

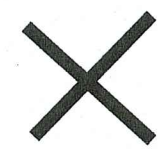
## GENERAL NOTES

- 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.
- FOR FULL DEMOLITION LAYOUT REFER TO ARCHITECTURAL LAYOUT. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL DRAWINGS.
- 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

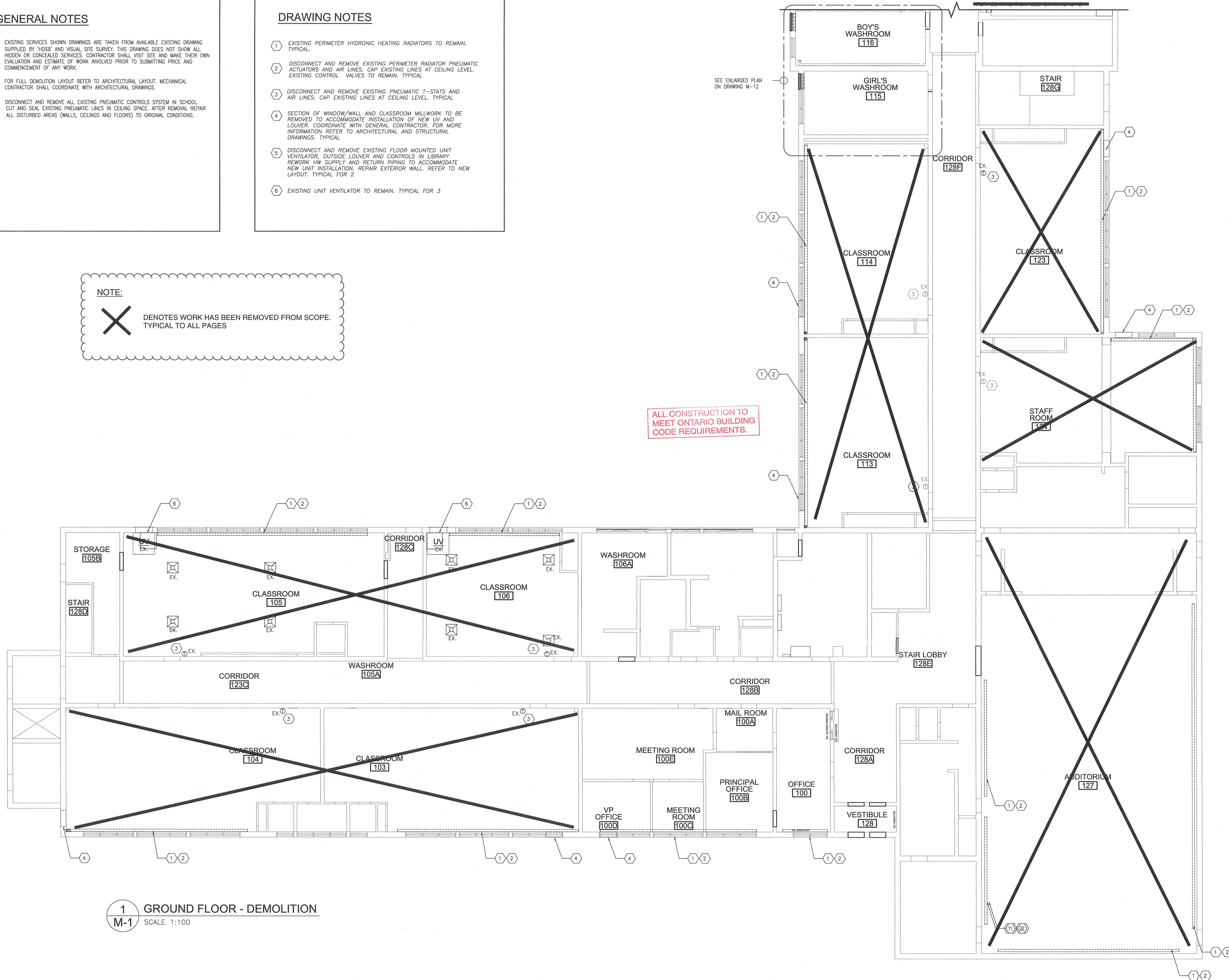
- EXISTING PERIMETER HYDRONIC HEATING RADIATORS TO REMAIN. TYPICAL.
- DISCONNECT AND REMOVE EXISTING PERIMETER RADIATOR PNEUMATIC ACTUATORS AND AIR LINES. CAP EXISTING LINES AT CEILING LEVEL. EXISTING CONTROL VALVES TO REMAIN. TYPICAL.
- DISCONNECT AND REMOVE EXISTING PNEUMATIC T-STATS AND AIR LINES. CAP EXISTING LINES AT CEILING LEVEL. TYPICAL.
- 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.
- 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.
- EXISTING UNIT VENTILATOR TO REMAIN. TYPICAL FOR 3.

### NOTE:



DENOTES WORK HAS BEEN REMOVED FROM SCOPE.  
TYPICAL TO ALL PAGES

ALL CONSTRUCTION TO  
MEET ONTARIO BUILDING  
CODE REQUIREMENTS.



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

NO.	ISSUANCES & REVISIONS	DATE
2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021

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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

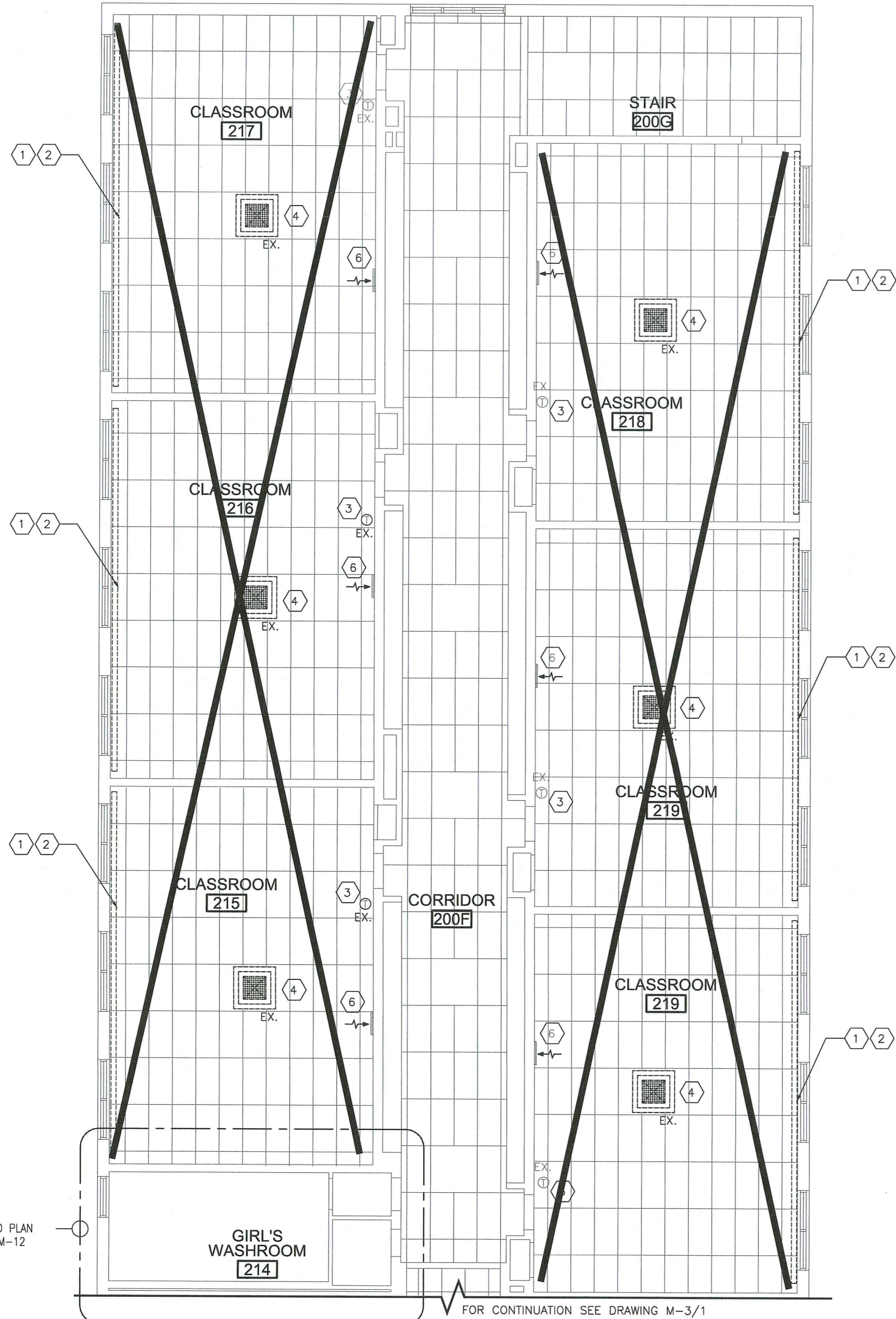
Dwg.No.  
**M-1**

GENERAL NOTES

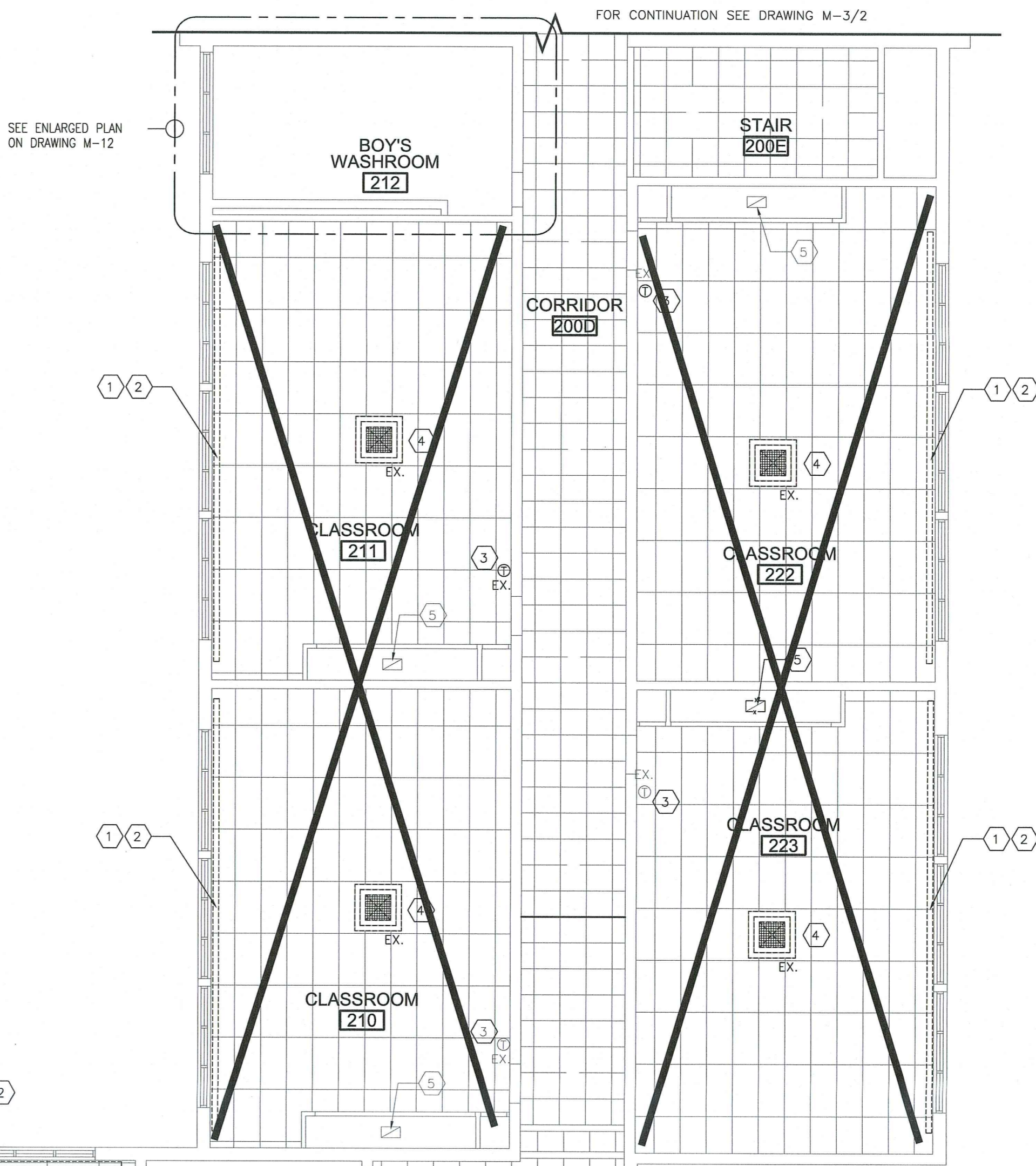
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- DISCONNECT AND REMOVE ALL EXISTING PNEUMATIC CONTROLS SYSTEM IN SCHOOL. CUT AND SEAL EXISTING PNEUMATIC LINES IN CEILING SPACE. AFTER REMOVAL REPAIR ALL DISTURBED AREAS (WALLS, CEILINGS AND FLOORS) TO ORIGINAL CONDITIONS.

DRAWING NOTES

- EXISTING PERIMETER HYDRONIC HEATING RADIATORS TO REMAIN. TYPICAL.
- DISCONNECT AND REMOVE EXISTING PERIMETER RADIATOR PNEUMATIC ACTUATORS AND AIR LINES. CAP EXISTING LINES AT CEILING LEVEL. EXISTING CONTROL VALVES TO REMAIN. TYPICAL.
- DISCONNECT AND REMOVE EXISTING PNEUMATIC T-STATS AND AIR LINES. CAP EXISTING LINES AT CEILING LEVEL. TYPICAL.
- EXISTING HEAT PUMP CEILING UNIT TO REMAIN.
- 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.
- 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.



