ADDENDUM NO. 7 December 4, 2025

RE: River Corridor Public Sanitary Sewer Extension
397 S Main Street, South Lebanon, Ohio 45150

FROM: McGill Smith Punshon, Inc.
3700 Park 42 Drive - Suite 190 B
Cincinnati, Ohio 45241
513-759-0004

TO: Prospective Bidders

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated August 15, 2025. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

Addendum #7 consists of the following:

CLARIFICATIONS:

1. Use ODOT 304 backfill under bike path, gravity sewer & force main sewer. **See attached revised Bid Breakdown form and drawings.**
2. The unit price for all gravity & force main sewers shall include any repair and/or replacement of the asphalt bike path within the project limits.
3. The entire bike path within the Construction Limits shall receive an asphalt overlay per the City's agreement with ODNR. **See attached revised sheets.**
4. We revised the project estimate, and it is lower due to significant cost savings by using ODOT #304 in lieu of CDF backfill. **The new Project Estimate is $9,000,000.00.**

REQUESTS FOR INFORMATION:

1. *Sheet C18 references a spec section 40 05 81.26 for the yard hydrant. Can you provide this spec?*
   a. **This specification is included with this addendum.**
2. *Can you provide any information on the SCADA system/equipment to be used?*
   a. **See attached specification 27 26 00 – SCADA Equipment**
3. *Can you confirm the class of pipe, type of insulation and its weight to be used on the bridge?*
   a. **Use Class 53 DIP with insulation & jacketing across the bridge. Its weight is 60 lbs/LF – see attached Thermacor FerroTherm DI.**
4. Will scaffolding or a lift to access the work be needed or provided?
   a. **Access and installation of the Work across the bridge is the Contractor's responsibility – the Owner is not providing any scaffolding or lifts.**
5. Is heat tracing required on the 520' of 12" piping along the bridge?
   a. **Heat tracing is not in the scope of work along the bridge.**
6. On addendum #5, there are references to insulation and jacketing materials, but it appeared it was for carrier piping and was foam inside the HDPE jacketing. Please clarify.
   a. **The pipe is to receive HDPE jacketing.**

SUBSTITUTION REQUEST:

1. None as of this addendum.

ATTACHMENTS:

- Specification Section 40 05 81.26 – Freezeproof Yard Hydrants
- Specification Section 27 26 00 – SCADA Equipment
- Thermacor FerroTherm DI Specification Guide – DISG 8.101
- Revised Bid Form Breakdown (Revised Items highlighted Yellow)
- Revised Drawings C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14

END OF ADDENDUM #7

SECTION 40 05 81.26

FREEZE-PROOF YARD HYDRANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Yard hydrants that are freeze-proof, non-freeze or freezeless.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. Section 01 29 00 - Price and Payment Procedures: Contract Sum/Price modification procedures.

B. Freeze-Proof Yard Hydrant:

1. Basis of Measurement: By each (EA).
2. Basis of Payment: Includes non-freeze yard hydrant assembly, vacuum breaker and gravel; and for furnishing all labor, material and equipment required for installation.

1.3 REFERENCE STANDARDS

A. American Society of Sanitary Engineering (ASSE):
1. ASSE 1011, “Performance Requirements for Hose Connection Vacuum Breakers”

B. NSF International:
1. NSF 61, “Drinking Water System Components - Health Effects”
2. NSF/ANSI 372, “Drinking Water System Components - Lead Content”

C. Ohio Department of Transportation (ODOT):
1. 2019 Construction and Material Specifications

1.4 COORDINATION

A. Section 01 30 00 - Administrative Requirements: Requirements for coordination.

1.5 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B. Product Data: Submit manufacturer information regarding component materials, fittings, assembly and parts diagram, and accessories.

C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

D. Manufacturer Instructions: Submit detailed instructions on installation requirements, including storage and handling procedures.

E. Field Quality Control Submittals: Indicate results of Contractor furnished tests and inspections.

F. Qualifications Statement:

1. Submit qualifications for manufacturer.

1.6 CLOSEOUT SUBMITTALS

A. Section 01 77 00 - Closeout Procedures: Requirements for submittals.

B. Project Record Documents: Record actual locations of freeze-proof yard hydrants.

1.7 MAINTENANCE MATERIAL SUBMITTALS

A. Section 01 77 00 - Closeout Procedures: Requirements for maintenance materials.

1.8 QUALITY ASSURANCE

A. Yard hydrant and vacuum breaker shall be certified according to NSF 61 and NSF 372.

B. Vacuum breaker shall be certified according to ASSE 1011.

1.9 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum five (5) years of documented experience.

1.10 DELIVERY, STORAGE, AND HANDLING

A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.

B. Delivery:

1. Seal hydrant ends to prevent entry of foreign matter.
2. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.

C. Storage:

1. Store materials in clean, dry area indoors in accordance with manufacturer's instructions.
2. Do not store materials in direct sunlight.

PART 2 - PRODUCTS

2.1 FREEZE-PROOF YARD HYDRANTS

A. Manufacturers:
1. Zurn Industries
2. Simmons Manufacturing
3. Woodford Manufacturing
4. Approved equal

B. Description:

1. Type: Freeze-proof, non-freeze or freezeless.
2. Operating pressures shall be 8 psi minimum and 125 psi maximum.
3. Closure Valve: Free-floating, compression type.
4. Barrel: Automatic drain after use.
5. Stem: Nourishing.
6. Main Valve: 1 inch.
7. Lubrication: Furnish access hole in operating nut.

C. Materials:

1. Casing: Galvanized steel
2. Head: Cast iron and coated per manufacturer
3. Handle: Cast iron and coated per manufacturer
4. Hose Nozzle: Brass
5. Main Valve: Bronze
6. Drain Valve: Bronze
7. Operating Rod: Type 304 stainless steel
8. Interior Components: Type 304 stainless steel
9. Plunger Assembly: NBR
10. Packing: Fiber graphite
11. Lead-free as per NSF/ANSI 372.

D. Operation:

1. Cam-type, cast iron lever control.
2. Drain Valve: Actuated when main valve is in CLOSED position.

E. Connections:

1. Hose Nozzle: Removable 3/4" male hose nozzle with garden hose thread.
2. Drain Port: Tapped 1/8” N.P.T.
3. Inlet: 1” female N.P.T.

F. Accessories:

1. Vacuum Breaker
   a. Solid brass design. Lead-free as per NSF/ANSI 372.
   b. Inlet: 3/4" female garden hose thread.
   c. Outlet: 3/4” male garden hose thread.
   d. Operating pressures shall be 8 psi minimum and 125 psi maximum.
   e. Tamper-proof Type 304 stainless steel removable locking screw.
   f. Self-draining to prevent the yard hydrant from freezing.
   g. ASSE 1011 Certified

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that existing Site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.

B. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.

C. Identify required lines, levels, contours, and datum locations.

D. Verify elevations of existing facilities prior to excavation and installation of non-freeze yard hydrants are as indicated on Drawings.

3.2 PREPARATION

A. Locate, identify, and protect from damage the utilities that are to remain.

B. Do not interrupt existing utilities without permission and without making arrangements to provide temporary utility services.

1. Notify Architect/Engineer not less than three working days in advance of proposed utility interruption.
2. Do not proceed without written permission from Architect/Engineer.

3.3 INSTALLATION

A. Perform trench excavation, backfilling, and compaction as specified as specified on the Drawings.

B. Install non-freeze yard hydrants in conjunction with pipe laying.

C. Provide support blocking and drainage gravel while installing non-freeze yard hydrants; do not block drain hole.

D. Orientation:

1. Set hydrants plumb.
2. Set non-freeze yard hydrants with outlets as indicated on Drawings.
3. Set non-freeze yard hydrants with centerline of outlets as indicated on Drawings.

E. Installation Standards: Install Work according to ODOT Item 638.

F. Disinfection of Water Piping System: Flush and disinfect non-freeze yard hydrants with water mains as specified in ODOT Item 638.10.

3.4 FIELD QUALITY CONTROL

A. Section 01 40 00 - Quality Requirements: Requirements for inspecting and testing.

B. Testing: Pressure test non-freeze yard hydrants as specified in ODOT Item 638.09.

END OF SECTION

SCADA EQUIPMENT

General Requirements

PART 1- SCADA SYSTEM GENERAL CONDITIONS

1.01 REMOTE SITES

A. The New Remote Telemetry Units (RTU) shall be furnished by the System Integrator to interface with the (X) remote RTU Units. The SCADA operating software shall be available as hosted service or on dedicated PC by the providing manufacturer.

1. Provide and install (X) Scadata Remote Telemetry Units; shall be equipped with four (4) Digital Inputs, four (4) Analog Inputs, two (2) Digital Outputs, and two (2) Analog Outputs. The RTU shall be equipment with a lightning surge arrestor for antenna connection. The RTU shall use a radio communication network to communicate. All I/O requirements per station are outlined in the Attachment list.
2. Provide and install (X) complete antenna kits consisting of: four (X) Yagi directional antennas and one (1) Omni antenna with mounting brackets and up to thirty (30) feet LMR-400 cable and with Type N male connectors.
3. Internet connection shall be provided by customer located and Located (X)
4. Master computer system (Dell or Equivalent) with all appurtenances at (X).

B. All programming of the RTU units shall be provided by the System Integrator.

1.02 GENERAL

A. The contractor shall furnish and install, as shown on the plans and described herein, the various pieces of equipment necessary for a complete monitoring system. A single manufacturer shall furnish all equipment to the contractor to ensure system responsibility. The system shall communicate information from all inputs at all sites as required by the input/output (I/O) list in (X) at the end of this specification section to a central location. The complete system shall be provided with all computer programming, hardware such as remote telemetry units (RTU), cabling and antennas, manuals and documentation required for complete system configuration, communication, data acquisition and reporting.

B. The principal items of equipment shall include, but not be limited to, the following:

1. Remote Telemetry Units (RTU)
2. Pressure Transducers (Local and Remote)
3. Hosted or Dedicated Computer SCADA Software
4. Programming Time
5. Antennas
6. Antenna Cables
7. Surge Suppressors
8. Rechargeable Batteries

1.03 BASIS OF CONTRACTORS BID

A. The basis of design for this project is Scadata. This equipment has gone through a detailed evaluation and has been deemed most suitable for the application. There is no known alternative to the Scadata - SCADA system. The contractor is required to base their submitted bid on the specified equipment.

B. Non-evaluated manufacturers are required to go through a similar evaluation process to the Scadata System to be considered acceptable to bid this project. Bidding contractors wishing to have alternative manufacturers approved as equal to Scadata must submit all necessary review materials 14 days prior to bid date to allow for evaluation of the alternative manufacturer. Required materials for this evaluation include, but are not limited to:

1. Wiring and Panel Block diagrams for all sites within this project.
2. Product information for principal items listed above as well as any other component that may be required for the alternative system. Product information to include delineated catalog cut sheets specific to this project as a minimum.
3. A reference list with a minimum of five (5) installations that have been successfully operational for five (5) years or longer. As a minimum, the reference list will include the contact names, phone numbers, and locations of both the Owner and Consulting Engineer for projects of similar size and complexity.
4. A "statement of compliance" detailing paragraph by paragraph compliance or exceptions to these specifications.

C. Alternatives proposed by system integrators will not be considered equal to the specified manufactured system. System integrators will be required to submit a guarantee bond equal to the cost of their equipment for a period double the specified warranty time for this equipment.

1.04 APPLICABLE CODES AND STANDARDS

A. The system and its components shall comply with all applicable requirements of the following: 1. Electrical Code (National & Local)

2. NEMA
3. IEEE
4. EIA
5. FCC
6. ARRA

1.05 SUBMITTAL REQUIREMENTS

A. The contractor shall provide to the engineer complete submittal documentation for the products within this section for engineer’s approval prior to fabrication. The submittal shall include the following items as well as any additional materials required by the general conditions of this project.

1. Provide product data sheets for each of the principal items listed in this specification. Product information to include delineated catalog cut sheets specific to this project as a minimum.
2. Provide wiring and block layout drawings for each RTU showing the wiring diagrams for control circuits and interconnections of all components. Components shall be clearly labeled on the drawing.
3. A technical description of the system controlling software. Submittal must include samples of:
    a. Proposed text screens and menus
    b. Proposed graphics screens
    c. Proposed report logs and printed graphs
    d. Programming instructions suitable for operator use

4. Provide the radio path study specified herein.
5. Complete input / output list for all connected processes at each RTU location.

PART 2 - SYSTEM HARDWARE REQUIREMENTS

2.01 GENERAL

The SCADA system will consist of RTU's located at each monitored site that will communicate with the hosted software to collect data on all processes. The software will perform trend analysis, reporting, real time data collection & monitoring, alarm registering, alarm call outs, and maintain user profiles.

2.02 RTU REQUIREMENTS

A. In order to expedite replacement equipment and reduce spare components, RTU's shall be manufactured as a complete unit. RTU's that are assembled by system integrators consisting of various catalog parts as a custom design specific for this project will not be considered equal.

B. Each RTU shall consist of the minimum following quantities and features for the Input/output (I/O) at each site.

1. Qty. 4 – Digital / Discretionary Inputs
2. Qty. 4 – Analog Inputs
3. Qty. 2 – Digital / Discretionary Outputs
4. Qty. 2 – Analog Outputs
5. The RTU to be capable of switching analog inputs to digital inputs in any number combination totaling the total number of inputs per RTU.
6. Digital Inputs shall be normally open dry contacts.
7. Analog inputs shall be capable of receiving either 4 – 20 mA, 0 – 5 VDC, or 1 – 5 VDC inputs.
8. Power failure and low battery must be included on the RTU and will not require the use of any inputs listed above.
9. Contractor should review the end of the section for all SCADA I/O points per station required.

C. While analog and digital outputs may not be required for this project, the RTU must be supplied with the quantities noted above for future expansion of the system to include remote control of equipment within the system.

D. Each RTU shall be capable of expansion to an unlimited number of inputs and outputs as required by the job site. Expansion of the I/O will be accomplished through the addition of expansion boards with the same number of inputs and outputs as listed above. Designs that limit future expansion without the replacement of major components are not acceptable.

E. Each RTU shall be capable of accepting either 120/1/60 AC or up to 10 – 30 VDC power supply. Within the RTU shall be the capabilities of charging and / or operating off of a standby battery, in the event of a power outage. The RTU shall also be capable of operating a 12-volt 0.5-amp loop powered device whether on AC, DC, or battery power supply.

F. Each RTU input board shall be equipped with easily visible light emitting diodes (LED's) indicating open or closed contact for all digital connections (input and output) for quick immediate detection of circuit status by operator. LED's shall also be supplied to indicate Communication, Communication Transmit, Communication Receive, and Battery Charge.

G. RTU communication shall be via user selectable Modbus, TCP/IP, Ethernet/IP, SCIP, or SCIP/Ethernet. Transmission shall be continuous providing operator with real time information of each site. Each over the air transmission between the RTU shall not exceed 41 Bytes per packet. Each packet sent shall include site specific information related to the status of the remote site. Each RTU shall recognize a busy channel and delay broadcast as required. All RTU's within the network will complete the transmission of their data in 30 seconds or less. Systems that require more time will not be considered equal. Each transmission shall require a positive acknowledgement from the recipient, or the transmission shall be reinitiated.

H. The RTU must have the ability to time and date stamp all collected inputs.

I. Communication shall be via unlicensed radio and interface into the existing radio network; communicating in the 902-928 MHz frequency range with the option of using Ethernet as an alternative form of communicating to the RTU.

1. Each radio shall have the capability of acting as a repeating radio creating a mesh network of RTU sites. Effective range with this type of communication system is unlimited. Each RTU shall be supplied with the following accessories:

1. One (1) lightning surge arrestor for antenna connection consisting of N-type male connection to SMA-type female connection. Housing will consist of an aluminum body and a replaceable gas tube insert.

2. One (1) minimum four (4) hour gel cell battery for connection to RTU battery input. Battery to be shipped loose for field installation.

K. One (1) NEMA 4X enclosure with back plate is to be supplied for each well site. Enclosure shall be capable of housing all items listed above for RTU as well as one expansion board if additional I/O is required.

2.03 ANTENNA REQUIREMENTS

A. A Yagi directional type antenna is to be supplied for sites as noted in (X) for each site. The Minimum gain for this antenna shall be 10 dB. Antenna shall be equipped with a short pigtail cable and N-style jack connector. The Antenna shall be constructed of aluminum and be capable of 120 mph wind loading. Mounting hardware for connection to a 1.25-inch diameter antenna mast shall be included. The Supplier shall provide LMR-400 coaxial cable in sufficient length to connect the surge suppressor within the RTU to the antenna in a single piece, no splicing or joints will be allowed. See (X) for specific details regarding the antenna to be supplied for each site. Sites that require total antenna cable lengths greater than 50 ft. are required to substitute the LMR-400 cable specified with LMR-600 for reduced signal loss through the coaxial cable. All other requirements remain the same.

