

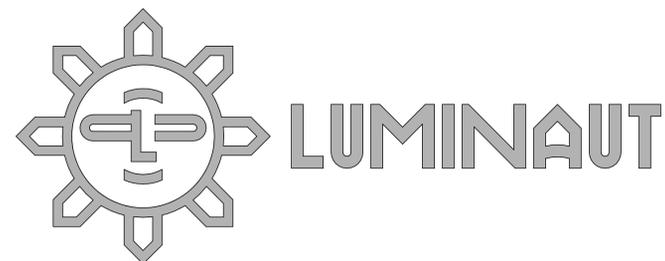
**PARK RESTROOM BUILDING**

**HANOVER TOWNSHIP  
PARK RESTROOM**

**2592 OLD OXFORD RD  
HAMILTON, OH 45013**



MATTHEW A. ERDMAN  
LICENSE 1817562  
EXP: 07/01/2024



**PROJECT #23020  
HANOVER TOWNSHIP PARK RESTROOM**

REVISION #2 - 03/29/2024

REVISION #1 - 11/03/2023  
BID/PERMIT SET - 09/20/2023

## Abbreviations & Definitions

WHERE ADDITIONAL ABBREVIATIONS OR WORD DEFINITIONS ARE DEFINED BY ANOTHER DISCIPLINE AND A CONFLICT OCCURS, THEIR DEFINITIONS SHALL TAKE PRECEDENCE OVER THE FOLLOWING ON OTHER DISCIPLINES DOCUMENTS ONLY. WHERE AN ABBREVIATION IS UNDEFINED - NOTIFY THE ARCHITECT, FOR CLARIFICATION

AC	AIR CONDITIONING	FT	FEET/FOOT
AB	ANCHOR BOLT	FTG	FOOTING
ABV	ABOVE	FURN	FURNACE OR FURNITURE
ACC	ACCESSIBLE	FV or F.V.	FIELD VERIFY
ACM	ALUMINUM COMPOSITE MATERIAL	G.B. or GYP	GYPSUM BOARD
ACT	ACOUSTICAL CEILING TILE	GA	GAUGE
ADA	AMERICANS WITH DISABILITIES ACT	GALV	GALVANIZED
ADJ	ADJOINING	GB	GRAB BAR
ADJUST	ADJUSTABLE	GC	GENERAL CONTRACTOR
AFF or A.F.F.	ABOVE FINISHED FLOOR	GFRC	GLASS FIBER REINFORCED CONCRETE
AL or ALIM.	ALUMINUM	GFRC	GLASS FIBER REINFORCED GYPSUM
ALT	ALTERNATIVE	GL or GLAZ	GLASS OR GLAZING
APC	ACOUSTICAL PANEL CEILING (EXPOSED SUSPENSION SYSTEM)	GMG	GYPSUM WALL BOARD
APPROX	APPROXIMATE	GWB	GYPSUM WALL BOARD
ARCH	ARCHITECT (URAL)	H	HOLE
ARG	ARISE RESISTANT GYPSUM	H.B.	HOSE BIBB
ASF	ABOVE SUBFLOOR	HC	HOLLOW CORE
ATC	ACOUSTICAL TILE CEILING (CONCEALED SUSPENSION SYSTEM)	HCWD	HOLLOW CORE WOOD DOOR
AV	AUDIO VISUAL	HDW	HARDWARE
AVG	AVERAGE	HDWD	HARDWOOD
B/O	BOTTOM OF BLIND BASE	HGT or H.T.	HEIGHT
BB	BOTTOM OF BLIND BASE	HM or H.M.	HOLLOW METAL
BD	BOARD	HMD	HOLLOW METAL DOOR
BLKG	BLOCKING	HR	HOUR
BM	BEAM	HRD	HARDWARE
BOT	BOTTOM	HSS	HOLLOW STEEL SECTION
BRG	BEARING	HT	HEIGHT
BRS	BACKSPASH	HTG	HEATING
C.F.	COMMUNICATION FEATURES	HVAC	HEATING/VENTILATION/AIR CONDITIONING
C.O.	CASES OPENING	HW	HOT WATER
CA	CARPET	HW	HARDWOOD
CAV	CABLE TELEVISION	ID	INSIDE DIAMETER
CFM	COLD FORMED METAL FRAMING	IC	IMPACT INSULATION CLASS
CIRC	CIRCLE/CIRCULAR	IN	INCH
CJ or C.J.	CONTROL JOINT	INCL	INCLUDING
CL	CENTERLINE	INFO	INFORMATION
CLG or CLNG	CEILING	INSUL	INSULATION
CLO	CLOSET	INT	INTERIOR
CLR	CLEAR	IRG	IMPACT RESISTANT GYPSUM
CMU	CONCRETE MASONRY UNIT	JAN	JANITOR (IAL)
COL	COLUMN	JC or J.C.	JANITOR'S CLOSET
COMP	COMPACT (ED)	JST	JOIST
CONC	CONCRETE	JT or JNT	JOINT
CONST	CONSTRUCTION	KIT	KITCHEN
CONT	CONTINUOUS	L	LONG LENGTH
CORR	CORRIDOR	LAM	LAMINATE
CPT	CARPET	LAV	LAVATORY
CSMU	CALCIUM SILICATE MASONRY UNIT	LB or LBS.	POUND
CT	CERAMIC TILE	LGFM	LIGHT GAUGE METAL FRAMING
CW	CURTAIN WALL	LL	LIVE LOAD
D	DRAWER	LLV	LONG LEG VERTICAL LAMINATED VENEER LUMBER
DAPS	CLOTHES DRYER DIRECT APPLIED FINISH SYSTEM	M.H.	MAN HOLE
DB	DRAWER BASE	M.R.	MOISTURE RESISTANT
DBL	DOUBLE	MAG	MAGNETIC
DEPT	DEPARTMENT	MAS	MASONRY
DET/OTL	DETAIL	MATL	MATERIAL
DF or D.F.	DRINKING FOUNTAIN	MAX	MAXIMUM
DIA	DIAMETER	MDF	MEDIUM DENSITY FIBERBOARD
DIM	DIMENSION	MDO	MEDIUM DENSITY OVERLAY
DISP	DISPENSER OR GARBAGE DISPOSAL	MECH	MECHANICAL
DIV	DIVISION	MEP	MECHANICAL/ELECTRICAL/PLUMBING
DN	DOWN	MFR or MFG	MANUFACTURER
DP	DEEP/DEPTH	MI	MIRROR IMAGE
DR	DOOR	MIN	MINIMUM
DRN	DRAIN	MISC	MISCELLANEOUS
DRW	DRAWER	MO	MASONRY OPENING
DS or D.S.	DOWNSPOUT	MTD	MOUNTED
DW	DISHWASHER	MTL	METAL
DWG	DRAWING	MULL	MULLION
EA	EACH	MW or MWo	MICROWAVE OVEN
EIFS	EXTERIOR INSULATION FINISH SYSTEM	MWO	MICROWAVE OVEN
Ej or E.J.	EXPANSION JOINT	N/A	NOT APPLICABLE
EL	ELEVATION	NIC or N.I.C.	NOT IN CONTRACT
ELEC	ELECTRIC	NO	NUMBER
ELECT	ELECTRIC	NOM	NOMINAL
ELEV	ELEVATOR OR ELEVATION	NTS or N.T.S.	NOT TO SCALE
EMERG.	EMERGENCY	O.C.	ON CENTER
ENG	ENGINEER	O.D.	OUTSIDE DIAMETER
EO	EQUAL	OJA	OVERHEAD JOIST
EQUIP	EQUIPMENT	OQ	OUT TO OUT
EW	EACH WAY	OH	OVERHEAD
EXH	EXHAUST	O/O	OPENING
EXIST	EXISTING	OPP	OPPOSITE
EXP	EXPANSION	OSB	ORIENTED STRAND BOARD
EXT	EXTERIOR	P.L.	PROPERTY LINE OR PLASTIC
EXTN	EXTENSION	PC	PRECAST
FD or F.D.	FLOOR DRAIN	PL or PLAM	PLASTIC LAMINATE
FDN	FOUNDATION	PLAS	PLASTIC
FE	FIRE EXTINGUISHER	PLYWD	PLYWOOD
FEC	FIRE EXTINGUISHER CABINET	PNL	PANEL
FF	FINISH FLOOR	PSF	POUNDS PER SQUARE FOOT
FHC	FIRE HOSE CABINET	PSI	POUNDS PER SQUARE INCH
FN	FINISH	PT	PRESSURE TREATED OR PAINT
FNTR	FURNITURE	PTD	PAINTED
FL or FLR	FLOOR	PTN	PARTITION
FLR	FLOOR	PVC	POLYVINYLCHLORIDE
FRG	FIBER REINFORCED CONCRETE	PW	PLYWOOD
FRG	FIBER REINFORCED GYPSUM	R	RADIUS OR RISER
FRP	FIBER REINFORCED POLYMER		
FRT	FIRE RETARDANT TREATED		
FRRZ	FREEZER		

## Abbreviations & Definitions

R.O.W.	RIGHT OF WAY	T.O.W.	TOP OF WALL
RAD	RADIUS OR RADIATOR	T/O	TOP OF
RD or R.D.	ROOF DRAIN	TBD	TO BE DETERMINED
REF	REFRIGERATOR	TEL	TELEPHONE
REFER	REFERENCE / REFER TO	TEMP.	TEMPERARY OR TEMPERED
REMF	REINFORCE/REINFORCING	THK	THICK
REOD	REQUIRED	THRU	THROUGH
REV	REVISION / REVISED	TME	TO MATCH EXISTING
RL or R.L.	RAIN LEADER	TV	TELEVISION
RM	ROOM	TYP	TYPICAL
RO or R.O.	ROUGH OPENING	U.N.O.	UNLESS NOTED OTHERWISE
S/R	SHELF/ROOF	UC	UPPER CABINET OR UNDER COUNTER OR UNDER CABINET
SB	SINK BASE	UL	UNDERWRITERS LABORATORIES
SC	SOLID CORE		
SCHED	SCHEDULE		
SOCD	SOLID CORE WOOD DOOR SECTION		
SF or S.F.	SQUARE FEET/SQUARE FOOT		
SHT	SHelves		
SHTV	SHEET		
SHTG	SHATHING		
SIM	SIMILAR		
SOG	SLAB ON GRADE		
SPEC	SPECIFICATION		
SO	SQUARE		
SS or S.S.	STAINLESS STEEL OR SOLID SURFACE		
ST	STAIN/STAINED		
STC	SOUND TRANSMISSION CLASS		
STD	STANDARD		
STL	STEEL		
STL/STL	STAINLESS STEEL		
STOR	STORAGE		
STRUCT	STRUCTURAL		
SUSP.	SUSPENDED		
SW	SWITCH		
T	TREAD OR THICK		
T&G	TONGUE AND GROOVE		
T.O.C.	TOP OF CONCRETE		
T.O.F.	TOP OF FOOTING		
T.O.M.	TOP OF MASONRY		
T.O.S.	TOP OF STEEL		
W	WASHER		
W.C.	WATER CLOSET		
W.F.	WIDE FLANGE		
W.P.	WATERPROOF		
W.V.	WATER VALVE		
W.W.F.	WELDED WIRE FABRIC		
W.W.M.	WELDED WIRE MESH		
W	WITH		
W/O	WITHOUT		
WD	WOOD		
WH	WATER HEATER		
WIC	WALK-IN CLOSET OR WALK-IN COOLER		
WIF	WALK-IN FREEZER		
WN	WINDOW		
WSCT.	WAINSCOT		
WT.	WEIGHT		
YD	YARD		

## Overall Project Demolition Notes

- ALL EXISTING CONDITIONS SHALL BE VERIFIED PRIOR TO STARTING ANY DEMOLITION OR NEW CONSTRUCTION.
- THE INTENT OF THE DEMOLITION IS TO FULLY EXPOSE AND PREPARE THE EXISTING AREA/SPACE TO RECEIVE THE NEWLY DESIGNED ELEMENTS. EXPOSE AND CAREFULLY REMOVE THE INDICATED AREAS OF THE EXISTING BUILDING CONSTRUCTION, AND REMOVE ALL SUCH MATERIALS FROM THE PROJECT AREA TO PREPARE THE SPACE FOR THE NEW CONSTRUCTION (UNLESS OTHERWISE NOTED). DEMOLITION SHALL NOT BE LIMITED SOLELY TO THOSE ITEMS INDICATED WITHIN THE DEMOLITION DRAWINGS(S) BUT SHALL ALSO INCLUDE THE REMOVAL OF EXISTING CONSTRUCTION NECESSARY TO EXECUTE THE NEW CONSTRUCTION.
- REMOVE FROM THE SITE AND LEGALLY DISPOSE OF ALL REFUSE, DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS. DEBRIS SHALL BE REMOVED ON A REGULAR BASIS SO IT DOES NOT INTERFERE WITH THE DEMOLITION/CONSTRUCTION WORK OR THE NORMAL OPERATIONS OF THE FACILITY, BECOME A SAFETY HAZARD, OR EXCEED THE STRUCTURAL LOAD CAPABILITIES OF THE BUILDING. COORDINATE REMOVAL WITH APPLICABLE RESTRICTIONS ON ADJACENT RIGHTS OF WAY AND FACILITY OPERATIONS.
- IF DIRECTED, SALVAGE ANY ITEMS SPECIFICALLY IDENTIFIED BY THE OWNER & ARCHITECT FOR REUSE. STORE ITEMS IN A PROTECTED LOCATION ON SITE, OR IF DIRECTED PROVIDE LOCAL OFF SITE STORAGE AND LOCAL DELIVERY.
- COORDINATE ALL DEMOLITION ACTIVITY WITH OWNERS REPRESENTATIVE AND BUILDING ENGINEER. DELIVER ALL SALVAGED ITEMS TO LOCATION AS SPECIFIED BY OWNERS REPRESENTATIVE.
- CONTRACTOR(S) SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES, AS WELL AS GOVERNING AUTHORITIES HAVING JURISDICTION. ADHERE TO REGULATIONS PERTAINING TO THE SAFETY OF PERSONS, PROPERTY, AND ENVIRONMENTAL PROTECTION.
- CONTRACTOR(S) SHALL EXERCISE CAUTION WHEN REMOVING CONSTRUCTION WHERE THE EXISTING CONDITIONS ARE UNCLEAR. IN SUCH CASE(S), CONTRACTOR SHALL REMOVE THE NECESSARY CONSTRUCTION TO EXPOSE THE UNDERLYING ELEMENTS PRIOR TO PROCEEDING WITH FULL DEMOLITION. WHENEVER THE REMOVAL OF BUILDING ELEMENTS MAY, OR WILL, CREATE AN UNSTABLE, OR UNSAFE, CONDITION, DO NOT PROCEED WITH DEMOLITION UNTIL THE CONCERN IS REVIEWED BY THE GENERAL CONTRACTOR AND ARCHITECT. AT ANY TIME DURING DEMOLITION, CONTRACTOR SHALL CEASE OPERATIONS IF THE SAFETY OF THE STRUCTURE APPEARS TO BE ENDANGERED, THEY SHALL PROVIDE BRACING/SUPPORTING TO STABILIZE STRUCTURE. CONTACT THE GENERAL CONTRACTOR AND ARCHITECT IMMEDIATELY TO DETERMINE AN APPROPRIATE DIRECTION. DO NOT RESUME NORMAL OPERATIONS UNTIL SAFETY IS RESTORED.

