

FURNACE SCHEDULE															
TAG	LOCATION	MANUF. AND MODEL/SERIES	AIR FLOW RANGE (L/S)	OUTDOOR AIR (L/S)	TOTAL STATIC PRESSURE (Pa)	HEAT INPUT (KW)	HEAT OUTPUT (KW)	TEMPERATURE RISE RANGE (C°)	V/Hz/P	SUPPLY FAN POWER (KW)	SUPPLY FAN NOM POWER (KW)	MOCPP	DIMENSIONS LxWxH (mm)	SHIPPING WEIGHT (KG)	NOTES
F-1	MECH ROOM	LENNOX-ML193UH070XP368	554	55	146.82	19	18	9.4	120/1/60	0.13	0.25	15	730x445x838	58	HIGH EFFICIENCY (93%) UP FLOW FURNACE, C/W DX COOLING CC-1 SIDE RETURN AIR FILTER KIT, FLUE CONDENSATE TRAP ASSEMBLY, TOUCH SCREEN COMFORTSENSE 7000- 7 DAY PROGRAMMABLE THERMOSTAT
F-2	MECH ROOM	LENNOX-ML193UH135XP60D	932	96	146.82	39	36	14	120/1/60	0.38	0.75	15	730x624x838	81	HIGH EFFICIENCY (93%) UP FLOW FURNACE, C/W DX COOLING CC-2 SIDE RETURN AIR FILTER KIT, FLUE CONDENSATE TRAP ASSEMBLY, TOUCH SCREEN COMFORTSENSE 7000- 7 DAY PROGRAMMABLE THERMOSTAT
F-3	MECH ROOM	LENNOX-ML193UH070XP368	554	55	146.82	19	18	9.4	120/1/60	0.13	0.25	15	730x445x838	58	HIGH EFFICIENCY (93%) UP FLOW FURNACE, C/W DX COOLING CC-3 SIDE RETURN AIR FILTER KIT, FLUE CONDENSATE TRAP ASSEMBLY, TOUCH SCREEN COMFORTSENSE 7000- 7 DAY PROGRAMMABLE THERMOSTAT
F-4	MECH ROOM	LENNOX-ML193UH135XP60D	1015	95	174.2	39	36	12	120/1/60	0.38	0.75	15	730x624x838	81	HIGH EFFICIENCY (93%) UP FLOW FURNACE, C/W DX COOLING CC-4 SIDE RETURN AIR FILTER KIT, FLUE CONDENSATE TRAP ASSEMBLY, TOUCH SCREEN COMFORTSENSE 7000- 7 DAY PROGRAMMABLE THERMOSTAT

DRAWING LIST	
DRAWING NO.	DRAWING NAME
M00-00	MECHANICAL SPECIFICATIONS & DRAWING LIST AND SCHEDULES
M50-00-01	CRAWL SPACE MECHANICAL DEMOLITION & NEW LAYOUT
M50-01-01	MAIN FLOOR MECHANICAL DEMOLITION & NEW LAYOUT

GRILLE & DIFFUSER SCHEDULE					
TAG	MANUFACTURER	MODEL	MOUNTING	TYPE	NOTES
S6	PRICE	S20	SIDEWALL, DRYWALL, WALL MOUNTED	812	DOUBLE DEFLECTION STEEL CONSTRUCTION GRILLE
R1	PRICE	S30	SIDEWALL, DRYWALL, WALL MOUNTED	812	1/2"x1/2"x1/2" ALUMINUM GRID CORE
L1	PRICE	DE439	SIDEWALL, DRYWALL, WALL MOUNTED	-	ALUMINUM CONSTRUCTION LOWER C/W BRD SCREEN

HUMIDIFIER SCHEDULE											
TAG	LOCATION	MANUF. AND MODEL/SERIES	CAPACITY (L/S)	ORDER NO.	BY PASS DUCT (MM)	V/HZ	AMP	DIMENSIONS HxWxD (mm)	PAD DIMENSIONS HxWxD (mm)	SHIPPING WEIGHT (KG)	NOTES
HD-1,2,3,4	MECH ROOM	LENNOX-HCW83-17AK	0.004	Y3684	150	24-60	0.5	403x387x267	330x254x43	4	DUCT MOUNT, C/W WATER SUPPLY TUBING, OFFICE, DISTRIBUTION TRAY, CLEANABLE/REPLACEABLE INTERNAL STRAINER AND 24 VOLT BRASS WATER SOLENOID VALVE WITH STAINLESS STEEL SEAT, DRAIN, DISTRIBUTION TRAY, EVAPORATOR MEDIA PAD AND SADDLE VALVE.

EVAPORATOR COIL SCHEDULE							
TAG	LOCATION	MANUF. AND MODEL/SERIES	COOLING CAPACITY (TONS)	INDOOR COIL # ROWS	DIMENSIONS LxWxH (mm)	SHIPPING WEIGHT (KG)	NOTES
CC-1	MECH ROOM	RHEEM-RCF36175TAMCA	3	-	445X505X508	24	CONNECTED TO FU-1
CC-2	MECH ROOM	LENNOX-CX35-60DF	5	3	622x533x749	32	CONNECTED TO FU-2
CC-3	MECH ROOM	RHEEM-RCF36175TAMCA	3	-	445X505X508	24	CONNECTED TO FU-3
CC-4	MECH ROOM	LENNOX-CX35-60DF	5	3	622x533x749	32	CONNECTED TO FU-4

CONDENSING UNIT SCHEDULE												
TAG	LOCATION	MANUF. AND MODEL/SERIES	COOLING CAPACITY (TONS)	OUT DOOR FAN (L/S)	OUT DOOR FAN (RPM)	OUT DOOR FAN (W)	V/Hz/P	MCA (AMPS)	MOCPP (AMPS)	DIMENSIONS LxWxH (mm)	SHIPPING WEIGHT (KG)	NOTES
CU-2	OUTDOOR	LENNOX-14ACK-059-230	5	2075	825	310	208/1/60	34,100	50	819x819x946	121	REFRIGERANT R-410A CHARGE
CU-4	OUTDOOR	LENNOX-14ACK-059-230	5	2075	825	310	208/1/60	34,100	50	819x819x946	121	REFRIGERANT R-410A CHARGE

SPLIT AC UNIT SCHEDULE										
TAG	LOCATION	MANUF. AND MODEL/SERIES	COOLING CAPACITY (TONS)	FAN (L/S)	FAN (W)	V/Hz/P	MOCPP(AMPS)	DIMENSIONS LxWxH (mm)	SHIPPING WEIGHT (KG)	NOTES
AC-5	ELECTRICAL ROOM	MITSUBISHI PKA-A12H46	1	150-174-200	FLA 0.33AMP5	208/1/60		295x898x249	13	WALL MOUNT, C/W CONDENSATE PUMP AND WALL MOUNT REMOTE MICROPROCESSOR CONTROLLER
CU-5	OUTDOOR	MITSUBISHI PUY-A12NH46	1	564	FLA 0.35AMP5	208/1/60	15	600x800x323	37	REFRIGERANT R-410A CHARGE, C/W ULTRA-LOW AMBIENT KITS FOR OPERATION BELOW -40°C

