

PROJECT DIRECTORY

CLIENT

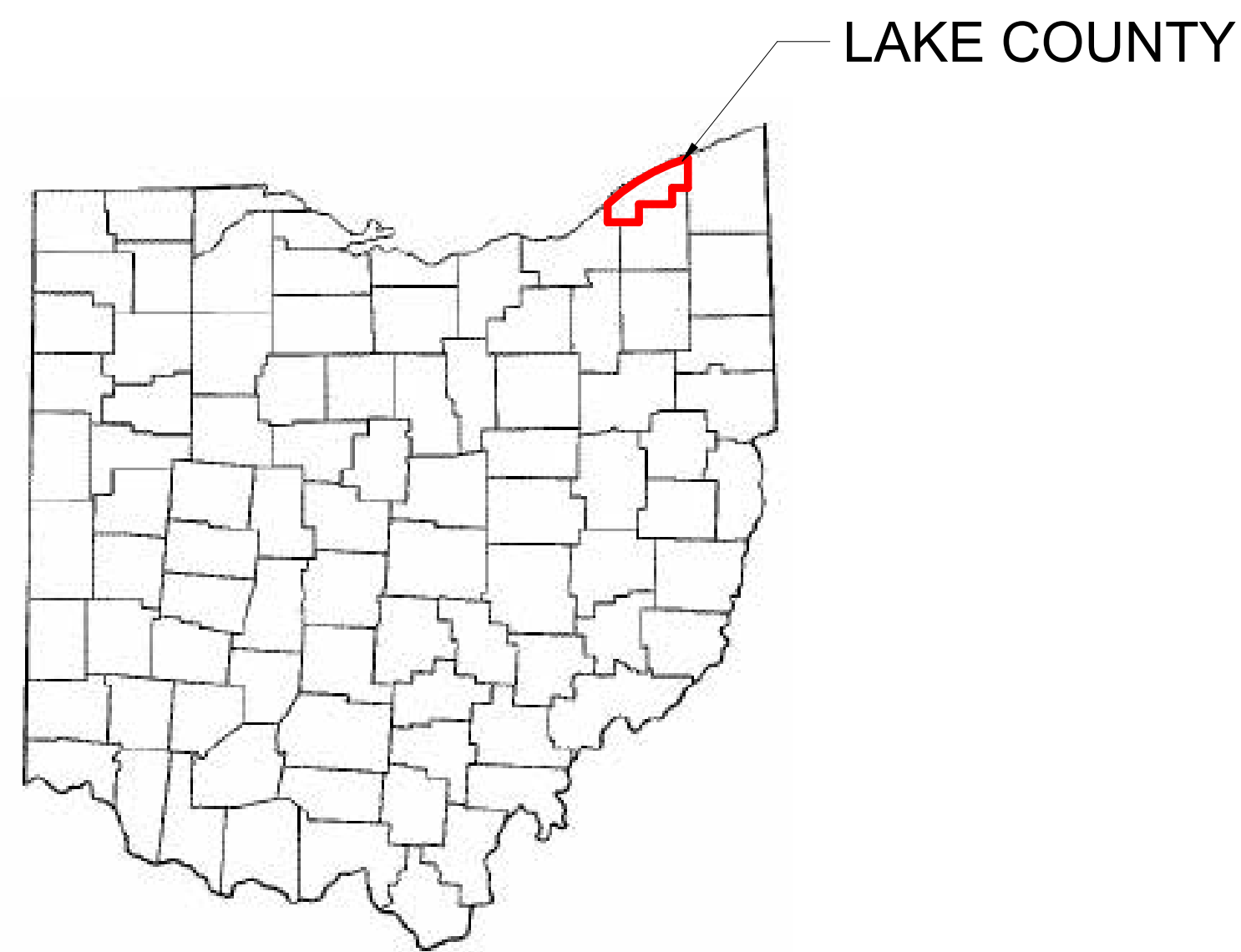
CITY OF WILLOWICK
30435 LAKESHORE BOULEVARD
WILLOWICK, OH 44095

ARCHITECT

VERDANTAS ARCHITECTURE, INC.
8150 STERLING CT
MENTOR, OHIO 44060
(p) 440.951.9000

MECHANICAL, ELECTRICAL, AND PLUMBING

TEC INC. ENGINEERING AND DESIGN
33851 CURTIS BLVD, SUITE 216
EASTLAKE, OH 44095
(p) 440.9531289



City of
Willowick, Ohio
Great Living On A Great Lake

CITY OF WILLOWICK Fire Station ADA Bathroom / Locker Room Improvements

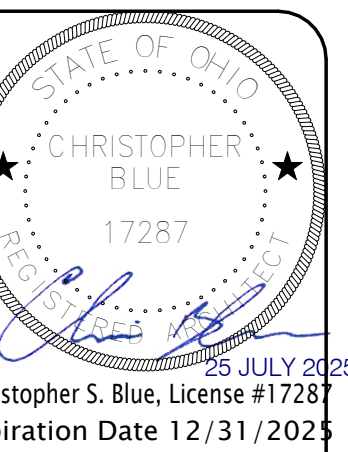
30435 LAKESHORE BOULEVARD WILLOWICK, OH 44095

SITE MAP



DRAWING INDEX

DWG #	SHEET TITLE	0	1	2	3	4
G0.00	COVER SHEET					
LS1.01	LIFE SAFETY PLAN					
D1.01	DEMOLITION PLAN					
A0.01	ABBREVIATIONS & SYMBOLS					
A1.01	PLANS					
A1.02	FINISH PLANS AND ELEVATIONS					
A1.03	SCHEDULES AND DETAILS					
PD0.01	PLUMBING DEMO PLAN					
P0.01	PLUMBING SCHEDULES, NOTES, DETAILS, ETC.					
P0.02	PLUMBING SPEC SHEET AND DIAGRAMS					
P1.01	FIRST FLOOR PLUMBING PLAN					
MD0.01	MECHANICAL DEMO PLAN					
M0.01	MECHANICAL SCHEDULES, NOTES, DETAILS, ETC.					
M1.01	FIRST FLOOR MECHANICAL PLAN					
E0.01	NOTES, SYMBOLS, SPECIFICATIONS & SCHEDULES					
E1.01	SCHEDULES, LIGHTING, POWER & DEMO PLANS					



verdantas
8150 STERLING CT
MENTOR, OHIO 44060

REV	REVISIONS	DATE	BY

DATE: 7/29/2025
DRAWN BY: VK
CHECKED BY: CB
APPROVED BY: PG
F.B. NO. PG.

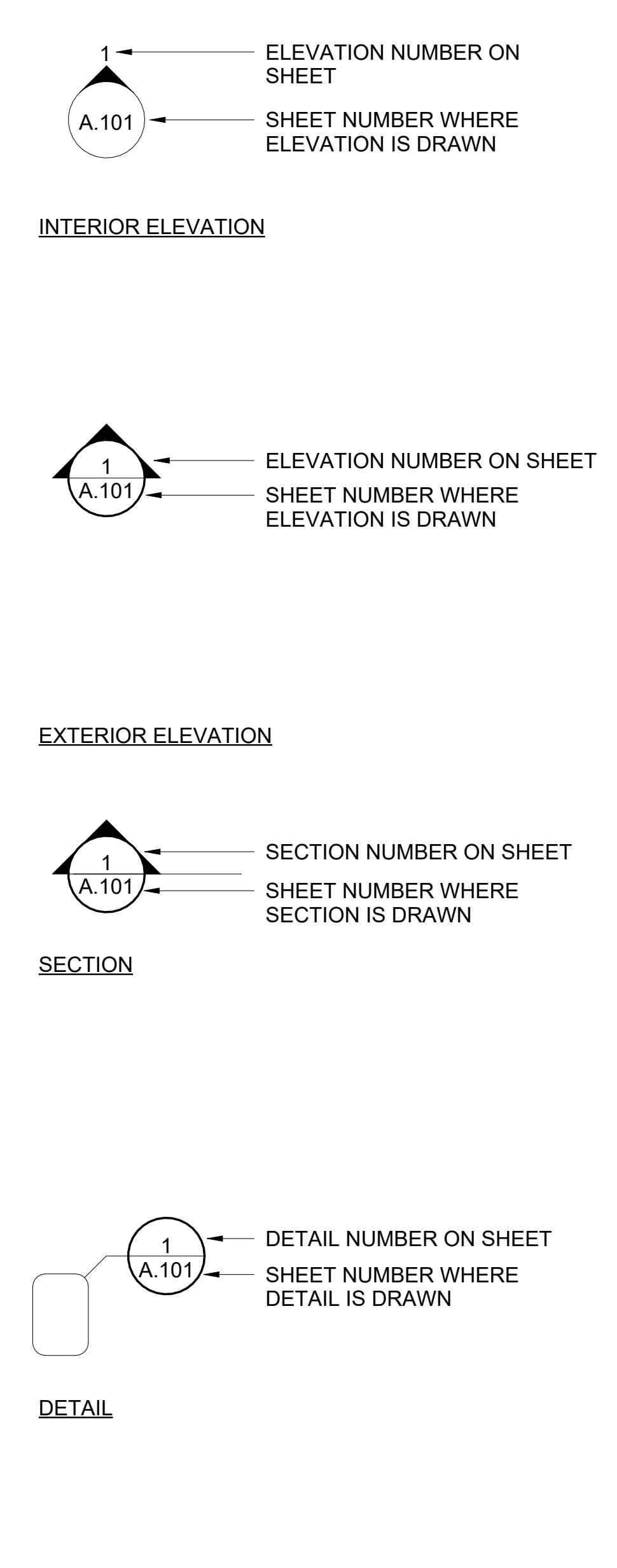
Fire Station ADA Bathroom/Locker Room Improvements
City of Willowick
30435 Lakeshore Blvd, Willowick, OH 44095
COVER SHEET

