

LEGEND	
SYMBOL	DESCRIPTION
ACV	AUTOMATIC CONTROL VALVE
CDW	COMMERCIAL STYLE DISHWASHER
CF	CEILING FAN
CO	CLEANOUT
CIE	CONNECT TO EXISTING
CU	CONDENSING UNIT
DC	DOOR GRILLE
DS	DUCTLESS SPLIT
EF	EXHAUST FAN
ERV	ENERGY RECOVERY VENTILATOR
EX	EXISTING
E/A	EXHAUST AIR
FF	FORCE FLOW
FS	COMBINATION FIRE & SMOKE DAMPER
GI	GREASE INTERCEPTOR
HB	HOSE BIBB
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
KS	KITCHEN SINK
NTS	NOT TO SCALE
PRV	PRESSURE REDUCING VALVE
RA	REVERSE ACTING
RCD	RESIDENTIAL CLOTHES DRYER
RCW	RESIDENTIAL CLOTHES WASHER
RD	ROOF DRAIN
R/A	RETURN AIR
S/A	SUPPLY AIR
LH	LINT HEATER
WH	WALLIN HEATER
WM	WATER METER
-----	EXISTING TO REMAIN
////	EXISTING TO BE REMOVED/RELOCATED
(N)	REFERS TO NOTE ON THE SAME DRAWING/DETAIL
(HVAC-1)	EQUIPMENT TAG
---	SANITARY DRAIN BELOW FLOOR/GRADE
---	SANITARY DRAIN ABOVE FLOOR
---	COLD WATER PIPING
---	HOT WATER PIPING
---	HOT WATER RECIRCULATION PIPING
---	HEATING WATER SUPPLY PIPING
---	HEATING WATER RETURN PIPING
---	CONDENSATE PIPING
---	LOW PRESSURE NATURAL GAS PIPING (7" (175MM) WC)
---	HIGH PRESSURE NATURAL GAS PIPING (SP5IG/34.5KPA)
---	REFRIGERATION PIPING
---	PIPING TURNING DOWN
---	PIPING TURNING UP
---	ISOLATION VALVE
---	PRESSURE REGULATING VALVE (PRV)
---	AUTOMATIC CONTROL VALVE
---	BACKFLOW PREVENTER
---	CONNECT TO EXISTING
WM	WATER METER
---	RECTANGULAR SUPPLY DUCT UP / DN
---	RECTANGULAR RETURN OR EXHAUST DUCT UP / DN
---	FLEXIBLE DUCT
---	RIGID ROUND DUCT (SINGLE LINE DESIGNATION)
---	MANUAL BALANCING DAMPER
---	FIRE DAMPER
---	COMBINATION FIRE & SMOKE DAMPER
---	AIRFLOW (L/S)
---	GRILLE/DIFFUSER SIZE (MM) & TYPE
---	GRILLE/DIFFUSER TYPE
---	GRILLE/DIFFUSER SIZE (MM)
---	ACOUSTIC LINING
---	THERMAL INSULATION
---	DUCT SIZE TRANSITION
---	SPACE-MOUNTED WT THERMOSTAT & ZONE CONTROLLED
---	SPACE-MOUNTED THERMOSTAT & UNIT CONTROLLED
---	DOOR GRILLE
---	EXISTING TO REMAIN
---	EXISTING TO BE REMOVED
---	120V REVERSE ACTING THERMOSTAT

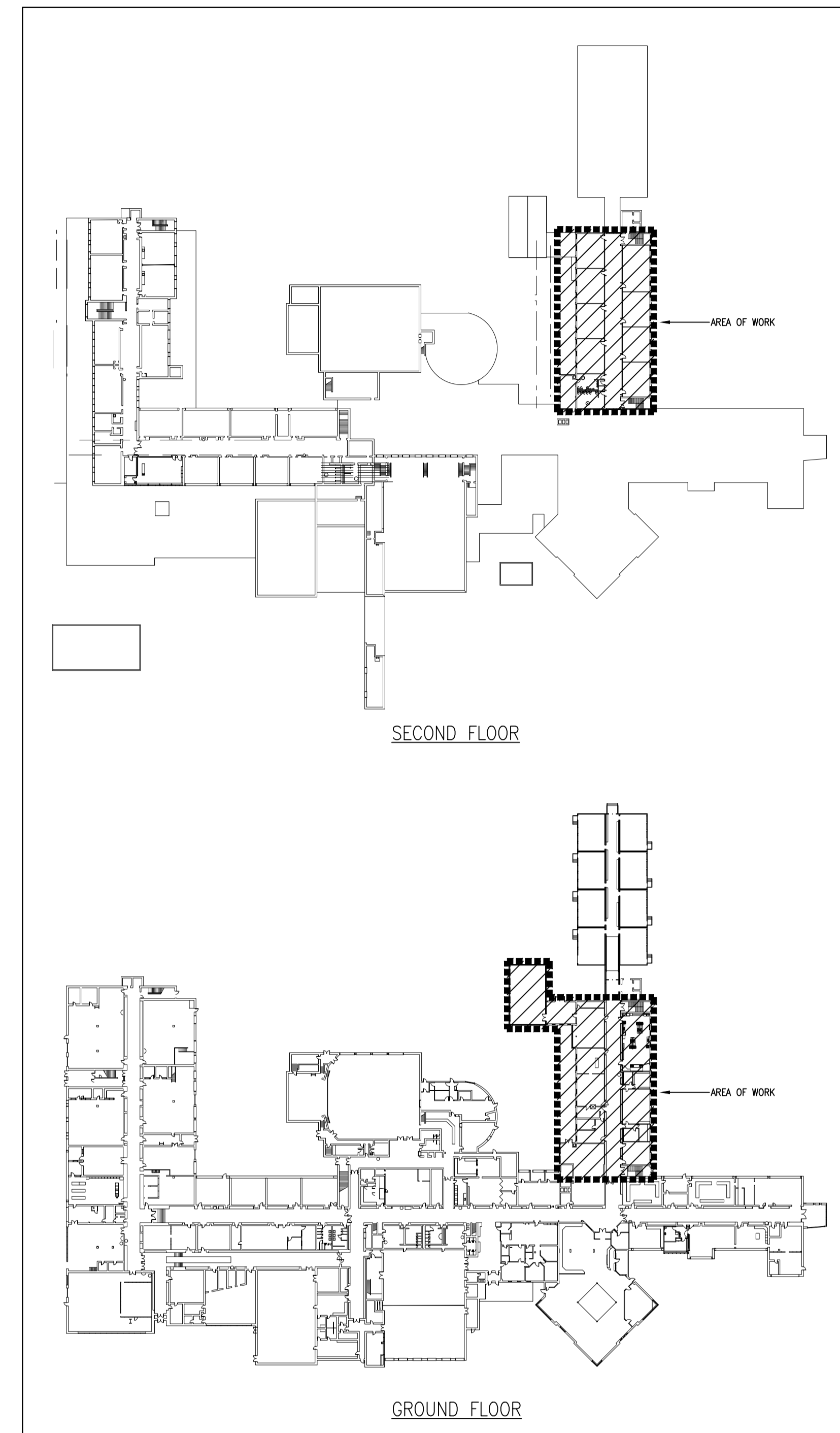
DRAWING LIST	
M1.1	DRAWING LIST, LEGEND, KEY PLAN & SCHEDULES
M1.2	SCHEDULES
M1.3	DETAILS
M2.1	GROUND FLOOR PIPING DEMOLITION & RENOVATION PLANS
M2.2	SECOND FLOOR PIPING DEMOLITION & RENOVATION PLANS
M3.1	GROUND FLOOR DUCTWORK DEMOLITION & RENOVATION PLANS
M3.2	SECOND FLOOR DUCTWORK DEMOLITION & RENOVATION PLANS
M4.1	ROOF MECHANICAL DEMOLITION & RENOVATION PLANS
SP1.1	GROUND & SECOND FLOOR SPRINKLER LEGEND, DETAIL & RENOVATION PLANS

TYPE OF WALL ASSEMBLY	NFPA 96 MATERIALS CLASSIFICATION SCHEDULE		
	CLASSIFICATION FOR DETERMINING HOOD & GREASE DUCT CLEARANCES *		
	NON COMBUSTIBLE	LIMITED COMBUSTIBLE	COMBUSTIBLE
BRICK, CLAY TILE, OR CONCRETE MASONRY PRODUCTS.	✓		
PLASTER, CERAMIC, OR QUARRY TILE ON BRICK, CLAY TILE OR CONCRETE MASONRY PRODUCTS.	✓		
PLASTER ON METAL LATH ON METAL STUDS.	✓		
GYPSUM BOARD ON METAL STUDS.		✓	
SOLID GYPSUM BOARD. **		✓	
PLASTER ON WOOD LATH OR METAL LATH, ON WOOD STUDS.			✓
GYPSUM BOARD ON WOOD STUDS.			✓
PLYWOOD OR OTHER WOOD SHEATHING ON WOOD OR METAL STUDS.			✓
TYPE OF FLOOR-CEILING OR ROOF-CEILING ASSEMBLY			
PLASTER APPLIED DIRECTLY TO UNDERSIDE OF CONCRETE SLAB.	✓		
SUSPENDED MEMBRANE CEILING WITH NON COMBUSTIBLE MINERAL WOOL ACOUSTICAL MATERIAL.	✓		
SUSPENDED MEMBRANE CEILING WITH COMBUSTIBLE FIBROUS TILE.			✓
GYPSUM BOARD ON STEEL JOISTS, CONCRETE SLAB.		✓	
GYPSUM BOARD ON WOOD JOISTS.			✓
NOTES:			
* SEE CLEARANCE REQUIREMENTS IN NFPA96.			
** SOLID GYPSUM WALLS AND PARTITIONS, 2" OR 2.25" THICKNESS, ARE DESCRIBED IN THE "FIRE RESISTANCE DESIGN MANUAL" PUBLISHED BY THE GYPSUM ASSOCIATION, WASHINGTON, DC.			
- WALL ASSEMBLY DESCRIPTIONS ASSUME SAME FACING MATERIAL ON BOTH SIDES OF STUDS.			
- CATEGORIES ARE NOT CHANGED BY THE USE OF FIRE RETARDANT TREATED WOOD PRODUCTS.			
- CATEGORIES ARE NOT CHANGED BY THE USE OF TYPE X GYPSUM BOARD.			
- SEE DEFINITIONS OF COMBUSTIBLE, LIMITED COMBUSTIBLE, AND NON COMBUSTIBLE IN NFPA96.			

PLUMBING BRANCH PIPING SCHEDULE					
FIXTURE	SYMBOL	SANITARY	VENT	COLD WATER	HOT WATER
CLOTHES WASHER (RESIDENTIAL)	RCW	38	32	13	13
DISHWASHER (COMMERCIAL)	CDW	50	38	-	19
KITCHEN SINK	KS	38	32	13	13
KITCHEN SINK (TWO COMPARTMENT)	KS	38	32	13	13

WT DAMPER SCHEDULE				
ZONE	ROOMS SERVED	SIZE (MM)	AIRFLOW (L/S)	
			DESIGN	BALANCING
A1	101 OFFICE	250X300	200	160
A2	103D OFFICE	250#	110	90
A3	103C TEACHERS COMMON RM	300X250	270	220
A4	103B OFFICE	250#	110	90
AB	102C CHEMICAL STORAGE	400X300	-	-

WT DAMPER SCHEDULE				
ZONE	ROOMS SERVED	SIZE (MM)	AIRFLOW (L/S)	
			DESIGN	BALANCING
B1	102C CHEMICAL STORAGE	250#	85	105
B2	102 CLASSROOM LAB	250X350	250	305
B3	102 CLASSROOM	250X350	295	360
B4	104 CLASSROOM	400X300	400	495
B5	104C STORAGE	250#	125	150
BB	BYPASS DAMPER	600X350	-	-



1 KEY PLAN
M1.1 SCALE: 1:1000



CORNERSTONE
ARCHITECTURE

MNE Engineering Inc.
22 Revere Place - Box A
Kitchener, Ontario N2C 2G5
(519) 844-8408
www.mneengineering.ca

ISSUED FOR COORDINATION
2022.03.02
K.K.

ISSUED FOR COORDINATION
2022.03.09
K.K.

ISSUED FOR TENDER/23-7352-RFT
2023.01.05
K.K.

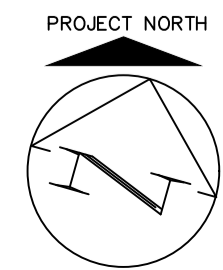


Waterloo-Oxford District Secondary School
FAMILY STUDIES RENOVATION & HVAC UPGRADES

