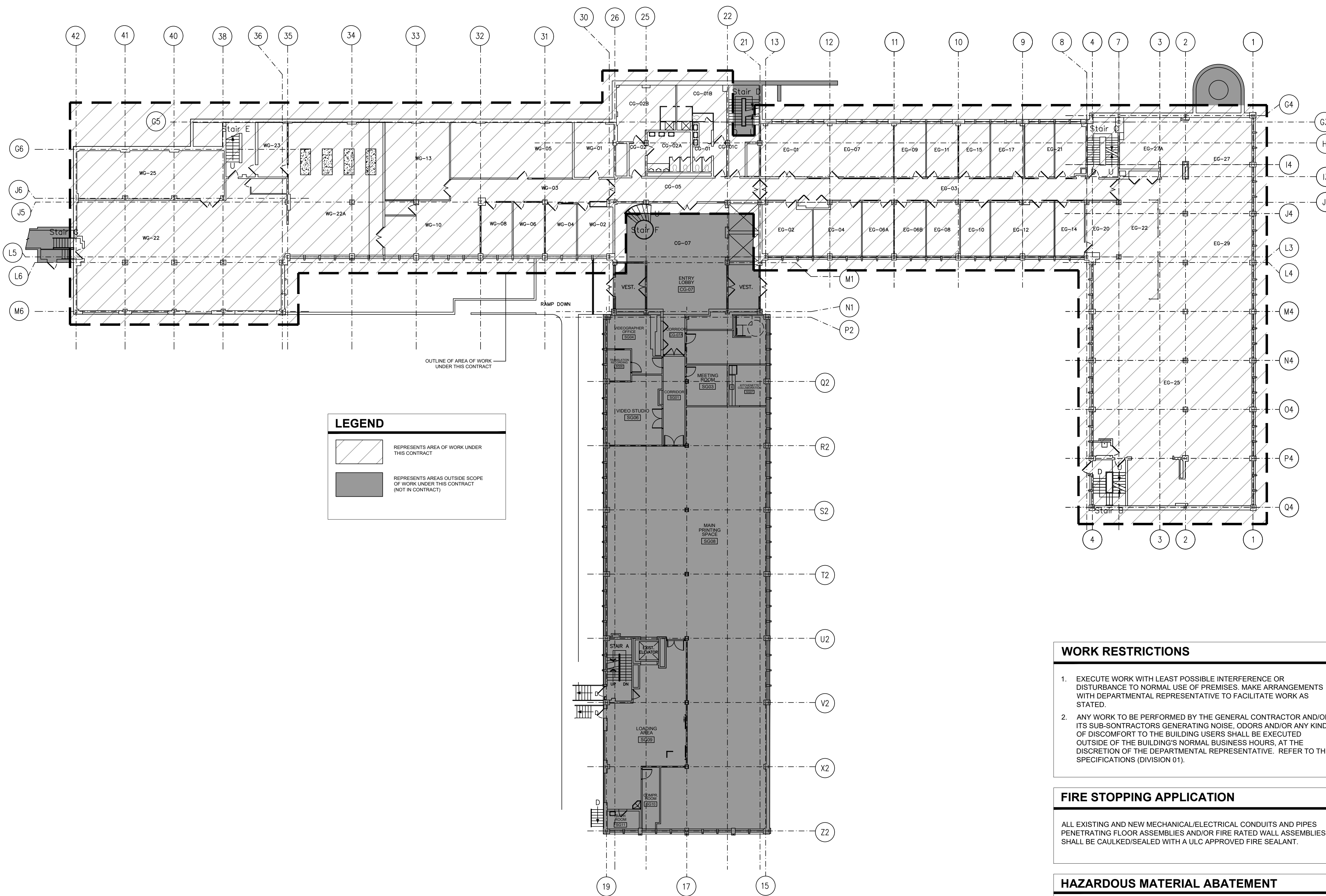


NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION (NRC PROJECT #5189)

1200 MONTREAL RD, OTTAWA ONTARIO
ISSUED FOR TENDER - SEPTEMBER 19, 2016



LEGEND

REPRESENTS AREA OF WORK UNDER THIS CONTRACT

REPRESENTS AREAS OUTSIDE SCOPE OF WORK UNDER THIS CONTRACT (NOT IN CONTRACT)

WORK RESTRICTIONS

- EXECUTE WORK WITH LEAST POSSIBLE INTERFERENCE OR DISTURBANCE TO NORMAL USE OF PREMISES. MAKE ARRANGEMENTS WITH DEPARTMENTAL REPRESENTATIVE TO FACILITATE WORK AS STATED.
- ANY WORK TO BE PERFORMED BY THE GENERAL CONTRACTOR AND/OR ITS SUB-CONTRACTORS GENERATING NOISE, ODORS AND/OR ANY KIND OF DISCOMFORT TO THE BUILDING USERS SHALL BE EXECUTED OUTSIDE OF THE BUILDING'S NORMAL BUSINESS HOURS, AT THE DISCRETION OF THE DEPARTMENTAL REPRESENTATIVE. REFER TO THE SPECIFICATIONS (DIVISION 01).

FIRE STOPPING APPLICATION

ALL EXISTING AND NEW MECHANICAL/ELECTRICAL CONDUITS AND PIPES PENETRATING FLOOR ASSEMBLIES AND/OR FIRE RATED WALL ASSEMBLIES SHALL BE CALKED/SEALED WITH A ULC APPROVED FIRE SEALANT.

HAZARDOUS MATERIAL ABATEMENT

REFER TO THE DESIGNATED SUBSTANCES REPORT AND ASSOCIATED DRAWINGS, PREPARED BY THE ENVIRONMENTAL ENGINEER, AND FURNISHED BY THE OWNER, FOR THE SCOPE OF WORK ASSOCIATED WITH THE ABATEMENT OF EXISTING HAZARDOUS MATERIALS. THE ABATEMENT OF EXISTING HAZARDOUS MATERIALS SHALL BE EXECUTED UNDER THIS CONTRACT, UNLESS NOTED OTHERWISE ON THE DESIGNATED SUBSTANCES REPORT AND/OR ITS ASSOCIATED DRAWINGS.

DRAWING LIST

ARCHITECTURAL DRAWINGS

| | |
|----------|---|
| 5189-A0 | COVER SHEET, KEY PLAN, NBC MATRIX AND DRAWING LIST |
| 5189-A00 | DEMOLITION PLAN |
| 5189-A01 | NEW CONSTRUCTION PLAN |
| 5189-A02 | REFLECTED CEILING DEMOLITION PLAN |
| 5189-A03 | REFLECTED CEILING NEW PLAN |
| 5189-A04 | DEMOLITION ELEVATIONS, SECTIONS & DETAILS |
| 5189-A05 | NEW CONSTRUCTION DETAILS |
| 5189-A06 | NEW CONSTRUCTION DETAILS |
| 5189-A07 | NEW WASHROOM PLAN, ELEVATIONS & DETAILS |
| 5189-A08 | NEW KITCHEN PLAN, ELEVATIONS & DETAILS |
| 5189-A09 | NEW WALL FINISH PLAN |
| 5189-A10 | NEW FLOOR FINISH PLAN |
| 5189-A11 | NEW FURNITURE PLAN |
| 5189-A12 | NEW FURNITURE DETAILS |
| 5189-A13 | NEW INTERIOR ELEVATIONS & MILLWORK DETAILS |
| 5189-A14 | NEW DOOR, FRAME & WINDOW SCHEDULES |
| 5189-A15 | NEW WALL PARTITION TYPE SCHEDULE FIRST FLOOR HEATING UPGRADE |

MECHANICAL DRAWINGS

| | |
|----------|---|
| 5189-M01 | COVER SHEET, KEY PLAN AND DRAWING LIST |
| 5189-M02 | LEGEND - VENTILATION, PLUMBING AND HEATING DRAINAGE |
| 5189-M03 | BASEMENT AND GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW DOMESTIC WATER |
| 5189-M04 | BASEMENT AND GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW DRAINAGE AND DOMESTIC WATER |
| 5189-M05 | BASEMENT AND GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW DRAINAGE AND DOMESTIC WATER |
| 5189-M06 | GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW - MECHANICAL ROOM DRAINAGE |
| 5189-M07 | DEMOLITION AND REDEVELOPMENT - DIAGRAM DOMESTIC WATER |
| 5189-M08 | DEMOLITION AND REDEVELOPMENT - DIAGRAM PLUMBING FIXTURES SCHEDULE |
| 5189-M09 | PLUMBING AND HEATING GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW - WEST WING |
| 5189-M10 | PLUMBING AND HEATING GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW - EAST WING |
| 5189-M11 | PLUMBING AND HEATING GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW - MECHANICAL ROOM |
| 5189-M12 | PLUMBING AND HEATING GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW - MECHANICAL ROOM |
| 5189-M13 | DETAILS PLUMBING AND HEATING EQUIPMENTS SCHEDULES |
| 5189-M14 | VENTILATION GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW - WEST WING |
| 5189-M15 | VENTILATION GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW - EAST WING |
| 5189-M16 | VENTILATION GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW - MECHANICAL ROOM |
| 5189-M17 | VENTILATION - DETAILS |
| 5189-M18 | VENTILATION - DETAILS |
| 5189-M19 | VENTILATION - EQUIPMENTS SCHEDULES |
| 5189-M20 | DRAINAGE BASEMENT AND GROUND FLOOR |
| 5189-M21 | DEMOLITION - PARTIAL PLAN VIEW DOMESTIC WATER |
| 5189-M22 | BASEMENT AND GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW PLUMBING AND HEATING |
| 5189-M23 | GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW - WEST WING PLUMBING AND HEATING |
| 5189-M24 | GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW - EAST WING VENTILATION |
| 5189-M25 | GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW - WEST WING VENTILATION |
| 5189-M26 | GROUND FLOOR REDEVELOPMENT - PARTIAL PLAN VIEW - EAST WING VENTILATION |

ELECTRICAL DRAWINGS

| | |
|----------|--|
| 5189-E01 | COVER SHEET, KEY PLAN AND DRAWING LIST |
| 5189-E02 | LEGEND |
| 5189-E03 | NORMAL POWER - SINGLE LINE DIAGRAM - CONSTRUCTION |
| 5189-E04 | EMERGENCY POWER - SINGLE LINE DIAGRAM - CONSTRUCTION |
| 5189-E05 | SOUND MASKING AND FIRE ALARM DIAGRAM |
| 5189-E06 | REDEVELOPMENT - PARTIAL PLAN VIEW - WEST WING LIGHTING - FLOOR PLAN |
| 5189-E07 | REDEVELOPMENT - PARTIAL PLAN VIEW - EAST WING SERVICES - FLOOR PLAN |
| 5189-E08 | REDEVELOPMENT - PARTIAL PLAN VIEW - WEST WING SERVICES - FLOOR PLAN |
| 5189-E09 | REDEVELOPMENT - PARTIAL PLAN VIEW - EAST WING SERVICES - FLOOR PLAN |
| 5189-E10 | REDEVELOPMENT - PARTIAL PLAN VIEW - WEST WING SERVICES - FLOOR PLAN |
| 5189-E11 | AUXILIARY SYSTEMS - FLOOR PLAN |
| 5189-E12 | REDEVELOPMENT - PARTIAL PLAN VIEW - EAST WING PANELS PART 1 OF 2 - CONSTRUCTION |
| 5189-E13 | PANELS PART 2 OF 2 - CONSTRUCTION |
| 5189-E14 | CONSTRUCTION - DETAILS PART 1 OF 2 |
| 5189-E15 | CONSTRUCTION - DETAILS PART 2 OF 2 |
| 5189-E16 | LIGHTING - FLOOR PLAN |
| 5189-E17 | DEMOLITION - PARTIAL PLAN VIEW - WEST WING LIGHTING - FLOOR PLAN |
| 5189-E18 | DEMOLITION - PARTIAL PLAN VIEW - EAST WING SERVICES - FLOOR PLAN |
| 5189-E19 | DEMOLITION - PARTIAL PLAN VIEW - WEST WING SERVICES - FLOOR PLAN |
| 5189-E20 | DEMOLITION - PARTIAL PLAN VIEW - EAST WING SERVICES - BASEMENT |
| 5189-E21 | DEMOLITION - PARTIAL PLAN VIEW - EAST WING AUXILIARY SYSTEMS - FLOOR PLAN |
| 5189-E22 | DEMOLITION - PARTIAL PLAN VIEW - WEST WING AUXILIARY SYSTEMS - FLOOR PLAN |
| 5189-E23 | DEMOLITION - PARTIAL PLAN VIEW - EAST WING NORMAL POWER - SINGLE LINE DIAGRAM |
| 5189-E24 | DEMOLITION - PARTIAL PLAN VIEW - WEST WING EMERGENCY POWER - SINGLE LINE DIAGRAM |
| 5189-E25 | PANELS PART 1 OF 2 - DEMOLITION |
| 5189-E26 | PANELS PART 2 OF 2 - DEMOLITION |

NBC DATA MATRIX
BASED ON NATIONAL BUILDING CODE OF CANADA (2015)

| ITEM | NBC DIVISION B, PART (3) DATA MATRIX | NEW | ADDITION | CHANGE OF USE | ALTERATION |
|------|---|--|--------------------------|--------------------------|--------------------------|
| 1 | PROJECT DESCRIPTION: INTERIOR RENOVATIONS/FIT-UP. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | MAJOR OCCUPANCY(S) | GROUP D - BUSINESS & PERSONAL SERVICES OCCUPANCY | | | |
| 3 | BUILDING CLASSIFICATION | 3.2.2.56, GROUP D, UP TO 6 STOREYS | | | |
| 4 | FIT UP AREA (m ²) | 1,480 SQ.M ± | | | |
| 5 | GROSS AREA (m ²) | - | | | |
| 6 | NUMBER OF STOREYS | ABOVE GRADE: 4 | | BELOW GRADE: 1 | |
| 7 | BUILDING HEIGHT | - | | | |
| 8 | NUMBER OF STREETS/ ACCESS ROUTES | - | | | |
| 9 | SPRINKLER SYSTEM EXISTING | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

National Research Council Canada
Administrative Services and Property Management Branch

Conseil national de recherches Canada
Division des services administratifs et gestion de l'immeuble

NRC - CNRC

- GENERAL NOTES**
- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
 - CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK.
 - PREVENT THE SPREAD OF DUST & DEBRIS BEYOND THE WORK AREA AND CLEAN ALL SURFACES AT COMPLETION.
 - MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
 - COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
 - PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS.

PROJECT NORTH SEAL

ALCAIDE WEBSTER ARCHITECTS INC
1320 Carling Avenue
Ottawa, ON K1Z 7K8 www.awa-arch.ca

| No. | Date | Revision | By: |
|-----|------------|-------------------|-----|
| 0 | 2016/09/19 | ISSUED FOR TENDER | ABA |

Date Printed: 2016/09/20 Date Imprimée:

- o Verify all dimensions and site conditions and be responsible for same
- o Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

A Detail no. No. du détail
B Location drawing no. sur dessin no.
C Drawing no. dessin no.

project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
drawing: MONTREAL ROAD CAMPUS

COVER SHEET, KEY PLAN, NBC MATRIX AND DRAWING LIST

| | | | | |
|----------|---------|------------|---------|-----------------|
| designed | AA/VA | conçu | date | 04/2016 |
| drawn | AA | dessiné | scale | AS NOTED |
| checked | AA | vérifié | sheet | 01 of/de 17 |
| approved | VA | approuvé | W.O.no. | A1-009908-01-58 |
| dwg.no. | 5189-A0 | dessin no. | | |

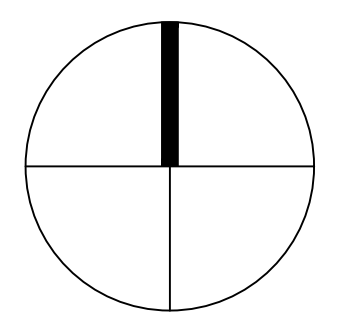
1 A0 EXISTING OVERALL GROUND FLOOR PLAN/KEY PLAN
SCALE = 1:200



GENERAL NOTES

- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK.
- PREVENT THE SPREAD OF DUST & DEBRIS BEYOND THE WORK AREA AND CLEAN ALL SURFACES AT COMPLETION.
- MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
- COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
- PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS.

PROJECT NORTH SEAL



ALCAIDE WEBSTER ARCHITECTS INC
 1320 Carling Avenue
 Ottawa, ON K1Z 7K8 www.awa-arch.ca

ARCHITECTURE PLANNING DESIGN BUILD PROJECT MANAGEMENT

| Date | Issued For | Revision | By |
|--------------|-------------------|---------------|-----|
| 2016/09/19 | ISSUED FOR TENDER | | AAA |
| No. | Date | Revision | By |
| Date Printed | DD MM YYYY | Date Imprimée | |

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.

| | | |
|---|-------------------------------------|---|
| A | Detail no. | A |
| B | No. du détail | B |
| C | Location drawing no. sur dessin no. | C |
| | Drawing no. dessin no. | |

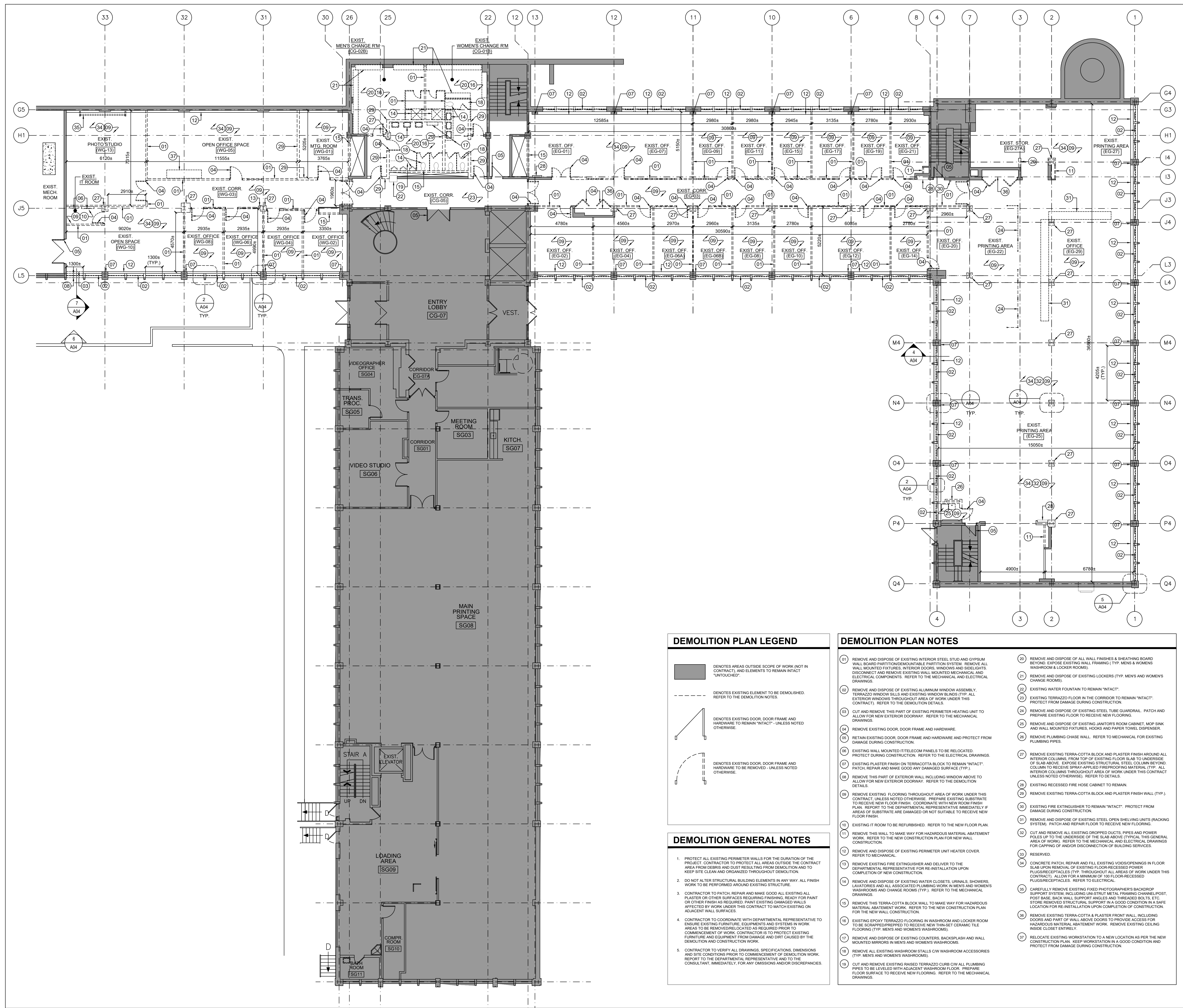
NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS

DEMOLITION PLAN

| | | | | |
|----------|----------|------------|-----------------|---------|
| designed | conçu | date | 04/2016 | date |
| drawn | dessiné | scale | AS NOTED | échelle |
| checked | vérifié | sheet | 02 of/de 17 | feuille |
| approved | approuvé | W.O.no. | A1-009908-01-58 | D.T.no. |
| dwg.no. | | dessin no. | | |

5189-A00



DEMOLITION PLAN LEGEND

- DENOTES AREAS OUTSIDE SCOPE OF WORK (NOT IN CONTRACT) AND ELEMENTS TO REMAIN INTACT UNTOUCHED.
- DENOTES EXISTING ELEMENT TO BE DEMOLISHED. REFER TO THE DEMOLITION NOTES.
- DENOTES EXISTING DOOR, DOOR FRAME AND HARDWARE TO REMAIN INTACT - UNLESS NOTED OTHERWISE.
- DENOTES EXISTING DOOR, DOOR FRAME AND HARDWARE TO BE REMOVED - UNLESS NOTED OTHERWISE.

DEMOLITION GENERAL NOTES

- PROTECT ALL EXISTING PERIMETER WALLS FOR THE DURATION OF THE PROJECT. CONTRACTOR TO PROTECT ALL AREAS OUTSIDE THE CONTRACT AREA FROM DEBRIS AND DIRT RESULTING FROM DEMOLITION AND TO KEEP SITE CLEAN AND ORGANIZED THROUGHOUT DEMOLITION.
- DO NOT ALTER STRUCTURAL BUILDING ELEMENTS IN ANY WAY. ALL FINISH WORK TO BE PERFORMED AROUND EXISTING STRUCTURE.
- CONTRACTOR TO PATCH, REPAIR AND MAKE GOOD ALL EXISTING ALL PLASTER OR OTHER SURFACES REQUIRING FINISHING. READY FOR PAINT OR OTHER FINISH AS REQUIRED. PAINT EXISTING DAMAGED WALLS AFFECTED BY WORK UNDER THIS CONTRACT TO MATCH EXISTING ON ADJACENT WALL SURFACES.
- CONTRACTOR TO COORDINATE WITH DEPARTMENTAL REPRESENTATIVE TO ENSURE EXISTING FURNITURE, EQUIPMENTS AND SYSTEMS IN WORK AREAS TO BE REMOVED PRIOR TO COMMENCEMENT OF DEMOLITION WORK. CONTRACTOR IS TO PROTECT EXISTING FURNITURE AND EQUIPMENT FROM DAMAGE AND DIRT CAUSED BY THE DEMOLITION AND CONSTRUCTION WORK.
- CONTRACTOR TO VERIFY ALL DRAWINGS, SPECIFICATIONS, DIMENSIONS AND SITE CONDITIONS PRIOR TO COMMENCEMENT OF DEMOLITION WORK. REPORT TO THE DEPARTMENTAL REPRESENTATIVE AND TO THE CONSULTANT, IMMEDIATELY, FOR ANY OMISSIONS AND/OR DISCREPANCIES.

DEMOLITION PLAN NOTES

- REMOVE AND DISPOSE OF EXISTING INTERIOR STEEL STUD AND GYPSUM WALL BOARD PARTITION/DIVIDING WALL SYSTEM. REMOVE ALL WALL MOUNTED PARTITIONS, INTERIOR DOORS, WINDOWS AND SILLINGS. DISCONNECT AND REMOVE EXISTING WALL MOUNTED MECHANICAL AND ELECTRICAL COMPONENTS. REFER TO THE MECHANICAL AND ELECTRICAL DRAWINGS.
- REMOVE AND DISPOSE OF EXISTING ALUMINUM WINDOW ASSEMBLY, TERRAZZO WINDOW SILL AND EXISTING WINDOW INSUL (TYP. ALL EXTERIOR WINDOWS THROUGHOUT AREA OF WORK UNDER THIS CONTRACT). REFER TO THE DEMOLITION DETAILS.
- CUT AND REMOVE THIS PART OF EXISTING PERIMETER HEATING UNIT TO ALLOW FOR NEW EXTERIOR DOORWAY. REFER TO THE MECHANICAL DRAWINGS.
- REMOVE EXISTING DOOR, DOOR FRAME AND HARDWARE.
- RETAIN EXISTING DOOR, DOOR FRAME AND HARDWARE AND PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING WALL MOUNTED IT/TEL COCM PANELS TO BE RELOCATED. PROTECT DURING CONSTRUCTION. REFER TO THE ELECTRICAL DRAWINGS.
- EXISTING PLASTER FINISH ON TERRAZZO BLOCK TO REMAIN "INTACT". PATCH, REPAIR AND MAKE GOOD ANY DAMAGED SURFACE (TYP.).
- REMOVE THIS PART OF EXTERIOR WALL INCLUDING WINDOW ABOVE TO ALLOW FOR NEW EXTERIOR DOORWAY. REFER TO THE DEMOLITION DETAILS.
- REMOVE EXISTING FLOORING THROUGHOUT AREA OF WORK UNDER THIS CONTRACT, UNLESS NOTED OTHERWISE. PREPARE EXISTING SUBSTRATE TO RECEIVE NEW FLOOR FINISH. COORDINATE WITH NEW ROOM FINISH PLAN. REPORT TO THE DEPARTMENTAL REPRESENTATIVE IMMEDIATELY IF AREAS OF SUBSTRATE ARE DAMAGED OR NOT SUITABLE TO RECEIVE NEW FLOOR FINISH.
- EXISTING IT ROOM TO BE REFURBISHED. REFER TO THE NEW FLOOR PLAN.
- REMOVE THIS WALL TO MAKE WAY FOR HAZARDOUS MATERIAL ABATEMENT WORK. REFER TO THE NEW CONSTRUCTION PLAN FOR NEW WALL CONSTRUCTION.
- REMOVE AND DISPOSE OF EXISTING PERIMETER UNIT HEATER COVER. REFER TO MECHANICAL.
- REMOVE EXISTING FIRE EXTINGUISHER AND DELIVER TO THE MECHANICAL CONTRACTOR FOR RE-INSTALLATION UPON COMPLETION OF NEW CONSTRUCTION.
- REMOVE AND DISPOSE OF EXISTING WATER CLOSETS, URINALS, SHOWERS, LAVATORIES AND ALL ASSOCIATED PLUMBING WORK IN MEN'S AND WOMEN'S WASHROOMS AND CHANGE ROOMS (TYP.). REFER TO THE MECHANICAL DRAWINGS.
- REMOVE THIS TERRAZZO BLOCK WALL TO MAKE WAY FOR HAZARDOUS MATERIAL ABATEMENT WORK. REFER TO THE NEW CONSTRUCTION PLAN FOR THE NEW WALL CONSTRUCTION.
- EXISTING EXTERIOR TERRAZZO FLOORING IN WASHROOM AND LOCKER ROOM TO BE SCRAPPED/PREPARED TO RECEIVE NEW THIN SET CERAMIC TILE FINISH (TYP. MEN'S AND WOMEN'S WASHROOMS).
- REMOVE AND DISPOSE OF EXISTING COUNTERS, BACKSPLASH AND WALL MOUNTED MIRRORS IN MEN'S AND WOMEN'S WASHROOMS.
- REMOVE ALL EXISTING WASHROOM STALLS WITH WASHROOM ACCESSORIES (TYP. MEN'S AND WOMEN'S WASHROOMS).
- CUT AND REMOVE EXISTING RIBBED TERRAZZO CURB ON ALL PLUMBING PIPES TO BE LEVELLED WITH ADJACENT WASHROOM FLOOR. PREPARE FLOOR SURFACE TO RECEIVE NEW FLOORING. REFER TO THE MECHANICAL DRAWINGS.

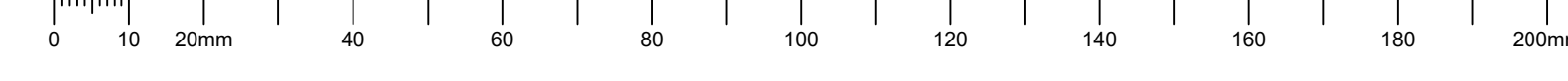
- REMOVE AND DISPOSE OF ALL WALL FINISHES & SHEATHING BOARD BEYOND EXPOSED EXISTING WALL FRAMING (TYP. MEN'S & WOMEN'S WASHROOM & LOCKER ROOMS).
- REMOVE AND DISPOSE OF EXISTING LOCKERS (TYP. MEN'S AND WOMEN'S CHANGE ROOMS).
- EXISTING WATER FOUNTAIN TO REMAIN "INTACT".
- EXISTING TERRAZZO FLOOR IN THE CORRIDOR TO REMAIN "INTACT". PROTECT FROM DAMAGE DURING CONSTRUCTION.
- REMOVE AND DISPOSE OF EXISTING STEEL TUBE GUARDRAIL. PATCH AND PREPARE EXISTING FLOOR TO RECEIVE NEW FLOORING.
- REMOVE AND DISPOSE OF EXISTING JANITOR'S ROOM CABINET, WOP SINK AND WALL MOUNTED UTENSILS, HOOKS AND PAPER TOWEL DISPENSER.
- REMOVE PLUMBING CHASE WALL. REFER TO MECHANICAL FOR EXISTING PLUMBING PIPES.
- REMOVE EXISTING TERRAZZO BLOCK AND PLASTER FINISH AROUND ALL INTERIOR COLUMNS FROM TOP OF EXISTING FLOOR SLAB TO UNDERSIDE OF SLAB ABOVE. EXPOSE EXISTING STRUCTURAL STEEL COLUMN BEYOND COLUMN TO RECEIVE SPRAY-APPLIED FIREPROOFING MATERIAL (TYP. ALL INTERIOR COLUMNS THROUGHOUT AREA OF WORK UNDER THIS CONTRACT UNLESS NOTED OTHERWISE). REFER TO DETAILS.
- EXISTING RECESSED FIRE HOSE CABINET TO REMAIN.
- REMOVE EXISTING TERRAZZO BLOCK AND PLASTER FINISH WALL (TYP.).
- EXISTING FIRE EXTINGUISHER TO REMAIN "INTACT". PROTECT FROM DAMAGE DURING CONSTRUCTION.
- REMOVE AND DISPOSE OF EXISTING STEEL OPEN SHELVING UNITS (RACKING SYSTEM). PATCH AND REPAIR FLOOR TO RECEIVE NEW FLOORING.
- CUT AND REMOVE ALL EXISTING DROPPED CEILING, PIPES AND POWER POLES UP TO THE UNDERSIDE OF THE SLAB ABOVE (TYPICAL THIS GENERAL AREA OF WORK). REFER TO THE MECHANICAL AND ELECTRICAL DRAWINGS FOR CAPPING OF AND/OR DISCONNECTION OF BUILDING SERVICES.
- RESERVED.
- CONCRETE PATCH, REPAIR AND FILL EXISTING VOIDS/OPENINGS IN FLOOR SLAB UPON REMOVAL OF EXISTING FLOOR RECESSED POWER PLUGS/RECEPTACLES (TYP. THROUGHOUT ALL AREAS OF WORK UNDER THIS CONTRACT). ALL COVER A MINIMUM OF 18" FLOOR RECESSED PLUGS/RECEPTACLES. REFER TO ELECTRICAL.
- CAREFULLY REMOVE EXISTING FIXED PHOTOGRAPHERS BACKDROP SUPPORT SYSTEM INCLUDING STRUCTURAL FRAMING CHANNEL POST, POST BASE, BACK WALL SUPPORT ANCHORS AND THREADED BOLTS, ETC. STORE REMOVED STRUCTURAL SUPPORT IN A GOOD CONDITION IN A SAFE LOCATION FOR RE-INSTALLATION UPON COMPLETION OF CONSTRUCTION.
- REMOVE EXISTING TERRAZZO BLOCK AND PLASTER FRONT WALL, INCLUDING DOORS AND PART OF WALL ABOVE DOORS TO PROVIDE ACCESS FOR HAZARDOUS MATERIAL ABATEMENT WORK. REMOVE EXISTING CEILING INSIDE CLOSET ENTIRELY.
- REMOVE EXISTING WORKSTATION TO A NEW LOCATION AS PER THE NEW CONSTRUCTION PLAN. KEEP WORKSTATION IN A GOOD CONDITION AND PROTECT FROM DAMAGE DURING CONSTRUCTION.

1 GROUND FLOOR DEMOLITION PLAN

SCALE = 1:125

1 A00

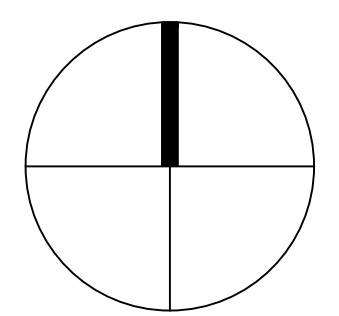
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GENERAL NOTES

- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK.
- PREVENT THE SPREAD OF DUST & DEBRIS BEYOND THE WORK AREA AND CLEAN ALL SURFACES AT COMPLETION.
- MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
- COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
- PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS.

PROJECT NORTH SEAL



**A L C A I D E
 W E B S T E R
 A R C H I T E C T S I N C**
 1320 Carling Avenue
 Ottawa, ON K1Z 7K8 www.awa-arch.ca

ARCHITECTURE PLANNING DESIGN
 BUILD PROJECT MANAGEMENT

| No. | Date | Revision | By: | Pr: |
|-----|------------|-------------------|-----|-----|
| 0 | 2016/09/19 | ISSUED FOR TENDER | AAA | |

Date Printed DD MM YYYY Date imprimée

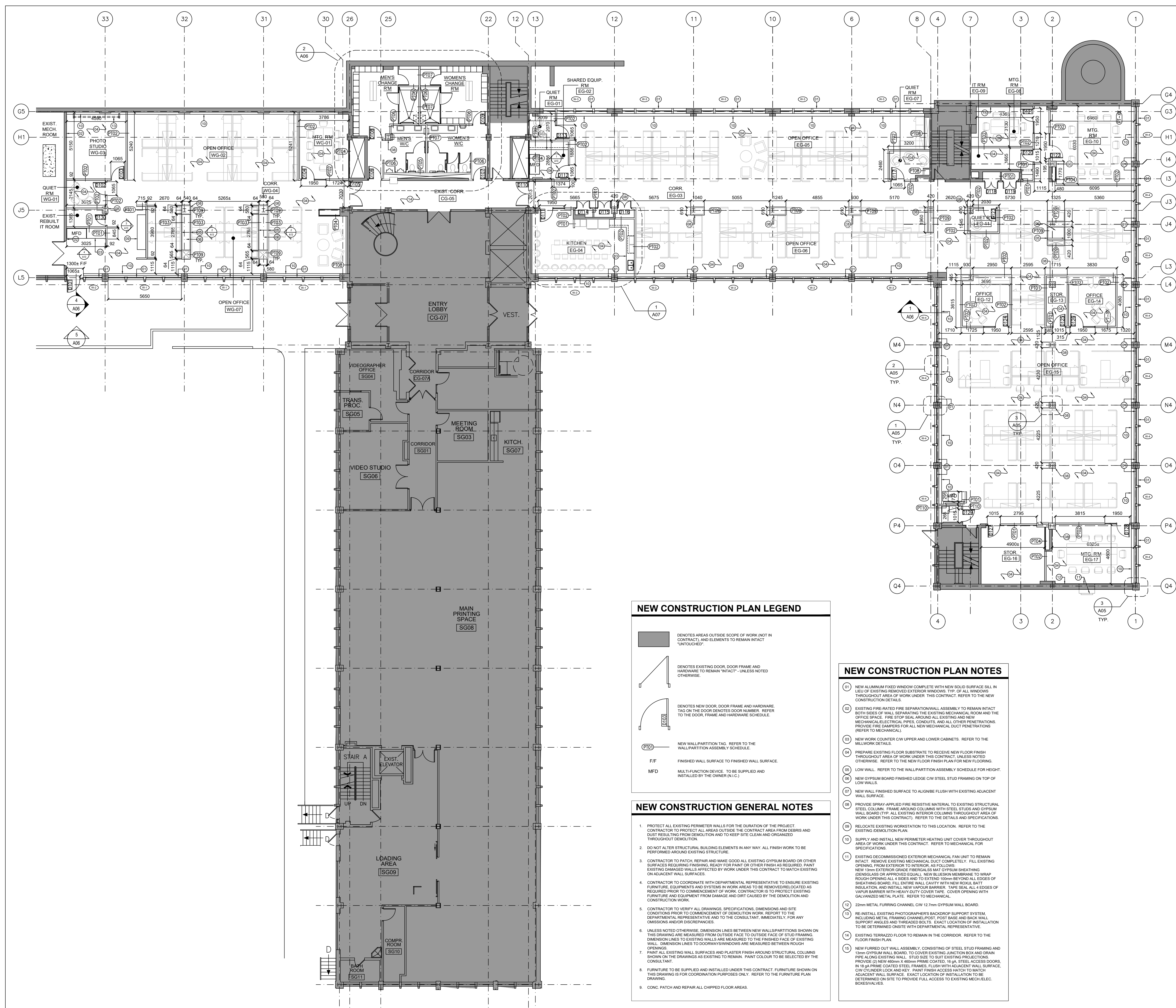
- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

| | | |
|---|-------------------------------------|---|
| A | No. du détail | A |
| B | Location drawing no. sur dessin no. | B |
| C | Drawing no. dessin no. | C |

PROJECT: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS
 drawing: NEW CONSTRUCTION PLAN dessin

| | | | | | |
|----------|----------|----------|---------|-----------------|------------|
| designed | AA/VA | conçu | date | 04/2016 | date |
| drawn | AA/YO | dessiné | scale | AS NOTED | échelle |
| checked | AA | vérifié | sheet | 03 of/de 17 | feuille |
| approved | VA | approuvé | W.O.no. | A1-009908-01-58 | D.T.no. |
| dwg.no. | 5189-A01 | | | | dessin no. |



NEW CONSTRUCTION PLAN LEGEND

- DENOTES AREAS OUTSIDE SCOPE OF WORK (NOT IN CONTRACT) AND ELEMENTS TO REMAIN INTACT "UNTOUCHED".
- DENOTES EXISTING DOOR, DOOR FRAME AND HARDWARE TO REMAIN "INTACT" - UNLESS NOTED OTHERWISE.
- DENOTES NEW DOOR, DOOR FRAME AND HARDWARE. REFER TO THE DOOR, FRAME AND HARDWARE SCHEDULE.
- NEW WALL/PARTITION TAG. REFER TO THE WALL/PARTITION ASSEMBLY SCHEDULE.
- F/F FINISHED WALL SURFACE TO FINISHED WALL SURFACE.
- MFD MULTI-FUNCTION DEVICE. TO BE SUPPLIED AND INSTALLED BY THE OWNER (N.C.)

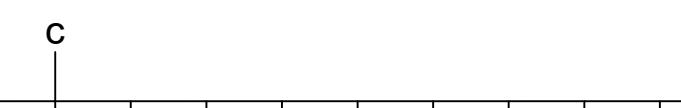
NEW CONSTRUCTION GENERAL NOTES

- PROTECT ALL EXISTING PERIMETER WALLS FOR THE DURATION OF THE PROJECT. CONTRACTOR TO PROTECT ALL AREAS OUTSIDE THE CONTRACT AREA FROM DEBRIS AND DUST RESULTING FROM DEMOLITION AND TO KEEP SITE CLEAN AND ORGANIZED THROUGHOUT DEMOLITION.
- DO NOT ALTER STRUCTURAL BUILDING ELEMENTS IN ANY WAY. ALL FINISH WORK TO BE PERFORMED AROUND EXISTING STRUCTURE.
- CONTRACTOR TO PATCH, REPAIR AND MAKE GOOD ALL EXISTING GYPSUM BOARD OR OTHER SURFACES REQUIRING FINISHING. READY FOR PAINT OR OTHER FINISH AS REQUIRED. PAINT EXISTING DAMAGED WALLS AFFECTED BY WORK UNDER THIS CONTRACT TO MATCH EXISTING ON ADJACENT WALL SURFACES.
- CONTRACTOR TO COORDINATE WITH DEPARTMENTAL REPRESENTATIVE TO ENSURE EXISTING FURNITURE, EQUIPMENTS AND SYSTEMS IN WORK AREAS TO BE REMOVED/RELOCATED AS REQUIRED PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR IS TO PROTECT EXISTING FURNITURE AND EQUIPMENT FROM DAMAGE AND WIRT CAUSED BY THE DEMOLITION AND CONSTRUCTION WORK.
- CONTRACTOR TO VERIFY ALL DRAWINGS, SPECIFICATIONS, DIMENSIONS AND SITE CONDITIONS PRIOR TO COMMENCEMENT OF DEMOLITION WORK. REPORT TO THE DEPARTMENTAL REPRESENTATIVE AND TO THE CONSULTANT IMMEDIATELY FOR ANY OMISSIONS AND/OR DISCREPANCIES.
- UNLESS NOTED OTHERWISE, DIMENSION LINES BETWEEN NEW WALL PARTITIONS SHOWN ON THIS DRAWING ARE MEASURED FROM OUTSIDE FACE TO OUTSIDE FACE OF STUD FRAMING. DIMENSION LINES TO EXISTING WALLS ARE MEASURED TO THE FINISHED FACE OF EXISTING WALL. DIMENSION LINES TO DOORWAYS/WINDOWS ARE MEASURED BETWEEN ROUGH OPENINGS.
- PAINT ALL EXISTING WALL SURFACES AND PLASTER FINISH AROUND STRUCTURAL COLUMNS SHOWN ON THE DRAWINGS AS EXISTING TO REMAIN. PAINT COLOUR TO BE SELECTED BY THE CONSULTANT.
- FURNITURE TO BE SUPPLIED AND INSTALLED UNDER THIS CONTRACT. FURNITURE SHOWN ON THIS DRAWING IS FOR COORDINATION PURPOSES ONLY. REFER TO THE FURNITURE PLAN DRAWING.
- CONC. PATCH AND REPAIR ALL CHIPPED FLOOR AREAS.

NEW CONSTRUCTION PLAN NOTES

- NEW ALUMINUM FIXED WINDOW COMPLETE WITH NEW SOLID SURFACE SILL IN LIEU OF EXISTING REMOVED EXTERIOR WINDOWS. TYP. OF ALL WINDOWS THROUGHOUT AREA OF WORK UNDER THIS CONTRACT. REFER TO THE NEW CONSTRUCTION DETAILS.
- EXISTING FIRE-RATED FIRE SEPARATION WALL ASSEMBLY TO REMAIN INTACT. BOTH SIDES OF WALL SEPARATING THE EXISTING MECHANICAL ROOM AND THE OFFICE SPACE. FIRE STOP SEAL AROUND ALL EXISTING AND NEW MECHANICAL/ELECTRICAL PIPES, CONDUITS, AND ALL OTHER PENETRATIONS. PROVIDE FIRE DAMPERS FOR ALL NEW MECHANICAL DUCT PENETRATIONS. REFER TO MECHANICAL.
- NEW WORK COUNTER C/W UPPER AND LOWER CABINETS. REFER TO THE MILLWORK DETAILS.
- PREPARE EXISTING FLOOR SUBSTRATE TO RECEIVE NEW FLOOR FINISH THROUGHOUT AREA OF WORK UNDER THIS CONTRACT. UNLESS NOTED OTHERWISE. REFER TO THE NEW FLOOR FINISH PLAN FOR NEW FLOORING.
- LOW WALL. REFER TO THE WALL/PARTITION ASSEMBLY SCHEDULE FOR HEIGHT.
- NEW GYPSUM BOARD FINISHED LEDGE C/W STEEL STUD FRAMING ON TOP OF LOW WALLS.
- NEW WALL FINISHED SURFACE TO ALIGN/BE FLUSH WITH EXISTING ADJACENT WALL SURFACE.
- PROVIDE SPRAY-APPLIED FIRE RESISTIVE MATERIAL TO EXISTING STRUCTURAL STEEL COLUMN. FRAME AROUND COLUMNS WITH STEEL STUDS AND GYPSUM WALL BOARD (TYP. ALL EXISTING INTERIOR COLUMNS THROUGHOUT AREA OF WORK UNDER THIS CONTRACT). REFER TO THE DETAILS AND SPECIFICATIONS.
- RELOCATE EXISTING WORKSTATION TO THIS LOCATION. REFER TO THE EXISTING DEMOLITION PLAN.
- SUPPLY AND INSTALL NEW PERIMETER HEATING UNIT COVER THROUGHOUT AREA OF WORK UNDER THIS CONTRACT. REFER TO MECHANICAL FOR SPECIFICATIONS.
- EXISTING DECOMMISSIONED EXTERIOR MECHANICAL FAN UNIT TO REMAIN INTACT. REMOVE EXISTING MECHANICAL DUCT COMPLETELY. FILL EXISTING OPENING FROM EXTERIOR TO INTERIOR, AS FOLLOWS:
 NEW 13mm GYPSUM BOARD OR APPROVED EQUAL MAY GYPSUM SHEATHING (DENGLASS OR APPROVED EQUAL), NEW BLUEBON MEMBRANE TO WRAP ROUGHEN ALL 4 SIDES AND INSTALL 100mm BATT INSULATION BEYOND SHEATHING BOARD. FILL ENTIRE WALL CAVITY WITH NEW RIGID BATT INSULATION AND INSTALL NEW VAPOR BARRIER. TAPE SEAL ALL 4 EDGES OF VAPOR BARRIER WITH HEAVY-DUTY COVER TAPE. COVER OPENING WITH GALVANIZED METAL PLATE. REFER TO MECHANICAL.
- 23mm METAL FURRING CHANNEL C/W 12.7mm GYPSUM WALL BOARD.
- REINSTALL EXISTING PHOTOGRAPHERS BACKDROP SUPPORT SYSTEM INCLUDING METAL FRAMING CHANNEL UPST. POST BASE AND BACK WALL SUPPORT ANGLES AND THREADED BOLTS. EXACT LOCATION OF INSTALLATION TO BE DETERMINED ON SITE WITH DEPARTMENTAL REPRESENTATIVE.
- EXISTING TERRAZZO FLOOR TO REMAIN IN THE CORRIDOR. REFER TO THE FLOOR FINISH PLAN.
- NEW FURRED OUT WALL ASSEMBLY CONSISTING OF STEEL STUD FRAMING AND 13mm GYPSUM WALL BOARD. TO COVER EXISTING JUNCTION BOX AND DRAIN PIPE ALONG EXISTING WALL. STUD SIZE AS EXISTING PROJECTIONS. PROVIDE (2) NEW 40mm X 40mm PRIME COATED, 18 GA. STEEL ACCESS DOORS, IN 18 GA. PRIME COATED STEEL FRAMES, FLUSH WITH ADJACENT WALL SURFACE. C/W CYLINDER LOCK AND KEY. PAINT FINISH ACCESS HATCH TO MATCH ADJACENT WALL SURFACE. EXACT LOCATION OF INSTALLATION TO BE DETERMINED ON SITE TO PROVIDE FULL ACCESS TO EXISTING MECH./ELEC. BOXES/VALVES.

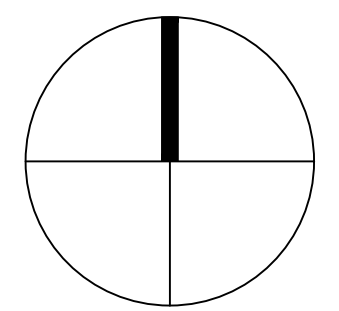
1 NEW CONSTRUCTION PLAN
 A01 SCALE = 1:125



GENERAL NOTES

- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK.
- PREVENT THE SPREAD OF DUST & DEBRIS BEYOND THE WORK AREA AND CLEAN ALL SURFACES AT COMPLETION.
- MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
- COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
- PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS.

PROJECT NORTH SEAL



ALCAIDE WEBSTER ARCHITECTS INC
 1320 Carling Avenue
 Ottawa, ON K1Z 7K8 www.awa-arch.ca

ARCHITECTURE PLANNING DESIGN BUILD PROJECT MANAGEMENT

| | | | |
|-------------------------|------------|-------------------|------------|
| 0 | 2016/09/19 | ISSUED FOR TENDER | AWA |
| No. | Date | Revision | By: / Par: |
| Date Printed DD MM YYYY | | Date imprimée | |

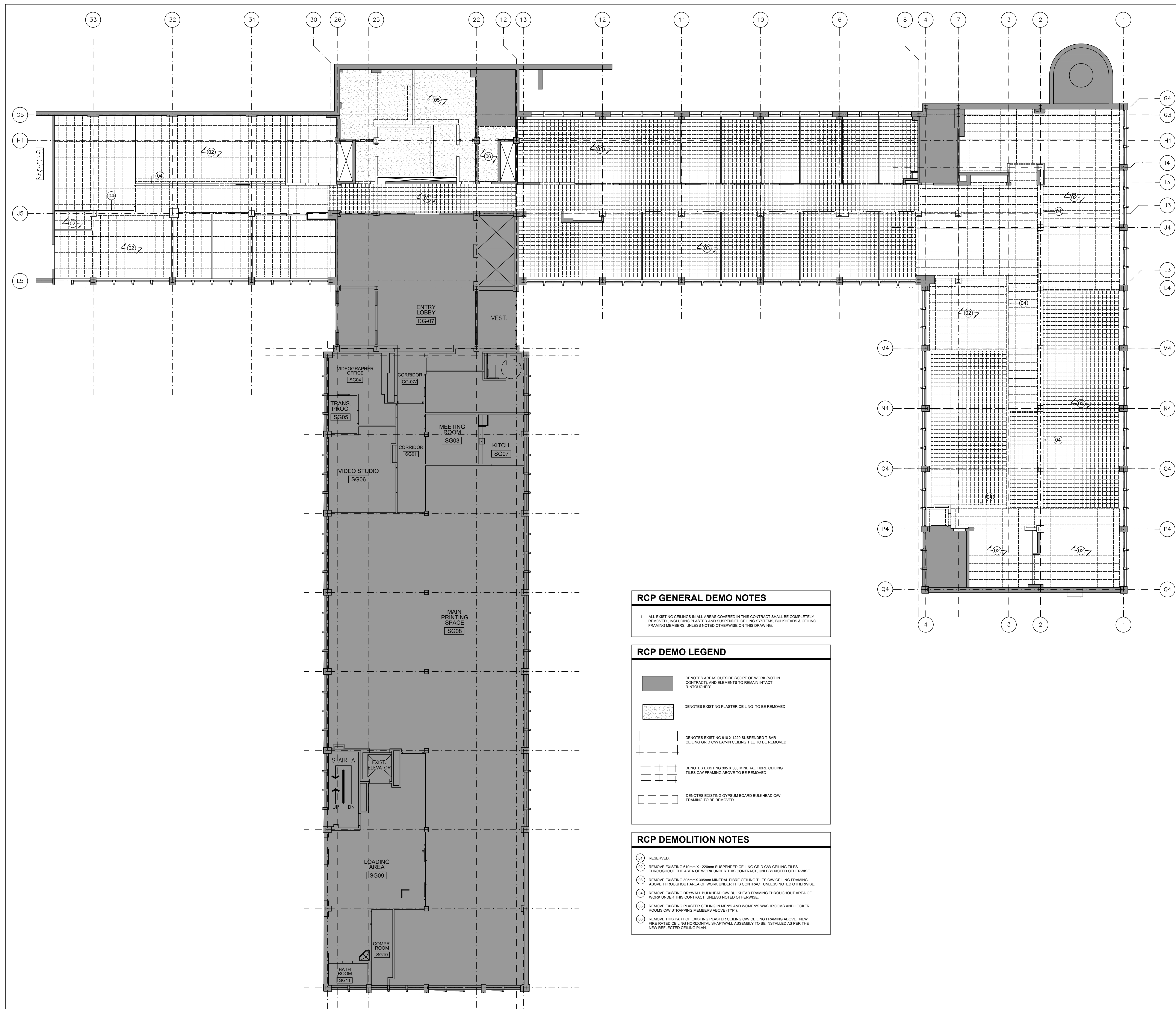
- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

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| A | A Detail no. No. du détail | A |
| B | B Location drawing no. sur dessin no. | B |
| C | C Drawing no. dessin no. | C |

project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

project: MONTREAL ROAD CAMPUS
 drawing: REFLECTED CEILING DEMOLITION PLAN

| | | | | | |
|----------|----------|------------|---------|-----------------|---------|
| designed | AA/VA | conçu | date | 04/2016 | date |
| drawn | AA/YO | dessiné | scale | AS NOTED | échelle |
| checked | AA | vérifié | sheet | 04 of/de 17 | feuille |
| approved | VA | approuvé | W.O.no. | A1-009908-01-58 | D.T.no. |
| dwg.no. | 5189-A02 | dessin no. | | | |



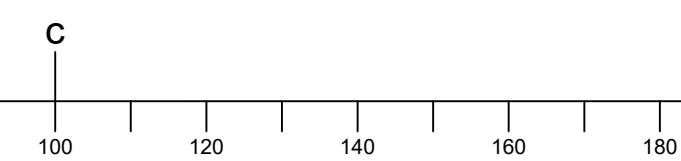
RCP GENERAL DEMO NOTES

1. ALL EXISTING CEILING IN ALL AREAS COVERED IN THIS CONTRACT SHALL BE COMPLETELY REMOVED, INCLUDING PLASTER AND SUSPENDED CEILING SYSTEMS, BULKHEADS & CEILING FRAMING MEMBERS, UNLESS NOTED OTHERWISE ON THIS DRAWING.

- RCP DEMO LEGEND**
- DENOTES AREAS OUTSIDE SCOPE OF WORK (NOT IN CONTRACT) AND ELEMENTS TO REMAIN INTACT "UNTOUCHED"
 - DENOTES EXISTING PLASTER CEILING TO BE REMOVED
 - DENOTES EXISTING 610 X 1200 SUSPENDED T-BAR CEILING GRID CW LAY-IN CEILING TILE TO BE REMOVED
 - DENOTES EXISTING 305 X 305 MINERAL FIBRE CEILING TILES CW FRAMING ABOVE TO BE REMOVED
 - DENOTES EXISTING GYPSUM BOARD BULKHEAD CW FRAMING TO BE REMOVED

- RCP DEMOLITION NOTES**
- 01 RESERVED
 - 02 REMOVE EXISTING 610mm X 1200mm SUSPENDED CEILING GRID CW CEILING TILES THROUGHOUT THE AREA OF WORK UNDER THIS CONTRACT, UNLESS NOTED OTHERWISE.
 - 03 REMOVE EXISTING 305mm X 305mm MINERAL FIBRE CEILING TILES CW CEILING FRAMING ABOVE THROUGHOUT AREA OF WORK UNDER THIS CONTRACT UNLESS NOTED OTHERWISE.
 - 04 REMOVE EXISTING DRYWALL BULKHEAD CW BULKHEAD FRAMING THROUGHOUT AREA OF WORK UNDER THIS CONTRACT, UNLESS NOTED OTHERWISE.
 - 05 REMOVE EXISTING PLASTER CEILING IN MEN'S AND WOMEN'S WASHROOMS AND LOCKER ROOMS CW STRAPPING MEMBERS ABOVE (TYP)
 - 09 REMOVE THIS PART OF EXISTING PLASTER CEILING CW CEILING FRAMING ABOVE. NEW FIRE-RATED CEILING HORIZONTAL SHAFTWALL ASSEMBLY TO BE INSTALLED AS PER THE NEW REFLECTED CEILING PLAN.

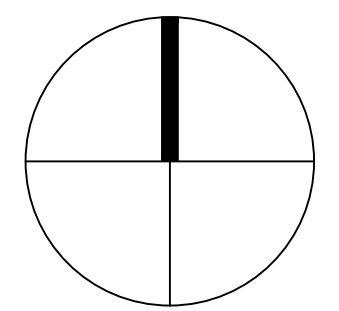
1 REFLECTED CEILING DEMOLITION PLAN
 SCALE = 1:125



GENERAL NOTES

- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK.
- PREVENT THE SPREAD OF DUST & DEBRIS BEYOND THE WORK AREA AND CLEAN ALL SURFACES AT COMPLETION.
- MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
- COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
- PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS.

PROJECT NORTH SEAL



ALCAIDE WEBSTER ARCHITECTS INC
 1320 Carling Avenue
 Ottawa, ON K1Z 7K8 www.awa-arch.ca

ARCHITECTURE PLANNING DESIGN BUILD PROJECT MANAGEMENT

| | | | |
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| 0 | 2016/09/19 | ISSUED FOR TENDER | AWA |
| No. | Date | Revision | By: / Par: |

Date Printed: 02/06/2016 Date imprimée:

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.

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| B | Location drawing no. sur dessin no. | B |
| C | Drawing no. dessin no. | C |

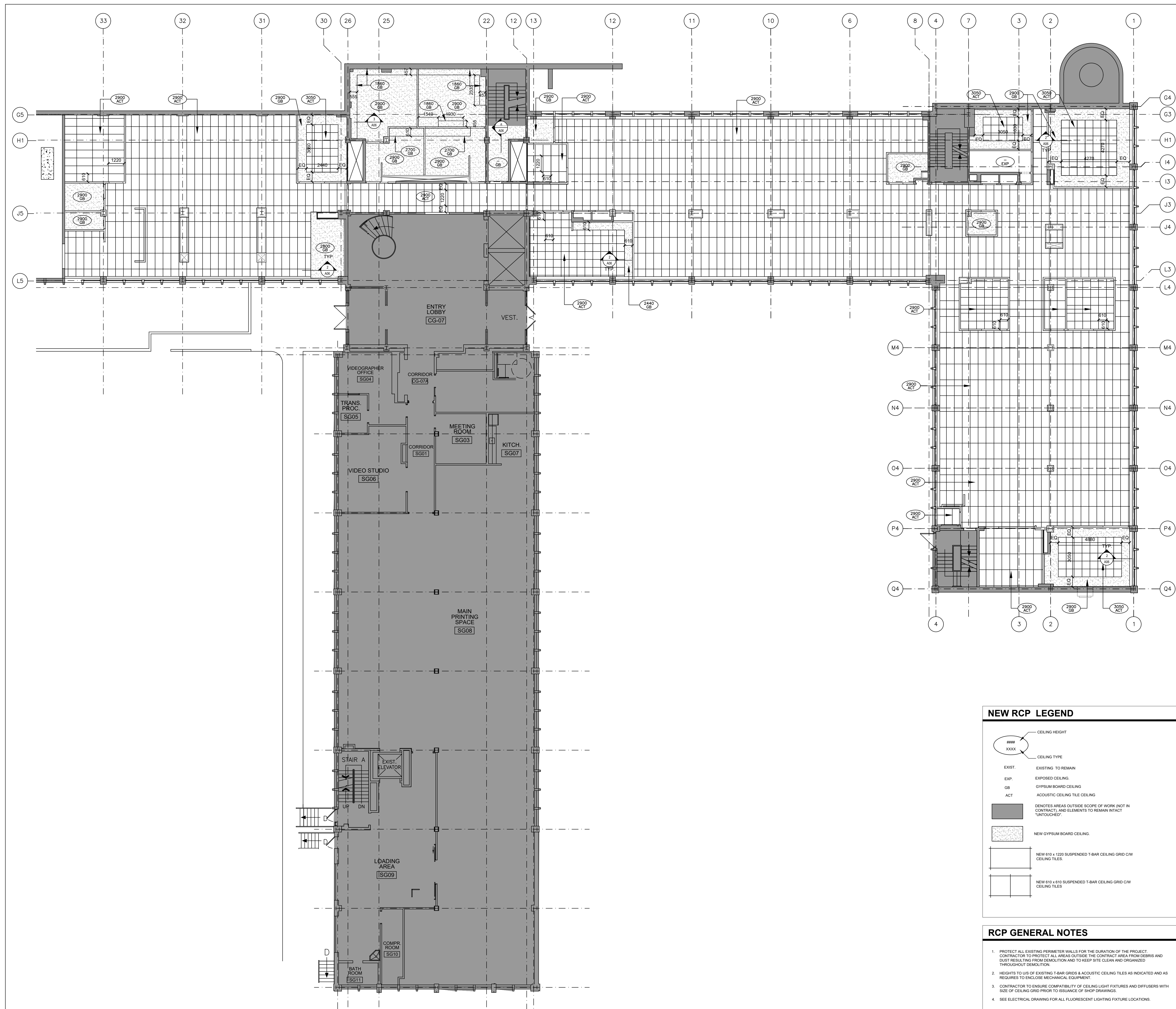
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS

drawing: REFLECTED CEILING NEW PLAN

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| designed | AA/VA | conçu | date | 04/2016 | date |
| drawn | AA/YO | dessiné | scale | AS NOTED | échelle |
| checked | AA | vérifié | sheet | 05 of/ de 17 | feuille |
| approved | VA | approuvé | W.O.no. | A1-009908-01-58 | D.T.no. |

dwg.no. 5189-A03 dessin no.

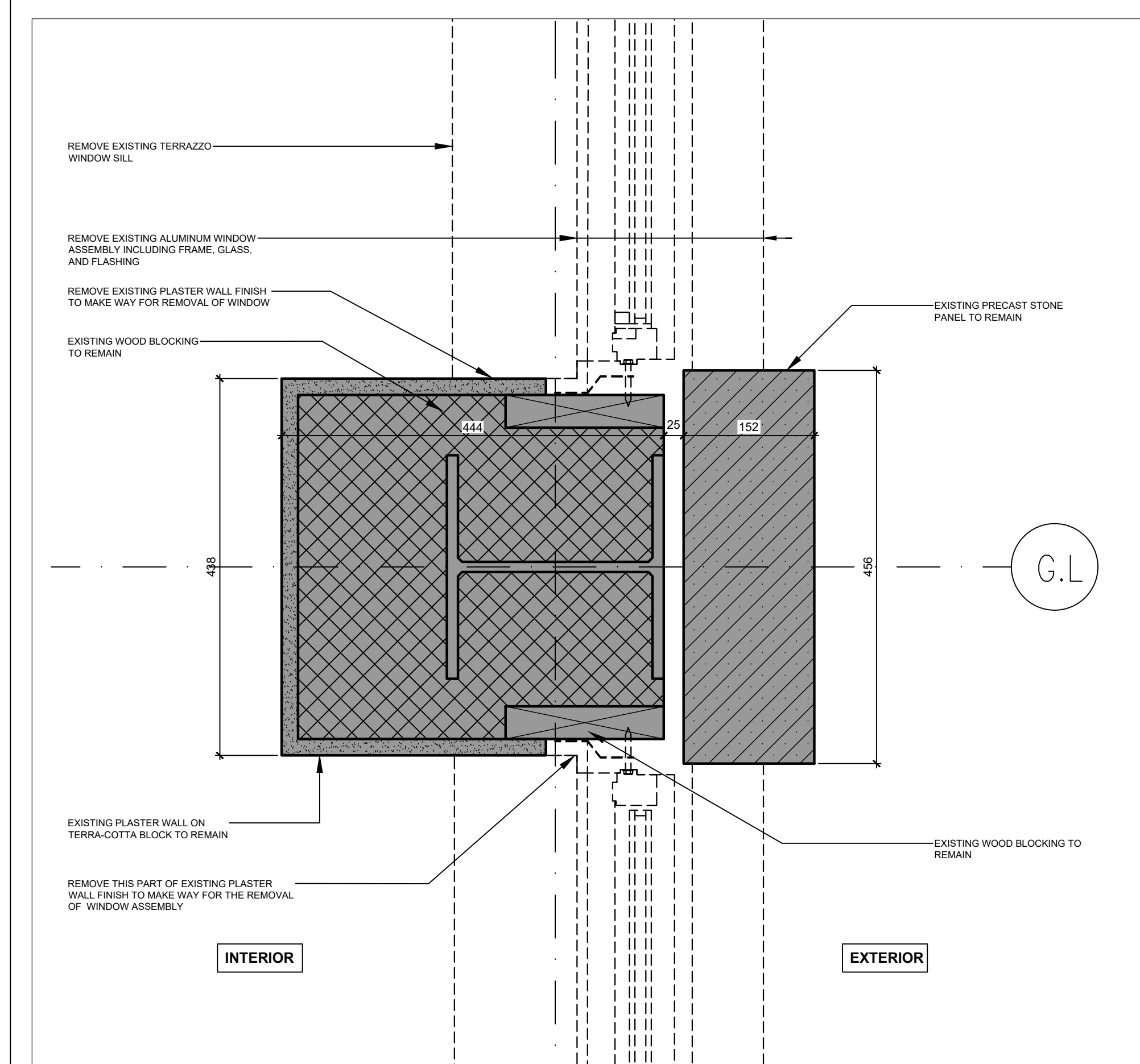


NEW RCP LEGEND

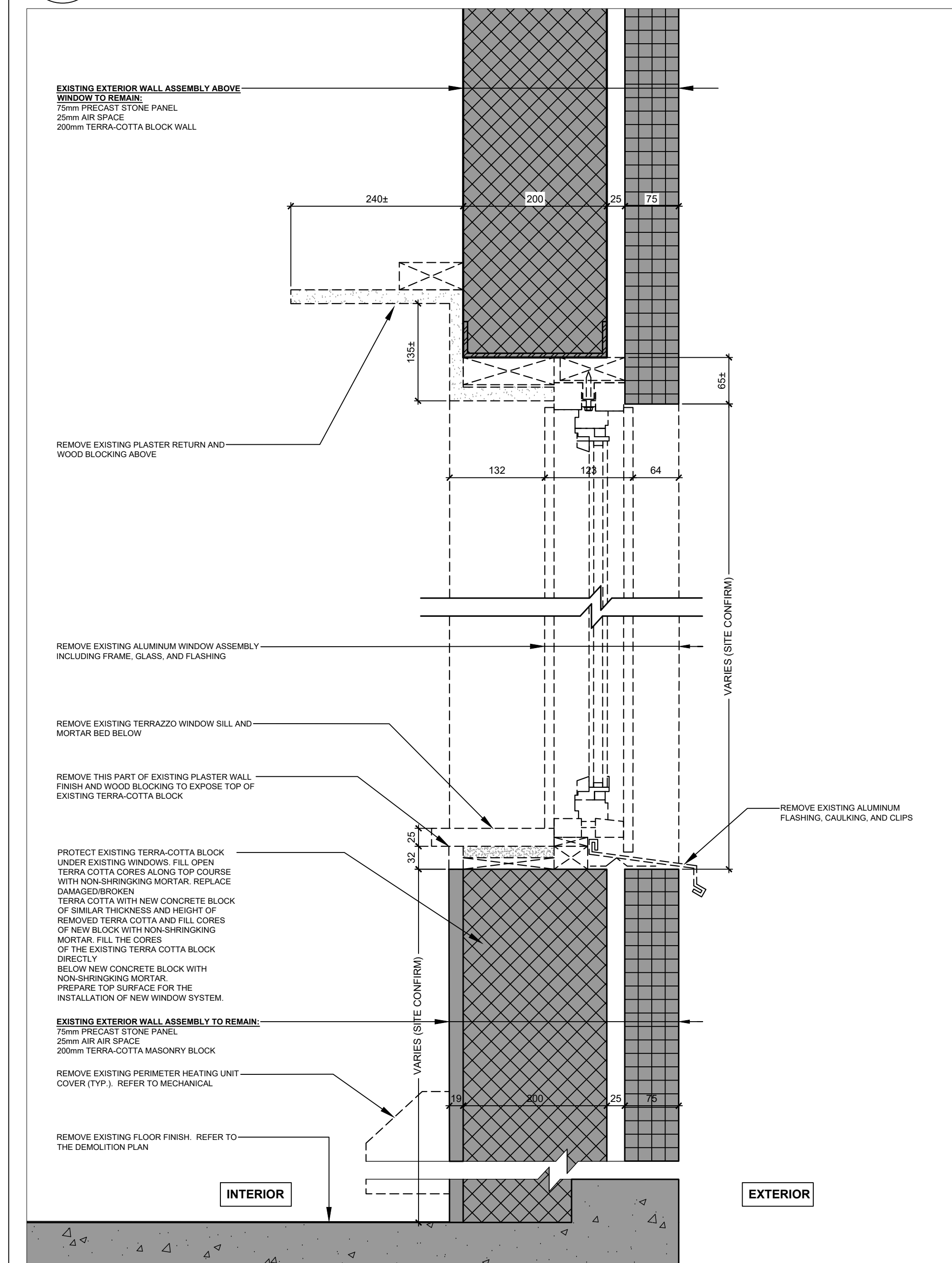
- CEILING HEIGHT: (Symbol with 'XXXX')
- CEILING TYPE: (Symbol with 'XXXX')
- EXIST.: EXISTING TO REMAIN
- EXP.: EXPOSED CEILING
- GB: GYPSUM BOARD CEILING
- ACT: ACOUSTIC CEILING TILE CEILING
- (Grey shaded area): DENOTES AREAS OUTSIDE SCOPE OF WORK (NOT IN CONTRACT) AND ELEMENTS TO REMAIN INTACT (OUTDOORED)
- (Stippled area): NEW GYPSUM BOARD CEILING
- (Grid with 'CW'): NEW 610 x 1200 SUSPENDED T-BAR CEILING GRID CW CEILING TILES
- (Grid with 'C'): NEW 610 x 610 SUSPENDED T-BAR CEILING GRID CW CEILING TILES

- RCP GENERAL NOTES**
- PROTECT ALL EXISTING PERIMETER WALLS FOR THE DURATION OF THE PROJECT. CONTRACTOR TO PROTECT ALL AREAS OUTSIDE THE CONTRACT AREA FROM DEBRIS AND DUST RESULTING FROM DEMOLITION AND TO KEEP SITE CLEAN AND ORGANIZED THROUGHOUT DEMOLITION.
 - HEIGHTS TO USE OF EXISTING T-BAR GRIDS & ACOUSTIC CEILING TILES AS INDICATED AND AS REQUIRES TO ENCLOSE MECHANICAL EQUIPMENT.
 - CONTRACTOR TO ENSURE COMPATIBILITY OF CEILING LIGHT FIXTURES AND DIFFUSERS WITH SIZE OF CEILING GRID PRIOR TO ISSUANCE OF SHOP DRAWINGS.
 - SEE ELECTRICAL DRAWINGS FOR ALL FLUORESCENT LIGHTING FIXTURE LOCATIONS.

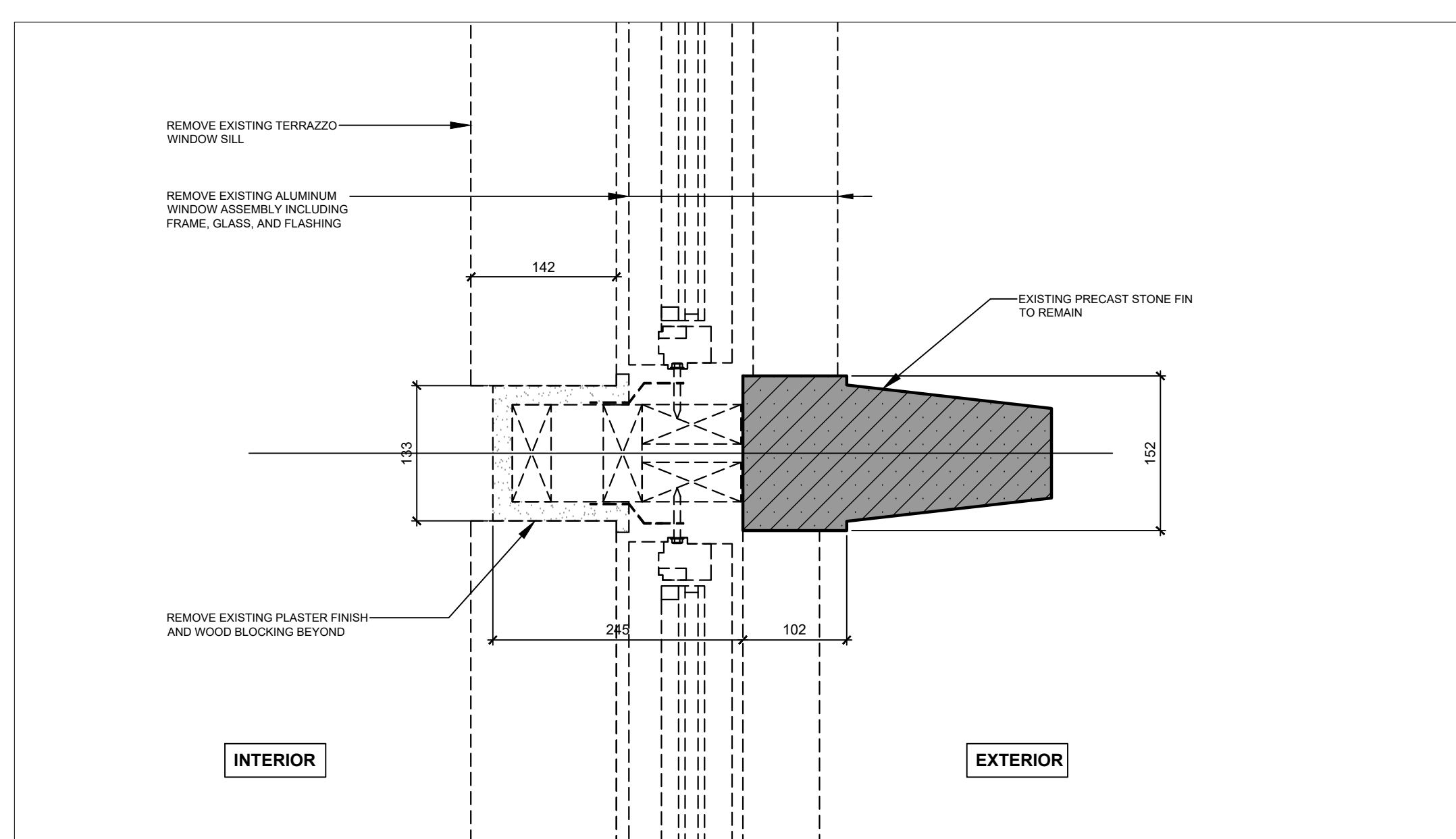
1 REFLECTED CEILING NEW PLAN
 SCALE = 1:125



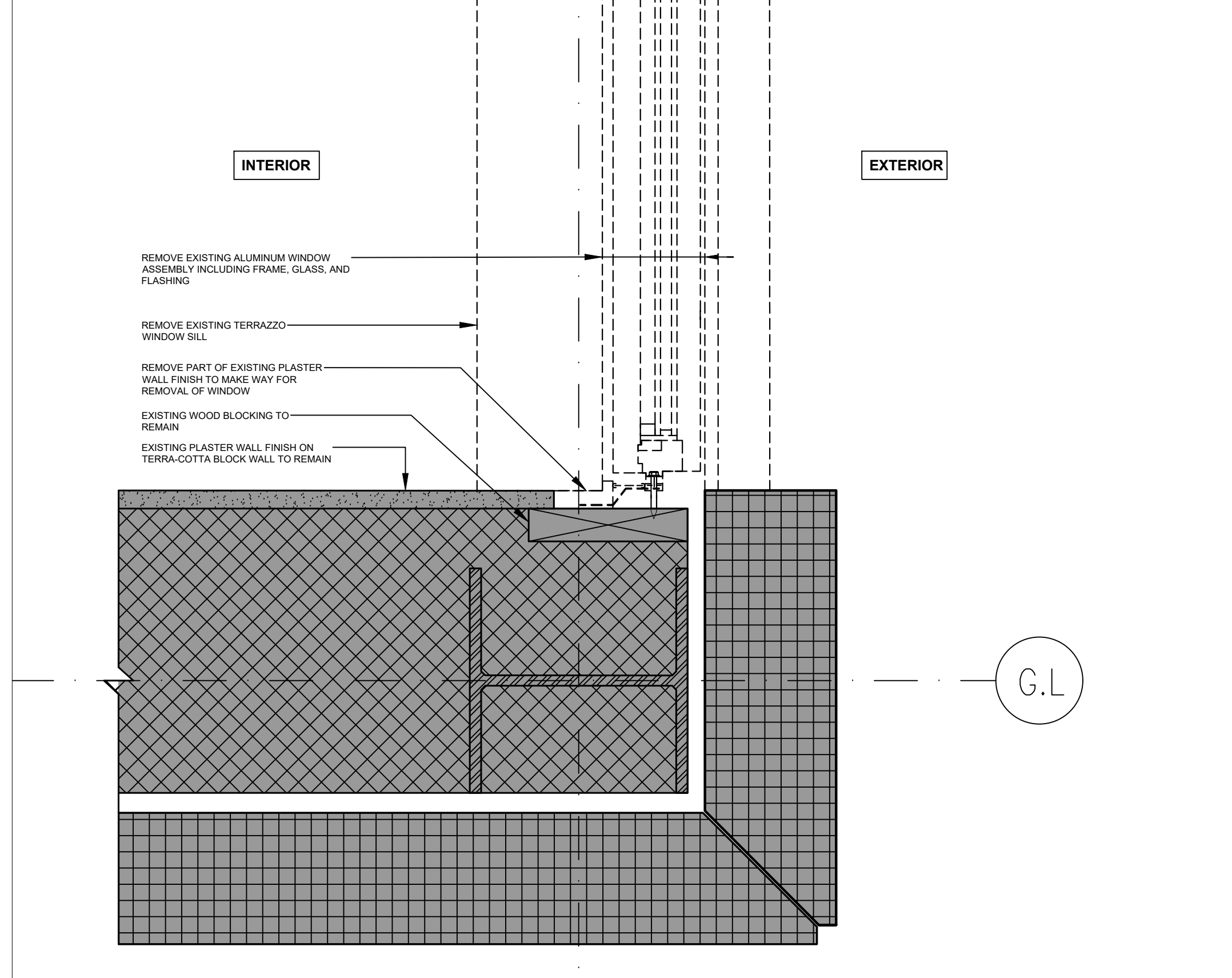
1 WINDOW JAMB DEMOLITION DETAIL (TYP.)
SCALE = 1:5



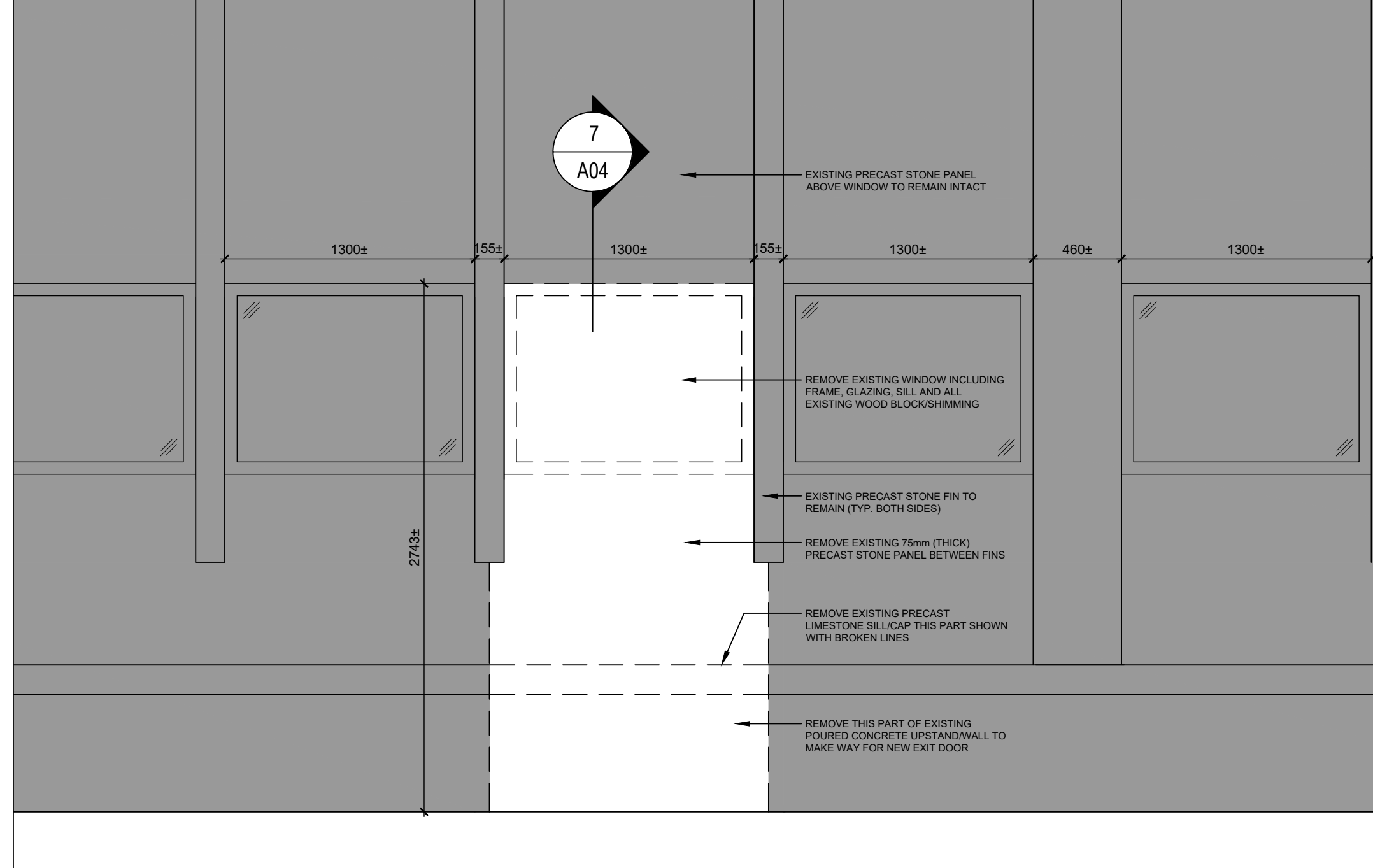
4 WINDOW HEAD AND SILL DEMOLITION SECTION (TYP.)
SCALE = 1:5



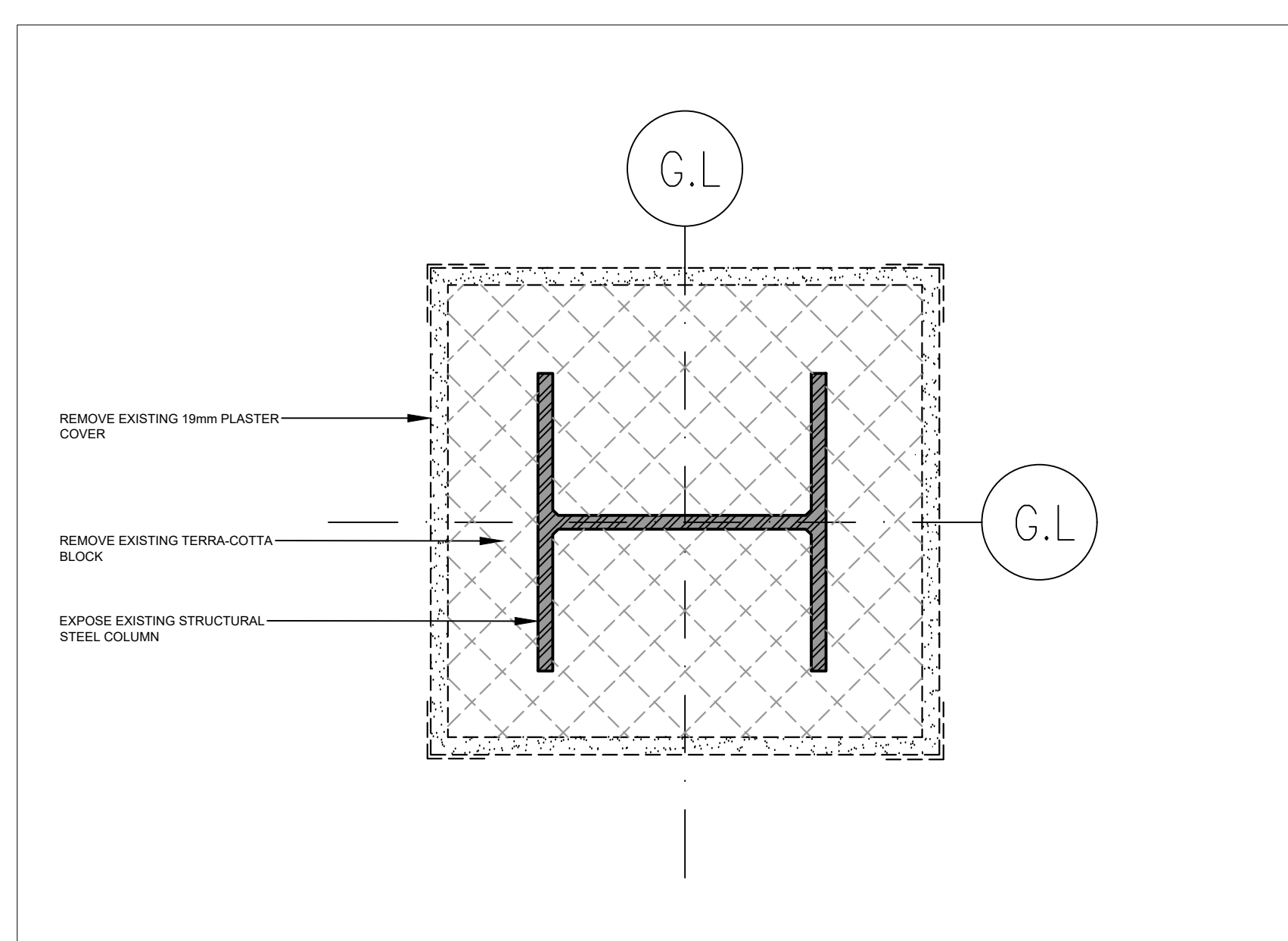
2 WINDOW JAMB DEMOLITION DETAIL (TYP.)
SCALE = 1:5



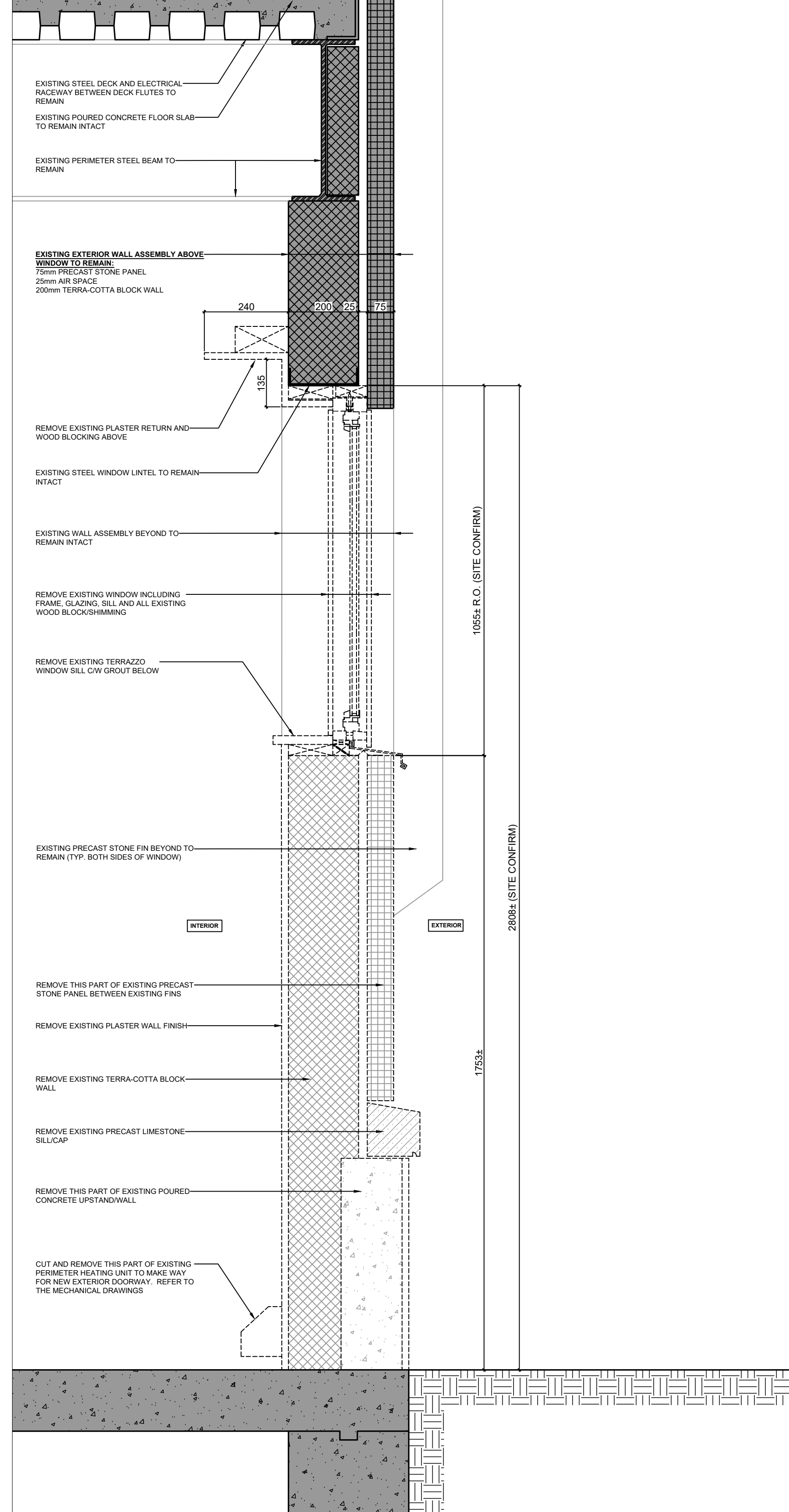
5 CORNER WINDOW DEMOLITION DETAIL (TYP.)
SCALE = 1:5



6 EXTERIOR WALL PARTIAL DEMOLITION ELEVATION
SCALE = 1:25



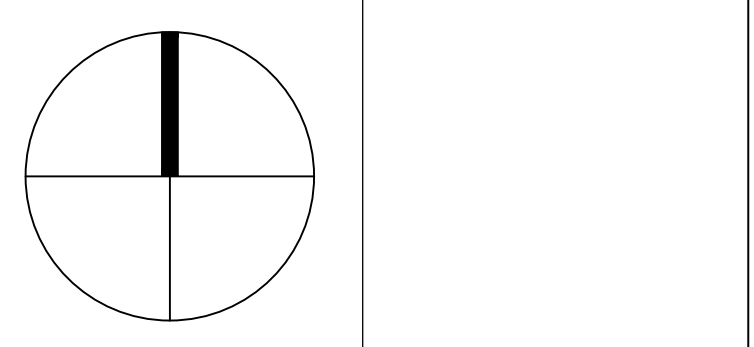
3 COLUMN CLADDING DEMOLITION DETAIL (TYP.)
SCALE = 1:5



7 EXTERIOR WALL PARTIAL DEMOLITION SECTION
SCALE = 1:10

- GENERAL NOTES**
- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
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 - PREVENT THE SPREAD OF DUST & DEBRIS BEYOND THE WORK AREA AND CLEAN ALL SURFACES AT COMPLETION.
 - MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
 - COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
 - PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS.

PROJECT NORTH SEAL



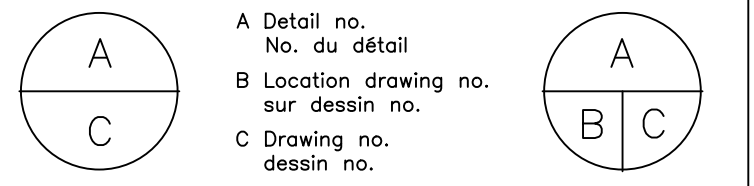
ALCAIDE WEBSTER ARCHITECTS INC
1320 Carling Avenue
Ottawa, ON K1Z 7K8 www.awa-arch.ca

ARCHITECTURE PLANNING DESIGN BUILD PROJECT MANAGEMENT

| No. | Date | Revision | By: | Date |
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| 0 | 2016/09/19 | ISSUED FOR TENDER | AAA | |

Date Printed DD MM YYYY Date imprimée

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.



