LEGEND:

SUPPLY, OUTSIDE AIR DUCT OR CEILING DIFFUSER

RETURN, EXHAUST AIR DUCT OR RETURN AIR DIFFUSER



SPACE SENSOR - MH-48"AFF



POINT OF CONNECTION



POINT OF DISCONNECTION



VOLUME DAMPER

REMOVALS

ABBREVIATIONS:

AFG ABOVE FINISHED GRADE CFM CUBIC FEET PER MINUTE SD SUPPLY DIFFUSER DN DOWN EX. **EXISTING** MIN MINIMUM MAX MAXIMUM OA **OUTSIDE AIR** RG RETURN GRILLE RR RETURN REGISTER

SUPPLY DIFFUSER

SUPPLY REGISTER

GENERAL MECHANICAL NOTES:

SD

SR

- IN CERTAIN AREAS OF THE CONTRACT DRAWINGS, DIMENSIONS AND ARE SHOWN DUCTWORK. THE DUCTWORK LAYOUT SHALL BE
 FIELD VERIFIED PRIOR TO FABRICATION. THE CONTRACTOR MAY MODIFY ELEVATIONS AND LOCATIONS AS NECESSARY TO AVOID
 INTERFERENCE'S WITH EXISTING AND NEW SERVICES. THE CONTRACTOR SHALL NOT SCALE OFF THESE DRAWINGS FOR THE
 PURPOSE OF CONSTRUCTION.
- CONTRACTOR SHALL VISIT THE SITE, BECOME FAMILIAR WITH THE EXISTING FIELD CONDITIONS, AND MAKE HIS OWN ESTIMATE OF
 THE DIFFICULTIES ATTEMPTING THE EXECUTION OF THE WORK PRIOR TO SUBMITTING HIS BID. NO COMPENSATION WILL BE
 AWARDED TO THE CONTRACTOR BASED ON A CLAIM OF LACK OF KNOWLEDGE OF EXISTING FIELD CONDITIONS.
- COORDINATE WITH OWNER REPRESENTATIVE PRIOR TO DOING ANY WORK AFFECTING ANY OPERATIONAL AREA ADJACENT TO THE AREA OF WORK.
- 4. THE CONTRACTOR SHALL REPORT ALL CHANGES IN THE WORK TO THE OWNER REPRESENTATIVE.
- 5. IN THIS CONTRACT THE WORK "PROVIDE" SHALL MEAN "FURNISH AND INSTALL."
- THE CONTRACTOR SHALL CAREFULLY PLAN AND PERFORM ALL WORK TO PREVENT DAMAGE TO EXISTING. PROVIDE PROTECTION DEVICES REQUIRED TO PROTECT EXISTING FACILITIES AND EQUIPMENT DURING THE CONSTRUCTION OF THIS PROJECT. ANY DAMAGE TO EXISTING FACILITIES OR EQUIPMENT RESULTING FROM THE WORK OF THIS CONTRACT SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER. THE CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY OF ANY DAMAGE TO THE NEW EQUIPMENT OR TO EXISTING FACILITIES OR EQUIPMENT.
- ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH THE BEST CONSTRUCTION PRACTICES AND AS A MINIMUM SHALL CONFORM
 TO THE CODES AND STANDARDS OF THE ORGANIZATIONS LISTED BELOW.
- A. OCCUPATION SAFETY AND HEALTH ADMINISTRATION (OSHA)
- B. AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)
- C. AMERICAN NATIONAL STANDARDS (ANSI)
- SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA)
- E. NEW YORK STATE CODE RULES AND REGULATIONS
- F. NEW YORK STATE ENERGY CONSERVATION CODE RULES AND REGULATIONS
- 8. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, LOCATIONS, ELEVATIONS AND DIMENSIONS PRIOR TO START OF WORK AND NOTIFY THE OWNER OF ANY DISCREPANCIES OF PROBLEMS WHICH WOULD INTERFERE WITH THE SATISFACTORY COMPLETION OF THE WORK.
- ANY DAMAGE TO ANY EXISTING UTILITIES CAUSED BY CONTRACTOR'S WORK SHALL BE IMMEDIATELY REPAIRED BY QUALIFIED PERSONNEL AT CONTRACTOR'S EXPENSE.

