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CONSULTANT DRAWINGS

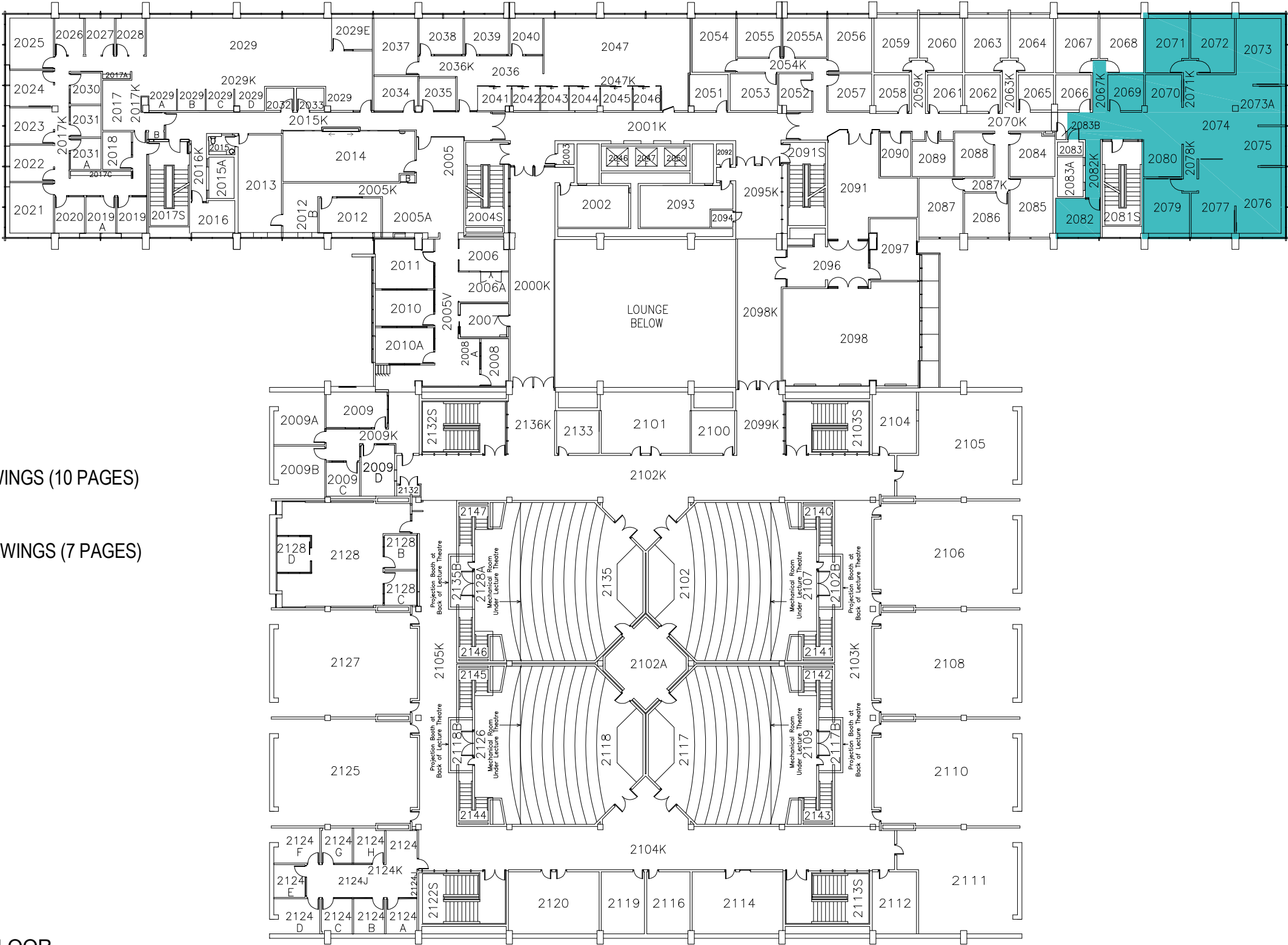
THE AQUILA GROUP
40 UNIVERSITY AVE., SUITE 1300
TORONTO, ON M5J 1T1

ELECTRICAL

E-100 TO E-301 ELECTRICAL DRAWINGS (10 PAGES)

MECHANICAL

M-100 TO M-301 MECHANICAL DRAWINGS (7 PAGES)



1 LOCATION PLAN: 2ND FLOOR
A1.0 1/32" = 1'-0"



University of Toronto

INFRASTRUCTURE PLANNING

OFFICE OF THE DEAN
FACULTY OF ARTS AND SCIENCE

100 St. George Street, Suite 2036, Toronto, Ontario M5S 3G3

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Iss./Rev.	Description	By	Date (YY.MM.DD)
02	ISSUED FOR TENDER	JF	25.04.11
01	A1 DEMO PL. ISS. FOR ABAT. TEND. JF	JF	25.02.20

Revisions and Issues Record

Project Title

HISTORY ADMIN
OFFICES REFRESH

100 ST. GEORGE STREET

Drawing Sheet Title

LOCATION PLAN

Scale AS NOTED

Drawn by JF Date APRIL 11, 2025

Infrastructure Planning Project Number

P033-25-065

North Point



Drawing Number

A1.0

GENERAL NOTES:

1. VERIFY ALL DIMENSIONS AND LEVELS AND REPORT ANY DISCREPANCIES TO THE DESIGNER BEFORE PROCEEDING WITH THE WORK.
2. SCOPE OF WORK: INCLUDE THE SUPPLY AND INSTALLATION OF ALL LABOUR AND MATERIALS NECESSARY, AS INTENDED, AND AS REQUIRED TO MAKE FINISHED INSTALLATIONS IN THE TRUE INTENT AND MEANING OF THE DRAWINGS, EVEN THOUGH EACH AND EVERY MISCELLANEOUS ITEM MAY NOT BE MENTIONED OR SHOWN ON THE DRAWINGS.
3. SITE INSPECTION: INVESTIGATE AND BECOME FAMILIAR WITH SITE CONDITIONS AND THE CONSTRUCTION CRITERIA. NO EXTRA WILL BE ALLOWED DUE TO FAILURE TO MAKE THESE INSPECTIONS.
4. CLEAN UP: ALL AREAS IN WHICH WORK IS PERFORMED SHALL BE CLEANED UP AND ALL RUBBISH REMOVED FROM THE SITE AT THE END OF EACH DAY.
5. SUBSTITUTION: NO SUBSTITUTION FOR ANY PRODUCT OR MATERIAL WILL BE ACCEPTED UNLESS AUTHORIZED BY THE DESIGNER IN WRITING. IF INSTALLED PRODUCT OR MATERIAL IS SUBSEQUENTLY FOUND NOT TO BE IN ACCORDANCE WITH CONTRACT DOCUMENTS, CONTRACTOR IS SOLELY RESPONSIBLE FOR MAKING GOOD AT THEIR SOLE EXPENSE, AND SO AS NOT TO DELAY SCHEDULE.
6. CEILING TILES: THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND STORAGE OF PORTIONS OF THE ACOUSTICAL CEILING NECESSARY TO BE OPEN FOR WORK BY SUB-TRADES AND THE REINSTALLATION OF SUCH TILES AT THE COMPLETION OF THE CONTRACT. REPLACE DAMAGED AND OR STAINED CEILING TILES WITH NEW.
7. DIMENSIONS AND SPECIFICATIONS ON ARCHITECTURAL DRAWINGS GOVERN. THERE WILL BE NO ALLOWANCES MADE FOR DISCREPANCIES WHICH ARE NOT REPORTED TO THE DESIGNER PRIOR TO PROCEEDING WITH THE WORK IN QUESTION.
8. SAMPLES: SUBMIT SAMPLES IF REQUESTED. NO WORK SHALL PROCEED AS RELATES TO THEM UNTIL THEY ARE DETERMINED BY THE DESIGNER TO BE ACCEPTABLE.
9. SCHEDULE: SUBMIT TO DESIGNER A PROJECT SCHEDULE AT THE BEGINNING OF PROJECT AND INCLUDE LABOUR FORCE FOR PROGRESS OF WORK IN ACCORDANCE WITH SUCH SCHEDULE.
10. PROTECTION: PROTECT FINISHED WORK FROM ANY CONSTRUCTION DAMAGE, MAKE GOOD DAMAGE TO THE SATISFACTION OF THE DESIGNER.
11. DISCREPANCIES: CAREFULLY EXAMINE DRAWINGS AND SPECIFICATIONS (IF ANY) AND BE FULLY INFORMED OF EXISTING CONDITIONS PERTAINING TO THE WORK OF THE CONTRACT. ANY ERROR, INCONSISTENCY, OR OMISSION DISCOVERED SHALL BE IMMEDIATELY REPORTED TO THE DESIGNER AND IN NO CASE SHALL WORK PROCEED IN UNCERTAINTY.
12. ALL TRADES: REVIEW ARCHITECTURAL DRAWINGS IN CONJUNCTION WITH ENGINEERS DRAWINGS. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGNER. THERE WILL BE NO ALLOWANCES MADE IF DISCREPANCIES ARE NOT REPORTED WITHIN TWO WEEKS OF CONSTRUCTION START UP.
13. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS OF MILLWORK ITEMS, FOR REVIEW BY THE DESIGNER, PRIOR TO STARTING THE WORK.
14. DEFICIENCIES: DEFICIENCIES MUST BE CORRECTED WITHIN TWO WEEKS OF THE DEFICIENCY INSPECTION ON AN AFTER HOURS BASIS.

WORK IN EXISTING BUILDING:

1. MAINTAIN CONTINUITY OF FIRE PROTECTION AND FIRE RELATED ASSEMBLIES IN EXISTING BUILDING WHEN CUTTING AND PATCHING.
2. MAINTAIN EXISTING EXITS AND PROVIDE PROPER AND SAFE MEANS OF EGRESS FROM ALL PARTS OF THE BUILDING TO OPEN SPACES AT ALL TIMES TO THE APPROVAL OF JURISDICTIONAL AUTHORITIES. IDENTIFY, PROVIDE EXIT LIGHTS AND ILLUMINATE TEMPORARY MEANS OF EGRESS. SATISFY ANY OTHER REQUIREMENTS AUTHORITIES MAY HAVE IN THIS RESPECT.
3. MAINTAIN ACCESS TO SERVICE AND DELIVERY ENTRANCES.
4. MAINTAIN SECURITY OF TENANT SPACE.
5. MATERIALS NOT RELOCATED TO BE DISPOSED OF AWAY FROM THE SITE. MAINTAIN WORK AREAS BROOM CLEAN TO AVOID TRACKING DIRT INTO ADJACENT AREAS.
6. CUTTING AND PATCHING OR REPLACEMENT OF DAMAGED WORK TO BE DONE BY WORKERS EXPERIENCED IN TYPE OF WORK TO BE PERFORMED. FINISHED REPAIRS/REPLACEMENT MUST BE CARRIED OUT TO THE SATISFACTION OF THE DESIGNER.
7. CUTTING AND PATCHING TO BE LOCATED AND PERFORMED BY THE SUBCONTRACTOR AS REQUIRED, UNDER DIRECT SUPERVISION AND COORDINATION OF THE CONTRACTOR.
8. EXECUTE WORK IN THE EXISTING BUILDING AT TIMES APPROVED BY OWNER, SO AS NOT TO INCONVENIENCE HIS OCCUPATION OR HINDER THE MANNER IN WHICH HE/SHE USES THE BUILDING.
9. EXECUTE WORK AS QUIETLY AS POSSIBLE IN EXISTING BUILDING. SCHEDULE ALL NOISEY OPERATIONS WITH OWNER TO ACHIEVE LEAST DISTURBANCE.
10. WORK INCLUDES FINAL CLEANING BY SKILLED CLEANING SPECIALISTS ON COMPLETION OF CONSTRUCTION. FINAL CLEANING TO REMOVE DUST, STAINS, PAINT SPOTS, SOIL, GREASE, FINGERPRINTS, AND ACCUMULATIONS OF CONSTRUCTION MATERIALS. WORK TO BE DONE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS FOR EACH MATERIAL.



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Project Title

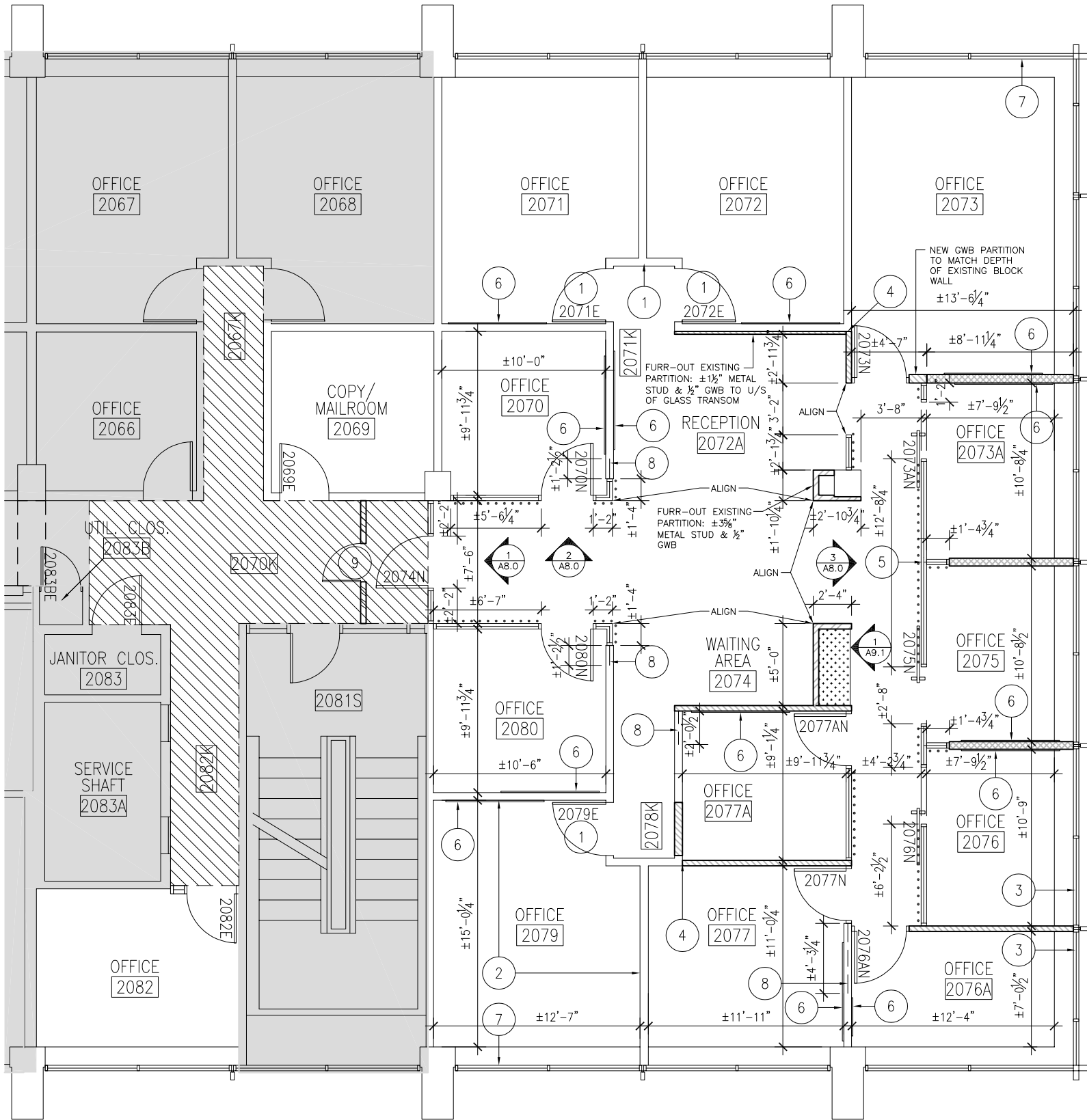
HISTORY ADMIN
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100 ST.GEORGE STREET

Drawing Sheet Title

GENERAL NOTES

Scale AS NOTED	
Drawn by JF	Date APRIL 11, 2025
Infrastructure Planning Project Number	North Point 
P033-25-065	Drawing Number
	A1.1



PARTITION SYMBOLS LEGEND:

PT1

PT2

PT3

PT4

EXISTING PARTITION TO REMAIN.

NEW PARTITION TO BE CONSTRUCTED SLAB TO U/S OF CEILING (±8'-10") WITH FOIL BACKED RIGID INSULATION ABOVE (PROVIDE ADDITIONAL BRACING/SUPPORT AS REQUIRED AND ALLOW FOR OPENING ABOVE DOOR FOR AIR CIRCULATION.).

NEW PARTITION TO BE CONSTRUCTED FROM TOP OF EXISTING PARTITION TO U/S OF CEILING (±1'-9 1/2"). WALL THICKNESS TO MATCH EXISTING.

NEW PARTITION TO BE CONSTRUCTED SLAB TO U/S OF CEILING (±8'-10").

GLAZING FLOOR TO U/S OF CEILING (±8'-10 TO MATCH HEIGHT OF EXISTING CEILING LINE) WITH FOIL BACKED RIGID INSULATION ABOVE, WHERE NOT ALREADY EXISTING (PROVIDE ADDITIONAL BRACING/SUPPORT AS REQUIRED AND ALLOW FOR OPENING ABOVE DOOR FOR AIR CIRCULATION.).
MAN.: PC350; STYLE: ELITE SYSTEM SINGLE GLAZING; FINISH: BLACK; GLASS: 3/8" WITH 0.030 LAMINATE;
NOTE:
1. CLEAR ACOUSTICAL SILICONE BUTT JOINTS
2. PROVIDE FILM ON GLAZED WALL/DOOR AS SPECIFIED ON TYPICAL ELEVATION (EXCEPT 2074N WALL\DOOR)

DOOR AND/OR SIDE LIGHT NUMBER.

DOOR, FRAME AND SIDE LIGHT.
"N" - NEW; "E" - EXISTING; "R" - RELOCATED

NEW MILLWORK LOCATION. REFER TO ELEVATIONS AND DETAILS FOR FURTHER INFORMATION.

CONTRACTOR TO PROVIDE SEPARATE PRICE, INCLUDED IN TENDER, FOR THE REMOVAL/DISPOSAL OF EXISTING VCT AND THE SUPPLY/INSTALLATION OF NEW VCT TO MATCH EXISTING.

ROOM OR AREA NUMBER INDICATION, WITH ROOM NAME.

ELEVATION/SECTION REFERENCE.

DIMENSION WITH CLEAR INSIDE DIMENSION.

PARTITION KEY NOTES

- 1

CONTRACTOR TO REMOVE VINYL STICKERS FROM DOOR, PATCH AND PREPARE FOR PAINTING AND REMOVE TAPE RESIDUE FROM TRANSOM GLASS.
- 2

CONTRACTOR TO PROVIDE NEW PLENUM RATED RIGID BAFFLE INSTALLED ABOVE CEILING, ALLOW FOR OPENING ABOVE DOOR FOR AIR CIRCULATION.
- 3

CONTRACTOR TO REMOVE AND DISPOSE OF EXISTING WINDOW BLINDS AND REPLACE WITH NEW TO MATCH EXISTING. APPROXIMATE SIZE 2 @ ±5'-5"W x ±7'-1"H, TO BE SITE VERIFIED BY GC.
- 4

PROVIDE GWB INFILL C/W PAINT FINISHED MDF END CAP AT GLASS FOR FINISHED FACE INSIDE ROOM (BETWEEN NEW WALL AND EXISTING GLAZED TRANSOM).
- 5

PC350 GLASS T-JOINT.
- 6

CONTRACTOR TO SUPPLY AND INSTALL NEW MAGNETIC GLASS WHITEBOARD AND PROVIDE BLOCKING AS REQUIRED. ALL BOARDS TO BE MOUNTED 38" AFF. GC TO CONFIRM FINAL LOCATIONS WITH DESIGNER.
MAN.: QUARTET BY GRAND & TOY
PRODUCT: INVISAMOUNT MAGNETIC GLASS DRY-ERASE BOARD, WHITE TEMPERED GLASS SURFACE. EACH BOARD COMES WITH 1 X MARKER TRAY; 1 X DRY ERASE MARKER; 2 X ROUND MAGNETS
MODEL/DIMENSIONS: MODEL #22332-0; 74"W X 41"H; QTY. 12 (RM 2070, 2071, 2072, 2072A, 2073, 2073A, 2075, 2076, 2077, 2077A, 2079, 2080) AND MODEL #22331-0; 28"W X 49.7"H; QTY. 1 (RM 2076A)
- 7

CONTRACTOR TO REPAIR BLIND/PULL CHAIN AS REQUIRED TO ENSURE SMOOTH OPERATION.
- 8

CONTRACTOR TO PROVIDE NEW INFILL PIECE OF TRANSOM GLASS, TO MATCH EXISTING. APPROXIMATE SIZES AS FOLLOWS:
1 @ ±4'-3 1/2" W X ±1'-9 1/2" H
1 @ ±2'-0 1/2" W X ±1'-9 1/2" H
2 @ ±1'-2 1/2" W X ±1'-9 1/2" H
- 9

CONTRACTOR TO PROVIDE HOARDING FOR SITE ACCESS WITH DOOR LOCATION AS DEEMED APPROPRIATE BY CONTRACTOR. 3 8" METAL STUDS AND 1/2" GWB ONE SIDE.

PARTITION PLAN NOTES

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PARTITION NOTES

1.
- MAKE GOOD CONCRETE TOPPINGS WITH A SMOOTH FINISH. CONCRETE TOPPINGS TO BE SEALED WITH WATER BASED CONCRETE SEALER IN ALL AREAS.
2.
- TRANSITION FLOOR AT DOOR OPENINGS WHERE DIFFERENT FLOOR COVERINGS MEET, AS REQUIRED TO PROVIDE A SMOOTH JOINT. (MAX CODE SLOPE = 1:20). PROVIDE TRANSITION STRIPS AS REQUIRED, REFER TO FINISHES PLAN.
3.
- EXISTING PARTITIONS, GYPSUM BOARD BULKHEADS, CONVECTORS, COLUMNS AND PIPES TO BE PATCHED, SANDED AND MADE READY FOR FINISH.
4.
- EXPOSED EDGES OF GYPSUM BOARD TO BE TRIMMED WITH D200 CORNER BEAD, AS REQUIRED OR AS OTHERWISE DETAILED TO MAKE A TRUE AND STRAIGHT EDGE. NO TRIM TO BE EXPOSED. GYPSUM BOARD TO BE TAPED, SANDED (AS REQUIRED) AND MADE READY FOR FINISH. PROVIDE ONE PRIMER COAT AND TWO FINISH COATS AS SPECIFIED.
5.
- FILL JOINTS, CASING BEADS, CORNER BEADS, SCREW HOLES AND DEPRESSIONS ON GYPSUM BOARD SURFACES WITH THREE COAT METHOD, TO PROVIDE SMOOTH SEAMLESS SURFACES AND SQUARE NEAT CORNERS, IN ACCORDANCE WITH ASTM C840 LEVEL 04; EXCEPT JOINTS ABOVE CEILINGS NEED ONLY BE FILLED WITH TAPE, IN ACCORDANCE WITH ASTM C840 LEVEL 1.
6.
- USE JOINT COMPOUNDS AND REINFORCING TAPES IN CONFORMANCE WITH MANUFACTURER'S SPECIFICATIONS. ENSURE GYPSUM BOARD IS TIGHT AGAINST FRAMING MEMBERS, FASTENERS ARE PROPERLY DEPRESSED, AND ADHESIVES HAVE SUFFICIENTLY CURED.
7.
- METAL STUDS TO BE PLACED A MAXIMUM OF 16" O.C. (1'-4")
8.
- SEAL GYPSUM BOARD TIGHTLY AROUND PIPES AND DUCTS THAT CROSS WITHIN THE PLENUM SPACE. SUPPLY AND INSTALL FIRE DAMPERS ON FUSIBLE LINKS IN AIR TRANSFER DUCTS AS REQUIRED BY CODE.
9.
- PARTITION LAYOUT IS TO BE REVIEWED BY THE DESIGNER PRIOR TO PROCEEDING WITH INSTALLATION OF ANY STUDS. WHERE POSSIBLE ALLOW 48 HOURS LEAD TIME FOR DESIGNERS REVIEW ON SITE.
10.
- DIMENSIONS NOTED AS "+/-" (PLUS/ MINUS) ARE TO BE SITE MEASURED AND VERIFIED BY CONTRACTOR PRIOR TO ANY CONSTRUCTION. CONTRACTOR TO ADVISE DESIGNER OF DEVIATIONS (SITE CONDITIONS).
11.
- EXECUTE WORK IN THE EXISTING BUILDING AT TIMES APPROVED BY OWNER, SO AS NOT TO INCONVENIENCE THE OCCUPATION OR HINDER THE MANNER IN WHICH THE BUILDING IS USED.
12.
- EXECUTE WORK AS QUIETLY AS POSSIBLE IN EXISTING BUILDING. SCHEDULE ALL NOISE OPERATIONS WITH OWNER TO ACHIEVE LEAST DISTURBANCE.
13.
- ELECTRICAL RECEPTACLES ARE TO BE INSTALLED 18" AFF. AT CENTRE OF THE WALL ON WHICH THEY ARE SHOWN (ON ENGINEERS DRAWINGS). UNLESS OTHERWISE DIMENSIONED. DISCREPANCIES TO BE REPORTED TO THE DESIGNER PRIOR TO PROCEEDING.
14.
- WALL SWITCHES AND THERMOSTATS TO BE INSTALLED 44" (3'-8") AFF, ON CENTRE.
15.
- PROVIDE REINFORCING INSIDE PARTITIONS BEHIND ALL WALL MOUNTED MILLWORK FITMENTS.
16.
- INSTALL SOUND ATTENUATION INSULATION FOR FULL HEIGHT AND LENGTH OF NEW PARTITIONS.
17.
- VERIFY MILLWORK DIMENSIONS ON SITE AFTER PARTITION LAYOUT HAS BEEN REVIEWED (BY DESIGNERS), PRIOR TO MANUFACTURING MILLWORK.
18.
- MILLWORK TO BE SHOP FINISHED OFF SITE AND DELIVERED TO SITE COMPLETED AND READY FOR INSTALLATION. (NO SITE FINISHING ALLOWED, UNLESS REVIEWED BY DESIGNERS.)
19.
- PARTITIONS ARE TO BE CENTERED ON BUILDING T-BAR GRID UNLESS OTHERWISE DIMENSIONED, ANY DISCREPANCIES ARE TO BE REPORTED TO THE DESIGNER BEFORE START OF WORK.
20.
- NEW PARTITIONS ARE TO BE SNAPPED TO T-BAR WHERE APPLICABLE. DO NOT SCREW PARTITIONS TO T-BAR.
21.
- WHEREVER PLENUM RATED RIGID BAFFLE IS INSTALLED ABOVE CEILING, ALLOW FOR OPENING ABOVE DOOR FOR AIR CIRCULATION.



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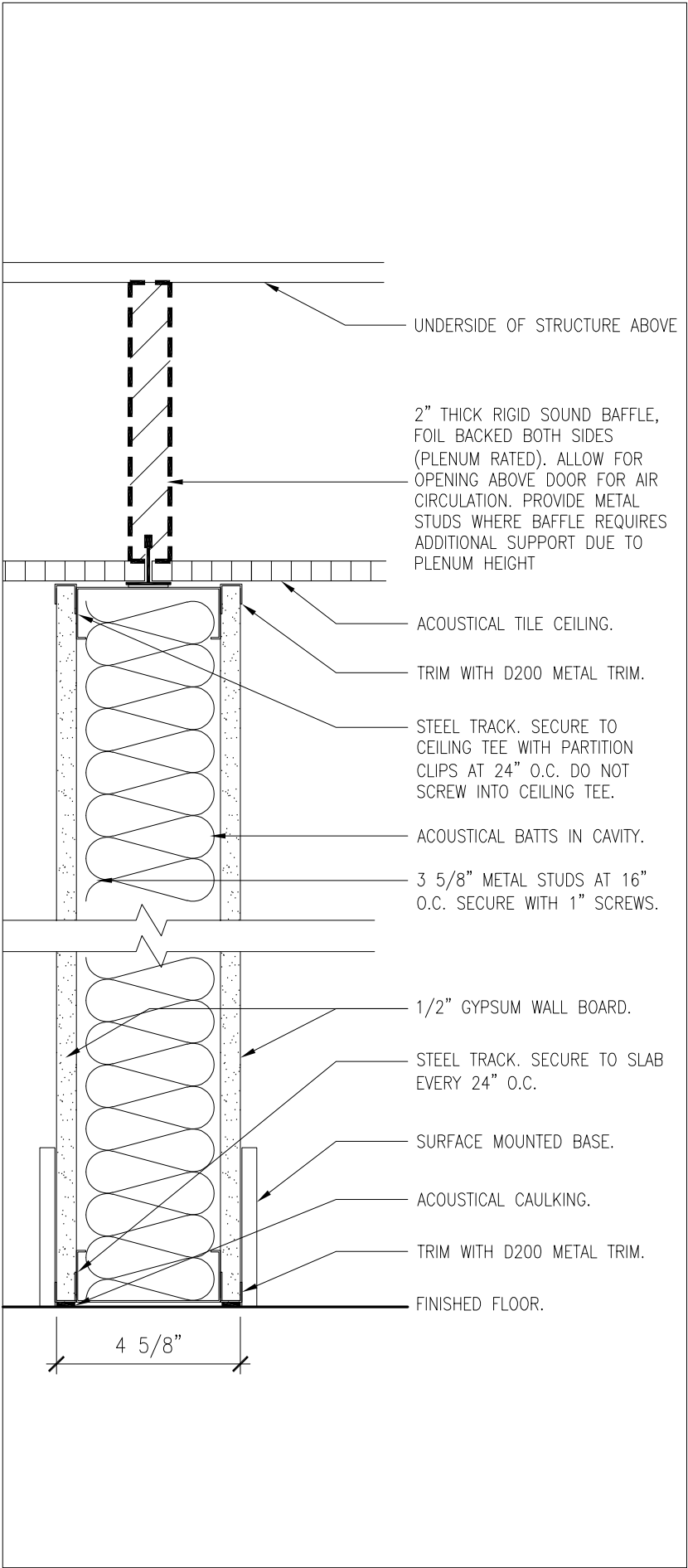
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100 ST.GEORGE STREET

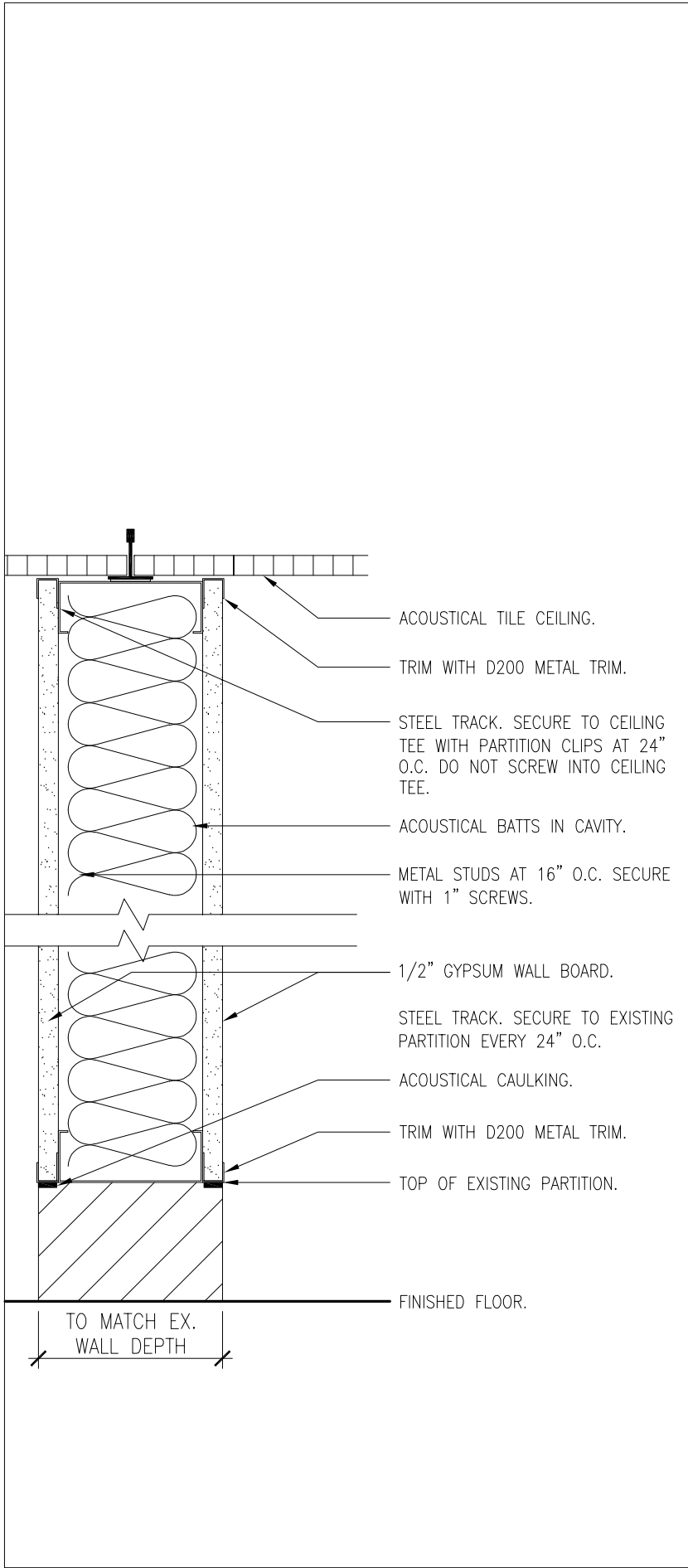
Drawing Sheet Title

PARTITION PLAN
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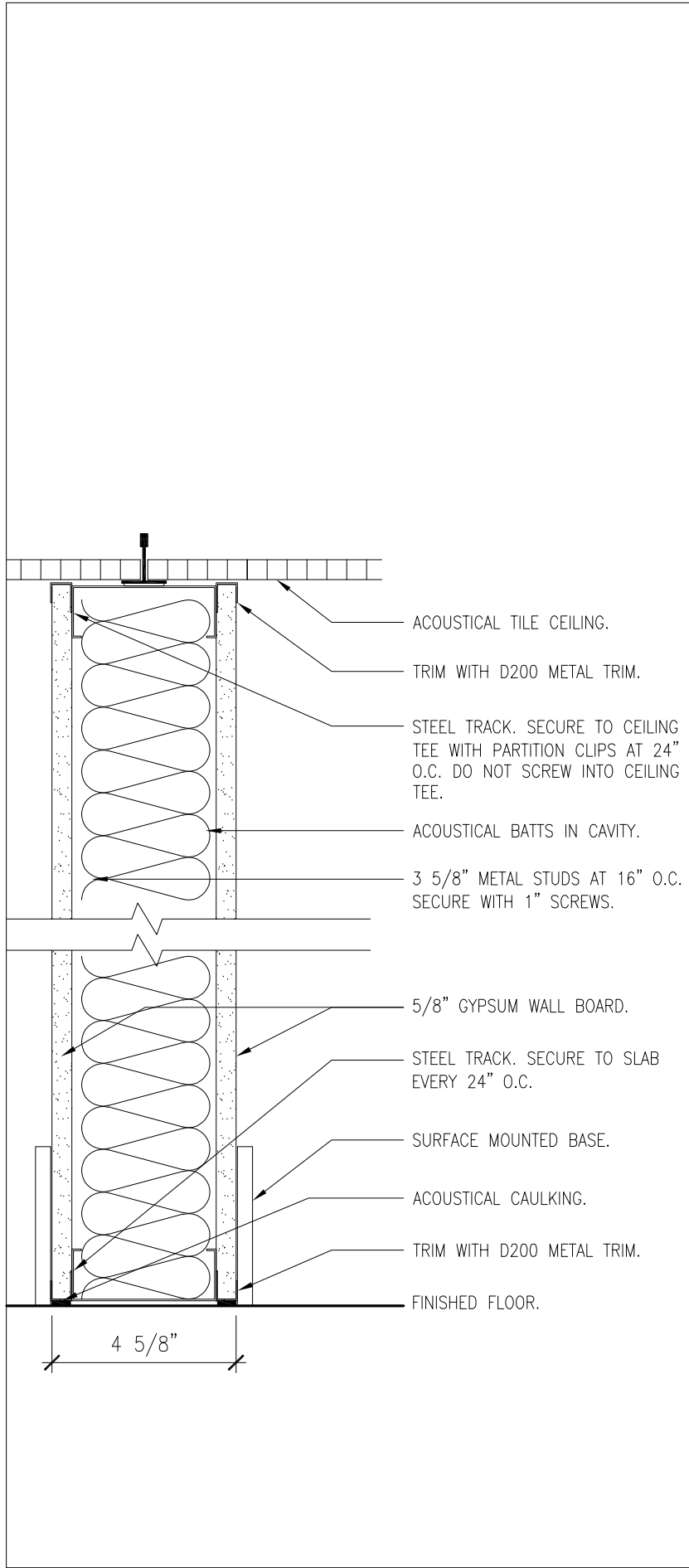
Scale AS NOTED	
Drawn by JF	Date APRIL 11, 2025
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P033-25-065	Drawing Number
	A2.2