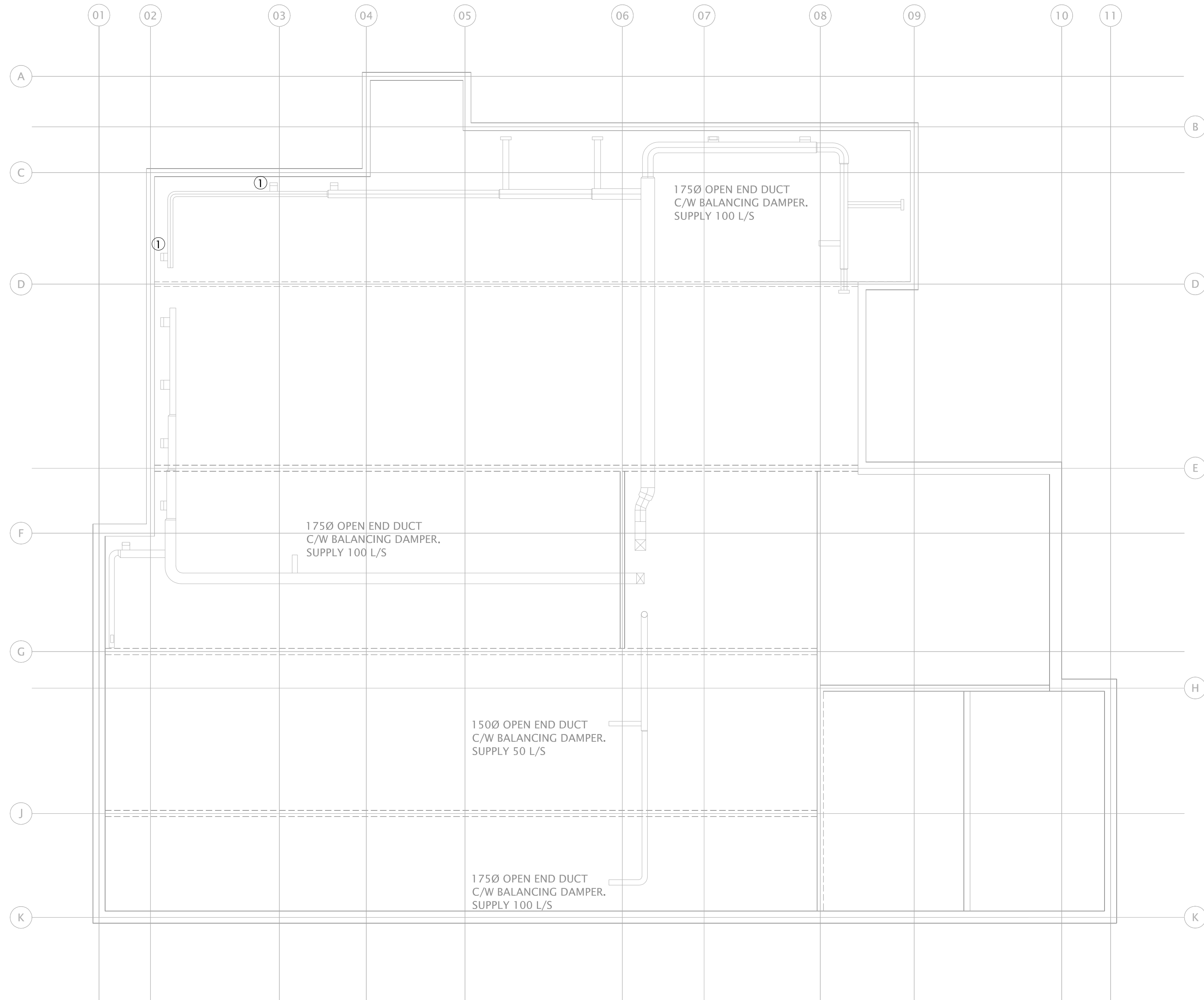
FAN SCHEDULE											
TAG	LOCATION	MANUF. AND MODEL/SERIES	AIR FLOW (L/S)	E.S.P. (Pa)	R.P.M.	V/Hz/P	AMPS	MAX INPUT WATTS	DIMENSIONS LxWxH (mm)	SHIPPING WEIGHT (KG)	NOTES
EF-7	CYM / LOCKER ROOM	GREENHECK/CSPA190	78	62	1400	115/60/1	1.1	55.1	337x270x229	7	C/W BACK DRAFT DAMPER

**ELECTRICAL SPECIFICATIONS:**

- GENERAL
- THE GENERAL REQUIREMENTS, INSTRUCTIONS TO BIDDERS, THIS SPECIFICATION AND ANY COMPLETE HERETO FORM PART OF THE CONTRACT DOCUMENTS AND SHALL BE READ IN CONJUNCTION WITH THEM. WORK SHALL INCLUDE THE FURNISHING OF ALL LABOR AND MATERIALS UNLESS SPECIFICALLY NOTED OTHERWISE TO ADDITIONAL AND PUT INTO OPERATING CONDITION ALL ELECTRICAL SYSTEMS AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN.
- THE SCOPE OF WORK IS AS DESCRIBED HEREIN AND SHOWN ON THE DRAWINGS.
- STANDARDS OF MATERIALS AND WORKMANSHIP
- ALL MATERIALS SHALL BE NEW UNLESS SPECIFICALLY NOTED ON DRAWINGS AND BE OF THE QUALITY SPECIFIED AND SHALL CONFORM TO THE STANDARDS OF THE CANADIAN STANDARDS ASSOCIATION, WHERE EQUIPMENT OR MATERIALS ARE SPECIFIED BY TECHNICAL DESCRIPTION ONLY, THEY SHALL BE OF THE BEST COMMERCIAL QUALITY OBTAINABLE FOR THE PURPOSE.
- ALL WORK SHALL BE EXECUTED IN A NEAT AND WORKMANLIKE MANNER BY QUALIFIED TRADESMEN. ELECTRICAL CONTRACTOR SHALL KEEP A COMPETENT FOREMAN AND NECESSARY ASSISTANTS, ALL SATISFACTORY TO THE ENGINEER ON THE JOB DURING THE PROGRESS OF THE WORK.
- WORKMANSHIP SHALL BE OF THE HIGHEST STANDARDS THROUGHOUT AND SHALL BE MINIMUM OF THE CURRENT TRADE PRACTICES FOR ELECTRICAL INSTALLATIONS IN THIS BUILDING.
- UNIFORMITY OF EQUIPMENT
- UNLESS OTHERWISE SPECIFICALLY CALLED FOR IN THE SPECIFICATIONS, UNIFORMITY OF MANUFACTURE SHALL BE MAINTAINED FOR ANY PARTICULAR ITEM THROUGHOUT THE BUILDING.
- SPECIFICATIONS, UNIFORMITY OF MANUFACTURE SHALL BE MAINTAINED FOR ANY PARTICULAR ITEM THROUGHOUT THE BUILDING.
- 4.2.1. SPECIFICATIONS, UNIFORMITY OF MANUFACTURE SHALL BE MAINTAINED FOR ANY PARTICULAR ITEM THROUGHOUT THE BUILDING.
- DRAWINGS AND SPECIFICATIONS
- THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY, EACH TO THE OTHER, AND WHAT IS CALLED FOR BY ONE, SHALL BE BINDING AS IF CALLED FOR BY BOTH, WHERE INFORMATION IS CONFLICTING THE SPECIFICATIONS TRUMP THE DRAWINGS.
- IF ANY DISCREPANCY APPEAR BETWEEN THE DRAWINGS AND SPECIFICATIONS WHICH LEAVES THE ELECTRICAL CONTRACTOR IN DOUBT AS TO THE TRUE INTENT AND MEANING OF THE PLANS AND SPECIFICATIONS, A RULING SHALL BE OBTAINED FROM THE ENGINEER. IF THIS IS NOT DONE, IT WILL BE ASSUMED THAT THE MOST EXPENSIVE ALTERNATE HAS BEEN ALLOWED FOR.
- CODES, PERMITS AND INSPECTION
- THE INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE CURRENT EDITION OF THE CANADIAN ELECTRICAL CODE AND THE REGULATIONS OF THE RURAL MUNICIPALITY OF WOOD BUFFALO ELECTRICAL INSPECTION DEPARTMENT.
- THE ELECTRICAL CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED AT THEIR EXPENSE AND DISPLAY THEM IN THE ELECTRICAL ROOM, AND COORDINATE INSPECTIONS AS REQUIRED AND OBTAIN A FINAL INSPECTION CERTIFICATE.
- EXAMINATION OF THE SITE
- PRIOR TO SUBMITTING THEIR TENDER, THE ELECTRICAL CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE AND ASCERTAIN ALL CONDITIONS, WHICH SHALL AFFECT HIS TRADE. NO EXTRA WILL BE ALLOWED FOR WORK RESULTING FROM CONDITIONS THAT WOULD HAVE BEEN EVIDENT UPON A THOROUGH EXAMINATION OF THE SITE.
- CLEAN UP
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ALL WORK DEFECTIVE CONTRARY TO THE INTENT OF THE DRAWINGS AND SPECIFICATIONS SHALL BEAR ALL COSTS FOR SAME, WHERE THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS NOT CLEAR, HE SHALL OBTAIN THE CLARIFICATION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- THE ELECTRICAL CONTRACTOR SHALL GIVE THE WORK, THEIR PERSONAL SUPERVISOR, LAY OUT HIS OWN WORK, DO ALL NECESSARY LEVELING AND MEASURING OR EMPLOY A COMPETENT ENGINEER TO DO SO. FIGURES, FULL SIZE AND DETAIL DRAWINGS SHALL TAKE PRECEDENCE OVER SCALE MEASUREMENTS.
- WHERE ANY EQUIPMENT SUPPLIED BY THE ELECTRICAL CONTRACTOR MUST BE BUILT IN WITH THE WORK OF OTHER TRADES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPLYING OF THE EQUIPMENT TO BE BUILT IN OR MEASUREMENTS TO ALLOW NECESSARY OPENINGS TO BE LEFT SO AS NOT TO HOLD UP THE WORK.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE OWNER OR ANY OF THE OTHER TRADES BY IMPROPER LOCATION OR CARRYING OUT OF HIS WORK.
- LOCATION OF OUTLETS
- ENGINEER RESERVES THE RIGHT TO CHANGE LOCATION OF OUTLETS TO WITHIN 3.0 METRES OF POINTS INDICATED ON PLANS WITHOUT EXTRA CHARGE PROVIDING ELECTRICAL CONTRACTOR IS ADVISED PRIOR TO INSTALLATION.
- CORING, CUTTING AND PATCHING
- THE GENERAL TRADE SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR THE ELECTRICAL INSTALLATION. STRUCTURAL MEMBERS SHALL NOT BE CUT WITHOUT THE CONSENT OF THE STRUCTURAL ENGINEER.
- WHERE WORK BY THE ELECTRICAL CONTRACTOR DAMAGES WORK OF OTHER TRADES, THE ELECTRICAL CONTRACTOR SHALL REPAIR AND MAKE GOOD SUCH DAMAGE TO THE SATISFACTION OF THE TRADE CONCERNED AND THE ENGINEER.
- WHERE THE FLOOR SLAB IS DRILLED FOR CONDUIT INSTALLATION TO WALL JUNCTION BOXES OR TO FLOOR FITTINGS THE FLOOR SHALL BE DRY CORE DRILLED. AFTER CONDUIT INSTALLATION, THE OPENING SHALL BE FINE STOPPED, GEE SECTION (FINE STOPPING) ELECTRICAL CONTRACTOR TO PAY FOR ALL ADDITIONAL JAWY CUTS, STRUCTURAL ENGINEER REVIEW, ETC.
- ACCESS DOORS
- NUMBER OF ACCESS DOORS TO BE KEPT TO AN ABSOLUTE MINIMUM. DOOR LOCATIONS WILL BE COORDINATED WITH THE ENGINEER PRIOR TO INSTALLATION.
- WHERE ACCESS IS REQUIRED TO PULLBOXES AND JUNCTION BOXES, THESE BOXES ARE TO BE LOCATED IN REMOVABLE TYPE CEILING AREAS WHERE POSSIBLE AND ADJACENT TO RECESSED LUMINAIRES.
- WHERE IT IS ABSOLUTELY UNPOSSIBLE TO SECURE CERTAIN EQUIPMENT THROUGH REMOVABLE TYPE CEILING OR RECESSED LUMINAIRES AND WHERE SPECIAL PERMITS HAVE BEEN OBTAINED FROM THE ENGINEER, ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ACCESS DOORS REQUIRED FOR SERVICE OF SUCH WORK.
- ACCESS DOORS TO BE HELD CLOSED WITH CAPTIVE TYPE STUDS. ACCESS PANELS TO BE OF NO LESS THAN 14 GAUGE STEEL, PRIME COATED AND PAINTED ON THE JOINT TO MATCH THE WALL OR CEILING FINISH AS REQUESTED BY THE ARCHITECT.
- WHERE ACCESS PANELS WILL BE USED, PROPER SHOP DRAWINGS ARE TO BE SUBMITTED FOR APPROVAL, PRIOR TO INSTALLATION.
- PAINTING AND FINISHES
- ALL ELECTRICAL FITTINGS, SWITCHES, HANGER RODS, PULLBOXES, CHANNEL, FINES, CONDUIT RACKS, OUTLET BOXES, BRACKETS, CLAMPS, ETC. SHALL HAVE GALVANIZED FINISH OR PAINED FINISH OVER CORROSION RESISTANT PRIMER.
- ALL PANELS OR SUBMOUNTS FOR ELECTRICAL FITTINGS THAT ARE SCOTCHORDED OR FRAMED DURING INSTALLATIONS SHALL BE TOUCHED UP WITH MATCHING SPRAY OR HAND APPLIED DRY COLOR AND FINISHED TO PROVIDE SATISFACTORY JOB SHALL BE COMPLETELY REFINISHED.
- PAINTING
- ALL ELECTRICAL CONTRACTOR MUST REVIEW AND STAMP ACCEPTABLE ALL SHOP DRAWINGS PRIOR TO SUBMITTING TO THE ENGINEER.
- THE GENERAL TRADE SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR THE ELECTRICAL INSTALLATION. STRUCTURAL MEMBERS SHALL NOT BE CUT WITHOUT THE CONSENT OF THE STRUCTURAL ENGINEER.
- BATTERY PACKS, FIRE ALARM EQUIPMENT AND TELECOMMUNICATIONS EQUIPMENT AND CABLES.
- ENGINEER SHALL BE ALLOWED MINIMUM BUSINESS DAYS TO RETURN REVISED SHOP DRAWINGS.
- SCOTCHING SHOP DRAWINGS MUST BE LEGIBLE. SHOP DRAWINGS WHICH ARE UNLEGIBLE WILL BE REJECTED AND RETURNED FOR RESUBMISSION.
- SHOP DRAWING SHALL BE SPECIFIC TO THIS PROJECT ONLY. GENERAL DRAWINGS WHICH ARE UNLEGIBLE AND INDICATING APPROXIMATE DIMENSIONS SHALL NOT BE ACCEPTED. INDICATING APPROXIMATE DIMENSIONS SHALL NOT BE ACCEPTED. INDICATING APPROXIMATE DIMENSIONS SHALL NOT BE ACCEPTED. INDICATING APPROXIMATE DIMENSIONS SHALL NOT BE ACCEPTED.
- FINAL FINISHES TO THE CONTRACTOR SHALL BE FOR GENERAL DESIGN ONLY AND SHALL NOT RELY ON THE ELECTRICAL CONTRACTOR OR SUPPLIER FOR THEIR RESPONSIBILITY FOR ERRORS, PROPER FITTING AND CONSTRUCTION OF THE WORK AND FURNISHING OF MATERIALS. THE REVIEW SHALL NOT BE CONSTRUED AS APPROVING DEPARTURES FROM THE CONTRACT DOCUMENT REQUIREMENTS IF SUCH DEPARTURES ARE NOT SPECIFICALLY NOTED IN COVER LETTERS ACCOMPANYING SUCH DRAWINGS.
- EQUIPMENT IDENTIFICATION
- CLEARLY IDENTIFY ALL ELECTRICAL EQUIPMENT USING PRINTED POUCH LABELS OR LABELS. HANDWRITTEN LABELS ARE UNACCEPTABLE.
- ALL ELECTRICAL DISTRIBUTION EQUIPMENT SHALL HAVE A LABEL ON NAMEPLATE FASTENED TO THE OUTSIDE FRONT OF THE EQUIPMENT.
- EQUIPMENT TAG NUMBER SHALL CONTAIN A MINIMUM OF: THE EQUIPMENT NAME, VOLTAGE, PHASE, WIRE (3 OR 4), AMPERAGE, SOURCE, XXXX, LOAD, XXXX, SUBMIT PROPOSED TAGGING FOR ENGINEERS APPROVAL, PRIOR TO FABRICATION.

