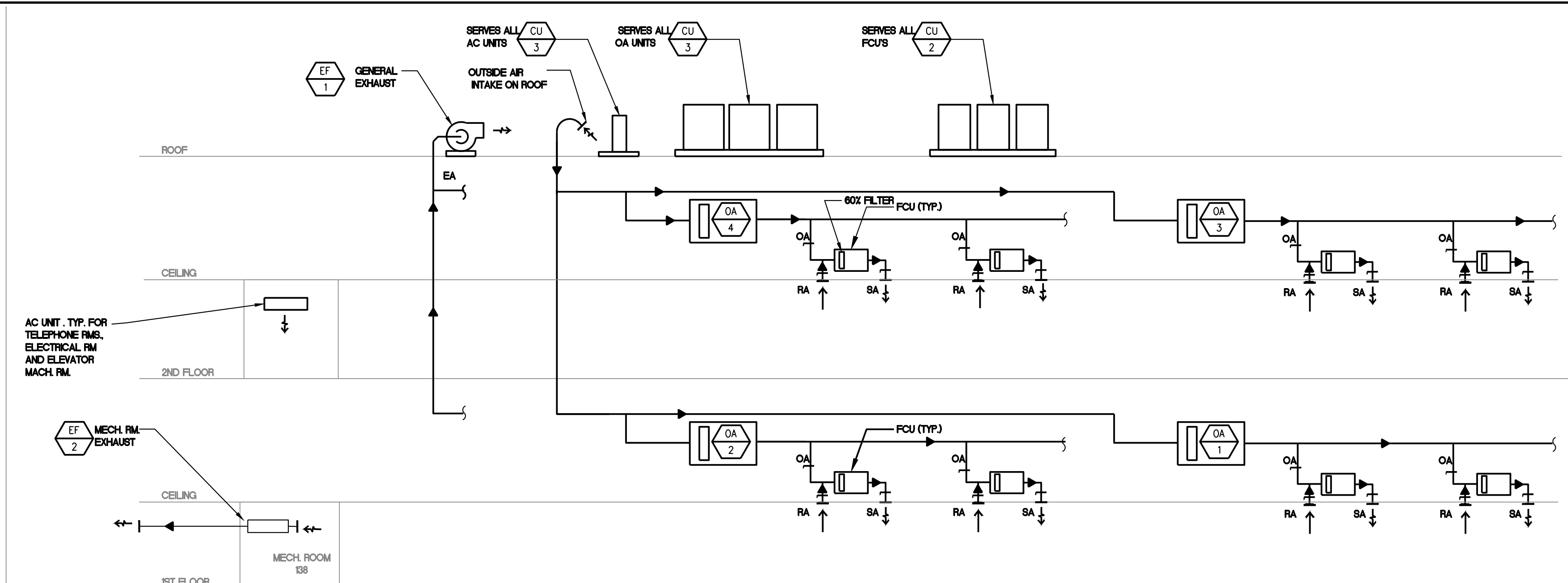