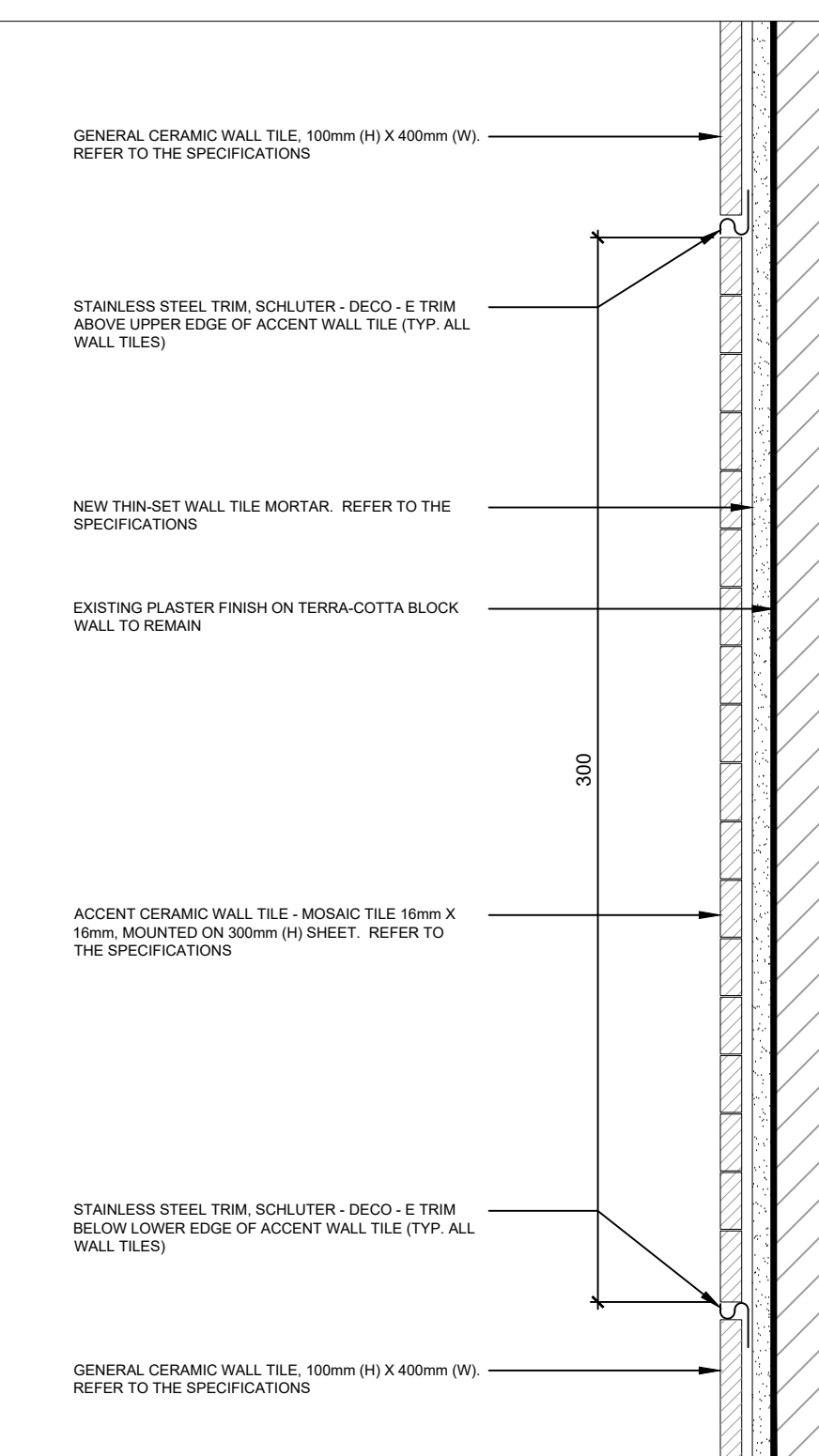
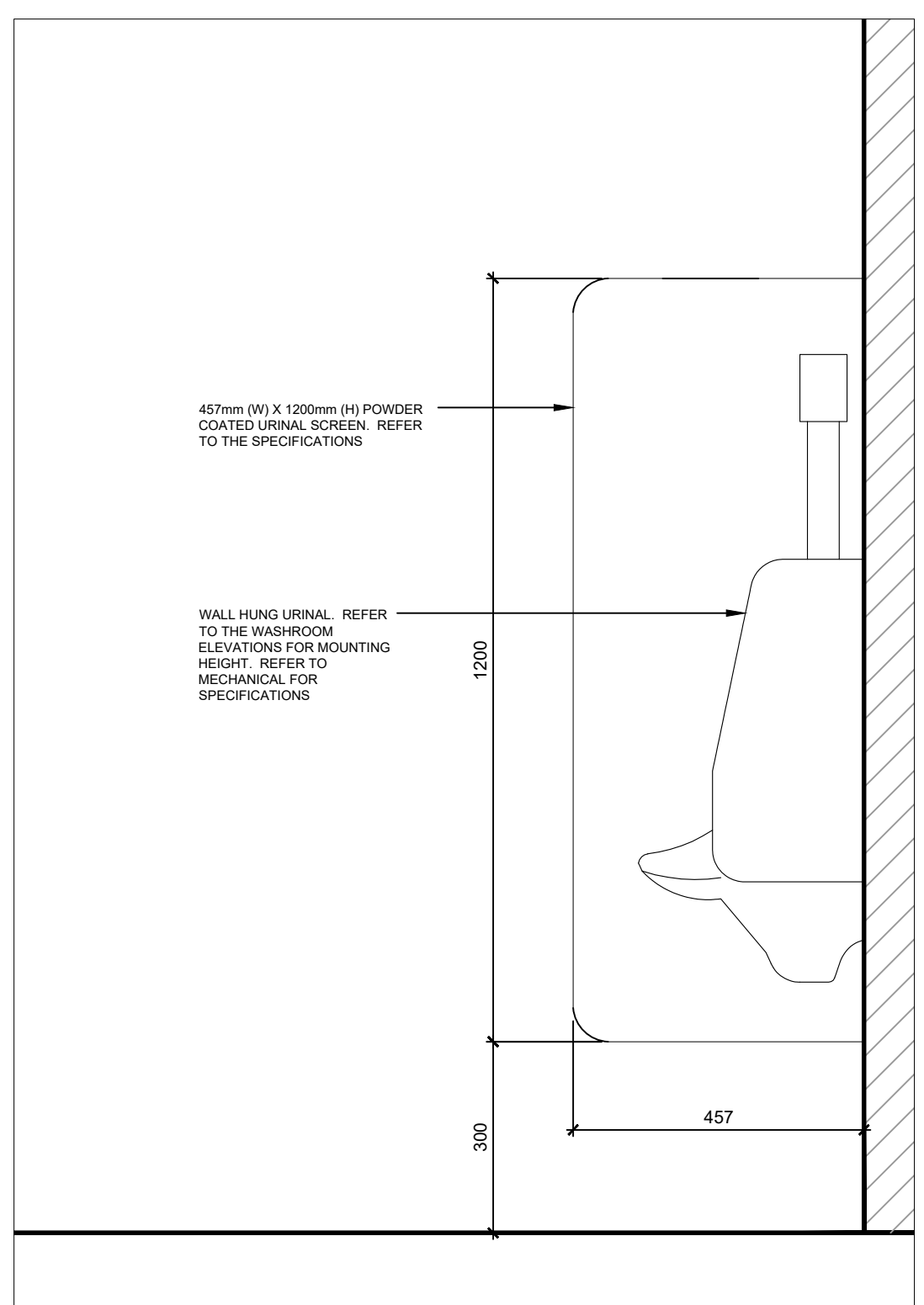
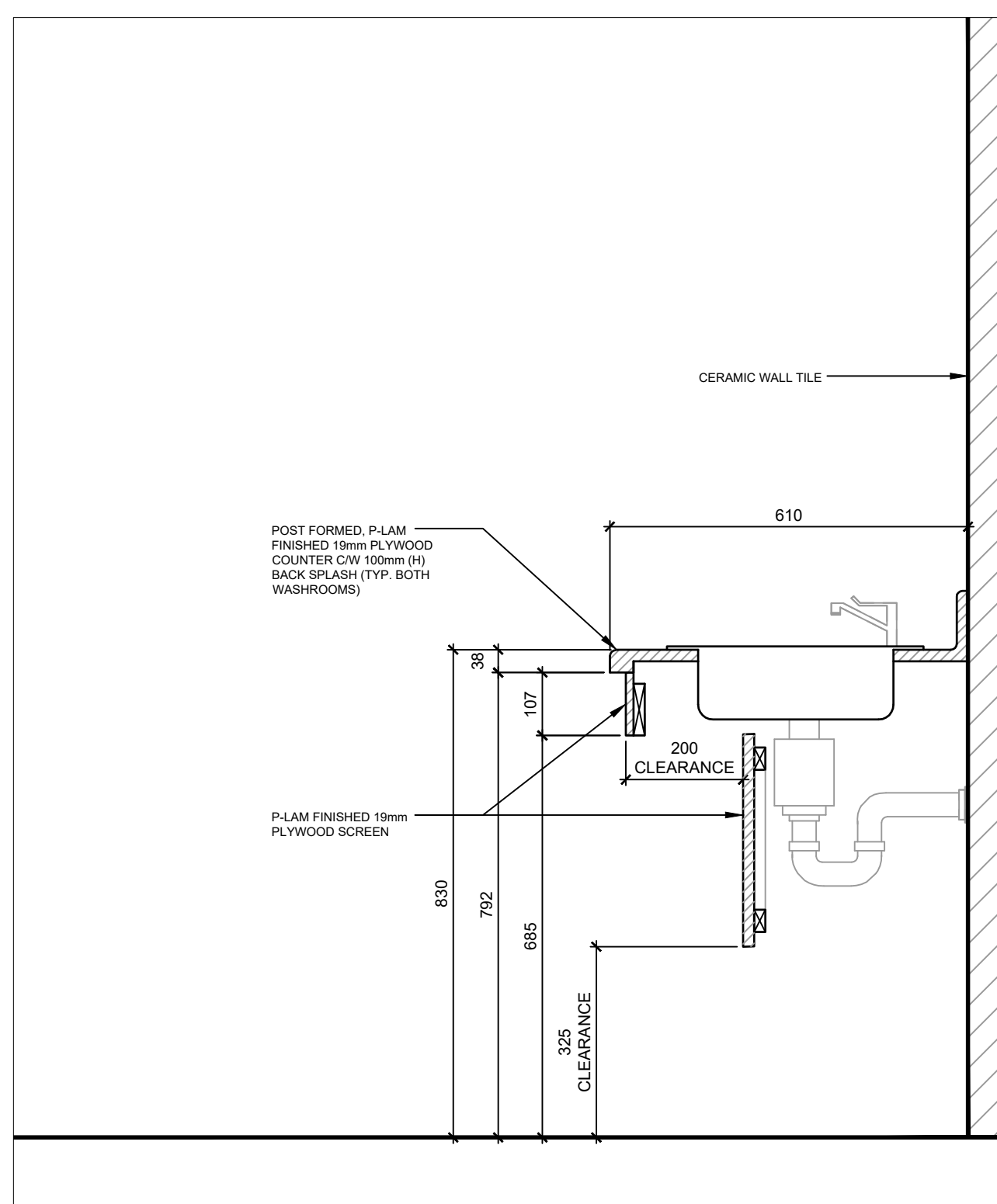
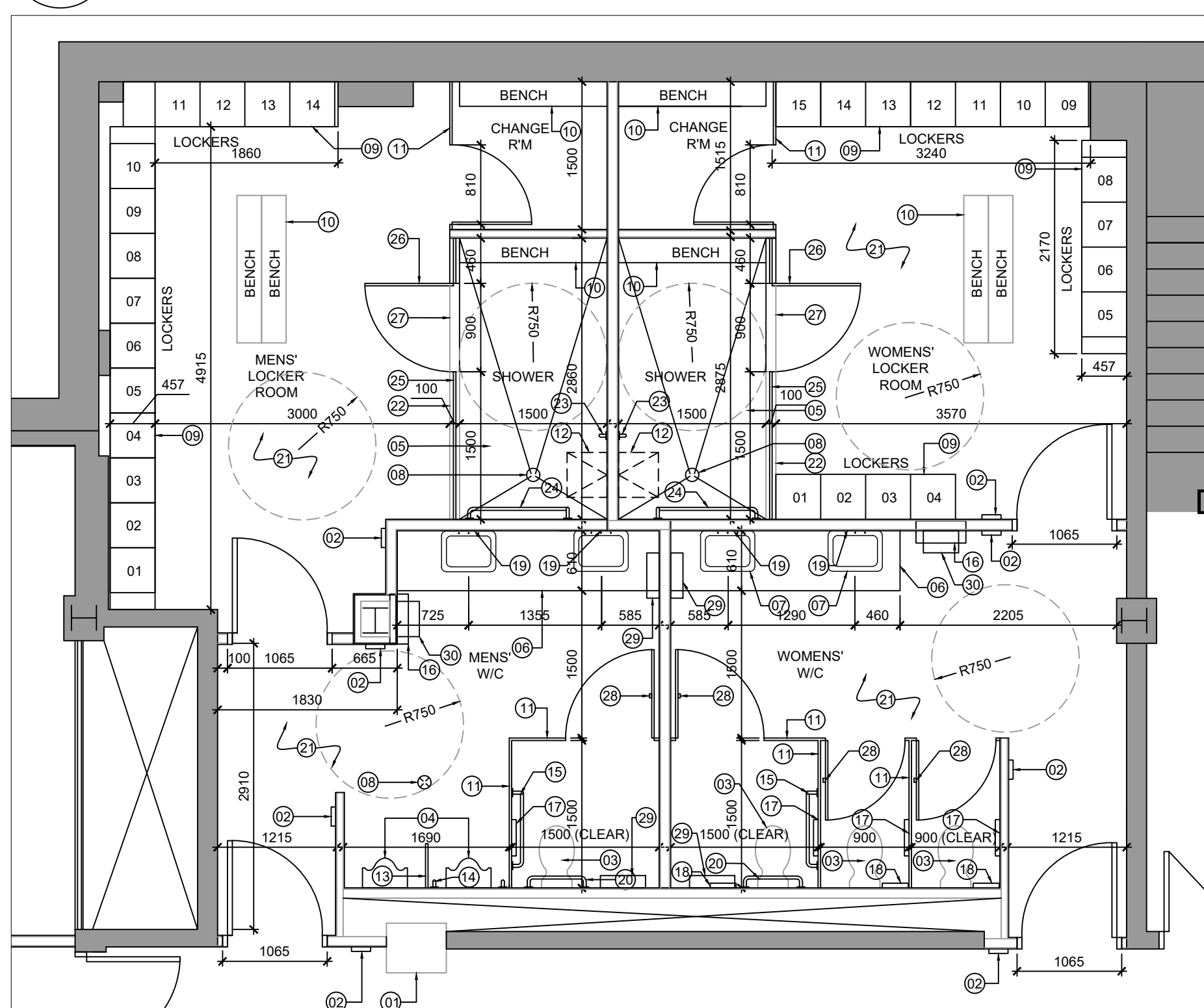
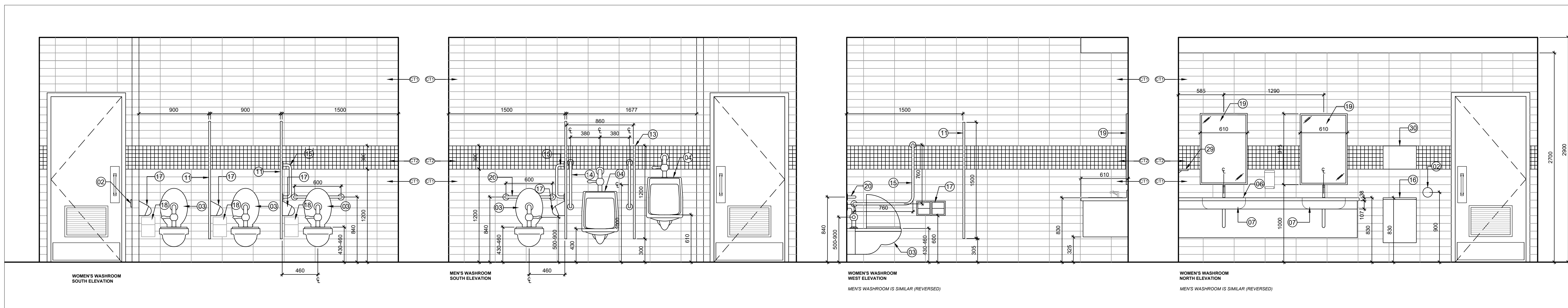
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

design: MONTREAL ROAD CAMPUS
drawing: DEMOLITION ELEVATIONS, SECTIONS + DETAILS

| designed | conçu | date | 05/2016 | date |
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| AA/VA | | | | |
| drawn | dessiné | scale | AS NOTED | échelle |
| AA/YO | | | | |
| checked | vérifié | sheet | 06 of/ de 17 | feuille |
| AA | | | | |
| approved | approuvé | W.O.no. | A1-009908-01-58 | D.T.no. |
| VA | | | | |
| dwg.no. | 5189-A04 | | | dessin no. |

GENERAL NOTES

- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK.
- PREVENT THE SPREAD OF DUST & DEBRIS BEYOND THE WORK AREA AND CLEAN ALL SURFACES AT COMPLETION.
- MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
- COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
- PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS.



WASHROOM PLAN AND ELEVATIONS NOTES

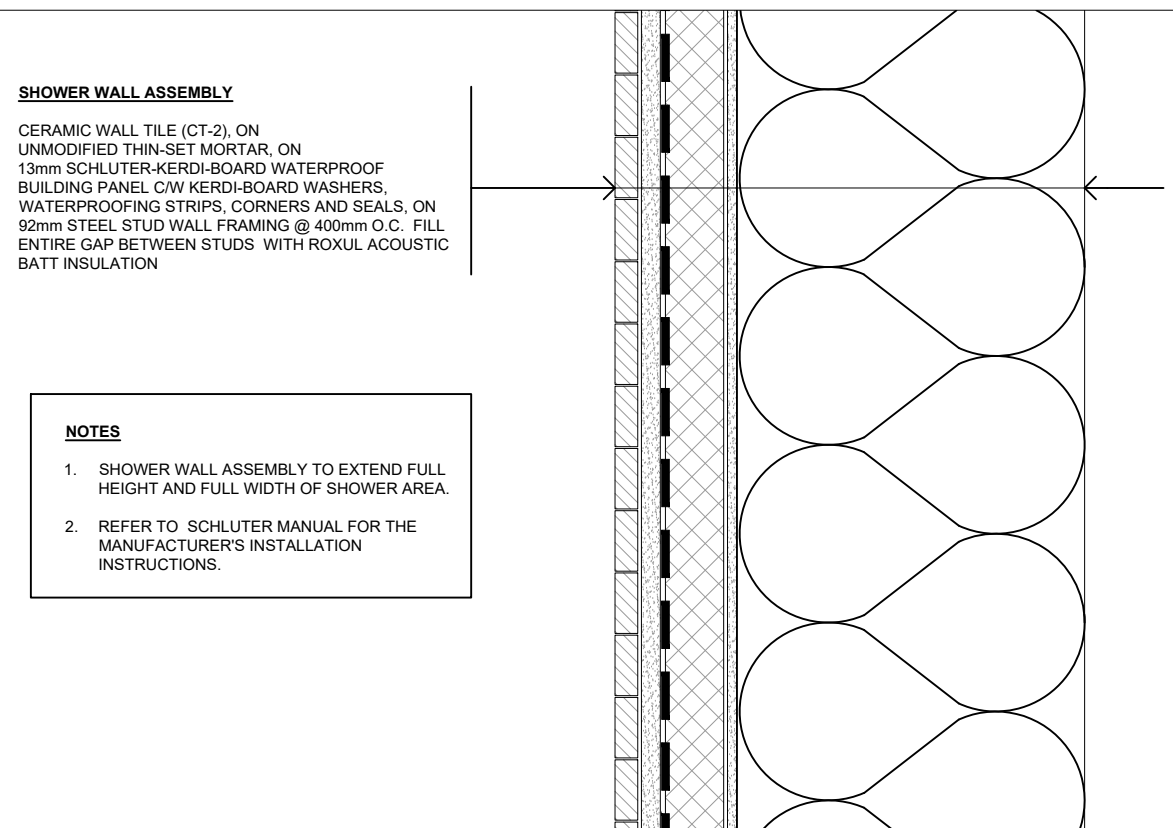
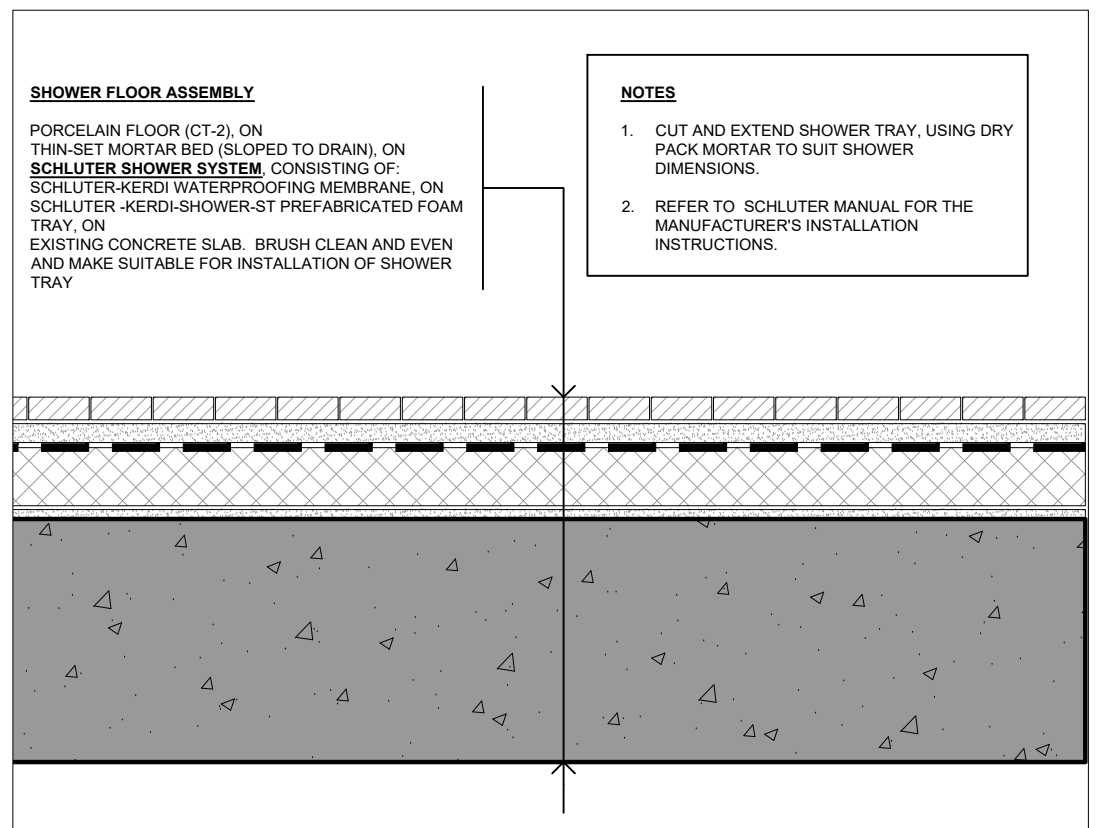
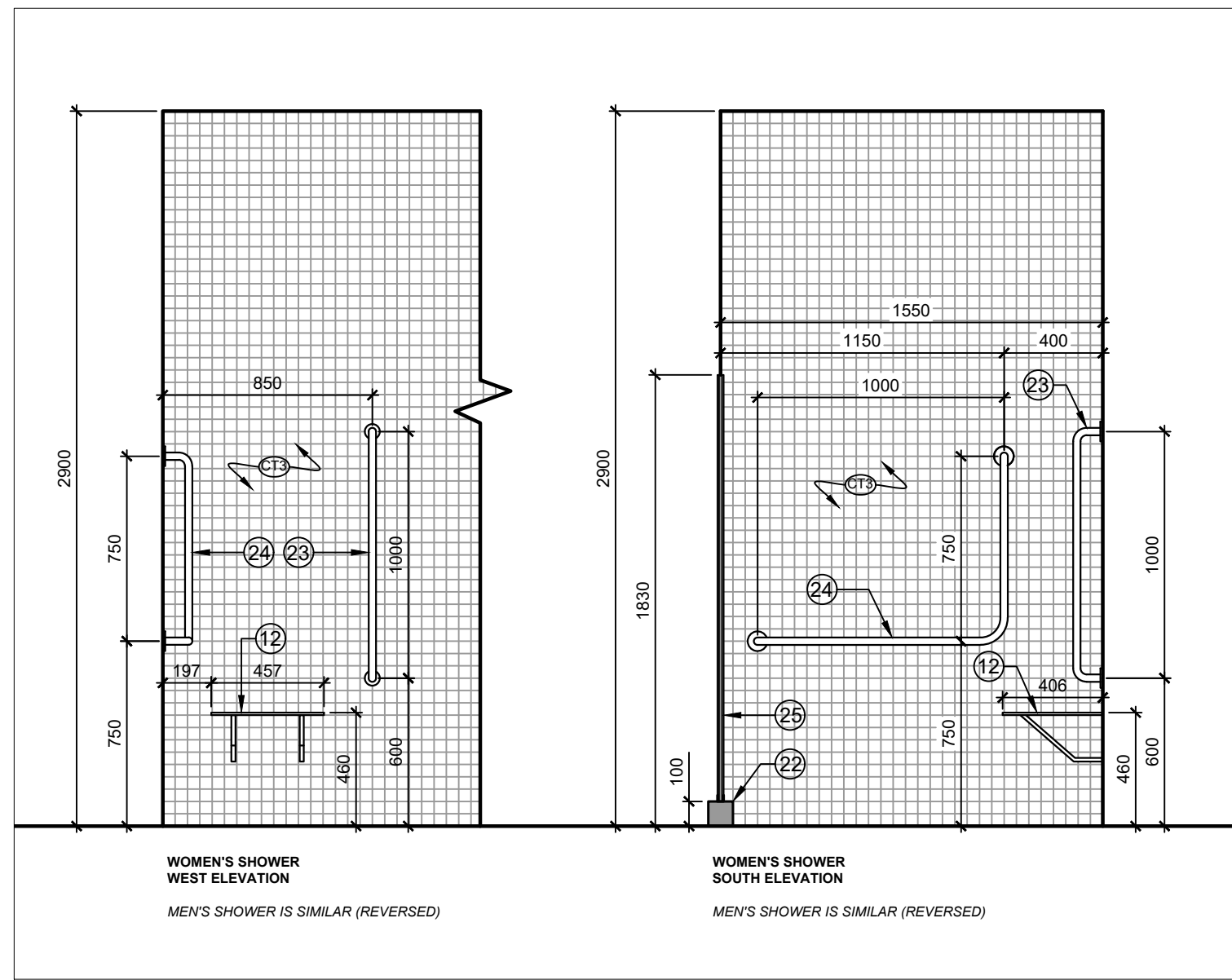
- EXISTING DRINKING FOUNTAIN TO REMAIN.
- NEW DOOR OPENER (POWER DOOR OPERATOR) REFER TO ELECTRICAL.
- NEW WALL-HUNG WATER CLOSET. REFER TO MECHANICAL.
- NEW WALL MOUNTED URINAL REFER TO MECHANICAL.
- NEW TILED ACCESSIBLE SHOWER C/W BENCH SEAT, SHOWER HEAD & GRAB BAR. REFER TO MECHANICAL. REFER TO THE SPECIFICATIONS.
- NEW PLYWOOD COUNTER TOP C/W P-LAM FINISH. REFER TO SECTION DETAILS.
- NEW COUNTER MOUNTED SINK. REFER TO MECHANICAL.
- NEW STAINLESS STEEL FLOOR DRAIN - SCHLUTER-KERDI-DRAIN C/W SQUARE STAINLESS STEEL GRATE. REFER TO MECHANICAL.
- NEW 457mm (D) X 457mm (W) X 1829 (H) DOUBLE TIER LOCKERS. REFER TO SPECIFICATIONS.
- NEW 250mm (W) X 1500mm (L) FIXED BENCH SEATING. REFER TO SPECIFICATIONS.
- NEW HEAD RAIL BRACED METAL TOILET PARTITION C/W DOOR, HARDWARE & MOUNTING BRACKETS.
- 457mm (W) X 1200mm (H) HEAVY DUTY FOLDING SHOWER SEAT C/W SELF LOCKING MECHANISM.
- 457mm (W) X 1200mm (H) POWDER COATED URINAL SCREEN.
- 600mm LONG VERTICAL GRAB BAR C/W PLYWOOD BACKING BETWEEN WALL STUDS.
- 760mm X 760mm "L" SHAPED GRAB BARS.
- STAINLESS STEEL SEMI-RECESSED WASTE RECEPTACLE. BRADLEY: 346-10, OR APPROVED EQUIVALENT.
- TOILET PAPER DISPENSER (TYP. ALL WASHROOM STALLS IN MEN'S & WOMEN'S WASHROOMS).
- STAINLESS STEEL NAPKIN DISPOSAL (TYP. ALL WASHROOM STALLS IN WOMEN'S WASHROOM, BOBROCK: B-271 OR APPROVED EQUIVALENT).
- WALL MOUNTED FLAT MIRROR (2 IN EACH WASHROOM, TOTAL OF 4).
- 600mm LONG HORIZONTAL GRAB BAR C/W PLYWOOD BACKING.
- NEW CERAMIC TILE FLOORING. REFER TO SPECIFICATIONS.
- NEW 100mm (H) X 100mm (W) X 1500mm (L) SCHLUTER-KERDI-BOARD CURB C/W PORCELAIN MOSAIC FLOOR TILE ON ALL 3 SIDES OF EXPOSED CURB.
- NEW 1000mm (L) VERTICAL GRAB BAR, MOUNTED 600mm ABOVE THE FINISHED FLOOR (MEASURED TO THE BOTTOM OF THE GRAB BAR).
- NEW L-SHAPED GRAB BAR, HORIZONTAL MEMBER: 1000mm (L) VERTICAL MEMBER: 750mm (L), MOUNTED AT 750mm ABOVE THE FINISHED FLOOR (MEASURED TO THE BOTTOM OF THE HORIZONTAL MEMBER).
- NEW 1530mm (H), 12mm (THICK) TEMPERED FROSTED GLASS SCREEN C/W STAINLESS STEEL CHANNEL FRAME AT THE BOTTOM AND SIDES ONLY. GLASS SCREEN TO BE SECURED TO NEW CURB BELOW USING GALVANIZED SCREWS COMPATIBLE WITH CURB CONSTRUCTION. REFER TO CURB MANUFACTURER FOR INSTALLATION INSTRUCTIONS.
- NEW 1830mm (H), 12mm (THICK) TEMPERED FROSTED GLASS DOOR C/W STAINLESS STEEL FRAME.
- NEW 13mm HIGH (MAX) STRIP MARBLE THRESHOLD.
- STAINLESS STEEL COAT HOOK, BOBROCK: B-471, OR APPROVED EQUIVALENT. MOUNTING HEIGHT: 1200mm ABOVE FINISHED FLOOR.
- STAINLESS STEEL SHELF: 120mm (D) X 460mm (L), BOBROCK: B-26X18 OR APPROVED EQUIVALENT. MOUNTING HEIGHT: 1200mm ABOVE FINISHED FLOOR.
- PAPER TOWEL DISPENSER - TO BE SUPPLIED BY OWNER AND INSTALLED BY THE CONTRACTOR. MOUNTING HEIGHT: 1100mm ABOVE THE FINISHED FLOOR TO THE DISPENSING LEVEL.

LEGEND

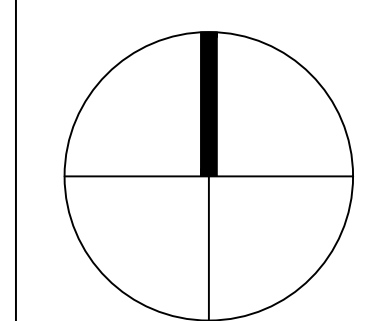
- GENERAL CERAMIC WALL TILE - 100mm (H) X 400mm (W). REFER TO THE SPECIFICATIONS.
- ACCENT CERAMIC WALL TILE - MOSAIC TILE 16mm X 16mm. MOUNTED ON 200mm (H) SHEET. REFER TO THE SPECIFICATIONS.

WASHROOM GENERAL NOTES

- PATCH, REPAIR AND MAKE GOOD ALL EXISTING FLOOR VOIDSPRINGING WHERE EXISTING FLOOR MOUNTED WASHROOM FIXTURES ARE REMOVED. FILL VOIDS WITH A ILC LISTED TESTED FIRE STOP SYSTEM FROM ILC OR AN APPROVED EQUIVALENT.
- SILICONE CAULK AND SEAL BETWEEN COUNTER TOPS AND WALL BEHIND.
- SILICONE CAULK AND SEAL AROUND ALL NEWLY INSTALLED WASHROOM FIXTURES.
- ALL SOAP DISPENSERS, TOILET PAPER DISPENSERS AND PAPER TOWEL DISPENSERS SHALL BE SUPPLIED BY OWNER AND INSTALLED BY THE CONTRACTOR UNDER THIS CONTRACT. ALL OTHER WASHROOM ACCESSORIES TO BE SUPPLIED AND INSTALLED UNDER THIS CONTRACT AS PER THE DRAWINGS.
- PROVIDE PLYWOOD BACKING/SUPPORT BETWEEN WALL STUDS BEYOND ALL NEW GRAB BARS.



PROJECT NORTH SEAL



ALCAIDE WEBSTER ARCHITECTS INC
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 Ottawa, ON K1Z 7K8 www.awa-arch.ca

ARCHITECTURE PLANNING DESIGN BUILD PROJECT MANAGEMENT

| Date | Printed | DD MM YYYY | Revision | By | Date |
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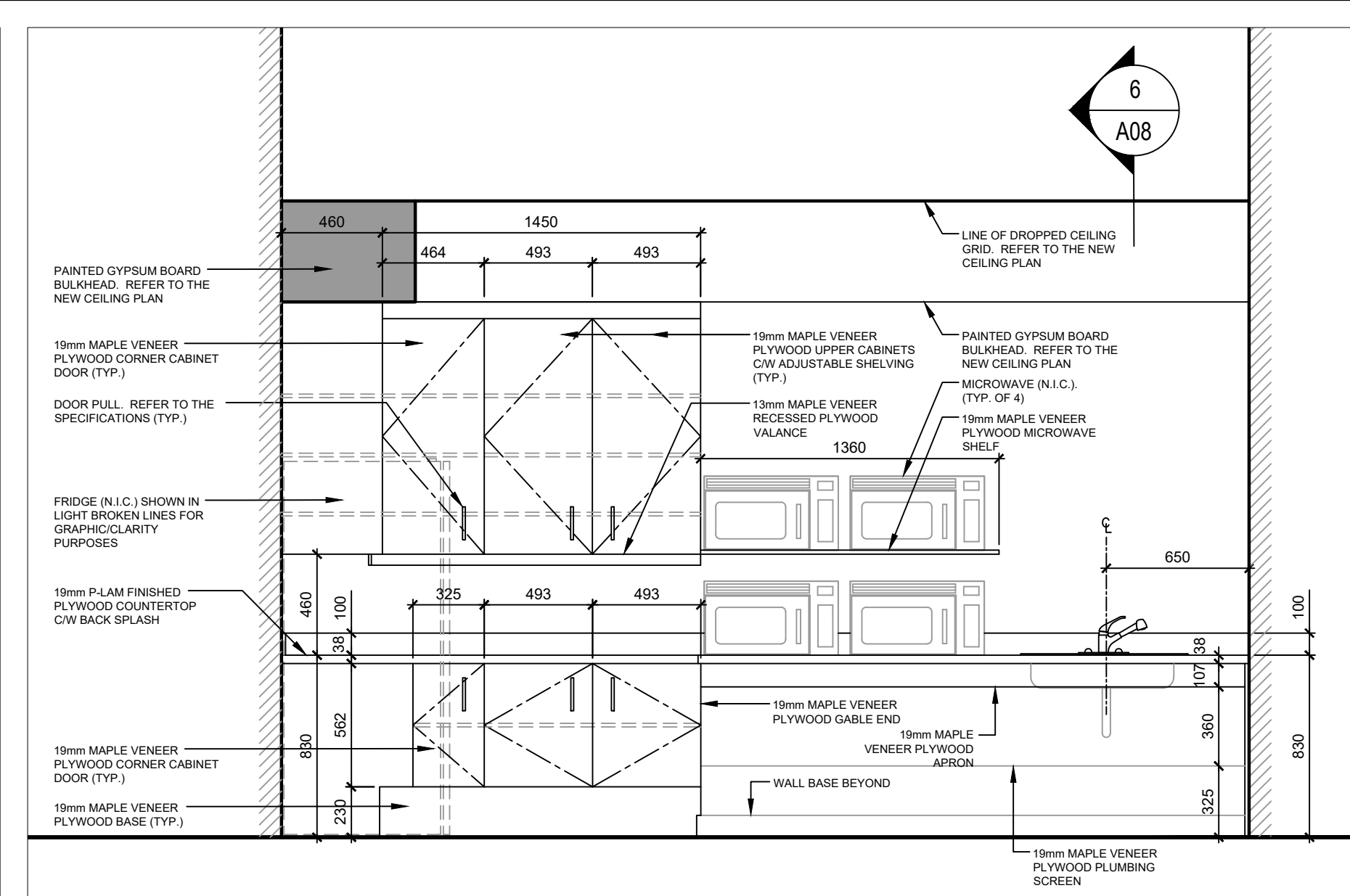
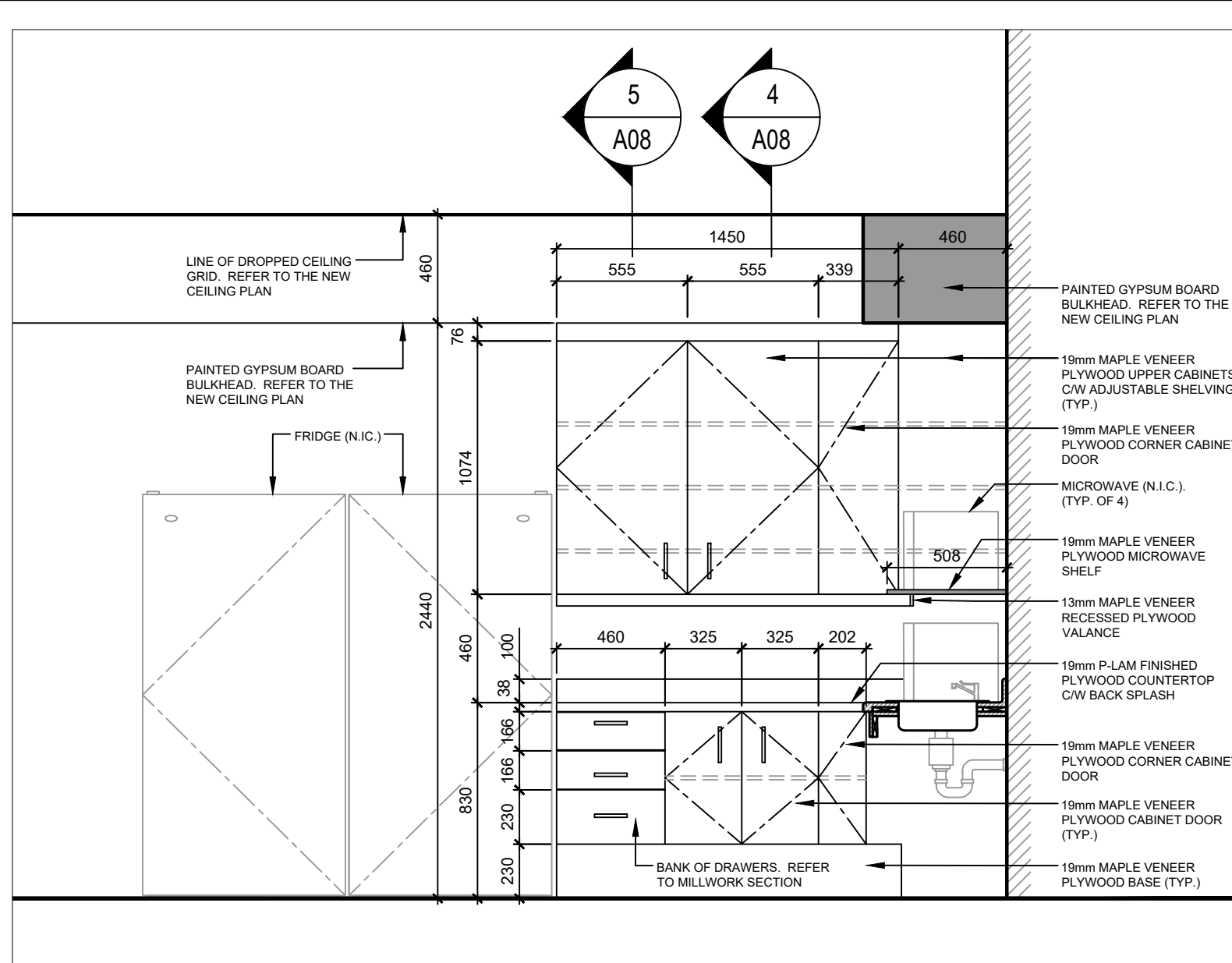
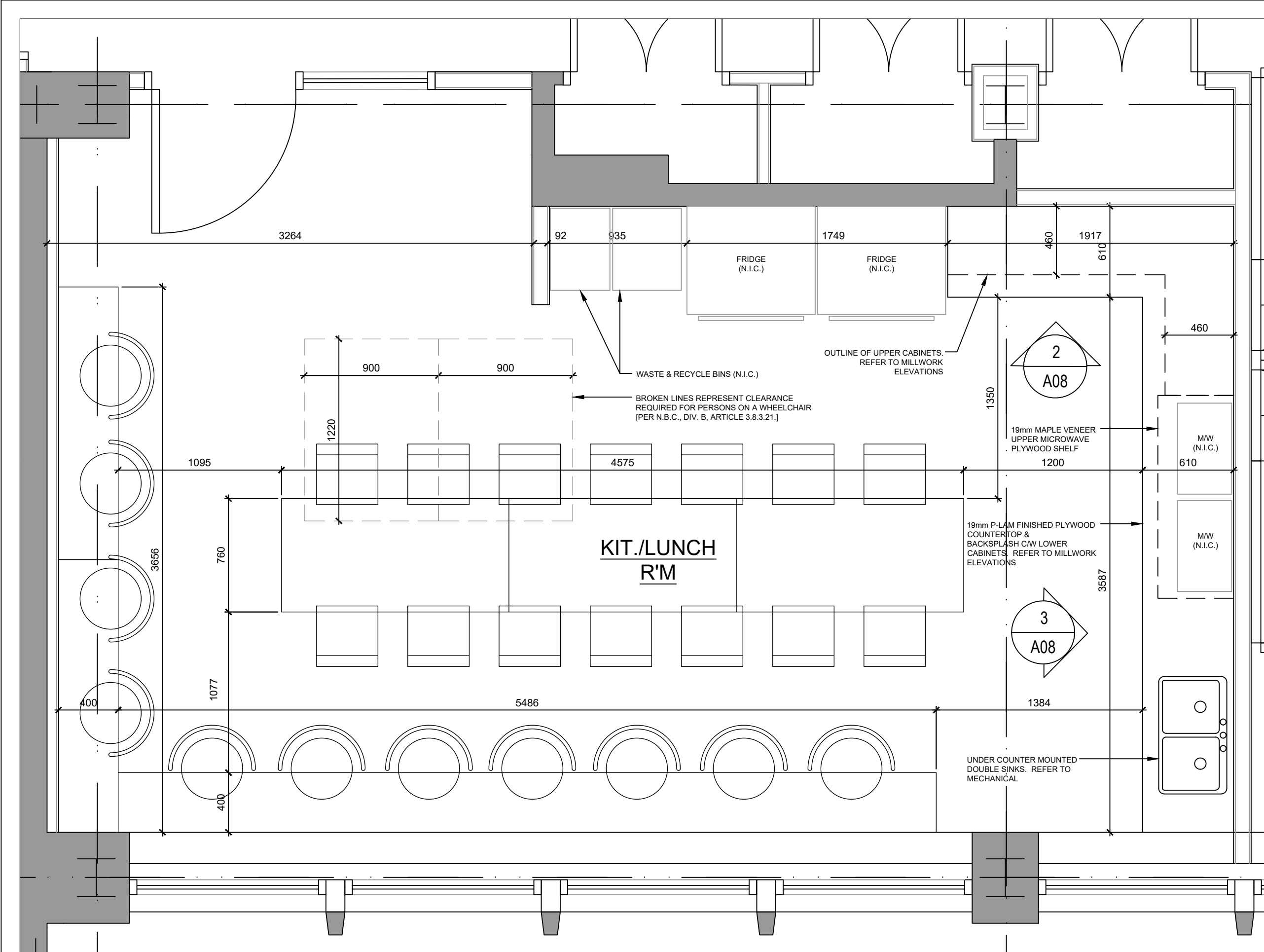
- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.

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| A | Detail no. | A |
| B | Location drawing no. | B |
| C | Location drawing no. sur dessin no. | C |

project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS
 drawing: NEW WASHROOM PLAN, ELEVATIONS + DETAILS

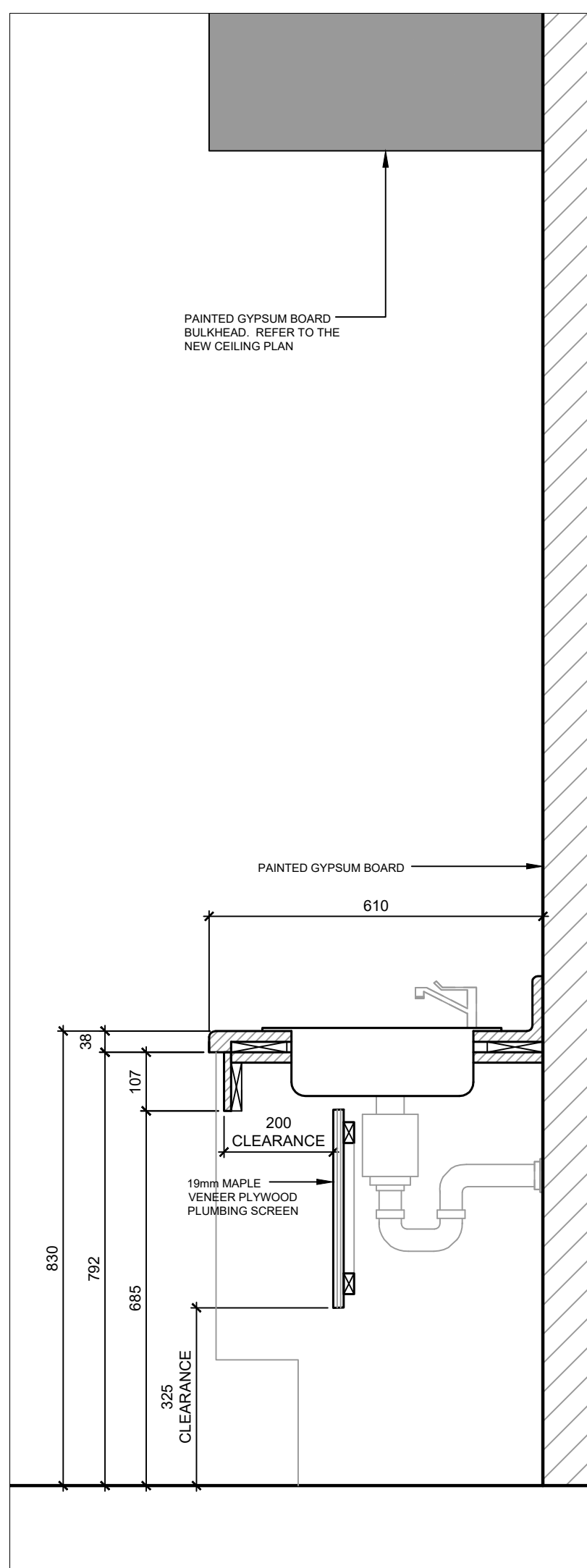
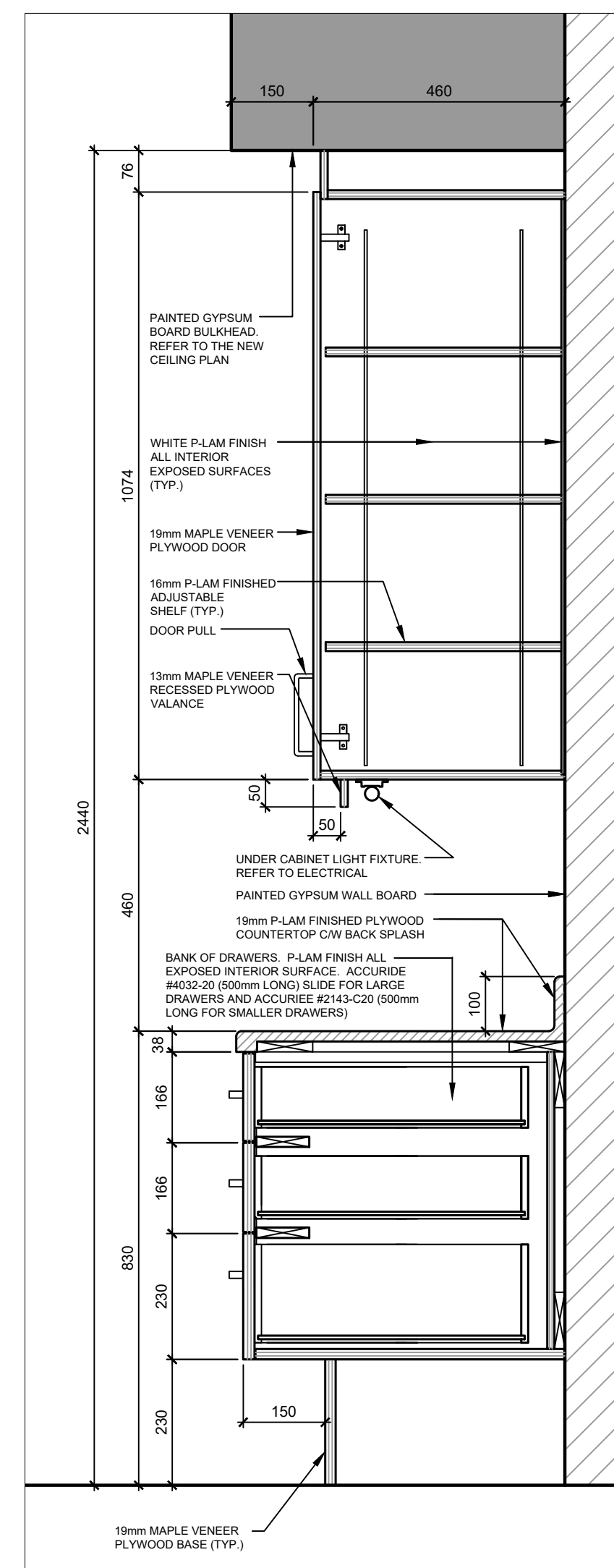
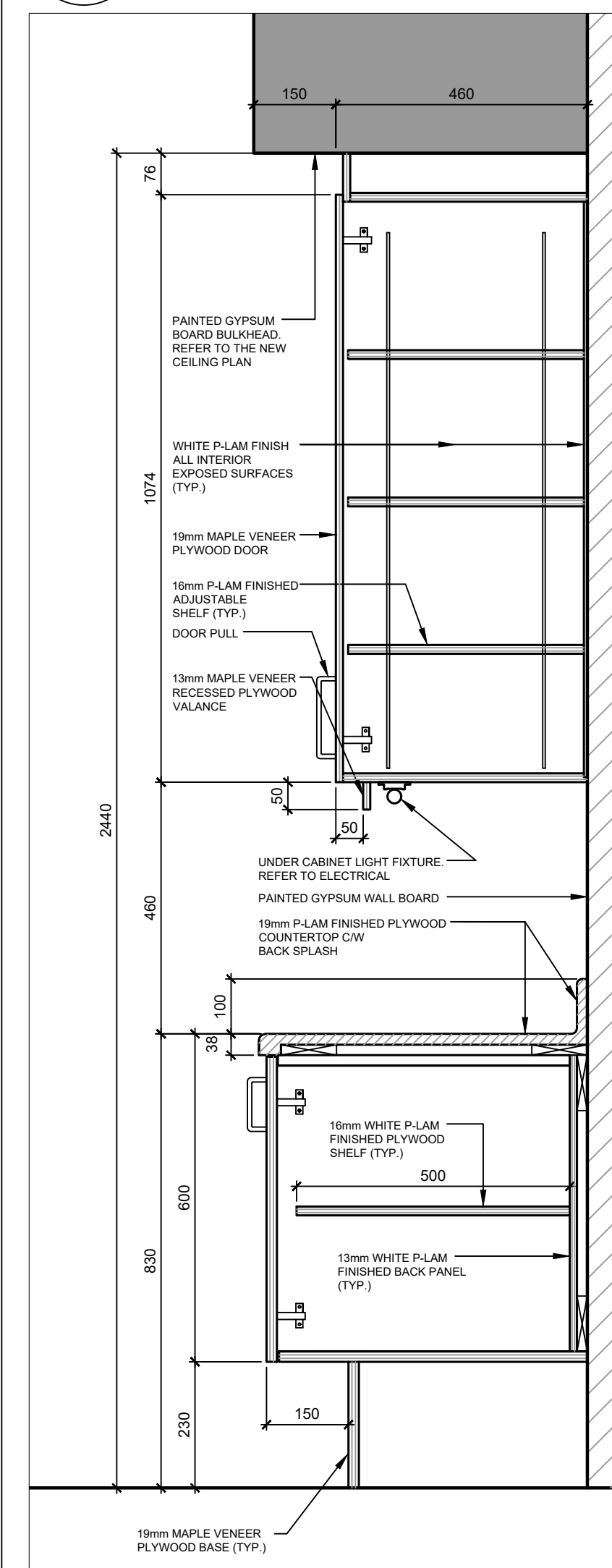
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| designed | AA/VA | conçu | date | 04/2016 | date |
| drawn | AA/YO | dessiné | scale | AS NOTED | échelle |
| checked | AA | vérifié | sheet | 09 of/de 17 | feuille |
| approved | VA | approuvé | W.O.no. | A1-009908-01-58 | D.T.no. |
| dwg.no. | 5189-A07 | | | | dessin no. |



- MILLWORK FINISHES**
- ALL EXPOSED EDGES, HORIZONTAL AND VERTICAL, TO HAVE A RIGID PVC EDGE BANDING.
 - ALL EXPOSED EXTERIOR SURFACES TO RECEIVE MAPLE VENEER FINISH (TYP. ALL EXPOSED EXTERIOR HORIZONTAL AND VERTICAL MILLWORK SURFACES). REFER TO THE SPECIFICATIONS.
 - ALL EXPOSED INTERIOR SURFACES TO RECEIVE WHITE PLASTIC LAMINATE (TYP. ALL EXPOSED INTERIOR HORIZONTAL AND VERTICAL MILLWORK SURFACES).
 - COUNTERTOPS TO RECEIVE PLASTIC LAMINATE FINISH. REFER TO THE SPECIFICATIONS.

- KITCHEN APPLIANCES AND FURNITURE**
- UNLESS NOTED OTHERWISE, AND UNLESS STATED TO BE NOT IN CONTRACT (N.I.C.), ALL KITCHEN FURNITURE SHOWN ON THIS DRAWING ARE TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR UNDER THIS CONTRACT. REFER TO THE FURNITURE PLAN AND THE SPECIFICATIONS.
 - ALL KITCHEN APPLIANCES (FRIDGES, MICROWAVES, ETC.) SHALL BE SUPPLIED AND INSTALLED BY THE OWNER (N.I.C.).
 - ALL GARBAGE/RECYCLABLE CONTAINERS SHALL BE SUPPLIED AND INSTALLED BY THE OWNER (N.I.C.).
 - PAPER TOWEL DISPENSER SHALL BE SUPPLIED BY THE OWNER AND INSTALLED BY THE CONTRACTOR UNDER THIS CONTRACT.

1 KITCHEN ENLARGED PLAN
SCALE = 1:25



4 MILLWORK SECTION
SCALE = 1:10

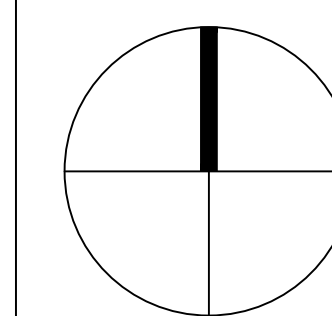
5 MILLWORK SECTION
SCALE = 1:10

6 MILLWORK SECTION
SCALE = 1:10

GENERAL NOTES

- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK.
- PREVENT THE SPREAD OF DUST & DEBRIS BEYOND THE WORK AREA AND CLEAN ALL SURFACES AT COMPLETION.
- MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
- COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
- PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS.

PROJECT NORTH SEAL



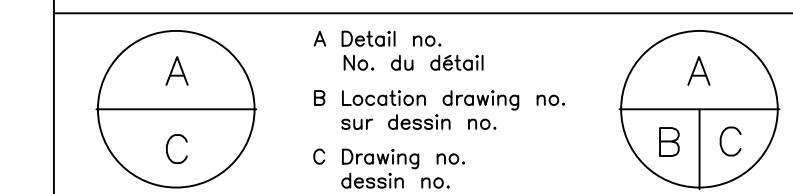
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W E B S T E R
A R C H I T E C T S I N C
1320 Carling Avenue
Ottawa, ON K1Z 7K8 www.awa-arch.ca

ARCHITECTURE PLANNING DESIGN BUILD PROJECT MANAGEMENT

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- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.



project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS
drawing: NEW KITCHEN PLAN, ELEVATIONS + DETAILS

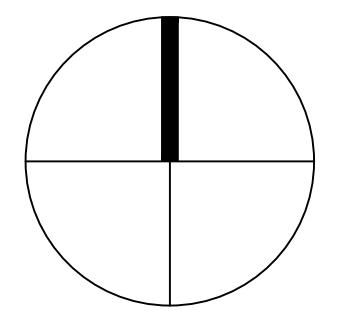
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| checked | vérifié | sheet | feuille |
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| approved | approuvé | W.O.no. | D.T.no. |
| VA | | A1-009908-01-58 | |
| dwg.no. | | dessin no. | |

5189-A08

GENERAL NOTES

- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK.
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PROJECT NORTH SEAL

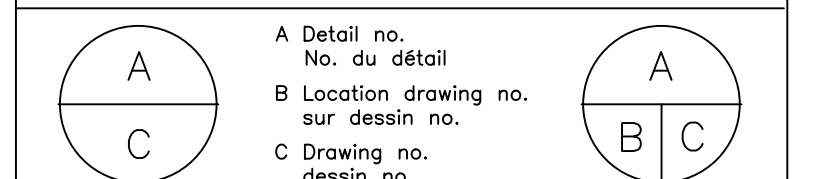


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- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

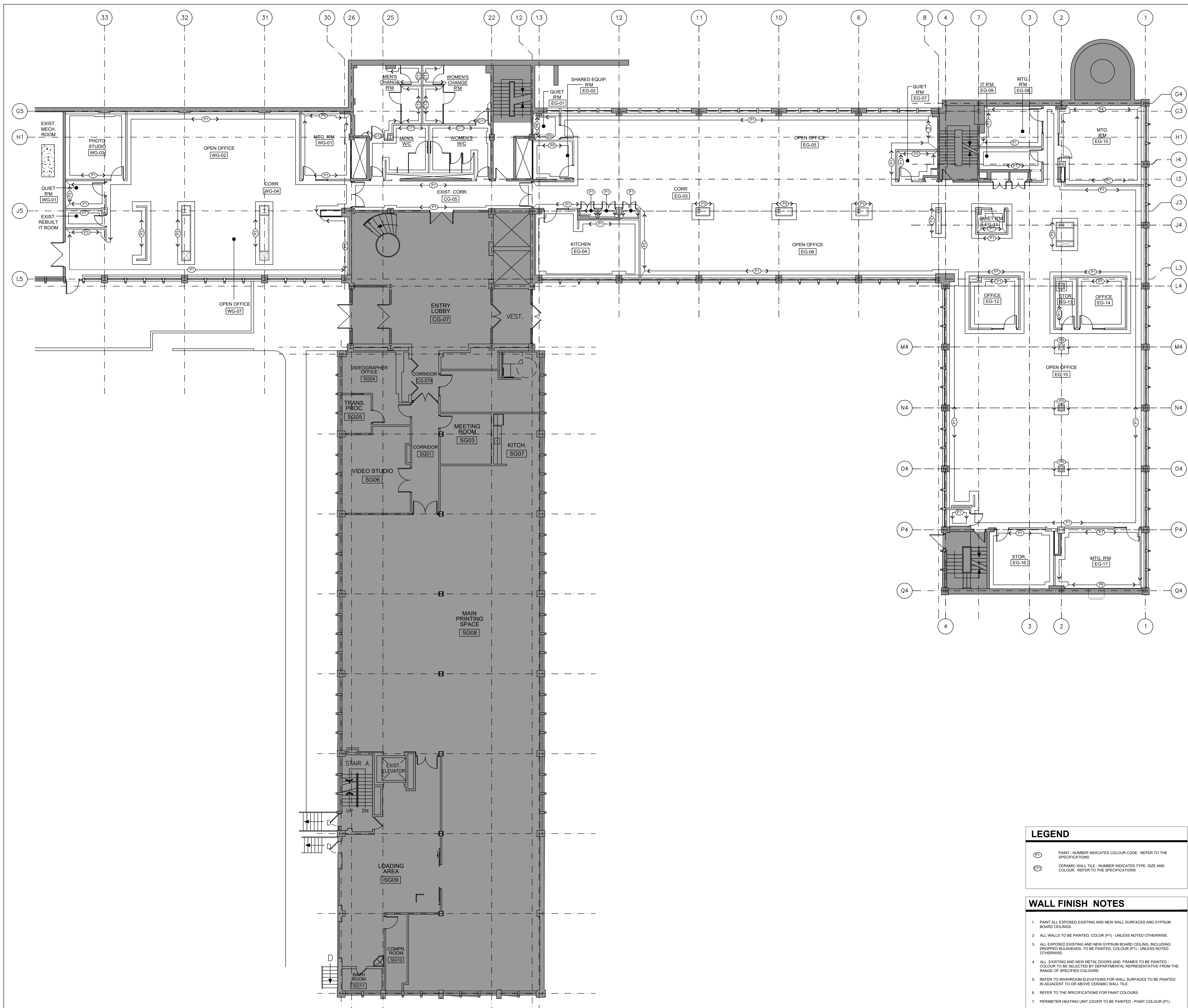


project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS
 drawing: NEW WALL FINISH PLAN

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| designed | AA/VA | conçu | date | 04/2016 | date |
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| approved | VA | approuvé | W.O.no. | A1-009908-01-58 | D.T.no. |

dwg.no. 5189-A09 dessin no.



LEGEND

(P1) PAINT - NUMBER INDICATES COLOUR CODE. REFER TO THE SPECIFICATIONS

(E1) CERAMIC WALL TILE - NUMBER INDICATES TYPE, SIZE AND COLOUR. REFER TO THE SPECIFICATIONS

WALL FINISH NOTES

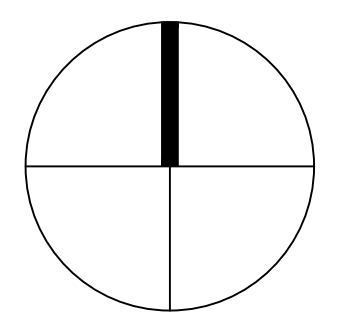
- P1 PAINT ALL EXPOSED EXISTING AND NEW WALL SURFACES AND GYPSUM BOARD CEILING.
- ALL WALLS TO BE PAINTED, COLOR (P1) - UNLESS NOTED OTHERWISE.
- ALL EXPOSED EXISTING AND NEW GYPSUM BOARD CEILING, INCLUDING DROPPED BALNHEADS, TO BE PAINTED, COLOUR (P1) - UNLESS NOTED OTHERWISE.
- ALL EXISTING AND NEW METAL DOORS AND FRAMES TO BE PAINTED - COLOUR TO BE SELECTED BY DEPARTMENTAL REPRESENTATIVE FROM THE RANGE OF SPECIFIED COLOURS.
- REFER TO WASHROOM ELEVATIONS FOR WALL SURFACES TO BE PAINTED IN ADJACENT TO OR ABOVE CERAMIC WALL TILE.
- REFER TO THE SPECIFICATIONS FOR PAINT COLOURS.
- PERIMETER HEATING UNIT COVER TO BE PAINTED - PAINT COLOUR (P1).

1 NEW WALL FINISH PLAN
 SCALE = 1:125

GENERAL NOTES

- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK.
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- MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
- COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
- PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS.

PROJECT NORTH SEAL

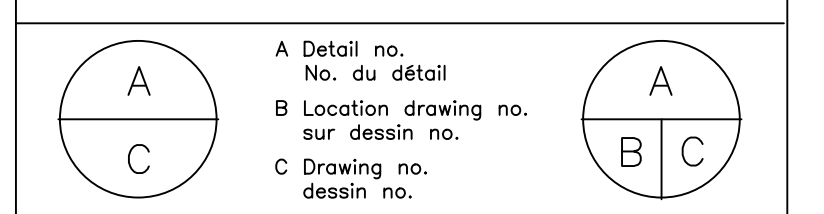


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| 0 | 2016/09/19 | ISSUED FOR TENDER | AWA |

- Verify all dimensions and site conditions and be responsible for same
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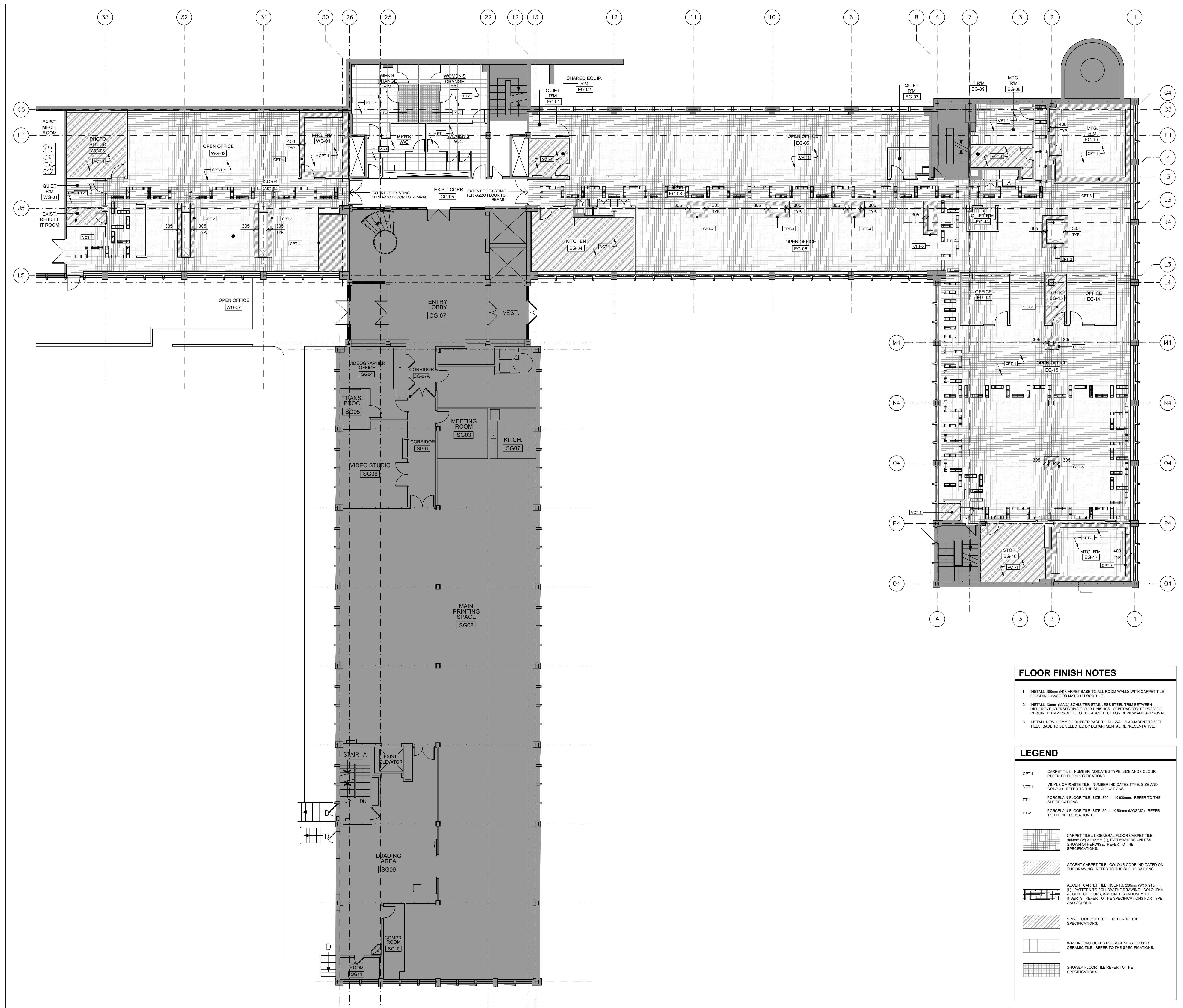


project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

drawing: MONTREAL ROAD CAMPUS NEW FLOOR FINISH PLAN

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| approved | VA | approuvé | W.O.no. | A1-009908-01-58 | D.T.no. |

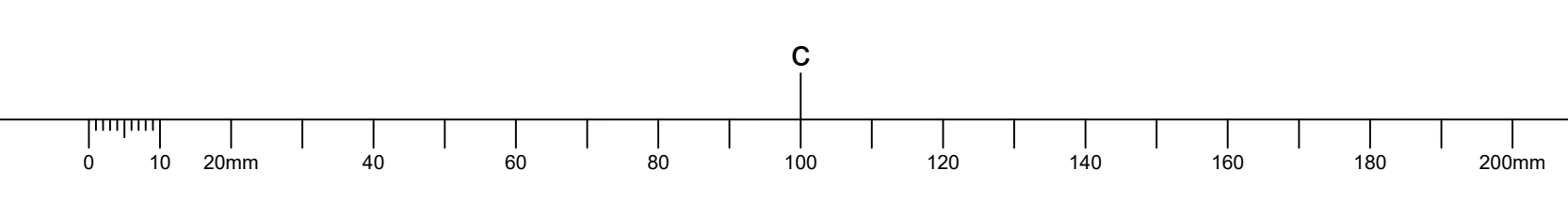
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- FLOOR FINISH NOTES**
- INSTALL 100mm (4") CARPET BASE TO ALL ROOM WALLS WITH CARPET TILE FLOORING. BASE TO MATCH FLOOR TILE.
 - INSTALL 13mm (1/2") SCHLITZER STAINLESS STEEL TRIM BETWEEN DIFFERENT INTERSECTING FLOOR FINISHES. CONTRACTOR TO PROVIDE REQUIRED TRIM PROFILE TO THE ARCHITECT FOR REVIEW AND APPROVAL.
 - INSTALL NEW 100mm (4") RUBBER BASE TO ALL WALLS ADJACENT TO VCT TILES. BASE TO BE SELECTED BY DEPARTMENTAL REPRESENTATIVE.

- LEGEND**
- CPT-1 CARPET TILE - NUMBER INDICATES TYPE, SIZE AND COLOUR. REFER TO THE SPECIFICATIONS.
 - VCT-1 VINYL COMPOSITE TILE - NUMBER INDICATES TYPE, SIZE AND COLOUR. REFER TO THE SPECIFICATIONS.
 - PT-1 PORCELAIN FLOOR TILE. SIZE: 300mm X 600mm. REFER TO THE SPECIFICATIONS.
 - PT-2 PORCELAIN FLOOR TILE. SIZE: 50mm X 50mm (MOSAIC). REFER TO THE SPECIFICATIONS.
 - CARPET TILE #1: GENERAL FLOOR CARPET TILE - 450mm (18") X 915mm (36") EVERYWHERE UNLESS SHOWN OTHERWISE. REFER TO THE SPECIFICATIONS.
 - ACCENT CARPET TILE. COLOUR CODE INDICATED ON THE DRAWING. REFER TO THE SPECIFICATIONS.
 - ACCENT CARPET TILE INSERTS. 230mm (9") X 915mm (36") PATTERN TO FOLLOW THE DRAWING. COLOUR: 4 ACCENT COLOURS ASSIGNED RANDOMLY TO INSERTS. REFER TO THE SPECIFICATIONS FOR TYPE AND COLOUR.
 - VINYL COMPOSITE TILE. REFER TO THE SPECIFICATIONS.
 - WASHROOM/LOCKER ROOM GENERAL FLOOR CERAMIC TILE. REFER TO THE SPECIFICATIONS.
 - SHOWER FLOOR TILE REFER TO THE SPECIFICATIONS.

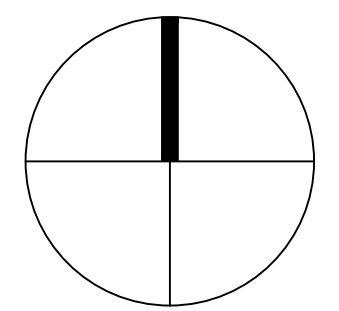
1 NEW FLOOR FINISH PLAN
 SCALE = 1:125



GENERAL NOTES

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- COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
- PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS.

PROJECT NORTH SEAL



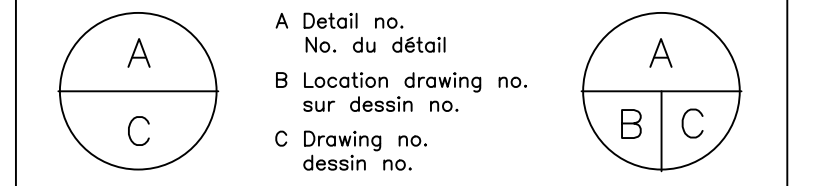
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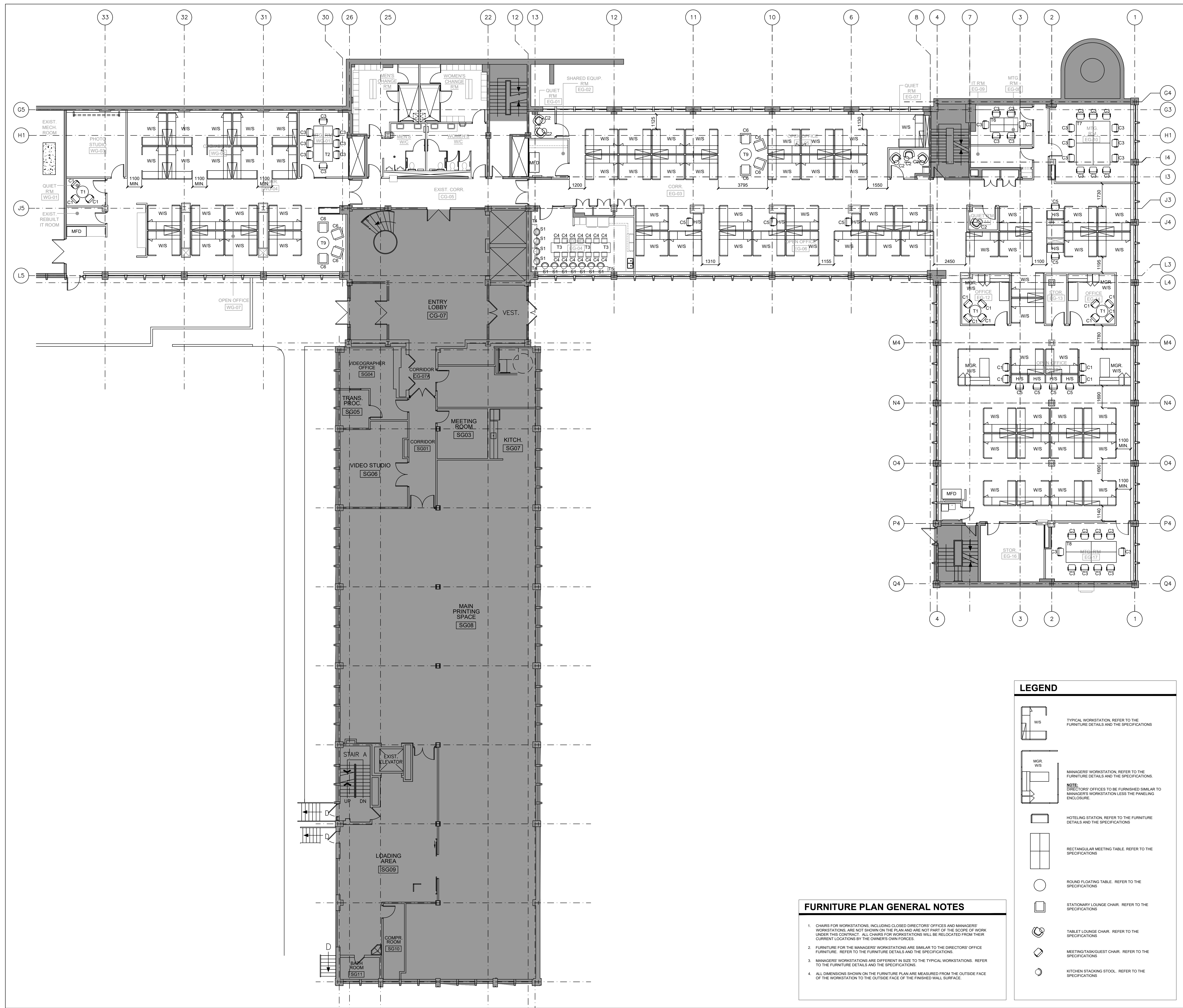
- Verify all dimensions and site conditions and be responsible for same.
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project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

drawing: MONTREAL ROAD CAMPUS NEW FURNITURE PLAN

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| designed | AA/VA | conçu | date | 04/2016 | date |
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| checked | AA | vérifié | sheet | 13 of/de 17 | feuille |
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| dwg.no. | 5189-A11 | | | | dessin no. |



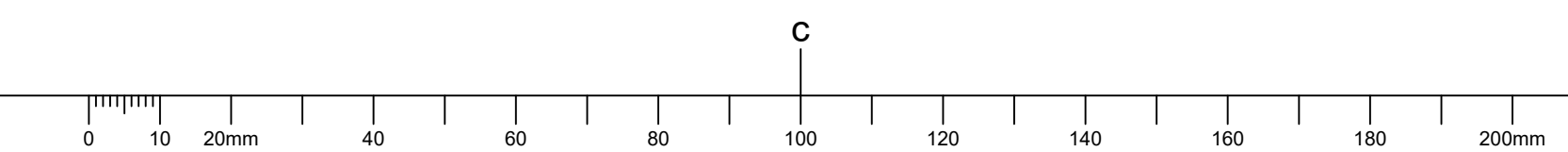
LEGEND

- TYPICAL WORKSTATION. REFER TO THE FURNITURE DETAILS AND THE SPECIFICATIONS
- MANAGERS' WORKSTATION. REFER TO THE FURNITURE DETAILS AND THE SPECIFICATIONS.
NOTE: DIRECTORS' OFFICES TO BE FURNISHED SIMILAR TO MANAGERS' WORKSTATION LESS THE PANELING ENCLOSURE.
- HOTELING STATION. REFER TO THE FURNITURE DETAILS AND THE SPECIFICATIONS
- RECTANGULAR MEETING TABLE. REFER TO THE SPECIFICATIONS
- ROUND FLOATING TABLE. REFER TO THE SPECIFICATIONS
- STATIONARY LOUNGE CHAIR. REFER TO THE SPECIFICATIONS
- TABLET LOUNGE CHAIR. REFER TO THE SPECIFICATIONS
- MEETING/GUEST CHAIR. REFER TO THE SPECIFICATIONS
- KITCHEN STACKING STOOL. REFER TO THE SPECIFICATIONS

FURNITURE PLAN GENERAL NOTES

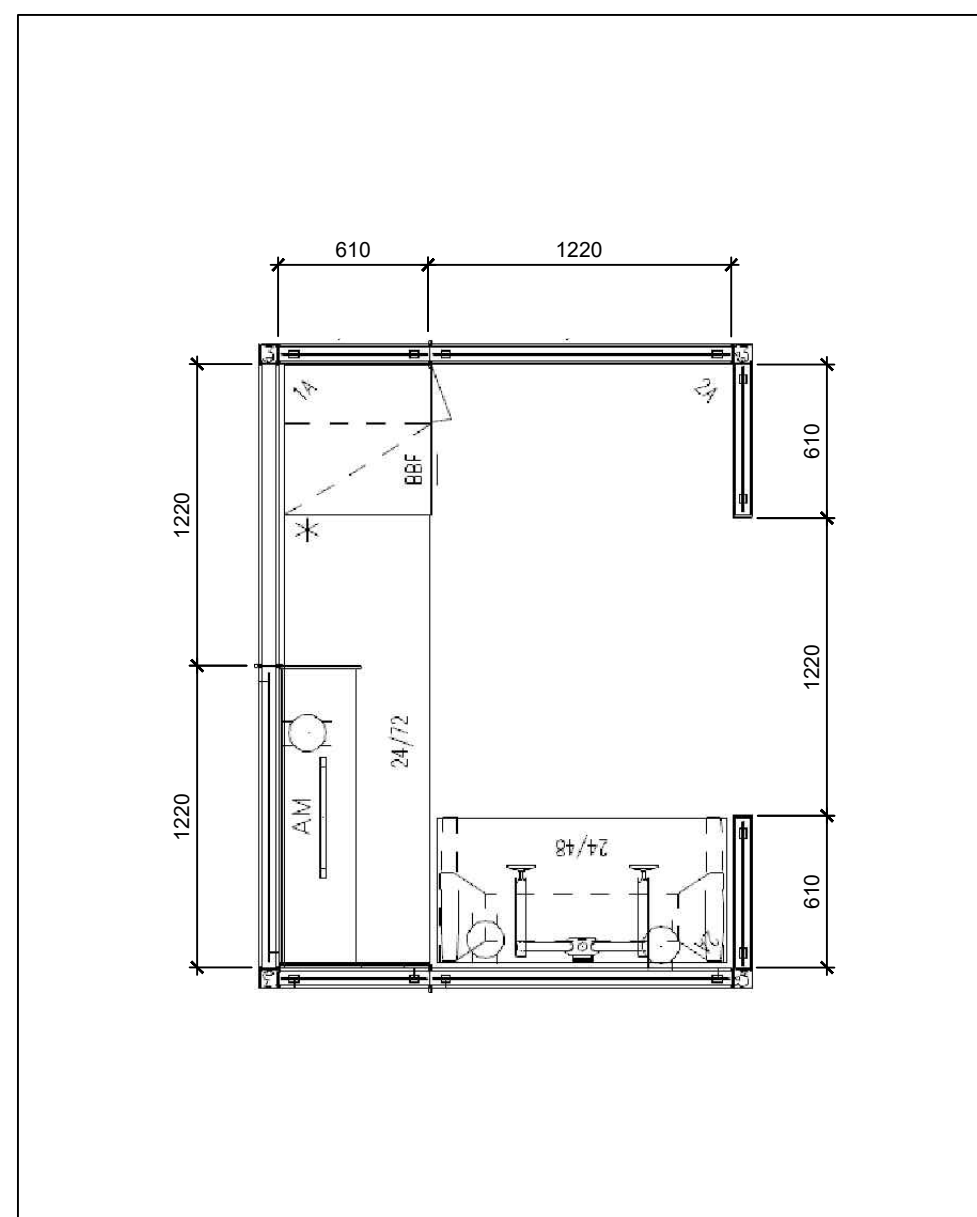
- CHAIRS FOR WORKSTATIONS, INCLUDING CLOSED DIRECTORS' OFFICES AND MANAGERS' WORKSTATIONS, ARE NOT SHOWN ON THE PLAN AND ARE NOT PART OF THE SCOPE OF WORK UNDER THIS CONTRACT. ALL CHAIRS FOR WORKSTATIONS WILL BE RELOCATED FROM THEIR CURRENT LOCATIONS BY THE OWNER'S OWN FORCES.
- FURNITURE FOR THE MANAGERS' WORKSTATIONS ARE SIMILAR TO THE DIRECTORS' OFFICE FURNITURE. REFER TO THE FURNITURE DETAILS AND THE SPECIFICATIONS.
- MANAGERS' WORKSTATIONS ARE DIFFERENT IN SIZE TO THE TYPICAL WORKSTATIONS. REFER TO THE FURNITURE DETAILS AND THE SPECIFICATIONS.
- ALL DIMENSIONS SHOWN ON THE FURNITURE PLAN ARE MEASURED FROM THE OUTSIDE FACE OF THE WORKSTATION TO THE OUTSIDE FACE OF THE FINISHED WALL SURFACE.

1 NEW FURNITURE PLAN
 SCALE = 1:125

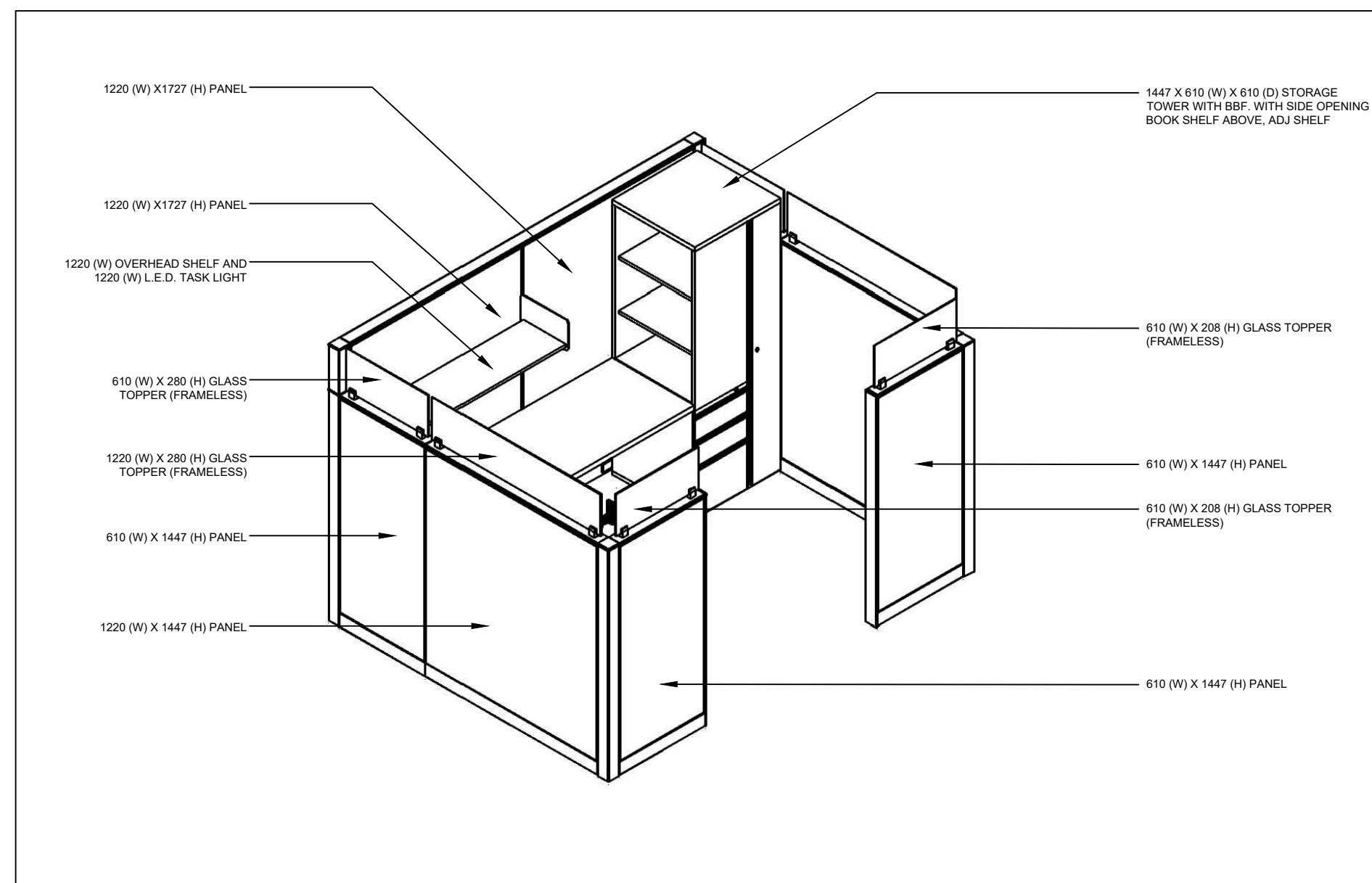


GENERAL NOTES

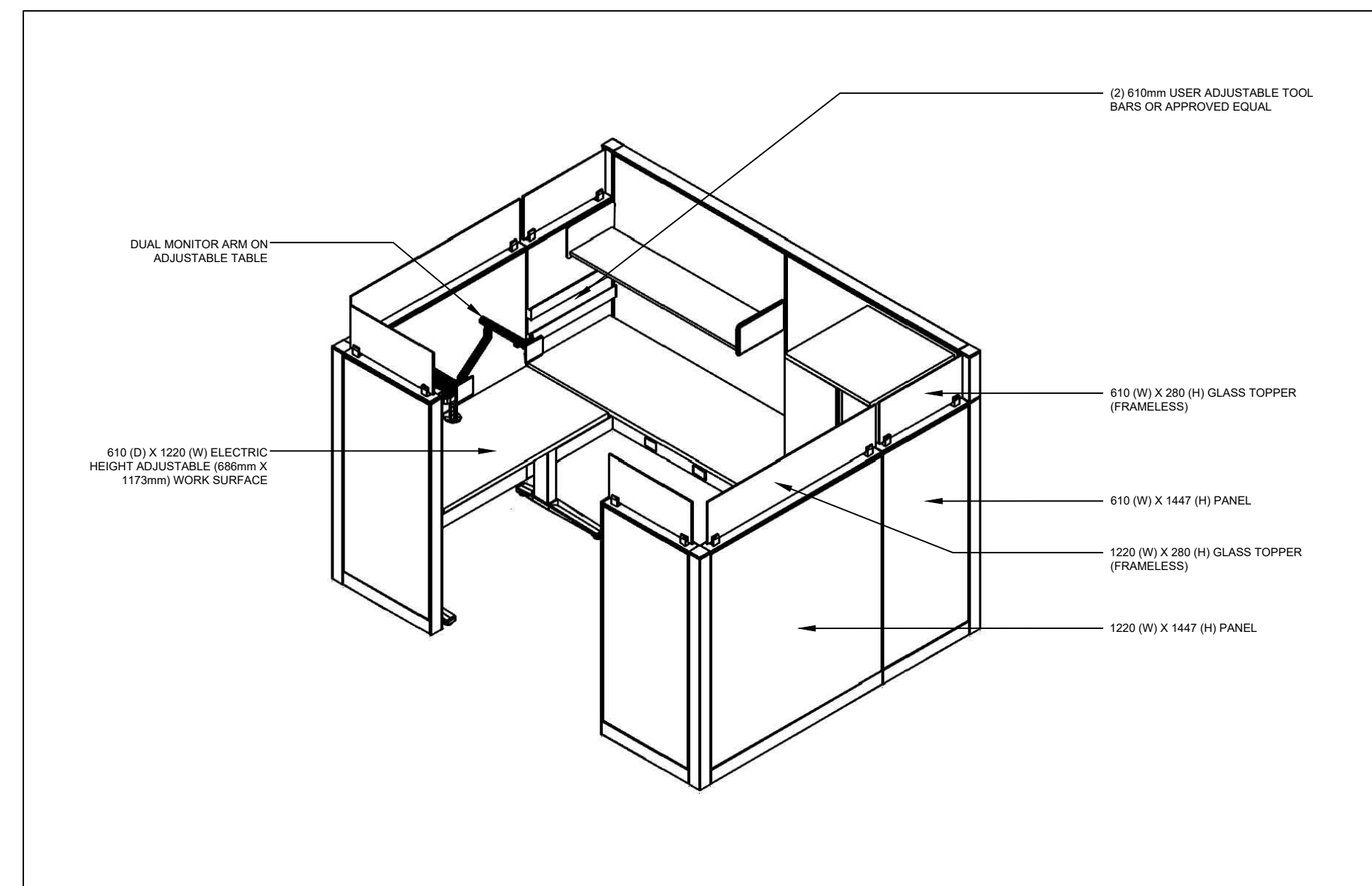
- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
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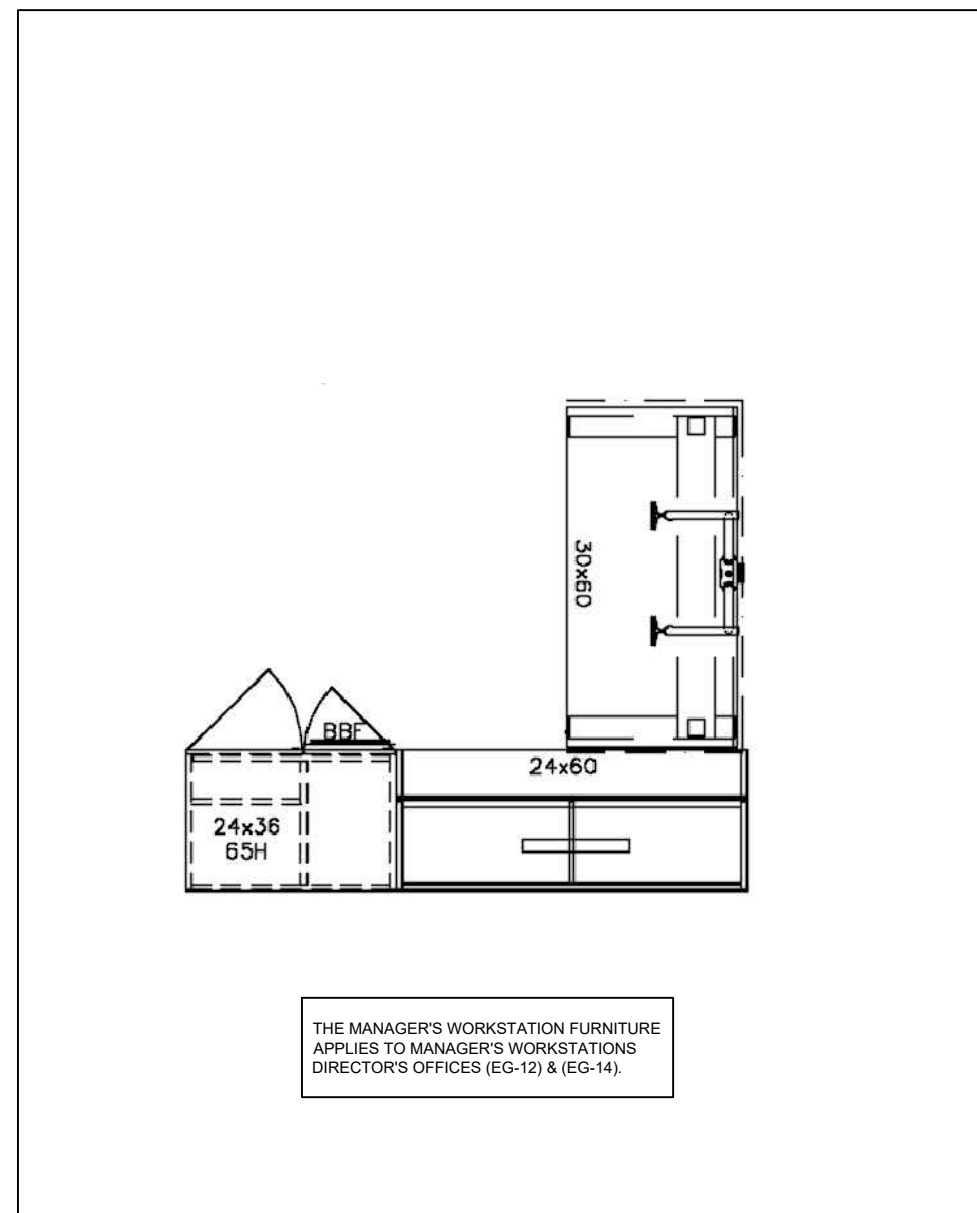
1 TYPICAL WORKSTATION PLAN
 A12 SCALE = N.T.S.



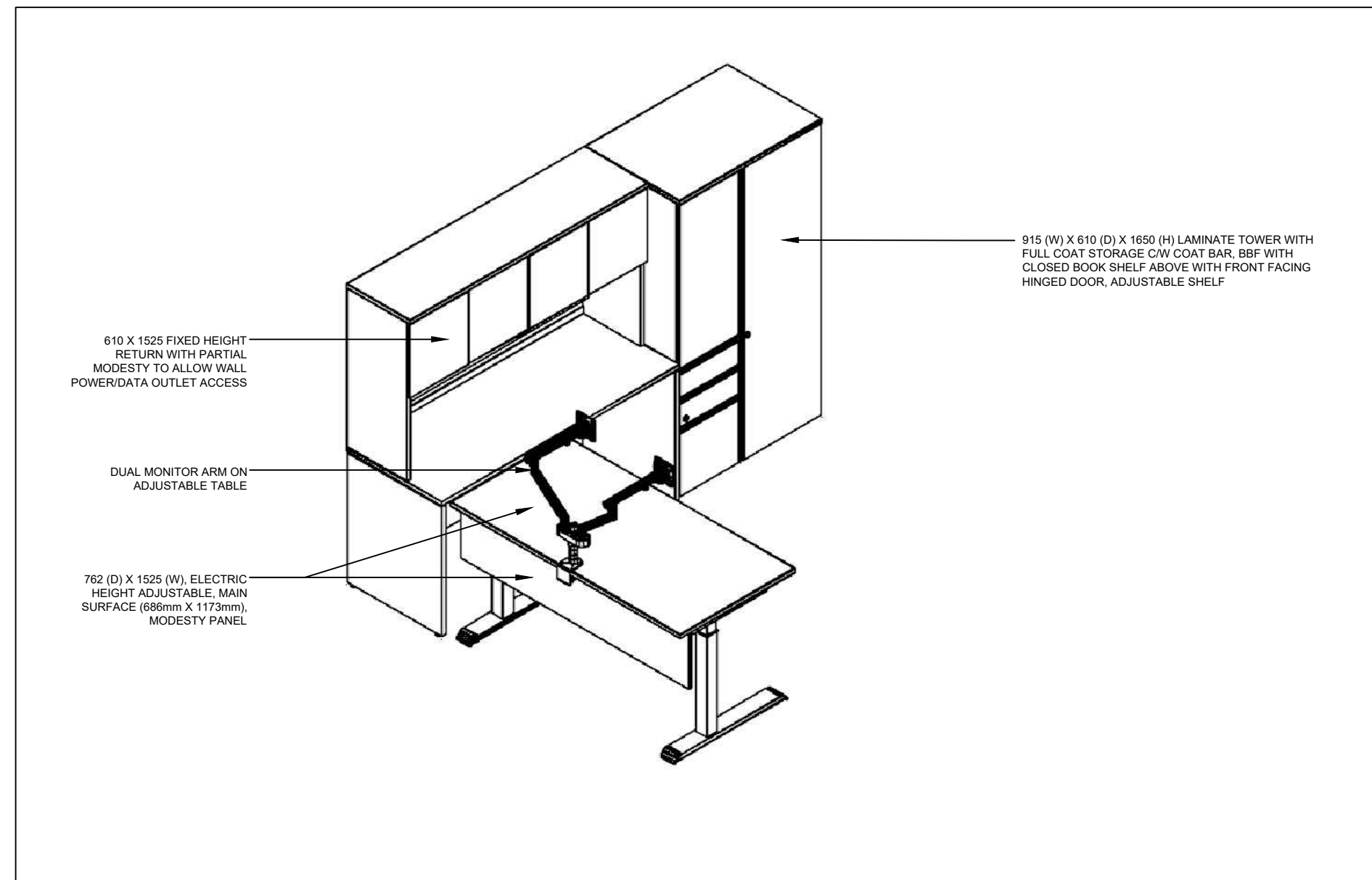
2 TYPICAL WORKSTATION ISOMETRIC VIEW
 A12 SCALE = N.T.S.