1 PARTITION SECTION: PT1
3" = 1'-0"



2 PARTITION SECTION: PT2
3" = 1'-0"



3 PARTITION SECTION: PT3
3" = 1'-0"

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100 ST.GEORGE STREET

Drawing Sheet Title

**PARTITION
SECTIONS**

Scale AS NOTED

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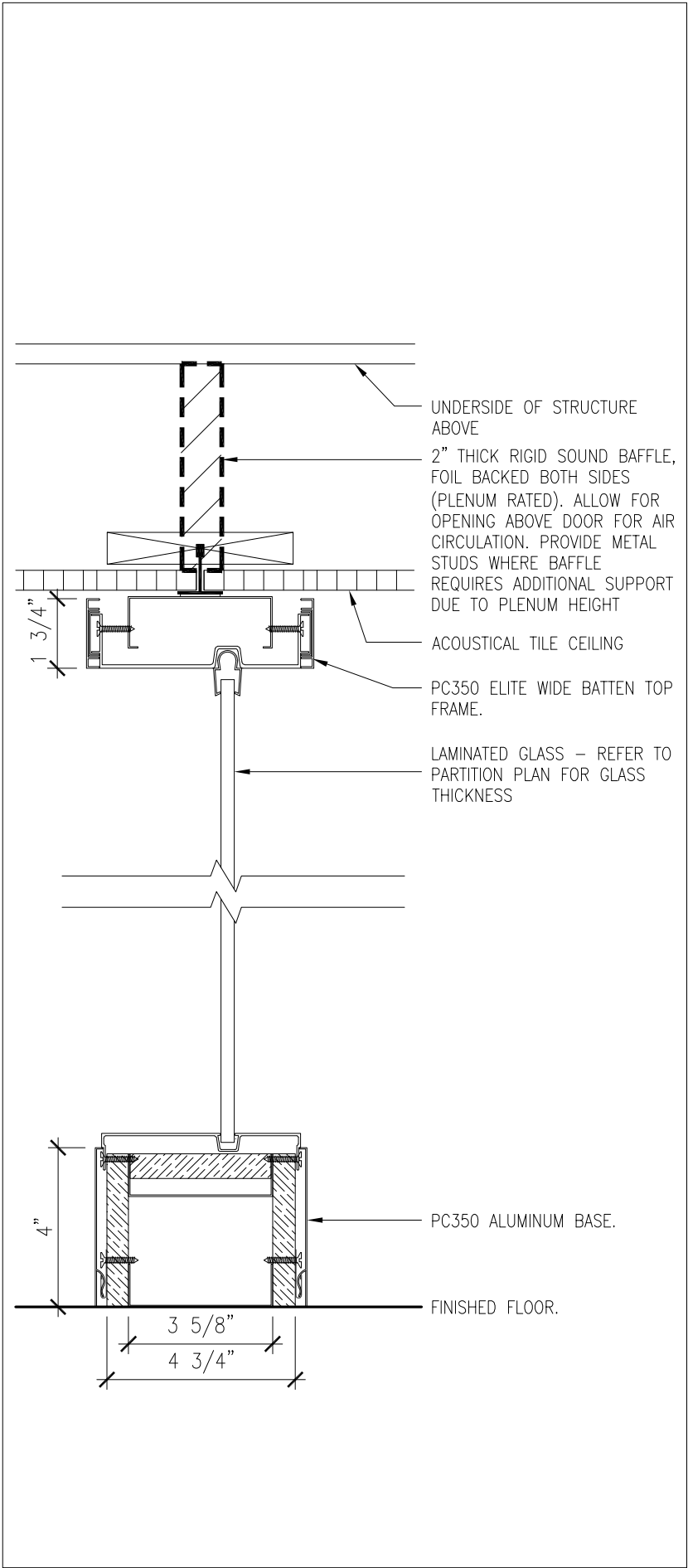
Infrastructure Planning Project Number

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Drawing Number

A2.3



1 PARTITION SECTION: PT4
A2.4 3" = 1'-0"

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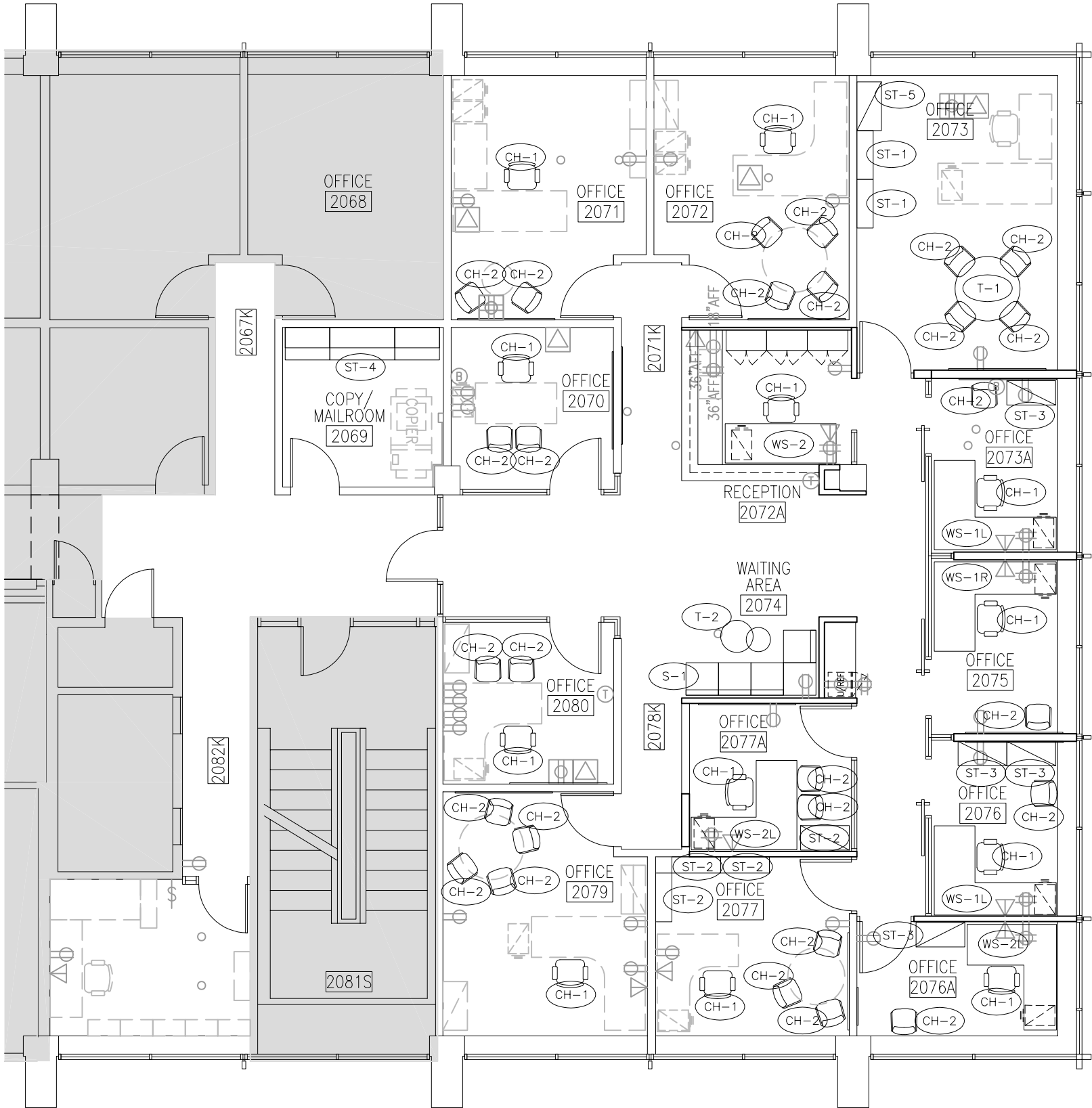
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**PARTITION
SECTIONS**

Scale AS NOTED

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P033-25-065	
Drawing Number	A2.4



FURNITURE NOTES

1. FURNITURE IS N.I.C. ITEMS SHOWN ARE FOR INFORMATION AND CO-ORDINATION PURPOSES ONLY.
2. CROSS-REFERENCE EQUIPMENT LOCATIONS SHOWN WITH ELECTRICAL AND MECHANICAL ENGINEERS DRAWINGS. DISCREPANCIES TO BE REPORTED TO DESIGNER PRIOR TO ANY WORK BEING DONE.

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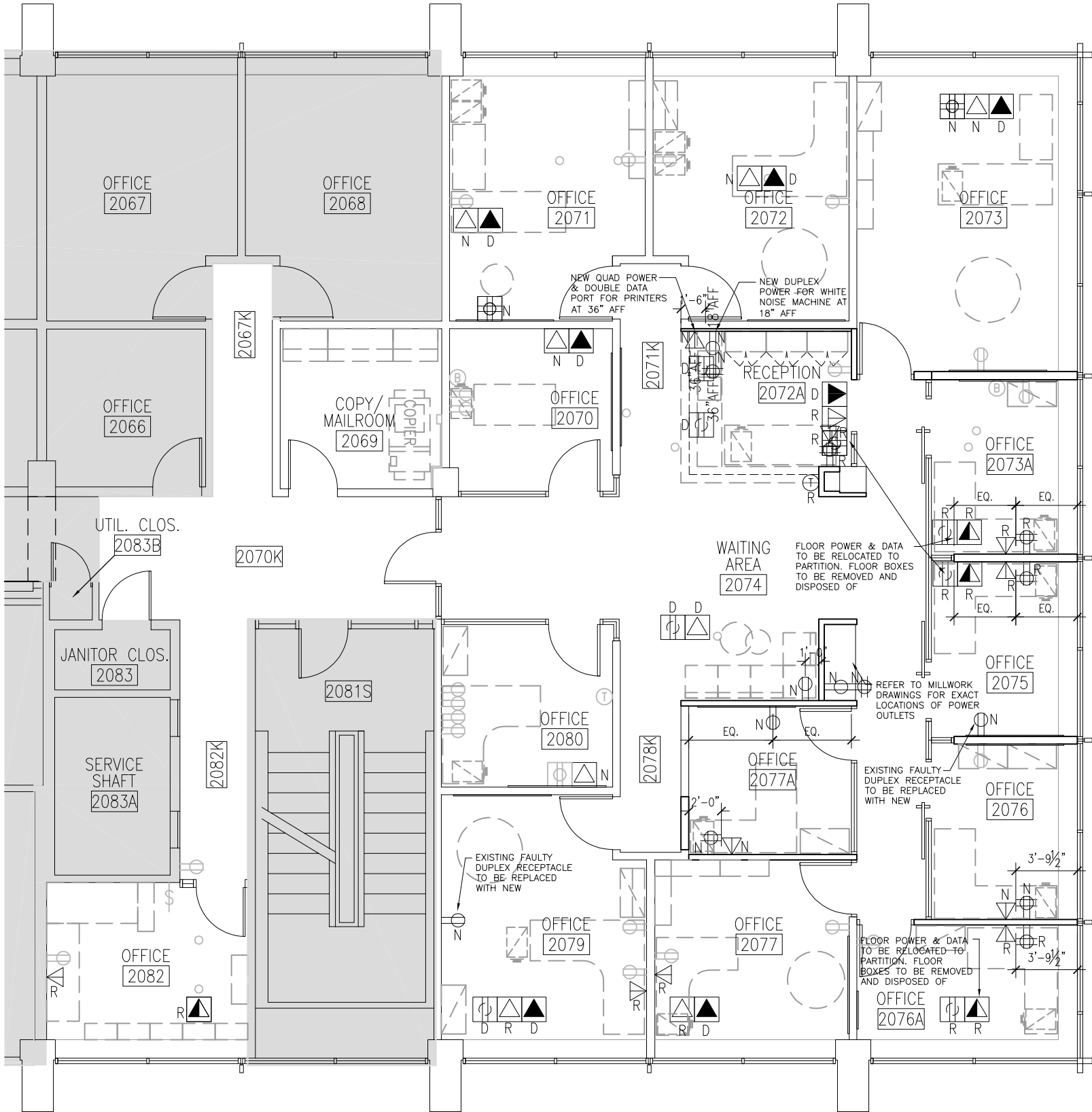
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100 ST. GEORGE STREET

Drawing Sheet Title
FURNITURE PLAN

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POWER & COMMUNICATIONS SYMBOLS

- 'X' T THERMOSTAT. 'N' INDICATES NEW TO BE INSTALLED; 'R' INDICATES TO BE RELOCATED; NO DENOTATION INDICATES EXISTING TO REMAIN
- 'X' DUPLX RECEPTACLE. 'N' INDICATES NEW TO BE INSTALLED; 'R' INDICATES TO BE RELOCATED; NO DENOTATION INDICATES EXISTING TO REMAIN
- XX" WALL MOUNTED DUPLX RECEPTACLE, MOUNTED VERTICALLY AT HEIGHT SPECIFIED, A.F.F. IN INCHES
- 'X' QUAD RECEPTACLE. 'N' INDICATES NEW TO BE INSTALLED; 'R' INDICATES TO BE RELOCATED; NO DENOTATION INDICATES EXISTING TO REMAIN
- 'X' DATA WALL RECEPTACLE UPGRADED TO DOUBLE PORT, CAT6A; 'N' INDICATES NEW TO BE INSTALLED/UPGRADED; 'R' INDICATES TO BE RELOCATED; NO DENOTATION INDICATES EXISTING TO REMAIN
- 'X' WALL MOUNTED DATA/VOICE RECEPTACLE; 'R' INDICATES DATA TO BE RELOCATED; ALL VOICE LINES TO BE DEMOLISHED AND WIRES REMOVED BACK TO SOURCE
- 'X' FLOOR-MOUNTED DUPLX POWER RECEPTACLE. 'N' INDICATES NEW TO BE INSTALLED; 'R' INDICATES TO BE RELOCATED; 'D' INDICATES TO BE DEMOLISHED; NO DENOTATION INDICATES EXISTING TO REMAIN
- 'X' FLOOR-MOUNTED QUAD POWER RECEPTACLE. 'N' INDICATES NEW TO BE INSTALLED; 'R' INDICATES TO BE RELOCATED; NO DENOTATION INDICATES EXISTING TO REMAIN
- 'X' FLOOR-MOUNTED SINGLE DATA RECEPTACLE UPGRADED TO DOUBLE CAT6A. 'N' INDICATES NEW/UPGRADED; 'R' INDICATES TO BE RELOCATED; 'D' INDICATES TO BE DEMOLISHED
- 'X' FLOOR-MOUNTED VOICE RECEPTACLE. 'D' INDICATES TO BE DEMOLISHED AND WIRES REMOVED BACK TO SOURCE
- 'X' FLOOR-MOUNTED VOICE/DATA RECEPTACLE. 'R' INDICATES DATA TO BE RELOCATED AND VOICE TO BE DEMOLISHED AND WIRES REMOVED BACK TO SOURCE
- (B) BLANK OUTLET

POWER & COMMUNICATIONS NOTES

- REFER TO MECHANICAL AND ELECTRICAL AND COMMUNICATIONS DRAWINGS FOR FURTHER INFORMATION.
- ENGINEERS DRAWINGS GOVERN FOR RECEPTACLE TYPES AND QUANTITIES. THIS DRAWING IS FOR COORDINATION AND DIMENSION PURPOSES.
- DATA CABLES TO BE CAT6A UNLESS OTHERWISE SPECIFIED
- DEVICES TO BE;
MANUFACTURER: DECORA
COLOUR: WHITE
- COVER PLATES TO BE;
MANUFACTURER: DECORA
COLOUR: STAINLESS STEEL
- ALL EXISTING OUTLETS/RECEPTACLES TO REMAIN ARE TO BE REPLACED WITH NEW DECORA STYLE.
- INCLUDE ITEMS/FIXTURES AS INDICATED BY ENGINEERS DRAWINGS. ANY SUBSTITUTION SHALL BE REVIEWED BY THE DESIGNERS PRIOR TO PROCEEDING WITH ANY WORK.
- COORDINATE INSTALLATION OF DIVISION 16 WORK (INCLUDING CABLE INSTALLERS, BELL, SECURITY & OTHER ELECTRICAL SUB-TRADE.) AND SCHEDULE TRADES AS REQUIRED.
- OUTLETS, SWITCHES, DEVICES, FIXTURES AND OPENINGS ARE DIMENSIONED TO CENTER OF OUTLET BOX UNLESS OTHERWISE NOTED.
- USE MULTI-GANGED OUTLET BOXES WHEREVER POSSIBLE, WITH COVER PLATES.
- OUTLETS TO BE STAGGERED IN PARTITION (NOT BACK TO BACK) TO ENSURE THAT CONTINUOUS SOUND ATTENUATION BATTS CAN BE INSTALLED WITHOUT INTERRUPTION.
- OUTLETS MOUNTED IN MILLWORK TO BE COORDINATED WITH MANUFACTURER. REFER TO MILLWORK DETAILS FOR EXACT LOCATIONS AND REQUIREMENTS.
- EXISTING WALL OUTLETS TO BE REMOVED WHERE NOTED, AND WALL PATCHED AND PAINTED UNLESS NOTED OTHERWISE.
- ALL VOICE AND DATA CABLES ARE TO BE INSTALLED PER THE NUMBERS INDICATED ON THE ENGINEERS/COMMUNICATIONS CONSULTANTS DRAWINGS.
- ELECTRICAL RECEPTACLES ARE TO BE INSTALLED 18" AFF. AT CENTER OF THE WALL ON WHICH THEY ARE SHOWN. UNLESS OTHERWISE DIMENSIONED. DISCREPANCIES TO BE REPORTED TO THE DESIGNER PRIOR TO PROCEEDING.
- THERMOSTATS AND WALL SWITCHES TO BE INSTALLED 44" AFF, ON CENTER.
- CONTRACTOR TO REFER TO ELEVATIONS AS PROVIDED FOR EXACT LOCATIONS OF RECEPTACLES
- ALL DATA CABLES TO BE TERMINATED IN IIT CLOSET, ROOM 2092.

POWER & COMMUNICATION PLAN KEY NOTES

- EXISTING SALTO DOOR SECURITY SYSTEM POWER TO BE REMOVED AND REINSTALLED IN NEW DOOR.



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INFRASTRUCTURE PLANNING

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02	ISSUED FOR TENDER	JF	25.04.10
01	A1 DEMO PL. ISS. FOR ABAT. TEND.	JF	25.02.20

Iss./Rev.	Description	By	Date (YY.MM.DD)
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Revisions and Issues Record

Project Title

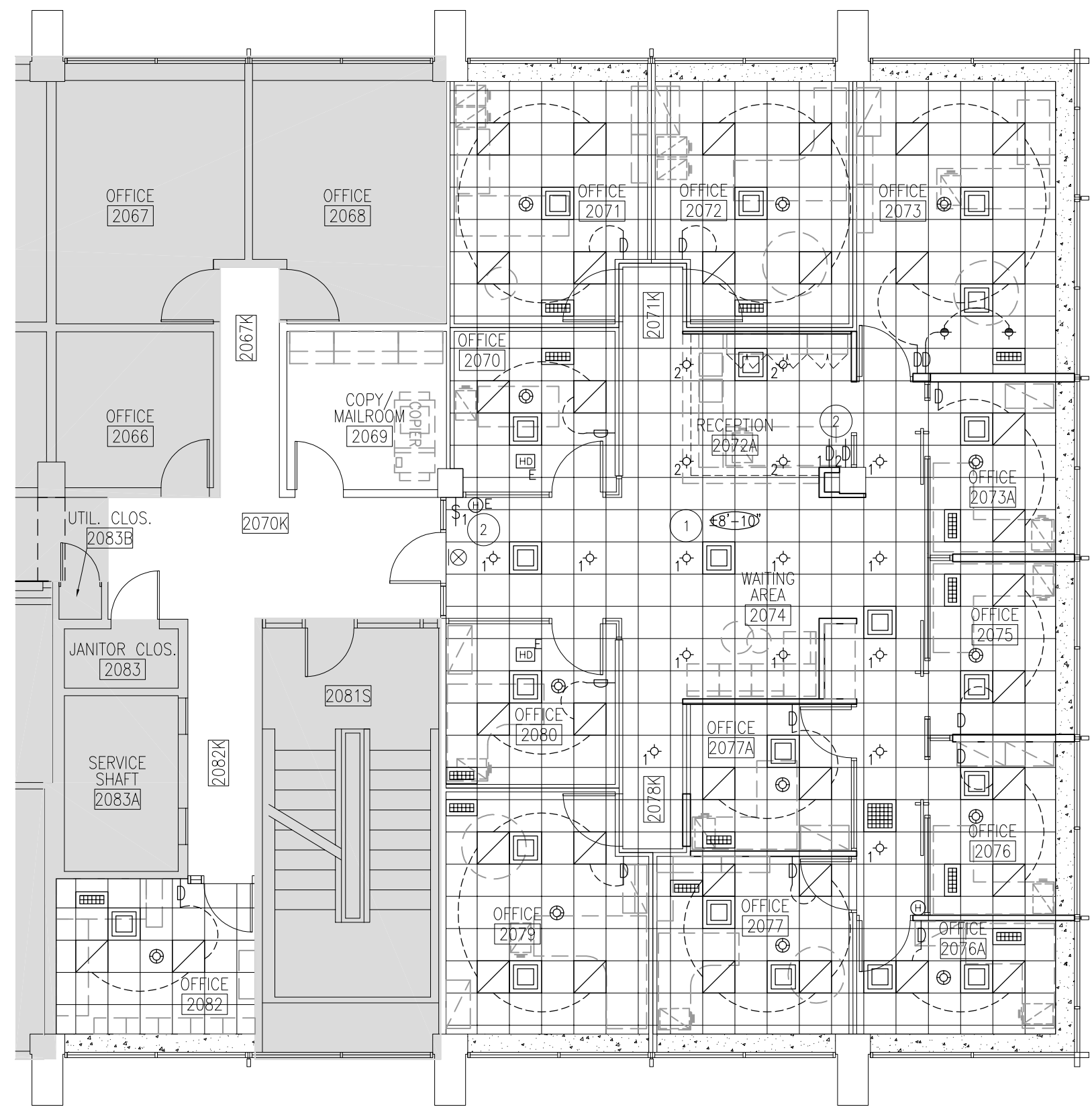
**HISTORY ADMIN
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100 ST.GEORGE STREET

Drawing Sheet Title

POWER & DATA PLAN

Scale	AS NOTED		
Drawn by	JF	Date	APRIL 10, 2025
Infrastructure Planning Project Number			North Point ↑
P033-25-065			Drawing Number A4.0



1 REFLECTED CEILING PLAN
1/8" = 1'-0"

REFLECTED CEILING SYMBOLS

- NEW T-BAR CEILING & GRID TO BE INSTALLED.
MAN.: ARMSTRONG STYLE: ULTIMA
SIZE: 24"x24" GRID = 15/16"
- EXISTING GWB BULKHEAD TO REMAIN
- NEW 24"x24" SUPPLY GRILLE
- NEW 12"x24" RETURN GRILLE
- NEW 24"x24" RETURN GRILLE
- NEW 24"x24" LED LIGHT FIXTURE
- NEW RECESSED LED DOWN LIGHT. 'X' INDICATES SWITCHING NUMBER.
- NEW RECESSED LED WALL WASH LIGHT
- NEW SLIDE DIMMER SWITCH. 'X' INDICATES SWITCHING PATTERN
- NEW SWITCH. "X" INDICATES SWITCHING PATTERN.
- DENOTES CEILING HEIGHT. DIMENSION INDICATED IS AFF.
- HORN. 'E' INDICATES EXISTING TO REMAIN
- HEAT DETECTOR. 'E' INDICATES EXISTING
- EXIT SIGN NON-DIRECTIONAL "RUNNING MAN"
- CEILING-MOUNTED OCCUPANCY SENSOR

REFLECTED CEILING NOTES

- REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR CEILING FITMENT QUANTITIES AND TYPES. THIS DRAWING IS FOR COORDINATION PURPOSES ONLY.
- PAINT EXISTING AND NEW GYPSUM BOARD CEILINGS AND BULKHEADS WITH WHITE CEILING PAINT, UNLESS OTHERWISE NOTED.
- CUT EXISTING GWB, CEILINGS AS REQUIRED FOR MECHANICAL AND ELECTRICAL SERVICES. MAKE GOOD CEILINGS WHEN WORK IS FINISHED.
- DOWNLIGHT AND WALL SCONCE LAYOUT TO BE REVIEWED BY DESIGNER PRIOR TO INSTALLATION.
- BASE BUILDING CEILING TILES TO BE STORED/PROTECTED DURING CONSTRUCTION. CONTRACTOR TO INSTALL AS PER PLAN.
- RELOCATION OF LIGHT FIXTURE REQUIRED DUE TO SITE CONDITIONS TO BE REVIEWED BY DESIGNER PRIOR TO INSTALLATION.
- WHERE MULTIPLE SWITCHES/DIMMERS ARE CALLED FOR, GANG TOGETHER INTO COMMON FACE PLATE WHERE POSSIBLE, OTHERWISE ALIGN COVER PLATES PARALLEL AND TRUE.
- DIMMER SWITCHES TO BE GANGED INTO COMMON FACEPLATES WHERE POSSIBLE. ALL DIMENSIONS ON DESIGNERS PLANS TO BE TO CENTRE EDGE OF FIRST GANGED BOX. SINGLE GANG SWITCHES TO BE 6" O.C. UNLESS OTHERWISE NOTED.
- THERMOSTAT LOCATIONS IN OPEN AREAS TO BE REVIEWED BY DESIGNER ON SITE PRIOR TO INSTALLATION. (CHALKED ON PARTITIONS.)
- ALL RECESSED DOWNLIGHTS TO BE CENTRED ON GRID, UNLESS OTHERWISE NOTED.
- ALL EXISTING RELAY SWITCHES TO BE REPLACED WITH NEW LINE VOLTAGE SWITCHES.

REFLECTED CEILING PLAN KEY NOTES

- GC MUST INSULATE ALL PIPING IN THE CEILING AND ANY PIPING FOR THE RADS COMING UP FROM THE FLOOR SERVICE.
- NO OCCUPANCY SENSOR ON RECEPTION DIMMER SWITCHES.

2 REFLECTED CEILING PLAN NOTES

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100 ST.GEORGE STREET

Drawing Sheet Title

**REFLECTED CEILING
PLAN**

Scale AS NOTED

Drawn by JF	Date APRIL 11, 2025
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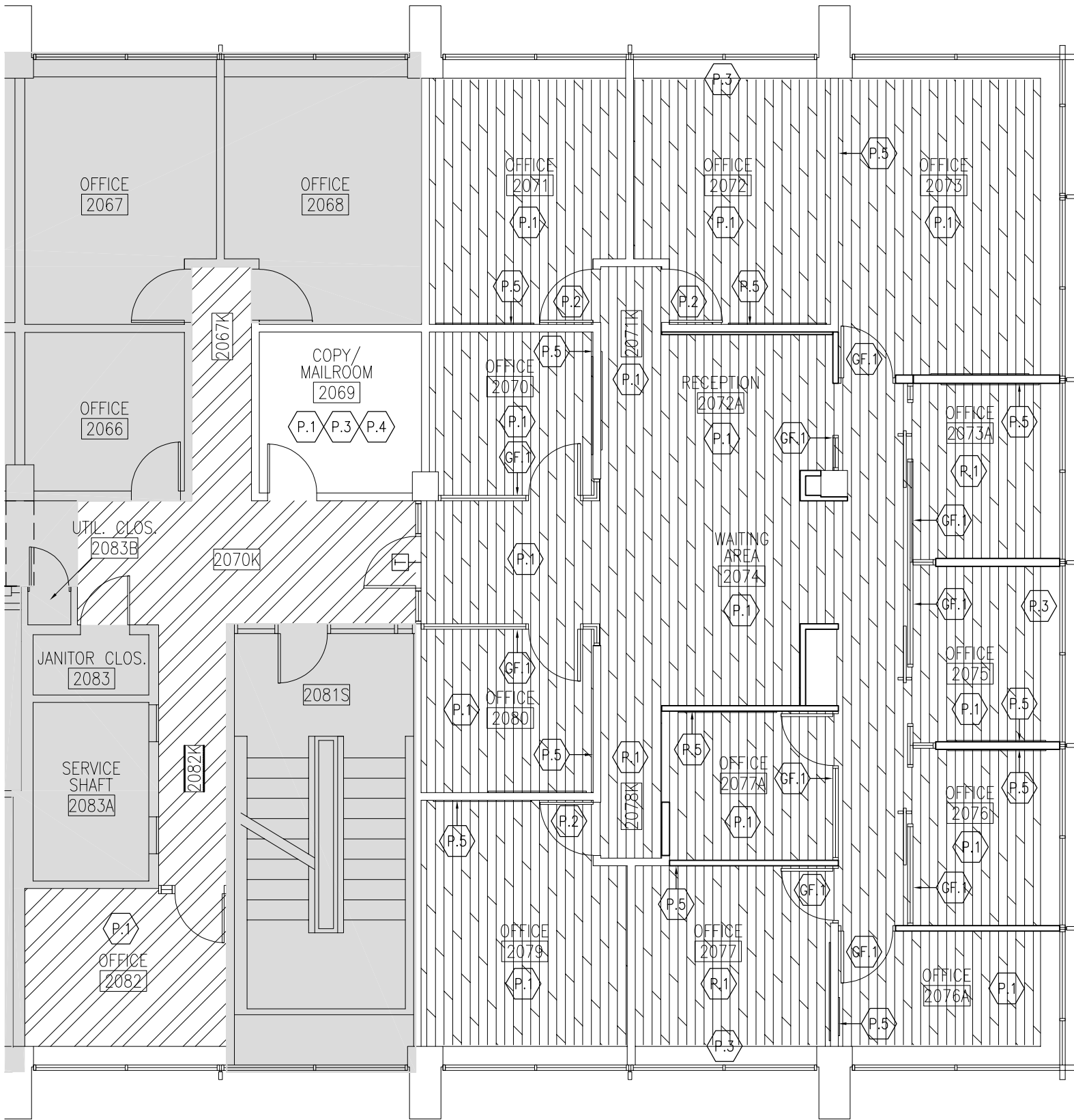
Infrastructure Planning Project Number

P033-25-065

North Point

Drawing Number

A5.0



FLOOR FINISHES SYMBOLS

LVT TILE
MAN.: MANNINGTON COMMERCIAL
STYLE: AMTICO WOOD
COLOUR: CORNISH OAK, AROW8150
SIZE: 9"x36"
INSTALLATION: STAGGERED, RANDOM. HATCH INDICATES DIRECTION OF FLOORING.
BASE: JOHNSONITE, 4" COVE, 08 ICICLE W
NOTE 1) CONTRACTOR TO SUPPLY & INSTALL MANNINGTON SILENT SOLUTION UNDERLAYMENT THROUGHOUT.
2) WHEREVER NEW LVT OCCURS, CONTRACTOR TO SUPPLY & INSTALL NEW STAINLESS STEEL ±4" ROUND FLOOR ACCESS COVERS C/W RECESS TO ACCOMMODATE LVT FLOOR FINISH INSERT, OR EXISTING COVERS TO BE POLISHED TO NEW CONDITION. FLOOR FINISH PATTERN TO ALIGN WITH ADJACENT FLOORING. REFER TO SS3018 FOR EXAMPLE. ENSURE NEW PLATES ARE SECURED TO FLOOR.

VCT TILE
CONTRACTOR TO PROVIDE SEPARATE PRICE, INCLUDED IN TENDER, FOR THE REMOVAL/DISPOSAL OF EXISTING VCT AND THE SUPPLY/INSTALLATION OF NEW VCT TO MATCH EXISTING 2070K CORRIDOR TILE.
WALL BASE 2070K: TO MATCH EXISTING
WALL BASE 2082: JOHNSONITE, 4" COVE, 08 ICICLE W

FINISHES NOTES

- FINISHES TO CONFORM WITH APPLICABLE CODES AND MEET FIRE, FLAME AND SMOKE REQUIREMENTS.
- FLOORS TO RECEIVE NEW FINISHES TO BE STRIPPED, CLEANED AND FILLED TO ENSURE A SMOOTH AND LEVEL SUBSTRATE FOR NEW.
- ENSURE EXISTING FLOORS AND WALLS ARE SMOOTH AND READY TO ACCEPT NEW FINISHES. MAKE GOOD SURFACES AS REQUIRED.
- FLOORING MATERIALS/COLOUR CHANGES TO OCCUR UNDER CENTRELINE OF DOORS UNLESS OTHERWISE NOTED. USE SPECIFIED TRANSITION STRIP OR AN APPROVED THRESHOLD. FEATHER CONCRETE FLOORS WITH CONCRETE TOPPING AS REQUIRED TO BRING MATERIALS FLUSH.
- FLOOR, WALL AND CEILING FINISHES AND MATERIALS TO BE APPLIED/INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS AND INSTRUCTIONS.
- ANY PROPOSED SUBSTITUTIONS NOT TO BE USED UNLESS SET BY DESIGNERS IN WRITING. ALL SUBSTITUTIONS TO MEET OR SURPASS ALL REQUIREMENTS OF ORIGINALLY SPECIFIED/ NOTED PRODUCT.
- FLOOR FINISHES TO BE INSTALLED AFTER THE CONSTRUCTION OF PARTITIONS. FLOORING TO BE INSTALLED UNDER MILLWORK PRIOR TO INSTALLATION.
- SUBMIT PAINT DRAW DOWNS OF COLOURS TO DESIGNER FOR REVIEW PRIOR TO PROCEEDING WITH WORK.
- EXTEND WALL FINISH FOR THE ENTIRE LENGTH OF WALL INDICATED. DOOR OPENINGS DO NOT INDICATE A CHANGE IN FINISH.
- PAINT WALLS LATEX EGGSHELL OF SPECIFIED COLOUR. PAINT CEILINGS AND CEILING BULKHEADS WITH ONE (1) COAT OF CEILING PRIMER AND TWO (2) COATS OF LATEX FLAT OF SPECIFIED COLOUR.
- WALLS AND COLUMNS WHICH HAVE NOT BEEN NOTED AS RECEIVING A SPECIFIC FINISH ARE TO BE PAINTED WITH P.1.
- REMOVE EXISTING AND NEW OUTLET, SWITCH PLATES AND OTHER DEVICES PRIOR TO PAINTING.
- EXPOSED WALL GRILLES, PLATES, CONDUIT ETC. TO BE PAINTED TO MATCH SURROUNDING SURFACE.
- EDGE OF BASE MATERIAL TO ALIGN WITH THE EDGE OF ALL 1/2" REVEALS AT DOOR FRAMES.
- TOUCH UP PAINTED SURFACES AFTER OWNER HAS MOVED IN.
- EXISTING PIPES, FIRE HOSE CABINETS, AND EMERGENCY LIGHT BOXES TO BE SANDED AND PREPARED FOR NEW PAINT FINISH. FINISH TO MATCH SURFACE ON WHICH THEY OCCUR.
- APPLY FINISHING MATERIALS AT PROPER CONSISTENCY, FREE FROM BRUSH MARKS, SAGS, CRAWLS, STREAKS, RUNS, LAPS, SKIPS, VOIDS, PINHOLES, MISSED AREAS, AND OTHER PERCEPTIBLE DEFECTS, AND WITH EVEN COLOUR, SHEEN, AND TEXTURE.
- APPLY AS MANY COATS AS NECESSARY TO PROVIDE COMPLETE COVERAGE WITH NO LESS THAN THE NUMBER OF COATS INDICATED.
- ALL PAINTS TO BE VOC-FREE.

WALL FINISHES SYMBOLS

GENERAL PAINT (WALLS & METAL TRIM)
MAN.: SHERWIN WILLIAMS
COLOUR: PURE WHITE SW7005
FINISH: EGGSHELL LATEX

DOOR PAINT (BOTH SIDES)
MAN.: BENJAMIN MOORE
COLOUR: ALMOST BLACK, 2130-30
FINISH: SEMI-GLOSS LATEX

CEILING PAINT (TYPICAL PERIMETER BULKHEAD & CEILING TILES IN ROOM 2069)
MAN.: SHERWIN WILLIAMS
COLOUR: CEILING WHITE
FINISH: FLAT

CEILING GRILLE PAINT (ROOM 2069 ONLY)
MAN.: BENJAMIN MOORE
COLOUR: ALMOST BLACK, 2130-30
FINISH: FLAT

ACCENT WALL PAINT – BLUE
MAN.: SHERWIN WILLIAMS
COLOUR: GREAT FALLS SW 6495
FINISH: EGGSHELL LATEX

GLASS FILM
MAN.: 3M
STYLE: DUSTED CRYSTAL
PATTERN: REFER TO ELEVATIONS ON 1/A8.0 FOR FURTHER INFORMATION.