SCALE:
CONTRACT NO:
241771
SHEET
G0.00

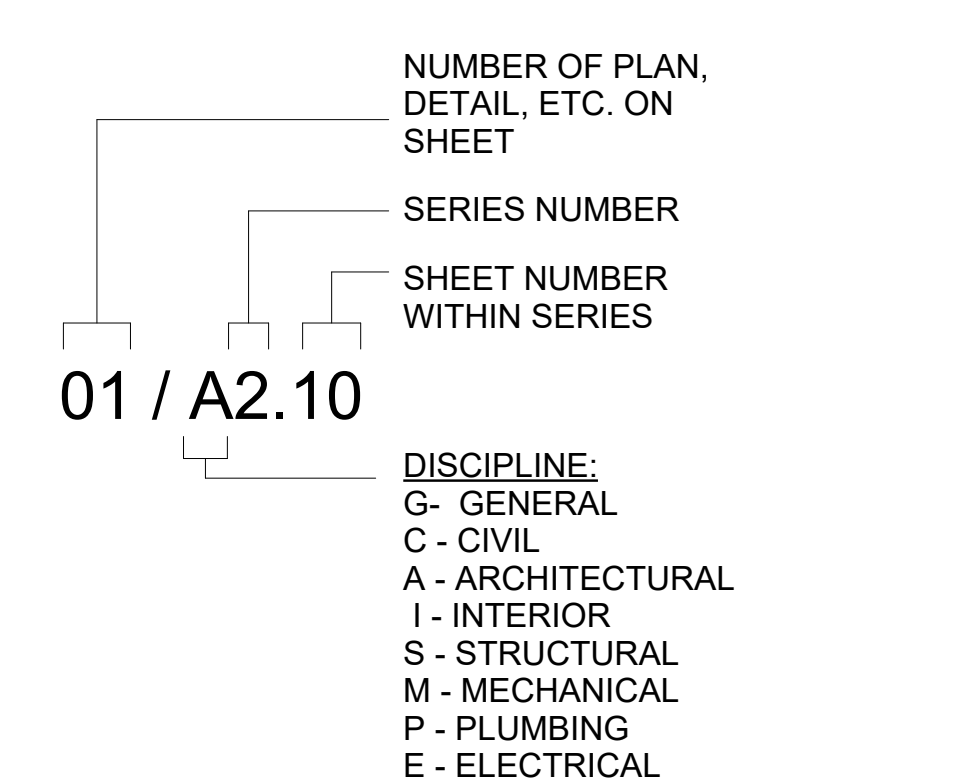
DRAWING ABBREVIATIONS

<p>AB ANCHOR BOLT ABV ABOVE AC ACOUSTICAL / AIR CONDITIONING ACT ACOUSTICAL CEILING TILE AD AREA DRAIN ADA AMERICANS WITH DISABILITIES ACT ADDL ADDITIONAL ADJ ADJUSTABLE ADJT ADJACENT A/E ARCHITECT/ENGINEER AFF ABOVE FINISHED FLOOR AFG ABOVE FINISHED GRADE AFS ABOVE FINISHED SLAB AGG AGGREGATE AHU AIR HANDLING UNIT AIB AIR INFILTRATION BARRIER AL ALIGN ALT ALTERNATE ALUM ALUMINUM ANOD ANODIZE APPROX APPROXIMATE ARCH ARCHITECT AUX AUXILIARY AV AUDIO / VISUAL AVG AVERAGE</p> <p>B/ BOTTOM OF B/B BACK TO BACK B/F BOTTOM OF FOOTING BD BOARD BDRY BOUNDARY BHMA BUILDER'S HARDWARE MANUFACTURER'S ASSOCIATION BLDG BUILDING BLKG BLOCKING BOS BOTTOM OF STEEL BOT BOTTOM BP BASE PLATE BRG BEARING BRK BRICK BRKT BRACKET BSMT BASEMENT BTWN BETWEEN BUR BUILT-UP ROOFING BW BOTH WAYS</p> <p>CAB CABINET CB CATCH BASIN CCTV CLOSED CIRCUIT TV CD CONSTRUCTION DOCUMENTS CDR CARD READER CEM CEMENT CER CERAMIC CF CONTRACTOR FURNISHED CF/CI CONTRACTOR FURNISHED /CONTRACTOR INSTALLED CFMF COLD-FORMED METAL FRAMING CG CORNER GUARD CIP CAST-IN-PLACE CJ CONTROL JOINT CL CENTER LINE CLG CEILING CLG HT CEILING HEIGHT CLO CLOSET CLR COLOR, CLEARANCE CLRM CLASSROOM CMU CONCRETE MASONRY UNIT CO CLEANOUT COL COLUMN COMB COMBINATION COMM COMMUNICATION CONC CONCRETE CONF CONFERENCE CONST CONSTRUCTION CONT CONTINUOUS CONTR CONTRACTOR COORD COORDINATE CORR CORRIDOR, CORRUGATED CPT CARPET CSWK CASEWORK CT CERAMIC TILE CTR CENTER CU FT CUBIC FEET</p> <p>D DEPTH DBL DOUBLE DEMO DEMOLITION DEPT DEPARTMENT DET DETAIL DF DRINKING FOUNTAIN DIA DIAMETER DIAG DIAGONAL, DIAGRAM DIM DIMENSION DIR DIRECTION DIST DISTANCE DL DEAD LOAD DN DOWN DOC DOCUMENT DR DOOR DS DOWNSPOUT DWG DRAWING</p>	<p>EA EACH EF EACH FACE EIFS EXTERIOR INSULATION AND FINISH SYSTEM EB EXPANSION BOLT EJ EXPANSION JOINT ES EACH SIDE EL ELEVATION ELEC ELECTRIC ELEV ELEVATOR EMER EMERGENCY EPS EXPANDED POLYSTYRENE BOARD (INSULATION) EQ EQUAL EWC ELECTRIC WATER COOLER EXP EXPOSED EXT EXTERIOR, EXTINGUISHER</p> <p>F/ FACE OF F/C FACE OF CONCRTE F/F FACE TO FACE, FLOOR TO FLOOR F/M FACE OF MASONRY F/S FACE OF STUDS FA FIRE ALARM FD FLOOR DRAIN FDN FOUNDATION FE FIRE EXTINGUISHER FEC FIRE EXTINGUISHER CABINET FF FINISH FLOOR FF&E FIXTURE, FURNISHING & EQUIPMENT FHC FIRE HOSE CABINET FHR FIRE HOSE RACK FIN FINISH FLR FLOOR FM FACTORY MUTUAL FP FIRE PROOFING FR FRAME FTG FOOTING FUR FURRING FUT FUTURE FVC FIRE VALVE CABINET</p> <p>GA GAUGE GAL GALLON GALV GALVANIZED GB GRAB BAR GC GENERAL CONTRACTOR GEN GENERAL, GENERATOR GFCI GOVERNMENT FURNISHED CONTRACTOR INSTALLED GFGI GOVERNMENT FURNISHED INSTALLED BY