


















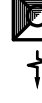















ABBREVIATIONS

ABV	AUTOMATIC AIR VENT ABOVE	KW KWH	KILOWATT KILOWATT HOUR
ACCU	AIR COOLED CONDENSING UNIT	L	LENGTH
AFF	ABOVE FINISHED FLOOR	LAT	LEAVING AIR TEMPERATURE, °F
AHU	AIR HANDLING UNIT	LBS	POUNDS
AP	ACCESS PANEL	LF	LINEAR FEET
APPROX	APPROXIMATELY	LRA	LOCK ROTOR AMPS
ASSOC	ASSOCIATED	LRS	LINEAR RETURN SLOT
ATC	AUTOMATIC TEMPERATURE CONTROL	LSD	LINEAR SUPPLY DIFFUSER
AWT	AVERAGE WATER TEMPERATURE, °F	LWT	LEAVING WATER TEMPERATURE, °F
BAS	BUILDING AUTOMATION SYSTEM	MAV	MANUAL AIR VENT
BC	BALANCING COCK	MAX	MAXIMUM
BDD	BACKDRAFT DAMPER	MBH	THOUSAND BTUH
BHP	BRAKE HORSEPOWER	MFG	MANUFACTURER
BLDG	BUILDING	MIN	MINIMUM
BLW	BELOW	MISC	MISCELLANEOUS
BTM	BOTTOM	MOD	MOTOR OPERATED DAMPER
BTUH	BRITISH THERMAL UNIT PER HOUR	MTD	MOUNTED
BTWN	BETWEEN		
C	CONVECTOR	N/A	NOT APPLICABLE
CAP	CAPACITY	NC	NORMALLY CLOSED/NOISE CRITERIA
CFM	CUBIC FEET PER MINUTE	NC	NOT IN CONTRACT
CHAR	CHARACTERISTIC	NO	NORMALLY OPEN
CHKV	CHECK VALVE	No	NUMBER
CLG	CEILING	NOM	NOMINAL
CL	CENTER LINE	NTS	NOT TO SCALE
CONC	CONCRETE		
CONN	CONNECTION	OA	OUTSIDE AIR
CONT	CONTINUATION	OC	ON CENTER
CONST	CONSTRUCTION	OD	OUTSIDE DIAMETER
CP	CONDENSATE PUMP	OPNG	OPENING
CV	CONSTANT VOLUME	PC	PLUMBING CONTRACTOR
CVB	CONSTANT VOLUME BOX	PD	PRESSURE DROP/PUMP DISCHARGE
D	DEPTH	PG	PRESSURE GAUGE
Db	DRY BULB TEMPERATURE, °F	PNL	PANEL
dBA	DECIBELS - A WEIGHTED	PSIG	POUNDS PER SQUARE INCH GAGE
DIA	DIAMETER	PSIA	POUNDS PER SQUARE INCH ABSOLUTE
DISCH	DISCHARGE	PT	PRESSURE/TEMPERATURE TAP
DN	DOWN		
DP	DIFFERENTIAL PRESSURE	QTY	QUANTITY
DR	DRAIN		
DWG	DRAWING	RA	RELIEF/RETURN AIR
DWH	DOMESTIC WATER HEATER	REFRIG	REFRIGERANT
DX	DIRECT EXPANSION	REQD	REQUIRED
		REV	REVISION
EA	EACH	RF	RETURN/RELIEF FAN
EAT	ENTERING AIR TEMPERATURE, °F	RGC	RELIEF/RETURN GRILLE CEILING
EC	ELECTRICAL CONTRACTOR	RGW	RELIEF/RETURN GRILLE WALL
ECUH	ELECTRIC CABINET UNIT HEATER	RH	RELATIVE HUMIDITY
EER	ENERGY EFFICIENCY RATIO	RM	ROOM
EF	EXHAUST FAN	RPM	REVOLUTIONS PER MINUTE
EFF	EFFICIENCY	RV	RELIEF VALVE
EGC	EXHAUST GRILLE CEILING		
EH	ELECTRIC HUMIDIFIER	SA	SUPPLY AIR
EHUH	ELECTRIC HORIZONTAL UNIT HEATER	SDG	SUPPLY DUCT GRILLE
ELECT	ELECTRIC	SENS	SENSIBLE
EQUIP	EQUIPMENT	SEP	SEPARATOR
ER	ECCENTRIC REDUCER (BOTTOMS FLAT)	SF	SUPPLY FAN
ERC	EXHAUST REGISTER CEILING	SGC	SUPPLY GRILL CEILING
ERW	EXHAUST REGISTER WALL	SGW	SUPPLY GRILL WALL
ESP	EXTERNAL STATIC PRESSURE	SP	STATIC PRESSURE
EXH	EXHAUST	SPEC	SPECIFICATION
EXIST	EXISTING	SQ	SQUARE
EXP	EXPANSION	SRW	SUPPLY REGISTER WALL
EWB	ELECTRIC WALL HEATER	SS	STAINLESS STEEL
EWT	ENTERING WATER TEMPERATURE, °F	SSAHU	SPLIT SYSTEM AIR HANDLING UNIT
		SSCU	SPLIT SYSTEM CONDENSING UNIT
°F	FAHRENHEIT	STD	STANDARD
FAT	FINAL AIR TEMPERATURE, °F	STR	STRAINER
FC	FLEXIBLE CONNECTION		
FCD	FLOW CONTROL DEVICE	TA	THROW AWAY
FCU	FAN COIL UNIT	TCV	TEMPERATURE CONTROL VALVE
FD	FIRE DAMPER/FLOOR DRAIN	TDV	TRIPLE DUTY VALVE
FF	FOULING FACTOR	TEMP	TEMPERATURE
FLA	FULL LOAD AMPS	TH	THERMOMETER
FLR	FLOOR	TOT	TOTAL
FNL	FUNNEL	TRANS	TRANSITION
FPB	FAN POWERED BOX	TS	TIP SPEED
FS	FEET PER MINUTE	TSP	TOTAL STATIC PRESSURE
FR	FROM	TSTAT	THERMOSTAT
FT	FEET/FINTUBE	TYP	TYPICAL
FV	FACE VELOCITY	UC	UNDERCUT
GA	GAUGE	V	VOLTAGE, VALVE
GC	GENERAL CONTRACTOR	VAV	VARIABLE AIR VOLUME
GPM	GALLONS PER MINUTE	VCD	VOLUME CONTROL DAMPER (MANUAL)
GRV	GRAVITY ROOF VENTILATOR	VEL	VELOCITY
		VFD	VARIABLE FREQUENCY DRIVE
H	HEIGHT	VFS	VENTURI FLOW STATION
HC	HVAC CONTRACTOR	VOL	VOLUME
HD	HEAD	VVB	VARIABLE VOLUME BOX
HP	HORSEPOWER		
HUR	HOUR	W	WIDTH
HUH	HORIZONTAL UNIT HEATER	W/	WITH
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING	W/O	WITHOUT
HWS	HOT WATER SUPPLY	Wb	WET BULB TEMPERATURE, °F
HWR	HOT WATER RETURN	WG	WATER GAUGE
HWS&R	HOT WATER SUPPLY AND RETURN	WPD	WATER PRESSURE DROP
		WT	WEIGHT
ID	INSIDE DIAMETER	WTD	WATER TEMPERATURE DROP
IER	INVERTED ECCENTRIC REDUCER (TOPS FLAT)		
IN	INCHES		
INSUL	INSULATION		
IRI	INDUSTRIAL RISK INSURANCE		
IVS	ISOLATION VALVE STATION		