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Revisions and Issues Record			

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100 ST.GEORGE STREET

Drawing Sheet Title

FINISHES PLAN

Scale AS NOTED

Drawn by JF

Date APRIL 11, 2025

Infrastructure Planning Project Number

P033-25-065

North Point

Drawing Number

A6.0

DOOR						FRAME		HANDLES				CLOSER/CATCH		DOOR STOP			REMARKS	
NUMBER	AREA	TYPE	DESCRIP./SIZE (QTY–WxHxD)	CONST.	FINISH	CONST.	FINISH	MANUFACT.	TYPE	FINISH	SECURITY	TYPE	FINISH	TYPE	FINISH	COAT HOOK		NUMBER
2069E	MAIL/COPY ROOM	EXIST.	EXISTING	EXISTING	EXISTING	EXISTING FRAME TO REMAIN	PAINT	KABA	UNICAM	SATIN STAINLESS STEEL	EX. CYLINDER REINSTALLED	N/A	N/A	EXISTING	EXISTING	N/A	EXISTING DOOR AND FRAME C/W NEW UNICAM DOOR HARDWARE	2069E
2070N	ADMIN OFFICE	A	38" x FH (±8'–10") x 1–3/4"(SITE VERIFY)	PC350 SWING DOOR W/ GLASS INSERT	ALUMINUM & GLASS	ALUMINUM	BLACK	SARGENT	LEVER LOCKSET	BLACK	EX. CYLINDER REINSTALLED	N/A	N/A	FLOOR	BLACK	2 QTY.	NEW LAMINATED GLASS SWING DOOR, PC350 W/ STANDARD PROFILE FRAME, PC350 DOOR FRAME, NEW LEVER, EXIST. KEY CYLINDER, NEW DOOR STOP & COAT HOOKS	2070N
2071E	ADMIN OFFICE	EXIST.	EXISTING	EXISTING	PAINT	EXISTING FRAME TO REMAIN	PAINT	EXISTING	EXISTING	EXISTING	N/A	N/A	N/A	FLOOR	BLACK	2 QTY.	EXISTING DOOR, FRAME AND HARDWARE C/W NEW DOOR STOP, NEW DOOR SWEEP AND COAT HOOKS	2071E
2072E	ADMIN OFFICE	EXIST.	EXISTING	EXISTING	PAINT	EXISTING FRAME TO REMAIN	PAINT	EXISTING	EXISTING	EXISTING	N/A	N/A	N/A	FLOOR	BLACK	2 QTY.	EXISTING DOOR, FRAME AND HARDWARE C/W NEW DOOR STOP, NEW DOOR SWEEP AND COAT HOOKS	2072E
2073N	ADMIN OFFICE	A	38" x FH (±8'–10") x 1–3/4"(SITE VERIFY)	PC350 SWING DOOR W/ GLASS INSERT	ALUMINUM & GLASS	ALUMINUM	BLACK	SARGENT	LEVER LOCKSET	BLACK	EX. CYLINDER REINSTALLED	N/A	N/A	FLOOR	BLACK	2 QTY.	NEW LAMINATED GLASS SWING DOOR, PC350 W/ STANDARD PROFILE FRAME, PC350 DOOR FRAME, NEW LEVER, EXIST. KEY CYLINDER, NEW DOOR STOP & COAT HOOKS	2073N
2073AN	ADMIN OFFICE	B	42 x FH (±8'–10") x 1–3/4" (SITE VERIFY)	PC350 SRT IN–LINE SLIDING	ALUMINUM & GLASS	ALUMINUM	BLACK	PC350	OFFSET 30" LADDER PULL	BLACK	EX. CYLINDER REINSTALLED	INTEGRAL	N/A	INTEGRAL	N/A	2 QTY.	NEW LAMINATED GLASS SLIDING DOOR, PC350 SRT IN–LINE STANDARD PROFILE FRAME, EXIST. KEY CYLINDER & NEW COAT HOOKS	2073AN
2074N	WAITING AREA	A	38" x FH (±8'–10") x 1–3/4"(SITE VERIFY)	PC350 SWING DOOR W/ GLASS INSERT	ALUMINUM & GLASS	ALUMINUM	BLACK	PC350	OFFSET 48" LADDER PULL	BLACK	EXIST. SALTO & CYLINDER REINSTALLED	ALLEGION LCN 3133	STAINLESS STEEL	N/A	N/A	N/A	NEW LAMINATED GLASS SWING DOOR, PC350 W/ STANDARD PROFILE FRAME, PC350 DOOR FRAME, C/W EXISTING SALTO HARDWARE, EXISTING KEY CYLINDER & NEW CLOSER	2074N
2075N	ADMIN OFFICE	B	42 x FH (±8'–10") x 1–3/4" (SITE VERIFY)	PC350 SRT IN–LINE SLIDING	ALUMINUM & GLASS	ALUMINUM	BLACK	PC350	OFFSET 30" LADDER PULL	BLACK	EX. CYLINDER REINSTALLED	INTEGRAL	N/A	INTEGRAL	N/A	2 QTY.	NEW LAMINATED GLASS SLIDING DOOR, PC350 SRT IN–LINE STANDARD PROFILE FRAME, EXIST. KEY CYLINDER & NEW COAT HOOKS	2075N
2076N	ADMIN OFFICE	B	42 x FH (±8'–10") x 1–3/4" (SITE VERIFY)	PC350 SRT IN–LINE SLIDING	ALUMINUM & GLASS	ALUMINUM	BLACK	PC350	OFFSET 30" LADDER PULL	BLACK	EX. CYLINDER REINSTALLED	INTEGRAL	N/A	INTEGRAL	N/A	2 QTY.	NEW LAMINATED GLASS SLIDING DOOR, PC350 SRT IN–LINE STANDARD PROFILE FRAME, EXIST. KEY CYLINDER & NEW COAT HOOKS	2076N
2076AN	ADMIN OFFICE	A	38" x FH (±8'–10") x 1–3/4"(SITE VERIFY)	PC350 SWING DOOR W/ GLASS INSERT	ALUMINUM & GLASS	PC350 ELITE WIDE BATTEN	ALUMINUM BLACK	SARGENT	LEVER LOCKSET	BLACK	EX. CYLINDER REINSTALLED	N/A	N/A	FLOOR	BLACK	2 QTY.	NEW LAMINATED GLASS SWING DOOR, PC350 W/ STANDARD PROFILE FRAME, PC350 DOOR FRAME, NEW LEVER & EXIST. KEY CYLINDER, NEW DOOR STOP & COAT HOOKS	2076AN
2077N	ADMIN OFFICE	A	38" x FH (±8'–10") x 1–3/4"(SITE VERIFY)	PC350 SWING DOOR W/ GLASS INSERT	ALUMINUM & GLASS	PC350 ELITE WIDE BATTEN	ALUMINUM BLACK	SARGENT	LEVER LOCKSET	BLACK	EX. CYLINDER REINSTALLED	N/A	N/A	FLOOR	BLACK	2 QTY.	NEW LAMINATED GLASS SWING DOOR, PC350 W/ STANDARD PROFILE FRAME, PC350 DOOR FRAME, NEW LEVER, EXIST. KEY CYLINDER, NEW DOOR STOP & COAT HOOKS	2077N
2077AN	ADMIN OFFICE	A	38" x FH (±8'–10") x 1–3/4"(SITE VERIFY)	PC350 SWING DOOR W/ GLASS INSERT	ALUMINUM & GLASS	PC350 ELITE WIDE BATTEN	ALUMINUM BLACK	SARGENT	LEVER LOCKSET	BLACK	EX. CYLINDER REINSTALLED	N/A	N/A	FLOOR	BLACK	2 QTY.	NEW LAMINATED GLASS SWING DOOR, PC350 W/ STANDARD PROFILE FRAME, PC350 DOOR FRAME, NEW LEVER & EXIST. KEY CYLINDER, NEW DOOR STOP & COAT HOOKS	2077AN
2079E	ADMIN OFFICE	EXIST.	EXISTING	EXISTING	PAINT	EXISTING FRAME TO REMAIN	PAINT	EXISTING	EXISTING	EXISTING	N/A	N/A	N/A	FLOOR	BLACK	2 QTY.	EXISTING DOOR, FRAME AND HARDWARE C/W NEW DOOR STOP, NEW DOOR SWEEP AND COAT HOOKS	2079E
2080N	ADMIN OFFICE	A	38" x FH (±8'–10") x 1–3/4"(SITE VERIFY)	PC350 SWING DOOR W/ GLASS INSERT	ALUMINUM & GLASS	PC350 ELITE WIDE BATTEN	ALUMINUM BLACK	SARGENT	LEVER LOCKSET	BLACK	EX. CYLINDER REINSTALLED	N/A	N/A	FLOOR	BLACK	2 QTY.	NEW LAMINATED GLASS SWING DOOR, PC350 W/ STANDARD PROFILE FRAME, PC350 DOOR FRAME, NEW LEVER, EXIST. KEY CYLINDER, NEW DOOR STOP & COAT HOOKS	2080N
2082E	ADMIN OFFICE	EXIST.	EXISTING	EXISTING	EXISTING	EXISTING FRAME TO REMAIN	PAINT	EXISTING	EXISTING	EXISTING	N/A	N/A	N/A	FLOOR	BLACK	2 QTY.	EXISTING DOOR, FRAME AND HARDWARE C/W NEW DOOR STOP AND COAT HOOKS	2082E
2083E	CARETAKING CLOSET	EXIST.	EXISTING	EXISTING	EXISTING	EXISTING FRAME TO REMAIN	EXISTING	EXISTING	EXISTING	EXISTING	N/A	N/A	N/A	EXISTING	EXISTING	N/A	EXISTING DOOR, FRAME AND HARDWARE TO REMAIN	2083E
2083BE	ELECTRICAL CLOSET	EXIST.	EXISTING	EXISTING	EXISTING	EXISTING FRAME TO REMAIN	EXISTING	EXISTING	EXISTING	EXISTING	N/A	N/A	N/A	EXISTING	EXISTING	N/A	EXISTING DOOR, FRAME AND HARDWARE TO REMAIN	2083BE

1 A7.1				NTS			
DOOR SCHEDULE							
DOOR SPECIFICATIONS				DOOR SPECIFICATIONS CONT'D.			
DOOR TYPE A:				TYPICAL LEVER HANDLE HARDWARE			
NEW FULL HEIGHT PC350 ELITE SWING DOOR WITH 3/8" (10MM) LAMINATED GLASS INSERT				MAN.: SARGENT			
FRAME: STANDARD PROFILE				STYLE: MORTISE OFFICE LOCKSET 8200 SERIES			
FINISH: METAL FRAME – BLACK				HANDLE: AVENTURA – MW			
HINGES: 4 PER DOOR, BLACK FINISH, INCLUDED WITH DOOR				ROSE: ROSE – LN			
ACOUSTIC DOOR SWEEP: INCLUDED WITH DOOR				FINISH: BLACK SUEDE POWDER COAT – BSP			
DOOR TYPE B:				TYPICAL DOOR STOP			
PC350 ELITE SRT IN-LINE SLIDING DOOR WITH 3/8" (10MM) LAMINATED GLASS & THUMB TURN ON INSIDE OF DOOR				MAN.: CANADIAN BUILDERS HARDWARE			
FRAME: STANDARD PROFILE				STYLE: CBH 105			
FINISH: METAL FRAME – BLACK				FINISH: C19 FLAT BLACK			
ACOUSTIC DOOR SWEEP: INCLUDED WITH DOOR				NOTE: GC TO SUPPLY APPROPRIATE INSTALLATION HARDWARE			
				TYPICAL DOOR SWEEP (RM 2071, 2072, 2079)			
				MAN.: PEMKO			
				STYLE: 3692_PK773			
				SIZE: 48" CUT TO FIT DOOR WIDTH			
				TYPICAL UNICAM (RM 2069)			
				MAN.: KABA ACCESS CONTROL			
				STYLE: E-PLEX 5000			
				FINISH: STAINLESS STEEL			
				TYPICAL CLOSER			
				MAN.: ALLEGION			
				STYLE: LCN 3133			
				FINISH: STAINLESS STEEL			
				COAT HOOKS			
				MAN.: CANADIAN BUILDER'S HARDWARE			
				STYLE: CBH 69			
				FINISH: C19 FLAT BLACK			
				NOTE: INSTALLED ON GWB OR BLOCK WALL BEHIND DOOR. CONTRACTOR TO PROVIDE BLOCKING AND APPROPRIATE HARDWARE FOR INSTALLATION.			
				DOOR SCHEDULE NOTES			
				1. EXISTING DOORS TO BE CLEANED, REFINISHED OR TOUCHED UP AS REQUIRED TO "AS NEW" FINISH.			
				2. ALL EXISTING HARDWARE AND SIGNAGE TO BE RE-USED AS REQUIRED.			
				3. DOORS TO BE UNDERCUT TO ALLOW FOR MINIMUM CLEARANCE OF INTENDED FLOOR COVERINGS.			
				4. NEOPRENE SOUND SEAL TO MATCH DOOR FRAME ON WHICH IT OCCURS. CONTRACTOR TO SUPPLY SAMPLES TO DESIGNER FOR REVIEW PRIOR TO INSTALLATION.			
				5. DOOR LEVER HARDWARE TO BE INSTALLED AT 38" O.C. AFF.			
				6. DOORS TO HAVE DOOR STOP, TO MATCH THE HARDWARE,			
				7. ALL NEW LOCKSETS TO BE KEYED TO BASE BUILDING MASTER (BY UOFT LOCKSHOP).			
				8. GC TO COORDINATE WITH UoFT LOCKSHOP THE SUPPLY & INSTALL OF NEW/REUSED MEDECO CYLINDERS.			

2 A7.1	NTS
DOOR SPECIFICATIONS & NOTES	



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100 ST.GEORGE STREET

Drawing Sheet Title

DOOR SCHEDULE & SPECIFICATIONS

Scale	AS NOTED
Drawn by	JF
Date	APRIL 11, 2025

Infrastructure Planning Project Number

P033-25-065

North Point



Drawing Number

A7.1

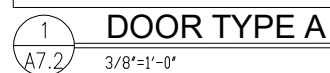


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100 ST.GEORGE STREET

Drawing Sheet Title

DOOR ELEVATIONS & SECTIONS

Scale AS NOTED

Drawn by	JF	Date	APRIL 11, 2025
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Infrastructure Planning Project Number

P033-25-065

North Point



Drawing Number

A7.2



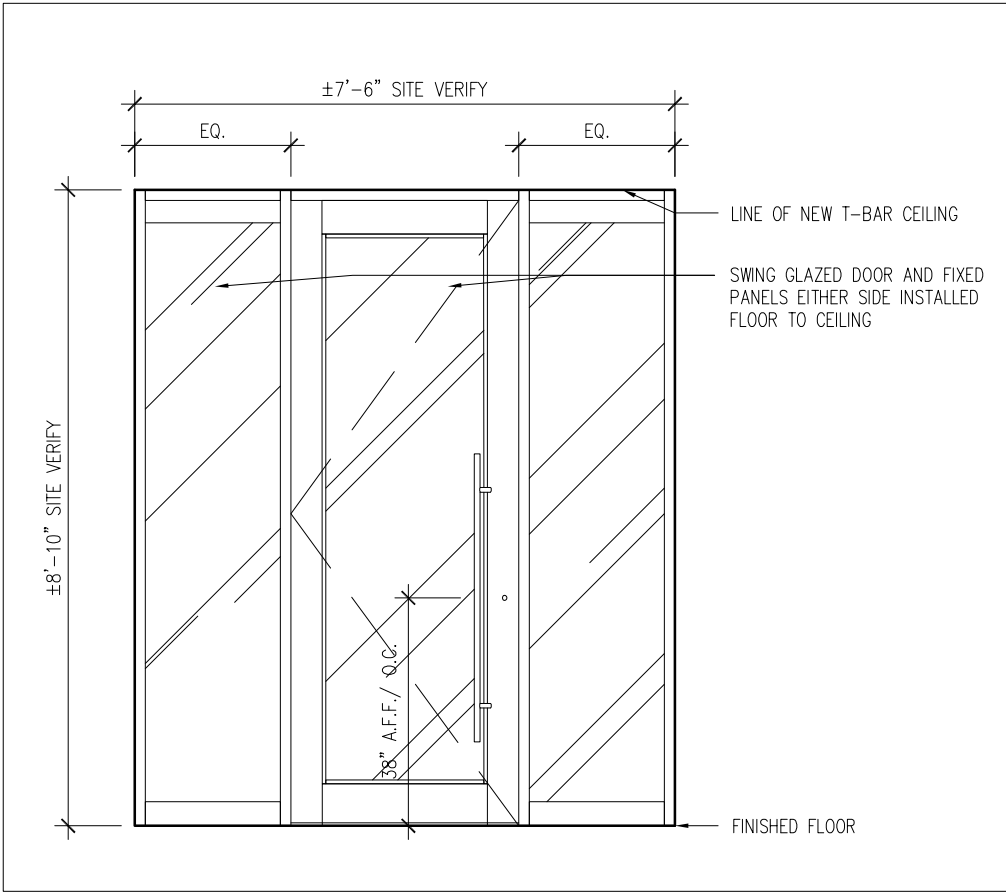
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INFRASTRUCTURE PLANNING

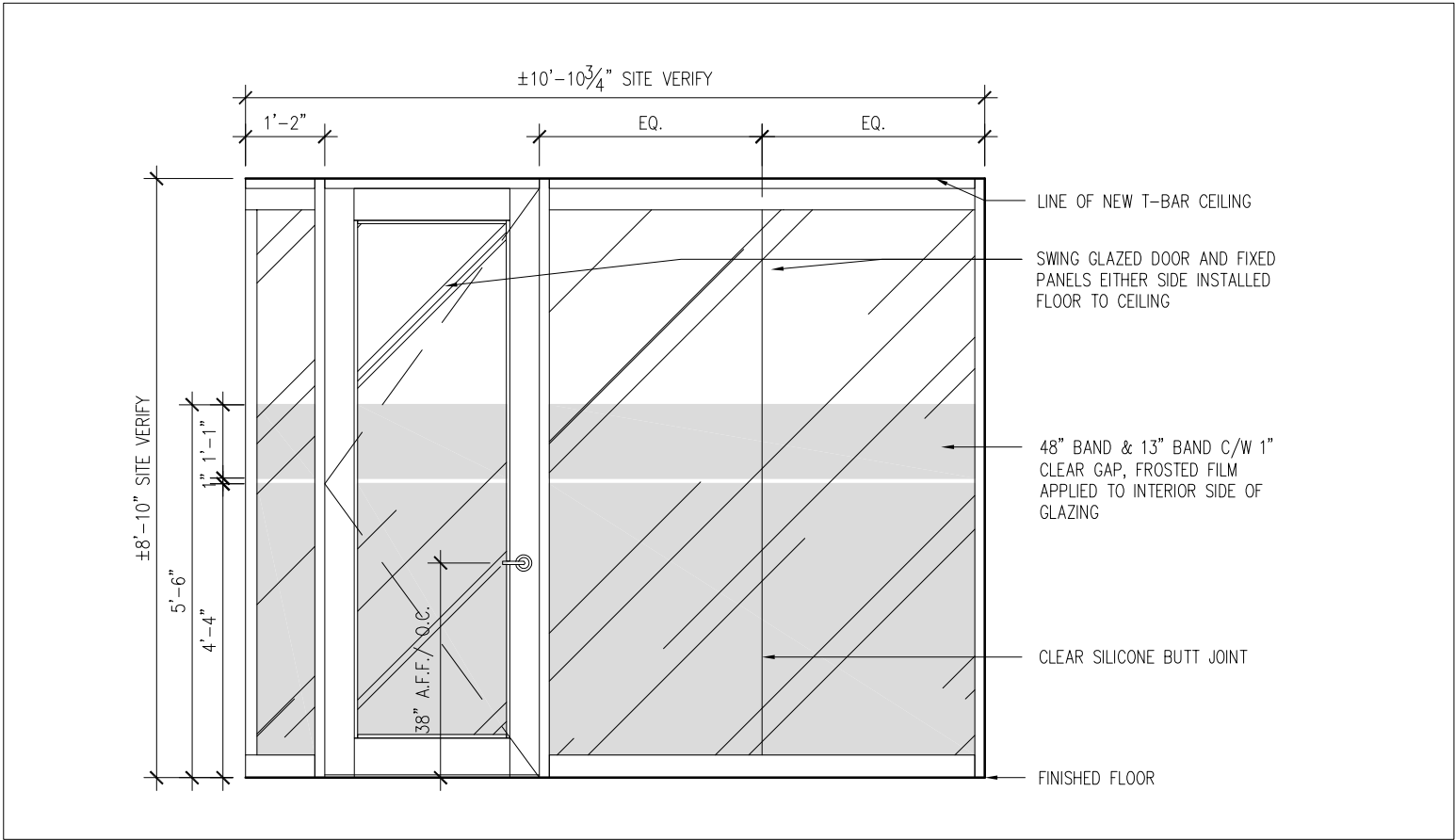
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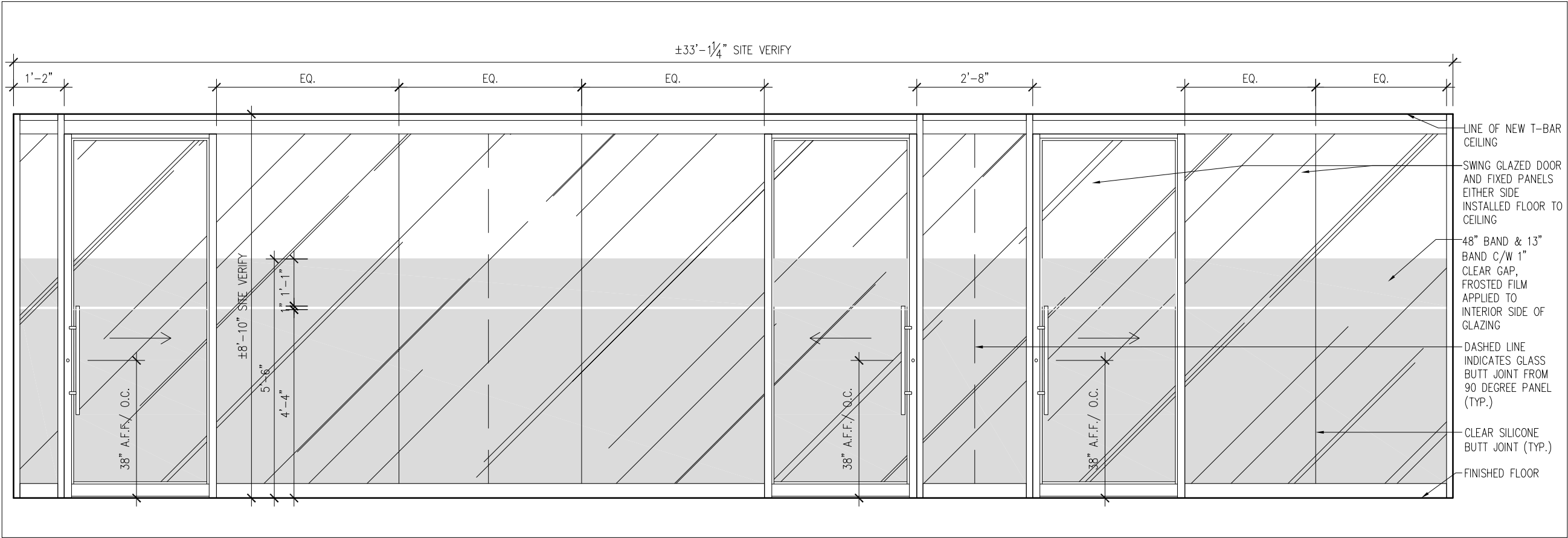
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1 ELEVATION: MAIN ENTRY
3/8" = 1'-0"



2 ELEVATION: TYPICAL SWING DOOR/GLAZING
3/8" = 1'-0"



3 ELEVATION: 2070
3/8" = 1'-0"

02	ISSUED FOR TENDER	JF	25.04.11
01	A1 DEMO PL. ISS. FOR ABAT. TEND.	JF	25.02.20
Iss./Rev.	Description	By	Date (YY.MM.DD)

Revisions and Issues Record

Project Title
**HISTORY ADMIN
OFFICES REFRESH**

100 ST. GEORGE STREET

Drawing Sheet Title
**INTERIOR
ELEVATIONS**

Scale AS NOTED
Drawn by JF Date APRIL 11, 2025

Infrastructure Planning Project Number
P033-25-065
North Point
Drawing Number
A8.0



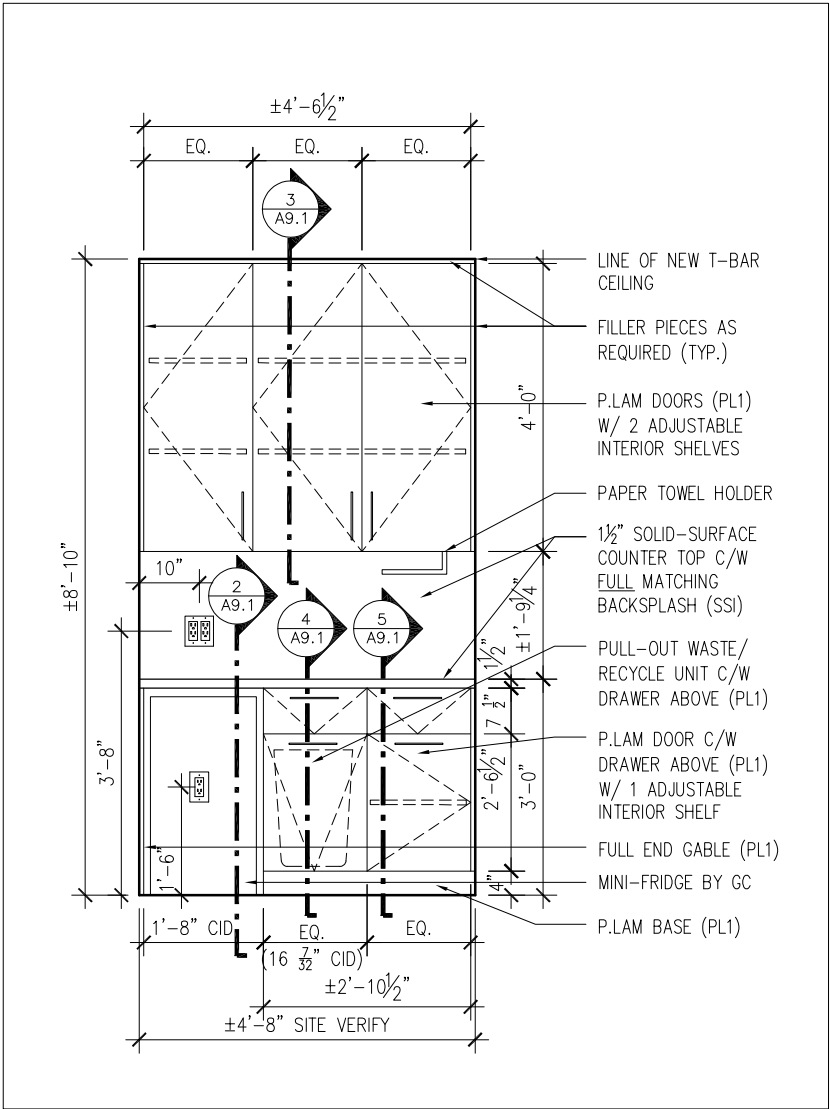
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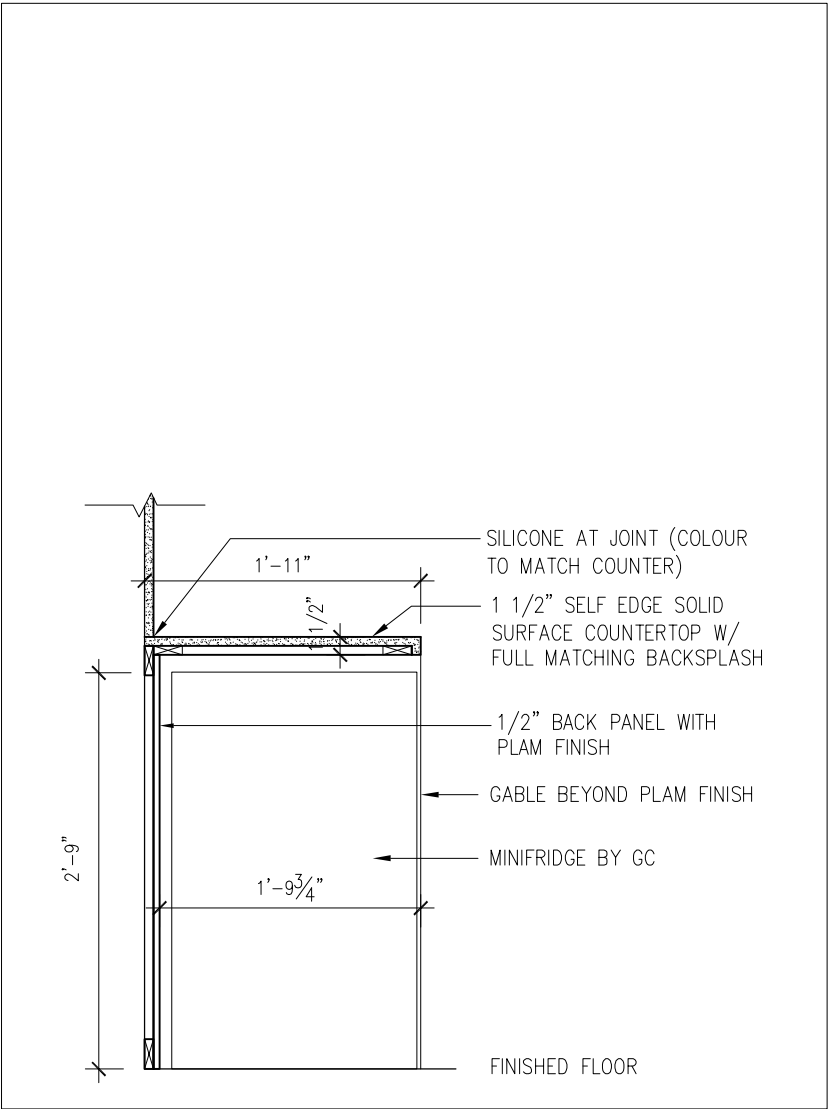
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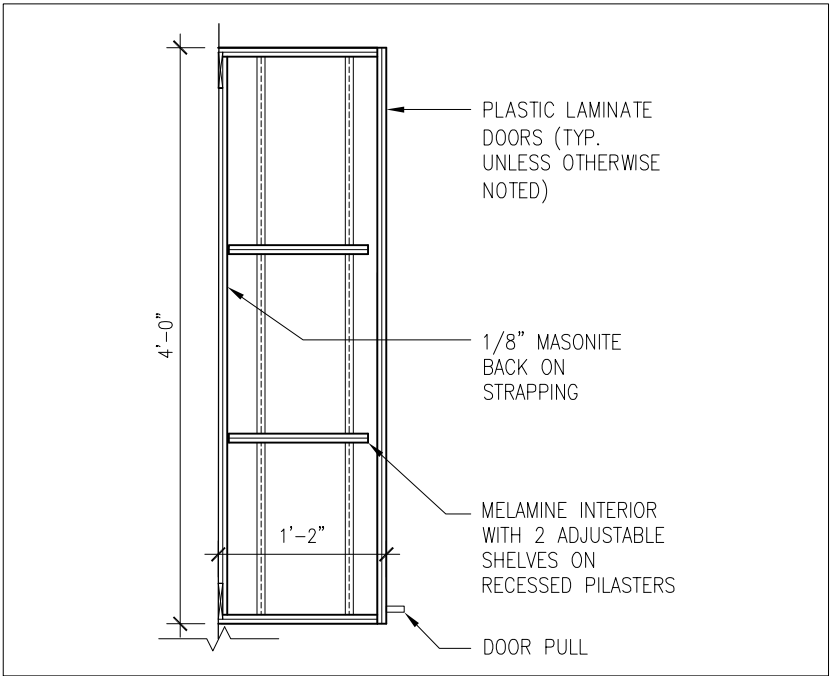
1 ELEVATION: MILLWORK

A9.1 3/8"=1'-0"



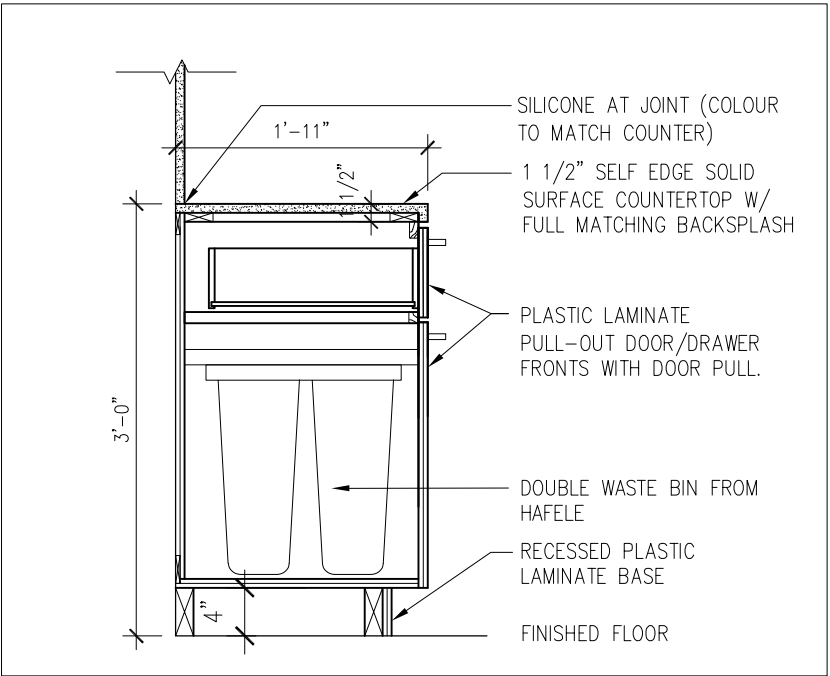
2 SECTION: MIN-FRIDGE CABINET

A9.1 3/4"=1'-0"



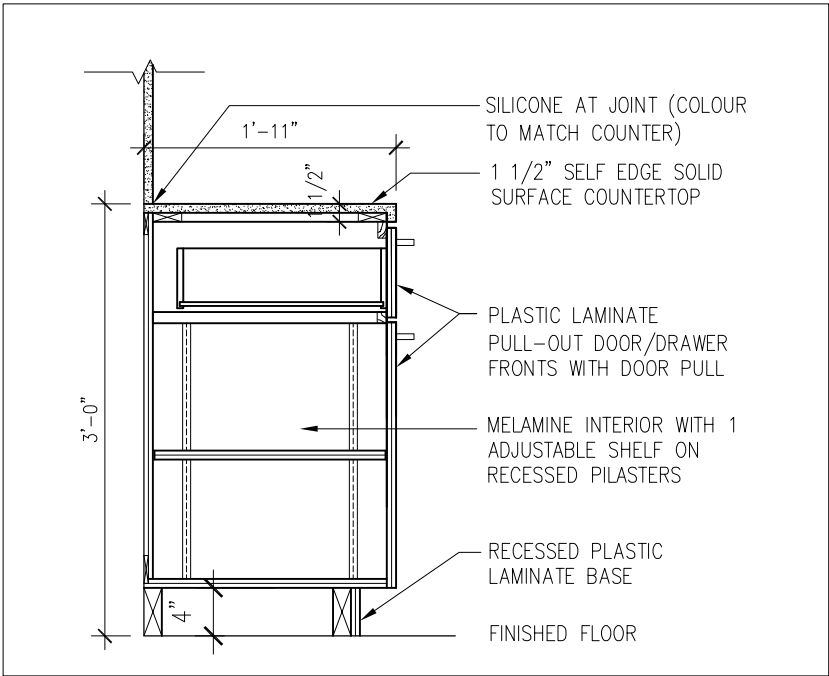
3 SECTION: UPPER CABINET

A9.1 3/4"=1'-0"



4 SECTION: WASTE/RECYCLE

A9.1 3/4"=1'-0"



5 SECTION: BASE CABINET

A9.1 3/4"=1'-0"

Project Title

HISTORY ADMIN
OFFICES REFRESH

100 ST.GEORGE STREET

Drawing Sheet Title

MILLWORK

Scale AS NOTED

Drawn by JF Date APRIL 11, 2025

Infrastructure Planning Project Number

P033-25-065

North Point



Drawing Number

A9.1

MILLWORK NOTES

1. ALL MILLWORK SHALL BE FINISHED OFF SITE & DELIVERED TO SITE COMPLETED AND READY FOR INSTALLATION (NO SITE FINISHING, UNLESS APPROVED BY DESIGNERS). REFER TO DETAILS FOR ALL MILLWORK CONSTRUCTION AND DIMENSIONING.
2. SUBMIT SHOP DRAWINGS & FINISH SAMPLES FOR APPROVAL PRIOR TO PROCEEDING.
3. CONTRACTOR TO VERIFY ALL MILLWORK DIMENSIONS ON SITE AFTER PARTITION LAYOUT HAS BEEN APPROVED (BY DESIGNER) PRIOR TO MANUFACTURING OF MILLWORK.
4. MILLWORK CONSTRUCTION TO BE 3/4" MEDIUM DENSITY PARTICLE BOARD – UNLESS OTHERWISE NOTED. FINISH ACCORDING TO CODE INDICATED. FINISH ALL EXPOSED SURFACES.
5. ENSURE THAT ALL METHODS OF ATTACHMENT ARE INVISIBLE.
6. ALL WATERFALL EDGES ON COUNTER/WORKSURFACE TO BE CONSTRUCTED FROM SOLID WOOD. WRAP VENEER ON TOP OF WATERFALL EDGES TO ENSURE A CONSISTENT GRAIN DIRECTION.
7. ALL DRAWERS TO BE FITTED WITH HEAVY DUTY FULL EXTENSION GLIDES AND BE SOFT–CLOSING.
8. ALL DOORS TO BE FITTED WITH INVISIBLE HINGES AND BE SOFT–CLOSING.
9. INSTALL BLOCKING WITHIN PARTITIONS AS REQUIRED TO SUPPORT WALL MOUNTED MILLWORK.
10. UNLESS NOTED OTHERWISE ALL MILLWORK INCLUDING COUNTERTOPS, BACK SPLASHES, SIDE SPLASHES, GABLES, BASE CABINETS, UPPER CABINETS, DOORS, DRAWERS, ALL SUPPORTS AND INSIDE OF MILLWORK, AND WHERE EXPOSED TO VIEW, ETC. SHALL HAVE A PLASTIC LAMINATE FINISH.
11. ALL SHELVING SHALL BE ADJUSTABLE ON RECESSED PILASTER STRIPS, UNLESS NOTED OTHERWISE.
12. CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL SERVICES INTO MILLWORK WITH DOCUMENTS BY OTHER DISCIPLINES.
13. THE FRONT EDGE OF ALL MILLWORK IS TO BE SET BACK 1" (MINIMUM) FROM FINISHED CORNERS OF ABUTTING PARTITIONS, UNLESS NOTED OTHERWISE.
14. SUPPLY AND INSTALL CLEAR SILENCERS ON BACK SIDE OF CABINET DOORS AND DRAWERS.
15. WHERE PILASTER STRIPS AND SHELF CLIPS HAVE BEEN NOTED, SHELF CLIPS TO BE INSTALLED VERTICALLY AT 3" O.C. PILASTER STRIPS TO BE INSTALLED HORIZONTALLY AT 2" FROM FINISHED EDGES OF ADJUSTABLE SHELF.
16. WHEREVER ELECTRICAL OUTLETS ARE IDENTIFIED BEHIND MILLWORK, CONTRACTOR TO PROVIDE CUT OUT IN MILLWORK BACK PANEL TO SUIT OUTLET.
25. CONTRACTOR TO CONFIRM ALL APPLIANCES SIZE BEFORE CONSTRUCTION.
26. DOOR & EXPOSED SURFACES – ¾" UNIBOARD NU–GREEN CORE W/ HPL, FINISH AS PER SCHEDULE, MATCHING EDGE BANDING.
27. CABINET INTERIOR – ¾" UNIBOARD NU–GREEN CORE MELAMINE, COLOR TO BE WHITE, MATCHING EDGE BANDING.
28. EXPOSED GABLES – FINISH TO MATCH MILLWORK DOOR & EXPOSED SURFACES
29. CABINET BASE – ¾" MARINE PLYWOOD HPL, FINISH AS PER SCHEDULE

MILLWORK NOTES CONT'D:

FINISHES

MELAMINE (CABINET INTERIOR)
UNLESS OTHERWISE INDICATED,
MELAMINE IS TO BE WHITE.