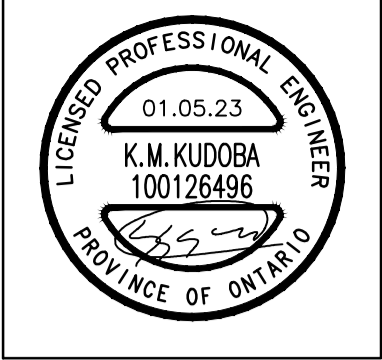
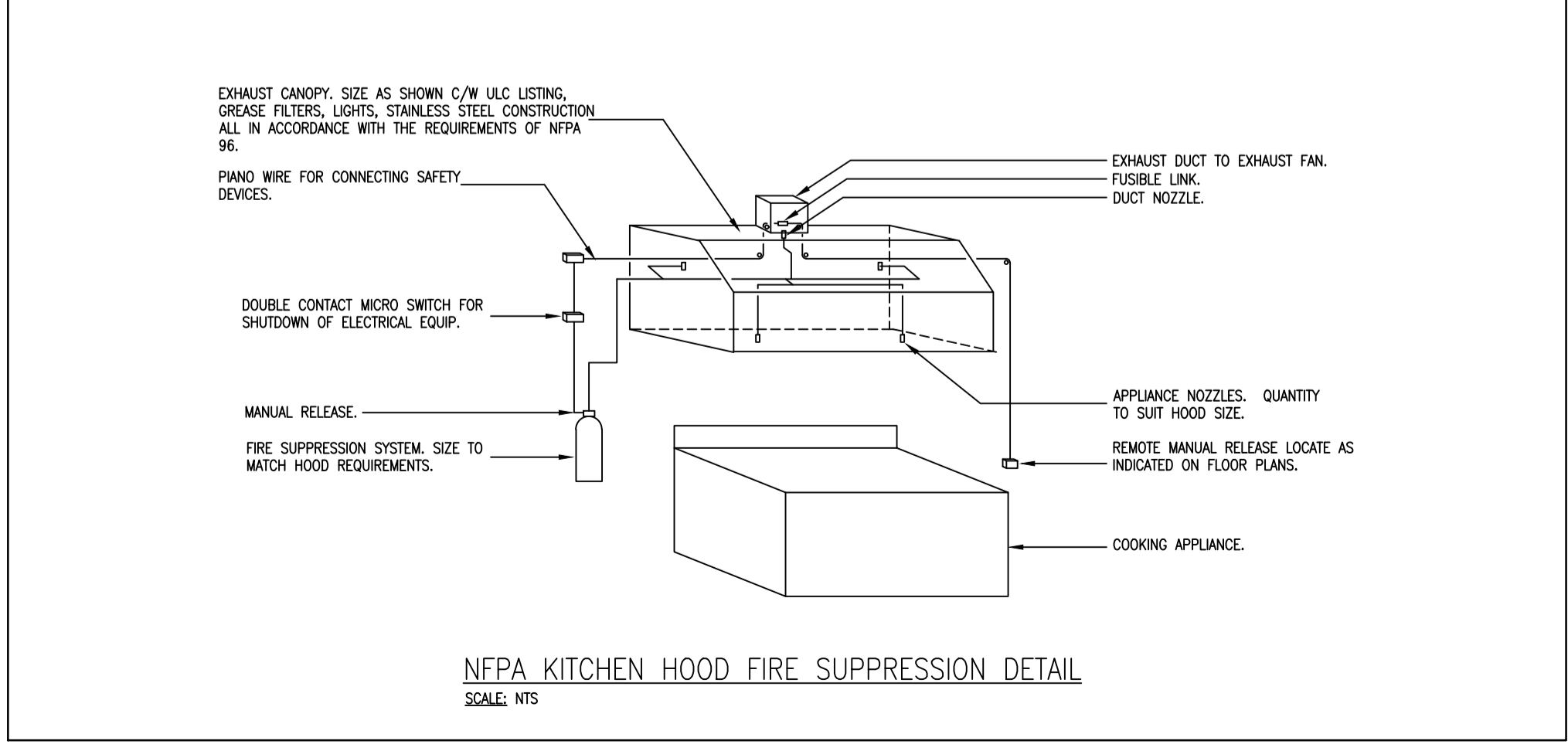
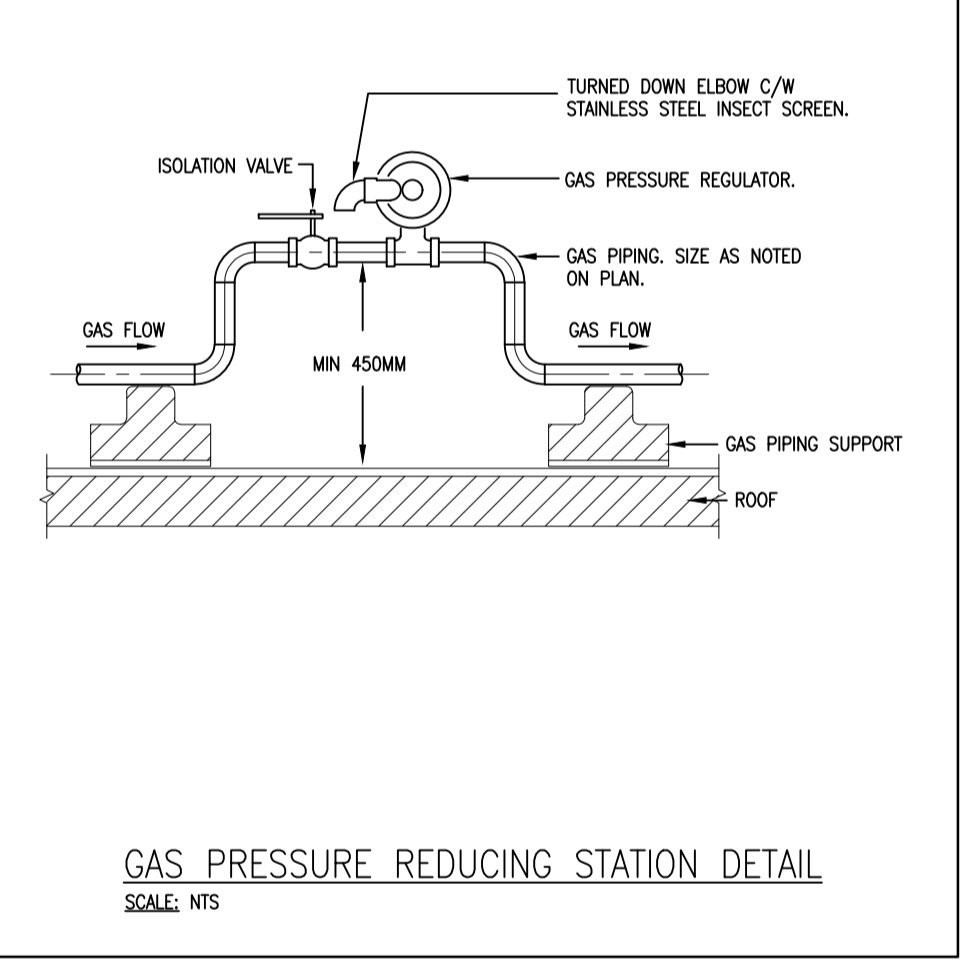
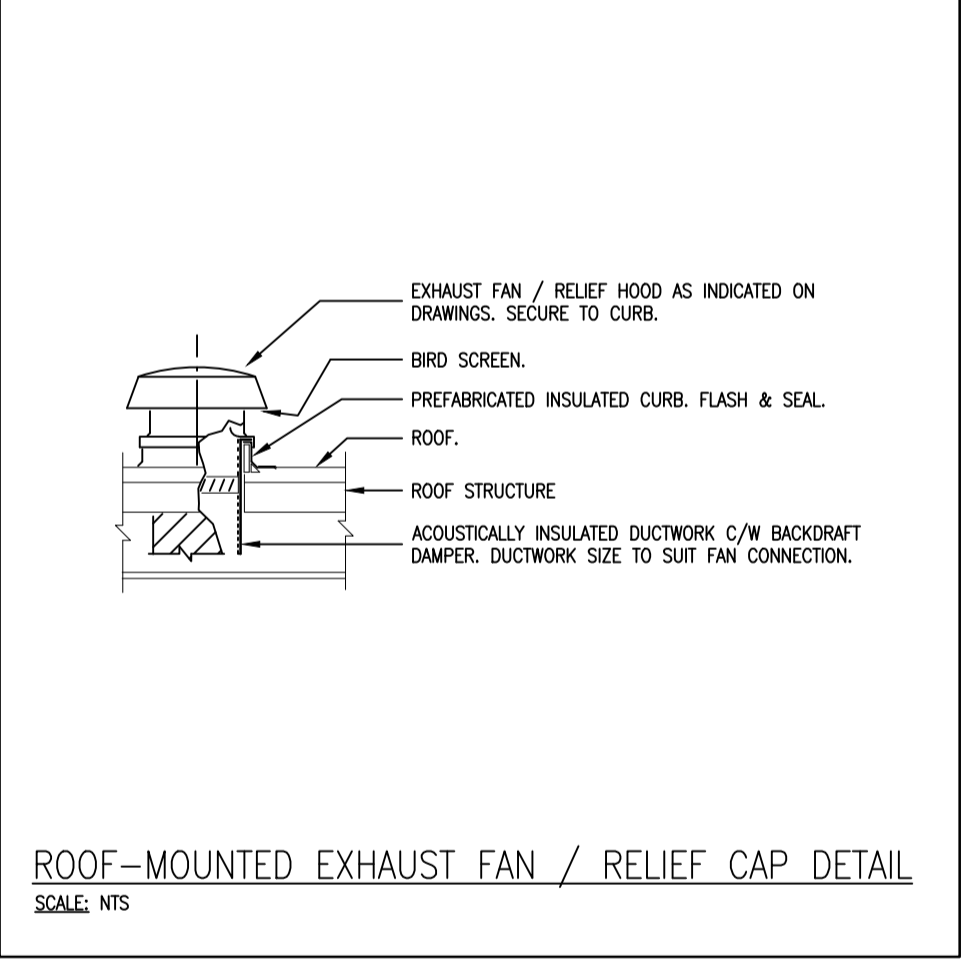
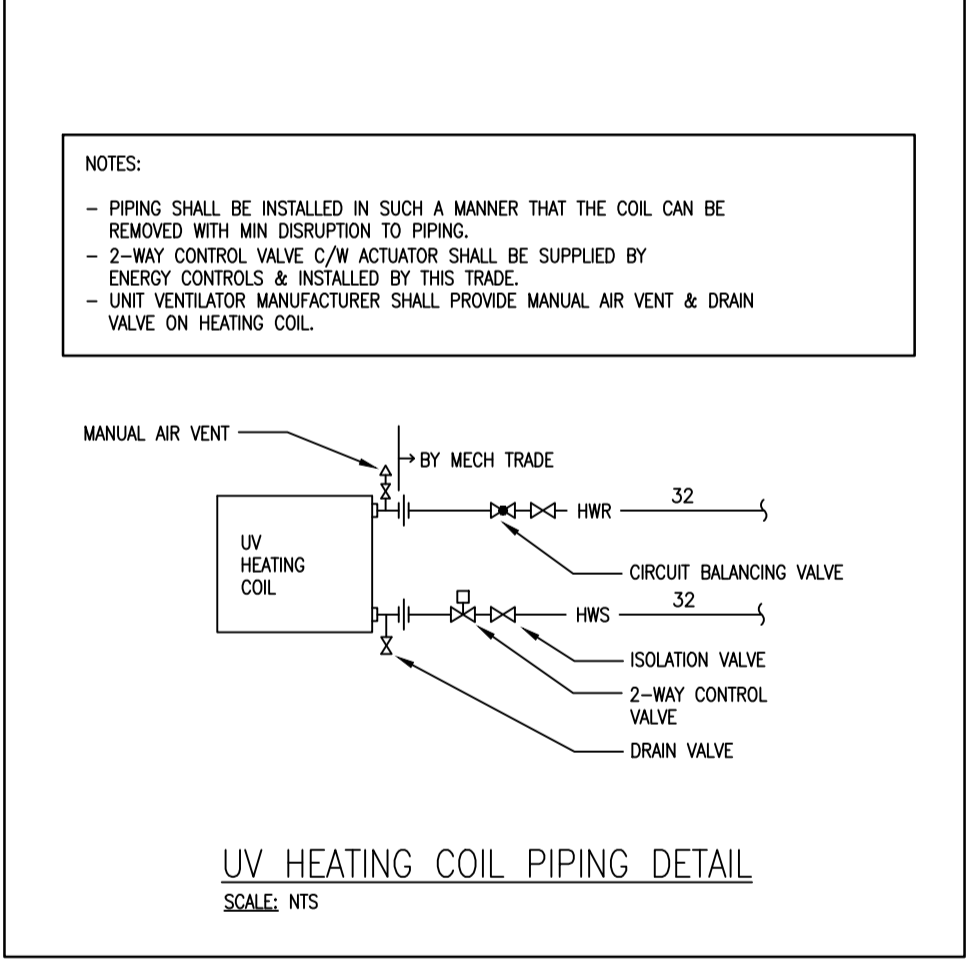
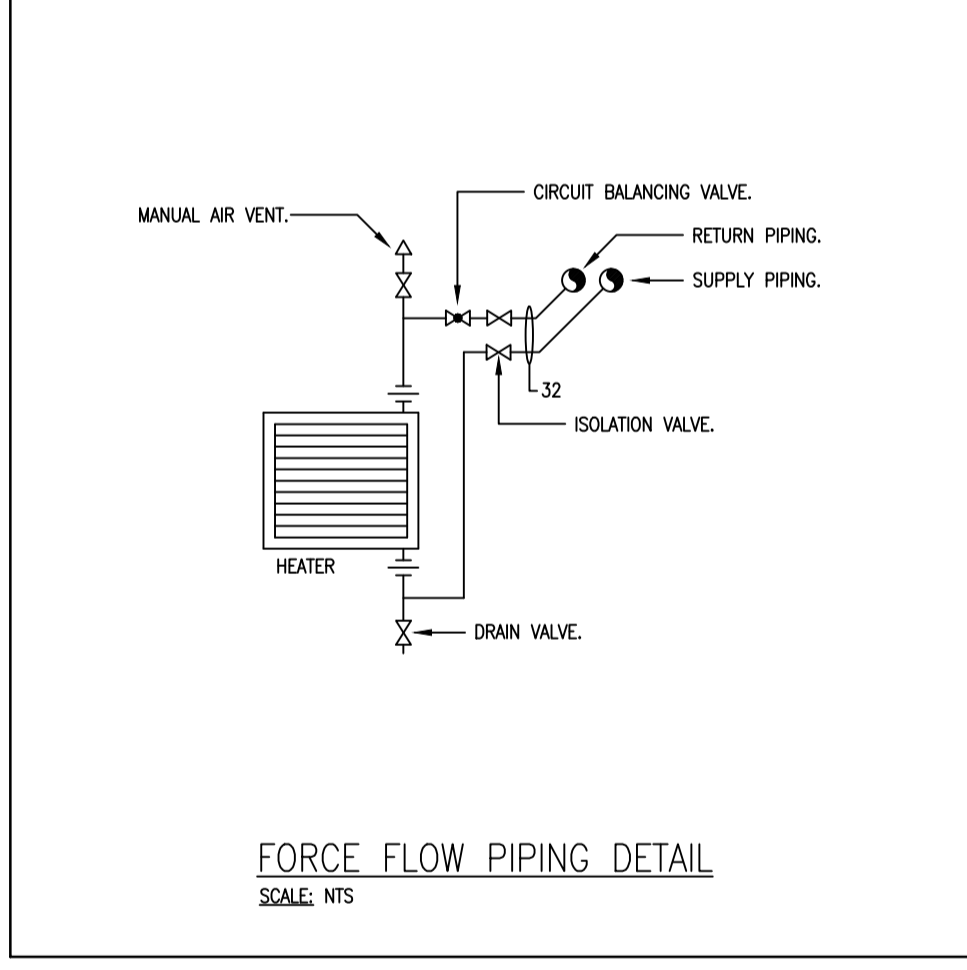
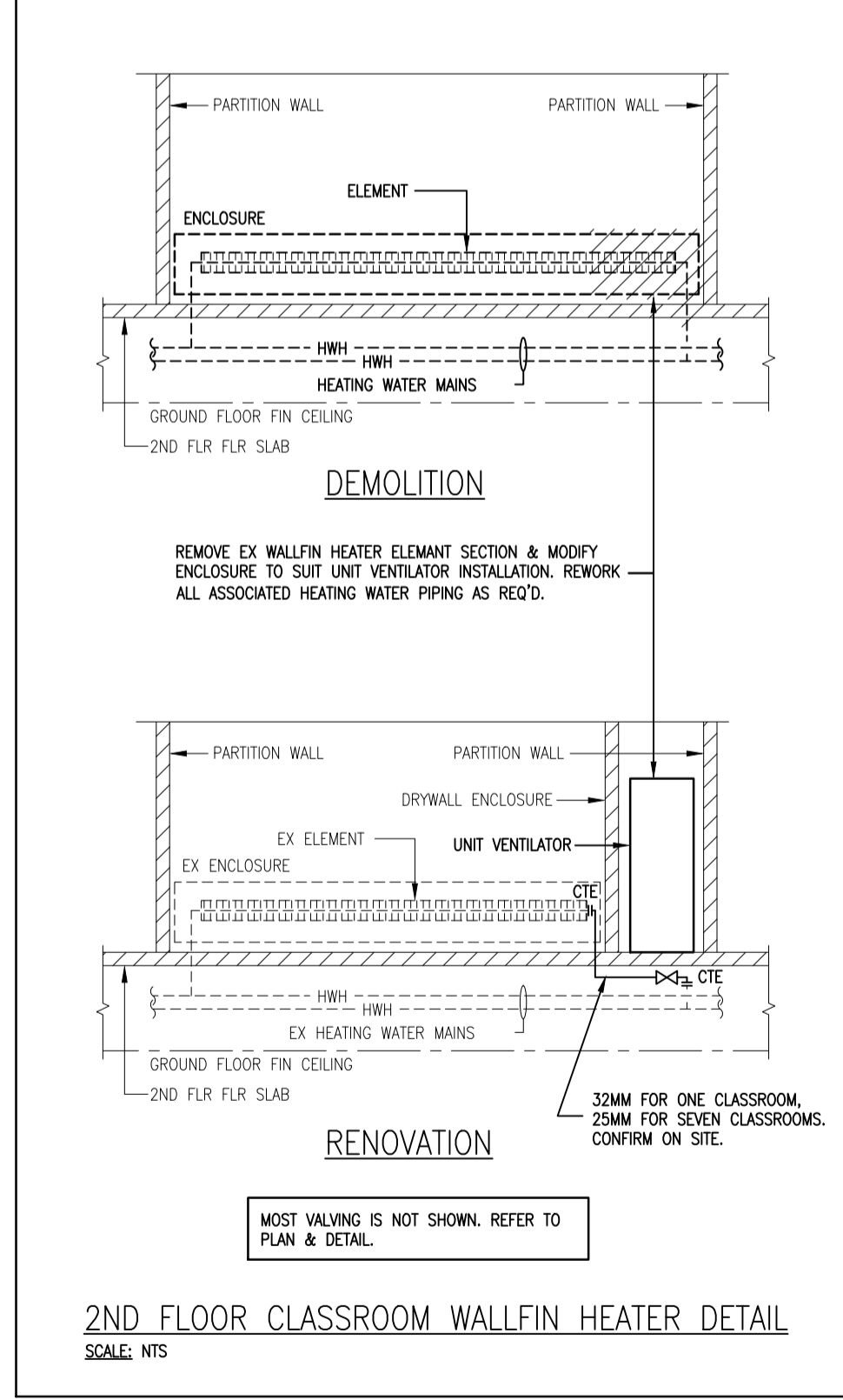
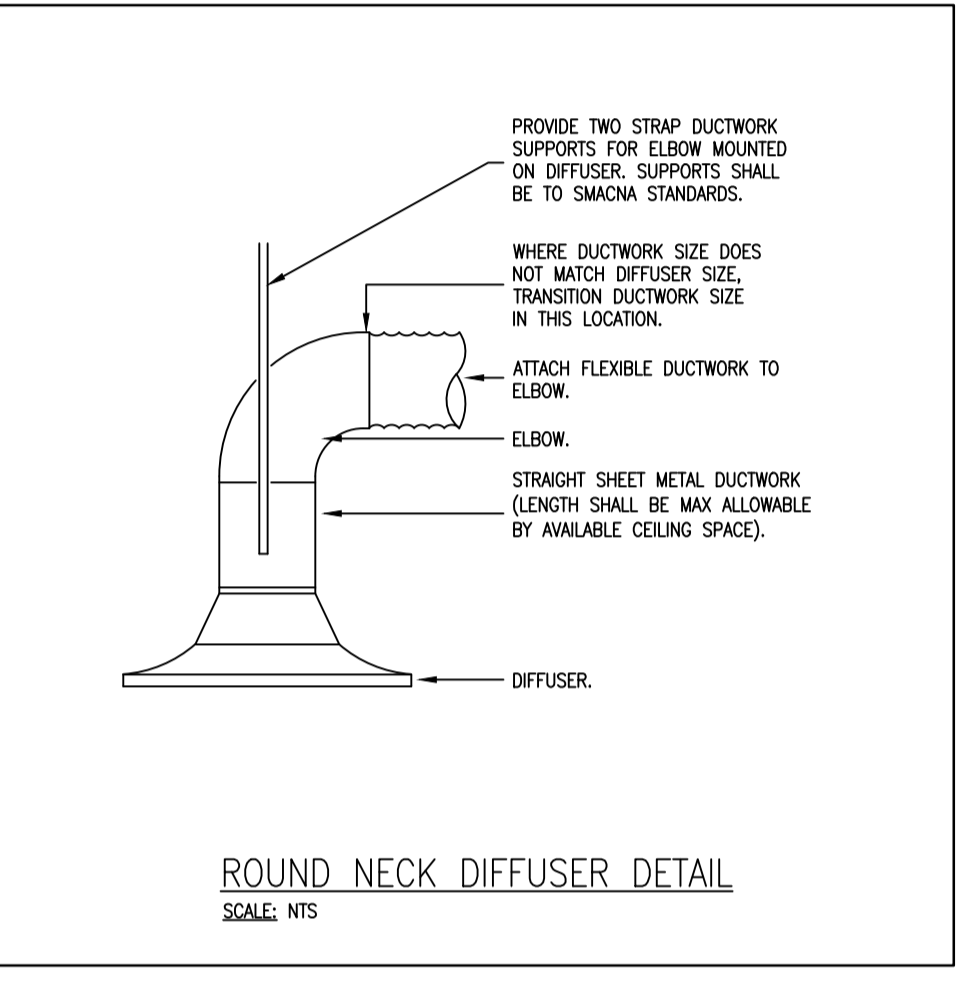
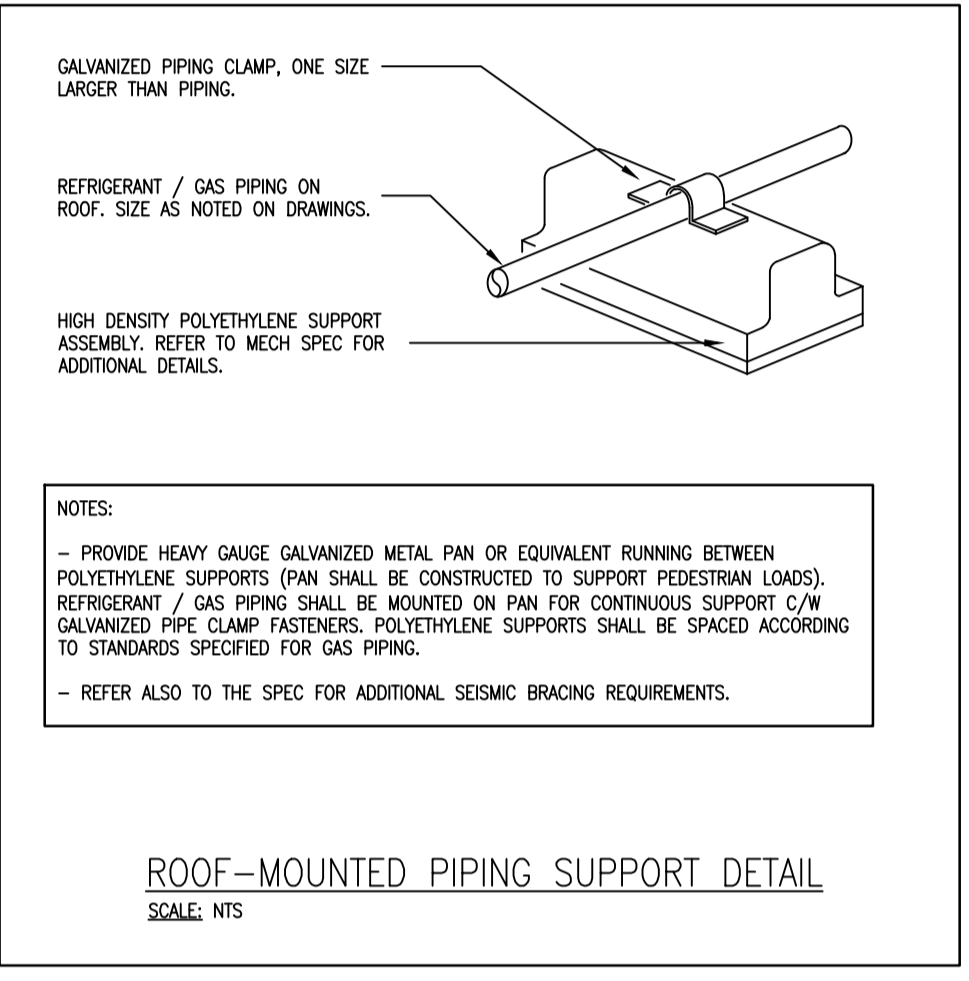
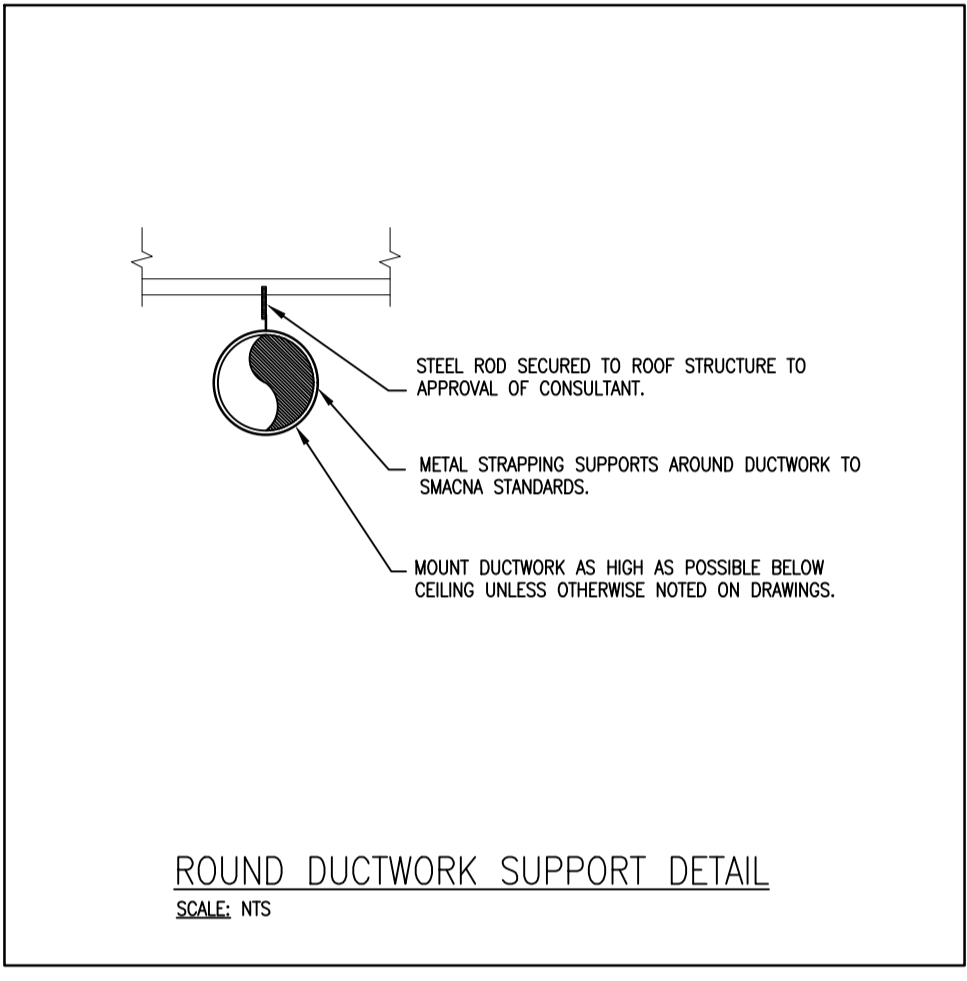
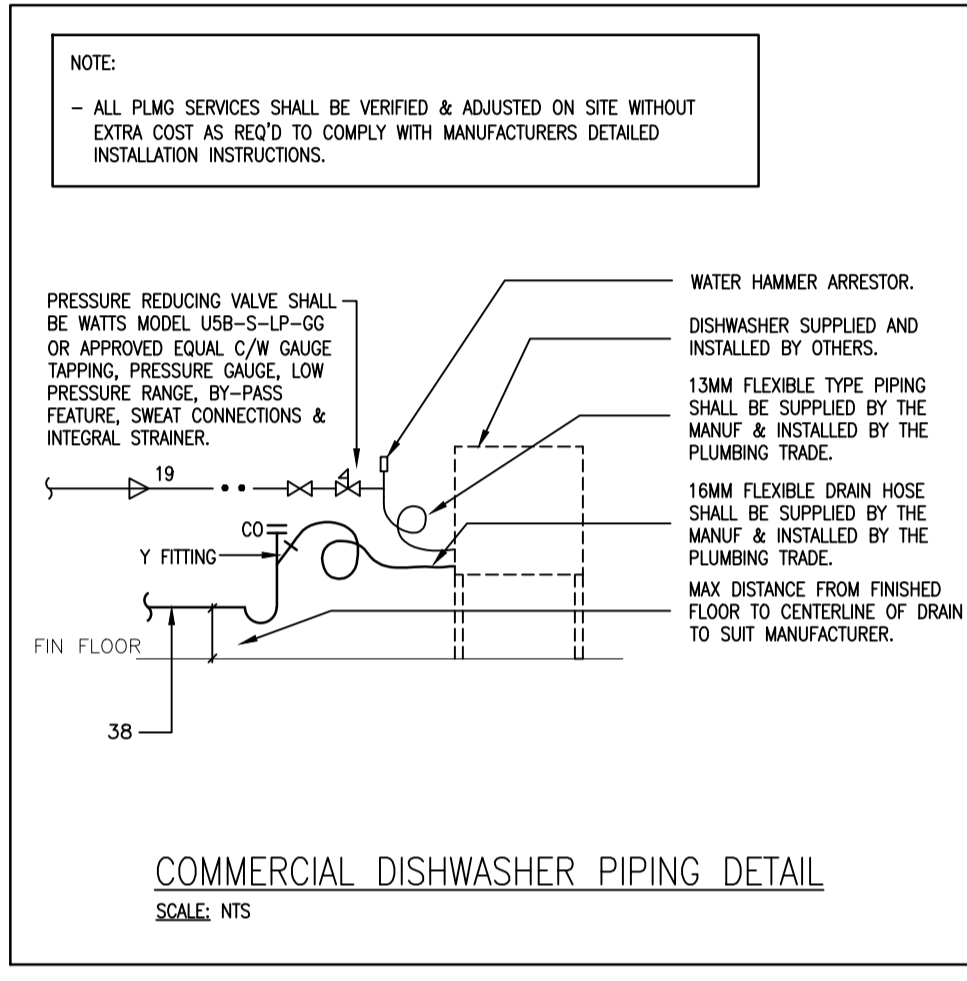
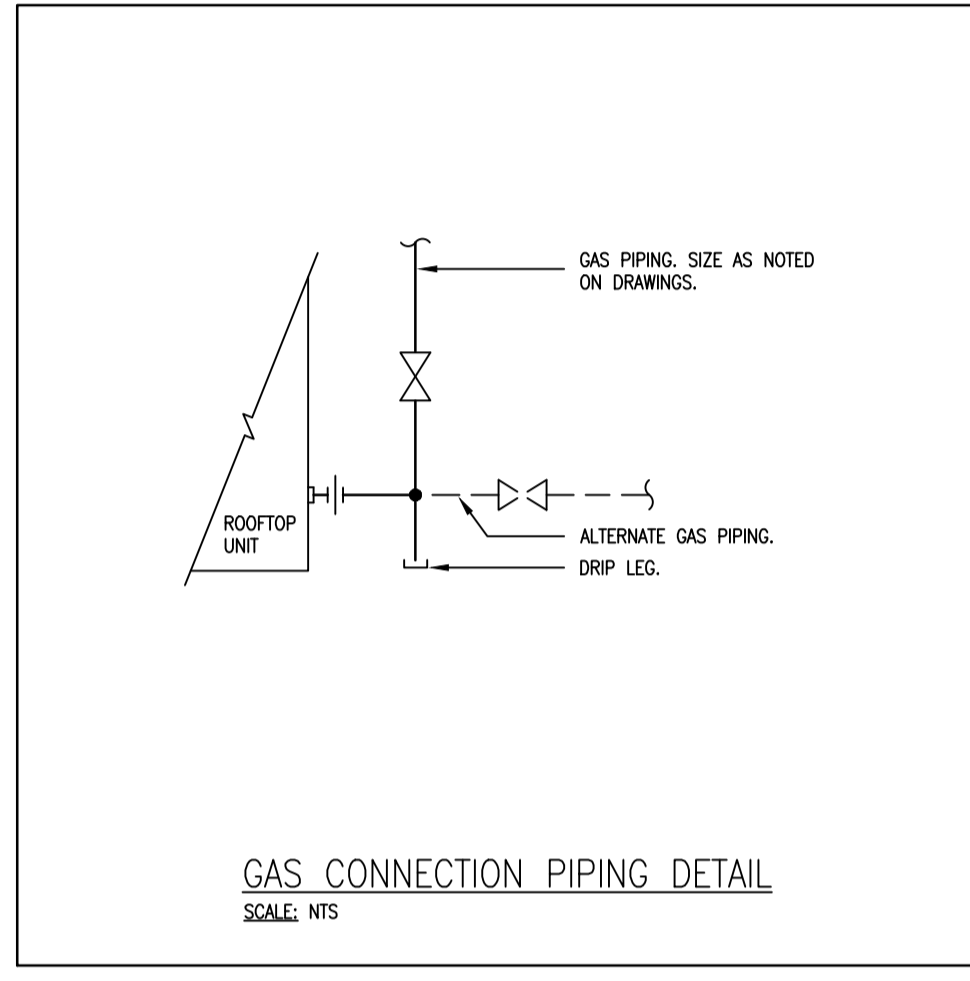
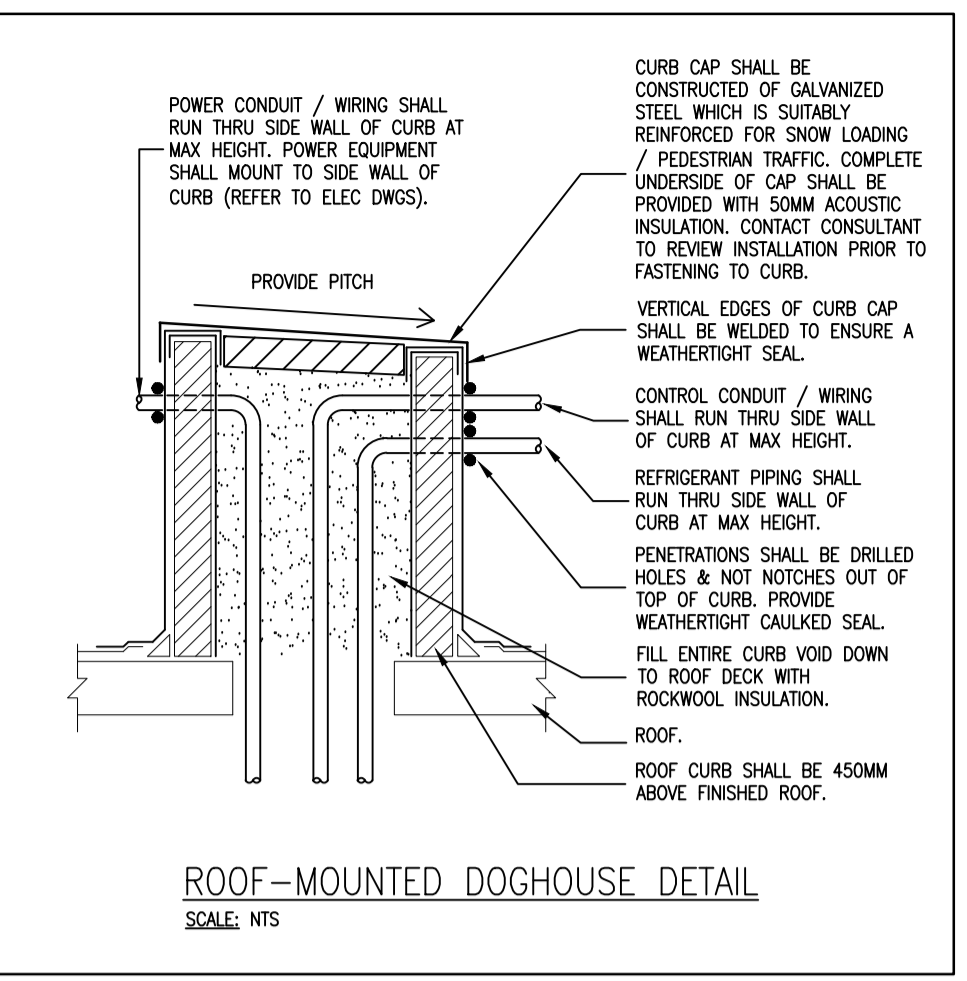
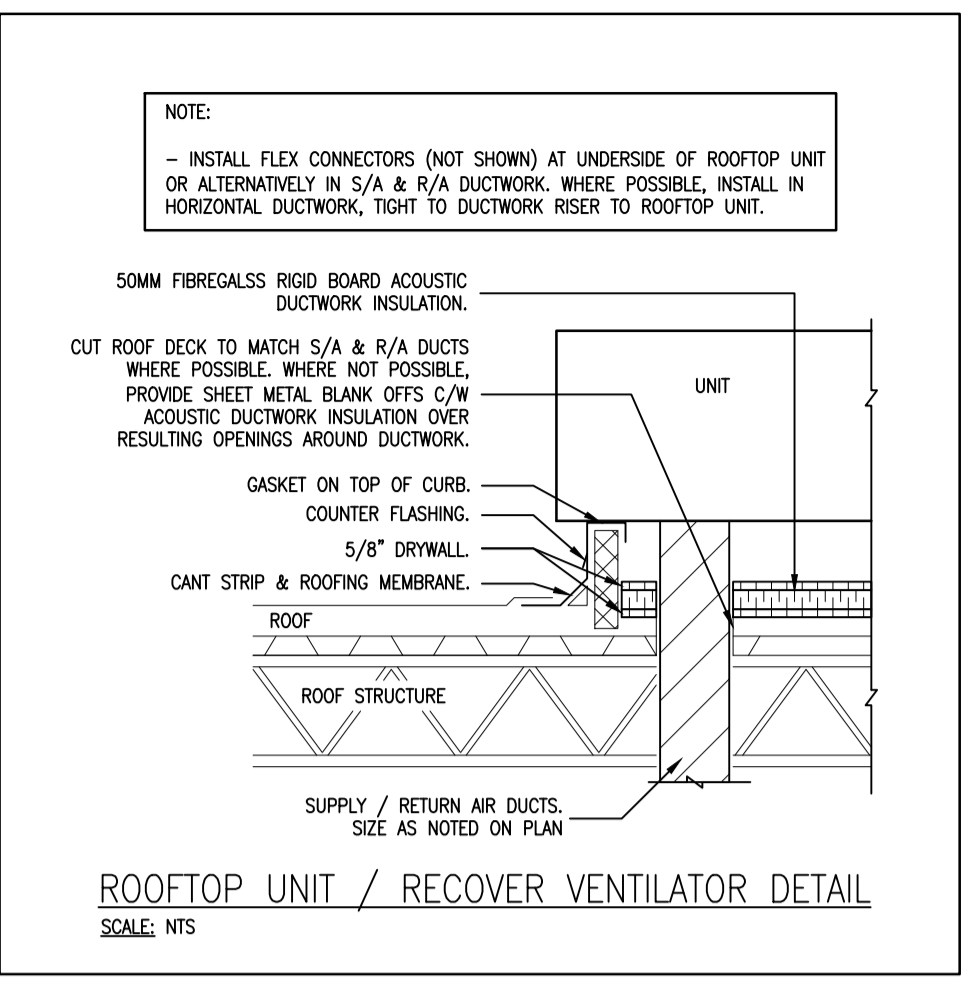
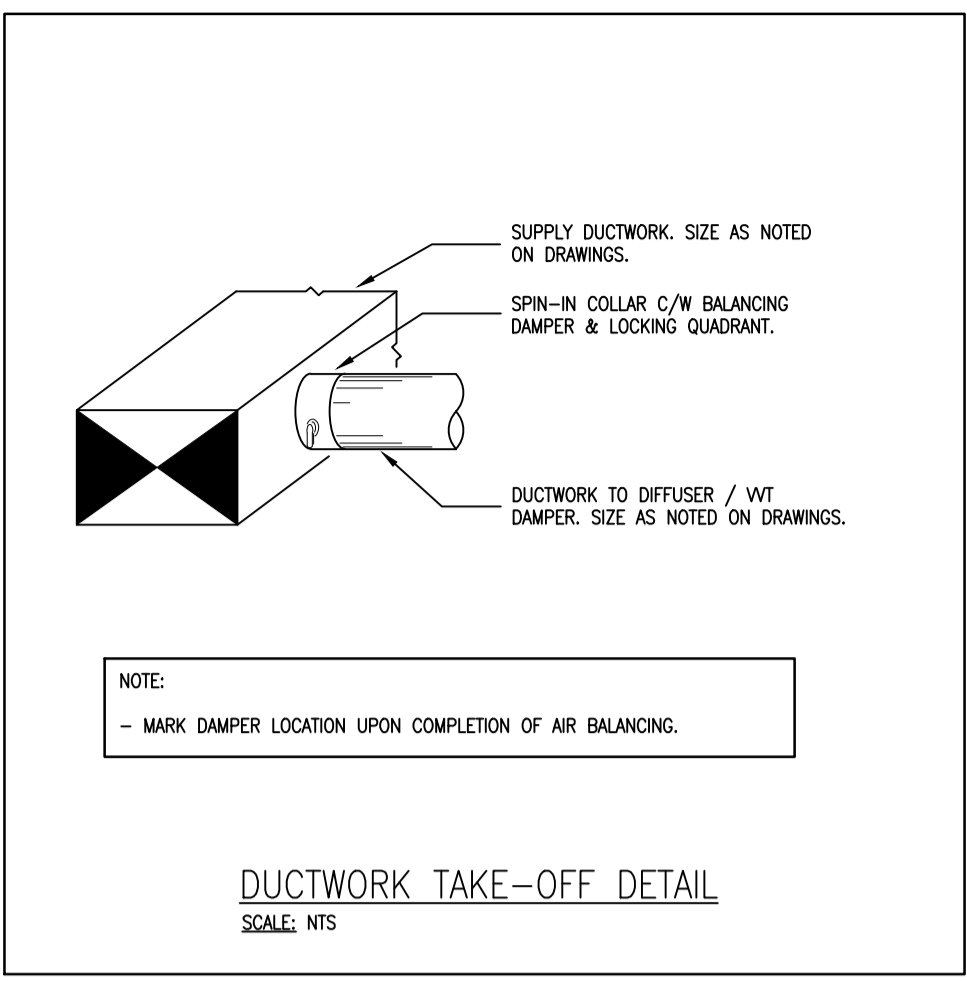
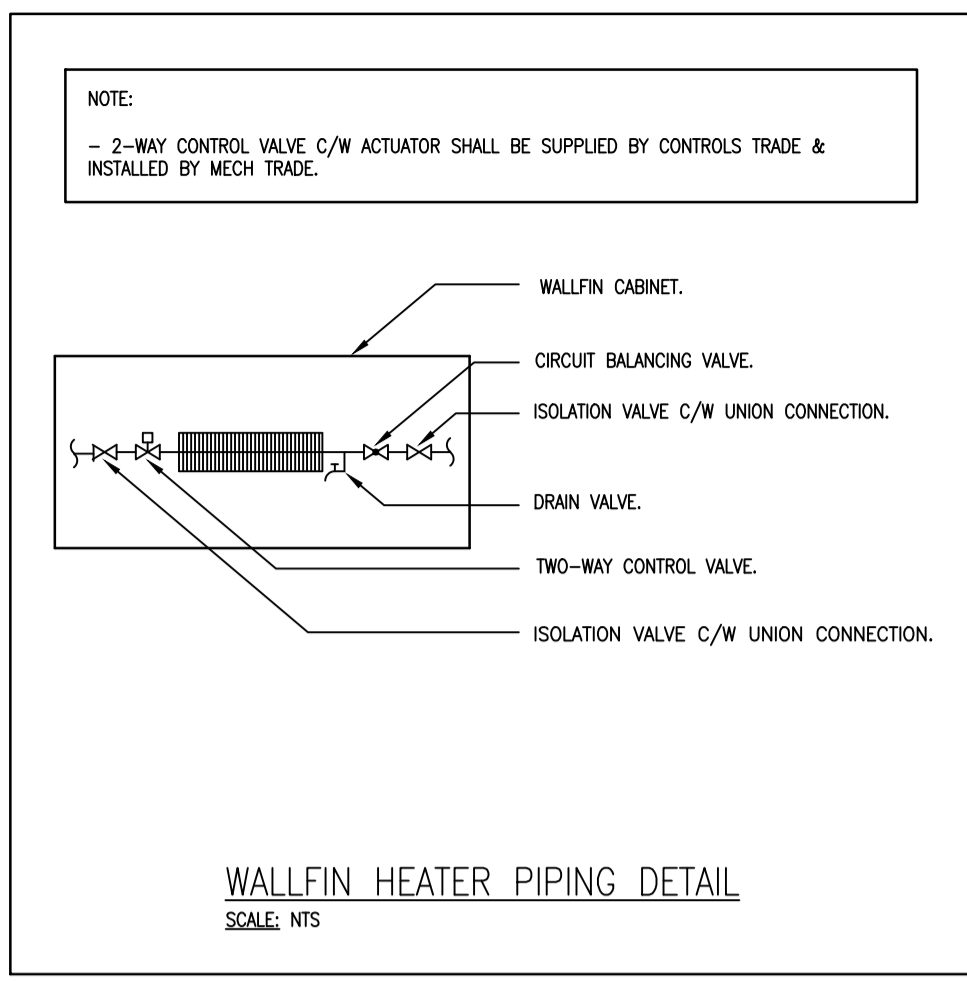
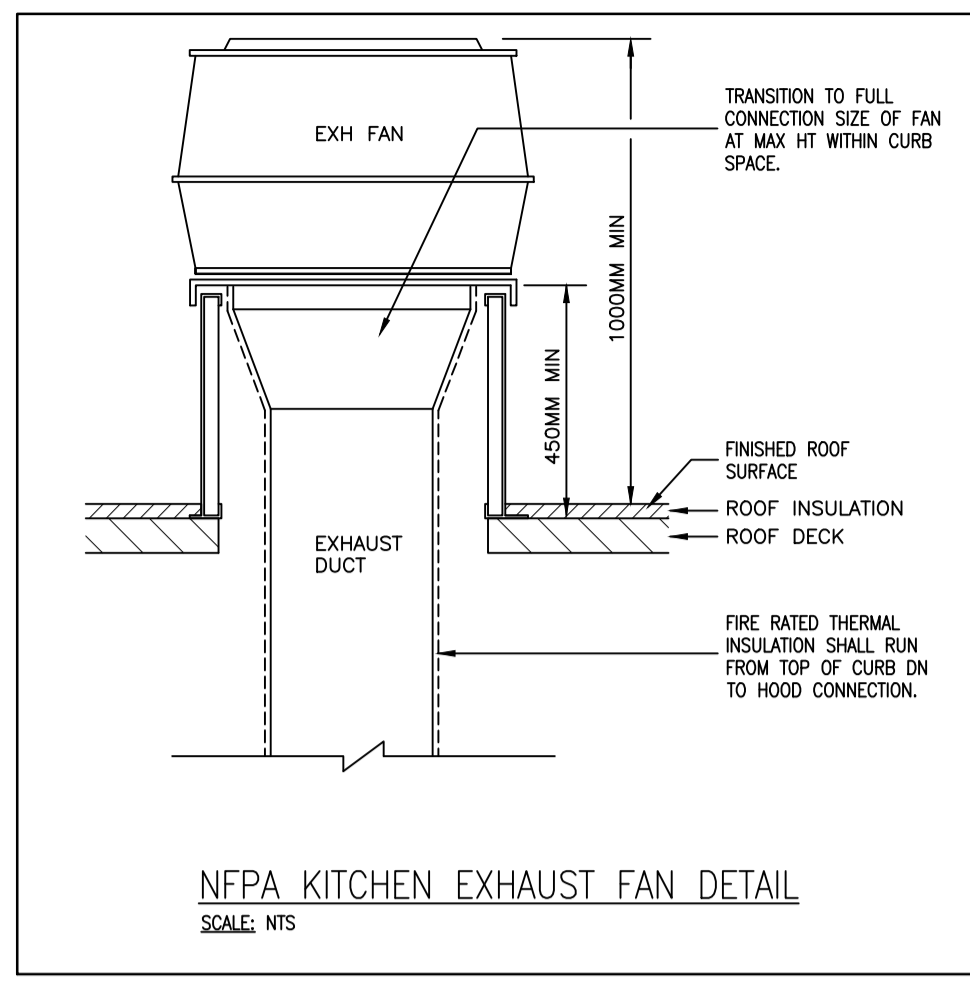
1208 Snyder's Road West, New Hamburg, ON N3A 1A4

Project No.: 22002
Drawn By: J.S.S.
Reviewed: 2023-01-05

DRAWING LIST, LEGEND, KEY PLAN & SCHEDULES



M1.1



CORNERSTONE
ARCHITECTURE

MNE Engineering Inc.
22 Ivaco Place - Box A
Kitchener, Ontario N5C 2G5
(519) 894-8408
www.mneengineering.co

ISSUED FOR COORDINATION	K.K.
ISSUED FOR COORDINATION	K.K.
ISSUED FOR TENDER 23-7362-RFT	K.K.

