY ITEM DISTURBED OR IN CONFLICT WITH THE WORK TO BE PERFORMED SHALL BE REMOVED AND RESET AT THE CONTRACTOR'S EXPENSE. PRIOR ENGINEER APPROVAL IS REQUIRED BEFORE ANY OF THE ABOVE ITEMS ARE PERFORMED.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY, WHEN ORDERED BY THE OWNER, WATER OR CALCIUM CHLORIDE FOR THE ALLEVIATION OR PREVENTION OF DUST NUISANCE ORIGINATING FROM HIS CONSTRUCTION ACTIVITIES. SUFFICIENT QUANTITIES OF CALCIUM CHLORIDE SHALL BE STORED ON THE JOB SITE AT ALL TIMES TO BE USED FOR DUST CONTROL.
- ALL SOIL AREAS DISTURBED SHALL BE TOPSOILED (4" THICK), SEEDED AND MULCHED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE INSTALLING ANY PROPOSED CONDUIT. ANY ADJUSTMENTS NEEDED SHALL BE APPROVED BY THE ENGINEER.

TEMPORARY PAVEMENT AND MAINTENANCE OF TRAFFIC:

- THE CONTRACTOR SHALL REMOVE ALL PAVEMENTS AND ROAD SURFACES WITHIN THE LINES OF EXCAVATION IN ACCORDANCE WITH THE PLANS AND DETAILS. AFTER THE PAVEMENT HAS BEEN REMOVED AND THE PIPE HAS BEEN LAID, ALL APPURTENANT WORK CONSTRUCTED AND BACKFILL COMPLETED, THE CONTRACTOR SHALL FURNISH, PLACE AND MAINTAIN WHEREVER THE PLACEMENT OF ROAD AND SURFACE HAS BEEN REMOVED OR DAMAGED, A TEMPORARY PAVEMENT IN THE PAVED PORTION OF STREETS AND DRIVEWAYS SO AS TO PROVIDE A SAFE AND PASSABLE ROADWAY UNTIL SUCH TIME AS THE FINAL PAVEMENT IS COMPLETED. ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES EXCEPT BRIEFLY DURING WORKING HOURS WHEN CONSTRUCTION ACTIVITIES PROHIBIT.

PROTECTION AGAINST VANDALISM:

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE SUFFICIENT SITE SECURITY MEASURES AND / OR PERSONNEL TO PROTECT ALL NEW CONCRETE WORK FROM VANDALISM UNTIL THE CONCRETE IS SUFFICIENTLY CURED AT NO ADDITIONAL COST.

RESTORATION:

- THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS AND MATERIALS RESULTING FROM HIS OPERATION AND RESTORE ALL SURFACES, STRUCTURES, DITCHES AND PROPERTY TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER. ANY DITCHES DISTURBED DURING CONSTRUCTION SHALL BE REGRADED BY THE END OF THE SAME WORKDAY.
- ALL EXISTING STORM AND SANITARY SEWER FACILITIES, INCLUDING TILE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED, REPLACED OR RECONNECTED TO THE EXISTING OR PROPOSED SYSTEM AS DIRECTED BY THE ENGINEER AT NO COST TO THE OWNER.

SANITARY, STORM, AND WATER SERVICE CONNECTIONS:

- THE FOLLOWING NOTES APPLY TO SANITARY, STORM, AND WATER CONNECTIONS
 - LOCATIONS OF EXISTING SERVICE CONNECTIONS ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING CONNECTIONS AT NO ADDITIONAL COST TO THE COUNTY. THE CONTRACTOR SHALL RECORD ACTUAL LOCATION INFORMATION ON HIS RECORD DRAWINGS AS CONSTRUCTION OCCURS.
 - THERE SHALL BE NO ADDITIONAL PAYMENT MADE FOR SAW CUTTING, EXCAVATION OR BACKFILL, INCLUDING MATERIALS AND LABOR FOR, PIPING, CAPS, BULKHEADS AND APPURTENANCES PLACED FOR LATERALS WHICH ARE DETERMINED TO BE INACTIVE AND THUS ARE TO BE ABANDONED.
 - NO INACTIVE LATERALS SHALL BE RECONNECTED TO THE SEWER.

ROADWAY EXCAVATION AND PAVEMENT:

- ALL PAVEMENT REMOVAL AND REPLACEMENT, NEW PAVEMENT AND ASSOCIATED ROADWAY WORK WILL BE IN ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS. STANDARD CONSTRUCTION DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS, CURRENT ISSUE, WITH THE MODIFICATIONS AS SET FORTH IN THESE SPECIFICATIONS.

METER BOXES, VALVES BOXES, STRUCTURES ADJUSTED TO GRADE:

- ALL EXISTING MANHOLES, CATCH BASINS, MONUMENT BOXES, WATER METER BOXES, WATER VALVE BOXES, GAS VALVE BOXES OR OTHER EXISTING UTILITY APPURTENANCES WITHIN THE WORK LIMITS SHALL BE ADJUSTED TO THE PROPOSED GRADE AND FLUSH WITH THE NEW SURFACE. ANY METER OR VALVE BOX ENCOUNTERED WITHIN THE WORK SITE SHALL BE EXPOSED. CONTRACTOR TO SUPPLY 1" RISER FOR ALL VALVE BOXES ADJUSTED TO GRADE.

EXCESS EXCAVATION:

- ALL EXCESS EXCAVATION SHALL BE DISPOSED OF IN A LOCATION TO BE SELECTED BY THE CONTRACTOR. THE CONTRACTOR MUST OBTAIN A PERMIT FROM THE COUNTY IF THE MATERIAL IS TO BE DISPOSED OF WITHIN THE COUNTY LIMITS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL CONSTRUCTION MATERIALS/DEBRIS.

PRESERVATION OF PROPERTY CORNERS AND SURVEY MARKERS:

- THE CONTRACTOR WILL CAREFULLY PRESERVE BENCH MARKS, PROPERTY CORNERS, REFERENCE POINTS, AND STAKES AND IN CASE OF DISTURBANCE, HE SHALL ENGAGE A REGISTERED SURVEYOR TO REPLACE THEM AT HIS EXPENSE AND SHALL BE RESPONSIBLE FOR ANY MISTAKES THAT MAY BE CAUSED BY THEIR LOSS OR DISTURBANCE.

SUBSURFACE CONDITIONS:

- IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS BID.

STATIONING AND LOCATIONS:

- ALL LOCATIONS AND ITEMS CALLED OUT BY STATION ARE SUBJECT TO ADJUSTMENT IN THE FIELD AS APPROVED BY THE ENGINEER.

NOISE CONTROL:

- CONSTRUCTION ACTIVITIES WILL BE LIMITED TO WEEKDAY DAYTIME HOURS UNLESS APPROVED 48 HOURS IN ADVANCE BY THE COUNTY.

LANDSCAPING BEDS, PLANTINGS AND TREE PROTECTION/ REMOVAL:

- ANY LANDSCAPING BEDS, PLANTINGS AND TREES DISTURBED BY CONSTRUCTION ACTIVITIES BEYOND THE RIGHT-OF-WAY SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR REPLACED AS DIRECTED BY THE COUNTY.
- ALL TREES WITHIN THE RIGHT-OF-WAY THAT ARE IN CONFLICT WITH CONSTRUCTION ARE TO BE REMOVED BY THE CONTRACTOR AND ARE TO BE INCLUDED IN THE COST FOR CLEARING AND GRUBBING.

SALVAGED ITEMS:

- THE COUNTY SHALL RECEIVE ALL SALVAGED ITEMS SUCH AS MANHOLE CASTINGS, FIRE HYDRANTS, VALVE CAPS, ETC. THE COUNTY HAS THE RIGHT OF FIRST REFUSAL FOR ALL STEEL REMOVED FROM THE PROJECT.

EXISTING UTILITIES:

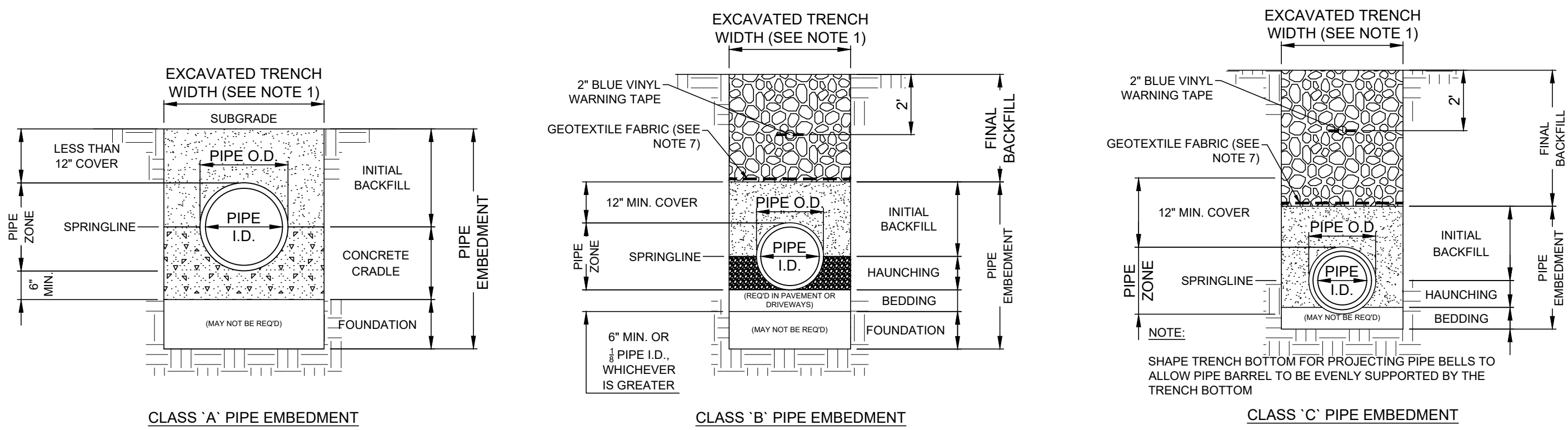
- EACH CONTRACTOR SHALL VISIT THE SITE PERSONALLY TO ASCERTAIN THE NATURE OF THE WORK AND THOROUGHLY FAMILIARIZE HIMSELF WITH THE SITE PRIOR TO BID SUBMISSION.
- THE DATA SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE EXISTENCE OF FACILITIES ABOVE OR BELOW GROUND, WHICH MAY NOT BE SHOWN, MAY NOT BE A BASIS FOR A CLAIM FOR EXTRA WORK.
- THE LOCATIONS OF THE UNDERGROUND UTILITIES ARE PLOTTED ACCORDING TO THE INFORMATION FURNISHED BY THE UTILITIES CONCERNED AND THE COUNTY DOES NOT GUARANTEE THE ACCURACY THEREOF. CONTRACTOR ALSO TO COORDINATE HIS WORK WITH THE COUNTY. THE ILLUMINATING CO., DOMINION EAST OHIO GAS COMPANY AND CHARTER COMMUNICATIONS FOR GAS LINE AND/OR POLE RELOCATION.
- WHERE EXISTING POWER OR TELEPHONE POLES ARE IN CLOSE PROXIMITY TO WORK, THE CONTRACTOR SHALL COORDINATE HIS WORK EFFORTS WITH THOSE OF THE UTILITY COMPANIES SUCH THAT THEIR EXISTING FACILITIES CAN BE MAINTAINED AND PROTECTED DURING THE TIME WORK IS GOING ON ADJACENT TO THE POLE. THE COST FOR ANY REQUIRED PROTECTION OR RELOCATION OF EXISTING POWER OR TELEPHONE POLES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NOT THAT OF THE COUNTY.
- DELAYS TO THE CONTRACTOR AS A RESULT OF POLE RELOCATION OR PROTECTION SHALL NOT BE CONSIDERED COMPENSABLE DELAYS. AS IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS WORK IN CONFORMANCE TO THE UTILITY COMPANY'S SCHEDULE.
- BEFORE ANY WORK IS STARTED THAT WILL INTERFERE WITH THE EXISTING UTILITIES, THE CONTRACTOR SHALL CALL THE "OHIO UTILITIES PROTECTION SERVICE" AT 1-800-362-2764, FORTY-EIGHT (48) HOURS IN ADVANCE OF THE WORK. NON-MEMBER UTILITIES MUST BE CONTACTED DIRECTLY. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS, AT NO ADDITIONAL EXPENSE TO THE COUNTY, TO AVOID DAMAGE TO EXISTING UNDERGROUND AND OVERHEAD UTILITY LINES DURING THE ENTIRE PROJECT. IN THE EVENT OF DAMAGE TO EXISTING PUBLIC AND/OR PRIVATE UTILITIES, THE AGENCY CONCERNED SHALL BE NOTIFIED IMMEDIATELY AND ALL REPAIR WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE AGENCY AT NO ADDITIONAL EXPENSE TO THE COUNTY, INCLUDING ANY INSPECTION FEES OR MAINTENANCE CREWS. THE UTILITY OWNERSHIPS ARE LISTED BELOW.
- WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.
- IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.
- IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

CLEARING OF TREES

- THIS PROJECT IS WITHIN THE RANGE OF THE STATE AND FEDERALLY ENDANGERED INDIANA BAT (MYOTIS SODALIS), AND THE STATE ENDANGERED AND FEDERALLY THREATENED NORTHERN LONG-EARED BAT (MYOTIS SEPTENTRIONALIS), AND MAY IMPACT SUMMER ROOSTING HABITAT FOR THESE SPECIES. PER U.S. FISH AND WILDLIFE RECOMMENDATIONS, THE REMOVAL OF TREES GREATER THAN OR EQUAL TO 3-INCHES IN DIAMETER SHOULD ONLY OCCUR BETWEEN OCTOBER 1 AND MARCH 31. IF THIS TIME FRAME CANNOT BE FOLLOWED, THE U.S. FISH AND WILDLIFE SERVICE (614-416-8993) MUST BE CONTACTED PRIOR TO CUTTING FOR GUIDANCE TO CONDUCT AN EMERGENCE SURVEY TO DOCUMENT THE ABSENCE OR PRESENCE OF THESE SPECIES.

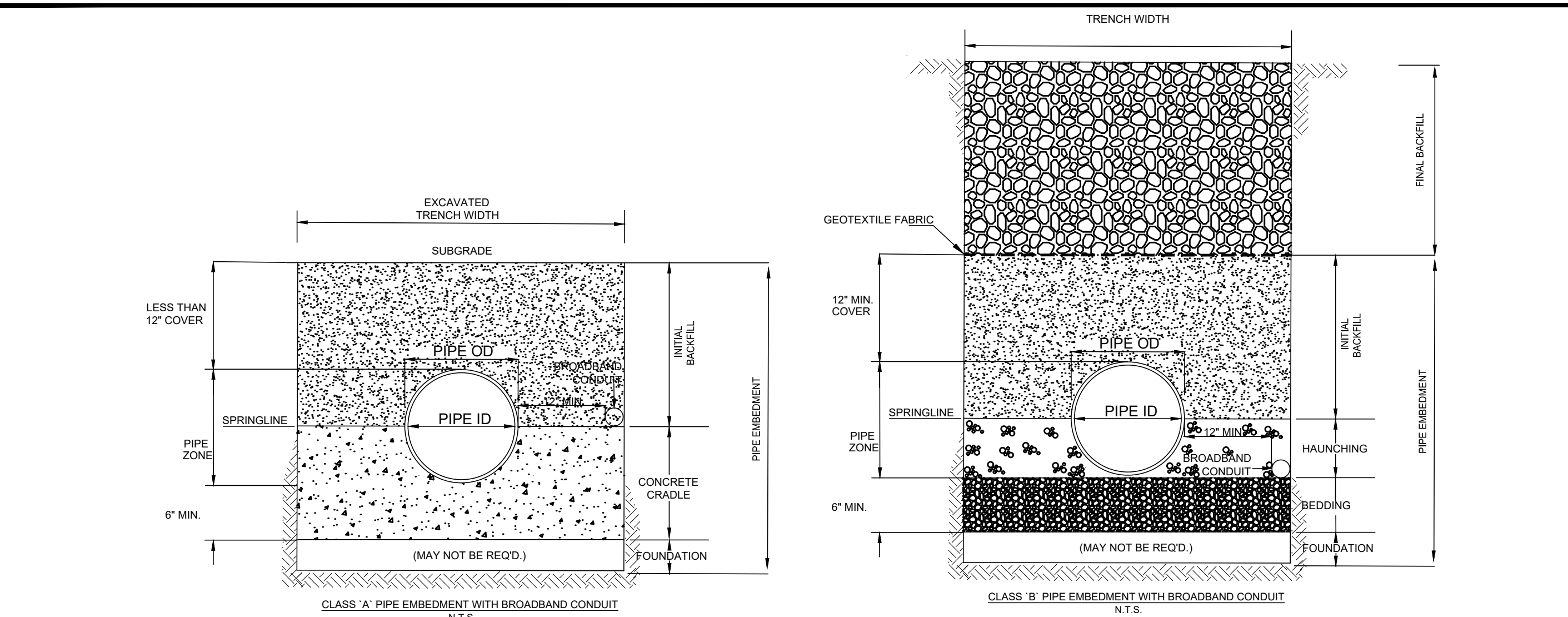
DISCOVERY OF ARCHAEOLOGICAL/HISTORICAL RESOURCES DURING CONSTRUCTION

- CONTRACTORS AND SUBCONTRACTORS ARE REQUIRED UNDER OHIO REVISED CODE SECTION 149.53 TO NOTIFY THE OHIO HISTORICAL SOCIETY AND THE OHIO HISTORIC SITE PRESERVATION BOARD OF ARCHAEOLOGICAL DISCOVERIES LOCATED IN THE PROJECT AREA AND TO COOPERATE WITH THOSE ENTITIES IN ARCHAEOLOGICAL AND HISTORIC SURVEYS AND SALVAGE EFFORTS IF SUCH DISCOVERIES ARE UNCOVERED WITHIN THE PROJECT AREA.



- NOTES:**
- MAXIMUM EXCAVATED TRENCH WIDTH: THE MAXIMUM EXCAVATED TRENCH WIDTH FROM THE BOTTOM OF THE TRENCH TO 12" OVER THE TOP OF THE PIPE (WITHIN PIPE EMBEDMENT) SHALL BE O.D. + 24" FOR ALL PIPES UP TO AND INCLUDING 24" I.D. + 30" FOR PIPE FROM 24" I.D. TO 54" I.D. AND O.D. + 48" FOR PIPES SIZES 60" I.D. AND OVER.
 - FOUNDATION: WHERE AN UNSTABLE TRENCH BOTTOM CONDITION IS ENCOUNTERED, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH MATERIAL AS DIRECTED BY THE ENGINEER.
 - PIPE EMBEDMENT:
 - CLASS A:** CLASS A PIPE EMBEDMENT SHALL BE USED FOR ALL PIPING UNDER PAVEMENT OR STRUCTURES WITH LESS THAN 12 INCHES OF PIPE COVER TO THE SUBGRADE. THE CONCRETE CRADLE SHALL BE IN ACCORDANCE WITH ODOT ITEM 499, CLASS "C". THE INITIAL BACKFILL SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT.
 - CLASS B:** CLASS B PIPE EMBEDMENT SHALL BE USED FOR ALL PIPING UNLESS OTHERWISE NOTED ON THE PLANS OR AUTHORIZED BY THE ENGINEER. THE BEDDING AND HAUNCHING SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT. IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT. IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER FOR ONLY REINFORCED CONCRETE PIPE AND DUCTILE IRON PIPE. THE INITIAL BACKFILL FOR ALL OTHER PIPES SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT.
 - CLASS C:** CLASS C PIPE EMBEDMENT SHALL ONLY BE USED FOR DUCTILE IRON WATER MAIN, DUCTILE IRON FORCE MAINS OR AS AUTHORIZED BY THE ENGINEER. THE PIPE EMBEDMENT SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE. THE PIPE EMBEDMENT SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE. WHERE ROCK OR SHALE IS ENCOUNTERED, A MINIMUM 6-INCHES OF AASHTO NO. 57 OR NO. 67 GRANULAR PIPE BEDDING OR SAND BEDDING SHALL BE PLACED AS DIRECTED BY THE ENGINEER.
 - FINAL BACKFILL: IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE THE FINAL BACKFILL SHALL BE SPECIAL BACKFILL MATERIAL. IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE, THE FINAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER.
 - SPECIFICATIONS: ALL TRENCHING, PIPE EMBEDMENT AND BACKFILL MATERIALS SHALL BE IN ACCORDANCE WITH SPECIFICATION 02300CT - EARTHWORK.
 - GEOTEXTILE FABRIC: INSTALL A GEOTEXTILE FABRIC IN ACCORDANCE WITH ODOT 712.09, TYPE A, AFTER ALL INITIAL BACKFILL CONSISTING OF AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT.
 - DETECTOR TAPE: IF REQUIRED IN THE SPECIFICATIONS, INSTALL DETECTABLE WARNING TAPE ABOVE UTILITIES, 24" BELOW FINISHED GRADE, EXCEPT 6 INCHES BELOW SUBGRADE UNDER PAVEMENT AND SLABS.