PL1 – CABINETS
MAN.: FENIX BY FORMICA
COLOUR: J0754 BLU FES
FINISH: MATTE

SS1– SOLID–SURFACE COUNTER
MAN.: EVERFORM BY FORMICA
COLOUR: 748 WHITE RENEW
NOTE: ALL JOINTS TO BE SEAMLESS; REVIEW JOINT
LOCATION WITH DESIGNER PRIOR TO PROCEEDING

HARDWARE & FIXTURES

DOOR PULLS (INSTALLED ON ALL
DOORS/DRAWERS AS SHOWN)
MAN.: RICHELIEU
STYLE: CONTEMPORARY PULL
PRODUCT #: BP873192900
COLOUR: MATTE BLACK
SIZE: 202mm

HINGES:
CONCEALED, BLUM #125DEG

RECESSED PILASTERS:
BRIGHT ZINC

DRAWER SLIDES:
ACCURIDE #3832EHDSC–20" FULL
EXTENSION WITH HEAVY DUTY SELF
CLOSE (DRAWERS UP TO 24" WIDE)

ACCESSORIES

UTENSIL INSERT:
MAN.: RICHELIEU
STYLE: CLASSICO
COLOUR: DARK GREY
SIZE: TO SUIT DRAWER AND CUT TO FIT

WASTE/RECYCLING CENTER:
MAN.: HAFELE
STYLE: WASTE BIN PULL–OUT, HAILO EURO CARGO S
COLOUR: GRAY
MODEL #: 3610–47
ARTICLE #: 502.73.901

MIN. INT. CABINET WIDTH: 16 7⁄32"
MIN. INT. CABINET DEPTH: 15 7⁄8"
MIN. INT. CABINET HEIGHT: 17 1⁄4"

PAPER TOWEL HOLDER:
MAN.: KAMENSTEIN
STYLE: STAINLESS STEEL UNDER CABINET PAPER TOWEL
HOLDER WITH MOUNTING HARDWARE
MODEL #: 4539–R1

MINIFRIDGE:
MAN.: DANBY
MODEL: DAR033A6BSLDB
CAPACITY: 3.3 CU.FT.
FINISH: STAINLESS STEEL
DIMENSIONS: 17 11⁄16"W x 19 49⁄64"D x 33 1⁄16" H
HINGE: GC TO INSTALL FRIDGE WITH HINGE ON LEFT
SIDE



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Project Title

HISTORY ADMIN
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100 ST.GEORGE STREET

Drawing Sheet Title

MILLWORK NOTES

Scale AS NOTED	
Drawn by JF	Date APRIL 11, 2025
Infrastructure Planning Project Number	North Point 
P033-25-065	Drawing Number
	A9.2

ELECTRICAL LEGEND																							
X	ALL EXISTING ELECTRICAL DEVICES, WIRING AND/OR EQUIPMENT TO REMAIN ARE SHOWN IN GREY SCALE LINETYPE. NOTE: LINE TYPE DEFINITION MAY BE LOST IF THE DRAWINGS ARE PHOTOCOPIED ALL EXISTING ELECTRICAL DEVICES, WIRING AND/OR EQUIPMENT TO BE REMOVED ARE SHOWN IN BROKEN LINETYPE. ALL ELECTRICAL DEVICES, WIRING AND/OR EQUIPMENT THAT ARE NEW OR EXISTING IN RELOCATED POSITION ARE SHOWN IN BOLD LINETYPE. REFERENCE TO NOTE #X ON RESPECTIVE DRAWING. ER EXISTING DEVICE TO BE RELOCATED RL RELOCATED EXISTING DEVICE EX EXISTING DEVICE TO REMAIN D EXISTING DEVICE TO BE DEMOLISHED																						
POWER SYSTEM	LIGHTING AND SWITCHING																						
ADDITIONAL NOMENCLATURE 'B' OUTLETS MOUNTED HORIZONTALLY IN BASE 'LH' OUTLETS FEED HORIZONTALLY IN LOW HIGH PARTITION FROM NEAREST COLUMN OR FULL HIGH PARTITION 'GFI' GROUND FAULT INTERRUPTER EITHER RECPTACLE TYPE OR WHEN SPLIT CIRCUIT, USE TWO POLE GROUND FAULT BREAKER TYPE 'IG' ISOLATED GROUND DEVICE & WIRE * BESIDE AN EXISTING POWER RECPTACLE DENOTES EXISTING ROUGH-IN WALL BOX TO RECEIVE NEW DEVICE AND COVERPLATE AS SPECIFIED BY ARCHITECT. 'D' EXISTING DEVICE TO BE DEMOLISHED 'RL' RELOCATE EXISTING DEVICE TO NEW LOCATION	<table><tr><th>SYMBOL</th><th>DESCRIPTION</th></tr><tr><td>○</td><td>RECESSED CEILING MOUNTED ROUND LUMINAIRE.</td></tr><tr><td>◻</td><td>RECESSED 2' X 2' CEILING MOUNTED TROFFER.</td></tr><tr><td>◻</td><td>RECESSED 2' X 4' CEILING MOUNTED TROFFER.</td></tr><tr><td>\$Lv</td><td>LOW VOLTAGE SWITCH</td></tr><tr><td>D</td><td>0–10V DIMMER SWITCH, SINGLE POLE</td></tr><tr><td>3W D</td><td>3–WAY 0–10V DIMMER SWITCH</td></tr><tr><td>\$</td><td>SPST LIGHTING SWITCH</td></tr><tr><td>\$3W</td><td>3–WAY LIGHTING SWITCH</td></tr><tr><td>□</td><td>WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY DIMMING SENSOR SWITCH</td></tr><tr><td>⊕</td><td>CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR</td></tr></table>	SYMBOL	DESCRIPTION	○	RECESSED CEILING MOUNTED ROUND LUMINAIRE.	◻	RECESSED 2' X 2' CEILING MOUNTED TROFFER.	◻	RECESSED 2' X 4' CEILING MOUNTED TROFFER.	\$Lv	LOW VOLTAGE SWITCH	D	0–10V DIMMER SWITCH, SINGLE POLE	3W D	3–WAY 0–10V DIMMER SWITCH	\$	SPST LIGHTING SWITCH	\$3W	3–WAY LIGHTING SWITCH	□	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY DIMMING SENSOR SWITCH	⊕	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR
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SYMBOL	DESCRIPTION																						
■	SURFACE MOUNTED POWER OR LIGHTING PANEL																						
■	FLUSH MOUNTED POWER OR LIGHTING PANEL																						
⊕	WALL MOUNTED DUPLEX RECEPTACLE 15A, 1P, 120V U–GROUND RECEPTACLE C/W MATCHING COVERPLATE.																						
⊕	WALL MOUNTED DEDICATED CIRCUIT DUPLEX RECEPTACLE																						
⊕	WALL MOUNTED DUPLEX RECEPTACLE TO BE INSTALLED AT NON–STANDARD HEIGHT.																						
⊕	WALL MOUNTED T–SLOT DUPLEX RECEPTACLE 20A, 1P, 120V U–GROUND RECEPTACLE C/W MATCHING COVERPLATE.																						
⊕	WALL MOUNTED QUAD RECEPTACLE																						
⊕	FLOOR MOUNTED DUPLEX RECEPTACLE																						
□	UNFUSED DISCONNECT SWITCH, SIZED AS NOTED																						
⊕	DUPLEX RECEPTACLE MOUNTED IN MILLWORK/FURNITURE AS SHOWN																						
⊕	120 VOLT DIRECT POWER CONNECTION (TYPE 1 ENCLOSURE, UNLESS NOTED OTHERWISE)																						
⊕	SURFACE FLOOR MONUMENT, SLIM LINE FOR POWER AND DATA SYSTEMS. REFER TO PLAN AND DETAILS FOR EXACT REQUIREMENTS AND SPECIFICATIONS.																						
—W—	WIREMOLD RACEWAY SERIES 4000 UNLESS NOTED OTHERWISE ON PLAN																						
J	JUNCTION BOX																						
DRAWING LIST																							
DWG NO	DRAWING TITLE																						
E–100	ELECTRICAL LEGEND & DRAWING LIST																						
E–101	ELECTRICAL SPECIFICATIONS																						
E–102	ELECTRICAL SPECIFICATIONS																						
E–103	ELECTRICAL DETAILS																						
E–200	DEMO LIGHTING & FIRE ALARM – 2ND FLOOR PLAN																						
E–201	NEW LIGHTING & FIRE ALARM – 2ND FLOOR PLAN																						
E–300	DEMO POWER & SYSTEMS – 2ND FLOOR PLAN																						
E–301	NEW POWER & SYSTEMS – 2ND FLOOR PLAN																						
FIRE ALARM SYSTEM																							
SYMBOL	DESCRIPTION																						
◻	FIRE ALARM HORN																						
⊕	FIRE ALARM STROBE																						
⊕	FIRE ALARM AUTOMATIC HEAT DETECTOR. NEW SHALL MATCH EXISTING AND BE CONNECTED INTO THE SYSTEM																						
◻	FIRE ALARM MANUAL PULL STATION NEW TO MATCH EXISTING (UNLESS DUAL CONTACT TYPE AT MAGLOCK) AND BE CONNECTED INTO THE SYSTEM																						
COMMUNICATION SYSTEM																							
SYMBOL	DESCRIPTION																						
◻	WALL MOUNTED SINGLE GANG BOX FOR DATA OUTLET C/W 1" CONDUIT AND FISH STRING TO NEAREST EXISTING DATA JUNCTION BOX IN CEILING. PROVIDE COVERPLATE.																						
◻	SAME AS ABOVE BUT MOUNTED AT A NON–STANDARD HEIGHT																						
◻	VOICE OUTLET. REFER TO DRAWING NOTES.																						
⊕XD	SAME AS ABOVE BUT MOUNTED IN MILLWORK/FURNITURE AS SHOWN 'XD' DENOTES X NUMBER OF SNAP–IN JACKS																						
◻XD	SURFACE MOUNTED FLOOR MONUMENT FOR DATA OUTLETS. ASSUME ONE SNAP–IN JACK UNLESS SPECIFIED.																						
◻WAP	CEILING MOUNTED DATA OUTLET FOR WIRELESS ACCESS POINT (SUPPLIED BY UoFT I+TS & INSTALLED BY THIS CONTRACTOR). PROVIDE TWO (2) WHITE CAT 6A CABLES. REFER TO UoFT STANDARDS DOCUMENT FOR EXACT REQUIREMENTS.																						
LIFE SAFETY SYSTEM																							
SYMBOL	DESCRIPTION																						
◻	CEILING OR WALL MOUNTED LUMACELL 'LAC–1250' SERIES COMBINATION PICTOGRAM TYPE EXIST SIGN C/W TWO (2) MR16 LED 12V–6W REMOTE HEADS.																						
◻																							
◻																							
◻	ARROW INDICATES "RIGHT OR LEFT FROM HERE" NO ARROW INDICATES "STRAIGHT FROM HERE"																						
◻	"DF" DENOTES DOUBLE FACE SIGN																						
⊕	CEILING OR WALL MOUNTED EXIT SIGN																						



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Revisions and Issues Record

Project Title

HISTORY ADMIN
AREA REFRESH

100 ST.GEORGE STREET

Drawing Sheet Title

ELECTRICAL LEGEND & DRAWING LIST

Scale	AS NOTED		
Drawn by	AO	Date	APR 11, 2025
Checked by	VC		

Project Number	North Point
24-517	
	Drawing Number
	E-100

GENERAL ELECTRICAL REQUIREMENTS AS–BUILT DRAWINGS

AT THE COMPLETION OF WORK AND BEFORE FINAL ACCEPTANCE, PROVIDE AS–BUILT DRAWINGS OF THE INSTALLATION, IN AUTO–CAD FORMAT. DRAWING FILES CAN BE OBTAINED FROM THE CONSULTANT @ \$150/SHEET.

INCORPORATE ALL CHANGES AND DEVIATIONS FROM TENDER DRAWINGS, UTILIZING NORMAL RECOGNIZED DRAFTING PROCEDURES THAT MATCH THE ORIGINAL.

ALL MAIN BRANCH CONDUIT RUNS, JUNCTION BOX LOCATIONS, ETC. MUST BE REFLECTED ON THE DRAWINGS.

REMOVE THE ELECTRICAL ENGINEER’S STAMP FROM ALL DRAWINGS, PRIOR TO SUBMISSION OF AS–BUILT.

CLEARLY INDICATE THE WORDS ”AS–BUILT” IN THE TITLE BLOCK OF THE DRAWINGS AS WELL AS THE ELECTRICAL CONTRACTOR’S NAME AND ADDRESS.

SUBMIT A SET OF PRINTS TO THE CONSULTANT FOR REVIEW AND COMMENTS. WHEN FOUND ACCEPTABLE BY THE CONSULTANT, SUBMIT THREE (3) SETS OF PRINTS TOGETHER WITH THE CAD DISK TO THE OWNER.

CODES & STANDARDS

COMPLETE THE INSTALLATION OF THE WORK IN ACCORDANCE WITH LATEST EDITIONS OF THE ONTARIO BUILDING CODE, PROVINCIAL ELECTRICAL SAFETY CODE, C.S.A. STANDARDS, U.L.C., O.S.H.A. AND OTHER CODES, AS REQUIRED. COMPLY WITH ELECTRICAL AND BUILDING CODE BULLETINS IN FORCE AT TIME OF BID SUBMISSION.

COMPLETION OF CONTRACT

ALL THE EQUIPMENT MUST BE CLEANED AND TESTED BEFORE FINAL ACCEPTANCE BY THE CONSULTANT.

FROM THE DATE OF ISSUANCE OF A ”CERTIFICATE OF SUBSTANTIAL COMPLETION”, PROVIDE A WRITTEN GUARANTEE FOR ONE YEAR COVERING ALL EQUIPMENT,MATERIALS AND WORKMANSHIP, OTHER THAN LAMPS.

DEFECTS AND DEFICIENCIES WHICH ORIGINATE OR BECOME EVIDENT DURING THE WARRANTY PERIOD MUST BE REPAIRED OR REPLACED, AT NO COST TO THE OWNER.

REPLACE, AT NO COST, ALL LAMPS BURNED–OUT DURING A THIRTY (30) DAY PERIOD AND ALL BURNED–OUT FLUORESCENT LAMPS FOR A PERIOD OF NINETY (90) DAYS AFTER DATE OF ISSUANCE OF CERTIFICATE OF ”SUBSTANTIAL COMPLETION” FOR THE CONTRACT WORK.

CONTRACT DOCUMENTS

THE DRAWINGS FOR THE ELECTRICAL WORK ARE DIAGRAMMATIC ONLY, AND ARE INTENDED TO CONVEY THE SCOPE OF WORK AND GENERAL ARRANGEMENT OF ELECTRICAL EQUIPMENT. THE DRAWINGS DO NOT INTEND TO SHOW ARCHITECTURAL, INTERIOR DESIGN, MECHANICAL, STRUCTURAL OR BASE BUILDING DETAILS. BE RESPONSIBLE FOR A THOROUGH KNOWLEDGE OF SAME BEFORE PROCEEDING WITH THE WORK.

DO NOT SCALE OR MEASURE DRAWINGS.

ANY DISCREPANCIES BETWEEN DRAWINGS AND/OR SPECIFICATIONS AND EXISTING CONDITIONS, MUST BE REFERRED TO THE CONSULTANT BEFORE ANY WORK AFFECTED HAS COMMENCED. COOPERATE AND COORDINATE WITH OTHER TRADES IN LAYING OUT OF WORK SO AS NOT TO CONFLICT WITH THE WORK OF OTHER TRADES. CARRY OUT WORK PROMPTLY AS PER CONSTRUCTION SCHEDULE.

MAKE ANY CHANGES OR ADDITIONS TO MATERIALS NECESSARY TO ACCOMMODATE STRUCTURAL CONDITIONS (OFFSETS AROUND BEAMS, COLUMN, ETC.) AT NO EXTRA COST TO THIS CONTRACT.

CORE DRILLING

IF REQUIRED, BEFORE CORE DRILLING SLABS OR STRUCTURAL WALLS, X–RAY, C/W PICTURE, SLAB OR WALLS AND HAVE THE LOCATIONS ACCEPTED BY THE OWNER IN WRITING. ANY EXISTING BUILDING SERVICES DAMAGED BY CORE DRILLING MUST BE REPAIRED IMMEDIATELY AT NO COST TO OWNER.

FLOOR DRILLING TO BE CARRIED OUT AFTER NORMAL WORKING HOURS AND AT A TIME ACCEPTABLE TO OWNER AND ALLOWANCES FOR THIS WORK SHALL BE INCLUDED IN BID PRICE SUBMITTED.

CUTTING AND PATCHING

ALL CUTTING AND PATCHING REQUIRED TO THE BUILDING STRUCTURE FOR THE WORK SHALL BE INCLUDED UNDER THIS CONTRACT AND BE ACCEPTABLE TO THE OWNER. OBTAIN WRITTEN APPROVAL FROM OWNER BEFORE ANY CUTTING IS CARRIED OUT.

WHERE CONDUITS PASS THROUGH FIRE RATED WALLS OR FLOORS, PROVIDE FIRE STOPPING MATERIAL LISTED WITH, AND BEAR LABEL OF CSA AND ULC, AND MAINTAIN SAME FIRE RATING OF BUILDING COMPONENT PENETRATION.

DEFINITIONS

WHEREVER THE WORD ”PROVIDE” IS USED, IT SHALL BE UNDERSTOOD TO MEAN INCLUSIVE OF ALL LABOUR, MATERIALS, INSTALLATION, TESTING, AND CONNECTIONS” FOR THE ITEM TO WHICH IT REFERENCES.

DEMOLITION

VISIT THE SITE, EXAMINE THE EXISTING CONDITIONS AND BECOME FAMILIAR WITH THE EXTENT OF THE NECESSARY REMOVAL, RELOCATION, RECONNECTING AND REROUTING OF ELECTRICAL EQUIPMENT AND WIRING AS NECESSARY FOR THE COMPLETION OF THE PROJECT.

REVIEW AND CONFIRM WITH THE CONSULTANT’S DRAWINGS FOR THE COMPLETE EXTENT OF DEMOLITION AND ALTERATION AS REQUIRED

REROUTE AND REWORK, AS REQUIRED, TO MAINTAIN CONTINUITY FOR ALL SYSTEMS TO REMAIN, WHICH ARE AFFECTED BY THE DEMOLITION AND ALTERATION.

ELECTRICAL WORK REQUIRED IN EXISTING PREMISES

REMOVE ALL DISCONNECTED WIRING BACK TO THE ASSOCIATED PANEL BOARD AS REQUIRED.

REMOVE EXISTING LUMINARIES, DEVICES, OUTLETS, ETC., WHICH ARE NOT TO BE REUSED.

ENSURE THAT ALL EXISTING EQUIPMENT, WHICH IS TO BE REUSED AND/OR RELOCATED, IS THOROUGHLY INSPECTED AND REFURBISHED TO ENSURE CORRECT OPERATION WHEN PUT BACK INTO SERVICE AND TO MEET E.S.A. APPROVAL.

REMOVE ALL EQUIPMENT NOT REQUIRED TO AN OFF–SITE DISPOSAL.

REPAIR, TO THE OWNER’S SATISFACTION, ANY DAMAGE TO THE EXISTING BUILDING INCURRED BY WORK OF THIS DIVISION.

CARRY OUT THE WORK WITH A MINIMUM OF NOISE, DUST AND DISTURBANCE.

OBTAIN THE OWNER’S PERMISSION FOR THE USE OF ELECTRICAL, PLUMBING OR DRAINAGE OUTLETS.

ALL CONDUITS ARE TO TERMINATE IN JUNCTION BOXES.

CLEAN LUMINARIES, REFLECTORS AND LENSES AND OTHER SURFACES THAT HAVE BEEN EXPOSED TO CONSTRUCTION DIRT. VACUUM THE INSIDES AND OUTSIDES OF PANEL BOARDS, SPLITTERS AND OTHER ELECTRICAL EQUIPMENT.

INSURANCE

PROVIDE AND MAINTAIN INSURANCE TO PROTECT THE OWNER AND TRADES FROM ALL POSSIBLE CLAIMS. REFER TO TENDER FORM FOR DETAILS.

INTENT

IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT THE CONTRACTOR PROVIDES COMPLETE AND OPERATIONAL SYSTEMS AS REQUIRED.

WHERE DIFFERENCES OCCUR, THE MAXIMUM CONDITION SHALL GOVERN.

ANY MISCELLANEOUS ITEMS, NOT SPECIFICALLY DESCRIBED, BUT REQUIRED FOR THE OPERATION OF THE SYSTEM, MUST BE PROVIDED AND INCLUDED AS PART OF THE CONTRACT.



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100 ST.GEORGE STREET

Drawing Sheet Title

ELECTRICAL SPECIFICATIONS

Scale AS NOTED			
Drawn by	AO	Date	APR 11, 2025
Checked by	VC		
		North Point	
Project Number			
24-517			
		Drawing Number	
		E-101	

INTERRUPTION OF SERVICES

INTERRUPTION OF ELECTRICAL SERVICE TO ANY PART OF THE BUILDING SHALL OCCUR ONLY BY PRE-ARRANGEMENT WITH AND AT TIMES SUITABLE TO THE OWNER.

INTERRUPTIONS SHALL ONLY OCCUR DURING PREMIUM TIME PERIODS; ALL ALLOWANCES FOR THIS SHALL BE INCLUDED IN THE PRICE SUBMITTED.

LOCATION OF OUTLETS

ALTER LOCATION OF OUTLETS AT NO COST OR CREDIT, PROVIDING DISTANCE DOES NOT EXCEED 15 FEET AND INFORMATION IS GIVEN BEFORE ROUGH-IN.

ALL OUTLETS TO BE MARKED ON JOB SITE FOR APPROVAL BY CONSULTANT OR INTERIOR DESIGNER PRIOR TO INSTALLATION.

MATERIALS AND EQUIPMENT

ALL MATERIALS AND EQUIPMENT SHALL BE NEW, C.S.A. CERTIFIED AND MANUFACTURED TO THE STANDARDS SPECIFIED.
WHERE THERE IS NO ALTERNATIVE TO SUPPLYING EQUIPMENT, WHICH IS NOT C.S.A., CERTIFIED, OBTAIN SPECIAL APPROVAL FROM THE LOCAL INSPECTION DEPARTMENT OF E.S.A.

PERMITS AND FEES

SUBMIT TO THE LOCAL ELECTRICAL INSPECTION DEPARTMENT, THE NECESSARY NUMBER OF DOCUMENTS FOR EXAMINATION, SPECIAL INSPECTION AND APPROVAL, PRIOR TO THE COMMENCEMENT OF THE WORK, AND PAY ALL COSTS AND ASSOCIATED FEES.
PROVIDE CERTIFICATE(S) OF ACCEPTANCE FROM THE AUTHORITIES INSPECTION DEPARTMENT, UPON COMPLETION OF WORK.

MATERIALS AND INSTALLATION

CONDUITS AND CONDUIT FITTINGS

PROVIDE ALL CONDUITS UP TO AND INCLUDING 101MM (4”) SIZE, AS EMT THIN WALL WITH STEEL SET SCREW COUPLINGS AND CONNECTORS.

PROVIDE FLEXIBLE METAL CONDUIT FOR CONNECTION TO MOTORS AND TRANSFORMERS.

INSTALL CONDUITS TO CONSERVE HEADROOM, PARALLEL AND PERPENDICULAR TO BUILDING LINES. DO NOT CADDIE CLIP CONDUITS TO CEILING HANGERS.
ALL EMPTY CONDUITS SHALL BE COMPLETE WITH NYLON PULL CABLE.

GROUNDING

GROUND ALL EQUIPMENT IN ACCORDANCE WITH LATEST EDITION OF THE ELECTRICAL SAFETY CODE. PROVIDE SEPARATE GREEN INSULATED GROUND CONDUCTOR IN EVERY CONDUIT TO ALL DEVICES, LUMINARIES AND FEEDERS (PANEL BOARDS, SPLITTERS, DISCONNECT SWITCHES, ETC.).

JUNCTION BOXES AND PULL BOXES

SHALL BE SUITABLE FOR SURFACE MOUNTING AND BE OF WELDED STEEL CONSTRUCTION WITH SCREW-ON FLAT COVERS.
FOR FLUSH-MOUNTED PULL AND JUNCTION BOXES, PROVIDE COVERS WITH 25MM (1”) MINIMUM EXTENSION ALL AROUND.

INSTALL JUNCTION AND PULL BOXES IN ACCESSIBLE LOCATIONS.

NO MORE THAN TWO (2) – 90 DEG. BENDS SHALL BE INSTALLED BETWEEN ANY TWO ADJACENT PULL BOXES.

A MINIMUM OF ONE PULL BOX SHALL BE INSTALLED FOR EVERY 100 FT. (30M) OF CONDUIT. (NOTE: EACH 90 DEG. BEND SHALL EQUATE TO A 30 FT. (9M) LENGTH OF CONDUIT).

OUTLET BOXES

OUTLET BOXES SHALL BE ELECTRO-GALVANIZED STEEL, SIZED AS REQUIRED BY CODE.

ADAPT ALL OUTLET BOXES TO THEIR RESPECTIVE LOCATIONS AND SUPPORT INDEPENDENTLY OF THE CONDUIT. DO NOT CADDIE CLIP TO CEILING HANGERS.

PROVIDE BLANK COVER PLATES FOR BOXES WITHOUT WIRING DEVICES.

TWO OR MORE OUTLET BOXES THAT OCCUR AT THE SAME LOCATION SHALL BE GANGED TOGETHER IN

THE SAME COVER PLATE UNLESS OTHERWISE NOTED.

WIRES AND CABLE

ALL WIRE AND CABLE SHALL BE COPPER, MINIMUM 12 GAUGE, NO. 12 AND NO. 10 SOLID, NO. 8 AND LARGER STRANDED, WITH RW90 INSULATION.

#12 BX CAN BE USED IN CEILING SPACE FROM CEILING DISTRIBUTION BOX DOWN TO RECEPTACLES IN PARTITIONS. BX RUNS IN CEILING SPACE NOT TO EXCEED 3048MM (10’-0”) IN LENGTH.

SIZE ALL WIRE FOR MAXIMUM 2% VOLTAGE DROP.

CONDUIT IS TO BE UTILIZED FOR A HOME RUN TO PANELS.

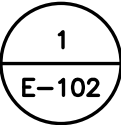
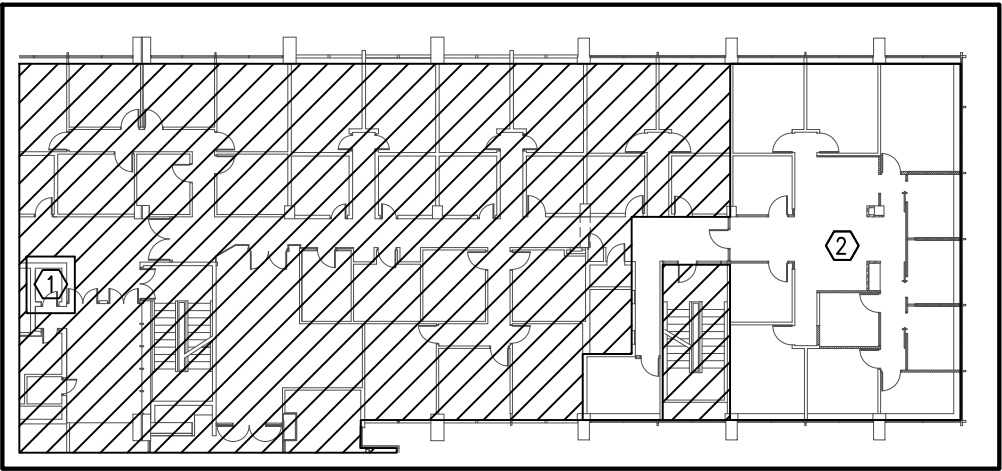
PANELBOARD

EXISTING PANEL BOARD TO BE USED. PROVIDE NEW BREAKERS AS REQUIRED.

UPDATE PANEL SCHEDULE AS REQUIRED WITH TYPEWRITTEN PANEL DIRECTORY.

SHOP DRAWINGS

PROVIDE 3 HARD AND 1 SOFT COPY OF ALL EQUIPMENT PROVIDED SHOP DRAWINGS.



KEY PLAN
N.T.S.

① IT CLOSET, ROOM 2092

② UoFT HISTORY ADMIN AREA, ROOMS 2070-2082



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Revisions and Issues Record

Project Title

**HISTORY ADMIN
AREA REFRESH**

100 ST.GEORGE STREET

Drawing Sheet Title

ELECTRICAL SPECIFICATIONS

Scale	AS NOTED		
Drawn by	AO	Date	APR 11, 2025
Checked by	VC		
Project Number	24-517		
Drawing Number	E-102		





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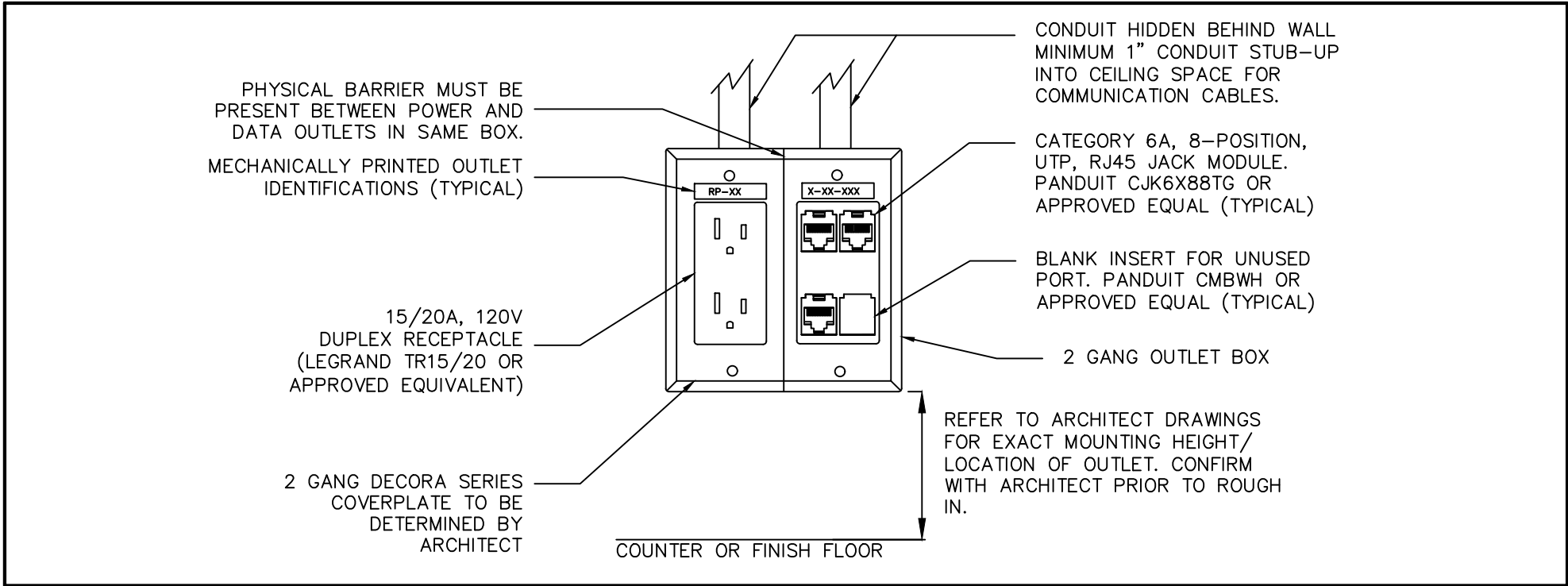
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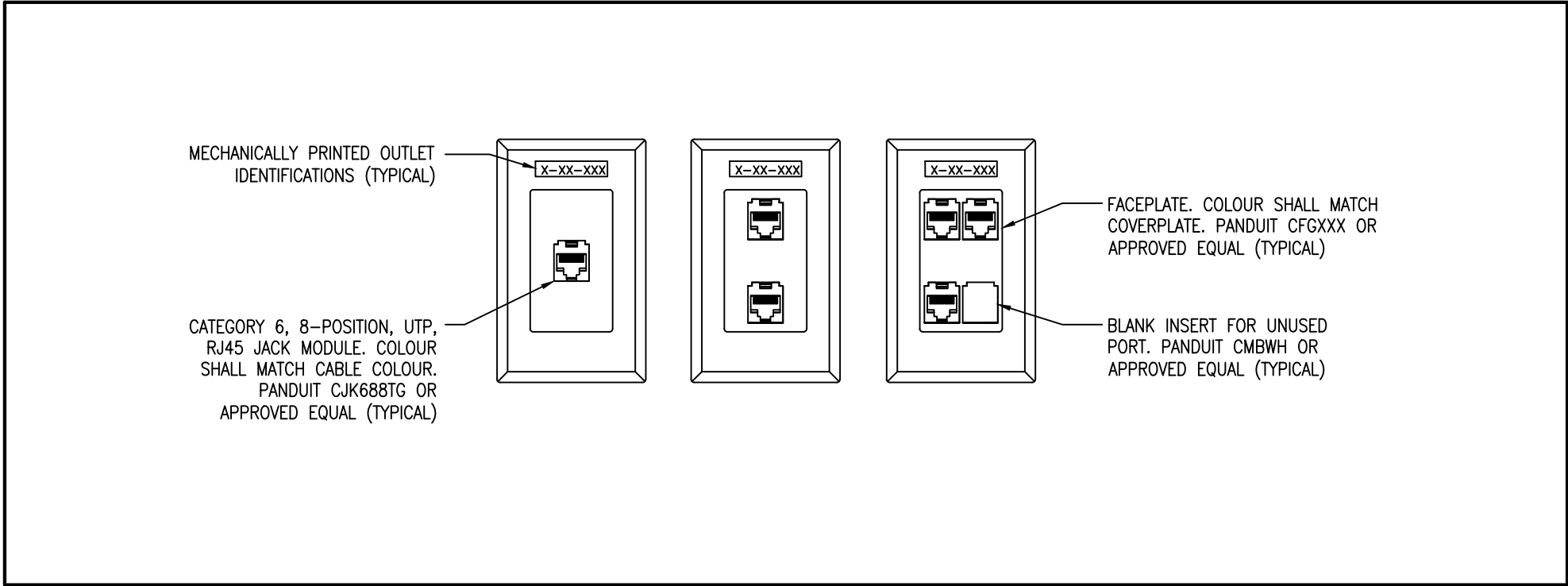
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1 POWER/COMMUNICATIONS OUTLET
E-103 N.T.S.