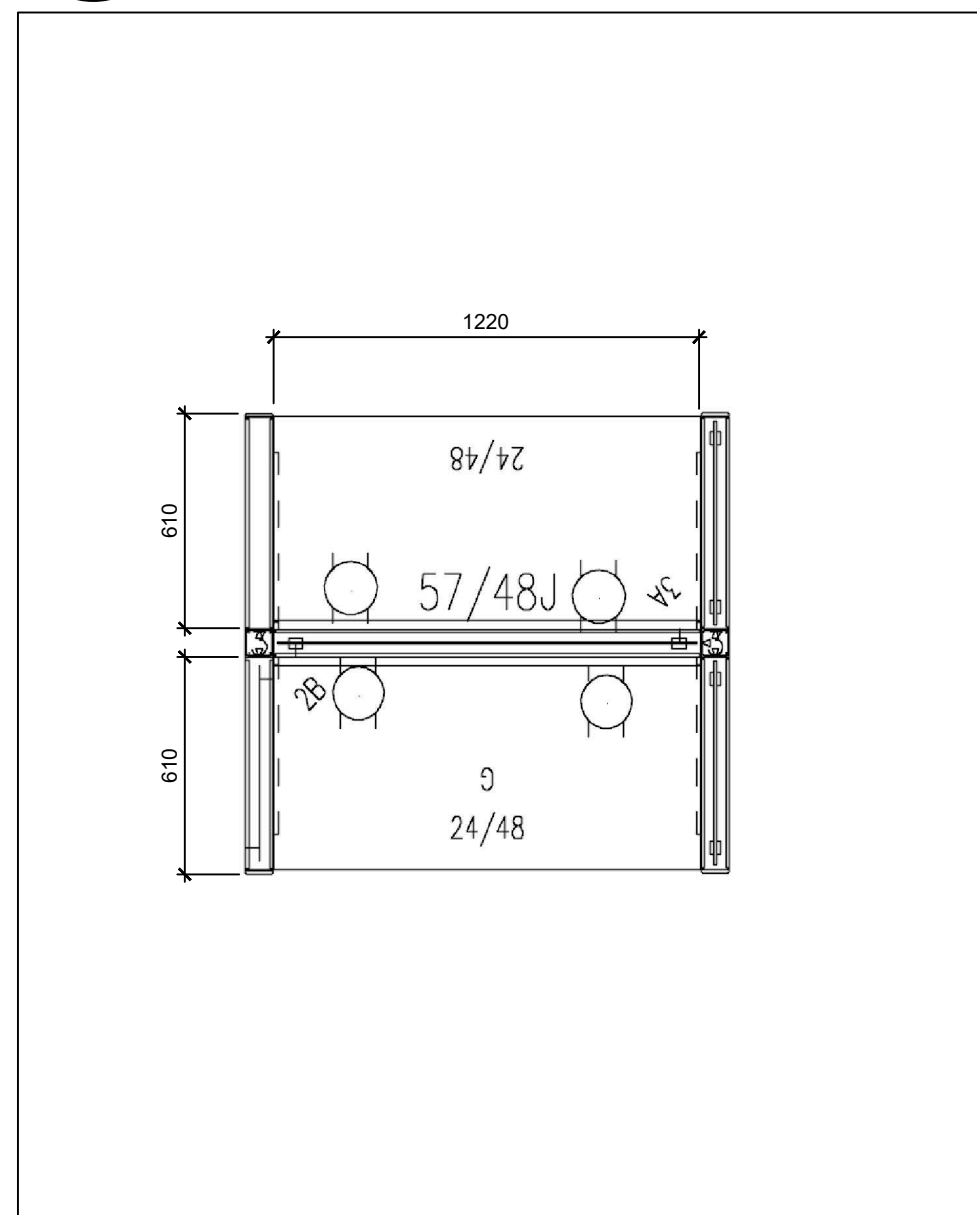
3 TYPICAL WORKSTATION ISOMETRIC VIEW
 A12 SCALE = N.T.S.



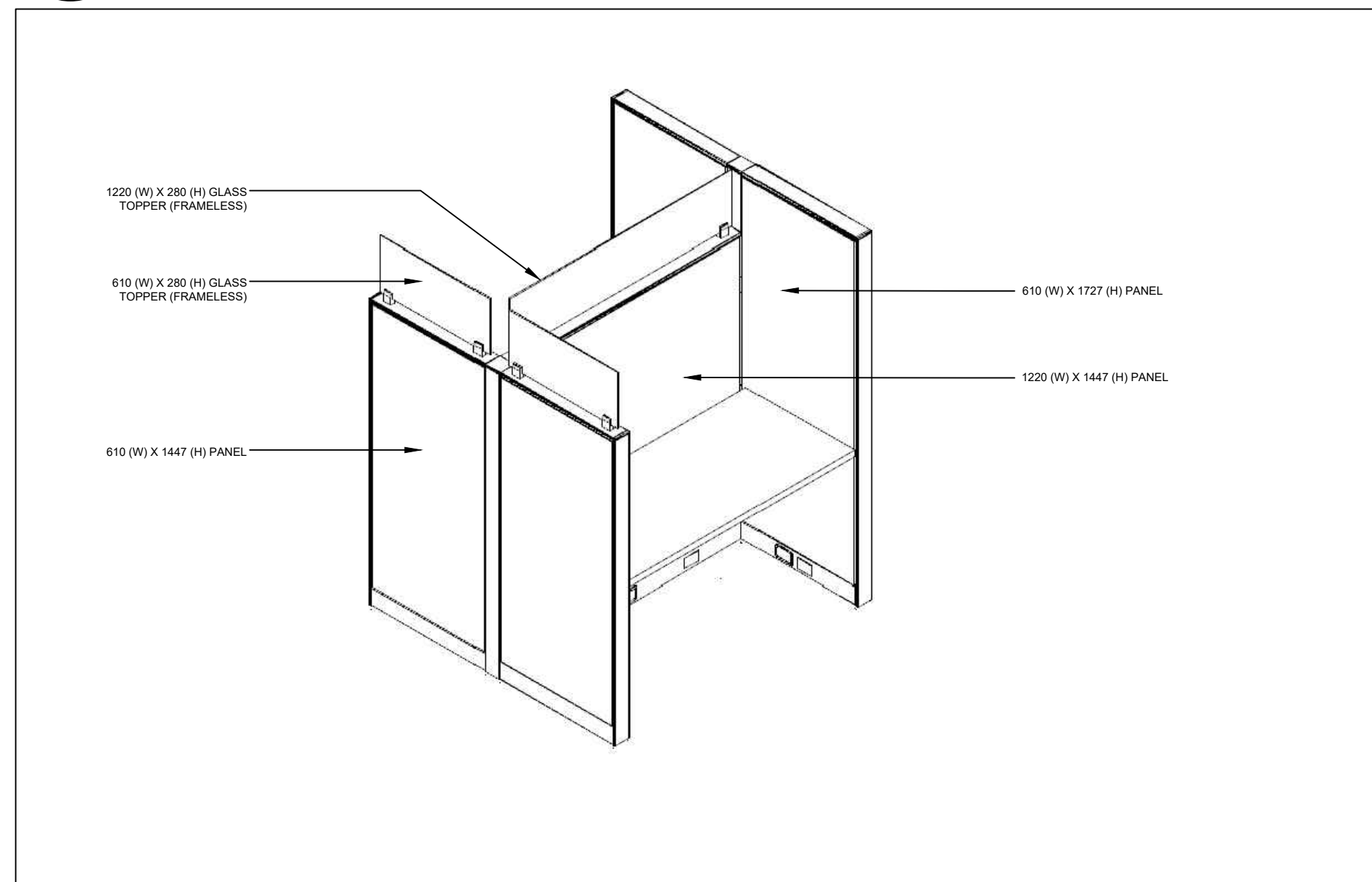
4 MGR'S WORKSTATION PLAN
 A12 SCALE = N.T.S.



5 MGR'S WORKSTATION ISOMETRIC VIEW
 A12 SCALE = N.T.S.

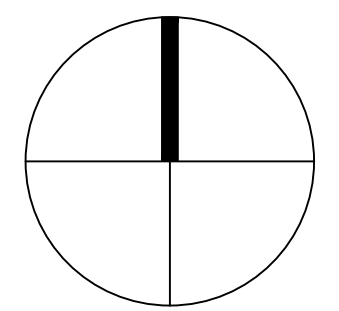


6 HOTELING STATION PLAN
 A12 SCALE = N.T.S.



7 HOTELING STATION ISOMETRIC VIEW
 A12 SCALE = N.T.S.

PROJECT NORTH SEAL



A L C A I D E
W E B S T E R
 A R C H I T E C T S I N C
 1 3 2 0 C a r l i n g A v e n u e
 O t t a w a , O N K 1 Z 7 K 8 8 w w w . a w a - a r c h . c a

A R C H I T E C T U R E P L A N N I N G D E S I G N
 B U I L D P R O J E C T M A N A G E M E N T

| | | | |
|-----|------------|-------------------|-----|
| No. | Date | Revision | By: |
| 0 | 2016/09/19 | ISSUED FOR TENDER | AAA |

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

| | | |
|---|--|---|
| A | A Detail no. No. du détail | A |
| B | B Location drawing no. sur dessin no. | B |
| C | C Drawing no. dessin no. | C |

project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

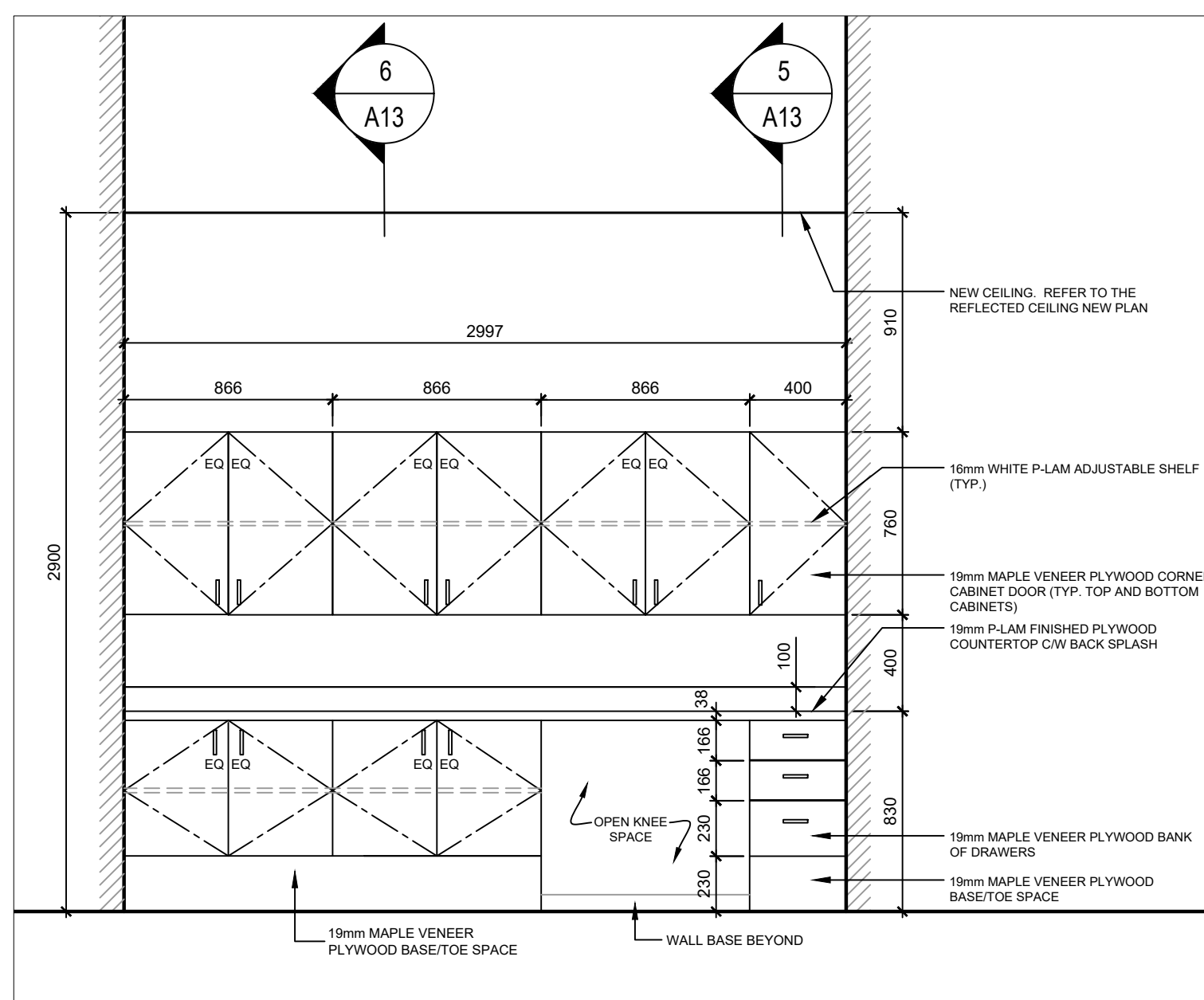
MONTREAL ROAD CAMPUS
 drawing: NEW FURNITURE DETAILS

| | | | | | |
|----------|-------|----------|---------|-----------------|---------|
| designed | AA/VA | conçu | date | 04/2016 | date |
| drawn | AA/YO | dessiné | scale | AS NOTED | échelle |
| checked | AA | vérifié | sheet | 14 of/de 17 | feuille |
| approved | VA | approuvé | W.O.no. | A1-009908-01-58 | D.T.no. |

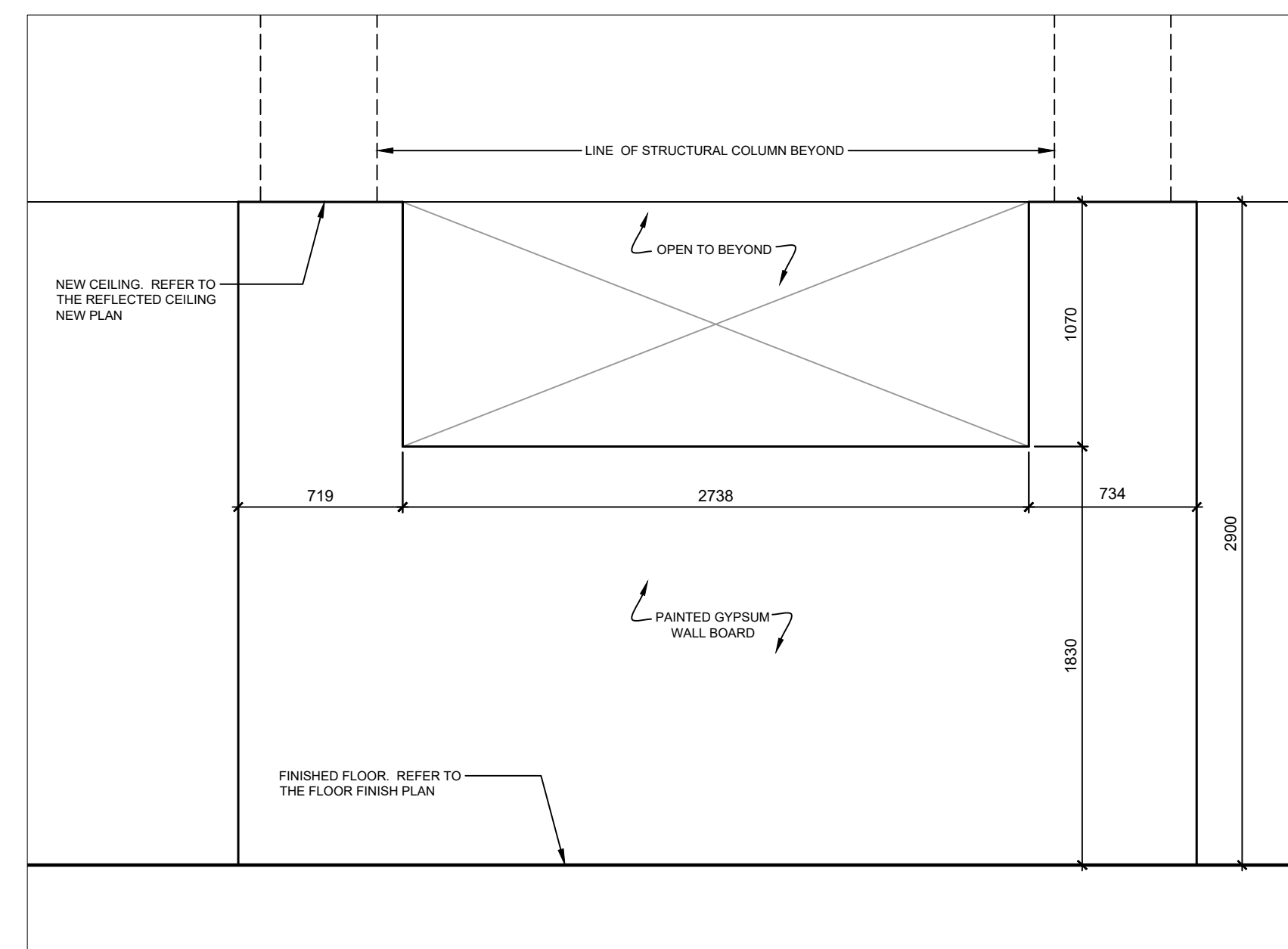
dwg.no. 5189-A12

GENERAL NOTES

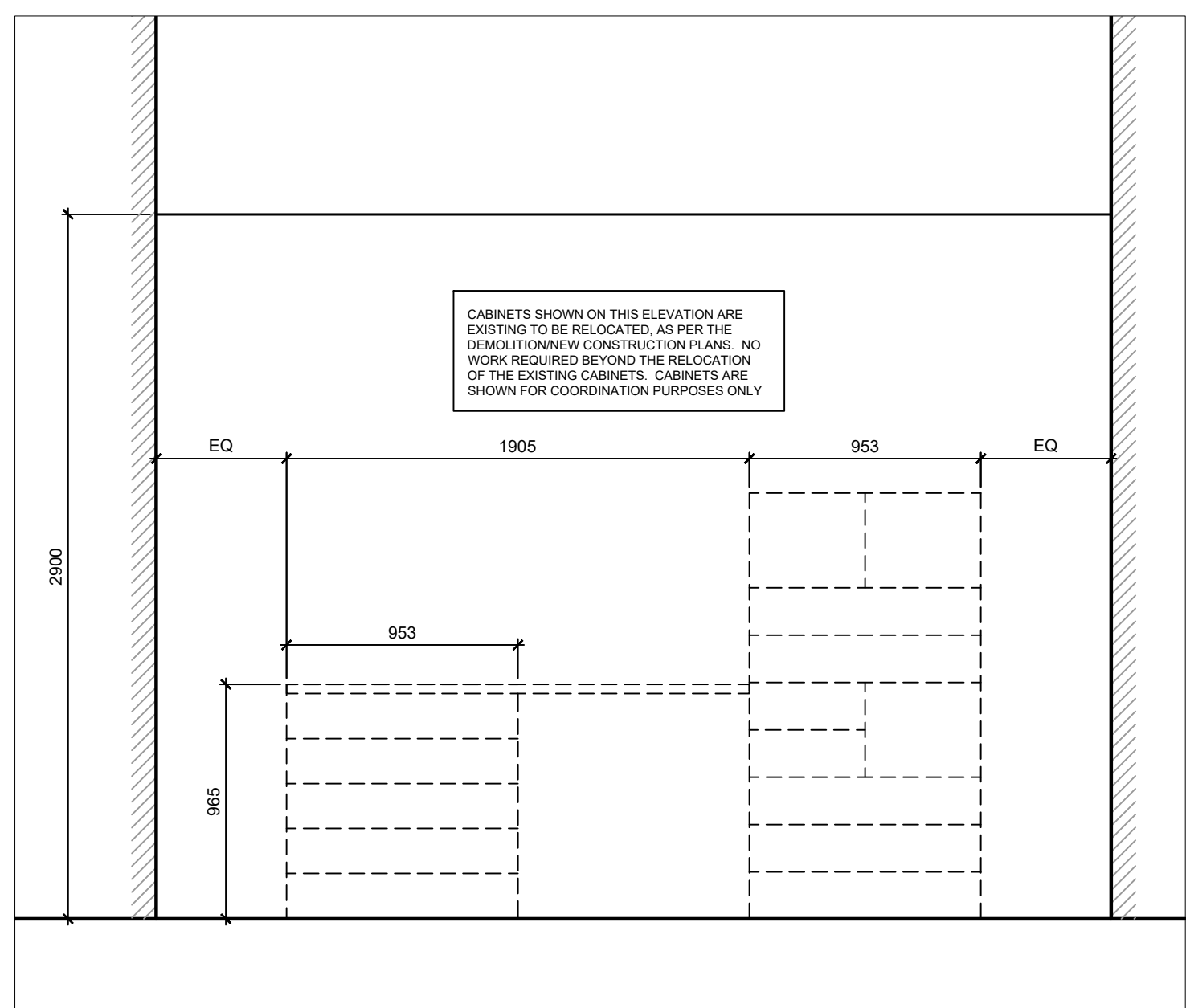
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- COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
- PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS.



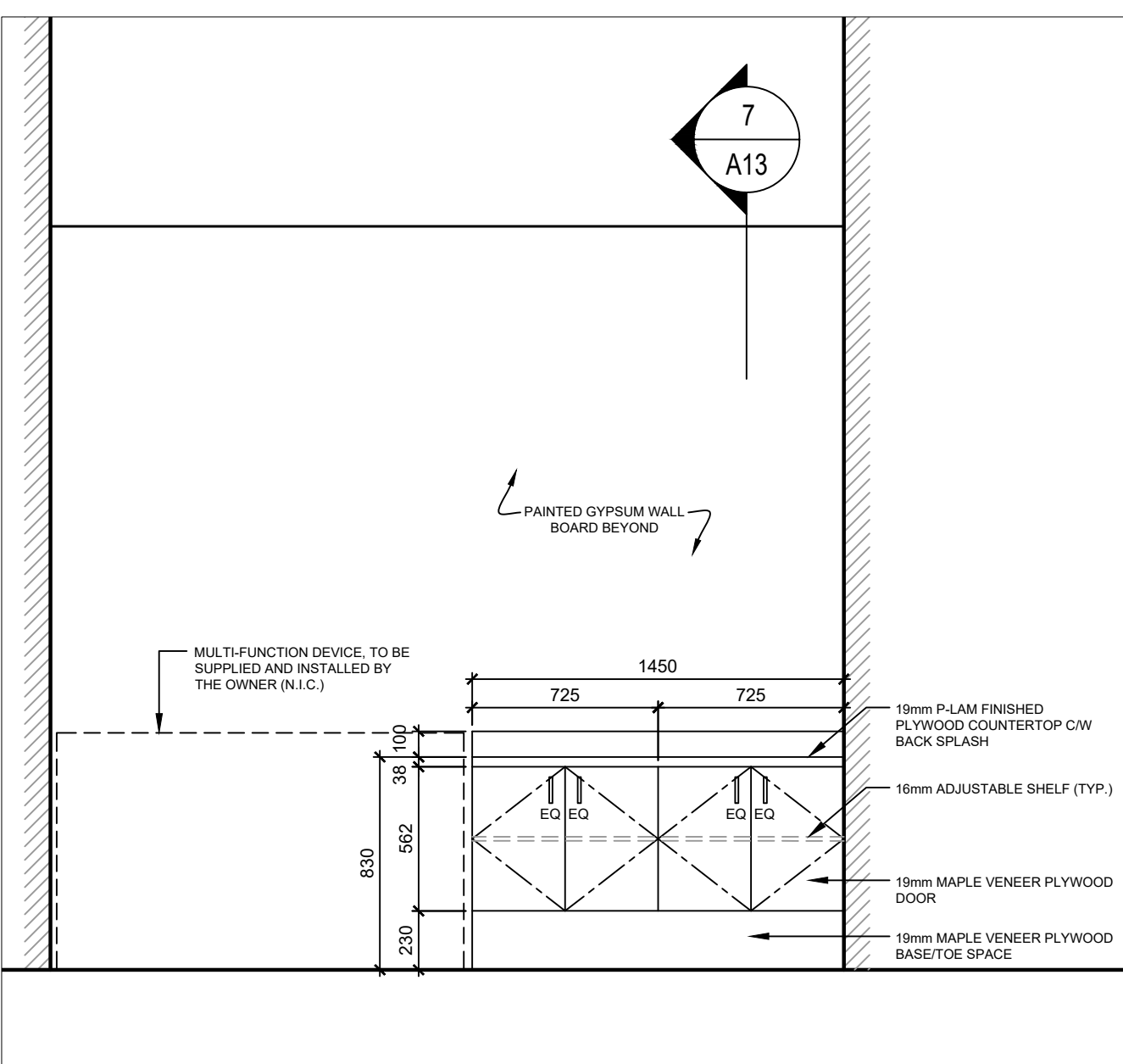
1 SHARED EQUIPMENT ROOM MILLWORK ELEVATION
 SCALE = 1:25



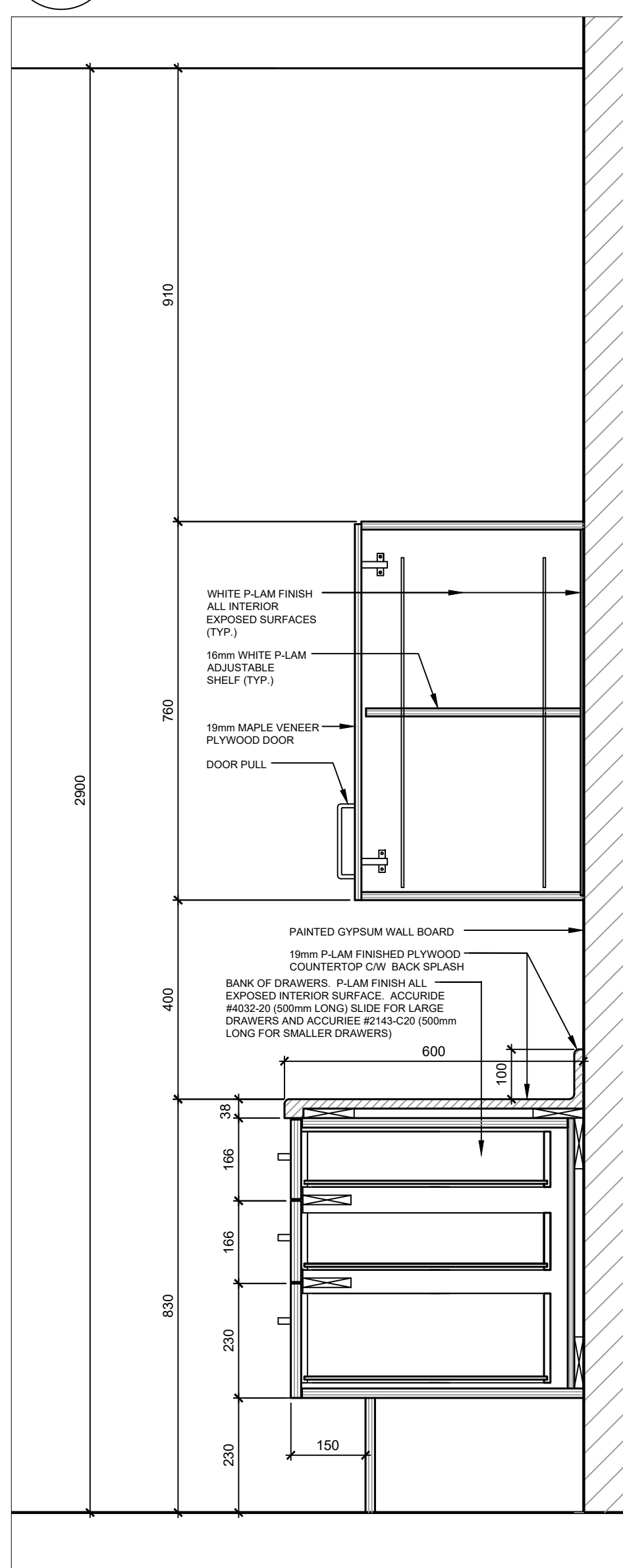
2 LOW DECORATIVE WALL ELEVATION
 SCALE = 1:25



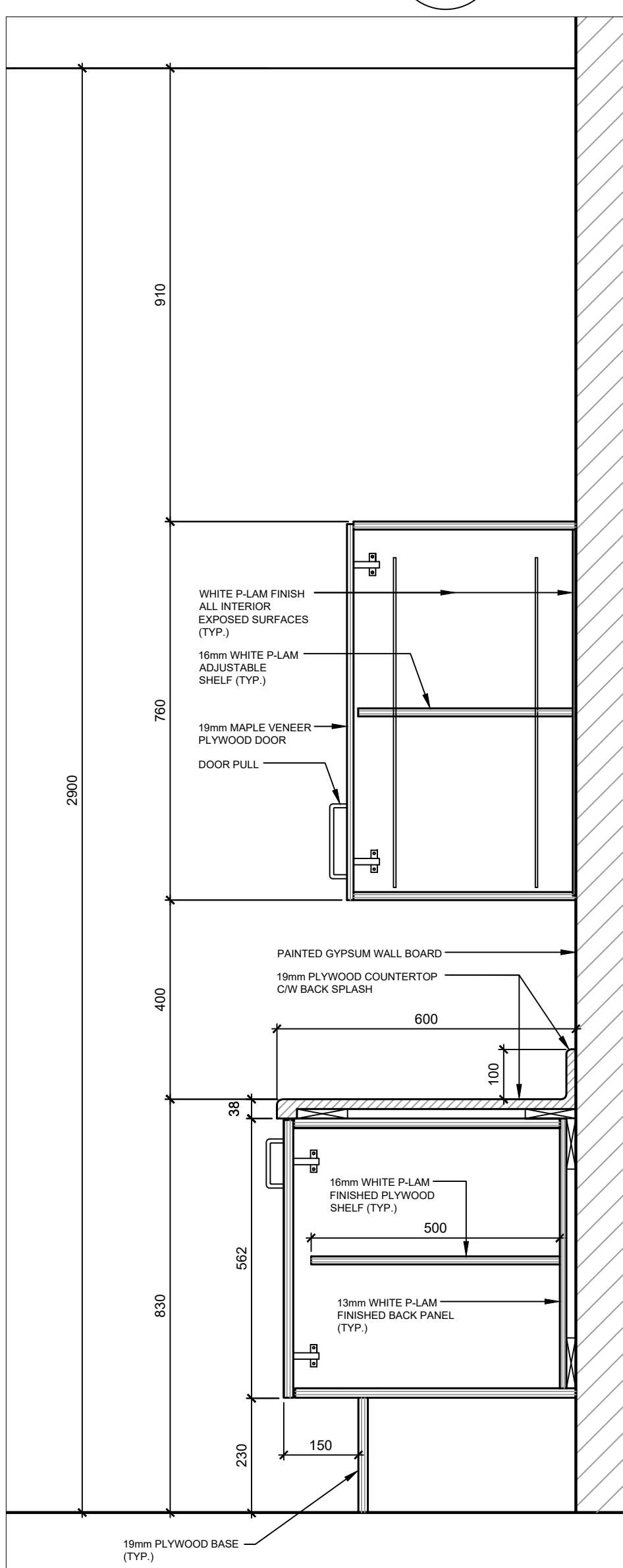
3 RELOCATED WORKSTATION ELEVATION
 SCALE = 1:25



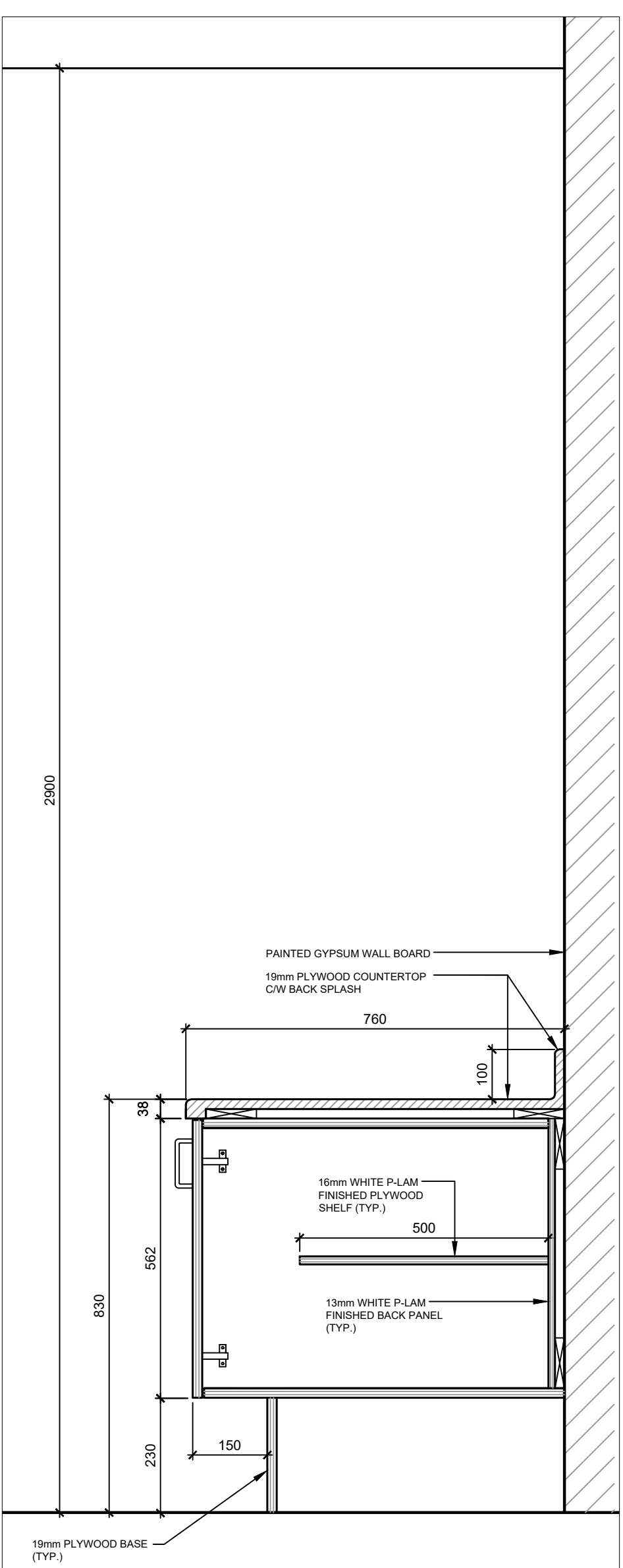
4 NEW WORK COUNTER ELEVATION
 SCALE = 1:25



5 NEW MILLWORK SECTION
 SCALE = 1:25

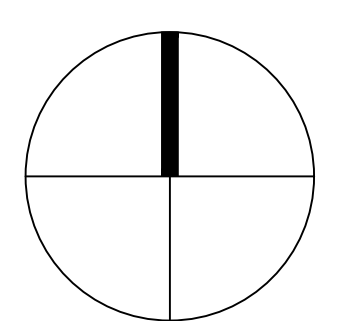


6 NEW MILLWORK SECTION
 SCALE = 1:25



7 NEW MILLWORK SECTION
 SCALE = 1:25

PROJECT NORTH SEAL

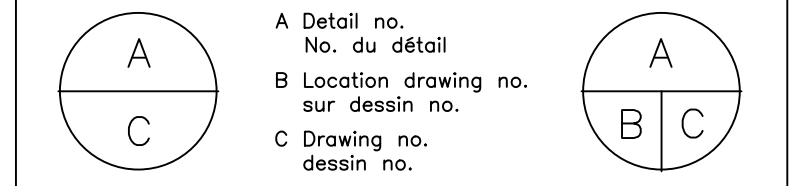


ALCAIDE WEBSTER ARCHITECTS INC
 1320 Carling Avenue
 Ottawa, ON K1Z 7K8 www.awa-arch.ca

ARCHITECTURE PLANNING DESIGN BUILD PROJECT MANAGEMENT

| | | | |
|-------------------------|------------|-------------------|---------------|
| No. | Date | Revision | By: |
| 0 | 2016/09/19 | ISSUED FOR TENDER | AAA |
| Date Printed DD MM YYYY | | | Date imprimée |

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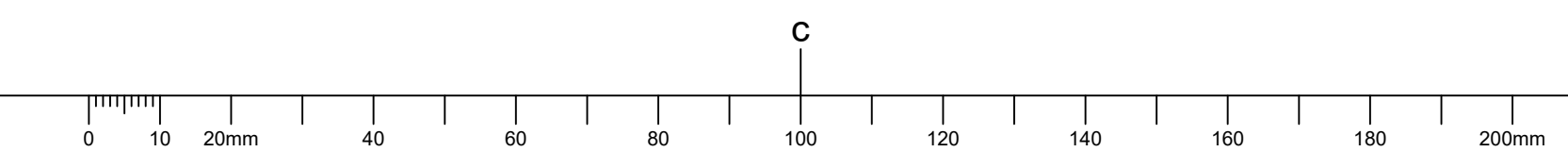
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS
 drawing: NEW INTERIOR ELEVATIONS + MILLWORK DETAILS

| | | | | | |
|----------|----------|------------|---------|-----------------|---------|
| designed | AA/VA | conçu | date | 05/2016 | date |
| drawn | AA/YO | dessiné | scale | AS NOTED | échelle |
| checked | AA | vérifié | sheet | 15 | of/de |
| approved | VA | approuvé | W.O.no. | A1-009908-01-58 | D.T.no. |
| dwg.no. | 5189-A13 | dessin no. | | | |

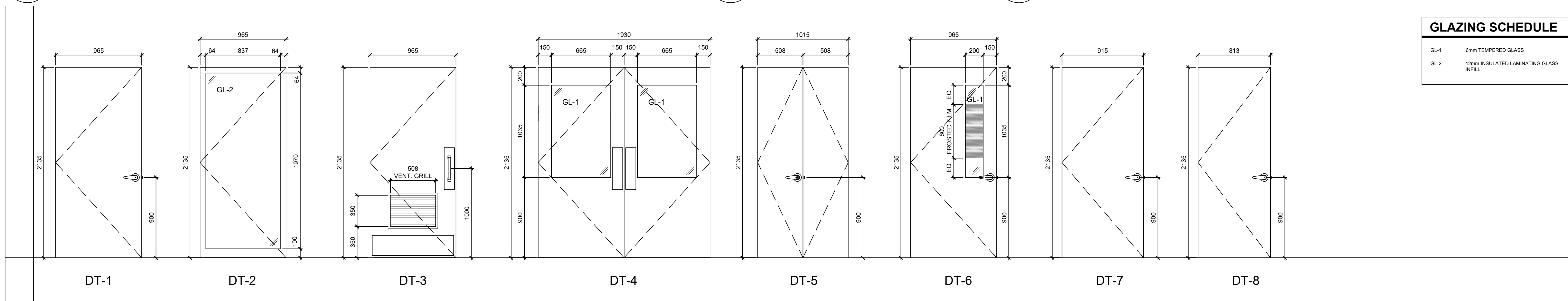
MILLWORK FINISHES

- ALL EXPOSED EDGES, HORIZONTAL AND VERTICAL, TO HAVE A RIGID PVC EDGE SANDING.
- ALL EXPOSED EXTERIOR SURFACES TO RECEIVE MAPLE VENEER FINISH (TYP). ALL EXPOSED EXTERIOR HORIZONTAL AND VERTICAL MILLWORK SURFACES REFER TO THE SPECIFICATIONS.
- ALL EXPOSED INTERIOR SURFACES TO RECEIVE WHITE PLASTIC LAMINATE (TYP). ALL EXPOSED INTERIOR HORIZONTAL AND VERTICAL MILLWORK SURFACES.
- COUNTERTOPS TO RECEIVE PLASTIC LAMINATE FINISH. REFER TO THE SPECIFICATIONS.

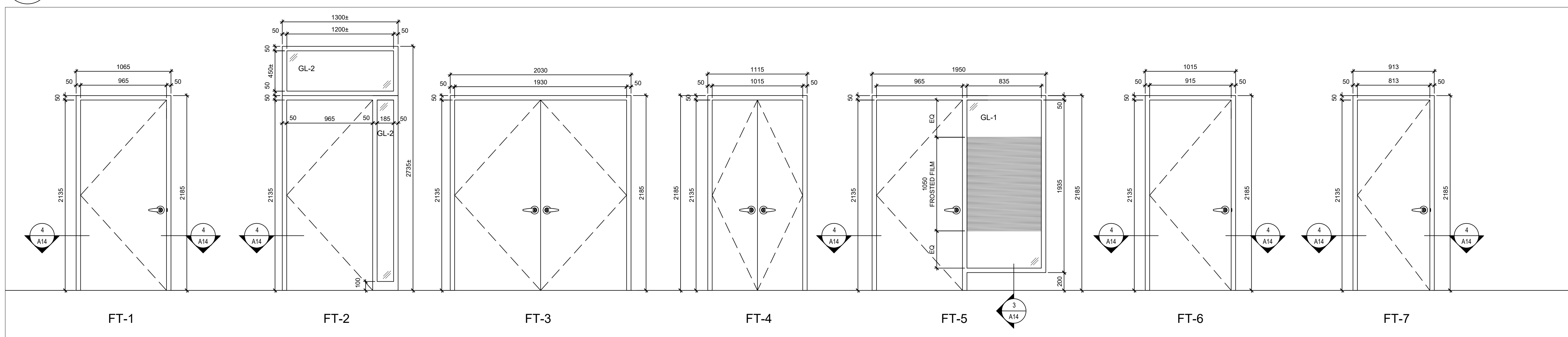


| DOOR & FRAME SCHEDULE | | | | | | | | | | |
|-----------------------|-------------------|----------------|-------|-------|-----------|-------|-------|------------|----------|--|
| No. | LOCATION | SIZE (mm) | ELEV. | MAT. | FIN. | ELEV. | MAT. | FIN. | HARDWARE | REMARKS |
| D101 | EXTERIOR EXIT | 965 x 2135 | DT-2 | ALUM. | ANNODIZED | FT-2 | ALUM. | ANNODIZED | PKG # 01 | KAWNEER AA 250 THERMAL ENTRANCE |
| D102 | QUIET ROOM | 965 x 2135 | DT-6 | SCWD | PAINT | FT-1 | PS | PAINT (P2) | PKG # 02 | |
| D103 | PHOTO STUDIO | 965 x 2135 | DT-1 | SCWD | PAINT | FT-1 | PS | PAINT (P5) | PKG # 03 | |
| D104 | MEETING ROOM | 965 x 2135 | DT-6 | SCWD | PAINT | FT-5 | PS | PAINT (P4) | PKG # 10 | |
| D105 | CORRIDOR (WG-03) | (2) 965 x 2135 | DT-4 | HM | PAINT | FT-3 | PS | PAINT (P6) | PKG # 04 | |
| D106 | MEN'S WASHROOM | 965 x 2135 | DT-3 | HM | PAINT | FT-1 | PS | PAINT (P2) | PKG # 06 | |
| D107 | WOMEN'S WASHROOM | 965 x 2135 | DT-3 | HM | PAINT | FT-1 | PS | PAINT (P3) | PKG # 06 | |
| D108 | MEN'S LOCKER ROOM | 965 x 2135 | DT-3 | HM | PAINT | FT-1 | PS | PAINT (P4) | PKG # 06 | |
| D109 | WOMEN'S LOCKER RM | 965 x 2135 | DT-3 | HM | PAINT | FT-1 | PS | PAINT (P5) | PKG # 06 | |
| D110 | CORRIDOR (CG-05) | (2) 915 x 2135 | DT-4 | HM | PAINT | FT-3 | PS | PAINT (P4) | PKG # 04 | |
| D111 | KITCHEN | 965 x 2135 | DT-6 | SCWD | PAINT | FT-5 | PS | PAINT (P2) | PKG # 06 | |
| D112 | SHARED EQUIPMENT | 965 x 2135 | DT-6 | SCWD | PAINT | FT-1 | PS | PAINT (P5) | PKG # 07 | |
| D113 | QUIET ROOM | 965 x 2135 | DT-6 | SCWD | PAINT | FT-1 | PS | PAINT (P6) | PKG # 02 | |
| D114 | STORAGE | (2) 508 x 2135 | DT-5 | SCWD | PAINT | FT-4 | PS | PAINT (P3) | PKG # 08 | |
| D115 | STORAGE | (2) 508 x 2135 | DT-5 | SCWD | PAINT | FT-4 | PS | PAINT (P3) | PKG # 08 | |
| D116 | STORAGE | (2) 508 x 2135 | DT-5 | SCWD | PAINT | FT-4 | PS | PAINT (P3) | PKG # 08 | |
| D117 | QUIET ROOM | 965 x 2135 | DT-6 | SCWD | PAINT | FT-1 | PS | PAINT (P2) | PKG # 02 | |
| D118 | STORAGE | (2) 508 x 2135 | DT-5 | SCWD | PAINT | FT-4 | PS | PAINT (P3) | PKG # 08 | |
| D119 | STORAGE | (2) 508 x 2135 | DT-5 | SCWD | PAINT | FT-4 | PS | PAINT (P3) | PKG # 08 | |
| D120 | I.T. ROOM | 915 x 2135 | DT-7 | SCWD | PAINT | FT-6 | PS | PAINT (P5) | PKG # 05 | |
| D121 | MEETING ROOM | 965 x 2135 | DT-6 | SCWD | PAINT | FT-5 | PS | PAINT (P7) | PKG # 10 | |
| D122 | MEETING ROOM | 965 x 2135 | DT-6 | SCWD | PAINT | FT-5 | PS | PAINT (P4) | PKG # 10 | |
| D123 | QUIET ROOM | 965 x 2135 | DT-6 | SCWD | PAINT | FT-1 | PS | PAINT (P7) | PKG # 02 | |
| D124 | OFFICE | 965 x 2135 | DT-6 | SCWD | PAINT | FT-5 | PS | PAINT (P2) | PKG # 03 | |
| D125 | STORAGE | 915 x 2135 | DT-7 | SCWD | PAINT | FT-6 | PS | PAINT (P5) | PKG # 05 | |
| D126 | OFFICE | 965 x 2135 | DT-6 | SCWD | PAINT | FT-5 | PS | PAINT (P6) | PKG # 03 | |
| D127 | STORAGE | 915 x 2135 | DT-7 | SCWD | PAINT | FT-6 | PS | PAINT (P3) | PKG # 05 | |
| D128 | MEETING ROOM | 965 x 2135 | DT-6 | SCWD | PAINT | FT-5 | PS | PAINT (P6) | PKG # 10 | |
| D129 | JANITOR'S ROOM | 915 x 2135 | DT-7 | HM | PAINT | FT-6 | PS | PAINT (P4) | PKG # 09 | 45 MINS. F.R.R. ULC LABELED DOOR AND FRAME |
| D130 | IT ROOM | 813 x 2135 | DT-8 | SCWD | PAINT | FT-7 | PS | PAINT (P3) | PKG # 05 | |

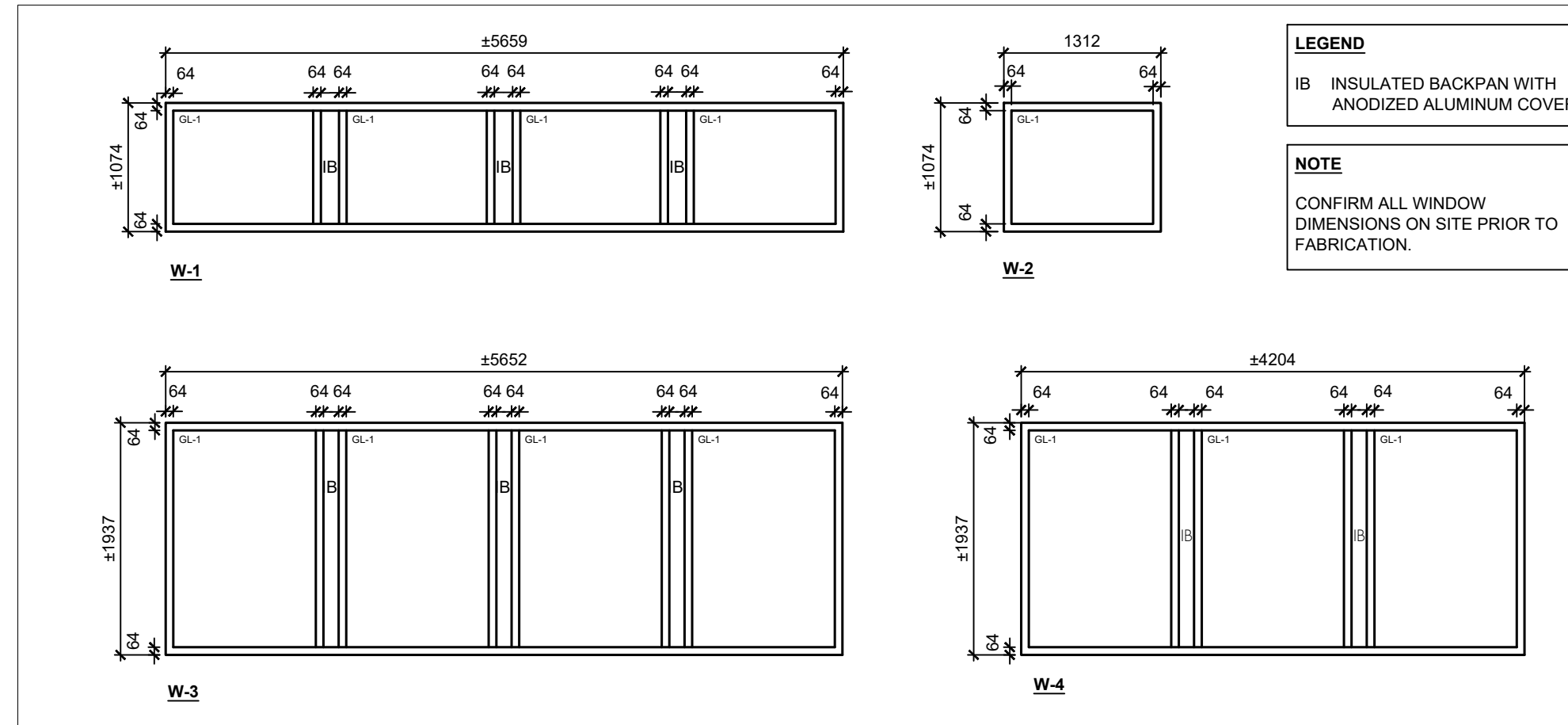
1 DOOR & FRAME SCHEDULE
A14



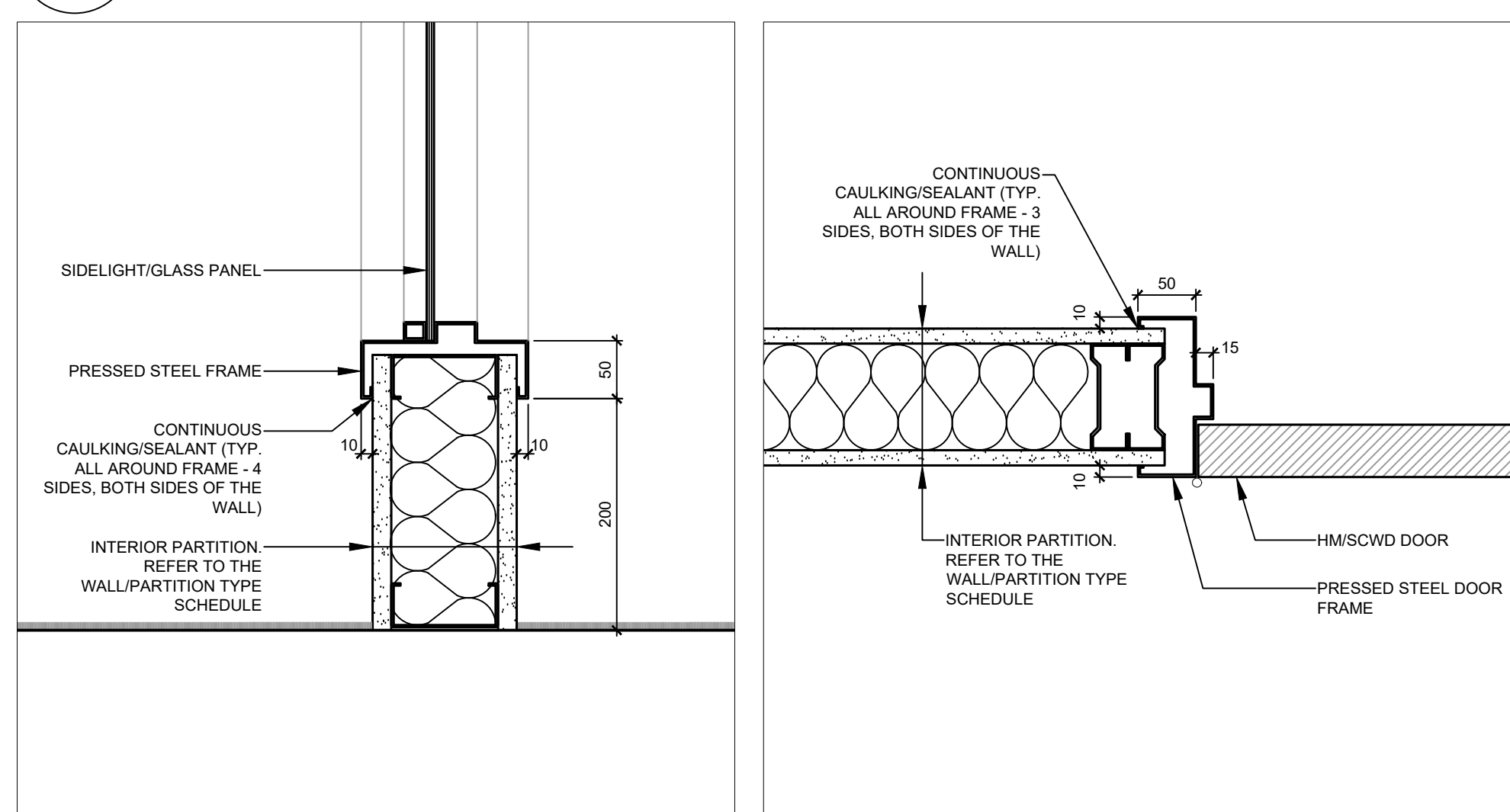
5 DOOR ELEVATIONS
A14 SCALE = 1:25



6 DOOR FRAME ELEVATIONS
A14 SCALE = 1:25

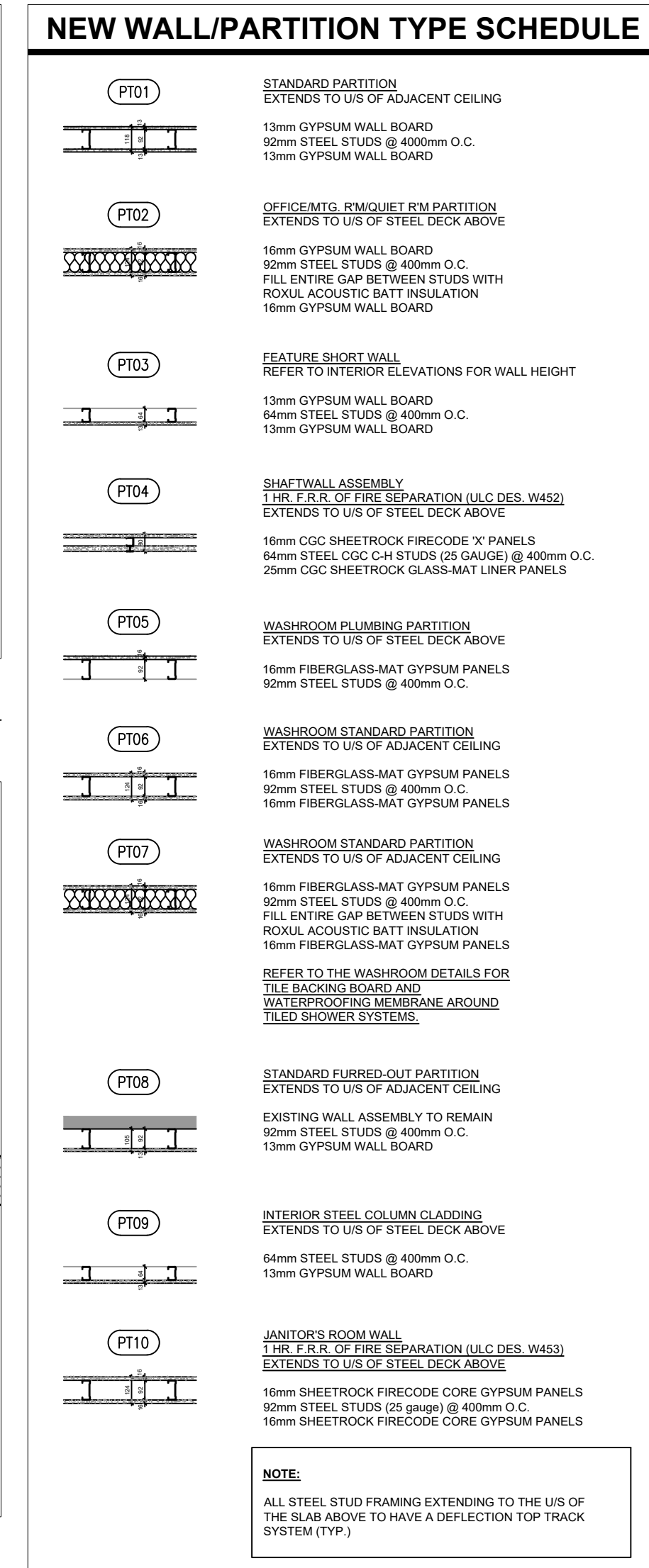


2 WINDOW ELEVATIONS
A14 SCALE = 1:50



3 FRAME SECTION DETAIL (TYP.)
A14 SCALE = 1:5

4 DOOR FRAME PLAN DETAIL (TYP.)
A14 SCALE = 1:5

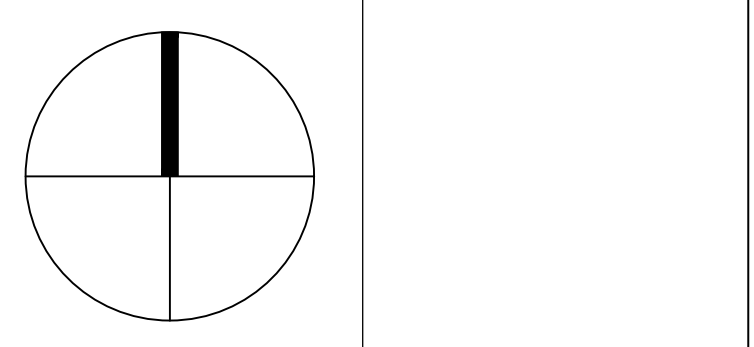


| GLAZING SCHEDULE | |
|------------------|--|
| GL-1 | 6mm TEMPERED GLASS |
| GL-2 | 12mm INSULATED LAMINATING GLASS INFEEL |

GENERAL NOTES

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PROJECT NORTH SEAL

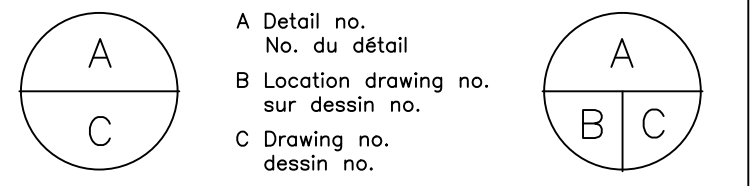


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ARCHITECTURE PLANNING DESIGN BUILD PROJECT MANAGEMENT

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|-----|------------|-------------------|-----|
| 0 | 2016/09/19 | ISSUED FOR TENDER | AAA |

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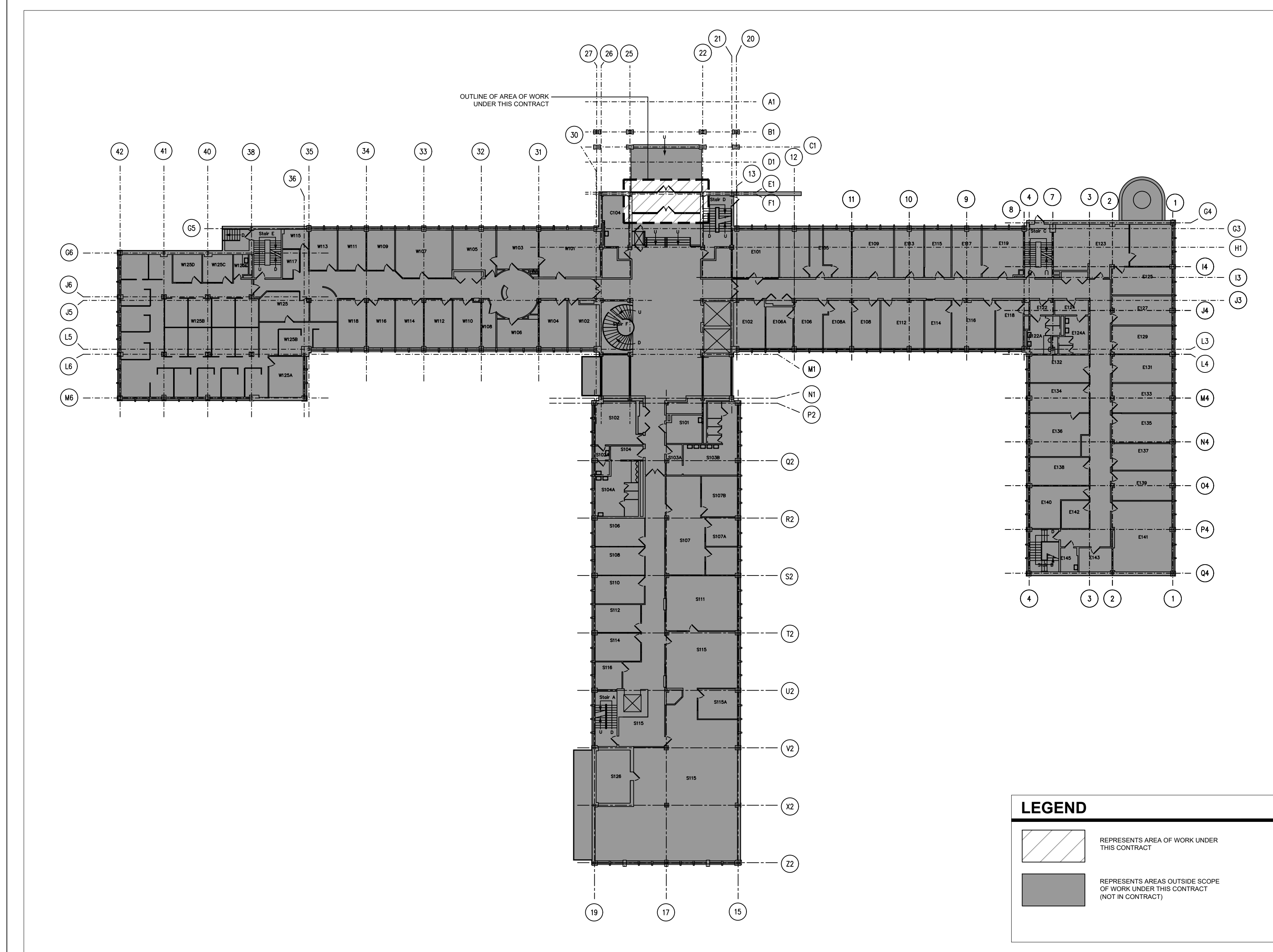


project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

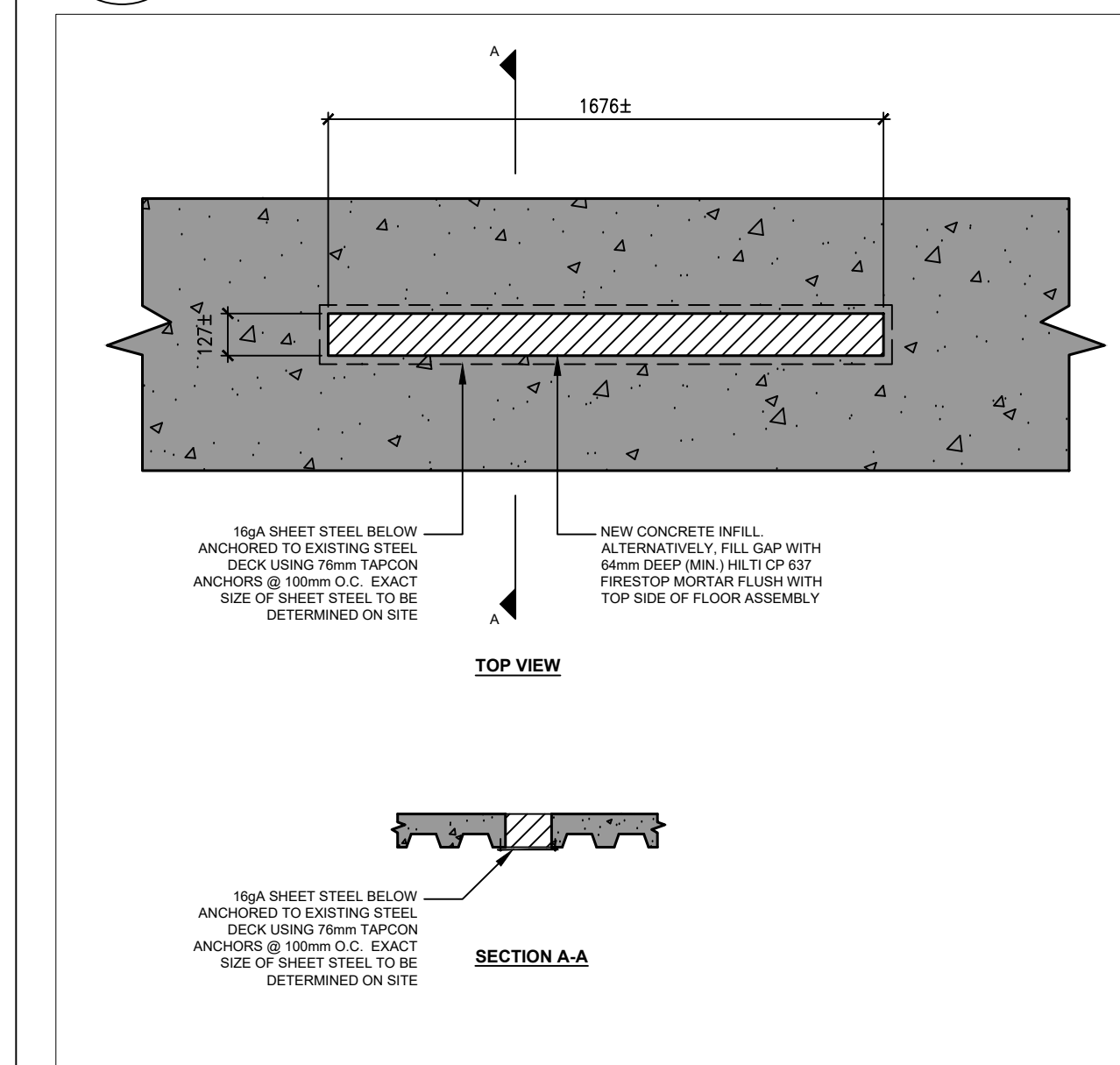
designed: AA/VA
drawn: AA/YO
checked: AA
approved: VA

| designed | conçu | date | 05/2016 |
|----------|------------|---------|-----------------|
| drawn | dessiné | scale | AS NOTED |
| checked | vérifié | sheet | 16 of/de 17 |
| approved | approuvé | W.O.no. | A1-009908-01-58 |
| dwg.no. | dessin no. | | |

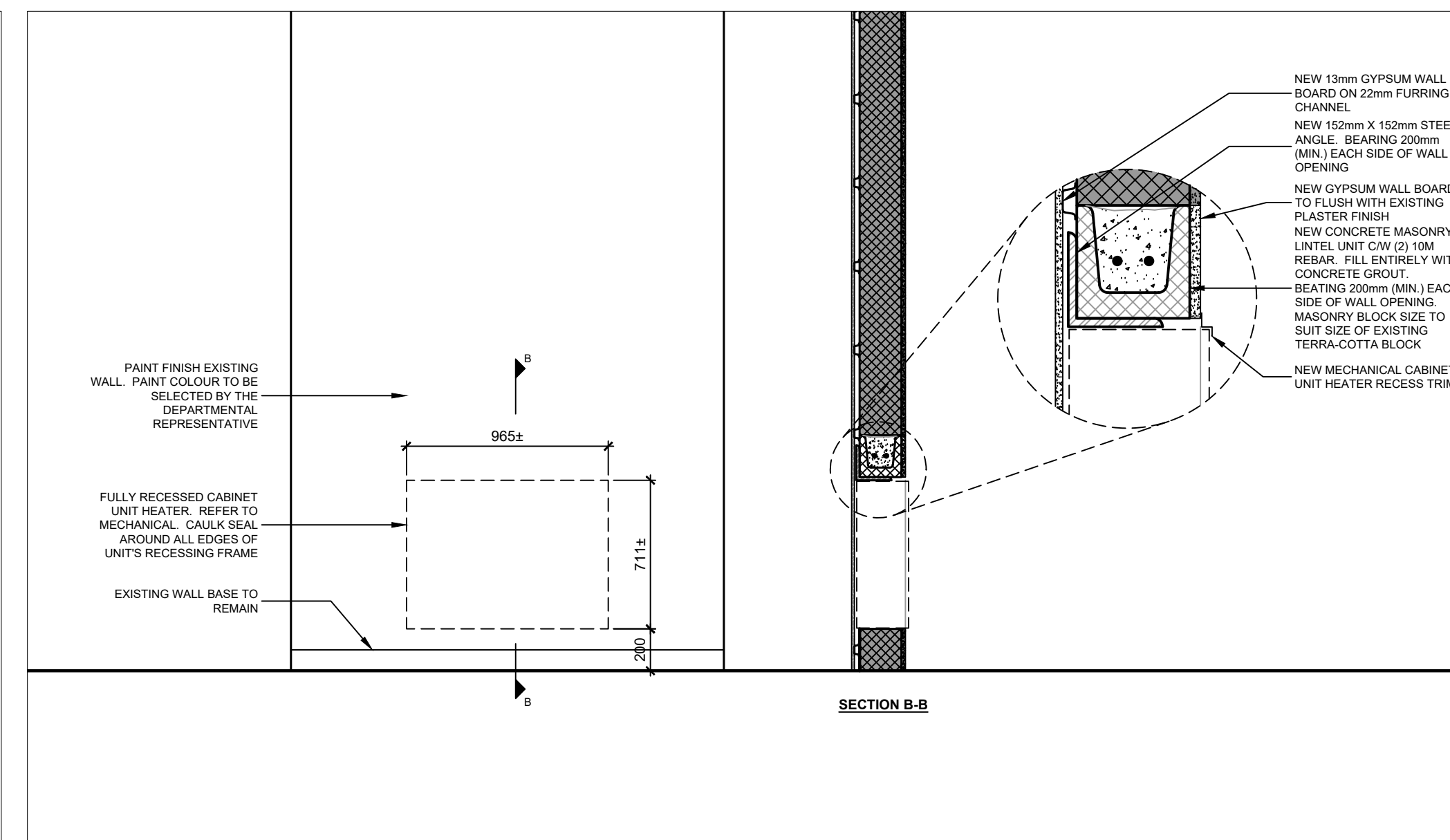
5189-A14



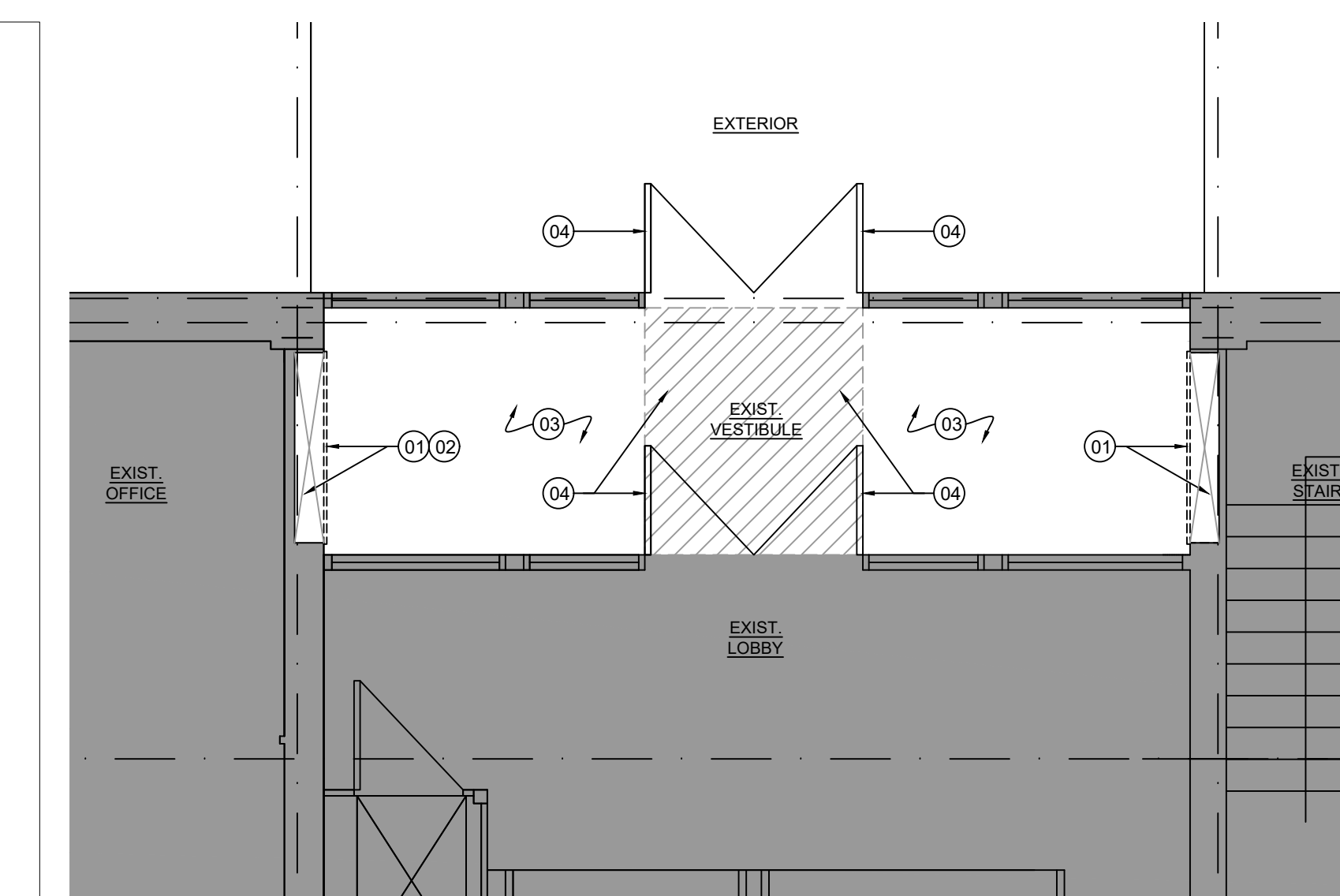
1 FIRST FLOOR KEY PLAN
A15 SCALE = 1:300



4 CONCRETE FLOOR SLAB INFILL DETAILS
A15 SCALE = 1:20



5 NEW VESTIBULE WEST WALL ELEVATION
A15 SCALE = 1:25



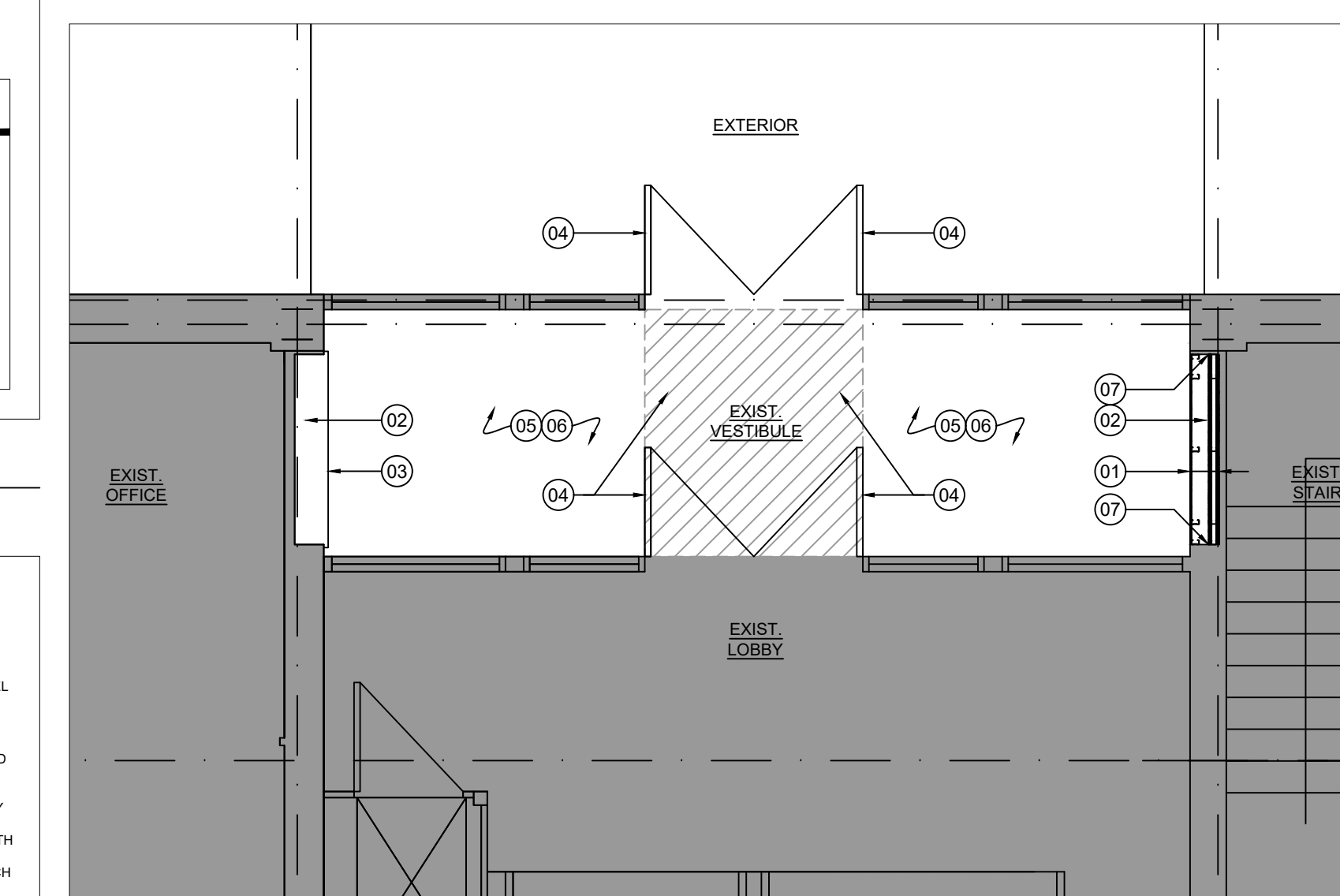
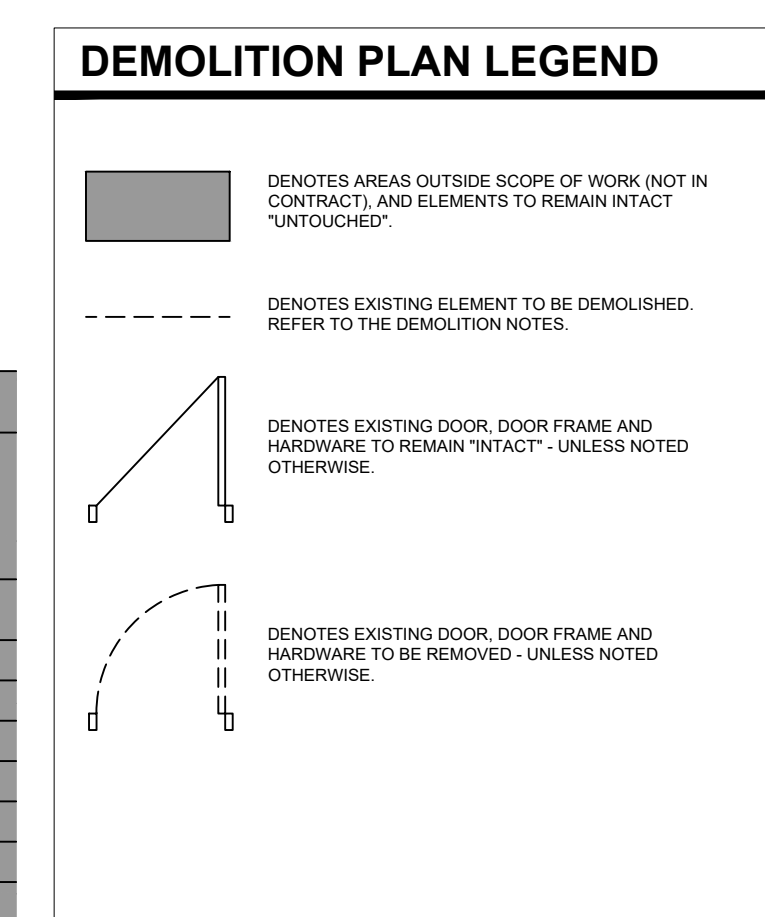
2 FIRST FLOOR VESTIBULE DEMOLITION PLAN
A15 SCALE = 1:50

DEMOLITION PLAN NOTES

- (1) REMOVE EXISTING MECHANICAL HOT AIR HEATING DUCT AND GRILLE (REFER TO THE MECHANICAL DRAWINGS). CUT AN OPENING IN EXISTING TERRA-COTTA TILE AND PLASTER FINISH WALL TO MAKE WAY FOR DISCONNECTION AND REMOVAL OF DUCT AND GRILLE, AS REQUIRED.
- (2) CUT AND REMOVE PART OF EXISTING TERRA-COTTA BLOCK AND PLASTER WALL FINISH TO MAKE WAY FOR THE INSTALLATION OF A NEW FULLY RECESSED MECHANICAL CABINET UNIT HEATER. WALL OPENING SIZE: 965mm (W) X 711mm (H) APPROX. PROVIDE STEEL ANGLES TO SUPPORT NEW WALL OPENING. REFER TO DETAILS.
- (3) PROTECT AND MAINTAIN CLEAN AT ALL TIMES EXISTING ADJACENT FLOOR FINISH, WALL FINISH, WALL BASE, DOORWAYS, ALUMINUM FRAME AND GLASS PANELS DURING DEMOLITION WORK.
- (4) EXISTING DOORS TO REMAIN OPERATIONAL DURING DEMOLITION. MAINTAIN AREA BETWEEN LOBBY DOORS AND EXTERIOR DOORS CLEAR OF ANY OBSTACLES. DO NOT BLOCK DOORS.

DEMOLITION GENERAL NOTES

1. PROTECT ALL EXISTING PERIMETER WALLS FOR THE DURATION OF THE PROJECT. CONTRACTOR TO PROTECT ALL AREAS OUTSIDE THE CONTRACT AREA FROM DEBRIS AND DUST RESULTING FROM DEMOLITION AND TO KEEP SITE CLEAN AND ORGANIZED THROUGHOUT DEMOLITION.
2. DO NOT ALTER STRUCTURAL BUILDING ELEMENTS IN ANY WAY. ALL FINISH WORK TO BE PERFORMED AROUND EXISTING STRUCTURE.
3. CONTRACTOR TO PATCH, REPAIR AND MAKE GOOD ALL EXISTING ALL PLASTER OR OTHER SURFACES REQUIRING FINISHING, READY FOR PAINT OR OTHER FINISH AS REQUIRED. PAINT EXISTING DAMAGED WALLS AFFECTED BY WORK UNDER THIS CONTRACT TO MATCH EXISTING ON ADJACENT WALL SURFACES.
4. CONTRACTOR TO COORDINATE WITH DEPARTMENTAL REPRESENTATIVE TO ENSURE EXISTING FURNITURE, EQUIPMENTS AND SYSTEMS IN WORK AREAS TO BE REMOVED/LOCATED AS REQUIRED PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR IS TO PROTECT EXISTING FURNITURE AND EQUIPMENT FROM DAMAGE AND DIRT CAUSED BY THE DEMOLITION AND CONSTRUCTION WORK.
5. CONTRACTOR TO VERIFY ALL DRAWINGS, SPECIFICATIONS, DIMENSIONS AND SITE CONDITIONS PRIOR TO COMMENCEMENT OF DEMOLITION WORK. REPORT TO THE DEPARTMENTAL REPRESENTATIVE AND TO THE CONSULTANT, IMMEDIATELY, FOR ANY OMISSIONS AND/OR DISCREPANCIES.



3 FIRST FLOOR VESTIBULE NEW CONSTRUCTION PLAN
A15 SCALE = 1:50

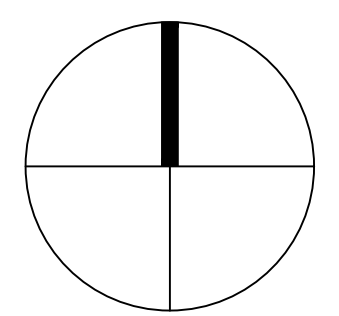
NEW CONSTRUCTION PLAN NOTES

- (1) FILL WALL OPENING WITH 2 HR. F.R.R. SHAF-T WALL CONSTRUCTION, AS FOLLOWS:
ULC DESIGN # W48L:
2 LAYERS OF 12.7mm CGC SHEETROCK FIRECODE C PANELS. FACE LAYER JOINTS FINISHED, ON 48mm CGC CH STUDS (25 GAUGE) SPACED AT 610mm O.C., AND 25mm CGC SHEETROCK GLASS-MAT LINER PANELS.
INSTALL ADDITIONAL GYPSUM WALL BOARD ON STEEL STUD/FURRING CHANNEL, AS REQUIRED, TO HAVE A FLUSH, LEVELLED AND SMOOTH WALL SURFACE.
- (2) PATCH, FILL AND REPAIR EXISTING FLOOR SLAB OPENING UPON REMOVAL OF MECHANICAL AIR DUCT. FILL OPENING WITH CONCRETE. REFER TO DETAILS.
- (3) NEW FULLY RECESSED MECHANICAL CABINET UNIT HEATER. REFER TO MECHANICAL.
- (4) EXISTING DOORS TO REMAIN OPERATIONAL DURING CONSTRUCTION. MAINTAIN AREA BETWEEN LOBBY DOORS AND EXTERIOR DOORS CLEAR OF ANY OBSTACLES. DO NOT BLOCK DOORS.
- (5) PROTECT AND MAINTAIN CLEAN AT ALL TIMES EXISTING ADJACENT FLOOR FINISH, WALL FINISH, WALL BASE, DOORWAYS, ALUMINUM FRAME AND GLASS PANELS DURING CONSTRUCTION.
- (6) PAINT FINISH ALL VESTIBULE WALLS (4 WALLS). COLOUR TO BE SELECTED BY THE DEPARTMENTAL REPRESENTATIVE.
- (7) CALK/SEAL AROUND ALL 4 SIDES OF NEW SHAF-T WALL SYSTEM WITH A FIRESTOP SEALANT.

GENERAL NOTES

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PROJECT NORTH SEAL



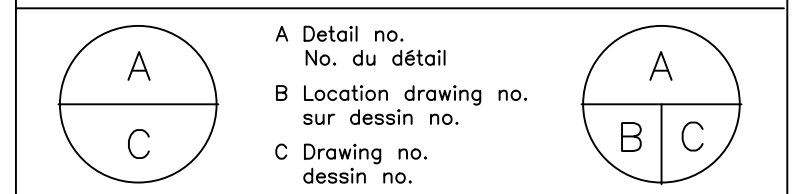
ALCAIDE WEBSTER ARCHITECTS INC
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ARCHITECTURE PLANNING DESIGN BUILD PROJECT MANAGEMENT

| No. | Date | Revision | By: |
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| 0 | 2016/09/19 | ISSUED FOR TENDER | ABA |

Date Printed: DD MM YYYY Date imprimée: DD MM YYYY

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- o Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

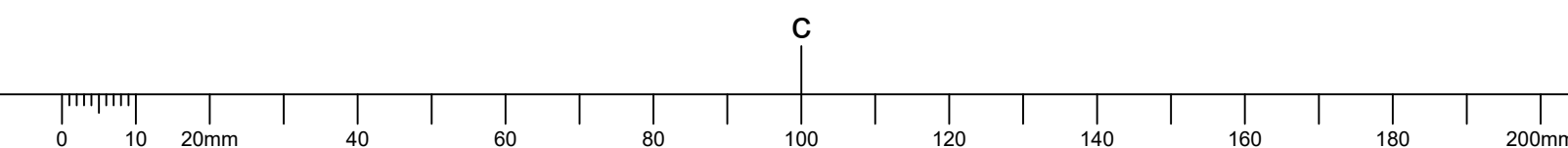


project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS
drawing: FIRST FLOOR VESTIBULE HEATING UPGRADE

| designed | conçu | date | date |
|----------|----------|-----------------|---------|
| AA/VA | | 05/2016 | |
| drawn | dessiné | scale | échelle |
| AA/YO | | AS NOTED | |
| checked | vérifié | sheet | feuille |
| AA | | 17 of/ de 17 | |
| approved | approuvé | W.O.no. | D.T.no. |
| VA | | A1-009908-01-58 | |

5189-A15



NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION (NRC PROJECT 5189)

1200 MONTREAL RD, OTTAWA ONTARIO
ISSUED FOR TENDER - SEPTEMBER 13, 2016

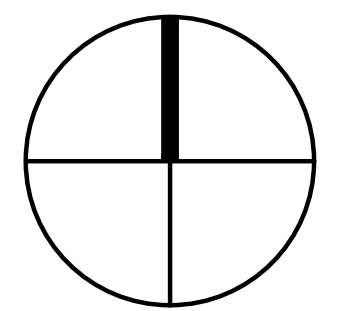


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- CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK.
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PROJECT NORTH SEAL

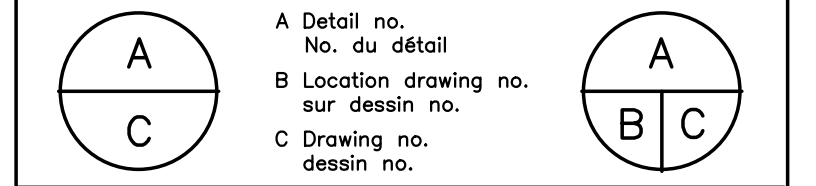


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Project: 637079

| No. | Date | Revision | By: | Per: |
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| 0 | 2016-09-16 | FOR TENDER | | M.L. |

Date Printed: 2016/09/16 Date imprimée:

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project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS

MECHANICAL COVER SHEET, KEY PLAN AND DRAWINGS LIST

| | | | | |
|------------|----------|---------|-----------------|------------|
| designed | conçu | date | 04/2016 | date |
| M.V., J.B. | | | | |
| drawn | dessiné | scale | N/A | échelle |
| LL., A.C. | | | | |
| checked | vérifié | sheet | 01 of/de 26 | feuille |
| ML., J.B. | | | | |
| approved | approuvé | W.O.no. | A1-009908-01-58 | D.T.no. |
| ML., F.A. | | | | |
| dwg.no. | | | | dessin no. |
| 5189-M01 | | | | |

DRAWING LIST

MECHANICAL DRAWINGS

- | Drawing No. | Description |
|-------------|---|
| 5189-M01 | COVER SHEET, KEY PLAN AND DRAWINGS LIST |
| 5189-M02 | LEGEND - VENTILATION, PLUMBING AND HEATING |
| 5189-M03 | DRAINAGE BASEMENT AND GROUND FLOOR NEW WORK - PARTIAL PLAN VIEW |
| 5189-M04 | DOMESTIC WATER BASEMENT AND GROUND FLOOR NEW WORK - PARTIAL PLAN VIEW |
| 5189-M05 | DRAINAGE AND DOMESTIC WATER BASEMENT AND GROUND FLOOR NEW WORK - PARTIAL PLAN VIEW |
| 5189-M06 | DRAINAGE AND DOMESTIC WATER GROUND FLOOR NEW WORK - PARTIAL PLAN VIEW - MECHANICAL ROOM |
| 5189-M07 | DRAINAGE DEMOLITION AND NEW WORK - DIAGRAM |
| 5189-M08 | DOMESTIC WATER DEMOLITION AND NEW WORK - DIAGRAM |
| 5189-M09 | PLUMBING FIXTURES SCHEDULE |
| 5189-M10 | PLUMBING AND HEATING GROUND FLOOR NEW WORK - PARTIAL PLAN VIEW - WEST WING |
| 5189-M11 | PLUMBING AND HEATING GROUND FLOOR NEW WORK - PARTIAL PLAN VIEW - EAST WING |
| 5189-M12 | PLUMBING AND HEATING GROUND FLOOR NEW WORK - PARTIAL PLAN VIEW - MECHANICAL ROOM |
| 5189-M13 | PLUMBING AND HEATING DETAILS |
| 5189-M14 | PLUMBING AND HEATING EQUIPMENTS SCHEDULES |
| 5189-M15 | VENTILATION GROUND FLOOR NEW WORK - PARTIAL PLAN VIEW - WEST WING |
| 5189-M16 | VENTILATION GROUND FLOOR NEW WORK - PARTIAL PLAN VIEW - EAST WING |
| 5189-M17 | VENTILATION GROUND FLOOR NEW WORK - PARTIAL PLAN VIEW - MECHANICAL ROOM |
| 5189-M18 | VENTILATION - DETAILS |
| 5189-M19 | VENTILATION - DETAILS |
| 5189-M20 | VENTILATION - EQUIPMENTS SCHEDULES |
| 5189-M21 | DRAINAGE BASEMENT AND GROUND FLOOR DEMOLITION - PARTIAL PLAN VIEW |
| 5189-M22 | DOMESTIC WATER BASEMENT AND GROUND FLOOR DEMOLITION - PARTIAL PLAN VIEW |
| 5189-M23 | PLUMBING AND HEATING GROUND FLOOR DEMOLITION - PARTIAL PLAN VIEW - WEST WING |
| 5189-M24 | PLUMBING AND HEATING GROUND FLOOR DEMOLITION - PARTIAL PLAN VIEW - EAST WING |
| 5189-M25 | VENTILATION GROUND FLOOR DEMOLITION - PARTIAL PLAN VIEW - WEST WING |
| 5189-M26 | VENTILATION GROUND FLOOR DEMOLITION - PARTIAL PLAN VIEW - EAST WING |

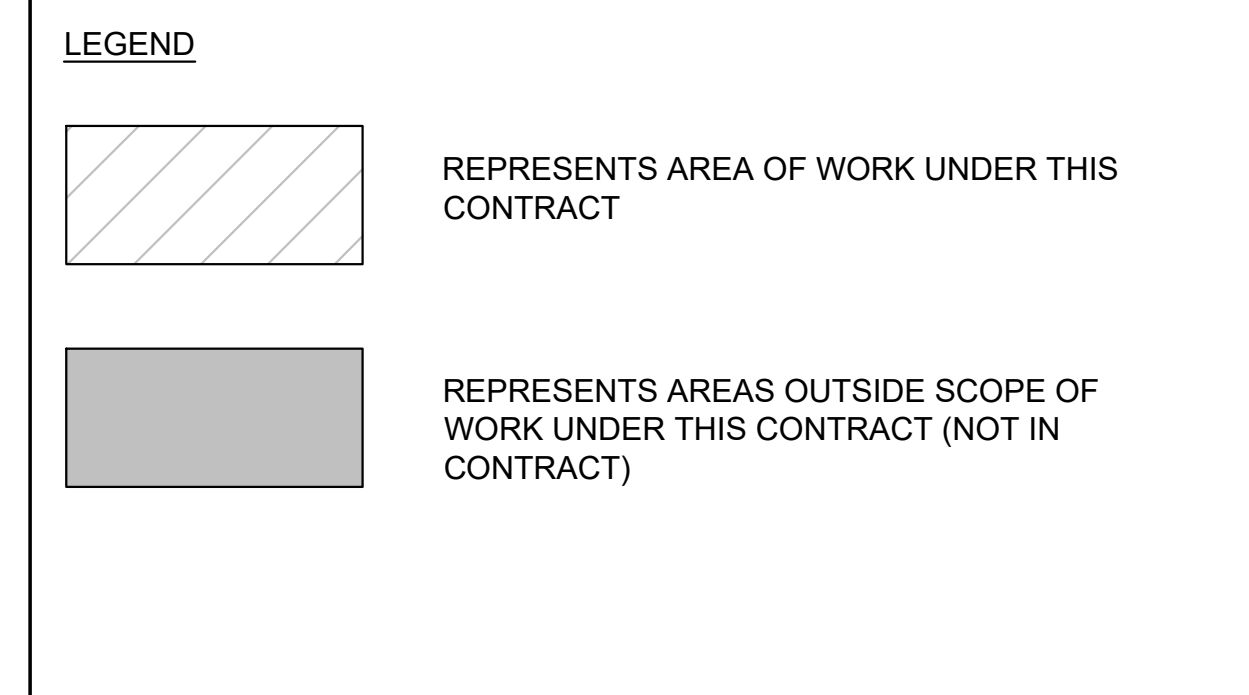
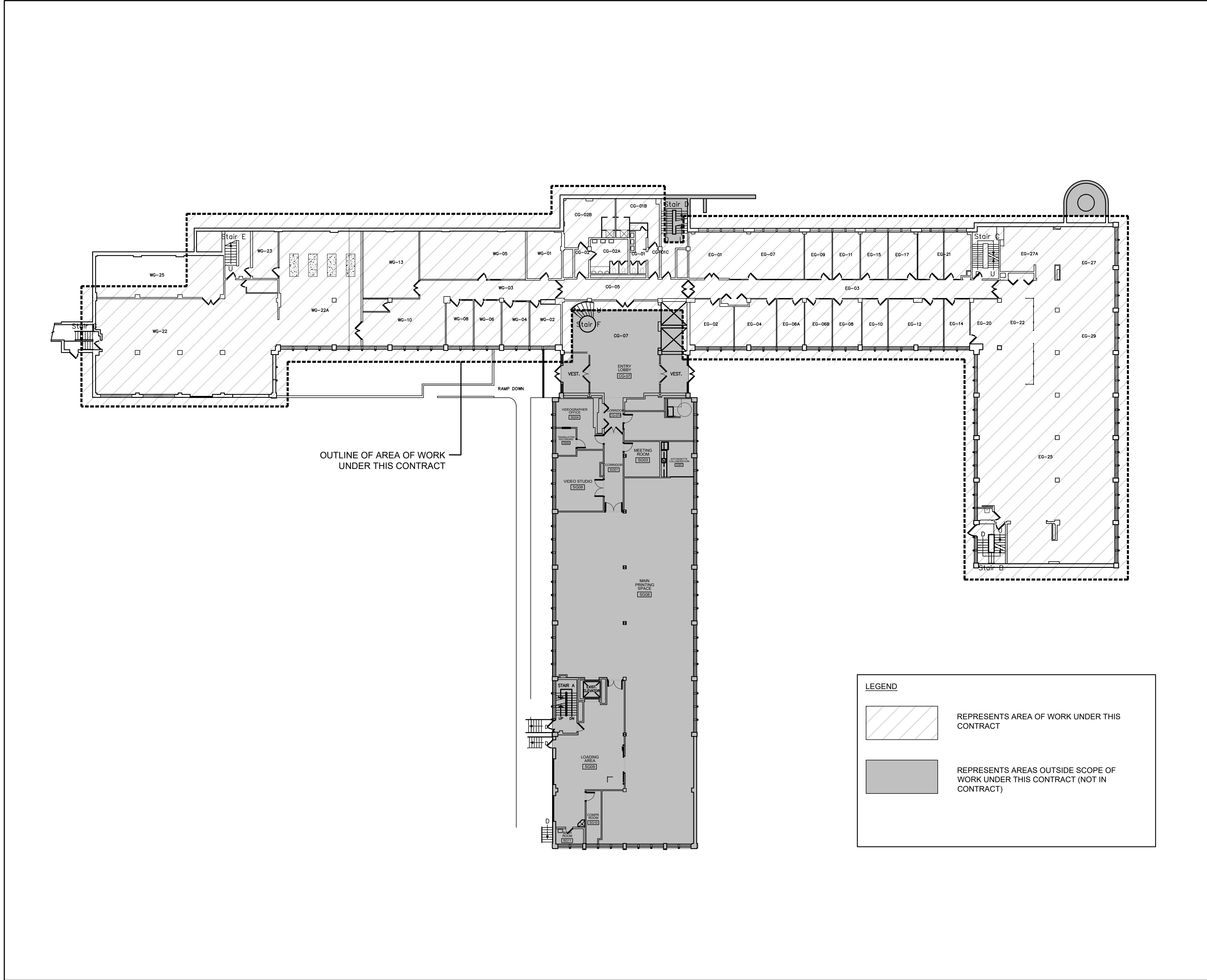
NBC DATA MATRIX

BASED ON NATIONAL BUILDING CODE OF CANADA (2015)

| ITEM | NBC DIVISION B, PART (3) DATA MATRIX |
|------|---|
| 1 | PROJECT DESCRIPTION: INTERIOR RENOVATIONS/FIT-UP. <input type="checkbox"/> CHANGE OF USE |
| 2 | MAJOR OCCUPANCY(S): GROUP D - BUSINESS & PERSONAL SERVICES OCCUPANCY |
| 3 | BUILDING CLASSIFICATION: 3.2.2.96, GROUP D, UP TO 6 STOREYS |
| 4 | FIT UP AREA (m ²): 1,469 SQ.M. ± |
| 5 | GROSS AREA (m ²): |
| 6 | NUMBER OF STOREYS: ABOVE GRADE: 4 BELOW GRADE: 1 |
| 7 | BUILDING HEIGHT: |
| 8 | NUMBER OF STREETS/ ACCESS ROUTES: |
| 9 | SPRINKLER SYSTEM EXISTING: <input type="checkbox"/> ENTIRE BUILDING <input type="checkbox"/> PARTIAL BUILDING <input checked="" type="checkbox"/> NO (NOT REQUIRED) |

WORK RESTRICTIONS

- EXECUTE WORK WITH LEAST POSSIBLE INTERFERENCE OR DISTURBANCE TO NORMAL USE OF PREMISES. MAKE ARRANGEMENTS WITH DEPARTMENTAL REPRESENTATIVE TO FACILITATE WORK AS STATED.
- ANY WORK TO BE PERFORMED BY THE GENERAL CONTRACTOR AND/OR ITS SUB-CONTRACTORS GENERATING EXCESSIVE NOISE, ODORS AND/OR ANY KIND OF DISCOMFORT TO THE BUILDING USERS SHALL BE EXECUTED OUTSIDE OF THE BUILDING'S NORMAL BUSINESS HOURS, AT THE DISCRETION OF THE DEPARTMENTAL REPRESENTATIVE. REFER TO THE SPECIFICATIONS (DIVISION 01).