GOVERNMENT GL GLASS GR GRADE GR BM GRADE BEAM GRD GROUND GUT GUTTER GYP BD GYPSUM BOARD</p> <p>H HIGH HB HOSE BIBB HC HANDICAPPED HD HEAVY DUTY HDR HEADER HDW HARDWARE HM HOLLOW METAL HORIZ HORIZONTAL HP HIGH POINT HT HEIGHT HTR HEATER HVAC HEATING, VENTILATING, & AIR CONDITIONING HWD HARDWOOD</p> <p>IBC INTERNATIONAL BUILDING CODE ID INSIDE DIAMETER ILO IN LIEU OF IN INCH INFO INFORMATION INSUL INSULATION INT INTERIOR INV INVERT</p> <p>J JOIST JAN JANITOR JB JUNCTION BOX JT JOINT</p> <p>KD KNOCK DOWN KIP KILO-POUND KIT KITCHEN KO KNOCKOUT KPL KICKPLATE</p>	<p>LAM LAMINATE LAV LAVATORY LBR LUMBER LB POUND LF LINEAR FEET (FOOT) LH LEFT HAND LIN LINEAR LKR LOCKER LL LIVE LOAD LLH LONG LEG HORIZONTAL LLV LONG LEG VERTICAL LOC LOCATION LP LOW POINT LT LIGHT LTWT LIGHT WEIGHT LVR LOUVER</p> <p>M METER MAINT MAINTENANCE MAS MASOMRY MATL MATERIAL MAX MAXIMUM MECH MECHANICAL MEMB MEMBRANE MEZZ MEZZANINE MFR MANUFACTURER MIN MINIMUM, MINUTE MISC MISCELLANEOUS MM MILLIMETER MO MASONRY OPENING MOD MODULAR, MODIFY MOV MOVABLE MTD MOUNTED MTL METAL MULL MULLION</p> <p>NA NOT APPLICABLE NFPA NATIONAL FIRE PROTECTION ASSOCIATION NIC NOT IN CONTRACT NUMBER NO NOMINAL NRC NOISE REDUCTION COEFFICIENT NTS NOT TO SCALE</p> <p>OA OVERALL OC ON CENTER OD OUTSIDE DIAMETER OF OUTSIDE FACE OFD OVERFLOW DRAIN OPH OPPOSITE HAND OPNG OPENING OPP OPPOSITE OWSJ OPEN WEB STEEL JOIST OPR OPERABLE ORD OVERFLOW ROOF DRAIN ORIG ORIGINAL OZ OUNCE</p> <p>PA PUBLIC ADDRESS PAR PARAPET PAT PATTERN PB PULL BOX PBD PARTICLEBOARD PCF POUNDS PER CUBIC FOOT PCT PERCENT PERF PERFORATED PERIM PERIMETER PH PHASE PL PROPERTY LINE PLAM PLASTIC LAMINATE PLAS PLASTER, PLASTIC PLBG PLUMBING PLG PILING PLYWD PLYWOOD PNL PANEL PR PAIR PRCAST PRECAST PRKG PARKING PROP PROPERTY, PROPOSED PSF POUNDS PER SQUARE FOOT PSI POUNDS PER SQUARE INCH PT PAINT, POINT, PRESSURE TREATED PTN PARTITION PWR POWER</p> <p>QT QUARRY TILE QTY QUANTITY</p> <p>R RADIUS, RISER RB RESILIENT BASE RBM REINFORCED BRICK MASONRY RBR RUBBER RC REINFORCED CONCRETE RCP REFLECTED CEILING PLAN RD ROOF DRAIN RDG INS RIGID INSULATION, SOLID REC RECESSED REF REFERENCE REM REMOVABLE REP REPAIR REPL REPLACE REQ REQUIRE</p>
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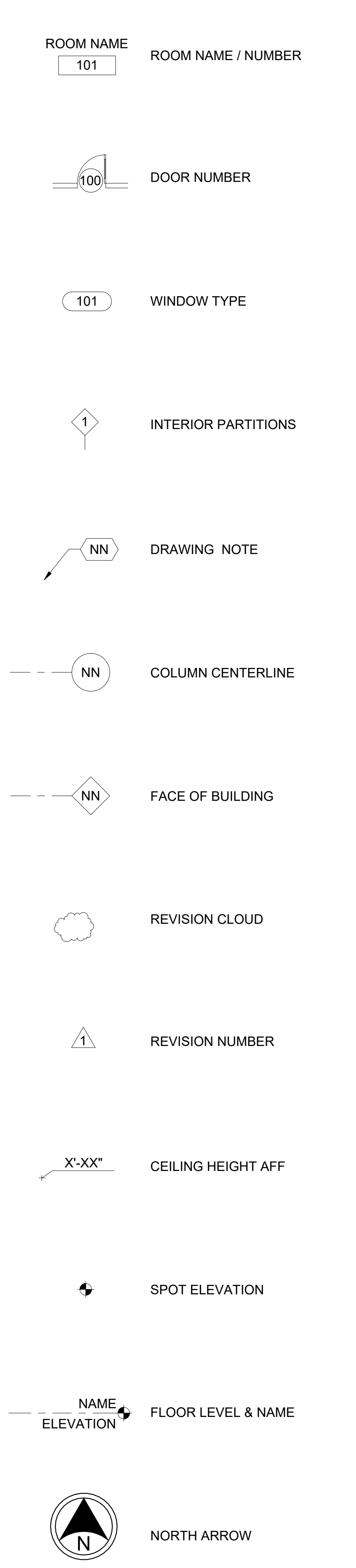
REFERENCE SYMBOLS



DRAWING REFERENCE



DRAWING SYMBOLS



Christopher S. Blue, License #17287
 Expiration Date 12/31/2025

8150 STERLING CT
 MENTOR, OHIO 44060

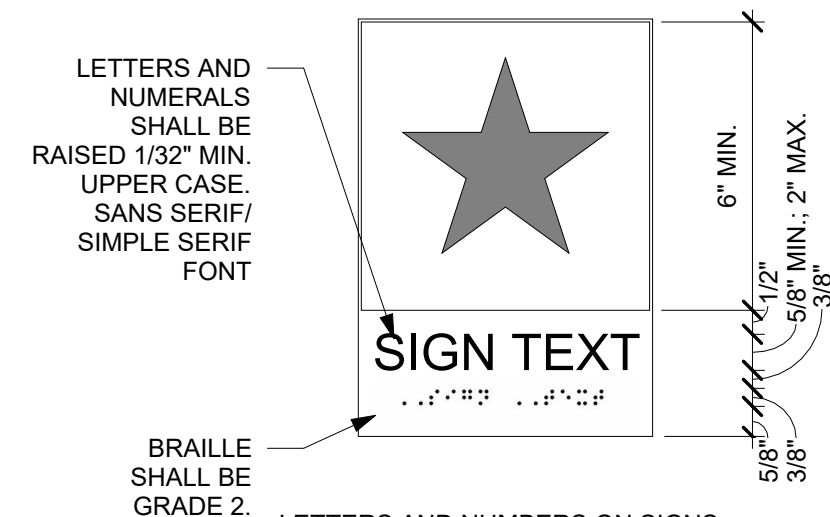
REV	BY	DATE	REVISIONS

DATE: 7/25/2025
 DRAWN BY: VK
 CHECKED BY: CB
 APPROVED BY: PG
 P.E. NO.:

Fire Station ADA Bathroom/Locker Room Improvements
 City of Willowick
 30435 Lakeshore Blvd, Willowick, OH 44095

