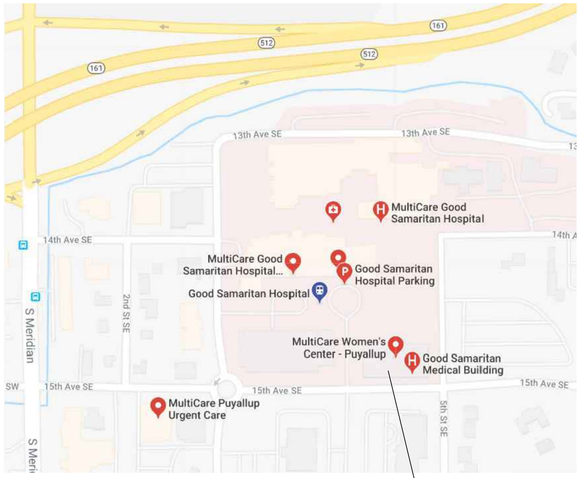
VICINITY MAP



VICINITY MAP
NOT TO SCALE

PROJECT INFORMATION:

APPLICABLE CODES: (INCLUDING STATE AND LOCAL AMENDMENTS OF FOLLOWING LISTED CODES)

STATE OF WASHINGTON:

BUILDING CODE:
INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION
INTERNATIONAL CODE COUNCIL (ICC), A117.1–2009: WAC 51–50

MECHANICAL CODE:
INTERNATIONAL MECHANICAL CODE (IMC), 2018 EDITION
INTERNATIONAL FUEL GAS CODE (IFGC), 2018 EDITION
NATIONAL FUEL GAS CODE (NFGC), WAC 51–52, 2018 EDITION

PLUMBING CODE:
UNIFORM PLUMBING CODE (UPC): WAC 51–56, 2018 EDITION

ENERGY CODE:
WASHINGTON STATE ENERGY CODE: WAC 51–11, 2018 EDITION

ELECTRICAL CODE:
NATIONAL ELECTRICAL CODE (NEC), 2018 EDITION: WAC 296–46B

LIFE SAFETY CODE:
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA–101), 2018 EDITION

FIRE CODE:
INTERNATIONAL FIRE CODE (IFC), 2018 EDITION: WAC 51–54

PROJECT DATA:

AUTHORITY:	CITY OF PUYALLUP
SEISMIC DESIGN CATEGORY:	D–1
FROST LINE:	12 INCHES
SNOW LOAD:	25 PSF
WIND EXPOSURE:	85 MPH – EXPOSURE B
CONSTRUCTION TYPE:	1–A
OCCUPANCY:	B, MEDICAL OFFICE BUILDING
FIRE PROTECTION:	AUTOMATIC FIRE ALARM AUTOMATIC FIRE SPRINKLER SYSTEM

GRAPHIC SYMBOLS:

NORTH ARROW
GRID LINE
BUILDING SECTION (SECTION NO. / SHEET NO.)
WALL SECTION (SECTION NO. / SHEET NO.)
DETAIL (DETAIL NO. / SHEET NO.)
INTERIOR ELEVATION
ELEVATION MARK (ELEV. +0'–0" FLOOR LEVEL)
REVISION MARK
PROPERTY CORNERS
CUT LINE
CENTER LINE
ANGLE
DIAMETER / ROUND
CONCEALED OR OVERHEAD LINE (NOT ON DEMOLITION PLAN)
GRADE POINT (NEW GRADE / EXISTING GRADE)
ROOM NAME / NUMBER (RM. NAME / RM.#)
PLAN KEYED NOTE
NEW DOOR/FRAME (SEE DOOR SCHEDULE)
WALL TAG (SEE WALL TYPES)
EQUIPMENT KEYED NOTE

PROJECT TEAM:

OWNER:
MultiCare Health System
315 Martin Luther Jr. King Way
Tacoma, WA 98405
CContact: Maxcoty MacDonald
Project Manager
Maxcoty.MacDonald@MultiCare.org
(253)441–7904 Tel.

FACILITY CONTACTS:
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Tacoma, WA 98415
Contact: Maxcoty MacDonald
Project Manager
Maxcoty.MacDonald@MultiCare.org
(253)441–7904 Tel.

ARCHITECT:
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12345 Lake City Way NE, #2108
Seattle, WA 98125
Contact: Karsea Langlois
Principal Architect
Karsea@InSightArch.Us
(206) 601–6645 Tel.

MECHANICAL:
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Seattle, WA 98101
Contact: Laura Chopp, PE
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Laura.Chopp@Coffman.com
(206) 521–0725 Tel.

ELECTRICAL:
Coffman Engineers
1101 2nd Ave, Suite 400
Seattle, WA 98101
Contact: Hanh Mortenson, PE
Senior Engineer, Electrical Engineering
Hanh.Mortenson@Coffman.com
(253) 347–7944 Tel.

PROJECT DESCRIPTION:

All spaces are all Type B occupancy, medical office building (non–DOH CRS reviewable).

A tenant improvement to existing MMA/Urology Clinic Suite 3500, located on the third floor, including alterations to the soiled utility room.

Tax Parcel Number: 9810000645

INDEX TO DRAWING SET:

GENERAL:
T0.0 PROJECT INFO, INDEX, SITE PLAN

ARCHITECTURAL:
A0.1 3rd FLOOR LIFE SAFETY PLAN
A0.2 3rd FLOOR PLAN
A1.3 PARTIAL 3RD FLOOR PLAN: DEMOLITION (SOUTHEAST)
A2.3 PARTIAL 3RD FLOOR PLAN: PROPOSED (SOUTHEAST)
A3.3 PARTIAL 3RD FLOOR PLAN: EQUIPMENT (SOUTHEAST)
A4.3 PARTIAL 3RD FLOOR REFLECTED CEILING PLAN (SOUTHEAST)
A6.0 TYPICAL MOUNTING HEIGHTS
A6.1 INTERIOR ELEVATIONS
A6.2 INTERIOR ELEVATIONS
A7.1 FINISH SCHEDULE
A8.0 WALL TYPES AND DETAILS
A8.1 DETAILS

MECHANICAL:
M0.01 COVER SHEET, GENERAL NOTES & INDEX
M0.02 MECHANICAL SPECIFICATIONS AND NOTES
M0.03 MECHANICAL SCHEDULES
M1.01 THIRD HVAC PLAN – DEMO AND NEW
M3.01 MECHANICAL DETAILS

PLUMBING:
P0.01 COVER SHEET, GENERAL NOTES & INDEX
P0.02 PLUMBING SPECIFICATIONS AND NOTES
P0.03 PLUMBING SCHEDULES
P1.01 THIRD FLOOR PLUMBING PLAN – DEMO
P2.01 THIRD FLOOR PLUMBING PLAN
P3.01 PLUMBING DETAILS

ELECTRICAL:
E0.01 COVER SHEET AND GENERAL INFORMATION
E0.02 GENERAL NOTES
E0.03 PANEL SCHEDULES
E2.13 PARTIAL THIRD FLOOR LIGHTING PLAN (NORTHEAST)
E3.13 PARTIAL THIRD FLOOR POWER & SYSTEMS PLAN (NORTHEAST)
E5.01 ONE–LINE DIAGRAM

City of Puyallup
Development
Engineering
APPROVED
See permit conditions.
ycharitou
06/07/2024
3:11:16 PM

Refer to engineering approval granted under building permit PRCTI20240313.

InSight
HealthCare Architecture
KLanglois@InsightDesignStudio.biz
12345 Lake City Way NE #2108
Seattle, WA 98125
206-601-6645

8466 REGISTERED ARCHITECT
Karsea M. Langlois
STATE OF WASHINGTON

OWNER:
MultiCare
BetterConnected

PROJECT NAME:
MultiCare GSMOB
3rd Floor
Soiled Utility
Alterations
1450 5th St SE
Puyallup, WA 98372

MARK	DATE	DESCRIPTION
	9/8/2023	PERMIT SUBMITTAL #1

PROJECT NO. 31258
DRAWN BY: K. LANGLOIS
DATE: 8 SEPTEMBER 2023

SHEET TITLE:
PROJECT INFO / INDEX / SITE PLAN

SHEET #:
T0.0

GENERAL LEGEND

SYMBOL	DESCRIPTION
A / B	DETAIL SYMBOL: A = IDENTIFYING NUMBER B = SHEET WHERE DETAIL IS SHOWN
A / B|C	DETAIL SYMBOL: A = IDENTIFYING NUMBER B = SHEET WHERE DETAIL IS TAKEN C = SHEET WHERE DETAIL IS SHOWN
A / B	SECTION SYMBOL: A = IDENTIFYING LETTER B = SHEET WHERE SECTION IS SHOWN
A / B|C	SECTION SYMBOL: A = IDENTIFYING LETTER B = SHEET WHERE SECTION IS TAKEN C = SHEET WHERE SECTION IS SHOWN
	SECTION CUT LINE INDICATOR
1	KEYED REFERENCE NOTE OR SHEET NOTE
	POINT OF CONNECTION (POC) SYMBOL
P1-1	PLUMBING FIXTURE REFERENCE (REFER TO SCHEDULE)
AHU-1	EQUIPMENT IDENTIFICATION (REFER TO SCHEDULES)
A	MEDICAL GAS OUTLET IDENTIFICATION (REFER TO SCHEDULE)
	MEDICAL GAS ZONE VALVE STATION MOUNTED IN WALL
	MEDICAL GAS ALARM PANEL MOUNTED IN WALL
	MEDICAL GAS OUTLET
1	REVISION CLOUD AND REVISION NUMBER
XX	BINARY (YES/NO) SENSING SWITCH (PIPE OR DUCT MOUNTED)
XX	BINARY (YES/NO) SENSING SWITCH (SURFACE MOUNTED)
XX	ANALOG SENSING DEVICE (PIPE OR DUCT MOUNTED)
XX	ANALOG SENSING DEVICE (SURFACE MOUNTED)
X	ANALOG SENSING DEVICE (SURFACE MOUNTED) (APPROPRIATE FOR MEASURED FLUID) SUBSCRIPT LETTER (X) INDICATES: A – ALARM PRESSURE SENSOR D – DIFFERENTIAL PRESSURE F – FLOW RATE H – HUMIDITY L – LOW LIMIT P – PRESSURE (STATIC) T – TEMPERATURE V – VELOCITY & VOLUME FLOW RATE

ABBREVIATIONS

ABBR	DESCRIPTION	ABBR	DESCRIPTION
ABV	ABOVE	L	LENGTH
AD	ACCESS DOOR	LAT	LEAVING AIR TEMPERATURE
AHU	AIR HANDLING UNIT	LBS	POUNDS
AL	ACOUSTIC LINED	LF	LINEAR FOOT/FEET
AP	ACCESS PANEL	LVG	LEAVING
APD	AIR PRESSURE DROP	LWG	LOW WALL GRILLE
ARCH	ARCHITECT/ARCHITECTURAL	LWR	LOW WALL REGISTER
ARV	AUTOMATIC RELIEF VALVE or ACID RESTISTANT VENT	LWT	LEAVING WATER TEMPERATURE
ARW	ACID RESTISTANT WASTE	MAX	MAXIMUM
		MBH	1000 BRITISH THERMAL UNITS PER HOUR
BDD	BACKDRAFT DAMPER		
BFP	BACKFLOW PREVENTER	MCC	MOTOR CONTROL CENTER
BHP	BRAKE HORSEPOWER	MECH	MECHANICAL
BG	BELOW GROUND	MFR	MANUFACTURER
BJ	BETWEEN JOISTS	MIN	MINIMUM
BTU	BRITISH THERMAL UNIT	MISC	MISCELLANEOUS
BTUH	BRITISH THERMAL UNITS PER HOUR	MTD	MOUNTED
		MTG	MOUNTING
C	CENTIGRADE		
CC	COOLING COIL	N/A	NOT APPLICABLE
CD	CEILING DIFFUSER	N/C	NORMALLY CLOSED
CFM	CUBIC FEET PER MINUTE	N/O	NORMALLY OPEN
CG	CEILING GRILLE	NC	NOISE CRITERIA
CI	CAST IRON	NIC	NOT IN CONTRACT
CLG	CEILING	NTS	NOT TO SCALE
CO	CLEANOUT		
CONC	CONCRETE	OA	OUTSIDE AIR
CONN	CONNECT or CONNECTION	OBD	OPPOSED BLADE DAMPER
CONST	CONSTRUCTION	O/C	ON CENTER
CONT	CONTINUATION	OD	OUTSIDE DIAMETER
CR	CONDENSATE RETURN	OPNG	OPENING
DB	DECIBLE or DRY BULB	PCV	PRESSURE CONTROL VALVE
DDC	DIRECT DIGITAL CONTROL	PD	PRESSURE DROP
DIA	DIAMETER	PH or ø	PHASE
DIM	DIMENSION	PLCS	PLACES
DN	DOWN	POC	POINT OF CONNECTION
DPR	DAMPER	POUA	POINT OF USE ALARM
DWG	DRAWING	PRV	PRESSURE REDUCING VALVE
		PSI	POUNDS PER SQUARE INCH
E-100	EXHAUST AIR NUMBER INDICATES CFM QUANTITY	PSIG	POUNDS PER SQUARE INCH GAGE
EA	EACH	R-100	RETURN AIR NUMBER INDICATES CFM QUANTITY
EAT	ENTERING AIR TEMPERATURE		
EF	EXHAUST FAN	RA	RETURN AIR
EG	EXHAUST GRILLE	RAG	RETURN AIR GRILLE
ELEC	ELECTRIC or ELECTRICAL	REQD	REQUIRED
ELEV	ELEVATION	RPBP	REDUCED PRESSURE BACKFLOW PREVENTOR
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM		
ESP	EXTERNAL STATIC PRESSURE	RPM	REVOLUTIONS PER MINUTE
EWT	ENTERING WATER TEMPERATURE		
EXH	EXHAUST	S-100	SUPPLY AIR NUMBER INDICATES CFM QUANTITY
EXST or (E)	EXISTING		
F	FAHRENHEIT	SA	SUPPLY AIR
FA	FACE AREA	SF	SUPPLY FAN
FCO	FLOOR CLEANOUT	SHT	SHEET
FCU	FAN COIL UNIT	SIM	SIMILAR
FD	FLOOR DRAIN	SP	STATIC PRESSURE
FDPR	FIRE DAMPER	SQ	SQUARE
FFD	FUNNEL FLOOR DRAIN	SQ FT	SQUARE FOOT/FEET
FF	FINAL FILTER	SS	STAINLESS STEEL
FLR	FLOOR	STD	STANDARD
FPM	FEET PER MINUTE		
FPS	FEET PER SECOND	THK	THICK
FT	FOOT/FEET	TP	TRAP PRIMER or TEST PLUG
FV	FACE VELOCITY	TYP	TYPICAL
		TU	TERMINAL UNIT
GA	GAGE or GAUGE		
GAL	GALLON	UBC	UNIFORM BUILDING CODE
GALV	GALVANIZED	UFC	UNIFORM FIRE CODE
GPH	GALLONS PER HOUR	UMC	UNIFORM MECHANICAL CODE
GPM	GALLONS PER MINUTE	UPC	UNIFORM PLUMBING CODE
		UG	UNDERGROUND
H	HEIGHT	UH	UNIT HEATER
HD	HEAD		
HP	HORSEPOWER	VA	VALVE
HTG	HEATING	VAC	VACUUM
HVAC	HEATING, VENTILATION AND AIR CONDITIONING	VAV	VARIABLE AIR VOLUME
		VD	VOLUME DAMPER
HWG	HIGH WALL GRILLE	VEL	VELOCITY
HWR	HIGH WALL REGISTER	VFD	VARIABLE FREQUENCY DRIVE
HZ	HERTZ	VTR	VENT THRU ROOF
ID	INSIDE DIAMETER	W	WIDE
IE	INVERT ELEVATION	W/	WITH
IN	INCH or INCHES	W/O	WITHOUT
INSUL	INSULATION	WB	WET BULB
INV	INVERT	WCO	WALL CLEANOUT
		WG	WATER GAGE
KW	KILOWATT	WGE	WASTE GAS EVACUATION
KWH	KILOWATT HOUR	WPD	WATER PRESSURE DROP
		WT	WEIGHT

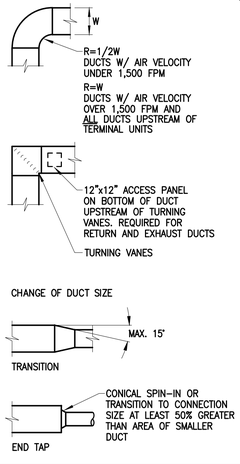
AIR DISTRIBUTION LEGEND

SYMBOL	ABBR	DESCRIPTION
		LIGHT LINEWORK INDICATES EXISTING DUCT OR EQUIPMENT
		INDICATES DUCT OR EQUIPMENT TO BE REMOVED
18x12 / 18x12		DUCT SIZE IN INCHES FIRST SIZE LISTED IS SIDE SHOWN
		ACOUSTIC LINED DUCT
R / R	R	DUCT OFFSET (UP) IN DIRECTION OF ARROW (NOT TYPICALLY SHOWN)
D / D	D	DUCT OFFSET (DN) IN DIRECTION OF ARROW (NOT TYPICALLY SHOWN)
18"ø / 18"ø		ROUND DUCT IN INCHES
18x12"ø / 18x12"ø		OVAL DUCT IN INCHES
18x10 / 18x12		CHANGE OF DUCT SIZE
18x10 / 18x12		CHANGE OF DUCT SIZE (TRIANGLE NOT ALWAYS SHOWN)
		RECTANGULAR SUPPLY DUCT ELBOW TURNED UP
		RECTANGULAR SUPPLY DUCT ELBOW TURNED DOWN OR AWAY
		RECTANGULAR RETURN/EXHAUST DUCT ELBOW TURNED UP
		RECTANGULAR RETURN/EXHAUST DUCT ELBOW TURNED DOWN OR AWAY
		SMALL RECTANGULAR DUCT ELBOW TURNED DOWN OR AWAY
		ROUND DUCT ELBOW TURNED UP
		ROUND DUCT ELBOW TURNED DOWN OR AWAY
		END OF DUCT WITH CAP (UNLESS INDICATED OTHERWISE)
	FLEX	FLEXIBLE DUCT
	AD	DUCT ACCESS DOOR
L	VD	VOLUME DAMPER

DUCT FITTING REQUIREMENTS

THE FOLLOWING DUCT FITTINGS ARE CONSIDERED ACCEPTABLE. THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL FOR OTHER FITTINGS PRIOR TO FABRICATION. ONLY FITTINGS WITH EQUAL OR LOWER PRESSURE DROP WILL BE CONSIDERED.

