

Report By:

**Chetu Development
Test add 11
Test add 22
Noida, AL 44444**



Report: QA

Function: Test, Adjust, & Balance

Date: 07/22/2024

**PROJECT
22 July Project**

A 206

Noida, AK 43434

Client

Atlantic Testing

3849 Old Buckingham Road

Powhatan, VA 23139

Chetu Development

Project: 22 July Project

Table Of Contents

Section	Page #
AHU/RTU	3
Boiler	9
Chiller	10
Diffuser Ret/Exh (GRD)	14
Diffuser Supply (GRD)	15
FAN - Exhaust	16
VAV - Dual Duct	17
VAV - Single Duct	18
AHU/RTU	19
Chiller	25
Diffuser Ret/Exh (GRD)	29
Diffuser Supply (GRD)	30
FAN - Exhaust	31
VAV - Dual Duct	32
VAV - Single Duct	33



Chetu Development

Project: 22 July Project

System/Unit: AHU/RTU



Asset: AHU1

AREA:

Unit Data		
	Design	Actual
MFG	AR	AR
Serial Num	-	
Model Num	AR	AR
Inventory Tag ID	-	
Type	-	
Series	-	
Configuration	-	
Num OA Filters 1	-	
OA Filter Size 1	-	
Num OA Filters 2	-	
OA Filter Size 2	-	
Num PreFilter 1	-	
PreFilter Size 1	-	
Num PreFilter 2	-	
PreFilter Size 2	-	
Num Final Filter 1	-	
Final Filter Size 1	-	
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	-	
Rated Voltage	-	
Rated Amperage	-	
Frequency	-	
Service Factor	-	
Efficiency	-	
Power Factor	-	

Drive Data	
	Actual
Motor Sheave MFG	
Motor Sheave Size	
Motor Bore Size	
Motor Sheave SetPt	
Fan Sheave MFG	
Fan Sheave Size	
Fan Sheave Bore	
Belt CL Distance	
Num of Belts	
Belt Size	
Belt MFG	
Belt Deflection	
Belt Alignment	

Test Data		
	Design	Actual
SF CFM (Initial)	-	
SF CFM	-	
SF RPM (Initial)	-	
SF RPM	-	
RA CFM	-	
OA CFM	-	
Exhaust CFM	-	
Relief CFM	-	
RL Voltage	-	
RL Amperage	-	
SF Rotation	-	
VFD Max SetPt	-	
VFD Min SetPt	-	
SF Motor Freq(HZ)	-	
SF Flow Station (Kv)	-	
OA Flow Station (Kv)	-	
SF System SetPt	-	
RA Flow Station (Kv)	-	
Relief Flow Station (Kv)	-	
RA Damper Position	-	
RA Damper Type	-	
MA Damper Position	-	
MA Damper Type	-	
OA Damper Position	-	
OA Damper Type	-	
Min OA Damper Position	-	
Min OA Damper Type	-	
Econo Damper Position	-	
Econo Damper Type	-	
Relief Damper Position	-	
Relief Damper Type	-	
OA Enthalpy Setpt	-	
Brake Horse Power	-	

Condensor Fan	
	Actual
Fan 1 Motor RLA	
Fan 1 Motor RLV	
Fan 2 Motor RLA	
Fan 2 Motor RLV	

Gas Heat		
	Design	Actual
Output MBH (rated)	-	
Gas Inlet Pres (wc)	-	
Gas Low Fire Pres (wc)	-	
Gas High Fire Pres (wc)	-	
Pilot Ignition Status (pass/fail)	-	
Single or Dual Bank	-	
Staged or Modulating	-	
Heater Operates (y/n)	-	
Combustion Blower Operates (y/n)	-	
Flame Status (pass/fail)	-	
High Limit Temp Cut-off SetPt	-	
Inlet Temp SetPt	-	
Discharge Temp SetPt	-	
Temp Rise SetPt	-	
Air Flow Switch SetPt	-	
Air Flow Switch Actual	-	
Air Flow Switch CTRL Voltage	-	
Air Switch Proved (Pass/Fail)	-	
Space Temp SetPt-ON	-	
Space Temp SetPt-OFF	-	
Flame Modulates (y/n)	-	

Electric Heat		
	Design	Actual
KW (TOTAL)	-	
Num of Stages	-	
Voltage	-	
Stage 1 RLA	-	
Stage 2 RLA	-	
Stage 3 RLA	-	
Stage 4 RLA	-	
Stage 5 RLA	-	
Stage 6 RLA	-	
EAT (db/wb)	-	
LAT (db/wb)	-	
Coil Delta T	-	
Inlet SP	-	
Discharge SP	-	
Coil Delta SP	-	
High Limit Temp Cut-off SetPt	-	
Inlet Temp SetPt	-	
Discharge Temp SetPt	-	
Temp Rise SetPt	-	
Airflow Switch SP	-	
Airflow Switch CTRL Voltage	-	
Space Temp SetPt-ON	-	
Space Temp SetPt-OFF	-	

Performance Data		
	Design	Actual
Return Duct SP	-	
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Supply Duct SP	-	
Total ESP	-	
Fan Total SP	-	
Pre-Filter P.D.	-	
Final Filters P.D.	-	
Cooling Coil P.D.	-	
CHW Coil P.D.	-	
PreHeat Coil P.D.	-	
HW Coil P.D.	-	
Steam Coil P.D.	-	
Heat Wheel (Exh) P.D.	-	
Heat Wheel (Sup) P.D.	-	
OA Temp (db/wb)	-	
RA Temp (db/wb)	-	
MA Temp (db/wb)	-	
SA Temp (db/wb)	-	
HW Coil Delta T	-	
CW Coil Delta T	-	
Coil Delta T	-	
Heat Wheel(Exh) Delta T	-	
Heat Wheel(Sup) Delta T	-	

