



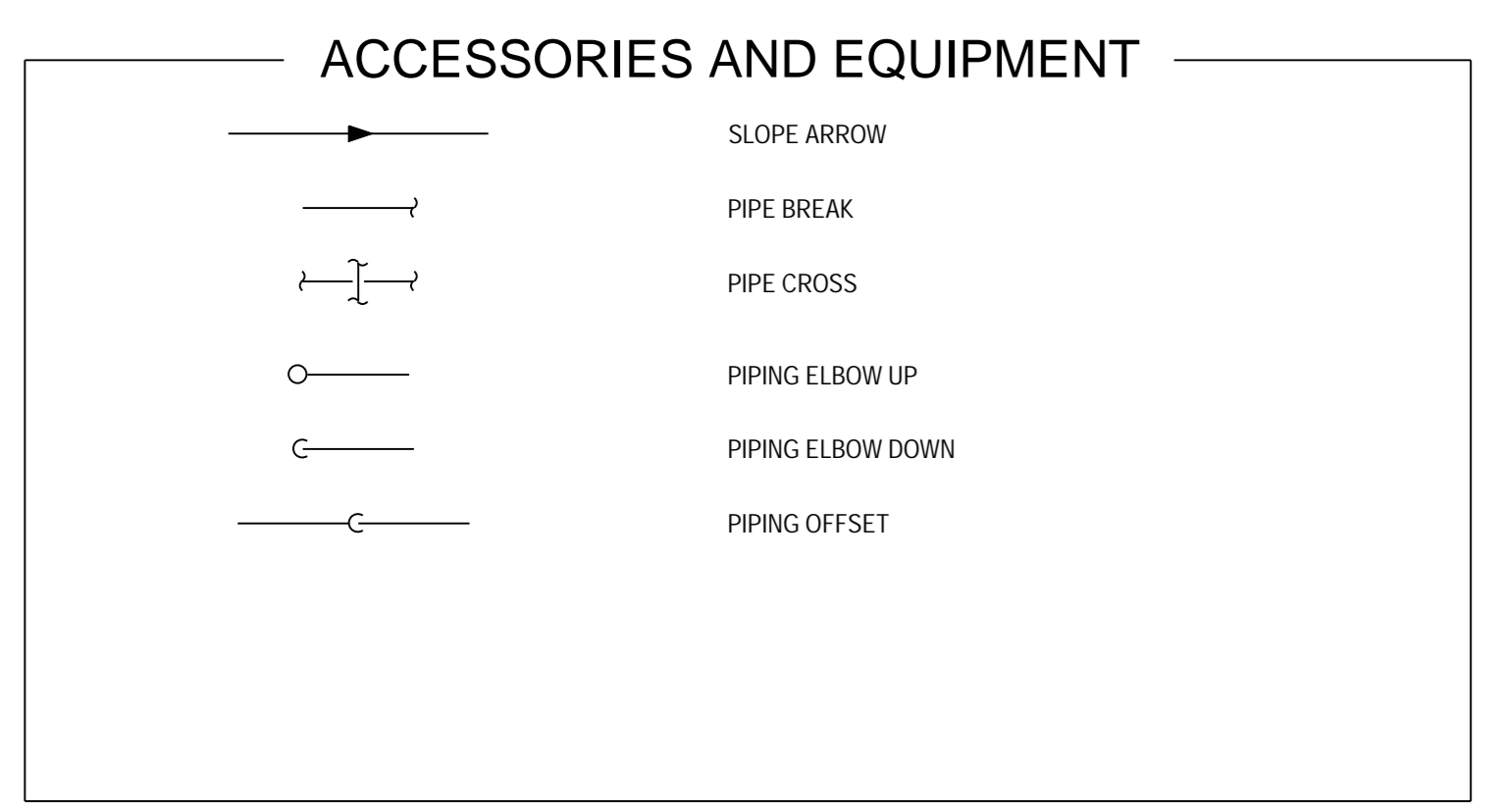
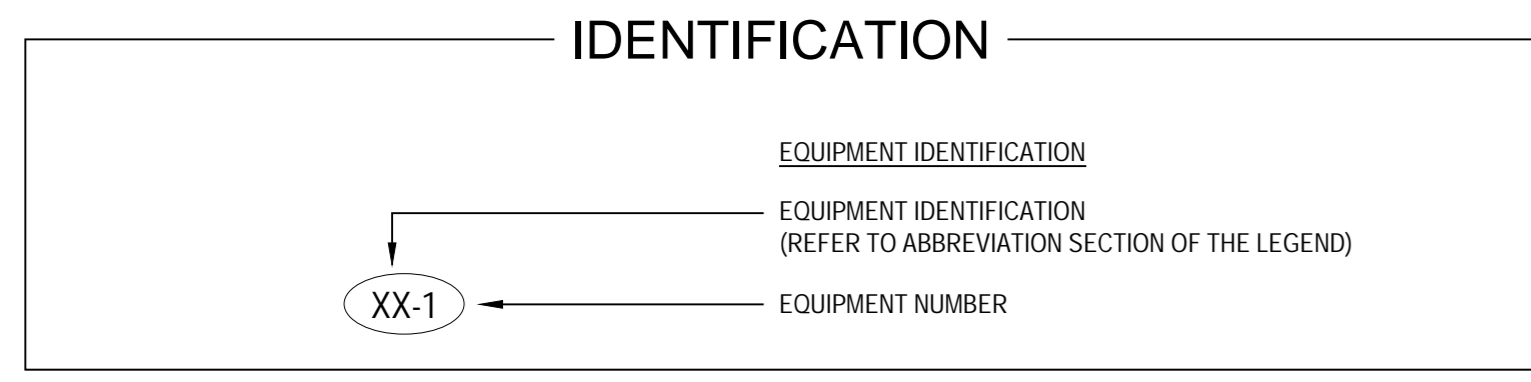
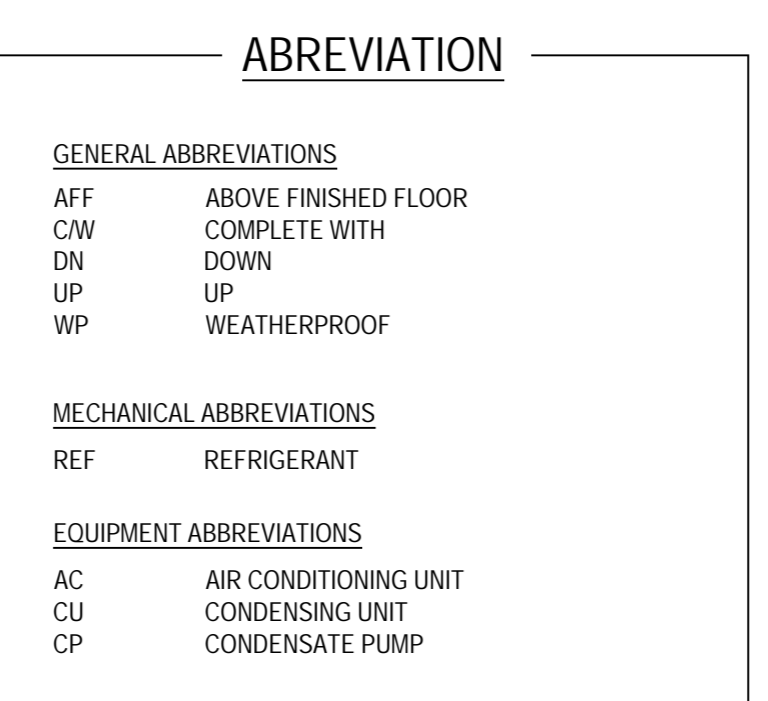
