MATRIX HVAC, LLC
21357 Marion Lane, Suite 100
Mandeville, LA 70471

Leif C. Wismar, P.E. C.E.M.
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P253 AIR TRAFFIC CONTROL TOWER (NORTH FIELD)

NAVAL AIR STATION WHITING FIELD, FL

PRE-FUNCTIONING TEST SHEETS

SECTION 01 91 00.15 25

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	SPLIT DX HEAT PUMP AND AIR CONDITIONING
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	SSHP-01 / SSCU-01

PRE-FUNCTIONAL CHECKLIST – SSHP-01									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT (SSHP-01)									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	CONDENSATE PUMP PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST – SSHP-01

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	AC SYSTEM STATUS AND ALARM POINTS ARE INTERFACED WITH BAS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
11.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED AND IS PASSWORD PROTECTED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
OUTDOOR UNIT (SSCU-01)									
1.	UNIT DOES NOT HAVE PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	REFRIGERANT PIPING & VALVES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	REFRIGERANT PIPING HAS BEEN LEAK TESTED & CHARGED WITH R410A.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	REFRIGERANT PIPING IS INSULATED	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	SPLIT DX HEAT PUMP AND AIR CONDITIONING
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	SSHP-02 / SSCU-02

PRE-FUNCTIONAL CHECKLIST – SSHP-02									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT (SSHP-02)									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	CONDENSATE PUMP PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST – SSHP-02

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	AC SYSTEM STATUS AND ALARM POINTS ARE INTERFACED WITH BAS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
11.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED AND IS PASSWORD PROTECTED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
OUTDOOR UNIT (SSCU-02)									
1.	UNIT DOES NOT HAVE PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	REFRIGERANT PIPING & VALVES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	REFRIGERANT PIPING HAS BEEN LEAK TESTED & CHARGED WITH R410A.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	REFRIGERANT PIPING IS INSULATED	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	SPLIT DX HEAT PUMP AND AIR CONDITIONING
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	SSHP-03 / SSCU-03

PRE-FUNCTIONAL CHECKLIST – SSHP-03									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT (SSHP-03)									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	CONDENSATE PUMP PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST – SSHP-03

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	AC SYSTEM STATUS AND ALARM POINTS ARE INTERFACED WITH BAS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
11.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED AND IS PASSWORD PROTECTED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
OUTDOOR UNIT (SSCU-03)									
1.	UNIT DOES NOT HAVE PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	REFRIGERANT PIPING & VALVES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	REFRIGERANT PIPING HAS BEEN LEAK TESTED & CHARGED WITH R410A.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	REFRIGERANT PIPING IS INSULATED	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	SPLIT DX HEAT PUMP AND AIR CONDITIONING
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	SSHP-04 / SSCU-04

PRE-FUNCTIONAL CHECKLIST – SSHP-04									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT (SSHP-04)									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	CONDENSATE PUMP PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST – SSHP-04

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	AC SYSTEM STATUS AND ALARM POINTS ARE INTERFACED WITH BAS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
11.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED AND IS PASSWORD PROTECTED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
OUTDOOR UNIT (SSCU-04)									
1.	UNIT DOES NOT HAVE PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	REFRIGERANT PIPING & VALVES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	REFRIGERANT PIPING HAS BEEN LEAK TESTED & CHARGED WITH R410A.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	REFRIGERANT PIPING IS INSULATED	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	SPLIT DX HEAT PUMP AND AIR CONDITIONING
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	SSHP-05 / SSCU-05

PRE-FUNCTIONAL CHECKLIST – SSHP-05									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT (SSHP-05)									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	CONDENSATE PUMP PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST – SSHP-05

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	AC SYSTEM STATUS AND ALARM POINTS ARE INTERFACED WITH BAS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
11.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED AND IS PASSWORD PROTECTED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
OUTDOOR UNIT (SSCU-05)									
1.	UNIT DOES NOT HAVE PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	REFRIGERANT PIPING & VALVES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	REFRIGERANT PIPING HAS BEEN LEAK TESTED & CHARGED WITH R410A.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	REFRIGERANT PIPING IS INSULATED	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	SPLIT DX HEAT PUMP AND AIR CONDITIONING
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	SSHP-06 / SSCU-06

PRE-FUNCTIONAL CHECKLIST – SSHP-06									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT (SSHP-06)									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	CONDENSATE PUMP PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST – SSHP-06

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	AC SYSTEM STATUS AND ALARM POINTS ARE INTERFACED WITH BAS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
11.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED AND IS PASSWORD PROTECTED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
OUTDOOR UNIT (SSCU-06)									
1.	UNIT DOES NOT HAVE PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	REFRIGERANT PIPING & VALVES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	REFRIGERANT PIPING HAS BEEN LEAK TESTED & CHARGED WITH R410A.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	REFRIGERANT PIPING IS INSULATED	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	COMPUTER ROOM AIR CONDITIONER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	CRAC-01

PRE-FUNCTIONAL CHECKLIST – CRAC-01									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	HUMIDIFIER INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST – CRAC-01

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	COMPUTER ROOM AIR CONDITIONER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	CRAC-02

PRE-FUNCTIONAL CHECKLIST – CRAC-02									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	HUMIDIFIER INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST – CRAC-02

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	COMPUTER ROOM AIR CONDITIONER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	CRAC-03

PRE-FUNCTIONAL CHECKLIST – CRAC-03									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	HUMIDIFIER INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST – CRAC-03

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	COMPUTER ROOM AIR CONDITIONER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	CRAC-04

PRE-FUNCTIONAL CHECKLIST – CRAC-04									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	HUMIDIFIER INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST – CRAC-04

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	COMPUTER ROOM AIR CONDITIONER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	CRAC-05

PRE-FUNCTIONAL CHECKLIST – CRAC-05									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	HUMIDIFIER INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST – CRAC-05

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	COMPUTER ROOM AIR CONDITIONER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	CRAC-06

PRE-FUNCTIONAL CHECKLIST – CRAC-06									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	HUMIDIFIER INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST – CRAC-06