2022.03.02
2022.03.09
2023.01.05



Waterloo-Oxford District Secondary School

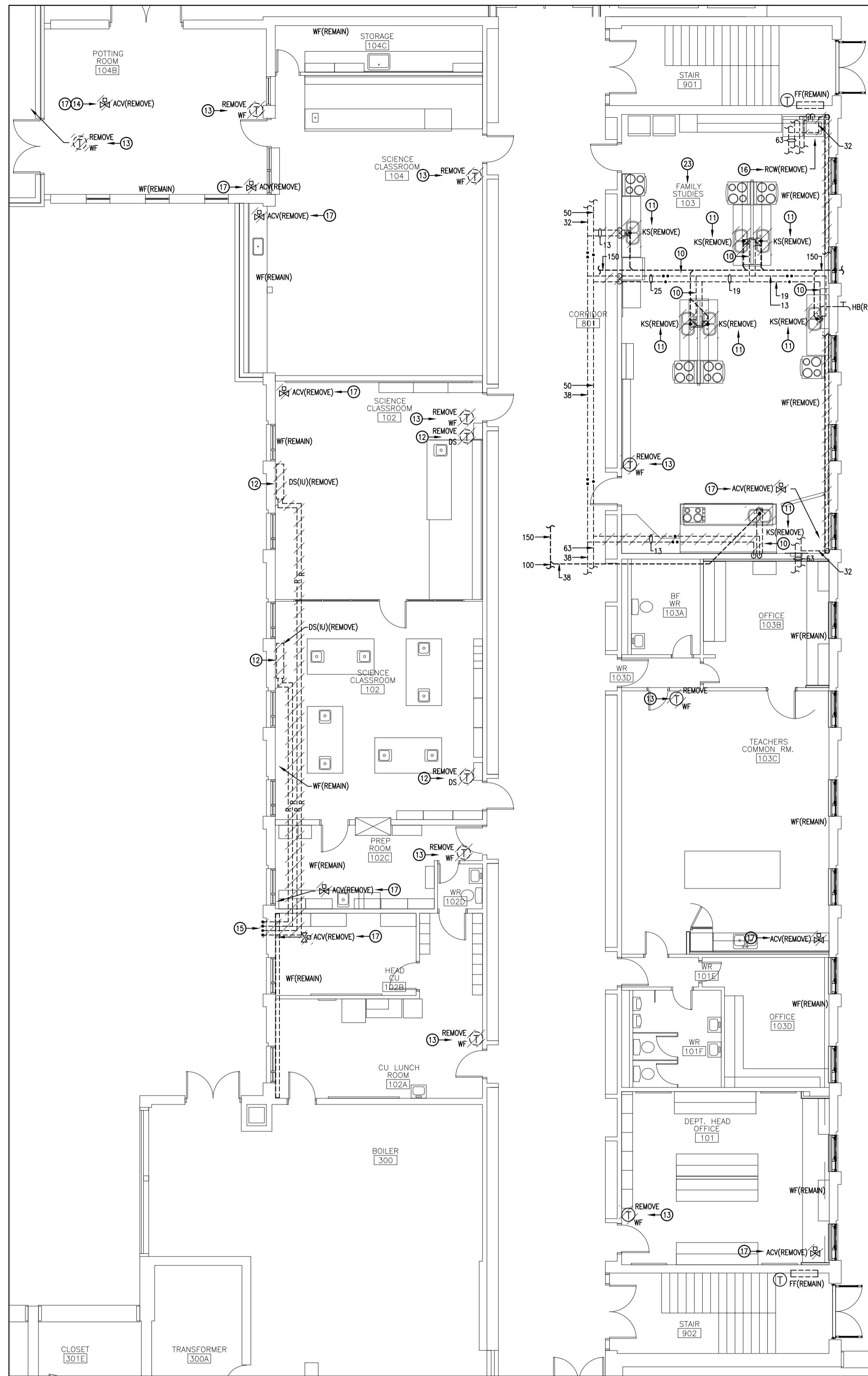
1208 Snyder's Road West, New Hamburg, ON N5A 1A4

Project No.: 22002
Drawn By: J.S.S.
Reviewed: 2023-01-05

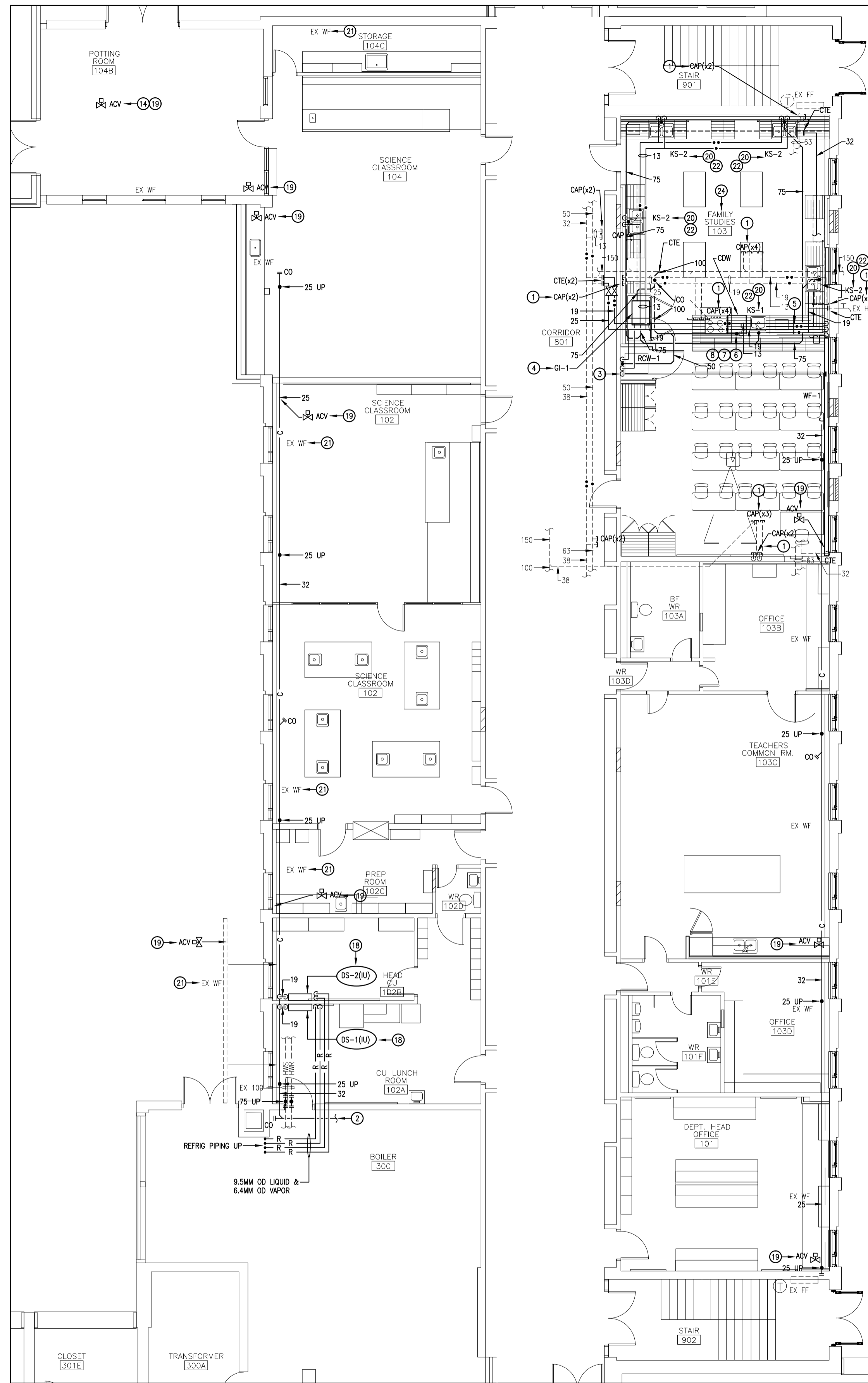
FAMILY STUDIES RENOVATION & HVAC UPGRADES

DETAILS

M1.3



1 GROUND FLOOR PIPING DEMOLITION PLAN
SCALE: 1:100



2 GROUND FLOOR PIPING RENOVATION PLAN
SCALE: 1:100

- DRAWING NOTES:
- 1 CAP COLD WATER, HOT WATER & SANITARY PIPING BELOW FLOOR.
 - 2 PROVIDE CONDENSATE PIPING TO FUNNEL FLOOR DRAIN IN BOILER ROOM.
 - 3 PROVIDE 50MM STANDING WASTE BEHIND RESIDENTIAL CLOTHES WASHER & PROVIDE CONDENSATE PIPING TO STANDING WASTE.
 - 4 INSTALL GREASE INTERCEPTOR MOUNTED RECESSED IN FLOOR BELOW REFRIGERATORS IN APPROX THIS LOCATION. LOCATION SHALL PERMIT ADEQUATE SERVICE ACCESS. INSTALL AS PER MANUFACTURER & CODE REQUIREMENTS C/W INLET / OUTLET CLEANOUTS, VENTING, ETC.
 - 5 ROUTE COLD WATER & HOT WATER PIPING WITHIN CAVITY BEHIND MILLWORK.
 - 6 CONNECT HOT WATER & SANITARY PIPING TO COMMERCIAL DISHWASHER AS PER DETAIL. TRANSITION PIPING SIZES AS REQUIRED TO MATCH CONNECTION SIZES AS CLOSE AS POSSIBLE.
 - 7 COMMERCIAL DISHWASHER WASTE SHALL NOT PASS THROUGH GREASE INTERCEPTOR. VERIFY WITH LOCAL PLUMBING AUTHORITY ON SITE THAT DISHWASHER IS PERMITTED TO BY-PASS INTERCEPTOR & NOTIFY CONSULTANT IMMEDIATELY WITH ANY CONCERNS.
 - 8 HOT WATER & SANITARY PIPING WITHIN 4.5M OF COMMERCIAL DISHWASHER SHALL BE COPPER OR CAST IRON TO PREVENT DAMAGE DUE TO HIGH TEMPERATURE WASTE. PLASTIC PIPING IS NOT PERMITTED.
 - 9 RESERVED.
 - 10 ABANDON REDUNDANT COLD WATER & HOT WATER PIPING ROUTED BELOW FLOOR.
 - 11 REMOVE COLD WATER & HOT WATER PIPING TO BELOW FLOOR.
 - 12 REMOVE DUCTLESS SPLIT (DUCTLESS AIR CONDITIONER) INDOOR UNIT C/W REFRIGERANT & CONDENSATE PIPING, CONTROLS, ETC. TURN OVER INDOOR UNIT C/W CONTROLS TO OWNER.
 - 13 REMOVE PNEUMATIC TEMPERATURE SENSOR C/W PNEUMATIC TUBING, ETC. CAP TUBING AT MAIN.
 - 14 50MM AUTOMATIC CONTROL VALVE LOCATED ABOVE CEILING ACCESS DOOR SERVES PERIMETER HEATERS IN ADJACENT GREENHOUSE.
 - 15 REMOVE REFRIGERANT PIPING TO ROOF.
 - 16 REMOVE RESIDENTIAL CLOTHES WASHER C/W COLD WATER & HOT WATER PIPING TO KITCHEN SINK (ON EXTERIOR WALL), SANITARY PIPING TO BELOW FLOOR & CAP, ETC.
 - 17 REMOVE PNEUMATIC CONTROL VALVE C/W VALVING (ISOLATION VALVES, BALANCING VALVE, ETC.) TO SUIT REPLACEMENT CONTROL VALVE & VALVING, PNEUMATIC TUBING, ETC. CAP TUBING AT MAIN.
 - 18 INSTALL DUCTLESS SPLIT (DUCTLESS AIR CONDITIONER) INDOOR UNIT AT HIGH LEVEL ON WALL. PROVIDE REFRIGERANT & CONDENSATE PIPING, ETC. PROVIDE PIPING WITHIN EXPOSED ENCLOSURE SIMILAR TO RECTANGULAR SLIMDUCKET LINET COVERS TO DROP CEILING.
 - 19 PROVIDE CONTROL VALVE C/W VALVING (REFER TO DETAIL), ETC. PROVIDE BAS CONTROLS.
 - 20 RESERVED.
 - 21 REMOVE & THOROUGHLY CLEAN WALLFIN HEATER ENCLOSURE. COMB & VACUUM HEATER ELEMENTS. RE-INSTALL HEATER ENCLOSURE.
 - 22 PROVIDE 75MM STANDING WASTE EXTENDED TO MAX HEIGHT SECURED TO REAR OF MILLWORK. PROVIDE DRAIN OFFSET BELOW SINK & EXTEND PIPING TO SECURE TO REAR OF MILLWORK CENTRED ABOVE STANDING WASTE C/W 25MM AIR GAP.
 - 23 REMOVE TWO FIRE EXTINGUISHERS LOCATED WITHIN SPACE & TURN OVER TO OWNER.
 - 24 PROVIDE SURFACE-MOUNT FIRE EXTINGUISHER AT A LOCATION TO BE DETERMINED DURING CONSTRUCTION. REFER TO SPEC.



CORNERSTONE
ARCHITECTURE

MNE Engineering Inc.
22 Revo Place - Box A
Kitchener, Ontario N2C 2G5
(519) 844-8408
www.mneengineering.co

ISSUED FOR COORDINATION	K.K.
ISSUED FOR COORDINATION	K.K.
ISSUED FOR TENDER# 23-7362-RFT	K.K.

2022.03.02
2022.03.09
2023.01.05

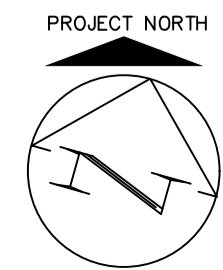


Waterloo-Oxford District Secondary School
1208 Snyder's Road West, New Hamburg, ON N3A 4A4

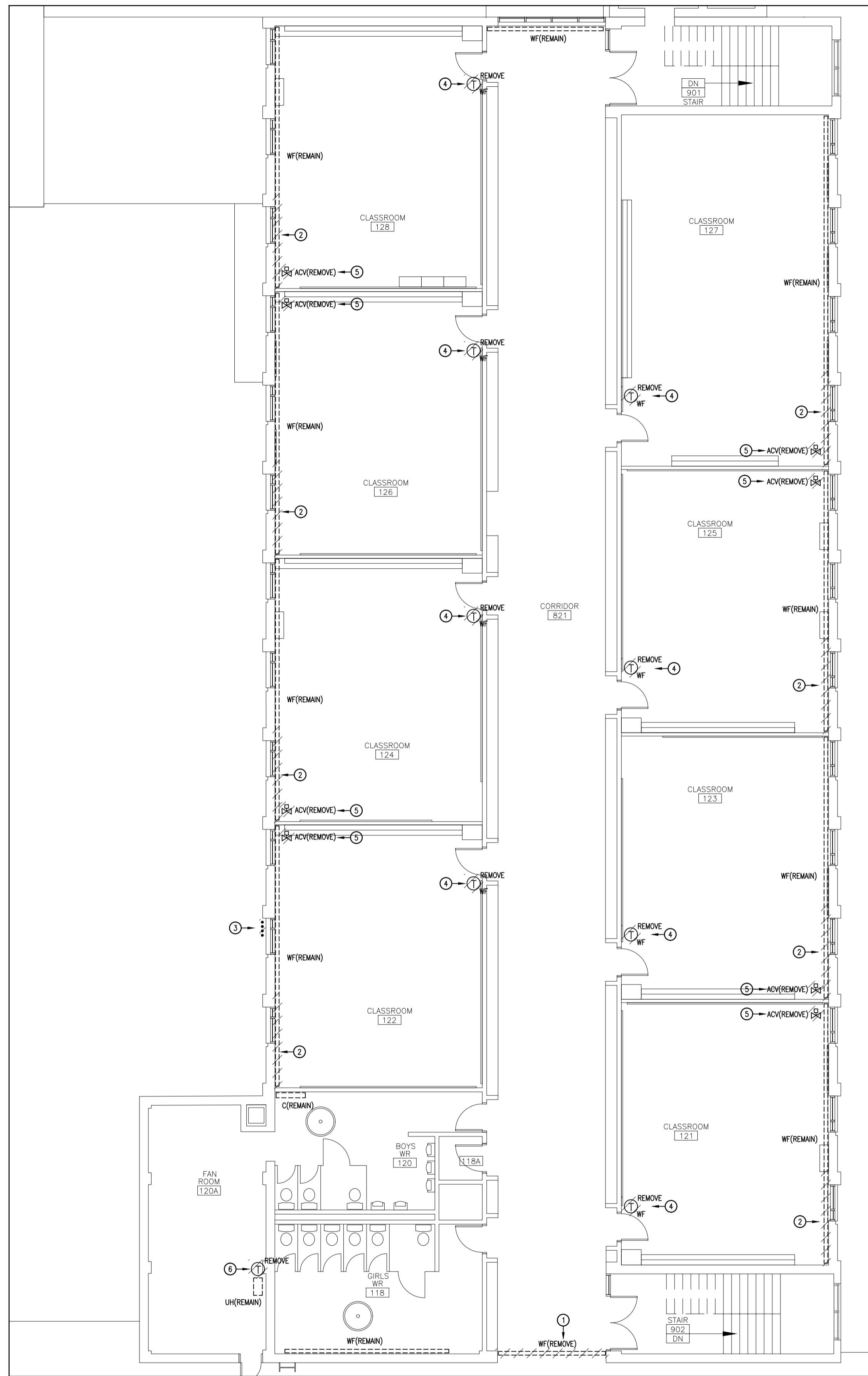
FAMILY STUDIES RENOVATION & HVAC UPGRADES

Project No.: 22002
Drawn By: J.S.S.
Reviewed: 2023-01-05

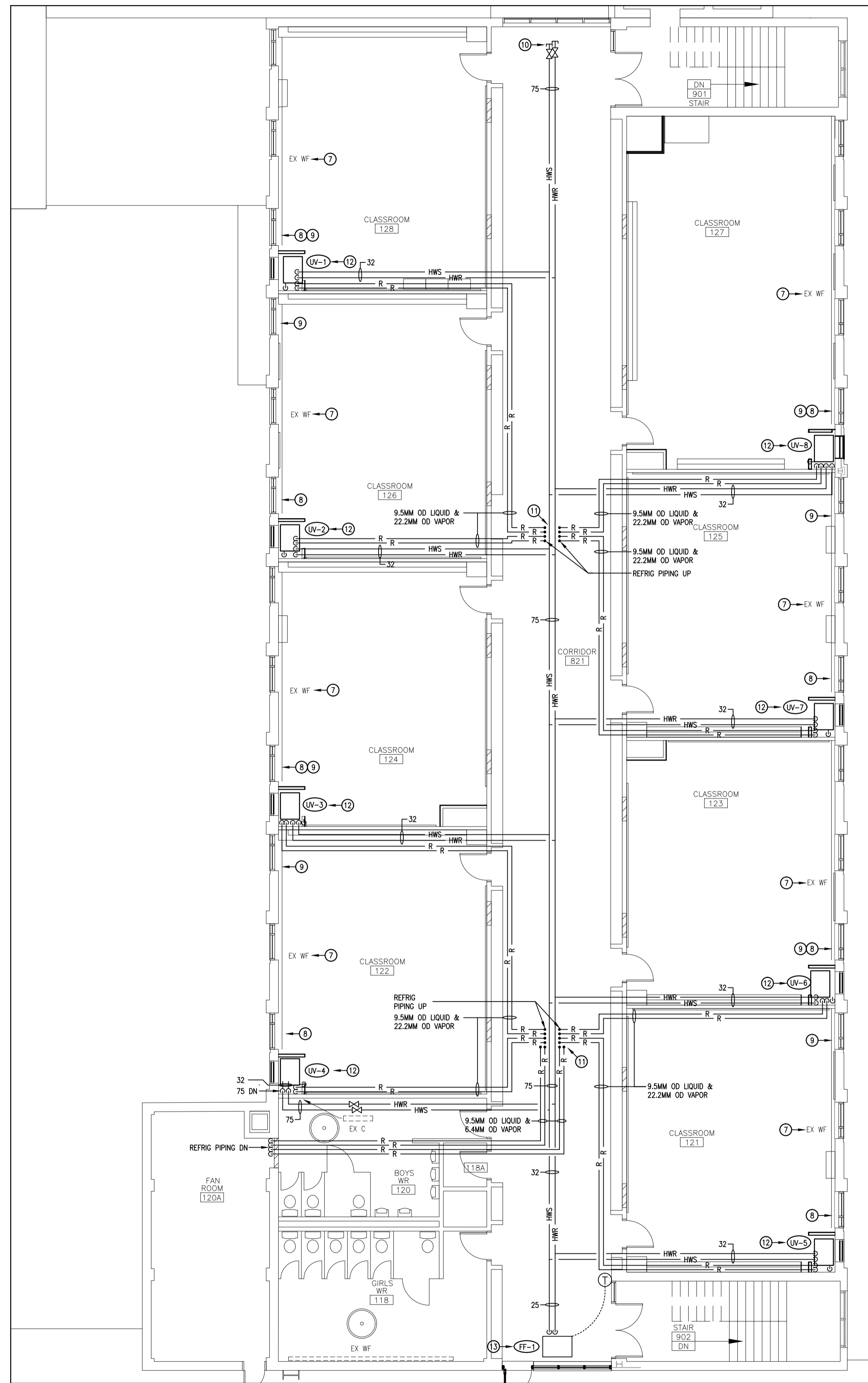
GROUND FLOOR PIPING DEMOLITION & RENOVATION PLANS



M2.1

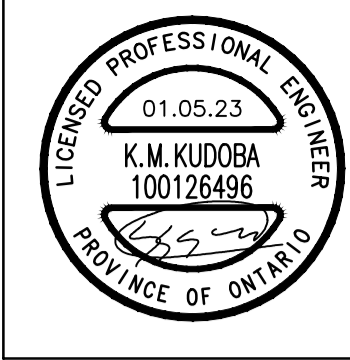


1 SECOND FLOOR PIPING DEMOLITION PLAN
SCALE: 1:100



2 SECOND FLOOR PIPING RENOVATION PLAN
SCALE: 1:100

- DRAWING NOTES:
- REMOVE WALL/FIN HEATER C/W HEATING WATER PIPING, TEMPERATURE SENSOR, PNEUMATIC TUBING / CONTROL WIRING, ETC. CAP PIPING AT MAINS.
 - TEMPORARILY REMOVE & STORE WALL/FIN HEATER ENCLOSURE FOR REINSTALLATION. REMOVE SECTION OF HEATER ELEMENT & REMOVE / MODIFY BRACKETS AS REQUIRED TO SUIT INSTALLATION OF UNIT VENTILATOR.
 - REMOVE REFRIGERANT PIPING TO ROOF.
 - REMOVE PNEUMATIC TEMPERATURE SENSOR C/W PNEUMATIC TUBING, ETC. CAP TUBING AT MAINS.
 - REMOVE PNEUMATIC CONTROL VALVE C/W VALVING (ISOLATION VALVES, BALANCING VALVE, ETC.) TO SUIT REPLACEMENT CONTROL VALVE & VALVING, PNEUMATIC TUBING, ETC. CAP TUBING AT MAINS.
 - REMOVE TEMPERATURE SENSOR C/W PNEUMATIC TUBING / CONTROL WIRING, ETC. CAP TUBING AT MAINS.
 - THOROUGHLY CLEAN TEMPORARILY STORED WALL/FIN HEATER ENCLOSURE, COMB & VACUUM HEATER ELEMENTS. SHORPEN ENCLOSURE TO SUIT INSTALLATION OF UNIT VENTILATOR. ENSURE MODIFIED END HAS A CLEAN CUT WITH NO BURRS. PAINT & RE-INSTALL ENCLOSURE.
 - HEATING WATER PIPING SERVING SECOND FLOOR WALL/FIN HEATER IS SERVED FROM FIRST FLOOR. IN-PLACE OF REMOVED HEATER ELEMENT, PROVIDE HEATING WATER PIPING (C/W ISOLATION VALVE) THROUGH FIRST FLOOR CEILING SPACE TO SUIT INSTALLATION OF UNIT VENTILATOR & RISE THROUGH FLOOR TO SUIT MODIFIED HEATER LENGTH. REFER TO DETAIL.
 - PROVIDE CONTROL VALVE C/W VALVING (REFER TO DETAIL), ETC. PROVIDE BAS CONTROLS.
 - HEATING WATER PIPING ROUGH-IN 3M FROM END OF CORRIDOR FOR PROPOSED ADDITION.
 - REFRIGERANT PIPING TO / FROM ROOF THROUGH DOGHOUSE. REFER TO DETAIL.
 - INSTALL UNIT VENTILATOR WITHIN DRYWALL ENCLOSURE (BY GENERAL TRADE). PROVIDE HEATING WATER, REFRIGERANT & CONDENSATE PIPING, ETC. REFER TO DETAIL FOR HEATING WATER VALVING. PROVIDE STANDING WASTE FOR CONDENSATE PIPING.
 - INSTALL FORCE FLOW HEATER C/W NEOPRENE ISOLATORS, HEATING WATER PIPING, CONTROLS (TEMPERATURE SENSOR, WIRING, ETC.) ETC. REFER TO DETAIL FOR VALVING. PROVIDE BAS CONTROLS.



CORNERSTONE
ARCHITECTURE

MNE Engineering Inc.
22 Pence Place - Box A
Kitchener, Ontario N2C 2G5
(519) 844-8408
www.mneengineering.ca

2022.03.02	ISSUED FOR COORDINATION	K.K.
2022.03.09	ISSUED FOR COORDINATION	K.K.
2023.01.05	ISSUED FOR TENDER 23-7352-RFT	K.K.

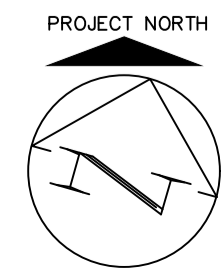


Waterloo-Oxford District Secondary School
FAMILY STUDIES RENOVATION & HVAC UPGRADES

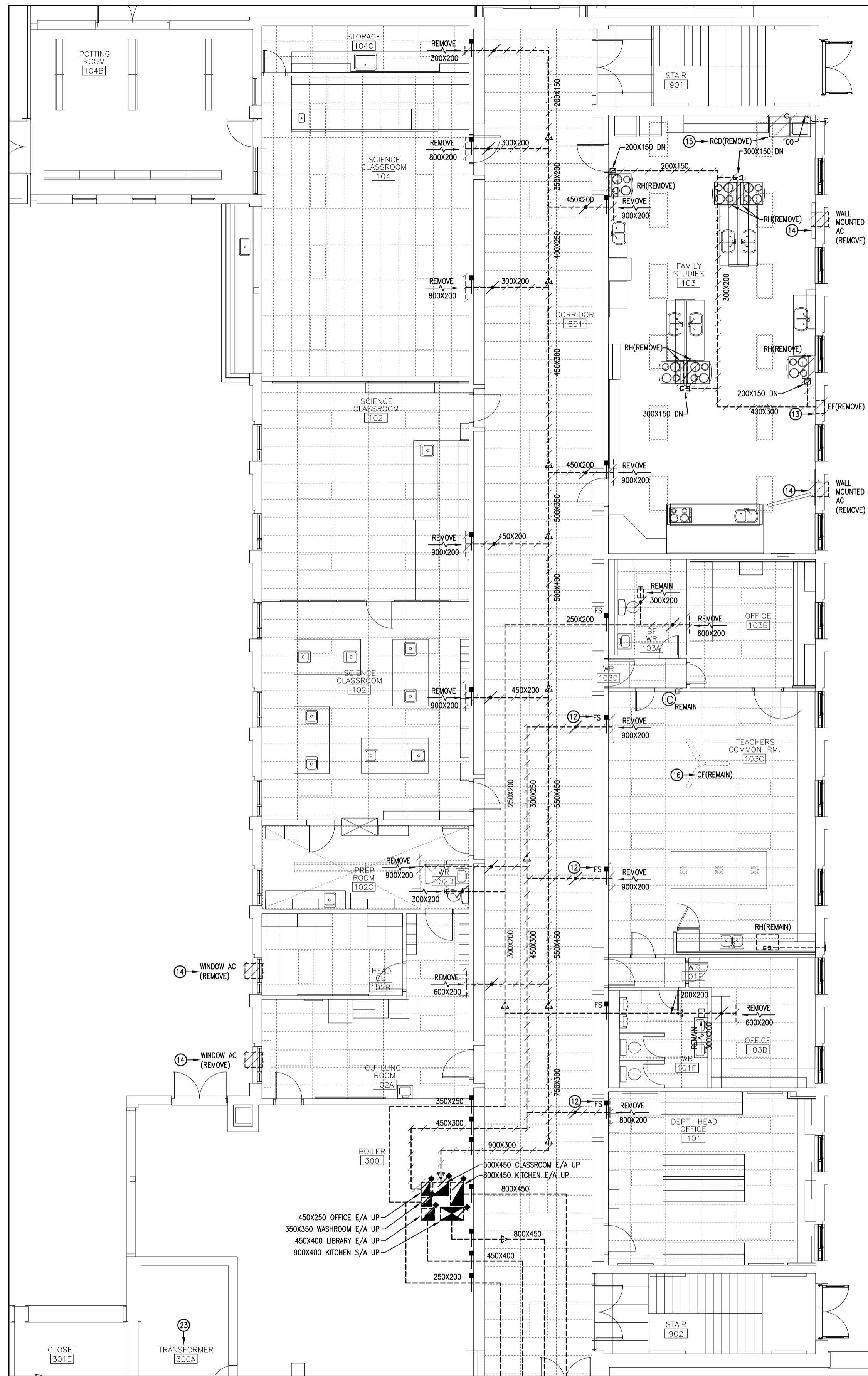
1208 Snyder's Road West, New Hamburg, ON N3A 1A4