2 RECESSED DATA OUTLET (1/2/3 CABLES)
E-103 N.T.S.

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HISTORY ADMIN
AREA REFRESH

100 ST.GEORGE STREET

Drawing Sheet Title

ELECTRICAL DETAILS

Scale AS NOTED

Drawn by AO Date APR 11, 2025

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Project Number

24-517



Drawing Number
E-103



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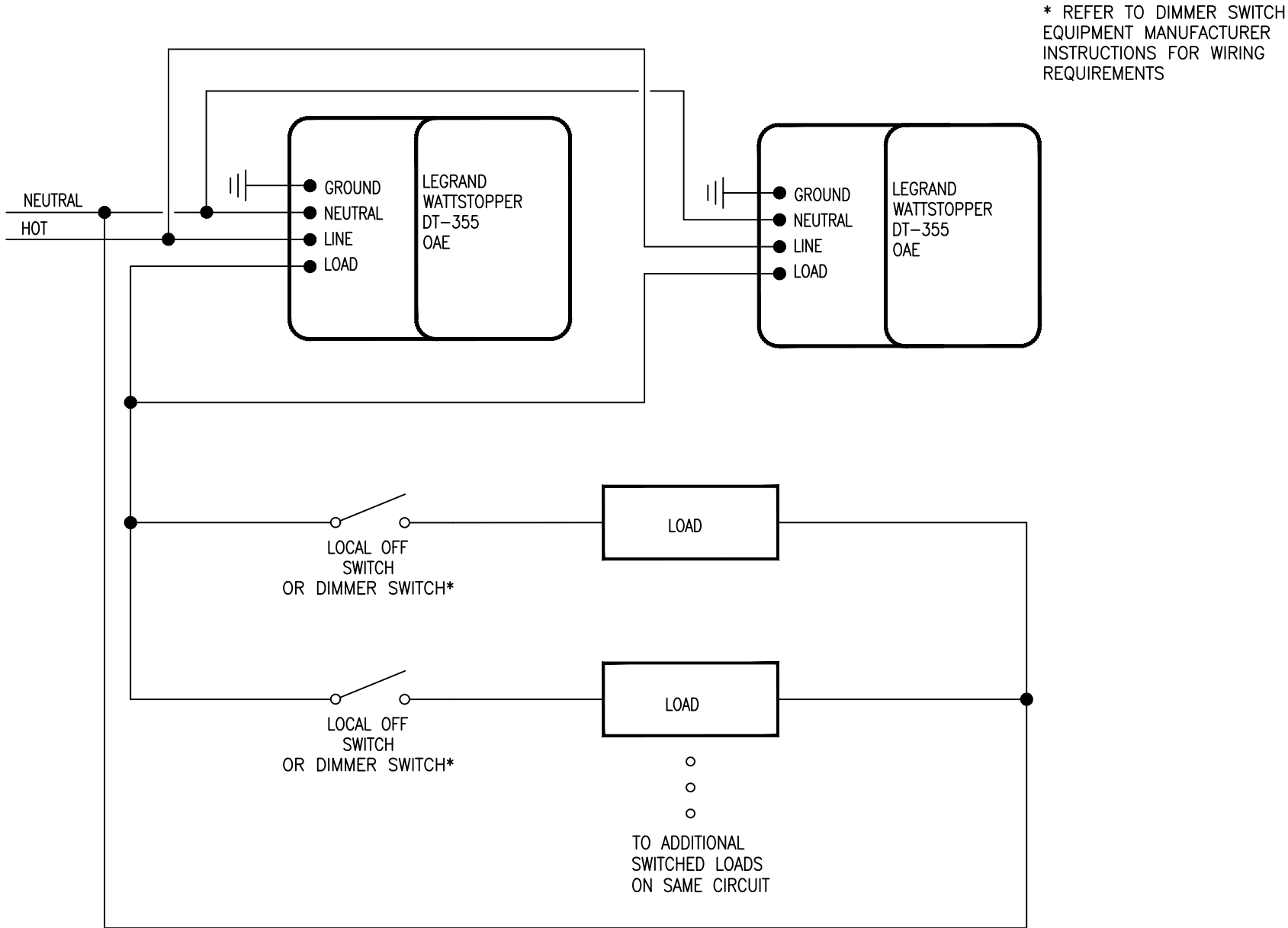
Drawing Sheet Title

ELECTRICAL DETAILS

Scale AS NOTED

Drawn by	AO	Date	APR 11, 2025
Checked by	VC		

Project Number	North Point
24-517	
Drawing Number	E-104



1 LINE VOLTAGE CEILING SENSOR WIRING DETAIL
E-104 N.T.S.

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Project Title

**HISTORY ADMIN
AREA REFRESH**

100 ST.GEORGE STREET

Drawing Sheet Title

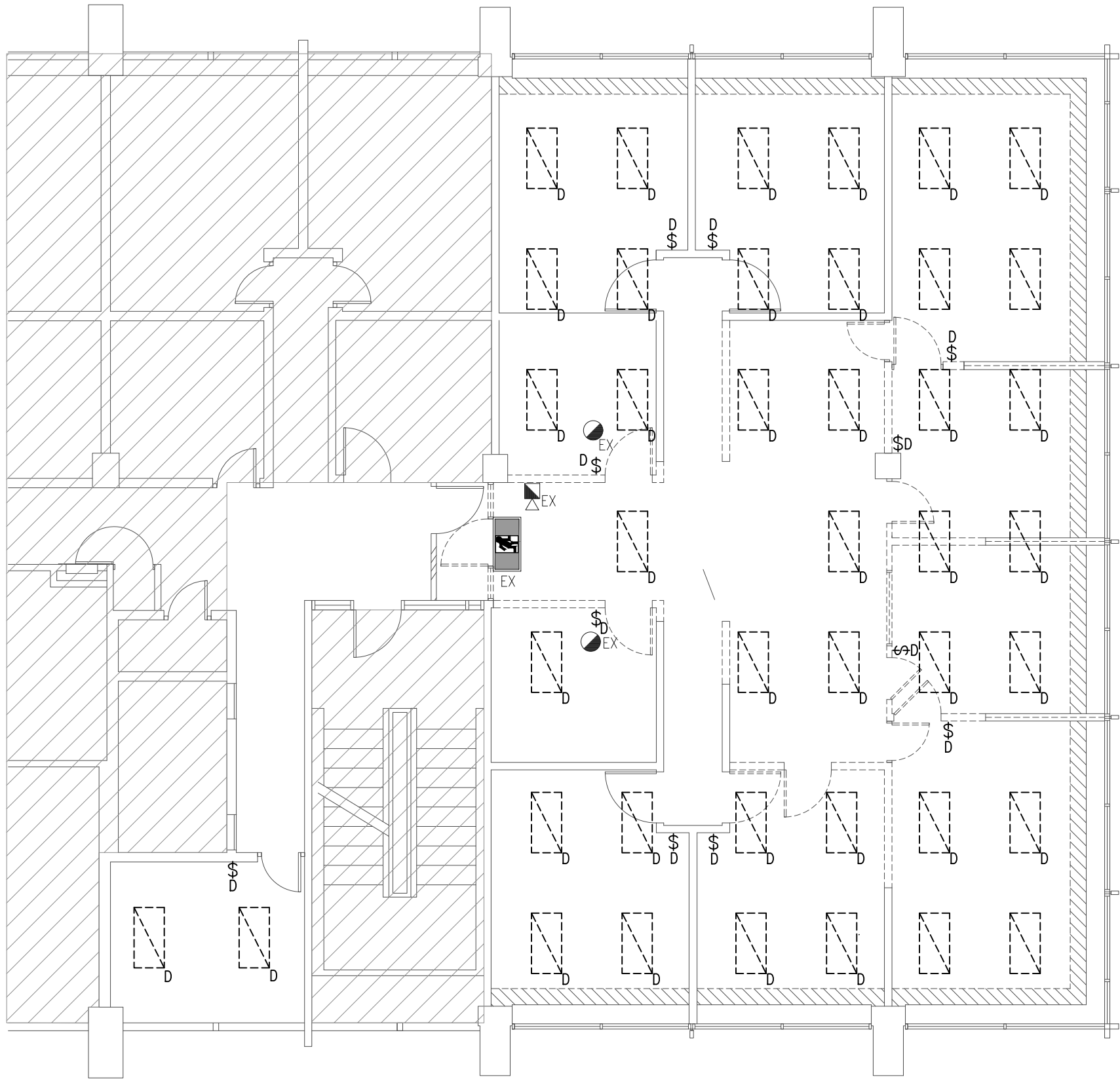
ELECTRICAL SCHEDULES

Scale AS NOTED	
Drawn by AO	Date APR 11, 2025
Checked by VC	
Project Number	North Point
24-517	
Drawing Number	
E-105	

EXISTING SURFACE PANEL "LP-2C"											
VOLTAGE: 120/208V											
RATED AMPERAGE: XA											
LOAD DESCRIPTION	BREAKER	CCT #	A (W)		B (W)		C (W)		CCT #	BREAKER	LOAD DESCRIPTION
REC. ROOM 2080	15A.1P (EX.)	1							2	15A.1P (EX.)	
REC. ROOM 2080	15A.1P (EX.)	3							4	15A.1P (EX.)	
REC. ROOM 2080	15A.1P (EX.)	5							6	15A.1P (EX.)	REC. ROOM 2080
	15A.1P (EX.)	7							8	15A.1P (EX.)	
	15A.1P (EX.)	9							10	15A.1P (EX.)	
REC. ROOM 2075, 2076, 2079	15A.1P (EX.)	11							12	15A.1P (EX.)	
LTG. ROOM 2068, 2069	15A.1P (EX.)	13							14	15A.1P (EX.)	
LTG. ROOM 2070	15A.1P (EX.)	15							16	15A.1P (EX.)	LTG. ROOM 2079, 2080
	15A.1P (EX.)	17							18	15A.1P (EX.)	LTG. ROOM 2077
LTG. ROOM 2072, 2073, 2074	15A.1P (EX.)	19							20	15A.1P (EX.)	LTG. ROOM 2073A, 2075, 2076
	15A.1P (EX.)	21							22	15A.1P (EX.)	
	15A.1P (EX.)	23							24	15A.1P (EX.)	
REC. ROOM 2068, 2074	15A.1P (EX.)	25							26	15A.1P (EX.)	
REC. ROOM 2068, 2069, 2070, 2071, 2072	15A.1P (EX.)	27							28	15A.1P (EX.)	REC. ROOM 2074, 2076, 2077, 2079
REC. ROOM 2072, 2073, 2073A, 2075, 2076	15A.1P (EX.)	29							30	15A.1P (EX.)	REC. ROOM 2074, 2078K
REC. ROOM 2068, 2069, 2070, 2071, 2072	15A.1P (EX.)	31							32	15A.1P (EX.)	
	15A.1P (EX.)	33							34	15A.1P (EX.)	
	15A.1P (EX.)	35							36	15A.1P (EX.)	REC. ROOM 2069
	15A.1P (EX.)	37							38	15A.1P (EX.)	
	15A.1P (EX.)	39							40	15A.1P (EX.)	
	15A.1P (EX.)	41							42	15A.1P (EX.)	
TOTAL LOADING PER PHASE			0		0		0				
* PROVIDE HANDLE LOCK ON BREAKER									Total Connected Load		0
									Expected Demand Load		0
									Expected Amps		0

NOTE: BREAKER SIZES TO BE VERIFIED.

LUMINAIRE SCHEDULE										
TAG	MANUFACTURER	MODEL	MOUNTING	VOLTAGE	POWER	LUMENS	FINISH	CRI	COLOUR TEMP	DESCRIPTION
L1	METALUX	ENCOUNTER 22EN 2'X2' LED TROFFER MODEL NO. 22EN-LD2-34-UNV-L835-CD1	RECESSED	120V	28.5W	3471 lm	TBD	80 CRI	3500K	1. 0-10V DIMMABLE
L2	FOCAL POINT	4.5" LED DOWNLIGHT MODEL NO. FLC4D-RO-SW-2500L-120-LD1-IC-BH-L C4-RO-2500L-935K-DN-WFL-WH-WP	RECESSED	120V	32W	2500 lm	TBD	90 CRI	3500K	1. 0-10V DIMMABLE
L3	FOCAL POINT	4.5" LED WALL WASH MODEL NO. FLC4W-RO-SW-1500L-120-LD1-T-BH-LC 4-RO-1500L-935K-WW-WH-WP	RECESSED	120V	25W	1500 lm	TBD	90 CRI	3500K	1. 0-10V DIMMABLE



1 DEMO LIGHTING & FIRE ALARM — 2ND FLOOR PLAN
E-200 SCALE 1/8"=1'-0"

GENERAL NOTES

1. IN AREAS WHERE EXISTING DEVICES ARE TO BE REMOVED, CONTRACTOR SHALL ENSURE THAT ANY PORTION OF THE EXISTING SYSTEM THAT IS TO REMAIN IS LEFT SAFE AND A WORKING SYSTEM IS MAINTAINED.
2. ELECTRICAL CONTRACTOR SHALL ENSURE THAT THE FIRE ALARM SYSTEM BOUNDED BY AREA UNDER RENOVATION REMAINS INTACT DURING AND AFTER COMPLETION OF CONSTRUCTION.
3. REWORK EXISTING CIRCUITING, WIRING, AND RELAYS TO SUIT NEW LAYOUT AS SHOWN ON SHEET E-201.



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Project Title

HISTORY ADMIN
AREA REFRESH

100 ST. GEORGE STREET

Drawing Sheet Title

DEMO LIGHTING & FIRE ALARM
- 2ND FLOOR PLAN

Scale	AS NOTED		
Drawn by	AO	Date	APR 11, 2025
Checked by	VC		
Project Number	24-517		
Drawing Number	E-200		

North Point





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HISTORY ADMIN
AREA REFRESH

100 ST. GEORGE STREET

Drawing Sheet Title

NEW LIGHTING & FIRE ALARM -
2ND FLOOR PLAN

Scale AS NOTED

Drawn by AO Date APR 11, 2025

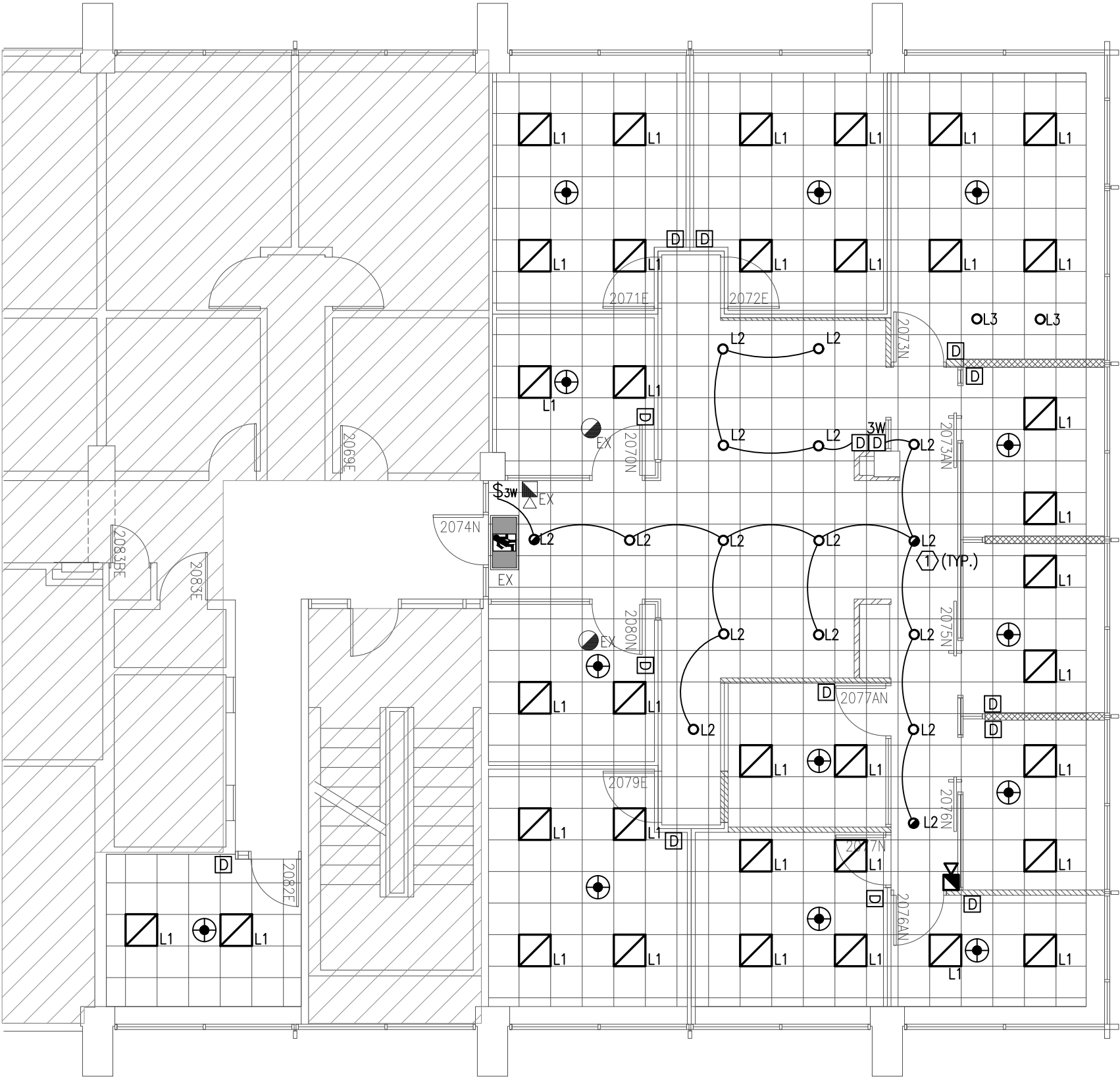
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Project Number

24-517



Drawing Number
E-201



GENERAL NOTES

1. ALL NEWLY-INSTALLED LIGHTING FIXTURES SHALL BE CHAIN HUNG AT BOTH ENDS.
2. ENSURE WALL SWITCHES ARE NOT MOUNTED BEHIND DOORS.
3. NEW LUMINAIRES SHALL BE FED FROM EXISTING LIGHTING CIRCUIT.
4. ALL CEILING MOUNTED OCCUPANCY SENSORS SHALL BE LEGRAND WATTSTOPPER DT-355 OAE.
5. ALL WALL MOUNTED DIMMER SWITCHES SHALL BE LEGRAND WATTSTOPPER RADIANT RH4FBL3PW.
6. OCCUPANCY SENSOR AND DIMMING SWITCH INSIDE OFFICES SHALL CONTROL ALL LUMINAIRES IN RESPECTIVE OFFICE.
7. REWORK EXISTING CIRCUITRY, WIRING, AND RELAYS AS REQUIRED TO SUIT THE NEW LAYOUT AS SHOWN. LUMINAIRES TO BE CONNECTED TO EXISTING LIGHTING CIRCUITS IN PANEL "LP-2C"
8. NEW WALL MOUNTED SWITCHES AND DIMMERS ADJACENT TO EACH OTHER SHALL BE GANGED UNDER COMMON COVERPLATE.

DRAWING NOTES

1. HALF HATCH PATTERN DENOTES LIGHT FIXTURE TO BE ON EMERGENCY LIGHTING CIRCUIT.

1 NEW LIGHTING & FIRE ALARM - 2ND FLOOR PLAN
E-201 SCALE 1/8"=1'-0"



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**HISTORY ADMIN
AREA REFRESH**

100 ST. GEORGE STREET

Drawing Sheet Title

**DEMO POWER & SYSTEMS - 2ND
FLOOR PLAN**

Scale AS NOTED

Drawn by AO Date APR 11, 2025

Checked by VC

Project Number

24-517



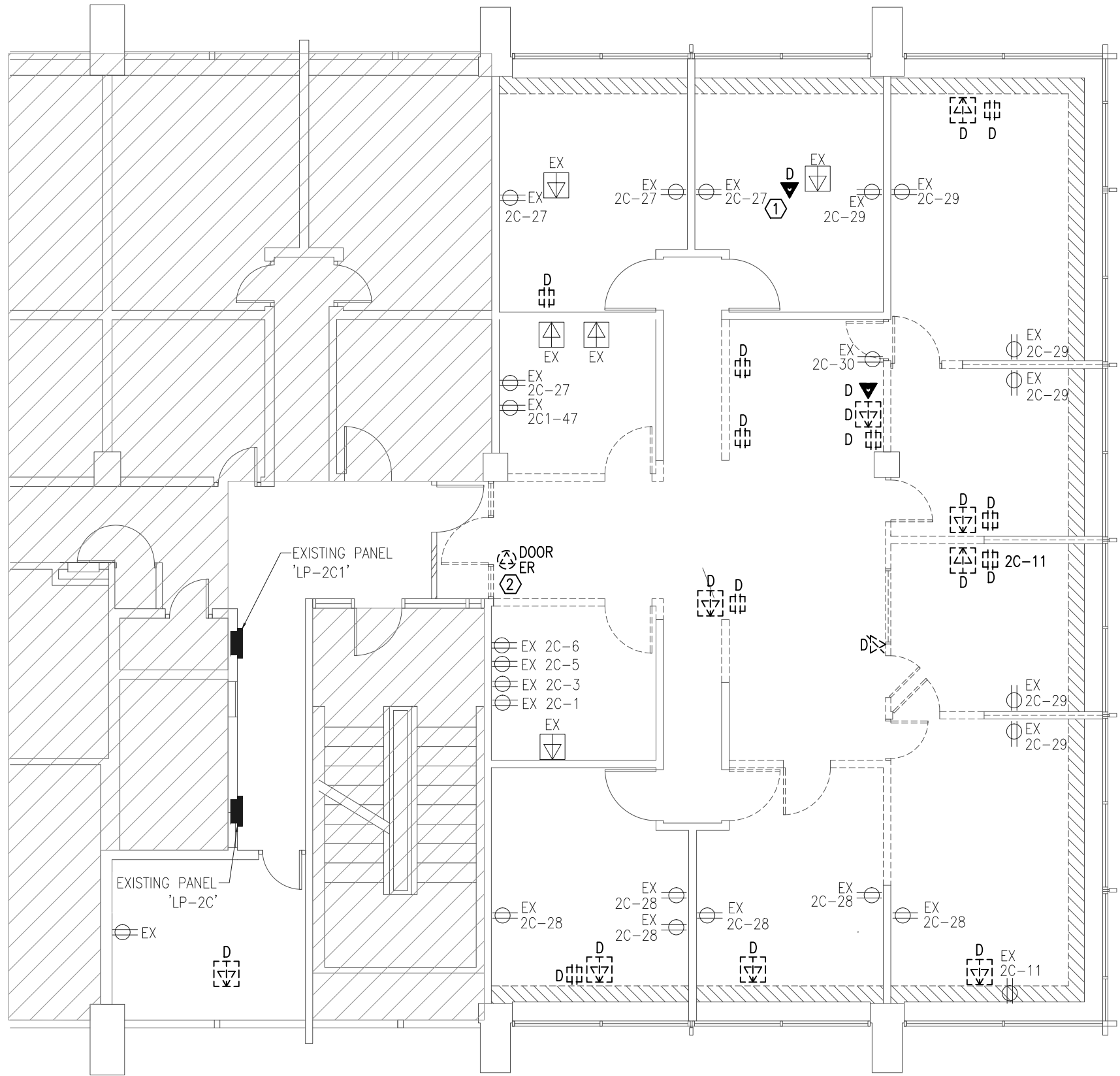
Drawing Number
E-300

GENERAL NOTES

1. REMOVE ALL REDUNDANT WIRING, CABLES, CONDUIT AND OTHER DEVICES MOUNTED ON DEMOLITION WALLS AND IN CEILING SPACE NOT SHOWN ON PLAN.
2. IN AREAS WHERE EXISTING DEVICES ARE TO BE REMOVED, CONTRACTOR SHALL ENSURE THAT ANY PORTION OF THE EXISTING SYSTEM THAT IS TO REMAIN IS LEFT SAFE AND A WORKING SYSTEM IS MAINTAINED.

DRAWING NOTES

- ① FLOOR-MOUNTED VOICE OUTLET TO BE REMOVED TO SOURCE. FLOOR MONUMENT FOR DATA TO REMAIN.
- ② EXISTING SALTO DOOR SECURITY SYSTEM TO BE REMOVED AND REINSTALLED ON NEW DOOR.



1 DEMO POWER & SYSTEMS - 2ND FLOOR PLAN
E-300 SCALE 1/8"=1'-0"



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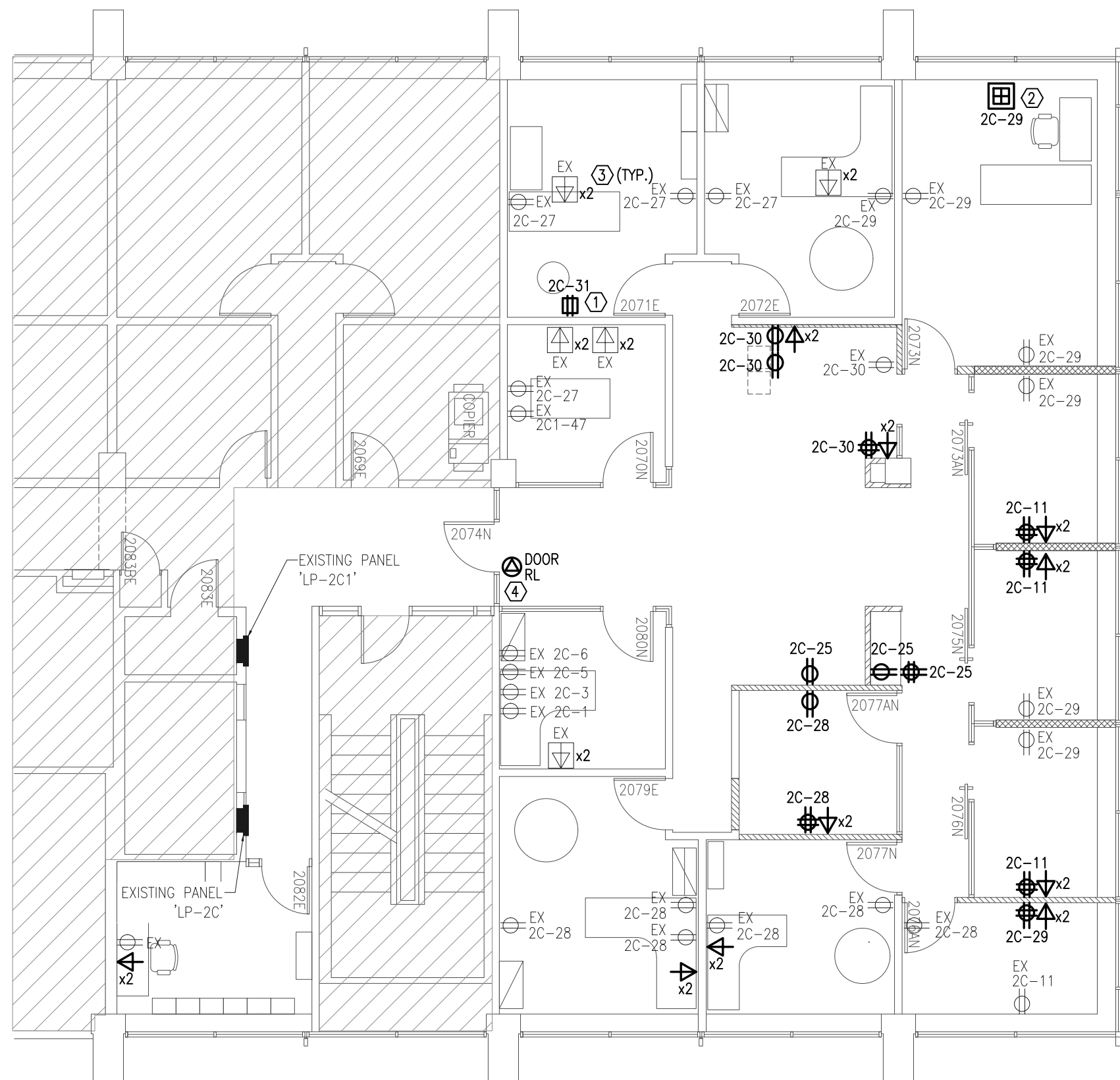
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GENERAL NOTES

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT MOUNTING HEIGHTS AND FINISHES OF ALL ELECTRICAL DEVICES.
2. PROVIDE PLENUM-RATED CAT6 CABLING C/W MODULAR JACK INSERT FOR ALL DATA OUTLET LOCATIONS. RE-USE EXISTING CAT6 CABLING WHERE POSSIBLE. CABLE INSTALLATIONS SHALL ABIDE BY UoFT NETWORKING HARDWARE & CABLING STANDARDS.
3. EMT CONDUIT IN AREAS NOT SCHEDULED FOR ABATEMENT SHALL BE BELOW CEILING. EMT CONDUIT FOR DATA CABLES IN ABATED AREAS SHALL BE ABOVE CEILING. TERMINATE EMT CONDUIT IN IT ROOM 2092. REFER TO KEY PLAN ON SHEET E-102 FOR IT ROOM LOCATION.
4. CIRCUITING SHOWN IS DIAGRAMMATIC ONLY. CONNECT TO NEW OR SPARE CIRCUITS MADE AVAILABLE BY THESE CHANGES. ELECTRICAL CONTRACTOR TO SHOW ACTUAL CIRCUIT CONNECTIONS ON 'AS-BUILT' DRAWINGS.

DRAWING NOTES

- ① 2-GANG MONUMENT TO SERVICE QUAD RECEPTACLE SHALL BE LEGRAND 50002C-B.
- ② 4-GANG MONUMENT TO SERVICE QUAD RECEPTACLE AND 2 CAT6A DATA PORTS SHALL BE LEGRAND 50004-B.
- ③ ALL COMMUNICATIONS SERVICING EXISTING DATA FLOOR BOXES TO BE UPGRADED TO 2 CAT6A CONNECTIONS.
- ④ EXISTING SALTO DOOR SECURITY SYSTEM TO BE REMOVED AND REINSTALLED ON NEW DOOR.

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HISTORY ADMIN AREA REFRESH

100 ST. GEORGE STREET

Drawing Sheet Title

NEW POWER & SYSTEMS - 2ND FLOOR PLAN

Scale	AS NOTED
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Drawn by	AO	Date	APR 11. 2025
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Checked by	VC
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	North Point
Project Number	

24-517

	Drawing Number E-301
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1 NEW POWER & SYSTEMS — 2ND FLOOR PLAN
E-301 SCALE 1/8"=1'-0"

MECHANICAL LEGEND							
SYMBOL		DESCRIPTION		SYMBOL		DESCRIPTION	
		EXISTING DUCTS, PIPES & EQUIPMENT TO REMAIN				EXISTING HUMIDISTAT TO REMAIN	
		DUCTS, PIPES & EQUIPMENT TO BE REMOVED				NEW HUMIDISTAT	
		NEW DUCT OR PIPE				NEW CONDENSATE DRAIN	
		NEW DUCT OR EQUIPMENT				EXISTING CONDENSATE DRAIN TO REMAIN	
		NEW FLEXIBLE DUCT				HEATED WATER SUPPLY	
		DUCT WITH 25mm(1") ACOUSTIC LINING				EXISTING HEATED WATER SUPPLY TO REMAIN	
		DUCT WITH 25mm(1") ACOUSTIC LINING				NEW HEATED WATER RETURN	
		NEW CAP ON EXISTING DUCT OR PIPE				EXISTING HEATED WATER RETURN TO REMAIN	
		NEW CAP ON EXISTING DUCT				NEW CHILLED WATER SUPPLY	
		EXISTING VAV BOX TO REMAIN				EXISTING CHILLED WATER SUPPLY TO REMAIN	
		REMOVE OR RELOCATE				NEW CHILLED WATER RETURN	
		NEW VAV BOX				EXISTING CHILLED WATER RETURN TO REMAIN	
		NEW SUPPLY AIR DIFFUSER				NEW CONDENSER WATER SUPPLY	
		NEW RETURN GRILLE				EXISTING CONDENSER WATER SUPPLY TO REMAIN	
		NEW RETURN GRILLE				NEW CONDENSER WATER RETURN	
		EXISTING RETURN GRILLE TO REMAIN				EXISTING CONDENSER WATER RETURN TO REMAIN	
		EXISTING THERMOSTAT TO REMAIN				NEW FIRE DAMPER	
		REMOVE OR RE-USE WHERE SHOWN AS NEW				NEW SMOKE DAMPER	
UC		DOOR UNDERCUT				NEW MANUAL BALANCING DAMPER	
DG		DOOR GRILLE				NEW VOLUME DAMPER	
		NEW THERMOSTAT		VTR		VENT THROUGH ROOF	
		FAN SWITCH		DTF		DOWN THROUGH FLOOR	
		EXISTING ISOLATION VALVE				NEW SANITARY DRAIN	
		NEW ISOLATION VALVE				NEW SANITARY DRAIN UNDER FLOOR	
		EXISTING BALL VALVE TO REMAIN				NEW STORM DRAIN	
		NEW BALL VALVE				NEW STORM DRAIN UNDER FLOOR	
		EXISTING CONTROL VALVE TO REMAIN				P-TRAP	
		NEW CONTROL VALVE				EXISTING DOMESTIC COLD WATER TO REMAIN	
		NEW PRESSURE REDUCING VALVE				EXISTING DOMESTIC HOT WATER TO REMAIN	
		NEW CIRCUIT BALANCING VALVE				EXISTING DOMESTIC HOT WATER RECIRCULATION	
		NEW THREE WAY AUTOMATIC CONTROL VALVE				NEW DOMESTIC COLD WATER	
VTR		VENT THROUGH ROOF				NEW DOMESTIC HOT WATER	
DTF		DOWN THROUGH FLOOR				NEW DOMESTIC HOT WATER RECIRCULATION	
		EXISTING SANITARY DRAIN TO REMAIN				NEW SANITARY VENT PIPE	
		EXISTING SANITARY DRAIN UNDER FLOOR				EXISTING SANITARY VENT PIPE TO REMAIN	
		EXISTING STORM DRAIN TO REMAIN				NEW NATURAL GAS PIPE	
		EXISTING STORM DRAIN UNDER FLOOR					

DRAWING LIST	
DWG NO	DRAWING TITLE
M-100	MECHANICAL LEGEND & DRAWING LIST
M-101	MECHANICAL SPECIFICATION #1
M-102	MECHANICAL SPECIFICATION #2
M-103	MECHANICAL SPECIFICATION #3
M-200	DETAILS & SCHEDULES
M-300	DEMO HVAC – 2ND FLOOR PLAN
M-301	NEW HVAC – 2ND FLOOR PLAN

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AREA REFRESH**

100 ST.GEORGE STREET

Drawing Sheet Title

**MECHANICAL LEGEND &
DRAWING LIST**

Scale	AS NOTED		
Drawn by	JK	Date	DEC 13, 2024
Checked by	CS		
Project Number	24-517	North Point	
Drawing Number	M-100		

GENERAL

PERFORM ALL MECHANICAL WORK DETAILED ON THESE DRAWINGS TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL OPERATING SYSTEM TO THE SATISFACTION OF THE MECHANICAL CONSULTANT.

EQUIPMENT SUBSTITUTIONS AFTER AWARD OF CONTRACT WILL NOT BE CONSIDERED WITHOUT WRITTEN EXPLANATION AND CONSULTANT’S WRITTEN AUTHORIZATION. THE QUALITY AND PERFORMANCE CHARACTERISTICS OF SUBSTITUTED PRODUCT SHALL BE EQUIVALENT TO THE SPECIFIED PRODUCT. ALL SUBSTITUTE PRODUCTS SHALL BE APPROVED BY CONSULTANTS. ANY ADDITIONAL COSTS INCURRED BY ALL TRADES FOR SUBSTITUTED EQUIPMENT INSTALLATION MUST BE INCURRED BY THIS CONTRACT.

BASE BUILDING STANDARDS SHALL FORM THE BASIS FOR THIS CONSTRUCTION. COMPLY WITH LANDLORD’S REQUIREMENTS FOR SYSTEM SHUTDOWN AND CONNECTION.

CODES AND BYLAWS SHALL BE STRICTLY ADHERED TO. OBTAIN NECESSARY PERMITS, APPROVALS AND INSPECTIONS FROM THE AUTHORITIES HAVING JURISDICTION.

PERMITS AND FEES REQUIRED BY THE AUTHORITIES HAVING JURISDICTION SHALL BE OBTAINED AND PAID FOR BY THIS CONTRACTOR. INCLUDE ALL APPLICABLE TAXES.

EXISTING SITE CONDITIONS AFFECTING THE WORK OF THIS TRADE SHALL BE REVIEWED PRIOR TO TENDER SUBMISSION. FAILURE TO DO SO SHALL NOT RELIEVE CONTRACTOR OF FULL CONTRACT RESPONSIBILITY.

CUTTING, PATCHING AND CORE DRILLING REQUIRED BY THIS TRADE SHALL BE PAID FOR BY THIS CONTRACTOR. X-RAY CONCRETE STRUCTURE IN ACCORDANCE WITH OWNER/LANDLORD STRUCTURAL ENGINEER’S REQUIREMENTS. PROVIDE DETAILS OF NEW OPENING THROUGH STRUCTURAL COMPONENTS FOR ENGINEER’S APPROVAL. INCUR ALL COSTS RELATED FOR STRUCTURAL APPROVAL.

FIRE STOP SHALL BE ULC LISTED FOR THE REQUIRED SEPARATION AND PROVIDED AT ALL PIPE PENETRATIONS THROUGH RATED ASSEMBLIES.

PREMIUM TIME COSTS SHALL BE INCLUDED FOR WORK OUTSIDE OF NORMAL WORKING HOURS.

SHOP DRAWINGS SHALL BE COMPLETE WITH CONTRACTORS REVIEWED STAMP. SUBMIT ONE ELECTRONIC COPY. ALLOW ONE (1) WEEK FOR ENGINEERS REVIEW.

CONTROL WIRING AND DEVICES SHALL BE PROVIDED UNDER THIS CONTRACT. WHEN REQUIRED, CONTROL WORK SHALL BE COMPLETED BY OWNER’S/LANDLORD’S APPROVED CONTRACTOR AND PAID FOR UNDER THIS CONTRACT.

ELECTRICAL DEVICES SHALL BE PROVIDED FOR ALL LOAD SIDES INCLUDING WIRING, STARTERS, DISCONNECT, ETC. VERIFY AND COORDINATE VOLTAGE AND PHASE WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT.

ACCESS DOORS SHALL BE PROVIDED FOR ALL INACCESSIBLE MECHANICAL EQUIPMENT AND SERVICES REQUIRING INSPECTION OR SERVICE. FINISH SHALL SUIT DESIGNERS REQUIREMENTS. ACCESS DOORS SHALL BE RECESSED AS REQUIRED TO SUIT WALL FINISH (EG. TILE.)

ENGINEERS FINAL INSPECTION IS IMPERATIVE. PRIOR TO INSTALLATION OF ALL CEILINGS, THIS CONTRACTOR SHALL CONTACT CHRIS SZYBALSKI (AQUILA GROUP) AT CSZYBALSKI@THEAQUILAGROUP.COM TO PERFORM A FINAL INSPECTION. WHEN CEILING TILES HAVE BEEN INSTALLED IT WILL BE NECESSARY FOR THE CONTRACTOR TO REMOVE PORTIONS FOR INSPECTION.

ONE YEAR WRITTEN WARRANTY SHALL BE PROVIDED FOR THE COMPLETE MECHANICAL INSTALLATION FROM DATE OF ACCEPTANCE.

CAD AS–BUILT DRAWINGS SHALL BE COMPLETED UTILIZING AUTOCAD. OBTAIN AND PAY FOR DRAWING DISKETTE (\$150.00 PER DRAWING). RECORD ACCURATELY INSTALLED WORK ON WHITE PRINTS TRANSFERRING TO AUTOCAD. SUBMIT BOTH COPIES.

OPERATING AND MAINTENANCE MANUALS CONTAINING APPROVED SHOP DRAWINGS, AIR AND WATER BALANCING REPORTS, EQUIPMENT DATA SHEETS, WRITTEN WARRANTY, OPERATING INSTRUCTIONS AND MAINTENANCE PROCEDURES SHALL BE SUBMITTED TO CONSULTANT FOR REVIEW. MANUALS SHALL BE SEPARATED WITH DIVIDERS IN APPROPRIATE SECTIONS. MAKE ALL CORRECTIONS REQUESTED BY CONSULTANT AND RESUBMIT FOR REVIEW. WHEN THERE IS APPARENT CONTRADICTION OR AMBIGUITY IN THE DOCUMENTS, OR WHERE THERE ARE APPARENT DISCREPANCIES IN OR OMISSIONS FROM THE DOCUMENTS, OR IF THERE IS ANY DOUBT AS TO THE INTENT OF THE DOCUMENTS, THE BIDDER SHALL REQUEST AND OBTAIN WRITTEN CLARIFICATIONS(S) FROM THE CONSULTANT PRIOR TO SUBMITTING A TENDER. CONSIDERATION SHALL NOT BE GRANTED FOR MISUNDERSTANDING OF THE INTENT OF THE DOCUMENTS OR THE EXTENT OF THE WORK TO BE PERFORMED. CHANGE NOTICE QUOTATIONS SHALL BE SUBMITTED COMPLETE WITH COST BREAKDOWN OF LABOUR AND MATERIALS. FAILURE TO PROVIDE WILL RESULT IN REJECTION. ALL MECHANICAL CHANGE NOTICES SHALL BE PRICED IN ACCORDANCE WITH "MECHANICAL CONTRACTORS ASSOCIATION" (MCA). LABOUR UNITS STRICTLY FOR LABOUR AND FOR MATERIAL COST USE "ALLPRISER" LESS 50% DISCOUNT FOR PIPE AND FITTINGS, 35% DISCOUNT FOR INSULATION, AND 25% FOR VALVES AND OTHER MATERIALS.