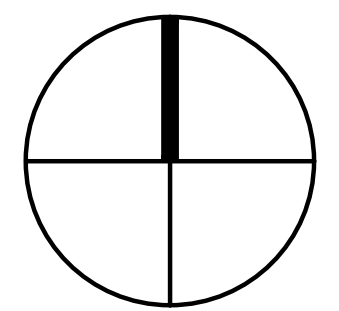
1 EXISTING OVERALL GROUND FLOOR PLAN/KEY PLAN
SCALE = 1:200

GENERAL NOTES

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PROJECT NORTH SEAL

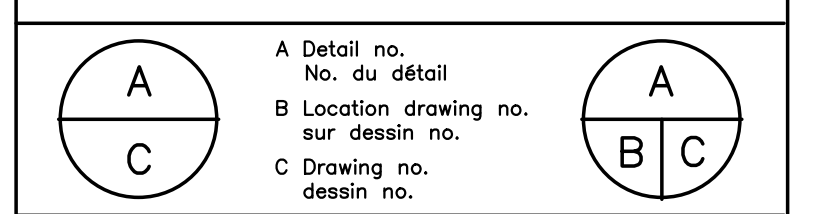


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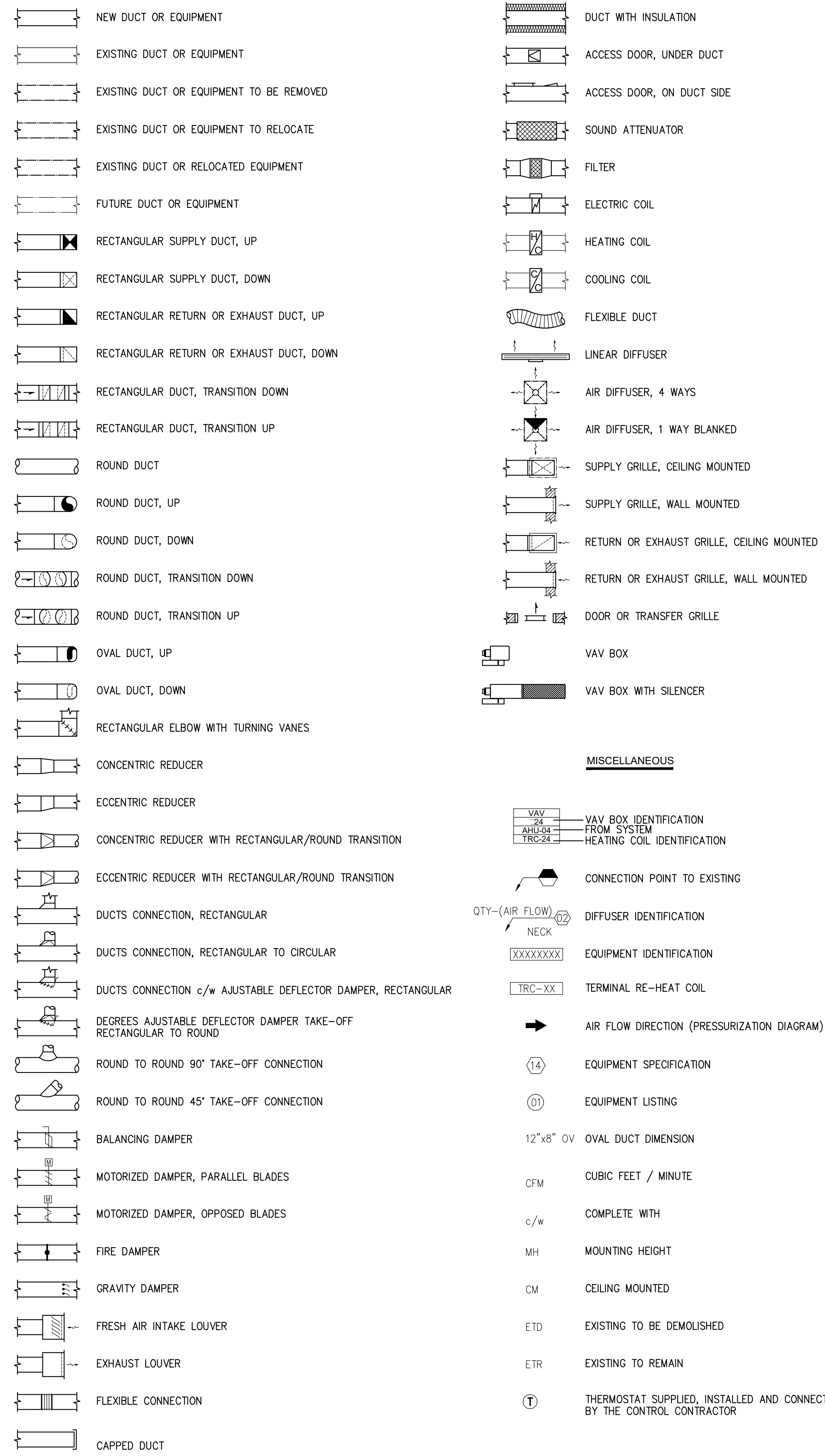
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 MONTREAL ROAD CAMPUS

drawing: MECHANICAL LEGEND VENTILATION PLUMBING AND HEATING

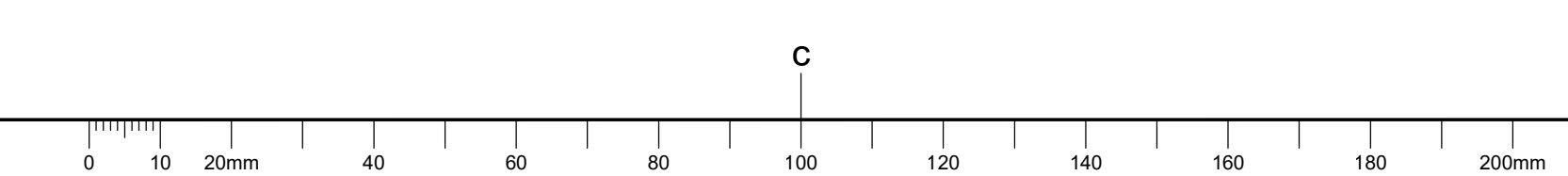
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| designed | conçu | date | 04/2016 |
| drawn | dessiné | scale | N/A |
| checked | vérifié | sheet | 02 of/de 26 |
| approved | approuvé | W.O.no. | A1-009908-01-58 |
| dwg.no. | dessin no. | | |

5189-M02

VENTILATION LEGEND



PLUMBING AND HEATING LEGEND



NOTE:
SEE DRAWINGS M07
FOR THE PIPING SIZING

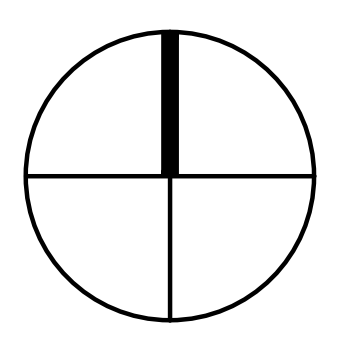


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| Date Printed: 2016/09/16 | | Date imprimée: | |

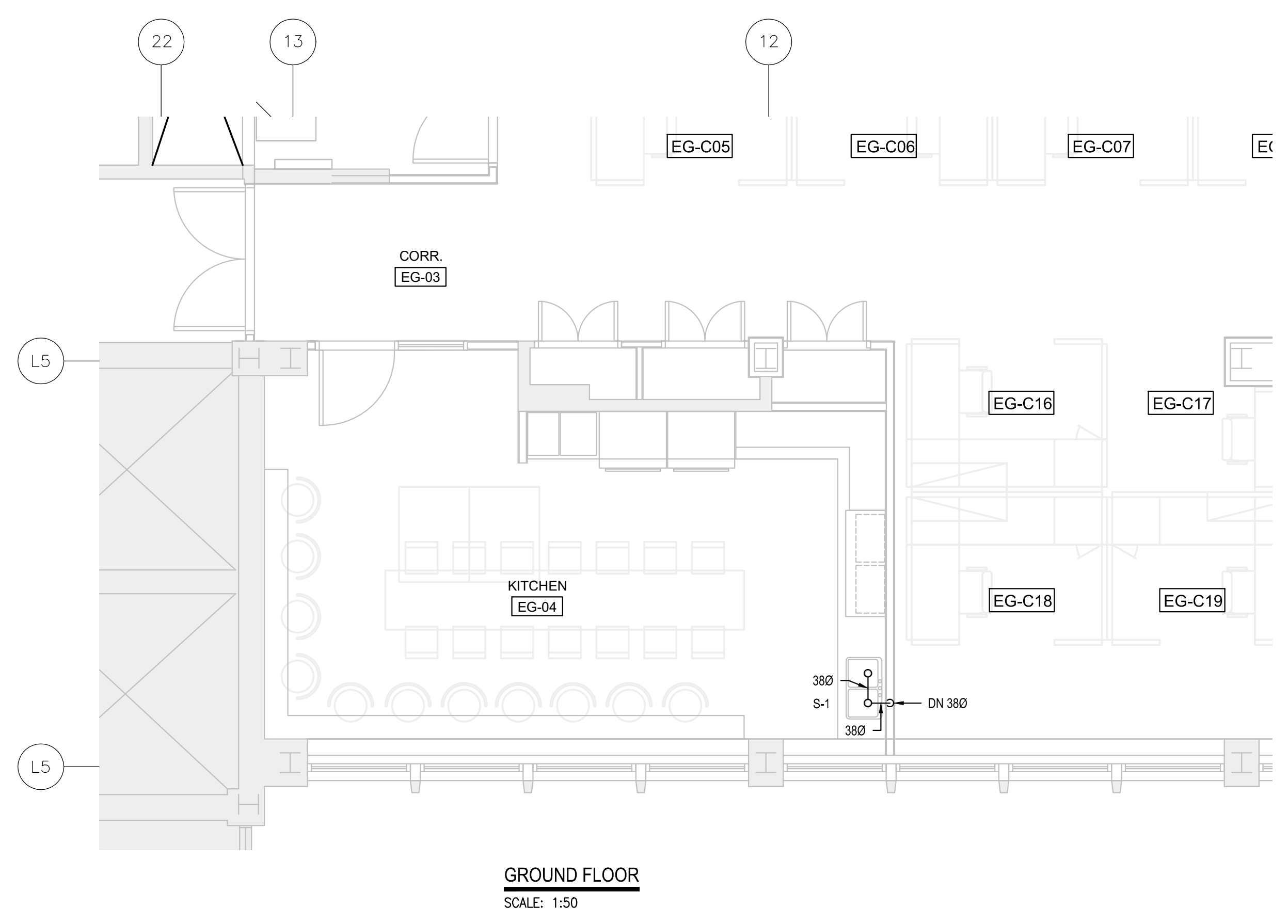
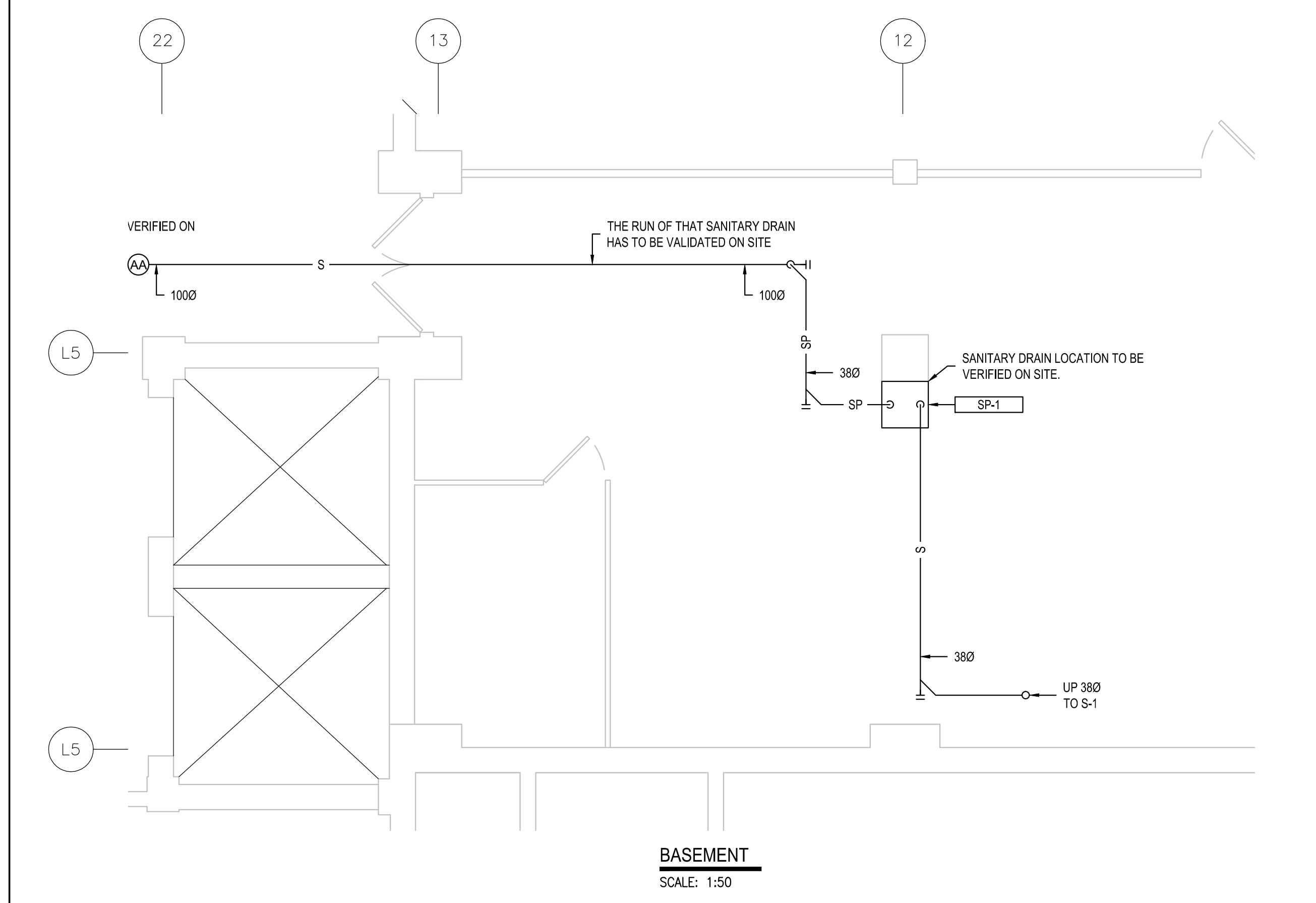
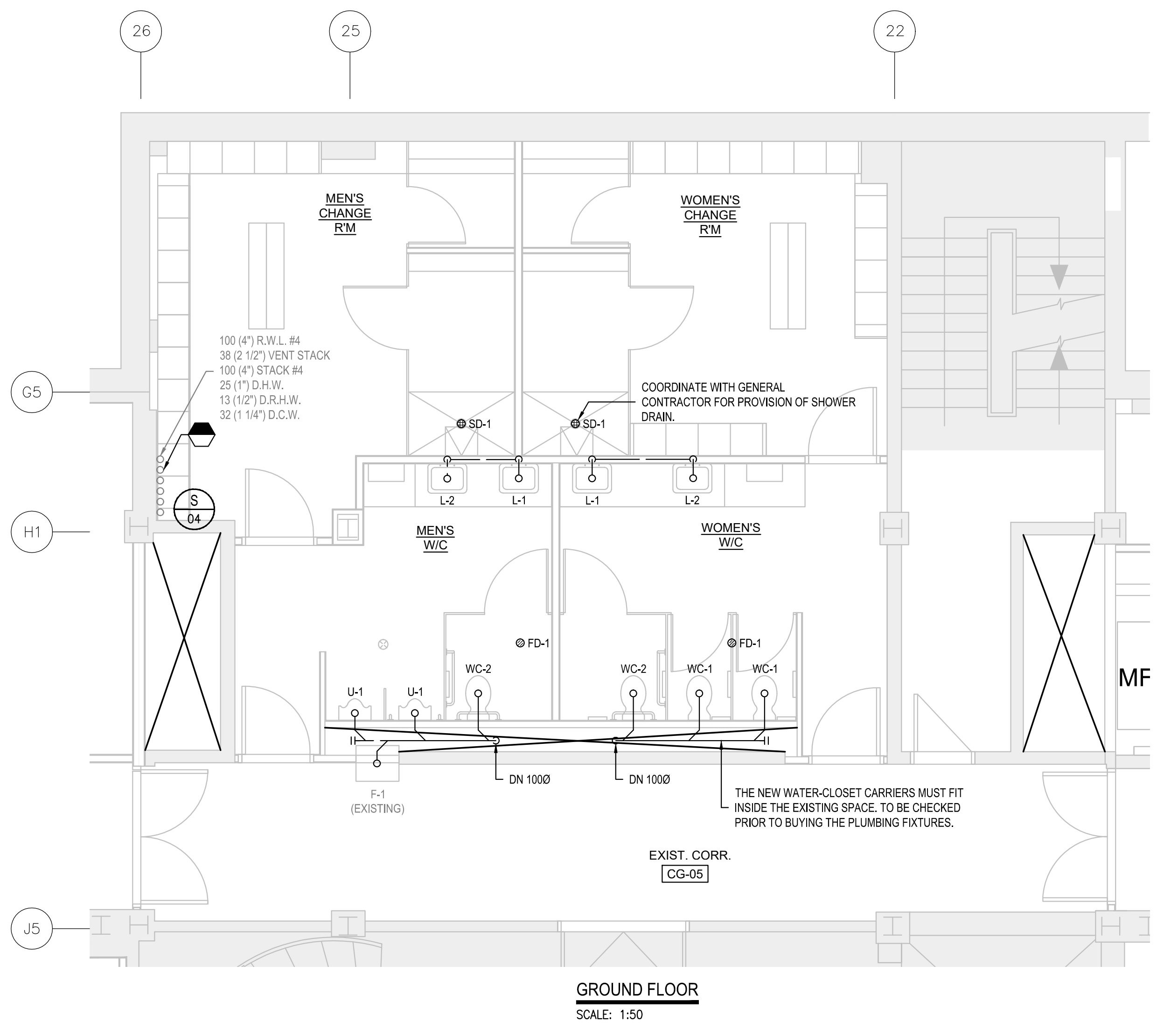
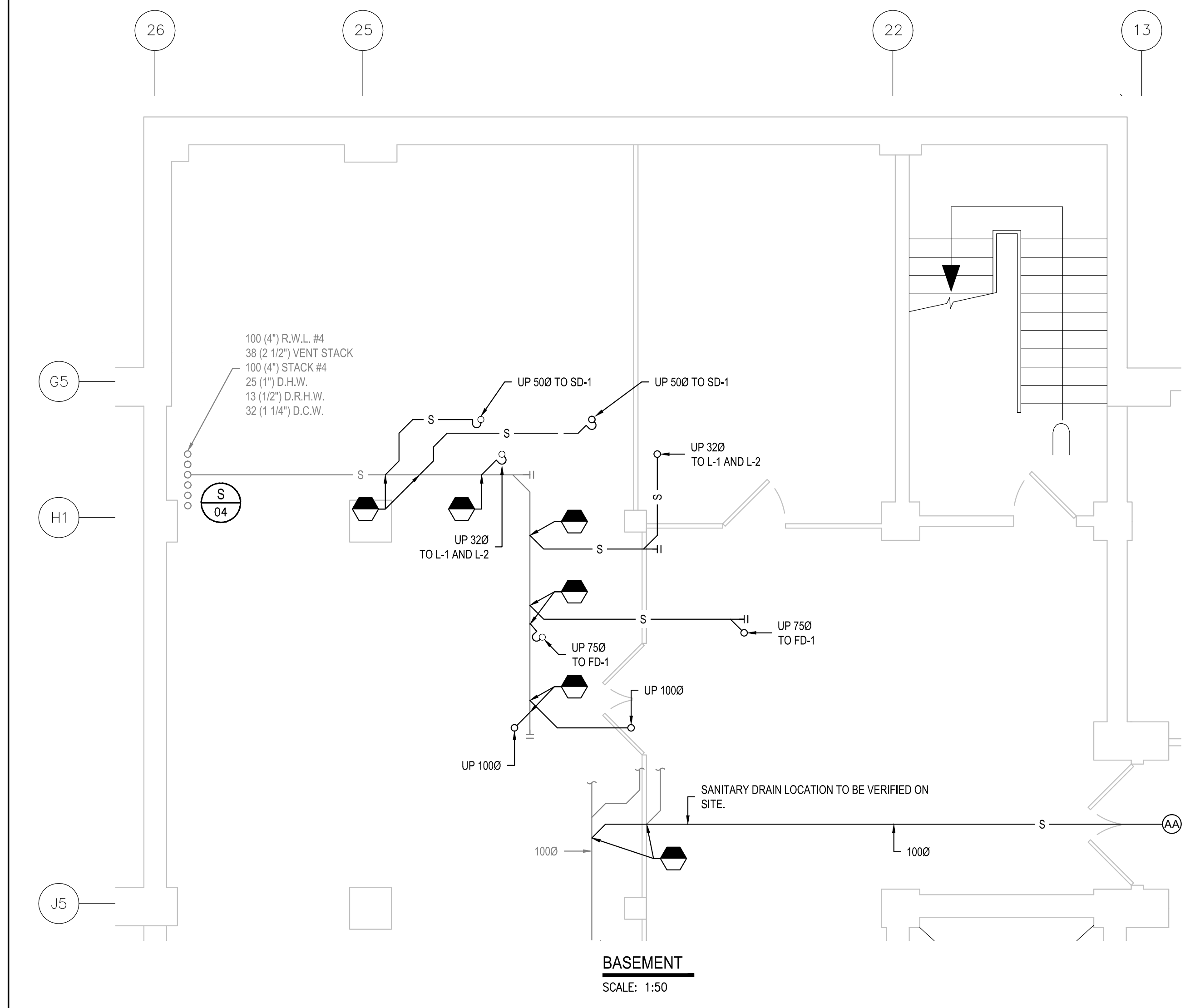
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| | |
|---|---|
| A | A |
| B | B |
| C | C |

project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
MONTREAL ROAD CAMPUS

drawing: MECHANICAL - DRAINAGE BASEMENT AND GROUND FLOOR NEW WORK PARTIAL PLAN VIEW

| | | | | | |
|----------|-----------|------------|---------|-----------------|---------|
| designed | M.V. J.B. | conçu | date | 04/2016 | date |
| drawn | L.L. A.C. | dessiné | scale | 150 | échelle |
| checked | M.L. J.B. | vérifié | sheet | 03 of/de 26 | feuille |
| approved | M.L. F.A. | approuvé | W.O.no. | A1-009908-01-58 | D.T.no. |
| dwg.no. | 5189-M03 | dessin no. | | | |



NOTE:
SEE DRAWINGS M08
FOR THE PIPING SIZING

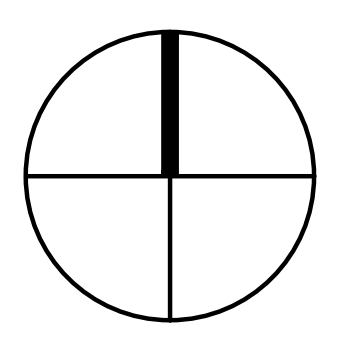
NRC - CNRC

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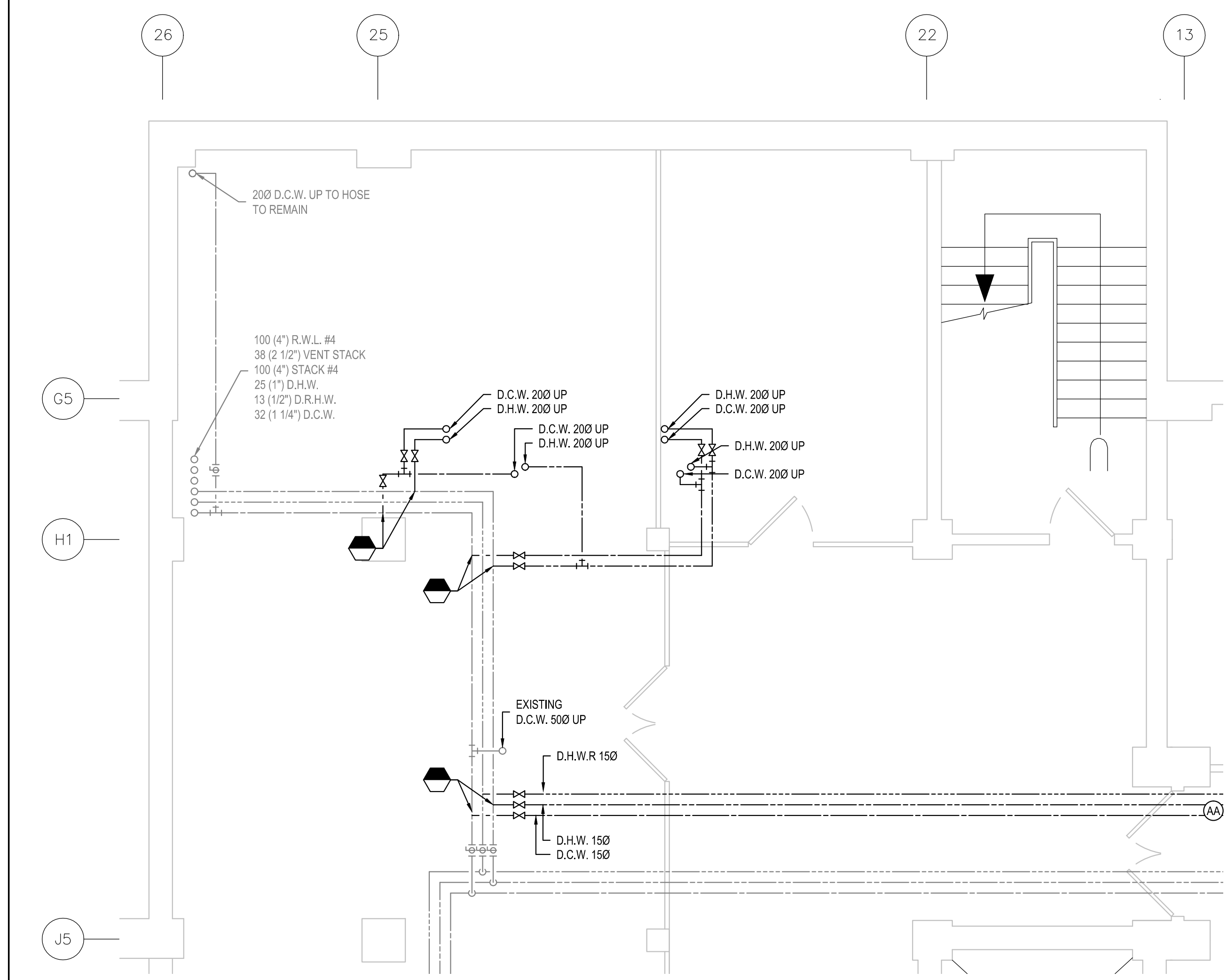
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B Location drawing no. sur dessin no.
C Drawing no. dessin no.

project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
MONTREAL ROAD CAMPUS

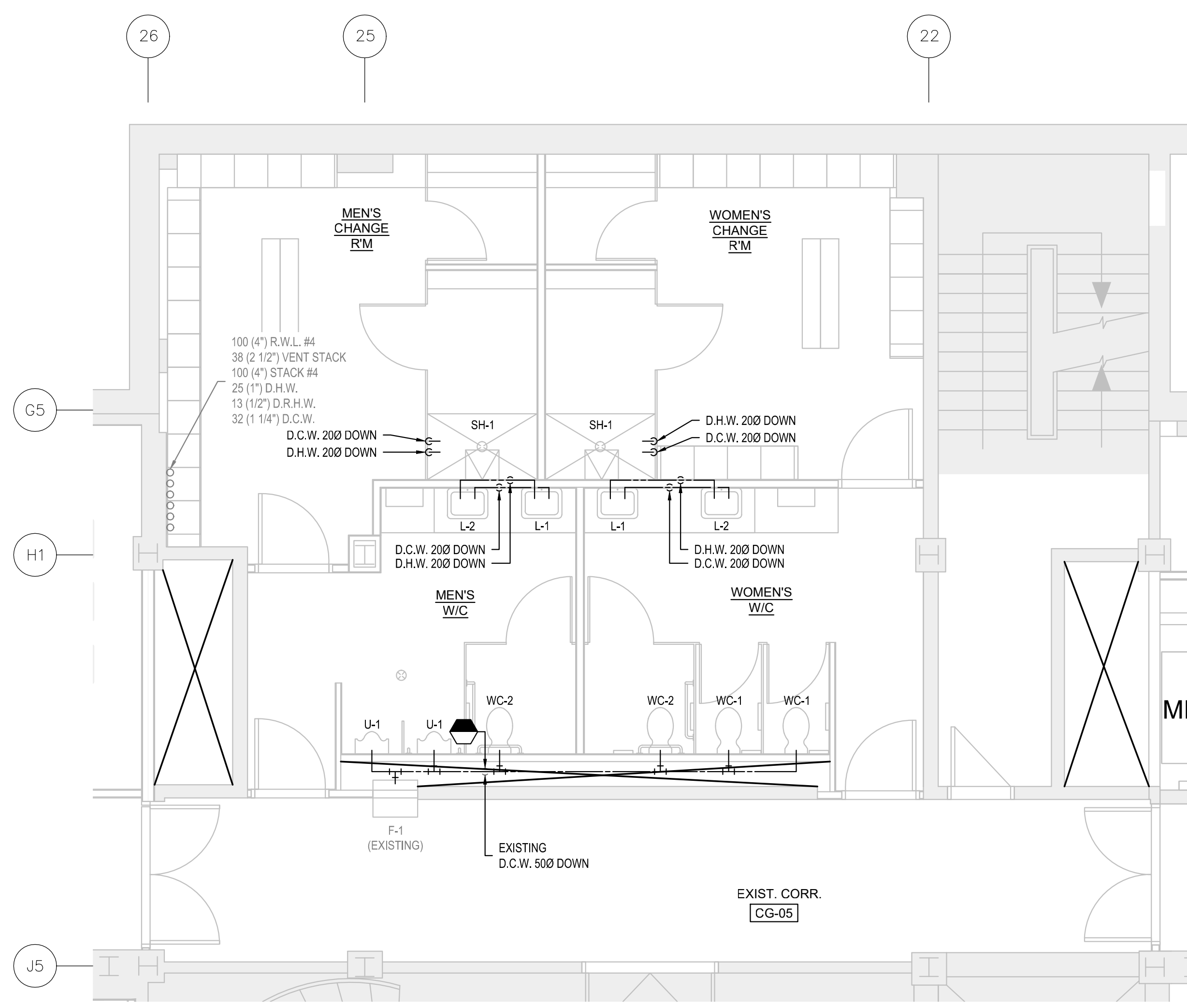
drawing: MECHANICAL - DOMESTIC WATER BASEMENT AND GROUND FLOOR DEMOLITION AND NEW WORK PARTIAL PLAN VIEW

| designed | conçu | date | date |
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| M.V., J.B. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| LL., A.C. | | 150 | |
| checked | vérifié | sheet | feuille |
| ML., J.B. | | 04 of/de 26 | |
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| ML., F.A. | | A1-009908-01-58 | |

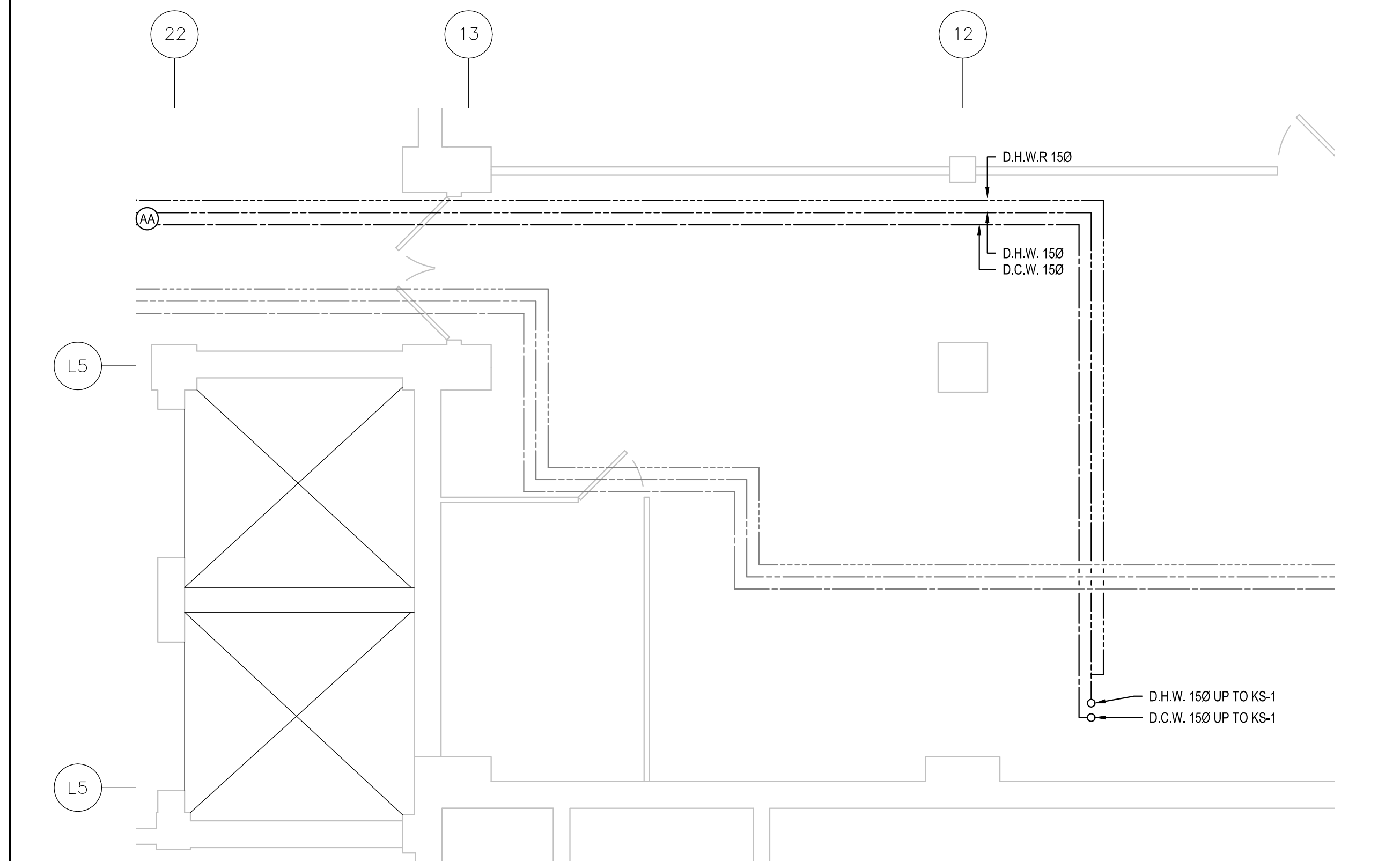
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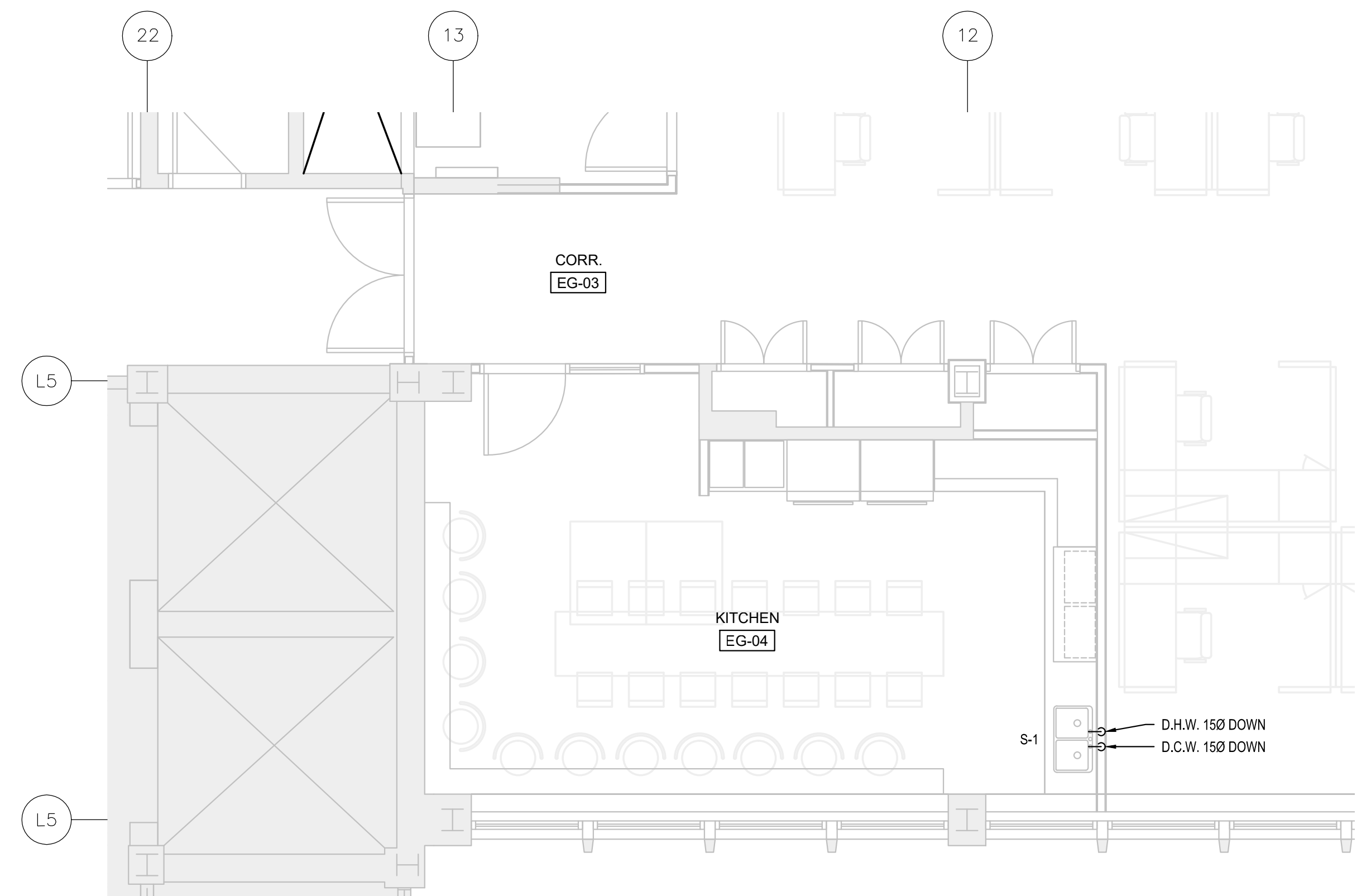
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SCALE: 1:50



GROUND FLOOR
SCALE: 1:50

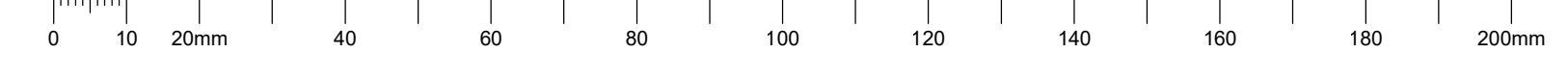


BASEMENT
SCALE: 1:50



GROUND FLOOR
SCALE: 1:50

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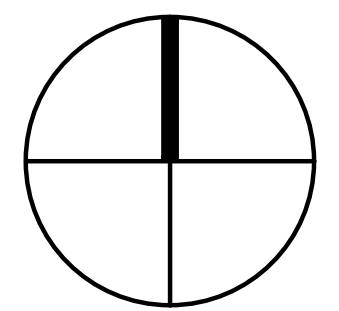


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| A | A Detail no. No. du détail | A |
| B | B Location drawing no. sur dessin no. | B |
| C | C Drawing no. dessin no. | C |

project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 projet:

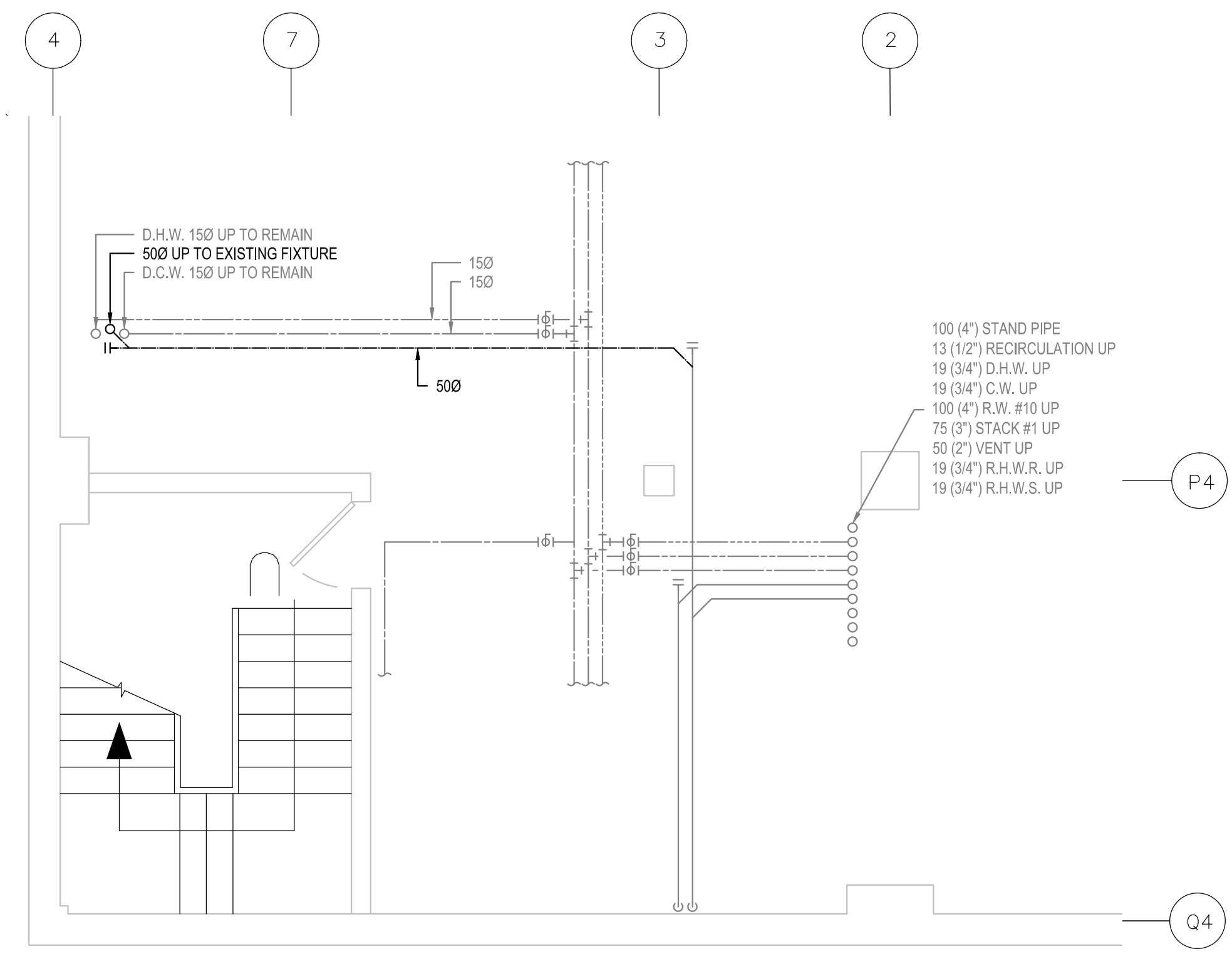
drawing: MECHANICAL - DRAINAGE AND DOMESTIC WATER BASEMENT AND GROUND FLOOR NEW WORK PARTIAL PLAN VIEW
 dessin:

designed: M.V., J.B. conçu: date: 04/2016
 drawn: L.L., A.C. dessiné: scale: 150 échelle:

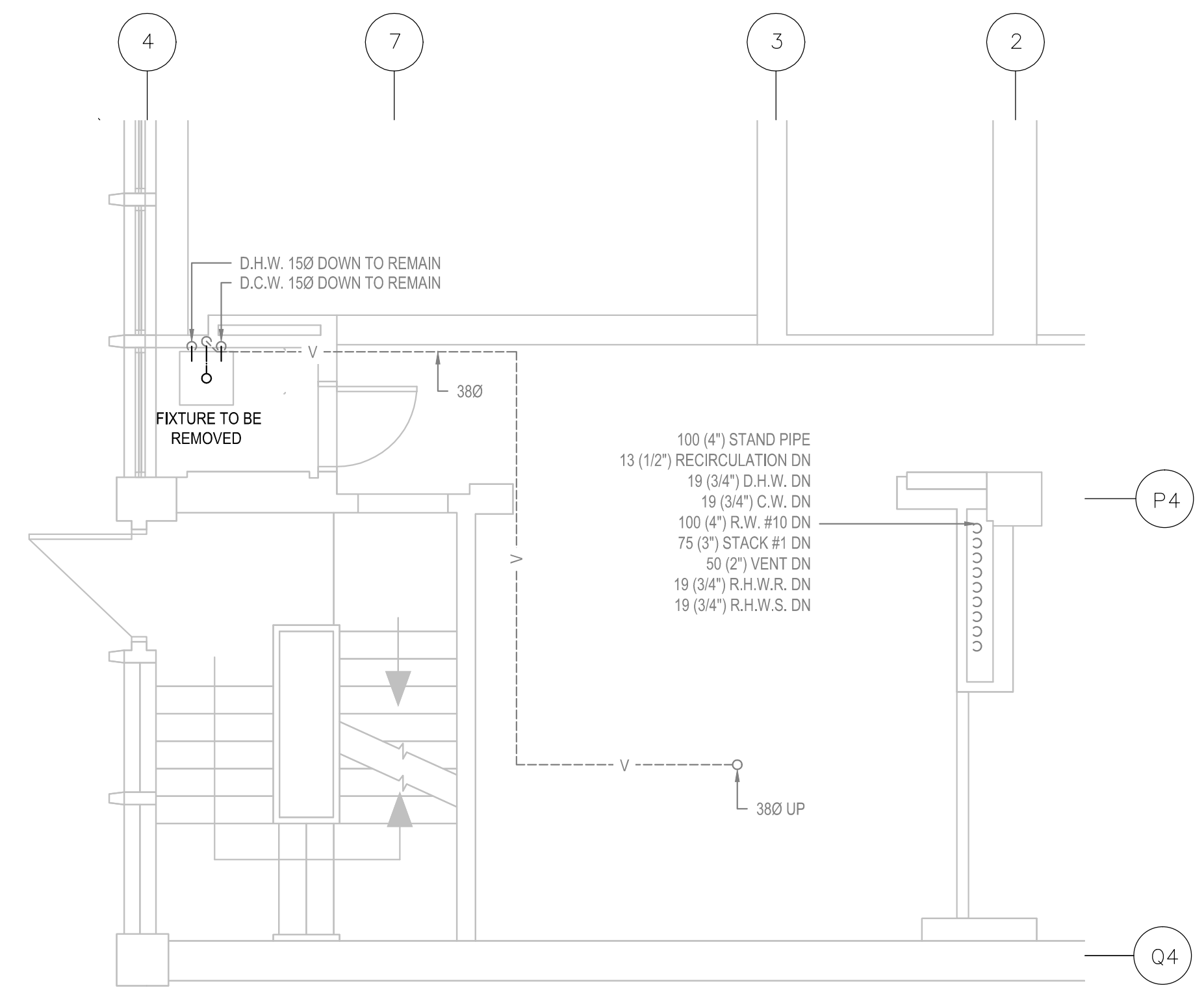
checked: M.L., J.B. vérifié: sheet: 05 of/de: 26 feuille:

approved: M.L., F.A. approuvé: W.O.no.: A1-009908-01-58 D.T.no.:

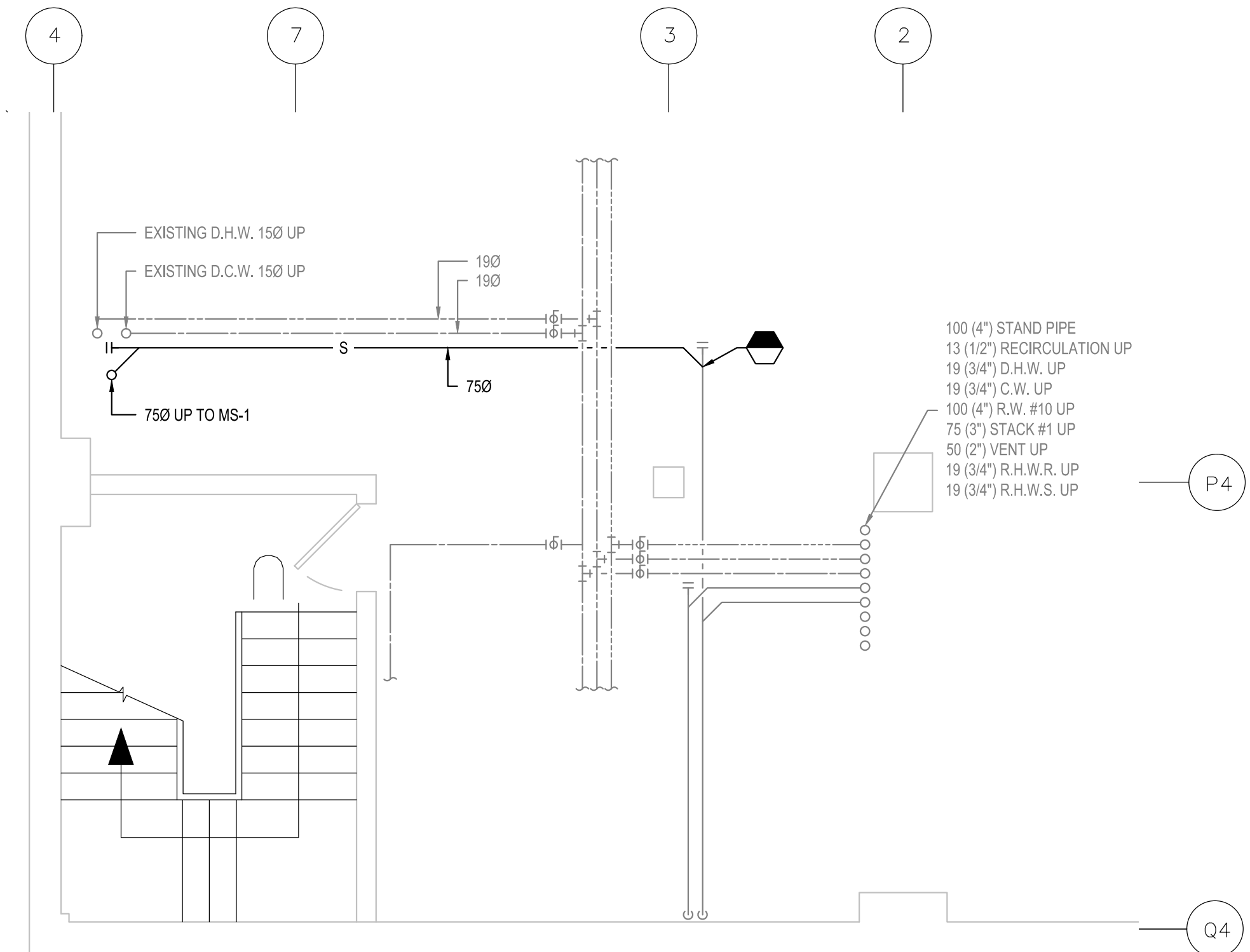
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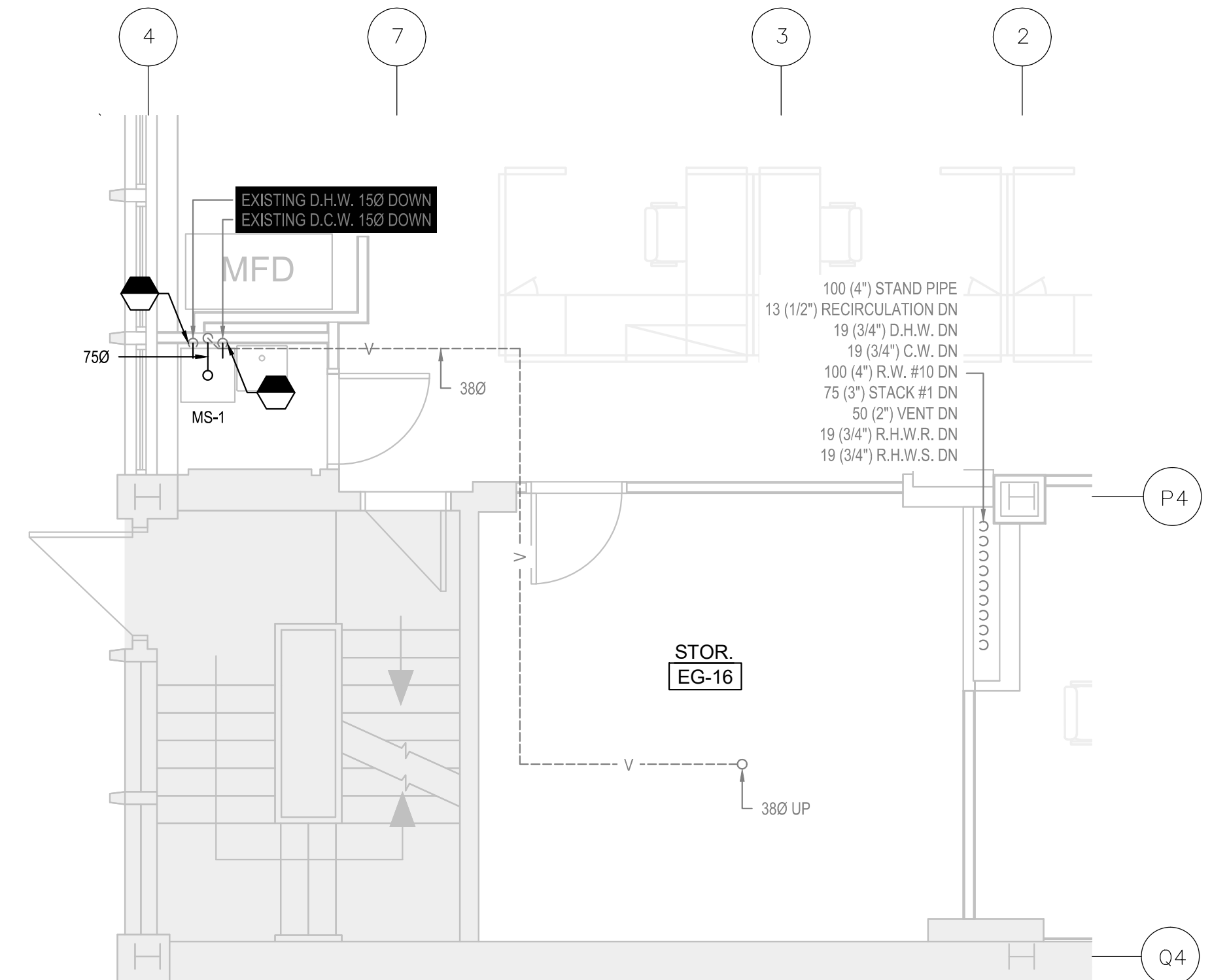
BASEMENT - DEMOLITION
SCALE: 1:50



FIRST FLOOR - DEMOLITION
SCALE: 1:50



BASEMENT - NEW WORK
SCALE: 1:50



FIRST FLOOR - NEW WORK
SCALE: 1:50

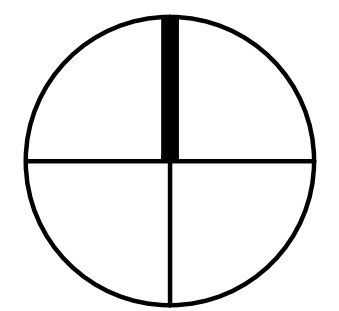
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| | C Drawing no. / dessin no. | |

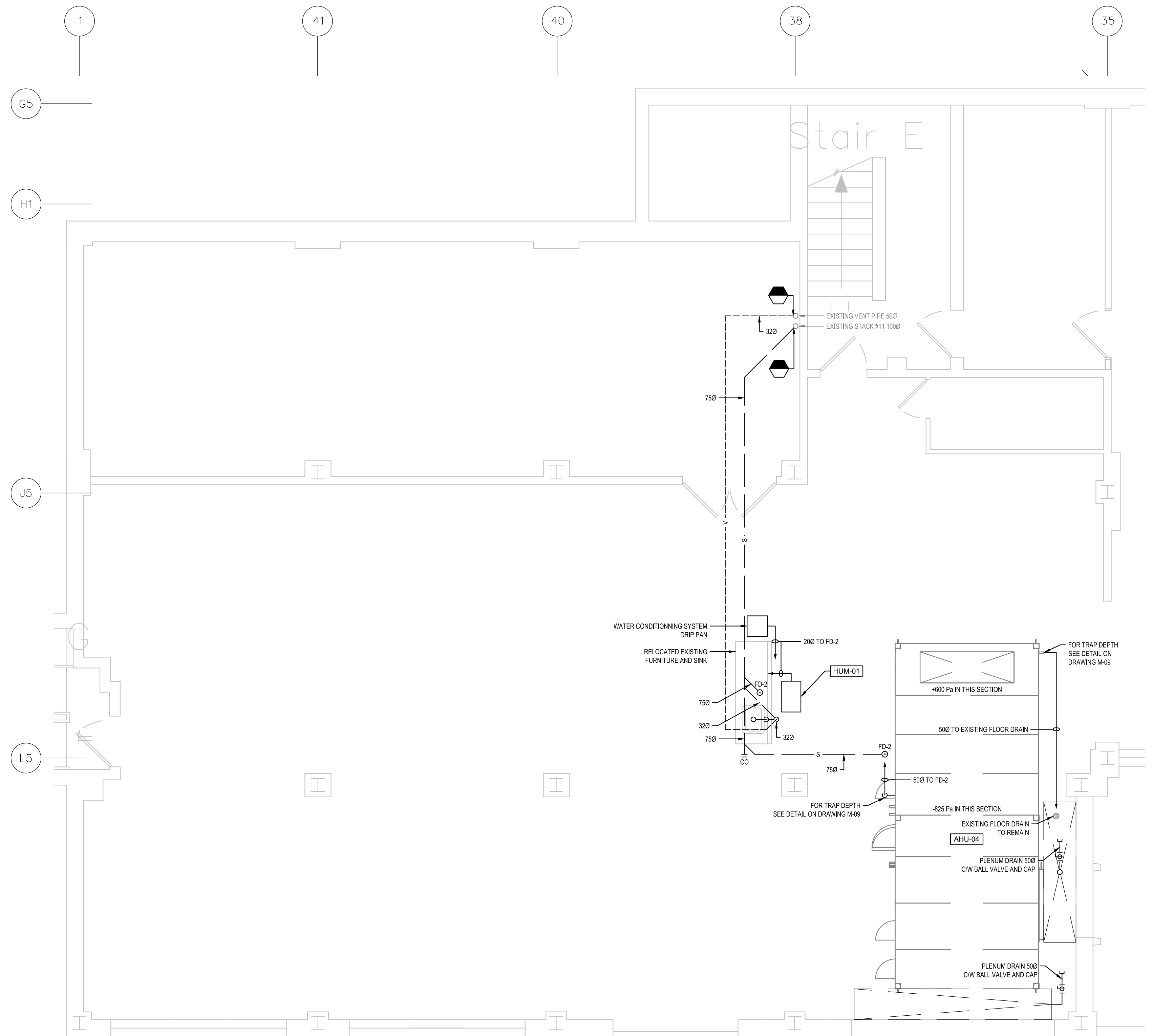
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS

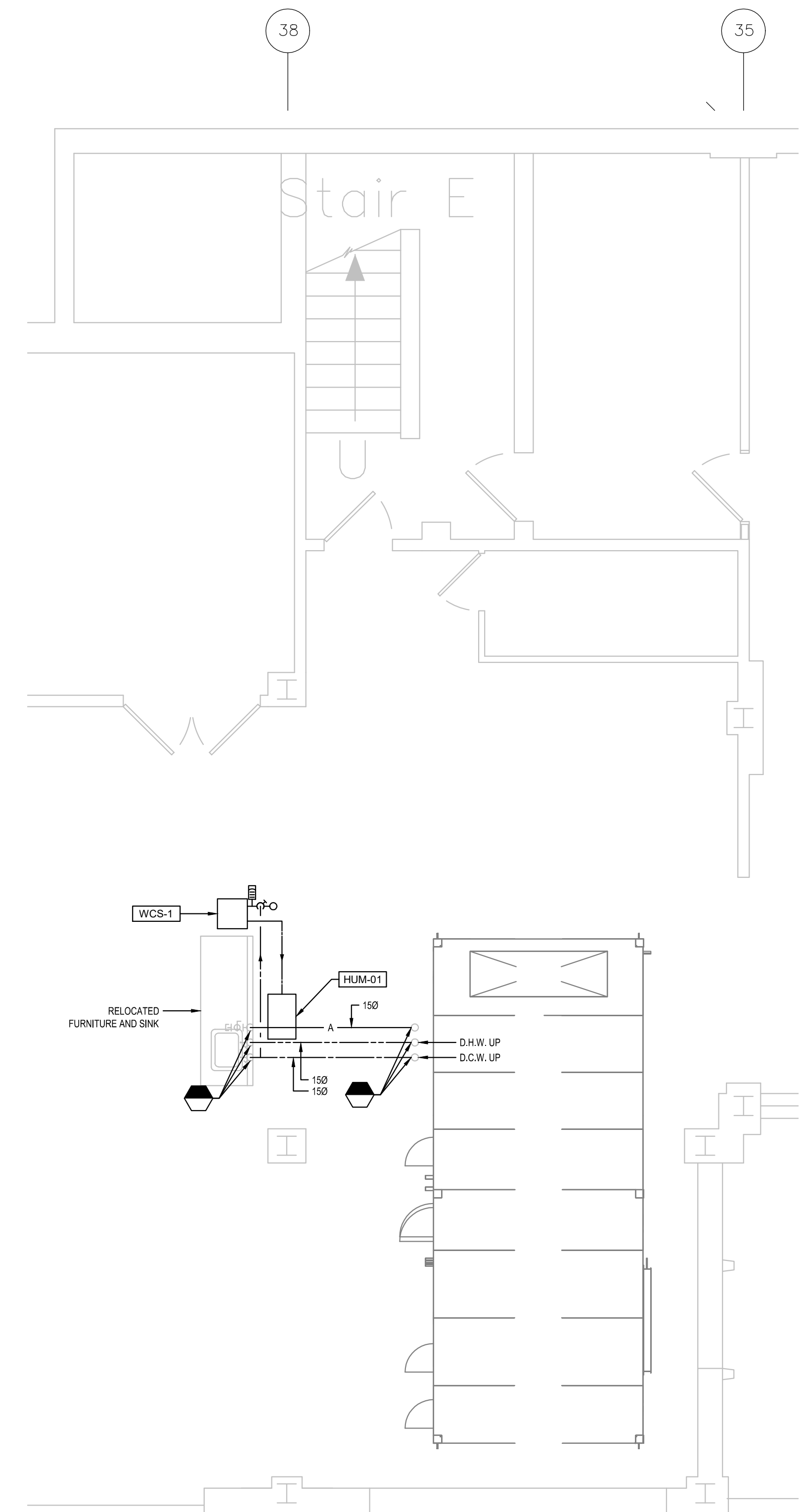
drawing: MECHANICAL - DRAINAGE AND DOMESTIC WATER GROUND FLOOR NEW WORK MECHANICAL ROOM

| | | | |
|----------|------------|---------|-----------------|
| designed | conçu | date | 04/2016 |
| drawn | dessiné | scale | 150 |
| checked | vérifié | sheet | 06 of/de 26 |
| approved | approuvé | W.O.no. | A1-009908-01-58 |
| dwg.no. | dessin no. | | |

5189-M06



DRAINAGE
SCALE: 1:50



DOMESTIC WATER
SCALE: 1:50

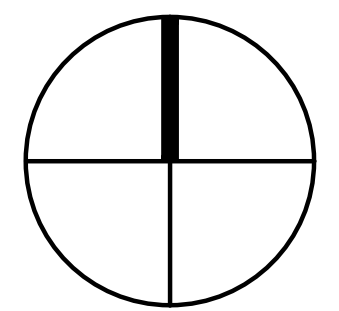
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GENERAL NOTES

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- ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH DETAILS ON DRAWINGS M09, M13 & M18.

THIS DOCUMENT MUST NOT BE USED FOR CONSTRUCTION PURPOSES

PROJECT NORTH SEAL




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 Telephone: (613) 907-7107
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 Project: 637079

| No. | Date | Revision | By: |
|-----|------------|------------|------|
| 0 | 2016-09-13 | FOR TENDER | M.L. |

Date Printed: 2016/09/16 Date imprimée:

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

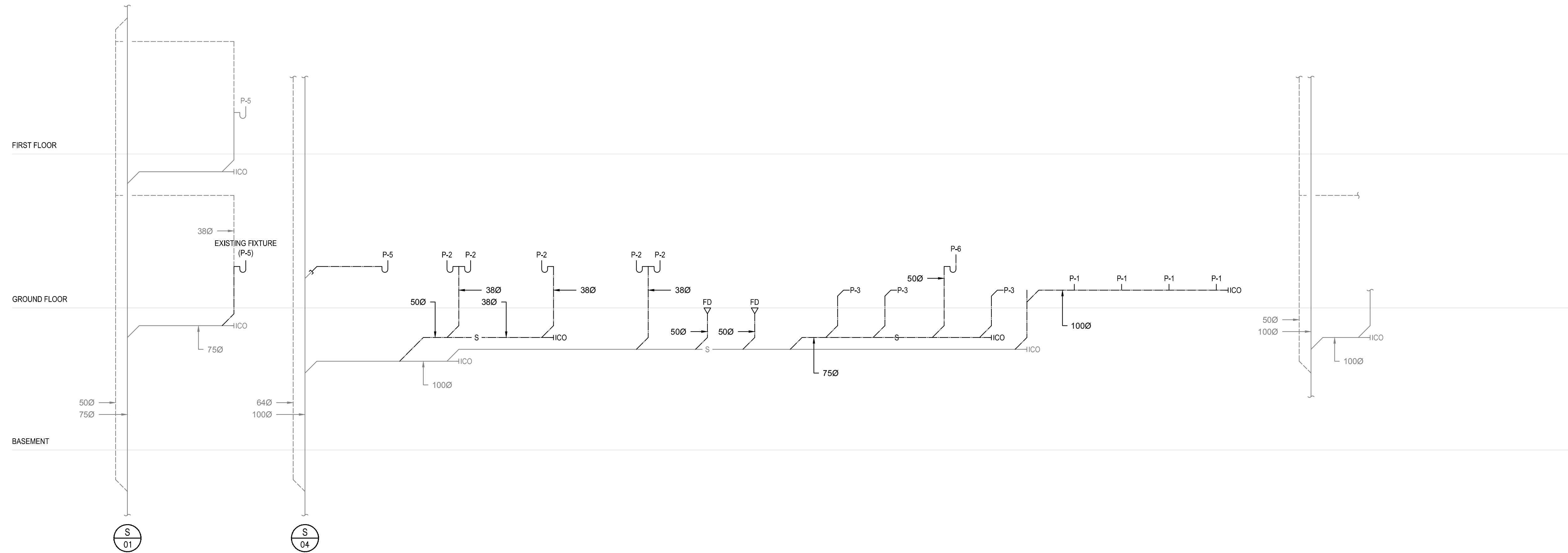
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|---|---|
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| B | B |
| C | C |

project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 MONTREAL ROAD CAMPUS

drawing: MECHANICAL - DRAINAGE DEMOLITION AND NEW WORK DIAGRAM

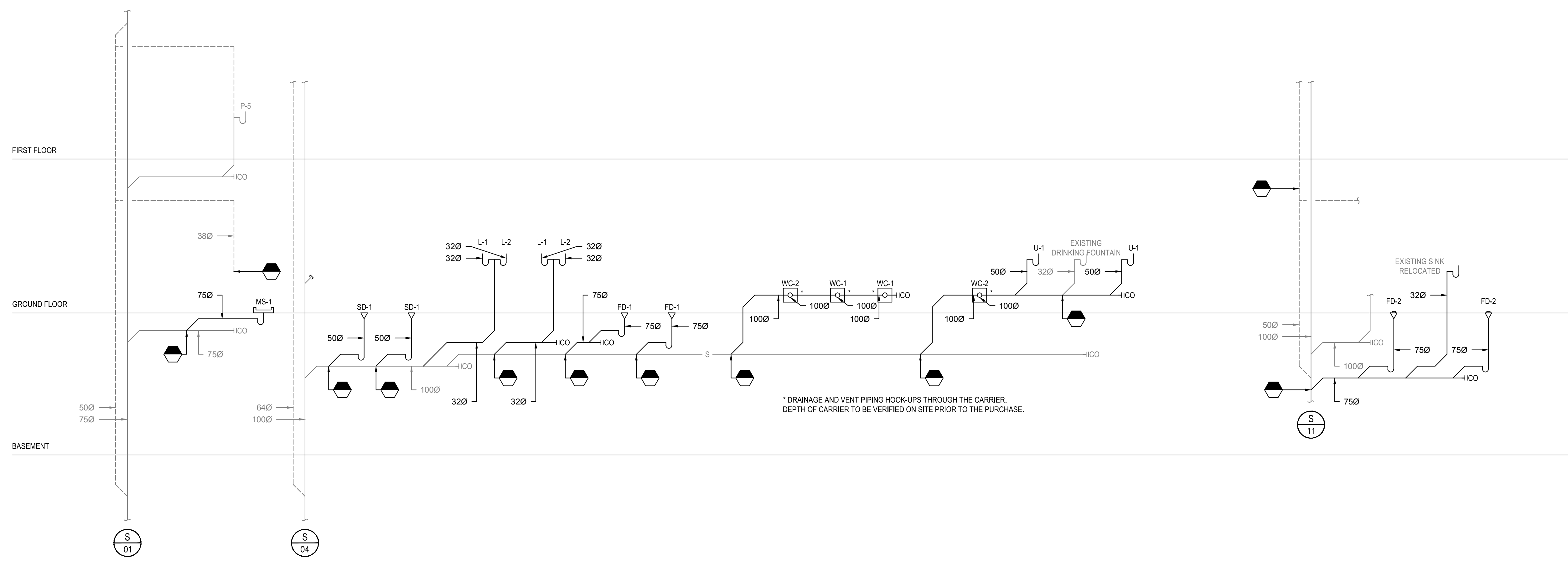
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| M.V., J.B. | | 04/2016 | |
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5189-M07



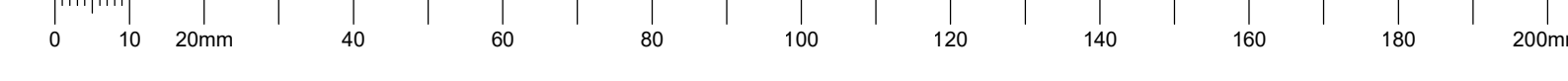
DEMOLITION

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NEW WORK

C

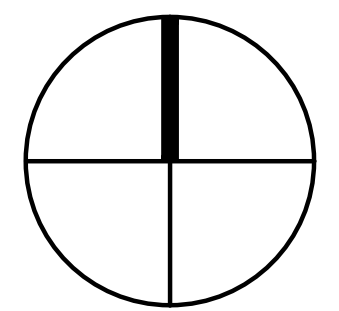


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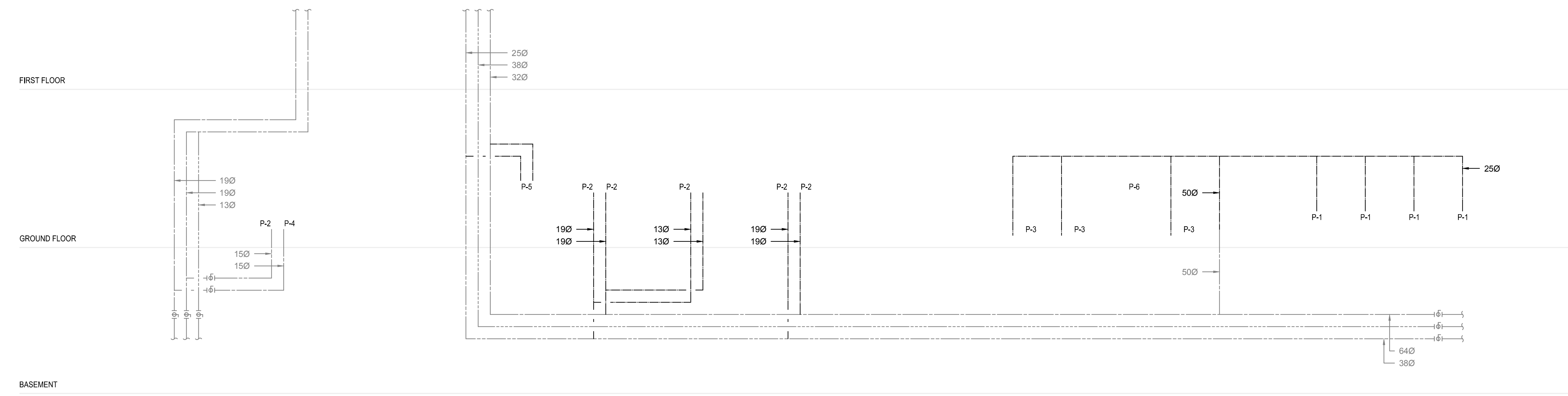
| | |
|---|-------|
| A | A |
| C | B C |

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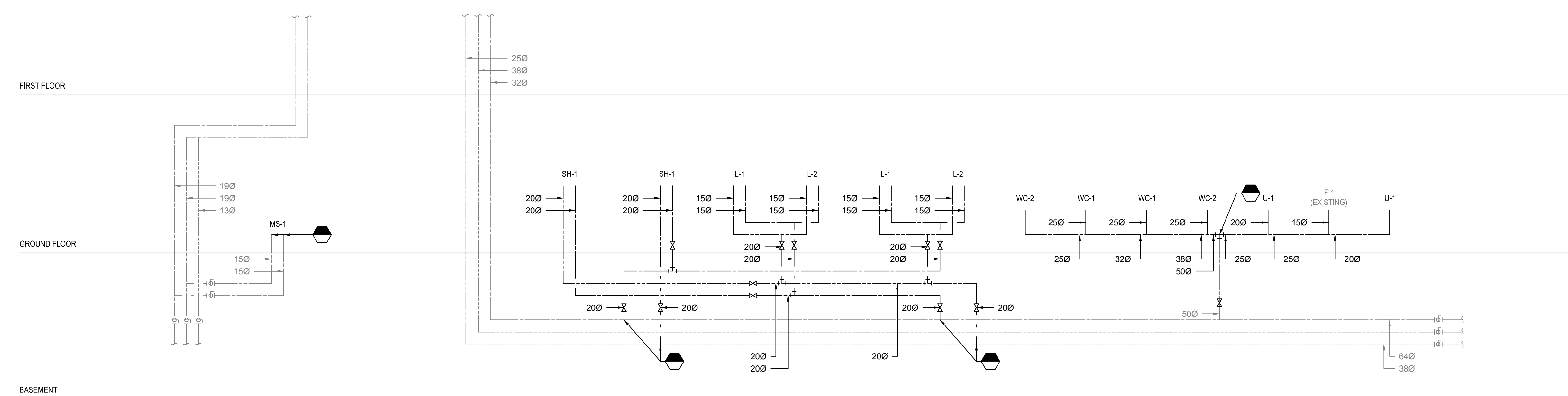
drawing: MECHANICAL - DOMESTIC WATER DEMOLITION AND NEW WORK DIAGRAM
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dwg.no. 5189-M08 dessin no.

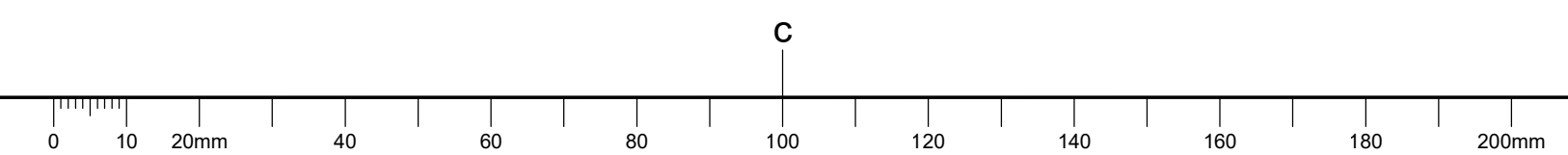


DEMOLITION



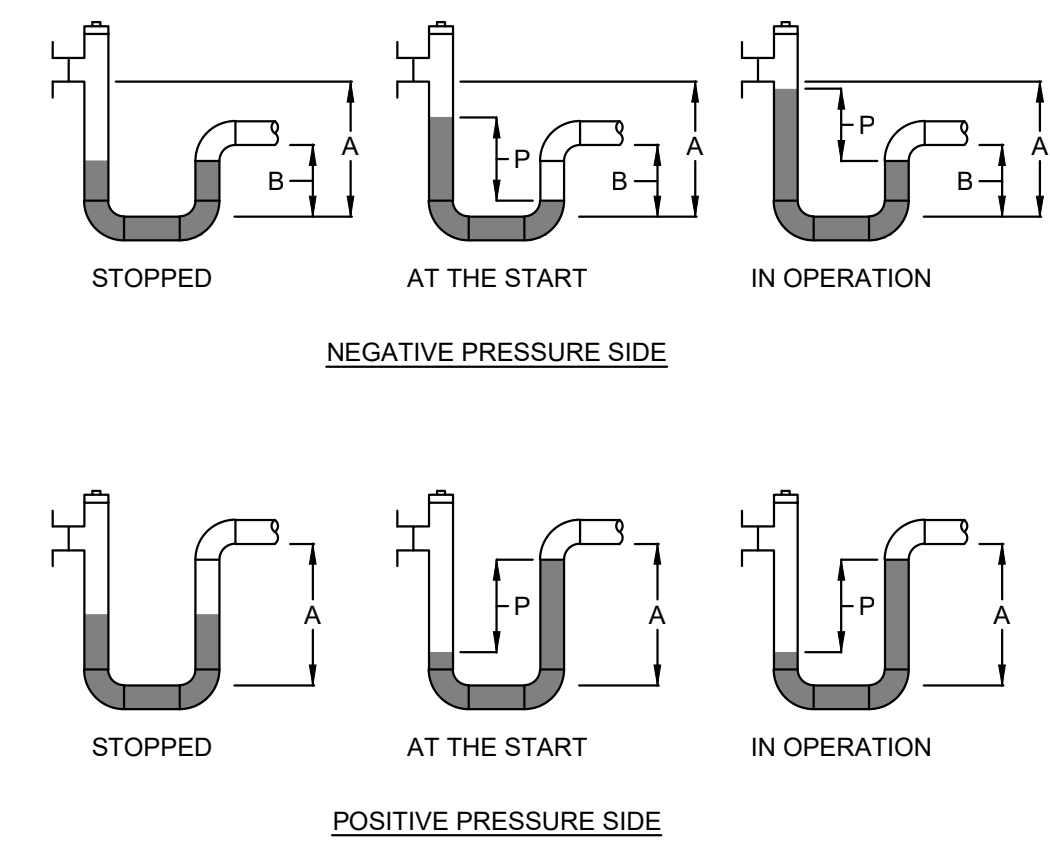
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| STATIC PRESSURE AT DRAIN CONNECTION POINT (P) | NEGATIVE PRESSURE | | POSITIVE PRESSURE |
|---|-------------------|--------------|-------------------|
| | A | B | A |
| +25 (1") | 89 (3 1/2") | 64 (2 1/2") | 75 (3") |
| +50 (2") | 125 (5") | 90 (3 5/8") | 100 (4") |
| +75 (3") | 165 (6 1/2") | 89 (3 1/2") | 125 (5") |
| +100 (4") | 200 (8") | 100 (4") | 150 (6") |
| +125 (5") | 241 (9 1/2") | 114 (4 1/2") | 175 (7") |
| +150 (6") | 276 (11") | 125 (5") | 200 (8") |
| +175 (7") | 318 (12 1/2") | 139 (5 1/2") | 225 (9") |
| +200 (8") | 350 (14") | 150 (6") | 250 (10") |
| +225 (9") | 384 (15 1/2") | 165 (6 1/2") | 275 (11") |
| +250 (10") | 480 (18") | 175 (7") | 300 (12") |

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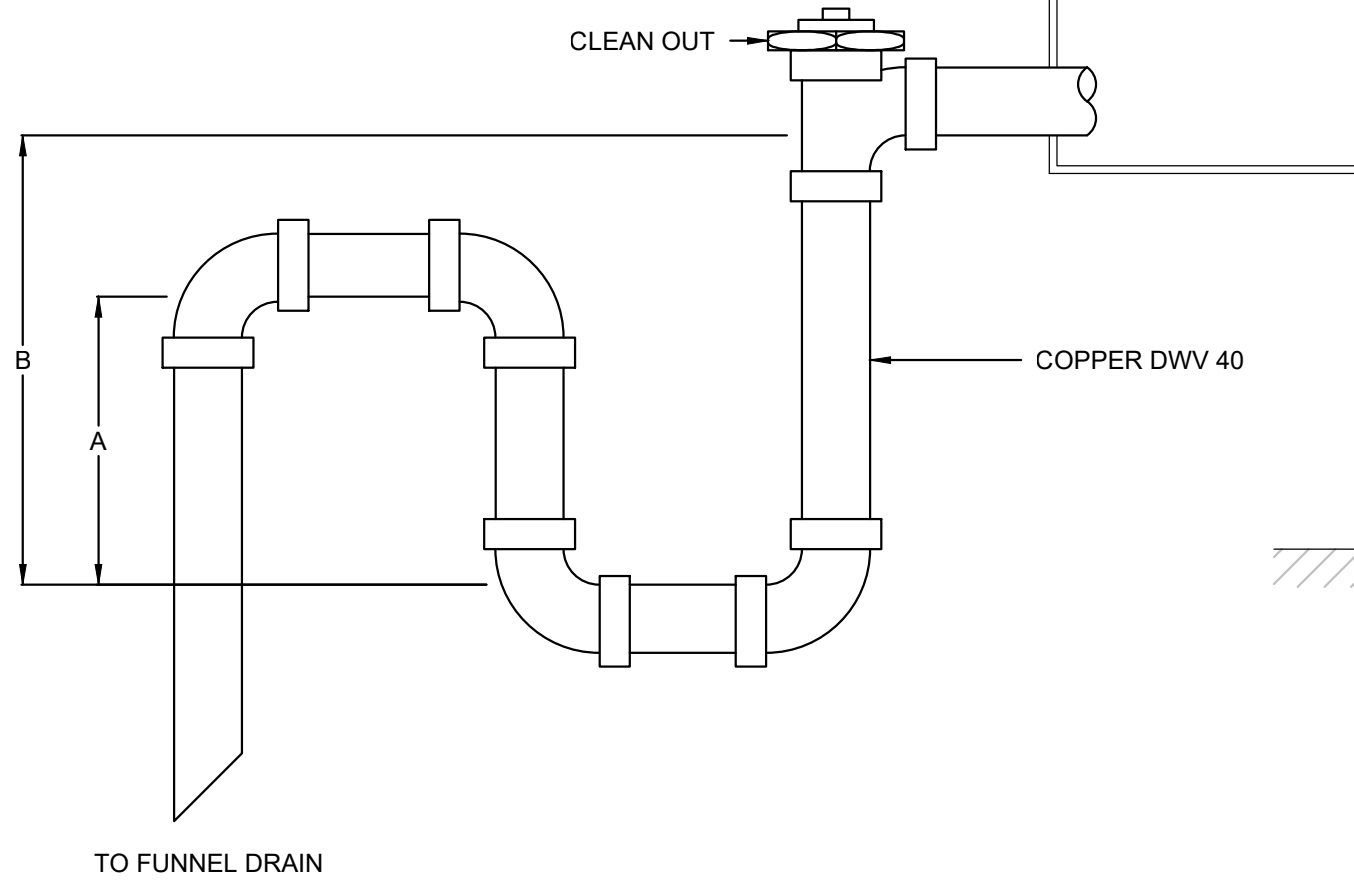
FOR UNIT AND DUCT WITH NEGATIVE PRESSURE

A = 1/2 P + 50mm
 B = 1 1/2 P + 50mm

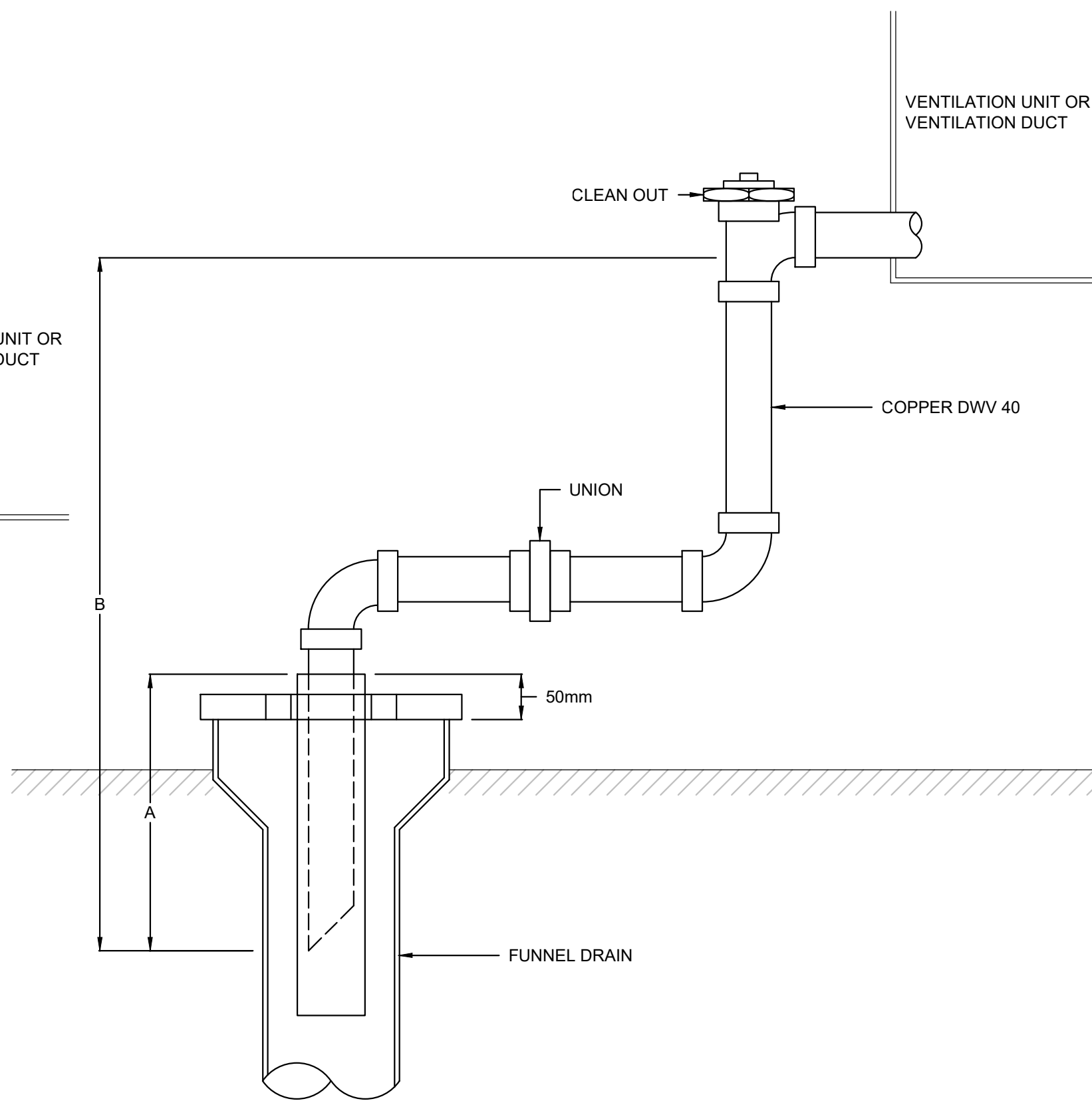
FOR UNIT AND DUCT WITH POSITIVE PRESSURE

A = B = P + 50mm

- NOTE:
- P = STATIC PRESSURE IN mm WATER (MINIMUM 50mm)
 - THE PLUMBING SECTION HAVE TO CONSULT THE VENTILATION SECTION TO KNOW THE STATIC PRESSURE



01 VENTILATION UNIT DRAINAGE - OPTION 1
 SCALE: NTS



02 VENTILATION UNIT DRAINAGE - OPTION 2
 SCALE: NTS

| EXISTING SHAFT INFORMATION FOR RE-INSULATION PURPOSE SHOWING PIPE SIZING | | | | | | | | | | | | | | | |
|--|-------------------|-----------|---------|--------|-----------|----------|----------|-----------|-----|-----|------|------|-------|-------|--|
| PUMP SHAFT LOCATION (AXIS) | DIRECTION OF FLOW | VEHICLE # | STACK # | R/WL # | R/WL SIZE | DOW SIZE | DHW SIZE | DHWR SIZE | HWS | HWR | CHWS | CHWR | DRAIN | NOTES | |
| | | | | | | | | | | | | | | | 15 |
| Q4 & 3 | UP | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| R4 & 2 | DOWN | 50 | 1 | 75 | 10 | 100 | 20 | 20 | 15 | 100 | 20 | 20 | - | - | |
| L3 & 4 | DOWN | - | - | - | - | - | - | - | - | - | - | - | - | - | + DOW & DHW TOWARDS PLUMBING FIXTURES ON THE FLOOR ABOVE |
| D & 7 | UP & DOWN | 38 | 3 | 50 | - | - | 50 | 25 | 15 | - | - | - | - | - | |
| D & 8 | UP & DOWN | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| H & 21 | UP & DOWN | - | - | - | - | - | - | - | - | - | - | - | - | - | NO SIZE INDICATIONS ON THE EXISTING DRAWINGS |
| D & 26 | UP & DOWN | - | - | - | - | - | - | - | - | - | - | - | - | - | NO SIZE INDICATIONS ON THE EXISTING DRAWINGS |
| H & 26 | UP & DOWN | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| D & 30 | UP & DOWN | 65 | 4 | 100 | 4 | 100 | 32 | 25 | 15 | - | - | - | - | - | |
| D & 38 | UP & DOWN | 50 | 11 | 100 | 11 | 100 | - | - | - | - | - | - | - | - | |

THE PIPES THAT SHOULD BE RE-INSULATED ARE THE ONE IN SHADING. THE OTHER PIPES COULD BE USED TO PROPERLY LOCATE THE SHAFTS IN COMBINATION WITH THE AXIS.