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	DOAS -01
EQUIPMENT MODEL NUMBER(S)	N/A
EQUIPMENT TAG NUMBER(S)	N/A

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – DOAS-01									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	PERMANENT LABELS AFFIXED AND ARE CORRECT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	CASING CONDITION GOOD: NO DENTS, LEAKS, ETC.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	ACCESS DOORS ARE OPERABLE AND SEALED – NO LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	MAINTENANCE ACCESS ACCEPTABLE FOR UNIT AND COMPONENTS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	FILTERS ARE INSTALLED IN THE UNIT. FILTER SECTION EQUIPED WITH DIFFERENTIAL PRESSURE SWITCHES.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	CONDENSATE DRAIN LINE PROPERLY INSTALLED AND CONNECTED TO THE AIR HANDLING UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – DOAS-01									
ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
8.	DRAIN PAN HIGH LIMIT WATER LEVEL MONITORING DEVICE INSTALLED IN DRAIN PAN AND IS OPERATIONAL.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	CLEAN UP OF EQUIPMENT COMPLETED PER CONTRACT DOCUMENTS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
COILS									
1.	COILS ARE CLEAN AND FINS ARE IN GOOD CONDITION.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	NO VISIBLE LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	ERV MEDIA AND COMPONENTS ARE INSTALLED PER MANUFACTURER REQUIREMENTS..	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	UV LIGHTS INSTALLED PROPERLLY WITH SINGLE POINT 120V CONNECTION.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
CHILLED WATER SYSTEM (VALVES & PIPING)									
1.	CHILLED WATER COILS AND HOT WATER COILS ARE INSTALLED PER MANUFACTURER REQUIREMENTS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	ALL PIPING IS CONNECTED PROPERLY AND PROPERLY INSULATED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	ALL PIPING IS SUPPORTED ADEQUATELY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	ALL AIR HAS BEEN PURGED FROM THE SYSTEM.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – DOAS-01									
ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
DUCT									
1.	DUCTWORK HAS BEEN ROUTED PER DRAWINGS.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
2.	DUCTWORK PROPERLY SEALED AT EVERY CONNECTION.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
3.	ALL NECESSARY DAMPER INSTALLED IN PROPER LOCATIONS.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
4.	DUCTWORK LEAK TEST COMPLETED.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
5.	DUCT TEST HOLES ARE PROPERLY INSTALLED IN CORRECT LOCATIONS.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
ELECTRICAL AND CONTROLS									
1.	POWER AVAILABLE TO UNIT DISCONNECT.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
2.	POWER AVAILABLE TO UNIT CONTROL PANEL.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
3.	PROPER MOTOR ROTATION VERIFIED.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
4.	SAFETIES INSTALLED AND OPERATIONAL.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
5.	UNIT AND COMPONENTS ARE PROPERLY GROUNDED.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
6.	TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
7.	RELATED THERMOSTATS IN PLACE.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
8.	RELATED BUILDING AUTOMATION SYSTEM POINTS INSTALLED.	✓	✓	✓	N/A	✓	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – DOAS-01									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
9.	AIRFLOW MANAGEMENT DAMPERS INSTALLED IN AIR HANDLER UNIT	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
10.	CONTROL VALVES / ACTUATORS PROPERLY INSTALLED AND OPERABLE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
11.	DAMPERS / ACTUATORS PROPERLY INSTALLED AND OPERABLE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
MOTOR & VFD									
1.	DRIVE SIZE MATCHES MOTOR SIZE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	DRIVE LOCATION NOT SUBJECT TO EXCESSIVE TEMPERATURES, MOISTURE, OR DIRT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VFD INTERLOCKED TO CONTROL SYSTEM.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	VFD POWERED AND INTERLOCKED TO CONTROL SYSTEM.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	STATIC PRESSURE OR OTHER CONTROLLING SENSOR PROPERLY INSTALLED AND CALIBRATED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	MOTOR FLA SETTING REPRESENTS 100% TO 105% OF MOTOR FLA RATING.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	APPROPRIATE VOLTS VS HZ CURVE IS BEING USED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	FAN COILED UNITS
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	FCU-01

PRE-FUNCTIONAL CHECKLIST – FCU-01									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT (FCU-01)									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	CONDENSATE PUMP PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST – FCU-01

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
11.	CHILLED WATER AND HOT WATER COILS INSTALLED AND CONNECTED PROPERLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	FAN COILED UNITS
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	FCU-02

PRE-FUNCTIONAL CHECKLIST – FCU-02									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT (FCU-02)									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	CONDENSATE PUMP PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST – FCU-02

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
11.	CHILLED WATER AND HOT WATER COILS INSTALLED AND CONNECTED PROPERLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	FAN COILED UNITS
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	FCU-03

PRE-FUNCTIONAL CHECKLIST – FCU-03									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT (FCU-03)									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	CONDENSATE PUMP PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST – FCU-03

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
11.	CHILLED WATER AND HOT WATER COILS INSTALLED AND CONNECTED PROPERLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	FAN COILED UNITS
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	FCU-05

PRE-FUNCTIONAL CHECKLIST – FCU-05									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT (FCU-05)									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	CONDENSATE PUMP PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST – FCU-05

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
11.	CHILLED WATER AND HOT WATER COILS INSTALLED AND CONNECTED PROPERLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	FAN COILED UNITS
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	FCU-06

PRE-FUNCTIONAL CHECKLIST – FCU-06									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR UNIT (FCU-06)									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE AND IS PROVIDED WITH NEW CLEAN FILTER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	FILTERS ARE INSTALLED IN THE UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	CONDENSATE PUMP PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST – FCU-06

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
10.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
11.	CHILLED WATER AND HOT WATER COILS INSTALLED AND CONNECTED PROPERLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	EXHAUST FAN
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	EF-01

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – EF-01									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	PERMANENT LABELS AFFIXED AND ARE CORRECT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	FAN DOES NOT HAVE VISIBLE DAMAGE	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	SOUND ATTENTUATOR INSTALLED CORRECTLY. (IF APPLICABLE)	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	EXHAUST HOOD / PENTHOUSE INSTALLED CORRECTLY. (IF APPLICABLE)	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
ELECTRICAL AND CONTROLS									
1.	POWER AVAILABLE TO FAN DISCONNECT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	POWER DISCONNECT LOCATED WITHIN SIGHT OF UNIT IT CONTROLS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	PROPER MOTOR ROTATION VERIFIED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	SAFETIES INSTALLED AND OPERATIONAL.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – EF-01

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
5.	UNIT AND COMPONENTS ARE PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	CONTROL INTERLOCKS PROPERLY INSTALLED AND ARE OPERABLE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	DAMPERS / ACTUATORS PROPERLY INSTALLED AND ARE OPERABLE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	SUPPLY FAN
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	SF-02

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – SF-02									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	PERMANENT LABELS AFFIXED AND ARE CORRECT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	FAN DOES NOT HAVE VISIBLE DAMAGE	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	FAN BELT ADJUSTED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	SOUND ATTENTUATOR INSTALLED CORRECTLY. (IF APPLICABLE)	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
5.	EXHAUST HOOD / PENTHOUSE INSTALLED CORRECTLY. (IF APPLICABLE)	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
ELECTRICAL AND CONTROLS									
1.	POWER AVAILABLE TO FAN DISCONNECT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	POWER DISCONNECT LOCATED WITHIN SIGHT OF UNIT IT CONTROLS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	PROPER MOTOR ROTATION VERIFIED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	SAFETIES INSTALLED AND OPERATIONAL.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A