SCOPE OF WORK:

- 1. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO COMPLETE ALL WORK SHOWN OR INFERRED ON THESE CONTRACT DRAWINGS AND DOCUMENTS. THE WORK SHALL INCLUDE, BUT NOT NECESSARILY BE LIMITED TO THE FOLLOWING PRINCIPLE ITEMS OF WORK:
 - PROVIDE REMOVAL OF HVAC EQUIPMENT INCLUDING RECOVERY OF REFRIGERANT FROM CONDENSERS.
 - PROVIDE ONE DUCTED FANCOIL / CONDENSER SYSTEM AS SCHEDULED AND DETAILED.
 - 3. PROVIDE ONE DUCTLESS FANCOIL / CONDENSER SYSTEM AS SCHEDULED AND DETAILED.
 - PROVIDE AND INSTALL NEW DUCTWORK, DUCTWORK INSULATION, DUCTWORK ACCESSORIES, DUCT SUPPORTS, REGISTERS.
 - 5. PROVIDE 7 DAY PROGRAMMABLE SYSTEM CAPABLE THERMOSTAT PROVIDE THERMOSTAT TRAINING TO OWNER AT PROJECT COMPLETION
 - 6. PROVIDE ALL EQUIPMENT AS SCHEDULE OR EQUAL. EQUAL SHALL BE APPROVED BY ENGINEER DURING SUBMITTAL PROCESS. PROVIDE SUBMITTALS FOR ALL SCHEDULED EQUIPMENT.
 - PROVIDE AIR BALANCING OF SYSTEMS.
 - PROVIDE KITCHEN SINK AS ELKAY LUSTERTONE Q252255. COORDINATE INSTALLATION WITH GC FOR MILLWORK. PROVIDE FAUCET
 AS AMERICAN STANDARD MONTERREY 2 HANDLE WRIST BLADE STYLE 7500.174. PROVIDE SINK AND FAUCET HW, CW, AND
 DRAINAGE PIPING CONNECTIONS.

MATERIAL SPECIFICATIONS

- . REFRIGERANT PIPING: ACR TUBE: ASTM B 280, WROT COPPER TUBE FITTINGS, SOLDER JOINT: ASME B16.22.CAST COPPER ALLOY TUBE FITTINGS, SOLDER JOINT: ASME B16.18. BRAZING ALLOYS, TYPE 1: AWS A5.8, CLASS BCUP-5, FOR BRAZING COPPER TO BRASS, BRONZE, OR COPPER; ENGELHARD'S SILVALOY 15, J.W. HARRIS CO. INC.'S STAY-SILV 15, AND HANDY & HARMAN'S SIL-FOS. TYPE 2: AWS A5.8, CLASS BAG-7, FOR BRAZING COPPER TO STEEL OR STAINLESS STEEL; ENGELHARD'S SILVALOY-56T, J.W. HARRIS CO. INC.'S SAFETY-SILV 56, AND HANDY & HARMAN'S BRAZE 560.
- 2. CONDENSATE COPPER TUBE, PVC SCHEDULE 40 PIPE AND FITTINGS.
- 3. REFRIGERANT PIPING INSULATION: FLEXIBLE ELASTOMERIC FOAM INSULATION: FM TESTED AND APPROVED, MAXIMUM WATER VAPOR TRANSMISSION 0.10 PERM INCH BASED ON ASTM E 96, PROCEDURE, K OF 0.27 AT 75 DEGREES F BASED ON ASTM C 518 OR C 177. FIRE SPREAD/SMOKE DEVELOPED RATING: 25/50 OR LESS BASED ON ASTM E 84, ASTM C 534, TYPE I. POLYETHYLENE AND POLYOLEFIN INSULATION IS NOT ACCEPTABLE.
- DUCTWORK: GAGES OF MATERIALS, FABRICATION, REINFORCEMENT, SEALING REQUIREMENTS, INSTALLATION, AND METHOD OF SUPPORTING DUCTWORK SHALL BE IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS. FABRICATE DUCTWORK FROM GALVANIZED SHEET METAL, EXCEPT A 10 FT LENGTH AT THE HUMIDIFIER DISPERSION ASSEMBLY AS INDICATED ON THE INSTALLATION PLAN. GALVANIZED STEEL SHEET: ASTM A 653, CLASS LFQ (LOCK FORMING QUALITY), COATING DESIGNATION G90. STAINLESS STEEL SHEET: AISI TYPE 302 OR 304 STAINLESS STEEL.
- DUCT LINER: GLASS FIBER INSULATION, NON-CORROSIVE, INCOMBUSTIBLE GLASS FIBER COMPLYING WITH ASTM C1071; FLEXIBLE BLANKET, RIGID BOARD, IMPREGNATED SURFACE AND EDGES COATED WITH POLY VINYL ACETATE POLYMER, ACRYLIC POLYMER, OR BLACK COMPOSITE. ADHESIVE: WATERPROOF, FIRE-RETARDANT TYPE, ASTM C916.

