STUDIOS
ARCHITECTURE
MASTER PLANNING

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8098 Sandpiper Circle, Suite H
Nottingham, Maryland 21236

ADDENDUM 03

PROJECT:	Exeter Twp ESC	MWS PROJECT NO:	25-049
ADDRESS:	70 Gibraltar Road Reading, PA 19606	ISSUE DATE:	10/23/2026*

*revised drawings and specs are dated for 10/22/2026

The following changes shall be incorporated into the work in accordance with all general requirements as if incorporated in the original documents.

GENERAL CHANGES: N/A

CHANGES TO DRAWINGS:

1.) A404: In detail 7 the radiant tubing verbiage was removed.

2.) Erosion and Sedimentation Control Plan (Sheet C106) – add an inlet filter bag to the patio inlet (I-2B.3.1).

3.) Storm Profiles (Sheets C107 & C207) – Profile of I-2B.3.1 to I-2B.3 added.

4.) Civil Detail (Sheet C17) - seat wall detail revised per question 15.

5.) Fitness Ceiling Fans

   a. DEDC contacted Big Ass Fan to get selections for this project (again) and they don't really provide any "custom" engineering based on the actual project. They use their experience and catalog information, whereas Greenheck has selection software and actual certified performance data.

   b. The Fitness Room ceiling fans have been changed to Greenheck fans

   c. Specifications still allow the MC to provide Big Ass Fans as an Alternate if they provide supporting documentation to prove the BAF is equivalent.

CHANGES TO SPECIFICATIONS:

1.) Section 00 1100 – Instructions to Bidders – Revised and reissued. Section 5.5.3 has been added. Changes have been made to Sections 9.9.1 and 9.9.2 documents required for Bid Submission.

2.) Section 00 1310 Proposal Checklist – Revised and reissued. Changes have been made to documents required for Bid Submission.

3.) Section 00 1950.1 – Safety Prequalification Questionnaire Form – Revised and reissued. Change has been made from Subcontractor to Contractor.

4.) Specification section "28 1000-RIB-Access Control" has been added.

BIDDER QUESTIONS & RESPONSES:

14.) QUESTION: Can Casework be "built to" AWI standards and not require the certification?

RESPONSE: Yes.

15.) QUESTION: There is a seat wall on the civil drawings that is calling out a 1'-6" wide ground face wall. Can this be changed to 1-4" wide that way it would work with 2 wythes of 8" ground face. See attached detail. (DT-03 {C17})

RESPONSE: Yes, change the seat wall to 1'-4" wide and cap to 1'-6".

16.) QUESTION: Which plan set are we to use? The 10.1.26 bid set or the 10.1.26 field change/bid set?

RESPONSE: The Land Development Plan (sheets C01-C26), Erosion and Sediment Control (E&S) Plan (sheets C101-C110) and Post Construction Stormwater Management (PCSM) Plan (sheets C201-C212) are all applicable and contract documents. The Berks County Conservation District (BCCD)/DEP requires standalone E&S and PCSM Plan sets. All Plan sets are required to be on-site for Twp and BCCD purposes. Plans are deemed consistent unless notified otherwise.

17.) QUESTION: Will there be any specifications for Access Control?

RESPONSE: Yes, specification has been provided.

18.) QUESTION: Which prime is responsible for downspout boots?

RESPONSE: Please refer to Specification Section 01 1200 Multiple Contract Summary for a detailed description of each Prime Contractor's Responsibilities. Also refer to Sheet C11 note 12. Site Contractor will provide and install downspout boots. Please carefully read this specification section for responsibilities, transfer of responsibilities within the building footprint, and all scope of work.

19.) QUESTION: Is the SC responsible for the seat wall?

RESPONSE: No, GC will install the Seat Wall. Please refer to Specification Section 01 1200 Multiple Contract Summary for a detailed description of each Prime Contractor's Responsibilities.

20.) QUESTION: Drawings Referenced: A001/C07

On the above referenced drawings in calls for a masonry seat wall. Can you please provide the specifics and dimensions for the masonry seat wall referenced as #6 on A001.

RESPONSE: See sheet C17.

21.) QUESTION: Please confirm main extensions for san & water are not in SC SOW. Can a delineation point be provided for where SC runs san onto site? Assumed from the trap & cleanout at STA 3 +00.

RESPONSE: Refer to the notes on Sheet C11.

22.) QUESTION: Should SC use Heavy or Highway for wage determination?

RESPONSE: The applicable prevailing wage classification is determined by the Pennsylvania Department of Labor & Industry. The project's prevailing wage determination will identify the classification(s) that apply. If there is any question regarding whether specific work falls under Building or Heavy/Highway rates, the appropriate source is the PA L&I Prevailing Wage Division.

23.) QUESTION: At the pre-bid, it was mentioned that (2) physical copies and (1) USB digital copy of the bid would need to be submitted. It will nearly be impossible to have a USB ready by the time of the bid with numbers constantly changing to stay competitive. Most of the time we are writing in our base bid in the last half hour before the bid. Can the USB requirement be waived?

RESPONSE: Please refer to Response for Question No. 3 on Addendum No. 2, dated 10/15/26.

24.) QUESTION: Per addendum #1 the description for submission of bid says to submit 2 hard copes of the bid and 1 electronic USB copy. Also the instructions to bidders states 1 hard copy and 1 USB copy. The hard copies are standard and not an issue. The USB copy will be an issue. On every project we bid there are always subcontractors that wait till the last minute to submit. We stress to them we need quotes by the day before but we cant force them. We send one or two employees to the delivery location with blank copies of the bid form and call in the numbers and they fill out the forms there. On a typical bid delivery we relay the numbers about 10 to 15 minutes prior to bid due time. This allows us to be as competitive as possible and review every quote received. Please consider removing the USB copy requirement.

RESPONSE: Please refer to Response for Question No. 3 on Addendum No. 2, dated 10/15/26.

25.) QUESTION: On Drawing E000, Note 7 says "CONDUIT AND WIRE SHALL NOT BE INSTALLED BELOW FLOOR SLAB UNLESS INDICATED ON PLAN BY DASHED CONDUIT."

On Drawing E101, General Site Notes E mentions that "ALL BRANCH LIGHTING AND POWER CIRCUITS SHALL BE FURNISHED AND INSTALLED AT A MINIMUM OF 3'-0" B.F.G. AS MEASURED TO TOP OF CONDUITS. "

Are we allowed to excavate the inside of the building to install underground conduits for all branch circuits?

RESPONSE: Note 7 has been revised. Site note E will be revised to specify site lighting and power to be installed below 3'-0" minimum B.F.G.

26.) QUESTION: On Drawing E101, Detail 2 shows concrete-encased conduit run section view.

There are no mentions of conduits that need to be concrete encased, does the detail apply to any conduits?

RESPONSE: Site plan will be updated to call out specific concrete encased conduit runs.

27.) QUESTION: Note 1 on E101 says about installing a utility pole.

There are two Note 1s with arrows next the Unistrut Frame in the small EMS parking lot. Is the intent to install utility poles at these locations as well?

RESPONSE: No, Unistrut frame keynote noting utility poles was a type error. Unistrut specific keynotes have been revised.

28.) QUESTION: The specification provided for Section 071900 – Water Repellants appears to contain the thermal insulation specifications rather than the specified water repellant requirements.

Please provide the correct Section 071900 – Water Repellants specification.

RESPONSE: Section provided below.

29.) QUESTION: Would Uponor PEX be acceptable for domestic water sizes 2" and smaller?

Drawing P6.03 – is any of this equipment furnished by the owner?

RESPONSE: PEX is not acceptable. P603 has been updated to show PC scope vs Owner's Water Filtration Contractor scope.

30.) QUESTION: Who is responsible for providing and installing the system monitors? Could a quantity and spec be provided?

RESPONSE: The Owners vendor, APS Firehouse Alerting, will provide all Fire Station Alerting monitors. Illuminated Integration, a separate Owner Vendor, will provide all other monitors as well as all monitor mounts. Illuminated Integration is also responsible for installing all monitors and associated mounts. The GC shall be responsible for providing blocking in wall as required by Owner Vendor provided and installed mounts. Drawings will be revised to reflect this clarification and issued via the following addendum, Addendum #4.

31.) QUESTION: Who is responsible for compaction testing?

RESPONSE: Construction Testing will be provided by the Owner via a Third-Party. Compaction Testing will be included in the Third-Party Consultants scope of work.

32.) QUESTION: Can you reconsider the SC providing trenching stone bed & backfill for all other primes 5' outside of the building? It would make sense for each prime to be responsible for their own trenching, It's challenging to gauge the production rate when constructing our bids otherwise.

RESPONSE: SC will be responsible for this scope of work per the current specifications.

33.) QUESTION: Please confirm the EC contract will install encased concrete for the conduit where required?

RESPONSE: Confirmed, EC will be responsible for all encasements associated with their work.

34.) QUESTION: Which prime contract will be responsible for furnishing & installing light pole bases, including the illuminated bollards?

RESPONSE: Exterior light pole bases and transformer vaults are provided by the Electrical Contractor and installed by the Site Contractor. Illuminated bollards are to be provided and installed by the Electrical Contractor. Please refer to Specification Section 01 1200 Multiple Contract Summary for a detailed description of each Prime Contractor's Responsibilities.

35.) QUESTION: One of the details provided for the infiltration bed SCM-3 includes infiltration media, is this only required if bedrock is encountered? Would that be handled at a later time?

RESPONSE: Detail shown on sheet C25. Correct, the infiltration media is only needed if bedrock is encountered. The Construction Manager will be adding an allowance for this.

36.) QUESTION: A note on C03 states a liner in the underground infiltration bed, is a liner required or is it referring to the fabric?

RESPONSE: The geotextile referenced in the underground detention basin/underground infiltration bed notes (sheet C03) is shown on the Stormtech MC-3500 chamber system detail (sheet C26) – ADS geosynthetics 601 non-woven geotextile.

37.) QUESTION: Silent Knight and Notifier are specified as fire alarm manufacturers or approved Equal. Will Siemens, Edwards, or Simplex be Accepted? If so, is there also a substitution form to fill out.

RESPONSE: Specified fire alarm system is non-proprietary, all substitutions shall be non-proprietary to be acceptable for use on project.

38.) QUESTION: Who will be providing the ups shown on the electrical single line? If EC is responsible could specs be issued or could you provide the location of them?

RESPONSE: E.C. shall furnish and install UPS in the I.T. Room. Specification has been updated on single line diagram.

39.) QUESTION: Could you provide a responsibility matrix for the electrical systems and devices by Owner or by EC so there is no confusion.

RESPONSE: Refer to sheet G001.

40.) QUESTION: Please confirm Generator is being acquired by the township.

RESPONSE: The Generator will be provided and installed by the Electrical Contractor. Please see the updated Multiple Contract Summary, specification 01 1200.

ATTACHMENTS:

1.) Civil sheets C17, C106, C107, C207.

2.) Arch sheet G000 and A404.

3.) MEP sheets M101, M111, M112, M201, M601, P101, P202, P402, P501, P503, P601, P603, E000, E101, E102, E201, E202, E204, E301, E401, E402, E601, E602, E604, E606

4.) Spec Section 00 1100 Instructions to Bidders

5.) Spec Section 01 1200 Multiple Contract Summary

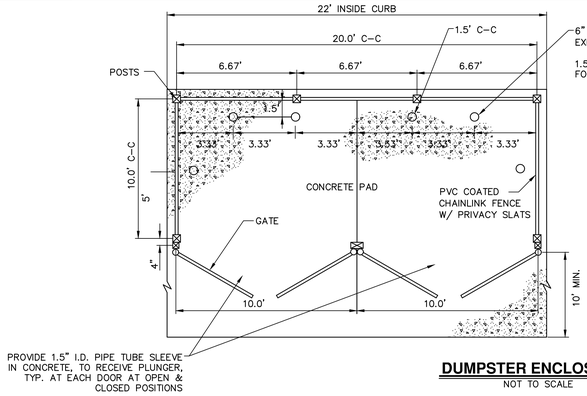
6.) Spec Section 00 1310 Proposal Checklist

7.) Spec Section 00 1950.1 Safety Prequalification Questionnaire Form

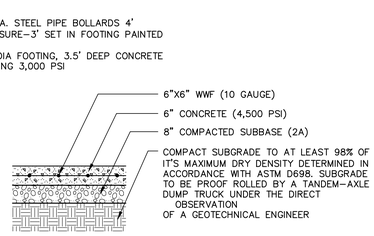
8.) Spec Section 07 1900 Water Repellants

9.) Spec Section 28 1000-RIB-Access Control

END OF ADDENDUM

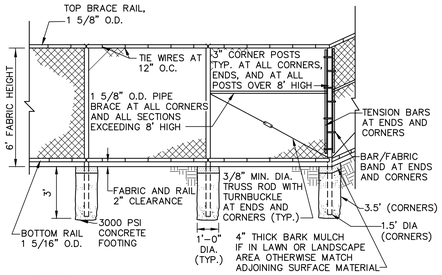


DUMPSTER ENCLOSURE
NOT TO SCALE



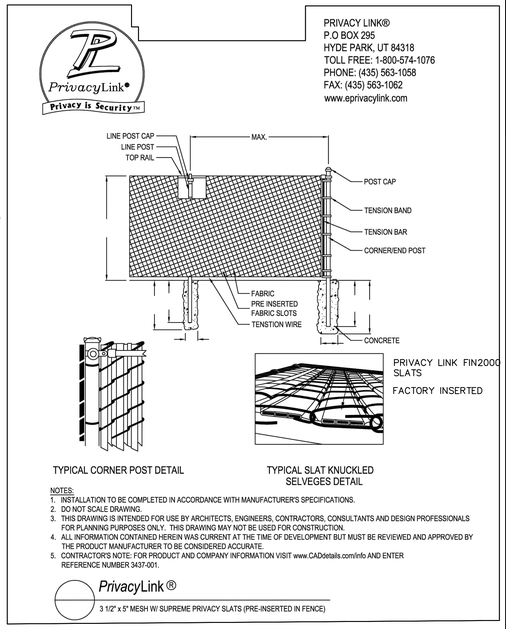
CONCRETE PAD DETAIL WITHIN ENCLOSURE FOOTPRINT

NOTE:
1. CONTRACTOR TO PROVIDE FENCE SUBMITTAL WITH PVC COLOR OPTIONS.
2. SEAL CONCRETE SLAB AGAINST GREASE ABSORPTION WITHIN ENCLOSURE FOOTPRINT.



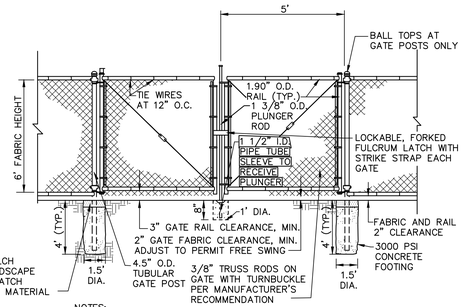
NOTES:
1. LINE POST SPACING TO BE 10'-0" MAX.
2. ADD ADDITIONAL BRACE AND TRUSS AND OTHER ACCESSORIES/ HARDWARE FOR CORNER AND END SECTIONS OF FENCE EXCEEDING 8' HEIGHT AS RECOMMENDED BY THE MANUFACTURER.
3. FABRIC TO BE ZINC/5% ALUMINUM/MISCHMETAL ALLOY - COATED STEEL CORE WIRE, 9 GAGE, HELICALLY WOVEN AS DIAMOND MESH KNUCKLED AT EDGES 3.5"X5" MESH, PVC COATED WITH PRIVACY SLATS
4. POSTS AND RAILS TO BE SCHEDULE 40 HOT-DIPPED GALVANIZED STEEL, ALL JOINTS WELDED.

DUMPSTER CHAINLINK FENCE DETAIL
NOT TO SCALE



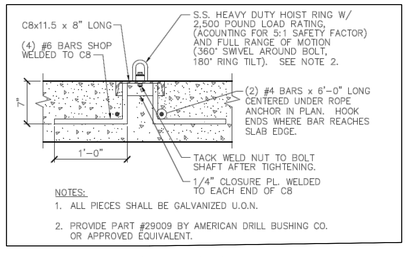
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 3437-001.

PrivacyLink®
3 1/2" x 5" MESH W/ SUPREME PRIVACY SLATS (PRE-INSERTED IN FENCE)



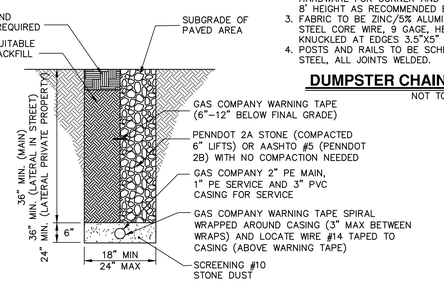
NOTES:
1. LINE POST SPACING TO BE 10'-0" MAX.
2. PROVIDE GATES AT LOCATIONS SHOWN ON THE PLAN.
3. PROVIDE GATE KEEPER FOR EACH GATE FOR SECURING GATE IN FULL OPEN POSITION.
4. PROVIDE PLUNGER KEEPER TO KEEP PLUNGER ROD IN UP POSITION DURING OPENING OF THE GATE.
5. FABRIC TO BE ZINC/5% ALUMINUM/MISCHMETAL ALLOY - COATED STEEL CORE WIRE, 9 GAGE, HELICALLY WOVEN AS DIAMOND MESH KNUCKLED AT EDGES 3.5"X5" MESH, PVC COATED WITH PRIVACY SLATS
6. POSTS AND RAILS TO BE SCHEDULE 40 HOT-DIPPED GALVANIZED STEEL, ALL JOINTS WELDED.

DUMPSTER CHAINLINK DOUBLE-LEAF SWING GATE DETAIL
NOT TO SCALE



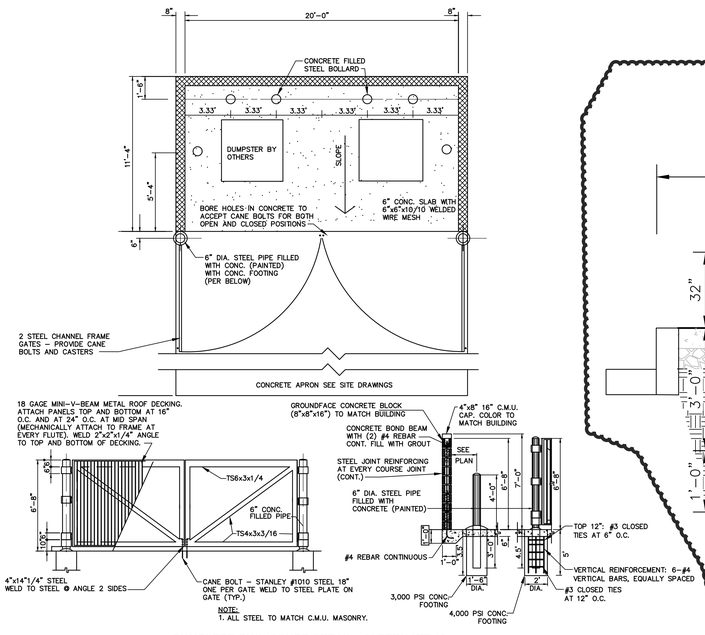
NOTES:
1. ALL PIECES SHALL BE GALVANIZED U.O.N.
2. PROVIDE PART #29009 BY AMERICAN DRILL BUSHING CO. OR APPROVED EQUIVALENT.

ROPE ANCHOR DETAIL
NOT TO SCALE



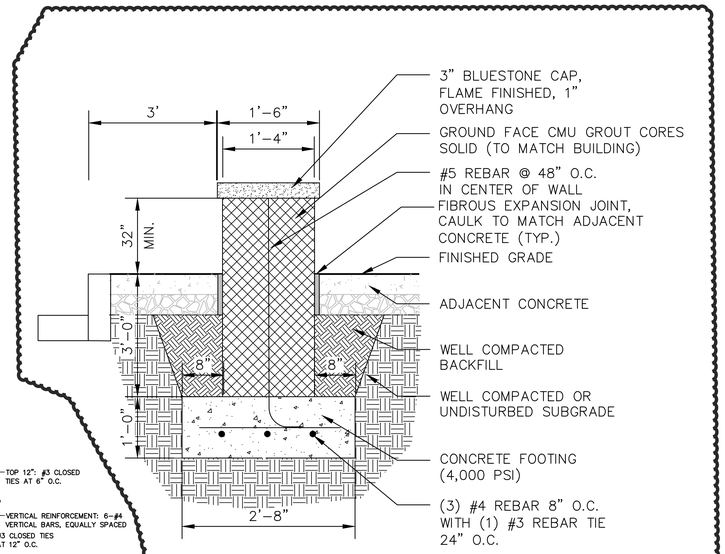
NOTE:
1. MINIMUM VERTICAL CLEARANCE FROM OTHER UTILITIES IS 12 INCHES.
2. REFER TO UGI EXCAVATION HANDBOOK.

GAS LINE TRENCH DETAIL
NOT TO SCALE



NOTE:
1. ALL STEEL TO MATCH C.M.U. MASONRY.

DUMPSTER ENCLOSURE DETAIL - ALTERNATE 12
NOT TO SCALE



PATIO WALL
NOT TO SCALE

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PRELIMINARY / FINAL LAND DEVELOPMENT PLAN
FOR
EMERGENCY SERVICES FACILITY
EXETER TOWNSHIP
4975 DEMOSS ROAD
READING, PA 19606
EXETER TOWNSHIP, BERKS COUNTY, PENNSYLVANIA

PROFESSIONAL SEAL:

HRG PROJECT NUMBER: R006367.0427
PLAN DATE: 2026.02.18
DRAWING SCALE: AS SHOWN
PROJ. MANAGER: DENNIS REICHEL

REVISIONS NO.	DATE	DESCRIPTION
1	2026.03.18	REV AS PER 3/19/26 PLANNING COMMISSION COMMENTS
2	2026.06.15	50% CONSTRUCTION PLAN
3	2026.08.21	90% CONSTRUCTION PLAN
4	2026.10.01	BID SET
5		
6		
7		
8		
9		

SHEET TITLE:
SITE DETAILS

SHEET: DT-03 | 17

EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTAR ROAD
READING, PA 19606

PROJECT NUMBER:
25-049

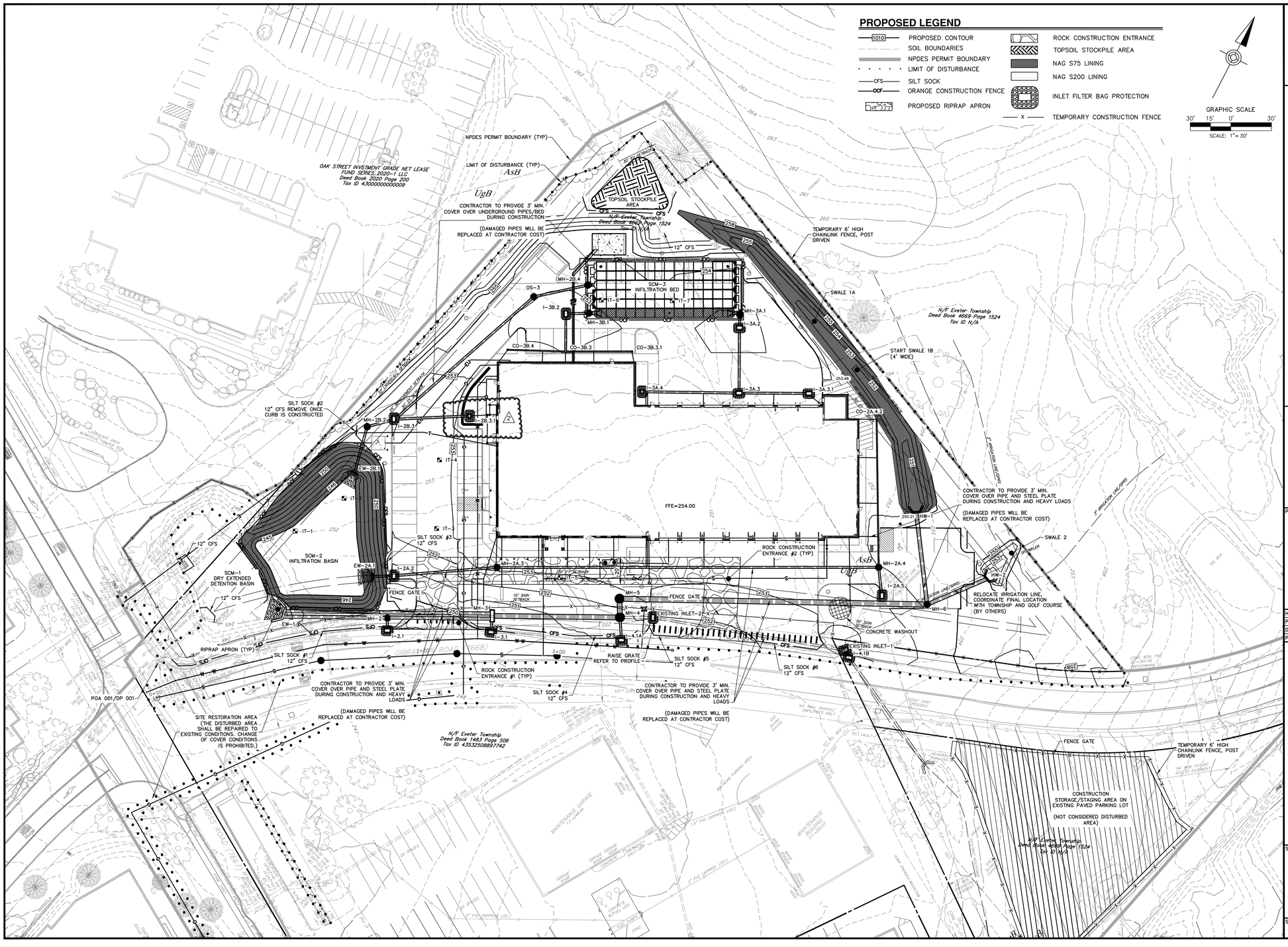
SUBMISSION:
BID SET

ORIGINAL ISSUE DATE:
10/01/2026

SHEET REVISION SCHEDULE:
2 ADDENDUM 03 - 10/22/2026

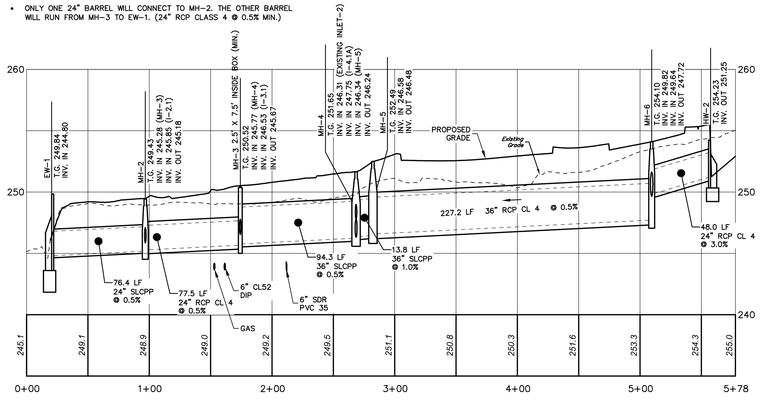
REFERENCE PLAN

SHEET NUMBER:
C17

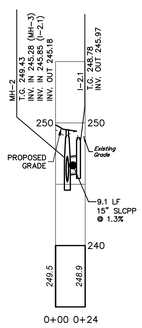

PROPOSED LEGEND
PROPOSED CONTOUR
SOIL BOUNDARIES
NPDES PERMIT BOUNDARY
LIMIT OF DISTURBANCE
SILT SOCK
ORANGE CONSTRUCTION FENCE
PROPOSED RIPRAP APRON
ROCK CONSTRUCTION ENTRANCE
TOPSOIL STOCKPILE AREA
NAG S75 LINING
NAG S200 LINING
INLET FILTER BAG PROTECTION
TEMPORARY CONSTRUCTION FENCE
GRAPHIC SCALE
30' 15' 0' 30'
SCALE: 1" = 30'
NPDES PERMIT BOUNDARY (TYP)
LIMIT OF DISTURBANCE (TYP)
CONTRACTOR TO PROVIDE 3' MIN. COVER OVER UNDERGROUND PIPES/BED DURING CONSTRUCTION
(DAMAGED PIPES WILL BE REPLACED AT CONTRACTOR COST)
OAK STREET INVSTMENT GRADE NET LEASE FUND SERIES, 2020-1 LLC Deed Book 2020 Page 200 Tax ID 43000000000009
TOPSOIL STOCKPILE AREA
N/F Exeter Township Deed Book 4669 Page 1524 Tax ID N/A
TEMPORARY 6' HIGH CHAINLINK FENCE, POST DRIVEN
SCM-3 INFILTRATION BED
SWALE 1A
START SWALE 1B (4' WIDE)
SILT SOCK #2 12" CFS REMOVE ONCE CURB IS CONSTRUCTED
SCM-2 INFILTRATION BASIN
SCM-1 DRY EXTENDED DETENTION BASIN
ROCK CONSTRUCTION ENTRANCE #2 (TYP)
CONTRACTOR TO PROVIDE 3" MIN. COVER OVER PIPE AND STEEL PLATE DURING CONSTRUCTION AND HEAVY LOADS
(DAMAGED PIPES WILL BE REPLACED AT CONTRACTOR COST)
SWALE 2
RELOCATE IRRIGATION LINE, COORDINATE FINAL LOCATION WITH TOWNSHIP AND GOLF COURSE (BY OTHERS)
FFE=254.00
FENCE GATE
EXISTING INLET-2
EXISTING INLET-1
CONCRETE WASHOUT
RIPRAP APRON (TYP)
SILT SOCK #1 12" CFS
SILT SOCK #3 12" CFS
SILT SOCK #4 12" CFS
SILT SOCK #5 12" CFS
SILT SOCK #6 12" CFS
ROCK CONSTRUCTION ENTRANCE #1 (TYP)
RAISE GRATE REFER TO PROFILE
POA 001/DP 001
SITE RESTORATION AREA (THE DISTURBED AREA SHALL BE REPAIRED TO EXISTING CONDITIONS. CHANGE OF COVER CONDITIONS IS PROHIBITED.)
N/F Exeter Township Deed Book 1483 Page 506 Tax ID 435325088977742
CONSTRUCTION STORAGE/STAGING AREA ON EXISTING PAVED PARKING LOT
(NOT CONSIDERED DISTURBED AREA)
N/F Exeter Township Deed Book 4669 Page 1524 Tax ID N/A
TEMPORARY 6' HIGH CHAINLINK FENCE, POST DRIVEN
GIBRALTER ROAD (T-668)
MAGNOLIA DRIVE
MAGNOLIA COURT
MAGNOLIA WAY
MAGNOLIA CIRCLE
MAGNOLIA PLACE
MAGNOLIA DRIVE EAST
MAGNOLIA DRIVE WEST
MAGNOLIA DRIVE NORTH
MAGNOLIA DRIVE SOUTH
MAINTENANCE GARAGE 17,728.44
MAINTENANCE BUILDING 17,728.44
MCGAVAN FARMING AREA
MCGAVAN FAIRWAY
MCGAVAN PARKING AREA
MEDIUM DUTY ASPHALT
HEAVY DUTY ASPHALT
CONCRETE
GRASS
GRAVEL
WOODS
WETLANDS
WETLANDS BUFFER
LANDSCAPE AREA W/ NATIVE SEED MIX
LANDSCAPE AREA W/ SOD

DUAL STORM PIPE NOTE

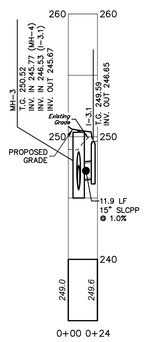
- ONLY ONE 24" BARREL WILL CONNECT TO MH-2. THE OTHER BARREL WILL RUN FROM MH-3 TO EW-1. (24" RCP CLASS 4 @ 0.5% MIN.)