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Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – SF-02

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
5.	UNIT AND COMPONENTS ARE PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	CONTROL INTERLOCKS PROPERLY INSTALLED AND ARE OPERABLE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	DAMPERS / ACTUATORS PROPERLY INSTALLED AND ARE OPERABLE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	HYDRONIC UNIT HEATER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	CUH-01

PRE-FUNCTIONAL CHECKLIST – CUH-01									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
HYDRONIC UNIT HEATER									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	HOT WATER COIL INSTALLED AND CONNECTED PROPERLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	HYDRONIC UNIT HEATER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	CUH-02

PRE-FUNCTIONAL CHECKLIST – CUH-02									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
HYDRONIC UNIT HEATER									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	HOT WATER COIL INSTALLED AND CONNECTED PROPERLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	HYDRONIC DUCT HEATER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	HDH-01

PRE-FUNCTIONAL CHECKLIST – HDH-01									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
HYDRONIC UNIT HEATER									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	UNIT IS DUCTED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	COIL IS CONNECTED TO HOT WATER PIPING LOOP. MODULATING VALVE IS INSTALLED AND FUNCTIONAL.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	ELECTRIC UNIT HEATER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	EUH-01

PRE-FUNCTIONAL CHECKLIST – EUH-01									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
HYDRONIC UNIT HEATER									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	POWER WIRING & DISCONNECT SWITCH ARE INSTALLED PROPERLY. DISCONNECT SWITCH IS WITHIN CODE REQUIRED DISTANCE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	UNIT IS PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ELECTRIC TERMINALS ARE ALL TIGHT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	WIRED WALL MOUNTED CONTROLLER IS INSTALLED	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	AIR COOLED CHILLER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	CH-01

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – CH-01									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	PERMANENT LABELS AFFIXED AND ARE CORRECT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	GENERAL APPEARANCE GOOD, NO APPARENT DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	COIL ARE CLEAN AND FINS ARE IN GOOD CONDITION.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	CORRECT REFRIGERANT IS USED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ALL THERMISTORS ARE INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	COMPRESSOR OIL LEVEL IS CORRECT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	PRESSURE GAUGES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	FLOW METERS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
10.	NO VISIBLE LEAKS REFRIGERATION LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
11.	TEMPERATURE AND BALANCE PORTS HAVE BEEN PROVIDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – CH-01

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
CHILLED WATER SYSTEM (VALVES & PIPING)									
1.	CHILLED WATER SYSTEM FLUSHING COMPLETE AND STRAINERS CLEANED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	ALL VALVES ARE OPEN FOR DESIGNATED UNIT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	ALL PIPING IS CONNECTED PROPERLY.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	ALL PIPING IS SUPPORTED ADEQUATELY.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
5.	ALL AIR HAS BEEN PURGED FROM THE SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	PIPING IS PROPERLY INSULATED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
7.	HEAT TRACE INSTALLED ON ALL EXTERIOR PIPING.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
8.	ENSURE THAT SUITABLE LEAK TESTING HAS BEEN CONDUCTED FOR THE CHILLED WATER SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
9.	VERIFY AIR SEPERATOR IS INSTALLED AND OPERABLE.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
ELECTRICAL AND CONTROLS									
1.	POWER AVAILABLE TO UNIT DISCONNECT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	POWER AVAILABLE TO UNIT CONTROL PANEL.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	POWER DISCONNECT LOCATED WITHIN SIGHT OF THE UNIT IT CONTROLS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	ELECTRICAL TERMINALS ARE ALL TIGHT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – CH-01

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
5.	UNIT AND COMPONENTS ARE PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	CONTROL WIRING AND CONTROL SYSTEM HOOKED UP.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	SENSORS ARE CALIBRATED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	SAFETIES INSTALLED AND SAFE OPERATING RANGES FOR EQUIPMENT PROVIDED TO COMMISSIONING AGENT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	CHILLED WATER FLOW SWITCH INSTALLED AND TESTED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	AIR COOLED CHILLER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	CH-02

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – CH-02									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	PERMANENT LABELS AFFIXED AND ARE CORRECT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	GENERAL APPEARANCE GOOD, NO APPARENT DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	COIL ARE CLEAN AND FINS ARE IN GOOD CONDITION.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	CORRECT REFRIGERANT IS USED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ALL THERMISTORS ARE INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	COMPRESSOR OIL LEVEL IS CORRECT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	PRESSURE GAUGES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	FLOW METERS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
10.	NO VISIBLE LEAKS REFRIGERATION LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
11.	TEMPERATURE AND BALANCE PORTS HAVE BEEN PROVIDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – CH-02									
ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
CHILLED WATER SYSTEM (VALVES & PIPING)									
1.	CHILLED WATER SYSTEM FLUSHING COMPLETE AND STRAINERS CLEANED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	ALL VALVES ARE OPEN FOR DESIGNATED UNIT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	ALL PIPING IS CONNECTED PROPERLY.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	ALL PIPING IS SUPPORTED ADEQUATELY.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
5.	ALL AIR HAS BEEN PURGED FROM THE SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	PIPING IS PROPERLY INSULATED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
7.	HEAT TRACE INSTALLED ON ALL EXTERIOR PIPING.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
8.	ENSURE THAT SUITABLE LEAK TESTING HAS BEEN CONDUCTED FOR THE CHILLED WATER SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
9.	VERIFY AIR SEPERATOR IS INSTALLED AND OPERABLE.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
ELECTRICAL AND CONTROLS									
1.	POWER AVAILABLE TO UNIT DISCONNECT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	POWER AVAILABLE TO UNIT CONTROL PANEL.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	POWER DISCONNECT LOCATED WITHIN SIGHT OF THE UNIT IT CONTROLS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	ELECTRICAL TERMINALS ARE ALL TIGHT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – CH-02

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
5.	UNIT AND COMPONENTS ARE PROPERLY GROUNDED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	CONTROL WIRING AND CONTROL SYSTEM HOOKED UP.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	SENSORS ARE CALIBRATED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	SAFETIES INSTALLED AND SAFE OPERATING RANGES FOR EQUIPMENT PROVIDED TO COMMISSIONING AGENT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	CHILLED WATER FLOW SWITCH INSTALLED AND TESTED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	BOILER UNIT
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	B-01

