

Part 1 General

1.1 ADDENDUM FORM

- .1 This Addendum forms part of the Contract Documents and modifies the Bidding Documents dated 19 May 2017 with amendments and additions noted below.
- .2 Acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may disqualify the Bidder at the Owner's discretion.
- .3 This addendum consists of two (2) pages plus the following list of drawings:

No.	Drawing Title	Issue Date
ID0.1	General Notes, List of Drawings, Code Review, Drawing Legend	August 9, 2017
M1.0	Keyplan, and Symbol Legend	August 9, 2017
M1.1	Existing Ceiling HVAC Layout	August 9, 2017
M1.2	Existing Raised Floor HVAC Layout	August 9, 2017
M1.3	Existing Underfloor HVAC Layout	August 9, 2017
M2.1R1	Existing and New Plumbing Layout	August 9, 2017
M3.1	New Ceiling HVAC Layout	August 9, 2017
M3.2	New Raised Floor HVAC Layout	August 9, 2017
M3.3	New Underfloor HVAC Layout	August 9, 2017
M4.1	New Underfloor Piping Layout	August 9, 2017
M5.1	Sprinkler Layout	August 9, 2017
M6.1	Mechanical Schedules	August 9, 2017
M7.1	Mechanical Details and Control Schematic	August 9, 2017
E2.1R1	New Lighting Layout	August 9, 2017
E3.1R1	Luminaire Schedule	August 9, 2017

1.2 CHANGES TO SPECIFICATIONS

- .1 SECTION 01 14 00 – WORK RESTRICTIONS
 - .1 **Add** Item 1.6.3: A list of all staff anticipated to work on this project, with their birthdates, must accompany bid submissions.

1.3 CHANGES TO DRAWINGS

- .1 DRAWING ID0.1 – General Notes, List of Drawings, Code Review, Drawing Legend
 - .1 **Replace** Drawing ID0.1 with the attached drawing.
- .2 DRAWINGS M1.0 to M7.1 – Mechanical Drawings
 - .1 **Replace** all Mechanical Drawings with the attached Mechanical Drawings.
 - .2 **Refer** to Drawing M2.1R1; existing kitchenette sink to be removed, including associated drain pump and instantaneous water heater under sink. Cap off existing domestic water supply, drain, and vent in ceiling space respectively and remove associated pipes as shown.
- .3 DRAWING E2.1 – New Lighting Layout
 - .1 **Revise** lighting layout as shown.
- .4 DRAWING E3.1 – Luminaire Schedule

- .1 **Revise** luminaire type N as shown.
- .2 **Add** luminaire types G3, P1, and P2 as shown.

1.4 CLARIFICATIONS

- .1 Q: "A note on drawings ID2.1 and ID2.2 states to add blocking in wall, see drawing 13/ID3.1...The detail 13 shows the atrium wall. What is the detail on the blocking?"
 - .1 A: Elevation 3 on sheet ID3.3, and specification section 06 10 00, items 2.1.2 and 3.2, provide the description of the blocking.
- .2 Q: "Fire extinguishers.....mechanical drawings state that fire extinguishers are by owner"
 - .1 A: Fire extinguishers are provided by Owner, to be installed by GC.
- .3 Q: "Could we have a detail on the new clouds"
 - .1 A: Refer to Sheet ID2.1, Detail 4.
- .4 Note that AI phone will be supplied by Departmental Representative, and be installed as part of the Work.

1.5 NOTES FROM BIDDERS' SITE WALK-THROUGH

- .1 Due to delays in the substantial completion of other projects in the building, the anticipated construction start date for this project is delayed until end of August for the south portion of the floor and mid-October for the north portion of the floor.
- .2 BGIS noted that there has been recent water damage on the north side of the building due to a roof leak. The leak has been repaired however confirmation of a successful repair is required prior to repair of the damaged ceiling.
- .3 The list of walk-through attendees is attached to this addendum.

END OF ADDENDUM NUMBER NO. 5

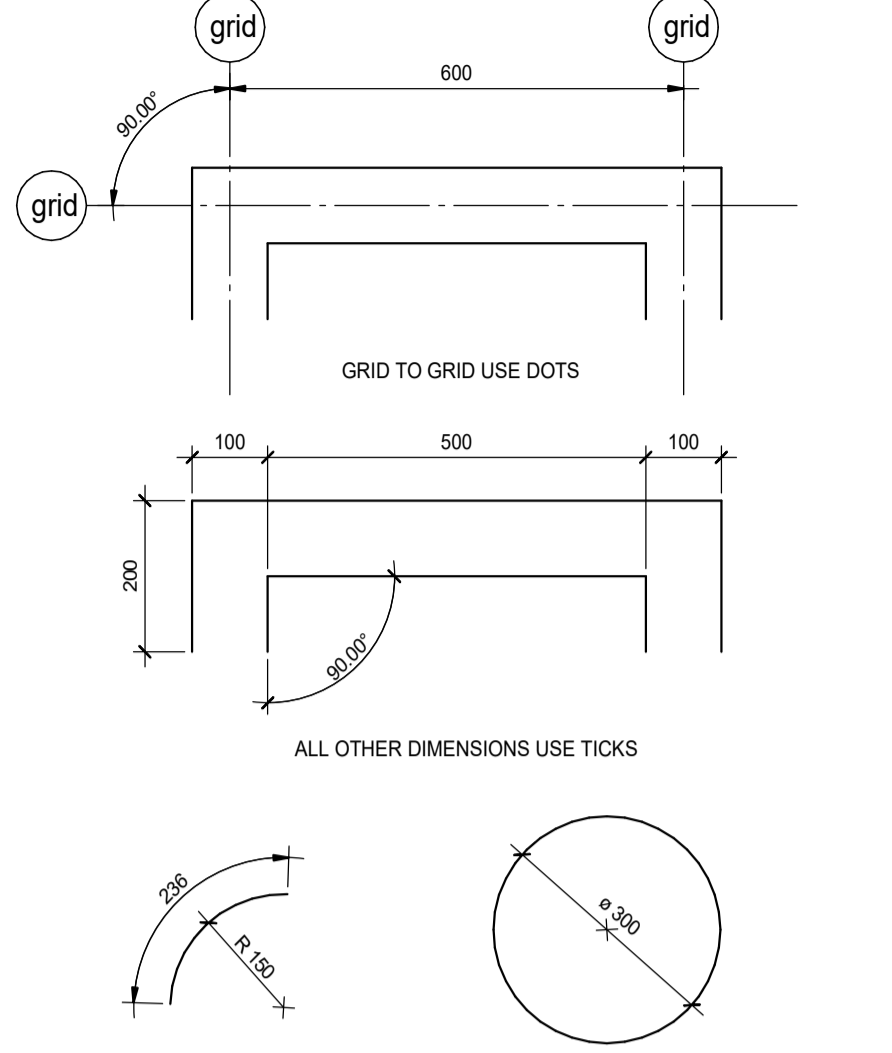
LIST OF DRAWINGS

GENERAL NOTES	
ID0.1	4TH FLOOR DEMOLITION PLAN (NORTH)
ID1.1	4TH FLOOR DEMOLITION PLAN (SOUTH)
ID2.1	4TH FLOOR CONSTRUCTION PLAN (NORTH)
ID2.2	4TH FLOOR CONSTRUCTION PLAN (SOUTH)
ID3	INTERIOR ELEVATIONS
ID3.2	INTERIOR ELEVATIONS AND DETAILS
ID3.3	SECTIONS AND PLAN DETAILS
ID4.3	FINISH SCHEDULES
ID5.2	4TH FLOOR FURNITURE PLAN (NORTH) - FOR REFERENCE ONLY
ID5.3	4TH FLOOR FURNITURE PLAN (SOUTH) - FOR REFERENCE ONLY
MECHANICAL	
M1.0	KEY PLAN, SYMBOL SCHEDULE AND DRAWING LIST
M1.1	EXISTING CEILING HVAC LAYOUT
M1.2	EXISTING RAISED FLOOR HVAC LAYOUT
M1.3	EXISTING UNDER FLOOR HVAC LAYOUT
M2.1	EXISTING AND NEW PLUMBING LAYOUT
M3.1	NEW CEILING HVAC LAYOUT
M3.2	NEW RAISED FLOOR HVAC LAYOUT
M3.3	NEW UNDER FLOOR HVAC LAYOUT
M4.1	NEW UNDER FLOOR PIPING LAYOUT
M5.1	NEW SPRINKLER LAYOUT
M6.1	MECHANICAL SCHEDULES
M7.1	MECHANICAL DETAILS AND CONTROL SCHEMATIC
ELECTRICAL	
E1.0	4TH FLOOR KEYPLAN, PENTHOUSE KEYPLAN, DRAWING LIST AND SYMBOL SCHEDULE
E1.1	LIGHTING DEMOLITION LAYOUT
E1.2	UNDER FLOOR POWER DEMOLITION LAYOUT
E1.3	POWER DEMOLITION LAYOUT
E1.4	LIFE SAFETY SYSTEMS DEMOLITION LAYOUT
E2.1	NEW LIGHTING LAYOUT
E2.2	NEW UNDER FLOOR POWER LAYOUT
E2.3	NEW POWER LAYOUT
E2.4	NEW LIFE SAFETY SYSTEMS LAYOUT
E3.1	ELECTRICAL SCHEDULES
E3.2	PANELBOARD SCHEDULES
E3.3	LIGHTING CONTROL SCHEDULE AND SCHEMATIC DIAGRAM
E3.4	EXISTING SINGLE LINE DISTRIBUTION DIAGRAM AND ELECTRICAL ROOM LAYOUT
COMMUNICATION	
T1.0	KEYPLAN, SYMBOL SCHEDULE AND DRAWING LIST
T1.1	EXISTING/DEMOLITION TELECOMMUNICATIONS LAYOUT
T1.2	EXISTING/DEMOLITION ACCESS CONTROL SYSTEMS LAYOUT
T2.1	NEW TELECOMMUNICATIONS LAYOUT
T2.2	NEW ACCESS CONTROL AND VIDEO SURVEILLANCE LAYOUT AND DETAILS
T2.3	NEW INTRUSION ALARM SYSTEM LAYOUT
T2.4	NEW SOUND MASKING/PAGING SYSTEM LAYOUT
T3.1	TELECOMMUNICATIONS SINGLE LINE DIAGRAMS

GENERAL NOTES

- THE DRAWINGS SHALL NOT BE SCALED FOR INFORMATION.
- THE CONTRACTOR SHALL VISIT THE SITE AND SATISFY HIMSELF THAT ALL DIMENSIONS, DATUMS AND DETAILED INFORMATION SHOWN ARE CORRECT.
- THE CONTRACTOR IS TO REPORT ANY DISCREPANCIES OR OMISSIONS PRIOR TO COMMENCEMENT OF WORK.
- THE CONTRACTOR IS TO REVIEW AND COORDINATE ALL ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR OPENINGS THRU FLOORS, WALLS AND CEILINGS INCLUDING BUT NOT LIMITED TO DUCT, PIPING AND ELECTRICAL RISERS.
- PRODUCTS AND MATERIALS ARE TO BE USED AND INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. DIMENSIONAL PROPERTIES OF THE MATERIALS ARE NOTED IN MILLIMETERS UNLESS INDICATED OTHERWISE.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR, PATCH AND MAKE GOOD ALL EXISTING SURFACES ADJACENT NEW CONSTRUCTION AND ALL EXISTING FINISHES AFFECTED BY THE CONSTRUCTION.
- CARPET & ACOUSTIC TILE REMOVED DURING DEMOLITION TO BE HANDED OVER TO BUILDING OWNER.

DIMENSION LEGEND



INTERIOR PARTITION NOTES

- ALL FIRE-RATED PARTITIONS (ASSEMBLIES) AND/OR FIRE COMPARTMENTS/SEPARATIONS ARE TO EXTEND FROM THE FLOOR SLAB TO THE US OF THE FLOOR OR ROOF DECK OVER TO PROVIDE A CONTINUOUS SMOKE TIGHT BARRIER. PROVIDE CONTINUOUS U.L.C. APPROVED FIRE STOP SEALANT (MATCHING WALL RATING) AT ABUTMENTS.

REFER TO MECHANICAL DRAWINGS FOR CONDITIONS WHERE DUCTWORK OR PIPING CONFLICT WITH FIRE RATED PARTITIONS/SEPARATIONS. CONSTRUCT A FIRE RATED ENCLOSURE EQUAL TO THE RATED PARTITION/SEPARATION WITH SHAFTWALL CONSTRUCTION AS REQUIRED UNLESS DETAILED OTHERWISE TO EXTEND AND MAINTAIN CONTINUITY OF THE FIRE SEPARATION AROUND THE DUCT OR PIPING.

ALL PENETRATIONS THRU FIRE RATED PARTITIONS ARE TO BE FILLED AND SEALED WITH A U.L.C. APPROVED FIRE STOPPING SYSTEM TO ENSURE A CONTINUOUS SMOKE TIGHT BARRIER. PROVIDE SUITABLE ESCUTCHEON TYPE TRIMS AND/OR CLOSURES WHERE THE PENETRATIONS WILL NOT BE CONCEALED FROM VIEW. SERVICE ROOMS, STORAGE ROOMS AND SIMILAR LOCATIONS WILL NOT REQUIRE ESCUTCHEON TRIMS. GYPSUM BOARD IS TO BE TIGHTLY FITTED AROUND ELEC ROUGH IN BOXES.

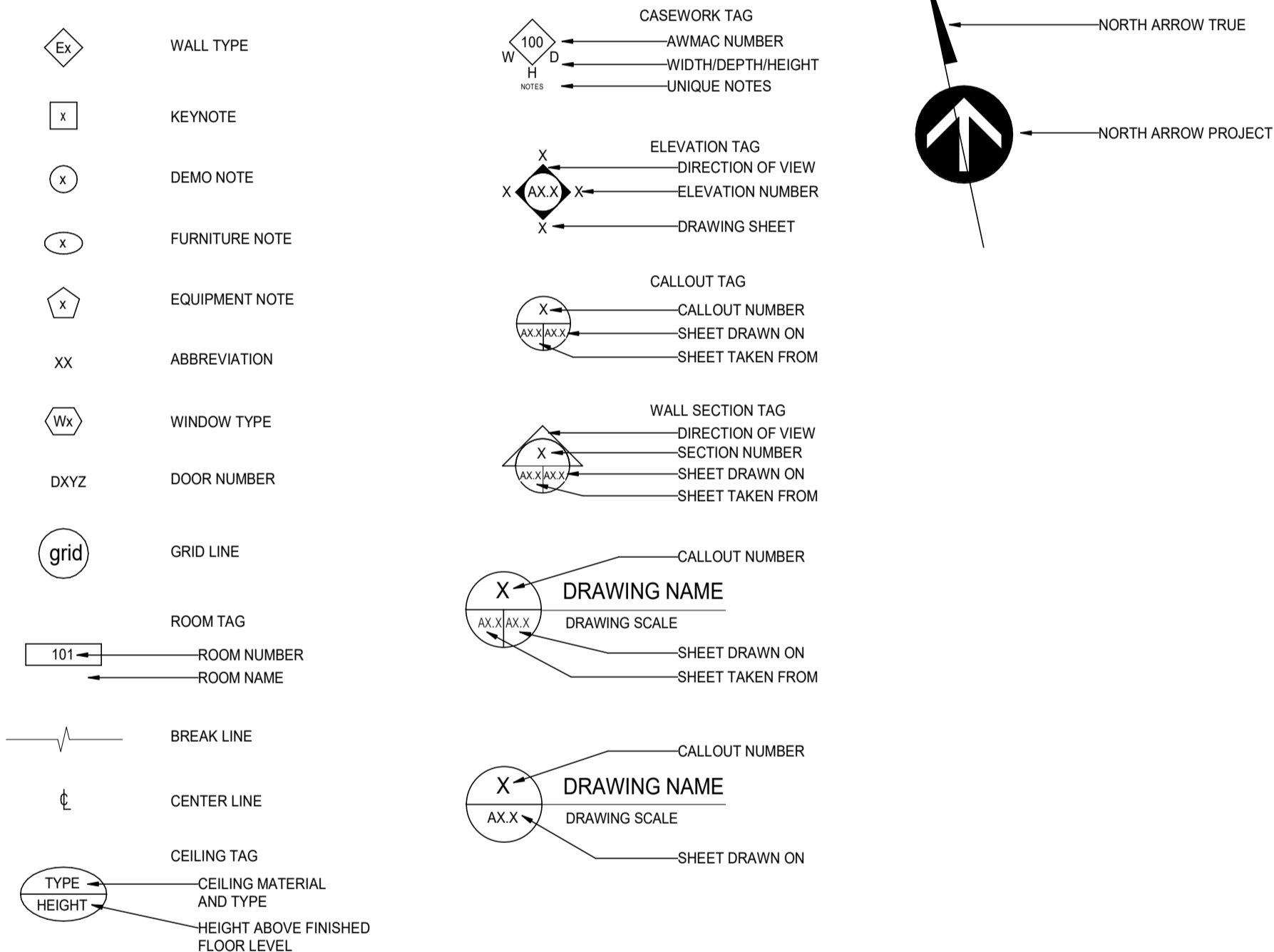
ALL FIRE RATED PARTITIONS (ASSEMBLY) ARE TO BE TIGHT FITTED TO ALL FLOOR AND/OR ROOF ASSEMBLIES. PROVIDE CONTINUOUS U.L.C. APPROVED FIRE STOP SEALANT (MATCHING WALL RATING) AT TOP AND BOTTOM OF WALL ASSEMBLY, WHERE SEALANT WILL BE EXPOSED TO VIEW UTILIZE PAINTABLE SYSTEM.