| TABLE M-02 SEWAGE PUMPED | | | | | |
|-----------------------------|----------|---------------|---------------|---|--|
| PIPING | DIAMETRE | | SPECIFICATION | DESCRIPTION | MATERIAL AND ASTM STANDARDS |
| | FROM | TO | | | |
| PIPING | 3/8 in. | 4 in. | Type «L» | No joint | ASTM B 88 rigid copper |
| ASSEMBLY | 3/8 in. | 2 in. | | Welded | Welding: 95% tin, 5% antimony, ASTM B 32 |
| FITTINGS | 3/8 in. | 4 in. | 860 kPa | Brazed type | B. 75 forged copper, ANSI B 16.22 |
| UNIONS | 3/8 in. | 2 in. | 860 kPa | Brazed type | ANSI B 16.22 brass |
| VALVES | | | | | |
| DIAMETRE | | SPECIFICATION | DESCRIPTION | | |
| FROM | TO | | | | |
| CHECK VALVE | 3/8 in. | 2 in. | 1 725 kPa | Crane F-37, Nibco T-413-BY, Milwaukee F2882 A | |
| BALL VALVE | 3/8 in. | 2 in. | 1 379 kPa | Crane F-9202, Nibco F-580-A, Milwaukee BA-250 | |
| NOTES: | | | | | |
| (1) Water pressure (W.O.G.) | | | | | |
| DESIGN | | SERVICE | TEST | | |
| PRESSURE : kPa | | 860 | 690 | 1 300 | |
| TEMP. °C | | 95 | 85 | AMBIENT | |
| PIPING AND VALVE STANDARDS | | SEWAGE PUMPED | S.I. | M-12 | |

| Table M-01 Potable Water (copper) | | | | | |
|--|---|----------|--------------------------------|---|--------------------------------|
| PIPE | DIAMETER | | SPECIFICATION (*) | DESCRIPTION | MATERIAL AND STANDARD A.S.T.M. |
| | FROM | TO | | | |
| PIPE | DN 15 | DN 50 | Hard copper Type L in bar | Aboveground piping | ASTM B88M |
| | DN 15 | DN 100 | Annealed copper Type K in roll | Buried or flooded piping | ASTM B88M |
| ASSEMBLY | DN 15 | DN 100 | Hard copper Type K in bar | Buried or flooded piping | ASTM B88M |
| FITTINGS | DN 15 | DN 100 | Copper forge | Brazing shall follow the prescription of brazing compressed air indicated in the section of the welded piping | ASTM B75 |
| | DN 15 | DN 100 | Bronze to be welded | | |
| | DN 15 | DN 100 | Bronze to be screwed | | |
| | DN 15 | DN 100 | Bronze with flange | | |
| BOLTS | Heavy stainless steel | | | | ASTM 193, grade B8 |
| MECHANICAL SEAL | Thickness : 3 mm (1/8 po) - (full face) | | | | EPDM 150 psi |
| VALVE | | DIAMETER | SPECIFICATION (1) | DESCRIPTION | |
| FROM | TO | | | | |
| GATE VALVE | DN 15 | DN 50 | Class 125 to be welded (2) | Kitz 808, Red-White 207A-LF, Nibco S1111-LF | |
| | DN 15 | DN 100 | Class 125 to be screwed | Kitz 807, Red-White 208A-LF, Nibco T111-LF | |
| BALL VALVE | DN 15 | DN 80 | Class 600 (2) | Jenkins LF201 (screw) or Jenkins LF202 (brazing), Crane LF9201 (screw) or Crane LF9202 (brazing), Nibco T 585-66-LF, Kitz 868AM, 2 pieces Full port or equivalent (2) | |
| BUTTERFLY VALVE (V) | DN 65 | + | Class 150 | «lug type» Keystone F222-788 (disc in 316SS and seat in EPDM), Nibco LD-2000-3 et-8, MAS L-D-4-S-E-LH | |
| GLOBE VALVE | DN-15 | DN 50 | Class 125 | Red-White 211A-LF, Apollo 120T-LF (2) | |
| CHECK VALVE WITH A SWING CHECK | DN 15 | DN 50 | Class 125 | Kitz 822, Red & White 236A-LF, Nibco T413Y-LF | |
| | DN 65 | + | Class 150 | Type « wafer » : Prince 810-368/315 (body and disc in 316SS et seat in EPDM) Moygro W15A-16V | |
| STRAINER | DN 15 | DN 50 | + | Muller Steam LF351, Watts LF777, Wilkins SXL | |
| NOTES: | | | | | |
| (1) The class indicated is the minimum to meet | | | | | |
| (2) Operating elements for butterfly type : DN 150 and below with lever, more than DN 150 with gears | | | | | |
| (3) Valves up to DN25 may be welded | | | | | |
| Piping standards and valves | | | Potable water network (copper) | | |

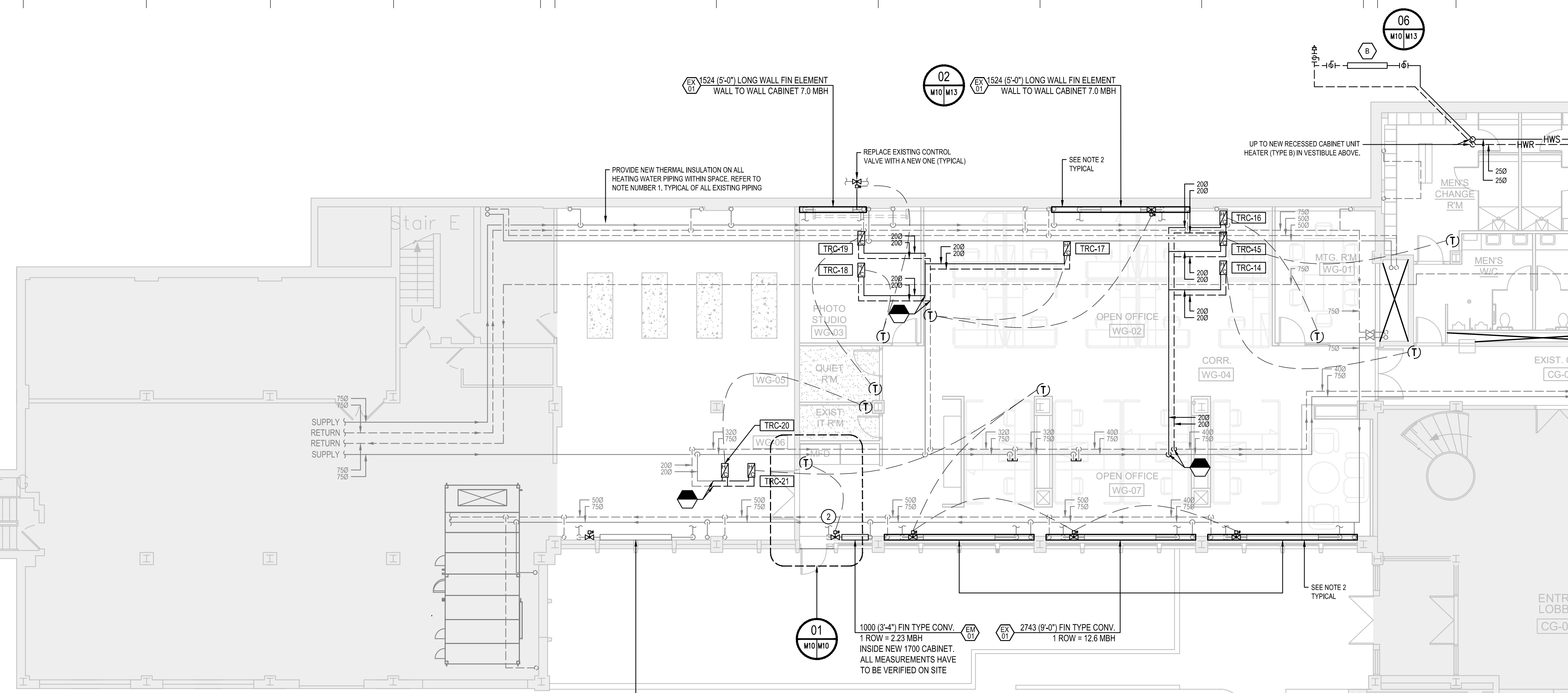
| PLUMBING FIXTURES SCHEDULE | | | | | | | | | | | |
|----------------------------|---|-----------------|---------------------|-----------------|--|--|--|--|------------------------|--------------|---|
| IDENTIF. | DESCRIPTION | CONSTRUCTION | INSTALLATION | DIMENSIONS (MM) | VALVE/ FAUCET MODEL | DRAIN MODEL | TRAP MODEL | SUPPLY PIPING | SANITARY FIXTURE MODEL | MANUFACTURER | SPECIAL NOTES |
| WC-1 | WATER CLOSET | VITREOUS CHINA | WALL HUNG | 365x628x381 H. | Z8000AV-WS1 6L/FLUSH | Z1202-N4INR4 CARRIER | - | 25mm (1") DOW | Z6515 | ZURN | VITREOUS CHINA WALL HUNG ELONGATED BOWL WITH SILVERHELD™ SURFACE (ANTIMICROBIAL FINISH), SPHONJET ACTION, 54 MM (2 1/8 IN) COMPLETELY GLAZED TRAPWAY, BACK OUTLET, 38 MM (1 1/2 IN) TOP SPUD CONNECTION, BOLT CAPS, 6 L (1.6 USG) CW SOLID PLASTIC ELOGAT |
| WC-2 | WATER CLOSET (WHEELCHAIR ACCESSIBLE) | VITREOUS CHINA | WALL HUNG | 365x628x381 H. | Z8000AV-WS1 6L/FLUSH | Z1202-N4INR4 CARRIER | - | 25mm (1") DOW | Z6515 | ZURN | VITREOUS CHINA WALL HUNG ELONGATED BOWL WITH SILVERHELD™ SURFACE (ANTIMICROBIAL FINISH), SPHONJET ACTION, 54 MM (2 1/8 IN) COMPLETELY GLAZED TRAPWAY, BACK OUTLET, 38 MM (1 1/2 IN) TOP SPUD CONNECTION, BOLT CAPS, 6 L (1.6 USG) CW SOLID PLASTIC ELOGAT |
| U-1 | URNAL | VITREOUS CHINA | WALL HUNG | 470x362x651 H. | ZEM86003AV-JS-BMS 6V/DIC 1.9L/FLUSH | - | - | 20mm (3/4") DOW | Z5755 | ZURN | SERIES Z1222 CONCEALED WALL HUNG URINAL CARRIER WITH TOP AND BOTTOM EXTRA-HEAVY DUTY ADJUSTABLE PLATE, 54MM BACK OUTLET, 19MM TOP SPUD CONNECTION, VANDAL STAINLESS STEEL STRAINER, + WHA-1 |
| L-1 | LAVATORY | VITREOUS CHINA | COUNTERTOP LAVATORY | 521X438 | Z81000-XL-17M SINGLE LEVEL FAUCET | 32mm (1 1/2") "DAISY" TY FE STRAINER DRAIN # 3TD | 32mm (1 1/2") CAST BRASS ADJUSTABLE P-TRAP Z8700-8-PC-BD | 15mm (5/8") DOW & DHW | Z5114 | ZURN | 5.7 L/MIN. ZH8824X-LKQ-PCZ28952-58 (2), LAVATORY EXTRA HEAVY DUTY QUARTER TURN STOPS, LOW LEAD DN 15 (1/2") COMP. X 10 (3/8") COMP., LOOSEKEY, FLANGE CHROME PLATED FINISH, WITH CONVERTER CAPABLE TO SUPPLYING 8 FLOOR |
| L-2 | LAVATORY (WHEELCHAIR ACCESSIBLE) | VITREOUS CHINA | COUNTERTOP LAVATORY | 521X438 | Z8915XL-CMB-K HARDWIPED ELECTRONIC SENSOR FAUCET | 32mm (1 1/2") "DAISY" TY FE STRAINER OFFSET DRAIN # 3TDW/C | 32mm (1 1/2") CAST BRASS ADJUSTABLE P-TRAP Z8700-8-PC-BD | 15mm (5/8") DOW & DHW + THERMOSTATIC MIXING VALVE 12-ZW1070X-L-C | Z5134 | ZURN | 3.8 L/MIN. ZH8824X-LKQ-PCZ28952-58 (2) LAVATORY EXTRA HEAVY DUTY QUARTER TURN STOPS, LOW LEAD DN 15 (1/2") COMP. X 10 (3/8") COMP., LOOSEKEY, FLANGE CHROME PLATED FINISH, WITH CONVERTER CAPABLE TO SUPPLYING 8 FLOOR |
| S-1 | DOUBLE BOWL SINK | STAINLESS STEEL | COUNTERTOP | 791x524x203 H. | SINGLE LEVEL FAUCET GROHE 31-353-000 CW SIDE SPRAY | - | 38MM (1 1/2") CAST BRASS PA-TRAP #1227 | 15mm (5/8") DOW & DHW | 2007B-SH | NOVANN | 9.5 L/MIN. ZH8824X-LKQ-PCZ28952-58 (2), BACK LEDGE, TY PE 301, 20 GAUGE, SATIN FINISH, SQUARE DECORATIVE PANEL, RIM SEAL, PRE-INSTALLED, INSTALLATION KIT, 89 MM (3 1/2 IN) REAR CENTERED CRUMB CLIP/DRAIN ASSEMBLY, PRE-DRILLED 3 HOLES AT 203 MM (8 IN) SPACING, + WITH STAINLESS STEEL MOPHANGER STAINLESS STEEL 1 PANEL WALL GUARD, REINFORCED HOSE |
| MS-1 | MOP SINK | STAINLESS STEEL | ON FLOOR | 610x610x254 H. | Z843M-XL | Z1996-SDL | - | 15mm (5/8") DOW & DHW | EV2424-P | CAN-AQUA | SINGLE HANDLE PRESSURE BALANCING MIXING SHOWER UNIT, CERAMIC DISC CARTRIDGE, ROTATION FROM COLD TO HOT, HIGH TEMPERATURE LIMIT STOP, COLOR-CODED INDICATOR, COMBINED SERVICE STOPS/CHECK STOPS, COMPLETE WITH 9.5 L (2.5 USG) ABS (S1 STANDARD) SHOWERHEAD. |
| SH-1 | SHOWER UNIT | CAST BRASS | WALL MOUNTED | - | Z7301-SSC-MT | - | - | 15mm (5/8") DOW & DHW | - | ZURN | CAST IRON FLOOR DRAIN WITH A 165 MM (6 1/2 IN) IN DIAM. BODY WITH A 100 MM (4 IN) IN DIAM. THREADED THROAT TO RECEIVE ADJUSTABLE 127 MM (5 IN) IN DIAM. ADJUSTABLE ROUND STRAINER COMBINED WITH 3 MM (1/8 IN) ROUND POLISHED NICKEL BRONZE REGULAR TRAFFIC GRATE |
| SD-1 | SHOWER DRAIN | CAST IRON | - | 75 mm | - | ZN211-B5 | - | - | - | ZURN | CAST IRON FLOOR DRAIN WITH A 165 MM (6 1/2 IN) IN DIAM. BODY WITH A 100 MM (4 IN) IN DIAM. THREADED THROAT TO RECEIVE ADJUSTABLE 127 MM (5 IN) IN DIAM. ADJUSTABLE ROUND STRAINER COMBINED WITH A 83 X 197mm OVAL POLISHED NICKEL BRONZE FUNNEL |
| FD-1 | FLOOR DRAIN | CAST IRON | - | 75 mm | - | ZN211-BF | - | - | - | ZURN | CAST IRON FLOOR DRAIN WITH A 165 MM (6 1/2 IN) IN DIAM. BODY WITH A 100 MM (4 IN) IN DIAM. THREADED THROAT TO RECEIVE ADJUSTABLE 127 MM (5 IN) IN DIAM. ADJUSTABLE ROUND STRAINER COMBINED WITH A 83 X 197mm OVAL POLISHED NICKEL BRONZE FUNNEL |
| FD-2 | FUNNEL DRAIN | CAST IRON | - | 75 mm | - | ZN211-BF | - | - | - | ZURN | CAST IRON FLOOR DRAIN WITH A 165 MM (6 1/2 IN) IN DIAM. BODY WITH A 100 MM (4 IN) IN DIAM. THREADED THROAT TO RECEIVE ADJUSTABLE 127 MM (5 IN) IN DIAM. ADJUSTABLE ROUND STRAINER COMBINED WITH A 83 X 197mm OVAL POLISHED NICKEL BRONZE FUNNEL |
| WHA-1 | WATER HAMMER ARRESTOR | COP | - | - | - | - | - | FROM 15mm TO 25 mm | - | SILOUX-CHEF | MODEL# 656-E PROVIDE AND INSTALL A MM BALL VALVE WITH IT. |
| WCS-1 | WATER CONDITIONNING SYSTEM FOR THE HUMIDIFIER | - | - | - | - | - | - | 15mm (5/8") DOW | HCS-2000 | MAG-O-PURE | CW 5 SEDIMENT SPARE CARTRIDGES #CS-10 AND 1 KDC SPARE CARTRIDGE AND DRIP PAN |

| HYDRONIC PUMPS | | | | | | | | | | | | | | | | | | | |
|----------------|----------|---------------------------------|--------------------|------|------|-------------|--------|-------|-----------------------|-------|-----|------------------|------|------------|---------------|-----------------|---------------|-----|---|
| SYSTEM | IDENTIF. | LOCATION | EMERGENCY / NORMAL | FLOW | | DESIGN HEAD | | FLUID | CONFIGURATION CONTROL | MOTOR | | | | PUMP MODEL | MANUFACTURER | WEIGHT KG / LBS | SPECIAL NOTES | | |
| | | | | L/S | GPM | PSIG | FT/H2O | | | HP | BHP | VOLT. / PH. / C. | AMP. | | | | | RFM | STARTER |
| AHU-04 | HCP-01 | MECHANICAL ROOM | NORMAL | 1.4 | 22.5 | 4.8 | 11 | WATER | - | 1/4 | - | 120/1/60 | - | MANJAL | VR3452-FC-A01 | TACO | 3,7649 | 8.3 | GW CONTROL PANEL ON THE PUMP HEAD AND COMMUNICATION MODULE FOR REMOTE ON/OFF COMMAND THROUGH THE BAS |
| SINK PUMP | SP-1 | BASEMENT UNDER THE KITCHEN SINK | NORMAL | 1.7 | 27 | 4.3 | 10 | WATER | - | 1/4 | - | 120/1/60 | - | MANJAL | FP051800LTS | FLOTEC | 8,1647 | 18 | ADJUSTABLE ROUND STRAINER COMBINED WITH A HIGH LEVEL ALARM MUST BE SUPPLIED/INSTALLED BY THE CONTROL TRADES |

C

1 41 40 38 36 35 34 33 32 31 30 26 25

G5
H1
J5
L5



GENERAL NOTES:

1. THE REMOVAL OF THE ASBESTOS INSULATION OVER THE SUPPLY AND RETURN HEATING PIPES WILL BE PERFORMED BY A CONTRACTOR SPECIALIZED IN THAT TRADE AND IS NOT PART OF THIS CONTRACT. THIS CONTRACTOR SHALL SUPPLY AND INSTALL NEW INSULATION OVER ALL THE SUPPLY AND RETURN HEATING PIPES LOCATED INSIDE THE REDEVELOPPED SPACE. UNDERNEATH THE GROUND FLOOR WHERE FIN TYPE CABINET AND CABINET UNIT HEATER ARE CONNECTED AND INSIDE THE MECHANICAL ROOM.
2. SUPPLY AND INSTALL BRAND NEW WALL TO WALL CABINET OF THE SAME TYPE AS THE EXISTING OVER THE EXISTING HEATING ELEMENTS. PROVIDE EASILY REMOVABLE ACCESS SECTIONS FOR EVERY VALVES AND AIR VENT. ALL CABINETS MUST BE MEASURED ON SITE.

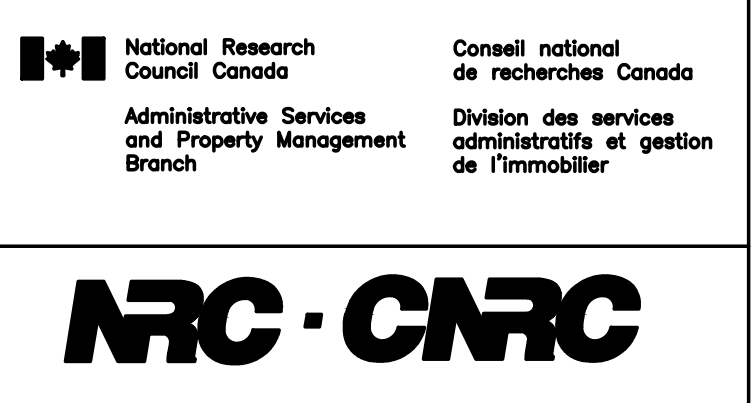
NOTES:

- 1 NEW DROP CONNECT ON THE SUPPLY PIPING AT THE LEVEL BELOW
- 2 NEW DROP CONNECT ON THE RETURN PIPING AT THE LEVEL BELOW

HEATING EQUIPMENT CHART

- EXISTING: EXISTING FIN TYPE CONVECTOR. EXISTING INFORMATION SHOWN ON DRAWINGS. TYPE 1 OR TYPE 2
- EXISTING TO RELOCATE: EXISTING ELEMENT TO RELOCATE AND RECONNECT TO THE EXISTING PIPING. A NEW CONTROL VALVE AND DROP MAY BE REQUIRED. SEE DRAWINGS. TYPE 1 OR TYPE 2
- EXISTING TO MODIFY: NEW HEATING ELEMENT. SAME FIN / METER. FIN SIZE. PIPE SIZE. MATERIAL AS EXISTING INSTALLED IN THE NEW CABINET. TYPE 1 OR TYPE 2
- NEW: NEW HEATING ELEMENT AND CABINET. 4.6 MBH / METER (1.4 MBH / FEET) TYPE 1 OR TYPE 2
- CABINET UNIT HEATER. ENGINEERED AIR MODEL CUH-8. ARRANGEMENT #26 CW HANGING ANGLES. NOMINAL CAPACITY 51.21 MBH (15 KW) AT 170°F (76.6°C) EWT. 20°F (11°C) ΔT

FOR CONTINUATION SEE DRAWING M11

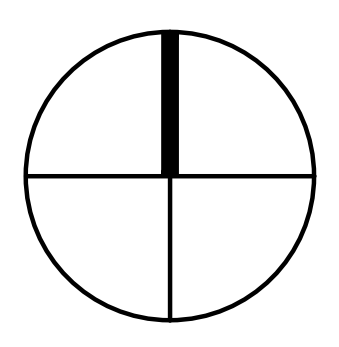


GENERAL NOTES

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- PREVENT THE SPREAD OF DUST & DEBRIS BEYOND THE WORK AREA AND CLEAN ALL SURFACES AT COMPLETION.
- MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
- COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
- PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS AND SPECIFICATIONS.
- ALL LOW VOLTAGE WIRING SHALL BE IN EMT CONDUIT, UNLESS OTHERWISE NOTED.
- MECHANICAL CONTRACTOR SHALL PROVIDE VENTING TO ALL FIXTURES AS PER NATIONAL BUILDING AND PLUMBING CODE.
- ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH DETAILS ON DRAWINGS M09, M13 & M18.

THIS DOCUMENT MUST NOT BE USED FOR CONSTRUCTION PURPOSES

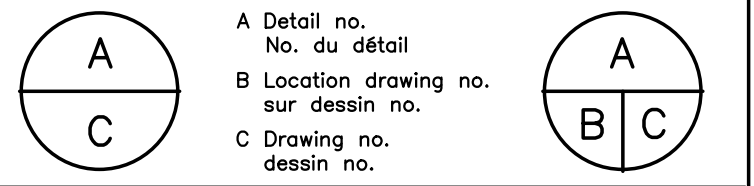
PROJECT NORTH SEAL



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Project: 637079

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| 0 | 2016-09-13 | FOR TENDER | M.L. |
| No. | Date | Revision | By: |
| Date Printed: 2016/09/16 | | | Date imprimée: |

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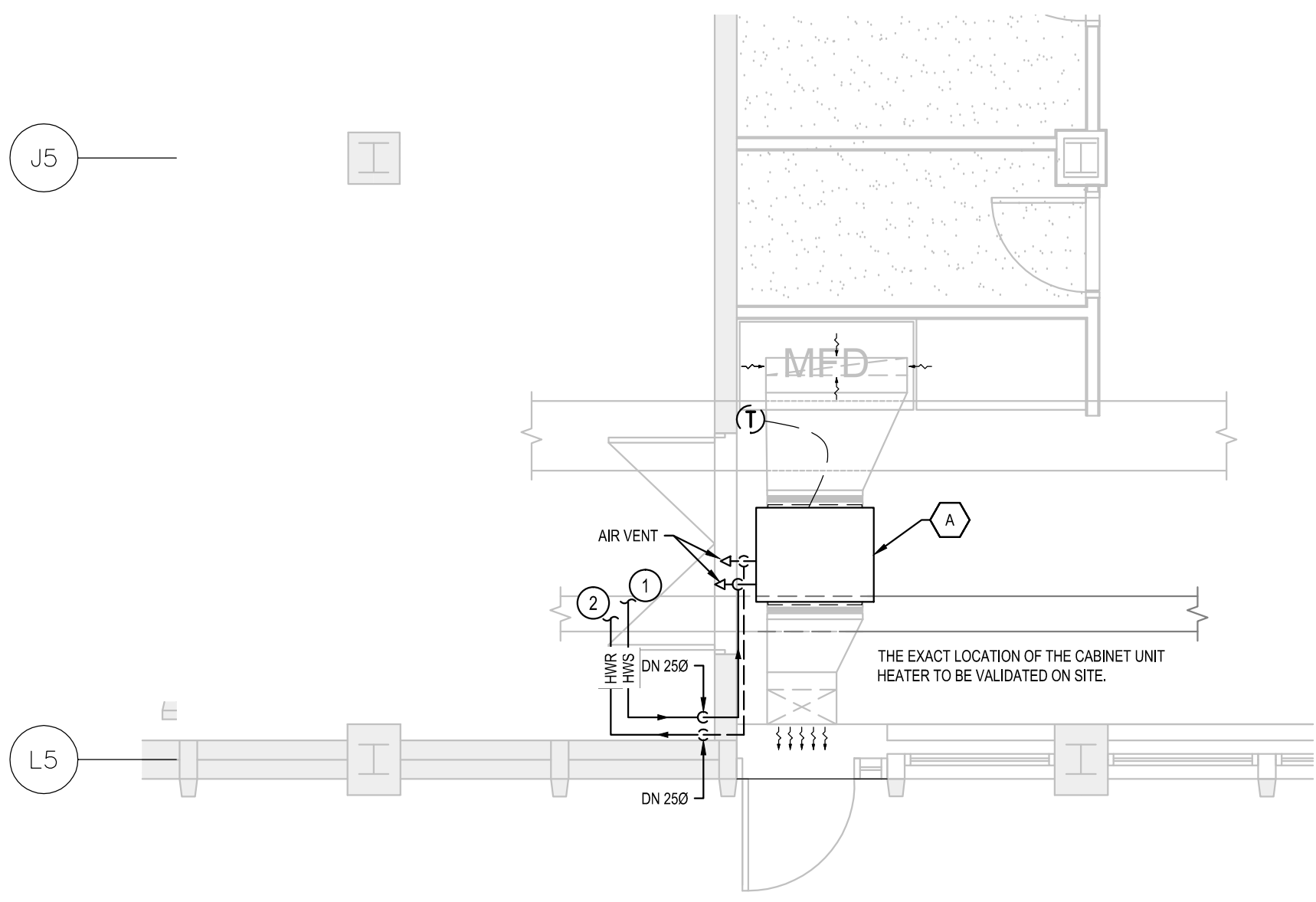
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS

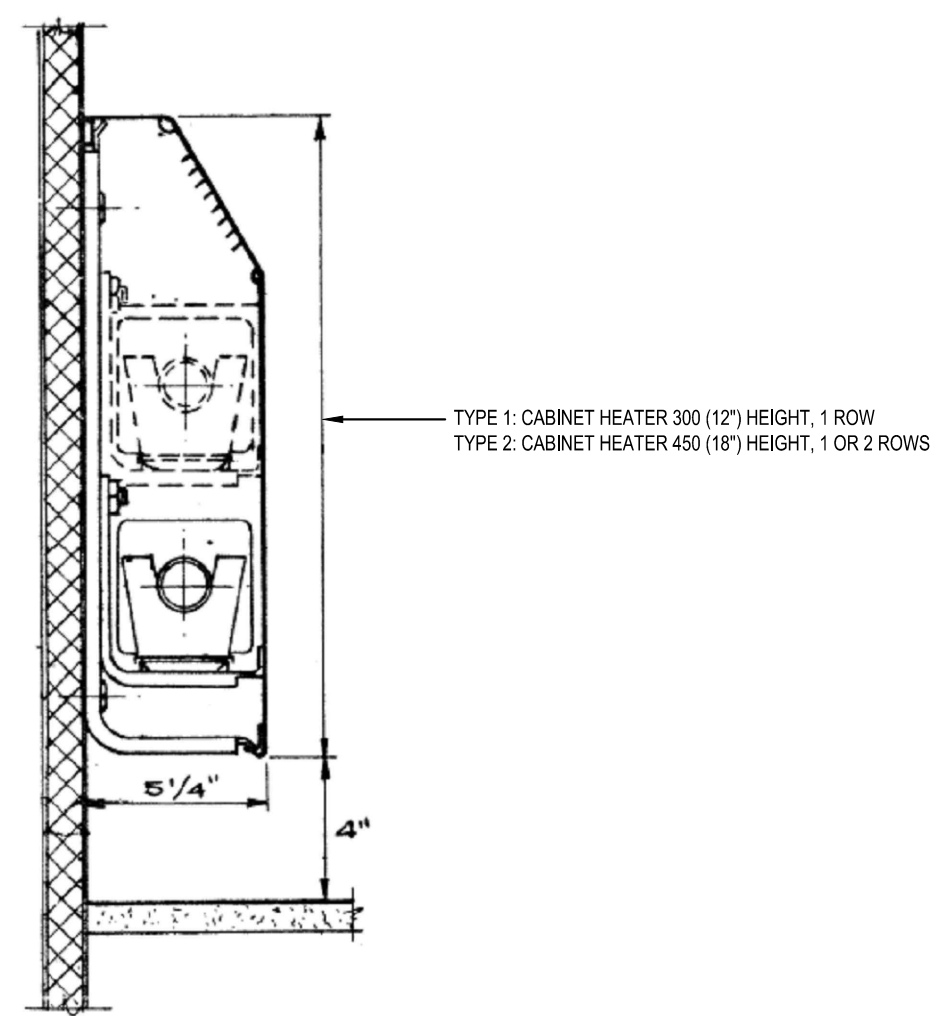
drawing: MECHANICAL - PLUMBING AND HEATING GROUND FLOOR NEW WORK PARTIAL PLAN VIEW - WEST WING

| | | | |
|------------------------|----------|-----------------|----------------|
| designed | conçu | date | 04/2016 |
| M. Van Uytfanck, tech. | | | |
| drawn | dessiné | scale | 1/100 (U.O.S.) |
| L. Lefebvre, draft. | | | |
| checked | vérifié | sheet | 10 of/ de 26 |
| M. Latouche, P. Eng. | | | |
| approved | approuvé | W.O.no. | D.T.no. |
| M. Latouche, P. Eng. | | A1-009908-01-58 | |
| dwg.no. | | dessin no. | |

5189-M10



01 CABINET UNIT HEATER - PLAN VIEW
SCALE: 1:50



02 DETAIL OF CONVECTOR
SCALE: N.T.S.

22 12 13 12 11 10 6 8 4 7 3 2 1

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- 2 NEW DROP CONNECT ON THE RETURN PIPING AT THE LEVEL BELOW

HEATING EQUIPMENT CHART

- EXISTING:**
 EXISTING FIN TYPE CONVECTOR. EXISTING INFORMATION SHOWN ON DRAWINGS.
 TYPE 1 OR TYPE 2
- EXISTING TO RELOCATE:**
 EXISTING ELEMENT TO RELOCATE AND RECONNECT TO THE EXISTING PIPING. A NEW CONTROL VALVE AND DROP MAY BE REQUIRED.
 SEE DRAWINGS
 TYPE 1 OR TYPE 2
- EXISTING TO MODIFY:**
 NEW HEATING ELEMENT. SAME FIN / METER. FIN SIZE. PIPE SIZE. MATERIAL AS EXISTING
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 TYPE 1 OR TYPE 2
- CABINET UNIT HEATER. ENGINEERED AIR MODEL CUH-8. ARRANGEMENT #26
 CW HANGING ANGLES. NOMINAL CAPACITY 51.21 MBH (15 KW) AT 170°F (76.6°C) EWT. 20°F (11°C) ΔT**

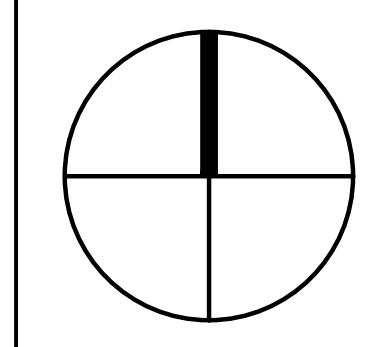


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PROJECT NORTH SEAL



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 Telephone: (613) 907-7107
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| | |
|---|---|
| A | A |
| B | B |
| C | C |

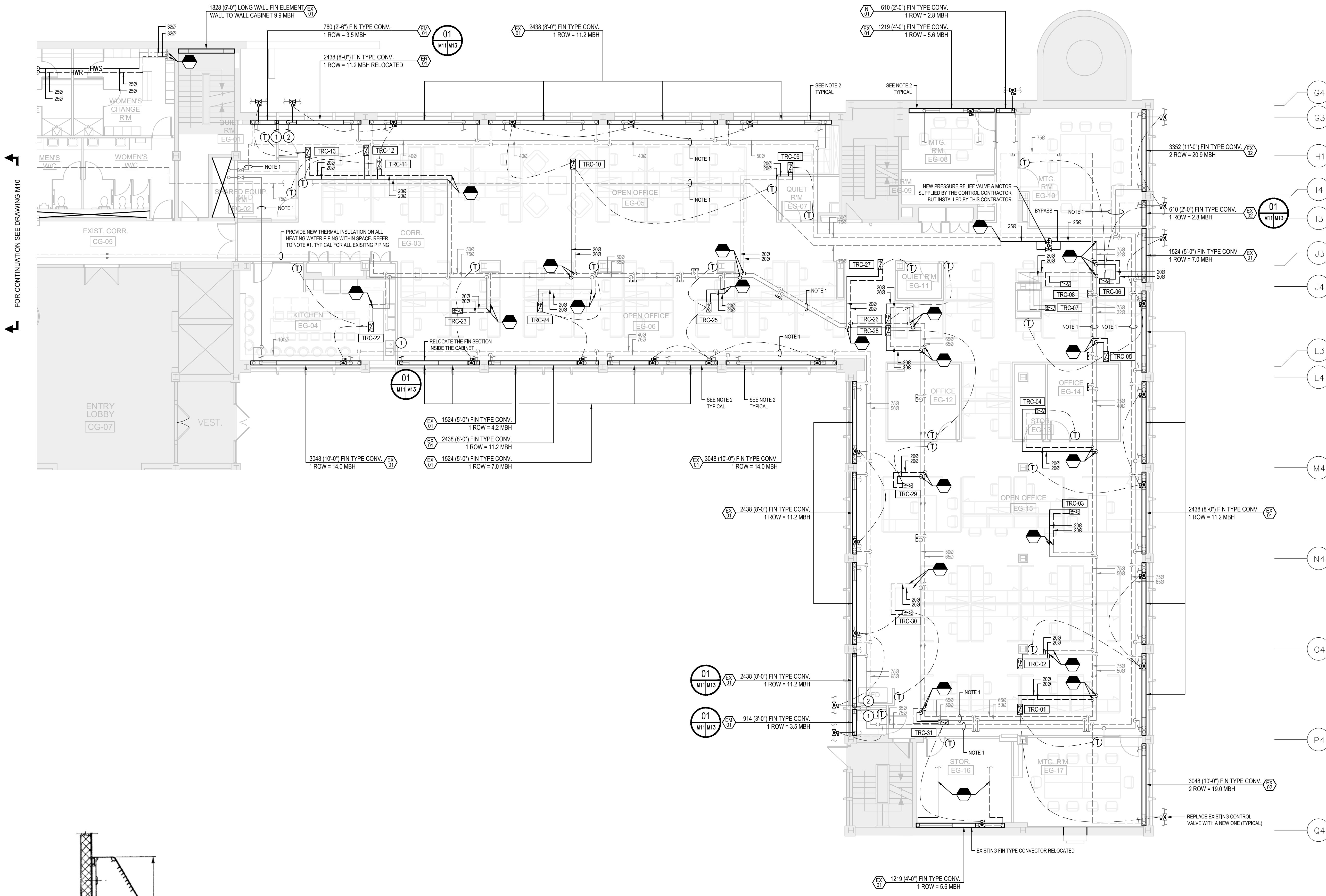
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS

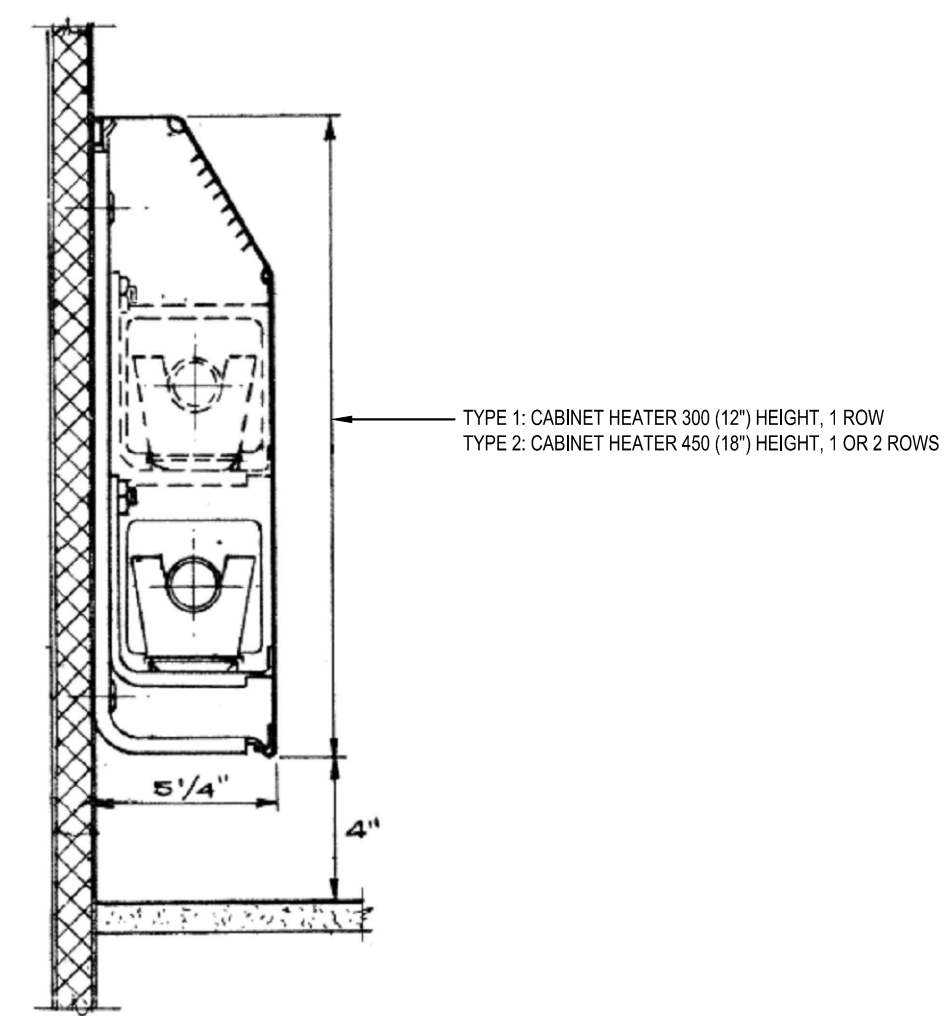
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| | | | |
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| designed | conçu | date | 04/2016 |
| drawn | dessiné | scale | 1/100 |
| checked | vérifié | sheet | 11 of/de 26 |
| approved | approuvé | W.O.no. | A1-009908-01-58 |
| dwg.no. | dessin no. | | |

5189-M11



FOR CONTINUATION SEE DRAWING M10



01 DETAIL OF CONVECTOR
 SCALE: N.T.S.

C

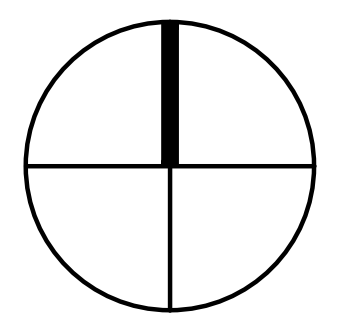
0 10 20mm 40 60 80 100 120 140 160 180 200mm

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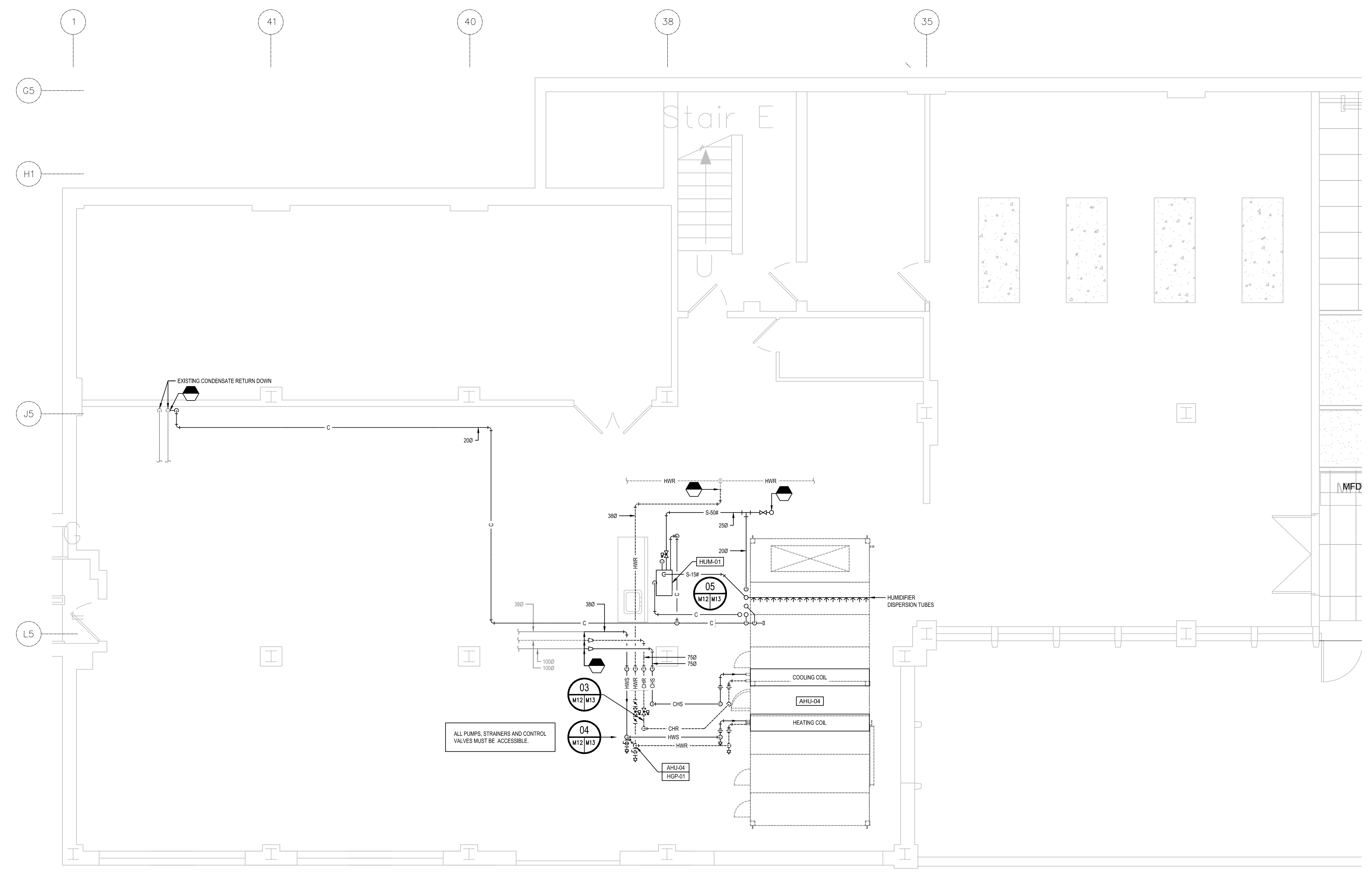
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|---|---|
| A | A |
| B | B |
| C | C |

project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 projet: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 MONTREAL ROAD CAMPUS

drawing: MECHANICAL - PLUMBING AND HEATING GROUND FLOOR NEW WORK
 dessin: MECHANICAL - PLUMBING AND HEATING GROUND FLOOR NEW WORK
 PARTIAL PLAN VIEW - MECHANICAL ROOM

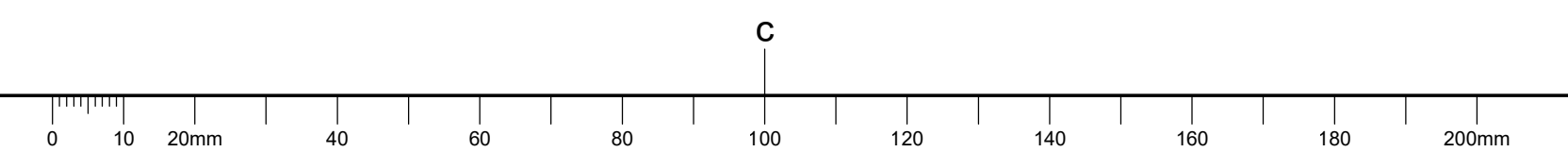
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| M.V., J.B. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| LL., A.C. | | 1:50 | |
| checked | vérifié | sheet | feuille |
| M.L., J.B. | | 12 of/ de 26 | |
| approved | approuvé | W.O.no. | D.T.no. |
| M.L., F.A. | | A1-009908-01-58 | |

dwg.no. 5189-M12 dessin no.



ALL PUMPS, STRAINERS AND CONTROL VALVES MUST BE ACCESSIBLE.

PLUMBING AND HEATING - MECHANICAL ROOM
SCALE: 1:50

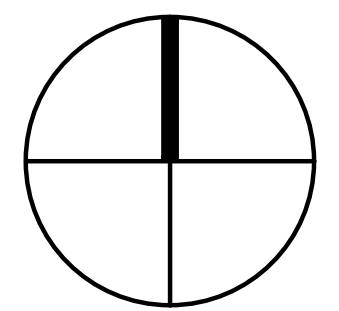


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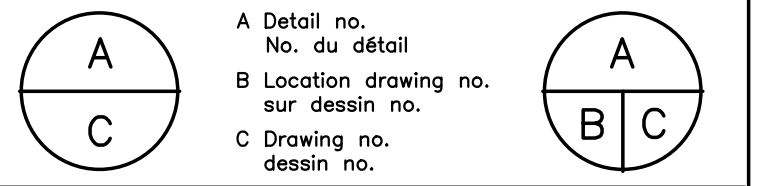
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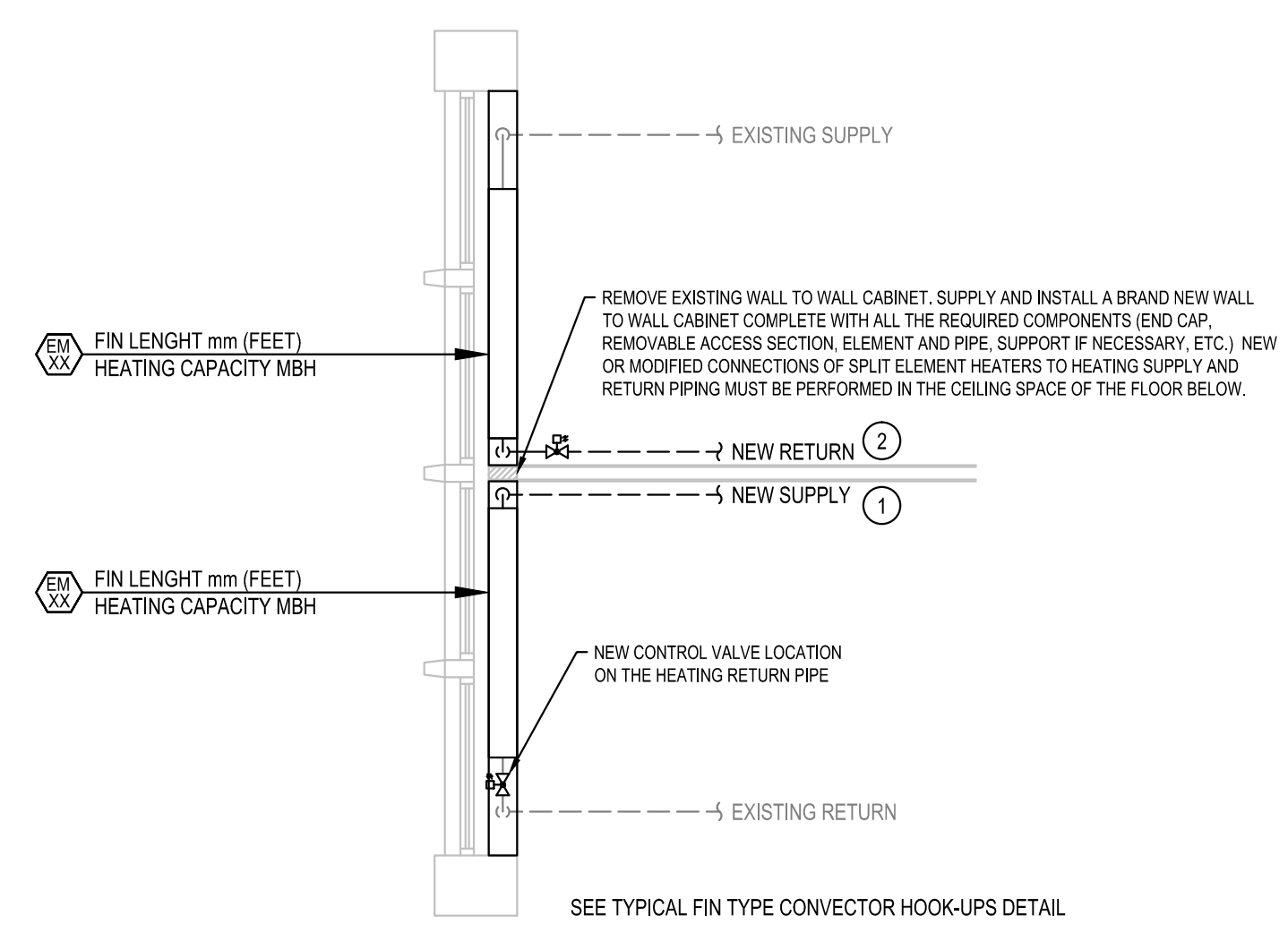
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drawing: MONTREAL ROAD CAMPUS

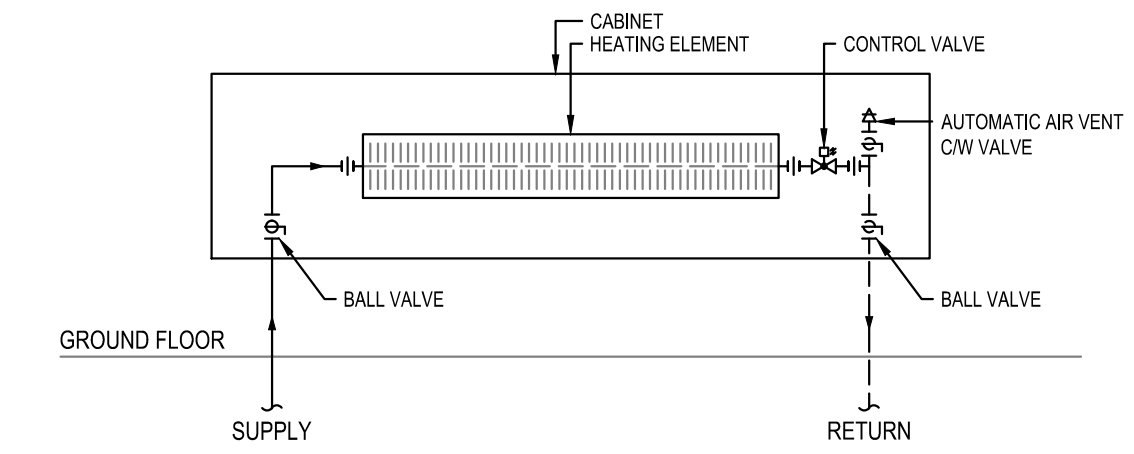
MECHANICAL PLUMBING AND HEATING DETAILS

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| M.V., J.B. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| LL., A.C. | | NTS | |
| checked | vérifié | sheet | feuille |
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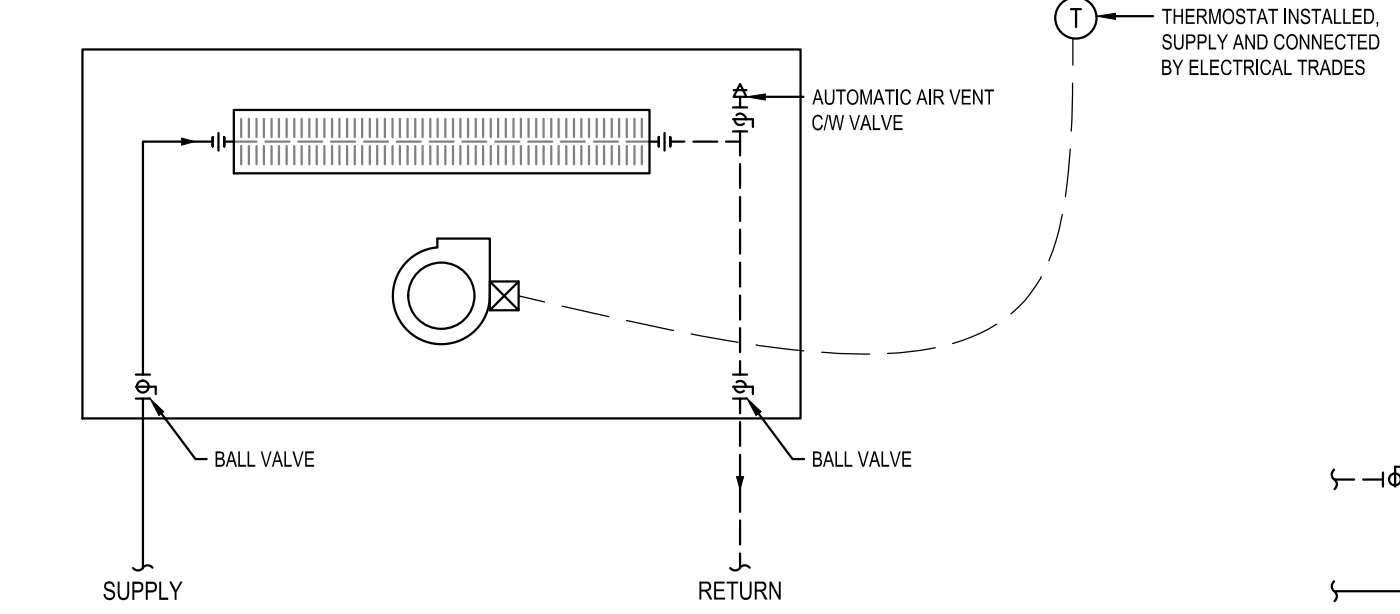
5189-M13



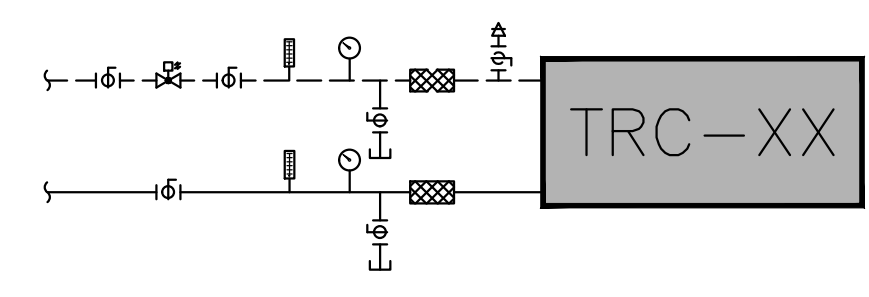
01 TYPICAL DETAIL
 WHERE A WALL SPLITS THE CABINET AND CREATES 2 SEPARATE ROOMS
 SCALE: 1:50



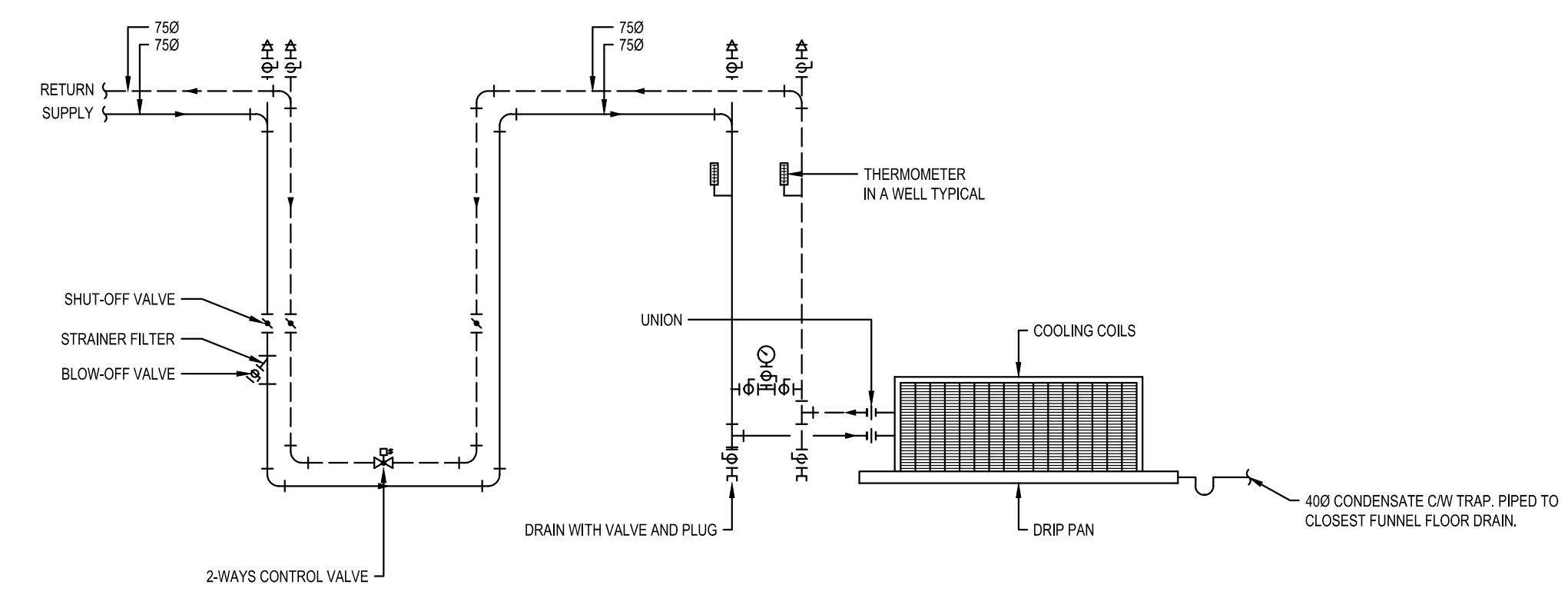
02 TYPICAL FIN TYPE CONVECTOR CONNECTION DETAIL
 SCALE: NTS



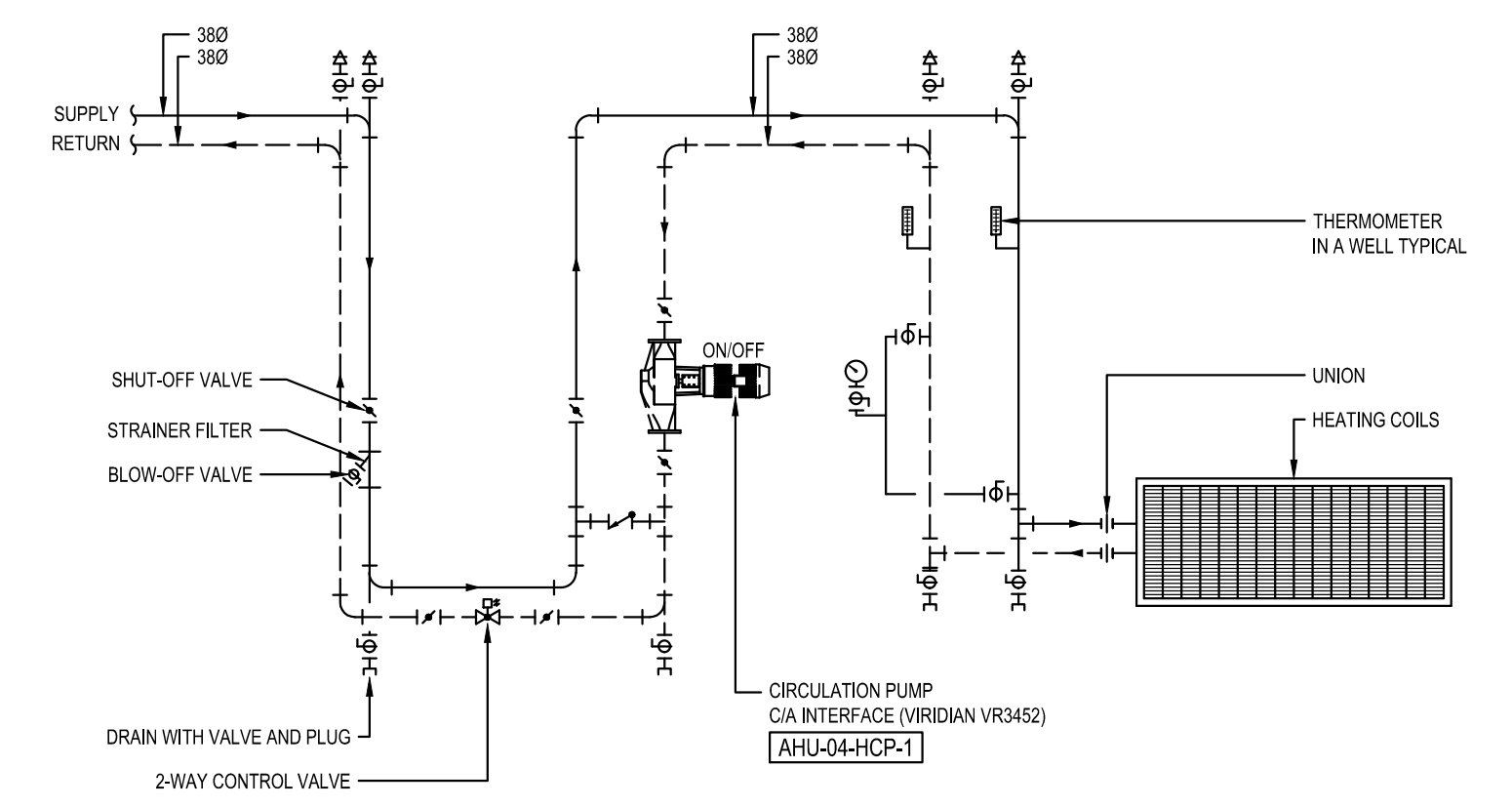
06 CABINET HEATER DETAIL
 SCALE: NTS



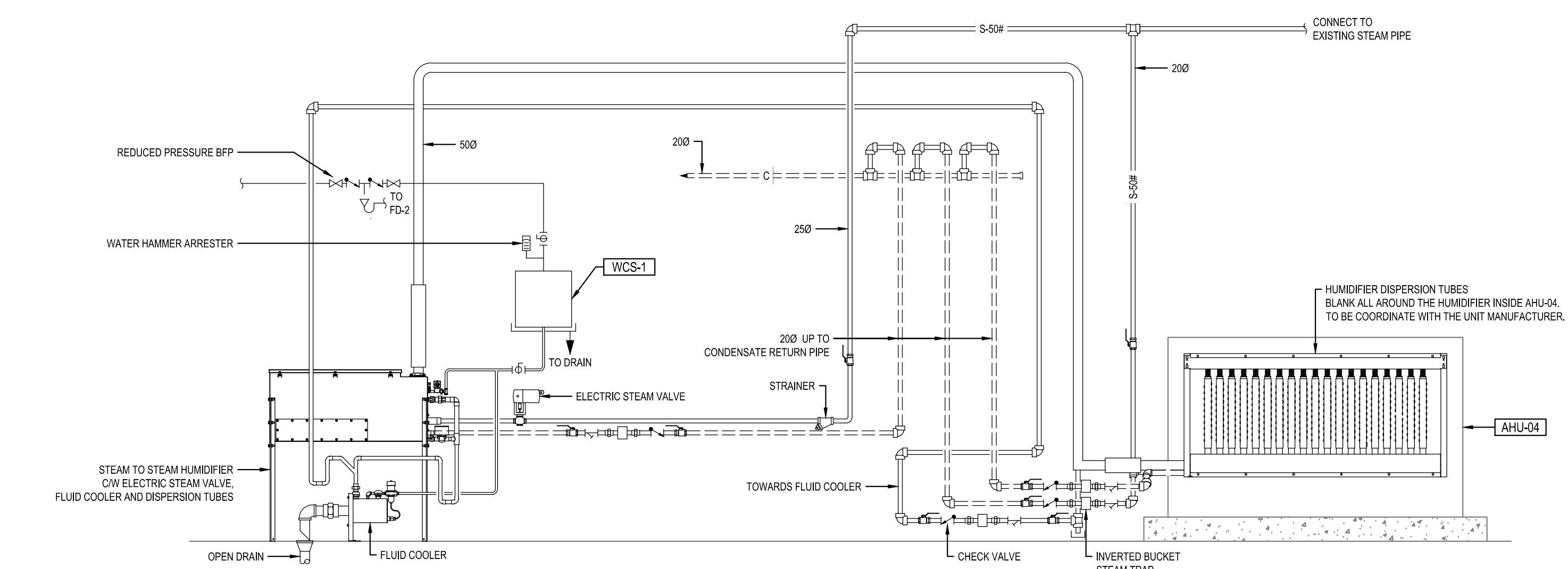
07 COIL CONNECTION DETAIL
 SCALE: NTS



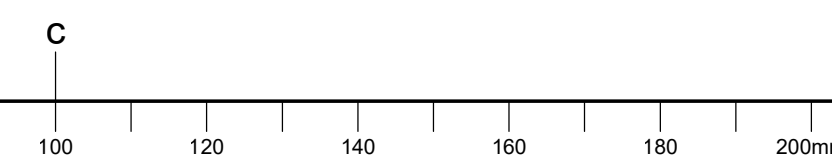
03 COOLING COIL CONNECTION DETAIL
 SCALE: NTS



04 HEATING CONNECTION DETAIL
 SCALE: NTS



05 HUMIDIFIER CONNECTION DETAIL
 SCALE: NTS



| SYSTEM | IDENTIF. | HEATING, COOLING AND TERMINAL REHEAT COIL SCHEDULE | | | | | | | | | | | | | | | | SPECIAL NOTES | | | | | | | | | | | | | | | | | | | |
|--------|----------|--|----------|---------|----------|---|-----------------|-----------------|------------------|--------------------|------|-----------------------|------|-------|------------|-------------------|-------|---------------|-----------------|-----------|--------------|-------------|---------|----------------|-----------------|--------------|---------------|-----|------|------|-----------|--------|---------|--------------------------|-------------------------------|--|--|
| | | AIR | | AIR | | AIR | | AIR | | TOTAL CAPACITY (2) | | SENSIBLE CAPACITY (2) | | FLUID | | FACE VELOCITY (3) | | | DIMENSIONS (MM) | ROWS - FR | MANUFACTURER | MODEL | | | | | | | | | | | | | | | |
| | | Us max. | CFM max. | Us min. | CFM min. | MAXIMUM AIR PRESSURE DROP (1) Pa (IN.W.G) | DB (INLET) °C F | WB (INLET) °C F | DB (OUTLET) °C F | WB (OUTLET) °C F | KW | MBH | KW | MBH | FLUID TYPE | FLOW L/S | GRM | | | | | | PD M/FT | T (INLET) °C F | T (OUTLET) °C F | FACE AREA M² | FACE AREA FT² | | | | | | | | | | |
| AHU-04 | TRC-01 | 240 | 610 | 120 | 290 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 2.1 | 7.0 | 2.1 | 7.0 | WATER | 0.04 | 0.70 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.07 | 0.75 | 300X225 | 2 - 10 | | | | | |
| AHU-04 | CC-01 | 6495 | 13770 | 2973 | 6300 | 162 (0.65) | 26.1 | 79 | 18.9 | 66.0 | 11.5 | 52.7 | 11.3 | 52.4 | 162.7 | 555.5 | 114.5 | 391.1 | WATER | 7.01 | 111.11 | 3.14 (10.3) | 7.2 | 45 | 12.8 | 55 | 2.23 | 439 | 2.91 | 31.3 | 2388X1219 | 6 - 8 | AEROFIN | HW-8.0AW-48.0X94.0-0-6-1 | MIN. TUBE VELOCITY OF 914 m/s | | |

Remarks:
(1) maximum air pressure drop at maximum air flow
(2) heating capacity at minimum air flow
(3) velocity at maximum air flow

| EXISTING SHAFT INFORMATION FOR RE-INSULATION PURPOSES SHOWING PIPE SIZING | | | | | | | | | | | | | | NOTES |
|---|---------------------|------|---------|------|-----|-----|------|-----|-----|------|-------|-----------|----|-------|
| PIPE SHAFT LOCATION (AXIS) | DIRECTION OF PIPING | VENT | # STACK | R/VL | DOW | DHW | CHWR | HMS | HWR | CHMS | DRAIN | PIPE SIZE | | |
| | | | | | | | | | | | | IN | OD | |
| Q4 & 3 | UP | - | - | - | 15 | 15 | - | - | - | - | - | - | 15 | 38 |
| R4 & 2 | DOWN | 50 | 1 | 75 | 10 | 100 | 20 | 20 | 15 | 100 | 20 | 20 | - | - |
| L3 & 4 | UP & DOWN | - | 2 | 100 | - | 50 | 25 | 15 | - | - | - | - | - | - |
| B & 7 | UP & DOWN | 38 | 3 | 50 | - | 20 | - | - | - | - | - | - | - | - |
| B & 8 | UP | - | - | - | - | - | - | - | - | - | - | - | - | - |
| H & 21 | UP & DOWN | - | - | - | - | - | - | - | 150 | 150 | - | - | - | - |
| B & 26 | UP & DOWN | - | - | - | - | - | - | - | 100 | 100 | - | - | - | - |
| H & 26 | UP | - | - | - | - | - | - | - | 25 | - | - | - | - | - |
| | DOWN | - | - | - | - | - | - | - | 38 | 38 | - | - | - | - |
| | UP & DOWN | 65 | 4 | 100 | 4 | 100 | 32 | 25 | 15 | - | - | - | - | - |
| B & 30 | UP & DOWN | - | - | - | - | - | - | - | 150 | 150 | 200 | 200 | - | - |
| B & 38 | UP | - | - | - | - | - | - | - | 38 | 38 | 15 | 100 | - | - |
| | UP & DOWN | 50 | 11 | 100 | 11 | 100 | - | - | - | - | - | - | - | - |

THE PIPES THAT SHOULD BE RE-INSULATED ARE THE ONE IN SHADING. THE OTHER PIPES COULD BE USED TO PROPERLY LOCATE THE SHAFTS IN COMBINATION WITH THE AXIS.

| Terminal Reheat Coils Control valves Cv Schedule | | | | | | | | | | | | | |
|--|-----------|------------|------|------|-----------|-----|------------|-----|------------------------------|------|--------------|-------------|----------------------------|
| SYSTEM | TAG | FLUID TYPE | FLOW | | T (INLET) | | T (OUTLET) | | Cv (at 4psi/g / 27.58 kPa/g) | SIZE | MANUFACTURER | MODEL | SPECIAL NOTES |
| | | | L/S | GRM | °C | F | °C | F | | | | | |
| AHU-04 | TRC-01-CV | WATER | 0.04 | 0.70 | 76.7 | 170 | 65.6 | 150 | 0.35 | 15 | Belimo | COV - 2 way | 1 - OR APPROVED EQUIVALENT |
| AHU-04 | TRC-31-CV | WATER | 0.01 | 0.16 | 76.7 | 170 | 65.6 | 150 | 0.08 | 15 | Belimo | COV - 2 way | 1 - OR APPROVED EQUIVALENT |

NOTE 1 - ALL THE CONTROL VALVES SHALL BE SUPPLIED BY THE CONTROL CONTRACTOR TO THE PLUMBING AND HEATING CONTRACTOR

| CONTROL VALVE SCHEDULE FOR FIN TYPE CONVECTOR | | | | | | | | | | | | | |
|---|-------|-------|------------------------------|------------|------|--------------|--------------|---------|------------|---------------------|----------------|--------------|----------------------------|
| CAPACITY OR COMBINED CAPACITY (MBH) | FLOW* | | CV (at 4psi/g / 27.58 kPa/g) | VALVE SIZE | | VALVE MODEL | CV AVAILABLE | VOLTAGE | CONTROL | ACTUATOR MODEL | VALVE POSITION | MANUFACTURER | SPECIAL NOTES |
| | L/S | USGPM | | mm | INCH | | | | | | | | |
| 2.8 | 0.018 | 0.28 | 0.14 | 15 | 1/2" | V5802 - 2way | 0.2 | 0-10Vdc | MODULATING | M435F SPRING RETURN | N.O. | Honeywell | 1 - OR APPROVED EQUIVALENT |
| 20.9 | 0.132 | 2.09 | 1.05 | 15 | 1/2" | V5802 - 2way | 1.2 | 0-10Vdc | MODULATING | M435F SPRING RETURN | N.O. | Honeywell | 1 - OR APPROVED EQUIVALENT |

*FLOW BASED UPON CAPACITY OF EQUIPMENT SHOWN ON EXISTING DRAWING AT 20°F AT (11" GAL) 1 - ALL THE CONTROL VALVES SHALL BE SUPPLIED BY THE CONTROL CONTRACTOR TO THE PLUMBING AND HEATING CONTRACTOR

| CONTROL VALVE SCHEDULE FOR HEATING AND COOLING COILS | | | | | | | | | | | | | | |
|--|-------------------|-------|--------|------------------------------|------------|--------|-------------|--------------|---------|------------|---------------------------|----------------|--------------|----------------------------|
| COIL CONTROL VALVE TAG | HEATING / COOLING | FLOW* | | CV (at 4psi/g / 27.58 kPa/g) | VALVE SIZE | | VALVE MODEL | CV AVAILABLE | VOLTAGE | CONTROL | ACTUATOR MODEL | VALVE POSITION | MANUFACTURER | SPECIAL NOTES |
| | | L/S | USGPM | | mm | INCH | | | | | | | | |
| AHU-04-HC-01-CV | HEATING | 1.42 | 22.50 | 11.25 | 32 | 1 1/4" | VB2DK3PDD | 14.9 | 0-10Vdc | MODULATING | M87505A2030 SPRING RETURN | N.O. | Honeywell | 1 - OR APPROVED EQUIVALENT |
| AHU-04-CC-01-CV | COOLING | 7.01 | 111.11 | 55.56 | 50 | 2 | VB2DFSRDD | 57 | 0-10Vdc | MODULATING | M87505A2030 SPRING RETURN | N.O. | Honeywell | 1 - OR APPROVED EQUIVALENT |

1 - ALL THE CONTROL VALVES SHALL BE SUPPLIED BY THE CONTROL CONTRACTOR TO THE PLUMBING AND HEATING CONTRACTOR

| STEAM TO STEAM HUMIDIFIERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|----------------|--|------|--------------------------------------|------------|---------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|-------------------|------------------------|------------------------|-----------------|--------|---------------|------------------------|------------------|----|----|--------|-------|--------------|---------------|------|----|------|----|----|-----|-----|----|---|---------------|----------|--------|
| SYSTEM | IDENTIFICATION | DESIRED AIR DB TEMPERATURE IN HUMIDIFIED SPACE | | DESIRED AIR % RH IN HUMIDIFIED SPACE | TOTAL FLOW | | | | OUTSIDE AIR FLOW | | | | % OUTSIDE AIR FLOW | STEAM CAPACITY | | | | STEAM GENERATOR | | | | STEAM DISPERSION | | | | MODEL | MANUFACTURER | SPECIAL NOTES | | | | | | | | | | | | |
| | | °C | °F | | MINIMUM | MAXIMUM | AT MIN TOTAL FLOW | AT MAX TOTAL FLOW | AT MIN TOTAL FLOW | AT MAX TOTAL FLOW | AT MIN TOTAL FLOW | AT MAX TOTAL FLOW | | AT MIN TOTAL FLOW | AT MAX TOTAL FLOW | INPUT AT 345 KPa (50#) | OUTPUT AT 83 KPa (12#) | WIDTH | HEIGHT | TUBE DIAMETER | TUBE SPACING ON CENTER | TUBE QUANTITY | | | | | | | | | | | | | | | | | | |
| | | L/S | CFM | | L/S | CFM | L/S | CFM | L/S | CFM | L/S | CFM | | L/S | CFM | KG/HR | LBS/HR | KG/HR | LBS/HR | MM | IN | MM | IN | MM | IN | | | | MM | IN | | | | | | | | | | |
| AHU-04 | HU-01 | 22.2 | 72.0 | 30% | 2973 | 6300 | 6489 | 13750 | 944 | 2000 | 944 | 2000 | -24.4 | -12.0 | 32% | 15% | 22 | 49 | 22 | 49 | 31 | 68 | 24 | 54 | STS-25 | 1 | 120/160 | 3 | 2438 | 96 | 1219 | 48 | 38 | 1.5 | 305 | 12 | 7 | ULTRA-SORB XV | DR-STEEM | NOTE 1 |

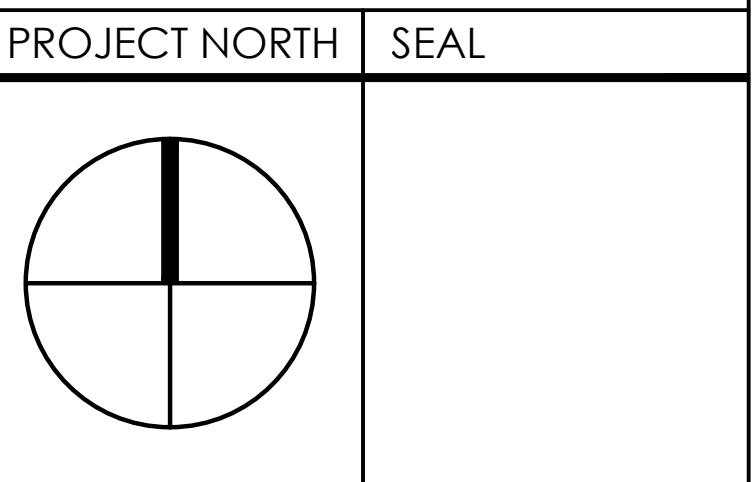
NOTE 1 - THE HUMIDIFIER AND ALL ITS COMPONENTS SHALL BE SUPPLIED AND INSTALLED BY THE PLUMBING AND HEATING CONTRACTOR EXCEPT FOR THE DISPERSION TUBES THAT SHALL BE INSTALLED BY THE VENTILATION CONTRACTOR



GENERAL NOTES

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- CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK.
- PREVENT THE SPREAD OF DUST & DEBRIS BEYOND THE WORK AREA AND CLEAN ALL SURFACES AT COMPLETION.
- MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
- COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
- PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS AND SPECIFICATIONS.
- ALL LOW VOLTAGE WIRING SHALL BE IN EMT CONDUIT, UNLESS OTHERWISE NOTED.
- MECHANICAL CONTRACTOR SHALL PROVIDE VENTING TO ALL FIXTURES AS PER NATIONAL BUILDING AND PLUMBING CODE.
- ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH DETAILS ON DRAWINGS M09, M13 & M18.

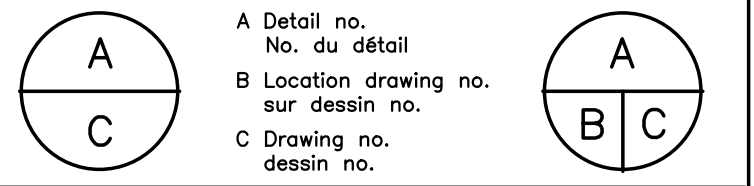
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By: [Signature]
Project: 637079

| | | | |
|--------------|------------|---------------|-----------------|
| 0 | 2016-09-13 | FOR TENDER | M.L. |
| Date | Date | Revision | By: [Signature] |
| Date Printed | 2016/09/16 | Date imprimée | |

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

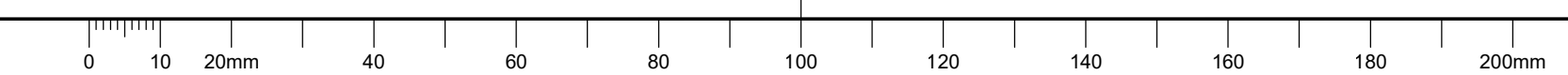


project NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION project

MONTREAL ROAD CAMPUS

drawing MECHANICAL PLUMBING AND HEATING EQUIPMENTS SCHEDULES dessin

designed M.V. J.B. conçu date 04/2016 date
drawn L.L. A.C. dessiné scale NTS échelle
checked M.L. J.B. vérifié sheet 14 of/de 26 feuille
approved M.L. F.A. approuvé W.O.no. A1-009908-01-58 D.T.no.
dwg.no. 5189-M14 dessin no.



NOTE:

1. FLOW MEASURING STATION AND REMOTE SUPPLIED BY CONTROL TRADES BUT INSTALLED BY THIS CONTRACTOR.
2. PRIOR TO THE DEMOLITION OF THE EXISTING EXHAUST DUCT, THE CONTRACTOR SHALL MEASURE THE TOTAL FLOW OF THE EXISTING EXHAUST FAN, AND THE FLOW FOR EACH FLOOR SERVICED BY THAT FAN. THOSE MEASURES ARE NECESSARY TO PERFORM A PROPER BALANCING WITHOUT UNBALANCING THE EXISTING ZONES.
3. THIS CONTRACTOR SHALL CONSIDER IN THIS BID THE RE-INSULATION OF THE REMAINING EXISTING DUCT THAT FEEDS THE INDUCTION UNIT AT THE FLOOR ABOVE.
4. THIS CONTRACTOR SHALL CONSIDER IN HIS BID THE RE-INSULATION OF THE REMAINING EXISTING DUCTS INSIDE THE SHAFT.

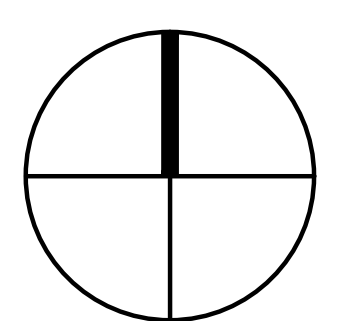


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- MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
- COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
- PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS AND SPECIFICATIONS.
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- ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH DETAILS ON DRAWINGS M09, M13 & M18.

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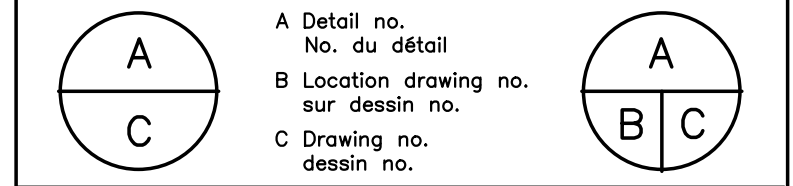
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 Project: 637079

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| 0 | 2016-09-16 | FOR TENDER | M.L. | |

- o Verify all dimensions and site conditions and be responsible for same
- o Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

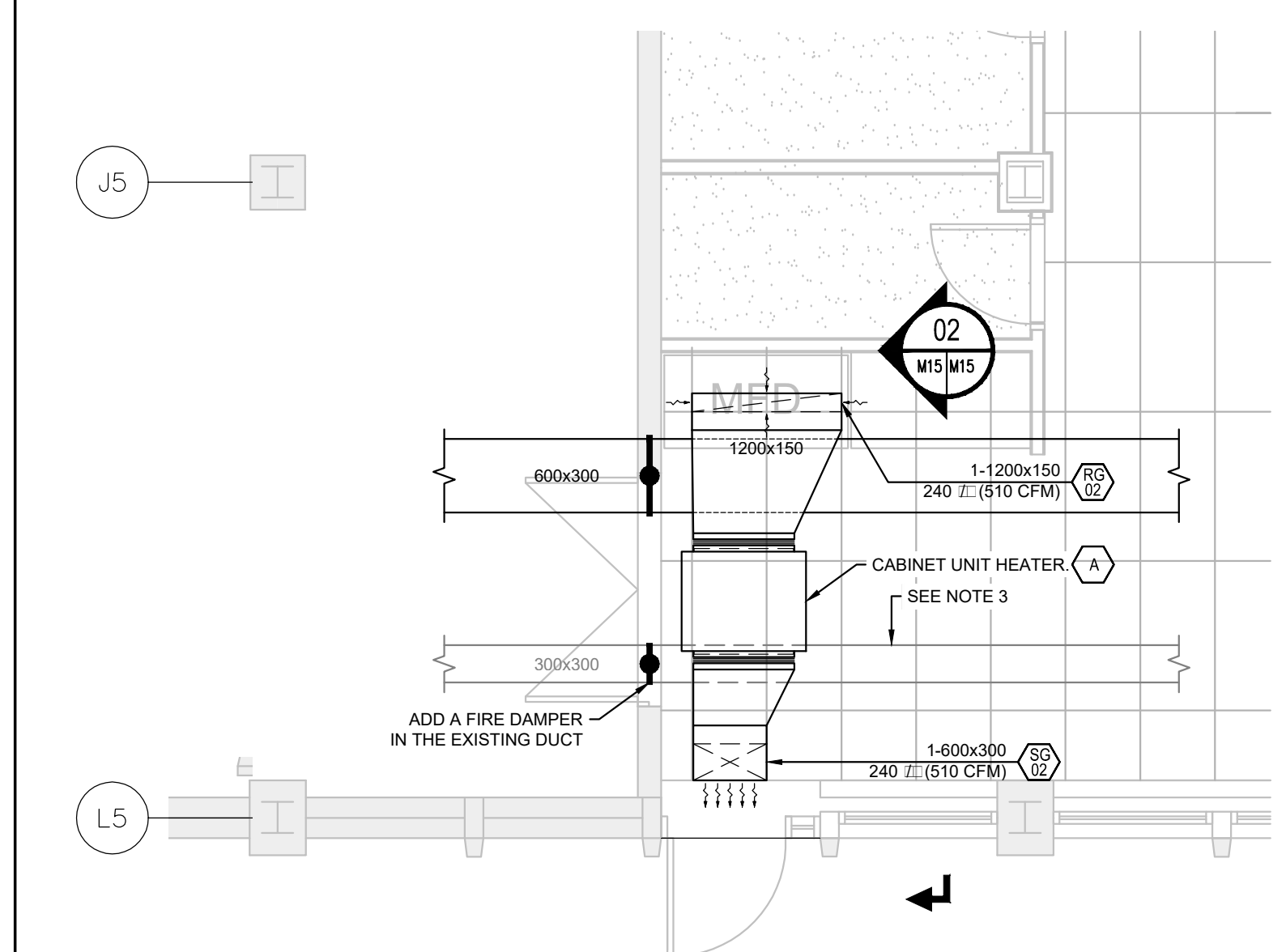
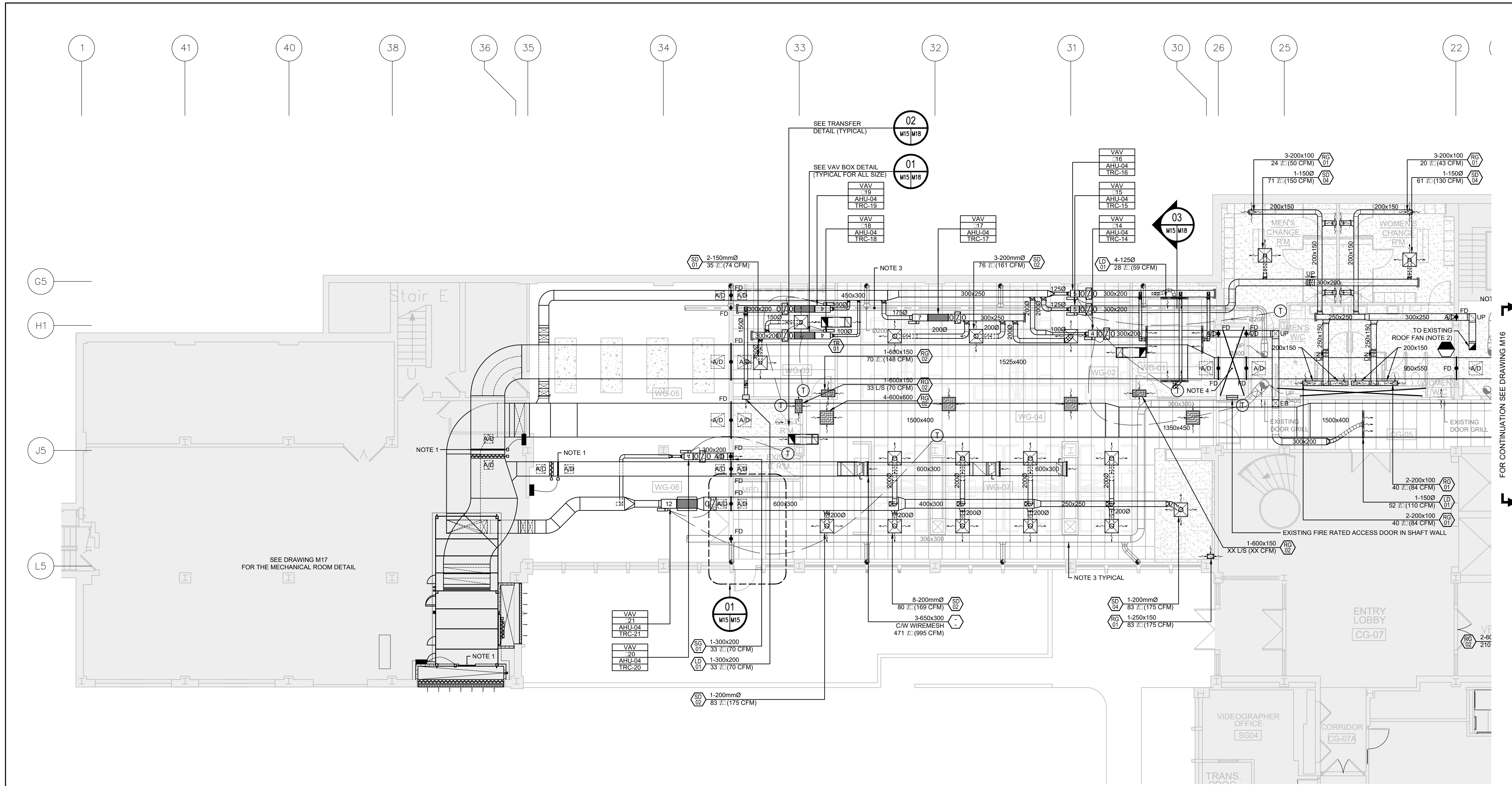


project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 MONTREAL ROAD CAMPUS

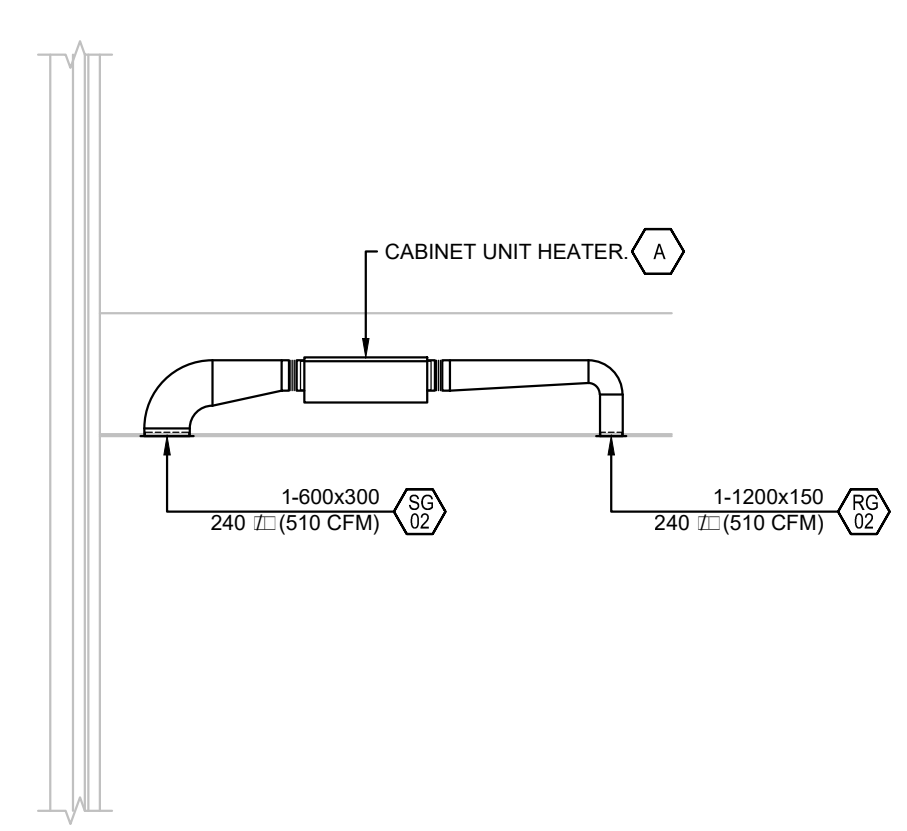
drawing: MECHANICAL - VENTILATION GROUND FLOOR NEW WORK PARTIAL PLAN VIEW - WEST WING

| designed | conçu | date | date |
|------------|------------|-----------------|---------|
| M.V., J.B. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| LL, A.C. | | 1:100 (U.O.S.) | |
| checked | vérifié | sheet | feuille |
| M.L., J.B. | | 15 of/ de 26 | |
| approved | approuvé | W.O.no. | D.T.no. |
| M.L., F.A. | | A1-009908-01-58 | |
| dwg.no. | dessin no. | | |

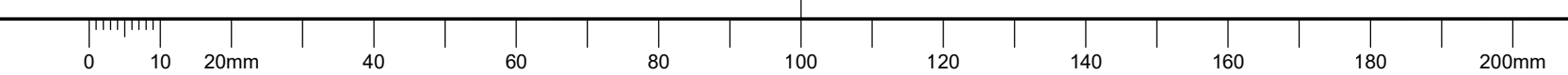
5189-M15



01 CABINET UNIT HEATER - PLAN VIEW
 SCALE: 1:50



02 CABINET UNIT HEATER - SECTION
 SCALE: 1:50



C

NOTE:

- KEEP THE EXISTING WALL MOUNTED FAN AND CAP THE DUCT THE CLOSEST TO THE EXTERIOR AND INSULATE THE REMAINING DUCT/CAP. FILL THE REMAINING DUCT WITH INSULATION.
- EXISTING FAN AT THE ROOF TO REMAIN. PROVIDE AND INSTALL A NEW PULLEY TO MATCH THE EXHAUST FLOW REQUIRED.
- THIS CONTRACTOR SHALL CONSIDER IN HIS BID THE RE-INSULATION OF THE REMAINING EXISTING DUCTS THAT FEEDS THE INDUCTION UNIT AT THE FLOOR ABOVE.
- THIS CONTRACTOR SHALL CONSIDER IN HIS BID THE RE-INSULATION OF THE REMAINING EXISTING DUCTS INSIDE THE SHAFT.