B. An Omni unidirectional antenna is to be supplied. The Minimum gain for antenna shall be 6dBi. The antenna shall be equipped with an N-style jack connector. The antenna shall be constructed of fiberglass and shall be capable of 120 mph wind loading. Mounting hardware for connection to a 2 inch diameter antenna mast shall be included. The supplier shall provide sufficient LMR-400 coaxial cable to connect the surge suppressor within the RTU to the antenna. The supplier shall provide LMR-400 coaxial cable in sufficient length to connect the surge suppressor within the RTU to the antenna in a single piece; splicing or joints will be allowed. See (X) for specific details regarding the antenna to be supplied for each site. Sites that require total antenna cable lengths greater than 50 feet are required to substitute the LMR-400 cable specified with LMR-600 for reduced signal loss through the coaxial cable. All other requirements remain the same.

C. Above items are shipped loose for contractor installation. Installation site to be a clean dry environment.

D. High speed internet service, for purposes of hosted software and alarming, the Internet connection provided by others.

2.04 TABLET FOR OPERATOR INTERFACE

A. Scada Supplier shall provide a Wi-Fi connectable tablet interface for operator access.

B. Tablet shall be an Apple iPAD Pro (Microsoft Surface Pro) with Wi-Fi capabilities minimum of 64 GB

1. 10.5-inch Retina display
2. A10X Fusion chip with 64-bit desktop-class architecture
3. Touch ID fingerprint sensor
4. 12MP camera with 4K HD video
5. 7MP FaceTime HD camera
6. 802.11ac Wi-Fi with MIMO
7. Up to 10 hours of battery life
8. IPAD model shall be the most current year model available.

2.05 MASTER SITE COMPUTER

A. Master site fixed base. One (1) Dell Desktop PC (or Equivalent) with current Windows Operating System shall be supplied. PC shall include wireless keyboard, wireless mouse, two 24-inch or greater monitors, color printer, and 24-hour UPS power supply. PC shall have current versions of Microsoft Word, Windows, Excel and Outlook installed for the viewing of reports created by the SCADA software. The dual 24 inch screens shall be wall mounted above the desk and shall include the hardware for installation. The Master RTU and UPS power supply shall be wall mounted in a NEMA 4X wall cabinet enclosures in the Well House near the desk station. The color printer will require a shelf mounted near the desk also.

B. (X) custom screens shall be provided as part of this project that display graphical presentation of each process or function as directed by Engineer.

C. Control functionality shall consist of controlling sequences based on customer's specifications and requirements.

D. Contractor shall have conduit and junction boxes to hide all wireway locations needed for the system operation.

PART 3 - OPERATING SYSTEM SOFTWARE REQUIREMENTS

3.01 GENERAL

A. For the purposes of complete system integration and single point source responsibility, the software must be manufactured/developed by the same company that manufactures the RTU's and hosted software. Standard / Cataloged software systems available from third parties provided by a hardware integrator will not be considered equal. The software will arrive preprogrammed for all inputs shown in (X). Alarming, trending, and reporting as required by the end user, must also be preprogrammed prior to software delivery.

B. The software is required to be operationally friendly and simple to program. Software that is similar in performance but requires a programmer to affect changes such as changing operators, changing I/O, adding or removing RTU sites, or changing computer driven alarm set conditions will not be considered equal and will not be acceptable. These basic functions/changes must be able to be changed by the owner of the system.

C. Any updates to the software developed after the completion of the project will be provided to the operator at no cost while software is being operated by user. Updates will be made available on the manufacturer's web page for download by all registered operators. Enhancements or expansions to program are subject to only the difference between the enhancement or upgrade and the original purchase price. Software packages that require operators to purchase new versions or pay full price for any upgrades are specifically not accepted.

3.02 GENERAL OPERATION

A. Upon startup of the software, operators will be required to log in with a specific username and password. Login will have a user definable layered security system which will allow full, restricted, or no access to modification of the software by the operator.

B. The software will query the network of wireless RTU's through the hosted software and its radio connection to the RTU's. The query process (communication poll) retrieves data from each RTU.

C. The software shall be capable of determining whether or not an RTU is responsive to a communications poll. If an RTU is not responsive, the software shall attempt to reconnect with the non-responsive RTU a user-definable number of times. If the RTU does not respond to the attempts to reconnect, the software will indicate a communication failure and proceed with notification as programmed.

3.03 GENERAL PROGRAM OPERATION

A. To provide simple operation of the software and display of the information gathered by the RTU network, all information within the network must be displayed on a single computer screen in a tabular format. The following information and buttons will be available on this screen.

1. The screen will display the current date and time as well as the last poll time of the selected RTU site.

2. The screen will display the current state of all digital inputs, as well as current values for all analog input in a user designated unit of measure.

3. The screen will automatically bring to the front and change the appearance of any input that is a sensed or computed alarm condition. The appearance will change again for an alarm condition that is present but acknowledged by the system operator.

4. The screen will display a scrollable list of all alarm conditions within the system as current, current and acknowledged, or unacknowledged and cleared. Time and date stamping for all alarms will be displayed for start, stop, and acknowledgement. Buttons must be provided on this screen that allow the operator to acknowledge alarms individually, per RTU site, or for the entire network.

5. The screen will contain a button that will allow the operator to manually poll any site within the RTU network, thus updating the status of all connected I/O immediately.

B. The software must also have the ability to display all of the information collected by the network in a graphical format. The graphical format shall utilize industry recognizable icons for items common to the application such as pump, valves, etc. Flows shall be represented in a qualified manner duplicating the flow paths used within the actual system.

C. The software will be accessible through the internet via commercially available PC sharing software packages and/or an APP downloadable via Google Play Store and Apple iTunes. These programs are password protected to prevent any tampering by non-authorized parties.

D. The software will include a window that can display up to sixty (60) individual set points or memory tags within the RTU network. The software will allow the operator to change which

memory tags are shown via a pop-up window that displays all preconfigured tags within the software. If the condition for which the memory tag is set within the RTU network is beyond the limits for the memory tag, the line on which it is displayed will alter its appearance to alert the operator. If desired, the operator will have the ability to acknowledge any alarm within the RTU network within this window, if desired.

E. The software shall also be designed to monitor rain, river level and/or other devices related to Flood Control.

3.04 ALARM OPERATION

A. In the event of an alarm condition occurring, the software will time and date stamp the start, stop, and acknowledgement of that alarm. This information will be automatically stored in a folder in a comma delineated file that can be accessed by any spreadsheet or database program.

B. The software must have the ability to allow alarms to be individually designated as text alarms. Text alarms alert the end user of the alarm condition per the paging group schedule. The ability to switch an alarm from a texted alarm to a non-texted alarm must be user adjustable.

C. Alarms can be delayed by a user selectable amount of time until notification of an alarm is sent to the operator in order to prevent nuisance alarms. The software will allow the user to select if texting is to occur at every change in status of the alarm, or alarm on only.

D. The software generated alarm message page shall contain the following information as a minimum:

1. Time stamp
2. Date stamp
3. Name/description of alarm condition
4. Value of the input (Analog only)
5. Alarm status

E. The software must be able to communicate the information listed above via either SMS text or email messages to the following types of devices as a minimum:

1. Tablets
2. Cellular Phones
3. Other Computers

F. The software must allow different paging groups. Paging groups can be user defined based on “On Call” status or job description, i.e., electrician or mechanic. The software will allow for the paging of these specific groups for specific alarms if desired. Switching alarm paging between different paging groups or switching the order of personnel within these groups shall be operator adjustable with a few mouse clicks. Software requiring advanced programming to affect these changes is specifically not allowed.

3.05 TRENDING DISPLAY OPERATION

A. The software will allow the operator to create an unlimited number of trending graphs. Trending graphs can display real time information on up to ten different monitored operations on a single graph.

B. The software will display trending graphs on the PC monitor in the following combinations, one graph, two graphs, three graphs, or six graphs. Each graph will have a pull-down selection window that will allow the operator to select the information to be displayed from all available trending graphs set up within the software.

C. The trend viewing window will be equipped with buttons to print the currently viewed trends immediately as well as to fit the Y-axis to the current data set. X-axis is time; a user adjustable window is available to allow the operator to select time frame to be viewed.

3.06 HISTORICAL DISPLAY OPERATION

A. The software will allow the operator to select up to ten (10) different monitored processes and display them on a single screen. The user can select the current time or input any start and stop time and date during the program's operation. The selected processes will be immediately displayed on the PC monitor. The user will be able to expand and contract either axis or grab and move the entire graph to fit their viewing needs. A button to print this graph will be provided on this screen.

3.07 FILE REPORT OPERATION

A. The software will allow the operator to export the current values of any monitored process, tag monitor, or combination thereof. There will be no limit on the number of reports that the software can generate or the number of processes or tags that can be sent to each report.

B. The report will increment at set intervals selected by the operator. The software will be preset with regular common intervals such as hourly, daily, monthly, etc., to expedite creation of customized reports. The software will also allow the operator to update the report manually if needed. All data exported to the report will be time and date stamped.

C. The report will be a tab delimited text file that can be imported into any spreadsheet or database program.

3.08 PRINT REPORT OPERATION

A. The software will allow the operator to print a regular report of any monitored process, tag monitor, or combination thereof. There will be no limit on the number of reports that the software can generate or the number of processes or tags that can be included on each printout.

B. Printed reports can be set by operator for automatic printing at a specific time of day or can be manually printed based on operator need.

C. Reports can be graphical tabular displays. They will be customizable by the operator to include general information such as time and date of report, number of pages, etc. They shall also be customizable to include information specific to the operator such as logos, location names, etc. The length of time contained on reports will be operator programmable.

3.09 SOFTWARE LOGIC PROGRAMMING

A. The software logic must be programmable via two different means, one designed for basic programming with little or no training, the second for advanced programming using third party commercially available software. Software must be fashioned in this manner such that an operator can reprogram the controlling logic by themselves, without the need to hire programmers, for future modifications to the system as the need arises.

1. Basic Programming

a. Control logic for the software shall be programmable using common English phrases and common characters such as >, $, and =. Software shall utilize basic if then logic statements to determine what actions may be necessary for the controlling software to take, based on the received inputs from the RTU system. Some examples of Basic Programming include: Abnormal level alarm from analog input, Scale modification from analog input, Pump alternation, Ramp up /ramp down, etc. Programming language that is not readily understandable by a non-programmer is not acceptable.

2. Advanced Programming

a. Control logic for the software shall also be programmable via a third-party graphical interface software system such as Lab View Visual Programming. Advanced programming must have the ability to integrate with Basic Programming noted above. Some examples of Advanced Programming include: Multiple stage control scenarios, Automated speed control, Flow pacing, Scale inversion of analog inputs to analog outputs, etc. Advanced Programming is employed primarily when the control logic becomes too complex for Basic Programming and thus programming becomes too expensive and time consuming.

PART 4 - EXECUTION & INSTALLATION

4.01 In the installation of an instrument, the various components shall be accessible for efficient maintenance. Care shall be taken in the installation process to ensure sufficient space is provided between instruments and other equipment or piping for ease of removal and servicing. All instruments shall be readily accessible from grade, permanent platforms, or fixed ladders.

4.02 The drawings show the operation of the panel in a general schematic version. The manufacturer shall submit shop drawings showing the actual methods used to accomplish the control as described herein.

4.03 All instrumentation devices shall be installed in accordance with the manufacturer's installation requirements.

4.04 Installation shall include all details including special brackets and mounting hardware which may be necessary to properly install the instruments. The special brackets and mounting hardware shall be stainless steel, galvanized, or nonferrous non-corrosive metal.

4.05 All mechanical fasteners such as bolts, nuts, screws, cinch anchors, clamps, etc., shall be 304 stainless steel.

PART 5 - STARTUP AND TRAINING

5.01 The manufacturer shall provide the services of an authorized factory representative to inspect the installation, make any necessary adjustments, and place the equipment into operation. The manufacturer’s representative shall instruct the operating personnel in the operation and maintenance of the equipment.
The manufacturer’s representative shall note any deficiencies on the startup report and inform the appropriate party at the time of start up to remedy the deficiency or make the necessary repairs or adjustments as needed. The manufacturer shall provide (X) onsite trips to perform the above tasks.

5.02 The manufacturer or his representative shall allow time for site check outs and commissioning of the RTU network. It is the installing contractor’s responsibility to go to each site, contact the manufacturer, and perform this commissioning together at a time that is convenient to both parties. The manufacturer or his representative may be present or may log into the operating software remotely to perform this commissioning; owner must provide remote access if requested. As a minimum this work will consist of:

A. Verifying communication between RTU and Software

B. Verifying all I/O listed in the table within these specifications at each site

C. Adjusting all scales for analog inputs at each device

D. Verifying output action and scale (analog only) if present

5.03 As a minimum, the manufacturer / vendor shall make available to the end user a general training session conducted at either onsite or remotely via Zoom, Microsoft Teams or similar program. Training shall occur approximately every (X) months and shall be free to all registered operators. Operator may attend as many sessions as desired and with as many different personnel as desired. The purpose of these training systems is to educate the operator on the operation of the SCADA

system, allow them to network and compare operational practices, and empower the operator to effectively operate and maintain their SCADA system maximizing their return on their investment. Alternative suppliers that cannot document two (2) consecutive years of similar free training sessions for owners of their systems will not be considered equal. Documentation required is: training agenda, date and time for training, attendee lists with contact numbers. Training items to be included as a minimum:

A. RTU installation

1. Proper wiring
2. Radio programming

B. Trouble shooting an existing system

1. Removal of nuisance alarms

C. Software programming

1. Adding / removing RTU sites
2. Adding / removing operators
3. Creating / adjusting paging groups
4. Adding / adjusting / removing I/O from RTU sites
5. Adding / adjusting alarm paging and set points D. Report generation / configuration

PART 6 - WARRANTY

6.01 The equipment contained within this specification shall be free of defective materials and/or workmanship

for a period of 1 year from date of project completion including all installation of each unit individually and/or system installation and verification of system in complete working order along with operations. The manufacturer shall be obligated to furnish replacement materials at no charge to the owner unless proven defective within this warranty period. This warranty shall not be construed to cover lights, fuses, or other items normally consumed in service or those items which have been damaged due to outside forces such as vandalism, lightning, operator error, power surges, unauthorized repair or modifications, etc.

Pre-insulated Ductile Iron Piping Systems *suitable for Chilled Water and Heating Hot Water distribution piping*

Part 1 – General

1.1 Pre-insulated Piping - Furnish a complete system of factory pre-insulated Ductile Iron piping for the specified service. All pre-insulated pipe, fittings, insulating materials, and technical support shall be provided by the Pre-insulated Piping System manufacturer.

1.2 The system shall be **FERRO-THERM D.I.** manufactured by **Thermacor Process Inc.** of Fort Worth Texas.

Part 2 – Products

2.1 Carrier pipe shall be Ductile Iron**,** Pressure or Special Class as specified, in nominal lengths standard to the industry for the specified product. Pipe and fittings shall contain an internal cement lining and be coated inside and out with a bitumastic seal coat. Systems operating over 140°F shall not be coated internally. Pre-insulated pipe sections shall be insulated from the bell end to just short of the spigot insertion stop mark. Joints shall be bell and spigot, push-on type, with SBR gaskets for cold applications, or EPDM gaskets for applications operating over 140°F. Mechanical or restrained joints may be used if required by the project. Maximum operating temperature with EPDM gaskets is 250°F.

2.2 Insulation shall be polyurethane foam either spray applied or injected with one shot into the annular space between carrier pipe and jacket, and shall be bonded to both. Insulation shall be rigid, 90-95% closed cell polyurethane with a 2.0 to 3.0 pounds per cubic foot density and coefficient of thermal conductivity (K-Factor) of 0.18 and shall conform to ASTM C-591. Maximum operating temperature shall not exceed 250°F. Insulation thickness shall be specified by calling out appropriate carrier pipe and jacket size combinations as listed on drawing DISG 8.103.

2.3 Jacketing material shall be extruded, black, high density polyethylene (HDPE), having a wall thickness not less than 100 mils for jacket sizes less than or equal to 12”, 125 mils for jacket sizes larger than 12” to 24”, and 150 mils for jacket sizes greater than 24”. No tape jacket allowed. The inner surface of the HDPE jacket shall be oxidized by means of corona treatment, flame treatment (patent pending), or other approved methods. This will ensure a secure bond between the jacket and foam insulation preventing any ingression of water at the jacket/ foam interface.