General	
	Actual
Unit free of Damage	
Unit Completely Assembled	
Unit Leveled	
Curb & Unit Installed Air Tight	
Controls Complete	
Fan Rotation Correct	
Fan Belt Condition	
Unit Filters Clean	
Evap Coil Clean	
Evap Coil Free of Frost	
Condensor Coil Clean	
Condensor Fins Straight	
Refr Sight Glass Dry	
Condensate Drain Installed	
Crankcase Heaters Operate	

Compressors	
	Actual
Refrigerant Charge	
Refrigerant Type	
Comp 1 RLA	
Comp 2 RLA	
Comp 1 Suction Pres	
Comp 2 Suction Pres	
Comp 1 Discharge Pres	
Comp 2 Discharge Pres	
Circuit 1 Superheat	
Circuit 2 Superheat	
Comp 1 Liquid Line Temp	
Comp 2 Liquid Line Temp	
Circuit 1 SubCooling	
Circuit 2 SubCooling	

Electrical	
	Actual
Evap Fan Overload size/setpt	
Cond Fan Overload size/setpt	
VFD Phase Voltage (line)	
VFD Min Setpt	
VFD Max Setpt	
Phase Brownout Dial Setpt (v)	
Phase Brownout Volt Variance	
Control Voltage (v)	
System Fused (y/n)	
Fuse Size (amps)	
Freeze Stat Setpt	
Compressor Lockout Setpt	

Combustion Fan Motor Data		
	Design	Actual
Voltage	-	
Amperage	-	

Combustion Gas Duct	
	Actual
Duct Type	
Gauge & Material	
Size	
Min Rise:Run	
Room properly ventilated	
Space pres condition	
Flue backdrafts eliminated	
Flue Terminates Properly	



Chetu Development

Project: 22 July Project

System/Unit: AHU/RTU



Asset: AHU2

AREA:

Unit Data		
	Design	Actual
MFG	AR	AR
Serial Num	-	
Model Num	AR	AR
Inventory Tag ID	-	
Type	-	
Series	-	
Configuration	-	
Num OA Filters 1	-	
OA Filter Size 1	-	
Num OA Filters 2	-	
OA Filter Size 2	-	
Num PreFilter 1	-	
PreFilter Size 1	-	
Num PreFilter 2	-	
PreFilter Size 2	-	
Num Final Filter 1	-	
Final Filter Size 1	-	
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	-	
Rated Voltage	-	
Rated Amperage	-	
Frequency	-	
Service Factor	-	
Efficiency	-	
Power Factor	-	

Test Data		
	Design	Actual
SF CFM (Initial)	-	
SF CFM	-	
SF RPM (Initial)	-	
SF RPM	-	
RA CFM	-	
OA CFM	-	
Exhaust CFM	-	
Relief CFM	-	
RL Voltage	-	
RL Amperage	-	
SF Rotation	-	
VFD Max SetPt	-	
VFD Min SetPt	-	
SF Motor Freq(HZ)	-	
SF Flow Station (Kv)	-	
OA Flow Station (Kv)	-	
SF System SetPt	-	
RA Flow Station (Kv)	-	
Relief Flow Station (Kv)	-	
RA Damper Position	-	
RA Damper Type	-	
MA Damper Position	-	
MA Damper Type	-	
OA Damper Position	-	
OA Damper Type	-	
Min OA Damper Position	-	
Min OA Damper Type	-	
Econo Damper Position	-	
Econo Damper Type	-	
Relief Damper Position	-	
Relief Damper Type	-	
OA Enthalpy Setpt	-	
Brake Horse Power	-	

Drive Data	
	Actual
Motor Sheave MFG	
Motor Sheave Size	
Motor Bore Size	
Motor Sheave SetPt	
Fan Sheave MFG	
Fan Sheave Size	
Fan Sheave Bore	
Belt CL Distance	
Num of Belts	
Belt Size	
Belt MFG	
Belt Deflection	
Belt Alignment	

Condensor Fan	
	Actual
Fan 1 Motor RLA	
Fan 1 Motor RLV	
Fan 2 Motor RLA	
Fan 2 Motor RLV	

Gas Heat		
	Design	Actual
Output MBH (rated)	-	
Gas Inlet Pres (wc)	-	
Gas Low Fire Pres (wc)	-	
Gas High Fire Pres (wc)	-	
Pilot Ignition Status (pass/fail)	-	
Single or Dual Bank	-	
Staged or Modulating	-	
Heater Operates (y/n)	-	
Combustion Blower Operates (y/n)	-	
Flame Status (pass/fail)	-	
High Limit Temp Cut-off SetPt	-	
Inlet Temp SetPt	-	
Discharge Temp SetPt	-	
Temp Rise SetPt	-	
Air Flow Switch SetPt	-	
Air Flow Switch Actual	-	
Air Flow Switch CTRL Voltage	-	
Air Switch Proved (Pass/Fail)	-	
Space Temp SetPt-ON	-	
Space Temp SetPt-OFF	-	
Flame Modulates (y/n)	-	

Performance Data		
	Design	Actual
Return Duct SP	-	
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Supply Duct SP	-	
Total ESP	-	
Fan Total SP	-	
Pre-Filter P.D.	-	
Final Filters P.D.	-	
Cooling Coil P.D.	-	
CHW Coil P.D.	-	
PreHeat Coil P.D.	-	
HW Coil P.D.	-	
Steam Coil P.D.	-	
Heat Wheel (Exh) P.D.	-	
Heat Wheel (Sup) P.D.	-	
OA Temp (db/wb)	-	
RA Temp (db/wb)	-	
MA Temp (db/wb)	-	
SA Temp (db/wb)	-	
HW Coil Delta T	-	
CW Coil Delta T	-	
Coil Delta T	-	
Heat Wheel(Exh) Delta T	-	
Heat Wheel(Sup) Delta T	-	

General	
	Actual
Unit free of Damage	
Unit Completely Assembled	
Unit Leveled	
Curb & Unit Installed Air Tight	
Controls Complete	
Fan Rotation Correct	
Fan Belt Condition	
Unit Filters Clean	
Evap Coil Clean	
Evap Coil Free of Frost	
Condensor Coil Clean	
Condensor Fins Straight	
Refr Sight Glass Dry	
Condensate Drain Installed	
Crankcase Heaters Operate	

