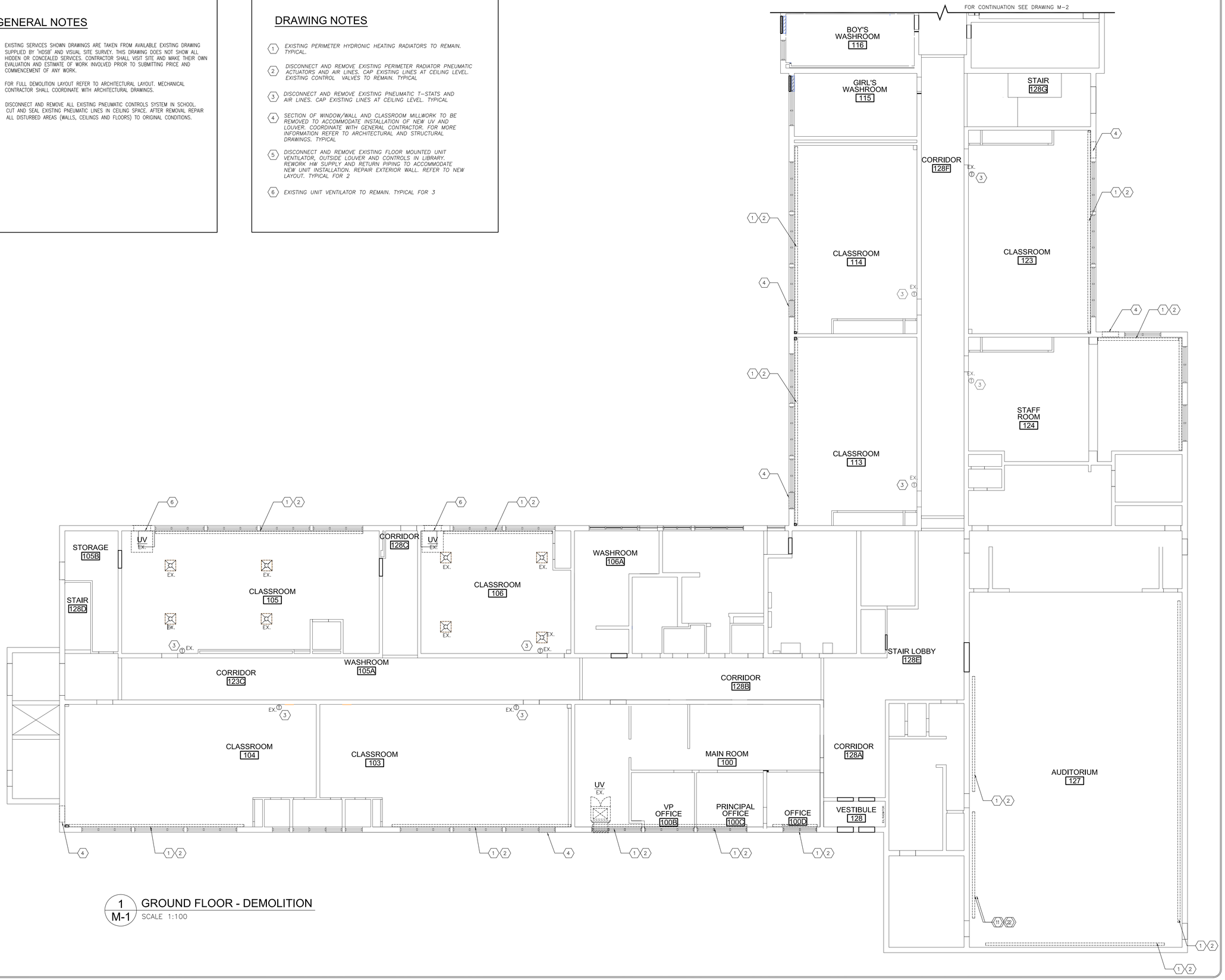
GENERAL NOTES

1. EXISTING SERVICES SHOWN DRAWINGS ARE TAKEN FROM AVAILABLE EXISTING DRAWING SUPPLIED BY 'HDSB' AND VISUAL SITE SURVEY. THIS DRAWING DOES NOT SHOW ALL HIDDEN OR CONCEALED SERVICES. CONTRACTOR SHALL VISIT SITE AND MAKE THEIR OWN EVALUATION AND ESTIMATE OF WORK INVOLVED PRIOR TO SUBMITTING PRICE AND COMMENCEMENT OF ANY WORK.
2. FOR FULL DEMOLITION LAYOUT REFER TO ARCHITECTURAL LAYOUT. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL DRAWINGS.
3. DISCONNECT AND REMOVE ALL EXISTING PNEUMATIC CONTROLS SYSTEM IN SCHOOL. CUT AND SEAL EXISTING PNEUMATIC LINES IN CEILING SPACE. AFTER REMOVAL REPAIR ALL DISTURBED AREAS (WALLS, CEILINGS AND FLOORS) TO ORIGINAL CONDITIONS.

DRAWING NOTES

1. *EXISTING PERIMETER HYDRONIC HEATING RADIATORS TO REMAIN. TYPICAL.*
2. *DISCONNECT AND REMOVE EXISTING PERIMETER RADIATOR PNEUMATIC ACTUATORS AND AIR LINES. CAP EXISTING LINES AT CEILING LEVEL. EXISTING CONTROL VALVES TO REMAIN. TYPICAL*
3. *DISCONNECT AND REMOVE EXISTING PNEUMATIC T-STATS AND AIR LINES. CAP EXISTING LINES AT CEILING LEVEL. TYPICAL*
4. *SECTION OF WINDOW/WALL AND CLASSROOM MILLWORK TO BE REMOVED TO ACCOMMODATE INSTALLATION OF NEW UV AND LOUVER. COORDINATE WITH GENERAL CONTRACTOR. FOR MORE INFORMATION REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS. TYPICAL*
5. *DISCONNECT AND REMOVE EXISTING FLOOR MOUNTED UNIT VENTILATOR, OUTSIDE LOUVER AND CONTROLS IN LIBRARY. REWORK HW SUPPLY AND RETURN PIPING TO ACCOMMODATE NEW UNIT INSTALLATION. REPAIR EXTERIOR WALL. REFER TO NEW LAYOUT. TYPICAL FOR 2*
6. *EXISTING UNIT VENTILATOR TO REMAIN. TYPICAL FOR 3*



1 / M-1 GROUND FLOOR - DEMOLITION
SCALE 1:100

Halton District School Board

CITY OF BURLINGTON
BUILDING SERVICES
REVIEWED
FOR PERMIT ISSUANCE
DATE July 8, 2022
PERMIT NUMBER 22-005526
EXAM WH

RECEIVED
MAR 29 2022
CITY OF BURLINGTON
BUILDING DEPARTMENT

ALL CONSTRUCTION TO MEET ONTARIO BUILDING CODE REQUIREMENTS

NO.	ISSUANCES & REVISIONS	DATE
3	FOR RE-PERMIT / RE-TENDER	MAR 15, 2022
2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021

PNF ENGINEERING INC.
BUILDING SERVICES ENGINEERS
4-1290 EGLINTON AVE. EAST
MISSISSAUGA ONT. L4W 1K8
T. (905) 625-5322, www.pnfeng.com

LICENSED PROFESSIONAL ENGINEER
MAR 15 / 22
Y.D.NEDEV
100138469
PROVINCE OF ONTARIO

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THESE DRAWINGS ARE NOT TO BE SCALED.

Project Address : 1522 MOUNTAIN GROVE AVE. BURLINGTON, ONTARIO, L7R 2H2

Project Description : ROLLING MEADOWS PUBLIC SCHOOL RENOVATIONS

Drawing Description : GROUND FLOOR CEILING DEMOLITION

Designed: N.P.
Checked: Y.N.
Scale: AS SHOWN
Date: JAN 2021

PNF Project No. 20041

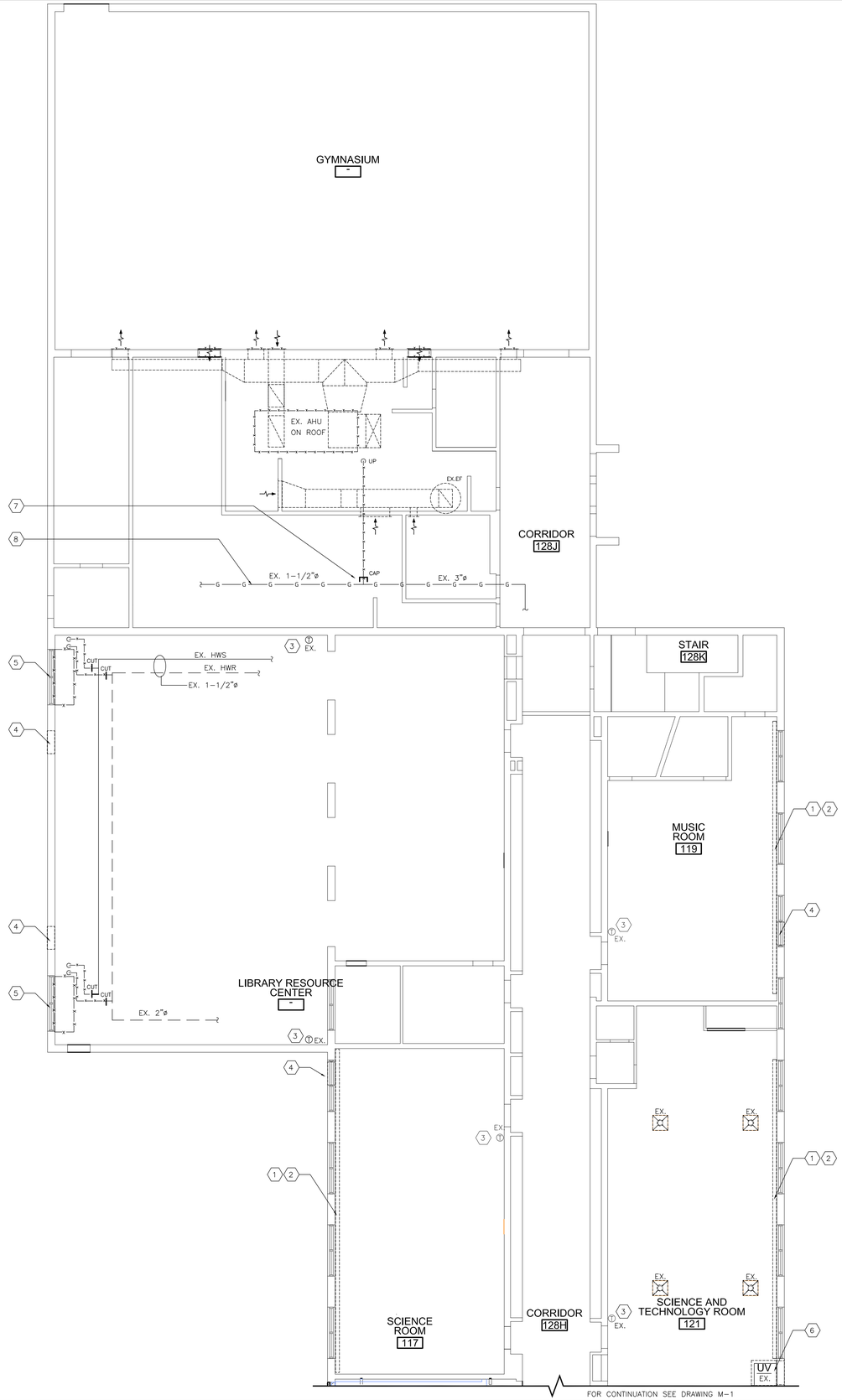
Dwg.No. **M-1**

GENERAL NOTES

1. EXISTING SERVICES SHOWN DRAWINGS ARE TAKEN FROM AVAILABLE EXISTING DRAWING SUPPLIED BY 'HDSB' AND VISUAL SITE SURVEY. THIS DRAWING DOES NOT SHOW ALL HIDDEN OR CONCEALED SERVICES. CONTRACTOR SHALL VISIT SITE AND MAKE THEIR OWN EVALUATION AND ESTIMATE OF WORK INVOLVED PRIOR TO SUBMITTING PRICE AND COMMENCEMENT OF ANY WORK.
2. FOR FULL DEMOLITION LAYOUT REFER TO ARCHITECTURAL LAYOUT. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL DRAWINGS.
3. DISCONNECT AND REMOVE ALL EXISTING PNEUMATIC CONTROLS SYSTEM IN SCHOOL. CUT AND SEAL EXISTING PNEUMATIC LINES IN CEILING SPACE. AFTER REMOVAL REPAIR ALL DISTURBED AREAS (WALLS, CEILINGS AND FLOORS) TO ORIGINAL CONDITIONS.

DRAWING NOTES

1. *EXISTING PERIMETER HYDRONIC HEATING RADIATORS TO REMAIN. TYPICAL.*
2. *DISCONNECT AND REMOVE EXISTING PERIMETER RADIATOR PNEUMATIC ACTUATORS AND AIR LINES. EXISTING CONTROL VALVES TO REMAIN. TYPICAL*
3. *DISCONNECT AND REMOVE EXISTING PNEUMATIC T–STATS AND AIR LINES. CAP EXISTING LINES AT CEILING LEVEL. TYPICAL*
4. *SECTION OF WINDOW/WALL AND CLASSROOM MILLWORK TO BE REMOVED TO ACCOMMODATE INSTALLATION OF NEW UV AND LOUVER. COORDINATE WITH GENERAL CONTRACTOR. FOR MORE INFORMATION REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS. TYPICAL*
5. *DISCONNECT AND REMOVE EXISTING FLOOR MOUNTED UNIT VENTILATOR, OUTSIDE LOUVER AND CONTROLS IN LIBRARY. REWORK HW SUPPLY AND RETURN PIPING TO ACCOMMODATE NEW UNIT INSTALLATION. REPAIR EXTERIOR WALL. REFER TO NEW LAYOUT. TYPICAL FOR 2*
6. *EXISTING UNIT VENTILATOR TO REMAIN. TYPICAL FOR 3*
7. *CUT AND CAP OFF EXISTING GAS PIPING IN CEILING SPACE. REMOVE PART OF PIPING DOWNSTREAM IN CEILING AND ROOF. EXACT LOCATION OF EXISTING PIPING TO BE CONFIRMED ON SITE. REPAIR ROOF. SEE ROOF PLAN FOR CONTINUATION.*
8. *EXISTING GAS PIPING IN CEILING*



1 / M-2 GROUND FLOOR - DEMOLITION
SCALE 1:100

Halton District School Board

RECEIVED
MAR 29 2022
CITY OF BURLINGTON
BUILDING DEPARTMENT

ALL CONSTRUCTION TO MEET ONTARIO BUILDING CODE REQUIREMENTS

NO.	ISSUANCES & REVISIONS	DATE
3	FOR RE-PERMIT / RE-TENDER	MAR 15, 2022
2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021

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MISSISSAUGA ONT. L4W 1K8
T. (905) 625-5322, www.pnfeng.com

LICENCED PROFESSIONAL ENGINEER
MAR 15 / 22
Y.D.NEDEV
100138469
PROVINCE OF ONTARIO

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THESE DRAWINGS ARE NOT TO BE SCALED.