TRENCHING, EMBEDMENT, AND BACKFILL DETAIL
NOT TO SCALE



CONDUIT SPECIFICATIONS:

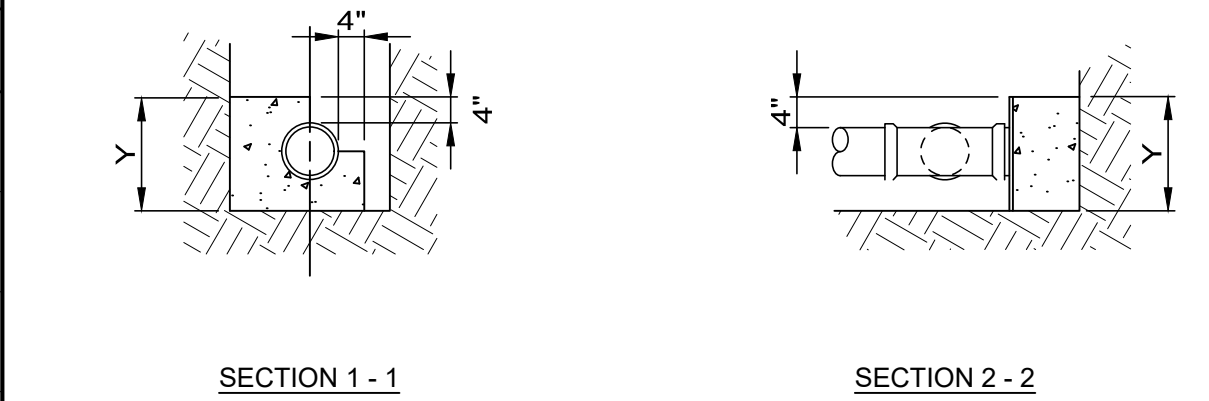
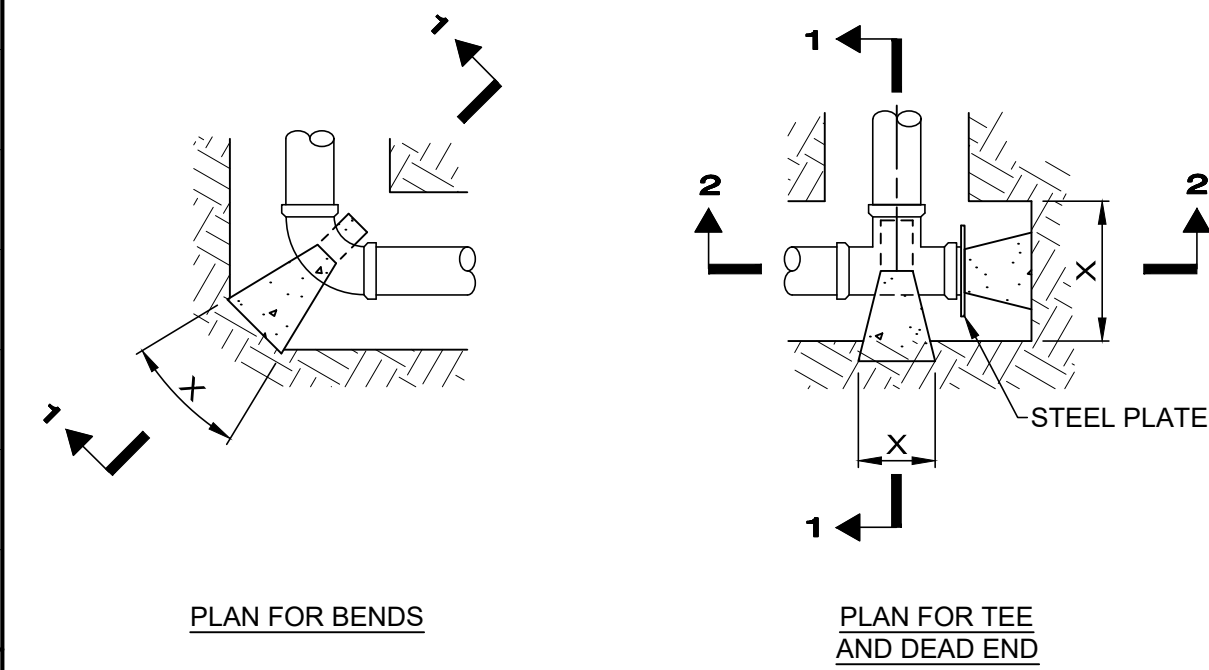
- MATERIAL: STANDARD SMOOTHWALL HDPE.
- MANUFACTURER: DURALINE OR APPROVED EQUIVALENT.
- DIAMETER: 2"
- INSTALLATION: THE CONDUIT SHALL BE OFFSET FROM THE WATERLINE AS SHOWN ON THE DETAILS, ON OPPOSITE SIDE OF THE ROAD, TO REDUCE THE RISK ON CONDUIT BEING DAMAGED BY A WATER MAIN BREAK. A PULL TAPE SHALL BE INSTALLED IN THE CONDUIT TO FACILITATE FUTURE CABLE INSTALLATION. AFTER CONDUIT HAS BEEN INSTALLED, THE CONTRACTOR SHALL ENSURE THE PULL TAPE CAN MOVE FREELY INDICATING NO OBSTRUCTIONS IN THE CONDUIT.
- IDENTIFICATION: INCLUDE BURIED WARNING TAPE ABOVE THE CONDUIT IN ACCORDANCE WITH SPECIFICATION 310000.

HANDHOLE / PULL CHAMBER SPECIFICATIONS:

- HANDHOLES ARE UNDERGROUND ENCLOSURES FOR PULLING OF CABLES, INSPECTIONS, AND REPAIRS.
- CONDUIT SHALL ENTER VAULTS FROM THE SIDEWALL THROUGH OPENINGS CREATED PER MANUFACTURER INSTRUCTIONS.
- CONDUIT SHALL PROTRUDE BEYOND EXTERIOR WALL OF THE VAULT BETWEEN 1 AND 3 INCHES.
- MAKE AND MANUFACTURER: HUBBEL 24" X 36" X 24" POLYMER CONCRETE BOX OR APPROVED EQUIVALENT.
- PULL CHAMBERS SHALL BE PLACED AT ROAD INTERSECTIONS AND INTERVALS NO EXCEEDING 600FT.

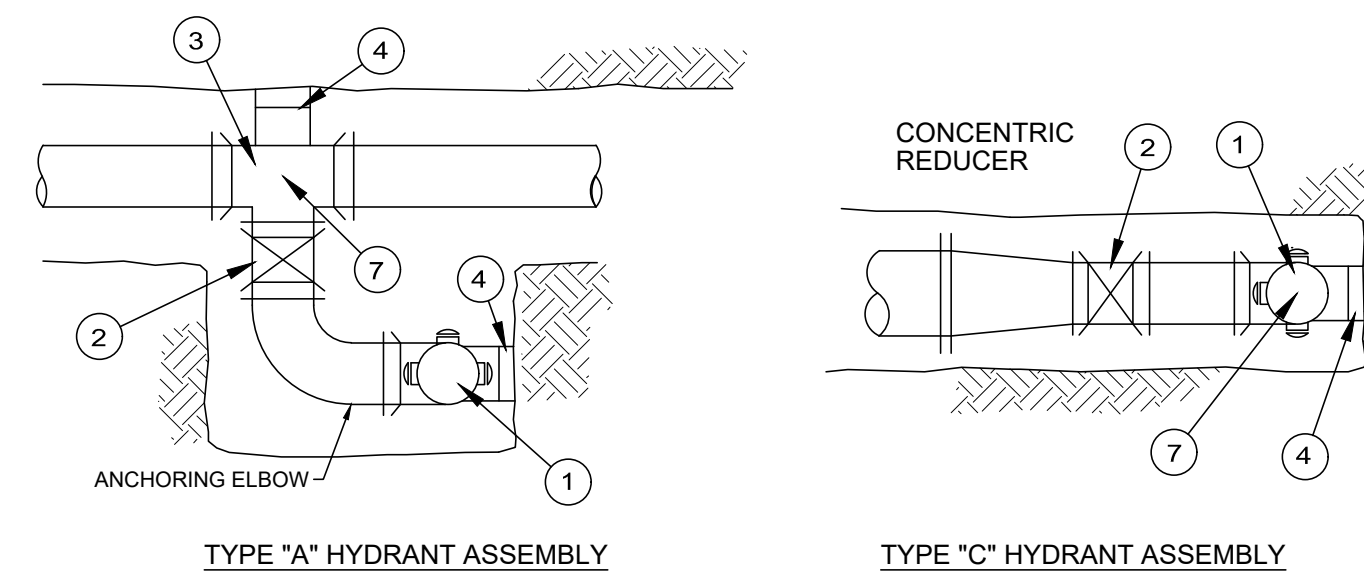
BROADBAND CONDUIT DETAIL
NOT TO SCALE

PIPE SIZE	BEARING FACE (X Y) IN SQ. FT. CONCRETE VOLUME IN CU. YD.					
	22-1/2° BEND SOIL BEARING CAPACITY			45° BEND SOIL BEARING CAPACITY		
	1,000 P.S.F.	3,000 P.S.F.	5,000 P.S.F.	1,000 P.S.F.	3,000 P.S.F.	5,000 P.S.F.
4	1.40	0.46	0.26	2.70	0.90	0.54
6	0.14	0.09	0.06	0.12	0.06	0.06
8	2.80	0.93	0.56	5.50	1.83	1.10
10	1.15	0.10	0.07	0.15	0.10	0.07
12	4.80	1.60	0.96	9.60	3.20	1.92
14	0.20	0.13	0.09	0.23	0.15	0.09
16	7.90	2.63	1.96	15.70	5.23	3.14
	0.53	0.34	0.22	0.34	0.20	0.13
	0.62	0.40	0.26	0.75	0.49	0.32
	15.30	5.10	3.06	30.20	10.06	6.04
	0.74	0.48	0.31	0.98	0.64	0.42
	19.80	6.60	3.96	39.10	13.03	7.82
	1.17	0.76	0.49	1.21	0.79	0.51
PIPE SIZE	90° BEND SOIL BEARING CAPACITY			TEE OR DEAD END SOIL BEARING CAPACITY		
	1,000 P.S.F.	3,000 P.S.F.	5,000 P.S.F.	1,000 P.S.F.	3,000 P.S.F.	5,000 P.S.F.
	4	4.90	1.63	0.96	3.50	1.16
6	0.14	0.09	0.06	0.12	0.06	0.06
8	10.20	3.40	2.04	7.20	2.40	1.44
10	0.22	0.14	0.09	0.17	0.11	0.07
12	17.70	5.54	3.54	12.50	4.16	2.50
14	0.35	0.23	0.15	0.25	0.16	0.14
16	28.90	9.60	5.76	20.40	6.80	4.06
	0.54	0.35	0.23	0.38	0.25	0.16
	41.10	13.70	8.22	29.10	9.70	5.82
	1.31	0.85	0.55	0.97	0.63	0.42
	55.80	18.60	11.16	39.50	13.16	7.90
	1.70	1.11	0.72	1.22	0.79	0.51
	72.20	24.06	14.44	51.10	17.03	10.22
	2.14	1.39	0.90	1.54	1.00	0.65

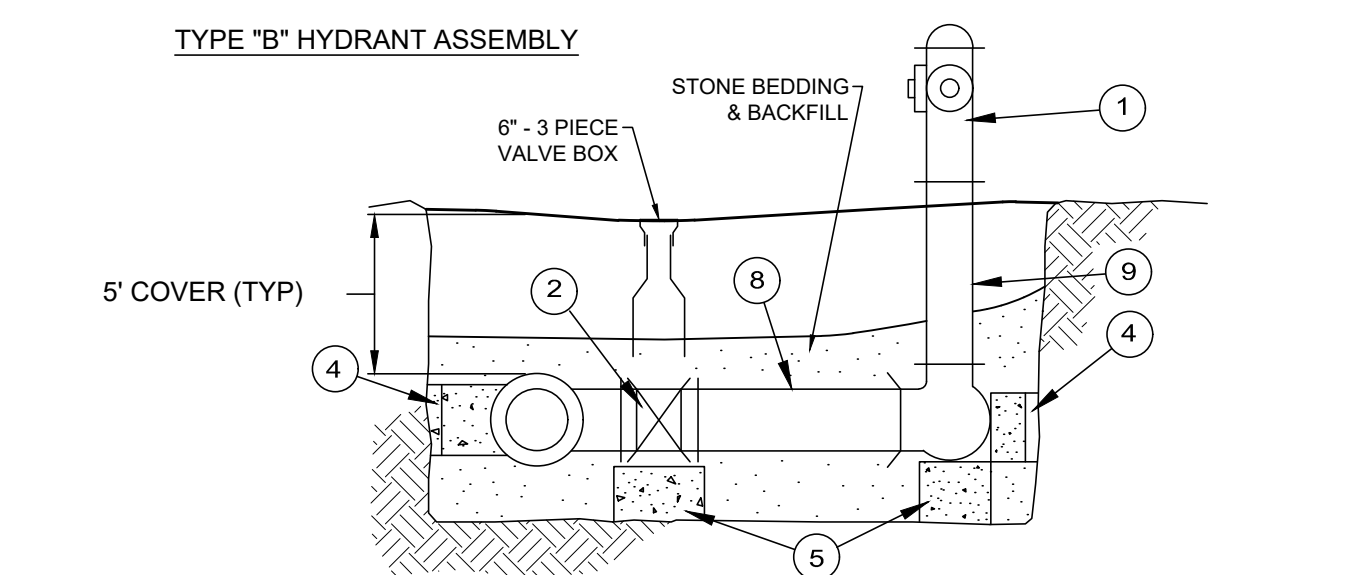


NOTE:
ALL CONCRETE BLOCKING MUST HAVE ITS ENTIRE FACE (X & Y) BEARING SURFACE AGAINST UNDISTURBED SOIL AND ALL VERTICAL NON-BEARING SURFACES SHALL BE FORMED SO AS TO KEEP CONCRETE FROM JOINTS. BLOCKING DESIGN BASED ON COMBINED WORKING PRESSURE PLUS WATER HAMMER OF 240 PSI AND FOR BEARING CAPACITY FOR SAND - 1000 PSF, SAND AND GRAVEL - 3000 PSF, SHALE - 5000 PSF.

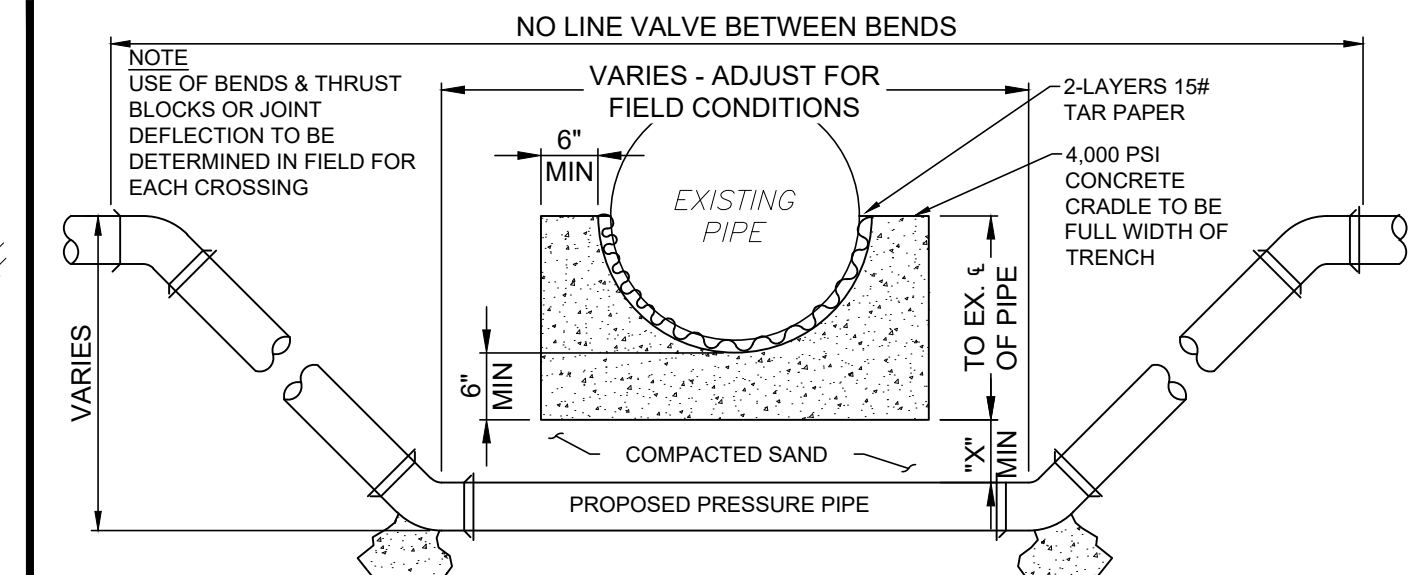
THRUST BLOCKING DETAIL
NOT TO SCALE



- TYPE "A" HYDRANT ASSEMBLY**
- TYPE "C" HYDRANT ASSEMBLY**
- HYDRANT, PER SPECIFICATIONS
 - 6" GATE VALVE
 - ANCHORING TEE
 - CONCRETE BLOCKING WITH OAK WEDGES AGAINST UNDISTURBED EARTH
 - CONCRETE SUPPORT BLOCKING
 - RETAINER GLANDS
 - PLAN STATION & OFFSET
 - ANCHORING SPOOL
 - RISER

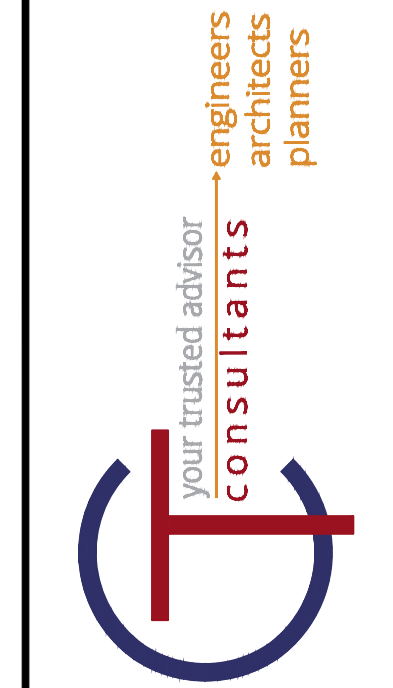
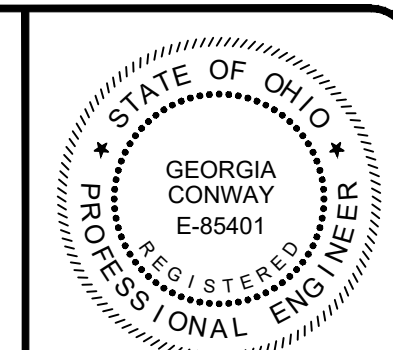


TYPICAL HYDRANT DETAIL
NOT TO SCALE



- CONCRETE CRADLE CONDITIONS**
- IF SANITARY OR STORM SEWER PIPE JOINT IS WITHIN PROPOSED IMPROVEMENT TRENCH LIMIT
 - IF CROSSING A WATERLINE AT ANY POINT
 - IF CROSSING SPACE IS LESS THAN MIN. SPACE OF CRADLE BELOW PIPE BOTTOM PLUS "X" DIMENSION THEN OMIT SAND FILL AND USE CONCRETE
- "X" DIMENSION REQUIREMENTS**
- 6" FOR WATERLINE CROSSING (ALSO FOR GAS & O.B.T. LINES W/ NO CRADLE NEEDED)
 - 18" FOR SANITARY OR STORM SEWER PIPE
 - IF CROSSING SPACE IS MORE THAN MIN. SPACE OF CRADLE BELOW PIPE BOTTOM PLUS AFOREMENTIONED "X" DIMENSION THEN EXTEND "X" DIMENSION TO MAKE UP DIFFERENCE

PIPE LOWERING DETAIL
NOT TO SCALE



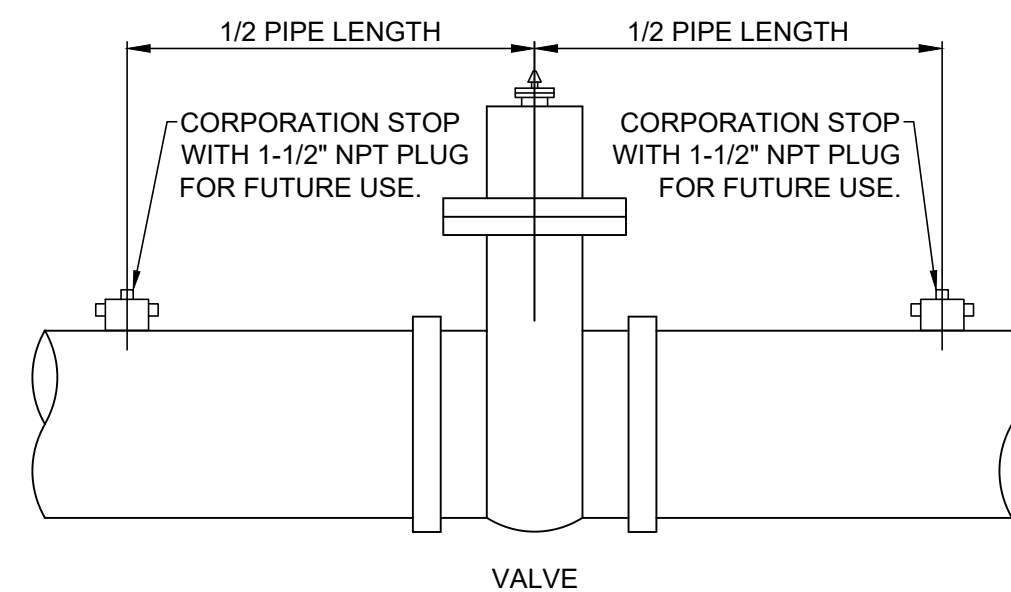
NO	REVISION	DATE

ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: PAB	DRAWN BY: PAB	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO

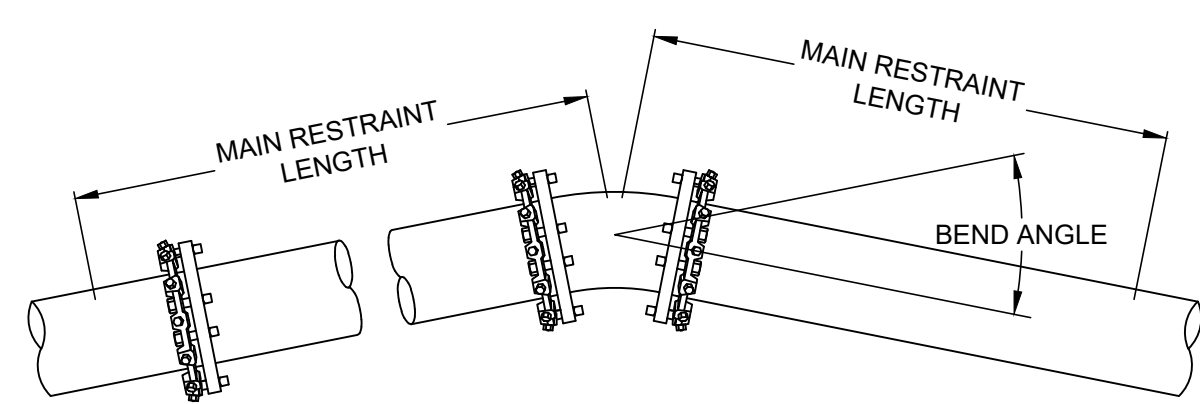
GENERAL - 00 SERIES
CONSTRUCTION DETAILS

