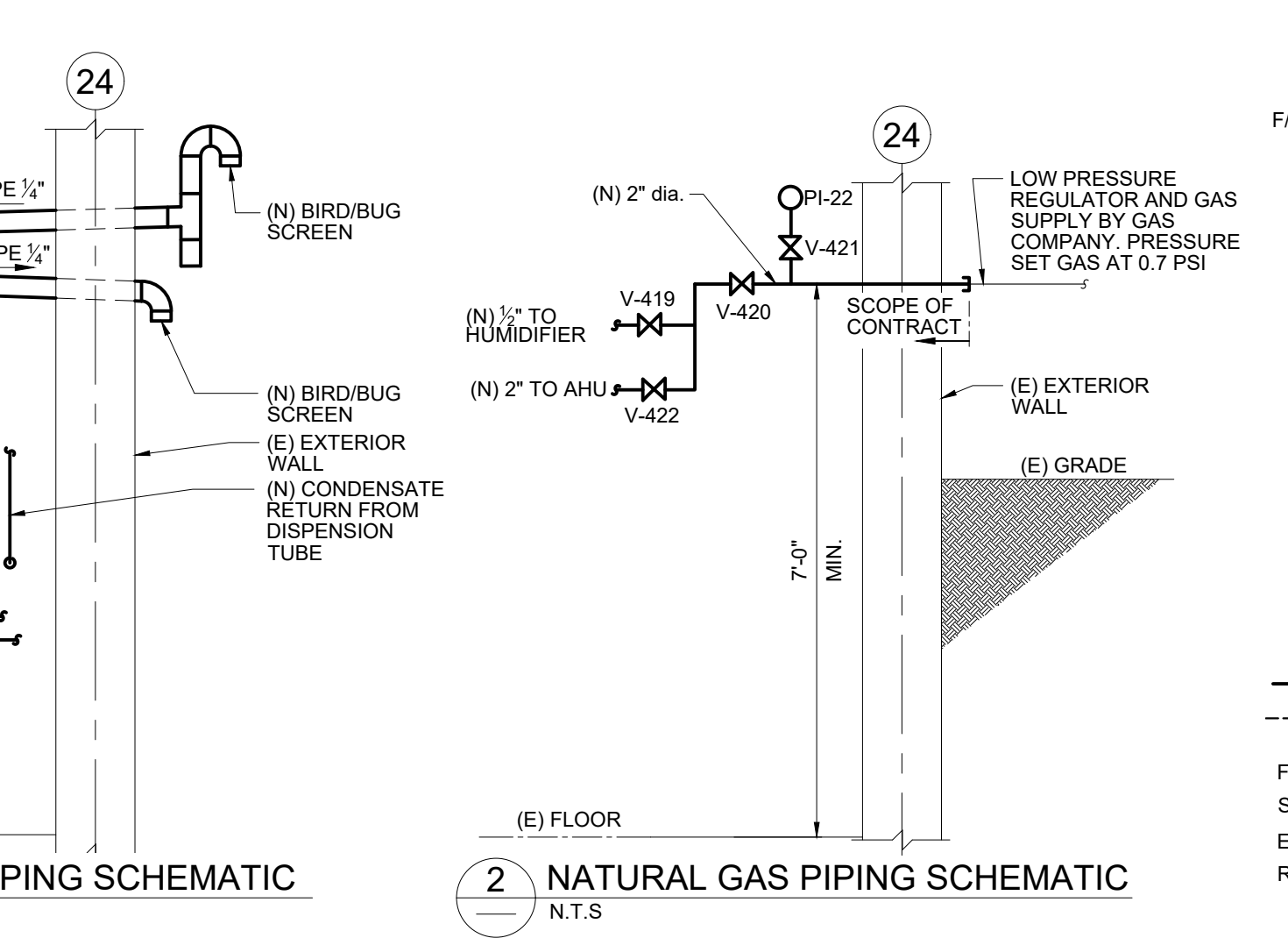
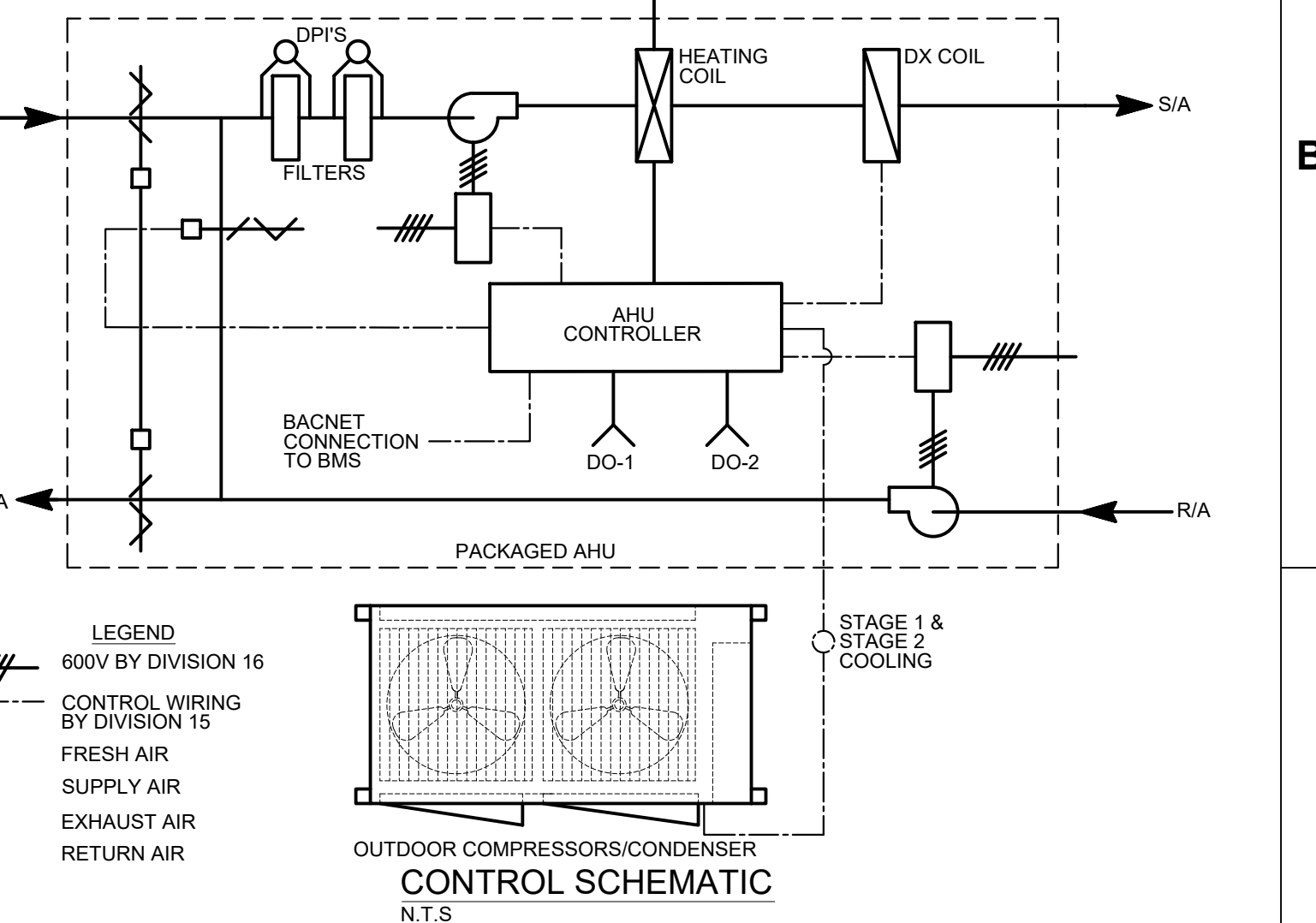


- 1.0 GENERAL NOTES:**
- ALL CONSTRUCTION BY CRL FORCES SHALL BE IN ACCORDANCE WITH THE NATIONAL BUILDING CODE 2015, CANADA LABOUR CODE, CANADA OCCUPATIONAL HEALTH AND SAFETY REGULATIONS. CONSTRUCTION BY OTHER FORCES SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL BUILDING CODE 2015, ONTARIO OCCUPATIONAL HEALTH AND SAFETY ACT AND THE ONTARIO REGULATIONS FOR CONSTRUCTION PROJECTS.