Project Address : 1522 MOUNTAIN GROVE AVE. BURLINGTON, ONTARIO, L7R 2H2

Project Description : ROLLING MEADOWS PUBLIC SCHOOL RENOVATIONS

Drawing Description : GROUND FLOOR CEILING DEMOLITION

Designed:	N.P.
Checked:	Y.N.
Scale:	AS SHOWN
Date:	JAN 2021

PNF Project No. 20041

Dwg.No. **M-2**

GENERAL NOTES

1. EXISTING SERVICES SHOWN DRAWINGS ARE TAKEN FROM AVAILABLE EXISTING DRAWING SUPPLIED BY 'HDSB' AND VISUAL SITE SURVEY. THIS DRAWING DOES NOT SHOW ALL HIDDEN OR CONCEALED SERVICES. CONTRACTOR SHALL VISIT SITE AND MAKE THEIR OWN EVALUATION AND ESTIMATE OF WORK INVOLVED PRIOR TO SUBMITTING PRICE AND COMMENCEMENT OF ANY WORK.
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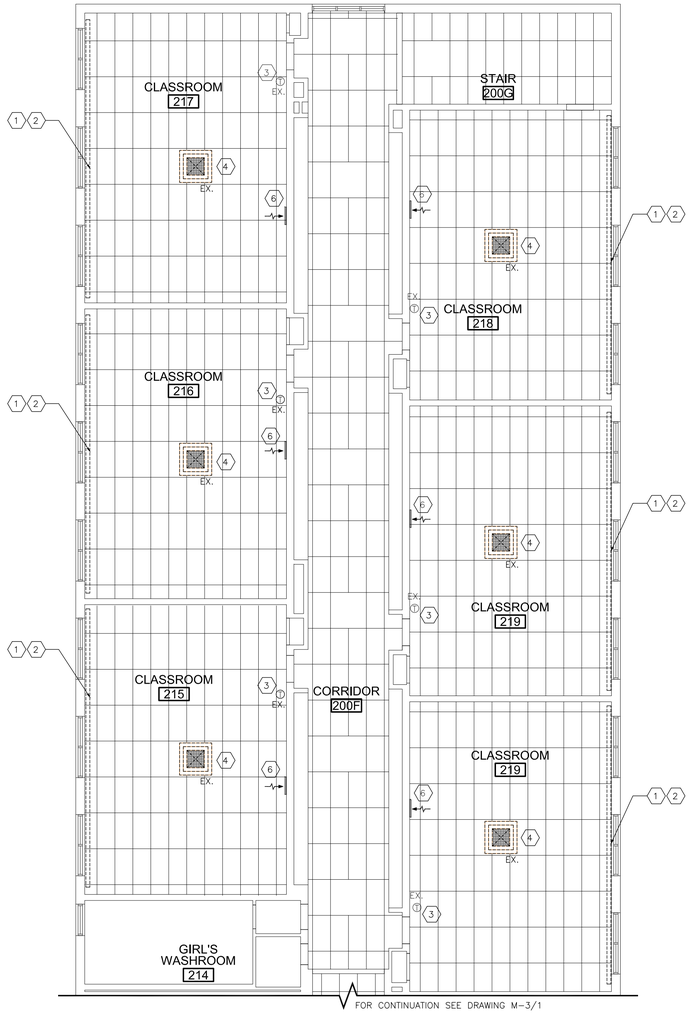
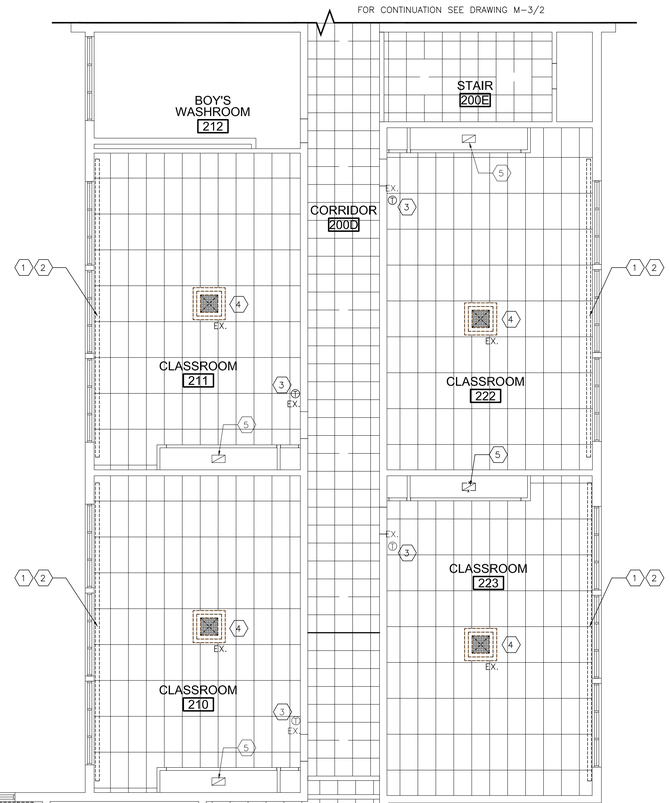
3. DISCONNECT AND REMOVE ALL EXISTING PNEUMATIC CONTROLS SYSTEM IN SCHOOL. CUT AND SEAL EXISTING PNEUMATIC LINES IN CEILING SPACE. AFTER REMOVAL REPAIR ALL DISTURBED AREAS (WALLS, CEILINGS AND FLOORS) TO ORIGINAL CONDITIONS.

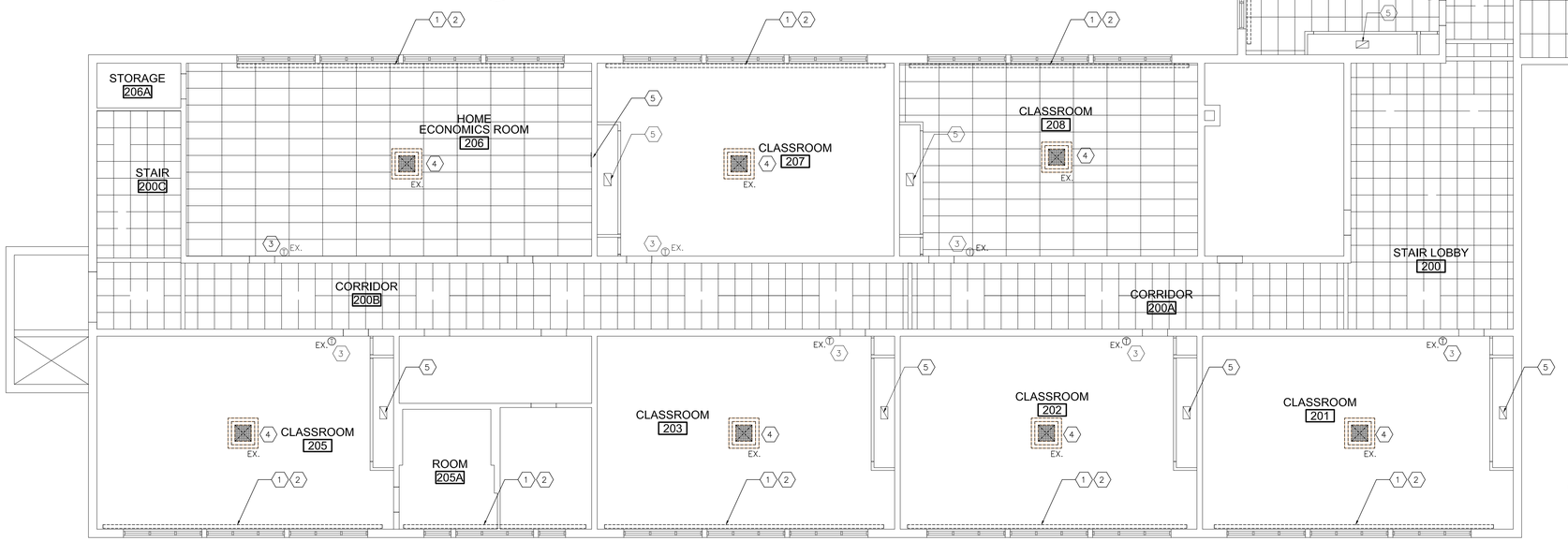
DRAWING NOTES

1. *EXISTING PERIMETER HYDRONIC HEATING RADIATORS TO REMAIN. TYPICAL.*
2. *DISCONNECT AND REMOVE EXISTING PERIMETER RADIATOR PNEUMATIC ACTUATORS AND AIR LINES. CAP EXISTING LINES AT CEILING LEVEL. EXISTING CONTROL VALVES TO REMAIN. TYPICAL*
3. *DISCONNECT AND REMOVE EXISTING PNEUMATIC T-STATS AND AIR LINES. CAP EXISTING LINES AT CEILING LEVEL. TYPICAL*
4. *EXISTING HEAT PUMP CEILING UNIT TO REMAIN.*
5. DISCONNECT EXISTING CLASSROOM EXHAUST FANS ON ROOF. REMOVE EXISTING GRILL AND CAP OF EXISTING DUCTWORK WITH INSULATED PANEL AT CEILING LEVEL. PATCH AND REPAIR DISTURBED CEILING AREA.
6. DISCONNECT EXISTING CLASSROOM EXHAUST FANS ON ROOF. REMOVE EXISTING GRILL. REUSE EXISTING WALL OPENING FOR NEW SUPPLY AIR DUCT. REPAIR WALL AFTER NEW INSTALLATION. REFER TO NEW LAYOUT.



2 M-3 SECOND FLOOR - DEMOLITION
SCALE 1:100





1 M-3 SECOND FLOOR - DEMOLITION
SCALE 1:100

Halton District School Board

RECEIVED
MAR 29 2022
CITY OF BURLINGTON
BUILDING DEPARTMENT

ALL CONSTRUCTION TO MEET ONTARIO BUILDING CODE REQUIREMENTS

NO.	ISSUANCES & REVISIONS	DATE
3	FOR RE-PERMIT / RE-TENDER	MAR 15, 2022
2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021

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LICENCED PROFESSIONAL ENGINEER
MAR 15 / 22
Y.D.NEDEV
100138469
PROVINCE OF ONTARIO

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THESE DRAWINGS ARE NOT TO BE SCALED.

Project Address : 1522 MOUNTAIN GROVE AVE. BURLINGTON, ONTARIO, L7R 2H2

Project Description : ROLLING MEADOWS PUBLIC SCHOOL RENOVATIONS

Drawing Description : SECOND FLOOR CEILING DEMOLITION

Designed:	N.P.
Checked:	Y.N.
Scale:	AS SHOWN
Date:	JAN 2021

PNF Project No. 20041

Dwg.No. **M-3**

GENERAL NOTES

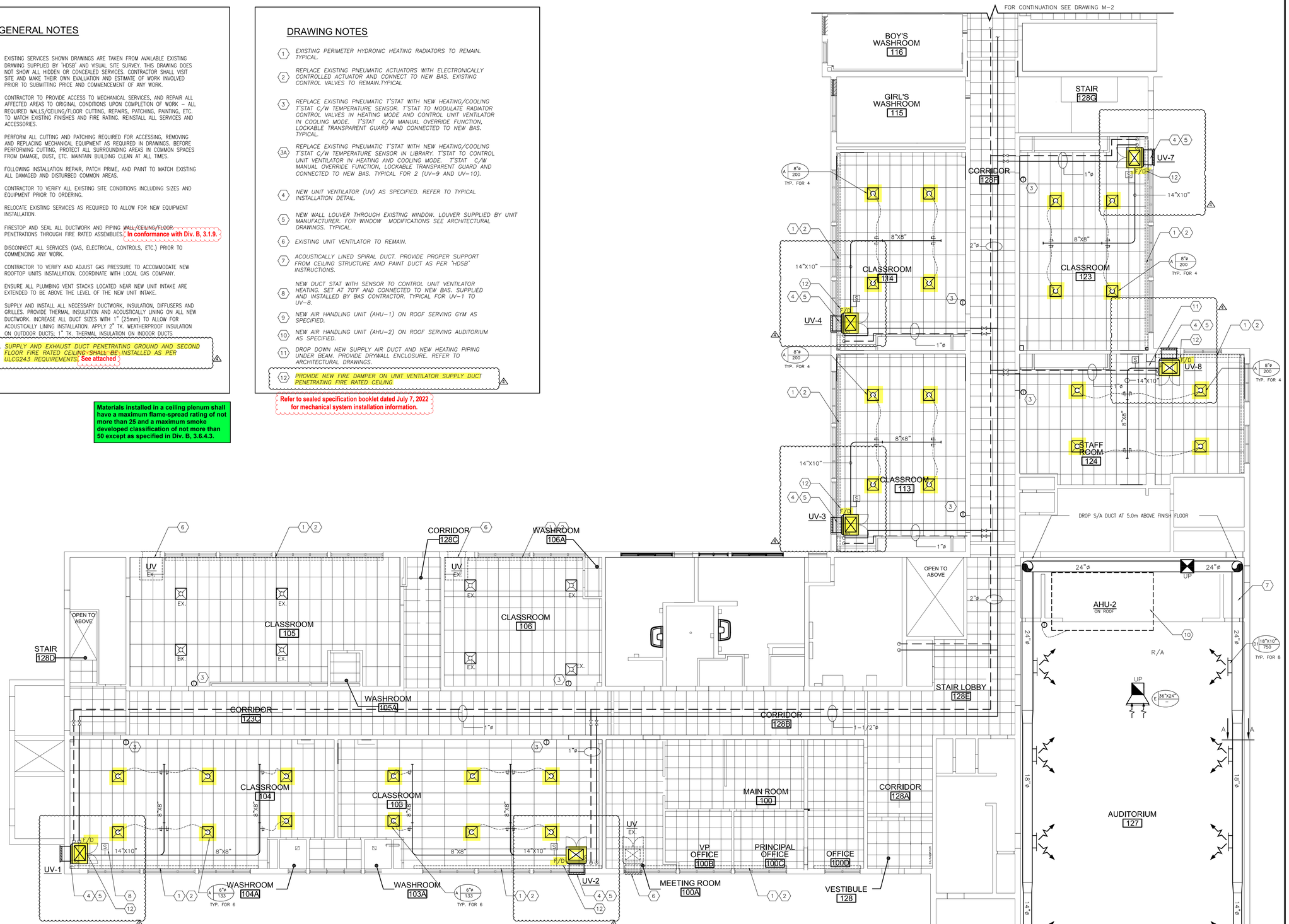
1. EXISTING SERVICES SHOWN DRAWINGS ARE TAKEN FROM AVAILABLE EXISTING DRAWING SUPPLIED BY 'HDSB' AND VISUAL SITE SURVEY. THIS DRAWING DOES NOT SHOW ALL HIDDEN OR CONCEALED SERVICES. CONTRACTOR SHALL VISIT SITE AND MAKE THEIR OWN EVALUATION AND ESTIMATE OF WORK INVOLVED PRIOR TO SUBMITTING PRICE AND COMMENCEMENT OF ANY WORK.
2. CONTRACTOR TO PROVIDE ACCESS TO MECHANICAL SERVICES, AND REPAIR ALL AFFECTED AREAS TO ORIGINAL CONDITIONS UPON COMPLETION OF WORK – ALL REQUIRED WALLS/CEILING/FLOOR CUTTING, REPAIRS, PATCHING, PAINTING, ETC. TO MATCH EXISTING FINISHES AND FIRE RATING. REINSTALL ALL SERVICES AND ACCESSORIES.
3. PERFORM ALL CUTTING AND PATCHING REQUIRED FOR ACCESSING, REMOVING AND REPLACING MECHANICAL EQUIPMENT AS REQUIRED IN DRAWINGS. BEFORE PERFORMING CUTTING, PROTECT ALL SURROUNDING AREAS IN COMMON SPACES FROM DAMAGE, DUST, ETC. MAINTAIN BUILDING CLEAN AT ALL TIMES.
4. FOLLOWING INSTALLATION REPAIR, PATCH PRIME, AND PAINT TO MATCH EXISTING ALL DAMAGED AND DISTURBED COMMON AREAS.
5. CONTRACTOR TO VERIFY ALL EXISTING SITE CONDITIONS INCLUDING SIZES AND EQUIPMENT PRIOR TO ORDERING.
6. RELOCATE EXISTING SERVICES AS REQUIRED TO ALLOW FOR NEW EQUIPMENT INSTALLATION.
7. FIRESTOP AND SEAL ALL DUCTWORK AND PIPING WALL/CEILING/FLOOR PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. **In conformance with Div. B, 3.1.9.**
8. DISCONNECT ALL SERVICES (GAS, ELECTRICAL, CONTROLS, ETC.) PRIOR TO COMMENCING ANY WORK.
9. CONTRACTOR TO VERIFY AND ADJUST GAS PRESSURE TO ACCOMMODATE NEW ROOFTOP UNITS INSTALLATION. COORDINATE WITH LOCAL GAS COMPANY.
10. ENSURE ALL PLUMBING VENT STACKS LOCATED NEAR NEW UNIT INTAKE ARE EXTENDED TO BE ABOVE THE LEVEL OF THE NEW UNIT INTAKE.
11. SUPPLY AND INSTALL ALL NECESSARY DUCTWORK, INSULATION, DIFFUSERS AND GRILLES. PROVIDE THERMAL INSULATION AND ACOUSTICALLY LINING ON ALL NEW DUCTWORK. INCREASE ALL DUCT SIZES WITH 1" (25mm) TO ALLOW FOR ACOUSTICALLY LINING INSTALLATION. APPLY 2" TK. WEATHERPROOF INSULATION ON OUTDOOR DUCTS, 1" TK. THERMAL INSULATION ON INDOOR DUCTS
12. *SUPPLY AND EXHAUST DUCT PENETRATING GROUND AND SECOND FLOOR FIRE RATED CEILING SHALL BE INSTALLED AS PER ULCG243 REQUIREMENTS.* **See attached** (A)

