

HVAC NOTES

- CONTRACTOR SHALL INSPECT THE EXISTING DUCTWORK FOR DEFECTS AND REPORT TO THE ARCHITECT/ENGINEER AND THE OWNER ANY DEFICIENCIES PRIOR TO PERFORMING ANY WORK. CONTRACTOR SHALL CLEAN ALL EXISTING DUCTWORK, GRILLES, REGISTERS AND DIFFUSERS PRIOR TO INSTALLING THE NEW WORK.
- 2. CONTRACTOR SHALL BALANCE THE AIR DISTRIBUTION SYSTEM TO AIR QUANTITIES INDICATED ON THE DRAWINGS AND SUBMIT (3) COPIES OF THE BALANCE REPORT TO THE ENGINEER FOR APPROVAL.
- 3. CONTRACTOR SHALL SPRAY PAINT INSIDE OF DUCT BLACK, BEHIND ALL GRILLES AND REGISTERS.
- 4. ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL, FABRICATED AND INSTALLED IN ACCURDANCE WITH ASHRAE STANDARDS AND SMACNA 'HVAC DUCT CONSTRUCTION STANDARDS' EXCEPT THAT DUCTVORK SHALL BE A MINIMUM THICKNESS OF 24 GAUGE.
- 5. FLEXIBLE DUCTWORK SHALL BE RATED CLASS I, WHEN TESTED UNDER THE REQUIREMENTS OF UL 181. FLEXIBLE DUCT SHALL NOT EXCEED (6) FEET IN LENGTH. FLEX DUCT SHALL BE EQUAL TO CERTAINEED "CERTAFLEX" G25 FLEXIBLE HOSE PRE-INSULATED WITH 1-1/2 INCH THICK FIBERGLASS INSULATION WITH POLYETHYLENE JACKET, HOSE SHALL BE POLYESTER WITH EMBEDDED HELICAL STEEL VIRE.
- 6. HVAC UNIT FLEXIBLE DUCT CONNECTIONS SHALL BE A MINIMUM OF 6 INCHES LONG AND HELD IN PLACE WITH HEAVY METAL BANDS, SECURELY ATTACHED TO PREVENT ANY LEAKAGE AT THE CONNECTION POINTS, FLEXIBLE CONNECTIONS SHALL BE FABRICATED FROM APPROVED FLAME PROOF FABRIC CONFORMING TO NFPA 90A, ASBESTOS CLOTH IS NOT ACCEPTABLE.
- 7. ALL PIPING SHALL BE INSTALLED AS INDICATED ON THE DRAVINGS IN A NEAT WORKMANSHIP-LIKE MANNER AND BE SUPPORTED AS REQUIRED BY CODES, PIPING SHALL BE SET UP AND DOWN AND OFFSET AS REQUIRED TO SUIT FIELD CONDITIONS. DIELECTRIC COUPLINGS SHALL BE USED WHERE DISSIMILAR METALS ARE JOINED.
- 8. PIPING HANGERS SHALL BE SPACED SO AS TO PREVENT SAG AND PERMIT PROPER DRAINAGE AND SHALL NOT BE SPACED MORE THAN EITHER FEET APART UNLESS A GREATER SPACE IS DEFINITELY INDICATED ON THE DRAWINGS, A HANGER SHALL BE PLACED WITHIN (1) FOOT OF EACH HORIZONTAL ELBOW.
- 9. ISOLATE AND DRAIN EXISTING PIPING SYSTEM AS REQUIRED TO ACCOMMODATE INSTALLATION OF THE NEW WORK.
- 10. HOT WATER AND CHILLED WATER SUPPLY AND RETURN PIPING SHALL BE BLACK STEEL PIPE, SCHEDULE 40 FOR 2-1/2 INCH AND LARGER, SEAMLESS COPPER TYPE'L' FOR 2 INCH AND BELOW.
- 11. REFRIGERANT PIPING OTHER THAN PRECHARGED TUBING STEST FURNISHED BY AIR CONDITIONING MANUFACTURER SHALL BE TYP "ACR" HARD DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS. PIPING SHALL BE INSTALLED IN ACCURDANCE WITH ARI STANDARDS, USE EASY-FLO OR SAFETY SILVER BRAZING ALLOY TO MAKE JOINTS, RUN ALL HORIZONTAL LINES DEAD LEVEL TO ENSURE PROPER GAS RETURN TO COMPRESSOR.
- 12. CONDENSATE DRAIN PIPING AND FITTINGS SHALL BE SEAMLESS TYPE "L" COPPER WITH 95-5 SOLDER.
- 13. THE INSTALLATION OF ALL INSULATION SHALL BE PERFORMED BY AN EXPERIENCED CRAFTSMAN IN A NEAT WORKMANSHIP-LIKE MANNER AND SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN PUBLISHED RECOMMENDATIONS FOR SERVICE INTENDED.
- 14. ALL MATERIALS OF INSULATION SHALL BE OF THE TYPE AND QUALITY AS MANUFACTURED BY ARMSTRONG, CERTAINTEED, OVENS-CORNING, DUCTMATE OR MANVILLE. ALL MATERIAL AND EQUIPMENT SPECIFIED TO BE INSULATED SHALL BE THOROUGHLY TESTED AND APPROVED PRIOR TO APPLYING THE INSULATION.
- 15. WRAPPED INSULATION ON DUCTWORK SHALL BE PROVIDED TO MEET IECC 2015 REQUIREMENTS.
- 16. ACOUSTICAL DUCT LINING SHALL BE DUCTMATE POLY ARMOR COMPLYING WITH FIRE CLASSIFICATION REQUIREMENTS OF NFPA 90A AND 90B. ADHERE LINER TO DUCT WITH FIRE RESISTANT ADHESIVE AND WELDED PIN TYPE MECHANICAL FASTENERS AS INDICATED IN SMACNA STANDARDS, OR PER MANUFACTURER'S REQUIREMENTS.
- 17. ACCUSTICALLY LINED DUCTWORK DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS, SHEET METAL DIMENSIONS SHALL BE INCREASED TO ACCOMMODATE LINING THICKNESS.
- 18. WRAPPED INSULATION ON ROUND DUCTWORK SHALL MEET IECC REQUIREMENTS, INSULATION SHALL BE GLASS FIBER WITH LAMINATED KRAFT-FOIL VAPOR BARRIER 2PC COMPLYING WITH FIRE CLASSIFICATION REQUIREMENTS OF NFPA 90A AND 90B
- 19. WRAPPED DUCTWORK INSULATION SHALL BE PROVIDED ON ALL.
- 20. HOT WATER AND CHILLED WATER SUPPLY AND RETURN PIPING AND