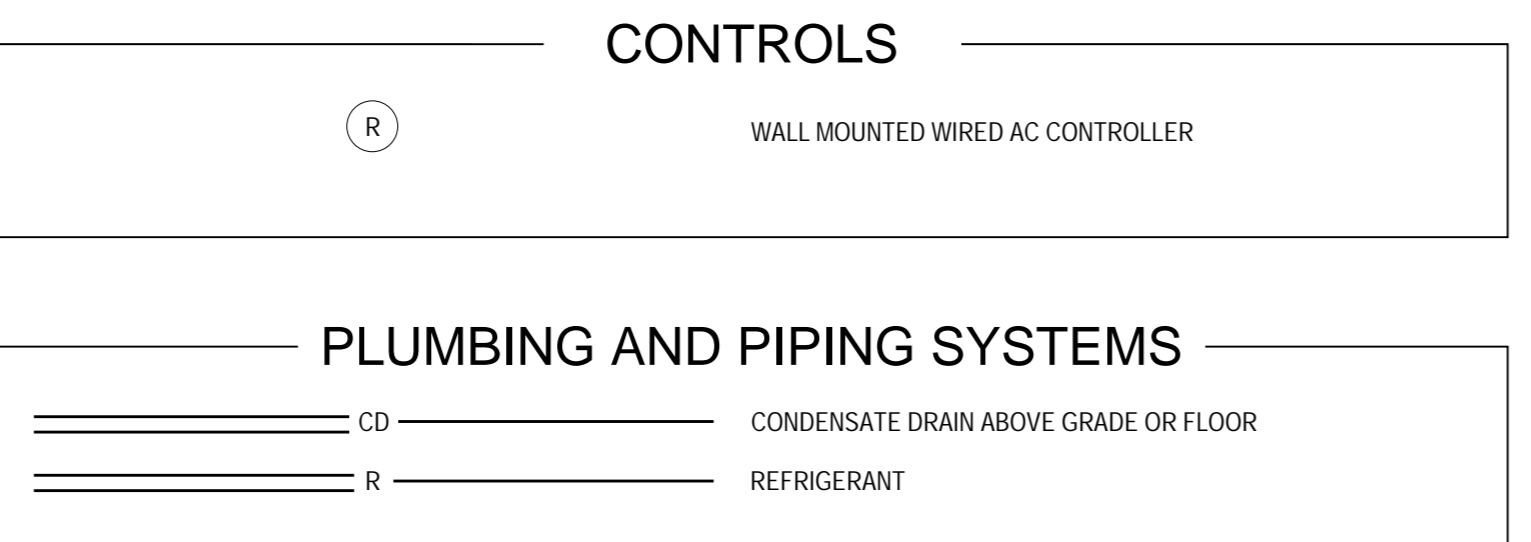
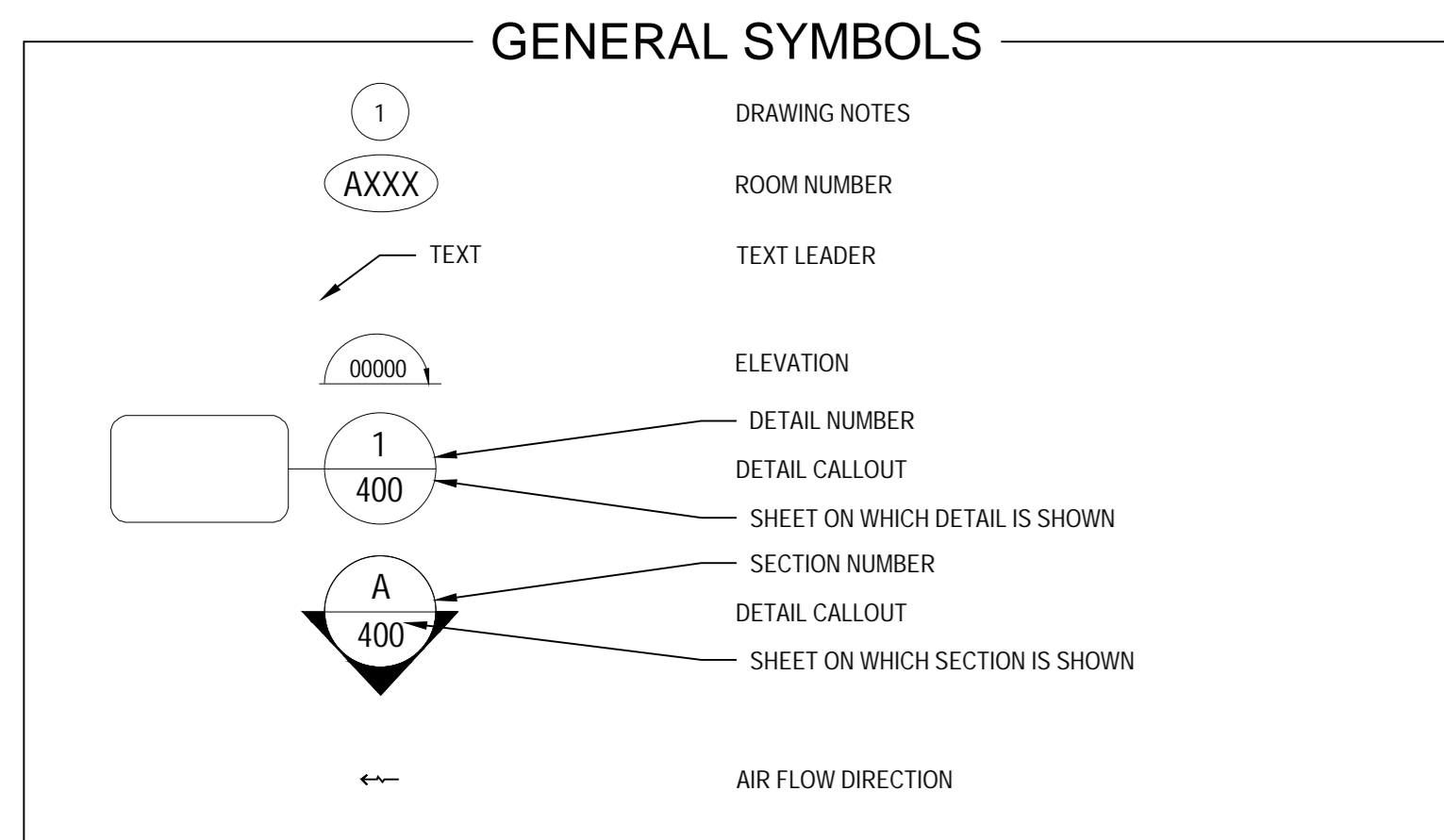
Stantec Consulting Ltd  
315 Richmond Street West, Suite 400  
Toronto, Ontario M5V 2H4  
Tel: 416-291-1010  
www.stantec.com