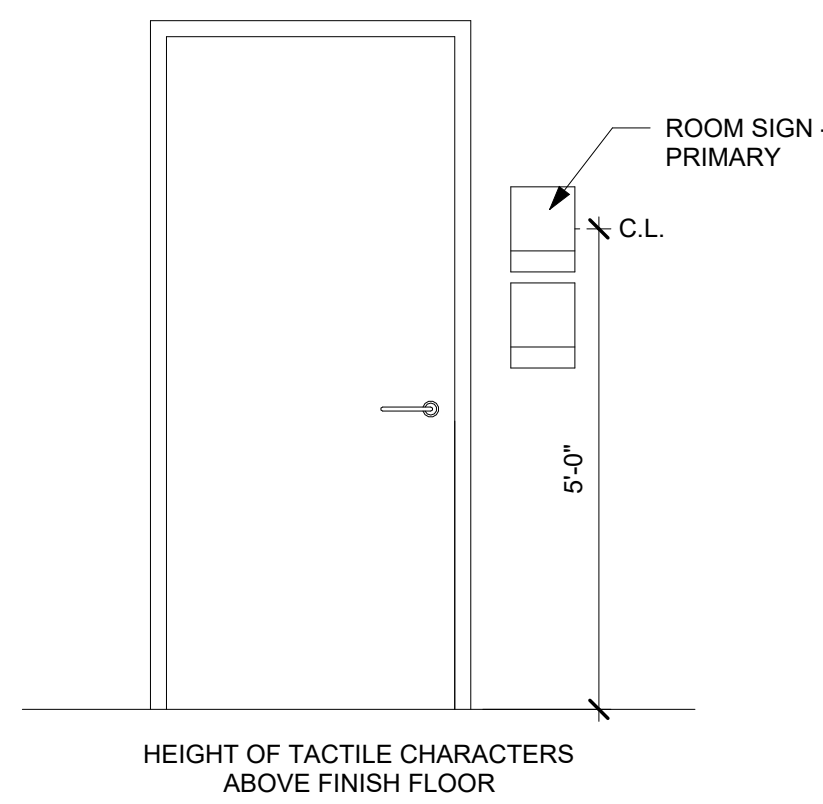
ABBREVIATIONS & SYMBOLS

SCALE: 1/8" = 1'-0"
CONTRACT NO: 241771
SHEET A0.01

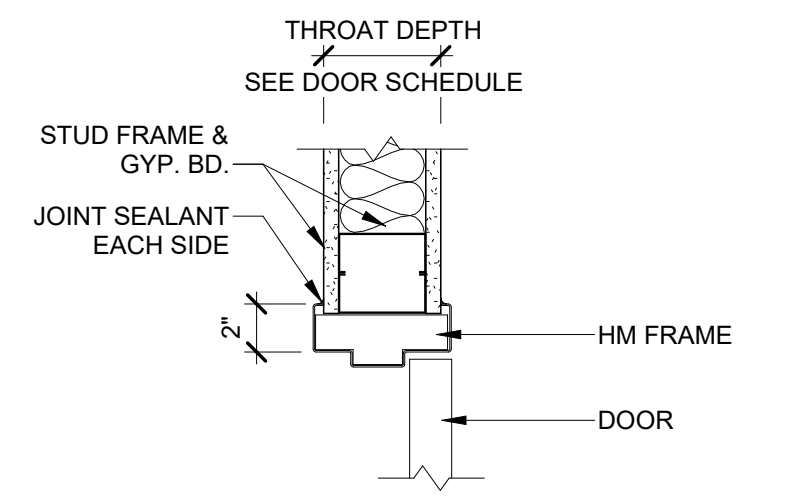
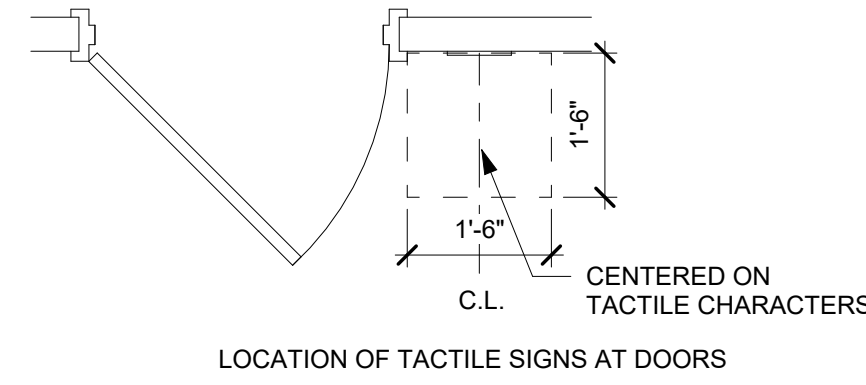


- SIGNAGE NOTES**
- ALL SIGNS TO FOLLOW ADAAG GUIDELINES. CONTRACTORS TO VERIFY THESE GUIDELINES.
 - REFERENCE SPECIFICATION SECTION 10 14 02 FOR DETAILS.
 - CONTRACTOR TO VERIFY WITH CITY ANY FACILITY STANDARDS OR ORGANIZATIONAL EMBLEMS/ SYMBOLS TO BE USED.
 - ALL SIGNS TO BE LOCATED 3" FROM LATCH SIDE OF DOOR. MOUNTED 60 INCHES A.F.F. TO THE CENTERLINE OF SIGN. IF THERE IS INSUFFICIENT ROOM ON THE LATCH SIDE OF THE DOOR TO INSTALL THE SIGN, THEN SIGNS ARE TO BE POSITIONED TO THE NEAREST ADJACENT WALL OF THE DOOR LATCH.
 - MOUNTING HEIGHTS IDENTIFYING ROOMS MUST BE MOUNTED SO THAT THE BOTTOM OF THE RAISED CHARACTERS ARE BETWEEN 48 INCHES AND 60 INCHES ABOVE THE FLOOR. SEE MOUNTING DETAIL SIGN FINISHES - CONTRACTOR TO COORDINATE WITH CITY ALL COLORS AND TEXT
 -

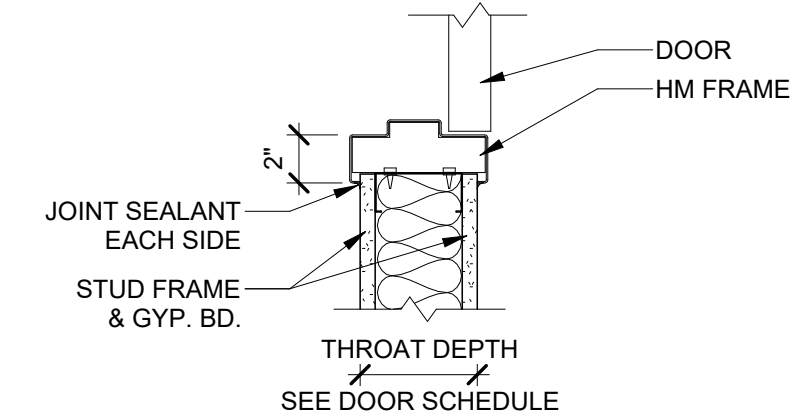
6 TYPICAL ADA SIGNAGE
A1.03 3" = 1'-0"



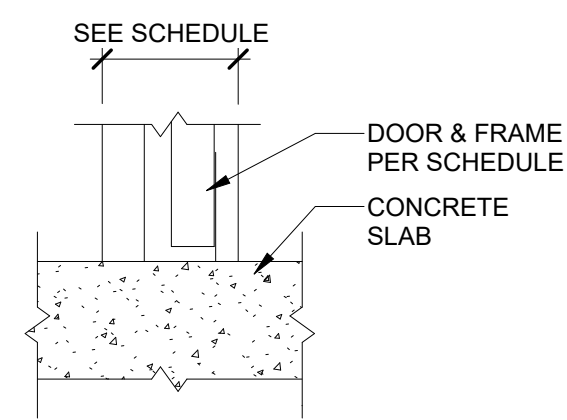
5 TYP SIGNAGE LOCATIONS
A1.03 1/2" = 1'-0"