- FITTINGS SHALL BE INSULATED WITH 1 INCH FIBERGLASS PREFORMED INSULATION WITH VAPOR JACKET AND SELFSEALING TAPE EQUAL TO OVENS-CORNING ASJ.SSL-II.
- 21. REFRIGERATION SUCTION AND HOT, GAS BY-PASS SHALL BE INSULATED WITH 1 INCH THICK ARMSTRONG "ARMAFLEX" OR EQUAL EXTERIOR INSULATION SHALL BE COATED WITH ULTRAVIOLET RESISTANT MATERIAL IN ACCURDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. DO NOT INSULATE THE LIQUID LINE.
- 22. CONDENSATE DRAIN PIPING SHALL BE INSULATED WITH 3/4 INCH THICK ARMSTRONG 'ARMAFLEX' OR EQUAL. EXTERIOR INSULATION SHALL BE COATED WITH ULTRAVIOLET RESISTANT MATERIAL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 23. ALL EXTERIOR EXPOSED WATER PIPING SHALL BE INSULATED WITH 2 INCH PREFORMED FIBERGLASS INSULATION WITH VAPOR JACKET AND SELF-SEALING TAPE EQUAL TO OVENS-CORNING ASJ/SSL-II. COVER INSULATION WITH .016 INCH THICK ALUMINUM JACKET.
- 24. CONTRACTOR SHALL FURNISH A COMBINATION STARTER SIZED IN ACCORDANCE WITH THE MOTOR RATING OF THE MECHANICAL EQUIPMENT, STARTER SHALL BE SUPPLIED WITH FUSES OR CIRCUIT BREAKERS, CONTROL TRANSFORMER, OVERLOADS, ONE N.O. AND ONE N.C. AUXILIARY CONTACT AND H.O.A. SWITCH MOUNTED IN THE COVER STARTER ENCLOSURE SHALL BE NEMA RATED FOR ITS LOCATION. STARTER SHALL BE INSTALLED AND WIRED BY THE ELECTRICAL CONTRACTOR.
- 25. CONTRACTOR SHALL PROVIDE ALL AIR TEMPERATURE CONTROLS INCLUDING WIRING, TUBING AND THERMOSTATS (WITH LOCKING COVERS) AND ALL MISCELLANEOUS APPURTENANCES TO MEET THE INTENT OF THESE DOCUMENTS.
- 26. CONTRACTOR SHALL FURNISH AND INSTALL UL LISTED DUCT SMOKE DETECTORS AS REQUIRED WITH AUXILIARY CONTACTS FOR CONNECTION TO THE FIRE ALARM SYSTEM. DETECTORS SHALL DE-ENERGIZE AIR HANDLING UPON ACTIVATION.
- 27. VIBRATION ISOLATORS FOR HANGING EQUIPMENT SHALL BE EQUAL TO MASON INDUSTRIES MODEL 30N, COMBINATION SPRING AND DOUBLE DEFLECTION NEOPRENE HANGER, OR DEFLECTION AS RECOMMENDED BY MANUFACTURER.
- 28. VIBRATION ISOLATORS FOR BASE MOUNTED EQUIPMENT SHALL BE EQUAL TO MASON INDUSTRIES MODEL SLF, DEFLECTION AS RECOMMENDED BY MANUFACTURER.
- 29. ALL EQUIPMENT AND MATERIAL FURNISHED SHALL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIAL, ALL EQUIPMENT AND MATERIALS SHALL MEET THE REQUIREMENTS OF ALL CODES AND STANDARDS OF LOCAL AND STATE AGENCIES HAVING JURISDICTION.
- 30. WHERE A SUBCONTRACTOR PROPOSES TO USE AN ITEM OR EQUIPMENT OTHER THAN THE SPECIFIED OR DETAILED ITEM ON THE DRAWINGS THAT IS APPROVED BY THE ENGINEER AND THAT REQUIRES REDESIGN OF THE STRUCTURE PARTITIONS FOUNDATIONS, PIPING, WIRING OR ANY OTHER PART OF THE MECHANICAL, ELECTRICAL, OR ARCHITECTURAL LAYOUT, THEN SUCH REDESIGN, NEW DRAWINGS, AND DETAILING REQUIRED FOR IT SHALL BE PREPARED BY THE SUBCONTRACTOR WITHOUT EXTRA COMPENSATION.
- 31. THE SUBMITTAL WHICH HAS BEEN REVIEWED BY THE ENGINEER, WITH OR WITHOUT COMMENTS, DOES NOT RELIEVE THE CONTRACTOR FROM THE REQUIREMENTS OF COMPLYING WITH THE CONTRACT DOCUMENTS. ONLY SUBMITTALS WHICH EXPLICITLY REQUEST THE ENGINEER TO REVIEW DEVIATIONS WITH THE CONTRACT DOCUMENTS RELIEVE THE CONTRACTOR FROM THE SPECIFIC ITEM OF COMPLIANCE.
- 32. THE LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE, AND ARE TO SERVE AS GUIDE FOR THE INSTALLATION, THE SHIFTING OF LOCATIONS TO MEET CONDITIONS (BEFORE INSTALLATION) WILL BE EXPECTED, AND THIS SHALL DONE AT NO INCREASED COST.
- 33. FOR PURPOSES OF CLEARNESS AND LEGIBILITY, MECHANICAL DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND INDICATE UNLY SIZES, CONNECTION POINTS, AND ROUTES. IT IS NOT INTENDED OR IMPLIED THAT ALL OFFSETS, RISES, AND DROPS ARE AS
- 34. PROVIDE HOLLOW-FORMED CURVED METAL TURNING VANES IN ALL RECTANGULAR ELBOWS.
- 35. THE CONTRACTOR SHALL BALANCE THE SYSTEM IN ACCORDANCE WITH THE AIR VOLUMES AS SHOWN ON THE DRAWINGS AND MAKE OTHER MINOR ADJUSTMENTS AS DIRECTED.
- 36. CONTRACTOR SHALL PROVIDE SMOKE DETECTOR WITH RESET AND ONE SET OF DRY CONTACTS FOR ALL HVAC OVER 2000 CFM EACH OR SERVING A COMMON PLENUM EXCEEDING 2000 CFM IN PLENUM.
- 37. CONTRACTOR SHALL SUBMIT A MINIMUM OF TWO AIR BALANCING CONTRACTORS, THE ENGINEER WILL MAKE THE FINAL SELECTION OF THE AIR BALANCING CONTRACTOR TO BE USED, REFER TO SPECIFICATIONS.

