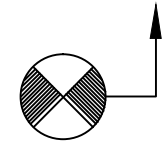


A
three inches = one foot
1
one and one half inches = one foot
6"
2
one inch = one foot
6"
3
three quarters inch = one foot
6"
4
one half inch = one foot
6"
5
three eighths inch = one foot
8"
6
one quarter inch = one foot
8"
7
one eighth inch = one foot
16"

GENERAL SYMBOLS AND ABBREVIATIONS



POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK

HVAC SYMBOLS AND ABBREVIATIONS

	UP		DN	SUPPLY DUCT (UP & DOWN)
	UP		DN	RETURN DUCT (UP & DOWN)
	UP		DN	EXHAUST DUCT (UP & DOWN)
				CEILING DIFFUSERS (SUPPLY) DIRECTION OF AIR FLOW
				2' OR 4' LONG LINEAR SLOT DIFFUSER (SUPPLY) ARROW DIRECTION OF AIR FLOW
				SQUARE 3-WAY CEILING DIFFUSERS
				SQUARE 2-WAY CEILING DIFFUSERS
				SQUARE 1-WAY CEILING DIFFUSERS
				SUPPLY TOP REGISTER OR GRILLE (WALL TYPE) DIRECTION OF AIR FLOW
				EXHAUST OR RETURN CEILING REGISTER OR GRILLE DIRECTION OF AIR FLOW
				EXHAUST OR RETURN BOTTOM REGISTER OR GRILLE (WALL TYPE) DIRECTION OF AIR FLOW
				EXHAUST OR RETURN REGISTER OR TOP GRILLE (WALL TYPE) DIRECTION OF AIR FLOW
				VANED ELBOW & AIR SPLIT TYPE DUCT TAKE-OFF
				CONNECT NEW DUCT TO EXISTING DUCT
				LIMIT OF DEMOLITION
				FLEXIBLE CONNECTION
				VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
				VANED ELBOW (SHORT RADIUS)
				STANDARD RADIUS ELBOW
				NEW DUCT (WIDTH x DEPTH) FIRST NUMBER BEING THE SCALED DIMENSION RESPECTIVE TO THE PLAN OR ELEVATION BEING VIEWED
				EXISTING DUCT TO REMAIN
				EXISTING DUCT TO BE REMOVED
				STAINLESS STEEL DUCT
				MANUAL VOLUME DAMPER
				DAMPER
				INCLINED RISE, IN DIRECTION OF AIR FLOW
				INCLINED DROP, IN DIRECTION OF AIR FLOW
				VARIABLE AIR VOLUME BOX WITH HOT WATER REHEAT COIL
				MOTOR
				TA TRANSFER AIR
				EA EXHAUST AIR
				MA MIXED AIR
				S.R. SHORT RADIUS
				STRAIGHT-THRU 2-WAY ON/OFF CONTROL VALVE
				STRAIGHT-THRU 2-WAY MODULATING CONTROL VALVE
				PRESSURE REDUCING VALVE
				THERMOSTAT
				STRAINER
				THERMOMETER
				PRESSURE GAGE
				INVERTED BUCKET TRAP SET INCLUDING PIPING ACCESSORIES
				FLOAT & THERMOSTATIC TRAP SET INCLUDING PIPING ACCESSORIES