BID SET: 12 APRIL 2021

REVIEW SET: 18 DECEMBER 2020

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9 COLUMBIA CIRCLE ALBANY NY 12203

Second Floor Community Room Renovation for the

Josephine-Louise Public Library



SCALE: JOB NO.: DATE:

Y: RWW AS NOTED 19.42.17 04.12.2021

LEGEND, SYMBOLS, ABBREVIATIONS AND SPECIFICATIONS

TITLE

H001

1 OF 5

DIFFUSER, REGISTER AND GRILLE SCHEDULE **NECK SIZE** PATTERN MOUNTING MATERIAL MANUFACTURER REMARKS TAG TYPE SIZE & MODEL NO. RR-1 RETURN WITH FILTER 36X12 36X12 45 DEGREE SURFACE STEEL NAILOR 61FB45 24X8 SR-1 24X8 DUCT STEEL NAILOR 61DV-0 SUPPLY DOUBLE DEFLECTION 14X8 14X8 DOUBLE DEFLECTION STEEL SR-2 SUPPLY DUCT NAILOR 61DV-0

CONDENSING UNIT SCHEDULE														
COOLING						HI	HEATING							
TAG	SERVICE	COND. EAT DB (DEG. F)	EVAP. EAT WB (DEG. F)	SENS. CAP.	TOTAL CAP. (BTUH)	COND. EAT DB (DEG. F)	TOTAL CAP. (BTUH)	ELECTRICAL					MEC AND MODEL	REMARKS
IAG				(BTUH)				VOLTS	PHASE	HZ	MCA	MOCP	MFG. AND MODEL	REMARKO
ACCU-1	FC-1	95	67	42.2	57.5	N/A	N/A	208	1	60	37.3	60	BRYANT 127ANA060	1,3
ACCU-2	FC-2	91	62.5	24.0	30.7	-4	32.5	230	1	60	23.5	40	LG ARUM036GSS5	2,3
1. SEE DETAIL 1/H003 FOR INSTALLATION.														

FAN COIL UNITS

SEE DETAIL 2/H003 FOR INSTALLATION. PROVIDE AS INVERTER SYSTEM.

FANCOIL														
TAC	SERVICE	STYLE	CFM	SPEED	MBH COOLING	MBH HEATING	MOUNTING	ELECTRICAL					MANUFACTURER	REMARKS
TAG			CFIVI	CONTROL				VOLTS	PHASE	HZ	MCA	RLA	IVIANUI ACTURER	KLIVIAKKO
FC-1	LIBRARY SPACE	AHU	945 - 1750	VARIABLE	44.5 - 56.5	N/A	VERTICAL	208	1	60	8.5	6.8	BRYANT FV4CNF006	1,3,4
FC-2	COMMUNITY ROOM	HIGH WALL	671 - 918	VARIABLE	24.0 - 30.7	26.0-42.0	CEILING	208	1	60	1.02	0.81	LG ARNU363SVA4	2,3

- 1. SEE DETAIL 1/H003 FOR INSTALLATION.
- 2. SEE DETAIL 2/HOO3 FOR INSTALLATION.
- 3. PROVIDE WITH CONDENSATE PUMP, LITTLE GIANT VCMULS-20 OR EQUAL.
- 4. PROVIDE WITH EC MOTOR.