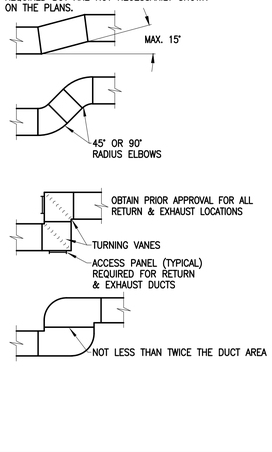
DUCT ELBOWS



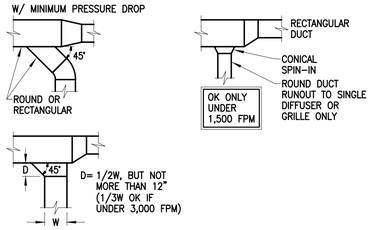
CHANGE OF DUCT SIZE

OFFSETS

NOTE: OFFSETS (TO AVOID OBSTRUCTIONS) ARE REQUIRED BUT ARE NOT NECESSARILY SHOWN ON THE PLANS.



BRANCH DUCT TAKEOFFS W/ MINIMUM PRESSURE DROP



INSULATION REQUIREMENTS

1. DUCT INSULATION REQUIREMENTS:

SUPPLY DUCTS: R-3.3 INSULATION FOR ALL SUPPLY DUCTS WITHIN THE BUILDING ENVELOPE. R-8 INSULATION FOR OUTDOOR DUCTS OR DUCTS WITH OUTDOOR AIR. R-6 FOR DUCTS IN UNCONDITIONED SPACES.

RETURN DUCTS (ALL DUCTS TRAVELING FROM SPACE BACK TO AN AIR HANDLER): R-8 INSULATION FOR OUTDOOR DUCTS AND R-6 FOR DUCTS IN UNCONDITIONED SPACES.

ALL EXTERIOR DUCTS TO BE CLAD WITH ALUMINUM.

DUCT CONSTRUCTION AND SEALING REQUIREMENTS

1. SUPPLY DUCTWORK FROM AIR HANDLER TO TERMINAL UNITS

2" STATIC PRESSURE CLASS WITH ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS SEALED (SMACNA SEAL CLASS A).

2. SUPPLY DUCTWORK DOWNSTREAM OF TERMINAL UNITS:

1" STATIC PRESSURE CLASS WITH ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS SEALED (SMACNA SEAL CLASS A). SPIRAL LOCK SEAMS IN ROUND AND FLAT OVAL DUCTWORK DO NOT REQUIRE SEALING.

3. EXHAUST AND RETURN DUCTWORK:

2" STATIC PRESSURE CLASS WITH ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS SEALED (SMACNA SEAL CLASS A). 1" PRESSURE CLASS ACCEPTABLE BETWEEN GRILLES AND FIRST DAMPER.

DRAWING INDEX

SHEET NUMBER	DESCRIPTION
M0.01	COVER SHEET, GENERAL NOTES, & INDEX
M0.02	MECHANICAL SPECIFICATIONS AND NOTES
M0.03	MECHANICAL SCHEDULES
M1.01	THIRD FLOOR HVAC PLAN – DEMO AND NEW
M3.01	MECHANICAL DETAILS

GENERAL MECHANICAL NOTES

1. CONTRACTOR SHALL SECURE, MAINTAIN, AND PAY FOR ALL REQUIRED PERMITS, LICENSES, AND INSPECTIONS FOR DURATION OF WORK UNLESS DIRECTED OTHERWISE.
2. MATERIALS, METHODS, AND INSTALLATION SHALL COMPLY WITH THE PROVISIONS OF THE 2018 EDITIONS OF THE INTERNATIONAL MECHANICAL CODE, WASHINGTON STATE ENERGY CODE, INTERNATIONAL BUILDING CODE, INTERNATIONAL FIRE CODE, UNIFORM PLUMBING CODE, AND GOVERNING STATE AND LOCAL CODES AND ORDINANCES.
3. THESE PLANS ARE SCHEMATIC AND DO NOT SHOW EXACT ROUTING OR EVERY OFFSET WHICH MAY BE REQUIRED. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES AND IS TO VERIFY ALL CLEARANCES BEFORE COMMENCING WORK.
4. ALL WORK SHALL COMPLY WITH THE OWNER'S REQUIREMENTS.
5. SUBSTITUTIONS OF EQUIPMENT OTHER THAN AS SPECIFIED SHALL BE THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DESIGN CHANGES OR IMPACTS THAT THE PROPOSED EQUIPMENT SUBSTITUTION HAS ON OTHER DISCIPLINES. ANY ADDITIONAL ELECTRICAL, STRUCTURAL, MECHANICAL, OR ARCHITECTURAL REQUIREMENTS SHALL BE PROVIDED AT NO ADDITIONAL EXPENSE TO THE OWNER.
6. PLANS AND SPECIFICATIONS SHALL BE TAKEN TOGETHER. PROVIDE ALL WORK CALLED FOR IN EITHER. IN CASE OF CONFLICT BETWEEN SPECIFICATIONS AND PLANS THE MORE STRINGENT SHALL APPLY.
7. ALL EQUIPMENT AND MATERIAL ON THE JOB SITE PRIOR TO INSTALLATION SHALL BE COVERED AND PROTECTED FROM DIRT, DUST, AND DAMAGE.
8. PROVIDE ALL DEMOLITION WORK CALLED FOR OR REQUIRED BY THE INSTALLATION. REMOVE ALL EXISTING EQUIPMENT AND MATERIALS NOT REUSED UNLESS SPECIFIED OTHERWISE BY THE OWNER'S REP.
9. VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT ACCESS CLEARANCES CAN BE MET. COORDINATE FINAL EQUIPMENT LOCATIONS W/ GENERAL CONTRACTOR AND OTHER TRADES TO ALLOW FOR REQUIRED MECHANICAL EQUIPMENT CLEARANCES.
10. PROVIDE NEC CODE MINIMUM HORIZONTAL AND VERTICAL WORKING CLEARANCES FOR ALL ELECTRICAL PANELS AND EQUIPMENT. OFFSET MECHANICAL WORK AS REQUIRED.
11. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF INSTALLATION STANDARDS AND CONSTRUCTION CONDITIONS. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO SHOP FABRICATION AND/OR FIELD INSTALLATION. DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONSTRUCTION DRAWINGS SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER. WORK DONE WITHOUT THE ENGINEERS APPROVAL IS THE RESPONSIBILITY OF THE CONTRACTOR.
12. ALL MECHANICAL EQUIPMENT, MATERIALS, AND INSTALLATION SHALL BE PROVIDED BY THE CONTRACTOR. ALL EQUIPMENT SHALL BE COMPLETE, INSTALLED, AND FULLY FUNCTIONAL PRIOR TO FINAL ACCEPTANCE OF THE WORK.
13. INSTALL ALL EQUIPMENT PER MANUFACTURERS RECOMMENDATIONS AND REQUIREMENTS. ANY CONFLICTS BETWEEN THE MANUFACTURERS DOCUMENTATION AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
14. DO NOT ALLOW ANY WORK TO BE COVERED UP OR ENCLOSED UNTIL INSPECTED, TESTED AND APPROVED BY OWNER'S REPRESENTATIVE OR AUTHORITY HAVING JURISDICTION.
15. MECHANICAL EQUIPMENT SHALL NOT BE USED FOR TEMPORARY HEAT DURING CONSTRUCTION.

COFFMAN ENGINEERS
1101 2nd Avenue, Suite 400
Seattle, WA 98101
ph 206.623.0717
www.coffman.com

LYLE NAESS — STATE OF WASHINGTON — 39341 — REGISTERED PROFESSIONAL ENGINEER
9/8/23

OWNER:
MultiCare
BetterConnected

PROJECT NAME:
MultiCare GSMOB 3rd Floor Soiled Utility Alterations
1450 5th St SE
Puyallup, WA 98372

MARK	DATE	DESCRIPTION
	9/8/2023	PERMIT SUBMITTAL #1

PROJECT NO. 231680
DRAWN BY: CEI
DATE: 8 SEPTEMBER 2023

SHEET TITLE:
COVER SHEET AND GENERAL INFO

SHEET #:
M0.01

MECHANICAL SPECIFICATIONS

MECHANICAL WORK, GENERAL

A. GENERAL REQUIREMENTS

1. Contract Requirements: Comply with Bidding and Contract Requirements as outlined by the Owner and Architect.

2. Work Included: This section applies to all mechanical work normally specified under Divisions 22 and 23. Provide all materials, labor, equipment, tools, field design, shop drawings, hoisting, scaffolding, supervision and overhead for the construction, installation, connection, testing and operation of all mechanical work as shown and specified. The word "provide" used hereinafter means to furnish and install. All work and materials required for complete functioning systems are not outlined here, but shall be provided as part of this work.

3. Codes: Comply with all applicable codes and ordinances of the local and state code enforcing agencies. Obtain permits, approvals, and inspections, and pay all costs and fees for permits, reviews, and inspections.

4. Abbreviations: Where abbreviations are used in the specifications and on the drawings, the common industry definition shall apply unless indicated otherwise. The term A/E shall refer to the project architect and mechanical consulting engineer as if one organization.

5. Submittals: Submit product data and shop drawings for all significant materials, equipment, and fixtures to the A/E for review. Allow reasonable time for review and return prior to ordering. PDF (electronic) submittals area acceptable, if paper copies are submitted assume Owner and A/E will retain a total of three copies of submittals.

6. Safety Measures: Provide a safe environment to protect employees and all others from injury. Comply with local, state and federal safety and health regulations for construction.

B. PERFORMANCE OF WORK

1. Coordination: Coordinate mechanical work with all other trades and take all measurements necessary to ensure proper installation of mechanical work prior to start of fabrication. This contractor shall create building information models (BIM) and/or large-scale detail drawings where necessary to coordinate work in tight areas. The contract drawings do not attempt to show exact locations of ductwork, piping, fixtures, and equipment, or all transitions and offsets that will be necessary for installation. All necessary transitions and offsets shall be provided as part of this work without added compensation.

2. Continuity of Service: Any systems or services within existing occupied buildings shall be maintained with minimum interruption. Coordinate any needed interruptions with the owner. Any overtime work required by this project to maintain existing buildings in continuous service, without reducing their efficiency, shall be included as a part of this contract.

3. Demolition: Provide mechanical system demolition in areas of existing buildings to accommodate installation of new work. Existing piping, valves, and ductwork, where indicated on the drawings, may be reused in their original location. Do not reuse existing piping, valves, or ductwork once they are removed, unless written permission is obtained from Owner. Remove all unused piping and ductwork located in remodel areas of existing buildings.

4. Cutting and Patching: Provide all cutting of building construction, as required for this work. Keep cutting to a minimum, and use saw cutting to maintain neat, even openings. Unless patching is included under other divisions of this specification, provide patching at all cutting locations. All patching shall conform to specifications for the new general construction work. Finish to match existing work .

C. PROJECT COMPLETION

1. Record Drawings (As-Builts): Corrections and changes made during the progress of the work shall be neatly recorded as actually installed for as-built records. Furnish one clean set to the A/E upon completion of the project.

2. Operation and Maintenance Manuals: Provide (3) finished copies of Mechanical Operation and Maintenance Manuals, for work under this project. Arrange information contained in the manuals in an orderly arrangement (by specification section), separated by tabs. Provide equipment manufacturer, model number, size, capacity, performance data, schedule of routine maintenance, suppliers lists, list of replacement parts, and include any shop drawings.

3. Owner Instruction: Contractor shall instruct the Owner in the use and operation of all systems installed under this Contract. Obtain Owner's written acceptance that they have been adequately trained.

4. Guarantee: Guarantee materials and workmanship for a period of one year after the date of substantial completion. Refer to additional requirements outlined by Architect and Owner.

BASIC MATERIALS AND METHODS (APPLIES TO ALL WORK)

A. GENERAL

1. Work Included: This section applies to all mechanical work normally specified under Divisions 21, 22 and 23, and represents requirements in addition to the requirements stated in other sections. These specifications do not cover all items that will be required for complete and working systems. Where materials or equipment needed for this project are not covered in these specifications, provide the materials and equipment of a quality equal to or better than that generally utilized by the industry for similar projects in the same geographic area

B. SUPPORT AND HANGERS

1. Support of Mechanical Systems: Each piece of equipment shall be supported (from above or below) in not less than four corners from the building structure. Piping and ductwork shall be supported at intervals specified, with each system supported independently from the building structure.

2. Seismic Bracing: Provide complete seismic bracing for all new piping, ductwork, terminal units and equipment as required by the current IBC with all local amendments and ASCE/SCI 7-10 (the current code). Bracing may be per guidelines established by restraint manufacturers such as; Mason Industries and I.S.A.T provided they meet the current code. All bracing shall be designed and manufactured by Mason, I.S.A.T, or prior-approved alternate.

3. Connections to the Building Structure: Provide all necessary connections to the building structure for seismic restraints and supports. Where concrete structure is present, review the use of concrete anchors with the Architect, Owner, and General Contractor, and verify that there are no post-tensioned slabs or other conditions that need to be taken into account in setting of anchors. Utilize McCullough "Kwik-Bolt", Phillips self-drilling anchors, Gregory "Bulldog," Omark "Drill Anchors", or other approved anchor to attach to concrete structures. Where building structure is wood or steel, obtain architect approval of hardware and methods to be utilized for attachment to the structure.

4. Additional Framing: Provide steel framing members to transfer load from support points at hangers to locations where connections can be made to the building structure. Framing members shall be 12-gauge minimum, 1-3/8" x 1-5/8" minimum cross-section size; Unistrut, Powerstrut, or other approved. Select member size and type, as appropriate for load per manufacturer guidelines.

5. Pipe Hangers: Clevis or ring hangers with steel rods. Hangers for insulated piping shall be sized for outside insulation and 6" shields shall be provided at all hangers to protect insulation. Pipe support spacing per IMC. Provide plastic separation between clamps and copper pipe.

6. Hanger Rods: Hot rolled steel rod, ASTM A 36; size to "Code for Pressure Piping", ANSI B 31.1, with safety factor of 5. Minimum rod size; 1" pipe and smaller (240 pounds) = 1/4" rod, 1-1/4" to 2" pipe (to 610 pounds) = 3/8" rod, 2-1/2" to 4" pipe (to 1,130 pounds) = 1/2" rod, 5" to 8" pipe (to 1,810 pounds) = 5/8" rod.

7. Install high density pre-molded pipe insulation 180 degrees (half-shells) on bottom half of pipe at supports for piping greater than 1" in diameter, 6" long for piping 6" in size or smaller. For cold pipe supports use 3.0 pcf density Polyisocyanurate insulation. Hot pipe supports shall be high density polyisocyanurate for fluids up to 300 F, or calcium silicate. Insulation at supports shall have same thickness as adjacent insulation.

8. Vibration Isolation: Vibration isolators for hanging equipment shall be equal to mason industries model 30n, combination spring and double deflection neoprene hanger, deflection as recommended by manufacturer. Vibration isolators for base mounted equipment shall be equal to mason industries model SLF, deflection as recommended by manufacturer.

C. EQUIPMENT AND PIPING IDENTIFICATION

1. Nameplates: Provide nameplate for each piece of equipment, including equipment number and any special instruction for its use; laminated black and white plastic with lettering cut through to white background. Minimum size 3" x 1".

2. Pipe Identification: All piping in serviceable locations (including above lay-in ceilings) shall be identified with semi-rigid plastic or adhesive identification markers. Markers shall conform to ANSI A13.1, "Scheme for the Identification of Piping Systems". Locate markers adjacent to each valve, at minimum 30' centers with at least one marker between any two partitions. Provide direction of flow arrows at markers.