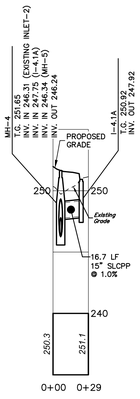
EW-1 TO HW-2



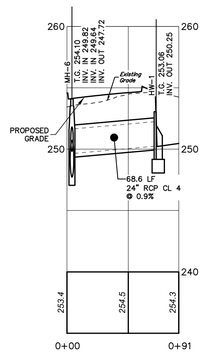
MH-2 TO I-2



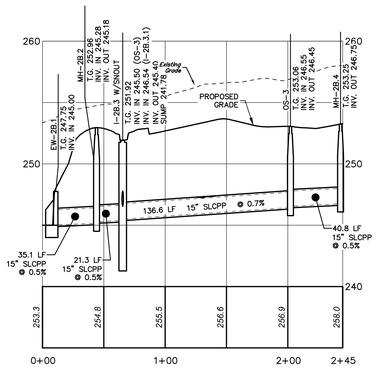
MH-3 TO I-3.1



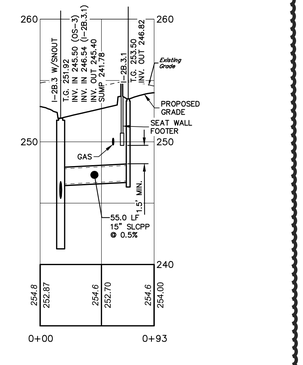
MH-4 TO I-4.1



MH-6 TO HW-1

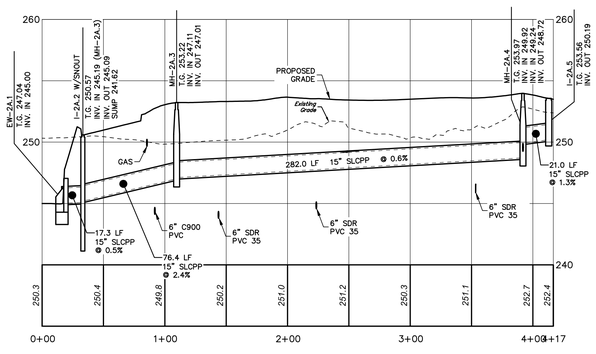


EW-2B.1 TO SCM-3

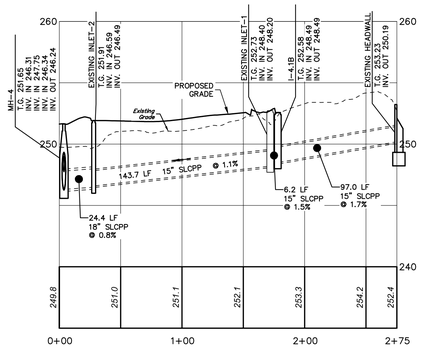


I-2B.3.1 TO I-2B.3 W/SNOUT

△2



EW-2A.1 TO I-2A.5



EXISTING RUN

HORIZ: 50' 25' 0' 50'
VERT: 10' 5' 0' 10'
SCALE IN FEET

MANNS WOODWARD STUDIOS
ARCHITECTURE + MASTER PLANNING
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SEAL:

EROSION & SEDIMENT CONTROL PLAN FOR EMERGENCY SERVICES CENTER

EXETER TOWNSHIP
4975 DEMOSS ROAD
READING, PA 19606
EXETER TOWNSHIP, BERKS COUNTY, PENNSYLVANIA

PROFESSIONAL SEAL:

HRG PROJECT NUMBER: R006367.0427
PLAN DATE: 04/01/2026
DRAWING SCALE: AS SHOWN
PROJ. MANAGER: DENNIS REICHEL

REVISIONS

NO.	DATE	DESCRIPTION
1	2026.04.14	REV AS PER 04/09/2026 BCCD COMMENTS
2	2026.04.22	REV AS PER 04/17/2026 BCCD COMMENTS
3	2026.05.15	REV AS PER 5/11/2026 BCCD COMMENTS
4	2026.10.01	FIELD CHANGE/BID SET
5		
6		
7		
8		
9		

SHEET TITLE:
STORM PROFILES

SHEET: PR-1 07

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EXETER TOWNSHIP EMERGENCY SERVICES FACILITY 70 GIBRALTER ROAD READING, PA 19606

PROJECT NUMBER:
25-049

SUBMISSION:
BID SET

ORIGINAL ISSUE DATE:
10/01/2026

SHEET REVISION SCHEDULE:
△2 ADDENDUM 03 - 10/22/2026

REFERENCE PLAN

SHEET NUMBER:
C107

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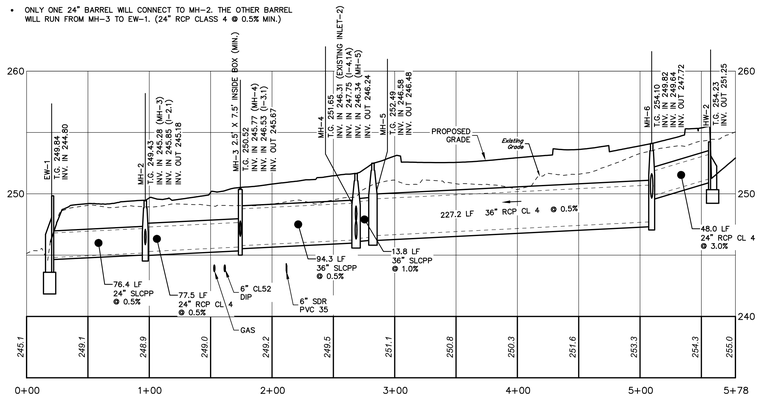
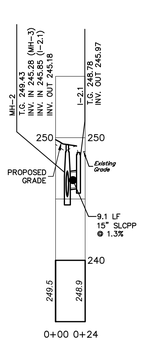
DUAL STORM PIPE NOTE

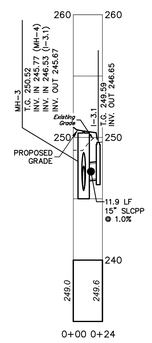
- ONLY ONE 24" BARREL WILL CONNECT TO MH-2. THE OTHER BARREL WILL RUN FROM MH-3 TO EW-1. (24" RCP CLASS 4 @ 0.5% MIN.)



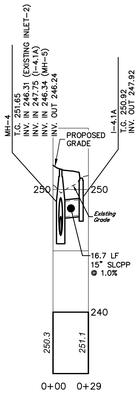
EW-1 TO HW-2



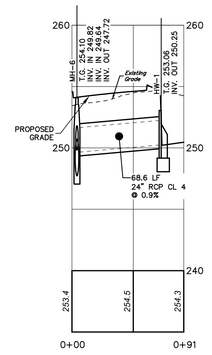
MH-2 TO I-2



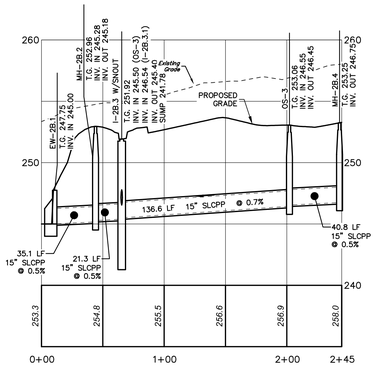
MH-3 TO I-3.1



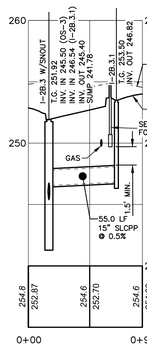
MH-4 TO I-4.1



MH-6 TO HW-1

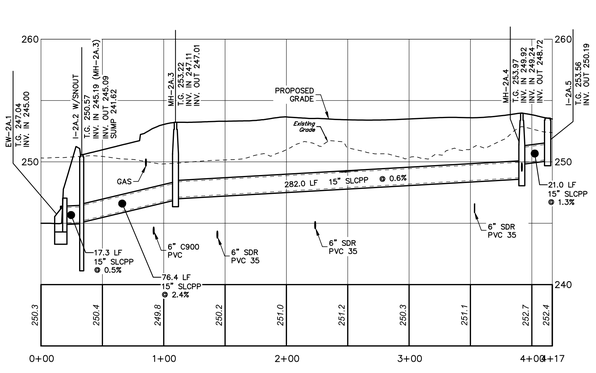


EW-2B.1 TO SCM-3

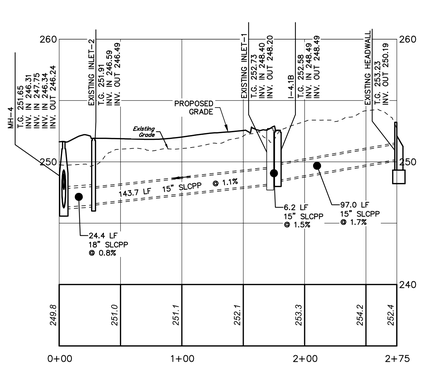


I-2B.3.1 TO I-2B.3 W/SNOUT

△2



EW-2A.1 TO I-2A.5



EXISTING RUN

HORIZ: 50' 25' 0' 50'
VERT: 10' 5' 0' 10'
SCALE IN FEET

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POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
FOR
EMERGENCY SERVICES CENTER

EXETER TOWNSHIP
4975 DEMOSS ROAD
READING, PA 19606

EXETER TOWNSHIP, BERKS COUNTY, PENNSYLVANIA

PROFESSIONAL SEAL:

HRG PROJECT NUMBER: R006367.0427
PLAN DATE: 04/01/2026
DRAWING SCALE: AS SHOWN
PROJ. MANAGER: DENNIS REICHEL

REVISIONS

NO.	DATE	DESCRIPTION
1	2026.04.14	REV AS PER 04/09/2026 BCCD COMMENTS
2	2026.04.23	REV AS PER 04/22/2026 BCCD COMMENTS
3	2026.05.15	REV AS PER 05/11/2026 BCCD COMMENTS
4	2026.10.01	FIELD CHANGE/BID SET
5		
6		
7		
8		
9		

SHEET TITLE:
STORM PROFILES

SHEET: PR-1 07

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SEAL:

EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTER ROAD
READING, PA 19606

PROJECT NUMBER:
25-049

SUBMISSION:
BID SET

ORIGINAL ISSUE DATE:
10/01/2026

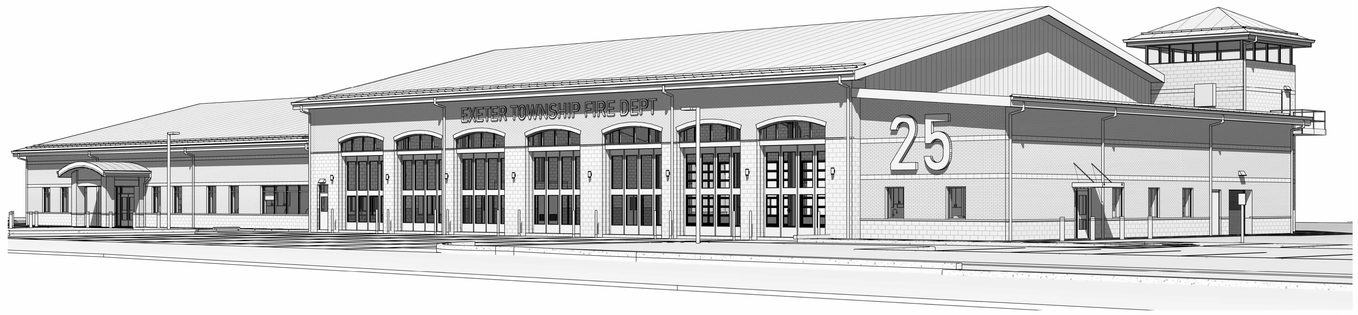
SHEET REVISION SCHEDULE:
△2 ADDENDUM 03 - 10/22/2026

REFERENCE PLAN

SHEET NUMBER:
C207

EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTAR ROAD
READING, PA 19606

BID SET **10/01/2026**



SYMBOLS & TAGS LEGEND

TAG	DESCRIPTION
100A	DOOR TAG
CASEWORK SERIES — 40D2 — 30.00 / 24.00 — 84.00 — CABINET WIDTH / CABINET DEPTH / CABINET HEIGHT; NUMBER OF SHELVES	CASEWORK TAG *AS OUTLINED IN THE ARCHITECTURAL WOODWORK INSTITUTE (AWI) STANDARDS* *MININUM CLEAR CABINET DEPTH DIMINSION = DEPTH LESS 1"*
EQ-XX	SPECIALTY EQUIPMENT TAG
1 / A	COLUMN LINE DESIGNATION TAG
REFERENCE 0'-0"	LEVEL ELEVATION TAG
P / T	NORTH ARROW TAG T = TRUE NORTH P = PROJECT NORTH
ROOM 101	ROOM NAME & NUMBER TAG
1 / A101	SECTION TAG
1 / A101	CALLOUT / DETAIL
0'-0"	SPOT ELEVATION TAG
1 — DRAWING TITLE / DRAWING SCALE	DETAIL / DRAWING TITLE TAG
CLG-T2 — 1'-0" — TYPE / HEIGHT	CEILING TAG
92	PARTITION TAG
E	MATERIAL TAG
(11)	WINDOW TAG
12 / 6 — #"/12"	SLOPE ANNOTATION
1 / A101 — 0 0.00 0	ELEVATION TAG
9 — 9	SPECIFIC NOTE

KEY TO MATERIALS

SECTION PATTERN	DESCRIPTION
	BRICK
	CMU MASONRY
	CONCRETE
	POROUS FILL
	EARTH
	PLYWOOD
	GYPSUM BOARD
	RIGID INSULATION
	BATT INSULATION
	END GRAIN LUMBER
	WOOD BLOCK OR SHIM
	FINISH WOOD

COMMON ABBREVIATIONS

SYMBOLS
- & - AND
- @ - AT
- ⌀ - DIAMETER
- □ - SQUARE

A
- AB - ANCHOR BOLT
- ABV - ABOVE
- ACOUST - ACOUSTICAL
- ACT - ACOUSTIC CEILING TILE
- AFF - ABOVE FINISH FLOOR
- AHJ - AUTHORITY HAVING JURISDICTION
- ALUM - ALUMINUM
- AP - ACCESS PANEL
- APPROX - APPROXIMATELY
- ARCH - ARCHITECTURAL

B
- B.C. - BOTTOM CHORD
- BLK - BLOCK
- BLDG - BUILDING
- BLKG - BLOCKING
- BLKHD - BULKHEAD
- BM - BEAM
- B.O. - BOTTOM OF
- BOD - BASIS OF DESIGN
- BOT - BOTTOM
- B.R. - BULLET RESISTANT
- BRNG - BEARING

C
- ℄ - CENTER LINE
- CFCI - CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
- CFOI - CONTRACTOR FURNISHED, OWNER INSTALLED
- CFLS - COUNTER FLASHING
- CJ - CONTROL JOINT
- CL - CLOSET
- CLG - CEILING
- CMU - CONCRETE MASONRY UNIT
- CND - CONDUIT
- COL. - COLUMN
- COOR - COORDINATE
- CONC - CONCRETE
- CONSTR - CONSTRUCTION
- CONT - CONTINUOUS
- C.T. / CT - CERAMIC TILE
- CPT - CARPET / CARPET TILE
- CTSK - COUNTERSUNK
- CU - CUBIC
- CU FT - CUBIC FOOT
- CU YD - CUBIC YARD

D
- D - DEEP / DEPTH
- DEG - DEGREE
- DIA - DIAMETER
- DIM - DIMENSION
- DL - DEAD LOAD
- DMPR - DAMPER
- DN - DOWN
- DR - DOOR
- DS - DOWNSPOUT
- DTL - DETAIL
- DWG - DRAWING

E
- EA - EACH
- EC - ELECTRICAL PRIME CONTRACTOR
- EIFS - EXTERIOR INSULATION AND FINISHING SYSTEM
- ELEC - ELECTRICAL
- EL - ELEVATION
- ELEV - ELEVATION
- ELMA - ELEVATOR MACHINE ROOM
- EJ - EXPANSION JOINT
- ENT - ENTRANCE, ENTRY
- EQ - EQUAL
- EST - ESTIMATE
- ETR - EXISTING TO REMAIN
- EW - EACH WAY
- EXST - EXISTING
- EXT - EXTERIOR
- EXP - EXPOSED
- EXP JT - EXPANSION JOINT

F
- F - FAHRENHEIT
- FD - FLOOR DRAIN
- F.E. - FIRE EXTINGUISHER
- F.E.C. - FIRE EXTINGUISHER CABINET
- FF - FINISHED FLOOR
- FF EL - FINISHED FLOOR ELEVATION
- FG - FINISHED GRADE
- FHY - FIRE HYDRANT
- FDC - FIRE DEPARTMENT CONNECTION
- FIN - FINISH
- FIN FL - FINISHED FLOOR
- FL - FLOOR
- FLEX - FLEXIBLE
- FLUOR - FLUORESCENT
- FND - FOUNDATION
- FPM - FEET PER MINUTE
- FRT - FIRE RETARDANT TREATED
- FSK - FOIL SCRIM KRAFT
- FT - FEET, FOOT
- FT - FLOOR TRANSITION
- FTG - FOOTING

G
- GC - GENERAL PRIME CONTRACTOR
- GA - GAGE, GAUGE
- GALV - GALVANIZED
- GL - GLASS, GLAZING
- GND - GROUND
- GRTG - GRATING
- GWB - GYPSUM WALL BOARD

H
- H - HIGH / HEIGHT
- HC - HANDICAPPED
- HD - HEAD
- HM - HOLLOW METAL
- HORIZ - HORIZONTAL
- HR - HOUR
- HT - HEIGHT

I
- ID - INSIDE DIAMETER
- IN - INCH
- INFO - INFORMATION
- INSUL - INSULATION

J
- JB - JUNCTION BOX
- JM - JAMB
- JST - JOIST
- JT - JOINT

L
- LG - LONG
- LL - LIVE LOAD
- LSC - LIFE SAFETY CODE
- LTG - LIGHTING

M
- MACH - MACHINE
- MAT'L - MATERIAL
- MAX - MAXIMUM
- MC - MECHANICAL PRIME CONTRACTOR
- MBT - MARBLE THRESHOLD
- MECH - MECH
- MEP - MECHANICAL / ELECTRICAL / PLUMBING
- MFGR - MANUFACTURER
- MH - MANHOLE
- MIN - MINIMUM
- MO - MASONRY OPENING
- MSNRY - MASONRY
- M.T. - METAL THRESHOLD
- MTL - METAL
- MTD - MOUNTED

N
- NA - NOT APPLICABLE
- NIC - NOT IN CONTRACT
- NO - NUMBER
- NTS - NOT TO SCALE

O
- O/C - ON CENTER
- OD - OUTSIDE DIAMETER
- OFCI - OWNER FURNISHED, CONTRACTOR INSTALLED
- OFOI - OWNER FURNISHED, OWNER INSTALLED
- OPNG - OPENING
- OPP - OPPOSITE
- OPP HND - OPPOSITE HAND
- OV - OVER
- OVHD - OVERHEAD

P
- P.LAM. - PLASTIC LAMINATE
- PC - PLUMBING PRIME CONTRACTOR
- PLY - PLYWOOD
- PLYWD - PLYWOOD
- PNLBD - PANELBOARD
- PNT/ PT - PAINT
- POLYISO - POLYISOCYANURATE
- PRESS - PRESSURE
- PROJ - PROJECT
- PROP - PROPERTY
- PSF - POUNDS PER SQUARE FOOT
- PSI - POUNDS PER SQUARE INCH
- PT - PRESSURE TREATED
- PTD - PAINTED
- PVC - POLYVINYL CHLORIDE
- PVMT - PAVEMENT
- PWT - PREFABRICATED WOOD TRUSS

R
- R - RADIUS
- RCP - REFLECTED CEILING PLAN
- REINF - REINFORCING, REINFORCED
- RES - RESINOUS
- REQD - REQUIRED
- REV - REVISION
- RGD - RIGID
- RM - ROOM
- RO - ROUGH OPENING
- RST - REINFORCING STEEL

S
- SB - SMART BOARD
- SC - SITE PRIME CONTRACTOR
- SCHED - SCHEDULE
- SD - STORM DRAIN
- SECT - SECTION
- SF - SQUARE FOOT
- SI - SQUARE INCH
- SIM - SIMILAR
- SLP - SLOPE
- SPCL - SPECIAL
- SPEC - SPECIFICATIONS
- SPLY - SUPPLY
- SQ - SQUARE
- SS - STAINLESS STEEL
- ST - STREET
- STD - STANDARD
- STL - STEEL
- STOR - STORAGE
- STRUCT - STRUCTURAL
- SURF - SURFACE
- SUSP - SUSPENDED
- SW - SWITCH
- SYS - SYSTEM

T
- T & B - TOP AND BOTTOM
- T.B. - TACK BOARD
- T.B.D. - TO BE DETERMINED
- TEMP - TEMPERATURE
- THK - THICK
- THRES - THRESHOLD
- T&G - TONGUE & GROOVE
- TO - TOP OF
- TOB - TOP OF BEARING POINT
- TOC - TOP OF CONCRETE
- TOF - TOP OF FOOTING
- TOM - TOP OF MASONRY
- TOP - TOP OF PAVEMENT, PARAPET
- TOS - TOP OF STEEL
- TRTD - TREATED
- T.S. - TRANSITION STRIP
- TYP - TYPICAL

U
- UGND - UNDERGROUND
- UL - UNDERWRITERS LAB
- UNO - UNLESS NOTED OTHERWISE
- UON - UNLESS OTHERWISE NOTED

V
- VB - VAPOR BARRIER
- VCT - VINYL COMPOSITION TILE
- VERT - VERTICAL
- VIF - VERIFY IN FIELD
- VOL - VOLUME

W
- W - WIDE / WIDTH
- W/ - WITH
- W/0 - WITHOUT
- W.B. - WHITEBOARD
- WD - WOOD
- WR - WATER RESISTANT
- WTRPRF - WATERPROOF
- WWF - WELDED WIRE FABRIC
- WWM - WELDED WIRE MESH

THIS LIST OF ABBREVIATIONS IS A GUIDE TO ABBREVIATIONS WHICH MAY BE USED IN THESE DOCUMENTS. ABBREVIATIONS NOT LISTED MAY ALSO BE USED.

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CONSTRUCTION MANAGER
BOYLE CONSTRUCTION
3850 SIERRA CIRCLE, SUITE 400
CENTER VALLEY, PA 18034
PHONE: 484-223-0726
WEBSITE: BOYLECONSTRUCTION.COM

CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

THE INTENT OF THE CONSTRUCTION DRAWINGS AND THE CONSTRUCTION SPECIFICATIONS/PROJECT MANUAL IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK BY THE CONTRACTOR. THE CONSTRUCTION DRAWINGS AND THE CONSTRUCTION SPECIFICATIONS/PROJECT MANUAL ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL; PERFORMANCE BY THE CONTRACTOR SHALL BE REQUIRED ONLY TO THE EXTENT CONSISTENT WITH THE CONSTRUCTION DRAWINGS AND THE CONSTRUCTION SPECIFICATIONS/PROJECT MANUAL AND REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INDICATED/INTENDED RESULTS. IN THE CASE OF INCONSISTENCIES BETWEEN THE CONSTRUCTION DRAWINGS AND THE CONSTRUCTION SPECIFICATIONS/PROJECT MANUAL OR WITHIN EITHER DOCUMENT NOT CLARIFIED BY ADDENDUM, THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED IN ACCORDANCE WITH THE ARCHITECT'S INTERPRETATION.