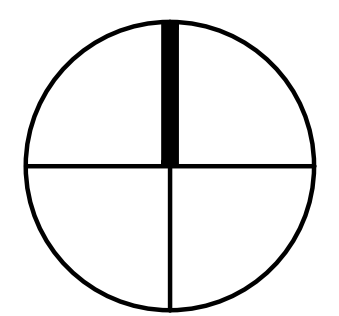


GENERAL NOTES

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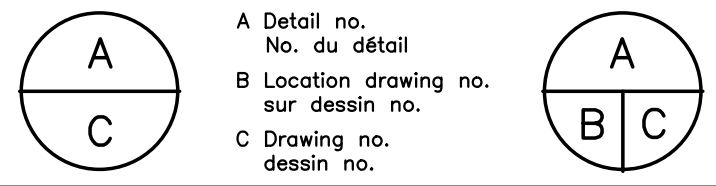


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- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité



project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

drawing: MONTREAL ROAD CAMPUS MECHANICAL - VENTILATION GROUND FLOOR NEW WORK PARTIAL PLAN VIEW - EAST WING

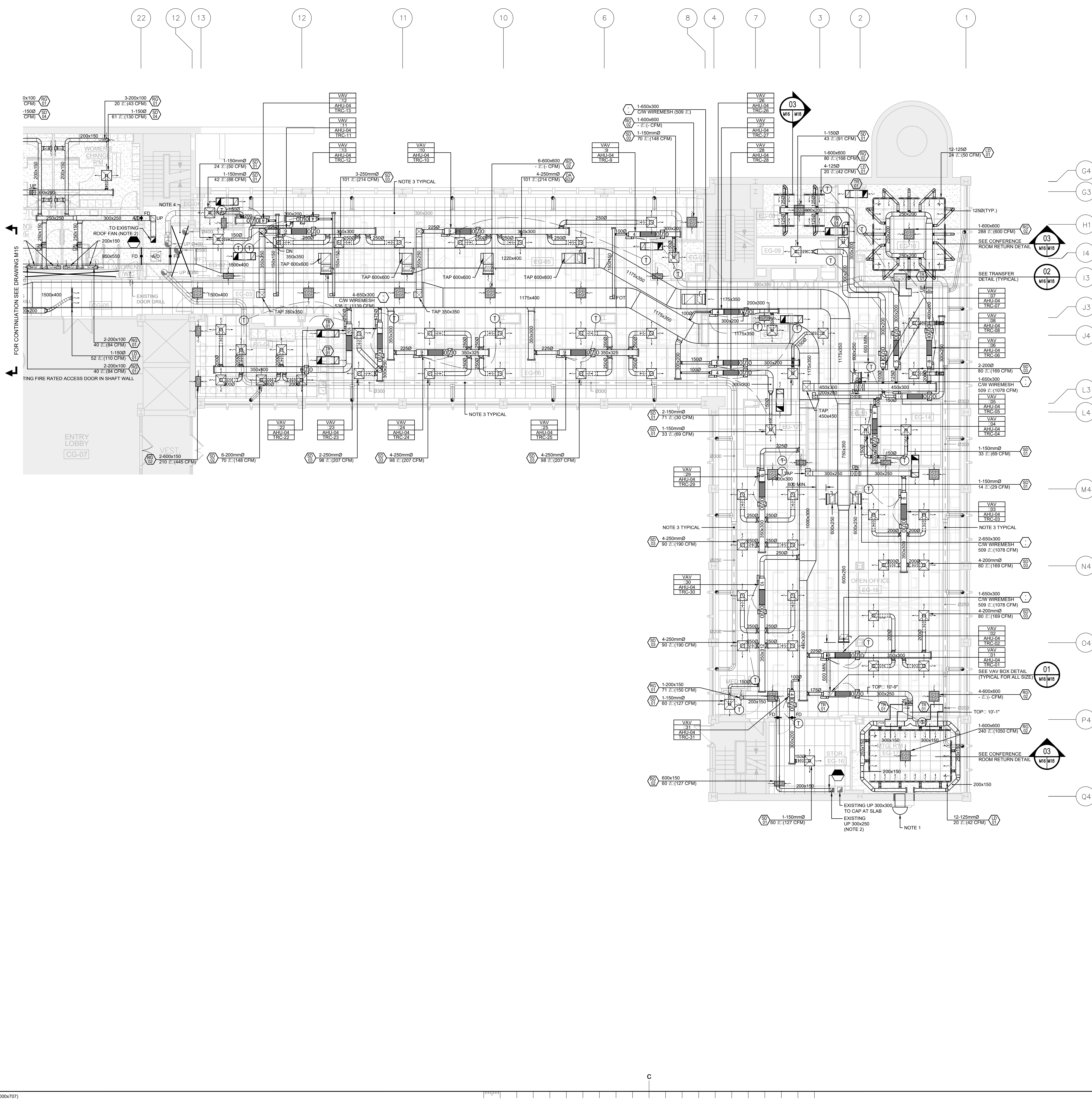
| designed | conçu | date | date |
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| M.V., J.B. | | 04/2016 | |

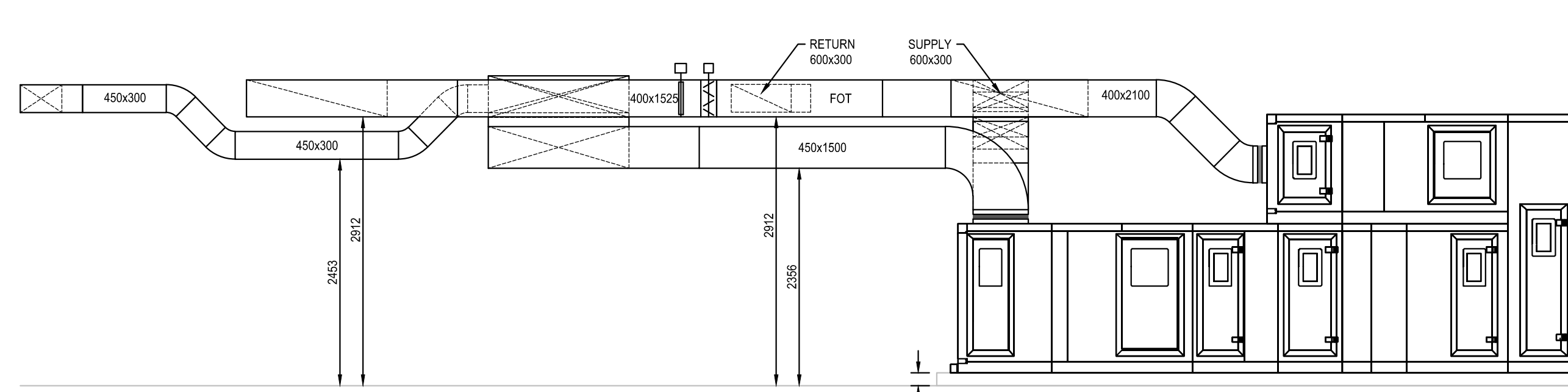
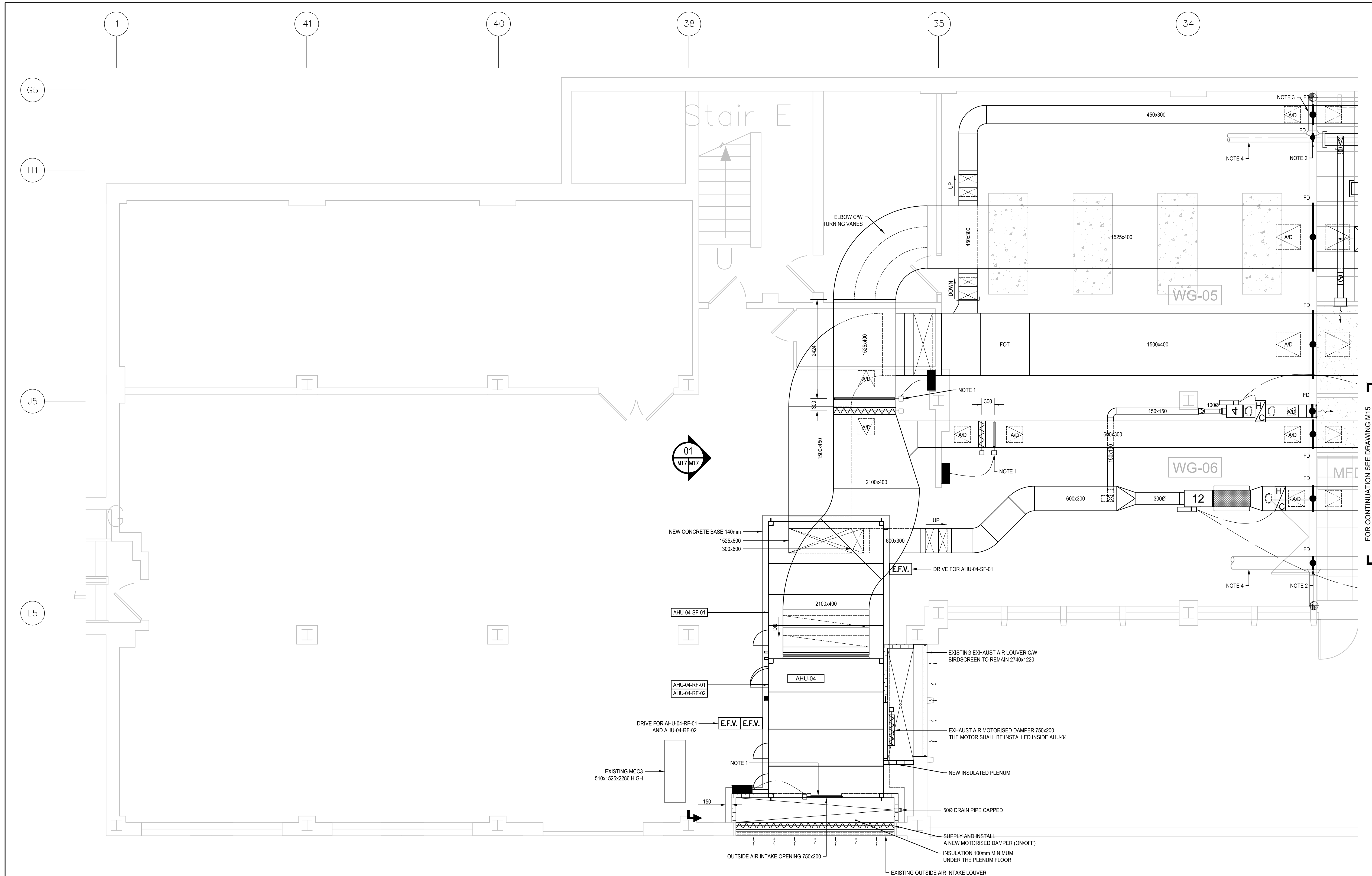
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| LL., A.C. | | 1/100 | |

| checked | vérifié | sheet | feuille |
|-----------|---------|--------------|---------|
| ML., J.B. | | 16 of/ de 26 | |

| approved | approuvé | W.O.no. | D.T.no. |
|-----------|----------|-----------------|---------|
| ML., F.A. | | A1-009908-01-58 | |

dwg.no. 5189-M16 dessin no. _____





01 AHU-04 - SECTION
SCALE: 1:50

NOTE:

1. FLOW MEASURING STATION AND REMOTE SUPPLIED BY CONTROL TRADES BUT INSTALLED BY THIS CONTRACTOR.
2. PROVIDE AND INSTALL A NEW FIRE DAMPER IN THE EXISTING DUCT.
3. PROVIDE FOR THE RELOCATION OF THE EXISTING DUCT RUN. MAKE SURE IT IS NOT IN THE NEW WALL ARCHITECTURAL TREATMENT MAY ALSO BE REQUIRED.
4. THE CONTRACTOR SHALL PROVIDE FOR IN HIS BID THE RE-INSULATION OF THE REMAINING EXISTING DUCTS THAT FEEDS IN THE INDUCTION UNITS AT THE FLOOR ABOVE.
5. ALL NEW MOTORIZED DAMPER SHALL BE PROVIDED WITH A LIMIT SWITCH.

National Research Council Canada / **Conseil national de recherches Canada**
 Administrative Services and Property Management Branch / Division des services administratifs et gestion de l'immobilier

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| No. | Date | Revision | By: |
|-----|------------|------------|------|
| 0 | 2016-09-13 | FOR TENDER | M.L. |

Date Printed: 2016/09/16 Date imprimée: _____

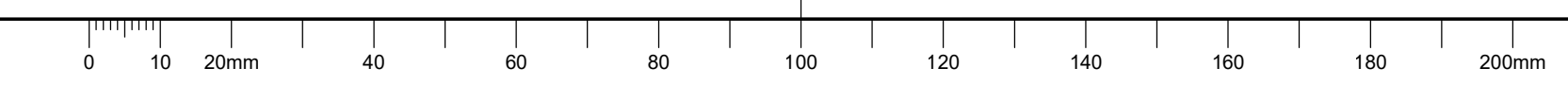
- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

A Detail no. / No. du détail
 B Location drawing no. sur dessin no.
 C Drawing no. / dessin no.

project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION MONTREAL ROAD CAMPUS
 drawing: MECHANICAL - VENTILATION GROUND FLOOR NEW WORK - PARTIAL PLAN VIEW MECHANICAL ROOM

| designed | conçu | date | date |
|------------|----------|-----------------|---------|
| M.V., J.B. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| LL., A.C. | | 150 | |
| checked | vérifié | sheet | feuille |
| ML., J.B. | | 17 of/ de 26 | |
| approved | approuvé | W.O.no. | D.T.no. |
| ML., F.A. | | A1-009908-01-58 | |

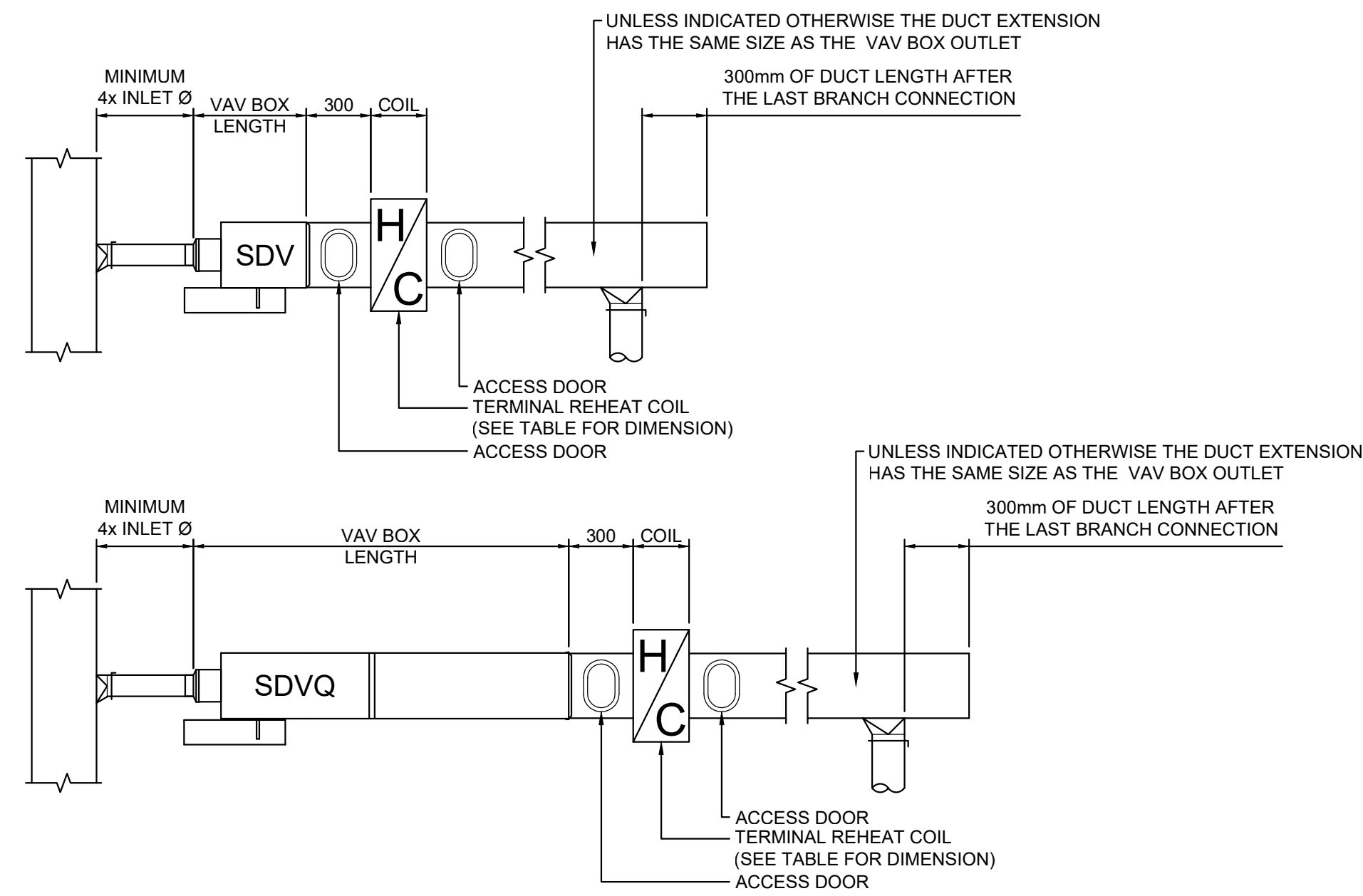
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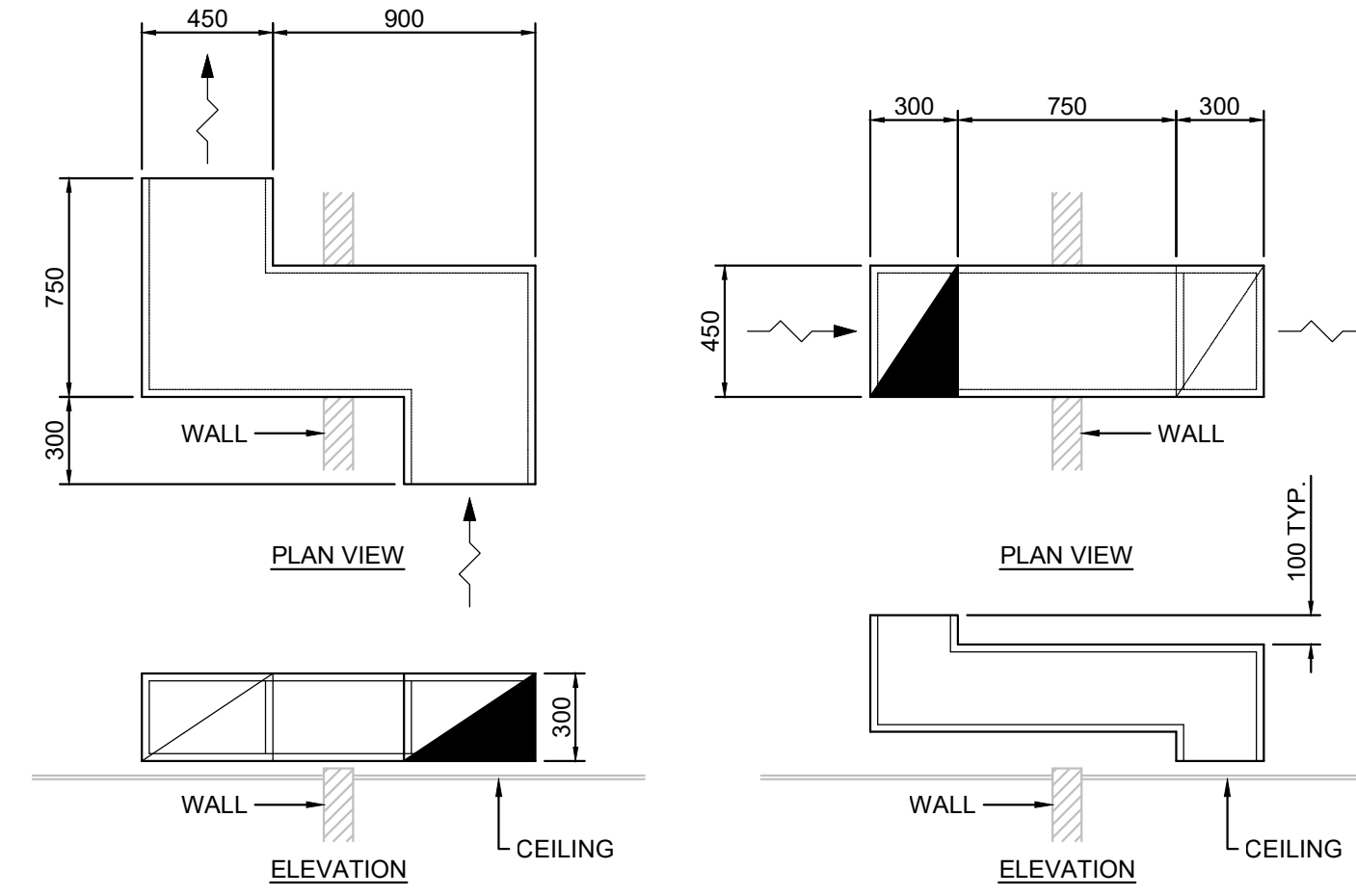
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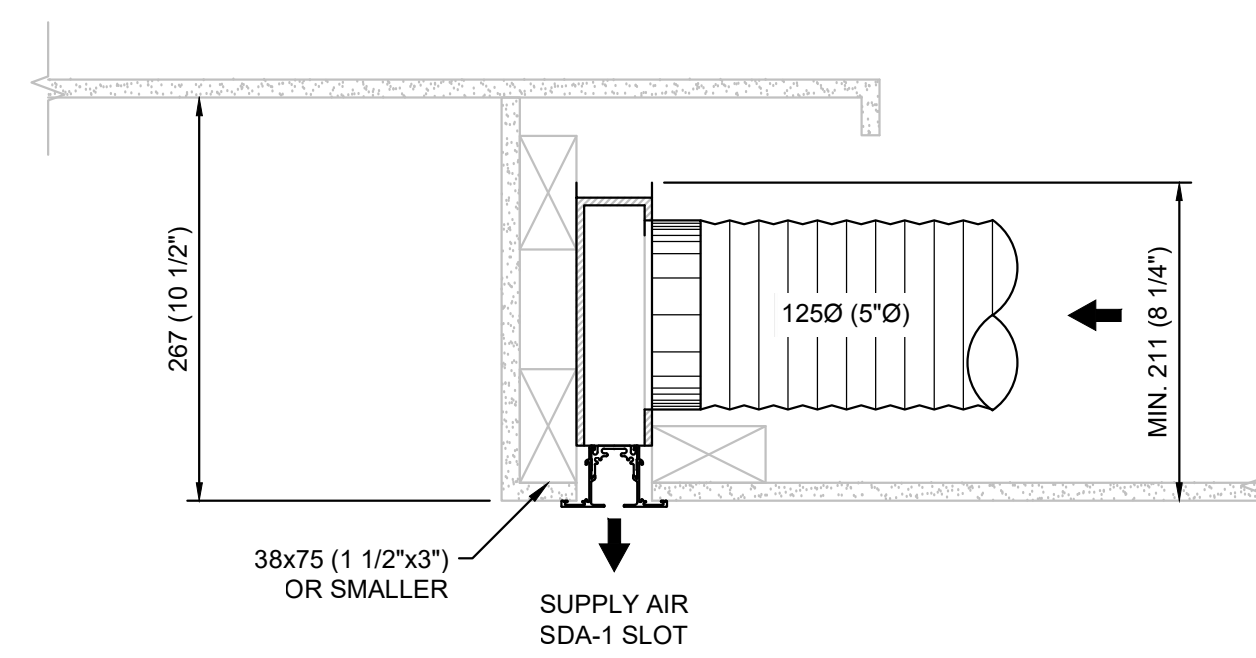
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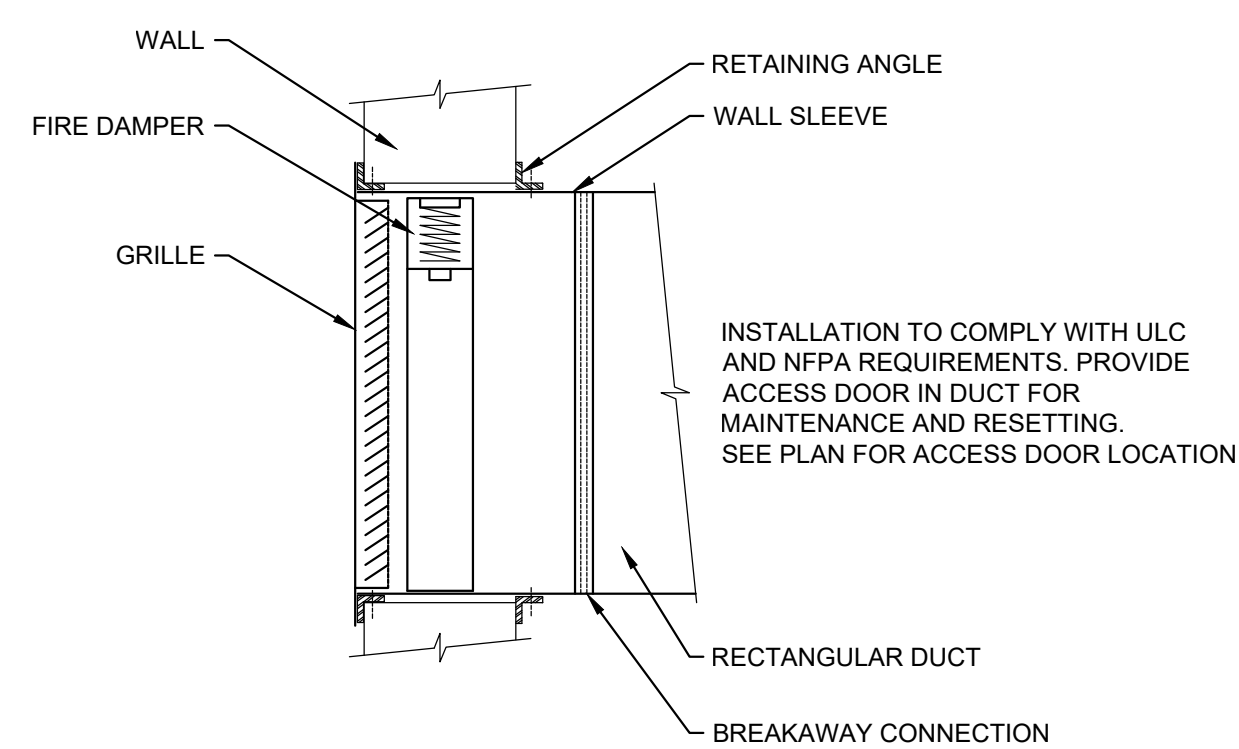
01 SINGLE UNIT VAV BOX WITH/WITHOUT SILENCER DETAIL
 SCALE: 1:25



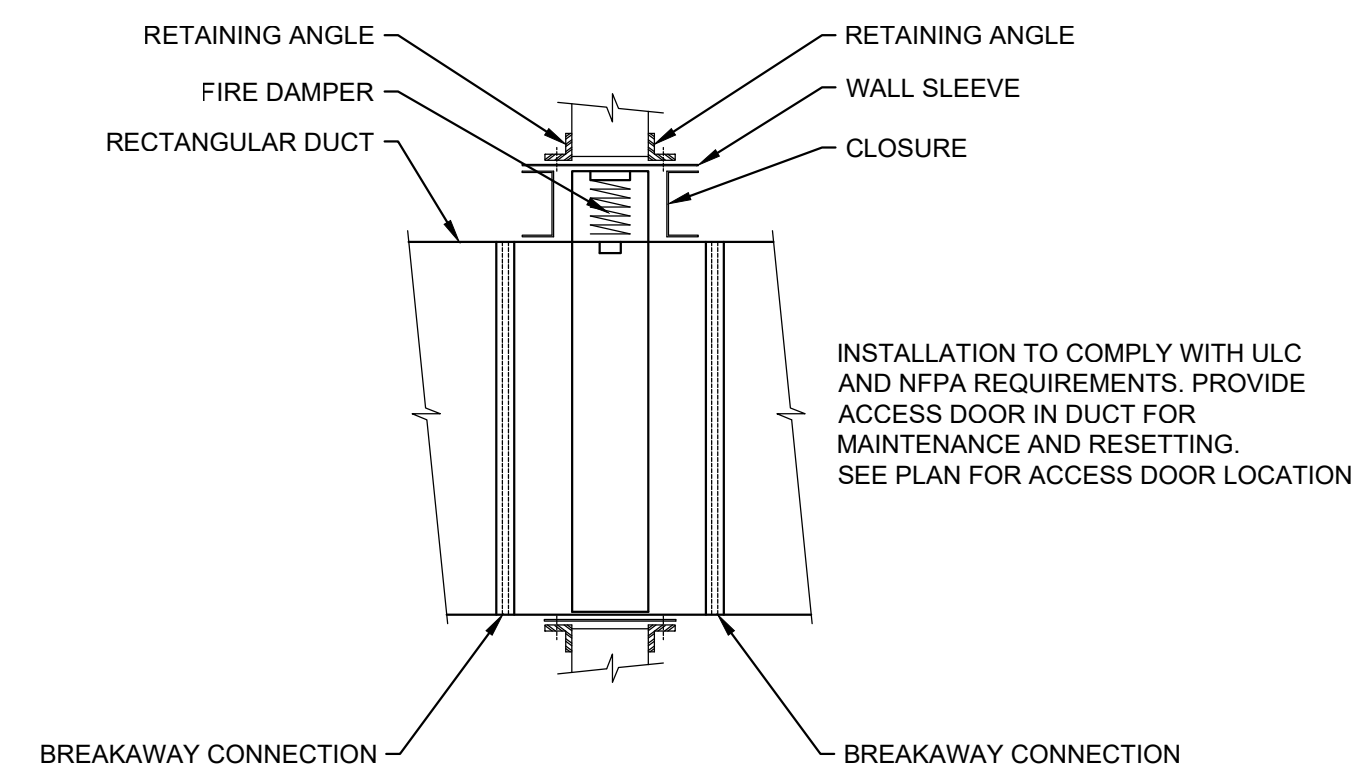
02 TR-01 TRANSFERT DUCT DETAIL
 SCALE: 1:25



03 CONFERENCE ROOM SUPPLY AIR DETAIL
 SCALE: 1:5

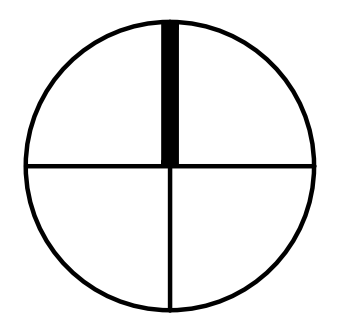


04 FIRE DAMPER INSTALLATION - GRILLE
 SCALE: NTS



05 FIRE DAMPER INSTALLATION - RECTANGULAR
 SCALE: NTS

PROJECT NORTH SEAL

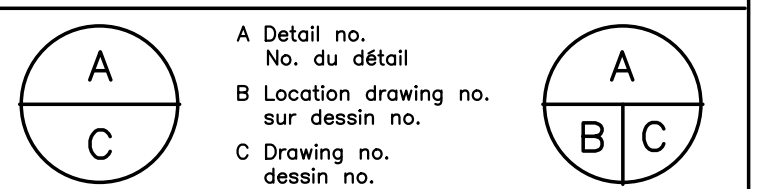


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| | | | |
|-----|------------|------------|------------|
| 0 | 2016-09-13 | FOR TENDER | M.L. |
| No. | Date | Revision | By: / Par: |

Date Printed: 2016/09/16 Date imprimée:

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.

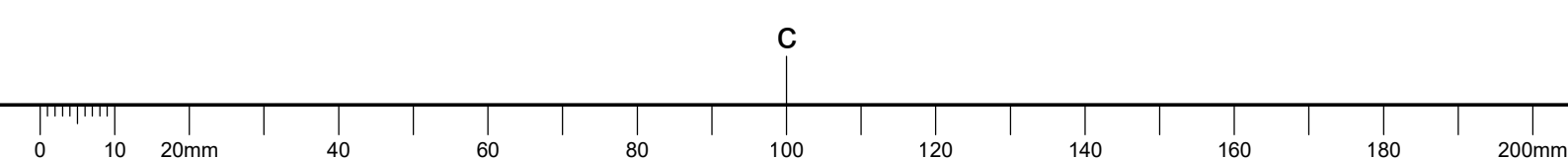


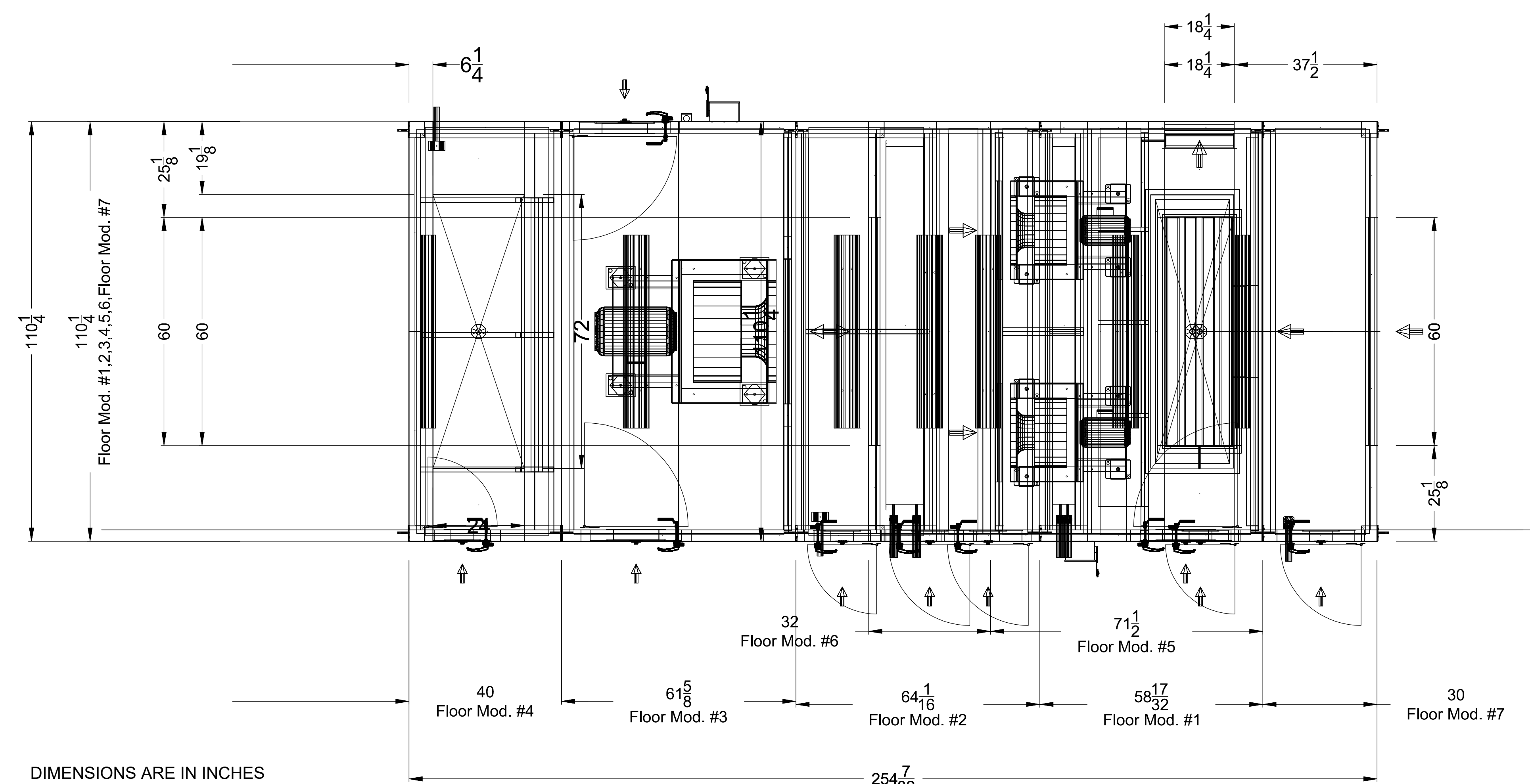
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 projet: MONTREAL ROAD CAMPUS

drawing: MECHANICAL VENTILATION DETAILS
 dessin: MECHANICAL VENTILATION DETAILS

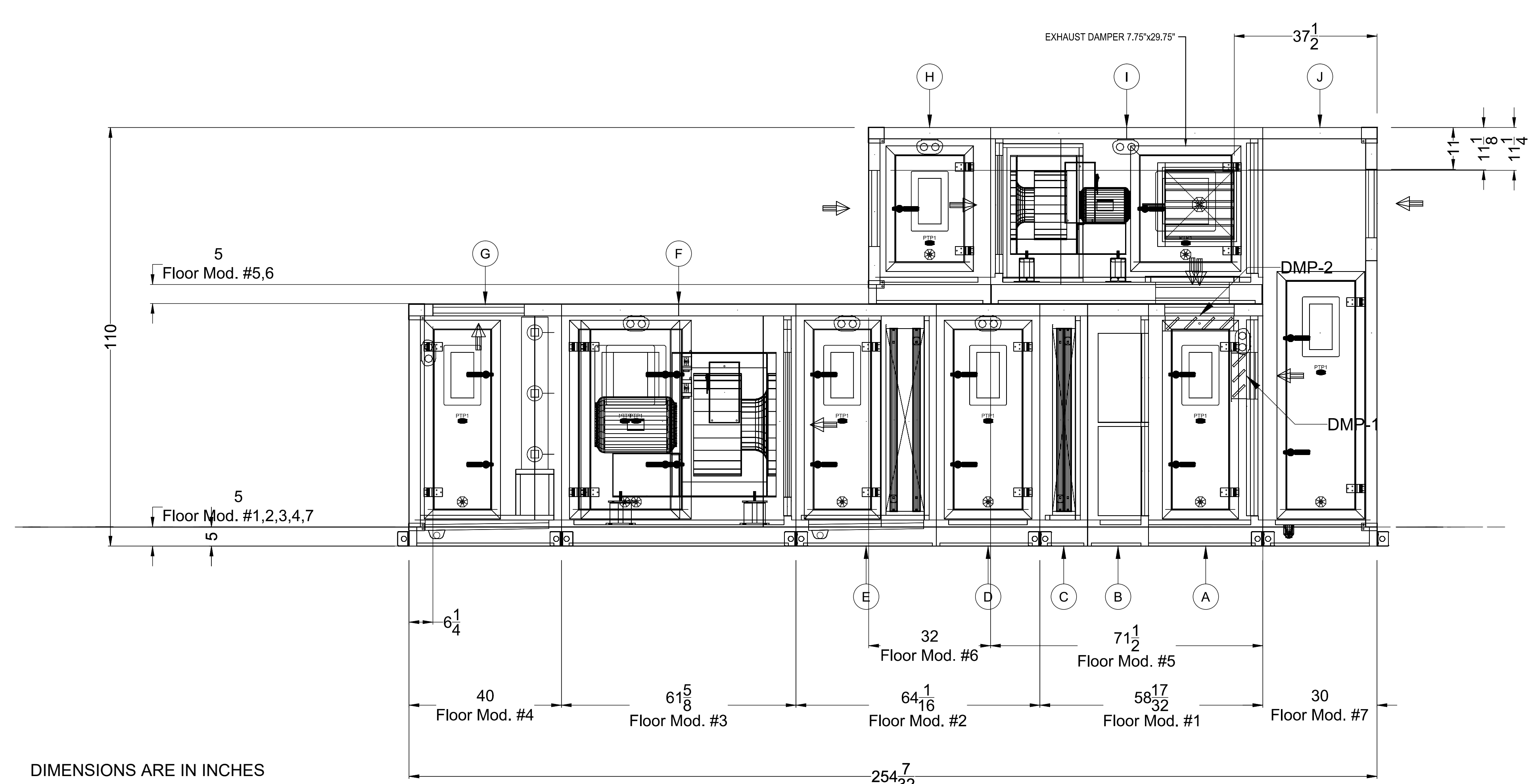
| | | | |
|------------|------------|-----------------|---------|
| designed | conçu | date | date |
| M.V., J.B. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| LL., A.C. | | AS SHOWN | |
| checked | vérifié | sheet | feuille |
| ML., J.B. | | 18 of/ de 26 | |
| approved | approuvé | W.O.no. | D.T.no. |
| ML., F.A. | | A1-009908-01-58 | |
| dwg.no. | dessin no. | | |

5189-M18



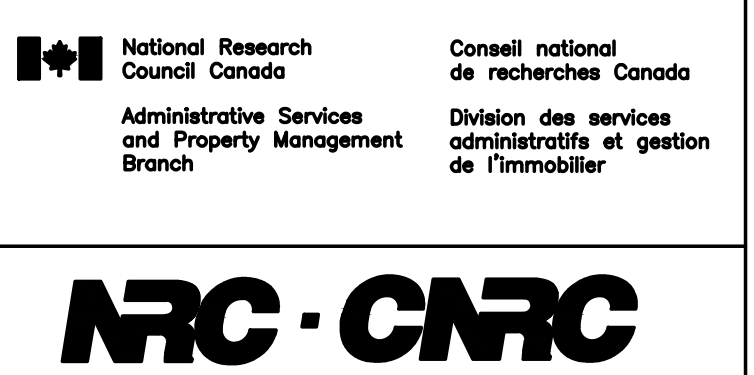


DIMENSIONS ARE IN INCHES



DIMENSIONS ARE IN INCHES

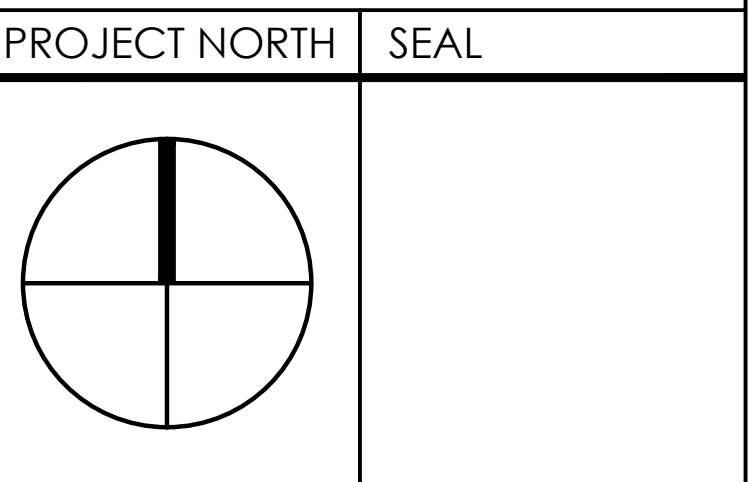
| D | |
|---|---|
| A MIXING BOX SECTION LENGTH: 30" | DMP-1 : FRR Air D.mtr M : T.mtr Mod : 1000 B : Or : H : B : C : P : D : (12x24)" DMP-2 : RRR Air D.mtr M : T.mtr Mod : 1000 B : Or : H : B : C : P : D : (18x60)" D : Or : W : 15" D : Or : H : 47.25" |
| B FILTER SECTION LENGTH: 16.0312" | F : C : FARR 30/30 PLEATED - 15 PLUS, MERV 8 Q : / D : (WxHxD) : 8x(24x24x2)" F : C : FARR RF PH, MERV 13 Q : / D : (WxHxD) : 8x(24x24x12)" L : F : F : P : |
| C HEATING COIL SECTION LENGTH: 12.5" | T : H : M : A : Q : 1 C : N : 2 M : C : ø 2" M.P.T. D : (48x94x6)" |
| D ACCESS SECTION LENGTH: 27.25" | T : H : M : A : Q : 1 C : N : 2 M : C : ø 2" M.P.T. D : (48x94x10)" |
| E COOLING COIL SECTION LENGTH: 36.8125" | T : H : M : A : Q : 1 C : N : 2 M : C : ø 2" M.P.T. D : (48x94x10)" |
| F SUPPLY FAN SECTION LENGTH: 61.625" | M : TWIN CITY Q : 1 Arr. : A04 C : III S : 270 W : () : 100 D : HORIZONTAL R : CW B : M : 20 HP E : TEFC R.P.M. : 1800 F : 256T M : E : B : F1 P : DIRECT DRIVE I : AMSR 2D P : C/C : NA D : R : 24" D : L : 47.25" D : W : 24" D : H : 47.25" D : W : 24" |
| G HUMIDIFIER SECTION LENGTH: 40" | M : N F M M : SAM- D : (40x72x7)" D : W : 15" D : H : 47.25" |
| H RETURN AIR PLENUM SECTION LENGTH: 32" | D : W : 18" D : H : 28" |
| I EXHAUST FAN SECTION LENGTH: 71.5" | M : TWIN CITY Q : 2 Arr. : A04 C : II S : 182 W : () : 100 D : HORIZONTAL R : CW B : M : 5 HP E : TEFC R.P.M. : 1800 F : 184T M : E : B : F1 P : DIRECT DRIVE I : INGM 2 P : C/C : NA DMP-3 : D.mtr M : T.mtr Mod : 1000 B : Or : H : B : C : P : D : (18x18)" D : W : 24" D : H : 28" |
| J FRESH AIR PLENUM SECTION LENGTH: 30" | D : W : 18" D : H : 60" |



GENERAL NOTES

- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK.
- PREVENT THE SPREAD OF DUST & DEBRIS BEYOND THE WORK AREA AND CLEAN ALL SURFACES AT COMPLETION.
- MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
- COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
- PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS AND SPECIFICATIONS.
- ALL LOW VOLTAGE WIRING SHALL BE IN EMT CONDUIT, UNLESS OTHERWISE NOTED.
- MECHANICAL CONTRACTOR SHALL PROVIDE VENTING TO ALL FIXTURES AS PER NATIONAL BUILDING AND PLUMBING CODE.
- ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH DETAILS ON DRAWINGS M09, M13 & M18.

THIS DOCUMENT MUST NOT BE USED FOR CONSTRUCTION PURPOSES

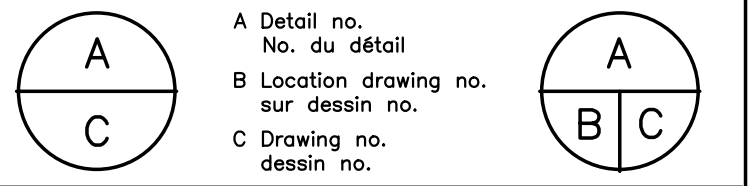


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Project: 637079

| No. | Date | Revision | By | Parr. |
|-----|------------|------------|----|-------|
| 0 | 2016-09-13 | FOR TENDER | | M.L. |

Date Printed: 2016/09/29 Date imprimée:

Verify all dimensions and site conditions and be responsible for same
Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité



NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
MONTREAL ROAD CAMPUS

MECHANICAL VENTILATION DETAILS

| designed | conçu | date | date |
|-----------|------------|-----------------|---------|
| M.V. J.B. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| LL. A.C. | | 1/20 | |
| checked | vérifié | sheet | feuille |
| ML. J.B. | | 19 of 26 | |
| approved | approuvé | W.O.no. | D.T.no. |
| ML. F.A. | | A1-009908-01-58 | |
| dwg.no. | dessin no. | | |
| 5189-M19 | | | |

| EXISTING SHAFT INFORMATION FOR RE-INSULATION PUPOSE SHOWING PIPE SIZING | | | | | | | | | | | | | | NOTES | | | |
|--|-----------------------|-----------|------------|----------|----------|----------|------------------|----------|----------|-----------|-----------|------------|-------------|-------|---|----|----|
| PPRNS SHAFT LOCATION (AXIS) | DIRECTION OF PPRNS | VENT # | STACK # | RVL # | DCV # | DHW # | STANDARD PIPE | HWS # | HWR # | CHWS # | CHMS # | DRAIN # | RVL SIZE | | | | |
| | | | | | | | | | | | | | | 15 | 20 | 25 | 30 |
| Q4 & 3 | UP | - | - | - | - | - | - | - | - | - | - | - | - | 38 | | | |
| R4 & 2 | DOWN | 50 | 1 | 75 | 10 | 100 | 20 | 20 | 20 | 20 | - | - | - | - | | | |
| L3 & 4 | DOWN | - | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| L3 & 7 | UP & DOWN | 2 | 100 | - | - | 50 | 25 | 15 | - | - | - | - | - | | * DCV & DHW TOWARDS PLUMBING FIXTURES ON THE FLOOR ABOVE | | |
| L3 & 8 | UP & DOWN | 38 | 3 | 50 | - | 20 | - | - | - | - | - | - | - | | | | |
| L4 & 21 | UP & DOWN | - | - | - | - | - | - | - | - | - | - | - | - | | NO SIZE INDICATIONS ON THE EXISTING DRAWINGS | | |
| L3 & 26 | UP & DOWN | - | - | - | - | - | - | - | - | - | - | - | - | | NO SIZE INDICATIONS ON THE EXISTING DRAWINGS | | |
| L4 & 26 | UP | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| L3 & 30 | UP & DOWN | 65 | 4 | 100 | 4 | 100 | 32 | 25 | 15 | - | - | - | - | | | | |
| L3 & 38 | UP | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| L3 & 38 | UP & DOWN | 50 | 11 | 100 | 11 | 100 | - | - | - | - | - | - | - | | | | |

THE PRESS THAT SHOULD BE REINSULATED ARE THE ONE IN SHADING.
THE OTHER PRESS COULD BE USED TO PROPERLY LOCATE THE SHAFTS IN COMBINATION WITH THE AXIS.

| HEATING, COOLING AND TERMINAL REHEAT COIL SCHEDULE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------|----------|----------|----------|----------|--|---------------|--------------------|----------------|----------------|------|-----------------------|------|------|-------|------------|-------|-------|-------------------|------|--------|-------------|-----------|-----------------|-----------|--------------|-------|---------------|------|------|-----------|------|---------|---------------------------|-------------------------------|
| SYSTEM | IDENTIF. | AIR | | | | | | TOTAL CAPACITY (2) | | | | SENSIBLE CAPACITY (2) | | | | FLUID TYPE | FLOW | FLOID | FACE VELOCITY (3) | | | | FACE AREA | DIMENSIONS (MM) | ROWS - FR | MANUFACTURER | MODEL | SPECIAL NOTES | | | | | | | |
| | | L/s max. | CFM max. | L/s min. | CFM min. | MAXIMUM AIR PRESSURE DROP (1) Pa (IN.W.G.) | DB (INLET) °C | WB (INLET) °C | DB (OUTLET) °C | WB (OUTLET) °C | KW | MBH | KW | MBH | M/S | | | | FPM | M | F | M/S | | | | | | | FPM | M | F | | | | |
| AHU-04 | TRC-01 | 240 | 510 | 120 | 260 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 2.1 | 7.0 | 2.1 | 7.0 | WATER | 0.04 | 0.70 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.07 | 0.75 | 300X225 | 2-10 | | | |
| AHU-04 | TRC-02 | 320 | 690 | 160 | 340 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 2.7 | 9.2 | 2.7 | 9.2 | WATER | 0.06 | 0.92 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.11 | 1.17 | 350X300 | 2-10 | | | |
| AHU-04 | TRC-03 | 320 | 690 | 160 | 340 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 2.7 | 9.2 | 2.7 | 9.2 | WATER | 0.06 | 0.92 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.11 | 1.17 | 350X300 | 2-10 | | | |
| AHU-04 | TRC-04 | 47 | 100 | 30 | 70 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 0.6 | 1.9 | 0.6 | 1.9 | WATER | 0.01 | 0.19 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-05 | 160 | 340 | 80 | 170 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 1.3 | 4.6 | 1.3 | 4.6 | WATER | 0.03 | 0.46 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-06 | 288 | 620 | 144 | 310 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 2.5 | 8.4 | 2.5 | 8.4 | WATER | 0.05 | 0.84 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.07 | 0.75 | 300X225 | 2-10 | | | |
| AHU-04 | TRC-07 | 43 | 100 | 17 | 40 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 0.3 | 1.1 | 0.3 | 1.1 | WATER | 0.01 | 0.11 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-08 | 116 | 250 | 58 | 130 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 1.0 | 3.5 | 1.0 | 3.5 | WATER | 0.02 | 0.35 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-09 | 33 | 70 | 22 | 50 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 0.4 | 1.4 | 0.4 | 1.4 | WATER | 0.01 | 0.14 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-10 | 404 | 860 | 263 | 560 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 4.4 | 15.1 | 4.4 | 15.1 | WATER | 0.10 | 1.51 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.11 | 1.17 | 350X300 | 2-10 | | | |
| AHU-04 | TRC-11 | 303 | 650 | 196 | 420 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 3.3 | 11.3 | 3.3 | 11.3 | WATER | 0.07 | 1.13 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.11 | 1.17 | 350X300 | 2-10 | | | |
| AHU-04 | TRC-12 | 24 | 60 | 10 | 30 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 0.2 | 0.8 | 0.2 | 0.8 | WATER | 0.01 | 0.08 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-13 | 42 | 90 | 21 | 50 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 0.4 | 1.4 | 0.4 | 1.4 | WATER | 0.01 | 0.14 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-14 | 52 | 120 | 34 | 80 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 0.6 | 2.2 | 0.6 | 2.2 | WATER | 0.01 | 0.22 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-15 | 132 | 280 | 132 | 280 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 2.2 | 7.6 | 2.2 | 7.6 | WATER | 0.05 | 0.76 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-16 | 113 | 240 | 57 | 130 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 1.0 | 3.5 | 1.0 | 3.5 | WATER | 0.02 | 0.35 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-17 | 228 | 490 | 114 | 250 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 2.0 | 6.8 | 2.0 | 6.8 | WATER | 0.04 | 0.68 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.07 | 0.75 | 300X225 | 2-10 | | | |
| AHU-04 | TRC-18 | 70 | 150 | 46 | 100 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 0.8 | 2.7 | 0.8 | 2.7 | WATER | 0.02 | 0.27 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-19 | 33 | 70 | 17 | 40 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 0.3 | 1.1 | 0.3 | 1.1 | WATER | 0.01 | 0.11 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-20 | 33 | 70 | 13 | 30 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 0.2 | 0.8 | 0.2 | 0.8 | WATER | 0.01 | 0.08 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-21 | 806 | 1710 | 403 | 860 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 6.8 | 23.2 | 6.8 | 23.2 | WATER | 0.15 | 2.32 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.19 | 2 | 600X300 | 2-10 | | | |
| AHU-04 | TRC-22 | 420 | 890 | 210 | 450 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 3.6 | 12.2 | 3.6 | 12.2 | WATER | 0.08 | 1.22 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.11 | 1.17 | 350X300 | 2-10 | | | |
| AHU-04 | TRC-23 | 196 | 420 | 127 | 270 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 2.1 | 7.3 | 2.1 | 7.3 | WATER | 0.05 | 0.73 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.07 | 0.75 | 300X225 | 2-10 | | | |
| AHU-04 | TRC-24 | 392 | 840 | 255 | 550 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 4.3 | 14.9 | 4.3 | 14.9 | WATER | 0.09 | 1.49 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.11 | 1.17 | 350X300 | 2-10 | | | |
| AHU-04 | TRC-25 | 392 | 840 | 255 | 550 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 4.3 | 14.9 | 4.3 | 14.9 | WATER | 0.09 | 1.49 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.11 | 1.17 | 350X300 | 2-10 | | | |
| AHU-04 | TRC-26 | 142 | 310 | 71 | 160 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 1.3 | 4.3 | 1.3 | 4.3 | WATER | 0.03 | 0.43 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.11 | 1.17 | 350X300 | 2-10 | | | |
| AHU-04 | TRC-27 | 33 | 70 | 17 | 40 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 0.3 | 1.1 | 0.3 | 1.1 | WATER | 0.01 | 0.11 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-28 | 33 | 70 | 13 | 30 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 0.2 | 0.8 | 0.2 | 0.8 | WATER | 0.01 | 0.08 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | TRC-29 | 360 | 770 | 180 | 390 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 3.1 | 10.5 | 3.1 | 10.5 | WATER | 0.07 | 1.05 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.11 | 1.17 | 350X300 | 2-10 | | | |
| AHU-04 | TRC-30 | 407 | 870 | 204 | 440 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 3.5 | 11.9 | 3.5 | 11.9 | WATER | 0.07 | 1.19 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.11 | 1.17 | 350X300 | 2-10 | | | |
| AHU-04 | TRC-31 | 60 | 130 | 24 | 60 | 75 (0.3) | 12.8 | 55 | - | - | 26.7 | 80 | - | - | 0.5 | 1.6 | 0.5 | 1.6 | WATER | 0.01 | 0.16 | 4.6 (15) | 76.7 | 170 | 65.6 | 150 | 1.78 | 350 | 0.06 | 0.63 | 300X190 | 2-10 | | | |
| AHU-04 | HC-01 | 6495 | 13770 | 2973 | 6300 | 7.5 (0.03) | 5.0 | 41 | - | - | 21.1 | 70 | - | - | 57.8 | 197.3 | 57.8 | 197.3 | WATER | 1.42 | 22.50 | 1.6 (5.2) | 71.1 | 160 | 60.0 | 140 | 2.23 | 439 | 2.91 | 31.3 | 2388X1219 | 1-5 | AEROFIN | HW-5.0AF-48.0X94.0-1-0-25 | MIN. TUBE VELOCITY OF 914 m/s |
| AHU-04 | CC-01 | 6495 | 13770 | 2973 | 6300 | 162 (0.65) | 26.1 | 79 | 18.9 | 66.0 | 11.5 | 52.7 | 11.3 | 52.4 | 162.7 | 555.5 | 114.5 | 391.1 | WATER | 7.01 | 111.11 | 3.14 (10.3) | 7.2 | 45 | 12.8 | 55 | 2.23 | 439 | 2.91 | 31.3 | 2388X1219 | 6-8 | AEROFIN | W-8.0AW-48.0X94.0-0-6-1 | |

Remarks:
(1) maximum air pressure drop at maximum air flow
(2) heating capacity at minimum air flow
(3) velocity at maximum air flow

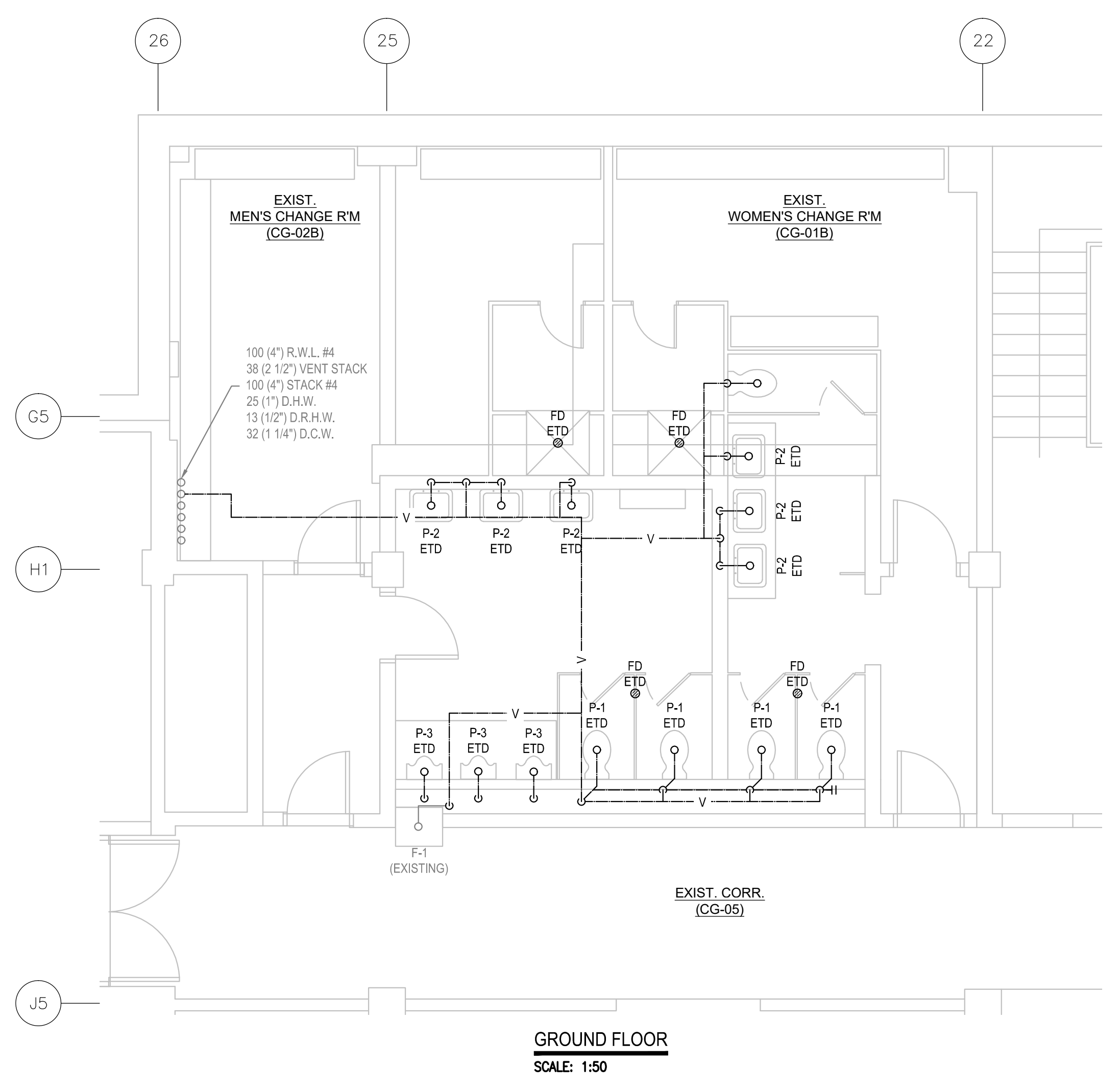
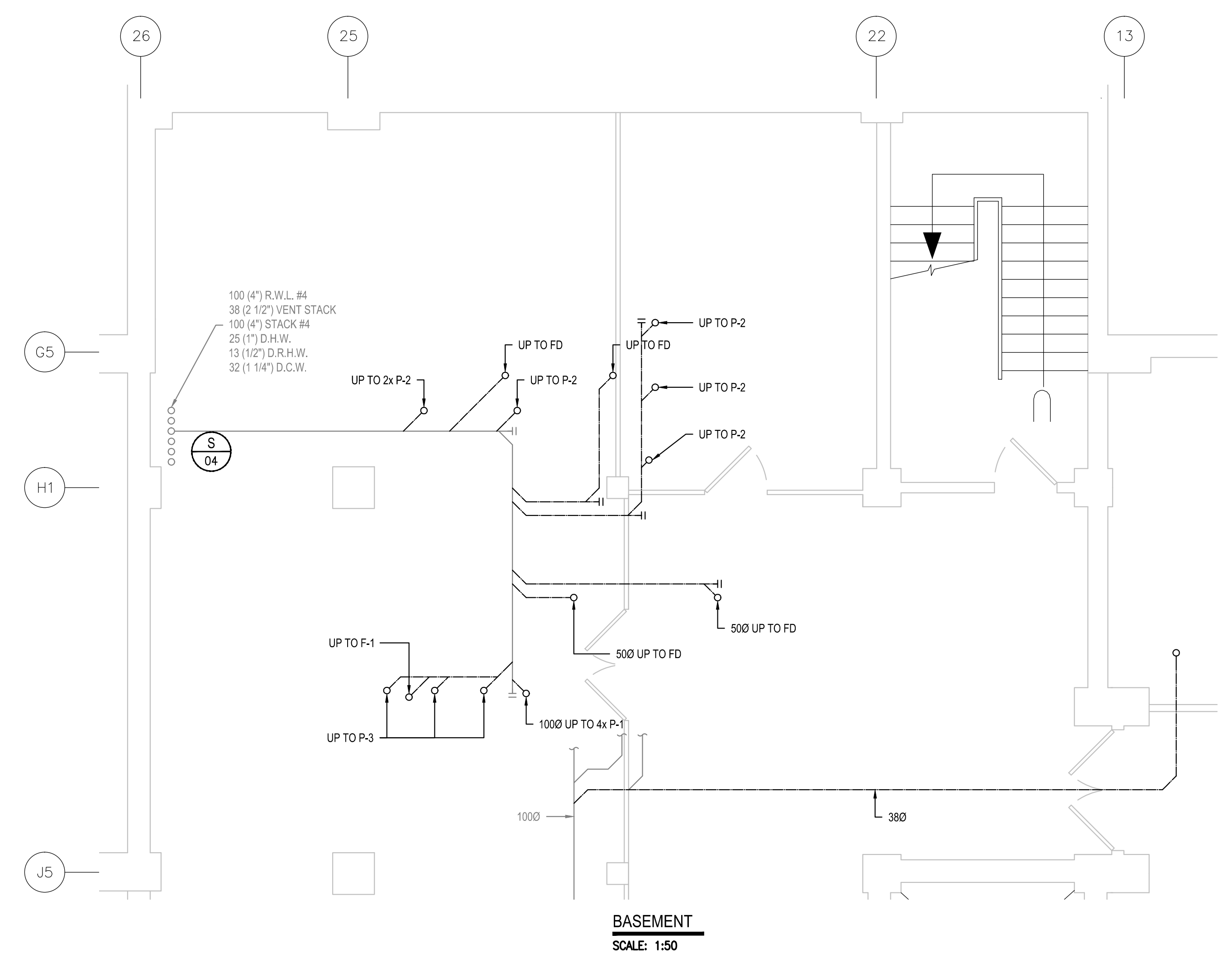
| GRILLES AND DIFFUSERS | | | | | | | | | |
|-----------------------|----------|--------|-----------------|--------------|----------|-----------------|---------------------|-------|---------------|
| IDENTIF. | TYPE | USAGE | INSTALLATION | MANUFACTURER | MATERIAL | INLET mm (inch) | DIMENSION mm (inch) | MODEL | SPECIAL NOTES |
| SD-01 | Diffuser | Supply | Ceiling | E.H. Price | Steel | See draw ings | 610x610 (24"x24") | RVDAL | 1 |
| SD-02 | Diffuser | Supply | Ceiling | E.H. Price | Steel | See draw ings | 610x610 (24"x24") | RVDAL | 1 |
| SD-03 | Diffuser | Supply | Ceiling | E.H. Price | Steel | See draw ings | 610x610 (24"x24") | RVDAL | 1 |
| SD-04 | Diffuser | Supply | Dryw at Ceiling | E.H. Price | Steel | See draw ings | 610x610 (24"x24") | RVDAL | 1 |
| | | | | | | | | | |



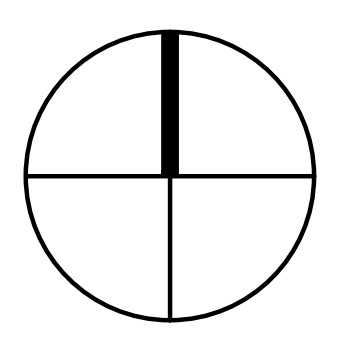
GENERAL NOTES

- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
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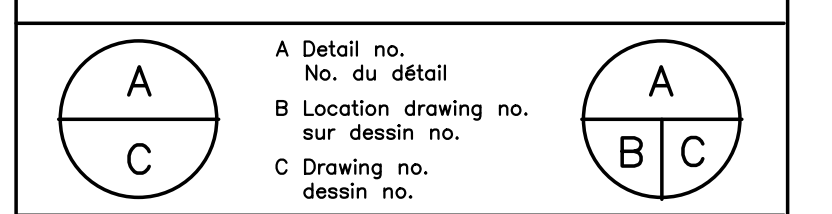
PROJECT NORTH SEAL



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 Ottawa (Ontario) K1P 5B7 Canada
 Telephone: (613) 907-7107
 www.snc-lavalin.com
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| Date Printed: 2016/09/16 | | Date imprimée: | |

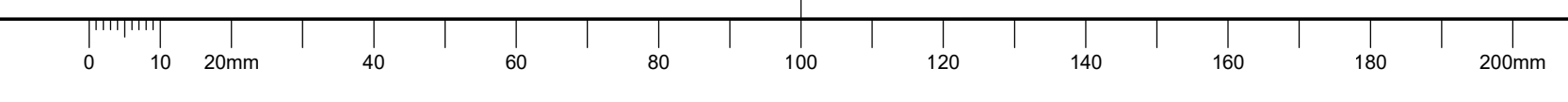
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project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 MONTREAL ROAD CAMPUS
 drawing: MECHANICAL - DRAINAGE BASEMENT AND GROUND FLOOR DEMOLITION PARTIAL PLAN VIEW

| | | | |
|------------|----------|-----------------|---------|
| designed | conçu | date | date |
| M.V., J.B. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| L.L., A.C. | | 1:50 | |
| checked | vérifié | sheet | feuille |
| M.L., J.B. | | 21 of/de | 26 |
| approved | approuvé | W.O.no. | D.T.no. |
| M.L., F.A. | | A1-009908-01-58 | |

dwg.no. 5189-M21
dessin no.



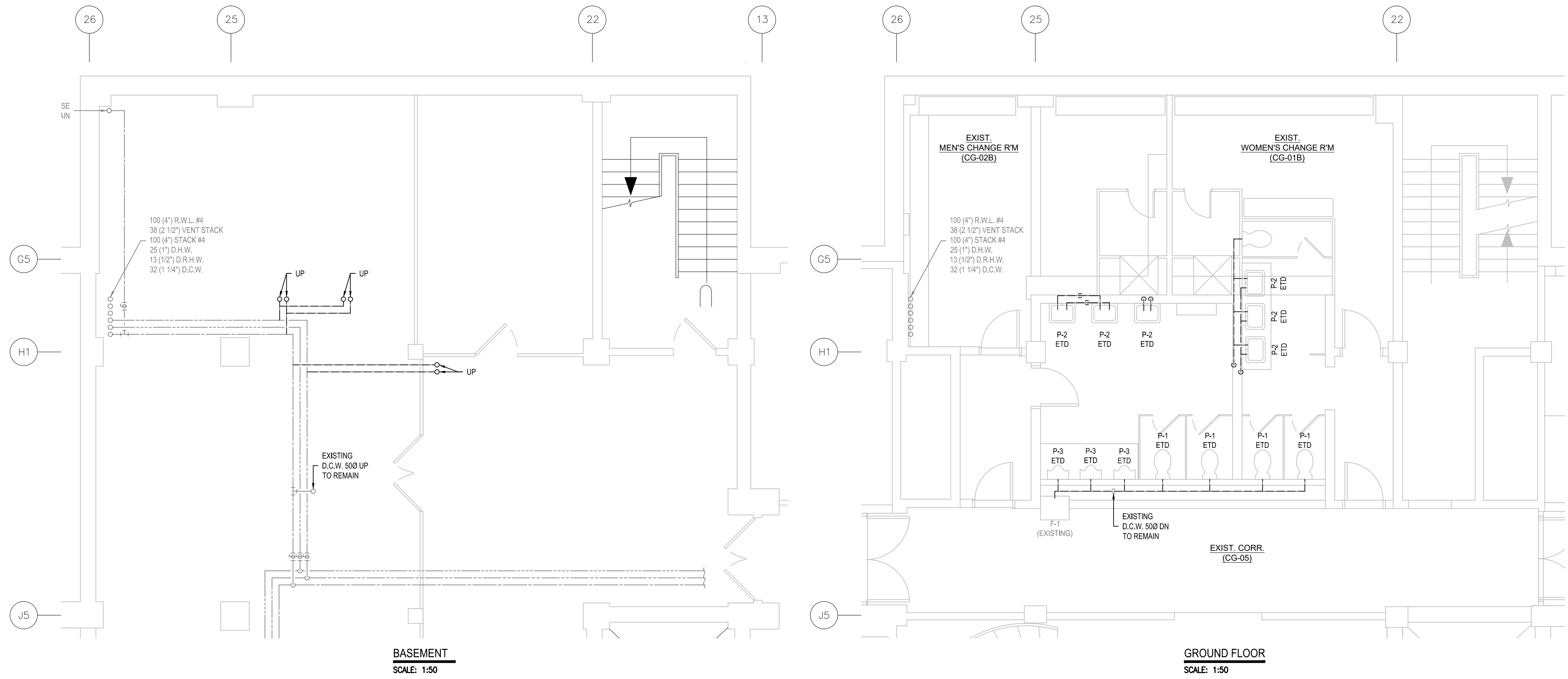
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GENERAL NOTES

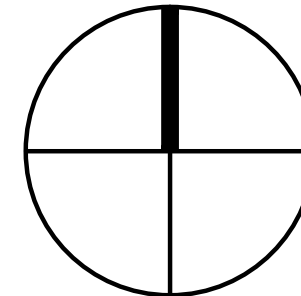
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BASEMENT
SCALE: 1:50

GROUND FLOOR
SCALE: 1:50





| | |
|---|------|
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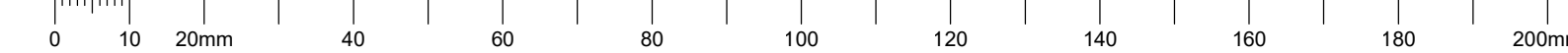
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|  | C Drawing no. dessin no. |  | |

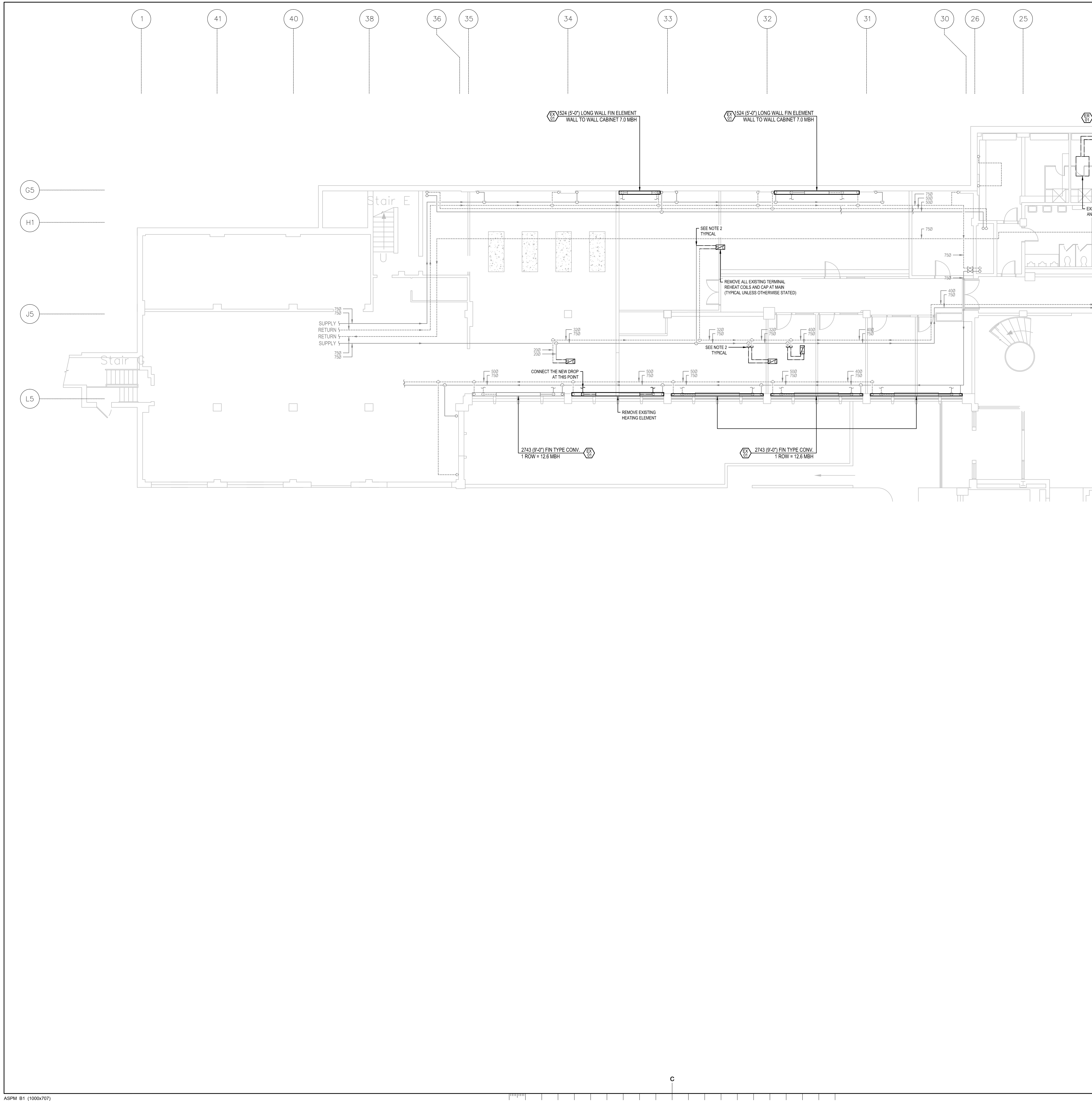
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 projet: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

drawing: MECHANICAL - DOMESTIC WATER BASEMENT AND GROUND FLOOR DEMOLITION PARTIAL PLAN VIEW
 dessin: MECHANICAL - DOMESTIC WATER BASEMENT AND GROUND FLOOR DEMOLITION PARTIAL PLAN VIEW

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| designed | conçu | date | 04/2016 |
| M.V., J.B. | | | |
| drawn | dessiné | scale | 1:50 |
| L.L., A.C. | | | |
| checked | vérifié | sheet | 22 of/de 26 |
| M.L., J.B. | | | |
| approved | approuvé | W.O.no. | A1-009908-01-58 |
| M.L., F.A. | | | |
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- GENERAL NOTES:**
- REMOVE ALL THE CABINETS SHOWN IN BOLD. KEEP THE FIN LENGTH AND PIPING UNLESS SHOWN OTHERWISE.
 - PROVIDE CLIPS ON ALL DEMO COIL PIPING. PROVIDE ISOLATION VALVE AND CAPS ON ALL DEMOLITION COIL PIPING TO BE RE-USED.

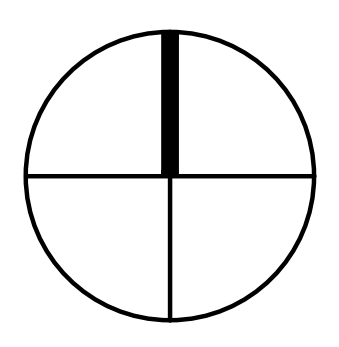


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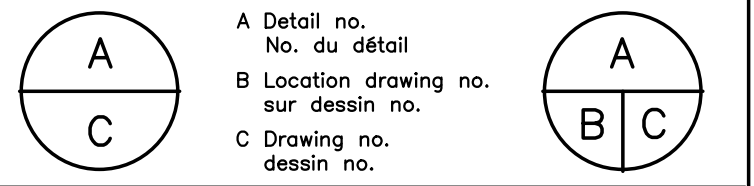
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project / projet
NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 MONTREAL ROAD CAMPUS

drawing / dessin
MECHANICAL - PLUMBING AND HEATING GROUND FLOOR DEMOLITION PARTIAL PLAN VIEW - WEST WING

| designed / conçu | date | drawn / dessiné | scale / échelle |
|-------------------|-----------------|---------------------|-----------------|
| M.V., J.B. | 04/2016 | L.L., A.C. | 1/100 |
| checked / vérifié | sheet / feuille | approved / approuvé | D.T.no. |
| M.L., J.B. | 23 of/ de 26 | M.L., F.A. | A1-009908-01-58 |

dwg.no. / dessin no.
5189-M23

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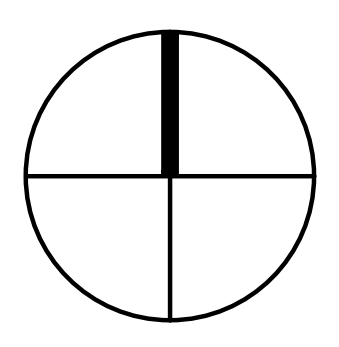
NRC - CNRC

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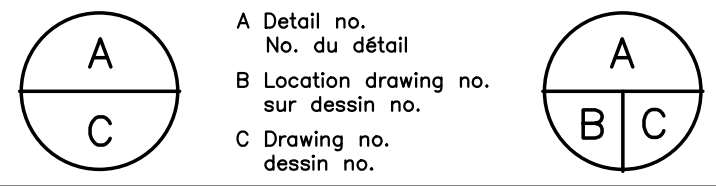
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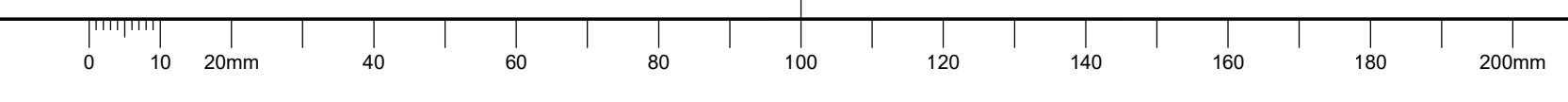
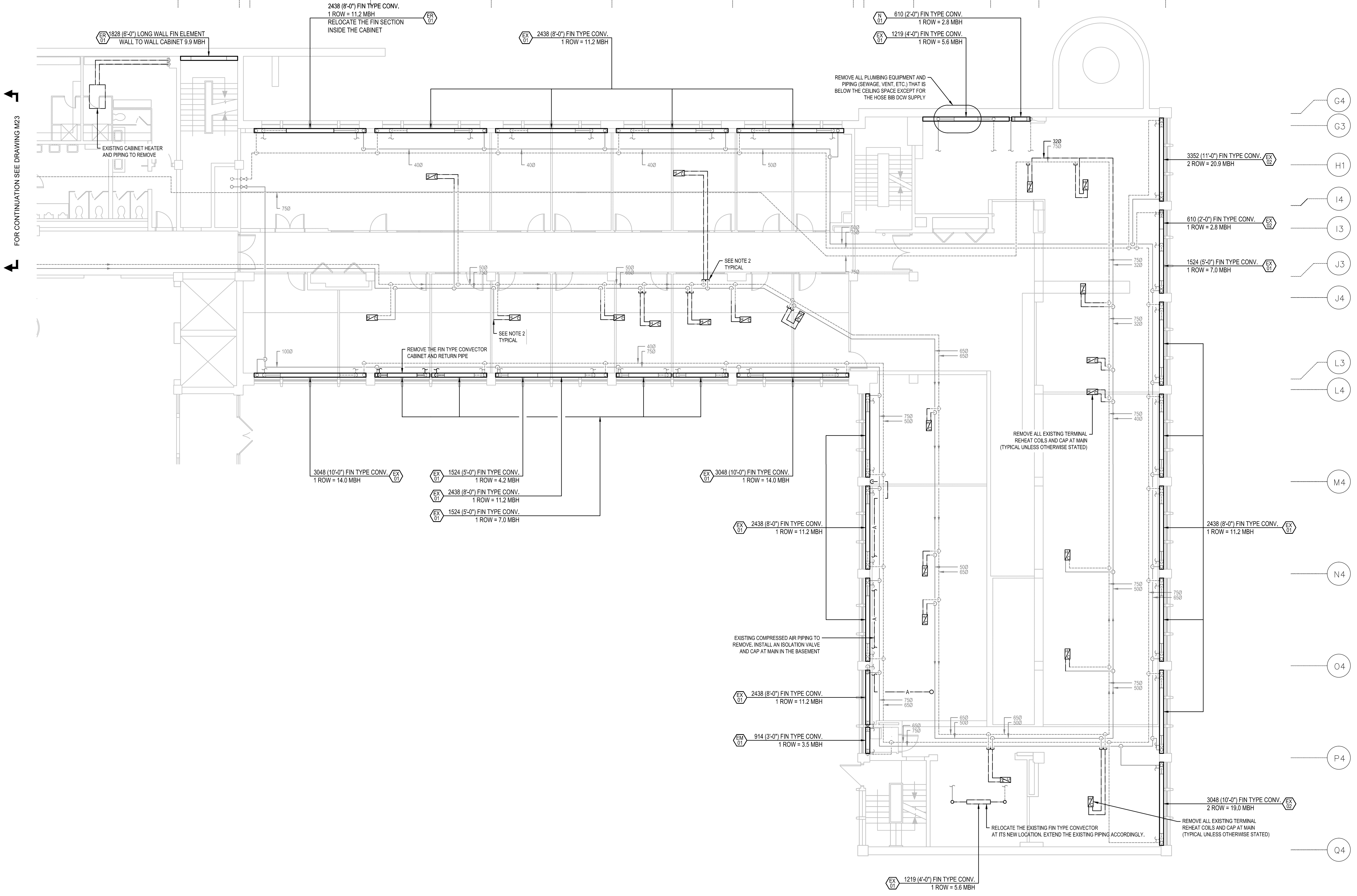


project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 MONTREAL ROAD CAMPUS

drawing: MECHANICAL - PLUMBING AND HEATING GROUND FLOOR DEMOLITION PARTIAL PLAN VIEW - EAST WING

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| designed | conçu | date | 04/2016 |
| M.V., J.B. | | | |
| drawn | dessiné | scale | 1:100 |
| L.L., A.C. | | | |
| checked | vérifié | sheet | 24 of/de 26 |
| M.L., J.B. | | | |
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| M.L., F.A. | | A1-009908-01-58 | |
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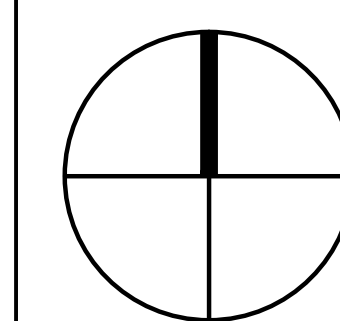


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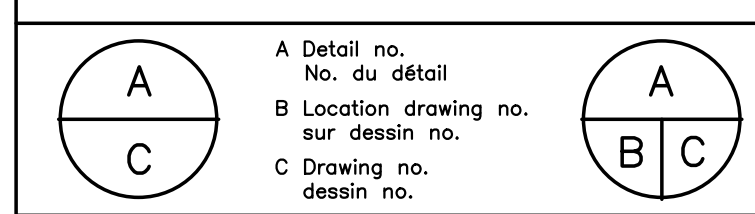


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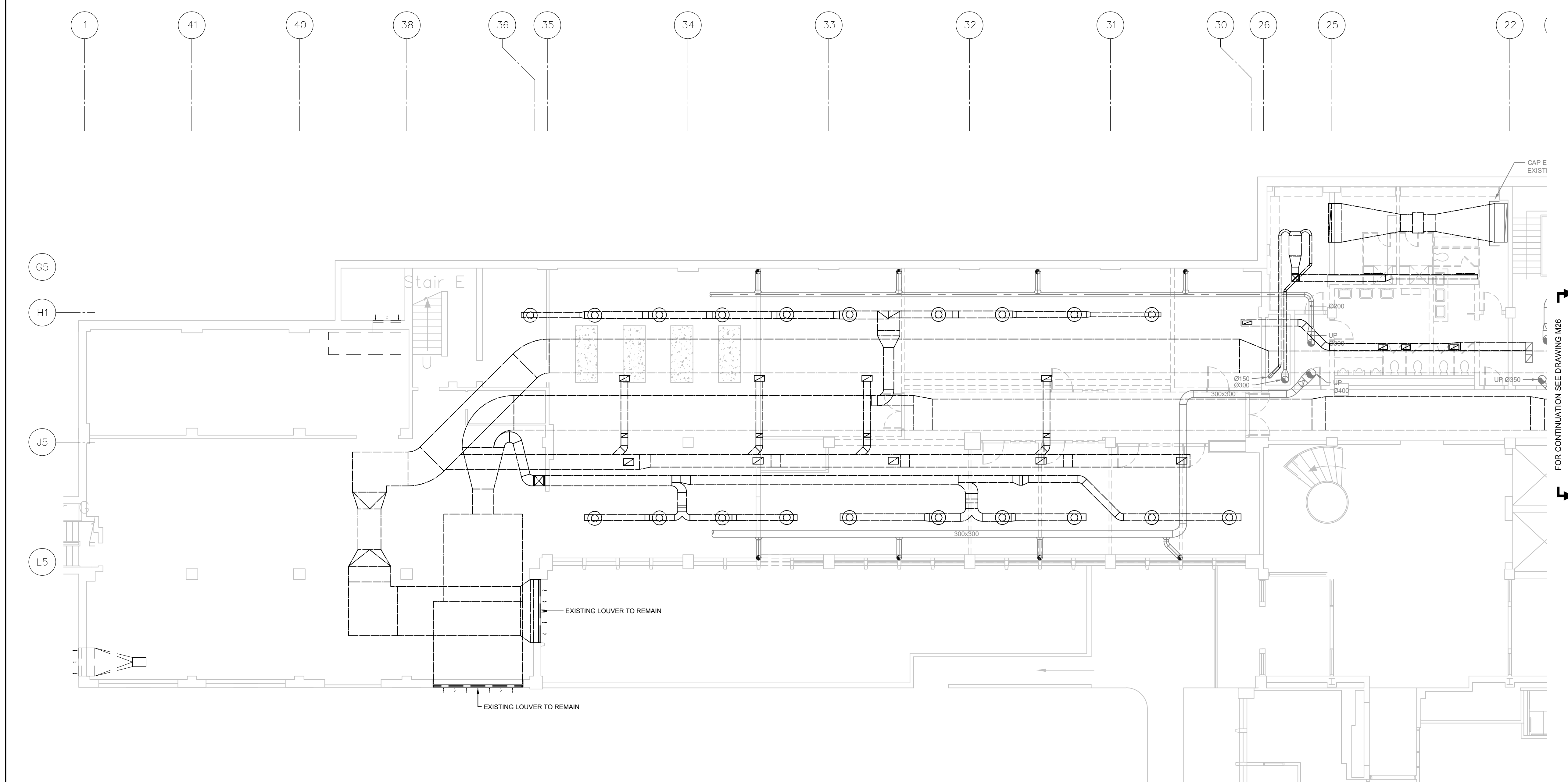


project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 MONTREAL ROAD CAMPUS

drawing: MECHANICAL - VENTILATION GROUND FLOOR DEMOLITION PARTIAL PLAN VIEW - EAST WING

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| designed | conçu | date | 04/2016 | date |
| M.V., J.B. | | | | |
| drawn | dessiné | scale | 1:100 | échelle |
| L.L., A.C. | | | | |
| checked | vérifié | sheet | 25 of/de 26 | feuille |
| M.L., J.B. | | | | |
| approved | approuvé | W.O.no. | A1-009908-01-58 | D.T.no. |
| M.L., F.A. | | | | |

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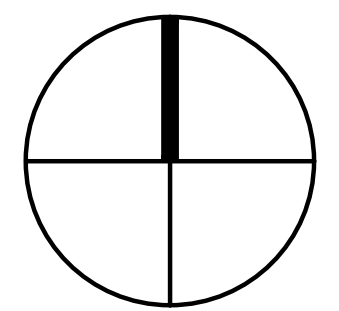


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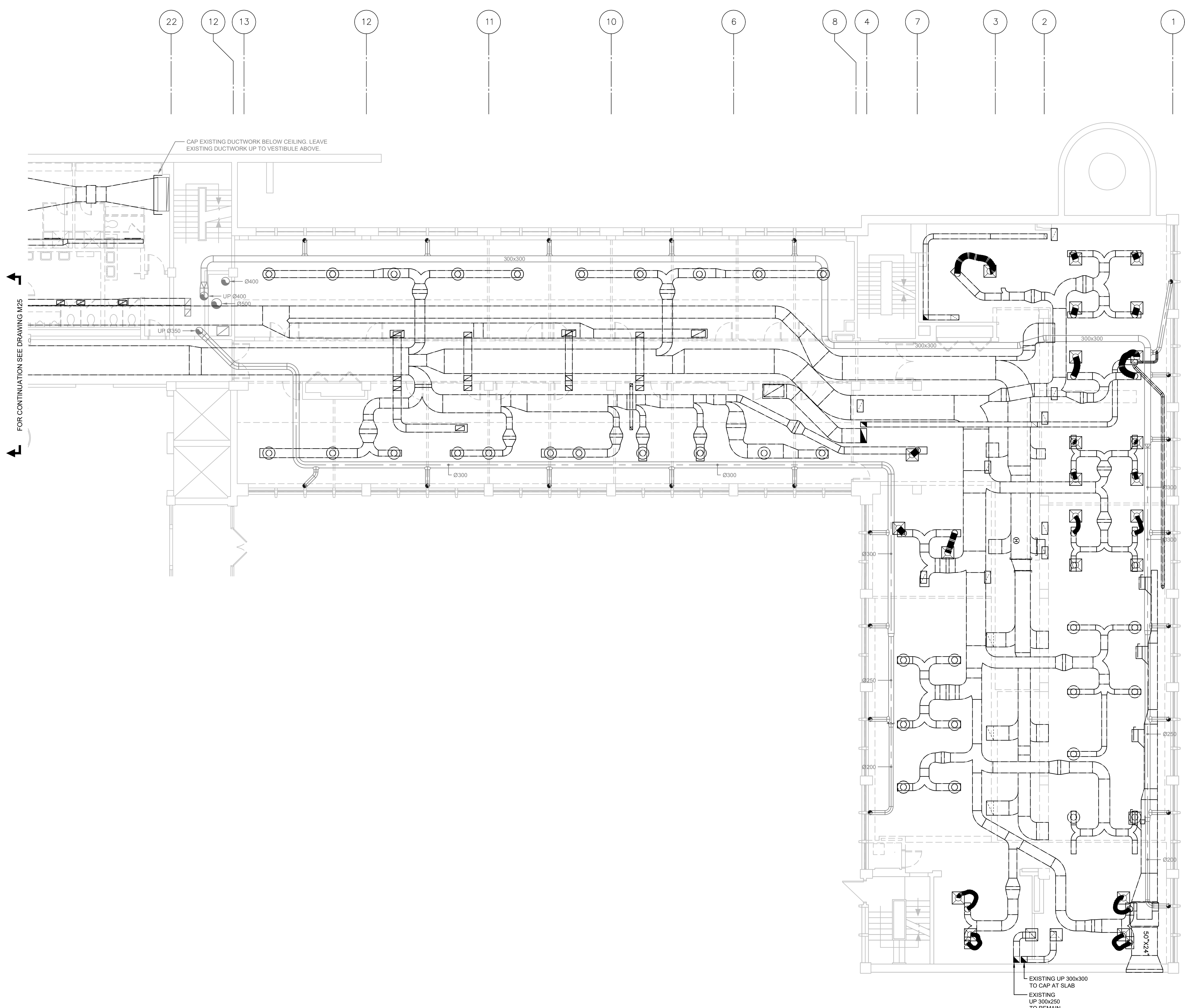
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| C | C |

project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 projet: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS

drawing: MECHANICAL - VENTILATION GROUND FLOOR DEMOLITION PARTIAL PLAN VIEW - EAST WING
 dessin: MECHANICAL - VENTILATION GROUND FLOOR DEMOLITION PARTIAL PLAN VIEW - EAST WING

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| designed | conçu | date | 04/2016 | date |
| M.V., J.B. | | | | |
| drawn | dessiné | scale | 1:100 | échelle |
| L.L., A.C. | | | | |
| checked | vérifié | sheet | 26 | of/de 26 |
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| approved | approuvé | W.O.no. | A1-009908-01-58 | D.T.no. |
| M.L., F.A. | | | | |
| dwg.no. | dessin no. | 5189-M26 | | |



FOR CONTINUATION SEE DRAWING M25

NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION (NRC PROJECT #5189)

1200 MONTREAL RD, OTTAWA ONTARIO
ISSUED FOR TENDER - SEPTEMBER 16, 2016



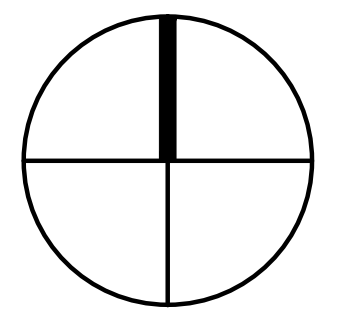
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DRAWING LIST

| ELECTRICAL DRAWINGS | |
|---------------------|--|
| E01 | COVER SHEET, KEY PLAN AND DRAWINGS LIST |
| E02 | LEGEND |
| E03 | NORMAL POWER - SINGLE LINE DIAGRAM - CONSTRUCTION |
| E04 | EMERGENCY POWER - SINGLE LINE DIAGRAM - CONSTRUCTION |
| E05 | LIGHTING - FLOOR PLAN REDEVELOPMENT - PARTIAL PLAN VIEW - WEST WING |
| E06 | LIGHTING - FLOOR PLAN REDEVELOPMENT - PARTIAL PLAN VIEW - EAST WING |
| E07 | SERVICES - FLOOR PLAN REDEVELOPMENT - PARTIAL PLAN VIEW - WEST WING |
| E08 | SERVICES - FLOOR PLAN REDEVELOPMENT - PARTIAL PLAN VIEW - EAST WING |
| E09 | AUXILIARY SYSTEMS - FLOOR PLAN REDEVELOPMENT - PARTIAL PLAN VIEW - WEST WING |
| E10 | AUXILIARY SYSTEMS - FLOOR PLAN REDEVELOPMENT - PARTIAL PLAN VIEW - EAST WING |
| E11 | PANELS PART 1 OF 2 - CONSTRUCTION |
| E12 | PANELS PART 2 OF 2 - CONSTRUCTION |
| E13 | CONSTRUCTION - DETAILS PART 1 OF 3 |
| E14 | CONSTRUCTION - DETAILS PART 2 OF 3 |
| E15 | CONSTRUCTION - DETAILS PART 3 OF 3 |
| E16 | LIGHTING - FLOOR PLAN DEMOLITION - PARTIAL PLAN VIEW - WEST WING |
| E17 | LIGHTING - FLOOR PLAN DEMOLITION - PARTIAL PLAN VIEW - EAST WING |
| E18 | SERVICES - FLOOR PLAN DEMOLITION - PARTIAL PLAN VIEW - WEST WING |
| E19 | SERVICES - FLOOR PLAN DEMOLITION - PARTIAL PLAN VIEW - EAST WING |
| E20 | SERVICES - BASEMENT DEMOLITION - PARTIAL PLAN VIEW - EAST WING |
| E21 | AUXILIARY SYSTEMS - FLOOR PLAN DEMOLITION - PARTIAL PLAN VIEW - WEST WING |
| E22 | AUXILIARY SYSTEMS - FLOOR PLAN DEMOLITION - PARTIAL PLAN VIEW - EAST WING |
| E23 | NORMAL POWER - SINGLE LINE DIAGRAM DEMOLITION |
| E24 | EMERGENCY POWER - SINGLE LINE DIAGRAM DEMOLITION |
| E25 | PANELS PART 1 OF 2 - DEMOLITION |
| E26 | PANELS PART 2 OF 2 - DEMOLITION |

THIS DOCUMENT MUST NOT BE USED FOR CONSTRUCTION PURPOSES

PROJECT NORTH SEAL

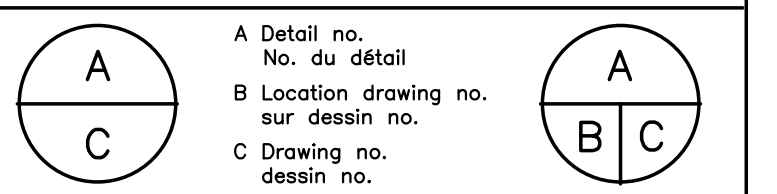


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www.snc-lavalin.com
Project: 637079

| No. | Date | Revision | By: Per: | M.L. |
|-----|------------|------------|----------|------|
| 0 | 2016-09-16 | FOR TENDER | | |

Date Printed: 2016/09/16 Date imprimée: _____

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité



project
NATIONAL RESEARCH COUNCIL CANADA
BUILDING (M-58) GROUND FLOOR LEVEL
EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS
drawing
COVER SHEET, KEY PLAN AND DRAWINGS LIST

| designed | conçu | date | date |
|--------------------------|------------|-----------------|---------|
| M. Van Uytendaele, tech. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| L. Lefebvre, dess. | | None | |
| checked | vérifié | sheet | feuille |
| M. Latouche, P. Eng. | | 01 of/de | 26 |
| approved | approuvé | W.O.no. | D.T.no. |
| M. Latouche, P. Eng. | | A1-009908-01-58 | |
| dwg.no. | dessin no. | | |
| 5189-E01 | | | |

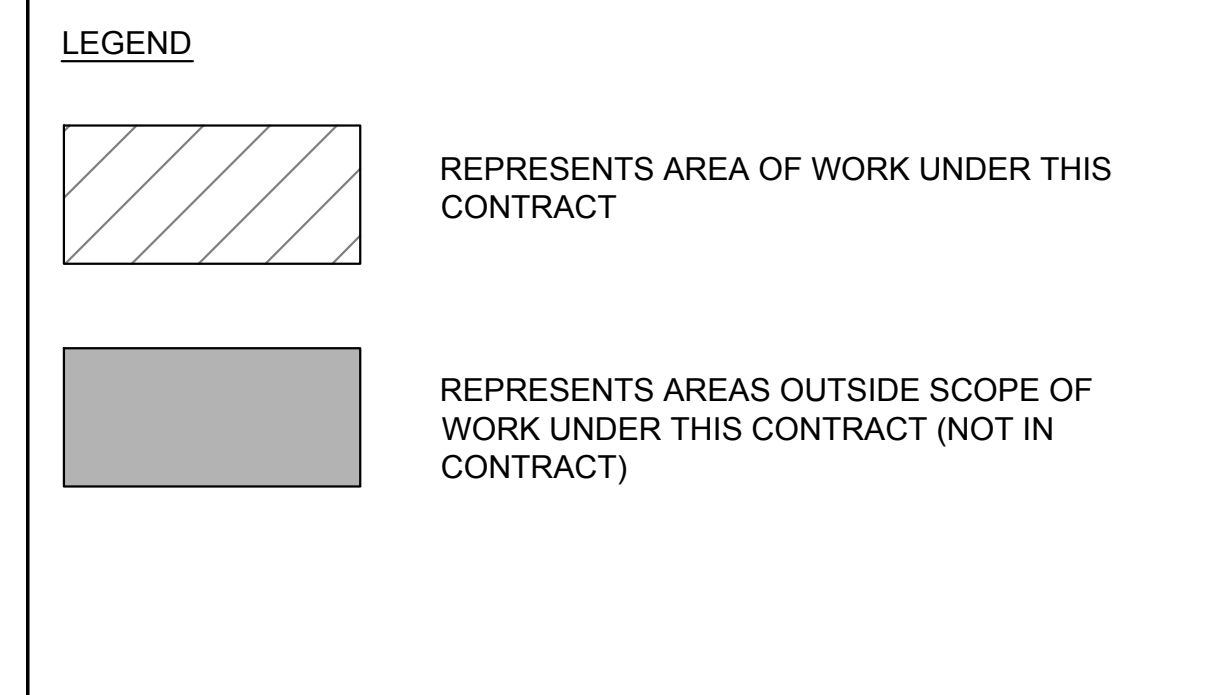
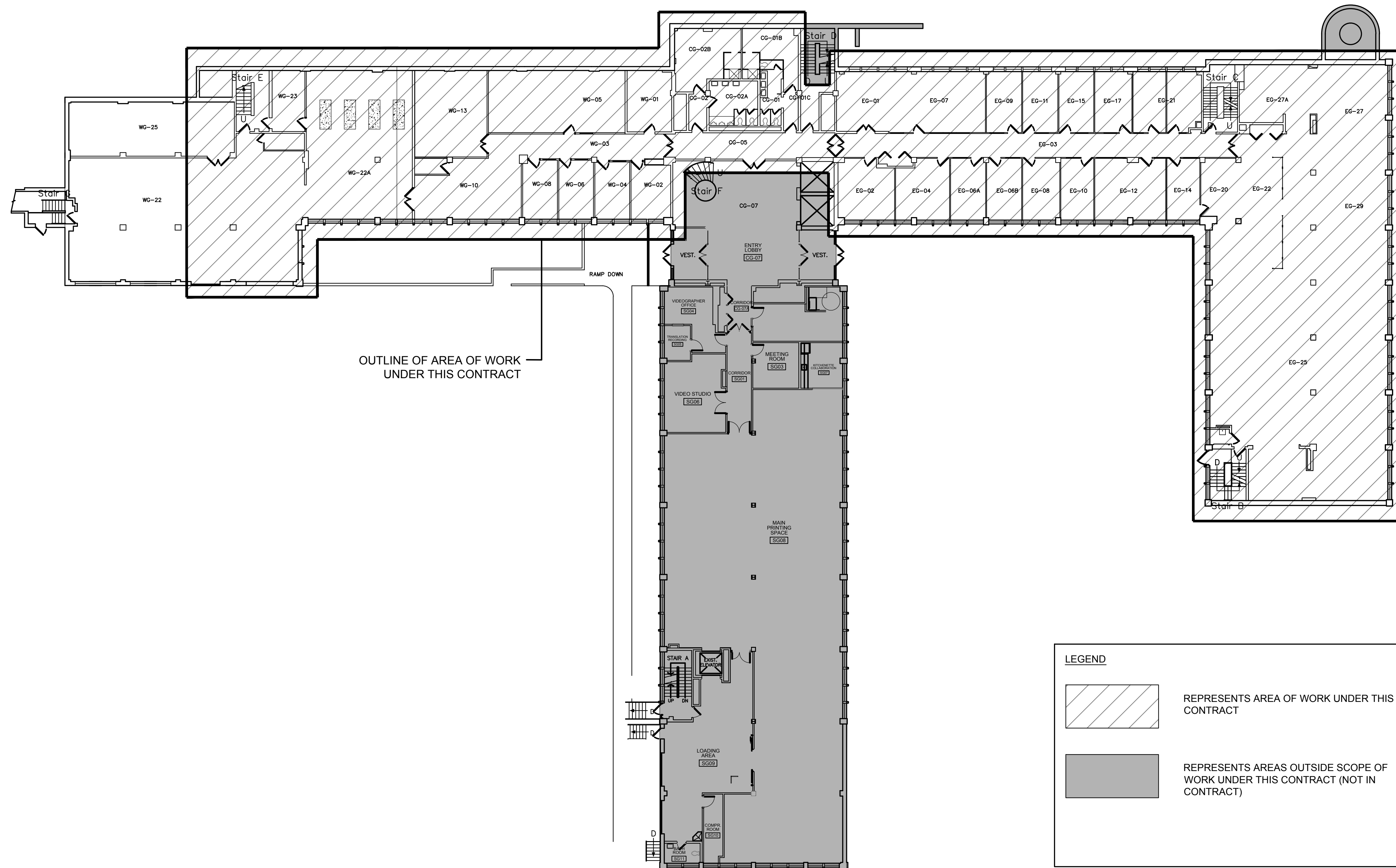
NBC DATA MATRIX

BASED ON NATIONAL BUILDING CODE OF CANADA (2015)

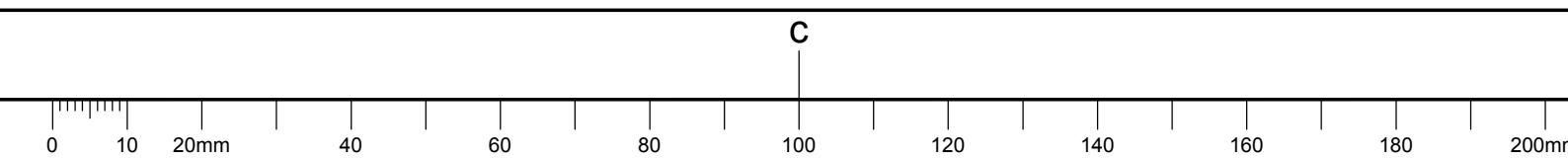
| ITEM | NBC DIVISION B, PART (3) DATA MATRIX |
|------|---|
| 1 | PROJECT DESCRIPTION: INTERIOR RENOVATIONS/FIT-UP. <input type="checkbox"/> CHANGE OF USE <input type="checkbox"/> |
| 2 | MAJOR OCCUPANCY(S) GROUP D - BUSINESS & PERSONAL SERVICES OCCUPANCY |
| 3 | BUILDING CLASSIFICATION 3.2.2.56. GROUP D, UP TO 6 STOREYS |
| 4 | FIT UP AREA (m ²) 1,489 SQ.M. ± |
| 5 | GROSS AREA (m ²) |
| 6 | NUMBER OF STOREYS ABOVE GRADE: 4 BELOW GRADE: 1 |
| 7 | BUILDING HEIGHT |
| 8 | NUMBER OF STREETS/ ACCESS ROUTES |
| 9 | SPRINKLER SYSTEM EXISTING <input type="checkbox"/> ENTIRE BUILDING <input type="checkbox"/> PARTIAL BUILDING <input type="checkbox"/> NO (NOT REQUIRED) |

WORK RESTRICTIONS

- EXECUTE WORK WITH LEAST POSSIBLE INTERFERENCE OR DISTURBANCE TO NORMAL USE OF PREMISES. MAKE ARRANGEMENTS WITH DEPARTMENTAL REPRESENTATIVE TO FACILITATE WORK AS STATED.
- ANY WORK TO BE PERFORMED BY THE GENERAL CONTRACTOR AND/OR ITS SUB-CONTRACTORS GENERATING EXCESSIVE NOISE, ODORS AND/OR ANY KIND OF DISCOMFORT TO THE BUILDING USERS SHALL BE EXECUTED OUTSIDE OF THE BUILDING'S NORMAL BUSINESS HOURS, AT THE DISCRETION OF THE DEPARTMENTAL REPRESENTATIVE. REFER TO THE SPECIFICATIONS (DIVISION 01).