PROJECT NO:	220544
DRAWING NAME	00G-06
SHEET	OF
6	24

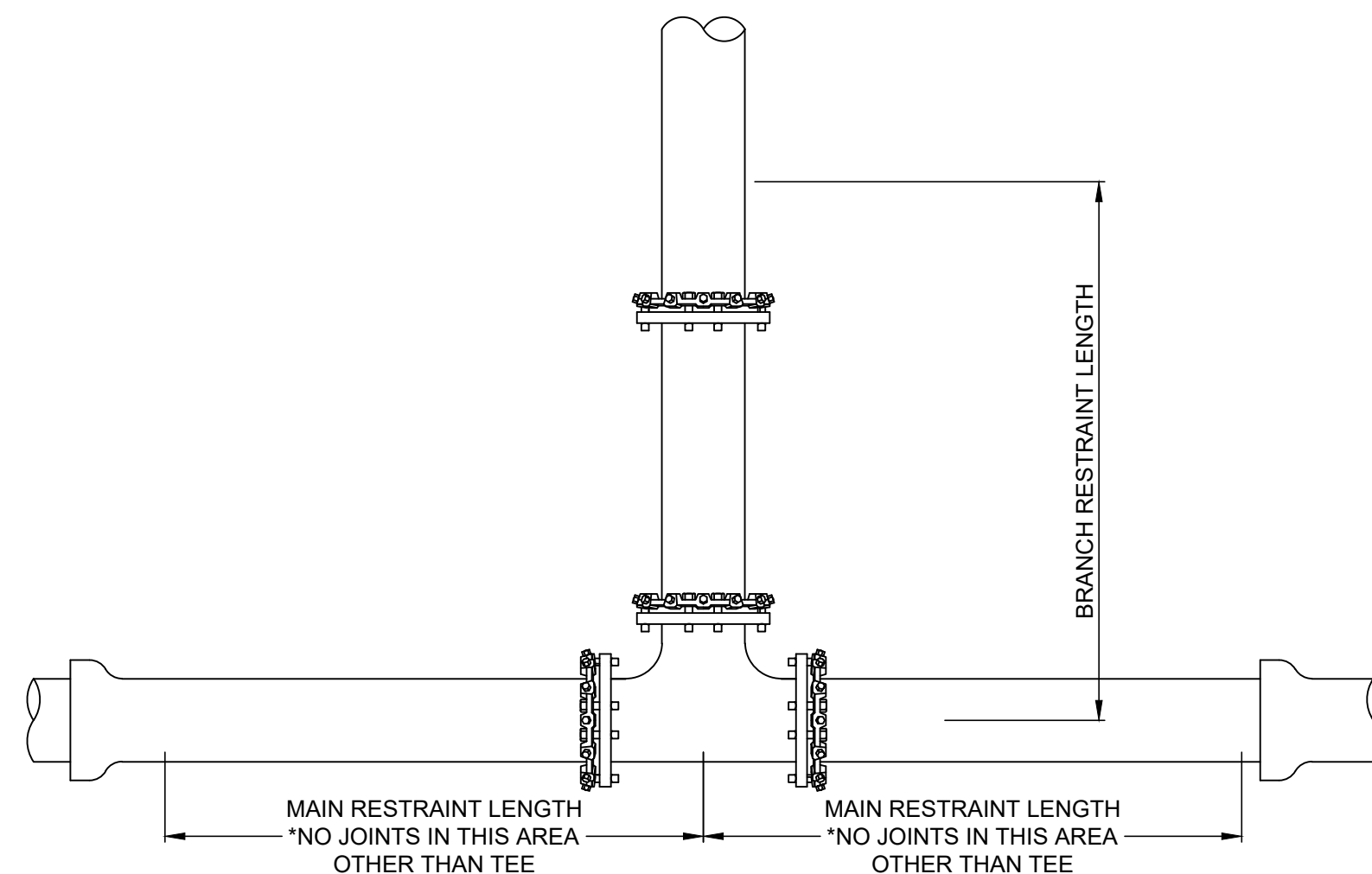


- NOTES:
- CORPORATION STOPS TO BE PLUGGED AFTER STERILIZATION & TESTING.
 - 1-1/2" CORPORATION STOPS ON ALL LINES 16" & GREATER.
 - 1" CORPORATION STOPS ON ALL LINES 12" & LESS.

STERILIZATION & TESTING CONNECTIONS AT VALVES NOT TO SCALE



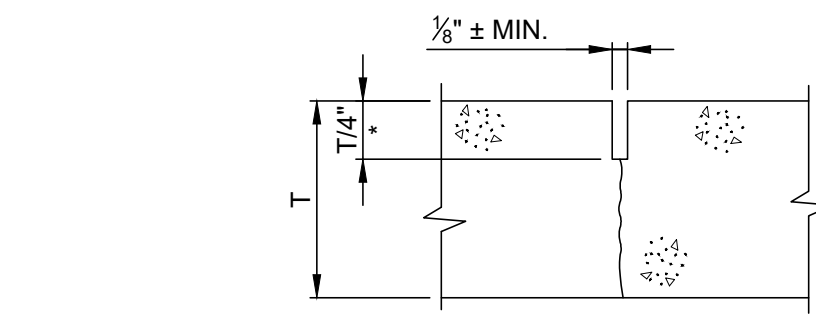
TYPICAL HORIZONTAL RESTRAINT NOT TO SCALE



TYPICAL HORIZONTAL TEE RESTRAINT NOT TO SCALE

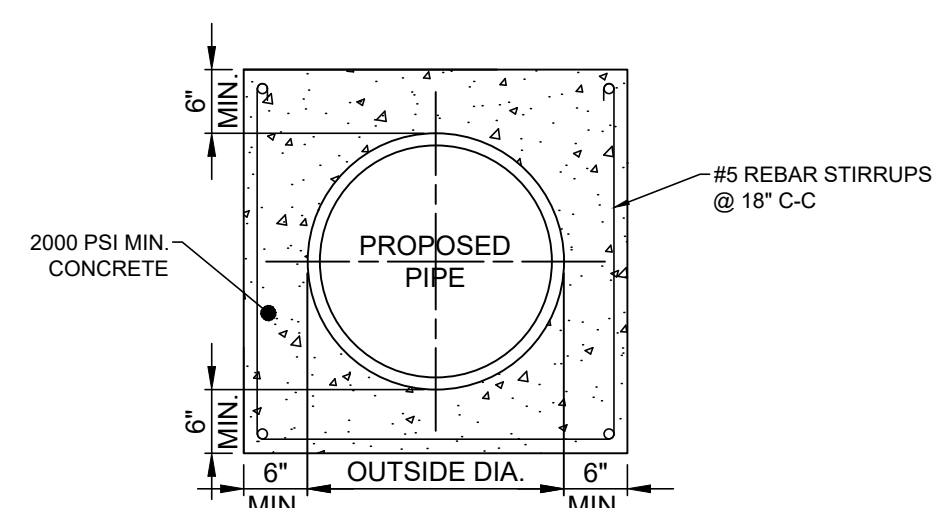
THRUST RESTRAIN TABLE FOR STANDARD FITTINGS			
FITTING	SIZE	MINIMUM MAIN RESTRAINT LENGTH	MINIMUM MAIN RESTRAINT LENGTH*
HORIZONTAL FITTINGS			
DEAD END	8"	78'	---
45° BEND	8"	11'	---
22.5° BEND	8"	6'	---
11.25° BEND	8"	3'	---
TEE**	8" X 6"	---	1'
TEE**	8" X 8"	---	1'

*ALL JOINTS WITHIN THE CALCULATED LENGTH MUST BE RESTRAINED.
 **A MINIMUM ATTACHED LENGTH OF PIPE OF 20FT TO EXTEND IN EACH DIRECTION ALONG THE RUN OF THE TEE WAS ASSUMED TO CALCULATE THE RESTRAINED LENGTH ALONG THE BRANCH. THE LENGTH OF PIPE ALONG THE RUN MUST BE PF SOLID PIPE WITHOUT JOINTS, FITTINGS, ETC.

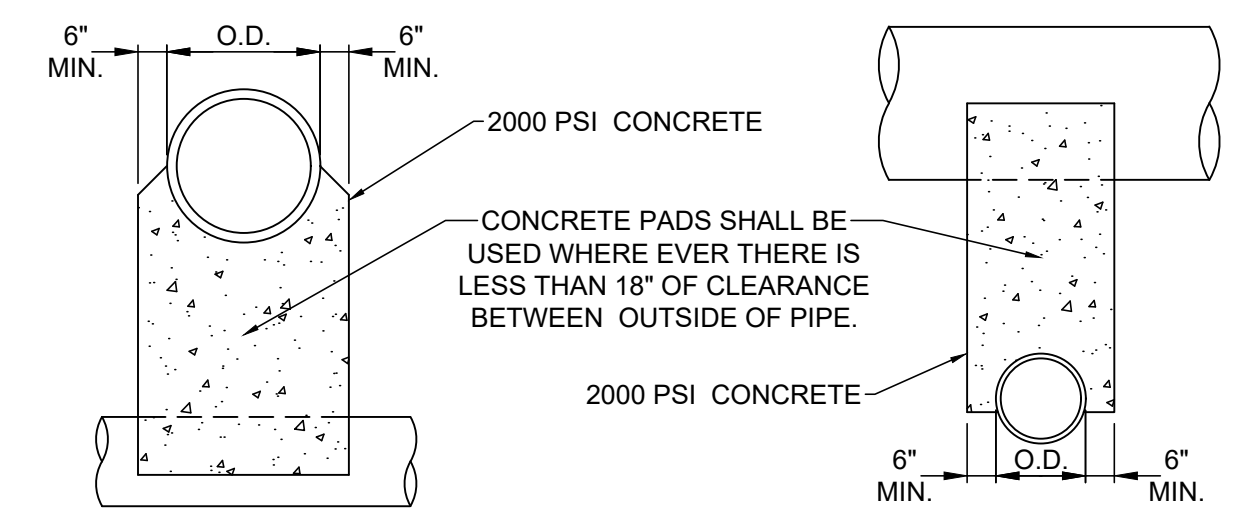


- NOTES:
- CONTROL JOINTS ARE THAT ARE TOOL CUT SHALL BE FILLED WITH JOINT SEALANT.
 - CONTROL JOINT SPACING SHALL EQUAL NEW SIDEWALK WIDTH, ADD ADDITIONAL DIAGONAL JOINTS AS NECESSARY TO CONTROL CRACKING AT ANGLES, BUILDS OR STRUCTURES.

CONTROL JOINT TYPE "C.J." NOT TO SCALE

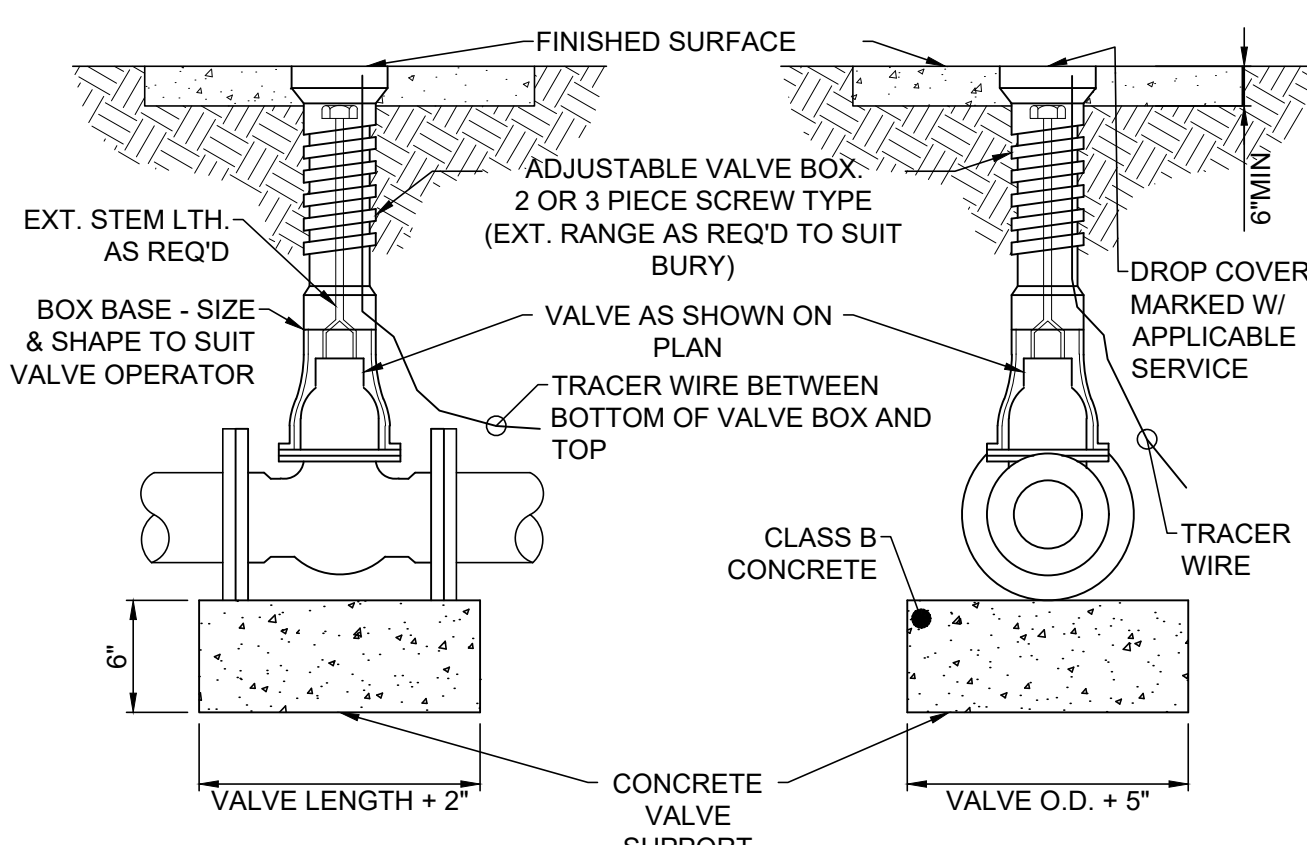


TYPICAL PIPE ENCASEMENT NOT TO SCALE

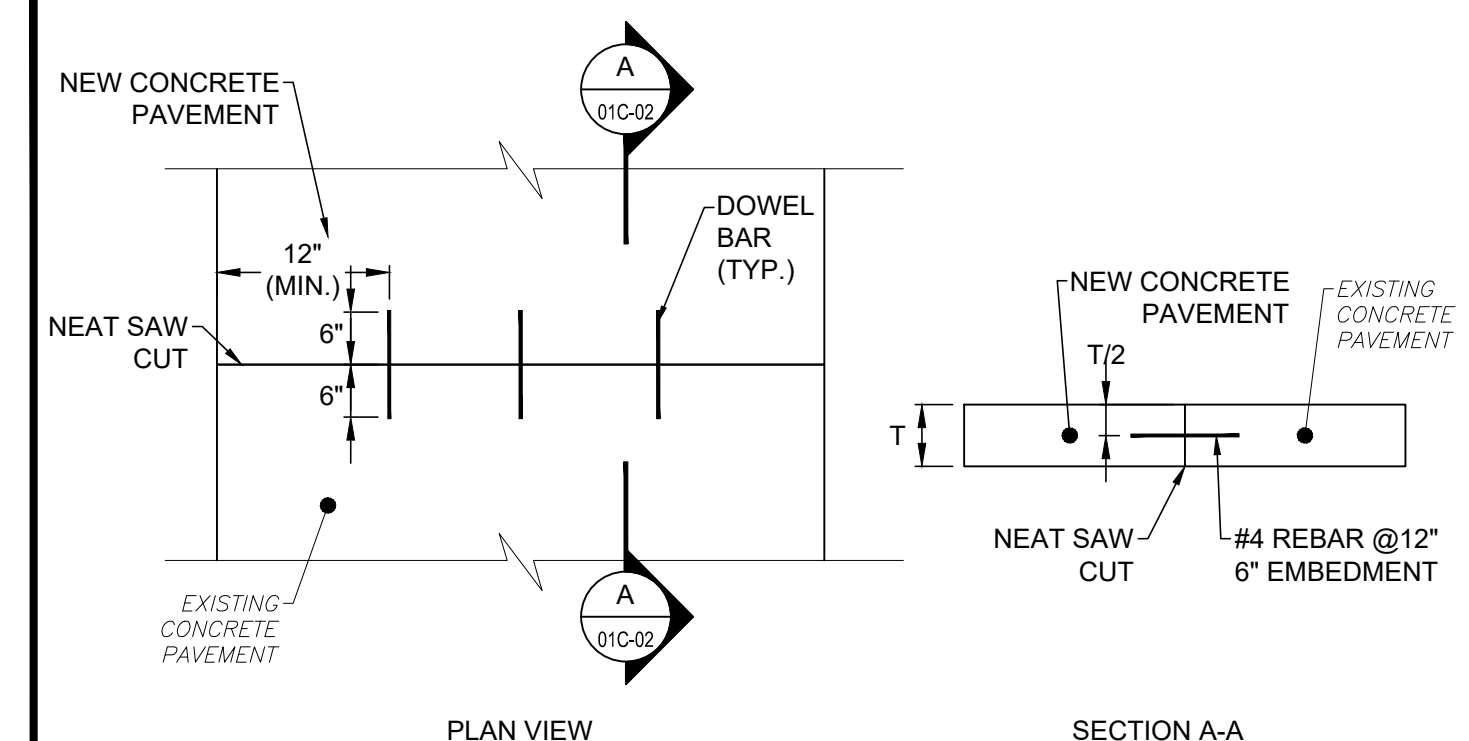


NOTE:
 UNLESS OTHERWISE DIRECTED BY THE ENGINEER, WHERE TWO PIPES (SEWER & WATER) CROSS EACH OTHER, A CONCRETE PAD AND CRADLE SEPARATOR SHALL BE PLACED BETWEEN THEM AS INDICATED ABOVE. WHERE PERMISSION IS GRANTED TO OMIT THE CONCRETE PADS, GRANULAR BACKFILL SHALL BE TAMPED IN 6" LAYERS AROUND BOTH PIPES. SUCH TAMPED BACKFILL SHALL BE CONTINUOUS FROM THE CRADLE OF THE LOWER PIPE TO THE TOP OF THE UPPER PIPE AND AT THE BOTTOM SHALL EXTEND IN BOTH DIRECTIONS, FOR THE FULL WIDTH OF THE TRENCH.

