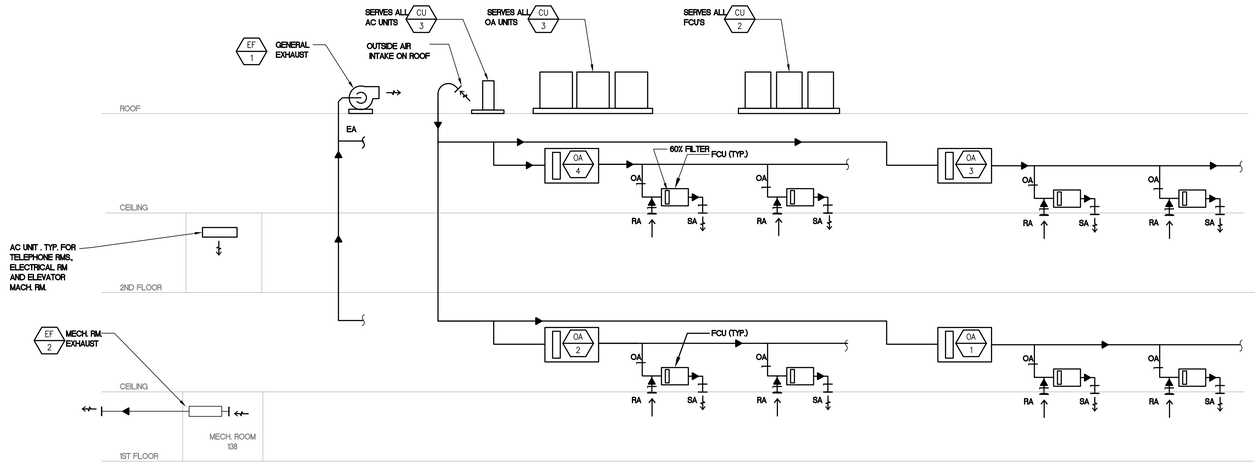
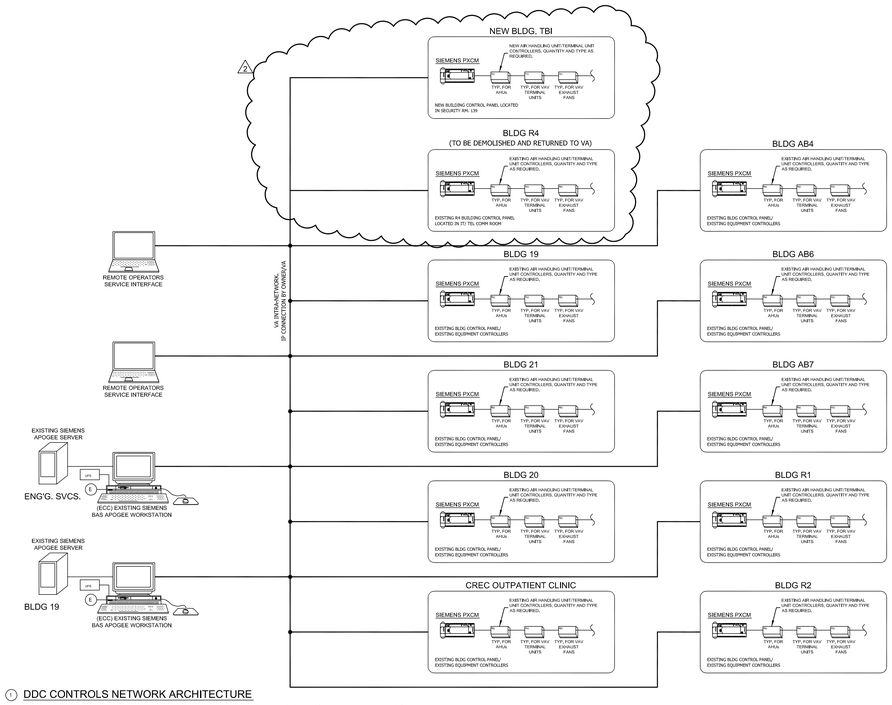


5 AIRFLOW RISER DIAGRAM

NTS

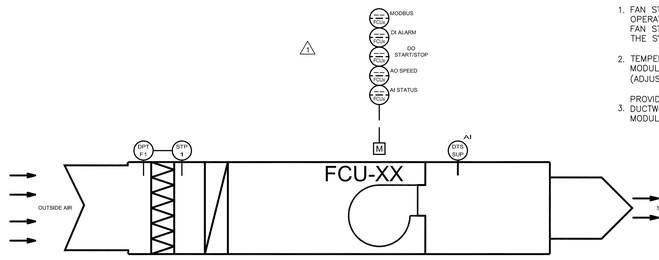


1 DDC CONTROLS NETWORK ARCHITECTURE

NEW SYSTEM TO BE DIRECTLY INTEGRATED (MONITORED, CONTROLED, ALARMED, COMMANDED, GRAPHICALLY DISPLAYED) AT EXISTING SIEMENS SERVERS. ALL EXISTING FLN LINKS TO REMAIN DEDICATED TO SPECIFIC AHU'S AND INTEGRATED FOR COMPLETE CONTROL FROM ALL EXISTING WORKSTATIONS.