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DRAWING NOTES	
1	EXISTING INDOOR WALL-MOUNTED AC UNIT TO REMAIN. OUTDOOR CONDENSING UNIT PROVIDES POWER TO INDOOR EVAPORATORS.
2	DEMOLISH ALL EXISTING CONDENSATE PIPING AND ASSOCIATED CONDENSATE PUMPS AT EACH EVAPORATOR. INSTALL A NEW CONDENSATE PUMP WITH DISCHARGE CHECK VALVE AT EACH EVAPORATOR. AND 1/2" TRAP TUBING FROM EACH EVAPORATOR, THROUGH EACH CONDENSATE PUMP, TO EXISTING SANITARY PIPE AS SHOWN. CONNECT TO EXISTING SANITARY PIPE VIA AN INDIRECT CONNECTION WITH A NEW OPEN DRAIN WITH 1/2" TRAP ROUTE PIPING AS HIGH AS POSSIBLE, WHILE MAINTAINING MINIMUM 2% SLOPE FROM EVAPORATOR TO CONDENSATE PUMP. DO NOT ROUTE PIPING OVER ELECTRICAL EQUIPMENT. COORDINATE ROUTING WITH DCC REPRESENTATIVE PRIOR TO INSTALLATION. PIPING INSTALLATION, SUPPORTS, LABELING, SLEEVES, AND MATERIAL TO BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
3	EXISTING WALL-MOUNTED WIRE EVAPORATOR REMOTE TO REMAIN.
4	DEMOLISH ALL EXISTING REFRIGERANT PIPING, COMPLETE WITH INSULATION AND HANGERS/SUPPORTS, AND INSTALL NEW LINES, PIPING, SIZING, INSTALLATION, AND REFRIGERANT DISTRIBUTION SPLITTER BOX INSTALLATION IN ACCORDANCE WITH AC UNIT MANUFACTURER'S SPECIFICATIONS. MOUNT PIPING IN ROOM AS HIGH AS POSSIBLE WHILE ADHERING TO MANUFACTURER'S RECOMMENDATIONS. LOCATE PIPING PENETRATION TO GROUND FLOOR APPROXIMATELY WHERE SHOWN, AS NEAR AS POSSIBLE TO EXTERIOR WALL. COORDINATE ROUTING WITH DCC REPRESENTATIVE PRIOR TO INSTALLATION. WEATHERPROOF NEW AND EXISTING EXTERIOR OPENINGS. SEAL NEW AND EXISTING INTERIOR OPENINGS, AND FINISH ALL AFFECTED SURFACES TO MATCH ADJACENT ARCHITECTURAL ELEMENTS. PIPING INSTALLATION, MATERIAL, LABELING, SLEEVES, AND INSULATION TO BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS. PROVIDE SUBMITTALS FOR PROPOSED WEATHERPROOFING AND SEALANT MATERIALS. PRODUCTS SHALL BE CAPABLE OF FULLY SEALING PENETRATIONS AND BEING FINISHED TO MATCH ADJACENT ARCHITECTURAL ELEMENTS.
5	PROVIDE NEW SLAB PENETRATION FOR REFRIGERANT PIPING. SCANNING MUST BE PERFORMED PRIOR TO CONSTRUCTION TO DETERMINE LOCATION OF EXISTING REBAR, CORE AND SLEEVE CONCRETE TO FACILITATE PIPING INSTALLATION. APPROXIMATE LOCATION SHOWN. FIELD COORDINATE WITH EXISTING EQUIPMENT AND ALL OTHER DISCIPLINES.
6	EXISTING WALL-MOUNTED CONDENSING UNIT (HITCH) SHORTELIES (HANGERS) TO REMAIN. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCE AROUND UNIT FOR ALL NEW WORK INSTALLED. REPLACE BUMPERS ON UNIT SUPPORTS WITH NEW RUBBER BUMPERS DESIGNED TO PREVENT CONTACT INJURIES. SUBMIT SHOP DRAWING OF BUMPERS PRIOR TO INSTALLATION FOR REVIEW. ADD ADDITIONAL FASTENERS TO FULLY SECURE SUPPORT TO WALL AND UNIT TO SUPPORT. FASTENERS SHALL BE PROPERLY INSTALLED AT ALL CONNECTION POINTS PROVIDED ON SUPPORT. INSTALL WIND GUARD ON CONDENSING UNIT. DCC REPRESENTATIVE WILL PROVIDE WIND GUARD FOR INSTALLATION.
7	DEMOLISH EXISTING CONDENSATE PUMPS.
8	CONTRACTOR TO CONFIRM IF SPLIT SYSTEM LINES HAVE BEEN CHARGED WITH REFRIGERANT. CONTRACTOR SHALL COLLECT ALL REFRIGERANT AND DISPOSE OF OFF-SITE IN ACCORDANCE WITH FEDERAL AND PROVINCIAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR CHARGING SYSTEM WITH NEW REFRIGERANT UPON COMPLETION OF WORK.