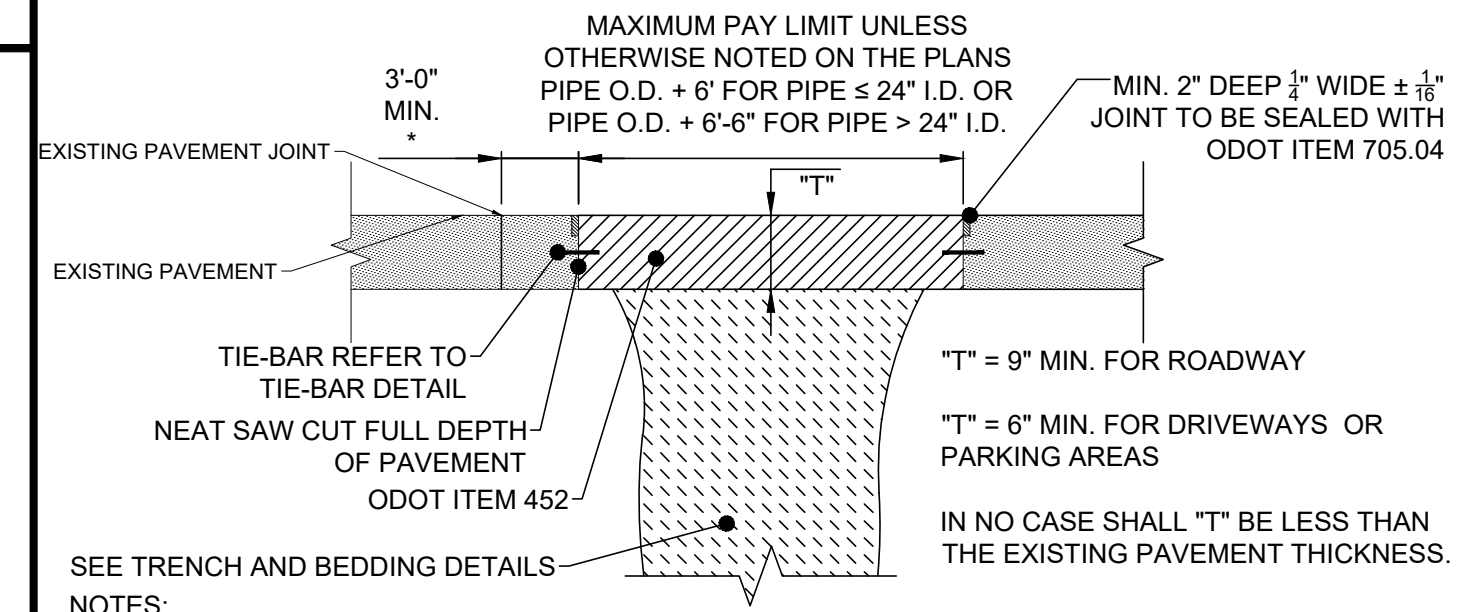
PIPE CROSSING DETAIL NOT TO SCALE



TYPICAL VALVE AND VALVE BOX SETTING NOT TO SCALE

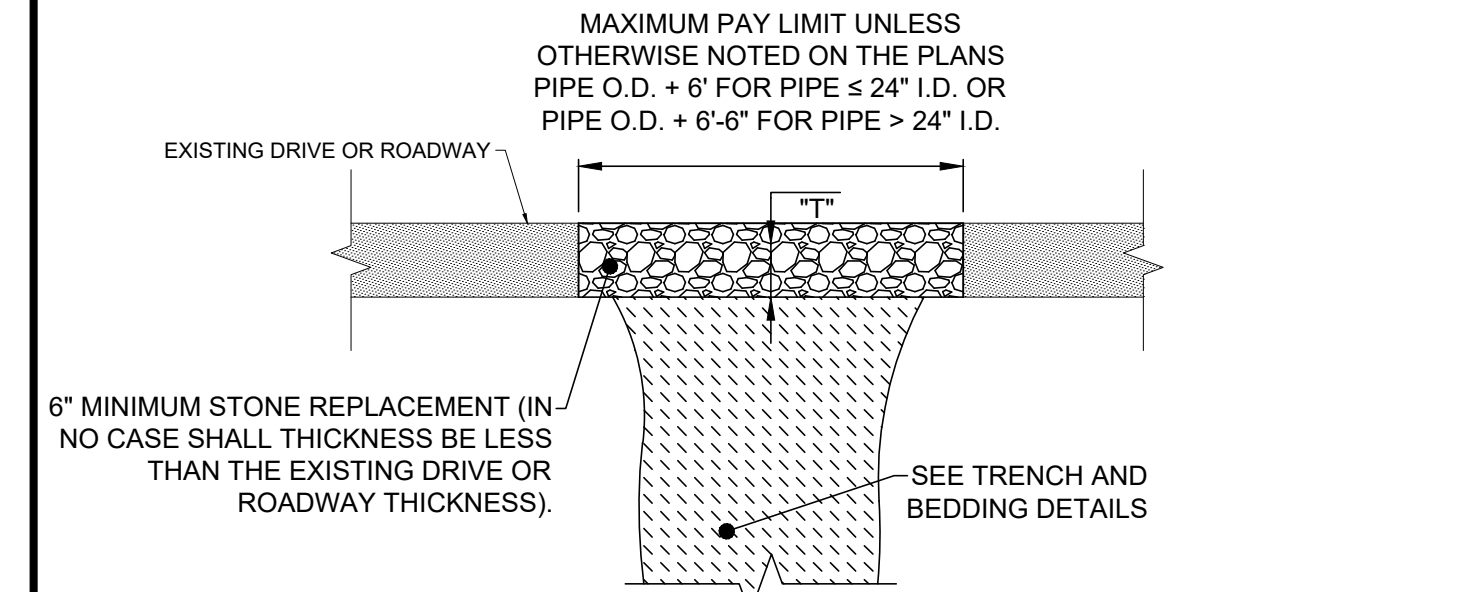


TIE BAR DETAIL NOT TO SCALE

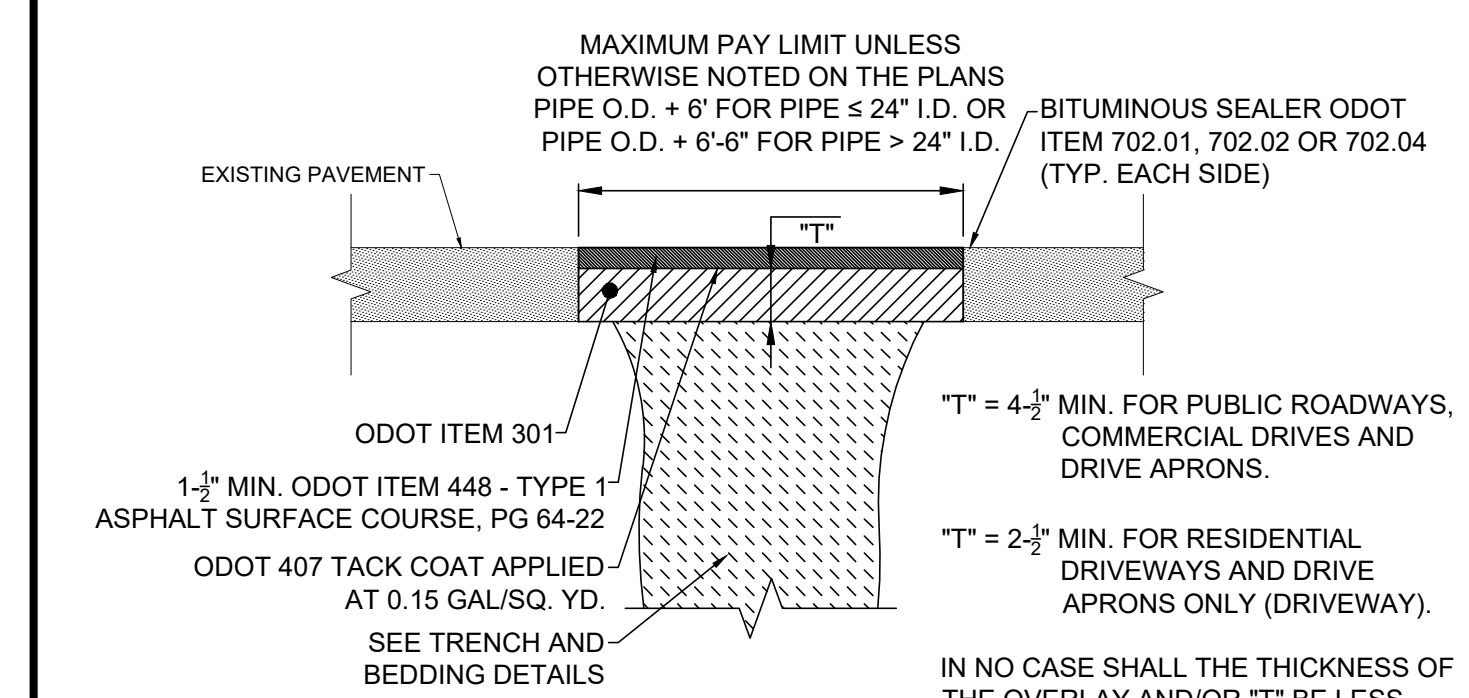


- NOTES:
- EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE REPLACED, AS DIRECTED BY ENGINEER.
 - REPLACEMENT SHALL BE REINFORCED AS PER O.D.O.T. ITEM 709.10 OR 709.12 IF EXISTING PAVEMENT IS REINFORCED.
 - 5/8" HOOKBOLT @ 30" O.C. MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
- * WHERE WIDTH IS LESS THAN 3'-0" OR EXISTING PAVEMENT IS DETERIORATED, THE CONTRACTOR SHALL REPLACE ADDITIONAL PAVEMENT AS DIRECTED BY THE ENGINEER. PAYMENT FOR ADDITIONAL PAVEMENT REPLACEMENT AS DIRECTED BY THE ENGINEER SHALL BE AT THE SAME UNIT PRICE BID.

TYPE A PAVEMENT REPLACEMENT NOT TO SCALE

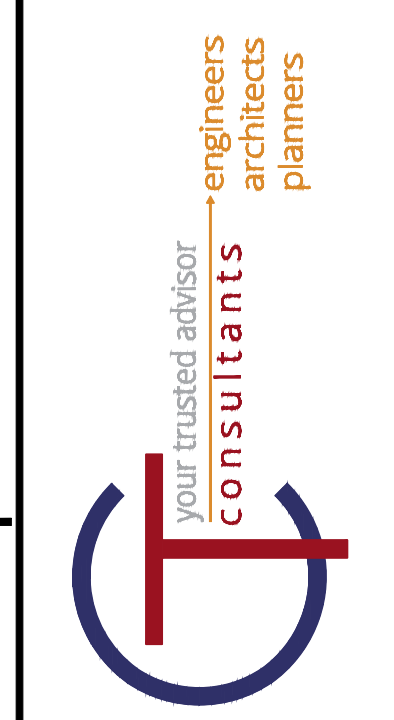
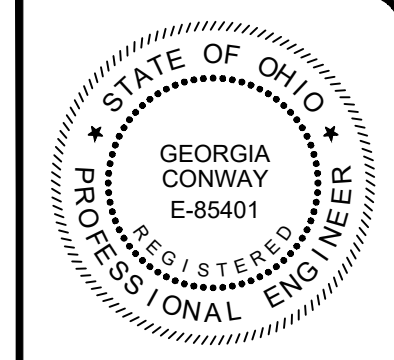


TYPE F PAVEMENT REPLACEMENT NOT TO SCALE



TYPE C PAVEMENT REPLACEMENT NOT TO SCALE

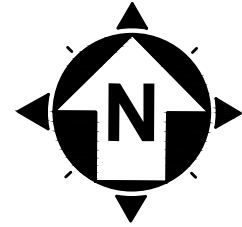
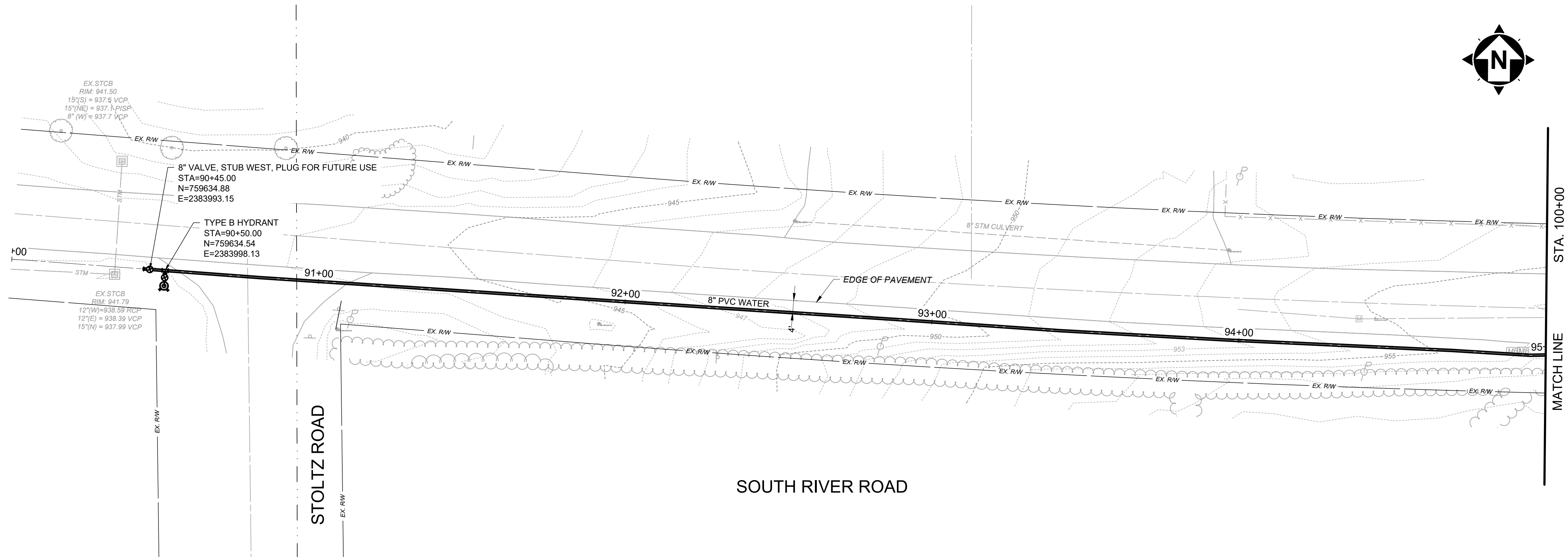
- NOTE:
- EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE REPLACED, AS DIRECTED BY ENGINEER.



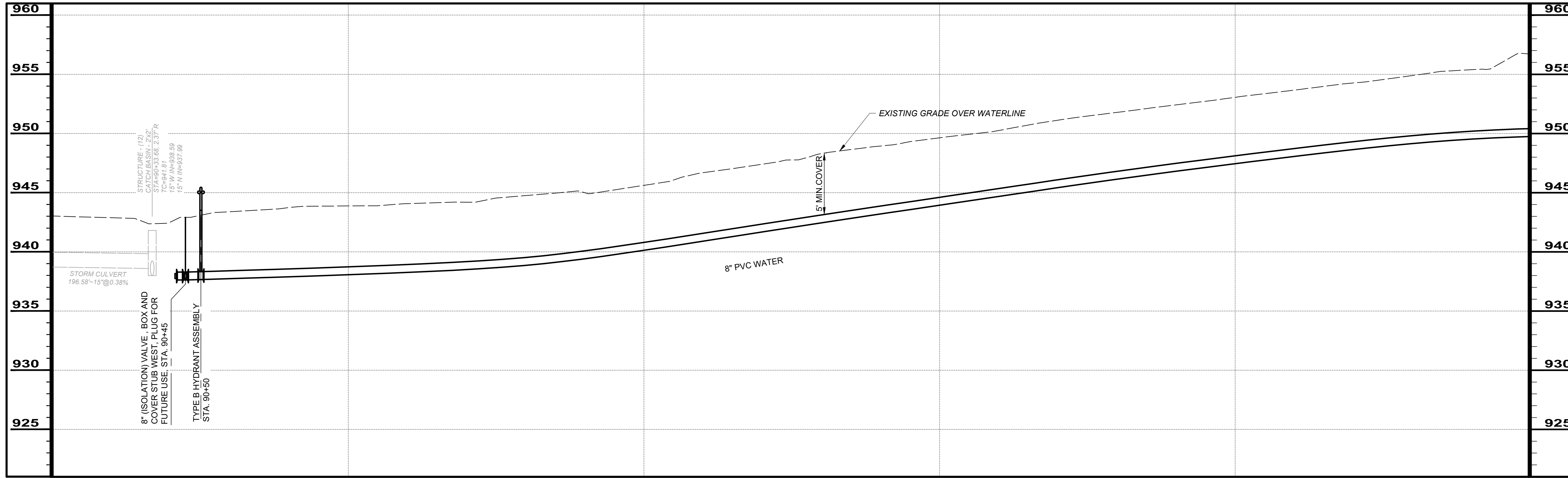
DATE	REVISION	NO	ISSUED FOR:	DATE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
			EPA REVIEW	02/17/2023	PAB	PAB	GBC

ASHTABULA COUNTY
 DEPARTMENT OF ENVIRONMENTAL SERVICES
 SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
 ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
 GENERAL - 00 SERIES
 CONSTRUCTION DETAILS

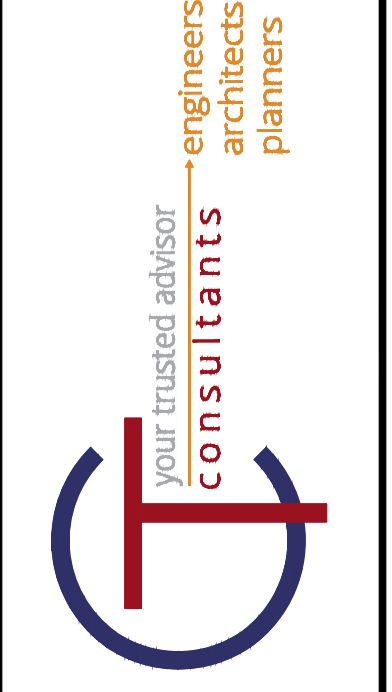
PROJECT NO:	220544
DRAWING NAME	00G-07
SHEET	7
OF	24



SOUTH RIVER ROAD



SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'

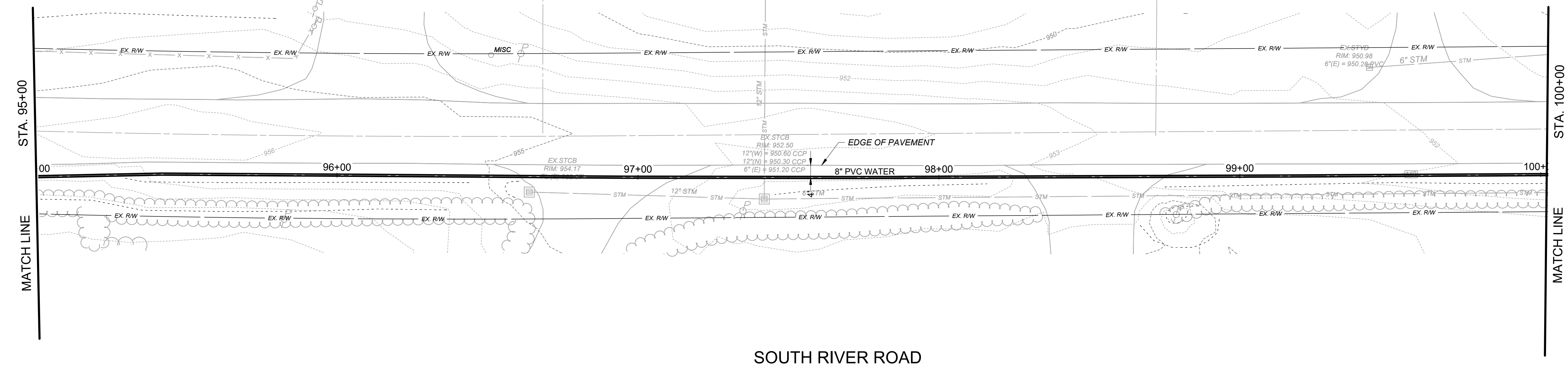


NO	REVISION	DATE

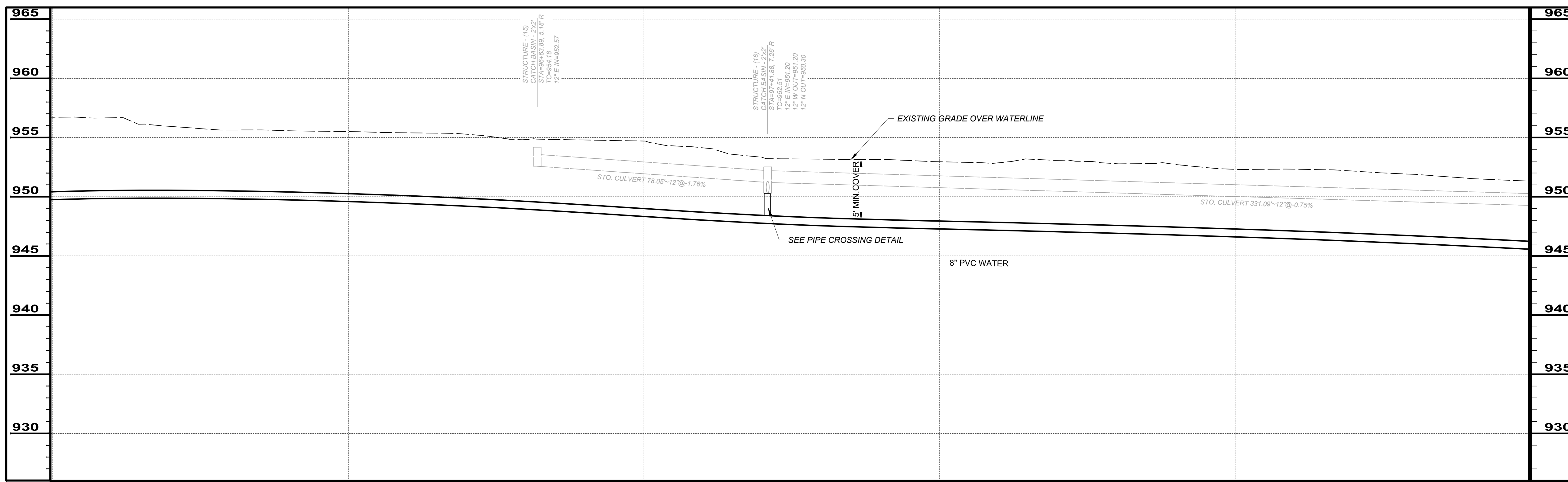
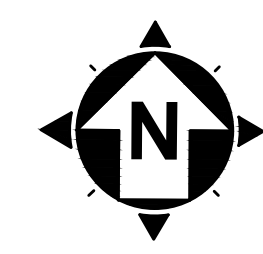
ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
PLAN AND PROFILES - 01 SERIES
STA. 90+00 TO STA. 95+00

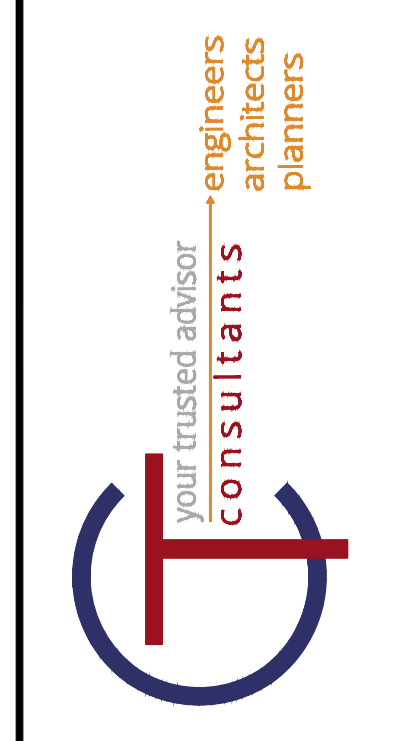
PROJECT NO: 220544	
DRAWING NAME: 0G-01	
SHEET 9	OF 24



SOUTH RIVER ROAD



SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'

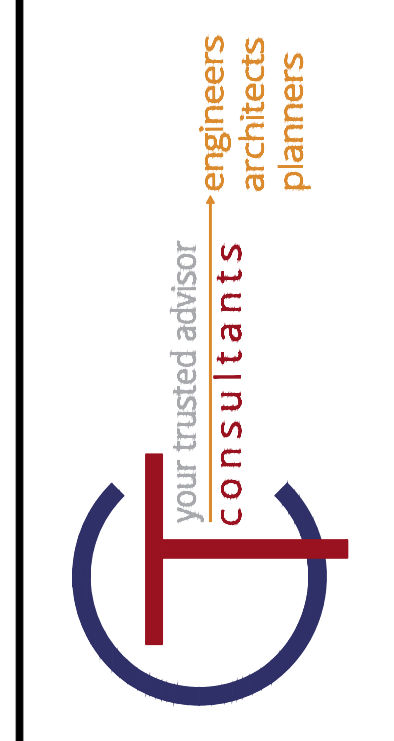
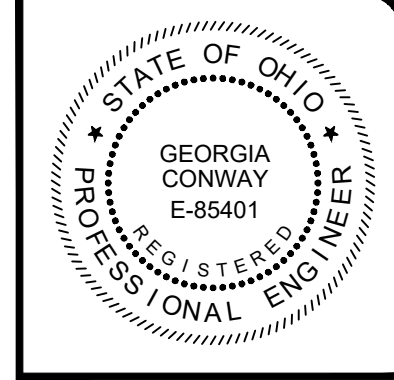


NO	REVISION	DATE

ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
PLAN AND PROFILES - 01 SERIES
STA. 95+00 TO STA. 100+00

PROJECT NO: 220544	
DRAWING NAME: OG-02	
SHEET 10	OF 24

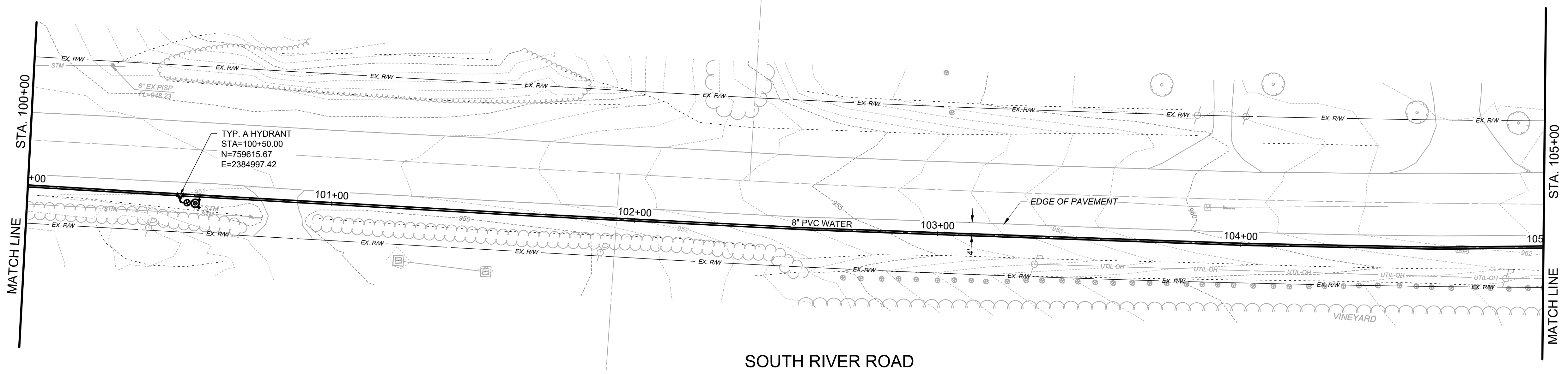
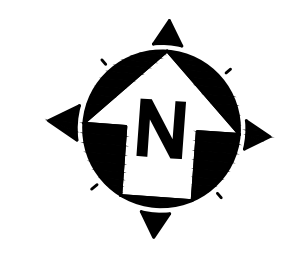