Compressors	
	Actual
Refrigerant Charge	
Refrigerant Type	
Comp 1 RLA	
Comp 2 RLA	
Comp 1 Suction Pres	
Comp 2 Suction Pres	
Comp 1 Discharge Pres	
Comp 2 Discharge Pres	
Circuit 1 Superheat	
Circuit 2 Superheat	
Comp 1 Liquid Line Temp	
Comp 2 Liquid Line Temp	
Circuit 1 SubCooling	
Circuit 2 SubCooling	

Electric Heat		
	Design	Actual
KW (TOTAL)	-	
Num of Stages	-	
Voltage	-	
Stage 1 RLA	-	
Stage 2 RLA	-	
Stage 3 RLA	-	
Stage 4 RLA	-	
Stage 5 RLA	-	
Stage 6 RLA	-	
EAT (db/wb)	-	
LAT (db/wb)	-	
Coil Delta T	-	
Inlet SP	-	
Discharge SP	-	
Coil Delta SP	-	
High Limit Temp Cut-off SetPt	-	
Inlet Temp SetPt	-	
Discharge Temp SetPt	-	
Temp Rise SetPt	-	
Airflow Switch SP	-	
Airflow Switch CTRL Voltage	-	
Space Temp SetPt-ON	-	
Space Temp SetPt-OFF	-	

Electrical	
	Actual
Evap Fan Overload size/setpt	
Cond Fan Overload size/setpt	
VFD Phase Voltage (line)	
VFD Min Setpt	
VFD Max Setpt	
Phase Brownout Dial Setpt (v)	
Phase Brownout Volt Variance	
Control Voltage (v)	
System Fused (y/n)	
Fuse Size (amps)	
Freeze Stat Setpt	
Compressor Lockout Setpt	

Combustion Fan Motor Data		
	Design	Actual
Voltage	-	
Amperage	-	

Combustion Gas Duct	
	Actual
Duct Type	
Gauge & Material	
Size	
Min Rise:Run	
Room properly ventilated	
Space pres condition	
Flue backdrafts eliminated	
Flue Terminates Properly	



Chetu Development

Project: 22 July Project

System/Unit: Boiler



Asset: BLR1

AREA:

Unit Data		
	Design	Actual
MFG	BO	BO
Model Num	BO	BO
Serial Num	-	
Service	-	
Type	-	
Size	-	

Gas Heat		
	Design	Actual
Gas Type	-	
Burner Type	-	
Burner Construction	-	
Gas Inlet Pres (wc)	-	
Gas Low Fire Pres (wc)	-	
Input BTUH (rated)	-	
Output BTUH (rated)	-	
Num of Passes	-	
Single or Dual Bank	-	
Staged or Modulating	-	
Num of Safety Valves	-	
Safety Valve Setting	-	
High Limit Setting	-	
Operating CTRL Setting	-	
High Fire SetPt	-	
High Fire CTRL Voltage	-	
High Fire Delta T (F) Rise	-	
Low Fire SetPt	-	
Low Fire CTRL SetPt	-	
Low Fire Delta T (F) Rise	-	
Ignition Type	-	
Pilot Ignition Status (pass/fail)	-	
Gas Valve Pilot Ignition CTRL Voltage	-	
Flame Proving Switch Type	-	
Flame proof CTRL Voltage	-	
Heater Operates (y/n)	-	
Combustion Blower Operates (y/n)	-	
Flame Status (pass/fail)	-	
EWT Temp SetPt	-	
LWT Temp SetPt	-	
Water Temp Max Rise SetPt	-	
GPM Flow Switch SetPt	-	
GPM Flow Switch Actual	-	
GPM Flow Switch CTRL Voltage	-	
GPM Switch Proved (Pass/Fail)	-	
Flame Modulates Properly	-	
Safety Controls - Check	-	

Test Data		
	Design	Actual
Water Treatment Type	-	
Water Treatment %	-	
Water Temp	-	
GPM	-	
Cv	-	
Balance Valve Setting	-	
Balance Valve Delta P	-	
EWT (F)	-	
LWT (F)	-	
Water Temp Delta T (F)	-	
ENT Water Pres	-	
LVG Water Pres	-	
Hot Water Delta P	-	
BTUH	-	

Combustion Fan Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Phase	-	
Voltage	-	
Amperage	-	

Combustion Gas Duct	
	Actual
Duct Type	
Gauge & Material	
Size	
Minimum Rise:Run	
Room properly ventilated	
Space pres condition	
Flue backdrafts eliminated	
Flue Terminates Properly	



Chetu Development

Project: 22 July Project

System/Unit: Chiller



Asset: CHLR1

AREA:

Unit Data		
	Design	Actual
MFG	CI	CI
Model Num	CI	CI
Serial Num	-	
Type	-	
Size	-	
Service	-	

Condensor Fan	
	Actual
Fan Alignment	
Fan Rotation	
Fan 1 Motor RLA	
Fan 1 Motor RLV	
Fan 2 Motor RLA	
Fan 2 Motor RLV	
Fan 3 Motor RLA	
Fan 3 Motor RLV	

Compressors	
	Actual
MFG	
Model Num	
Serial Num	
Refrigerant Charge	
Refrigerant Type	
Comp 1 RLV	
Comp 1 RLA	
Comp 2 RLV	
Comp 2 RLA	
Comp 1 Suction Pres	
Comp 2 Suction Pres	
Comp 1 Discharge Pres	
Comp 2 Discharge Pres	
Circuit 1 Superheat	
Circuit 2 Superheat	
Comp 1 Liquid Line Temp	
Comp 2 Liquid Line Temp	
Circuit 1 SubCooling	
Circuit 2 SubCooling	
KW Input	
CrankCase HTR Amps	
Cond Water Ctrl SetPt	
LP Cutout Setting	
HP Cutout Setting	