TEMPORARY FILTERS 25MM (1 IN.) SHALL BE PROVIDED AT ALL BASE BUILDING RETURN AIR OPENINGS WHICH REMAIN OPERATIONAL DURING CONSTRUCTION. FILTERS TO BE REPLACED WEEKLY. REMOVE UPON CONSTRUCTION COMPLETION.

CONTRACTOR SHALL ACCOUNT FOR ANY PIPE FREEZES OR HOT TAPS AS REQUIRED TO COMPLETE THE PROJECT WITHIN THE TIME PERIOD REQUIRED BY THE CLIENT. DRAINDOWNS SHALL BE COMPLETED BY THE CONTRACTORS OWN FORCES, UNLESS ADVISED OTHERWISE BY THE CLIENT IN WRITING. THE CONTRACTOR SHALL ALLOW FOR THE MORE EXPENSIVE OF THE OPTIONS (DRAINDOWN, PIPE FREEZES, OR HOT TAPPING) UNLESS SPECIFICALLY ADVISED OTHERWISE.

MECHANICAL DEMOLITION

PROVIDE LABOUR, MATERIALS, PRODUCTS, EQUIPMENT AND SERVICES REQUIRED TO COMPLETE THE DEMOLITION WORK SPECIFIED HEREIN. REFER TO DRAWINGS

FOR EXTENT OF DEMOLITION WORK. THE DRAWINGS INDICATE THE APPROXIMATE LOCATIONS OF SERVICES AS FAR AS THESE ARE KNOWN. DISPOSE, OFF SITE, OF ALL DEBRIS IN ACCORDANCE WITH THE JURISDICTIONAL AUTHORITIES.

REMOVAL AND STORAGE OF SALVAGEABLE ITEMS AS DIRECTED BY THIS SPECIFICATION SECTION UND THE OWNER OF THEIR REPRESENTATIVE.

MEET THE REQUIREMENTS AND RECOMMENDATIONS OF ALL MUNICIPAL, PROVINCIAL AND FEDERAL BYLAWS AND ORDINANCES. EXECUTE THIS WORK IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS. CAN/CSA–S350–M1980 CODE OF PRACTICE FOR SAFETY IN DEMOLITION OF STRUCTURES. ONTARIO BUILDING CODE. OCCUPATIONAL HEALTH AND SAFETY ACT. REGULATIONS FOR CONSTRUCTION PROJECTS.

ONTARIO FIRE CODE. REGULATIONS UNDER FIRE MARSHALS ACT.

REMOVAL FROM SITE AND DISPOSAL OF DEBRIS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL JURISDICTIONAL AUTHORITIES. ARRANGE AND PAY FOR ALL PERMITS, NOTICES AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE DEMOLITION WORK. ALL MATERIALS WHICH HAVE NOT BEEN DESIGNATED FOR SALVAGE FROM THE DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR. REMOVE ALL MATERIAL AND DEBRIS FROM THE SITE AS QUICKLY AS POSSIBLE AND DISPOSE OF LEGALLY. BURNING OF DEBRIS OR SELLING OF MATERIALS ON THE SITE WILL NOT BE PERMITTED. CONFORM TO REQUIREMENTS OF MUNICIPALITY’S WORKS DEPARTMENT REGARDING DISPOSAL OF WASTE MATERIALS. MATERIALS PROHIBITED FROM MUNICIPALITY WASTE MANAGEMENT FACILITIES SHALL BE REMOVED FROM SITE AND DISPOSED OF THROUGH RECYCLING COMPANIES SPECIALIZING IN RECYCLABLE MATERIALS. AT THE END OF EACH WORK SHIFT, LEAVE WORK IN A SAFE CONDITION. PATCH FIRE RATED PARTITIONS AND FLOORS TO MAINTAIN RATING UPON REMOVAL OF MECHANICAL SERVICES ORIGINALLY SPANNING FIRE RATED ASSEMBLIES. DEMOLISH WORK INTO SECTIONS OF PRACTICAL SIZE FOR REMOVAL WITHOUT ALTERATION OR DAMAGE TO EXISTING BUILDING. STORE MATERIALS ONLY IN AREAS DESIGNATED BY THE OWNER AND AS PERMITTED BY THE LOCAL JURISDICTIONAL AUTHORITIES. MATERIALS AND DEBRIS SHALL NOT BE STACKED IN BUILDING TO THE EXTENT THAT OVERLOADING OF ANY PART OF THE STRUCTURE WILL OCCUR.

CONFER WITH THE OWNER CONCERNING SCHEDULE, DUST AND NOISE CONTROL PRIOR TO COMMENCING WORK IN OR ADJACENT TO EXISTING FACILITIES WHERE SUCH WORK MIGHT AFFECT EITHER THOSE FACILITIES OR THEIR OCCUPANTS. EXECUTE WORK WITH LEAST POSSIBLE INTERFERENCE OR DISTURBANCE TO OCCUPANTS, PUBLIC AND NORMAL USE OF PREMISES. PROVIDE TEMPORARY MEANS TO MAINTAIN SECURITY WHEN SECURITY HAS BEEN REDUCED BY DIVISION 15.

ONLY ELEVATORS, DUMBWAITERS, CONVEYORS OR ESCALATORS ASSIGNED FOR CONTRACTOR’S USE MAY BE USED FOR MOVING MEN AND MATERIAL WITHIN BUILDING. PROTECT WALLS OF PASSENGER ELEVATORS, TO APPROVAL OF OWNER PRIOR TO USE. ACCEPT LIABILITY FOR DAMAGE, SAFETY OF EQUIPMENT AND OVERLOADING OF EXISTING EQUIPMENT.

PROVIDE TEMPORARY DUST SCREENS, BARRIERS, WARNING SIGNS IN LOCATIONS WHERE RENOVATIONS AND ALTERNATION WORK IS ADJACENT TO AREAS WHICH WILL BE OPERATIVE DURING WORK.

PROTECT ALL MECHANICAL SYSTEMS, INDICATED TO REMAIN, FROM DAMAGE. PROVIDE AND MAINTAIN READY ACCESS TO FIREFIGHTING EQUIPMENT AT ALL TIMES. PROVIDE AND MAINTAIN PROPER AND SUITABLE FIRE EXTINGUISHERS THROUGHOUT THE DURATION OF THE WORK.



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100 ST.GEORGE STREET

Drawing Sheet Title

MECHANICAL SPECIFICATION #1

Scale AS NOTED	
Drawn by JK	Date DEC 13, 2024
Checked by CS	
Project Number	North Point 
24-517	Drawing Number M-101

THE DRAWINGS INDICATE THE APPROXIMATE LOCATIONS OF SERVICES AS FAR AS THESE ARE KNOWN. SHOULD ANY MECHANICAL OR ELECTRICAL SERVICE LINE BE BROKEN, OR DISRUPTED BY OPERATIONS SPECIFIED UNDER THIS CONTRACT, REPAIR SERVICE LINES, AND MAKE GOOD ALL DAMAGE DUE TO THE DISRUPTION OR BREAK, AT NO EXPENSE TO THE OWNER. NOTIFY THE OWNER IMMEDIATELY WHENEVER ANY SERVICE LINE IS BROKEN OR DAMAGED.

DEMOLISH AND REMOVE ALL REDUNDANT AND OBSOLETE CONTROLS (I.E. PNEUMATIC TUBING) AND/OR MECHANICAL EQUIPMENT (I.E. EXHAUST FANS, TRANSFER DUCTS, AIR TERMINAL UNIT) WHICH ARE NOT IDENTIFIED TO REMAIN ON NEW LAYOUT PLANS.

ACCEPT LIABILITY FOR COSTS INCURRED BY THE OWNER IN REPAIRING AND CLEANING EQUIPMENT, ETC., RESULTING FROM FAILURE TO COMPLY WITH THE ABOVE REQUIREMENTS.

CLEAN UP

DURING THE PROCESS OF WORK EACH CONTRACTOR SHALL KEEP HIS WORK TIDY. THE PREMISES SHALL AT ALL TIMES BE FREE FROM RUBBISH AND SURPLUS MATERIALS, CLEAN DAILY.

PROTECTING--TRADES

DIVISION 15 IS ENTIRELY FINANCIALLY RESPONSIBILITY FOR ALL DAMAGE TO PROPERTY OR ADJACENT PROPERTY, ARISING OF THE WORK OF THIS CONTRACTOR, WHETHER CAUSED BY HIMSELF OR ANY PERSONS ENGAGED ON HIS WORK.

DIVISION 15 CONTRACTORS ARE RESPONSIBLE TO ENSURE THAT THEIR EMPLOYEES AND SUB--TRADES USE ONLY SAFE PRACTICES AND CONDITIONS, OBSERVE ALL SAFETY REGULATIONS, SECURITY REGULATIONS AND FIRE SAFETY RULES.

DUCTWORK

NEW MATERIAL AND EQUIPMENT SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH BASE BUILDING STANDARDS.

DUCTWORK AND HANGERS SHALL BE FABRICATED IN ACCORDANCE WITH THE LATEST SMACNA STANDARDS.

FLEXIBLE DUCTWORK SHALL BE FLEXMASTER TRIPLE LOC OR EQUAL, SPIRAL WOUND ALUMINUM. SECURE TO RIGID DUCT USING GEAR CLAMPS. FLEXIBLE DUCTS SERVING DIFFUSERS SHALL BE INSTALLED AS ONE CONTINUOUS PIECE AND SHALL NOT EXCEED 10'-0" LENGTHS.

AT THE INLET OF EACH VAV TERMINAL CONTROL UNIT, PROVIDE A MINIMUM OF 3 DIAMETERS OF STRAIGHT SPIRAL (RIGID ROUND) DUCT. MAXIMUM LENGTH 1200 MM [4 FT.-0 IN.].

FIRE DAMPER SHALL BE OUT OF STREAM ULC LABELED. PROVIDE FIRE DAMPERS AS REQUIRED IN NEW AND EXISTING DUCTWORK C/W ACCESS DOORS.

ACOUSTIC DUCT LINING 25MM [1 IN.] SHALL BE PROVIDED WHERE SHOWN ON DRAWINGS. SECURE WITH MECHANICAL FASTENERS AND ADHESIVE. SEAL RAW EDGES. NOTE DUCT DIMENSIONS ARE CLEAR INSIDE.

THERMAL INSULATION WITH VAPOUR BARRIER SHALL BE PROVIDED ON ALL NEW SUPPLY AIR DUCTWORK TO MATCH BASE BUILDING STANDARDS OR REFER TO INSULATION SECTION.

FLEXIBLE DUCT CONNECTIONS SHALL BE DURODYNE NEOPRENE AND INSTALLED BETWEEN ALL AIR HANDLING EQUIPMENT AND SYSTEM DUCTWORK.

AIR TRANSFER OPENINGS INDICATED WITHOUT DUCT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO ADVISE AND CONFIRM PROVISION BY GENERAL TRADES.

BALANCING AND VOLUME CONTROL DAMPERS SHALL BE PROVIDED IN NEW OR EXISTING DUCTWORK TO PROVIDE A COMPLETE AND BALANCED SYSTEM. BALANCING CONTRACTOR SHALL BE A MEMBER OF AABC OR NEBB. SUBMIT BALANCING REPORT IN TRIPLICATE TO THE CONSULTANT AND THE LANDLORD INDICATING TERMINAL DESIGN AND MEASURED FLOW RATES. WHEN REQUIRED, BALANCING WORK SHALL BE COMPLETED BY OWNER'S/LANDLORD'S APPROVED CONTRACTOR AND PAID FOR UNDER THIS CONTRACT. PROVIDE SIX (6) ADDITIONAL HOURS OF BALANCING WORK. THIS WORK SHALL BE PERFORMED AFTER THE TENANT HAS MOVED IN, AS MAY BE REQUIRED FOR COMFORT BALANCING.

FAN SHEAVES SHALL BE ADJUSTED OR REPLACED AS REQUIRED TO OBTAIN DESIGN AIR QUANTITIES. COORDINATE THIS WORK WITH OWNER/LANDLORD.

INSULATION

PIPING INSULATION

PROVIDE ALL LABOUR, MATERIALS, PRODUCTS, EQUIPMENT AND SERVICES TO SUPPLY AND INSTALL THERMAL INSULATION, VAPOUR BARRIERS AND FINISHES FOR MECHANICAL WORK AS INDICATED ON THE DRAWINGS AND SPECIFIED IN THIS SECTION OF THESE SPECIFICATIONS.

MAINTAIN AMBIENT TEMPERATURES AND CONDITIONS REQUIRED BY MANUFACTURERS OF ADHESIVES, MASTICS AND INSULATING CEMENTS.

INSULATION MATERIALS MUST BE MANUFACTURED AT FACILITIES CERTIFIED AND REGISTERED WITH AN APPROVED REGISTRAR TO CONFORM TO ISO 9000 QUALITY STANDARD.

ALL INSULATION PERTAINING TO DIVISION 15 SHALL BE CARRIED OUT BY ONE FIRM SPECIALIZING IN INSULATION WORK. DO NOT MIX SIMILAR PRODUCTS OF MULTIPLE MANUFACTURERS.

ACCEPTABLE INSULATION MANUFACTURERS ARE OWENS CORNING CANADA, JOHNS MANVILLE, MANSON INSULATION INC. KNAUF FIBER GLASS AND CERTAINTED.

PROVIDE INSULATION AND COVERS IN STRICT ACCORDANCE WITH AUTHORITIES GOVERNING COMBUSTIBILITY AND FIREPROOFING OF MATERIALS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

PROVIDE NON-COMBUSTIBLE INSULATION, JACKETS AND FINISHES HAVING A FLAME SPREAD/SMOKE DEVELOPED RATING OF 25/50 OR LESS, MEETING CAN/ULC S-102 REQUIREMENTS.

ATTAIN A COMPLETE AND CONTINUOUS VAPOUR BARRIER OVER INSULATION APPLIED TO COLD AND DUAL TEMPERATURE PIPING, SHEET METAL AND EQUIPMENT. USE EITHER FACTORY APPLIED VAPOUR BARRIER JACKET OF FIELD APPLIED REINFORCED FOIL FLAME RESISTANT KRAFT VAPOUR BARRIER JACKET. APPLY TO PIPING AND FITTINGS, VALVES AND INLINE COMPONENTS, SHEET METAL AND FITTINGS AND EQUIPMENT. SEAL LONGITUDINAL AND CIRCUMFERENTIAL LAPS WITH CHILDERS CP82 OR BAKOR 230-39 ADHESIVE. IF VAPOUR BARRIER JACKET IS NOT LAPPED, SEAL JOINTS WITH SELF-ADHERING 4" WIDE PLAIN ALUMINUM FOIL TAPE, OR ADHERE 4" WIDE ALUMINUM FOIL TAPE WITH CHILDERS CP82 OR BAKOR 230-39 ADHESIVE. JACKETING WITH SELF-ADHESIVE LAPS AND SELF-ADHESIVE BARRIER TAPE WILL BE AN ACCEPTABLE ALTERNATIVE CLOSURE SYSTEM.

PROVIDE INSULATION MATERIALS WITH A MINIMUM THERMAL CONDUCTIVITY OF 0.24BTU.IN/(HR. SQ.FT.F) AT 100°F MEAN TEMPERATURE.

ON HOT PIPING APPLICATIONS, HOLD INSULATION IN PLACE WITH FLARE TYPE STAPLES (OUTWARD CLINCH).

ON COLD PIPING APPLICATIONS, APPLY VAPOUR BARRIER JACKET OVER INSULATION AND SEAL LONGITUDINAL AND CIRCUMFERENTIAL LAPS WITH CHILDERS CP82 OR BAKELITE 230-39 ADHESIVE. SEAL ALL PIPE TERMINATIONS, INCLUDING FITTINGS, WALL PENETRATIONS AND PIPE SUPPORTS WITH VAPOUR BARRIER MASTIC. FOR CHILLED WATER SYSTEMS PROVIDE VAPOUR SEAL PIPE TERMINATIONS EVERY FOUR PIPE SECTIONS.

APPLY PIPE INSULATION OVER 1-1/2" THICKNESS IN TWO LAYERS WITH JOINTS STAGGERED.

INSULATE FITTINGS WITH FABRICATED MITERED OR PREFORMED SECTIONS OF SPECIFIED INSULATION.

INSULATE OVER FLANGES AND MECHANICAL COUPLINGS WITH SPECIFIED INSULATION AND THICKNESS, SIZED TO SUIT FLANGE DIAMETERS. FILL SPACES BETWEEN INSULATION AND ADJOINING PIPE INSULATION WITH SIMILAR MATERIAL.

INSULATE VALVES AND INLINE COMPONENTS WITH FLEXIBLE INSULATION DENSITY (3/4 LBS./CU.FT.) COMPRESSED NOT MORE THAN 50% OF ORIGINAL THICKNESS. BUILD UP TO SPECIFIED THICKNESS WITH APPROVED ASBESTOS FREE FINISHING CEMENT.



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100 ST.GEORGE STREET

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MECHANICAL SPECIFICATION #2

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DO NOT INSULATE TERMINAL UNIT AUTOMATIC CONTROL VALVES INSTALLED IN HOT PIPING. DO NOT INSULATE TERMINAL UNIT AUTOMATIC CONTROL VALVES WHICH ARE INSTALLED IN COLD PIPING AND WHICH ARE LOCATED OVER CONDENSATE DRAIN PANS.

UNDER ALL HANGERS USED ON CHILLED WATER AND DOMESTIC COLD WATER, PROVIDE AN INSERT BETWEEN SUPPORT SHIELD AND PIPING FOR PIPING 1–1/2”Ø OR LARGER.

PROVIDE THE FOLLOWING PIPE INSULATION TYPE AS INDICATED IN THE PIPE INSULATION TABLE BELOW.

‘TYPE P1’ OWENS CORNING 850 PIPE INSULATION, JOHNS MANVILLE MICRO–LOK AP–T PLUS FIBERGLAS PIPE INSULATION, MANSON FIBERGLAS PIPE INSULATION OR KNAUF PIPE INSULATION WITH FACTORY APPLIED ALL PURPOSE VAPOUR BARRIER JACKET WHERE SCHEDULED.

DUTY	INSULATION TYPE	THICKNESS	VAPOUR BARRIER
DOMESTIC COLD WATER			
4” AND LESS	P–1	1/2”	YES
DOMESTIC HOT WATER			
LESS THAN 1–1/2”	P–1	1”	NO
1–1/2” AND LARGER	P–1	1–1/2”	NO
BUILDING HOT WATER			
2” AND LESS	P–1	1”	NO
2–1/2” AND LARGER	P–1	1–1/2”	NO
HORIZONTAL STORM AND SANITARY DRAINAGE			
ALL PIPE SIZES	P–1	1”	YES
HORIZONTAL CONDENSATE DRAINS			
ALL PIPE SIZES	P–1	1/2”	YES

SHEET METAL INSULATION

PROVIDE INSULATION WITH A MINIMUM THERMAL RESISTANCE OF 0.25 BTU.IN/HR. SQ.FT *F AT 75°F MEAN TEMPERATURE.

APPLY VAPOUR BARRIER OVER INSULATION ON COLD TEMPERATURE DUCTWORK.

CIRCULAR SILENCERS AND ACOUSTIC PLENUMS NEED NOT BE EXTERNALLY INSULATED.

DUCTWORK AND CASINGS LINED WITH ACOUSTIC INSULATION 1” OR MORE IN THICKNESS NEED NOT BE EXTERNALLY INSULATED.

PROVIDE THE FOLLOWING DUCTWORK INSULATION TYPE AS INDICATED IN THE DUCTWORK INSULATION TABLE BELOW.

‘TYPE D2’ OWENS CORNING FLEXIBLE DUCT INSULATION, JOHNS MANVILLE MICROLITE TYPE 75 DUCT WRAP, MANSON MICROLITE INSULATION OR KRAFT DUCT WRAP, (3/4LB./CU.FT.) DENSITY WITH FACTORY APPLIED REINFORCED FOIL FACING. ADHERE INSULATION TO DUCT SURFACE WITH CHILDERS CP82 OR BAKELITE 230–39 ADHESIVE, WHICH SHALL BE APPLIED IN STRIPS 6” WIDE AT NOT GREATER THAN 12” CENTERS. BUTT EDGES OF INSULATION TIGHTLY TOGETHER, AND SEAL BREAKS AND JOINTS OF FACING WITH SELF–ADHERING 4” WIDE ALUMINUM TAPE OR ADHERE FOIL WITH CHILDER CP82 OR BAKELITE 230–39 ADHESIVE.

DUTY	INSULATION TYPE	THICKNESS	VAPOUR BARRIER
CONCEALED DUCTWORK UP TO			
TERMINAL CONTROL UNITS	D–2	1”	YES
CONCEALED DUCTWORK FROM AIR TERMINAL			
CONTROL UNIT DISCHARGE TO AIR TERMINALS			
EXCLUDING FLEXIBLE DUCTWORK.	D–2	1”	YES
PROTECT THE WORK OF THIS TRADE FROM BEING DEFACED BY OTHER TRADES. MAKE GOOD ANY DAMAGE AND LEAVE IN PERFECT CONDITION, READY FOR FINAL PAINTING.			
APPLY INSULATION OVER CLEAN DRY SURFACES, FIRMLY BUTTING ALL SECTIONS TOGETHER.			

CONTROLS

MANUFACTURE AND INSTALLATION WHEN REQUIRED SHALL BE BY OWNER’S/LANDLORD’S APPROVED CONTRACTOR.

BUILDING AUTOMATION GRAPHICS SHALL BE REVISED TO SUIT NEW PARTITION LAYOUT AND EQUIPMENT LOCATIONS.

NEW THERMOSTATS SHALL MATCH BASE BUILDING.

MOUNTING HEIGHT SHALL BE 1200 MM [4 FT. 0 IN.] FROM FINISHED FLOOR. COORDINATE LOCATION WITH ARCHITECT/DESIGNER. DO NOT INSTALL IN VICINITY OF ELECTRICAL LIGHTING DIMMERS.

COORDINATE FINAL LOCATION OF THERMOSTATS WITH THE INTERIOR DESIGNER WITHIN 1000MM (40 IN) OF LOCATION SHOWN. ALL RELOCATIONS OUTSIDE OF THIS RANGE SHALL BE REVIEWED WITH THE CONSULTANT.

CLEAN AND RECALIBRATE ALL EXISTING THERMOSTATS UPON COMPLETION OF CONSTRUCTION. SUBMIT REPORT THAT THIS WORK WAS COMPLETED.

PROVIDE ALL NECESSARY EMT CONDUIT, FITTINGS AND WIRE TO PROVIDE A COMPLETE AND OPERATING CONTROL SYSTEM. HARD WIRE ALL ELECTRICAL CONTROL DEVICES INTO THE ASSOCIATED SYSTEM MAGNETIC STARTER. PROVIDE POWER TO CONTROL PANEL FROM THE NEAREST NORMAL POWER ELECTRICAL DISTRIBUTION PANEL.

PERMANENTLY IDENTIFY EACH WIRE, CABLE, CONDUIT AND TUBE AT EACH POINT OF CONNECTION. REMOVE AND DISPOSE OF EXISTING INSTRUMENTATION WHICH BECOMES REDUNDANT IN ACCORDANCE WITH THE OWNER’S DIRECTION.



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100 ST.GEORGE STREET

Drawing Sheet Title

MECHANICAL SPECIFICATION #3

Scale	AS NOTED		
Drawn by	JK	Date	DEC 13, 2024
Checked by	CS		
Project Number		North Point	
24-517		Drawing Number	M-103

AIR TERMINAL SCHEDULE					
TAG	MANUFACTURER	MODEL	FACE SIZE	NECK SIZE	DESCRIPTION
A	EH PRICE	SCD	24" X 24"	AS NOTED	SQUARE CONE DIFFUSER C/W BALANCING DAMPER
B	EH PRICE	80	AS NOTED	--	EGG CRATE RETURN GRILLE



University of Toronto

INFRASTRUCTURE PLANNING

OFFICE OF THE DEAN
FACULTY OF ARTS AND SCIENCE

100 St. George Street, Suite 2036, Toronto, Ontario M5S 3G3

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MECHANICAL & ELECTRICAL CONSULTANT

AQUILA

THE AQUILA GROUP
40 University Avenue,
Suite 1300, Toronto, Ontario M5J 1T1
Tel. 416-340-1937
www.theaquilagroup.com

01	ISSUED FOR COORDINATION	CS	25.01.06
Iss./Rev.	Description	By	Date (YY.MM.DD)

Revisions and Issues Record

Project Title

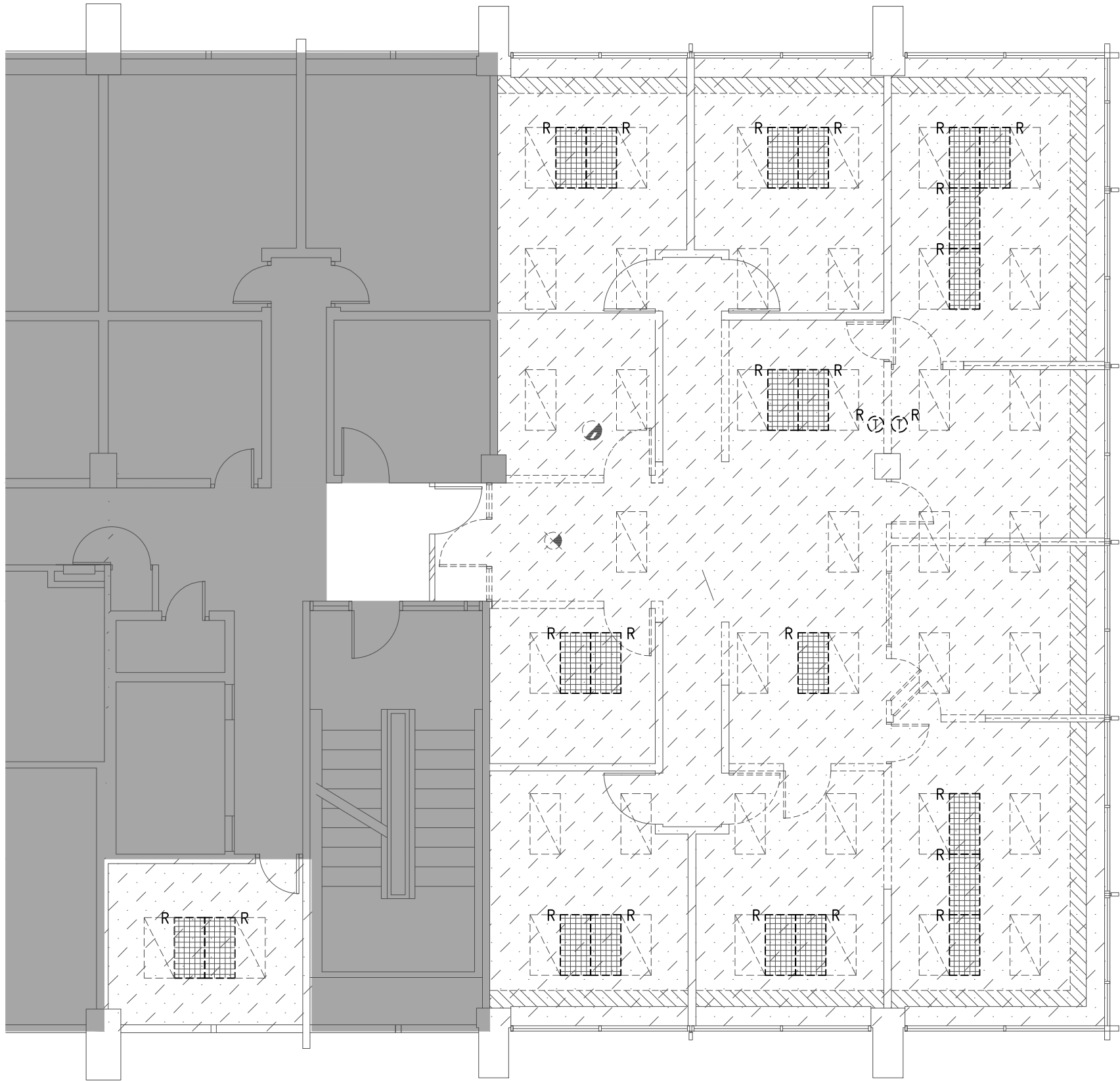
HISTORY ADMIN
AREA REFRESH

100 ST.GEORGE STREET

Drawing Sheet Title

DETAILS & SCHEDULES

Scale AS NOTED	
Drawn by JK	Date DEC 13, 2024
Checked by CS	
Project Number	North Point 
24-517	Drawing Number M-200



GENERAL NOTE:
1. ALL EXISTING DIFFUSERS TO BE REMOVED.

1 DEMO HVAC — 2ND FLOOR PLAN
M-300 SCALE 1/8"=1'-0"



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INFRASTRUCTURE PLANNING

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Revisions and Issues Record

Project Title

**HISTORY ADMIN
AREA REFRESH**

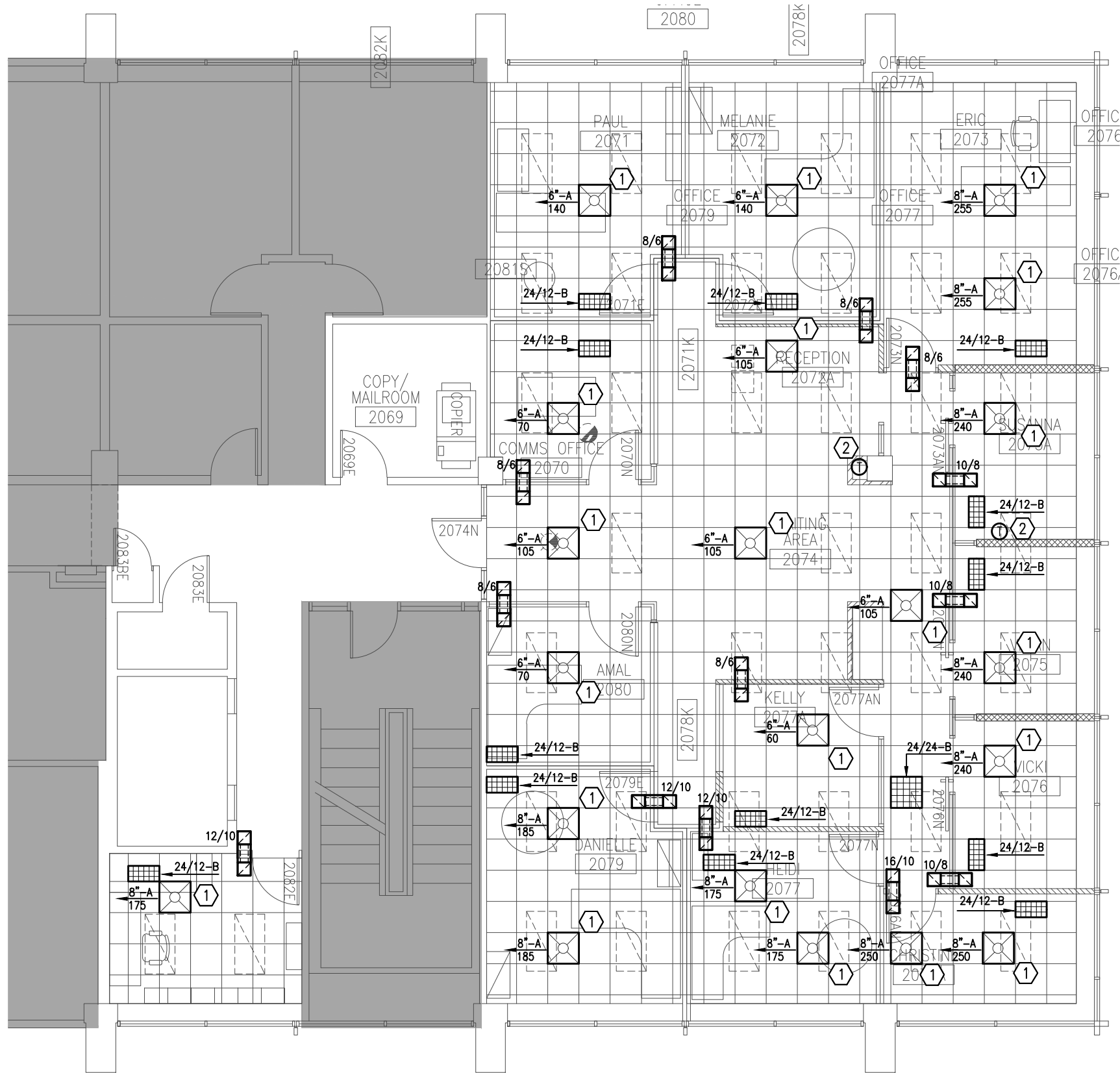
100 ST.GEORGE STREET

Drawing Sheet Title

DEMO HAVC - 2ND FLOOR PLAN

Scale	AS NOTED		
Drawn by	JK	Date	DEC 13, 2024
Checked by	CS		
Project Number	24-517		
Drawing Number	M-300		

North Point



1 NEW HVAC — 2ND FLOOR PLAN
M-301 SCALE 1/8"=1'-0"

- GENERAL NOTES:**
- ALL EXISTING SUPPLY AIR DUCTWORK TO BE RE-INSULATED.
 - ALL EXISTING HEATING PIPING TO BE RE-INSULATED.
 - ALL EXISTING THERMOSTATS TO BE SALVAGED AND RELOCATED. NEW LOCATION TO BE COORDINATED AT A LATER DATE.
- KEYED NOTES:**
- 1 CONNECT NEW DIFFUSER TO EXISTING DUCTWORK AND BALANCE TO AIRFLOW SHOWN.
- 2 CONNECT NEW THERMOSTAT TO EXISTING VAV BOX.

INFRASTRUCTURE PLANNING

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ISSUED FOR COORDINATION			
Iss./Rev.	Description	By	Date (YY.MM.DD)
01		CS	25.01.06

Revisions and Issues Record

Project Title
**HISTORY ADMIN
AREA REFRESH**

100 ST. GEORGE STREET

Drawing Sheet Title

NEW HVAC - 2ND FLOOR PLAN

Scale	AS NOTED		
Drawn by	JK	Date	DEC 13, 2024
Checked by	CS		
Project Number	24-517		
	North Point 		
	Drawing Number M-301		



**DESIGNATED SUBSTANCES IN BUILDING MATERIALS REPORT SUMMARY
JUNE 2024**

Building: Sidney Smith Hall (Building #033)	Location: Entire Building
---	---------------------------

Ontario Regulation 490/09 - Designated Substances (O. Reg. 490/09), made under the Occupational Health and Safety Act outlines required steps to control exposure of workers to designated substances. Under O. Reg. 490/09 there are eleven (11) designated substances; acrylonitrile, arsenic, asbestos, benzene, coke oven emissions, ethylene oxide, isocyanates, lead, mercury, silica and vinyl chloride. This regulation applies to every employer and worker at a workplace where the designated substances are present, produced, processed, used, handled or stored and at which a worker is likely to be exposed to the designated substance. This assessment, issued for the current project satisfies the Owner's requirements under Section 30 of the Ontario Occupational Health and Safety Act (OHSA), Revised Statutes of Ontario 1990, as amended.

ASBESTOS-CONTAINING BUILDING MATERIALS (ACM): The status of building materials with respect to asbestos within the Sidney Smith Hall is given below:

Material	Location
Friable asbestos-containing (Chrysotile) sprayed fireproofing	Present in various locations from ground floor to the 6th floor (Please refer to attached floor plans). Asbestos-containing fireproofing debris is suspected to be present inside the raceways and cable trenches at floor level.
Friable asbestos-containing (Chrysotile) piping systems, mechanical equipment and duct insulation	Present in various locations throughout the building including inside radiator covers. Insulation present above ceiling in ACM fireproofing locations is asbestos contaminated. Suspected inside currently inaccessible and hidden wall/ceiling penetrations and cavities.
Non-friable asbestos-containing (Chrysotile) vinyl flooring and mastic	Present in various locations throughout the building. Suspected to be present under non-asbestos flooring (carpet, vinyl sheet, wood and non-asbestos floor tiles, etc.).
Ceiling tiles and other concealed ceilings	All lay-in ceiling tiles, plaster ceilings, drywall ceilings and other concealed ceilings present in locations with asbestos-containing sprayed fireproofing above must be considered contaminated with asbestos.
Non-friable asbestos-containing (Chrysotile) masonry sealant	Present on block masonry, underneath the paint on the walls in various locations of the building.
Asbestos-containing (Chrysotile) plaster. Plaster is non-friable while in place, however, becomes friable upon removal.	On exterior soffit ceilings.
Asbestos-containing (Chrysotile) texture coat. Texture coat/stucco is non-friable while in place, however, becomes friable upon removal	Where present in the building.
Friable asbestos-containing (Chrysotile) firestop material	At pipe penetrations in walls and floors where present.
Non-friable asbestos-containing (Chrysotile) drywall joint compound	Present in various locations throughout the building.
Other materials confirmed to contain asbestos	Transite in various locations as ceiling tiles and wall panels; Vermiculite in Room 61 under concrete at pipe infill location.



Material	Location
Other materials suspected to contain asbestos	Asbestos-containing materials for which either the sampling records are not available or that are currently hidden or are inaccessible may be present within the building. These materials include: roofing materials, window/door caulking, window glazing putty, fire rated door liners, gaskets in piping systems, gaskets/internal liners in mechanical and electrical equipment, electrical wiring jacket, electrical panel backing, transite drainpipes, transite in HV cable trench and firestop materials.