ALL NON-RATED FIRE PARTITIONS (SMOKE SEPARATIONS) SHALL BE CONSTRUCTED AS FIRE PARTITIONS WITHOUT A FIRE RESISTANCE RATING PROVIDING A CONTINUOUS SMOKE TIGHT BARRIER. ALL PENETRATIONS ARE TO BE SEALED IN ACCORDANCE WITH COMMENTS ABOVE.
- FIRE-RATING OF INTERIOR PARTITIONS SHALL BE CONTINUOUS ON ALL SIDES, BEHIND RECESSED PANELS, HEATERS, FIXTURES AND ACCESSORIES.
- SOUND-RATED PARTITIONS (ASSEMBLY) TO BE READ IN CONJUNCTION WITH ALL INTERIOR PARTITION TYPES NOTED WITH STC (SOUND TRANSMISSION CLASS) RATING AND/OR WHERE BATT INSULATION IS SHOWN IN PARTITION CAVITY, AND ARE TO EXTEND TO THE UNDERSIDE OF FLOOR OR ROOF ASSEMBLY ABOVE.

PROVIDE CONTINUOUS ACOUSTICAL CAULKING BOTH SIDES AT FLOOR AND CEILING. ACOUSTICALLY SEAL ALL PENETRATIONS INCLUDING MECHANICAL PIPING AND ELECTRICAL CONDUITS WITH ACOUSTIC SEALANT COMPATIBLE WITH THE GYPSUM BOARD CLADDING. WHERE PENETRATIONS ARE NOT CONCEALED PROVIDE PAINTABLE SEALANT OR TRIM. GYPSUM BOARD IS TO BE TIGHTLY FITTED AROUND ELEC ROUGH IN BOXES. ALL GAPS TO BE ACOUSTIC SEALED.
- BACK TO BACK ELECTRICAL BOXES NOT PERMITTED, OFFSET ELECTRICAL BOXES 30mm MIN. IN ALL CASES UNLESS OTHERWISE NOTED.
- AT LOCATIONS WHERE DIFFERENT THICKNESSES OF GYPSUM BOARD ABUT, THE FACES SHALL BE FLUSH.
- WALL SEGMENTS OVER DOORS, SIDELIGHTS OR OTHER OPENINGS SHALL BE FIRE/SMOKE RATED TO THE SAME DEGREE (I.E. 3/4 HOUR, 1 HOUR ETC.) AS THE ADJACENT WALLS.
- THE GENERAL CONTRACTOR IS TO COORDINATE AND PROVIDE ADEQUATE WOOD BLOCKING IN STUD WALLS AND PARTITIONS FOR SECURE FASTENING OF ALL WALL-MOUNTED M.L.W. EQUIPMENT, FIXTURES, ACCESSORIES, AND MECHANICAL OR ELECTRICAL PANELS. MOUNTING HEIGHTS ARE TO BE CONFIRMED WITH CONSULTANT WHERE NOT SHOWN ON THE DRAWINGS.
- ALL EXPOSED GYPSUM BOARD, MISCELLANEOUS METALS, CONCRETE BLOCK TO BE PAINTED UNLESS NOTED OTHERWISE.
- PERFORM WORK IN ACCORDANCE WITH 2015 NATIONAL BUILDING CODE OF CANADA (NBC) INCLUDING AMENDMENTS UP TO TENDER CLOSING DATE, AND OTHER CODES OF PROVINCIAL OR LOCAL APPLICATION, IN CASE OF CONFLICT OR DISCREPANCY, MORE STRINGENT REQUIREMENTS APPLY.

NATIONAL BUILDING CODE OF CANADA 2015		REFERENCE
ITEM	DESCRIPTION	
1	PROJECT INFORMATION NAME OF PROJECT: 156 GOC Greenstone LOCATION: 5101 50th Avenue, Yellowknife, NWT LEGAL DESCRIPTION: Not available	
2	PROJECT DESCRIPTION NEW ADDITION / ALTERATION CHANGE OF USE	1.3.3/1.4.1
3	MAJOR OCCUPANCIES MULTIPLE MAJOR OCCUPANCIES: FIRE SEPARATION REQUIRED (HRS): 0 hr	3.1.2.1/3.2.2.1 A-3.1.2.1
4	BUILDING AREA EXISTING (M ²): 750 NEW (M ²): 0 TOTAL (M ²): 750 FIREWALL: REQUIRED / NOT REQUIRED RATING AND GRID LOCATION:	1.4.1/3.1.10
5	GROSS FLOOR AREA EXISTING (M ²): 1321.8 NEW (M ²): 0 TOTAL (M ²): 1321.8	1.4.1
6	NUMBER OF STOREYS ABOVE GRADE: BELOW GRADE:	1.4.1/3.2.1.1
7	NUMBER OF STREETS FACING: 1 STREET 2 STREETS 3 STREETS / FIREFIGHTER ACCESS	3.2.10/3.2.4
8	BUILDING CLASSIFICATION 3.2.2 [7] DESCRIPTION: GROUP D, UP TO 6 STOREYS, AREA, SPRINKLERED SPRINKLERED SYSTEM: REQUIRED / NOT REQUIRED / EXISTING TO REMAIN PERMITTED CONSTRUCTION: COMBUSTIBLE / NON-COMBUSTIBLE REQUIRED FIRE RESISTANCE RATINGS (HRS): ROOF: 1 hr FLOOR: 1 hr MEZZANINE: 0 hr	3.2.2.20-20
9	STANDPIPE SYSTEM REQUIRED / NOT REQUIRED / EXISTING TO REMAIN	3.2.5.8
10	EXIT SIGNAGE REQUIRED / NOT REQUIRED / EXISTING TO REMAIN	3.4.5
11	FIRE ALARM SYSTEM REQUIRED / NOT REQUIRED / EXISTING TO REMAIN	3.2.4
12	VERTICAL TRANSPORTATION ELEVATOR SHAFT FIRE SEPARATION (HRS): MACHINE ROOM FIRE SEPARATION (HRS): MIN. ELEVATOR SIZE (mm):	3.5.3.1/3.5.3.1 3.5.4.1
16	EXIT DIMENSIONS CORRIDORS: MAX TRAVEL DISTANCE (M): 40 CORRIDOR CLEAR WIDTH (mm): 1100 MAX DEAD END CORRIDOR LENGTH (M): 6 STAIRS: STAIR CLEAR WIDTH (mm): 1100 LANDING CLEAR WIDTH (mm): 1100 LANDING TO LANDING MAX. RISE (M): 3.7 DOORS: DOOR CLEAR WIDTH (mm): 800	3.4.2.2.1 3.4.2.3/3.4.2.3
17	EXIT CAPACITY FLOOR NUMBER OF DOORS DOOR WIDTH (mm) WIDTH PER PERSON (mm) CAPACITY OF DOORS NUMBER OF STAIRS TREAD WIDTH (mm) WIDTH PER PERSON (mm) CAPACITY OF STAIRS EXIT CAPACITY 4 3 800 61 418 3 1100 8 412.5 412 6.1 6.1 8 8 6.1 6.1 8 8 6.1 6.1 8 8 ADEQUATE EXIT CAPACITY: YES EXIT CAPACITY DISTRIBUTED AS REQUIRED: YES	3.4.3.2
18	OCCUPANT LOAD BASED ON: / M ² / PERSON / DESIGN OF BUILDING FLOOR OCCUPANCY TYPE OCCUPANCY LOAD NUMBER OF PERSONS 6 Group D 1183.3 M ² (8.342 PER PERSON) 128	3.1.7
19	SAFETY IN FLOOR AREAS BUTTS: PUBLIC CORRIDORS: YES FIRE SEPARATION REQUIRED (HRS): 0 hr SUPERROOM PERMITTED TO BE SERVED BY SINGLE MEANS OF EGRESS: OCCUPANCY (GROUP) MAX. AREA (M ²) MAX. DISTANCE (M) Group D 300 45 TOTAL: 5	3.3.1/3.3.2.4.1 3.4.2.4
21	HEATH OCCUPANCY NUMBER OF PERSONS WCS PROVIDED WORKING WCS PROVIDED MEN'S WCS PROVIDED LADIES WCS PROVIDED Group D 128 4 3 1 1 TOTAL: 5	3.7
22	BARRIER FREE DESIGN BARRIER FREE ENTRANCES PROVIDED: YES (2 50% PEDESTRIAN ENTRANCES REQUIRED) POWER ASSISTED DOOR OPERATORS PROVIDED: YES ELEVATOR REQUIRES BARRIER FREE ACCESS: ALL BARRIER FREE LIFT PROVIDED: NO EXCEPTIONS TO BARRIER FREE ACCESS:	3.8

SYMBOL LEGEND

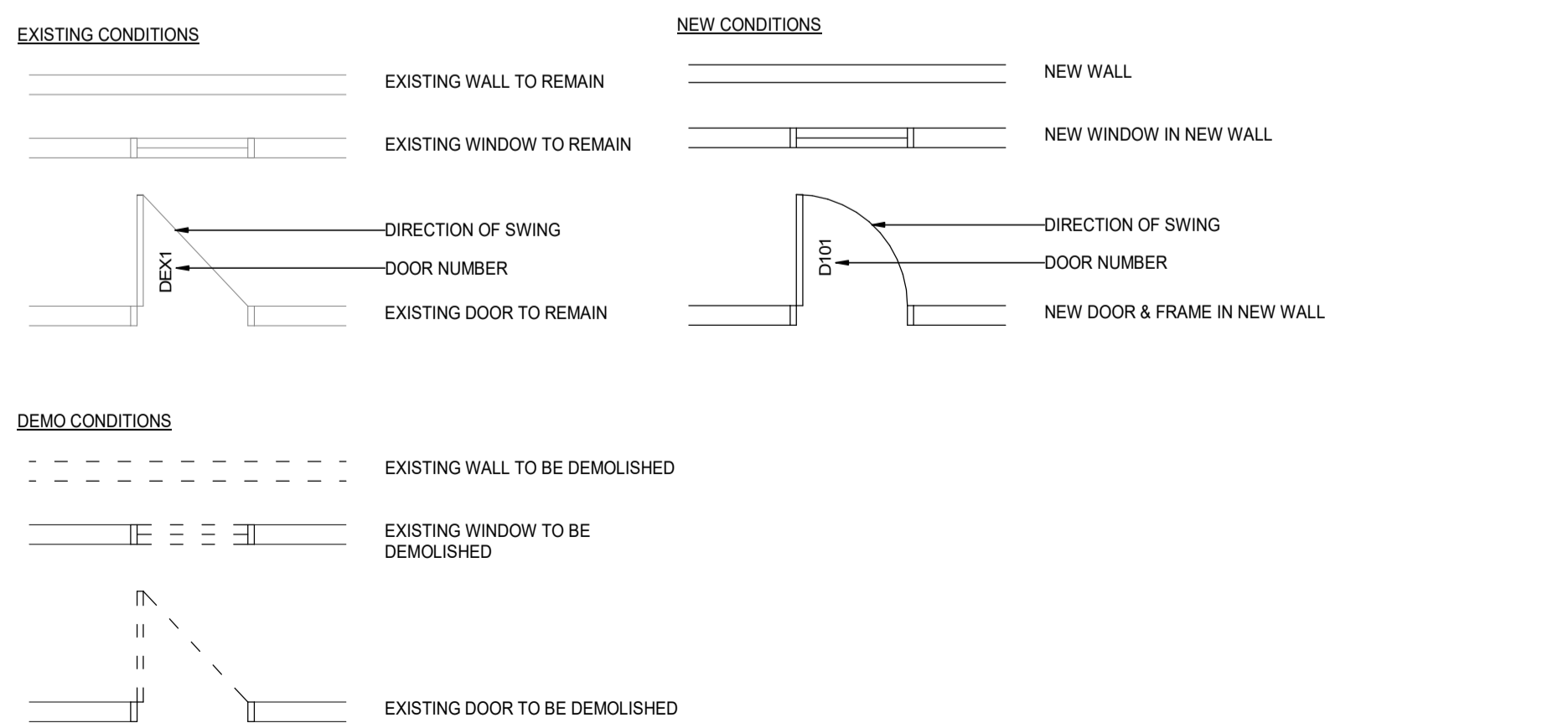


ABBREVIATION LEGEND

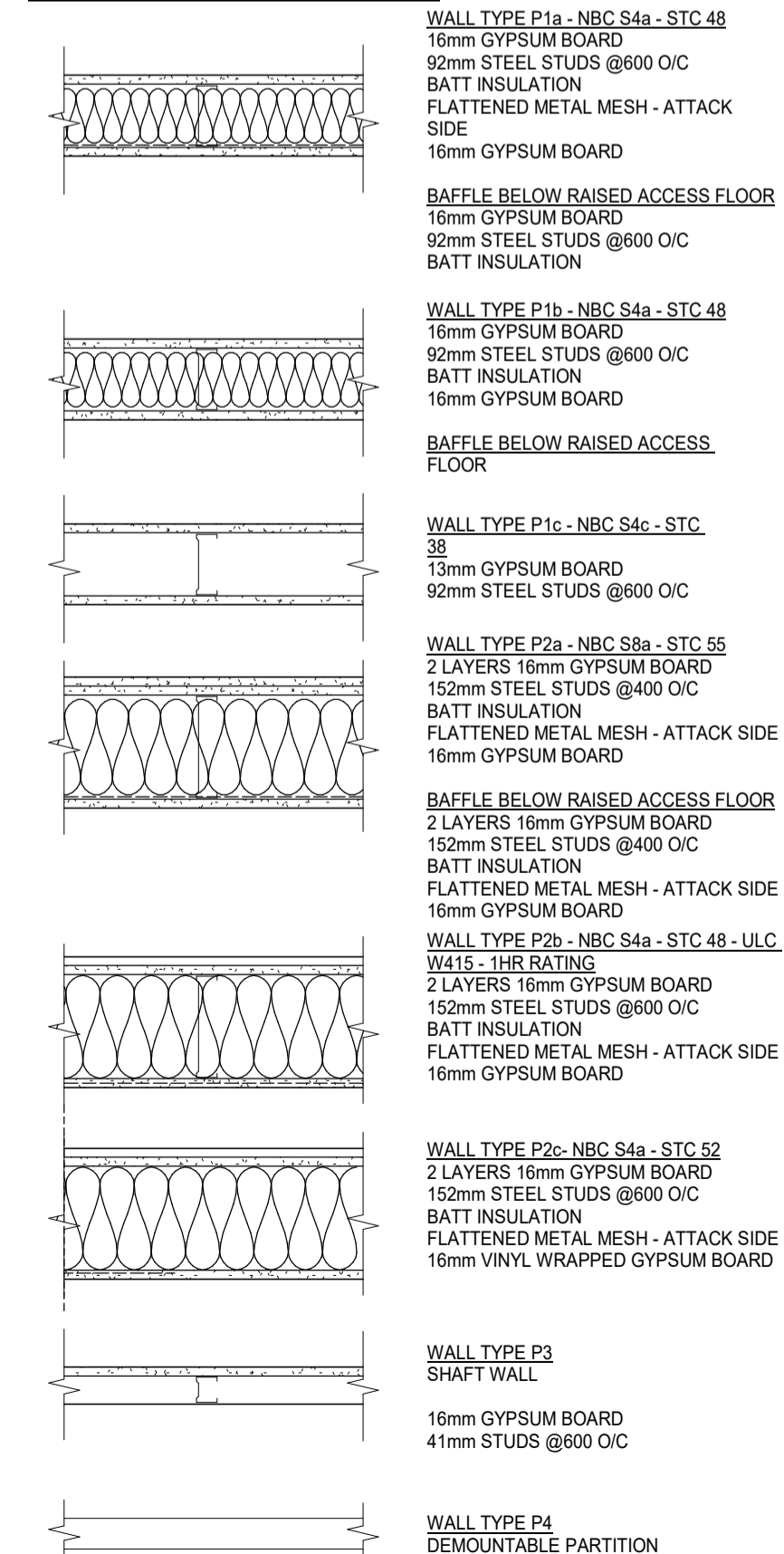
ADO	AUTOMATIC DOOR OPERATOR
ACT	ACOUSTIC CEILING TILE
CG	CORNER GUARD
CL	CLEAR
CONC.	CONCRETE
EX	EXISTING
GL	GLASS
GWB	GYPSUM WALL BOARD
HM	HOLLOW METAL
PT	PAINT
RB	RUBBER BASE
SCW	SOLID CORE WOOD
ST	STAIN
SL	SIDELITE
TR	TRANSOM
VF	VINYL FILM
VP	VISION PANEL
VPP	VISION PANEL GEORGIAN WIRE
WD	WOOD