Project No.: 22002
Drawn By: J.S.S.
Reviewed: 2023-01-05

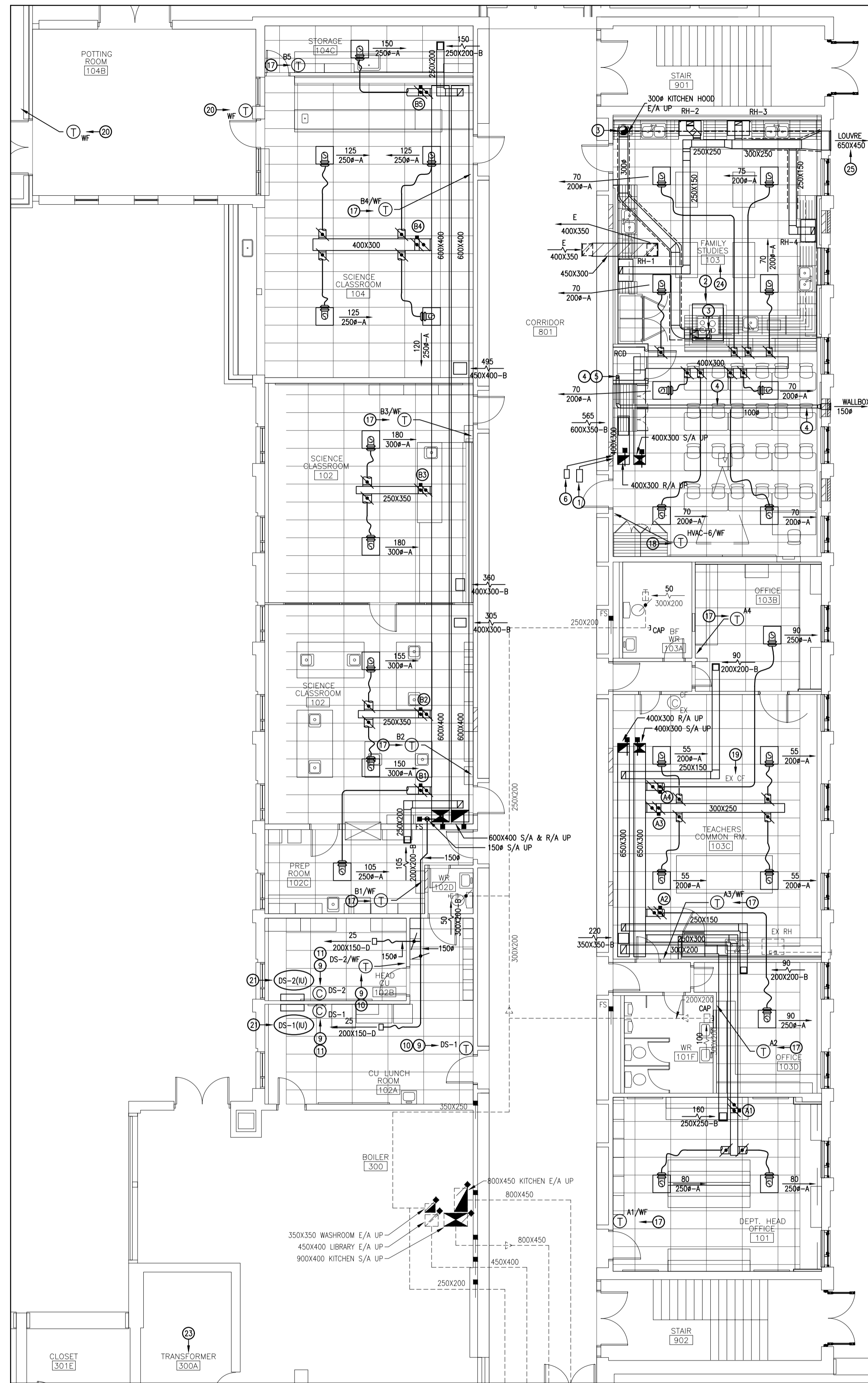
SECOND FLOOR PIPING DEMOLITION & RENOVATION PLANS



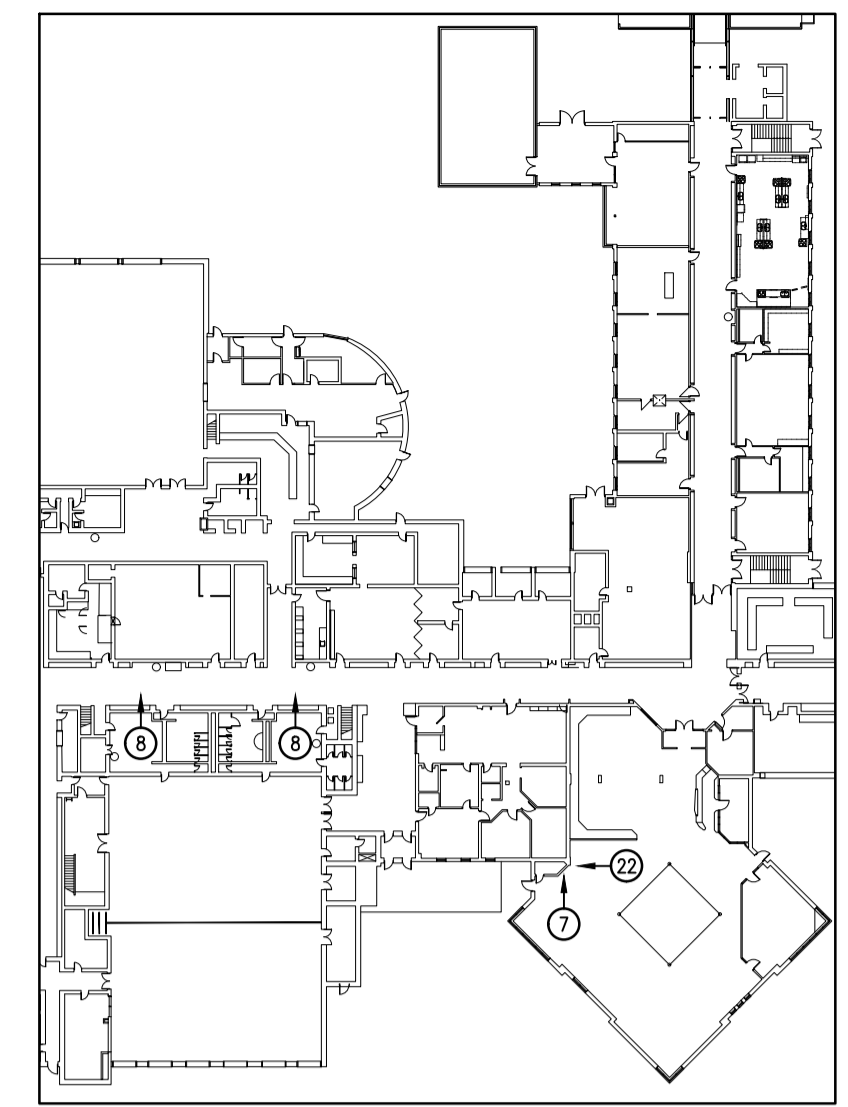
M2.2



1 GROUND FLOOR DUCTWORK DEMOLITION PLAN
M.S. 1 SCALE: 1:100



2 GROUND FLOOR DUCTWORK RENOVATION PLAN
M.S. 1 SCALE: 1:100



3 GROUND FLOOR DUCTWORK RENOVATION PLAN
M.S. 1 SCALE: 1:100

- DRAWING NOTES:
- INSTALL NFPA 96 KITCHEN HOOD FIRE SUPPRESSION SYSTEM CHEMICAL STORAGE CONTAINER IN APPROX THIS LOCATION. REFER TO DETAIL. COORDINATE WITH ARCH.
 - INSTALL NFPA 96 KITCHEN EXHAUST HOOD WITH BOTTOM EDGE LOCATED APPROX 2100MM ABOVE FINISHED FLOOR & ACCORDING TO MANUFACTURER'S REQUIREMENTS. REFER TO DETAIL. REFER TO SPEC FOR HOOD SIZE, TYPE, ETC. VERIFY EXACT HOOD SIZE ON SITE & ADJUST TO SUIT COOKING EQUIPMENT, ETC.
 - ALL NFPA 96 KITCHEN HOOD EXHAUST DUCTWORK SHALL BE C/W WELDED CONNECTIONS / JOINTS. CONSTRUCT ACCORDING TO NFPA 96 REQUIREMENTS & AS PER SPEC. PROVIDE FIRE RATED THERMAL INSULATION ON ALL DUCTWORK AS PER SPEC.
 - ALL RESIDENTIAL CLOTHES DRYER EXHAUST DUCTWORK SHALL BE THERMALLY INSULATED.
 - PROVIDE REVERSOMATIC LT400SD LINT TRAP FOR STACKED RESIDENTIAL CLOTHES DRYER. ENSURE FULL ACCESS IS MAINTAINED.
 - INSTALL NFPA 96 KITCHEN HOOD FIRE SUPPRESSION SYSTEM EMERGENCY RELEASE PULL STATION ON WALL IN APPROX THIS LOCATION. REFER TO DETAIL. RUN ALL ASSOCIATED CABLING TO HOOD FIRE SUPPRESSION SYSTEM IN CONDUIT. CONDUIT SHALL RUN CONCEALED.
 - REMOVE WALL-MOUNTED HUMIDIFIER IN APPROX THIS LOCATION IN LIBRARY C/W COLD WATER & DRAINAGE PIPING, ETC. CAP COLD WATER PIPING AT MAIN.
 - REMOVE 600X600 FRAME, 300MM NECK SUPPLY DIFFUSER IN CORRIDOR CEILING IN APPROX THIS LOCATION TO SUIT CEILING REMOVAL. PROVIDE REPLACEMENT TYPE 'A' DIFFUSER C/W FIRE STOP FLAP, THERMAL BLANKET, ETC & CONNECT TO EX DUCTWORK. BALANCE AIRFLOW TO 330 L/S (700 CFM) PER DIFFUSER.
 - ENSURE NO SIMULTANEOUS HEATING & COOLING.
 - PROVIDE TEMPERATURE SENSOR. PROVIDE BAS CONTROLS.
 - PROVIDE DUCTLESS SPLIT (DUCTLESS AIR CONDITIONER) CONTROLLER MOUNTED ON WALL ABOVE DROP CEILING (FOR SERVICE USE ONLY). SET LOCAL CONTROLS FOR LOW SET-POINT (19°C) WITH 'ALWAYS ON' TIME SCHEDULE.
 - REMOVE COMBINATION FIRE & SMOKE DAMPER & TURN OVER TO OWNER.
 - REMOVE EXHAUST FAN C/W DUCTWORK, CONTROLS, ETC.
 - REMOVE WINDOW AIR CONDITIONER & TURN OVER TO OWNER.
 - REMOVE RESIDENTIAL CLOTHES DRYER EXHAUST DUCTWORK C/W WALLBOX, ETC.
 - TEMPORARILY REMOVE & STORE CEILING FAN FOR REINSTALLATION.
 - PROVIDE TEMPERATURE SENSOR & VLT MOTORIZED DAMPER. PROVIDE BAS CONTROLS.
 - PROVIDE TEMPERATURE SENSOR. PROVIDE BAS CONTROLS.
 - INSTALL TEMPORARILY STORED CEILING FAN. MODIFY SUPPORTS & WIRING AS REQUIRED TO SUIT REVISED CEILING HEIGHT.
 - PROVIDE TEMPERATURE SENSOR. PROVIDE BAS CONTROLS.
 - INSTALL DUCTLESS SPLIT (DUCTLESS AIR CONDITIONER) INDOOR UNIT C/W CONTROLS.
 - RELOCATE WALL-MOUNTED HEATER IN WATER METER ROOM AS REQUIRED TO SUIT SPRINKLER PIPING REVISIONS. REVISE HEATING WATER PIPING, CONTROLS, ETC. AS REQUIRED.
 - REMOVAL OR REWORK OF PNEUMATIC OR DIGITAL CONTROLS ASSOCIATED WITH REMOVAL OF EX BUILDING OPERATOR CONTROL PANEL TO BE COMPLETED AS PART OF A CASH ALLOWANCE. EXTENT OF SCOPE TO BE DETERMINED DURING CONSTRUCTION.
 - PROVIDE SIGN INDICATING COOLING FOR SPACE IS DISABLED DURING NFPA HOOD OPERATION. EXACT SIZE, WORDING & MOUNTING LOCATION OF SIGN TO BE DETERMINED DURING CONSTRUCTION.
 - VERTICALLY POSITION LOUVER BETWEEN TOP OF CEILING & UNDERSIDE OF JOISTS. HORIZONTALLY POSITION LOUVER MIN 400MM BETWEEN LOUVER & ADJACENT WINDOW & MIN 400MM BETWEEN LOUVER & ADJACENT WALL.



CORNERSTONE
ARCHITECTURE

MNE Engineering Inc.
22 Ivaco Place - Box A
Kitchener, Ontario N5C 2G5
(519) 844-8408
www.mneengineering.co

ISSUED FOR COORDINATION
2022.03.02

ISSUED FOR COORDINATION
2022.03.09

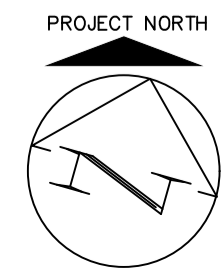
ISSUED FOR TENDER/23-7362-RFT
2023.01.05



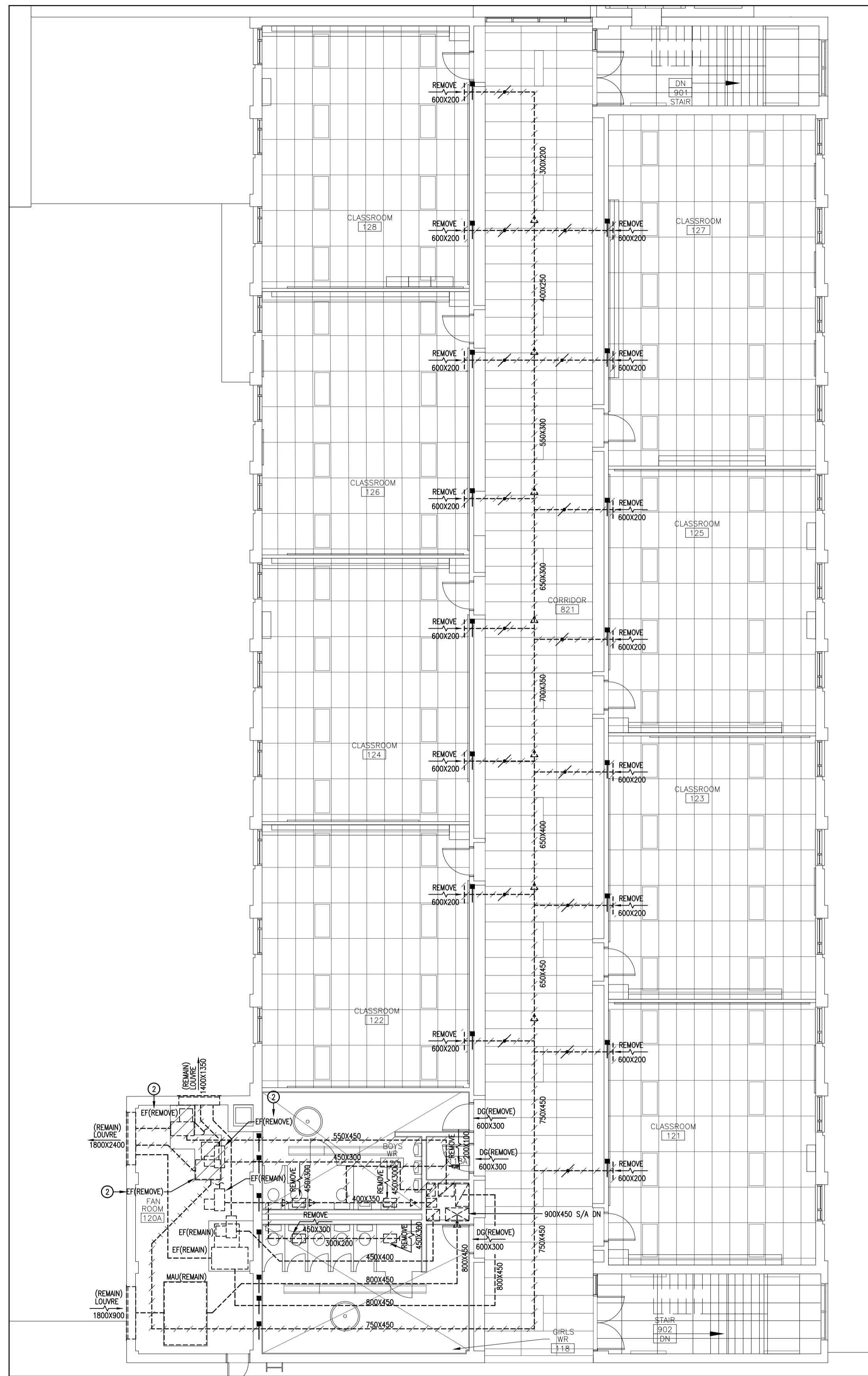
Waterloo-Oxford District Secondary School
1208 Snyder's Road West, New Hamburg, ON N3A 4A4

Project No.: 22002
Drawn By: J.S.S.
Reviewed: 2023-01-05

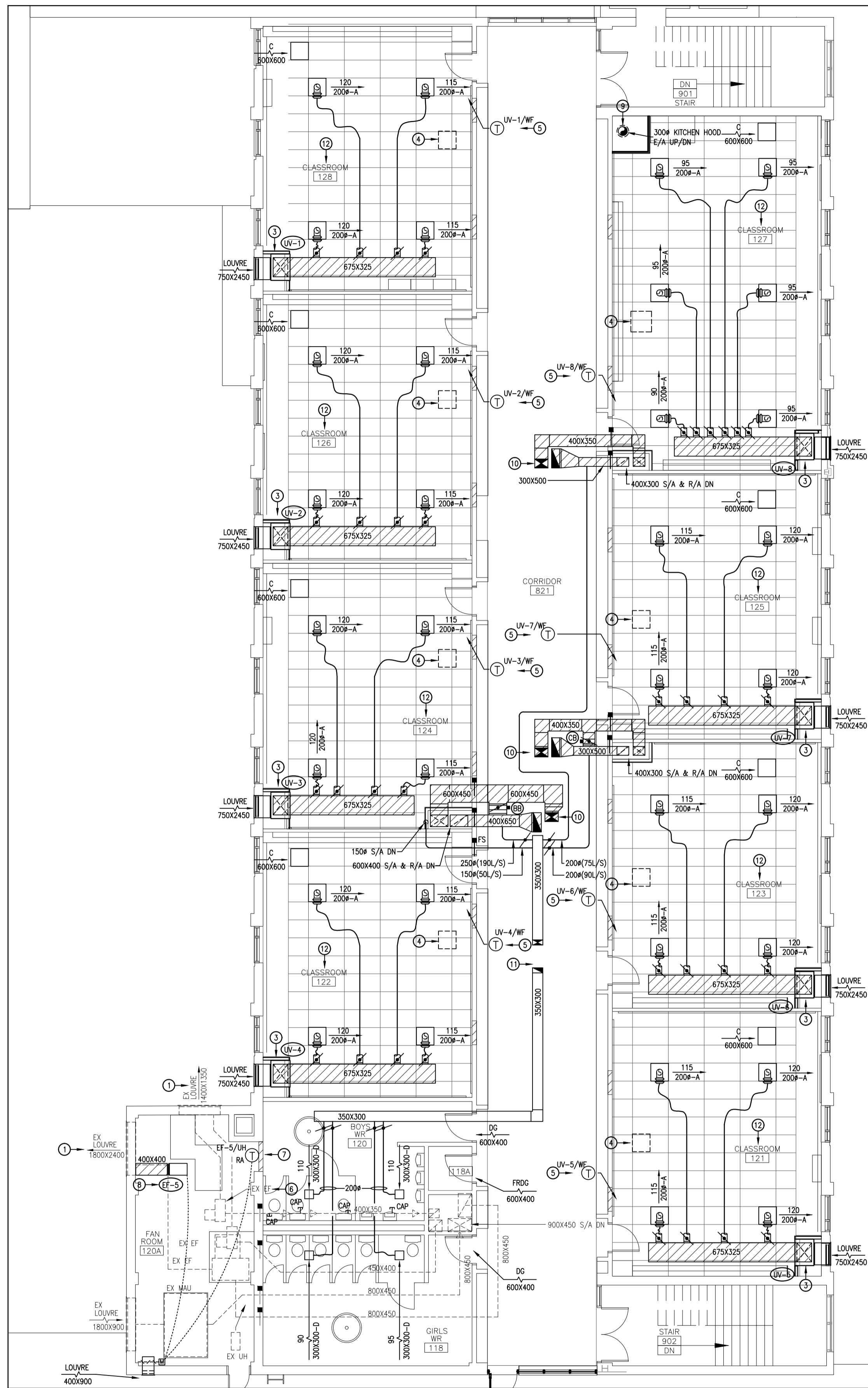
GROUND FLOOR DUCTWORK DEMOLITION & RENOVATION PLANS



M3.1



1 SECOND FLOOR DUCTWORK DEMOLITION PLAN
SCALE: 1:100



2 SECOND FLOOR DUCTWORK RENOVATION PLAN
SCALE: 1:100

- DRAWING NOTES:
- 1 PROVIDE INSULATED BLANK-OFF ON PORTION OF LOUVRE LEFT UNUSED DUE TO REMOVAL OF EXHAUST DUCTWORK.
 - 2 REMOVE EXHAUST FAN C/W DUCTWORK, CONTROLS, ETC.
 - 3 INSTALL UNIT VENTILATOR C/W LOUVRE, OUTDOOR AIR PLENUM / DUCTWORK (REFER TO DETAIL), SUPPLY DUCTWORK, ETC. PROVIDE BAS CONTROLS.
 - 4 APPROX LOCATION OF RELIEF CAP ON ROOF ABOVE. RELIEF DUCTWORK IS OPEN TO CEILING SPACE. PROVIDE MOTORIZED DAMPER C/W BAS CONTROLS.
 - 5 PROVIDE TEMPERATURE SENSOR, PROVIDE BAS CONTROLS.
 - 6 BALANCE EXHAUST AIRFLOWS AS INDICATED.
 - 7 PROVIDE TEMPERATURE SENSOR, PROVIDE BAS CONTROLS. ACTIVATE UNIT HEATER FOR HEATING & ACTIVATE EXHAUST FAN / MOTORIZED DAMPER FOR COOLING.
 - 8 INSTALL EXHAUST FAN C/W NEOPRENE ISOLATORS, EXHAUST DUCTWORK, ETC. PROVIDE BAS CONTROLS.
 - 9 ALL NFPA 96 KITCHEN HOOD EXHAUST DUCTWORK SHALL BE C/W WELDED CONNECTIONS / JOINTS. CONSTRUCT ACCORDING TO NFPA 96 REQUIREMENTS & AS PER SPEC. PROVIDE FIRE RATED THERMAL INSULATION ON ALL DUCTWORK AS PER SPEC.
 - 10 SUPPLY DUCTWORK FROM & RETURN DUCTWORK TO ROOF.
 - 11 OUTDOOR DUCTWORK FROM & EXHAUST DUCTWORK TO ROOF.
 - 12 CEILING SPACE IS NOT A RETURN AIR PLENUM. THERMAL INSULATION IS REQUIRED.



CORNERSTONE
ARCHITECTURE

MNE Engineering Inc.
22 Reeve Place - Box A
Kitchener, Ontario N2C 2G5
(519) 844-8408
www.mneengineering.ca

ISSUED FOR COORDINATION	K.K.
ISSUED FOR COORDINATION	K.K.
ISSUED FOR TENDER	K.K.

2022.03.02
2022.03.09
2023.01.05

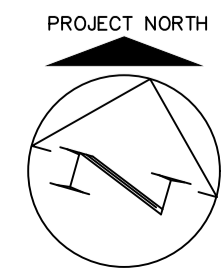


Waterloo-Oxford District Secondary School
FAMILY STUDIES RENOVATION & HVAC UPGRADES

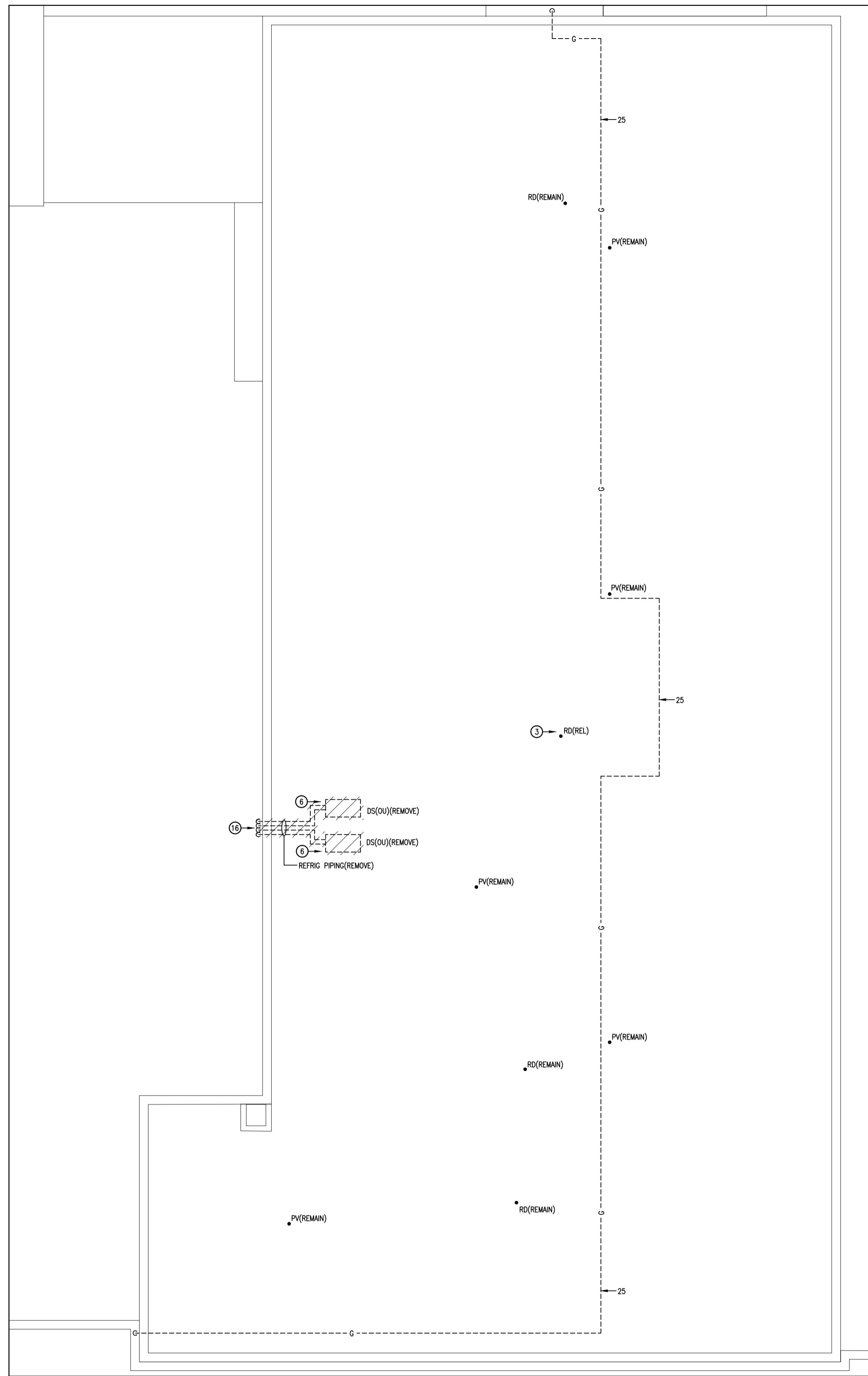
1208 Snyder's Road West, New Hamburg, ON N3A 1A4

Project No.: 22002
Drawn By: J.S.S.
Reviewed: 2023-01-05

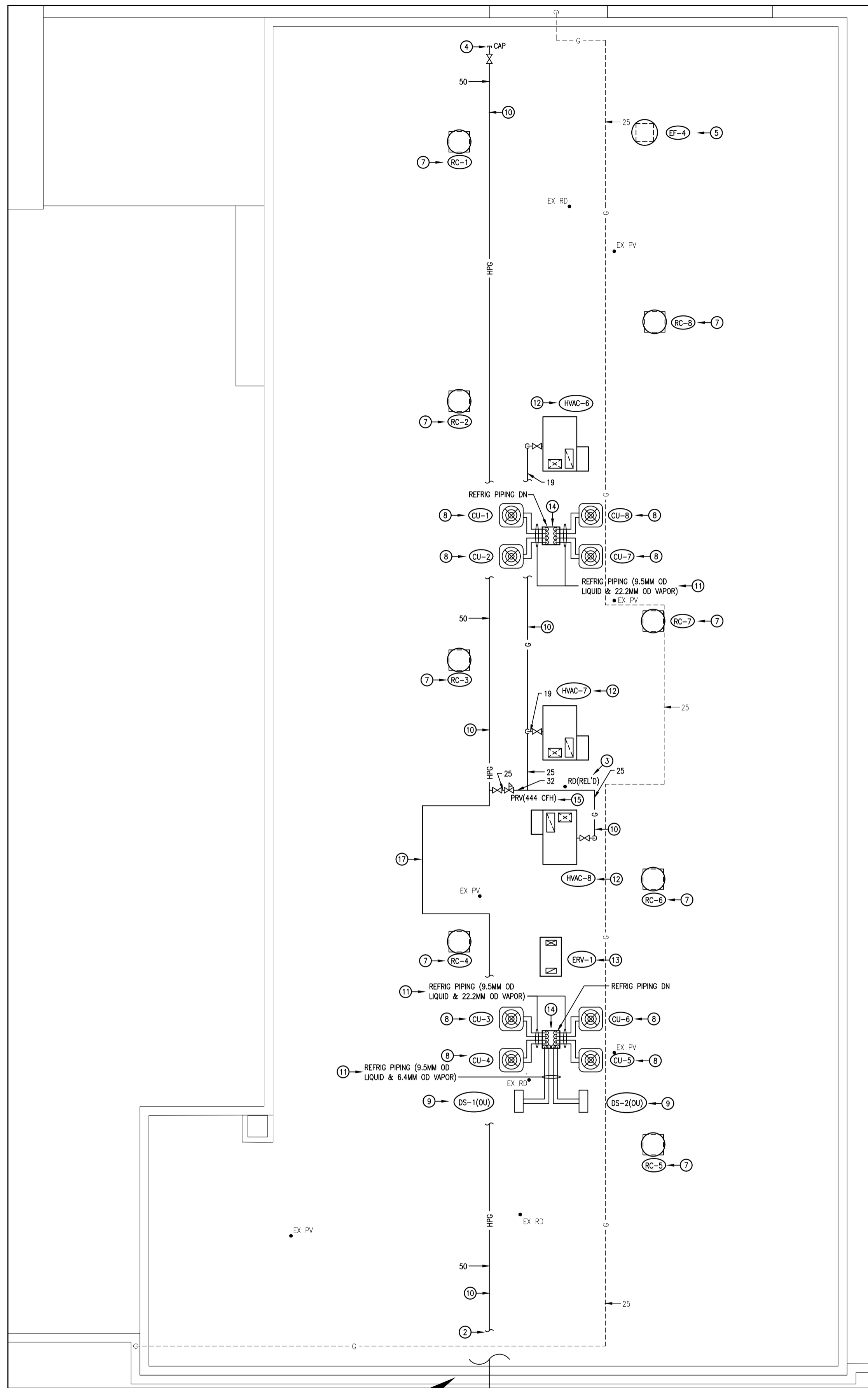
SECOND FLOOR DUCTWORK DEMOLITION & RENOVATION PLANS



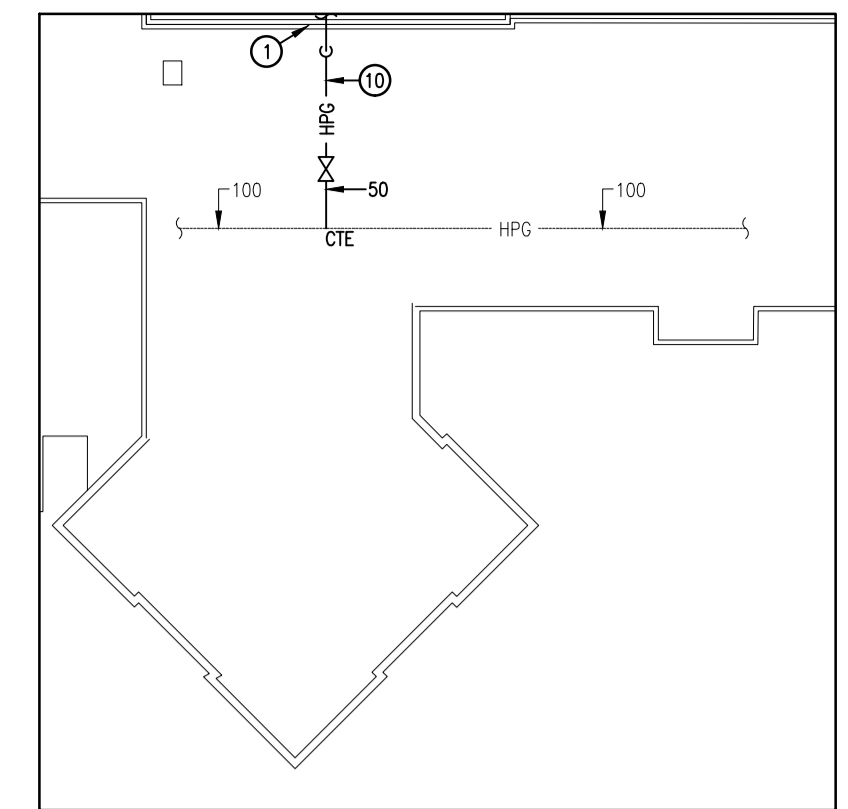
M3.2



1 ROOF MECHANICAL DEMOLITION PLAN
M4.1 SCALE: 1:100



2 ROOF RENOVATION PLAN
M4.1 SCALE: 1:100



3 ROOF MECHANICAL HVAC RENOVATION PLAN
M4.1 SCALE: 1:500

- DRAWING NOTES:
- 1 - SEE DETAIL 2 ON THIS SHEET FOR CONTINUATION.
 - 2 - SEE DETAIL 3 ON THIS SHEET FOR CONTINUATION.
 - 3 - RELOCATE ROOF DRAIN C/W STORM PIPING IN SECOND FLOOR CEILING SPACE AS REQUIRED TO SUIT RENOVATION WORK.
 - 4 - HIGH PRESSURE GAS PIPING ROUGH-IN 3M FROM EDGE OF ROOF FOR PROPOSED ADDITION.
 - 5 - INSTALL EXHAUST FAN ON 600MM HIGH ROOF CURB. REFER TO DETAIL.
 - 6 - REMOVE DUCTLESS SPLIT (DUCTLESS AIR CONDITIONER) OUTDOOR UNIT C/W REFRIGERANT PIPING, CONTROLS, ETC. TURN OVER OUTDOOR UNIT C/W CONTROLS TO OWNER.
 - 7 - INSTALL RELIEF CAP ON 600MM HIGH ROOF CURB.
 - 8 - INSTALL CONDENSING UNIT ABOVE CORRIDOR WALL & SECURE TO PAVERS. REFER TO DETAIL. PROVIDE CONTROLS.
 - 9 - INSTALL DUCTLESS SPLIT (DUCTLESS AIR CONDITIONER) OUTDOOR UNIT C/W ROOF SUPPORT SECURED TO PAVERS. PROVIDE STYROFOAM RIGID BOARD INSULATION. INSULATION SHALL BE APPROVED FOR OUTDOOR USE & SHALL NOT DETERIORATE WITH DIRECT EXPOSURE TO SUNLIGHT. PROVIDE CONTROLS.
 - 10 - MOUNT GAS PIPING ON ROOF SUPPORTS. REFER TO DETAIL.
 - 11 - MOUNT REFRIGERANT PIPING ON ROOF SUPPORTS. REFER TO DETAIL.
 - 12 - INSTALL ROOFTOP UNIT ON 600MM HIGH ROOF CURB. REFER TO DETAIL. PROVIDE BAS CONTROLS.
 - 13 - INSTALL ENERGY RECOVERY VENTILATOR ON 600MM HIGH ROOF CURB. REFER TO DETAIL. PROVIDE BAS CONTROLS.
 - 14 - PROVIDE DOGHOUSE. REFER TO DETAIL.
 - 15 - INSTALL PRV STATION. REFER TO DETAIL.
 - 16 - REMOVE REFRIGERANT PIPING TO ROOF.
 - 17 - PROVIDE EXPANSION LOOP FOR 50MM HIGH PRESSURE GAS PIPING AS PER CODE REQUIREMENTS.