CONDENSATE PUMP SCHEDULE

			FLOWRATE	LIEAD	FLUID TEMP.	FLUID TYPE	ELECT	RICAL	BASIS OF DESIGN	REMARKS
TAG	TAG	SERVICE	(GPM)	HEAD (FT)	(DEG F)		MOTOR HP	VOLT/PH	MANUFACTURER & MODEL NO	
	CP-1	FC-1, FC-2	0.75	10	50	WATER	1/30	230/1	LITTLE GIANT VMCA-20ULS	1,2

- 1. PROVIDE WITH SAFETY OVERFLOW SWITCH.
- 2. WIRE SAFETY OVERFLOW SWITCH TO INTERUPT A/C OPERATION UPON HIGH WATER LEVEL SENSING.

ELECTRIC CABINET UNIT HEATER SCHEDULE

- [
	TAG	LOCATION / SERVICE	CAPACITY (KW)	LENGTH X WIDTH X HEIGHT (IN. X IN. X IN.)	ELECTRICAL		ELECTRICAL BASIS OF DESIGN MANUFACTUREF & MODEL NO.	
					VOLTS	PHASE		
	EWH-1	KITCHEN	1.5	10.5 X 5 X 12.5	120	1	BERKO SRA1512DSAF	1,2,3

- 1. PROVIDE WITH SURFACE MOUNTING FRAME.
- 2. PROVIDE WITH FACTORY INTEGRAL MOUNTED THERMOSTAT. INITIAL SETTING OF 65 DEGREES.
- 3. MOUNT WALL HEATER HIGH ON WALL MINIMUM OF 84".

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ISSUES and REVISIONS

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9 COLUMBIA CIRCLE

Second Floor Community Room Renovation for the

Josephine-Louise Public Library



DWN. BY: SCALE: JOB NO.: DATE: RWW AS NOTED 19.42.17

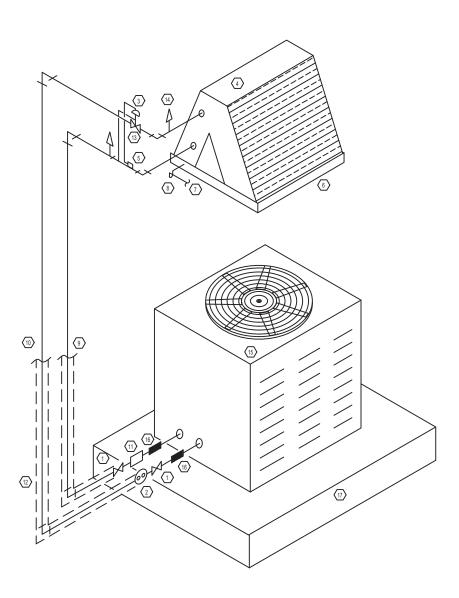
EDITEC

SCHEDULES

TLE

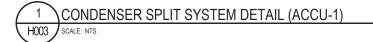
H002

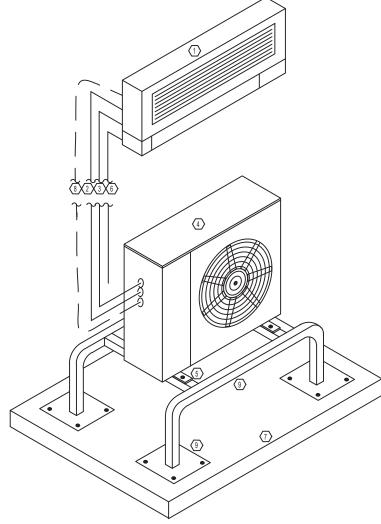
DWG.



