COUNTY OF WESTCHESTER
NEW YORK

DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

ADDENDUM NO. 2

CONTRACT NO. 22-522

Domestic Water System Improvements
Westchester County Airport
Town of Harrison, North Castle and Village of Rye Brook, New York

The attention of the bidders is directed to the following changes, additions, and/or substitutions affecting the above referenced contract.

I. RE: GENERAL CONTRACT INFORMATION:

Item 1: Bidder Questions and Responses
Attached hereto.

II. RE: THE SPECIFICATIONS

Item 2: Specification section 28 46 21.11 has been added to the Contract Documents.

III. RE: THE PLANS

Item 3: Drawing C-19 shall be deleted and the revised drawing C-19 is attached hereto.

Item 4: Drawing C-29 shall be deleted and the revised drawing C-29 is attached hereto.

IV. RE: ADDITIONAL INFORMATION:

Item 5: Refer to Attachment #1 – Photo Report, attached hereto.

ALL PROVISIONS OF THE CONTRACT NOT AFFECTED BY THE FOREGOING SHALL REMAIN IN FULL FORCE AND EFFECT.

COUNTY OF WESTCHESTER
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION

By: Hugh J. Greechan Jr., P.E.
Commissioner

Dated: Wednesday, December 28, 2022
WHITE PLAINS, NEW YORK

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AND TRANSPORTATION

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CONTRACT NO. 22-522

Domestic Water System Improvements
Westchester County Airport
Town of Harrison, North Castle and Village of Rye Brook, New York

The attention of all bidders is directed to the following responses to questions with regards to the above referenced Contract. These responses are presented for information purposes only and are not intended to modify the Contract. All provisions of the Contract remain in full force and effect. Where modification is required, the bidder's attention is directed to the addenda.

QUESTION NUMBER	QUESTION	RESPONSE
1	It is our understanding that bid item Y, 2800 CY of Waste Transportation and Disposal, includes the following: a. Asphalt and subgrade soils removed in the paved areas of Airport Road and New King Street, which will be replaced with Controlled Low Strength Material. b. Excess subgrade soils removed from all other locations which will not be used as backfill. Please confirm/advise.	Confirmed.
2	Documents state that hydrants are to be purchased from WJWW directly. Is that correct?	This is correct for all new hydrant between stations A0+00 through A63+45 and stations B0+00 through B26+00. All other hydrants can be purchased elsewhere.
3	What are the work hours for the portion on the roads?	Daytime/business hours. No OT/off hours.

4	Per the specification, the ground water is to be considered contaminated and treated under pay item GG. If that is correct, how will the excess soil that has been in contact with contaminated water be paid for disposal?	Soil removed and disposed will be paid for under Bid Item Y, Waste Transportation and Disposal.
5	The notes state that the existing pipe gaskets to be removed and disposed are assumed to be asbestos. How are we to quantify the amount and how will the contractor be paid for removal and disposal?	Gaskets assumed to be asbestos containing shall be those on above ground piping in the existing Tower Road backflow preventer building. Hazardous Material Note #2 on drawing G-01, refers to pipe gaskets shown on Figure E-3 of the Hazardous Materials Assessment report (Appendix 6) and drawing P-101 Demolition Drawing of the contract documents. This figure shall be used to quantify the gaskets. All other existing sub-surface watermain pipe gaskets should be assumed not to contain asbestos. The cost to dispose of asbestos containing material from the existing backflow preventer building should be included in bid item EE.
6	The notes state that all pipe gaskets to be field lock unless approved by the WJWW. How are we to know if the WJWW will approve plain push on gaskets during the bidding phase. There is a substantial difference in cost between the two.	The price bid for push-on gaskets shall be based on the use of Field Lock Gaskets.
7	Suppliers and sub-contractors have requested the bid opening be delayed by two weeks due to the holiday season shutdowns delaying the receipt of manufacturers material quotes. Due to the holiday season and delayed with materials pricing, would it be possible to extend bid date another week.	Extension of the bid opening date is not permitted.
8	The contract drawings indicate that the new ductile iron pipe water main is Class 52. Specification 33 05 19 indicates that the pipe is Class 56. Please clarify.	All new watermain pipe shall be Class 52.

9	The bid items listed in specification 01 20 00 do not match the bid items listed on Proposal Page 6 (4 pages). Please clarify with measurement and payment inclusions and exclusions for each bid item.	A revised version of specification section 01 20 00 was issued with Addendum #1.
10	Are there AIS requirements on this project?	No.
11	Are there MWBE goals on this project?	Refer to the Special Notices in the Contract Documents for M/WBE requirements.
12	Bid item M is for (2 ea) 12” Insertion valves. We can’t find the location of these valves on the drawings. Please clarify.	No specific location is included on the Contract Documents. This is an allowance, if the valves are needed.
13	Are we correct to assume that two bollards are required at each new hydrant?	No. Bollards are not required at the fire hydrants unless specifically noted on the Contract Documents.
14	Specification 22 11 16 does not indicate the thickness or pressure class of the flanged ductile iron piping and fittings for the new Backflow Preventer piping shown on drawings P-201 and P-202. Please clarify.	All new watermain pipe shall be Class 52.
15	Refer to contract drawings P-201 and P-202. Please clarify what kind of valves are required for the 12" inlet & outlet shutoff valves and the 10" inlet & outlet control valves. Please provide specification & section number for clarification.	Valves shall be in accordance with spec section 22 05 23 section 2.6 (A) (1): Iron Gate Valves, Class 150, Lead Free.
16	Bid item E is for (45 lf) of 10" Cement Lined Ductile Iron Water Main Pipe. We can't find the location of this pipe on the drawings. Please clarify.	Refer to drawing C-03.
17	Bid item J is for (2 ea) 10" Inline Gate Valves. We can't find the location of these valves on the drawings. Please clarify.	Refer to drawing C-03.
18	There is no work shown on the Contract Drawings associated with specification 09 67 23 - Resinous Flooring. We assume this applies to the finish of the concrete slab inside of the two Backflow Preventer Buildings.	Resinous flooring is not required for this contract. Interior concrete slab coating will be as specified in Section 03 30 00, paragraph 3.8.
19	Refer to the Site Plan of the Airport Road BFP Building on drawing C-05. Please provide details of the asphalt driveway and walkway.	Refer to revised drawing C-19 included herein for walkway and driveway details.
20	Refer to the Tower Road BFP Building on drawing C-11. Please provide details of the concrete slabs and gravel perimeter.	Refer to revised drawing C-19 included herein for exterior concrete slab and gravel detail.

21	There is a System Shutdown Note on drawing P-002 indicating that a Water Main Extension Submission was filed by D&B Engineers, file ID C21-033 and C21-034. Please provide this document to all bidders for review.	Refer to Appendix No. 7 for WCDOH approval information. Contract documents include pertinent information from the approved WCDOH drawings.
22	The contract documents do not define any limits on the durations that the existing main can be shut down. Please confirm and/or advise.	A maximum duration of 48 hours is provided for the work associated with Phase 2 of the construction sequence provided on drawing G-01. The contractor shall minimize the time for all other shut-downs of the existing service. Work on the existing water main, other than that included in phase 2. Notice of all shutdowns shall be provided to WC Airport Operations a minimum of (7) days in advance.
23	Under what bid item will the pressure testing of the existing main be paid?	Cost for disinfection and pressure testing of the existing watermain should be included in the other items bid.
24	How will the excavation, testing, trucking & disposal of contaminated soils be paid, as this quantity is unknown?	Soil removed and disposed will be paid for under Bid Item Y, Waste Transportation and Disposal.
25	Notes 5 and 6 on contract drawing C-29 refer to bid items "I" and "A", respectively. Please review and correct as these bid items are not in line with Proposal Page 6 (4 pages).	Refer to the notes on revised drawing C-29 included herein.
26	What pay item will be used to pay for the demolition of the existing “Backflow Preventer Building”?	The cost for this work shall be included in Pay Item EE.
27	In order to properly provide a cost for the demolition of the existing backflow preventer building, we will need access to the site and the interior of the building. Who should we contact to provide access?	Access can be arranged through WC Airport Operations Manager John Starace at (914) 995-8226 or jss0@westchestergov.com. Refer to Attachment #1, photo report.