VICINITY MAP
NOT TO SCALE

DRAWING INDEX

SHEET NUMBER	SHEET NAME	Current Revision	Current Revision Date
GENERAL / CODE			
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G001	GENERAL PROJECT NOTES		
G002	CODE ANALYSIS & DIAGRAM		
G003	CODE PLAN		
G004	TYPICAL ACCESSIBILITY GUIDELINES		
G005	TYPICAL ADA SIGNAGE DETAILS		
G006	UL ASSEMBLIES		
G007	PENETRATION DETAILS		
G008	PENETRATION DETAILS		
G009	PENETRATION DETAILS		
LP-1	LOGISTICS PLAN		
SPE-1	SPECIAL EXCAVATION PLAN		
CIVIL - NEW WORK			
C01	COVER SHEET		
C02	NOTES		
C03	NOTES		
C04	OVERALL BOUNDARY PLAN		
C05	EXISTING CONDITIONS & DEMOLITION PLAN		
C06	OVERALL SITE PLAN		
C07	SITE PLAN		
C08	OVERALL GRADING & PCSM PLAN		
C09	GRADING AND PCSM PLAN		
C10	OVERALL UTILITY PLAN		
C11	UTILITY PLAN		
C12	STORM PROFILES		
C13	STORM AND SANITARY PROFILES		
C14	LANDSCAPE & LIGHTING PLAN		
C15	SITE DETAILS		
C16	SITE DETAILS		
C17	SITE DETAILS		
C18	SITE DETAILS		
C19	SITE DETAILS		
C20	SITE DETAILS		
C21	SITE DETAILS		
C22	SITE DETAILS		
C23	SITE DETAILS		
C24	SITE DETAILS		
C25	SITE DETAILS		
C26	SITE DETAILS		
CIVIL - EROSION & SEDIMENT CONTROL PLAN			
C101	COVER SHEET		
C102	NOTES		
C103	OVERALL BOUNDARY PLAN		
C104	EXISTING CONDITIONS		
C105	OVERALL EROSION & SEDIMENT CONTROL PLAN		
C106	EROSION & SEDIMENT CONTROL PLAN		
C107	STORM PROFILES		
C108	STORM AND SANITARY PROFILES		
C109	DETAILS		
C110	DETAILS		
CIVIL - POST CONSTRUCTION SWM PLAN			
C201	COVER SHEET		
C202	NOTES SHEET		
C203	OVERALL BOUNDARY PLAN		
C204	EXISTING CONDITIONS		
C205	OVERALL GRADING & PCSM PLAN		
C206	GRADING AND PCSM PLAN		
C207	STORM PROFILES		
C208	STORM AND SANITARY PROFILES		
C209	DETAILS SHEET		
C210	DETAILS SHEET		
C211	DETAILS SHEET		
C212	DETAILS SHEET		
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REVISION SCHEDULE

No.	DATE	DESCRIPTION
1	2026-10-15	ADDENDUM 02

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LICENSE NUMBER: #RA405311
EXPIRATION DATE: 6-30-2027

EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTAR ROAD
READING, PA 19606

PROJECT NUMBER: 25-049

SUBMISSION:
BID SET

ORIGINAL ISSUE DATE:
10/01/2026

SHEET REVISION SCHEDULE:

No.	DATE
1	2026-10-15

LAST PROJECT REVISION: No 1 | 2026-10-15

COVER SHEET

SHEET NUMBER:

G000

10/22/2026 1:37:34 PM

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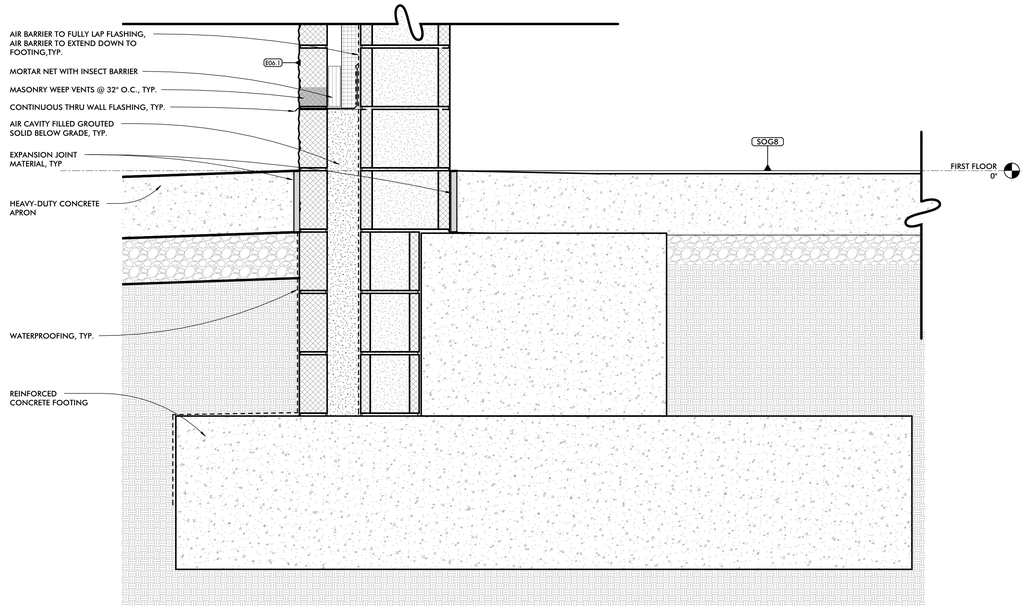
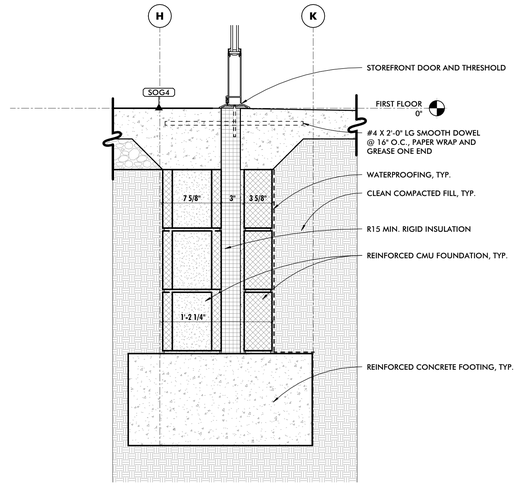
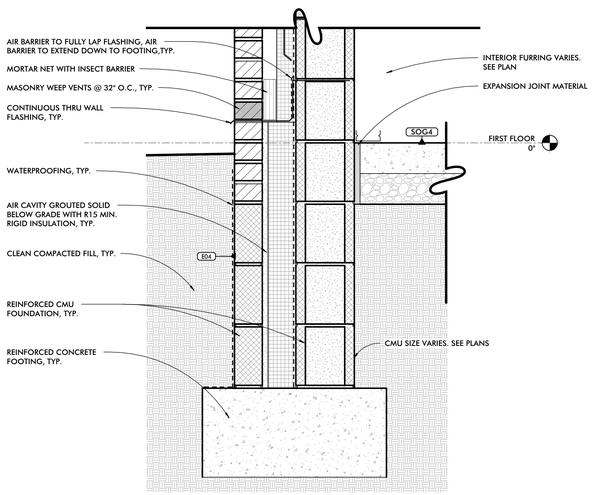


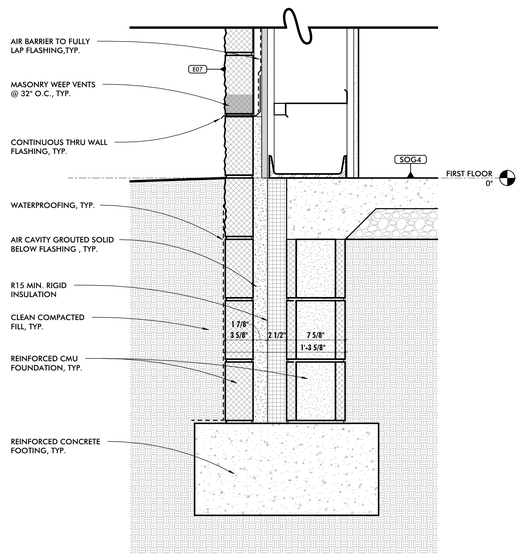
1 FOUNDATION @ APP BAY
1 1/2" = 1'-0"



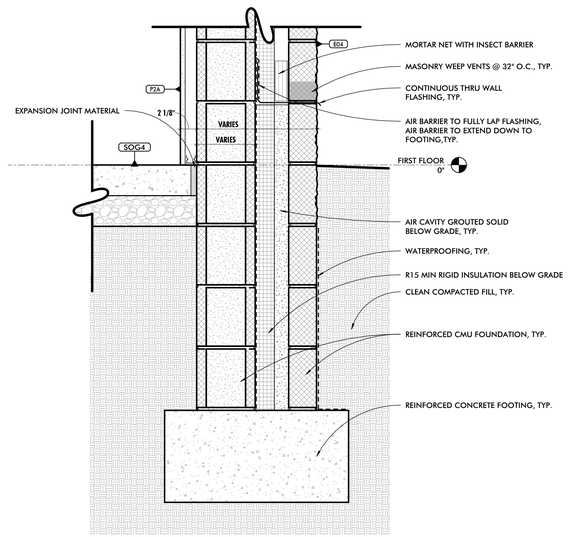
2 MAIN ENTRY SECTION
1 1/2" = 1'-0"



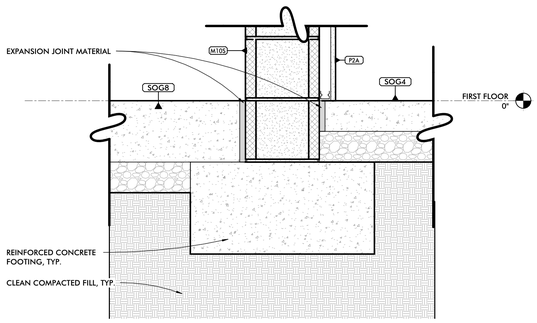
3 FOUNDATION DETAIL
1 1/2" = 1'-0"



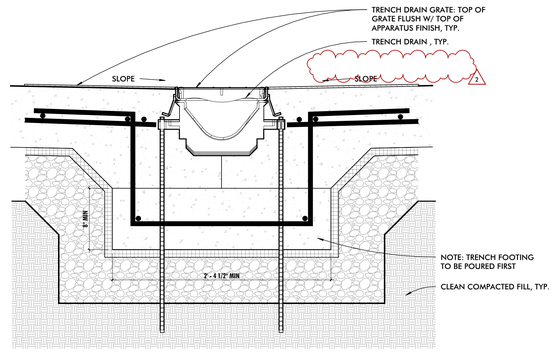
4 FOUNDATION AT GIRTS
1 1/2" = 1'-0"



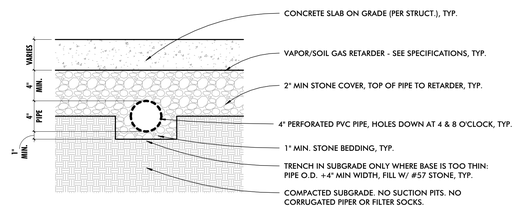
5 FOUNDATION DETAIL
1 1/2" = 1'-0"



6 INTERIOR FOUNDATION DETAIL
1 1/2" = 1'-0"



7 TRENCH DRAIN DETAIL
1 1/2" = 1'-0"



8 RADON GAS VENT PIPING
1 1/2" = 1'-0"

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EXPIRATION DATE: 6-30-2027

EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTAR ROAD
READING, PA 19606

PROJECT NUMBER: 25-049

SUBMISSION:
BID SET

ORIGINAL ISSUE DATE:
10/01/2026

SHEET REVISION SCHEDULE:

No.	DATE
2	2026-10-22

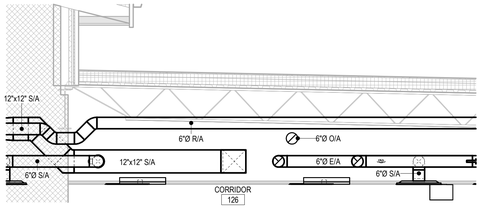
LAST PROJECT REVISION: No 2 | 2026-10-22

FOUNDATION DETAILS

SHEET NUMBER:

A404

10/22/2026 9:28:58 AM

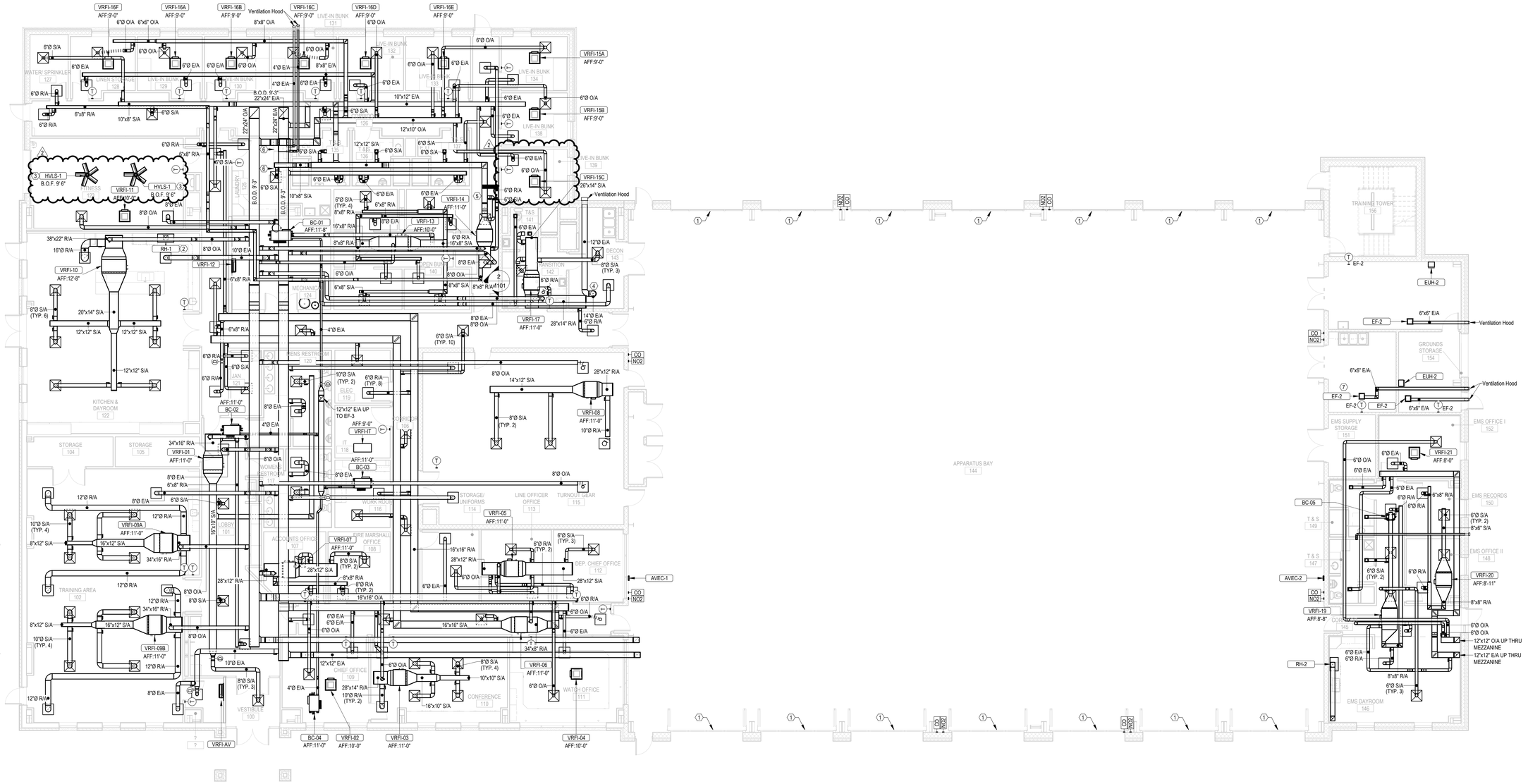


2 M101 DUCT SECTION VIEW
3/8" = 1'-0"

NOTE:
- CONTRACTOR TO INSTALL DUCT AND PIPING IN A WAY TO MAINTAIN CLEARANCE WITH DEEP JOIST.

KEYNOTES

1. APP BAY DOOR TO BE INSTALLED WITH TAKEX MODEL PB-30TK AND SHALL BE CONNECTED TO THE AIRVAC SYSTEM. CONTRACTOR TO COORDINATE W/AIRVAC VENDOR FOR WIRING AND CONNECTIONS.
2. RH-1 TO BE EXHAUSTED UP TO ROOF WITH 6'Ø DUCT CONNECTED TO INLINE BLOWER.
3. MECHANICAL CONTRACTOR TO COORDINATE EXACT FAN LOCATION WITH ELECTRICAL CONTRACTOR.
4. MC TO PROVIDE A 12" FAMCO WVEBP HOODED WALL VENT WITH SPRING LOADED DAMPER, GASKET, AND SCREEN AT THE EXTERIOR WALL. CONNECT 12'Ø EXHAUST DUCT TO PPE DRYING CABINET. TRANSITION TO 14'Ø AT CABINET CONNECTION.
5. REFER TO SECTION 2/M101.
6. DRYER LOCATION SHOWN FOR REFERENCE.
7. COORDINATE LOCATION OF EF OVER COMPRESSOR IN FIELD



1 M101 FIRST FLOOR - HVAC PLAN
1/8" = 1'-0"

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EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTAR ROAD
READING PA 19606

PROJECT NUMBER: 25-049

SUBMISSION:
BID SET

ORIGINAL ISSUE DATE:
10/01/2026

SHEET REVISION SCHEDULE:

No.	DATE
1	10/15/26
2	10/22/26

LAST PROJECT REVISION: No 2 | 10/22/26

FIRST FLOOR - HVAC PLAN

SHEET NUMBER:

M101

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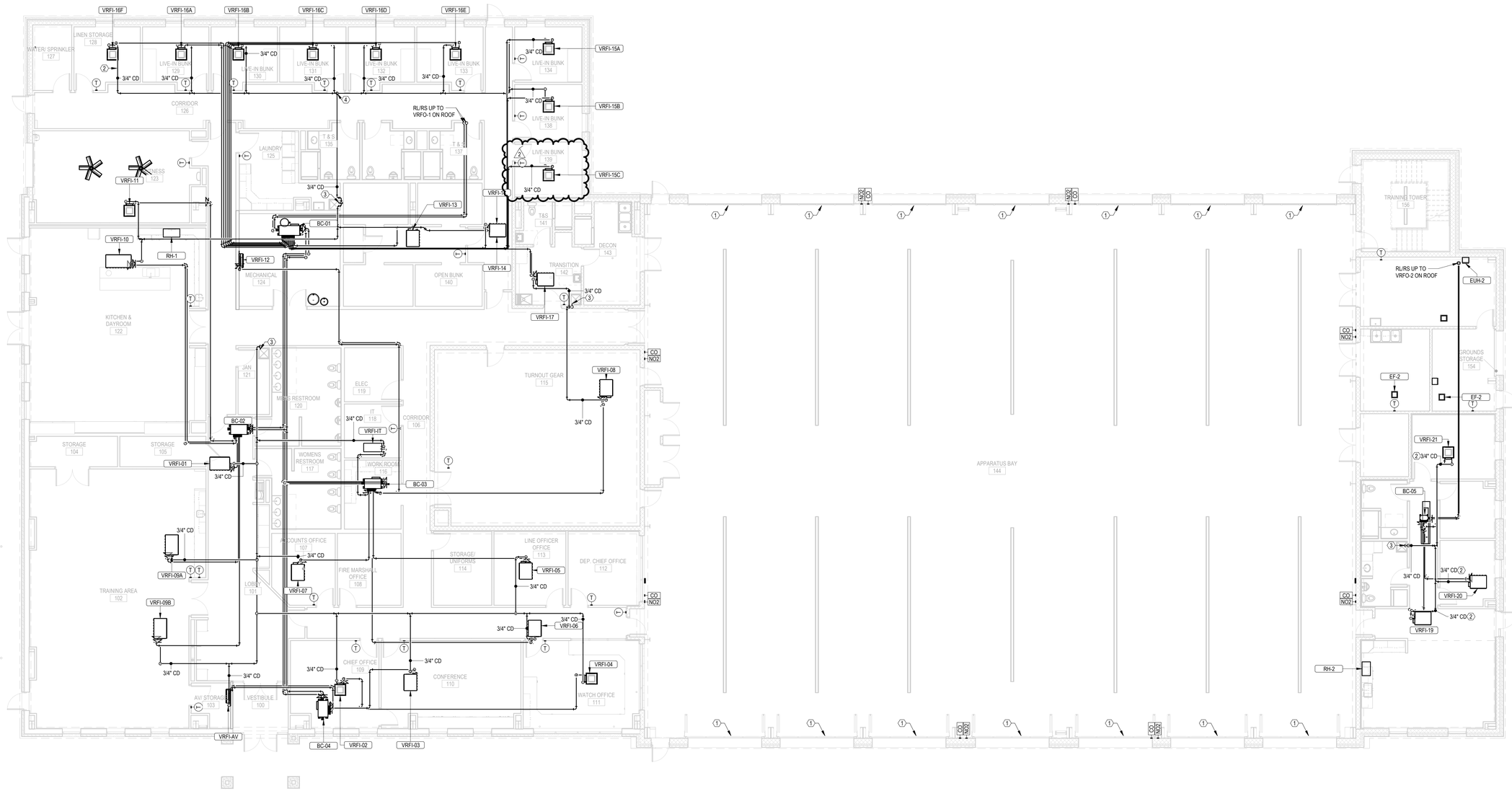

KEYNOTES

1. APP BAY DOOR TO BE INSTALLED WITH TAKEX MODEL PB-30TK AND SHALL BE CONNECTED TO THE AIRVAC SYSTEM. CONTRACTOR TO COORDINATE WIAIRVAC VENDOR FOR WIRING AND CONNECTIONS.
2. ROUTE 3/4" CONDENSATE PIPING TIGHT TO STRUCTURE.
3. ROUTE 3/4" CONDENSATE PIPING TO MOP SINK.
4. ROUTE CONDENSATE PIPING TO AVOID OTHER TRADE DISCIPLINES WITHIN CORRIDOR.

GENERAL PAGE NOTES:

- ALL RS/RL PIPING TO BE SIZED ACCORDING TO MANUFACTURER.

1 / M111 FIRST FLOOR - MECHANICAL PIPING PLAN
1/8" = 1'-0"

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EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTAR ROAD
READING PA 19606

PROJECT NUMBER: 25-049

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ORIGINAL ISSUE DATE:
10/01/2026

SHEET REVISION SCHEDULE:

No.	DATE
2	10/22/26

LAST PROJECT REVISION: No 2 | 10/22/26

FIRST FLOOR - MECHANICAL PIPING PLAN

SHEET NUMBER:

M111

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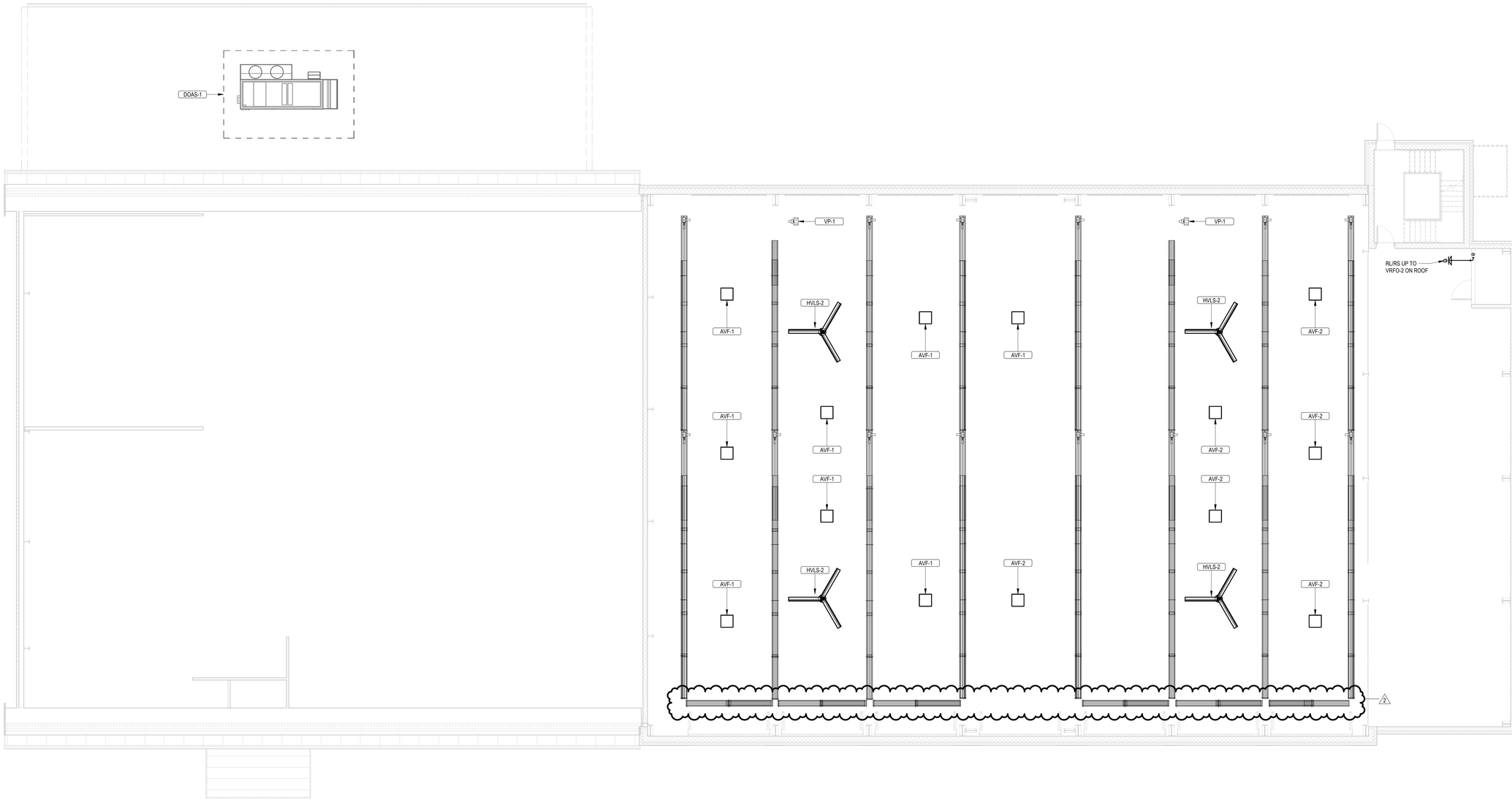
GENERAL PAGE NOTES:

- ALL RS/RL PIPING TO BE SIZED ACCORDING TO MANUFACTURER.