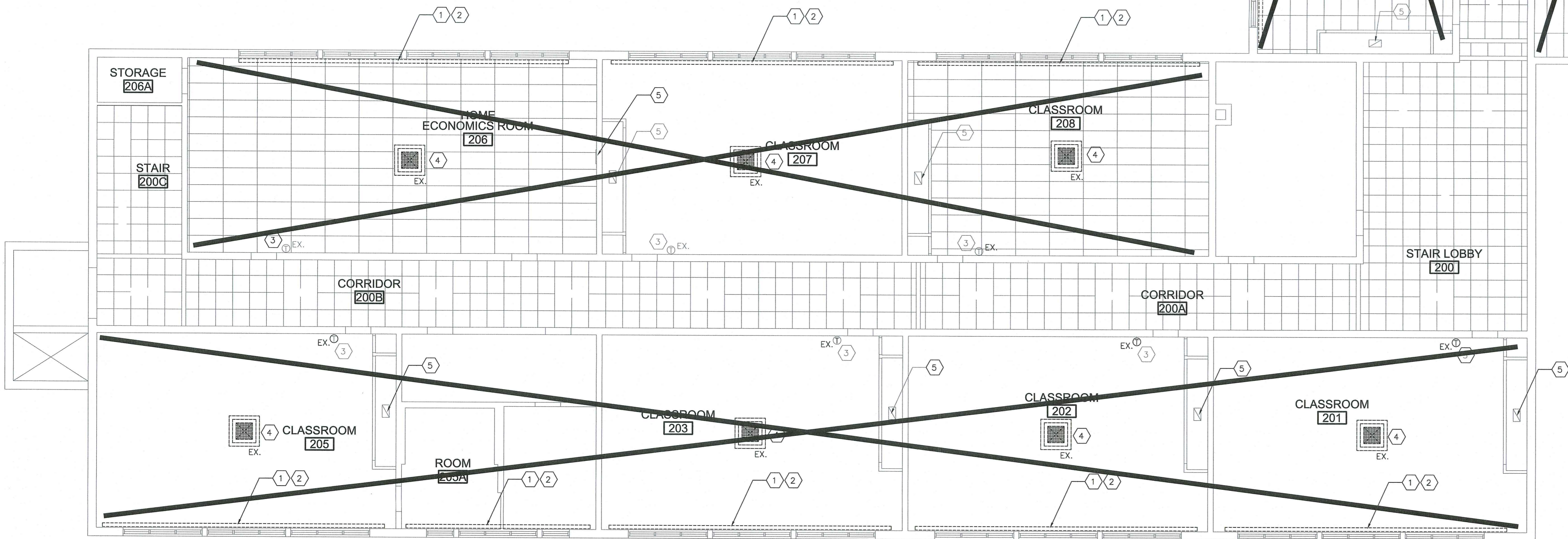
2 SECOND FLOOR - DEMOLITION  
M-3 SCALE 1:100



FOR CONTINUATION SEE DRAWING M-3/2

SEE ENLARGED PLAN  
ON DRAWING M-12

FOR CONTINUATION SEE DRAWING M-3/1



ALL CONSTRUCTION TO  
MEET ONTARIO BUILDING  
CODE REQUIREMENTS.

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

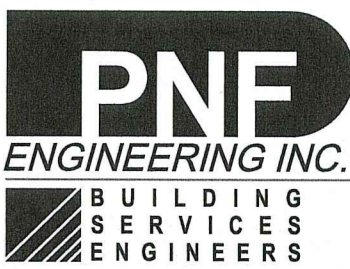


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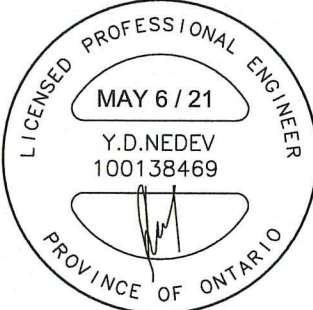
JUN 3 0 2021

CITY OF BURLINGTON  
BUILDING DEPARTMENT

2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021
NO. ISSUANCES & REVISIONS		DATE



4-1290 EGLINTON AVE. EAST  
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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 : CEILING  
DEMOLITION

Designed: N.P.

Checked: Y.N.

Scale: AS SHOWN

Date: JAN 2021

PNF Project No.

20041

Dwg.No.

M-3

## GENERAL NOTES

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- 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.
- 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.
- FOLLOWING INSTALLATION REPAIR, PATCH PRIME, AND PAINT TO MATCH EXISTING ALL DAMAGED AND DISTURBED COMMON AREAS.
- CONTRACTOR TO VERIFY ALL EXISTING SITE CONDITIONS INCLUDING SIZES AND EQUIPMENT PRIOR TO ORDERING.
- RELOCATE EXISTING SERVICES AS REQUIRED TO ALLOW FOR NEW EQUIPMENT INSTALLATION.
- FIRESTOP AND SEAL ALL DUCTWORK AND PIPING WALL/CEILING/FLOOR PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
- DISCONNECT ALL SERVICES (GAS, ELECTRICAL, CONTROLS, ETC.) PRIOR TO COMMENCING ANY WORK.
- CONTRACTOR TO VERIFY AND ADJUST GAS PRESSURE TO ACCOMMODATE NEW ROOFTOP UNITS INSTALLATION. COORDINATE WITH LOCAL GAS COMPANY.
- ENSURE ALL PLUMBING VENT STACKS LOCATED NEAR NEW UNIT INTAKE ARE EXTENDED TO BE ABOVE THE LEVEL OF THE NEW UNIT INTAKE.
- 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.

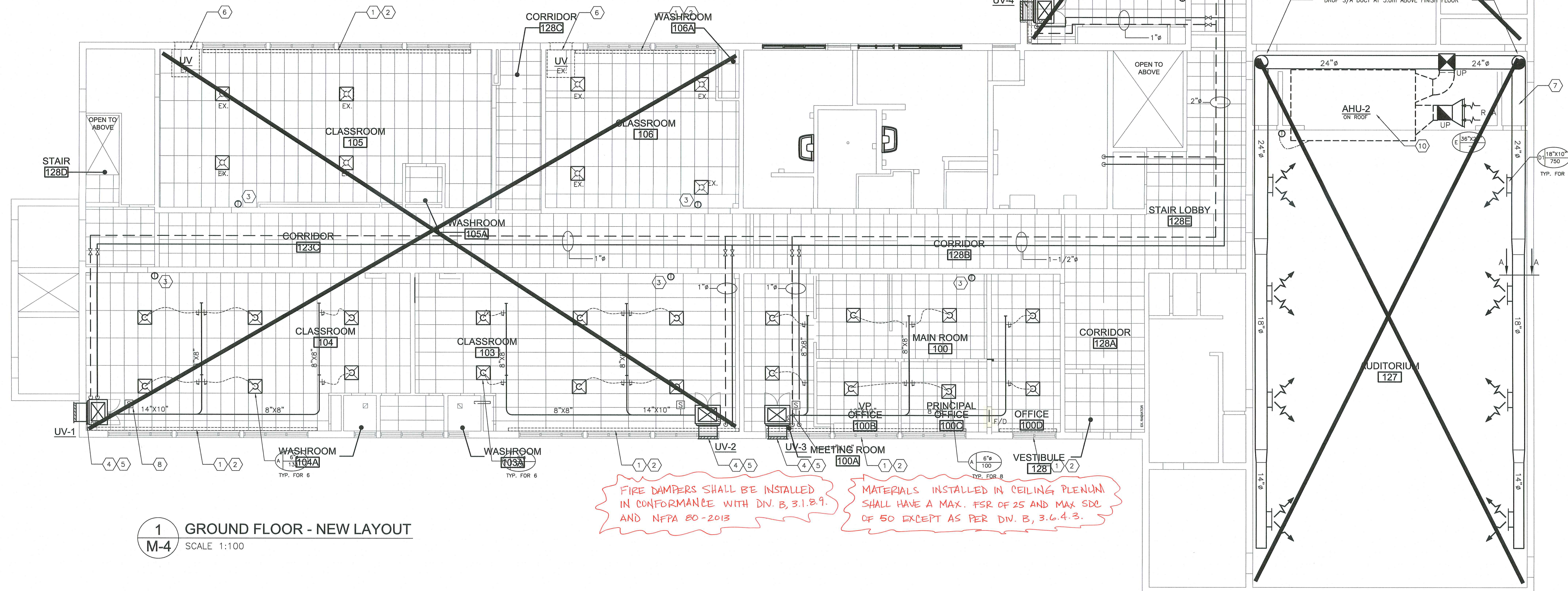
## NEW BUILDING AUTOMATION SYSTEM (BAS)

SEE BAS NOTES ON DRAWING M-5

## DRAWING NOTES

- EXISTING PERIMETER HYDRONIC HEATING RADIATORS TO REMAIN. TYPICAL.
- REPLACE EXISTING PNEUMATIC ACTUATORS WITH ELECTRONICALLY CONTROLLED ACTUATOR AND CONNECT TO NEW BAS. EXISTING CONTROL VALVES TO REMAIN. TYPICAL.
- 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.
- 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-10 AND UV-11).
- NEW UNIT VENTILATOR (UV) AS SPECIFIED. REFER TO TYPICAL INSTALLATION DETAIL.
- NEW WALL LOUVER THROUGH EXISTING WINDOW. LOUVER SUPPLIED BY UNIT MANUFACTURER. FOR WINDOW MODIFICATIONS SEE ARCHITECTURAL DRAWINGS. TYPICAL.
- EXISTING UNIT VENTILATOR TO REMAIN. TYPICAL FOR 3
- ACOUSTICALLY LINED SPIRAL DUCT. PROVIDE PROPER SUPPORT FROM CEILING STRUCTURE AND PAINT DUCT AS PER 'HDSB' INSTRUCTIONS.
- 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-9.
- NEW AIR HANDLING UNIT (AHU-1) ON ROOF SERVING GYM AS SPECIFIED.
- NEW AIR HANDLING UNIT (AHU-2) ON ROOF SERVING AUDITORIUM AS SPECIFIED.
- DROP DOWN NEW SUPPLY AIR DUCT AND NEW HEATING PIPING UNDER BEAM. PROVIDE DRYWALL ENCLOSURE. REFER TO ARCHITECTURAL DRAWINGS.

ALL CONSTRUCTION TO MEET ONTARIO BUILDING CODE REQUIREMENTS.



FIRE DAMPERS SHALL BE INSTALLED IN CONFORMANCE WITH DIV. B, 3.1.8.1. AND NFPA 80-2013

MATERIALS INSTALLED IN CEILING PLenum SHALL HAVE A MAX. FSR OF 25 AND MAX SDI OF 50 EXCEPT AS PER DIV. B, 3.6.4.3.

1	FOR COORDINATION	MAR 26, 2021
NO.	ISSUANCES & REVISIONS	DATE

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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 : CEILING NEW LAYOUT

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

PNF Project No.

20041

Dwg.No.

M-4

GENERAL NOTES

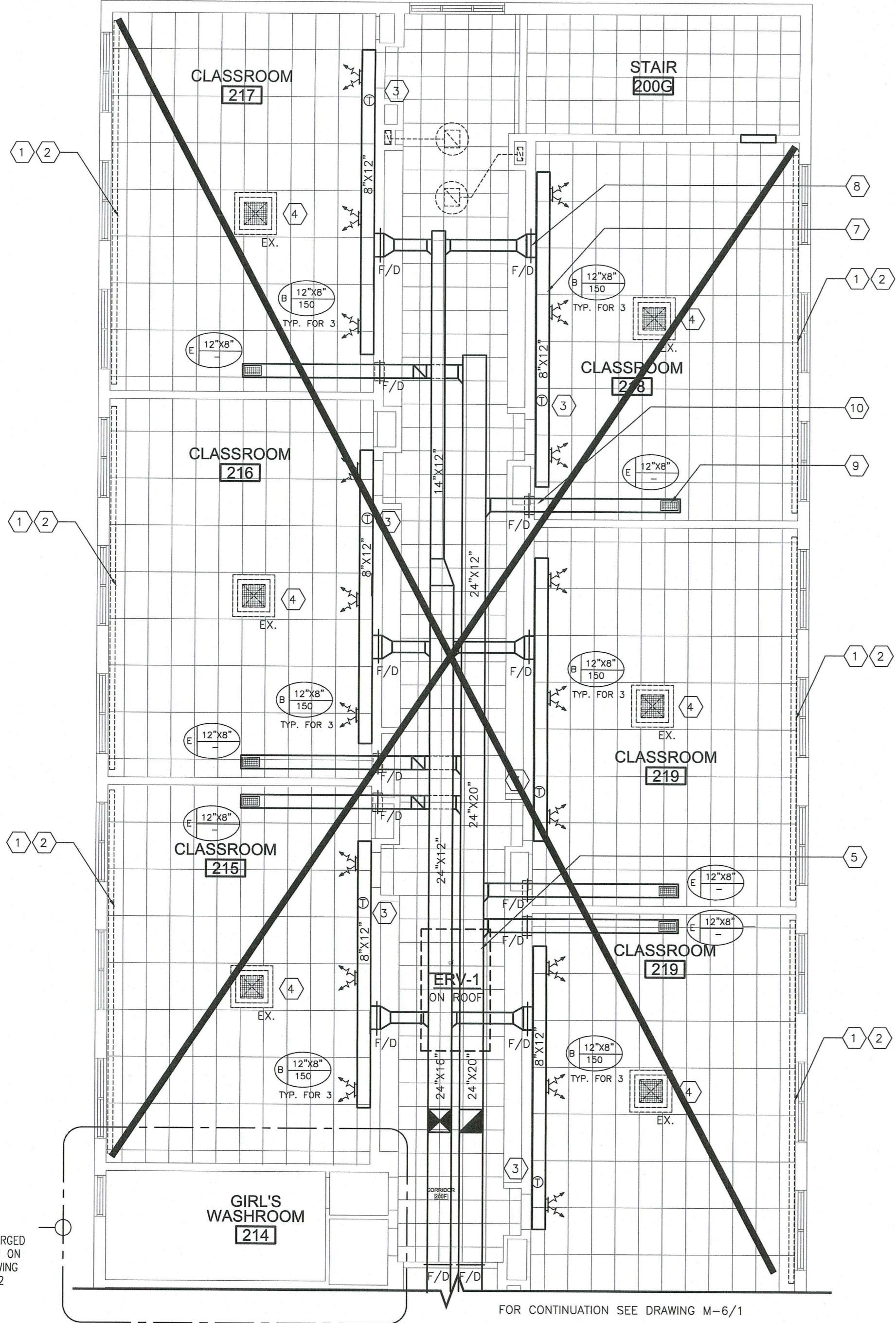
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- PERFORM ALL CUTTING AND PATCHING REQUIRED FOR ACCESSING, REMOVING AND REPLACING MECHANICAL EQUIPMENT AS REQUIRED IN DRAWINGS. BEFORE PERFORMING CUTTING, PROTECT ALL SURROUNDING AREAS IN COMMON SPACES FROM DAMAGE, DUST, ETC. MAINTAIN BUILDING CLEAN AT ALL TIMES.
- FOLLOWING INSTALLATION REPAIR, PATCH PRIME, AND PAINT TO MATCH EXISTING ALL DAMAGED AND DISTURBED COMMON AREAS.
- CONTRACTOR TO VERIFY ALL EXISTING SITE CONDITIONS INCLUDING SIZES AND EQUIPMENT PRIOR TO ORDERING.
- RELOCATE EXISTING SERVICES AS REQUIRED TO ALLOW FOR NEW EQUIPMENT INSTALLATION.
- FIRESTOP AND SEAL ALL DUCTWORK AND PIPING WALL/CEILING/FLOOR PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
- DISCONNECT ALL SERVICES (GAS, ELECTRICAL, CONTROLS, ETC.) PRIOR TO COMMENCING ANY WORK.
- CONTRACTOR TO VERIFY AND ADJUST GAS PRESSURE TO ACCOMMODATE NEW ROOFTOP UNITS INSTALLATION. COORDINATE WITH LOCAL GAS COMPANY.
- ENSURE ALL PLUMBING VENT STACKS LOCATED NEAR NEW UNIT INTAKE ARE EXTENDED TO BE ABOVE THE LEVEL OF THE NEW UNIT INTAKE.
- 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