2.4 Straight run joints are push-on, mechanical, or restrained-joint type straight field joints. At the Engineer’s option, joints may be jacketed with a split sleeve and sealed with heat shrink tape to prevent the ingression of water or debris.

2.5 Fittings shall be Ductile Iron with gasket joint similar to that of the ductile iron pipe. Push-on and mechanical-joint style fittings are not insulated and concrete thrust blocks are poured at all changes of direction. *Thrust block design and sizing is the responsibility of the design engineer.* Restrained-joint fittings, when used with restrained-joint piping, shall be thrust blocked and may be insulated with flexible urethane foam insulation, jacketed and wrapped with polyethylene backed, pressure sensitive rubberized bitumen adhesive tape, 30 mils thick.

Part 3 – Execution

3.1 Underground systems shall be buried in a trench of not less than two feet deeper than the top of the pipe and not less than eighteen inches wider than the combined O.D. of all piping systems. A minimum thickness of 24 inches of compacted backfill over the top of the pipe will meet H-20 highway loading.

3.2 Trench bottom shall have a minimum of 6” of sand as a cushion for the piping. Pipe and fittings shall be laid sequentially, field cutting the pipe as necessary per the manufacturer’s installation instructions. At least 75% of each section of pre-insulated pipe shall be covered (approximately one foot of cover per 100 psi of test pressure) with select backfill material. All fittings shall be suitably thrust blocked before attempting any pressure tests of the system.

(Continued)

3.3 A hydrostatic pressure test of the carrier pipe shall be performed per the engineer's specification with a factory recommendation of one and one-half times the normal system operating pressure for not less than two hours. Care shall be taken to insure all trapped air is removed from the system prior to the test. *Appropriate safety precautions shall be taken to guard against possible injury to personnel in the event of a failure.*

3.4 Field service, if required by project specifications, will be provided by a certified manufacturer's representative or company field service technician. The technician will be available at the job to check unloading, storing, and handling of pipe, joint installation, pressure testing, and backfilling techniques. This service will be added into the cost as part of the project technical services required by the pre-insulated pipe manufacturer.

THERMACOR

FERRO-THERM D.I.

Specification Guide

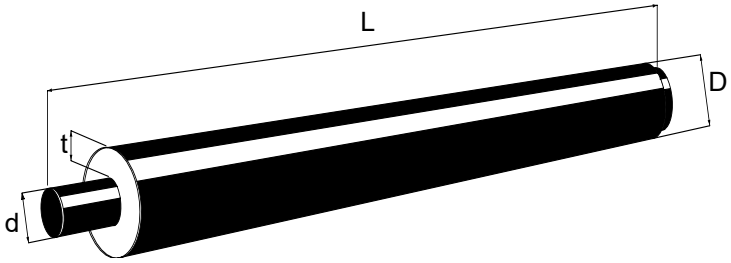
POLYURETHANE FOAM IN HDPE JACKET

DISG
8.103
2.05.2021

Carrier Pipe:
- Class 50, Ductile Iron w/ EPDM Gaskets
- Class 51, Ductile Iron w/ EPDM Gaskets (3” & 4”)
- Note: 3” DI has a long lead time.

Jacketing Material:
High Density Polyethylene (HDPE)

Insulation:
Polyurethane Foam



Nominal Pipe Size	Pipe Size d	Jacket Size D	Standard Length L	Insulation Thickness t	Weight Per Foot (lbs.)
3”	3.96”	6.7”	18’	1.27”	11.13
		8.7”	18’	2.27”	12.10
4”	4.8”	8.7”	18’	1.84”	14.43
		10.9”	18’	2.93”	16.01
6”	6.9”	10.9”	20’	1.88”	20.55
		12.9”	20’	2.88”	21.71
8”	9.05”	12.9”	20’	1.80”	28.06
		14.1”	20’	2.40”	29.60
10”	11.10”	14.1”	20’	1.38”	36.51
		16.1”	20’	2.38”	38.69
12”	13.20”	16.1”	20’	1.33”	46.27
		18.3”	20’	2.43”	48.23
14”	15.30”	18.3”	20’	1.38”	57.24
		20.3”	20’	2.38”	60.60
16”	17.40”	20.3”	20’	1.33”	67.94
		22.2”	20’	2.28”	70.23
18”	19.50”	22.2”	20’	1.23”	77.71
		24.4”	20’	2.30”	80.35
20”	21.60”	24.4”	20’	1.25”	88.00
24”	25.80”	28.3”	20’	1.10”	110.88
		30.6”	20’	2.25”	114.92

* Other sizes are available.
** Other lengths available based on D.I. pipe manufacturer.
*** Restraint joint available.
**** Standard HDPE wall thickness

CITY OF SOUTH LEBANON
RIVER CORRIDOR PUBLIC SANITARY SEWER EXTENSION

BID FORM BREAKDOWN

Rev 12-04-2025

REF. NO.	ITEM NO.	DESCRIPTION	APPROX. QTY.	UNIT OF MEASURE	UNIT COST	EXTENDED COST
1	201	Clearing and Grubbing, as per plan	1	LS		
2	202	Asphalt Pavement Removed	6,838	SY		
3	202	Gravel Drive Removed	224	SY		
4	202	Concrete Walk Removed	172	SF		
5	202	Pipe Removed	1,367	LF		
6	202	Pipe on Bridge Removed	297	LF		
7	202	Wood Railing Removed	340	FT		
8	202	Fencing & Post Removed	90	FT		
9	203	Excavation	3,500	CY		
10	203	Embankment	5,500	CY		
11	304	ODOT 304 Granular Backfill (gravity, forcemain sewers & watermain per WCDWS details)	6,817	CY		
12	204	Subgrade Compaction	8,284	SY		
13	301	Asphalt Concrete Base	157	CY		
14	304	Aggregate Base	2,009	CY		
15	407	Trackless Tack Coat	659	GAL		
16	441	Asphalt Concrete Surface Course, Type 1, (448), PG64-22 (Bike Path Overlay/Resurface)	273	CY		
17	441	Asphalt Concrete Surface Course, Type 1, (448), PG64-22	306	CY		
17	441	Asphalt Concrete Intermediate Course, Type 2, (448)	458	CY		
18	452	Non-Reinforced Concrete Drive, Class QC1P	168	SY		
19	607	8' High Chain Link Fence	744	FT		
20	607	5' Wide, 8' High Chain Link Swing Gate	2	EA		
21	607	Wood Railing	340	FT		
22	607	Fencing & Post	90	FT		
23	608	Concrete Walk	202	SF		
24	611	6" PVC, SDR 26, Sanitary Sewer Lateral	518	LF		
25	611	8" PVC, SDR 26 Sanitary Sewer	379	LF		
26	611	15" PVC, SDR 26 Sanitary Sewer	2,140	LF		
27	611	15" Ductile Iron Pipe, Class 56 Sanitary Sewer	77	LF		
28	611	18" PVC, SDR 26 Sanitary Sewer	3,648	LF		
29	611	Sanitary Manhole (Warren County)	24	EA		
30	611	Sanitary Inside Drop Manhole (Warren County)	4	EA		
31	611	Sanitary Cleanout and Appurtenances	9	EA		
32	614	Maintaining Traffic	1	LS		
33	624	Mobilization	1	LS		

CITY OF SOUTH LEBANON
RIVER CORRIDOR PUBLIC SANITARY SEWER EXTENSION
BID FORM BREAKDOWN
Rev 12-04-2025

REF. NO.	ITEM NO.	DESCRIPTION	APPROX. QTY.	UNIT OF MEASURE	UNIT COST	EXTENDED COST
34	638	8" Ductile Iron Pipe, Class 52 Water Main	680	LF		
35	638	1-1/2" Type K Copper Water Service Line	44	LF		
36	638	8" Gate Valve & Box	1	EA		
37	638	6" Fire Hydrant Assembly, Complete	1	EA		
38	638	Meter Pit and Appurtenances	1	EA		
39	638	Connect to Existing Water Main	1	EA		
40	642	Parking Lot Stall Marking, Type 1	158	FT		
41	642	Accessible Parking Symbol Marking, Type 1	1	EA		
42	653	Topsoil Furnished and Placed	6,559	CY		
43	659	Seeding and Mulching, Class 1	18,623	SY		
44	659	Seeding and Mulching, Class 2	40,401	SY		
45	659	Water	319	MGAL		
46	832	Erosion Control	1	LS		
47	SPEC	WWTP Meter Pit and Yard Piping	0	LS		
48	SPEC	8" Ductile Iron Pipe, Class 53 Force Main	41	LF		
49	SPEC	12" Ductile Iron Pipe, Class 53 Force Main	5,872	LF		
50	SPEC	Air Release Valve Assembly	9	EA		
51	SPEC	Air Release Valve Assembly (Pipe on Bridge)	2	EA		
52	SPEC	12" Force Main on Bridge	1	LS		
53	SPEC	Vertical Bend Concrete Anchor	2	EA		
54	SPEC	Pump Stations, Valve Vaults, Generator and Appurtenances	1	LS		
55	SPEC	Flow Meter Manhole	1	EA		
56	SPEC	8' High Chain Link Sliding Gate, Controls and Appurtenances	1	EA		
57	SPEC	Control Building Site Demolition	1	LS		
58	SPEC	Control Building (Total of 58A thru 58L)	1	LS		
58A		Concrete Foundations and Slab on Grade	1	LS		
58B		Masonry (CMU, brick, accessories, etc)	1	LS		
58C		Miscellaneous Metals, Lintels	1	LS		
58D		Wood Trusses, sheathing, blocking, plastics & composites	1	LS		
58E		Thermal & Moisture Protection (Insulation, sealants, roofing, AVB)	1	LS		
58F		Doors, windows, storefront systems & hardware	1	LS		
58G		Finishes (GWB, paint, tile, ACT, etc.)	1	LS		
58H		Specialties	1	LS		
58J		Plumbing to 5'-0" outside building footprint (fixtures, piping & accessories)	1	LS		

CITY OF SOUTH LEBANON
RIVER CORRIDOR PUBLIC SANITARY SEWER EXTENSION

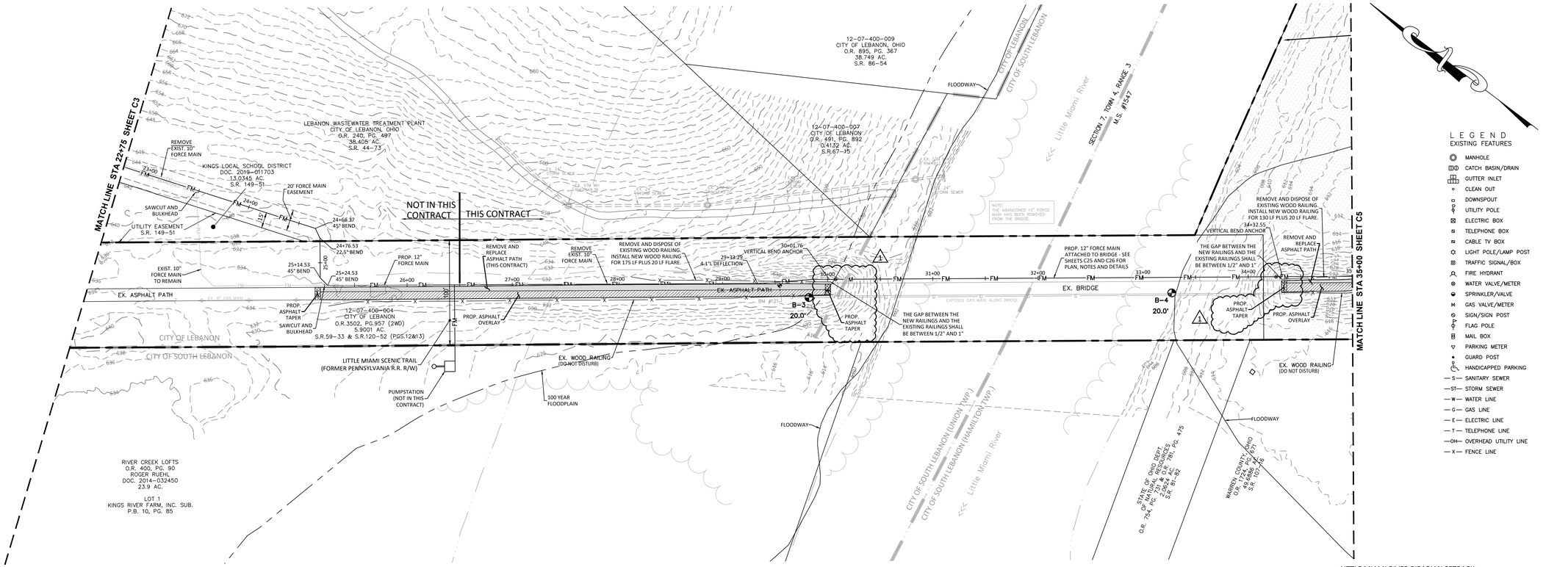
BID FORM BREAKDOWN

Rev 12-04-2025

REF. NO.	ITEM NO.	DESCRIPTION	APPROX. QTY.	UNIT OF MEASURE	UNIT COST	EXTENDED COST
58K		HVAC (Equipment, ductwork & accessories)	1	LS		
58L		Electrical to 5'-0" outside building footprint (electric gear, lighting, wiring & accessories)	1	LS		
59	SPEC	Aerial Sanitary Sewer Crossing	1	EA		
60	SPEC	Pump Station and Appurtenances Demolition	2	EA		
61	SPEC	Site Lighting (Pump Station Site)	1	EA		
62	SPEC	Pipe Filled with CDF	1,590	LF		
63	SPEC	Excavation & Export of unsuitable soils under Control Bldg & Generator Pad	1,440	CY		
64	SPEC	Import and compaction of engineered fill under Control Bldg & Generator Pad	1,440	CY		
65		Add/Deduct Alternate - Use CDF in lieu of engineered fill for line item 64				
66	SPEC	Dewatering Allowance	1	LS		$250,000.00
67	SPEC	Owner Contingency Allowance	1	LS		$775,000.00
68	SPEC	Clearing and Grubbing Allowance, not specified on plan	1	LS		$100,000.00

TOTAL COST **$** _____

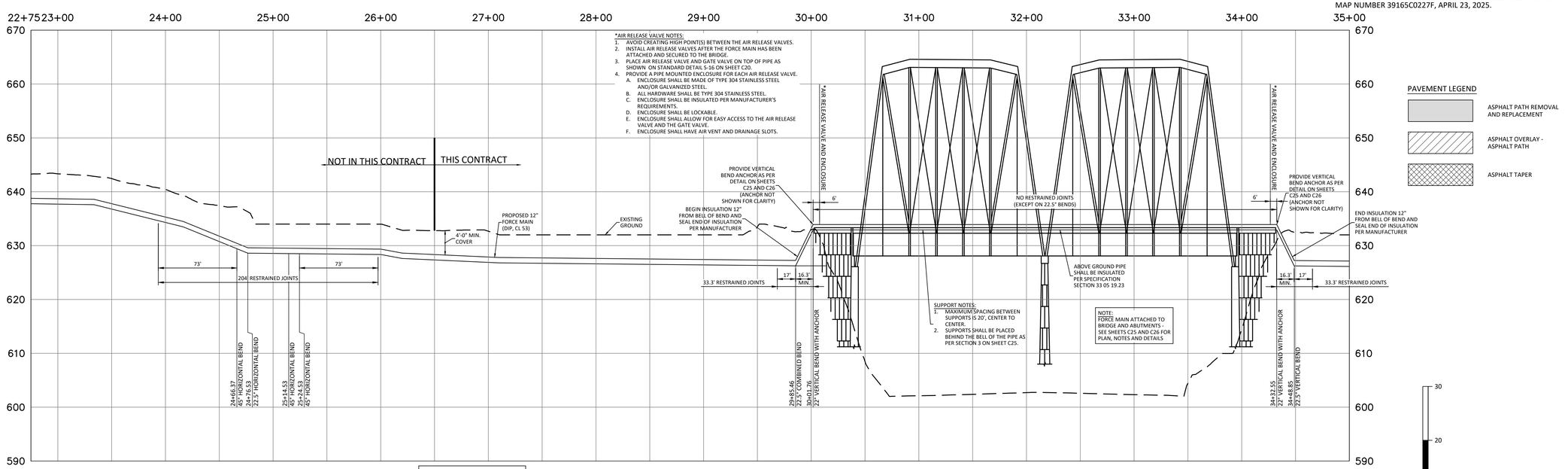
Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.



