

MECHANICAL GENERAL REQUIREMENTS

GENERAL

THE GENERAL CONDITIONS, SUPPLEMENTS AND AMENDMENTS SHALL GOVERN THIS DIVISION OF THE SPECIFICATIONS.

1.1 INTENT

WORK SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS AND THEIR INTENT, COMPLETE WITH ALL NECESSARY COMPONENTS, INCLUDING THOSE ARE NOT NORMALLY SHOWN OR CALLED FOR AND READY FOR OPERATION BEFORE ACCEPTANCE. THE WORD "PROVIDE" SHALL MEAN "SUPPLY AND INSTALL" UNLESS OTHERWISE INDICATED.

1.2 DESIGN REQUIREMENTS

DESIGN ALL LOW VOLTAGE CONTROLS TO ENSURE A CODE COMPLIANT INSTALLATION IN ACCORDANCE WITH SEQUENCE OF OPERATOR DESCRIBED IN THE SCOPE OF WORK. COORDINATE WITH ELECTRICAL TRADE TO ENSURE FULL INTEGRATION AND PROPER FUNCTIONING SYSTEM.

1.3 PERMITS AND LICENSES

THE MECHANICAL CONTRACTOR AND SUB-CONTRACTORS SHALL OBTAIN PERMITS, PAY ALL FEES AND COMPLY WITH ALL PROVINCIAL, MUNICIPAL AND OTHER LEGAL REGULATIONS AND BY-LAWS APPLICABLE TO THEIR WORK.

1.4 GOVERNING REGULATIONS

THE WORK UNDER DIVISION 15 SHALL CONFORM, BUT NOT BE LIMITED TO, THE REQUIREMENTS OF THE FOLLOWING CODES, REGULATIONS AND STANDARDS:

- VBBL 2014
- CANADIAN ELECTRICAL CODE
- C.S.A STANDARDS
- CAN/CGA B.186.1M
- WORK SAFE BC

1.5 RESPONSIBILITY

EXAMINE ALL ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL CONTRACT DOCUMENT AND VISIT THE SITE BEFORE TENDERING AND EXAMINE ALL LOCAL AND EXISTING CONDITIONS ON WHICH THE WORK IS DEPENDANT. NO CONSIDERATION WILL BE GRANTED FOR ANY MISUNDERSTANDING OF WORK TO BE DONE RESULTING FROM FAILURE TO VISIT THE SITE. NOTIFY ENGINEER DURING TENDERING PERIOD OF ANY LACK OF SUFFICIENT INFORMATION FOR PROPER BIDDING. FAILURE TO DO SO DOES NOT RELIEVE THE CONTRACTOR OF PROVIDING THE INTENDED EQUIPMENT OR INSTALLATION.

1.6 GUARANTEE

GUARANTEE EQUIPMENT AND LABOUR TO PERFORM AS DESIGNED FOR A PERIOD OF TWO YEARS FROM THE DATE OF SUBSTANTIAL PERFORMANCE. TRANSFER EXTENDED WARRANTIES ON EQUIPMENT TO THE OWNER.

1.7 WORKMANSHIP

WORKMANSHIP SHALL BE IN ACCORDANCE WITH WELL ESTABLISHED TRADE PRACTICE AND STANDARDS ACCEPTED AND RECOGNIZED BY THE ENGINEER. EMPLOY ONLY TRADESMEN HOLDING VALID BC TRADE QUALIFICATION CERTIFICATES.

1.8 DRAWINGS AND MEASUREMENTS

DRAWINGS ARE GENERALLY DIAGRAMMATIC AND ARE INTENDED TO INDICATE THE SCOPE AND GENERAL ARRANGEMENT OR WORK. VERIFY SPACES IN WHICH WORK WILL BE INSTALLED. DO NOT SCALE THE DRAWINGS.

1.9 MODIFICATIONS

WHEN DIRECTED BY THE ARCHITECT/PRIME CONSULTANT, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT SO AS TO PREVENT CONFLICT WITH STRUCTURE OR WORK OF OTHER TRADES OR FOR THE PROPER EXECUTION OF THE WORK.