GENERAL NOTES - HVAC

- ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER. CARE SHALL BE EXERCISED TO MINIMIZE ANY INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION, ISOLATE WORK AREAS BY MEANS OF TEMPORARY PARTITIONS AND/OR TARPS TO DEEP DUST AND DIRT WITHIN THE CONSTRUCTION AREA.
- GN-2. NO PIPING, EQUIPMENT, ETC. SHALL BE REMOVED, DISCONNECTED OR SHUT DOWN WITHOUT PRIOR REVIEW WITH THE OWNER AND/OR ENGINEER TO CONFIRM THAT AREAS TO REMAIN IN OPERATION WILL NOT BE AFFECTED, IF ANY AREAS NOT WITHIN THE SCOPE OF WORK ARE AFFECTED BY ANY SHUTDOWN, REMOVAL OR DISCONNECTION, SUFFICIENT ADVANCE NOTICE MUST BE GIVEN TO THE DWNER INDICATING WHICH AREAS WILL BE AFFECTED, WHEN THE PROPOSED SHUTDOWN WILL OCCUR, AND FOR HOW LONG A PERIOD OF TIME.
- GN-3. ALL ITEMS REMOVED SHALL BECOME PROPERTY OF THE OWNER AND SHALL BE DISPOSED OF AS PER THE OWNER'S INSTRUCTIONS, UNLESS INDICATED OTHERWISE, ALL ITEMS WHICH ARE NOT TO BE STORED ON SITE BY OWNERS SHALL BE REMOVED FROM THE BUILDING IMMEDIATELY.
- GN-4. THIS CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. WHERE DISCREPANCIES OCCUR BETWEEN THESE DOCUMENTS AND EXISTING CONDITIONS, THE DISCREPANCY SHALL BE REPORTED TO THE OWNER AND/OR ENGINEER FOR EXPEDITING AND RESOLVE.
- GN-5. ALL SHUT DOWNS OF EXISTING SYSTEMS SHALL BE SCHEDULED AND APPROVED BY THE OWNER PRIOR TO COMMENCING WITH WORK.
- GN-6. CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT.

FLEXIBLE DUCT CONNECTION

SD SPLITTER DAMPER

MANUAL VOLUME DAMPER

MOTOR OPERATED DAMPER

BRANCH WITH EXTRACTOR

BRANCH WITH 45° TAP

WITH VOLUME DAMPER

WITH VOLUME DAMPER

TRANSITION

SMOKE DAMPER

FIRE DAMPER (PROVIDE TO M FIRE RATING OF ASSEMBLY)

DAMPER (PROVIDE TO MATCH

RISE IN DUCT (DIRECTION OF AIR FLOW)

DROP IN DUCT (DIRECTION OF AIR FLOW)

PREFABRICATED ROUND BRANCH FITTING

FLEXIBLE DUCTWORK BRANCH FITTING

3 WAY SPLIT IN MAINS. AREA "A" IS

2 WAY SPLIT IN MAINS. AREA "A" IS

EQUAL TO SUM OF AREAS "B", "C".