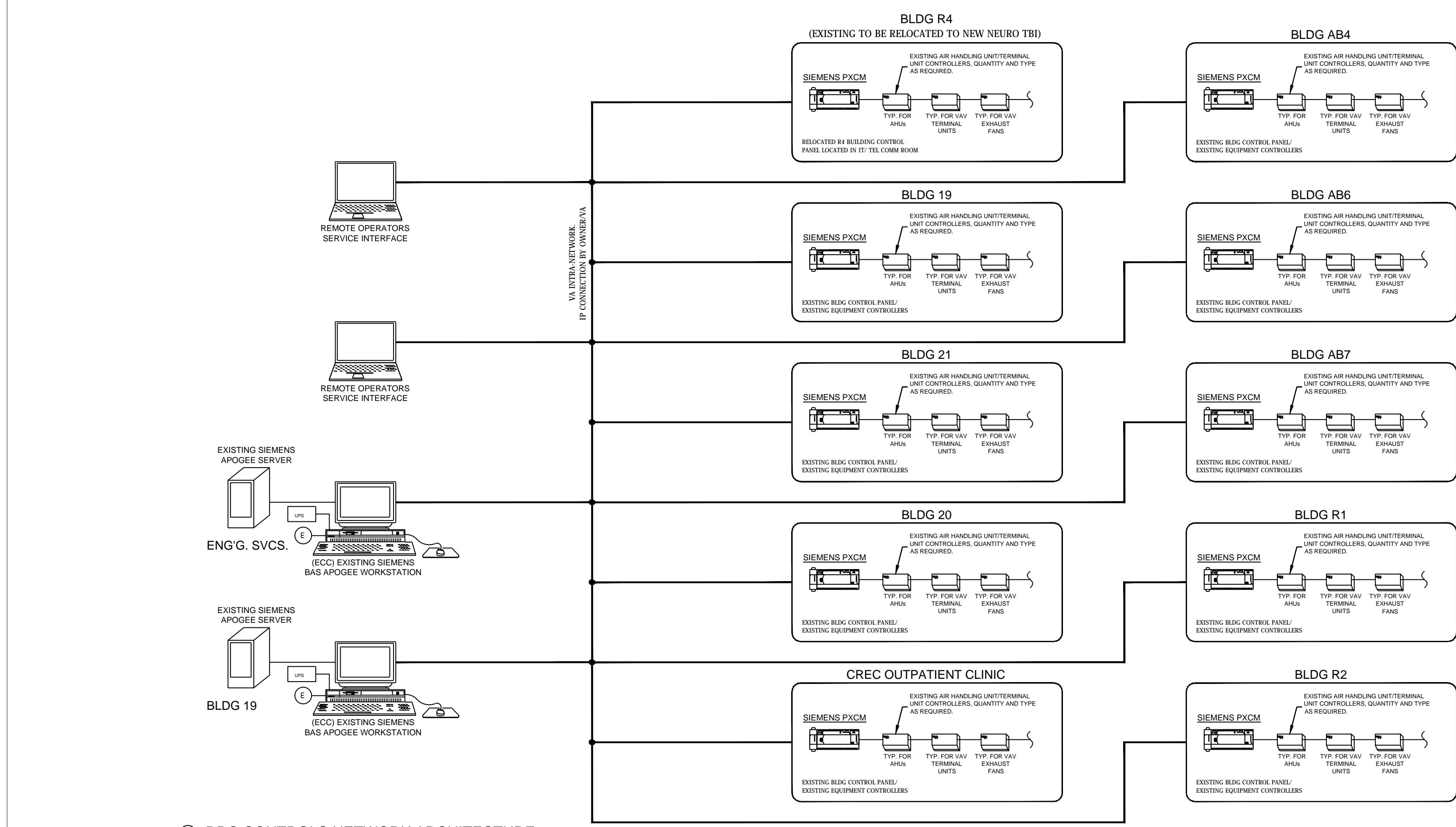