1 M112 MEZZANIN - MECHANICAL PIPING PLAN
1/8" = 1'-0"

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EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTAR ROAD
READING PA 19606

PROJECT NUMBER: 25-049

SUBMISSION:
BID SET

ORIGINAL ISSUE DATE:
10/01/2026

SHEET REVISION SCHEDULE:

No.	DATE
2	10/22/26

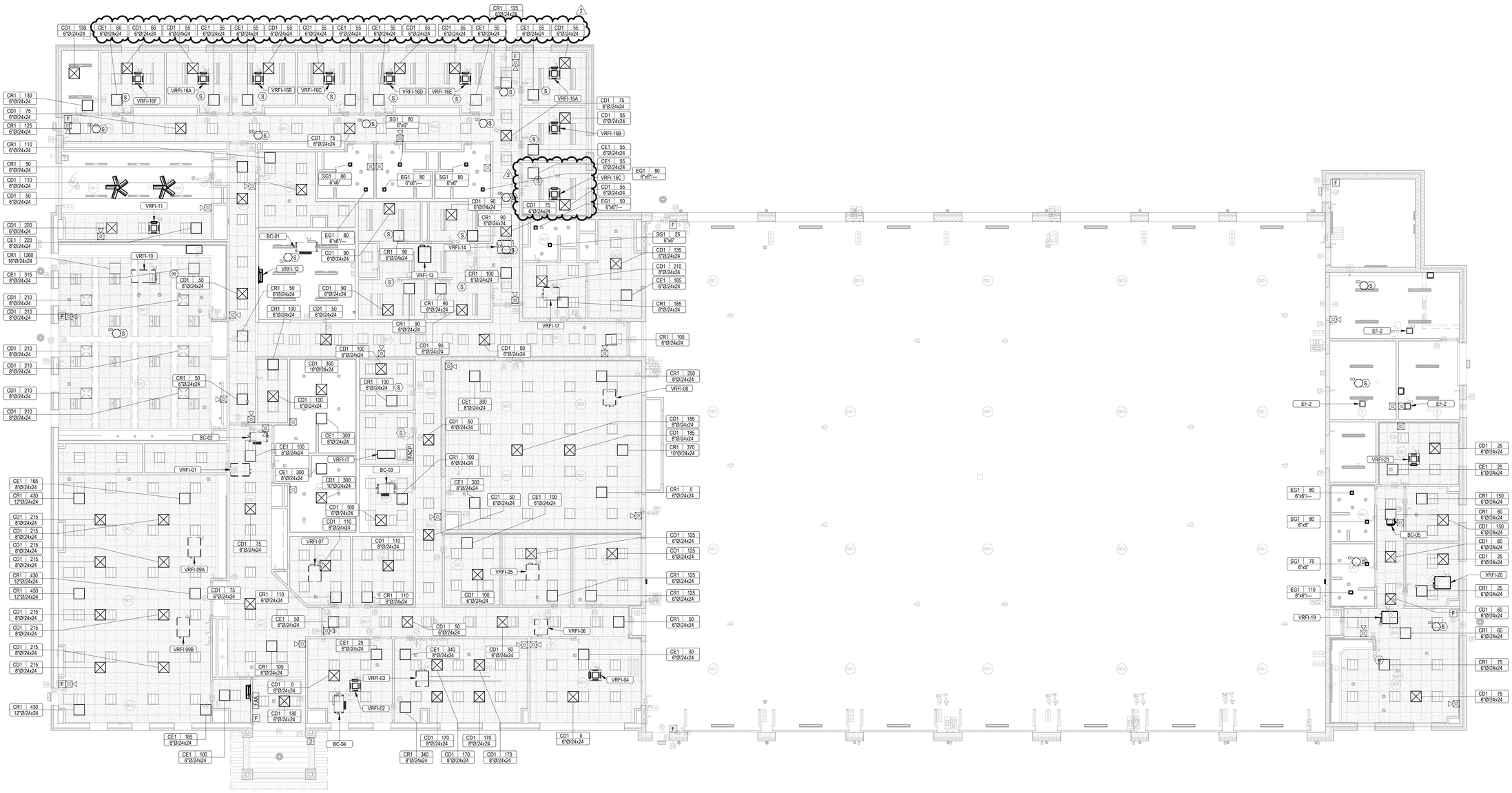
LAST PROJECT REVISION: No 2 | 10/22/26

MEZZANINE - MECHANICAL PIPING PLAN

SHEET NUMBER:

M112

10/23/2026 11:26:22 AM



1 M201 FIRST FLOOR -MECHANICAL RCP
1/8" = 1'-0"

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EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTAR ROAD
READING PA 19606

PROJECT NUMBER: 25-049

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BID SET

ORIGINAL ISSUE DATE:
10/01/2026

SHEET REVISION SCHEDULE:

No.	DATE
2	10/22/26

LAST PROJECT REVISION: No 2 | 10/22/26

FIRST FLOOR - MECHANICAL RCP

SHEET NUMBER:

M201

10/23/2026 11:28:31 AM

Product Data - Horizon™ - Outdoor Air Unit (Revision 6)

Size	Qty	Description	Model Number
D015	1	Horizon™ - Outdoor Air Unit (Revision 6)	OADG015E3-DAB5GAE00-J1AGG3AE0-21A20C01B-A00C00A00-A01A00000-00AL00000

Tag(s): DOAS-1

Unit Voltage: 460-3-60
Curb Selection: Standard Knockdown Curb - Energy Recovery Wheel Cabinet
Warranty: 1-Year Parts Only (manufacturer warranty)
Warranty: 5-Year Digital/Variable Speed/Standard Scroll Compressor / 25-Year Heat Exchanger
Controller Hardware Template: UC600 - Horizon v12.1 / Thrive v2.3
Airflow Configuration: Horizontal Discharge/Vertical Return
Indoor Coil Type: DX 6-Row
Reheat: Fin & Tube Modulating HGRH
Compressor: Digital Scroll-1st Circuit Only
Outdoor Coil Type: ASHP Fin & Tube
Capacity Control: R-454B - Low GWP Refrigerant & No RCC Valve
Heat Type - Primary: Indirect Fired NG (IF) - Standard Efficiency (80%)
Heat Capacity - Primary: 150 MBH, (10:1 Turndown)
Supply Fan Motor Type: Direct Drive w/VFD
Exhaust Fan Motor Type: Direct Drive w/Shaft Grounding Ring w/VFD
Unit Controls: Discharge Air Control
Building Interface: BACnet
Filter Options: MERV-8,30%
Energy Recovery: ERV-Composite Construction with Frost Protection w/ VFD
Energy Recovery Wheel Size: ERC-4136C
Damper Options: 100% OA 2-Position Damper
Exhaust Dampers: Isolation Dampers
Electrical Options: Non-Fused Disconnect *Circuit Breaker*
Condenser Fan Options: Active (VFD) Head Pressure Low Ambient Control
Hailguards: Hailguards
Installation: Outdoor
Controls Display: TD7 Factory Installed
Cooling Controls: Relaitel
Supply Discharge Air Sensor (FLD)
2 inch Double Wall Construction
Stainless Steel Drip Pan
Blower HP - 5
Blower RPM - 1878
Supply Fan - ANPA 18
Exhaust RPM - 2203
Exhaust HP - 3
Exhaust Fan - ANPA 16
Unit Amps - FLA: 41.2 Amps
Min Circuit Ampacity - MCA: 44.4 Amps
Maximum Overcurrent Protection - MOCP: 50 Amps

TRANE

Project Name: **Exeter Township Fire Department** Tag: **DOAS-1**

Comments:

Unit Information

Model:	**Horizon™ (OAD/N Rev6 - OADG/OANG)**	Unit Length:	**183** in	Weight Operating:	**4067** lb*
Size:	**D015**	Unit Width:	**95** in	***Note:***	***Weight does not include CURB weight. See CURB submittal for actual***
Quantity:	**1**	Unit Height:	**68** in	**Refrigerant Charge - R-454B**	
Supply Airflow:	**4,000** CFM	Elevation:	**0** ft	Circuit 1:	**39.6** lbs
Outside Airflow:	**4,000** CFM	Ambient Air DB:	**95** F		
Minimum Airflow:	**1722** CFM				

Cooling Performance

Gross Total Capacity:	**186.7** MBh	Evaporator Face Area:	**13.89** sq ft
Gross Sensible Capacity:	**120.1** MBh	Evaporator Rows / FPI:	**6 / 14**
Net Total Capacity:	**179.1** MBh	Condenser Face Area:	**28.67** sq ft
Net Sensible Capacity:	**112.5** MBh	Condenser Rows / FPI :	**3 / 12**
Entering Air DB / WB (Coil):	**82.9 / 69.8** F	Air Velocity:	**287** fpm
Leaving Air DB / WB (Coil):	**54.8 / 54.8** F	Coil Air PD:	**0.20** in H2O
Leaving Air DB / WB (Reheat):	**81.6 / 64.7** F	EER:	**16.9**
Leaving Air DB / WB (Unit):	**83.7 / 65.4** F	Watts:	**18421**
Leaving DP:	**54.6** F	MRE:	**7.37** lb/kWh
MRC:	**135.84** lb/h	**AHRI Certified ISMRE2**	**6.4**
		AHRI Certified ISMRE2-70	**6.4**
		ISCOP2 @AHRI	**4.7**
		Rated in accordance with AHRI standard 920	

Heating Performance

Heat Type:	**Heat Pump**	COP:	**2.9**
Capacity:	**104.8** MBh	Entering Air DB:	**44.5** F
Ambient Air DB:	**0** F	Leaving Air DB:	**66.7** F

Heating Performance

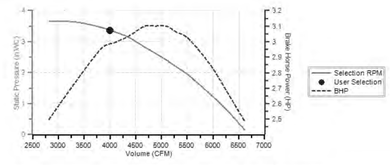
Heat Type:	**Gas Furnace**	Entering Air DB:	**44.5** F
Input Capacity:	**150** MBh	Leaving Air DB:	**72.1** F
Output Capacity:	**120** MBh	Coil Air PD:	**0.69** in H2O

Energy Recovery Wheel ERC-4136C

*** TAB Outside airflow through OA intake to this value*

Summer Conditions				Winter Conditions			
Ventilation Supply		Outside		Ventilation Supply		Outside	
Airflow:	**4,000** CFM	Airflow:	**4,279** CFM**	Airflow:	**4,000** CFM	Airflow:	**4,279** CFM**
DB:	**82.9** F	DB:	**95.0** F	DB:	**44.5** F	DB:	**10.0** F
WB:	**69.9** F	WB:	**78.0** F	WB:	**40.4** F	WB:	**8.0** F
PD:	**1.06** in H20			PD:	**1.06** in H20		
Return		Exhaust		Return		Exhaust	
Airflow:	**4,000** CFM	Airflow:	**4,279** CFM	Airflow:	**4,000** CFM	Airflow:	**4,279** CFM
DB:	**75.0** F	DB:	**67.0** F	DB:	**70.0** F	DB:	**33.3** F
WB:	**63.0** F	WB:	**72.4** F	WB:	**58.0** F	WB:	**32.4** F
ESP:	**1.00** in H20	ERV PD:	**1.04** in H20	ESP:	**1.00** in H20	ERV PD:	**1.04** in H20
		Frost likely to occur. Results are considered to be estimates.					
Total Capacity:	**133.13** MBH	Eff:	**58.0%**	Total Capacity:	**234.64** MBH	Eff:	**59.0%**
Sensible Capacity:	**51.61** MBH	Eff:	**60.0%**	Sensible Capacity:	**159.17** MBH	Eff:	**61.0%**
Latent Capacity:	**81.52** MBH	Eff:	**56.0%**	Latent Capacity:	**75.46** MBH	Eff:	**56.0%**
Enthalpy Recovery Ratio:	**58.2%**			Enthalpy Recovery Ratio:	**56.0%**		
Sensible Recovery Ratio:	**59.8%**			Sensible Recovery Ratio:	**96.8%**		

Supply Fan ANPA 18



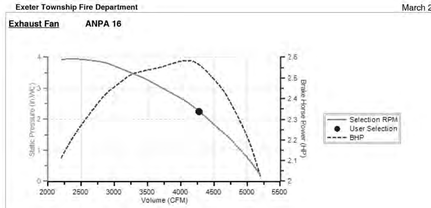
Supply Pressure Drop Summary

External Static Pressure:	**1.00** in H2O
Cabinet:	**0.01** in H2O
Cooling Coil:	**0.2** in H2O
Base Filter:	**0.01** in H2O
Filter:	**0.11** in H2O
Primary Heat:	**0.69** in H2O
HGRH:	**0.03** in H2O
ERV OA:	**1.06** in H2O
Outdoor:	**0.06** in H2O
Airflow Configuration:	**0.19** in H2O
Total Static Pressure:	**3.36** in H2O

Supply Fan Conditions

Fan Motor BHP:	**2.98** BHP
Operating RPM:	**1878** RPM
Minimum RPM:	**808** RPM

Exhaust Fan ANPA 16



Exhaust Pressure Drop Summary

Return External Static Pressure:	**1** in H2O
ERV Return Filter PD:	**0.2** in H2O
ERV Wheel PD:	**1.04** in H2O
Total Exhaust Static Pressure	**2.24** in H2O

Exhaust Fan Conditions

Fan Motor BHP:	**2.56** BHP
Operating RPM:	**2203** RPM

Standard Radiated Sound Power Level (dBA)

63	125	250	500	1000	2000	4000	8000	Total dBA
50	**60.1**	**67.7**	**72.7**	**72.9**	**72.4**	**73.9**	**69.2**	**79.8**

Sound power levels are listed for informational purposes only and are not guaranteed.

Unit Electrical Data

Unit Voltage-Ph-Hz:	**460-3-60**	Min Circuit Ampacity - MCA:	**44.4** Amps
Unit Amps - FLA:	**41.2** Amps	Maximum Overcurrent Protection - MOCP:	**50.0** Amps

Electrical Summary

Component	Fan Service	Qty	HP (ea.)	FLA (ea.)	RLA (ea.)	LRA (ea.)
ERV/HRV		**1**	**0.17**	**0.44**		
	Exhaust	**1**	**3**	**4.2**		
Scroll		**1**			**11.5**	**103**
Digital Scroll		**1**			**12.8**	**100**
	Supply	**1**	**5**	**6.6**		
	Condenser	**2**	**1**	**2.1**		
Controls		**1**		**1.48**		
Gas Heater		**1**		**3.13**		

Notes

- Unit Electrical amps include the greater of compressor or electrical heat amps.
- Unit's electricall as shown above are for single point power.

Exhaust Fan Schedule

Identity	Manufacturer	Model	QTY.	Installation Type	Design Airflow Rate	Fan Design ESP	Fan Design bhp	Fan Design RPM	Electrical Voltage	Electrical Phase	Motor Power	Weight	Notes
EF-1	GREENHECK	CUE-240-VG	1	Sidewall	9,298 CFM	0.20 in-wg	2.89 hp	605	460 V	3	5 HP	380 lb	TO BE MOUNTED ON CURB MODEL: GPF-34-G12. CONTRACTOR SHALL COORDINATE ALL WORK IN FIELD WITH OTHER DISCIPLINES AS REQUIRED.
EF-2	GREENHECK	SP-B70	4	Above Ceiling	620 CFM	0.10 in-wg	0.04 hp	1725	115 V	1	.10	11 lb	FAN TO BE PROVIDED WITH TEMP AND RELATIVE HUMIDISTAT CONTROLS.
EF-3	GREENHECK	G-097-VG	1	Roof	150 CFM	0.73 in-wg	0.07 hp	1429	115 V	1	-	54 lb	TO BE MOUNTED ON CURB MODEL: GPFP-19-G12. CONTRACTOR TO CONFIRM ROOF PITCH PRIOR TO ORDERING AND SHALL COORDINATE ALL WORK IN FIELD WITH OTHER DISCIPLINES AS REQUIRED.
EF-4	GREENHECK	SE1-12-426-D	1	Sidewall	500 CFM	0.10 in-wg	-	1300	115 V	1	-	85 lb	TO BE MOUNTED DIRECTLY TO WALL SURFACE IN HOSE TOWER. FAN TO BE PROVIDED WITH TEMP AND RELATIVE HUMIDISTAT CONTROLS.
KEF-1	GREENHECK	CUE-090-E	1	Roof	250 CFM	0.40 in-wg	0.10 hp	1256	115 V	1	.10	45 lb	TO BE MOUNTED ON CURB MODEL: GPFP-19-G12. CONTRACTOR TO CONFIRM ROOF PITCH PRIOR TO ORDERING AND SHALL COORDINATE ALL WORK IN FIELD WITH OTHER DISCIPLINES AS REQUIRED.
KEF-2	GREENHECK	CUE-090-E	1	Roof	250 CFM	0.40 in-wg	0.10 hp	1256	115 V	1	.10	45 lb	TO BE MOUNTED ON CURB MODEL: GPFP-19-G12. CONTRACTOR TO CONFIRM ROOF PITCH PRIOR TO ORDERING AND SHALL COORDINATE ALL WORK IN FIELD WITH OTHER DISCIPLINES AS REQUIRED.

NOTE:
EF-1 TO BE CONNECTED TO APPARATUS BAY GARAGE DOOR AND THE CO/NO2 SYSTEM.
EF-3 TO SERVE REFRIGERANT BRANCH CONTROLLER ENCLOSURE: BC-1 THRU BC-4 LOCATED ON FIRST FLOOR IN THE EVENT OF A REFRIGERANT LEAK TO PREVENT ODOR FROM ESCAPING INTO OCCUPIED SPACES.

2

GREENHECK HVLS SCHEDULE

Identity Mark	Manufacturer	Model	Description	Count	# of Blades	Fan Diameter	Fan RPM	Electrical Volt.	Hz	Phase	FLA	Notes
HVLS-1	Greenheck	DC-5-4-MV	High Volume, Low Speed Ceiling Fan	2	5	52"	85	120 V	60 Hz	1	2 A	1, 2
HVLS-2	Greenheck	DS-3-10-90LV	High Volume, Low Speed Ceiling Fan	4	3	120"	105	208 V	60 Hz	1	7 A	1, 3

NOTE:
1. MC TO CONFIRM COLOR OF FOILS WITH CUSTOMER BEFORE ORDERING.
2. MC TO PROVIDE FANS WITH 12" DOWN ROD SUSPENDED FROM UNISTRUT BRIDGING BOTTOM CHORDS OF BAR JOISTS.
3. MC TO PROVIDE FANS WITH 7'-0" DOWN ROD SUSPENDED FROM UNISTRUT BRIDGING BOTTOM CHORDS OF BAR JOISTS.

AIRVAC FILTER SCHEDULE

Identity Type Mark	Manufacturer	Model	Count	Power Supply (Ph, V, Hz)	Type Coomments
AVF-1	AIRVAC 911	AIR VACUUM CORPORATION	8	120/60/1	VERTICULAR AIR FLOW DESIGN, CEILING HUNG, RE-CIRCULATING AIR FILTRATION SYSTEM W/ PREFILTERS & AIRVAC 911 4 STAGE FILTER PACK, NEMA 5-20P PLUG
AVF-2	AIRVAC 911	AIR VACUUM CORPORATION	6	120/60/1	VERTICULAR AIR FLOW DESIGN, CEILING HUNG, RE-CIRCULATING AIR FILTRATION SYSTEM W/ PREFILTERS & AIRVAC 911 4 STAGE FILTER PACK, NEMA 5-20P PLUG

Electric Unit Heater Schedule

Identity	Manufacturer	Model	Product Type	Electric Heat Rating	Electrical Voltage	Electrical Phase	Product Weight	Notes
EUH-1	Marley Engineered Products	QWD07832	Washdown Electric Unit Heater	25590.0 Btu/h	208 V	3	25 lb	7500W Washdown electric unit heater w/ wall mounting bracket and inegral T-stat.
EUH-2	Marley Engineered Products	MUH	Unit Heater	17000.0 Btu/h	208 V	3	27 lb	Electric unit heater w/ wall mounting bracket and inegral T-stat.

Vacuum Pump Schedule

Type ID	Qty	Manufacturer	Model	HP	RPM	INTAKE DUCT DIA. (INCH)	EXHAUST DUCT DIA.	ELECTRICAL Voltage	ELECTRICAL Phase	ELECTRICAL A	Product Weight	Notes
VP-1	2	CO-RAY-VAC	CRV-EP-201	.75	3450	4"	4"	115 V	1	6.6	112 lb	1,2

1. PROVIDE 120V, 20 AMP SYSTEM CONTROL PANEL, MANUFACTURER MODEL # 0277002 AND MANUFACTURER RECOMMEND 24-VOLT THERMOSTATS.
2. VACUUM PUMP SHALL BE CONNECTED TO CONTROL PANEL WITH PROGRAMMABLE THERMOSTATS.

Grilles, Registers & Diffusers Schedule

ID Type	Description	Manufacturer	Model	Qty	Type	Material	Finish	Border Application	Face or Module Size	Notes
CD1	Ceiling Diffuser	Titus	PAS-AA	71	Perforated Face	Steel	White Enamel	Lay-In Full Face	24x24	
CE1	Ceiling Exhaust	Titus	PAR-AA	26	Perforated Exhaust	Aluminum	White Enamel	Lay-In Full Face	24x24	
CR1	Ceiling Return	Titus	PAR-AA	37	Perforated Return	Aluminum	White Enamel	Lay-In Full Face	24x24	
EG1	Exhaust Grille	Titus	350FL	6	Louvered Exhaust	Aluminum	Mill	Surface Mount	---	
RG1	Return Grille	Titus	T700L	4	Door Louver	Steel	Mill	Surface Mount	---	
SG1	Supply Grille	Titus	300F	6	Louvered Grille	Aluminum	Mill	Surface Mount		

Gas-Fired Heater Burner Schedule

Identity	Qty	Manufacturer	Model	FUEL	INPUT MBH	Electrical Voltage	Electrical Phase	Electrical A	Notes
B-1	4	CO-RAY-VAC	CRV-B4	N.G.	40.0	120 V	1	.30	1,2,3,4,5
B-2	10	CO-RAY-VAC	CRV-B6	N.G.	60.0	120 V	1	.30	1,2,3,4,5

1. INCLUDE COMPLETE SYSTEM. BURNER/PUMP/CONTROL PANEL, MOUNTING HARDWARE, 5 PSI REGULATOR.
2. TUBING SHALL BE HEAT TREATED ALUMINIZED.
3. ALL BURNERS SHALL HAVE COMBUSTION INTAKE FILTERS.
4. BRANCH RUNS ALONG PERIMETER WALLS SHALL HAVE PERIMETER REFLECTORS. ALL OTHER DEFLECTORS SHALL BE ANGLED AT 45°.
5. PROVIDE 120V, 20 AMP SYSTEM CONTROL PANEL, MANUFACTURER MODEL # 0277002 AND MANUFACTURER RECOMMEND 24-VOLT THERMOSTATS.

Range Hood Schedule

Identity	Qty	Manufacturer	Model	CFM	Fan Type	Venting	Electrical Voltage	Electrical Phase	Electrical A	Notes
RH-1	1	DENLAR	D1036	250	IN-LINE DUCT FAN	VERTICAL DUCT	115 V	1	5	
RH-2	1	DENLAR	D1036	250	IN-LINE DUCT FAN	VERTICAL DUCT	115 V	1	5	

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL SCOTT W. FRENCH ENGINEER PE084137

EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTAR ROAD
READING PA 19606

PROJECT NUMBER: 25-049

SUBMISSION:
BID SET

ORIGINAL ISSUE DATE:
10/01/2026

SHEET REVISION SCHEDULE:

No.	DATE
2	10/22/26

LAST PROJECT REVISION: No 2 | 10/22/26

MECHANICAL SCHEDULES

SHEET NUMBER:

M601

10/23/2025 11:26:33 AM

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KEYNOTES

1 4" SAN TIE-POINT. SEE CIVIL SITE PLAN FOR CONTINUATION.
2 3" SAN TIE-POINT. SEE CIVIL SITE PLAN FOR CONTINUATION.
3 6" SAN TIE-POINT. SEE CIVIL SITE PLAN FOR CONTINUATION.
4 OSI PURCHASED AND INSTALLED BY SITE CIVIL CONTRACTOR. PLUMBING CONTRACTOR TO PROVIDE/INSTALL SS PIPING TO OSI AND ALL OSI VENT PIPING. PIPING DOWNSTREAM OF OSI BY SITE CIVIL. SEE 6/P601 FOR OSI INFORMATION.
5 PC TO PROVIDE TWO-WAY CLEANOUT TEE PIPED TO GRADE ON OSI INLET
6 SC TO PROVIDE TWO-WAY CLEANOUT TEE PIPED TO GRADE ON OSI OUTLET
8 RADON FAN (EF-RGC), IN-LINE ON VERTICAL PIPING AT 4'-0" AFF, WITH FLEXIBLE COUPLINGS AND VIBRATION ISOLATING SUPPORTS. DISCHARGE PIPING SOLVENT-WELDED DIRECT TO ROOF TERMINATION. NO CLEANOUTS OR MECHANICAL JOINTS ON DISCHARGE SIDE. BASIS OF DESIGN: FANTECH RxHEC, 120V/1PH, 175 WATTS MAX. FINAL MAKE, MODEL, VOLTAGE, AND AMPERAGE SHALL BE DETERMINED BY THE RADON DELEGATED DESIGNER AND SUBMITTED FOR REVIEW. FURNISH FINAL ELECTRICAL DATA TO THE ELECTRICAL CONTRACTOR BEFORE ROUGH-IN. SEE SPECIFICATION SECTION 22 38 00.
9 CONTRACTOR TO VERIFY ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
10 PC TO ROUTE 1/2" UPONOR PEX TUBING FROM TRAP PRIMER TO FLOOR DRAIN.



1 P101 SANITARY PIPING PLAN - FIRST FLOOR
1/8" = 1'-0"

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EXETER TOWNSHIP
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70 GIBRALTAR ROAD
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PROJECT NUMBER: 25-049

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2	10/22/26

LAST PROJECT REVISION: No 2 | 10/22/26

FIRST FLOOR - SANITARY PIPING PLAN

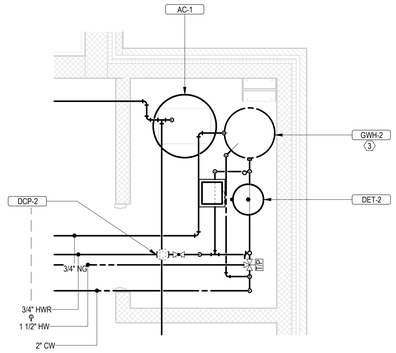
SHEET NUMBER:

P101

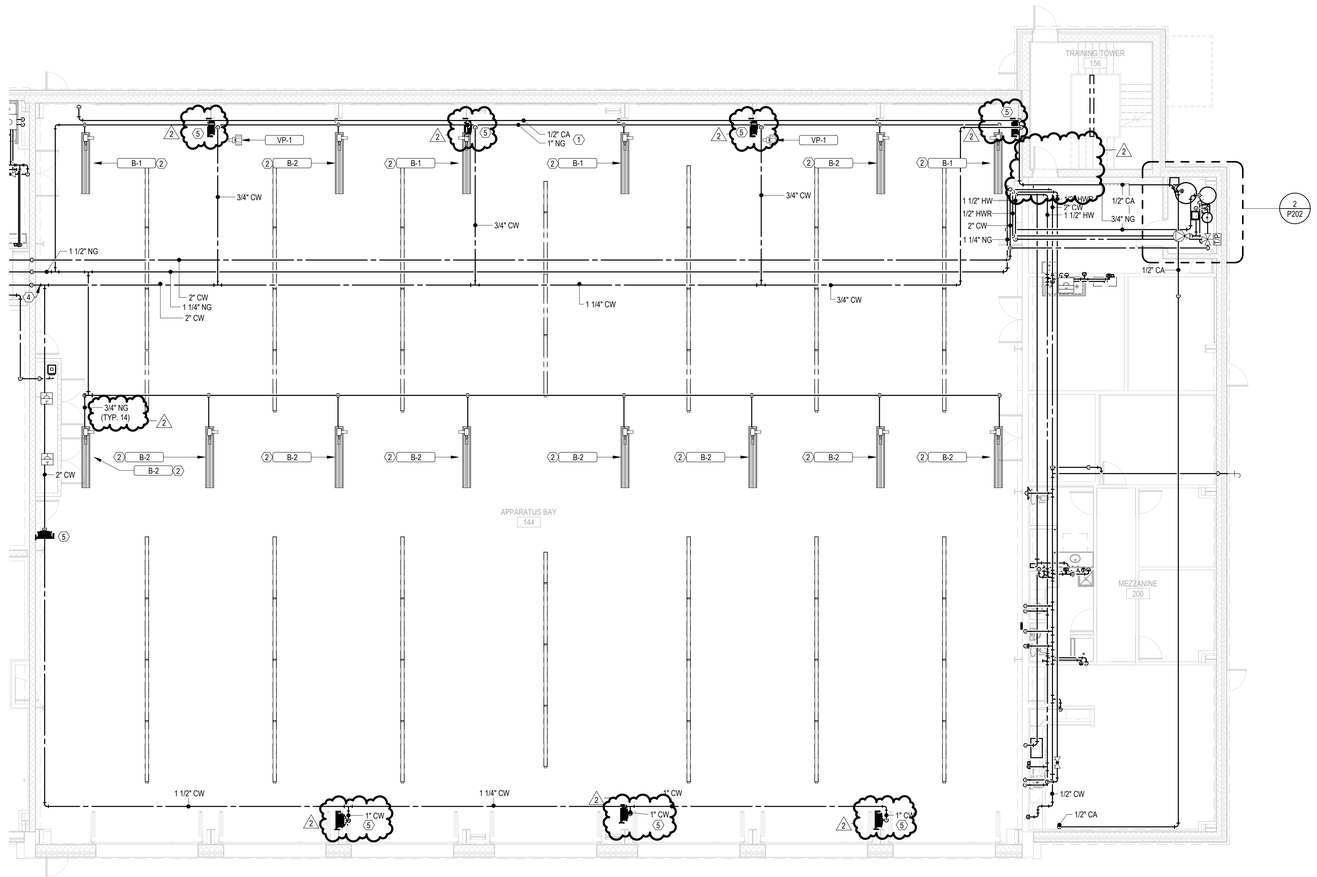
10/23/2026 11:28:41 AM

KEYNOTES

1. PLUMBING CONTRACTOR TO COORDINATE SUPPLY PIPING WITH STRUCTURAL DRAWINGS AND OVERHEAD TRACKS.
2. CONTRACTOR TO REFERENCE PLUMBING DETAIL 7/P602 FOR INFRARED HEATING BURNER / GAS CONNECTION
3. PC TO INSTALL VENT/COMBUSTION AIR PIPES THRU WALL. TERMINATE WITH CONCENTRIC VENT KIT.
4. TRANSITION FROM NG TO HYDROGEN
5. PC TO INSTALL BALL VALVE REACHABLE FROM THE FLOOR.



