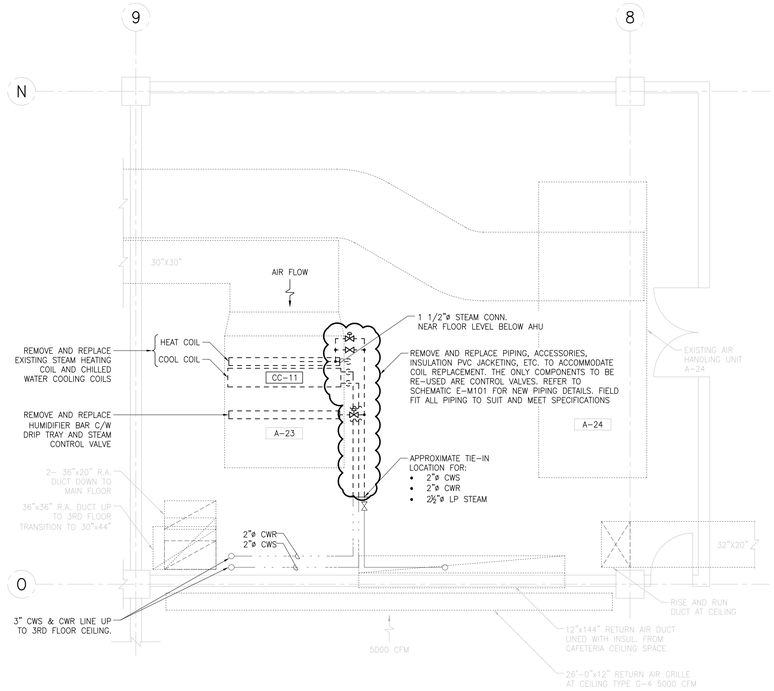
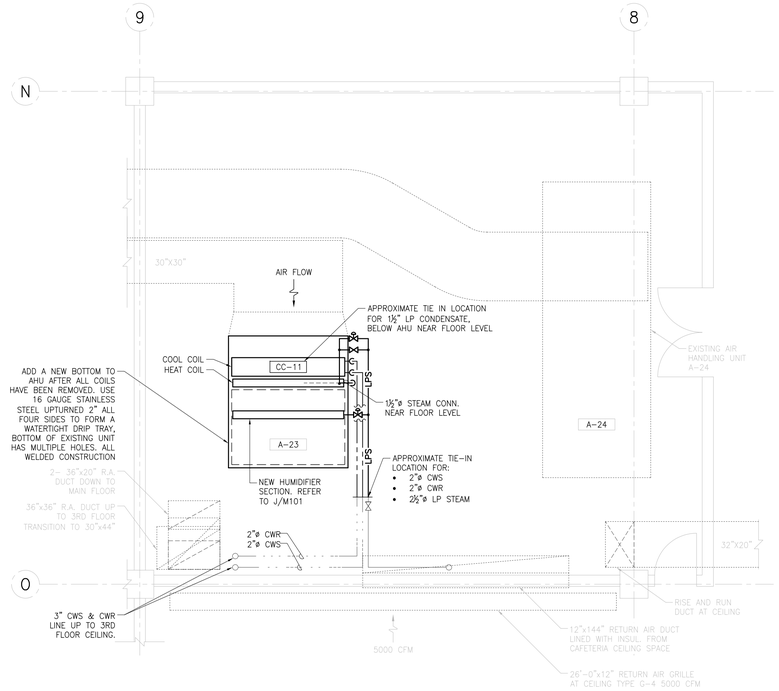
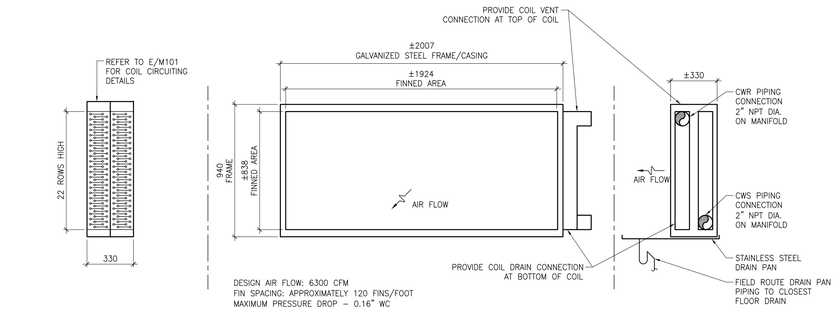


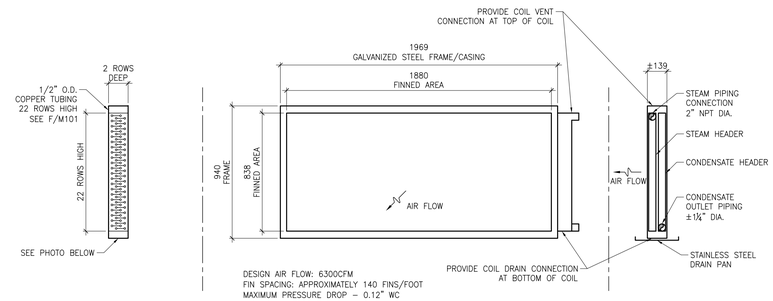
A M101 2nd FLOOR AHU DEMOLITION PLAN
1:50