PIPE SYMBOLS

	INDICATES KEY NOTES ELSEWHERE ON DRAWING
	DIRECTION OF PIPE PITCH, DOWN
	DIRECTION OF FLOW
	SIDE CONNECTION
	TOP CONNECTION
	BOTTOM CONNECTION
	DROP IN PIPE
	RISE IN PIPE
	PIPE CAP
	ELBOW (TEE) UP
	ELBOW DOWN
	STUB UP
	VALVE, SEE SPECIFICATIONS FOR TYPE
	AQUASTAT
	CONTROL VALVE
	3-WAY CONTROL VALVE
	VALVE WITH 3/4" CAPPED HOSE END CONNECTION
	VALVE WITH 3/4" HOSE END
	TRIPLE DUTY VALVE
	RELIEF VALVE, WATER
	ANGLE VALVE
	AIR VENT WITH COCK
	MANUAL AIR VENT
	AUTOMATIC AIR VENT
	PRESSURE REDUCING VALVE, WATER
	CHECK VALVE
	PRESSURE TEMPERATURE TAP
	BALANCING COCK
	PRESSURE GAUGE WITH COCK, WATER
	WYE STRAINER
	WYE STRAINER WITH BALL VALVE DOWN
	BASKET STRAINER
	INVERTED ECCENTRIC REDUCER
	CONCENTRIC REDUCER OR INCREASER
	FLOW INDICATOR
	VENTURE FLOW STATION
	FLEXIBLE CONNECTION
	FLOW CONTROL VALVE
	AUTOMATIC FLOW VALVE
	CONDUCTIVITY SENSOR FOR CHEMICAL FEEDER
	THERMOMETER WITH SEPARABLE WELL
	UNION
	ANCHOR
	GUIDE
	FLANGE CONNECTION
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN

DUCT SYMBOLS

	SQUARE ELBOW
	RADIUS ELBOW
	ROUND DUCT SECTION
	SUPPLY AIR DUCT SECTION
	RETURN AIR DUCT SECTION
	EXHAUST AIR DUCT SECTION
	OUTSIDE AIR DUCT SECTION
	CONICAL "T"
	STRAIGHT "T"
	BOOT CONNECTION
	BACKDRAFT DAMPER
	MOTOR OPERATED DAMPER
	FIRE DAMPER
	SMOKE DAMPER
	COMBINATION FIRE/SMOKE DAMPER
	ROUND DUCT (DIAMETER)
	DUCT (SHOWN x HIDDEN)
	VOLUME DAMPER
	DUCT TRANSITION
	LINEAR SLOT DIFFUSER
	1-WAY THROW SUPPLY DIFFUSER
	2-WAY OPPOSED THROW SUPPLY DIFFUSER
	2-WAY ADJACENT THROW SUPPLY DIFFUSER
	3-WAY THROW SUPPLY DIFFUSER
	4-WAY THROW SUPPLY DIFFUSER
	NECK SIZE (DIAMETER) OR QUANTITY OF SLOTS AND SLOTS PER REGISTER - GRILLE TYPE
	TEMPERATURE SENSOR - DDC
	HUMIDISTAT
	DIFFERENTIAL PRESSURE SENSOR
	SPACE STATIC PRESSURE SENSOR
	DUCT MOUNTED STATIC PRESSURE SENSOR
	PRESSURE SENSOR
	STATIC PRESSURE SENSOR
	CARBON DIOXIDE SENSOR
	FIRE ALARM DUCT SMOKE DETECTOR

HYDRONIC PIPING:

1. ALL DOWNFEED BRANCHES AND EQUIPMENT SHALL HAVE DRAIN COCKS INSTALLED AT LOWEST POINT.
2. ALL HORIZONTAL LINES SHALL BE RUN LEVEL WITHOUT POCKETS. WHERE POCKETS OCCUR, AUTO AIR VENTS SHALL BE INSTALLED AT EACH VERTICAL RISE.
3. ALL UPFEED RISERS SHALL BE MADE WITH TOP CONNECTIONS AT MAIN. ALL DOWNFEED RISERS SHALL BE MADE WITH BOTTOM CONNECTIONS AT MAIN.
4. CHANGES OF PIPE SIZES ON HORIZONTAL RUNS SHALL BE MADE WITH INVERTED ECCENTRIC REDUCERS WITH TOP OF PIPE LEVEL.
5. ARROWS ON SUPPLY AND RETURN LINES INDICATE DIRECTION OF FLOW.
6. PROVIDE VALVE WITH HOSE END ON ALL LOW POINTS OF PIPING SYSTEM AND AUTO AIR VENTS AT ALL HIGH POINTS OF THE PIPING SYSTEM UNLESS NOTED OTHERWISE.
7. DIELECTRIC NIPPLES AND FLANGES SHALL BE USED ON ALL CONNECTIONS BETWEEN DISSIMILAR METALS. DIELECTRIC UNIONS SHALL NOT BE PERMITTED.
8. COORDINATE LOCATIONS OF ALL LINES AND EQUIPMENT WITH OTHER CONTRACTORS.

GENERAL NOTES:


1. THE SYMBOLS AND ABBREVIATIONS INDICATED ON THIS DRAWING ARE FOR REFERENCE PURPOSES ONLY AND SHALL NOT DEFINE THE SCOPE OF WORK AND/OR SYSTEMS INCLUDED IN THE PROJECT.
- DUCTWORK:**
1. ALL DUCTWORK SIZES NOTED ARE FREE AREA SIZES.
 2. TURNING VANES SHALL BE PROVIDED IN ALL DUCT ELBOWS.
 3. ALL DUCT JUNCTIONS SHALL BE CONSTRUCTED OF STANDARD 45 DEGREES. ENTRY BRANCHES WITH BALANCING DAMPERS DOWNSTREAM OF DUCT BRANCH ENTRY.
 4. TOTAL STATIC PRESSURE NOTED IN SCHEDULES INCLUDES DUCT SYSTEM, TERMINAL UNITS, FILTERS, COILS, ETC.
 5. FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED.
 6. ALL TRANSFER AIR DUCTS SHALL BE LINED WITH 1" ACoustICAL INSULATION. DUCT SIZES SHALL BE INCREASED TO ALLOW FOR THE INSULATION.

DUCTWORK:

1. ALL DUCTWORK SIZES NOTED ARE FREE AREA SIZES.
2. TURNING VANES SHALL BE PROVIDED IN ALL DUCT ELBOWS.
3. ALL DUCT JUNCTIONS SHALL BE CONSTRUCTED OF STANDARD 45 DEGREE ENTRY BRANCHES WITH BALANCING DAMPERS DOWNSTREAM OF DUCT BRANCH ENTRY.
4. TOTAL STATIC PRESSURE NOTED IN SCHEDULES INCLUDES DUCT SYSTEM, TERMINAL UNITS, FILTERS, COILS, ETC.
5. FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED.
6. ALL TRANSFER AIR DUCTS SHALL BE LINED WITH 1" ACOUSTICAL INSULATION. DUCT SIZES SHALL BE INCREASED TO ALLOW FOR THE INSULATION.