Materials installed in a ceiling plenum shall have a maximum flame-spread rating of not more than 25 and a maximum smoke developed classification of not more than 50 except as specified in Div. B, 3.6.4.3.

DRAWING NOTES

1. *EXISTING PERIMETER HYDRONIC HEATING RADIATORS TO REMAIN. TYPICAL.*
2. *REPLACE EXISTING PNEUMATIC ACTUATORS WITH ELECTRONICALLY CONTROLLED ACTUATOR AND CONNECT TO NEW BAS. EXISTING CONTROL VALVES TO REMAIN.TYPICAL*
3. *REPLACE EXISTING PNEUMATIC T'STAT WITH NEW HEATING/COOLING T'STAT C/W TEMPERATURE SENSOR. T'STAT TO MODULATE RADIATOR CONTROL VALVES IN HEATING MODE AND CONTROL UNIT VENTILATOR IN COOLING MODE. T'STAT C/W MANUAL OVERRIDE FUNCTION, LOCKABLE TRANSPARENT GUARD AND CONNECTED TO NEW BAS. TYPICAL.*
- 3A. *REPLACE EXISTING PNEUMATIC T'STAT WITH NEW HEATING/COOLING T'STAT C/W TEMPERATURE SENSOR IN LIBRARY. T'STAT TO CONTROL UNIT VENTILATOR IN HEATING AND COOLING MODE. T'STAT C/W MANUAL OVERRIDE FUNCTION, LOCKABLE TRANSPARENT GUARD AND CONNECTED TO NEW BAS. TYPICAL FOR 2 (UV–9 AND UV–10).*
4. *NEW UNIT VENTILATOR (UV) AS SPECIFIED. REFER TO TYPICAL INSTALLATION DETAIL.*
5. *NEW WALL LOUVER THROUGH EXISTING WINDOW. LOUVER SUPPLIED BY UNIT MANUFACTURER. FOR WINDOW MODIFICATIONS SEE ARCHITECTURAL DRAWINGS. TYPICAL.*
6. *EXISTING UNIT VENTILATOR TO REMAIN.*
7. *ACOUSTICALLY LINED SPIRAL DUCT. PROVIDE PROPER SUPPORT FROM CEILING STRUCTURE AND PAINT DUCT AS PER 'HDSB' INSTRUCTIONS.*
8. *NEW DUCT STAT WITH SENSOR TO CONTROL UNIT VENTILATOR HEATING. SET AT 70°F AND CONNECTED TO NEW BAS. SUPPLIED AND INSTALLED BY BAS CONTRACTOR. TYPICAL FOR UV–1 TO UV–8.*
9. *NEW AIR HANDLING UNIT (AHU–1) ON ROOF SERVING GYM AS SPECIFIED.*
10. *NEW AIR HANDLING UNIT (AHU–2) ON ROOF SERVING AUDITORIUM AS SPECIFIED.*
11. *DROP DOWN NEW SUPPLY AIR DUCT AND NEW HEATING PIPING UNDER BEAM. PROVIDE DRYWALL ENCLOSURE. REFER TO ARCHITECTURAL DRAWINGS.*
12. *PROVIDE NEW FIRE DAMPER ON UNIT VENTILATOR SUPPLY DUCT PENETRATING FIRE RATED CEILING* (A)

Refer to sealed specification booklet dated July 7, 2022 for mechanical system installation information.



1 / M-4 GROUND FLOOR - NEW LAYOUT
SCALE 1:100

Halton District School Board

RECEIVED
JUN 27 2022
CITY OF BURLINGTON BUILDING DEPARTMENT

ALL CONSTRUCTION TO MEET ONTARIO BUILDING CODE REQUIREMENTS

NO.	ISSUANCES & REVISIONS	DATE
4	FOR PERMIT REVISIONS	JUNE 24, 2022
3	FOR RE-PERMIT / RE-TENDER	MAR 15, 2022
2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021

PNF ENGINEERING INC.
BUILDING SERVICES ENGINEERS
4-1290 EGLINTON AVE. EAST
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T. (905) 625-5322, www.pnfeng.com

LICENSED PROFESSIONAL ENGINEER
JUNE 24 / 22
Y.D.NEDEV
100138469
PROVINCE OF ONTARIO

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THESE DRAWINGS ARE NOT TO BE SCALED.

Project Address : 1522 MOUNTAIN GROVE AVE. BURLINGTON, ONTARIO, L7R 2H2

Project Description : ROLLING MEADOWS PUBLIC SCHOOL RENOVATIONS

Drawing Description : GROUND FLOOR CEILING NEW LAYOUT

Designed:	N.P.
Checked:	Y.N.
Scale:	AS SHOWN
Date:	FEB 2022

PNF Project No. 20041

Dwg.No. **M-4**

GENERAL NOTES

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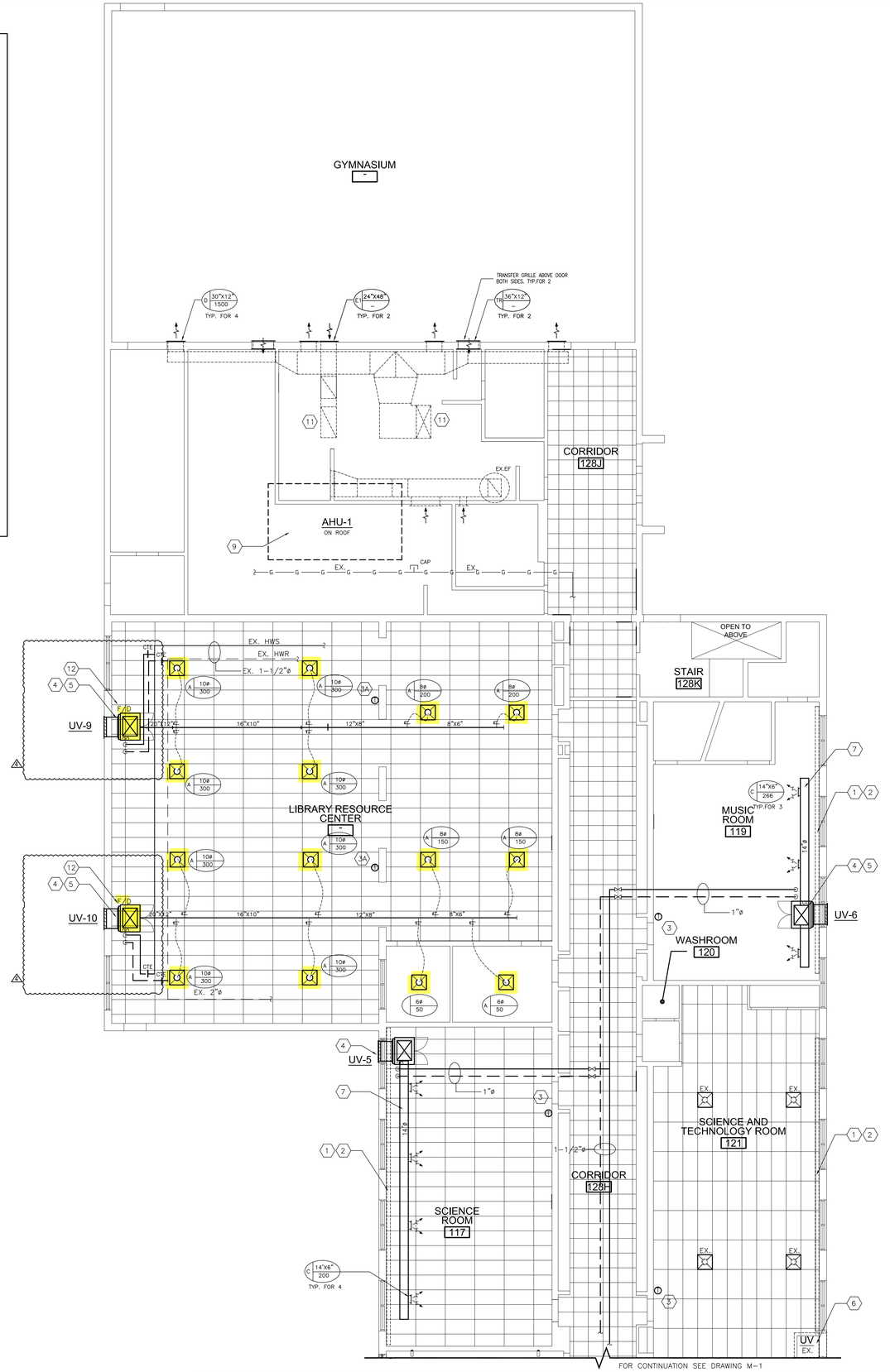
3. PERFORM ALL CUTTING AND PATCHING REQUIRED FOR ACCESSING, REMOVING AND REPLACING MECHANICAL EQUIPMENT AS REQUIRED IN DRAWINGS. BEFORE PERFORMING CUTTING, PROTECT ALL SURROUNDING AREAS IN COMMON SPACES FROM DAMAGE, DUST, ETC. MAINTAIN BUILDING CLEAN AT ALL TIMES.
4. FOLLOWING INSTALLATION REPAIR, PATCH PRIME, AND PAINT TO MATCH EXISTING ALL DAMAGED AND DISTURBED COMMON AREAS.
5. CONTRACTOR TO VERIFY ALL EXISTING SITE CONDITIONS INCLUDING SIZES AND EQUIPMENT PRIOR TO ORDERING.
6. RELOCATE EXISTING SERVICES AS REQUIRED TO ALLOW FOR NEW EQUIPMENT INSTALLATION.
7. FIRESTOP AND SEAL ALL DUCTWORK AND PIPING WALL/CEILING/FLOOR PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
8. DISCONNECT ALL SERVICES (GAS, ELECTRICAL, CONTROLS, ETC.) PRIOR TO COMMENCING ANY WORK.
9. CONTRACTOR TO VERIFY AND ADJUST GAS PRESSURE TO ACCOMMODATE NEW ROOFTOP UNITS INSTALLATION. COORDINATE WITH LOCAL GAS COMPANY.
10. ENSURE ALL PLUMBING VENT STACKS LOCATED NEAR NEW UNIT INTAKE ARE EXTENDED TO BE ABOVE THE LEVEL OF THE NEW UNIT INTAKE.
11. SUPPLY AND INSTALL ALL NECESSARY DUCTWORK, INSULATION, DIFFUSERS AND GRILLES. PROVIDE THERMAL INSULATION AND ACOUSTICALLY LINING ON ALL NEW DUCTWORK. INCREASE ALL DUCT SIZES WITH 1" (25mm) TO ALLOW FOR ACOUSTICALLY LINING INSTALLATION. APPLY 2" TK. WEATHERPROOF INSULATION ON OUTDOOR DUCTS; 1" TK. THERMAL INSULATION ON INDOOR DUCTS.
12. *SUPPLY AND EXHAUST DUCT PENETRATING GROUND AND SECOND FLOOR FIRE RATED CEILING SHALL BE INSTALLED AS PER ULCG243 REQUIREMENTS.* See attached 1 ⚠1

DRAWING NOTES

1. *EXISTING PERIMETER HYDRONIC HEATING RADIATORS TO REMAIN. TYPICAL.*
2. *REPLACE EXISTING PNEUMATIC ACTUATORS WITH ELECTRONICALLY CONTROLLED ACTUATOR AND CONNECT TO NEW BAS. EXISTING CONTROL VALVES TO REMAIN.TYPICAL*
3. *REPLACE EXISTING PNEUMATIC T'STAT WITH NEW HEATING/COOLING T'STAT C/W TEMPERATURE SENSOR. T'STAT TO MODULATE RADIATOR CONTROL VALVES IN HEATING MODE AND CONTROL UNIT VENTILATOR IN COOLING MODE. T'STAT C/W MANUAL OVERRIDE FUNCTION, LOCKABLE TRANSPARENT GUARD AND CONNECTED TO NEW BAS. TYPICAL.*
3A. *REPLACE EXISTING PNEUMATIC T'STAT WITH NEW HEATING/COOLING T'STAT C/W TEMPERATURE SENSOR IN LIBRARY. T'STAT TO CONTROL UNIT VENTILATOR IN HEATING AND COOLING MODE. T'STAT C/W MANUAL OVERRIDE FUNCTION, LOCKABLE TRANSPARENT GUARD AND CONNECTED TO NEW BAS. TYPICAL FOR 2 (UV–9 AND UV–10).*
4. *NEW UNIT VENTILATOR (UV) AS SPECIFIED. REFER TO TYPICAL INSTALLATION DETAIL.*
5. *NEW WALL LOUVER THROUGH EXISTING WINDOW. LOUVER SUPPLIED BY UNIT MANUFACTURER. FOR WINDOW MODIFICATIONS SEE ARCHITECTURAL DRAWINGS. TYPICAL.*
6. *EXISTING UNIT VENTILATOR TO REMAIN.*
7. *ACOUSTICALLY LINED SPIRAL DUCT. PROVIDE PROPER SUPPORT FROM CEILING STRUCTURE AND PAINT DUCT AS PER 'HDSB' INSTRUCTIONS.*
8. *NEW DUCT STAT WITH SENSOR TO CONTROL UNIT VENTILATOR HEATING. SET AT 70°F AND CONNECTED TO NEW BAS. SUPPLIED AND INSTALLED BY BAS CONTRACTOR. TYPICAL FOR UV–1 TO UV–8.*
9. *NEW AIR HANDLING UNIT (AHU–1) ON ROOF SERVING GYM AS SPECIFIED.*
10. *NEW AIR HANDLING UNIT (AHU–2) ON ROOF SERVING AUDITORIUM AS SPECIFIED.*
11. *DROP DOWN NEW SUPPLY AIR DUCT AND NEW HEATING PIPING UNDER BEAM. PROVIDE DRYWALL ENCLOSURE. REFER TO ARCHITECTURAL DRAWINGS.*
12. *PROVIDE NEW FIRE DAMPER ON UNIT VENTILATOR SUPPLY DUCT PENETRATING FIRE RATED CEILING.* ⚠1