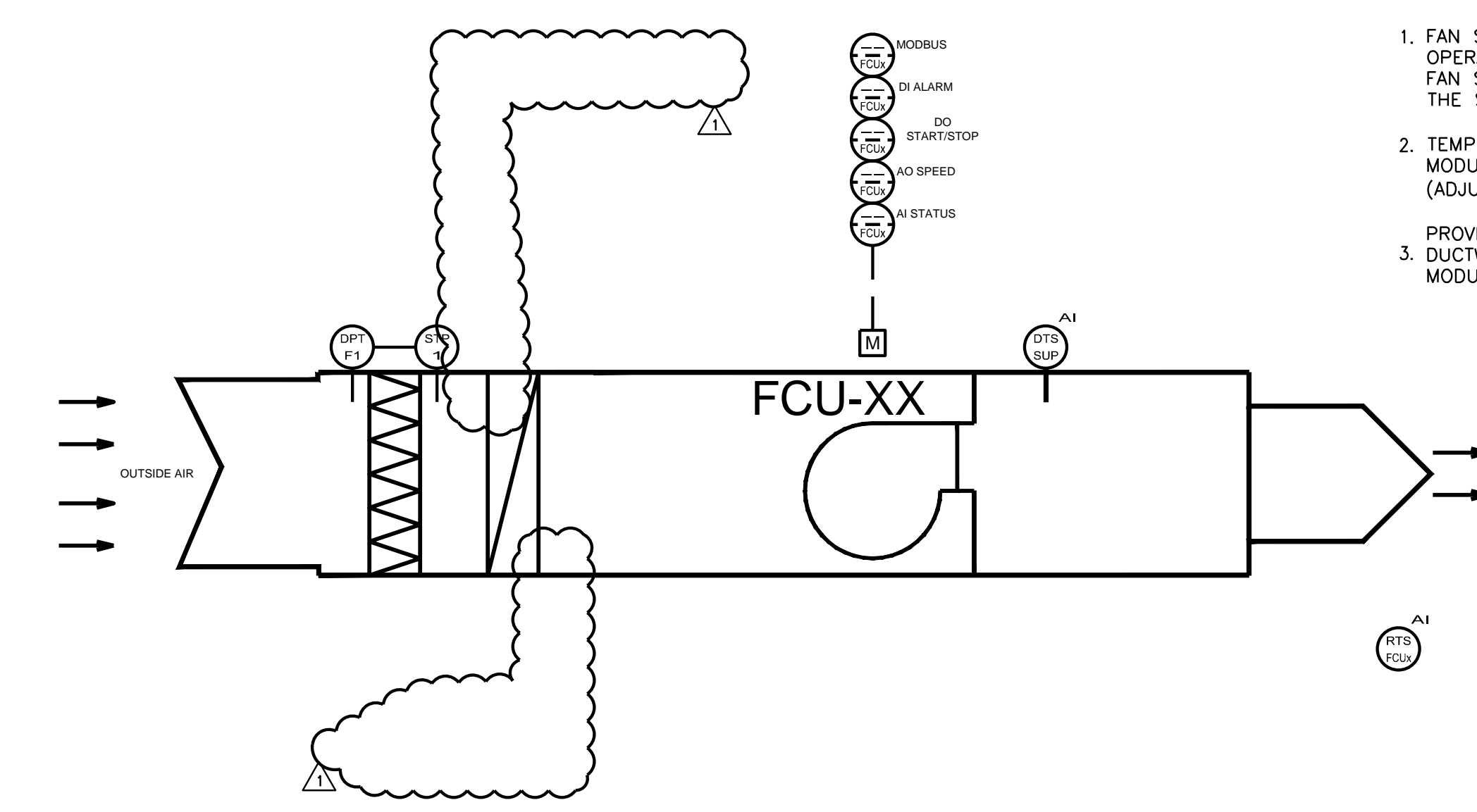
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot



5 AIRFLOW RISER DIAGRAM
NTS



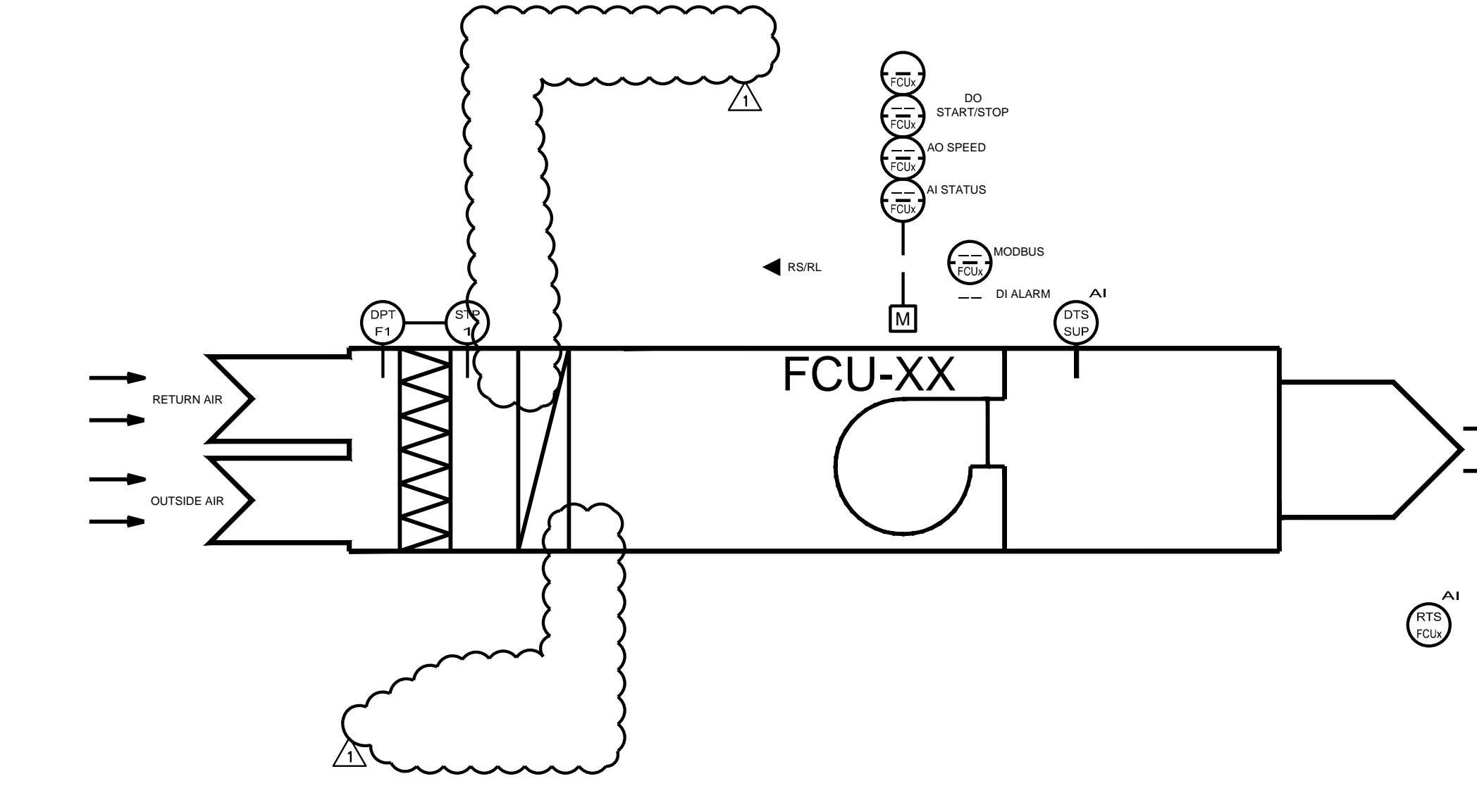
4 SEIMENS APOGEE DDC CONTROL SYSTEM ARCHITECTURE (TYP.)
NTS



1 OSA VRF INDOOR UNIT (TYP.)
NTS

- SEQUENCE OF OPERATION
- 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.
 - TEMPERATURE CONTROL (SF): SUPPLY AIR TEMPERATURE SENSOR SHALL MODULATE THE REFRIGERANT IN SEQUENCE TO MAINTAIN 55 DEGF (ADJUSTABLE) SETPOINT.
 - PROVIDE STATIC PRESSURE SENSOR APPROX. 2/3 THE WAY DN. THE NEW DUCTWORK, IN AN ACCESSIBLE LOCATION. STATIC PRESSURE SENSOR SHALL MODULATE ECM TO COMPENSATE FOR FILTER LOADING.