PRODUCTS

2.1 MATERIALS

TENDERS MAY BE BASED ON ANY MANUFACTURER PROVIDED THAT THEY MEET EVERY ASPECT OF THE DRAWINGS AND SPECIFICATIONS. MATERIALS COVERED BY THE CONTRACT DOCUMENTS MUST BE NEW.

2.2 ADDITION OF ACCEPTABLE MANUFACTURERS

MATERIAL CONSIDERED TO SATISFY THE SPECIFICATION, BUT OF A MANUFACTURER OTHER THAN THOSE NAMED, MAY BE SUBMITTED TO THE DESIGN AUTHORITY FOR CONSIDERATION. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT SUBSTITUTED EQUIPMENT IS SUITABLE FOR THE ALLOTTED SPACE FOR THAT EQUIPMENT AND FOR ADDITIONAL COSTS ARISING FROM SUCH SUBSTITUTIONS.

2.3 SHOP DRAWINGS / PRODUCTS

SHOP DRAWINGS / PRODUCT DATA SHALL BE SUBMITTED FOR ALL MECHANICAL/PLUMBING EQUIPMENT SPECIFIED AND FIRE STOPPING.

2.4 WARRANTY

USE OF INSTALLED EQUIPMENT DURING CONSTRUCTION SHALL NOT SHORTEN OR ALTER THE WARRANTY PERIOD AS SPECIFIED IN THE GENERAL CONDITIONS.

2.5 RECORD DRAWINGS

MAINTAIN ONE SET OF CONTRACT WHITEPRINTS, INCLUDING ALL REVISIONS AND RECORD IN RED ANY DEVIATION FROM THE CONTRACT DRAWINGS AS IT OCCURS. UPON THE COMPLETION OF THE WORK, PROVIDE ONE SET OF AS INSTALLED DRAWINGS CERTIFIED AS BEING ACCURATE AND COMPLETE. DELIVER TO THE ARCHITECT.

EXECUTION

3.1 PROTECTION OF WORK

PROTECT EQUIPMENT AND MATERIAL STORED OR IN PLACE DURING CONSTRUCTIONS, FROM WEATHER, MOISTURE, DUST AND PHYSICAL DAMAGE. DAMAGED FACTORY FINISHES TO BE REFINISHED.

3.2 CUTTING AND PATCHING

PROVIDE STANDS AND SUPPORTS FOR EQUIPMENT AND MATERIALS SUPPLIED.

3.4 CONCEALMENT

CONCEAL ALL PIPING, DUCTWORK ETC. IN PARTITION WALLS, CRAWLSPACES AND CEILING SPACES UNLESS OTHERWISE NOTED. PIPING SHALL NOT BE INSTALLED IN OUTSIDE WALLS OR ROOF SPACES UNLESS OTHERWISE DIRECTED.

3.5 ACCESSIBILITY

INSTALL ALL WORKS SO AS TO BE READILY ACCESSIBLE FOR ADJUSTMENT, OPERATION AND MAINTENANCE. FURNISH ACCESS DOORS WHERE REQUIRED IN BUILDING SURFACES FOR INSTALLATION BY BUILDING TRADES.

3.6 TESTING AND COMMISSIONING

TEST ALL FIELD DEVICES FOR PROPER FUNCTION, TEST ALL CONTROL SEQUENCES, MEASURE AIR FLOW DURING FULL OPERATION TO VERIFY PERFORMANCE.

ELECTRICAL GENERAL REQUIREMENTS

GENERAL

1.1 DESCRIPTION

PROVIDE COMPLETE ELECTRICAL SYSTEMS AS OUTLINED IN THE CONTRACT DOCUMENTS.

1.2 DESIGN REQUIREMENTS

ALL ELECTRICAL WORK IS TO BE DESIGN / BUILD BY THE ELECTRICAL TRADE CONTRACTOR, INCLUDING:

- SIZING OF WIRING AND CONDUITS
- DETERMINING POWER SOURCE LOCATIONS / TIE INS
- CIRCUIT BREAKER OR FUSE SIZES
- SAFETY SWITCH REQUIREMENTS
- MOTOR OVERLOAD SIZING
- CONDUIT ROUTING

1.3 APPROVALS

SUBMIT ALL NECESSARY DRAWINGS TO THE AUTHORITIES HAVING JURISDICTION AND OBTAIN ALL APPROVALS.