Test Data-Evaporator		
	Design	Actual
Water Treatment Type	-	
Water Treatment %	-	
Water Temp	-	
GPM	-	
Cv	-	
Balance Valve Setting	-	
Balance Valve Delta P	-	
EWT (F)	-	
LWT (F)	-	
Water Temp Delta T (F)	-	
ENT Water Pres	-	
LVG Water Pres	-	
CHW Delta P	-	
Low Limit Temp Cut-off SetPt	-	
Inlet GPM Temp SetPt	-	
Discharge GPM Temp SetPt	-	
Water Temp MAX Drop SetPt	-	
GPM Flow Switch Setting	-	
GPM Flow Switch CTRL Voltage	-	
GPM Switch Proved (Pass/Fail)	-	
Mech Cool Temp SetPt-ON	-	
Free Cool Temp SetPt-OFF	-	

Test Data-Condenser		
	Design	Actual
Water Treatment Type	-	
Water Treatment %	-	
Water Temp	-	
CW GPM	-	
Cv	-	
Balance Valve Setting	-	
Balance Valve Diff Pres	-	
EWT (F)	-	
LWT (F)	-	
Water Temp Delta T (F)	-	
ENT Water Pres	-	
LVG Water Pres	-	
CHW Delta P	-	

General	
	Actual
Oil Level Checked	
Oil Failure Differential	
Ref Level Checked	
Relief Valve Setting	
Unloader SetPt	
% Cylinders Unloaded	
Purge Operation Checked	
Bearing Temp	
Vane Position	
Demand Limit	
Low Temp Cutout Setting	



Chetu Development

Project: 22 July Project

System/Unit: Chiller



Asset: CHLR2

AREA:

Unit Data		
	Design	Actual
MFG	CI	CI
Model Num	CI	CI
Serial Num	-	
Type	-	
Size	-	
Service	-	

Condensator Fan	
	Actual
Fan Alignment	
Fan Rotation	
Fan 1 Motor RLA	
Fan 1 Motor RLV	
Fan 2 Motor RLA	
Fan 2 Motor RLV	
Fan 3 Motor RLA	
Fan 3 Motor RLV	

Compressors	
	Actual
MFG	
Model Num	
Serial Num	
Refrigerant Charge	
Refrigerant Type	
Comp 1 RLV	
Comp 1 RLA	
Comp 2 RLV	
Comp 2 RLA	
Comp 1 Suction Pres	
Comp 2 Suction Pres	
Comp 1 Discharge Pres	
Comp 2 Discharge Pres	
Circuit 1 Superheat	
Circuit 2 Superheat	
Comp 1 Liquid Line Temp	
Comp 2 Liquid Line Temp	
Circuit 1 SubCooling	
Circuit 2 SubCooling	
KW Input	
CrankCase HTR Amps	
Cond Water Ctrl SetPt	
LP Cutout Setting	
HP Cutout Setting	

Test Data-Evaporator		
	Design	Actual
Water Treatment Type	-	
Water Treatment %	-	
Water Temp	-	
GPM	-	
Cv	-	
Balance Valve Setting	-	
Balance Valve Delta P	-	
EWT (F)	-	
LWT (F)	-	
Water Temp Delta T (F)	-	
ENT Water Pres	-	
LVG Water Pres	-	
CHW Delta P	-	
Low Limit Temp Cut-off SetPt	-	
Inlet GPM Temp SetPt	-	
Discharge GPM Temp SetPt	-	
Water Temp MAX Drop SetPt	-	
GPM Flow Switch Setting	-	
GPM Flow Switch CTRL Voltage	-	
GPM Switch Proved (Pass/Fail)	-	
Mech Cool Temp SetPt-ON	-	
Free Cool Temp SetPt-OFF	-	

Test Data-Condenser		
	Design	Actual
Water Treatment Type	-	
Water Treatment %	-	
Water Temp	-	
CW GPM	-	
Cv	-	
Balance Valve Setting	-	
Balance Valve Diff Pres	-	
EWT (F)	-	
LWT (F)	-	
Water Temp Delta T (F)	-	
ENT Water Pres	-	
LVG Water Pres	-	
CHW Delta P	-	

General	
	Actual
Oil Level Checked	
Oil Failure Differential	
Ref Level Checked	
Relief Valve Setting	
Unloader SetPt	
% Cylinders Unloaded	
Purge Operation Checked	
Bearing Temp	
Vane Position	
Demand Limit	
Low Temp Cutout Setting	



Chetu Development

Project:22 July Project



Diffuser Ret/Exh (GRD)

Test QA/

Asset										
Asset Name	Type	Size	DESIGN CFM	AK	VEL(1)	CFM(1)	VEL(2)	CFM(2)	FINAL CFM	% to design
EGRD1										
Total			0			0		0	0	0%



Chetu Development

Project:22 July Project



Diffuser Supply (GRD)

Test QA/

Asset				
Asset Name	Location	a7	FINAL CFM	% to design
SGRD1				
Total			0	



Chetu Development

Project: 22 July Project

System/Unit: FAN - Exhaust



Asset: EF1

AREA:

Unit Data		
	Design	Actual
MFG	FA	FA
Model Num	FA	FA
Serial Num	-	
Type	-	
Series	-	
Configuration	-	

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	-	
Voltage (rated)	-	
Amperage (rated)	-	
Service Factor	-	
Efficiency	-	
Power Factor	-	

Drive Data	
	Actual
Motor Sheave MFG	
Motor Sheave Size	
Motor Bore Size	
Motor Sheave SetPt	
Fan Sheave MFG	
Fan Sheave Size	
Fan Sheave Bore	
Belt CL Distance	
Num of Belts	
Belt MFG	
Belt Size	
Belt Tension (deflection)	
Belt Alignment Verified	

Test Data		
	Design	Actual
CFM	-	
Fan RPM	-	
Fan Rotation	-	
Motor RPM	-	
Motor Frequency	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Suction ESP	-	
Discharge ESP	-	
Total ESP	-	
Fan Inlet SP	-	
Fan Discharge SP	-	
Total Fan SP	-	
Brake Horse Power	-	