NO	REVISION	DATE

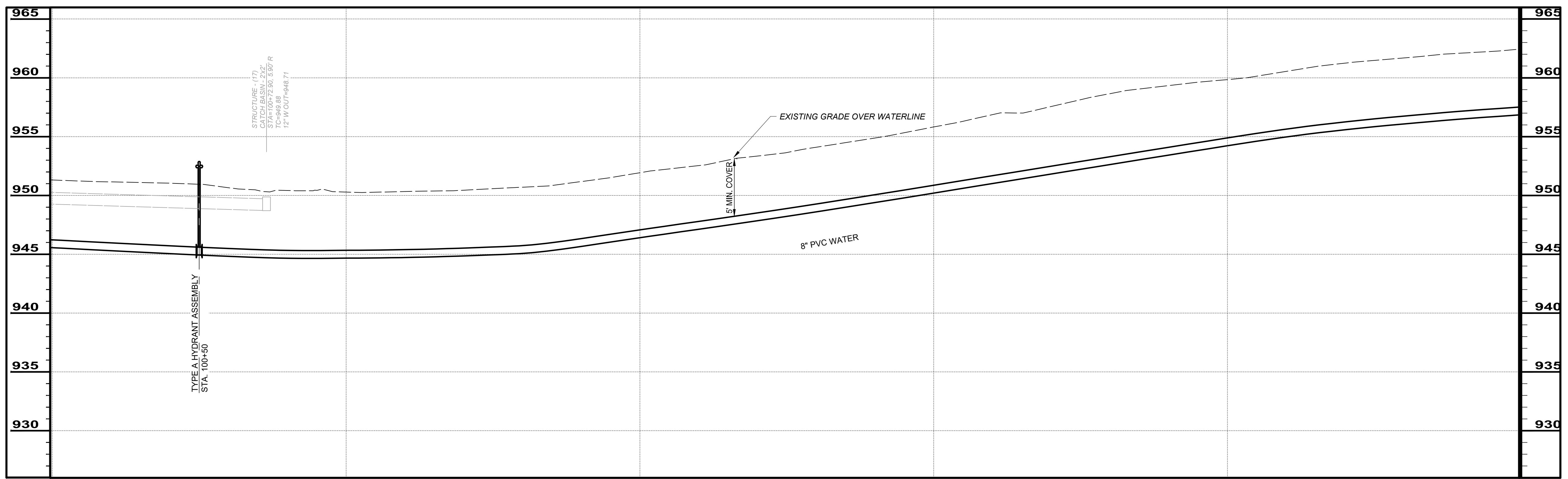
ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
 DEPARTMENT OF ENVIRONMENTAL SERVICES
 SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
 ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
 PLAN AND PROFILES - 01 SERIES
 STA. 100+00 TO STA. 105+00

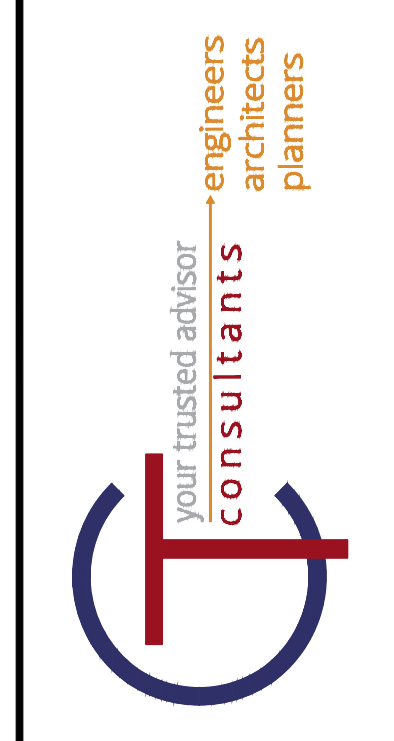
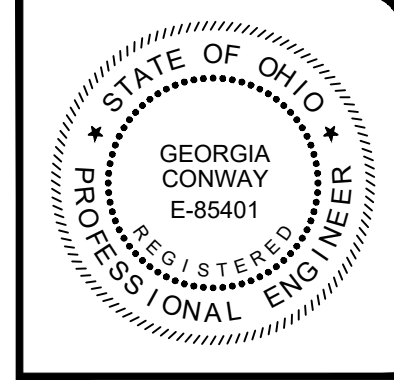
PROJECT NO: 220544	
DRAWING NAME 0G-03	
SHEET 11	OF 24



SOUTH RIVER ROAD



SCALE: HORIZ. 1" = 20'
 VERT. 1" = 5'

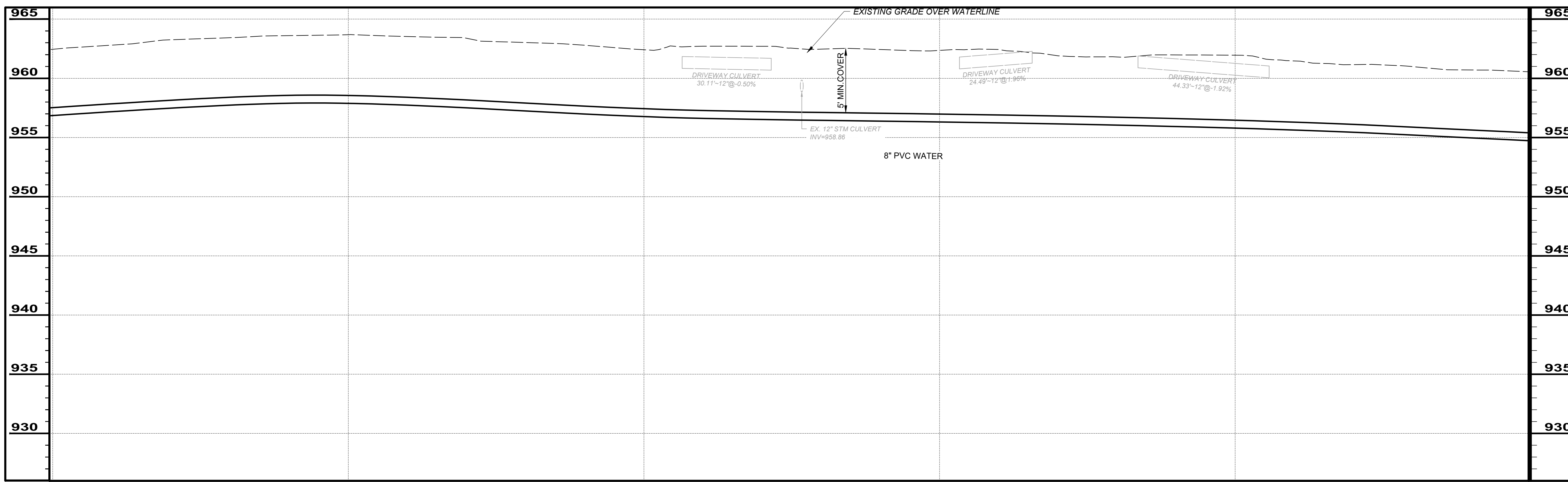
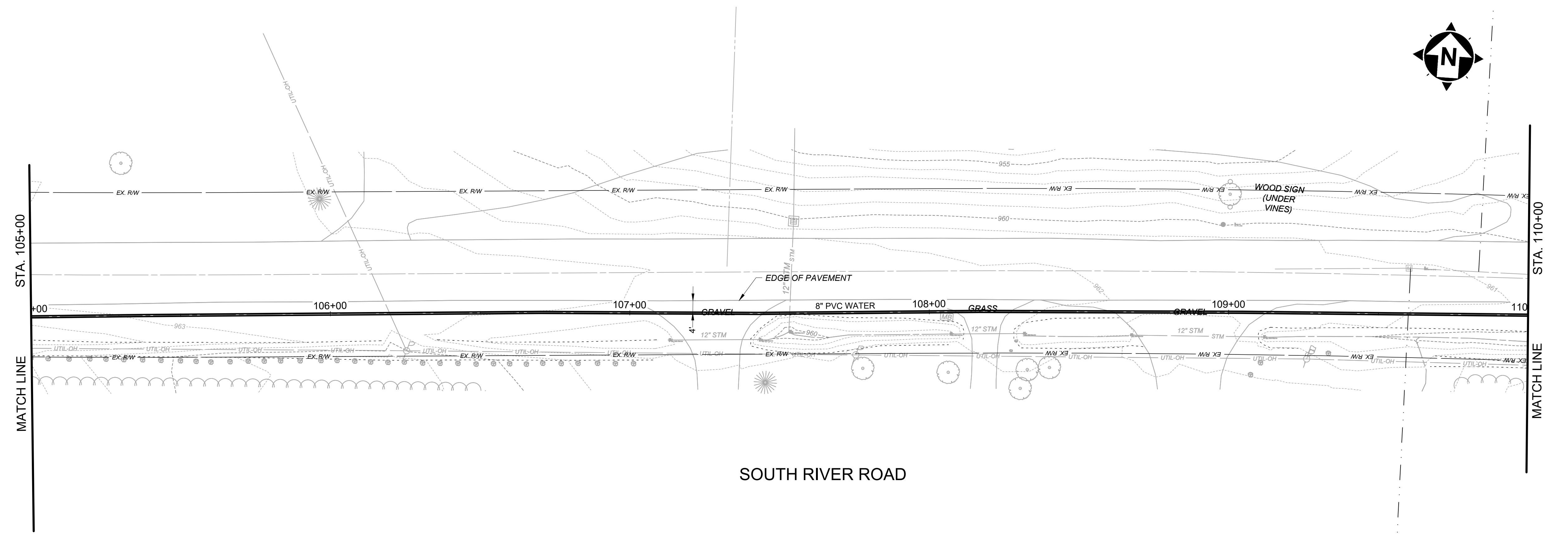


NO	REVISION	DATE

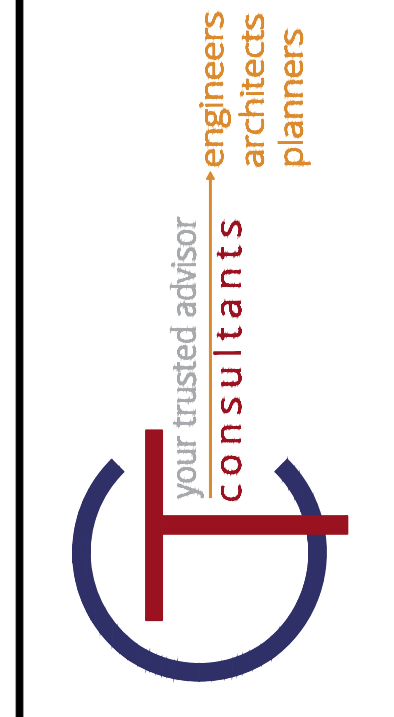
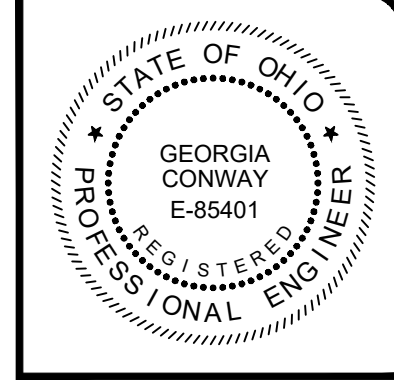
ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
 DEPARTMENT OF ENVIRONMENTAL SERVICES
 SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
 ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
 PLAN AND PROFILES - 01 SERIES
 STA. 105+00 TO STA. 110+00

PROJECT NO: 220544	
DRAWING NAME: 0G-04	
SHEET 12	OF 24



SCALE: HORIZ. 1" = 20'
 VERT. 1" = 5'

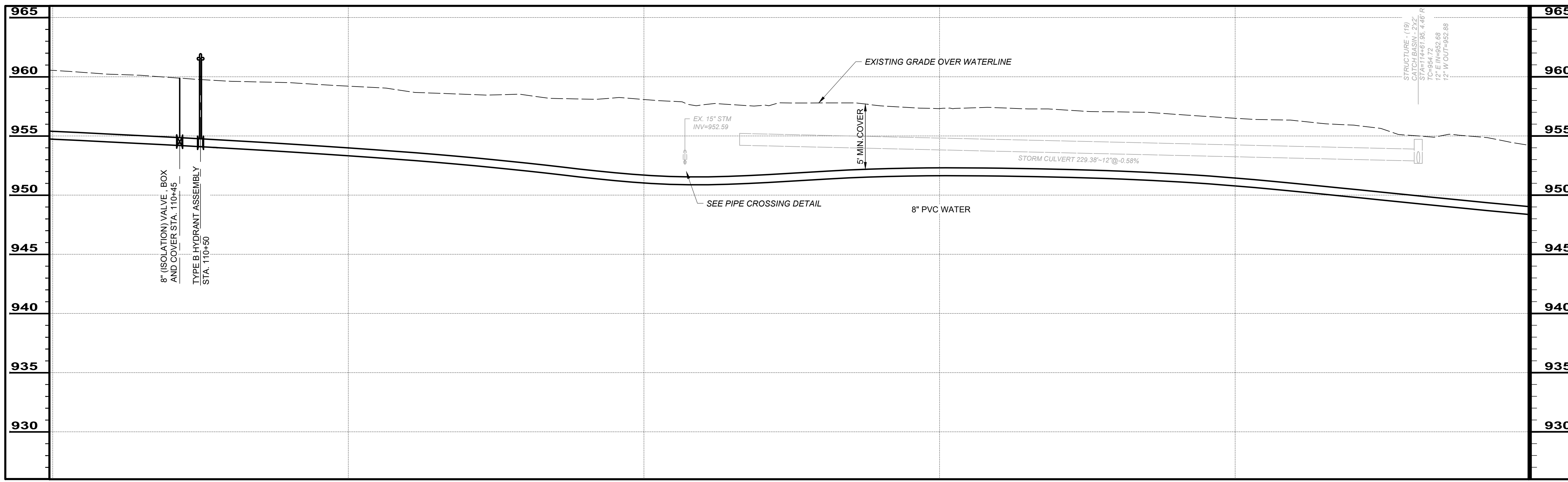
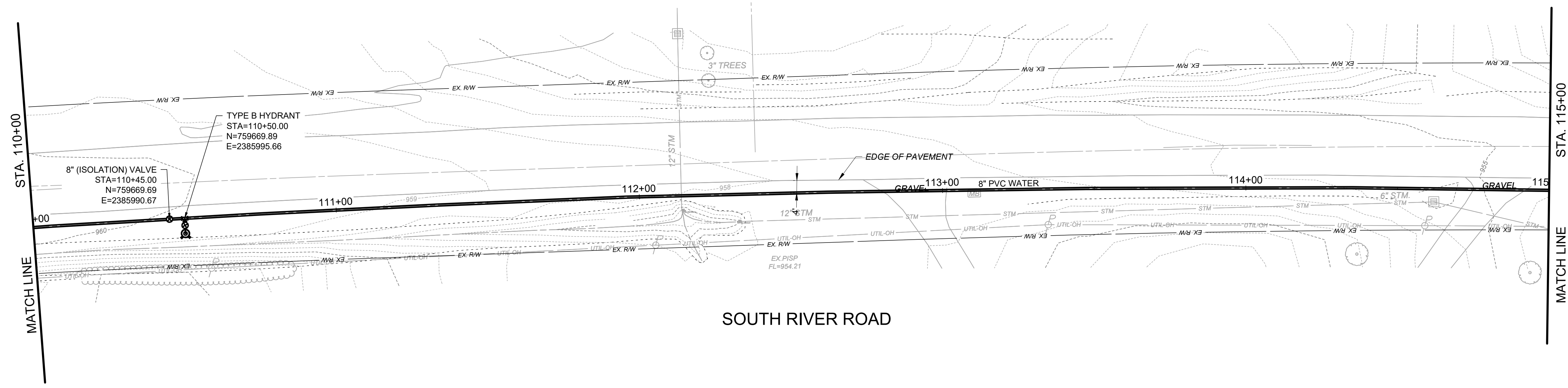
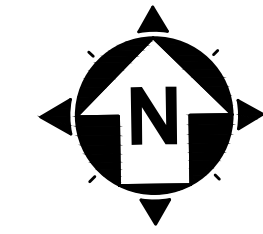


NO	REVISION	DATE

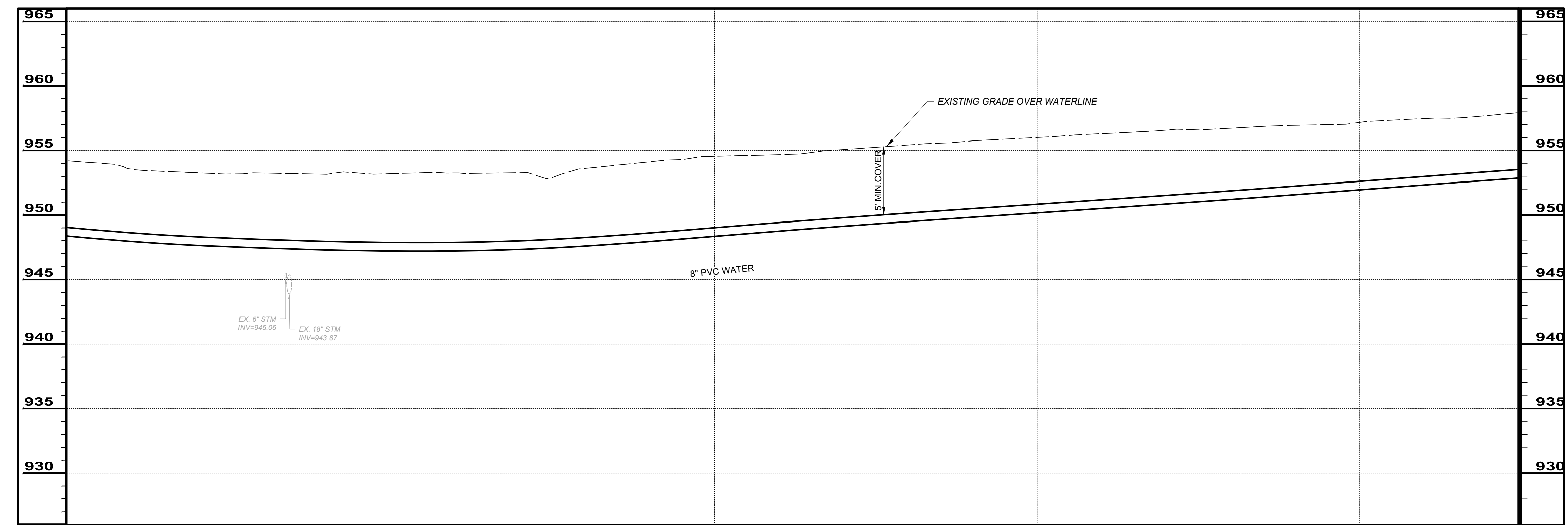
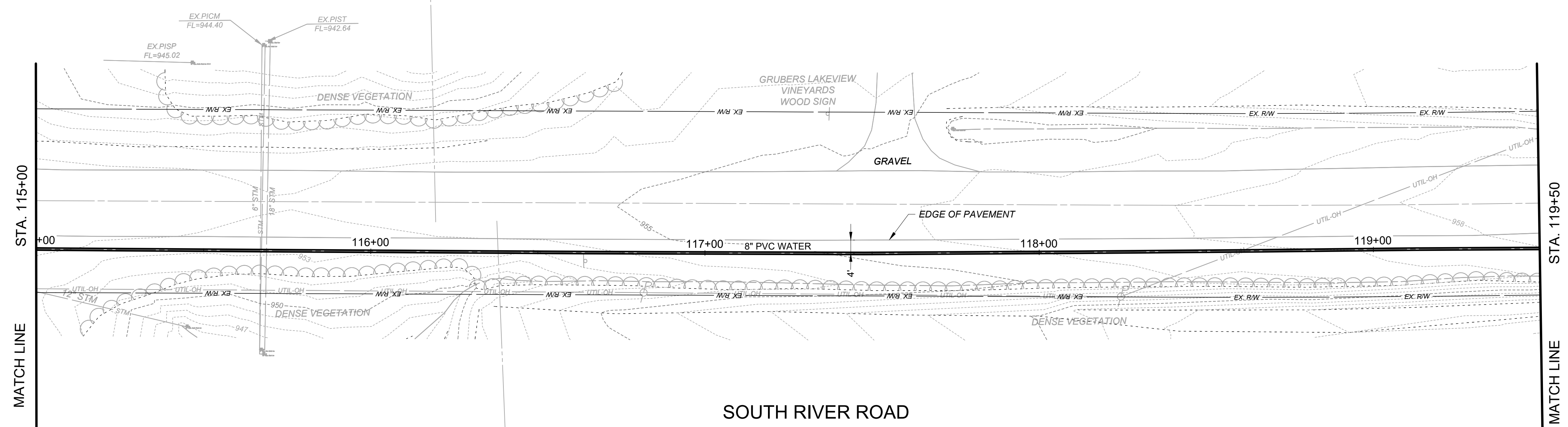
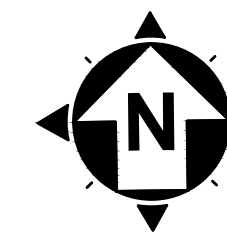
ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
 DEPARTMENT OF ENVIRONMENTAL SERVICES
 SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
 ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
 PLAN AND PROFILES - 01 SERIES
 STA. 110+00 TO STA. 115+00

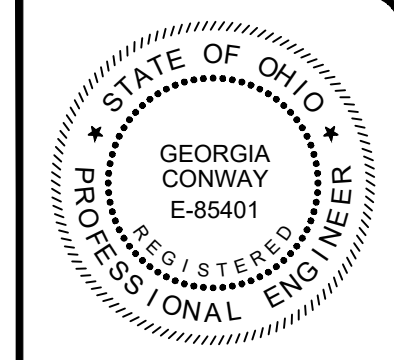
PROJECT NO: 220544	
DRAWING NAME 0G-05	
SHEET 13	OF 24



SCALE: HORIZ. 1" = 20'
 VERT. 1" = 5'



SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'