## Overall Project Construction Notes

- THE 2015 EDITION OF THE OHIO BUILDING CODE SHALL BE CONSIDERED AS PART OF THESE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE OF CONSTRUCTION WITH APPLICABLE CODES AND REGULATIONS AND ALL AUTHORITIES HAVING JURISDICTION.
- REFERENCES ON THIS PROJECT TO "OWNER," "OWNERS REPRESENTATIVE," OR ANY COMBINATION THEREOF, WITHIN THESE CONSTRUCTION DRAWINGS SHALL REFER TO THE OWNERS CONSTRUCTION PROJECT MANAGER.
- THE GENERAL CONTRACTOR SHALL COORDINATE DEMOLITION AND CONSTRUCTION WORK WITH THE OWNERS REPRESENTATIVE FOR WORK TIMES AND MEANS + METHODS TO MINIMIZE IMPACT TO PROPERTY AND ITS OPERATIONS. THIS COORDINATION IS VERY CRITICAL TO THE SATISFACTORY COMPLETION OF THIS PROJECT. THEREFORE THE CONTRACTOR MUST ENSURE THAT THEY HAVE A THOROUGH UNDERSTANDING OF THE APPROPRIATE WINDOW FOR WORK HOURS, AND THEIR EXPECTED RESPONSIBILITIES. CONTRACTOR SHALL GENERATE A CONSTRUCTION / DEMOLITION PHASING PLAN FOR REVIEW BY THE OWNER TO DETERMINE THE IMPACT TO THE PROPERTY AND ITS OPERATIONS.
- THE TERMS "CONTRACTOR" AND "SUB-CONTRACTOR" ARE USED INTERCHANGEABLY WITHIN THESE DRAWINGS AND ARE NOT INTENDED TO INDICATE A SPECIFIC CONTRACTUAL ARRANGEMENT BUT REFER TO A TRADE IN GENERAL OR SPECIFIC TERMS THAT WOULD BE RESPONSIBLE FOR A PARTICULAR PORTION OF THE PROJECT. THE TERMS "CONTRACTOR," "GENERAL CONTRACTOR" & "G.C." ARE ALSO USED INTERCHANGEABLY WITHIN THESE DOCUMENTS.
- THESE DRAWINGS ARE PREPARED FOR THE PURPOSES OF CONSTRUCTION ONLY. THESE DRAWINGS ARE NOT TO BE USED FOR MAINTENANCE PURPOSES UNLESS IDENTIFIED AS "RECORD DRAWINGS." AS ACTUAL CONDITIONS MAY VARY FROM THOSE INDICATED ON THESE DRAWINGS DUE TO CHANGE ORDERS, ALTERATIONS BY OTHERS, FIELD CONDITIONS, ETC.
- DO NOT SCALE THE DRAWINGS. WRITTEN DIMENSIONS OR SPECIFIC LAYOUT DIRECTION ARE THE ONLY ACCEPTABLE MEANS OF LOCATION.
- ALL DIMENSIONS ARE TO FINISH FACE OF GYPSUM BOARD AND/OR INDICATED MATERIAL, CENTERLINE OF COLUMNS, FACE OF CONCRETE, EDGE OF SLAB OR EDGE OF OPENING (U.N.O.).
- THE GENERAL CONTRACTOR AND EACH SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THEIR WORK WITH ADJACENT TRADES AND WITH THE WORK BEING COMPLETED PRIOR TO, AND AFTER THEIR WORK. COORDINATION SHALL ALSO INCLUDE THE OWNERS REPRESENTATIVE.
- THE GENERAL CONTRACTOR IS RESPONSIBLE TO EXECUTE THE DESIGN INTENT FOR ALL WORK INDICATED, OR INFERRED, WITHIN THESE CONSTRUCTION DOCUMENTS UNLESS SPECIFICALLY NOTED "BY OTHERS" AND/OR "N.I.C." IN ADDITION, THE GENERAL CONTRACTOR AND EACH SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING, AND SCHEDULING ALL CONSTRUCTION RELATED WORK IDENTIFIED OR OTHERWISE, WITHIN THESE DOCUMENTS. COORDINATION SHALL INCLUDE WORK SPECIFICALLY IDENTIFIED AS: "BY OTHERS" AND/OR "N.I.C."
- CONTRACTORS SHALL ADHERE TO ALL DESIGN CRITERIA INCLUDED WITHIN THE CONSTRUCTION DOCUMENTS UNLESS SPECIFICALLY MODIFIED BY AN ADDENDUM, BULLETIN, OR FIELD SKETCH AS ISSUED BY THE ARCHITECT, INTERIOR DESIGNER OR ENGINEER(S).
- EACH CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR, WHO SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR INTERIOR DESIGNER WHEN DISCREPANCIES ARE FOUND WITHIN THE CONSTRUCTION DOCUMENTS OR WHEN DISCREPANCIES BETWEEN THE DRAWINGS AND EXISTING CONDITIONS ARE IDENTIFIED.
- ALL EXISTING CONDITIONS SHOWN IN THESE DRAWINGS WERE PREPARED FROM EXISTING DOCUMENTS, ON-SITE MEASUREMENTS AND OBSERVATIONS. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING DIMENSIONS, CONDITIONS, CONSTRUCTION, MATERIALS, DETAILS, ETC. BY OBSERVATION, INVESTIGATION AND THROUGH MEASUREMENT TAKEN AT THE JOB SITE. THEY SHALL TAKE ANY AND ALL MEASUREMENTS NECESSARY TO VERIFY THE EXISTING CONDITIONS AGAINST DRAWINGS SO AS TO PERFORM THEIR WORK PROPERLY PRIOR TO THE PREPARATION OF SHOP DRAWINGS, FABRICATION/ORDERING OF MATERIALS, OR ACTUAL CONSTRUCTION OF THE PROJECT. THE CONTRACTOR ALONE IS RESPONSIBLE FOR THE PROPER CONNECTION AND INSTALLATION OF MATERIALS AND EQUIPMENT.
- ALL EXISTING SITE CONDITIONS SHALL BE VERIFIED, SURVEYED AND IDENTIFIED PRIOR TO STARTING ANY WORK. ALL UTILITIES SUPPLYING ADJACENT BUILDINGS SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. ANY REQ'T. FOR TEMPORARY DISCONNECTION OF ANY UTILITY SHALL BE FIRST REVIEWED & APPROVED BY OWNER & LOCAL CODE AUTHORITY.
- EACH CONTRACTOR SHALL REFER TO ALL EXISTING DOCUMENTATION DESCRIBING THE ORIGINAL CONSTRUCTION, WHERE THEY EXIST, UTILIZE "RECORD" OR "AS-BUILT" DRAWINGS OVER LIKE DOCUMENTATION WITHOUT SUCH LABELS. CONTRACTOR SHALL ASSUME ALL DOCUMENTATION NOT LABELED "RECORD" OR "AS-BUILT" IS NOT FULLY ACCURATE AND SHALL PROCEED WITH THEIR WORK ONLY AFTER A THOROUGH REVIEW OF THE BUILT CONDITION. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT AND INTERIOR DESIGNER ALL DISCREPANCIES BETWEEN THE DRAWINGS AND THE BUILT CONDITIONS PRIOR TO ANY PERFORMING ANY WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES, AND INSPECTIONS BY AUTHORITIES OF JURISDICTION REQUIRED FOR THE EXECUTION OF THE WORK, U.N.O.
- CONTRACTOR SHALL DISPOSE OF ALL DEMOLITION RELATED DEBRIS IN A SAFE AND LEGAL MANNER.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF THEIR WORK DURING FABRICATION, TRANSIT, STORAGE, INSTALLATION, AND UNTIL FINAL OWNER ACCEPTANCE. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL CLEAN ALL WORK AREAS AS WELL AS REPAIR AND REFRESH ANY DAMAGE TO THE SATISFACTION OF THE ARCHITECT, DESIGNER AND THE OWNER AS PART OF THE BASE CONTRACT.
- ALL CONSTRUCTION ELEMENTS SHALL BE INSTALLED PER THE CONSTRUCTION DOCUMENTS AND THE MANUFACTURERS STANDARD RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS. WHERE ADDITIONAL I.L.L., ASTM, TRADE GUILD, AND/OR TRADE ASSOCIATION INFORMATION IS REFERENCED IN THESE DOCUMENTS OR MANUFACTURERS DOCUMENTATION, THOSE REQUIREMENTS SHALL ALSO BE ADHERED TO.
- THE ARCHITECT HAS ENDEAVORED TO ENSURE CODE COMPLIANCE BUT IT IS STILL THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND EACH SUB-CONTRACTOR TO ENSURE THAT THEIR WORK IS INSTALLED CORRECTLY AND THAT IT MEETS THE REQUIREMENTS OF ALL APPLICABLE CODES, ORDINANCES, AND ANY JURISDICTION HAVING AUTHORITY. THE CONTRACTOR SHALL OBTAIN APPROVAL AND INSPECTIONS OF THE GOVERNING AUTHORITIES.
- IT IS THE INTENTION OF THE NOTES AND KEYNOTES LOCATED WITHIN THIS DRAWING SET TO IDENTIFY CONSTRUCTION ELEMENTS, NOT NECESSARILY DESCRIBE ENTIRE ASSEMBLIES OR PROCESSES. THE INSTALLATION OF SAID ELEMENT SHOULD INCLUDE ALL ASSOCIATED CONSTRUCTION NECESSARY TO ACHIEVE INSTALLATION AND OPERATION (USE) OF SAID ITEM.
- PROVIDE DRYWALL TRIM AT ALL EXPOSED EDGES & OUTSIDE CORNERS OF GYPSUM WALLBOARD CONSTRUCTION. J BEAD OR OTHER NON-DRYWALL COMPOUND EMBEDDED TRIM PIECES ARE PROHIBITED (U.N.O.).
- ALL FRAMING LUMBER, WOOD NAILERS, BLOCKING, RAISED PLATFORM FRAMING, PLYWOOD, OTHER CONCEALED WOOD MATERIALS WHERE DETAILED, OR REQUIRED, FOR THE ATTACHMENT OF FINISHED MATERIALS SHALL BE TREATED WITH FIRE-RETARDANT (F.R.T.) CHEMICALS IN ACCORDANCE WITH ASTM E84. THE MATERIAL SHALL BEAR THE IDENTIFICATION OF AN AUTHORITY TESTING OR INSPECTION AGENCY ACCEPTABLE TO THE GOVERNING AGENCY WITH THE PERFORMANCE RATING THEREOF. NO F.R.T. WOOD SHALL BE INSTALLED WITHIN A 3HR. (OR GREATER) RATED WALL, IN A RETURN AIR PLENUM OR BE EXPOSED AND ABOVE SPRINKLER COVERAGE.
- EXCEPT WHERE THE CONSTRUCTION DOCUMENTS AND/OR CODE REGULATIONS INCLUDE MORE STRINGENT REQUIREMENTS, ALL WORK SHALL BE DONE TO MEET OR EXCEED THE STANDARDS OF THE CONSTRUCTION PRACTICES FOR EACH TRADE.
- ALL WORK AND FINAL FINISHED PRODUCTS SHALL BE COMPLETE IN EVERY RESPECT TO THE SATISFACTION OF THE OWNER, ARCHITECT, DESIGNER, AND ENGINEERS.
- PRIOR TO STARTING WORK CONTRACTOR SHALL DEVELOP A DETAILED CONSTRUCTION SCHEDULE FOR REVIEW AND APPROVAL BY THE OWNERS REPRESENTATIVE. SCHEDULE SHALL IDENTIFY WORK SCHEDULE WITH MILESTONE DATES, TYPICAL HOURS/DAYS OF WORK ACTIVITY, STAGING AREA AND ACCESS REQUIREMENTS AND OWNER RESPONSIBILITY REQUIREMENTS.
- CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION OF EXISTING & NEW WORK FROM VANDALISM DURING THE CONSTRUCTION PERIOD. WORK THAT HAS BEEN VANDALIZED WILL BE REMOVED AND REPLACED AT NO COST TO THE OWNER.
- ALL FIRE PROTECTION SYSTEMS SHALL COMPLY W/ ALL APPLICABLE NFPA REQUIREMENT. AN OHIO CERTIFIED DESIGNER SHALL PREPARE DESIGN DOCUMENTS FOR ALL SYSTEMS AND ALTERNATIONS AND SUBMITTED FOR REVIEW BY ARCHITECT PRIOR TO SUBMITTING APPLICATION AND DOCUMENTATION TO LOCAL CODE AUTHORITY FOR PERMIT REVIEW.

## Scope of Work and Code Analysis

PROJECT DESCRIPTION:	PROJECT: MEMORIAL PARK RESTROOM BLDG. PUBLIC ADA ACCESSIBLE RESTROOM BUILDING WITH SMALL MAINTANCE STORAGE FACILITY FOR LAWN EQUIPMENT.
APPLICABLE CODE:	2017 OHIO BUILDING CODE (2015 IBC WITH AMENDMENTS) 2017 OHIO MECHANICAL CODE (2015 INTERNATIONAL MECHANICAL CODE) 2017 NATIONAL ELECTRICAL CODE (2017 NFPA 70) 2017 OHIO PLUMBING CODE (2015 INTERNATIONAL PLUMBING CODE) 2017 OHIO FIRE CODE (2015 INTERNATIONAL FIRE CODE) 2017 OHIO ENERGY CODE (2012 IECC AND ASHRAE 90.1 2010)
ACCESSIBILITY STANDARD:	2017 OHIO BUILDING CODE CHAPTER 11 - ANSI / ICC A117.1 (2009) 2010 ADAAG (FEDERAL STANDARDS FOR ACCESSIBLE DESIGN)
PERMIT APPLICATIONS:	BUILDING (THIS APPLICATION) SEPTIC SYSTEM (DESIGN/BUILD BY OTHER)
USE GROUP:	U, (UTILITY) - PARK RESTROOM BUILDING
ONSTRUCTION TYPE:	II-B - RESTROOM BUILDING
OCCUPANT LOAD:	RESTROOM BUILDING 592 SF/300 = 2 OCCUPANTS TOTAL OCCUPANT LOAD = 2 OCCUPANTS
FIRE PROTECTION:	NOT SPRINKLED
FIRE ALARM SYSTEM:	NOT REQUIRED
HEIGHT & AREA:	ALLOWABLE HEIGHT / STORIES (TABLE 504.3, 504.4): 55 FEET / 2 STORIES ALLOWABLE AREA (TABLE 506.2): 8,500 SF ACTUAL HEIGHT AND AREA OF PROJECT: 1-STORY, 670 SF
REQUIRED FIRE RESISTANCE (TABLE 601):	STRUCTURAL FRAME: 0 HR BEARING WALLS: 0 HR EXTERIOR: 2 HR INTERIOR: 0 HR NON-BEARING WALLS: 0 HR FLOOR: 0 HR ROOF: 0 HR
CONTINUITY OF RATINGS:	THE CONTINUITY AND INTEGRITY OF ALL FIRE RESISTANCE RATED ASSEMBLIES SHALL BE MAINTAINED IN COMPLIANCE WITH IBC CHAPTER 7 AND ASSOCIATED ASTM, NFPA, AND UL REQUIREMENTS. PENETRATIONS, JOINTS AND ANNULAR SPACE SHALL RECEIVE SLEEVES, COLLARS, SEALANT/PUTTY, FIRE DAMPERS, AND FIRE RATED DOORS OR ACCESS PANELS.
MEANS OF EGRESS:	TRAVEL DISTANCE, MAXIMUM ALLOWED: 250' (PER TABLE 1017.2) TRAVEL DISTANCE, ACTUAL MAXIMUM: 25'-0" - COMPLEXES COMMON PATH OF TRAVEL: 75' MAX (TABLE 1006.2.1) COMMON PATH OF TRAVEL, ACTUAL MAX: 0' - COMPLEXES MINIMUM AISLE WIDTH: 42" MIN PER SECTION 1029.9.4
PLUMBING FIXTURES:	NUMBER OF FIXTURES PROVIDED - PER OBC TABLE 2902.1 (1) WATER CLOSET REQUIRED PER EACH TOILET ROOM - 2 PROVIDED (1 PER 40 FEMALE) (1) WATER CLOSET REQUIRED PER EACH TOILET ROOM - 1 TOILET PROVIDED & URINAL PROVIDED (1 PER 40 MALE) (1) LAVATORY REQUIRED PER EACH TOILET ROOM - 2 PROVIDED (1 PER 75 MALE AND FEMALE) (1) DRINKING FOUNTAIN REQUIRED - 2 PROVIDED, HIGH/LOW ALL FLOOR AND WALL FINISHES TO COMPLY WITH NFPA 255 AND ASTM E 84. MINIMUM CLASS OF FINISHES PER TABLE 803.11 SHALL BE: EXIT ENCLOSURES & PASSAGEWAYS: B CORRIDORS: B ROOMS & ENCLOSED SPACES: C FREE ARE AN OWNER RESPONSIBILITY LIGHTING IS AN OWNER RESPONSIBILITY
DEFERRED SUBMITTAL:	SEPTIC IS A DEFERRED SUBMITTAL: SGS ENGINEERS, DANIEL BRENNAN, DBRENNAN@SGSENGINEERS.COM, 513.826.4174

## Drawing Symbols Legend

	STRUCTURAL GRID		SPOT ELEVATION
	ROOM NAME		ROOM IDENTIFICATION
	WINDOW IDENTIFICATION		DOOR IDENTIFICATION
	SECTION REFERENCE		FINISH IDENTIFICATION
	ELEVATION REFERENCE (EXTERIOR)		FURNITURE IDENTIFICATION
	SHEET REFERENCE		CEILING HEIGHT
	ELEVATION ID		CEILING TYPE
	ELEVATION REFERENCE (INTERIOR ONLY)		CEILING IDENTIFICATION
	ENLARGED REFERENCE		REVISION CLOUD & DELTA
	KEYNOTE		WALL PARTITION TYPE REFERENCE
	WALL PARTITION TYPE REFERENCE		WALL PARTITION TYPE REFERENCE (W MODIFIER)
	ALIGN CONSTRUCTION		SEALANT
	MATCH LINE		DOOR W/ MAGNETIC HOLD OPEN - REFER TO DOOR SCHEDULE
	ELEVATION, WORKPOINT, DATUM		

## Drawing Index

SHEET	DESCRIPTION	BID/PERMIT - 08/29/2023	REV. 1 - 11/03/2023	REV. 2 - 03/29/2024
GENERAL	COVER SHEET	●	●	●
GO.01	GENERAL PROJECT INFORMATION	●	●	●
CIVIL	SITE PLAN	●	●	●
ARCHITECTURE	MEMORIAL PARK RESTROOM BLDG.	●	●	●
MECHANICAL	MEMORIAL PARK RESTROOM SECTIONS	●	●	●
ELECTRICAL	MECHANICAL COVER SHEET	●	●	●
E001	ELECTRICAL COVER SHEET	●	●	●
E200	ELECTRICAL PLAN, RISER DIAGRAM AND SCHEDULE			

# HANOVER TOWNSHIP RESTROOM

## SECTION-15, TOWN-4, RANGE-2

### HANOVER TOWNSHIP, BUTLER COUNTY, OHIO



VICINITY MAP

**GENERAL CONSTRUCTION NOTES**

**OVERALL:**  
APPROPRIATE UTILITY COMPANIES SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO BREAKING GROUND FOR THE PURPOSE OF VERIFYING BY FIELD INSPECTION, THE EXACT LOCATION OF UNDERGROUND UTILITIES.

THE CONTRACTOR SHALL EXERCISE DUE CARE DURING CONSTRUCTION SO AS NOT TO DESTROY ANY TREES, PLANTS, SHRUBS OR STRUCTURES OUTSIDE OF THE INDICATED WORK LIMITS AND THOSE NOT SPECIFICALLY MARKED FOR REMOVAL OR RELOCATION WITHIN THE WORK LIMITS.

ALL MATERIALS AND CONSTRUCTION PROCEDURES SHALL BE IN ACCORDANCE WITH "CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION".

UNLESS OTHERWISE NOTED ALL CONSTRUCTION DETAILS SHALL CONFORM WITH THE "STANDARD CONSTRUCTION DRAWINGS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION".

THE ENGINEER/SURVEYOR DOES NOT ASSUME ANY LIABILITY FOR THE LOCATION OF UTILITIES, INCLUDING INDIVIDUAL SERVICE LINES & PRIVATE MAINS NOT SHOWN ON PUBLIC RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXACTLY LOCATING AND PROTECTING ALL UTILITIES, BOTH ABOVE AND BELOW GROUND, THAT EXIST IN THE WORK AREA AND WHICH MAY COME IN CONFLICT WITH HIS OPERATIONS. ANY DAMAGE TO UTILITIES WHICH HAVE BEEN ACCURATELY LOCATED, WHICH IS CAUSED BY THE CONTRACTOR'S OPERATIONS, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ASSISTANCE IN LOCATING UNDERGROUND UTILITIES CAN BE OBTAINED BY CONTACTING THE UTILITY COMPANIES AT THE LOCATIONS LISTED ON THIS PAGE. IF A DISCREPANCY IS FOUND TO EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

EACH INSTALLING CONTRACTOR IS RESPONSIBLE FOR THEIR OWN COORDINATION OF INSTALLATION OF THEIR SYSTEMS UNDER THE SUPERVISION OF THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER, OR APPROPRIATE PARTY. ABERCROMBIE & ASSOCIATES, INC. ASSUMES NO RESPONSIBILITY FOR CONTRACTOR MEANS & METHODS OF CONSTRUCTION ON DRAWINGS.

THE CONTRACTOR SHALL OBTAIN OR VERIFY THAT ALL PERMITS ARE OBTAINED.

THE CONTRACTOR SHALL VERIFY EXISTING SITE INFORMATION AND REQUIRED EARTHWORK.

ALL PROPOSED SPOT ELEVATIONS ARE TO FINISHED GRADE.

PAVEMENT MARKINGS TO BE HIGH SOLIDS, WATER BASED ACRYLIC PAINT CONTAINING ULTRAVIOLET RESISTANT PIGMENTS, LEAD & CHROMATE FREE, READY MIXED, COMPLYING WITH FTS TT-PP-1952 WITH A DRYING TIME OF LESS THAN 45 MINUTES. PARKING & LANE PARKERS STRIPING TO BE WHITE, HANDICAP SPACES TO BE BLUE, PEDESTRIAN CROSSING LANES & NO PARKING ZONES TO BE YELLOW. APPLY PAINT WITH MECHANICAL EQUIPMENT, AT MANUFACTURER'S RECOMMENDATIONS & AT A MINIMUM WET FILM THICKNESS OF 15 MILS.

**UTILITY SPECIFICATION:**  
DOMESTIC WATER SERVICE TO BE PVC AWMA C900 AFTER THE METER SETTING.

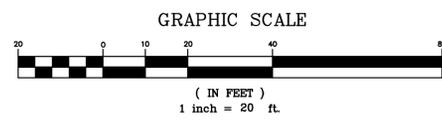
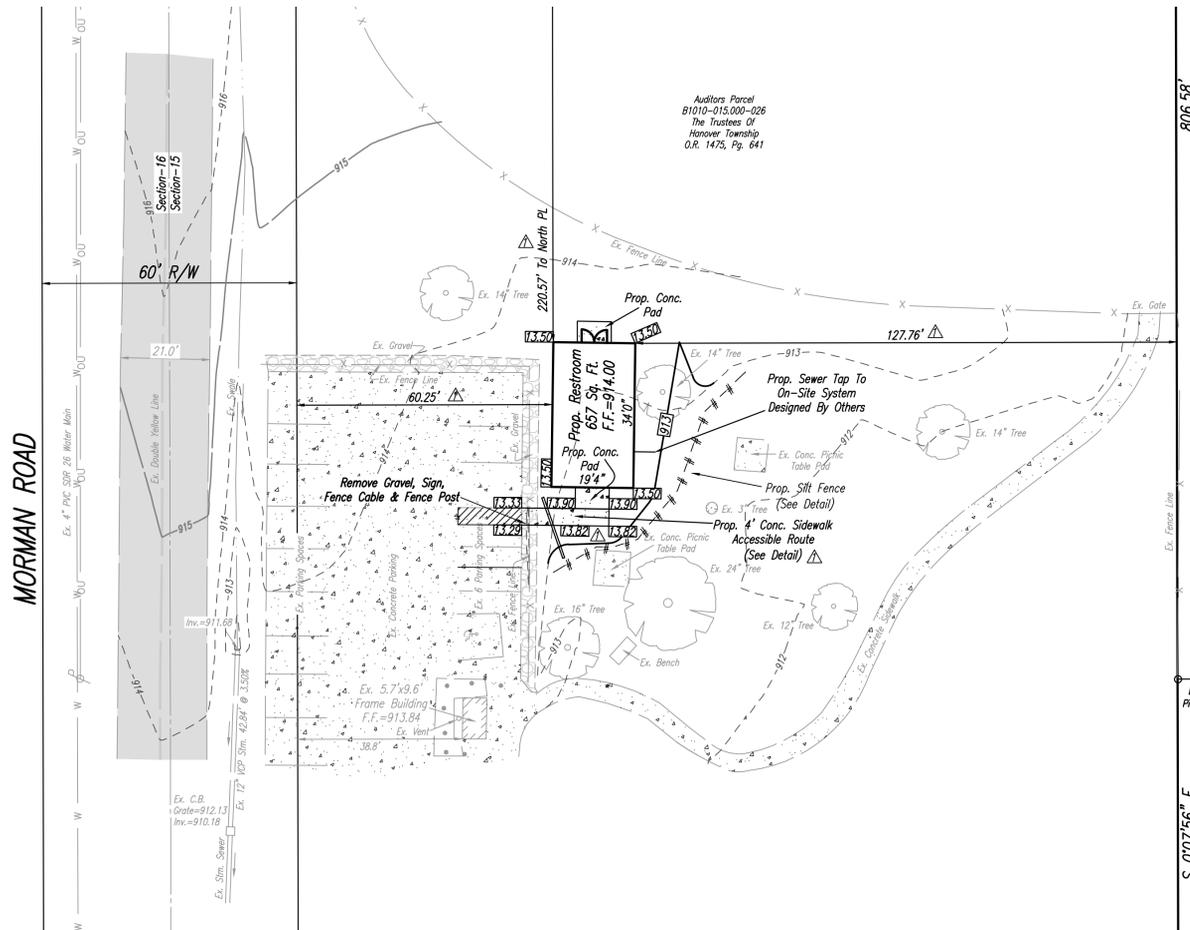
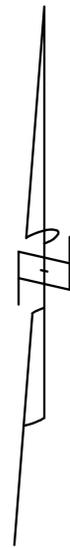
**EROSION CONTROL:**  
ALL EROSION CONTROL MEASURES MUST BE IN PLACE PRIOR TO ANY STRIPPING OF VEGETATION OR EXCAVATION.