Chetu Development

Project:22 July Project



VAV - Dual Duct

Test QA/

Asset	Serial Num	Design Service	Service	Type	Inlet Size	Design Max CF M	Max CFM
DDVAV1	Design Min CFM	Min CFM	Ak (max)	Ak (min)	SetPt (max)	SetPt (Min)	Design Max CF M
	-	-	-	-	-	-	-
	Design EAT-Cold Deck (db/wb)	EAT-Cold Deck (db/wb)	Design EAT-Hot Deck (db/wb)	EAT-Hot Deck (db/wb)	Design LAT-Max Cooling (db/wb)	LAT-Max Cooling (db/wb)	LAT-Min Cooling (db/wb)
	-	-	-	-	-	-	-
	Design LAT-Max Heating (db/wb)	LAT-Max Heating (db/wb)	LAT-Min Heating (db/wb)	Inlet - Cold Deck SP	Inlet - Hot Deck SP	Discharge SP	Mixing Damper Functional
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-



Chetu Development

Project:22 July Project



VAV - Single Duct

Test QA/

Asset	Serial Num	Design Service	Service	Type	Inlet Size	Design Max CF M	Max CFM
VAV1	Design Min CFM	Min CFM	Design Heat CF M	Heat CFM	Ak (max)	Ak (min)	Ak (heat)
	Damper SetPt	Diversity Test 1	Diversity Test 2	Design EAT (F - db/wb)	EAT (F - db/wb)	Design LAT (F - db/wb)	LAT (F - db/wb)
	Inlet SP	Discharge SP					



Chetu Development

Project: 22 July Project

System/Unit: AHU/RTU



Asset: AHU1

AREA:

Unit Data		
	Design	Actual
MFG	AR	AR
Serial Num	-	
Model Num	AR	AR
Inventory Tag ID	-	
Type	-	
Series	-	
Configuration	-	
Num OA Filters 1	-	
OA Filter Size 1	-	
Num OA Filters 2	-	
OA Filter Size 2	-	
Num PreFilter 1	-	
PreFilter Size 1	-	
Num PreFilter 2	-	
PreFilter Size 2	-	
Num Final Filter 1	-	
Final Filter Size 1	-	
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	-	
Rated Voltage	-	
Rated Amperage	-	
Frequency	-	
Service Factor	-	
Efficiency	-	
Power Factor	-	

Test Data		
	Design	Actual
SF CFM (Initial)	-	
SF CFM	-	
SF RPM (Initial)	-	
SF RPM	-	
RA CFM	-	
OA CFM	-	
Exhaust CFM	-	
Relief CFM	-	
RL Voltage	-	
RL Amperage	-	
SF Rotation	-	
VFD Max SetPt	-	
VFD Min SetPt	-	
SF Motor Freq(HZ)	-	
SF Flow Station (Kv)	-	
OA Flow Station (Kv)	-	
SF System SetPt	-	
RA Flow Station (Kv)	-	
Relief Flow Station (Kv)	-	
RA Damper Position	-	
RA Damper Type	-	
MA Damper Position	-	
MA Damper Type	-	
OA Damper Position	-	
OA Damper Type	-	
Min OA Damper Position	-	
Min OA Damper Type	-	
Econo Damper Position	-	
Econo Damper Type	-	
Relief Damper Position	-	
Relief Damper Type	-	
OA Enthalpy Setpt	-	
Brake Horse Power	-	

Drive Data	
	Actual
Motor Sheave MFG	
Motor Sheave Size	
Motor Bore Size	
Motor Sheave SetPt	
Fan Sheave MFG	
Fan Sheave Size	
Fan Sheave Bore	
Belt CL Distance	
Num of Belts	
Belt Size	
Belt MFG	
Belt Deflection	
Belt Alignment	

Condensor Fan	
	Actual
Fan 1 Motor RLA	
Fan 1 Motor RLV	
Fan 2 Motor RLA	
Fan 2 Motor RLV	

Gas Heat		
	Design	Actual
Output MBH (rated)	-	
Gas Inlet Pres (wc)	-	
Gas Low Fire Pres (wc)	-	
Gas High Fire Pres (wc)	-	
Pilot Ignition Status (pass/fail)	-	
Single or Dual Bank	-	
Staged or Modulating	-	
Heater Operates (y/n)	-	
Combustion Blower Operates (y/n)	-	
Flame Status (pass/fail)	-	
High Limit Temp Cut-off SetPt	-	
Inlet Temp SetPt	-	
Discharge Temp SetPt	-	
Temp Rise SetPt	-	
Air Flow Switch SetPt	-	
Air Flow Switch Actual	-	
Air Flow Switch CTRL Voltage	-	
Air Switch Proved (Pass/Fail)	-	
Space Temp SetPt-ON	-	
Space Temp SetPt-OFF	-	
Flame Modulates (y/n)	-	

Performance Data		
	Design	Actual
Return Duct SP	-	
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Supply Duct SP	-	
Total ESP	-	
Fan Total SP	-	
Pre-Filter P.D.	-	
Final Filters P.D.	-	
Cooling Coil P.D.	-	
CHW Coil P.D.	-	
PreHeat Coil P.D.	-	
HW Coil P.D.	-	
Steam Coil P.D.	-	
Heat Wheel (Exh) P.D.	-	
Heat Wheel (Sup) P.D.	-	
OA Temp (db/wb)	-	
RA Temp (db/wb)	-	
MA Temp (db/wb)	-	
SA Temp (db/wb)	-	
HW Coil Delta T	-	
CW Coil Delta T	-	
Coil Delta T	-	
Heat Wheel(Exh) Delta T	-	
Heat Wheel(Sup) Delta T	-	