28	The technical spec appears to general in nature and not specific for this project. With regards to the buildings, please specify if coatings are required for: CMU block (interior and exterior), concrete slab, interior piping coating (paint & color). Also, are identification signs or tags needed?	No interior or exterior coating of CMU is required. Interior concrete slab coating will be as specified in Section 03 30 00, paragraph 3.8. Aboveground plumbing piping shall be insulated per spec section 22 07 19 and labeled/identified per spec section 22 05 52. Piping is not required to be painted.
29	Owners Protective Liability Policy naming the County as insured, with a minimum limit of liability per occurrence of $3,000,000 (where applicable, or as determined by the Director, Risk Management - is an Owners Protective Liab policy required?	This policy is required.
30	Please confirm whether transportation of pumped groundwater from work area to proposed treatment area is included in pricing for item no. GG (groundwater treatment and disposal)	Refer to the notes on revised drawing C-29 included herein.
31	Please confirm whether licensed plumber will be required to perform work inside buildings.	All plumbing work inside BFP buildings shall be installed by a Westchester County Licensed Plumber.
	Please provide a provide a light fixture schedule.	Interior 4' vandal resistant vapor tight fixture: Metalux Cat# 4VT3-LD5-6-G-UNV-L840 or approved equal. Exterior light fixture with integral photo sensor: Lithonia Catalog # WDGE1-LED P1-30K-80CRI-VW-MVOLT-PE or approved equal.
32	Please confirm that the Fire Alarm cable and devices and the Security Camera cable and devices are not part of this project. If the Fire Alarm Scope and the Security Camera Scope are part of this project, please provide specifications.	Fire Alarm and security cabling and devices shall be included as part of this project. Refer to added fire alarm specification 28 46 21.11 for additional information. Contact and coordinate all fire alarm work with airport fire alarm vendor: Siemens Industries Inc. 8 Fernwood Rd Florham Park, NJ 07932 Jeffrey Toldo Cell 732-757-7847 jeffrey.toldo@siemems.com

33	Please confirm that the electrical contractor shall not be responsible for the branch circuits and devices inside the Control Valve Vault. The electrical contractor shall hall be responsible for installing the 600V feeder conduit and cable and communication conduits.	The electrical contractor is responsible to bring power and conduits into the vault to supply the main power panels. All interior branch circuiting shall be by the vault manufacturer.
34	In order to accurately determine the costs to demolish the existing backflow preventer building, please provide photos and as-built drawings of the structure. Refer to the callout on drawing C-11.	See response to question #27.
35	Please clarify if the contractor is to hire an independent testing agency to perform field compaction testing during backfill operations.	The Contractor will be required to hire an independent testing agency to perform compaction testing. The testing agency fee will be paid under Item W851.
36	Please clarify if the contractor is to hire an independent testing agency to perform field testing, preparation of samples and compression testing of cast-in-place concrete.	The Contractor will be required to hire an independent testing agency to perform concrete testing. The testing agency fee will be paid under Item W851.
37	The documents do not include any requirements for an Engineer's office. Please confirm that no office is required.	An engineer's field office is not required under this contract.
38	Please provide a detail for the electrical manholes called out to be replaced on Drawing E-100.	Provide handholes. Refer to detail currently on drawing E-701.
39	Please provide additional details related to the Johnson Metasys Building Automation System. There are no specifications for the control panel, temperature sensors and switches. Additionally, there is no conduit & wire details for the system. Refer to the P, M and E drawings.	Johnson Controls Metasys Control Panel shall be based on the SNE Series SNE10501. Coordinate with airport Johnson Controls vendor for model panel: Michael Baer 914-275-2932 Michael.S.Baer@jci.com Room temperature sensor shall be as defined on Contract Drawing M-001 or approved equal.

40	There is a Fire Alarm Panel shown on the E drawings, however there are no details or specifications provided.	Refer to added fire alarm specification 28 46 21.11 for additional information. Coordinate all fire alarm work with airport fire alarm vendor: Siemens Industries Inc. 8 Fernwood Rd Florham Park, NJ 07932 Jeffrey Toldo Cell 732=757-7847 jeffrey.toldo@siemems.com
41	Note 2 on E-100 says to provide antenna on new pole per WJWW Spec. Please provide the relevant WJWW Specification for this antenna.	Antenna shall be Yagi Telewave Antenna ANT220Y7-WR, 5dBd, 216-240 MHz, 500 Watts, 30”x30”, high performance directional antenna. Provide the following: • PolyPhaser VHF50HN-B, Type N F/F Coaxial RF Surge Protector, 100 MHz-512 MHz, DC Block, 750 W. • Times Microwave Systems LMR-400 Flexible Low Loss Communications Coax • Viper SC Intelligent IP Router for Licensed Spectrum

SECTION 28 46 21.11

ADDRESSABLE FIRE-ALARM SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Fire-alarm control unit.
2. System smoke detectors.
3. Notification appliances.
4. Fire alarm wire and cable.

1.3 DEFINITIONS

A. EMT: Electrical Metallic Tubing.

B. FACP: Fire Alarm Control Panel.

C. HLI: High Level Interface.

D. NICET: National Institute for Certification in Engineering Technologies.

E. PC: Personal computer.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product, including furnished options and accessories.

1. Include construction details, material descriptions, dimensions, profiles, and finishes.
2. Include rated capacities, operating characteristics, and electrical characteristics.

B. Shop Drawings: For fire-alarm system.

1. Comply with recommendations and requirements in the "Documentation" section of the "Fundamentals" chapter in NFPA 72.
2. Include plans, elevations, sections, details, and attachments to other work.

3. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and locations. Indicate conductor sizes, indicate termination locations and requirements, and distinguish between factory and field wiring.
4. Detail assembly and support requirements.
5. Include voltage drop calculations for notification-appliance circuits.
6. Include battery-size calculations.
7. Include input/output matrix.
8. Include statement from manufacturer that all equipment and components have been tested as a system and meet all requirements in this Specification and in NFPA 72.
9. Include performance parameters and installation details for each detector.
10. Include voice/alarm signaling-service equipment rack or console layout, grounding schematic, amplifier power calculation, and single-line connection diagram.
11. Include floor plans to indicate final outlet locations showing address of each addressable device. Show size and route of cable and conduits and point-to-point wiring diagrams.

C. General Submittal Requirements:

1. Submittals shall be approved by authorities having jurisdiction prior to submitting them to Architect.
2. Shop Drawings shall be prepared by persons with the following qualifications:

    a. Trained and certified by manufacturer in fire-alarm system design.
    b. NICET-certified, fire-alarm technician; Level III minimum.
    c. Licensed or certified by authorities having jurisdiction.

D. Delegated-Design Submittal: For notification appliances and smoke detectors, in addition to submittals listed above, indicate compliance with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1. Drawings showing the location of each notification appliance and smoke and heat detector, ratings of each, and installation details as needed to comply with listing conditions of the device.
2. Design Calculations: Calculate requirements for selecting the spacing and sensitivity of detection, complying with NFPA 72. Calculate spacing and intensities for strobe signals and sound-pressure levels for audible appliances.
3. Indicate audible appliances required to produce square wave signal per NFPA 72.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Field quality-control reports.

1.6 Sample Warranty: For special warranty.

1.7 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For fire-alarm systems and components to include in emergency, operation, and maintenance manuals.

1. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following and deliver copies to authorities having jurisdiction:

a. Comply with the "Records" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72.
b. Provide "Fire Alarm and Emergency Communications System Record of Completion Documents" according to the "Completion Documents" Article in the "Documentation" section of the "Fundamentals" chapter in NFPA 72.
c. Complete wiring diagrams showing connections between all devices and equipment. Each conductor shall be numbered at every junction point with indication of origination and termination points.
d. Riser diagram.
e. Device addresses.
f. Record copy of site-specific software.
g. Provide "Inspection and Testing Form" according to the "Inspection, Testing and Maintenance" chapter in NFPA 72, and include the following:

1) Equipment tested.
2) Frequency of testing of installed components.
3) Frequency of inspection of installed components.
4) Requirements and recommendations related to results of maintenance.
5) Manufacturer's user training manuals.

h. Manufacturer's required maintenance related to system warranty requirements.
i. Abbreviated operating instructions for mounting at fire-alarm control unit and each annunciator unit.

B. Software and Firmware Operational Documentation:

1. Software operating and upgrade manuals.
2. Program Software Backup: On magnetic media or compact disk, complete with data files.
3. Device address list.
4. Printout of software application and graphic screens.

1.8 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Lamps for Remote Indicating Lamp Units: Quantity equal to 10 percent of amount installed, but no fewer than one unit.

2. Lamps for Strobe Units: Quantity equal to 10 percent of amount installed, but no fewer than one unit.
3. Smoke Detectors: Quantity equal to 10 percent of amount of each type installed, but no fewer than one unit of each type.
4. Detector Bases: Quantity equal to two percent of amount of each type installed, but no fewer than one unit of each type.
5. Keys and Tools: One extra set for access to locked or tamperproofed components.
6. Audible and Visual Notification Appliances: One of each type installed.
7. Fuses: Two of each type installed in the system. Provide in a box or cabinet with compartments marked with fuse types and sizes.
8. Provide all necessary hardware and programming to provide the client with 20% spare capacity on all initiating and indicating circuits.
9. Provide as part of the base contract all labor and materials to install two (2) additional fire alarm devices during construction. The two (2) fire alarm device can be but not limited to smoke detector, heat detector, etc. Include all labor and materials including wire, boxes, conduit, terminations, hardware, software, programming and testing.

1.9 QUALITY ASSURANCE

A. Installer Qualifications: Personnel shall be trained and certified by manufacturer for installation of units required for this Project.

B. Installer Qualifications: Installation shall be by personnel certified by NICET as fire-alarm Level III technician.

C. NFPA Certification: Obtain certification according to NFPA 72 by a UL-listed alarm company.

1.10 PROJECT CONDITIONS

A. Interruption of Existing Fire-Alarm Service: Do not interrupt fire-alarm service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary guard service according to requirements indicated:

1. Notify Owner no fewer than seven days in advance of proposed interruption of fire-alarm service.
2. Do not proceed with interruption of fire-alarm service without Owner's written permission.

B. Use of Devices during Construction: Protect devices during construction unless devices are placed in service to protect the facility during construction.

1.11 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace fire-alarm system equipment and components that fail in materials or workmanship within specified warranty period.

1. Warranty Extent: All equipment and components not covered in the Maintenance Service Agreement.
2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

A. Source Limitations for Fire-Alarm System and Components: Components shall be compatible with, and operate as an extension of, existing system. Provide system manufacturer's certification that all components provided have been tested as, and will operate as, a system.

B. Noncoded, UL-certified addressable system, with multiplexed signal transmission andhorn/strobe evacuation.

C. Automatic sensitivity control of certain smoke detectors.

D. All components provided shall be listed for use with the selected system.

E. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.2 SYSTEMS OPERATIONAL DESCRIPTION

A. Fire-alarm signal initiation shall be by one or more of the following devices and systems:

1. Smoke detectors.

B. Fire-alarm signal shall initiate the following actions:

1. Continuously operate alarm notification appliances.
2. Identify alarm and specific initiating device at fire-alarm control unit and remote annunciators.
3. Transmit an alarm signal to the remote alarm receiving station.
4. Activate alarm communication system.
5. Record events in the system memory.

C. Supervisory signal initiation shall be by one or more of the following devices and actions:

1. User disabling of zones or individual devices.
2. Loss of communication with any panel on the network.

D. System trouble signal initiation shall be by one or more of the following devices and actions:

1. Open circuits, shorts, and grounds in designated circuits.
2. Opening, tampering with, or removing alarm-initiating and supervisory signal-initiating devices.

3. Loss of communication with any addressable sensor, input module, relay, control module, remote annunciator or Ethernet module.
4. Loss of primary power at fire-alarm control unit.
5. Ground or a single break in internal circuits of fire-alarm control unit.
6. Abnormal ac voltage at fire-alarm control unit.
7. Break in standby battery circuitry.
8. Failure of battery charging.
9. Abnormal position of any switch at fire-alarm control unit or annunciator.
10. Hose cabinet door open.

E. System Supervisory Signal Actions:

1. Initiate notification appliances.
2. Identify specific device initiating the event at fire-alarm control unit and remote annunciators.
3. Record the event on system printer.
4. After a time delay of 200 seconds, transmit a trouble or supervisory signal to the remote alarm receiving station.
5. Transmit system status to building management system.

2.3 FIRE-ALARM CONTROL UNIT

A. Manufacturers: Subject to compliance with requirements all equipment shall be Simplex In order to assure the Owner of all factory warranties, all equipment shall be obtained from an approved factory authorized distributor. The manufacturer and/or his authorized distributor shall show satisfactory evidence that he maintains a fully equipped factory authorized service organization, stocked with factory approved replacement parts and is capable of furnishing adequate inspection and service of equipment.

B. General Requirements for Fire-Alarm Control Unit:

1. Field-programmable, microprocessor-based, modular, power-limited design with electronic modules, complying with UL 864.

a. System software and programs shall be held in nonvolatile flash, electrically erasable, programmable, read-only memory, retaining the information through failure of primary and secondary power supplies.
b. Include a real-time clock for time annotation of events on the event recorder and printer.
c. Provide communication between the FACP and remote circuit interface panels, annunciators, and displays.
d. The FACP shall be listed for connection to a central-station signaling system service.
e. Provide nonvolatile memory for system database, logic, and operating system and event history. The system shall require no manual input to initialize in the event of a complete power down condition. The FACP shall provide a minimum 500-event history log.

2. Addressable Initiation Device Circuits: The FACP shall indicate which communication zones have been silenced and shall provide selective silencing of alarm notification appliance by building communication zone.
3. Addressable Control Circuits for Operation of Notification Appliances and Mechanical Equipment: The FACP shall be listed for releasing service.

C. Alphanumeric Display and System Controls: Arranged for interface between human operator at fire-alarm control unit and addressable system components including annunciation and supervision. Display alarm, supervisory, and component status messages and the programming and control menu.

1. Annunciator and Display: Liquid-crystal type, three line(s) of 80 characters, minimum.
2. Keypad: Arranged to permit entry and execution of programming, display, and control commands and to indicate control commands to be entered into the system for control of smoke-detector sensitivity and other parameters.

D. Initiating-Device, Notification-Appliance, and Signaling-Line Circuits:

1. Pathway Class Designations: NFPA 72, Class B.
2. Pathway Survivability: Level 0.
3. Install no more than 100 addressable devices on each signaling-line circuit.
4. Serial Interfaces:

a. One dedicated RS 485 port for central-station operation using point ID DACT.
b. One RS 485 port for remote annunciators, Ethernet module, or multi-interface module (printer port).
c. One USB port for PC configuration.

E. Notification-Appliance Circuit:

1. FIRE ALARM: Audible appliances shall sound in a three-pulse temporal pattern, as defined in NFPA 72.
2. Visual alarm appliances shall flash in synchronization where multiple appliances are in the same field of view, as defined in NFPA 72.

F. Remote Smoke-Detector Sensitivity Adjustment: Controls shall select specific addressable smoke detectors for adjustment, display their current status and sensitivity settings, and change those settings. Allow controls to be used to program repetitive, time-scheduled, and automated changes in sensitivity of specific detector groups. Record sensitivity adjustments and sensitivity-adjustment schedule changes in system memory, and print out the final adjusted values on system printer.

G. Transmission to Remote Alarm Receiving Station: Automatically transmit alarm, supervisory, and trouble signals to a remote alarm station.