EROSION CONTROL WILL BE ACCOMPLISHED BY STRATEGICALLY PLACING ROCK CHECK DAMS, MULCH, BERMS AND/OR SILT FENCES IN SWALES AND RUNOFF AREAS, SUCH ITEMS TO BE REPLACED AND EXPANDED AS NECESSARY TO AFFORD NECESSARY CONTROL.

SILT FENCES USED FOR EROSION AND SEDIMENT CONTROL ARE TO BE ENTRENCHED AT LEAST 6" INCHES BELOW GRADE, AND FOLDED ACCORDING TO THE DETAIL AS SHOWN.

ALL EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT PRODUCING GREATER THAN 1/2 INCH OF RAIN IN A 24 HOUR PERIOD. ALL EROSION CONTROLS MUST BE MAINTAINED DURING CONSTRUCTION BY REMOVING COMPACTED SILT AND SEDIMENT, AND REDISTRIBUTING IT AS IS APPROPRIATE. SEEDING AND MULCHING SHALL BE APPLIED IN ACCORDANCE WITH OHIO RAINWATER AND LAND DEVELOPMENT MANUAL TO ALL DISTURBED AREAS WITHIN 7 DAYS IF THE AREA IS AT FINAL GRADE OR IS TO REMAIN DORMANT FOR MORE THAN 14 DAYS.

**SITE SURVEY NOTE:**  
ALL EXISTING CONDITIONS AND BOUNDARY INFORMATION WAS PREPARED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF OHIO. THE PROPOSED BUILDING WAS LOCATED ON THE PROPERTY BY THE LAND SURVEYOR.



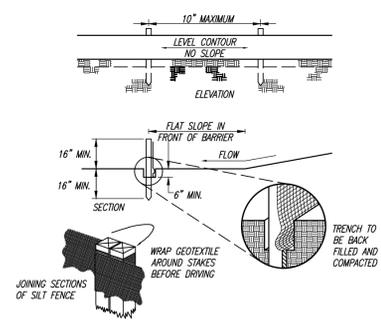
**LEGEND**

	Ex. Utility Pole
	Ex. Sign
	Ex. Bollard
	Ex. Catch Basin
	Ex. Overhead Utility Lines
	Ex. Underground Utility Lines

EXISTING UNDERGROUND UTILITIES REPRESENTED ON THIS DRAWING ARE APPROXIMATE LOCATION ONLY BASED ON FIELD OBSERVATIONS AND AVAILABLE RECORDS. CONTACT THE LOCAL UTILITY PROTECTION SERVICES AND AGENCIES PRIOR TO ANY EXCAVATION, CONSTRUCTION OR DESIGN.

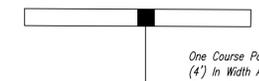
ELEVATION DATUM SHOWN IS RELATIVE TO NAVD 88 BASED ON VRS GPS OBSERVATIONS.

**SPECIFICATIONS FOR SILT FENCE**



SEE THE RAINWATER AND LAND DEVELOPMENT, OHIO'S STANDARDS FOR STORMWATER MANAGEMENT, LAND DEVELOPMENT AND URBAN STREAM PROTECTION MANUAL, CURRENT EDITION, FOR SILT FENCE SPECIFICATIONS.

**CONCRETE SIDEWALK DETAIL**



One Course Portland Cement Concrete Sidewalks, Class "C" Concrete, Four Feet (4') in Width And Four Inches (4") Min. In Thickness Shall Be Constructed Where Shown On The Plans Or Typical Sections. Sidewalk To Be Seven Inches (7") Min. In Thickness At Driveway Aprons. One Half Inch (1/2") Full Depth Expansion Joints Shall Be Installed At Intervals Not To Exceed One Hundred Feet (100'). All Sidewalks, Including Curb Ramps, Shall Connect To The Pavement Or Curb With One-Half (1/2") Full Depth Expansion Joint Material Between The Walk And Curb.



Date: 8-6-23  
Drawn By: C.R.  
Checked By: SPH  
Scale: 1" = 20'

REVISIONS

1	11-1-23: Added utility, route & surveyor note.
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**SITE PLAN**  
HANOVER TOWNSHIP RESTROOM  
SECTION-15, TOWN-4, RANGE-2  
HANOVER TOWNSHIP  
BUTLER COUNTY, OHIO

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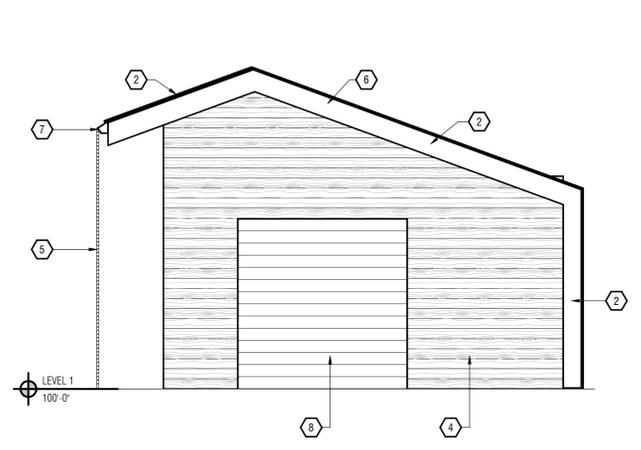


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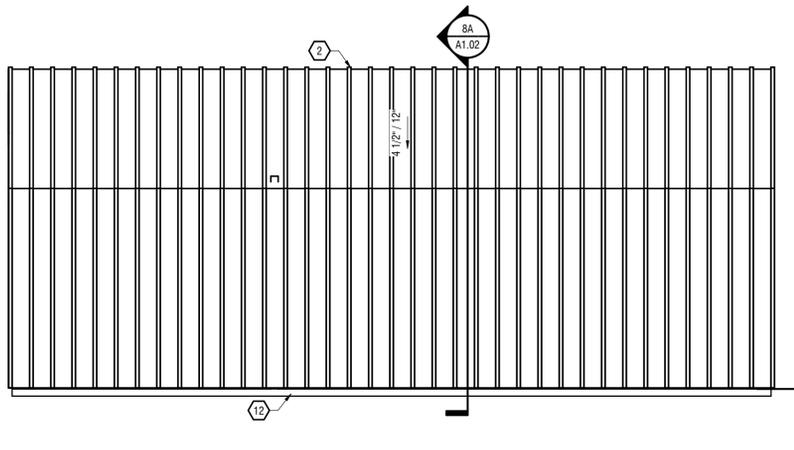


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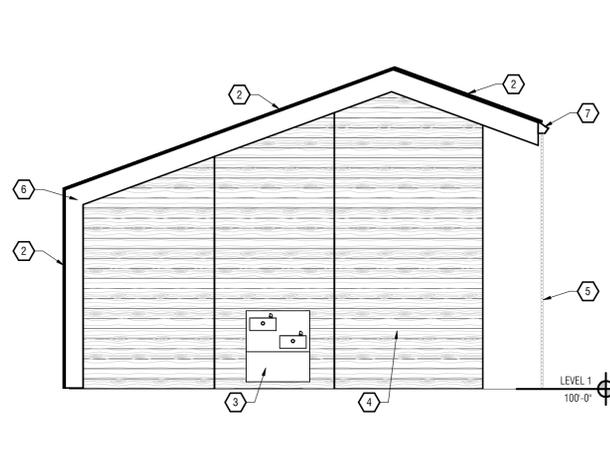
COPYRIGHT © 2023 LUMINAUT, INC. - 3/27/2024 10:24:30 AM - C:\Users\pplum@luminaut.com\Documents\2020\_Hanover Memorial Restroom\_A22\_Bldg\2024\A1.01.dwg  
 PROJECT TITLE: HANOVER TOWNSHIP PARK RESTROOM BLDG.



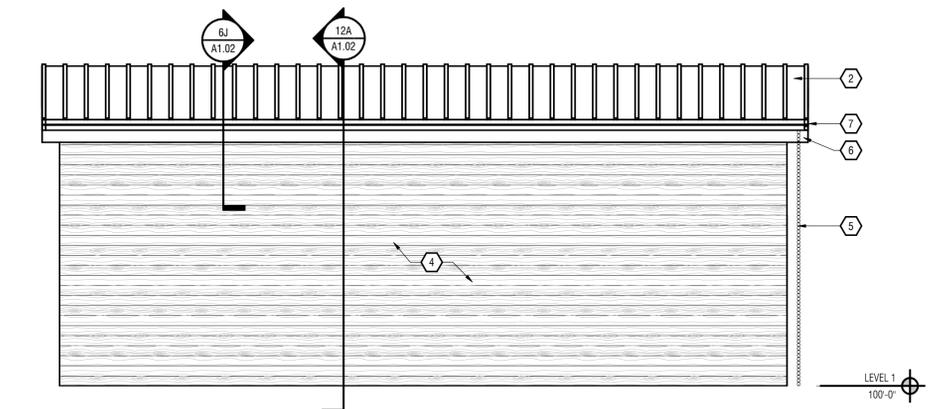
**1H NORTH ELEVATION**  
A1.01 1/4" = 1'-0"



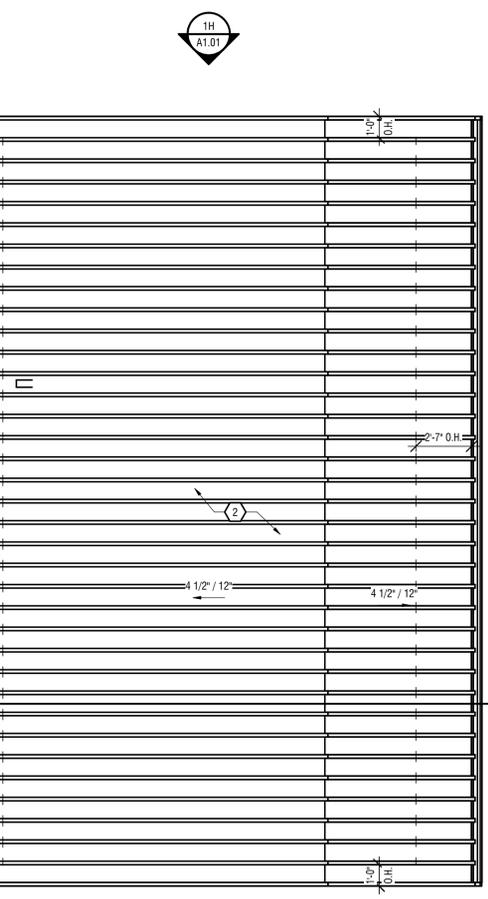
**5H WEST ELEVATION**  
A1.01 1/4" = 1'-0"



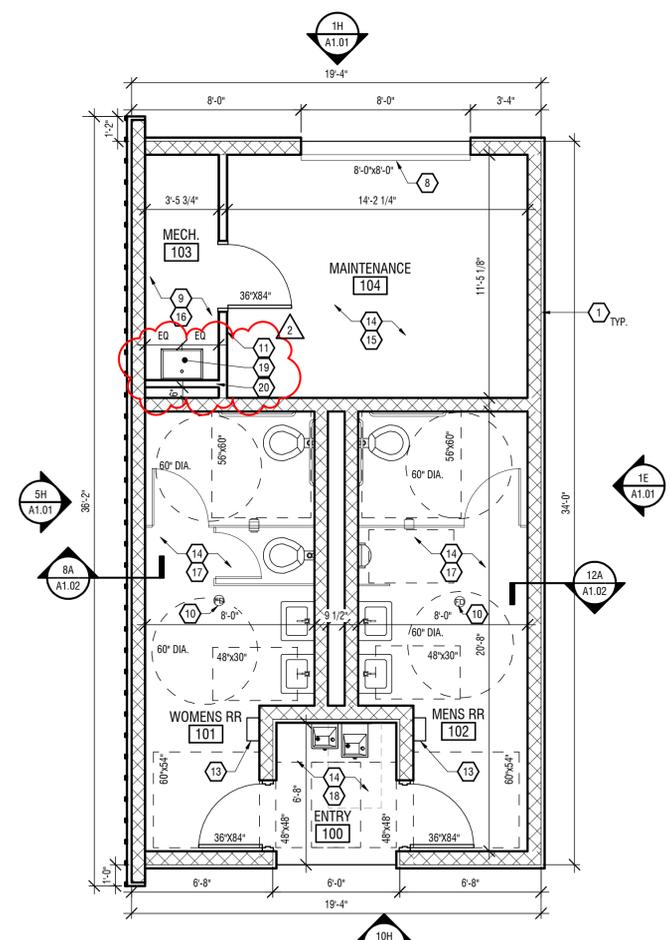
**10H SOUTH ELEVATION**  
A1.01 1/4" = 1'-0"



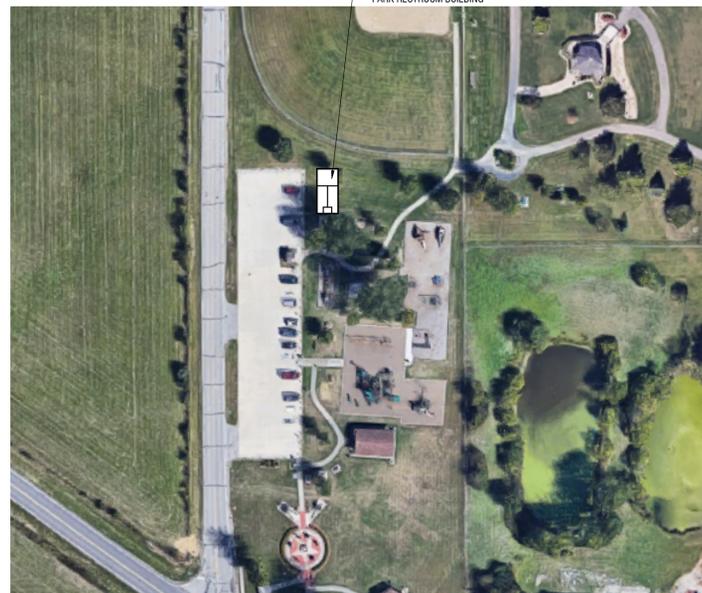
**1E EAST ELEVATION**  
A1.01 1/4" = 1'-0"



**6A ROOF PLAN**  
A1.01 1/4" = 1'-0"



**10A CONSTRUCTION PLAN**  
A1.01 1/4" = 1'-0"



**1A SITE PLAN**  
A1.01 1" = 80'-0"

- KEYNOTES:**
- 8" CMU BLOCK, R-19 INSULATION.
  - STANDING SEAM METAL ROOFING:  
- R49 REQUIRED FOR ZONE 5  
- COLOR: GREEN, OWNER TO CHOSE
  - ACCESSIBLE DRINKING FOUNTAIN, GC TO PURCHASE AND INSTALL.
  - HORIZ. ALUMINUM WOOD LOOK CLADDING OVER CMU WALL, MEDIUM WOOD LOOK REVIEWED BY OWNER.
  - RAIN CHAIN, GC TO PURCHASE AND INSTALL, OWNER TO CHOSE COLOR.
  - 1x12 FASCIA BOARD, WRAPPED WITH PREFINISHED ALUM. COIL STOCK TO MATCH METAL ROOF, COLOR: GREEN, OWNER TO REVIEW.
  - ALUM. GUTTER SECURED TO FASCIA BOARD AS NECESSARY - FINISH TO MATCH FASCIA, COLOR: GREEN TO MATCH ROOF, OWNER TO REVIEW.
  - 8'-0"x8'-0" OVERHEAD GARAGE DOOR.
  - MECHANICAL ROOM, GC TO PURCHASE AND INSTALL HVAC SYSTEM AND HOT WATER TANK.
  - FLOOR DRAIN LOCATION.
  - INTERIOR GYP. BD. WALL, 3-1/2" WOOD STUD WITH 5/8" TYPE X GYP. BD. BOTH SIDES.
  - EXPOSED CONCRETE FOUNDATION.
  - HAND PAPER TOWELS AND TRASH, OWNER TO COORDINATE STYLE AND TYPE.
  - CEILING TREATMENT CHOSEN BY OWNER AND SUPPLIED/INSTALLED BY GC, ARCHITECT TO BE NOTIFIED.
  - MAINTENANCE ROOM LIGHT:  
- CONTRACTOR TO INSTALL UTILITY STYLE HANGING FLUORESCENT LIGHTS  
- SWITCH FOR LIGHT BY GARAGE DOOR
  - MECHANICAL CLOSET LIGHT:  
- CONTRACTOR TO INSTALL UTILITY STYLE HANGING FLUORESCENT LIGHTS  
- SWITCH FOR LIGHT AT SIDE OF DOOR
  - RESTROOM LIGHT:  
- CONTRACTOR TO INSTALL FLUSH FLUORESCENT LIGHTS  
- SWITCH FOR LIGHT WILL BE A MOTION SENSOR TYPE  
- ADD A LIGHT ABOVE EACH LAVATORY
  - ENTRY AREA LIGHT:  
- CONTRACTOR TO INSTALL SURFACE FLUORESCENT LIGHT  
- THIS LIGHT WILL BE ON A TIMER BASED ON PARK HOURS
  - UTILITY SINK - 24" LONG X 18" DEEP X 30" HIGH
  - INTERIOR GYP. BD. WALL, 3-1/2" WOOD STUD WITH 5/8" TYPE X GYP. BD. ONE SIDE/WBATT INSULATION IN CAVITY.