ALL DUCT SIZES ARE NET CLEAR

2 WAY SPLIT AT END OF MAIN. AREA "A IS EQUAL TO SUM OF AREAS "B", "C".

RADIUS ELBOW (MAY BE USED IN LIEU OF SQUARE ELBOW WITH TURNING VANES)

DIFFUSER (4 WAY UNLESS NOTED)

NECK SIZE & CFM NOTED

SQUARE ELBOW WITH TURNING VANES.

INSIDE DIMENSIONS.

SUPPLY

RETURN

EXHAUST

DUCTWORK SYMBOLS

EQUAL TO SUM OF AREAS "B", "C", "D".

AIR FLOW MEASURING DEVICE

SINGLE LINE

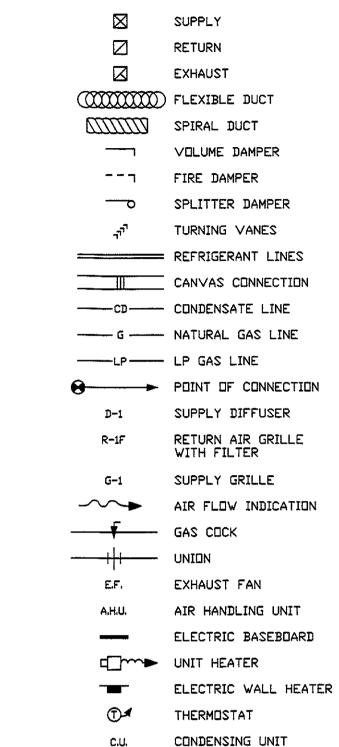
DOUBLE LINE

VD

______SD

- GN-7. USE OF THE OWNER'S ELEVATORS AND BUILDING CORRIDORS FOR FOR HANDLING OF THE OWNER AND REMOVED EQUIPMENT AND MATERIALS SHALL BE AT THE DIRECTION OF THE OWNER AND SHALL BE COORDINATED WITH HIS OPERATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE, OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES AGAINST FIRE, THEFT AND ENVIRONMENTAL CONDITIONS.
- GN- 9. SUCCESSFULLY PRESSURE TEST ALL REROUTED PIPING SYSTEMS. TEST SHALL BE PERFORMED AT NORMAL SYSTEM OPERATING PRESSURES. REPAIR AND RETEST AS REQUIRED UNITL SYSTEMS
- GN-10. EXISTING MATERIALS THAT ARE REMOVED SHALL NOT BE REUSED IN NEW SYSTEMS, EXCEPT WHERE INDICATED AS BEING RELOCATED.
- GN-11. PROVIDE ALL NECESSARY TEMPORARY OR PERMANENT CAPS OR PLUGS FOR PIPING, DO NOT LEAVE PIPING OPEN ENDED.
- GN-12. WHERE USED, THE TERM 'PROVIDE' SHALL MEAN 'FURNISH AND
- GN-13. THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES PRIOR TO FABRICATION, PURCHACE AND/OR INSTALLATION OF ALL WORK.

MECHANICAL SYMBOLS



UNDERCUT DOOR

FIRE STOPPING NOTES

ALL PIPES, DUCTS, CONDUITS AND CABLES PASSING THROUGH THE FOLLOWING WALLS/CEILINGS SHALL BE FIRE STOPPED WITH 3M FIRE BARRIER CAULK CP 25. INSTALL PER MANUFACTURE'S INSTRUCTIONS AND TO SATISFY THE FOLLOWING FIRE RATING REQUIREMENTS:

ELEVATOR MACHINE ROOM -

2 HOUR FIRE RATING FOR WALLS AND CEILING

MECHANICAL ROOM -COMMON WALL BETWEEN NEW AND OLD CONSTRUCTION .

1 HOUR FIRE RATING FOR

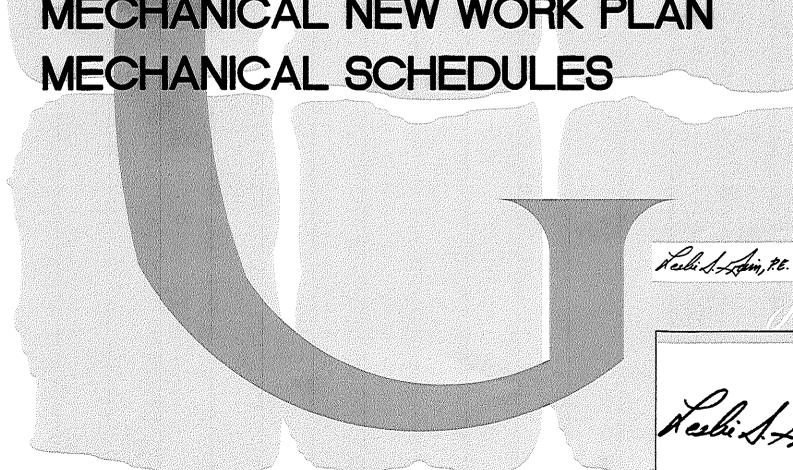
1 HOUR RATING FOR WALLS

MECHANICAL DRAWING LIST

M-0.0M-0.1M-1.1

M-2.0

MECHANICAL COVER SHEET MECHANICAL DETAIL SHEET MECHANICAL NEW WORK PLAN MECHANICAL SCHEDULES



Digitally signed by Leslie S. Grim Date: 2021.02.27 17:08:41 -05'00'

DRAWN BY: LSQ DATE: FEB. 24, 2021

Professional Certification l certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland License Number: 14401 Expiration Date: 4/21/2021 LESLIE SCOTT GRIM, P.E CO PROF. ENG. NO. DE PROF. ENG. NO. DE PROF. ENG. NO. DE301201

