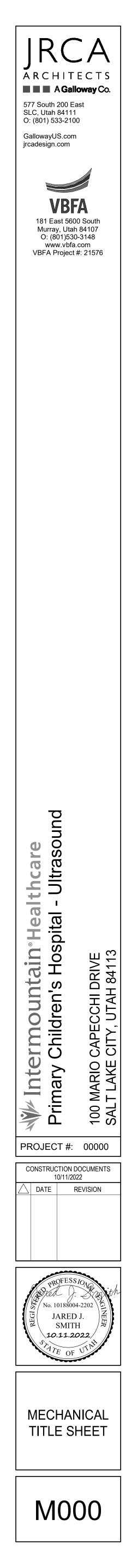
	GENERAL MECHAN	ICAL SY	MBOLS		HVAC SYMBO
		BER - SHO	WN ON PLANS	18"x8"	SQUARE DUCT SIZE
		NEW CONN	ECTS TO EXISTING	18"/8"	OVAL DUCT SIZE TA
	POINT WHERE E	EXISTING I	S TO BE DEMOLISHED	18"Ø	ROUND DUCT SIZE T
		(E)	EXISTING DUCT TAG		
		E DETAIL APPEARS		DUCT BEING DEMOL	
	(1) KEYNOTE				SUPPLY AIR - LOW P
	CONTINUATION				SUPPLY AIR - MEDIU
	11 ROOM NAME AN	ND NUMBE	R		CONDITIONED OUTS
	ITEM TO BE DEI	MOLISHED			OUTSIDE AIR
		ONTRACT			RETURN AIR
					TRANSFER AIR
	2"	PIPE SIZ	E TAG (DIAMETER)		EXHAUST AIR
		ABOVE G 	ROUND PIPING		RELIEF AIR
	1/8" / 12" SLOPE		GROUND PIPING		GREASE EXHAUST A
	INVERT: -105' - 1"		ERT ELEVATION TAG		SMOKE EXHAUST AIF
	(E)	_	S PIPE TAG EING DEMOLISHED		EXHAUST GAS FLUE
					COMBUSTION AIR
				DROP	RECTANGULAR SUP
	ABBREVIA	TIONS		DROP	ROUND SUPPLY/OUT
ð	ROUND	LVR	LOUVER	DROP	RECTANGULAR RET
ABV AC	ABOVE AIR CONDITIONING	LWT M/A	LEAVING WATER TEMPERATURE MIXED AIR	DROP	ROUND RETURN/TR/
AD ADD AFF	AREA DRAIN ADDENDUM ABOVE FINISHED FLOOR	MAX MBH MCF	MAXIMUM ONE THOUSAND BTU PER HOUR ONE THOUSAND CUBIC FEET		RECTANGULAR EXH
AFUE ALT	ANNUAL FUEL UTILIZATION EFFICIENCY ALTERNATE	MD MECH	MOTORIZED DAMPER MECHANICAL	DROP	ROUND EXHAUST/RE
AP ARCH	ACCESS PANEL ARCHITECT/ARCHITECTURAL	MFR MIN	MANUFACTURER MINIMUM		ROUND EXHAUST/RE
BFF BLW BTU	BELOW FINISHED FLOOR BELOW BRITISH THERMAL UNITS	MISC MTR MU/A	MISCELLANEOUS MOTOR MAKE-UP/AIR	SQUARE	
BTUH CAP	BRITISH THERMAL UNITS PER HOUR CAPACITY	NC NC	NOISE CRITERIA NORMALLY CLOSED		SD1/400 10"Ø
CB CFM	CATCH BASIN CUBIC FEET PER MINUTE	NIC NO	NOT IN CONTRACT NUMBER		22 H-5/7/14
CLG CO D	CEILING CLEAN OUT DEGREE	NO NTS O	NORMALLY OPEN NOT TO SCALE OXYGEN	RECTANGULAR SUPPLY DIFFUSER	SG5/500
)B )CW	DRY BULB DOMESTIC COLD WATER	O/A PD	OUTSIDE AIR PRESSURE DROP	ROUND SUPPLY	[12"x10"]
dhw Dia	DOMESTIC HOT WATER DIAMETER	PIV PLBG	POST INDICATOR VALVE PLUMBING	DIFFUSER	SD9 /400 12"Ø
on ow Ea	DOWN DISTILLED WATER EACH	PRESS PRV PSI	PRESSURE PRESSURE REDUCING VALVE POUNDS PER SQUARE INCH	RG11/500	RG15 /500
eat Elec	ENTERING AIR TEMPERATURE ELECTRICAL	PSIG PWR	POUNDS PER SQUARE INCH GAUGE POWER	RECTANGULAR	<u>6"x6"</u> SQUARE EXHAUST (
EQUIP EWC	EQUIPMENT ELECTRIC WATER COOLER	R R/A	DUCT RISER RETURN AIR	EXHAUST GRILLE	
EWT E/A EXIST	ENTERING WATER TEMPERATURE EXHAUST AIR EXISTING	RCP RD RDO	RADIANT CEILING PANEL ROOF DRAIN ROOF DRAIN OVERFLOW		SLB3 /400 48"x2 1/2"
= =CO	DEGREES FAHRENHEIT FLOOR CLEAN OUT	REC RED	RECESSED REDUCER	TYPE (SEE SCHEDULE)	LSD1 /200
FD FD	FLOOR DRAIN FIRE DAMPER	RH RL/A	RELATIVE HUMIDITY RELIEF AIR		<u>1 /1" / 4' - 0" / 9"/5'</u>
=DV =L =0	FIRE DEPARTMENT VALVE FLOOR FUEL OIL	RM RPM RW	ROOM REVOLUTIONS PER MINUTE RAIN WATER	LSD1/200 1 /1" / 4' - 0" / 9"/5"	6' - 0"
FOV FOR	FUEL OIL VENT FUEL OIL RETURN	SF S/A	SQUARE FOOT SUPPLY AIR		
FOS FPM	FUEL OIL SUPPLY FEET PER MINUTE	SAN SF	SANITARY SQUARE FOOT	HEATING	MECHANICAL EQUIPME
FS FT FTR	FLOOR SINK FOOT/FEET FIN TUBE RADIATION	SD SM SP	SMOKE DAMPER SURFACE MOUNT STANDPIPE	COIL VAV-XX FLOW Htg: 3.7 GPM	СР OP
GAL GC	GALLON GENERAL CONTRACTOR	SP STM	STATIC PRESSURE STEAM	BOTTOM OF EQUIPMENT	NOT NOT
GPM GW	GALLONS PER MINUTE GREASE WASTE	T TD	THERMOSTAT TRENCH DRAIN	ELEVATION	10' - 0"
hb hp htg	HOSE BIB HORSE POWER HEATING	TDR TEMP TYP	TEMPERATURE DROP TEMPERATURE TYPICAL	EXISTING EQUIPMENT	(E)VAV-XX
HTG HTR HYD	HEATING HEATER HYDRANT	UG VAC	UNDERGROUND VACUUM	EXISTING RELOCATED	
ID IN	INDIRECT INCH	V VAV	VENT VARIABLE AIR VOLUME	EQUIPMENT	G
INV LB	INVERT POUND POUNDS BED HOUD	VENT VTR	VENTILATION VENT THROUGH ROOF	EQUIPMENT BY OTHERS (REFER TO OTHER DISCIPLINE	VAV-XX
lb/hr lat lp	POUNDS PER HOUR LEAVING AIR TEMPERATURE LOW PRESSURE	W WB WCO	WASTE WET BULB WALL CLEAN OUT	FOR ADDITIONAL INFORMATION)	
LPG	LIQUEFIED PETROLEUM GAS	WH	WALL CLEAN OUT		
	HVAC SYN	IBOLS			DATA DEVICE TAGS
	DAMPER TAG	<u>s</u>		CARBON DIOXIDE SENSO CARBON MONOXIDE SENSO	
		- B	MANUAL BALANCING DAMPER	NITROGEN DIOXIDE SENSO	
S			BACKDRAFT DAMPER	HUMIDITY SENSO	
			COMBINATION FIRE/SMOKE	HUMIDISTA	
мотс			COMBINATION FIRE/SMOKE DAMPER		

YMBOLS	PIPING SYMBOLS	
L T SIZE TAG (WIDTH x HEIGHT)		
SIZE TAG (WIDTH / HEIGHT)	CHWR     CHILLED WATER RETURN     CHILLED WATER SUPPLY	
	CD-CD-CONDENSATE DRAINAGE	
SIZE TAG (DIAMETER)		
CT TAG		
DEMOLISHED	GEOTHERMAL WATER RETURN GEOTHERMAL WATER SUPPLY GEOTHERMAL WATER SUPPLY	
LOW PRESSURE	HWR HEATING WATER RETURN	
MEDIUM PRESSURE		
OUTSIDE AIR	NG-NG-NATURAL GAS	
	PG-PG-PG-PROPANE GAS	
3		
X .	STMSTEAM CDRCONDENSATE RETURN	
	CWV COMBINATION WASTE & VENT	
	CA-CA-COMPRESSED AIR	
UST AIR	DCW DOMESTIC COLD WATER	
IST AIR		
FLUE	ROREVERSE OSMOSIS WATER	
AIR		
R SUPPLY/OUTSIDE AIR DUCT RISE	HOT WATER RECIRCULATION	
Y/OUTSIDE AIR DUCT RISE	- $        -$	
R RETURN/TRANSFER AIR DUCT RISE	GREASE WASTE	
RN/TRANSFER AIR DUCT RISE	IW INDIRECT WASTE	
R EXHAUST/RELIEF AIR DUCT RISE	OWOIL WASTE	
	PD-PD-PD-PUMP DISCHARGE	
JST/RELIEF AIR DUCT RISE		
RS SYMBOLS AND TAGS		
CFM NECK SIZE		
THROW-150FPM/ 100FPM/ 50FPM	ROOF DRAIN	
THROW PATTERN MAX NC RATING	RDOROOF DRAIN OVERFLOW	
CFM		
RETURN GRILLE		
RG11/900	PIPE TEE 4" REDUCING 45 DEGREE TEE	
ARE <u>24"x12"</u> RECTANGULAR AUST GRILLE RETURN GRILLE	45 DEGREE TEE	
UST GRILLE	PIPE ACCESSORY TAGS	
LINEAR DIFFUSER TAG	2" DOM. WM 2" M-CNTRL	
CFM NUMBER OF SLOTS / SLOT WIDTH /	DOMESTIC WATER METER MOTORIZED CONTROL VALVE	
ACTIVE SLOT LENGTH (PLENUM LENG	GTH) 2" BALANCING BALANCING VALVE 2" 3-WAY CNTRL 3 WAY MOTORIZED CONTROL VALVE	
SECTION TOTAL TRACK LENGTH	2" PRV 	
► -	2" CHECK CHECK VALVE 2" CHECK VALVE 2" CHECK VALVE	
LSD1/200 1 /1" / 4' - 0" / 9"/5"	2" TMV2" BUTTERFLY	
UIPMENT TAGS	3-WAY MIXING VALVE BUTTERFLY VALVE	
OPERATING WEIGHT	DRAIN TAGS	
	DRAIN SIZE	
RTU-XX 4.0 ton	FLOOR DRAIN G- 4"FD-1 - TYPE (SEE SCHEDULE) - 4" AD-6 AREA DRAIN	
ROOFTOP UN	FLOOR DRAIN 4" FD-3P - "P" - INDICATES PRIMER CONNECTION 4" DD-29 - (*) DECK DRAIN	
NOMINAL COOLING CAPACITY	FLOOR SINK 4" RD-12 FLOW CONTROL	
FUEL INPUT 115000 Btu/h	HUB DRAIN • 4" FD-13 8 WFU	
GAS PIPE FLOW — 115 CFH		
	ROOF AREA 6 <sup>o</sup> RD-1 COMBINATION SERVED BY DRAIN + 4000 SF DRAINS	
	PLUMBING FIXTURE TAGS	
GS SYMBOL EQUIPMENT ID	TYPE (SEE SCHEDULE)	
RTU-XX TEMPERATURE & HUMIDITY SENS		
VAV-XX TEMPERATURE SENSOR	WATER CLOSET - L-1 WALL HUNG - ADA WC-1A WC-1 1 WFU	
THERMOSTAT	PIPE ACCESORY	
MANUAL SWITCH	TAG	
SENSOR	4" WCO	<u>* NOTE *</u> THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USI
		THIS SET OF DRAWINGS.

### MECHANICAL SHEET INDEX

M000	MECHANICAL TITLE SHEET					
M001	MECHANICAL GENERAL NOTES					
M011	LEVEL 1 THERMAL ZONE PLAN					
MD101	LEVEL 1 HVAC DEMO PLAN					
MD111	LEVEL 1 MECHANICAL PIPING DEMO PLAN					
M101	LEVEL 1 HVAC PLAN					
M101A	LEVEL 1 HVAC PLAN ALTERNATE					
M111	LEVEL 1 MECHANICAL PIPING PLAN					
M111A	LEVEL 1 MECHANICAL PIPING ALTERNATE					
M501	MECHANICAL DETAILS					
M601	MECHANICAL SCHEDULES					
P000	PLUMBING TITLE SHEET					
PD100	BASEMENT LEVEL PLUMBING DEMO PLAN					
PD101	LEVEL 1 PLUMBING DEMO PLAN					
P100	BASEMENT LEVEL PLUMBING PLAN					
P101	LEVEL 1 PLUMBING PLAN					
P501	PLUMBING DETAILS					
P601	PLUMBING SCHEDULES					
MG101	LEVEL 1 MEDICAL GAS PLAN					
F001	FIRE PROTECTION TITLE SHEET					
FD101	LEVEL 1 FIRE PROTECTION DEMO PLAN					
F101	LEVEL 1 FIRE PROTECTION PLAN					
Grand total: 22						



	FIRE PROTECTION GENERAL NOTES
1.	NO FIRE PROTECTION LINE SHALL BE DESIGNED OR INSTALLED PRIOR TO CLOSE COORDINATION WITH ALL OTHER DISCIPLINES. DUCTWORK, MECHANICAL PIPING AND PLUMBING TAKE SPACE PRECEDENCE OVER FIRE PROTECTION REMOVAL AND REINSTALLATION AT THE FIRE PROTECTION CONTRACTORS EXPENSE.
2.	ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING SURROUNDING AREA.
3.	COORDINATE EXACT LOCATION OF PIPING WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUITS, DUCTWORK, MECHANICAL AND PLUMBING PIPING, AND ALL OTHER TRADES AND ALL EXISTING CONDITIONS.
4.	FIRE SUPPRESSION CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND/OR REROUTE ANY AND ALL FIRE PROTECTION PIPING, VALVING, SUPPORTS OR SYSTEMS, OTHERWISE WITHIN THE FIRE SUPPRESSION DISCIPLINE REGARDLESS OF WHO INSTALLED THEM OR WHEN THEY WERE INSTALLED, IN ORDER TO ACCOMMODATE MECHANICAL, PLUMBING, ELECTRICAL OR OTHER SYSTEMS. COORDINATE WORK WITH MECHANICAL, ELECTRICAL, PLUMBING OR OTHER CONTRACTORS UNTIL SUBSTANTIAL COMPLETION OF PROJECT.
5.	PROVIDE ALTERATIONS TO THE EXISTING FIRE PROTECTION SYSTEM AS REQUIRED TO ACCOMMODATE THE NEW FLOOR PLAN AND NEW CEILING TYPES. THE SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND AS PER REQUIREMENTS OF THE STATE BUILDING CODE, LOCAL FIRE DEPARTMENT, AND ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, NFPA, AND REMOVE AND REPLACE ANY EXISTING ALLIED XL PIPING.
6.	THE BUILDINGS COMPLETE OPERATIONAL FIRE PROTECTION SYSTEMS SHALL REMAIN IN PLACE. THIS CONTRACTOR SHALL REPAIR ANY DAMAGE TO THIS SYSTEM CREATED BY THE REMOVAL OF ANY OTHER MECHANICAL SYSTEMS OR COMPONENTS.
7.	THIS CONTRACTOR SHALL COORDINATE PHASING OF SPRINKLER WORK WITH THE GENERAL CONTRACTOR PRIOR TO STARTING WORK.
8.	REFER TO REFLECTED CEILING PLANS FOR ADDITIONAL INFORMATION REGARDING SPRINKLER HEAD LOCATION AND PIPE, UNLESS NOTED OTHERWISE.
9.	DIVISION 21 CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR PROPER INSTALLATION OF THE FIRE PROTECTION SYSTEMS ALARM DEVICES INVOLVED WITH FIRE SPRINKLER SYSTEM.
10.	ALL SPRINKLER SYSTEM PIPING SHALL BE CONCEALED ABOVE THE SUSPENDED CEILING SYSTEM, UNLESS NOTED OTHERWISE. WRITTEN AUTHORIZATION SHALL BE OBTAINED FROM THE ARCHITECT PRIOR TO EXPOSING ANY PIPING IN ANY ROOM WHICH HAS A SUSPENDED CEILING.
11.	THIS CONTRACTOR SHALL PROVIDE ALL ADDITIONAL SPRINKLER HEADS AS REQUIRED TO ENSURE AN APPROVED FIRE PROTECTION SYSTEM AT NO ADDITIONAL COST TO THE OWNER.
12.	AUXILIARY DRAINS SHALL BE EXPOSED WITH 1" DRAIN VALVES. WHEN 5 OR MORE GALLONS ARE TRAPPED, THIS CONTRACTOR SHALL PROVIDE FIXED PIPING TO AN ADEQUATELY SIZED RECEPTOR WHICH IS CAPABLE OF ACCEPTING THE FULL FLOW OF THE DRAIN. WHEN LESS THAN 5 GALLONS ARE TRAPPED, A HOSE BIB SHALL BE PROVIDED AT THE DRAIN VALVE.
13.	AUXILIARY DRAINS SHALL NOT BE LOCATED ABOVE PLASTER OR GYPSUM BOARD CEILING SYSTEMS. ONLY BY A SPECIFIC WRITTEN INSTRUCTION FROM THE ENGINEER WILL A VARIANCE BE PROVIDED.
14.	SHOW ALL ROOM NUMBERS ON SHOP DRAWING PLANS.
15.	ROUTE SPRINKLER PIPING SUCH THAT IT DOES NOT RUN ABOVE ELECTRICAL PANELS, SWITCHGEAR, OR SIMILAR EQUIPMENT. SPRINKLER MAINS SHALL NOT RUN THROUGH ELECTRICAL OR COMMUNICATION ROOMS. SPRINKLER HEADS IN THESE ROOMS SHALL BE SERVED BY A DEDICATED BRANCH LINE FOR EACH ROOM. BRANCH LINE TO ENTER ROOM ABOVE DOOR.
16.	THIS DRAWING INDICATES A GENERAL PIPING ARRANGEMENT AND SUGGESTED SIZING ONLY. THIS CONTRACTOR SHALL DETERMINE THE ACTUAL PIPE SIZING REQUIRED AND COORDINATE WORK WITH ALL OTHER TRADES TO AVOID CONFLICTS.

- 17. THIS CONTRACTOR SHALL PREPARE HYDRAULIC CALCULATIONS BASED UPON THE CONFIGURATION OF THE ACTUAL SYSTEM DESIGN AS SHOWN ON THIS CONTRACTOR'S SHOP DRAWINGS.
- 18. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING FIRE PUMP DATA FOR HYDRAULIC CALCULATIONS.