B M101 2nd FLOOR AHU NEW CONSTRUCTION PLAN
1:50

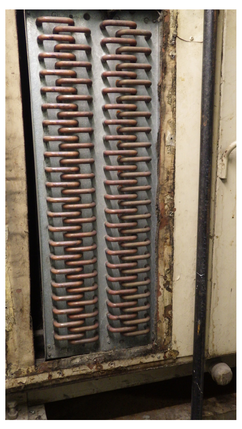


C M101 COOLING COIL DETAIL
1:20



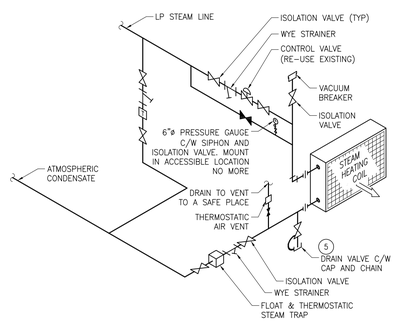
D M101 HEATING COIL DETAIL
1:20

APEGM
Certificate of Authorization
Achieve Engineering Inc.
No. 4641 Date: MAY 27 2016



E M101 COOLING COIL RETURN BENDS
N.T.S.

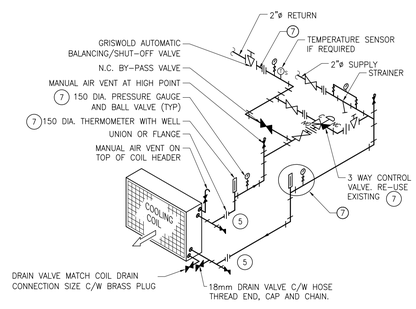
F M101 HEATING COIL RETURN BENDS
NTS



NOTES:

1. ALL HEADER PIPING SHALL BE LOCATED CLEAR OF COIL. UNIONS SHALL BE FITTED ON CONNECTIONS FROM HEADERS TO COIL.
2. REFER TO COIL SHOP DRAWING FOR COIL CONNECTION SIZES.
3. COILS TO BE PIPED BASED ON SHOP DRAWING.
4. GRADE TUBES FOR POSITIVE VENTING.
5. COIL DRAIN VALVE SHALL BE C/W HOSE THREAD END, CAP AND CHAIN.

G M101 STEAM HEATING COIL SCHEMATIC
NTS

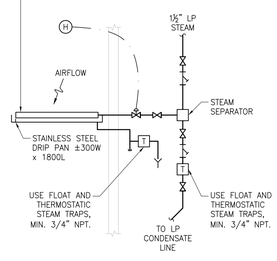


NOTES:

1. ALL HEADER PIPING SHALL BE LOCATED CLEAR OF COIL. UNIONS SHALL BE FITTED ON CONNECTIONS FROM HEADERS TO COIL.
2. REFER TO COIL SHOP DRAWING FOR COIL CONNECTION SIZES.
3. COILS TO BE PIPED UP FOR COUNTERFLOW OPERATION.
4. GRADE TUBES UP 20mm/METRE OF COIL LENGTH TOWARDS THE RETURN FOR POSITIVE VENTING.
5. WINTERIZATION BALL VALVE FOR CHILLED WATER COILS ONLY. REFER TO COOLING COIL DRYING SYSTEM DETAIL SHEET FOR CONTINUATION.
6. INSTALL ALL PRESSURE AND TEMPERATURE GAUGES AND CONTROL VALVE TO BE ACCESSIBLE FROM 1500mm ABOVE TOP OF FINISH FLOOR.
7. NEW INSTRUMENTATION; 150 DIA. PRESSURE GAUGES AND DIAL TYPE THERMOMETERS EASILY READ FROM FLOOR LEVEL.

H M101 COOLING COIL SCHEMATIC
NTS

NEW HUMIDIFIER
USE NEPTRONIC STEAM HUMIDIFIER DESIGNED FOR:
1. AIRFLOW: TOTAL 6,300 CFM. ESTIMATED FRESH AIR 1625 CFM.
2. TOTAL STEAM OUTPUT REQUIRED: 50 lb/HR
3. NEPTRONIC MULTI-STEAM C/W 3 DISPERSION TUBES.



CONTROL STRATEGY
1. PROVIDE HUMIDISTAT IN RETURN AIR PLENUM, UPSTREAM OF ALL COIL.
2. MODULATE STEAM CONTROL VALVE TO MAINTAIN R/A HUMIDITY.
3. DAMPEN THE CONTROL SYSTEM TO ELIMINATE FAST ACTING SWINGS IN VALVE OPERATION PROVIDE.

J M101 HUMIDIFIER PIPING SCHEMATIC
NTS

REV	DESCRIPTION	DWN	APP	REV DATE
7				
6				
5				
4				
3				
2				
1	ISSUED FOR TENDER	KCV	BKW	MAY 27 2016
0	ISSUED FOR PRELIMINARY CLIENT REVIEW	KCV	BKW	JAN 16 2016

ACHIEVE ENGINEERING INC.
51 Aubin Drive
Winnipeg, Manitoba, Canada
R3X 1J8
bwall@achieveeng.ca
ph. 204.415.1558
www.achieveeng.ca

ENG SEAL: PROVINCE OF MANITOBA — MAY 27 2016 — B.K. WALL — REGISTERED ENGINEER

ARCH SEAL

PROJECT
266 GRAHAM
COIL REPLACEMENT

SHEET TITLE
2nd FLOOR AHU
COOLING COIL AND HEATING COIL DETAILS
BID OPPORTUNITY No. 467–2016

DRAWN BY	CHECKED BY	DATE	SHEET NO
KCV	BKW	MAY 27 2016	M101
DESIGNED BY	CHECKED BY	SCALE	REVISION NO
BKW	BKW	AS NOTED	1