CORNERSTONE
ARCHITECTURE

MNE Engineering Inc.
22 Tavco Place - Box A
Kitchener, Ontario N2C 2G5
(519) 844-8408
www.mneengineering.co

MNE
ENGINEERING



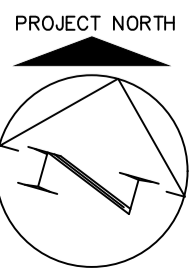
Waterloo-Oxford District Secondary School
FAMILY STUDIES RENOVATION & HVAC UPGRADES

ROOF MECHANICAL DEMOLITION & RENOVATION PLANS

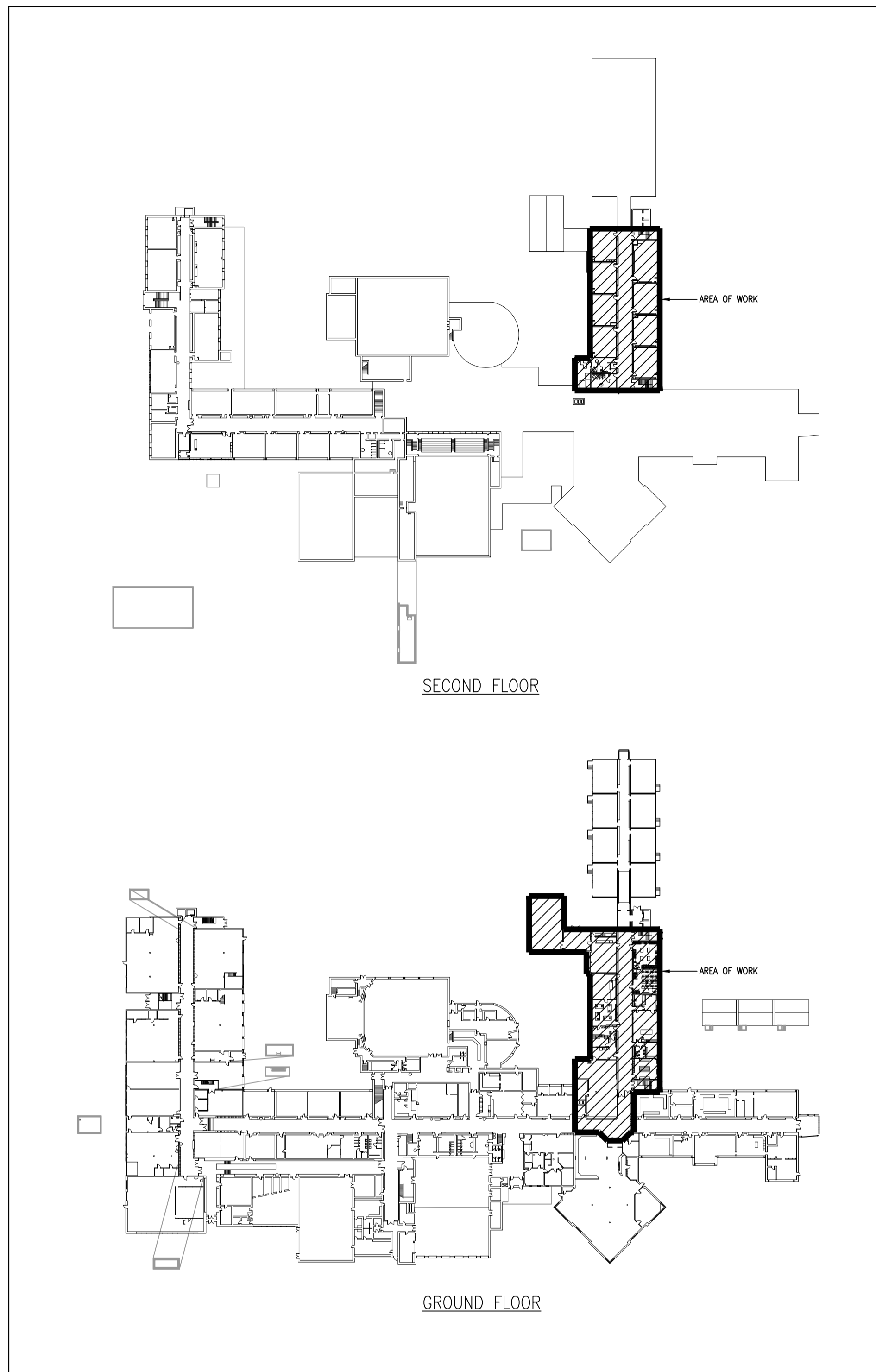


ISSUED FOR COORDINATION	ISSUED FOR COORDINATION	ISSUED FOR COORDINATION
2022.03.02	2022.03.09	2023.01.05
K.K.	K.K.	K.K.

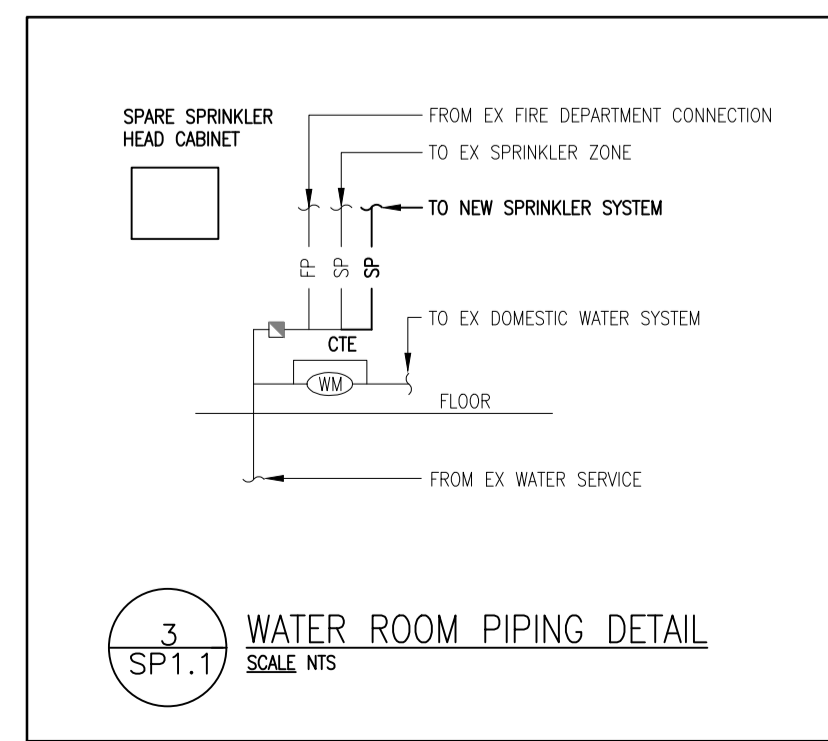
Project No.	Drawn By	Reviewed
22002	J.S.S.	2023-01-05



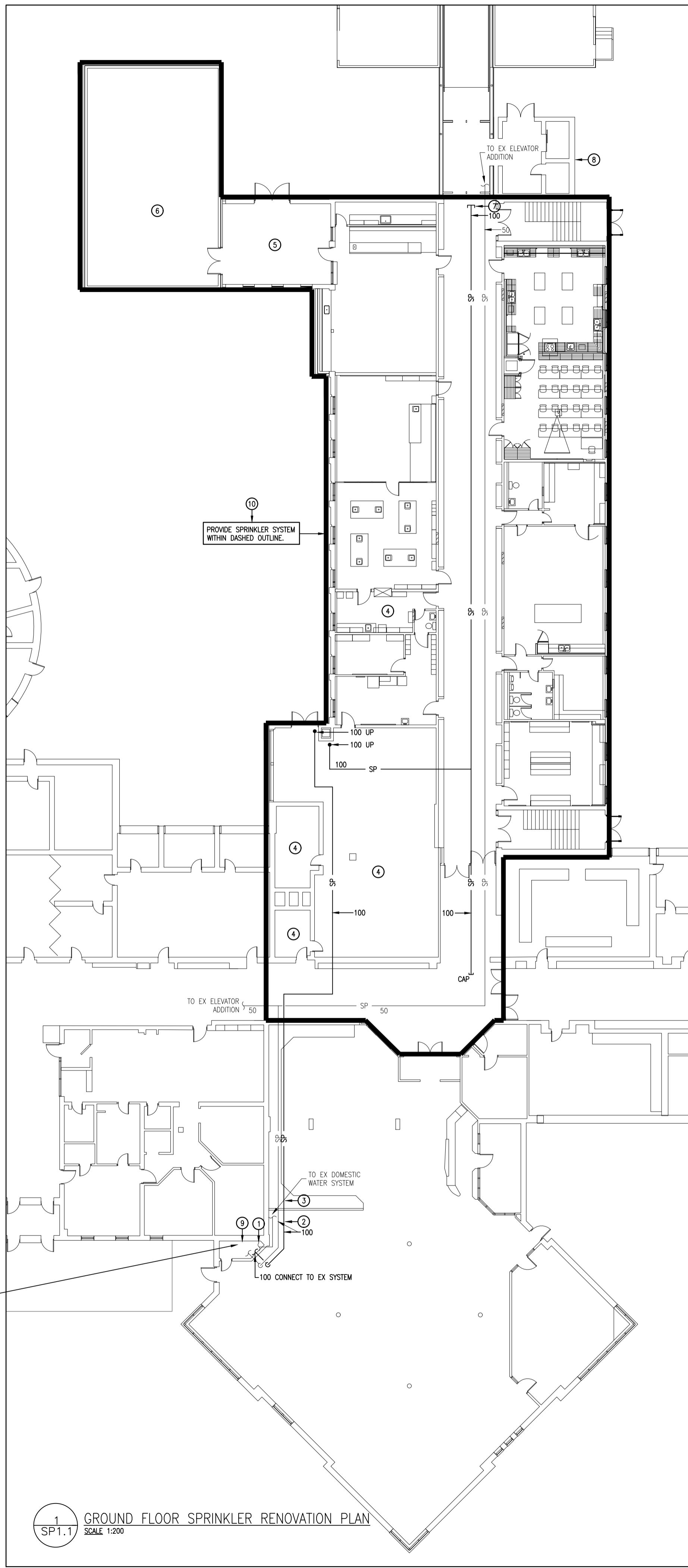
M4.1



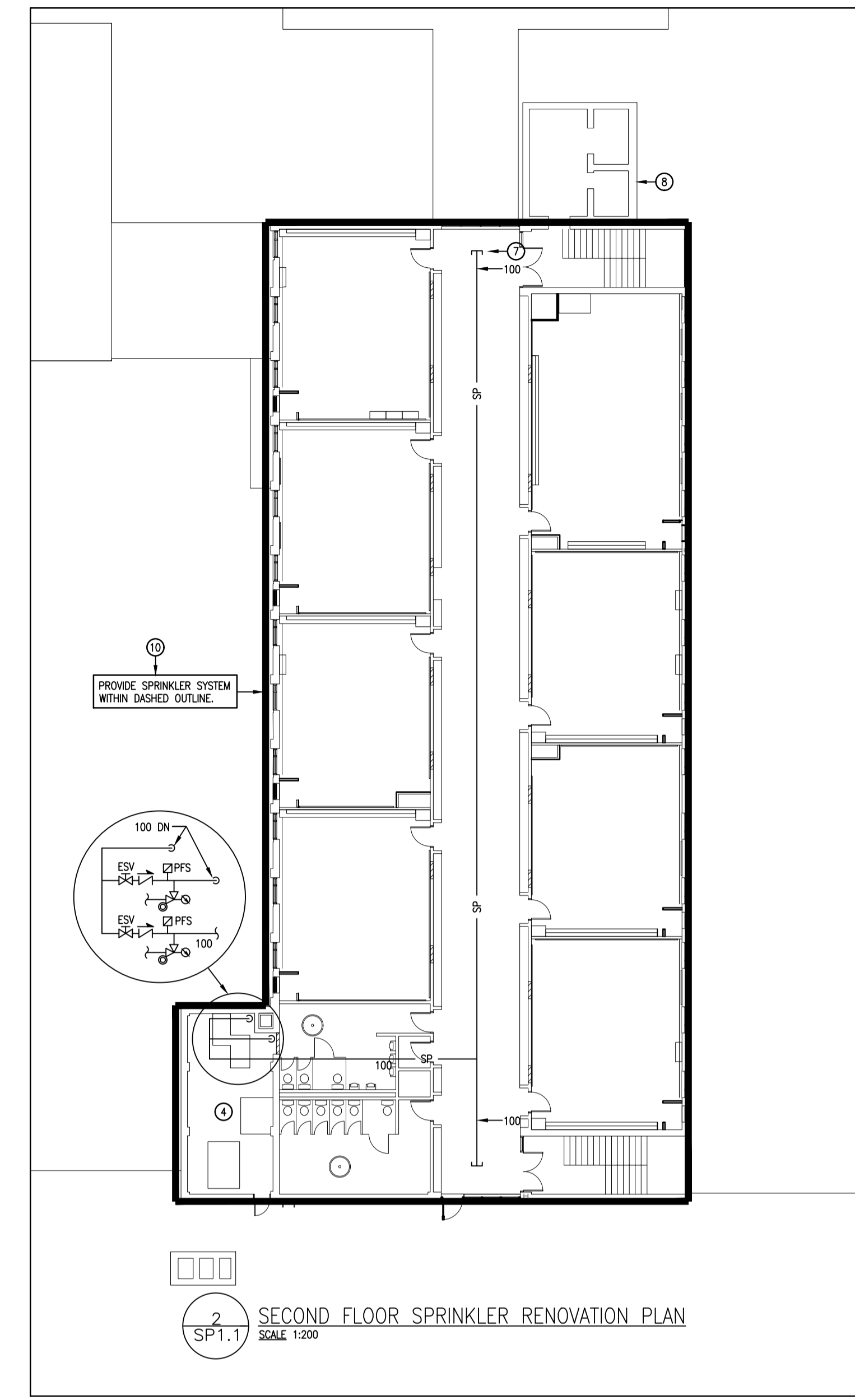
4 KEY PLAN
SCALE: 1:1000



3 WATER ROOM PIPING DETAIL
SCALE: NTS



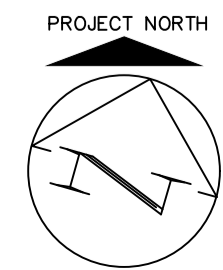
1 GROUND FLOOR SPRINKLER RENOVATION PLAN
SCALE: 1:200



2 SECOND FLOOR SPRINKLER RENOVATION PLAN
SCALE: 1:200

LEGEND	
SYMBOL	DESCRIPTION
CTE	CONNECT TO EXISTING
DN	DOWN
EX	EXISTING
SP	SPRINKLER PIPING
FP	FIRE PROTECTION PIPING
BP	BACKFLOW PREVENTER
ESV	ELECTRICALLY SUPERVISED VALVE (ESV)
ITV	INSPECTOR TEST VALVE
WM	WATER METER
PFS	PADDLE TYPE FLOW SWITCH
CV	CHECK VALVE

- DRAWING NOTES:
- ① REFER TO DETAIL 3 ON M3.1 FOR REMOVAL OF DEHUMIDIFIER.
 - ② PIPING BETWEEN WATER METER ROOM & APPROX THIS LOCATION IS EXPOSED.
 - ③ PIPING BETWEEN APPROX THIS LOCATION & CORRIDOR IS CONCEALED ABOVE DROP CEILING.
 - ④ THIS AREA HAS AN EXPOSED CEILING AS IT IS SERVICE SPACE.
 - ⑤ THIS AREA HAS AN EX PLASTER CEILING. SPRINKLER PIPING & HEADS TO BE LOCATED BELOW CEILING.
 - ⑥ THIS AREA HAS AN EXPOSED CEILING AS IT IS A GREENHOUSE.
 - ⑦ SPRINKLER PIPING ROUGH-IN FOR PROPOSED ADDITION.
 - ⑧ EX ELEVATOR ADDITION SPRINKLER AREA TO REMAIN UNCHANGED AS IT IS NOT KNOWN HOW PROPOSED ADDITION WILL AFFECT THIS AREA.
 - ⑨ REFER TO DETAIL 3 ON M3.1 FOR RELOCATION OF HEATER.
 - ⑩ UNLESS INDICATED OTHERWISE, AREAS TO BE SPRINKLERED TO HAVE DROP CEILING.



CORNERSTONE
ARCHITECTURE

MNE
ENGINEERING



Waterloo-Oxford District Secondary School
1208 Snyder's Road West, New Hamburg, ON N3A 1A4
FAMILY STUDIES RENOVATION & HVAC UPGRADES

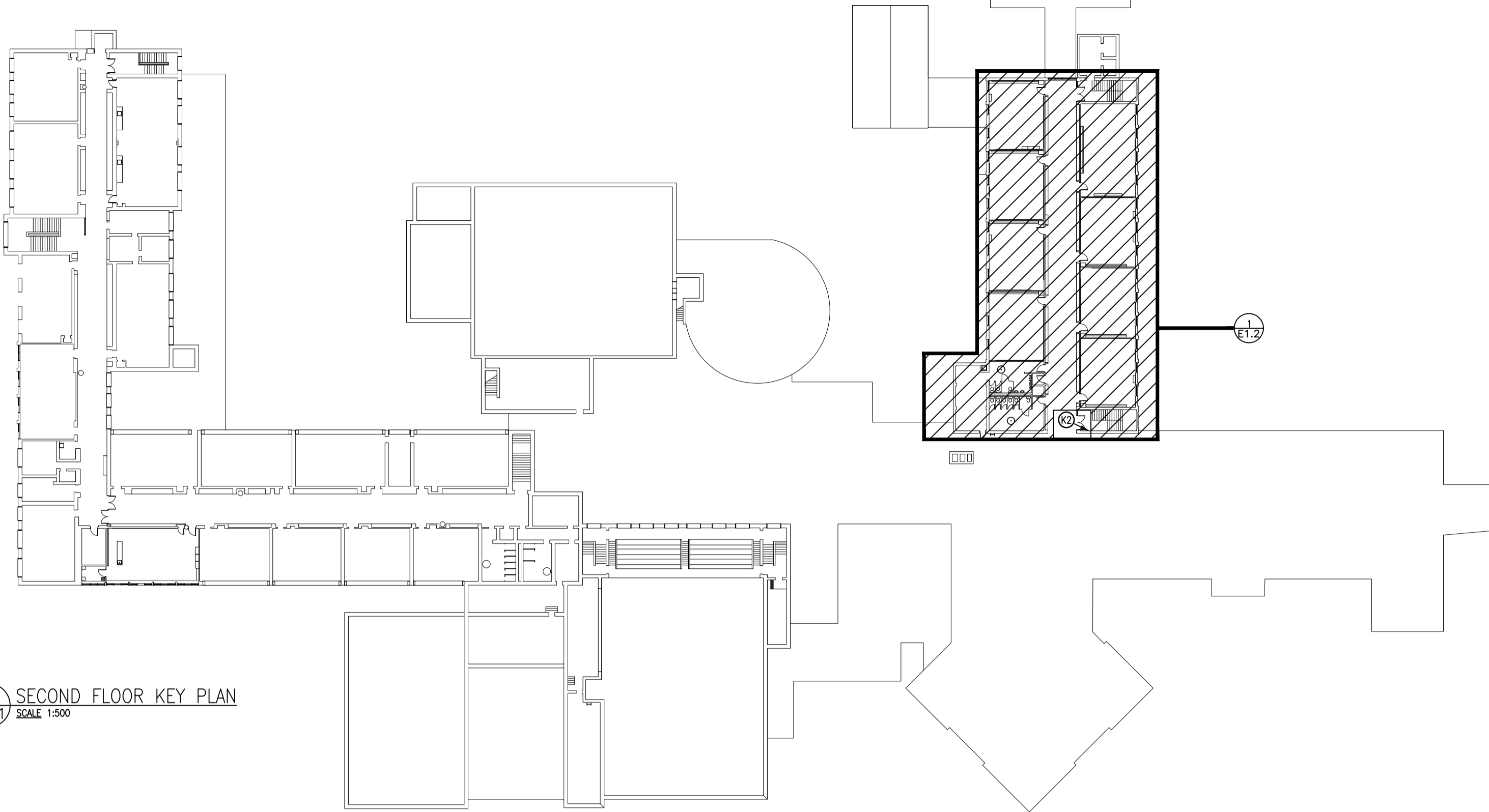
SP1.1

ISSUED FOR COORDINATION	ISSUED FOR COORDINATION	ISSUED FOR COORDINATION
2022.03.02	2022.03.09	2023.01.05
K.K.	K.K.	K.K.

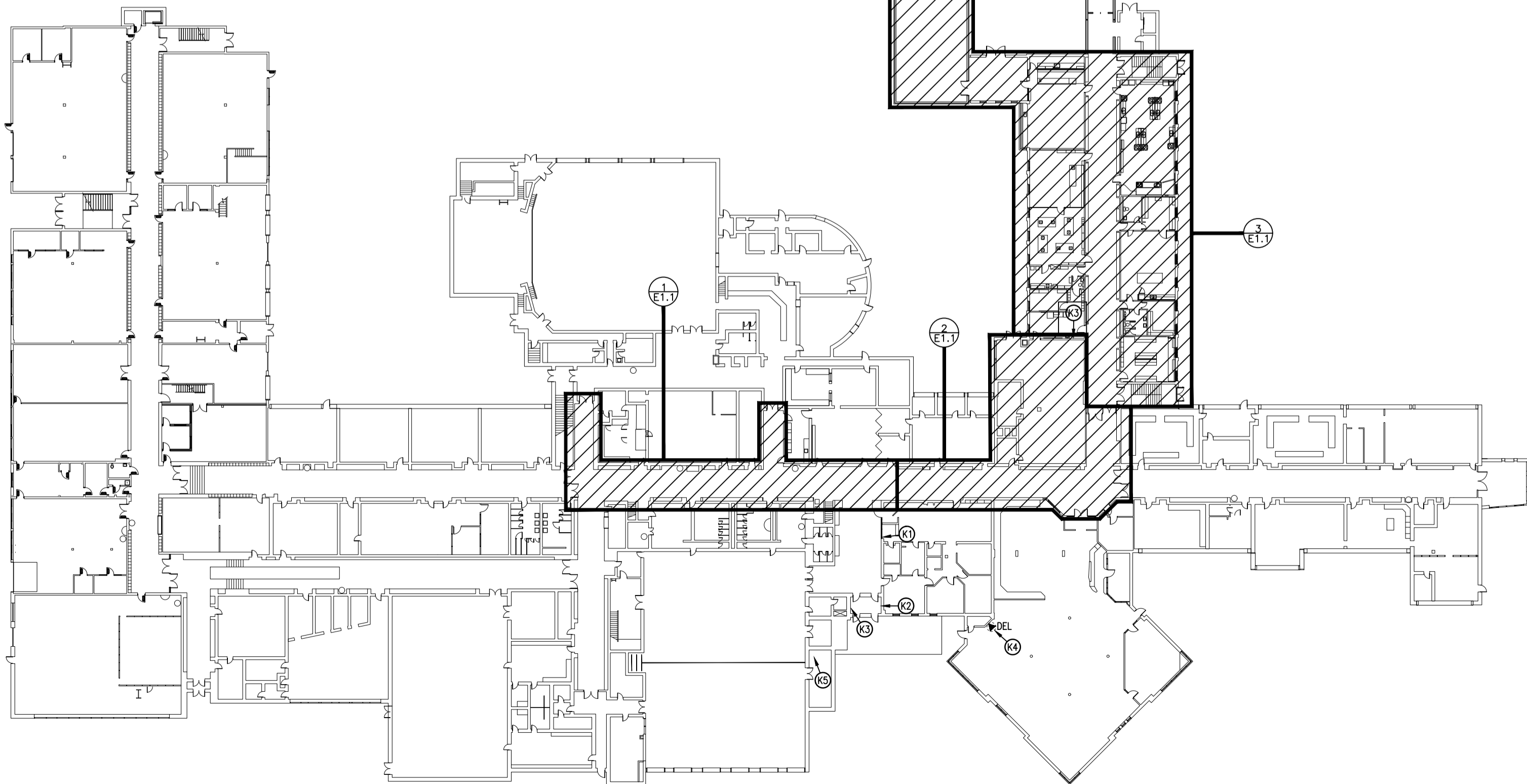
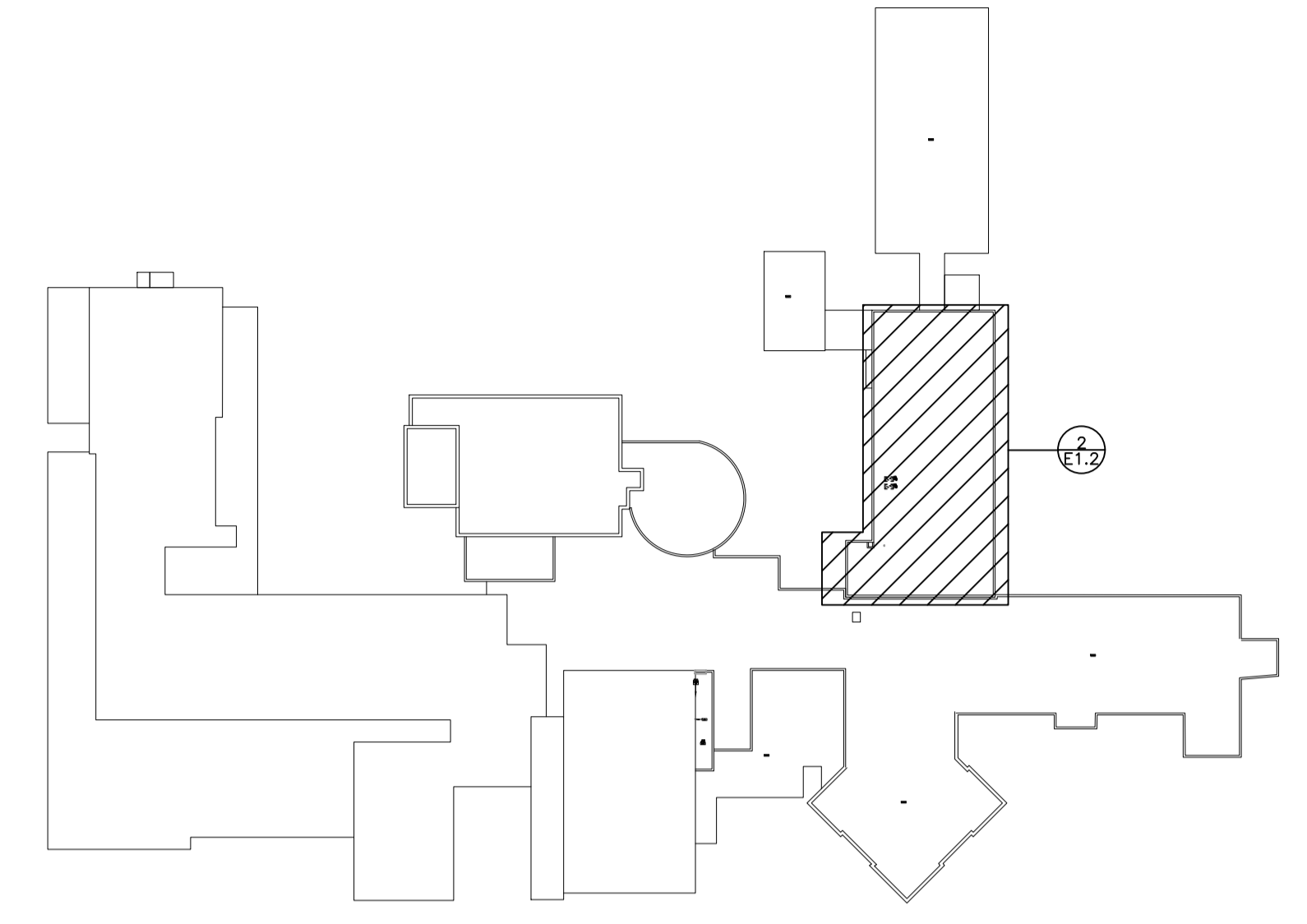
Project No.	Drawn By	Reviewed
22002	J.S.S.	2023-01-05

GROUND & SECOND FLOOR SPRINKLER LEGEND, DETAIL & RENOVATION PLANS

2 SECOND FLOOR KEY PLAN
E0.1 SCALE 1:500



3 ROOF KEY PLAN
E0.1 SCALE 1:1000



1 GROUND FLOOR KEY PLAN
E0.1 SCALE 1:500

KEY PLAN NOTES:

- (K1) EXISTING CHUBB-EDWARDS EST3 FIRE ALARM CONTROL PANEL (FACP) SHALL REMAIN. MODIFY AS FOLLOWS:
 - DELETE EXISTING DEVICES AS INDICATED ON PLANS.
 - PROVIDE NEW ADDRESSABLE INITIATING DEVICES AND TIE INTO EXISTING LOOP.
 - PROVIDE NEW INITIATING ZONES FOR NEW SPRINKLERS, AIR HANDLER & FIRE SUPPRESSION SYSTEM.
 - PROVIDE NEW INITIATING ZONE LABELS.
 - PROVIDE NEW SIGNALING DEVICES WITHIN THE AFFECTED AREAS.
 - INCLUDE FOR SYSTEM VERIFICATIONS & INTEGRATED TESTING.
- (K2) EXISTING FIRE ALARM ZONING GRAPHIC TO BE UPDATED BY OTHERS. TYPICAL FOR MULTIPLE GRAPHICS, NOT ALL INDICATED.
- (K3) EXISTING EDWARDS FIRE ALARM ANNUNCIATOR PANEL (FAP) SHALL REMAIN. MODIFY ZONE LABELING TO REFLECT CONTROL PANEL ALTERATIONS.
- (K4) EXISTING WALL MOUNTED HUMIDIFIER. REMOVE ELECTRICAL CONNECTION BACK TO SOURCE. COORDINATE WITH MECHANICAL TRADE.
- (K5) EXISTING BOARD 'SE'. REFER TO SINGLE LINE DIAGRAM FOR MODIFICATIONS.

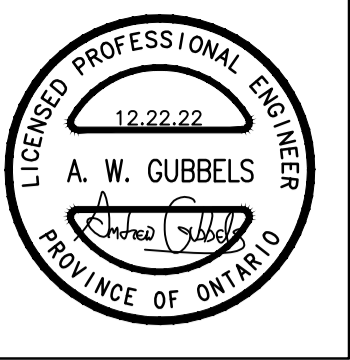
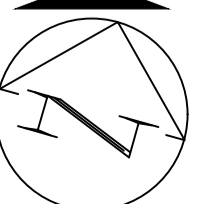
ALLOWANCES

ALLOWANCES FOR VARIOUS DIVISION 26, 27 & 28 WORKS ARE CARRIED UNDER DIVISION 01. REFER TO SPECIFICATIONS FOR DETAILS.