	PLUMBING GENERAL NOTES							
1.	ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING AREAS ON FLOORS BELOW.							
2.	PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND							

COORDINATE WITH ALL OTHER TRADES. 3. NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S, AND MCC'S.

4. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.

5. EXISTING PIPING AND ROUTING SHOWN, INCLUDING ALL BELOW FLOOR DECK PIPING IS APPROXIMATE. IT IS UP TO THE CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND SIZE OF ALL PIPING.

6. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS, DIMENSIONS AND OTHER REQUIREMENTS. 7. CONTRACTOR TO VERIFY CONNECTION SIDE OF ADA FIXTURES AND ADJUST ACCORDINGLY. INSTALL

FLUSH VALVES HANDLES ON WIDE SIDE OF ALL FIXTURES. 8. INSTALL ALL DOMESTIC WATER LINES BELOW DUCTWORK.

9. INSTALL A 24" X 24" ACCESS DOOR BELOW ALL ISOLATION VALVES, BALANCING VALVES AND WATER HAMMER ARRESTORS WHERE MOUNTED ABOVE HARD CEILINGS.

10. MOUNT ALL ISOLATION VALVES, CONTROL VALVES, BALANCING VALVES, ETC. NEAR CEILING HEIGHT FOR ACCESSIBILITY. 11. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL AND PROVIDE SLEEVES AS

NECESSARY. 12. COORDINATE EXACT LOCATION OF PLUMBING WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED

CEILING, CABLE TRAY, DUCTWORK, MECHANICAL PIPING, MEDICAL GASES, FIRE PROTECTION AND OTHER TRADES, TYPICAL.

13. COORDINATE THE LOCATION OF THE FLOOR DRAIN, SHOWER DRAIN, OR FLOOR SINK WITH ARCHITECTURAL AND STRUCTURAL, TYPICAL. 14. ACCESS DOORS SHALL BE PROVIDED TO ALL WATER HAMMER ARRESTORS IN WALLS OR ABOVE

CEILINGS. 15. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES OF WASTE, VENT AND DOMESTIC WATER

TO/FROM SINGLE FIXTURE. 16. LOCATE CIRCUIT SETTERS, VALVES, WATER HAMMER ARRESTORS, ETC. IN ACCESSIBLE LOCATIONS. PROVIDE 24" X 24" ACCESS PANEL WHERE ITEM IS LOCATED ABOVE A HARD CEILING. PROVIDE APPROPRIATELY SIZED ACCESS DOORS TO ANY OF THESE ITEMS INSTALLED IN A WALL. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.

17. ALL PIPE SIZES SHALL REMAIN THE SAME SIZE AS SHOWN IN THE DIRECTION OF FLOW, UNTIL SHOWN OTHERWISE.

18. INSTALL CLEANOUTS IN DRAIN PIPING AS INDICATED, AND WHERE NOT INDICATED, ACCORDING TO THE ADOPTED PLUMBING CODE.

MECHANICAL GENERAL NOTES

1. COORDINATE EXACT PLACEMENT OF DIFFUSERS, GRILLES AND REGISTERS WITH ARCHITECTURAL REFLECTED CEILING PLAN, TYPICAL.

2. SEE DETAIL FOR DIFFUSER CONNECTIONS TO DUCTWORK, TYPICAL.

- 3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK INLET SIZE OF THE DIFFUSERS, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE, TYPICAL.
- 4. COORDINATE EXACT MOUNTING LOCATION OF ALL THERMOSTATS WITH LATEST REVISION OF ARCHITECTURAL ELEVATION AND FURNISHINGS PLANS, TYPICAL.
- 5. THE MECHANICAL CONTRACTOR SHALL PROVIDE FIRE, SMOKE OR COMBINATION FIRE/SMOKE DAMPERS AT ALL LOCATIONS SHOWN ON THE CONTRACT DOCUMENTS AND AS REQUIRED TO MEET THE INTEGRITY OF ALL SMOKE AND FIRE PARTITIONS. THE CONTRACTOR SHALL REFER TO THE LATEST ARCHITECTURAL LIFE SAFETY PLANS FOR ALL FIRE AND SMOKE PARTITION LOCATIONS. DAMPERS ARE TO BE PROVIDED WITH SHUTOFF/TEST SWITCH AT EACH LOCATION.
- 6. PROVIDE AND INSTALL TURNING VANES IN ALL SQUARE LOW PRESSURE DUCTWORK AT ELBOWS OR TEES, TYPICAL.
- 7. INSTALL ALL TERMINAL BOXES IN EASILY ACCESSIBLE AND SERVICEABLE LOCATIONS, MEETING ALL MANUFACTURERS REQUIRED CLEARANCES ON EACH SIDE, SEE DETAILS, TYPICAL.
- 8. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. REFER TO MECHANICAL SPECIFICATIONS FOR EXTENT OF DUCT INSULATION AND LINER AND ADJUST SHEET METAL DIMENSION.
- 9. PROVIDE AND INSTALL REMOTE DAMPER OPERATORS FOR ALL DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING, SEE MECHANICAL SPECIFICATIONS FOR EQUIPMENT REQUIREMENTS, TYPICAL.
- 10. PROVIDE AND INSTALL HIGH EFFICIENCY TAKE-OFF FITTINGS AND BALANCING DAMPER AT ALL BRANCH CONNECTIONS TO LOW PRESSURE DUCTWORK. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.
- 11. PROVIDE AND INSTALL HIGH EFFICIENCY OR CONICAL TAKE-OFFS AT ALL BRANCH CONNECTIONS TO MEDIUM PRESSURE DUCTWORK.
- 12. WHERE DUCTWORK CROSSES, SUPPLY DUCTWORK IS USUALLY BELOW RETURN AND EXHAUST DUCT. RETURN DUCTWORK IS USUALLY BELOW EXHAUST DUCTS.
- 13. AT LOCATIONS WHERE DIFFUSERS OR GRILLES ARE UNDER DUCTWORK, CONTRACTOR TO FABRICATE TRANSITION BOOT FROM FLEX CONNECTION TO DIFFUSER OR GRILLE WITH BALANCING DAMPER, TYPICAL.
- 14. THE MECHANICAL CONTRACTOR SHALL PROVIDE CEILING MOUNTED ACCESS DOORS FOR ALL FIRE, SMOKE AND COMBINATION FIRE/SMOKE DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING. FIELD VERIFY EXACT INSTALLATION LOCATIONS PRIOR TO COMMENCING WORK AND COORDINATE INSTALLATIONS WITH LATEST ARCHITECTURAL REFLECTED CEILING PLANS.
- 15. ALL VAV BOXES TO HAVE REHEAT COILS, EXCEPT AS NOTED. PROVIDE EQUIPMENT TAG TO MATCH CHEDULE. PROVIDE A MINIMUM OF TWO DUCT DIAMETERS OF STRAIGHT ROUND DUCT TO INLET OF VAV BOX. BOX SHALL BE HARD CONNECTED (CONICAL) TO MEDIUM PRESSURE DUCT, TYPICAL. 16. PROVIDE ACCESS DOORS TO ACCESS VAV BOX CONTROLS ABOVE HARD CEILINGS. PROVIDE
- MINIMUM 24" X 24". 17. FLEX DUCT IS REQUIRED FOR ALL DIFFUSERS AND GRILLES INSTALLED IN LAY-IN CEILINGS. FOR DIFFUSERS AND GRILLES IN HARD LID CEILINGS, THE DUCTWORK SHALL BE EXTENDED ALL THE WAY
- TO THE DIFFUSER AND SHALL BE CONNECTED WITH A HARD CONNECTION OR A FLEX DUCT CONNECTION WITH A MUD RING AND LAY-IN DIFFUSER AS SHOWN ON PLANS.
- 18. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
- 19. PROVIDE ACCESS TO ALL TEMPERATURE CONTROLS ABOVE CEILING. LOCATE IN ACCESSIBLE LOCATION. WHERE THERE ARE HARD CEILINGS THE CONTRACTOR SHALL PROVIDE 24" X 24" ACCESS DOOR. 20. SUPPLY AND RETURN PIPING TO COILS ARE THE SAME SIZE.
- 21. CONTRACTOR SHALL LOCATE THERMOSTATS AND TEMPERATURE SENSORS AT 5'-0" AFF, A MINIMUM OF 8" FROM LIGHT SWITCH, UNLESS OTHERWISE NOTED ON THE ARCHITECT'S ELEVATIONS. COORDINATE EXACT LOCATIONS WITH ARCHITECT.
- 22. REFER TO MECHANICAL PIPING OR ZONING DRAWINGS FOR THERMOSTAT AND TEMPERATURE SENSOR LOCATIONS.
- 23. CONDENSATE DRAINS SHALL BE SUPPLIED FOR ALL COOLING EQUIPMENT. CONTRACTOR SHALL ENSURE PROPER INSTALLATION AND DRAINAGE AS REQUIRED BY FEDERAL, STATE, AND LOCAL CODES. CONDENSATE PIPINE SHALL BE TYPE "L" COPPER UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS.
- 24. PROVIDE A 4" HOUSEKEEPING PAD FOR EACH PIECE OF MECHANICAL EQUPMENT THAT IS FLOOR MOUNTED. COORDINATE SIZES WITH MECHANICAL EQUIPMENT SELECTED.
- 25. ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK SHALL BE RATED FOR PRESSURE CLASS OF 2" W.G. UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS.
- 26. THIS CONTRACTOR SHALL BE REQUIRED TO REPLACE FILTERS ON HVAC EQUIPMENT AFTER ALL DUST PRODUCING CONSTRUCTION HAS BEEN COMPLETED AND PRIOR TO THE FINAL PUNCH.

## MECHANICAL PIPING GENERAL NOTES

- 1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PIPING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
- 2. UNLESS OTHERWISE NOTED: ALL MECHANICAL PIPING IS OVERHEAD TO RUN ABOVE DUCTWORK AND TIGHT TO UNDERSIDE OF STRUCTURE.
- 3. INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
- 4. ALL VALVES SHALL BE INSTALLED SO THAT VALVES REMAINS IN SERVICE WHEN EQUIPMENT OR PIPING ON EQUIPMENT SIDE OF VALVE IS REMOVED.
- 5. PROVIDE AIR VENT AT HIGH POINT OF EACH DROP IN THE HEATING AND CHILLED WATER PIPING SYSTEM.
- 6. ALL VALVES SHALL BE ADJUSTED FOR SMOOTH AND EASY OPERATION AND TAGGED.

3

- 7. PROVIDE ISOLATION VALVES AT EACH EXIST/ENTRANCE INTO SHAFT WHETHER OR NOT SHOWN.
- 8. COORDINATE LOCATION OF THERMOSTAT WITH ARCHITECTURAL FURNISHING PLANS, MOUNT THERMOSTAT AT HEIGHT AS SPECIFIED ON ARCHITECTURAL PLANS OR SPECIFICATIONS.

2

# MEDICAL GAS GENERAL NOTES

- 1. MEDICAL GAS PIPING IS TO BE RUN ABOVE THE CEILING, UNLESS NOTED OTHERWISE.
- 2. MEDICAL GAS PIPING IS SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND
- COORDINATE WITH ALL OTHER TRADES.
- 3. MOUNT ALL SERVICE VALVES NEAR CEILING HEIGHT FOR ACCESSIBILITY.

4. PROVIDE FRANGIBLE LOCKS FOR ALL SERVICE VALVES.

4

PROJECT GENERAL NOTES	
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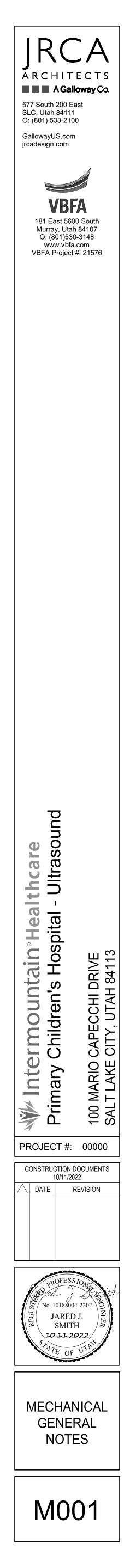
1. THE PROJECT GENERAL NOTES APPLY TO ALL DISCIPLINES.

CONDITIONS THAT MAY AFFECT THE DESIGN.

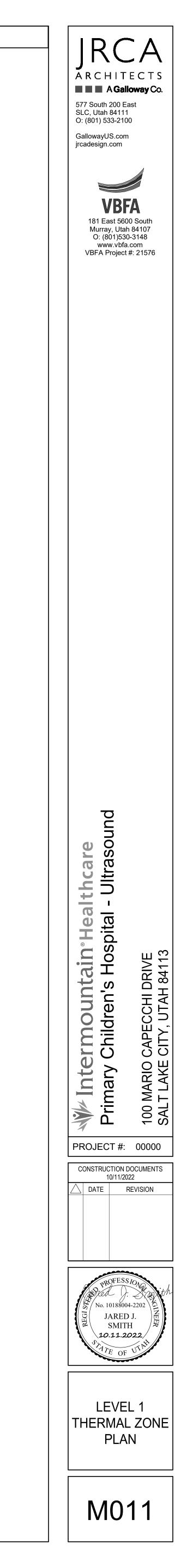
2. REMOVE ALL UNUSED PIPING, DUCTWORK, EQUIPMENT, AND ACCESSORIES.

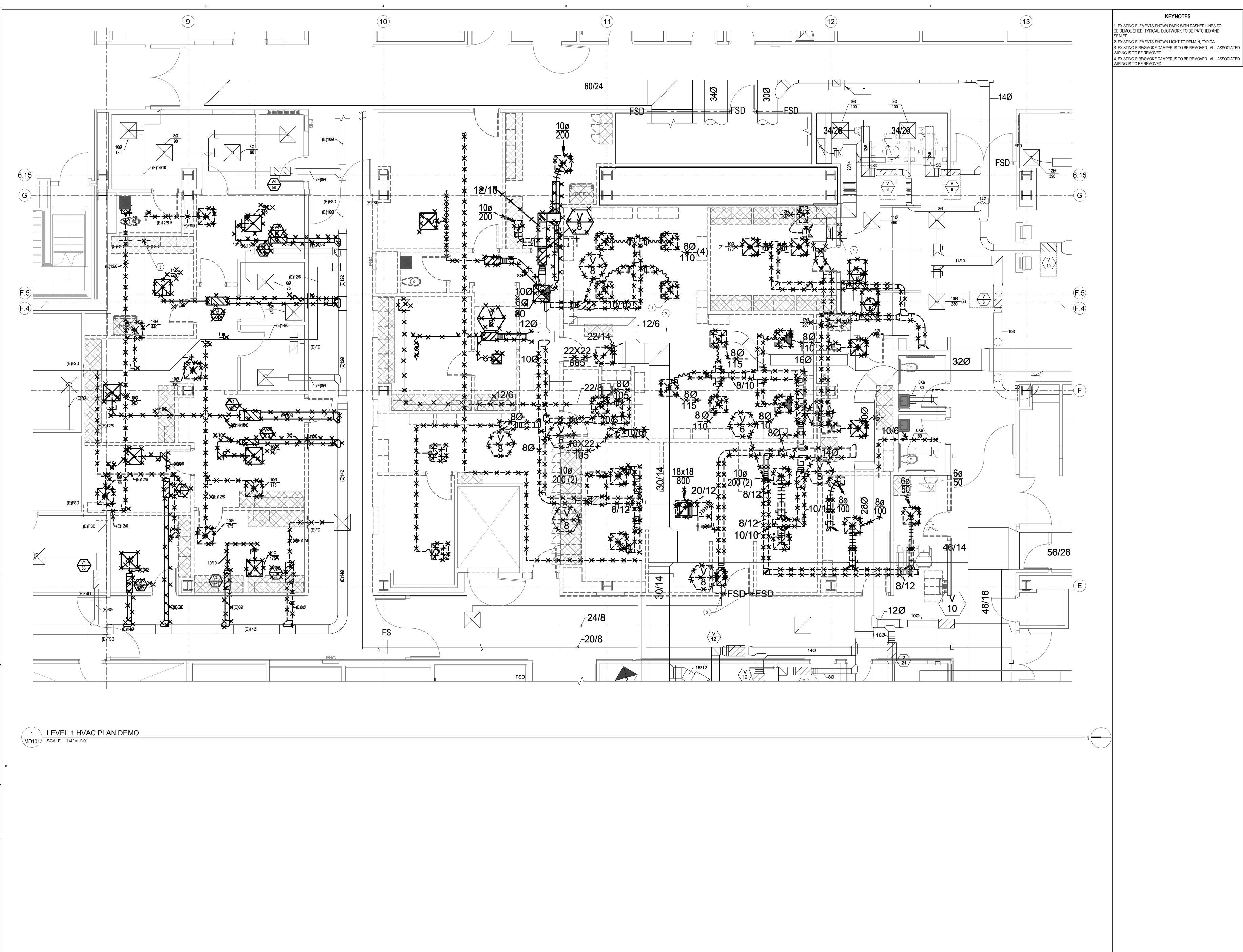
- 3. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS FOR PLUMBING AND MECHANICAL SYSTEMS WITHIN THE SPACE AND WITHIN CLOSE PROXIMITY TO THE SPACE. THE CONTRACTOR WILL FIELD VERIFY AS MUCH AS IS REASONABLE BEFORE THE FINAL BID. AFTER THE FINAL BID THE CONTRACTOR WILL NOTIFY THE OWNER, ARCHITECT, AND MECHANICAL DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF EXISTING
- 4. WHERE EXISTING FLOOR DRAINS OCCUR WITH THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK. UNSEAL DRAINS AT COMPLETION OF CONSTRUCTION.
- COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, EQUIPMENT, CEILINGS, ARCHITECTURAL COMPONENTS, AND ANYTHING ELSE PERTAINING TO THE PROJECT TO PREVENT CONFLICTS.
- 6. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AND THOSE OF OTHER DISCIPLINES, INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.
- FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATION BUILDING CODE, INTERNATIONAL MECHANICAL CODE, AND INTERNATIONAL PLUMBING CODE.
- 8. LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING.
- 9. ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.
- 10. COORDINATE INSTALLATION OF DUCTWORK, PIPING AND MECHANICAL EQUIPMENT WITH NEC CLEARANCES INCLUDING THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. NO PIPING OR DUCTWORK TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S AND MCC'S. PROVIDE PANS IF REQUIRED UNDER PIPING.
- 11. TRANSITION PIPING AND DUCTWORK SIZES TO MATCH THE SIZE OF EQUIPMENT CONNECTION.
- 12. REFER TO PLUMBING SERIES DRAWINGS FOR GAS PIPING. 13. ALL PIPE AND DUCT SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL
- ANOTHER SIZE IS SHOWN.
- 14. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.
- 15. MECHANICAL CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROVIDED AND INSTALLED WITH CLEARANCES PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL MAINTAIN PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACCESS, ETC.
- 16. INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS. 17. LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT AS INDICATED ON THE DRAWING, ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD, INCLUDING, BUT NOT LIMITED TO, OFFSETS AND TRANSITIONS. NEW DUCTWORK, PIPING AND EQUIPMENT SHALL BE COORDINATED
- WITH STRUCTURE, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUIT, PLUMBING, MECHANICAL AND FIRE PROTECTION PIPING, MEDICAL GASES, ALL OTHER TRADES AND ALL OTHER EXISTING CONDITIONS TO AVOID INTERFERENCE IN THE FIELD. 18. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP
- WORK IN THIS AREA AND NOTIFY THE OWNER.
- 19. DETAILS REFERENCE ALL SHEETS.