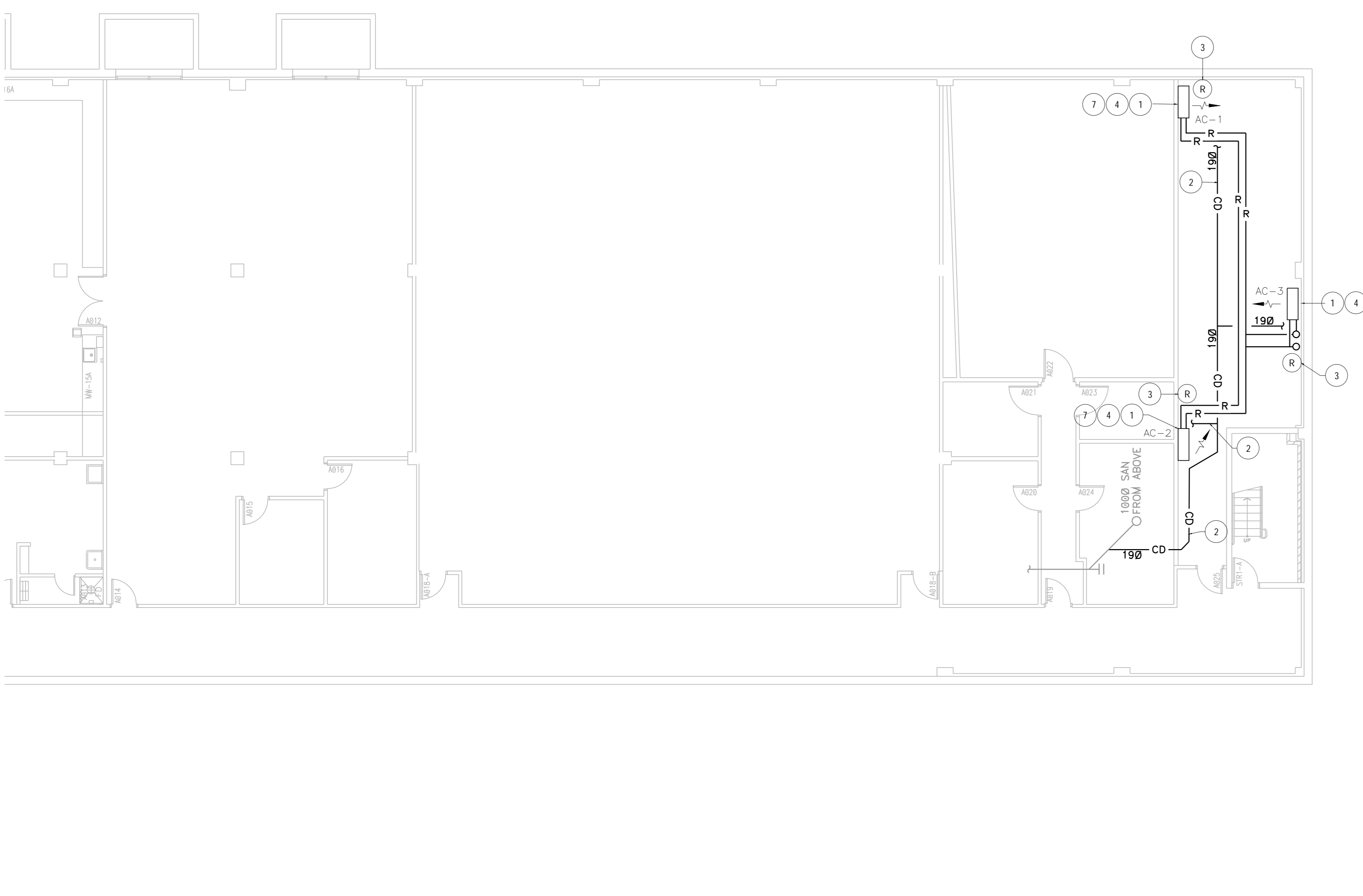
**MECHANICAL GENERAL NOTES**

- EXCEPT AS NOTED OTHERWISE ALL EXISTING EQUIPMENT TO REMAIN IS SHOWN IN THIN SOLID LINES.
- EXCEPT AS NOTED OTHERWISE ALL NEW EQUIPMENT IS SHOWN IN THICK SOLID LINES.
- IF IS THE INTENT OF THESE DRAWINGS TO SUPPLY THE CONTRACTOR WITH SUFFICIENT INFORMATION TO PROVIDE FOR COMPLETE AND FULLY OPERATING SYSTEMS IN ACCORDANCE WITH ALL APPLICABLE BUILDING CODES AND REGULATIONS SET FORTH BY THE AUTHORITIES HAVING JURISDICTION, THESE DRAWINGS MAY NOT PROVIDE A COMPREHENSIVE LIST OF ALL ITEMS REQUIRED FOR THE COMPLETE INSTALLATION. THEREFORE, THE CONTRACTOR SHALL MAKE PROVISIONS FOR ALL LABOUR, MATERIALS AND EQUIPMENT DEEMED NECESSARY TO COMPLETE THE FULLY OPERATIONAL MECHANICAL SYSTEMS.
- IT IS RECOMMENDED THAT THE CONTRACTOR EXAMINE THE SITE AND LOCAL CONDITIONS LIKELY TO AFFECT ALL WORK INDICATED AND SPECIFIED PRIOR TO SUBMISSION OF FINAL BID PRICING.
- DO NOT DETERMINE LOCATIONS OF EQUIPMENT AND MATERIALS BY MEASUREMENT FROM THE DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUCTING ALL FIELD MEASUREMENTS AND IDENTIFYING ANY SPACE LIMITATIONS OR INTERFERENCE CONCERNS PRIOR TO SUBMISSION OF SHOP DRAWINGS FOR REVIEW BY THE DCC REPRESENTATIVE. THE CONTRACTOR SHALL VERIFY ACTUAL SITE CONDITIONS PRIOR TO COMMENCING WORK AND SHALL PREPARE FABRICATION AND INTERFERENCE DRAWINGS AS REQUIRED. SITE CONDITION SHALL BE VERIFIED FOR INTERFERENCE WITH EXISTING SERVICES, NEW WORK AND SITE CONDITIONS. ANY INTERFERENCE SHALL BE COMMUNICATED TO THE DCC REPRESENTATIVE FOR CLARIFICATION PRIOR TO COMMENCING WORK.
- PERFORM DEMOLITIONAL VARIATION WORK IN SUCH A MANNER SO AS TO MINIMIZE DAMAGE TO EXISTING EQUIPMENT AND BUILDING FEATURES TO REMAIN. CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR LAYING OUT THEIR WORK AND FOR ANY DAMAGE CAUSED TO OTHER TRADES' PROPERTY BY IMPROPER LOCATION OR CARRYING OUT OF THIS WORK. CONTRACTOR SHALL REPAIR AND CORRECT ALL DAMAGES, AND REINSTATE SITE TO MATCH EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE DCC REPRESENTATIVE. CONTRACTOR SHALL CARRY ALL NECESSARY INSURANCE COVERAGE.