2 P202 MEZZANINE PLUMBING PLAN
3/8" = 1'-0"



1 P202 SERVICE PIPING PLAN - MEZZANINE
1/8" = 1'-0"

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MEZZANINE - SERVICE PIPING PLAN

SHEET NUMBER:

P202

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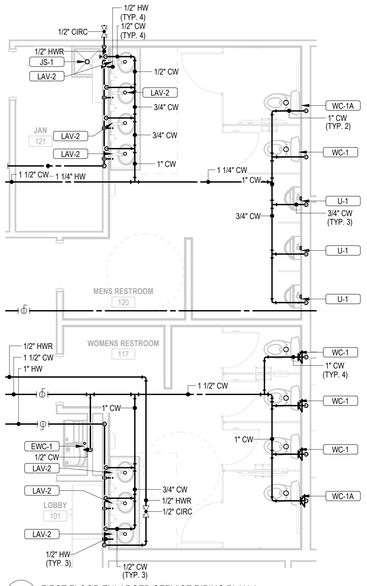
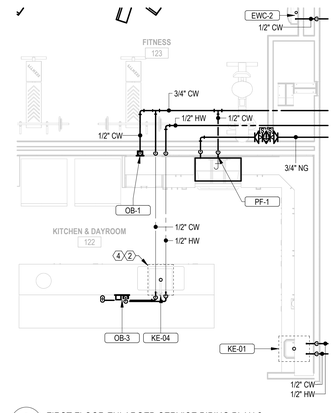
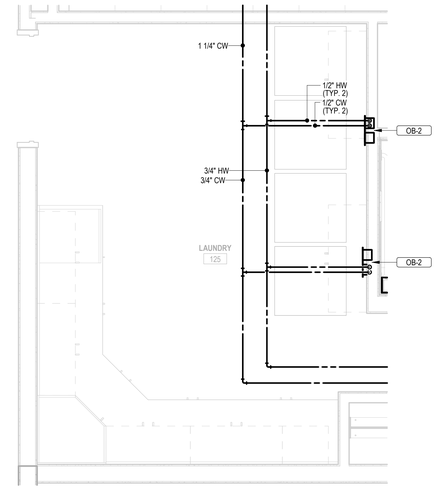


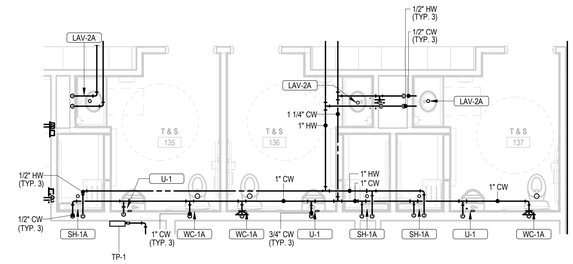
1 P402 FIRST FLOOR ENLARGED SERVICE PIPING PLAN 1
1/4" = 1'-0"



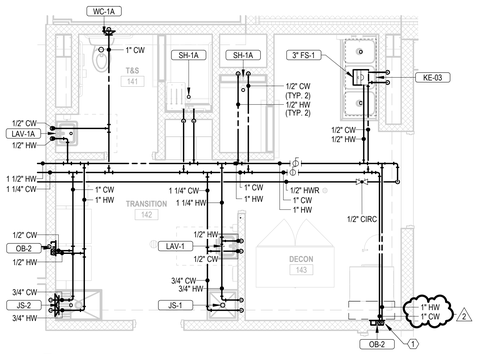
2 P402 FIRST FLOOR ENLARGED SERVICE PIPING PLAN 2
1/4" = 1'-0"



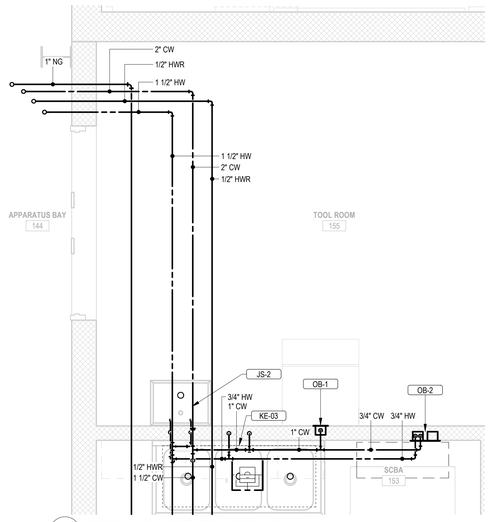
3 P402 FIRST FLOOR ENLARGED SERVICE PIPING PLAN 3
1/2" = 1'-0"



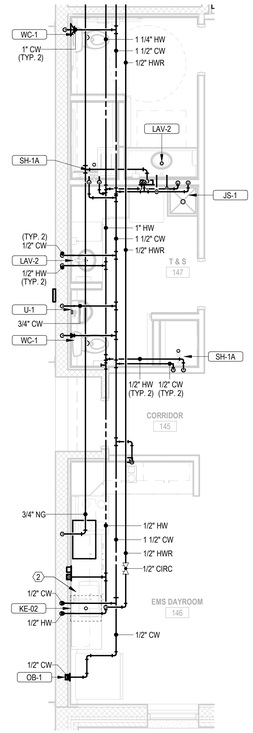
4 P402 FIRST FLOOR ENLARGED SERVICE PIPING PLAN 4
1/4" = 1'-0"



5 P402 FIRST FLOOR ENLARGED SERVICE PIPING PLAN 5
1/4" = 1'-0"



6 P402 FIRST FLOOR ENLARGED SERVICE PIPING PLAN 6
1/2" = 1'-0"



7 P402 FIRST FLOOR ENLARGED SERVICE PIPING PLAN 7
1/4" = 1'-0"

KEYNOTES

1 14"x10"x3'-0" LONG WASHING MACHINE DRAIN TROUGH WITH LINT TRAP H-M COMPANY OR EQUAL. RECESSED INTO FLOOR WITH SIDE DRAIN CONNECTION. OB-2 DRAIN CONNECTION NOT USED.

2 CONTRACTOR IS TO CONNECT FIXTURES TO BOTH SANITARY AND DOMESTIC LINES. PLUMBING CONTRACTOR TO INSTALL GARBAGE DISPOSAL IN KITCHEN SINK. GARBAGE DISPOSAL TO BE MOEN DISPOSAL CHEF SERIES MODEL EXL100C. CONTRACTOR IS TO CONNECT FIXTURES TO BOTH SANITARY AND DOMESTIC LINES.

4 PLUMBING CONTRACTOR IS TO REFERENCE 8/P602 WHEN INSTALLING ISLAND SANITARY. TYPICAL FOR ALL ISLAND SINKS.

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EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTAR ROAD
READING PA 19606

PROJECT NUMBER: 25-049

SUBMISSION:
BID SET

ORIGINAL ISSUE DATE:
10/01/2026

SHEET REVISION SCHEDULE:

No.	DATE
1	10/15/26
2	10/22/26

LAST PROJECT REVISION: No 2 | 10/22/26

FIRST FLOOR - ENLARGED SERVICE PIPING PLANS

SHEET NUMBER:

P402

10/23/2026 11:26:57 AM

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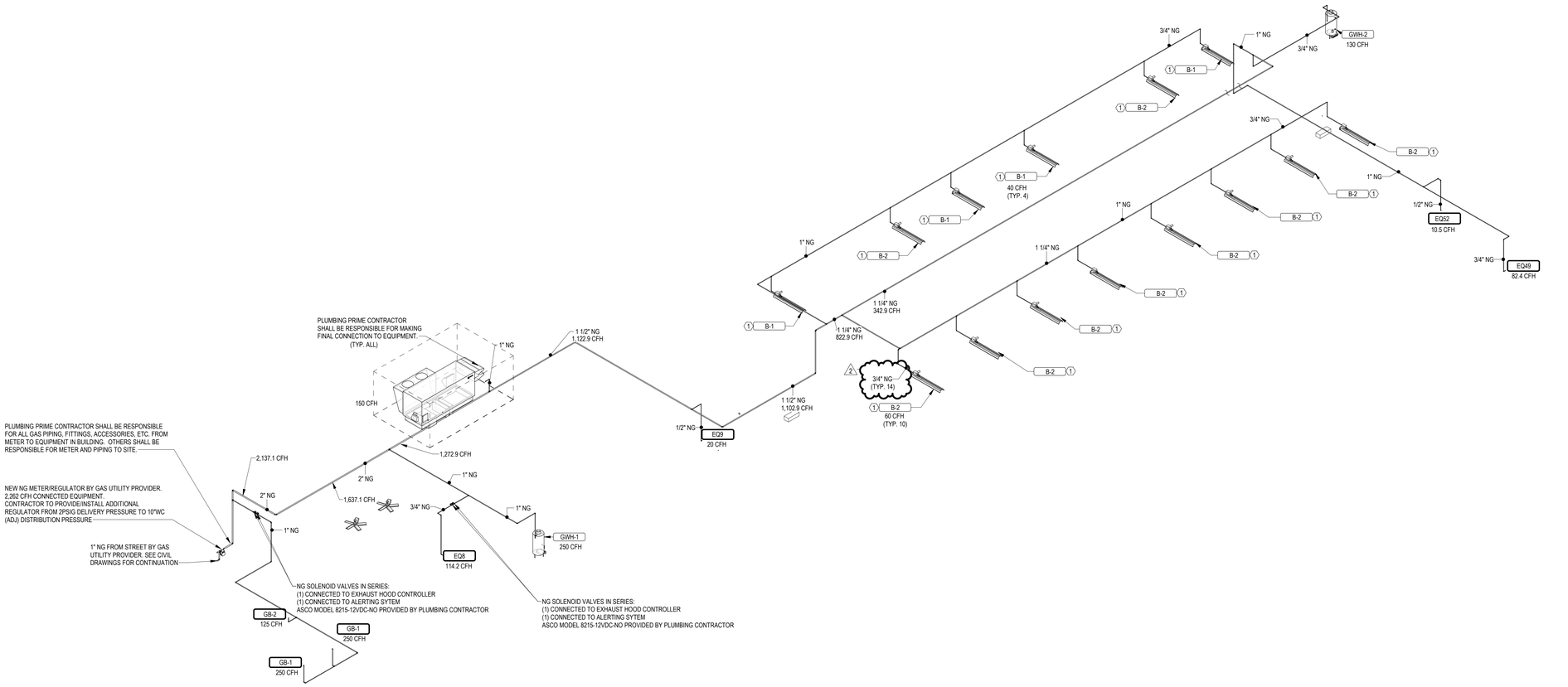

1 / P501 GAS SUPPLY RISER DIAGRAM
NOT TO SCALE

NATURAL GAS GENERAL NOTES

1. PROVIDE ISOLATION VALVE FOR ALL NATURAL GAS PIPING AT ALL BRANCHES. PROVIDE ACCESS PANELS WHERE REQUIRED.
2. PROVIDE DRIP & SEDIMENT TRAP AT ALL LOW POINTS IN NATURAL GAS PIPING SYSTEM AS WELL AS IMMEDIATELY PRIOR TO EQUIPMENT.
3. INSTALL NATURAL GAS PIPING WITH 2% GRADE TO DRIP & SEDIMENT TRAPS.
4. PROVIDE STRAINER AND PRESSURE REGULATOR IMMEDIATELY PRIOR TO EQUIPMENT RECEIVING NATURAL GAS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL CONNECTION TO EQUIPMENT.
6. PIPING SHOWN DIAGRAMMATIC. CONTRACTOR SHALL COORDINATE PIPING WITH ALL OTHER DISCIPLINES AND PRIME CONTRACTORS INCLUDING BUT NOT LIMITED TO; STRUCTURAL, MECHANICAL, ELECTRICAL, ETC.

KEYNOTES

1 CONTRACTOR TO REFERENCE PLUMBING DETAIL 7/P602 FOR INFRARED HEATING BURNER / GAS CONNECTION

NATURAL GAS FIXTURE SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL	QTY	NATURAL GAS FUEL LOAD	NATURAL GAS ROUGH-IN PIPE SIZE	FURNISHING CONTRACTOR
B-1	IR HEAT BURNER	CO-RAY-VAC	CRV-B4	4	40 CFH	3/4"	BY MECHANICAL CONTRACTOR
B-2	IR HEAT BURNER	CO-RAY-VAC	CRV-B6	10	60 CFH	3/4"	BY MECHANICAL CONTRACTOR
DOAS-1	DEDICATED OUTDOOR AIR SYSTEM	TRANE	OADG015E3-DAB5GAE00-J1AGG3AE0-21A20C01B-A00C00A00-A01A00000-00AL00000	1	150 CFH	3/4"	BY MECHANICAL CONTRACTOR
EQ8	6 BURNER GAS RANGE	WOLF	GR366	1	114.2 CFH	3/4"	BY GENERAL CONTRACTOR. PLUMBING CONTRACTOR TO CONFIRM GAS PRESSURE REQUIREMENTS AND PROVIDE APPLIANCE PRESSURE REGULATOR IF REQUIRED
GB-1	GAS GRILL	BY GENERAL CONTRACTOR	BY GENERAL CONTRACTOR	2	250 CFH	1/2"	GRILL BY GENERAL CONTRACTOR
GB-2	GAS CONNECTION	BY GENERAL CONTRACTOR	BY GENERAL CONTRACTOR	1	125 CFH	1/2"	BY GENERAL CONTRACTOR
EQ9	CLOTHES DRYER	GE	GFD65GSSVWW	1	20 CFH	2"	BY MECHANICAL CONTRACTOR
EQ49	4 BURNER GAS RANGE	WOLF	GR304	1	82.4 CFH	3/4"	BY GENERAL CONTRACTOR. PLUMBING CONTRACTOR TO CONFIRM GAS PRESSURE REQUIREMENTS AND PROVIDE APPLIANCE PRESSURE REGULATOR IF REQUIRED
EQ52	COMPACT LAUNDRY CENTER	GE	GUD24ESSM	1	10.5 CFH	1/2"	BY MECHANICAL CONTRACTOR
GWH-1	GAS WATER HEATER	RHEEM	GHE100SU-250(A)	2	250 CFH	1/2"	BY MECHANICAL CONTRACTOR
TOTAL	-	-	-	-	2,262.1 CFH	-	-

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EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTAR ROAD
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PROJECT NUMBER: 25-049

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10/01/2026

SHEET REVISION SCHEDULE:

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GAS RISER DIAGRAM

SHEET NUMBER:

P501

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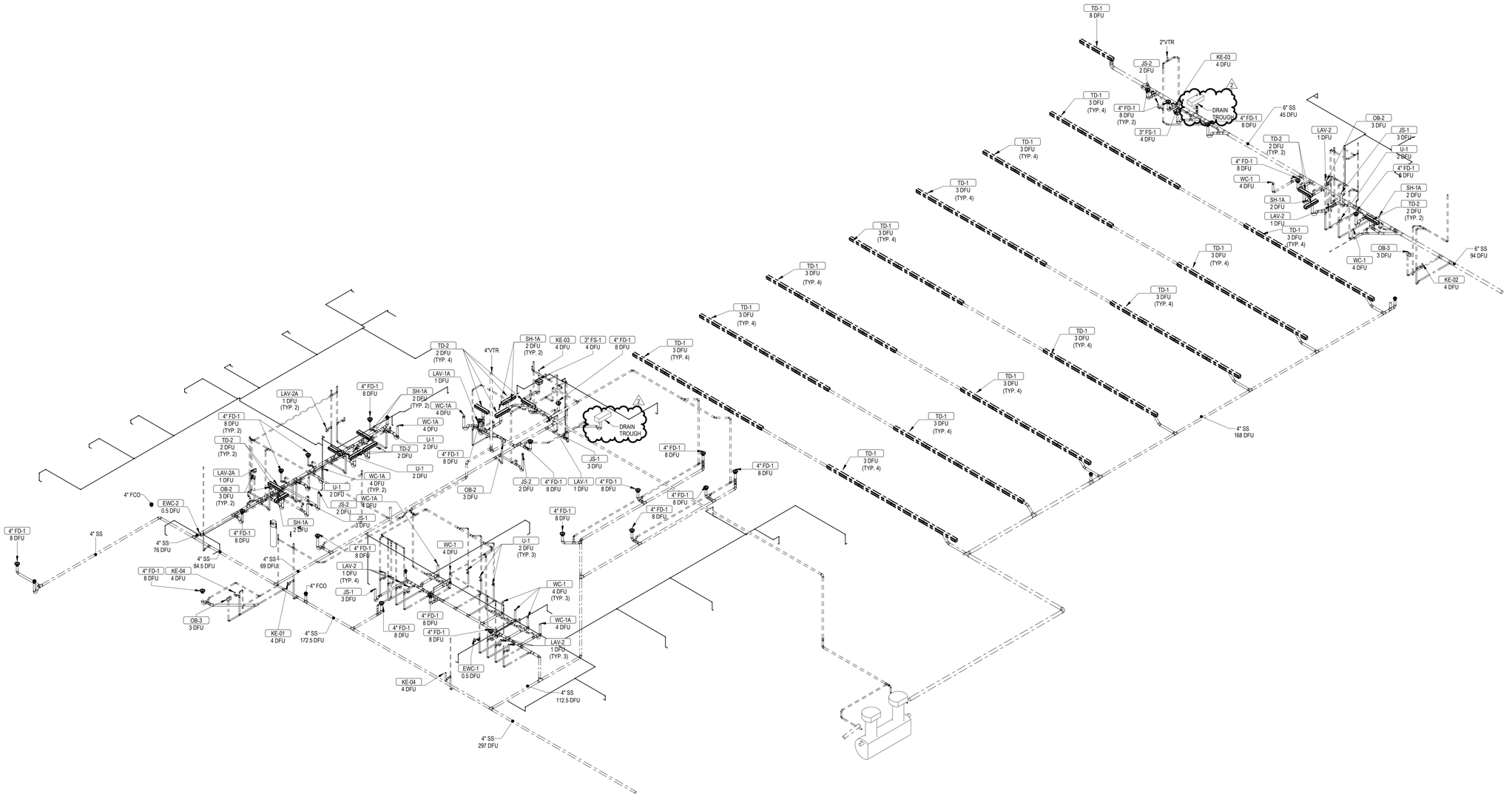

1 P503 WASTE & VENT RISER DIAGRAM
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LAST PROJECT REVISION: No 2 | 10/22/26

SANITARY / VENT RISER DIAGRAM

SHEET NUMBER:

P503

10/23/2026 11:27:02 AM

Plumbing Fixture Schedule

Identity	Description	Manufacturer	Model	Qty	Product Type	Installation Type	ADA	Material Description	Finish	Faucet / Valve		Domestic Connections			Product Specification	Notes
										Manufacturer M/N	Type	Cold Water	Hot Water	Piping Size(s)		
EWC-1	Water Cooler	Elkay	EMABFTL8WSLK	1	Electric Water Cooler - Dual Height	Wall Hung	Yes	Galvanized Steel	Light Gray Granite			Yes	No	1/2"	ezH2O® Bottle Filling Station with Mechanically Activated Bi-Level ADA Cooler Non-Filtered Refrigerated Light Gray.	
EWC-2	Bottle Filler	Elkay	LZWSSM	1	Bottle Filling Station	Wall Hung	No	Galvanized Steel	Stainless Steel			Yes	No	1/2"	Stainless. Features shall include Antimicrobial*, Filtered, Green Ticker™, Hands Free, Laminar Flow, Real Drain, Visual Filter Monitor. Electronic Bottle Filler Sensor activation. Product shall be Wall Mount (On Wall), for Indoor applications, serving 1 station(s). Unit shall be certified to UL 399 and CAN/CSA C22.2 No. 120.	
FD-1	Floor Drain	Watts	FD-100-A	24	Round Strainer			Cast Iron							Epoxy Coated Cast Iron Floor Drain With Anchor Flange, Reversible Clamping Collar With Primary & Secondary Weepholes, Adjustable Round Heel Proof Nickel Bronze Strainer, And No Hub Outlet.	2 1
FS-1	Floor Sink	Watts	FS-730	2	12" Square X 6" Deep			Cast Iron							12" Square X 6" Deep Sanitary Floor Sink With White Porcelain Enamel Coated Interior, Loose Set Porcelain Enamel Coated Cast Iron Grate, Polypropylene Dome Bottom Strainer, And No Hub Outlet.	
GB-1	Gas Connection	Burnaby Manufacturing LTD	G0-102-DBL-SS	2	Gas Connection	Wall Mount	No					Yes	No	1/2"	Recessed Stainless Steel Gas Plug with (2) 1/2" Hose Connections. 125,000 BTU NG Each Side. 1/2" Inlet Connection.	
GB-2	Gas Connection	Burnaby Manufacturing LTD	VGP-GO-102-CDN	1	Gas Connection	Set in Concrete	No					Yes	No	1/2"	Recessed Stainless Steel Gas Plug with (1) 1/2" Hose Connections. 125,000 BTU NG. 1/2" Inlet Connection.	
HB-1	Hose Bibb	Zurn	Z1320XL-EZ	3	Wall Hydrant	Wall Mount	No					Yes	No	3/4"	Encased, EcolotroITM, lead-free, non-freeze automatic draining wall hydrant for flush installation.Hydrant features integral backflow preventer with anti-siphon technology.copper casing, all-bronze interior components with 1/2 turn long-life ceramic disc cartridge,combination 3/4" [19] female solder and 3/4" [19] male pipe thread inlet connection, and 3/4" [19] male hose connection. Hydrant furnished with type 304 stainless steel housing with locking hinged cover stamped "WATER" and includes operating key. Hydrant housing fits within one standard modular masonry course.Recommended wall opening: 3-3/16" [81] X 8-1/2" [216].	
HR-1	Hose Reel	Reelcraft	D830-75 OLP	8	Dual Pedestal Hose Reels	Wall Mount							2 3/4		Base Mounted Dual Pedestal with heat treated aluminum casting, two sealed ball bearings for smooth rotation of the main shaft, guide arm with 4 different adjustable positions, with Low-Pressure 3/4 in. x 75 ft PVC hose included. 3/4" Connection.	
JS-1	Sink	Fiat	MSB-2424	4	Janitor	Floor Set	No	Molded Stone		Chicago Faucets / 897-Cp	Manual	Yes	Yes	3/4"	Service Basin With Cap On Two Sides, With Chrome Plated 3" Drain And Cast Iron Trap. Faucet Shall Include Pail Hook And Atmospheric Vacuum Breaker Spout. Furnish 5'-0" Length Of 5-Ply Garden Hose And Fittings.	
JS-2	Sink	ADVANCE TABCO	FS-FM-2721-F	3	Laundry Tub	Floor Set	No	Stainless Steel	Stainless Steel	Included		Yes	Yes	1/2"	Advance Tabco Heavy Duty Floor Mounted Stainless Steel Service Sink FS-FM-2721-F w/ K-159 Gooseneck Faucet, 8" centerset, 3-1/2" gooseneck spout, 24" x 18" x 12" deep bowl, 8-1/2" backsplash, stainless steel tubular legs with flanged feet, and 3-1/2" rear basket drain.	
KE-01	Commercial Sink	Elkay	ELUHAD121255PD	1	1-Compartment	Undermount	Yes	Stainless Steel	Luminous Satin	Kohler K-28358		Yes	Yes	1/2"	Single-Compartment Kitchen Style Sink and Pulldown Faucet	
KE-02	Commercial Sink	Elkay	ELUHAD281655PD	1	1-Compartment	Undermount	Yes	Stainless Steel	Lustrous Satin	Kohler K-28358		Yes	Yes	1/2"	Single-Compartment Kitchen Style Sink and Pulldown Faucet	
KE-03	Commercial Sink	Elkay	RNSF83544	2	3-Compartment	Undermount	No	Stainless Steel	Stainless Steel	Elkay LK940GN05T4H		Yes	Yes	1/2"	3-Compartment Stainless Steel Sink with Wall-Mounted Faucet	
KE-04	Commercial Sink	Elkay	ECTRU35179TC	2	1-Compartment	Undermount	Yes	Stainless Steel	Polished Satin	Kohler K-28358		Yes	Yes	1/2"	Single-Compartment Kitchen Style Sink and Pulldown Faucet	
LAV-1	Lavatory	Elkay	WCLWO1923OSDC	1	Wall Hung	Wall Hung	No	Stainless Steel	Lustrous Satin	Chicago Faucets / 3511-E2805AB	Manual	Yes	Yes	1/2"	Lavatory With Backsplash, Faucet Holes On 4" Centers. Deck-Mounted Faucet With Manual Operation, Vandal Resistant Spray, External Asse 1070 Compliant Thermostatic Mixing Valve, Grid Drain, Loose Key Angle Stops And Supplies. Insulate Water And Waste With Insulation Kit.	
LAV-1A	Lavatory	Elkay	WCLWO1923OSDC	1	Wall Hung ADA	Wall Hung	Yes	Stainless Steel	Lustrous Satin	Chicago Faucets / 3511-E2805AB	Manual	Yes	Yes	1/2"	Lavatory With Backsplash, Faucet Holes On 4" Centers. Deck-Mounted Faucet With Manual Operation, Vandal Resistant Spray, External Asse 1070 Compliant Thermostatic Mixing Valve, Grid Drain, Loose Key Angle Stops And Supplies. Insulate Water And Waste With Insulation Kit.	
LAV-2	Lavatory	Kohler	K-37626	9	Counter Mount	Undermount	No	White Vitreous China	White	Chicago Faucets / 3511-E2805AB	Manual	Yes	Yes	1/2"	Undermount Vitreous China Lavatory With Overflow. Single-Hole Deck-Mounted Faucet With Manual Operation, Vandal-Resistant 0.5 GPM Spray, Integral Temperature Control Mixer, And Flexible Hot And Cold Water Supplies.	
LAV-2A	Lavatory	Kohler	K-37626	3	Counter Mount ADA	Undermount	Yes	White Vitreous China	White	Chicago Faucets / 3511-E2805AB	Manual	Yes	Yes	1/2"	Undermount Vitreous China Lavatory With Overflow. Single-Hole Deck-Mounted Faucet With Manual Operation, Vandal-Resistant 0.5 GPM Spray, Integral Temperature Control Mixer, And Flexible Hot And Cold Water Supplies.	
OB-1	Outlet Box	IPS Corporation	MIB1HAAB	4	Ice Maker	Recessed		Steel	White			Yes	No	1/2"	Recessed, White Powder-Coated Ice Maker Outlet Box With A Brass Quarter Turn Hammer Arrester Valve. Unit Shall Be Guy Gray™ Product Code Checked Below As Manufactured By IPS Corporation. The Brass Quarter Turn Valves Shall Comply With NSF61, NSF/ANSI 372, And ASME A112.18.1/CSA B125.1 And Shall Feature White Handle And Check-Mark Logo For Easy Lead-Free Identification.Hammer Arrester Shall Comply With ASSE 1010.	
OB-2	Outlet Box	IPS Corporation	MWB13	6	Washing Machine	Recessed		Steel	White			Yes	Yes	1/2"	Center Drain White Powder Coated Metal Washing Machine Outlet Box. Unit Shall Be Guy Gray Product Code As Manufactured By IPS Corporation. Ctr. Turn Valve With 1/2" Sweat/MIP, PEX, Wirsbo, Or CPVC Connection. 2" Slipnut Drain Kit Included. Valves Comply With ASME A112.18.1.	
OB-3	Outlet Box	IPS Corporation	DW1200HA	2	Dishwasher	Recessed		Hi-Impact Resin	White			No	Yes	1/2"	Recessed, White Powder-Coated Dishwasher Outlet Box, w/ Lead Free Ctr. Turn Arrester Valve with 3/8" Compression Outlet Available For Sweat.	
OB-4	Outlet Box	IPS Corporation	MIB1HAAB	1	Coffee Maker	Recessed		ABS Plastic	White			No	Yes	1/2"	Recessed, White Powder-Coated Coffee Maker Outlet Box With A Brass Quarter Turn Hammer Arrester Valve. Unit Shall Be Guy Gray™ Product Code Checked Below As Manufactured By IPS Corporation.	
PF-1	Pot Filler	Kohler	K-35745-CP	1	Single-Hole-Wall-Mounted Pot and Kettle Filler	Wall Mount	No					Yes	No	1/2"	Kohler Wall-Mounted Pot Filler K-35745-CP with articulating 360° rotating spout, single lever handle with main shutoff, ceramic disc valves, 7" spout reach, 5.2 GPM maximum flow rate, and polished chrome finish.	
SH-1A	Shower Stall - ADA	By Others	By Others	7	Shower Fixtures	Floor Set	Yes			Symmons / C-96-500-B30-V		Yes	Yes	1/2"	The Individual Shower Stall Is Specified In Another Division. See this schedule for Shower Drains. Shower System With Asse 1016 Compliant Type "T/P" Thermostatic/Pressure Balancing Combination Valve With Adjustable Stop Screw To Limit Handle Turn. Concealed 3-Port Diverter Valve With Lever Handle With Arm And Flange, Integral Stops, And In-Line Vacuum Breaker. Hand Shower System With Standard Hand Shower, 60" Flexible Metal Hose, And 48" Slide Bar For Hand Shower Mounting. Provide Manufacturer'S Flow Rate Restrictor On Showerhead.	
TD-1	Trench Drain	Watts	Dead Level D	57	Wide Reveal Trench Drain System	Set in Concrete		Polypropylene							6"(152) wide x 48"(1219) long (standard) UV stabilized glass-filled polypropylene frame, UV stabilized talc-filled polypropylene channels with integral 4"(102) No Hub bottom outlet(s). System shall be frame-anchored, with DI grating to suit DIN Class E load rating with Frame Guards. Installed length (number of sections) varies per architectural plans	
TD-2	Shower Linear Drain	Oatey	PLD36-N	13	QuickDrain ProLine Drain	Set in Concrete		Stainless Steel							18 Gauge 316L Stainless Steel Linear Shower Drain with "Lines" grate. Fully sloped trough to prevent standing water and solids from being deposited in the trough. 2" I.D. Schedule 10 stainless steel downspout waste outlet. Drain cover sold separately.	
U-1	Urinal	American Standard	Washbrook	7	Wall Hung	Wall Hung	No	White Vitreous China	White	Sloan / REGAL 186-0.5	Manual	Yes	No	3/4"	Wall Hung Urinal With Washout Action, Top Spud, Size 18" With Integral Extended Shields Supported By Through Going Bolts And C.P. Nuts. Manual Flushometer 0.5GPF	
WC-1	Water Closet	Kohler	K3505	6	Pressure Assist Water Closet	Floor Set	No	White Vitreous China	White	Sloan / Flushmate III	Manual	Yes	No	1/2"	Elongated Floor Mounted Pressure Assist Tank Type Water Closet, With Kohler Stronghold K-4731-GC Commercial elongated toilet seat with integrated handle and Quiet-Close™ check hinge. Provide A 1/4" Brass Ball Valve At Wall Connection.	
WC-1A	Water Closet	Kohler	K3493	6	Pressure Assist Water Closet	Floor Set	Yes	White Vitreous China	White	Sloan / Flushmate III	Manual	Yes	No	1/2"	ADA Height Elongated Floor Mounted Pressure Assist Tank Type Water Closet, With Kohler Stronghold K-4731-GC Commercial elongated toilet seat with integrated handle and Quiet-Close™ check hinge. Provide A 1/4" Brass Ball Valve At Wall Connection.	