NEW BUILDING AUTOMATION SYSTEM (BAS)

1. ALL BAS WORK SHALL BE PERFORMED BY 'HDSB' APPROVED BAS CONTRACTOR.
2. BAS CONTRACTOR SHALL SUPPLY AND INSTALL COMPLETE NEW BAS AS PER WRITTEN SPECIFICATIONS.
3. REPLACE ALL EXISTING SENSORS, RELAYS, PNEUMATIC ACTUATORS, CONTROLLERS, WIRING, ETC., AND CONNECT TO NEW BAS. FOR MORE DETAILS OF EXISTING BAS CONTROLS REFER TO EXISTING CONTROL DRAWINGS ATTACHED TO WRITTEN SPECIFICATIONS.
4. SUPPLY AND INSTALL NEW CONTROLLERS, SENSORS, RELAYS, ACTUATORS, AND WIRING, FOR ALL EXISTING AND NEW EQUIPMENT.
5. CONTROL CONTRACTOR SHALL SUBMIT CONTROL SHOP DRAWINGS, WIRING, DIAGRAMS AND SCHEMATICS FOR REVIEW BEFORE PROCEEDING WITH WORK.
6. PROVIDE NEW WIRING AND CONDUITS REQUIRED FOR BAS SYSTEM. ALL ELECTRICAL WORK ASSOCIATED WITH BAS INSTALLATION SHALL BE DONE BY LICENSED AND UNIONIZED ELECTRICIAN. PROVE OF CERTIFICATION SHALL BE PRESENTED DURING TENDER
7. REPLACE ALL EXISTING VALVES, PNEUMATIC ACTUATORS AND THERMOSTATS WITH NEW 2–WAY MODULATING CONTROL VALVE, ELECTRONIC ACTUATORS AND THERMOSTAT. VALVES SUPPLIED BY CONTROL CONTRACTOR INSTALLED BY MECHANICAL CONTRACTOR. CONNECT TO NEW BAS. PROVIDE UNIT PRICE FOR AREA OUTSIDE OF CLASSROOMS (1–CONTROL VALVE, 1–ACTUATOR AND 1–THERMOSTAT REPLACEMENT)
8. RECONNECT ALL EXISTING EQUIPMENT TO NEW BAS. FOR MORE DETAILS OF EXISTING BAS AND SEQUENCE OF OPERATION REFER TO EXISTING BAS DRAWINGS ATTACHED TO WRITTEN SPECIFICATIONS.



1 / M-5 GROUND FLOOR - NEW LAYOUT
SCALE 1:100

Halton District School Board

RECEIVED
JUN 27 2022
CITY OF BURLINGTON
BUILDING DEPARTMENT

ALL CONSTRUCTION TO MEET ONTARIO BUILDING CODE REQUIREMENTS

NO.	ISSUANCES & REVISIONS	DATE
⚠1	FOR PERMIT REVISIONS	JUNE 24, 2022
3	FOR RE-PERMIT / RE-TENDER	MAR 15, 2022
2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021

PNF ENGINEERING INC.
BUILDING SERVICES ENGINEERS
4-1290 EGLINTON AVE. EAST
MISSISSAUGA ONT. L4W 1K8
T. (905) 625-5322, www.pnfeng.com

LICENSED PROFESSIONAL ENGINEER
JUNE 24 / 22
Y.D.NEDEV
100138469
PROVINCE OF ONTARIO

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THESE DRAWINGS ARE NOT TO BE SCALED.

Project Address : 1522 MOUNTAIN GROVE AVE. BURLINGTON, ONTARIO, L7R 2H2

Project Description : ROLLING MEADOWS PUBLIC SCHOOL RENOVATIONS

Drawing Description : GROUND FLOOR CEILING NEW LAYOUT

Designed:	N.P.
Checked:	Y.N.
Scale:	AS SHOWN
Date:	FEB 2022

PNF Project No. 20041

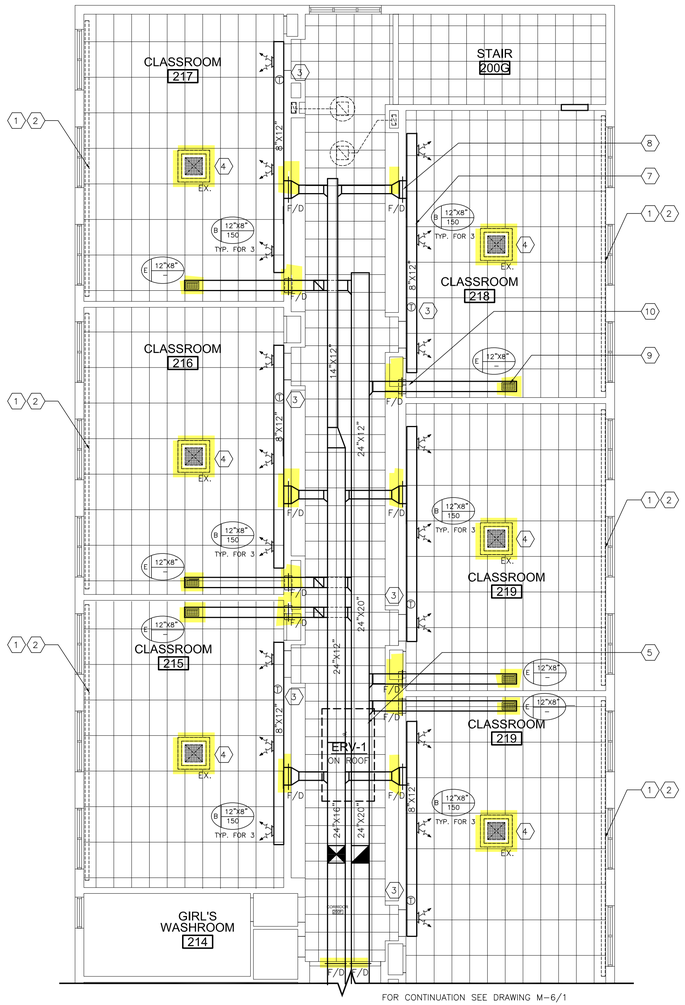
Dwg.No. **M-5**

GENERAL NOTES

1. EXISTING SERVICES SHOWN DRAWINGS ARE TAKEN FROM AVAILABLE EXISTING DRAWING SUPPLIED BY 'HDSB' AND VISUAL SITE SURVEY. THIS DRAWING DOES NOT SHOW ALL HIDDEN OR CONCEALED SERVICES. CONTRACTOR SHALL VISIT SITE AND MAKE THEIR OWN EVALUATION AND ESTIMATE OF WORK INVOLVED PRIOR TO SUBMITTING PRICE AND COMMENCEMENT OF ANY WORK.
2. CONTRACTOR TO PROVIDE ACCESS TO MECHANICAL SERVICES, AND REPAIR ALL AFFECTED AREAS TO ORIGINAL CONDITIONS UPON COMPLETION OF WORK – ALL REQUIRED WALLS/CEILING/FLOOR CUTTING, REPAIRS, PATCHING, PAINTING, ETC. TO MATCH EXISTING FINISHES AND FIRE RATING. REINSTALL ALL SERVICES AND ACCESSORIES.
3. PERFORM ALL CUTTING AND PATCHING REQUIRED FOR ACCESSING, REMOVING AND REPLACING MECHANICAL EQUIPMENT AS REQUIRED IN DRAWINGS. BEFORE PERFORMING CUTTING, PROTECT ALL SURROUNDING AREAS IN COMMON SPACES FROM DAMAGE, DUST, ETC. MAINTAIN BUILDING CLEAN AT ALL TIMES.
4. FOLLOWING INSTALLATION REPAIR, PATCH PRIME, AND PAINT TO MATCH EXISTING ALL DAMAGED AND DISTURBED COMMON AREAS.
5. CONTRACTOR TO VERIFY ALL EXISTING SITE CONDITIONS INCLUDING SIZES AND EQUIPMENT PRIOR TO ORDERING.
6. RELOCATE EXISTING SERVICES AS REQUIRED TO ALLOW FOR NEW EQUIPMENT INSTALLATION.
7. FIRESTOP AND SEAL ALL DUCTWORK AND PIPING WALL/CEILING/FLOOR PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
8. DISCONNECT ALL SERVICES (GAS, ELECTRICAL, CONTROLS, ETC.) PRIOR TO COMMENCING ANY WORK.
9. CONTRACTOR TO VERIFY AND ADJUST GAS PRESSURE TO ACCOMMODATE NEW ROOFTOP UNITS INSTALLATION. COORDINATE WITH LOCAL GAS COMPANY.
10. ENSURE ALL PLUMBING VENT STACKS LOCATED NEAR NEW UNIT INTAKE ARE EXTENDED TO BE ABOVE THE LEVEL OF THE NEW UNIT INTAKE.
11. SUPPLY AND INSTALL ALL NECESSARY DUCTWORK, INSULATION, DIFFUSERS AND GRILLES. PROVIDE THERMAL INSULATION AND ACOUSTICALLY LINING ON ALL NEW DUCTWORK. INCREASE ALL DUCT SIZES WITH 1" (25mm) TO ALLOW FOR ACOUSTICALLY LINING INSTALLATION. APPLY 2" TK. WEATHERPROOF INSULATION ON OUTDOOR DUCTS; 1" TK. THERMAL INSULATION ON INDOOR DUCTS.

DRAWING NOTES

1. *EXISTING PERIMETER HYDRONIC HEATING RADIATORS TO REMAIN. TYPICAL.*
2. *REPLACE EXISTING PNEUMATIC ACTUATORS WITH ELECTRONICALLY CONTROLLED ACTUATOR AND CONNECT TO NEW BAS. EXISTING CONTROL VALVES TO REMAIN.TYPICAL*
3. *REPLACE EXISTING PNEUMATIC T'STAT WITH NEW HEATING T'STAT C/W TEMPERATURE SENSOR FOR PERIMETER RADIATORS. T'STAT TO MODULATE RADIATOR CONTROL VALVES. T'STAT C/W MANUAL OVERRIDE FUNCTION, LOCKABLE TRANSPARENT GUARD AND CONNECTED TO NEW BAS. TYPICAL.*
4. *EXISTING HEAT PUMP CEILING UNIT TO REMAIN.*
   Open size penetrating ceiling membrane shall be limited to 576 sq.in. with a max. dimension of 24 in. and be fitted with damper per ULC Design No. G243
5. *NEW ENERGY RECOVERY UNIT (ERV-1) ON ROOF AS SPECIFIED.*
6. *NEW ENERGY RECOVERY UNIT (ERV-1) ON ROOF AS SPECIFIED.*
7. *NEW SUPPLY AIR DUCT IN BULKHEAD DUCT. PROVIDE PROPER DUCT SUPPORT FROM CEILING STRUCTURE. REFER TO ARCHITECTURAL DRAWINGS FOR DUCT ENCLOSURE. TYPICAL FOR CLASSROOMS*
8. REUSE EXISTING WALL OPENING FOR NEW SUPPLY AIR DUCT. PROVIDE FIRE DAMPER. REPAIR WALL AFTER NEW INSTALLATION. TYPICAL
9. *NEW EXHAUST AIR GRILLE AND DUCT ABOVE SUSPENDED CEILING. TYPICAL FOR CLASSROOMS.* **With damper per ULC Design No. G243**
10. PROVIDE NEW 16"X8" WALL OPENING FOR NEW EXHAUST AIR DUCT. PROVIDE FIRE DAMPER. REPAIR WALL AFTER NEW INSTALLATION. *TYPICAL* **And Smoke damper.**



2 M-6 SECOND FLOOR - NEW LAYOUT
SCALE 1:100

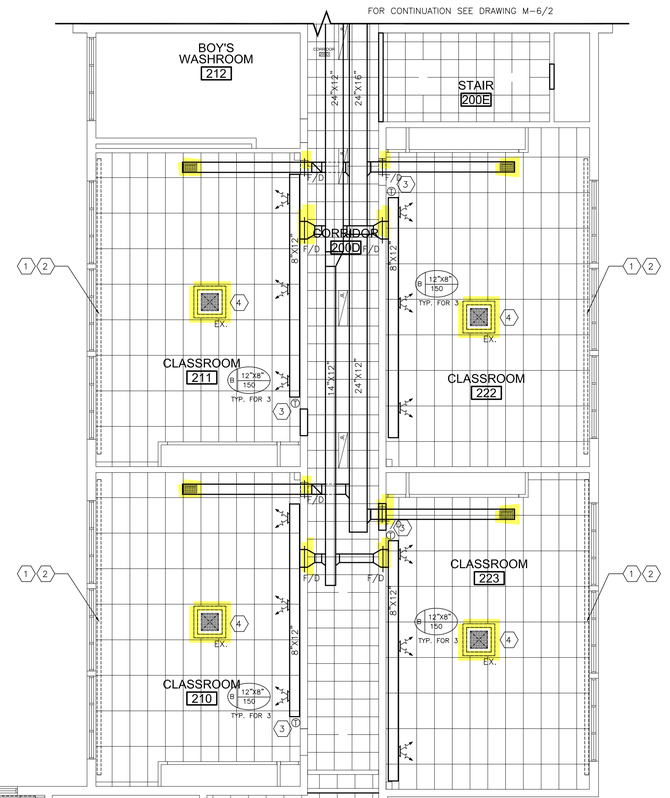
FIRE AND SMOKE DAMPERS

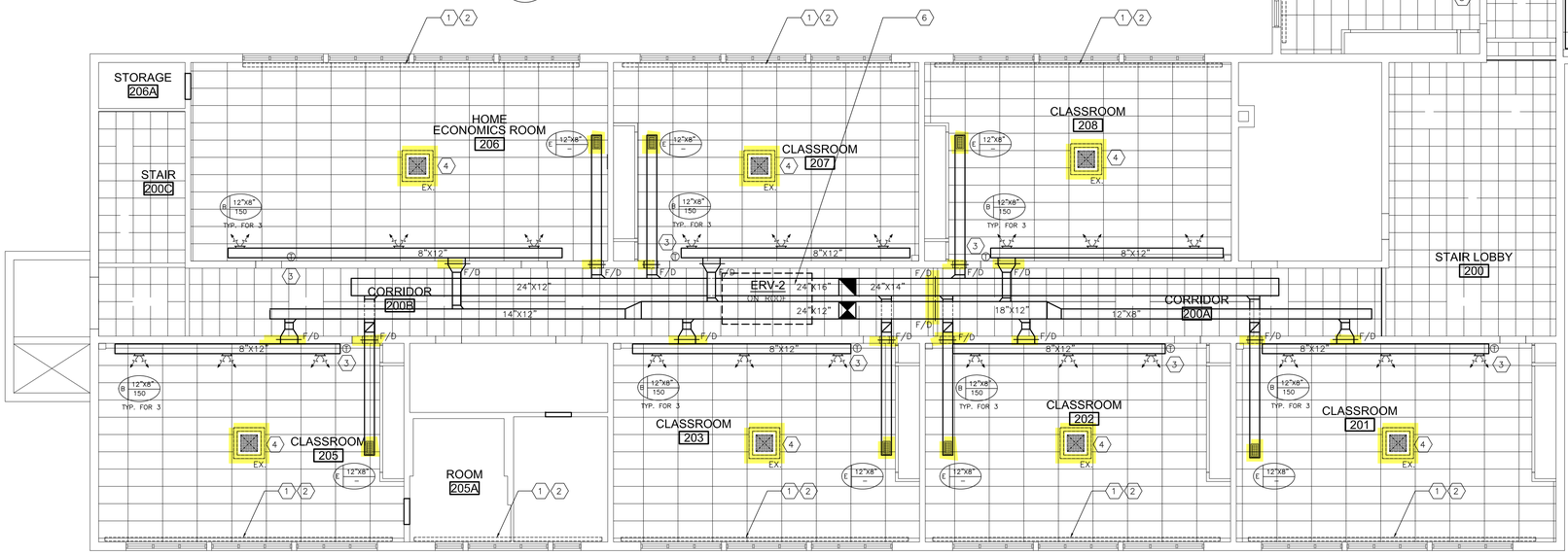
PROVIDE COMBINATION FIRE AND SMOKE DAMPERS ON ALL SECOND FLOOR DUCTS PENETRATING CORRIDOR FIRE SEPARATIONS.