- EXISTING PERIMETER HYDRONIC HEATING RADIATORS TO REMAIN. TYPICAL.
- REPLACE EXISTING PNEUMATIC ACTUATORS WITH ELECTRONICALLY CONTROLLED ACTUATOR AND CONNECT TO NEW BAS. EXISTING CONTROL VALVES TO REMAIN. TYPICAL.
- 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.
- EXISTING HEAT PUMP CEILING UNIT TO REMAIN.
- NEW ENERGY RECOVERY UNIT (ERV-1) ON ROOF AS SPECIFIED.
- NEW ENERGY RECOVERY UNIT (ERV-1) ON ROOF AS SPECIFIED.
- NEW SUPPLY AIR DUCT IN BULKHEAD DUCT. PROVIDE PROPER DUCT SUPPORT FROM CEILING STRUCTURE. REFER TO ARCHITECTURAL DRAWINGS FOR DUCT ENCLOSURE. TYPICAL FOR CLASSROOMS.
- REUSE EXISTING WALL OPENING FOR NEW SUPPLY AIR DUCT. PROVIDE FIRE DAMPER. REPAIR WALL AFTER NEW INSTALLATION. TYPICAL.
- NEW EXHAUST AIR GRILLE AND DUCT ABOVE SUSPENDED CEILING. TYPICAL FOR CLASSROOMS.
- PROVIDE NEW 16"x8" WALL OPENING FOR NEW EXHAUST AIR DUCT. PROVIDE FIRE DAMPER. REPAIR WALL AFTER NEW INSTALLATION. TYPICAL.

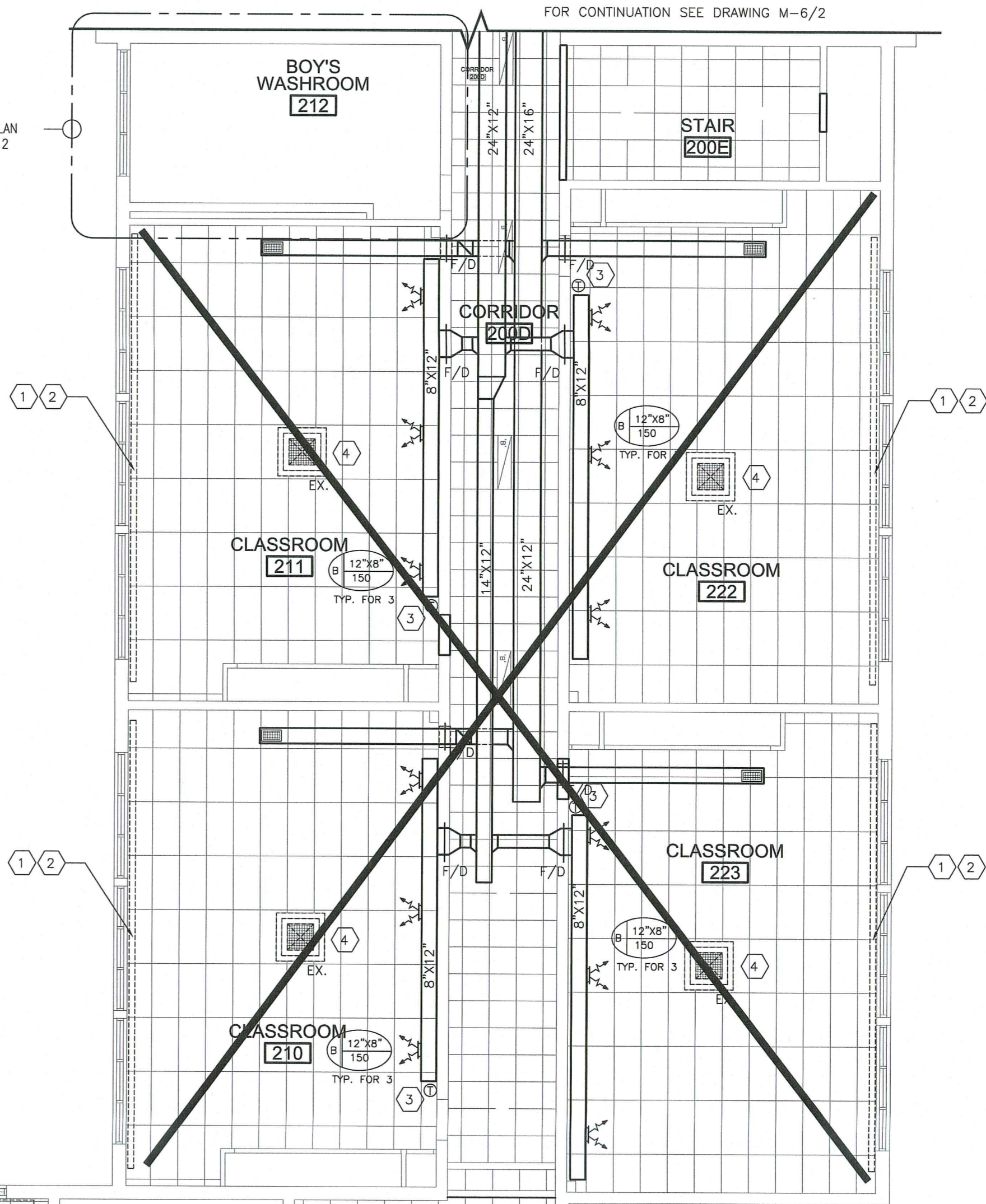
NEW BUILDING AUTOMATION SYSTEM (BAS)

SEE BAS NOTES ON DRAWING M-5



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

SEE ENLARGED PLAN  
ON DRAWING M-12



ALL CONSTRUCTION TO  
MEET ONTARIO BUILDING  
CODE REQUIREMENTS.

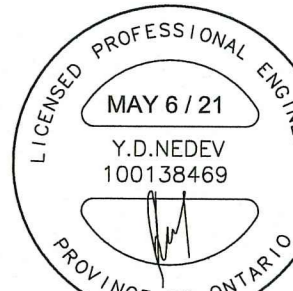
1 SECOND FLOOR - NEW LAYOUT  
M-6 SCALE 1:100



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JUN 30 2021  
CITY OF BURLINGTON  
BUILDING DEPARTMENT

1	FOR COORDINATION	MAR 26, 2021
NO. ISSUANCES & REVISIONS		DATE

**PNF**  
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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 : SECOND FLOOR  
CEILING  
NEW LAYOUT

Designed: N.P.

Checked: Y.N.

Scale: AS SHOWN

Date: JAN 2021

PNF Project No.

20041

Dwg.No.

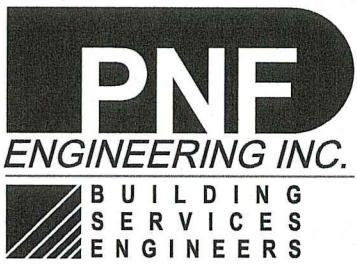
M-6

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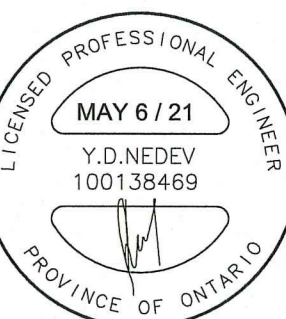
JUN 3 0 2021

CITY OF BURLINGTON  
BUILDING DEPARTMENT

2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021
NO. ISSUANCES & REVISIONS		DATE



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

Project Description : ROLLING MEADOWS PUBLIC SCHOOL RENOVATIONS

Drawing Description : WASHROOMS HVAC LAYOUT

Designed: N.P.

Checked: Y.N.

Scale: AS SHOWN

Date: JAN 2021

PNF Project No.

20041

Dwg.No.

M-12

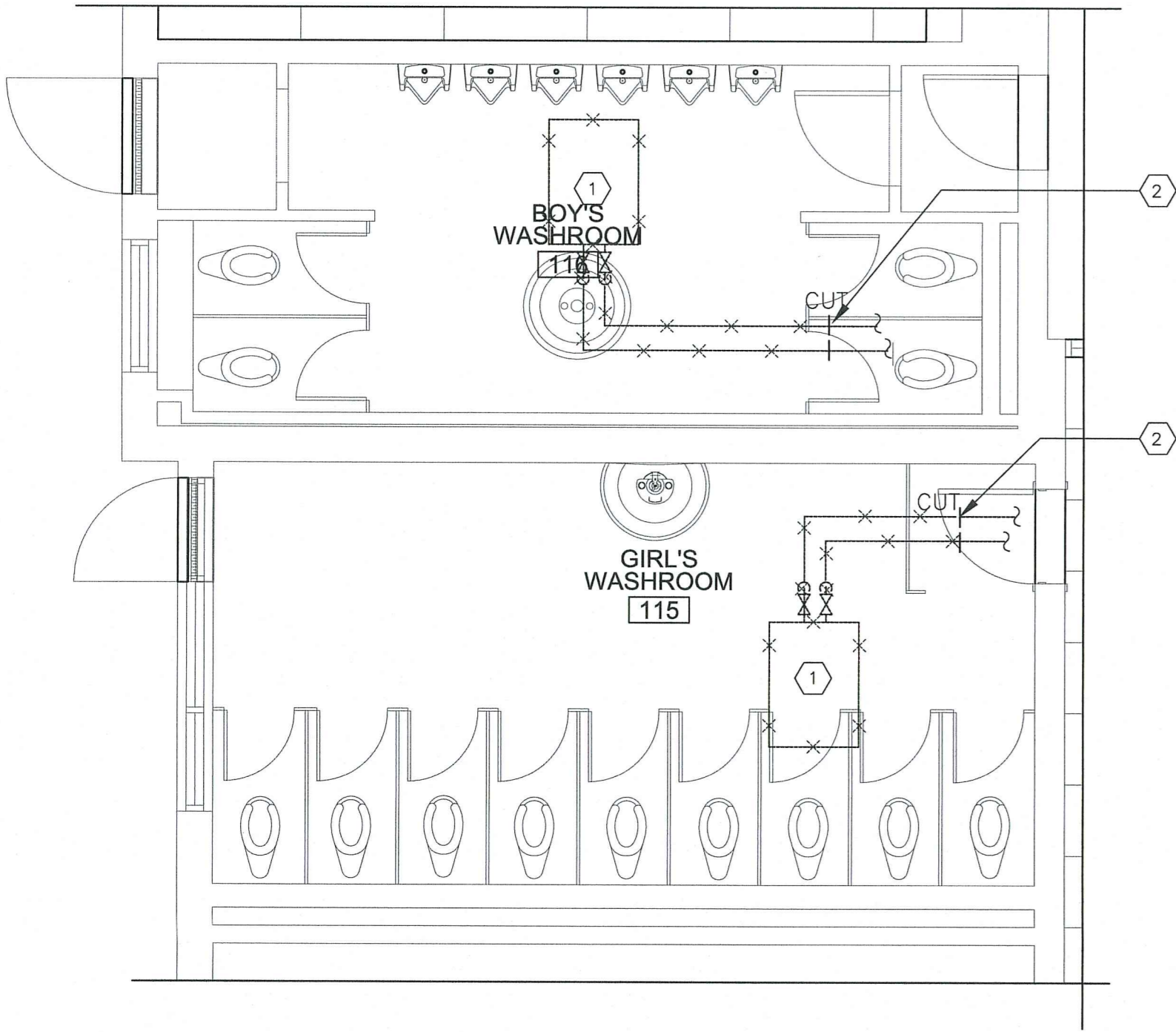
### DRAWING NOTES

- 1 DISCONNECT AND REMOVE EXISTING CEILING SUSPENDED HYDRONIC FORCE FLOW HEATER AND CONTROLS.
- 2 CUT EXISTING HEATING SUPPLY AND RETURN PIPING IN CEILING SPACE. REMOVE PART OF PIPING DOWNSTREAM. EXACT LOCATION OF EXISTING PIPING TO BE CONFIRMED ON SITE.
- 3 DISCONNECT AND REMOVE EXISTING FLOOR MOUNTED HYDRONIC FORCE FLOW HEATER AND CONTROLS.
- 4 CUT EXISTING HEATING SUPPLY AND RETURN PIPING. REMOVE PART OF PIPING DOWNSTREAM. EXACT LOCATION OF EXISTING PIPING TO BE CONFIRMED ON SITE.
- 5 SUPPLY AND INSTALL NEW CEILING RECESSED HYDRONIC HEATER AND CONTROLS WITH BUILT-IN T'STAT.
- 6 SUPPLY AND INSTALL NEW FLOOR MOUNTED HYDRONIC HEATER AND CONTROLS WITH BUILT-IN T'STAT.
- 7 EXTEND EXISTING HEATING SUPPLY AND RETURN TO SERVE NEW FORCE FLOW HEATER.
- 8 NEW SHUT OFF VALVES. INSTALL NEW CEILING ACCESS PANEL.
- 9 REPLACE ALL EXISTING WASHROOM EXHAUST GRILLES WITH NEW GRILLE AND BALANCING DAMPER. SIZE TO MATCH EXISTING. BALANCE EXISTING EXHAUST GRILLES. MINIMUM AIR FLOW FOR EACH GRILLE IS SHOWN ON DRAWING. SERVICE AND ADJUST EXISTING EXHAUST FAN AS NECESSARY FOR PROPER OPERATION.