PLAN
1"=50'

LITTLE MIAMI RIVER RIPARIAN SETBACK
THE FORCE MAIN IS WITHIN THE SETBACK FROM STA 20+80 TO STA 89+73 (END)

FLOODPLAIN AND FLOODWAYS
THE LOCATION OF THE FLOODPLAIN AND FLOODWAY ARE BASED ON FEMA MAP NUMBER 39165C0226F, APRIL 23, 2025 AND FEMA MAP NUMBER 39165C0227F, APRIL 23, 2025.



NOTE:
PROVIDE THRUST BLOCKS AT ALL BENDS, REDUCERS AND TEES ALONG WITH THE RESTRAINING JOINTS AS SHOWN ON THE PROFILES

FORCE MAIN: STA 22+75 TO 35+00
1"=50' HOR. / 1"=10' VERT.

MSP DESIGN
McGill Smith Punshon
■ Architecture
■ Engineering
■ Landscape Architecture
■ Planning
■ Surveying
3700 Park 42 Drive
Suite 190B
Cincinnati OH 45241
Phone 513.759.0004
www.mspdesign.com

Project Manager	RA
Drawn By	REL
DWG	06308124-IMP - FINAL
X-Ref(s)	---

Issue/Revision	No.	Date
PTI SUBMITTAL		10/18/22
BID/PERMIT		8/15/25
ADDENDUM #7	1	12/03/25

RIVER CORRIDOR PUBLIC SANITARY SEWER EXTENSION
THE CITY OF SOUTH LEBANON WARREN COUNTY, OHIO

Sheet Title

FORCE MAIN PLAN & PROFILE

Project Number	06308.12
Drawing Scale	1" = 50'
Sheet Number	C4
File Number	06308

OHIO Utilities Protection SERVICE Call Before You Dig
811 or 1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

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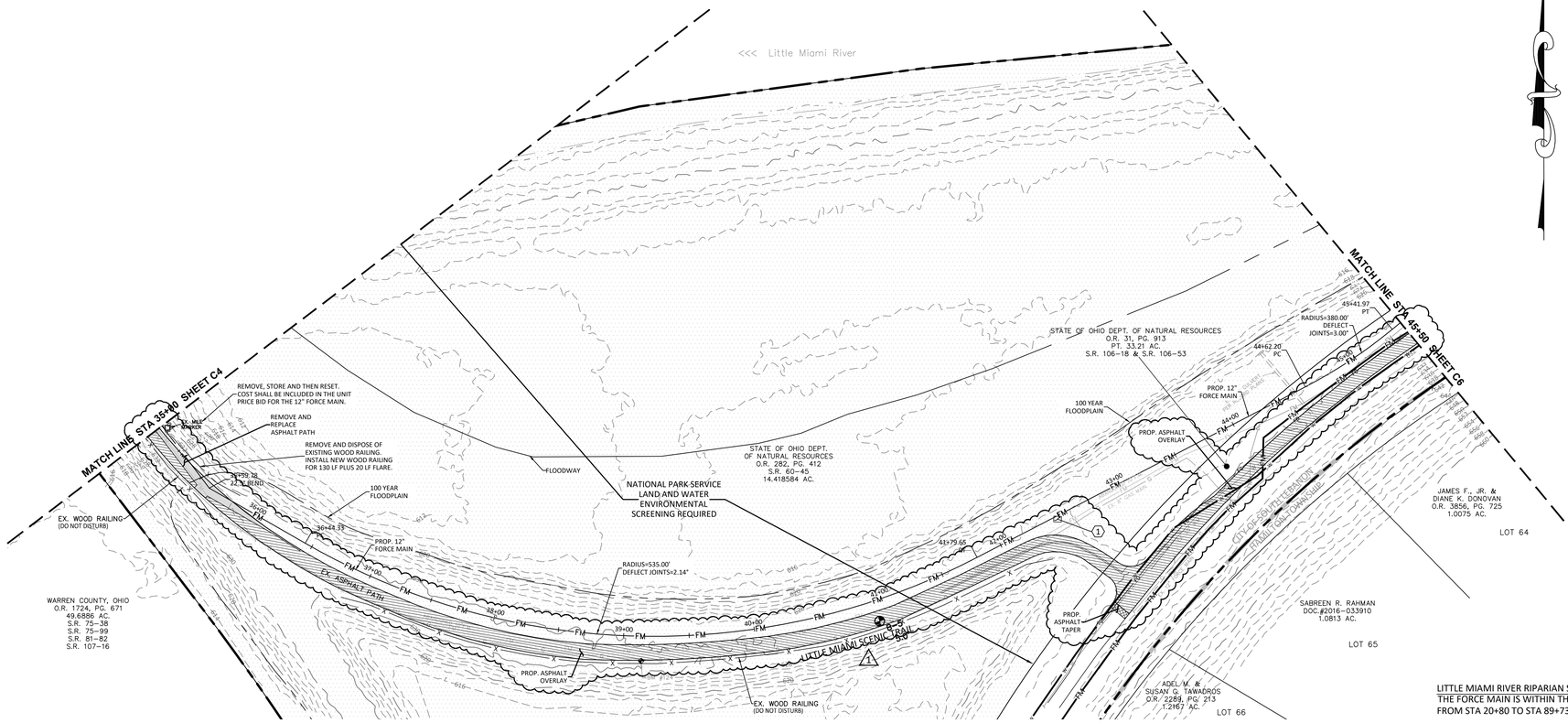

PLAN
1"=50'

NOTES:
1. REPLACEMENT OR REINSTALLATION SHALL OCCUR AFTER THE TRENCH HAS BEEN BACKFILLED AND COMPACTED.
2. CONCRETE USED FOR REPLACEMENT OR REINSTALLATION ON THIS SHEET SHALL BE CLASS QC1 PER ITEM 499.

CODED NOTES:
(1) REMOVE WOOD INFORMATION BOARD AND STORE. REMOVE CONCRETE PAD AND DISPOSE. REINSTALL AT SAME LOCATION. CONCRETE PAD DIMENSIONS AND THICKNESS SHALL MATCH EXISTING. PROVIDE AGGREGATE BASE AS PREVIOUS. REINSTALL SIGN ON CONCRETE PAD AND ATTACH WITH PROPERLY SIZED STAINLESS STEEL BOLTS, BRACKETS AND ANCHOR BOLTS.

LITTLE MIAMI RIVER RIPARIAN SETBACK
THE FORCE MAIN IS WITHIN THE SETBACK FROM STA 20+80 TO STA 89+73 (END)

FLOODPLAIN AND FLOODWAYS
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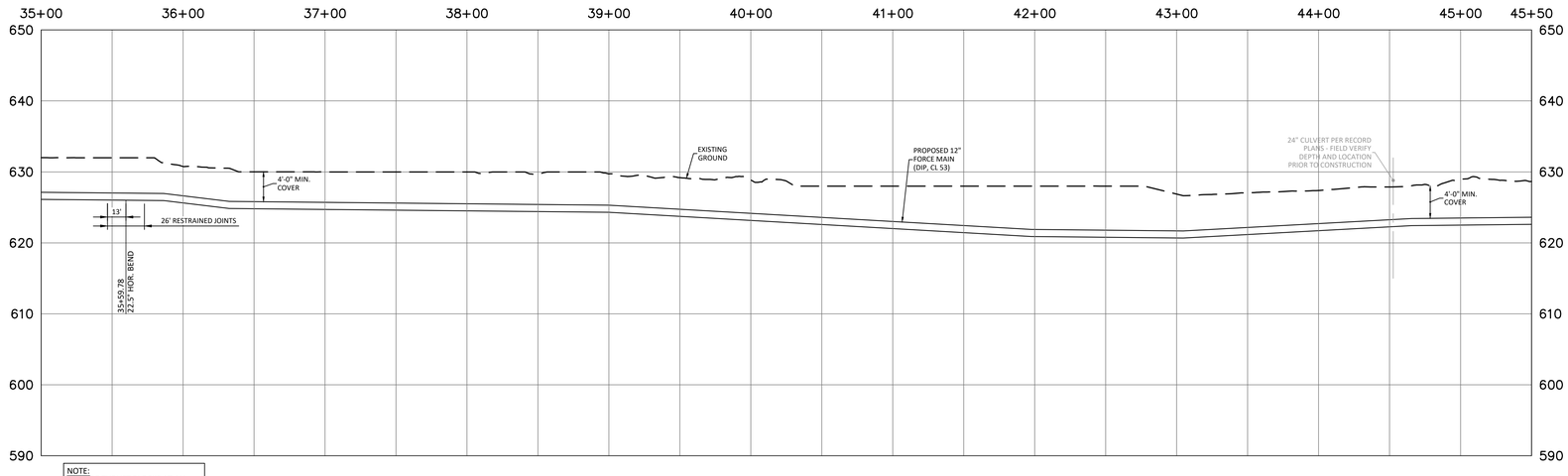

NOTE:
PROVIDE THRUST BLOCKS AT ALL BENDS, REDUCERS AND TEES ALONG WITH THE RESTRAINING JOINTS AS SHOWN ON THE PROFILES

FORCE MAIN: STA 35+00 TO 45+50
1"=50' HOR. / 1"=10' VERT.

PAVEMENT LEGEND
- ASPHALT PATH REMOVAL AND REPLACEMENT
- ASPHALT OVERLAY - ASPHALT PATH
- ASPHALT TAPER

SCALE IN FEET
0 25 50 100 150
30 20 10 5 0

OHIO Utilities Protection SERVICE
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CALL TWO WORKING DAYS BEFORE YOU DIG (NON MEMBERS MUST BE CALLED DIRECTLY)

LEGEND
EXISTING FEATURES
- MANHOLE
- CATCH BASIN/DRAIN
- GUTTER INLET
- CLEAN OUT
- DOWNSPOUT
- UTILITY POLE
- ELECTRIC BOX
- TELEPHONE BOX
- CABLE TV BOX
- LIGHT POLE/LAMP POST
- TRAFFIC SIGNAL/BOX
- FIRE HYDRANT
- WATER VALVE/METER
- SPRINKLER/VALVE
- GAS VALVE/METER
- SIGN/SIGN POST
- FLAG POLE
- MAIL BOX
- PARKING METER
- GUARD POST
- HANDICAPPED PARKING
- S — SANITARY SEWER
- ST — STORM SEWER
- W — WATER LINE
- G — GAS LINE
- E — ELECTRIC LINE
- T — TELEPHONE LINE
- OH — OVERHEAD UTILITY LINE
- X — FENCE LINE

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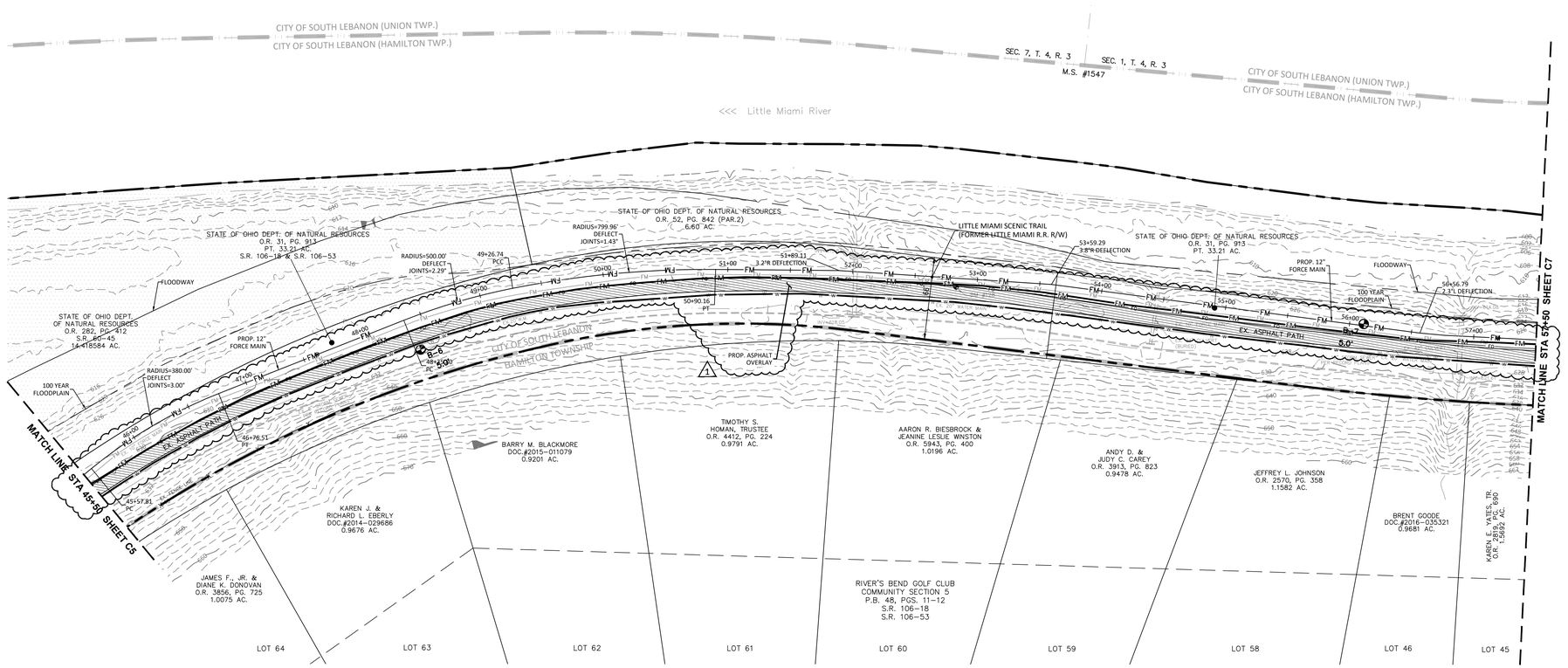
Issue/Revision	No.	Date
PTI SUBMITTAL		10/18/22
BID/PERMIT		8/15/25
ADDENDUM #7	1	12/03/25

RIVER CORRIDOR PUBLIC SANITARY SEWER EXTENSION
THE CITY OF SOUTH LEBANON
WARREN COUNTY, OHIO

Sheet Title

FORCE MAIN PLAN & PROFILE

Project Number	06308.12
Drawing Scale	1" = 50'
Sheet Number	C5
File Number	06308



PLAN
1"=50'

LEGEND
EXISTING FEATURES

- MANHOLE
- CATCH BASIN/DRAIN
- GUTTER INLET
- CLEAN OUT
- DOWNSPOUT
- UTILITY POLE
- ELECTRIC BOX
- TELEPHONE BOX
- CABLE TV BOX
- LIGHT POLE/LAMP POST
- TRAFFIC SIGNAL/BOX
- FIRE HYDRANT
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- SPRINKLER/VALVE
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- W — WATER LINE
- G — GAS LINE
- E — ELECTRIC LINE
- T — TELEPHONE LINE
- OH — OVERHEAD UTILITY LINE
- X — FENCE LINE

LITTLE MIAMI RIVER RIPARIAN SETBACK
THE FORCE MAIN IS WITHIN THE SETBACK
FROM STA 20+80 TO STA 89+73 (END)

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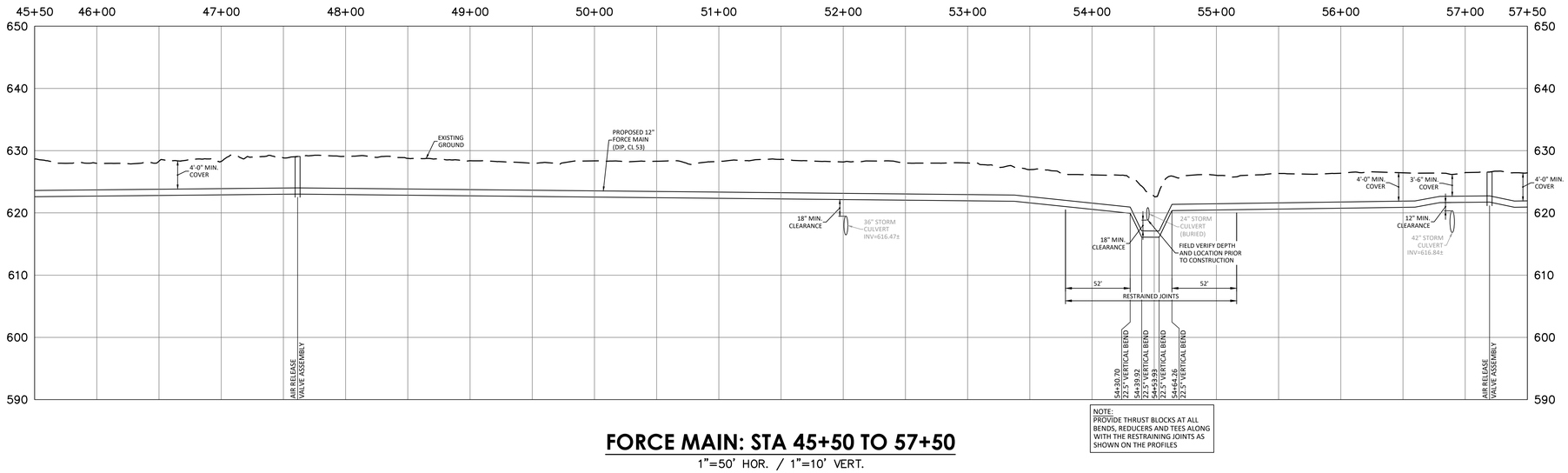

FORCE MAIN: STA 45+50 TO 57+50
1"=50' HOR. / 1"=10' VERT.