- PROVIDE TYPEWRITTEN CIRCUIT INDEXES FOR ALL PANELS.
- JUNCTION BOXES SHALL BE LABELED INDICATING THE SYSTEM AND OR CIRCUITS CONTAINED WITHIN.
- ALL RECEPTABLES SHALL BE LABELED WITH THE CIRCUIT NUMBERS AND PANEL IDENTIFICATION. UTILIZE P-TOUCH ADHESIVE LABELS COMPLETE WITH A MINIMUM OF 5 LETTERING, I.E. "PH-001".
- ALL COMMUNICATIONS AND OTHER SYSTEMS CABLES AND DEVICES ARE TO BE IDENTIFIED AS PER THE BIDDERS STANDARDS, CONFORMING TO THE CANADIAN ELECTRICAL CODE AND THE ENGINEER'S INSTRUCTIONS FOR IDENTIFICATION OF LABELS.
- ALL LUMINAIRES CONNECTED TO EMERGENCY CIRCUITS TO BE LABELED WITH P-TOUCH LABELS INDICATING PANEL AND CIRCUIT DESIGNATION. LABELS TO BE VISIBLE FROM BELOW AFTER INSTALLATION.
- TESTS
- ALL PORTIONS OF THE ELECTRICAL WORK SHALL BE TESTED AND CHECKED FOR SATISFACTORY OPERATION.
- BEFORE ENERGIZING ANY PORTION OF THE ELECTRICAL SYSTEM, PERFORM MISCELLANEOUS TESTS ON ALL FEEDERS. RESULTS OF SUCH TESTS SHALL CONFORM TO THE REQUIREMENTS OF THE CANADIAN ELECTRICAL CODE AND SHALL BE TO THE SATISFACTION OF THE AUTHORIZED INSPECTION AGENCY AND THE ENGINEER.
- SUBMIT ALL TEST RESULTS TO THE ENGINEER FOR APPROVAL.
- ANY TEST RESULTS THAT DO NOT MEET THE MINIMUM REQUIREMENTS OF THE MANUFACTURER, CANADIAN ELECTRICAL CODE, AUTHORIZED INSPECTION AGENCY AND THE ENGINEER SHALL BE REPAIRED IN A METHOD APPROVED BY THE ENGINEER AND RETESTED AT THE EXPENSE OF THE CONTRACTOR.
- UPON COMPLETION OF THE WORK AND IMMEDIATELY PRIOR TO FINAL INSPECTION AND TAKEOVER, CHECK THE LOAD BALANCE OF ALL FEEDERS AND AT DISTRIBUTION CENTRAL PANELS, ETC. THE TESTS SHALL BE CARRIED OUT BY TRYING ON ALL POSSIBLE LOADS IN THE TENDR AND CHECKING LOAD CURRENT BALANCE. IF LOAD UNBALANCE EXCEEDS 15 PERCENT, RECONNECT CIRCUITS TO BALANCE THE LOAD.
- GUARANTEE/WARRANTY
- THAT ALL WORK EXECUTED UNDER THIS CONTRACT WILL BE FREE FROM DEFECTS OF MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE FROM ENGINEER (22 SCHEDULE) FOR THIS WORK.
- THE ABOVE PARTIES FURTHER AGREE TO, AT THEIR OWN EXPENSE, REPAIR AND REPLACE ALL SUCH DEFECTIVE WORK AND OTHER WORK DAMAGED THEREBY WHICH FAILS OR BECOMES DEFECTIVE DURING THE TERM OF THE WARRANTY PROVIDED THAT SUCH FAILURE IS NOT DUE TO IMPROPER USAGE.
- THE PERIOD OF THE GUARANTEE SPECIFIED SHALL IN NO WAY SUPPLANT ANY OTHER GUARANTEE OF A LONGER PERIOD BUT SHALL BE BINDING ON WORKMANSHIP WHICH OTHERWISE IS NOT FORMALLY COVERED.
- ELECTRICAL CONTRACTOR TO ISSUE LETTER STIPULATING WARRANTY PERIOD DATES FOR ALL EQUIPMENT.
- BUILDING WIRING
- NO WIRE SMALLER THAN NO. 12 AWG GAUGE SHALL BE USED FOR BRANCH CIRCUIT WIRING.
- EXCISEABLE CABLE MAY BE USED ONLY AS FOLLOWS:
- 20.3.1. WITHIN NEW DRYWALL PARTITIONS WITH ONE ROOM TO INTERCONNECT ELECTRICAL DEVICES, EXCEPT THAT THE CONNECTION FROM THE JUNCTION BOX ABOVE THE SUSPENDED CEILING DOWN TO THE FIRST ELECTRICAL DEVICE OR THE DRYWALL SHALL BE WIRED IN THE DRYWALL.
- 20.3.2. INDIVIDUAL DROPS FROM JUNCTION BOXES IN CEILING SPACES TO LUMINAIRES TO A MAXIMUM OF THREE (3) METRES. ("DASH CHANNEL" OF LUMINAIRES IS NOT PERMITTED).
- 20.3.3. WITH THE ABOVE EXCEPTIONS, ALL 120-VOLT BRANCH CIRCUIT WIRING MUST BE INSTALLED IN EMT CONDUIT.
- 20.3.4. WIRING SHALL BE COLOUR CODED TO MATCH EXISTING INSTALLATION.
- CONDUIT TO BE SIZED IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE.
- WIRING SHALL BE COLOUR CODED AS FOLLOWS:
- 10000V UTILITY - 34700V
- A PHASE - RED ORANGE ORANGE
- B PHASE - BLACK BROWN BROWN
- C PHASE - BLUE YELLOW YELLOW
- NEUTRAL - WHITE WHITE WHITE
- GROUND - GREEN GREEN GREEN
- ALL LINE VOLTAGE WIRING SHALL BE INSTALLED IN CONDUIT.
- ALUMINUM CONDUCTORS MAY ONLY BE USED WHERE INDICATED ON DRAWINGS. APPLY ZINC 20% COUPOND ON ALL ALUMINUM CONDUCTORS PRIOR TO INSTALLATION OF CONNECTORS OR TERMINATING CONDUCTORS.
- COPPER RECEPTABLES SHALL BE COMPLETE WITH NEUTRAL CONDUCTOR PER PHASE.
- 20.8. VOLTAGE DROP FOR WIRING SHALL MEET REQUIREMENTS AS Laid OUT IN THE CANADIAN ELECTRICAL CODE. GENERALLY MAXIMUM BRANCH CIRCUIT CONDUCTOR DISTANCES (120VAC) TO MAINTAIN MAX. 3% VOLTAGE DROP ARE AS FOLLOWS:
- 20.8.1. 15A/1P BREAKER - PHASE WIRING - 80 FEET (24 METRES)
- 20.8.2. 15A/1P BREAKER - PHASE WIRING - 125 FEET (39 METRES)
- 20.8.3. 20A/1P BREAKER - PHASE WIRING - 60 FEET (18 METRES)
- 20.8.4. 20A/1P BREAKER - PHASE WIRING - 90 FEET (29 METRES)
- 20.8.5. 20A/1P BREAKER - PHASE WIRING - 120 FEET (37 METRES)
- 20.8.6. 20A/1P BREAKER - PHASE WIRING - 150 FEET (46 METRES)
- 20.8.7. 20A/1P BREAKER - PHASE WIRING - 180 FEET (55 METRES)
- 20.8.8. 20A/1P BREAKER - PHASE WIRING - 210 FEET (64 METRES)
- 20.8.9. 20A/1P BREAKER - PHASE WIRING - 240 FEET (73 METRES)
- 20.8.10. 20A/1P BREAKER - PHASE WIRING - 270 FEET (82 METRES)
- 20.8.11. 20A/1P BREAKER - PHASE WIRING - 300 FEET (91 METRES)
- 20.8.12. 20A/1P BREAKER - PHASE WIRING - 330 FEET (100 METRES)
- 20.8.13. 20A/1P BREAKER - PHASE WIRING - 360 FEET (109 METRES)
- 20.8.14. 20A/1P BREAKER - PHASE WIRING - 390 FEET (118 METRES)
- 20.8.15. 20A/1P BREAKER - PHASE WIRING - 420 FEET (127 METRES)
- 20.8.16. 20A/1P BREAKER - PHASE WIRING - 450 FEET (136 METRES)
- 20.8.17. 20A/1P BREAKER - PHASE WIRING - 480 FEET (145 METRES)
- 20.8.18. 20A/1P BREAKER - PHASE WIRING - 510 FEET (154 METRES)
- 20.8.19. 20A/1P BREAKER - PHASE WIRING - 540 FEET (163 METRES)
- 20.8.20. 20A/1P BREAKER - PHASE WIRING - 570 FEET (172 METRES)
- 20.8.21. 20A/1P BREAKER - PHASE WIRING - 600 FEET (181 METRES)
- 20.8.22. 20A/1P BREAKER - PHASE WIRING - 630 FEET (190 METRES)