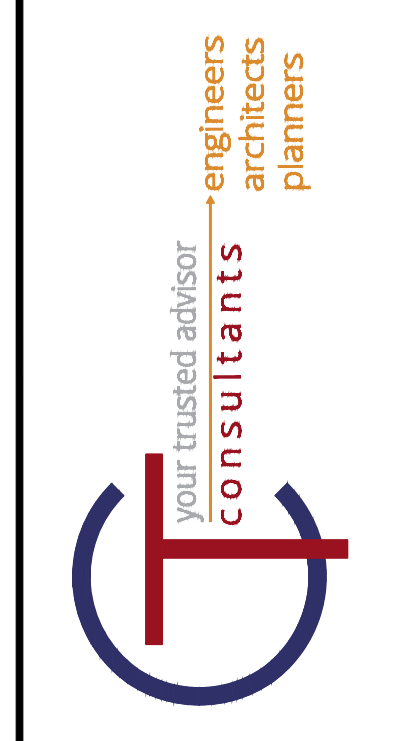
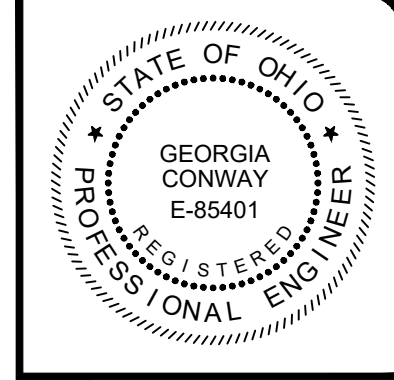
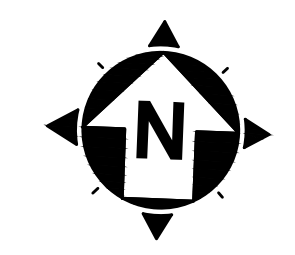
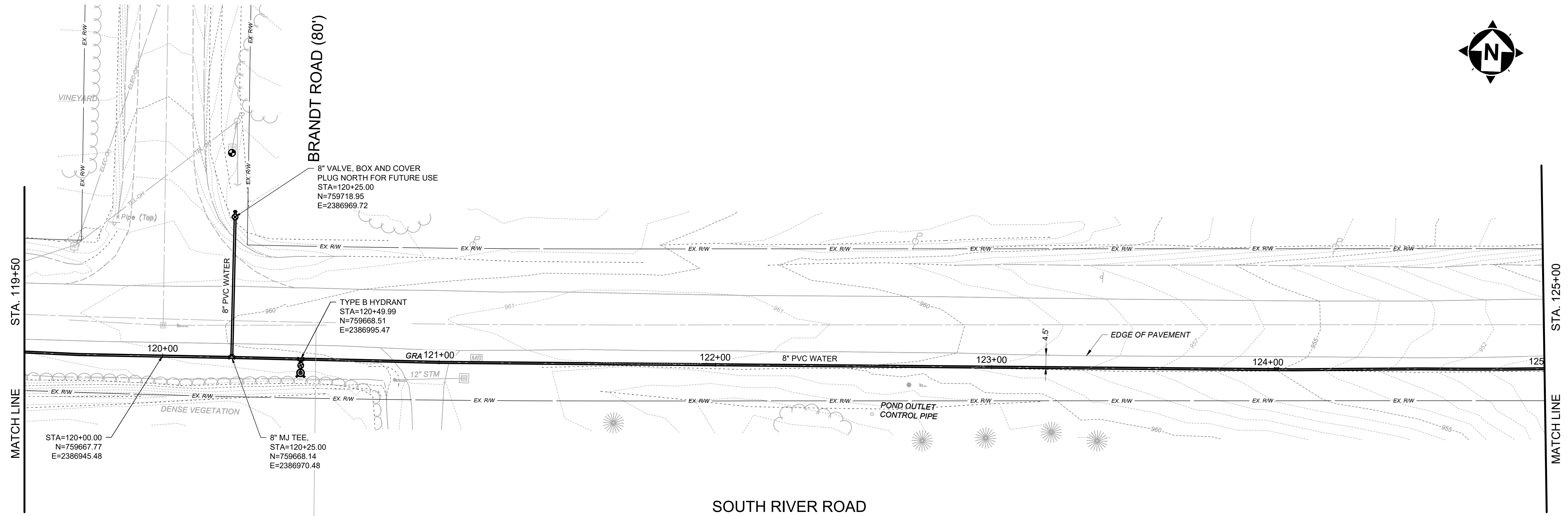


NO	REVISION	DATE

ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
PLAN AND PROFILES - 01 SERIES
STA. 115+00 TO STA. 119+50

PROJECT NO: 220544	
DRAWING NAME OG-06	
SHEET 14	OF 24

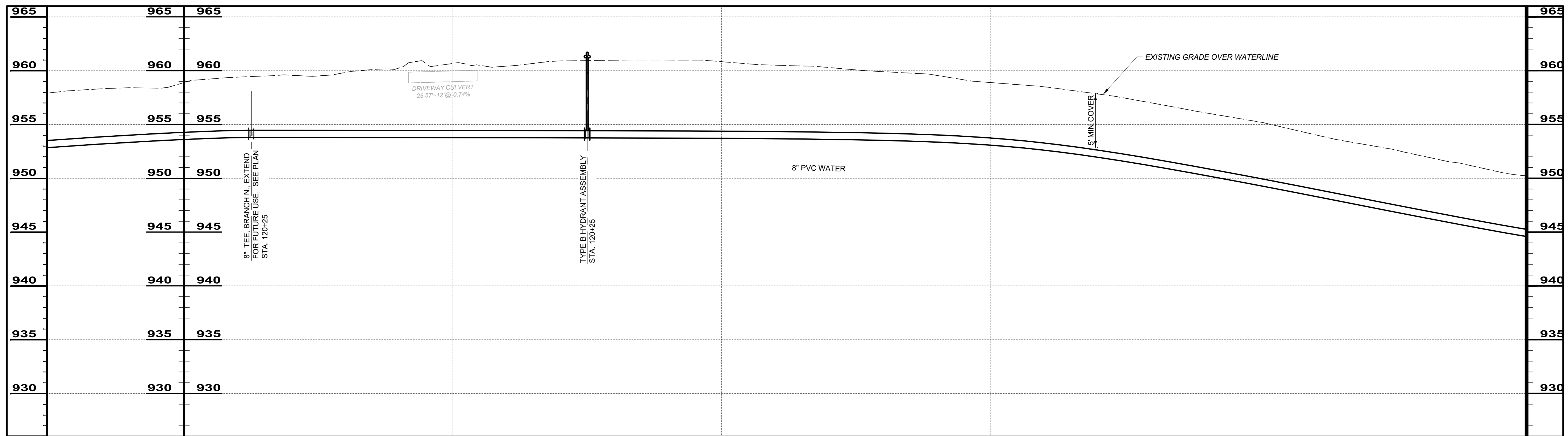


NO	REVISION	DATE

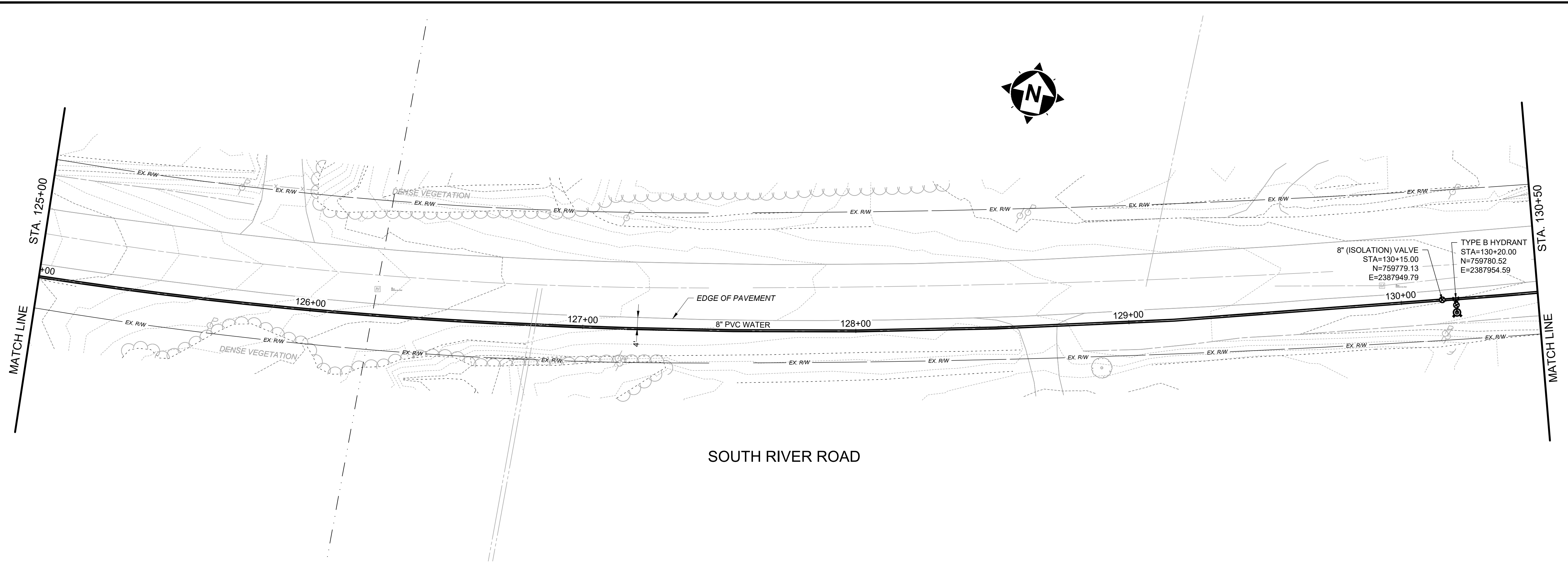
ISSUED FOR: EPA REVIEW	DATE: 02/17/2023
DESIGNED BY: RLM	DRAWN BY: RLM
CHECKED BY: GBC	

ASHTABULA COUNTY
 DEPARTMENT OF ENVIRONMENTAL SERVICES
 SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
 ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
 PLAN AND PROFILES - 01 SERIES
 STA. 119+50 TO STA. 125+00

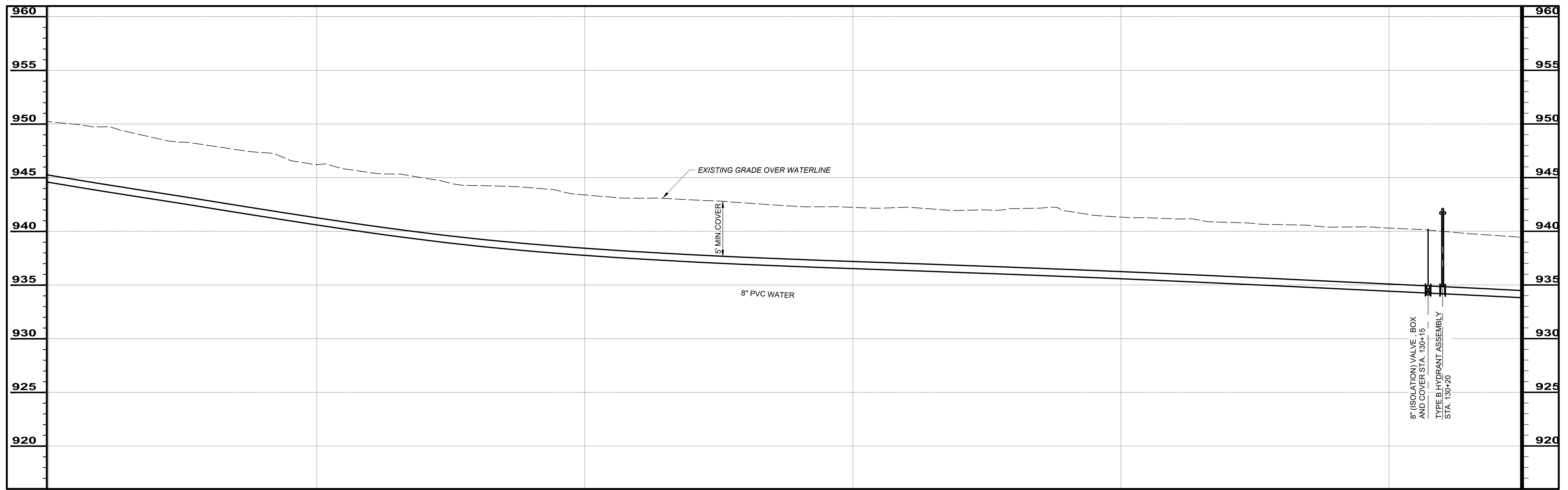
PROJECT NO: 220544	
DRAWING NAME PP-07	
SHEET 15	OF 24



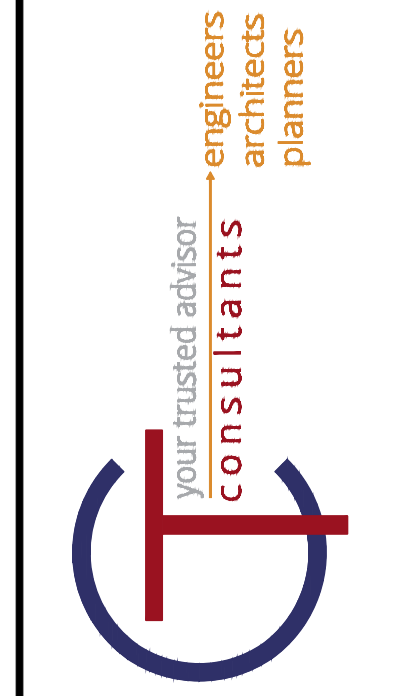
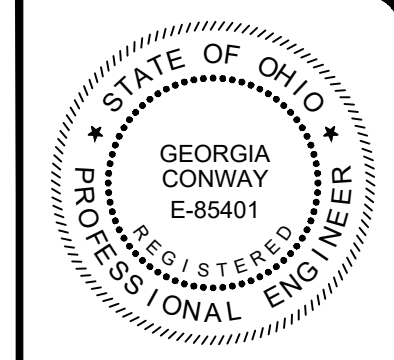
SCALE: HORIZ. 1" = 20'
 VERT. 1" = 5'



SOUTH RIVER ROAD



SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'

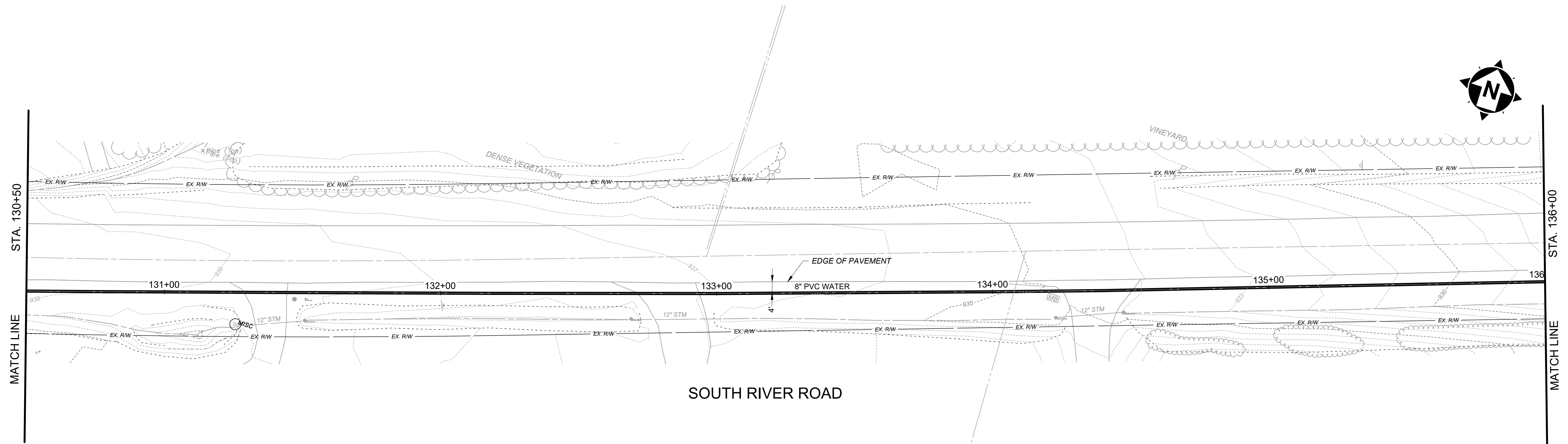


NO	REVISION	DATE

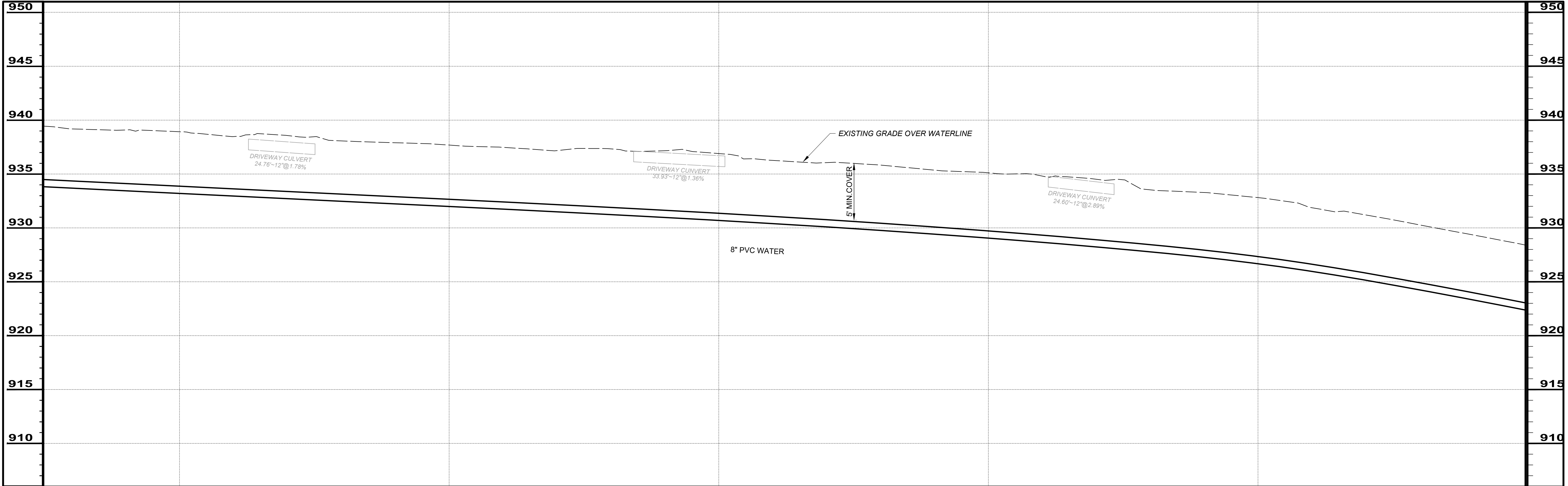
ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
PLAN AND PROFILES - 01 SERIES
STA. 125+00 TO STA. 130+50

PROJECT NO: 220544	
DRAWING NAME PP-08	
SHEET 16	OF 24



SOUTH RIVER ROAD



SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'

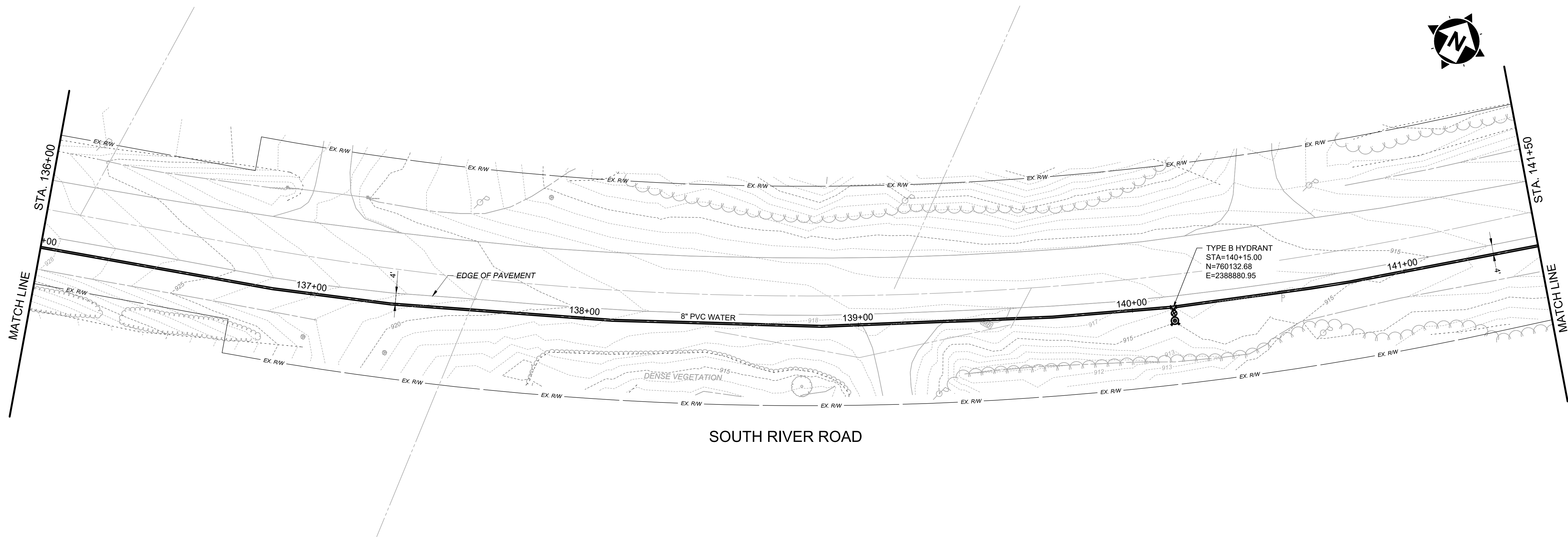


NO	REVISION	DATE

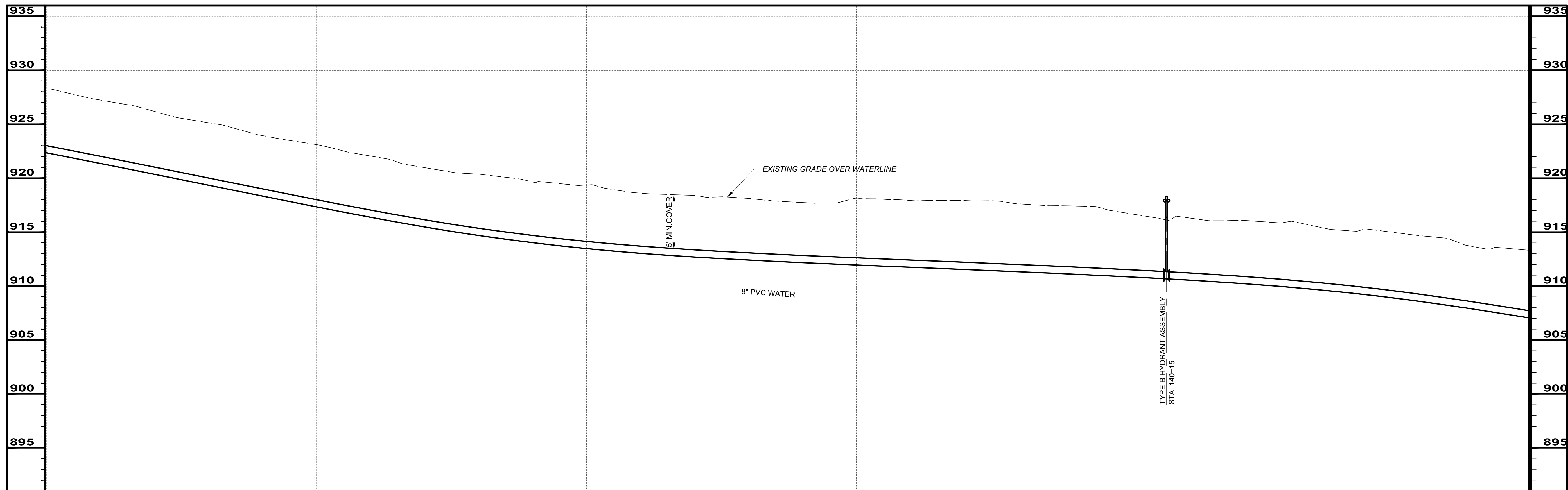
ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
PLAN AND PROFILES - 01 SERIES
STA. 130+50 TO STA. 136+00