H. Primary Power: 24-V dc obtained from 120-V ac service and a power-supply module. Initiating devices, notification appliances, signaling lines, trouble signals, supervisory signals, and supervisory and digital alarm communicator transmitters shall be powered by 24-V dc source.

1. Alarm current draw of entire fire-alarm system shall not exceed 80 percent of the power-supply module rating.

I. Secondary Power: 24-V dc supply system with batteries, automatic battery charger, and automatic transfer switch.

1. Batteries: Sealed lead calcium.

J. Instructions: Computer printout or typewritten instruction card mounted behind a plastic or glass cover in a stainless-steel or aluminum frame. Include interpretation and describe appropriate response for displays and signals. Briefly describe the functional operation of the system under normal, alarm, and trouble conditions.

2.4 SYSTEM SMOKE DETECTORS

A. Manufacturers: Devices shall be compatible with new Fire Alarm control panel. Subject to compliance with requirements, provide products by the following:

1. Simplex or approved equal

B. General Requirements for System Smoke Detectors:

1. Comply with UL 268; operating at 24-V dc, nominal.
2. Detectors shall be two-wire type.
3. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.
4. Base Mounting: Detector and associated electronic components shall be mounted in a twist-lock module that connects to a fixed base. Provide terminals in the fixed base for connection to building wiring.
5. Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore them to normal operation.
6. Integral Visual-Indicating Light: LED type, indicating detector has operated and power-on status.
7. Remote Control: Unless otherwise indicated, detectors shall be digital-addressable type, individually monitored at fire-alarm control unit for calibration, sensitivity, and alarm condition and individually adjustable for sensitivity by fire-alarm control unit.
   a. Multiple levels of detection sensitivity for each sensor.
   b. Sensitivity levels based on time of day.

C. Photoelectric Smoke Detectors:

1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting.
2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:

   a. Primary status.
   b. Device type.
   c. Present average value.

d. Present sensitivity selected.
e. Sensor range (normal, dirty, etc.).

2.5 NOTIFICATION APPLIANCES

A. Manufacturers: Devices shall be compatible with the system. Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Simplex

B. General Requirements for Notification Appliances: Connected to notification-appliance signal circuits, zoned as indicated, equipped for mounting as indicated, and with screw terminals for system connections.

1. Combination Devices: Factory-integrated audible and visible devices in a single-mounting assembly, equipped for mounting as indicated, and with screw terminals for system connections.

C. Horns: Electric-vibrating-polarized type, 24-V dc; with provision for housing the operating mechanism behind a grille. Comply with UL 464. Horns shall produce a sound-pressure level of 90 dBA, measured 10 feet from the horn, using the coded signal prescribed in UL 464 test protocol.

D. Visible Notification Appliances: Xenon strobe lights complying with UL 1971, with clear or nominal white polycarbonate lens mounted on an aluminum faceplate. The word "FIRE" is engraved in minimum 1-inch-high letters on the lens.

1. Rated Light Output:

a. 15/30/75/110 cd, selectable in the field.

2. Mounting: Wall mounted unless otherwise indicated.
3. For units with guards to prevent physical damage, light output ratings shall be determined with guards in place.
4. Flashing shall be in a temporal pattern, synchronized with other units.
5. Strobe Leads: Factory connected to screw terminals.
6. Mounting Faceplate:

a. Fire alarm unit: Factory finished, red with “FIRE” in white letters.

E. Control Module:

1. Operate notification devices.

2.6 FIRE ALARM WIRE AND CABLE

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. West Penn Wire.
2. Comtran Corporation.
3. Draka Cableteq USA.
4. Genesis Cable Products; Honeywell International, Inc.
5. Rockbestos-Suprenant Cable Corp.

B. General Wire and Cable Requirements: NRTL listed and labeled as complying with NFPA 70, Article 760.

C. Signaling Line Circuits: Twisted, shielded pair, not less than No. 16 AWG.

1. Circuit Integrity Cable: Twisted shielded pair, NFPA 70, Article 760, Classification CI, for power-limited fire alarm signal service Type FPL. NRTL listed and labeled as complying with UL 1424 and UL 2196 for a two-hour rating.

D. Non-Power-Limited Circuits: Solid-copper conductors with 600-V rated, 75 deg C, color-coded insulation, and complying with requirements in UL 2196 for a two-hour rating.

1. Low-Voltage Circuits: No. 16 AWG, minimum, in pathway.
2. Line-Voltage Circuits: No. 12 AWG, minimum, in pathway.

E. Multiconductor Armored Cable: NFPA 70, Type MC, copper conductors, Type TFN/THHN conductor insulation, copper drain wire, copper armor with outer jacket with red identifier stripe, NTRL listed for fire alarm and cable tray installation, plenum rated.

F. All conductors and cables run exposed shall be plenum rated.

G. Fire alarm wire and cable shall be New York City certified and listed for 150°C minimum.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions for compliance with requirements for ventilation, temperature, humidity, and other conditions affecting performance of the Work.

1. Verify that manufacturer's written instructions for environmental conditions have been permanently established in spaces where equipment and wiring are installed, before installation begins.

B. Examine roughing-in for electrical connections to verify actual locations of connections before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 EQUIPMENT INSTALLATION

A. Comply with NFPA 72, NFPA 101, and requirements of authorities having jurisdiction for installation and testing of fire-alarm equipment. Install all electrical wiring to comply with requirements in NFPA 70 including, but not limited to, Article 760, "Fire Alarm Systems."

1. Devices placed in service before all other trades have completed cleanup shall be replaced.
2. Devices installed but not yet placed in service shall be protected from construction dust, debris, dirt, moisture, and damage according to manufacturer's written storage instructions.

B. Install wall-mounted equipment, with tops of cabinets not more than 78 inches above the finished floor.

C. Smoke- or Heat-Detector Spacing:

1. Comply with the "Smoke-Sensing Fire Detectors" section in the "Initiating Devices" chapter in NFPA 72, for smoke-detector spacing.
2. Comply with the "Heat-Sensing Fire Detectors" section in the "Initiating Devices" chapter in NFPA 72, for heat-detector spacing.
3. Smooth ceiling spacing shall not exceed 30 feet.
4. Spacing of detectors for irregular areas, for irregular ceiling construction, and for high ceiling areas shall be determined according to Annex A or Annex B in NFPA 72.
5. Lighting Fixtures: Locate detectors not closer than 12 inches from any part of a lighting fixture and not directly above pendant mounted or indirect lighting.

D. Install a cover on each smoke detector that is not placed in service during construction. Cover shall remain in place except during system testing. Remove cover prior to system turnover.

E. Remote Status and Alarm Indicators: Install in a visible location near each smoke detector, sprinkler water-flow switch, and valve-tamper switch that is not readily visible from normal viewing position.

F. Audible Alarm-Indicating Devices: Install not less than 6 inches below the ceiling. Install bells and horns on flush-mounted back boxes with the device-operating mechanism concealed behind a grille. Install all devices at the same height unless otherwise indicated.

G. Visible Alarm-Indicating Devices: Install adjacent to each alarm bell or alarm horn and at least 6 inches below the ceiling. Install all devices at the same height unless otherwise indicated.

3.3 PATHWAYS

A. Pathways above recessed ceilings and in nonaccessible locations may be routed exposed.

1. Exposed pathways located less than 96 inches above the floor shall be installed in EMT.

B. Box covers shall be painted red enamel.

3.4 FIRE ALARM WIRING INSTALLATION

A. Comply with NECA 1 and NFPA 72.

B. Wiring Method:

1. Install plenum cable in environmental air spaces, including plenum ceilings.
2. Cables and pathways used for fire alarm circuits, and equipment control wiring associated with the fire alarm system, may not contain any other wire or cable.
3. Fire-Rated Cables: Use of two-hour, fire-rated fire alarm cables, NFPA 70, Types MI and CI, is permitted.
4. Signaling Line Circuits: Power-limited fire alarm cables shall not be installed in the same cable or pathway as signaling line circuits.

