

Addendum # 02.2

Date: 13 December 2024

PROJECT:

McKay Dee Hospital Cath Lab 4 Replacement
4401 Harrison Blvd.
Ogden, UT 84403

OWNER:

Intermountain Healthcare
Kurt Wilson, Construction Project Manager
801-387-2800

ARCHITECT:

Method Studio
360 W Aspen Ave.
Salt Lake City, UT 84101
801-532-4422

This Addendum forms a part of the Contract Documents and modifies the original contract documents. Receipt of this Addendum must be acknowledged by the Contractor and Owner.

Mechanical Clarifications:

- 1) I noticed on the M sheets we are moving a FSD. There are no notes indicating work on fire alarm system associated with the FSD. Can that be added to the drawings?
 - a) The fire damper no longer needs to be moved. Remove from scope.
- 2) At the pre bid Kurt said he didn't think we were going to do the pre-action system for the fire sprinklers. He said there had been conversation about that. Can you confirm? If we are do we know where the riser will go?
 - a) A Pre-action system is not desired by the owner for this project. Remove from scope.
- 3) In addition to this question, there is no fire alarm shown for the new pre-action riser. Would there be severally devices that require monitoring being added?
 - a) See response to item #2.
- 4) Another item I'm wonder is about the existing 22"x14" duct. Is it going to conflict with all the new booms and the angle supports?
 - a) Please see updated mechanical and structural drawings
 - b) The existing duct work will need to be moved so that we can get approximately 18" away from the east wall. This will allow me to provide a equipment mount that can wrap around the duct work and still support the equipment below the duct work, see sketch detail SK1.1 enclosed for the necessary information.
- 5) The plans call to add an additional gas to the alarm panel serving the cath lab. It's a Beacon Medas Total Alert 2 alarm, which is a discontinued alarm panel. The only option is to retro fit an entire new alarm panel in its place. It may be too late to ask question of the engineer, but if you can, this would be a good one to address or it will be a change order that will affect every zone monitored by that alarm.
 - a) Please see updated mechanical drawings and schedule.
- 6) I have spoken with 2 different certifiers and have confirmed Beacon Total Alert 2 alarm panels and retrofit parts are no longer available so upgrading the existing alarm panel IS NOT an option, it will have to be completely changed.
 - a) Please see updated mechanical drawings and schedule.

END OF ADDENDUM – 02.2



Mechanical Engineering
Electrical Engineering
Technology Engineering
Acoustical Engineering
Lighting Design
Theatre Design
Fire Protection Engineering
Building Commissioning

Salt Lake City | Phoenix | St. Louis | Baltimore
[p] 800-678-7077
www.spectrum-engineers.com

Mechanical Addendum #2

Date: December 13, 2024
To: Venisse Sitjar
Company: Method Studios
Job: IH MKD Hospital Cath Lab 4
Job No: 240414
Cc:

From: Alex Boswell
Email: Alex.Boswell@speceng.com
Phone: 801-401-8460
Re:

This Addendum shall be considered part of the Contract Documents and Project Manual for the above mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original Contract Documents and Project Manual, the Addendum shall govern and take precedence.

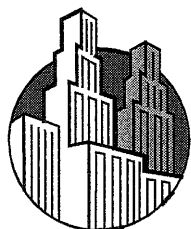
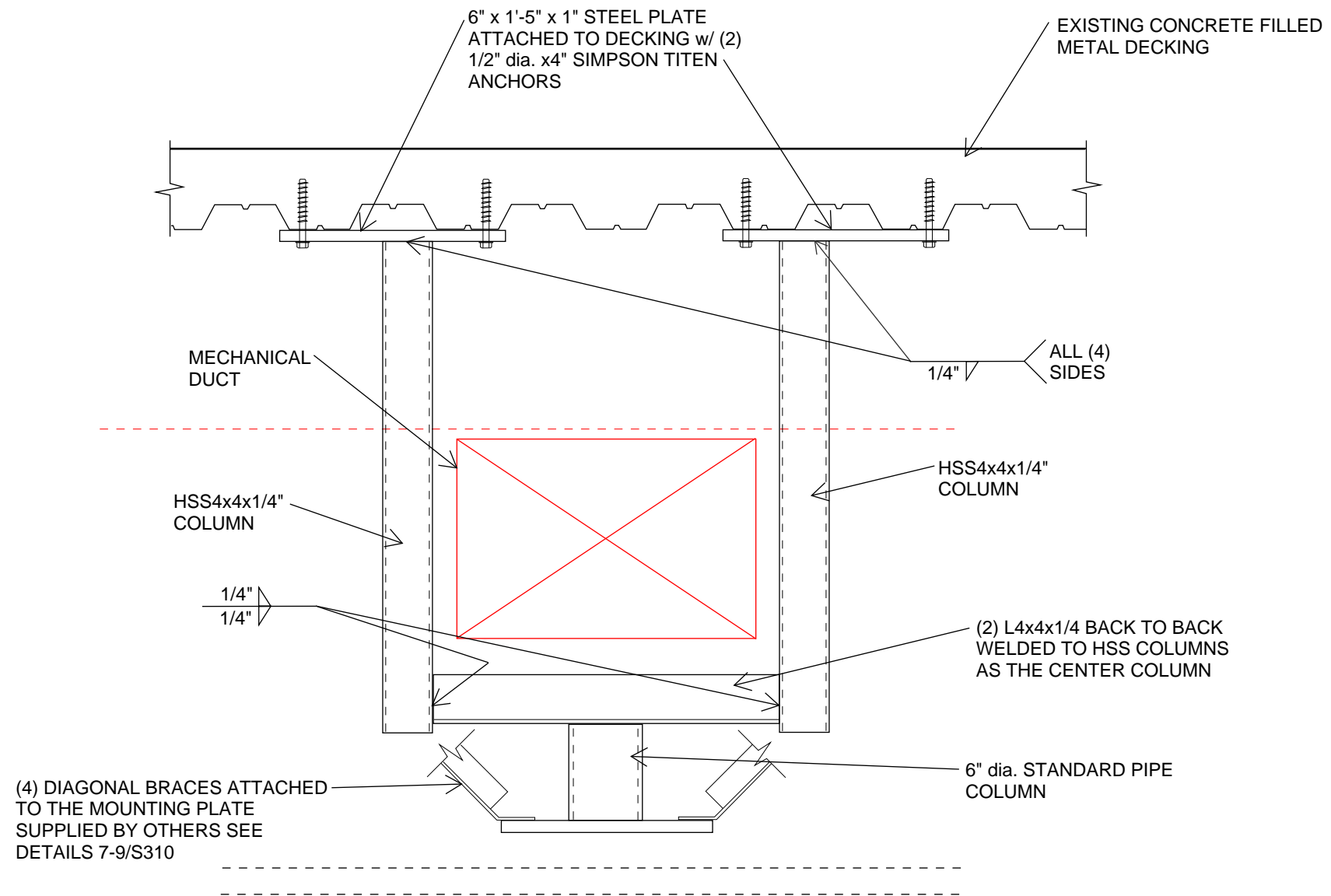
Mechanical Addendum

Drawings

1. MD103 - LEVEL 3 MECHANICAL DEMOLITION PLAN
 - a. Remove existing ductwork for new structural supports
2. M103 - LEVEL 3 MECHANICAL PLAN
 - a. Install ductwork to work around structural supports
 - b. Provide pressure monitor per code comments
 - c. Provide additional laminar flow diffuser per code comments
3. M601- MECHANICAL SCHEDULES
 - a. Scheduling for laminar flow diffuser
4. PD103 - LEVEL 3 PLUMBING DEMOLITION PLAN
 - a. Demolish existing medical gas alarm panel
5. P104 - LEVEL 3 PLUMBING PLAN - MED GAS
 - a. Replace existing medical gas alarm panel per information provided by contractor.