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – B-01									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	PERMANENT LABELS AFFIXED AND ARE CORRECT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	GENERAL APPEARANCE GOOD, NO APPARENT DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	CONDENSATE NEUTRALIZER INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	CONDENSATE LINE RUN TO FLOOR DRAIN.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	HOT WATER RETURN STRAINER INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ALL THERMOMETERS ARE INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	ALL PRESSURE GAUGES AND GAUGECOCKS ARE INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	BALANCE VALVE INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	NO VISIBLE LEAKS FROM PIPING.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
HOT WATER SYSTEM (VALVES & PIPING)									
1.	HOT WATER SYSTEM FLUSHING COMPLETE AND STRAINERS CLEANED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – B-01

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
2.	ALL VALVES ARE OPEN FOR DESIGNATED UNIT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	ALL PIPING IS CONNECTED PROPERLY.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	ALL PIPING IS SUPPORTED ADEQUATELY.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
5.	ALL AIR HAS BEEN PURGED FROM THE SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	PIPING IS PROPERLY INSULATED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
7.	ENSURE THAT SUITABLE LEAK TESTING HAS BEEN CONDUCTED FOR THE HOT WATER WATER SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
8.	VERIFY PRESSURE RELIEF VALVE IS SET AS PER MANUFACTURER'S RECOMMENDATIONS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
ELECTRICAL AND CONTROLS									
1.	POWER AVAILABLE TO UNIT DISCONNECT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	POWER AVAILABLE TO UNIT CONTROL PANEL.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	POWER DISCONNECT LOCATED WITHIN SIGHT OF THE UNIT IT CONTROLS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	ELECTRICAL TERMINALS ARE ALL TIGHT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
5.	CONTROL WIRING AND CONTROL SYSTEM HOOKED UP.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	SENSORS ARE CALIBRATED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – B-01

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
7.	SAFETIES INSTALLED AND SAFE OPERATING RANGES FOR EQUIPMENT PROVIDED TO COMMISSIONING AGENT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	HOT WATER FLOW SWITCH INSTALLED AND TESTED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	BOILER UNIT
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	B-02

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – B-02									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	PERMANENT LABELS AFFIXED AND ARE CORRECT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	GENERAL APPEARANCE GOOD, NO APPARENT DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	CONDENSATE NEUTRALIZER INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	CONDENSATE LINE RUN TO FLOOR DRAIN.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	HOT WATER RETURN STRAINER INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ALL THERMOMETERS ARE INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	ALL PRESSURE GAUGES AND GAUGECOCKS ARE INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	BALANCE VALVE INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
9.	NO VISIBLE LEAKS FROM PIPING.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
HOT WATER SYSTEM (VALVES & PIPING)									
1.	HOT WATER SYSTEM FLUSHING COMPLETE AND STRAINERS CLEANED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – B-02

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
2.	ALL VALVES ARE OPEN FOR DESIGNATED UNIT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	ALL PIPING IS CONNECTED PROPERLY.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	ALL PIPING IS SUPPORTED ADEQUATELY.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
5.	ALL AIR HAS BEEN PURGED FROM THE SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	PIPING IS PROPERLY INSULATED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
7.	ENSURE THAT SUITABLE LEAK TESTING HAS BEEN CONDUCTED FOR THE HOT WATER WATER SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
8.	VERIFY PRESSURE RELIEF VALVE IS SET AS PER MANUFACTURER'S RECOMMENDATIONS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
ELECTRICAL AND CONTROLS									
1.	POWER AVAILABLE TO UNIT DISCONNECT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	POWER AVAILABLE TO UNIT CONTROL PANEL.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	POWER DISCONNECT LOCATED WITHIN SIGHT OF THE UNIT IT CONTROLS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	ELECTRICAL TERMINALS ARE ALL TIGHT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
5.	CONTROL WIRING AND CONTROL SYSTEM HOOKED UP.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	SENSORS ARE CALIBRATED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – B-02

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
7.	SAFETIES INSTALLED AND SAFE OPERATING RANGES FOR EQUIPMENT PROVIDED TO COMMISSIONING AGENT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	HOT WATER FLOW SWITCH INSTALLED AND TESTED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	CHILLED WATER PUMPS
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	P-01

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – P-01									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	PERMANENT LABELS AFFIXED AND ARE CORRECT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PUMP IS MOUNTED PROPERLY WITH VIBTAION ISOLATION PADS..	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	PUMP/MOTOR COUPLING ALIGNMENT VERIFIED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	TEMPERATURE, PRESSURE AND FLOW GAUGES AND SENSORS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	MAINTENANCE ACCESS ACCEPTABLE FOR UNIT AND COMPONENTS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
CHILLED WATER SYSTEM (VALVES & PIPING)									
1.	CHILLED WATER SYSTEM PROPERLY CLEANED AND FILLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	ALL VALVES ARE OPEN FOR DESIGNATED UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	ALL PIPING IS CONNECTED PROPERLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	ALL PIPING IS SUPPORTED ADEQUATELY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – P-01

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
5.	ALL AIR HAS BEEN PURGED FROM THE SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	PIPING IS PROPERLY INSULATED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
7.	ENSURE THAT SUITABLE LEAK TESTING HAS BEEN CONDUCTED FOR THE CHILLED WATER SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
ELECTRICAL AND CONTROLS									
1.	POWER AVAILABLE TO UNIT DISCONNECT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	POWER AVAILABLE TO UNIT CONTROL PANEL.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	PROPER MOTOR ROTATION VERIFIED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	SAFETIES INSTALLED AND OPERATIONAL.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
5.	UNIT AND COMPONENTS ARE PROPERLY GROUNDED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	TERMINALS ARE ALL TIGHT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
7.	POWER DISCONNECT IS LOCATED WITHIN SIGHT OF THE UNIT IT CONTROLS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
8.	SYSTEM PRESSURE DIFFERENTIAL SENSORS ARE INSTALLED DOWNSTREAM IN THE CHILLED WATER PIPING SYSTEM, INTERFACED WITH THE PUMP VFD AND THE BAS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
9.	ALL CONTROL DEVICES, PNEUMATIC TUBING AND WIRING COMPLETE.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
MOTOR & VFD									
1.	DRIVE SIZE MATCHES MOTOR SIZE.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – P-01

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
2.	DRIVE LOCATION NOT SUBJECT TO EXCESSIVE TEMPERATURES, MOISTURE, OR DIRT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VFD POWERED AND INTERLOCKED TO CONTROL SYSTEM.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	ALL PUMP AND VFD ALARMS AND SAFETIES ARE INTERFACED WITH THE BAS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	PRESSURE OR OTHER CONTROLLING SENSOR PROPERLY INSTALLED AND CALIBRATED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	MOTOR FLA SETTING REPRESENTS 100% TO 105% OF MOTOR FLA RATING.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	APPROPRIATE VOLTS VS HZ CURVE IS BEING USED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	CHILLED WATER PUMPS
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	P-02