- 20.8.23. 20A/1P BREAKER - PHASE WIRING - 660 FEET (199 METRES)
- 20.8.24. 20A/1P BREAKER - PHASE WIRING - 690 FEET (208 METRES)
- 20.8.25. 20A/1P BREAKER - PHASE WIRING - 720 FEET (217 METRES)
- 20.8.26. 20A/1P BREAKER - PHASE WIRING - 750 FEET (226 METRES)
- 20.8.27. 20A/1P BREAKER - PHASE WIRING - 780 FEET (235 METRES)
- 20.8.28. 20A/1P BREAKER - PHASE WIRING - 810 FEET (244 METRES)
- 20.8.29. 20A/1P BREAKER - PHASE WIRING - 840 FEET (253 METRES)
- 20.8.30. 20A/1P BREAKER - PHASE WIRING - 870 FEET (262 METRES)
- 20.8.31. 20A/1P BREAKER - PHASE WIRING - 900 FEET (271 METRES)
- 20.8.32. 20A/1P BREAKER - PHASE WIRING - 930 FEET (280 METRES)
- 20.8.33. 20A/1P BREAKER - PHASE WIRING - 960 FEET (289 METRES)
- 20.8.34. 20A/1P BREAKER - PHASE WIRING - 990 FEET (298 METRES)
- 20.8.35. 20A/1P BREAKER - PHASE WIRING - 1020 FEET (307 METRES)
- 20.8.36. 20A/1P BREAKER - PHASE WIRING - 1050 FEET (316 METRES)
- 20.8.37. 20A/1P BREAKER - PHASE WIRING - 1080 FEET (325 METRES)
- 20.8.38. 20A/1P BREAKER - PHASE WIRING - 1110 FEET (334 METRES)
- 20.8.39. 20A/1P BREAKER - PHASE WIRING - 1140 FEET (343 METRES)
- 20.8.40. 20A/1P BREAKER - PHASE WIRING - 1170 FEET (352 METRES)
- 20.8.41. 20A/1P BREAKER - PHASE WIRING - 1200 FEET (361 METRES)
- 20.8.42. 20A/1P BREAKER - PHASE WIRING - 1230 FEET (370 METRES)
- 20.8.43. 20A/1P BREAKER - PHASE WIRING - 1260 FEET (379 METRES)
- 20.8.44. 20A/1P BREAKER - PHASE WIRING - 1290 FEET (388 METRES)
- 20.8.45. 20A/1P BREAKER - PHASE WIRING - 1320 FEET (397 METRES)
- 20.8.46. 20A/1P BREAKER - PHASE WIRING - 1350 FEET (406 METRES)
- 20.8.47. 20A/1P BREAKER - PHASE WIRING - 1380 FEET (415 METRES)
- 20.8.48. 20A/1P BREAKER - PHASE WIRING - 1410 FEET (424 METRES)
- 20.8.49. 20A/1P BREAKER - PHASE WIRING - 1440 FEET (433 METRES)
- 20.8.50. 20A/1P BREAKER - PHASE WIRING - 1470 FEET (442 METRES)
- 20.8.51. 20A/1P BREAKER - PHASE WIRING - 1500 FEET (451 METRES)
- 20.8.52. 20A/1P BREAKER - PHASE WIRING - 1530 FEET (460 METRES)
- 20.8.53. 20A/1P BREAKER - PHASE WIRING - 1560 FEET (469 METRES)
- 20.8.54. 20A/1P BREAKER - PHASE WIRING - 1590 FEET (478 METRES)
- 20.8.55. 20A/1P BREAKER - PHASE WIRING - 1620 FEET (487 METRES)
- 20.8.56. 20A/1P BREAKER - PHASE WIRING - 1650 FEET (496 METRES)
- 20.8.57. 20A/1P BREAKER - PHASE WIRING - 1680 FEET (505 METRES)
- 20.8.58. 20A/1P BREAKER - PHASE WIRING - 1710 FEET (514 METRES)
- 20.8.59. 20A/1P BREAKER - PHASE WIRING - 1740 FEET (523 METRES)
- 20.8.60. 20A/1P BREAKER - PHASE WIRING - 1770 FEET (532 METRES)
- 20.8.61. 20A/1P BREAKER - PHASE WIRING - 1800 FEET (541 METRES)
- 20.8.62. 20A/1P BREAKER - PHASE WIRING - 1830 FEET (550 METRES)
- 20.8.63. 20A/1P BREAKER - PHASE WIRING - 1860 FEET (559 METRES)
- 20.8.64. 20A/1P BREAKER - PHASE WIRING - 1890 FEET (568 METRES)
- 20.8.65. 20A/1P BREAKER - PHASE WIRING - 1920 FEET (577 METRES)
- 20.8.66. 20A/1P BREAKER - PHASE WIRING - 1950 FEET (586 METRES)
- 20.8.67. 20A/1P BREAKER - PHASE WIRING - 1980 FEET (595 METRES)
- 20.8.68. 20A/1P BREAKER - PHASE WIRING - 2010 FEET (604 METRES)
- 20.8.69. 20A/1P BREAKER - PHASE WIRING - 2040 FEET (613 METRES)
- 20.8.70. 20A/1P BREAKER - PHASE WIRING - 2070 FEET (622 METRES)
- 20.8.71. 20A/1P BREAKER - PHASE WIRING - 2100 FEET (631 METRES)
- 20.8.72. 20A/1P BREAKER - PHASE WIRING - 2130 FEET (640 METRES)
- 20.8.73. 20A/1P BREAKER - PHASE WIRING - 2160 FEET (649 METRES)
- 20.8.74. 20A/1P BREAKER - PHASE WIRING - 2190 FEET (658 METRES)
- 20.8.75. 20A/1P BREAKER - PHASE WIRING - 2220 FEET (667 METRES)
- 20.8.76. 20A/1P BREAKER - PHASE WIRING - 2250 FEET (676 METRES)
- 20.8.77. 20A/1P BREAKER - PHASE WIRING - 2280 FEET (685 METRES)
- 20.8.78. 20A/1P BREAKER - PHASE WIRING - 2310 FEET (694 METRES)
- 20.8.79. 20A/1P BREAKER - PHASE WIRING - 2340 FEET (703 METRES)
- 20.8.80. 20A/1P BREAKER - PHASE WIRING - 2370 FEET (712 METRES)
- 20.8.81. 20A/1P BREAKER - PHASE WIRING - 2400 FEET (721 METRES)
- 20.8.82. 20A/1P BREAKER - PHASE WIRING - 2430 FEET (730 METRES)
- 20.8.83. 20A/1P BREAKER - PHASE WIRING - 2460 FEET (739 METRES)
- 20.8.84. 20A/1P BREAKER - PHASE WIRING - 2490 FEET (748 METRES)
- 20.8.85. 20A/1P BREAKER - PHASE WIRING - 2520 FEET (757 METRES)
- 20.8.86. 20A/1P BREAKER - PHASE WIRING - 2550 FEET (766 METRES)
- 20.8.87. 20A/1P BREAKER - PHASE WIRING - 2580 FEET (775 METRES)
- 20.8.88. 20A/1P BREAKER - PHASE WIRING - 2610 FEET (784 METRES)
- 20.8.89. 20A/1P BREAKER - PHASE WIRING - 2640 FEET (793 METRES)
- 20.8.90. 20A/1P BREAKER - PHASE WIRING - 2670 FEET (802 METRES)
- 20.8.91. 20A/1P BREAKER - PHASE WIRING - 2700 FEET (811 METRES)
- 20.8.92. 20A/1P BREAKER - PHASE WIRING - 2730 FEET (820 METRES)
- 20.8.93. 20A/1P BREAKER - PHASE WIRING - 2760 FEET (829 METRES)
- 20.8.94. 20A/1P BREAKER - PHASE WIRING - 2790 FEET (838 METRES)
- 20.8.95. 20A/1P BREAKER - PHASE WIRING - 2820 FEET (847 METRES)
- 20.8.96. 20A/1P BREAKER - PHASE WIRING - 2850 FEET (856 METRES)
- 20.8.97. 20A/1P BREAKER - PHASE WIRING - 2880 FEET (865 METRES)
- 20.8.98. 20A/1P BREAKER - PHASE WIRING - 2910 FEET (874 METRES)
- 20.8.99. 20A/1P BREAKER - PHASE WIRING - 2940 FEET (883 METRES)
- 20.8.100. 20A/1P BREAKER - PHASE WIRING - 2970 FEET (892 METRES)
- 20.8.101. 20A/1P BREAKER - PHASE WIRING - 3000 FEET (901 METRES)
- 20.8.102. 20A/1P BREAKER - PHASE WIRING - 3030 FEET (910 METRES)
- 20.8.103. 20A/1P BREAKER - PHASE WIRING - 3060 FEET (919 METRES)
- 20.8.104. 20A/1P BREAKER - PHASE WIRING - 3090 FEET (928 METRES)
- 20.8.105. 20A/1P BREAK