DEMOLITION GENERAL NOTES:

1. DO NOT SCALE DRAWINGS.
2. ALL WORK PERFORMED ON THIS BUILDING SHALL BE IN COMPLIANCE WITH ALL PERTINENT CODES, RULES, ORDINANCES AND REGULATIONS OF THE LOCAL AND STATE GOVERNING AUTHORITIES.
3. ALL WORK PERFORMED AND IN CONNECTION WITH THESE DRAWINGS AND SPECIFICATIONS SHALL BE IN STRICT COMPLIANCE WITH THE LATEST OSHA SAFETY AND HEALTH STANDARDS.
4. ALL LIGHT LINES SHOWN ON DRAWINGS INDICATE EXISTING PIPING OR EQUIPMENT TO REMAIN. ALL SOLID HEAVY LINES INDICATE NEW PIPING OR EQUIPMENT. ALL CROSS-HATCHED LINES INDICATE REMOVAL OF EXISTING PIPING OR EQUIPMENT.
5. THE DRAWINGS INDICATE THE GENERAL LAYOUT AND DO NOT NECESSARILY REPRESENT A COMPLETE FIELD VERIFIED LAYOUT. THE MAJORITY OF MECHANICAL ITEMS ARE SHOWN ON THE DRAWINGS. CERTAIN ITEMS ARE SHOWN AND INDICATED TO REMAIN OR BE REMOVED. GENERALLY, ALL MECHANICAL DEMOLITION IS DESCRIBED BY NOTES. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS WITHIN THE DEMOLITION AREAS. REPORT ANY DISCREPANCIES FOUND TO THE ARCHITECT FOR CLARIFICATION BEFORE PROCEEDING.
6. ALL MECHANICAL AND ELECTRICAL EQUIPMENT, PIPING, DUCTWORK, CONDUIT, WIRING, ETC., INDICATED ON THE DRAWINGS DESCRIBED IN THE NOTES AND WHICH IS NOT REQUIRED TO FUNCTION AS PART OF THE FINAL SYSTEM, SHALL BE REMOVED IN ITS ENTIRETY. ALL REMOVED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL CODES AND REGULATIONS.
7. WHERE IT BECOMES NECESSARY TO TEMPORARILY DISTURB SYSTEMS TO PERMIT EXECUTION OF THE DEMOLITION PROCESS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE USING AGENCY, THROUGH THE DEPARTMENT, TO SCHEDULE A SHUTDOWN. THE CONTRACTOR SHALL GIVE A MINIMUM OF 24-HOUR ADVANCE NOTICE FOR ANY SUCH GIVEN SHUTDOWN. IF THE SHUTDOWN INCLUDES MAJOR SYSTEMS, SUCH AS DOMESTIC FEED, GAS MAIN, ELECTRICAL MDP PANEL, ETC., TWO-WEEK NOTICE SHALL BE REQUIRED.
8. IF DURING THE COURSE OF DEMOLITION, EXISTING UTILITIES ARE ENCOUNTERED, WORK IN THAT AREA IS TO BE HALTED UNTIL THE STATUS OF THE UTILITIES HAS BEEN ASCERTAINED AND AUTHORITY TO PROCEED GIVEN BY THE DEPARTMENT.

RECORD REVISIONS			
			
PROFESSIONAL'S SIGNATURE		DATE	
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: left;"> <p>UpStreet ARCHITECTS, INC.</p> <p>541 PHILADELPHIA ST. INDIANA, PA 15701</p> </div> <div style="text-align: right;"> <p>911 MENOHER BLVD. JOHNSTOWN, PA 15905</p> </div> </div>			
<p>COMMONWEALTH OF PENNSYLVANIA</p> <p>DEPARTMENT OF GENERAL SERVICES</p> <p>HARRISBURG, PENNSYLVANIA</p>			
D.G.S. PROJECT No. C-0588-0015 PHASE 1			
<p>LOYSVILLE YOUTH DEVELOPMENT CENTER- RENOVATIONS TO ZIMMERMAN- BINGAMAN (ZB) COTTAGE</p> <p>DEPARTMENT OF HUMAN SERVICES LOYSVILLE, TYRONE TOWNSHIP, PERRY COUNTY, PA</p>			
SYMBOLS AND ABBREVIATIONS - MECHANICAL			
DRAWN BY W. MINAHAN	DATE 27 JUNE 2023	SHEET No. M-001	
CHECKED BY T. HOVAN	SCALE AS NOTED		