

2 VESTIBULE ENLARGEMENT
M2.1 SCALE: 1:50

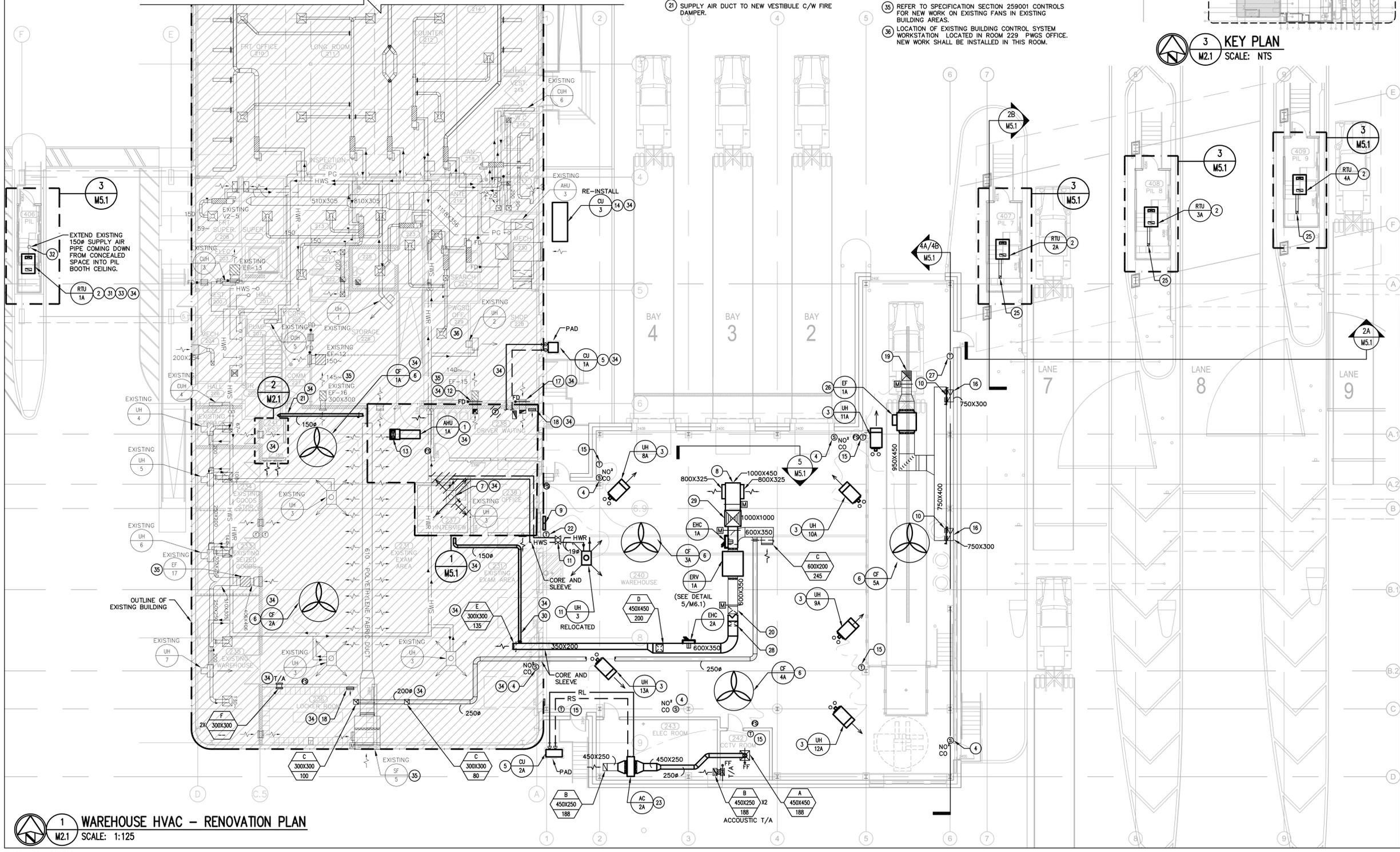
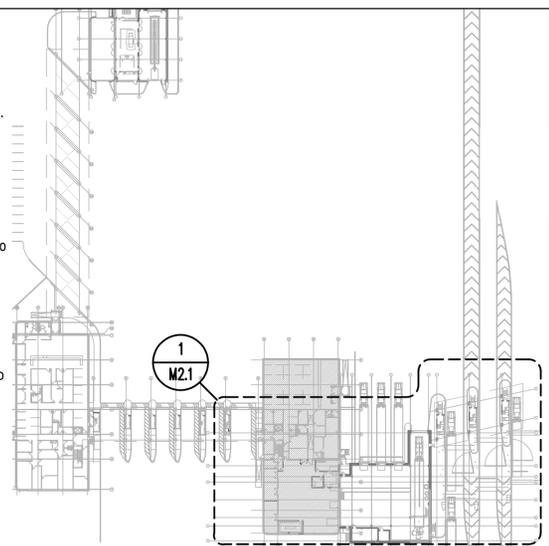
GENERAL NOTES:

- THIS DRAWING IS DIAGRAMMATIC ONLY. DO NOT SCALE.
- THE MECHANICAL SYSTEMS SHOWN ARE APPROXIMATE IN LOCATION ONLY. CONTRACTOR TO VERIFY EXACT LOCATION OF SYSTEMS BEING MODIFIED ON SITE PRIOR TO COMMENCEMENT OF WORK.
- ALL WORK SHALL COMPLY WITH THE MOST CURRENT VERSION OF ALL APPLICABLE CODES AND STANDARDS, WHICH SHALL BE CONSIDERED PART OF THIS SPECIFICATION. IN THE CASE OF CONFLICTING REQUIREMENTS, THE MOST STRINGENT REGULATION SHALL PREVAIL.
- CONTRACTOR TO MAINTAIN DIGITAL PHOTOGRAPHIC RECORD OF ALL INSTALLATIONS PRIOR TO CONCEALMENT BY SUPPORTING TRADES.
- COORDINATE FINAL LOCATION OF SUPPLY, RETURN AND EXHAUST DIFFUSERS ON SITE WITH FINAL LIGHTING LAYOUT, ARCHITECTURAL CEILING, STRUCTURAL, ELECTRICAL, FIRE PROTECTION AND MECHANICAL SYSTEMS.
- ALL DUCT DIMENSIONS DENOTED REFER TO INTERNAL OPEN AREA OF THE DUCT.
- PROVIDE FIRE DAMPERS AT EACH LOCATION WHERE A DUCT PENETRATES A FIRE SEPARATION OR FIRE WALL IN ACCORDANCE TO NFPA 90A. REFER TO ARCHITECTURAL FOR LOCATIONS OF FIRE SEPARATIONS AND FIRE WALLS, AND THEIR RATINGS.
- PROVIDE CEILING DAMPERS FOR ALL DIFFUSER, GRILLES, OR REGISTERS LOCATED IN FIRE RATED CEILINGS IN ACCORDANCE TO NFPA 90A. REFER TO ARCHITECTURAL FOR LOCATIONS OF FIRE RATED CEILINGS, DIFFUSERS, GRILLES, AND REGISTERS TO BE PROTECTED BY CK 2000 THERMAL BLANKET WHERE REQUIRED.
- PRIOR TO RELOCATING EXISTING EQUIPMENT, TEST IT TO MAKE SURE IT IS FULLY FUNCTIONING AND REPORT ANY DEFICIENCIES TO THE DEPARTMENTAL REPRESENTATIVE PRIOR TO STARTING WORK. RELOCATED OR REMOVED AND REINSTALLED UNITS TO BE LEFT FULLY FUNCTIONAL AT THE END OF CONSTRUCTION.

DRAWING NOTES:

- NEW AIR HANDLING UNIT. SUSPEND UNIT AT HIGH LEVEL FROM EXISTING STRUCTURE.
- NEW ROOF TOP AIR HANDLER C/W ELECTRIC HEAT AND PACKAGE DX COOLING FOR PIL BOOTH.
- NEW GAS FIRED, CONDENSING, SEPARATED COMBUSTION UNIT HEATERS. INSTALL AND VENT THROUGH ROOF AS PER MANUFACTURER'S INSTRUCTIONS. EXTEND CONDENSATE DRAIN PIPING TO DESIGNATED FLOOR DRAIN, AS PER DRAWING M1.1. REFER TO DETAIL 7/M6.1.
- CARBON MONOXIDE AND NITROGEN DIOXIDE DETECTION SENSOR FOR VEHICLE EXHAUST SYSTEM.
- NEW CONDENSING UNIT ON GRADE. PROVIDE CONCRETE PAD WITH 1 METER HIGH GALVANIZED STEEL ANGLE FRAME SUPPORT UNDER CONDENSING UNIT, ANCHOR SUPPORTS TO PAD.
- NEW DOWN DRAFT PROPELLER FANS. COORDINATE LOCATIONS WITH SURROUNDING LIGHTING, PIPE, UNIT HEATERS, STRUCTURAL, AND MOUNT ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
- RELOCATE EXISTING HYDRONIC UNIT HEATER. (SEE NOTE 11)
- OUTDOOR AIR DUCT AT HIGH LEVEL.
- CARBON MONOXIDE AND NITROGEN DIOXIDE CONTROL PANELS AND SENSORS COMPLETE WITH MANUAL PUSH BUTTON AUDIBLE ALARM SILENCE (VISUAL ALARM REMAIN ON).
- DUCT OPENING AT HIGH LEVEL WITH GALVANIZED STEEL MESH AND BALANCING DAMPER. BALANCE TO 513 L/S.
- RELOCATED HYDRONIC UNIT HEATER, EXTEND SUPPLY AND RETURN PIPING WITH NEW ISOLATION VALVES, & NEW CONTROL VALVES, THERMOSTAT, AIR VENT, BALANCING VALVES, AND DRAIN WITH HOSE END.
- EXTEND 300X300 EXISTING EXHAUST DUCT UP WITH BENDS TO CLEAR NEW WAITING ROOM.
- OUTSIDE AIR ECONOMISER DUCTS UP TO GOOSENECK ON ROOF. REFER TO DETAIL 1/M5.1.
- REMOVE AND REINSTALL EXISTING CU-3 TO ALLOW FOR CIVIL ROAD WORK. PROVIDE NEW CONNECTIONS AND REFRIGERANT. COMMISSION AS REQUIRED TO ENSURE PROPER WORKING CONDITION. COORDINATE REMOVAL AND RE-INSTALLATION WITH CIVIL ROAD WORK. FINAL POSITIONING TO BE APPROXIMATELY THE SAME AS EXISTING CONDITION.
- UNIT HEATER THERMOSTAT.
- 750 x 300 DUCT OPENING AT LOW LEVEL (~450mmAFF) WITH GALVANIZED STEEL MESH AND BALANCING DAMPER. BALANCE TO 513 L/S.
- EXTEND 300X300 EXISTING TRANSFER AIR DUCT UP WITH BENDS TO CLEAR NEW WAITING ROOM.
- NEW ELECTRIC FORCE FLOW ON WALL. REFER TO ELECTRICAL.
- 600X800 EXHAUST DUCT UP THROUGH ROOF. PROVIDE DUCT BARRIER AND PLENUM DRAIN. REFER TO DETAIL 5/M6.1.
- 600X350 EXHAUST AIR OPENING UP THROUGH ROOF. EXHAUST AIR OPENING TO BE SEPARATED FROM EXISTING BUILDING OPENINGS AND INTAKES BY A MINIMUM OF 10'-0" (3.1M).
- SUPPLY AIR DUCT TO NEW VESTIBULE C/W FIRE DAMPER.
- NEW THERMOSTAT FOR HYDRONIC UNIT HEATER.
- AIR CONDITIONING UNIT AC-2A TO BE MOUNTED ABOVE ROOMS IN WAREHOUSE AREA AND DUCTED INTO ROOM SPACE FROM ABOVE. SUSPEND FROM ROOF STRUCTURE.
- EXISTING TRANSFER AIR DUCT ABOVE VESTIBULE TO REMAIN.
- EXTEND 150X150 OUTSIDE AIR DUCT UP TO ABOVE CANOPY COMPLETE WITH HOOD AND SCREEN TYPICAL ALL RTU-2A,3A,4A.
- SUSPEND FAN AT HIGH LEVEL, REFER TO 4B/M5.1.
- PROVIDE THERMAL BARRIER ISOLATION FOR THERMOSTAT MOUNT ON EXTERIOR WALL.
- 600X350 SUPPLY AIR DUCT TO DROP DOWN BELOW 600X350 EXHAUST DUCT AT THIS APPROXIMATE LOCATION.
- 1000X1000 EXHAUST DUCT UP THROUGH ROOF. PROVIDE DUCT BARRIER AND PLENUM DRAIN. REFER TO DETAIL 5/M6.1.
- 150# OUTSIDE AIR SUPPLY TO AHU-1A, BALANCE TO 40 L/S.
- EXISTING PILL BOOTH TO BE REMOVED AND REPLACED WITH NEW PILL BOOTH. REMOVE EXISTING 150# SUPPLY AIR DUCT AND CAP TEMPORARY BELOW LINK FLOOR EXTERIOR. EXTEND EXISTING DUCT INTO NEW PILL BOOTH CEILING SPACE AND PROVIDE BALANCE DAMPER A TYPE F GRILLE.
- RTU-1A ON ROOF.
- EXISTING 150# S/A DUCT EXTENDED INTO NEW PILL BOOTH. BALANCE TO 47 L/S. PROVIDE NEW 300X300 SQUARE DIFFUSER & BALANCE DAMPER.
- NEW WORK IN EXISTING BUILDING AREAS.
- REFER TO SPECIFICATION SECTION 259001 CONTROLS FOR NEW WORK ON EXISTING FANS IN EXISTING BUILDING AREAS.
- LOCATION OF EXISTING BUILDING CONTROL SYSTEM WORKSTATION LOCATED IN ROOM 229 PWGS OFFICE. NEW WORK SHALL BE INSTALLED IN THIS ROOM.

3 KEY PLAN
M2.1 SCALE: NTS



1 WAREHOUSE HVAC - RENOVATION PLAN
M2.1 SCALE: 1:125

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

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SERVICES IMMOBILIERS
Région de l'Ouest

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Certificate of Authorization
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DO NOT SCALE DRAWINGS

Revision/Revision	Description/Description	Date/Date
0	ISSUED FOR CONSTRUCTION	2016/11/02

PUBLIC WORKS AND GOVERNMENT SERVICES AGENCY

Project title/Titre du projet
EMERSON, MANITOBA HIGHWAY 75, UNITED STATES BORDER
EXPANSION AND REDEVELOPMENT OF THE EMERSON PORT OF ENTRY

Approved by/Approuvé par
AL
Designed by/Concept par
CD/AL
Drawn by/Dessiné par
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PWGSC Project Manager/Administrateur de Projets TPSCG
JAMES HUTCHINGS
PWGSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'ingénierie, TPSCG

Drawing title/Titre du dessin
WAREHOUSE HVAC - RENOVATION PLAN

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