DRAWING LEGEND

LINETYPES	
---	OBJECT OVERHEAD
---	CENTER LINE
---	DEMOLINE
---	GRIDLINE
---	HIDDEN LINE



CONSTRUCTION TYPES:



4	Re-issued for Addendum 5	2017/08/09
3	Issued for Construction	2017/05/19
2	95% Construction Documents	2017/04/25
1	66% Construction Documents	2017/03/17
0	Design Development	2017/01/24

Revision	Description	Date
Client		client

PSPC/SPAC

5th Floor, 10025 Jasper Avenue
Edmonton, AB

Project title: 5101 50th Avenue, Yellowknife, NWT

5101 50th Avenue, Yellowknife, NWT

4th Floor Tenant Fit-Up Greenstone Building

Designed by: TS Conçu par

Drawn by: TS Dessiné par

Approved by: SS Approuvé par

Project Manager / Administrateur de Projets: TP502

Brenda Embury

Drawing Title: General Notes, list of drawings, code review, drawing legend

General Notes, list of drawings, code review, drawing legend

Project no./No. du projet: R.060383

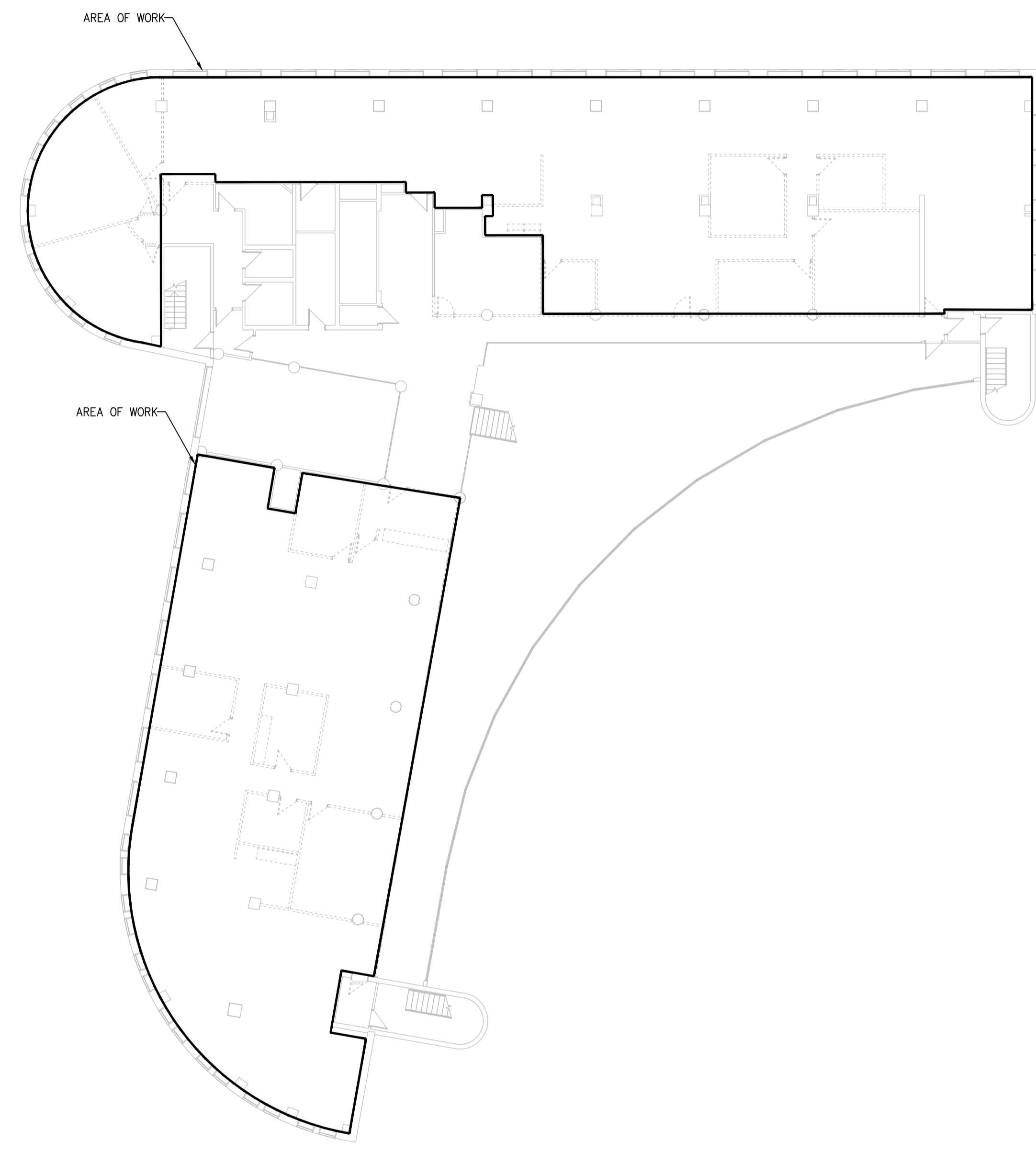
Drawing no./No. du dessin: ID0.1

Revision no.: 3



PERMIT TO PRACTICE
HDK CONSULTING INCORPORATED
Signature: *Daniel Ho*
Date: *May 19, 2017*
PERMIT NUMBER: P 1060
NTNU Association of Professional Engineers and Geoscientists

DRAWING LIST	
DWG NO.	DRAWING TITLE
M1.0	KEY PLAN, SYMBOL SCHEDULE AND DRAWING LIST
M1.1	EXISTING CEILING HVAC LAYOUT
M1.2	EXISTING RAISED FLOOR HVAC LAYOUT
M1.3	EXISTING UNDERFLOOR HVAC LAYOUT
M2.1	EXISTING AND NEW PLUMBING LAYOUT
M3.1	NEW CEILING HVAC LAYOUT
M3.2	NEW RAISED FLOOR HVAC LAYOUT
M3.3	NEW UNDERFLOOR HVAC LAYOUT
M4.1	NEW UNDERFLOOR PIPING LAYOUT
M5.1	SPRINKLER LAYOUT
M6.1	MECHANICAL SCHEDULES
M7.1	MECHANICAL DETAILS AND CONTROL SCHEMATIC



SYMBOL SCHEDULE:

- RECESSED PENDENT TYPE SPRINKLER HEAD
- △ HORIZONTAL SIDEWALL TYPE SPRINKLER HEAD
- UPRIGHT TYPE SPRINKLER HEAD
- ER DENOTES EXISTING TO BE RELOCATED SPRINKLER HEAD
- A DENOTES NEW ADDITION SPRINKLER HEAD
- R DENOTES RELOCATED SPRINKLER HEAD
- D DENOTES EXISTING TO BE REMOVED
- ☒ SUPPLY DIFFUSER
- SUPPLY DIFFUSER (ROUND)
- ☒ RETURN GRILLE
- ▧ STC 45 OR 55 RATED CROSSTALK SILENCER
- SB SECURITY BAR
- EXISTING DOMESTIC COLD WATER
- EXISTING DOMESTIC HOT WATER
- NEW DOMESTIC COLD WATER
- NEW DOMESTIC HOT WATER
- EXISTING DUCT
- NEW DUCT

1 KEY PLAN
M1.0 1:200

Revision	Description	Date
5		
4		
3	ISSUED FOR CONSTRUCTION	May 19, 2017
2	ISSUED FOR REVIEW 99% CONSTRUCTION DOCUMENTS	Apr. 25, 2017
1	66% CD SUBMISSION	Feb. 24, 2017
0	DESIGN DEVELOPMENT SUBMISSION	Jan. 20, 2017

Client: client

PSPC/SPAC
5th Floor, 10025 Jasper Avenue
Edmonton, AB

Project title: **5101 50th Avenue**
Yellowknife, NWT
4th Floor Tenant Fit-Up
Greenstone Building

Designed by: **PA/RR** / Conçu par
Drawn by: **FD** / Dessiné par
Approved by: **DH** / Approuvé par
PWSSC Project Manager: **Brenda Embury** / Administrateur de Projets TPSGC
Drawing title: **KEYPLAN, AND SYMBOL LEGEND** / Titre du dessin



GENERAL NOTES:

- DO NOT SCALE THIS DRAWING, CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO INSTALLATION AND REPORT ANY DISCREPANCY TO THE DEPARTMENTAL REPRESENTATIVE.
- THE DRAWING ONLY SHOWS A GENERAL SCHEMATIC OF NEW SYSTEMS. ROUTING OF DUCTWORK AND UNITS LOCATIONS SHALL SUIT SITE CONDITIONS AND MAY HAVE TO BE CHANGED TO AVOID CONFLICTS WITH STRUCTURE, DUCTS AND PIPES. WHEN CONFLICT CANNOT BE AVOIDED, THE DUCTWORK SHALL BE MODIFIED AS REQUIRED.
- CONTRACTOR SHALL INCLUDE FOR AND PROVIDE ALL COORDINATION BETWEEN TRADES AND CONSULTANT ON AND OFF SITE AS REQUIRED FOR INSTALLATION OF MECHANICAL AND ELECTRICAL SYSTEMS, WHERE MINOR REROUTING OF DUCTWORK OR SERVICES IS REQUIRED DUE TO ONSITE CONDITIONS, IT SHALL BE PERFORMED AT NO ADDITIONAL COST.
- COORDINATE ALL GRILLE AND DIFFUSER LOCATIONS WITH LIGHTING LAYOUT.
- CONFORM TO SPECIFICATIONS AND MANUFACTURER GUIDES FOR MATERIALS AND UNITS' INSTALLATION DETAILS.

DRAWING NOTES:

- DEMOLISH BACK EXHAUST DIFFUSER AND BRANCH DUCT TO THIS POINT.
- PREPARE AND MODIFY FOR NEW DUCT CONNECTION. REFER TO DRAWING NEW CEILING HVAC LAYOUT FOR NEW LOCATION.
- EXISTING GRILLE TO BE RELOCATED INTO NEW EX-1 OFFICE. EXTEND GRILLE INTO ROOM WITH RIGID DUCTWORK. REFER TO DRAWING NEW CEILING HVAC LAYOUT FOR NEW LOCATION.
- EXISTING GRILLE TO BE RELOCATED INTO THE NEW BULKHEAD. REFER TO DRAWING NEW CEILING HVAC LAYOUT FOR NEW LOCATION.
- EXISTING GRILLES TO REMAIN. TYPICAL.

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PERMIT TO PRACTICE
HDK CONSULTING INCORPORATED
 Signature: *Daniel P. Ho*
 Date: *04/19/17*
PERMIT NUMBER: P 1060
 NT/NU Association of Professional Engineers and Geoscientists

5		
4		
3	ISSUED FOR CONSTRUCTION	May 19, 2017
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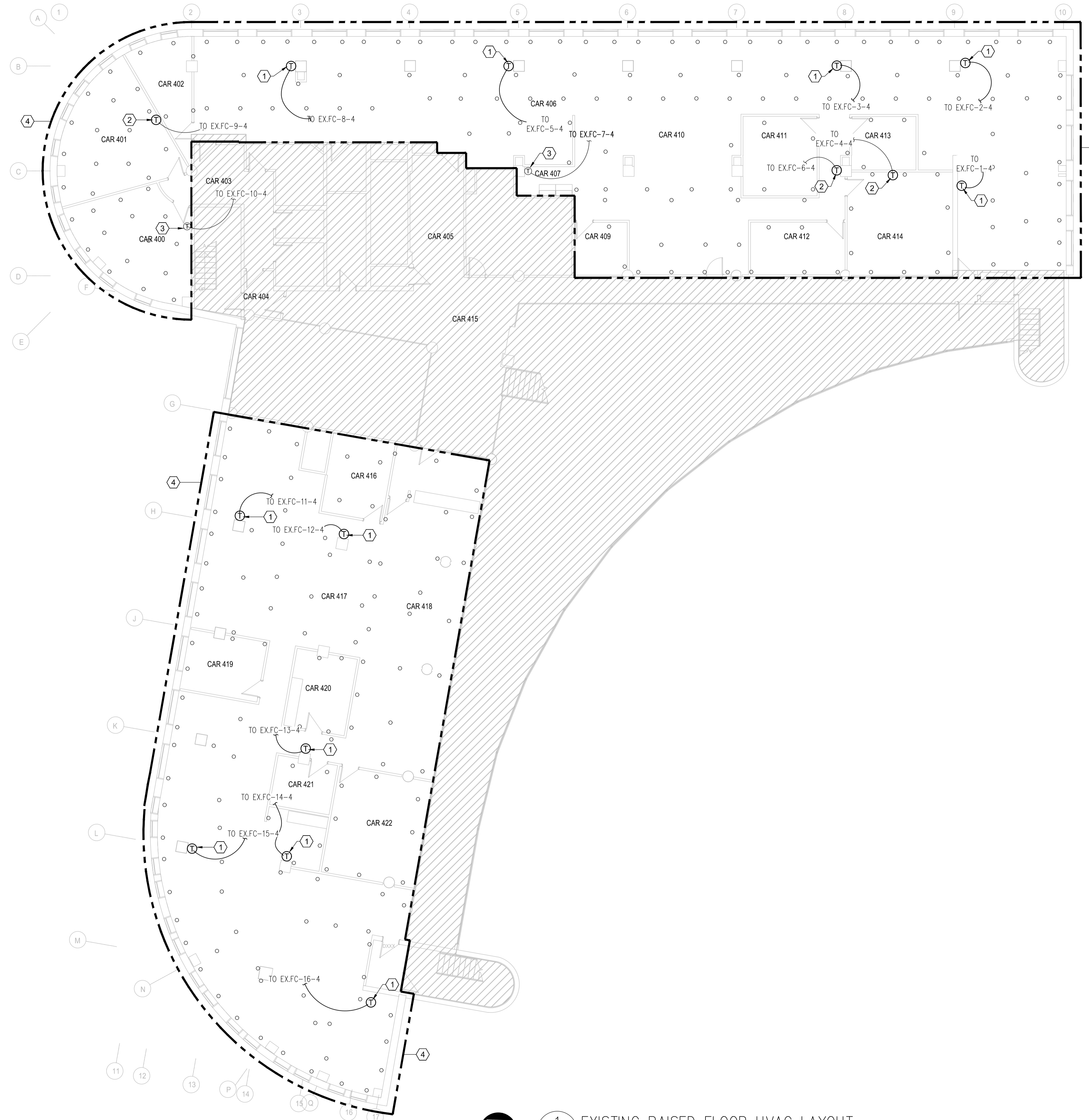
PSPC/SPAC
 5th Floor, 10025 Jasper Avenue
 Edmonton, AB

Project title: **5101 50th Avenue Yellowknife, NWT**
4th Floor Tenant Fit-Up Greenstone Building

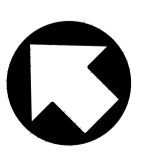
Designed by	Conçu par
PA	
Drawn by	Dessiné par
FD	
Approved by	Approuvé par
DH	
PWSSC Project Manager	Administrateur de Projets TPSGC
Brenda Embury	
Drawing title	Titre du dessin

EXISTING CEILING HVAC LAYOUT

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.060383	M1.1	3
	OF 12	



1 EXISTING RAISED FLOOR HVAC LAYOUT
M1.2 1:125



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- CONTRACTOR SHALL INCLUDE FOR AND PROVIDE ALL COORDINATION BETWEEN TRADES AND CONSULTANT ON AND OFF SITE AS REQUIRED FOR INSTALLATION OF MECHANICAL AND ELECTRICAL SYSTEMS. WHERE MINOR REROUTING OF DUCTWORK OR SERVICES IS REQUIRED DUE TO ONSITE CONDITIONS, IT SHALL BE PERFORMED AT NO ADDITIONAL COST.
- COORDINATE ALL GRILLE AND DIFFUSER LOCATIONS WITH FURNITURE LAYOUT.
- CONFORM TO SPECIFICATIONS AND MANUFACTURER GUIDES FOR MATERIALS AND UNITS' INSTALLATION DETAILS.

DRAWING NOTES:

- EXISTING FAN COIL THERMOSTAT AND ASSOCIATED WIRING TO BE REMOVED. FAN COIL CONTROL WILL BE BASED ON NEW TERMINAL UNIT THERMOSTATS.
- THERMOSTAT TO BE RELOCATED. EXTEND WIRING AS REQUIRED. REFER TO NEW RAISED FLOOR HVAC LAYOUT FOR NEW LOCATION OF THERMOSTAT.
- EXISTING THERMOSTAT TO REMAIN.
- RELOCATE EXISTING 200mm ROUND FLOOR DIFFUSERS TO SUIT NEW ROOM LAYOUT. REFER TO RAISED FLOOR - NEW LAYOUT FOR RECOMMENDED LOCATION OF ROUND FLOOR DIFFUSERS. INFORM THE ENGINEER FOR ANY DISCREPANCIES.