NOTE:
PROVIDE THRUST BLOCKS AT ALL BENDS, REDUCERS AND TEES ALONG WITH THE RESTRAINING JOINTS AS SHOWN ON THE PROFILES

SCALE IN FEET
0 25 50 100 150
30 20 10 5 0

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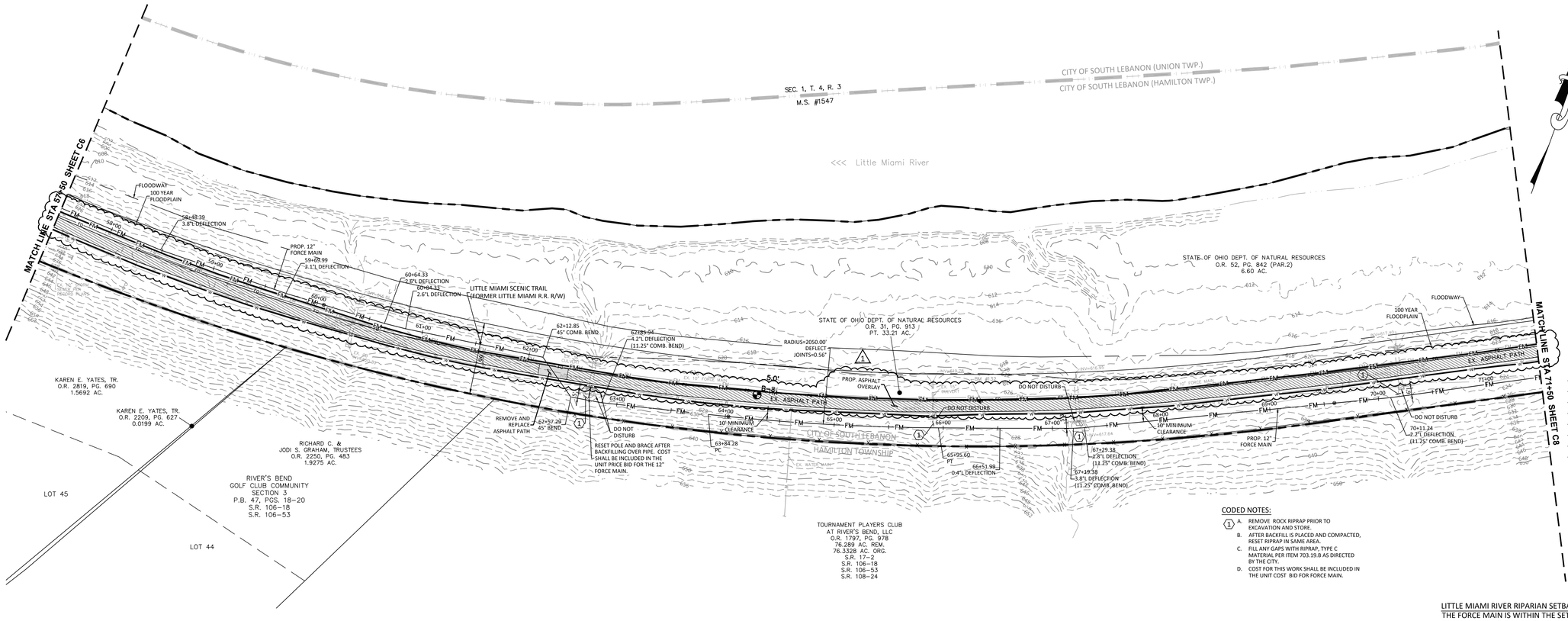
RIVER CORRIDOR PUBLIC SANITARY SEWER EXTENSION
THE CITY OF SOUTH LEBANON
WARREN COUNTY, OHIO

Sheet Title

FORCE MAIN PLAN & PROFILE

Project Number	06308.12
Drawing Scale	1" = 50'
Sheet Number	C6
File Number	06308



PLAN
1"=50'

CODED NOTES:

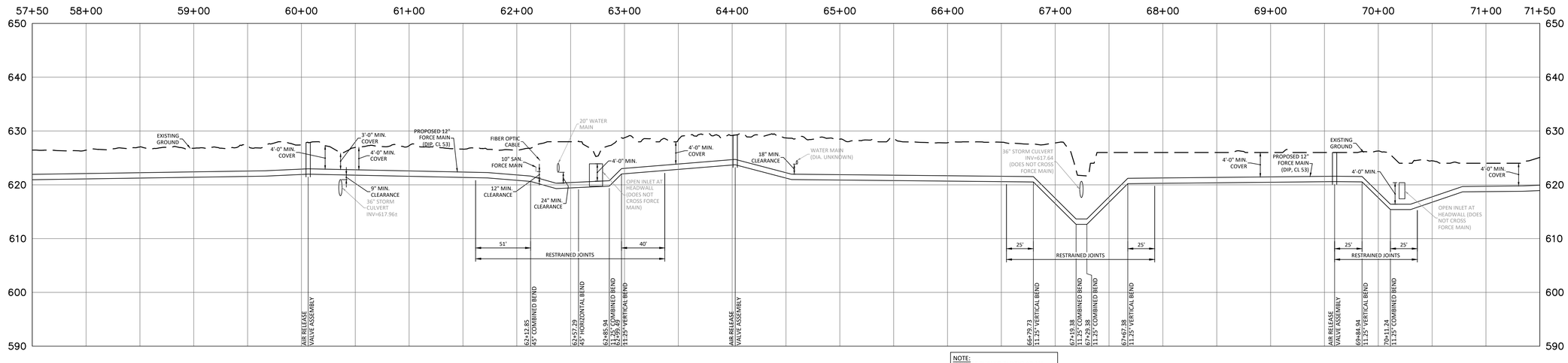
1. A. REMOVE ROCK RIPRAP PRIOR TO EXCAVATION AND STORE.
   B. AFTER BACKFILL IS PLACED AND COMPACTED, RESET RIPRAP IN SAME AREA.
   C. FILL ANY GAPS WITH RIPRAP, TYPE C MATERIAL PER ITEM 703.19.B AS DIRECTED BY THE CITY.
   D. COST FOR THIS WORK SHALL BE INCLUDED IN THE UNIT COST BID FOR FORCE MAIN.

LITTLE MIAMI RIVER RIPARIAN SETBACK
THE FORCE MAIN IS WITHIN THE SETBACK FROM STA 20+80 TO STA 89+73 (END)

FLOODPLAIN AND FLOODWAYS
THE LOCATION OF THE FLOODPLAIN AND FLOODWAY ARE BASED ON FEMA MAP NUMBER 39165C0226F, APRIL 23, 2025 AND FEMA MAP NUMBER 39165C0227F, APRIL 23, 2025.

PAVEMENT LEGEND

ASPHALT PATH REMOVAL AND REPLACEMENT



FORCE MAIN: STA 57+50 TO 71+50
1"=50' HOR. / 1"=10' VERT.

NOTE:
PROVIDE THRUST BLOCKS AT ALL BENDS, REDUCERS AND TEES ALONG WITH THE RESTRAINING JOINTS AS SHOWN ON THE PROFILES

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SCALE IN FEET
0 25 50 100 150
30 20 10 5 0

LEGEND
EXISTING FEATURES

- MANHOLE
- CATCH BASIN/DRAIN
- GUTTER INLET
- CLEAN OUT
- DOWNSPOUT
- UTILITY POLE
- ELECTRIC BOX
- TELEPHONE BOX
- CABLE TV BOX
- LIGHT POLE/LAMP POST
- TRAFFIC SIGNAL/BOX
- FIRE HYDRANT
- WATER VALVE/METER
- SPRINKLER/VALVE
- GAS VALVE/METER
- SIGN/SIGN POST
- FLAG POLE
- MAIL BOX
- PARKING METER
- GUARD POST
- HANDICAPPED PARKING
- —S— SANITARY SEWER
- —ST— STORM SEWER
- —W— WATER LINE
- —G— GAS LINE
- —E— ELECTRIC LINE
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- —OH— OVERHEAD UTILITY LINE
- —X— FENCE LINE

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Project Manager	RA
Drawn By	REL
DWG	06308124-IMP - FINAL
X-Ref(s)	---

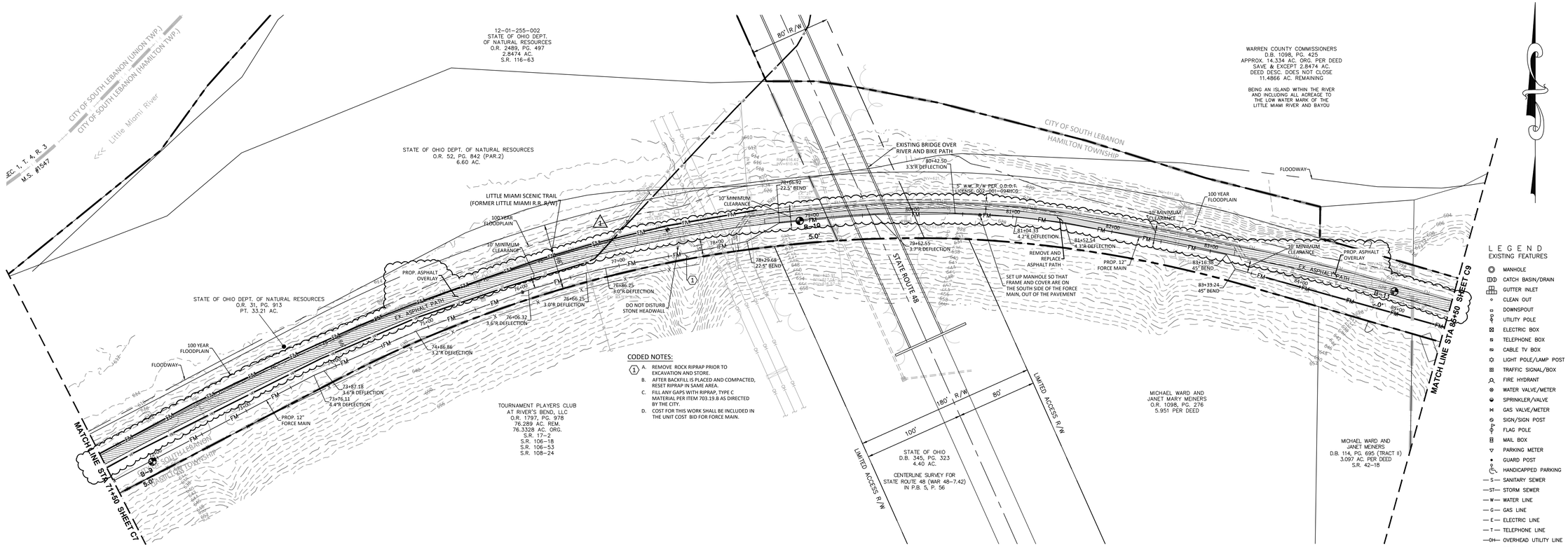
Issue/Revision	No.	Date
PTI SUBMITTAL		10/18/22
BID/PERMIT		8/15/25
ADDENDUM #7	1	12/03/25

RIVER CORRIDOR
PUBLIC SANITARY SEWER EXTENSION
THE CITY OF SOUTH LEBANON
WARREN COUNTY, OHIO

Sheet Title

FORCE MAIN PLAN & PROFILE

Project Number	06308.12
Drawing Scale	1" = 50'
Sheet Number	C7
File Number	06308



CODED NOTES:

1. A. REMOVE ROCK RIPRAP PRIOR TO EXCAVATION AND STORE.
   B. AFTER BACKFILL IS PLACED AND COMPACTED, RESET RIPRAP IN SAME AREA.
   C. FILL ANY GAPS WITH RIPRAP, TYPE C MATERIAL PER ITEM 703.19.B AS DIRECTED BY THE CITY.
   D. COST FOR THIS WORK SHALL BE INCLUDED IN THE UNIT COST BID FOR FORCE MAIN.

LEGEND
EXISTING FEATURES

- MANHOLE
- CATCH BASIN/DRAIN
- GUTTER INLET
- CLEAN OUT
- DOWNSPOUT
- UTILITY POLE
- ELECTRIC BOX
- TELEPHONE BOX
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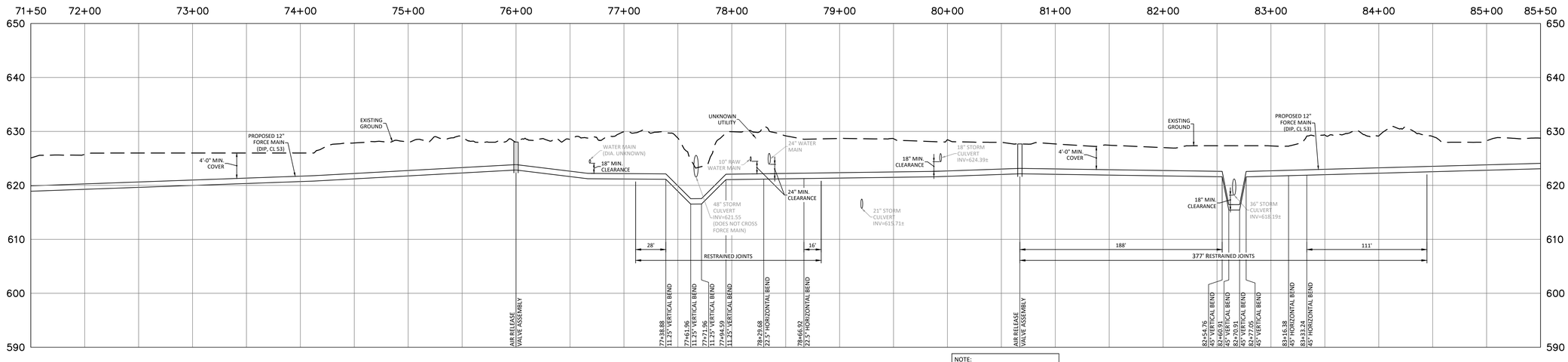
PLAN
1"=50'

LITTLE MIAMI RIVER RIPARIAN SETBACK
THE FORCE MAIN IS WITHIN THE SETBACK
FROM STA 20+80 TO STA 89+73 (END)

FLOODPLAIN AND FLOODWAYS
THE LOCATION OF THE FLOODPLAIN AND FLOODWAY ARE BASED ON FEMA MAP NUMBER 39165C0226F, APRIL 23, 2025 AND FEMA MAP NUMBER 39165C0227F, APRIL 23, 2025.

PAVEMENT LEGEND

- ASPHALT PATH REMOVAL AND REPLACEMENT
- ASPHALT OVERLAY - ASPHALT PATH
- ASPHALT TAPER



FORCE MAIN: STA 71+50 TO 85+50
1"=50' HOR. / 1"=10' VERT.