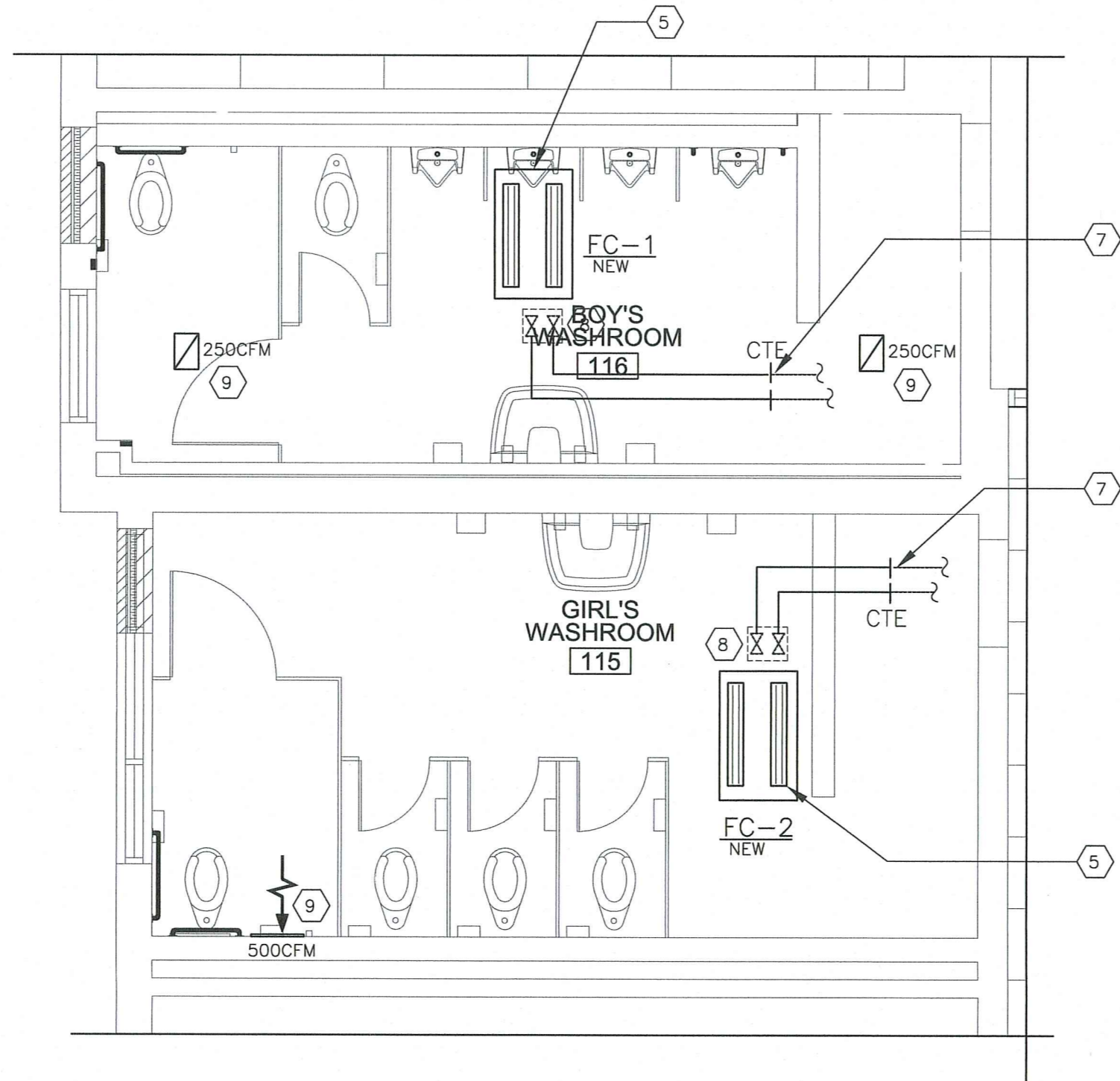
FC-1 CEILING RECESSED HYDRONIC CABINET FORCE FLOW HEATER AND CONTROLS "ROSEMEX" MODEL "F-300C" HEATING OUTPUT: 30.6 MBH, EWT 200°F AND EAT 160°F, 300 CFM. C/W HINGED PANEL. FINISHING COLOUR WHITE. 115V/1/60, 1.2A.  
FC-2 COONNECT HEATER TO BAS CONTROL.

FC-4 FLOOR MOUNTED HYDRONIC CABINET FORCE FLOW HEATER AND CONTROLS "ROSEMEX" MODEL "F-300C" HEATING OUTPUT: 30.6 MBH, EWT 200°F AND EAT 160°F, 300 CFM. FINISHING COLOUR WHITE. 115V/1/60, 1.2A.  
COONNECT HEATER TO BAS CONTROL.

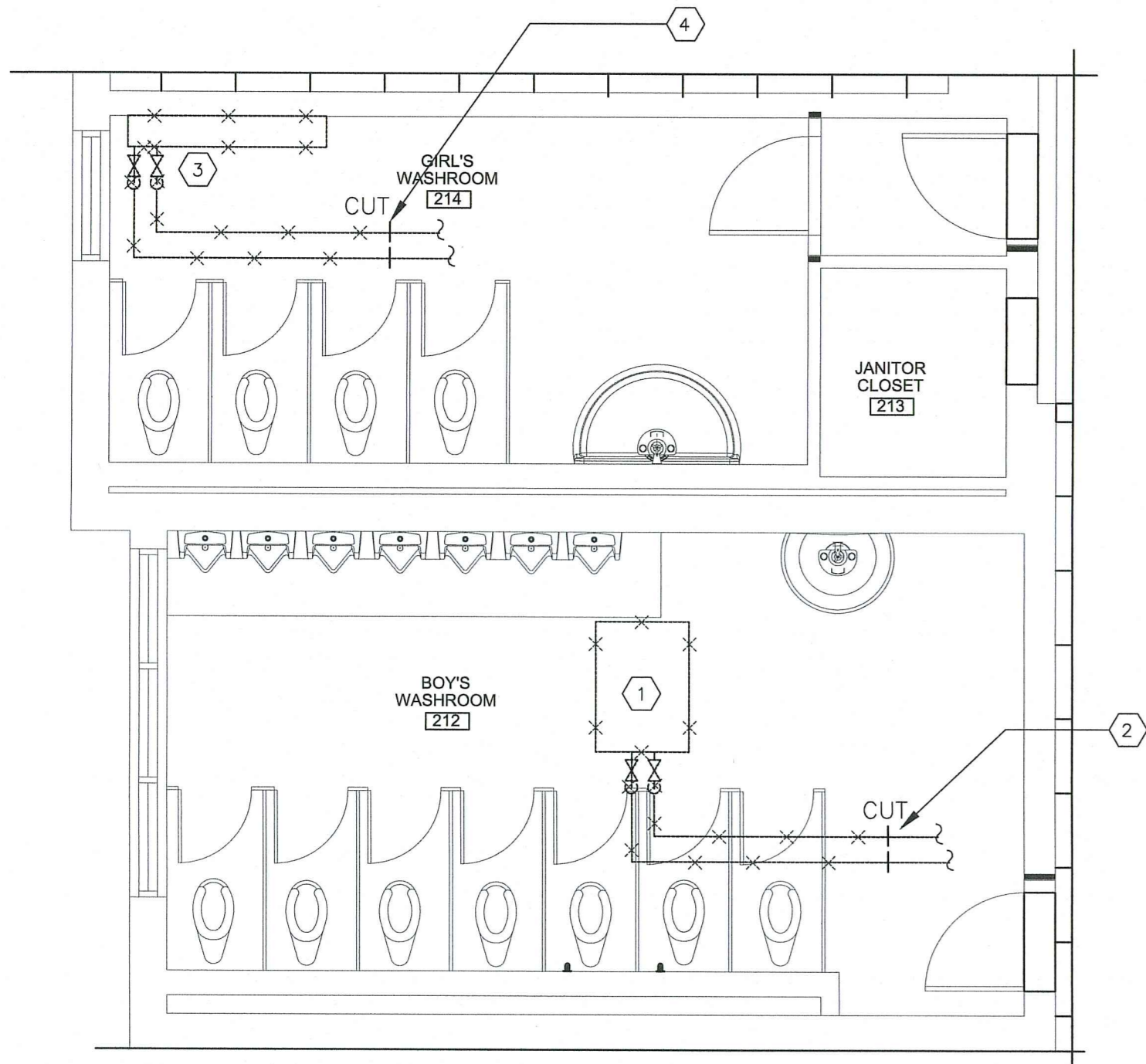
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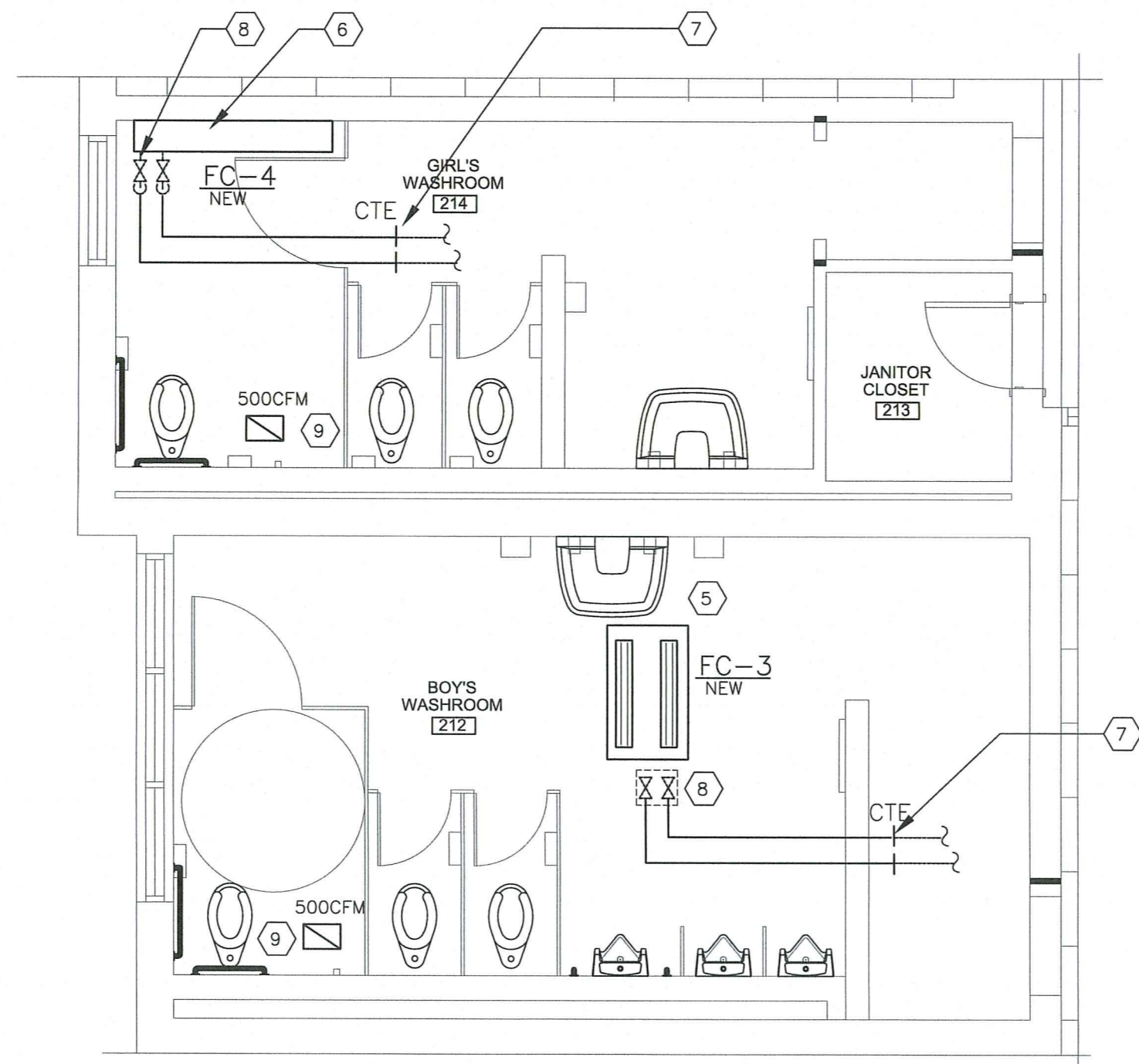
1 HVAC DEMOLITION LAYOUT - GROUND FLOOR WASHROOMS  
M-12 SCALE 1:50



3 HVAC NEW LAYOUT - GROUND FLOOR WASHROOMS  
M-12 SCALE 1:50



2 HVAC DEMOLITION LAYOUT - SECOND FLOOR WASHROOMS  
M-12 SCALE 1:50



4 HVAC NEW LAYOUT - SECOND FLOOR WASHROOMS  
M-12 SCALE 1:50



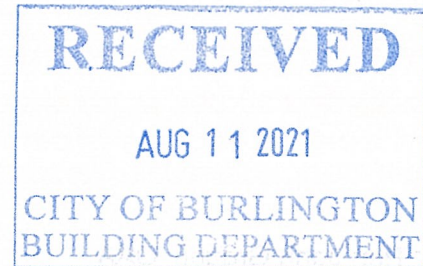
**GRGURIC  
ARCHITECTS  
INCORPORATED**

28 KING STREET EAST, UNIT B  
STONE CREEK, ON, L8G 1J8  
TEL. 905-664-8735  
FAX. 905-664-8737  
office@2gai.com www.2gai.com

August 11, 2021

Project No. 2020-31

William Higman  
Planning and Building Department  
City of Burlington  
426 Brant St  
Burlington, Ontario, L7R 3Z6



**RE: RESPONSE LETTER TO:**  
**1522 Mountain Grove Ave, Burlington, Ontario**  
**Building Permit Application Number 21-009792**  
**Building Permit Application Review Letter # 1**

Dear Sir,

This letter is in response to your mechanical review comments dated August 6, 2021:

- 1) Provide sealed heating and cooling load calculations for areas served by proposed unit ventilator UV-3 and force flow heaters FC-1 to FC-4.

**Response:**

Please refer to attached calculations.

- 2) Provide sealed outdoor air calculations as per ASHRAE 62.1-2010 for areas served by proposed unit ventilator UV-3.

**Response:**

Please refer to attached calculations.

- 3) Show the unit ventilator drain line indirectly connected to a drainage system in conformance with Div. B, 6.2.3.1A.(1)(d) and 7.4.2.1.

**Response:**

The drain line for UV-3 is to drain to the outside as per detail 1 on drawing M-15

- 4) Provide sealed interior lighting power density calculations for areas with new light fixtures showing conformance with SB-10, Div. 3, Ch. 2, 1.1.1.9. and ASHRAE 90.1-2013, 9.2.2. as per Div. B, 11.3.1.2.

**Response:**

Please refer to attached calculations.

- 5) Provide drainage, venting and water distribution piping/fitting materials.