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HDK CONSULTING INCORPORATED
 Signature: *Daniel Z...*
 Date: *May 19, 2017*
PERMIT NUMBER: P 1060
 NT/NU Association of Professional Engineers and Geoscientists

Revision	Description	Date
5		
4		
3	ISSUED FOR CONSTRUCTION	May 19, 2017
2	ISSUED FOR REVIEW 99% CONSTRUCTION DOCUMENTS	Apr. 25, 2017
1	66% CD SUBMISSION	Feb. 24, 2017
0	DESIGN DEVELOPMENT SUBMISSION	Jan. 20, 2017

Client: **PSPC/SPAC**
5th Floor, 10025 Jasper Avenue
Edmonton, AB

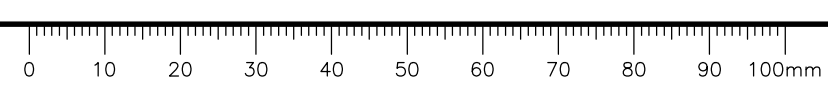
Project title: **5101 50th Avenue**
Yellowknife, NWT
4th Floor Tenant Fit-Up
Greenstone Building

Designed by: **PA** / Conçu par
 Drawn by: **FD** / Dessiné par
 Approved by: **DH** / Approuvé par
 PWSC Project Manager: **Brenda Embury** / Administrateur de Projets TPSGC
 Drawing title: **EXISTING RAISED FLOOR HVAC LAYOUT** / Titre du dessin

Project no./No. du projet: **R.060383**
 Drawing no./No. du dessin: **M1.2**
 Revision no.: **3**



1 EXISTING UNDERFLOOR HVAC LAYOUT
M1.3 1:125



GENERAL NOTES:

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- CONTRACTOR SHALL INCLUDE FOR AND PROVIDE ALL COORDINATION BETWEEN TRADES AND CONSULTANT ON AND OFF SITE AS REQUIRED FOR INSTALLATION OF MECHANICAL AND ELECTRICAL SYSTEMS, WHERE MINOR REROUTING OF DUCTWORK OR SERVICES IS REQUIRED DUE TO ON-SITE CONDITIONS, IT SHALL BE PERFORMED AT NO ADDITIONAL COST.
- COORDINATE ALL LIGHT AND DIFFUSER LOCATIONS WITH LIGHTING LAYOUT.
- CONFORM TO SPECIFICATIONS AND MANUFACTURER GUIDES FOR MATERIALS AND UNITS' INSTALLATION DETAILS.

DRAWING NOTES:

- EXISTING AIR SYSTEM DIVIDER TO REMAIN.
- EXISTING AIR SYSTEM DIVIDER TO BE DEMOLISHED.
- EXISTING FAN COIL TO BE RELOCATED. EXTEND OR REDUCE ALL SERVICES REQUIRED SUCH AS DUCT WORK, HYDRONIC PIPING, CONDENSATE PIPING AND CONTROL/ELECTRICAL WIRING. INCLUDING REPAIR OF ALL INSULATION.
- EXISTING FAN COIL TO REMAIN.
- DEMOLISH EXISTING DUCTWORK SHOWN DASHED.
- EXISTING VAV TO BE RELOCATED. REFER TO NEW UNDERFLOOR HVAC LAYOUT FOR NEW LOCATION.

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PERMIT NUMBER: P 1060
NT/NU Association of Professional Engineers and Geoscientists

Revision	Description	Date
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Client: _____ client

PSPC/SPAC
5th Floor, 10025 Jasper Avenue
Edmonton, AB

Project title: **5101 50th Avenue**
Yellowknife, NWT
4th Floor Tenant Fit-Up
Greenstone Building

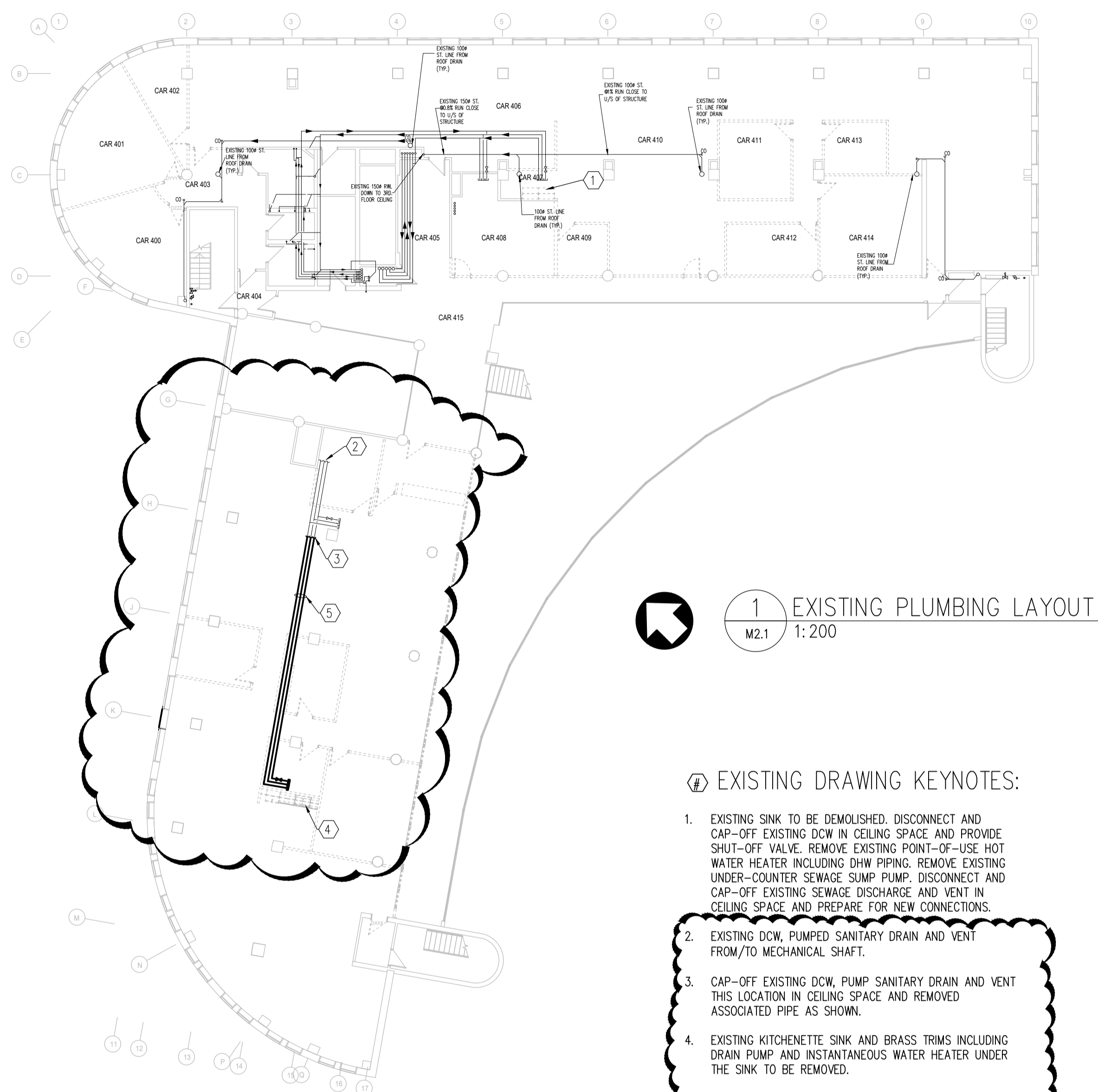
Designed by PA	Conçu par
Drawn by FD	Dessiné par
Approved by DH	Approuvé par
PWSSC Project Manager Brenda Embury	Administrateur de Projets TPSGC
Drawing title	Titre du dessin

EXISTING UNDERFLOOR HVAC LAYOUT

Project no./No. du projet R.060383	Drawing no./No. du dessin M1.3	Revision no. 3
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GENERAL NOTES:

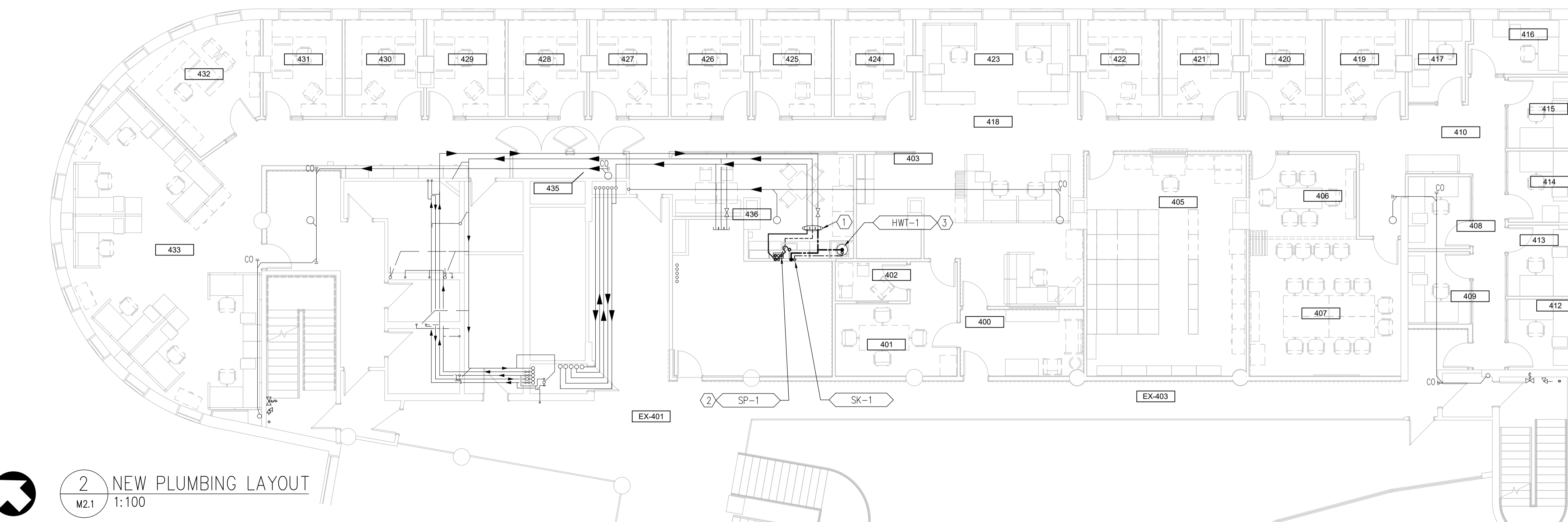
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- COORDINATE ALL GRILLE AND DIFFUSER LOCATIONS WITH LIGHTING LAYOUT.
- CONFORM TO SPECIFICATIONS AND MANUFACTURER GUIDES FOR MATERIALS AND UNITS' INSTALLATION DETAILS.



1 EXISTING PLUMBING LAYOUT
M2.1 1:200

EXISTING DRAWING KEYNOTES:

- EXISTING SINK TO BE DEMOLISHED. DISCONNECT AND CAP-OFF EXISTING DCW IN CEILING SPACE AND PROVIDE SHUT-OFF VALVE. REMOVE EXISTING POINT-OF-USE HOT WATER HEATER INCLUDING DHW PIPING. REMOVE EXISTING UNDER-COUNTER SEWAGE SUMP PUMP. DISCONNECT AND CAP-OFF EXISTING SEWAGE DISCHARGE AND VENT IN CEILING SPACE AND PREPARE FOR NEW CONNECTIONS.
- EXISTING DCW, PUMPED SANITARY DRAIN AND VENT FROM/TO MECHANICAL SHAFT.
- CAP-OFF EXISTING DCW, PUMP SANITARY DRAIN AND VENT THIS LOCATION IN CEILING SPACE AND REMOVED ASSOCIATED PIPE AS SHOWN.
- EXISTING KITCHENETTE SINK AND BRASS TRIMS INCLUDING DRAIN PUMP AND INSTANTANEOUS WATER HEATER UNDER THE SINK TO BE REMOVED.
- EXISTING DCW, PUMP SANITARY DRAIN AND VENT PIPE TO BE REMOVED.



NEW CONSTRUCTION
DRAWING KEYNOTES:

- CONNECT NEW 38mm \varnothing SEWAGE PUMP DISCHARGE, 38mm \varnothing VENT AND 19mm \varnothing DCW TO EXISTING CAPPED-OFF SERVICES RESPECTIVELY. CONTRACTOR TO COORDINATE PIPE ROUTING AND CONFIRM EXACT LOCATION ON SITE.
- PIPE 38mm \varnothing SINK DRAIN TO NEW SEWAGE PUMP. PIPE SEWAGE PUMP DISCHARGE AND VENT UP THROUGH WALL AND RUN IN CEILING SPACE. REFER TO SCHEDULE AND SPECIFICATION FOR MORE INFORMATION OF SEWAGE PUMP. REFER TO ARCHITECTURAL DETAILS.
- NEW ELECTRIC HOT WATER TANK IN CABINET. PROVIDE SUPPORTS AND DRAIN PAN. CONNECT NEW 19mm \varnothing DCW AS SHOWN. PIPE DRAIN PAN DIRECTLY TO KITCHEN SINK FIXTURE LEG. REFER TO DETAIL, SCHEDULE AND SPECIFICATION FOR MORE INFORMATION OF HOT WATER TANK. REFER TO ARCHITECTURAL DETAILS.

2 NEW PLUMBING LAYOUT
M2.1 1:100

5		
4	ISSUED WITH ADDENDUM 04	Aug 09, 2017
3	ISSUED FOR CONSTRUCTION	May 19, 2017
2	ISSUED FOR REVIEW 99% CONSTRUCTION DOCUMENTS	Apr. 25, 2017
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Revision	Description	Date
Client		client

PSPC/SPAC

5th Floor, 10025 Jasper Avenue
Edmonton, AB

Project title

5101 50th Avenue
Yellowknife, NWT

4th Floor Tenant Fit-Up
Greenstone Building

Designed by	Conçu par
RR	
Drawn by	Dessiné par
FD	
Approved by	Approuvé par
DH	
PWSSC Project Manager	Administrateur de Projets TPSGC
Brenda Embury	
Drawing title	Titre du dessin

EXISTING AND NEW
PLUMBING LAYOUT

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.060383	M2.1R1	3
	OF 12	



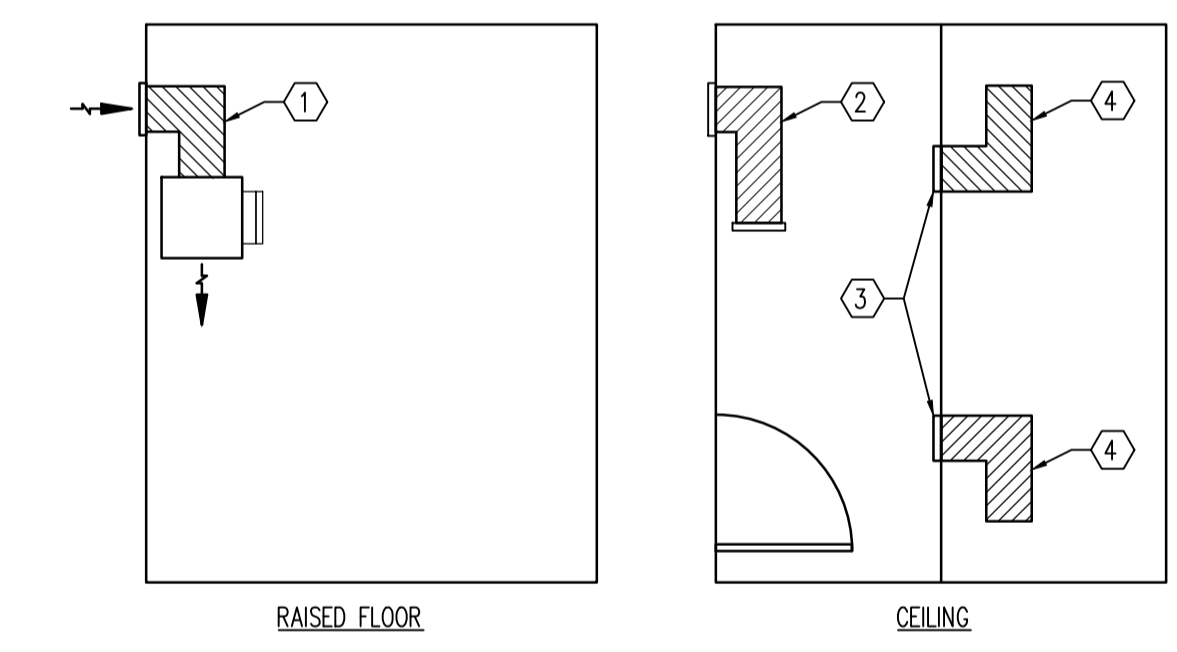
PERMIT TO PRACTICE
HDK CONSULTING INCORPORATED
Signature: *David Ho*
Date: *Nov 19 2017*
PERMIT NUMBER: P 1060
NTNU Association of Professional Engineers and Geoscientists

GENERAL NOTES:

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- COORDINATE ALL GRILLE AND DIFFUSER LOCATIONS WITH LIGHTING LAYOUT.
- CONFORM TO SPECIFICATIONS AND MANUFACTURER GUIDES FOR MATERIALS AND UNITS' INSTALLATION DETAILS.