**GENERAL NOTES:**  
A. REFER TO SITE PLAN FOR BUILDING ORIENTATION.

**DRAWING LEGEND:**  
 HATCHED WALL INDICATES EXISTING WALLS TO REMAIN  
 SHADED AREA INDICATES NO SCOPE

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 702 N. Capitol Avenue  
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Project Title  
**HANOVER TOWNSHIP  
 PARK RESTROOM**  
 2592 OLD OXFORD RD  
 HAMILTON, OH 45013



**MATTHEW A. ERDMAN**  
 LICENSE 1817562  
 EXP. 07/01/2024

Issue Date: 09/29/2023  
 Issued for: BID/PERMIT SET

Revision

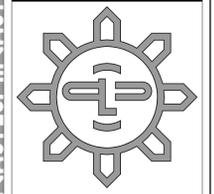
1	REVISION	11/03/2023
2	REVISION	03/29/2024

Sheet Title  
**MEMORIAL PARK  
 RESTROOM BLDG.**

Project No.  
**23020**

Drawn By: BRGMR  
 Reviewed By: SO  
 Scale: As indicated

**A1.01**



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Sheet Title  
**MEMORIAL PARK  
RESTROOM SECTIONS**

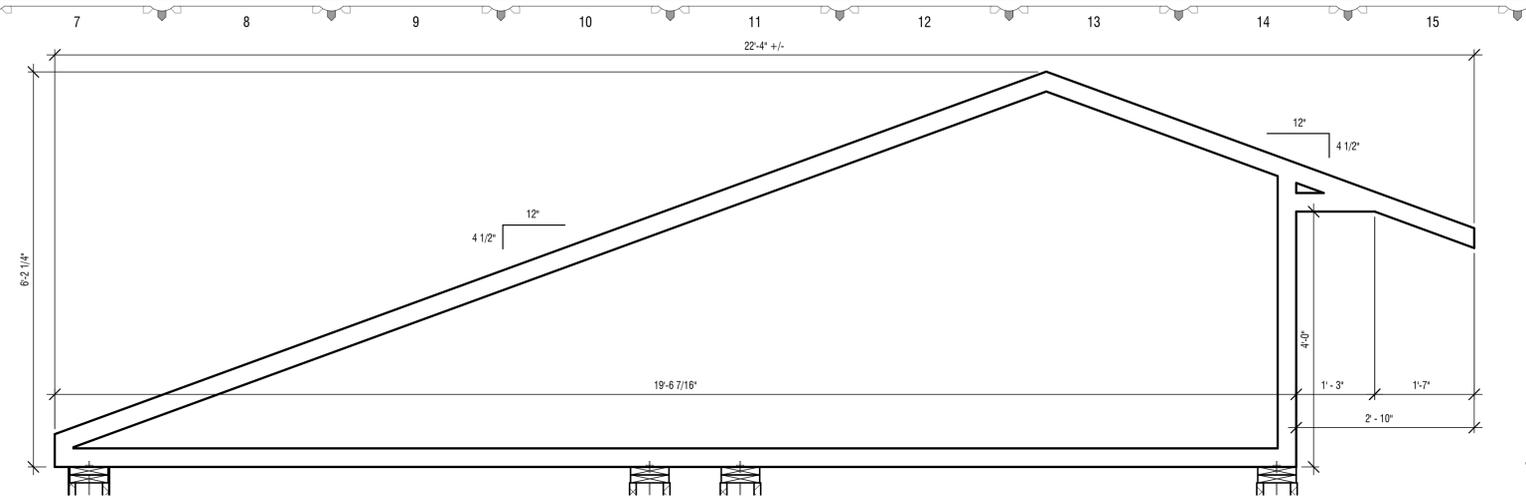
Project No. **23020**

Drawn By: BRGMR

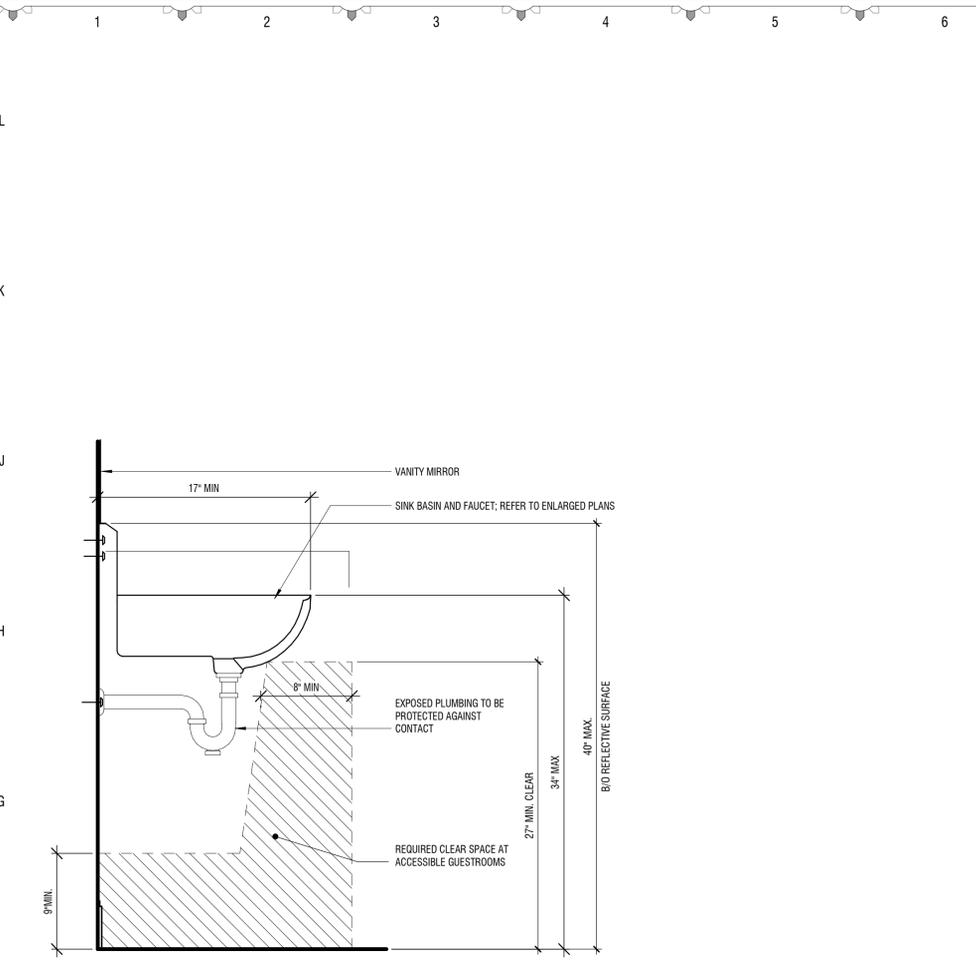
Reviewed By: SO

Scale: As indicated

**A1.02**



**6.J ROOF SECTION - TRUSS PROFILE**  
A1.02 3/4" = 1'-0"



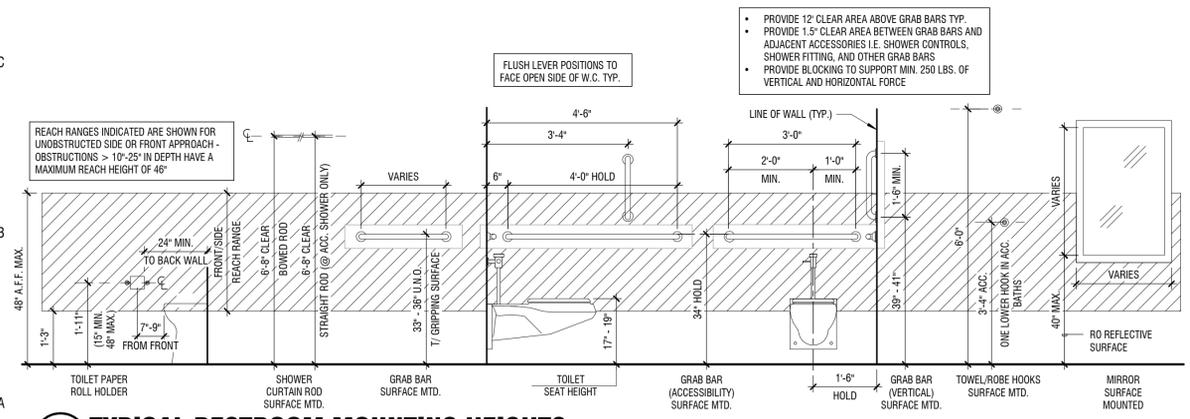
**1F ACCESSIBLE VANITY SECTION**  
A1.02 1 1/2" = 1'-0"

**Plumbing Fixture General Notes**

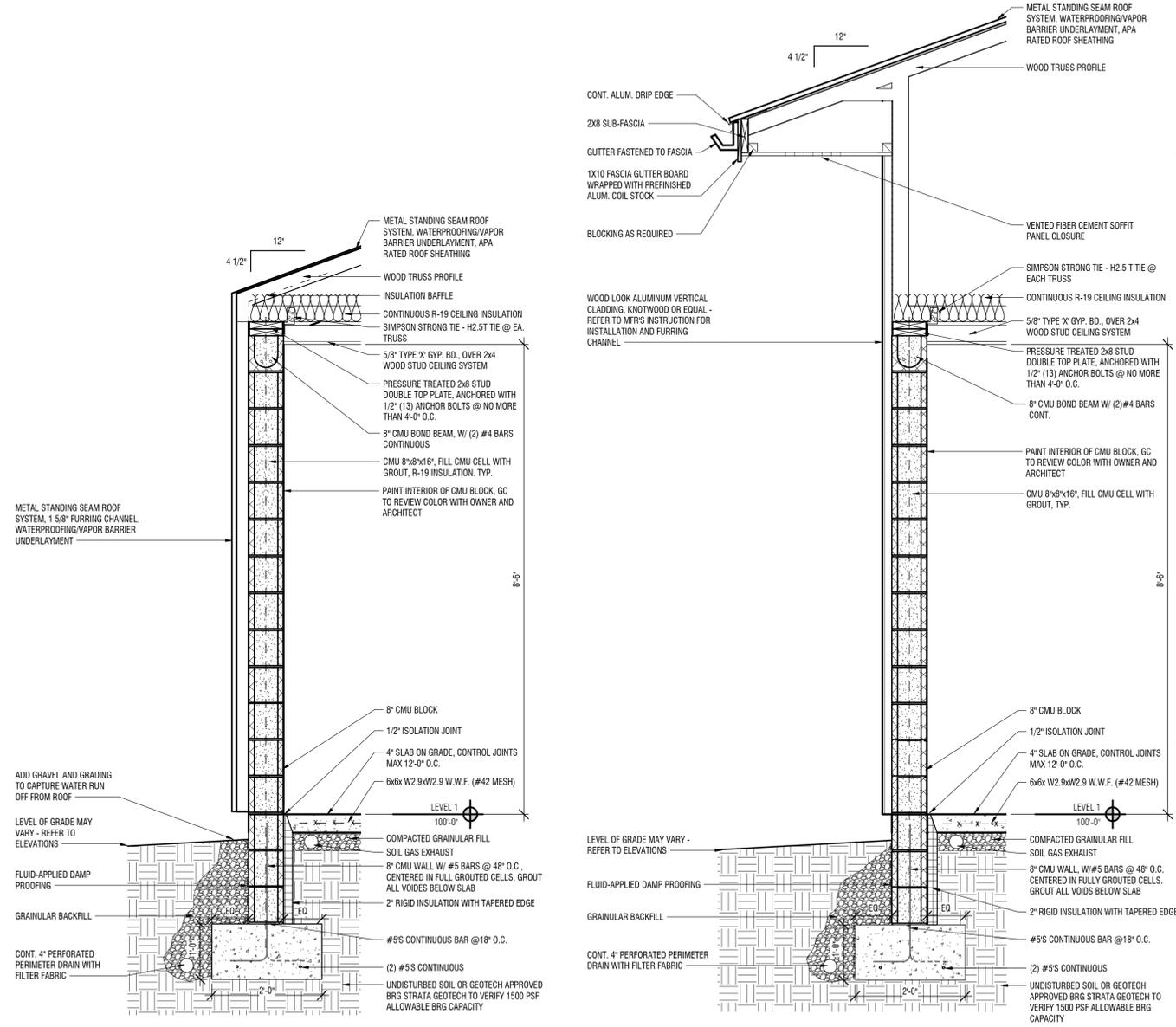
1. PLUMBING IS DELEGATED DESIGN TO THE DESIGN-BUILD CONTRACTOR AND DESIGN-BUILD CONTRACTOR IS RESPONSIBLE FOR OBTAINING A SEPARATE PLUMBING PERMIT.
2. ALL FIXTURES TO BE COMPARABLE TO OR EXCEED THE BASIS OF DESIGN.

**Toilet Accessory General Notes**

1. WALL MOUNTED EQUIPMENT, FIXTURE, ETC. BETWEEN 27" AND 80" A.F.F. SHALL NOT PROTRUDE FURTHER THAN 4" FROM WALL PER ACCESSIBILITY STANDARDS.
2. ALL CONTROLS MUST BE MOUNTED BETWEEN 15" AFF AND 48" AFF AND PROVIDE A 30"x48" CLEAR FLOOR AREA IN COMPLIANCE WITH ACCESSIBLE STANDARDS. OPERABLE CONTROLS LOCATED OVER AN OBSTRUCTION DEEPER THAN 10" MUST BE MOUNTED NO HIGHER THAN 46" AFF. ACCESSIBLE CONTROLS MUST NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST.
3. A GFCI/ELCB/RCCB OR EQUAL DUPLEX OUTLET MUST BE LOCATED ON A SIDEWALL OF THE LAVATORY BASIN.
4. PROVIDE BLOCKING FOR ALL WALL-MOUNTED EQUIPMENT.
5. ALL ACCESSORIES TO BE COMPARABLE TO OR EXCEED THE BASIS OF DESIGN.



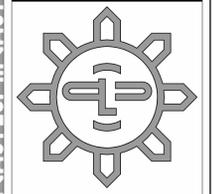
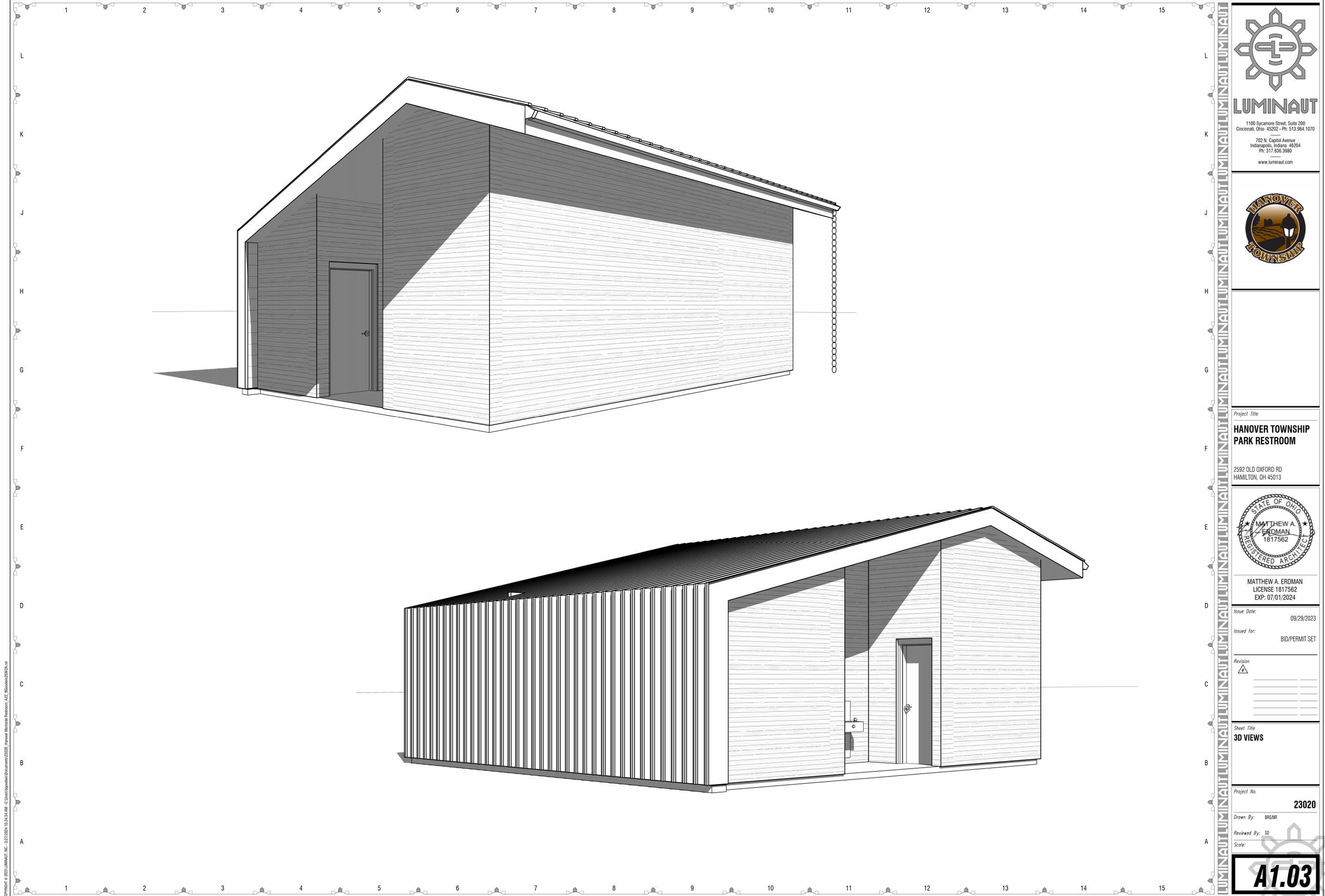
**1A TYPICAL RESTROOM MOUNTING HEIGHTS**  
A1.02 1/2" = 1'-0"



**8A WALL SECTION - ROOF DROP**  
A1.02 3/4" = 1'-0"

**12A WALL SECTION**  
A1.02 3/4" = 1'-0"

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LICENSE 1817562  
EXP: 07/01/2024

*Issue Date:* 09/29/2023

*Issued for:* BID/PERMIT SET

*Revision*

△	

*Sheet Title*  
**3D VIEWS**

*Project No.* **23020**

*Drawn By:* BRGMR

*Reviewed By:* SD

*Scale:*

**A1.03**

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**HVAC GENERAL NOTES:**

- ALL MECHANICAL EQUIPMENT AND INSTALLATIONS SHALL CONFORM WITH THE REQUIREMENTS OF THE 2024 OHIO MECHANICAL CODE, THE 2024 OHIO BUILDING CODE, THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE, STATE AMENDMENTS, NFPA 90A, 96, 101, UNDERWRITERS LABORATORIES AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
- THE LOCATIONS, ARRANGEMENT AND EXTENT OF EQUIPMENT, DEVICES, CONDUIT, AND OTHER APPURTENANCES RELATED TO THE INSTALLATION OF MECHANICAL WORK SHOWN ON DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL NOT SCALE DRAWINGS, BUT SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS OF BUILDING COMPONENTS. SHOULD A CONFLICT EXIST BETWEEN THE ARCHITECTURAL AND ENGINEERING DRAWINGS REGARDING DIMENSIONS AND SCALE, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF THE DISCREPANCY.
- THE CONSTRUCTION DOCUMENTS SHALL BE COMPRISED OF BOTH PLANS AND SPECIFICATIONS; THEREFORE, ALL HVAC WORK PERFORMED SHALL CONFORM TO THE REQUIREMENTS DESCRIBED IN BOTH. NEITHER SHALL TAKE PRECEDENCE OVER THE OTHER, BUT RATHER, THEY SHALL BE AN EXTENSION OF EACH OTHER. SHOULD A CONFLICT EXIST BETWEEN THE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF THE DISCREPANCY.
- MATERIALS, EQUIPMENT OR LABOR NOT INDICATED BUT WHICH CAN BE REASONABLY INFERRED TO BE NECESSARY FOR A COMPLETE INSTALLATION SHALL BE PROVIDED. DRAWINGS AND SPECIFICATIONS DO NOT UNDERTAKE TO INDICATE EVERY ITEM OF MATERIAL, EQUIPMENT, OR LABOR REQUIRED TO PRODUCE A COMPLETE AND PROPERLY OPERATING INSTALLATION.
- ANY WALL, FLOOR, OR CEILING SURFACE THAT IS DISTURBED DURING THE COURSE OF THE HVAC WORK SHALL BE REPAIRED TO NEW CONDITION.
- ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH UNDERWRITERS APPROVAL, MANUFACTURER'S RECOMMENDATIONS, GOOD ENGINEERING PRACTICE, AND ALL APPLICABLE CODE REQUIREMENTS.
- ALL MECHANICAL EQUIPMENT AND SYSTEMS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY OWNER.
- ALL HVAC COMPRESSORS SHALL HAVE EXTENDED 4 YEAR MANUFACTURER'S WARRANTY FOR A 5-YEAR TOTAL WARRANTY.
- INSTALL GRADE MOUNTED OUTDOOR AIR CONDITIONING EQUIPMENT LEVEL ON 4" THICK REINFORCED CONCRETE PADS, EXTENDING 6" ON ALL SIDES BEYOND UNIT PERIMETER.
- EQUIPMENT SHALL BE LOCATED AT LEAST 10'-0" FROM ALL ROOF EDGES OR OPEN SIDES OF A WALKING SURFACE WHERE SUCH OPEN SIDE IS MORE THAN 30" ABOVE THE ADJACENT SURFACE. WHERE EQUIPMENT IS WITHIN 10'-0" OF SUCH DROPOFFS, FALL PROTECTION GUARDS SHALL BE PROVIDED. GUARDS SHALL BE MINIMUM 42" TALL AND EXTEND AT LEAST 30" BEYOND EACH END OF THE EQUIPMENT. GUARD SHALL BE CONSTRUCTED SO AS TO PREVENT THE PASSAGE OF A 21" SPHERE AND SHALL COMPLY WITH LOADING REQUIREMENTS OF THE BC.
- AIR HANDLING AND FAN COIL UNITS LOCATED ABOVE THE LOWEST LEVEL FINISHED FLOOR SHALL BE INSTALLED WITH AN AUXILIARY CONDENSATE DRAIN PAN UNDER THE UNIT. PROVIDE AN ELECTRONIC WATER LEVEL DETECTOR WIRED TO SHUTDOWN THE UNIT UPON DETECTION IN SECONDARY DRAIN PAN. INSTALL MINIMUM 4" X 4" X 3/4" THICK PLYWOOD SERVICE PLATFORM ON SERVICE SIDE OF UNITS LOCATED IN ATTIC SPACES.
- PANCAKE STYLE AIR HANDLERS LOCATED ABOVE TOILET AREAS SHALL BE INSTALLED IN A MINIMUM 14-INCH DEEP INSIDE CLEAR FURROWDOWN RETURN AIR PLENUM. REFERENCE ARCHITECTURAL PLANS.
- MOUNT TOP OF THERMOSTATS AND OTHER CONTROL DEVICES 48" AFF UNLESS NOTED OTHERWISE. PROVIDE CLEAR LOCKING COVER FOR ALL PUBLIC AREA THERMOSTATS. COORDINATE THERMOSTAT LOCATIONS WITH OTHER TRADES.
- CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL EQUIPMENT, DUCTWORK, PIPING, ETC. TO FIT WITHIN THE ARCHITECTURAL AND STRUCTURAL CONDITIONS. CUTTING OR OTHERWISE ALTERING ANY STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.
- ALL PIPE AND DUCT PENETRATIONS OF FIRE AND/OR SMOKE-RATED ASSEMBLIES SHALL BE FIRE STOPPED AS REQUIRED TO RESTORE THE ASSEMBLY TO ITS ORIGINAL INTEGRITY. FIRE BARRIER PRODUCTS SHALL BE AS MANUFACTURED BY TREMCO, HILTI, 3M OR APPROVED EQUAL.
- PROVIDE ACCESS PANELS IN NON-ACCESSIBLE CEILINGS AND IN WALL STRUCTURE TO ALLOW ADEQUATE ROOM FOR MAINTENANCE OF EQUIPMENT AND BALANCING OF SYSTEMS. ACCESS PANELS IN CEILING AND WALLS SHALL BE PROVIDED WHERE SHOWN ON THE DRAWINGS OR NECESSARY TO ACCESS DAMPERS, VALVES, ETC. COORDINATE EXACT LOCATION OF ALL ACCESS PANELS WITH THE ARCHITECT DURING THE SHOP DRAWING PROCESS.
- ALL MECHANICAL EQUIPMENT SHALL BE LABELED WITH A SEMI-RIGID PLASTIC LAMINATE NAMEPLATE WITH 2" HIGH WHITE LETTERS ON A BLACK BACKGROUND SECURELY AFFIXED TO THE EQUIPMENT. THE NAMEPLATE SHALL SHOW THE EQUIPMENT TAG USED ON THESE DRAWINGS. ON RESIDENTIAL PROJECTS, THE NAMEPLATE ON THE OUTDOOR EQUIPMENT SHALL INDICATE THE APARTMENT OR CONDOMINIUM UNIT NUMBER IT SERVES AS WELL AS THE EQUIPMENT ID TAG.
- REFER TO ARCHITECTURAL PLANS FOR FLOOR AND CEILING ASSEMBLY UL RATINGS AND DETAILS.
- WHERE PLANS CALL FOR UNDERCUT DOORS IN FIRE-RATED WALLS, UNDERCUT SHALL NOT EXCEED 3/4" PER NFPA-80.
- SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ARCHITECT PRIOR TO ORDERING, PURCHASING, OR FABRICATING ANY MECHANICAL EQUIPMENT. SHOP DRAWINGS SHALL INCLUDE: ALL EQUIPMENT SCHEDULED OR SPECIFIED ON THE DRAWINGS; DUCTWORK DRAWN THE SCALE SHOWN ON THE DRAWINGS; REFRIGERANT PIPING AND CONTROL WIRING SCHEMATICS CERTIFIED BY THE AIR CONDITIONING EQUIPMENT MANUFACTURER. LONG LINE REFRIGERANT PIPING APPLICATIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S CURRENT SPLIT SYSTEM LONG-LINE APPLICATION GUIDELINE.