END OF ADDENDUM

Attachments < MD103, M103, M601, PD103, PD104>



**DYNAMIC
STRUCTURES**
744 SOUTH 400 EAST, OREM, UTAH 84097
801-356-1140

PROJECT: MKD - CATH LAB #4
SUBJECT: EQUIPMENT FRAME - AT MECHANICAL DUCTS
SCALE: _____ AS SHOWN
DATE: DECEMBER 13, 2024

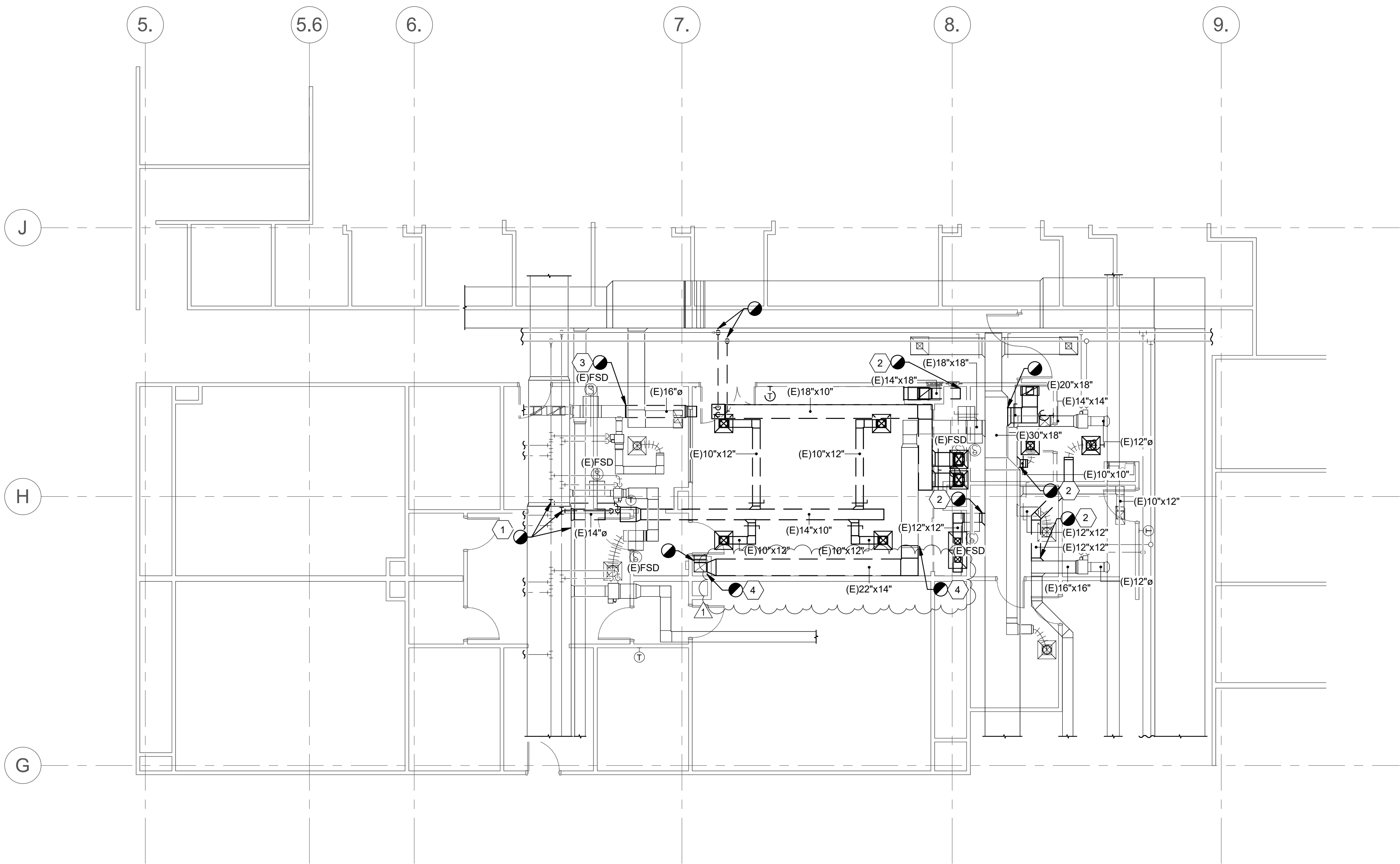
SHEET NO.

SK1.1

12/13/2024 4:47:17 PM Autodesk Docs\McKay Dee Cath Lab 4 Replacement\240414-McKay Central.rvt

1 LEVEL 3 MECHANICAL DEMOLITION PLAN

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



SHEET KEYNOTES

- 1 REMOVE EXISTING BRANCH BACK TO MAIN. CAP AND SEAL.
- 2 REMOVE EXISTING DUCTWORK AND RETURN GRILLE.
- 3 REMOVE EXISTING DUCTWORK TO THIS LOCATION. SEE NEW CONSTRUCTION PLANS FOR NEW CONNECTION.
- 4 DEMOLISH EXISTING DUCTWORK.