NOTE:
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SCALE IN FEET
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Drawn By	REL
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ADDENDUM #7	1	12/03/25

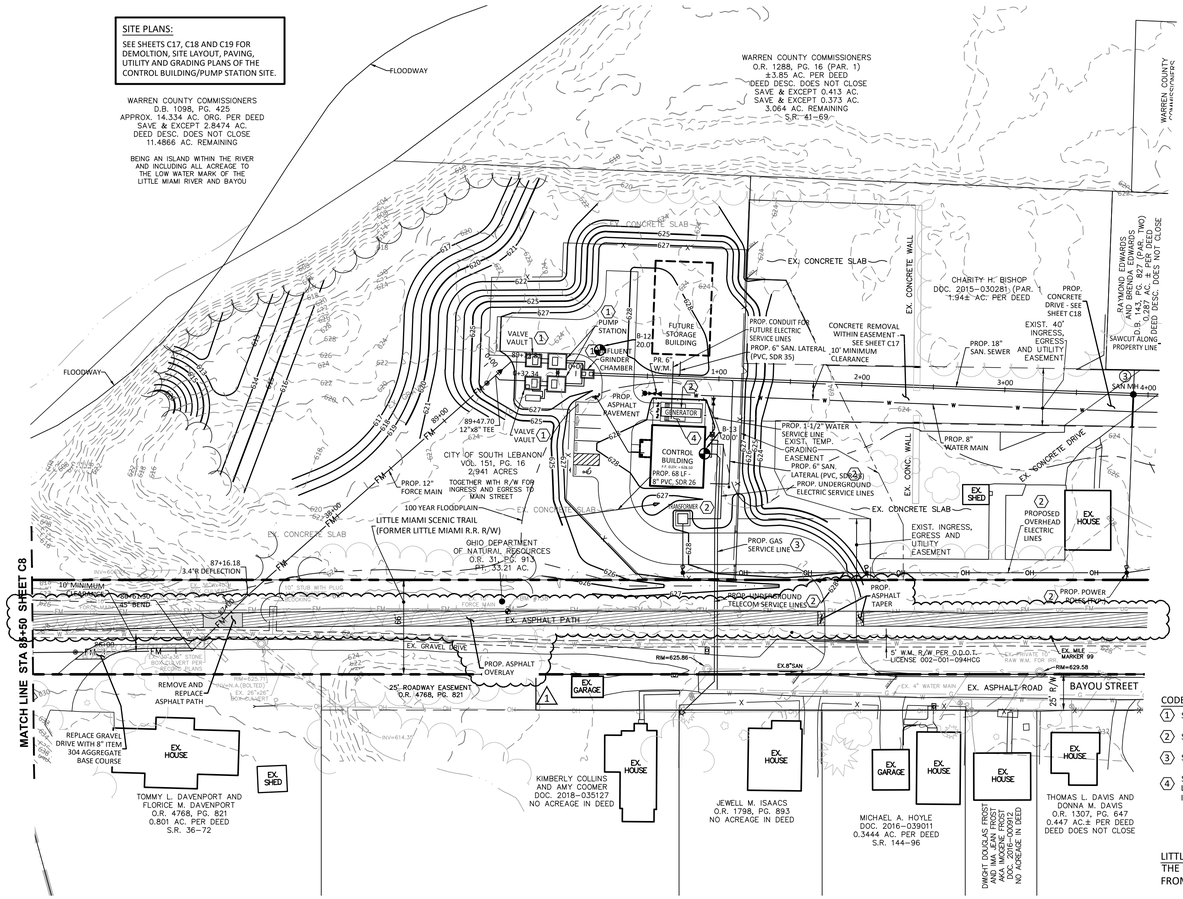
RIVER CORRIDOR PUBLIC SANITARY SEWER EXTENSION
THE CITY OF SOUTH LEBANON
WARREN COUNTY, OHIO

Sheet Title

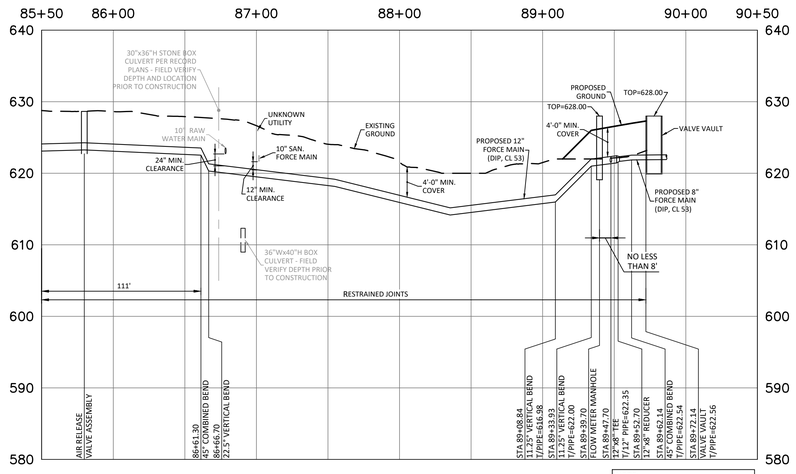
FORCE MAIN PLAN & PROFILE

Project Number	06308.12
Drawing Scale	1" = 50'
Sheet Number	C8
File Number	06308

SITE PLANS:
SEE SHEETS C17, C18 AND C19 FOR DEMOLITION, SITE LAYOUT, PAVING, UTILITY AND GRADING PLANS OF THE CONTROL BUILDING/PUMP STATION SITE.

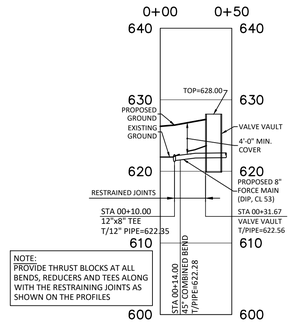


PLAN
1"=50'



FORCE MAIN: STA 85+50 TO 90+50
1"=50' HOR. / 1"=10' VERT.

NOTE:
PROVIDE THRUST BLOCKS AT ALL BENDS, REDUCERS AND TEES ALONG WITH THE RESTRAINING JOINTS AS SHOWN ON THE PROFILES



NOTE:
PROVIDE THRUST BLOCKS AT ALL BENDS, REDUCERS AND TEES ALONG WITH THE RESTRAINING JOINTS AS SHOWN ON THE PROFILES

FORCE MAIN: STA 0+00 to 0+50
1"=50' HOR. / 1"=10' VERT.

SCALE IN FEET
0 25 50 100 150
30 20 10 5 0

CODED NOTES:
1. SEE PUMP STATION PLANS FOR LAYOUT, NOTES AND DETAILS.
2. SEE ELECTRICAL PLANS FOR LAYOUT, NOTES AND DETAILS.
3. SEE MECHANICAL PLANS FOR LAYOUT, NOTES AND DETAILS.
4. SEE ARCHITECTURAL PLANS AND STRUCTURAL PLANS FOR LAYOUT, NOTES AND DETAILS OF THE GENERATOR AREA. THIS INCLUDES PAD, STEPS AND PLATFORM.

LITTLE MIAMI RIVER RIPARIAN SETBACK
THE FORCE MAIN IS WITHIN THE SETBACK FROM STA 20+80 TO STA 89+73 (END)

FLOODPLAIN AND FLOODWAYS
THE LOCATION OF THE FLOODPLAIN AND FLOODWAY ARE BASED ON FEMA MAP NUMBER 39165C0226F, APRIL 23, 2025 AND FEMA MAP NUMBER 39165C0227F, APRIL 23, 2025.

PAVEMENT LEGEND
- ASPHALT PATH REMOVAL AND REPLACEMENT
- GRAVEL DRIVE REMOVAL AND REPLACEMENT

LEGEND
EXISTING FEATURES
- MANHOLE
- CATCH BASIN/DRAIN
- GUTTER INLET
- CLEAN OUT
- DOWNSPOUT
- UTILITY POLE
- ELECTRIC BOX
- TELEPHONE BOX
- CABLE TV BOX
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- PARKING METER
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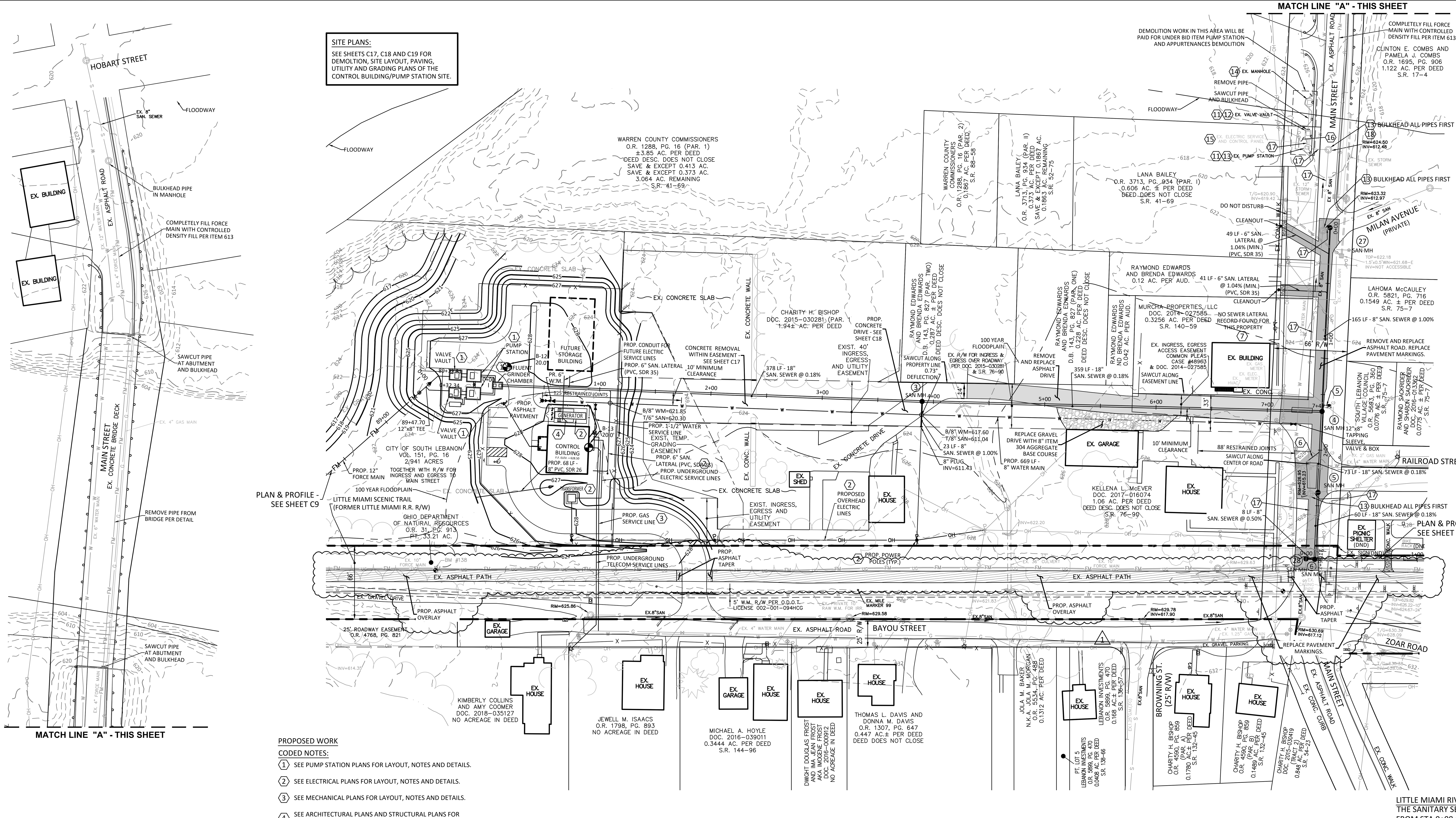
RIVER CORRIDOR PUBLIC SANITARY SEWER EXTENSION
THE CITY OF SOUTH LEBANON WARREN COUNTY, OHIO

Sheet Title
FORCE MAIN PLAN & PROFILE

Project Number	06308.12
Drawing Scale	1" = 50'
Sheet Number	C9
File Number	06308



PLAN

1"=50'

SITE PLANS:
SEE SHEETS C17, C18 AND C19 FOR DEMOLTION, SITE LAYOUT, PAVING, UTILITY AND GRADING PLANS OF THE CONTROL BUILDING/PUMP STATION SITE.

PROPOSED WORK

CODED NOTES:

1. SEE PUMP STATION PLANS FOR LAYOUT, NOTES AND DETAILS.
2. SEE ELECTRICAL PLANS FOR LAYOUT, NOTES AND DETAILS.
3. SEE MECHANICAL PLANS FOR LAYOUT, NOTES AND DETAILS.
4. SEE ARCHITECTURAL PLANS AND STRUCTURAL PLANS FOR LAYOUT, NOTES AND DETAILS OF THE GENERATOR AREA. THIS INCLUDES PAD, STEPS AND PLATFORM.
5. 3 LF - 6" SANITARY LATERAL @ 1.04% (MIN.). PROVIDE CLEANOUT AS SHOWN. CONNECT TO EXISTING 6" SANITARY LATERAL.
6. 13 LF - 6" SANITARY LATERAL @ 1.04% (MIN.). CONNECT TO EXISTING 6" SANITARY LATERAL.
7. FIELD LOCATE EXISTING SANITARY LATERAL. IF IT EXISTS, CONTACT CITY FOR FURTHER DIRECTION ON SLOPE, CLEANOUT, LOCATIION OF WYE ON SEWER, ETC.

PUMP STATION, FORCE MAIN AND SANITARY SEWER DEMOLITION NOTES:

1. DEMOLITION OF THE PUMP STATION, FORCE MAIN AND SANITARY SEWER SHALL OCCUR AFTER THE NEW SANITARY SEWER , PUMP STATION AND FORCE MAIN HAS BEEN INSTALLED AND ACCEPTED BY THE CITY.
2. ALL ITEMS REMOVED SHALL BE DISPOSED OF PROPERLY ACCORDING TO LOCAL, STATE AND FEDERAL CODES AND REGULATIONS.
3. BEFORE STARTING DEMOLITION:
   - 3.1. CONTACT ELECTRICAL COMPANY TO DISCONNECT ELECTRICAL LINES FROM POWER SOURCE.
   - 3.2. DRAIN ALL STRUCTURES AND PIPING OF SEWAGE AND DISPOSE OF PROPERLY.
4. FILL ABOVE STRUCTURE IN LAWN AREA SHALL BE ITEM 203 - EMBANKMENT MATERIAL, PLACED IN 8" MAXIMUM LIFTS AND COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY PER THE STANDARD PROCTOR TEST (ASTM D698).
5. FILL ABOVE STRUCTURE IN THE ROAD SHALL BE ITEM 203 GRANULAR MATERIAL, TYPE C. THE GRANULAR MATERIAL SHALL BE PLACED IN 8" MAXIMUM LIFTS AND COMPACTED TO 98% OF ITS MAXIMUM DRY DENSITY PER THE STANDARD PROCTOR TEST (ASTM D698).
6. BULKHEAD - SEE DETAIL ON SHEET C24.
7. AFTER THE SITE HAS BEEN CLEARED, PLACE ITEM 659 - SEEDING AND MULCH, CLASS 2 OVER 4" (MIN.) ITEM 653 - TOPSOIL.

PUMP STATION, FORCE MAIN AND SANITARY SEWER DEMOLITION

CODED NOTES:

11. REMOVE PUMPS, GUIDE RAILS, ELECTRICAL LINES, FLOATS AND OTHER APPURTENANCES FROM STRUCTURE. SAWCUT AND REMOVE PIPING INSIDE STRUCTURE, AND BULKHEAD OPEN ENDS.
12. REMOVE VALVES, ELECTRICAL LINES AND OTHER APPURTENANCES BEFORE FROM STRUCTURE. SAWCUT AND REMOVE PIPING INSIDE STRUCTURE, AND BULKHEAD OPEN ENDS.
13. REMOVE TOP 36" (MIN.) OF STRUCTURE AND THOROUGHLY BREAK UP BOTTOM. FILL STRUCTURE WITH ITEM 203 GRANULAR MATERIAL, TYPE C. PLACE IN 8" MAXIMUM LIFTS AND COMPACT TO 98% OF ITS MAXIMUM DRY DENSITY PER THE STANDARD PROCTOR TEST (ASTM D698).
14. REMOVE PIPING, VALVES AND OTHER APPURTENANCES BEFORE REMOVING STRUCTURE. FILL VOID WITH ITEM 203 - EMBANKMENT MATERIAL.
15. REMOVE ALL ELECTRICAL BOXES, LIGHTING, POWER POLE, WOOD PANEL AND ANY FOOTINGS. REMOVE ELECTRICAL LINES BACK TO POWER SOURCE.
16. REMOVE GRAVEL FROM BEHIND THE GUARDRAIL.
17. FILL PIPE WITH CONTROLLED DENSITY FILL (CDF).
18. FULL DEPTH WET SAWCUT AND REMOVE ASPHALT PAVEMENT. PAVEMENT REPLACEMENT SHALL BE PER ASPHALT ROAD SECTION ON SHEET C24.

PAVEMENT LEGEND

- ASPHALT ROAD REMOVAL AND REPLACEMENT
- ASPHALT DRIVE REMOVAL AND REPLACEMENT
- GRAVEL DRIVE REMOVAL AND REPLACEMENT

LITTLE MIAMI RIVER RIPARIAN SETBACK
THE SANITARY SEWER IS WITHIN THE SETBACK FROM STA 0+08 (START) TO STA 50+04 (END)

FLOODPLAIN AND FLOODWAYS
THE LOCATION OF THE FLOODPLAIN AND FLOODWAY ARE BASED ON FEMA MAP NUMBER 39165C0226F, APRIL 23, 2025 AND FEMA MAP NUMBER 39165C0227F, APRIL 23, 2025.