PLUMBING SYMBOLS AND ABBREVIATIONS

	PS	PRESSURE SENSORS
	PIT	PRESSURE INDICATOR TRANSMITTER
	PI	PRESSURE INDICATOR
		REDUCER - CONCENTRIC
		TEMPERATURE AND PRESSURE RELIEF VALVE (T & P)
		IN-LINE PUMP - AIR DIRECTION SIGNIFIES FLOW
		CHECK VALVE (LOCATED IN HORIZONTAL RUN)
		VALVE (LOCATED IN HORIZONTAL RUN)
		GATE VALVE (LOCATED IN HORIZONTAL RUN)
		VALVE (LOCATED IN VERTICAL RUN)
		UNION
		SCREWHEAD VENT
		ANCHOR
		TOP CONNECTION, 45° OR 90°
		BOTTOM CONNECTION, 45° OR 90°
		SIDE CONNECTION
		PIPE UP
		PIPE DOWN
		DOMESTIC COLD WATER
		DOMESTIC HOT WATER
		DOMESTIC HOT WATER RETURN
		SAN. DRAIN
		VENT
	MA	MEDICAL AIR
	MV	MEDICAL VACUUM
	O	OXYGEN
	S.P.	SET POINT
	CW	DOMESTIC COLD WATER SUPPLY
	HWR	DOMESTIC HOT WATER RETURN
	HWH	HOT WATER HEATING SUPPLY
	HWHR	HOT WATER HEATING RETURN
	CH	CHILLED WATER SUPPLY
	CHR	CHILLED WATER RETURN
	LPS	LOW PRESSURE STEAM SUPPLY
	LPC	LOW PRESSURE CONDENSATE RETURN

FIRE PROTECTION AND ALARM SYMBOLS AND ABBREVIATIONS

		FIRE SPRINKLER HEAD
	FD/SD	COMBINATION FIRE / SMOKE DAMPER
	SD	SMOKE DAMPER
	FACP	FIRE ALARM CONTROL PANEL
	FAA	FIRE ALARM ANNUNCIATOR PANEL
	S	SMOKE DETECTOR - PHOTOELECTRIC TYPE
	S	ADA HORN/STROBE AT 80° AFF
	S	STROBE AT 80° AFF
	S	DUCT MOUNTED SMOKE DETECTOR
	FAA	EXISTING FIRE ALARM ANNUNCIATOR
	F	FIRE ALARM PULL STATION
	DH	MAGNETIC DOOR HOLDER
	FS	FLOW SWITCH
	TS	TAMPER SWITCH

ELECTRICAL SYMBOLS AND ABBREVIATIONS

		RECEPTACLE, DUPLEX 120V, 20A, 1 PH, 2 POLE, 3W, NEMA 5-20R
		RECEPTACLE, DUPLEX SAME AS ABOVE ON EMERGENCY POWER
		RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE 120V, 20A, 1 PH, 2 POLE, 3W, "GFI"- GND FAULT
		RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE 120V, 20A, 1 PH, 2 POLE, 3W, "GFI"- GND FAULT - ON EMERGENCY POWER
		RECEPTACLE, QUADRAPLEX NORMAL 120V, 20A, 1 PH, 2 POLE, 3W, NEMA 5-20R
	S2	SWITCH BLANK = SINGLE POLE 3 = THREE-WAY OS= OCCUPANCY SENSOR K=KEY SWITCH- MANUAL OVERRIDE DIM I/O = DIMMABLE WITH MANUAL ON/OFF SWITCH 2 = DOUBLE POLE 4 = FOUR-WAY P = PILOT LAMP
	S	SWITCH SINGLE POLE 20 AMPERE 120 VOLT NORMAL POWER TO OVERHEAD LIGHTING ROOM
	S	SWITCH SINGLE POLE 20 AMPERE 120 VOLT EMERGENCY POWER TO OVERHEAD LIGHTING ROOM - WITH PILOT LIGHT
		LIGHT FIXTURE, LED, 2'x2'
	a,b	LIGHT FIXTURE, LED, WALL MOUNTED (HORIZONTAL AND VERTICAL)
	a,b	LIGHT FIXTURE, RECESSED LED, 2'x4'; LETTER INDICATES TYPE LOWER CASE LETTERS INDICATES 2 ELEC. BALLASTS FIXTURE
	a,b	LIGHT FIXTURE, SAME AS ABOVE ON EMERGENCY POWER
		EXIT LIGHT FIXTURE: DIRECTIONAL ARROWS AND FACEPLATES AS INDICATED ON THE PLANS
		LIGHT FIXTURE, LED, 1' X 4' LONG; LETTER INDICATES TYPE.
	JB	JUNCTION BOX - PURPOSE AND LOCATION AS NOTED MOUNTED IN CEILING UNLESS OTHERWISE NOTED.
	JB	JUNCTION BOX -HOME RUN
	OS	OCCUPANCY PHOTO SENSOR - CEILING MOUNTED.
	CP	CONTROL PANEL
	DS	DISCONNECT SWITCH
	LS	EMERGENCY LIFE SAFETY ELECTRICAL SUPPLY
	CP	CRITICAL PATIENT EMERGENCY ELECTRICAL SUPPLY
	EQ	EMERGENCY ESSENTIAL EQUIPMENT ELECTRICAL SUPPLY
	LP	LOW VOLTAGE (120/240) POWER PANEL - NORMAL
	HE	HIGH VOLTAGE (277/480) POWER PANEL - EMERGENCY
	ADO	AUTOMATIC DOOR OPENER
	C/B	CIRCUIT BREAKER
	CKT	CIRCUIT #