LEAD: All paint finishes on walls, structural components, windows, doors, bulkheads, baseboards, floors, ceilings, piping systems, ductwork, mechanical equipment and all other surfaces within the current project locations and other areas of the building should be assumed to contain lead ($\geq 0.1\%$ or 1000 $\mu\text{g/g}$ or 1000PPM Lead Content). The Environmental Abatement Council of Canada (EACC) – Lead Guideline For Construction, Renovation, Maintenance or Repair Lead (2014) recommends that a content of 0.1% (i.e. 1000 $\mu\text{g/g}$ or 1000 mg/kg or 1000 ppm lead) is considered a "de minimis" or "virtually safe" level of lead in paint or surface coatings, provided that aggressive disturbance or heating does not occur. The classification, general measures and procedures (or Type of operations) required for removal or disturbance of lead paint, lead painted materials and lead based materials shall depend on the type of work to be conducted, the procedures adopted and the limit of lead in paint accepted by the General Contractor and their sub-contractors. For any work involving disturbance or removal of lead based materials or surfaces applied with lead paint, the General Contractor and their sub-contractors shall follow work procedures and training requirements as identified in Ontario Ministry of Labour, Immigration, Training and Skills Development Guidelines for Lead on Construction Projects, available at <https://www.labour.gov.on.ca/english/hs/pubs/lead/> and the University of Toronto Standard Operating Procedures for the Control of Lead During Building Maintenance and Construction Activities, available at <https://ehs.utoronto.ca/resources/policies-and-procedures/>. In case of conflict the more stringent procedures shall apply. Lead is also prudently presumed to be present as a component in solder on joints between copper pipe and fittings, solder on the wire connections of electrical components, glazing on ceramic tiles and metal coverings on older high voltage wires.

MERCURY: Mercury may be present as liquid in the electro-thermal switching devices and vapours in the fluorescent light tubes and incandescent mercury bulbs

SILICA: Crystalline silica is the primary component of many building materials such as concrete, concrete block, cement, mortar, drywall etc. Exposure to airborne silica can occur when these building materials are disturbed or turned into powder. For any work involving disturbance or removal of silica-containing materials, the General Contractor and their sub-contractors shall follow procedures identified in Ontario Ministry of Labour Guideline "Silica on Construction Projects" available at <https://www.labour.gov.on.ca/english/hs/pubs/silica/> and University of Toronto "Crystalline Silica Procedures" available at <https://ehs.utoronto.ca/resources/policies-and-procedures/>. In case of conflict the more stringent procedures shall apply.

OTHER DESIGNATED SUBSTANCES – Acrylonitrile, Arsenic, Benzene, Coke Oven Emissions, Ethylene Oxide, Isocyanates and Vinyl Chloride: The building has not been used for any process or manufacturing and no above ground or under ground fuel storage tanks are present within the building, therefore none of the other Designated Substances listed above are suspected to be present.



**RECOMMENDATIONS & DESIGNATED SUBSTANCES RESPONSIBILITIES/
REMOVAL/PROCEDURES:**

1. If any conditions become apparent that differ significantly from findings as presented in this report, please notify the Project Manager immediately.
2. Any worker who may inadvertently come into contact with any asbestos-containing materials in the course of their work for the current project must have at a minimum Asbestos Awareness Training as outlined in the University of Toronto, Asbestos Management Program, available at <https://ehs.utoronto.ca/resources/policies-and-procedures/>.
3. Workers performing any asbestos work will require appropriate training, including respirator fit testing, as identified in Ontario Regulation 278/05 and the University of Toronto Asbestos Management Program, available at <https://ehs.utoronto.ca/resources/policies-and-procedures/>. In case of conflict the more stringent procedures shall apply.
4. Any work of conduit, pipes, cables etc. installation required above ceiling in areas with asbestos-containing sprayed fireproofing is included in the General Contractor's scope of work. However, the University of Toronto Project Manager will schedule set-up and maintain type 2 asbestos enclosure/s under a separate contract.
5. No ceiling tile removal or other ceiling access is allowed in areas with asbestos-containing sprayed fireproofing. Any ceiling access will require prior approval from the University of Toronto. Any work in the ceiling space by electrical, mechanical or other trades INCLUDING INSPECTIONS in areas with asbestos-containing sprayed fireproofing shall be carried out following Type 2 asbestos procedures.
6. For entry and work in mechanical shafts and risers, the University of Toronto Standard Operating Procedures ID0.10 and IDR 2.10 (attached) shall be followed.
7. Any worker performing work within any Type 2 enclosure or working under Type 2 conditions or inspecting above ceiling areas where asbestos-containing fireproofing is present will require appropriate training including respirator fit testing as identified in Ontario Regulation 278/05 and the University of Toronto Asbestos Management Program.
8. In the event the General Contractor or their sub-contractors observe any damaged asbestos-containing materials within their work area, the work shall be immediately stopped the University of Toronto Project Manager shall be contacted for arranging further investigation and abatement.
9. It is our understanding that the current scope of work does not require removal of any asbestos-containing material. It is also our understanding that the current scope of work does not include removal of any ductwork or other air handling equipment. In the event the scope changes and requires removal of asbestos-containing materials and/or ductwork, the University of Toronto Project Manager shall be contacted for arranging further investigation and abatement under a separate contract.
10. Drilling into or removing screws/bolts from asbestos-containing transite and texture finishes, if required for the project, is included in the General Contractor's scope of work. The University of Toronto Standard Operating Procedure ID R2.04 (attached) shall be followed.
11. Drilling into or removing screws/bolts from asbestos-containing drywall joint compounds, as required for the project, is included in the General Contractor's scope of work. The University of Toronto Standard Operating Procedure ID R2.05 (attached) shall be followed.



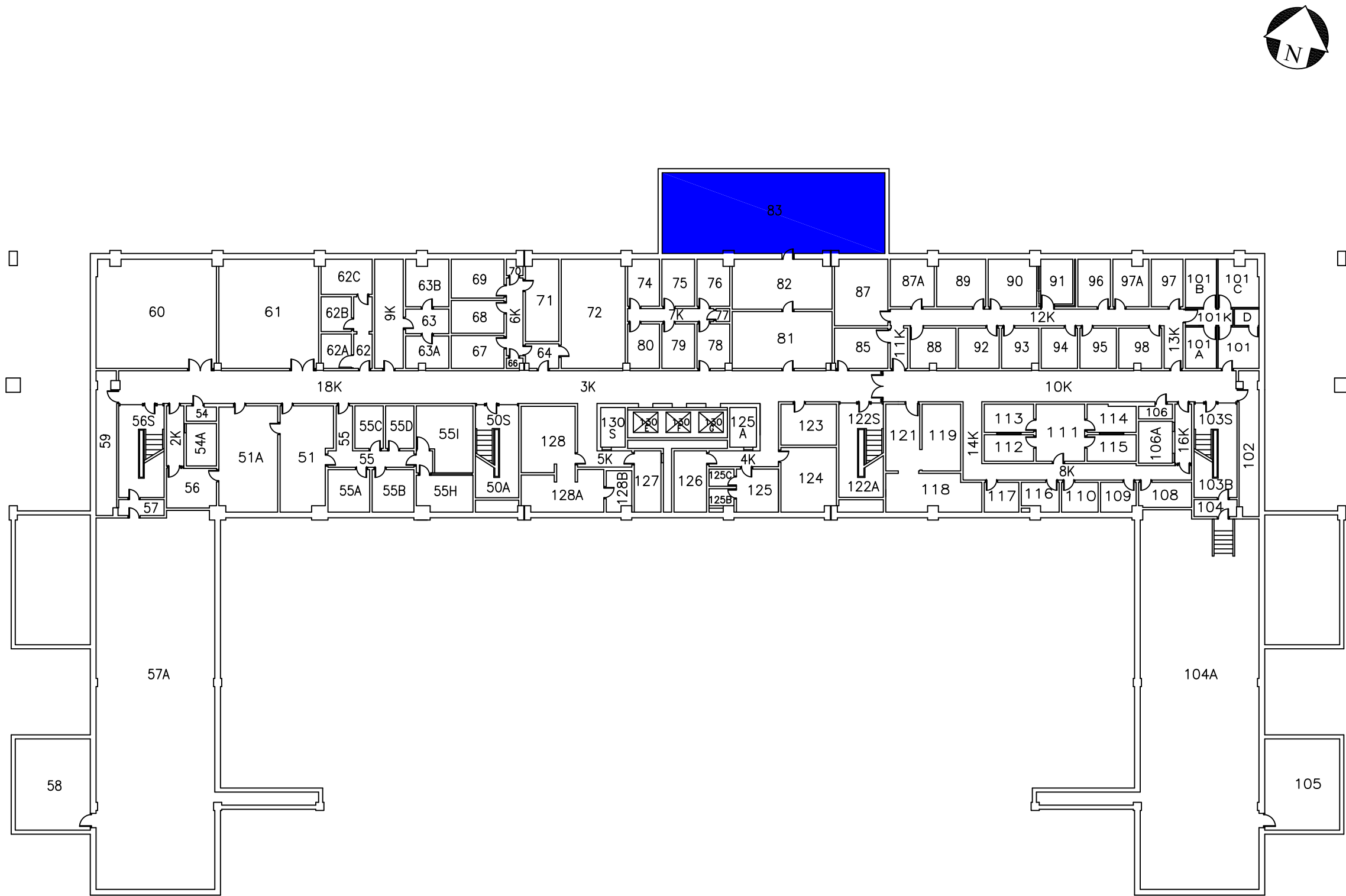
12. Drilling into or removing screws/bolts from asbestos-containing masonry sealant, if required for the project, is included in the General Contractor's scope of work. The University of Toronto Standard Operating Procedure ID R2.13 (attached) shall be followed.
13. Drilling into or removing screws/bolts from lead-containing and silica-containing finishes and removal or disturbance of lead-containing and silica-containing finishes is included in the General Contractor's scope of work. Follow procedures and training requirements as described in preceding sections.
14. Quality control inspections for designated substances disturbance/removal will be performed by designated external consultant and the University of Toronto staff throughout the project. Any contamination of surround areas indicated by visual inspection or air monitoring will require complete clean-up of the affected areas, by the General Contractor, without any extra cost to the University of Toronto.

This report is applicable only for projects where the scope of work does not include any asbestos-containing materials removal.

Irfan Miraj, P.Eng. M.H.Sc.
Manager
Hazardous Construction Materials Group
University of Toronto
F&S Property Management
Phone: 416-946-0101
irfan.miraj@utoronto.ca

This is to acknowledge that, We undertake to adhere to the University's Asbestos Management Program, including Appendix D (Emergency Procedures in the Event of Unexpected Asbestos Release) available at: <https://ehs.utoronto.ca/wp-content/uploads/2018/03/AsbestosManagementProgram20190409.pdf> and follow the University's asbestos abatement guidelines as outlined in the specification. Also acknowledge that, I have received this report and read all the University of Toronto Designated Substance Management Programs/Procedures and ensure that each of my prospective contractor and subcontractor for the project has received a copy of these documents. We undertake to adhere to the University's Programs/Procedures for Designated Substances. We also undertake to immediately stop work and inform the Project Manager if during the course of work any designated substances are discovered that were not referred to in the project document.

Contractor's Signature and Name:



Legend

Asbestos-Containing Sprayed Fireproofing or Overspray Including Areas Assumed to Contain Asbestos Sprayed Fireproofing

Non-Asbestos-Containing Sprayed Fireproofing

No Fireproofing or Overspray Present



University of Toronto

St. George Campus

Bldg# 033

100 St.George Street
Toronto, Ontario

Sidney Smith Hall

DWG# 2-1

Sub-Basement Floor Plan
Sprayed Fireproofing Locations

CLIENT: University of Toronto

PROJECT NUMBER:

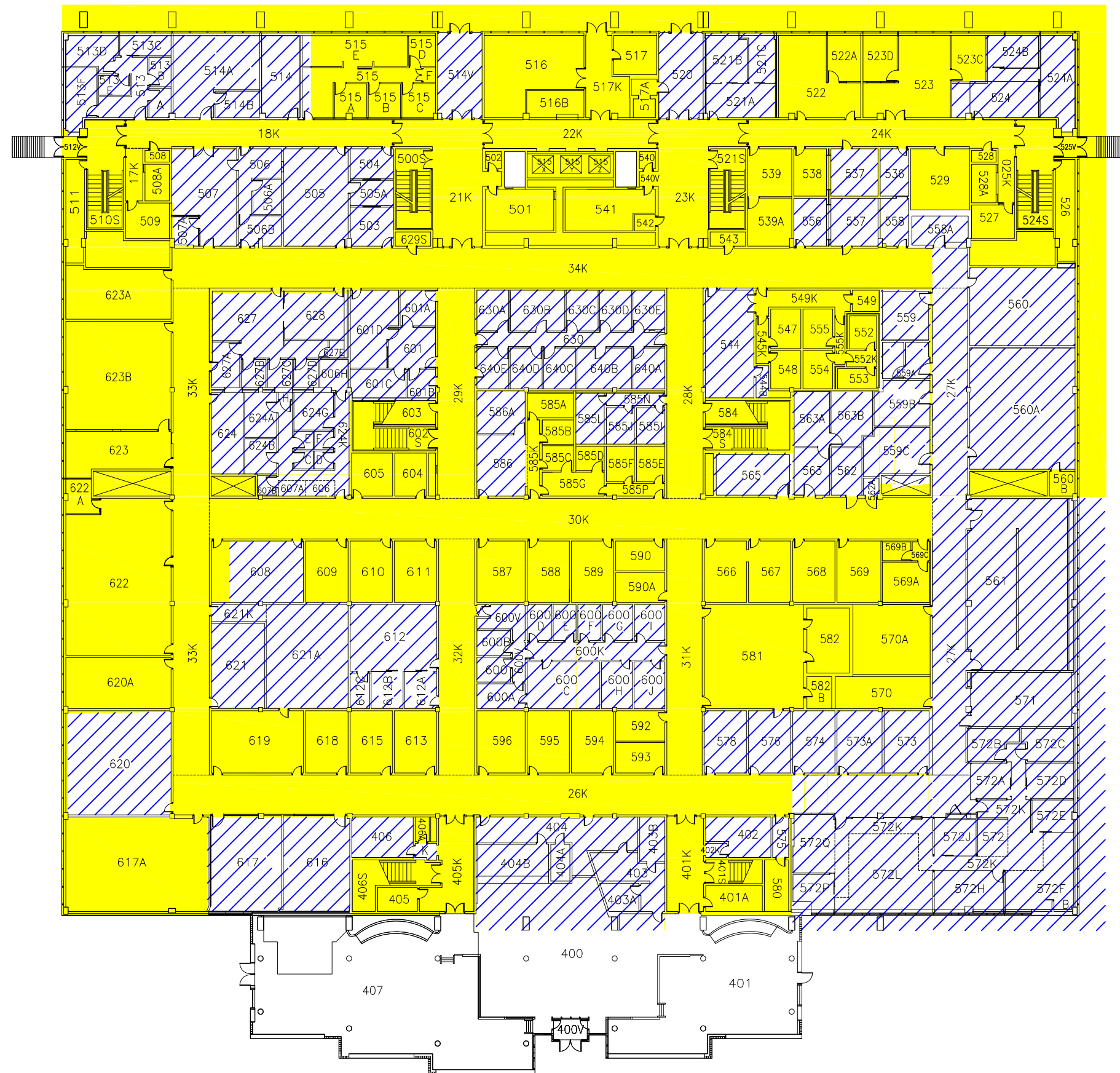
DATE:

DRW BY:

CAD FILE:

SCALE: Not to Scale

CHK BY:



Legend

-  Asbestos-Containing Sprayed Fireproofing or Overspray Including Areas Assumed to Contain Asbestos Sprayed Fireproofing
-  Non-Asbestos-Containing Sprayed Fireproofing
-  No Fireproofing or Overspray Present



University of Toronto

St. George Campus

Bldg#
033

100 St.George Street
Toronto, Ontario

Sidney Smith Hall

DWG# 2-2

Ground Floor Plan Revised JUNE 2024
Sprayed Fireproofing Locations

University of Toronto

PROJECT NUMBER: DATE: DRW BY:

CAD FILE: SCALE: CHK BY:



Legend

-  Asbestos-Containing Sprayed Fireproofing or Overspray Including Areas Assumed to Contain Asbestos Sprayed Fireproofing
-  Non-Asbestos-Containing Sprayed Fireproofing
-  No Fireproofing or Overspray Present

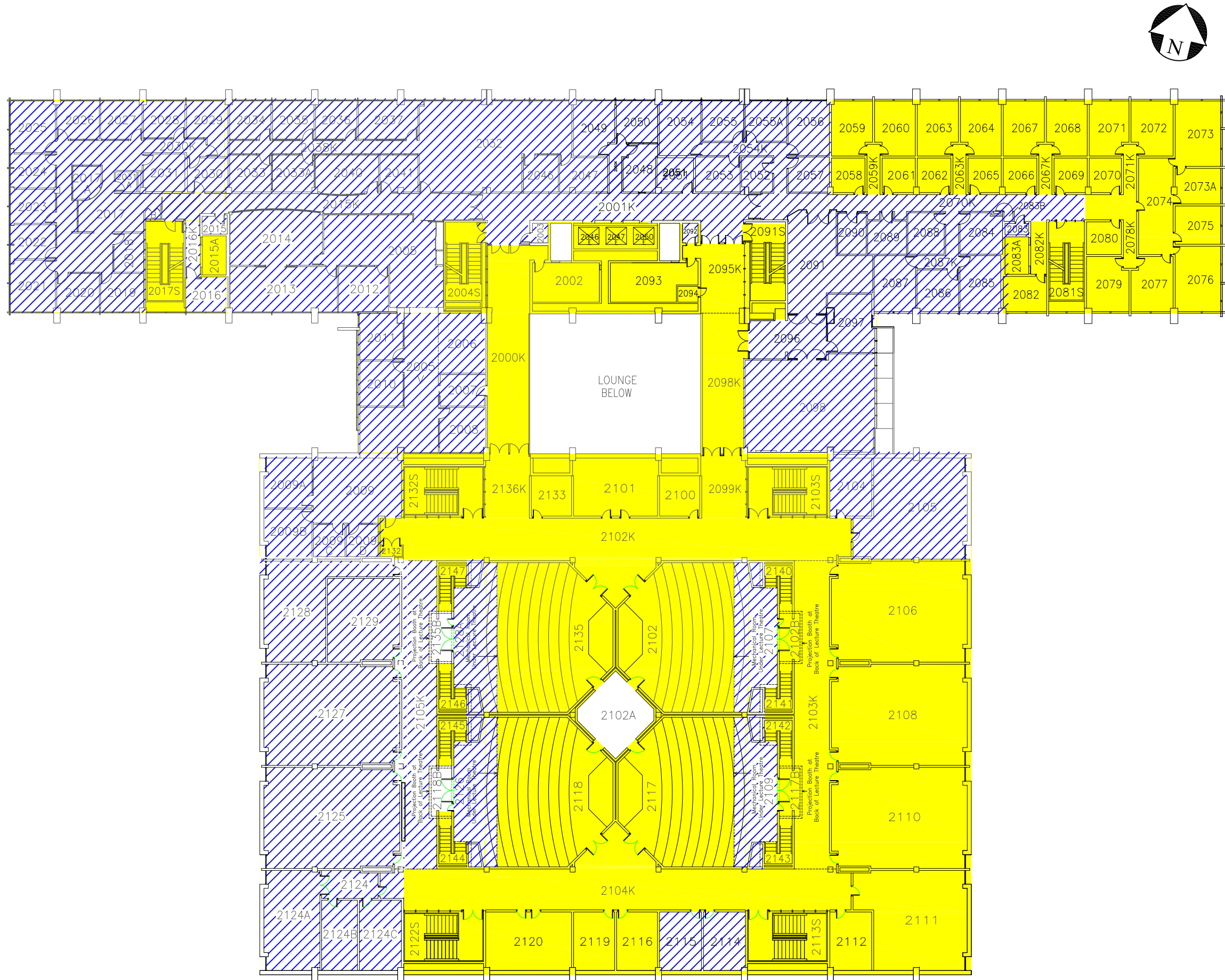
	University of Toronto	
	St. George Campus	
	Bldg# 033	100 St.George Street Toronto, Ontario

Sidney Smith Hall

DWG# 2-3

First Floor Plan Revised August 2018
Sprayed Fireproofing Locations

CLIENT: University of Toronto		
PROJECT NUMBER:	DATE:	DRW BY:
CAD FILE:	SCALE:	CHK BY:



Legend

Asbestos-Containing Sprayed Fireproofing or Overspray Including Areas Assumed to Contain Asbestos Sprayed Fireproofing

Non-Asbestos-Containing Sprayed Fireproofing

No Fireproofing or Overspray Present



University of Toronto



St. George Campus

Bldg#
033

100 St.George Street
Toronto, Ontario

Sidney Smith Hall

DWG# 2-4

Second Floor Plan Revised Sept 2018
Sprayed Fireproofing Locations

University of Toronto

PROJECT NUMBER:

DATE:

DRW BY:

CAD FILE:

SCALE:

CHK BY:



Legend

 Asbestos-Containing Sprayed Fireproofing or Overspray Including Areas Assumed to Contain Asbestos Sprayed Fireproofing

 Non-Asbestos-Containing Sprayed Fireproofing

 No Fireproofing or Overspray Present



University of Toronto

St. George Campus

Bldg#
033

100 St. George Street
Toronto, Ontario

Sidney Smith Hall

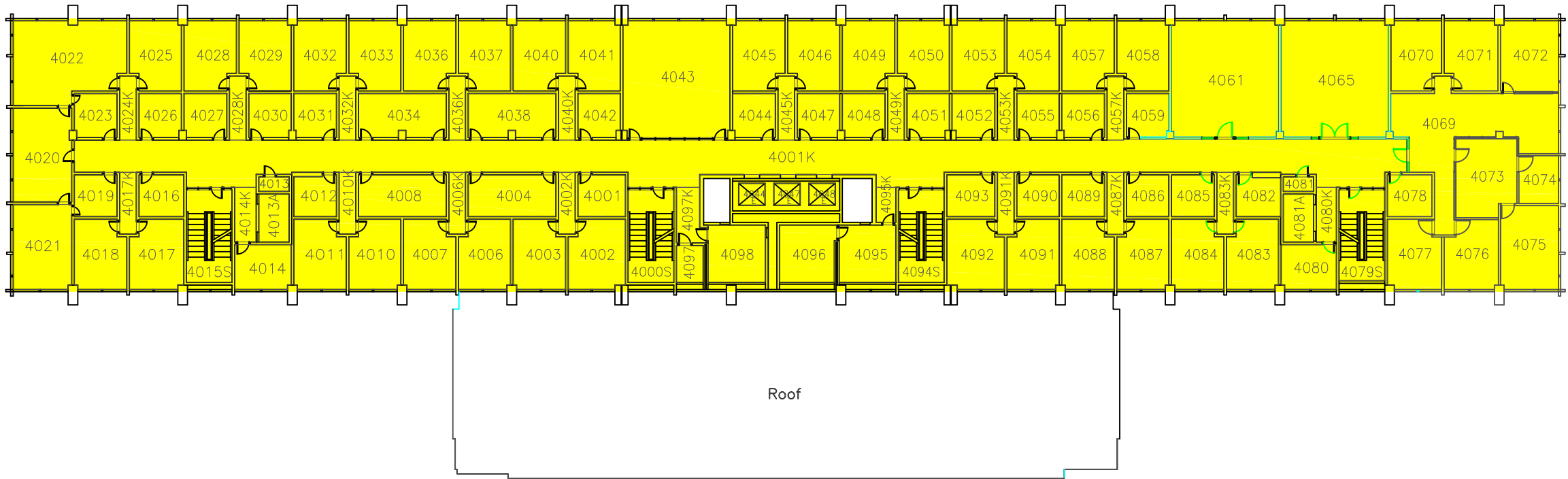
DWG# 2-5

Third Floor Plan Revised July 2019
Sprayed Fireproofing Locations

University of Toronto

PROJECT NUMBER: DATE: DRW BY:

CAD FILE: SCALE: CHK BY:



Legend

Asbestos-Containing Sprayed Fireproofing or Overspray Including Areas Assumed to Contain Asbestos Sprayed Fireproofing

Non-Asbestos-Containing Sprayed Fireproofing

No Fireproofing or Overspray Present

Note: For other asbestos-containing material on this floor plan see also DWG#3-6, DWG#4-6, DWG#5-6 and DWG#7-6



University of Toronto

St. George Campus

Bldg# 033

100 St.George Street
Toronto, Ontario

Sidney Smith Hall

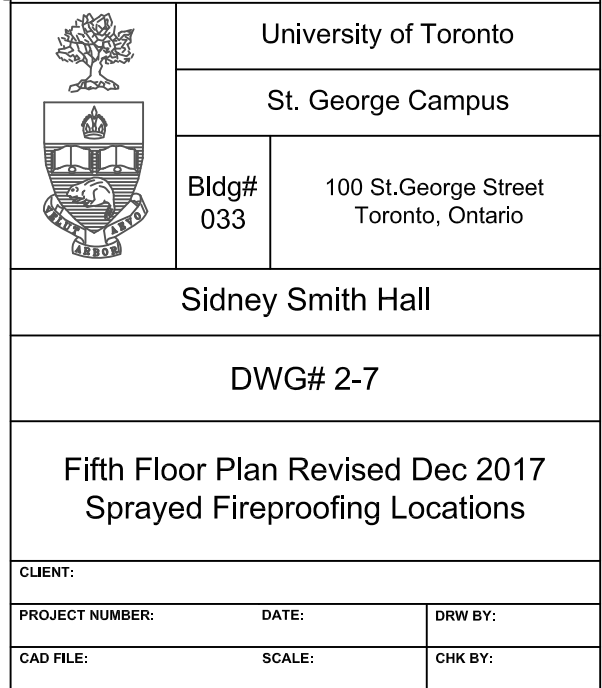
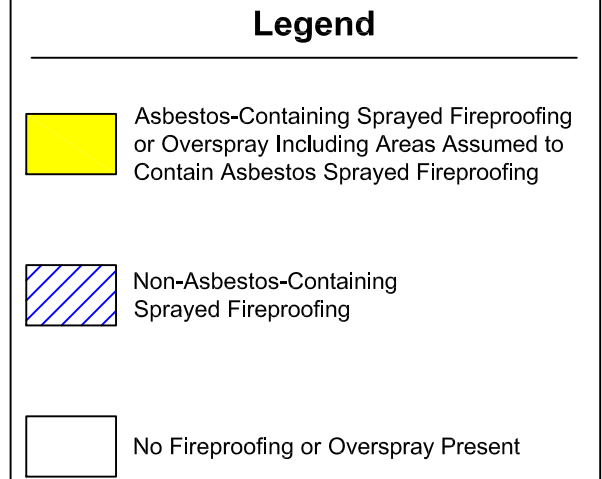
DWG# 2-6

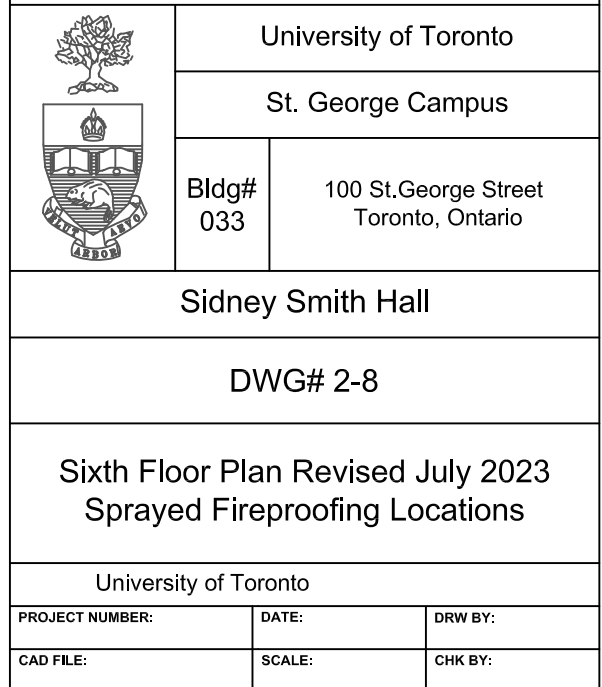
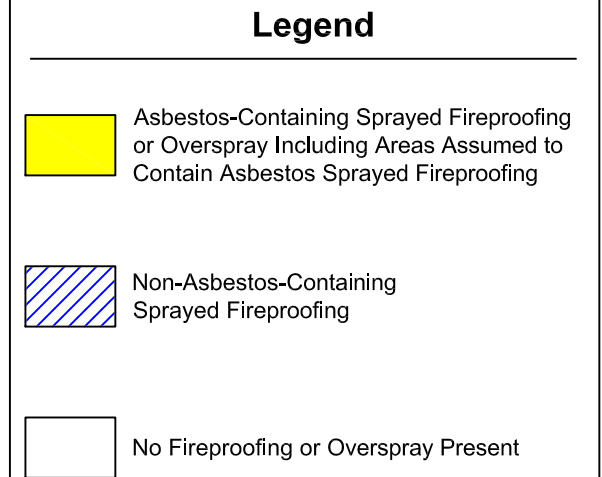
Fourth Floor Plan Revised Aug 2012
Sprayed Fireproofing Locations

University of Toronto

PROJECT NUMBER:	DATE:	DRW BY:
CAD FILE:	SCALE:	CHK BY:

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Office of Environmental Health and Safety
UNIVERSITY OF TORONTO

Standard Operating Procedures
for the Control of Asbestos Fibres
During Non-Asbestos Work in Chases (Shafts)

ID 0.10

**ENTRY INTO MECHANICAL CHASES (SHAFTS)
IN BUILDINGS WITH ASBESTOS-CONTAINING SPRAYED FIREPROOFING**

This section addresses entry and non-asbestos work performed in mechanical chases where asbestos-containing sprayed fireproofing is exposed and present, and where overspray may be present on horizontal and vertical surfaces.

If there is damaged asbestos material, report to your supervisor and contact Facilities and Services, Hazardous Construction Materials Group (HCMG) for repair/clean-up. Do not proceed with work until repair/clean-up has been completed.

1.0 APPLICATION

1.1 Certain work activities can be performed by entering into these chases without the requirement for asbestos precautions as long as no asbestos material is being disturbed or damaged. These activities are:

- Entry into and moving through the chase.
- Turning valves, switches etc. if not contaminated with asbestos.
- Inspection, checking metres, reading instruments etc.

When performing the above, do not disturb any asbestos material, including sprayed fireproofing or overspray on structure and cross bracing. It should be noted that storing items in these spaces is discouraged.

1.2 Any "work" in a mechanical chase, not described above, is considered asbestos disturbance and Type 2 or 3 procedures, as outlined in the *Regulation Respecting Asbestos on Construction Projects and in Buildings and Repair Operations* (O.Reg. 278/05) under the Occupational Health and Safety Act of Ontario, and the transport and delivery of asbestos waste in accordance with Regulation 347 under the Environmental Protection Act, must be followed.

1.3 Removal or disturbance of less than 1 square metre of friable material is a Type 2 Procedure. Please refer to U of T SOP ID R2.10 for detailed instructions on the appropriate procedure to follow. The requirements of SOP ID R2.10 apply except for the requirement for an enclosure.

1.4 Removal or disturbance of more than 1 square metre of friable material is a Type 3 Procedure. Type 3 asbestos work requires additional training and is conducted by external asbestos contractors only. Contact HCMG if Type 3 work is required.



Office of Environmental Health and Safety
UNIVERSITY OF TORONTO

Standard Operating Procedures
for the Control of Asbestos Fibres
During Type 2 Operations

ID R2.10

MINOR FRIABLE ASBESTOS REMOVAL

The exposure of workers and the corresponding measures and procedures for the minor disturbance of friable asbestos are classified as Type 2.

When authorized workers conduct Type 2 activities involving the minor disturbance of friable asbestos, specific precautions are required in order to maintain a safe work environment for the workers and other building occupants.

The procedures follow the requirements outlined in the *Regulation Respecting Asbestos on Construction Projects and in Buildings and Repair Operations* (O.Reg. 278/05) under the Occupational Health and Safety Act of Ontario, and the transport and delivery of asbestos waste in accordance with Regulation 347 under the Environmental Protection Act.

1.0 APPLICATION

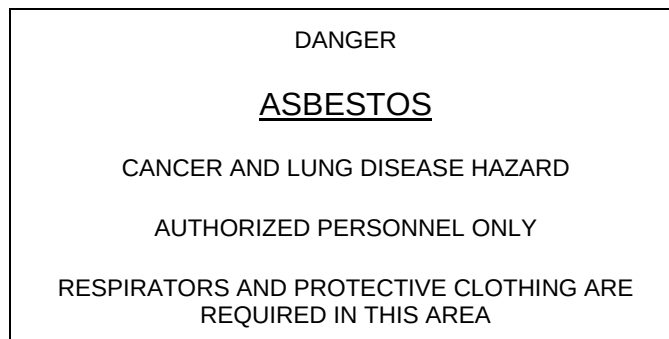
- 1.1 These procedures apply to all work involving the minor removal of friable asbestos-containing material; this activity may generate enough airborne asbestos to require protective equipment, but is of short duration..
- 1.2 Minor removal of material containing asbestos means the removal of **one square meter or less of wet friable material**, including mechanical insulation, sprayed fireproofing and texture plaster. The length of insulated pipe corresponding to the maximum allowable one square metre (10.76 square feet) of insulation may be determined by the following equation:
 - 1.2.1 $\text{Area (outer surface of insulated pipe in sq. ft.)} = \text{Length (of insulated pipe in ft.)} \times 2\pi R$ (or $2 \times 3.14 \times R$ where R = Radius of pipe and insulation).
- 1.3 Work on friable asbestos-containing material is classified according to the total area on which work is done consecutively in a room or enclosed area, even if the work is divided into smaller jobs. O. Reg. 278/05, s. 12 (5). Therefore a project that would be a Type 3 project (removal of more than 1 square metre in a room or area) cannot be broken into smaller amounts in order to be done as a series of Type 2 projects.

2.0 DEFINITIONS

- 2.1 *Work Areas:* Where actual work activity involving asbestos takes place.
- 2.2 *Enclosure:* An impermeable barrier made of rip-proof polyethylene plastic or similar material, inside which the asbestos activity takes place.
- 2.3 *Damp Wiping:* A cleaning process for removing residual asbestos contamination using damp-cloths, sponges or mops.

3.0 **MATERIALS AND EQUIPMENT**

- 3.1 *HEPA Vacuum:* Vacuum cleaner equipped with a High Efficiency Particulate Arresting (HEPA) Filter, fitted with appropriate tools. The vacuum equipment shall have a filtering system capable of collecting and retaining fibres greater than 0.3 microns in diameter at 99.97% efficiency.
- 3.2 *Dropsheet:* Rip-proof polyethylene plastic or other suitable material that is impervious to asbestos.
- 3.3 *Encapsulant (Sealer):* Bonding agent or sealant which can be applied as a liquid and controls the release of fibres or dust from the surface.
- 3.4 *Amended Water:* A mixture of water and a non-ionic, non-sudsing surfactant added to reduce water tension to allow thorough wetting of asbestos fibres.
- 3.5 *Sprayer:* Sprayer with mist nozzle for application of amended water or sealant.
- 3.6 *Asbestos Waste Receptacles:* Containers for waste must be dust tight, suitable for the type of waste, impervious to asbestos and identified as asbestos waste. All waste must have two layers of containment (e.g. double bagging) and be sealed and cleaned with a damp cloth or HEPA vacuum immediately before being removed from the work area. Also, it must be labelled as per the Ontario Ministry of Environmental regulation, and shall be acceptable to the disposal site selected and the Ministry of the Environment.
- 3.7 *Small Tools:* Sponge(s), bucket(s), ladder, etc.
- 3.8 *Tape:* Reinforced duct tape or double-sided tape suitable for sealing polyethylene bags.
- 3.9 *Respirator:* See section 5 Personal Protective Equipment.
- 3.10 *Coveralls:* Full body disposable clothing of an appropriate size with attached hood. It should be elasticized at the cuffs and hood, and be made of material which does not readily retain or permit penetration of asbestos fibres.
- 3.11 *Shoe covers:* Elasticized disposable shoe covers with textured bottom for better grip. Shoe covers should be made of material which does not readily retain or permit penetration of asbestos fibres.
- 3.12 *Signage:* Warning of asbestos hazard in the work area. An example is shown below.



4.0 **NOTICE OF ASBESTOS WORK**

Appropriate parties, including local-area occupants and when necessary other building users, must be notified of planned Type 2 activities involving friable asbestos. The following methods of communication apply:

- 4.1 The notification is to include a description of the planned Type 2 activity, its proposed duration, and in general terms the precautionary measures required to maintain a safe work environment. This information is to be provided to the following parties.

- 4.1.1 All appropriate Directors (St. George, UTM, UTSC, Capital Projects)
- 4.1.2 Manager, Environmental Hazards and Safety (St. George only)
- 4.1.3 Director, Environmental Health and Safety
- 4.1.4 Co-chairs of both the Trades and the Utilities Joint Health and Safety Committees
- 4.1.5 Co-chairs, Local Joint Health and Safety Committee
- 4.1.6 Local Area Occupants
- 4.2 Signage at Work Location
- 4.2.1 This sign informs building users of the asbestos-related work being conducted at that work location and that entry into the area is restricted to authorized personnel only. Signs are to be posted in the work area in sufficient numbers to warn of the hazard.

5.0 PERSONAL PROTECTION

- 5.1 *Respirators:* Workers are required to don respirators when performing Type 2 work. The following shall apply:
 - 5.1.1 All respiratory equipment shall be individually assigned and identified.
 - 5.1.2 Each worker must attend respiratory protection training and be fit tested prior to beginning work.
 - 5.1.3 Workers shall wear at least a half facepiece respirator fitted with purple HEPA (P100) filters.
 - 5.1.4 Disposable single-use type respirators are not permitted.
 - 5.1.5 All respirators shall be approved and labelled for protection against asbestos fibres, and shall meet the design and usage requirements of the National Institute for Occupational Safety & Health (NIOSH).
 - 5.1.6 Replace filter cartridges as appropriate (36 hours of use or more frequently). Dispose of used cartridges as asbestos waste.
 - 5.1.7 No supervisor or worker shall have facial hair which affects respirator-to-face seal.
- 5.2 *Protective Clothing:* All workers must be provided with full body disposable coverall and shoe covers as described in Section 3.
- 5.3 *Facilities:* Provide facilities for washing hands and face which shall be used by every worker when leaving asbestos work areas.
- 5.4 *Practice:* Workers shall not eat, drink, smoke or chew while in work areas.
- 5.5 *Work Area Entry:* All persons shall wear respirators with HEPA (P100) filters and clean coveralls before entering work area.
- 5.6 *Work Area Exit:* Before leaving the Work Area and still wearing a respirator, a worker shall:
 - 5.6.1 Thoroughly HEPA vacuum protective clothing, respirator and footwear.
 - 5.6.2 Remove decontaminated coveralls and wash hands and face with water (in Work Area).
 - 5.6.3 Leave the Work Area in street clothes and proceed to the nearest washroom to wash hands and face.
 - 5.6.4 Coveralls may be reused throughout a day provided they are disposed of after each shift, and left inside the Work Area after each use.
 - 5.6.5 Thoroughly clean respirator.