2 HEAD 01
A1.03 1 1/2" = 1'-0"



1 JAMB 01
A1.03 1 1/2" = 1'-0"

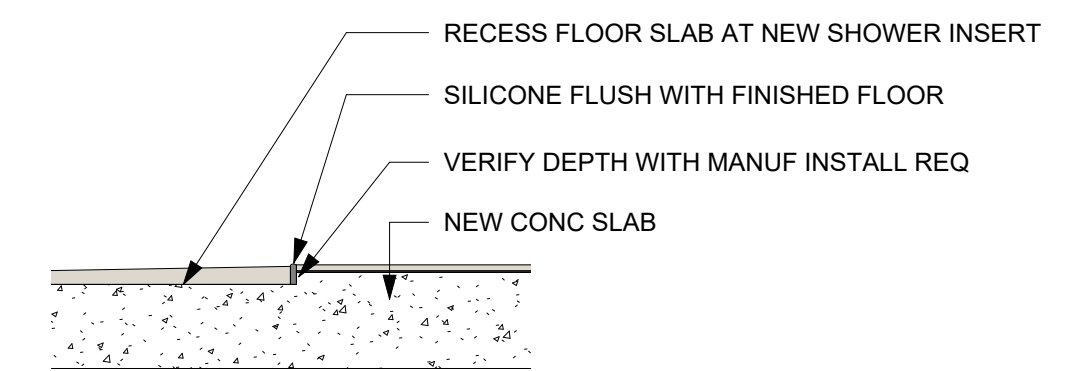


4 SILL 01
A1.03 1 1/2" = 1'-0"

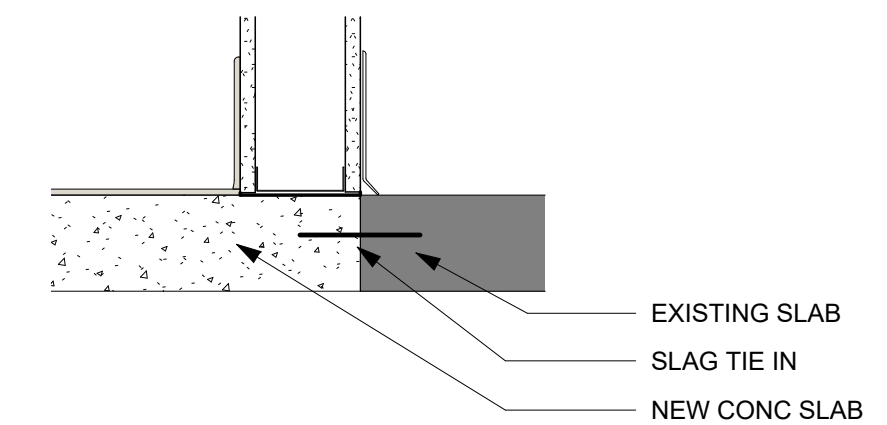
DOOR TYPE DOOR FRAME

MARK	DOOR			FRAME								REMARKS			
	W	H	T	RATING (MIN)	TYPE	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	THROAT DEPTH (IN)		HEAD	JAMB	SILL
D1	3'-0"	6'-8"	1 3/4"	-	F	HM	P	1	CRS	P	5	01	01	01	1, 2, 3
D2	3'-0"	6'-8"	1 3/4"	-	F	HM	P	1	CRS	P	5	01	01	01	1, 2, 3
D3	3'-0"	6'-8"	1 3/4"	-	F	HM	P	1	CRS	P	5	01	01	01	2, 4
D4	3'-0"	6'-8"	1 3/4"	-	F	HM	P	1	CRS	P	5	01	01	01	2, 5

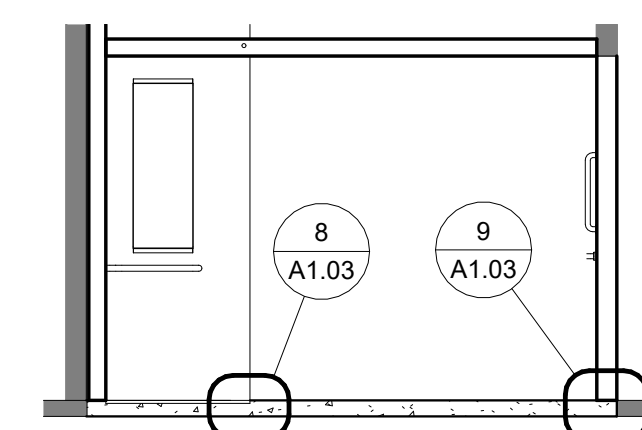
ABBREVIATIONS		REMARKS
HM	HOLLOW METAL	1. UNDERCUT DOOR 1". 2. FINISH AND PAINT DOOR AND FRAME. 3. BRUSHED NICKEL HARDWARE FINISH, COMMERCIAL GRADE. 1.5 PAIR HINGES, SILENCERS, PRIVACY LOCKSET, AND ADA DOOR SIGNAGE. 4. BRUSHED NICKEL HARDWARE FINISH, COMMERCIAL GRADE. 1.5 PAIR HINGES, SILENCERS, KEYED OFFICE LOCKSET. CONFIRM WITH OWNER. 5. BRUSH NICKEL HARDWARE FINISH, COMMERCIAL GRADE. 1.5 PAIR HINGES, SILENCERS, PASSAGE LOCKSET, CONFIRM WITH OWNER.
CRS	COLD ROLLED STEEL	



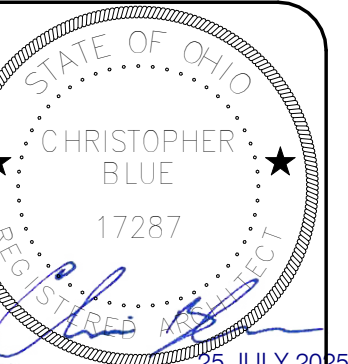
8 SHOWER FLOOR
A1.03 1 1/2" = 1'-0"



9 SLAB TIE IN (TYP)
A1.03 1 1/2" = 1'-0"



7 RESTROOM
A1.03 1/4" = 1'-0"



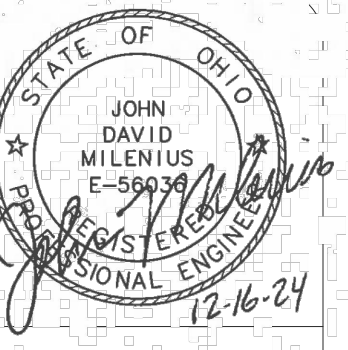
Christopher S. Blue, License #17287
Expiration Date 12/31/2025

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8150 STERLING CT
MENTOR, OHIO 44060

REV	DATE	BY	REVISIONS

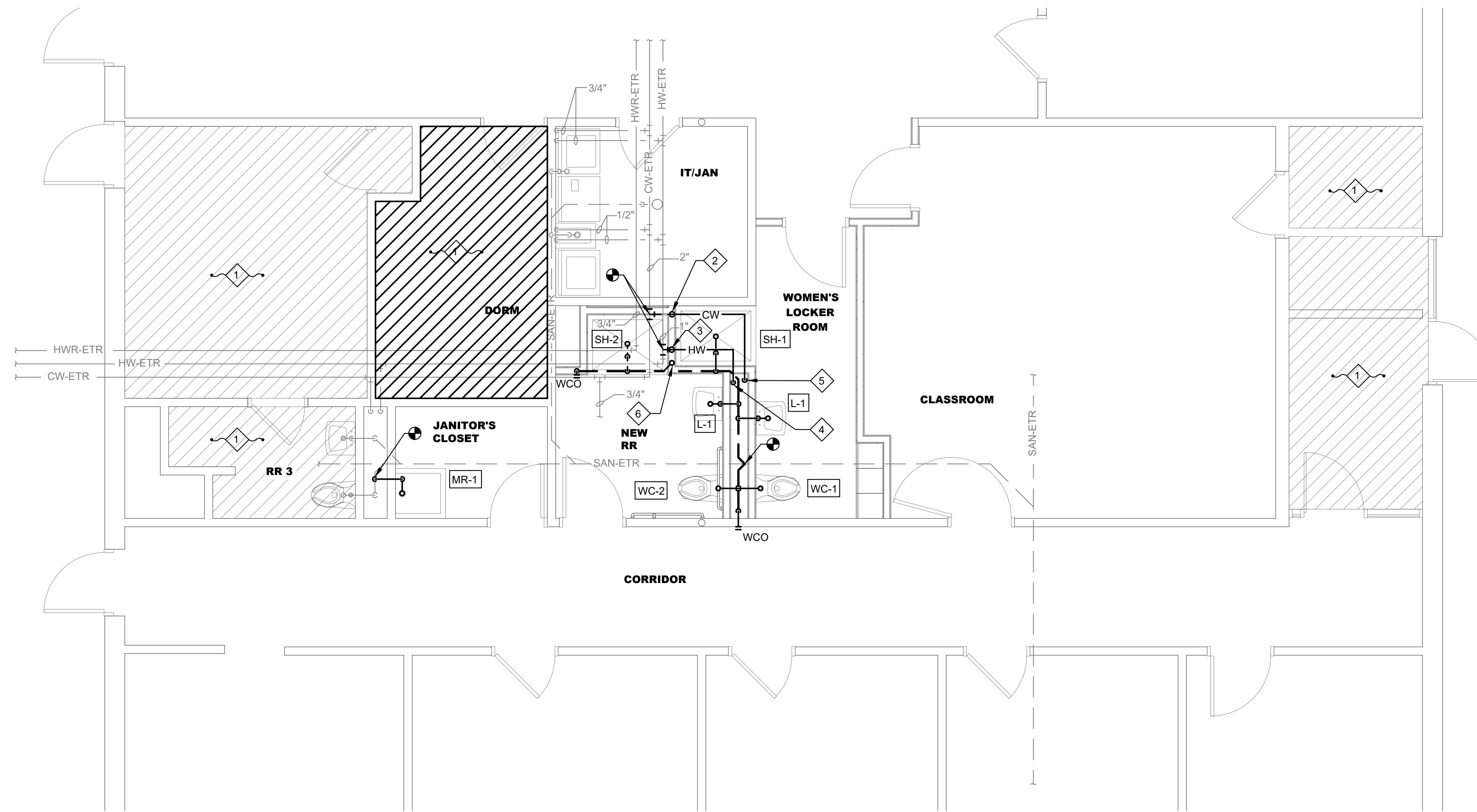
Fire Station ADA Bathroom/Locker Room Improvements
City of Willowick
30435 Lakeshore Blvd, Willowick, OH 44095
SCHEDULES AND DETAILS