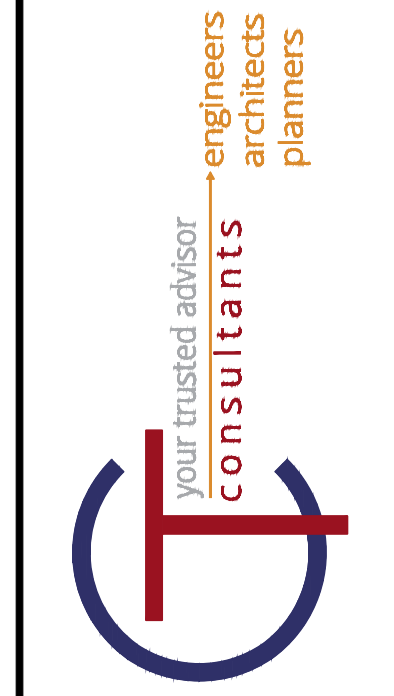
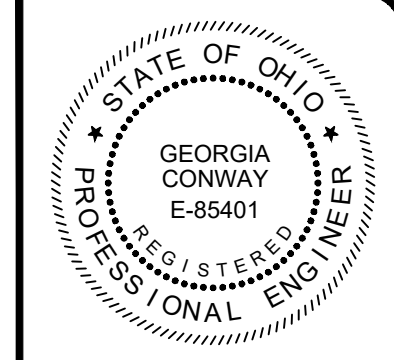
PROJECT NO: 220544	
DRAWING NAME: PP-09	
SHEET 17	OF 24



SOUTH RIVER ROAD



SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'

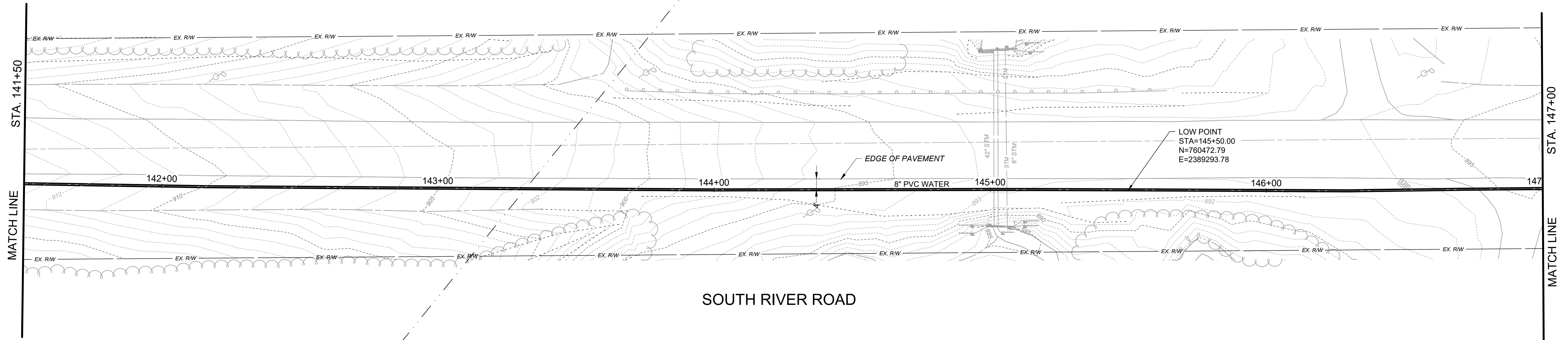
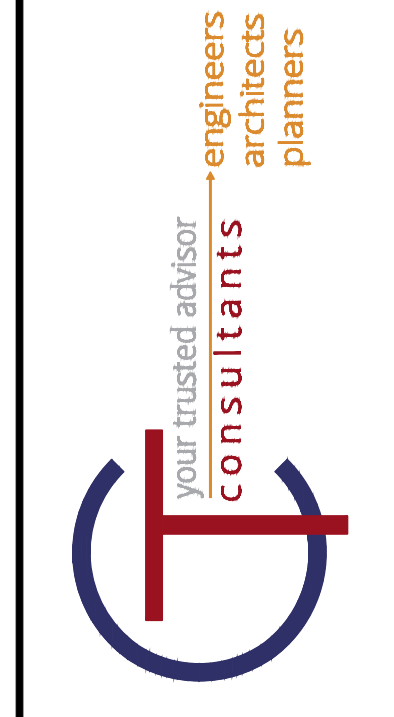
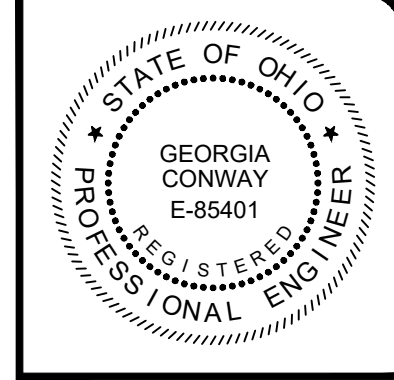


NO	REVISION	DATE

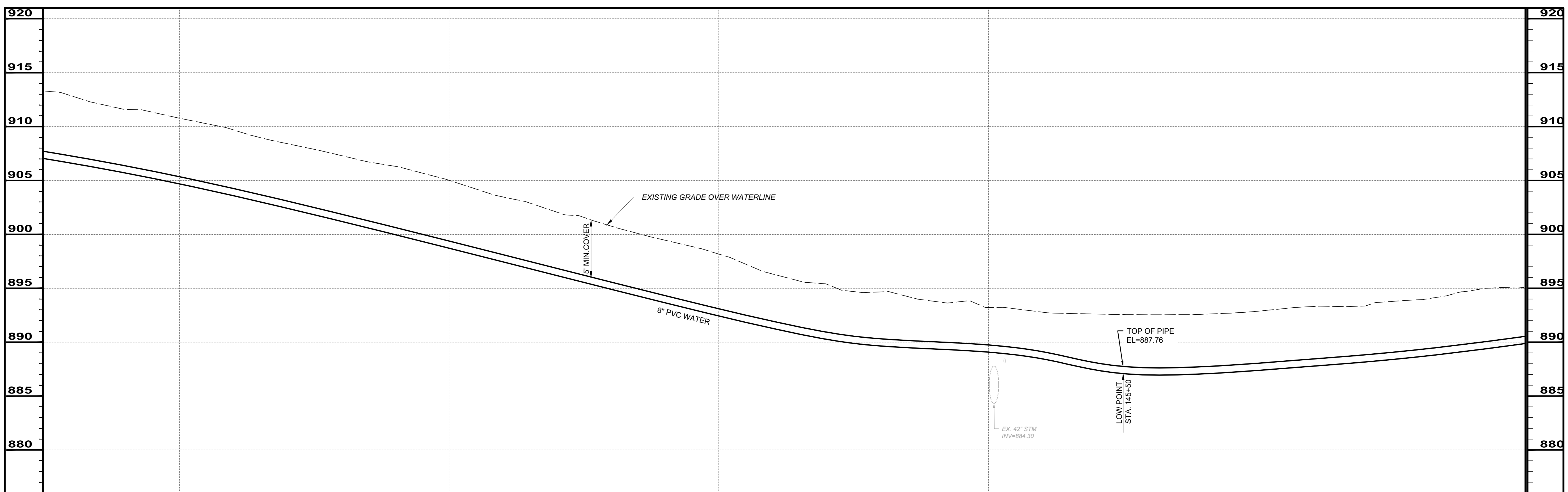
ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
PLAN AND PROFILES - 01 SERIES
STA. 136+00 TO STA. 141+50

PROJECT NO: 220544	
DRAWING NAME PP-10	
SHEET 18	OF 24



SOUTH RIVER ROAD



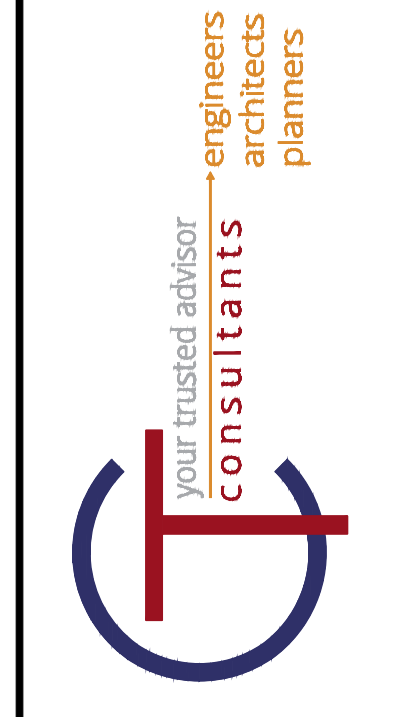
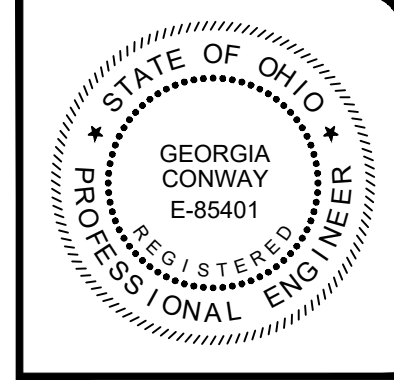
SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'

NO	REVISION	DATE

ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
PLAN AND PROFILES - 01 SERIES
STA. 141+50 TO STA. 147+00

PROJECT NO: 220544	
DRAWING NAME PP-11	
SHEET 19	OF 24

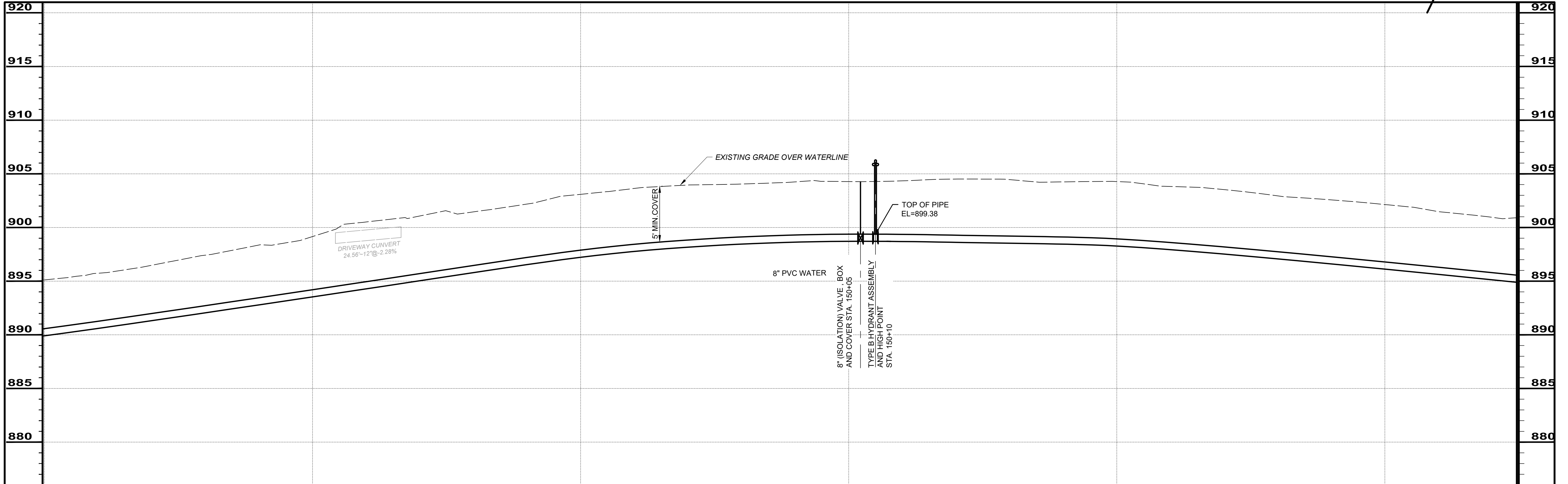
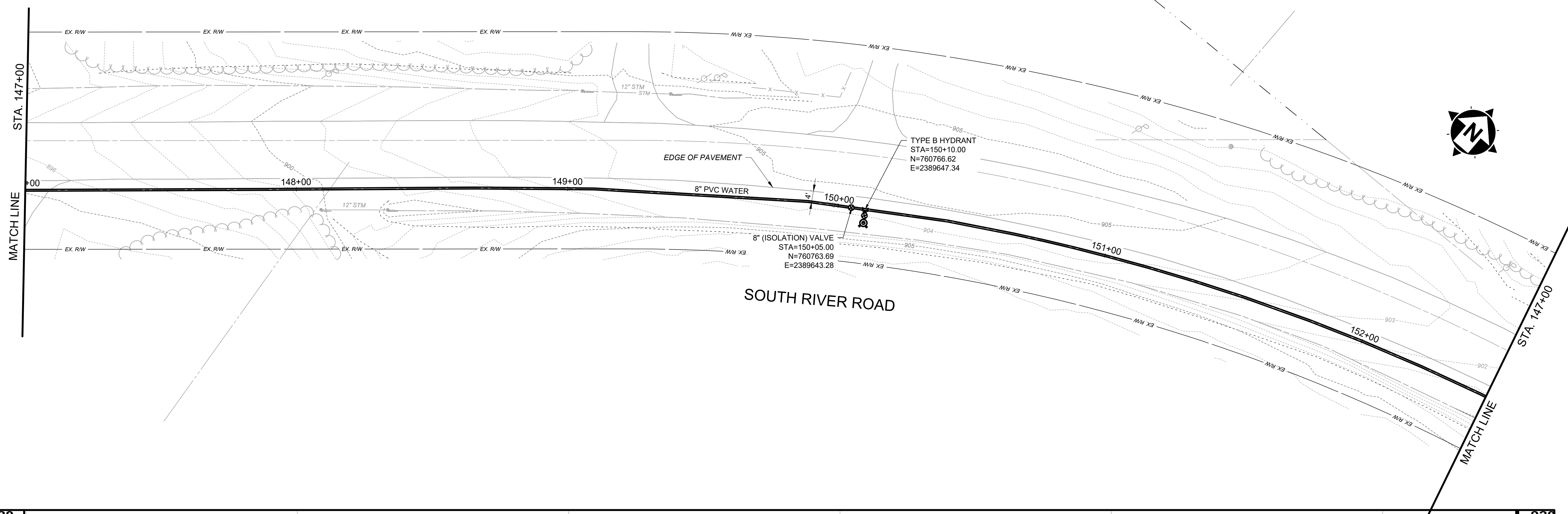


NO	REVISION	DATE

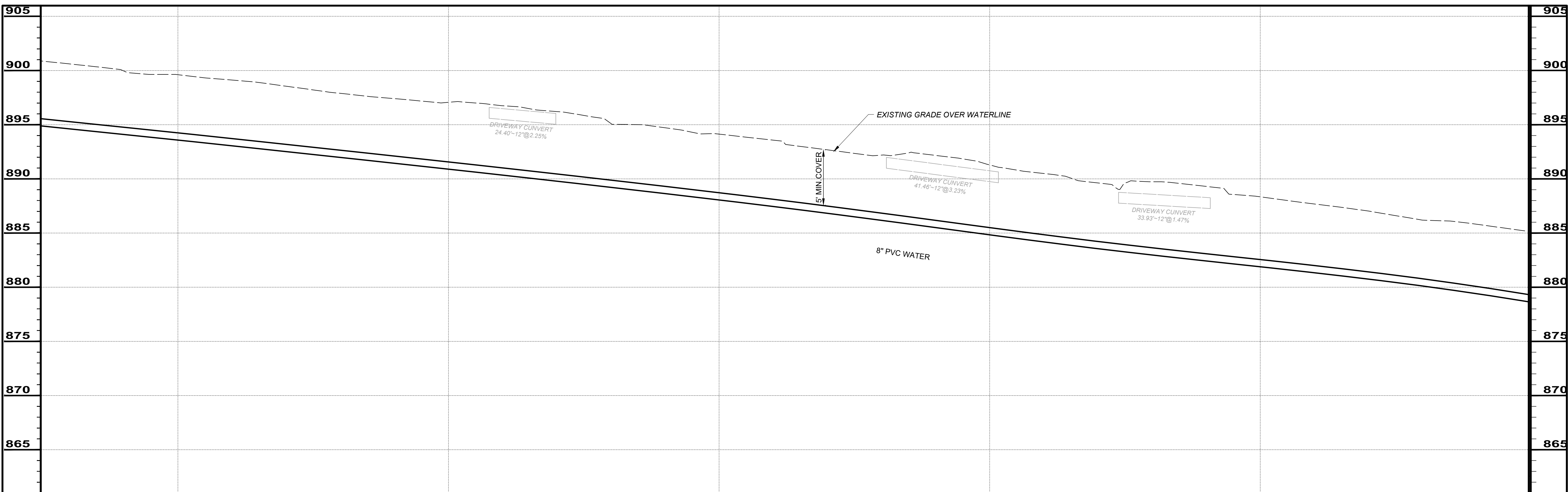
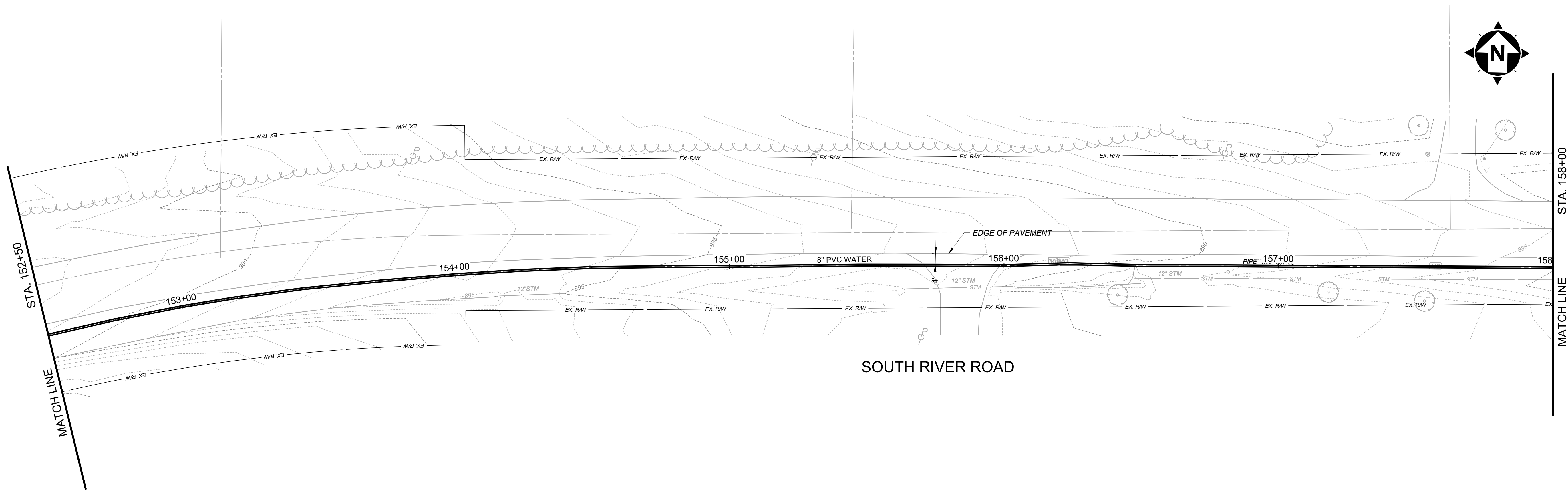
ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
 DEPARTMENT OF ENVIRONMENTAL SERVICES
 SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
 ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
 PLAN AND PROFILES - 01 SERIES
 STA. 147+00 TO STA. 152+50

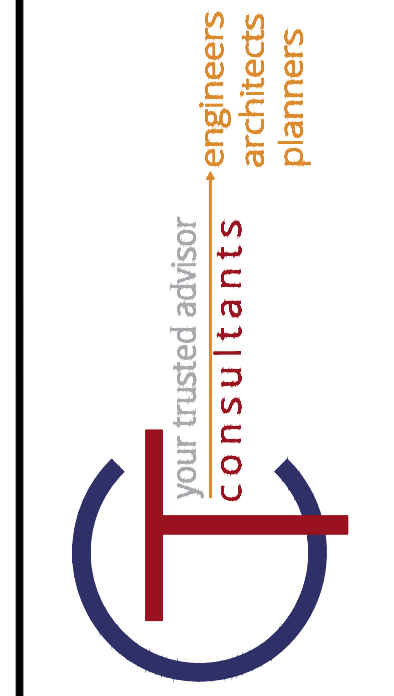
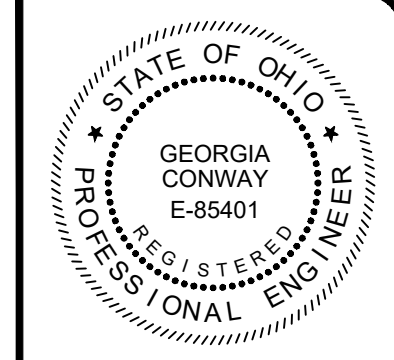
PROJECT NO: 220544	
DRAWING NAME PP-12	
SHEET 20	OF 24



SCALE: HORIZ. 1" = 20'
 VERT. 1" = 5'



SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'