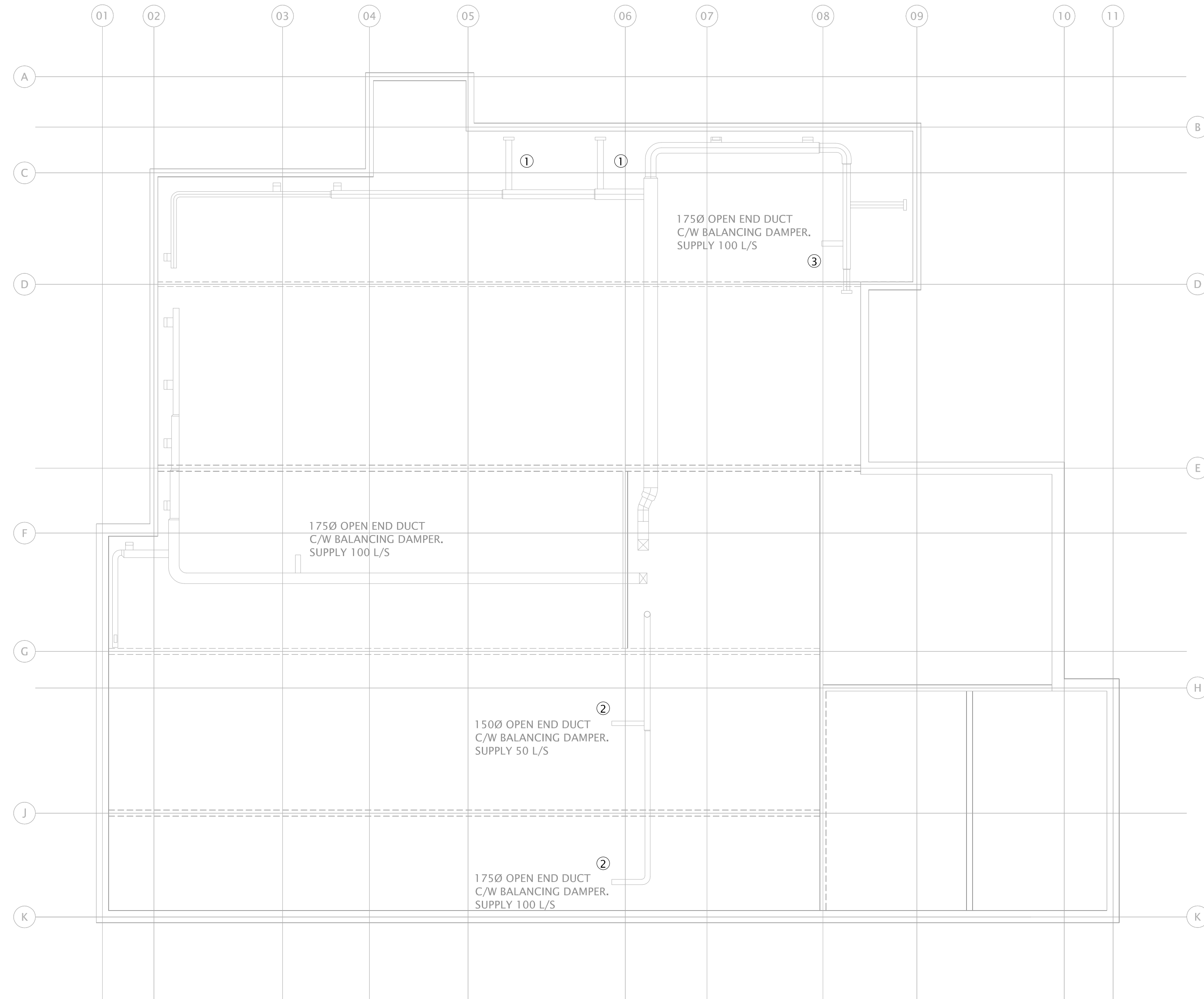
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- MECHANICAL GENERAL NOTES:**
- CONTRACTOR TO VERIFY THE EXISTING CONDITION BEFORE COMMENCEMENT OF DEMOLITION.
  - DISCONNECT AND REMOVE FURNACES AND DX COOLING COIL. ALL EXISTING DUCTWORK, GAS LINES, FLUES, ARE TO BE REMAINED AND CAPPED FOR FUTURE RE-CONNECTION.
  - SUPPLY AND INSTALL ALL FIRE STOPPING MATERIAL, AND ENSURE THAT ALL FIRE PENETRATIONS ARE PROTECTED AS REQUIRED BY THE ALBERTA BUILDING CODE AND THE LOCAL AUTHORITIES.
  - MECHANICAL SYSTEMS AND THEIR SUPPORTS, AND THE LIKE, MUST BE DESIGNED AND DETAILED TO ACCOMMODATE THE ANTICIPATED MOVEMENTS NOTED UNDER 'SERVICEABILITY CRITERIA' ON THE STRUCTURAL DRAWINGS.
  - DESIGN AND DETAIL ALL NECESSARY SEISMIC RESTRAINTS FOR MECHANICAL SYSTEMS SHOWN ON THE CONTRACT DOCUMENTS. SUBMIT SHOP DRAWINGS PREPARED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE PROVINCE OF ALBERTA, FOR REVIEW BY THE CONSULTANT.
  - MECHANICAL CONTRACTOR SHALL SUBMIT SLEEVING DRAWINGS INDICATING LAYOUT AND SIZES OF ALL INTENDED PENETRATIONS THROUGH ANY STRUCTURAL ELEMENTS, INCLUDING ANY EMBEDDED ITEMS, FOR REVIEW BY CONSULTANT WELL IN ADVANCE OF COMPLETING THE WORK.
  - PROVIDE COLLAR CONNECTION: LENGTH TO SUIT SITE CONDITION.