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – P-02									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	PERMANENT LABELS AFFIXED AND ARE CORRECT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PUMP IS MOUNTED PROPERLY WITH VIBTAION ISOLATION PADS..	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	PUMP/MOTOR COUPLING ALIGNMENT VERIFIED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	TEMPERATURE, PRESSURE AND FLOW GAUGES AND SENSORS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	MAINTENANCE ACCESS ACCEPTABLE FOR UNIT AND COMPONENTS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
CHILLED WATER SYSTEM (VALVES & PIPING)									
1.	CHILLED WATER SYSTEM PROPERLY CLEANED AND FILLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	ALL VALVES ARE OPEN FOR DESIGNATED UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	ALL PIPING IS CONNECTED PROPERLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	ALL PIPING IS SUPPORTED ADEQUATELY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – P-02

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
5.	ALL AIR HAS BEEN PURGED FROM THE SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	PIPING IS PROPERLY INSULATED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
7.	ENSURE THAT SUITABLE LEAK TESTING HAS BEEN CONDUCTED FOR THE CHILLED WATER SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
ELECTRICAL AND CONTROLS									
1.	POWER AVAILABLE TO UNIT DISCONNECT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	POWER AVAILABLE TO UNIT CONTROL PANEL.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	PROPER MOTOR ROTATION VERIFIED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	SAFETIES INSTALLED AND OPERATIONAL.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
5.	UNIT AND COMPONENTS ARE PROPERLY GROUNDED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	TERMINALS ARE ALL TIGHT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
7.	POWER DISCONNECT IS LOCATED WITHIN SIGHT OF THE UNIT IT CONTROLS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
8.	SYSTEM PRESSURE DIFFERENTIAL SENSORS ARE INSTALLED DOWNSTREAM IN THE CHILLED WATER PIPING SYSTEM, INTERFACED WITH THE PUMP VFD AND THE BAS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
9.	ALL CONTROL DEVICES, PNEUMATIC TUBING AND WIRING COMPLETE.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
MOTOR & VFD									
1.	DRIVE SIZE MATCHES MOTOR SIZE.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A

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Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – P-02									
ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
2.	DRIVE LOCATION NOT SUBJECT TO EXCESSIVE TEMPERATURES, MOISTURE, OR DIRT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VFD POWERED AND INTERLOCKED TO CONTROL SYSTEM.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	ALL PUMP AND VFD ALARMS AND SAFETIES ARE INTERFACED WITH THE BAS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	PRESSURE OR OTHER CONTROLLING SENSOR PROPERLY INSTALLED AND CALIBRATED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	MOTOR FLA SETTING REPRESENTS 100% TO 105% OF MOTOR FLA RATING.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	APPROPRIATE VOLTS VS HZ CURVE IS BEING USED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	HOT WATER PUMP
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	P-03

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – P-03									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	PERMANENT LABELS AFFIXED AND ARE CORRECT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PUMP IS MOUNTED PROPERLY WITH VIBTAION ISOLATION PADS..	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	PUMP/MOTOR COUPLING ALIGNMENT VERIFIED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	TEMPERATURE, PRESSURE AND FLOW GAUGES AND SENSORS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	MAINTENANCE ACCESS ACCEPTABLE FOR UNIT AND COMPONENTS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
HOT WATER SYSTEM (VALVES & PIPING)									
1.	HOT WATER SYSTEM PROPERLY CLEANED AND FILLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	ALL VALVES ARE OPEN FOR DESIGNATED UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	ALL PIPING IS CONNECTED PROPERLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	ALL PIPING IS SUPPORTED ADEQUATELY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – P-03

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
5.	ALL AIR HAS BEEN PURGED FROM THE SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	PIPING IS PROPERLY INSULATED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
7.	ENSURE THAT SUITABLE LEAK TESTING HAS BEEN CONDUCTED FOR THE CHILLED WATER SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
ELECTRICAL AND CONTROLS									
1.	POWER AVAILABLE TO UNIT DISCONNECT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	POWER AVAILABLE TO UNIT CONTROL PANEL.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	PROPER MOTOR ROTATION VERIFIED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	SAFETIES INSTALLED AND OPERATIONAL.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
5.	UNIT AND COMPONENTS ARE PROPERLY GROUNDED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	TERMINALS ARE ALL TIGHT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
7.	POWER DISCONNECT IS LOCATED WITHIN SIGHT OF THE UNIT IT CONTROLS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
8.	SYSTEM PRESSURE DIFFERENTIAL SENSORS ARE INSTALLED DOWNSTREAM IN THE CHILLED WATER PIPING SYSTEM, INTERFACED WITH THE PUMP VFD AND THE BAS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
9.	ALL CONTROL DEVICES, PNEUMATIC TUBING AND WIRING COMPLETE.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
MOTOR & VFD									
1.	DRIVE SIZE MATCHES MOTOR SIZE.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – P-03

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
2.	DRIVE LOCATION NOT SUBJECT TO EXCESSIVE TEMPERATURES, MOISTURE, OR DIRT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VFD POWERED AND INTERLOCKED TO CONTROL SYSTEM.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	ALL PUMP AND VFD ALARMS AND SAFETIES ARE INTERFACED WITH THE BAS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	PRESSURE OR OTHER CONTROLLING SENSOR PROPERLY INSTALLED AND CALIBRATED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	MOTOR FLA SETTING REPRESENTS 100% TO 105% OF MOTOR FLA RATING.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	APPROPRIATE VOLTS VS HZ CURVE IS BEING USED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	HOT WATER PUMP
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	P-04

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – P-04									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	PERMANENT LABELS AFFIXED AND ARE CORRECT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PUMP IS MOUNTED PROPERLY WITH VIBTAION ISOLATION PADS..	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	PUMP/MOTOR COUPLING ALIGNMENT VERIFIED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	TEMPERATURE, PRESSURE AND FLOW GAUGES AND SENSORS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	MAINTENANCE ACCESS ACCEPTABLE FOR UNIT AND COMPONENTS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
HOT WATER SYSTEM (VALVES & PIPING)									
1.	HOT WATER SYSTEM PROPERLY CLEANED AND FILLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	ALL VALVES ARE OPEN FOR DESIGNATED UNIT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	ALL PIPING IS CONNECTED PROPERLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	ALL PIPING IS SUPPORTED ADEQUATELY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – P-04