General	
	Actual
Unit free of Damage	
Unit Completely Assembled	
Unit Leveled	
Curb & Unit Installed Air Tight	
Controls Complete	
Fan Rotation Correct	
Fan Belt Condition	
Unit Filters Clean	
Evap Coil Clean	
Evap Coil Free of Frost	
Condensor Coil Clean	
Condensor Fins Straight	
Refr Sight Glass Dry	
Condensate Drain Installed	
Crankcase Heaters Operate	

Compressors	
	Actual
Refrigerant Charge	
Refrigerant Type	
Comp 1 RLA	
Comp 2 RLA	
Comp 1 Suction Pres	
Comp 2 Suction Pres	
Comp 1 Discharge Pres	
Comp 2 Discharge Pres	
Circuit 1 Superheat	
Circuit 2 Superheat	
Comp 1 Liquid Line Temp	
Comp 2 Liquid Line Temp	
Circuit 1 SubCooling	
Circuit 2 SubCooling	

Electric Heat		
	Design	Actual
KW (TOTAL)	-	
Num of Stages	-	
Voltage	-	
Stage 1 RLA	-	
Stage 2 RLA	-	
Stage 3 RLA	-	
Stage 4 RLA	-	
Stage 5 RLA	-	
Stage 6 RLA	-	
EAT (db/wb)	-	
LAT (db/wb)	-	
Coil Delta T	-	
Inlet SP	-	
Discharge SP	-	
Coil Delta SP	-	
High Limit Temp Cut-off SetPt	-	
Inlet Temp SetPt	-	
Discharge Temp SetPt	-	
Temp Rise SetPt	-	
Airflow Switch SP	-	
Airflow Switch CTRL Voltage	-	
Space Temp SetPt-ON	-	
Space Temp SetPt-OFF	-	

Combustion Fan Motor Data		
	Design	Actual
Voltage	-	
Amperage	-	

Combustion Gas Duct	
	Actual
Duct Type	
Gauge & Material	
Size	
Min Rise:Run	
Room properly ventilated	
Space pres condition	
Flue backdrafts eliminated	
Flue Terminates Properly	

Electrical	
	Actual
Evap Fan Overload size/setpt	
Cond Fan Overload size/setpt	
VFD Phase Voltage (line)	
VFD Min Setpt	
VFD Max Setpt	
Phase Brownout Dial Setpt (v)	
Phase Brownout Volt Variance	
Control Voltage (v)	
System Fused (y/n)	
Fuse Size (amps)	
Freeze Stat Setpt	
Compressor Lockout Setpt	



Chetu Development

Project: 22 July Project

System/Unit: AHU/RTU



Asset: AHU2

AREA:

Unit Data		
	Design	Actual
MFG	AR	AR
Serial Num	-	
Model Num	AR	AR
Inventory Tag ID	-	
Type	-	
Series	-	
Configuration	-	
Num OA Filters 1	-	
OA Filter Size 1	-	
Num OA Filters 2	-	
OA Filter Size 2	-	
Num PreFilter 1	-	
PreFilter Size 1	-	
Num PreFilter 2	-	
PreFilter Size 2	-	
Num Final Filter 1	-	
Final Filter Size 1	-	
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	-	
Rated Voltage	-	
Rated Amperage	-	
Frequency	-	
Service Factor	-	
Efficiency	-	
Power Factor	-	

Test Data		
	Design	Actual
SF CFM (Initial)	-	
SF CFM	-	
SF RPM (Initial)	-	
SF RPM	-	
RA CFM	-	
OA CFM	-	
Exhaust CFM	-	
Relief CFM	-	
RL Voltage	-	
RL Amperage	-	
SF Rotation	-	
VFD Max SetPt	-	
VFD Min SetPt	-	
SF Motor Freq(HZ)	-	
SF Flow Station (Kv)	-	
OA Flow Station (Kv)	-	
SF System SetPt	-	
RA Flow Station (Kv)	-	
Relief Flow Station (Kv)	-	
RA Damper Position	-	
RA Damper Type	-	
MA Damper Position	-	
MA Damper Type	-	
OA Damper Position	-	
OA Damper Type	-	
Min OA Damper Position	-	
Min OA Damper Type	-	
Econo Damper Position	-	
Econo Damper Type	-	
Relief Damper Position	-	
Relief Damper Type	-	
OA Enthalpy Setpt	-	
Brake Horse Power	-	

Drive Data	
	Actual
Motor Sheave MFG	
Motor Sheave Size	
Motor Bore Size	
Motor Sheave SetPt	
Fan Sheave MFG	
Fan Sheave Size	
Fan Sheave Bore	
Belt CL Distance	
Num of Belts	
Belt Size	
Belt MFG	
Belt Deflection	
Belt Alignment	

Condensor Fan	
	Actual
Fan 1 Motor RLA	
Fan 1 Motor RLV	
Fan 2 Motor RLA	
Fan 2 Motor RLV	

Gas Heat		
	Design	Actual
Output MBH (rated)	-	
Gas Inlet Pres (wc)	-	
Gas Low Fire Pres (wc)	-	
Gas High Fire Pres (wc)	-	
Pilot Ignition Status (pass/fail)	-	
Single or Dual Bank	-	
Staged or Modulating	-	
Heater Operates (y/n)	-	
Combustion Blower Operates (y/n)	-	
Flame Status (pass/fail)	-	
High Limit Temp Cut-off SetPt	-	
Inlet Temp SetPt	-	
Discharge Temp SetPt	-	
Temp Rise SetPt	-	
Air Flow Switch SetPt	-	
Air Flow Switch Actual	-	
Air Flow Switch CTRL Voltage	-	
Air Switch Proved (Pass/Fail)	-	
Space Temp SetPt-ON	-	
Space Temp SetPt-OFF	-	
Flame Modulates (y/n)	-	