- MECHANICAL LEGEND:**
- EXISTING TO BE REMOVE
  - EXISTING TO REMAIN
  - NEW
- MECHANICAL KEY NOTES:**
- ① CAP OFF SUPPLY AIR DUCT.

1 CRAWL SPACE MECHANICAL DEMOLITION LAYOUT  
M50-00-01 1:100



- MECHANICAL GENERAL NOTES:**
- CONTRACTOR TO VERIFY THE EXISTING CONDITION BEFORE COMMENCEMENT OF DEMOLITION.
  - DISCONNECT AND REMOVE FURNACES AND DX COOLING COIL. ALL EXISTING DUCTWORK, GAS LINES, FLUES, ARE TO BE REMAINED AND CAPPED FOR FUTURE RE-CONNECTION.
  - SUPPLY AND INSTALL ALL FIRE STOPPING MATERIAL, AND ENSURE THAT ALL FIRE PENETRATIONS ARE PROTECTED AS REQUIRED BY THE ALBERTA BUILDING CODE AND THE LOCAL AUTHORITIES.
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  - PROVIDE COLLAR CONNECTION: LENGTH TO SUIT SITE CONDITION.

- MECHANICAL LEGEND:**
- EXISTING TO BE REMOVE
  - EXISTING TO REMAIN
  - NEW
- MECHANICAL KEY NOTES:**
- ① RE-BALANCE SUPPLY AIR TO 120L/S.
  - ② RE-BALANCE SUPPLY AIR TO 50L/S.
  - ③ RE-BALANCE SUPPLY AIR TO 80L/S.

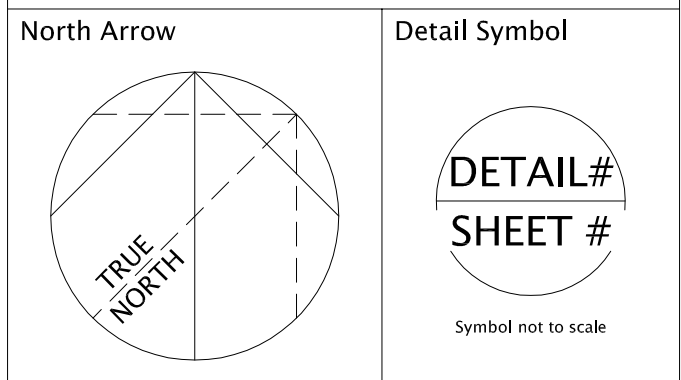
2 CRAWL SPACE MECHANICAL NEW LAYOUT  
M50-00-01 1:100

DATE	ISSUED FOR	REV
2017-11-24	50% REVIEW	1
2017-12-08	99% REVIEW	2
2017-12-22	TENDER	3

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Project Component  
Phase # - Description

Keyplan



Consultants  
Civil:  
Landscape:  
Architectural:  
Structural:  
Mechanical: NORR ARCHITECTS ENGINEERS PLANNERS  
Electrical: NORR ARCHITECTS ENGINEERS PLANNERS

Seal(s)

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GOVERNMENT OF CANADA

Project  
GOVERNMENT OF CANADA  
FURNACE REPLACEMENT

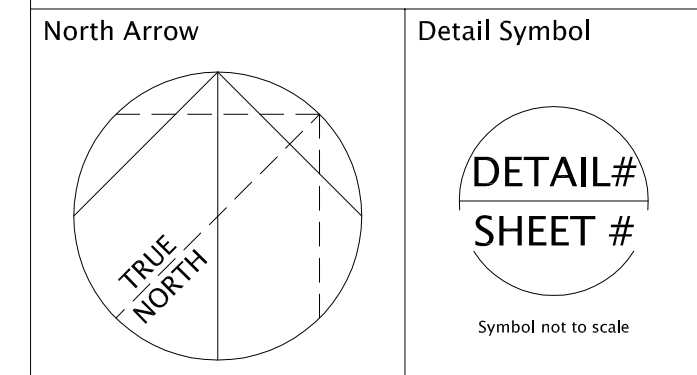
Drawing Title  
CRAWL SPACE MECHANICAL  
& ELECTRICAL  
DEMOLITION & NEW LAYOUT  
Check Scale (may be photo reduced)  
0 1 inch 0 10mm  
Project No. NCCA-17-0167-00  
Drawing No. M50-00-01

DATE	ISSUED FOR	REV
2017-11-24	50% REVIEW	1
2017-12-08	99% REVIEW	2
2017-12-22	TENDER	3

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Project Component  
Phase # - Description

Keyplan



Consultants  
Civil:   
Landscaping:   
Architectural:   
Structural:   
Mechanical: NORR ARCHITECTS ENGINEERS PLANNERS   
Electrical: NORR ARCHITECTS ENGINEERS PLANNERS

Seal(s)

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Project Manager  
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Client  
GOVERNMENT OF CANADA