DRAWING KEYNOTES:

- CONNECT NEW EXHAUST DUCT TO EXISTING APPROXIMATELY AT THIS LOCATION.
- PROVIDE NEW EXHAUST GRILLE.
- RELOCATED EXISTING TRANSFER GRILLE IN BULKHEAD TO NEW EX-1 OFFICE. EXTEND WITH RIGID DUCTWORK TO EXISTING GRILLE OPENING.
- NEW 300X200 CROSSTALK SILENCER IN EXISTING BULKHEAD. TYPICAL.
- NEW TRANSFER AIR GRILLE. PROVIDE NEW DUCTWORK AND CONNECT TO EXISTING BULKHEAD.
- TYPICAL CROSS TALK SILENCER TO TRANSFER AIR FROM ENCLOSED ROOMS BACK TO OPEN AREA. 300X200 WITH ACOUSTIC LINING AND T-1 GRILLE ON BOTH ENDS. TYPICAL.
- NEW LOCATION OF GRILLE.
- ACOUSTICALLY LINED 300X200 CROSS TALK SILENCER.
- PROVIDE SECURITY BARS.



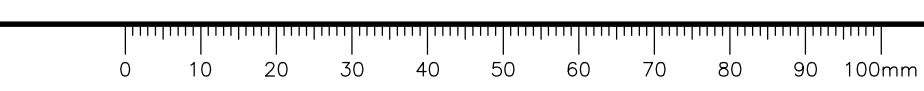
DETAIL KEYNOTES:

- PROVIDE STC 45 OR 55 RATED SILENCER, TYPICAL FOR ALL ENCLOSED ROOMS. REFER TO ARCHITECTURAL FOR ROOM PARTITION STC RATING.
- PROVIDE STC 45 OR 55 RATED CROSSTALK SILENCER FOR TRANSFER AIR FROM OFFICE TO CORRIDOR.
- EXISTING BULKHEAD AND TRANSFER GRILLE.
- PROVIDE STC 45 OR 55 RATED CROSSTALK SILENCER.

2 CROSSTALK AND SILENCER TYPICAL DETAILS



1 NEW CEILING HVAC LAYOUT
M3.1 1:100



Revision	Description	Date
5		
4		
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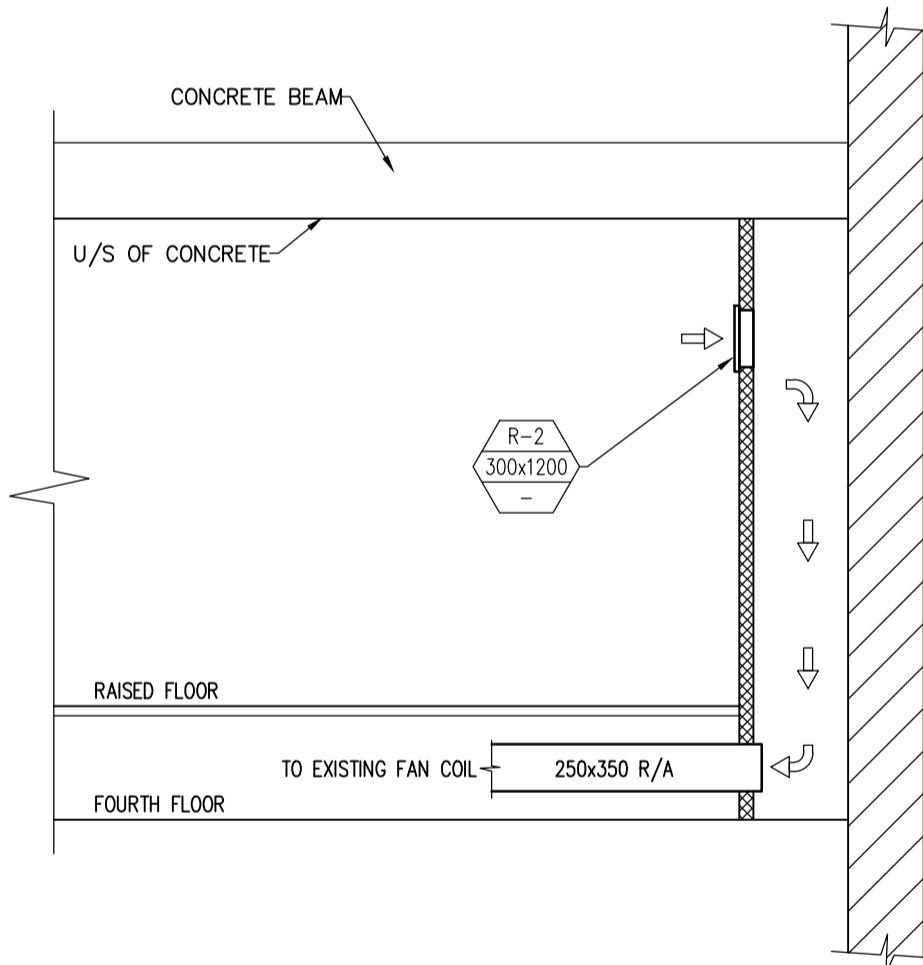
Client: client

PSPC/SPAC
5th Floor, 10025 Jasper Avenue
Edmonton, AB

Project title: **5101 50th Avenue Yellowknife, NWT**
4th Floor Tenant Fit-Up Greenstone Building

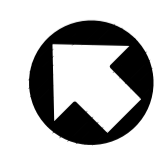
Designed by: **PA** Conçu par
Drawn by: **FD** Dessiné par
Approved by: **DH** Approuvé par
PWSSC Project Manager: **Brenda Embury** Administrateur de Projets TPSGC
Drawing title: **NEW CEILING HVAC LAYOUT** Titre du dessin

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.060383	M3.1	3



2 AIRSHAFT DETAIL-1
M3.2 NTS

1 NEW RAISED FLOOR HVAC LAYOUT
M3.2 1:125



GENERAL NOTES:

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- COORDINATE ALL GRILLE AND DIFFUSER LOCATIONS WITH LIGHTING LAYOUT.
- CONFORM TO SPECIFICATIONS AND MANUFACTURER GUIDES FOR MATERIALS AND UNITS' INSTALLATION DETAILS.
- ALL DIFFUSERS TO BE CENTERED TO THE FLOOR TILE.
- GENERAL NOTES FOR THERMOSTAT HEIGHTS @ 1050mm. CENTER LINE.

DRAWING KEYNOTES:

- RETURN AIR SHAFT FROM RAISED FLOOR TO HIGH LEVEL RETURN GRILLE. SEE DETAIL.
- NEW LOCATION OF EXISTING THERMOSTAT.
- FAN POWERED BOX THERMOSTAT LOCATED ON THE WALL AT ACCESSIBLE HEIGHT.
- NEW LOCATION OF EXISTING ROUND FLOOR DIFFUSERS. TYPICAL.
- TRANSFER FAN THERMOSTAT LOCATED ON THE WALL AT 48" A.F.F.
- EXISTING THERMOSTAT.



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 Signature: *Daniel Ojo*
 Date: *May 19, 2017*
PERMIT NUMBER: P 1060
 NTNU Association of Professional Engineers and Geoscientists

Revision	Description	Date
5		
4		
3	ISSUED FOR CONSTRUCTION	May 19, 2017
2	ISSUED FOR REVIEW 99% CONSTRUCTION DOCUMENTS	Apr. 25, 2017
1	66% CD SUBMISSION	Feb. 24, 2017
0	DESIGN DEVELOPMENT SUBMISSION	Jan. 20, 2017

Client: client

PSPC/SPAC
 5th Floor, 10025 Jasper Avenue
 Edmonton, AB

Project title: **5101 50th Avenue Yellowknife, NWT**
4th Floor Tenant Fit-Up Greenstone Building

Designed by: **PA** / Conçu par
 Drawn by: **FD** / Dessiné par
 Approved by: **DH** / Approuvé par
 PWSSC Project Manager: **Brenda Embury** / Administrateur de Projets TPSGC
 Drawing title: **NEW RAISED FLOOR HVAC LAYOUT** / Titre du dessin

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.060383	M3.2	3
	OF 12	



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Signature: *Daniel Ho*
Date: *May 2017*
PERMIT NUMBER: P 1060
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Revision	Description	Date
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Client: client

PSPC/SPAC

5th Floor, 10025 Jasper Avenue
Edmonton, AB

Project title: Project

5101 50th Avenue
Yellowknife, NWT

**4th Floor Tenant Fit-Up
Greenstone Building**

Designed by: Conçu par PA

Drawn by: Dessiné par FD

Approved by: Approuvé par DH

PWSSC Project Manager / Administrateur de Projets TPSGC
Brenda Embury

Drawing title: Titre du dessin

**NEW UNDERFLOOR
HVAC LAYOUT**

Project no./No. du projet: Drawing no./No. du dessin: Revision no.:

R.060383 M3.3 3

OF 12

GENERAL NOTES:

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DRAWING KEYNOTES:

- NEW DUCT CONNECTION TO THIS POINT.
- NEW AIR SYSTEM DIVIDER. TYPICAL.



1 NEW UNDERFLOOR HVAC LAYOUT
M3.3 1:1.25

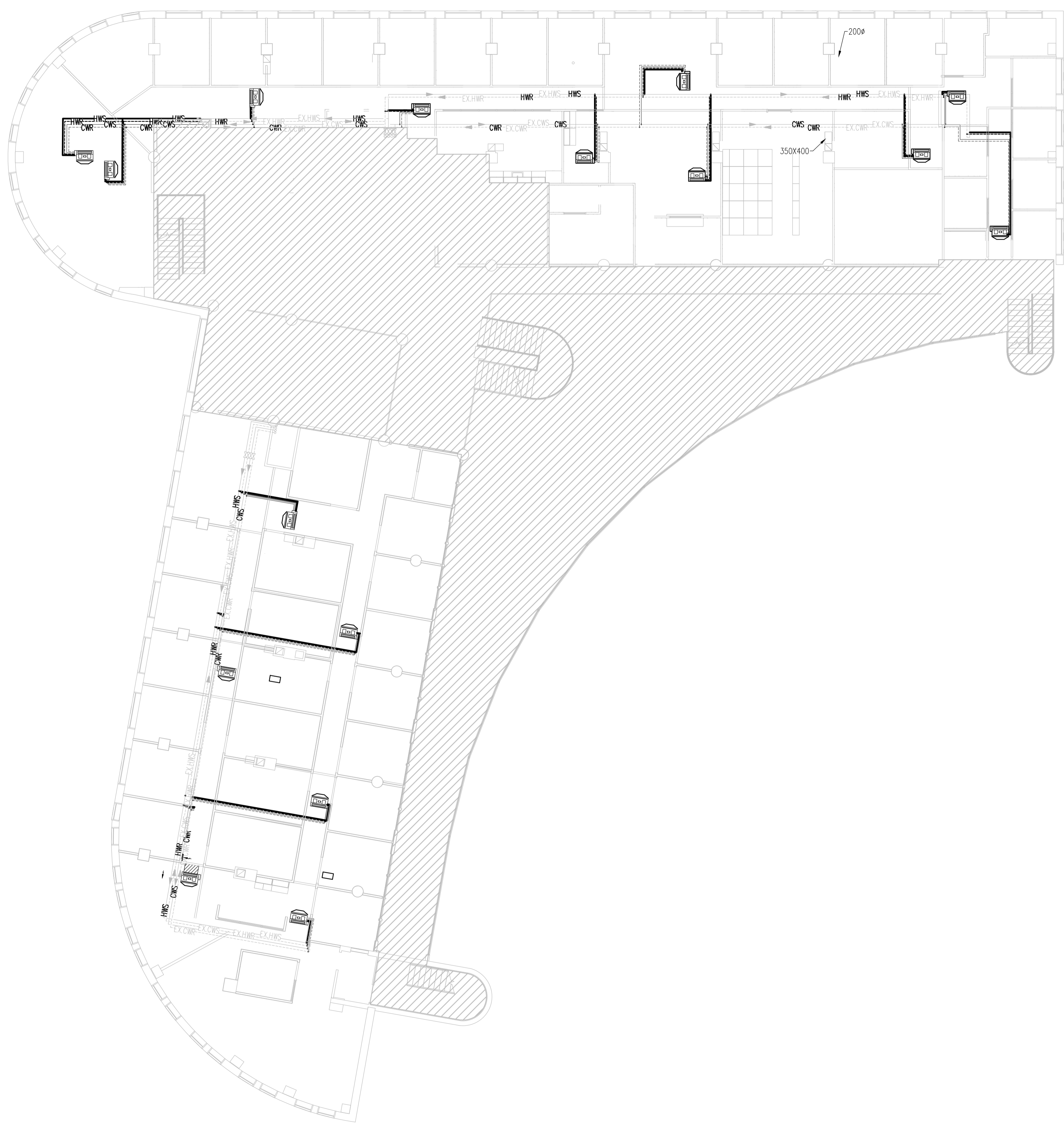
2 SECTION - 1
M3.3/M3.3 NTS

3 SECTION - 2
M3.3/M3.3 NTS

4 SECTION - 3
M3.3/M3.3 NTS

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Signature: *Daniel M.*
Date: *11-1-2017*
PERMIT NUMBER: P 1060
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Client: _____ client

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5th Floor, 10025 Jasper Avenue
Edmonton, AB

Project title: _____ Projet

5101 50th Avenue
Yellowknife, NWT

**4th Floor Tenant Fit-Up
Greenstone Building**

Designed by: _____ Conçu par

PA

Drawn by: _____ Dessiné par

FD

Approved by: _____ Approuvé par

DH

PWSSC Project Manager / Administrateur de Projets TPSGC
Brenda Embury

Drawing title: _____ Titre du dessin

**NEW UNDERFLOOR
PIPING LAYOUT**

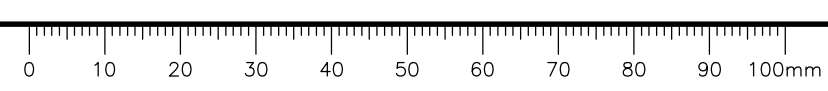
Project no./No. du projet: _____ Drawing no./No. du dessin: _____ Revision no.:

R.060383 M4.1 3

OF 12



1 NEW UNDER FLOOR PIPING LAYOUT
M4.1 1:125





EXISTING ZONE VALVE AND FLOW SWITCH ARRANGEMENT, MOUNT @ 2700mm A.F.F. SEE DETAIL.
 EXISTING 65# FIRE HOSE CONNECTION MOUNT @ 1000mm A.F.F. C/W 65X40 REDUCER
 EXISTING 150# FIRE RISER#1 TYP. OF 4

EXISTING ZONE VALVE AND FLOW SWITCH ARRANGEMENT, MOUNT @ 2700mm A.F.F.
 EXISTING 100# FIRE RISER #
 EXISTING 65# FIRE HOSE CONNECTION MOUNT @ 1000mm A.F.F. C/W 65X40 REDUCER

EXISTING 100# FIRE RISER
 EXISTING 65# FIRE HOSE CONNECTION MOUNT @ 1000mm A.F.F. C/W 65X40 REDUCER
 EXISTING ZONE VALVE AND FLOW SWITCH ARRANGEMENT, MOUNT @ 2700mm A.F.F. SEE DETAIL.
 EXISTING SPRINKLERS REQUIRED AT TOP AND BOTTOM OF SHAFT AS PER NFPA 13 8.14.3.2.1 TYPICAL

1 SPRINKLER LAYOUT
 M5.1 1:125

GENERAL NOTES:

1. SPRINKLER SYSTEM INSTALLATION SHALL STRICTLY CONFORM WITH NFPA 13 AND ALL AUTHORITIES HAVING JURISDICTION.
2. ALL PIPE LOCATIONS TO BE MEASURED ON SITE BY THE FIRE PROTECTION CONTRACTOR PRIOR TO FABRICATION AND INSTALLATION.
3. ALL DIMENSIONS SHOWN ARE CENTER TO CENTER.
4. SPRINKLER MAINS, BRANCHLINES ROUTING AND FINAL LOCATIONS AND HEIGHT OF SPRINKLER HEADS TO BE COORDINATED TO THE EXISTING LOCATIONS OF MECHANICAL EQUIPMENTS AND ROUTING OF DUCTS BY THE FIRE PROTECTION CONTRACTOR.
5. WHERE CEILING HEIGHTS ARE CHANGED, RELOCATE ALL SERVICES AND EQUIPMENT TO SUIT ADJUSTED CEILING HEIGHT. REFER TO ARCHITECTURAL DRAWINGS.
6. ALL SPRINKLER HEADS TO BE REMOVED/RELOCATED SHALL BE REPLACED WITH NEW SPRINKLER HEADS.
7. FIRE EXTINGUISHER TO BE 10lbs. IN CABINET OR WALL MOUNTED SUPPLIED BY OWNER. CONFIRM WITH ARCHITECT OR OWNER FOR INSTALLATION REQUIREMENT.
8. CAP-OFF ALL SPRINKLER PIPING WHERE SPRINKLER HEADS TO BE DEMOLISHED AND SPRINKLER PIPING THAT WILL NOT BE UTILIZED.