**Response:**

Hot and cold-water piping – Type 'L' copper  
Above ground / exposed drains 2" dia or less – DVW Copper  
Above ground / exposed drains 3" dia or larger – Cast Iron  
Exposed piping to fixtures and brass – Heavy chrome plated



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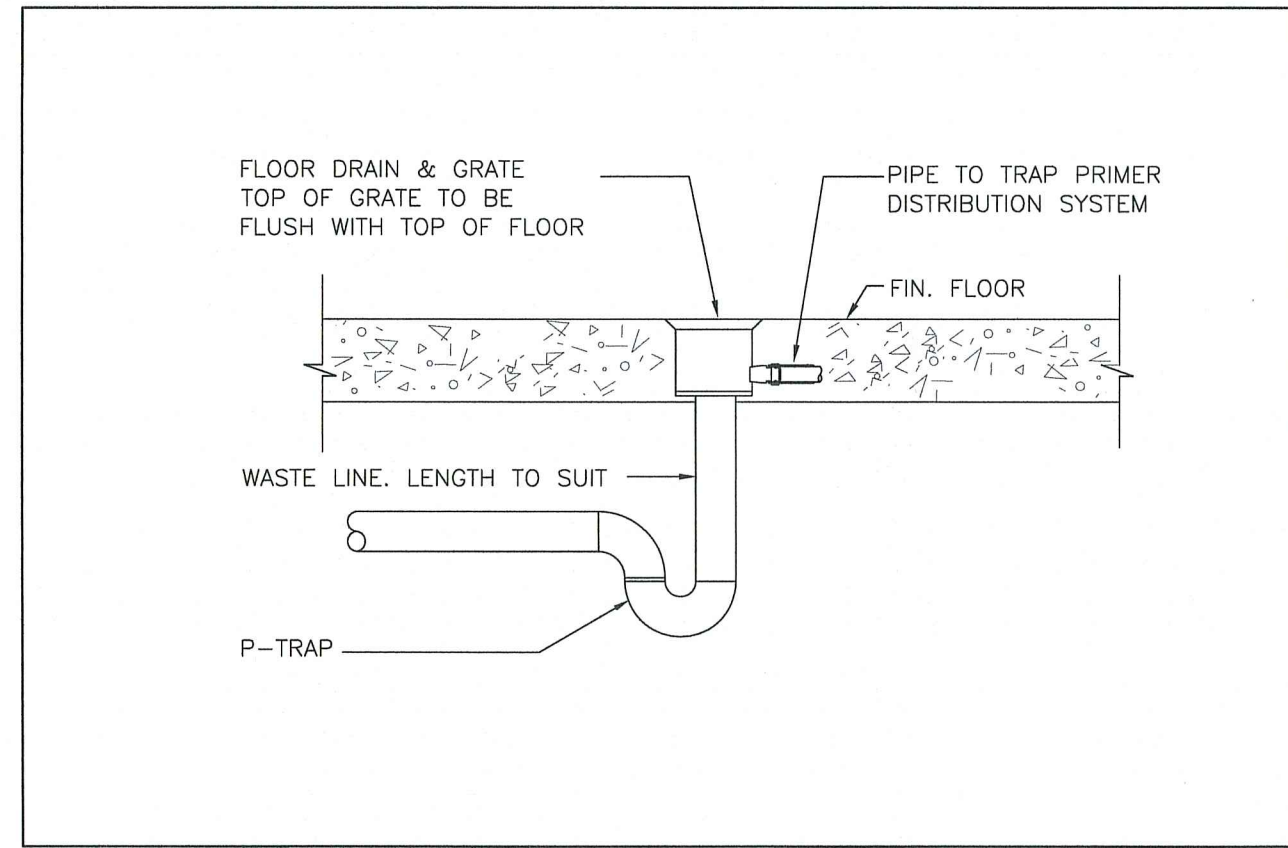
Per: John Grguric, OAA  
Grguric Architects Incorporated

Cc; Jason Dachuk, HDSB



# PLUMBING FIXTURES SCHEDULE:

WC-1	WATER CLOSET BOWL: AMERICAN STANDARD "MADERA" ELONGATED # 3451.128 VITREOUS CHINA FLOOR MOUNTED ELONGATED SYPHON JET ACTION BOWL, 1-1/2" (38MM) TOP SPUD, BOLT CAPS. FLUSH VALVE: SLOAN 111-1.28YD "REGAL" FACTORY SET, INTERNAL ADJ. 1.28 GAL (4.8 L) FLUSH C.P. QUIET ACTION DIAPHRAGM TYPE WITH VACUUM BREAKER, SEAT BUMPER ON ANGLE STOP, PRESSURE LOSS CHECK AND NON-HOLD OPEN FEATURE. SEAT: CENTOCO #500STSCC, ELONGATED HEAVY DUTY SOLID PLASTIC OPEN FRONT LESS COVER WITH CHECK HINGES AND CHROMATED STEEL POSTS, WASHERS AND NUTS.	UR-1	WALL HUNG URINAL - FOR FLUSHMETER - EXPOSED - MANUAL. AMERICAN STANDARD WASHBROOK FLOWSE, #6590.001.020 URINAL, VITREOUS CHINA, OPERATES IN THE RANGE OF 0.5 L TO 3.8 L (0.125 US GAL TO 1.0 US GAL) PER FLUSH, WALL HUNG, EXTENDED SIDES FOR PRIVACY, WASHDOWN ACTION, WASHBROOK FLOWSE, FLUSHING RM. 18 MM (2/4") DIA. TOP SPUD, ELONGATED RM. INTEGRAL P-TRAP, OUTLET CONNECTION 51 MM (2"). 2 WALL HANGERS, #7301242-100 CHROME PLATED, NON-METALLIC STRAINER, WHITE FINISH. SLOAN REGAL #REGAL 186-0.5-XL, EXPOSED MANUAL FLUSHMETER FOR TOP SPUD URINAL, 1.9 L (0.5 US GAL) FACTORY SET FLOW, QUIET ACTION DIAPHRAGM TYPE, NON-HOLD OPEN FEATURE, ADA OSCILLATING HANDLE, BACK-CHECK ANGLE STOP (SCREWDRIVER OPERATED), FLUSH TUBE FOR 292 MM (11-1/2") ROUGH-IN, VACUUM BREAKER, WATTS #CA-321 FIXTURE CARRIER, MOUNTED ON CONCRETE FLOOR, STEEL HANGER PLATE, HEAVY GAUGE EPOXY COATED STEEL, OFFSET UPRIGHTS WITH WELDED FEET SUPPORTS. FOR ONE UNIT: 102 MM (4") FOR TWO TO SIX UNITS IN A ROW: 152 MM (6") FINISHED METAL STUD WALL TO BACK OF PIPE SPACE. WATTS #BUCK URINAL WALL ACCESS CLEANOUT, TWO (2) PIECE EXPANDABLE PLUG WITH 102 MM (4") DIAMETER STAINLESS STEEL ACCESS COVER, SECURED WITH WANDAL PROOF STAINLESS STEEL SCREW. CHAMPION M-X SERIES JM-XHUB-2150 DRAIN COUPLING, COUPLING, NO-HUB, TYPE 304 AISI STAINLESS STEEL BAND, TYPE 304 AISI STAINLESS STEEL ELBELL, ELASTOMERIC COMPOUND GASKET MEETING THE REQUIREMENTS OF ASTM C-564, TYPE 304 AISI STAINLESS STEEL, SHIELD PAINTED RED FOR EASY IDENTIFICATION, TESTED TO MAINTAIN 15 PSI MAXIMUM LINE PRESSURE AT 60 INCH LB MM TO 100 INCH LB MAXIMUM TORQUE BOLT TIGHTNESS, TESTED BY IPWMO TO COMPLY TO FM 1680-1989 STANDARD (EXCEPT FOR MARKINGS) AND CSA B602-2010 STANDARD (UP TO 10"). THEY ARE TESTED AND CERTIFIED TO ASTM C1540-2011 STANDARD, PER OSHPD CODE APPLICATION NOTICE 5-3119 REVISED 6/29/2011, SIGNED BY PAUL COLEMAN, SECTION 1 (A) STATES THAT THE USE OF COUPLINGS THAT HAVE BEEN TESTED TO CONFORM TO THE PERFORMANCE REQUIREMENTS OF FM APPROVALS, APPROVAL STANDARD 1680, CLASS 1, BY FM APPROVALS OR BY A NATIONALLY RECOGNIZED INDEPENDENT TESTING AGENCY ARE ACCEPTABLE.
WC-2	WATER CLOSET: (BARRIER FREE) BOWL/AMERICAN STANDARD "MADERA" ELONGATED # 3461-128, 16.5" HIGH VITREOUS CHINA FLOOR MOUNTED ELONGATED SYPHON JET ACTION BOWL, 1-1/2" (38MM) TOP SPUD, BOLT CAPS. FLUSH VALVE: SLOAN 111-1.28YD "REGAL" FACTORY SET, OR TECK #81T201-5, EXTERNAL ADJ. 1.28 GAL (4.8 L) C.P. QUIET ACTION DIAPHRAGM TYPE WITH VACUUM BREAKER, PRESSURE LOSS CHECK AND NON-HOLD OPEN FEATURE. SEAT: CENTOCO #820STS, ELONGATED HEAVY DUTY SOLID PLASTIC OPEN FRONT, COMPLETE WITH COVER (LID), CHECK HINGES AND CHROMATED STEEL POSTS, WASHERS AND NUTS. INSTALLATION: TO MEET CODE REQUIREMENTS FOR BARRIER FREE ACCESS.	HB-1	WASH FOUNTAIN "BRADLEY" TERREON QUADRA-FOUNT MF2944 INFRARED TO ACCOMMODATE 4 USERS. BARRIER-FREE AND VANDAL RESISTANT.
		HB-2	WASH FOUNTAIN "BRADLEY" TERREON TRI-FOUNT MF2933 INFRARED TO ACCOMMODATE 3 USERS, BARRIER-FREE AND VANDAL RESISTANT.



3 FLOOR DRAIN TYPICAL INSTALLATION DETAIL  
M-2 N.T.S.

FIXTURE	PIPING CONNECTION SIZE			
	CW	HW	DRAIN	VENT
WC-1	1"	-	3"	1-1/2"
WC-2	1"	-	3"	1-1/2"
UR-1	3/4"	-	2"	1-1/2"
HB-1	1/2"	1/2"	1-1/2"	1-1/4"
HB-2				

SEE ATTACHED RESPONSE LETTER  
DATED AUGUST 11, 2021 FOR PIPING  
AND FITTING MATERIALS

## GENERAL NOTES:

- FOR FULL DEMOLITION LAYOUT REFER TO ARCHITECTURAL LAYOUT. PLUMBING CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL DRAWINGS, DISCONNECT AND REMOVE ALL UNUSED PLUMBING FIXTURES, WATER SUPPLY, VENT AND DRAINAGE PIPING.
- REMOVE ALL UNUSED PLUMBING, DRAINAGE AND VENT PIPING. AFTER REMOVAL OF PIPING AND EXISTING PLUMBING FIXTURES REPAIR ALL DISTURBED AREAS.
- LOCATION OF EXISTING PLUMBING SERVICES SHOWN ON DRAWINGS ARE TAKEN FROM AVAILABLE EXISTING PLUMBING DRAWINGS. EXACT LOCATION SHALL BE CONFIRMED ON SITE BY CONTRACTOR.
- CLEAN AND FLUSH ALL RE-USED EXISTING DRAINAGE PIPING BEFORE CONNECTING NEW PLUMBING FIXTURES.

## DRAWING NOTES

- DISCONNECT AND REPLACE EXISTING WC. REWORK AND REUSE EXISTING DRAINAGE AND WATER CONNECTION FOR NEW FIXTURE. FOR MORE DETAILS SEE NEW PLUMBING LAYOUT.
- DISCONNECT AND REMOVE EXISTING WC. CUT AND CAP OFF EXISTING UNUSED WATER, DRAINAGE AND VENT PIPING.
- CUT EXISTING SANITARY DRAIN. REMOVE PART OF DRAIN UPSTREAM AS SHOWN. FOR CONTINUATION SEE NEW PLUMBING LAYOUT.
- DISCONNECT AND REMOVE EXISTING URINALS. REMOVE EXISTING WATER TANK. CUT AND CAP OFF EXISTING UNUSED WATER, DRAINAGE AND VENT PIPING.
- DISCONNECT AND REPLACE EXISTING HALF-BRADLEY. REWORK AND REUSE EXISTING DRAINAGE AND FOR NEW FIXTURE. FOR MORE DETAILS SEE NEW PLUMBING LAYOUT.
- CONNECT NEW DRAIN TO EXISTING. EXTEND DRAIN TO SERVE NEW PLUMBING FIXTURES AS SHOWN. SIZE TO MATCH EXISTING.
- REPLACE EXISTING TOILET WITH NEW. RECONNECT EXISTING PLUMBING AND DRAINAGE PIPING. REPLACE EXISTING ISOLATION VALVES.
- SUPPLY AND INSTALL NEW TOILET AS SPECIFIED. REWORK EXISTING AND PROVIDE NEW DRAINAGE, VENT AND WATER CONNECTION AS REQUIRED TO ACCOMMODATE NEW FIXTURE.
- SUPPLY AND INSTALL NEW URINAL AS SPECIFIED. REWORK EXISTING AND PROVIDE NEW DRAINAGE, VENT AND WATER CONNECTION AS REQUIRED TO ACCOMMODATE NEW FIXTURE.
- SUPPLY AND INSTALL NEW HB-1 AND HB-2 AS SPECIFIED. REWORK EXISTING AND PROVIDE NEW DRAINAGE AND VENT AS REQUIRED TO ACCOMMODATE NEW FIXTURE. PROVIDE NEW PLUMBING.
- SUPPLY AND INSTALL NEW 3" FD. SEE TYPICAL INSTALLATION DETAIL ON THIS DRAWING.
- EXISTING CW, HW AND REOR LINES IN CEILING. EXACT LOCATION TO BE CONFIRMED ON SITE.
- EXTEND NEW CW, HW AND REOR. LINES TO SERVE NEW PLUMBING FIXTURES AS SHOWN.
- INSTALL NEW BALANCING VALVE. RE-BALANCE ENTIRE EXISTING REOR. HOT WATER LINES. INSTALL ACCESS PANEL IN NEW DRYWALL CEILING TO ACCESS BALANCING VALVE.

DRAINAGE PIPING 3IN. AND LESS IN SIZE SHALL  
HAVE A MIN. 2% SLOPE

VENTING SYSTEM SHALL CONFORM TO DIV. B, 7.5.