D. MISCELLANEOUS MATERIALS AND ACCESSORIES

1. Dielectric Unions: Provide at each pipe connection between dissimilar metals. 2 inches and smaller, 250 psig at 180 deg. F., ANSI B16.39. Over 2" use flange fittings, ANSI B16.42 (iron) or ANSI B16.24 (bronze), Watts 3000 series, Epco or equivalent.

2. Fire Sealing at Rated Walls and Floors: Provide UL listed fire rated putty at all pipe penetrations of rated walls and floors. Putty shall be installed strictly per manufacturer instructions with sleeves where required. Overall installation shall meet code requirements. Pipe insulation shall not be continuous through fire rated walls or floors.

3. Motors: Unless otherwise specified, all electric motors furnished shall conform with the requirements of NEMA MG1 "Motors and Generators." Provide minimum motor efficiencies as required by the Energy Code.

4. Interconnecting Wiring: Provide any necessary interconnecting wiring between individual components and accessories furnished with mechanical equipment packages (unless that wiring is specifically called for on the electrical drawings). Wiring and wiring accessories shall be in accordance with Division 26 specifications (and/or the specifications on the electrical drawings) and local Electrical Code. Wiring shall be in conduit or raceway. Wiring shall be provided at the expenses of the subcontractor furnishing the equipment package.

E. EXECUTION OF WORK

1. Installation, General: Follow manufacturer's instructions and utilize good industry practice when installing all work. Use only skilled tradespeople with qualified supervision. All work shall be left neat and clean.

2. Concealment: Piping and ductwork shall be concealed within building construction, unless specifically indicated otherwise. Where piping is indicated to be exposed to view in finished spaces or cabinets, provide chrome escutcheons where the piping penetrates the wall, floor or ceiling construction

3. Water Sealing at Floors: Provide water tight sealing at each floor penetration including piping within wall cavities. Provide water sleeves sealed to the floor construction and projecting not less than 1.5" above floor where insulated piping penetrates the floor. The intent is to minimize passage of water during a significant water leakage event. Sealing is required for concrete floors, but not required for other floor systems where the construction itself, at the pipe penetration, allows significant water seepage (planked wood floor for example).

4. Coordination with Other Trades: Complete drawings and specifications of all trades will be furnished or will be available for inspection in the construction office at the jobsite. Carefully check these drawings and specifications before installing any work. In all cases, consider the work of all other trades and coordinate work with that of the Sheet Metal, Piping, Plumbing, Electrical, and Site-work subcontractors, so that the best arrangement of all equipment, piping, conduit, ducts, and other related items can be obtained.

MECHANICAL INSULATION

A. GENERAL

1. Manufacturers: Manville, Owens-Corning, Certainteed, or Knauf. Install in accordance with manufacturer's instructions.

2. Insulation Thickness: Refer to Insulation Requirements on the drawings for systems to be insulated and thickness of insulation.

B. INSULATION MATERIALS

1. Duct and Plenum Insulation: Fiberglass, 0.75-pound density, flexible duct insulation with kraft vapor barrier. Vapor barrier shall be sealed at all joints and access doors, etc. In general, installation must reflect careful workmanship, neat in appearance.

AIR DISTRIBUTION

A. DUCTWORK AND ACCESSORIES

1. Ductwork: Ductwork shall be galvanized steel, except where flexible duct is allowed per this specification. All ductwork and accessories shall comply with the standards presented within the most recent issue of SMACNA "HVAC Duct Construction Standards-Metal and Flexible" and with the requirements of this specification (whichever is more stringent). Longitudinal and transverse joints, seams, and connections of all duct systems shall be securely fastened and sealed with welds, gaskets, mastics, or tapes in accordance with the manufacturer's installation instructions and the drawing notes.

2. Duct Sealing Compound: Benjamin Foster Type 30-03, or United Sheet Metal manufacturer adhesive.

3. Duct Liner: Acoustical duct lining shall be 1-inch thick, unless otherwise noted, Owens-Corning Aeroflex Type 300 complying with fire classification requirements of NFPA 90a and 90b. Adhere liner to duct with fire resistant adhesive and welded pin type mechanical fasteners as indicated in SMACNA Standards. Seal all edges.

4. Duct Insulation: Wrapped ductwork insulation shall be 0.75 lb./cu ft, 1-1/2-inch-thick glass fiber with laminated kraft-foil vapor barrier complying with fire classification requirements of NFPA 90 and 90b. Refer to the current energy code for specific insulation as applicable.

5. Flexible Ducts: Acceptable only where indicated on the drawings. Exterior reinforced laminated vapor barrier, 2.0-inch thick fiber glass insulation (k = .25 at 75 degrees F.), encapsulated spring steel wire helix and impervious, smooth, non-perforated interior vinyl liner. UL 181 listed with flame-spread rating not over 25, smoke-developed rating not over 50. Minimum length 6', maximum length 8', minimum of 1 elbow, not greater than 2 elbows. Use Flexmaster USA Type 8M, R-6.0.

6. Flexible Connectors: Provide flexible connectors at fans and equipment that do not have internal vibration isolation. Indoor: UL Listed Hypolon coated glass fabric or neoprene coated nylon fabric. Flame resistant to 250 f. 24 oz / sq. yd. Durodyne "Neoprene" or Elgen "Hypolon".

7. Duct Access Doors: Provide in sufficient quantity, locations, and sizes to provide proper access to dampers and equipment that may require service. Ventlock with piano hinge and/or cam latches. Supply duct access doors shall be double wall, with 1" insulation.

8. Volume Dampers: Balancing Dampers shall be per SMACNA Standards. Heavy duty quadrants with setting scale and secure locking thumb nuts.

9. Fire Dampers: 1-1/2 hour rated, dynamic, UL listed fire dampers, each with frame and sleeve, listed for vertical and/or horizontal installation, with fusible link rated to close at 165 F. Oversize dampers as required to result in not less than 85 percent free area for low velocity ducts and 100 percent free area for medium or high velocity ducts. Install per manufacturer instructions.

10. Combination Fire Smoke Dampers: Dampers shall be UL 555 1-1/2 hour and UL 555S Class I leakage classified. Dampers shall have a normally-closed 120 volt damper motor and reusable resettable link closure device rated to close at 165 F. If a fire alarm system is not present, provide as part of the damper package a UL listed duct-mounted smoke detector located just upstream of the damper, along with field wiring to the damper motor and all accessories to close the damper on detection of smoke. Smoke detector shall be Simplex with aux. contacts rated for 120 VAC, and shall include a ceiling-mounted annunciator light mounted below the damper.

B. DIFFUSERS AND GRILLES

1. General: Provide all diffusers and grilles consistent with the performance, manufacturer, model number, and accessories, as specified or indicated on the drawing schedules and notes. GRD suppliers shall verify that model numbers are consistent with capacity, features, and accessories called for, and identify any conflicts prior to submitting quotations to contractors. Alternate manufacturers will be considered; however, A/E final approval of equality of alternate manufacturer models is required. Acceptable alternate manufacturers include Anemostat, Carnes, J&J, Krueger, Price, Shoemaker, and Titus, or as indicated or prior-approved otherwise. Alternate manufacturers with prior approval are still responsible for meeting or exceeding the quality and features of the specified items.

2. Diffuser and Grille Frames and Color: Off-white color to match ceiling grid. Refer to architectural drawings and provide frame style to suit ceiling type (lay-in, plaster, etc.). Where installed in hard ceilings, provide opposed blade damper adjustable from below. Ceiling grilles shall be installed such that blade openings face toward nearest wall to limit sight into duct or plenum.

3. Wall Grilles: Single deflection for return and exhaust, adjustable double deflection for supply (unless noted otherwise.) Refer to drawing notes and schedules for more information. Provide opposed blade dampers where "registers" are indicated. Exposed (front) blades shall be horizontal (unless noted otherwise).

C. AIR HANDLING EQUIPMENT

1. Equipment, General: Provide all equipment and terminal units consistent with the size, capacity, manufacturer, model number, and accessories, as specified or indicated on the drawing schedules and notes. Equipment suppliers shall verify that model numbers and sizes are consistent with capacity, features, and accessories called for, and identify any conflicts prior to submitting quotations to contractors. All equipment with electrical components shall have UL listing and high short circuit current ratings (SCCR) where required by the electrical inspector. Alternate manufacturers will be considered; however, A/E final approval of equality of alternate manufacturer models is required. Acceptable alternate manufacturers include Greenheck, Penn, Cook, McQuay, Trane, Carrier, York, Titus, Carnes, Enviro-Tec, or as indicated or prior approved otherwise. Alternate manufacturers with prior approval are still responsible for meeting or exceeding the quality and features of the specified items.

CONTROLS

A. GENERAL

1. Work Included: Provide complete, operating control systems meeting the requirements indicated on the sequence of operation (see drawings). All electrical components shall have UL listing where available. The control system shall be manufactured and installed by the owner preferred BAS contractor and shall be fully integrated into the existing system. Alternate installers or manufacturers will be considered; however, A/E final approval of equality of alternates is required. Alternate installers and manufacturers with prior approval are still responsible for meeting or exceeding the quality, features, and capabilities of the specified.

2. Control System Design: Provide all design work for control systems. Prepare complete shop drawings showing all wiring and submit to the A/E for review along with control component submittals. Provide thorough coordination with the electrical subcontractor and other mechanical trades, as well as equipment suppliers.

3. Testing: Provide thorough testing of the completed control systems to ensure that they perform as required. Refer to the WSEC C408.

B. MISCELLANEOUS CONTROL ACCESSORIES

1. General Accessories: Provide all items, whether addressed herein or not, required for a complete and operating system consistent with industry standards. Refer to the sequence of operation for requirements relating to certain components.

2. Control Valves (small): All valves 125 psig minimum working pressure. All valves shall give effective control at any pressure differential to 50 psig. Globe-style or ball-style, two-way proportional type or three-way mixing type as indicated. Bronze body for size 2 inches and smaller. Except for differential pressure control valves, pressure drop not to exceed 3 psig at maximum flow rate unless indicated otherwise. Size valves as close as possible for 3 psig pressure drop.

3. Motorized Dampers: Provide low leakage dampers. Dampers shall have blade seals and stops, equal to Ruskin CD36. Outdoor air intake and exhaust dampers shall be Class 1A (maximum leakage of 4 cfm per square foot at 1" w.c.) and automatically close when the system is off.

4. Actuators: Provide in sufficient size, quantity, and type matched to application. Provide one actuator for each control valve, and for every 20 square feet of damper. Actuators shall be floating or spring return, as indicated by Normally-Closed or Normally-Open designation on drawings or in sequence of operation.

5. Power supply: Assume one 120-volt power circuit will be made available for control power by the electrical subcontractor unless more circuits are specifically indicated on the electrical drawings. Provide power transformer(s) sized for the control power needs at the location indicated (or near the electrical panel if not indicated) and provide 24 volt power wiring to all control devices.

6. Control wiring: All wiring shall be in conduit in equipment rooms. Wiring shall not be exposed to view in finished spaces. Wiring outside equipment rooms shall be in conduit except plenum-rated wiring may be run without conduit in concealed space where similar (data or communication) cable is allowed to be run without conduit per the electrical specifications. Wiring shall run at right angles to building lines and supported as high as possible above accessible ceilings not more than 48" on center.

TESTING, ADJUSTING AND BALANCING

1. Testing and Adjusting: Subject systems to such operating tests as are required to determine that the equipment installed will operate per the specified capacity, ranges, and sequence of operation. Simulate all normal and possible abnormal conditions to verify proper operation in all conditions. If tests do not demonstrate satisfactory system performance, correct deficiencies and retest systems. Contractor shall furnish to the Owner a signed statement indicating that testing has confirmed proper operation of all systems.

2. Balancing: Provide the services of a qualified balancing firm to obtain air flows within +0-10% of the amounts indicated on the drawings. Balancing firm shall be a member of NEBB or AABC. Obtain A/E approval of the balancing firm at beginning of project. Provide drive adjustments as required to obtain the flows, and provide total flow, pressure, rpm and amperage measurements at all equipment. At the completion of the project, complete and signed balancing reports shall be submitted to the A/E and Owner indicating all measured values along with corresponding design values and notes/discussion where results were not within 10% of design values.

END OF MECHANICAL SPECIFICATION

2018 WSEC HVAC NOTES

1. ALL MOTORS SIZED FROM 1/12 HP TO 1 HP SHALL BE ELECTRONICALLY COMMUTED (EC) MOTORS OR SHALL HAVE A MINIMUM EFFICIENCY OF 70 PERCENT (IN ACCORDANCE WITH DOE 10 CFR 431). MOTORS SHALL ALSO BE EQUIPPED WITH MEANS TO ADJUST MOTOR SPEED PER 2018 WSEC C405.8.

2. HEATING AND COOLING LOADS HAVE BEEN PERFORMED PER ASHRAE STANDARDS. HVAC EQUIPMENT SIZED NO LARGER THAN THE NEXT LARGEST UNIT AVAILABLE ABOVE THE CALCULATED HEATING/COOLING LOADS PER 2018 WSEC C403.3.1.

3. CONTROLS TO USE A 5°F MINIMUM DEADBAND BETWEEN HEATING AND COOLING PER 2018 WSEC C403.4.1.2.

4. INTERIOR VAV BOXES SHARING AN OPEN SPACE WITH PERIMETER VAV BOXES SHALL NOT PROVIDE COOLING UNLESS ZONE TEMPERATURE IS 5°F ABOVE PERIMETER ZONE TEMPERATURE PER 2018 WSEC C403.4.1 EXCEPTION 2.

5. AUTOMATIC SETBACK/SHUTOFF: PROVIDE WITH DDC CONTROL SYSTEM AS PER 2018 WSEC C403.4.2.2.

6. AUTOMATIC START AND STOP CONTROLS: PROVIDE WITH AUTOMATIC START AND STOP CONTROLS AS PER 2018 WSEC C403.4.2.3.

7. WHERE LOCATED WITHIN UNCONDITIONED SPACE AND PLENUMS ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED WITH A MINIMUM OF R-6 INSULATION.

8. RETURN OR EXHAUST DUCTWORK THAT IS LOCATED WITHIN A CONDITIONED SPACE AND CONVEYS RETURN OR EXHAUST AIR DOWNSTREAM OF AN ENERGY RECOVERY DEVICE SHALL BE INSULATED WITH A MINIMUM R-VALUE IN ACCORDANCE WITH TABLE C403.10.1.2

9. PROVIDE HIGH PRESSURE DUCT LEAK TEST AS SPECIFIED AND REQUIRED PER 2018 WSEC C403.10.2.3.

10. ENERGY METERING: METERS ARE PROVIDED FOR ENERGY SOURCES AS PER 2018 WSEC C409 INCLUDING 409.3.1 FOR ALL HVAC EQUIPMENT WITH THE EXCEPTION OF ENERGY SERVING PROCESS LOADS, SERVICE WATER HEATING OR OTHER MISCELLANEOUS LOADS PER C409.3

11. ALL HVAC EQUIPMENT SHALL MEET MINIMUM EFFICIENCY REQUIREMENTS INDICATED IN TABLES C403.3.2(1) THROUGH C403.3.2(12). WHERE MULTIPLE RATING REQUIREMENTS EXIST, THE EQUIPMENT SHALL SATISFY ALL STATED REQUIREMENTS.

GENERAL HVAC NOTES

1. SHEET METAL DUCTWORK AND COMPONENTS INCLUDING HANGING, SEALING, PLENUMS, & ACCESSORIES SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE LATEST EDITION OF SMACNA STANDARDS FOR HVAC DUCT CONSTRUCTION, NFPA 90A, & 90B STANDARDS. EARTHQUAKE BRACE ALL DUCTS 28" DIA AND LARGER WHICH ARE SUSPENDED MORE THAN 12" BELOW STRUCTURAL SYSTEM.

2. PROVIDE EARTHQUAKE RESTRAINT FOR HVAC EQUIPMENT IN ACCORDANCE WITH THE CURRENT IBC 1613.

3. ALL DUCTWORK OPENINGS SHALL BE COVERED DURING CONSTRUCTION. ALL DAMPERS TO BE SET TO FULL OPEN DURING CONSTRUCTION PRIOR TO BALANCING.

4. PROVIDE UL LISTED FLEXIBLE CONNECTION ON INTAKE AND DISCHARGE OF ALL MECHANICAL EQUIPMENT. HVAC UNIT FLEXIBLE DUCT CONNECTIONS SHALL BE MINIMUM OF 6 INCHES LONG AND HELD IN PLACE WITH HEAVY METAL BANDS, SECURELY ATTACHED TO PREVENT ANY LEAKAGE AT THE CONNECTION POINTS. FLEXIBLE CONNECTIONS SHALL BE FABRICATED FROM APPROVED FLAME PROOF FABRIC CONFORMING TO NFPA 90A. ASBESTOS CLOTH IS NOT ACCEPTABLE.

5. CONTRACTOR SHALL PROVIDE TRANSITION TO CONNECT TO ALL MECHANICAL EQUIPMENT.

6. DUCT DIMENSIONS SHOWN ARE INSIDE SHEET METAL DIMENSIONS OR CLEAR OPENING INSIDE LINED DUCT. THE FIRST NUMBER REPRESENTS THE WIDTH OF DUCT IN PLAN VIEW.