Combination fire and smoke dampers shall be installed in conformance with Div. B, 3.1.8.9A. and NFPA 80-2013, 19.2.

NEW BUILDING AUTOMATION SYSTEM (BAS)

SEE BAS NOTES ON DRAWING M-5





1 M-6 SECOND FLOOR - NEW LAYOUT
SCALE 1:100

Halton District School Board

RECEIVED
JUN 27 2022
CITY OF BURLINGTON
BUILDING DEPARTMENT

ALL CONSTRUCTION TO MEET ONTARIO BUILDING CODE REQUIREMENTS

NO.	ISSUANCES & REVISIONS	DATE
4	FOR PERMIT REVISIONS	JUNE 24, 2022
3	FOR RE-PERMIT / RE-TENDER	MAR 15, 2022
2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	MAR 26, 2021

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BUILDING SERVICES ENGINEERS
4-1290 EGLINTON AVE. EAST
MISSISSAUGA ONT. L4W 1K8
T. (905) 625-5322, www.pnfeng.com

LICENSED PROFESSIONAL ENGINEER
JUNE 24 / 22
Y.D.NEDEV
100138469
PROVINCE OF ONTARIO

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THESE DRAWINGS ARE NOT TO BE SCALED.

Project Address : 1522 MOUNTAIN GROVE AVE. BURLINGTON, ONTARIO, L7R 2H2

Project Description : ROLLING MEADOWS PUBLIC SCHOOL RENOVATIONS

Drawing Description : SECOND FLOOR CEILING NEW LAYOUT

Designed:	N.P.
Checked:	Y.N.
Scale:	AS SHOWN
Date:	JAN 2021

PNF Project No. 20041

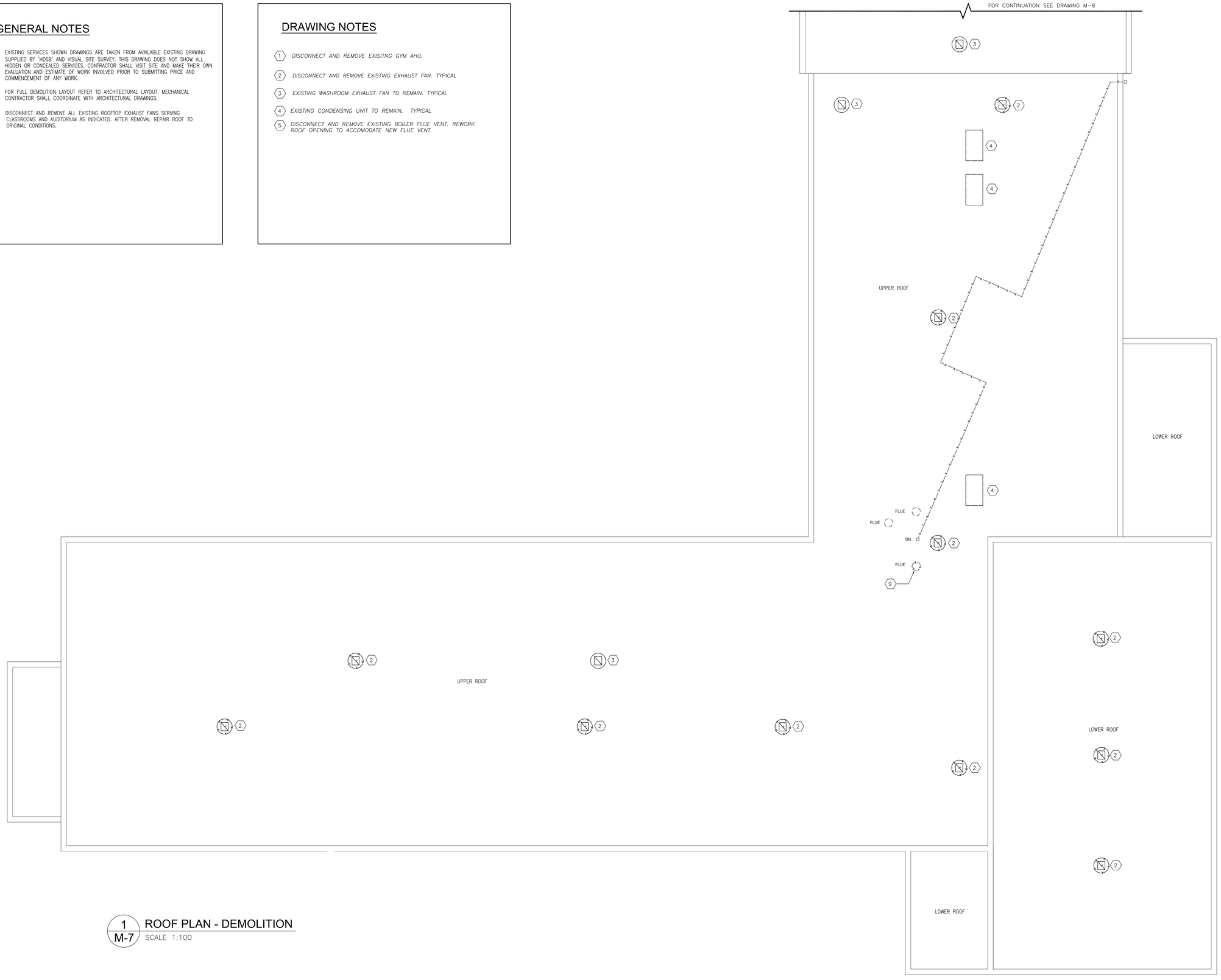
Dwg.No. **M-6**

GENERAL NOTES

1. EXISTING SERVICES SHOWN DRAWINGS ARE TAKEN FROM AVAILABLE EXISTING DRAWING SUPPLIED BY 'HDSB' AND VISUAL SITE SURVEY. THIS DRAWING DOES NOT SHOW ALL HIDDEN OR CONCEALED SERVICES. CONTRACTOR SHALL VISIT SITE AND MAKE THEIR OWN EVALUATION AND ESTIMATE OF WORK INVOLVED PRIOR TO SUBMITTING PRICE AND COMMENCEMENT OF ANY WORK.
2. FOR FULL DEMOLITION LAYOUT REFER TO ARCHITECTURAL LAYOUT. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL DRAWINGS.
3. DISCONNECT AND REMOVE ALL EXISTING ROOFTOP EXHAUST FANS SERVING CLASSROOMS AND AUDITORIUM AS INDICATED. AFTER REMOVAL REPAIR ROOF TO ORIGINAL CONDITIONS.

DRAWING NOTES

1. *DISCONNECT AND REMOVE EXISITNG GYM AHU.*
2. *DISCONNECT AND REMOVE EXISTING EXHAUST FAN. TYPICAL*
3. *EXISTING WASHROOM EXHAUST FAN TO REMAIN. TYPICAL*
4. *EXISTING CONDENSING UNIT TO REMAIN. TYPICAL*
5. *DISCONNECT AND REMOVE EXISTING BOILER FLUE VENT. REWORK ROOF OPENING TO ACCOMODATE NEW FLUE VENT.*



1 / M-7 ROOF PLAN - DEMOLITION
SCALE 1:100

Halton District School Board

RECEIVED
MAR 29 2022
CITY OF BURLINGTON
BUILDING DEPARTMENT

ALL CONSTRUCTION TO MEET ONTARIO BUILDING CODE REQUIREMENTS

NO.	ISSUANCES & REVISIONS	DATE
3	FOR RE-PERMIT / RE-TENDER	MAR 15, 2022
2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021

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BUILDING SERVICES ENGINEERS
4-1290 EGLINTON AVE. EAST
MISSISSAUGA ONT. L4W 1K8
T. (905) 625-5322, www.pnfeng.com

LICENSED PROFESSIONAL ENGINEER
MAR 15 / 22
Y.D.NEDEV
100138469
PROVINCE OF ONTARIO

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THESE DRAWINGS ARE NOT TO BE SCALED.

Project Address : 1522 MOUNTAIN GROVE AVE. BURLINGTON, ONTARIO, L7R 2H2

Project Description : ROLLING MEADOWS PUBLIC SCHOOL RENOVATIONS

Drawing Description : ROOF PLAN DEMOLITION

Designed:	N.P.
Checked:	Y.N.
Scale:	AS SHOWN
Date:	JAN 2021

PNF Project No. 20041

Dwg.No. **M-7**

GENERAL NOTES

1. EXISTING SERVICES SHOWN DRAWINGS ARE TAKEN FROM AVAILABLE EXISTING DRAWING SUPPLIED BY 'HDSB' AND VISUAL SITE SURVEY. THIS DRAWING DOES NOT SHOW ALL HIDDEN OR CONCEALED SERVICES. CONTRACTOR SHALL VISIT SITE AND MAKE THEIR OWN EVALUATION AND ESTIMATE OF WORK INVOLVED PRIOR TO SUBMITTING PRICE AND COMMENCEMENT OF ANY WORK.
2. FOR FULL DEMOLITION LAYOUT REFER TO ARCHITECTURAL LAYOUT. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL DRAWINGS.
3. DISCONNECT AND REMOVE ALL EXISTING ROOFTOP EXHAUST FANS SERVING CLASSROOMS AND AUDITORIUM AS INDICATED. AFTER REMOVAL REPAIR ROOF TO ORIGINAL CONDITIONS.

DRAWING NOTES

1. *DISCONNECT AND REMOVE EXISITNG GYM AHU.*
2. *DISCONNECT AND REMOVE EXISTING EXHAUST FAN SERVING CLASSROOMS. CAP OFF EXISTING ROOF OPENING. REPAIR ROOF. TYPICAL*
3. *EXISTING WASHROOM EXHAUST FAN TO REMAIN. TYPICAL*
4. *EXISTING CONDENSING UNIT TO REMAIN. TYPICAL*
5. *DISCONNECT AND REMOVE EXISTING BOILER FLUE VENT. REWORK ROOF OPENING TO ACCOMODATE NEW FLUE VENT.*

1 / M-8 ROOF PLAN - DEMOLITION
SCALE 1:100

Halton District School Board

RECEIVED
MAR 29 2022
CITY OF BURLINGTON
BUILDING DEPARTMENT

ALL CONSTRUCTION TO MEET ONTARIO BUILDING CODE REQUIREMENTS

NO.	ISSUANCES & REVISIONS	DATE
3	FOR RE-PERMIT / RE-TENDER	MAR 15, 2022
2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021

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BUILDING SERVICES ENGINEERS
4-1290 EGLINTON AVE. EAST
MISSISSAUGA ONT. L4W 1K8
T. (905) 625-5322, www.pnfeng.com

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Project Address : 1522 MOUNTAIN GROVE AVE. BURLINGTON, ONTARIO, L7R 2H2

Project Description : ROLLING MEADOWS PUBLIC SCHOOL RENOVATIONS

Drawing Description : ROOF PLAN DEMOLITION

Designed:	N.P.
Checked:	Y.N.
Scale:	AS SHOWN
Date:	JAN 2021

PNF Project No. 20041

Dwg.No. **M-8**

GENERAL NOTES

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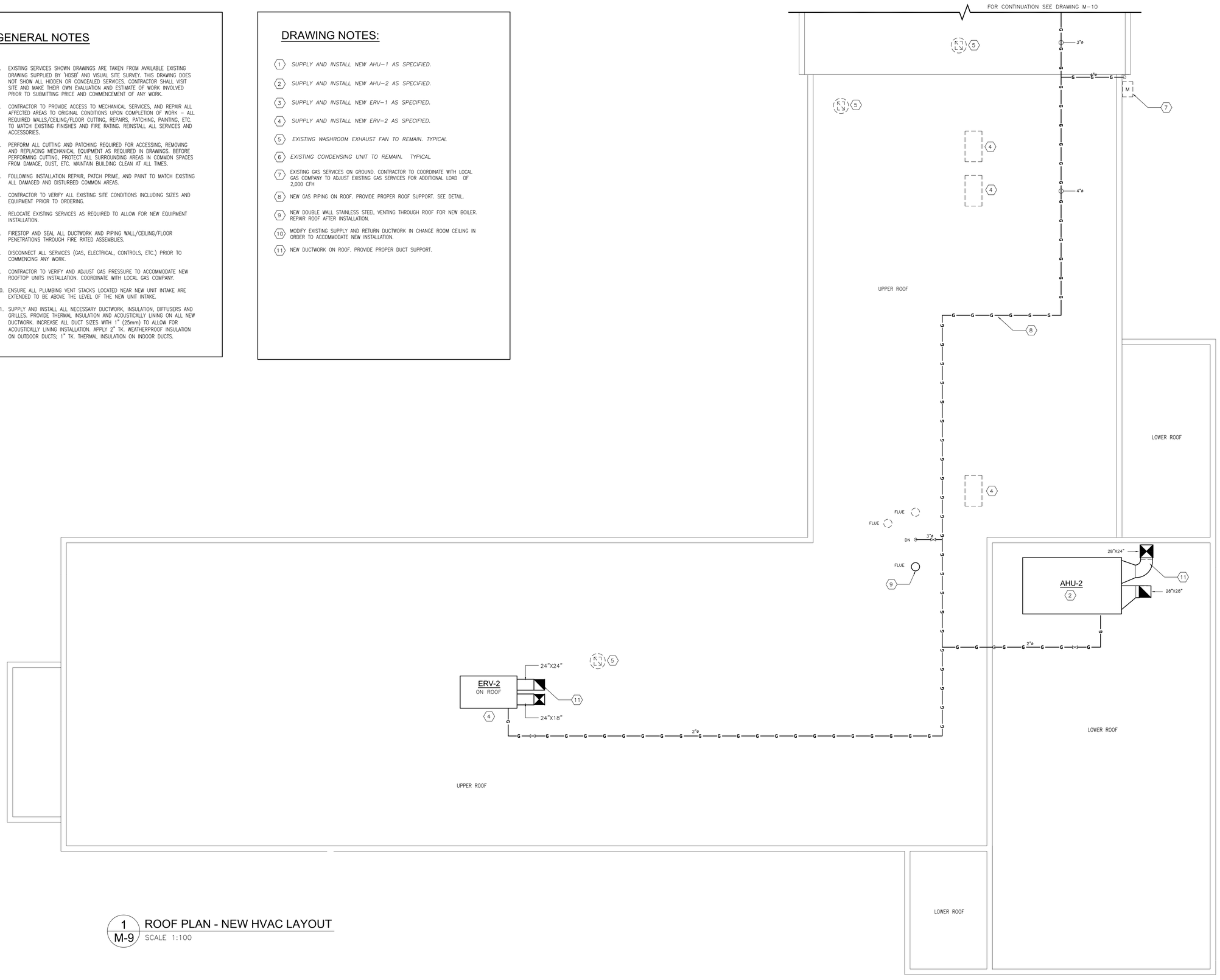
3. PERFORM ALL CUTTING AND PATCHING REQUIRED FOR ACCESSING, REMOVING AND REPLACING MECHANICAL EQUIPMENT AS REQUIRED IN DRAWINGS. BEFORE PERFORMING CUTTING, PROTECT ALL SURROUNDING AREAS IN COMMON SPACES FROM DAMAGE, DUST, ETC. MAINTAIN BUILDING CLEAN AT ALL TIMES.
4. FOLLOWING INSTALLATION REPAIR, PATCH PRIME, AND PAINT TO MATCH EXISTING ALL DAMAGED AND DISTURBED COMMON AREAS.
5. CONTRACTOR TO VERIFY ALL EXISTING SITE CONDITIONS INCLUDING SIZES AND EQUIPMENT PRIOR TO ORDERING.
6. RELOCATE EXISTING SERVICES AS REQUIRED TO ALLOW FOR NEW EQUIPMENT INSTALLATION.
7. FIRESTOP AND SEAL ALL DUCTWORK AND PIPING WALL/CEILING/FLOOR PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
8. DISCONNECT ALL SERVICES (GAS, ELECTRICAL, CONTROLS, ETC.) PRIOR TO COMMENCING ANY WORK.
9. CONTRACTOR TO VERIFY AND ADJUST GAS PRESSURE TO ACCOMMODATE NEW ROOFTOP UNITS INSTALLATION. COORDINATE WITH LOCAL GAS COMPANY.
10. ENSURE ALL PLUMBING VENT STACKS LOCATED NEAR NEW UNIT INTAKE ARE EXTENDED TO BE ABOVE THE LEVEL OF THE NEW UNIT INTAKE.
11. SUPPLY AND INSTALL ALL NECESSARY DUCTWORK, INSULATION, DIFFUSERS AND GRILLES. PROVIDE THERMAL INSULATION AND ACOUSTICALLY LINING ON ALL NEW DUCTWORK. INCREASE ALL DUCT SIZES WITH 1" (25mm) TO ALLOW FOR ACOUSTICALLY LINING INSTALLATION. APPLY 2" TK. WEATHERPROOF INSULATION ON OUTDOOR DUCTS; 1" TK. THERMAL INSULATION ON INDOOR DUCTS.

