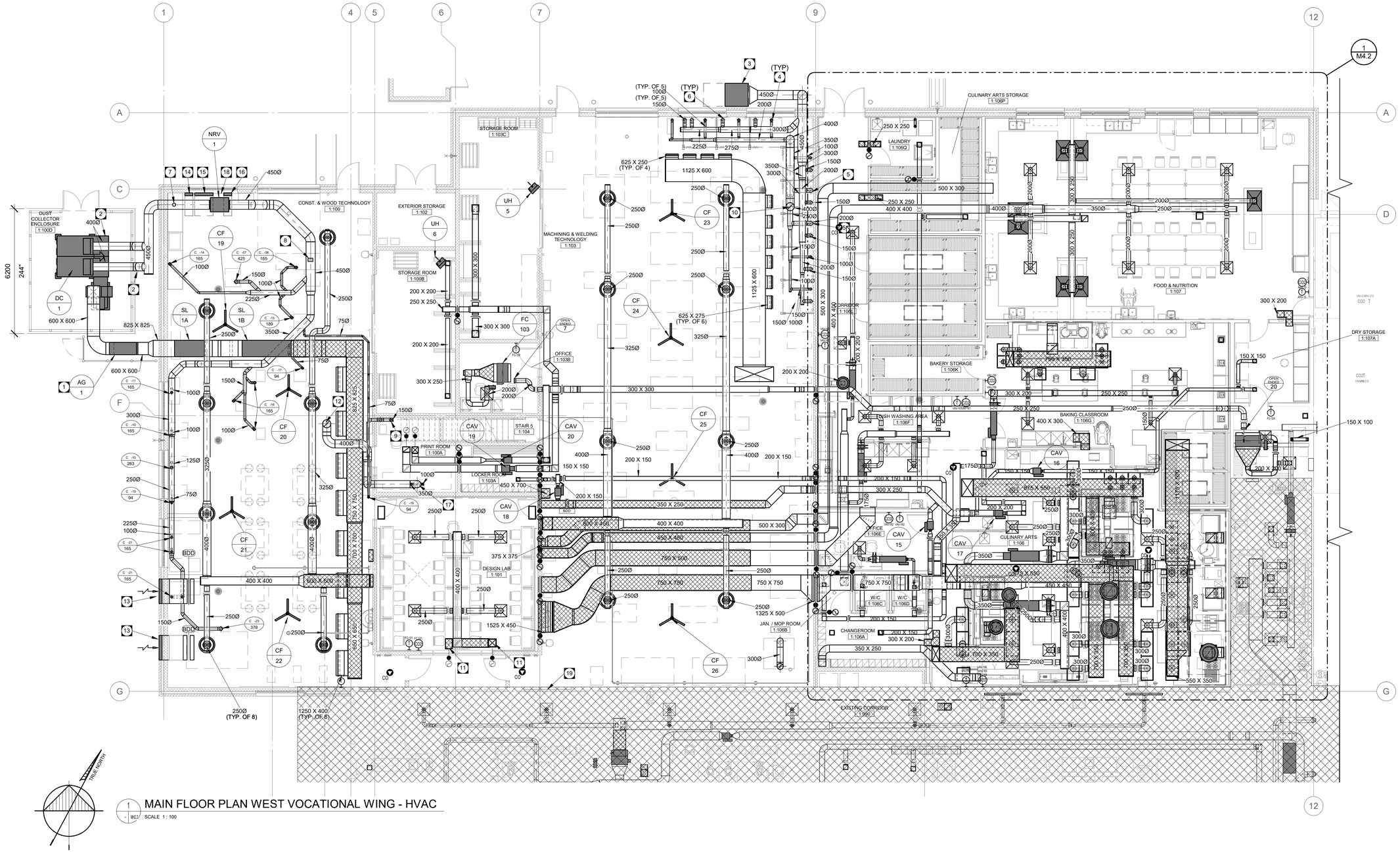

1 MH2.2 MAIN FLOOR PLAN WEST VOCATIONAL WING - HVAC
SCALE 1 : 100

KEY NOTES

1. SUPPLY DUCT TO BE PROVIDED WITH HIGH SPEED ABORT GATE. REFER TO SPECIFICATIONS FOR REQUIREMENTS OF GATE. CONTRACTOR TO PROVIDE STRUCTURAL SUPPORT FOR ABORT GATE. CONTRACTOR TO RETAIN THE SERVICES OF A QUALIFIED ENGINEER LICENSED TO PRACTICE IN THE PROVINCE OF MANITOBA. CONTRACTOR SHALL SUBMIT SEALED SHOP DRAWINGS INDICATING MATERIAL THICKNESS AND GRADES.
2. PROVIDE THERMAL INSULATION FOR THE EXTERIOR DUST COLLECTOR DUCTING AND DUST COLLECTOR.
3. WELDING FUME EXTRACTION SYSTEM. CONNECT TO WELDING ARMS. FUME EXTRACTION SYSTEM BASED ON LINCOLN ELECTRIC MODEL AD1326 PRISM-4, 5000CFM CAPACITY, 10HP, 575V/3PH. DUCTWORK AND EQUIPMENT BY CONTRACTOR. COORDINATE WITH ARCHITECTURAL AND STRUCTURAL.
4. EXHAUST DROPS TO CONNECT TO EXHAUST HOODS WITHIN WELDING BOOTHS. HOODS BASED ON LINCOLN ELECTRIC L15788-85 MODULAR HOOD TYPICAL OF SEVEN. 250CFM EA. DUCTWORK AND EQUIPMENT BY CONTRACTOR.
5. EXHAUST DROPS TO CONNECT TO BACKDRAFT PANELS WITHIN WELDING BOOTHS. BACKDRAFT PANELS BASED ON LINCOLN ELECTRIC ASGL15788-62 TYPICAL OF TWO. 750CFM EA. DUCTWORK AND EQUIPMENT BY CONTRACTOR.
6. FUME EXTRACTION DUCT DROPS TO WELDING FUME EXTRACTION ARMS WITHIN WELDING BOOTHS. FUME ARMS BASED ON LINCOLN ELECTRIC LTA 2-CW ARMS. TYPICAL OF NINE, 500CFM EA. ALL DUCTWORK AND EQUIPMENT BY CONTRACTOR.
7. WATER SPRAY ASSEMBLY FOR DUST COLLECTION SYSTEM. REFER TO SPECIFICATIONS.
8. LOCATION OF DUST COLLECTOR SPARK DETECTOR.
9. EXHAUST TO SERVE 3D PRINTERS. PROVIDE FOUR (4) 100MM TAKE-OFFS TO TERMINATE IN VICINITY OF PRINTER FILTER FAN DISCHARGE. COORDINATE WITH OWNER SUPPLIED EQUIPMENT.
10. WELDING BOOTH EXHAUST UP THROUGH ROOF TO FAN.
11. PROVIDE FIRE DAMPER WITHIN DUCTWORK ROUTING FROM THE MECHANICAL MEZZANINE WHERE PASSING THROUGH FIRE SEPARATION.
12. DUCT UP TO EXHAUST FAN ON ROOF.
13. RELIEF VENTING INTO BUILDING TO BE INSTALLED AT HIGH LEVEL BETWEEN JOISTS. PROVIDE COUNTERWEIGHTED PRESSURE RELIEF DAMPERS (PER SPECIFICATIONS) AND SET TO 0.5"WC (125PA) TO PREVENT NUISANCE OPENING. DAMPER SETTING IS CRITICAL TO THE PROPER PRESSURE RELIEF FOR AIR INTAKE WHEN THE ABORT GATE IS ACTIVATED.