2 NOTES:
1. ALL FLOOR DRAINS (NOT INCLUDING TRENCH DRAINS, AND FLOOR SINKS) SHALL HAVE DOMESTIC WATER PIPING ROUTED FROM TRAP PRIMERS UNLESS OTHERWISE NOTED.

Thermal Expansion Tank Schedule

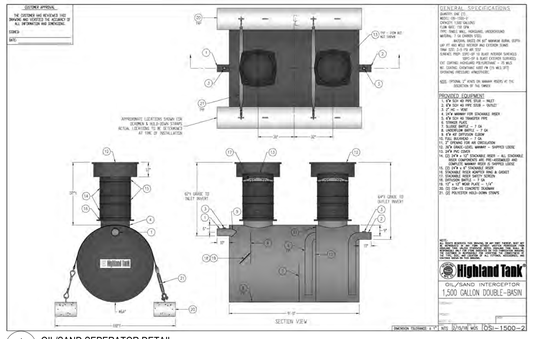
Identity	Location Name	Location No.	Manufacturer	Model	Product Type	System Fluid	Water Supply Temp.	ASME	Tank Fill Pressure	Tank Fill Temp.	Tank Acceptance Factor	Tank Acceptance Volume	Tank Capacity	Product Weight	Operating Weight	Notes
DET-1	MECHANICAL	124	Bell & Gossett	PT-12	Diaphram	Dom. Water	40 °F	Yes	38 psi	40 °F	73%	3.2 gal	4.4 gal	9 lb	128 lb	
DET-2	COMPRESSOR	201	Bell & Gossett	PT-12	Diaphram	Dom. Water	40 °F	Yes	38 psi	40 °F	73%	3.2 gal	4.4 gal	9 lb	128 lb	
PT-1	MECHANICAL	124	Amtrol	ST-70VC	Fixed Diaphram	Dom. Water	40 °F	Yes	0 psi	40 °F	32%	10.9 gal	34.0 gal	99 lb	190 lb	
UT-40	MECHANICAL	124	Amtrol	ST-210VC	Fixed Diaphram	Dom. Water	40 °F	Yes	0 psi	40 °F	39%	35.1 gal	90.0 gal	319 lb	612 lb	

Air Compressor Schedule

Identity	Location Name	Location No.	Manufacturer	Model	HP	Capacity (CFM @ 90 psi)	Max Pressure	Tank Capacity	Electrical	Weight (lbs)	Notes
AC-1	COMPRESSOR	201	Ingersoll Rand	2340L5	5	14.3	175	60 gal	460-3-60	433	

Domestic Circulator Pump Schedule

Identity	Location Name	Location No.	Manufacturer	Model	Product Type	Connections Suction	Connections Discharge	Motor Power	Motor RPM	Electrical FLA	Electrical Voltage	Electrical Phase	Notes
DCP-1	MECHANICAL	124	Taco	008IQSF6-IFC	Inline	3/4"	3/4"	19 W	3250	0.84 A	120 V	1	
DCP-2	COMPRESSOR	201	Taco	008IQSF6-IFC	Inline	3/4"	3/4"	19 W	3250	0.7 A	120 V	1	



1 P601 OIL/SAND SEPERATOR DETAIL
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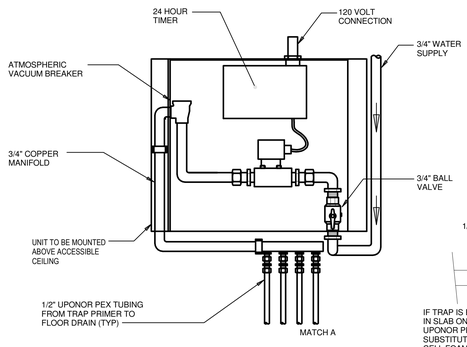
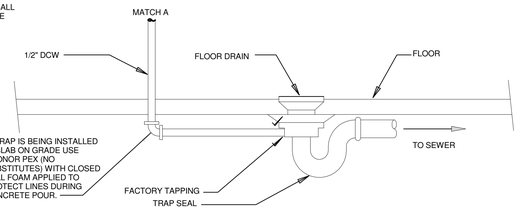
Gas-Fired Water Heater Schedule

Identity	Location Name	Location No.	Manufacturer	Model	Product Type	Temp. Rise	Recovery Capacity	Storage Capacity	MAWP	ASME	Gas Burner Type	Gas Burner Input Rating	Gas Burner Output Rating	Gas Burner Efficiency	Electrical Voltage	Electrical Phase	Breaker Size	Product Weight	Operating Weight	Notes
GWH-1	MECHANICAL	124	Rheem	GHE100SS-250(A)	Gas Tank	100F	291gph	100gal	160 PSI	Y	NG	250MBH	240MBH	96%	110	1	7.5A	775lbs	-	
GWH-2	COMPRESSOR	201	Rheem	GH80SS-130 (A)	Gas Tank	100F	153gph	80gal	160 PSI	Y	NG	130MBH	120MBH	96%	110	1	7.5A	775lbs	-	



TRAP PRIMING MANIFOLD SCHEDULE

TAG	SYSTEM	LOCATION	VOLTAGE	PHASE	MANUFACTURER	MODEL	REMARKS
TP-1	ELECTRONIC TRAP PRIMING MANIFOLD	LAUNDRY 125	120 V	1	PPP INC.	PTS-10	
TP-2	ELECTRONIC TRAP PRIMING MANIFOLD	CORRIDOR 106	120 V	1	PPP INC.	PTS-10	
TP-3	ELECTRONIC TRAP PRIMING MANIFOLD	EMS OFFICE I 152	120 V	1	PPP INC.	PTS-6	



6 P601 DETAIL - ELECTRONIC TRAP PRIMER
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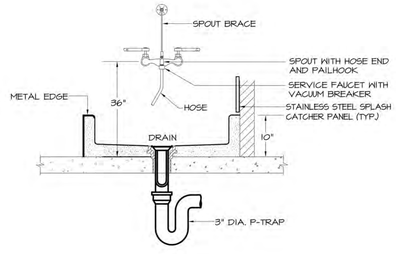
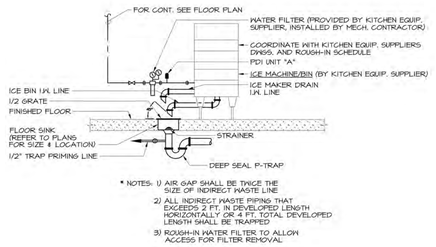


4 P601 DETAIL - JANITOR SINK
NOT TO SCALE



5 P601 DETAIL - ICE MACHINE
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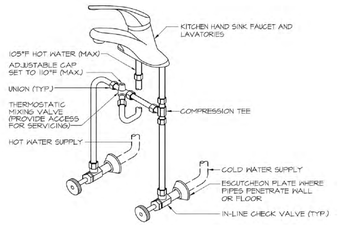

3 P601 DETAIL - FAUCET
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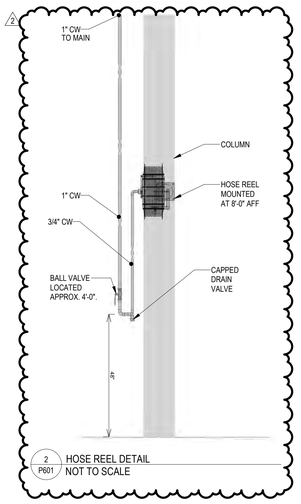

2 P601 HOSE REEL DETAIL
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EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTAR ROAD
READING PA 19606

PROJECT NUMBER: 25-049

SUBMISSION:
BID SET

ORIGINAL ISSUE DATE:
10/01/2026

SHEET REVISION SCHEDULE:

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2	10/22/26

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PLUMBING SCHEDULES & DETAILS

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POTABLE WATER SYSTEM

CITY WATER TREATMENT SYSTEM — FLOW SCHEMATIC WITH BAS MONITORING & ALARM POINTS

EXETER FIRE DEPARTMENT · APPARATUS BAY WATER TREATMENT ROOM

SOURCE: CITY WATER SERVICE · DESIGN FLOW: 50 GPM PEAK · RO FEED: 9.5 GPM CONT.

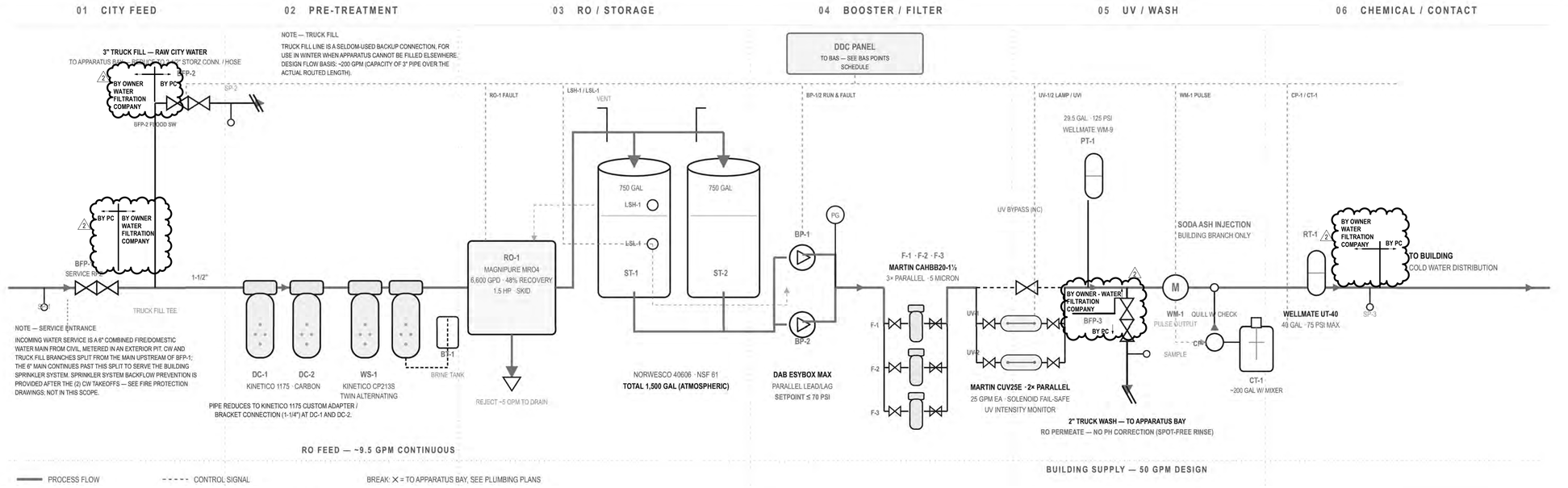

DIAGRAM KEYNOTES

DEDC · SD

01 BOOSTER PUMP AND DOWNSTREAM TREATMENT SIZING BASED ON TOTAL SYSTEM DEMAND OF 50 GPM. SIMULTANEOUS TRUCK WASH + PEAK BUILDING DEMAND SHALL NOT EXCEED 50 GPM COMBINED.

02 TRUCK FILL LINE CONNECTS UPSTREAM OF ALL TREATMENT, SERVED BY UNTREATED CITY WATER. PROVIDE RPZ BACKFLOW PREVENTER AT TRUCK FILL CONNECTION.

03 TRUCK WASH LINE CONNECTS DOWNSTREAM OF UV, UPSTREAM OF SODA ASH INJECTION. WASH WATER IS RO PERMEATE W/O PH CORRECTION (INTENTIONAL, SPOT-FREE RINSE). PROVIDE BFP AT CONNECTION. DO NOT RELOCATE SODA ASH UPSTREAM OF THIS BRANCH.

04 SODA ASH METERING PUMP SHALL BE FLOW-PACED FROM THE PULSE-OUTPUT WATER METER DOWNSTREAM OF THE TRUCK WASH TEE. INJECTION VIA CENTERLINE QUILL W/ INTEGRAL CHECK VALVE; WETTED PARTS PVC OR KYNAR.

05 BOOSTER DISCHARGE PRESSURE SETPOINT SHALL NOT EXCEED 70 PSI. CONTACT TANK RT-1 RATED 75 PSI MAX OPERATING PRESSURE.

06 RO REJECT DISCHARGES TO SANITARY AT APPROXIMATELY 5 GPM DURING SKID OPERATION.

EQUIPMENT SCHEDULE

TAG	EQUIPMENT	MFR / MODEL	QTY	DATA
BFP-1	SERVICE BACKFLOW PREVENTER	WATTS LF909-LF, 3" RPZ	1	≈210 GPM (200 TRUCK FILL + 9.5 RO). NSF 61/372, ASSE 1013, 175 PSI. CW/TRUCK FILL BRANCH ONLY — NOT SPRINKLER MAIN
BFP-2	TRUCK FILL BFP	WATTS LF909-LF-FS, 3" RPZ	1	FLOOD-SENSOR VERSION REC. (INFREQUENT USE). NSF 61/372, ASSE 1013, 175 PSI
DC-1,2	DECHLORINATOR	KINETICO 1175	2	CARBON, NON-ELECTRIC, 13"×56"
WS-1	WATER SOFTENER	KINETICO CP213S	1	TWIN ALTERNATING, 2.5 CU FT/TANK, 13"×54"
BT-1	BRINE TANK	KINETICO 24×40	1	500 LB SALT, HDPE
RO-1	RO SKID	MAGNIPURE MRO4	1	6,600 GPD, 48% RECOVERY, 1.5 HP, 26×26×57
ST-1,2	STORAGE TANK	NORWESCO 40606	2	750 GAL EA, POLY, 48"×103", 16" VENTED MANWAY
BP-1,2	BOOSTER PUMP	DAB ESYBOX MAX (CONFIRM 60/120M)	2	PARALLEL LEAD/LAG, VFD, SETPOINT ≤70 PSI
F-1..3	CARTRIDGE FILTER	MARTIN CAHBB20-1½	3	PARALLEL, 5 MICRON, 1-1/2", 50 GPM MAX EA
UV-1,2	UV STERILIZER	MARTIN CUV25E	2	PARALLEL, 25 GPM EA, 1-1/2" FNPT, 304 SS
PT-1	PRESSURE TANK	WELLMATE WM-9	1	29.5 GAL, 125 PSI, 1" MNPT
BFP-3	TRUCK WASH BFP	WATTS LF909-LF, 2" RPZ	1	2" BRANCH, NSF 61/372, ASSE 1013
WM-1	WATER METER	BY WATER TREATMENT CONTRACTOR, PULSE OUTPUT	1	PACES CP-1
CP-1	METERING PUMP	BY WATER TREATMENT CONTRACTOR, FLOW-PACED	1	PVC/KYNAR QUILL W/ CHECK VALVE
CT-1	SOLUTION TANK	BY WATER TREATMENT CONTRACTOR; ~100 GAL W/MIXER	1	26" DIA × 43" H, SODA ASH
RT-1	CONTACT TANK	WELLMATE UT-40	1	40 GAL, 75 PSI MAX, 16"×57.25"
SP-1..3	SAMPLING PORT	TBD, SMOOTH-NOSE TAP	3	SEE FLOW SEQUENCE

BAS POINTS SCHEDULE

POINT	SOURCE	SIGNAL TYPE
STORAGE TANK HIGH LEVEL ALARM	ST-1/ST-2 (LSH-1)	DRY CONTACT
STORAGE TANK LOW LEVEL ALARM	ST-1/ST-2 (LSL-1)	DRY CONTACT
RO SKID FAULT / LOW FEED PRESSURE	RO-1	DRY CONTACT
BOOSTER PUMP RUN STATUS (BP-1)	BP-1	DRY CONTACT
BOOSTER PUMP RUN STATUS (BP-2)	BP-2	DRY CONTACT
BOOSTER PUMP FAULT (BP-1)	BP-1	DRY CONTACT
BOOSTER PUMP FAULT (BP-2)	BP-2	DRY CONTACT
UV LAMP FAULT (UV-1)	UV-1	DRY CONTACT
UV LAMP FAULT (UV-2)	UV-2	DRY CONTACT
UV LOW INTENSITY ALARM (UV-1)	UV-1	DRY CONTACT
UV LOW INTENSITY ALARM (UV-2)	UV-2	DRY CONTACT
UV FAIL-SAFE SOLENOID VALVE POSITION	UV-1/UV-2 ASSEMBLY	DRY CONTACT
SODA ASH TANK LOW LEVEL ALARM	CT-1	DRY CONTACT
SODA ASH PUMP RUN STATUS	CP-1	DRY CONTACT
SODA ASH PUMP FAULT	CP-1	DRY CONTACT
BUILDING METER FLOW PULSE	WM-1	PULSE
TRUCK FILL BFP FLOOD SENSOR ALARM	BFP-2	DRY CONTACT

BAS GENERAL NOTE — BAS IS NEW CONSTRUCTION; NO EQUIPMENT ASSUMED TO HAVE NATIVE BACNET OR COMMUNICATING CONTROLLER OUTPUT. ALL POINTS SHOWN ARE HARDWIRED DRY CONTACTS OR PULSE SIGNALS TERMINATED AT A LOCAL DDC PANEL IN THE TREATMENT ROOM, BY DIVISION 23 CONTROLS CONTRACTOR. WATER TREATMENT CONTRACTOR TO PROVIDE RELAY/CONTACT OUTPUTS AT EACH SOURCE DEVICE; CT-1 LEVEL SWITCH AND CP-1 RUN/FAULT CONTACTS ARE ADDED SCOPE ITEMS, NOT STANDARD EQUIPMENT FEATURES — CONFIRM AVAILABILITY WITH WATER TREATMENT CONTRACTOR PRIOR TO BID.

GENERAL NOTES

01 WATER TREATMENT EQUIPMENT SELECTION AND SIZING BY WATER TREATMENT PROVIDER BASED ON LOCAL WATER QUALITY KNOWLEDGE. NO SITE-SPECIFIC WATER ANALYSIS WAS AVAILABLE AT TIME OF DESIGN. PROVIDER SHALL CONFIRM ALL EQUIPMENT SELECTIONS AGAINST A CURRENT WATER ANALYSIS PRIOR TO SUBMITTAL.

02 SYSTEM DESIGN FLOW IS 50 GPM TOTAL. RO FEED SIDE OPERATES AT APPROXIMATELY 9.5 GPM CONTINUOUS, INDEPENDENT OF BUILDING PEAK DEMAND.

03 RO SKID PRODUCTION CAPACITY IS 6,600 GPD AT 48% RECOVERY. COORDINATE REJECT DRAIN SIZE AND ROUTING WITH PLUMBING DRAWINGS.

04 RO SKID SHALL FILL ATMOSPHERIC STORAGE TANKS VIA FLOAT-OPERATED LEVEL CONTROLS INTERLOCKED WITH THE RO FEED SOLENOID. PROVIDE HIGH/LOW LEVEL ALARMS AT STORAGE TANKS. LOW LEVEL SHALL DISABLE BOOSTER PUMPS TO PROTECT AGAINST DRY RUN.

05 ALL PIPING FROM CITY WATER INLET THROUGH THE END OF THE TREATMENT TRAIN SHALL BE CPVC. NO COPPER OR COPPER ALLOY COMPONENTS PERMITTED UPSTREAM OF THE SODA ASH INJECTION POINT; WATER IN THIS SECTION IS AGGRESSIVE RO PERMEATE.

06 PROVIDE SMOOTH-NOSE SAMPLING PORTS AT: CITY WATER INLET (DOWNSTREAM OF SERVICE BFP), TRUCK FILL LINE (DOWNSTREAM OF BFP), AND BUILDING SUPPLY (DOWNSTREAM OF CONTACT TANK).

07 UV UNITS SHALL BE PROVIDED WITH LAMP FAILURE ALARM, UV INTENSITY MONITOR, AND NORMALLY CLOSED SOLENOID FAIL-SAFE VALVE. PROVIDE ISOLATION VALVES AT EACH UV UNIT FOR LAMP SERVICE WITHOUT SYSTEM SHUTDOWN.

08 PROVIDE UNIONS OR FLANGED CONNECTIONS AND ISOLATION VALVES AT EACH PIECE OF TREATMENT EQUIPMENT TO PERMIT REMOVAL AND REPLACEMENT WITHOUT DRAINING THE SYSTEM.

09 PRESSURE TANK PRECHARGE SHALL BE SET PER BOOSTER PUMP MANUFACTURER'S REQUIREMENTS RELATIVE TO PUMP RESTART PRESSURE.

10 MAINTAIN MANUFACTURER-REQUIRED CLEARANCES AT ALL EQUIPMENT. STORAGE TANKS ARE 103 INCHES TALL; VERIFY CEILING CLEARANCE FOR MANWAY ACCESS AND VENT PIPING PRIOR TO ROUGH-IN.

11 PROVIDE HOUSEKEEPING PADS FOR STORAGE TANKS, RO SKID, BOOSTER PUMPS, AND CONTACT TANK.

12 LSH-1 (HIGH LEVEL FLOAT) AND LSL-1 (LOW LEVEL FLOAT) ARE MOUNTED IN THE ST-1/ST-2 COMMON HEADER. LSH-1 SIGNALS THE RO FEED SOLENOID TO STOP FILLING AT HIGH LEVEL; LSL-1 DISABLES THE BOOSTER PUMPS ON LOW LEVEL TO PREVENT DRY RUNNING.