**MECHANICAL/ELECTRICAL COORDINATION:**

- CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL DRAWINGS PRIOR TO ORDERING EQUIPMENT OR SUBMITTING SHOP DRAWINGS, AND SHALL FURNISH EQUIPMENT WIRED FOR THE VOLTAGES SHOWN THEREIN. SHOP DRAWING SUBMITTALS SHALL CLEARLY STATE THAT THE ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT HAS BEEN COORDINATED WITH THE ELECTRICAL CONTRACT DOCUMENTS AND THE ELECTRICAL CONTRACTOR.
- ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE INSTALLED WITH DISCONNECT SWITCHES AT EACH PIECE OF EQUIPMENT. COORDINATE SWITCH TYPE (FUZED OR NON-FUZED) WITH EQUIPMENT CHARACTERISTICS, MANUFACTURER'S RECOMMENDATIONS AND THE ELECTRICAL DRAWINGS.
- ALL REQUIRED CONTROL WIRING (INCLUDING POWER WIRING REQUIRED FOR CONTROL PANELS, DEVICES, ETC.) NOT SHOWN ON THE ELECTRICAL DRAWINGS SHALL BE INCLUDED AS PART OF THE MECHANICAL WORK. WIRING IN HVAC PLENUM SPACES SHALL BE INSTALLED ACCORDING TO CODE REQUIREMENTS.
- UNLESS NOTED OTHERWISE, TRANSFORMERS, CONTROLS AND CONTROL WIRING REQUIRED FOR ALL MECHANICAL SYSTEMS SHALL BE FURNISHED WITH THE EQUIPMENT IT SERVES AND INSTALLED BY THE MECHANICAL CONTRACTOR. MOTOR STARTERS FOR HVAC EQUIPMENT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

**AIR DISTRIBUTION:**

- SUPPLY, RETURN, OUTSIDE, AND EXHAUST AIR DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEETMETAL IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS, LATEST EDITION. WHERE DUCTWORK PENETRATES A FIRE-RATED ASSEMBLY, MINIMUM 3/8 GAGE GALVANIZED STEEL SHALL BE USED FOR THE ENTIRE LENGTH OF THE DUCT. ALL JOINTS AND SEAMS IN ALL SHEETMETAL DUCTWORK SHALL BE SEALED WITH DUCT SEALER.
- ALL EXPOSED DUCTWORK TO HAVE MILL PHOSPHATIZED FINISH TO BE PAINTED BLACK BY OTHERS.
- ALL DUCTWORK SHALL BE SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE. DUCT SUPPORTS AND ATTACHMENT TO STRUCTURE SHALL BE PER SMACNA STANDARDS.
- FLEXIBLE DUCTWORK SHALL BE THERMAFLEX M-KE (UL 181 LISTED, CLASS 1 FLEXIBLE AIR DUCT) OR EQUAL. PROVIDE MINIMUM INSULATION VALUE OF R-6, R-8 WHEN LOCATED OUTSIDE THE THERMAL ENVELOPE OF THE BUILDING. AIR CONNECTORS ARE NOT ACCEPTABLE. FLEX DUCT DIAMETER SHALL MATCH DEVICE NECK DIAMETER. PROVIDE ROUND GALVANIZED STEEL DUCT RUNOUTS TO MAINTAIN A MAXIMUM FLEXIBLE DUCT LENGTH OF 6'-0" (EXCEPT IN RESIDENTIAL APPLICATIONS LENGTH SHALL BE AS INDICATED). FLEXIBLE DUCTWORK SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE AND SHALL BE ROUTED AND SUPPORTED WITHOUT FORMING CRIMPS OR OTHER AIR FLOW RESTRICTIONS. PROVIDE SQUARE TO ROUND ADAPTERS OR BOOTS TO CONNECT TO AIR DEVICE NECK WHEN REQUIRED.
- ROUND AND FLEXIBLE SUPPLY AIR DUCTWORK SHALL BE CONNECTED TO MAIN DUCTS WITH A SPIN-IN FITTING WITH SCOOP AND BALANCING DAMPER. IN RESIDENTIAL SPACES, TAB-TYPE FITTINGS ARE ACCEPTABLE, AND AIRFLOW SHALL BE BALANCED AT THE AIR DEVICES.
- TAPE, BED AND SEAL AIR TIGHT ALL PENETRATIONS FROM RETURN AIR PLENUMS TO NON RETURN AIR PLENUMS THAT ARE REQUIRED DUE TO DUCTWORK, PIPING OR OTHER ITEMS.
- EXHAUST AND OUTDOOR AIR INTAKE DUCTWORK SHALL BE FURNISHED WITH A BUILT-IN BACK-DRAFT DAMPER (GRILL TYPE UNLESS NOTED OTHERWISE ON PLANS) AND MESH INSECT SCREEN (EXCEPT DRYER VENTS).
- DRYER VENT DUCTWORK SHALL BE 4-INCH ROUND AND BE 26 GAUGE GALVANIZED STEEL INSTALLED WITH LONGITUDINAL SEAMS FACING UP AND MALE CRIMPED END INSTALLED IN THE DIRECTION OF FLOW. ROUTE DRYER VENT TO THE EXTERIOR WALL, CAP AS DIRECT AS POSSIBLE. DO NOT SECURE DUCTWORK WITH SHEET METAL SEWS.
- PORTIONS OF DUCTWORK AND PIPE INSULATION VISIBLE THROUGH AIR DISTRIBUTION DEVICES IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.
- DUCTWORK DIMENSIONS SHOWN ON THE DRAWINGS ARE INSIDE CLEAR DIMENSIONS.
- INSTALL FIRE DAMPERS IN ALL THRU-WALL PENETRATIONS IN FIRE-RATED WALLS, FLOOR AND CEILING. IN DYNAMIC SYSTEMS (SYSTEMS NOT DESIGNED TO STOP OPERATING DURING A FIRE EVENT), FIRE DAMPERS SHALL BE THE DYNAMIC TYPE WITH BLADES OUT OF THE AIRSTREAM WHERE POSSIBLE. FOR SYSTEMS DESIGNED TO STOP OPERATING DURING A FIRE EVENT, STATIC FIRE DAMPERS SHALL BE ALLOWED. REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED ASSEMBLIES.
- WHERE DUCTS PENETRATE FIRE-RATED WALLS AND HAVE DUCT OPENINGS SERVING SPACES ON BOTH SIDES OF THE RATED WALL, FIRE/SMOKE DAMPERS SHALL BE PROVIDED AT FIRE-RATED WALL PENETRATION.
- INSTALL CEILING RADIATION DAMPERS AT DIFFUSERS MOUNTED IN FIRE-RATED CEILING ASSEMBLIES. WHERE DUCTWORK PENETRATES THE MEMBRANE OF A FIRE-RATED CEILING ASSEMBLY, INSTALL DUCT-DROP RATED CEILING RADIATION DAMPER. DAMPER SHALL BE DYNAMIC RATED OR SYSTEM SHALL BE DESIGNED TO STOP OPERATING DURING A FIRE EVENT. ALL DAMPERS SHALL BE UL 555C LABELED. ALL DAMPERS SHALL BE SPECIFICALLY LISTED (MAKE AND MODEL) AS APPROVED FOR USE IN THE UL LISTING OF THE FIRE-RESISTANCE-RATED CEILING ASSEMBLY PENETRATED.
- INSTALL SMOKE DAMPERS IN ALL DUCT PENETRATIONS THROUGH SMOKE-RATED WALLS WHERE DUCTS PENETRATE WALLS THAT CARRY BOTH FIRE AND SMOKE RATINGS. THE DAMPERS INSTALLED SHALL BE COMBINATION FIRE AND SMOKE DAMPERS. ALL DAMPERS SHALL BE UL 555 AND/OR 555S LABELED.
- DUCT ACCESS DOORS: PROVIDE ACCESS DOORS IN DUCTWORK AT EACH FIRE, SMOKE, FIRE/SMOKE, OR DUCT-DROP RATED CEILING RADIATION DAMPER LOCATION.
- LOCATIONS OF GRILLES, REGISTERS, & DIFFUSERS SHOWN ON THE DRAWINGS ARE APPROXIMATE. COORDINATE EXACT LOCATIONS WITH CEILING GRID, LIGHT FIXTURES, SPRINKLER HEADS, SPEAKERS, SMOKE ALARMS, ETC. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN.
- AFTER CONSTRUCTION, THE ENTIRE HVAC SYSTEM SHALL BE TESTED, ADJUSTED, AND BALANCED TO DELIVER THE AIR AND WATER QUANTITIES SHOWN ON THE DRAWINGS (NOT APPLICABLE TO DWELLING UNITS). SUBMIT CERTIFIED (AABC OR NEBB) TEST AND BALANCE REPORT TO THE ARCHITECT FOR APPROVAL. NOT APPLICABLE TO DWELLING UNITS.

**INSULATION:**

- DUCT INSULATION:
  - DUCT WRAP SHALL BE UL LISTED FIBERGLASS BLANKET INSULATION WITH FOIL VAPOR BARRIER. PUNCTURES AND TEARS IN THE FOIL JACKET SHALL BE PATCHED WITH FOIL TAPE TO MAINTAIN THE INTEGRITY OF THE VAPOR BARRIER. INSULATE SHEET METAL DUCTWORK IN THE THICKNESSES AND DENSITIES AS LISTED BELOW.
    - SHEET METAL SUPPLY, RETURN, AND OUTSIDE AIR DUCTWORK: R-6 MINIMUM INSTALLED.
    - EXHAUST DUCTWORK ROUTED WITHIN THE BUILDING THERMAL ENVELOPE SHALL NOT BE INSULATED UNLESS NOTED OTHERWISE.
    - ALL SHEET METAL DUCT LOCATED OUTSIDE THE THERMAL ENVELOPE OF THE BUILDING: R-8 MINIMUM INSTALLED.
  - LINE ALL SHEETMETAL DUCTWORK A MINIMUM OF 10'-0" DOWNSTREAM OF ALL AIR HANDLING UNITS, FAN COIL UNITS AND TERMINAL UNITS. THE LEADING EDGE OF THE DUCT LINER SHALL HAVE A SHEETMETAL NOSING.

**SYSTEM COMMISSIONING:**

- PRIOR TO THE FINAL MECHANICAL AND PLUMBING INSPECTIONS, AN APPROVED AGENCY CONTRACTED BY THE OWNER SHALL COMMISSION ALL MECHANICAL SYSTEMS AS DESCRIBED BELOW. EXCEPTION: EQUIPMENT SERVING INDIVIDUAL DWELLING OR SLEEPING UNITS.
  - ALL AIR-MOVING SYSTEMS WITH A FAN MOTOR GREATER THAN 1 HP SHALL BE TESTING AND BALANCED. ALL SUPPLY AIR DUCTS SHALL HAVE A MANUAL VOLUME DAMPER. ALL DAMPERS SHALL FIRST BE ADJUSTED SO AS TO LIMIT THROTTLING LOSSES, THEN FAN POWER SHALL BE ADJUSTED TO ACHIEVE DESIGN AIRFLOWS SHOWN ON PLANS.
  - ALL SYSTEMS WITH FAN MOTORS OF 1 HP OR LESS WITH SUPPLY AIR DUCTS INDICATED ELSEWHERE IN THESE DOCUMENTS TO HAVE MANUAL VOLUME DAMPERS SHALL BE BALANCED TO DELIVER THE AIRFLOWS SHOWN ON PLANS, BUT ARE NOT REQUIRED TO BE INCLUDED IN THE PRELIMINARY OR FINAL COMMISSIONING REPORT GIVEN TO THE OWNER AND INSPECTOR.
  - ALL SYSTEMS WITH SUPPLY AIR ECONOMIZERS SHALL RECEIVE A FULL FUNCTION TESTING TO CONFIRM COMPLIANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND PERFORMANCE SETPOINTS DESCRIBED ON PLANS. TESTING SHALL INCLUDE ALL MODES AND SEQUENCE OF OPERATION, INCLUDING UNDER-FULL-LOAD, PART-LOAD, AND THE FOLLOWING EMERGENCY CONDITIONS:
    - ALL MODES AS DESCRIBED IN THE SEQUENCE OF OPERATION.
    - REDUNDANT OR AUTOMATIC BACK-UP MODE.
    - PERFORMANCE OF ALARMS
    - MODE OF OPERATION UPON A LOSS OF POWER AND RESTORATION OF POWER.
  - A "PRELIMINARY COMMISSIONING REPORT" DETAILING ALL TESTING ACTIVITIES, ITEMIZED LIST OF DEFICIENCIES, DEFERRED TESTS NOT PERFORMED DUE TO CLIMATIC CONDITIONS, AND CLIMATIC CONDITIONS AT THE TIME OF TESTING SHALL BE PROVIDED TO THE OWNER (OR OWNER'S AGENT) AND THE CODE OFFICIAL.
  - THE BUILDING OWNER (OR OWNER'S AGENT) MUST ISSUE A LETTER OF TRANSMITTAL TO THE CODE OFFICIAL ACKNOWLEDGING RECEIPT OF THE PRELIMINARY COMMISSIONING REPORT BEFORE THE BUILDING WILL BE CONSIDERED ELIGIBLE FOR FINAL INSPECTION.
  - CONTRACTOR SHALL PROVIDE THE BUILDING OWNER (OR OWNER'S AGENT) WITH AN OPERATIONS AND MAINTENANCE MANUAL INCLUDING THE FOLLOWING:
    - SUBMITTAL DATA STATING EQUIPMENT SIZE AND SELECTED OPTION FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE.
    - MANUFACTURER'S OPERATIONS MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE, EXCEPT EQUIPMENT NOT FURNISHED AS PART OF THE PROJECT. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.
    - NAME AND ADDRESS OF AT LEAST ONE SERVICE AGENCY.
    - HVAC AND SERVICE HOT WATER CONTROLS SYSTEM MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS, SCHEMATICS AND CONTROL SEQUENCE DESCRIPTIONS. DESIRED OF FIELD-DETERMINED SET POINTS SHALL BE PERMANENTLY RECORDED ON CONTROL DRAWINGS AT CONTROL DEVICES OR FOR DIGITAL CONTROL SYSTEMS, IN SYSTEM PROGRAMMING INSTRUCTIONS.
    - A NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE, INCLUDING RECOMMENDED SET POINTS.
  - A FINAL COMMISSIONING REPORT DETAILING ALL TESTING PROCEDURES AND RESULTS SHALL BE DELIVERED TO THE BUILDING OWNER (OR OWNER'S AGENT). THE FINAL REPORT SHALL INCLUDE ALL INFORMATION AS DESCRIBED ABOVE IN THE PRELIMINARY REPORT, EXCEPT THAT NO DEFERRED TESTS SHALL BE PERMITTED.

**MECHANICAL NOTATIONS**

AC	AIR CONDITIONING	DWG	DRAWING	HVAC	HEATING / VENTING / AIR CONDITIONING	RG-#	RETURN AIR GRILLE
AFF	ABOVE FINISHED FLOOR	EC	ELECTRICAL CONTRACTOR	HWP	HOT WATER PUMP	REQD	REQUIRED
AFG	ABOVE FINISHED GRADE	EF-#	EXHAUST FAN	HWR	HOT WATER RETURN	RM	ROOM
AHJ-#	AIR HANDLING UNIT	EFF	EFFICIENCY	HWS	HOT WATER SUPPLY	RPM	REVOLUTIONS PER MINUTE
ALT	ALTERNATIVE	EG-#	EXHAUST GRILLE	INSUL	INSULATION / INSULATE	S	SMOKE DAMPER
AMB	AMBIENT	EL	ELEVATION	KW	KILOWATTS	SA	SUPPLY AIR
APPROX	APPROXIMATE	ELEC	ELECTRICAL	L	LENGTH / LONG	SD-#	SUPPLY AIR DIFFUSER
ARCH	ARCHITECTURAL	ELEV	ELEVATOR	LVR	LOUVER	SG-#	SUPPLY AIR GRILLE
AUTO	AUTOMATIC	EQUIP	EQUIPMENT	MAX	MAXIMUM	SP	STATIC PRESSURE
BHP	BRAKE HORSEPOWER	ETR	EXISTING TO REMAIN	MC	MECHANICAL CONTRACTOR	SPEC(S)	SPECIFICATIONS
BLDG	BUILDING	EXH	EXHAUST	MECH	MECHANICAL	STD	STANDARD
CD-#	CEILING DIFFUSER	EXISTEX	EXISTING	MFR	MANUFACTURER	TEMP	TEMPERATURE
CFM	CUBIC FEET PER MINUTE	EXT	EXTERIOR	MIN	MINIMUM	TYP	TYPICAL
CL	CENTERLINE	FC-#	FAN COIL UNIT	MISC	MISCELLANEOUS	UH-#	UNIT HEATER
CLG	CEILING	FD	FIRE DAMPER	NO / #	NUMBER	UNO	UNLESS NOTED OTHERWISE
COL	COLUMN	FPM	FEET PER MINUTE	N/S	NOT TO SCALE	V	VENT
COND	CONDENSATE	FIS	COMBINATION FIRE/SMOKE DAMPER	OA	OUTSIDE AIR	VAV	VARIABLE AIR VOLUME
CD-#	CONDENSING UNIT	FT	FEET	OC	ON CENTER	VD	VOLUME DAMPER
D	DEPTH / DEEP	GA	GAUGE	OD	OUTSIDE DIAMETER	VEL	VELOCITY
DB	DRY BULB TEMPERATURE	GALV	GALVANIZED	PC	PLUMBING CONTRACTOR	VFD	VARIABLE FREQUENCY DRIVE
DCW	DOMESTIC COLD WATER	GAL	GALLON	PSI	POUNDS PER SQUARE INCH	VF	VERIFY IN FIELD
DHW	DOMESTIC HOT WATER	GC	GENERAL CONTRACTOR	PVC	POLYVINYL CHLORIDE	VTR	VENT THROUGH ROOF
DIA / Ø	DIAMETER	GF-#	GAS FURNACE	R	RADIUS	W	WIDTH
DIFF	DIFFUSER	GPM	GALLONS PER MINUTE	RA	RETURN AIR	W/	WIDTH / WIDE
DWG	DRAWING	GWH-#	GAS WATER HEATER	RG-#	RETURN AIR GRILLE	W/O	WITHOUT
DIA / Ø	DIAMETER	H	HEIGHT / HIGH	R	RADIUS	WB	WET BULB TEMPERATURE
DIFF	DIFFUSER	HP	HORSE POWER	RA	RETURN AIR		

**MECHANICAL SYMBOL LEGEND**

NOTE: NOT ALL SYMBOLS MAY APPLY.