SCALE:	As Indicated
CONTRACT NO:	241771
SHEET	A1.03



PLAN NOTES

1. NOT IN SCOPE.
2. 3/4" CW PIPE DROP SERVING SH-1 AND SH-2.
3. 3/4" HW PIPE DROP SERVING SH-1 AND SH-2.
4. 1/2" HW PIPE DROP SERVING L-1 (TYP.2). REFER TO WATER ISOMETRIC DRAWING ON SHEET P-3 FOR MORE INFORMATION.
5. 3/4" CW PIPE DROP SERVING L-1 (TYP.2), WC-1, AND WC-2. REFER TO WATER ISOMETRIC DRAWING ON SHEET P-3 FOR MORE INFORMATION.
6. 1-1/2" VERTICAL VENT PIPE. REFER TO SANITARY STACK DIAGRAM ON SHEET P0.02 FOR MORE INFORMATION.



FIRST FLOOR PLUMBING PLAN

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



REV	REVISIONS	DATE	BY

DATE: 12/16/24
 DRAWN BY: SJA
 CHECKED BY: JDM
 APPROVED BY: JDM
 F.B. NO. _____ PG. _____

Fire Station Renovation
 City of Willowick
 30435 Lakeshore Blvd., Willowick, OH 44095
FIRST FLOOR PLUMBING PLAN

SCALE: 1/4" = 1'-0"
CONTRACT NO: 241771
SHEET P1.01



33851 Curtis Blvd., 216
 Eastlake, OH 44095
 1.440.953.8740
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SECTION 23 05 93 - TESTING, ADJUSTING, AND BALANCING FOR HVAC

- PART 1 GENERAL**
- 1.1 SUBMITTALS
 - A. FINAL REPORT: REQUIRED
 - 1.2 REPORT FORMS: AABC NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE FORMS.
 - 1.3 AIR HANDLING SYSTEMS: ADJUST FANS AND AIR DISTRIBUTION OUTLETS AND INLETS AIRFLOWS TO WITHIN PLUS OR MINUS 5 PERCENT OF DESIGN.

SECTION 23 07 00 - HVAC INSULATION

- PART 1 GENERAL**
- 1.1 SUBMITTALS
 - A. PRODUCT DATA: REQUIRED.
 - B. SAMPLES: NOT REQUIRED.
- PART 2 PRODUCTS**
- 2.1 DUCTWORK INSULATION
 - A. FLEXIBLE GLASS FIBER: FLEXIBLE, NONCOMBUSTIBLE BLANKET WITH VAPOR BARRIER JACKET.
 - B. RIGID GLASS FIBER: RIGID, NONCOMBUSTIBLE BLANKET WITH VAPOR BARRIER JACKET.
 - C. JACKETS
 - 1. ALUMINUM JACKET: SHEET, SMOOTH FINISH.
 - 2. OUTDOOR JACKET: ASPHALT IMPREGNATED AND COATED MINERAL FIBER SHEET.
 - D. DUCT INSULATION "R" VALUES SHALL BE EQUAL TO OR GREATER THAN REQUIRED BY CODE.
 - E. INSULATION SHALL NOT CONTAIN ANY PBDE (POLYBROMINATED DIPHENYL ETHERS) FLAME RETARDANTS.

- PART 3 EXECUTION**
- 3.1 INSTALLATION
 - A. EXTERNAL DUCTWORK INSULATION
 - 1. PROVIDE COLD DUCTWORK WITH VAPOR BARRIER JACKET. SEAL VAPOR BARRIER PENETRATIONS WITH VAPOR BARRIER ADHESIVE.
 - 2. FOR EXPOSED DUCTWORK IN UNCONDITIONED ROOMS, FINISH WITH ALUMINUM JACKET.
 - 3. FOR EXTERIOR APPLICATIONS, PROVIDE OUTDOOR JACKET.

INSULATION	INSULATION	THICKNESS INCH
A. DUCTWORK INSULATION	FLEXIBLE GLASS FIBER SUPPLY DUCTS	1.5

SECTION 23 09 00 - INSTRUMENTATION AND CONTROL FOR HVAC

- PART 1 GENERAL**
- 1.1 SYSTEM DESCRIPTION
 - A. DESIGN REQUIREMENTS: ELECTRIC SYSTEM INCLUDING CONTROL DEVICES, ACTUATORS, AND ELECTRIC ACCESSORIES.
 - 1.2 SUBMITTALS
 - A. PRODUCT DATA: REQUIRED.
 - B. SHOP DRAWINGS: REQUIRED.
- PART 2 PRODUCTS**
- 2.1 CONTROL COMPONENTS
 - A. FURNISH MATERIALS AND EQUIPMENT OF STANDARD COMPONENTS, MANUFACTURED FOR USE IN CONTROL SYSTEMS AND NOT CUSTOM DESIGNED ESPECIALLY FOR THIS PROJECT. FURNISH COMPONENTS TESTED AND PROVEN IN ACTUAL USE.
 - B. FURNISH PRODUCTS TO ACCOMPLISH SEQUENCES OF OPERATION DESCRIBED IN PART 3.
 - C. CONTROL WIRING: WIRING IN ACCORDANCE WITH REQUIREMENTS OF DIVISION 26. MINIMUM WIRE SIZE TO BE 14 GAUGE.

- PART 3 EXECUTION**
- 3.1 INSTALLATION
 - A. AFTER COMPLETION OF INSTALLATION, TEST AND ADJUST CONTROL EQUIPMENT.
 - B. PROVIDE GUARDS ON THERMOSTATS IN ENTRANCES AND OTHER PUBLIC AREAS.
 - C. PROVIDE CONDUIT AND ELECTRICAL WIRING IN ACCORDANCE WITH APPROPRIATE REQUIREMENTS OF DIVISION 26.
 - 3.2 SEQUENCES OF OPERATION
 - A. EXHAUST FANS: (EF-1, EF-2, EF-3, EF-4)
 - 1. EXHAUST FAN SHALL OPERATE WITH LIGHT SWITCH IN ROOM.
 - B. EXHAUST FANS: (EF-5)
 - 1. EXHAUST FAN SHALL OPERATE WITH H-O-A SWITCH.