DRAWING LIST

E0.1	ELECTRICAL KEY PLANS
E1.1	PARTIAL EXISTING GROUND FLOOR ELECTRICAL PLANS
E1.2	PARTIAL EXISTING SECOND FLOOR & ROOF ELECTRICAL PLANS
E2.1	PARTIAL REVISED GROUND FLOOR ELECTRICAL PLANS
E2.2	PARTIAL REVISED SECOND FLOOR & ROOF ELECTRICAL PLANS
E3.1	ELECTRICAL LEGEND & SCHEDULES
E3.2	SINGLE LINE DIAGRAM
E3.3	ELECTRICAL DETAILS & SCHEMATICS

PROJECT NORTH



CORNERSTONE
ARCHITECTURE

MNE Engineering Inc.
22 Kewee Place - Box A
Kitchener, Ontario N2C 2G5
(519) 844-4408
www.mneengineering.ca

2022.02.18	ISSUED FOR COORDINATION	A.W.G.	2022.03.14	ISSUED FOR COORDINATION	A.W.G.
2022.03.01	ISSUED FOR COORDINATION	A.W.G.	2022.03.17	ISSUED FOR COORDINATION	A.W.G.
2022.03.09	ISSUED FOR COORDINATION	A.W.G.	2023.01.05	ISSUED FOR TENDER# 23-792/RFT	A.W.G.



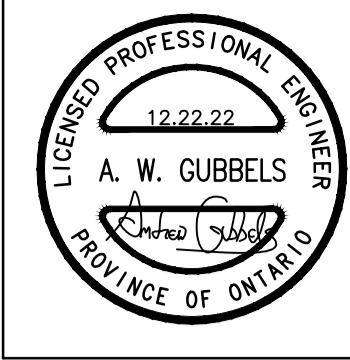
Waterloo-Oxford District Secondary School
FAMILY STUDIES RENOVATION & HVAC UPGRADES

1208 Snyder's Road West, New Hamburg, ON N3A 1A4

Project No.: 22002
Drawn By: A.W.G.
Reviewed: 2022-02-15

ELECTRICAL KEY PLANS

E0.1



CORNERSTONE
ARCHITECTURE

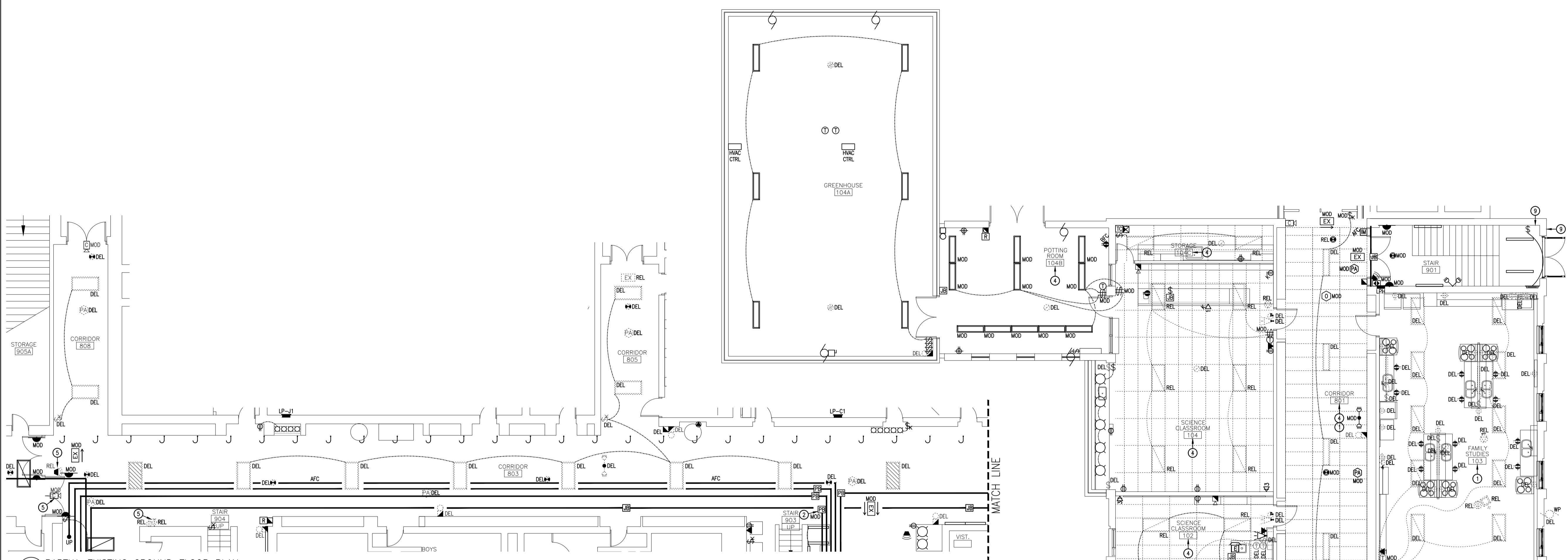
MNE Engineering Inc.
22 Tavco Place - Box A
Kitchener, Ontario N2C 2G5
(519) 894-8408
www.mneengineering.co



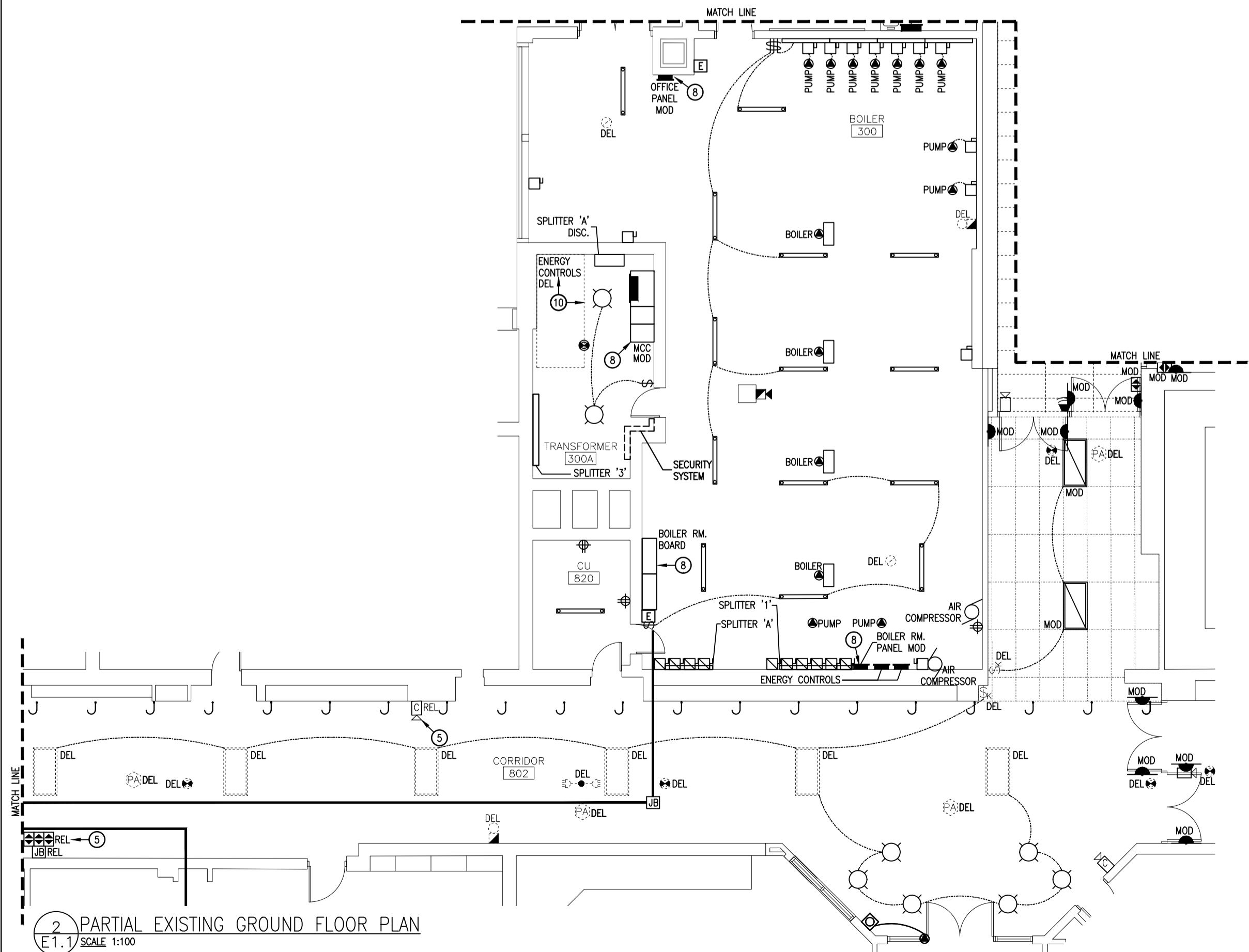
Waterloo-Oxford District Secondary School
FAMILY STUDIES RENOVATION & HVAC UPGRADES
1208 Snyder's Road West, New Hamburg, ON N3A 4A4

Project No.: 22002
Drawn By: A.W.G.
Reviewed: 2022-02-15

E1.1



1 PARTIAL EXISTING GROUND FLOOR PLAN
E.T.1 SCALE 1:100



2 PARTIAL EXISTING GROUND FLOOR PLAN
E.T.1 SCALE 1:100

EXISTING DRAWING NOTES:

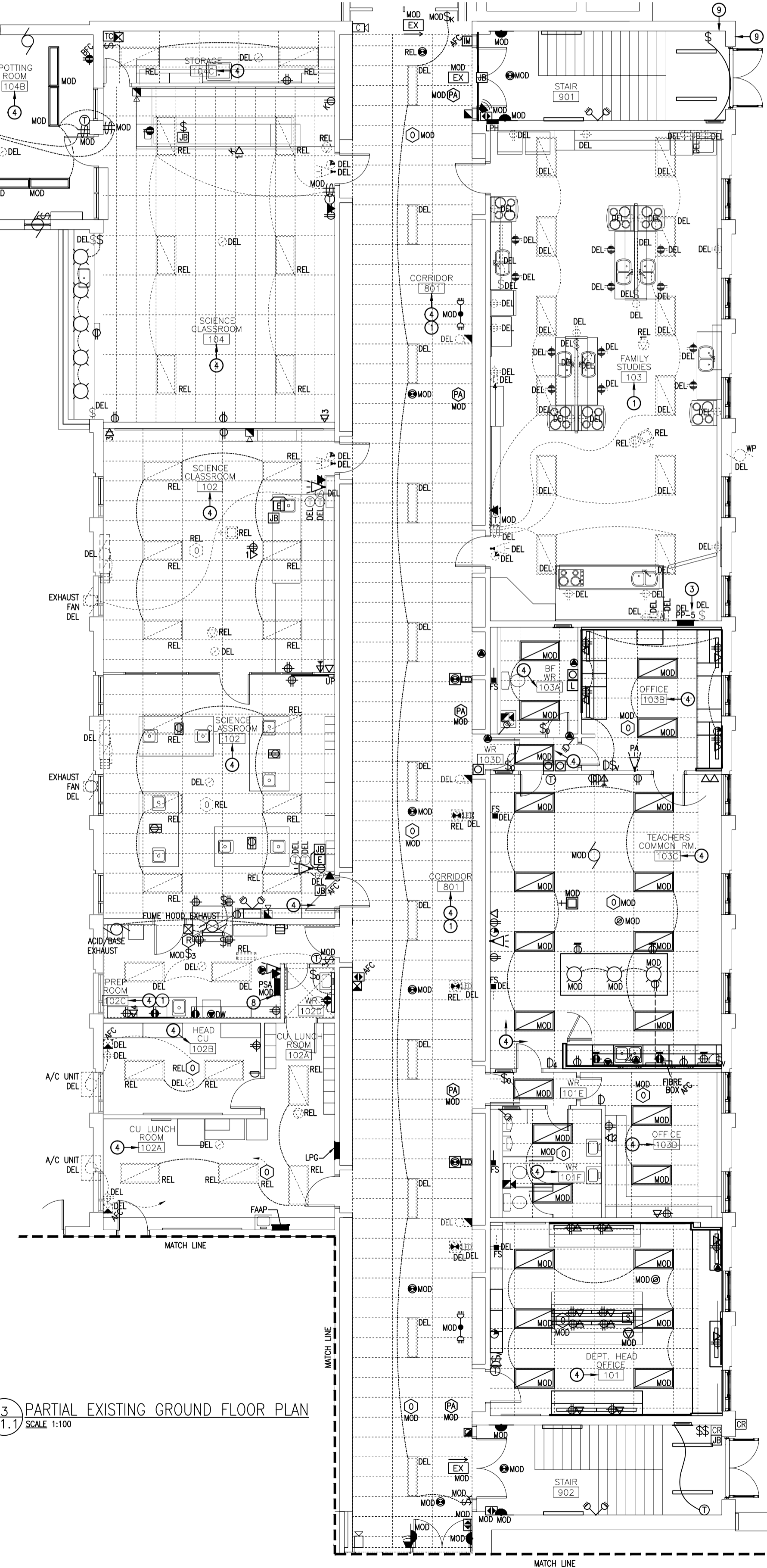
1. REMOV EXISTING LIGHTING CIRCUIT(S) AND WIRING FOR NEW LUMINAIRES.
2. MODIFY EXISTING AFC PULL BOX FOR NEW CONDUIT ROUTING AND FEEDERS.
3. DELETE EXISTING AND PROVIDE NEW DISTRIBUTION PANEL.
• CUT & PATCH WALL.
• REFER TO PANEL SCHEDULE & SLD.
4. INCLUDE FOR REMOVING EXISTING CEILING-MOUNTED FIXTURES/DEVICES, AND DECK MOUNTED SERVICES (NOT ALL INDICATED) TO PERMIT MECHANICAL AND STRUCTURAL MODIFICATIONS BY OTHERS.
5. CUT & PATCH EXISTING WALL TO ACCOMMODATE DELETED DEVICE OR RELOCATE/MODIFY TO ACCOMMODATE LOWERING OF CEILING. FINISHING BY OTHERS.
6. PATCH WALL FOR REMOVAL OF CLOCK/PA SPEAKER ASSEMBLY.
7. PATCH WALL AFTER REMOVAL OF REDUNDANT BALLAST BOX. WALL FINISH BY OTHERS.
8. EXISTING DISTRIBUTION EQUIPMENT TO REMAIN. PROVIDE SPRINKLER DRIP HOOD.
9. CUT & PATCH EXISTING WALL CONSTRUCTION FOR NEW ACCESS CONTROLS.
10. DELETE EXISTING BUILDING CONTROL CABINET.
• DELETE ALL REDUNDANT LINE-VOLTAGE POWER/CONTROL WIRING. COORDINATE WITH DIVISION 25.
• PROVIDE NEW RELAYS.
• DIVISION 25 TO PROVIDE NEW DDC CONTROLS AS REQUIRED.
• REFER TO SPECIFIED ALLOWANCE.

DESIGNATIONS
• DEVICES & LUMINAIRES WITHOUT DESIGNATION ARE EXISTING TO REMAIN. ITEMS ARE INDICATED ONLY FOR COORDINATION.
• DEVICES & LUMINAIRES WITH THE "MOD" DESIGNATION ARE TO BE REMOV TO ACCOMMODATE DELETION OF EXISTING, AND PROVISION OF NEW CEILINGS.

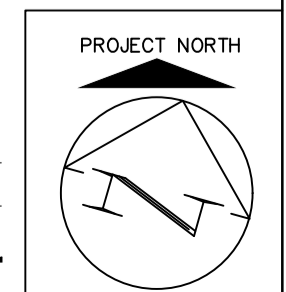
CEILINGS
INCLUDE FOR STRAPPING EXISTING CONDUITS AND CABLES THAT ARE NOT PROPERLY SUPPORTED AND ARE REQUIRED TO REMAIN ABOVE CEILINGS.

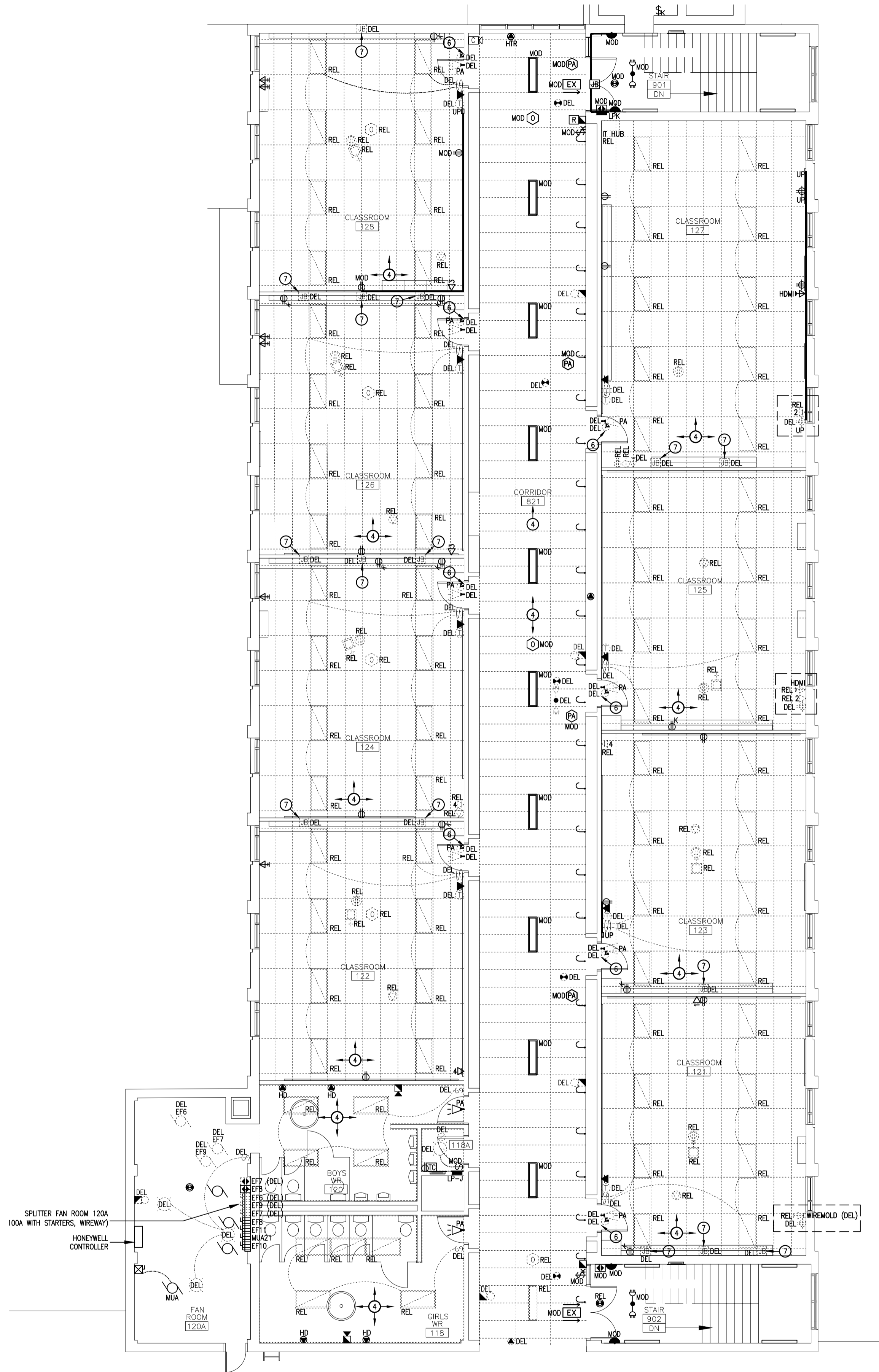
ABATEMENT
INCLUDE THE COST OF RETAINING A WRDSB-APPROVED SUBCONTRACTOR FOR THE ABATEMENT OF ALL ASBESTOS CONTAINING MATERIAL (ACM) WITHIN A 600mm RADIUS OF ANY ELECTRICAL WORK. REFER TO THE OWNER'S HAZARDOUS MATERIALS BUILDING SURVEY.

EXISTING MECHANICAL EQUIPMENT
MECHANICAL EQUIPMENT INDICATED TO BE DELETED SHALL BE REMOVED BY MECHANICAL TRADES.
• UNLESS OTHERWISE INDICATED, THE ELECTRICAL SUBCONTRACTOR SHALL DISCONNECT & REMOVE ALL LINE VOLTAGE POWER WIRING BACK TO POINT OF DISTRIBUTION.
• INCLUDE FOR DISCONNECTING ALL LINE VOLTAGE FEEDS TO CONTROL DEVICES.
• ALL LOW VOLTAGE CONTROL CABLING SHALL BE REMOVED BY MECHANICAL TRADES.

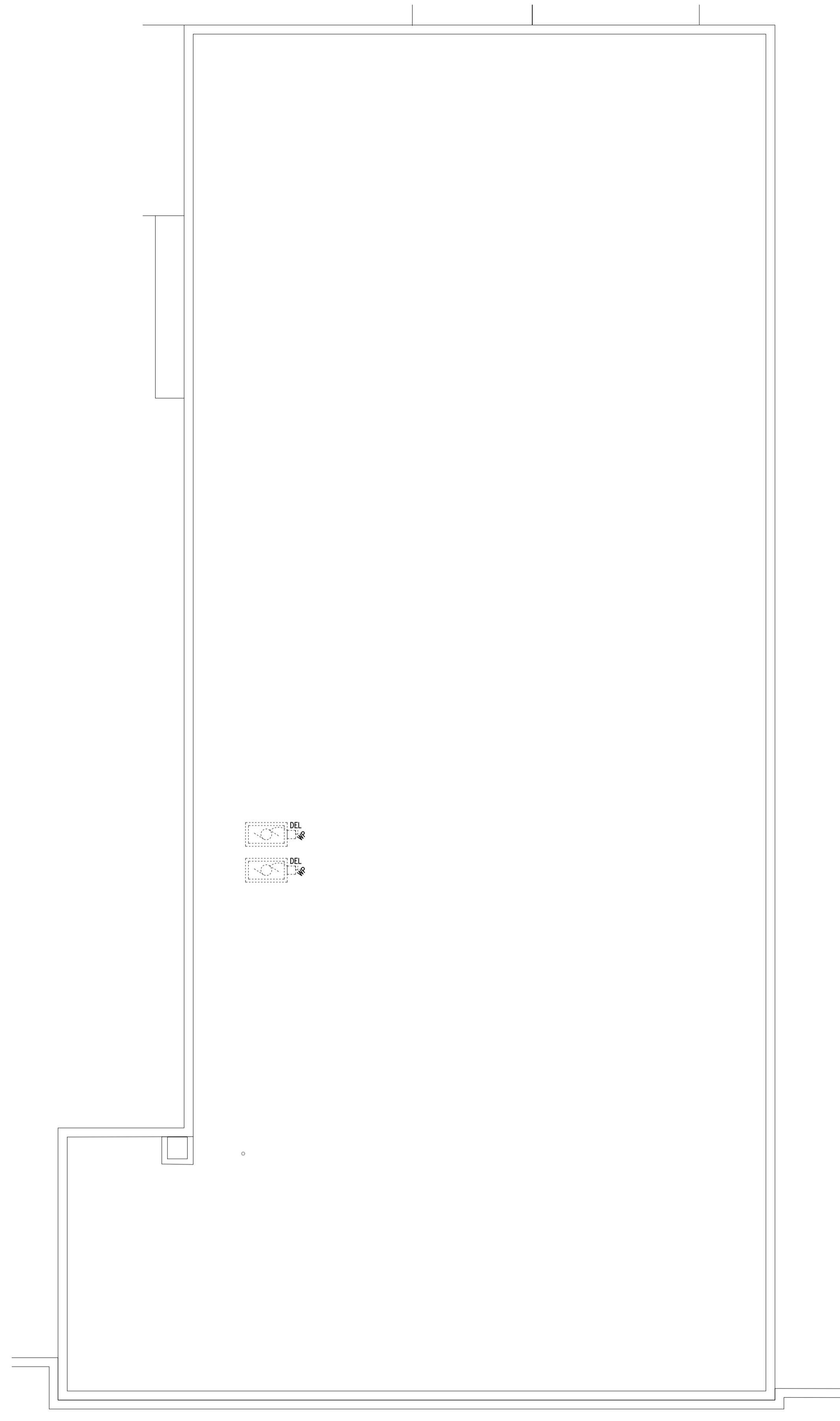


3 PARTIAL EXISTING GROUND FLOOR PLAN
E.T.1 SCALE 1:100





1 PARTIAL EXISTING SECOND FLOOR PLAN
E.T.2 SCALE 1:100



2 PARTIAL EXISTING ROOF PLAN
E.T.2 SCALE 1:100

EXISTING DRAWING NOTES:

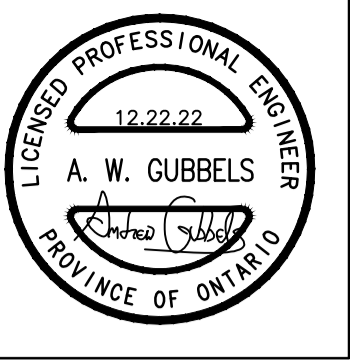
- 1 → REWORK EXISTING LIGHTING CIRCUIT(S) AND WIRING FOR NEW LUMINAIRES.
- 2 → MODIFY EXISTING AFC PULL BOX FOR NEW CONDUIT ROUTING AND FEEDERS.
- 3 → DELETE EXISTING AND PROVIDE NEW DISTRIBUTION PANEL.
 - CUT & PATCH WALL.
 - REFER TO PANEL SCHEDULE & SLD.
- 4 → INCLUDE FOR RENOVATING EXISTING CEILING-MOUNTED FIXTURES/DEVICES, AND DECK MOUNTED SERVICES (NOT ALL INDICATED) TO PERMIT MECHANICAL AND STRUCTURAL MODIFICATIONS BY OTHERS.
- 5 → CUT & PATCH EXISTING WALL TO ACCOMMODATE DELETED DEVICE OR RELOCATE/MODIFY TO ACCOMMODATE LOWERING OF CEILING. FINISH BY OTHERS.
- 6 → PATCH WALL FOR REMOVAL OF CLOCK/PA SPEAKER ASSEMBLY.
- 7 → PATCH WALL AFTER REMOVAL OF REDUNDANT BALLAST BOX. WALL FINISH BY OTHERS.
- 8 → EXISTING DISTRIBUTION EQUIPMENT TO REMAIN. PROVIDE SPRINKLER DRIP HOOD.
- 9 → CUT & PATCH EXISTING WALL CONSTRUCTION FOR NEW ACCESS CONTROLS.
- 10 → DELETE EXISTING BUILDING CONTROL CABINET.
 - DELETE ALL REDUNDANT LINE-VOLTAGE POWER/CONTROL WIRING. COORDINATE WITH DIVISION 25.
 - PROVIDE NEW RELAYS.
 - DIVISION 25 TO PROVIDE NEW DDC CONTROLS AS REQUIRED.
 - REFER TO SPECIFIED ALLOWANCE.

DESIGNATIONS
 • DEVICES & LUMINAIRES WITHOUT DESIGNATION ARE EXISTING TO REMAIN. ITEMS ARE INDICATED ONLY FOR COORDINATION.
 • DEVICES & LUMINAIRES WITH THE "MOD" DESIGNATION ARE TO BE RENOVATED TO ACCOMMODATE DELETION OF EXISTING, AND PROVISION OF NEW CEILINGS.

CEILINGS
 INCLUDE FOR STRAPPING EXISTING CONDUITS AND CABLES THAT ARE NOT PROPERLY SUPPORTED AND ARE REQUIRED TO REMAIN ABOVE CEILINGS.

ABATEMENT
 INCLUDE THE COST OF RETAINING A WRDSB-APPROVED SUBCONTRACTOR FOR THE ABATEMENT OF ALL ASBESTOS CONTAINING MATERIAL (ACM) WITHIN A 600mm RADIUS OF ANY ELECTRICAL WORK. REFER TO THE OWNER'S HAZARDOUS MATERIALS BUILDING SURVEY.

EXISTING MECHANICAL EQUIPMENT
 MECHANICAL EQUIPMENT INDICATED TO BE DELETED SHALL BE REMOVED BY MECHANICAL TRADES.
 • UNLESS OTHERWISE INDICATED, THE ELECTRICAL SUBCONTRACTOR SHALL DISCONNECT & REMOVE ALL LINE VOLTAGE POWER WIRING BACK TO POINT OF DISTRIBUTION.
 • INCLUDE FOR DISCONNECTING ALL LINE VOLTAGE FEEDS TO CONTROL DEVICES.
 • ALL LOW VOLTAGE CONTROL CABLING SHALL BE REMOVED BY MECHANICAL TRADES.



CORNERSTONE
ARCHITECTURE

MNE Engineering Inc.
22 Tecoco Place - Box A
Kitchener, Ontario N2C 2G5
(519) 894-8408
www.mneengineering.co

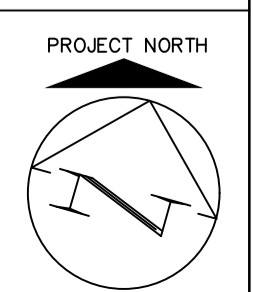
2022.02.18	ISSUED FOR COORDINATION	A.W.G.	2022.03.14	ISSUED FOR COORDINATION	A.W.G.
2022.03.01	ISSUED FOR COORDINATION	A.W.G.	2022.03.17	ISSUED FOR COORDINATION	A.W.G.
2022.03.09	ISSUED FOR COORDINATION	A.W.G.	2023.01.05	ISSUED FOR TENDER# 23-7982-RFT	A.W.G.