1 / P603 WATER TREATMENT SYSTEM
NOT TO SCALE

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EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTAR ROAD
READING PA 19606

PROJECT NUMBER: 25-049

SUBMISSION:
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PLUMBING SCHEDULES & DETAILS

SHEET NUMBER:
P603

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GENERAL NOTES:

- CAGES ON SPRINKLER HEADS IN THE TOOL ROOM, SCBA ROOM, AND OTHER SINGLE STORY WORKING ROOMS WITH EXPOSED CEILING.
- FDC WILL BE A SIAMESE AND SPECIFIC THREAD THAT THE TOWNSHIP WILL PROVIDE

Hazard Classification - Level 1

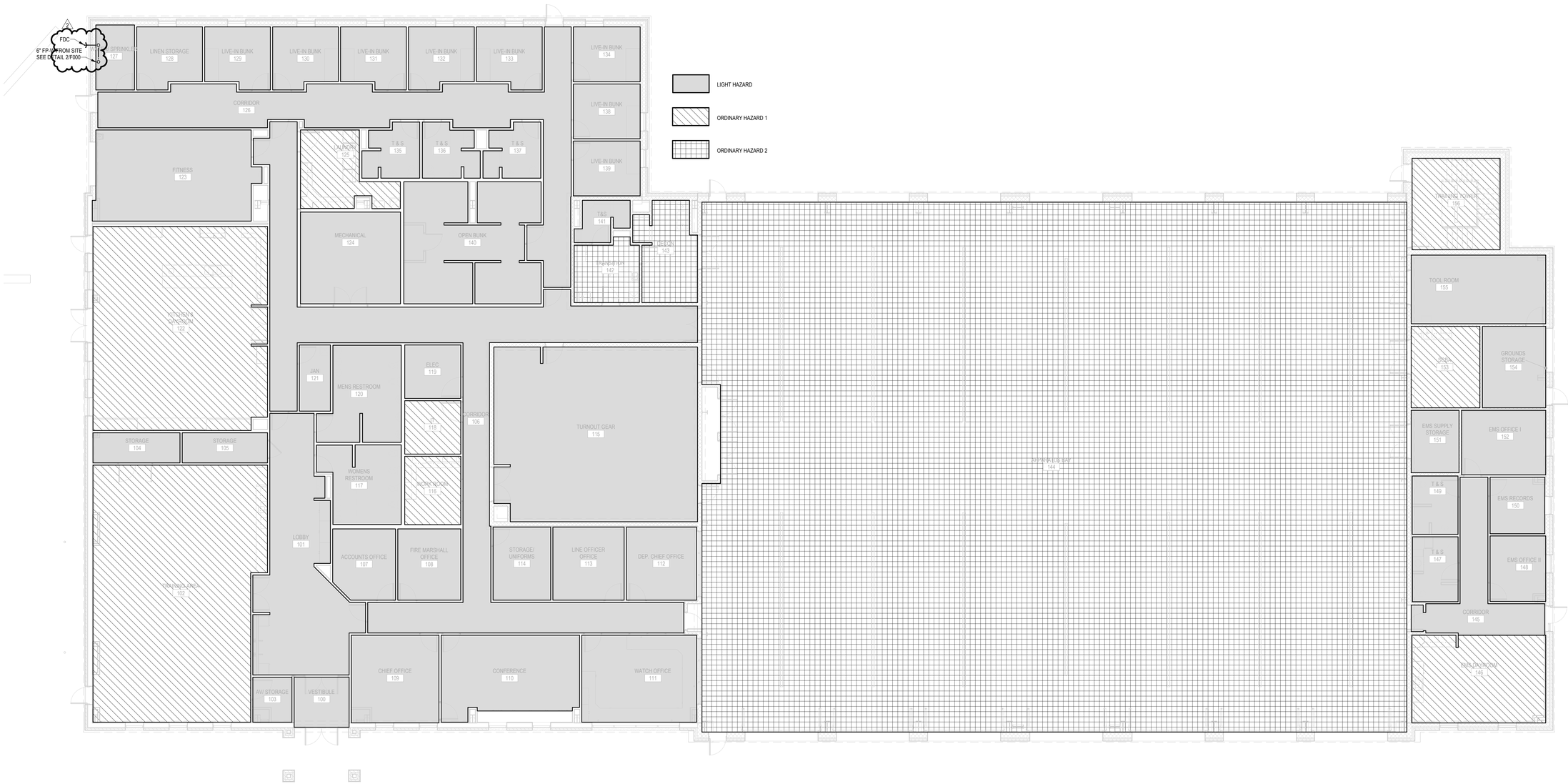
LOCATION NO.	LOCATION NAME	AREA	OCCUPANCY HAZARD CLASSIFICATION SYMBOL
FIRST FLOOR			
100	VESTIBULE	92 SF	LH
101	LOBBY	595 SF	LH
102	TRAINING AREA	1405 SF	OH1
103	AV/ STORAGE	50 SF	LH
104	STORAGE	88 SF	LH
105	STORAGE	86 SF	LH
106	CORRIDOR	1330 SF	LH
107	ACCOUNTS OFFICE	144 SF	LH
108	FIRE MARSHALL OFFICE	150 SF	LH
109	CHIEF OFFICE	256 SF	LH
110	CONFERENCE	358 SF	LH
111	WATCH OFFICE	336 SF	LH
112	DEP. CHIEF OFFICE	171 SF	LH
113	LINE OFFICER OFFICE	173 SF	LH
114	STORAGE/ UNIFORMS	140 SF	LH
115	TURNOUT GEAR	1176 SF	LH
116	WORK ROOM	128 SF	OH1
117	WOMENS RESTROOM	194 SF	LH
118	IT	100 SF	OH1
119	ELEC	100 SF	LH
120	MENS RESTROOM	234 SF	LH
121	JAN	68 SF	LH
122	KITCHEN & DAYROOM	1168 SF	OH1
123	FITNESS	480 SF	LH
124	MECHANICAL	306 SF	LH
125	LAUNDRY	186 SF	OH1
126	CORRIDOR	809 SF	LH
127	WATER/ SPRINKLER	83 SF	LH
128	LINEN STORAGE	133 SF	LH
129	LIVE-IN BUNK	133 SF	LH

Hazard Classification - Level 1

NO.	LOCATION NAME	AREA	OCCUPANCY HAZARD CLASSIFICATION SYMBOL
130	LIVE-IN BUNK	133 SF	LH
131	LIVE-IN BUNK	133 SF	LH
132	LIVE-IN BUNK	133 SF	LH
133	LIVE-IN BUNK	133 SF	LH
134	LIVE-IN BUNK	130 SF	LH
135	T & S	93 SF	LH
136	T & S	93 SF	LH
137	T & S	93 SF	LH
138	LIVE-IN BUNK	126 SF	LH
139	LIVE-IN BUNK	125 SF	LH
140	OPEN BUNK	488 SF	LH
141	T&S	61 SF	LH
142	TRANSITION	133 SF	OH2
143	DECON	182 SF	OH2
144	APPARATUS BAY	12388 SF	OH2
145	CORRIDOR	254 SF	LH
146	EMS DAYROOM	390 SF	OH1
147	T & S	94 SF	LH
148	EMS OFFICE II	122 SF	LH
149	T & S	83 SF	LH
150	EMS RECORDS	105 SF	LH
151	EMS SUPPLY STORAGE	99 SF	LH
152	EMS OFFICE I	177 SF	LH
153	SCBA	186 SF	OH1
154	GROUNDS STORAGE	172 SF	LH
155	TOOL ROOM	308 SF	LH
156	TRAINING TOWER	268 SF	OH1
Grand total: 57		27373 SF	

Automatic Sprinkler Design Criteria

Symbol	Occupancy Hazard Classification	Design Density (GPM/SF)	Design Area
R	Residential (Dwelling) Occupancy	0.05	400 SF
LH	Light Hazard Occupancy	0.10	1500 SF
OH1	Ordinary Hazard, Group 1 Occupancy	0.15	1500 SF
OH2	Ordinary Hazard, Group 2 Occupancy	0.20	1500 SF
EH1	Extra Hazard, Group 1 Occupancy	0.30	2500 SF
EH2	Extra Hazard, Group 2 Occupancy	0.40	2500 SF
S	Special Hazard Occupancy		



1 / F111 FIRST FLOOR FIRE PROTECTION PLAN
1/8" = 1'-0"

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FIRST FLOOR FIRE PROTECTION PLAN

SHEET NUMBER:

F111

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ELECTRICAL SYMBOL LEGEND

ELECTRICAL DEVICES & EQUIPMENT

SYMBOL	DESCRIPTION
	20A, 120V AC, NEMA 5-20R, DUPLEX RECEPTACLE, SINGLE GANG BOX, TILE RING (DEPTH AS REQUIRED), AND COVERPLATE.
	20A, 120V AC, NEMA 5-20R, DOUBLE DUPLEX RECEPTACLE, DOUBLE GANG BOX, TILE RING (DEPTH AS REQUIRED), AND COVERPLATE.
XX-XXR	SPECIAL PURPOSE ELECTRICAL RECEPTACLE. XX-XXR = NEMA CONFIGURATION, MH = 18" A.F.F. AS MEASURED TO CENTER OF DEVICE BOX U.O.N. (COORDINATE WITH MILLWORK).
S	RECESSED JUNCTION BOX. CONDUIT STUBBED UP TO EASILY ACCESSIBLE SPACE ABOVE CEILING.
CLNG	FLOOR/CEILING RECESSED JUNCTION BOX
	PULL BOX
XX-XXR WP	ELECTRIC CORD REEL, FED FROM GFCI BRANCH CIRCUIT BREMER, 20A, 250V AC RATED, NEMA 5-20R, YELLOW INDUSTRIAL REEL, UL TYPE 1, 35FT #12/3 SJO CORD, W/ YELLOW FEMALE WATERPROOF SINGLE RECEPTACLE. CORD REEL SHALL BE MODEL #HBL5351I22Y WITH RECEPTACLE END #HBL1553 AS MANUFACTURED BY HUBBELL. PROVIDE BALL STOP #HBL1053 AND PIVOT BASE #HBL5340PB AS MANUFACTURED BY HUBBELL. XX-XXR = SPECIAL RECEPTACLE NEMA CONFIGURATION, WP = WEATHERPROOF REEL, UL TYPE 4, WITH IN-USE WEATHERPROOF COVER.
WM	4" WIDE STAINLESS STEEL RACEWAY, 20A-120V DUPLEX RECEPTACLE @ EVERY 24" O.C. RACEWAY SHALL BE #S4000 AS MANUFACTURED BY WIREMOLD LEGRAND. PROVIDE RACEWAY WIRE DIVIDER FOR COMMUNICATIONS INSTALLATIONS WHERE SHOWN ON DRAWINGS.
MM	MULTIMEDIA STATION WITH (4) GANGS FOR (1) 5-20R QUAD RECEPTACLE, ONE GANG FOR (1) CONA "F" (1) HDMI AND ONE GANG FOR (2) RJ-45 ETHERNET CONNECTIONS, AND ONE SPARE BOX MOUNTING HEIGHT TO BOTTOM OF OUTLETS SHALL BE AS COORDINATED WITH ARCHITECTURAL DRAWINGS.
FB1	CAST-IRON ON-GRADE STYLE FLOORBOX WITH 10 GANGS, PROVIDE (2) HDMI OUTLETS, (4) RJ-45 ETHERNET OUTLETS, AND (2) 5-20R DUPLEX RECEPTACLES. FLIRNISH MODEL #EFR10S-OG AS MANUFACTURED BY WIREMOLD LEGRANDE. S = (1) DUPLEX RECEPTACLE SHALL BE SWITCHED.
FRPT1	FIRE-RATED POKE-THRU W/ (2) 20A, 120V AC DUPLEX RECEPTACLES. (1) 4-PORT DATA OUTLET & SURFACE COVER. FIRE RATED POKE-THRU SHALL BE MODEL # 84TC26K AS MANUFACTURED BY WIREMOLD LEGRAND.
M	SINGLE-POLE OR TWO-POLE (AS REQUIRED), 250V AC, 1 HP RATED, TOGGLE TYPE MANUAL MOTOR STARTED UNIT WITH MELTING ALLOY TYPE THERMAL OVERLOAD RELAY, APPROPRIATELY SIZED THERMAL UNITS. NEMA TYPE 1 OR 4 (AS REQUIRED) ENCLOSURE, AND HANDLE GUARD/LOCK-OFF. SQUARE D CLASS 2510 FG OR FW TYPES (AS REQUIRED) OR APPROVED EQUAL.
M3ØP	THREE-POLE, 250V AC, 1 OR 2 HP RATED (AS REQUIRED), TOGGLE TYPE MANUAL MOTOR STARTER UNIT WITH MELTING ALLOY TYPE THERMAL OVERLOAD RELAY, APPROPRIATELY SIZED THERMAL UNITS, NEMA TYPE 1 ENCLOSURE AND HANDLE GUARD/LOCK-OFF. SQUARE D CLASS 2510 K TYPE OR APPROVED EQUAL.
6A 8AF NEMA1	FUSIBLE SWITCH TYPE COMBINATION STARTER UNIT WITH DOOR MOUNTED H-O-A SWITCH AND RED "MOTOR RUNNING" LED TYPE PILOT LIGHT. PROVIDE AUXILIARY CONTACT.
6A NEMA4	NON-FUSIBLE DISCONNECT SWITCH
6A 8AF NEMA4	FUSIBLE DISCONNECT SWITCH
	POWER OR DISTRIBUTION PANEL. HIDDEN LINE REPRESENTS ELECTRICAL CLEARANCE SPACE.
	TRANSFORMER (SIZE AS DENOTED). HIDDEN LINE REPRESENTS ELECTRICAL CLEARANCE SPACE.
XX-1	MOTOR
	BUS DUCT WITH PLUG IN DISCONNECT (FUSED)

DATA, SECURITY, & FIRE ALARM

SYMBOL	DESCRIPTION
	TELEPHONE OUTLET, 4 PORT COVERPLATE, PORTS CABLE
	COMBINATION VOICE/DATA OUTLET, 4 PORT COVERPLATE, CAT-6A CABLE (# = NUMBER OF PORTS AND RUNS)
	WIRELESS ACCESS POINT WITH CAT-6A CABLE
	TELEVISION OUTLET WITH RG-6 COAX CABLE INSTALLED BACK TO IT ROOM WITH 10' SLACK.
ES	ELECTRIC STRIKE. (AS PROVIDED BY ELECTRICAL CONTRACTOR) JUNCTION BOX AT DOOR STRIKE LOCATION.
EH	ELECTRONIC DOOR HOLDER. (AS PROVIDED BY ELECTRICAL CONTRACTOR) JUNCTION BOX AT DOOR HOLDER LOCATION.
HDR	CARD ACCESS READER, CONSISTING OF 4" SQUARE JUNCTION BOX AT 48" A.F.F., 120VOAV LOW VOLTAGE TRANSFORMER.
	SINGLE BUTTON "DOOR RELEASE" DEVICE. E.C. SHALL FURNISH AND INSTALL J-BOX AND 3/4" CONDUIT STUBBED UP ABOVE CEILING AND WIRE INSTALLED FROM DEVICE BOX TO DOOR RELEASE CONTACT.
	SINGLE BUTTON "PANIC" DEVICE. E.C. SHALL FURNISH AND INSTALL J-BOX AND 3/4" CONDUIT STUBBED UP ABOVE CEILING AND WIRE INSTALLED FROM DEVICE BOX TO SECURITY SYSTEM HEAD-END EQUIPMENT LOCATION. SECURITY VENDOR TO FURNISH AND INSTALL DEVICES, DEVICE PLATES, TERMINATIONS AND PROGRAMMING.
	SECURITY KEYPAD. E.C. SHALL FURNISH AND INSTALL J-BOX AND 3/4" CONDUIT STUBBED UP ABOVE CEILING AND WIRE INSTALLED FROM DEVICE BOX TO I.T. ROOM WITH 10' SLACK COILED UP IN ROOM.
INT	INTERIOR CAMERA LOCATION. CAT6 CABLE
EXT	EXTERIOR WEATHERPROOF RATED CAMERA LOCATION. CAT6 CABLE
EPO	EMERGENCY POWER OFF BUTTON
SCP	SECURITY CONTROL PANEL
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM REMOTE ANNUNCIATOR
S	PHOTOVOLTAIC SYSTEM SMOKE DETECTOR. R = ELEVATOR RECALL
H	RATE OF RISE SYSTEM HEAT DETECTOR.
S	PHOTOELECTRIC SYSTEM DUCT SMOKE DETECTOR WITH REMOTE TEST STATION.
S	FIRE ALARM SYSTEM CARBON MONOXIDE DETECTOR.
S	FIRE ALARM SYSTEM COMBINATION SMOKE/CO DETECTOR.
	FIRE ALARM WALL MOUNTED STROBE LIGHT.
	FIRE ALARM HORN STROBE.
	FIRE SPEAKER STROBE.
F	FIRE ALARM BELL
F	FIRE ALARM PULLSTATION.
	SPRINKLER FLOW SWITCH
	SPRINKLER VALVE TAMPER SWITCH
RR	FIRE ALARM SHUT-DOWN RELAY
	FIRE ALARM EMERGENCY PHONE

LIGHTING DEVICES & CONTROLS

SYMBOL	DESCRIPTION
$_{S}$#	20A, 120-277V AC, SINGLE POLE TOGGLE SWITCH. '3' = THREE WAY TOGGLE SWITCH, '4' = FOUR WAY TOGGLE SWITCH
$_{D}$	24V DC, DIGITAL, TOGGLE, SINGLE BUTTON WALL SWITCH. SWITCH SHALL BE MODEL #LORKON-C1x AS MANUFACTURED BY LEVITON OR EQUAL.
$_{DD}$	24V DC, DIGITAL, DIMMING, DOUBLE BUTTON WALL SWITCH. SWITCH SHALL BE MODEL #LORKON-C2x AS MANUFACTURED BY LEVITON OR EQUAL.
$_{A}$	28V DC, ANALOG, TOGGLE, LOW VOLTAGE, SINGLE BUTTON WALL SWITCH. SWITCH SHALL BE MODEL #PLVSW-1xx AS MANUFACTURED BY LEVITON OR EQUAL.
$_{AD}$	28V DC, ANALOG, DIMMING, LOW VOLTAGE, FOUR BUTTON WALL SWITCH. SWITCH SHALL BE MODEL #PLVSW-4x AS MANUFACTURED BY LEVITON OR EQUAL.
$_{OC1}$	20A, 120-277V AC, SINGLE BUTTON WALL MOUNT, PASSIVE INFRARED SINGLE RELAY ON/OFF OCCUPANCY SENSOR AS MANUFACTURED BY LEVITON MODEL #OSSD-IDx OR EQUAL.
$_{OC2}$	20A, 120-277V AC, TWO BUTTON WALL MOUNT, DUAL TECHNOLOGY (PASSIVE INFRARED AND ULTRASONIC), DUAL RELAY OCCUPANCY SENSOR AS MANUFACTURED BY LEVITON MODEL #OSSD-IDx OR EQUAL.
$_{OC3}$	20A, 120-277V AC, SINGLE BUTTON 0-10V DIMMING WALL MOUNT, PASSIVE INFRARED, SINGLE RELAY OCCUPANCY SENSOR AS MANUFACTURED BY LEVITON MODEL #OD0-IDN OR EQUAL.
$_{D10}$	20A, 120-277VAC, ELECTRO-MECHANICAL, 0-10V DIMMING SWITCH AS MANUFACTURED BY LEVITON MODEL #IP710-0OZ.
$_{CC}$	20A, 120-277VAC, RGBW LED LIGHTING CONTROLLER SWITCH. COLORDIAL PRO AS MANUFACTURED BY COLOR KINETICS OR EQUAL. E.C. SHALL FURNISH AND INSTALL ALL WIRING TO CONTROLLER SWITCH FROM CONTROLLER IN WATCH OFFICE.
OC	2000 SQ. FT. COVERAGE SMART CEILING MOUNTED OCCUPANCY SENSOR, 120-277V AC, DUAL TECHNOLOGY (ULTRASONIC AND PASSIVE INFRARED). SENSOR SHALL BE MODEL #ACSD-OMW AS MANUFACTURED BY LEVITON OR EQUAL.
OC1	1500 SQ. FT. COVERAGE CEILING MOUNTED OCCUPANCY SENSOR AND PHOTOCELL, 24V DC, DUAL TECHNOLOGY (MICROWAVE AND PASSIVE INFRARED). SENSOR SHALL BE MODEL #OSPS-MOW AS MANUFACTURED BY LEVITON OR EQUAL. OCCUPANCY SENSOR SHALL BE FED FROM DIGITAL ROOM CONTROLLER.
OC2	2000 SQ. FT. COVERAGE CEILING MOUNTED OCCUPANCY SENSOR, 24V DC, DUAL TECHNOLOGY (ULTRASONIC AND PASSIVE INFRARED). SENSOR SHALL BE MODEL #OSCD-MAW AS MANUFACTURED BY LEVITON OR EQUAL. OCCUPANCY SENSOR SHALL BE FED FROM DIGITAL ROOM CONTROLLER. OCCUPANCY SENSOR SHALL BE PROVIDED WITH A 2-PORT ANALOG INTERFACE, MODEL #ORDD-CB2 AS MANUFACTURED BY LEVITON.
	1200 SQ. FT. COVERAGE WALL MOUNTED OCCUPANCY SENSOR, 24V DC, DUAL TECHNOLOGY (ULTRASONIC AND PASSIVE INFRARED). SENSOR SHALL BE MODEL #DSHV-MAW AS MANUFACTURED BY LEVITON OR EQUAL. OCCUPANCY SENSOR SHALL BE FED FROM DIGITAL ROOM CONTROLLER. OCCUPANCY SENSOR SHALL BE PROVIDED WITH A 2-PORT ANALOG INTERFACE, MODEL NUMBER #DRDD-CB2 AS MANUFACTURED BY LEVITON.
RCD1	20A, 120V-277V AC, 60HZ, ON/OFF/0-10V DIMMING DIGITAL ROOM CONTROLLER. SINGLE RELAY, UL LISTED, AS MANUFACTURED BY LEVITON MODEL #DRCD1-EDD OR EQUAL.
RCSP	20A, 120V-277V AC, 60HZ, ON/OFF/0-10V DIGITAL ROOM CONTROLLER SMART PACK, SINGLE RELAY, UL LISTED, MODEL #DRDT-ED0 AS MANUFACTURED BY LEVITON OR EQUAL.

COMMUNICATION DEVICES

SYMBOL	DESCRIPTION
AS	ALERTING SYSTEM CEILING MOUNTED SPEAKER, 70V 2.5KW
BS	ALERTING SYSTEM CEILING MOUNTED BATHROOM SPEAKER, 1 W
WS	ALERTING SYSTEM WALL MOUNTED SPEAKER, 2W
SS	ALERTING SYSTEM CEILING MOUNTED OMNIDIRECTIONAL SPEAKER, 7.5W
HS	ALERTING SYSTEM WALL MOUNTED EXTERIOR SPEAKER, 7.5W
LED	ALERTING SYSTEM CEILING MOUNTED LED LIGHT/SPEAKER, 2.5W
R	ALERTING SYSTEM CEILING MOUNTED RED LED CLUSTER LIGHT
RB	ALERTING SYSTEM CEILING MOUNTED COLORED LED STROBE LIGHT
MO	ALERTING SYSTEM CEILING MULTI-COLOR LIGHT
RB	ALERTING SYSTEM ABOVE CEILING RB RELAY
APS	ALERTING SYSTEM ALERTING CONTROLLER
I	ALERTING SYSTEM CEILING MOUNTED TROUBLE STROBE
I	ALERTING SYSTEM WALL MOUNTED EMERGENCY ALERT
AD	ALERTING SYSTEM WALL OR CEILING MOUNTED COMMERCIAL ALERTING DISPLAY
D	LED DISPLAY WALL OR CEILING MOUNTED
$_{SLVD}$	WALL MOUNTED VOLUME CONTROL, 10W, 48" MH
$_{SVC}$	WALL MOUNTED VOLUME CONTROL, 36W, 48" MH
$_{SES}$	WALL MOUNTED 4 BUTTON ALERT SELECTOR, 48" MH
$_{SES}$	WALL MOUNTED 3 BUTTON ALERT SELECTOR, 48" MH
$_{SAC}$	WALL MOUNTED 2 BUTTON MANUAL ALERT, 48" MH
$_{SAC}$	WALL MOUNTED MEDICAL EMERGENCY BUTTON, 48" MH
$_{SAR}$	WALL MOUNTED RESET BUTTON, 48" MH
$_{SSR}$	WALL MOUNTED STOVE RESET BUTTON, 48" MH
$_{SSD}$	WALL MOUNTED SPEAKER/AUDIO DISCONNECT
$_{SSD}$	WALL MOUNTED STOVE DISCONNECT
DS	FLUSH OR SURFACE MOUNTED APS DOORBELL
HD	STAINLESS STEEL WEATHER RESISTANT DOOR STATION LOCATION WITH VIDEO CAMERA.
MS	WALL MOUNTED VIDEO DOORBELL MASTER STATION LOCATION.
MS	WALL MOUNTED SPEAKER

GENERAL

SYMBOL	DESCRIPTION
#	KEYED NOTE (SEE KEYNOTE ON PLAN)
XX-1	MECHANICAL EQUIPMENT TAG
ROOM NAME XX	ROOM TAG
X.4	TYPICAL BRANCH CIRCUITING HOME RUN SYMBOL. GENERALLY 15A AND 20A BRANCH CIRCUITS CONSISTS OF (2) #12 AWG CU. AND (1) #12 AWG CU. GND. IN 3/4" CONDUIT, UNLESS OTHERWISE NOTED. "X" IDENTIFIES PANELBOARD DESIGNATION, "#" IDENTIFIES PANELBOARD CIRCUIT NUMBER.
	LIGHT AND SOLID SYMBOL INDICATES EXISTING TO REMAIN
	DARK AND SOLID SYMBOL INDICATES NEW WORK
	DARK AND DASHED SYMBOL INDICATES DEMOLISHED.

* NOTE *
ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET.THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

SYMBOL LEGEND NOTES

POWER DEVICES

WALL MOUNTED WIRING DEVICE NOTES:
- MH = 18" A.F.F. AS MEASURED TO CENTER OF DEVICE BOX U.O.N. (COORDINATE WITH MILLWORK).
- GFI = GFCI TYPE
- U = USB-A & USB-C CHARGING PORT TYPE
- WP = IN USE WEATHERPROOF COVER

ELECTRICAL EQUIPMENT NOTES:
- "NEMA 3" IDENTIFIES NEMA ENCLOSURE TYPE. "#A" IDENTIFIES DISCONNECT SWITCH AMPACITY RATING. "#AF", IF PRESENT, IDENTIFIES APPROXIMATE FUSE RATING.
- UNLESS OTHERWISE NOTED, ALL FUSIBLE DISCONNECT SWITCHES SHALL BE COMPLETE WITH APPROPRIATELY SIZED DE. TD, CL, CLASS RK5 FUSES.
- ALL COMBINATION MOTOR STARTERS SHOWN ON OVERHEAD DOOR MOTORS SHALL BE REVERSING TYPE.
- ALL "MM" DEVICES SHOWN INSTALLED IN DRYWALL SHALL BE INSTALLED IN A 4 GANG WALLBOX. PROVIDE 11"x7-D 7/8" DEEP WALL BOX, TILE RING (DEPTH AS REQUIRED). STUB-UP (1) 1-1/4" CONDUIT FROM WALL BOX UP TO DATA OUTLET MOUNTED ABOVE BOX AT 72" A.F.F. MOUNTING HEIGHT TO BOTTOM OF BOX SHALL BE AS COORDINATED WITH ARCHITECTURAL DRAWINGS. WALLBOX MODEL SHALL BE #EF584 AS MANUFACTURED BY WIREMOLD LEGRANCE.

TELE/DATA DEVICES

WALL MOUNTED DEVICE NOTES:
- S = SURFACE MOUNTED WITH RACEWAY.
- MH = 18" A.F.F. AS MEASURED TO CENTER OF DEVICE BOX U.O.N. (COORDINATE WITH MILLWORK).

TELE/DATA DEVICE NOTES:
- CABLING AS LISTED. TERMINATED ON DEVICE AND INSTALLED BACK TO IT ROOM.
- ALL DATA DEVICES SHALL CONSIST OF 4" SQUARE BOX, TILE RING (DEPTH AS REQUIRED), 1-1/4" CONDUIT STUBBED UP INTO THE NEAREST EASILY ACCESSIBLE CEILING SPACE.
- UNLESS OTHERWISE NOTED, ALL ETHERNET CABLING SHALL BE CAT-6A.
- E.C. SHALL FURNISH AND INSTALL ALL PATHWAYS, BACK BOXES, CONDUIT, CABLE TRAY, AND PULLSTRINGS.
- LOW-VOLTAGE VENDOR SHALL FURNISH AND INSTALL ALL LOW-VOLTAGE CABLING, JACKS, PATCH PANELS, AND WALLPLATES.
- OWNER SHALL FURNISH SWITCHES AND PATCH CABLES TO E.C. FOR INSTALLATION.