C. Wiring within Enclosures: Separate power-limited and non-power-limited conductors as recommended by manufacturer. Install conductors parallel with or at right angles to sides and back of the enclosure. Bundle, lace, and train conductors to terminal points with no excess. Connect conductors that are terminated, spliced, or interrupted in any enclosure associated with the fire alarm system to terminal blocks. Mark each terminal according to the system's wiring diagrams. Make all connections with approved crimp-on terminal spade lugs, pressure-type terminal blocks, or plug connectors.

D. Cable Taps: Use numbered terminal strips in junction, pull, and outlet boxes, cabinets, or equipment enclosures where circuit connections are made.

E. Color Coding: Color code fire alarm conductors differently from the normal building power wiring. Use one color code for alarm circuit wiring and another for supervisory circuits. Paint fire alarm system junction boxes and covers red.

F. Wiring to Remote Alarm Transmitting Device: 1-inch conduit between the fire alarm control panel and the transmitter. Install number of conductors and electrical supervision for connecting wiring as needed to suit monitoring function

3.5 IDENTIFICATION

A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 270553 "Identification for Communications Systems."

B. Install framed instructions in a location visible from fire-alarm control unit.

3.6 GROUNDING

A. Ground fire-alarm control unit and associated circuits; comply with IEEE 1100. Install a ground wire from main service ground to fire-alarm control unit.

B. Ground shielded cables at the control panel location only. Insulate shield at device location.

3.7 FIELD QUALITY CONTROL

A. Field tests shall be witnessed by authorities having jurisdiction.

B. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect components, assemblies, and equipment installations, including connections.

1. Visual Inspection: Conduct visual inspection prior to testing.

    a. Inspection shall be based on completed record Drawings and system documentation that is required by the "Completion Documents, Preparation" table in the "Documentation" section of the "Fundamentals" chapter in NFPA 72.
    b. Comply with the "Visual Inspection Frequencies" table in the "Inspection" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72; retain the "Initial/Reacceptance" column and list only the installed components.

2. System Testing: Comply with the "Test Methods" table in the "Testing" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72.
3. Test audible appliances for the public operating mode according to manufacturer's written instructions. Perform the test using a portable sound-level meter complying with Type 2 requirements in ANSI S1.4.
4. Test audible appliances for the private operating mode according to manufacturer's written instructions.
5. Test visible appliances for the public operating mode according to manufacturer's written instructions.
6. Factory-authorized service representative shall prepare the "Fire Alarm System Record of Completion" in the "Documentation" section of the "Fundamentals" chapter in NFPA 72 and the "Inspection and Testing Form" in the "Records" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72.

C. Reacceptance Testing: Perform reacceptance testing to verify the proper operation of added or replaced devices and appliances.

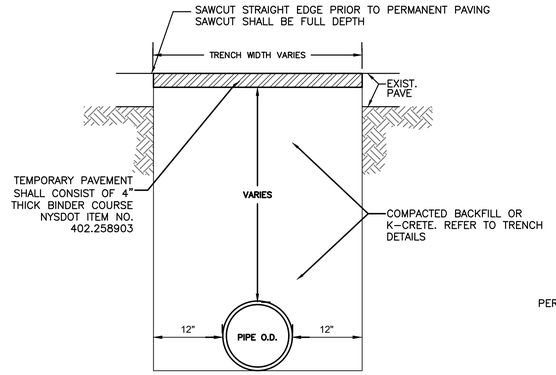
D. Fire-alarm system will be considered defective if it does not pass tests and inspections.

E. Prepare test and inspection reports.

3.8 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain fire-alarm system.

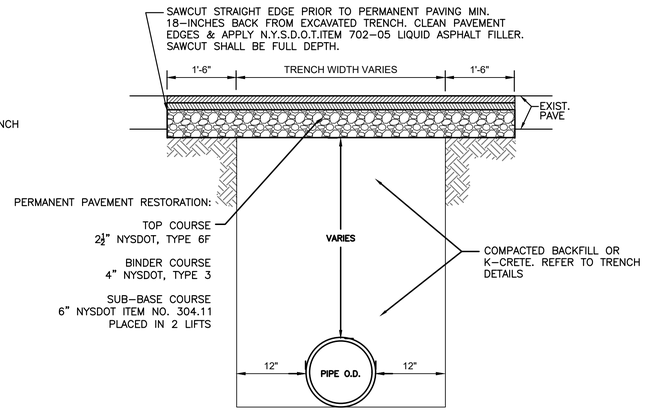
END OF SECTION 284621.11



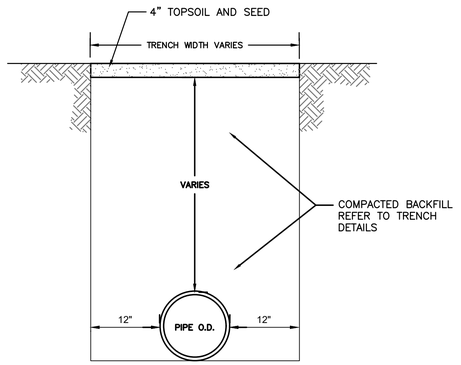
NOTES:

1. WHERE PAVEMENT HAS NOT BEEN RESTORED, TRENCH SHALL BE 100% PLATED DURING NON-WORKING HOURS.
2. IF ADJACENT PAVEMENT WITHIN CLOSE PROXIMITY OF TRENCH EXCAVATION SHOWS STRUCTURAL FATIGUE, ADDITIONAL PAVE. RESTORATION SHALL BE REQUIRED AT THE DISCRETION OF THE ENGINEER.
3. TRAFFIC SHALL BE CONTROLLED AT ALL TIMES BY MEANS OF SIGNS, FLAGMEN, CONES, BARRICADES, ETC., AS PER THE NEW YORK STATE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