7. ALL ELBOWS SHALL BE LONG RADIUS ELBOWS WHEREVER POSSIBLE OR SHALL HAVE TURNING VANES WHERE INDICATED ON PLANS. NO SQUARE THROAT OR ZERO RADIUS ELBOWS ALLOWED.

8. ALL DUCT BRANCH CONNECTIONS TO DIFFUSERS OR GRILLES AND TO OR FROM MAIN DUCTS, SHALL INCLUDE MANUAL VOLUME DAMPERS. ALL SPIN-IN FITTINGS SHALL BE CONICAL, RECTANGULAR BRANCH DUCT TAKEOFFS SHALL HAVE 45° TAKEOFFS.

9. PROVIDE CONCEALED OR REMOTE DAMPER REGULATORS OR ACCESS DOORS FOR ALL MANUAL VOLUME DAMPERS LOCATED THAT ARE INACCESSIBLE. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES. ALL FINAL ACCESS DOOR LOCATIONS SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION.

10. 24"X24" ACCESS DOORS SHALL BE PROVIDED FOR ALL MECHANICAL EQUIPMENT LOCATED ABOVE GYPSUM BOARD CEILINGS. ALL FINAL ACCESS DOOR LOCATIONS SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION.

11. PROVIDE FIRE DAMPERS, SMOKE DAMPERS AND FIRE/SMOKE DAMPERS WHERE INDICATED ON PLANS AND AS REQUIRED BY IBC 717. PROVIDE CEILING FIRE DAMPERS WHERE INDICATED ON PLANS AND AS REQUIRED BY IBC 717.6.2.1. INSTALL FIRE DAMPERS SMOKE DAMPERS AND FIRE/SMOKE DAMPERS IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS, THE TERMS OF THEIR LISTING, AND THE REQUIREMENTS OF THE CURRENT IMC.

12. PIPING PENETRATIONS OF FIRE RATED WALLS OR FLOORS SHALL BE SLEEVED AND FIRE STOPPED WITH LISTED MATERIALS SO AS TO MAINTAIN THE INTEGRITY AND RATING OF THE FLOOR OR WALL.

13. CONTRACTOR SHALL FURNISH COMBINATION STARTERS SIZED IN ACCORDANCE WITH THE MOTOR RATING OF THE MECHANICAL EQUIPMENT. STARTERS SHALL BE SUPPLIED WITH FUSES OR CIRCUIT BREAKERS, CONTROL TRANSFORMER, OVERLOADS, ONE N.O. AND ONE N.C. AUXILIARY CONTACT AND H.O.A. SWITCH MOUNTED IN THE COVER. STARTER ENCLOSURE SHALL BE NEMA RATED FOR ITS LOCATION. STARTER SHALL BE INSTALLED AND WIRED BY THE ELECTRICAL CONTRACTOR. MOTOR STARTERS NOT LISTED AS BEING PROVIDED IN THE HVAC EQUIPMENT SCHEDULES ARE TO BE PROVIDED BY ELECTRICAL CONTRACTOR.

14. FLEXIBLE DUCTWORK SHALL BE RATED CLASS I, WHEN TESTED UNDER THE REQUIREMENTS OF UL181. FLEXIBLE DUCT LENGTH SHALL NOT EXCEED (6) FEET.

15. FLEX AND DUCTWORK SHALL NOT BE CONNECTED DIRECTLY TO DIFFUSER OR GRILLES UNLESS INDICATED IN DRAWINGS. DIFFUSER / GRILLE BOXES WITH LINER AND PERFORATED DIFFUSER PLATES SHALL BE USED.

16. PROVIDE DIFFUSER AND GRILLE FRAMES COMPATIBLE WITH ARCHITECTURAL CEILING TYPES AND COORDINATE LOCATIONS WITH THE ARCHITECTURAL REFLECTED CEILING PLAN AND ELECTRICAL LIGHTING LAYOUT.

17. ALL DUCTWORK VISIBLE THROUGH RETURN OR SUPPLY GRILLES TO BE PAINTED FLAT BLACK.

18. COORDINATE LOCATIONS OF ALL ROOM THERMOSTATS OR ROOM TEMPERATURE SENSORS WITH ARCHITECT PRIOR TO INSTALLATION.

19. SUPPLY DUCTWORK: 2" STATIC PRESSURE CLASS WITH ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS SEALED (SMACNA SEAL CLASS A). SPIRAL LOCK SEAMS IN ROUND AND FLAT OVAL DUCTWORK DO NOT REQUIRE SEALING.

20. SUPPLY DUCTWORK DOWNSTREAM OF TERMINAL UNITS: 1" STATIC PRESSURE CLASS WITH ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS SEALED (SMACNA SEAL CLASS A). SPIRAL LOCK SEAMS IN ROUND AND FLAT OVAL DUCTWORK DO NOT REQUIRE SEALING.

21. EXHAUST AND RETURN DUCTWORK: 2" STATIC PRESSURE CLASS WITH ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS SEALED (SMACNA SEAL CLASS A). 1" PRESSURE CLASS ACCEPTABLE BETWEEN GRILLES AND FIRST DAMPER.

22. MATERIALS WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL BE LISTED AND LABELED AS HAVING A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 723, EXCEPT AS NOTED IN SECTIONS 602.2.1.1 THROUGH 602.2.1.7 OF THE CURRENT IMC.

2018 WSEC COMMISSIONING NOTES

1. DOCUMENTS DESCRIBED IN 2018 WSEC C103.6, INCLUDING RECORD DOCUMENTS, MANUALS, COMPLIANCE DOCUMENTATION, AND SYSTEM OPERATION TRAINING, SHALL BE PROVIDED TO THE BUILDING OWNER OR OWNER'S AUTHORIZED AGENT WITHIN 180 DAYS OF THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY.

2. A FINAL COMMISSIONING REPORT AS DESCRIBED BY 2018 WSEC C408.1.3 SHALL BE REQUIRED AND INCLUDES FUNCTIONAL PERFORMANCE TEST RESULTS, DESCRIPTIONS OF DEFICIENCIES & DETAILS OF CORRECTIVE MEASURES, AND FUNCTIONAL PERFORMANCE TEST RESULTS.

3. MECHANICAL EQUIPMENT AND CONTROLS SHALL BE COMMISSIONED PER 2018 WSEC C408.2. FUNCTIONAL PERFORMANCE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH 2018 WSEC C408.2.3.

4. PROVIDE SERVICE WATER HEATING COMMISSIONING PER 2018 WSEC C408.3.

5. PROVIDE METERING COMMISSIONING PER 2018 WSEC C408.6.

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9/8/23

OWNER:
MultiCare
BetterConnected

PROJECT NAME:
MultiCare GSMOB 3rd Floor Soiled Utility Alterations
1450 5th St SE
Puyallup, WA 98372

MARK	DATE	DESCRIPTION
	9/8/2023	PERMIT SUBMITTAL #1

PROJECT NO. 231680
DRAWN BY: CEI
DATE: 8 SEPTEMBER 2023

SHEET TITLE:
MECHANICAL SPECIFICATIONS AND NOTES

SHEET #:
M0.02

TERMINAL UNIT SCHEDULE

UNIT NO.	BASIS OF DESIGN	SERVICE	INLET DIA. (INCHES)	AIRFLOW (CFM)			PRIMARY AIR TEMP (DEG F)	SUPPLY AIR TEMP (DEG F)	ELECTRIC DUCT HEATER			REMARKS
				HTG	MIN	MAX			kW	STEPS	V/PH	
1/3-11	TRANE VCEF W/ ELEC COIL	LOBBY / REGISTRATION / OFFICES	8	360	360	530	55	77	2.5	1	460/3	1,2,3

NOTES:

1. EXISTING VAV BOX TO BE REUSED. REBALANCE TO THE AIRFLOW INDICATED.
2. INSULATION TYPE: 1/2" MATTE FACED
3. FUSED DISCONNECT SWITCH, 460V/24V CONTROL TRANSFORMER, DDC CONTROLS.

HEALTHCARE AIR CHANGE RATES

AREA SERVED	FUNCTION OF SPACE	FLOOR AREA	ROOM HEIGHT	ROOM VOLUME	ASHRAE 170 REQUIREMENTS					DESIGN AIRFLOW CONDITIONS				
					PRESSURE RELATIONSHIP	OUTSIDE AIR		TOTAL		PRESSURE RELATIONSHIP	OUTSIDE AIR	MIN PRIMARY AIR	EXHAUST	TOTAL AIR CHANGES
						MIN. AIR CHANGES	MIN. AIR FLOW	MIN. AIR CHANGES	MIN. AIR FLOW					
		(SQ. FT.)	(FT.)	(CU. FT.)		(AC/HR)	(CFM)	(AC/HR)	(CFM)		(CFM)	(CFM)	(CFM)	(AC/HR)
3402 SOILED UTILITY	Examination Room	98	8.0	784	N	2	26	6.0	78	N	27	80	130	9.9

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9/8/23

OWNER:

MultiCare
BetterConnected

PROJECT NAME:

MultiCare
GSMOB
3rd Floor
Soiled Utility
Alterations
1450 5th St SE
Puyallup, WA 98372

MARK	DATE	DESCRIPTION
	9/8/2023	PERMIT SUBMITTAL #1

PROJECT NO. 231680

DRAWN BY: CEI

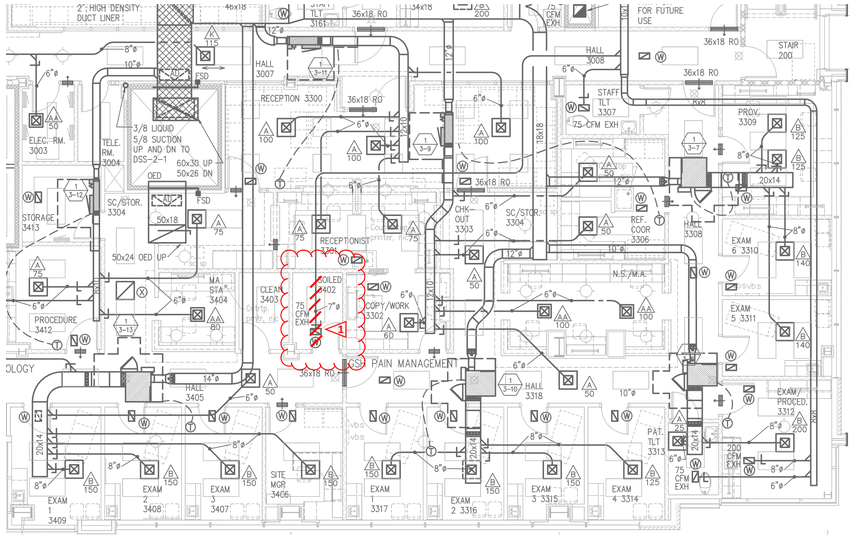
DATE: 8 SEPTEMBER 2023

SHEET TITLE:
MECHANICAL SCHEDULES

SHEET #:
M0.03

SCOPE OF WORK:

DEMO THE EXISTING EXHAUST GRILLE IN ROOM 3402 SOILED. DEMO A PORTION OF THE CONNECTED BRANCH DUCTWORK FOR REROUTING.



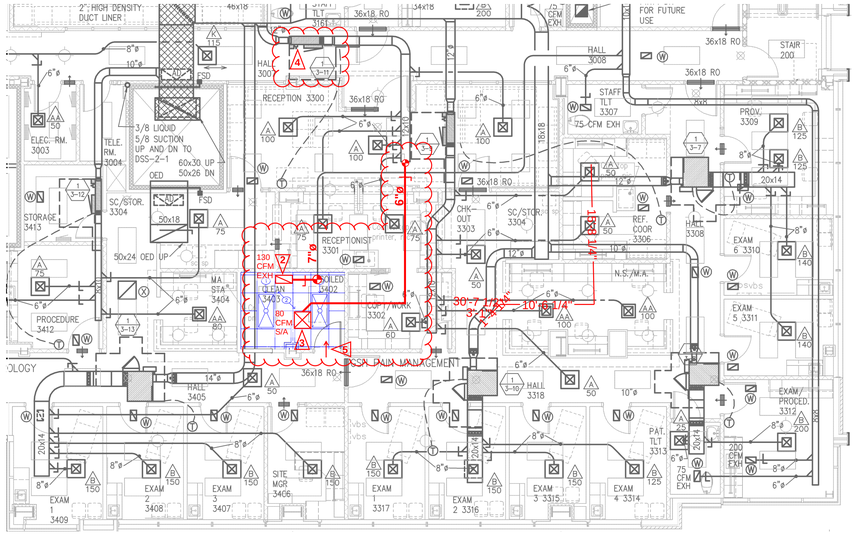
THIRD FLOOR HVAC PLAN - DEMO

0 4

SCALE: 1/8" = 1'-0"

SCOPE OF WORK:

PROVIDE NEW SUPPLY DIFFUSER IN NEW SOILED ROOM, SERVED BY EXISTING VAV 1/3-11. PROVIDE NEW EXHAUST GRILLE CONNECTED TO EXISTING DUCTWORK.



THIRD FLOOR HVAC PLAN

0 4

SCALE: 1/8" = 1'-0"

FLAG NOTES:

1. DEMO EXISTING CEILING GRILLE AND DUCTWORK AS SHOWN.
2. PROVIDE NEW EXHAUST GRILLE. BASIS OF DESIGN: TITUS 50F WITH 22X10 NECK SIZE, 24X12 FACE SIZE, AND BORDER TYPE 3 LAY-IN.
3. PROVIDE NEW SUPPLY DIFFUSER. BASIS OF DESIGN: TITUS MCD WITH 6X6 SQUARE NECK, 24X24 FACE SIZE, AND BORDER TYPE 3 LAY-IN.
4. REBALANCE EXISTING VAV BOX. REFER TO TERMINAL UNIT SCHEDULE.
5. ROOM TO BE NEGATIVELY PRESSURIZED PER CURRENT FGI REQUIREMENTS.

COFFMAN ENGINEERS
1101 2nd Avenue,
Suite 400
Seattle, WA 98101
ph 206.623.0717
www.coffman.com

DYLIND NAESET
STATE OF WASHINGTON
35341
REGISTERED
PROFESSIONAL ENGINEER
9/8/23

OWNER:

MultiCare
BetterConnected

PROJECT NAME:

MultiCare GSMOB 3rd Floor Soiled Utility Alterations

1450 5th St SE
Puyallup, WA 98372

MARK	DATE	DESCRIPTION
	9/8/2023	PERMIT SUBMITTAL #1

PROJECT NO. 231680

DRAWN BY: CEI

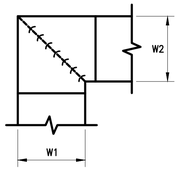
DATE: 8 SEPTEMBER 2023

SHEET TITLE:

THIRD FLOOR HVAC PLAN - DEMO AND NEW

SHEET #:

M1.01

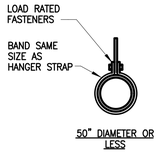


NOTES:

1. ALL VANE ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
2. WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE THICKNESS VANE TYPE REGARDLESS OF W DIMENSION, UNLESS OTHERWISE NOTED.
3. ALL SINGLE THICKNESS VANES SHALL HAVE A 2" [50mm] RADIUS, 1 1/2" [40mm] MAXIMUM SPACE BETWEEN VANES, AND A 3/4" [20mm] TRAILING EDGE.
4. WHEN W EQUALS W2, AND W1 IS GREATER THAN 20" [500mm], VANES SHALL BE DOUBLE VANE TYPE, UNLESS OTHERWISE NOTED.