- 1 SHUT OFF SERVICE VALVE (TYP)
- 2 SIGHT GLASS
- (3) THERMAL EXPANSION VALVE
- 4 DX EVAPORATOR COIL
- 5 SENSING BULB
- 6 CONDENSATE DRAIN PAN
- (7) CONDENSATE DRAIN LINE
- 8 CONDENSATE TRAP

- 9 REFRIGERANT SUCTION
- (10) REFRIGERANT LIQUID
- 11 FILTER-DRIER
- (12) ALUMINUM JACKETING (EXTERIOR EXPOSED PIPING)
- (13) EQUALIZATION LINE
- 14 PRESSURE TAP
- (15) CONDENSING UNIT
- 16 FLEXIBLE PIPING CONNECTORS
- (17) EQUIPMENT PAD (SECURE TO ROOF)





FAN COIL UNIT (TYP). WALL MOUNT SHOWN SUPPORT AND SPACE AS NECESSARY FOR REFRIGERANT AND CONDENSATE PIPING CONNECTIONS.

REFRIGERANT LIQUID LINE (TYPE L DRAWN TEMPER COPPER WITH ELASTOMERIC INSULATION)

CONDENSING UNIT

CONDENSING UNIT ANCHOR POINT (ANCHOR TO EQUIPMENT STAND TYP 4)

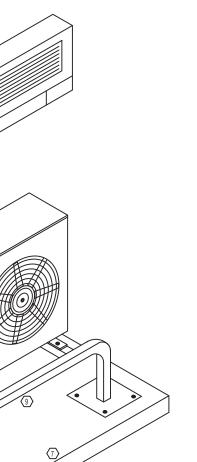
INSULATED CONDENSATE DRAIN LINE. 12" AFG

CONCRETE EQUIPMENT PAD

CONTROL WIRING/POWER WIRING TO EVAPORATOR

HEAT PUMP STAND (MIN 16" AFG) ANCHOR TO CONCRETE PAD (TYP 16)

\HIGHWALL DUCTLESS SPLIT SYSTEM DETAIL (ACCU-2, FC-2) H003 SCALE: NTS



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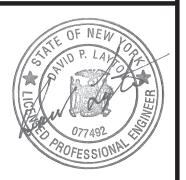
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Second Floor Community Room Renovation for the