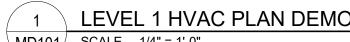
<u>\* NOTE \*</u> ALL OF THE GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET.



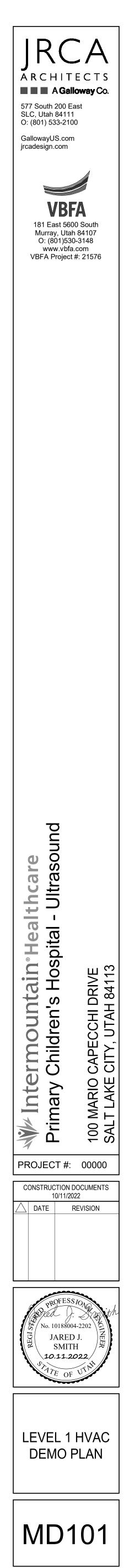


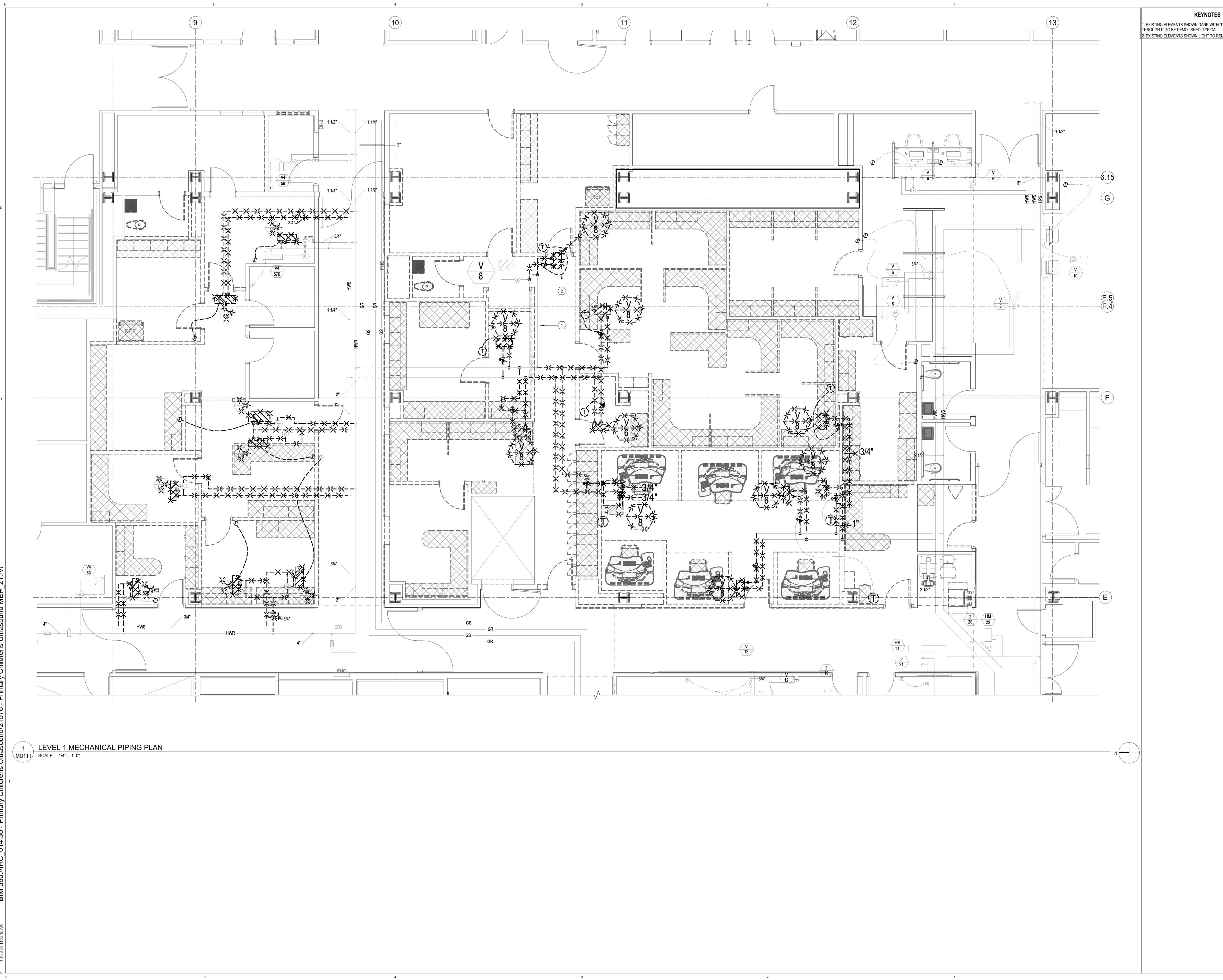


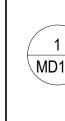




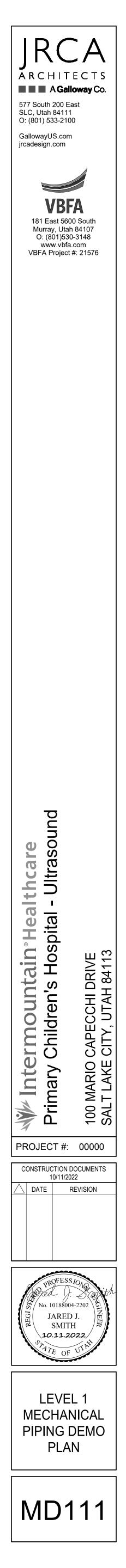
DASHED LINES TO	
BE PATCHED AND	

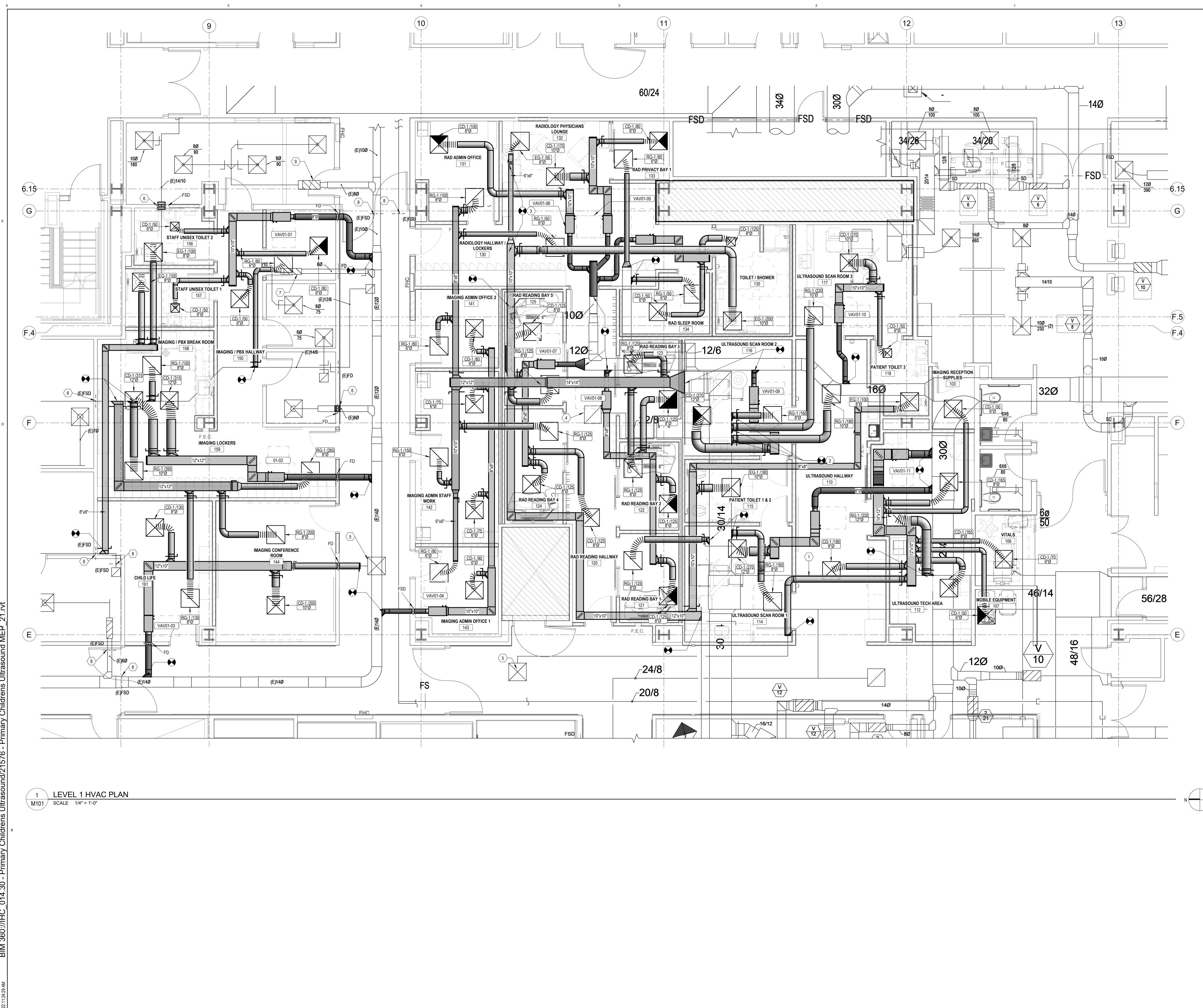






"DASHED LINES"
EMAIN, TYPICAL.





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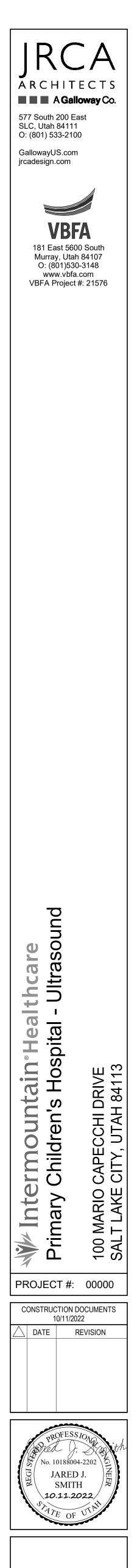


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# **KEYNOTES**

. EXISTING ELEMENTS SHOWN LIGHT, TYPICAL. 2. CONNECT NEW DUCTWORK TO EXISTING AS SHOWN, TYPICAL. 3. INSTALL OFFSETS AS NECESSARY TO ACCOMODATE EXISTING ELEMENTS. 4. BALANCE DIFFUSER TO 125 CFM. 5. EXISTING DIFFUSER IS TO BE REBALANCED TO 200 CFM. 6. PROVIDE AND INSTALL NEW FIRE DAMPER AND INSTALL IN EXISTING DUCT AS SHOWN. 7. EXISTING VAV BOX IS CURRENTLY ON SIEMENS CONTROL SYSTEM. VAV BOX IS TO BE CONVERTED TO THE JOHNSON CONTROL SYSTEM. ALL VAV BOX SENSORS, ACTUATORS AND CONTROL UNITS ARE TO BE REMOVED AND REPLACE WITH JCI COMPONENTS. EXISTING HOT WATER CONROL VAVLE IS TO BE REMOVED AND REPLACED. HOT WATER IS TO BE REBALANCED TO 1 GPM. AIRFLOW PARAMETERS ARE TO BE RESET TO A CONSTANT VOLUME OF 120 CFM. 8. EXISTING COMBINATION FIRE/SMOKE DAMPER CONTAINS PNEUMATIC ACTUATOR. EXISTING PNEUMATIC ACTUATOR IS TO BE REMOVED AND REPLACED WITH DDC BELIMO ACTUATOR. MECHANCIAL CONTRACTOR IS TO PROVIDE AND INSTALL ACTUATOR. TIE TO BUILDING FIRE ALARM SYSTEM. 9. EXISTING VAV BOX IS CURRENTLY ON SIEMENS CONTROL SYSTEM. VAV BOX IS TO BE CONVERTED TO THE JOHNSON CONTROL SYSTEM. ALL VAV BOX SENSORS, ACTUATORS AND CONTROL UNITS ARE TO BE REMOVED AND REPLACE WITH JCI COMPONENTS. EXISTING HOT WATER CONROL VAVLE IS TO BE REMOVED AND REPLACED. HOT WATER IS TO BE REBALANCED TO 1 GPM. AIRFLOW PARAMETERS ARE TO BE RESET TO A CONSTANT VOLUME OF 270 CFM.

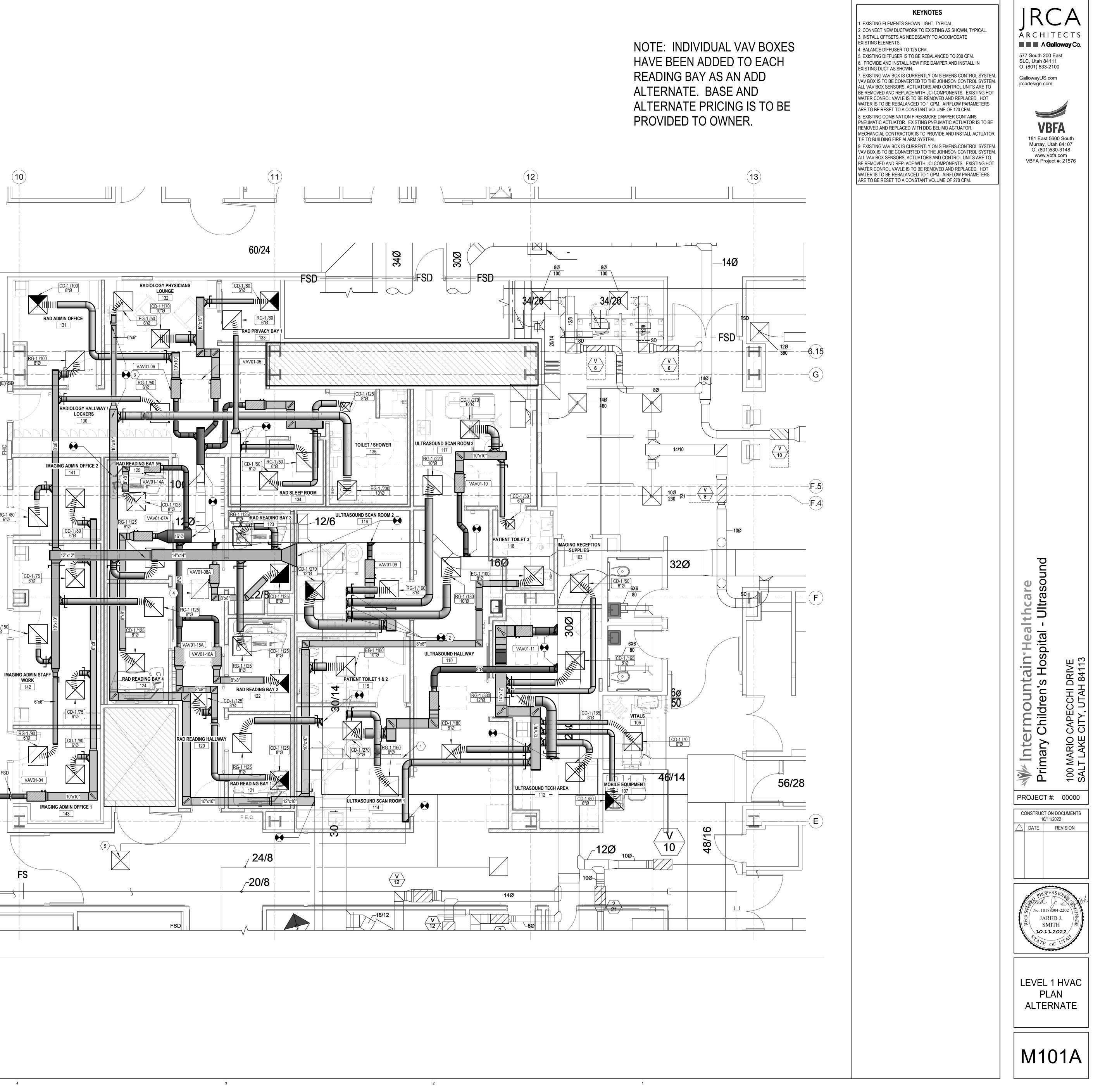


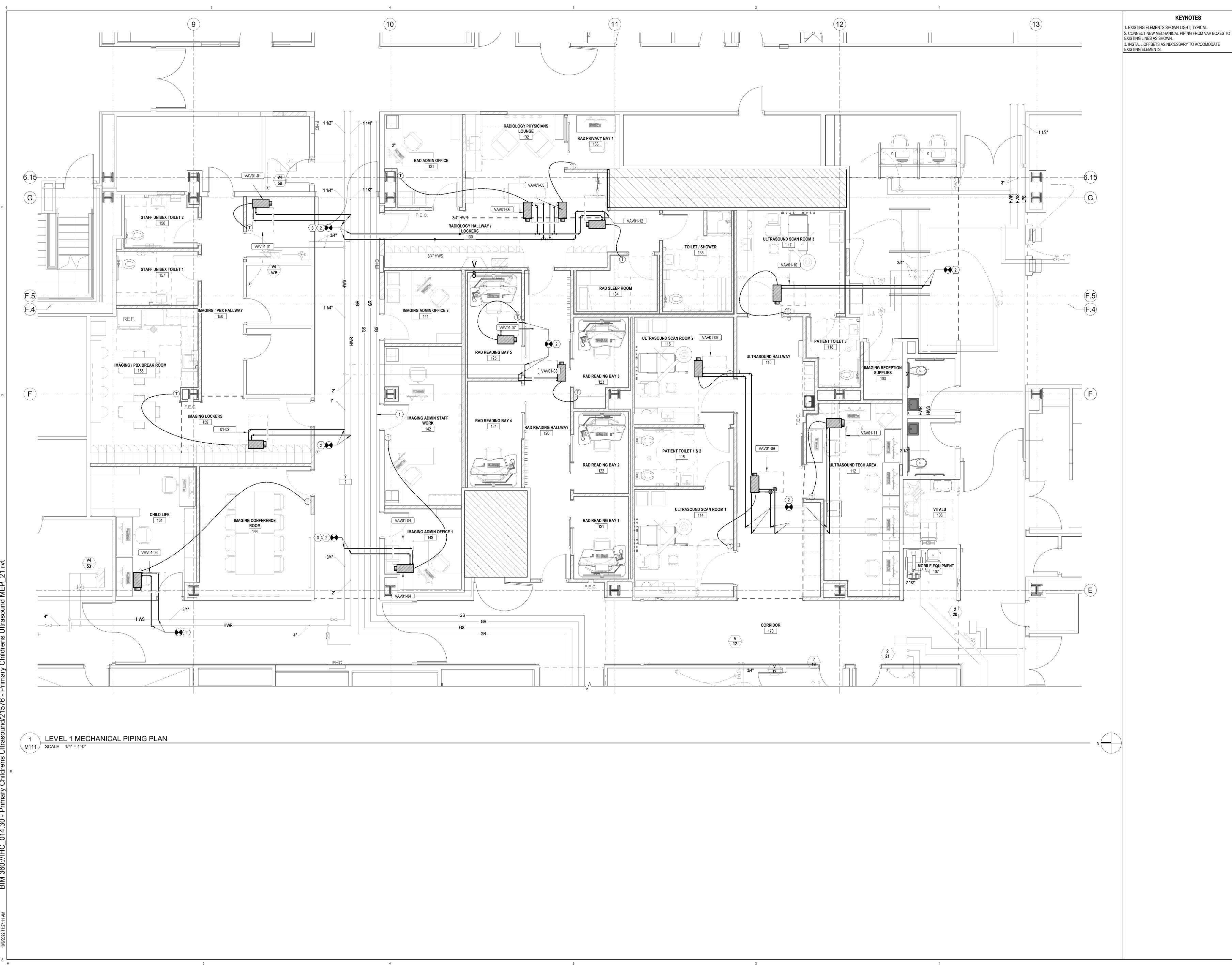


M101

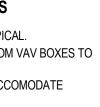
(E)10Ø ~ \_\_\_\_\_/ \_\_\_\_\_\_\_\_\_/ ~(E)14/10 6.15 ∕\_(E)8Ø G VAV01-01 STAFF UNISEX TOILET 2 (**F.4**) IMAGING / PBX BREAK ROOM 158 AGING / PB (HALLWA) 150  $(\mathbf{F})$ MAGING I OCKE 8"x8" (5) IMAGING CONFERENCE ROOM (E)FSD CHILD LIFE - CD-1/200 10"Ø (E)14Ø (E)14Ø (E)FSD 1 LEVEL 1 HVAC PLAN M101A 1/4" = 1'-0"