1 M3.01 MITERED DUCT ELBOWS W/VANES

SCALE: NONE



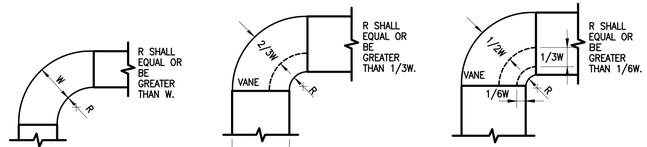
HANGER STRAPS OR RODS			
MAX. DUCT Ø IN. [mm]	QUANTITY/SIZE IN. [mm]	MAX. LOAD LBS. [kg]	MAX. SPACING IN. [mm]
26 [650]	ONE 1 [25] x 22 GA STRAP	260 [119]	144 [3600]
36 [900]	ONE 1 [25] x 18 GA STRAP	420 [190]	144 [3600]
50 [1250]	ONE 1 [25] x 16 GA STRAP	700 [317]	144 [3600]
60 [1500]	TWO 3/8 [10]Ø. RODS	1320 [598]	144 [3600]
84 [2100]	TWO 1/2 [13]Ø RODS	2500 [1133]	144 [3600]

NOTES:

1. TABULATED DATA FROM SMACNA ALLOWS FOR DUCT REINFORCING AND INSULATION, BUT NO EXTERNAL LOAD

2 M3.01 ROUND DUCT HANGER DETAIL

SCALE: NONE

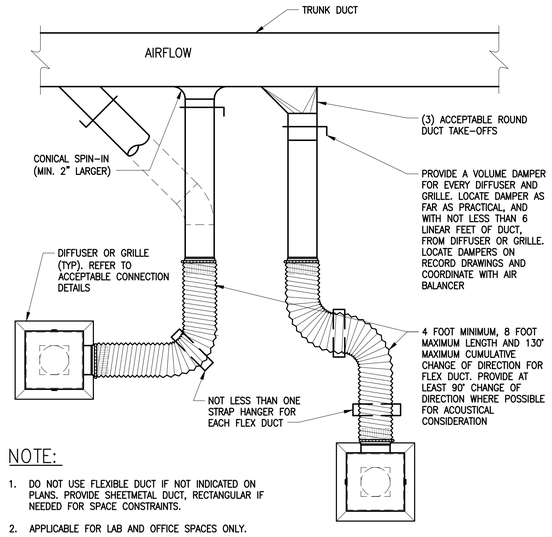


NOTES:

1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
2. ALL STANDARD RADIUS ELBOWS CAN BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

3 M3.01 DUCT RADIUS ELBOWS

SCALE: NONE

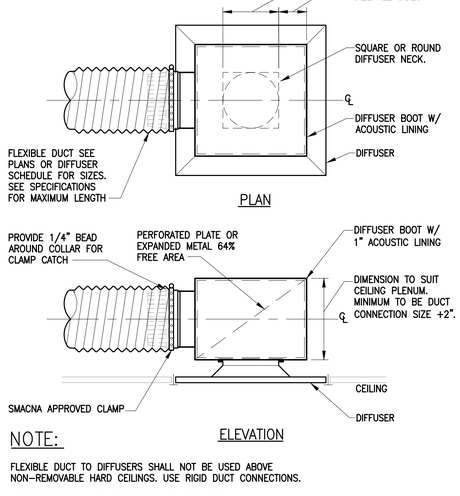


NOTE:

1. DO NOT USE FLEXIBLE DUCT IF NOT INDICATED ON PLANS. PROVIDE SHEETMETAL DUCT, RECTANGULAR IF NEEDED FOR SPACE CONSTRAINTS.
2. APPLICABLE FOR LAB AND OFFICE SPACES ONLY.

4 M3.01 CONNECTING DUCT FOR DIFFUSERS AND GRILLES DETAIL

SCALE: NTS



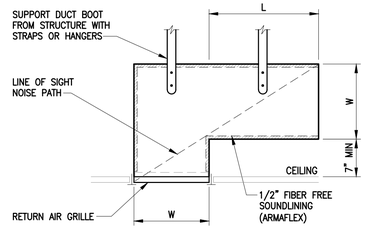
NOTE:

FLEXIBLE DUCT TO DIFFUSERS SHALL NOT BE USED ABOVE NON-REMOVABLE HARD CEILINGS. USE RIGID DUCT CONNECTIONS.

APPLICABLE FOR LAB AND OFFICE SPACES ONLY.

5 M3.01 DIFFUSER CONNECTION DETAIL

SCALE: NTS



NOTES:

1. RETURN AIR BOOT SHALL BE CONSTRUCTED OF SHEET METAL W/ 1/2" FIVER FREE SOUND LINING.
2. INSIDE OF BOOT SHALL BE PAINTED FLAT BLACK.
3. DIMENSION "W" IS EQUAL TO GRILLE WIDTH.
4. DIMENSION "L" SHALL BE SUFFICIENT TO PREVENT "LINE OF SIGHT" NOISE PATH OR 2'-0" MIN.

6 M3.01 RETURN GRILLE WITH BOOT DETAIL

SCALE: NTS

COFFMAN ENGINEERS
1101 2nd Avenue,
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www.coffman.com

9/8/23

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MultiCare GSMOB 3rd Floor Soiled Utility Alterations

1450 5th St SE
Puyallup, WA 98372

MARK	DATE	DESCRIPTION
	9/8/2023	PERMIT SUBMITTAL #1

PROJECT NO. 231680

DRAWN BY: CEI

DATE: 8 SEPTEMBER 2023

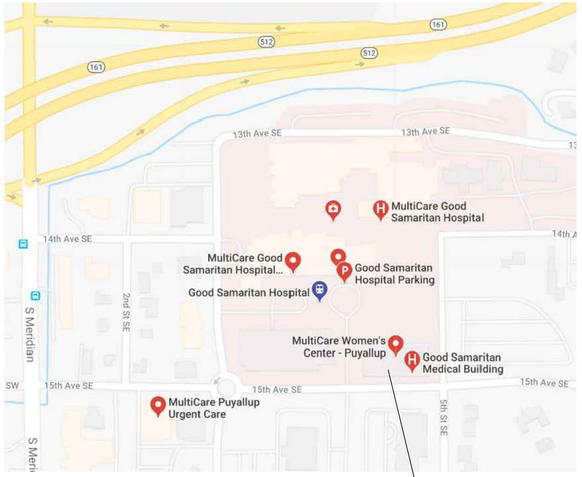
SHEET TITLE:

MECHANICAL DETAILS

SHEET #:

M3.01

VICINITY MAP



VICINITY MAP
NOT TO SCALE

PROJECT SITE

PROJECT INFORMATION:

APPLICABLE CODES: (INCLUDING STATE AND LOCAL AMENDMENTS OF FOLLOWING LISTED CODES)

STATE OF WASHINGTON:

BUILDING CODE:
INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION
INTERNATIONAL CODE COUNCIL (ICC), A117.1–2009: WAC 51–50

MECHANICAL CODE:
INTERNATIONAL MECHANICAL CODE (IMC), 2018 EDITION
INTERNATIONAL FUEL GAS CODE (IFGC), 2018 EDITION
NATIONAL FUEL GAS CODE (NFGC), WAC 51–52, 2018 EDITION

PLUMBING CODE:
UNIFORM PLUMBING CODE (UPC): WAC 51–56, 2018 EDITION

ENERGY CODE:
WASHINGTON STATE ENERGY CODE: WAC 51–11, 2018 EDITION

ELECTRICAL CODE:
NATIONAL ELECTRICAL CODE (NEC), 2018 EDITION: WAC 296–46B

LIFE SAFETY CODE:
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA–101), 2018 EDITION

FIRE CODE:
INTERNATIONAL FIRE CODE (IFC), 2018 EDITION: WAC 51–54

PROJECT DATA:

AUTHORITY:	CITY OF PUYALLUP
SEISMIC DESIGN CATEGORY:	D–1
FROST LINE:	12 INCHES
SNOW LOAD:	25 PSF
WIND EXPOSURE:	85 MPH – EXPOSURE B
CONSTRUCTION TYPE:	1–A
OCCUPANCY:	B, MEDICAL OFFICE BUILDING
FIRE PROTECTION:	AUTOMATIC FIRE ALARM AUTOMATIC FIRE SPRINKLER SYSTEM

PROJECT TEAM:

OWNER:
MultiCare Health System
315 Martin Luther Jr. King Way
Tacoma, WA 98405
CContact: Maxcoty MacDonald
Project Manager
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Principal Architect
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MECHANICAL:
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ELECTRICAL:
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Seattle, WA 98101
Contact: Hanh Mortenson, PE
Senior Engineer, Electrical Engineering
Hanh.Mortenson@Coffman.com
(253) 347–7944 Tel.

INDEX TO DRAWING SET:

GENERAL:
T0.0 PROJECT INFO, INDEX, SITE PLAN

ARCHITECTURAL:
A0.1 3rd FLOOR LIFE SAFETY PLAN
A0.2 3rd FLOOR PLAN
A1.3 PARTIAL 3RD FLOOR PLAN: DEMOLITION (SOUTHEAST)
A2.3 PARTIAL 3RD FLOOR PLAN: PROPOSED (SOUTHEAST)
A3.3 PARTIAL 3RD FLOOR PLAN: EQUIPMENT (SOUTHEAST)
A4.3 PARTIAL 3RD FLOOR REFLECTED CEILING PLAN (SOUTHEAST)
A6.0 TYPICAL MOUNTING HEIGHTS
A6.1 INTERIOR ELEVATIONS
A6.2 INTERIOR ELEVATIONS
A7.1 FINISH SCHEDULE
A8.0 WALL TYPES AND DETAILS
A8.1 DETAILS

MECHANICAL:
M0.01 COVER SHEET, GENERAL NOTES & INDEX
M0.02 MECHANICAL SPECIFICATIONS AND NOTES
M0.03 MECHANICAL SCHEDULES
M1.01 THIRD HVAC PLAN – DEMO AND NEW
M3.01 MECHANICAL DETAILS

PLUMBING:
P0.01 COVER SHEET, GENERAL NOTES & INDEX
P0.02 PLUMBING SPECIFICATIONS AND NOTES
P0.03 PLUMBING SCHEDULES
P1.01 THIRD FLOOR PLUMBING PLAN – DEMO
P2.01 THIRD FLOOR PLUMBING PLAN
P3.01 PLUMBING DETAILS

ELECTRICAL:
E0.01 COVER SHEET AND GENERAL INFORMATION
E0.02 GENERAL NOTES
E0.03 PANEL SCHEDULES
E2.13 PARTIAL THIRD FLOOR LIGHTING PLAN (NORTHEAST)
E3.13 PARTIAL THIRD FLOOR POWER & SYSTEMS PLAN (NORTHEAST)
E5.01 ONE–LINE DIAGRAM

GRAPHIC SYMBOLS:

NORTH ARROW
GRID LINE
BUILDING SECTION (SECTION NO. / SHEET NO.)
WALL SECTION (SECTION NO. / SHEET NO.)
DETAIL (DETAIL NO. / SHEET NO.)
INTERIOR ELEVATION
ELEVATION MARK (ELEV. +0'–0" FLOOR LEVEL)
REVISION MARK
PROPERTY CORNERS
CUT LINE
CENTER LINE
ANGLE
DIAMETER / ROUND
CONCEALED OR OVERHEAD LINE (NOT ON DEMOLITION PLAN)
GRADE POINT (NEW GRADE / EXISTING GRADE)
ROOM NAME / NUMBER (RM. NAME / RM.#)
PLAN KEYED NOTE
NEW DOOR/FRAME (SEE DOOR SCHEDULE)
WALL TAG (SEE WALL TYPES)
EQUIPMENT KEYED NOTE

PROJECT DESCRIPTION:

All spaces are all Type B occupancy, medical office building (non–DOH CRS reviewable).

A tenant improvement to existing MMA/Urology Clinic Suite 3500, located on the third floor, including alterations to the soiled utility room.

InSight
HealthCare Architecture
KLanglois@InsightDesignStudio.biz
12345 Lake City Way NE #2108
Seattle, WA 98125
206-601-6645

8466 REGISTERED ARCHITECT
Karsea M. Langlois
STATE OF WASHINGTON

OWNER:
MultiCare
BetterConnected

PROJECT NAME:
MultiCare GSMOB 3rd Floor Soiled Utility Alterations
1450 5th St SE
Puyallup, WA 98372

MARK	DATE	DESCRIPTION
	9/8/2023	PERMIT SUBMITTAL #1

PROJECT NO. 31258
DRAWN BY: K. LANGLOIS
DATE: 8 SEPTEMBER 2023

SHEET TITLE:
PROJECT INFO / INDEX / SITE PLAN

SHEET #:
T0.0

GENERAL LEGEND

SYMBOL	DESCRIPTION
A / B	DETAIL SYMBOL: A = IDENTIFYING NUMBER; B = SHEET WHERE DETAIL IS SHOWN
A / B C	DETAIL SYMBOL: A = IDENTIFYING NUMBER; B = SHEET WHERE DETAIL IS TAKEN; C = SHEET WHERE DETAIL IS SHOWN
A / B	SECTION SYMBOL: A = IDENTIFYING LETTER; B = SHEET WHERE SECTION IS SHOWN
A / B C	SECTION SYMBOL: A = IDENTIFYING LETTER; B = SHEET WHERE SECTION IS TAKEN; C = SHEET WHERE SECTION IS SHOWN
	SECTION CUT LINE INDICATOR
1	KEYED REFERENCE NOTE OR SHEET NOTE
	POINT OF CONNECTION (POC) SYMBOL
P1-1	PLUMBING FIXTURE REFERENCE (REFER TO SCHEDULE)
AHU-1	EQUIPMENT IDENTIFICATION (REFER TO SCHEDULES)
A	MEDICAL GAS OUTLET IDENTIFICATION (REFER TO SCHEDULE)
	MEDICAL GAS ZONE VALVE STATION MOUNTED IN WALL
	MEDICAL GAS ALARM PANEL MOUNTED IN WALL
	MEDICAL GAS OUTLET
1	REVISION CLOUD AND REVISION NUMBER
XX	BINARY (YES/NO) SENSING SWITCH (PIPE OR DUCT MOUNTED)
XX	BINARY (YES/NO) SENSING SWITCH (SURFACE MOUNTED)
XX	ANALOG SENSING DEVICE (PIPE OR DUCT MOUNTED)
XX	ANALOG SENSING DEVICE (SURFACE MOUNTED)
X	ANALOG SENSING DEVICE (SURFACE MOUNTED) (APPROPRIATE FOR MEASURED FLUID) SUBSCRIPT LETTER (X) INDICATES:

A – ALARM PRESSURE SENSOR
D – DIFFERENTIAL PRESSURE
F – FLOW RATE
H – HUMIDITY
L – LOW LIMIT
P – PRESSURE (STATIC)
T – TEMPERATURE
V – VELOCITY & VOLUME FLOW RATE

ABBREVIATIONS

ABBR	DESCRIPTION	ABBR	DESCRIPTION
ABV	ABOVE	L	LENGTH
AD	ACCESS DOOR	LAT	LEAVING AIR TEMPERATURE
AHU	AIR HANDLING UNIT	LBS	POUNDS
AL	ACOUSTIC LINED	LF	LINEAR FOOT/FEET
AP	ACCESS PANEL	LVG	LEAVING
APD	AIR PRESSURE DROP	LWG	LOW WALL GRILLE
ARCH	ARCHITECT/ARCHITECTURAL	LWR	LOW WALL REGISTER
ARV	AUTOMATIC RELIEF VALVE or ACID RESTISTANT VENT	LWT	LEAVING WATER TEMPERATURE
ARW	ACID RESTISTANT WASTE	MAX	MAXIMUM
		MBH	1000 BRITISH THERMAL UNITS PER HOUR
BDD	BACKDRAFT DAMPER		
BFP	BACKFLOW PREVENTER	MCC	MOTOR CONTROL CENTER
BHP	BRAKE HORSEPOWER	MECH	MECHANICAL
BG	BELOW GROUND	MFR	MANUFACTURER
BJ	BETWEEN JOISTS	MIN	MINIMUM
BTU	BRITISH THERMAL UNIT	MISC	MISCELLANEOUS
BTUH	BRITISH THERMAL UNITS PER HOUR	MTD	MOUNTED
		MTG	MOUNTING
C	CENTIGRADE		
CC	COOLING COIL	N/A	NOT APPLICABLE
CD	CEILING DIFFUSER	N/C	NORMALLY CLOSED
CFM	CUBIC FEET PER MINUTE	N/O	NORMALLY OPEN
CG	CEILING GRILLE	NC	NOISE CRITERIA
CI	CAST IRON	NIC	NOT IN CONTRACT
CLG	CEILING	NTS	NOT TO SCALE
CO	CLEANOUT		
CONC	CONCRETE	OA	OUTSIDE AIR
CONN	CONNECT or CONNECTION	OBD	OPPOSED BLADE DAMPER
CONST	CONSTRUCTION	O/C	ON CENTER
CONT	CONTINUATION	OD	OUTSIDE DIAMETER
CR	CONDENSATE RETURN	OPNG	OPENING
DB	DECIBLE or DRY BULB	PCV	PRESSURE CONTROL VALVE
DDC	DIRECT DIGITAL CONTROL	PD	PRESSURE DROP
DIA	DIAMETER	PH or ø	PHASE
DIM	DIMENSION	PLCS	PLACES
DN	DOWN	POC	POINT OF CONNECTION
DPR	DAMPER	POUA	POINT OF USE ALARM
DWG	DRAWING	PRV	PRESSURE REDUCING VALVE
		PSI	POUNDS PER SQUARE INCH
E-100	EXHAUST AIR NUMBER INDICATES CFM QUANTITY	PSIG	POUNDS PER SQUARE INCH GAGE
EA	EACH	R-100	RETURN AIR NUMBER INDICATES CFM QUANTITY
EAT	ENTERING AIR TEMPERATURE		
EF	EXHAUST FAN	RA	RETURN AIR
EG	EXHAUST GRILLE	RAG	RETURN AIR GRILLE
ELEC	ELECTRIC or ELECTRICAL	REQD	REQUIRED
ELEV	ELEVATION	RPBP	REDUCED PRESSURE BACKFLOW PREVENTOR
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM		
ESP	EXTERNAL STATIC PRESSURE	RPM	REVOLUTIONS PER MINUTE
EWT	ENTERING WATER TEMPERATURE		
EXH	EXHAUST	S-100	SUPPLY AIR NUMBER INDICATES CFM QUANTITY
EXST or (E)	EXISTING		
F	FAHRENHEIT	SA	SUPPLY AIR
FA	FACE AREA	SF	SUPPLY FAN
FCO	FLOOR CLEANOUT	SHT	SHEET
FCU	FAN COIL UNIT	SIM	SIMILAR
FD	FLOOR DRAIN	SP	STATIC PRESSURE
FDPR	FIRE DAMPER	SQ	SQUARE
FFD	FUNNEL FLOOR DRAIN	SQ FT	SQUARE FOOT/FEET
FF	FINAL FILTER	SS	STAINLESS STEEL
FLR	FLOOR	STD	STANDARD
FPM	FEET PER MINUTE		
FPS	FEET PER SECOND	THK	THICK
FT	FOOT/FEET	TP	TRAP PRIMER or TEST PLUG
FV	FACE VELOCITY	TYP	TYPICAL
		TU	TERMINAL UNIT
GA	GAGE or GAUGE		
GAL	GALLON	UBC	UNIFORM BUILDING CODE
GALV	GALVANIZED	UFC	UNIFORM FIRE CODE
GPH	GALLONS PER HOUR	UMC	UNIFORM MECHANICAL CODE
GPM	GALLONS PER MINUTE	UPC	UNIFORM PLUMBING CODE
		UG	UNDERGROUND
H	HEIGHT	UH	UNIT HEATER
HD	HEAD		
HP	HORSEPOWER	VA	VALVE
HTG	HEATING	VAC	VACUUM
HVAC	HEATING, VENTILATION AND AIR CONDITIONING	VAV	VARIABLE AIR VOLUME
		VD	VOLUME DAMPER
		VEL	VELOCITY
HWG	HIGH WALL GRILLE	VFD	VARIABLE FREQUENCY DRIVE
HWR	HIGH WALL REGISTER	VTR	VENT THRU ROOF
HZ	HERTZ		
		W	WIDE
ID	INSIDE DIAMETER	W/	WITH
IE	INVERT ELEVATION	W/O	WITHOUT
IN	INCH or INCHES	WB	WET BULB
INSUL	INSULATION	WCO	WALL CLEANOUT
INV	INVERT	WG	WATER GAGE
		WGE	WASTE GAS EVACUATION
KW	KILOWATT	WPD	WATER PRESSURE DROP
KWH	KILOWATT HOUR	WT	WEIGHT