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
5.	ALL AIR HAS BEEN PURGED FROM THE SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	PIPING IS PROPERLY INSULATED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
7.	ENSURE THAT SUITABLE LEAK TESTING HAS BEEN CONDUCTED FOR THE CHILLED WATER SYSTEM.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
ELECTRICAL AND CONTROLS									
1.	POWER AVAILABLE TO UNIT DISCONNECT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	POWER AVAILABLE TO UNIT CONTROL PANEL.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	PROPER MOTOR ROTATION VERIFIED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	SAFETIES INSTALLED AND OPERATIONAL.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
5.	UNIT AND COMPONENTS ARE PROPERLY GROUNDED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	TERMINALS ARE ALL TIGHT.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
7.	POWER DISCONNECT IS LOCATED WITHIN SIGHT OF THE UNIT IT CONTROLS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
8.	SYSTEM PRESSURE DIFFERENTIAL SENSORS ARE INSTALLED DOWNSTREAM IN THE CHILLED WATER PIPING SYSTEM, INTERFACED WITH THE PUMP VFD AND THE BAS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
9.	ALL CONTROL DEVICES, PNEUMATIC TUBING AND WIRING COMPLETE.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
MOTOR & VFD									
1.	DRIVE SIZE MATCHES MOTOR SIZE.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – P-04

ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
2.	DRIVE LOCATION NOT SUBJECT TO EXCESSIVE TEMPERATURES, MOISTURE, OR DIRT.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	VFD POWERED AND INTERLOCKED TO CONTROL SYSTEM.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	ALL PUMP AND VFD ALARMS AND SAFETIES ARE INTERFACED WITH THE BAS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	PRESSURE OR OTHER CONTROLLING SENSOR PROPERLY INSTALLED AND CALIBRATED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	MOTOR FLA SETTING REPRESENTS 100% TO 105% OF MOTOR FLA RATING.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	APPROPRIATE VOLTS VS HZ CURVE IS BEING USED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	EXPANSION TANK
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	ET-01

PRE-FUNCTIONAL CHECKLIST – ET-01									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
EXPANSION TANK									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	ALL PRESSURE GAUGES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	ALL AIR VENTS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	QUICK FILL BYPASS INSTALLED WITH SERVICE VALVES, UNIONS, PRESSURE REDUCING VALVES, AND CHECK VALVES.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ALL SERVICING VALVES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	EXPANSION TANK
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	ET-02

PRE-FUNCTIONAL CHECKLIST – ET-02									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
EXPANSION TANK									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	ALL PRESSURE GAUGES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	ALL AIR VENTS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	QUICK FILL BYPASS INSTALLED WITH SERVICE VALVES, UNIONS, PRESSURE REDUCING VALVES, AND CHECK VALVES.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ALL SERVICING VALVES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

Leif C. Wismar, P.E. C.E.M.
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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	BUFFER TANK
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	CWBT-01

PRE-FUNCTIONAL CHECKLIST – CWBT-01									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
BUFFER TANK									
1.	UNIT DOES NOT HAVE ANY PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	UNIT INSTALLED AS PER MANUFACTURER INSTALLATION INSTRUCTIONS AND PROVIDES SUITABLE ACCESS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	ALL PRESSURE GAUGES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	ALL AIR VENTS INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	QUICK FILL BYPASS INSTALLED WITH SERVICE VALVES, UNIONS, PRESSURE REDUCING VALVES, AND CHECK VALVES.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ALL SERVICING VALVES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	AIR DISTRIBUTION AND DUCT SYSTEMS
EQUIPMENT MODEL NUMBER(S)	NA
EQUIPMENT TAG NUMBER(S)	NA

PRE-FUNCTIONAL CHECKLIST –									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INDOOR DUCT SYSTEMS									
1.	INSTALLED DUCTWORK DOES NOT HAVE ANY PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	ALL SHEETMETAL DUCTWORK IS FABRICATED AND INSTALLED AS PER THE MECHANICAL DRAWINGS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	DUCTWORK CONSTRUCTION IS PER DRAWING M-602.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	ALL DUCTWORK SUPPORTS AND SUPPORT SPANS ARE INSTALLED AS PER DRAWING M-502	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	ALL DUCTWORK IS INSTALLED AND ROUTED AS PER THE MECHANICAL DRAWINGS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	ALL SHEETMETAL DUCTWORK HAS BEEN SEALED AT THE DUCT CONNECTIONS. ALL HORIZONTAL SEAMS HAVE BEEN SEAL.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	ALL VOLUME DAMPERS, BRANCH DUCTS, SUPPLY GRILLES, AND LOUVERS ARE INSTALLED AS PER THE MECHANICAL DRAWINGS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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Mechanical Engineer

PRE-FUNCTIONAL CHECKLIST	
SYSTEM	HVAC SYSTEMS
EQUIPMENT COMMISSIONED	CONDENSATE SYSTEMS, PIPING, AND TRAPS
EQUIPMENT MODEL NUMBER(S)	NA
EQUIPMENT TAG NUMBER(S)	NA

PRE-FUNCTIONAL CHECKLIST –									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
CONDENSATE SYSTEMS, PIPING, AND TRAPS									
1.	CONDENSATE DRAIN LINES ARE INSTALLED ON EACH AC SYSTEM.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	CONDENSATE TRAPS ARE INSTALLED AS PER THE MECHANICAL DRAWINGS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	DRAIN LINES CONNECT TO INSULATED DRAIN PANS	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	DRAIN LINE SIZES MATCH DRAWINGS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	INSTALLED CONDENSATE DRAIN LINE PIPE INSULATION THICKNESS MEETS THE SPECIFIED VALUES AS PER MECHANICAL DRAWING M-604	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	CONDENSATE DRAIN LINE PROPERLY INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	BUILDING AUTOMATION SYSTEM
EQUIPMENT COMMISSIONED	BAS SYSTEM
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – BUILDING AUTOMATION SYSTEM									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	COMPONENTS ARE LABELED CORRECTLY INSIDE AND OUTSIDE OF PANEL.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
2.	HVAC SYSTEMS & CONTROLS, PLUMBING, BTU METERING, AND ELECTRICAL SYSTEMS ARE INTERFACED WITH THE BAS INCLUDING PROGRAMMING, GRAPHICS, OPERATING SCHEDULES, SETPOINTS, TRENDING, ALARMS ETC., COMPLETE AND FUNCTIONING AT THE BAS.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
3.	ALL SYSTEM CONTROL POINTS, STATUS, ALARMS, ETC. ARE FULLY INTERFACED WITH THE BAS AS PER THE MECHANICAL DRAWINGS M-801 THRU M-807	✓	✓	✓	N/A	✓	N/A	N/A	N/A
4.	SPACE THERMOSTATS AND HVAC SYSTEM SENSORS ARE INSTALLED, CALIBRATED AND INTERFACED WITH THE BAS.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
5.	PLUMBING HOT WATER SYSTEM CONTROLLERS ARE INTERFACED WITH THE BAS FOR TEMPERATURE AND PUMP STATUS AND ALARMS, AND FLOW AT THE BAS.	✓	✓	✓	N/A	✓	N/A	N/A	N/A