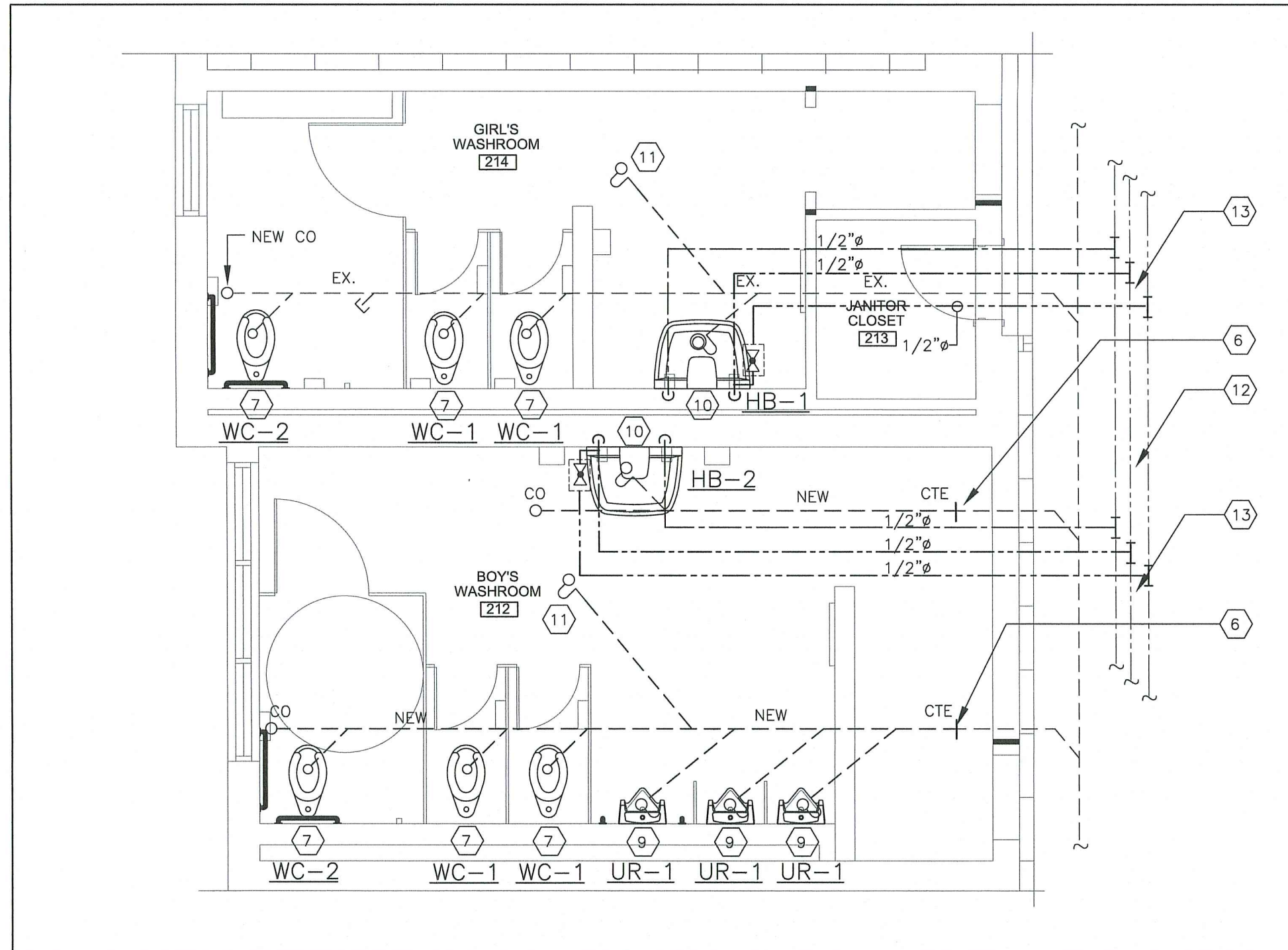
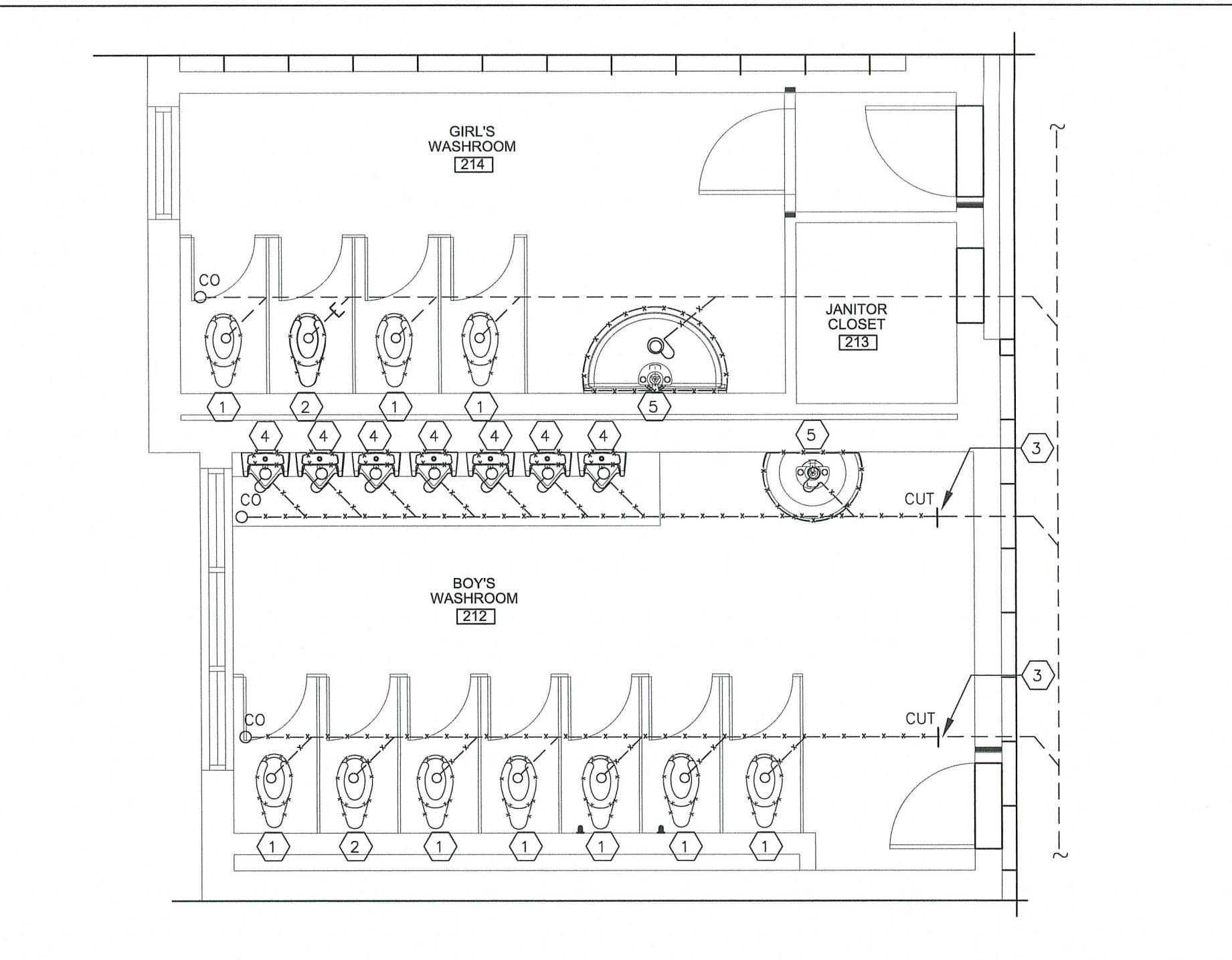
NOMINALLY HORIZONTAL PIPING SHALL BE BRACED AND  
SUPPORTED AT INTERVALS SPECIFIED IN DIV. B, 7.3.4.5.

ALL CONSTRUCTION TO  
MEET ONTARIO BUILDING  
CODE REQUIREMENTS.

PIPING PENETRATING FIRE SEPARATIONS SHALL  
BE FIRE STOPPED IN CONFORMANCE WITH DIV. B, 3.1.9

1 PLUMBING DEMOLITION LAYOUT - GROUND FLOOR WASHROOMS  
M-13 SCALE 1:50

3 PLUMBING NEW LAYOUT - GROUND FLOOR WASHROOMS  
M-13 SCALE 1:50



2 PLUMBING DEMOLITION LAYOUT - SECOND FLOOR WASHROOMS  
M-13 SCALE 1:50

4 PLUMBING NEW LAYOUT - SECOND FLOOR WASHROOMS  
M-13 SCALE 1:50

2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021
NO. ISSUANCES & REVISIONS		DATE

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THESE DRAWINGS WERE PREPARED FOR BUILDING PERMIT AND AS A GENERAL CONSTRUCTION GUIDE. ANY MAJOR DISCREPANCIES WHICH ARE EXPOSED AFTER DEMOLITION SHALL BE REPORTED TO THE OWNER REPRESENTATIVE AND ENGINEERS PRIOR TO COMMENCEMENT OF ANY WORK.  
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 : WASHROOMS PLUMBING LAYOUT

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

PNF Project No.

20041

Dwg.No.

M-13

ROOFTOP EQUIPMENT SCHEDULE																						
UNIT No.	MANUFACTURER	MODEL No.	SUPPLY AIR			RETURN/EXHAUST AIR			HEATING CAPACITY		COOLING CAPACITY				HEAT RECOVERY (HEAT PIPE)		ELECTRICAL			APPROXIMATE 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)	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:

- 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 BELL AND DISCHARGE AIR TEMPERATURE SENSOR.
- CONNECT NEW UNITS TO EXISTING BAS AND BAS SYSTEM. PERFORM TESTING AND VERIFICATION.
- NEW UNIT SHALL BE CONNECTED TO BUILDING AUTOMATION SYSTEM (BAS)
- UNITS SHALL BE INSTALLED ON ROOF SLEEPERS. SEE STRUCTURAL DRAWINGS FOR DETAILS.

UNIT VENTILATORS SCHEDULE																									
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)	EWI (°F)	LWT (°F)	TOTAL (MBH)	EAT DB (°F)	WB (°F)	TOTAL (MBH)								SENS. (MBH)	EER
UV-1 TO UV-9	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-10 TO UV-11	LIBRARY	"SOPHOMORE" HPAIQ	VERTICAL SELF CONTAINED A/C UNIT VENTILATOR	1,500	750	0.25	2	9.0	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	

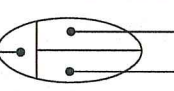
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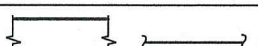
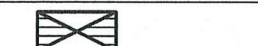

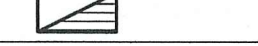
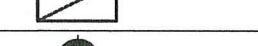

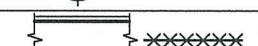
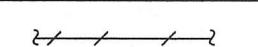
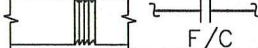
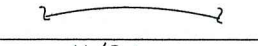
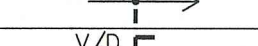
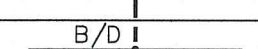





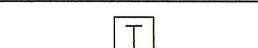

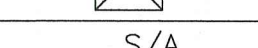


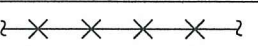
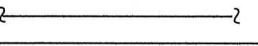
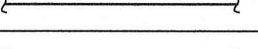

- UNITS SHALL BE CONNECTED AND CONTROLLED BY NEW BAS. ALL CONTROL WIRING AND PROGRAMMING BY CONTROL CONTRACTOR AS PER SEQUENCE OF OPERATION OUTLINE IN WRITTEN SPECIFICATION.
- CONTROL CONTRACTOR SHALL SUPPLY: UNIT CONTROLLER, ROOM INTERFACE INCLUDING ROOM TEMPERATURE SENSOR, CO2 MONITORING SENSOR, MIXED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

BOILER SCHEDULE						REMARKS
BOILER TAG	MANUFACTURER AND MODEL NO.	HEATING INPUT (MBH)	HEATING OUTPUT (MBH)	BURNER CONTROL	POWER V/Ph/Hz	
HB-1 (EXISTING)	P-K 'THERMIFIC' N-1000	1,000	850	ON/OFF	120V/60 10A	VERIFY PROPER OPERATION, REPLACE EXISTING PRV, PROVIDE STARTUP AND COMMISSIONING. DISCONNECT EXISTING BAS CONTROL AND PROVIDE CONNECTION TO NEW BAS.
HB-2 (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.

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 <sup>(1)</sup>		
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				
'C'	SERIES 520D	SUPPLY AIR	YES	STEEL DOUBLE DEFLECTION C/W OPPOSED BLADE VOLUME DAMPER				
'D'	SERIES 920	SUPPLY AIR	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	BURN AIR GYM	-	HEAVY DUTY GRILLE, STEEL DOUBLE DEFLECTION				
'TR'	SERIES STG	TRANSFER AIR	-	HEAVY DUTY TRANSFER GRILLE, STEEL				

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
	FLEXIBLE DUCT CONNECTION
	FLEXIBLE DUCT
	UNDERCUT 3/4"
	VOLUME DAMPER
	BACKDRAFT DAMPER
	FIRE DAMPER
	FIRE/SMOKE DAMPER
	THERMOSTAT
	THERMOSTAT WITH COVER GUARD AND LOCK
	S/M/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:

- PRIOR TO DEMOLITION ASBESTOS TO BE REMOVED BY LICENCE ASBESTOS CONTRACTOR, IF ANY.
- CONTRACTOR SHALL VERIFY ALL EXISTING PIPING AND DUCTWORK ON SITE PRIOR TO STARTING NEW WORK.
- DRAIN ALL AFFECTED SYSTEMS AND REFILL AFTER WORK IS DONE.
- PRESSURE TEST, FLUSH, CLEAN AND REFILL SYSTEM AFTER WORK IS DONE. PURGE ALL AIR FROM HEATING SYSTEM.
- MAKE GOOD ALL SURFACES AFTER COMPLETION OF WORK.
- REMOVE ALL DEBRIS AND RUBBISH FROM SITE DAILY.
- PROVIDE THERMAL INSULATION OF NEW PIPING. REPAIR DAMAGED INSULATION OF EXISTING PIPING AS REQUIRED.
- 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.

Halton  
District  
School  
Board

RECEIVED

JUN 30 2021

CITY OF BURLINGTON  
BUILDING DEPARTMENT

2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021
NO. ISSUANCES & REVISIONS		DATE

**PNF**  
ENGINEERING INC.  
BUILDING  
SERVICES  
ENGINEERS  
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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 : SCHEDULES AND LEGEND

Designed: N.P.