PRODUCTS

2.1 ALL WIRING TO MEET CODE.

2.2 USE ONLY FITTINGS APPROVED BY EQUIPMENT MANUFACTURER.

EXECUTION

3.1 CONDUITS

ALL CONDUITS TO BE CONCEALED WHERE FINISHES ARE REMOVABLE. EXPOSED CONDUITS TO BE BX WITH BEAUTY CAPS TO MATCH EXISTING ADJACENT WALL FINISH (PANDUIT WIRE WAY) FITTINGS UNLESS OTHERWISE INDICATED.

3.2 SAFETY SWITCHES

INSTALL SWITCHES AT EACH MOTOR DEVICE.

3.3 MOTOR OVERLOAD

SIZE OVERLOADS BASED ON ACTUAL MOTOR NAME PLATE RATINGS.

3.4 TESTING

TEST OPERATION OF ALL EQUIPMENT AND MOTOR ROTATION.

SCOPE OF WORK

1. SUPPLY AND INSTALL THREE (3) EXHAUST FANS AS SPECIFIED:

- INCLUDE CURBS
- INCLUDE DAMPERS
- INCLUDE GRILLE

2. COORDINATE NEW ROOF PENETRATIONS TO BE PROVIDED BY THE GENERAL CONTRACTOR.

3. PROVIDE SHOP DRAWINGS FOR REVIEW PRIOR TO ORDERING.

4. PROVIDE POWER TO EACH NEW EXHAUST FAN FROM NEAREST ADEQUATE SOURCE.

5. PROVIDE ALL WIRING, CONDUITS, SAFETY SWITCHES, CIRCUIT BREAKERS, FUSES, JUNCTION BOXES, MOTOR OVERLOADS, ETC. AS REQUIRED FOR FULLY FUNCTIONAL SYSTEM.

6. REMOVE ONE EXISTING EXHAUST FAN UNIT, RETAINING THE EXISTING ROOF CURB.

7. INSTALL NEW INTAKE HOOD ON EXISTING CURB:

- INCLUDE MOTORIZED DAMPERS
- INCLUDE GRILLE
- INCLUDE AIR FILTER

8. INSTALL INTERLOCKS BETWEEN EXHAUST FANS AND INTAKE HOOD.

9. INSTALL CONTROLS FOR OCCUPANTS PER THE SEQUENCE OF OPERATION.

SEQUENCE OF OPERATION

1. MANUAL CONTROLLER TO BE WALL MOUNTED AS SHOWN.

2. CONTROLLER TO HAVE:

- ON BUTTON
- OFF BUTTON
- TIMER
- SPEED CONTROL

3. TIMER TO BE USER ADJUSTABLE FOR UP TO 4 HOURS (MIN.).

4. INITIATING STARTUP TO INCLUDE:

- VERIFY DAMPERS ARE OPEN
- START EXHAUST FANS
- INITIATE TIMER COUNTDOWN
- TURN OFF WHEN TIMER EXPIRES OR WHEN "OFF" BUTTON ARE PRESSED
- MOTORIZED DAMPERS CLOSE AFTER THE FANS STOP

LEGEND

NOTE: CONTRACTOR RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS AND MEASUREMENTS TO OWN SATISFACTION. © 2017 BY IRC GROUP



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TITLE: NOTES

CLIENT: CITY OF VANCOUVER CAPITAL MAINTENANCE

PROJECT: ST. JAMES HALL
3214 WEST 10th STREET
VANCOUVER, BC

IRC #: 19099 NORTH:

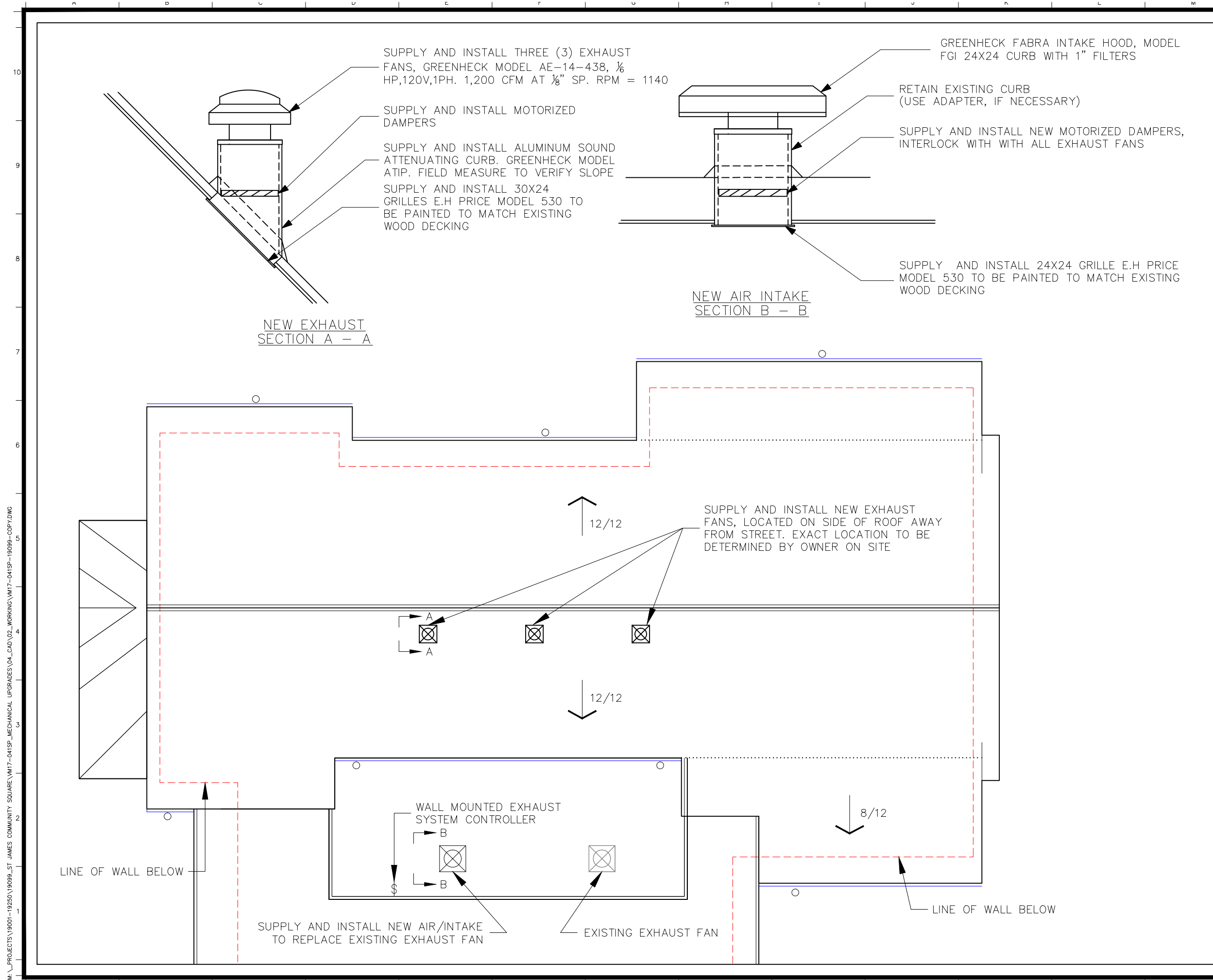
W.O.#: VM17-041SP

SCALE:



DATE: APR. 27/17

DRN. BY: J.L. DWG.#:

CHK. BY: A.M. M1



LEGEND

-  NEW EXHAUST FAN
-  EXISTING EXHAUST FAN

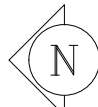
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TITLE: ROOF PLAN

CLIENT: CITY OF VANCOUVER CAPITAL MAINTENANCE

PROJECT: ST. JAMES HALL
 3214 WEST 10th STREET
 VANCOUVER, BC

IRC #:	19099	NORTH: 
W.O.#:	VM17-041SP	
SCALE:	3/32"=1	
DATE:	APR. 27/17	
DRN. BY:	B.W./J.L.	DWG.#: M2
CHK. BY:	A.M.	

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