MECHANICAL GENERAL NOTES

1. THIS CONTRACTOR SHALL CLOSELY COORDINATE MECHANICAL AND PLUMBING WITH ELECTRICAL, ARCHITECTURAL, AND BUILDING STRUCTURE.
2. ALL SUPPLY AND RETURN DUCTWORK TO BE EXTERNALLY WRAPPED WITH INSULATION WITH AN R-VALUE OF R-6.
3. ALL DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS.
4. PROVIDE BALANCING DAMPER WITH LOCKING QUADRANT IN EACH DUCT BRANCH OF SUPPLY AND EXHAUST DUCTWORK.
5. PROVIDE REMOTE CABLE OPERATED DAMPER SYSTEM FOR ALL DUCTWORK ABOVE HARD LID CEILINGS OR WHERE DAMPER IS INACCESSIBLE OR PROVIDE OPPOSED BLADE DAMPER WITH NYLON BUSHINGS AT GRILLE.
6. PROVIDE ACCESS DOORS FOR ALL SERVICEABLE EQUIPMENT OR VALVES ABOVE HARD LID CEILINGS OR IN WALLS. ALL ACCESS PANELS ARE TO BE PAINTED TO MATCH ADJACENT SURFACES.
7. GC TO HIRE NEBB OR AABC CERTIFIED THIRD PARTY TEST AND BALANCE (TAB) CONTRACTOR. TAB CONTRACTOR SHALL ADJUST SHEAVES, BELTS, DAMPERS, ETC AS NECESSARY TO BALANCE SYSTEM TO AIRFLOWS REQUIRED AT LOWEST POSSIBLE SPEEDS. TAB CONTRACTOR SHALL VERIFY THE OUTSIDE AIR AT EACH RTU IS AS SCHEDULED. FOLLOW PROCEDURES AS LAID FORTH IN THE CURRENT VERSION OF "PROCEDURAL STANDARDS FOR TESTING ADJUSTING AND BALANCING OF ENVIRONMENTAL SYSTEMS" BY NEBB. PROVIDE REPORT ON NEBB FORMS TO ENGINEER FOR REVIEW.
8. THIS PROJECT WILL REQUIRE AFTER HOURS AND WEEKEND WORK TO RUN PIPING/DUCTWORK OR MODIFY SYSTEMS IN OR AFFECTING OCCUPIED SPACES. COORDINATE ALL SHUTDOWNS 72 HOURS IN ADVANCE WITH OWNER.
9. THIS CONTRACTOR SHALL ENGAGE A FIRE PROTECTION DESIGN BUILD CONTRACTOR TO MODIFY THE EXISTING FIRE SPRINKLER SYSTEM. DESIGNER SHALL BE NCST LEVEL III TECHNICIAN. WORKING PLANS AND CALCULATIONS SHALL BE PREPARED ACCORDING TO NFPA 13, AND BE APPROVED BY AUTHORITIES HAVING JURISDICTION, INCLUDING HYDRAULIC CALCULATIONS IF APPLICABLE.
10. PROVIDE TEMPORARY NEGATIVE PRESSURE UNIT DURING CONSTRUCTION. COORDINATE LOCATION WITH OWNER.
11. CONTROLS TO MATCH EXISTING ### CONTROLS. TIE INTO EXISTING ### CONTROLS DDC SYSTEM AND UPDATED GRAPHICS. PROVIDE ENGINEER WITH 2 WEEKS OF TRENDS SHOWING PROPER OPERATION OF EQUIPMENT UPON COMPLETION OF PROJECT. TRENDS DATA SHALL INCLUDE THE FOLLOWING DATA AT A MINIMUM: SPACE TEMPERATURE, SPACE SET POINT, HEATING OR COOLING MODE, AIR FLOW (FOR VAV SYSTEMS), & VALVE POSITION (FOR VAV SYSTEMS). SEE SEQUENCE OF OPERATIONS AND CONTROLS REQUIREMENTS ON SCHEDULE SHEET/SPECIFICATIONS.
12. COORDINATE EXACT THERMOSTAT LOCATIONS WITH FURNITURE AND OWNER. FAILURE TO DO SO MAY REQUIRE MOVING THERMOSTATS AT CONTRACTORS COST.
13. CONTRACTOR SHALL FIELD VERIFY EXISTING FIELD CONDITIONS PRIOR TO ORDERING OR FABRICATING. ADDITIONAL COST WILL NOT BE ALLOWED FOR CONTRACTOR'S FAILURE TO BECOME FAMILIAR WITH EXISTING SITE CONDITIONS.
14. PROVIDE FACTORY AUTHORIZED STARTUP OF ALL EQUIPMENT INCLUDING STARTUP OF ANY FACTORY CONTROLS TO ENSURE PROPER SEQUENCING AND/OR COMMUNICATION TO BMS.
15. PROVIDE OPERATION AND MAINTENANCE MANUALS (O&M) WITHIN 30 DAYS OF CERTIFICATE OF OCCUPANCY FOR ALL EQUIPMENT IN DIGITAL FORMAT TO ENGINEER FOR REVIEW. O&M'S SHALL INCLUDE DOCUMENTATION OF ALL WARRANTIES, REPORTS AND TESTS, RECORD DRAWINGS, CONTROLS SEQUENCE OF OPERATIONS WITH DIAGRAMS, & EQUIPMENT INFORMATION. EQUIPMENT INFORMATION INCLUDES MAKE & MODEL, WIRING, PIPING, STARTUP, SHUTDOWN, TROUBLE SHOOTING SYSTEM BALANCING REPORT, FINAL COMMISSIONING REPORT AND MAINTENANCE PROCEDURES.
16. WHERE JURISDICTION REQUIRES, CONTRACTOR IS RESPONSIBLE FOR PROVIDING SEISMIC RESTRAINT AND SUPPORT ENGINEERED BY A LICENSED STRUCTURAL ENGINEER. PROVIDE DESIGN DRAWINGS TO AUTHORITY HAVING JURISDICTION AND MECHANICAL ENGINEER FOR REVIEW.
17. MECHANICAL PIPING SCHEDULE:
 - A. HYDRONIC PIPING 3" AND UNDER = TYPE L COPPER - BRAZED JOINTS



360 west aspen avenue
salt lake city, utah 84101
801 532 4422



UNLESS A PROFESSIONAL SEAL WITH SIGNATURE AND DATE IS AFFIXED, THIS DOCUMENT IS PRELIMINARY AND IS NOT INTENDED FOR CONSTRUCTION, RECORDING PURPOSES, OR IMPLEMENTATION.

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATIONS & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM METHOD STUDIO INC.

project:

McKay Dee
Cath Lab 4
Replacement

McKay Dee Hospital
4401 Harrison Blvd
Ogden, UT 84403

project #: 24.0310
date: SEPT 27, 2024

revisions:

1 ADDENDUM #2 DEC 13, 2024

title:

LEVEL 3
MECHANICAL
DEMO PLAN

sheet:

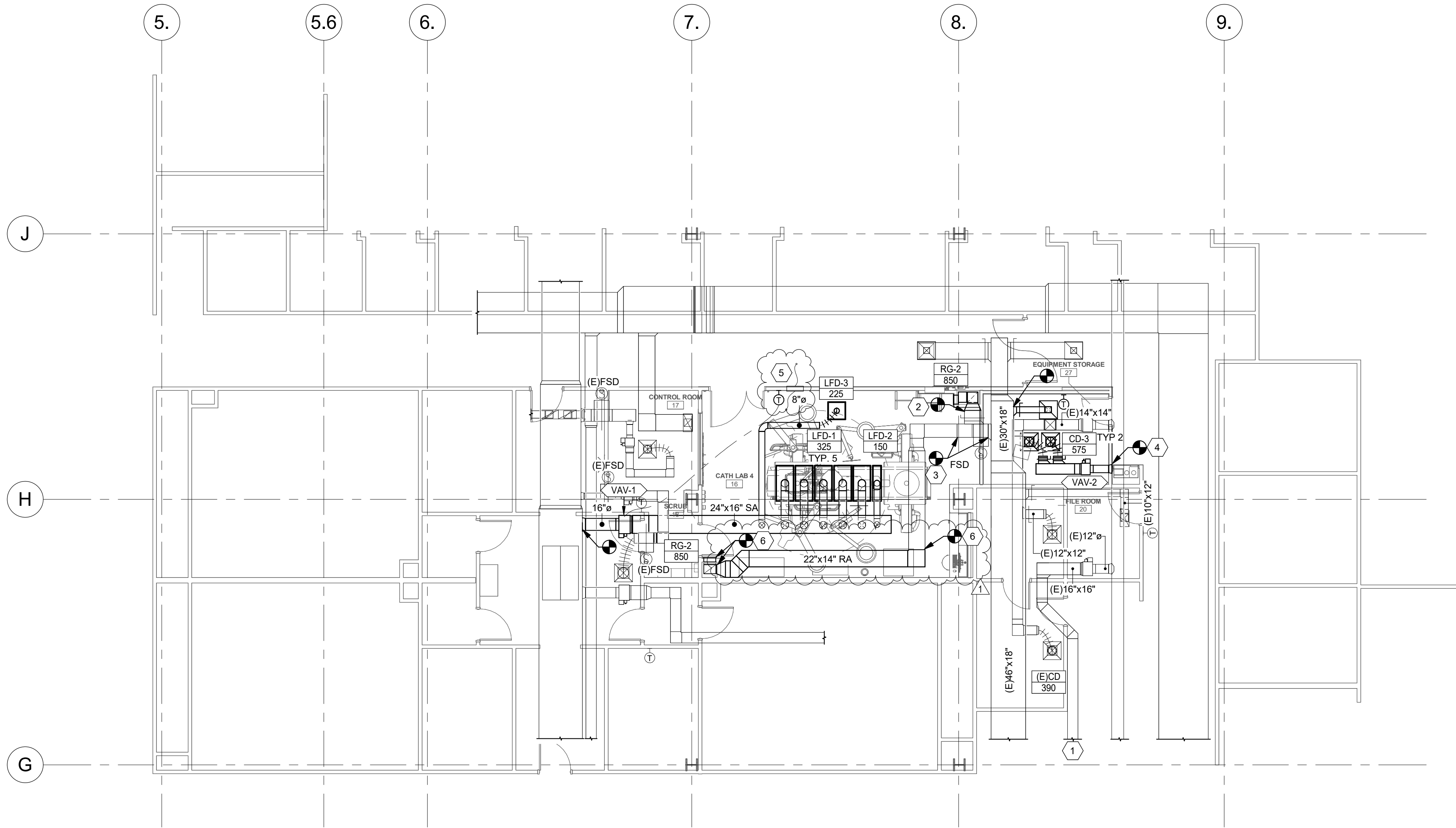
MD103

CONSTRUCTION DOCUMENT

12/13/2024 4:47:18 PM Autodesk Docs\McKay Dee Cath Lab 4 Replacement\240414-McKay Central.rvt

1 LEVEL 3 MECHANICAL PLAN

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



SHEET KEYNOTES

- BALANCE EXISTING DIFFUSER AIRFLOW TO 400 CFM IN CORR. 3A105.
- CONNECT NEW RETURN GRILLE TO NEW DUCTWORK ABOVE CEILING.
- REPLACE EXISTING FIRE DAMPER WITHIN WALL.
- CONNECT NEW DUCTWORK TO EXISTING DUCT MAIN.
- PROVIDE PRESSURE MONITORING STATION AND ASSOCIATED PRESSURE SENSORS IN CEILING. BASIS OF DESIGN SETRA SCFM WITH 4.3" COLOR TOUCH SCREEN DISPLAY, CONFIGURABLE AUDIBLE AND VISUAL ALARM, AND ON BOARD SENSOR. EXTEND BACNET CONTROL WIRING TO CONTROL SYSTEM. PROGRAM MONITOR TO ACCOMPLISH THE FOLLOWING MINIMUM FUNCTIONALITY: SENSE PRESSURE, TEMPERATURE, HUMIDITY & REPORT TO BMS, ALARMS SENT TO BMS, SEND ALERTS VIA EMAIL, AND CELL PHONE. ALARMS TO INCLUDE PRESSURE HIGH & LOW LIMIT, TEMPERATURE HIGH LIMIT WITH ALARM DELAY OF 30 MINUTES (ADJ.), COORDINATE FINAL FUNCTIONALITY DESIRES WITH FACILITIES MANAGEMENT.
- CONNECT NEW DUCTWORK TO EXISTING DUCTS.

MECHANICAL GENERAL NOTES

- THIS CONTRACTOR SHALL CLOSELY COORDINATE MECHANICAL AND PLUMBING WITH ELECTRICAL, ARCHITECTURAL, AND BUILDING STRUCTURE.
- ALL SUPPLY AND RETURN DUCTWORK TO BE EXTERNALLY WRAPPED WITH INSULATION WITH AN R-VALUE OF R-6.
- ALL DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS.
- PROVIDE BALANCING DAMPER WITH LOCKING QUADRANT IN EACH DUCT BRANCH OF SUPPLY AND EXHAUST DUCTWORK.
- PROVIDE REMOTE CABLE OPERATED DAMPER SYSTEM FOR ALL DUCTWORK ABOVE HARD LID CEILINGS OR WHERE DAMPER IS INACCESSIBLE OR PROVIDE OPPOSED BLADE DAMPER WITH NYLON BUSHINGS AT GRILLE.
- PROVIDE ACCESS DOORS FOR ALL SERVICEABLE EQUIPMENT OR VALVES ABOVE HARD LID CEILINGS OR IN WALLS. ALL ACCESS PANELS ARE TO BE PAINTED TO MATCH ADJACENT SURFACES.
- GC TO HIRE NEBB OR AABC CERTIFIED THIRD PARTY TEST AND BALANCE (TAB) CONTRACTOR. TAB CONTRACTOR SHALL ADJUST SHEAVES, BELTS, DAMPERS, ETC AS NECESSARY TO BALANCE SYSTEM TO AIRFLOWS REQUIRED AT LOWEST POSSIBLE SPEEDS. TAB CONTRACTOR SHALL VERIFY THE OUTSIDE AIR AT EACH RTU IS AS SCHEDULED. FOLLOW PROCEDURES AS LAID FORTH IN THE CURRENT VERSION OF "PROCEDURAL STANDARDS FOR TESTING ADJUSTING AND BALANCING OF ENVIRONMENTAL SYSTEMS" BY NEBB. PROVIDE REPORT ON NEBB FORMS TO ENGINEER FOR REVIEW.
- THIS PROJECT WILL REQUIRE AFTER HOURS AND WEEKEND WORK TO RUN PIPING/DUCTWORK OR MODIFY SYSTEMS IN OR AFFECTING OCCUPIED SPACES. COORDINATE ALL SHUTDOWNS 72 HOURS IN ADVANCE WITH OWNER.
- THIS CONTRACTOR SHALL ENGAGE A FIRE PROTECTION DESIGN BUILD CONTRACTOR TO MODIFY THE EXISTING FIRE SPRINKLER SYSTEM. DESIGNER SHALL BE NOTED LEVEL 11 TECHNICIAN. WORKING PLANS AND CALCULATIONS SHALL BE PREPARED ACCORDING TO NFPA 13, AND BE APPROVED BY AUTHORITIES HAVING JURISDICTION, INCLUDING HYDRAULIC CALCULATIONS IF APPLICABLE.
- PROVIDE TEMPORARY NEGATIVE PRESSURE UNIT DURING CONSTRUCTION. COORDINATE LOCATION WITH OWNER.
- CONTROLS TO MATCH EXISTING ### CONTROLS. TIE INTO EXISTING ### CONTROLS DDC SYSTEM AND UPDATED GRAPHICS. PROVIDE ENGINEER WITH 2 WEEKS OF TRENDS SHOWING PROPER OPERATION OF EQUIPMENT UPON COMPLETION OF PROJECT. TRENDS DATA SHALL INCLUDE THE FOLLOWING DATA AT A MINIMUM: SPACE TEMPERATURE, SPACE SET POINT, HEATING OR COOLING MODE, AIR FLOW (FOR VAV SYSTEMS), & VALVE POSITION (FOR VAV SYSTEMS). SEE SEQUENCE OF OPERATIONS AND CONTROLS REQUIREMENTS ON SCHEDULE SHEETS/SPECIFICATIONS.
- COORDINATE EXACT THERMOSTAT LOCATIONS WITH FURNITURE AND OWNER. FAILURE TO DO SO MAY REQUIRE MOVING THERMOSTATS AT CONTRACTOR'S COST.
- CONTRACTOR SHALL FIELD VERIFY EXISTING FIELD CONDITIONS PRIOR TO ORDERING OR FABRICATING. ADDITIONAL COST WILL NOT BE ALLOWED FOR CONTRACTOR'S FAILURE TO BECOME FAMILIAR WITH EXISTING SITE CONDITIONS.
- PROVIDE FACTORY AUTHORIZED STARTUP OF ALL EQUIPMENT INCLUDING STARTUP OF ANY FACTORY CONTROLS TO ENSURE PROPER SEQUENCING AND/OR COMMUNICATION TO BMS.
- PROVIDE OPERATION AND MAINTENANCE MANUALS (O&M) WITHIN 30 DAYS OF CERTIFICATE OF OCCUPANCY FOR ALL EQUIPMENT IN DIGITAL FORMAT TO ENGINEER FOR REVIEW. O&M'S SHALL INCLUDE DOCUMENTATION OF ALL WARRANTIES, REPORTS AND TESTS, RECORD DRAWINGS, CONTROLS SEQUENCE OF OPERATIONS WITH DIAGRAMS, & EQUIPMENT INFORMATION. EQUIPMENT INFORMATION INCLUDES MAKE & MODEL, WIRING, PIPING, STARTUP, SHUTDOWN, TROUBLE SHOOTING SYSTEM BALANCING REPORT, FINAL COMMISSIONING REPORT AND MAINTENANCE PROCEDURES.
- WHERE JURISDICTION REQUIRES, CONTRACTOR IS RESPONSIBLE FOR PROVIDING SEISMIC RESTRAINT AND SUPPORT ENGINEERED BY A LICENSED STRUCTURAL ENGINEER. PROVIDE DESIGN DRAWINGS TO AUTHORITY HAVING JURISDICTION AND MECHANICAL ENGINEER FOR REVIEW.
- MECHANICAL PIPING SCHEDULE:
 - HYDRONIC PIPING 3" AND UNDER = TYPE L COPPER - BRAZED JOINTS