DRAWING KEYNOTES:

- 1 EXISTING FIRE EXTINGUISHER TO BE RELOCATED.
- 2 NEW LOCATION FIRE EXTINGUISHER
- 3 NEW 10 LBS. ABC TYPE FIRE EXTINGUISHER. COORDINATE WITH ARCHITECT TYPE OF INSTALLATION.
- 4 EXISTING FIRE EXTINGUISHER TO REMAIN.



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HDK CONSULTING INCORPORATED
 Signature: *Daniel J. HDK*
 Date: *2017 12 17*
PERMIT NUMBER: P 1060
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4th Floor Tenant Fit-Up Greenstone Building

Designed by: **PA** Conçu par
 Drawn by: **FD** Dessiné par
 Approved by: **DH** Approuvé par
 PWSCC Project Manager / Administrateur de Projets TPSGC: **Brenda Embury**
 Drawing title: **SPRINKLER LAYOUT**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.060383	M5.1	3

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HDK CONSULTING INCORPORATED
Signature: *Daniel Ho*
Date: *1/17/17*
PERMIT NUMBER: P 1060
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4		
3	ISSUED FOR CONSTRUCTION	May 19, 2017
2	ISSUED FOR REVIEW 99% CONSTRUCTION DOCUMENTS	Apr. 25, 2017
1	66% CD SUBMISSION	Feb. 24, 2017
0	DESIGN DEVELOPMENT SUBMISSION	Jan. 20, 2017

Client: _____ client

PSPC/SPAC

5th Floor, 10025 Jasper Avenue
Edmonton, AB

Project title: _____ Projet

5101 50th Avenue
Yellowknife, NWT

**4th Floor Tenant Fit-Up
Greenstone Building**

Designed by: _____ Conçu par: **PA**

Drawn by: _____ Dessiné par: **FD**

Approved by: _____ Approuvé par: **DH**

PWSSC Project Manager / Administrateur de Projets TPSGC
Brenda Embury

Drawing title: _____ Titre du dessin

MECHANICAL SCHEDULES

Project no./No. du projet: **R.060383**
Drawing no./No. du dessin: **M6.1**
Revision no.: **3**

PLUMBING FIXTURE SCHEDULE						
FIXTURES	SPECIFICATION	WASTE	CW	HW	VENT	ALTERNATE MANUFACTURERS
		IN(mm)	IN (mm)	IN (mm)	IN (mm)	
SK-1	FRANKE MMERICAL #56810-1P SINGLE BOWL COUNTERTOP MOUNT SINK, 460mm (18-1/8") x 511mm (20-1/8") x 254mm (10") DEEP, COUNTER MOUNTED, NO LEDGE, MOUNTING KIT PROVIDED, FULLY UNDERCOATED TO REDUCE CONDENSATION AND RESONANCE, FACTORY APPLIED RIM SEAL. AMERICAN STANDARD #4101.100 ARCH SINGLE CONTROL KITCHEN FAUCET WITH SWIVEL PULL-OUT SPRAY, TOGGLE BUTTON ACTIVATION DECK MOUNTED, CHROME PLATED SOLID CAST BRASS LEAD-FREE BODY, SINGLE LEVER, 1/4 TURN CERAMIC DISC VALVE CARTRIDGES, WITH PRESSURE COMPENSATING 5.7 LPM (1.5GPM) AERATOR OUTLET. ZURN THERMOSTATIC MIXING VALVE MODEL 1070, BRONZE ASTM B 584 W/NICKEL PLATING, INTERNAL BRASS, 1/2" OUTLET CONNECTION, OUTLET TEMPERATURE RANGE OF 95°F-115°F. OPEN GRID DRAIN, CHROME PLATED CAST BRASS ONE PIECE TOP, 17 GA. (1.5mm) TUBULAR 32mm (1-1/4") TAILPIECE, FAUCET SUPPLIES, CHROME PLATED POLISHED BRASS, HEAVY DUTY ANGLE STOPS, 10mm (3/8") I.P.S. INLET x 76mm (3") LONG RIGID HORIZONTAL NIPPLES, V.P. LOOSE KEYS, ESCUTCHEONS AND FLEXIBLE COPPER RISER. P-TRAP, HEAVY CAST BRASS ADJUSTABLE BODY, WITH SLIP NUT, 32mm (1-1/4") SIZE, SHALLOW WALL FLANGE AND SEAMLESS TUBULAR WALL BEND.	1-1/2" (38)	1/2" (13)	1/2" (13)	1-1/2" (38)	SINK: KOHLER, ELKAY FAUCET: SLOAN, CHICAGO FAUCETS, KOHLER, DELTA
SP-1	SANIFLO SANIVITE DRAIN WATER PUMP, PRE-ASSEMBLE SYSTEM WITH LOW INLETS AND BUILT-IN CHECK VALVES,, HANDLE HOT WATER AND GREASE BUILD-UP. DISCHARGE FLOW RATE OF 18GPM (68LPM) AT 16' (48 kPa). MAXIMUM TEMPERATURE OF 140°F (60°C).	1-1/2" (38)	N/A	N/A	1-1/2" (38)	GRUNDFOS, LITTLE GIANT
HWT-1	DOMESTIC WATER HEATER - WATER HEATER HAVING ELECTRICAL INPUT OF 3KW, 12 GPH RECOVERY RATE AT 100°F TEMPERATUR RISE, STORAGE CAPACITY OF 6 GALLONS. WATER HEATER SHALL HAVE THE CSA SEAL OF CERTIFICATION AND BE FACTORY EQUIPPED WITH A CSA/ASME RATED TEMPERATURE AND PRESSURE RELIEF VALVE.	N/A	3/4" (19)	1/2" (13)	N/A	RHEEM RUUD, A.O. SMITH, BRADFORD WHITE

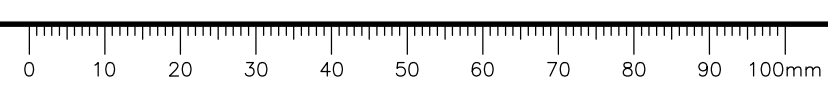
DIFFUSER AND GRILLE SCHEDULE (Based on E. H. PRICE)			
TAG	MODEL	ACCESSORIES	REMARKS
S-1	DFLG FLOOR SUPPLY GRILLE	OBD, DB	REFER TO DRAWING FOR FACE SIZE, 16 DEGREE DEFLECTION TOWARD EXTERIOR WALL AND 6 MM SPACING
R-1	DFLG FLOOR RETURN GRILLE	DB	REFER TO DRAWING FOR FACE SIZE, 0 DEGREE DEFLECTION AND 6 MM SPACING
R-2	510 LOURVRED return TRILL	-	REFER TO DRAWING FOR FACE SIZE
E-1	EGG CRATE RETURN GRILLE	-	REFER TO DRAWING FOR FACE SIZE
T-1	510 LOURVRED TRANSFER TRILL	-	REFER TO DRAWING FOR FACE SIZE
ACCESSORIES: OBD - OPPOSED BLADE BALANCING DAMPER DB - DIRT BUCKET			
NOTES: 1. PROVIDE BORDER AND FRAME STYLE TO SUIT SURFACE BEING INSTALLED ON.			
APPROVED MANUFACTURERS: EH PRICE, TITUS, NAILOR			

FAN SCHEDULE												
TAG	MANUFACTURER	TYPE	MODEL	RPM	AIR FLOW RATE		E.S.P.		MOTOR		SONES	ACCESSORIES
					(L/s)	(CFM)	(Pa)	(in WC)	(W)	(HP)		
TF-1	GREENHECK	I	CSP-A410	1,000	113	240	62	0.25	116	FRAC	2.0	SC, SH
FAN TYPES: C CENTRIFUGAL R ROOF I IN-LINE CE CEILING EXHAUST CU CENTRIFUGAL UP BLAST TA TUBE AXIAL W WALL MF MIXED FLOW P PROPELLER CF CEILING FAN												
ABBREVIATIONS: BG BELT GUARD MT MANUAL RESET TIMER SD SCROLL DRAIN AS ADJUSTABLE SHEAVES NSW NON-SPARKING WHEEL FC FACTORY CURB SC SOLID STATE SPEED CONTROL SH SPRING HANGERS BS BIRDSCREEN IG INLET GRILLE VP VIBRATION PADS MC MOUNTING COLLAR BD BACKDRAFT DAMPER SM SPRING MOUNT WH WEATHERPROOF HOUSING F FILTER WC WALL CAP RC ROOF CAP E EPOXY COATING DS DISCONNECT SWITCH AD ACCESS DOOR IH INLET HOOD MDW MOTION DETECTOR, WALL MTD. GN GOOSENECK TS THERMOSTAT												
NOTES: 1. INSTALL ALL UNITS ON VIBRATION ISOLATORS APPROVED MANUFACTURERS: GREENHECK, LOREN COOK, TWIN CITIES												

FAN COIL AND VAV FLOWS (Existing Equipment)			
TAG	Airflow	TAG	Airflow
	L/S		L/S
FC-1.4	427	VAV-1.4	44
FC-2.4	251	VAV-2.4	33
FC-3.4	320	VAV-3.4	70
FC-4.4	328	VAV-4.4	83
FC-5.4	427	VAV-5.4	69
FC-6.4	365	VAV-6.4	81
FC-7.4	404	VAV-7.4	83
FC-8.4	538	VAV-8.4	72
FC-9.4	438	VAV-9.4	277
FC-10.4	438	VAV-10.4	267
FC-11.4	550	VAV-11.4	75
FC-12.4	438	VAV-12.4	70
FC-13.4	342	VAV-13.4	71
FC-14.4	430	VAV-14.4	83
FC-15.4	571	VAV-15.4	71
FC-16.4	509	VAV-16.4	56

FAN POWERED TERMINAL UNIT SCHEDULE (Based on EH PRICE)							
TAG	AREA SERVED	UNIT SIZE	AIRFLOW RATE		UNIT	SERIES	
			MAXIMUM				
			(L/s)	(CFM)			
FTU-01	ROOM 432				10	108	229
FTU-02	ROOM 431				10	108	229
FTU-03	ROOM 430				10	108	229
FTU-04	ROOM 429				10	108	229
FTU-05	ROOM 428				10	108	229
FTU-06	ROOM 427				10	107	227
FTU-07	ROOM 426				10	107	227
FTU-08	ROOM 425				10	107	227
FTU-09	ROOM 424				10	107	227
FTU-10	ROOM 422				10	80	170
FTU-11	ROOM 421				10	80	170
FTU-12	ROOM 420				10	80	170
FTU-13	ROOM 419				10	80	170
FTU-14	ROOM 417				10	75	159
FTU-15	ROOM 416				10	100	212
FTU-16	ROOM 415				10	75	159
FTU-17	ROOM 414				10	100	212
FTU-18	ROOM 406				10	64	136
FTU-19	ROOM 408				10	100	212
FTU-20	ROOM 409				10	64	136
FTU-21	ROOM 413				10	100	212
FTU-22	ROOM 412				10	150	318
FTU-23	ROOM 401, ROOM 402				10	80	170
FTU-24	OPEN WORKSTATION (SOUTH)				10	130	276
FTU-25	ROOM 459				10	130	276
FTU-26	ROOM 458				10	130	276
FTU-27	ROOM 457				10	130	276
FTU-28	ROOM 456				10	140	297
FTU-29	ROOM 455				10	140	297
FTU-30	ROOM 454				10	140	297
FTU-31	OPEN WORKSTATION - 448d				10	140	297
FTU-32	ROOM 450				10	80	170
FTU-33	OPEN WORKSTATION - 448d				10	120	254
FTU-34	ROOM 447				10	300	636
FTU-35	ROOM 446				10	120	254
FTU-36	ROOM 468				10	90	191
FTU-37	ROOM 445				10	120	254
FTU-38	ROOM 467				10	90	191
FTU-39	ROOM 444				10	90	191
FTU-40	ROOM 466				10	90	191
FTU-41	ROOM 443				10	90	191
FTU-42	ROOM 465				10	90	191
FTU-43	ROOM 442				10	90	191
FTU-44	ROOM 464				10	90	191
FTU-45	ROOM 441				10	90	191
FTU-46	ROOM 463				10	90	191
FTU-47	ROOM 440				10	90	191
FTU-48	ROOM 438				10	90	191
FTU-49	ROOM 462				10	90	191

NOTES:
1. COMPLETE WITH ECM FOR VARIABLE AIR FLOW.
2. COORDINATE CONTROLS WITH CONTROLS CONTRACTOR. INTEGRATE WITH EXISTING BMS. BMS SYSTEM TO POLE ALL FTU THERMOSTATS SERVED BY A SINGLE FAN COIL TO DETERMINE IF FANCOIL SHOULD BE IN HEATING OR COOLING.
BMS SYSTEM TO POLE ALL FTU CO2 SEBSORS SERVED BY A SINGLE VENTILATON VAV BOX TO CONTROL VENTILATION AIR.
3. THERMOSTATS TO HAVE INTERGRAL CO2 SENSOR FOR CONTROL OF VENTILATION IR VAV BOXES. MOUNT ALL THERMSTATS AT ACCESSIBLE HEIGHTS.
ACCEPTABLE MANUFACTURERS: EH PRICE, TITUS, NAILOR.



5		
4		
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Revision	Description	Date

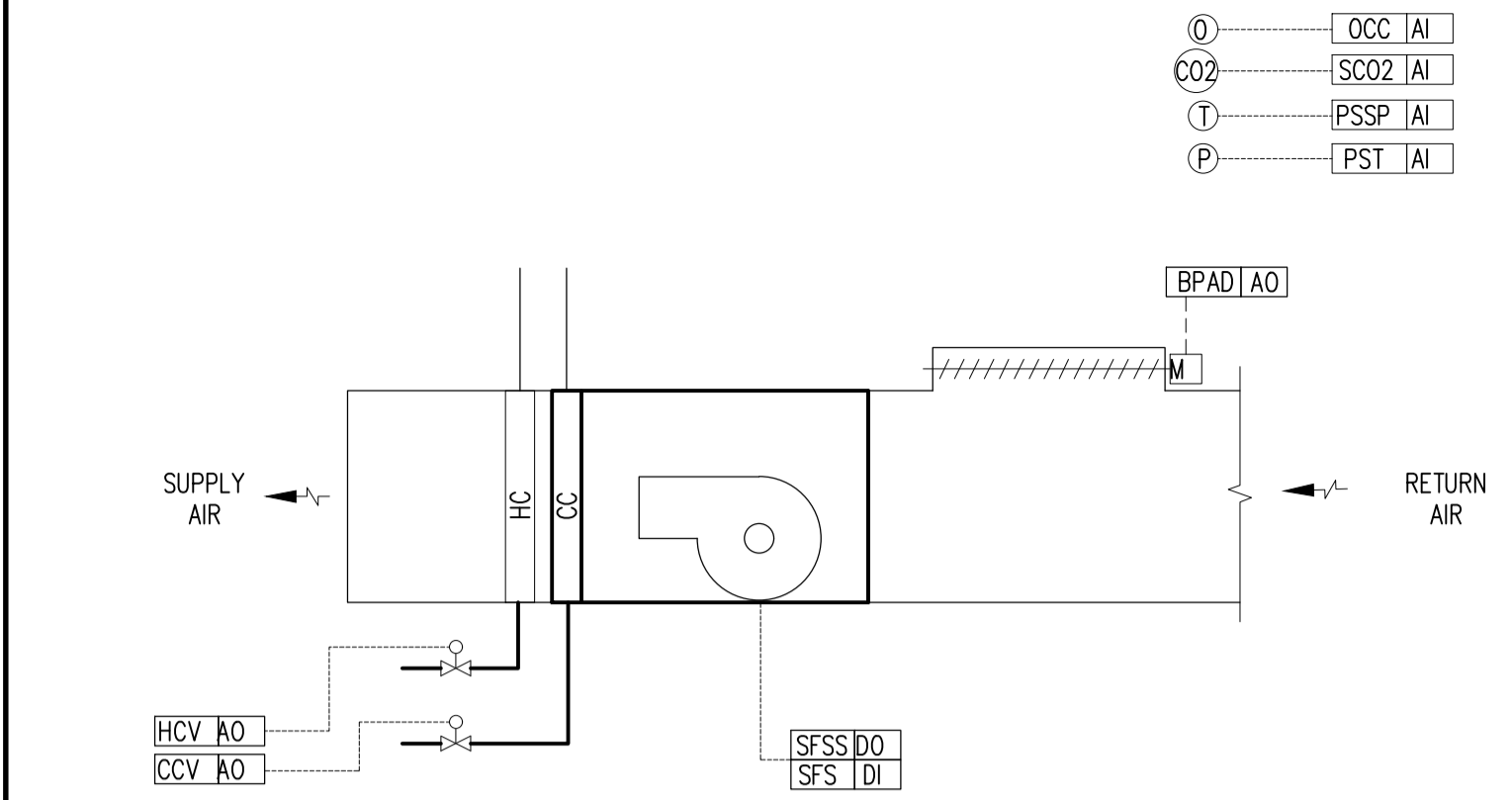
Client: client
PSPC/SPAC
 5th Floor, 10025 Jasper Avenue
 Edmonton, AB