SECTION 23 30 00 - HVAC AIR DISTRIBUTION

- PART 1 GENERAL**
- 1.1 SUBMITTALS
 - A. PRODUCT DATA: REQUIRED.
 - B. SHOP DRAWINGS: NOT REQUIRED.
- PART 2 PRODUCTS**
- 2.1 DUCTWORK
 - A. MATERIALS
 - 1. STEEL DUCTS: GALVANIZED STEEL SHEET, LOCK-FORMING QUALITY.
 - 2. FLEXIBLE DUCTS: FABRIC SUPPORTED BY HELICALLY WOUND SPRING STEEL WIRE OR FLAT STEEL BANDS.
 - B. METAL DUCTWORK
 - 1. FABRICATE AND SUPPORT IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE.
 - 2. CONSTRUCT T'S, BENDS, AND ELBOWS WITH RADIUS OF 1-1/2 TIMES WIDTH OF DUCT ON CENTER LINE OR PROVIDE TURNING VANES.
 - 3. INCREASE DUCT SIZES GRADUALLY, NOT EXCEEDING 30 DEGREES DIVERGENCE AND 45 DEGREES CONVERGENCE.
 - C. MANUFACTURED DUCTWORK AND FITTINGS
 - 1. MANUFACTURE IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE. FURNISH DUCT MATERIAL, GAGES, REINFORCING, AND SEALING FOR OPERATING PRESSURES AS INDICATED ON DRAWINGS.

- 2.2 DUCT ACCESSORIES
 - A. VOLUME CONTROL DAMPERS
 - 1. FABRICATION: SMACNA HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE.
 - 2. SINGLE BLADE DAMPERS: FABRICATE FOR DUCT SIZES TO 12 X 30 INCH.
 - 3. QUADRANTS: PROVIDE LOCKING, INDICATING REGULATORS ON DAMPERS.
 - B. BACKDRAFT DAMPERS: FABRICATE MULTI-BLADE, PARALLEL ACTION GRAVITY BALANCED BACKDRAFT DAMPERS OF GALVANIZED STEEL OR EXTRUDED ALUMINUM, WITH CENTER PIVOTED BLADES LINKED TOGETHER.
 - C. FLEXIBLE DUCT CONNECTIONS: UL LISTED FIRE-RETARDANT NEOPRENE COATED WOVEN GLASS FIBER FABRIC TO NFPA 90A, APPROXIMATELY 3 INCHES WIDE, CRIMPED INTO METAL EDGING STRIP.
 - D. DUCT ACCESS DOORS
 - 1. FABRICATE IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE.
 - 2. ACCESS DOORS WITH SHEET METAL SCREW FASTENERS ARE NOT ACCEPTABLE.
- 2.3 GRILLES, REGISTERS, AND DIFFUSERS
 - A. MANUFACTURER: TITUS OR SIMILAR BY ANEMOSTAT, KRUEGER, E. H. PRICE COMPANY OR NAILOR-HART.
 - B. GENERAL: GRILLE, REGISTER, AND DIFFUSER INFORMATION MARK, MODEL NUMBER, TYPE, SIZE, FINISH, AND ACCESSORY ITEMS ARE INDICATED IN SCHEDULE. LOCATIONS, TYPE, CFM, AND DIRECTIONS OF THROW (WHERE APPLICABLE) ARE INDICATED ON DRAWINGS.
 - C. DEFINITIONS: TERMS USED FOR GRILLES, REGISTERS, AND DIFFUSERS ARE AS FOLLOWS:
 - 1. GRILLES: SAME STYLE AS REGISTERS BUT WITHOUT DAMPER.
 - 2. REGISTERS: ITEMS LABELED AS REGISTERS ARE TO BE FURNISHED WITH OPPOSED BLADE DAMPERS.
 - D. FINISH: FURNISH GRILLES, REGISTERS AND DIFFUSERS WITH FACTORY APPLIED OFF-WHITE FINISH UNLESS NOTED OTHERWISE.
- 2.4 CEILING FANS
 - A. CENTRIFUGAL FAN UNIT: DIRECT DRIVE WITH GALVANIZED STEEL HOUSING LINED WITH 1/2 INCH ACOUSTIC INSULATION, RESILIENT MOUNTED MOTOR, GRAVITY BACKDRAFT DAMPER IN DISCHARGE.
 - B. DISCONNECT SWITCH: CORD AND PLUG-IN HOUSING FOR THERMAL OVERLOAD PROTECTED MOTOR AND SOLID STATE SPEED CONTROLLER.
 - C. GRILLE: PAINTED WHITE ALUMINUM.
 - D. MANUFACTURER: LOREN COOK "GEMINI" OR SIMILAR BY GREENHECK, ACME, OR TWIN CITY FAN.

- PART 3 EXECUTION**
- 3.1 INSTALLATION
 - A. INSTALL BACKDRAFT DAMPERS ON DISCHARGE OF EXHAUST FANS.
 - B. CONNECT DIFFUSERS OR TROFFER BOOTS TO LOW PRESSURE DUCTS WITH 5 FEET MAXIMUM LENGTH OF FLEXIBLE DUCT.
 - C. INSTALL FLEXIBLE CONNECTIONS IMMEDIATELY ADJACENT TO EQUIPMENT IN DUCTS ASSOCIATED WITH FANS AND MOTORIZED EQUIPMENT.
 - D. INSTALL DUCT ACCESS DOORS FOR INSPECTION AND CLEANING BEFORE AND AFTER FILTERS, COILS, FANS, AUTOMATIC DAMPERS, AND AT FIRE DAMPERS.
 - E. CHECK LOCATION OF AIR OUTLETS AND INLETS AND MAKE NECESSARY ADJUSTMENTS IN POSITION TO CONFORM WITH ARCHITECTURAL FEATURES, SYMMETRY, AND LIGHTING ARRANGEMENT.
 - F. PROVIDE BALANCING DAMPERS ON DUCT TAKE-OFF TO DIFFUSERS, AND GRILLES AND REGISTERS.
 - G. PAINT DUCTWORK VISIBLE BEHIND AIR OUTLETS AND INLETS MATTE BLACK.

MARK	MANUFACTURER	MODEL	TYPE	CFM	ESP	POWER (W)	AMPS	RPM	DRIVE	VOLTAGE	SONES	WEIGHT	DUCT DIA (INCH)	REMARKS
EF-1	BROAN/NUTONE	PTES11RK	CEILING EXHAUST FAN	80	0.25	54	0.45	N/A	DIRECT	120V/1PH/60	1.4	13 LB	6	1, 2, 3
EF-2	BROAN/NUTONE	PTES11RK	CEILING EXHAUST FAN	80	0.25	60	0.58	N/A	DIRECT	120V/1PH/60	0.9	13 LB	6	1, 2, 3
EF-3	BROAN/NUTONE	PTES11RK	CEILING EXHAUST FAN	110	0.25	60	0.58	N/A	DIRECT	120V/1PH/60	0.6	13 LB	6	1, 2, 3
EF-4	LOREN COOK	GC-188	CEILING EXHAUST FAN	180	0.3	83	0.7	1,160	DIRECT	120V/1PH/60	4.0	13 LB	6	3, 4, 5, 6

- REMARKS:**
- CONTRACTOR TO PROVIDE ROOF JACK WITH BIRDSCREEN, INTEGRAL BACKDRAFT DAMPER, AND INTEGRAL FLASHING. ROUTE EXHAUST FAN OUTLET THROUGH ROOF JACK.
 - WIRE EXHAUST FAN TO OPERATE WHEN LIGHT SWITCH IS TURNED ON/OFF.
 - PROVIDE FAN SPEED CONTROLLER WITH FAN AND SET TO SPECIFIED CFM.
 - CONTROLLED BY THERMOSTAT WITH H-O-A SWITCH.
 - FAN SHALL INCLUDE INTEGRAL BACKDRAFT DAMPER.
 - PROVIDE DISCONNECT SWITCH FOR FAN. DISCONNECT SHALL BE WIRED BY EC.