LEGEND
EXISTING FEATURES

- MANHOLE
- CATCH BASIN/DRAIN
- GUTTER INLET
- CLEAN OUT
- DOWNSPOUT
- UTILITY POLE
- ELECTRIC BOX
- TELEPHONE BOX
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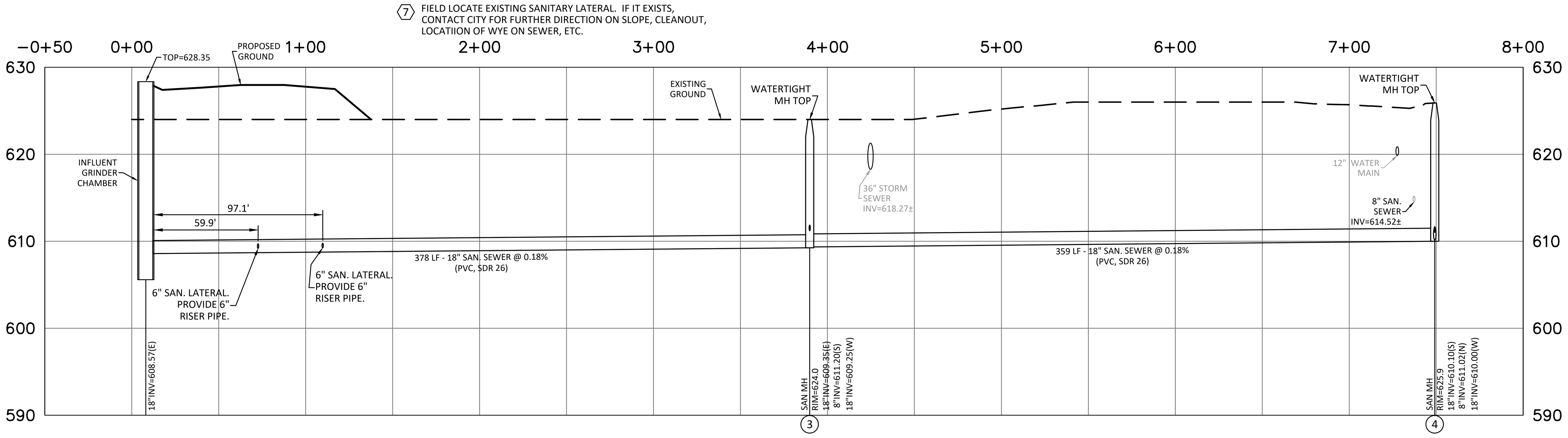
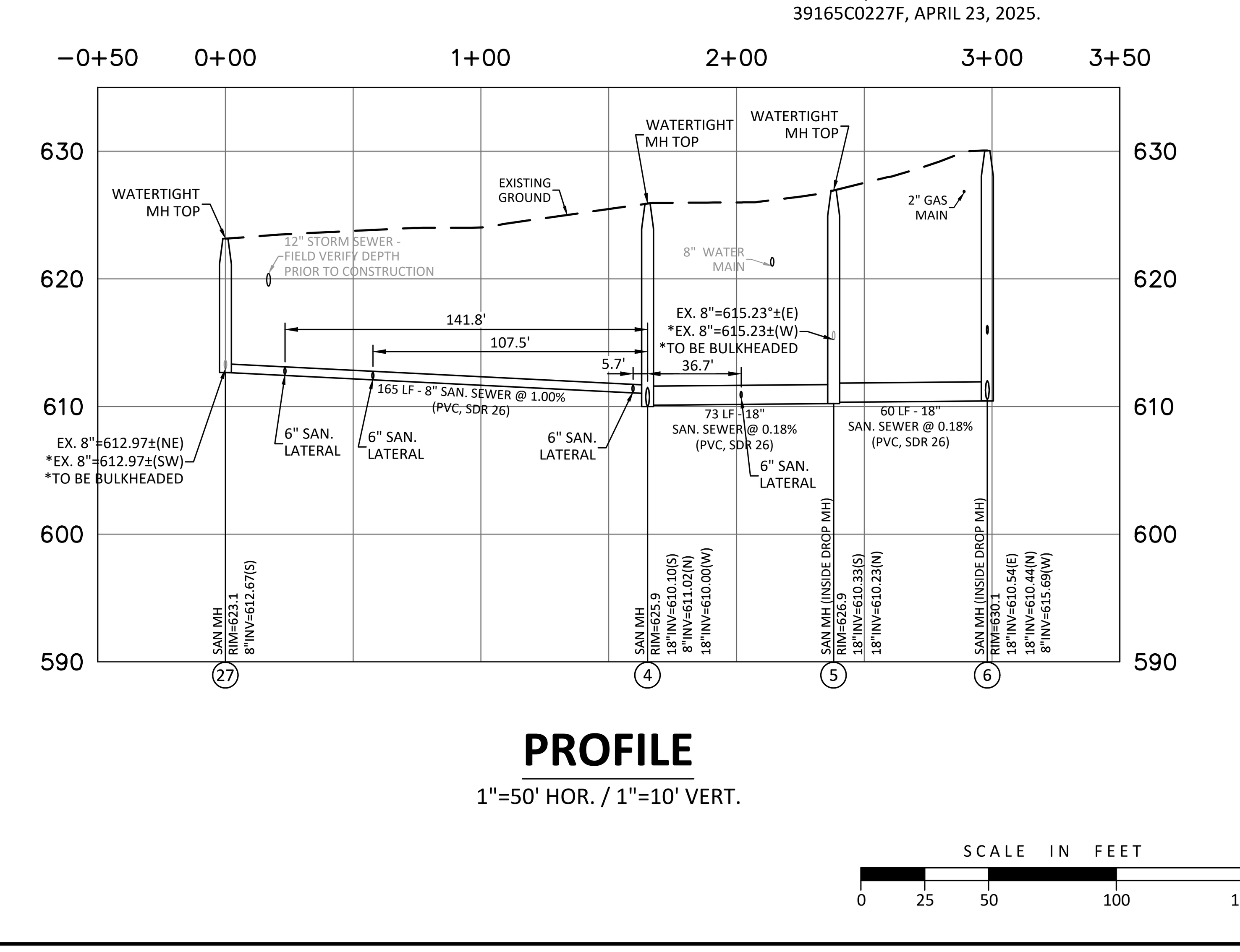


PROFILE

1"=50' HOR. / 1"=10' VERT.



PROFILE

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ADDENDUM #7	1	12/03/25

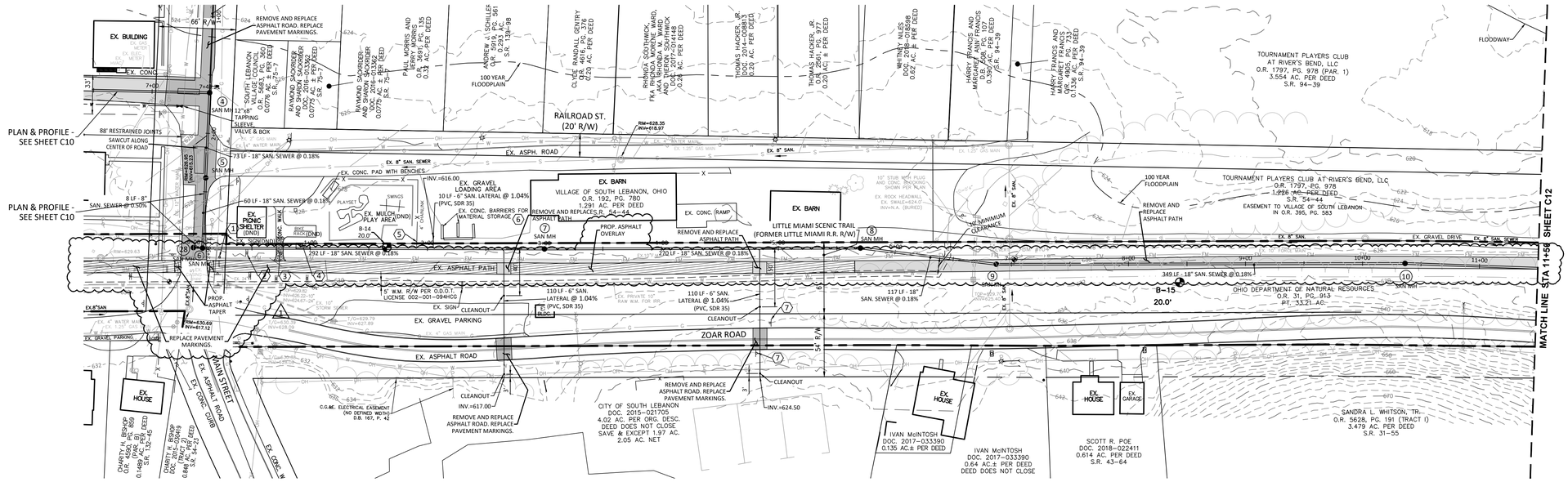
RIVER CORRIDOR PUBLIC SANITARY SEWER EXTENSION

THE CITY OF SOUTH LEBANON WARREN COUNTY, OHIO

Sheet Title

SANITARY SEWER PLAN & PROFILE

Project Number	06308.12
Drawing Scale	1" = 50'
Sheet Number	C10
File Number	06308



PLAN

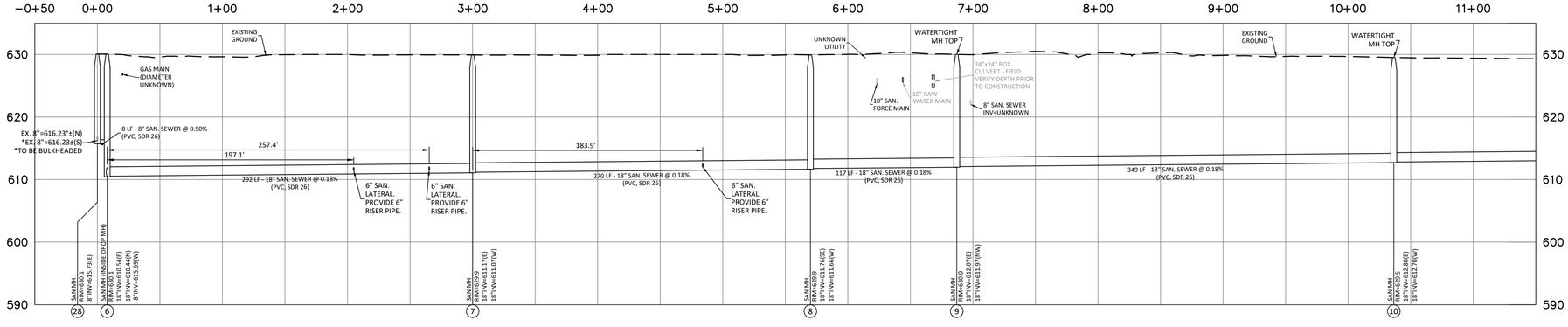
1"=50'

NOTES:

1. DND = DO NOT DISTURB
2. REPLACEMENT OR REINSTALLATION SHALL OCCUR AFTER THE TRENCH HAS BEEN BACKFILLED AND COMPACTED.
3. CONCRETE USED FOR REPLACEMENT OR REINSTALLATION ON THIS SHEET SHALL BE CLASS QC1 PER ITEM 499.

CODED NOTES:

1. REMOVE AND REPLACE CONCRETE. MATCH EXISTING DIMENSIONS AND LOCATION. COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS SANITARY SEWER BID ITEMS.
2. REMOVE SIGN, ROCK AND PLANTS; AND STORE. REINSTALL AT SAME LOCATION. SIGN POST SHALL BE BURIED AT LEAST 36" DEEP AND HAVE A 12" DIAMETER CONCRETE FOOTING. COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS SANITARY SEWER BID ITEMS.
3. REMOVE WALK AND DISPOSE. REINSTALL WALK TO THE PREVIOUS LAYOUT.
4. REMOVE WOOD INFORMATION BOARD AND STORE. REMOVE CONCRETE PAD AND DISPOSE. REINSTALL AT SAME LOCATION. CONCRETE PAD DIMENSIONS AND THICKNESS SHALL MATCH EXISTING. PROVIDE AGGREGATE BASE AS PREVIOUS. REINSTALL SIGN ON CONCRETE PAD AND ATTACH WITH PROPERLY SIZED STAINLESS STEEL BOLTS, BRACKETS AND ANCHOR BOLTS. COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS SANITARY SEWER BID ITEMS.
5. DETACH CHAIN LINK FENCING WHERE IMPACTED. ROLL UP FENCING AND SECURE. REMOVE POSTS, TOP BAR, CAPS, ETC. AND STORE. REUSE POSTS IF NO FOOTING. OTHERWISE PROVIDE NEW POSTS AND INSTALL WITH FOOTING. POSTS SHALL BE INSTALLED AT PREVIOUS LOCATION. REINSTALL ALL PARTS AND REATTACH CHAIN LINK FENCING. COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS SANITARY SEWER BID ITEMS.
6. MOVE CONCRETE BARRIERS FOR INSTALLATION OF SANITARY LATERAL. RETURN CONCRETE BARRIERS TO PREVIOUS LOCATION AFTER INSTALLATION IS COMPLETE. COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS SANITARY SEWER BID ITEMS.
7. IF NECESSARY, REMOVE "SPEED LIMIT 25" SIGN AND POST. PRIOR TO REMOVAL, PLACE TEMPORARY "SPEED LIMIT 25" SIGN AS DIRECTED BY THE CITY. THE SIGN SHALL STORED, AND THE POST AND HARDWARE SHALL BE PROPERLY DISPOSED. THE EXISTING SIGN, NEW #2 POST AND HARDWARE SHALL BE INSTALLED PER ODOT SCD TC-41.20 AND ODOT SCD TC-42.20. ALL WORK AND MATERIALS SHALL BE PER ITEM 630. COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS SANITARY SEWER BID ITEMS.



PROFILE

1"=50' HOR. / 1"=10' VERT.

LITTLE MIAMI RIVER RIPARIAN SETBACK
THE SANITARY SEWER IS WITHIN THE SETBACK FROM STA 0+08 (START) TO STA 50+04 (END)

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PAVEMENT LEGEND

- ASPHALT PATH REMOVAL AND REPLACEMENT
- CONCRETE SIDEWALK REMOVAL AND REPLACEMENT

SCALE IN FEET
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RIVER CORRIDOR PUBLIC SANITARY SEWER EXTENSION

THE CITY OF SOUTH LEBANON
WARREN COUNTY, OHIO

Sheet Title

SANITARY SEWER PLAN & PROFILE

Project Number	06308.12
Drawing Scale	1" = 50'
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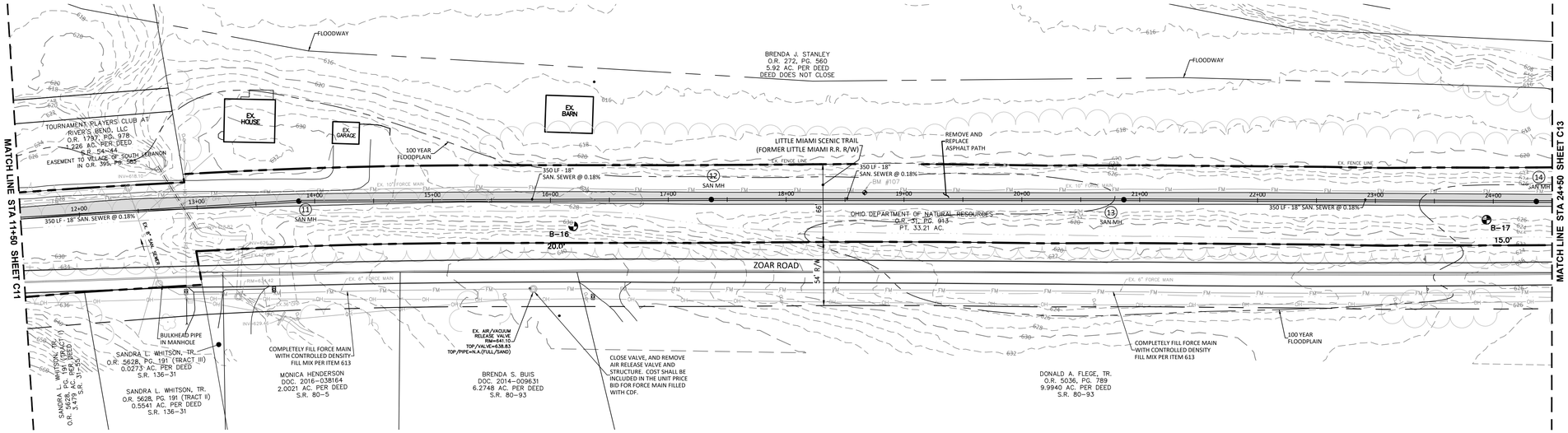

PLAN
1"=50'

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- GAS VALVE/METER
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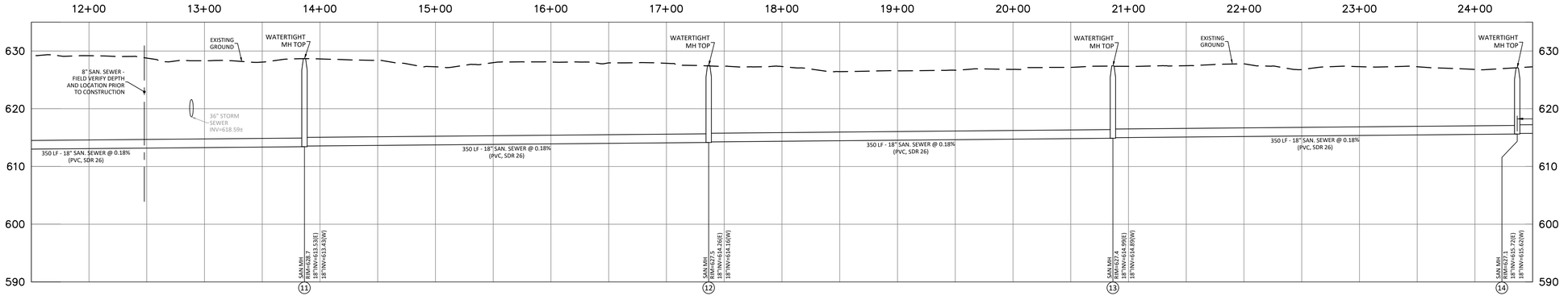
LITTLE MIAMI RIVER RIPARIAN SETBACK
THE SANITARY SEWER IS WITHIN THE SETBACK
FROM STA 0+08 (START) TO STA 50+04 (END)

FLOODPLAIN AND FLOODWAYS
THE LOCATION OF THE FLOODPLAIN AND FLOODWAY ARE BASED ON FEMA MAP NUMBER 39165C0226F, APRIL 23, 2025 AND FEMA MAP NUMBER 39165C0227F, APRIL 23, 2025.