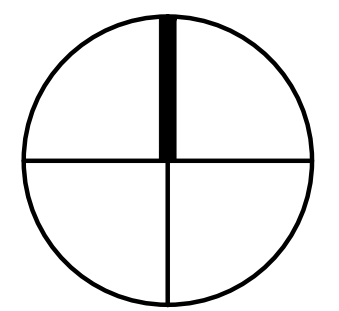
1 A0 EXISTING OVERALL GROUND FLOOR PLAN/KEY PLAN
SCALE = 1:200



- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK.
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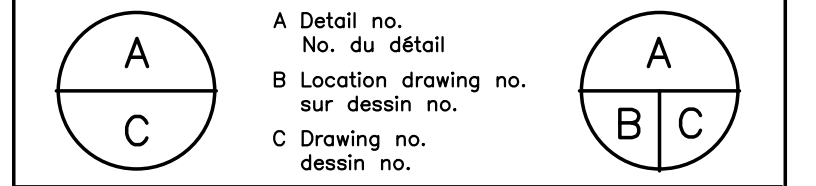
PROJECT NORTH SEAL



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 www.snc-lavalin.com
 Project: 637079

| Date | Printed | 2016/09/16 | FOR TENDER | M.L. |
|---|---------|------------|------------|------|
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| Date Printed: 2016/09/16 Date imprimée: | | | | |

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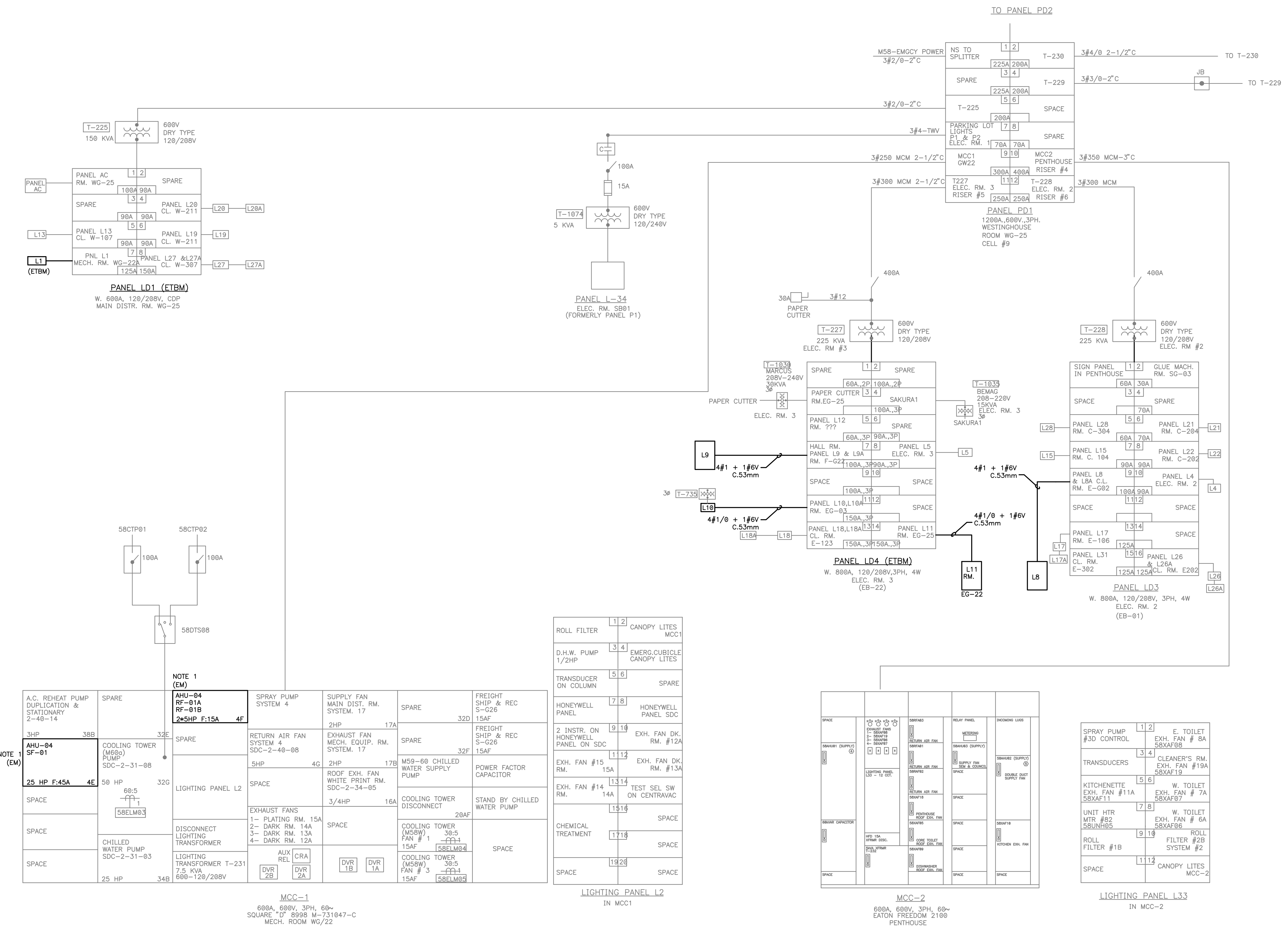
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

project: MONTREAL ROAD CAMPUS

drawing: ELECTRICAL - NORMAL POWER SINGLE LINE DIAGRAM CONSTRUCTION

| designed | conçu | date | date |
|----------------------|------------|-----------------|---------|
| B. Godin, tech. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| L. Alvarez | | As indicated | |
| checked | vérifié | sheet | feuille |
| S. Gaudet, P. Eng. | | 03 of/ de 26 | |
| approved | approuvé | W.O.no. | D.T.no. |
| M. Latouche, P. Eng. | | A1-009908-01-58 | |
| dwg.no. | dessin no. | | |

5189-E03



NOTE 1 (EM)

| | | | | | | |
|---|-------|-------------------------------------|--|---|----------------------------------|---|
| A.C. REHEAT PUMP DUPLICATION & STATIONARY 2-40-14 | SPARE | AHU-04 RF-01A RF-01B 2x5HP F:15A 4F | SPRAY PUMP SYSTEM 4 | SUPPLY FAN MAIN DIST. SYSTEM 17 | SPARE | FREIGHT SHIP & REC S-426 15AF |
| 3HP SF-01 | 38B | | RETURN AIR FAN SYSTEM 4 SDC-2-40-08 | EXHAUST FAN MECH. EQUIP. RM. SYSTEM 17 | SPARE | FREIGHT SHIP & REC S-426 15AF |
| COOLING TOWER (M5B) PUMP SDC-2-31-08 | 32C | | 5HP 4G | 2HP 17B | M59-60 CHILLED WATER SUPPLY PUMP | POWER FACTOR CAPACITOR |
| 50 HP 58LMB3 | 32G | | SPACE | ROOF EXH. FAN WHITE PRINT RM. SDC-2-34-05 | COOLING TOWER DISCONNECT | STAND BY CHILLED WATER PUMP |
| 60-5 | | | LIGHTING PANEL L2 | EXHAUST FANS 1- PLATING RM. 15A 2- DARK RM. 14A 3- DARK RM. 13A 4- DARK RM. 12A | SPACE | COOLING TOWER (M5B) FAN # 1 30-5 15AF 58ELMB3 |
| DISCONNECT LIGHTING TRANSFORMER | | | | AUX REL 2B 2A | | SPACE |
| CHILLED WATER PUMP SDC-2-31-03 | | | LIGHTING TRANSFORMER T-231 2.5 KVA 600V-120/208V | DVR 1B 1A | | |
| 25 HP 34B | | | | | | |

NOTE 1 (CM)

| | |
|---|----------------------------|
| ROLL FILTER 1 2 | CANOPY LITES MCC1 |
| D.H.W. PUMP 1/2HP 3 4 | EMERG.CUBICLE CANOPY LITES |
| TRANSDUCER ON COLUMN 5 6 | SPARE |
| HONEYWELL PANEL 7 8 | HONEYWELL PANEL SDC |
| 2 INSTR. ON HONEYWELL PANEL ON SDC 9 10 | EXH. FAN DK. RM. #12A |
| EXH. FAN #15 RM. 15A 1 11 | EXH. FAN DK. RM. #13A |
| EXH. FAN #14 RM. 14A 1 12 | TEST SEL SW ON CENTRAVAC |
| 15 14 | SPACE |
| CHEMICAL TREATMENT 17 18 | SPACE |
| SPACE 19 20 | SPACE |

LIGHTING_PANEL L2 IN MCC1

NOTE 1 (EM)

| | |
|----------------------------|-------------------------------------|
| SPRAY PUMP #3D CONTROL 1 2 | E. TOILET EXH. FAN # 8A S8XAF88 |
| TRANSUDERS 3 4 | CLEANER'S RM. EXH. FAN #19A S8XAF19 |
| KITCHENETTE 5 6 | W. TOILET EXH. FAN #11A S8XAF11 |
| UNIT HTR #82 S8UNH85 | W. TOILET EXH. FAN # 6A S8XAF86 |
| ROLL FILTER #1B 9 10 | ROLL FILTER #2B SYSTEM #2 |
| SPACE 11 12 | CANOPY LITES MCC-2 |

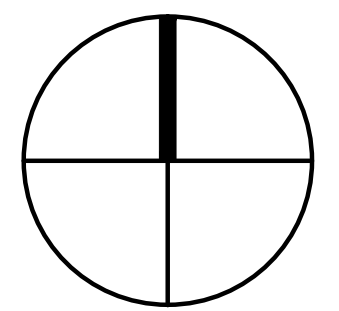
LIGHTING_PANEL L33 IN MCC-2

NOTE 1:
 EXISTING MCC BUCKETS TO BE MODIFIED AS FEEDERS FOR NEW EXTERNAL VFDs
 REMOVE THE COMPONENTS OF THE STARTER. KEEP FUSES AND DISCONNECT.
 REMOVE ALL CONTROLS AND LIGHTS INSTALLED ON THE DOOR AND PROVIDE K.O. FILLERS.

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PROJECT NORTH SEAL

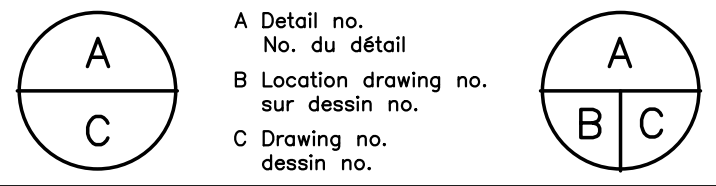


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 Project: 637079

| No. | Date | Revision | By | Per |
|-----|------------|------------|----|------|
| 0 | 2016-09-16 | FOR TENDER | | M.L. |

Date Printed: 2016/09/16 Date imprimée:

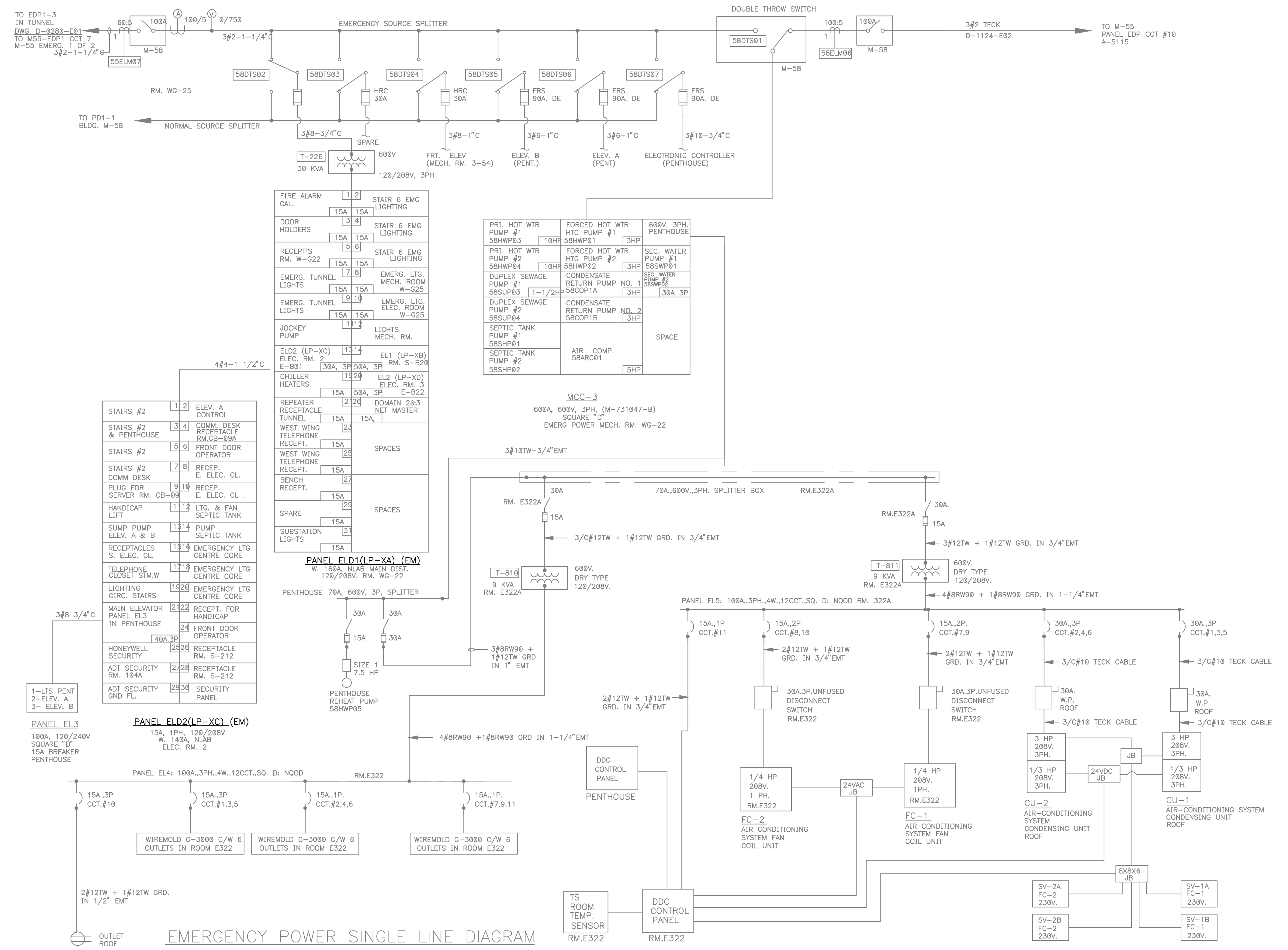
- Verify all dimensions and site conditions and be responsible for same
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project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

drawing: MONTREAL ROAD CAMPUS

designed: B. Godin, tech. date: 04/2016
 drawn: L. Alvarez, échelle: As indicated
 checked: S. Gaudet, P. Eng. sheet: 04 of/ de 26
 approved: M. Latouche, P. Eng. W.O.no.: A1-009908-01-58 D.T.no.:
 dwg.no.: 5189-E04



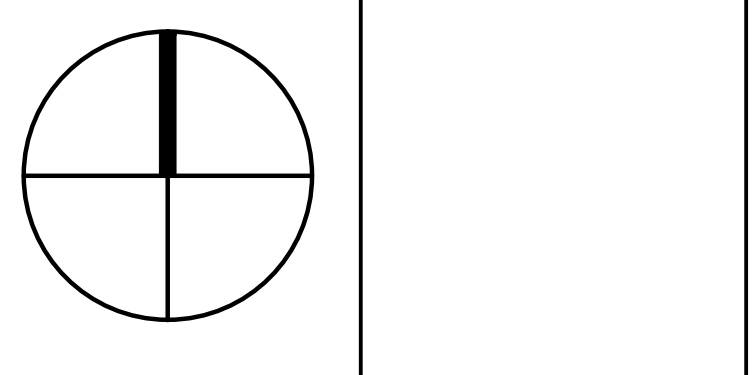
NOTES:
 1. ALL SERVICES IN THIS SECTOR ARE SUPPLIED AS FOLLOWS (OR AS INDICATED):
 NORMAL POWER : L1
 EMERGENCY POWER : ELD1 (REUSE OLD CIRCUIT)



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PROJECT NORTH SEAL

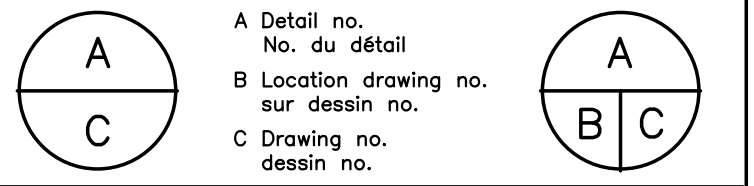


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 Project: 637079

| No. | Date | Revision | By: |
|-----|------------|------------|------|
| 0 | 2016-09-16 | FOR TENDER | M.L. |

Date Printed: 2016/09/16 Date imprimée

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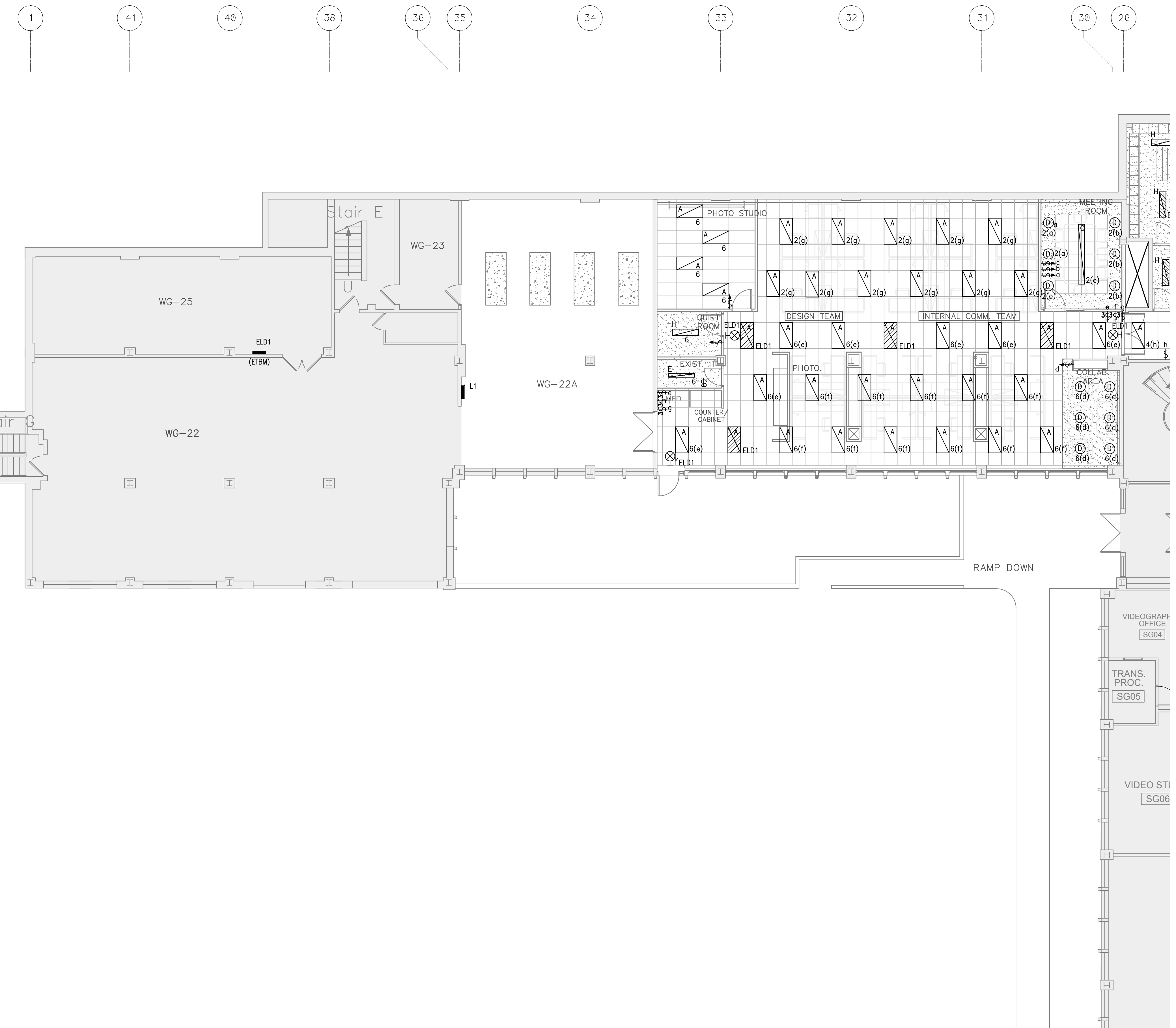


project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 MONTREAL ROAD CAMPUS

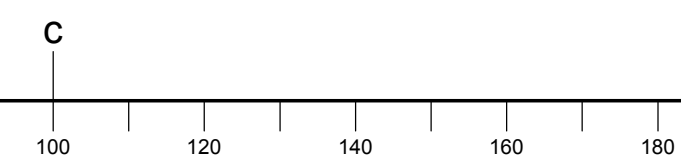
drawing: ELECTRICAL - LIGHTING FLOOR PLAN NEW WORK PARTIAL PLAN VIEW - WEST WING

| designed | conçu | date |
|----------------------|----------|-----------------|
| B. Godin, tech. | | 04/2016 |
| drawn | dessiné | scale |
| L. Alvarez | | As indicated |
| checked | vérifié | sheet |
| S. Gaudet, P. Eng. | | 06 of/ de 26 |
| approved | approuvé | W.O.no. |
| M. Latouche, P. Eng. | | A1-009908-01-58 |

dwg.no.: 5189-E05



FOR CONTINUATION SEE DRAWING E07



30 26 25 22 12 13 12 11 10 6 8 4 7 3 2 1



G4
G3
H1
I4
I3
J4
J3
L3
L4
M4
N4
O4
P4
Q4

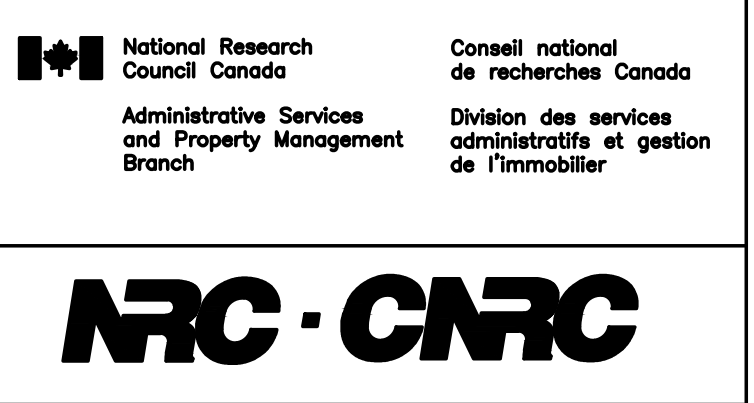
NOTES:

1. ALL SERVICES IN THIS SECTOR ARE SUPPLIED AS FOLLOWS (OR AS INDICATED):
 NORMAL POWER : L8
 EMERGENCY POWER : EL2 LOCATED IN S-B01 SEE 5189-E20 PLAN (REUSE OLD CIRCUIT)

2. ALL SERVICES IN THIS SECTOR ARE SUPPLIED AS FOLLOWS (OR AS INDICATED):
 NORMAL POWER : L9
 EMERGENCY POWER : EL2 LOCATED IN ELECTRICAL ROOM 3 SEE 5189-E20 PLAN (REUSE OLD CIRCUIT)

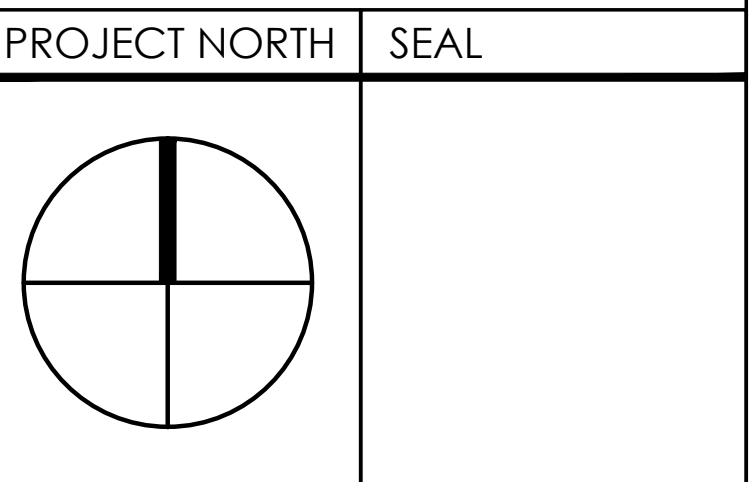
3. ALL SERVICES IN THIS SECTOR ARE SUPPLIED AS FOLLOWS (OR AS INDICATED):
 NORMAL POWER : L10
 EMERGENCY POWER : EL2 LOCATED IN ELECTRICAL ROOM 3 SEE 5189-E20 PLAN (REUSE OLD CIRCUIT)

4. ALL SERVICES IN THIS SECTOR ARE SUPPLIED AS FOLLOWS (OR AS INDICATED):
 NORMAL POWER : L11
 EMERGENCY POWER : EL2 LOCATED IN ELECTRICAL ROOM 3 SEE 5189-E20 PLAN (REUSE OLD CIRCUIT)



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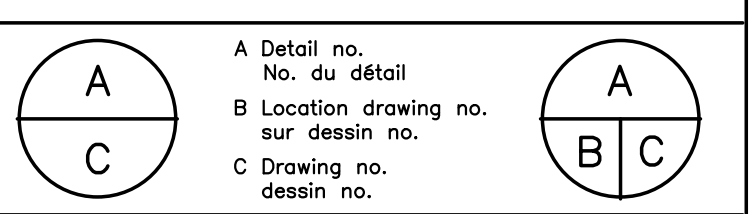


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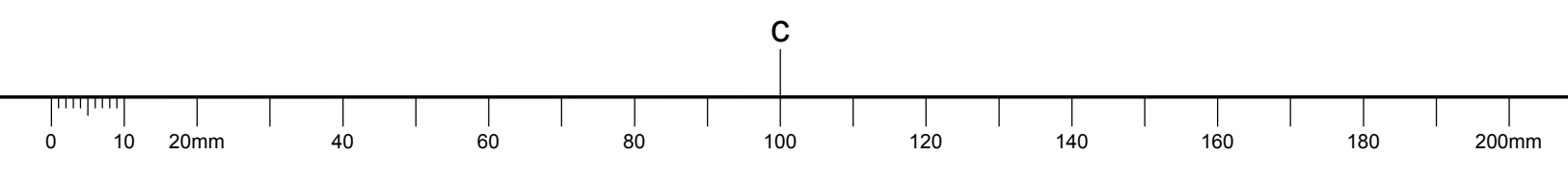
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project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION MONTREAL ROAD CAMPUS

drawing: ELECTRICAL - LIGHTING FLOOR PLAN NEW WORK PARTIAL PLAN VIEW - EAST WING

| designed | conçu | date | date |
|----------------------|------------|-----------------|---------|
| B. Godin, tech. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| L. Alvarez | | As indicated | |
| checked | vérifié | sheet | feuille |
| S. Gaudet, P. Eng. | | 07 of/ de 26 | |
| approved | approuvé | W.O.no. | D.T.no. |
| M. Latouche, P. Eng. | | A1-009908-01-58 | |
| dwg.no. | dessin no. | | |
| 5189-E06 | | | |

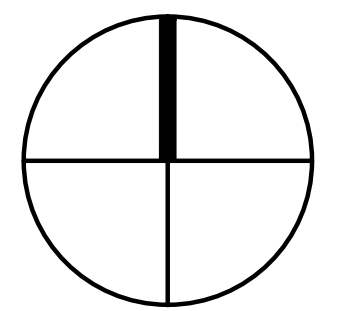


NOTES:
 1. ALL SERVICES IN THIS SECTOR ARE SUPPLIED AS FOLLOWS (OR AS INDICATED):
 NORMAL POWER : L1

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PROJECT NORTH SEAL



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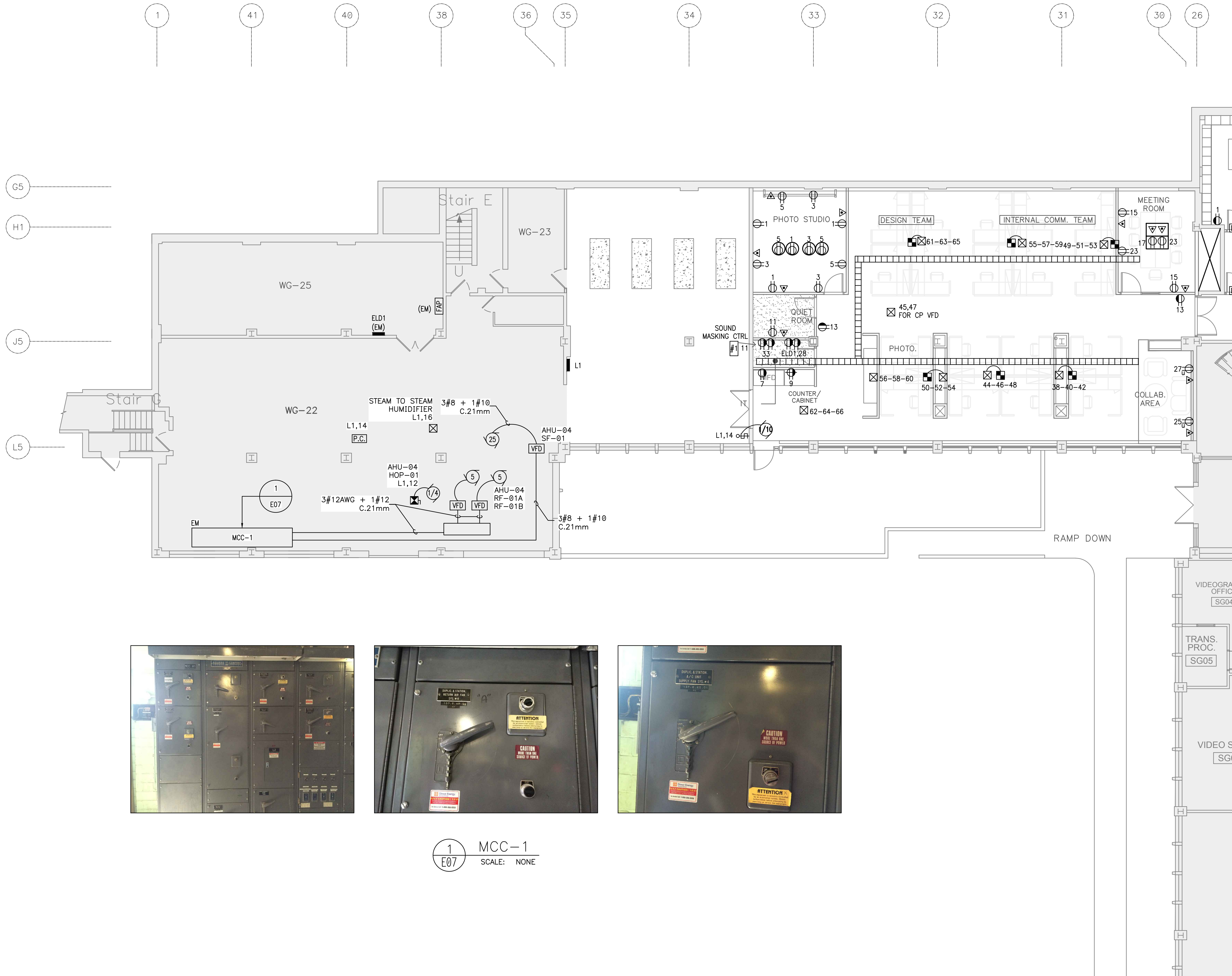
Verify all dimensions and site conditions and be responsible for same
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| | | |
|---|-------------------------------------|-----|
| A | Detail no. | A |
| B | Location drawing no. sur dessin no. | B C |
| C | Drawing no. dessin no. | |

project
NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 MONTREAL ROAD CAMPUS

drawing
ELECTRICAL - SERVICES FLOOR PLAN NEW WORK PARTIAL PLAN VIEW - WEST WING

| | | |
|-----------------------------|----------|------------------------|
| designed | conçu | date |
| B. Godin, tech. | | 04/2016 |
| drawn | dessiné | scale |
| L. Alvarez | | As indicated |
| checked | vérifié | sheet |
| S. Gaudet, P. Eng. | | 08 of/ de 26 |
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| M. Latouche, P. Eng. | | A1-009908-01-58 |
| dwg.no. | | dessin no. |
| 5189-E07 | | |



1 MCC-1
 E07 SCALE: NONE

FOR CONTINUATION SEE DRAWING E09

C

NOTES:

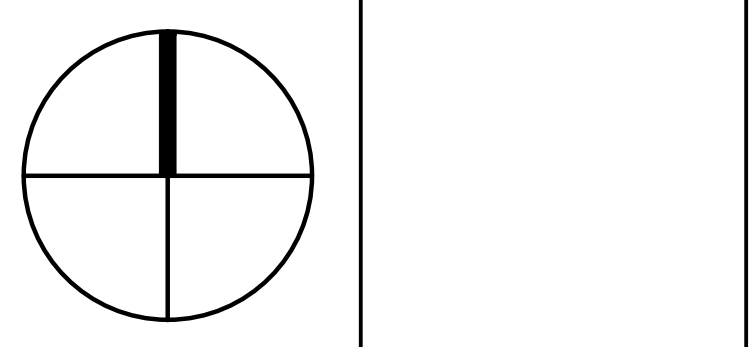
1. ALL SERVICES IN THIS SECTOR ARE SUPPLIED AS FOLLOWS (OR AS INDICATED): NORMAL POWER : L8
2. ALL SERVICES IN THIS SECTOR ARE SUPPLIED AS FOLLOWS (OR AS INDICATED): NORMAL POWER : L9
3. ALL SERVICES IN THIS SECTOR ARE SUPPLIED AS FOLLOWS (OR AS INDICATED): NORMAL POWER : L10
4. ALL SERVICES IN THIS SECTOR ARE SUPPLIED AS FOLLOWS (OR AS INDICATED): NORMAL POWER : L11



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 Mechanical and electrical
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 100, rue Sparks, Bureau 200
 Ottawa (Ontario) K1P 5B7 Canada
 Telephone: (613) 907-7107
 www.snc-lavalin.com
 Project: 637079

| No. | Date | Revision | By | Per. |
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Date Printed: 2016/09/16 Date imprimée:

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| A | A |
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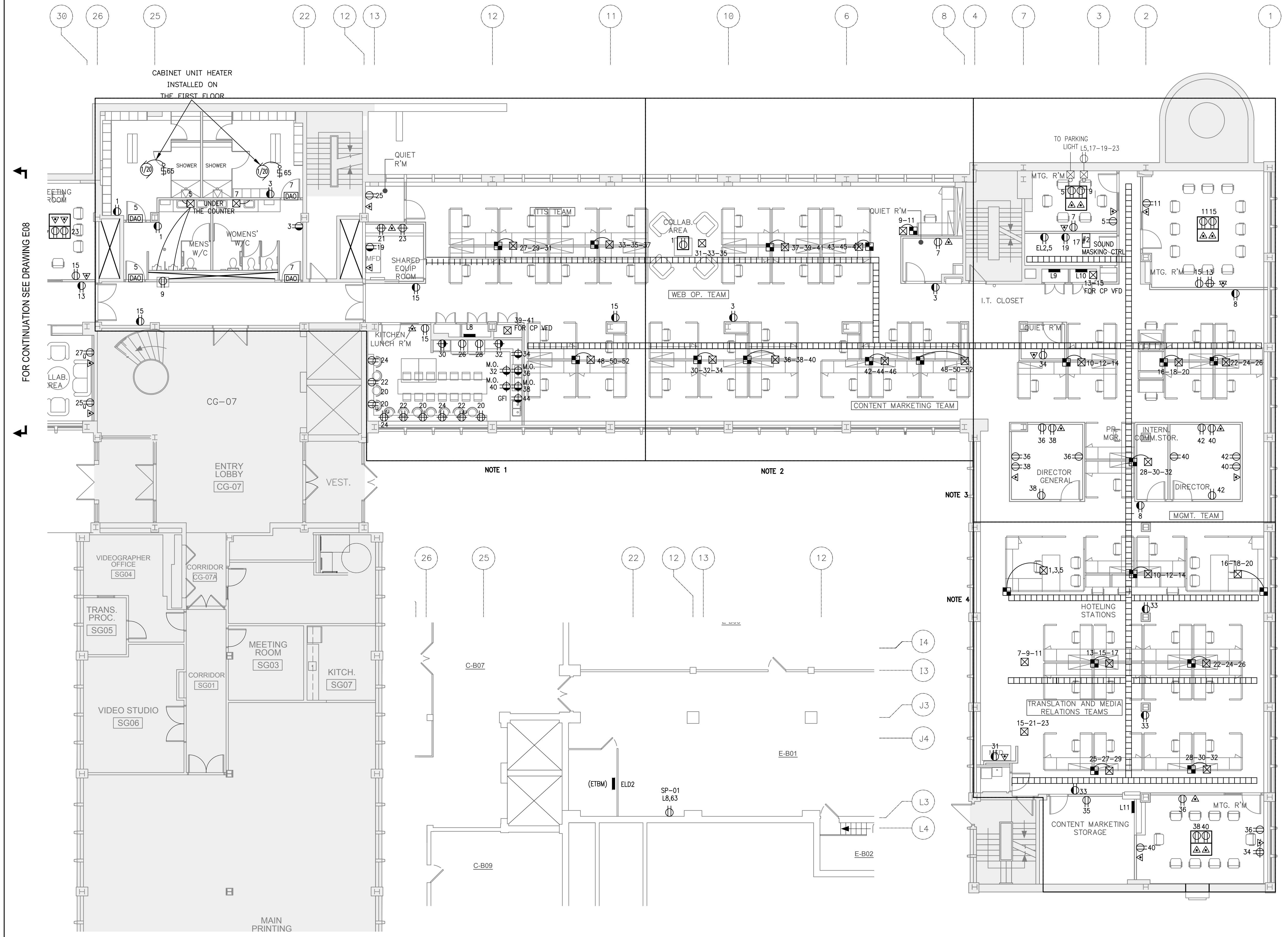
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

drawing: MONTREAL ROAD CAMPUS

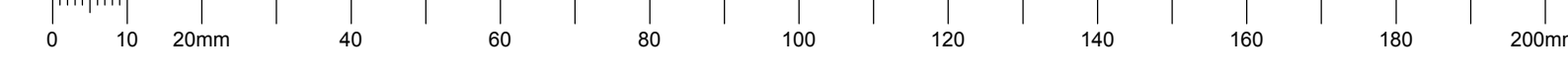
electrical - services FLOOR PLAN NEW WORK PARTIAL PLAN VIEW - EAST WING

| | | | |
|----------------------|----------|-----------------|---------|
| designed | conçu | date | |
| B. Godin, tech. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| L. Alvarez | | As indicated | |
| checked | vérifié | sheet | feuille |
| S. Gaudet, P. Eng. | | 09 of/ de 26 | |
| approved | approuvé | W.O.no. | D.T.no. |
| M. Latouche, P. Eng. | | A1-009908-01-58 | |
| dwg.no. | | dessin no. | |

5189-E08



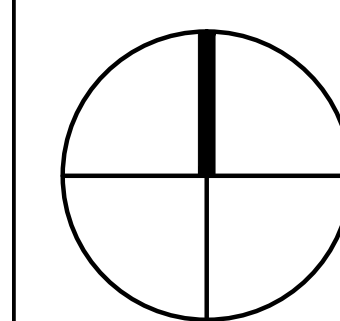
A BASEMENT
 SCALE: 1:100



- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
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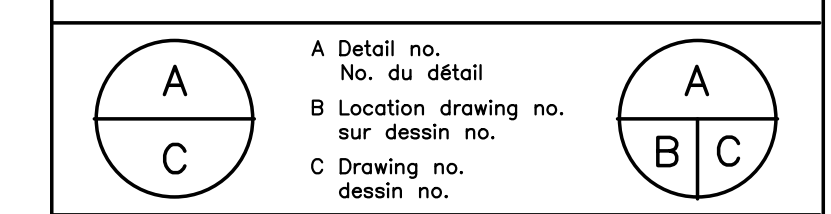
PROJECT NORTH SEAL



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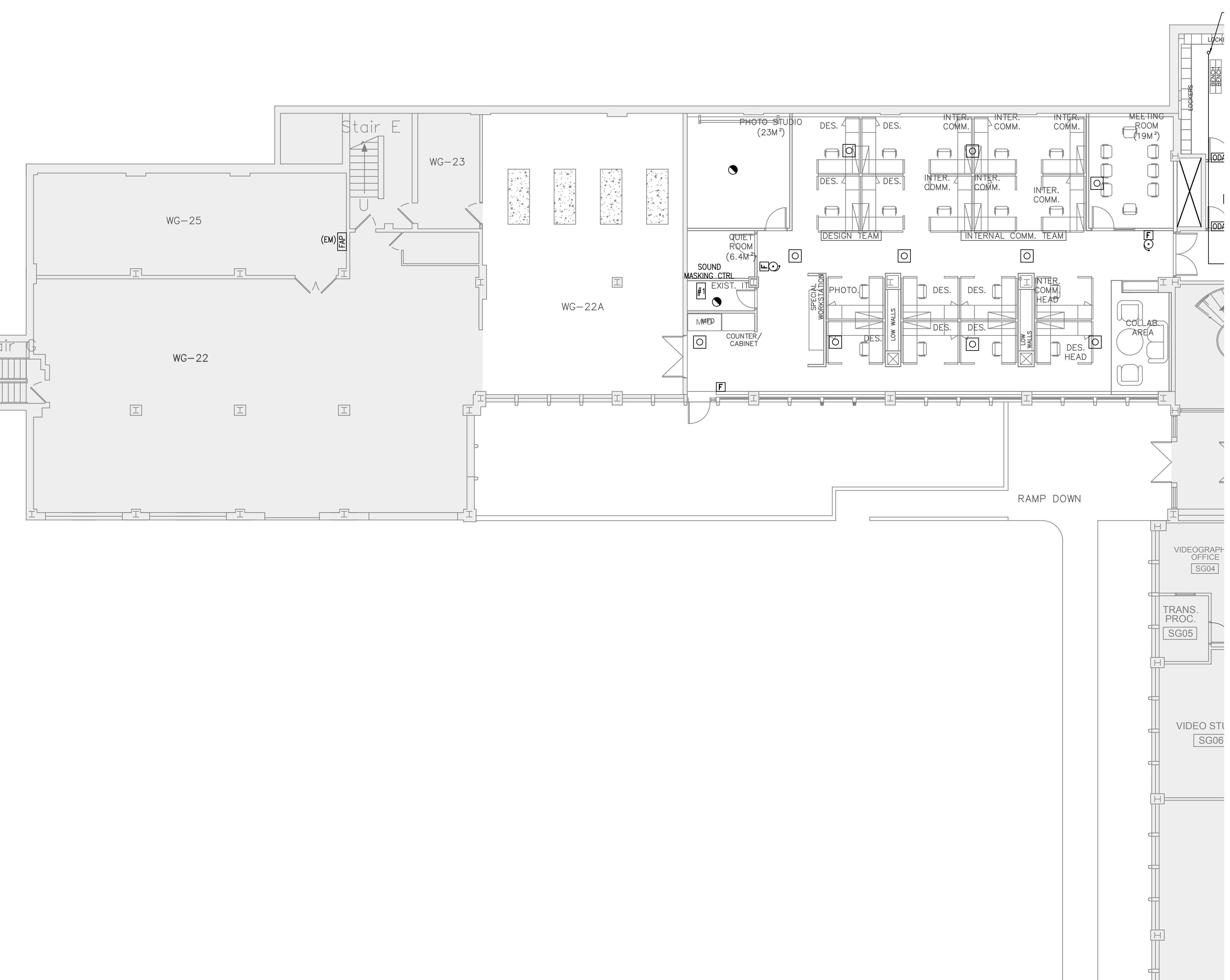
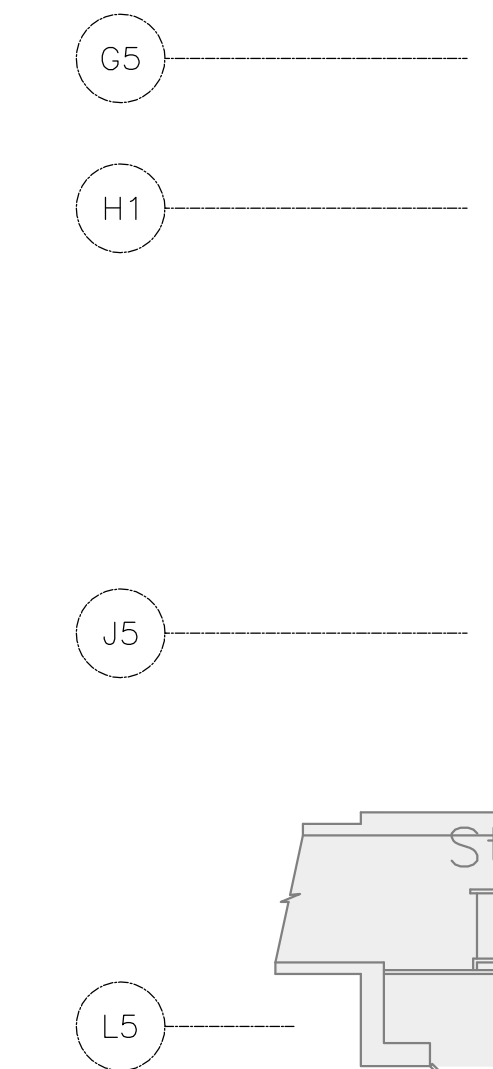
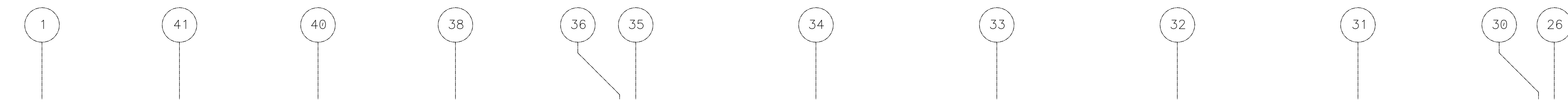


project
NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 MONTREAL ROAD CAMPUS

drawing
ELECTRICAL - AUXILIARY SYSTEMS FLOOR PLAN NEW WORK PARTIAL PLAN VIEW - WEST WING

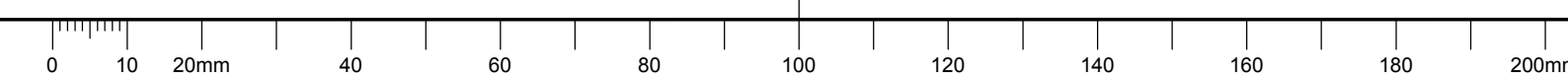
| | | | |
|---|---|-----------------------------------|--------------------|
| designed B. Godin, tech. | conçu B. Godin, tech. | date 04/2016 | date |
| drawn L. Alvarez | dessiné L. Alvarez | scale As indicated | échelle |
| checked S. Gaudet, P. Eng. | vérifié S. Gaudet, P. Eng. | sheet 10 | of/de 26 |
| approved M. Latouche, P. Eng. | approuvé M. Latouche, P. Eng. | W.O.no. A1-009908-01-58 | D.T.no. |
| dwg.no. | dessin no. | | |

5189-E09



FOR CONTINUATION SEE DRAWING E11

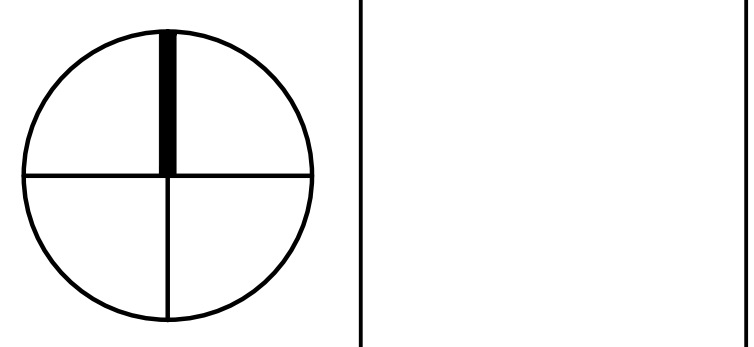
C



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PROJECT NORTH SEAL

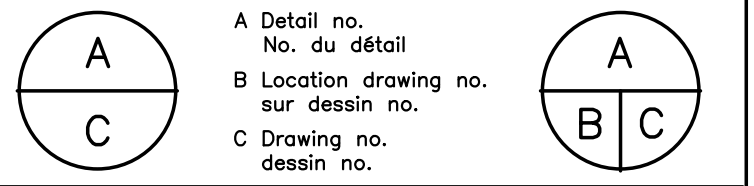


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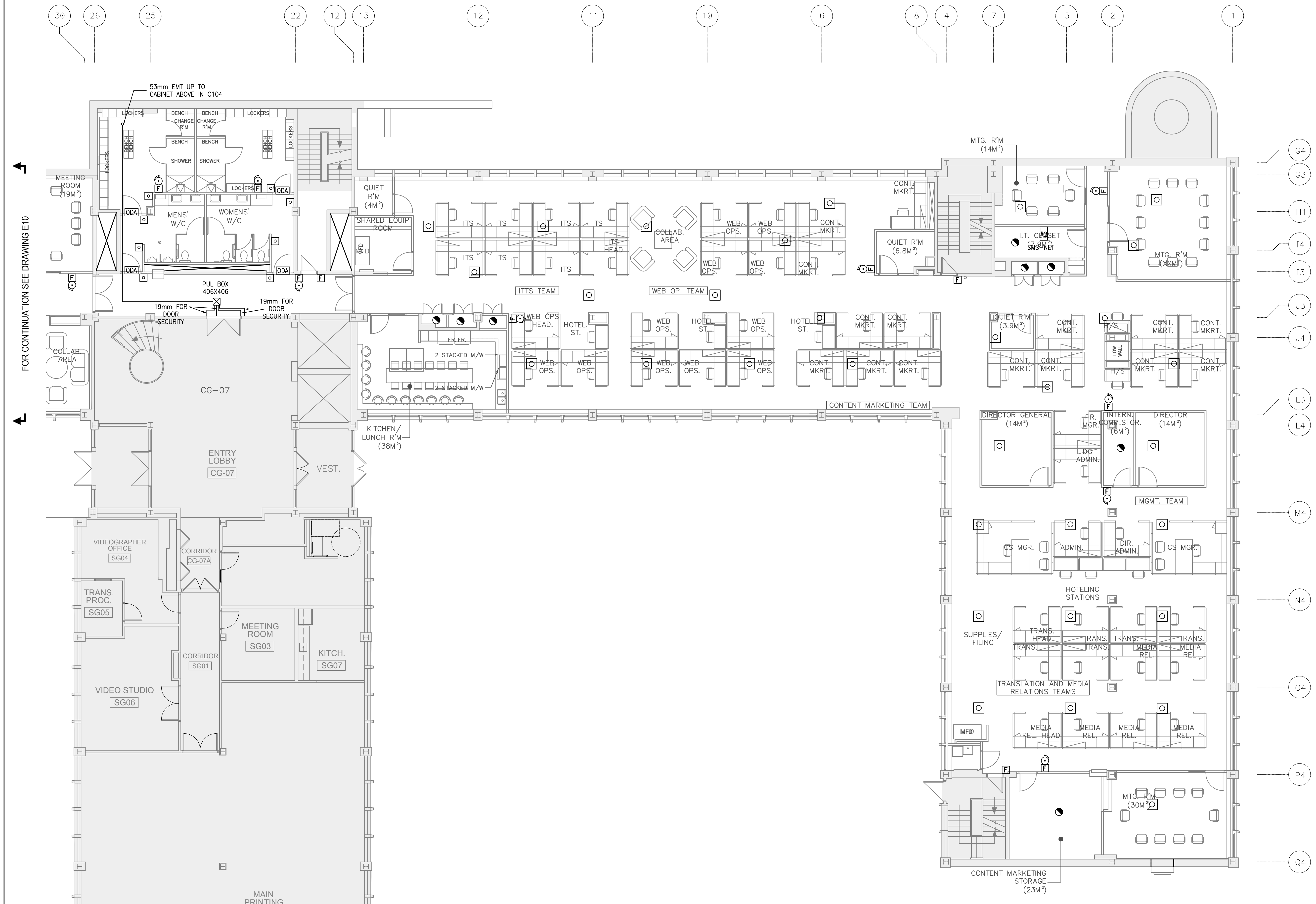
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTEAL ROAD CAMPUS

drawing: ELECTRICAL - AUXILIARY SYSTEMS FLOOR PLAN NEW WORK PARTIAL PLAN VIEW - EAST WING

| designed | conçu | date | date |
|----------------------|------------|-----------------|---------|
| B. Godin, tech. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| L. Alvarez | | As indicated | |
| checked | vérifié | sheet | feuille |
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| approved | approuvé | W.O.no. | D.T.no. |
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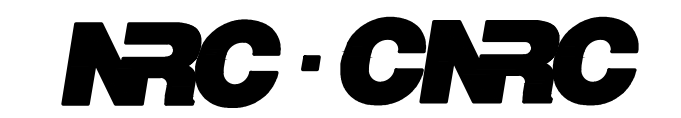
5189-E10



FOR CONTINUATION SEE DRAWING E10

| Panneau N°: | | L11 | | VOLTAGE: | | 120/208V-3Ø-4F | | BARRÉS OMNIBUS: | | 225A | | TOTAL (KW) | | 12 345 W | | | | | | | |
|-------------|--------|-------------------|-------|----------|-------|----------------|------|-----------------|-------|----------|--------|---------------------|-------|----------|-------|--------------|--------|-------|---------------------------|----------|--|
| PANEL No.: | | | | TENSION: | | | | BUD BARS: | | | | CHARGES THÉORIQUES: | | | | | | | | | |
| NOTES | CHARGE | LOCALISATION | F.M. | CHAUF. | ECL. | P.C. | DSJ. | PHASES | | | DSJ. | P.C. | ECL. | CHAUF. | F.M. | LOCALISATION | CHARGE | NOTES | | | |
| | | | MOTOR | HEAT | LIGHT | RECEP. | BKR | A | B | C | BKR | RECEP. | LIGHT | HEAT | MOTOR | | | | | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 1 | | | 2 | 15A | | | | | | | LIGHT MGM TEAM | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 3 | | | 4 | 15A | | | | | | | LIGHT HALLWALL MTG ROOM | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 6 | | | 8 | 15A | | | | | | | | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 7 | | | 8 | 15A | | | | | | | | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 9 | | | 10 | 15A | 360 | | | | | | JUNCTION BOX CEILING EAST | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 11 | | | 12 | 15A | 360 | | | | | | JUNCTION BOX CEILING EAST | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 13 | | | 14 | 15A | 360 | | | | | | JUNCTION BOX CEILING EAST | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 16 | | | 16 | 15A | 360 | | | | | | JUNCTION BOX CEILING EAST | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 17 | | | 18 | 15A | 360 | | | | | | JUNCTION BOX CEILING EAST | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 19 | | | 20 | 15A | 360 | | | | | | JUNCTION BOX CEILING EAST | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 21 | | | 22 | 15A | 360 | | | | | | JUNCTION BOX CEILING EAST | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 23 | | | 24 | 15A | 360 | | | | | | JUNCTION BOX CEILING EAST | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 25 | | | 26 | 15A | 360 | | | | | | JUNCTION BOX CEILING EAST | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 27 | | | 28 | 15A | 360 | | | | | | JUNCTION BOX CEILING EAST | | |
| | | JUNCTION BOX WEST | | | | 360 | 15A | 29 | | | 30 | 15A | 360 | | | | | | JUNCTION BOX CEILING EAST | | |
| | | PRINTER | | | | 120 | 20A | 31 | | | 32 | 15A | 360 | | | | | | JUNCTION BOX CEILING EAST | | |
| | | OUTLET HALLWALL | | | | 120 | 20A | 33 | | | 34 | 15A | 120 | | | | | | MTG ROOM SCREEN | | |
| | | MARKETING STORAGE | | | | 120 | 15A | 35 | | | 36 | 15A | 240 | | | | | | MTG ROOM | | |
| 1 | | T-735 | | | | 100A | 3P | 37 | | | 38 | 15A | 120 | | | | | | MTG ROOM | | |
| | | | | | | | | 39 | | | 40 | 15A | 240 | | | | | | | MTG ROOM | |
| | | | | | | | | 41 | | | 42 | | | | | | | | | | |
| | | | | | | | | 43 | | | 44 | | | | | | | | | | |
| | | | | | | | | 45 | | | 46 | | | | | | | | | | |
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| | | | | | | | | 61 | | | 62 | | | | | | | | | | |
| | | | | | | | | 63 | | | 64 | | | | | | | | | | |
| | | | | | | | | 65 | | | 66 | | | | | | | | | | |
| | | | | | | 0 | 0 | 0 | 1 920 | PHASE A: | 4 305 | W | 1 560 | 825 | 0 | 0 | | | | | |
| | | | | | | 0 | 0 | 0 | 1 920 | PHASE B: | 4 440 | W | 1 800 | 720 | 0 | 0 | | | | | |
| | | | | | | 0 | 0 | 0 | 1 920 | PHASE C: | 3 600 | W | 1 680 | 0 | 0 | 0 | | | | | |
| | | | | | | 0 | 0 | 0 | 5 760 | TOTAL: | 12 345 | W | 5 040 | 1 545 | 0 | 0 | | | | | |
| | | | | | | 0 | 0 | 0 | 5 760 | TOTAL: | 12 345 | W | 5 040 | 1 545 | 0 | 0 | | | | | |

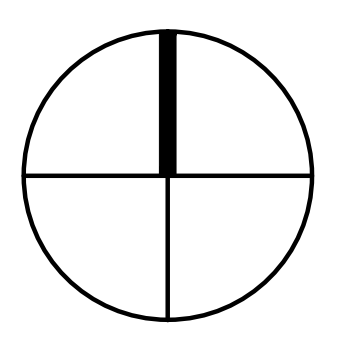
NOTE 1: EXISTING CIRCUIT IN OLD PANNEL L11
NOTE 2:
NOTE 3:
NOTE 4:
NOTE 5:
NOTE 6:



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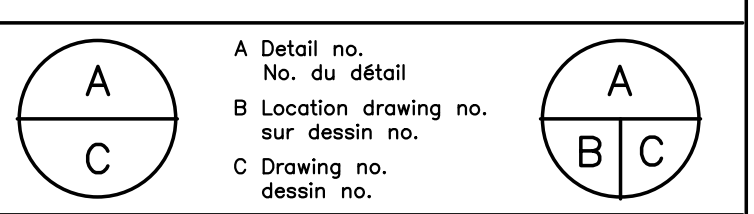


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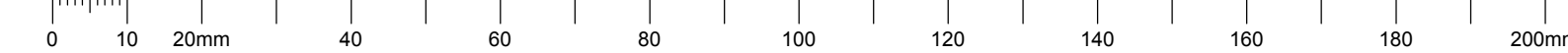
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS

drawing: ELECTRICAL PANELS PART 2 OF 2 CONSTRUCTION

| | | | |
|----------------------|----------|-----------------|---------|
| designed | conçu | date | date |
| B. Godin, tech. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| L. Alvarez | | As indicated | |
| checked | vérifié | sheet | feuille |
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| dwg.no. | | dessin no. | |
| 5189-E12 | | | |

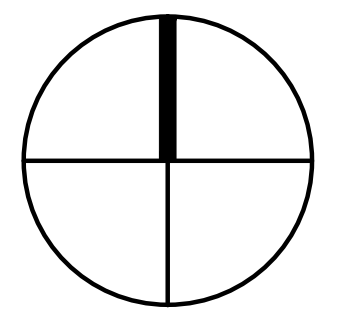
C



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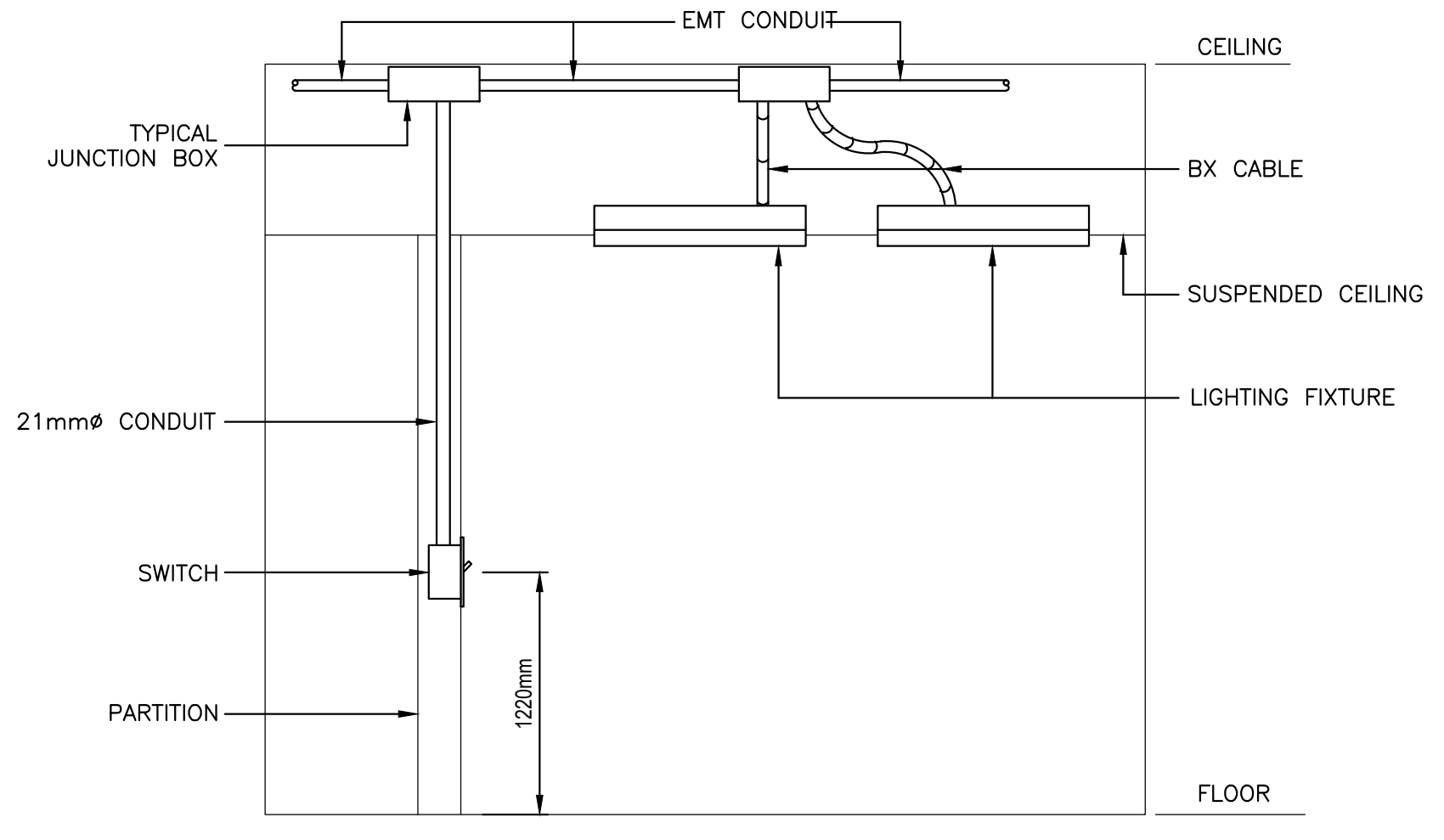
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| A | A Detail no. / No. du détail | A |
| B | B Location drawing no. sur dessin no. | B C |
| C | C Drawing no. / dessin no. | |

project / projet
NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 MONTREAL ROAD CAMPUS

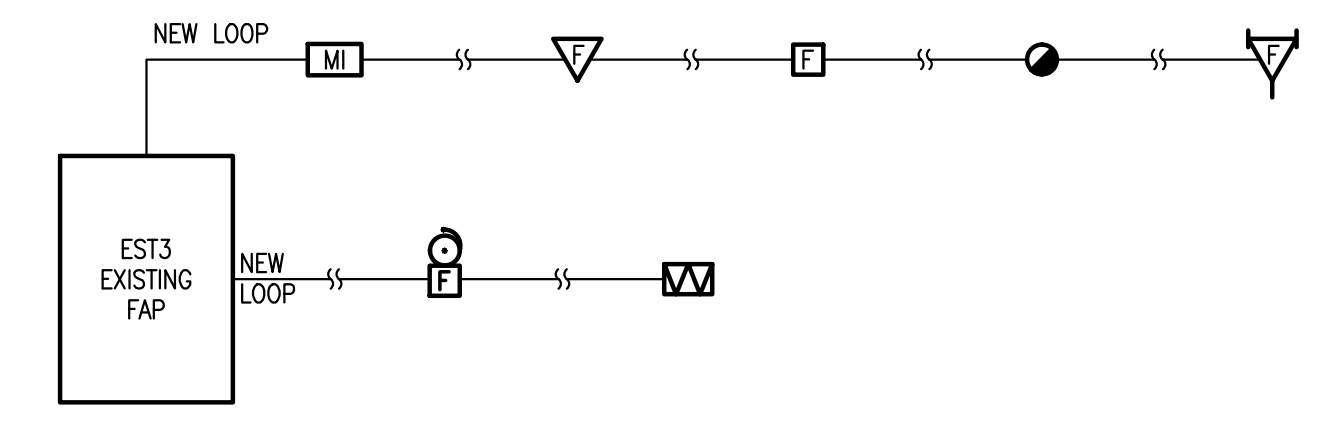
drawing / dessin
ELECTRICAL CONSTRUCTION DETAILS PART 1 OF 3

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|-----------------------------|------------------------|-----------------|
| designed / conçu | date | date |
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| drawn / dessiné | scale | échelle |
| L. Alvarez | As indicated | |
| checked / vérifié | sheet | feuille |
| S. Gaudet, P. Eng. | 14 | of/de 26 |
| approved / approuvé | W.O.no. | D.T.no. |
| M. Latouche, P. Eng. | A1-009908-01-58 | |
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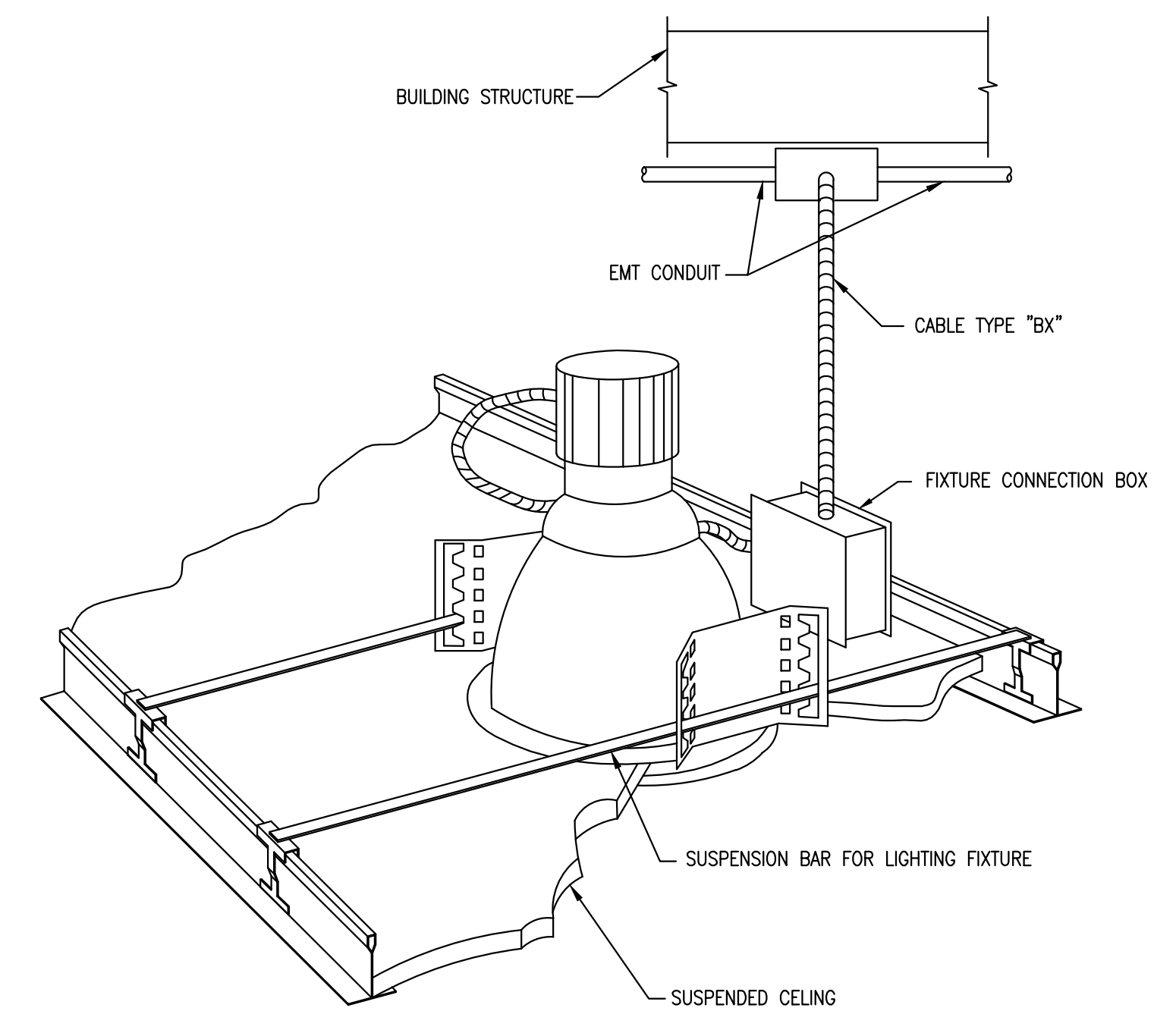
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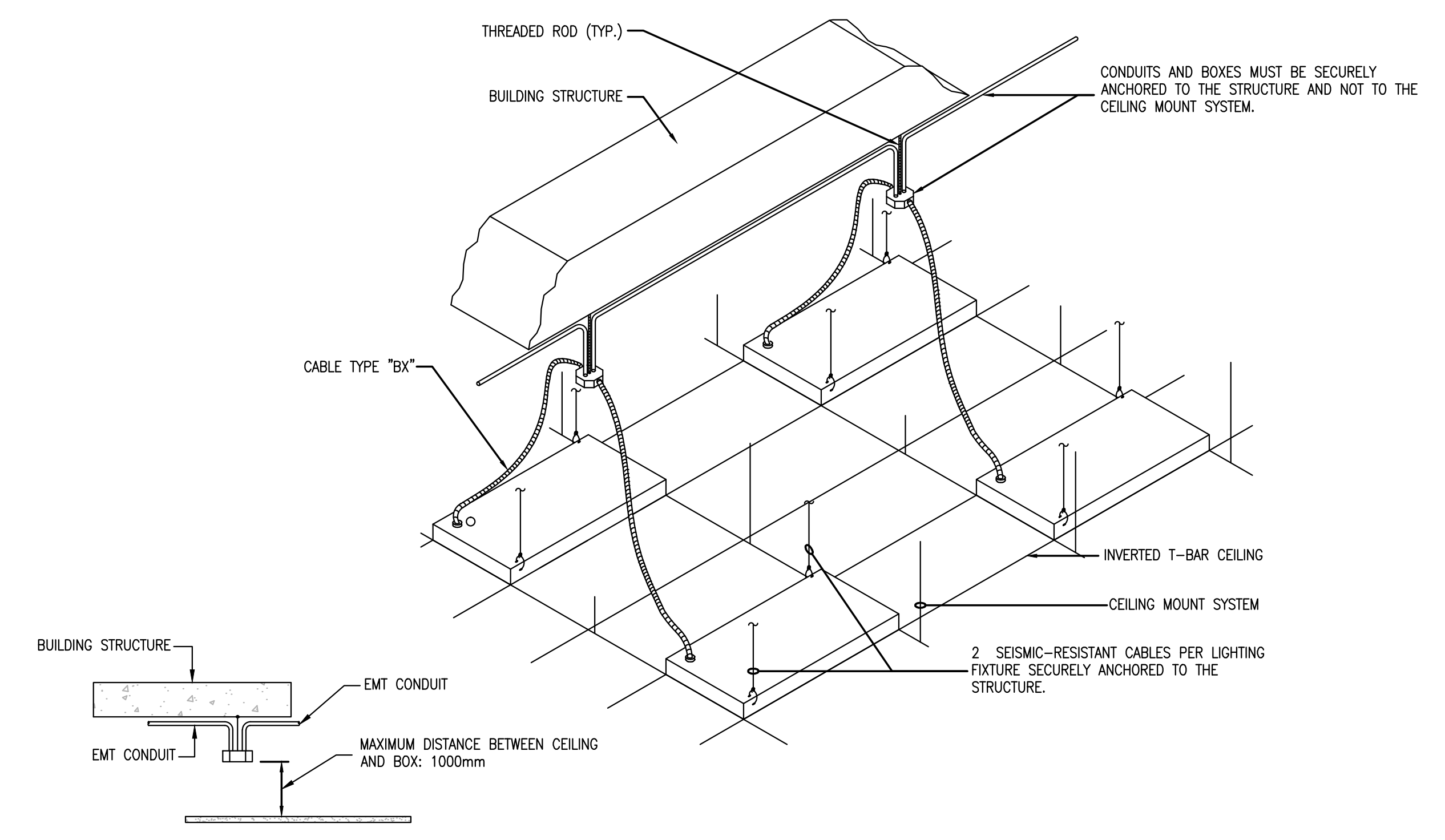
1 LIGHTING INSTALLATION
SCALE: NONE



2 FIRE ALARM DIAGRAM
SCALE: NONE



3 TYPICAL INSTALLATION FOR RECESSED LIGHTING FIXTURE
SCALE: NONE

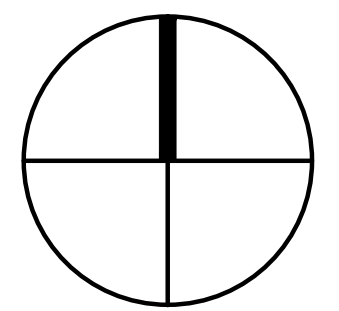


4 FLEXIBLE CABLE INSTALLATION IN SUSPENDED CEILINGS (TYPICAL)
SCALE: NONE

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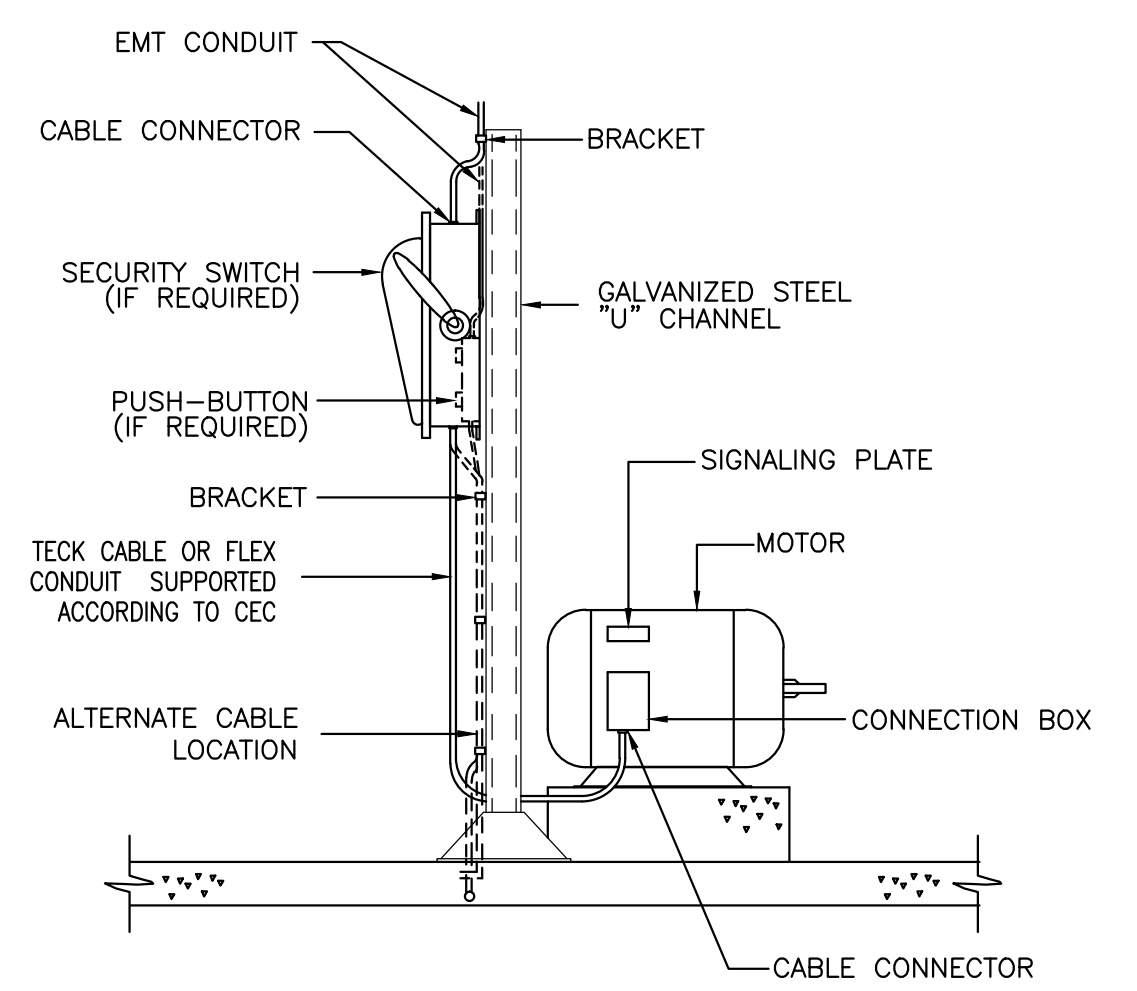
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| C | C Drawing no. / dessin no. | |

project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 MONTREAL ROAD CAMPUS

drawing: ELECTRICAL CONSTRUCTION DETAILS PART 2 OF 3

| | | | |
|----------------------|----------------------|-------------------|-----------------|
| designed / conçu | B. Godin, tech. | date / date | 04/2016 |
| drawn / dessiné | L. Alvarez | scale / échelle | As indicated |
| checked / vérifié | S. Gaudet, P. Eng. | sheet / feuille | 15 of / de 26 |
| approved / approuvé | M. Latouche, P. Eng. | W.O.no. / D.T.no. | A1-009908-01-58 |
| dwg.no. / dessin no. | 5189-E14 | | |



1 MOTOR
 SCALE: NONE

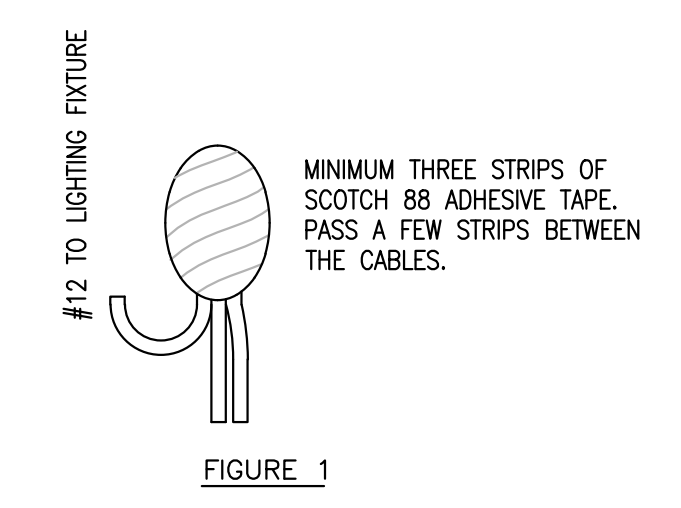


FIGURE 1

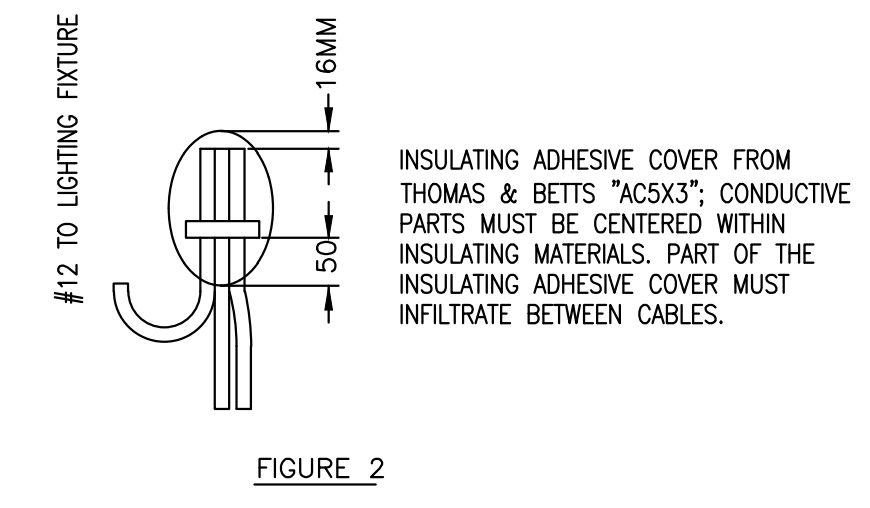


FIGURE 2

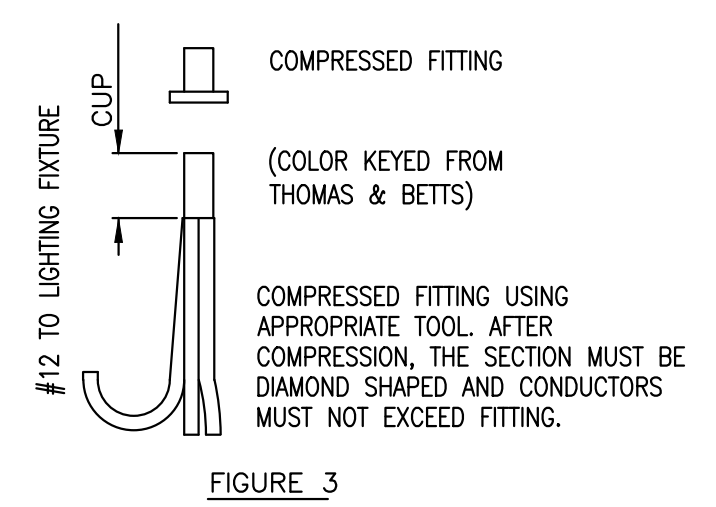


FIGURE 3

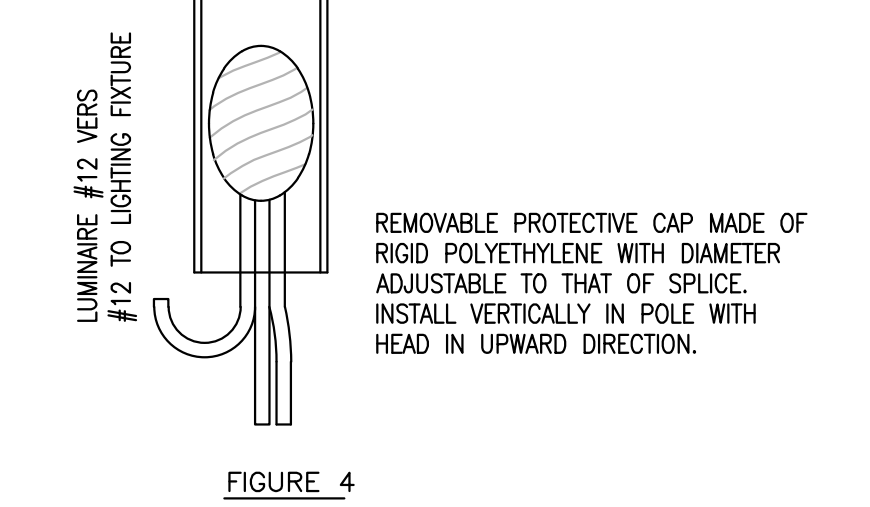
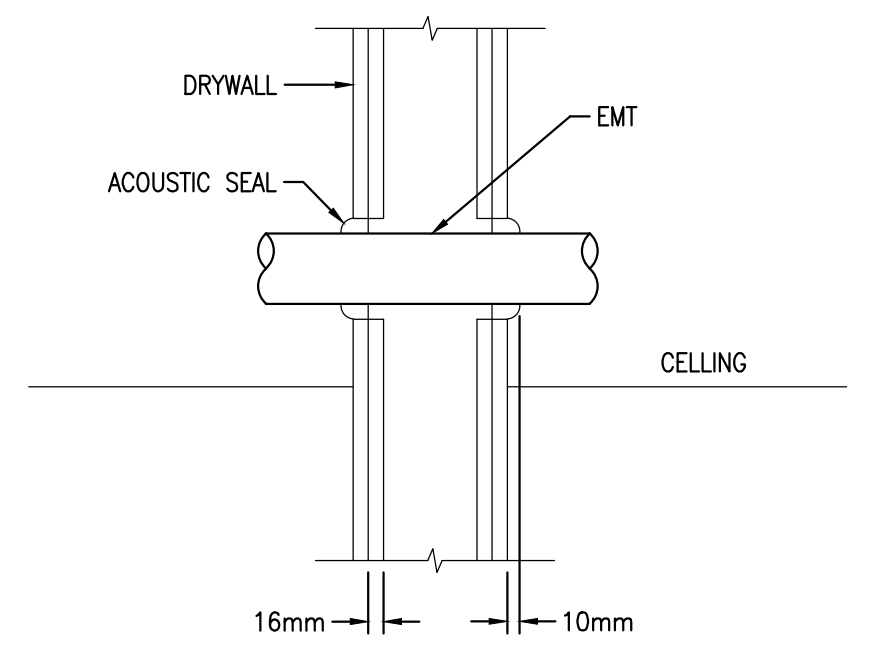
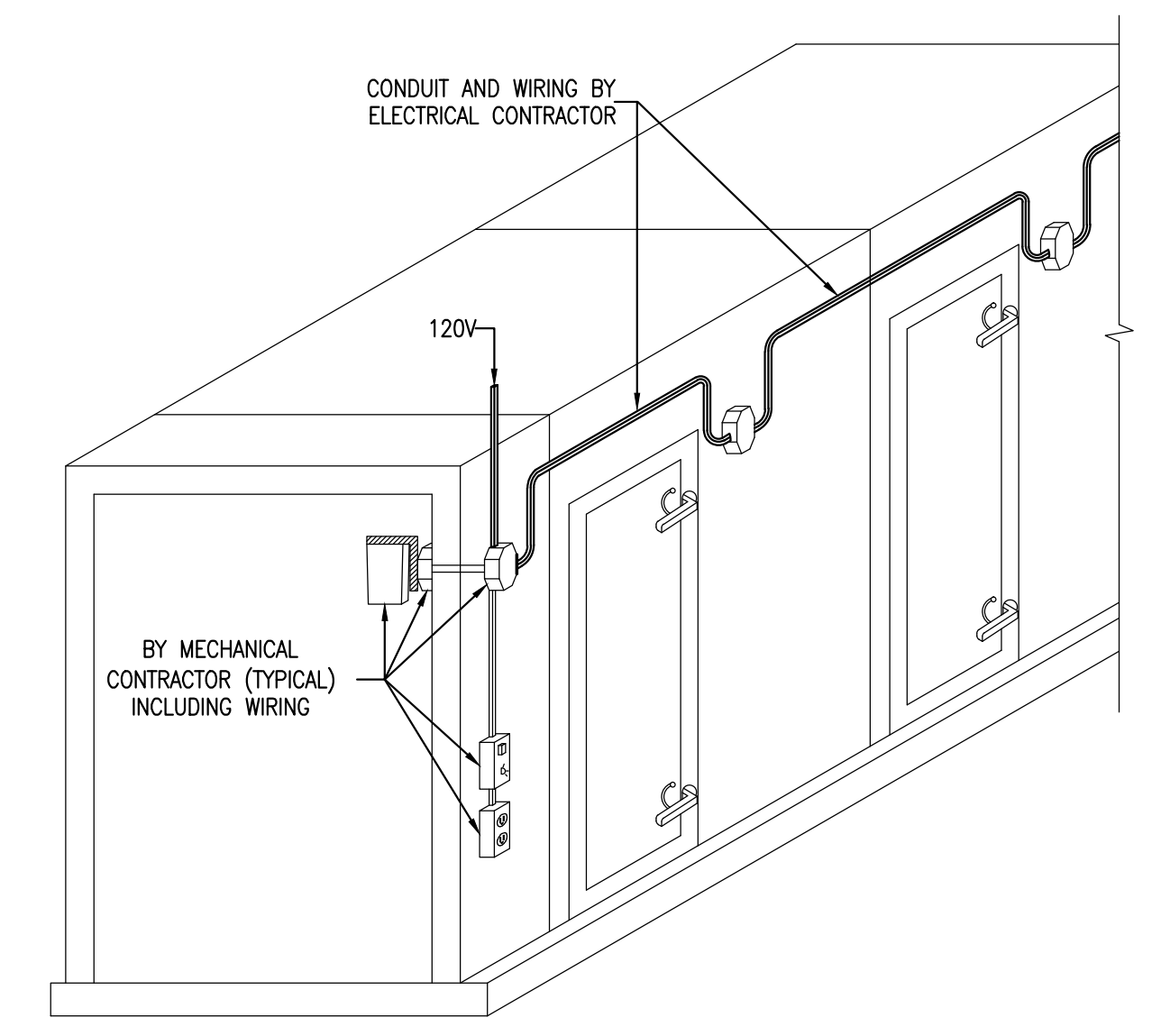