- CONTRACTOR IS RESPONSIBLE FOR CLEARANCES AND PERMITS AS THE WORK REQUIRES.
- THE CONTRACTOR IS RESPONSIBLE FOR DAILY CLEANING OF WORK AREA.
- THE DESIGN DRAWINGS ARE PARTLY DIAGRAMMATIC, INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS. OFF-SETS IN PIPING MAY NOT BE INDICATED IN ALL CASES, BUT ARE TO BE INCLUDED IN CONTRACT AS REQUIRED AT NO EXTRA COST.
- IF FURTHER CLARIFICATIONS ARE REQUIRED ON EQUIPMENT OR THE INSTALLATION OF EQUIPMENT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO REQUEST CLARIFICATIONS FROM THE DCC REPRESENTATIVE.
- COORDINATE ALL WORK WITH THE DCC REPRESENTATIVE AND ALL OTHER TRADES. PLAN INSTALLATION OF NEW WORK AND CONNECTIONS TO EXISTING WORK TO ENSURE MINIMUM INTERFERENCE WITH REGULAR OPERATION OF EXISTING FACILITIES. ALL SYSTEM SHUTDOWNS AFFECTING OTHER AREAS SHALL BE COORDINATED WITH THE BUILDING FACILITIES REPRESENTATIVES AND DCC REPRESENTATIVES. COORDINATE/SCHEDULE ALL SYSTEM SHUTDOWNS WITH THE DCC REPRESENTATIVE.
- PRIOR TO ANY SAW CUTTING OR CORING ACTIVITIES, TAKE ALL NECESSARY CAUTIONS INCLUDING SCANNING OF ALL AREAS USING NON-DESTRUCTIVE METHODS (X-RAY SCANNING, GROUND PENETRATING RADAR, OR OTHER METHODS AS APPROPRIATE FOR THE APPLICATION). CONDUCT CUTTING AND CORING WORK TO AVOID FEATURES INSTALLED IN WALLS AND FLOORS, INCLUDING REBAR, CONDUIT, PIPING, AND RELATED ITEMS. ADVISE DCC REPRESENTATIVE OF LOCATIONS WHERE POTENTIAL EQUIPMENT AND FEATURES WILL IMPEDE THE WORK, AND OBTAIN APPROVAL PRIOR TO PROCEEDING WITH THE WORK. COSTS TO REPAIR DAMAGES CAUSED BY THE CONTRACTOR SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.
- PROVIDE ALL NECESSARY CUTTING, CORING AND PATCHING FOR ALL MECHANICAL WORK. AFTER MAKING GOOD, CAULK GAPS BETWEEN PIPES, SLEEVES, CONDUITS, AND OPENINGS, AND ENSURE WEATHER-TIGHT SEAL. WHERE NEW WORK CONNECTS WITH EXISTING AND WHERE EXISTING WORK IS ALTERED, CUT & PATCH & MAKE GOOD TO MATCH EXISTING WORK. SEAL PENETRATIONS WITH UL-C LISTED FIRE STOPPING MATERIAL TO MATCH FIRE RATING OF BUILDING ASSEMBLIES.