①	KEYED PLAN NOTE	⊗	REFERENCE TAG
XX-#	EQUIPMENT DESIGNATION	⊗	REFERENCE TAG
XX/Ø	AIR TERMINAL TAG	→	DIRECTION OF AIR FLOW
⊙	POINT OF CONNECTION	⋈	CONTINUATION
⊕	HUMIDISTAT	⊕	THERMOSTAT
⊖	CO2 SENSOR	⊖	REMOTE SENSOR
⊞	RECTANGULAR SUPPLY DUCT RISER	⊞	ROUND SUPPLY DUCT RISER
⊟	RECTANGULAR RETURN DUCT RISER	⊟	ROUND RETURN DUCT RISER
⊠	RECTANGULAR EXHAUST DUCT RISER	⊠	ROUND EXHAUST DUCT RISER
⊡	90 DEGREE TURNING VANE	⊡	45 DEGREE TURNING VANE
⊢	RECTANGULAR DUCT TAKEOFF	⊢	ROUND DUCT TAKEOFF
SD	DUCT WITH SMOKE DAMPER	FD	DUCT WITH FIRE DAMPER
FIS	DUCT WITH FIRE / SMOKE DAMPER	→	CEILING RADIATION DAMPER
M	MOTORIZED DAMPER	→	VOLUME DAMPER
⊞	SUPPLY AIR DIFFUSER	⊞	RETURN AIR GRILLE / REGISTER
⊞	EXHAUST AIR GRILLE / REGISTER		

**MECHANICAL LINETYPE LEGEND**

—	GENERAL NEW
- - - -	GENERAL DEMO
- · - · -	GENERAL EXISTING
— CD — CD —	CONDENSATE DRAIN

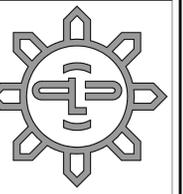
ALL OTHER LINETYPES DENOTED WITH:  
(AB) = ABANDONED, (D) = DEMO, (EX) = EXISTING

**DOUBLE LINE DUCTWORK**

▭	NEW DUCTWORK	- - - -	EXISTING DUCTWORK TO BE REMOVED
⋈	RADIUS ELBOW	⋈	MITERED ELBOW WITH TURNING VANES
⊞	90 DEGREE RETURN AIR ELBOW UP/DOWN	⊞	90 DEGREE SUPPLY AIR ELBOW UP/DOWN
⊞	90 DEGREE EXHAUST AIR ELBOW UP/DOWN		
⊞	SIZE TRANSITION	⊞	ROUND DUCT TAKEOFF
⊞	SHAPE TRANSITION		
⊞	TEE WITH SQUARE ELBOWS, TURNING VANES, AND SPLITTER DAMPER		
⊞	RECTANGULAR DUCT BEVELED TAP	⊞	ROUND DUCT TAKEOFF WITH DAMPER

**MECHANICAL SHEET INDEX**

Sheet Number	Sheet Name
M001	MECHANICAL COVER SHEET
M101	MECHANICAL PLAN



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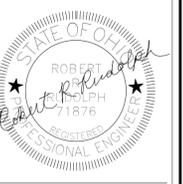
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Project Title  
**HANOVER TOWNSHIP  
PARK RESTROOM**

2592 OLD OXFORD RD  
HAMILTON, OH 45013



Issue Date: 03/29/2024

Issued for: PERMIT

Revision 2 REVISION 03/28/2024

Sheet Title  
**MECHANICAL COVER SHEET**

Project No.  
**PES - 24042**

Drawn By: STAFF

Reviewed By: RRR

Scale: As indicated

**M001**

### ELECTRIC HEATERS

DESIGNATION	SERVES	KW OUT	QMARK MODEL NUMBER	ACCESSORIES	VOLT	Ø
EH-1	WOMENS	2	CWH1202DSAF	1,2,7	240	1
EH-2	MENS	2	CWH1202DSAF	1,2,7	240	1
EH-3	MECH	2	CWH1202DSAF	1,2,7	240	1

NOTES:  
 A. MOUNT WALL HEATERS AT 18" AFF UNLESS NOTED OTHERWISE ON PLANS.  
 B. MOUNT UNIT HEATERS AT 12" BFC UNLESS NOTED OTHERWISE ON PLANS.  
 C. MOUNT BASEBOARD HEATERS AT FLOOR LEVEL.

- ACCESSORIES:  
 1. FACTORY NON-FUSED DISCONNECT  
 2. FACTORY INTERNAL THERMOSTAT  
 3. TAMPERPROOF THERMOSTAT  
 4. REMOTE THERMOSTAT  
 5. PROVIDE UNIT SUB-BASE.  
 6. WALL SURFACE MOUNT FRAME  
 7. CEILING MOUNTING BRACKET  
 8. RECESS TRIM KIT

### FANS

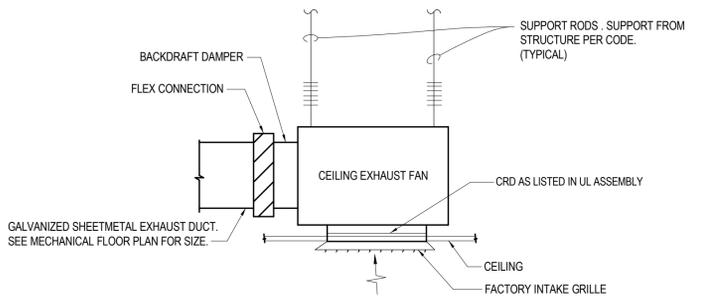
DESIGNATION	SERVES	CONTROL	CFM	ESP (IN WG)	DRIVE TYPE	MOTOR WATTS (HP)	GREENHECK MODEL NUMBER	ACCESSORIES	VOLT	Ø
EF-1	WOMENS	LIGHTSWITCH	150 CFM	0.35	DIRECT	.07	SP-B150	1,2,4,5,10	120	1
EF-2	MENS	LIGHTSWITCH	150 CFM	0.35	DIRECT	.07	SP-B150	1,2,4,5,10	120	1

NOTES:  
 A. ALL FANS TO HAVE OSHA GUARDS.  
 B. ALL EQUIPMENT SHALL BE INSTALLED SO AS TO MAINTAIN ALL CODE AND MANUFACTURER REQUIRED CLEARANCES FOR SERVICE, ACCESS, AND OPERATION.  
 C. REFER TO DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.  
 D. CONTROL TYPE:  
 CONTINUOUS = ALWAYS ON.  
 AHU = FAN OPERATES WHEN AIR HANDLER IS RUNNING.  
 SWITCH = DEDICATED ON / OFF WALL SWITCH LOCATED IN SPACE SERVED.  
 LIGHT = INTERLOCK TO LIGHT IN SPACE SERVED.  
 T-STAT = FAN OPERATES WHEN SPACE TEMPERATURE EXCEEDS SETPOINT OF THERMOSTAT (85F).  
 GAS = FAN OPERATES UPON ALARM FROM GAS MONITORING SYSTEM.  
 SMOKE = FAN OPERATES UPON ALARM FROM SMOKE DETECTOR.  
 OCCUPANCY SENSOR = FAN OPERATES UPON SIGNAL FROM OCCUPANCY SENSOR IN THE SPACE.  
 TIMECLOCK = FAN OPERATES DURING BUSINESS HOURS, AS DETERMINED BY PROGRAMMABLE TIMECLOCK AT ELECTRICAL PANEL.

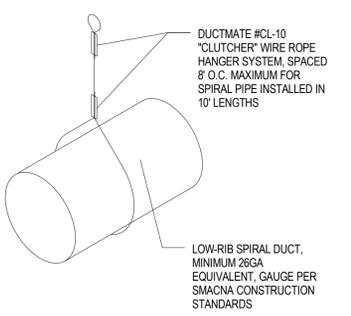
- ACCESSORIES:  
 1. GRAVITY BACKDRAFT DAMPER.  
 2. GALVANIZED BIRDSCREEN.  
 3. MESH INSECT SCREEN.  
 4. PRE-WIRED NON-FUSED SERVICE DISCONNECT.  
 5. SPEED CONTROLLER.  
 6. AUTOMATIC BELT TENSIONER.  
 7. 14" HIGH ROOF CURB.  
 8. 14" HIGH HINGED, VENTED ROOF CURB.  
 9. CEILING RADIATION DAMPER.  
 10. BACKDRAFT DAMPER.  
 11. WALL SLEEVE.  
 12. MOTORSIDE OSHA GUARD.  
 13. COMBINATION STARTER / DISCONNECT.  
 14. WEATHERHOOD.  
 15. VARIABLE FREQUENCY DRIVE.  
 16. FILTERING BOX

### WALL LOUVERS

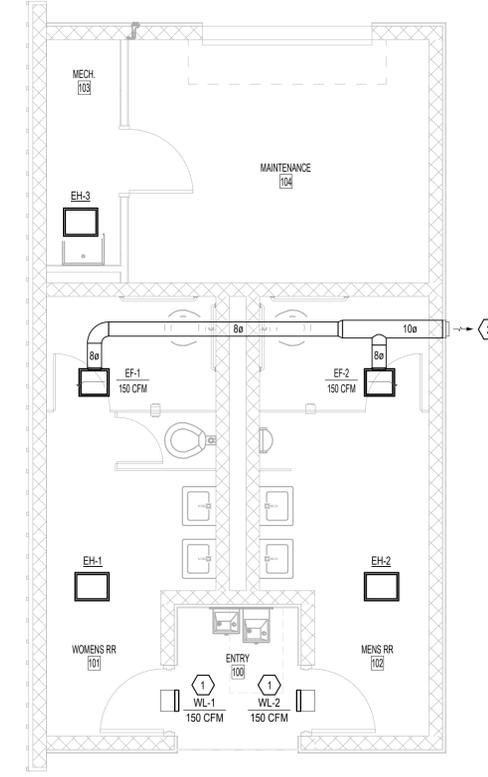
DESIGNATION	DUTY	FRAME TYPE	MATERIAL	FINISH	FACE SIZE (IN)	MANUFACTURER	MODEL NUMBER
WL-1	VENTILATION	LOUVER	ALUMINUM	BY ARCH	12X12	RUSKIN	ELF375DX
WL-2	VENTILATION	LOUVER	ALUMINUM	BY ARCH	12X12	RUSKIN	ELF375DX



CEILING EXHAUST FAN DETAIL 3  
 NTS M101



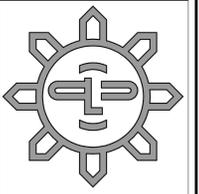
RIGID DUCT MOUNTING DETAIL 2  
 NTS M101



MECHANICAL PLAN  
 1/4" = 1'-0"

#### PLAN NOTES:

- MOUNT WALL LOUVER 12" BELOW CEILING.
- ROUTE 10" DIA. EXHAUST DUCT TO EXTERIOR WALL. TERMINATE VIA WALL CAP.



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Sheet Title  
**MECHANICAL PLAN**

Project No.  
**PES - 24042**

Drawn By: STAFF

Reviewed By: RRR

Scale: 1/4" = 1'-0"



NOTE: ALL SYMBOLS MAY NOT APPLY (TYPICAL FOR ALL SYMBOL LEGENDS)

**ELECTRICAL SYMBOL LEGEND**

XX	CODED PLAN NOTE	XX	DETAIL # SHEET #	REFERENCE TAG
MDP-22	CIRCUIT DESIGNATION PANEL DESIGNATION - CIRCUIT NUMBER	XXX		
K	ELECTRIC UTILITY KEY BOX	3	WALL SWITCH-NUMBER INDICATES 2 POLE, 3 OR 4 WAY (NO NUMBER FOR SINGLE POLE) LOWER CASE LETTER INDICATES FIXTURE(S) TO BE CONTROLLED BY SWITCH	
FL	FANLIGHT COMBINATION FIXTURE	a		
E	EXHAUST FAN	D	DIMMER SWITCH	
J	JUNCTION BOX	F	CEILING FAN SPEED CONTROL SWITCH	
□	NON-FUSED DISCONNECT SWITCH	K	KEY-OPERATED SWITCH	
□	FUSED DISCONNECT SWITCH	M	MOTOR RATED DISCONNECT SWITCH	
⊙	MOTOR	OS	OCCUPANCY SENSOR WALL SWITCH	
■	PUSH BUTTON	OR	VERRIDE SWITCH	
B	BUZZER/BELL	PL	SWITCH WITH PILOT LIGHT	
LVT	LOW VOLTAGE TRANSFORMER	T	TIMER SWITCH	
○	SINGLE RECEPTACLE 20A, 120V	OS	WALL MOUNT OCCUPANCY SENSOR	
○	SPECIAL RECEPTACLE	OS	CEILING MOUNT OCCUPANCY SENSOR	
○	DUPLEX RECEPTACLE 20A, 120V	SP	SWITCH PACK FOR OCCUPANCY SENSOR	
○	QUADRUPLX RECEPTACLE 20A, 120V	Pc	PHOTOCELL	
○	GFCI DUPLEX RECEPTACLE 20A, 120V	TC	TIMECLOCK	
○	GFCI QUADRUPLX RECEPTACLE 20A, 120V	#A	CURRENT LIMITING DEVICE - NUMBER INDICATES MAX AMPERAGE OF DEVICE	
○	IG DUPLEX RECEPTACLE 20A, 120V	W	3/4" CONDUIT STUB AND BOX FOR WALL PHONE WIRING BY OTHERS	
○	IG QUADRUPLX RECEPTACLE 20A, 120V	W	3/4" CONDUIT STUB AND BOX FOR PHONE WIRING BY OTHERS	
○	SPLIT WIRED DUPLEX RECEPTACLE 20A, 120V	W	3/4" CONDUIT STUB AND BOX FOR DATA WIRING BY OTHERS	
○	SPLIT WIRED QUADRUPLX RECEPTACLE 20A, 120V	W	3/4" CONDUIT STUB AND BOX FOR DATA/PHONE WIRING BY OTHERS	
TL	TWISTLOCK RECEPTACLE	TV	TELEVISION OUTLET	
□	FLUSH MTD AS INDICATED BY BOX AROUND DEVICE, FLR=FLOOR, CLG=CEILING	WA	WIRELESS ACCESS	
□	SURFACE MOUNT PANELBOARD/LOADCENTER	MB	MEDIA BOX DEMARC LOCATION	
□	FLUSH MOUNT PANELBOARD/LOADCENTER	CO	120V CARBON MONOXIDE ALARM WITH SOUNDER BASE AND BATTERY BACK-UP	
M	UTILITY SERVICE METER	SA	120V SMOKE ALARM WITH SOUNDER BASE AND BATTERY BACK-UP	
■	PLUGMOLD - SEE PLAN VIEW FOR SPECIFIC LENGTHS	SA	120V COMBINATION SMOKE ALARM / CARBON MONOXIDE ALARM WITH SOUNDER BASE AND BATTERY BACK-UP	
ANNC	GENERATOR ANNUNCIATOR	SA		
PP	POWER POLE			
UPS	UNINTERRUPTIBLE POWER SUPPLY			

**ELECTRICAL NOTATIONS**

AC	ABOVE COUNTER	LV	LOW VOLTAGE
AFF	ABOVE FINISHED FLOOR	MBJ	MAIN BONDING JUMPER
AFG	ABOVE FINISHED GRADE	MC	MECHANICAL CONTRACTOR
BPS	BOLTED PRESSURE SWITCH	MTD	MOUNTED
CLG	CEILING MOUNTED	NTS	NOT TO SCALE
CKT	CIRCUIT	(PART)	INDICATES CIRCUIT USED ELSEWHERE
EC	ELECTRICAL CONTRACTOR	PC	PLUMBING CONTRACTOR
EM	EMERGENCY	SSBJ	SUPPLY-SIDE BONDING JUMPER
ETR	EXISTING TO REMAIN	SUC	SITE UTILITY CONTRACTOR
FLR	FLOOR MOUNTED	TYP	TYPICAL
FSC	FIRE SUPPRESSION CONTRACTOR	UG	UNDERGROUND
GC	GENERAL CONTRACTOR	UNO	UNLESS NOTED OTHERWISE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	WP	WEATHERPROOF
GFEP	GROUND FAULT EQUIPMENT PROTECTION	WG	WIRE GUARD
GND	GROUND	WR	WEATHER RESISTANT
HC	HVAC CONTRACTOR	XX*	DIMENSIONED HEIGHT
IG	ISOLATED GROUND		

**ELECTRICAL LINETYPE LEGEND**

---	SWITCH LEG
---	UNDERGROUND ELECTRIC
---	LOW VOLTAGE
---	UNDERGROUND LOW VOLTAGE

**MAIN ELECTRICAL GENERAL NOTES:**

- ALL ELECTRICAL INSTALLATIONS MUST COMPLY WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL STATE AND LOCAL CODES.
- ELECTRICAL SERVICE TO BE INSTALLED IN COMPLIANCE WITH NEC ARTICLE 230.
- CONTRACTOR SHALL OBTAIN FAULT CURRENT INFORMATION FROM UTILITY COMPANY AND PERFORM SHORT CIRCUIT CALCULATIONS. SIZE FUSES AND EQUIPMENT A.I.C. RATINGS ACCORDINGLY.
- CONTRACTOR SHALL INSTALL A SEPARATE EQUIPMENT GROUNDING CONDUCTOR SIZED PER NEC TABLE 250.122 FOR ALL BRANCH CIRCUITS INSTALLED IN NON-METALLIC CONDUITS. METALLIC CONDUITS MAY BE USED AS EQUIPMENT GROUNDING CONDUCTORS PER NEC.
- CONTRACTOR SHALL VERIFY ALL WIRE SIZING DUE TO VOLTAGE DROP CAUSED BY IN-FIELD ROUTING / INSTALLATION DISTANCES.
- SERVICE ENTRANCE EQUIPMENT SHALL BE GROUNDED WITH A SEPARATE COPPER OR ALUMINUM CONDUCTOR AS INDICATED ON THE DRAWINGS AND PER NEC ARTICLE 250.52(A). GROUNDING CONDUCTOR SHALL ALSO BE CONNECTED TO A 5/8" DIAMETER X 8'-0" LONG GROUND ROD FOR SUPPLEMENTAL GROUNDING PER NEC ARTICLE 250.54.
- CONTRACTOR IS RESPONSIBLE FOR LABELING ALL PANELS, DISCONNECTS, LIGHTING CONTROLLERS, ETC., AND ALL CIRCUIT BREAKERS IN THE DISTRIBUTION PANELS PRIOR TO PROJECT COMPLETION. PROVIDE A TYPED DIRECTORY OF ALL CIRCUITS. BREAKERS USED FOR SWITCHING SHALL BE RATED ACCORDINGLY.
- CONTRACTOR SHALL SUPPLY AND INSTALL ALL NEC REQUIRED EQUIPMENT DISCONNECTS (NOT ALL DISCONNECTS MAY BE SHOWN ON THE DRAWINGS). CONTRACTOR SHALL VERIFY ALL DISCONNECT SIZING WITH EACH EQUIPMENT NAMEPLATE RATINGS.
- CONTRACTOR IS RESPONSIBLE TO SECURE AND PAY FOR ALL PERMITS. CONTRACTOR SHALL COMPLY WITH ALL STATE, LOCAL, AND NATIONAL CODES. CONTRACTOR SHALL SCHEDULE INSPECTIONS SO JOB PROGRESS IS NOT DELAYED.
- CONTRACTOR SHALL SUPPLY AND INSTALL ALL EQUIPMENT IN NEW CONDITION AND U.L. LISTED UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL MAKE ARRANGEMENTS WITH LOCAL POWER COMPANY FOR THE INSTALLATION OF NEW ELECTRICAL SERVICE AND METER. INSTALL NEW SERVICE DISTRIBUTION EQUIPMENT AS SPECIFIED ON ELECTRICAL DRAWINGS.
- CONTRACTOR SHALL COORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES AND ARCHITECTURAL DRAWINGS TO ELIMINATE CONFLICTS.
- PRIOR TO CONSTRUCTION START, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND OPERATION MANUALS FOR ALL EQUIPMENT AND ACCESSORIES FOR OWNER APPROVAL.
- CONTRACTOR SHALL PERFORM ALL WORK IN A NEAT AND PROFESSIONAL MANNER.
- PROVIDE FLEXIBLE CONDUIT FOR ALL VIBRATING EQUIPMENT. PROVIDE FLEXIBLE CONDUIT FOR LIGHT FIXTURE CONNECTIONS.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ELECTRICAL EQUIPMENT INFORMATION WITH MANUFACTURERS. CONTRACTOR SHALL PROVIDE ANY ADDITIONAL ELECTRICAL CONNECTIONS OR SERVICES TO EQUIPMENT WHICH ARE NOT SHOWN ON DRAWINGS.
- ALL PENETRATIONS OF WALL, ROOF, AND CEILINGS TO BE SEALED AS REQUIRED WITH U.L. APPROVED FIRE SEALANT TO MAINTAIN FIRE RATING AS REQUIRED. ALL ROOF PENETRATIONS, IF APPLICABLE, ARE TO BE COORDINATED WITH THE OWNER'S DESIGNATED ROOFING CONTRACTOR.
- ELECTRICAL EQUIPMENT EXPOSED TO WEATHER CONDITIONS SHALL BE WEATHERPROOF TYPE. CONDUIT EXPOSED TO WEATHER CONDITIONS OR IN CONTACT WITH CONCRETE SHALL BE POLYVINYL CHLORIDE (PVC) OR GALVANIZED HEAVY WALL STEEL (GRC).
- ALL EXTERIOR RECEPTACLES SHALL BE WEATHER RESISTANT AS WELL AS WEATHERPROOF PER NEC 406.9.
- CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS TO THE OWNER IF INSTALLATION VARIES FROM THE CONTRACT DRAWINGS.
- ANY CONDUIT AND WIRE SIZES SHOWN ARE MINIMUMS. CONTRACTOR SHALL INCREASE SIZES (DUE TO VOLTAGE DROP, QUANTITY OF CURRENT CARRYING CONDUCTORS IN THE SAME CONDUIT/RACEWAY, ETC.) AS REQUIRED BY THE NEC.
- ROOFTOP EQUIPMENT (IF APPLICABLE); CONTRACTOR SHALL INSTALL A WEATHERPROOF DISCONNECT FOR EACH UNIT. CONDUITS SHALL ENTER THE UNDERSIDE OF EACH HVAC UNIT FROM WITHIN THE CURBED AREA FOR THAT UNIT (THEREBY AVOIDING PENETRATIONS THROUGH THE ROOF MEMBRANE). IF J-BOX IS USED FOR SUPPLYING POWER TO MULTIPLE UNITS, THE J-BOX MUST BE LOCATED WITHIN 25 FEET OF EACH UNIT'S DISCONNECT PER THE NEC ARTICLE 240.21(B)(2). CONTRACTOR SHALL SUPPLY AND INSTALL A 120 VAC WEATHERPROOF GFCI RECEPTACLE WITHIN 25' OF EACH UNIT.
- ALL CONTRACTORS, PRIOR TO BID SUBMISSION PROCESS, SHALL VISIT PROPOSED WORK SITE AND FIELD VERIFY ALL EXISTING CONDITIONS. ANY CONDITIONS THAT DIFFER FROM THAT SHOWN ON THIS PLAN SHALL BE REPORTED TO THE ARCHITECT/ENGINEER SO THAT NEW AND REVISED BID DRAWINGS OR INFORMATION MAY BE ISSUED. MODIFICATIONS TO SCOPE OF WORK WHICH RESULT FROM CONTRACTORS NEGLIGENCE TO VISIT THE SITE PRIOR TO BID SUBMISSION SHALL BE CONTRACTOR'S SOLE RESPONSIBILITY.