Project  
GOVERNMENT OF CANADA

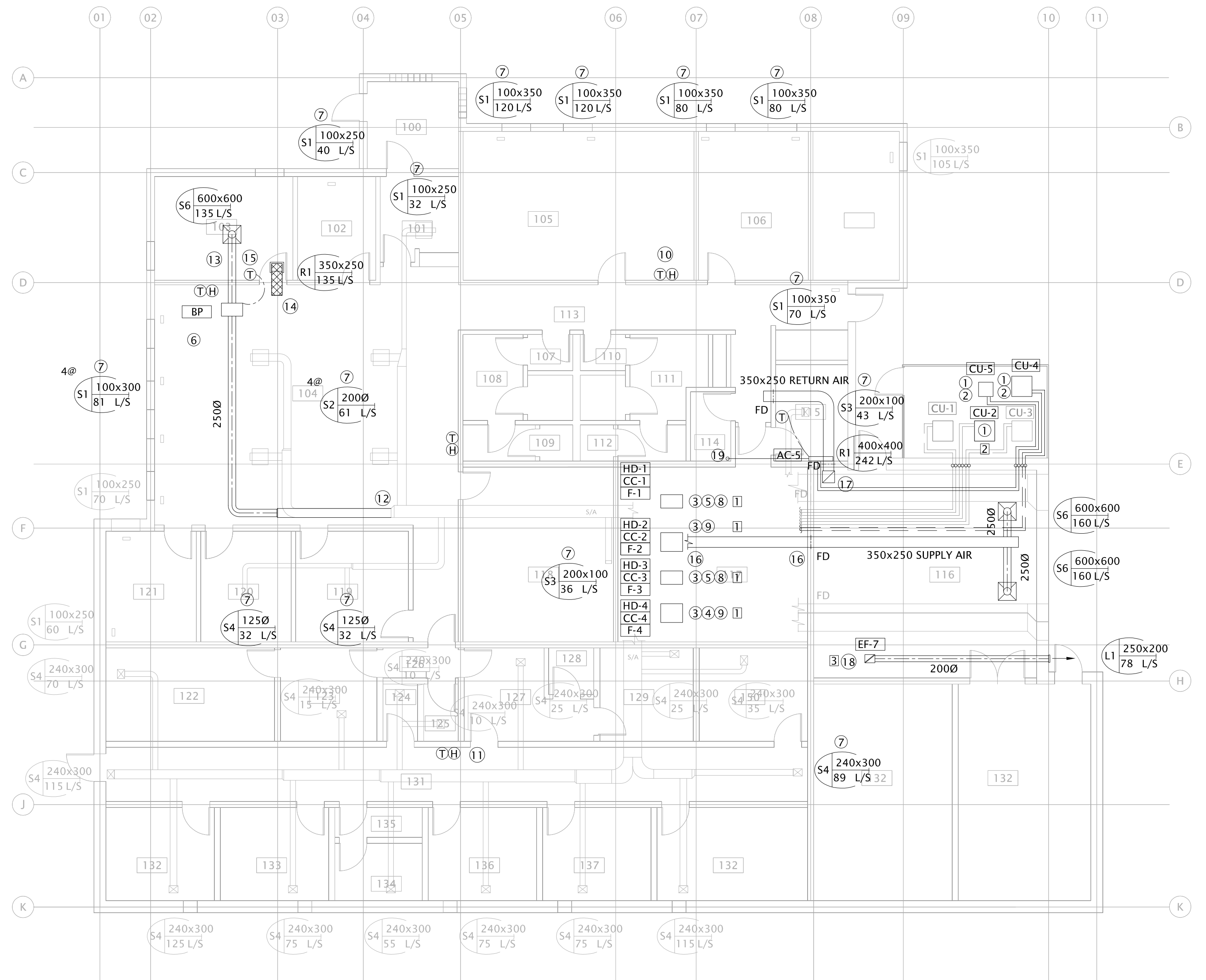
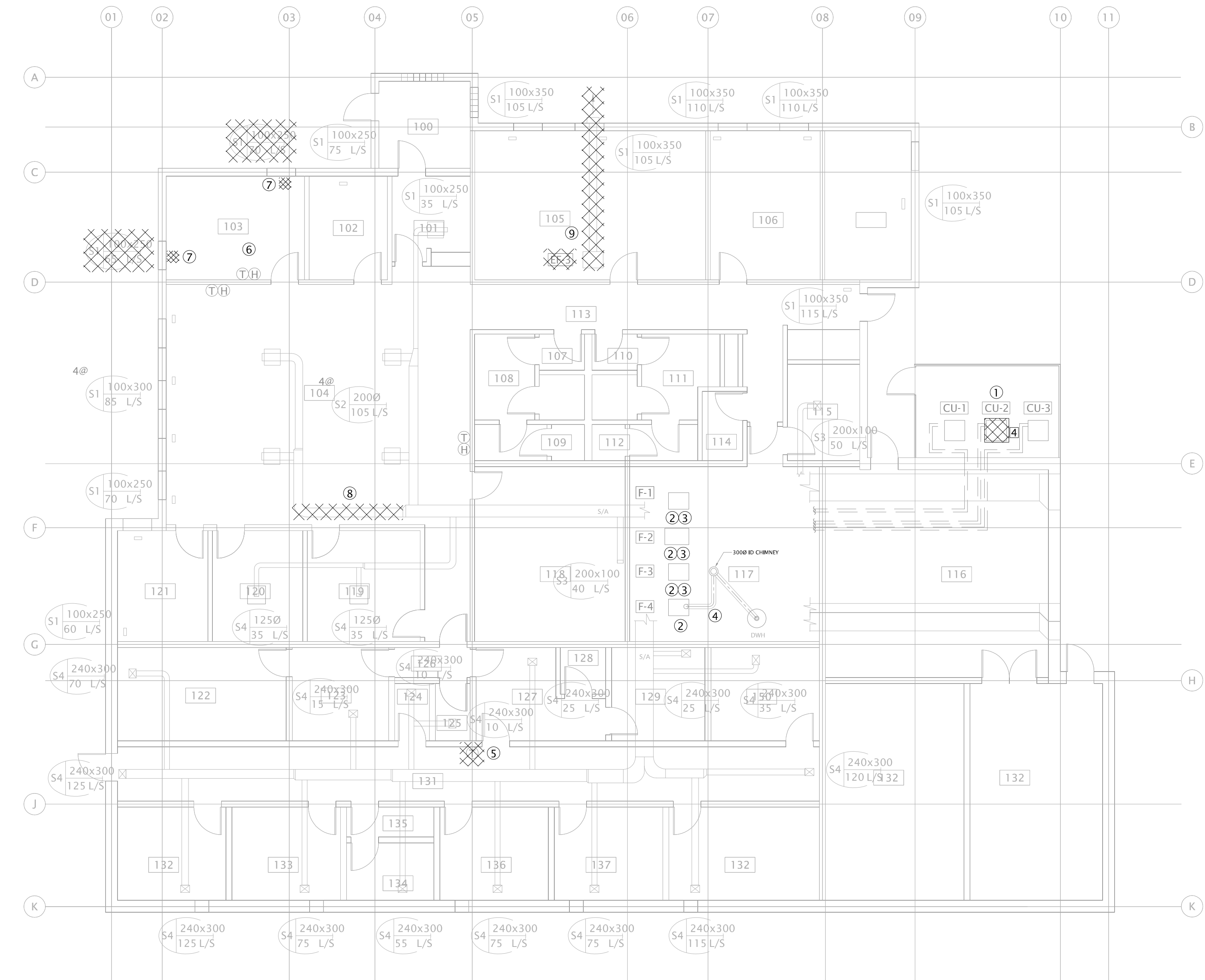
FURNACE REPLACEMENT

Drawing Title  
MAIN FLOOR MECHANICAL  
& ELECTRICAL  
DEMOLITION & NEW LAYOUT

Check Scale (may be photo reduced)  
0 1 inch 0 10mm

Project No. NCCA-17-0167-00

Drawing No. M50-01-01



**MECHANICAL GENERAL NOTES:**

- CONTRACTOR TO VERIFY THE EXISTING CONDITION BEFORE COMMENCEMENT OF DEMOLITION.
- DISCONNECT AND REMOVE FURNACES AND DX COOLING COIL. ALL EXISTING DUCTWORK, GAS LINES, FLUES, ARE TO BE REMAINED AND CAPPED FOR FUTURE RE-CONNECTION.
- SUPPLY AND INSTALL ALL FIRE STOPPING MATERIAL AND ENSURE THAT ALL FIRE PENETRATIONS ARE PROTECTED AS REQUIRED BY THE ALBERTA BUILDING CODE AND THE LOCAL AUTHORITIES.
- MECHANICAL SYSTEMS AND THEIR SUPPORTS, AND THE LIKE, MUST BE DESIGNED AND DETAILED TO ACCOMMODATE THE ANTICIPATED MOVEMENTS NOTED UNDER SERVICEABILITY CRITERIA ON THE STRUCTURAL DRAWINGS.
- DESIGN AND DETAIL ALL NECESSARY SEISMIC RESTRAINTS FOR MECHANICAL SYSTEMS SHOWN ON THE CONTRACT DOCUMENTS. SUBMIT SHOP DRAWINGS PREPARED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE PROVINCE OF ALBERTA, FOR REVIEW BY THE CONSULTANT.
- MECHANICAL CONTRACTOR SHALL SUBMIT SLEEVING DRAWINGS INDICATING LAYOUT AND SIZES OF ALL INTENDED PENETRATIONS THROUGH ANY STRUCTURAL ELEMENTS INCLUDING ANY EMBEDDED ITEMS, FOR REVIEW BY CONSULTANT WELL IN ADVANCE OF COMPLETING THE WORK.
- PROVIDE COLLAR CONNECTION; LENGTH TO SUIT SITE CONDITION.