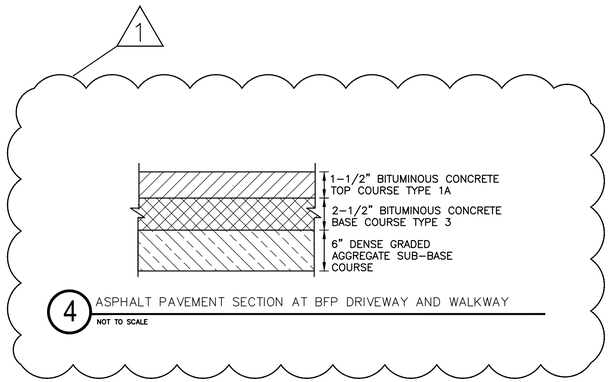
1 TEMPORARY PAVEMENT RESTORATION
NOT TO SCALE



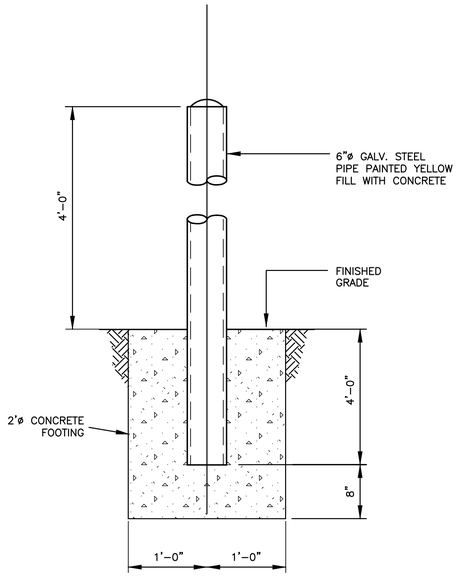
2 FINAL PAVEMENT RESTORATION IN PAVED AREAS
NOT TO SCALE



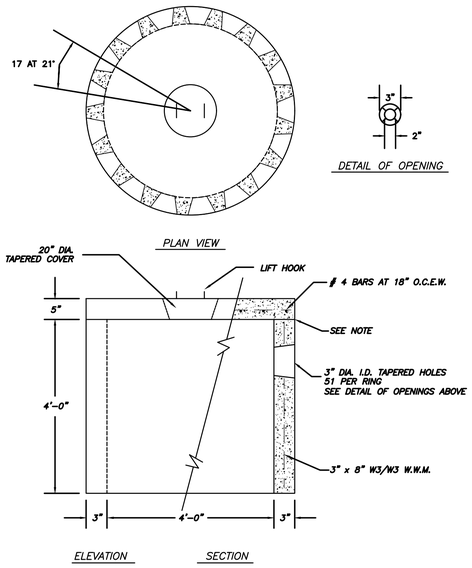
3 FINAL RESTORATION IN LANDSCAPED AREA
NOT TO SCALE



4 ASPHALT PAVEMENT SECTION AT BFP DRIVEWAY AND WALKWAY
NOT TO SCALE



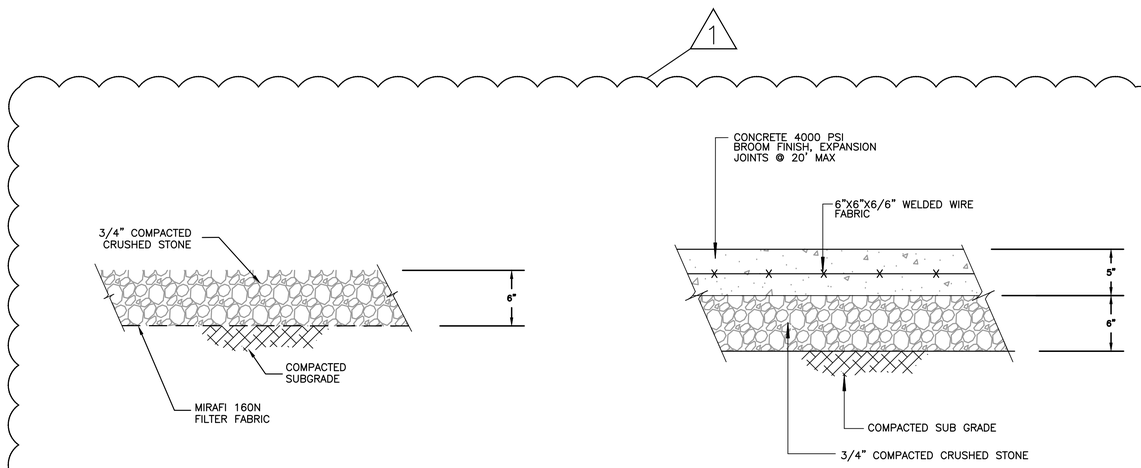
5 BOLLARD DETAIL
NOT TO SCALE



NOTES:

1. CONCRETE TO TEST 4000 PSI @ 28 DAYS.
2. WELDED WIRE MESH ASTM-A-185.
3. 376 GALLON CAPACITY PER RING.
4. MANUFACTURED BY PRECAST CONCRETE SALES, VALLEY COTTAGE, NY, OR APPROVED EQUAL

6 DRYWELL
NOT TO SCALE



7 GRAVEL DETAIL
NOT TO SCALE

8 CONCRETE PAVEMENT
NOT TO SCALE

D&B ENGINEERS AND ARCHITECTS
WHITE PLAINS, NEW YORK 10604
(914) 467-5300

CONSULTANT SEAL

IN CHARGE OF WDM
CHECKED BY ALG
MADE BY JG

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	12/28/22	JG	ALG	REVISED PER ADDENDUM #2

RECORD DRAWING CERTIFICATION

☐ AS BUILT – CHANGES AS NOTED
☐ AS BUILT – NO CHANGES

CONTRACTOR
NAME
SIGNATURE
TITLE DATE

PROJECT COORDINATOR
NAME
SIGNATURE
TITLE DATE

WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

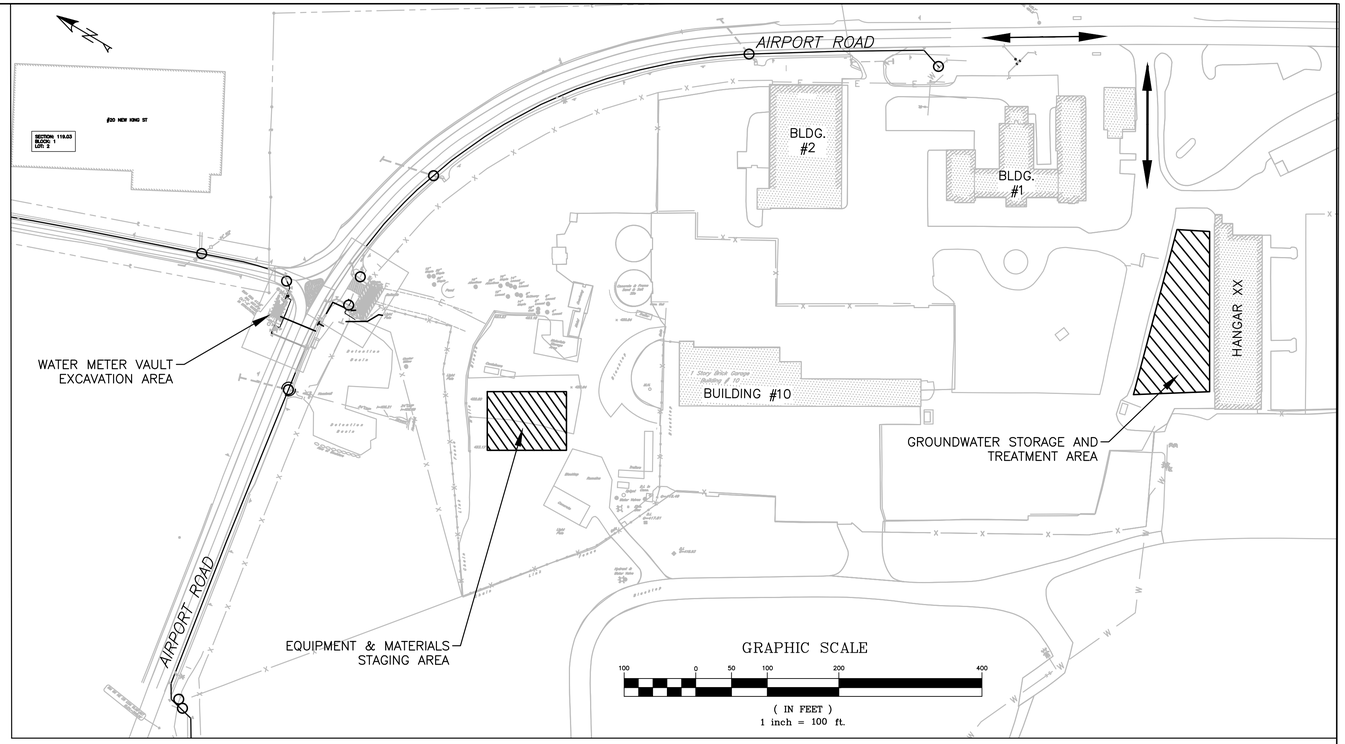
DOMESTIC WATER SYSTEM IMPROVEMENTS, WESTCHESTER COUNTY AIRPORT
TOWNS OF HARRISON, NORTH CASTLE & VILLAGE OF RYE BROOK
CIVIL
SITE DETAILS NO. 1

CONTRACT NUMBER 22-522
SHEET NUMBER C-19
SHEET NO. 23 OF 61
SCALE: AS SHOWN
DATE: 12/09/2022
DPW FILE NO. 48-17-C-148
REV. NO. 1

DEWATERING NOTES:

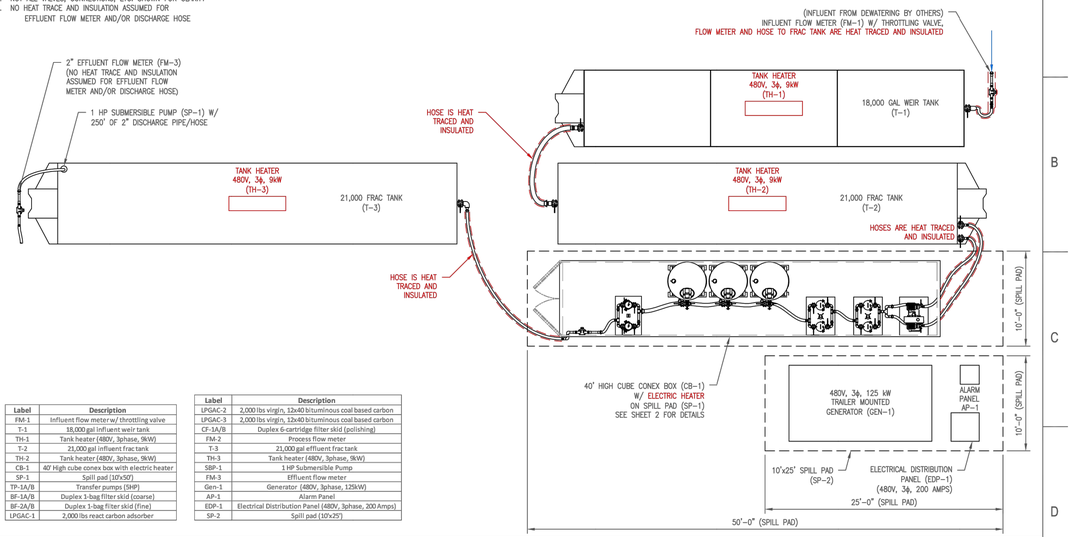
1. GROUND WATER FROM DEWATERING OPERATIONS IS NOT PERMITTED TO BE DISCHARGED TO THE GROUND SURFACE, DRAINAGE DITCH, SURFACE WATER BODY, STREAM, WETLAND, STORM DRAIN OR SANITARY SEWER.
2. THE CONTRACTOR SHALL FURNISH, INSTALL AND OPERATE A GROUNDWATER TREATMENT SYSTEM THAT WILL BE USED TO TREAT GROUNDWATER THAT IS REMOVED FROM THE GROUND BY DEWATERING FOR THE PURPOSE OF REMOVING PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS). REFER TO BLOCK DIAGRAM AND EQUIPMENT LAYOUT PREPARED BY GROUND WATER TREATMENT & TECHNOLOGY, LLC (GWTT).
3. ALL GROUNDWATER REMOVED FROM EXCAVATIONS, PITS AND WORK AREAS, MUST BE TRANSPORTED TO THE DESIGNATED TREATMENT AREA. FINAL LOCATION AND LAYOUT OF TEMPORARY TREATMENT SYSTEM SHALL BE CONFIRMED AND REVIEWED BY AIRPORT OPERATIONS AND ENGINEER PRIOR TO INSTALLATION.
4. ONCE WATER HAS BEEN TREATED THE MAXIMUM RATE OF DISCHARGE FROM THE TREATMENT SYSTEM INTO THE SANITARY SEWER SYSTEM, WILL BE LIMITED TO 17 GALLONS PER MINUTE (GPM) IN ACCORDANCE WITH DEF PERMIT. THE CONTRACTOR SHALL PROVIDE A FLOW CONTROL VALVE, CONTROLLED FLOW ORIFICE DEVICE OR OTHER APPROVED MEANS TO ENSURE DISCHARGE DOES NOT EXCEED 17 GPM. THE CONTRACTOR SHALL BE RESPONSIBLE TO RECORD EFFLUENT FLOW METER DATA AND SUBMIT TO THE ENGINEER AND OWNER'S REPRESENTATIVE FOR RECORD TO ENSURE DISCHARGE RATE IS NOT EXCEEDED.
5. THE CONTRATOR'S COST TO RENT, MOBILIZE, OPERATE, DEMOBILIZE AND RESTORE THE TREATMENT AREA SHALL BE PAID UNDER BID ITEM "GG". THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MAINTENANCE, REPAIRS AND/OR SYSTEM FAILURES OF THE TEMPORARY EQUIPMENT FOR THE DURATION OF THE PROJECT.
6. THE CONTRACTOR'S COST TO DEWATER, PUMP, COLLECT, IF NECESSARY STORE, AND TRANSPORT DEWATERING FLUID TO THE TREATMENT AREA SHALL BE INCLUDED IN THE CONTRACTOR'S COST FOR BID ITEMS AS FOLLOWS:
   a. DEWATERING, PUMPING COLLECTION AND/OR STORAGE RELATED TO THE METER VAULT SHALL BE INCLUDED IN BID ITEM DD.
   b. DEWATERING, PUMPING, COLLECTION AND/OR STORAGE RELATED TO THE TOWER ROAD AND AIRPORT ROAD BACKFLOW PREVENTER BUILDINGS SHALL BE INCLUDED IN BID ITEM EE OR FF RESPECTIVELY.
   c. DEWATERING, PUMPING, COLLECTION AND/OR STORAGE RELATED TO THE PIPELINE OR ANY OTHER EXCAVATION SHALL BE INCLUDED IN BID ITEMS D THROUGH G.
7. TREATMENT SYSTEM EFFLUENT WILL BE SAMPLED AND TESTED BY THE OWNER'S REPRESENTATIVE ONCE AT START UP AND BI-MONTHLY FOR THE DURATION OF THE PROJECT. THE OWNER'S REPRESENTATIVE SHALL BE RESPONSIBLE TO REPORT TEST RESULTS. THE OWNER'S REPRESENTATIVE WILL INSPECT THE TREATMENT SYSTEM PERIODICALLY TO CONFIRM THAT THE SYSTEM IS OPERATING IN ACCORDANCE WITH PERMIT REQUIREMENTS AND THAT THE PERMITTED DISCHARGE LEVELS ARE NOT EXCEEDED.
8. TEMPORARY GENERATOR SHALL BE DIESEL FUEL. CONTRACTOR SHALL BE RESPONSIBLE FOR GENERATOR FUEL DELIVERIES AND MAINTENANCE FOR THE DURATION OF THE OPERATION OF THE TEMPORARY WATER TREATMENT SYSTEM.
9. THE CONTRACTOR SHALL SUBMIT A SEQUENCE OF OPERATION OF THE TREATMENT SYSTEM TO THE ENGINEER FOR REVIEW. THE SEQUENCE OF OPERATION SHALL BE SIMILAR TO THE FOLLOWING:
   a. THE INFLUENT WEIR TANK SHALL BE PROVIDED WITH CONSTANT TANK VOLUME MONITORING AND LEVEL CONTROLS AS A MINIMUM: LOW WATER ALARM, HIGH WATER ALARM
   b. THE INFLUENT FRAC TANK SHALL BE PROVIDED WITH CONSTANT TANK VOLUME MONITORING AND LEVEL CONTROLS AS A MINIMUM: LOW WATER ALARM, HIGH WATER ALARM, TRANSFER PUMPS ON/OFF.
   c. IN THE EVENT THAT THE FRAC TANK WATER SUPPLY REACHES "TRANSFER PUMP ON" LEVEL, THE PUMP(S) SHALL BE ENERGIZED AND SHALL RUN CONTINUOUSLY THROUGH THE TREATMENT SYSTEM UNTIL THE "TRANSFER PUMPS OFF" LEVEL IS REACHED. AUTOMATIC VALVES AT THE INLET/OUTLET OF THE TANK SHALL OPEN/CLOSE AS REQUIRED.
   d. THE EFFLUENT TANK SHALL BE PROVIDED WITH CONSTANT TANK VOLUME MONITORING AND FIELD ADJUSTABLE LEVEL CONTROLS AS A MINIMUM: LOW WATER ALARM, HIGH WATER ALARM, 25% FULL, 50% FULL, 80% FULL
   e. IN THE EVENT THAT THE EFFLUENT FRAC TANK REACHES 80% FULL THE TRANSFER PUMPS SHALL BE DE-ENERGIZED AND THE EFFLUENT DISCHARGED AT 17 GPM MAXIMUM.THE CONTRACTOR SHALL DETERMINE THE FREQUENCY OF EFFLUENT DISCHARGE BASED ON DEWATERING FIELD CONDITIONS.
   f. ALL TANKS SHALL BE PROVIDED WITH EXTERIOR AUDIBLE ALARMS.