Josephine-Louise Public Library

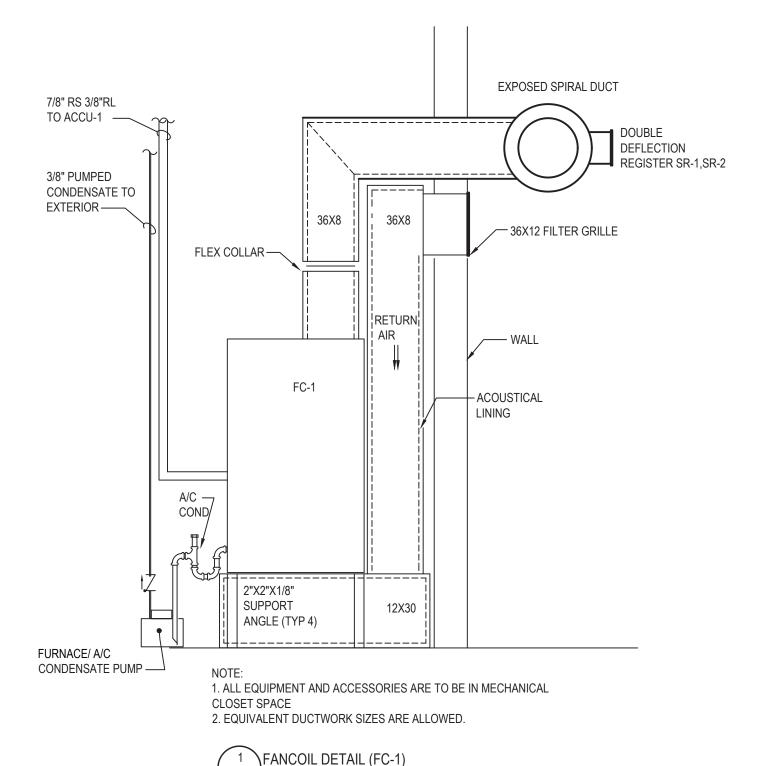


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DETAILS

H003



H004 SCALE: NTS

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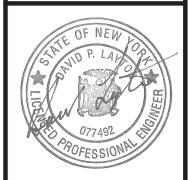
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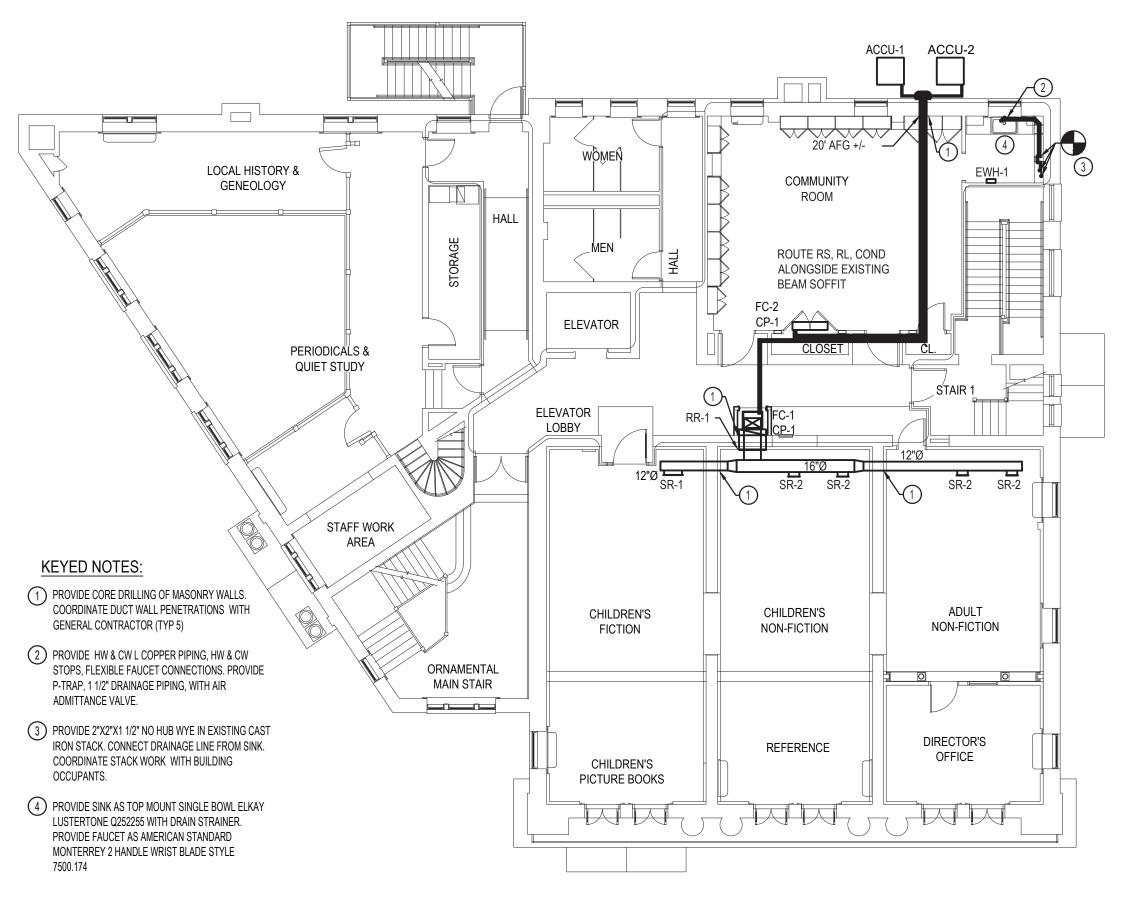
Josephine-Louise Public Library