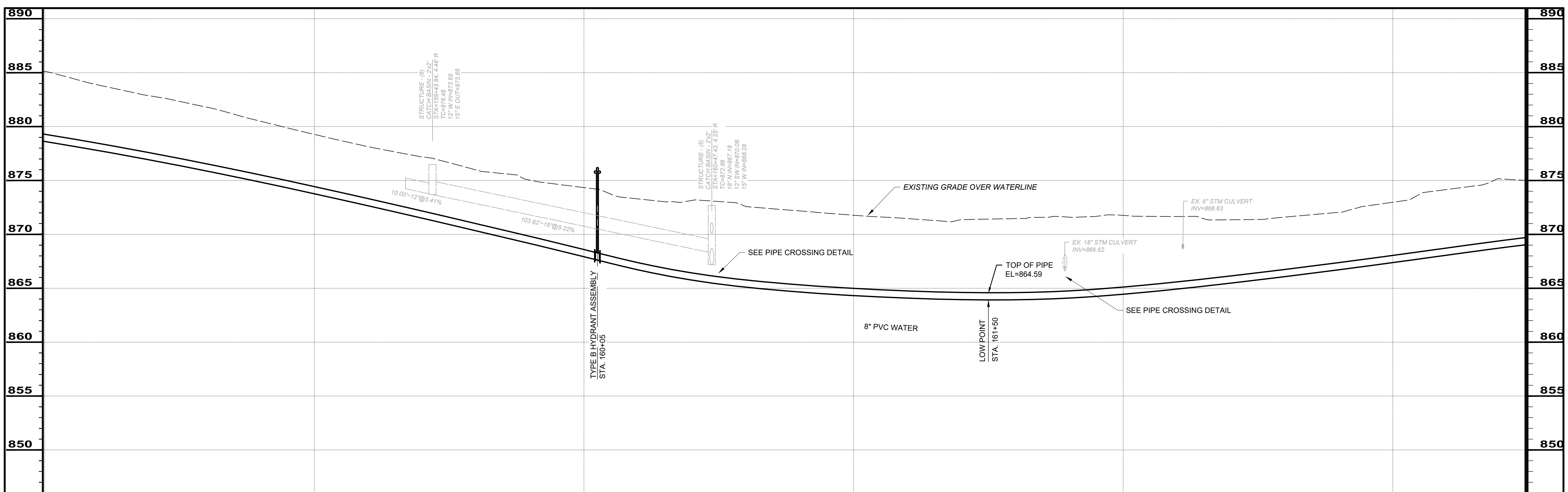
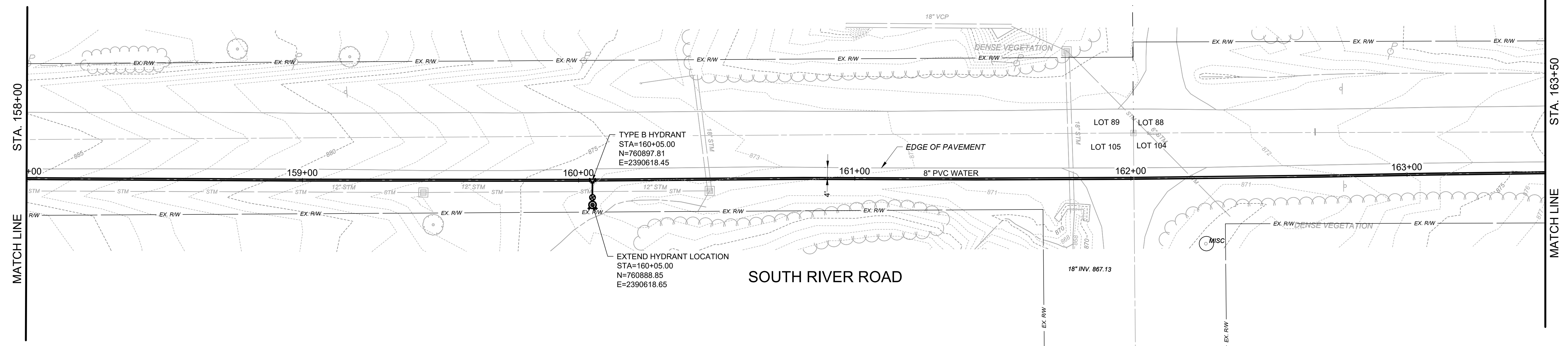
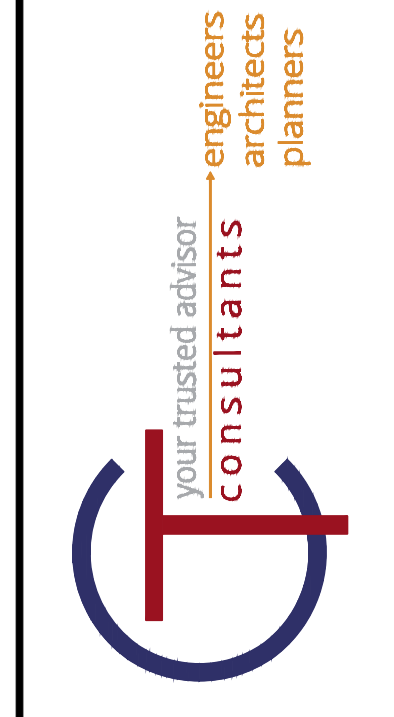


NO	REVISION	DATE

ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
PLAN AND PROFILES - 01 SERIES
STA. 152+50 TO STA. 158+00

PROJECT NO: 220544	
DRAWING NAME: PP-13	
SHEET 21	OF 24



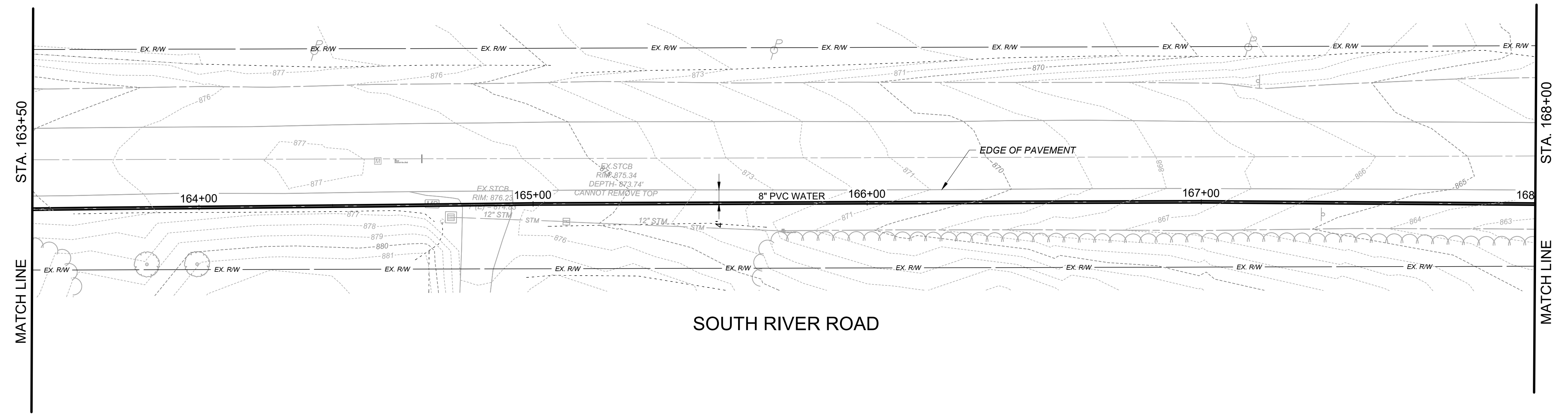
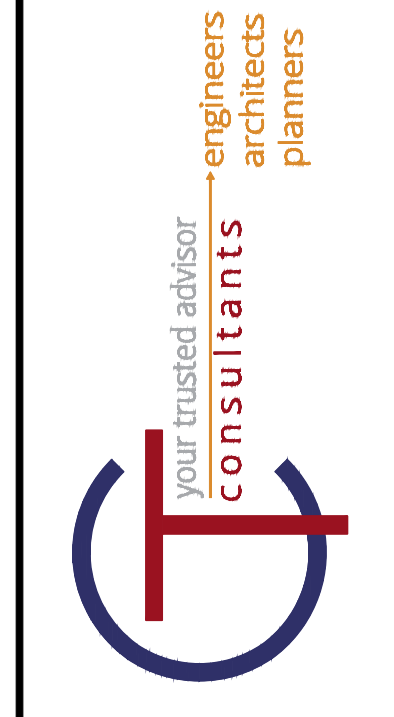
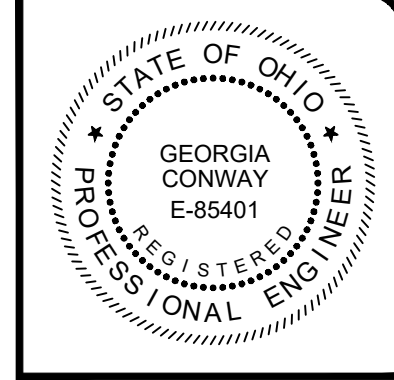
SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'

NO	REVISION	DATE

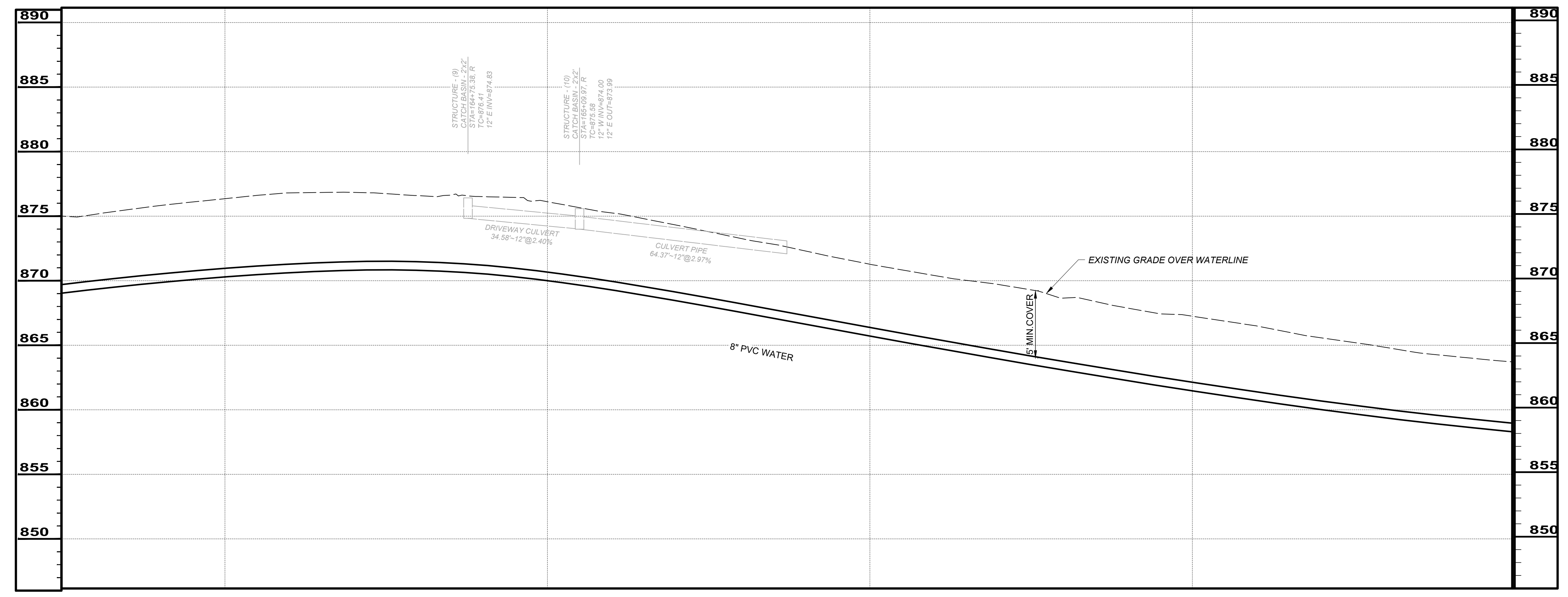
ISSUED FOR: EPA REVIEW	DATE: 02/17/2023	DESIGNED BY: RLM	DRAWN BY: RLM	CHECKED BY: GBC
------------------------	------------------	------------------	---------------	-----------------

ASHTABULA COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
PLAN AND PROFILES - 01 SERIES
STA. 158+00 TO STA. 163+50

PROJECT NO: 220544	
DRAWING NAME: PP-14	
SHEET 22	OF 24



SOUTH RIVER ROAD



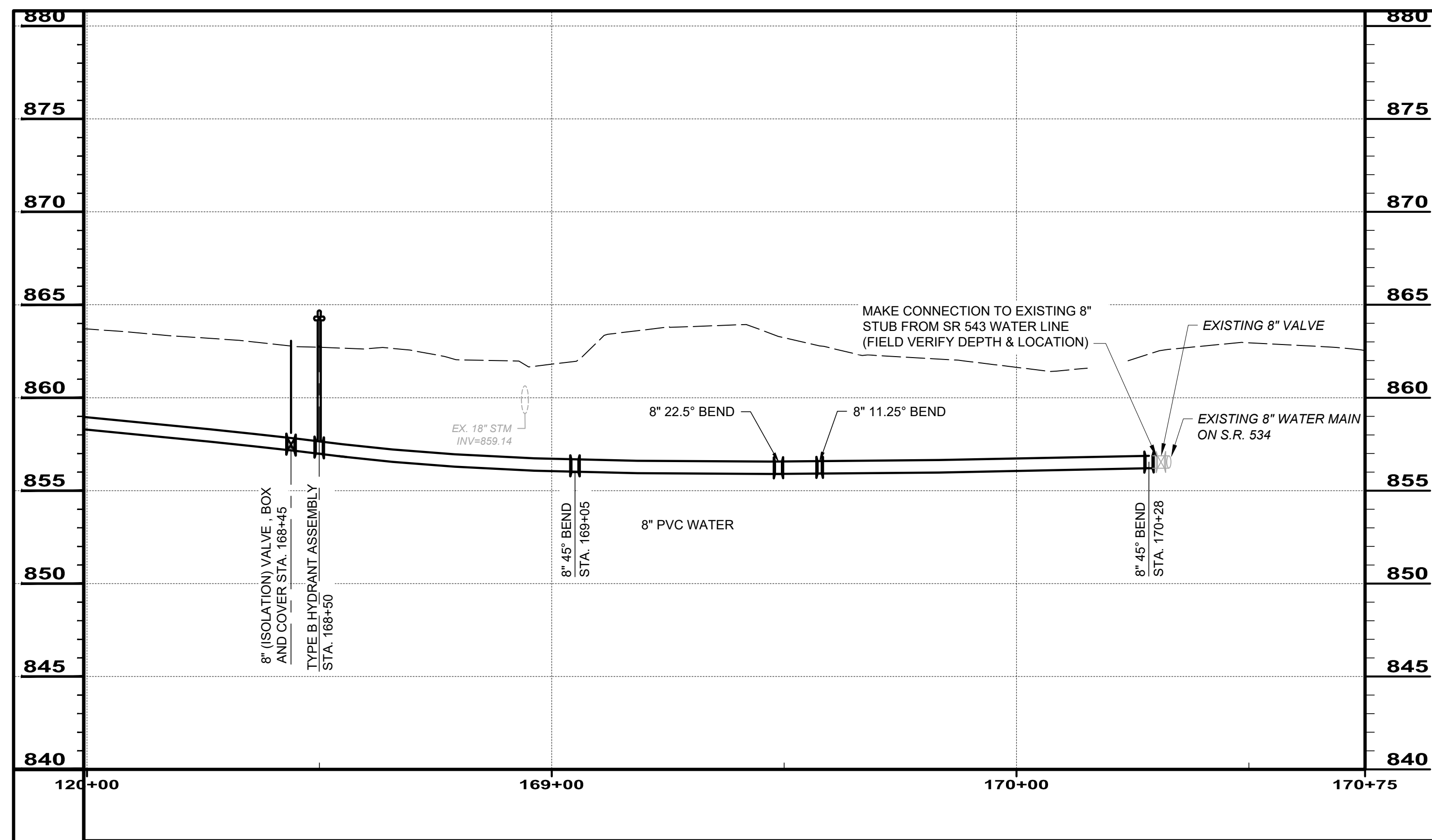
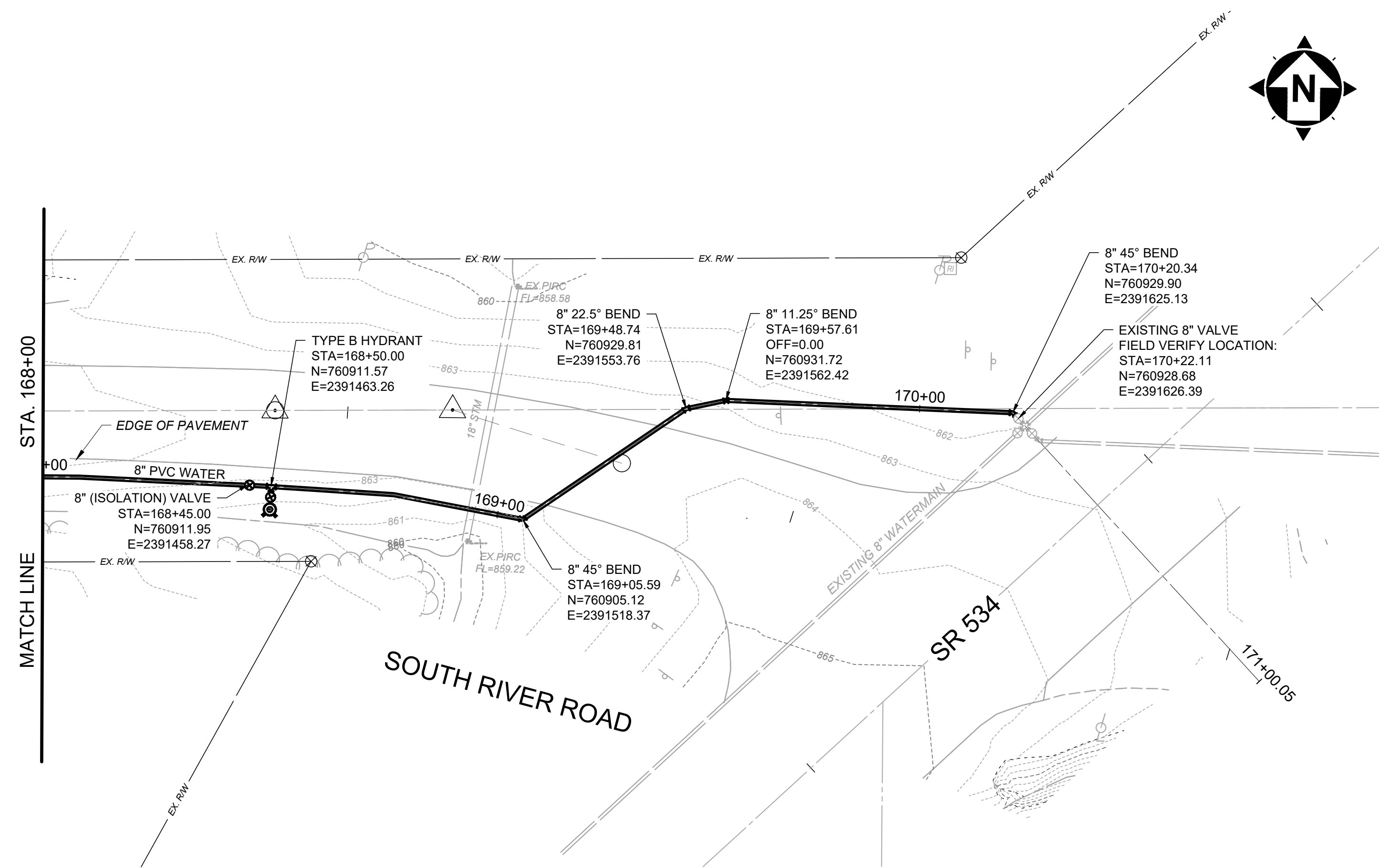
SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'

NO	REVISION	DATE

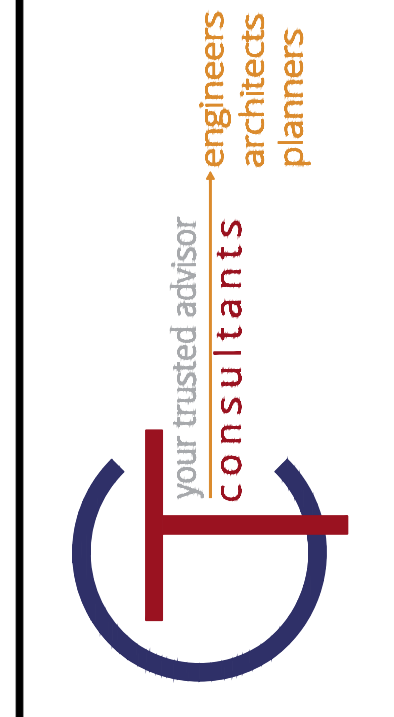
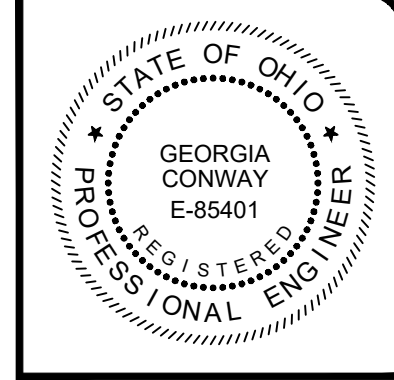
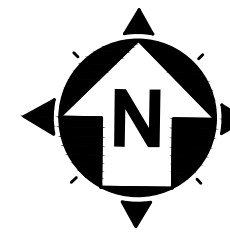
ISSUED FOR: EPA REVIEW	DATE: 02/17/2023
DESIGNED BY: RLM	DRAWN BY: RLM
CHECKED BY: GBC	

ASHTABULA COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
PLAN AND PROFILES - 01 SERIES
STA. 163+50 TO STA. 168+00

PROJECT NO: 220544	
DRAWING NAME: PP-15	
SHEET 23	OF 24



SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'



NO	REVISION	DATE

ISSUED FOR: EPA REVIEW	DATE: 02/17/2023
DESIGNED BY: RLM	DRAWN BY: RLM
CHECKED BY: GBC	

ASHTABULA COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
SOUTH RIVER ROAD WATERLINE EXTENSION PROJECT
ASHTABULA COUNTY HARPERSFIELD TOWNSHIP, OHIO
PLAN AND PROFILES - 01 SERIES
STA. 168+00 TO END

PROJECT NO: 220544	
DRAWING NAME PP-16	
SHEET 24	OF 24