 - ALL DIMENSIONS ARE IN FEET AND INCHES. ALL DIMENSIONS WITHOUT UNITS ARE IN INCHES.
 - CONSTRUCTOR/CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD. ANY ERRORS AND OMISSIONS SHALL BE REPORTED TO THE DESIGN ENGINEER.
 - ALL FIELD CHANGES SHALL BE PERFORMED IN ACCORDANCE WITH FCR PROCEDURE INCLUDED IN MANAGEMENT CONTROL PROCEDURE No. 900-508130-MCP-001 AND SHALL BE APPROVED BY THE ENGINEERING REPRESENTATIVE AND CLEARLY MARKED ON THE RECORD SET OF PRINTS BY THE CONTRACTOR AND RETURNED TO CNL'S CONSTRUCTION REPRESENTATIVE FOR VERIFICATION.
 - ALL CODES AND STANDARDS ARE THE LATEST EDITION AT TIME OF DESIGN, UNLESS NOTED OTHERWISE.
 - ALL CUTTING, CORING OR DRILLING SHALL CONFORM TO CNL PROCEDURE 900-510400-STD-012 DIGGING, DRILLING, CUTTING AND CORING SAFETY PROCEDURE.
 - MONITORING THE WORK AREA FOR POTENTIAL CONTAMINATION SHALL BE CARRIED OUT BY THE RADIATION PROTECTION BRANCH.
 - (E) REPRESENTS EXISTING
(N) REPRESENTING NEW
N.G. REPRESENTING NATURAL GAS
 - FIRE PROTECTION SCREENING PROCESS B137-508720-270-000 (2019/02/26) DETAILS REQUIREMENTS THAT SHALL BE IMPLEMENTED DURING CONSTRUCTION ACTIVITIES. ENSURE ALL REQUIREMENTS OF SECTION II ARE INCORPORATED INTO THE DESIGN AND/OR WORK PACKAGE.
 - ALL EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS.
 - CONTROL WIRING INSTALLED AS PER CANADIAN ELECTRICAL CODE.
- 2.0 VENTILATION:**
- SUPPLY DUCTWORK FROM AHU TO 3 FT PASS HUMIDIFIER DISPERSION TUBES SHALL BE ALL WELDED STAINLESS STEEL. ALL OTHER SUPPLY, RETURN AND EXHAUST DUCTWORK SHALL BE GALVANIZED STEEL, LOW PRESSURE. ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED AS PER SMACNA HVAC DUCT CONSTRUCTION STANDARDS- METAL AND FLEXIBLE.
 - ALL NEW SUPPLY DUCTWORK INCLUDING NEW PLENUMS AND DUCTWORK FOR FRESH AIR INTAKE AIR AND EXHAUST AIR SHALL BE EXTERNALLY INSULATED WITH 1" OF FIBERGLASS FLEXIBLE INSULATION WITH FOIL FACED VAPOR BARRIER.
 - NEW DUCTWORK AND SYSTEM TO BE BALANCED BY A TAB CONTRACTOR WHO IS EITHER AABC OR NEB CERTIFIED. NEW DUCTWORK SHALL BE TESTED FOR MAXIMUM 2% LEAKAGE AT 2" STATIC PRESSURE. SYSTEM WILL BE BALANCED TO AIR QUANTITIES INDICATED ON DRAWINGS. PROVIDE 3 COPIES OF BALANCING REPORT.
- 3.0 PIPING:**
- ALL GAS PIPING, FITTINGS AND VALVES SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH CSA B149.1, NATURAL GAS AND PROPANE INSTALLATION CODE
 - ALL POTABLE WATER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL PLUMBING CODE OF CANADA
 - ALL NEW REFRIGERANT PIPING SYSTEMS BETWEEN THE NEW DX COIL AND OUTDOOR COMPRESSOR/ CONDENSER UNIT SHALL BE INSTALLED AND TESTED AS PER CSA STANDARD B52, MECHANICAL REFRIGERATION CODE
 - ALL STEAM AND CONDENSATE SYSTEMS INCLUDING ALL PIPING, VALVES AND FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH CNL STANDARD 145-70000-STD-007.