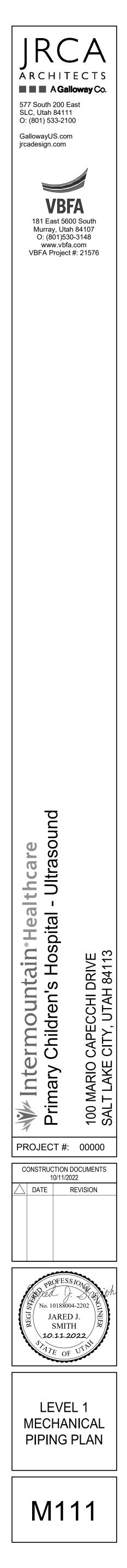
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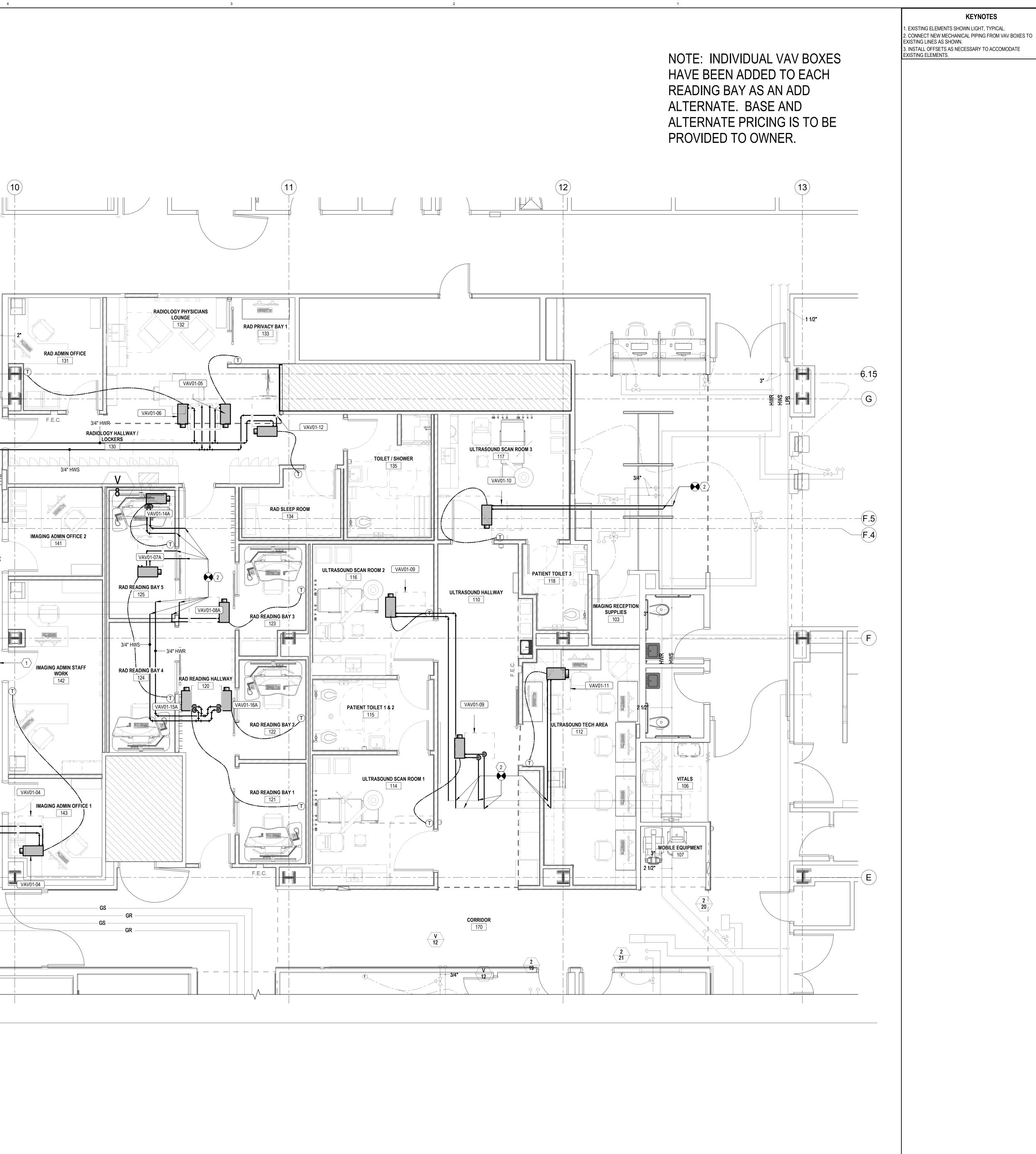
(9) 1 1/2" -~1^1/4" 6.15 VAV01-01 ~1 1/2" 1 1/4" -G STAFF UNISEX TOILET 2 2 - 3/4 **∖57B**∕ 157 (**F**.5) — – — – + <del>fr – –) –</del> – — - &-- &--- <u>-</u> <u>-</u> - -1 1/4" -- \_\_\_\_ - \_\_\_\_ -\_\_\_\_\_ (F 4) GING / PBX HALLWAY 150 REF. SS IMAGING / PBX BREAK ROOM 158 (F)— F.E.C. IMAGING LOCKER CHILD LIFE 161 IMAGING CONFERENCE ROOM 144 2 VAV01-03 3/4" / V4 53 \_\_\_\_\_2 -HWS 1 LEVEL 1 MECHANICAL PIPING PLAN M111A 1/4" = 1'-0"

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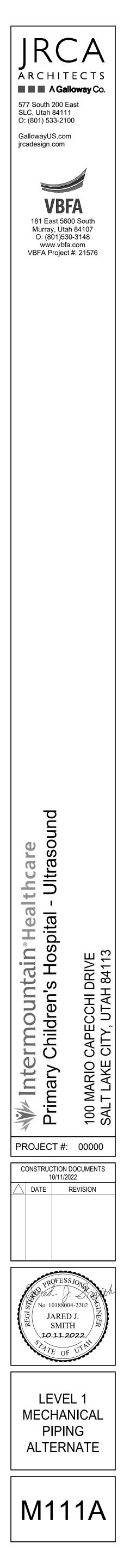
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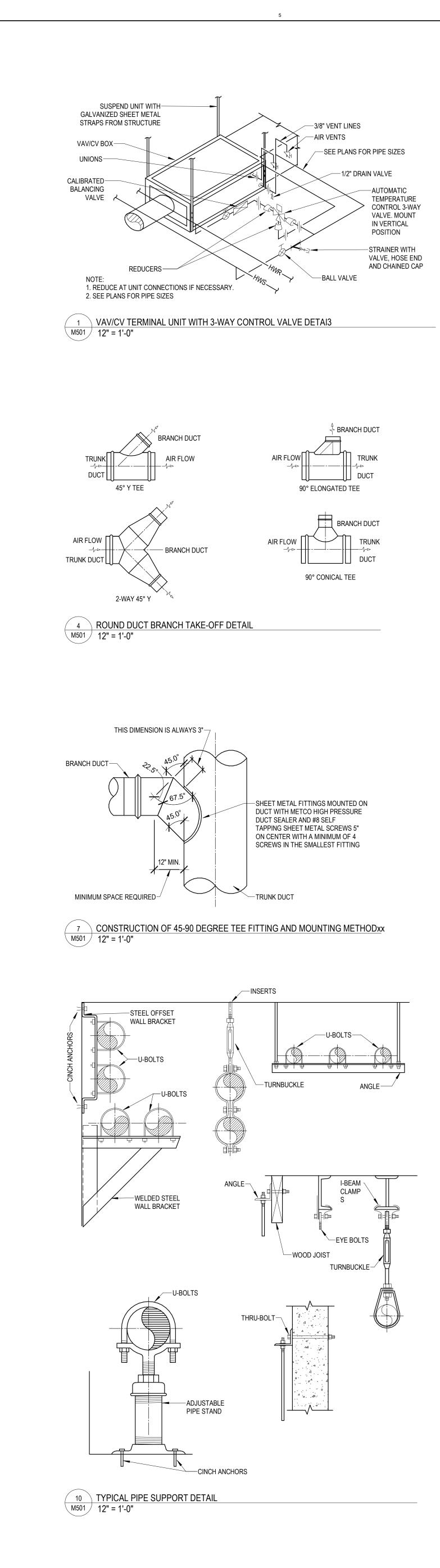
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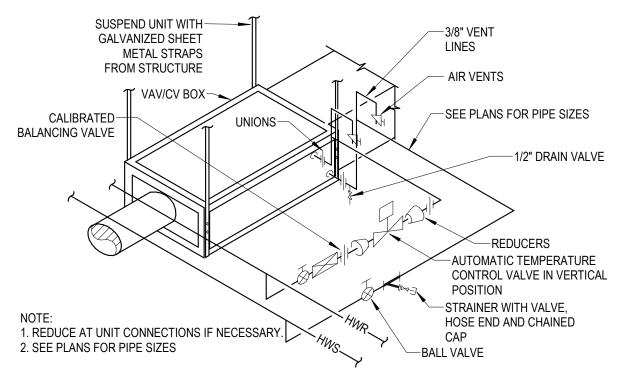
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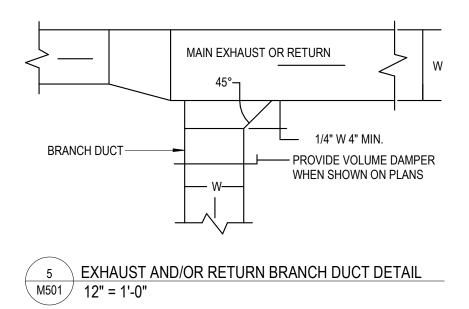


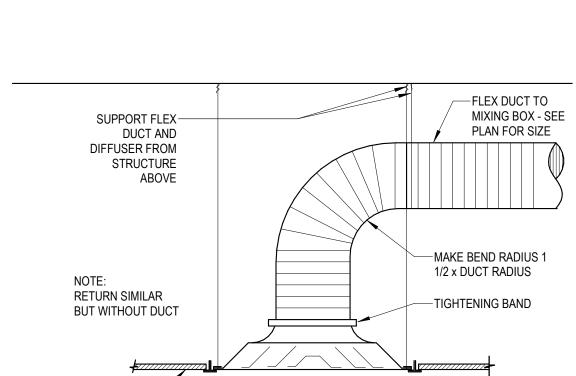


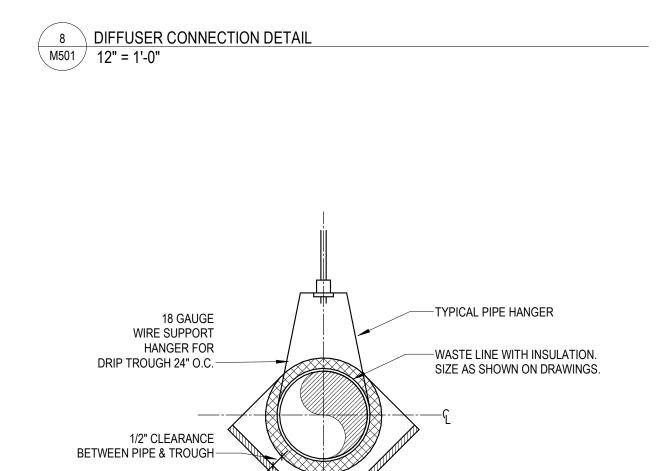
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2

-18 GAUGE GALV.

FABRICATED SHEET

METAL DRIP TROUGH.

11CROSS SECTIONAL DETAIL OF DRIP TROUGHM50112" = 1'-0"

AT END OF TROUGH

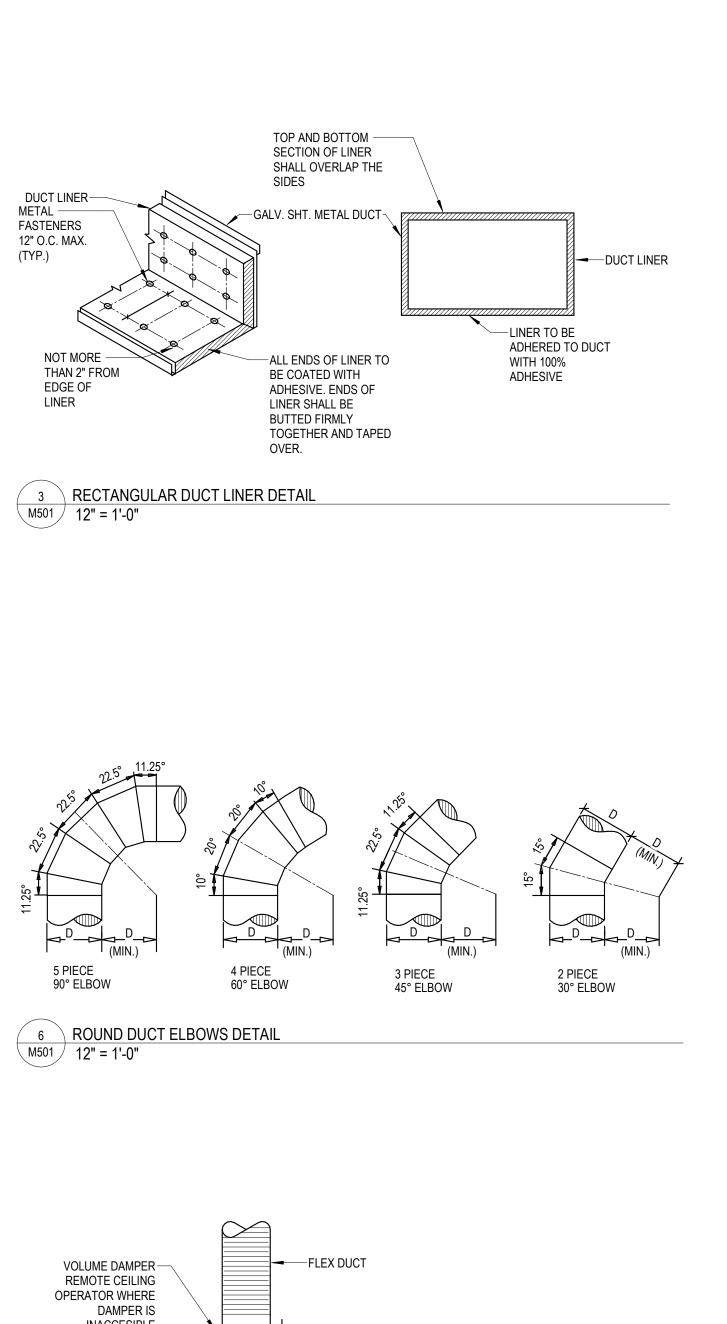
INSTALL DAM WITH 3/4"

EXTEND TO DRAIN OR EXTERIOR.-

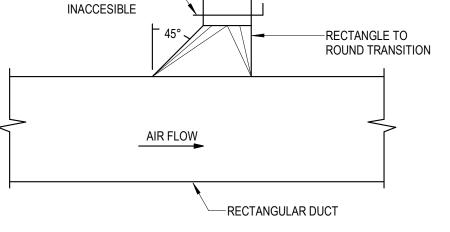
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FEMALE NPT OUTLET.

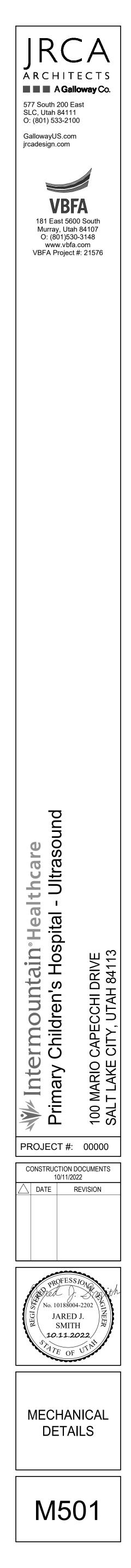
CEILING-



1



9 FLEX DUCT WITH HIGH EFFICIENCY FITTING DETAIL M501 12" = 1'-0"



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VAV BOX SCHEDULE																	
Mechanical Equipment Number	Manufacturer	Inlet Size	Cooling Airflow	Heating Airflow	Min Airflow	Entering Air Temperature	Leaving Air Temperature	S.P. Loss at Max CFM	Flow Rate	Entering Water Temperature	Leaving Water Temperature	Working Fluid	Head Loss Feet	Min. Number of Rows/Fins Per Inch	Valve Type	Branch Diameter	NOTE
01-01	TITUS -ESV-3	0' - 6"	230 CFM	230 CFM	80 CFM	52.0 °F	107.5 °F	0.046	1.0 GPM	180.0 °F	156.5 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-02	TITUS -ESV-3	0' - 8"	630 CFM	420 CFM	145 CFM	55.0 °F	101.5 °F	0.347	1.5 GPM	180.0 °F	156.0 °F	WATER	0.4775	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-03	TITUS -ESV-3	0' - 8"	530 CFM	420 CFM	145 CFM	52.0 °F	99.6 °F	0.257	1.5 GPM	180.0 °F	155.4 °F	WATER	0.4775	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-04	TITUS -ESV-3	0' - 6"	320 CFM	240 CFM	80 CFM	52.0 °F	106.3 °F	0.082	1.0 GPM	180.0 °F	155.9 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-05	TITUS -ESV-3	0' - 6"	100 CFM	100 CFM	80 CFM	52.0 °F	132.5 °F	0.01	1.0 GPM	180.0 °F	165.1 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-06	TITUS -ESV-3	0' - 6"	250 CFM	240 CFM	80 CFM	52.0 °F	106.3 °F	0.05	1.0 GPM	180.0 °F	155.9 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-07	TITUS -ESV-3	0' - 6"	375 CFM	240 CFM	80 CFM	52.0 °F	106.3 °F	0.11	1.0 GPM	180.0 °F	155.9 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-08	TITUS -ESV-3	0' - 6"	375 CFM	240 CFM	80 CFM	52.0 °F	106.3 °F	0.11	1.0 GPM	180.0 °F	155.9 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-09	TITUS -ESV-3	0' - 6"	270 CFM	240 CFM	80 CFM	52.0 °F	106.3 °F	0.058	1.0 GPM	180.0 °F	155.9 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-10	TITUS -ESV-3	0' - 6"	320 CFM	240 CFM	80 CFM	52.0 °F	106.3 °F	0.082	1.0 GPM	180.0 °F	155.9 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-11	TITUS -ESV-3	0' - 10"	880 CFM	660 CFM	230 CFM	55.0 °F	100.6 °F	0.318	2.0 GPM	180.0 °F	152.2 °F	WATER	0.47	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-12	TITUS -ESV-3	0' - 6"	175 CFM	175 CFM	80 CFM	52.0 °F	115.3 °F	0.03	1.0 GPM	180.0 °F	159.6 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-13	TITUS -ESV-3	0' - 6"	270 CFM	240 CFM	80 CFM	52.0 °F	106.3 °F	0.058	1.0 GPM	180.0 °F	155.9 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5

1. MAXIMUM DISCHARGE NC AT BOX DIFFENTIAL PRESSURE BASED ON ARI STANDARD 880-89 2. COIL HEATING CAPACITY BASED ON HEATING MAIXIMUM AIR FLOW (60% OF MAXIMUM COOLING CFM). 3. MINIMUM CFM IS LOWEST CONTROLLABLE CFM SETTING (BASED ON 400 FPM INLET VELOCITY). 4. MAXIMUM STATIC PRSSURE DROP PERMISSABLE ACROSS BOX AND COIL AT MAXIMUM COOLING CFM. 5. PRESSURE INDEPENDENT TYPE BOX.