**ELECTRICAL SHEET INDEX**

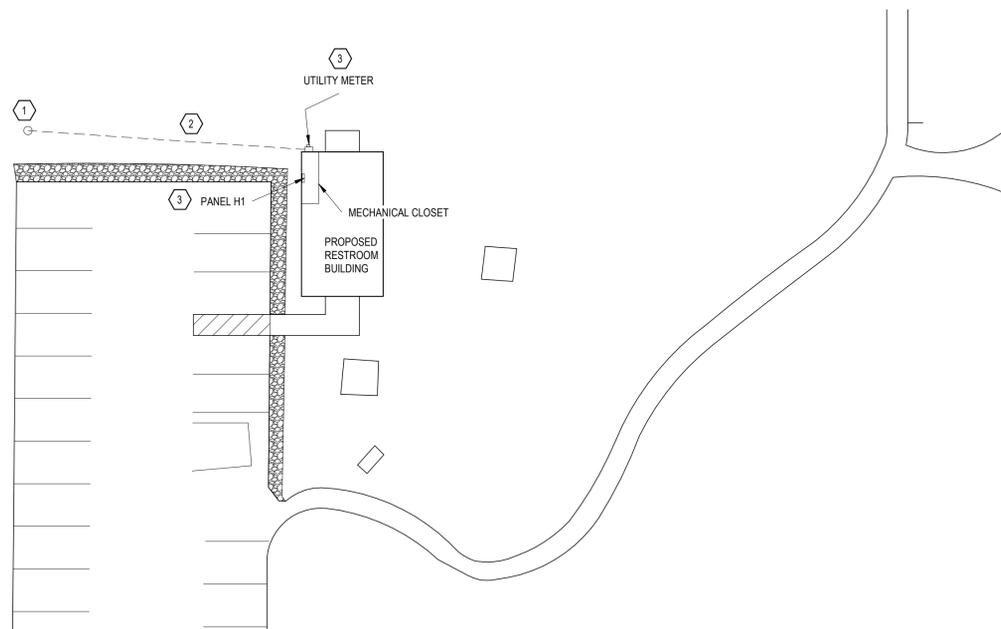
SHEET NO.	SHEET DESCRIPTION
E001	ELECTRICAL COVER SHEET
E200	ELECTRICAL PLAN, RISER DIAGRAM AND SCHEDULES
E801	ENERGY COMPLIANCE REPORT

**GENERAL NOTES:**

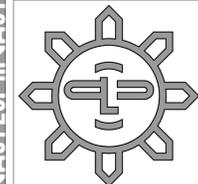
- ALL WORK SHALL MEET OR EXCEED ALL NEC STANDARDS.
- SEE MAIN ELECTRICAL GENERAL NOTES FOR MORE INFORMATION.
- COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO ROUGH-IN.
- VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS FOR ALL FIXTURES AND DEVICES PRIOR TO ROUGH-IN.
- VERIFY THE COLOR OF ALL FIXTURES, DEVICES, AND COVER PLATES WITH OWNER.
- PROVIDE PHOTOCELL CONTROL THROUGH THE LIGHTING CONTROL PANEL FOR ALL EXTERIOR LIGHTING AND SIGNAGE. COORDINATE ALL SETTINGS WITH OWNER.
- ELECTRICAL CONTRACTOR SHALL CLOSELY COORDINATE THE EXACT LOCATIONS OF ALL UTILITY COMPANY CONNECTION POINTS AND REQUIREMENTS. VERIFY ALL REQUIREMENTS WITH LOCAL UTILITY COMPANIES.

**PLAN NOTES:**

- PROPOSED LOCATION OF POLE MOUNTED UTILITY TRANSFORMER. FINAL LOCATION SHALL BE AS DETERMINED BY LOCAL UTILITY COMPANY.
- PROVIDE CONDUIT AND SECONDARY SERVICE CONDUCTORS FOR ELECTRICAL SERVICE. SEE RISER DIAGRAM FOR CONDUIT AND FEEDER SIZES.
- PROPOSED LOCATION OF ELECTRICAL METERING AND ELECTRICAL SERVICE EQUIPMENT.



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



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Project Title  
**HANOVER TOWNSHIP  
PARK RESTROOM**

2592 OLD OXFORD RD  
HAMILTON, OH 45013



Issue Date: ISSUE DATE

Issued for: PERMIT

Revision  
2 REVISION 02/28/2024

Sheet Title  
**ELECTRICAL COVER SHEET**

Project No.  
**PES - 24042**

Drawn By: STAFF

Reviewed By: RRR

Scale:

**E001**



COMcheck Software Version COMcheckWeb  
**Interior Lighting Compliance Certificate**

**Project Information**

Energy Code: 2021 IECC  
 Project Title: Hanover Township Park Restroom  
 Project Type: New Construction

Construction Site: 2592 Old Oxford RD  
 Hamilton, Ohio 45013  
 Owner/Agent:  
 Designer/Contractor: PE Services LLC  
 9 N Broadway  
 Lebanon, Ohio 45036

**Additional Efficiency Package(s)**

Credits: 10.0 Required 0.0 Proposed

**Allowed Interior Lighting Power**

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-Maintenance/Restroom (Workshop)	542	0.91	493
Total Allowed Watts =			493

**Proposed Interior Lighting Power**

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Watt. (C X D)	E
1-Maintenance/Restroom (Workshop)				
LED: S1: 2'X2' LED FLAT PANEL LIGHT FIXT: Other:	1	4	37	148
LED: S2: 4' LED STRIP FIXTURE: Other:	1	3	36	108
LED: W1: RESTROOM CORNER MOUNT LED: Other:	1	4	50	200
Total Proposed Watts =				456

Interior Lighting PASSES: Design 8% better than code

**Interior Lighting Compliance Statement**

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

SCOTT SLAUGHTERBECK - DESIGNER  
 Name - Title Signature Date 3/28/2024

Project Title: Hanover Township Park Restroom  
 Data filename: Report date: 03/28/24  
 Page 1 of 6

COMcheck Software Version COMcheckWeb  
**Exterior Lighting Compliance Certificate**

**Project Information**

Energy Code: 2021 IECC  
 Project Title: Hanover Township Park Restroom  
 Project Type: New Construction  
 Exterior Lighting Zone: 2 (Residential mixed use area (LZ2))

Construction Site: 2592 Old Oxford RD  
 Hamilton, Ohio 45013  
 Owner/Agent:  
 Designer/Contractor: PE Services LLC  
 9 N Broadway  
 Lebanon, Ohio 45036

**Allowed Exterior Lighting Power**

A Area/Surface Category	B Quantity	C Allowed Watts /	D Tradable Wattage	E Allowed Watts (B X C)
ENTRY (Entry canopy)	39 ft2	0.25	Yes	10
MAINTENANCE (Loading dock)	20 ft2	0.35	Yes	7
Total Tradable Watts (a) =				17
Total Allowed Watts =				17
Total Allowed Supplemental Watts (b) =				400

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.  
 (b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

**Proposed Exterior Lighting Power**

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Watt. (C X D)	E
ENTRY (Entry canopy, 39 ft2): Tradable Wattage				
LED: R1: 6" LED REGRESSED SWITCHABLE DOW: Other:	1	1	13	13
MAINTENANCE (Loading dock, 20 ft2): Tradable Wattage				
LED: W2: EXTERIOR LED WALLPACK LIGHT FIX: Other:	1	1	13	13
Total Tradable Proposed Watts =				26

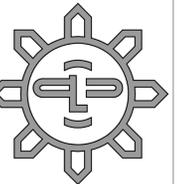
Exterior Lighting PASSES: Design 94% better than code

**Exterior Lighting Compliance Statement**

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

SCOTT SLAUGHTERBECK - DESIGNER  
 Name - Title Signature Date 3/28/2024

Project Title: Hanover Township Park Restroom  
 Data filename: Report date: 03/28/24  
 Page 2 of 6



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Project Title

**HANOVER TOWNSHIP  
 PARK RESTROOM**

2592 OLD OXFORD RD  
 HAMILTON, OH 45013



Issue Date: ISSUE DATE

Issued for: PERMIT

Revision  
 2 REVISION 03/28/2024

Sheet Title  
**ENERGY COMPLIANCE  
 REPORT**

Project No.  
**PES - 24042**

Drawn By: STAFF

Reviewed By: RRR

Scale:



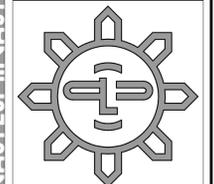
PLUMBING NOTATIONS			
140	140°F HOT WATER	HP	HORSE POWER
140R	140°F HOT WATER RETURN	HT	HEIGHT
AD	AREA DRAIN	INV	INVERT ELEVATION
AFF	ABOVE FINISH FLOOR	LAV	LAVATORY
AFG	ABOVE FINISHED GRADE	LF	LINEAR FOOT
BFP	BACKFLOW PREVENTER	MAX	MAXIMUM
BV	BALANCING VALVE	MC	MECHANICAL CONTRACTOR
BT	BATHTUB	MIN	MINIMUM
CO	CLEAN OUT	MS	MOP SINK
CS	CLINIC SINK	NTS	NOT TO SCALE
CWS	COMBINATION WATER SERVICE	OD	OVERFLOW DRAIN
DCW	DOMESTIC COLD WATER	PC	PLUMBING CONTRACTOR
DD	DECK DRAIN	RD	ROOF DRAIN
DDCV	DOUBLE DETECTOR CHECK VALVE	S	SINK
DF	DRINKING FOUNTAIN	SA	SHOCK ABSORBER
DHW	DOMESTIC HOT WATER	SAN	SANITARY
DHWR	DOMESTIC HOT WATER RETURN	SDL	SPRINKLER DRAIN LINE
DN	DOWN	SE	SEWAGE EJECTOR
DS	DOWNSPOUT	SF	SQUARE FOOT
DWH	DOMESTIC WATER HEATER	SH	SHOWER
EC	ELECTRICAL CONTRACTOR	SP	SUMP PUMP
ET	EXPANSION TANK	SS	SANITARY SEWER
EWC	ELECTRIC WATER COOLER	STM	STORM
EWH	ELECTRIC WATER HEATER	SUC	SITE UTILITY CONTRACTOR
FCO	FLOOR CLEANOUT	SW	SOFT WATER
FD	FLOOR DRAIN	TD	TRENCH DRAIN
FDC	FIRE DEPARTMENT CONNECTION	TMV	THERMOSTATIC MIXING VALVE
FDV	FIRE DEPARTMENT VALVE	TP	TRAP PRIMER
FOG	FATS / OILS / GREASE	TS	TAMPER SWITCH
FR	FIRE RISER	TYP	TYPICAL
FS	FLOW SWITCH	UF	UTILITY FIXTURE
FSC	FIRE SUPPRESSION CONTRACTOR	UG	UNDERGROUND
G	GAS (NATURAL)	UNO	UNLESS NOTED OTHERWISE
GC	GENERAL CONTRACTOR	UR	URINAL
GCO	GRADE CLEANOUT	V	VENT
GPM	GALLONS PER MINUTE	VR	VENT RISER
GRD	GRADE	VTR	VENT THROUGH ROOF
HB	HOSE BIBB	WC	WATER CLOSET
HC	HVAC CONTRACTOR	WCO	WALL CLEANOUT
HCO	HORIZONTAL CLEANOUT	WH	WALL HYDRANT
HD	HUB DRAIN		

PLUMBING SYMBOL LEGEND			
<b>NOTES:</b>			
1. ALL SYMBOLS MAY NOT APPLY.			
	CODED PLAN NOTE		DETAIL # SHEET #
	EQUIPMENT DESIGNATION		REFERENCE TAG
	BACKFLOW PREVENTER		BALANCING VALVE
	BALL VALVE		BUTTERFLY VALVE
	CAP OFF EXISTING		CHECK VALVE
	CLEANOUT PLUG		DOUBLE DETECTOR CHECK VALVE
	DRY-PIPE VALVE		FIRE ALARM VALVE
	FIRE DEPARTMENT CONNECTION		FIRE PROTECTION CONCEALED SPRINKLER
	FIRE PROTECTION PENDANT SPRINKLER		FIRE PROTECTION SPRINKLER WITH GUARD
	FIRE PROTECTION UPRIGHT SPRINKLER		FLOOR CLEANOUT
	FLOOR DRAIN		FLOW SWITCH
	GAS COCK		GATE VALVE
	MIXING VALVE		PIPING DOWN
	PIPING OUT BOTTOM		PIPING OUT TOP
	PIPING RISE OR DROP		PIPING UP
	PLUG VALVE		POINT OF CONNECTION
	PRE-ACTION VALVE		PRESSURE REDUCING VALVE
	RECIRCULATION PUMP		ROOF / OVERFLOW DRAIN
	SOLENOID VALVE		STRAINER
	SUPERVISED GATE VALVE		TEST PLUG
	THERMOMETER		UNION
	UTILITY METER - GAS / WATER		WALL HYDRANT / HOSE BIBB

PLUMBING LINETYPE LEGEND	
	DOMESTIC COLD WATER
	DOMESTIC COLD WATER UNDERGROUND
	DOMESTIC HOT WATER
	SANITARY UNDERGROUND VENT

- GENERAL NOTES:**
- THIS WORK SHALL BE EXECUTED IN STRICT CONFORMITY WITH THE LATEST EDITION OF THE PREVAILING STATE PLUMBING AND BUILDING CODES AND ALL LOCAL REGULATIONS THAT MAY APPLY. IN CASE OF CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND A GOVERNING CODE OR ORDINANCE, THE MORE STRINGENT STANDARD SHALL APPLY.
  - ALL PLUMBING FIXTURES SHALL BE SUPPLIED WITH INDIVIDUAL HEAVY DUTY SUPPLY STOPS AND CODE APPROVED P-TRAPS WITH CLEANOUTS. EXPOSED PIPING SHALL BE CHROME PLATED WITH CHROMED ESCUTCHEONS AT WALL PENETRATIONS.
  - NO PIPING SHALL PASS DIRECTLY OVER ELECTRICAL POWER DISTRIBUTION CABINETS. CONTRACTOR SHALL COORDINATE PANEL LOCATIONS, PRIOR TO PIPING INSTALLATION.
  - ALL FLOOR DRAIN AND HUB DRAIN TRAPS SHALL BE PROVIDED WITH TRAP PRIMERS OR TRAP GUARDS, PER LOCAL CODES.
  - ALL HORIZONTAL VENT PIPING MAY NOT BE SHOWN ON THIS PLAN FOR THE SAKE OF CLARITY. REFER TO SANITARY ISOMETRIC FOR VENT PIPE ROUTING AND PROVIDE COMPLETE VENTING SYSTEM IN ACCORDANCE WITH CODE.
  - ALL PLUMBING WORK SHALL BE COORDINATED WITH ALL OTHER TRADES, PRIOR TO CONSTRUCTION.
  - ALL DOMESTIC WATER BRANCH LINES SHALL HAVE FULL PORT, TWO PIECE BALL TYPE, ISOLATION VALVES.
  - PROVIDE WATER HAMMER ARRESTORS (WHA) AS REQUIRED, WITH QUICK CLOSING VALVES AND ON SYSTEMS WITH HIGHER THAN NORMAL PRESSURE, WHERE WATER HAMMER MAY BE AN ISSUE.
  - INSTALL ALL FLOOR CLEANOUTS TO CLEAR EQUIPMENT AND PROVIDE REQUIRED ACCESSIBILITY FOR MAINTENANCE.
  - VERIFY INVERT ELEVATIONS AND EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES, PRIOR TO INSTALLING ANY UNDERGROUND PIPING. COORDINATE WITH SITE UTILITY CONTRACTOR.