4 SEIMENS APOGEE DDC CONTROL SYSTEM ARCHITECTURE (TYP.)

NTS



ALARM READOUT:

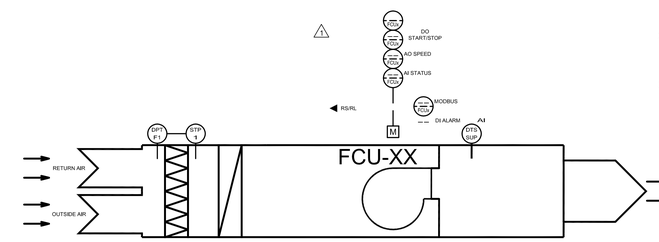
1. ALL ALARMS AT THE OPERATOR WORKSTATION SHALL STATE LOCATION OF DEVICE, REQUIRE RESPONSE FROM OPERATOR.
2. FAN/MOTOR FAILURE
3. FILTER STATUS
4. HIGH PRESSURE SHUTDOWN

SEQUENCE OF OPERATION

1. FAN START/STOP: THE START/STOP FOR SUPPLY FAN IS CONTROLLED BY THE OPERATOR AT THE EXISTING OPERATORS WORKSTATION THROUGH DDC. ONCE THE FAN STARTS, ALL CONTROLS SHALL ENERGIZE THROUGH THE DDC CONTROLLER. THE SYSTEM WILL RUN AS DIRECTED BY THE VA RESIDENT ENGINEER.
2. TEMPERATURE CONTROL (SF): SUPPLY AIR TEMPERATURE SENSOR SHALL MODULATE THE REGRIGERANT IN SEQUENCE TO MAINTAIN 55 DEGF (ADJUSTABLE) SETPOINT.
3. PROVIDE STATIC PRESSURE SENSOR APPROX. 2/3 THE WAY DN. THE NEW DUCTWORK, IN AN ACCESSABLE LOCATION. STATIC PRESSURE SENSOR SHALL MODULATE ECM TO COMPENSATE FOR FILTER LOADING.

1 OSA VRF INDOOR UNIT (TYP.)

NTS



ALARM READOUT:

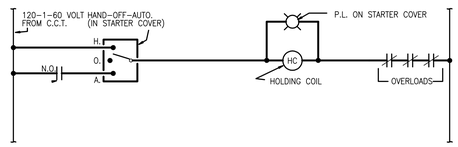
1. ALL ALARMS AT THE OPERATOR WORKSTATION SHALL STATE LOCATION OF DEVICE, REQUIRE RESPONSE FROM OPERATOR.
2. FAN/MOTOR FAILURE
3. FILTER STATUS
4. HIGH PRESSURE SHUTDOWN

SEQUENCE OF OPERATION

1. FAN START/STOP: THE START/STOP FOR SUPPLY FAN IS CONTROLLED BY THE OPERATOR AT THE EXISTING OPERATORS WORKSTATION THROUGH DDC. ONCE THE FAN STARTS, ALL CONTROLS SHALL ENERGIZE THROUGH THE DDC CONTROLLER. THE SYSTEM WILL RUN AS DIRECTED BY THE VA RESIDENT ENGINEER.
2. TEMPERATURE CONTROL (SF): SUPPLY AIR TEMPERATURE SENSOR SHALL MODULATE THE REGRIGERANT IN SEQUENCE TO MAINTAIN 75 DEGF (ADJUSTABLE) ROOM SETPOINT FOR COOLING AND 70 DEGF ROOM SET POINT FOR HEATING.
3. PROVIDE STATIC PRESSURE SENSOR APPROX. 2/3 THE WAY DN. THE NEW DUCTWORK, IN AN ACCESSABLE LOCATION. STATIC PRESSURE SENSOR SHALL MODULATE ECM TO COMPENSATE FOR FILTER LOADING.

2 VRF INDOOR UNIT (TYP.)

NTS



SEQUENCE OF OPERATION

1. THE EXHAUST FAN SHALL HAVE HAND/OFF/AUTO SWITCH. THE BMS SHALL MONITOR STATUS AND ALLOW REMOTE START/STOP. AN ALARM SHALL BE INITIATED FOR FAN FAILURE.

3 EXHAUST FAN CONTROL (TYP.)

NTS

100% CONSTRUCTION DOCUMENT SUBMISSION
APRIL 20, 2015

DELTA 1	ADDENDUM #1	7/31/2015
DELTA 2	ADDENDUM #2	8/07/2015
Revisions:		Date

CONSULTANTS:

MAZZETTI
220 Montgomery Street, Suite 650
San Francisco, CA 94104
TEL: 415.362.3266
www.mazzetti.com
Project Number: 130-055

REGISTERED PROFESSIONAL ENGINEER — JOHN M. PARSONS — No. M22336 EXP. 12/31/15 — MECHANICAL — STATE OF CALIFORNIA

ARCHITECT

POLYTECH ASSOCIATES INC

POLYTECH ASSOCIATES INC.
235 Pine Street, 17th Floor
San Francisco, CA 94104
TEL (415) 397-3117
FAX (415) 397-1517

Drawing Title: CONTROL DIAGRAMS

Approved: Project Director

Project Title: NEUROCOG TBI RESEARCH BUILDING / BUILDING R4 DEMOLITION / NEW PARKING LOT

Location: 150 MUIR ROAD, MARTINEZ, CA 94553

Date: 09/22/14 | Checked | Drawn

Project Number: 612-125

Building Number

Drawing Number: M302

Office of Construction and Facilities Management
Department of Veterans Affairs