VAV BOX SCHEDULE ALTERNATE																	
Mechanical Equipment Number	Manufacturer	Inlet Size	Cooling Airflow	Heating Airflow	Min Airflow	Entering Air Temperature	Leaving Air Temperature	S.P. Loss at Max CFM	Flow Rate	Entering Water Temperature	Leaving Water Temperature	Working Fluid	Head Loss Feet	Min. Number of Rows/Fins Per Inch	Valve Type	Branch Diameter	NOTE
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01-02	TITUS -ESV-3	0' - 8"	630 CFM	420 CFM	145 CFM	55.0 °F	101.5 °F	0.347	1.5 GPM	180.0 °F	156.0 °F	WATER	0.4775	2/10	2 Way Valve	3/4"	1,2,3,4,5
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01-06	TITUS -ESV-3	0' - 6"	250 CFM	240 CFM	80 CFM	52.0 °F	106.3 °F	0.05	1.0 GPM	180.0 °F	155.9 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-07A	TITUS -ESV-3	0' - 6"	125 CFM	125 CFM	80 CFM	52.0 °F	125.2 °F	0.015	1.0 GPM	180.0 °F	163.1 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-08A	TITUS -ESV-3	0' - 6"	125 CFM	125 CFM	80 CFM	52.0 °F	125.2 °F	0.015	1.0 GPM	180.0 °F	163.1 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5
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01-14A	TITUS -ESV-3	0' - 6"	125 CFM	125 CFM	80 CFM	52.0 °F	125.2 °F	0.015	1.0 GPM	180.0 °F	163.1 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-15A	TITUS -ESV-3	0' - 6"	250 CFM	240 CFM	80 CFM	52.0 °F	106.3 °F	0.05	1.0 GPM	180.0 °F	155.9 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5
01-16A	TITUS -ESV-3	0' - 6"	125 CFM	125 CFM	80 CFM	52.0 °F	125.2 °F	0.015	1.0 GPM	180.0 °F	163.1 °F	WATER	0.12	2/10	2 Way Valve	3/4"	1,2,3,4,5

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3

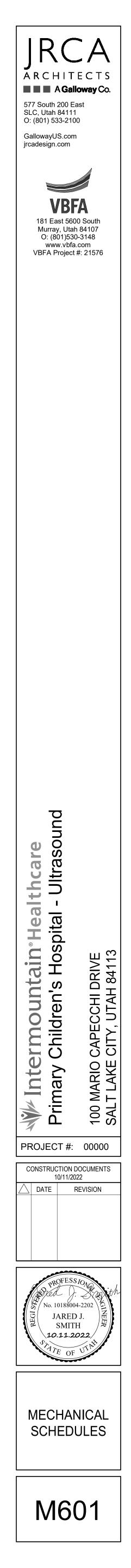
5. PRESSURE INDEPENDENT TYPE BOX.

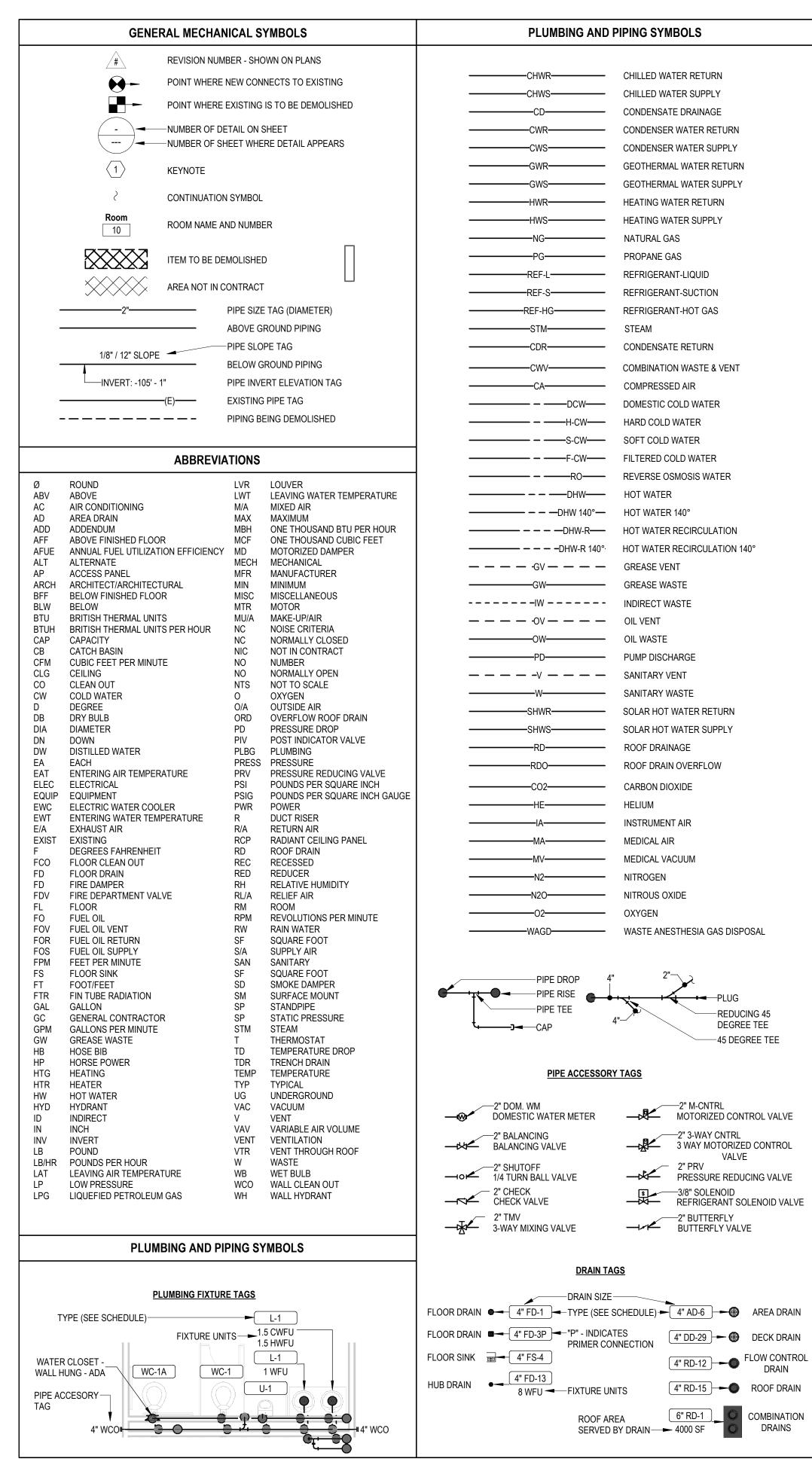
# DIFFUSER, REGISTER, AND GRILLES

2

Diffuser Callout	Manufacturer	Model	Max NC	
CD-1	PRICE	SPD	25	SQUARE PLAQUE FACE CEILING DIFFUSERS: REMOVABLE FACE, FRAME SHALL BE FOR LAY- CEILING TILE SPACE AVAILABLE. HARD LID CEILING TO BE 24"X24" OR 12"X12" AS REQUIRED T
EG-1	PRICE	PDDR	25	PERFORATED GRILLE: FRAME SHALL BE FOR LAY-IN MOUNTING OR SURFACE MOUNT AS RE 12"X12" AS REQUIRED TO FIT CEILING SPACE AVAILABLE. PROVIDE ROUND/RECTANGULAR N
RG-1	PRICE	PDDR	25	PERFORATED GRILLE: FRAME SHALL BE FOR LAY-IN MOUNTING OR SURFACE MOUNT AS RE

Diffuser Description AY-IN MOUNTING OR SURFACE MOUNT AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24"X24" OR 12"X12" AS REQUIRED TO FIT ED TO FIT ED TO FIT CEILING SPACE AVAILABLE WITH LAY-IN PLASTER FRAME. FINISH AS SELECTED BY ARCHITECT. S REQUIRED BY TYPE. LAY-IN FRAMES SHALL BE 24"X24" OR 24"X12" TO FIT CEILING SPACE AVAILABLE. HARD LID CEILING TO BE 24"X24" OR AR NECK SIZE AS INDICATED ON DRAWINGS. FINISH AS SELECTED BY ARCHITECT. PERFORATED GRILLE: FRAME SHALL BE FOR LAY-IN MOUNTING OR SURFACE MOUNT AS REQUIRED BY TYPE. LAY-IN FRAMES SHALL BE 24"X24" OR 24"X12" TO FIT CEILING SPACE AVAILABLE. HARD LID CEILING TO BE 24"X24" OR 12"X12" AS REQUIRED TO FIT CEILING SPACE AVAILABLE. PROVIDE ROUND/RECTANGULAR NECK SIZE AS INDICATED ON DRAWINGS. FINISH AS SELECTED BY ARCHITECT.





		PLUMBING GENERAL NOTES
	1.	ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING AREAS ON FLOORS BELOW.
	2.	PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES.
N /	3.	NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S, AND MCC'S.
RN _Y	4.	CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.
	5.	EXISTING PIPING AND ROUTING SHOWN, INCLUDING ALL BELOW FLOOR DECK PIPING IS APPROXIMATE. IT IS UP TO THE CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND SIZE OF ALL PIPING.
	6.	REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS, DIMENSIONS AND OTHER REQUIREMENTS.
	7.	CONTRACTOR TO VERIFY CONNECTION SIDE OF ADA FIXTURES AND ADJUST ACCORDINGLY. INSTALL FLUSH VALVES HANDLES ON WIDE SIDE OF ALL FIXTURES.
	8.	INSTALL ALL DOMESTIC WATER LINES BELOW DUCTWORK.
	9.	INSTALL A 24" X 24" ACCESS DOOR BELOW ALL ISOLATION VALVES, BALANCING VALVES AND WATER HAMMER ARRESTORS WHERE MOUNTED ABOVE HARD CEILINGS.
Т	10.	MOUNT ALL ISOLATION VALVES, CONTROL VALVES, BALANCING VALVES, ETC. NEAR CEILING HEIGHT FOR ACCESSIBILITY.
	11.	COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL AND PROVIDE SLEEVES AS

NECESSARY.

4

- 2. COORDINATE EXACT LOCATION OF PLUMBING WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING, CABLE TRAY, DUCTWORK, MECHANICAL PIPING, MEDICAL GASES, FIRE PROTECTION AND OTHER TRADES, TYPICAL. 13. COORDINATE THE LOCATION OF THE FLOOR DRAIN, SHOWER DRAIN, OR FLOOR SINK WITH
- ARCHITECTURAL AND STRUCTURAL, TYPICAL. 4. ACCESS DOORS SHALL BE PROVIDED TO ALL WATER HAMMER ARRESTORS IN WALLS OR ABOVE
- CEILINGS. . SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES OF WASTE, VENT AND DOMESTIC WATER
- TO/FROM SINGLE FIXTURE. 5. LOCATE CIRCUIT SETTERS, VALVES, WATER HAMMER ARRESTORS, ETC. IN ACCESSIBLE LOCATIONS. 14. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN PROVIDE 24" X 24" ACCESS PANEL WHERE ITEM IS LOCATED ABOVE A HARD CEILING. PROVIDE APPROPRIATELY SIZED ACCESS DOORS TO ANY OF THESE ITEMS INSTALLED IN A WALL. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
- . ALL PIPE SIZES SHALL REMAIN THE SAME SIZE AS SHOWN IN THE DIRECTION OF FLOW, UNTIL SHOWN OTHERWISE.
- INSTALL CLEANOUTS IN DRAIN PIPING AS INDICATED, AND WHERE NOT INDICATED, ACCORDING TO 16. INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS. THE ADOPTED PLUMBING CODE.

### PROJECT GENERAL NOTES

- 1.
   THE PROJECT GENERAL NOTES APPLY TO ALL DISCIPLINES.
  - 2. REMOVE ALL UNUSED PIPING, DUCTWORK, EQUIPMENT, AND ACCESSORIES.
  - 3. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS FOR PLUMBING AND MECHANICAL SYSTEMS WITHIN THE SPACE AND WITHIN CLOSE PROXIMITY TO THE SPACE. THE CONTRACTOR WILL FIELD VERIFY AS MUCH AS IS REASONABLE BEFORE THE FINAL BID. AFTER THE FINAL BID THE CONTRACTOR WILL NOTIFY THE OWNER. ARCHITECT, AND MECHANICAL DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF EXISTING CONDITIONS THAT MAY AFFECT THE DESIGN.
  - WHERE EXISTING FLOOR DRAINS OCCUR WITH THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK. UNSEAL DRAINS AT COMPLETION OF CONSTRUCTION.
  - 5. COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, EQUIPMENT, CEILINGS, ARCHITECTURAL COMPONENTS, AND ANYTHING ELSE PERTAINING TO THE PROJECT TO PREVENT CONFLICTS.
- ADJUST ACCORDINGLY. INSTALL 6. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AND THOSE OF OTHER DISCIPLINES, INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.
- 3ALANCING VALVES AND WATER 7. FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATION BUILDING CODE, INTERNATIONAL MECHANICAL CODE, AND INTERNATIONAL PLUMBING CODE.
  - 8. LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING.
  - 9. ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.
  - 10. COORDINATE INSTALLATION OF DUCTWORK, PIPING AND MECHANICAL EQUIPMENT WITH NEC CLEARANCES INCLUDING THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. NO PIPING OR DUCTWORK TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S AND MCC'S. PROVIDE PANS IF REQUIRED UNDER PIPING.
  - 11. TRANSITION PIPING AND DUCTWORK SIZES TO MATCH THE SIZE OF EQUIPMENT CONNECTION.
  - 12. REFER TO PLUMBING SERIES DRAWINGS FOR GAS PIPING. 13. ALL PIPE AND DUCT SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL
  - ANOTHER SIZE IS SHOWN.
  - INSTALLATION INSTRUCTIONS, AT A LEVEL OF WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.
  - 15. MECHANICAL CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROVIDED AND INSTALLED WITH CLEARANCES PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL MAINTAIN PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACCESS, ETC.
  - 17. LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT AS INDICATED ON THE DRAWING, ARE
  - APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD, INCLUDING, BUT NOT LIMITED TO, OFFSETS AND TRANSITIONS. NEW DUCTWORK, PIPING AND EQUIPMENT SHALL BE COORDINATED WITH STRUCTURE, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUIT, PLUMBING, MECHANICAL AND FIRE PROTECTION PIPING, MEDICAL GASES, ALL OTHER TRADES AND ALL OTHER EXISTING CONDITIONS TO AVOID INTERFERENCE IN THE FIELD.
  - 18. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.
  - 19. DETAILS REFERENCE ALL SHEETS.

### MEDICAL GAS GENERAL NOTES

- MEDICAL GAS PIPING IS TO BE RUN ABOVE THE CEILING, UNLESS NOTED OTHERWISE.
- MEDICAL GAS PIPING IS SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES.
- MOUNT ALL SERVICE VALVES NEAR CEILING HEIGHT FOR ACCESSIBILITY.
- 4. PROVIDE FRANGIBLE LOCKS FOR ALL SERVICE VALVES.