DRAWING NOTES:

1. *SUPPLY AND INSTALL NEW AHU–1 AS SPECIFIED.*
2. *SUPPLY AND INSTALL NEW AHU–2 AS SPECIFIED.*
3. *SUPPLY AND INSTALL NEW ERV–1 AS SPECIFIED.*
4. *SUPPLY AND INSTALL NEW ERV–2 AS SPECIFIED.*
5. *EXISTING WASHROOM EXHAUST FAN TO REMAIN. TYPICAL*
6. *EXISTING CONDENSING UNIT TO REMAIN. TYPICAL*
7. EXISTING GAS SERVICES ON GROUND. CONTRACTOR TO COORDINATE WITH LOCAL GAS COMPANY TO ADJUST EXISTING GAS SERVICES FOR ADDITIONAL LOAD OF 2,000 CFH
8. NEW GAS PIPING ON ROOF. PROVIDE PROPER ROOF SUPPORT. SEE DETAIL.
9. NEW DOUBLE WALL STAINLESS STEEL VENTING THROUGH ROOF FOR NEW BOILER. REPAIR ROOF AFTER INSTALLATION.
10. MODIFY EXISTING SUPPLY AND RETURN DUCTWORK IN CHANGE ROOM CEILING IN ORDER TO ACCOMMODATE NEW INSTALLATION.
11. NEW DUCTWORK ON ROOF. PROVIDE PROPER DUCT SUPPORT.



1 / M-9 ROOF PLAN - NEW HVAC LAYOUT
SCALE 1:100

Halton District School Board

RECEIVED
MAR 29 2022
CITY OF BURLINGTON
BUILDING DEPARTMENT

ALL CONSTRUCTION TO MEET ONTARIO BUILDING CODE REQUIREMENTS

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2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021

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T. (905) 625-5322, www.pnfeng.com

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THESE DRAWINGS ARE NOT TO BE SCALED.

Project Address : 1522 MOUNTAIN GROVE AVE. BURLINGTON, ONTARIO, L7R 2H2

Project Description : ROLLING MEADOWS PUBLIC SCHOOL RENOVATIONS

Drawing Description : ROOF PLAN NEW HVAC LAYOUT

Designed:	N.P.
Checked:	Y.N.
Scale:	AS SHOWN
Date:	JAN 2021

PNF Project No. 20041

Dwg.No. **M-9**

GENERAL NOTES

1. EXISTING SERVICES SHOWN DRAWINGS ARE TAKEN FROM AVAILABLE EXISTING DRAWING SUPPLIED BY 'HDSB' AND VISUAL SITE SURVEY. THIS DRAWING DOES NOT SHOW ALL HIDDEN OR CONCEALED SERVICES. CONTRACTOR SHALL VISIT SITE AND MAKE THEIR OWN EVALUATION AND ESTIMATE OF WORK INVOLVED PRIOR TO SUBMITTING PRICE AND COMMENCEMENT OF ANY WORK.
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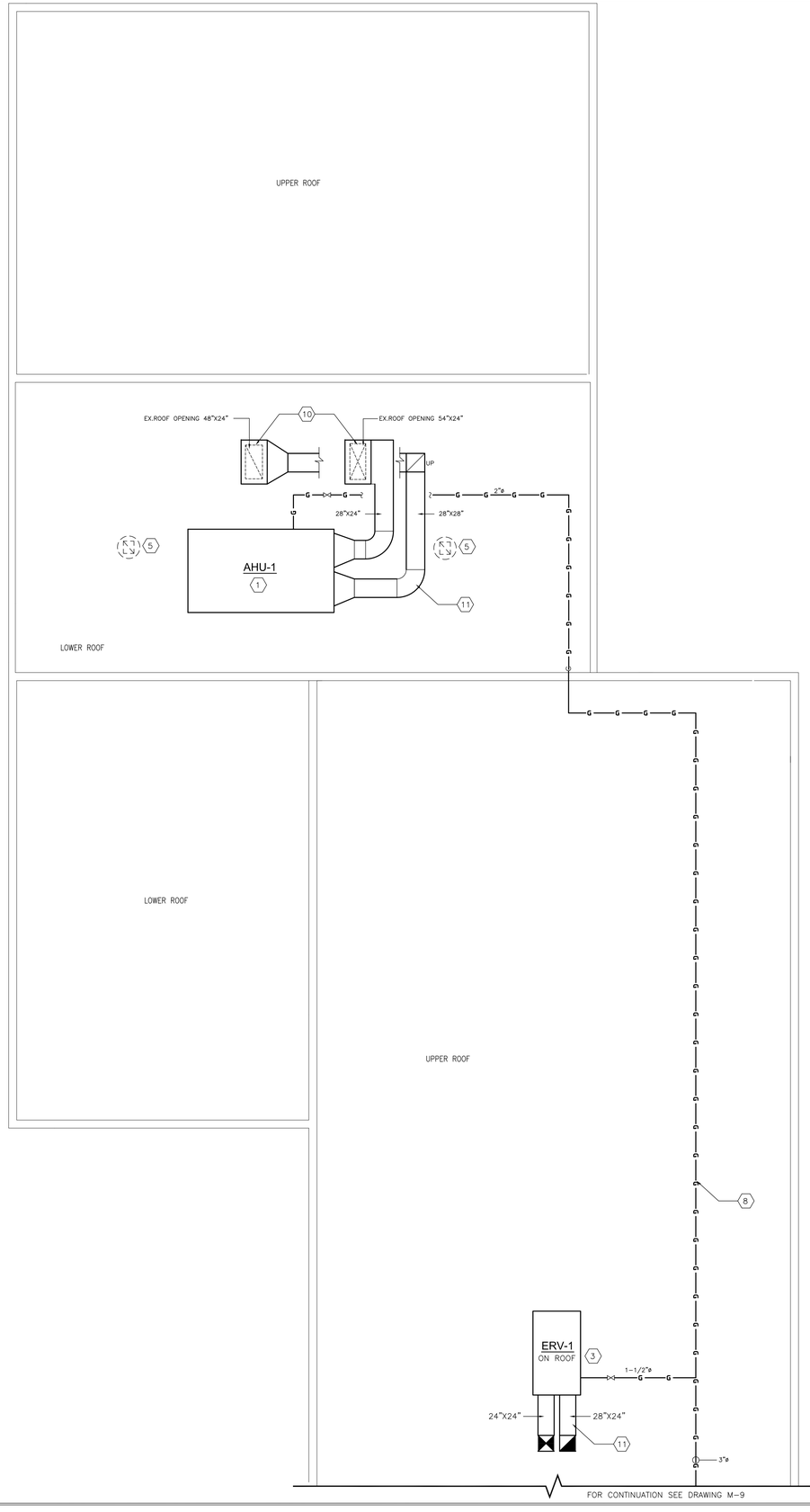
3. PERFORM ALL CUTTING AND PATCHING REQUIRED FOR ACCESSING, REMOVING AND REPLACING MECHANICAL EQUIPMENT AS REQUIRED IN DRAWINGS. BEFORE PERFORMING CUTTING, PROTECT ALL SURROUNDING AREAS IN COMMON SPACES FROM DAMAGE, DUST, ETC. MAINTAIN BUILDING CLEAN AT ALL TIMES.
4. FOLLOWING INSTALLATION REPAIR, PATCH PRIME, AND PAINT TO MATCH EXISTING ALL DAMAGED AND DISTURBED COMMON AREAS.
5. CONTRACTOR TO VERIFY ALL EXISTING SITE CONDITIONS INCLUDING SIZES AND EQUIPMENT PRIOR TO ORDERING.
6. RELOCATE EXISTING SERVICES AS REQUIRED TO ALLOW FOR NEW EQUIPMENT INSTALLATION.
7. FIRESTOP AND SEAL ALL DUCTWORK AND PIPING WALL/CEILING/FLOOR PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
8. DISCONNECT ALL SERVICES (GAS, ELECTRICAL, CONTROLS, ETC.) PRIOR TO COMMENCING ANY WORK.
9. CONTRACTOR TO VERIFY AND ADJUST GAS PRESSURE TO ACCOMMODATE NEW ROOFTOP UNITS INSTALLATION. COORDINATE WITH LOCAL GAS COMPANY.
10. ENSURE ALL PLUMBING VENT STACKS LOCATED NEAR NEW UNIT INTAKE ARE EXTENDED TO BE ABOVE THE LEVEL OF THE NEW UNIT INTAKE.
11. SUPPLY AND INSTALL ALL NECESSARY DUCTWORK, INSULATION, DIFFUSERS AND GRILLES. PROVIDE THERMAL INSULATION AND ACOUSTICALLY LINING ON ALL NEW DUCTWORK. INCREASE ALL DUCT SIZES WITH 1" (25mm) TO ALLOW FOR ACOUSTICALLY LINING INSTALLATION. APPLY 2" TK. WEATHERPROOF INSULATION ON OUTDOOR DUCTS; 1" TK. THERMAL INSULATION ON INDOOR DUCTS.

DRAWING NOTES

1. *SUPPLY AND INSTALL NEW AHU–1 AS SPECIFIED.*
2. *SUPPLY AND INSTALL NEW AHU–2 AS SPECIFIED.*
3. *SUPPLY AND INSTALL NEW ERV–1 AS SPECIFIED.*
4. *SUPPLY AND INSTALL NEW ERV–2 AS SPECIFIED.*
5. *EXISTING WASHROOM EXHAUST FAN TO REMAIN. TYPICAL*
6. *EXISTING CONDENSING UNIT TO REMAIN. TYPICAL*
7. EXISTING GAS SERVICES ON GROUND. CONTRACTOR TO COORDINATE WITH LOCAL GAS COMPANY TO ADJUST EXISTING GAS SERVICES FOR ADDITIONAL LOAD OF 2,000 CFH
8. NEW GAS PIPING ON ROOF. PROVIDE PROPER ROOF SUPPORT. SEE DETAIL.
9. NEW DOUBLE WALL STAINLESS STEEL VENTING THROUGH ROOF FOR NEW BOILER. REPAIR ROOF AFTER INSTALLATION.
10. MODIFY EXISTING SUPPLY AND RETURN DUCTWORK IN CHANGE ROOM CEILING IN ORDER TO ACCOMMODATE NEW INSTALLATION.
11. NEW DUCTWORK ON ROOF. PROVIDE PROPER DUCT SUPPORT.



1 / M-10 ROOF PLAN - NEW HVAC LAYOUT
SCALE 1:100

Halton District School Board

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CITY OF BURLINGTON
BUILDING DEPARTMENT

ALL CONSTRUCTION TO MEET ONTARIO BUILDING CODE REQUIREMENTS

NO.	ISSUANCES & REVISIONS	DATE
3	FOR RE-PERMIT / RE-TENDER	MAR 15, 2022
2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021

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MISSISSAUGA ONT. L4W 1K8
T. (905) 625-5322, www.pnfeng.com

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THESE DRAWINGS ARE NOT TO BE SCALED.