SECURITY DEVICES

SECURITY DEVICE NOTES:
- CABLING AS LISTED, TERMINATED ON DEVICE AND INSTALLED BACK TO SECURITY HEAD END EQUIPMENT.
- E.C. SHALL FURNISH AND INSTALL 1-1/4" CONDUIT STUBBED UP INTO EASILY ACCESSIBLE CEILING SPACE FROM JUNCTION BOX, TRANSFORMERS, TILE RINGS, JUNCTION BOXES, CONDUIT, AND LINE VOLTAGE WIRE.
- SECURITY VENDOR TO FURNISH AND INSTALL DEVICES, DEVICE PLATES, TERMINATIONS, PERFORM ALL PROGRAMMING, AND LOW VOLTAGE CABLING..

SECURITY CAMERA NOTES:
- CABLING AS LISTED, TERMINATED ON DEVICE AND INSTALLED BACK TO IT ROOM.
- E.C. SHALL PROVIDE 4" SQUARE DEVICE BOX, TILE RING (DEPTH AS REQUIRED), AND 1" CONDUIT STUBBED UP TO EASILY ACCESSIBLE CEILING SPACE WHEN WALL MOUNTED.
- ALL HEAD-END EQUIPMENT, DEVICES, DEVICE PLATES, TERMINATIONS AND PROGRAMING TO BE FURNISHED AND INSTALLED BY SECURITY VENDOR.
- ALL MOUNTING SHALL BE COORDINATED WITH SECURITY VENDOR AND ARCHITECTURAL DRAWINGS.

FIRE ALARM DEVICES

FIRE ALARM DEVICE NOTES:
- E.C. SHALL PROVIDE 4" SQUARE DEVICE BOX, TILE RING (DEPTH AS REQUIRED).
- E.C. SHALL FURNISH AND INSTALL ALL WIRING, CONDUITS, RELAYS, AND FIRE ALARM PROGRAMMING FOR SMOKE DETECTOR INSTALLATION.
- LF = LOW FREQUENCY

LIGHTING DEVICES

LIGHTING CONTROL DEVICE NOTES:
- WALL-MOUNTED LIGHTING SWITCHES, MH = 48" A.F.F. AS MEASURED TO BOTTOM OF DEVICE BOX U.O.N.
- CABLING BETWEEN DIGITAL ROOM CONTROLLER AND DIGITAL WALL SWITCHES SHALL BE CAT-6A CABLE WITH RJ45 CONNECTORS.
- CABLING BETWEEN OCCUPANCY SENSOR/CONTROLLER AND ANALOG WALL SWITCHES SHALL BE LOW VOLTAGE CLASS 2 WIRING.
- E.C. TO INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- ALL COLORS AS SELECTED BY ARCHITECT.
- E.C. SHALL MOUNT DIGITAL ROOM CONTROLLER SECURELY ABOVE DROP CEILING IN ACCESSIBLE SPACE.
- ROOM CONTROLLER'S CONTROLLING LIGHTING FED FROM EMERGENCY CIRCUITS SHALL BE PROVIDED WITH AN EMERGENCY BYPASS CONTROLLER AS MANUFACTURED BY LEVITON MODEL #DR20T-ED0.
- GREENMAX DIGITAL CONFIGURATION APP SHALL BE USED TO PROGRAM THE DIGITAL ROOM CONTROLLERS.

RADIO SYSTEM NOTES

RADIO SYSTEM NOTES:
- E.C. SHALL FURNISH AND INSTALL ALL CONDUIT/CABLE TRAY/PATHWAYS FROM DEVICES TO THE IT ROOM, INCLUDING ALL EXTERIOR WALL-MOUNTED CABLE TRAY/CONDUIT PATHWAYS, CABLE ENTRY PORT PANELS, AND ALL SYSTEM GROUNDING.
- LOW-VOLTAGE VENDOR SHALL FURNISH AND INSTALL ALL ASSOCIATED LOW VOLTAGE WIRING.
- RADIO SYSTEM VENDOR SHALL FURNISH AND INSTALL ALL ASSOCIATED DEVICES AND ANTENNA WIRING AND CABLING.

COMMUNICATION DEVICES

WALL MOUNTED BUTTON NOTES:
- S = SURFACE MOUNTED WITH RACEWAY.
- MH = 48" A.F.F. AS MEASURED TO CENTER OF DEVICE BOX U.O.N. (COORDINATE WITH MILLWORK).

ALERTING SYSTEM DEVICE NOTES:
- E.C. SHALL FURNISH AND INSTALL J-BOXES AND 3/4" CONDUIT INSTALLED BACK TO IT ROOM WITH PULLSTRINGS.
- E.C. SHALL INSTALL ALL DEVICES, DEVICE PLATES, CONDUITS, PATHWAYS, PULLSTRINGS AND ALL UNLESS OTHERWISE NOTED.
- APS VENDOR SHALL FURNISH ALL DEVICES, INCLUDING MONITORS, AND COMPLETE ALL HEAD-END SYSTEM TIE-INS AND SYSTEM TESTING.
- LOW VOLTAGE VENDOR SHALL FURNISH AND INSTALL ALL ASSOCIATED LOW VOLTAGE WIRING.
- REFER TO ARCHITECTURAL DRAWINGS SET FOR SYSTEM SPECIFICATIONS.

INTERCOM SYSTEM NOTES:
- E.C. SHALL FURNISH AND INSTALL ALL HEAD-END EQUIPMENT, DEVICE, PROGRAMMING AND TERMINATIONS UNLESS OTHERWISE NOTED.
- E.C. SHALL FURNISH AND INSTALL RECESSED 4" SQ. JUNCTION BOX, 3/4" CONDUIT STUBBED UP TO ACCESSIBLE SPACE ABOVE CEILING, AND CABLING RUN TO HEAD-END EQUIPMENT.

GENERAL DEVICE NOTES

DEVICE KEY:
- XX" = MOUNTING HEIGHT A.F.F.
- S = SURFACE MOUNTED WITH WIREMOLD RACEWAY
- T = TAMPER PROOF
- WP = WEATHERPROOF
- ISO = GASKETED STAINLESS STEEL COVERPLATE

ELECTRICAL ABBREVIATIONS LIST

1P	1 POLE (2P, 3P, 4P, ETC.)	DCP	DOMESTIC WATER CIRCULATING PUMP	HT	HEIGHT	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
A	AMPERE	DEPT	DEPARTMENT	HTG	HEATING	NFDS	NON-FUSED SAFETY DISCONNECT SWITCH
AC	ABOVE COUNTER OR AIR CONDITIONER	DET	DETAIL	HTR	HEATER	NIC	NOT IN CONTRACT
ACLG	ABOVE CEILING	DIA	DIAMETER	HV	HIGH VOLTAGE	NL	NIGHT LIGHT
ADO	AUTOMATIC DOOR OPENER	DISC	DISCONNECT	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	NO	NORMALLY OPEN
AF	AMP FRAME	DIST	DISTRIBUTION	HWP	HYDRONIC WATER PUMP	NPF	NORMAL POWER FACTOR
AFF	ABOVE FINISHED FLOOR	DN	DOWN	IC	INTERRUPTING CAPACITY	NTS	NOT TO SCALE
AFG	ABOVE FINISHED GRADE	DPR	DAMPER	IG	ISOLATED GROUND	OH	OVERHEAD
AFI	ARC FAULT CIRCUIT INTERRUPTER	DS	SAFETY DISCONNECT SWITCH	IMC	INTERMEDIATE METAL CONDUIT	OL	OVERLOADS
AHU	AIR HANDLING UNIT	DT	DOUBLE THROW	INCAND	INCANDESCENT	OPD	PULL BOX OR PUSHBUTTON
AL	ALUMINUM	DWG	DRAWING	IR	INFRARED	PB	PNEUMATIC ELECTRIC
ALT	ALTERNATE	EC	ELECTRICAL CONTRACTOR	IW	INTERLOCK WITH	PE	PEDESTAL
AMP	AMPERE	ELEC	ELECTRIC, ELECTRICAL	J-BOX	JUNCTION BOX	PED	POWER FACTOR
AMPL	AMPLIFIER	ELEV	ELEVATOR	KV	KILOVOLT	PF	POST INDICATING VALVE
ANNUN	ANNUNCIATOR	EM	EMERGENCY	KVA	KILOVOLT-AMPERE	PIV	PANEL
APPROX	APPROXIMATELY	EMS	ENERGY MANAGEMENT SYSTEM	KVAR	KILOVOLT-AMPERE REACTIVE	PNL	POWER POLE
AQ-STAT	AQUASTAT	EMT	ELECTRICAL METALLIC TUBING	KW	KILOWATT	PP	PIR
ARCH	ARCHITECT, ARCHITECTURAL	EP	ELECTRIC PNEUMATIC	KWH	KILOWATT HOUR	PR	PRIMARY
AS	AMP SWITCH	E.C.P.	ELECTRICAL PRIME CONTRACTOR	LOC	LOCATE OR LOCATION	PRI	PROJECTION
AT	AMP TRIP	EQUIP	EQUIPMENT	LT	LIGHT	PROJ	POWER ROOF VENTILATOR
ATS	AUTOMATIC TRANSFER SWITCH	EWC	ELECTRIC WATER COOLER	LTG	LIGHTING	PRV	POTENTIAL TRANSFORMER
AUTO	AUTOMATIC	EXIST	EXISTING	LTNG	LIGHTNING	PT	POLYVINYL CHLORIDE (CONDUIT)
AUX	AUXILIARY	EXH	EXHAUST	LV	LOW VOLTAGE	PVC	SUPPLY PANEL
AV	AUDIO VISUAL	EXP	EXPLOSION PROOF	MAX	MAXIMUM	PWR	QUANTITY
AWG	AMERICAN WIRE GAUGE	FA	FIRE ALARM	MAGS	MAGNETIC STARTER	QUAN	RECEPTACLE
BATT	BATTERY	FABP	FIRE ALARM BOOSTER POWER SUPPLY PANEL	MC	MOMENTARY CONTACT	RCPT	RECEPTACLE
BD	BOARD	FACP	FIRE ALARM CONTROL PANEL	MC	MECHANICAL CONTRACTOR	REQD	REQUIRED
BLDG	BUILDING	FCU	FAN COIL UNIT	MCB	MAIN CIRCUIT BREAKER	RM	ROOM
BMS	BUILDING MANAGEMENT SYSTEM	FIXT	FIXTURE	MCC	MOTOR CONTROL CENTER	RMC	RIGID METAL STEEL CONDUIT
C	CONDUIT	FLR	FLOOR	MDC	MAIN DISTRIBUTION CENTER	RNC	RIGID NON-METALLIC CONDUIT
CAB	CABINET	FLUOR	FLUORESCENT	MDP	MAIN DISTRIBUTION PANEL	ROC	ROOF CONDUIT
CAT	CATALOG	FU	FUSE	MFR	MANUFACTURER	RTU	ROOFTOP UNIT
CATV	CABLE TELEVISION	FUDS	FUSED SAFETY DISCONNECT SWITCH	MFS	MANUFACTURER'S DISCONNECT SWITCH	SC	SURFACE CONDUIT
CB	CIRCUIT BREAKER	GA	GAUGE	MH	MANHOLE	SEC	SECONDARY
CCTV	CLOSED CIRCUIT TELEVISION	GAL	GALLON	MIC	MICROPHONE	SHT	SHEET
CKT	CIRCUIT	GALV	GALVANIZED	MM	MILLIMETER	SIM	SIMILAR
CLG	CEILING	GC	GENERAL CONTRACTOR	MISC	MISCELLANEOUS	SN	SOLID NEUTRAL
COMB	COMBINATION	GEN	GENERATOR	MLO	MAIN LUGS ONLY	SPEC	SPECIFICATION
COMPR	COMPRESSOR	GFI	GROUND FAULT CIRCUIT INTERRUPTER	MMS	MANUAL MOTOR STARTER	SPKR	SPEAKER
CONN	CONNECTION	GFP	GROUND FAULT PROTECTOR	MOA	MULTIOUTLET ASSEMBLY	SP	SPARE
CONST	CONSTRUCTION	GND	GROUND	MSP	MOTOR STARTER PANELBOARD	SR	SURFACE RACEWAY
CONT	CONTINUATION OR CONTINUOUS	GRS	GALVANIZED RIGID STEEL (CONDUIT)	MSBD	MAIN SWITCHBOARD	SS	STAINLESS STEEL
CONTR	CONTRACTOR	H	HORSEPOWER	MT	MOUNT	SSW	SELECTOR SWITCH
CONV	CONVECTOR	HOA	HANDS-OFF-AUTOMATIC SWITCH	MT.C	EMPTY CONDUIT	SS	STOP/START PUSHBUTTONS
CP	CIRCULATING PUMP	HORIZ	HORIZONTAL	MTS	MANUAL TRANSFER SWITCH	STA	STATION
CRT	CATHODE-RAY TUBE	HP	HORSEPOWER	MTR	MOTOR, MOTORIZED	STD	STANDARD
CT	CURRENT TRANSFORMER	HPF	HIGH POWER FACTOR	N.C.	NORMALLY CLOSED	SURF	SURFACE MOUNTED
CTR	CENTER			NEC	NATIONAL ELECTRICAL CODE	SW	SWITCH
CU	COPPER					SWBD	SWITCHBOARD
						SYM	SYMMETRICAL
						SYS	SYSTEM
						TEL	TELEPHONE
						TERM	TERMINAL
						TL	TWIST LOCK
						TR	TAMPER RESISTANT
						T-STAT	THERMOSTAT
						TTC	TELEPHONE TERMINAL CABINET
						TV	TELEVISION
						TVTC	TELEVISION TERMINAL CABINET
						TYP	TYPICAL
						UC	UNDER COUNTER
						UE	UNDERGROUND ELECTRICAL
						UG	UNDERGROUND
						UH	UNIT HEATER
						UT	UNDERGROUND TELEPHONE
						UTIL	UTILITY
						UV	UNIT VENTILATOR OR ULTRAVIOLET
						V	VOLT
						VA	VOLT-AMPERES
						VDT	VIDEO DISPLAY TERMINAL
						VERT	VERTICAL
						VFD	VARIABLE FREQUENCY DRIVE
						VOL	VOLUME
						W	WATT
						W	WITH
						WG	WIRE GUARD
						WH	WATER HEATER
						W/O	WITHOUT
						WP	WEATHERPROOF
						XFMR	TRANSFORMER
						XFR	TRANSFER
						@	AT
						'	FEET
						"	INCHES
						#	NUMBER
						Ø	PHASE
						C	CENTER LINE
						P	PLATE

GENERAL ELECTRICAL NOTES

1. IF THERE IS A DISCREPANCY BETWEEN THE DRAWINGS, SCHEDULES, AND/OR SPECIFICATIONS, THE CONTRACTOR IS REQUIRED TO PROVIDE THE MORE STRINGENT OR HIGHER-COST OPTION UNLESS THEY SEEK CLARIFICATION VIA AN RFI BEFORE PROCEEDING.
2. ALL CONDUCTORS OPERATING AT 50 VOLTS OR GREATER SHALL BE IN RACEWAY. ALL RACEWAY WITHIN THE STRUCTURE ABOVE THE FLOOR SLAB SHALL BE METAL. RACEWAY BELOW THE FLOOR SLAB AND UNDERGROUND RACEWAY OUTSIDE THE STRUCTURE SHALL BE PVC.
3. ALL LOW VOLTAGE CABLES OR CONDUCTORS OPERATING AT LESS THAN 50 VOLTS SHALL BE IN METAL RACEWAY WHERE INSTALLED WITHIN WALLS OR INACCESSIBLE SPACES. LOW VOLTAGE CABLES MAY BE RUN IN CABLE TRAY, WHERE NOTED. LOW VOLTA

KEYNOTES

1. E.C. SHALL FURNISH AND INSTALL (1) UTILITY POLE AND ALL U-GUARD AS REQUIRED FOR CONDUIT RUNS. E.C. SHALL COORDINATE EXACT LOCATION OF UTILITY POLE IN FIELD WITH EXISTING CONDITIONS AND UTILITY PRIOR TO COMMENCEMENT OF NEW WORK.
2. E.C. SHALL COORDINATE EXACT LOCATION OF TELE/DATA PEDESTAL IN FIELD WITH EXISTING CONDITIONS AND UTILITY PRIOR TO COMMENCEMENT OF NEW WORK.
3. E.C. SHALL COORDINATE EXACT LOCATION OF QUAZITE BOX AND LIGHT FIXTURES WITH ARCHITECTURAL DRAWINGS PRIOR TO COMMENCEMENT OF NEW WORK.
4. E.C. SHALL COORDINATE EXACT LOCATION OF EXTERNAL GENERATOR FUEL TANK IN FIELD WITH ARCHITECTURAL DRAWINGS AND OWNER'S APPROVAL PRIOR TO COMMENCEMENT OF NEW WORK.
5. E.C. SHALL COORDINATE EXACT LOCATION OF QUAZITE BOX FOR EMERGENCY TRAFFIC WARNING DEVICE WITH ARCHITECTURAL DRAWINGS PRIOR TO COMMENCEMENT OF NEW WORK.
6. OWNER SHALL FURNISH AND INSTALL SIGNAGE OUTSIDE OF THE ELECTRICAL CONTRACT. E.C. SHALL FURNISH AND INSTALL (1) 120V 30A BRANCH CIRCUIT FOR SIGNAGE WITH 1'-0" EXTRA CABLE EXTENDED PAST THE BOX, COILED UP, CAPPED AND TAPED OFF FOR USE BY OWNER'S SIGNAGE CONTRACTOR. E.C. SHALL COORDINATE ALL LOCATIONS OF BOXES IN FIELD WITH OWNER/OWNER'S SIGNAGE CONTRACTOR PRIOR TO LOCATING JUNCTION BOXES FOR THEIR USE.
7. E.C. SHALL COORDINATE EXACT LOCATION OF WATER METER VAULT WITH CIVIL DRAWINGS AND UTILITY COMPANY PRIOR TO COMMENCEMENT OF NEW WORK.

KEYNOTES

8. E.C. SHALL FURNISH AND INSTALL (1) OUTDOOR-RATED QUAD RECEPTACLE WITH WEATHERPROOF COVER PER GRILL FOR SHUTOFF. E.C. SHALL RUN UG CONDUIT WITH WIRING TO BOTH LOCATIONS OF GRILLS FROM ON/OFF SWITCH. E.C. SHALL COORDINATE ALL LOCATIONS IN FIELD WITH MECHANICAL CONTRACTOR AND OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF NEW WORK. E.C. SHALL FURNISH AND INSTALL ALL ACCESSORIES REQUIRED TO MAKE EXTERIOR GRILL SHUTOFF SYSTEM 100% OPERATIONAL AND TO THE SATISFACTION OF THE OWNER.
9. E.C. SHALL FURNISH AND INSTALL BUILDING GROUNDING RING IN COMPLIANCE WITH R56 GROUNDING STANDARDS. GROUNDING RING SHALL BE A MINIMUM OF #2 AWG CU. FOR ALL INTERSYSTEM/RING CONNECTIONS. GROUNDING RING SHALL BE A GROUNDING RING SHALL MAINTAIN A MINIMUM DISTANCE OF 2'-0" FROM DRIP LINE OF ROOF. GROUNDING RING SHALL BE BURIED A MINIMUM OF 2'-6" BELOW FINISHED GRADE OR BELOW LOCAL FROST LINE. E.C. SHALL FURNISH AND INSTALL (6) TEST WELLS ALONG GROUNDING RING PATH; EXACT LOCATIONS SHALL BE COORDINATED IN FIELD PRIOR TO COMMENCEMENT OF NEW WORK. ALL BUILDING GROUNDING INTERCONNECTION LOCATIONS SHALL BE COORDINATED IN FIELD PRIOR TO COMMENCEMENT OF NEW WORK. E.C. SHALL COORDINATE ALL WORK IN FIELD WITH ARCHITECTURAL DRAWINGS, CIVIL DRAWINGS, AND EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF NEW WORK. REFER TO GROUNDING DETAILS ON E601 AND E605 FOR MORE INFORMATION.
10. E.C. SHALL FURNISH AND INSTALL A FULLY CODE-COMPLIANT LIGHTNING PROTECTION SYSTEM CONSISTING OF AIR TERMINALS, LIGHTNING PROTECTION RATED CONDUCTORS, EQUIPOTENTIAL BONDING CONNECTIONS, DOWN CONDUCTORS, AND A GROUNDING SYSTEM. THE SYSTEM SHALL INCLUDE AIR TERMINALS ARRANGED AROUND THE ROOF PARAMETER, ALONG THE ROOF HVAC WALLS, ON MECHANICAL EQUIPMENT AS REQUIRED, AND ALL OTHER LOCATIONS DETERMINED WHILE USING THE ROLLING BALL METHOD. THE SYSTEM SHALL BE FULLY DESIGNED AND INSTALLED BY A LICENSED, CERTIFIED, AND INSURED LIGHTNING PROTECTION SPECIALIST COMPANY.
11. E.C. SHALL FURNISH AND INSTALL A 1-5/8" UNISTRUT FRAME FOR EXTERIOR RATED CORD REEL AND RECEPTACLES. E.C. SHALL COORDINATE EXACT LOCATION AND SIZE OF UNISTRUT FRAME IN FIELD PRIOR TO COMMENCEMENT OF NEW WORK.
12. E.C. SHALL BE RESPONSIBLE FOR COORDINATION AND CONFIGURATION FOR ALL CONCRETE-ENCASED CONDUITS IN FIELD WITH TYPICAL CONCRETE ENCASEMENT DETAIL "2" ON THIS DRAWING.

GENERAL SITE NOTES

A. ALL ITEMS SHOWN DARK AND SOLID ARE NEW WORK. ALL ITEMS SHOWN LIGHT AND SOLID ARE EXISTING TO REMAIN.

B. ALL ELECTRIC SERVICE WORK SHALL BE COORDINATED IN FIELD WITH ELECTRIC UTILITY COMPANY.

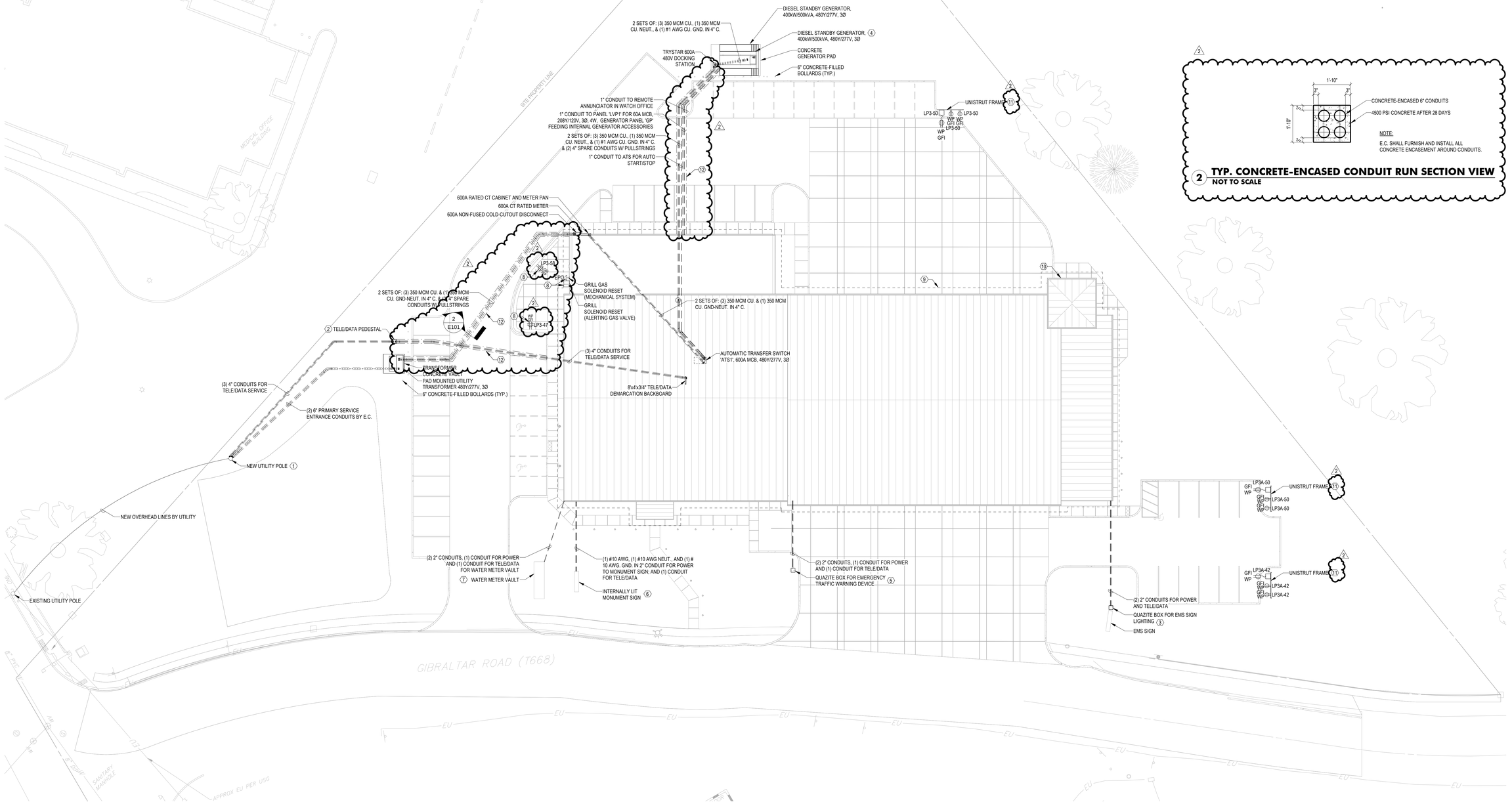
C. ALL TRENCHING SHOWN ON PLANS IS DIAGRAMMATICAL. E.C. SHALL COORDINATE ALL TRENCHING IN FIELD.

D. E.C. SHALL UTILIZE THE SERVIES OF SOFT-DIG OR EQUIVALENT TO SCAN UNDERGROUND FOR EXISTING UTILITIES BEFORE TRENCHING COMMENCES.

E. ALL SITE PRIMARY AND SECONDARY SERVICE CONDUITS SHALL BE INSTALLED AT A MINIMUM OF 4'-0" B.F.G. AS MEASURED TO TOP OF CONDUIT. ALL SITE BRANCH LIGHTING AND SITE POWER CIRCUITS SHALL BE FURNISHED AND INSTALLED AT A MINIMUM OF 3'-0" B.F.G. AS MEASURED TO TOP OF CONDUITS. ALL SITE LOW-VOLTAGE CONDUITS SHALL BE INSTALLED AT A MINIMUM OF 18" B.F.G. AS MEASURED TO TOP OF CONDUIT. E.C. SHALL UTILIZE RED METALLIC MARKER TAPE AT A MAXIMUM OF 12" B.F.G. CENTERED OVERTOP OF CONDUITS IN ALL TRENCHES. E.C. SHALL COORDINATE ALL WORK IN FIELD.

F. ALL POLE-MOUNTED LIGHTING FIXTURES SHALL BE FED FROM UNDERGROUND U.O.N. E.C. SHALL COORDINATE ALL LOCATIONS IN FIELD.

G. E.C. SHALL FURNISH AND INSTALL ALL PULLBOXES AND MANHOLES AS REQUIRED IN FIELD. E.C. SHALL COORDINATE ALL QUANTITIES AND LOCATIONS IN FIELD WITH EXISTING CONDITIONS AND EXACT CONDUIT ROUTING.



1 ELECTRICAL SITE POWER PLAN
1" = 20'-0"

2 TYP. CONCRETE-ENCASED CONDUIT RUN SECTION VIEW
NOT TO SCALE

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EXETER TOWNSHIP
EMERGENCY SERVICES FACILITY
70 GIBRALTAR ROAD
READING PA 19606

PROJECT NUMBER: 25-049

SUBMISSION:
BID SET

ORIGINAL ISSUE DATE:
10/01/2026

SHEET REVISION SCHEDULE:

No.	DATE
2	10/22/26

LAST PROJECT REVISION: No 2 | 10/22/26

ELECTRICAL SITE POWER PLAN

SHEET NUMBER:

E101

10/23/2026 11:15:33 AM

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