DWN. BY: RWW SCALE: AS NOTED JOB NO.: 19.42.17 DATE: 04.12.2021

DETAILS

H004



1 MECHANICAL SECOND FLOOR INSTALLATION PLAN H101 SCALE: 3/32" = 1'-0"



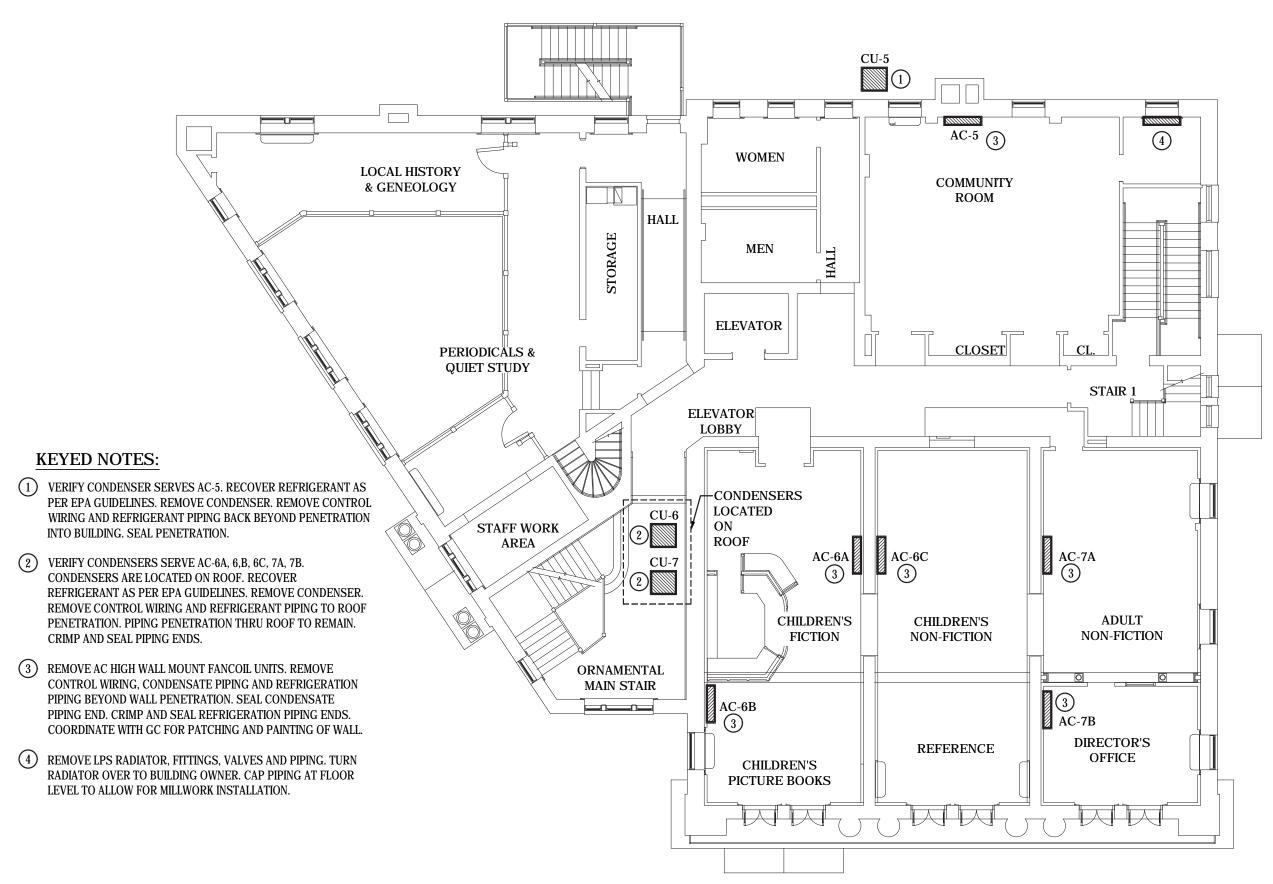


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MECHANICAL SECOND FLOOR INSTALLATION PLAN

TITI

H101



MECHANCIAL SECOND FLOOR REMOVAL PLAN HR001/SCALE: 3/32" = 1'-0"

BID SET: 12 APRIL 2021 REVIEW SET: 18 DECEMBER 2020 BUTLER **ROWLAND** MAYS ARCHITECTS, LLP PH: 518 ¥ 885 ¥ 1255 FAX: 518 ¥ 885 ¥ 1266 12020 Second Floor **Community Room** Renovation for the Josephine-Louise Public Library SCALE: JOB NO.: DATE: AS NOTED 19.42.17 MECHANICAL SECOND FLOOR REMOVAL PLAN

HR001