Performance Data		
	Design	Actual
Return Duct SP	-	
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Supply Duct SP	-	
Total ESP	-	
Fan Total SP	-	
Pre-Filter P.D.	-	
Final Filters P.D.	-	
Cooling Coil P.D.	-	
CHW Coil P.D.	-	
PreHeat Coil P.D.	-	
HW Coil P.D.	-	
Steam Coil P.D.	-	
Heat Wheel (Exh) P.D.	-	
Heat Wheel (Sup) P.D.	-	
OA Temp (db/wb)	-	
RA Temp (db/wb)	-	
MA Temp (db/wb)	-	
SA Temp (db/wb)	-	
HW Coil Delta T	-	
CW Coil Delta T	-	
Coil Delta T	-	
Heat Wheel(Exh) Delta T	-	
Heat Wheel(Sup) Delta T	-	

General	
	Actual
Unit free of Damage	
Unit Completely Assembled	
Unit Leveled	
Curb & Unit Installed Air Tight	
Controls Complete	
Fan Rotation Correct	
Fan Belt Condition	
Unit Filters Clean	
Evap Coil Clean	
Evap Coil Free of Frost	
Condensor Coil Clean	
Condensor Fins Straight	
Refr Sight Glass Dry	
Condensate Drain Installed	
Crankcase Heaters Operate	

Compressors	
	Actual
Refrigerant Charge	
Refrigerant Type	
Comp 1 RLA	
Comp 2 RLA	
Comp 1 Suction Pres	
Comp 2 Suction Pres	
Comp 1 Discharge Pres	
Comp 2 Discharge Pres	
Circuit 1 Superheat	
Circuit 2 Superheat	
Comp 1 Liquid Line Temp	
Comp 2 Liquid Line Temp	
Circuit 1 SubCooling	
Circuit 2 SubCooling	

Electric Heat		
	Design	Actual
KW (TOTAL)	-	
Num of Stages	-	
Voltage	-	
Stage 1 RLA	-	
Stage 2 RLA	-	
Stage 3 RLA	-	
Stage 4 RLA	-	
Stage 5 RLA	-	
Stage 6 RLA	-	
EAT (db/wb)	-	
LAT (db/wb)	-	
Coil Delta T	-	
Inlet SP	-	
Discharge SP	-	
Coil Delta SP	-	
High Limit Temp Cut-off SetPt	-	
Inlet Temp SetPt	-	
Discharge Temp SetPt	-	
Temp Rise SetPt	-	
Airflow Switch SP	-	
Airflow Switch CTRL Voltage	-	
Space Temp SetPt-ON	-	
Space Temp SetPt-OFF	-	

Combustion Fan Motor Data		
	Design	Actual
Voltage	-	
Amperage	-	

Combustion Gas Duct	
	Actual
Duct Type	
Gauge & Material	
Size	
Min Rise:Run	
Room properly ventilated	
Space pres condition	
Flue backdrafts eliminated	
Flue Terminates Properly	

Electrical	
	Actual
Evap Fan Overload size/setpt	
Cond Fan Overload size/setpt	
VFD Phase Voltage (line)	
VFD Min Setpt	
VFD Max Setpt	
Phase Brownout Dial Setpt (v)	
Phase Brownout Volt Variance	
Control Voltage (v)	
System Fused (y/n)	
Fuse Size (amps)	
Freeze Stat Setpt	
Compressor Lockout Setpt	



Chetu Development

Project: 22 July Project

System/Unit: Chiller



Asset: CHLR1

AREA:

Unit Data		
	Design	Actual
MFG	CI	CI
Model Num	CI	CI
Serial Num	-	
Type	-	
Size	-	
Service	-	

Condensator Fan	
	Actual
Fan Alignment	
Fan Rotation	
Fan 1 Motor RLA	
Fan 1 Motor RLV	
Fan 2 Motor RLA	
Fan 2 Motor RLV	
Fan 3 Motor RLA	
Fan 3 Motor RLV	

Compressors	
	Actual
MFG	
Model Num	
Serial Num	
Refrigerant Charge	
Refrigerant Type	
Comp 1 RLV	
Comp 1 RLA	
Comp 2 RLV	
Comp 2 RLA	
Comp 1 Suction Pres	
Comp 2 Suction Pres	
Comp 1 Discharge Pres	
Comp 2 Discharge Pres	
Circuit 1 Superheat	
Circuit 2 Superheat	
Comp 1 Liquid Line Temp	
Comp 2 Liquid Line Temp	
Circuit 1 SubCooling	
Circuit 2 SubCooling	
KW Input	
CrankCase HTR Amps	
Cond Water Ctrl SetPt	
LP Cutout Setting	
HP Cutout Setting	

Test Data-Evaporator		
	Design	Actual
Water Treatment Type	-	
Water Treatment %	-	
Water Temp	-	
GPM	-	
Cv	-	
Balance Valve Setting	-	
Balance Valve Delta P	-	
EWT (F)	-	
LWT (F)	-	
Water Temp Delta T (F)	-	
ENT Water Pres	-	
LVG Water Pres	-	
CHW Delta P	-	
Low Limit Temp Cut-off SetPt	-	
Inlet GPM Temp SetPt	-	
Discharge GPM Temp SetPt	-	
Water Temp MAX Drop SetPt	-	
GPM Flow Switch Setting	-	
GPM Flow Switch CTRL Voltage	-	
GPM Switch Proved (Pass/Fail)	-	
Mech Cool Temp SetPt-ON	-	
Free Cool Temp SetPt-OFF	-	

Test Data-Condenser		
	Design	Actual
Water Treatment Type	-	
Water Treatment %	-	
Water Temp	-	
CW GPM	-	
Cv	-	
Balance Valve Setting	-	
Balance Valve Diff Pres	-	
EWT (F)	-	
LWT (F)	-	
Water Temp Delta T (F)	-	
ENT Water Pres	-	
LVG Water Pres	-	
CHW Delta P	-	

General	
	Actual
Oil Level Checked	
Oil Failure Differential	
Ref Level Checked	
Relief Valve Setting	
Unloader SetPt	
% Cylinders Unloaded	
Purge Operation Checked	
Bearing Temp	
Vane Position	
Demand Limit	
Low Temp Cutout Setting	



Chetu Development

Project: 22 July Project

System/Unit: Chiller



Asset: CHLR2

AREA:

Unit Data		
	Design	Actual
MFG	CI	CI
Model Num	CI	CI
Serial Num	-	
Type	-	
Size	-	
Service	-	

Condensor Fan	
	Actual
Fan Alignment	
Fan Rotation	
Fan 1 Motor RLA	
Fan 1 Motor RLV	
Fan 2 Motor RLA	
Fan 2 Motor RLV	
Fan 3 Motor RLA	
Fan 3 Motor RLV	

Compressors	
	Actual
MFG	
Model Num	
Serial Num	
Refrigerant Charge	
Refrigerant Type	
Comp 1 RLV	
Comp 1 RLA	
Comp 2 RLV	
Comp 2 RLA	
Comp 1 Suction Pres	
Comp 2 Suction Pres	
Comp 1 Discharge Pres	
Comp 2 Discharge Pres	
Circuit 1 Superheat	
Circuit 2 Superheat	
Comp 1 Liquid Line Temp	
Comp 2 Liquid Line Temp	
Circuit 1 SubCooling	
Circuit 2 SubCooling	
KW Input	
CrankCase HTR Amps	
Cond Water Ctrl SetPt	
LP Cutout Setting	
HP Cutout Setting	

Test Data-Evaporator		
	Design	Actual
Water Treatment Type	-	
Water Treatment %	-	
Water Temp	-	
GPM	-	
Cv	-	
Balance Valve Setting	-	
Balance Valve Delta P	-	
EWT (F)	-	
LWT (F)	-	
Water Temp Delta T (F)	-	
ENT Water Pres	-	
LVG Water Pres	-	
CHW Delta P	-	
Low Limit Temp Cut-off SetPt	-	
Inlet GPM Temp SetPt	-	
Discharge GPM Temp SetPt	-	
Water Temp MAX Drop SetPt	-	
GPM Flow Switch Setting	-	
GPM Flow Switch CTRL Voltage	-	
GPM Switch Proved (Pass/Fail)	-	
Mech Cool Temp SetPt-ON	-	
Free Cool Temp SetPt-OFF	-	

Test Data-Condenser		
	Design	Actual
Water Treatment Type	-	
Water Treatment %	-	
Water Temp	-	
CW GPM	-	
Cv	-	
Balance Valve Setting	-	
Balance Valve Diff Pres	-	
EWT (F)	-	
LWT (F)	-	
Water Temp Delta T (F)	-	
ENT Water Pres	-	
LVG Water Pres	-	
CHW Delta P	-	

General	
	Actual
Oil Level Checked	
Oil Failure Differential	
Ref Level Checked	
Relief Valve Setting	
Unloader SetPt	
% Cylinders Unloaded	
Purge Operation Checked	
Bearing Temp	
Vane Position	
Demand Limit	
Low Temp Cutout Setting	



Chetu Development

Project:22 July Project



Diffuser Ret/Exh (GRD)

Test QA/

Asset										
Asset Name	Type	Size	DESIGN CFM	AK	VEL(1)	CFM(1)	VEL(2)	CFM(2)	FINAL CFM	% to design
EGRD1										
Total			0			0		0	0	0%



Chetu Development

Project:22 July Project



Diffuser Supply (GRD)

Test QA/

Asset				
Asset Name	Location	a7	FINAL CFM	% to design
SGRD1				
Total			0	



Chetu Development

Project: 22 July Project

System/Unit: FAN - Exhaust



Asset: EF1

AREA:

Unit Data		
	Design	Actual
MFG	FA	FA
Model Num	FA	FA
Serial Num	-	
Type	-	
Series	-	
Configuration	-	

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	-	
Voltage (rated)	-	
Amperage (rated)	-	
Service Factor	-	
Efficiency	-	
Power Factor	-	

Drive Data	
	Actual
Motor Sheave MFG	
Motor Sheave Size	
Motor Bore Size	
Motor Sheave SetPt	
Fan Sheave MFG	
Fan Sheave Size	
Fan Sheave Bore	
Belt CL Distance	
Num of Belts	
Belt MFG	
Belt Size	
Belt Tension (deflection)	
Belt Alignment Verified	

Test Data		
	Design	Actual
CFM	-	
Fan RPM	-	
Fan Rotation	-	
Motor RPM	-	
Motor Frequency	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Suction ESP	-	
Discharge ESP	-	
Total ESP	-	
Fan Inlet SP	-	
Fan Discharge SP	-	
Total Fan SP	-	
Brake Horse Power	-	



Chetu Development

Project:22 July Project



VAV - Dual Duct

Test QA/

Asset	Serial Num	Design Service	Service	Type	Inlet Size	Design Max CF M	Max CFM
DDVAV1	Design Min CFM	Min CFM	Ak (max)	Ak (min)	SetPt (max)	SetPt (Min)	Design Max CF M
	-	-	-	-	-	-	-
	Design EAT-Cold Deck (db/wb)	EAT-Cold Deck (db/wb)	Design EAT-Hot Deck (db/wb)	EAT-Hot Deck (db/wb)	Design LAT-Max Cooling (db/wb)	LAT-Max Cooling (db/wb)	LAT-Min Cooling (db/wb)
	-	-	-	-	-	-	-
	Design LAT-Max Heating (db/wb)	LAT-Max Heating (db/wb)	LAT-Min Heating (db/wb)	Inlet - Cold Deck SP	Inlet - Hot Deck SP	Discharge SP	Mixing Damper Functional
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-



Chetu Development

Project:22 July Project



VAV - Single Duct

Test QA/

Asset	Serial Num	Design Service	Service	Type	Inlet Size	Design Max CF M	Max CFM
VAV1	Design Min CFM	Min CFM	Design Heat CF M	Heat CFM	Ak (max)	Ak (min)	Ak (heat)
	Damper SetPt	Diversity Test 1	Diversity Test 2	Design EAT (F - db/wb)	EAT (F - db/wb)	Design LAT (F - db/wb)	LAT (F - db/wb)
	Inlet SP	Discharge SP					