DE PROF. ENG. NO. DE13943

MD PROF. ENG. NO. DE13943

MD PROF. ENG. NO. DE13943

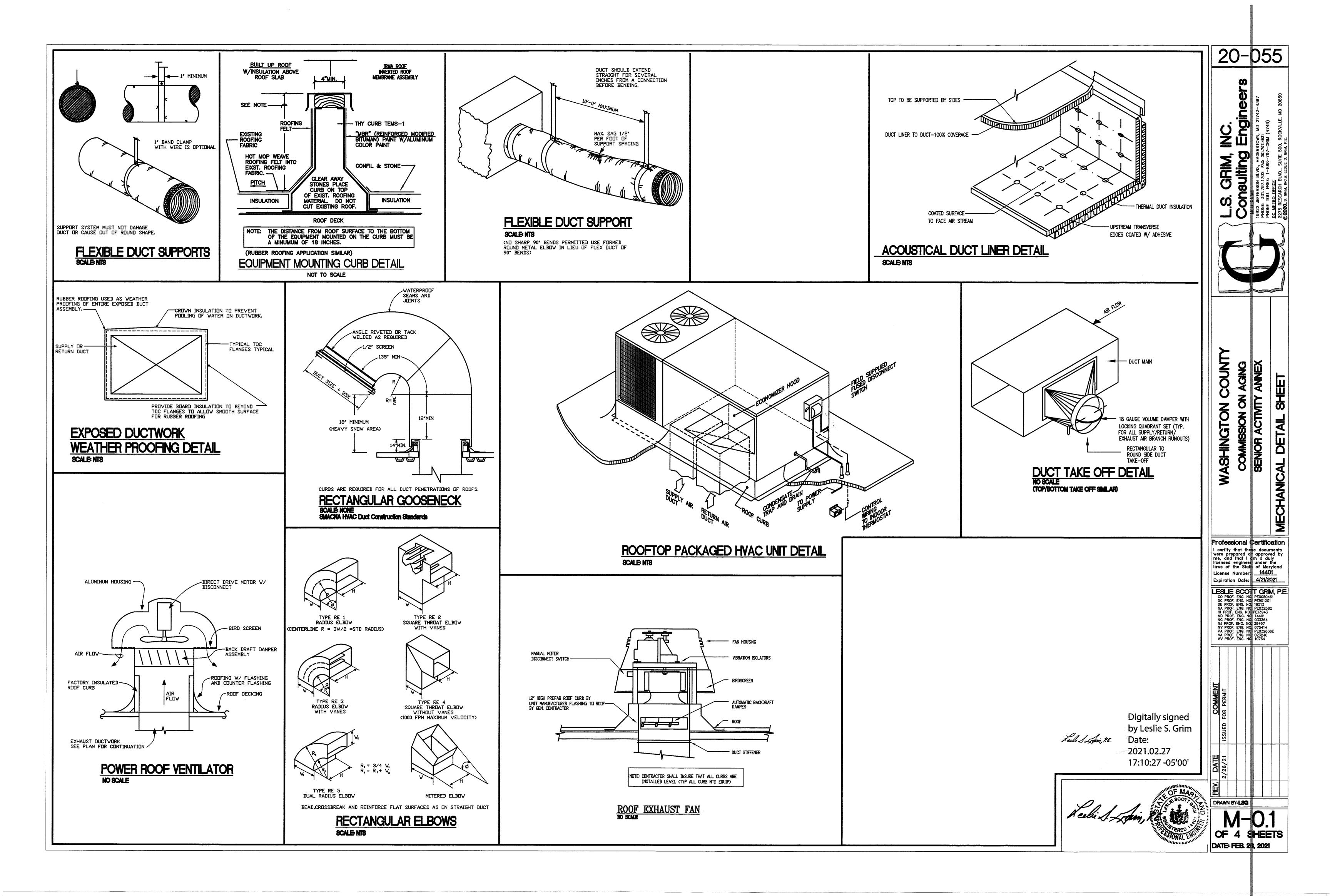
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Tag #	Qt	ty	SA	OA	НР	ESP (IW	G) Blwr RP	-	nt. Ai		Lvg.		OD Amb	Total	Sens.	Stages	EER	IEER	Refrigerant	Tem	p (ºF)			Applied	М	вн	CO	P(ºF)	Voltage	MCA	Max Fuse	Weight	Model	Brand
								DB	W	В	DB	WB	OD AIIID	Total	Je:15.					Ent. DB	Lvg. DB	MBH	KW	kW	47	17	47	17				1.0.8	Number	Brana
RTU-1	1	L 3	3000	0	1.50	0.6	967	80.0	0 67	.0 5	58.8	57.0	95.0	94.9	68.7	2.0	11.4	12.6	R410A	60.0	86.8	87.0	36.0		88.0	51.0	3.40	2 25	208-3-60	120 7	150	1225	XP090E36	York

1) Dual enthalpy economizer with barometric relief.