PLUMBING SHEET INDEX	
Sheet Number	Sheet Name
P001	PLUMBING COVER SHEET
P101	PLUMBING PLANS
P601	PLUMBING SCHEDULES



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Project Title  
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 HAMILTON, OH 45013



Issue Date: 03/29/2024

Issued for: PERMIT

Revision 2 REVISION 03/29/2024

Sheet Title  
**PLUMBING COVER SHEET**

Project No.  
**PES - 24042**

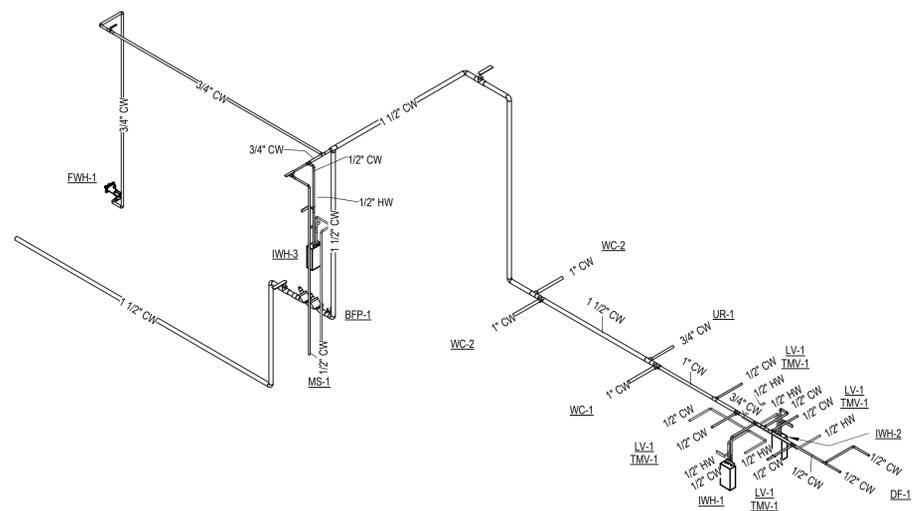
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Reviewed By: RRR

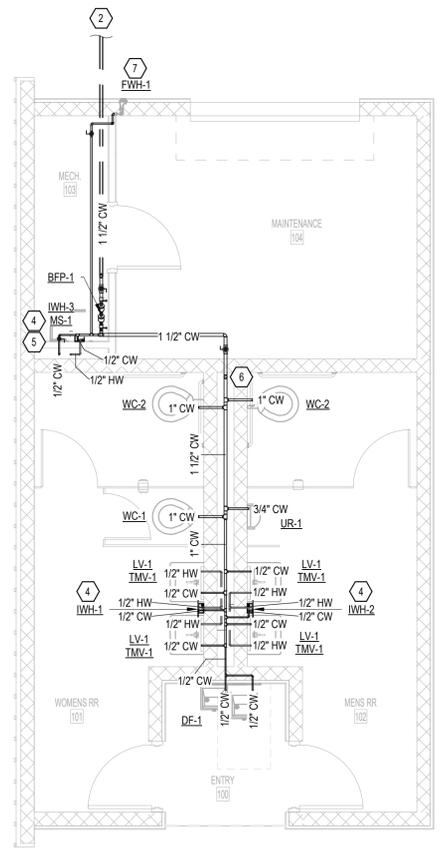
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**P001**

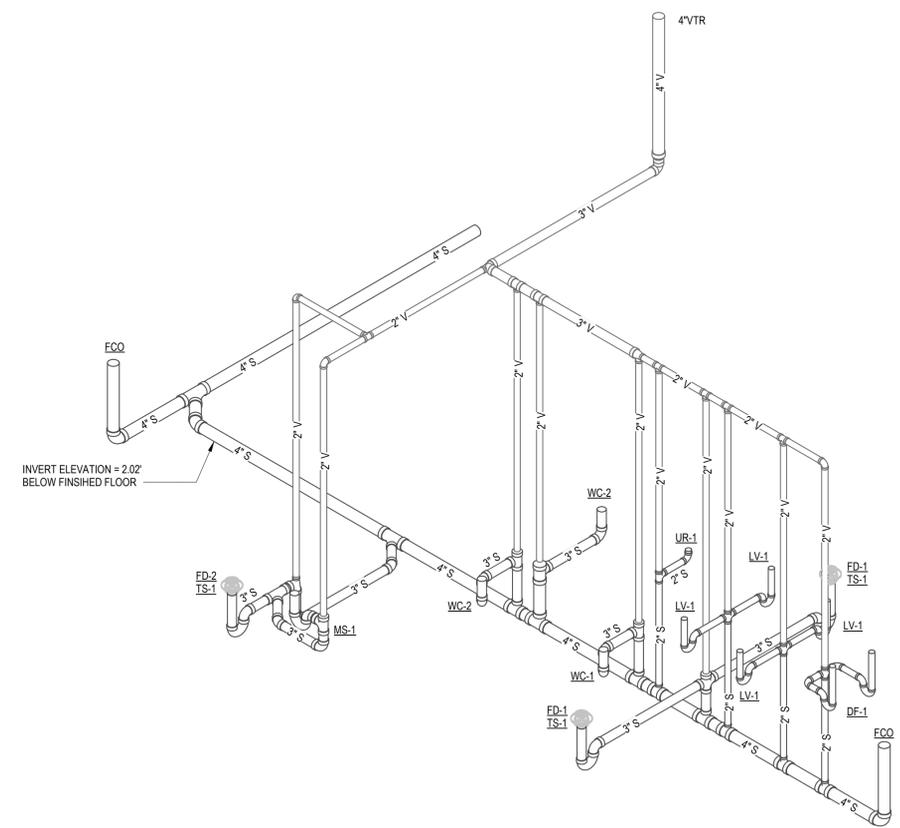
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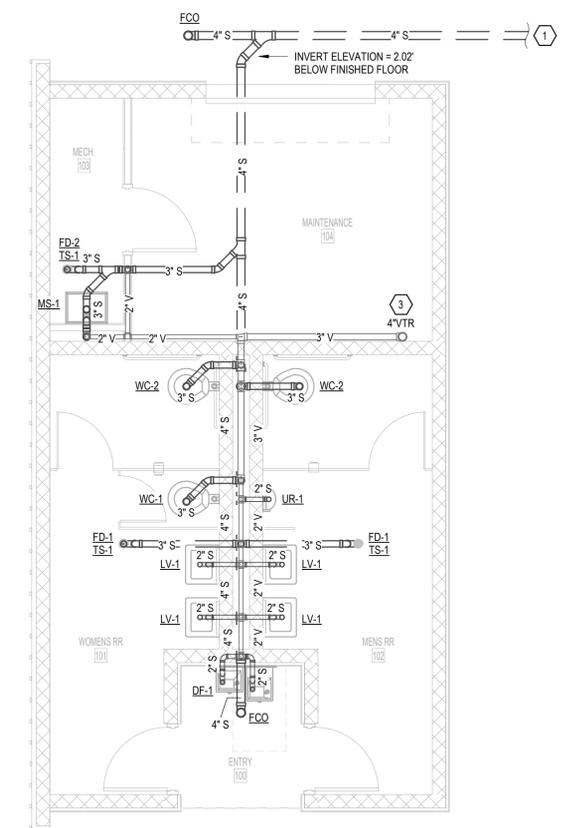
**4** WATER RISER DIAGRAM  
NOT TO SCALE



**2** WATER PLAN  
1/4" = 1'-0"



**3** SANITARY & VENT ISOMETRIC  
NOT TO SCALE



**1** SANITARY & VENT PLAN  
1/4" = 1'-0"

**PLAN NOTES:**

- 4" SANITARY EXIT. REFER TO SITE UTILITY PLAN FOR CONTINUATION.
- 1-1/2" DOMESTIC WATER SERVICE. REFER TO SITE UTILITY PLAN FOR CONTINUATION.
- CONNECT 3" VENT TO 4" VENT THROUGH ROOF.
- CONNECT 1/2" COLD WATER TO ELECTRIC WATER HEATER. PROVIDE 1/2" HOT WATER SUPPLY TO PLUMBING FIXTURES. PROVIDE SHUTOFF VALVES.
- 1/2" COLD WATER AND 1/2" HOT WATER IN WALL TO MOP SINK
- 1-1/2" COLD WATER DOWN IN WALL. CONNECT 1" COLD WATER TO EACH WATER CLOSET. 3/4" COLD WATER TO URINAL. 1/2" COLD WATER TO EACH LAVATORY. 1/2" COLD WATER TO EACH INSTANTANEOUS WATER HEATER AND 1/2" COLD WATER TO DRINKING FOUNTAIN.
- 3/4" COLD WATER DOWN IN WALL TO FREEZEPROOF WALL HYDRANT. PROVIDE SHUTOFF VALVE.

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Project Title  
**HANOVER TOWNSHIP  
PARK RESTROOM**  
2592 OLD OXFORD RD  
HAMILTON, OH 45013



Issue Date: 03/29/2024  
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Revision	Description	Date
2	REVISION	03/28/2024

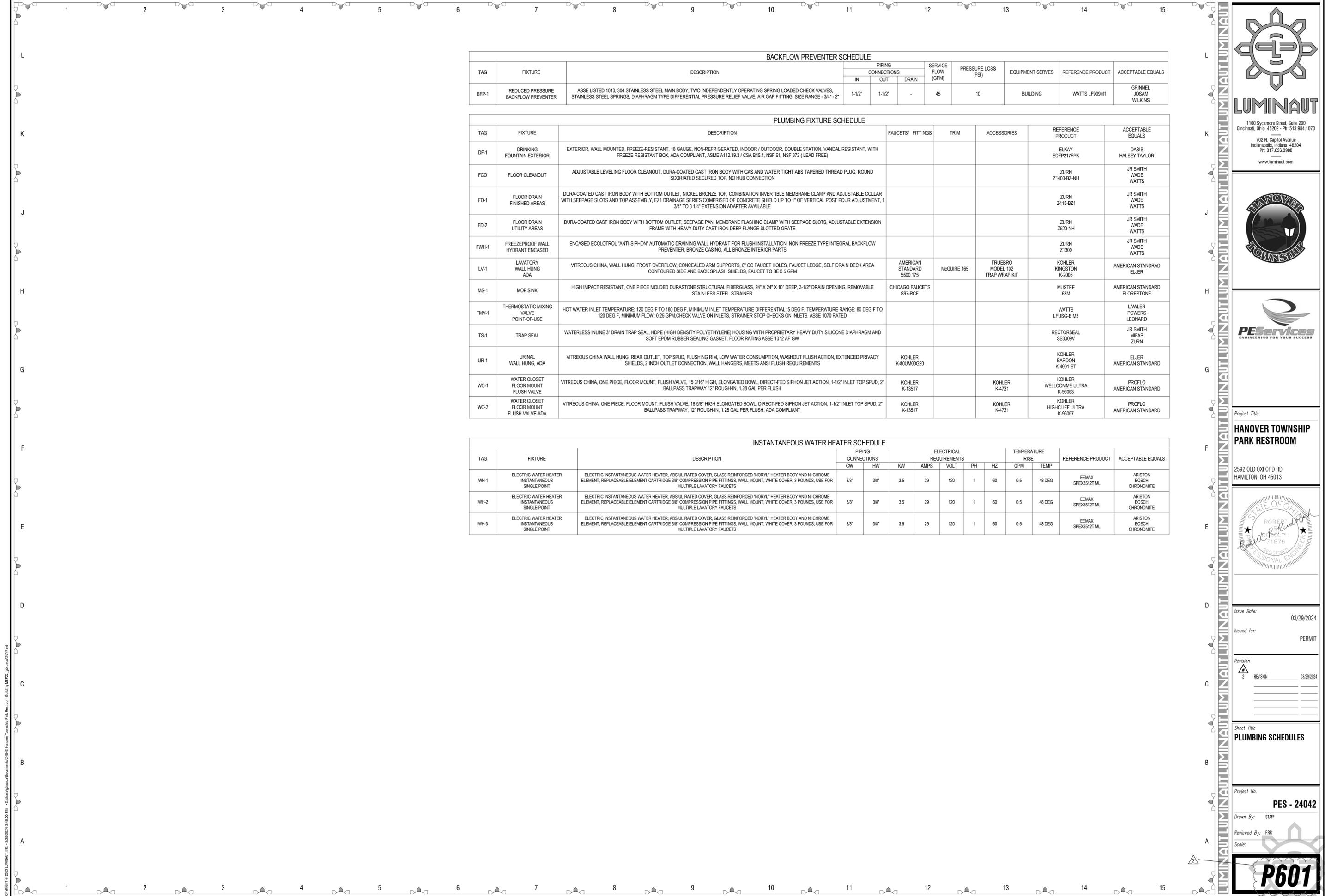
Sheet Title  
**PLUMBING PLANS**

Project No.  
**PES - 24042**

Drawn By: STAFF  
Reviewed By: RRR  
Scale: 1/4" = 1'-0"



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BACKFLOW PREVENTER SCHEDULE											
TAG	FIXTURE	DESCRIPTION	PIPING CONNECTIONS			SERVICE FLOW (GPM)	PRESSURE LOSS (PSI)	EQUIPMENT SERVES	REFERENCE PRODUCT	ACCEPTABLE EQUALS	
			IN	OUT	DRAIN						
BFP-1	REDUCED PRESSURE BACKFLOW PREVENTER	ASSE LISTED 1013, 304 STAINLESS STEEL MAIN BODY, TWO INDEPENDENTLY OPERATING SPRING LOADED CHECK VALVES, STAINLESS STEEL SPRINGS, DIAPHRAGM TYPE DIFFERENTIAL PRESSURE RELIEF VALVE, AIR GAP FITTING, SIZE RANGE - 3/4" - 2"	1-1/2"	1-1/2"	-	45	10	BUILDING	WATTS LF909M1	GRINNEL JOSAM WILKINS	

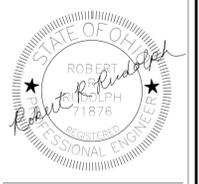
PLUMBING FIXTURE SCHEDULE											
TAG	FIXTURE	DESCRIPTION	FAUCETS/ FITTINGS	TRIM	ACCESSORIES	REFERENCE PRODUCT	ACCEPTABLE EQUALS				
DF-1	DRINKING FOUNTAIN-EXTERIOR	EXTERIOR, WALL MOUNTED, FREEZE-RESISTANT, 18 GAUGE, NON-REFRIGERATED, INDOOR / OUTDOOR, DOUBLE STATION, VANDAL RESISTANT, WITH FREEZE RESISTANT BOX, ADA COMPLIANT, ASME A112.19.3 / CSA B45.4, NSF 61, NSF 372 ( LEAD FREE)				ELKAY EDP217FFPK	OASIS HALSEY TAYLOR				
FCO	FLOOR CLEANOUT	ADJUSTABLE LEVELING FLOOR CLEANOUT, DURA-COATED CAST IRON BODY WITH GAS AND WATER TIGHT ABS TAPERED THREAD PLUG, ROUND SCORRIATED SECURED TOP, NO HUB CONNECTION				ZURN Z1400-BZ-NH	JR SMITH WADE WATTS				
FD-1	FLOOR DRAIN FINISHED AREAS	DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, NICKEL BRONZE TOP, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND TOP ASSEMBLY, E21 DRAINAGE SERIES COMPRISED OF CONCRETE SHIELD UP TO 1" OF VERTICAL POST POUR ADJUSTMENT, 1 3/4" TO 3 1/4" EXTENSION ADAPTER AVAILABLE				ZURN Z415-BZ1	JR SMITH WADE WATTS				
FD-2	FLOOR DRAIN UTILITY AREAS	DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, SEEPAGE PAN, MEMBRANE FLASHING CLAMP WITH SEEPAGE SLOTS, ADJUSTABLE EXTENSION FRAME WITH HEAVY-DUTY CAST IRON DEEP FLANGE SLOTTED GRATE				ZURN Z520-NH	JR SMITH WADE WATTS				
FWH-1	FREEZEPROOF WALL HYDRANT ENCASED	ENCASED ECOLOTROL "ANTI-SIPHON" AUTOMATIC DRAINING WALL HYDRANT FOR FLUSH INSTALLATION, NON-FREEZE TYPE INTEGRAL BACKFLOW PREVENTER, BRONZE CASING, ALL BRONZE INTERIOR PARTS				ZURN Z1300	JR SMITH WADE WATTS				
LV-1	LAVATORY WALL HUNG ADA	VITREOUS CHINA, WALL HUNG, FRONT OVERFLOW, CONCEALED ARM SUPPORTS, 8" OC FAUCET HOLES, FAUCET LEDGE, SELF DRAIN DECK AREA CONTOURED SIDE AND BACK SPLASH SHIELDS, FAUCET TO BE 0.5 GPM	AMERICAN STANDARD 5500.175	McGUIRE 165	TRUEBRO MODEL 102 TRAP WRAP KIT	KOHLER KINGSTON K-2006	AMERICAN STANDRAD ELJER				
MS-1	MOP SINK	HIGH IMPACT RESISTANT, ONE PIECE MOLDED DURASTONE STRUCTURAL FIBERGLASS, 24" X 24" X 10" DEEP, 3-1/2" DRAIN OPENING, REMOVABLE STAINLESS STEEL STRAINER	CHICAGO FAUCETS 897-RCF			MUSTEE 63M	AMERICAN STANDARD FLORESTONE				
TMV-1	THERMOSTATIC MIXING VALVE POINT-OF-USE	HOT WATER INLET TEMPERATURE: 120 DEG F TO 180 DEG F, MINIMUM INLET TEMPERATURE DIFFERENTIAL: 5 DEG F, TEMPERATURE RANGE: 80 DEG F TO 120 DEG F, MINIMUM FLOW: 0.25 GPM,CHECK VALVE ON INLETS, STRAINER STOP CHECKS ON INLETS, ASSE 1070 RATED				WATTS LFUSG-B M3	LAWLER POWERS LEONARD				
TS-1	TRAP SEAL	WATERLESS INLINE 3" DRAIN TRAP SEAL, HDPE (HIGH DENSITY POLYETHYLENE) HOUSING WITH PROPRIETARY HEAVY DUTY SILICONE DIAPHRAGM AND SOFT EPDM RUBBER SEALING GASKET, FLOOR RATING ASSE 1072 AF GW				RECTORSEAL SS3009V	JR SMITH MIFAB ZURN				
UR-1	URINAL WALL HUNG, ADA	VITREOUS CHINA WALL HUNG, REAR OUTLET, TOP SPUD, FLUSHING RIM, LOW WATER CONSUMPTION, WASHOUT FLUSH ACTION, EXTENDED PRIVACY SHIELDS, 2 INCH OUTLET CONNECTION, WALL HANGERS, MEETS ANSI FLUSH REQUIREMENTS	KOHLER K-80UM00G20			KOHLER BARDON K-4991-ET	ELJER AMERICAN STANDARD				
WC-1	WATER CLOSET FLOOR MOUNT FLUSH VALVE	VITREOUS CHINA, ONE PIECE, FLOOR MOUNT, FLUSH VALVE, 15 3/16" HIGH, ELONGATED BOWL, DIRECT-FED SIPHON JET ACTION, 1-1/2" INLET TOP SPUD, 2" BALLPASS TRAPWAY 12" ROUGH-IN, 1.28 GAL PER FLUSH	KOHLER K-13517		KOHLER K-4731	KOHLER WELLCOMME ULTRA K-96053	PROFLO AMERICAN STANDARD				
WC-2	WATER CLOSET FLOOR MOUNT FLUSH VALVE-ADA	VITREOUS CHINA, ONE PIECE, FLOOR MOUNT, FLUSH VALVE, 16 5/8" HIGH ELONGATED BOWL, DIRECT-FED SIPHON JET ACTION, 1-1/2" INLET TOP SPUD, 2" BALLPASS TRAPWAY, 12" ROUGH-IN, 1.28 GAL PER FLUSH, ADA COMPLIANT	KOHLER K-13517		KOHLER K-4731	KOHLER HIGHCLIFF ULTRA K-96057	PROFLO AMERICAN STANDARD				

INSTANTANEOUS WATER HEATER SCHEDULE													
TAG	FIXTURE	DESCRIPTION	PIPING CONNECTIONS		ELECTRICAL REQUIREMENTS					TEMPERATURE RISE		REFERENCE PRODUCT	ACCEPTABLE EQUALS
			CW	HW	KW	AMPS	VOLT	PH	HZ	GPM	TEMP		
IWH-1	ELECTRIC WATER HEATER INSTANTANEOUS SINGLE POINT	ELECTRIC INSTANTANEOUS WATER HEATER, ABS UL RATED COVER, GLASS REINFORCED "NORYL" HEATER BODY AND NI CHROME ELEMENT, REPLACEABLE ELEMENT CARTRIDGE 3/8" COMPRESSION PIPE FITTINGS, WALL MOUNT, WHITE COVER, 3 POUNDS, USE FOR MULTIPLE LAVATORY FAUCETS	3/8"	3/8"	3.5	29	120	1	60	0.5	48 DEG	EEMAX SPEX3512T ML	ARISTON BOSCH CHRONOMITE
IWH-2	ELECTRIC WATER HEATER INSTANTANEOUS SINGLE POINT	ELECTRIC INSTANTANEOUS WATER HEATER, ABS UL RATED COVER, GLASS REINFORCED "NORYL" HEATER BODY AND NI CHROME ELEMENT, REPLACEABLE ELEMENT CARTRIDGE 3/8" COMPRESSION PIPE FITTINGS, WALL MOUNT, WHITE COVER, 3 POUNDS, USE FOR MULTIPLE LAVATORY FAUCETS	3/8"	3/8"	3.5	29	120	1	60	0.5	48 DEG	EEMAX SPEX3512T ML	ARISTON BOSCH CHRONOMITE
IWH-3	ELECTRIC WATER HEATER INSTANTANEOUS SINGLE POINT	ELECTRIC INSTANTANEOUS WATER HEATER, ABS UL RATED COVER, GLASS REINFORCED "NORYL" HEATER BODY AND NI CHROME ELEMENT, REPLACEABLE ELEMENT CARTRIDGE 3/8" COMPRESSION PIPE FITTINGS, WALL MOUNT, WHITE COVER, 3 POUNDS, USE FOR MULTIPLE LAVATORY FAUCETS	3/8"	3/8"	3.5	29	120	1	60	0.5	48 DEG	EEMAX SPEX3512T ML	ARISTON BOSCH CHRONOMITE

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**PLUMBING SCHEDULES**

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