MECHANICAL SYMBOLS

SYMBOL	DESCRIPTIONS
	EXISTING DUCTWORK
	EXISTING DUCTWORK TO BE REMOVED
	DUCTWORK
	FLEXIBLE DUCT
	DUCTWORK C/W 25mm ACOUSTICAL LINER
	DUCTWORK C/W 50mm ACOUSTICAL LINER
	SUPPLY DUCT RISER/SECTION
	RETURN/EXHAUST DUCT RISER/SECTION
	VOLUME DAMPER
	BACKDRAFT DAMPER
	RETURN/EXHAUST AIRFLOW DIRECTION
	SUPPLY AIRFLOW DIRECTION
T	THERMOSTAT
$	MANUAL WALL SWITCH
	SUPPLY AIRFLOW DIRECTION
	POINT OF CONNECTION
	POINT OF DISCONNECTION
VAxx	EQUIPMENT TAG
NO.@ / TYPE AIRFLOW / SIZE	AIR DISTRIBUTION TAG AIRFLOW: L/S (METRIC) OR CFM (IP.)

ABBREVIATIONS

ABBREV.	DESCRIPTIONS
CONC.	CONCRETE
CU	CONDENSING UNIT
DWG	DRAWING
DX	DIRECT EXPANSION
EA, E/A	EXHAUST AIR
ELEV.	ELEVATION
EX.	EXISTING
HP	HEATING PUMP
HV	HEATING & VENTILATING
OA, O/A	OUTDOOR AIR
O.C.	ON CENTRE
OPNG	OPENING
RA, R/A	RETURN AIR
SA, S/A	SUPPLY AIR
SPEC.	SPECIFICATIONS
TYP.	TYPICAL
UON	UNLESS OTHERWISE NOTED
UTR	UP THROUGH ROOF

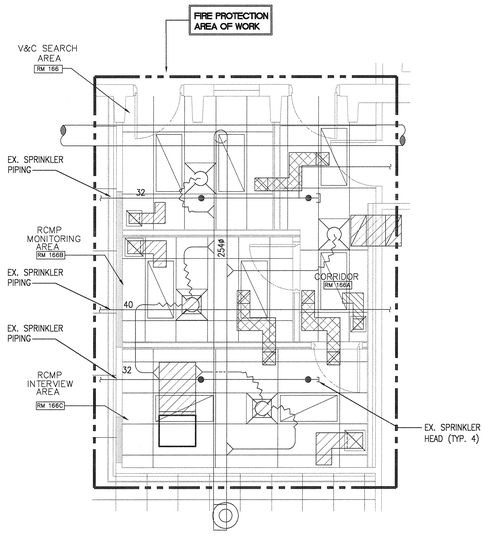
FIRE PROTECTION SYMBOLS

SYMBOL	DESCRIPTIONS
●	RECESSED, 15mm (1/2"), "K" FACTOR 80.7(5.6), 74°C(165°F), CHROME w/CHROME PLATED ESCUTCHEON.
	NEW SPRINKLER PIPE
	EXISTING WET SPRINKLER PIPE
	EXISTING HEAD/PIPING TO BE REMOVED

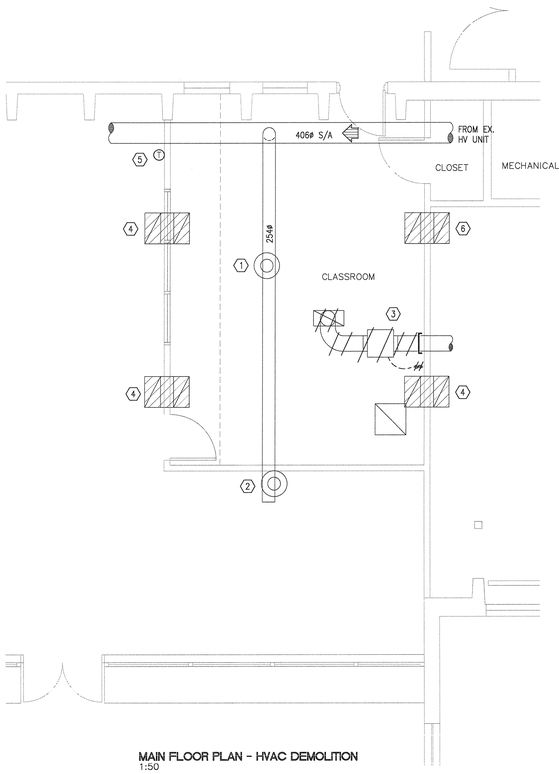
NOTE: SPRINKLERS IN LIGHT HAZARD OCCUPANCIES SHALL BE OF THE QUICK RESPONSE TYPE AS PER NFPA 13.