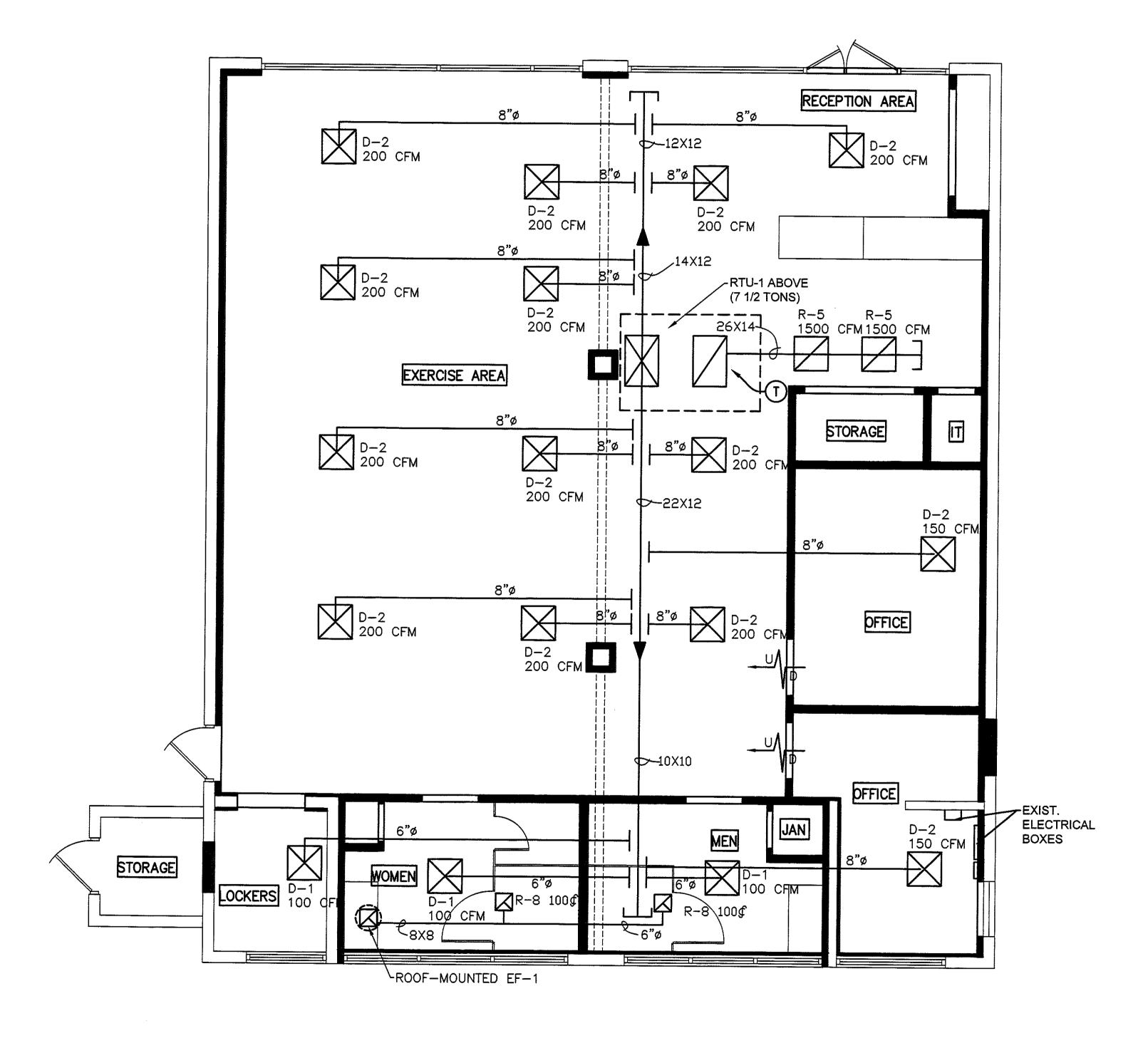
2) Supply fan VFD with manual bypass, Intellispeed control for Single Zone VAV Operation.

3) Factory disconnect, powered convenience outlet and phase monitor.

4) SE controller with discharge air, return air and outdoor air temperature sensors.

5) BACnet, Modbus and N2 communications card.

6) 14" uninsulated roof curb



MECHANICAL PLAN GENERAL NOTES:

- 1) CONTRACTOR SHALL SHIFT/ADJUST DIFFUSER LOCATIONS TO SUIT FIELD CONDITIONS.
- 2) RUN-OUT SHALL BE HARD DUCT WITHIN 3-FT OF DIFFUSER.
- 3) RUN-DUTS ARE TO BE PLACED IN JOIST SPACE TO ALLOW FOR CEILING INSTALLATION.

	MECHANICAL SCHEDULE
MARK #	DESCRIPTION
RTU-1	7 1/2-TON TWO-STAGE COOLING, SINGLE PACKAGED R-410A ROOF TOP HEAT PUMP UNIT YORK MODEL #XP090E36S2B6BCA1A1 PROVIDE WITH: 1. 14" ROOF CURB 2. DUAL ENTHALPY ECONOMIZER w/BAROMETRIC RELIEF 3. 7-DAY PROGRAMMABLE THERMOSTAT 4. SUPPLY FAN VFD w/MANUAL BYPASS, INTELISPEED CONTROL FOR SINGLE ZONE VAV OPERATION 5. FACTORY DISCONNECT, POWERED CONVENIENCE OUTLET & PHASE MOTOR 6. SE CONTROLLER w/DISCHARGE AIR, RETURN AIR & OUTDOOR AIR TEMPERATURE SENSORS 7. BACNET, MODBUS & N2 COMMUNICATIONS CARD 8. CO2 SENSOR - MODULATE O.A. 9. SMOKE DETECTOR 10. 208V 3Ø 4W 11. 3000 CFM @ 0.6" ESP, SET O.A. TO 200 CFM
EF-1	ROOF MOUNTED EXHAUST FAN (PRV) GREENHECK#G-075-DGEX-QD 214CFM @ 0.375 EXP, PROVIDE WITH ROOF CURB, BACK DRAFT DAMPER. INTERLOCK WITH EXERCISE ROOM LIGHTS.