360 west aspen avenue
salt lake city, utah 84101
801 532 4422



UNLESS A PROFESSIONAL SEAL WITH SIGNATURE AND DATE IS AFFIXED, THIS DOCUMENT IS PRELIMINARY AND IS NOT INTENDED FOR CONSTRUCTION, RECORDING PURPOSES, OR IMPLEMENTATION.

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATIONS & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM METHOD STUDIO INC.

project:

McKay Dee
Cath Lab 4
Replacement

McKay Dee Hospital
4401 Harrison Blvd
Ogden, UT 84403

project #: 24.0310
date: SEPT 27, 2024

revisions:

1 ADDENDUM #2 DEC 13, 2024

title:

LEVEL 3
MECHANICAL
PLAN

sheet:

M103

CONSTRUCTION DOCUMENT

12/13/2024 4:47:20 PM Autodesk Docs\\McKay Dee Cath Lab 4 Replacement\\240414-McKay Central.rvt

VAV TERMINAL UNIT SCHEDULE (HYDRONIC HEAT)																			
ACCEPTABLE MANUFACTURERS:					REMARKS:														
PRICE KRUEGER TITUS					(1) INLET STATIC PRESSURE OF 1.75" AND DISCHARGE OF .25" (2) NO RATING BASED OFF OF AHRI STANDARD 889-2008 (3) PROVIDE WITH 1/2 IN. THICK, MIN. 1.5 LB DENSITY FIBERGLASS INTERNAL INSULATION (4) PRESSURE INDEPENDENT OPERATION. (5) PROVIDE NEMA 1 ENCLOSURE FOR CONTROLS.					(6) PROVIDE WITH BACNET CONTROLLER. (7) PROVIDE INSULATED ACCESS PANEL. (8) CONTROL'S CONTRACTOR TO PROVIDE 120V TO 24V TRANSFORMER. APPROX. ONE TRANSFORMER FOR EVERY SIX VAV BOXES. (9) HOT WATER PIPE SUPPLY AND RETURN PIPING FROM HEATING COIL TO MAINS PER FOLLOWING SCHEDULE: 0.5 - 1.0 GPM: 1/2"; 1.1 - 2.5 GPM: 3/4"; 2.6 - 5.0 GPM: 1"; 5.1 - 7.5 GPM 1 - 1/4"; 7.6 - 10 GPM: 1 - 1/2"									
LABEL	SERVES	AIRFLOW			INLET SIZE	HOT WATER HEATING COIL										MAX DISCHARGE NC	MANUFACTURER	MODEL	REMARKS
		MAX (CFM)	MIN (CFM)	AIR PD (IN-WC)		MAX AIRFLOW (CFM)	CAPACITY (BTUH)	EAT (°F)	LAT (°F)	FLOW RATE (GPM)	EWT (°F)	LWT (°F)	WATER PD (FT)	ROWS	CONTROL VALVE				
VAV-1	CATH LAB	2,100	2,100	0.53	16"	2,100	60	55	100	4	160	130	0.94	2	2 WAY	25	TITUS	DESV	ALL
VAV-2	EQUIPMENT ROOM	1,150	172	0.13	10"	1,150	25	55	100	1.6	160	130	0.43	2	2 WAY	28	TITUS	DESV	ALL

REGISTER - GRILLE- DIFFUSER SCHEDULE											
ACCEPTABLE MANUFACTURERS:				REMARKS:							
KRUEGER TUTTLE & BAILEY TITUS PRICE				(1) PROVIDE TRANSITION AS NECESSARY. (2) COORDINATE EXACT COLOR SELECTION WITH OWNER AND ARCHITECT. (3) PROVIDE WITH AIR-SCOOP FOR BALANCING.				(4) PROVIDE WITH LAY-IN TO HARD LID ADAPTER AS NECESSARY.			
LABEL	TYPE	MAX AIRFLOW (CFM)	FACE SIZE	NECK SIZE	BLOW PATTERN	PD (IN-WC)	THROW(S) (FT)	MAX NC	MANUFACTURER	MODEL	REMARKS
CD-3	SQUARE PLAQUE DIFFUSER	705	24" X 24"	12" Ø	4-WAY	0.210	6-9-14	30	PRICE INDUSTRIES	SPD	ALL
LFD-1	LAMINAR FLOW DIFFUSER	480	24" x 48"	10" Ø	LAMINAR	0.100	N/A	25	PRICE INDUSTRIES	LFD	ALL
LFD-2	LAMINAR FLOW DIFFUSER	240	12" x 48"	8" Ø	LAMINAR	0.070	N/A	25	PRICE INDUSTRIES	LFD	ALL
LFD-3	LAMINAR FLOW DIFFUSER	240	24" X 24"	8" Ø	LAMINAR	0.150	N/A	30	PRICE INDUSTRIES	LFD	ALL
RG-1	LOUVERED RETURN GRILLE	1750	24" X 24"	SEE PLANS		0.100	N/A	30	PRICE INDUSTRIES	535	ALL
RG-2	LOUVERED SIDEWALL RETURN	650	16" X 12"	16" X 12"	N/A	0.100	N/A	30	PRICE INDUSTRIES	535	ALL