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PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – BUILDING AUTOMATION SYSTEM									
ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
6.	MASTER CHILLED WATER BTU METER IS INTERFACED AND MONITORING CONSUMPTION THROUGH THE BAS.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
7.	SPS PRESSURE DIFFERENTIAL MONITORING SYSTEM ARE INTERFACE FOR STATUS AND ALARM THROUGH THE BAS.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
8.	LAYOUT OF CONTROL PANEL MATCHES DRAWINGS.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
9.	FRAMED INSTRUCTIONS MOUNTED IN OR NEAR PANEL.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
10.	CONTROL COMPONENTS PIPE AND/OR WIRED TO EACH LABELED TERMINAL STRIP.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
11.	EMCS CONNECTION MADE TO EACH LABELED TERMINAL STRIP AS SHOWN.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
12.	CONTROL WIRING AND TUBING LABELED AT ALL TERMINATIONS, SPLICES AND JUNCTIONS.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
13.	SHIELDED WIRING USED ON ELECTRONIC SENSORS.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
14.	AFTP SHUTDOWN SWITCHES ARE IN STALLED ON EACH FLOOR.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
15.	BAS CONNECTIONS MADE TO LABELED TERMINALS AS SHOWN ON DRAWINGS.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
MAIN POWER									
1.	110 VOLT AC POWER AVAILABLE TO PANEL.	✓	✓	✓	N/A	✓	N/A	N/A	N/A
2.	PANELS GROUNDED PROPERLY.	✓	✓	✓	N/A	✓	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	WATER METER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – WM-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	TRIM PROVIDED PER SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	PIPING CONNECTIONS WERE CHECKED	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	SHUT OFF VALVES INSTALLED	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	NO APPARENT LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	GAS METER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – GM-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	TRIM PROVIDED PER SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	PIPING CONNECTIONS WERE CHECKED	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	SHUT OFF VALVES INSTALLED	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	NO APPARENT LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	WATER CLOSET
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	WC-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – WATER CLOSET									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	TRIM PROVIDED PER SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	COLD WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	DRAIN PIPED AND WORKING CORRECTLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	NO APPARENT LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	WATER CLOSET
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	WC-2

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – WATER CLOSET									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	TRIM PROVIDED PER SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	COLD WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	DRAIN PIPED AND WORKING CORRECTLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	NO APPARENT LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	LAVATORY
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	L-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD –									
ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	TRIM PROVIDED PER SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	COLD WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	HOT WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	DRAIN PIPED AND WORKING CORRECTLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	NO APPARENT LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	LAVATORY
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	L-2

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD –									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	TRIM PROVIDED PER SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	COLD WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	HOT WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	DRAIN PIPED AND WORKING CORRECTLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	NO APPARENT LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	SINK
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	S-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD –									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	TRIM PROVIDED PER SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	COLD WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	HOT WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	DRAIN PIPED AND WORKING CORRECTLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	NO APPARENT LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	SINK
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	S-2

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD –									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	TRIM PROVIDED PER SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	COLD WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	HOT WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	DRAIN PIPED AND WORKING CORRECTLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	NO APPARENT LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	MOP RECEPTOR
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	MR-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – MR-1									
ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	TRIM PROVIDED PER SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	COLD WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	HOT WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	DRAIN PIPED AND WORKING CORRECTLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	NO APPARENT LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	ELECTRIC WATER COOLER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	EWC-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – EWC-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	TRIM PROVIDED PER SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	COLD WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	DRAIN PIPED AND WORKING CORRECTLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	NO APPARENT LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	INTERIOR HOSE BIBB
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	HB-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – HB-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	HOSE BIBB IS INSTALLED AND SECURED PROPERLY AS PER MANUFACTURER RECOMMENDATIONS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	WALL HYDRANT
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	WH-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – WH-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	WALL HYDRANT IS INSTALLED AND SECURED PROPERLY AS PER MANUFACTURER RECOMMENDATIONS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	TRAP PRIMER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	TP-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – TP-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	TRAP PRIMER IS INSTALLED AND SECURED PROPERLY AS PER MANUFACTURER RECOMMENDATIONS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	ICE MAKER OUTLET BOX
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	OB-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – OB-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	TRIM PROVIDED PER SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	COLD WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	NO APPARENT LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	FLOOR DRAIN
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	FD-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – FD-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	DRAIN PIPED AND WORKING CORRECTLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	FLOOR DRAIN
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	FD-2

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – FD-2									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	DRAIN PIPED AND WORKING CORRECTLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	FLOOR DRAIN
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	FS-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – FS-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	DRAIN PIPED AND WORKING CORRECTLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	WATER HAMMER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	WHA-1 THRU WHA-6

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – WHA-1 THRU WHA-6									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	ALL WATER HAMMERS ARE INSTALLED AND SECURED PROPERLY AS PER MANUFACTURER RECOMMENDATIONS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	SERVICE WATER HEATING SYSTEM
EQUIPMENT COMMISSIONED	EXPANSION TANK
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	ET-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – ET-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	HEATER DOES NOT HAVE ANY PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	PRESSURE RELIEF VALVE INSTALLED ON HEATER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	SERVICE WATER HEATING SYSTEM
EQUIPMENT COMMISSIONED	EXPANSION TANK
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	HT-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – HT-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	HEATER DOES NOT HAVE ANY PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	PRESSURE RELIEF VALVE INSTALLED ON HEATER.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	BACKFLOW PREVENTER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	BFP-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – BFP-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	BACKFLOW PREVENTER IS INSTALLED AND SECURED PROPERLY AS PER MANUFACTURER RECOMMENDATIONS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	BACKFLOW PREVENTER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	BFP-2

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – BFP-2									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	BACKFLOW PREVENTER IS INSTALLED AND SECURED PROPERLY AS PER MANUFACTURER RECOMMENDATIONS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	BACKFLOW PREVENTER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	BFP-3