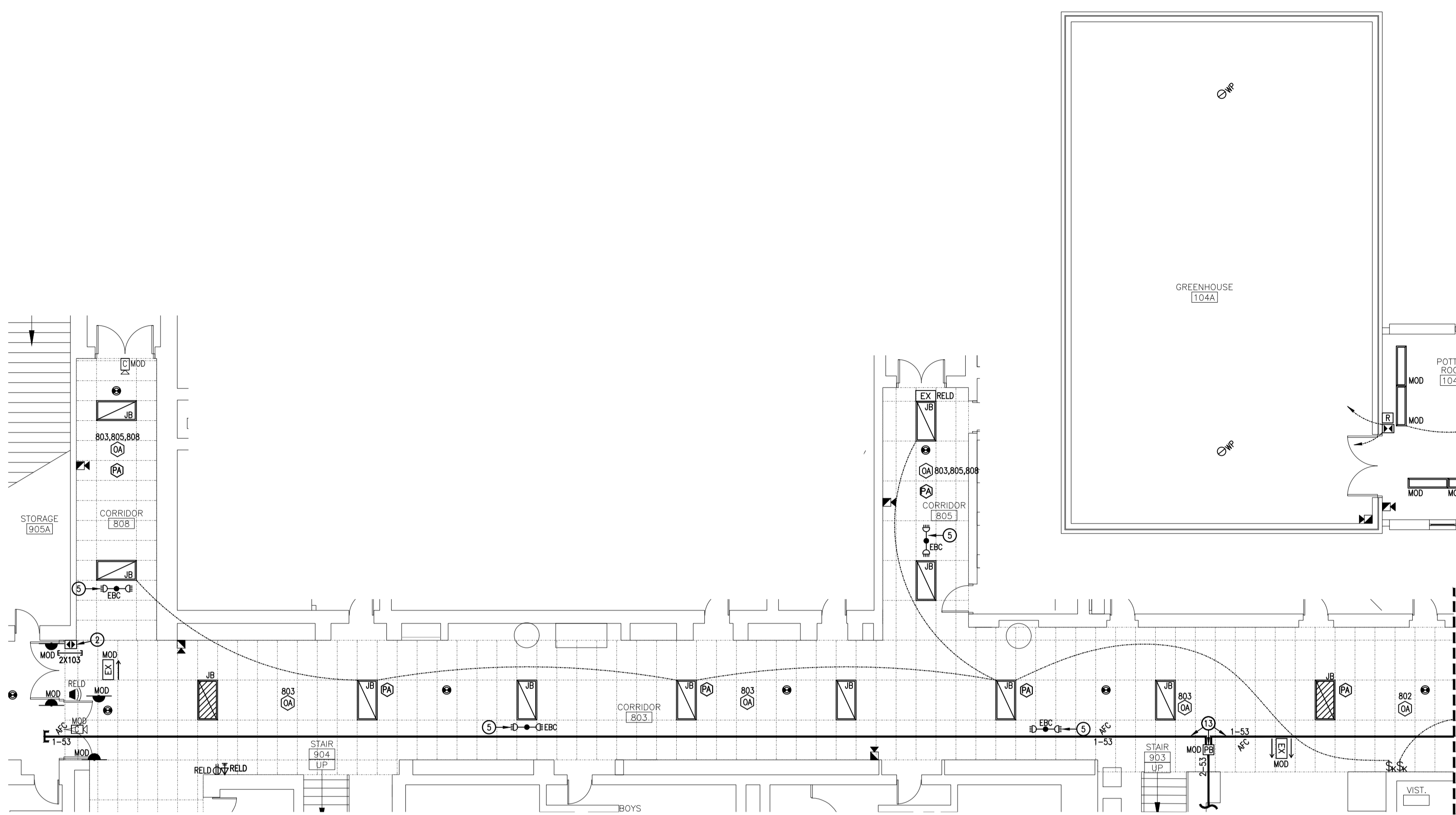
Waterloo-Oxford District Secondary School
 1208 Snyder's Road West, New Hamburg, ON N3A 4A4
 FAMILY STUDIES RENOVATION & HVAC UPGRADES

Project No.: 22002
 Drawn By: A.W.G.
 Revised: 2022-02-15

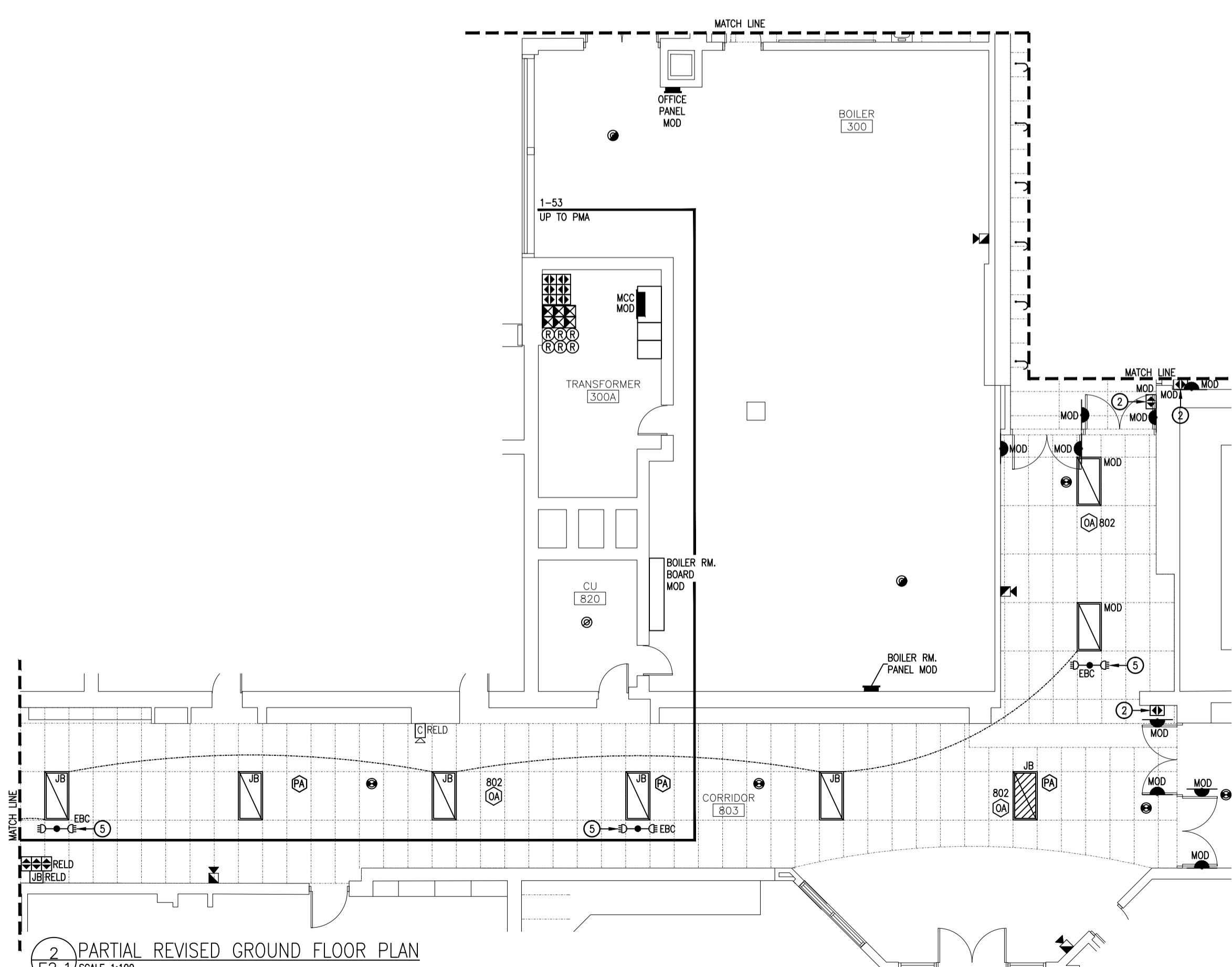
PARTIAL EXISTING SECOND FLOOR & ROOF ELECTRICAL PLANS



E1.2



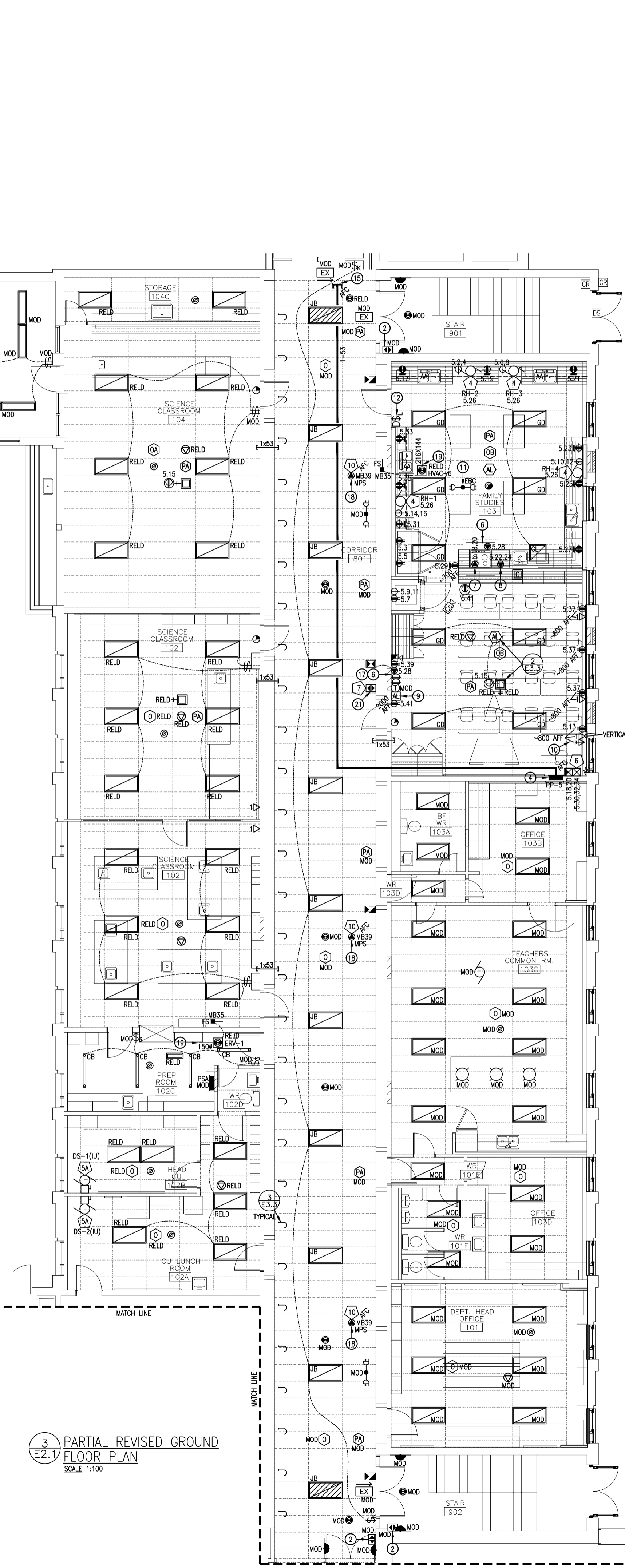
1 PARTIAL REVISED GROUND FLOOR PLAN
E2.1 SCALE 1:100



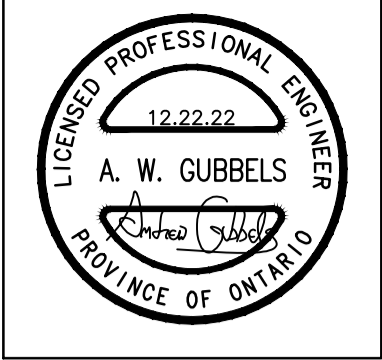
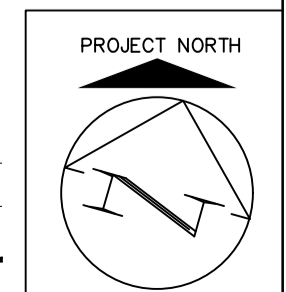
2 PARTIAL REVISED GROUND FLOOR PLAN
E2.1 SCALE 1:100

- REVISED DRAWING NOTES:**
- 1 INSTALL WITHIN EXISTING SURFACE WIREWAY. PROVIDE NEW COMPONENTS FOR COMPLETE INSTALL.
 - 2 REFER TO 'DOOR HOLDER WIRING SCHEMATIC'.
 - 3 RELOCATE IT EQUIPMENT. PROVIDE WALL MOUNTED COMMUNICATIONS BRACKET.
• REWORK CABLING.
 - 4 PROVIDE NEW DISTRIBUTION EQUIPMENT. REFER TO SLD.
 - 5 CONNECT TO EXISTING CORRIDOR LIGHTING BRANCH CIRCUIT, UPSTREAM OF CONTROLS.
 - 6 PROVIDE CONNECTION TO KITCHEN HOOD FIRE SUPPRESSION SYSTEM CONTROL PANEL PROVIDED BY OTHERS.
• CONNECT SO THAT ALARM CONDITION IS SENT TO THE FIRE ALARM SYSTEM WHEN THE SUPPRESSION SYSTEM IS ACTIVATED. ZONE INDEPENDENTLY.
• PROVIDE CONTROL WIRING FROM AUXILIARY CONTACTS TO SUITABLY SIZED POWER CONTACTOR. PROVIDE POWER WIRING SUCH THAT LOAD(S) BENEATH THE KITCHEN HOOD IS DE-ENERGIZED WHEN THE SUPPRESSION SYSTEM IS ACTIVATED.
• EXTEND 120V WIRING TO INTEGRAL HOOD LIGHTING.
• PROVIDE SUPPLEMENTAL INTERLOCK TO SHUT DOWN SUPPLY AIR HVAC EQUIPMENT (HVAC-6).
 - 7 PROVIDE A JUNCTION BOX BELOW THE COUNTER. CONNECT THE FLEXIBLE ARMoured CABLE EXTENDING FROM THE COOKTOP TO THE JUNCTION BOX. LEAVE AS MUCH SLACK AS POSSIBLE TO PERMIT SERVICING THE COOKTOP. PROVIDE SUITABLE STRAIN RELIEF TO ATTACH THE ARMoured CABLE TO THE JUNCTION BOX.
 - 8 PROVIDE DIRECT CONNECTION AT LOW LEVEL. PROVIDE LIQUID-TIGHT, FLEXIBLE CONNECTION FROM BOX TO DISHWASHER CONNECTION POINTS. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT SUPPLIER.
 - 9 PROVIDE ASSISTIVE LISTENING MEDIA CONNECTOR, SUPPLEMENTAL ACCESS & A MOUNTING SHELF. REFER TO CLASSROOM AUDIO/VIDEO ROUGH-IN DETAIL & CABLING SCHEMATIC.
 - 10 PROVIDE AUDIO/VIDEO WALL PLATES & ALL ASSOCIATED CABLING ASSOCIATED WITH RELOCATED PROJECTOR. REFER TO CLASSROOM AUDIO/VIDEO ROUGH-IN DETAIL & CABLING SCHEMATIC.
 - 11 CONNECT TO EXISTING (REUSED) ROOM LIGHTING CIRCUIT, UPSTREAM OF CONTROLS.
 - 12 CONTROLS FOR MILLWORK LUMINAIRES.
 - 13 PROVIDE NEW FEEDERS (CONDUIT AND CONDUCTORS). REUSE EXISTING 2x3mm AFC CONDUITS (PARTIALLY INDICATED) FROM 'BSC' TO PULL BOX.
• PROVIDE NEW FEEDERS FROM PULL BOX TO PANEL 'MA'.
• PROVIDE NEW CONDUIT FROM PULL BOX TO THE END OF CORRIDOR B03.
• REFER TO SINGLE LINE DIAGRAM & KEY PLANS.
• SEAL ALL RATED PENETRATIONS.
 - 14 PROVIDE RATED PLYWOOD BACKBOARD.
 - 15 PROVIDE NEW CONDUIT.
• CAP AFC.
• SEAL ALL RATED PENETRATIONS.
 - 16 CONNECT TO 120V AREA LIGHTING CIRCUIT.
 - 17 PROVIDE NEW FIRE ALARM DEVICES FOR NEW ZONES:
• ZN40: GROUND FLOOR EAST FLOW.
• ZN41: GROUND FLOOR EAST VALVE.
• ZN42: SECOND FLOOR EAST FLOW.
• ZN43: SECOND FLOOR EAST VALVE.
• ZN44: ROOM 103 HOOD SUPPRESSION SYSTEM.
• ZN45: EAST WING ENERGY RECOVERY UNIT. (ERV-1)
CONFIRM EXACT QUANTITIES AND LOCATION WITH DIVISION 21 AND 23 SUBCONTRACTORS.
 - 18 COORDINATE FINAL LOCATION WITH MECHANICAL & CONTROLS TRADE TO ACCOMMODATE MECHANICAL CONTROLS.
 - 19 PROVIDE NEW SAMPLING TUBES FOR RELOCATED DETECTOR.
 - 20 REFER TO SMOKE DAMPER WIRING SCHEMATIC.
 - 21 PROVIDE CLEARLY LABELED FIRE ALARM RELAYS & CONNECTIONS FOR EQUIPMENT SHUTDOWN.

- COMMUNICATIONS & SECURITY PATHWAYS**
- PROVIDE A 21mm EMT RISER CONDUIT FROM EACH OUTLET BOX WITH TWO DROPS OR LESS, TO THE NEAREST ACCESSIBLE CEILING SPACE
 - PROVIDE A 27mm EMT RISER CONDUIT FROM EACH OUTLET BOX WITH MORE THAN TWO DROPS AND FROM EACH AUDIO/VIDEO BOX.
 - PATHWAY LENGTHS FOR HDMI CABLING SHALL BE MINIMIZED.
 - PROVIDE EMT CONDUIT SLEEVES CONCEALED AFC & WITHIN WALLS, OF THE QUANTITY & DIAMETER INDICATED. SEAL ALL RATED PENETRATIONS.
 - PROVIDE OUTLET BOXES FOR ALL INDICATED DEVICES.
 - ALL CONDUITS & SLEEVES SHALL BE COMPLETE WITH PULL TAPES & PLASTIC BUSHINGS.
- RETURN AIR PLENUM**
- CEILING SPACES ARE USED AS A RETURN AIR PLENUM. THE ELECTRICAL SUBCONTRACTOR SHALL ENSURE THAT ALL NEW WIRING & CABLING WITHIN PLENUM SPACES IS TOTALLY ENCLOSED IN NON-COMBUSTIBLE RACEWAYS OR IS FT-6 RATED (ALSO KNOWN AS COMMUNICATIONS MEDIA PLENUM, OR CMP).
- LIGHTING CONTROLS**
- MODIFY LIGHTING & CONTROL AS INDICATED. PROVIDE NEW SWITCHES WHERE INDICATED. WHERE INDICATED, LUMINAIRES SHALL BE CONTROLLED BY OCCUPANCY SENSORS.
- PROVIDE POWER PACKS (NOT INDICATED) FOR THE SENSORS. LOCATE ABOVE ACCESSIBLE CEILINGS & PROVIDE CMP LOW VOLTAGE CABLING.
 - PARALLEL SENSORS FOR CONTROL OF AREAS AS TAGGED.
 - ADJUST SENSORS PER MANUFACTURERS INSTRUCTIONS AS REQUIRED TO PROVIDE ADEQUATE DETECTION.
 - SWITCHES ARE FOR MANUALLY BYPASSING THE SENSOR(S) TO TURN OFF THE LIGHTING AS CIRCULATED.
 - REFER TO 'LIGHTING CONTROL SCHEDULE'.
- WHERE NO CIRCUIT IS OUTLINED, REUSE EXISTING LIGHTING BRANCH CIRCUITS FOR NEW LUMINAIRES.
- FIRE SEPARATION:**
- CORRIDOR 802,803,805 & 808 CEILINGS ARE PART OF FIRE SEPARATIONS. ELECTRICAL SUBCONTRACTOR SHALL PROVIDE FIRE RATED ENCLOSURES FOR THE RECESSED PUBLIC ADDRESS SPEAKERS & LUMINAIRES.



3 PARTIAL REVISED GROUND FLOOR PLAN
E2.1 SCALE 1:100



CORNERSTONE ARCHITECTURE

MNE Engineering Inc.
22 Tecum Place - Box A
Kitchener, Ontario N2C 2G5
(519) 894-8408
www.mneengineering.ca

ISSUED FOR COORDINATION	A.W.G.	A.W.G.
2022.03.14	2022.03.14	2022.03.14
2022.03.17	2022.03.17	2022.03.17
2023.01.05	2023.01.05	2023.01.05
2022.02.18	2022.02.18	2022.02.18
2022.03.01	2022.03.01	2022.03.01
2022.03.09	2022.03.09	2022.03.09



Waterloo-Oxford District Secondary School

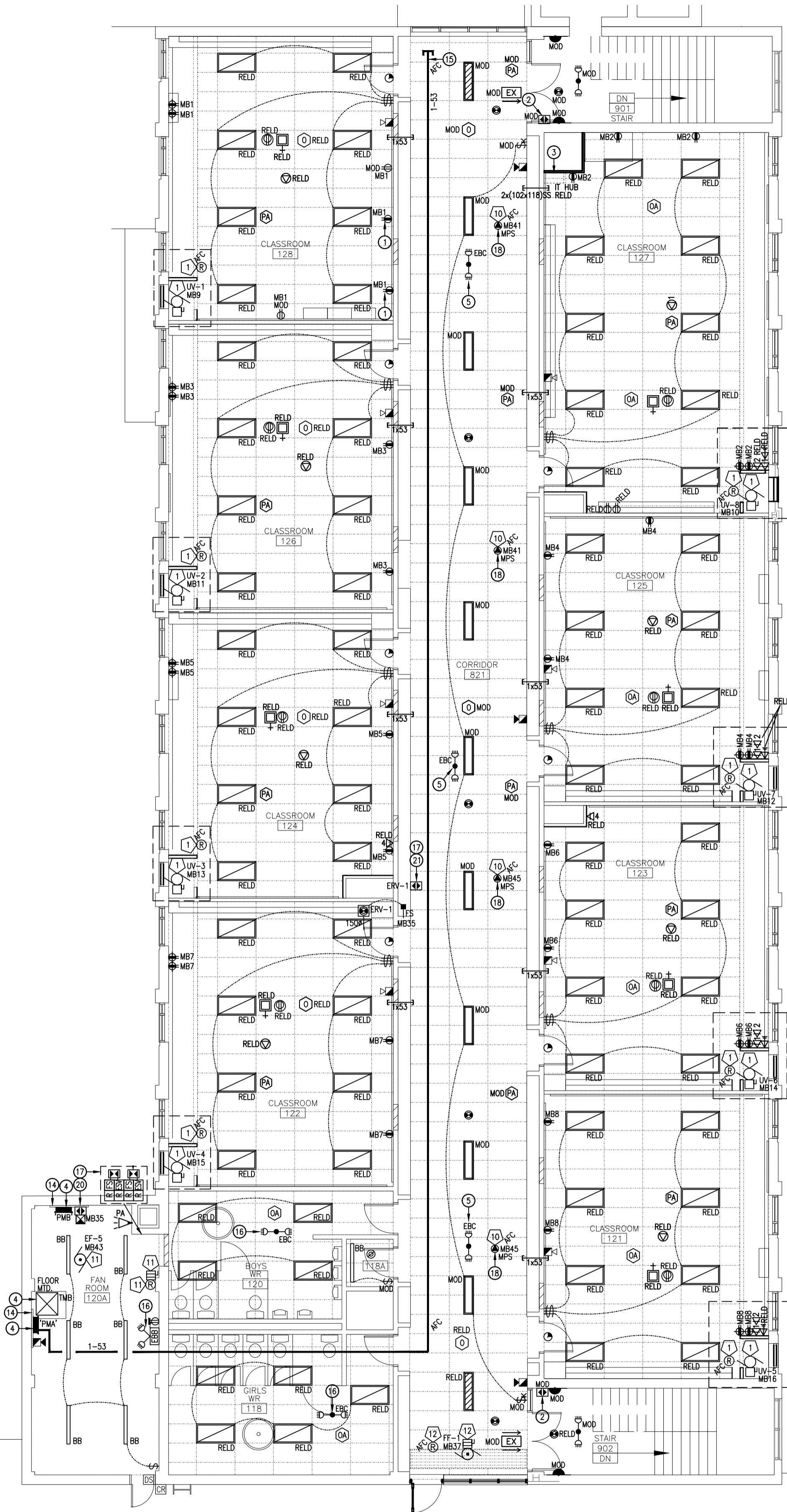
1208 Snyder's Road West, New Hamburg, ON N3A 1A4

FAMILY STUDIES RENOVATION & HVAC UPGRADES

Project No.: 22002
Drawn By: A.W.G.
Revised: 2022-02-15

PARTIAL REVISED GROUND FLOOR ELECTRICAL PLANS

E2.1



1 PARTIAL REVISED SECOND FLOOR PLAN
E2.2 SCALE 1:100

REVISED DRAWING NOTES:

- 1 INSTALL WITHIN EXISTING SURFACE WIREWAY. PROVIDE NEW COMPONENTS FOR COMPLETE INSTALL.
- 2 REFER TO 'DOOR HOLDER WIRING SCHEMATIC'.
- 3 RELOCATE IT EQUIPMENT. PROVIDE WALL MOUNTED COMMUNICATIONS BRACKET.
* REWORK CABLING.
- 4 PROVIDE NEW DISTRIBUTION EQUIPMENT. REFER TO SLD.
- 5 CONNECT TO EXISTING CORRIDOR LIGHTING BRANCH CIRCUIT, UPSTREAM OF CONTROLS.
- 6 PROVIDE CONNECTION TO KITCHEN HOOD FIRE SUPPRESSION SYSTEM CONTROL PANEL PROVIDED BY OTHERS.
* CONNECT SO THAT AN ALARM CONDITION IS SENT TO THE FIRE ALARM SYSTEM WHEN THE SUPPRESSION SYSTEM IS ACTIVATED. ZONE INDEPENDENTLY.
* PROVIDE CONTROL WIRING FROM AUXILIARY CONTACTS TO SUITABLY SIZED POWER CONTACTOR. PROVIDE POWER WIRING SUCH THAT LOAD(S) BENEATH THE KITCHEN HOOD IS DE-ENERGIZED WHEN THE SUPPRESSION SYSTEM IS ACTIVATED.
* EXTEND 120V WIRING TO INTEGRAL HOOD LIGHTING.
* PROVIDE SUPPLEMENTAL INTERLOCK TO SHUT DOWN SUPPLY AIR HVAC EQUIPMENT (HVAC-6).
- 7 PROVIDE A JUNCTION BOX BELOW THE COUNTER. CONNECT THE FLEXIBLE ARMoured CABLE EXTENDING FROM THE COOKTOP TO THE JUNCTION BOX. LEAVE AS MUCH SLACK AS POSSIBLE TO PERMIT SERVICING THE COOKTOP. PROVIDE SUITABLE STRAIN RELIEF TO ATTACH THE ARMoured CABLE TO THE JUNCTION BOX.
- 8 PROVIDE DIRECT CONNECTION AT LOW LEVEL. PROVIDE LIQUID-TIGHT, FLEXIBLE CONNECTION FROM BOX TO DISHWASHER CONNECTION POINTS. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT SUPPLIER.
- 9 PROVIDE ASSISTIVE LISTENING MEDIA CONNECTOR, SUPPLEMENTAL ACCESS & A MOUNTING SHELF. REFER TO CLASSROOM AUDIO/VIDEO ROUGH-IN DETAIL & CABLING SCHEMATIC.
- 10 PROVIDE AUDIO/VIDEO WALL PLATES & ALL ASSOCIATED CABLING ASSOCIATED WITH RELOCATED PROJECTOR. REFER TO CLASSROOM AUDIO/VIDEO ROUGH-IN DETAIL & CABLING SCHEMATIC.
- 11 CONNECT TO EXISTING (REUSED) ROOM LIGHTING CIRCUIT, UPSTREAM OF CONTROLS.
- 12 CONTROLS FOR MILLWORK LUMINAIRES.
- 13 PROVIDE NEW FEEDERS (CONDUIT AND CONDUCTORS). REUSE EXISTING 2x53mm AFC CONDUITS (PARTIALLY INDICATED) FROM 'BSE' TO PULL BOX.
* PROVIDE NEW FEEDERS FROM PULL BOX TO PANEL 'MA'.
* PROVIDE NEW CONDUIT FROM PULL BOX TO THE END OF CORRIDOR 803.
* REFER TO SINGLE LINE DIAGRAM & KEY PLANS.
* SEAL ALL RATED PENETRATIONS.
- 14 PROVIDE RATED PLYWOOD BACKBOARD.
- 15 PROVIDE NEW CONDUIT.
* CAP AFC.
* SEAL ALL RATED PENETRATIONS.
- 16 CONNECT TO 120V AREA LIGHTING CIRCUIT.
- 17 PROVIDE NEW FIRE ALARM DEVICES FOR NEW ZONES:
* ZN42: GROUND FLOOR EAST FLOW
* ZN41: GROUND FLOOR EAST VALVE
* ZN42: SECOND FLOOR EAST FLOW
* ZN43: SECOND FLOOR EAST VALVE
* ZN44: ROOM 103 HOOD SUPPRESSION SYSTEM
* ZN45: EAST WING ENERGY RECOVERY UNIT. (ERV-1)
CONFIRM EXACT QUANTITIES AND LOCATION WITH DIVISION 21 AND 23 SUBCONTRACTORS.
- 18 COORDINATE FINAL LOCATION WITH MECHANICAL & CONTROLS TRADE TO ACCOMMODATE MECHANICAL CONTROLS.
- 19 PROVIDE NEW SAMPLING TUBES FOR RELOCATED DETECTOR.
- 20 REFER TO SMOKE DAMPER WIRING SCHEMATIC.
- 21 PROVIDE CLEARLY LABELED FIRE ALARM RELAYS & CONNECTIONS FOR EQUIPMENT SHUTDOWN.

COMMUNICATIONS & SECURITY PATHWAYS

- * PROVIDE A 21mm EMT RISER CONDUIT FROM EACH OUTLET BOX WITH TWO DROPS OR LESS, TO THE NEAREST ACCESSIBLE CEILING SPACE.
- * PROVIDE A 27mm EMT RISER CONDUIT FROM EACH OUTLET BOX WITH MORE THAN TWO DROPS AND FROM EACH AUDIO/VIDEO BOX.
- * PATHWAY LENGTHS FOR HDMI CABLING SHALL BE MINIMIZED.
- * PROVIDE EMT CONDUIT SLEEVES CONCEALED AFC & WITHIN WALLS, OF THE QUANTITY & DIAMETER INDICATED. SEAL ALL RATED PENETRATIONS.
- * PROVIDE OUTLET BOXES FOR ALL INDICATED DEVICES.
- * ALL CONDUITS & SLEEVES SHALL BE COMPLETE WITH PULL TAPES & PLASTIC BUSHINGS.

RETURN AIR PLENUM

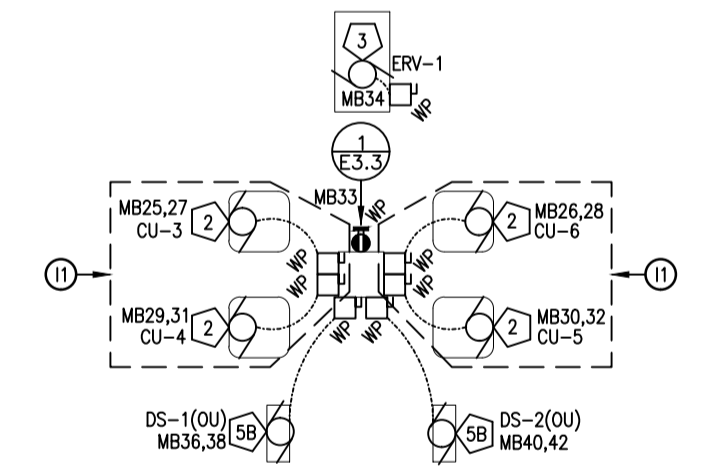
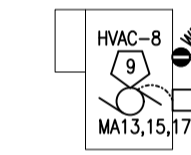
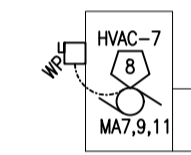
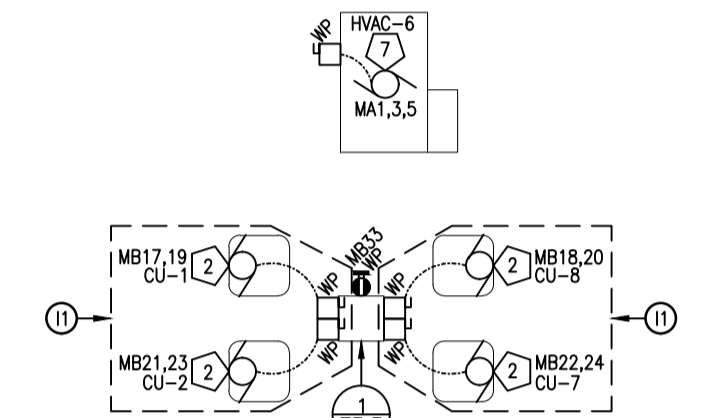
CEILING SPACES ARE USED AS A RETURN AIR PLENUM. THE ELECTRICAL SUBCONTRACTOR SHALL ENSURE THAT ALL NEW WIRING & CABLING WITHIN PLENUM SPACES IS TOTALLY ENCLOSED IN NON-COMBUSTIBLE RACEWAYS OR IS FT-6 RATED (ALSO KNOWN AS COMMUNICATIONS MEDIA PLENUM, OR CMP).

LIGHTING CONTROLS

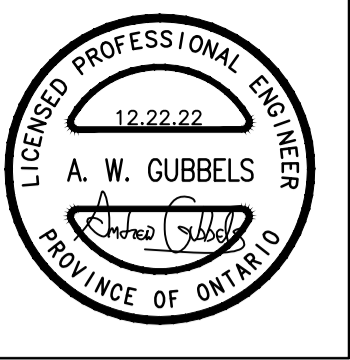
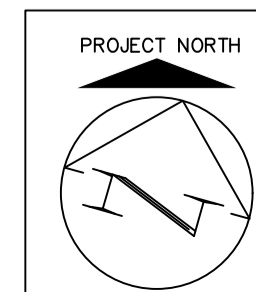
- MODIFY LIGHTING & CONTROL AS INDICATED. PROVIDE NEW SWITCHES WHERE INDICATED.
 - WHERE INDICATED, LUMINAIRES SHALL BE CONTROLLED BY OCCUPANCY SENSORS.
 - * PROVIDE POWER PACKS (NOT INDICATED) FOR THE SENSORS. LOCATE ABOVE ACCESSIBLE CEILINGS & PROVIDE CMP LOW VOLTAGE CABLING.
 - * PARALLEL SENSORS FOR CONTROL OF AREAS AS TAGGED.
 - * ADJUST SENSORS PER MANUFACTURERS INSTRUCTIONS AS REQUIRED TO PROVIDE ADEQUATE DETECTION.
 - * SWITCHES ARE FOR MANUALLY BYPASSING THE SENSOR(S) TO TURN OFF THE LIGHTING AS CIRCUITED.
 - * REFER TO 'LIGHTING CONTROL SCHEDULE'.
- WHERE NO CIRCUIT IS OUTLINED, REUSE EXISTING LIGHTING BRANCH CIRCUITS FOR NEW LUMINAIRES.