3

<u>\* NOTE \*</u> ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

2

1

4" RD-12 - FLOW CONTROL DRAIN 4" RD-15 - ROOF DRAIN 6" RD-1 COMBINATION

4

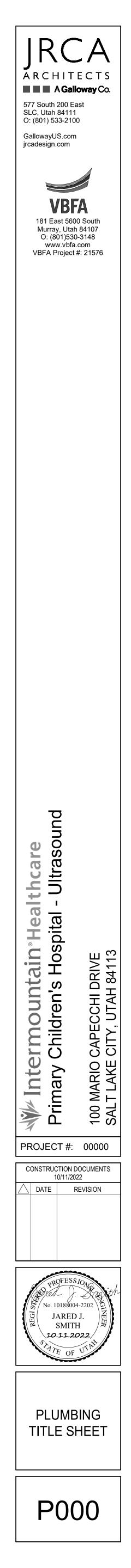
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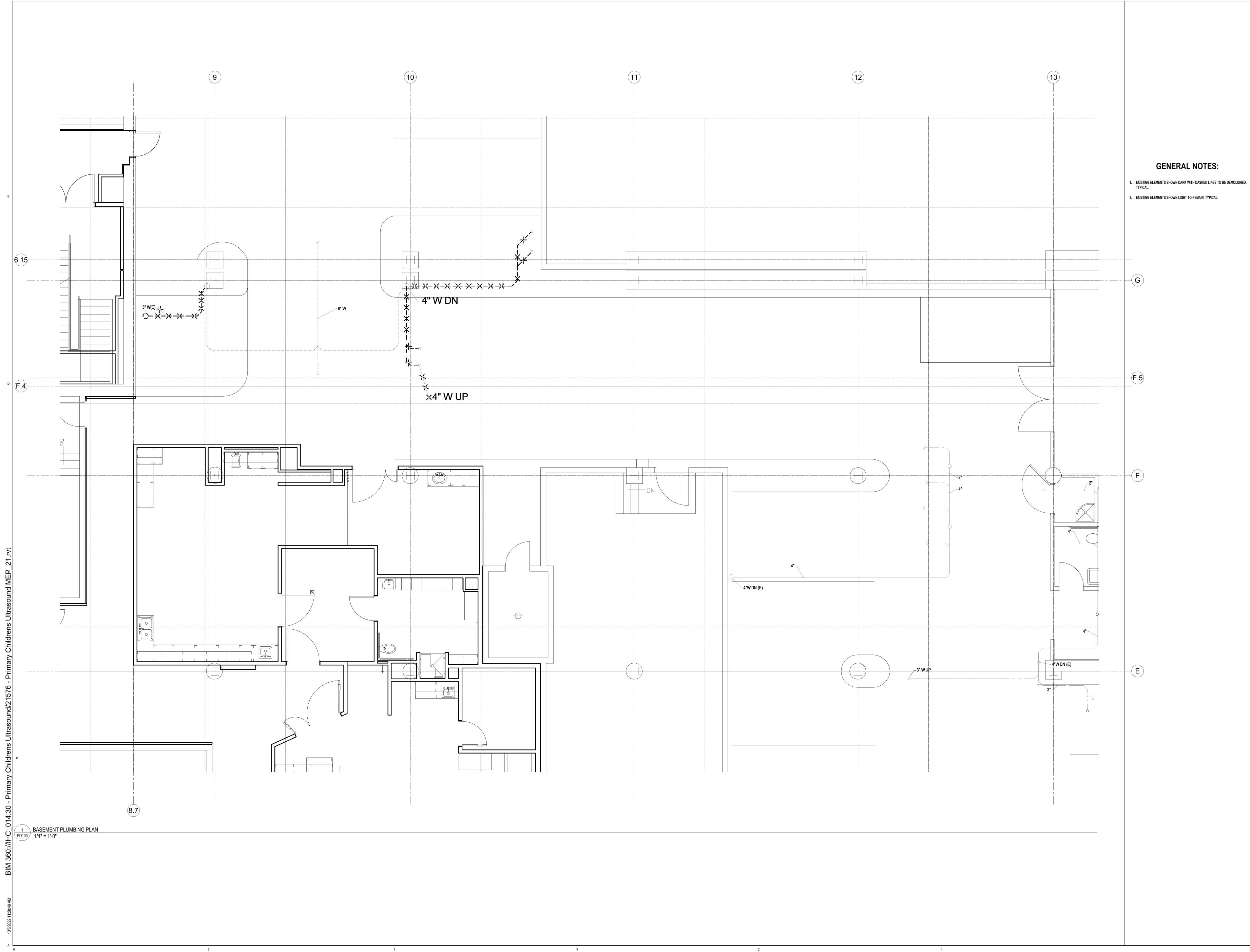
DEGREE TEE

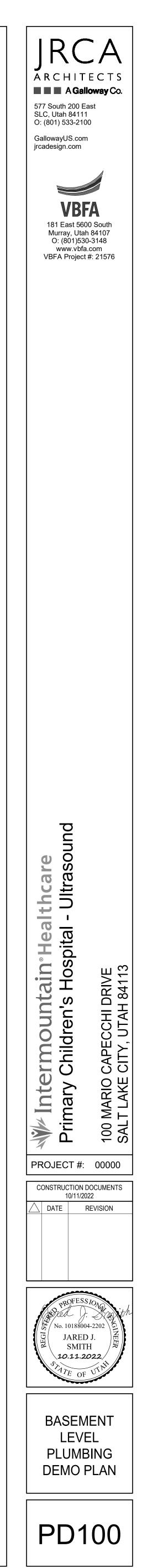
-45 DEGREE TEE

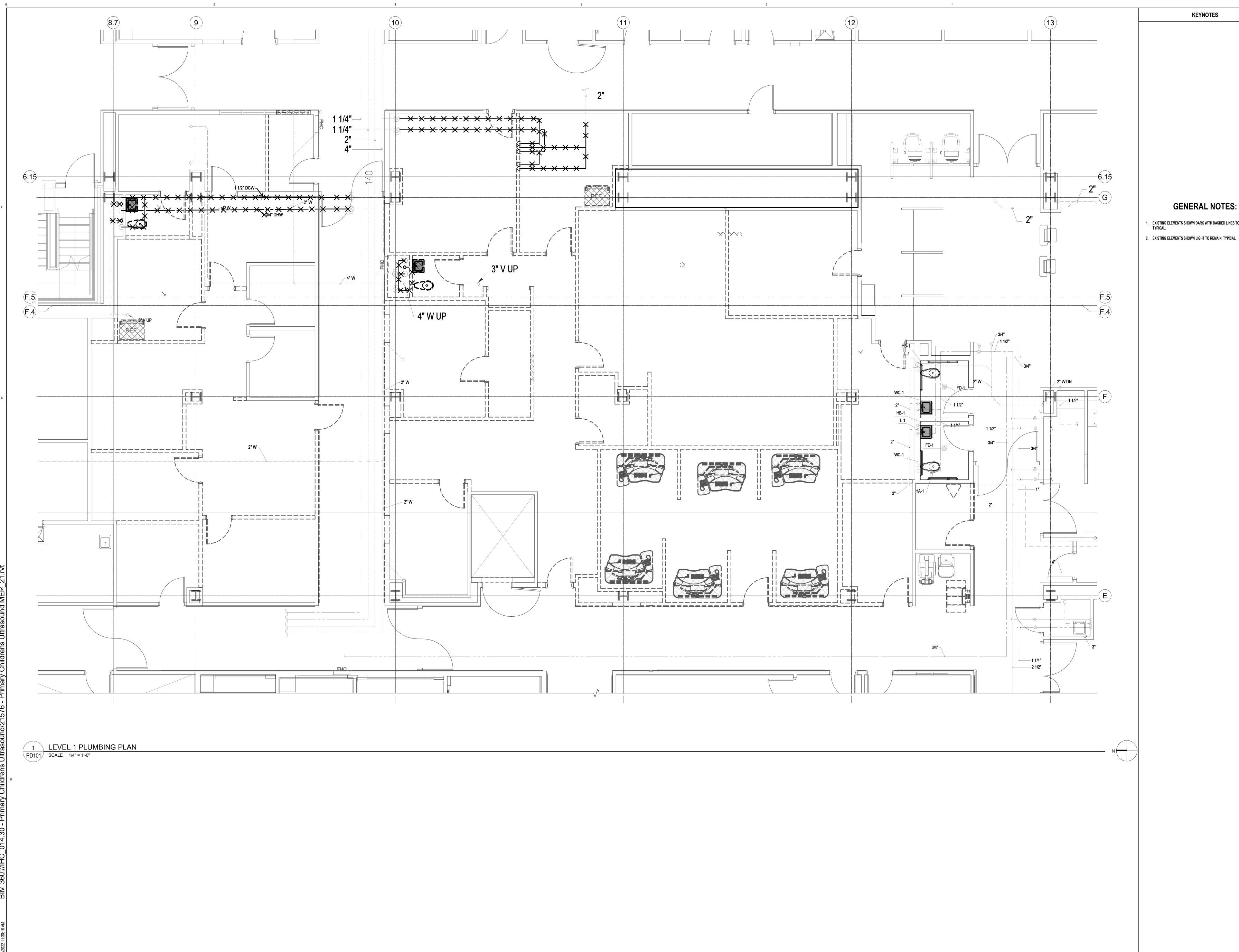
VALVE

PLUMBING SHEET INDEX









2

1

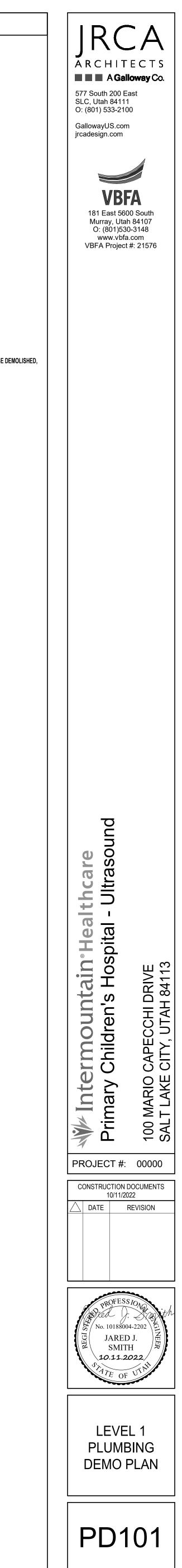
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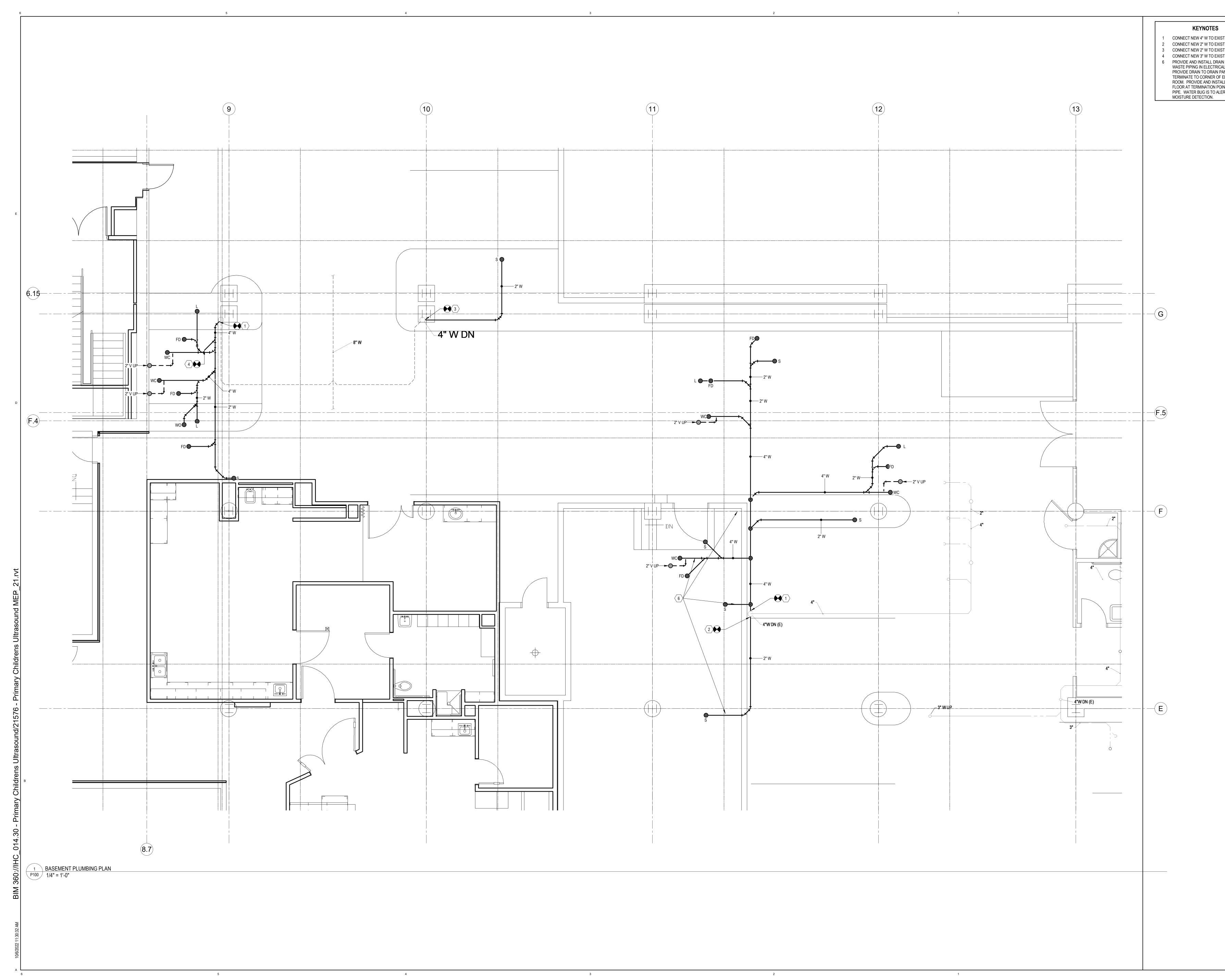
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# **GENERAL NOTES:**

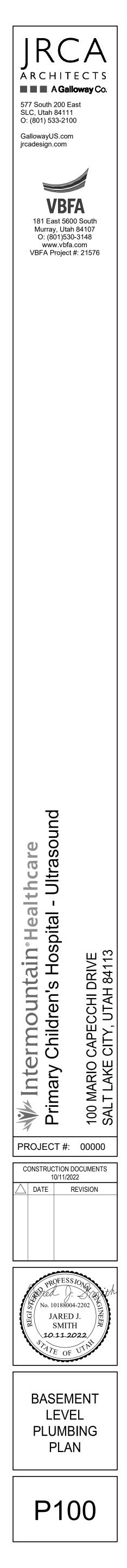
KEYNOTES

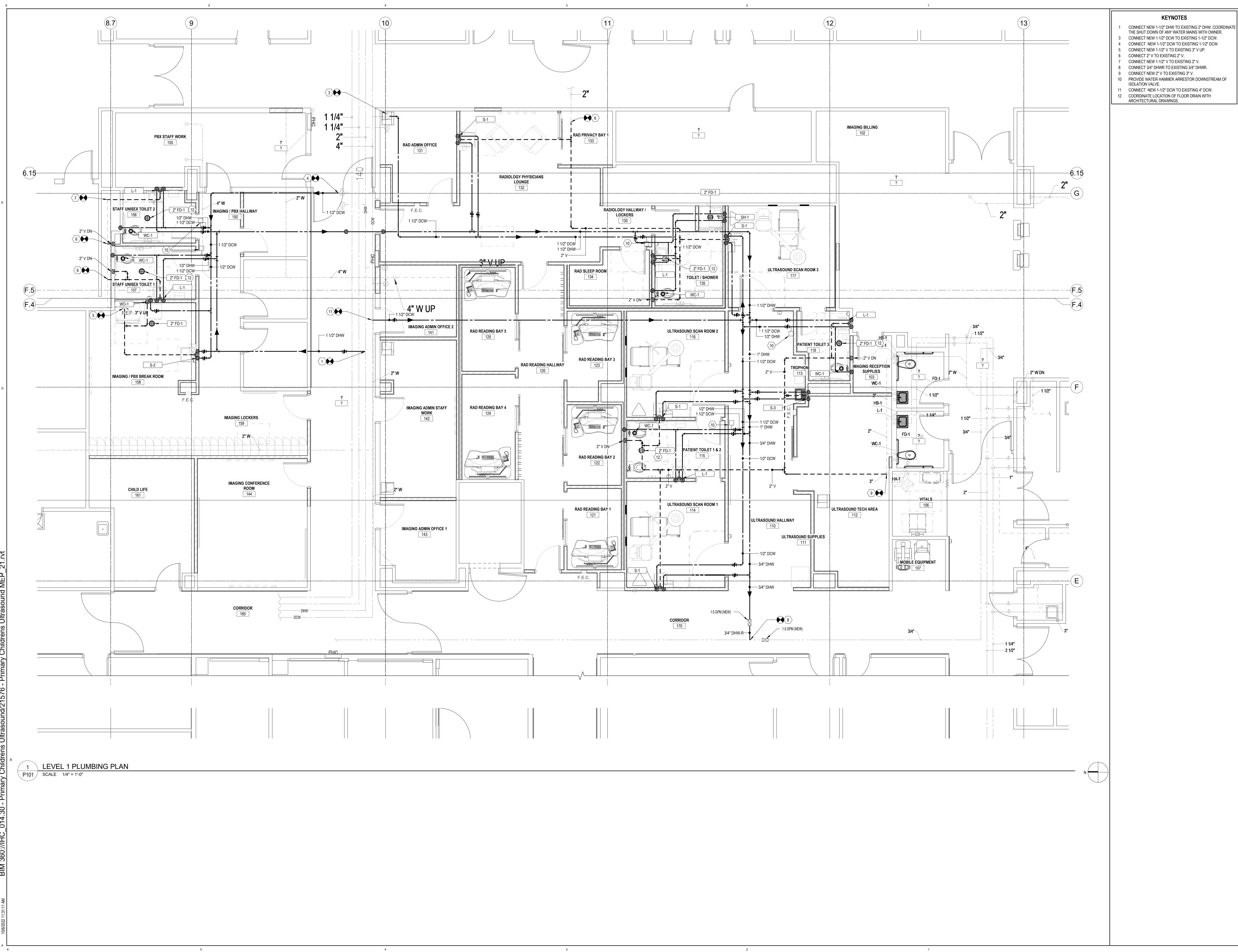
EXISTING ELEMENTS SHOWN DARK WITH DASHED LINES TO BE DEMOLISHED, TYPICAL.

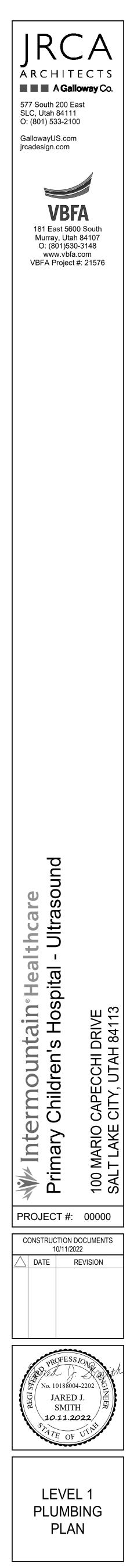




STING 4" W.
STING 4" W.
STING 2" W.
STING 3" W.
IN PAN UNDER ALL
AL ROOM.
PAN AND
ELECTRICAL
ALL WATER BUG ON
DINT OF DRAIN
ERT BMS UPON