Project Address : 1522 MOUNTAIN GROVE AVE. BURLINGTON, ONTARIO, L7R 2H2

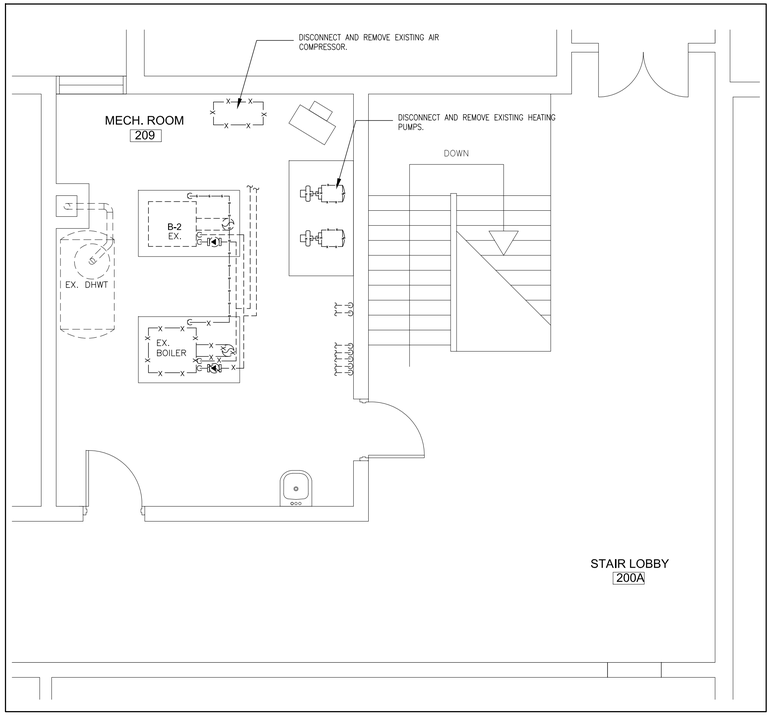
Project Description : ROLLING MEADOWS PUBLIC SCHOOL RENOVATIONS

Drawing Description : ROOF PLAN NEW HVAC LAYOUT

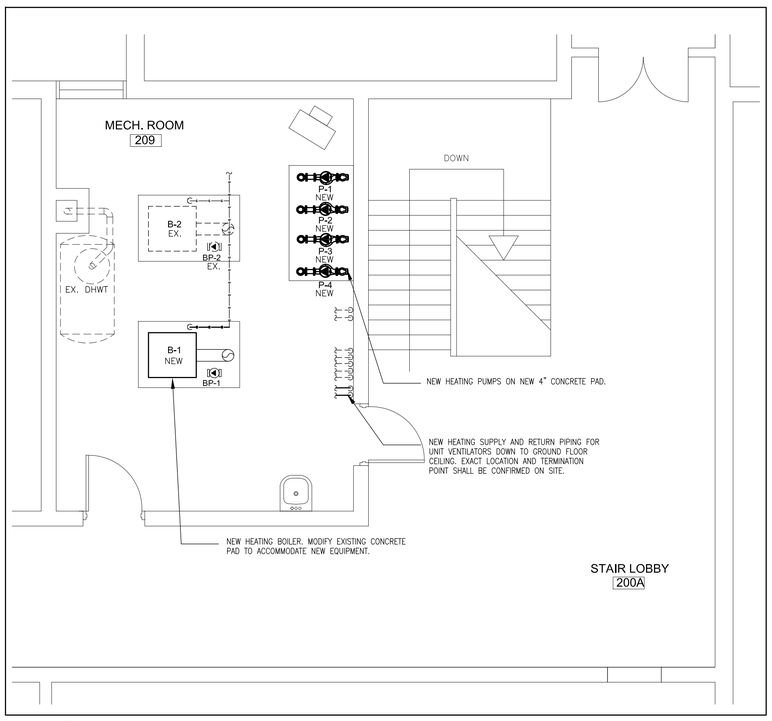
Designed:	N.P.
Checked:	Y.N.
Scale:	AS SHOWN
Date:	JAN 2021

PNF Project No. 20041

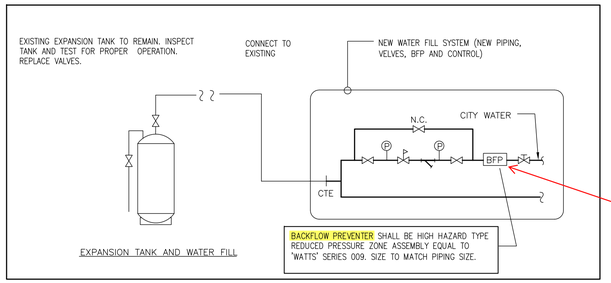
Dwg.No. **M-10**

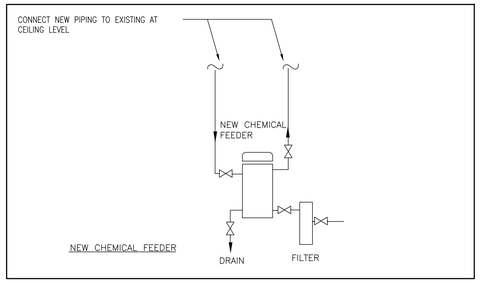


1 M-11 BOILER ROOM - DEMOLITION
SCALE 1:50



2 M-11 BOILER ROOM - MODIFICATION
SCALE 1:50





NOTE:
PROVIDE AUTOMATIC AIR VENTS ON HIGHEST POINTS OF PIPING IN BOILER ROOM.

Backflow Prevention Devices shall be selected, installed and tested in conformance with CAN/CSA-B64.10-2017, "Manual for the Selection and Installation of Backflow Prevention Devices".

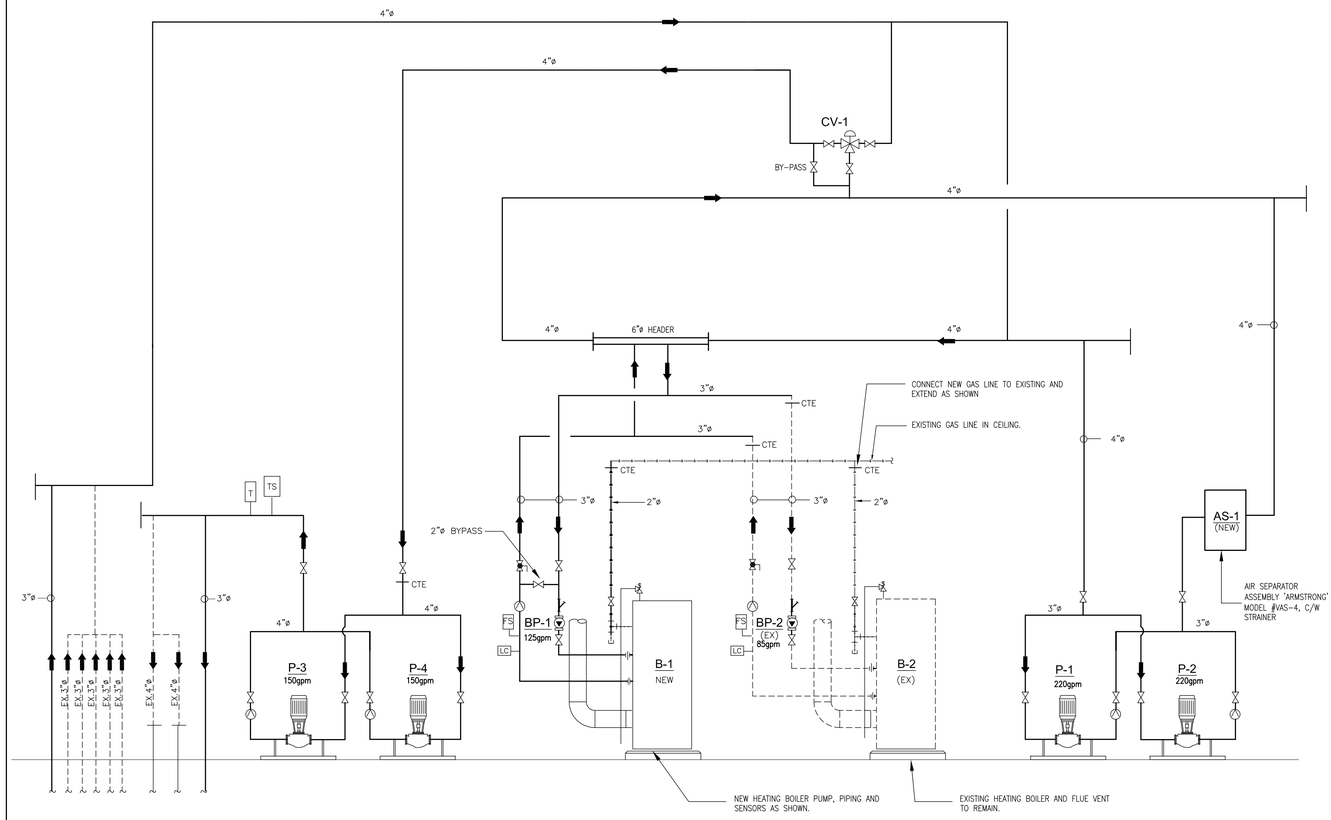
CSA B64.10-17, 6.1.2. Table Clearances, mm

	Gate/Stop Height Above Floor		Minimum Clearance			
Type of Device	Min.	Max.*	Between the Bottom of the Relief Valve and Floor	Above the Device	In Front of Device †	Behind Device †
DCVA	750	1500	-	300	750	20
PVB	-	1500	-	300	750	20
RP	750	1500	300	300	750	20
SCVAF	750	1500	-	300	750	20
SRPVB	-	1500	-	300	750	20

*Installations with a greater connxing height may be used if provided with a fixed platform.
† To the nearest wall or obstruction

Pipe Materials and Pipe Fittings shall conform to Div. B, 7.2. of the OBC.

Combustible piping, tubing and associated adhesives shall have a maximum flame-spread rating of not more than 25 except when concealed in a wall or concrete floor slab as per Div. B, 3.1.5.16.(1).



2 M-11 PIPING SCHEMATIC
N.T.S.

Halton District School Board

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THESE DRAWINGS ARE NOT TO BE SCALED.

Project Address : 1522 MOUNTAIN GROVE AVE. BURLINGTON, ONTARIO, L7R 2H2

Project Description : ROLLING MEADOWS PUBLIC SCHOOL RENOVATIONS

Drawing Description : BOILER ROOM UPGRADE

Designed:	N.P.
Checked:	Y.N.
Scale:	AS SHOWN
Date:	JAN 2021

PNF Project No. 20041

Dwg.No. **M-11**

ROOFTOP EQUIPMENT SCHEDULE (FOR REFERENCE ONLY; PRE-PURCHASED EQUIPMENT)

UNIT No.	MANUFACTURER	MODEL No.	SUPPLY AIR			RETURN/EXHAUST AIR			HEATING CAPACITY		COOLING CAPACITY					HEAT RECOVERY (HEAT PIPE)		ELECTRICAL			APPROXIMATELY OPERATING WEIGHT (lbs)	REMARKS
			FLOW (CFM)	ESP (in. W.C.)	FAN (HP)	FLOW (CFM)	ESP (in. W.C.)	FAN (HP)	INPUT (MBH)	OUTPUT (MBH)	EAT DB (°F)	EAT WB (°F)	TOTAL (MBH)	SENS. (MBH)	EER	SUMMER EFF.	WINTER EFF.	MCA	MOP	(V/Ph/Hz)		
AHU-1	ENGINEERED AIR	FWE285/DJS60	6,000	0.5	7.5HP	6,000	0.5	5HP	600	486	81	70	310	170	11.6	58.6%	61.5%	61.4	70	575/3/60	10,000	
AHU-2	ENGINEERED AIR	FWE285/DJS60	6,000	0.5	7.5HP	6,000	0.5	5HP	600	486	81	70	310	170	11.6	58.6%	61.5%	61.4	70	575/3/60	10,000	
ERV-1	ENGINEERED AIR	FWE103/DJS60	4,500	0.5	5HP	4,500	0.5	3HP	500	405	81	70	133	75	11.6	59.0%	62.1%	30.0	35	575/3/60	8,800	
ERV-2	ENGINEERED AIR	FWE73/DJS40	3,200	0.5	5HP	3,200	0.5	2HP	375	304	81	70	99	56	12.9	59.8%	63.0%	26.4	30	575/3/60	8,100	

NOTES:
1. UNITS SHALL BE SUPPLIED WITH VARIABLE FREQUENCY DRIVES (VFD), 120V POWERED GFI SERVICE RECEPTACLE, ECONOMIZER, REMOTE CONTROL PANEL C/W SYSTEM ON/OFF, HEAT ON/OFF, FAN ON LIGHT, BURNER ON LIGHT, S/A TEMPERATURE SELECTOR, CO ALARM ON LIGHT; AND DISCHARGE AIR TEMPERATURE SENSOR.
2. CONNECT NEW UNITS TO EXISTING FIRE ALARM SYSTEM. PERFORM TESTING AND VERIFICATION
3. NEW UNIT SHALL BE CONNECTED TO BUILDING AUTOMATION SYSTEM (BAS)
4. UNITS SHALL BE INSTALLED ON ROOF SLEEPERS. SEE STRUCTURAL DRAWINGS FOR DETAILS.

UNIT VENTILATORS SCHEDULE (FOR REFERENCE ONLY; PRE-PURCHASED EQUIPMENT)

EQUIPMENT TAG	AREA SERVED	MANUFACTURER AND MODEL	EQUIPMENT DESCRIPTION	AIR FLOW (CFM)	MINIMUM OUTSIDE AIR (CFM)	ESP (IN.WC)	HOT WATER COIL						PACKAGED A/C					MOTOR (HP)	ELECTRICAL	MCA (A)	MOP (A)	APPROXIMATE WEIGHT (LBS)	CONTROLS	REMARKS
							ROWS	FLOW (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	TOTAL (MBH)	EAT DB (°F)	EAT WB (°F)	TOTAL (MBH)	SENS. (MBH)	EER							
UV-1 TO UV-8	CLASSROOMS	"SOPHOMORE" HPAIQ	VERTICAL SELF CONTAINED A/C UNIT VENTILATOR	800	400	0.25	2	5.0	28.8	88.6	180	160	55.7	80	67	24.0	16.3	11.1	1/2	208/3/60	16.7	20	900	BAS	UNIT SHALL BE C/W ECONOMIZER, BACK PLENUM, 24"H INSULATED TOP DISCHARGE PLENUM (OPENING FOR DUCTWORK TO BE CUT ON SITE BY HVAC CONTRACTOR), AND WALL LOUVER.
UV-9 UV-10	LIBRARY	"SOPHOMORE" HPAIQ	VERTICAL SELF CONTAINED A/C UNIT VENTILATOR	1,500	450	0.25	2	6.0	49	89.3	180	160	67.4	80	67	45.0	30.6	10.2	3/4	208/3/60	28	40	1200	BAS	

NOTES:
1. *UNITS SHALL BE CONNECTED AND CONTROLLED BY NEW BAS. ALL CONTROL WIRING AND PROGRAMMING BY CONTROL CONTRACTOR AS PER SEQUENCE OF OPERATION OUTLINE IN WRITTEN SPECIFICATION.*
2. *CONTROL CONTRACTOR SHALL SUPPLY: UNIT CONTROLLER, ROOM INTERFACE INCLUDING ROOM TEMPERATURE SENSOR, CO2 MONITORING SENSOR, MIXED AIR TEMPERATURE SENSOR, DISCHARGED AIR TEMPERATURE SENSOR.*

BOILER SCHEDULE

BOILER TAG	MANUFACTURER AND MODEL NO.	HEATING INPUT (MBH)	HEATING OUTPUT (MBH)	BURNER CONTROL	POWER V/Ph/Hz	REMARKS
B-1 (NEW)	P-K "MODU-FIRE" N-1500	1,500	1,275	MODULATING WITH TURNDOWN RATIO 5:1	120V/60 10A	C/W DOUBLE WALL STAINLESS STEEL VENT KIT (AL-29C), CIRCULATING PUMP, REFER TO PUMP SCHEDULE FOR DETAILS, DRAIN TO NEAREST FLOOR DRAIN. BOILER SHALL BE CONNECTED AND CONTROLLED BY NEW BAS.
B-2 (EXISTING)	P-K "THERMIFIC" N-1000	1,000	850	ON/OFF		VERIFY PROPER OPERATION, REPLACE EXISTING PRV, PROVIDE STARTUP AND COMMISSIONING. DISCONNECT EXISTING BAS CONTROL AND PROVIDE CONNECTION TO NEW BAS.