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – BFP-3									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	BACKFLOW PREVENTER IS INSTALLED AND SECURED PROPERLY AS PER MANUFACTURER RECOMMENDATIONS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING SYSTEM
EQUIPMENT COMMISSIONED	THERMOSTATIC MIXING VALVE
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	MV-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – MV - 1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	THERMOSTATIC MIXING VALVE IS INSTALLED AND SECURED TO WALL PROPERLY AT EMERGENCY EYE WASH STATION.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	COLD AND HOT WATER PIPING IS CONNECTED TO THE INLETS AND TEMPERED WATER IS CONNECTING TO THE OUTLETOF THE VALVE TO THE EYE WASH.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	THERE IS NO DAMAGE TO THE VALVE OR PIPING.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	VALVE IS MIXING WATER TO ACHIEVEREQUIRED OUTLET TEMPERATURE (VERIFY WITH USERS).	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	BOOSTER PUMP
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	BP-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – BP-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	POWER DISCONNECT IS LOCATED WITHIN SIGHT OF THE UNIT IT CONTROLS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	CONTROL PANEL WIRES AND CONNECTIONS SECURE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	PIPING IS CONNECTED PROPERLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	NO APPARENT LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	PLUMBING
EQUIPMENT COMMISSIONED	ELECTRIC WATER COOLER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	EWC-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – EWC-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	TRIM PROVIDED PER SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	COLD WATER PIPED AND HAS ADEQUATE FLOW.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	DRAIN PIPED AND WORKING CORRECTLY.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	NO APPARENT LEAKS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	SERVICE WATER HEATING SYSTEM
EQUIPMENT COMMISSIONED	ELECTRIC WATER HEATER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	EWH-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – EWH-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	HEATER DOES NOT HAVE ANY PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	HEATING ELEMENTS WIRED THAT ONLY ON ELEMENT CAN OPERATE AT A TIME.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	WATER HEATER AND PIPING HAS BEEN FLUSHED, CHEMICALLY CLEANED, PRESSURE TESTED, AND PIPING INSULATED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	EXPANSION TANK IS INSTALLED, PIPED AND FUNCTIONING.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	DRAIN VALVE IS PIPED TO NEAREST FLOOR DRAIN.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
8.	WATER HEATER CONTROLLER ARE INTERFACED FOR MONITORING/STATUS/ALARM THROUGH THE BAS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	SERVICE WATER HEATING SYSTEM
EQUIPMENT COMMISSIONED	ELECTRIC WATER HEATER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	IWH-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – IWH-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	HEATER DOES NOT HAVE ANY PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	HEATING ELEMENTS WIRED THAT ONLY ON ELEMENT CAN OPERATE AT A TIME.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	WATER HEATER AND PIPING HAS BEEN FLUSHED, CHEMICALLY CLEANED, PRESSURE TESTED, AND PIPING INSULATED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	DRAIN VALVE IS PIPED TO NEAREST FLOOR DRAIN.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	WATER HEATER CONTROLLER ARE INTERFACED FOR MONITORING/STATUS/ALARM THROUGH THE BAS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	SERVICE WATER HEATING SYSTEM
EQUIPMENT COMMISSIONED	ELECTRIC WATER HEATER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	IWH-2

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – IWH-2									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	HEATER DOES NOT HAVE ANY PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	HEATING ELEMENTS WIRED THAT ONLY ON ELEMENT CAN OPERATE AT A TIME.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	WATER HEATER AND PIPING HAS BEEN FLUSHED, CHEMICALLY CLEANED, PRESSURE TESTED, AND PIPING INSULATED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	DRAIN VALVE IS PIPED TO NEAREST FLOOR DRAIN.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	WATER HEATER CONTROLLER ARE INTERFACED FOR MONITORING/STATUS/ALARM THROUGH THE BAS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	SERVICE WATER HEATING SYSTEM
EQUIPMENT COMMISSIONED	ELECTRIC WATER HEATER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	IWH-3

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – IWH-3									
ITEM NO.	ITEM	QCR	CxA	MC	EC	CC	TABC	MD	ED
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SECS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
3.	HEATER DOES NOT HAVE ANY PHYSICAL DAMAGE.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
4.	HEATING ELEMENTS WIRED THAT ONLY ON ELEMENT CAN OPERATE AT A TIME.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
5.	WATER HEATER AND PIPING HAS BEEN FLUSHED, CHEMICALLY CLEANED, PRESSURE TESTED, AND PIPING INSULATED.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
6.	DRAIN VALVE IS PIPED TO NEAREST FLOOR DRAIN.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
7.	WATER HEATER CONTROLLER ARE INTERFACED FOR MONITORING/STATUS/ALARM THROUGH THE BAS.	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	ELECTRICAL
EQUIPMENT COMMISSIONED	ELECTRICAL LIGHTING CONTROLS
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD –									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	CEILING OCCUPANCY SENSORS, WALL OCCUPANCY SENSORS, LOW VOLTAGE SENSORS, AND LIGHTING CONTROLS INSTALLED PER PLANS AND SPECS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	ALL FIXTURES, CONTROLS, AND SENSORS PROPERLY WIRED AS PER PLANS AND SECS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	ALL LIGHTING CONTROLS INSTALLED IN THE PROPER LOCATIONS AS PER THE ELECTRICAL DRAWINGS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	PHOTOCELLS INSTALLED	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
5.	MECHANICAL YARD LIGHTS ON TIMED ON/OFF.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	ELECTRICAL
EQUIPMENT COMMISSIONED	POWER METER
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – PM-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	TRIM PROVIDED PER SPECS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	ELECTRICAL CONNECTIONS WERE CHECKED	✓	✓	N/A	✓	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	ELECTRICAL
EQUIPMENT COMMISSIONED	SUMP PUMP
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	SP-1

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – SP-1									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	INSTALLED PER PLANS AND SPECS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
2.	POWER DISCONNECT IS LOCATED WITHIN SIGHT OF THE UNIT IT CONTROLS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
3.	PROPERLY SUPPORTED PER PLANS AND SEPCS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
4.	VIBRATION ISOLATION DEVICES INSTALLED.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
5.	CONTROL PANEL WIRES AND CONNECTIONS SECURE.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
6.	PIPING IS CONNECTED PROPERLY.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A
7.	NO APPARENT LEAKS.	✓	✓	N/A	✓	N/A	N/A	N/A	N/A

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PRE-FUNCTIONAL CHECKLIST	
SYSTEM	FENESTRATION CONTROL SYSTEMS
EQUIPMENT COMMISSIONED	DOORS, WINDOWS, INSULATION, ETC
EQUIPMENT MODEL NUMBER(S)	
EQUIPMENT TAG NUMBER(S)	

PRE-FUNCTIONAL TESTING PROCEDURES AND RECORD – FENESTRATION									
ITEM NO.	**ITEM**	**QCR**	**CxA**	**MC**	**EC**	**CC**	**TABC**	**MD**	**ED**
INSTALLATION									
1.	CONFORMS TO SPECIFICATIONS AND DRAWINGS. (CORRECT U-VALUES, R-VALUES, SHADING, ETC.)	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A