FIRE SEPARATION:

CORRIDOR 802,803,805 & 808 CEILINGS ARE PART OF FIRE SEPARATIONS. ELECTRICAL SUBCONTRACTOR SHALL PROVIDE FIRE RATED ENCLOSURES FOR THE RECESSED PUBLIC ADDRESS SPEAKERS & LUMINAIRES.



2 PARTIAL REVISED ROOF PLAN
E2.2 SCALE 1:100

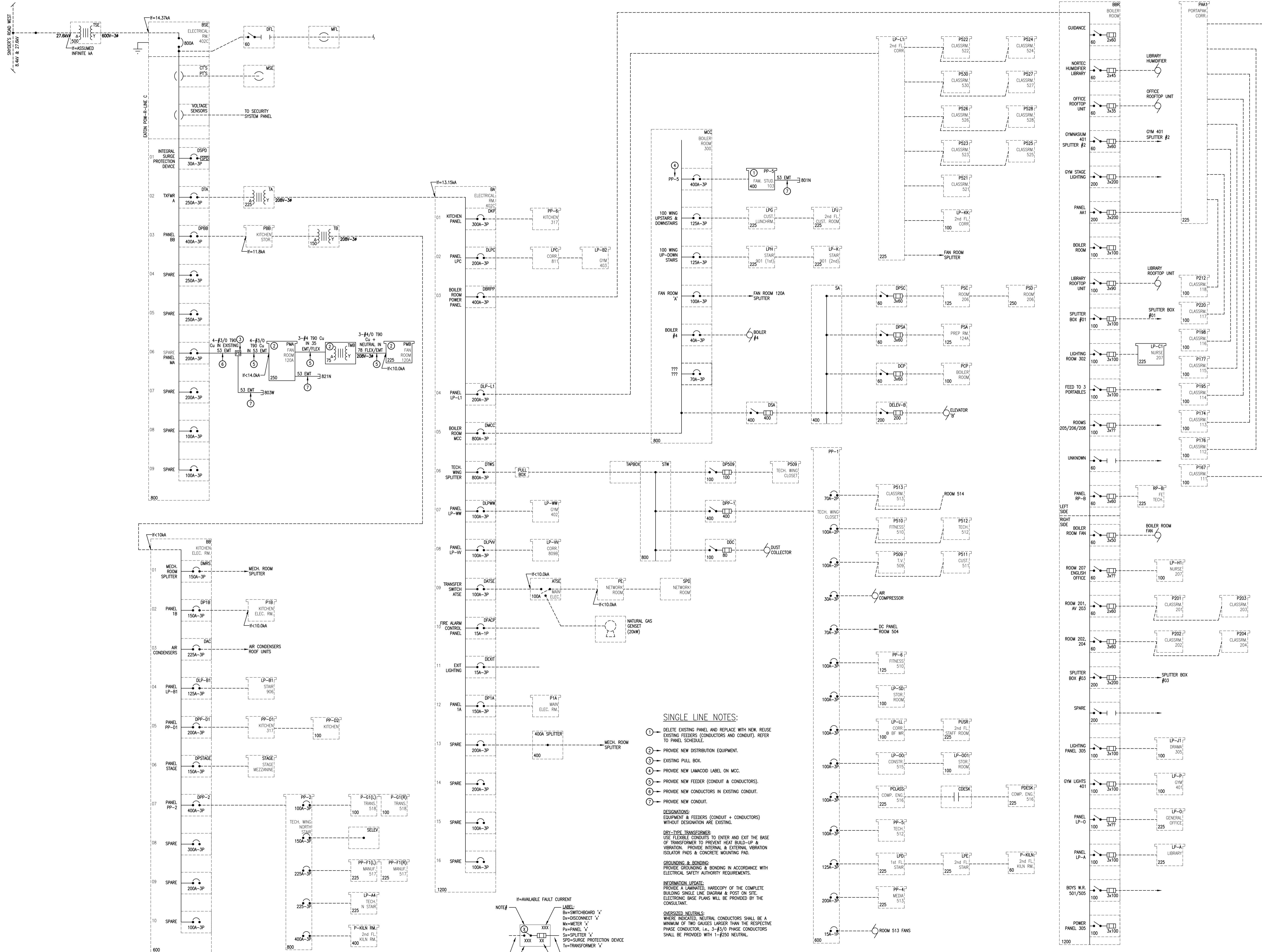


CORNERSTONE ARCHITECTURE		A.W.G.	A.W.G.
MNE Engineering Inc. 22 Tavco Place - Box A Kitchener, Ontario N2C 2G5 (519) 894-8408 www.mneengineering.ca	ISSUED FOR COORDINATION	2022.03.14	2022.03.17
MNE ENGINEERING	ISSUED FOR COORDINATION	2022.03.01	2022.03.09
	ISSUED FOR COORDINATION	2022.03.14	2023.01.05
	ISSUED FOR COORDINATION	2022.03.17	2023.01.05

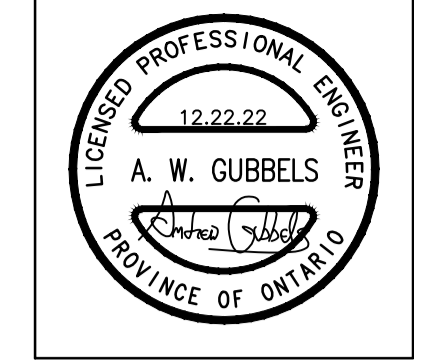


Waterloo-Oxford District Secondary School		1208 Snyder's Road West, New Hamburg, ON N3A 4A4
FAMILY STUDIES RENOVATION & HVAC UPGRADES		
Project No.:	22002	Revised: 2022-02-15
Drawn By:	A.W.G.	
PARTIAL REVISED SECOND FLOOR & ROOF ELECTRICAL PLANS		

E2.2



1 PARTIAL SINGLE LINE DIAGRAM
E3.2 N.L.S.



CORNERSTONE
ARCHITECTURE

MNE Engineering Inc.
22 Tevoe Place - Box A
Kitchener, Ontario N2C 2G5
(519) 844-8408
www.mneengineering.co

2022.02.18	ISSUED FOR COORDINATION	A.W.G.	2022.03.14	ISSUED FOR COORDINATION	A.W.G.
2022.03.01	ISSUED FOR COORDINATION	A.W.G.	2022.03.17	ISSUED FOR COORDINATION	A.W.G.
2022.03.09	ISSUED FOR COORDINATION	A.W.G.	2023.01.05	ISSUED FOR COORDINATION	A.W.G.



Waterloo-Oxford District Secondary School
FAMILY STUDIES RENOVATION & HVAC UPGRADES

1208 Snyder's Road West, New Hamburg, ON N3A 4A4

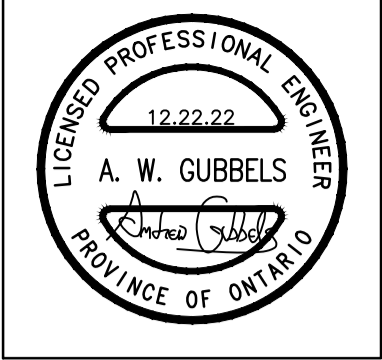
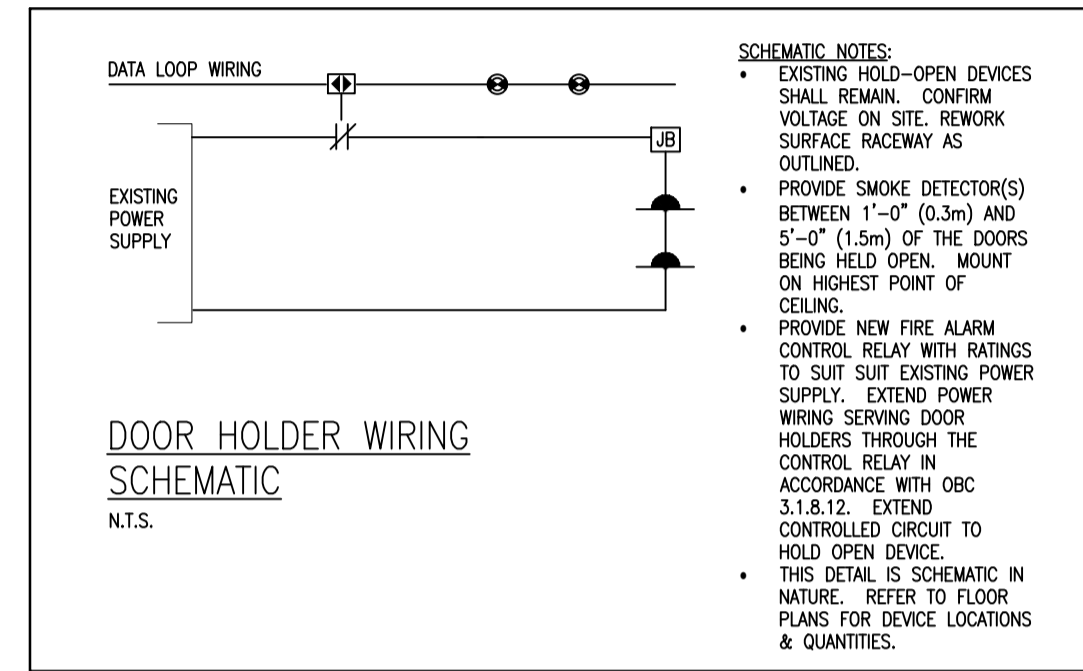
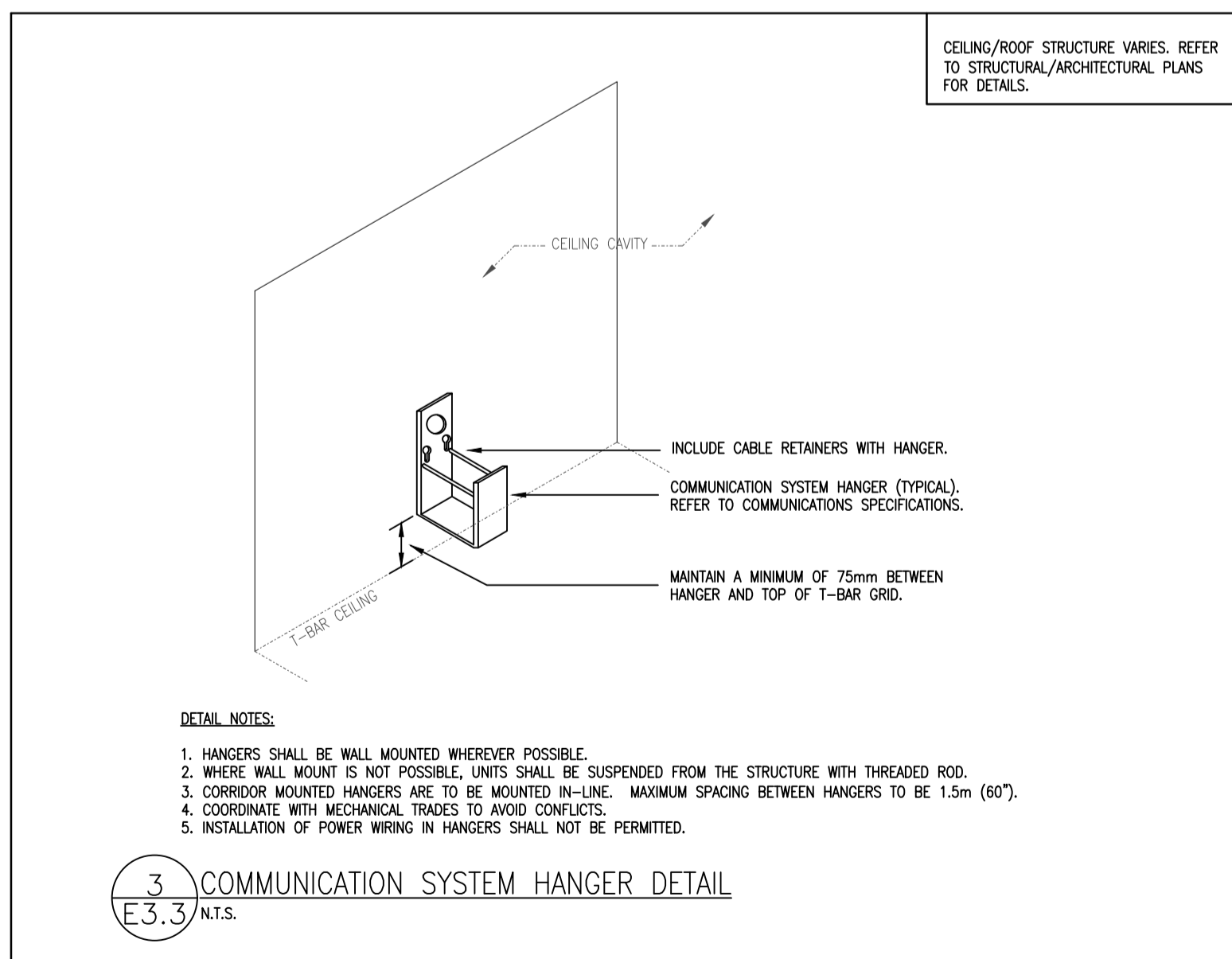
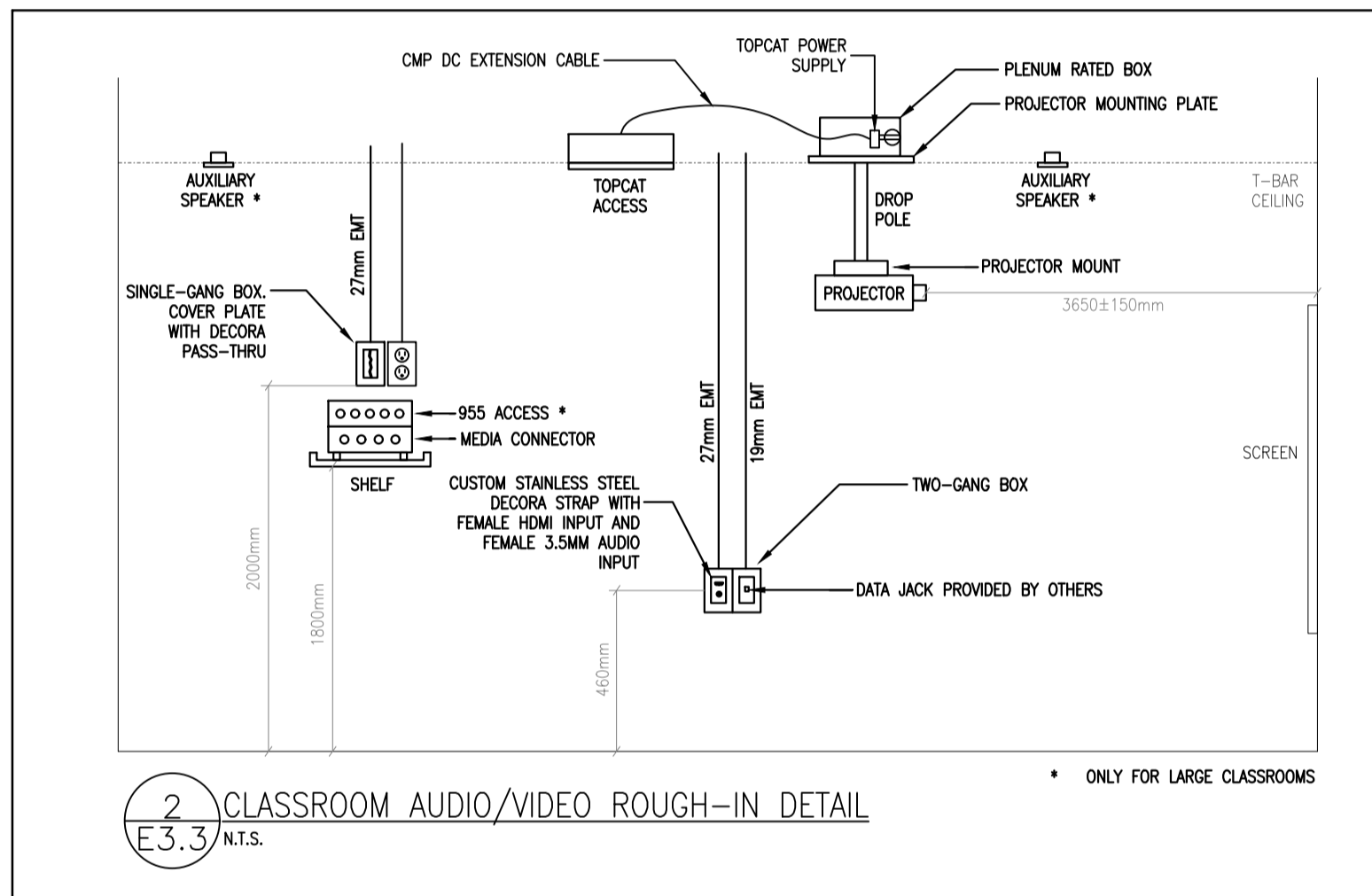
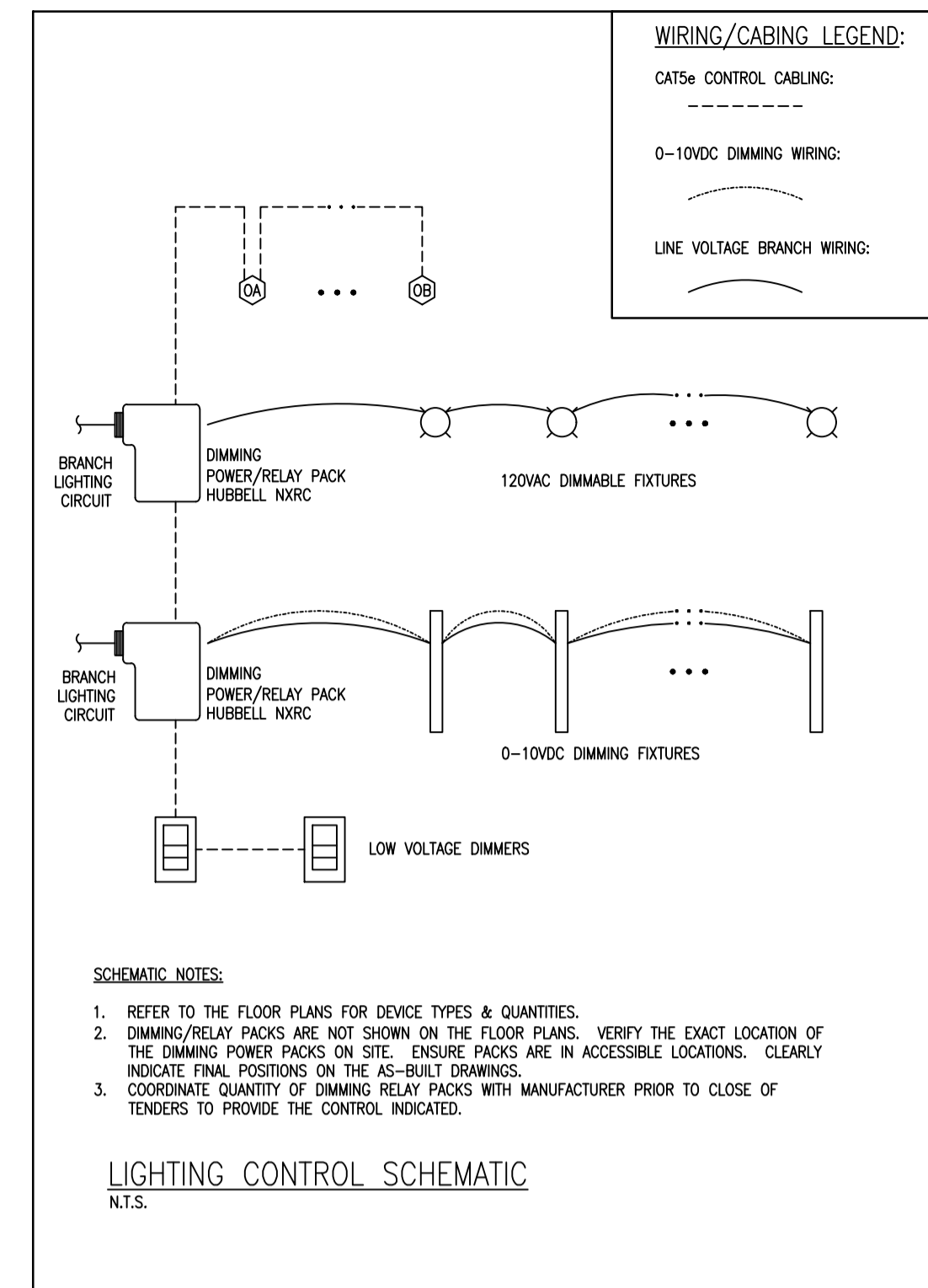
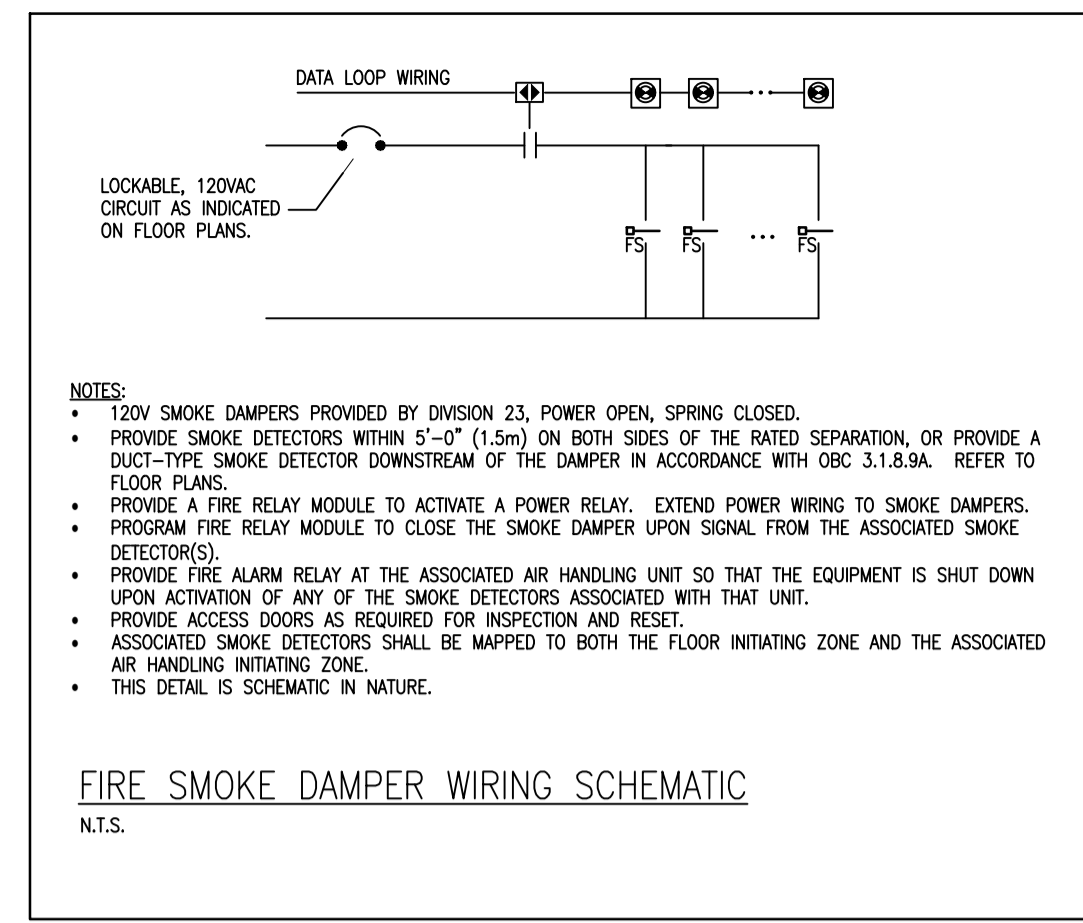
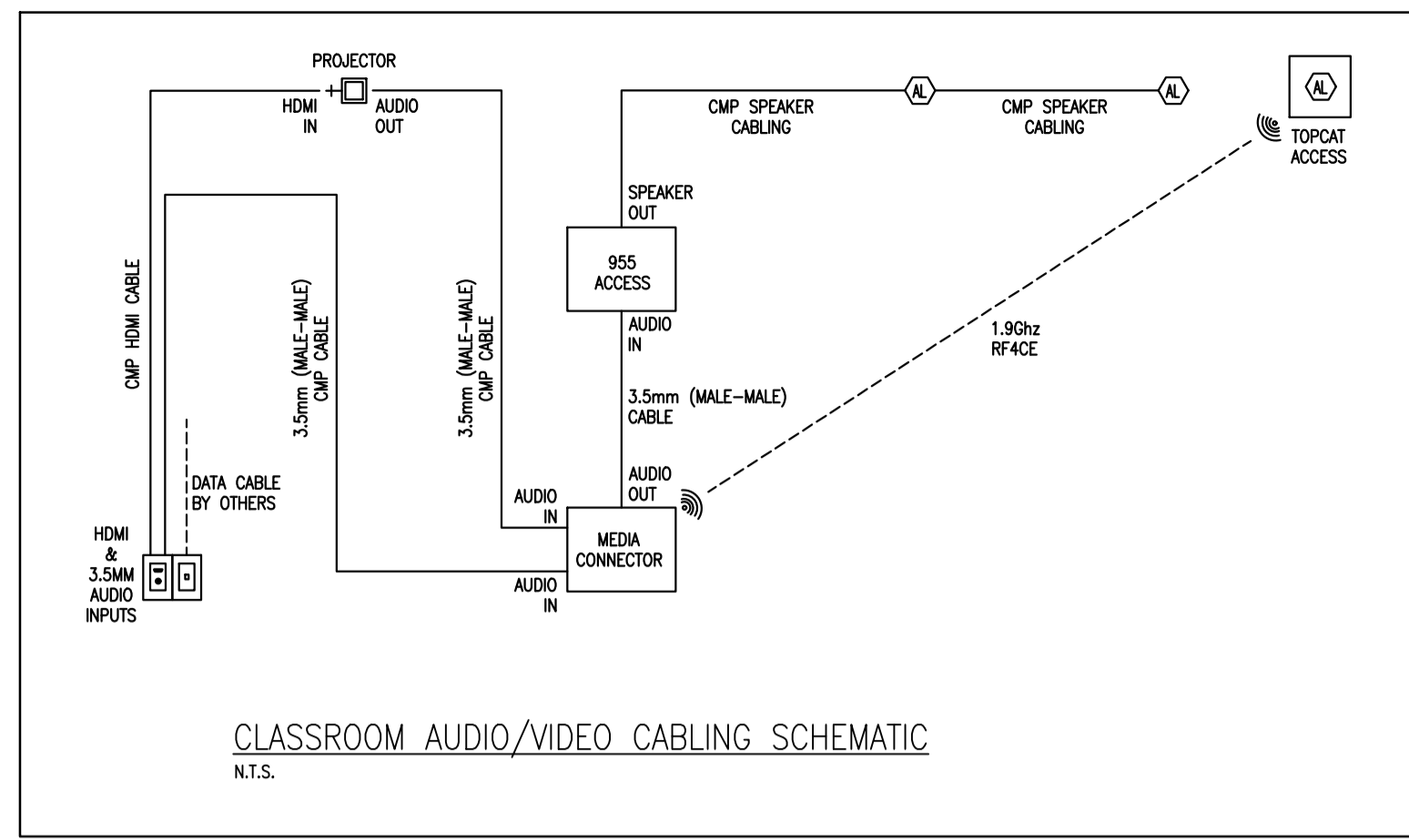
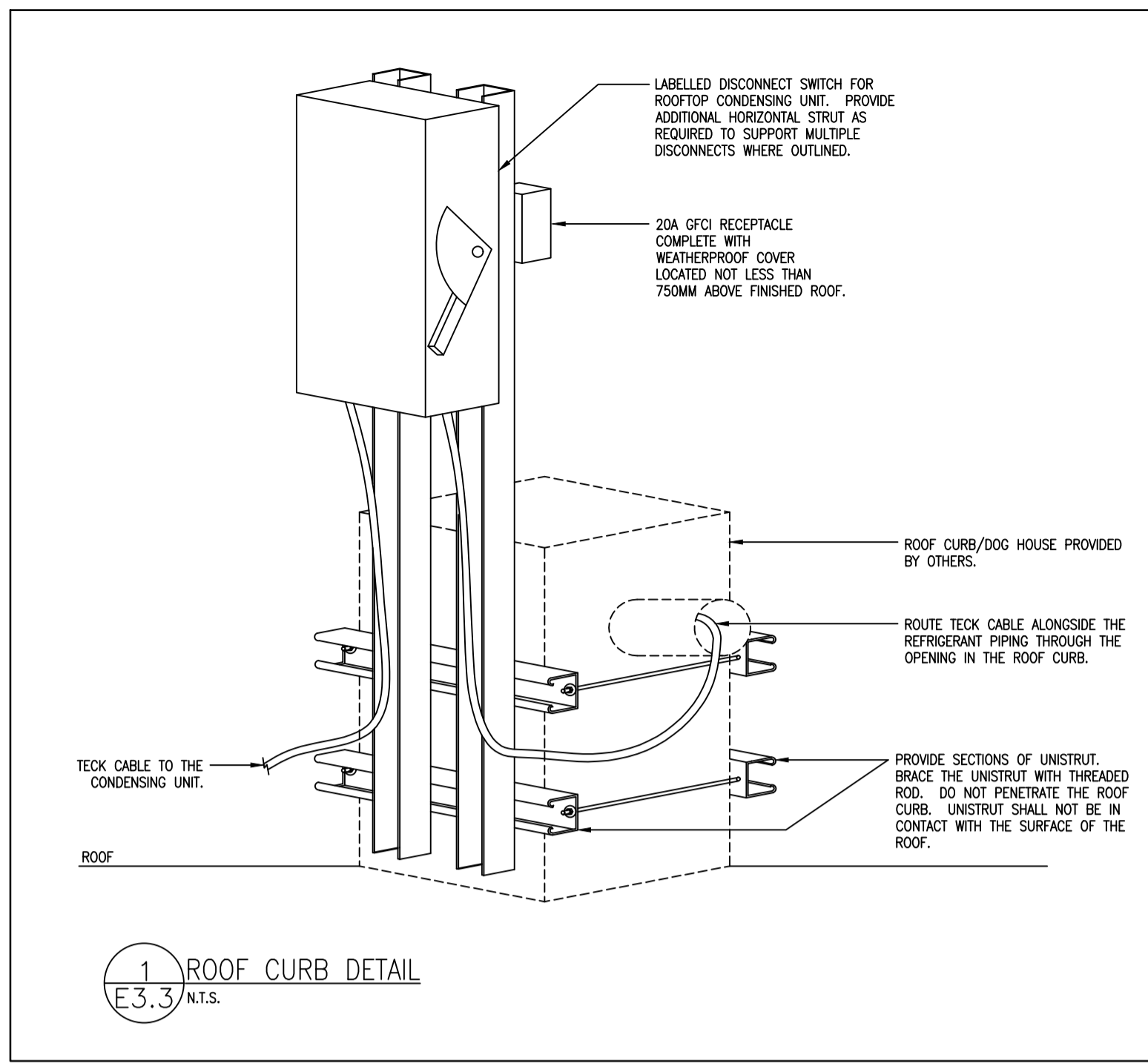
Project No.: 22002

Drawn By: A.W.G.

Revised: 2022-02-15

SINGLE LINE DIAGRAM

E3.2



CORNERSTONE ARCHITECTURE

MNE Engineering Inc.
22 Ivaco Place - Box A
Kitchener, Ontario N2C 2G5
(519) 894-8408
www.mneengineering.ca

ISSUED FOR COORDINATION	A.W.G.	2022.03.14	ISSUED FOR COORDINATION	A.W.G.	2022.03.17
ISSUED FOR COORDINATION	A.W.G.	2022.03.17	ISSUED FOR COORDINATION	A.W.G.	2023.01.05
ISSUED FOR COORDINATION	A.W.G.	2022.02.18	ISSUED FOR COORDINATION	A.W.G.	2022.03.01
ISSUED FOR COORDINATION	A.W.G.	2022.03.01	ISSUED FOR COORDINATION	A.W.G.	2022.03.09



Waterloo-Oxford District Secondary School

FAMILY STUDIES RENOVATION & HVAC UPGRADES

ELECTRICAL DETAILS & SCHEMATICS

1208 Snyder's Road West, New Hamburg, ON N3A 1A4

Project No.: 22002
Drawn By: A.W.G.
Reviewed: 2022-02-15