PIPING LEGEND

SYMBOL	ABBR	DESCRIPTION
		LIGHT LINEWORK INDICATES EXISTING PIPING OR EQUIPMENT
		INDICATES PIPING OR EQUIPMENT TO BE REMOVED
SS	SS	SANITARY SEWER – OUTSIDE BUILDING AND BELOW GROUND
SD	SD	STORM DRAIN – OUTSIDE BUILDING AND BELOW GROUND
W	W	WASTE (& SOIL) – ABOVE GROUND – INTERIOR
W	W	WASTE (& SOIL) – BELOW GROUND – INTERIOR
V	V	VENT
ARW	ARW	ACID RESISTANT WASTE
ARV	ARV	ACID RESISTANT VENT
CW	CW	COLD WATER – DOMESTIC
HW	HW	HOT WATER – DOMESTIC
HWC	HWC	HOT WATER CIRCULATING – DOMESTIC
RD	RD	RAINWATER DRAINAGE – ABOVE GROUND
RD	RD	RAINWATER DRAINAGE – BELOW GROUND
ORD	ORD	RAINWATER DRAINAGE OVERFLOW – ABOVE GROUND
ORD	ORD	RAINWATER DRAINAGE OVERFLOW – BELOW GROUND
D	D	DRAIN – INDIRECT
RV	RV	RELIEF VALVE VENT
		PIPE SLOPE DIRECTION
ICW	ICW	INDUSTRIAL COLD WATER
SCW	SCW	SOFT COLD WATER
FCW	FCW	COLD WATER (FLUSHING SYSTEM)
IHW	IHW	INDUSTRIAL HOT WATER
KHW	KHW	KITCHEN HOT WATER
KHWC	KHWC	KITCHEN HOT WATER CIRCULATING
LHW	LHW	LAUNDRY HOT WATER
LHWC	LHWC	LAUNDRY HOT WATER CIRCULATING
NPW	NPW	NON-POTABLE WATER
IW	IW	IRRIGATION WATER
DI	DI	DEIONIZED WATER
DW	DW	DISTILLED WATER
CS	CS	CONDENSER WATER SUPPLY
CR	CR	CONDENSER WATER RETURN
CWS	CWS	CHILLED WATER SUPPLY – COOLING
CWR	CWR	CHILLED WATER RETURN – COOLING
RL	RL	LIQUID LINE – REFRIGERANT
RS	RS	SUCTION LINE – REFRIGERANT
HG	HG	HOT GAS LINE – REFRIGERANT
HWS	HWS	HOT WATER HEATING SUPPLY
HWR	HWR	HOT WATER HEATING RETURN
FOS	FOS	FUEL OIL SUPPLY
FOR	FOR	FUEL OIL RETURN
G	G	NATURAL GAS
LPG	LPG	LIQUID PETROLEUM GAS
LPS	LPS	LOW PRESSURE STEAM SUPPLY
LPR	LPR	LOW PRESSURE STEAM CONDENSATE RETURN
MPS(20)	MPS(20)	MEDIUM PRESSURE STEAM SUPPLY NUMBER IN PARENTHESIS INDICATES PSI
MPR(20)	MPR(20)	MEDIUM PRESSURE STEAM CONDENSATE RETURN NUMBER IN PARENTHESIS INDICATES PSI
HPS(100)	HPS(100)	HIGH PRESSURE STEAM SUPPLY NUMBER IN PARENTHESIS INDICATES PSI
HPR(100)	HPR(100)	HIGH PRESSURE STEAM CONDENSATE RETURN NUMBER IN PARETHESIS INDICATES PSI
PR	PR	STEAM CONDENSATE RETURN (PUMPED)
ATV	ATV	ATMOSPHERIC VENT
MA	MA	COMPRESSED MEDICAL AIR
LA	LA	COMPRESSED LABORATORY AIR
MV	MV	MEDICAL VACUUM
O2	O2	OXYGEN
N2O	N2O	NITROUS OXIDE
N2	N2	NITROGEN
CO2	CO2	CARBON DIOXIDE
A	A	COMPRESSED AIR
V	V	VACUUM
LV	LV	LABORATORY VACUUM
WGE	WGE	WASTE GAS EVACUATION

SYMBOL	ABBR	DESCRIPTION
	CAP	PIPE END CAP
		PIPE TURNING DOWN OR AWAY
		PIPE TURNING UP OR TOWARD
		PIPE TURNING DOWN OR AWAY (TEE)
		REDUCER (NOT TYPICALLY SHOWN)
		PIPE CONNECTION
		PIPE ANCHOR (NOT ALWAYS SHOWN, SEE SPECIFICATIONS)
		PIPE ALIGNMENT GUIDES (NOT ALWAYS SHOWN, SEE SPECIFICATIONS)
	HB	HOSE BIBB
	WH/NFWH	WALL HYDRANT or NON-FREEZE WALL HYDRANT
	CO/WCO	CLEANOUT or WALL CLEANOUT
	FCO/SCO	FLUSH CLEANOUT or SURFACE CLEANOUT
	FDC	FIRE DEPARTMENT CONNECTION
		FIRE SPRINKLER ALARM GONG
	AD	AREA DRAIN
	FD or FFD	FLOOR DRAIN or FUNNEL FLOOR DRAIN
	FS	FLOOR SINK
	OD	OVERFLOW DRAIN
	RD	ROOF DRAIN
MS		SHUTOFF VALVE (AS SPECIFIED FOR PIPING SYSTEM)
	BV	BALL VALVE
	CKV	CHECK VALVE
	BFV	BUTTERFLY VALVE
	BFV	BUTTERFLY VALVE W/ MEMORY STOP
	BAL VA	BALANCING VALVE
	BSV	COMBINATION BALANCING/SHUTOFF VALVE
	ACV	2-WAY MODULATING CONTROL VALVE W/ ACTUATOR
	ACV	3-WAY MODULATING CONTROL VALVE W/ ACTUATOR
		2-POSITION CONTROL VALVE
	PRV	PRESSURE REDUCING VALVE
	RV	RELIEF VALVE
	FMS	FLOW MEASUREMENT STATION
	STR	Y-TYPE STRAINER
	GLV	GLOBE VALVE
	OSY VA	OUTSIDE SCREW AND YOKE VALVE
	EXP VA	EXPANSION VALVE
	FCV	FLOW CONTROL VALVE
		UNION
		FLANGES
		THREADED DRAIN PLUG
		MALE (GARDEN) HOSE CONNECTION WITH CAP
	TP	TEST PLUG
		SHOCK ARRESTOR
T	TH or TI	THERMOMETER (TEMPERATURE INDICATOR)
	B STR	BASKET STRAINER
P	PI	PRESSURE INDICATOR
	AAV	AUTOMATIC AIR VENT
		MANUAL AIR VENT
		PUMP (DIAGRAM)
		FLEXIBLE CONNECTOR
		INDICATES ASSEMBLY OF PIPING COMPONENTS (AS NOTED OR DIAGRAMED)

DRAWING INDEX

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P0.02	PLUMBING SPECIFICATIONS AND NOTES
P0.03	PLUMBING SCHEDULES
P1.01	THIRD FLOOR PLUMBING PLAN – DEMO
P2.01	THIRD FLOOR PLUMBING PLAN
P3.01	PLUMBING DETAILS

GENERAL PLUMBING NOTES

1. PLUMBING CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO CONSTRUCT A COMPLETE, OPERATIONAL PLUMBING SYSTEM FOR THE ENTIRE PROJECT AS SHOWN ON THESE DRAWINGS, INCLUDING ALL NECESSARY FEES AND PERMITS.
2. DO NOT SCALE DRAWINGS. INSTALL SYSTEMS BASED ON ACTUAL FIELD MEASUREMENTS.
3. PIPING AND EQUIPMENT ANCHORAGE: PROVIDE SEISMIC RESTRAINTS AND ANCHORAGE PER SPECIFICATIONS AND THE INTERNATIONAL BUILDING CODE.
4. PIPE SIZES: WHERE A SECTION OF PIPE BETWEEN TAKEOFFS DOES NOT HAVE A SIZE INDICATED, IT SHALL BE SAME SIZE AS SECTION UPSTREAM. IN GENERAL, AS VOLUME FLOW RATE DECREASES, PIPE SIZE SHALL REMAIN LARGE UNTIL A SMALLER SIZE IS INDICATED. NOTE THAT SOME PIPE SIZES ARE INDICATED ON ASSOCIATED DEVICE SCHEDULE.
5. HANDICAP FIXTURES: PLUMBING FIXTURES AND TRIM IN HANDICAP ACCESSIBLE AREAS SHALL COMPLY WITH ALL ADA STANDARDS AND REQUIREMENTS AS WELL AS STATE AND LOCAL CODES.
6. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF WALLS, FLOORS, AND CEILINGS.
7. COORDINATE EXACT LOCATION OF STUB-UPS TO PLUMBING FIXTURES WITH ARCHITECTURAL PLANS. PROVIDE MEANS TO CONNECT TO ABOVE GROUND PIPING & INSTALLATION OF DRAINS.
8. COORDINATE EXACT LOCATION OF UTILITY SERVICES WITH THE LOCAL UTILITY SUPPLIERS AND EXISTING PLANS. CONTRACTOR TO FIELD VERIFY.
9. FIELD VERIFY ALL EXISTING CONDITIONS AND LOCATIONS OF STUB-INS PRIOR TO INSTALLATION.
10. PLUMBING CONTRACTOR SHALL NOTIFY ENGINEER OF ANY PROPOSED CHANGES TO DESIGN PRIOR TO TAKING ACTION.
11. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL FITTINGS, TRANSITIONS, VALVES, AND OTHER DEVICES AND ACCESSORIES REQUIRED FOR A COMPLETE, WORKABLE INSTALLATION.
12. PENETRATIONS THRU FIRE RATED ASSEMBLIES SHALL COMPLY WITH THE LATEST ACCEPTED VERSION OF THE IBC. COORDINATE WITH ARCHITECTURAL PLANS.
13. PROVIDE PROPER PROVISIONS FOR EXPANSION OR MOVEMENT OF ALL PIPING.
14. SUPPORT HORIZONTAL LINES OF COPPER TUBING WITH HANGERS SPACED NOT MORE THAN 6-FEET, CENTER TO CENTER FOR ALL PIPE SIZES. ALL PIPES SHALL BE SUPPORTED AT ELBOWS, BRANCHES, AND RISERS.
15. SUPPORT HORIZONTAL CAST IRON SOIL PIPE WITH HANGER, OR PIER, TWO FOR EACH 5-FOOT PIPE LENGTH. LOCATE SUPPORT CLOSE TO JOINTS EXCEPT, PIPE EXCEEDING 5-FEET IN LENGTH SHALL BE SUPPORTED AT NO MORE THAN 5-FOOT INTERVALS. SUPPORTS SHALL BE LOCATED ON BOTH SIDES OF ALL JOINTS AND WITHIN 6" OF THE JOINTS.
16. NO DOMESTIC HOT WATER, HOT WATER RECIRCULATING, OR COLD WATER PIPING WILL BE PERMITTED WITHIN EXTERIOR WALLS.
17. PROVIDE WATER HAMMER ARRESTORS (SHOCK ABSORBERS) AT ALL PIPE LOCATIONS WHERE VALVE CLOSURES (SUCH AS FLUSH VALVES) MAY CAUSE WATER HAMMER OR RESULT IN EXCESSIVE PIPE VIBRATION OR MOVEMENT.
18. CLEANOUTS: PLUMBING CLEANOUT LOCATIONS ARE NOT ALWAYS ESTABLISHED ON THE PLUMBING PLANS IN ORDER TO GIVE THE PLUMBER FLEXIBILITY TO LOCATE PLUMBING CLEANOUTS IN THE MOST ACCESSIBLE AREAS. AS A MINIMUM, PROVIDE CLEANOUTS AS REQUIRED BY THE UNIFORM PLUMBING CODE. CLEANOUTS THAT MUST BE INSTALLED IN PIPES THAT ARE DIFFICULT TO ACCESS SHALL BE EITHER WALL OR FLOOR CLEANOUTS SERVICED FROM THE FLOOR ABOVE. FLOOR CLEANOUTS SHALL BE LOCATED SO AS TO BE SERVICED FROM CORRIDORS, TOILET OR JANITOR ROOMS WHEREVER POSSIBLE.
19. TRAP PRIMERS AND ARRESTORS: TRAP PRIMER ACTUATORS AND WATER HAMMER ARRESTORS SHALL BE LOCATED TO BE ACCESSIBLE EITHER THROUGH ACCESSIBLE CEILING OR WALL ACCESS DOORS. REFER TO SPECIFICATION FOR WHERE ARRESTORS NEED TO BE LOCATED.
20. TRAP PRIMER LINE SIZE TO EACH FLOOR DRAIN OR FUNNEL DRAIN SHALL BE 1/2" DIAMETER.
21. DRAINAGE PIPING SHALL BE PROTECTED FROM CONCRETE USING 10-MIL PLUMBERS TAPE.
22. SANITARY PIPING SHALL BE SLOPED AT A MINIMUM OF 1/4" PER FOOT.
23. DOMESTIC COLD WATER PIPING AND FITTINGS SHALL BE SEAMLESS TYPE "L" COPPER WITH 95-5 SOLDER. SOLDER CONTAINING LEAD IS NOT ACCEPTABLE.
24. EFFICIENT WATER HEATER SUPPLY PIPING: HOT WATER SUPPLY PIPING SHALL BE PLUMBED IN COMPLIANCE WITH C404.3 IN CURRENT WSEC.
25. PLUMBING CONTRACTOR SHALL PRESSURE TEST PIPING PRIOR TO COVERING AND SUBMIT TEST REPORT TO ENGINEER.
26. COMMISSIONING: HOT WATER SUPPLY SYSTEM SHALL BE COMMISSIONED IN ACCORDANCE WITH C408.4 IN CURRENT WSEC.

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LYND NAESS — STATE OF WASHINGTON — 39341 — REGISTERED PROFESSIONAL ENGINEER
9/8/23

OWNER:
MultiCare
BetterConnected

PROJECT NAME:
MultiCare GSMOB 3rd Floor Soiled Utility Alterations
1450 5th St SE
Puyallup, WA 98372

MARK	DATE	DESCRIPTION
	9/8/2023	PERMIT SUBMITTAL #1

PROJECT NO. 231680
DRAWN BY: CEI
DATE: 8 SEPTEMBER 2023

SHEET TITLE:
COVER SHEET AND GENERAL INFO

SHEET #:
P0.01

PLUMBING SPECIFICATIONS

PLUMBING WORK, GENERAL

A. GENERAL REQUIREMENTS

1. Contract Requirements: Comply with Bidding and Contract Requirements as outlined by the Owner and Architect.

2. Work Included: This section applies to all mechanical work normally specified under Divisions 22 and 23. Provide all materials, labor, equipment, tools, field design, shop drawings, hoisting, scaffolding, supervision and overhead for the construction, installation, connection, testing and operation of all mechanical work as shown and specified. The word "provide" used hereinafter means to furnish and install. All work and materials required for complete functioning systems are not outlined here, but shall be provided as part of this work.

3. Codes: Comply with all applicable codes and ordinances of the local and state code enforcing agencies. Obtain permits, approvals, and inspections, and pay all costs and fees for permits, reviews, and inspections.