DATA AND COMMUNICATIONS SYMBOLS AND ABBREVIATIONS

	T-1	OUTLET TELEPHONE; LETTER INDICATES AS FOLLOWS: J = JACK TYPE W = WALL TYPE
	D-2	DATA OUTLET MOUNTED 18" OR 60" TO CENTER AFF UNLESS OTHERWISE NOTED
	V-1	OUTLET; LETTER INDICATES AS FOLLOWS: A = AUDIO V = VIDEO I = INTERCOM
	TD-1	OUTLET, COMBINATION DATA/VOICE COMMUNICATION MOUNTED 18" TO CENTER AFF UNLESS OTHERWISE NOTED
	TA-1	CHECKPOINT TEMPERATURE AND HUMIDITY ALARM - VA PROVIDED, CONTRACTOR INSTALLED
	W	PUSH PAD; LETTER INDICATES AS FOLLOWS: M=MOUNT C=CEILING D=DESK F=FLUSH H=HIDDEN M=MULLION P=PEDESTAL R=RACK S=SURFACE W=WALL T=TECHNOLOGY/TYPE B=BELL PUSH D=DURESS P=PANIC R=DOOR RELEASE. X=REQUEST-FOR-EXIT

CODE BLUE AND PATIENT CALL STATIONS SYMBOLS AND ABBREVIATIONS

	CB	CODE BLUE AND PATIENT CALL STATION. MT 5'-0" AFF UNLESS NOTED OTHERWISE. E = PULL CORD MTD 3'-0" AFF FOR TOILET LOCATION.
	2	DOMES LIGHT STATION. 2 = DOME LIGHT (SUFFIX INDICATES No OF LAMP) MTD 6" ABOVE DOOR. D = CORRIDOR DOME LIGHT. I = AUXILIARY INTERSECTIONAL DOME LIGHT.