1



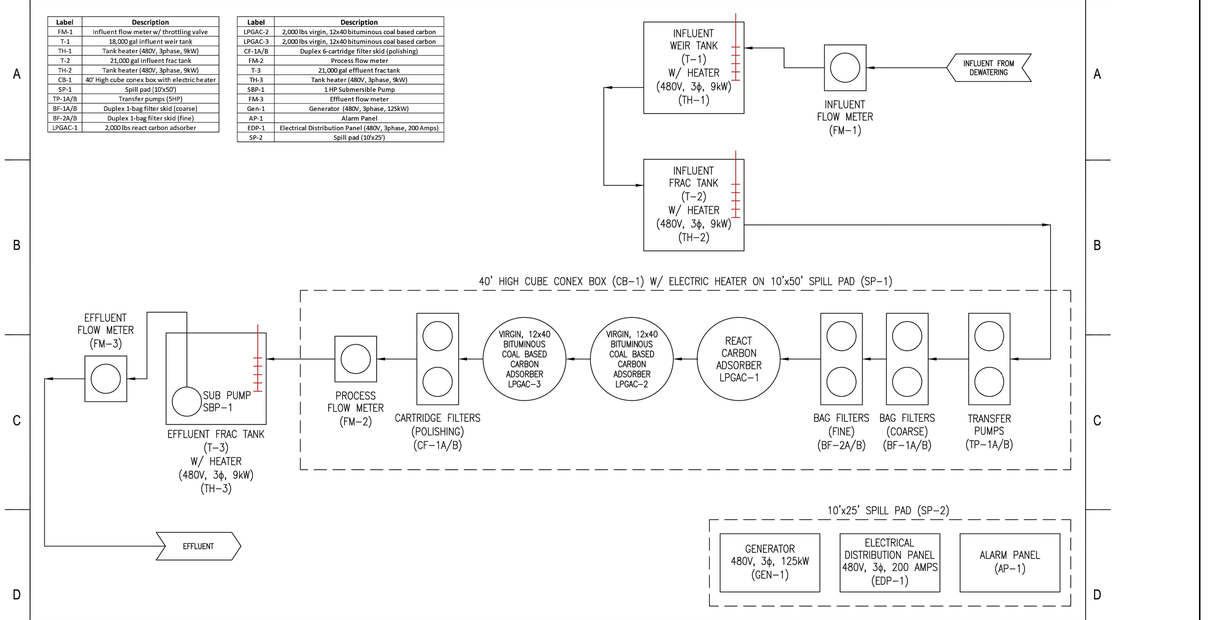
NOTES:
1. DESIGN FLOW RATE: 50 GPM
2. SYSTEM FOOTPRINT APPROXIMATELY:
   (INFLUENT TANKS 20'x50')
   (CONEX BOX 10'x50')
   (GENERATOR 10'x25')
   (EFFLUENT TANK 10'x50')
3. NOT ALL VALVES, CONNECTIONS, ETC. SHOWN FOR CLARITY
4. NO HEAT TRACE AND INSULATION ASSUMED FOR EFFLUENT FLOW METER AND/OR DISCHARGE HOSE

TEMPORARY TREATMENT SYSTEM
OVERALL PLAN VIEW



Label	Description
FM-1	Influent flow meter w/ throttling valve
T-1	18,000 gal influent weir tank
TH-1	Tank heater (480V, 3phase, 9kW)
T-2	21,000 gal influent frac tank
TH-2	Tank heater (480V, 3phase, 9kW)
CB-1	40' High cube conex box with electric heater
SP-1	Spill pad (10'x50')
TP-1A/B	Transfer pumps (5HP)
BF-1A/B	Duplex 1-bag filter skid (coarse)
BF-2A/B	Duplex 1-bag filter skid (Fine)
LPGAC-1	2,000 lbs react carbon adsorber

Label	Description
LPGAC-2	2,000 lbs virgin, 12x40 bituminous coal based carbon
LPGAC-3	2,000 lbs virgin, 12x40 bituminous coal based carbon
CF-1A/B	Duplex 6-cartridge filter skid (polishing)
FM-2	Process flow meter
T-3	21,000 gal effluent frac tank
TH-3	Tank heater (480V, 3phase, 9kW)
SBP-1	1 HP Submersible Pump
FM-3	Effluent flow meter
Gen-1	Generator (480V, 3phase, 125kW)
AP-1	Alarm Panel
EDP-1	Electrical Distribution Panel (480V, 3phase, 200 Amps)
SP-2	Spill pad (10'x25')



D:\Cad Files\QUOTES\Q-10100s\Q-10183 Westchester County Airport\WIP\Q010183-M-400-A.dwg — THIS DRAWING IS THE PROPERTY OF GROUND/WATER TREATMENT AND TECHNOLOGY, LLC. IT IS NOT TO BE USED FOR ANY PURPOSES DETRIMENTAL TO THE INTEREST OF THIS COMPANY AND IS SUBJECT TO RETURN UPON REQUEST.

REV.	DATE	BY	REMARKS
A	10/24/22	RS	PRELIMINARY DESIGN FOR REVIEW

CUSTOMER: OLA CONSULTANTS
SITE: WESTCHESTER COUNTY AIRPORT
TITLE: EQUIPMENT LAYOUT 50 GPM TEMPORARY TREATMENT SYSTEM
SCALE: NTS
DESIGN: RS 10/24/22
APPROVALS: MGR. — DATE — PROJECT
DWG SIZE: B SHEET: 1 OF 2 DRAWING NO.: Q010183-M-400 A

GWTT Ground/Water Treatment & Technology LLC — 627 MOUNT HOPE ROAD WHARTON, NJ 07885 PHONE: 973-983-0901 • FAX: 973-983-0903 www.gwttllc.com

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REV.	DATE	BY	REMARKS
A	10/24/22	RS	PRELIMINARY DESIGN FOR REVIEW

CUSTOMER: OLA CONSULTANTS
SITE: WESTCHESTER COUNTY AIRPORT
TITLE: BLOCK FLOW DIAGRAM 50 GPM TEMPORARY TREATMENT SYSTEM
SCALE: NTS
DESIGN: RS 10/24/22
APPROVALS: MGR. — DATE — PROJECT
DWG SIZE: B SHEET: 1 OF 1 DRAWING NO.: Q010183-M-400 A

GWTT Ground/Water Treatment & Technology LLC — 627 MOUNT HOPE ROAD WHARTON, NJ 07885 PHONE: 973-983-0901 • FAX: 973-983-0903 www.gwttllc.com

D&B ENGINEERS AND ARCHITECTS
WHITE PLAINS, NEW YORK 10604
(914) 467-5300

CONSULTANT SEAL

IN CHARGE OF WDM
CHECKED BY ALG
MADE BY JG

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	12/28/22	JG	ALG	REVISED PER ADDENDUM #2

RECORD DRAWING CERTIFICATION
☐ AS BUILT – CHANGES AS NOTED
☐ AS BUILT – NO CHANGES

CONTRACTOR
NAME _____
SIGNATURE _____
TITLE _____ DATE _____

PROJECT COORDINATOR
NAME _____
SIGNATURE _____
TITLE _____ DATE _____

WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

DOMESTIC WATER SYSTEM IMPROVEMENTS, WESTCHESTER COUNTY AIRPORT
TOWNS OF HARRISON, NORTH CASTLE & VILLAGE OF RYE BROOK
CIVIL
GROUNDWATER MANAGEMENT PLAN

CONTRACT NUMBER	SHEET NUMBER
22-522	C-29

SHEET NO. 33 OF 61
SCALE: AS SHOWN
DATE: 12/09/2022
DPW FILE NO. 48-17-C-158
REV. NO. 1

F:\5469\Plot Dwgs\Civil\C-29 Groundwater Management Plan.dwg, 12/28/2022 4:15:02 PM, jgiuraj

Attachment No. 1 - Photo Report: Existing Tower Road BFP Building