**MECHANICAL LEGEND:**

EXISTING TO BE REMOVE  
EXISTING TO REMAIN  
NEW

**MECHANICAL KEY NOTES:**

- REPLACE EXISTING OUTDOOR CONDENSING UNIT WITH NEW CU-2 AS PER SCHEDULE.
- REPLACE EXISTING FURNACE WITH NEW F-1, F-2, F-3, F-4 AS PER SCHEDULE.
- REPLACE EXISTING COOLING COIL WITH NEW CC-1, CC-2, CC-3 AS PER SCHEDULE.
- DEMOLISH EXISTING GALVANIZED FLUE PIPE CONNECTED TO F-4.
- DEMOLISH EXISTING THERMOSTAT/HUMIDISTAT.
- RELOCATE THERMOSTAT/HUMIDISTAT TO NEW LOCATION ROOM# 106.
- CAP OFF DUCTWORK DEMOLISH FLOOR SUPPLY GRILL.
- DEMOLISH SUPPLY AIR DUCTWORK AT THE HIGHLIGHTED LOCATION.
- DEMOLISH EXHAUST FAN (EF-3) AND THE CONNECTED EXHAUST AIR DUCTWORK AND EXHAUST VENT LOUVER.

**ELECTRICAL GENERAL NOTES:**

- ELECTRICAL CONTRACTOR TO VERIFY ALL WIRING AND CONNECTIONS IN THE EXISTING ELECTRICAL PANEL.
- CONTRACTOR TO VERIFY THE EXISTING CIRCUIT BREAKERS AND CABLES FEEDING THE FURNACES AND CONDENSING UNIT.
- ALL NEW ELECTRICAL WORKS AND ALL NEW ELECTRICAL EQUIPMENT RATINGS (INCLUDING ALL CABLES AND CIRCUIT BREAKERS) TO MEET THE CEC REQUIREMENTS.
- ELECTRICAL CONTRACTOR TO REFER TO MECHANICAL SCHEDULES AND EQUIPMENT LAYOUT FOR ALL MECHANICAL EQUIPMENT RATING AND ELECTRICAL REQUIREMENTS.

**ELECTRICAL KEY NOTES:**

- REMOVE EXISTING CONNECTION TO CU-2. REMOVE ALL CABLES AND CONDUIT BACK TO SOURCE. MARK BREAKER IN PANEL AS SPARE.

**MECHANICAL GENERAL NOTES:**

- CONTRACTOR TO VERIFY THE EXISTING CONDITION BEFORE COMMENCEMENT OF DEMOLITION.
- DISCONNECT AND REMOVE FURNACES AND DX COOLING COIL. ALL EXISTING DUCTWORK, GAS LINES, FLUES, ARE TO BE REMAINED AND CAPPED FOR FUTURE RE-CONNECTION.
- SUPPLY AND INSTALL ALL FIRE STOPPING MATERIAL AND ENSURE THAT ALL FIRE PENETRATIONS ARE PROTECTED AS REQUIRED BY THE ALBERTA BUILDING CODE AND THE LOCAL AUTHORITIES.
- MECHANICAL SYSTEMS AND THEIR SUPPORTS, AND THE LIKE, MUST BE DESIGNED AND DETAILED TO ACCOMMODATE THE ANTICIPATED MOVEMENTS NOTED UNDER SERVICEABILITY CRITERIA ON THE STRUCTURAL DRAWINGS.
- DESIGN AND DETAIL ALL NECESSARY SEISMIC RESTRAINTS FOR MECHANICAL SYSTEMS SHOWN ON THE CONTRACT DOCUMENTS. SUBMIT SHOP DRAWINGS PREPARED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE PROVINCE OF ALBERTA, FOR REVIEW BY THE CONSULTANT.
- MECHANICAL CONTRACTOR SHALL SUBMIT SLEEVING DRAWINGS INDICATING LAYOUT AND SIZES OF ALL INTENDED PENETRATIONS THROUGH ANY STRUCTURAL ELEMENTS INCLUDING ANY EMBEDDED ITEMS, FOR REVIEW BY CONSULTANT WELL IN ADVANCE OF COMPLETING THE WORK.
- PROVIDE COLLAR CONNECTION; LENGTH TO SUIT SITE CONDITION.

**MECHANICAL LEGEND:**

EXISTING TO BE REMOVE  
EXISTING TO REMAIN  
NEW

**MECHANICAL KEY NOTES:**

- PROVIDE AND INSTALL NEW CONDENSING UNIT CU-2, CU-4, CU-5 AS PER SCHEDULE.
- PROVIDE AND INSTALL NEW REFRIGERANT PIPING FOR CONDENSING UNIT CU-4 & CU-5.
- PROVIDE AND INSTALL NEW FURNACES F-1, F-2, F-3, F-4 AS PER SCHEDULE AND AS PER MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE AND INSTALL NEW COOLING COIL CC-4 AS PER SCHEDULE.
- PROVIDE TRANSITION BETWEEN FURNACE SUPPLY AIR OPENING AND COOLING COIL CASE.
- BYPASS TERMINAL UNIT.
- BALANCE SUPPLY AIR L/S AS INDICATED.
- PROVIDE 50MM PVC COMBUSTION & VENT PIPE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE 75MM PVC COMBUSTION AIR & VENT PIPE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- RELOCATE THERMOSTAT/HUMIDISTAT TO NEW LOCATION, WIRE TO FURNACE (F-2).

**ELECTRICAL GENERAL NOTES:**

- WIRE NEW THERMOSTAT/HUMIDISTAT TO FURNACE (F-4).
- INSTALL AND CONNECT 2500 NEW SUPPLY AIR DUCTWORK TO THE EXISTING SUPPLY AIR DUCT.
- PROVIDE AND INSTALL NEW SUPPLY AIR DUCT WORK AT THE CEILING SPACE C/W SUPPLY AIR DIFFUSER.
- 350x250MM TRANSFER DUCT C/W ACOUSTIC INSULATION AND RETURN AIR GRILLE.
- PROVIDE AND INSTALL NEW THERMOSTAT, CONNECT TO BYPASS TERMINAL BP.
- PROVIDE AND INSTALL SUPPLY AIR DUCT WORK TO CIVIL/LOCKER ROOM, CONNECT TAKE OFF DUCT TO FURNACE (F-2), C/W FIRE DAMPER AT MECHANICAL ROOM WALL PENETRATION.
- PROVIDE AND INSTALL RETURN AIR DUCTWORK TO TRANSFER AIR FROM CIVIL/LOCKER ROOM TO CORRIDOR, C/W RETURN AIR GRILLE AND FIRE DAMPERS AT FIRE RATED WALLS PENETRATION.
- PROVIDE AND INSTALL EXHAUST FAN (EF-7), C/W EXHAUST AIR DUCT WORK AND 250x200 EXHAUST LOUVER AT EXTERIOR WALL.
- PLUMBED CONDENSATE DRAIN TO MOP SINK IN JANITOR'S ROOM.

**ELECTRICAL GENERAL NOTES:**

- ELECTRICAL CONTRACTOR TO VERIFY ALL WIRING AND CONNECTIONS IN THE EXISTING ELECTRICAL PANEL.
- CONTRACTOR TO VERIFY THE EXISTING CIRCUIT BREAKERS AND CABLES FEEDING THE FURNACES AND CONDENSING UNIT.
- ALL NEW ELECTRICAL WORKS AND ALL NEW ELECTRICAL EQUIPMENT RATINGS (INCLUDING ALL CABLES AND CIRCUIT BREAKERS) TO MEET THE CEC REQUIREMENTS.
- ELECTRICAL CONTRACTOR TO REFER TO MECHANICAL SCHEDULES AND EQUIPMENT LAYOUT FOR ALL MECHANICAL EQUIPMENT RATING AND ELECTRICAL REQUIREMENTS.

**ELECTRICAL KEY NOTES:**

- RE-CONNECT NEW EQUIPMENT IN EXISTING LOCATION WITH EXISTING WIRING, SUPPLY AND INSTALL NEW SERVICE DISCONNECT AT EACH FURNACE AS PART OF THIS WORK.
- SUPPLY AND INSTALL CONNECTION TO NEW CONDENSING UNIT. CONNECTION TO COME COMPLETE WITH SERVICE DISCONNECT, IN NEAREST AVAILABLE 208 PANEL SUPPLY AND INSTALL A NEW 40A 2POLE BREAKER TO SERVICE UNIT.
- SUPPLY AND INSTALL CONNECTION TO NEW TERMINAL UNIT, SUPPLY AND INSTALL NEW 15A 1POLE BREAKER IN NEAREST AVAILABLE POWER PANEL FOR CONNECTION.

1 MAIN FLOOR MECHANICAL DEMOLITION LAYOUT  
M50-01-01 1:100

2 MAIN FLOOR MECHANICAL NEW LAYOUT  
M50-01-01 1:100

PLOT DATE: January 23, 2018 TIME: 9:14 AM FULL PATH AND FILENAME: P:\R\COMP\_PROJECTS\NCCA17-0167-00 RCMP DRAVTON VALLEY FURNACE UPGRADE\DESIGN\M50-01-01.DWG PLOTSTYLE TABLE: PMA-STD-100.ctb