4. Abbreviations: Where abbreviations are used in the specifications and on the drawings, the common industry definition shall apply unless indicated otherwise. The term A/E shall refer to the project architect and mechanical consulting engineer as if one organization.

5. Submittals: Submit product data and shop drawings for all significant materials, equipment, and fixtures to the A/E for review. Allow reasonable time for review and return prior to ordering. PDF (electronic) submittals area acceptable, if paper copies are submitted assume Owner and A/E will retain a total of three copies of submittals.

6. Safety Measures: Provide a safe environment to protect employees and all others from injury. Comply with local, state and federal safety and health regulations for construction.

B. PERFORMANCE OF WORK

1. Coordination: Coordinate mechanical work with all other trades and take all measurements necessary to ensure proper installation of mechanical work prior to start of fabrication. This contractor shall create building information models (BIM) and/or large-scale detail drawings where necessary to coordinate work in tight areas. The contract drawings do not attempt to show exact locations of ductwork, piping, fixtures, and equipment, or all transitions and offsets that will be necessary for installation. All necessary transitions and offsets shall be provided as part of this work without added compensation.

2. Continuity of Service: Any systems or services within existing occupied buildings shall be maintained with minimum interruption. Coordinate any needed interruptions with the owner. Any overtime work required by this project to maintain existing buildings in continuous service, without reducing their efficiency, shall be included as a part of this contract.

3. Demolition: Provide mechanical system demolition in areas of existing buildings to accommodate installation of new work. Existing piping, valves, and ductwork, where indicated on the drawings, may be reused in their original location. Do not reuse existing piping, valves, or ductwork once they are removed, unless written permission is obtained from Owner. Remove all unused piping and ductwork located in remodel areas of existing buildings.

4. Cutting and Patching: Provide all cutting of building construction, as required for this work. Keep cutting to a minimum, and use saw cutting to maintain neat, even openings. Unless patching is included under other divisions of this specification, provide patching at all cutting locations. All patching shall conform to specifications for the new general construction work. Finish to match existing work .

C. PROJECT COMPLETION

1. Record Drawings (As-Builts): Corrections and changes made during the progress of the work shall be neatly recorded as actually installed for as-built records. Furnish one clean set to the A/E upon completion of the project.

2. Operation and Maintenance Manuals: Provide (3) finished copies of Mechanical Operation and Maintenance Manuals, for work under this project. Arrange information contained in the manuals in an orderly arrangement (by specification section), separated by tabs. Provide equipment manufacturer, model number, size, capacity, performance data, schedule of routine maintenance, suppliers lists, list of replacement parts, and include any shop drawings.

3. Owner Instruction: Contractor shall instruct the Owner in the use and operation of all systems installed under this Contract. Obtain Owner's written acceptance that they have been adequately trained.

4. Guarantee: Guarantee materials and workmanship for a period of one year after the date of substantial completion. Refer to additional requirements outlined by Architect and Owner.

BASIC MATERIALS AND METHODS (APPLIES TO ALL WORK)

A. GENERAL

1. Work Included: This section applies to all mechanical work normally specified under Divisions 21, 22 and 23, and represents requirements in addition to the requirements stated in other sections. These specifications do not cover all items that will be required for complete and working systems. Where materials or equipment needed for this project are not covered in these specifications, provide the materials and equipment of a quality equal to or better than that generally utilized by the industry for similar projects in the same geographic area

B. SUPPORT AND HANGERS

1. Support of Mechanical Systems: Each piece of equipment shall be supported (from above or below) in not less than four corners from the building structure. Piping and ductwork shall be supported at intervals specified, with each system supported independently from the building structure.

2. Seismic Bracing: Provide complete seismic bracing for all new piping, ductwork, terminal units and equipment as required by the current IBC with all local amendments and ASCE/SCI 7-10 (the current code). Bracing may be per guidelines established by restraint manufacturers such as; Mason Industries and I.S.A.T provided they meet the current code. All bracing shall be designed and manufactured by Mason, I.S.A.T, or prior-approved alternate.

3. Connections to the Building Structure: Provide all necessary connections to the building structure for seismic restraints and supports. Where concrete structure is present, review the use of concrete anchors with the Architect, Owner, and General Contractor, and verify that there are no post-tensioned slabs or other conditions that need to be taken into account in setting of anchors. Utilize McCullough "Kwik-Bolt", Phillips self-drilling anchors, Gregory "Bulldog," Omark "Drill Anchors", or other approved anchor to attach to concrete structures. Where building structure is wood or steel, obtain architect approval of hardware and methods to be utilized for attachment to the structure.

4. Additional Framing: Provide steel framing members to transfer load from support points at hangers to locations where connections can be made to the building structure. Framing members shall be 12-gauge minimum, 1-3/8" x 1-5/8" minimum cross-section size; Unistrut, Powerstrut, or other approved. Select member size and type, as appropriate for load per manufacturer guidelines.

5. Pipe Hangers: Clevis or ring hangers with steel rods. Hangers for insulated piping shall be sized for outside insulation and 6" shields shall be provided at all hangers to protect insulation. Pipe support spacing per IMC. Provide plastic separation between clamps and copper pipe.

6. Hanger Rods: Hot rolled steel rod, ASTM A 36; size to "Code for Pressure Piping", ANSI B 31.1, with safety factor of 5. Minimum rod size; 1" pipe and smaller (240 pounds) = 1/4" rod, 1-1/4" to 2" pipe (to 610 pounds) = 3/8" rod, 2-1/2" to 4" pipe (to 1,130 pounds) = 1/2" rod, 5" to 8" pipe (to 1,810 pounds) = 5/8" rod.

7. Install high density pre-molded pipe insulation 180 degrees (half-shells) on bottom half of pipe at supports for piping greater than 1" in diameter, 6" long for piping 6" in size or smaller. For cold pipe supports use 3.0 pcf density Polyisocyanurate insulation. Hot pipe supports shall be high density polyisocyanurate for fluids up to 300 F, or calcium silicate. Insulation at supports shall have same thickness as adjacent insulation.

8. Vibration Isolation: Vibration isolators for hanging equipment shall be equal to mason industries model 30n, combination spring and double deflection neoprene hanger, deflection as recommended by manufacturer. Vibration isolators for base mounted equipment shall be equal to mason industries model SLF, deflection as recommended by manufacturer.

C. EQUIPMENT AND PIPING IDENTIFICATION

1. Nameplates: Provide nameplate for each piece of equipment, including equipment number and any special instruction for its use; laminated black and white plastic with lettering cut through to white background. Minimum size 3" x 1".

2. Pipe Identification: All piping in serviceable locations (including above lay-in ceilings) shall be identified with semi-rigid plastic or adhesive identification markers. Markers shall conform to ANSI A13.1, "Scheme for the Identification of Piping Systems". Locate markers adjacent to each valve, at minimum 30' centers with at least one marker between any two partitions. Provide direction of flow arrows at markers.

D. MISCELLANEOUS MATERIALS AND ACCESSORIES

1. Dielectric Unions: Provide at each pipe connection between dissimilar metals. 2 inches and smaller, 250 psig at 180 deg. F., ANSI B16.39. Over 2" use flange fittings, ANSI B16.42 (iron) or ANSI B16.24 (bronze), Watts 3000 series, Epco or equivalent.

2. Fire Sealing at Rated Walls and Floors: Provide UL listed fire rated putty at all pipe penetrations of rated walls and floors. Putty shall be installed strictly per manufacturer instructions with sleeves where required. Overall installation shall meet code requirements. Pipe insulation shall not be continuous through fire rated walls or floors.

3. Motors: Unless otherwise specified, all electric motors furnished shall conform with the requirements of NEMA MG1 "Motors and Generators." Provide minimum motor efficiencies as required by the Energy Code.

4. Interconnecting Wiring: Provide any necessary interconnecting wiring between individual components and accessories furnished with mechanical equipment packages (unless that wiring is specifically called for on the electrical drawings). Wiring and wiring accessories shall be in accordance with Division 26 specifications (and/or the specifications on the electrical drawings) and local Electrical Code. Wiring shall be in conduit or raceway. Wiring shall be provided at the expenses of the subcontractor furnishing the equipment package.

E. EXECUTION OF WORK

1. Installation, General: Follow manufacturer's instructions and utilize good industry practice when installing all work. Use only skilled tradespeople with qualified supervision. All work shall be left neat and clean.

2. Concealment: Piping and ductwork shall be concealed within building construction, unless specifically indicated otherwise. Where piping is indicated to be exposed to view in finished spaces or cabinets, provide chrome escutcheons where the piping penetrates the wall, floor or ceiling construction

3. Water Sealing at Floors: Provide water tight sealing at each floor penetration including piping within wall cavities. Provide water sleeves sealed to the floor construction and projecting not less than 1.5" above floor where insulated piping penetrates the floor. The intent is to minimize passage of water during a significant water leakage event. Sealing is required for concrete floors, but not required for other floor systems where the construction itself, at the pipe penetration, allows significant water seepage (planked wood floor for example).

4. Coordination with Other Trades: Complete drawings and specifications of all trades will be furnished or will be available for inspection in the construction office at the jobsite. Carefully check these drawings and specifications before installing any work. In all cases, consider the work of all other trades and coordinate work with that of the Sheet Metal, Piping, Plumbing, Electrical, and Site-work subcontractors, so that the best arrangement of all equipment, piping, conduit, ducts, and other related items can be obtained.

PLUMBING INSULATION

A. GENERAL

1. Manufacturers: Manville, Owens-Corning, Certainteed, or Knauf. Install in accordance with manufacturer's instructions.

2. Insulation Thickness: Refer to Insulation Requirements on the drawings for systems to be insulated and thickness of insulation.

B. INSULATION MATERIALS

1. Indoor Pipe Insulation: Fiberglass pipe insulation with all-service (vapor barrier) jacket shall be provided for all piping systems, except refrigerant piping. Fittings shall be mitered sections of insulation with the same thickness as adjacent pipe insulation with factory-premolded, one-piece, UL listed (25/50) PVC fitting covers. Installation must reflect careful workmanship, and be neat in appearance. Vapor barrier shall be sealed at all joints on cold piping.

2. Outdoor Pipe Insulation: Insulation and fittings same as specified for indoor pipe insulation. Provide metal jackets of 0.016" aluminum with integral vapor retarder, self-sealing, watertight metal bands for butt joints. Seal joints with aluminum pigmented vapor retarder mastic, Foster 60-65, or approved equivalent.

3. Roof Drain Body Insulation: Flexible fiberglass blanket conforming to ASTM C 553, Type I, and nominal density not less than 1 lb. per cubic foot, covered with 8-ounce canvas and vapor retarder cement.

FIRE PROTECTION

A. GENERAL

1. Work Included: Design and provide alterations to, and extension of, the existing fire protection system, to accommodate the new space layout and install all work in accordance NFPA 13, all other applicable codes, standards, and regulations, and as required by the authority having jurisdiction. Work shall include alterations to the existing fire sprinkler piping as needed to make reasonable clearance for new work by other trades.

2. System Type: Provide wet-pipe sprinkler protection for all heated areas. Where sprinkler coverage of unheated areas in and around the building is required, provide either a dry-pipe system or dry-sprinkler coverage from the wet system. If a dry-pipe fire sprinkler system is provided, review the electrical drawings to determine extent of additional power and alarm services required, and pay electrical costs associated with these services.

3. Authorities: Comply with all requirements of the authorities, which shall include the State Fire Marshal, Local Building and Fire Departments, and Owner's Insurance Organization.

4. License: The Fire Sprinkler Contractor shall be state-licensed and regularly engaged in the design and installation of automatic sprinkler systems and, where applicable, underground fire mains. Shop drawings shall be stamped by a state-licensed fire protection engineer or designer with a NICET Level III certification.

5. Design Drawings: Coordinate locations of sprinkler heads, valves, and other exposed items with Architect, then prepare complete design drawings and submit to the authorities for approval. Also submit authority-approved drawings to the A/E for review prior to start of work.

6. Coordination with Other Trades: During preparation of shop drawings, call to the attention of the General Contractor any points of conflict between new or existing fire sprinkler work and that of the other trades, so that the conflict may be properly resolved. Work which unreasonably interferes with the work of other trades shall be removed and re-installed at this subcontractor's expense. It shall be understood that no extras to the Contract will be permitted to accomplish the above results.

B. FIRE SPRINKLER SYSTEM MATERIALS

1. Approved Manufacturers: Viking Corp., Star Sprinkler Corp., Reliable Automatic Sprinkler Co., Grinnell Fire Protection Systems Co., "Automatic" Sprinkler Corp. of America, Central Sprinkler Corp., Globe Fire Equipment Co., Michigan.

2. General Components: All required components, including valves, flow switches, tamper switches, hangers, fittings, and other accessories, shall meet NFPA standards, and shall have UL and FM listing where such listing is available.

3. Pipe: ASTM-135 or ASTM A-53, stamped on pipe. Schedule 40 black steel, with threaded or grooved fittings; Schedule 10 acceptable for roll-grooved only. Threaded fittings through 2", ANSI B16.4 black. Over 2" groove fittings, ANSI / ASTM A47, Victaulic style 75, 750, 77, or FM approved equal fittings.

4. Sprinkler Heads: Where installed in suspended ceilings, sprinkler heads shall be chrome plated recessed pendant type with chrome escutcheons. Temperature ratings and response time as required by authorities. Heads shall match existing heads in the building, to the extent possible. Provide spare heads, not less than two of each type, or more as required by NFPA.

DOMESTIC WATER AND DRAINAGE

A. PIPING SYSTEMS

1. Domestic Water Piping: Type L copper water tube, hard drawn, ASTM B 88. Wrought copper solder fittings and screwed adapters, ANSI B16.22.J. Solder; 95 percent tin, 5 percent antimony solder, ASTM B 32, 95TA.

2. Domestic Piping Insulation: Preformed glass fiber with vapor barrier jacket and a flame spread index of 25 and a maximum smoke-developed index of 50, thickness per the current energy code. Exterior exposed piping shall be covered with .015 in thick aluminum jacket with two-inch laps and banded with 3/8" stainless steel bands at 9" on center. Seal laps with silicone sealant.

3. Condensate Drain Piping and Fittings: Seamless Type L copper with 95-5 solder. Insulate condensate drain piping with 1/2" inch thick Armstrong "Armaflex" or equal.

4. Small Valves (2" and smaller): Ball valves Fed. Spec. WW-V-35, 250-psig bronze or brass body, ball and stem, solder ends or screwed, Teflon seat and seal. Check valves and other valves shall be of equal quality and same manufacturer of ball valves and shall have not less than 125-psig rating. Gate valves (allowed only where indicated) MSS SP80, 125-psig bronze, screwed or solder end, union bonnet, rising stem, solid bronze disc. Provide shut-off valves at all equipment connections.

5. Roof Drain, Waste and Vent Piping: ASTM A74 standard weight hubless cast iron pipe, CISPI 301. Couplings; neoprene sleeve gasket, stainless steel shield and bands. Fittings shall be standard weight cast iron soil pipe fittings, ANSI A112.5.1 and ASTM A74. Hubless cast iron fittings, CISPI 301.

B. PLUMBING ACCESSORIES AND EQUIPMENT:

1. Reduced Pressure Backflow Preventer Assemblies: Reduced pressure type back-flow preventer; 3/4" to 2" size; bronze construction with isolating ball valves, strainer and air gap drain fitting. Hersey Model FRPII, Watts 909 Series or approved equivalent. Provide certification of backflow preventer by state certified specialist, include with maintenance manuals.

2. Pressure Reducing Valves: 2 inch and smaller, complete with integral strainer, pressure gauge, and integral thermal expansion by-pass, bronze construction with stainless steel strainer. Watts No. U5B or equivalent.

3. Strainers: 2-1/2 inches and smaller, bronze, Y-pattern, threaded ends, 20-mesh stainless steel screen; 250 psi at 210 F.

4. Floor Drains: Smith 2005, double drainage, adjustable strainer head floor drain, duco coated cast iron body, flashing collar, nickel bronze strainer with 1/4" holes. Provide square strainer in areas with tile floors and round strainers in other locations. Where funnel drains are indicated, add Smith 3590 rough bronze funnel. Remove strainer within funnel, as required, to eliminate splashing.

5. Equipment, General: Provide all equipment consistent with the capacity, manufacturer, model number, and accessories as specified or indicated on the drawing schedules and notes. Equipment suppliers shall verify that model numbers are consistent with capacity, features, and accessories called for and identify any conflicts prior to submitting quotations to contractors. All equipment with electrical components shall have UL listing as required by the electrical inspector. Alternate manufacturers will be considered; however, A/E final approval of equality of alternate manufacturer models is required. Acceptable alternate manufacturers include Bell and Gossett, Amtrol, Taco, AO Smith, State, or as indicated or prior-approved otherwise. Alternate manufacturers with prior approval are still responsible for meeting or exceeding the quality and features of the specified items.

PLUMBING FIXTURES

A. PLUMBING FIXTURE ACCESSORIES

1. Fixture Carriers: Provide cast iron or steel carriers for all wall-hung fixtures with concealed fixture carriers constructed for the particular fixture, heavy duty construction with secure anchoring to concrete floor. Smith, Wade, Zurn, or approved. Back lug of water closet carriers shall be anchored to floor.