Checked: Y.N.

Scale: AS SHOWN

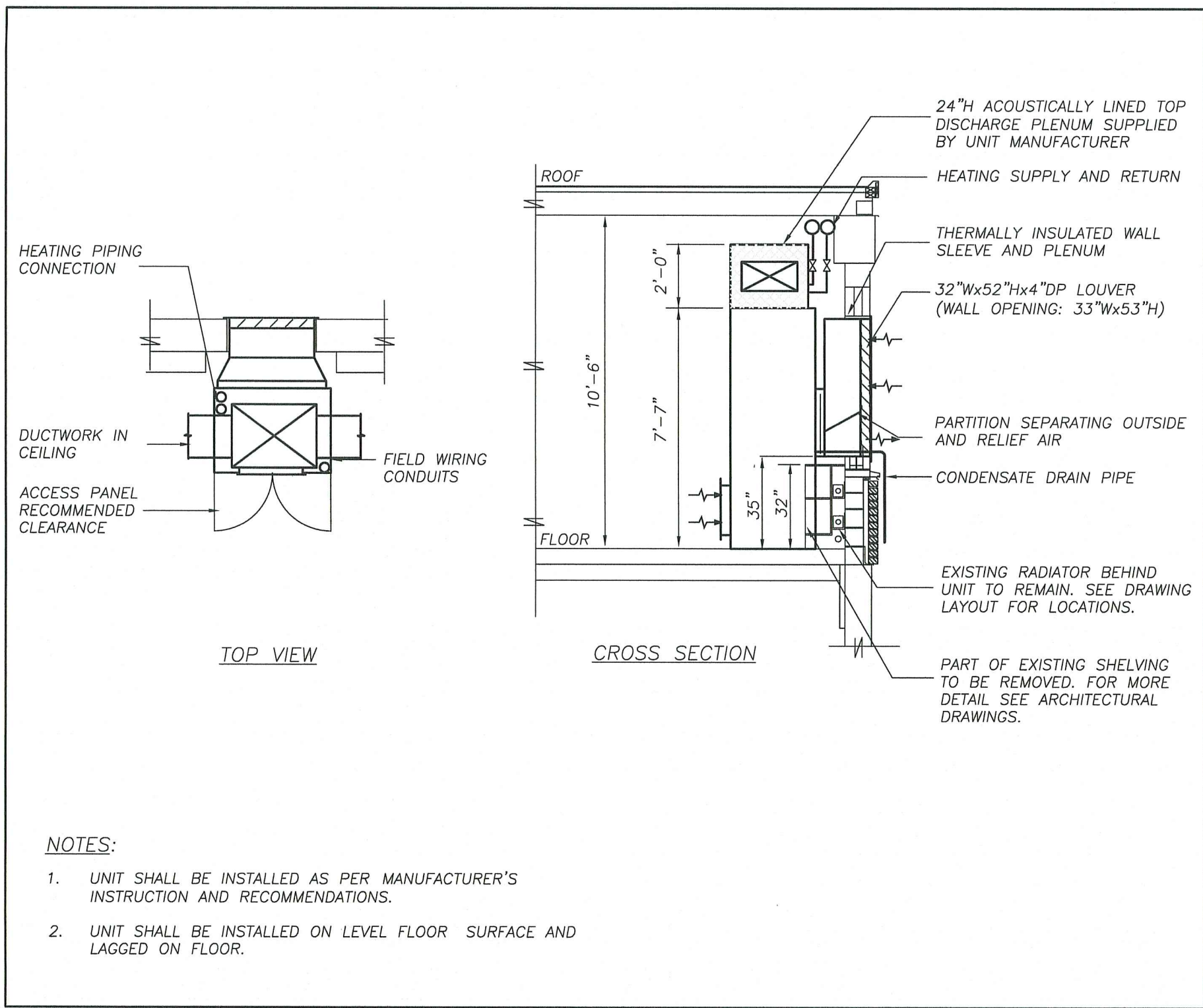
Date: JAN 2021

PNF Project No.

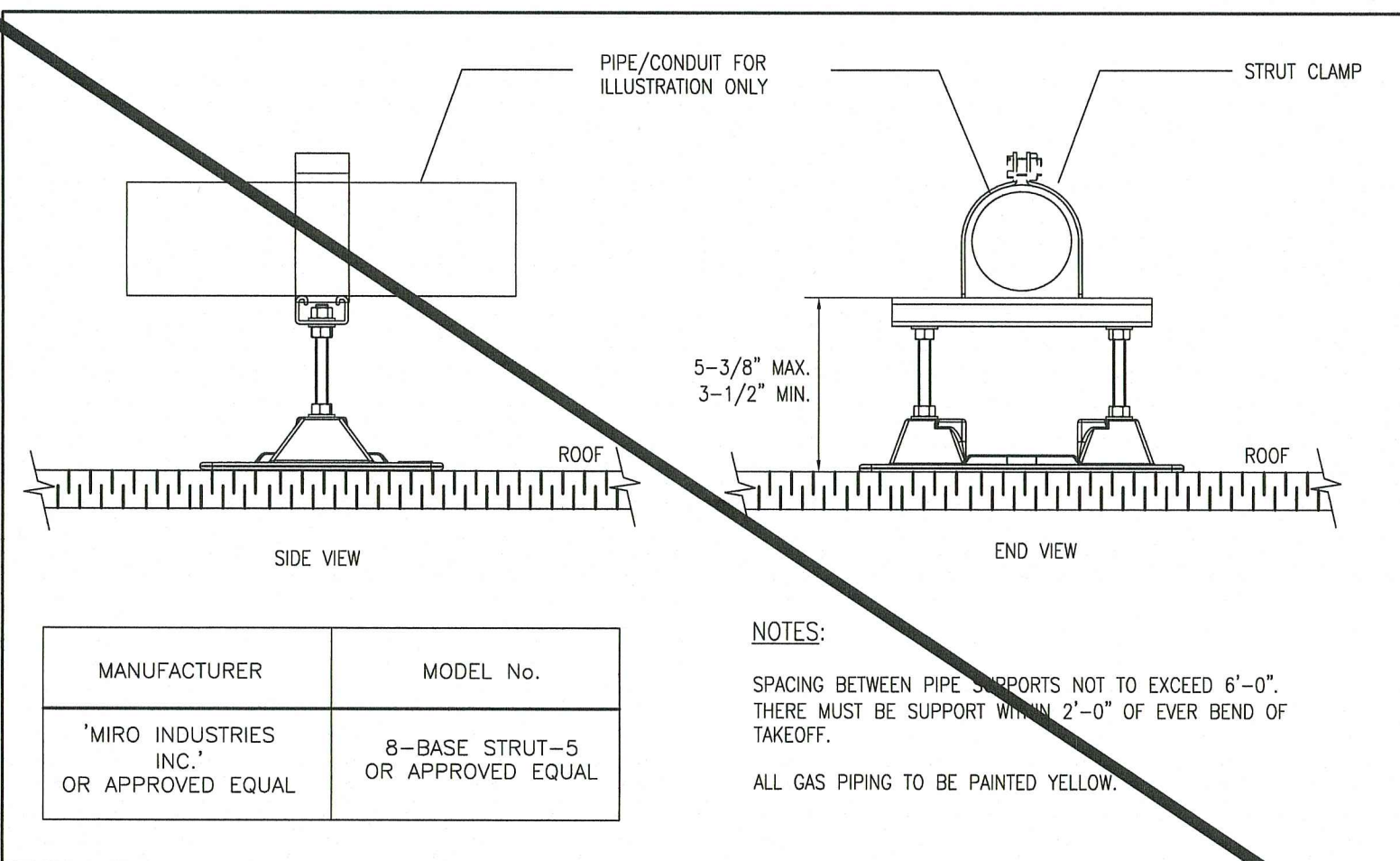
20041

Dwg.No.

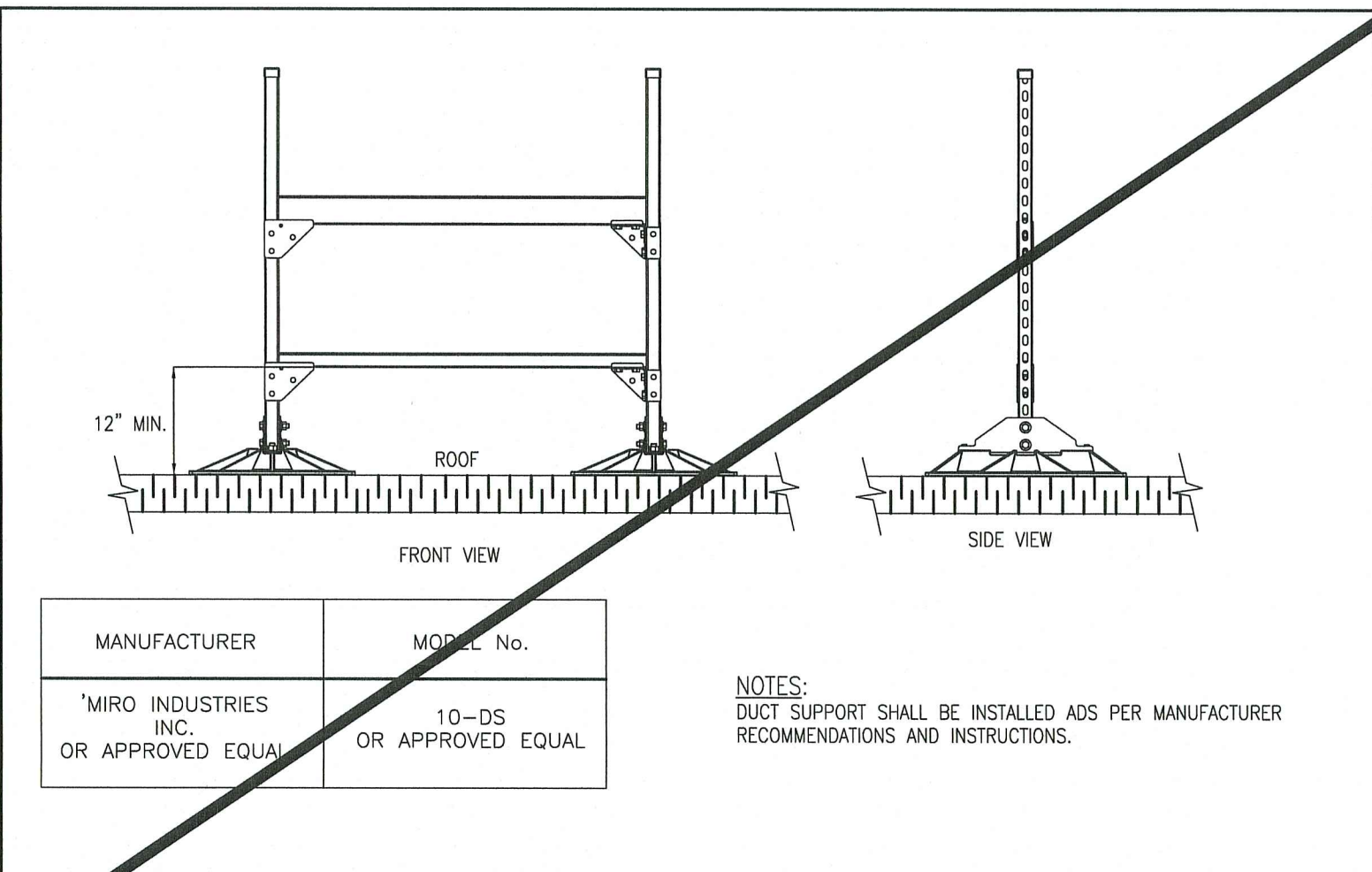
M-14



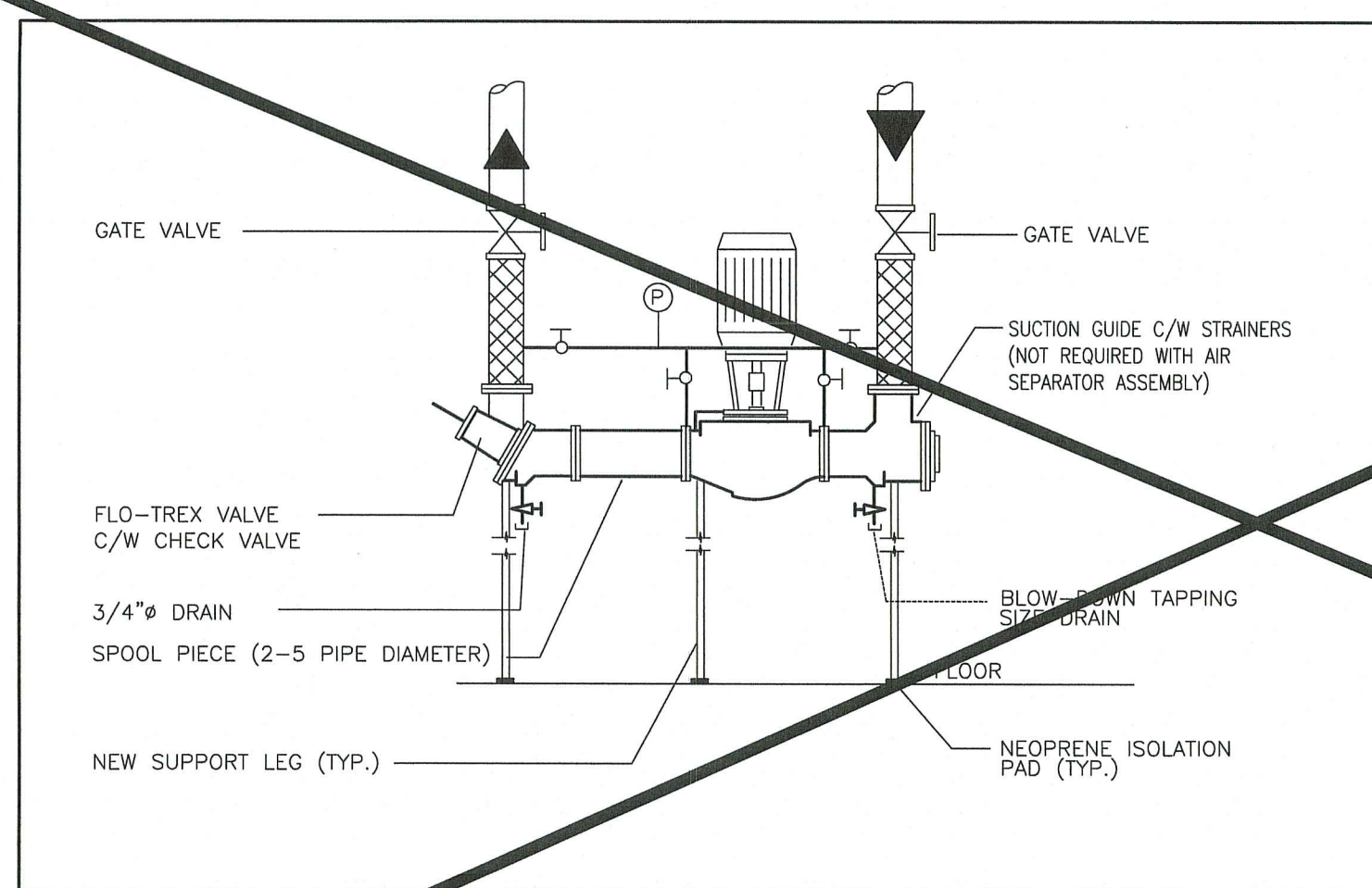
1 UNIT VENTILATOR - TYPICAL INSTALLATION DETAIL  
M-15 N.T.S.