 - ALL PIPING SHALL BE IDENTIFIED & LABELED ACCORDING TO CNL STANDARD CW-510400-PRO-713.
 - PIPING HANGERS AND SUPPORTS SHALL BE CONSTRUCTED, INSTALLED AND SUPPORTED IN ACCORDANCE WITH CRL STANDARD 145-70000-STD-003.
- 4.0 INSULATION:**
- PIPE INSULATION SELECTION AND INSTALLATION FOR ALL PIPING SYSTEMS SHALL BE AS PER CNL STANDARD 145-7000-STD-004. INSULATION-PIPING-THERMAL. ALL INTERIOR PIPE INSULATION SHALL BE PAINTED IN ACCORDANCE WITH CNL STANDARD-145-20000-003
 - INSULATE ALL REFRIGERANT PIPING WITH 1" THICK AP ARMAFLEX PIPE INSULATION. RECOVER ALL PIPING WITH CANVAS JACKET APPLY WB ARMAFLEX FINISH TO ALL OUTSIDE PIPING.
 - INSULATE ALL POTABLE COLD WATER PIPING WITH 1" OF FLEXIBLE FIBREGLASS INSULATION C/W VAPOR BARRIER. RECOVER PIPING WITH CANVAS JACKET.P
 - INSULATE ALL STEAM PIPING, SUPPLY AND CONDENSATE WITH 1.5" OF FIBERGLASS INSULATION WITH VAPOR BARRIER JACKET AND RECOVER WITH CANVAS.



PARTS LIST				
ITEM	DESCRIPTION	QA STD'S & CODES	SOURCE	QTY
A	MAKE-UP AIR UNIT, INDOOR BASE MOUNTED, SUPPLY AIR VOLUME 4000 CFM, TYPE BAE-DW, RETURN AIR VOLUME 4000 CFM, TYPE FC DIDW, c/w PARALLEL BLADE DAMPERS, SIDE LOAD PRE-FILTER & FINAL FILTER, NATURAL GAS HEAT 375,000BTUH IN & 300,000 BTUH OUT, DX COOLING COIL, UNIT TO BE SHIPPED IN PIECES TO FIT THROUGH 36" x 6'-6" HIGH DOOR	COMMERCIAL GRADE	REFER TO SPECIFICATION B887-73000-TS-001	1
D	OUTDOOR CONDENSER UNIT SIZE: 41" WIDE x 79" LENGTH WEIGHT: CONNECTIONS - LIQUID: (2) 1/2" dia. SUCTION: (2) 1 1/8" dia.	COMMERCIAL GRADE	REFER TO SPECIFICATION B887-73000-TS-001	1
B	FLEXIBLE DUCT CONNECTIONS: DUCT CONNECTOR-NEOPRENE WOVEN FABRIC ULC, TEAR STRENGTH OF 12lbs/12lbs AND A CONTINUOUS TEMPERATURE RANGE OF -40°F TO 200°F. VIBRATION ISOLATORS SHALL BE PRE-ASSEMBLED METAL TO EXPOSED FABRIC TO METAL SIZE: 49" WIDE x 35" HIGH	COMMERCIAL GRADE	DURO DYNE CORPORATION	1
C	FLEXIBLE DUCT CONNECTIONS: DUCT CONNECTOR-NEOPRENE WOVEN FABRIC ULC, TEAR STRENGTH OF 12lbs/12lbs AND A CONTINUOUS TEMPERATURE RANGE OF -40°F TO 200°F. VIBRATION ISOLATORS SHALL BE PRE-ASSEMBLED METAL TO EXPOSED FABRIC TO METAL SIZE: 49" WIDE x 12" HIGH	COMMERCIAL GRADE	NAILOR INDUSTRIES MODEL:1820	1
D	MANUAL SUPPLY BALANCING DAMPER c/w LOCKING QUADRANTS, OPPOSED BLADE TYPE, GALVANIZED STEEL SIZE:30"x24"	COMMERCIAL GRADE	NAILOR INDUSTRIES MODEL:1820	1