- DISCONNECT AND REMOVE EXISTING MATERIAL, EQUIPMENT, AND OTHER WORK AS NOTED OR REQUIRED FOR PROPER INSTALLATION OF NEW OR TEMPORARY SYSTEMS).
- REMOVAL OF CERTAIN EXISTING WORK WILL BE NECESSARY FOR THE SATISFACTORY PERFORMANCE OF THE GENERAL WORK. ALL EXISTING CONDITIONS ARE NOT COMPLETELY DETAILED ON THE DRAWINGS. CONTRACTOR SHALL SURVEY THE SITE AND MAKE ALL NECESSARY CHANGES REQUIRED BASED ON EXISTING CONDITIONS FOR PROPER INSTALLATION OF NEW WORK. REFER TO DRAWING SPECIFIC NOTES FOR REMOVAL REQUIREMENTS.
- VERIFY SIZES OF EXISTING SYSTEMS TO REMAIN AND/OR REQUIRE REINSTATEMENT IN THE FIELD TO MATCH & SUIT THE CONNECTION TO NEW WORK.
- THE CONTRACTOR SHALL PROVIDE PROTECTION TO EXISTING SERVICES FOR REUSE DURING REMOVAL AND REPLACEMENT ACTIVITIES. ALL OPENINGS AND TERMINATIONS SHALL BE PROTECTED FROM PRECIPITATION AS REQUIRED AND BE SEALED WEATHER-TIGHT.
- ALL NEW EQUIPMENT INCLUDING PIPING, WIRING, ETC. SHALL BE ADEQUATELY SUPPORTED TO FACILITATE THE WORK UNDER THIS CONTRACT, AS WELL AS THE FINAL INSTALLATION.
- THERMAL INSULATION COMPLETE WITH VAPOUR BARRIER IS REQUIRED FOR ALL NEW REFRIGERANT PIPING.
- UNLESS OTHERWISE INDICATED, ALL EQUIPMENT SHALL BE UL-C LISTED AND CSA APPROVED, AS WELL AS APPROVED BY THE APPLICABLE AUTHORITIES HAVING JURISDICTION.
- MECHANICAL CONTRACTOR TO COORDINATE NEW CONNECTION OF ELECTRICAL WIRING AND EQUIPMENT WITH ELECTRICAL CONTRACTOR (DIVISION 26). HOWEVER, ALL NEW ELECTRICAL CONNECTIONS SHALL BE CONDUCTED BY THE ELECTRICAL CONTRACTOR. REFER TO ELECTRICAL DRAWINGS FOR DETAILS.
- MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONTROLS ASSOCIATED WITH INSTALLATION OF THE MECHANICAL EQUIPMENT UNDER THIS CONTRACT.
- READ THESE DESIGN NOTES IN CONJUNCTION WITH THE CONTRACT SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS.
- ALL CONTROLS WIRING AND CONNECTION BY THE CONTROLS CONTRACTOR.