5 GAS PIPING SUPPORT DETAIL  
M-15 SCALE: N.T.S.

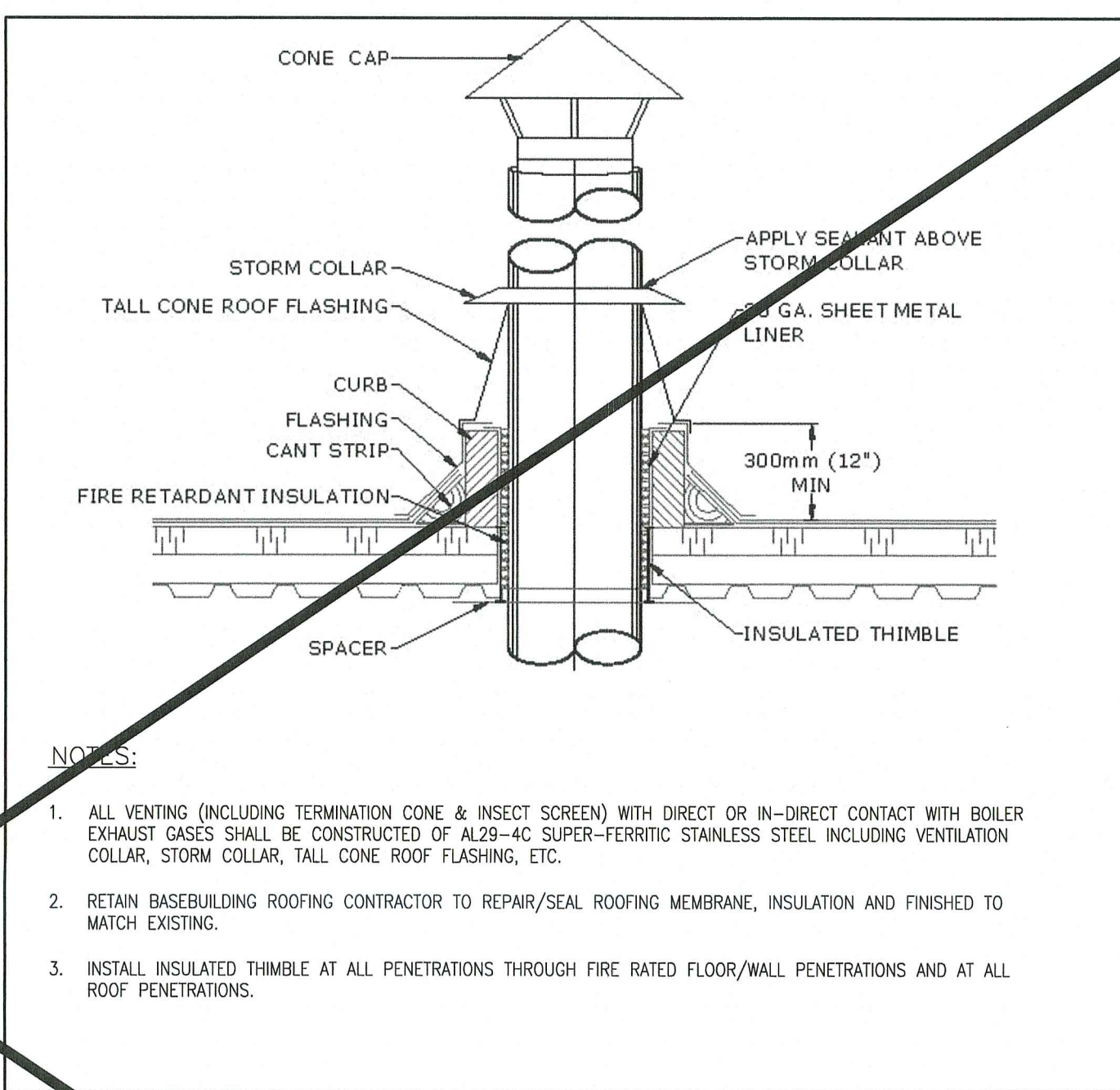


6 DUCT SUPPORT DETAIL  
M-15 SCALE: N.T.S.

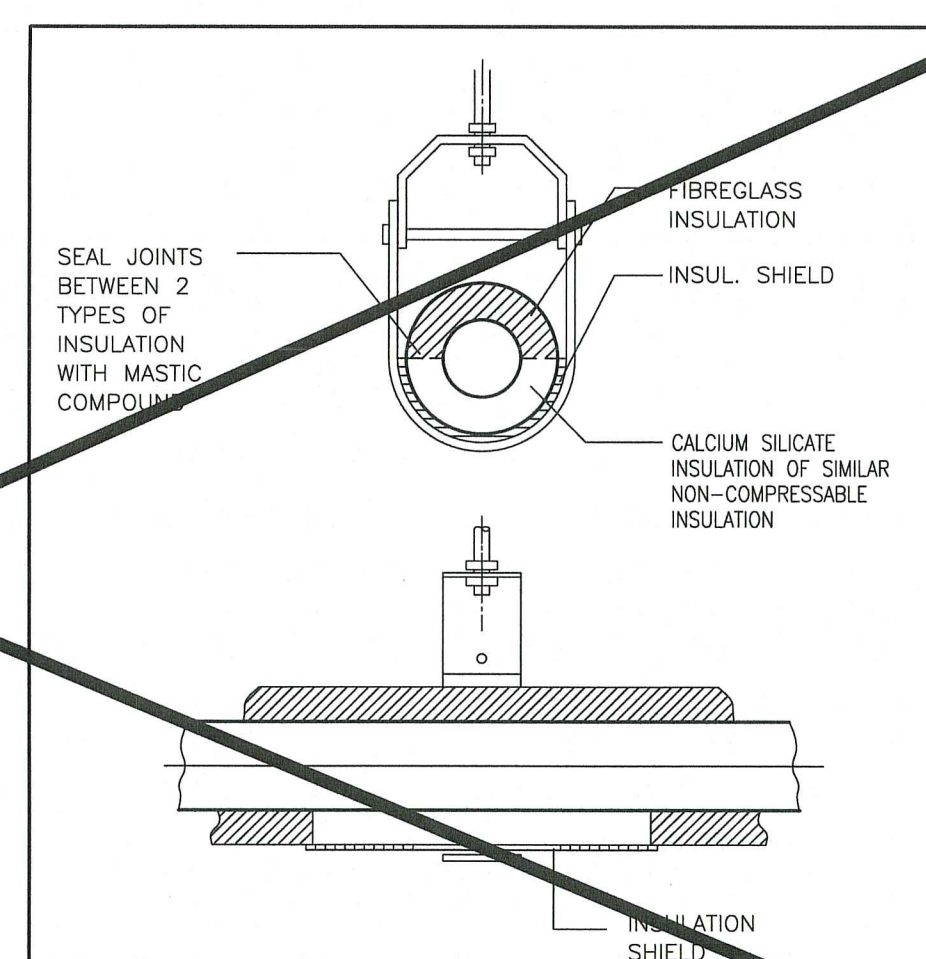


2 VERTICAL PUMP DETAIL  
M-15 SCALE: N.T.S.

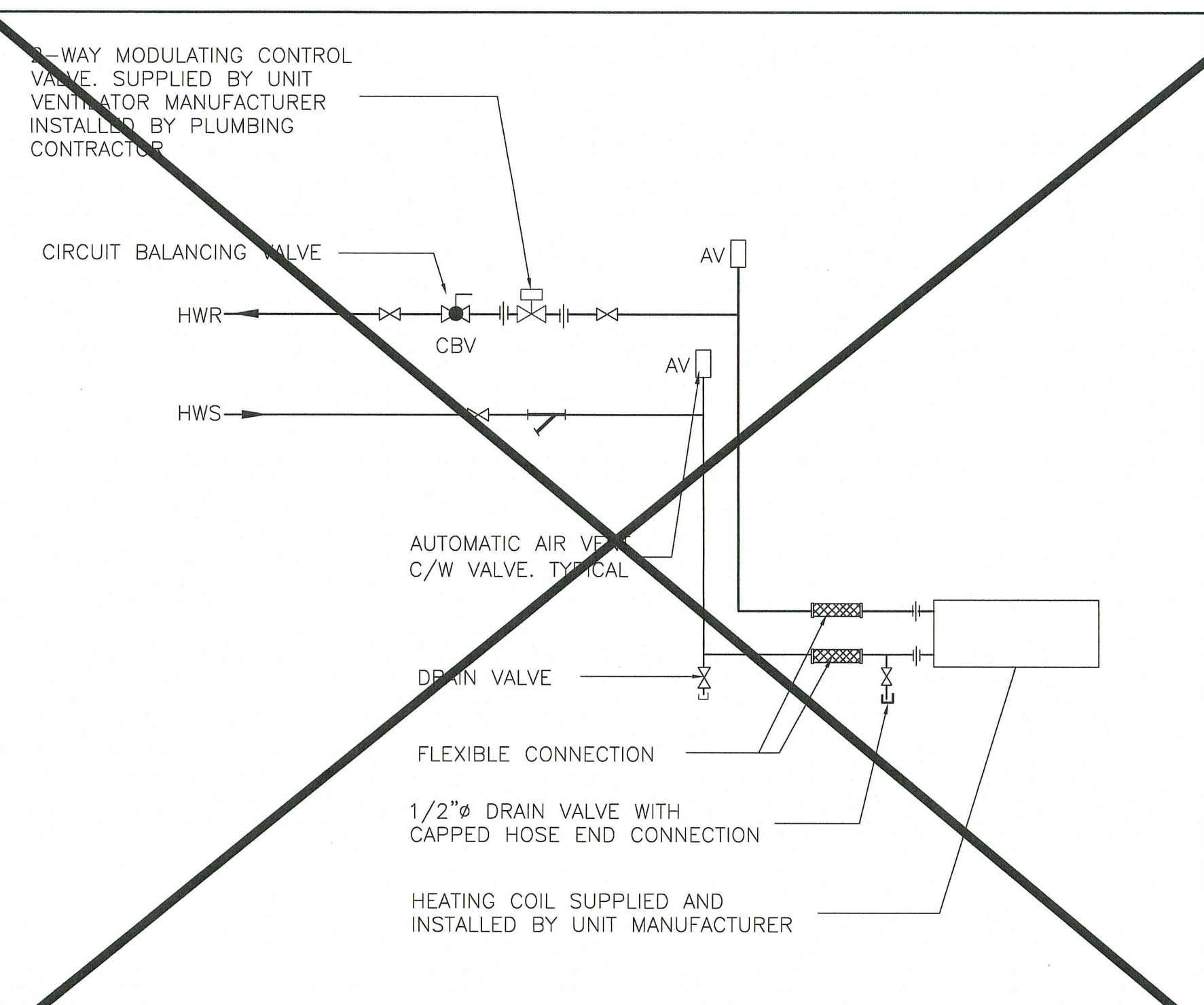
TEMP. RANGE (°F)	INSULATION CONDUCTIVITY Btu·in/(hr·ft²·°F)	NOMINAL PIPE DIAMETER (in)				
		<=1"Ø	1 1/4 - 2"Ø	2 1/2 - 4"Ø	5 - 6"Ø	>=8"Ø
201-250	0.27-0.30	1.5	1.5	2.0	2.0	3.5
140-200	0.25-0.29	1.5	1.5	1.5	2.0	2.0
40-55	0.23-0.27	0.5	0.75	1.0	1.0	-



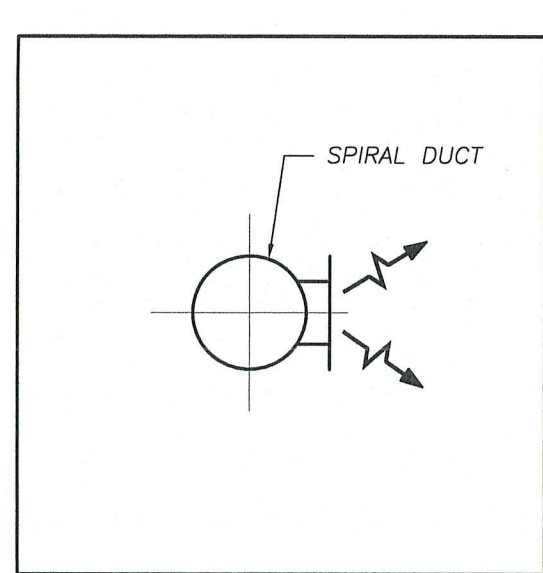
7 TYPICAL VENTING DETAIL  
M-15 N.T.S.



3 PIPING HANGER DETAIL  
M-15 SCALE: N.T.S.

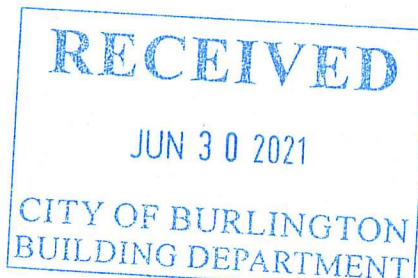


8 UNIT VENTILATOR HOT WATER COIL - PIPING SCHEMATIC  
M-15 N.T.S.



4 SECTION 'A-A' - SUPPLY AIR GRILLE  
M-15 SCALE: N.T.S.

ALL CONSTRUCTION TO  
MEET ONTARIO BUILDING  
CODE REQUIREMENTS.



2	FOR PERMIT / TENDER	MAY 6, 2021
1	FOR COORDINATION	APR 20, 2021
NO. ISSUANCES & REVISIONS		DATE



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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-15