14. VFD CABINET FOR DUST COLLECTOR MOTOR.

KEY NOTES

15. DUST COLLECTOR CONTROLS CABINET.
16. CONTROLS CABINET FOR SPARK ARREST SYSTEM.
17. 14" EXHAUST DROP TO SERVE LASER ENGRAVERS. 735CFM EACH, TYPICAL OF TWO. PROVIDE THREE (3) 4" TAKEOFFS PER ENGRAVER FOR A TOTAL OF SIX (6) PORTS, AS WELL AS FLEX DUCT TO CONNECT TO ENGRAVER EXHAUST PORTS. EXHAUST DUCT TO RUN BELOW PRINT ROOM CEILING.
18. PROVIDE SMALL CONTROL PANEL WITH ABORT GATE STATUS INDICATOR LIGHTS AT DUST COLLECTOR CONTROL PANEL.
19. REMOVE EXISTING THERMOSTAT WITHIN EXISTING DRYWALL INFILL. CONFIRM ON SITE. RELOCATE TO ACCOMMODATE NEW INTERIOR GLAZING. COORDINATE WITH ARCHITECTURAL.

DUST COLLECTOR DROP SCHEDULE

MARK		EQUIPMENT SERVED	AIRFLOW (CFM)	AIRFLOW (L/s)	DROP DIAMETER (in)	DROP DIAMETER (mm)	NOTES
C	06	CABINET SAW	350	165	4	102	
C	07	PLANER	900	425	6	152	
C	10	OSCILLATING SANDER	350	165	4	102	
C	11	BAND SAW	350	165	4	102	
C	13	DISC SANDER	400	189	4	102	
C	14	MITRE SAW	350	165	4	102	
C	15	450mm BAND SAW	600	283	5	127	
C	16	350mm BAND SAW	350	165	4	102	
C	17	SPINDLE SANDER	200	94	3	76	
C	19	ROUTER	200	94	3	76	
C	21	LATHE	350	165	4	102	
C	23	CNC ROUTER	800	378	6	152	

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Certificate of Authorization
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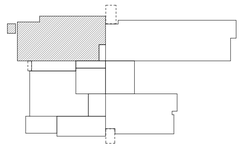

BUILDING KEYPLAN - MAIN
SCALE 1 : 2000

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No.	REVISION/DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JS/MP	24-04-01

SEAL

JS DRAWN	JS CHECKED	JS DESIGNED	JS APPROVED
DATE 2024-04-01	USER APPROVAL		

THE CITY OF WINNIPEG
ASSETS & PROJECT MANAGEMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION
3-65 GARRY STREET, R3C 4K4

PROJECT
PEMBINA TRAILS COLLEGIATE
VOCATIONAL WING
TENDER NO. 954-2023B
50 FRONTIER TRAIL, WINNIPEG, MANITOBA, R3Y 2H1

SHEET TITLE
Main Floor West Vocational Wing - HVAC Plan

SCALE	PROJECT No:	SHEET No:
As indicated	2020-127	MH2.2

DRAWING SHEET SIZE: A1 (594x841) PLOT 1:1
ESE 24049