Project title: **5101 50th Avenue Yellowknife, NWT**
4th Floor Tenant Fit-Up Greenstone Building

Designed by: Conçu par PA
 Drawn by: Dessiné par FD
 Approved by: Approuvé par DH
 PWSSC Project Manager / Administrateur de Projets TPSGC: **Brenda Embury**
 Drawing title: Titre du dessin

MECHANICAL DETAILS AND CONTROL SCHEMATIC

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.060383	M7.1	3
	OF 12	

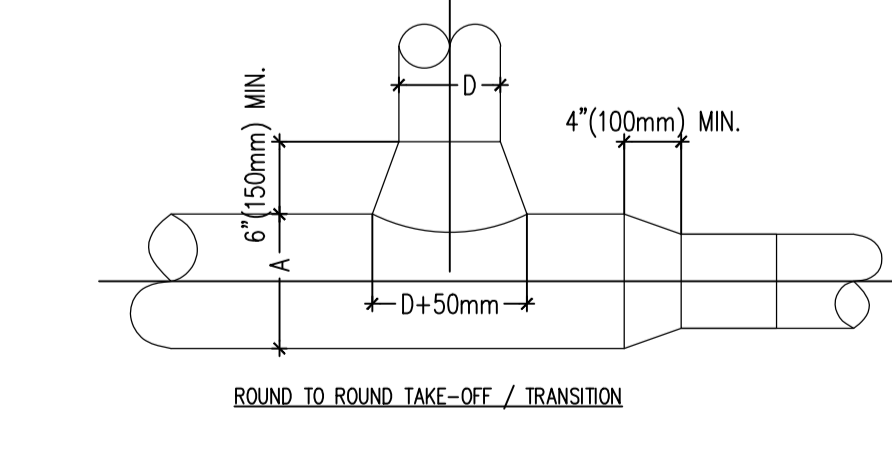
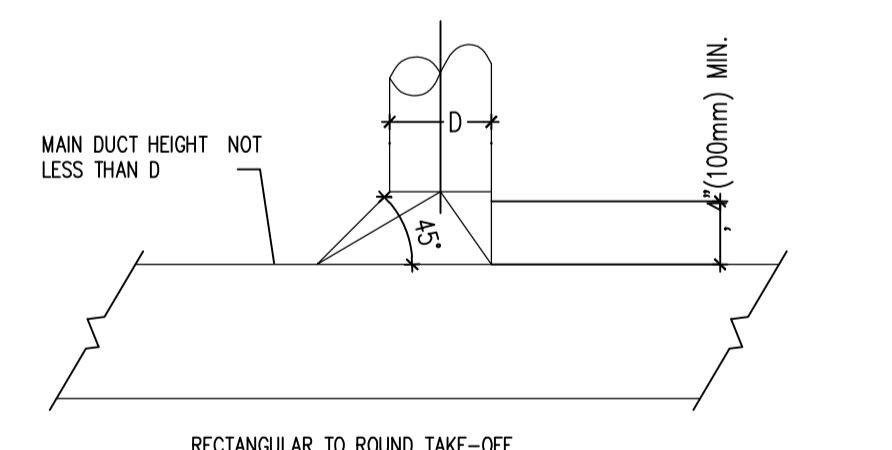
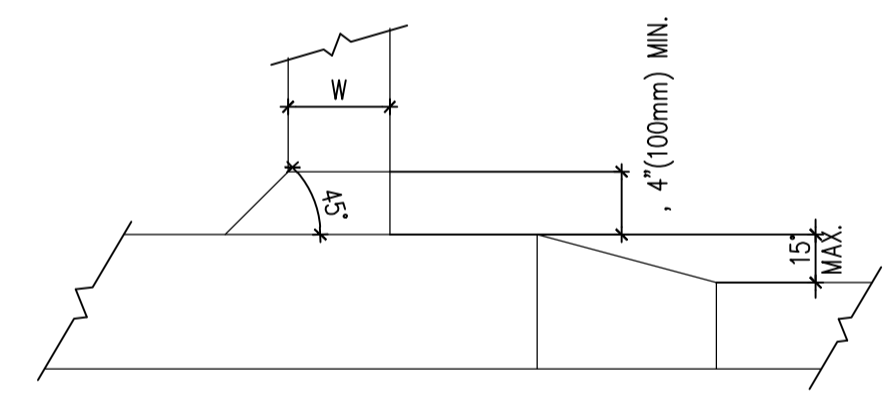


FAN COIL CONTROLS POINTS

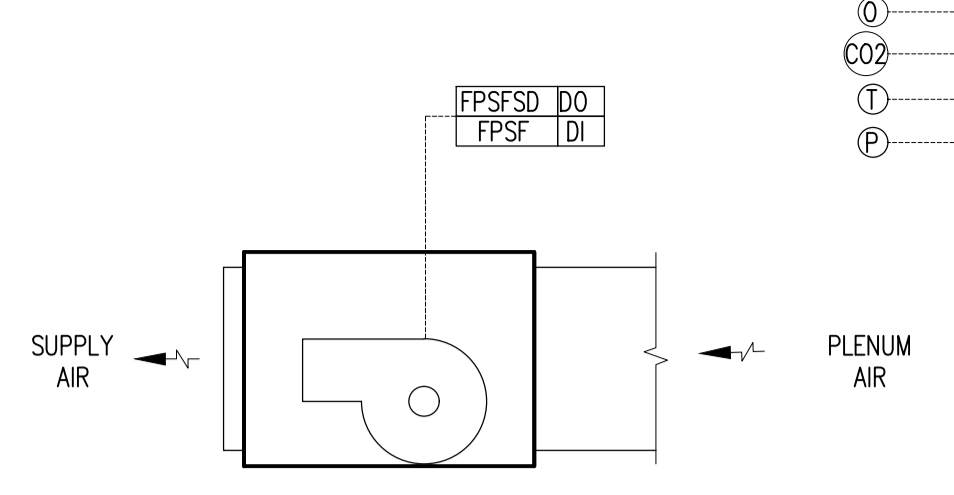
POINT	DESIGNATION	TYPE	HARDWARE
SFSS	SUPPLY FAN START STOP	DO	RELAY
SFS	SUPPLY FAN STATUS	DI	CURRENT SENSING RELAY
HCV	HEATING CONTROL VALVE	AO	CONTROL VALVE
CCV	COOLING CONTROL VALVE	AO	CONTROL VALVE
BPAD	BY PASS AIR DAMPER	AO	DAMPER ACTUATOR
OCC	SPACE OCCUPANCY	AI	OCCUPANCY SENSOR
ST	SPACE TEMPERATURE	AI	TEMPERATURE SENSOR
SCO2	SPACE CO2	AI	CO2 SENSOR
PST	PLENUM SPACE TEMPERATURE	AI	TEMPERATURE SENSOR
PSSP	PLENUM STATIC PRESSURE	AI	STATIC PRESSURE SENSOR

NOTES:
 1. THE ABOVE IS NOT MEANT TO BE AN INCLUSIVE LIST OF ALL REQUIRED CONTROL POINT. CONTRACTOR SHALL PROVIDE CONTROL POINTS AS REQUIRE TO MEET SEQUENCE OF OPERATION REQUIREMENTS.
 2. HEATING OR COOLING STATUS OF FANCOIL TO BE BASED ON ZONES CONNECTED TO RESPECTIVE FANCOILS. BMS TO POLL ALL ZONES TO DETERMINE HEATING OR COOLING STATUS.
 3. RESET SUPPLY AIR TEMPERATURE BASED ON OUTSIDE AIR TEMPERATURE, OVERRIDE RESET BASED ON ZONE DEMAND.

1 FANCOIL CONTROL SCHEMATIC
 M7.1 NTS



5 DUCTWORK TAKE-OFFS/TRANSITION DETAILS
 M7.1 NTS

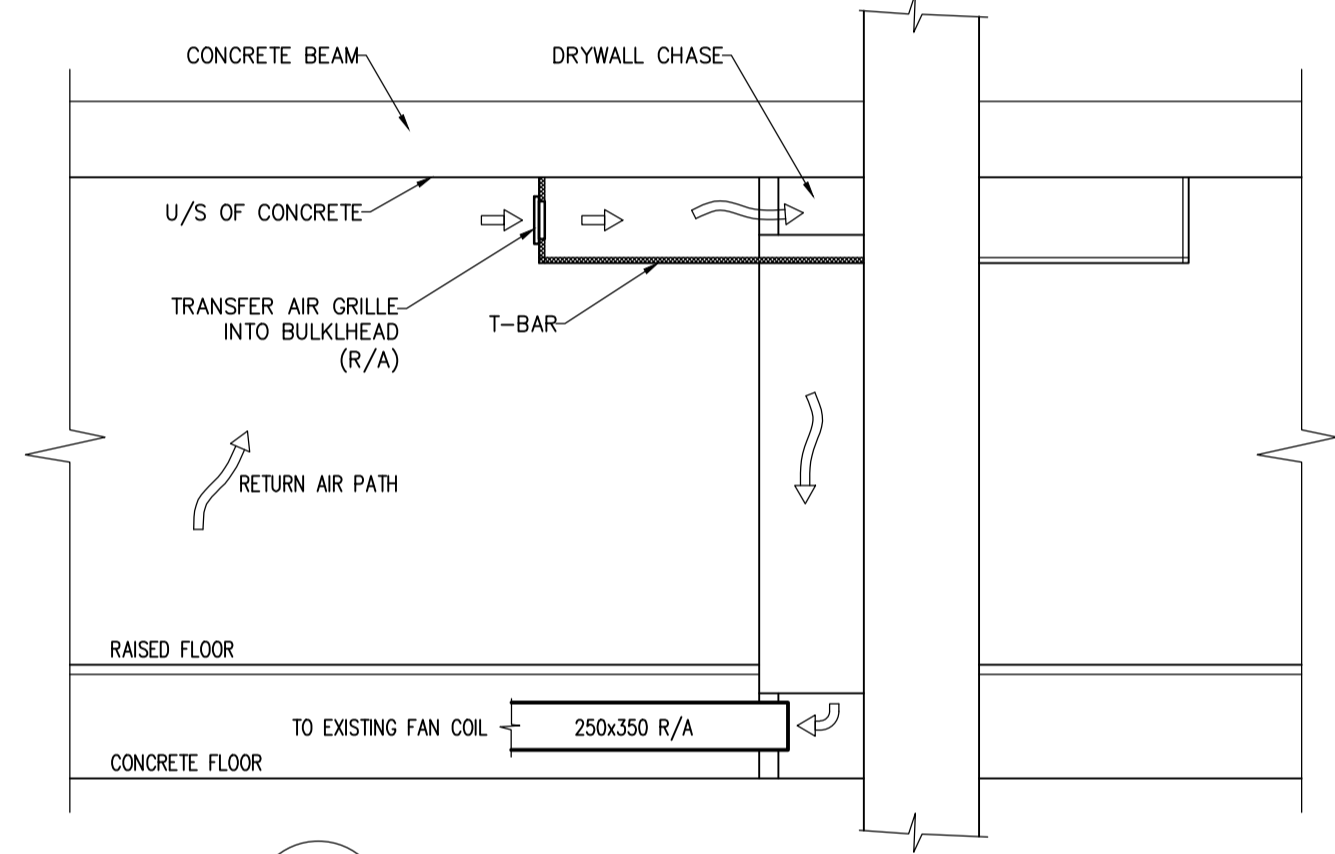


FAN POWERED BOX CONTROLS POINTS

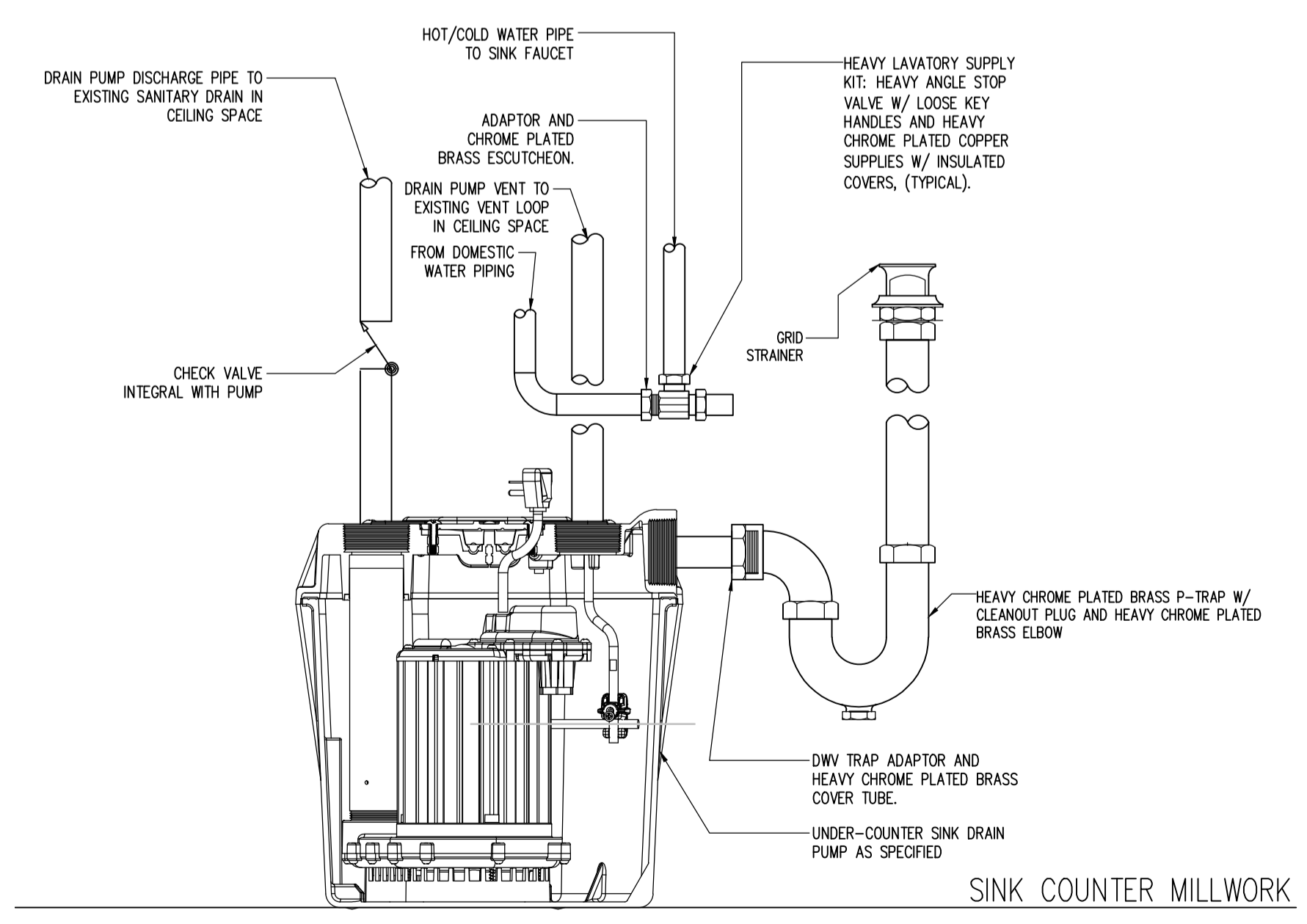
POINT	DESIGNATION	TYPE	HARDWARE
FPFSD	FAN POWERED BOX SUPPLY FAN SPEED	AO	4-20mA FROM BMS TO FAN POWERED BOX
FFSF	FAN POWERED BOX SUPPLY FAN STATUS	AI	BACNET SIGNAL FROM CONTROLLER TO BMS
OCC	SPACE OCCUPANCY	AI	OCCUPANCY SENSOR
ST	SPACE TEMPERATURE	AI	TEMPERATURE SENSOR
SCO2	SPACE CO2	AI	CO2 SENSOR
PST	PLENUM SPACE TEMPERATURE	AI	TEMPERATURE SENSOR

NOTES:
 1. THE ABOVE IS NOT MEANT TO BE AN INCLUSIVE LIST OF ALL REQUIRED CONTROL POINT. CONTRACTOR SHALL PROVIDE CONTROL POINTS AS REQUIRE TO MEET SEQUENCE OF OPERATION REQUIREMENTS.
 2. SPACE TEMPERATURE SETPOINT TO BE USER DEFINED, ADJUSTABLE