DUCT INSULATION REQUIREMENTS					
DUCT SYSTEM	DUCT LOCATION	INSULATION MATERIALS	MINIMUM THERMAL RESISTANCE ("R")		FIELD APPLIED JACKET
			CLIMATE ZONES 1-4	CLIMATE ZONES 5-8	
SUPPLY AIR	BUILDING INTERIOR, CONCEALED	MINERAL-FIBER BLANKET	6.0	6.0	NONE
	BUILDING INTERIOR, EXPOSED, OUTSIDE CONDITIONED SPACE	MINERAL-FIBER BLANKET	6.0	6.0	NONE
	BUILDING EXTERIOR (OUTSIDE BUILDING INSULATION)	MINERAL-FIBER BLANKET	8.0	12.0	ALUMINUM
RETURN AIR	BUILDING INTERIOR, CONCEALED	MINERAL-FIBER BLANKET	6.0	6.0	NONE
	BUILDING INTERIOR, EXPOSED, OUTSIDE CONDITIONED SPACE	MINERAL-FIBER BLANKET	6.0	6.0	NONE
	BUILDING EXTERIOR (OUTSIDE BUILDING INSULATION)	MINERAL-FIBER BLANKET	8.0	12.0	ALUMINUM
EXHAUST AIR	ALL	NONE	---	---	---
OUTSIDE AIR	BUILDING INTERIOR, CONCEALED OR EXPOSED	MINERAL-FIBER BLANKET	6.0	6.0	NONE
	BUILDING EXTERIOR (OUTSIDE BUILDING INSULATION)	MINERAL-FIBER BLANKET	8.0	12.0	NONE
FLEXIBLE DUCT	BUILDING INTERIOR	POLYETHYLENE INNER AND OUTER JACKET	6.0	6.0	NONE
NOTES					
1. DUCT INSULATION THERMAL RESISTANCE VALUES DETERMINED FROM 2018 IECC SECTION C403.11.1.					
2. CLIMATE ZONES DETERMINED BY ASHRAE. THIS PROJECT IS IN CLIMATE ZONE 5.					
3. ALL DUCT INSULATION SHALL HAVE ALL SERVICE JACKET MANUFACTURER FROM KRAFT PAPER, REINFORCED SCRIM, ALUMINUM FOIL, OR VINYL FILM.					
4. DUCT INSULATION SHALL BE MECHANICALLY FASTENED TO DUCTS WIDER THAN 24" AND SHALL BE AFFIXED TO BOTTOM OF DUCT WITH WELDED METAL PINS AND 2" WASHERS AT 18" MAXIMUM SPACING.					
5. DUCT LINER, WHERE SHOWN ON DRAWINGS, SHALL BE A MINIMUM OF 1" THICK AND SHALL HAVE A MINIMUM "R" VALUE OF 3.8.					
6. DUCT LINER SHALL NOT BE SUBSTITUTED FOR DUCT WRAP UNLESS THE MINIMUM "R" VALUE OF THE DUCT LINER IS INCREASED TO VALUE NEEDED PER TABLE ABOVE.					
7. DUCT DIMENSIONS SHOWN ON THE DRAWINGS ARE NET FREE AREA. WHERE DUCT LINER IS SHOWN, INCREASE METAL DUCT SIZE TO ALLOW FOR THICKNESS OF DUCT LINER.					
8. TOTAL LENGTH OF FLEXIBLE DUCT RUN SHALL NOT EXCEED 3'-0". EXTEND SHEET METAL DUCT TO WITHIN 3'-0" OF THE AIR INLET OR AIR OUTLET DEVICE.					
9. OFFSET OF FLEXIBLE DUCT SHALL NOT EXCEED ONE HALF OF THE DUCT DIAMETER.					
10. ALL DUCT CHANGES IN DIRECTION SHALL BE MADE WITH RIGID ELBOWS OR OTHER RIGID METAL FITTINGS.					
11. INDOOR DUCT INSULATION AND RELATED MATERIALS SHALL HAVE A FLAME-SPREAD INDEX OF 25 OR LESS, AND SMOKE-DEVELOPED INDEX OF 50 OR LESS WHEN TESTED TO ASTM 84.					
12. OUTDOOR DUCT INSULATION AND RELATED MATERIALS SHALL HAVE A FLAME-SPREAD INDEX OF 75 OR LESS, AND SMOKE-DEVELOPED INDEX OF 150 OR LESS WHEN TESTED TO ASTM 84.					
13. ALL DUCT COVERINGS AND LININGS SHALL NOT FLAME, GLOW, SMOLDER, OR SMOKE WHEN TESTED IN ACCORDANCE WITH ASTM 411.					
14. ALL MATERIALS USED AS INTERNAL INSULATION AND EXPOSED TO THE AIR STREAM IN DUCTS SHALL BE SHOWN TO BE DURABLE WHEN TESTED IN ACCORDANCE WITH UL 181.					



360 west aspen avenue
salt lake city, utah 84101
801 532 4422



UNLESS A PROFESSIONAL SEAL WITH SIGNATURE AND DATE IS AFFIXED, THIS DOCUMENT IS PRELIMINARY AND IS NOT INTENDED FOR CONSTRUCTION, RECORDING PURPOSES, OR IMPLEMENTATION.

project:

McKay Dee
Cath Lab 4
Replacement

McKay Dee Hospital
4401 Harrison Blvd
Ogden, UT 84403

project#: 24.0310
date: SEPT 27, 2024

revisions:

1 ADDENDUM #2 DEC 13, 2024

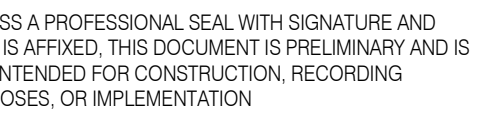
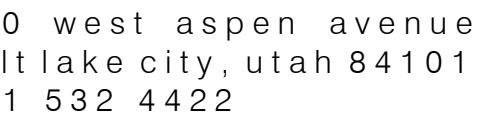
title:

MECHANICAL
SCHEDULES

sheet:

M601

CONSTRUCTION DOCUMENT



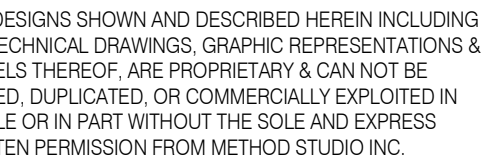
DISCONNECT FROM EXISTING SINK AND ATTACH TO NEW SINK.

REMOVE MED GAS OUTLET IN FLOOR PEDESTAL.

REMOVE MED GAS OUTLETS TO ZONE VALVE BOX.

REMOVE EXISTING MEDICAL GAS ALARM PANEL.