2. Drains and Traps: Provide grid strainer drains for all lavatories unless indicated otherwise. Provide basket strainer drains for all sinks unless indicated otherwise. Provide traps and tailpieces at all fixtures unless trap is integral with fixture.

3. Stops: Provide chrome stops at each water connection to each fixture, except where a faucet or control has integral stops. Stops shall be a loose key pattern with shield; Chicago, Bridgeport Brass, Brass Craft (Speedway), Teledyne, or equivalent.

4. Caulking: Provide silicone sealer between the top and the sides of plumbing fixtures and adjacent wall surfaces; General Electric No. SCS/202. Apply per manufacturer's recommendations to form a smooth, unobtrusive joint.

5. Exposed Plumbing: In general, all piping shall be concealed unless indicated otherwise. Any piping that must be exposed within cabinets or otherwise, due to connections required for fixtures and equipment, shall be painted silver. All exposed items, including stops, traps, etc., shall be chrome plated.

B. PLUMBING FIXTURES

1. General: Provide the plumbing fixtures as on the drawings. Provide the manufacturer and model numbers as indicated; however, contractor shall verify model numbers of fixtures, flush valves, faucets, etc., fit together properly. Alternate manufacturers will be considered; however, A/E final approval of equality of alternate manufacturer models is required. Acceptable alternate fixture manufacturers include Kohler, American Standard, Eljer, Elkay, Just, or as indicated or prior approved otherwise. Alternate manufacturers with prior approval are still responsible for meeting or exceeding the quality and features of the specified items.

END OF PLUMBING SPECIFICATION

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9/8/23

OWNER:

MultiCare
BetterConnected

PROJECT NAME:

MultiCare GSMOB 3rd Floor Soiled Utility Alterations

1450 5th St SE
Puyallup, WA 98372

MARK	DATE	DESCRIPTION
	9/8/2023	PERMIT SUBMITTAL #1

PROJECT NO. 231680

DRAWN BY: CEI

DATE: 8 SEPTEMBER 2023

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InSight Healthcare Architecture

SHEET TITLE:
PLUMBING SPECIFICATIONS AND NOTES

SHEET #:
P0.02

PLUMBING FIXTURE SCHEDULE

MARK	ITEM	FLOW RATE	SERVICE PIPE SIZE				BASIS OF DESIGN		REMARKS	NOTES
			WASTE	VENT	C.W.	H.W.	MANUFACTURER	MODEL		
S-1	SINK-COUNTER-1 COMPARTMENT	-	2	1-1/2	-	-	N.A.	N.A.	INTEGRAL WITH SOLID SURFACE COUNTER AND INSTALLED BY GC. MC TO PROVIDE ROUGH IN.	C, bb
	FAUCET	1.5 GPM	-	-	1/2	1/2	CHICAGO	786-GN2FCXKABCP	DECK MOUNT, 4" WRIST BLADE HANDLES, GOOSENECK SPOUT, CERAMIC 1/4 TURN OPERATING CARTRIDGE. 1.5 GPM LAMINAR FLOW CONTROL INSERT IN SPOUT INLET, PLAIN END SPOUT W/ NO AERATOR.	
S-2	SINK-COUNTER-2 COMPARTMENT	-	2	1-1/2	-	-	N.A.	N.A.	INTEGRAL WITH SOLID SURFACE COUNTER AND INSTALLED BY GC. MC TO PROVIDE ROUGH IN.	C, bb
	FAUCET	1.5 GPM	-	-	1/2	1/2	CHICAGO	786-GN2FCXKABCP	DECK MOUNT, 4" WRIST BLADE HANDLES, GOOSENECK SPOUT, CERAMIC 1/4 TURN OPERATING CARTRIDGE. 1.5 GPM LAMINAR FLOW CONTROL INSERT IN SPOUT INLET, PLAIN END SPOUT W/ NO AERATOR.	
EW-1	EMERGENCY EYE WASH (WALL MOUNTED)	3.2 GPM	-	-	1/2	1/2	GUARDIAN	G5026	WALL MOUNTED EYEWASH/DRENCH HOSE WITH 8 FT FLEXIBLE STAINLESS STEEL HOSE, TWO SPRAY HEADS WITH FLIP TOP DUST COVERS, AND MOUNTING BRACKET WITH SPRING CLIPS. PROVIDE WITH G6020 THERMOSTATIC MIXING VALVE. PROVIDE WITH SLOAN ETF-470-A CHECK VALVES ON HOT AND COLD INLET.	

NOTES:

1. COORDINATE MOUNTING HEIGHT W/ ARCH'L INTERIOR ELEVATIONS.
2. LOCATE FLUSH VALVE HANDLE ON WIDE SIDE OF FIXTURE FOR ADA COMPLIANCE.

STRAINER TYPES:

A. LAVATORY GRID TYPE (ADA) "DEARBORN" 760W
B. LAVATORY GRID TYPE, "DEARBORN" 760 I
C. SINK GRID TYPE, "ELKAY" LK-18
D. SINK BASKET TYPE, "ELKAY" LK-99

TRAPS:

aa. 1-1/4"x1-1/4" 17GA., "MCGUIRE" C8872
bb. 1-1/2"x1-1/2" 17GA., "MCGUIRE" C8912
cc. 2"x2"
dd. 3"x3"

2018 WASHINGTON STATE ENERGY CODE - TABLE C403.10.3

MINIMUM PIPE INSULATION THICKNESS (THICKNESS IN INCHES)a

FLUID OPERATING TEMPERATURE RANGE AND USAGE (°F)	INSULATION CONDUCTIVITY		NOMINAL PIPE OR TUBE SIZE (inches)				
	Conductivity Btu·in./(h·ft²·°F)b	MEAN RATING TEMPERATURE, °F	<1	1 to <1-1/2	1-1/2 to <4	4 to <8	≥8
>350	0.32 - 0.34	250	4.5	5	5	5	5
251-350	0.29 - 0.32	200	3	4	4.5	4.5	4.5
201-250	0.27 - 0.30	150	2.5	2.5	2.5	3	3
141-200	0.25 - 0.29	125	1.5	1.5	2	2	2
105-140	0.21 - 0.28	100	1	1	1.5	1.5	1.5
40-60	0.21 - 0.27	75	0.5	0.5	1	1	1
<40	0.20 - 0.26	75	0.5	1	1	1	1.5

a. For piping smaller than 1-1/2 inch (38mm) and located in partitions within conditioned spaces, reduction of these thicknesses by 1 inch (25 mm) shall be permitted (before thickness adjustment required in footnote b) but not to a thickness less than 1 inch (25 mm).

b. For insulation outside the stated conductivity range, the minimum thickness (T) shall be determined as follows:

T = r {(1+t/r)^K/k -1}

where:

T = minimum insulation thickness,

r = actual outside radius of pipe,

t = insulation thickness listed in the table for applicable fluid temperature and pipe size,

K = conductivity of alternate material at mean rating temperature indicated for the applicable fluid temperature (btu x in/h x ft2 x °F) and

k = the upper value of the conductivity range listed in the table for the applicable fluid temperature.

c. For direct-buried heating and hot water system piping, reduction of these thicknesses by 1-1/2 inches (38 mm) shall be permitted)before thickness adjustment required in footnote b but not to thicknesses less than 1 inch (25 mm).

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BYRON NAESS — STATE OF WASHINGTON — 39341 — REGISTERED PROFESSIONAL ENGINEER

9/8/23

OWNER:

MultiCare
BetterConnected

PROJECT NAME:

MultiCare GSMOB 3rd Floor Soiled Utility Alterations
1450 5th St SE
Puyallup, WA 98372

MARK	DATE	DESCRIPTION
	9/8/2023	PERMIT SUBMITTAL #1

PROJECT NO. 231680

DRAWN BY: CEI

DATE: 8 SEPTEMBER 2023

SHEET TITLE:
PLUMBING SCHEDULES

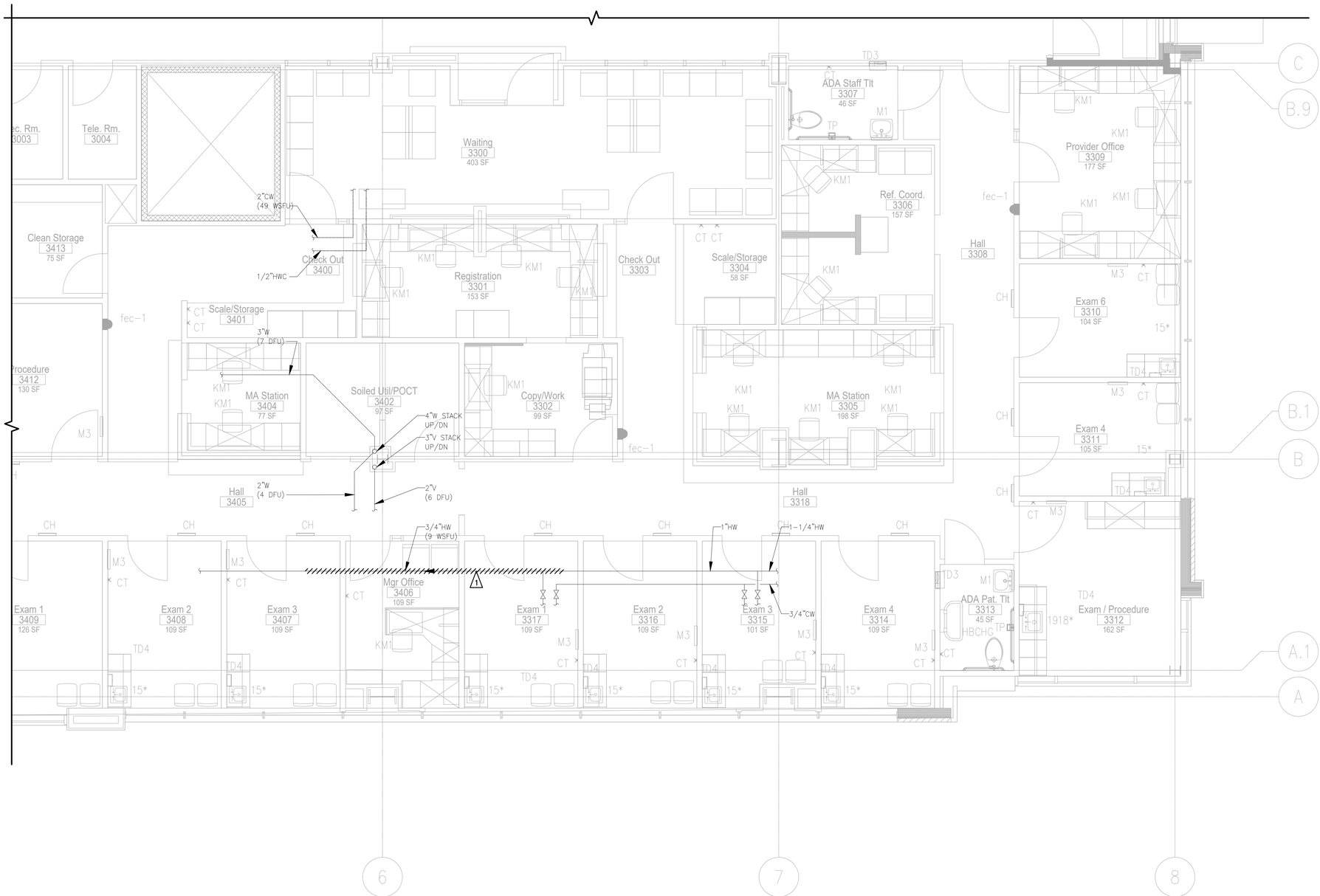
SHEET #:
P0.03

SHEET NOTES

1. WASTE PIPING SHOWN IS UNDER THE FLOOR AND IS SLOPED AT 1/4" PER FOOT.

SHEET NOTES

1 DEMO 3/4"HW PIPING AS SHOWN BACK TO JUST BEFORE REDUCER TO ALLOW FOR 1"HW TO BE EXTENDED TO NEW SOILED UTILITY ROOM.



THIRD FLOOR PLUMBING PLAN - DEMO

0 2

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

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MARK	DATE	DESCRIPTION
	9/8/2023	PERMIT SUBMITTAL #1

PROJECT NO. 231680

DRAWN BY: CEI

DATE: 8 SEPTEMBER 2023

SHEET TITLE:

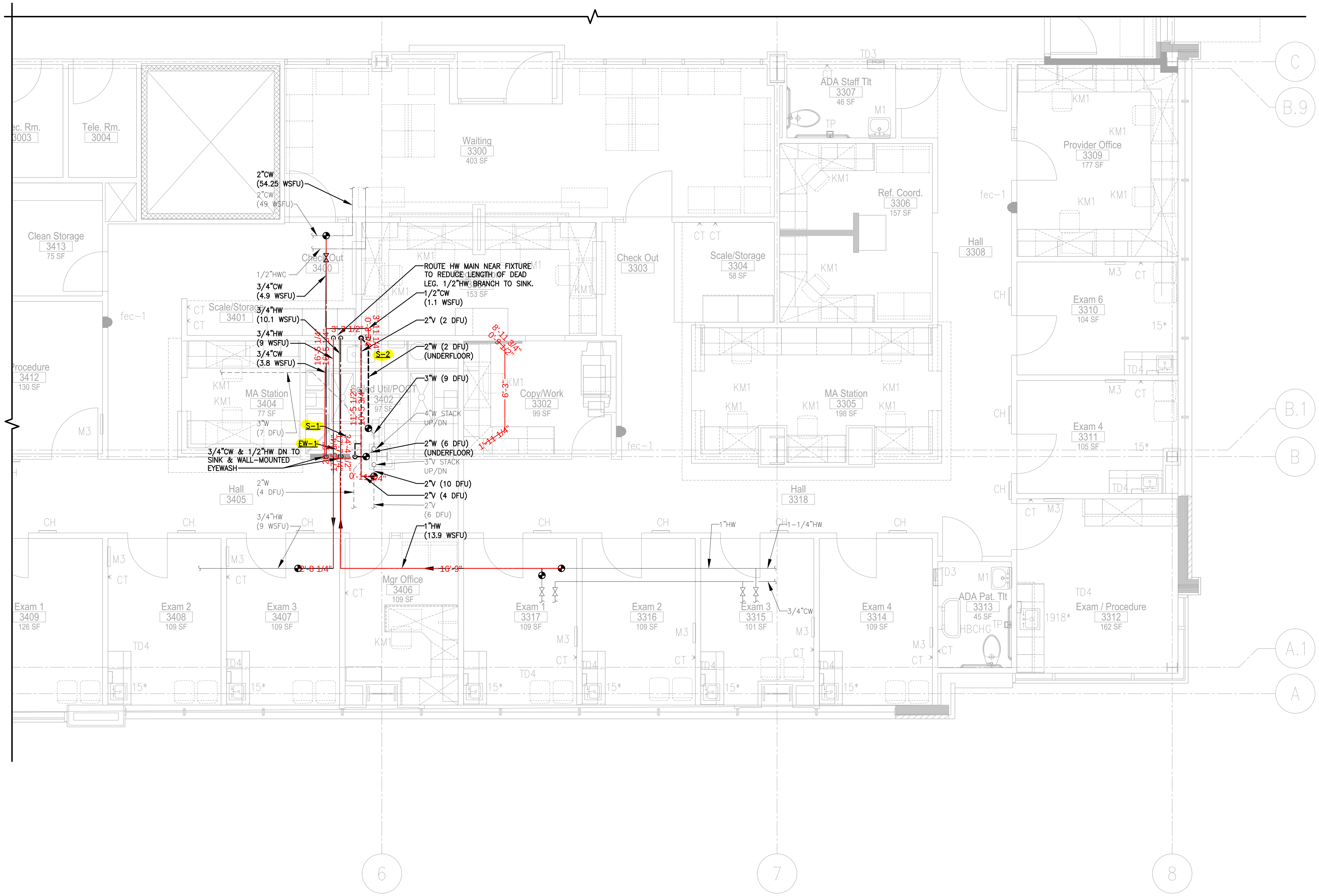
THIRD FLOOR PLUMBING PLAN - DEMO

SHEET #:

P1.01

SHEET NOTES

1. WASTE PIPING SHOWN IS UNDER THE FLOOR AND IS SLOPED AT 1/4" PER FOOT.



THIRD FLOOR PLUMBING PLAN

0 2

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

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OYVIND NAESS — STATE OF WASHINGTON — 33341 — REGISTERED PROFESSIONAL ENGINEER — 9/8/23

OWNER:

MultiCare BetterConnected

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1450 5th St SE
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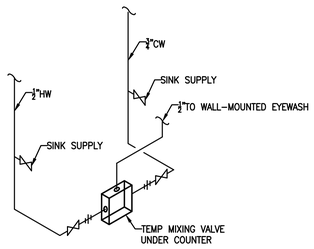
DATE: 8 SEPTEMBER 2023

SHEET TITLE:

THIRD FLOOR PLUMBING PLAN

SHEET #:

P2.01



1 / P3.1 EYEWASH STATION DETAIL
SCALE: NONE

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STATE OF WASHINGTON
33341
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9/8/23

OWNER:
MultiCare
BetterConnected

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GSMOB
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SHEET TITLE:
PLUMBING
DETAILS

SHEET #:
P3.01