Digitally signed by Leslie S. Grim Date: 2021.03.31 13:37:41 -04'00'



DRAWN BY: LBQ OF 4 SHEETS DATE: FEB. 26, 2021

Keeli S. Lain, P.E.

Professional Certification

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer laws of the State of Maryland License Number:

Expiration Date:

4/21/2021 CO PROF. ENG. NO. DE 032636E VA PROF. ENG. NO. 10764

20-055

MECHANICAL NEW WORK PLAN SCALE: 1/4'=1'-0'

MARK SEE NOTE#2	DESCRIPTION	CFM SEE NOTE#1	NECK	BLOW	COLOR	MATERIAL	MANUFACTURER & MODEL NO.
D-1	24"X24" LAY-IN SUPPLY DIFFUSER	75 T0 125	6 " ø	4-W	WHITE	STEEL	KRUEGER MODEL #1400F23 W/ INTERGREDUND NECK COLLAR AND PRN100 DAME
D-2	24"X24" LAY-IN SUPPLY DIFFUSER	130 TD	8 * ø	4-W	WHITE	STEEL	KRUEGER MODEL #1400F23 W/ INTERGREDUND NECK COLLAR AND PRN100 DAME
D-3	24"X24" LAY-IN SUPPLY DIFFUSER	210 215 TD	10 ′ ø	4-W	WHITE	STEEL	KRUEGER MODEL #1400F23 W/ INTERGER ROUND NECK COLLAR AND PRN100 DAME
D-4	24'X24' LAY-IN SUPPLY DIFFUSER	300 305 TD	12 * ø	4-W	WHITE	STEEL	KRUEGER MODEL #1400F23 W/ INTERGREDUND NECK COLLAR AND PRN100 DAME
D-5	24"X24" LAY-IN SUPPLY DIFFUSER	425 500 TD	14 * ø	4-W	WHITE	STEEL	KRUEGER MODEL #1400F23 W/ INTERGREDUND NECK COLLAR AND PRN100 DAME
D-6	CEILING SURFACE MOUNTED	1000 50 TD	6"X6"	4-W	WHITE	STEEL	KRUEGER MODEL#SH4 F22 OBD (ROUND TO SQUARE ADAPTER
D-7	SUPPLY DIFFUSER CEILING SURFACE MOUNTED	100 110 TD	9*X9*	4-W	WHITE	STEEL	MAY BE REQUIRED SEE PLAN) KRUEGER MODEL#SH4 F22 OBD (ROUND TO SQUARE ADAPTER
D-8	SUPPLY DIFFUSER CEILING SURFACE MOUNTED	225 200 TD	12°X12°	4-W	WHITE	STEEL	MAY BE REQUIRED SEE PLAN) KRUEGER MODEL#SH4 F22 OBD (ROUND TO SQUARE ADAPTER
D-9	SUPPLY DIFFUSER CEILING SURFACE MOUNTED	400 310 TD	15°X15°	4-W	WHITE	STEEL	MAY BE REQUIRED SEE PLAN) KRUEGER MODEL#SH4 F22 OBD (ROUND TO SQUARE ADAPTER
	SUPPLY DIFFUSER CEILING	625 450					MAY BE REQUIRED SEE PLAN) KRUEGER MODEL#SH4 F22 OBD
D-10	SURFACE MOUNTED SUPPLY DIFFUSER 24"X24" LAY-IN	70 900 UP TO	18"X18"	4-W	WHITE	STEEL	(ROUND TO SQUARE ADAPTER MAY BE REQUIRED SEE PLAN) KRUEGER MODEL#6604
D-11	PERFORATED SUPPLY DIFFUSER 24"X24" LAY-IN	125	6 * ø	4-W	WHITE	STEEL	(ROUND TO SQUARE ADAPTER MAY BE REQUIRED SEE PLAN) KRUEGER MODEL#6604
D-12	PERFORATED SUPPLY DIFFUSER 24'X24' LAY-IN	70 230 230	8*ø	4-W	WHITE	STEEL	(ROUND TO SQUARE ADAPTER MAY BE REQUIRED SEE PLAN) KRUEGER MODEL#6604
D-13	PERFORATED SUPPLY DIFFUSER	TD 350	10 * ø	4-W	WHITE	STEEL	(ROUND TO SQUARE ADAPTER MAY BE REQUIRED SEE PLAN)
D-14	24"X24" LAY-IN PERFORATED SUPPLY DIFFUSER	350 TD 500	12 ° ø	4-W	WHITE	STEEL	KRUEGER MODEL#6604 (ROUND TO SQUARE ADAPTER MAY BE REQUIRED SEE PLAN)
G-1	COMMERCIAL SIDE WALL SUPPLY REGISTER	75 T0 110	8"X4"	2-%	WHITE	STEEL	KRUEGER MODEL #880VOBD
G-2	COMMERCIAL SIDE WALL SUPPLY REGISTER	110 TD 140	10 " X4"	2-V	WHITE	STEEL	KRUEGER MODEL #880V0BD
G - 3	COMMERCIAL SIDE WALL SUPPLY REGISTER	140 TO 170	12"X4"	2->	WHITE	STEEL	KRUEGER M□DEL #880∨0BD
G-4	COMMERCIAL SIDE WALL SUPPLY REGISTER	170 TD 220	10 " X6"	2-W	WHITE	STEEL	KRUEGER MODEL #880 VOBD
G-5	COMMERCIAL SIDE WALL SUPPLY REGISTER	220 TD 265	12*X6*	2-~	WHITE	STEEL	KRUEGER MODEL #880VOBD
G-6	COMMERCIAL SIDE WALL SUPPLY REGISTER	265 TD 310	14"X6"	2-W	WHITE	STEEL	KRUEGER M□DEL #880∨0BD
G-7	COMMERCIAL SIDE WALL SUPPLY REGISTER	310 TD 355	16"X6"	2-V	WHITE	STEEL	KRUEGER MODEL #880 VOBD
G-8	COMMERCIAL SIDE WALL SUPPLY REGISTER	355 TD 450	20"X6"	2-~	WHITE	STEEL	KRUEGER MODEL #880V0BD
G-9	COMMERCIAL SIDE WALL SUPPLY	450 TD	20"X8"	2-W	WHITE	STEEL	KRUEGER MODEL #880VOBD
R-1	REGISTER 24"X24" LAY-IN RETURN GRILLE	610 100 TD	8 * ø	N/A	WHITE	ALUM	KRUEGER MODEL #S80H5FFF23 #3
R-2	24"X24" LAY-IN RETURN GRILLE	200 200 TD	10 ° ø	N/A	WHITE	ALUM	KRUEGER MODEL #S80H5FFF23 #3
R-3	24"X24" LAY-IN	400 400 TD	12 * ø	N/A	WHITE	ALUM	KRUEGER MODEL #S80H5FFF23 #3
R-4	RETURN GRILLE 24"X24" LAY-IN	800 800 TD	16 * ø	N/A	WHITE	ALUM	KRUEGER MODEL #S80H5FFF23 #3
R-5	RETURN GRILLE 24'X24' LAY-IN	1200 1200	-				
	RETURN GRILLE 24"X48" LAY-IN	70 1500 2000	20"X20"	N/A	WHITE	ALUM	KRUEGER MODEL #S80H5FFF23 #3
R-6	RETURN GRILLE 24'X48' LAY-IN	3000 TD	25.X55.	N/A	WHITE	ALUM	KRUEGER MODEL #S80H5FFF23 #3
R-7	RETURN GRILLE	5000 200	22"X32"	N/A	WHITE	ALUM	KRUEGER MODEL #S80H5FFF23 #3
R-8	SURFACE MOUNTED RETURN GRILLE COMMERCIAL	300 300	12*X6*	N/A	WHITE	STEEL	KRUEGER MODEL #S80H #3
R-9	SURFACE MOUNTED RETURN GRILLE	TD 600	12"X12"	N/A	WHITE	STEEL	KRUEGER MODEL #S80H #3
R-10	COMMERCIAL SURFACE MOUNTED RETURN GRILLE	600 TD 900	18"X12"	N/A	WHITE	STEEL	KRUEGER MODEL #S80H #3
R-11	COMMERCIAL SURFACE MOUNTED RETURN GRILLE	900 TD 1200	18"X18"	N/A	WHITE	STEEL	KRUEGER MODEL #S80H #3
R-12	COMMERCIAL SURFACE MOUNTED RETURN GRILLE	1200 TD 1600	24"X20"	N/A	WHITE	STEEL	KRUEGER MODEL #S80H #3
R-13	COMMERCIAL SURFACE MOUNTED RETURN GRILLE	1600 TD 2400	24"X24"	N/A	WHITE	STEEL	KRUEGER MODEL #S80H #3
R-14	COMMERCIAL SURFACE MOUNTED RETURN GRILLE	2400 TD 6000	24"X48"	N/A	WHITE	STEEL	KRUEGER MODEL #S80H #3
R-15	24"X24" LAY-IN PERFORATED	UP TO	24"X24"	N/A	WHITE	STEEL	