GENERAL NOTES – FIRE PROTECTION:

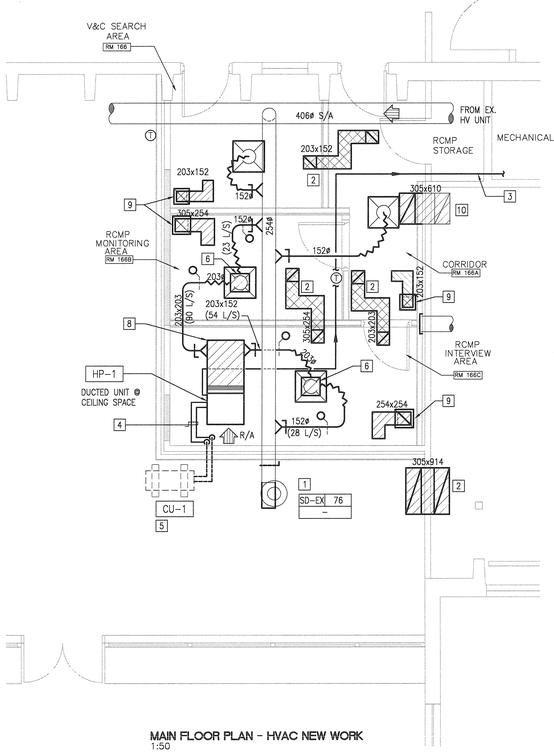
1. PROVIDE THE DESIGN AND INSTALLATION WET SPRINKLER SYSTEM FOR "FIRE PROTECTION AREA OF WORK" IN ACCORDANCE WITH NFPA 13–2013 AND LOCAL CODES. PROVIDE SPRINKLER ENGINEER SERVICE WITH LETTERS OF ASSURANCE.
2. EXISTING SPRINKLER HEADS ARE SHOWN OVER NEW FLOOR PLAN. RELOCATE EXISTING HEADS AND PROVIDE ADDITIONAL HEADS (MATCHING EXISTING) TO COMPLY WITH NFPA–13.
3. MODIFY EXISTING PIPING LAYOUT AND RE–ROUTE EXISTING PIPING AS REQUIRED TO ACCOMMODATE INSTALLATIONS OF MECHANICAL/ELECTRICAL SERVICES AND EQUIPMENT. COORDINATE WITH OTHER TRADES.
4. BUILDING OCCUPANCY IS LIGHT HAZARD.
5. INSTALL HANGERS AT 2,440 O.C. ON ALL PIPING 2,440 AFF OR LOWER.
6. ARCHITECTURAL REFLECTED CEILING PLAN, LIGHTING AND DUCTWORK LAYOUTS ARE SHOWN FOR REFERENCE ONLY. CONFIRM WITH DRAWINGS BY OTHERS.
7. ALLOW FOR CUTTING AND PATCHING.
8. EXISTING SPRINKLER PIPES WILL TO BE TESTED FOR LEAD PAINT UNDER A SEPARATE CONTRACT.