3. ALL DOMESTIC WATER PIPING TO BE CONTRACT, HOT AND HOT WATER RECIPIENT. PROVIDE 1/2" INSULATION WITH 1/2" TO 1" VAPOR BARRIER, 1/2" INSULATION FOR PIPING IN CRAWL SPACE AND LARGER DOMESTIC COLD WATER PIPING TO BE INSULATED WITH 1/2" UP TO 1 1/4" PIPING INSULATION FOR PIPING IN CRAWL SPACE.
4. THE CONTRACTOR SHALL CLOSELY COORDINATE MECHANICAL AND PLUMBING WITH ELECTRICAL, ARCHITECTURAL, AND BUILDING STRUCTURAL.
5. DISMISAL METAL PIPING CONNECTIONS SHALL HAVE DIELECTRIC ISOLATORS.
6. ALL DOMESTIC WATER PIPING TO BE PRESSURE TESTED, CLEANED, AND DISINFECTED SEE SPECIFICATIONS.
7. BALL VALVES SHALL BE FULL PORT AND LEAD FREE. PROVIDE WITH HAND OPERATED OR HANDLE OPERATED FUNCTION WHEN FULLY INSULATED. EXTENSIONS TO BE SEALED AND VAPOR PROOF.
8. ALL DOMESTIC WASTE AND VENT PIPING TO BE CAST IRON.
9. THIS IS A PRELIMINARY SCHEDULE. THE CONTRACTOR SHALL WORK TO RUN PIPING DOMESTIC OR MODIFY SYSTEMS IN OR AFFECTING OCCUPIED SPACES. COORDINATE ALL SHUTDOWNS 72 HOURS IN ADVANCE. ADVISE OWNER.
10. PROVIDE BALANCE REPORT OF DOMESTIC WATER RECIRCULATING SYSTEM TO ENGINEER. PROVIDE P&T PORTS AND PRESSURE GAUGES FOR EACH RE-CIRCULATING PLANT. PROVIDE THERMOMETER ON DISCHARGE SIDE OF PLANT.
11. THE CONTRACTOR SHALL FIELD VERIFY EXISTING FIELD CONDITIONS AND PROVIDE A DETAILED REPORT TO THE ENGINEER. THERE WILL NOT BE ALLOWED FOR CONTRACTOR'S FAILURE TO BECOME FAMILIAR WITH EXISTING SITE CONDITIONS.
12. TEST AND REPORT FOR LEAKAGE. SEE SPECIFICATIONS.
13. COORDINATE ANY NECESSARY SAW CUTTING, BACKFILL AND NEW CONCRETE WITH OTHERS.
14. PIPING SHALL BE REPORTED FROM THE ROOF DRAIN, JOIST BRIDGING OR GENERAL, HANG PIPES FROM BEAMS, JOIST OR SUPPLEMENTARY STRUCTURAL MEMBERS, WHERE POSSIBLE INSTANT PIPING SHALL BE REPORTED TO THE ENGINEER.
15. WHERE JURISDICTION REQUIRES, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SEISMIC RESTRAINT. PROVIDE DESIGN DRAWINGS TO AUTHORITY HAVING JURISDICTION AND MECHANICAL ENGINEER FOR REVIEW.
16. PLUMBING PIPING SCHEDULE:
 - a. DOMESTIC WATER ABOVE GRADE- TYPE L COPPER - SOLDERED
 - b. DOMESTIC WATER BELOW GRADE- TYPE K COPPER - SOLDERED
 - c. ROOF DRAIN, WASTE & VENT ABOVE GRADE - CAST IRON - HUBBLES
 - d. MEDICAL GAS LINES- TYPE L COPPER - SOLDERED