E	MANUAL RETURN BALANCING DAMPER c/w LOCKING QUADRANTS, OPPOSED BLADE TYPE, GALVANIZED STEEL SIZE:30"x24"	COMMERCIAL GRADE	NAILOR INDUSTRIES MODEL:1820	1
F	MANUAL SUPPLY BALANCING DAMPER c/w LOCKING QUADRANTS, OPPOSED BLADE TYP, GALVANIZED STEEL SIZE:22"x16"	COMMERCIAL GRADE	NAILOR INDUSTRIES MODEL:1820	1
G	MANUAL RETURN BALANCING DAMPER c/w LOCKING QUADRANTS, OPPOSED BLADE TYPE, GALVANIZED STEEL SIZE:16"x12"	COMMERCIAL GRADE	NAILOR INDUSTRIES MODEL:1820	1
H	MANUAL EXHAUST AND FRESH AIR BALANCING DAMPER c/w LOCKING QUADRANTS, OPPOSED BLADE TYPE, GALVANIZED STEEL SIZE:18"x24"	COMMERCIAL GRADE	NAILOR INDUSTRIES MODEL:1820	2
J	GAS FIRED HUMIDIFIER, 50lbs/HR OF STEAM CAPACITY, 120V/60hz, 6 gals WATER USAGE AT MAX CAPACITY, 14gals TANK VOLUME, 3" dia. FLUE OUTLET, 1 1/2" dia. OUTLET, 1/2" GAS SUPPLY, 3/8" dia. SUPPLY WATER, 1 1/2" dia. DRAIN, 3/8" dia. FLUE GAS CONDENSATE, 3/4" CONDENSATE RETURN c/w STAND AND STAINLESS STEEL DISPERSION TUBES SIZE:23.5" LENGTH x 23.5" WIDTH x 42.75" HEIGHT	COMMERCIAL GRADE	DRISTEEM GTS MODEL: LX-50	1
K	STAINLESS STEEL DISPERSION TUBES AS PER MANUFACTURERS	COMMERCIAL GRADE	DRISTEEM	1

- 5.0 TAGGING:**
- CREATE AND AFFIX LABELS AS SHOWN USING ACCEPTABLE METHODS. LABELS SHALL BE PERMANENTLY FIXED IN POSITION AND MUST BE WATERPROOF AND TAMPER-PROOF.
 - AIR HANDLING UNIT, OUTDOOR CONDENSER & SUPPLY/RETURN DAMPERS SHOWN ON DRAWING B887-73000-10015031-01 ARE PREFIXED BY 887-02700- UNLESS OTHERWISE SHOWN.
 - HUMIDIFIER, PI AND VALVES SHOWN ON DRAWING B887-73000-10015031-01 ARE PREFIXED BY 887-07580- UNLESS OTHERWISE SHOWN.



REVISION BLOCK	PREP	CHKD	DSGN	APPD	DATE
B887-20550-10015551-01					
B887-20040-EL-001					
D-3173-4104					
REFERENCE NO	REFERENCE DESCRIPTION				
JOB NO	LOCN	REVISION DESCRIPTION			
REVISION BLOCK	PREP	CHKD	DSGN	APPD	DATE

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COMMERCIAL GRADE	
PROCUREMENT QUALITY CATEGORY	
COMMERCIAL GRADE	
TOTAL MASS:	N/A

ENGINEERING CHANGE CONTROL (ECC) NO	B887-73421-RREC-001
BLDG	887
CODE	N/A
CLASS	M
TYPE	GA
BUILDING 887 (JLG) EQUIPMENT ROOM HVAC EQUIPMENT REPLACEMENT PLANS, SECTIONS & SCHEMATICS	
DWG NO	B887-73000-10015031-01
REV	0
DATE	2019/09/06
SCALE	AS NOTED
JOB NO	221373
SHT	01 OF 1