PAVEMENT LEGEND

ASPHALT PATH REMOVAL AND REPLACEMENT



PROFILE
1"=50' HOR. / 1"=10' VERT.

SCALE IN FEET
0 25 50 100 150
30 20 10 5 0

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Phone 513.759.0004
www.mspdesign.com

Project Manager	RA
Drawn By	REL
DWG	06308124-IMP - FINAL
X-Ref(s)	---

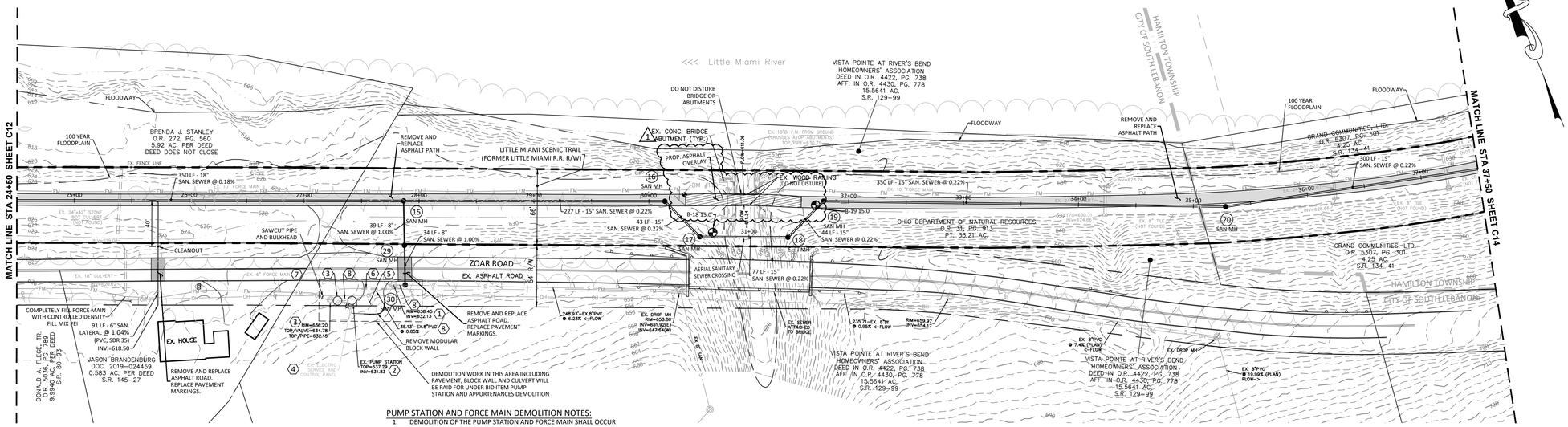
Issue/Revision	No.	Date
PTI SUBMITTAL		10/18/22
BID/PERMIT		8/15/25

RIVER CORRIDOR
PUBLIC SANITARY SEWER EXTENSION
THE CITY OF SOUTH LEBANON
WARREN COUNTY, OHIO

Sheet Title

SANITARY SEWER PLAN & PROFILE

Project Number	06308.12
Drawing Scale	1" = 50'
Sheet Number	C12
File Number	06308



PLAN

1"=50'

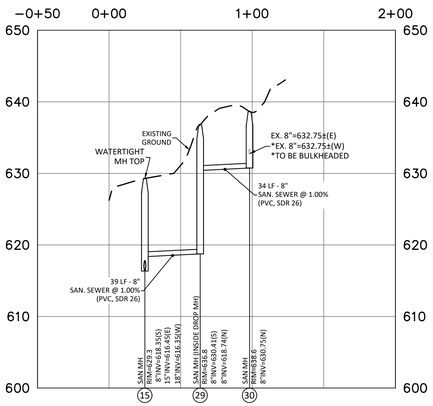
PUMP STATION AND FORCE MAIN DEMOLITION NOTES:

1. DEMOLITION OF THE PUMP STATION AND FORCE MAIN SHALL OCCUR AFTER THE NEW SANITARY SEWER , PUMP STATION AND FORCE MAIN HAS BEEN INSTALLED AND ACCEPTED BY THE CITY.
2. ALL ITEMS REMOVED SHALL BE DISPOSED OF PROPERLY ACCORDING TO LOCAL, STATE AND FEDERAL CODES AND REGULATIONS.
3. BEFORE STARTING DEMOLITION:
   - 3.1. CONTACT ELECTRICAL COMPANY TO DISCONNECT ELECTRICAL LINES FROM POWER SOURCE.
   - 3.2. DRAIN ALL STRUCTURES AND PIPING OF SEWAGE AND DISPOSE OF PROPERLY.
4. PLACE ITEM 203 - EMBANKMENT MATERIAL IN 8" MAXIMUM LIFTS AND COMPACT TO 95% OF ITS MAXIMUM DRY DENSITY PER THE STANDARD PROCTOR TEST (ASTM D698).
6. BULKHEAD - SEE DETAIL ON SHEET C24.
7. AFTER THE SITE HAS BEEN CLEARED, PLACE ITEM 659 - SEEDING AND MULCH, CLASS 2 OVER 4" (MIN.) ITEM 653 - TOPSOIL. ENSURE THAT THE SITE DRAINS TO THE DITCH IN FRONT AND THAT THERE ARE NO LOW SPOTS.

PUMP STATION AND FORCE MAIN DEMOLITION

CODED NOTES:

1. REMOVE STRUCTURE AND FILL VOID WITH ITEM 203 - EMBANKMENT MATERIAL.
2. REMOVE PUMPS, PIPING, GUIDE RAILS, FLOATS AND OTHER APPURTENANCES BEFORE REMOVING STRUCTURE. FILL VOID WITH ITEM 203 - EMBANKMENT MATERIAL.
3. REMOVE PIPING, VALVES AND OTHER APPURTENANCES BEFORE REMOVING STRUCTURE. FILL VOID WITH ITEM 203 - EMBANKMENT MATERIAL.
4. REMOVE ALL ELECTRICAL BOXES, LIGHTING, ANTENNA, WOOD PANEL AND ANY FOOTINGS. REMOVE ELECTRICAL LINES BACK TO POWER SOURCE.
5. FULL DEPTH WET SAWCUT ALONG THE EDGE OF THE ROAD AND REMOVE ASPHALT PAVEMENT ALONG WITH ANY AGGREGATE BASE COURSE.
6. REMOVE 12" CULVERT AND MODULAR BLOCKS. REGRADE DITCH TO MAINTAIN POSITIVE DRAINAGE.
7. COMPLETELY FILL FORCE MAIN WITH CONTROLLED DENSITY FILL (CDF).
8. REMOVE PIPE.



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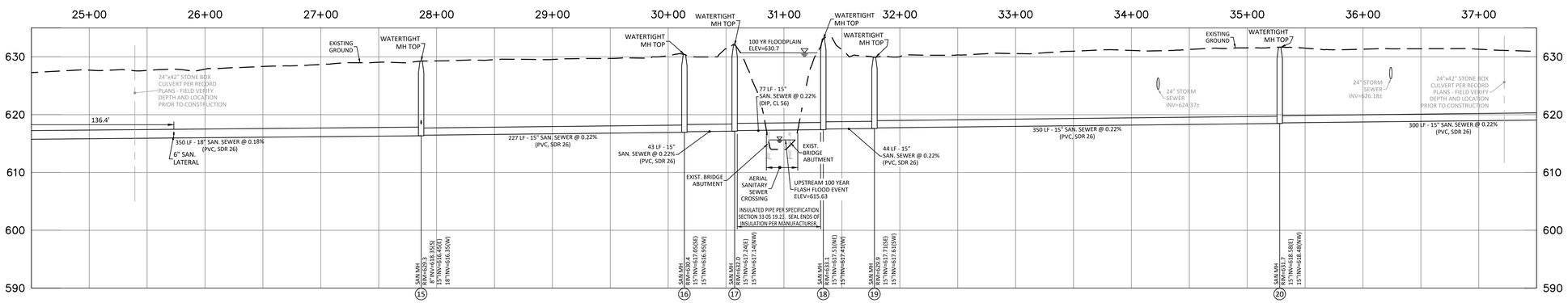

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PAVEMENT LEGEND

ASPHALT PATH REMOVAL AND REPLACEMENT

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Issue/Revision	No.	Date
PTI SUBMITTAL		10/18/22
BID/PERMIT		8/15/25
ADDENDUM #7	1	12/03/25

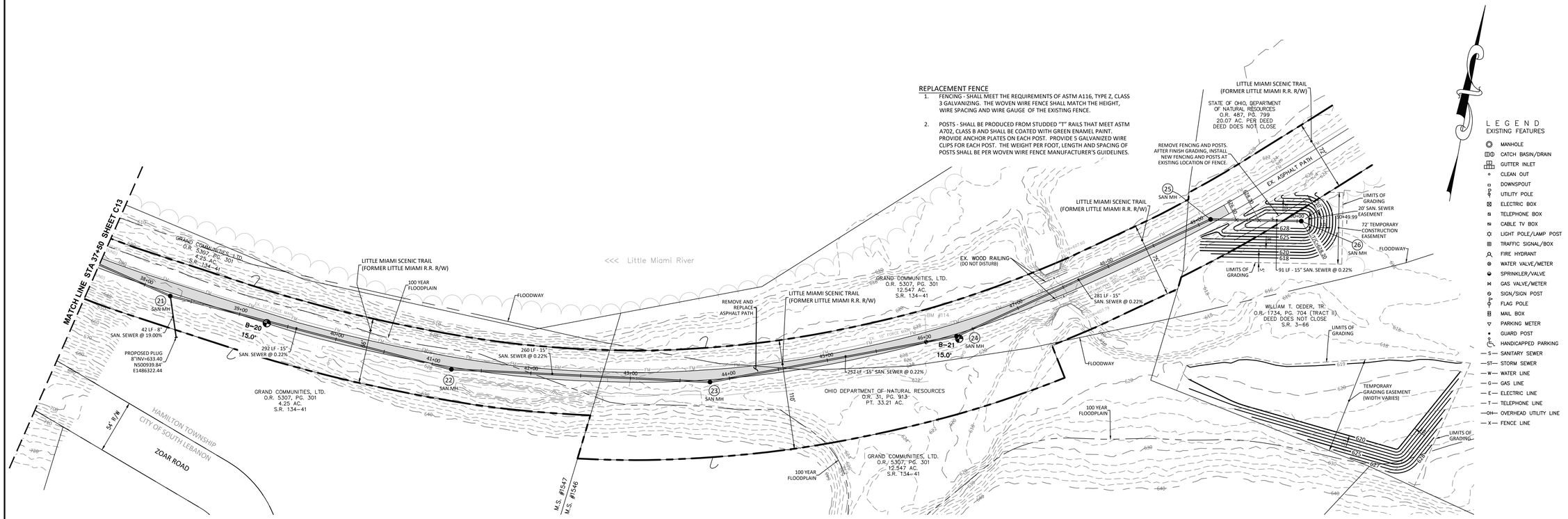
RIVER CORRIDOR PUBLIC SANITARY SEWER EXTENSION

THE CITY OF SOUTH LEBANON
WARREN COUNTY, OHIO

Sheet Title

SANITARY SEWER PLAN & PROFILE

Project Number	06308.12
Drawing Scale	1" = 50'
Sheet Number	C13
File Number	06308



PLAN
1"=50'

REPLACEMENT FENCE

1. FENCING - SHALL MEET THE REQUIREMENTS OF ASTM A116, TYPE Z, CLASS 3 GALVANIZING. THE WOVEN WIRE FENCE SHALL MATCH THE HEIGHT, WIRE SPACING AND WIRE GAUGE OF THE EXISTING FENCE.
2. POSTS - SHALL BE PRODUCED FROM STUDDED "T" RAILS THAT MEET ASTM A702, CLASS B AND SHALL BE COATED WITH GREEN ENAMEL PAINT. PROVIDE ANCHOR PLATES ON EACH POST. PROVIDE 5 GALVANIZED WIRE CLIPS FOR EACH POST. THE WEIGHT PER FOOT, LENGTH AND SPACING OF POSTS SHALL BE PER WOVEN WIRE FENCE MANUFACTURER'S GUIDELINES.

LEGEND
EXISTING FEATURES

- MANHOLE
- CATCH BASIN/DRAIN
- GUTTER INLET
- CLEAN OUT
- DOWNSPOUT
- UTILITY POLE
- ELECTRIC BOX
- TELEPHONE BOX
- CABLE TV BOX
- LIGHT POLE/LAMP POST
- TRAFFIC SIGNAL/BOX
- FIRE HYDRANT
- WATER VALVE/METER
- SPRINKLER/VALVE
- GAS VALVE/METER
- SIGN/SIGN POST
- FLAG POLE
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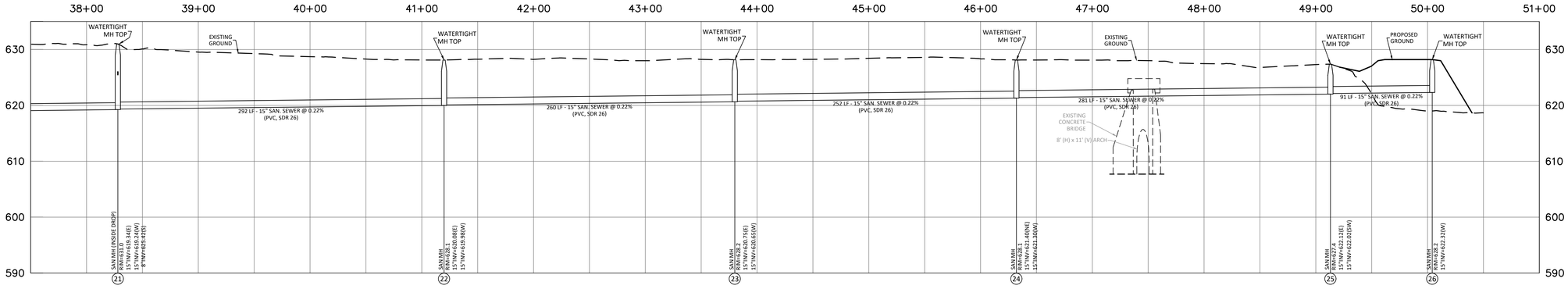
PAVEMENT LEGEND

- ASPHALT PATH REMOVAL AND REPLACEMENT
- ASPHALT OVERLAY - ASPHALT PATH



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RIVER CORRIDOR PUBLIC SANITARY SEWER EXTENSION
THE CITY OF SOUTH LEBANON WARREN COUNTY, OHIO

Sheet Title

SANITARY SEWER PLAN & PROFILE

Project Number	06308.12
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Sheet Number	C14
File Number	06308