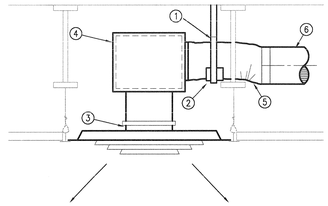
MAIN FLOOR PLAN – FIRE PROTECTION
1:50



MAIN FLOOR PLAN – HVAC DEMOLITION
1:50



MAIN FLOOR PLAN – HVAC NEW WORK
1:50



1. SUPPORT FLEXIBLE DUCT CLOSE TO DIFFUSER NECK WITH DUCT STRAP
2. 100mm(4") SHEET METAL SHIELD TO PREVENT PINCHING
3. PLASTIC ELECTRICAL TIE AND DUCT SEALANT TO NECK
4. PLENUM C/W 25mm ACOUSTICAL LINER HEIGHT = FLEX. DUCT SIZE + 50mm WIDTH = NECK / FLEX. DUCT SIZE + 50mm
5. FLEXIBLE DUCT WHERE SHOWN. MAX. LENGTH 1829mm(6'–0").
6. METAL DUCT, SIZE AS NOTED ON DRAWING. WHERE BRANCH DUCT SIZE IS NOT NOTED ON THE DRAWING, DUCT SHALL BE SIZED PER "SUPPLY BRANCH DUCT SIZE SCHEDULE".

DIFFUSER – PLENUM W/ SIDE CONNECTION
N.T.S.

DRAWING DEMOLITION NOTES:

1. REMOVE EX. DIFFUSER AND CAP BRANCH DUCT.
2. EX. DIFFUSER TO BE RELOCATED.
3. REMOVE EX. EXHAUST FAN, DUCTWORK, GRILLE, WALL TIMER. CAP EX. DUCT AS SHOWN.
4. REMOVE EX. R/A TRANSFER AIR BOOT.
5. REMOVE AND REINSTALL EX. THERMOSTAT ON NEW, FURRED OUT WALL.
6. REMOVE EX. R/A TRANSFER AIR BOOT ELBOW ON CLASSROOM SIDE ONLY.

V&C SEARCH AREA RM 166
SD–1 33 152ø
RTG–1 – 203x152

RCMP MONITORING AREA RM 166B
SD–1 113 7 254ø
RTG–1 – 305x254

RCMP INTERVIEW AREA RM 166C
SD–1 83 7 254ø
RTG–1 – 254x254

CORRIDOR RM 166A
SD–1 23 152ø
RTG–1 – 203x152

DRAWING NOTES:

1. RELOCATED DIFFUSER. EXTEND EX. 254 S/A DUCT AS REQUIRED TO CREATE CUSHION HEAD. PROVIDE BALANCING DAMPER. RE–BALANCE EX. DIFFUSER TO AIRFLOW NOTED.
2. TRANSFER AIR BOOT.
3. 20 CONDENSATE DRAIN C/W 25mm FIBREGLASS INSULATION. SLOPE TO FLOOR DRAIN IN MECHANICAL ROOM. COORDINATE EXACT ROUTING ON SITE.
4. REFRIGERANT PIPING C/W INSULATION. PROVIDE ALUMINUM JACKET FOR PIPING EXPOSED TO WEATHER.
5. OUTDOOR CONDENSING UNIT ON ROOF, MOUNTED ON BUILT–UP CURBS; EXACT LOCATION TO BE CONFIRMED ON SITE AND COORDINATED WITH GENERAL CONTRACTOR. SEAL ROOF PENETRATIONS WATERTIGHT. INDOOR UNIT SET AT HIGH SPEED (144 L/S). DIV. 26 TO PROVIDE LINE VOLTAGE WIRING BETWEEN INDOOR/OUTDOOR UNITS AND CONDENSATE PUMP. DIV. 23/25 TO PROVIDE LOW VOLTAGE WIRING (IN CONDUIT) FOR HARDWIRED REMOTE CONTROLLER IN ROOM 166B.
6. LINED PLENUM W/ SIDE CONNECTIONS PER DETAIL.
7. SCHEDULED AIRFLOW = (S/A FROM EX. HV UNIT) + (S/A FROM DX INDOOR UNIT)
8. FLEXIBLE DUCT CONNECTOR & DISCHARGE PLENUM AT INDOOR UNIT S/A OUTLET. PROVIDE 25mm DUCT LINER ON ALL S/A DUCT DOWNSTREAM OF HP–1.
9. TRANSFER AIR BOOT & CEILING RETURN AIR TRANSFER GRILLE.
10. EXTEND DUCTWORK AND PROVIDE NEW TRANSFER AIR BOOT ELBOW ON CORRIDOR SIDE TO ACCOMMODATE THICKENED WALL.