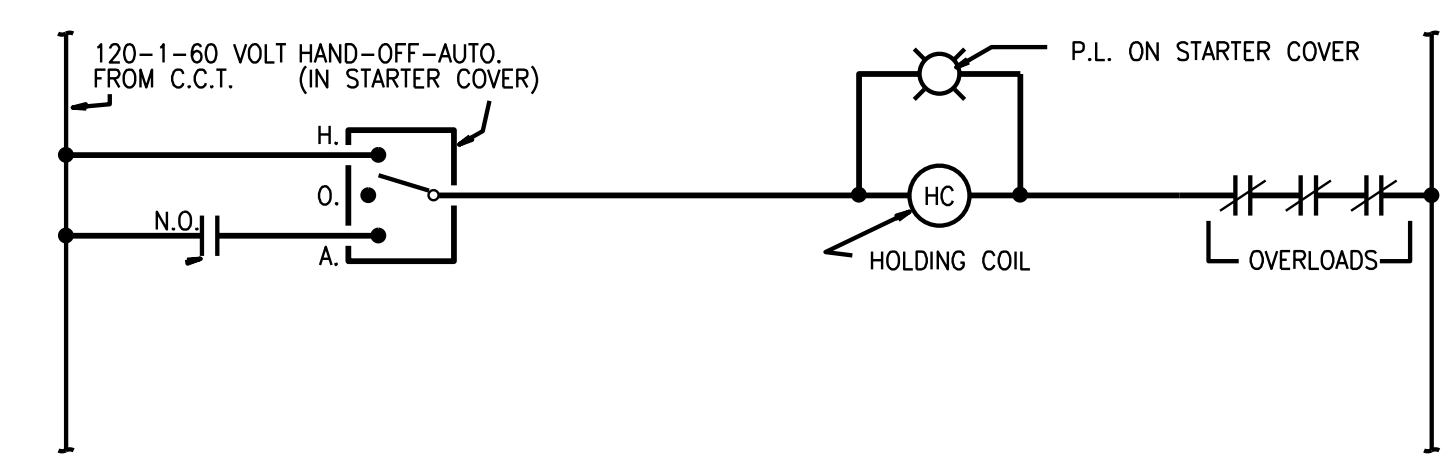
- ALARM READOUT:
- ALL ALARMS AT THE OPERATOR WORKSTATION SHALL STATE LOCATION OF DEVICE, REQUIRE RESPONSE FROM OPERATOR.
 - FAN/MOTOR FAILURE
 - FILTER STATUS
 - HIGH PRESSURE SHUTDOWN



2 VRF INDOOR UNIT (TYP.)
NTS

- SEQUENCE OF OPERATION
- 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.
 - TEMPERATURE CONTROL (SF): SUPPLY AIR TEMPERATURE SENSOR SHALL MODULATE THE REFRIGERANT IN SEQUENCE TO MAINTAIN 75 DEGF (ADJUSTABLE) ROOM SETPOINT FOR COOLING AND 70 DEGF ROOM SET POINT FOR HEATING.
 - PROVIDE STATIC PRESSURE SENSOR APPROX. 2/3 THE WAY DN. THE NEW DUCTWORK, IN AN ACCESSIBLE LOCATION. STATIC PRESSURE SENSOR SHALL MODULATE ECM TO COMPENSATE FOR FILTER LOADING.

- ALARM READOUT:
- ALL ALARMS AT THE OPERATOR WORKSTATION SHALL STATE LOCATION OF DEVICE, REQUIRE RESPONSE FROM OPERATOR.
 - FAN/MOTOR FAILURE
 - FILTER STATUS
 - HIGH PRESSURE SHUTDOWN



3 EXHAUST FAN CONTROL (TYP.)
NTS

- SEQUENCE OF OPERATION
- 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.

100% CONSTRUCTION DOCUMENT SUBMISSION
APRIL 20, 2015

DELTA 1	ADDENDUM #1	7/31/2015	CONSULTANTS:	ARCHITECT	Drawing Title	Project Title	Project Number	Office of Construction and Facilities Management
			MAZZETTI	POLYTECH ASSOCIATES INC.	CONTROL DIAGRAMS	NEUROCOG TBI RESEARCH BUILDING / BUILDING R4 DEMOLITION / NEW PARKING LOT	612-125	Department of Veterans Affairs
			220 Montgomery Street, Suite 650 San Francisco, CA 94104 TEL: 415.362.3266 www.mazzetti.com	235 Pine Street, 17th Floor San Francisco, CA 94104 TEL (415) 397-3117 FAX (415) 397-1517	Approved: Project Director	Location 150 MUIR ROAD, MARTINEZ, CA 94553	Building Number	
Revisions:		Date	Project Number: 130-055			Date 09/22/14	Checked	Drawing Number M302