PROJECT NOTES

- INSTALLATION CONTRACTOR IS RESPONSIBLE FOR TAKE-OFF QUANTITIES. ITEMS THAT ARE REQUIRED FOR A COMPLETE INSTALLATION, BUT NOT SHOWN ON THE DRAWINGS OR INDICATED ON THE SPECIFICATIONS SHALL BE PROVIDED BY THE INSTALLATION CONTRACTOR TO ENSURE A SATISFACTORY OPERATING SYSTEM.
- INSTALLATION CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN MATERIAL QUOTES AND CONFIRM COMPLIANCE WITH SPECIFICATIONS AND DRAWINGS AND TO ENSURE COMPATIBILITY AND FUNCTIONALITY WITH THE SYSTEM PRIOR TO PROCUREMENT.
- THE DRAWINGS ARE PREPARED WITH FEATURES SPECIFIC TO A PARTICULAR MODEL OF EQUIPMENT. FOR CHANGES IN THE VENDOR OR EQUIPMENT, THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR ALL CONSEQUENTIAL ENGINEERING AND CONSTRUCTION WORK FOR PROPER INSTALLATION AND OPERATION.
- THE DRAWINGS DO NOT PRESENT FULLY DETAILED ASPECTS OF THE EXISTING PHYSICAL CONDITIONS. THE INSTALLATION CONTRACTOR SHALL BE RESPONSIBLE TO VISUALLY IDENTIFY INTERFERENCES AND TO MAKE NECESSARY ADJUSTMENTS IN THE FIELD.
- INSTALLATION CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY DISCREPANCIES AND BRING THEM TO THE ATTENTION OF THE DEPARTMENT OF VETERANS AFFAIRS (VA) CONTRACTING OFFICERS REPRESENTATIVES (COR) AS SOON AS POSSIBLE DURING BIDDING TO OBTAIN GUIDANCE. THIS SHALL NOT ALLEVATE THE INSTALLATION CONTRACTOR OF THE RESPONSIBILITY TO PROVIDE A FULLY FUNCTIONING SYSTEM.
- INSTALLATION CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL APPLICABLE SPECIFICATIONS FROM THE PRIME CONTRACTOR.
- INSTALLATION CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN INSTRUCTIONS FROM THE PRIME CONTRACTOR FOR SPECIAL WORKING CONDITIONS SUCH AS ALLOWABLE WORK PERIODS, RESTRICTIONS ON TOOL USAGE, AND INSTALLATION PROCEDURES.
- CONTRACTOR SHALL PROVIDE A FULLY FUNCTIONAL SYSTEM FOR THIS CONTRACT. THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE INDICATIVE OF OVERALL CAPACITY AND PERFORMANCE OF THE SYSTEM. ADDITIONAL COMPONENTS AND EQUIPMENT, FOR A FULLY FUNCTIONAL SYSTEM, MAY BE REQUIRED PER MANUFACTURER'S RECOMMENDED INSTALLATION GUIDELINES. ALL SUCH RECOMMENDED COMPONENTS AND EQUIPMENT ARE CONSIDERED AS PART OF CONTRACT REQUIREMENT.
- ALL WALL PENETRATIONS SHALL BE IMMEDIATELY PATCHED/REPAIRED AFTER PIPING/CONDUIT IS INSTALLED OR REMOVED.
- ALL ITEMS SHOWN ON THE DRAWINGS TO BE DEMOLISHED SHALL BE TAKEN OFF SITE FOR DISPOSAL BY INSTALLATION CONTRACTOR UNLESS INDICATED OTHERWISE. THERE MAY BE SOME ASBESTOS-CONTAINING MASTIC IN FLOOR TILES AND DEBRIS LYING ON CEILING TILES. ALSO, PIPING IS WRAPPED IN ASBESTOS INSULATION THROUGH OUT THE PROJECT AREA. CONTRACTOR TO TAKE PRECAUTIONS AS THEY REMOVE THESE ITEMS. AN ASBESTOS ABATEMENT WILL NEED TO BE PERFORMED.
- THE DRAWINGS ARE PREPARED TO FUNCTIONALLY INTEGRATE SPECIFIC VENDORS, AS INDICATED IN THE EQUIPMENT SCHEDULES. THE VA HAS NOT CONTRACTED THESE VENDORS. IT IS THE RESPONSIBILITY OF THE INSTALLATION CONTRACTOR/BIDDER TO EXAMINE THE PHYSICAL AND SCHEMATIC INTERFACE REQUIREMENTS OF THE APPROVED VENDOR, DEVELOP AND IMPLEMENT REQUIRED CONSTRUCTION DETAILS TO COMPLETE THE PROJECT. SUBSTITUTIONS TO BE IDENTIFIED WITH THE BIDS.
- INSTALLATION CONTRACTOR TO EVACUATE AND PROPERLY DISPOSE OF ALL REFRIGERANT CONTAINED IN EQUIPMENT TO BE DEMOLISHED PRIOR TO DEMOLITION.
- INSTALLATION CONTRACTOR SHALL PERFORM A HEALTH RISK ASSESSMENT TO DETERMINE DUST CONTROL, NOISE CONTROL AND OTHER ENVIRONMENTAL CONTROLS DURING THE WORK. VA COR WILL ASSIST IN COMPLETION. ASSESSMENT CONTROLS TO BE INCLUDED IN BID.
- ALL SUPPLY AIR DUCTWORK TO BE INSULATED. ALL HWH, HWHR, TO BE INSULATED.
- THE INDICATED SYSTEM IS SHOWN DIAGRAMMATICALLY. THE INSTALLATION CONTRACTOR SHALL PROVIDE ALL DETAILS AND CONTROLS PER THE MANUFACTURER. VA SPECIFICATIONS AND DETAILS ELSEWHERE TO PROVIDE A FULLY FUNCTIONAL AND AUTOMATED SYSTEM. ADDITIONAL PIPING, ELECTRICAL AND CONTROLS NOT SHOWN SHALL BE FURNISHED, ENGINEERED, INSTALLED AND COMMISSIONED BY THE INSTALLATION CONTRACTOR.
- LEAKAGE CLASSIFICATION FOR ALL SUPPLY AIR AND EXHAUST AIR UP TO THE FAN DUCTWORK SHALL FOLLOW SMACNA GUIDELINES OF 4% OR LESS LEAKAGE.
- FOR ALL DISCHARGE DUCTWORK FROM AN EXHAUST FAN TO OUTSIDE, THE DUCT SHALL BE TESTED FOR LEAK-PROOF.
- DEMOLITION WORK IDENTIFIED IN DEMO DRAWINGS REFER TO SPECIFIC ITEMS PER VA. INSTALLATION OF NEW ITEMS, PIPES, EQUIPMENT CONDUIT, PANEL, ETC. MAY REQUIRE INCIDENTAL DEMOLITION AND FIELD ADJUSTMENT TO INTERFERENCES NOT INDICATED OR SHOWN EXPLICITLY.