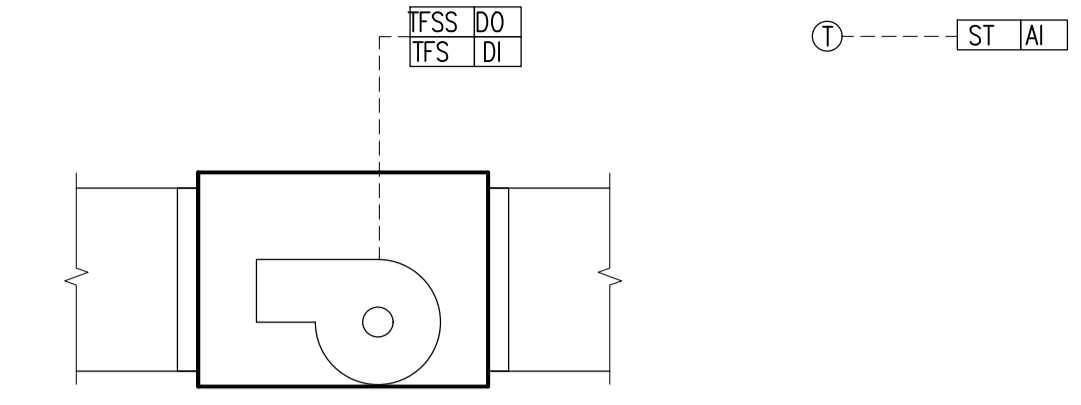
2 FAN POWERED TERMINAL BOX CONTROL SCHEMATIC
 M7.1 NTS



6 AIRSHAFT DETAIL-2
 M7.1 NTS



7 TYPICAL UNDER-COUNTER DRAIN PUMP PIPING DETAIL
 M7.1 NTS

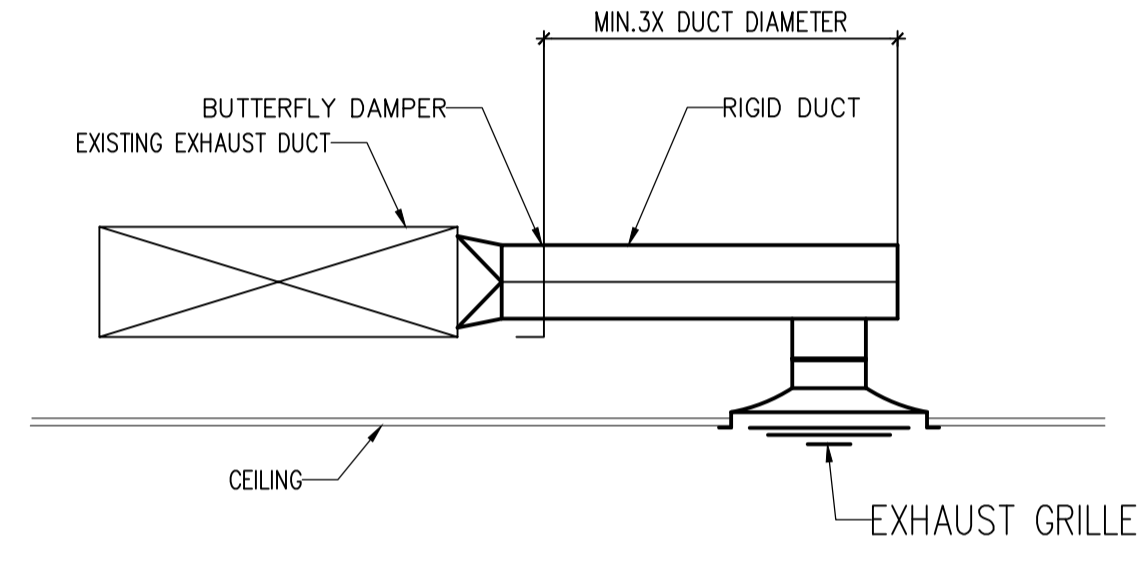


TRANSFER FAN CONTROLS POINTS

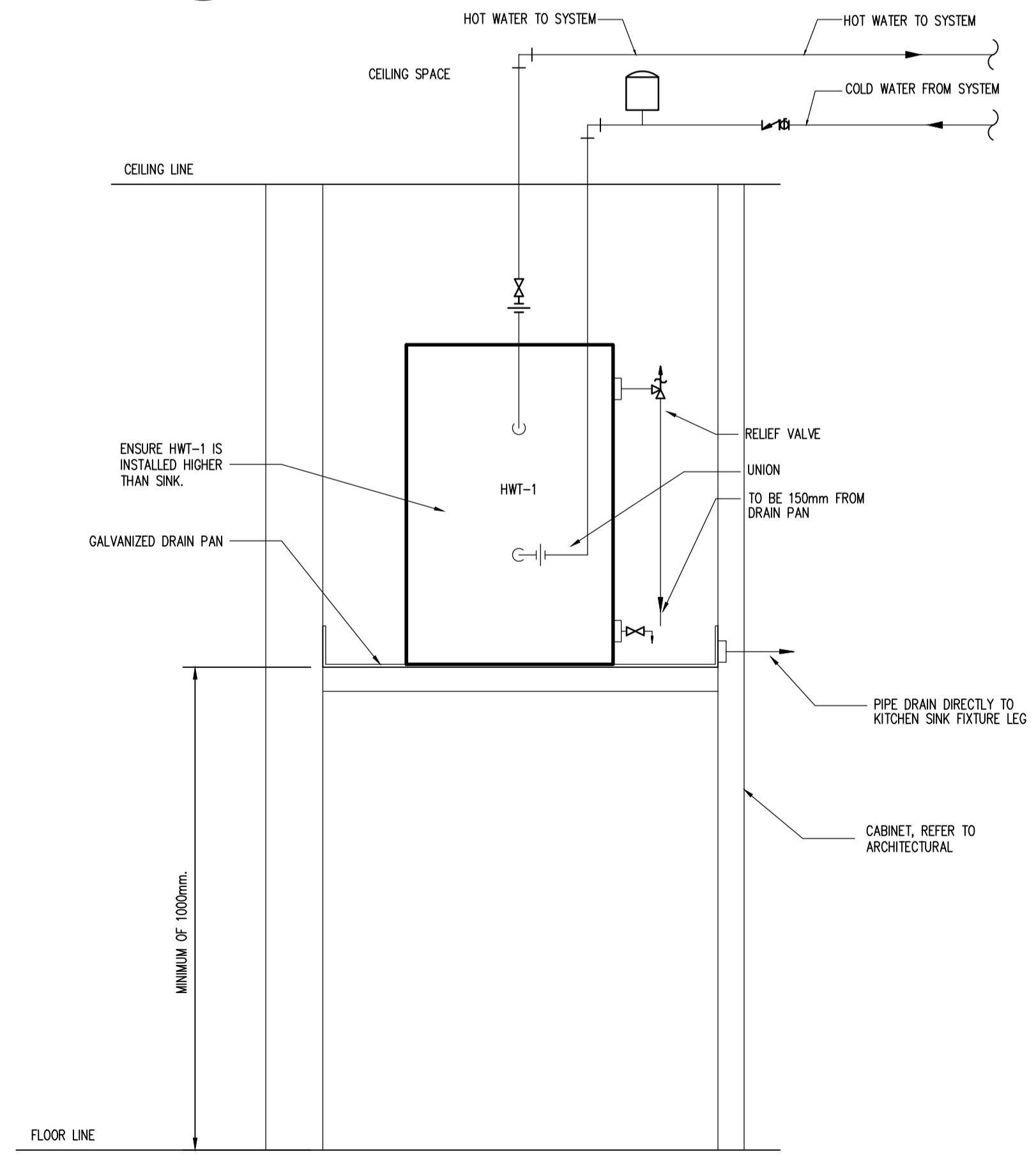
POINT	DESIGNATION	TYPE	HARDWARE
TFSS	TRANSFER FAN START STOP	DO	RELAY
TFS	TRANSFER FAN STATUS	DI	CURRENT SENSING RELAY
ST	SPACE TEMPERATURE	AI	TEMPERATURE SENSOR

NOTES:
 1. THE ABOVE IS NOT MEANT TO BE AN INCLUSIVE LIST OF ALL REQUIRED CONTROL POINT. CONTRACTOR SHALL PROVIDE CONTROL POINTS AS REQUIRE TO MEET SEQUENCE OF OPERATION REQUIREMENTS.
 2. SPACE TEMPERATURE SETPOINT TO BE USER DEFINED, ADJUSTABLE

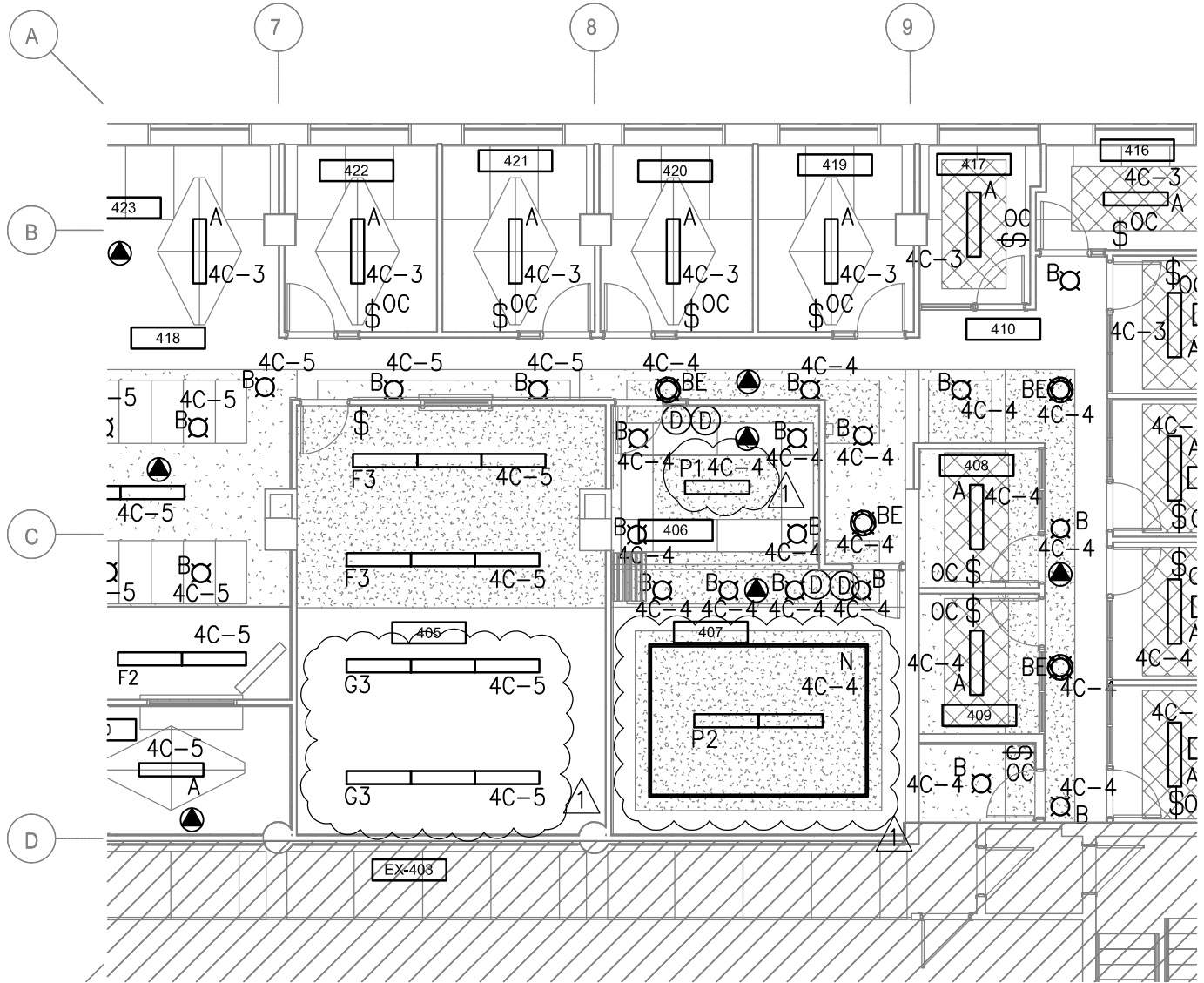
3 TRANSFER FAN CONTROL SCHEMATIC
 M7.1 NTS



4 EXHAUST GRILLE DETAIL
 M7.1 NTS



8 DOMESTIC HOT WATER TANK IN CABINET DETAIL
 M7.1 NTS



1 NEW LIGHTING LAYOUT
E2.1 1:125

ISSUED WITH ADDENDUM-04

Project title	4th Floor Tenant Fit-up Greenstone Building 5101 50TH Avenue, Yellowknife, NWT
Drawing title	NEW LIGHTING LAYOUT

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 Mechanical | Electrical | Communications | Security Engineering

Drawn by	RD	PWGSC Project Manager Brenda Embury		
Designed by	PL	Project no. R.060383		
Approved by	HCC	Date Aug. 09, 2017	Sheet E2.1	Revision 1

LUMINAIRE SCHEDULE

TYPE	MANUFACTURER	CATALOGUE NUMBER	LAMPS	WATTS	LUMINAIRE STYLE	VOLTAGE	COMMENTS
M	PHILIPS	FSI-4-55L-835-120-DIM	LED 3500K	45W	LINEAR SURFACE	120V	
	LITHONIA	ZL1D-L48-5000LM-FST-120-35K-80CRI-WH		42W			
	COOPER	4SNLED-LD4-49SL-LN-UNV-L835-CD1		46W			
N	HIGH OUTPUT, LOW VOLTAGE, THIN AND FLEXIBLE, IP20 DRY LOCATION RATED LED CIRCUIT STRIP. STRIP CAN BE CUT EVERY TWO INCHES. MINIMUM 1800 LUMENS PER METER. STRIP BACK TO BE COMPLETE WITH TWO SIDED TAPE. LUMINAIRE TO BE C/W SURFACE MOUNT 45° ANODIZED ALUMINUM CHANNEL AND FROSTED POLYCARBONATE LENS. MINIMUM CHANNEL LENGTH TO BE 1200mm. MAXIMUM CHANNEL WIDTH TO BE 25mm. CHANNELS AND LENSES TO BE STAGGERED UPON INSTALLATION. POWER SUPPLY TO BE 24VDC, 300W MAGNETIC LOW VOLTAGE DIMMABLE.		LED 3500K	18W/M	COVE LIGHT	120V	
E-1	LUMACELL	LAE-1-TA-ACD	LED	2.5W	PICTOGRAM EGRESS SIGN	120V-347V	
	BEGHELLI	OT-RM-L-WC-I-OLR-BA		2.0W			
	AIMLITE	RPEL-U-BSH-NDC-CCWH		2.8W			
E-2	LUMACELL	LAE-2-TA-ACD	LED	2.5W	PICTOGRAM EGRESS SIGN	120V-347V	
	BEGHELLI	OT-RM-L-WC-2-OLR-BA		2.0W			
	AIMLITE	RPEL-U-BSH-NDC-CCWH		2.8W			
G3	AXIS	B2SQDLED-750-80-35-50-12-AP-120-DP-1-XX	LED 3500K	89.1W	SUSPENDED DIRECT/INDIRECT	120V	
	METALUMEN	RM2D-1L35-12-M-SA-L3-1-XX-120		72W			
	ARCHITECTURAL LIGHTING WORKS	LP2SD-12-MED/3500K-0/10V/10%-EXT/R-AL-120		121.2W			
P1	AXIS	ZELED-SL65/35-1100-80-35-MSO-4-AP-UNV-MD-1-CA36	LED 3500K	40W	SUSPENDED DIRECT/INDIRECT	120V	
	FLUXWERX	FD1-B-F-D-35-A-04-D-EI-M-03		38W			
	LUMENWERX	CAVCPDI-OP-RLO-LED-80-500-750-35-4-120-DI-I-53WAC36-AL		48W			
P2	AXIS	ZELED-SL65/35-1100-80-35-MSO-8-AP-UNV-MD-1-CA36	LED 3500K	80W	SUSPENDED DIRECT/INDIRECT	120V	
	FLUXWERX	FD1-B-F-D-35-A-08-D-EI-M-03		76W			
	LUMENWERX	CAVCPDI-OP-RLO-LED-80-500-750-35-8-120-DI-I-53WAC36-AL		96W			

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HDK HDK CONSULTING INCORPORATED
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Mechanical | Electrical | Communications | Security Engineering

1	ISSUED WITH ADDENDUM-04	Aug.09, 2017
Revision	Description	Date

Client
PSPC/SPAC
5th Floor, 10025 Jasper Avenue, Edmonton, Ab

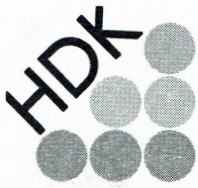
Project title
**4th Floor Tenant Fit-Up
Greenstone Building**

Drawn by **RD**
Designed by **PL**
Approved by **HCC**

PWGSC Project Manager
Brenda Embury

Drawing title
LUMINAIRE SCHEDULE

Project no. R.060383	Sheet E3.1	Revision 1
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Mechanical Electrical Communications Security Engineering

PROJECT: _____

PROJECT NUMBER: _____

DATE: _____

SUBJECT: _____

CONTRACTOR SIGN-IN AUGUST 3, 2017

COMPANY

CLARK BUILDERS

RYFAN ELECTRIC

Ryfan Electric

Arcan Const.

DT Electric

GSM

Capital City Const

Clark Builders

Rowles