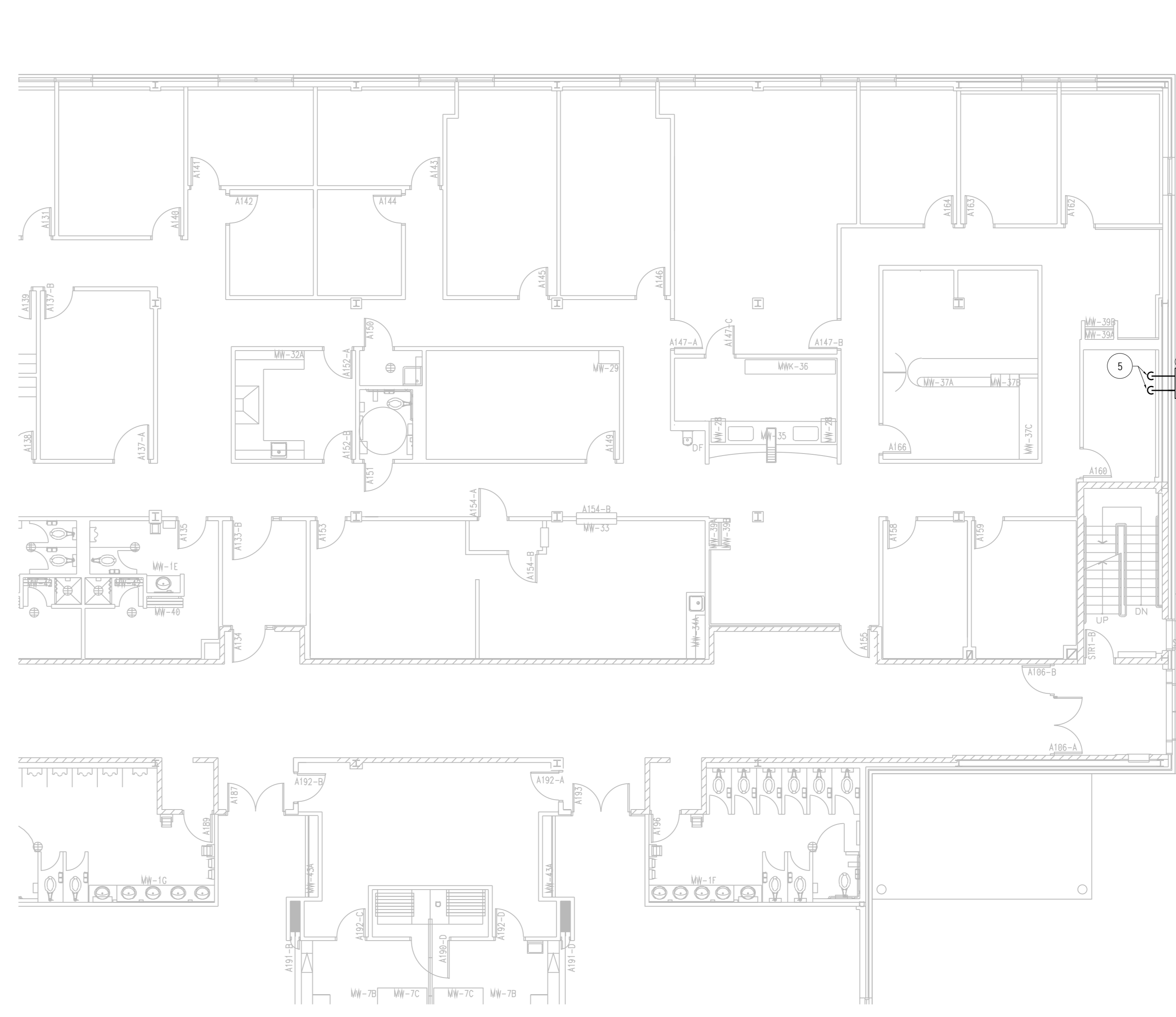


AIR CONDITIONING UNIT SCHEDULE															NOTES							
UNIT IDENTIFICATION		PERFORMANCE			INDOOR UNIT (TYPICAL OF 3)					OUTDOOR UNIT												
MARK	NUMBER	ROOM(S) SERVED	REFRIG. TYPE	REFRIG. CHARGE (kg)	TOTAL CAPACITY EA (Watt)	AIRFLOW (l/s)	MOUNTING	CONDENSATE PUMP REQUIRED	ELECTRICAL VOLTS	PHASE	MCA	OPERATING WEIGHT (kg)	NO. OF COMP	TOTAL CAPACITY (Watt)	AMBIENT DESIGN TEMP (°C)	MINIMUM AMBIENT TEMP (°C)	ELECTRICAL VOLTS	PHASE	MCA	MOP	OPERATING WEIGHT (kg)	
CU	1	ELECTRICAL ROOM	R-410A	FIELD CHARGED	5,275.0	263	WALL	YES	208	1	2.5	50	2	17,584	40	-30	208	1	12.0	20	105	1

NOTES:  
1. EXISTING UNIT TO BE CONNECTED TO NEW WORK AS NOTED.



1 HVAC - PARTIAL BASEMENT FLOOR - NEW WORK  
SCALE: 1:100



2 HVAC - PARTIAL FIRST FLOOR - NEW WORK  
SCALE: 1:100

NO.	DATE	REVISION	APPR.
04	2024/01/16	ISSUED FOR TENDER	CM
03	2024/03/29	ISSUED FOR TENDER	CM
02	2024/03/08	ISSUED FOR 100% REVIEW	CM
01	2023/12/08	ISSUED FOR 99% REVIEW	CM

SCALE | ÉCHELLE

LOCATION | EMPLACEMENT  
AS SHOWN  
1 YUKON LANE,  
TORONTO  
ONTARIO

PROJECT | PROJET  
**DENISON ARMOURY  
CCTV UPGRADE**

TRADE | MÉTIER  
**MECHANICAL**

DATE  
2021/03/26

SUBJECT | SUJET  
**NEW HVAC WORK  
BASEMENT & FIRST FLOOR**

PRODUCTION	REVIEWED   REVU	DESIGN AGENT CONC
DESIGNED   ÉTUDE	XX   XX	XX
DRAWN   DESSINÉ	XX   XX	PROJ MGR   GEST PROJ
CHECKED   VÉRIFIÉ		DES MGR   GEST CONC
COORDINATION		XX
		FIRE   INCENDIE
		XX

WBS NO. | NO. OTP  
TT180003

DWG. NO. | NO. DESSIN  
TT180003 - 401