McKay Dee

Math Lab 4

Replacement

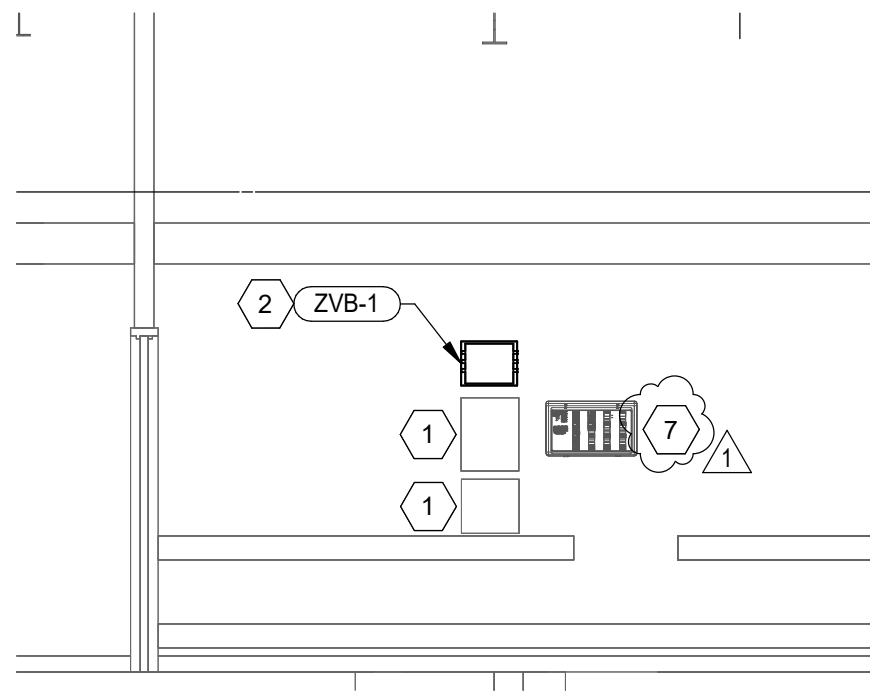
ADDENDUM #2 DEC 13, 2024

LEVEL 3 LUMBING EMO PLAN

PD103

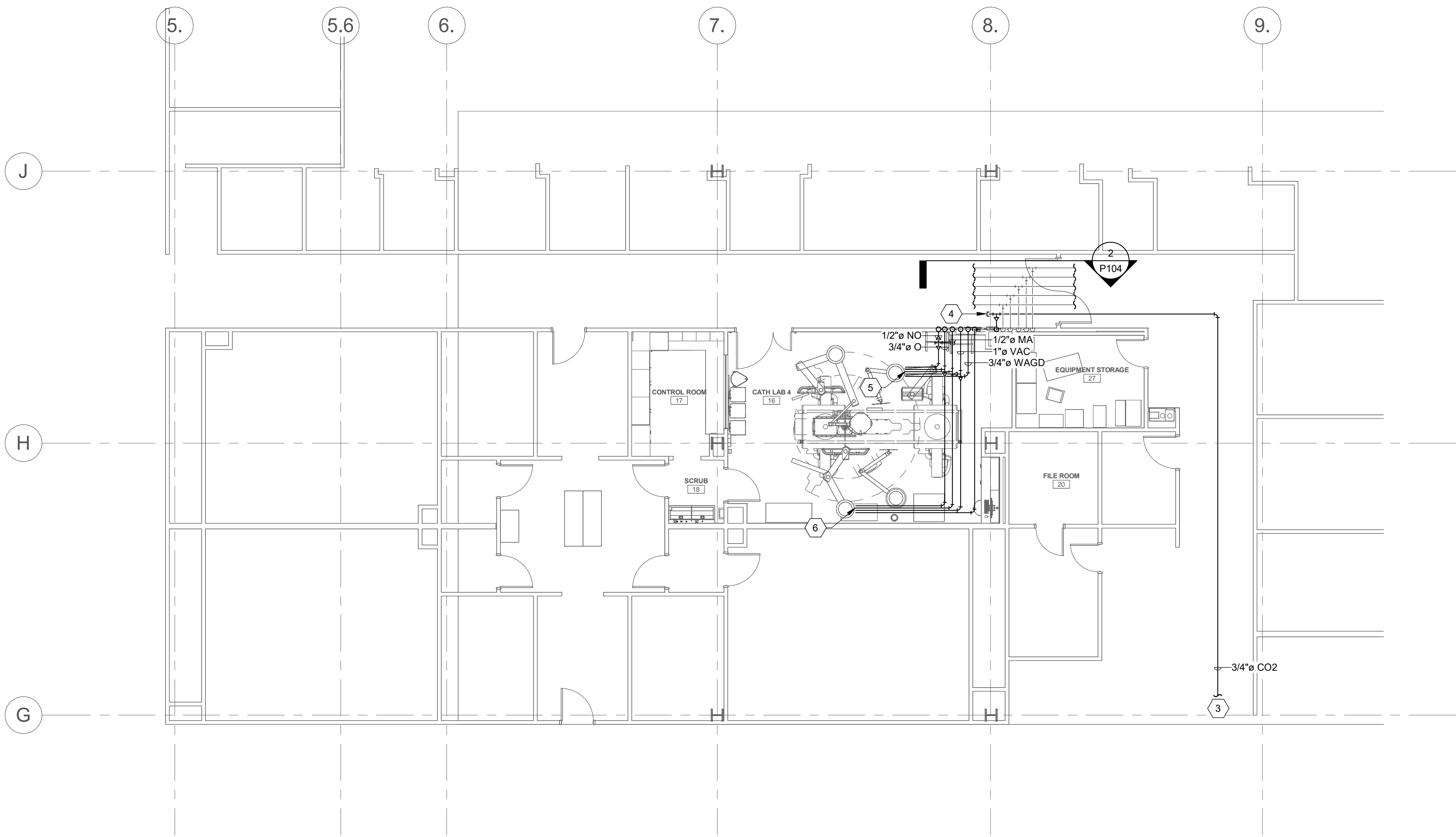
INSTRUCTION DOCUMENT

12/13/2024 4:47:24 PM Autodesk Docs\\McKay Dee Cath Lab 4 Replacement\\240414-McKay Central.rvt



2 ZVB AND ALARM PANEL SECTION

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



1 LEVEL 3 PLUMBING PLAN - MED GAS

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

SHEET KEYNOTES

- EXISTING ZONE VALVE BOX TO REMAIN.
- INSTALL NEW ZONE VALVE BOX ABOVE EXISTING ZONE VALVE BOXES.
- ROUTE CO2 LINE DOWN CORRIDOR, THROUGH REHAB GYM AND RECORDS ROOM TO EXISTING CHASE. ANTICIPATED DISTANCE FROM THIS POINT TO CHASE: 150'. CONTRACTOR TO COORDINATE SHUTDOWN AND RECERTIFICATION WITH FACILITIES 48 HOURS IN ADVANCE.
- STUB CO2 LINE FOR FUTURE CONNECTION.
- ROUTE MEDICAL GAS LINES TO NEW ANESTHESIA BOOM, SKYTRON TO MAKE CONNECTION TO BOOM. GAS SIZES ARE AS FOLLOWS.
NO: 1/2"
O2: 1/2"
MA: 1/2"
VAC: 3/4"
WAGE: 3/4"
- ROUTE MEDICAL GAS LINES TO NEW PERFUSION BOOM, SKYTRON TO MAKE CONNECTION TO BOOM. GAS SIZES ARE AS FOLLOWS.
O2: 1/2"
MA: 1/2"
VAC: 3/4"
CO2: 1/2"
- PROVIDE NEW MEDICAL GAS ALARM PANEL TO SERVE CATH LAB. BASIS OF DESIGN BEACON MEGAS A10-0XAVW

PLUMBING GENERAL NOTES

- ALL DOMESTIC WATER PIPING TO BE COPPER. ALL HOT WATER AND HOT WATER RECIRCULATING PIPING TO BE INSULATED WITH 1" UP TO 1-1/4" PIPE AND 1-1/2" INSULATION FOR PIPING 1-1/2" AND LARGER. DOMESTIC COLD WATER PIPING TO BE INSULATED WITH 1/2" UP TO 1-1/4" PIPING AND 1" INSULATION FOR PIPING 1-1/2" OR LARGER.
- THE CONTRACTOR SHALL CLOSELY COORDINATE MECHANICAL AND PLUMBING WITH ELECTRICAL, ARCHITECTURAL, AND BUILDING STRUCTURE.
- DISSIMILAR METAL PIPING CONNECTIONS SHALL HAVE DIELECTRIC ISOLATORS.
- ALL DOMESTIC WATER PIPING TO BE PRESSURE TESTED, CLEANED, AND DISINFECTED. SEE SPECIFICATIONS.
- BALL VALVES SHALL BE FULL PORT AND LEAD FREE. PROVIDE WITH HANDLE/STEM EXTENSIONS FOR PROPER FUNCTION WHEN FULLY INSULATED. EXTENSIONS TO BE SEALED AND VAPOR PROOF.
- ALL DOMESTIC WASTE AND VENT PIPING TO BE CAST IRON.
- THIS PROJECT WILL REQUIRE AFTER HOURS AND WEEKEND WORK TO RUN PIPING/DUCTWORK OR MODIFY SYSTEMS IN OR AFFECTING OCCUPIED SPACES. COORDINATE ALL SHUTDOWNS 72 HOURS IN ADVANCE WITH OWNER.
- PROVIDE BALANCE REPORT OF DOMESTIC WATER RECIRCULATING SYSTEM TO ENGINEER. PROVIDE P&T PORTS AND PRESSURE GAUGES ON EACH SIDE OF RECIRCULATING PUMP. PROVIDE THERMOMETER ON DISCHARGE SIDE OF PUMP.
- THE CONTRACTOR SHALL FIELD VERIFY EXISTING FIELD CONDITIONS PRIOR TO ORDERING OR FABRICATING. ADDITIONAL COST WILL NOT BE ALLOWED FOR CONTRACTOR'S FAILURE TO BECOME FAMILIAR WITH EXISTING SITE CONDITIONS.
- TEST WASTE AND VENT PIPING FOR LEAKAGE. SEE SPECIFICATIONS.
- COORDINATE ANY NECESSARY SAW CUTTING, BACKFILL, AND NEW CONCRETE WITH GENERAL.
- PIPING SHALL NOT BE SUPPORTED FROM THE ROOF DECK, JOIST BRIDGING OR OTHER PIPES. HANG PIPES FROM BEAMS, JOIST OR SUPPLEMENTARY STRUCTURAL MEMBERS, WHERE POSSIBLE INSTALL ALL PIPING WITHIN 12" FROM SUPPORTING STRUCTURE.
- WHERE JURISDICTION REQUIRES, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SEISMIC RESTRAINT. PROVIDE DESIGN DRAWINGS TO AUTHORITY HAVING JURISDICTION AND MECHANICAL ENGINEER FOR REVIEW.
- PLUMBING PIPING SCHEDULE:
A. DOMESTIC WATER ABOVE GRADE= TYPE L COPPER - SOLDERED
B. DOMESTIC WATER BELOW GRADE= TYPE L COPPER - SOLDERED
C. ROOF DRAIN, WASTE & VENT ABOVE GRADE = CAST IRON - HUBLESS COUPLINGS WITH HEAVY DUTY COUPLINGS
D. MEDICAL GAS LINES= TYPE L COPPER - SOLDERED



360 west aspen avenue
salt lake city, utah 84101
801 532 4422



324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

UNLESS A PROFESSIONAL SEAL WITH SIGNATURE AND DATE IS AFFIXED, THIS DOCUMENT IS PRELIMINARY AND IS NOT INTENDED FOR CONSTRUCTION, RECORDING PURPOSES, OR IMPLEMENTATION.

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATIONS & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM METHOD STUDIO INC.

project:

McKay Dee
Cath Lab 4
Replacement

McKay Dee Hospital
4401 Harrison Blvd
Ogden, UT 84403

project #: 24.0310
date: SEPT 27, 2024

revisions :

1 ADDENDUM #2 DEC 13, 2024

title:

LEVEL 3
PLUMBING
MED GAS

sheet:

P104

CONSTRUCTION DOCUMENT