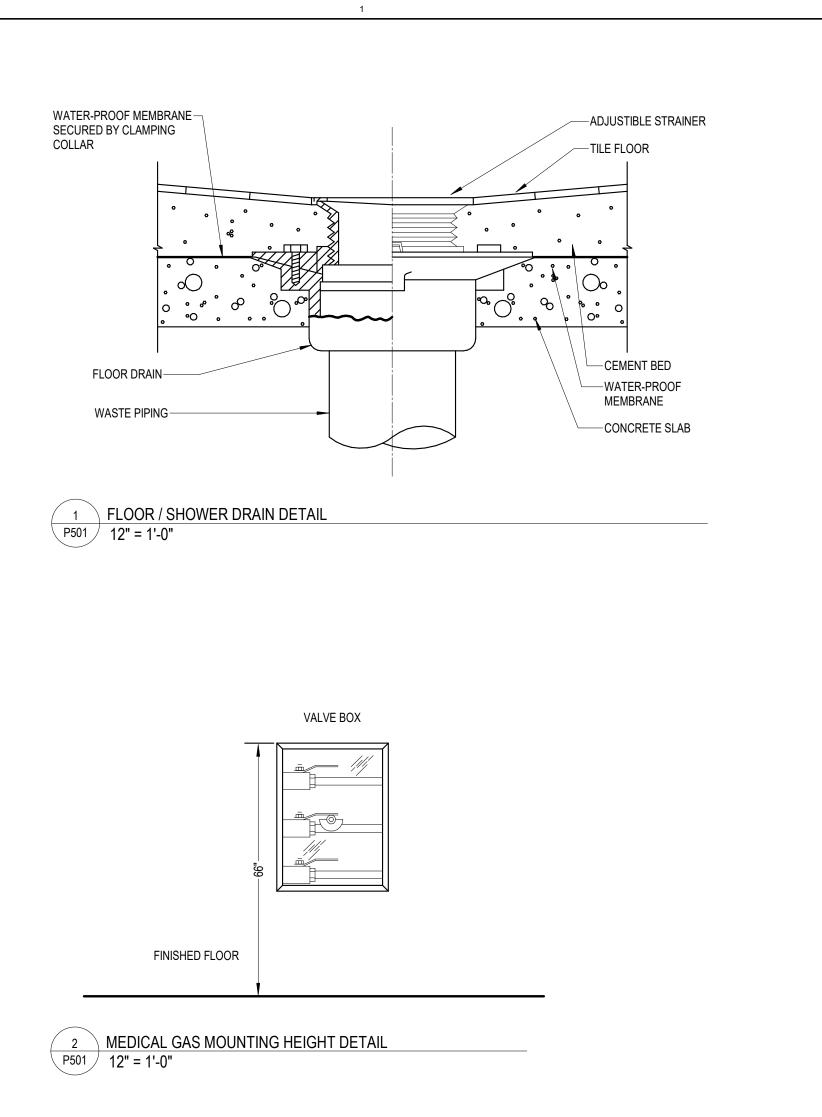


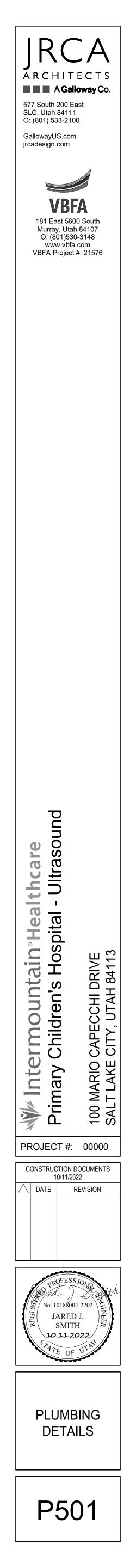




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5

4

4

ID

WC-1

FIXTURE

WATER CLOSET

2

			-			,	WES
L-1	LAVATORY	1/2	1/2	1 1/2	1 1/2	WALL HUNG, VITREOUS CHINA, GOOSENECK FAUCET WITH WRISTBLADES	LAV/ WITH MIXII OPE UND
S-1	SCAN ROOM SINK	1/2	1/2	2	1 1/2	COUNTER MOUNTED, STAINLESS STEEL, WITH WRIST BLADES	Sink Fau Witł
S-2	BREAKROOM SINK	1/2	1/2	1 1/2	1 1/2	COUNTER MOUNTED, STAINLESS STEEL, WITH WRIST BLADES	SINK INTE J-35- CLE/
SH-1	SHOWER	1/2	1/2	-,-	-,-	SHOWER	SHO PAU CON
FD-1	FLOOR DRAIN			2	1 1/2	FLOOR DRAIN	FLO SEC
WO-1	WATER OUTLET	1/2"	-,-	2	1 1/2	WATER OUTLET	WAT COL

							Ν	<b>IEDICA</b>	L GAS (	OUTLE	TS SCH	EDULE								
		# OF OUTLET	S	1				1		1	PIPE DROP S	IZE TO OUTLE	T(S)			1	1			
SYMBOL	ROOM TYPE	02	MA	MV	WAGD	N20	N	CO2	DV	DA	02	MA	MV	WAGD	NO	N	CO2	DV	DA	REMARKS
MO-1	ULTRASOUND	2	2	2		-,-		-,-	-,-	-,-	1/2	1/2	3/4			-,-				1,2

UNLESS NOTED OTHERWISE, ALL OUTLETS ARE CHEMETRON-STYLE QUICK-CONNECTS

OUTLETS IN "MEDICAL EQUIPMENT" ARE SUPPLIED WITH THE PIECE OF EQUIPMENT REFER TO ARCHITECTURAL ELEVATIONS AND REFLECTED CEILING PLANS FOR EXACT LOCATION AND PLACEMENT OF OUTLETS.

1. PIPE DROP SIZES ARE FOR ONE SET OF OUTLETS 2. WALL MOUNTED OUTLETS

			N	MEDICA	L GAS	VALVE	SCHED	ULE				
						PI	PE SIZE (INCHE	S)				
SYMBOL	AREA SERVED	OX	DV	DA	MA	MV	WAGD	NO	Ν	CO2	CA	REMARKS
MV-1	ULTRASOUND	1/2		-,-	1/2	3/4	-:-	-,-	-,-			1

2

1. ALL VALVE BOXES TO COME WITH WITH GAUGES

3

# PLUMBING FIXTURE SCHEDULE

1 --- 4 2 FLOOR MOUNTED, MANUAL FLUSH VALVE WATER CLOSET: KOHLER K-96057 HIGHCLIFF VITREOUS CHINA, FLOOR MOUNTED, ELONGATED BOWL TOILET WITH K-4670-C LUSTRA OPEN FRONT SEAT, ADA TOILET; SLOAN WES-111 MANUAL DUAL FLUSH, 1.6 GPF AND 1.1 GPF FLUSH VALVE; INSTALL ACTUATOR ON WIDE SIDE OF FIXTURE. LAVATORY: KOHLER K2030, GREENWICH, 20" X 18", VITREOUS CHINA, WALL MOUNTED LAVATORY WITH FRONT OVERFLOW. PROVIDE CHICAGO 786-GN2FCJKABCP FAUCET, WITH WRIST BLADE HANDLES, GN2FC RIGID/SWING GOOSE NECK SPOUT WITH 0.5 GPM LAMINAR FLOW CONTROL IN SPOUT; PROVIDE CHICAGO 131-FMAB THERMOSTATIC

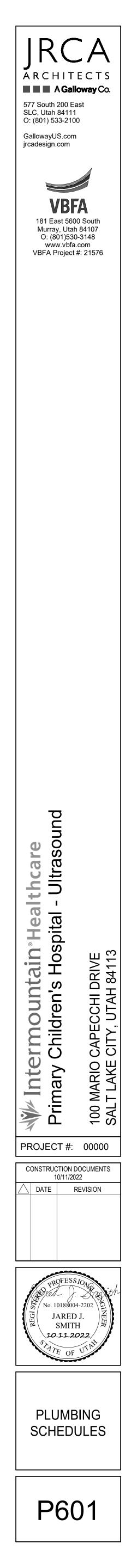
SPECIFICATION

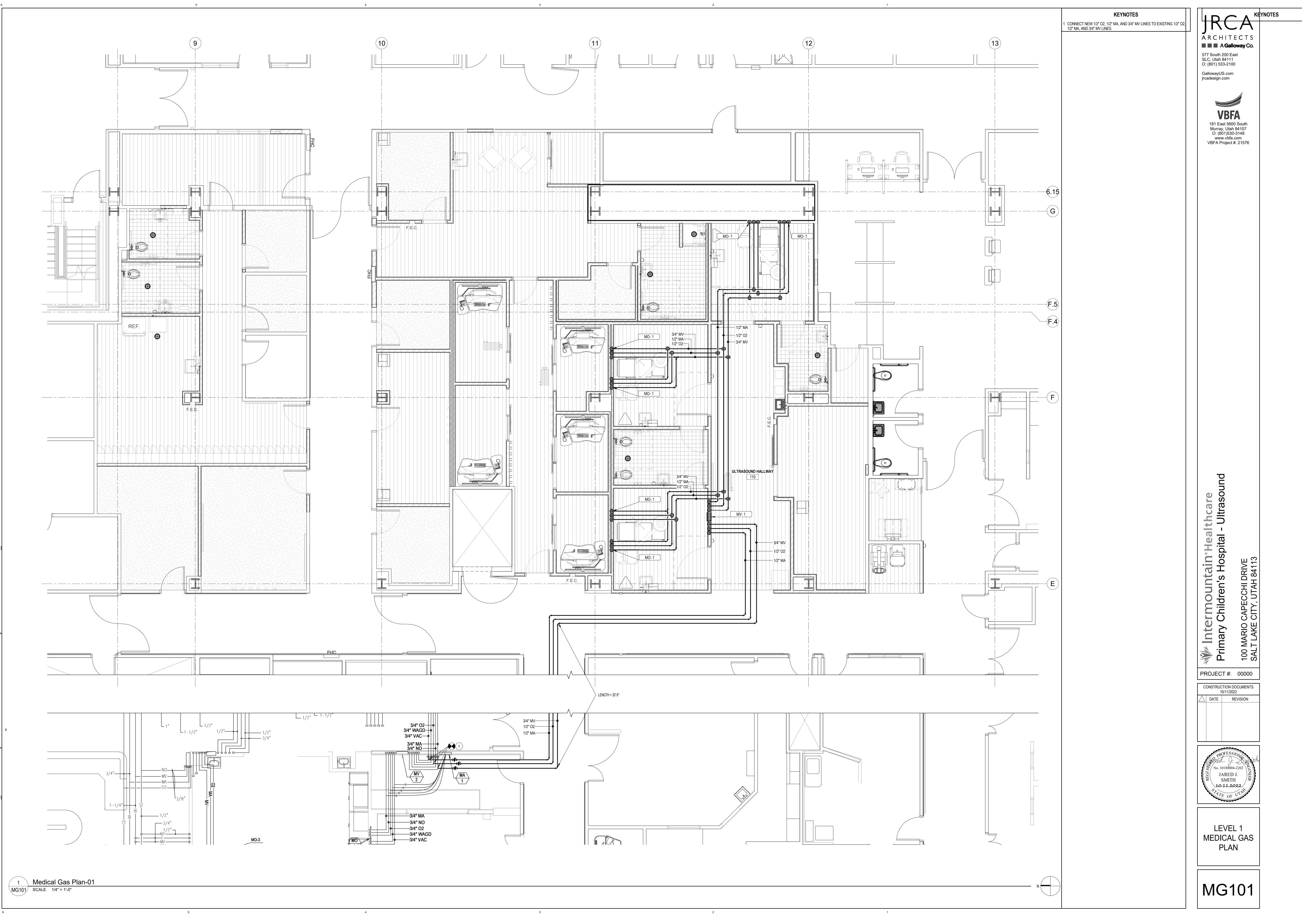
MIXING VALVE; SLOAN EFT-470-A CHECK VALVES ON HOT AND COLD LINES; FLEXIBLE STAINLESS STEEL SUPPLIES WITH WITH LOOSE KEY ANGLE STOPS. CHICAGO 327-XCP OPEN-GRID STRAINER AND CAST BRASS P-TRAP WITH CLEAN OUT PLUG. SMITH 0700-Z CONCEALED ARM CHAIR CARRIER WITH FOOT SUPPORT. PROVIDE ADA COMPLIANT UNDER COUNTER PIPING WRAP BY TRUE-BRO, COLOR TO BE WHITE.

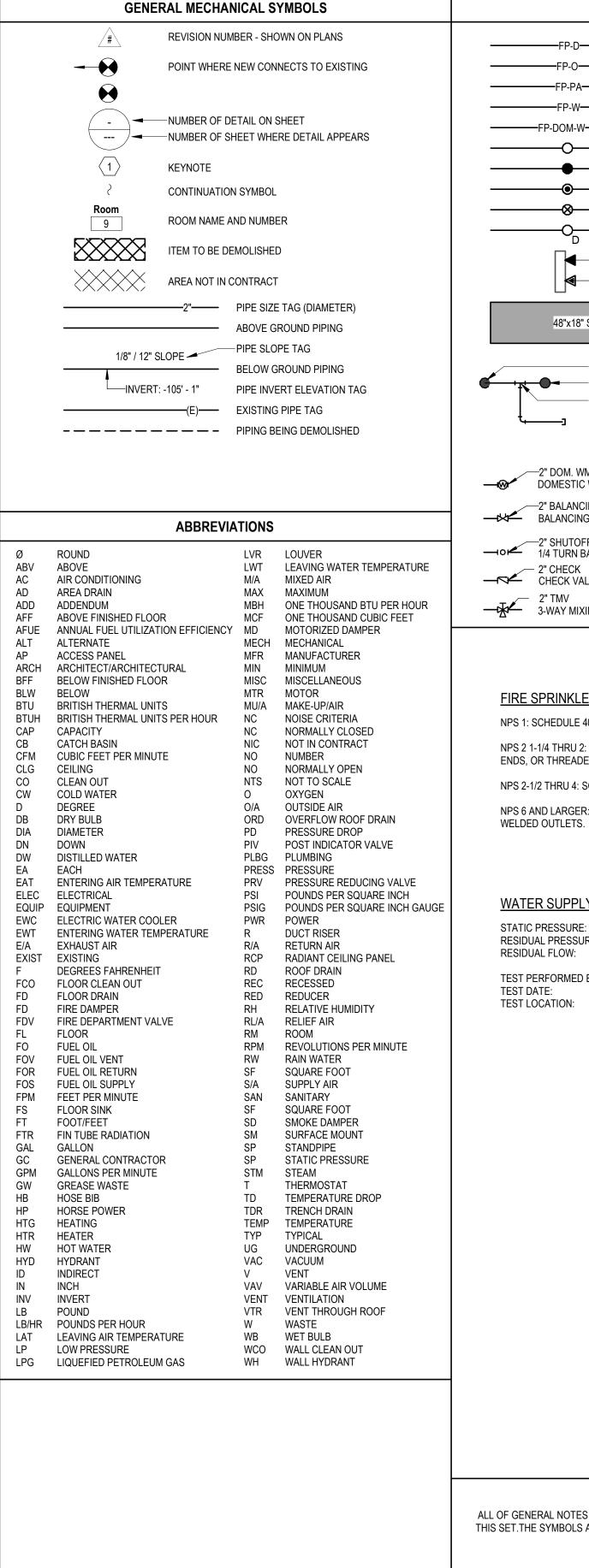
SINK: JUST SLN-ADA-17519-16-GR 16" X 11.5" X 5-1/2" I.D. COUNTER MOUNT 16 GA. STAINLESS STEEL SINK WITH 3 HOLES ON 8" CENTERS DRILLING. CHICAGO 786-GN8FCXKABCP FAUCET, WITH WRIST BLADE HANDLES, GN8FC RIGID/SWING GOOSENECK SPOUT WITH 1.5 GPM LAMINAR FLOW CONTROL IN SPOUT. FLEXIBLE STAINLESS STEEL SUPPLIES WITH WITH LOOSE KEY ANGLE STOPS. CAST BRASS P-TRAP WITH CLEAN OUT PLUG, AND JUST J-35-FS OPEN-GRID STRAINER MOUNTED FLUSH WITH SINK BOTTOM. SINK (STAINLESS STEEL, COUNTER MOUNTED, SINGLE COMPARTMENT): JUST SLN-ADA-2125-A-GR 18 GA. TYPE 304 STAINLESS STEEL SINK, 16" X 22" X 5-1/2" DEEP BASIN WITH INTEGRA DRAIN, SELF RIMMING, 8" CENTERS DRILLING. CHICAGO 786-GN8FCJKABCP FAUCET, WITH WRIST BLADE HANDLES WITH 1.5 GPM LAMINAR FLOW CONTROL IN SPOUT J-35-FS OPEN-GRID STRAINER MOUNTED FLUSH WITH SINK BOTTOM. FLEXIBLE STAINLESS STEEL SUPPLIES WITH LOOSE KEY ANGLE STOPS, CAST BRASS P-TRAP WITH LEAN-OUT PLUG.

SHOWER (ADA COMPLIANT): CHICAGO SH-TP4-00-024 THERMOSTATIC / PRESSURE BALANCE DRAINING SHOWER VALVE WITH LEVER HANDLE; 1.5 GPM HAND SPRAY WITH PAUSE CONTROL; ADJUSTBABLE HIGH LIMIT STOP SCREW, INTEGRAL SERVICE STOPS WITH CHECKS, (2) 34" SS HOSES WITH AUTOMATIC HOSE DRAIN, INLINE BREAKER, WALL CONNECTION AND ADA GRAB AND SLIDE BAR FOR HAND SHOWER MOUNTING. FLOOR DRAIN : SMITH 2005Y-A FLOOR DRAIN WITH CAST IRON BODY AND FLASHING COLLAR WITH 6" ROUND NICKEL BRONZE ADJUSTABLE ROUND STRAINER HEAD WITH SECURED GRATE AND DEEP SEAL P-TRAP.

WATER OUTLET BOX: WATER-TITE 82112 WASHING MACHINE OUTLET BOX WITH DRAIN QUARTER TURN BALL VALVE FOR USE WITH ICE AND SODA MACHINE. INSTALL ONLY
COLD WATER BALL VALVE. NOTCH COUNTERTOP BACK-SPLASH AND INSTALL OUTLET BOX DRAIN FLUSH WITH COUNTERTOP. PROVIDE WITH PVC TRAP.







2022 11:32:26 AM BIM 360://IHC\_014.30 - Primary Childrens Ultrasound/21576 - Primary Childrens Ultrasound MEP\_21.1

### FIRE PROTECTION SYMBOLS

4

FP-D	FIRE PROTECT	ION DRY
FP-0	FIRE PROTECTIO	N OTHER
FP-PA	FIRE PROTECTION PR	E-ACTION
FP-W	FIRE PROTECTION	ON WET
	COMBINATION FIRE	& DOMESTIC
 ● ● ⊗	PENDENT SPRINKLER HEAD CONCEALED	UPRIGHT INKLER HEAD RECESSED PRINKLER HEAD
O_D		'D' REPRESENTS DRY SPRINKLER HEAD
	EVTENDED	AD
48"x18" S/A	OBSTRUCTION FROM D AND GREATER	UCTWORK 48"
PIPE DROP PIPE RISE PIPE TEE		REDUCING 45 DEGREE TEE 45 DEGREE TEE
PIPE A	CCESSORY TAGS	
2" DOM. WM DOMESTIC WATER METE		M-CNTRL TORIZED CONTROL VALVE
2" BALANCING BALANCING VALVE		3-WAY CNTRL /AY MOTORIZED CONTROL VALVE
2" SHUTOFF 1/4 TURN BALL VALVE 2" CHECK	PR	PRV ESSURE REDUCING VALVE
CHECK VALVE		" SOLENOID FRIGERANT SOLENOID VALVE
2" TMV - 3-WAY MIXING VALVE		BUTTERFLY TTERFLY VALVE

FIRE SPRINKLER PIPING SCHEDULE

NPS 1: SCHEDULE 40 OR THREADED THIN WALL, THREADED ENDS NPS 2 1-1/4 THRU 2: SCHEDULE 40 OR THREADABLE THIS WALL, GROOVED

ENDS, OR THREADED ENDS.