FIGURE 4

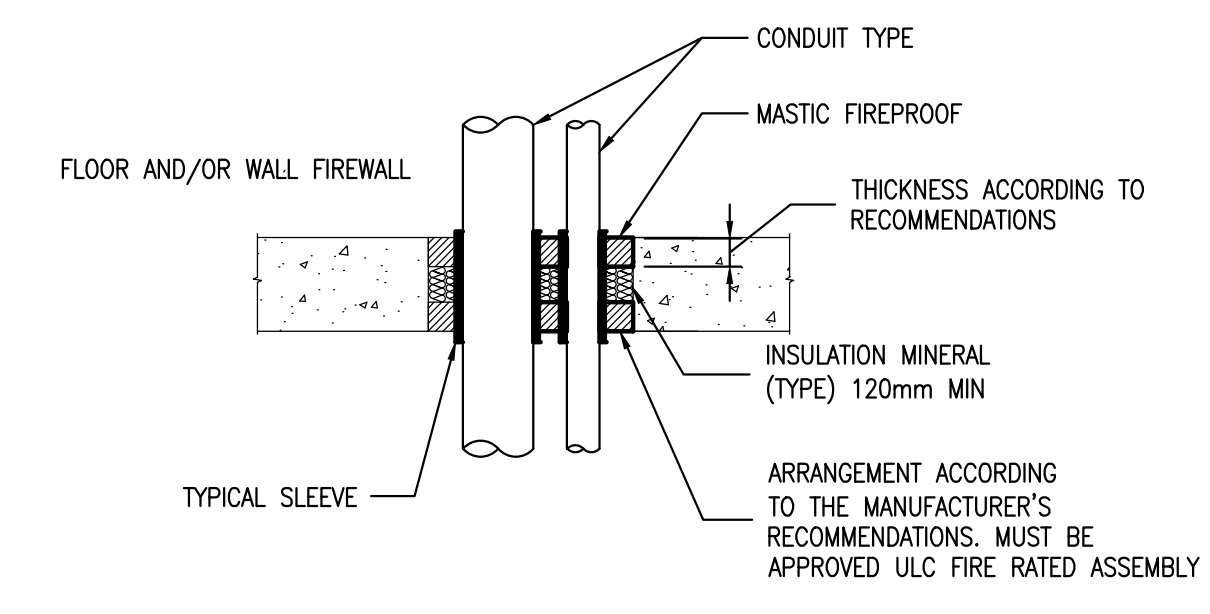
2 DETAIL - TYPICAL SPLICE
 SCALE: NONE



3 DETAIL - SEALING OF ACOUSTIC PIPE CROSSING WALL DRYWALL (TYPICAL)
 SCALE: NONE

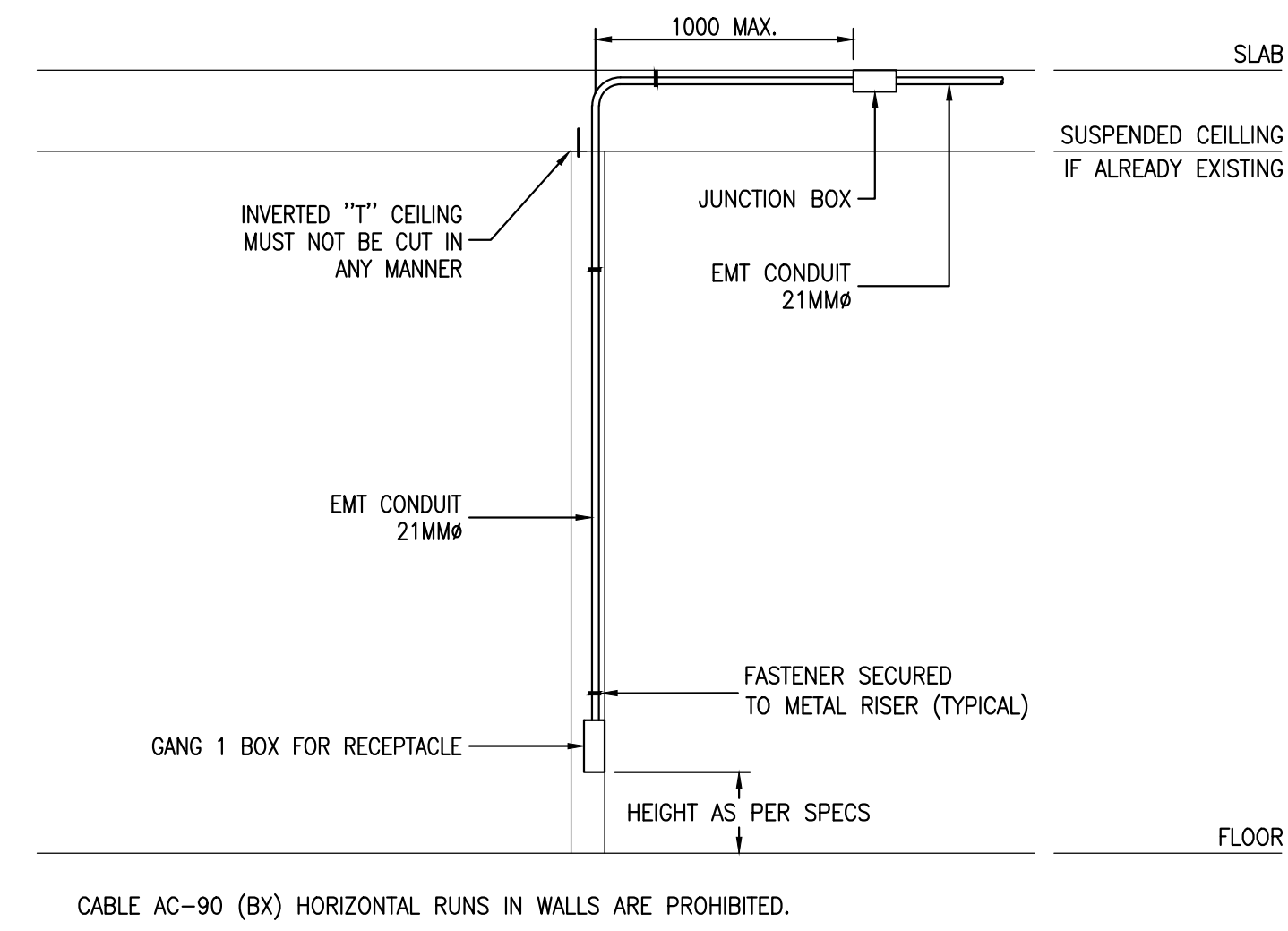


4 CONNECTION DETAIL OF HVAC SYSTEMS ELECTRICAL SERVICES (TYPICAL)
 SCALE: NONE

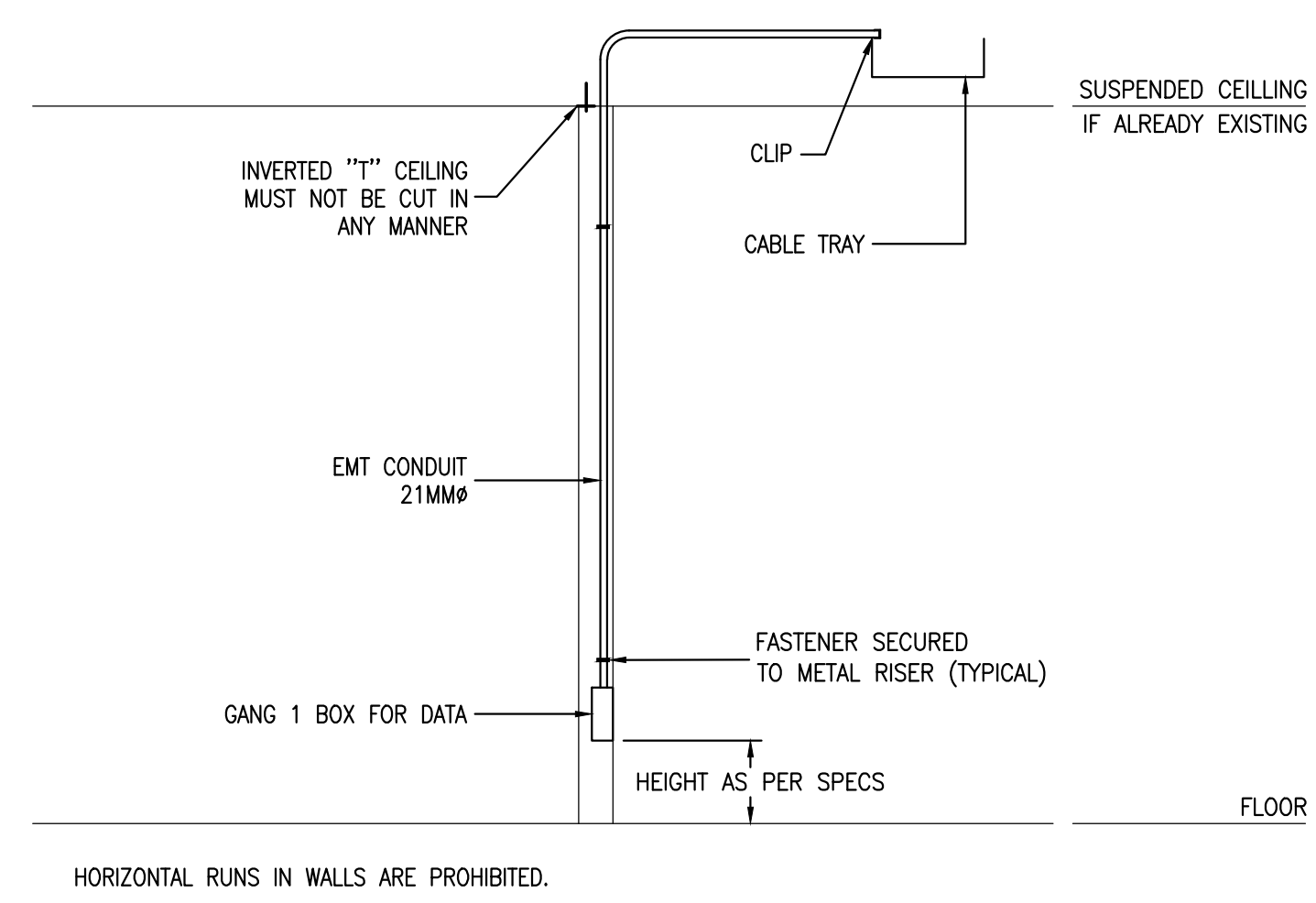


5 FIREPROOF SEALING (TYPICAL)
 SCALE: NONE

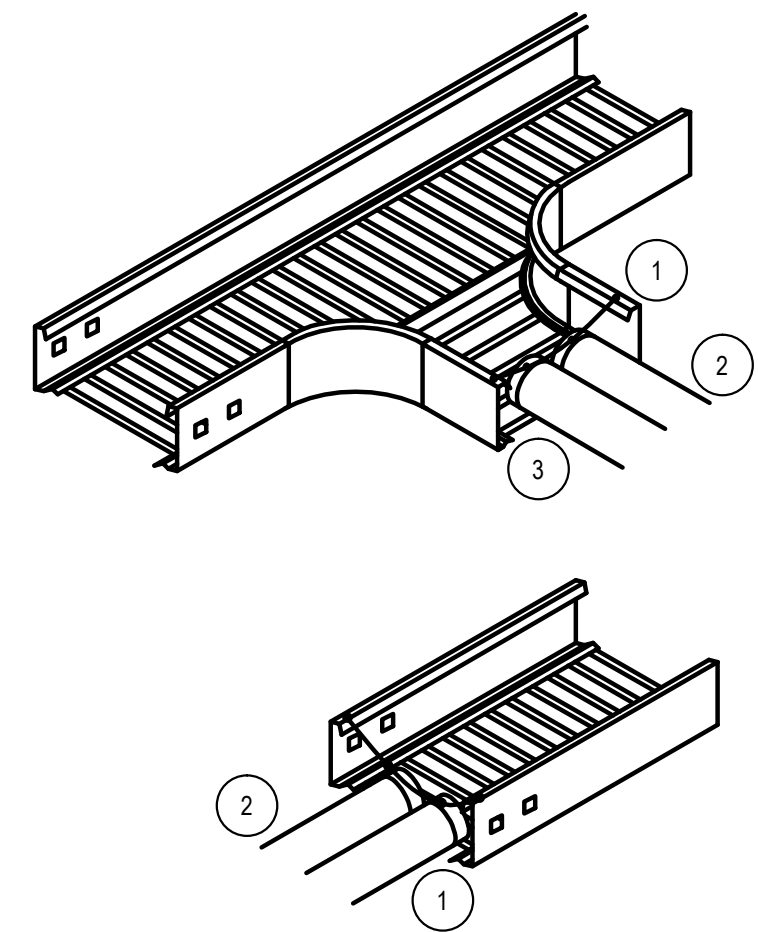
- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
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1 TYPICAL RECEPTACLE INSTALLATION IN GYPSUM WALLS
 SCALE: NONE

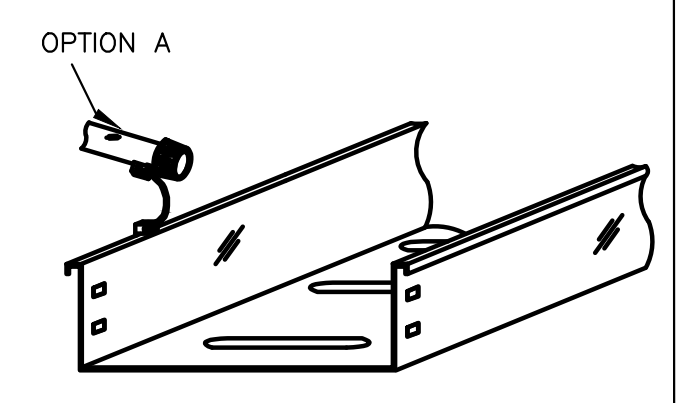


2 TYPICAL DATA INSTALLATION IN GYPSUM WALLS
 SCALE: NONE



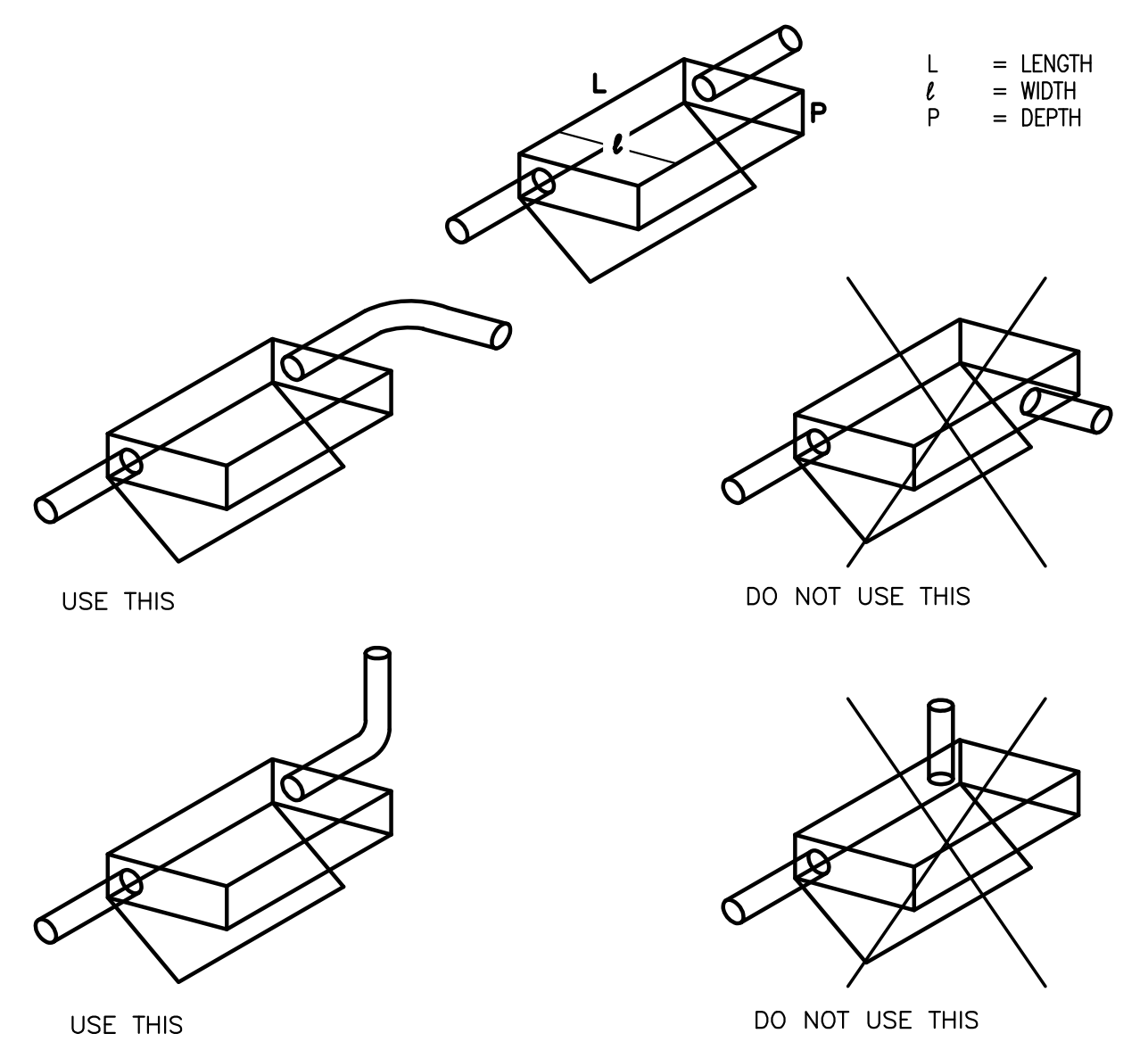
- NOTES**
- 100mm CONDUITS ENTERING CABLE TRAY SHALL BE BONDED TO THE CABLE TRAY.
 - 100mm EMT CONDUITS, / CONDUITS EMT 100mm
 - THE OPENING MADE IN THE SIDE OF THE CABLE TRAY SHALL BE FREE OF SHARP EDGES. BOTTOM OF CONDUITS SHALL REST ON THE CABLE TRAY. CABLE TRAY SHALL HAVE SUSPENSION 600mm ON EITHER SIDE OF 100mm CONDUIT ENTRY.

3 TYPICAL 100mm CONDUITS SIDE & END ENTRY TO TRAY
 SCALE: NTS



- GENERAL NOTES / NOTES GÉNÉRALES**
- CONDUIT SHALL COMMENCE WITHIN 100mm ABOVE AND PERPENDICULAR TO THE INSIDE EDGE OF THE CABLE TRAY ON THE CLOSEST SIDE TO THE OUTLET BOX.
 - CONDUIT SHALL BE REAMED AND BUSHED
 - CONDUIT SHALL BE BONDED WITH GREEN JACKETED, #6 AWG RW90 STRANDED COPPER CONDUCTOR (OPTION A)
 - CONDUIT SHALL USE IRREVERSIBLE COMPRESSION OR EXOTHERMIC WELD TYPE LUGS/CONNECTORS, INSTALLED IAW MANUFACTURER'S SPECIFICATIONS.
 - MATERIALS BOLTED OR RIVETED TO THE CABLE TRAY SHALL BE FREE OF BURRS AND OR SHARP EDGES. BOLTS AND OR RIVETS TO OBSTRUCT OR INTERFERE WITH THE INTERIOR SPACE OF THE TRAY ARE NOT ALLOWED.

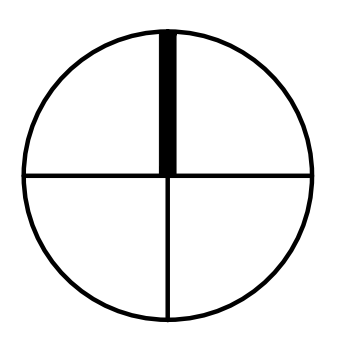
4 TYPICAL 25-50mm CONDUITS SIDE ENTRY TO TRAY
 SCALE: NTS



5 INSTALLATION OF PULL BOXES
 SCALE: NTS

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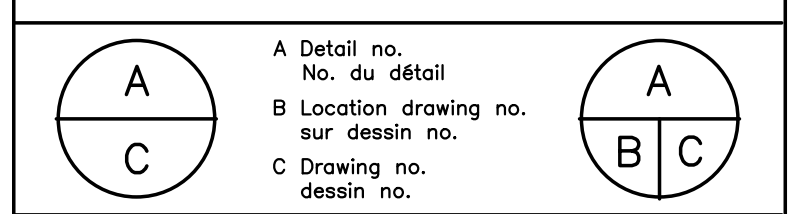


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Date Printed: 2016/09/16 Date imprimée:

- Verify all dimensions and site conditions and be responsible for same
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project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION MONTREAL ROAD CAMPUS

drawing: ELECTRICAL CONSTRUCTION DETAILS PART 3 OF 3

| designed | conçu | date | date |
|----------------------|------------|-----------------|---------|
| B. Godin, tech. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| L. Alvarez | | As indicated | |
| checked | vérifié | sheet | feuille |
| S. Gaudet, P. Eng. | | 16 of/ de 26 | |
| approved | approuvé | W.O.no. | D.T.no. |
| M. Latouche, P. Eng. | | A1-009908-01-58 | |
| dwg.no. | dessin no. | | |
| 5189-E15 | | | |

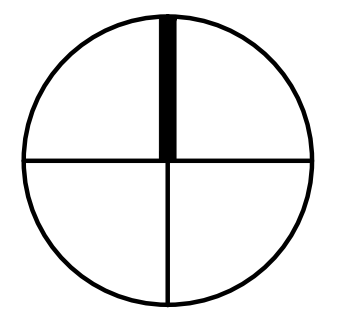
NOTES:

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| B | B Location drawing no. sur dessin no. | B C |
| C | C Drawing no. dessin no. | |

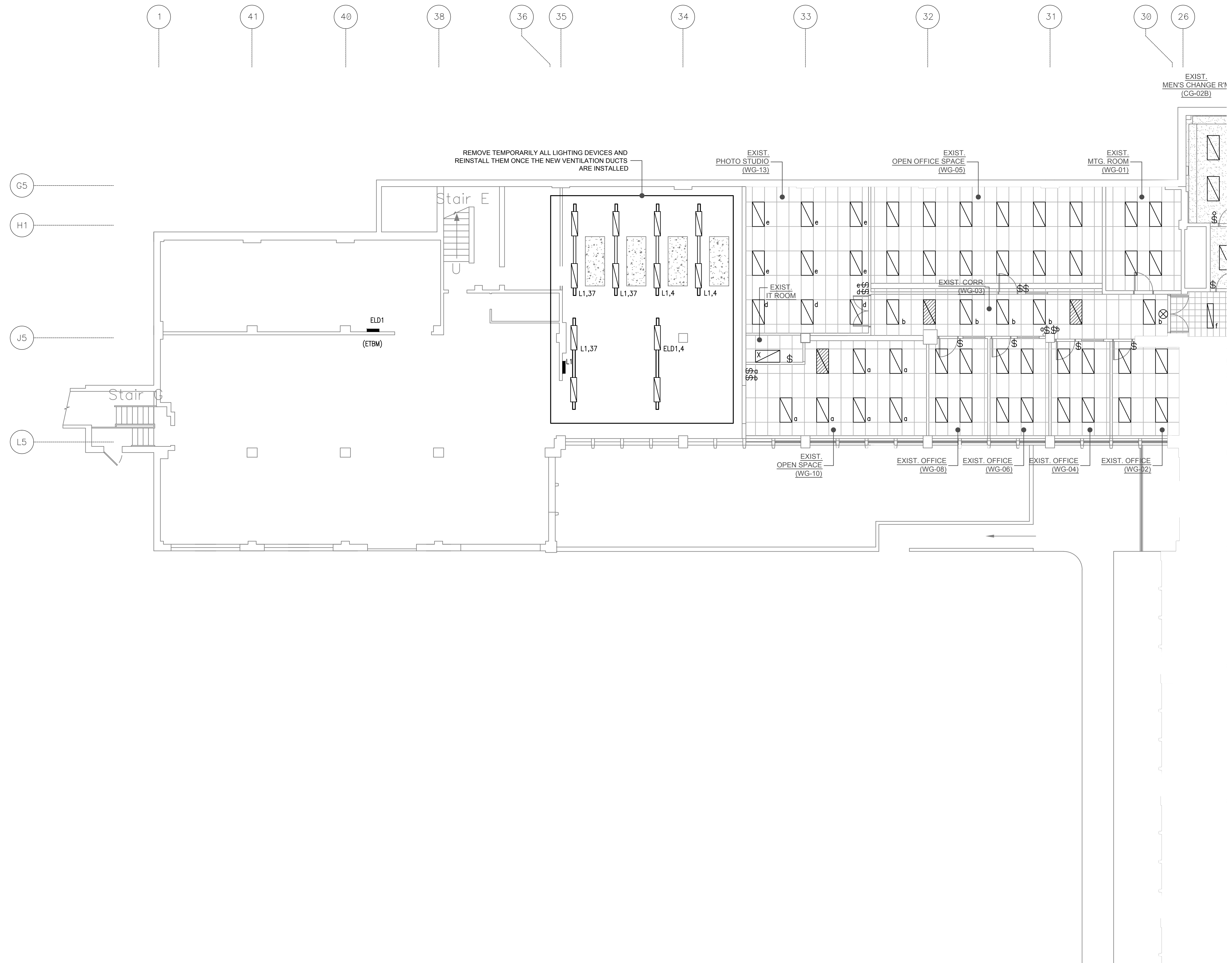
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS

drawing: ELECTRICAL - LIGHTING FLOOR PLAN DEMOLITION PARTIAL PLAN VIEW - WEST WING

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|----------------------|------------|-----------------|---------|
| designed | conçu | date | date |
| B. Godin, tech. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| L. Alvarez | | As indicated | |
| checked | vérifié | sheet | feuille |
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| approved | approuvé | W.O.no. | D.T.no. |
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| dwg.no. | dessin no. | | |

5189-E16

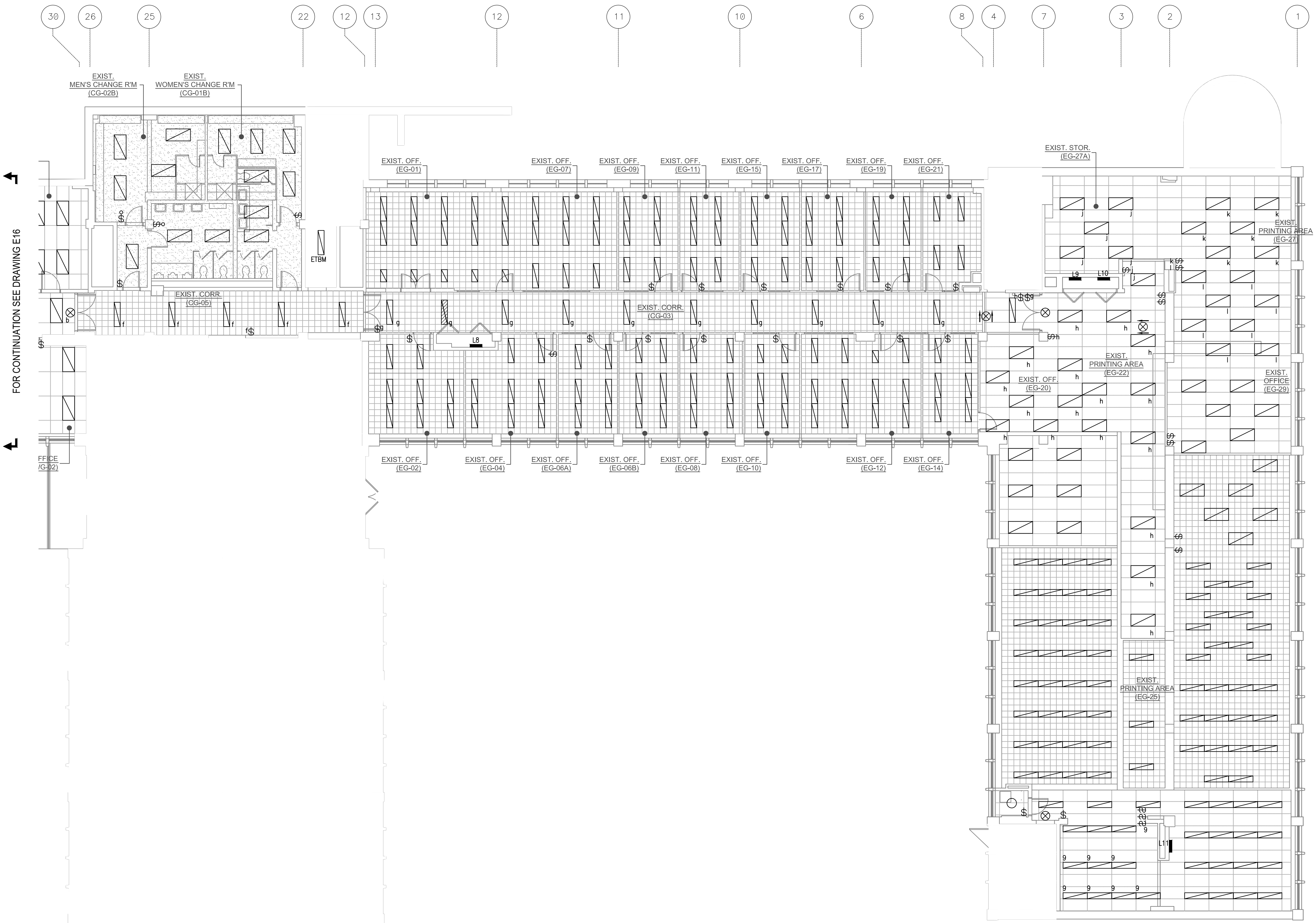


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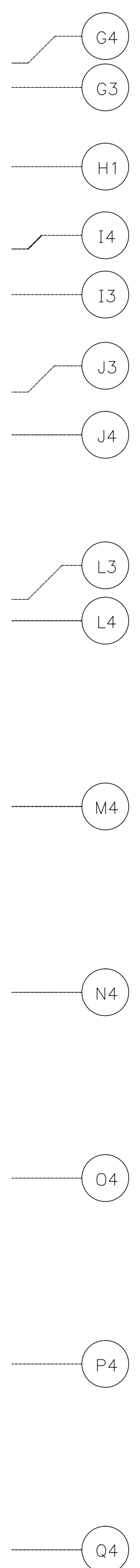
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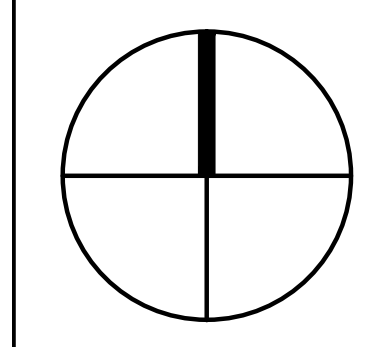


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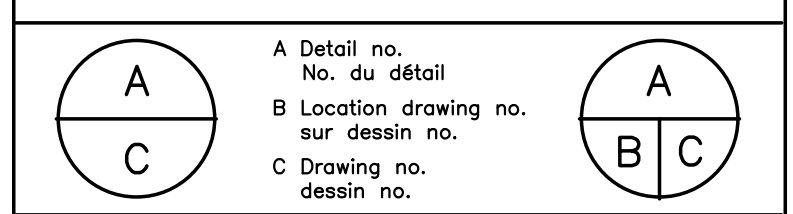


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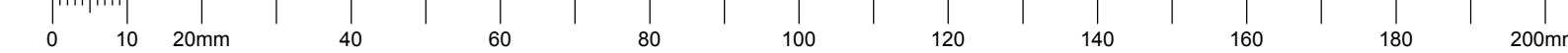
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

drawing: MONTREAL ROAD CAMPUS

designed: B. Godin, tech. date: 04/2016
 drawn: L. Alvarez dessiné: scale: As indicated
 checked: S. Gaudet, P. Eng. vérifié: sheet: 17 of/de: 26
 approved: M. Latouche, P. Eng. approuvé: W.O.no.: A1-009908-01-58 D.T.no.:

dwg.no.: 5189-E17 dessin no.:

C



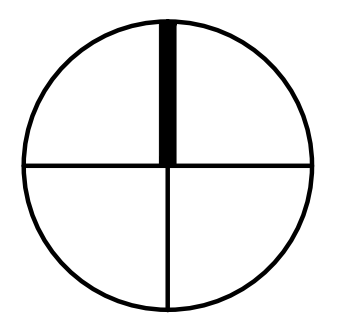
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| C | C Drawing no. dessin no. | |

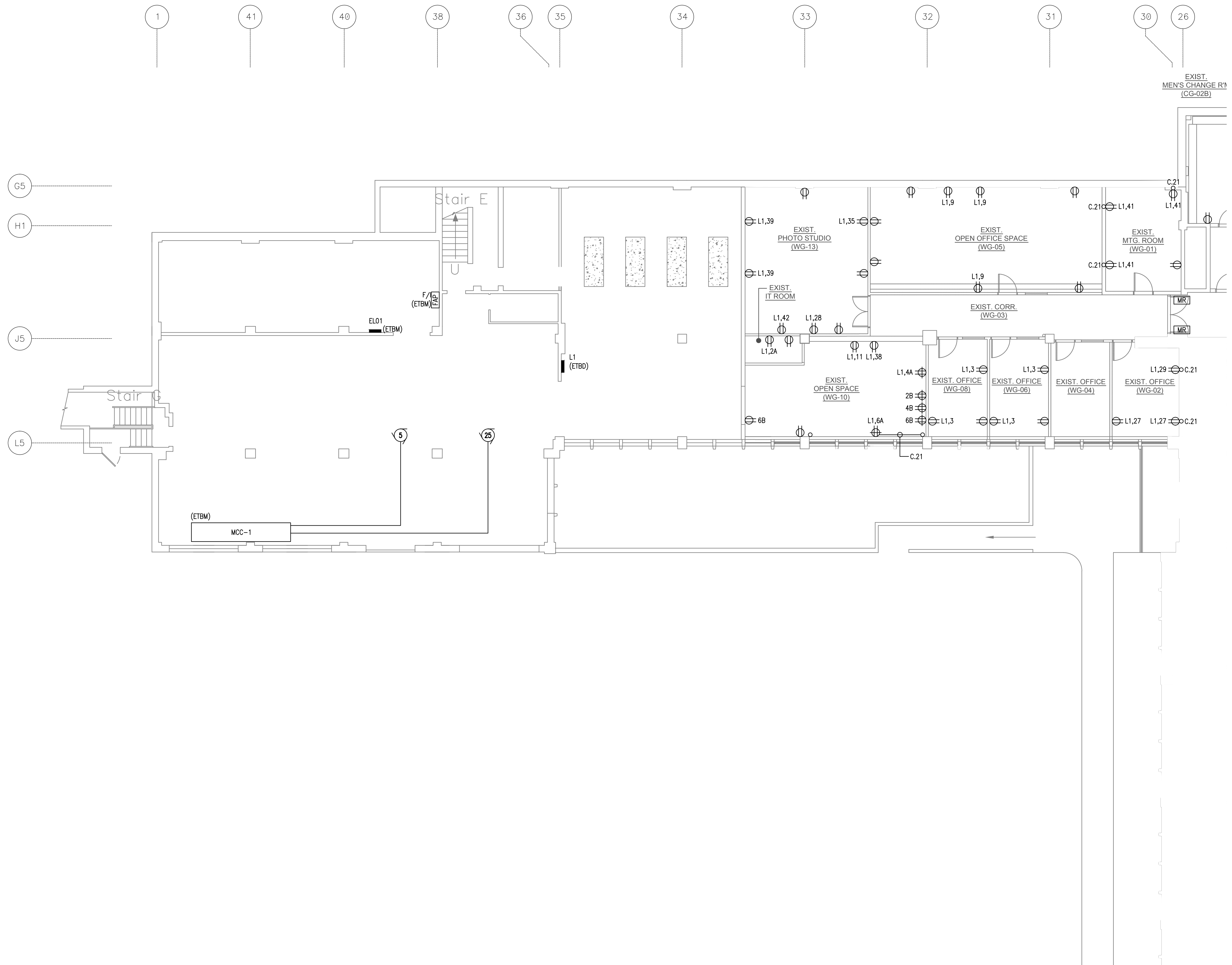
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS

drawing: ELECTRICAL - SERVICES FLOOR PLAN DEMOLITION PARTIAL PLAN VIEW - WEST WING

| | | | |
|----------------------|----------|-----------------|---------|
| designed | conçu | date | |
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| L. Alvarez | | As indicated | |
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| S. Gaudet, P. Eng. | | 18 of/ de 26 | |
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| M. Latouche, P. Eng. | | A1-009908-01-58 | |
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5189-E18



FOR CONTINUATION SEE DRAWING E19

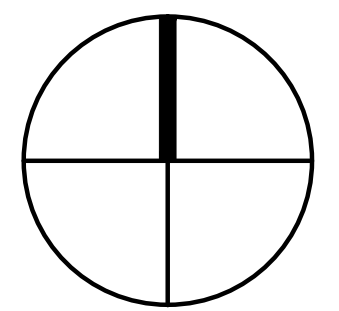
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Date Printed: 2016/09/16 Date imprimée:

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project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS

drawing: ELECTRICAL - SERVICES FLOOR PLAN DEMOLITION PARTIAL PLAN VIEW - EAST WING

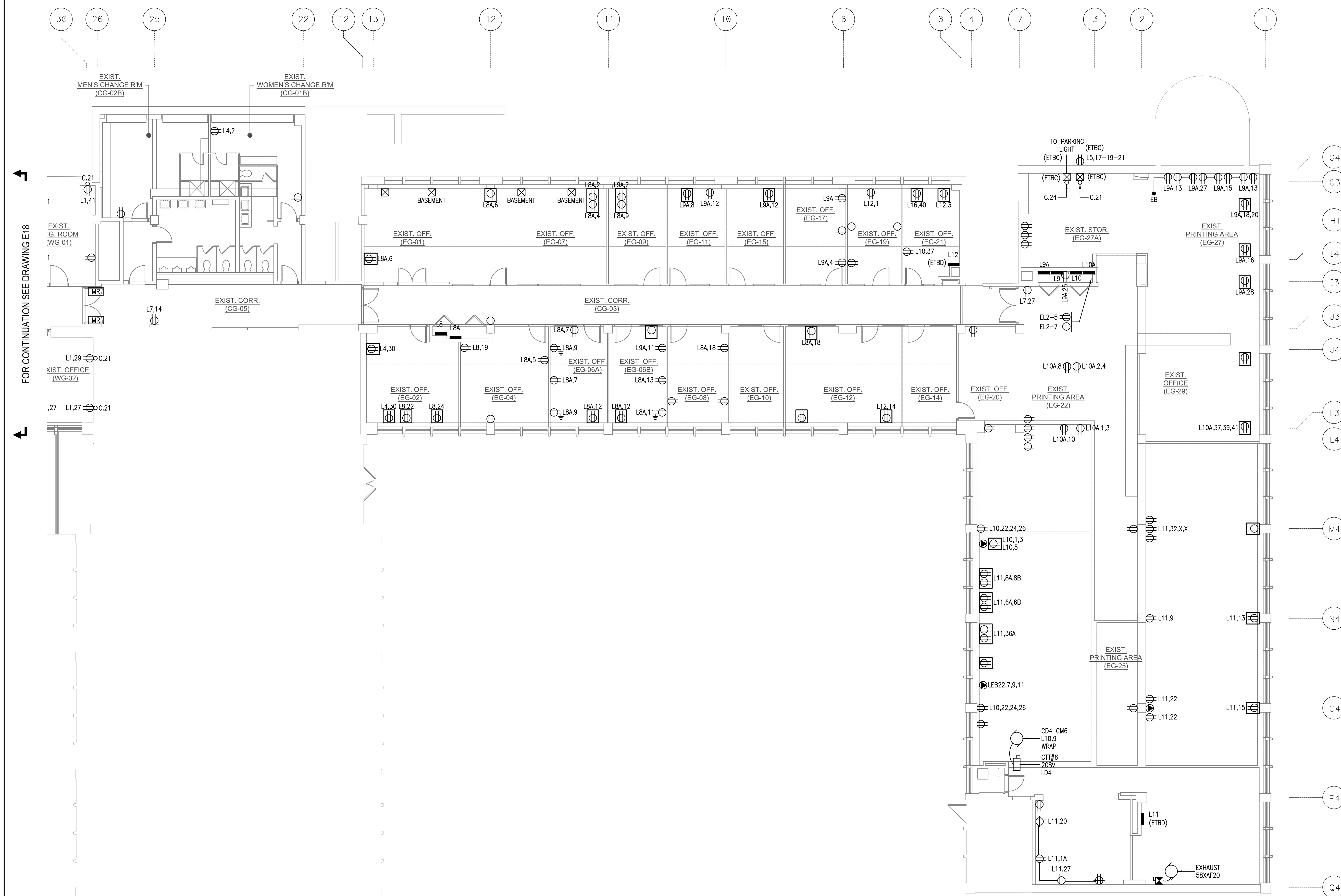
designed/conçu: B. Godin, tech. date: 04/2016

drawn/dessiné: L. Alvarez scale: As indicated

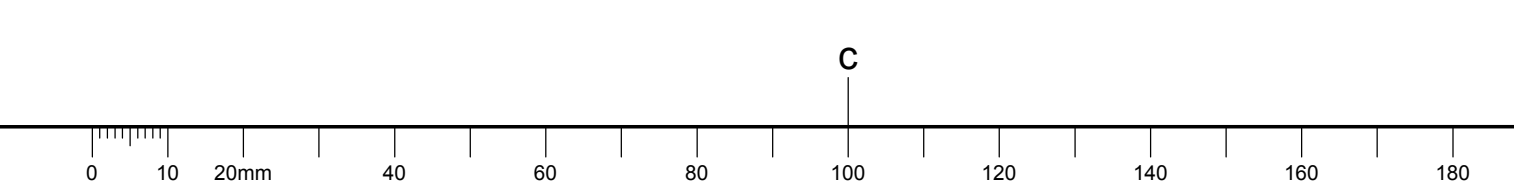
checked/vérifié: S. Gaudet, P. Eng. sheet: 19 of/de 26

approved/approuvé: M. Latouche, P. Eng. W.O.no.: A1-009908-01-58 D.T.no.:

dwg.no.: 5189-E19 dessin no.:



FOR CONTINUATION SEE DRAWING E18



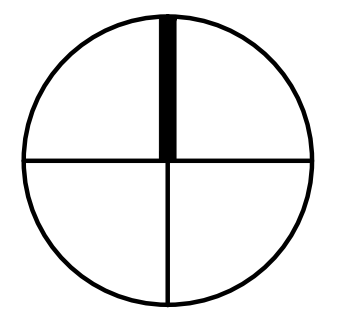
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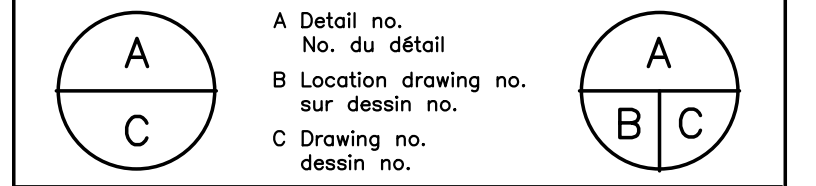


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project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

MONTREAL ROAD CAMPUS

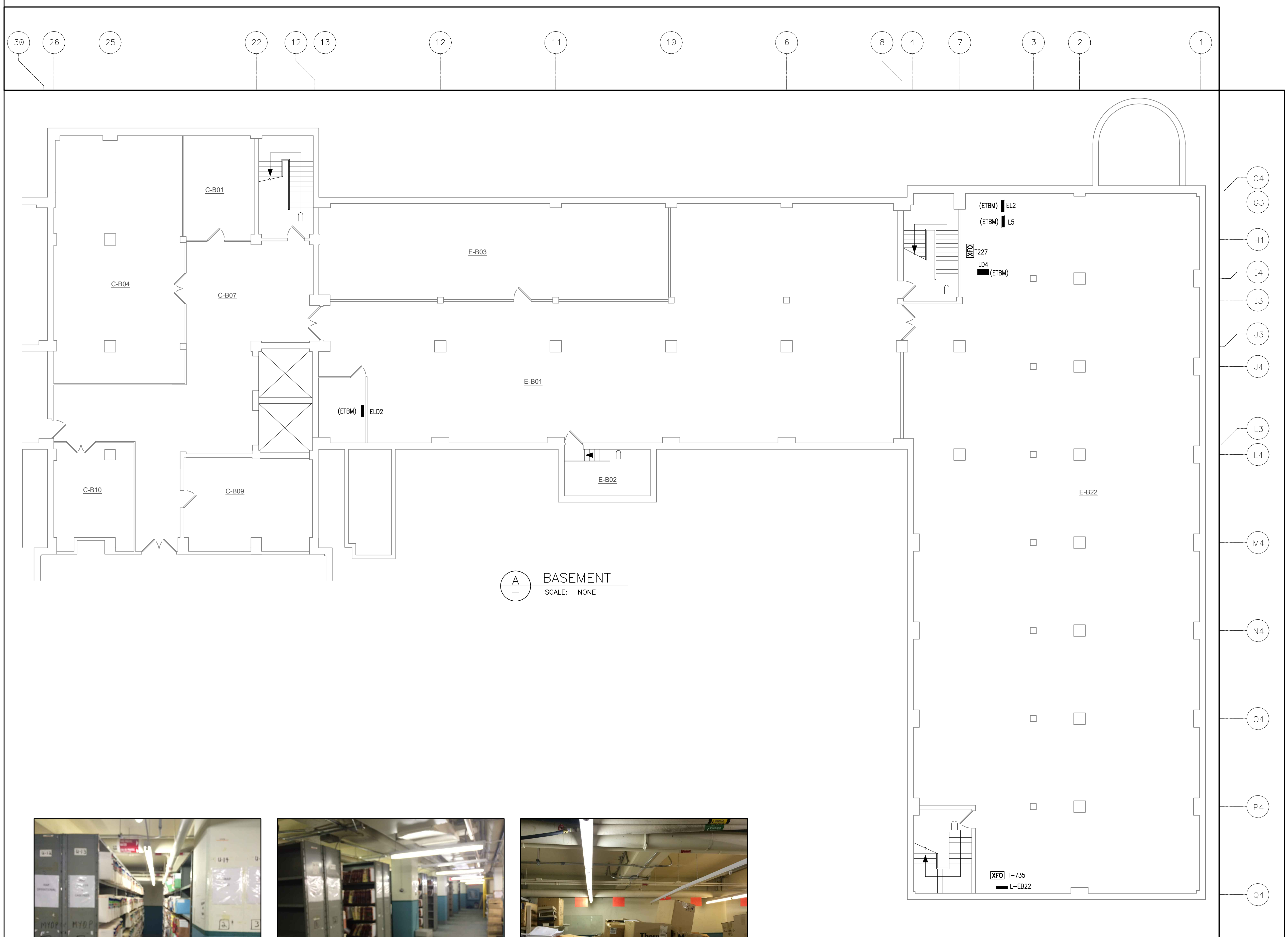
drawing: ELECTRICAL - SERVICES BASEMENT DEMOLITION PARTIAL PLAN VIEW - EAST WING

designed: B. Godin, tech. date: 04/2016
 drawn: L. Alvarez dessiné: scale: As indicated

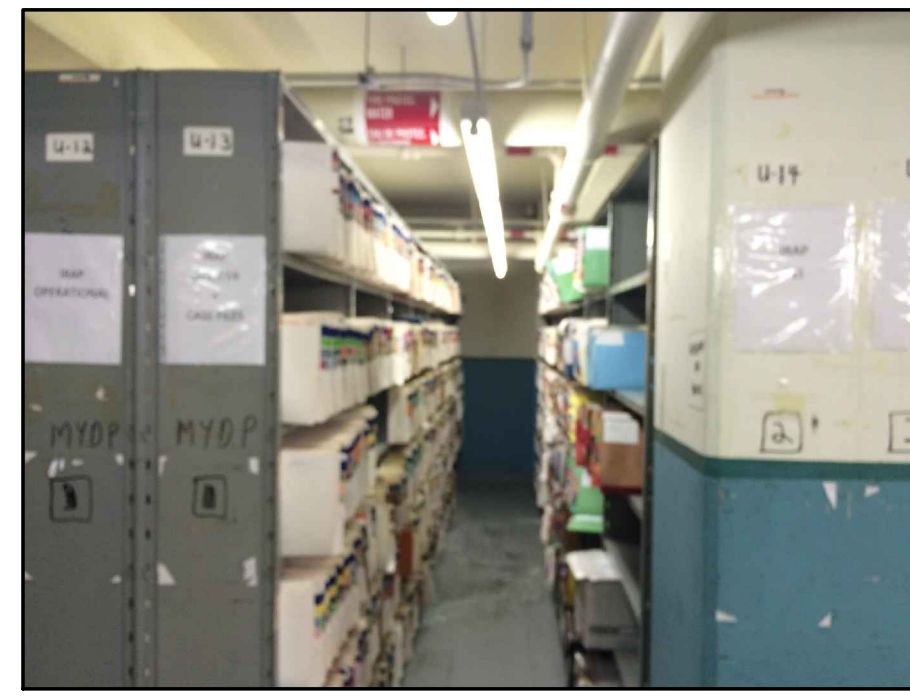
checked: S. Gaudet, P. Eng. vérifié: sheet: 20 of/de: 26

approved: M. Latouche, P. Eng. approuvé: W.O.no.: A1-009908-01-58 D.T.no.:

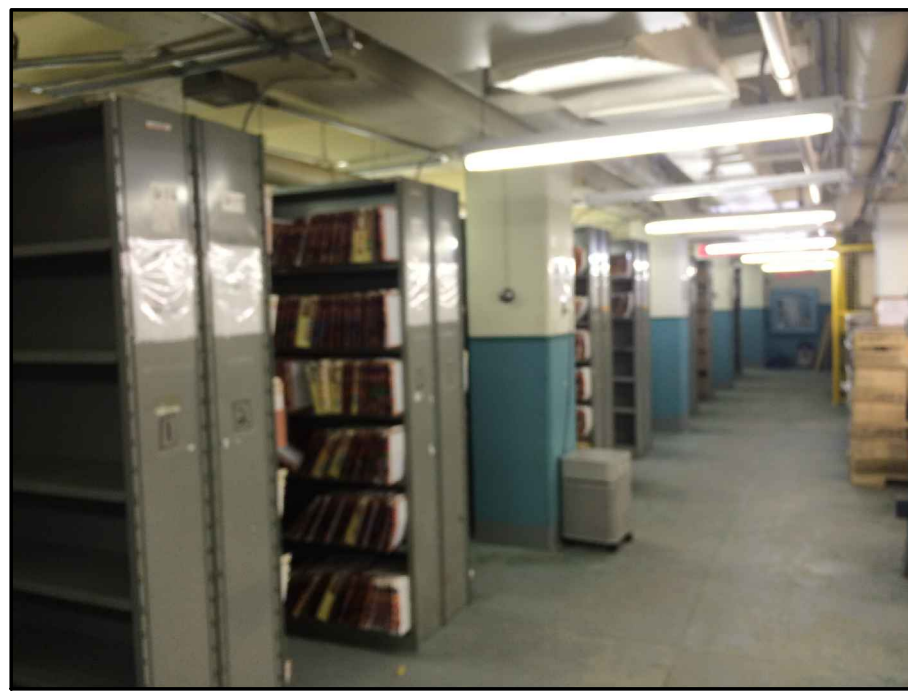
dwg.no.: 5189-E20 dessin no.:



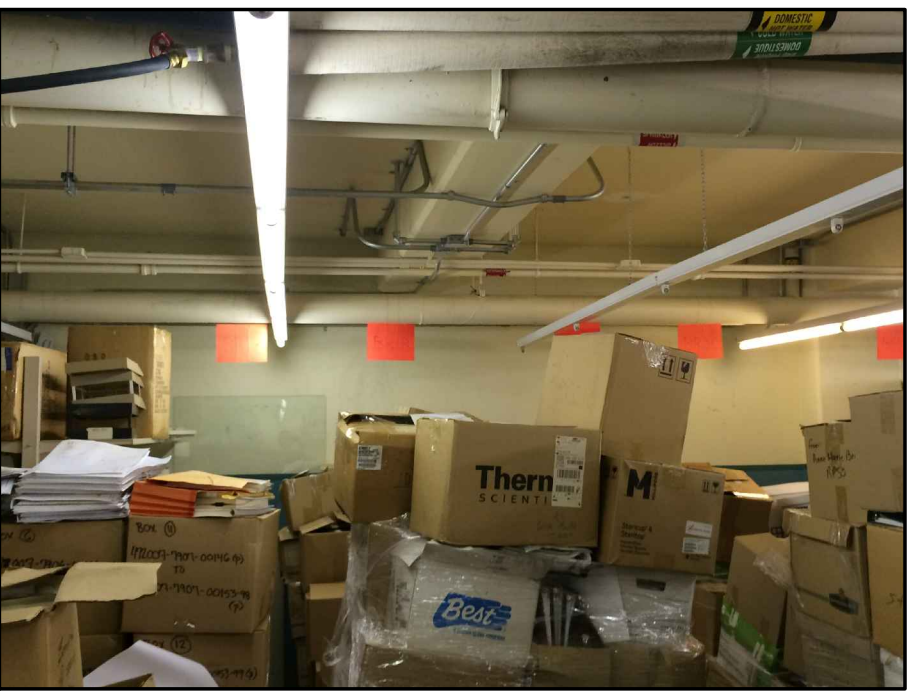
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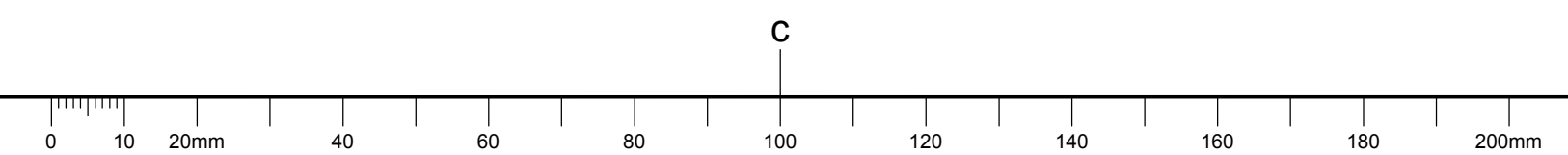
C BASEMENT AREA SCALE: NONE



D BASEMENT AREA SCALE: NONE



E BASEMENT AREA SCALE: NONE



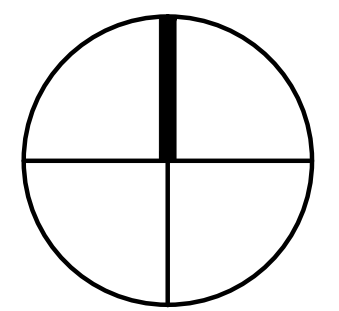
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| | | |
|---|--|-----|
| A | A Detail no. No. du détail | A |
| B | B Location drawing no. sur dessin no. | B C |
| C | C Drawing no. dessin no. | |

project: **NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION**
 projet: **NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION**

drawing: **ELECTRICAL - AUXILIARY SYSTEMS FLOOR PLAN DEMOLITION PARTIAL PLAN VIEW - WEST WING**
 dessin: **ELECTRICAL - AUXILIARY SYSTEMS FLOOR PLAN DEMOLITION PARTIAL PLAN VIEW - WEST WING**

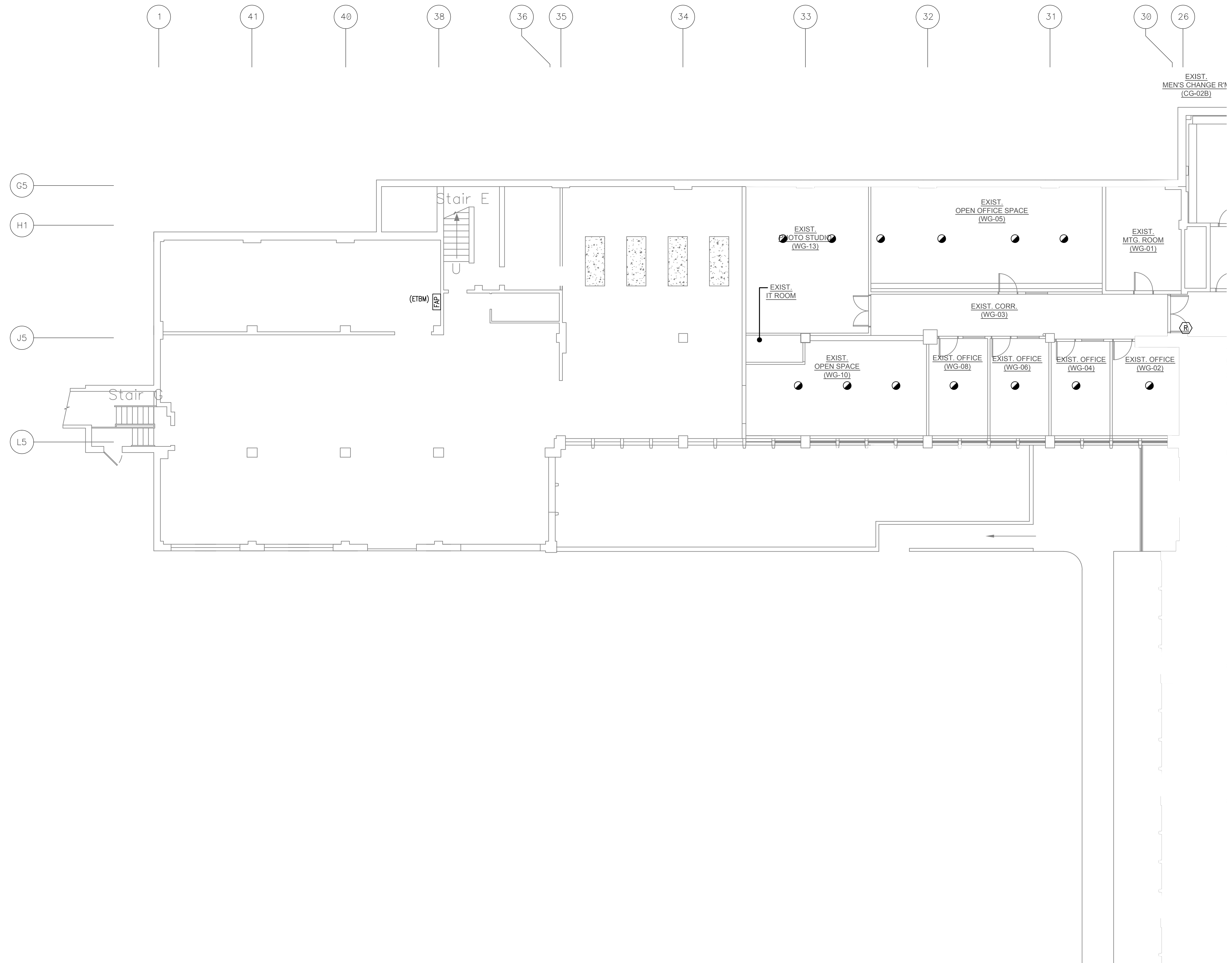
| designed | conçu | date | date |
|------------------------|-------|----------------|------|
| B. Godin, tech. | | 04/2016 | |

| drawn | dessiné | scale | échelle |
|-------------------|---------|---------------------|---------|
| L. Alvarez | | As indicated | |

| checked | vérifié | sheet | feuille |
|---------------------------|---------|-----------|-----------------|
| S. Gaudet, P. Eng. | | 21 | of/de 26 |

| approved | approuvé | W.O.no. | D.T.no. |
|-----------------------------|----------|------------------------|---------|
| M. Latouche, P. Eng. | | A1-009908-01-58 | |

dwg.no. **5189-E21** dessin no. _____



FOR CONTINUATION SEE DRAWING E22

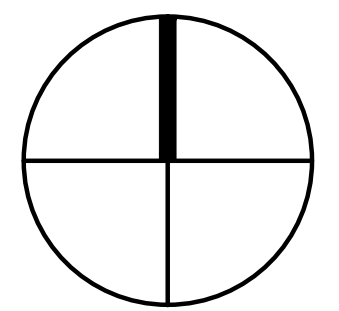
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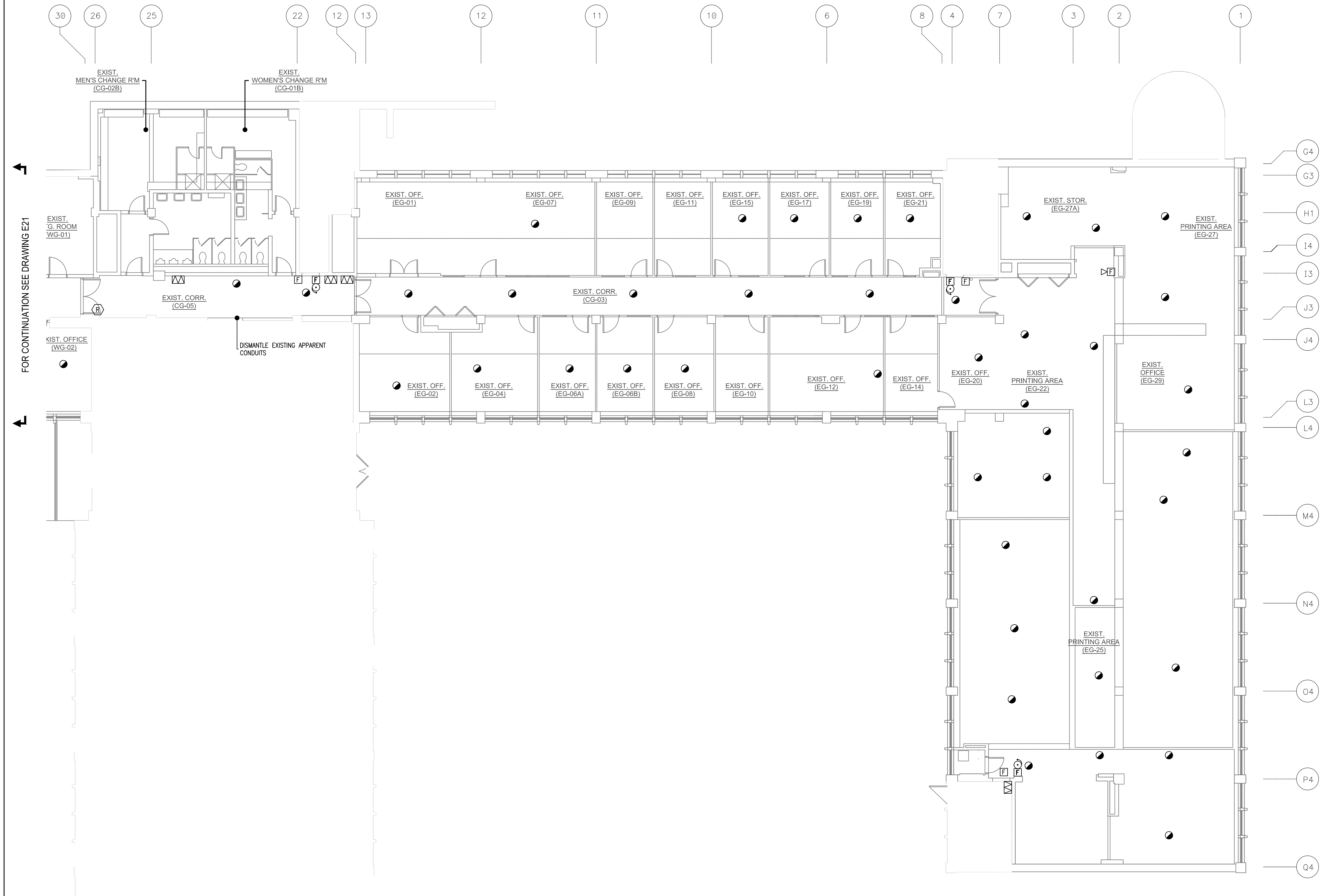
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|---|--|-----|
| A | A Detail no. No. du détail | A |
| B | B Location drawing no. sur dessin no. | B C |
| C | C Drawing no. dessin no. | |

project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

drawing: MONTREAL ROAD CAMPUS

designed: B. Godin, tech. date: 04/2016
 drawn: L. Alvarez dessiné: scale: As indicated
 checked: S. Gaudet, P. Eng. vérifié: sheet: 22 of/de: 26
 approved: M. Latouche, P. Eng. approuvé: W.O.no.: A1-009908-01-58 D.T.no.:

dwg.no.: 5189-E22 dessin no.:

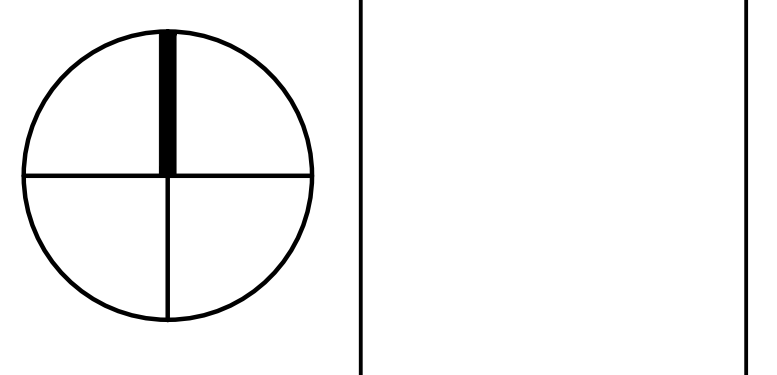


FOR CONTINUATION SEE DRAWING E21

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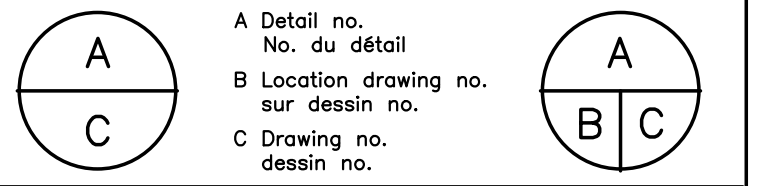


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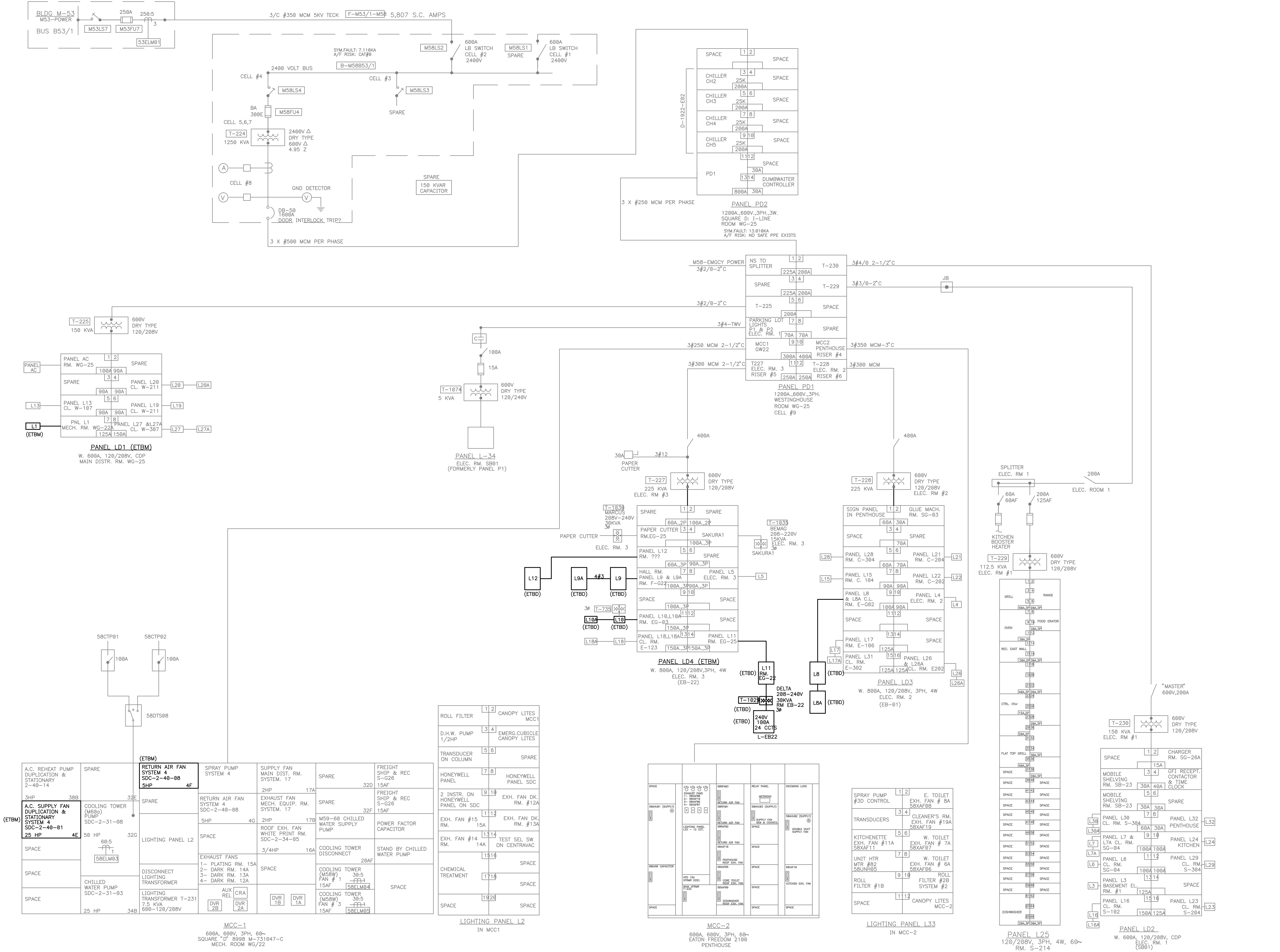
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drawing: MONTREAL ROAD CAMPUS

designed: B. Godin, tech. date: 04/2016
 drawn: L. Alvarez, dessiné scale: NONE échelle
 checked: S. Gaudet, P. Eng. vérifié sheet: 23 of/de 26 feuille
 approved: M. Latouche, P. Eng. approuvé W.O.no.: A1-009908-01-58 D.T.no.:
 dwg.no.: 5189-E23 dessin no.:



| A.C. REHEAT PUMP DUPLICATION & STATIONARY 2-40-14 | | SPARE | | RETURN AIR FAN SYSTEM 4 SDC-2-40-08 4F | | SPRAY PUMP SYSTEM 4 | | SUPPLY FAN MAIN DIST. RM. SYSTEM. 17 | | SPARE | | FREIGHT SHIP & REC S-G26 15AF | |
|---|-----|---------------------------------------|-----|--|-----|---|------|---|-----|-------|--|-------------------------------|------|
| 3HP | 38B | | | 3HP | 38B | 2HP | 17A | 2HP | 17A | | | 32F | 15AF |
| A.C. SUPPLY FAN DUPLICATION & STATIONARY SYSTEM 4 SDC-2-40-01 25 HP | | COOLING TOWER (M665) PUMP SDC-2-31-08 | | SPARE | | RETURN AIR FAN SYSTEM 4 SDC-2-40-08 4F | | EXHAUST FAN MECH. EQUIP. RM. SYSTEM. 17 | | SPARE | | FREIGHT SHIP & REC S-G26 15AF | |
| SPACE | | 50 HP | 32C | 3HP | 38B | 2HP | 17A | 2HP | 17A | | | 32F | 15AF |
| CHILLED WATER PUMP SDC-2-31-03 | | LIGHTING PANEL L2 | | SPARE | | ROOF EXH. FAN WHITE PRINT RM. SDC-2-34-95 | | ROOF EXH. FAN MECH. EQUIP. RM. SYSTEM. 17 | | SPARE | | POWER FACTOR CAPACITOR | |
| 25 HP | 34B | | | 3HP | 38B | 3/4HP | 16A | 2HP | 17A | | | 15AF | |
| DISCONNECT LIGHTING TRANSFORMER | | AUX REL. CRA | | EXHAUST FANS | | COOLING TOWER (M65W) FAN # 1 | | EXH. FAN #15 RM. | | SPARE | | STAND BY CHILLED WATER PUMP | |
| SPACE | | 7.5 KVA | 331 | 1- PLATING RM. 15A | 15A | 30.5 | 30.5 | 14A | 15A | | | 16A | |
| LIGHTING TRANSFORMER T-231 | | DVR 1B | | 3- DARK RM. 14A | | FAN # 3 | | EXH. FAN #13A RM. | | SPACE | | COOLING TOWER DISCONNECT | |
| SPACE | | 600V/208V | | 4- DARK RM. 12A | 12A | 15AF | 15AF | 14A | 15A | | | 29AF | |
| CHILLED WATER PUMP SDC-2-31-03 | | DVR 2B | | 1- PLATING RM. 15A | | FAN # 1 | | EXH. FAN #14A RM. | | SPACE | | STAND BY CHILLED WATER PUMP | |
| 25 HP | 34B | | | 2- DARK RM. 14A | 14A | 30.5 | 30.5 | 15A | 15A | | | 16A | |
| DISCONNECT LIGHTING TRANSFORMER | | DVR 3A | | 3- DARK RM. 14A | | FAN # 2 | | EXH. FAN #13A RM. | | SPACE | | STAND BY CHILLED WATER PUMP | |
| SPACE | | 7.5 KVA | 331 | 4- DARK RM. 12A | 12A | 15AF | 15AF | 14A | 15A | | | 16A | |
| LIGHTING TRANSFORMER T-231 | | DVR 4A | | 1- PLATING RM. 15A | | FAN # 1 | | EXH. FAN #14A RM. | | SPACE | | STAND BY CHILLED WATER PUMP | |
| SPACE | | 600V/208V | | 2- DARK RM. 14A | 14A | 30.5 | 30.5 | 15A | 15A | | | 16A | |
| CHILLED WATER PUMP SDC-2-31-03 | | DVR 5A | | 3- DARK RM. 14A | | FAN # 2 | | EXH. FAN #13A RM. | | SPACE | | STAND BY CHILLED WATER PUMP | |
| 25 HP | 34B | | | 4- DARK RM. 12A | 12A | 15AF | 15AF | 14A | 15A | | | 16A | |

MCC-1
 600A, 600V, 3PH, 60-
 SQUARE "D" 8998 W-731047-C
 MECH. ROOM WG/22

MCC-2
 600A, 600V, 3PH, 60-
 EATON FREEDOM 2100
 PENTHOUSE

LIGHTING PANEL L33
 IN MCC-2

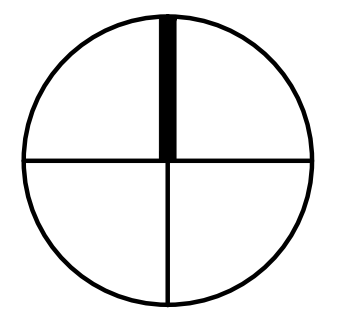
PANEL L25
 120/208V, 3PH, 4W, 60-
 RM. S-214

PANEL L22
 W. 600A, 120/208V, CDP
 (SB01)
 ELEC. RM. 1

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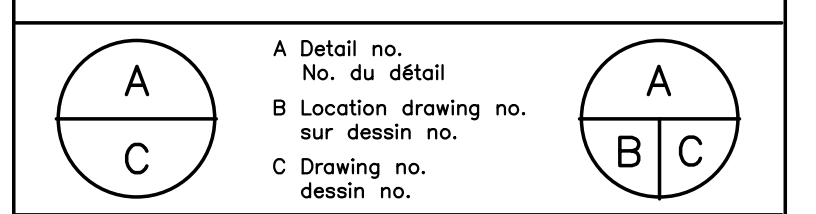


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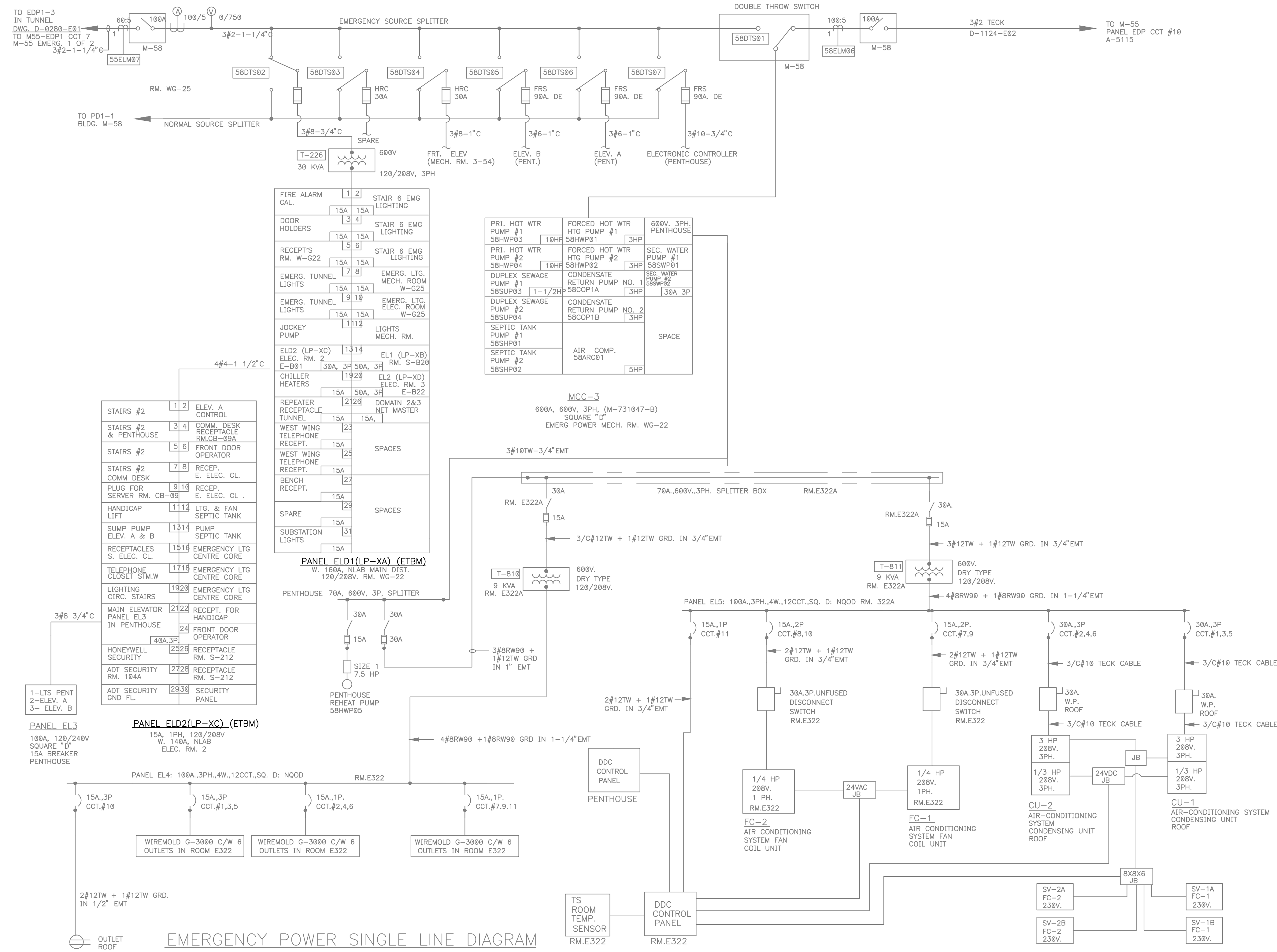
project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION

drawing: MONTREAL ROAD CAMPUS

description: ELECTRICAL - EMERGENCY POWER SINGLE LINE DIAGRAM DEMOLITION

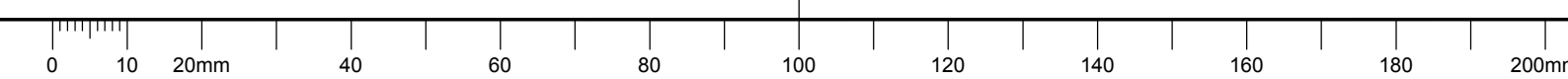
| designed | conçu | date | date |
|----------------------|------------|-----------------|----------|
| B. Godin, tech. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| L. Alvarez | | NONE | |
| checked | vérifié | sheet | feuille |
| S. Gaudet, P. Eng. | | 24 | of/de 26 |
| approved | approuvé | W.O.no. | D.T.no. |
| M. Latouche, P. Eng. | | A1-009908-01-58 | |
| dwg.no. | dessin no. | | |

5189-E24



EMERGENCY POWER SINGLE LINE DIAGRAM

C



| PANEL No.: | | L10 | | TENSION: | 120/208V-3Ø-4F | | BUS BARS: | | 225 A | | TOTAL (kW) LOAD: | | 0 W | |
|------------|--------|----------------------|-------|----------|----------------|-------|---------------|---------|-------|---|------------------|--------|-------|--------------|
| NOTES | CHARGE | LOCALISATION | MOTOR | HEAT | LIGHT | RECEP | BKR | PHASES | | | LOCALISATION | CHARGE | NOTES | |
| | | | | | | | | C | A | B | | | | |
| | | SPLIT PLUG EG25 | | | | | 20 | 1 | | | | 2 | 215 | |
| | | MONUMENT | | | | | 2p | 3 | | | | 4 | 215 | |
| | | EG25 | | | | | 15 | 6 | | | | 8 | 215 | |
| | | SPARE JB - EG-29 | | | | | 15 | 7 | | | | 8 | 15 | |
| | | SPARE JB RM EG-29 | | | | | 15 | 9 | | | | 10 | 215 | |
| | | SPARE JB RM EG-29 | | | | | 15 | 11 | | | | 12 | 15 | |
| | | CANON COPIER | | | | | 15 | 13 | | | | 14 | 15 | |
| | | SPARE JB BASEMENT | | | | | 15 | 16 | | | | 16 | 20 | |
| | | LASER PRINTER | | | | | 15 | 17 | | | | 18 | 2p | |
| | | SPARE JB BASEMENT | | | | | 20 | 19 | | | | 20 | 20 | |
| | | PANEL 10A | | | | | 100 | 21 | | | | 22 | 30 | |
| | | | | | | | 3p | 23 | | | | 24 | 3p | |
| | | | | | | | 25 | 25 | | | | 26 | | |
| | | 1 P. COMPUTER OUTLET | | | | | 15 | 27 | | | | 28 | 15 | |
| | | 2 SPARE JB BASEMENT | | | | | 15 | 29 | | | | 30 | 15 | |
| | | 1 EQUIPMENT #11 | | | | | 15 | 31 | | | | 32 | 15 | |
| | | 1 EQUIPMENT #9 | | | | | 15 | 33 | | | | 34 | 15 | |
| | | 1 EQUIPMENT #12 | | | | | 15 | 35 | | | | 36 | 15 | |
| | | 1 EQUIPMENT #21 | | | | | 7 | 37 | | | | 38 | 30 | |
| | | OFFSET PREFECTURE | | | | | 2p | 39 | | | | 40 | 3p | |
| | | PRESS EG-25 | | | | | 2p | 41 | | | | 42 | 2p | |
| | | | | | | | 0 | PHASE A | 0 | W | 0 | 0 | 0 | 0 |
| | | | | | | | 0 | PHASE B | 0 | W | 0 | 0 | 0 | 0 |
| | | | | | | | 0 | PHASE C | 0 | W | 0 | 0 | 0 | 0 |
| | | TOTAL | 0 | 0 | 0 | 0 | TOTAL: | 0 | W | 0 | 0 | 0 | 0 | TOTAL |

NOTE 1: IF ALWAYS USE TRANSFER TO NEW PANNEL L10 OR REMOVE
 NOTE 2: REMOVE
 NOTE 3: LOCALISATION:
 NOTE 4:
 NOTE 5:
 LOCALISATION:

| PANEL No.: | | L10A | | TENSION: | 120/208V-3Ø-4F | | BUS BARS: | | 225 A | | TOTAL (kW) LOAD: | | 0 W | |
|------------|--------|--------------|-------|----------|----------------|-------|---------------|---------|-------|---|------------------|--------|-------|--------------|
| NOTES | CHARGE | LOCALISATION | MOTOR | HEAT | LIGHT | RECEP | BKR | PHASES | | | LOCALISATION | CHARGE | NOTES | |
| | | | | | | | | C | A | B | | | | |
| | | On pole | | | | | 2p | 3 | | | | 4 | 2p | |
| | | | | | | | 5 | 5 | | | | 6 | 15 | |
| | | | | | | | 7 | 7 | | | | 8 | 15 | |
| | | | | | | | 9 | 9 | | | | 10 | 15 | |
| | | | | | | | 11 | 11 | | | | 12 | | |
| | | | | | | | 13 | 13 | | | | 14 | | |
| | | | | | | | 15 | 15 | | | | 16 | | |
| | | | | | | | 17 | 17 | | | | 18 | | |
| | | | | | | | 19 | 19 | | | | 20 | | |
| | | | | | | | 21 | 21 | | | | 22 | | |
| | | | | | | | 23 | 23 | | | | 24 | | |
| | | | | | | | 25 | 25 | | | | 26 | | |
| | | | | | | | 27 | 27 | | | | 28 | | |
| | | | | | | | 29 | 29 | | | | 30 | | |
| | | | | | | | 31 | 31 | | | | 32 | | |
| | | | | | | | 33 | 33 | | | | 34 | | |
| | | | | | | | 35 | 35 | | | | 36 | | |
| | | | | | | | 37 | 37 | | | | 38 | | |
| | | | | | | | 3p | 39 | | | | 40 | | |
| | | | | | | | 41 | 41 | | | | 42 | | |
| | | | | | | | 0 | PHASE A | 0 | W | 0 | 0 | 0 | 0 |
| | | | | | | | 0 | PHASE B | 0 | W | 0 | 0 | 0 | 0 |
| | | | | | | | 0 | PHASE C | 0 | W | 0 | 0 | 0 | 0 |
| | | TOTAL | 0 | 0 | 0 | 0 | TOTAL: | 0 | W | 0 | 0 | 0 | 0 | TOTAL |

NOTE 1:
 NOTE 2:
 NOTE 3:
 NOTE 4:
 NOTE 5:
 LOCALISATION:

| PANEL No.: | | L11 | | TENSION: | 120/208V-3Ø-4F | | BUS BARS: | | 225 A | | TOTAL (kW) LOAD: | | 0 W | |
|------------|--------|-----------------------|-------|----------|----------------|-------|---------------|---------|-------|---|------------------|--------|-------|--------------|
| NOTES | CHARGE | LOCALISATION | MOTOR | HEAT | LIGHT | RECEP | BKR | PHASES | | | LOCALISATION | CHARGE | NOTES | |
| | | | | | | | | C | A | B | | | | |
| | | SPARE IN | | | | | 30 | 1 | | | | 2 | 50 | |
| | | | | | | | 3p | 3 | | | | 4 | 2p | |
| | | 2 BASEMENT | | | | | | 5 | | | | 8 | 15x2 | |
| | | | | | | | 15 | 7 | | | | 8 | 15x2 | |
| | | 1 CERLOX | | | | | 15 | 9 | | | | 10 | 15 | |
| | | 1 STITCHER | | | | | 15 | 11 | | | | 12 | 15 | |
| | | 1 SCOREPERF TABLE | | | | | 15 | 13 | | | | 14 | 15 | |
| | | 1 SCOREPERF TABLE | | | | | 15 | 15 | | | | 16 | 15 | |
| | | 1 SPLIT PLUG | | | | | 15 | 17 | | | | 18 | 15 | |
| | | 1 SPLIT PLUG | | | | | 2p | 19 | | | | 20 | 15 | |
| | | 1 CERLOX BENCH 15 AMP | | | | | 15 | 23 | | | | 24 | 15 | |
| | | 1 OUTLET | | | | | 15 | 25 | | | | 26 | 20 | |
| | | 1 WEST WALL | | | | | 15 | 27 | | | | 28 | 2P | |
| | | 1 SPARE | | | | | 15 | 29 | | | | 30 | 15 | |
| | | 1 PRESS OUTPUT TABLE | | | | | 15 | 31 | | | | 32 | 15 | |
| | | 1 20ATS LOT WAST B | | | | | 20 | 33 | | | | 34 | 15x2 | |
| | | | | | | | 15 | 35 | | | | 36 | 15x2 | |
| | | 1 OUTLET EG-25 | | | | | 100 | 37 | | | | 38 | 15x2 | |
| | | | | | | | 3P | 39 | | | | 40 | 15 | |
| | | | | | | | 41 | 41 | | | | 42 | 2P | |
| | | | | | | | 0 | PHASE A | 0 | W | 0 | 0 | 0 | 0 |
| | | | | | | | 0 | PHASE B | 0 | W | 0 | 0 | 0 | 0 |
| | | | | | | | 0 | PHASE C | 0 | W | 0 | 0 | 0 | 0 |
| | | TOTAL | 0 | 0 | 0 | 0 | TOTAL: | 0 | W | 0 | 0 | 0 | 0 | TOTAL |

NOTE 1: IF ALWAYS USE TRANSFER ON NEW PANNEL L11 OR REMOVE
 NOTE 2: REMOVE
 NOTE 3: LOCALISATION:
 NOTE 4:
 NOTE 5:
 LOCALISATION:

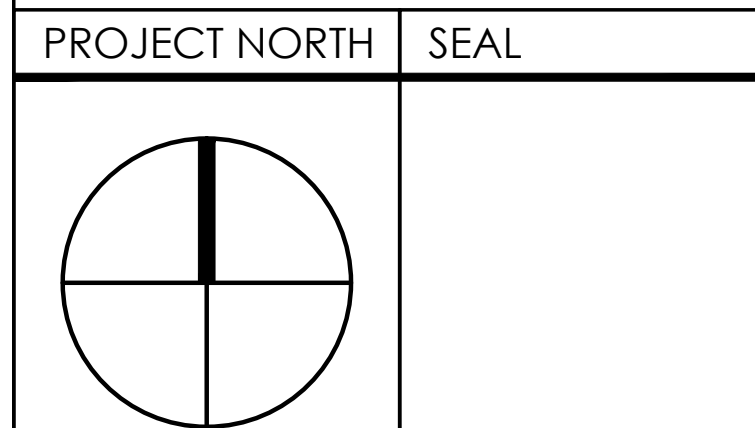
| PANEL No.: | | L12 | | TENSION: | 120/208V-3Ø-4F | | BUS BARS: | | 125A | | TOTAL (kW) CHARGES THEORIQUE: | | 0 W | |
|------------|--------|----------------------------|-------|----------|----------------|-------|---------------|---------|------|---|-------------------------------|--------|-------|--------------|
| NOTES | CHARGE | LOCALISATION | MOTOR | HEAT | LIGHT | RECEP | BKR | PHASES | | | LOCALISATION | CHARGE | NOTES | |
| | | | | | | | | C | A | B | | | | |
| | | OUTLET EG 11 | | | | | 15 | 1 | | | | 2 | 15 | |
| | | OUTLET EG 21 | | | | | 15 | 3 | | | | 4 | 15 | |
| | | WORK STATIONS RM EG 12-12A | | | | | 15 | 6 | | | | 8 | 15 | |
| | | 650 COLLATOR | | | | | 15 | 7 | | | | 8 | 15 | |
| | | RECEPTACLE RM. EG-01 | | | | | 15 | 9 | | | | 10 | 15 | |
| | | RECEPTACLE TOE SPACE | | | | | 15 | 11 | | | | 12 | 40 | |
| | | PLUG COLLATOR | | | | | 20 | 13 | | | | 14 | 15 | |
| | | | | | | | 2p | 15 | | | | 16 | 30 | |
| | | | | | | | 40 | 17 | | | | 18 | 30 | |
| | | | | | | | 0 | PHASE A | 0 | W | 0 | 0 | 0 | 0 |
| | | | | | | | 0 | PHASE B | 0 | W | 0 | 0 | 0 | 0 |
| | | | | | | | 0 | PHASE C | 0 | W | 0 | 0 | 0 | 0 |
| | | TOTAL | 0 | 0 | 0 | 0 | TOTAL: | 0 | W | 0 | 0 | 0 | 0 | TOTAL |

NOTE 1:
 NOTE 2:
 NOTE 3:
 NOTE 4:
 NOTE 5:
 LOCALISATION:



- CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK.
- PREVENT THE SPREAD OF DUST & DEBRIS BEYOND THE WORK AREA AND CLEAN ALL SURFACES AT COMPLETION.
- MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
- COORDINATE ALL SHUTDOWNS WITH THE DEPARTMENTAL REPRESENTATIVE.
- PROVIDE ALL LABOUR AND MATERIAL REQUIRED TO FORM A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED ON DRAWINGS AND SPECIFICATIONS.

THIS DOCUMENT MUST NOT BE USED FOR CONSTRUCTION PURPOSES

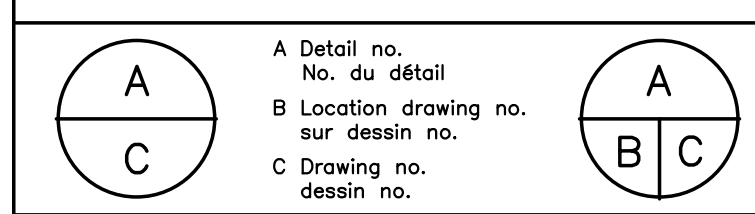


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| | | | | |
|-----|------------|------------|-----|------|
| No. | Date | Revision | By: | M.L. |
| 0 | 2016-09-16 | FOR TENDER | | |

Date Printed: 2016/09/16 Date imprimée:

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité



project: NATIONAL RESEARCH COUNCIL CANADA BUILDING (M-58) GROUND FLOOR LEVEL EAST AND WEST WINGS RENOVATION
 dessin: MONTREAL ROAD CAMPUS

drawing: ELECTRICAL PANELS PART 2 OF 2 DEMOLITION

| | | | |
|----------------------|------------|-----------------|---------|
| designed | conçu | date | date |
| B. Godin, tech. | | 04/2016 | |
| drawn | dessiné | scale | échelle |
| L. Alvarez | | As indicated | |
| checked | vérifié | sheet | feuille |
| S. Gaudet, P. Eng. | | 26 of/de 26 | |
| approved | approuvé | W.O.no. | D.T.no. |
| M. Latouche, P. Eng. | | A1-009908-01-58 | |
| dwg.no. | dessin no. | | |
| 5189-E26 | | | |