DEMOLITION AND VERIFICATION NOTES

- DRAWING SHOWN REPRESENTING KNOWN CONDITIONS BASED ON EXISTING REFERENCE DRAWINGS AND OTHER ONGOING PROJECTS RELATED TO DOMESTIC WATER. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COORDINATE WORK WITH OTHER KNOWN OR UNKNOWN RISER RENOVATION PROJECTS.
- PHASE 1 EXPLORATORY DEMOLITION SHALL BE USED TO VERIFY EXISTING CONDITIONS BY REMOVING PARTITIONS AND HARD CEILINGS ABOVE THE ROOMS. THE DESIGN INTENT INDICATED IN THE SUBSEQUENT DRAWING PACKAGE SHALL BE IMPLEMENTED AFTER NECESSARY FIELD ADJUSTMENTS ARE MADE.

BIDDING DOCUMENTS
FULLY SPRINKLERED

VA Northern Indiana Health Care System, Fort Wayne 2121 Lake Ave., Fort Wayne IN 46805		CONSULTANTS: USFin Development, LLC 105 West Weir Street Litchfield, Illinois 62556 Viridian Architectural Design, Inc. 2020 East Washington Blvd, Suite 200 Fort Wayne, Indiana 46803		ARCHITECT/ENGINEERS: AMERICAN STRUCTUREPOINT INC. 7280 SHADELAND STATION INDIANAPOLIS, IN 46256-9857 TEL 317.547.5580 FAX 317.543.0270 www.structurepoint.com EnerTronics Engineering Corporation The Farmont Building 3245 Calumet Ave, Suite 205, Munster, IN 46321 (219) 836-2120 Fax (219) 836-1129		Approved: Medical Center Director NAME: _____ SIGNATURE: _____ Approved: Medical Center Associate Director NAME: _____ SIGNATURE: _____		Drawing Title MEP SYMBOLS, ABBREVIATIONS AND NOTES Approved: Engineering Service NAME: _____ SIGNATURE: _____ Approved: Project Director NAME: _____ SIGNATURE: _____		Project Title Renovate First Floor East Wing for PACT Location 2121 Lake Ave., Fort Wayne, IN 46805 Date 03/27/2013		Checked DR Drawing DS		Project Number 610A4-12-107 Building Number 01 Drawing Number G1004 Dwg. 19 of 58		Office of Construction and Facilities Management Department of Veterans Affairs	
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