NPS 2-1/2 THRU 4: SCHEDULE 40, GROOVED ENDS, WELDED OUTLETS. NPS 6 AND LARGER: SCHEDULE 40 OR SCHEDULE 10, GROOVED FITTINGS,

### WATER SUPPLY INFORMATION

NTIC PRESSURE:	## PSI
SIDUAL PRESSURE:	## PSI
SIDUAL FLOW:	#### GPM
ot Performed by:	NAME
T date:	DATE
T location:	LOCATION

### FIRE PROTECTION GENERAL NOTES

- NO FIRE PROTECTION LINE SHALL BE DESIGNED OR INSTALLED PRIOR TO CLOSE COORDINATION WITH ALL OTHER DISCIPLINES. DUCTWORK, MECHANICAL PIPING AND PLUMBING TAKE SPACE PRECEDENCE OVER FIRE PROTECTION REMOVAL AND REINSTALLATION AT THE FIRE PROTECTION CONTRACTORS EXPENSE.
- 2. ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING SURROUNDING AREA.
- COORDINATE EXACT LOCATION OF PIPING WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUITS, DUCTWORK, MECHANICAL AND PLUMBING PIPING, AND ALL OTHER TRADES AND ALL EXISTING CONDITIONS.
- 4. FIRE SUPPRESSION CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND/OR REROUTE ANY AND ALL FIRE PROTECTION PIPING, VALVING, SUPPORTS OR SYSTEMS, OTHERWISE WITHIN THE FIRE SUPPRESSION DISCIPLINE REGARDLESS OF WHO INSTALLED THEM OR WHEN THEY WERE INSTALLED, IN ORDER TO ACCOMMODATE MECHANICAL, PLUMBING, ELECTRICAL OR OTHER SYSTEMS. COORDINATE WORK WITH MECHANICAL, ELECTRICAL, PLUMBING OR OTHER CONTRACTORS UNTIL SUBSTANTIAL COMPLETION OF PROJECT.
- 5. PROVIDE ALTERATIONS TO THE EXISTING FIRE PROTECTION SYSTEM AS REQUIRED TO ACCOMMODATE THE NEW FLOOR PLAN AND NEW CEILING TYPES. THE SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND AS PER REQUIREMENTS OF THE STATE BUILDING CODE, LOCAL FIRE DEPARTMENT, AND ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, NFPA, AND REMOVE AND REPLACE ANY EXISTING ALLIED XL PIPING.
- 6. THE BUILDINGS COMPLETE OPERATIONAL FIRE PROTECTION SYSTEMS SHALL REMAIN IN PLACE. THIS CONTRACTOR SHALL REPAIR ANY DAMAGE TO THIS SYSTEM CREATED BY THE REMOVAL OF ANY OTHER MECHANICAL SYSTEMS OR COMPONENTS.
- 7. THIS CONTRACTOR SHALL COORDINATE PHASING OF SPRINKLER WORK WITH THE GENERAL CONTRACTOR PRIOR TO STARTING WORK.
- REFER TO REFLECTED CEILING PLANS FOR ADDITIONAL INFORMATION REGARDING SPRINKLER HEAD LOCATION AND PIPE, UNLESS NOTED OTHERWISE.
   DIVISION 21 CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR PROPER INSTALLATION OF THE FIRE PROTECTION SYSTEMS ALARM DEVICES
- INVOLVED WITH FIRE SPRINKLER SYSTEM.
  10. ALL SPRINKLER SYSTEM PIPING SHALL BE CONCEALED ABOVE THE SUSPENDED CEILING SYSTEM, UNLESS NOTED OTHERWISE. WRITTEN AUTHORIZATION SHALL BE OBTAINED FROM THE ARCHITECT PRIOR TO EXPOSING ANY PIPING IN ANY ROOM WHICH HAS A SUSPENDED CEILING.
- 11. THIS CONTRACTOR SHALL PROVIDE ALL ADDITIONAL SPRINKLER HEADS AS REQUIRED TO ENSURE AN APPROVED FIRE PROTECTION SYSTEM AT NO ADDITIONAL COST TO THE OWNER.
- 12. AUXILIARY DRAINS SHALL BE EXPOSED WITH 1" DRAIN VALVES. WHEN 5 OR MORE GALLONS ARE TRAPPED, THIS CONTRACTOR SHALL PROVIDE FIXED PIPING TO AN ADEQUATELY SIZED RECEPTOR WHICH IS CAPABLE OF ACCEPTING THE FULL FLOW OF THE DRAIN. WHEN LESS THAN 5 GALLONS ARE TRAPPED, A HOSE BIB SHALL BE PROVIDED AT THE DRAIN VALVE.
- 13. AUXILIARY DRAINS SHALL NOT BE LOCATED ABOVE PLASTER OR GYPSUM BOARD CEILING SYSTEMS. ONLY BY A SPECIFIC WRITTEN INSTRUCTION FROM THE ENGINEER WILL A VARIANCE BE PROVIDED.
- 14. SHOW ALL ROOM NUMBERS ON SHOP DRAWING PLANS.

3

- 15. ROUTE SPRINKLER PIPING SUCH THAT IT DOES NOT RUN ABOVE ELECTRICAL PANELS, SWITCHGEAR, OR SIMILAR EQUIPMENT. SPRINKLER MAINS SHALL NOT RUN THROUGH ELECTRICAL OR COMMUNICATION ROOMS. SPRINKLER HEADS IN THESE ROOMS SHALL BE SERVED BY A DEDICATED BRANCH LINE FOR EACH ROOM. BRANCH LINE TO ENTER ROOM ABOVE DOOR.
- THIS DRAWING INDICATES A GENERAL PIPING ARRANGEMENT AND SUGGESTED SIZING ONLY. THIS CONTRACTOR SHALL DETERMINE THE ACTUAL PIPE SIZING REQUIRED AND COORDINATE WORK WITH ALL OTHER TRADES TO AVOID CONFLICTS.
- 17. THIS CONTRACTOR SHALL PREPARE HYDRAULIC CALCULATIONS BASED UPON THE CONFIGURATION OF THE ACTUAL SYSTEM DESIGN AS SHOWN ON THIS CONTRACTOR'S SHOP DRAWINGS.
- 18. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING FIRE PUMP DATA FOR HYDRAULIC CALCULATIONS.

А	
SYMBOL	OCCUP/ CLAS
R	RESIDEN OC
LH	LIGH OC
OH1	ORDIN GROUP
S	SPEC

LOCAT					
NO.	LUCAI				
01	STAFF L				
02	STAFF L				
03	PB				
03	IMAGING				
05	IMAGING /				
06	IMAGI				
07	С				
08	IMAGING				
09	IMAGING				
10	IMAGIN				
11	RAD R				
12	RAD R				
13	IMAGING				
14	RAD REA				
15	RADIOL				
	L				
16	RAD A				
17	RADIOLO				
18	RAD P				
19	RAD				
20	TOIL				
21	ULTRASO				
22	RAD R				
23	RAD R				
24	ULTRASO				
25	PATIEN				
26	ULTRAS				
27	Т				
28	PATIE				
29	IMAGIN				
25	S				
30	ULTRAS				
31	ULTRASC				
32	ULINAGO				
	MODIL				
33	MOBIL				
34	ULTRASO				
35	EXISTING				
36	EXISTIN				
37	RAD R				

2

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ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET.THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

\* NOTE \*

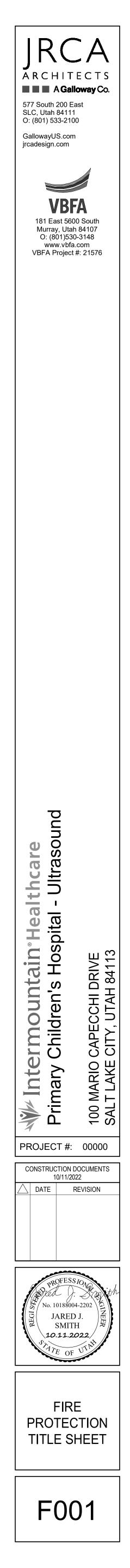
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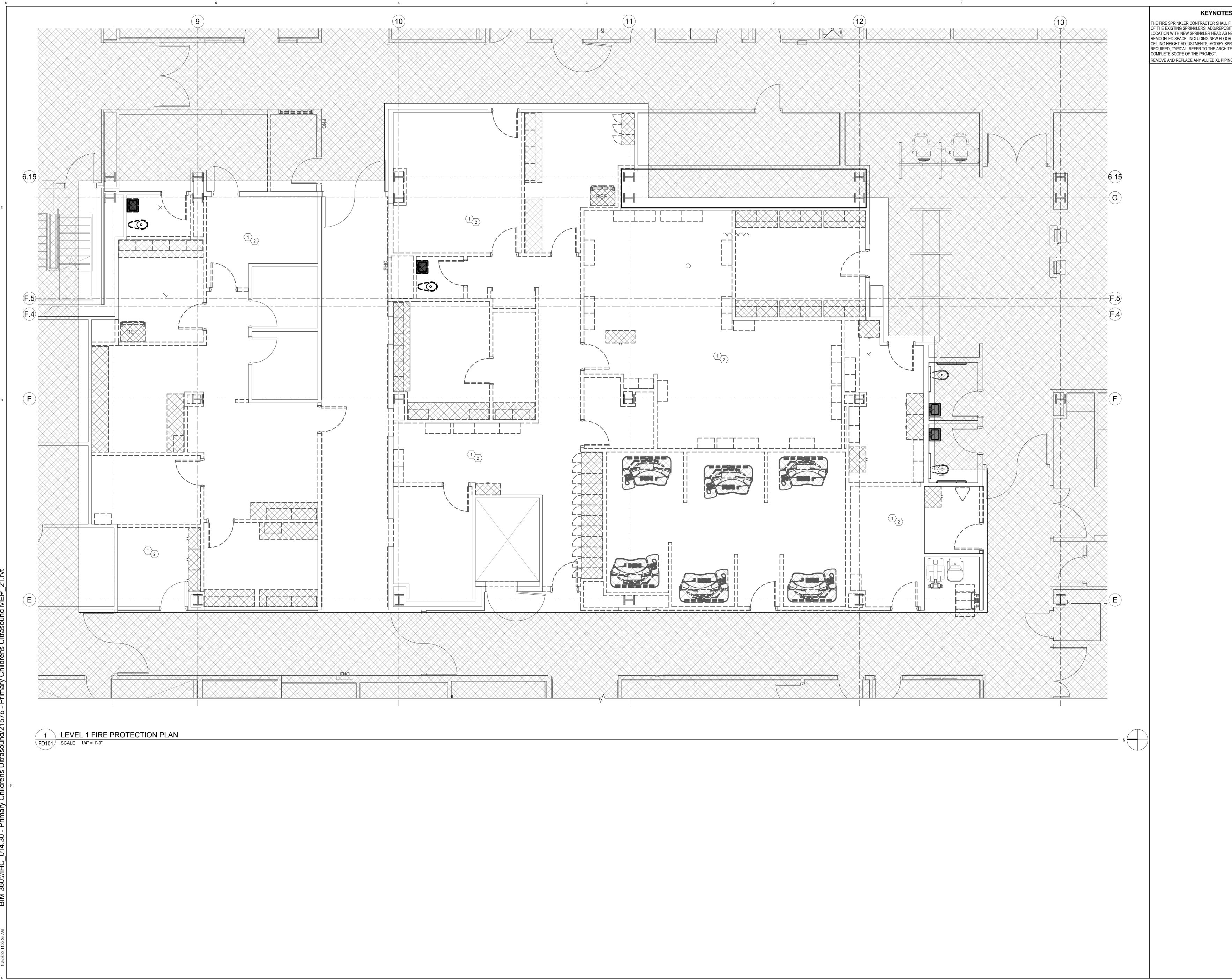
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ANCY HAZARD	DESIGN DENSITY (GPM/SF)	DESIGN AREA
FIAL (DWELLING) CUPANCY	0.05	400 SF
IT HAZARD CUPANCY	0.10	1500 SF
ARY HAZARD, 1 OCCUPANCY	0.15	1500 SF
IAL HAZARD CUPANCY		

ON		OCCUPANCY HAZARD
NAME	AREA	CLASSIFICATION SYMBOL
ISEX TOILET 2	55 SF	(none)
ISEX TOILET 1	65 SF	(none)
OFFICE 2	63 SF	(none)
/PBX HALLWAY	125 SF	(none)
BX BREAKROOM	227 SF	(none)
IG LOCKERS	127 SF	(none)
ILD LIFE	174 SF	(none)
CONFERENCE	216 SF	(none)
DMIN OFFICE 1	89 SF	(none)
ADMIN STAFF WORK	181 SF	(none)
ADING BAY 4	86 SF	(none)
ADING BAY 5	85 SF	(none)
DMIN OFFICE 2	84 SF	(none)
DING HALLWAY	204 SF	(none)
)GY/HALLWAY	205 SF	(none)
CKERS		
MIN OFFICE	100 SF	(none)
GY PHYSICIANS DUNGE	183 SF	(none)
IVACY BAY 1	42 SF	(none)
LEEP ROOM	60 SF	(none)
T/SHOWER	101 SF	(none)
ND SCAN ROOM	166 SF	(none)
ADING BAY 3	68 SF	(none)
ADING BAY 2	67 SF	(none)
ND SCAN ROOM	159 SF	(none)
TOILET 1 & 2	84 SF	(none)
UND HALLWAY	278 SF	(none)
OPHON	8 SF	(none)
NT TOILET 3	50 SF	(none)
GRECEPTION	34 SF	(none)
UND SUPPLIES	25 SF	(none)
JND TECH AREA	238 SF	(none)
/ITALS	55 SF	(none)
EQUIPMENT	40 SF	(none)
ND SCAN ROOM	159 SF	(none)
READING ROOM	85 SF	(none)
SLEEP ROOM	68 SF	(none)
ADING BAY 1	67 SF	(none)
	4120 SF	

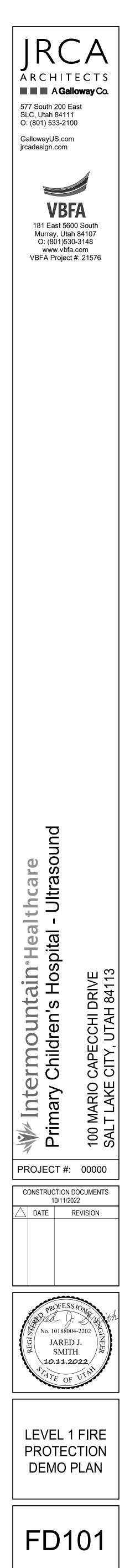
## MECHANICAL SHEET INDEX

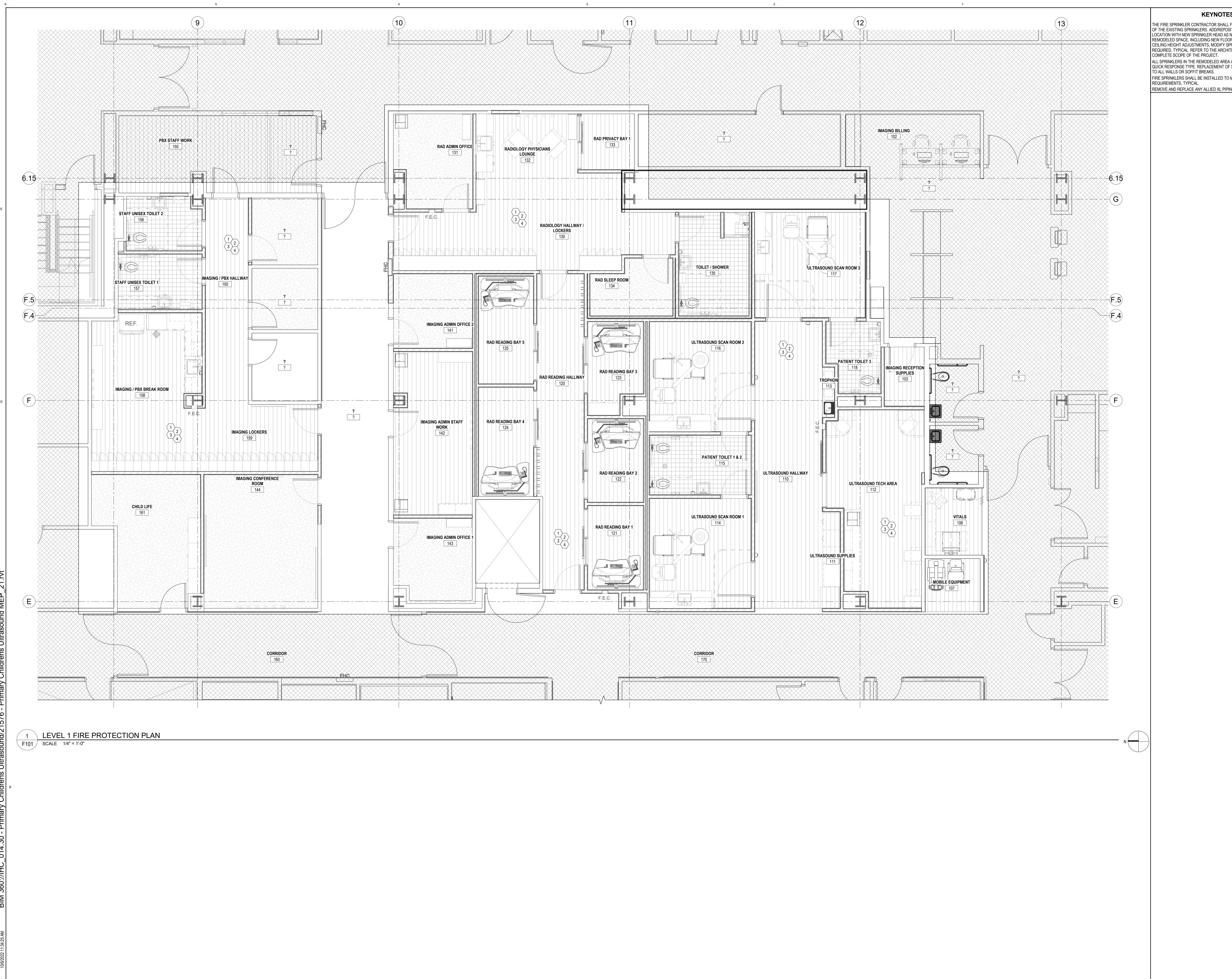






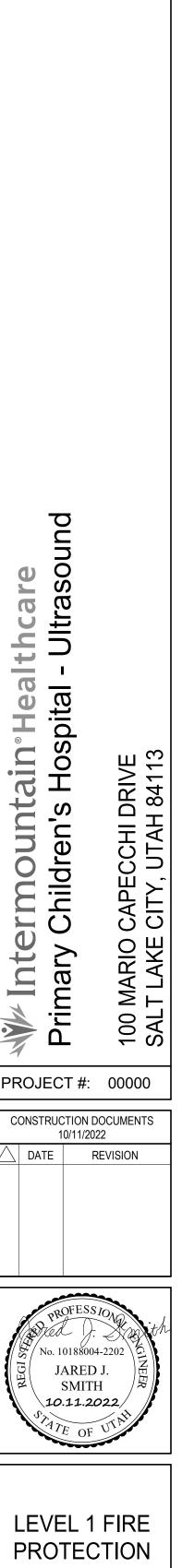
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FIELD VERIFY THE LOCATION ITION EXISTING SPRINKLER NECESSARY FOR THE R PLAN CEILING PLAN AND PRINKLER PIPING AS FECTURAL SHEETS FOR
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ES L FIELD VERIFY THE LOCATION SITION EXISTING SPRINKLERS SNECESSARY FOR THE OR PLAN CEILING PLAN AND SPRINKLER PIPING AS ITECTURAL SHEETS FOR DIMET NFPA 13-2016 PING IN REMODEL AREA.	ARCHIT ARCHIT ARCHIT GalowayUS.con jrcadesign.com Again Again Construction Again Aga	E C T S loway Co. ast 00 n Co. Co. Co. Co. Co. Co. Co. Co. Co. Co.
	Intermountain Healthcare         Frimary Children's Hospital - Ultrasound	100 MARIO CAPECCHI DRIVE SAI T I AKE CITY 11TAH 84113 BOCUMENTS
	PROFESS No. 1018800 JAREI SMIT 10.11.2	FIRE FIRE



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