EXACT CFMS DESIGNATED ON PLAN AT DIFFUSER LOCATION.
 REGISTERS, GRILLES, AND DIFFUSERS DESIGNATIONS MAY APPEAR ON SCHEDULE BUT MAY NOT BE UTILIZED ON THE PLAN. REFER TO PLAN FOR QUANTITY AND DESIGNATION.

WASHINGTON COUNTY
COMMISSION ON AGING
SENIOR ACTIVITY ANNEX Professional Certification I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland License Number: Expiration Date: 4/21/2021

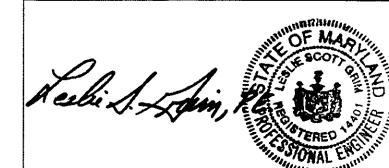
LESLIE SCO! T CRIM, P.E.

CO PROF. ENG. NO. PE0050461
DC PROF. ENG. NO. PE901201
DE PROF. ENG. NO. 19513
GA PROF. ENG. NO. PE032582
HI PROF. ENG. NO. PE13943
MD PROF. ENG. NO. 14401
NC PROF. ENG. NO. 033364
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DATE: FEB. 26, 2021

20-055

Digitally signed by Leslie S. Grim Date: Keeli S. Lain, P.E. 2021.02.27



^{3.} REFER TO PLAN TO DETERMINE IF FILTERS ARE REQUIRED IN RETURN GRILLES, PROVIDE APPROPRIATE STYLE /MODEL TO ACCOMMODATE FILTERS.