NOTE: BOILER SHALL BE INSTALLED AS PER MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS

NEW PUMP SCHEDULE

PUMP TAG	SERVICE	MANUFACTURER AND MODEL NO.	CAP. USGPM	HEAD FT.	MOTOR			REMARKS
					HP	RPM	V/Ph/Hz (1)	
P-1	PRIMARY LOOP PUMP	ARMSTRONG SERIES 4380	220	20	2	1800	230/1/60	VERTICAL INLINE PUMP
P-2 (STAND-BY)	PRIMARY LOOP PUMP	ARMSTRONG SERIES 4380	220	20	2	1800	230/1/60	VERTICAL INLINE PUMP
P-3	HEATING PUMP	ARMSTRONG SERIES 4380	150	70	5	3400	575/3/60	VERTICAL INLINE PUMP C/W VFD, SENSORLESS
P-4 (STAND-BY)	HEATING PUMP	ARMSTRONG SERIES 4300	150	70	5	3400	575/3/60	VERTICAL INLINE PUMP C/W VFD, SENSORLESS
BP-1	BOILER PUMP		125				230/1/60	PUMP SELECTION BY BOILER MANUFACTURER
BP-2 (EX)	BOILER PUMP		85				230/1/60	EXISTING TO REMAIN

DIFFUSER, GRILLE AND REGISTER SCHEDULE

TYPE — AIR VOLUME (CFM) / SIZE (INCHES)

TYPE	MODEL # "E.H. PRICE"	DESCRIPTION OR APPLICATION	VOLUME CONTROL DAMPER	REMARKS
"A"	SCD SERIES	SQUIRE CONE DIFFUSER	YES	24"X24" FIRE RATED STEEL DIFFUSER C/W FUSIBLE LINK AND ADJUSTABLE VOLUME DAMPER
"B"	SERIES 520D	SUPPLY AIR	YES	STEEL DOUBLE DEFLECTION C/W OPPOSED BLADE VOLUME DAMPER
"C"	SERIES 520D	SUPPLY AIR	YES	STEEL DOUBLE DEFLECTION C/W OPPOSED BLADE VOLUME DAMPER AND SPIRAL DUCT FRAME
"D"	SERIES 920	SUPPLY AIR GYM	YES	HEAVY DUTY GRILLE, STEEL DOUBLE DEFLECTION C/W OPPOSED BLADE VOLUME DAMPER
"D1"	SERIES 920	SUPPLY AIR AUDITORIUM	YES	HEAVY DUTY GRILLE, STEEL DOUBLE DEFLECTION C/W OPPOSED BLADE VOLUME DAMPER AND SPIRAL DUCT FRAME
"E"	80	RETURN AIR	–	EGGRATE FACE RETURN
"E1"	SERIES 90	RETURN AIR GYM	–	HEAVY DUTY GRILLE, STEEL DOUBLE DEFLECTION
"TR"	SERIES STG	TRANSFER AIR	–	HEAVY DUTY TRANSFER GRILLE, STEEL

Min. 25 gauge galvanized steel damper with 1/16 in. thick ceramic fiber paper and min.1 in. overlap duct outlet in conformance with attached ULC Design No. G243, Item 8.

PLUMBING LEGEND

SYMBOL	DESCRIPTION
	SHUT OFF VALVE
CBV	CIRCUIT BALANCING VALVE
	DRAIN VALVE
	CHECK VALVE
	PRESSURE REDUCING VALVE
	PRESSURE RELIEF VALVE
	3-WAY MOTORIZED MIXING VALVE
	2-WAY MOTORIZED CONTROL VALVE
	STRAINER
TS	TEMPERATURE SENSOR
FS	FLOW SWITCH
AS	AQUASTAT
LC	LOW WATER CUTOFF
P	PRESSURE GAUGE
T	THERMOMETER
REM.	EXISTING PIPING/EQUIPMENT TO BE REMOVED
	CAPPED CONNECTION
	PIPE UP, PIPE DOWN
G	GAS LINE
DCW	DENOTES DOMESTIC COLD WATER
DHW	DENOTES DOMESTIC HOT WATER
HWS	HEATING WATER SUPPLY
HWR	HEATINHG WATER RETUN

LEGEND

SYMBOL	DESCRIPTION
	DOUBLE OR SINGLE LINE DUCTWORK
	SUPPLY AIR DUCT UP
	SUPPLY AIR DUCT DOWN
	RETURN/EXHAUST AIR DUCT UP
	RETURN/EXHAUST AIR DUCT DOWN.
	ROUND DUCT UP
	ROUND DUCT DOWN
	THERMALLY LINED DUCTWORK
	EXISTING DUCTWORK TO BE REMOVED
F/C	FLEXIBLE DUCT CONNECTION
	FLEXIBLE DUCT
U/C	UNDERCUT 3/4"
V/D	VOLUME DAMPER
B/D	BACKDRAFT DAMPER
F/D	FIRE DAMPER
F.S/D	FIRE/SMOKE DAMPER
T	THERMOSTAT
T G	THERMOSTAT WITH COVER GUARD AND LOCK
S/D	SMOKE DETECTOR
T	TEMPERATURE SENSOR
	DIFFUSER SYMBOL
S/A	SUPPLY AIR
R/A	RETURN AIR
E/A	EXHAUST AIR
O/A	OUTSIDE AIR
G	GAS LINE
AFF	ABOVE FINISH FLOOR
C/W	COMPLETE WITH
W/	WITH
N	NEW
EX.	EXISTING TO REMAIN
CTE	CONNECT TO EXISTING
TYPE cfm SIZE (in)	DIFFUSER/GRILLE SYMBOL
	EXISTING TO BE REMOVED
	EXISTING TO REMAIN
	NEW WORK
	CONTROL WIRE

ABBREVIATIONS

ABB.	DESCRIPTION
BAS	BUILDING AUTOMATION SYSTEM
CBV	CIRCUIT BALANCING VALVE
CTE	CONNECT TO EXISTING
VFD	VARIABLE FREQUENCY DRIVE
TYP	TYPICAL
FC	FLEXIBLE CONNECTION
N.I.C.	NOT IN CONTRACT

GENERAL NOTES:

1. PRIOR TO DEMOLITION ASBESTOS TO BE REMOVED BY LICENCE ASBESTOS CONTRACTOR, IF ANY.
2. CONTRACTOR SHALL VERIFY ALL EXISTING PIPING AND DUCTWORK ON SITE PRIOR TO STARTING NEW WORK.
3. DRAIN ALL AFFECTED SYSTEMS AND REFILL AFTER WORK IS DONE.
4. PRESSURE TEST, FLUSH, CLEAN AND REFILL SYSTEM AFTER WORK IS DONE. PURGE ALL AIR FROM HEATING SYSTEM.
5. MAKE GOOD ALL SURFACES AFTER COMLETION OF WORK.
6. REMOVE ALL DEBRIS AND RUBBISH FROM SITE DAILY.
7. PROVIDE THERMAL INSULATION OF NEW PIPING. REPAIR DAMAGED INSULATION OF EXISTING PIPING AS REQUIRED.
8. CONTRACTOR TO ALLOW FOR RELOCATION OF EXISTING SERVICES AS REQUIRED TO ACCOMMODATE NEW EQUIPMENT.

INSTALLATION NOTE:

DESIGN DRAWINGS ARE PREPARED BASED ON INFORMATION AVAILABLE FROM EXISTING DRAWINGS AND GENERAL SITE REVIEW OF EXISTING INSTALLATION. CONTRACTOR SHALL CONFIRM ALL INFORMATION ON SITE AND MAKE NECESSARY ADJUSTMENTS TO SUIT SITE CONDITIONS.

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Project Address : 1522 MOUNTAIN GROVE AVE. BURLINGTON, ONTARIO, L7R 2H2

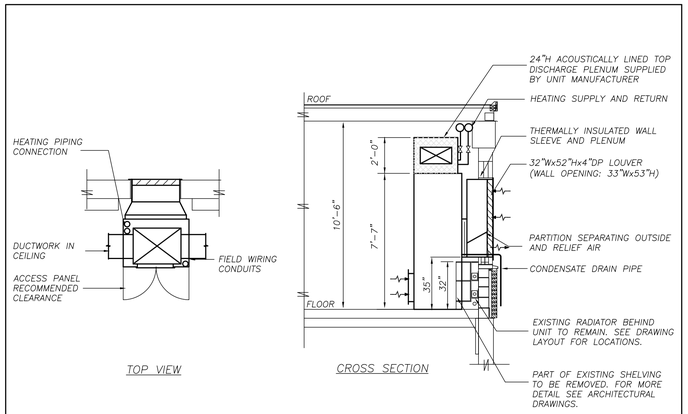
Project Description : ROLLING MEADOWS PUBLIC SCHOOL RENOVATIONS

Drawing Description : SCHEDULES AND LEGEND

Designed: N.P.
Checked: Y.N.
Scale: AS SHOWN
Date: JAN 2021

PNF Project No. 20041

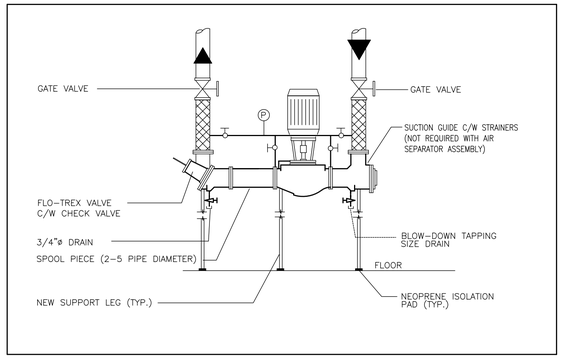
Dwg.No. **M-12**



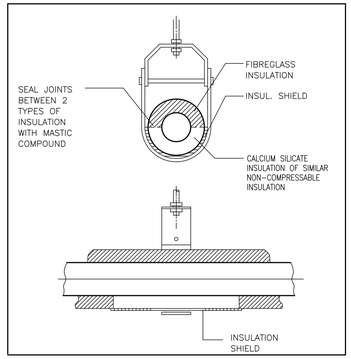
NOTES:

1. UNIT SHALL BE INSTALLED AS PER MANUFACTURER'S INSTRUCTION AND RECOMMENDATIONS.
2. UNIT SHALL BE INSTALLED ON LEVEL FLOOR SURFACE AND LAGGED ON FLOOR.

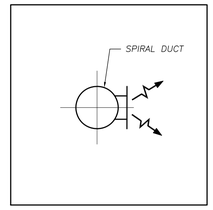
1 M-13 UNIT VENTILATOR - TYPICAL INSTALLATION DETAIL
N.T.S.



2 M-13 VERTICAL PUMP DETAIL
SCALE: N.T.S.



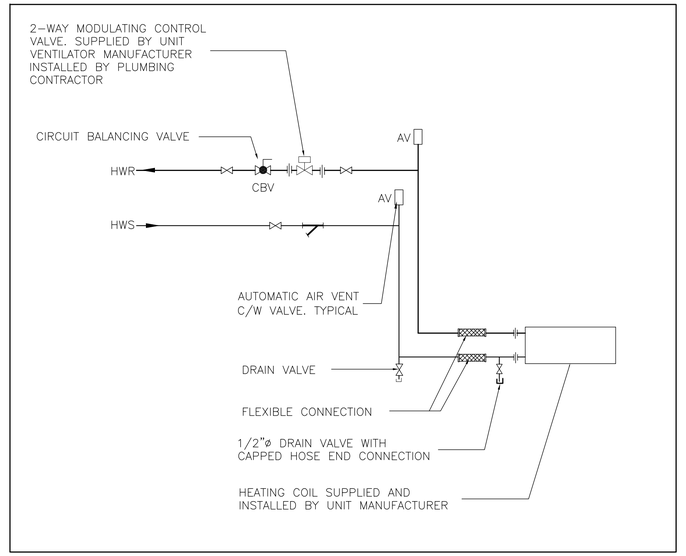
3 M-13 PIPING HANGER DETAIL
SCALE: N.T.S.



4 M-13 SECTION 'A-A' - SUPPLY AIR GRILLE
SCALE: N.T.S.

MINIMUM PIPING INSULATION

TEMP. RANGE (°F)	INSULATION CONDUCTIVITY Btu*in(hr*ft²*F)	NOMINAL PIPE DIAMETER (in)				
		<=1"ø	1¼ -2"ø	2½ -4"ø	5-6"ø	>=8"ø
201-250	0.27-0.30	1.5	1.5	2.0	2.0	3.5
140-200	0.25-0.29	1.5	1.5	1.5	2.0	2.0
40-55	0.23-0.27	0.5	0.75	1.0	1.0	–



8 M-13 UNIT VENTILATOR HOT WATER COIL - PIPING SCHEMATIC
N.T.S.

MANUFACTURER	MODEL No.
'MIRO INDUSTRIES INC.' OR APPROVED EQUAL	8-BASE STRUT-S OR APPROVED EQUAL

NOTES:

SPACING BETWEEN PIPE SUPPORTS NOT TO EXCEED 6'-0". THERE MUST BE SUPPORT WITHIN 2'-0" OF EVER BEND OF TAKEOFF.

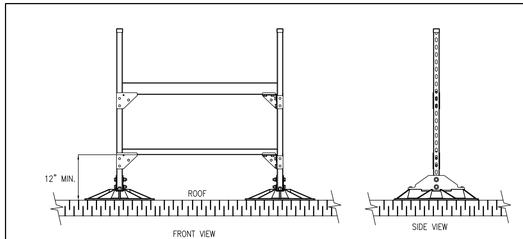
ALL GAS PIPING TO BE PAINTED YELLOW.

5 M-13 GAS PIPING SUPPORT DETAIL
SCALE: N.T.S.

NOTES:

1. ALL VENTING (INCLUDING TERMINATION CONE & INSECT SCREEN) WITH DIRECT OR IN-DIRECT CONTACT WITH BOILER EXHAUST GASES SHALL BE CONSTRUCTED OF AL29-4C SUPER-FERRITIC STAINLESS STEEL INCLUDING VENTILATION COLLAR, STORM COLLAR, TALL CONE ROOF FLASHING, ETC.
2. RETAIN BASEBUILDING ROOFING CONTRACTOR TO REPAIR/SEAL ROOFING MEMBRANE, INSULATION AND FINISHED TO MATCH EXISTING.
3. INSTALL INSULATED THIMBLE AT ALL PENETRATIONS THROUGH FIRE RATED FLOOR/WALL PENETRATIONS AND AT ALL ROOF PENETRATIONS.

7 M-13 TYPICAL VENTING DETAIL
N.T.S.



MANUFACTURER	MODEL No.
'MIRO INDUSTRIES INC.' OR APPROVED EQUAL	10-DS OR APPROVED EQUAL

NOTES:
DUCT SUPPORT SHALL BE INSTALLED ADS PER MANUFACTURER RECOMMENDATIONS AND INSTRUCTIONS.

6 M-13 DUCT SUPPORT DETAIL
SCALE: N.T.S.

Halton District School Board

RECEIVED
MAR 29 2022
CITY OF BURLINGTON
BUILDING DEPARTMENT

ALL CONSTRUCTION TO MEET ONTARIO BUILDING CODE REQUIREMENTS

NO.	ISSUANCES & REVISIONS	DATE
3	FOR RE-PERMIT / RE-TENDER	MAR 15, 2022
2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021

PNF ENGINEERING INC.
BUILDING SERVICES ENGINEERS
4-1290 EGLINTON AVE. EAST
MISSISSAUGA ONT. L4W 1K8
T. (905) 625-5322, www.pnfeng.com

LICENSED PROFESSIONAL ENGINEER
MAR 15 / 22
Y.D.NEDEV
100138469
PROVINCE OF ONTARIO

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THESE DRAWINGS ARE NOT TO BE SCALED.

Project Address : 1522 MOUNTAIN GROVE AVE. BURLINGTON, ONTARIO, L7R 2H2

Project Description : ROLLING MEADOWS PUBLIC SCHOOL RENOVATIONS

Drawing Description : DETAILS

Designed:	N.P.
Checked:	Y.N.
Scale:	AS SHOWN
Date:	JAN 2021

PNF Project No. 20041

Dwg.No. M-13