6.0 PREPARATION – WORK AREAS

- 6.1 Clear immediate work areas of all moveable furnishings or equipment. Any furnishings or equipment not removed shall be adequately covered and sealed using polyethylene and duct tape.
- 6.2 Remove any friable material containing asbestos and any visible dust that is likely to be disturbed and that is lying on any surface in the vicinity of the work area by HEPA vacuuming or damp wiping.

- 6.3 Provide a temporary enclosure to prevent the spread of airborne dust from the work area. The enclosure shall be as airtight as conditions permit including the provision of a double overlapping flap at the entrance.
- 6.4 Post signs warning of asbestos hazard at the entrances to the work area.
- 6.5 Shut down all ventilation to and from the work area. Seal and tape all ventilation openings within the work area with polyethylene sheeting.
- 6.6 Locate HEPA vacuum body outside enclosure. Locate vacuum hose within enclosure to provide negative pressure effect in enclosure.
- 6.7 Don respiratory equipment, coveralls and shoe covers as describe in Section 5.

7.0 EXECUTION

- 7.1 Use only hand-held non-powered tools. Do not use compressed air.
- 7.2 Remove any visible dust from the work area or the surfaces of asbestos products by HEPA vacuuming or damp wiping.
- 7.3 Wet (with amended water) any asbestos-containing material that may be disturbed during this work. Maintain wet conditions throughout work. Do not use excess water which will drip off the material.
- 7.4 Remove asbestos-containing thermal insulations in layers, maintaining all exposed surfaces of insulation in a wet condition.
 - 7.4.1 Seal exposed ends of asbestos-containing pipe insulation with 6 oz. canvas and lagging.
- 7.5 Remove asbestos-containing sprayed materials by scraping wetted ACM directly into waste containers. Do not allow ACM to fall to the floor of the enclosure.
- 7.6 Clean all surfaces from which ACM has been removed with scouring pads, vacuuming or wet-sponging to remove all visible material after completion of removal of ACM.
- 7.7 Carefully remove the asbestos material and place in an asbestos waste receptacle; double bag all waste as described in the Waste Transport and Disposal Section below and HEPA vacuum or damp-wipe the second container immediately prior to passing it out of the work area.
- 7.8 Seal the surfaces from which asbestos-containing material has been removed with a coat of encapsulant (sealer).
- 7.9 Frequently and at regular intervals during the work and immediately upon completion of the work, remove dust and waste from the workplace by HEPA vacuuming or damp-wiping, mopping or wet sweeping.
- 7.10 On completion of work, HEPA vacuum and wet clean all surfaces inside enclosure. Clean all reusable tools and pass out of enclosure. Clean framing for enclosure, plywood, etc. that will be reused and spray with encapsulant (sealer).
- 7.11 When removing enclosure, all polyethylene, tape and cleaning cloths are to be wetted and shall be carefully rolled together and bagged as asbestos waste. Coveralls shall be disposed of as contaminated waste.

8.0 WASTE TRANSPORT AND DISPOSAL

- 8.1 Place asbestos waste into asbestos waste receptacles. Asbestos waste must be double-bagged, or double-contained, in receptacles that are clearly marked as containing asbestos. The bags or containers shall be selected to prevent any perforations or tears during filling, transport and disposal. The bags are usually polyethylene bags sealed with duct tape. The outer bags must be HEPA vacuumed or damp wiped to remove any surface contamination immediately before being removed from the work area.
- 8.2 *For the St. George campus, transport the sealed containers to the locked, labelled dump-container that is maintained by Facilities and Services. The key for the locked dump-container can be obtained from the Materials Expeditor (Trade Services Tool Crib). Place the asbestos waste bags in the dump container and relock the dump-

container. For the appropriate disposal procedures at the Mississauga and Scarborough campuses, consult with the Director of the University department that initiated the work.



Office of Environmental Health and Safety
UNIVERSITY OF TORONTO

Standard Operating Procedures
for the Control of Asbestos Fibres
During Type 2 Operations

ID R2.04

**DRILLING ASBESTOS CONTAINING MATERIALS (E.g. plaster, mastics, textured boards, stucco, etc.) WITH A
HEPA FILTERED POWER TOOL**

The exposure of workers and the corresponding measures and procedures for the drilling of holes in friable asbestos-containing material are classified as Type 2.

When authorized workers conduct Type 2 activities involving the clean-up of friable asbestos-containing material, specific precautions are required in order to maintain a safe work environment for the workers and other building occupants.

The procedures follow the methods in Ontario Ministry of Labour, Regulations Respecting Asbestos on Construction Projects and in Buildings and Repair Operations (Ontario Reg. 278/05) and the transport and delivery of asbestos waste in accordance with Regulation 347 under the Environmental Protection Act.

1.0 APPLICATION

- 1.1 These procedures apply to the drilling of holes (each less than ½ inch in diameter) in the asbestos-containing plaster application for the sole purpose of attaching fasteners for wall hangings and the like. This activity may generate enough airborne asbestos to require protective equipment, but is of short duration.

2.0 DEFINITIONS

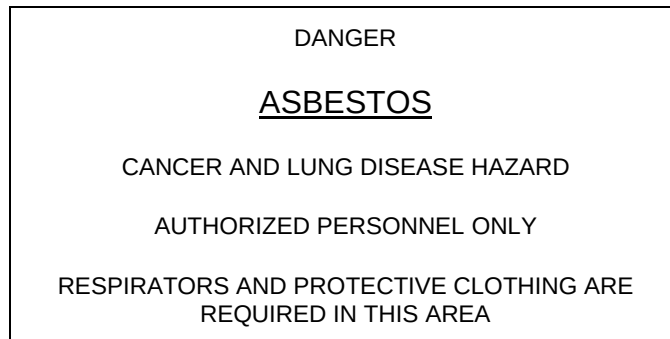
- 2.1 *Work Areas:* Where actual work activity involving friable asbestos takes place.
- 2.2 *Damp Wiping:* A cleaning process for removing residual asbestos contamination using damp-cloths, sponges or mops.

3.0 MATERIALS AND EQUIPMENT

- 3.1 *HEPA Vacuum:* Vacuum cleaner equipped with High Efficiency Particulate Arresting HEPA Filter, fitted with appropriate tools. The vacuum equipment shall have a filtering system capable of collecting and retaining fibres greater than 0.3 microns in diameter at 99.97% efficiency.
- 3.2 *HEPA Filtered Tool:* A tool that has been manufactured specifically for the intended purpose and equipped with a filtering system that meets the same definition for filter efficiency as in Item 3.1.
- 3.3 *Dropsheet:* Rip-proof polyethylene plastic or other suitable material that is impervious to asbestos.
- 3.4 *Amended Water:* A mixture of water and a non-ionic, non-sudsing surfactant added to reduce water tension to allow thorough wetting of asbestos fibres.
- 3.5 *Sprayer:* Sprayer with mist nozzle for application of amended water or sealant.
- 3.6 *Asbestos Waste Receptacles:* Containers for waste must be dust tight, suitable for the type of waste, impervious to asbestos and identified as asbestos waste. All waste must have two layers of containment (e.g. double bagging) and be sealed and cleaned with a damp cloth or HEPA vacuum immediately before being removed from the work area.

Also, it must be labelled as per the Ontario Ministry of Environmental regulation, and shall be acceptable to the disposal site selected and the Ministry of the Environment.

- 3.7 *Small Tools:* Sponge(s), metal bristle brush(es), bucket(s), ladder(s), heavy duty scraper(s), etc.
- 3.8 *Tape:* Reinforced duct tape or double-sided tape suitable for sealing polyethylene to all surfaces to be covered.
- 3.9 *Respirator:* See section 5 Personal Protective Equipment.
- 3.10 *Coveralls:* Full body disposable clothing of appropriate with attached hood and elasticized at cuffs and hood, made of material which does not readily retain or permit penetration of asbestos fibres.
- 3.11 *Shoe covers:* Elasticized disposable shoe covers with textured bottom for better grip. Shoe covers should be made of material which does not readily retain or permit penetration of asbestos fibres.
- 3.12 *Signage:* Warning of asbestos hazard in the work area:



4.0 NOTICE OF ASBESTOS WORK

Appropriate parties, including local-area occupants and when necessary other building users, must be notified of planned Type 2 activities involving friable asbestos. The following methods of communication apply:

- 4.1 The notification is to include a description of the planned Type 2 activity, its proposed duration, and in general terms the precautionary measures required to maintain a safe work environment. This information is to be provided to the following parties.
 - 4.1.1 All appropriate Directors (St. George, UTM, UTSC, Capital Projects)
 - 4.1.2 Manager, Environmental Hazards and Safety (St. George only)
 - 4.1.3 Director, Environmental Health and Safety
 - 4.1.4 Co-chairs of both the Trades and the Utilities Joint Health and Safety Committees
 - 4.1.5 Co-chairs, Local Joint Health and Safety Committee
 - 4.1.6 Local Area Occupants
- 4.2 Signage at Work Location
 - 4.2.1 This sign informs building users of the asbestos-related work being conducted at that work location and that entry into the area is restricted to authorized personnel only. Signs are to be posted in the work area in sufficient numbers to warn of the hazard.

5.0 PERSONAL PROTECTION

- 5.1 *Respirators:* Workers are required to don respirators when performing Type 2 work. The following shall apply:
 - 5.1.1 All respiratory equipment shall be individually assigned and identified.
 - 5.1.2 Each worker must be instructed and tested with his/her respirator.

- 5.1.3 Workers shall wear at least a half-face piece air-purifying respirator fitted with HEPA (P100) filters (material wetted). If the material cannot be wetted, a full face air-purifying respirator is required. All respirators shall be approved and labelled for protection against asbestos fibres, and shall meet the design and usage requirements of the National Institute for Occupational Safety & Health (NIOSH).
- 5.1.4 Replace filter cartridges as appropriate (36 hours of use or more frequently). Dispose of used cartridges as asbestos waste.
- 5.1.5 No supervisor or worker shall have facial hair which affects respirator-to-face seal.
- 5.2 *Protective Clothing:* All workers must be provided with full body disposable coverall and shoe covers as described in Section 3.
- 5.3 *Facilities:* Provide facilities for washing hands and face which shall be used by every worker when leaving asbestos work areas.
- 5.4 *Practice:* Workers shall not eat, drink, smoke or chew while in contaminated work areas.
- 5.5 *Work Area Entry:* All persons shall don respirators with HEPA (P100) filters and clean coveralls before entering work area.
- 5.6 *Work Area Exit:* Before leaving the Work Area and still wearing a respirator, a worker shall:-
 - 5.6.1 Thoroughly HEPA vacuum protective clothing, respirator and footwear.
 - 5.6.2 Remove decontaminated coveralls and wash hands and face with water (in Work Area).
 - 5.6.3 Leave the Work Area in street clothes and proceed to the nearest washroom to wash hands and face.
 - 5.6.4 Coveralls may be reused throughout a day provided they are disposed of after each shift, or left inside the Work Area after each use.

6.0 PREPARATION - WORK AREAS

- 6.1 Do not use compressed air.
- 6.2 Clear immediate work areas of all moveable furnishings or equipment.
- 6.3 Erect tape barriers to keep all non-protected personnel at least 30 feet away. Post signs warning of asbestos hazard at tape barrier (see Appendix).
- 6.4 An enclosure is not necessary for this activity. As appropriate, a drop-sheet below the work is required; extend the drop-sheet at least 3 feet beyond line of work. Use rip-proof polyethylene if work is above rough concrete or other surface that could tear polyethylene.
- 6.5 When drilling friable asbestos materials (e.g. plaster), shut down all ventilation to and from the work area. As appropriate, seal and tape all ventilation openings close to the work area with polyethylene plastic sheeting.
- 6.6 When drilling non-friable asbestos materials (e.g. mastic, textured boards, etc.), a ventilation shut down is not required. However, as appropriate, seal and tape all ventilation openings close to the work area with polyethylene plastic sheeting.
- 6.7 Post signs warning of asbestos hazard at the entrances to the work area
- 6.8 Don respiratory equipment and coveralls as described above.

7.0 EXECUTION

- 7.1 Do not use compressed air.
- 7.2 Remove any visible dust from the work area or the surfaces of asbestos products by HEPA vacuuming or damp wiping.
- 7.3 Wet (with amended water) any asbestos-containing material that may be disturbed during this work. Maintain wet conditions throughout work. Do not use excess water which will drip off the material

- 7.4 Drill using a power tool attached to HEPA dust collection following manufacturer's instructions.
- 7.5 Repeat steps above for each additional proposed drilling location.
- 7.6 At completion of work, HEPA vacuum or wet wipe the drop-sheet, tools and equipment.
- 7.7 Any polyethylene, tape and cleaning cloths are to be wetted and shall be carefully rolled together and bagged as asbestos waste. Coveralls shall be disposed of as contaminated waste..

8.0 WASTE TRANSPORT AND DISPOSAL

- 8.1 Place asbestos waste into asbestos waste receptacles. Asbestos waste must be double-bagged, or double-contained, in receptacles that are clearly marked as containing asbestos. The bags or containers shall be selected to prevent any perforations or tears during filling, transport and disposal. The bags are usually rip-proof polyethylene bags sealed with duct tape. The outer bags must be HEPA vacuumed or damp wiped to remove any surface contamination immediately before being removed from the work area.
- 8.2 *For the St. George campus, transport the sealed containers to the locked, labelled dump-container that is maintained by Facilities and Services. The key for the locked dump-container can be obtained from the Materials Expeditor (Trade Services Tool Crib). Place the asbestos waste bags in the dump container and relock the dump-container. For the appropriate disposal procedures at the Mississauga and Scarborough campuses, consult with the Director of the University department that initiated the work.



Office of Environmental Health and Safety
UNIVERSITY OF TORONTO

Standard Operating Procedures
for the Control of Asbestos Fibres
During Type 2 Operations

ID R2.05

**DRILLING OF HOLES IN WALL WITH ASBESTOS JOINT DRYWALL COMPOUND
WITH A HEPA FILTERED POWER TOOL**

The exposure of workers and the corresponding measures and procedures for the minor disturbance of friable asbestos are classified as Type 2.

When authorized workers conduct Type 2 activities involving the minor disturbance of friable asbestos, specific precautions are required in order to maintain a safe work environment for the workers and other building occupants.

The procedures follow the requirements outlined in the *Regulation Respecting Asbestos on Construction Projects and in Buildings and Repair Operations* (O.Reg. 278/05) under the Occupational Health and Safety Act of Ontario, and the transport and delivery of asbestos waste in accordance with Regulation 347 under the Environmental Protection Act.

1.0 APPLICATION

- 1.1 These procedures apply to the drilling of holes in walls that contain asbestos drywall joint compound. Asbestos drywall joint compound is a non-friable asbestos-containing material.
- 1.2 Where possible, the use of hand tools to drill in drywall with asbestos drywall joint compound should be encouraged. The use of hand tools (instead of power tools) combined with the wetting down of materials will result in less airborne fibres and Type 1 procedures can be followed. See procedure R1.00 Non-Friable Asbestos Disturbance.
- 1.3 The procedures follow the methods in Ontario Ministry of Labour, Regulations Respecting Asbestos on Construction Projects and in Buildings and Repair Operations (Ontario Reg. 278/05) and the transport and delivery of asbestos waste in accordance with Regulation 347 under the Environmental Protection Act.

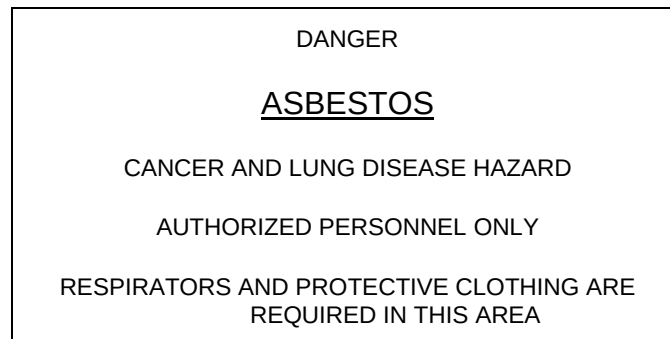
2.0 DEFINITIONS

- 2.1 *Work Areas:* Where actual work activity involving non-friable asbestos takes place.
- 2.2 *Damp Wiping:* A cleaning process for removing residual asbestos contamination using damp-cloths, sponges or mops.

3.0 MATERIALS AND EQUIPMENT

- 3.1 *HEPA Vacuum:* Vacuum cleaner equipped with High Efficiency Particulate Arresting (HEPA) Filter, fitted with appropriate tools. The vacuum equipment shall have a filtering system capable of collecting and retaining fibres greater than 0.3 microns in diameter at 99.97% efficiency.
- 3.2 *HEPA Filtered Tool:* A tool that has been manufactured specifically for the intended purpose and equipped with a filtering system that meets the same definition for filter efficiency above.
- 3.3 *Drop-sheet:* Rip-proof polyethylene plastic or other suitable material that is impervious to asbestos.
- 3.4 *Amended Water:* A mixture of water and a non-ionic, non-sudsing surfactant added to reduce water tension to allow thorough wetting of asbestos fibres.

- 3.5 *Sprayer:* Sprayer with mist nozzle for application of amended water or sealant.
- 3.6 *Asbestos Waste Receptacles:* Containers for waste must be dust tight, suitable for the type of waste, impervious to asbestos and identified as asbestos waste. All waste must have two layers of containment (e.g. double bagging) and be sealed and cleaned with a damp cloth or HEPA vacuum immediately before being removed from the work area. Also, it must be labelled as per the Ontario Ministry of Environmental regulation, and shall be acceptable to the disposal site selected and the Ministry of the Environment.
- 3.7 *Small Tools:* Sponge(s), metal bristle brush(es), bucket(s), ladder(s), heavy duty scraper(s), etc.
- 3.8 *Tape:* Reinforced duct tape or double-sided tape suitable for sealing polyethylene to all surfaces to be covered.
- 3.9 *Respirator:* See section 5 Personal Protective Equipment.
- 3.10 *Coveralls:* Full body disposable clothing of an appropriate size with attached hood and elasticized at cuffs and hood, made of material which does not readily retain or permit penetration of asbestos fibres.
- 3.11 *Shoe covers:* Elasticized disposable shoe covers with textured bottom for better grip. Shoe covers should be made of material which does not readily retain or permit penetration of asbestos fibres.
- 3.12 *Signage:* Warning of asbestos hazard in the work area:



4.0 NOTICE OF ASBESTOS WORK

Appropriate parties, including local-area occupants and when necessary other building users, must be notified of planned Type 2 activities. Where this work is part of a larger construction project, follow communications protocols for projects which are more broad and may include notifications to a large group of building occupants and relevant directors in Facilities Management (UTM and UTSc), Facilities Services (St. George) and EHS.

- 4.1 The notification is to include a description of the planned Type 2 activity, its proposed duration, and in general terms the precautionary measures required to maintain a safe work environment. This information is to be provided to the following:
- 4.1.1 Local area occupants (see Appendix I – The notification template in Appendix I can be handed to the occupants during emergency repairs, etc. or as part of an email communication when scheduling the work with the occupants. An email template version is available from EHS.).
- 4.1.2 Where appropriate, Manager, Hazardous Construction Materials Group (St. George only)
- 4.2 Signage at Work Location
- 4.2.1 This sign informs building users of the asbestos-related work being conducted at that work location and that entry into the area is restricted to authorized personnel only. Signs are to be posted in the work area in sufficient numbers to warn of the hazard.

5.0 PERSONAL PROTECTION

- 5.1 *Respirators:* Workers are required to don respirators when performing Type 2 work. The following shall apply:

- 5.1.1 All respiratory equipment shall be individually assigned and identified.
- 5.1.2 Each worker must be instructed and fit tested with his/her respirator.
- 5.1.3 Workers shall wear at least a half-face piece air-purifying respirator fitted with HEPA (P100) filters (material wetted). If the material cannot be wetted, a full face air-purifying respirator is required.
- 5.1.4 Disposable single-use type respirators are not permitted.
- 5.1.5 All respirators shall be approved and labelled for protection against asbestos fibres, and shall meet the design and usage requirements of the National Institute for Occupational Safety & Health (NIOSH).
- 5.1.6 Replace filter cartridges as appropriate (36 hours of use or more frequently). Dispose of used cartridges as asbestos waste.
- 5.1.7 No supervisor or worker shall have facial hair which affects respirator-to-face seal.
- 5.2 *Protective Clothing:* All workers must be provided with full body disposable protective clothing (coveralls), extra large size with attached hood and elasticized at the cuffs and hood, made of material which does not readily retain nor permit penetration of asbestos fibres.
- 5.3 *Facilities:* Provide facilities for washing hands and face which shall be used by every worker when leaving asbestos work areas.
- 5.4 *Practice:* Workers shall not eat, drink, smoke or chew while in contaminated work areas.
- 5.5 *Work Area Entry:* All persons shall don respirators with HEPA (P100) filters and clean coveralls before entering work area.
- 5.6 *Work Area Exit:* Before leaving the Work Area and still wearing a respirator, a worker shall:-
 - 5.6.1 Thoroughly HEPA vacuum protective clothing, respirator and footwear.
 - 5.6.2 Remove decontaminated coveralls and wash hands and face with water (in Work Area).
 - 5.6.3 Leave the Work Area in street clothes and proceed to the nearest washroom to wash hands and face.
 - 5.6.4 Coveralls may be reused throughout a day provided they are disposed of after each shift, or left inside the Work Area after each use.

6.0 PREPARATION - WORK AREAS

- 6.1 Do not use compressed air.
- 6.2 Clear immediate work areas of all moveable furnishings or equipment.
- 6.3 Erect tape barriers to keep all non-protected personnel at least 20 feet away. Post signs warning of asbestos hazard at tape barrier (see Signage in Section 3).
- 6.4 An enclosure is not necessary for this activity. As appropriate, a drop-sheet below the work is required; extend the drop-sheet at least 3 feet beyond line of work. Use rip-proof polyethylene if work is above rough concrete or other surface that could tear polyethylene.
- 6.5 Seal and tape all ventilation openings close to the work area with polyethylene plastic sheeting. No ventilation shutdown is required.
- 6.6 Post signs warning of asbestos hazard at the entrances to the work area
- 6.7 Don respiratory equipment and coveralls as described above.

7.0 EXECUTION

- 7.1 Do not use compressed air.
- 7.2 Wet (with amended water) any asbestos-containing material in the vicinity.

- 7.3 Remove any visible dust from the work area or the surfaces of asbestos products by HEPA vacuuming or damp wiping.
- 7.4 Drill using a power tool physically attached to HEPA dust collection following manufacturer's instructions. Alternatively, use the power drill with the Bitbuddie Dust Shroud attachment and connect to a HEPA vacuum to collect dust. The alternative Bitbuddie method should only be used on asbestos drywall joint compound is within 0.5-5% dry weight per sampling results.
- 7.5 With the HEPA filtration operating, begin the drilling process by positioning the operating drill bit at the proposed drilling location and carefully applying gentle force on the drill while the drill bit **slowly** produces a "**clear-cut**" hole in the wall; remove the tool about 5 seconds after the hole is drilled.
- 7.6 Repeat steps above for each additional proposed drilling location.
- 7.7 At completion of work, HEPA vacuum or wet wipe the drop-sheet, any other surfaces below the work area, tools and equipment.
- 7.8 Any polyethylene, tape and cleaning cloths are to be wetted and shall be carefully rolled together and bagged as asbestos waste. Coveralls shall be disposed of as contaminated waste.

8.0 WASTE TRANSPORT AND DISPOSAL

- 8.1 Place asbestos waste into asbestos waste receptacles. Asbestos waste must be double-bagged, or double-contained, in receptacles that are clearly marked as containing asbestos. The bags or containers shall be selected to prevent any perforations or tears during filling, transport and disposal. The bags are usually rip-proof polyethylene bags sealed with duct tape. The outer bags must be HEPA vacuumed or damp wiped to remove any surface contamination immediately before being removed from the work area.
- 8.2 *For the St. George campus, transport the sealed containers to the locked, labelled dump-container that is maintained by Facilities and Services. The key for the locked dump-container can be obtained from the Materials Expeditor (Trade Services Tool Crib). Place the asbestos waste bags in the dump container and relock the dump-container. For the appropriate disposal procedures at the Mississauga and Scarborough campuses, consult with the Director of the University department that initiated the work.
- 8.3 Drywall containing asbestos drywall joint compound must be disposed of as asbestos waste.

Appendix I

Notification of Type 2 Asbestos Work for SOP 2.05 Drilling of Holes in Wall with Asbestos Drywall Joint Compound with a HEPA Filtered Power Tool (no ventilation shutdown required).

*****Please forward to all applicable occupants in or near the affected room(s).*****

Date: _____ Start time: _____ Stop time (approx.): _____

Building: _____ Room: _____

Brief Work Description: _____

Name of Contractor or Trade: _____ Phone number: _____

Property or Project Manager: _____ Phone number: _____

Please note that workers that work on a daily basis with asbestos may be wearing respiratory protection and protective coveralls when working in an area where U of T employees, students or Faculty are present in their normal work clothes. Asbestos workers wear this PPE because they are closer to the work being carried out, and are thus exposed at a much higher level than bystanders. In addition, they perform asbestos work on a routine, and may wish to ensure that their total exposure is as low as possible. U of T employees in the area are not exposed on a daily basis, and thus are not subjected to the same level of risk. Please see the section on non-occupational exposure for more details.

ASBESTOS WORK

University employees as well as contractors are sometimes required to conduct work that involves the disturbance of asbestos-containing materials. Such work activities are strictly regulated. They are first categorized into three types of work operations - Type 1 (low risk), Type 2 (moderate risk) or Type 3 (high risk). For each of these, the Asbestos Management Program designates corresponding standard operating procedures to prevent the exposure to airborne asbestos. These procedures include strict requirements for preparation of the work area, use of personal protective equipment, use of proper work practices to reduce the spread of asbestos fibres, personal hygiene practices, and asbestos waste handling.

NON-OCCUPATIONAL EXPOSURE:

Asbestos-specific diseases are almost always a result of occupational exposure to asbestos. Non-occupational exposures resulting in disease have only been seen in spouses or other family members living with an asbestos worker, or those who have lived in the neighbourhood of asbestos plants. Asbestos fibres are naturally occurring and result in a natural background present in our environment. This combined with the widespread use of asbestos in products such as truck brake linings, means that we are all exposed to very small amounts of asbestos in our daily lives. It is not this very low level of exposure that results in asbestos disease but the higher levels of occupational exposure that are of concern to most authorities. Studies have not shown any evidence of asbestos-specific diseases in individuals who breathe asbestos in the outdoor air or who inhale asbestos as occupants of asbestos-containing buildings. Regardless, proper measures for preventing or minimizing exposure to asbestos must always be in place.

If you have any questions about the work being conducted, then please contact the Property Manager or Project Manager listed above.



Office of Environmental Health and Safety
UNIVERSITY OF TORONTO

Standard Operating Procedures
for the Control of Asbestos Fibres
During Type 2 Operations

ID R2.13

**DRILLING INTO A WALL THAT CONTAINS A NON-FRIABLE ASBESTOS-CONTAINING COATING USING
A HEPA VACUUM FOR DUST COLLECTION**

The exposure of workers and the corresponding measures and procedures for the minor disturbance of friable asbestos are classified as Type 2.

When authorized workers conduct Type 2 activities involving the minor disturbance of friable asbestos, specific precautions are required in order to maintain a safe work environment for the workers and other building occupants.

The procedures follow the requirements outlined in the *Regulation Respecting Asbestos on Construction Projects and in Buildings and Repair Operations* (O.Reg. 278/05) under the Occupational Health and Safety Act of Ontario, and the transport and delivery of asbestos waste in accordance with Regulation 347 under the Environmental Protection Act.

1.0 APPLICATION

- 1.1 This procedure applies to drilling holes in a wall that contains a non- friable asbestos-containing coating (e.g. sealant, paint) by means of power tools. For other disturbances (abrading, grinding, sanding or vibrating), refer to Procedure R2.14.
- 1.2 The procedure describes a modified method in Ontario Ministry of Labour, Regulations Respecting Asbestos on Construction Projects and in Buildings and Repair Operations (Ontario Reg. 278/05) as allowed by Section 23 of the Regulation and is for St. George Campus only. This procedure follows the transport and delivery of asbestos waste in accordance with Regulation 347 under the Environmental Protection Act.

2.0 DEFINITIONS

- 2.1 **Work Areas:** Where actual work activity involving non-friable asbestos takes place.
- 2.2 **Damp Wiping:** A cleaning process for removing residual asbestos contamination using damp-cloths, sponges or mops.

3.0 MATERIALS AND EQUIPMENT

- 3.1 **HEPA Vacuum:** Vacuum cleaner equipped with a High Efficiency Particulate Arresting (HEPA) Filter, fitted with appropriate tools. The vacuum equipment shall have a filtering system capable of collecting and retaining fibres greater than 0.3 microns in diameter at 99.97% efficiency.
- 3.2 **Dropsheet:** Rip-proof polyethylene plastic or other suitable material that is impervious to asbestos.
- 3.3 **Encapsulant (Sealer):** Bonding agent or sealant which can be applied as a liquid and controls the release of fibres or dust from the surface.
- 3.4 **Amended Water:** A mixture of water and a non-ionic, non-sudsing surfactant added to reduce water tension to allow thorough wetting of asbestos fibres.
- 3.5 **Sprayer:** Sprayer with mist nozzle for application of amended water or sealant.
- 3.6 **Asbestos Waste Receptacles:** Containers for waste must be dust tight, suitable for the type of waste, impervious to asbestos and identified as asbestos waste. All waste must have two layers of containment (e.g. double bagging) and be sealed and cleaned with a damp cloth or HEPA vacuum immediately before being removed from the work area. Also, it must be labelled as per the Ontario Ministry of Environmental regulation, and shall be acceptable to the disposal site selected and the Ministry of the Environment.

- 3.7 *Small Tools:* Sponge(s), metal bristle brush(es), bucket(s), ladder(s), heavy duty scraper(s), etc.
- 3.8 *Tape:* Reinforced duct tape or double-sided tape suitable for sealing polyethylene to all surfaces to be covered.
- 3.9 *Respirator:* See section 5 Personal Protective Equipment.
- 3.10 *Coveralls:* Full body disposable clothing of an appropriate size with attached hood. It should be elasticized at the cuffs and hood, and be made of material which does not readily retain or permit penetration of asbestos fibres.
- 3.11 *Shoe covers:* Elasticized disposable shoe covers with textured bottom for better grip. Shoe covers should be made of material which does not readily retain or permit penetration of asbestos fibres.

4.0 NOTICE OF ASBESTOS WORK

Appropriate parties, including local-area occupants and when necessary other building users, must be notified of planned Type 2 activities. The following methods of communication apply:

- 4.1 Small scale activities such as installing shelves, frames, etc.: The notification is to include a description of the planned Type 2 activity, its proposed duration, and in general terms the precautionary measures required to maintain a safe work environment. A sample template of this notification is provided Appendix I. This information is to be provided to the following:
 - 4.1.1 Local area occupants
 - 4.1.2 Manager, Hazardous Construction Materials Group (St. George only)
- 4.2 Larger-scale activities, for example, as part of an overall abatement or construction project, should following the same "Notice of Asbestos Work" procedures used for other Type 2 and 3 activities.

5.0 PERSONAL PROTECTION

- 5.1 While not mandatory, workers are strongly advised to wear respirators.
- 5.2 If a worker requests a respirator; the following shall apply:
 - 5.2.1 All respiratory equipment shall be individually assigned and identified.
 - 5.2.2 Each worker must attend respiratory protection training and be fit tested prior to beginning work.
 - 5.2.3 Workers shall wear at least a half facepiece respirator fitted with purple HEPA (P100) filters.
 - 5.2.4 Disposable single-use type respirators are not permitted.
 - 5.2.5 All respirators shall be approved for protection against asbestos fibres, and shall meet the design and usage requirements of the National Institute for Occupational Safety & Health (NIOSH).
 - 5.2.6 Replace filter cartridges as appropriate (36 hours of use or more frequently).
- 5.3 While not mandatory, workers are strongly advised to wear disposable coveralls.
- 5.4 A worker who is provided with protective clothing shall, before leaving the work area:
 - 5.4.1 Decontaminate his or her protective clothing and footwear by using a vacuum equipped with a HEPA filter, or by damp wiping, before removing the protective clothing. Thoroughly clean respirator if applicable.
 - 5.4.2 If the protective clothing will not be reused, place it in an asbestos waste receptacle.
- 5.5 *Facilities:* Provide access to facilities for washing hands and face which shall be used by every worker when/after leaving asbestos work areas.
- 5.6 Smoking, eating, drinking or chewing in asbestos work areas is prohibited.

6.0 PREPARATION - WORK AREAS

- 6.1 Do not use compressed air.
- 6.2 Clear immediate work areas of all moveable furnishings or equipment.
- 6.3 In common areas, erect tape barriers to keep occupants at least 20 feet away. Other works not associated with the asbestos work shall stay away at least 20 feet from the work area. No signage is required.
- 6.4 An enclosure is not necessary for this activity. As appropriate, a drop-sheet below the work is required; extend the drop-sheet at least 3 feet beyond line of work. Use rip-proof polyethylene if work is above rough concrete or other surface that could tear polyethylene.
- 6.5 No ventilation shutdown is required. Seal and tape all ventilation openings close to the work area with polyethylene plastic sheeting.
- 6.6 Don respiratory equipment and coveralls if applicable.

7.0 EXECUTION

- 7.1 Do not use compressed air.
- 7.2 Remove any visible dust from the work area or the surfaces of asbestos products by HEPA vacuuming or damp wiping.
- 7.3 Wet (with amended water) any asbestos-containing material that may be disturbed during this work. Maintain wet conditions throughout work. Do not use excess water which will drip off the material.
- 7.4 Follow manufacturer's direction to operate the HEPA vacuum. Position the tool at the proposed location and the nozzle of the HEPA vacuum directly below the proposed location. Apply a gentle force and move the tool slowly as needed. Remove the drill about 5 seconds after the hole or cut is completed. HEPA vacuum the hole with nozzle to remove any loose dust from the hole.
- 7.5 Repeat steps above for each additional proposed location.
- 7.6 At completion of work, HEPA vacuum or wet wipe the drop-sheet, any other surfaces below the work area, tools and equipment.
- 7.7 Any polyethylene, tape and cleaning cloths are to be wetted and shall be carefully rolled together and bagged as asbestos waste. Coveralls shall be disposed of as contaminated waste.

8.0 WASTE TRANSPORT AND DISPOSAL

- 8.1 Place asbestos waste into asbestos waste receptacles. Asbestos waste must be double-bagged, or double-contained, in receptacles that are clearly marked as containing asbestos. The bags or containers shall be selected to prevent any perforations or tears during filling, transport and disposal. The bags are usually rip-proof polyethylene bags sealed with duct tape. The outer bags must be HEPA vacuumed or damp wiped to remove any surface contamination immediately before being removed from the work area.
- 8.2 * For the St. George campus, transport the sealed containers to the locked, labelled dump-container that is maintained by Facilities and Services. The key for the locked dump-container can be obtained from the Materials Expeditor (Trade Services Tool Crib). Place the asbestos waste bags in the dump container and relock the dump-container. For the appropriate disposal procedures at the Mississauga and Scarborough campuses, consult with the Director of the University department that initiated the work.

Appendix I

Notification of Type 2 Asbestos Work

*****Please forward to all applicable occupants in or near the affected room(s).*****

Date: _____ Start time: _____ Stop time (approx.): _____

Building: _____ Room: _____

Brief Work Description: _____

Name of Contractor or Trade: _____ Phone number: _____

Property or Project Manager: _____ Phone number: _____

Please note that workers that work on a daily basis with asbestos may be wearing respiratory protection and protective coveralls when working in an area where U of T employees, students or Faculty are present in their normal work clothes. Asbestos workers wear this PPE because they are closer to the work being carried out, and are thus exposed at a much higher level than bystanders. In addition, they perform asbestos work on a routine, and may wish to ensure that their total exposure is as low as possible. U of T employees in the area are not exposed on a daily basis, and thus are not subjected to the same level of risk. Please see the section on non-occupational exposure for more details.

ASBESTOS WORK

University employees as well as contractors are sometimes required to conduct work that involves the disturbance of asbestos-containing materials. Such work activities are strictly regulated. They are first categorized into three types of work operations - Type 1 (low risk), Type 2 (moderate risk) or Type 3 (high risk). For each of these, the Asbestos Management Program designates corresponding standard operating procedures to prevent the exposure to airborne asbestos. These procedures include strict requirements for preparation of the work area, use of personal protective equipment, use of proper work practices to reduce the spread of asbestos fibres, personal hygiene practices, and asbestos waste handling.

NON-OCCUPATIONAL EXPOSURE:

Asbestos-specific diseases are almost always a result of occupational exposure to asbestos. Non-occupational exposures resulting in disease have only been seen in spouses or other family members living with an asbestos worker, or those who have lived in the neighbourhood of asbestos plants. Asbestos fibres are naturally occurring and result in a natural background present in our environment. This combined with the widespread use of asbestos in products such as truck brake linings, means that we are all exposed to very small amounts of asbestos in our daily lives. It is not this very low level of exposure that results in asbestos disease but the higher levels of occupational exposure that are of concern to most authorities. Studies have not shown any evidence of asbestos-specific diseases in individuals who breathe asbestos in the outdoor air or who inhale asbestos as occupants of asbestos-containing buildings. Regardless, proper measures for preventing or minimizing exposure to asbestos must always be in place.

If you have any questions about the work being conducted, then please contact the Property Manager or Project Manager listed above.