SPLIT HEAT PUMP SCHEDULE:

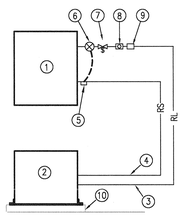
ACCEPTABLE MATERIALS: DAIKIN

INDOOR: FDXS12LVJU (SLIM DUCT)
OUTDOOR: RXS12LVJU
COOLING CAPACITY 4,800–11,500 BTUH
HEATING CAPACITY 4,800–11,500 BTUH
15.5 SEER, R410A
MCA 8.75 AMP @ 208/1/60.
C/W CONDENSATE PUMP, HARDWIRED REMOTE CONTROLLER.

GRILLE / DIFFUSER SCHEDULE:

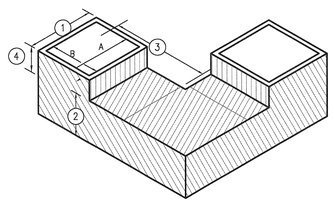
SUPPLY AIR DIFFUSER
SD–1: E.H. PRICE MODEL SCD/B12

RETURN AIR TRANSFER GRILLE
RTG–1: E.H. PRICE MODEL 530/L/B12



1. EVAPORATOR COIL
2. CONDENSING UNIT TO BE MOUNTED ON CURBS W/ NEOPRENE PAD.
3. LIQUID LINE
4. SUCTION LINE
5. EXPANSION VALVE SENSOR
6. THERMOSTATIC EXPANSION VALVE
7. SOLENOID VALVE
8. SIGHT GLASS
9. FILTER DRYER.
10. CURBS (BY OTHERS)

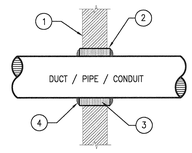
REFRIGERANT PIPING SCHEMATIC
N.T.S.



1. 'A' DIMENSION + INSULATION.
2. 'B' DIMENSION + INSULATION.
3. 2 X THE LARGER OF 'A' OR 'B'.
4. THE LARGER OF 152mm OR 0.5 X 'B'

REFER TO PLAN FOR ELBOW ARRANGEMENTS AND ACOUSTICAL DUCT LINER THICKNESS.

TYPICAL RETURN/TRANSFER DUCT
N.T.S.



1. ACOUSTICAL WALL.
2. 24 GA.(MIN.) METAL SLEEVE EXTEND 2" BEYOND WALL ON ALL 4 SIDES.
3. FIBREGLASS INSULATION 1.5 PCF. 100% FILL.
4. NON–HARDENING SILICONE SEALANT.

SERVICE PENETRATION THROUGH ACOUSTICAL WALL
N.T.S.

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS
Région de Pacifique

PROFESSIONAL ENGINEER
M. N. C. NG
30269
PROVINCE OF BRITISH COLUMBIA
2016.05.09

Revision/ Revision	Description/Description	Date/Date
5		
4		
3		
2		
1		
0	ISSUED FOR TENDER	2016.05.09

Client/client

CORRECTIONAL SERVICE OF CANADA

Project title/Titre du projet

ABBOTSFORD, B.C.
33344 KING ROAD

MATSQUI INSTITUTION UNIT M2C AND M2T1 CONVERT TD TO JC UNIT

Consultant Signature Box Only

Designed by/Concept par
M. NG

Drawn by/Dessine par
M. NG / 2016.01.12

PWGSC Project Manager/Administrateur de Projets TPSGC
DARYL SINCLAIR

PWGSC Regional Manager, Architectural and Engineering Services/ Gestionnaire régionale, Services d'architectural et de génie, TPSGC
PREETIPAL PAUL

Drawing title/Titre du dessin

MAIN FLOOR PLANS DEMOLITION & NEW WORK

Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.077188.001	M1 OF 1	0

PWGSC – B1 – 1000X707

0 10 20 30 40 50 60 70 80 90 100mm

DM5XXXXXX