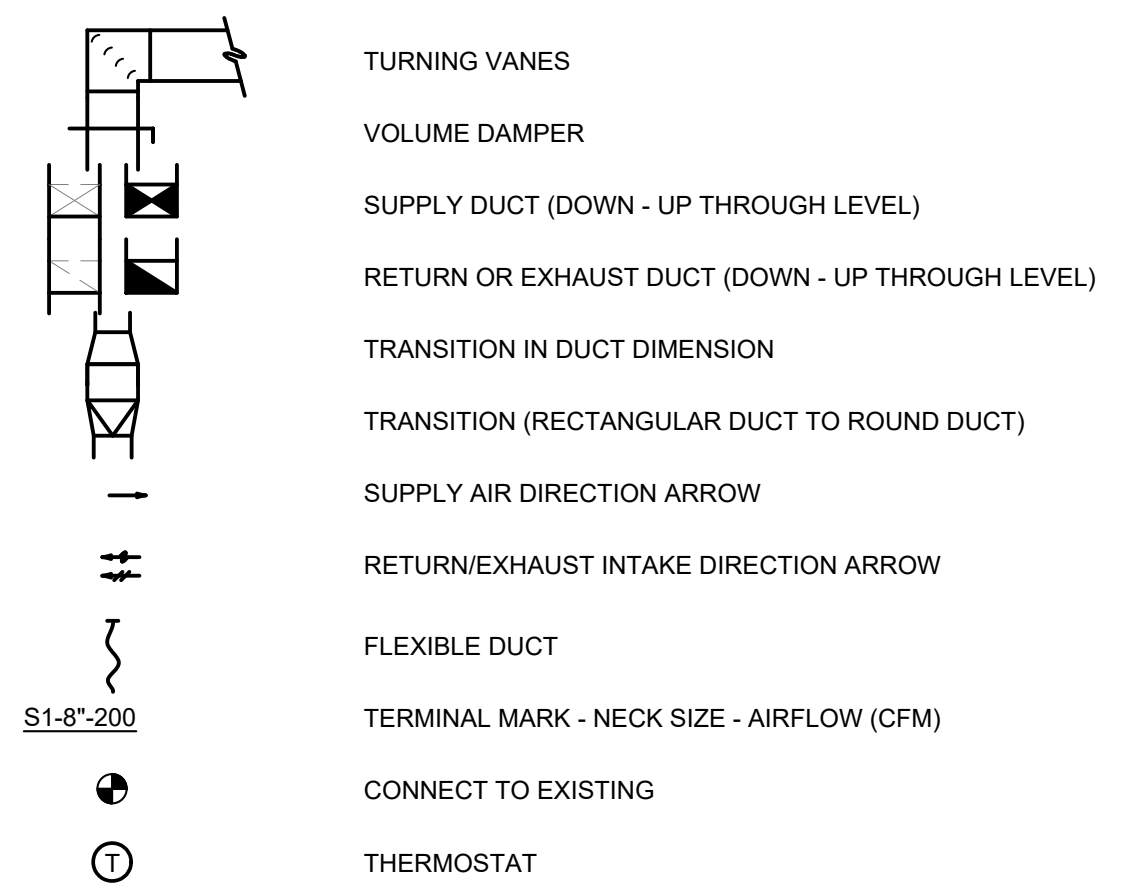
MARK	MANUFACTURER	MODEL	DESCRIPTION	MATERIAL	FINISH	FRAME TYPE	NECK SIZE	MAX. NC
S1	TITUS	TMS-AA	12" X 12" SQUARE CEILING DIFFUSERS	ALUMINUM	BY ARCHITECT	SURFACE MOUNT	ON DWG.	25
S2	TITUS	300FS	DOUBLE DEFLECTION SUPPLY GRILLE	STEEL	BY ARCHITECT	SURFACE MOUNT	ON DWG.	25

- REMARKS:**
- S2 SUPPLY GRILLE SHALL HAVE 3/4" BLADE SPACING WITH 22.5° DEFLECTION.

MECHANICAL ABBREVIATIONS

- AFF ABOVE FINISHED FLOOR
- BTU BRITISH THERMAL UNITS
- CFH CUBIC FEET PER HOUR
- CFM CUBIC FEET PER MINUTE
- COND. CONDENSER
- CTE CONNECT TO EXISTING
- DB DRY BULB TEMPERATURE
- deg. F DEGREES FAHRENHEIT
- EA EXHAUST AIR
- EC ELECTRICAL CONTRACTOR
- EDB ENTERING DRY BULB TEMPERATURE
- ESP EXTERNAL STATIC PRESSURE
- ETR EXISTING TO REMAIN
- F FAN
- FA FREE AREA
- FPM FEET PER MINUTE
- FT FEET
- GPM GALLONS PER MINUTE
- KW KILOWATT
- MBH THOUSAND BRITISH THERMAL UNITS (BTU)
- MCA MINIMUM CIRCUIT AMPACITY
- MOCP MAXIMUM OVERCURRENT PROTECTION
- NEC NATIONAL ELECTRIC CODE
- NFPA NATIONAL FIRE PROTECTION ASSOCIATION
- OA OUTSIDE AIR
- OAT OUTSIDE AIR TEMPERATURE
- OBG OHIO BUILDING CODE
- OMC OHIO MECHANICAL CODE
- P.C. PLUMBING CONTRACTOR
- PH PHASE
- PSI POUNDS PER SQUARE INCH
- QTY QUANTITY
- RA RETURN AIR
- RPM REVOLUTIONS PER MINUTE
- SA SUPPLY AIR
- TYP. TYPICAL
- V VOLTS

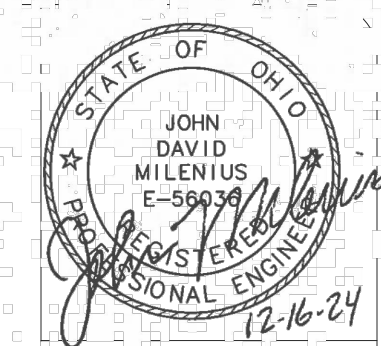
MECHANICAL SYMBOLS



GENERAL NOTES

- CONDUCT FIELD SURVEY OF EXISTING CONDITIONS PRIOR TO SUBMISSION OF BID AND START OF WORK. NO ADDITIONAL PAYMENTS WILL BE MADE ON CLAIMS THAT ARISE FROM LACK OF KNOWLEDGE OF EXISTING CONDITIONS.
- COORDINATE SCHEDULE OF WORK REQUIRED IN OCCUPIED AND OPERATING AREAS WITH OWNER PRIOR TO STARTING SUCH WORK.
- SCHEDULE UTILITY SERVICE SHUTDOWNS REQUIRED FOR NEW CONSTRUCTION WITH OWNER AND GENERAL TRADES PRIOR TO SHUTTING DOWN SYSTEMS. GIVE ONE WEEK ADVANCE NOTICE IN WRITING.
- REMOVE AND REPLACE EXISTING CEILINGS TO ACCOMMODATE NEW WORK. REPLACE DAMAGED CEILING TILES WITH NEW.
- CUT FLOOR, WALL, AND CEILING CONSTRUCTION FOR PENETRATIONS TO ACCOMMODATE NEW WORK. COORDINATE WITH GENERAL TRADES. PATCH CONSTRUCTION TO MATCH, OR TO SATISFACTION OF ARCHITECT AND OWNER.
- COORDINATE ROUTING OF NEW DUCTWORK WITH EXISTING BUILDING CONDITIONS AND WITH WORK OF OTHER TRADES. PROVIDE CHANGES IN LOCATION, DIRECTION, OFFSETS, AS MAY BE REQUIRED, WHETHER SPECIFICALLY INDICATED OR NOT, AND AT NO ADDITIONAL COST TO THE OWNER.
- COORDINATE AIR DISTRIBUTION DEVICE LOCATIONS WITH FINAL REFLECTED CEILING PLAN.
- UNLESS OTHERWISE NOTED, FLEXIBLE DUCTWORK IS SAME SIZE AS ROUND DUCTWORK TO WHICH IT IS CONNECTED. FLEXIBLE DUCTWORK TO BE NO MORE THAN 5'-0" AND TO BE INSTALLED TIGHT WITH NO SAGS OR KINKS.
- THE DUCTWORK SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
- UNLESS OTHERWISE NOTED, DUCTWORK SERVING A SINGLE DIFFUSER, GRILLE OR REGISTER IS TO BE FULL NECK SIZE OF AIR DISTRIBUTION DEVICE FROM BRANCH TAKE-OFF TO DEVICE CONNECTION.

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DATE	BY	DATE	BY
12/16/24	SJA		
	JJM		
	JDM		

Fire Station Renovation
City of Willowick
30435 Lakeshore Blvd., Willowick, OH 44095

SCALE: 1/4" = 1'-0"
CONTRACT NO: 241771
SHEET MO.01



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MECHANICAL SCHEDULES, NOTES, ETC.

