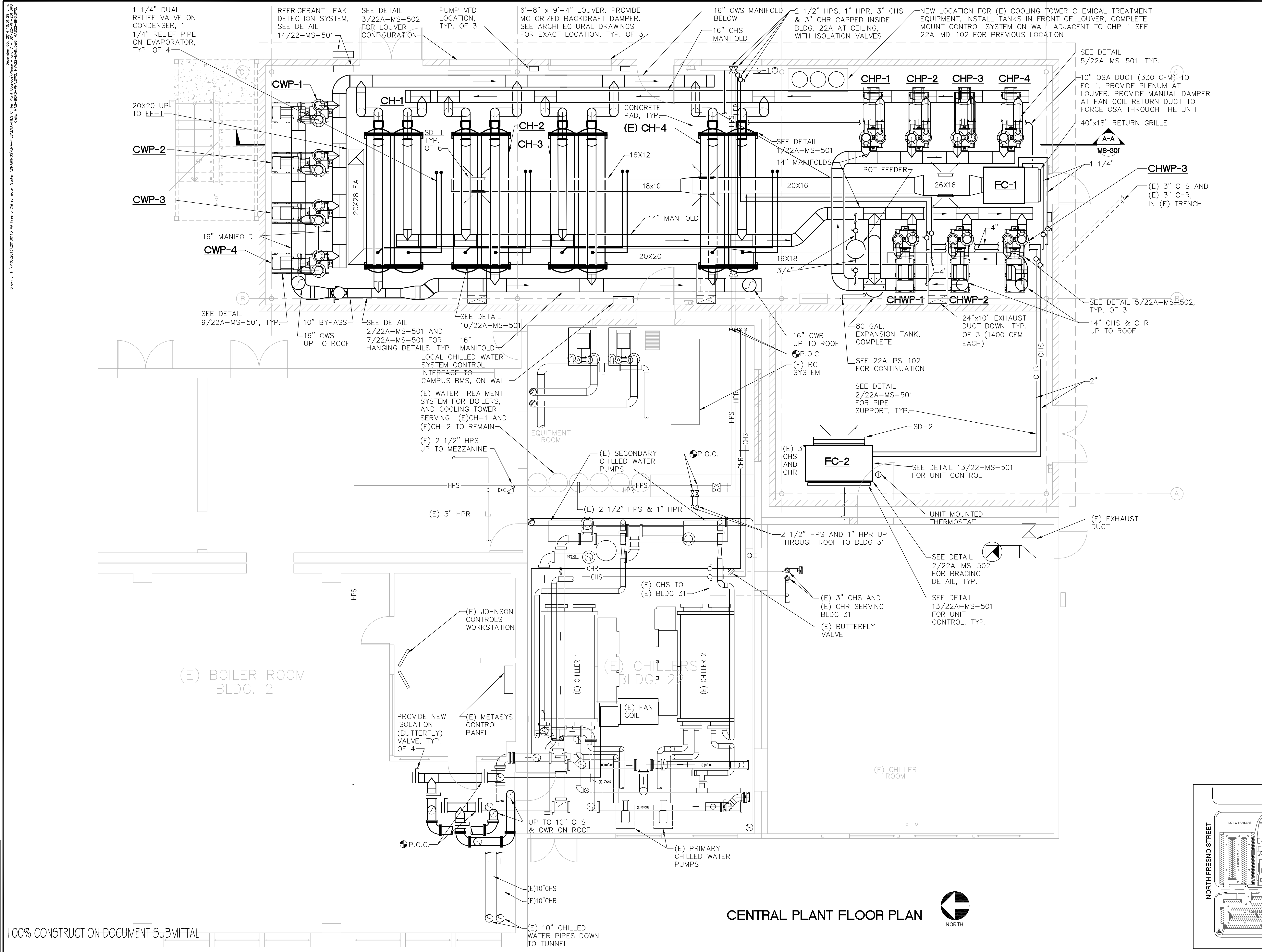
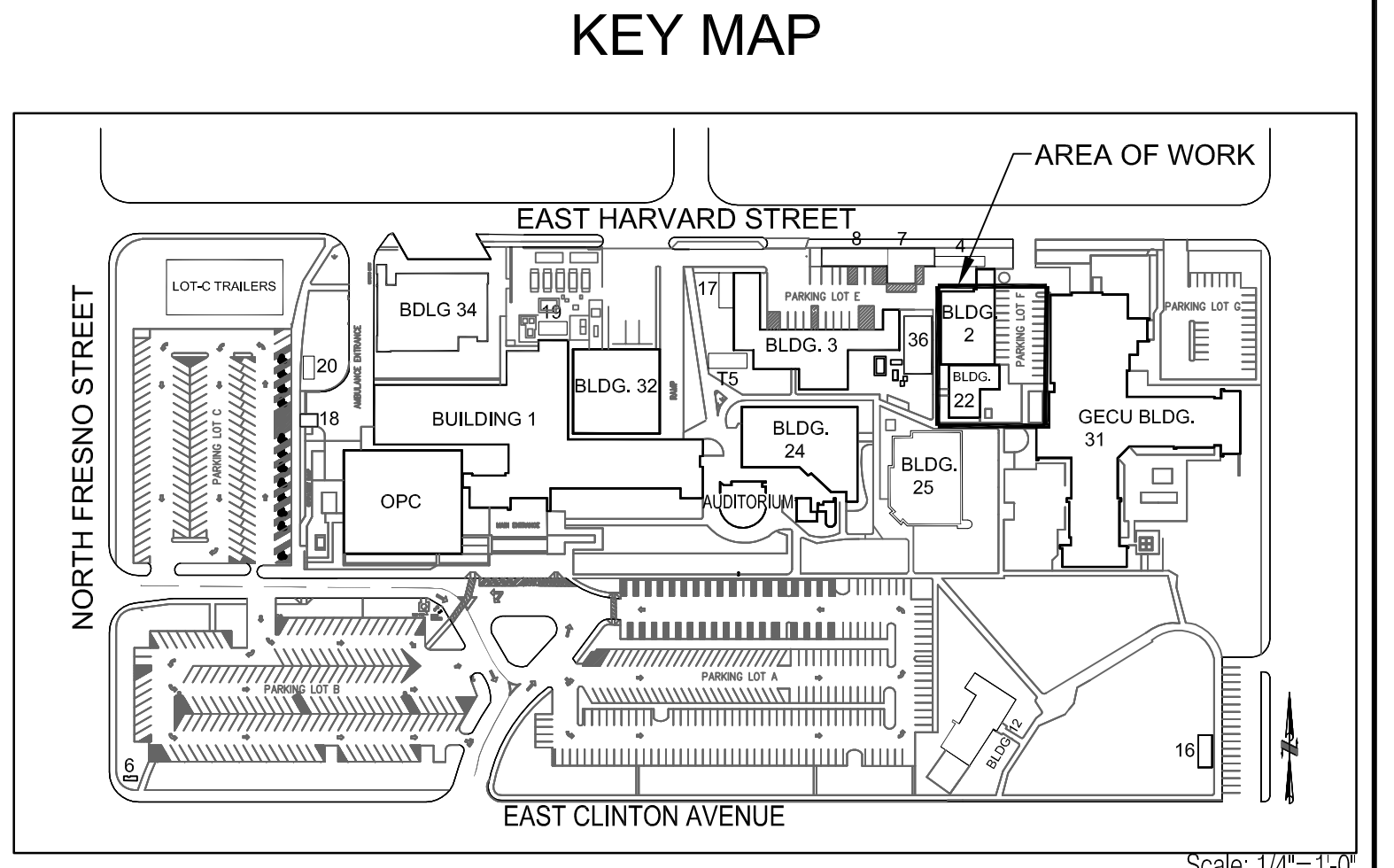
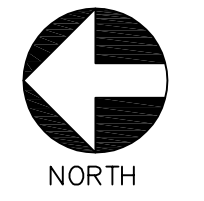


three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot



CALCULATIONS:
1. REFRIGERATION MACHINE ROOM LOUVER FREE AREA CALCULATION:
 $Q = 100 \times \text{SQRT}(G)$
MAX. REFRIGERANT MASS (G) = 1399 LBS.
 $Q = 100 \times \text{SQRT}(1399)$
= 3740 CFM MINIMUM
FREE AREA REQUIREMENT = 8 SQ. FT.
2. FC-1 SIZING
TOTAL PUMP POWER INPUT DURING NORMAL OPERATION (n+1 DESIGN):
2 PUMPS @ 100 HP
2 PUMPS @ 15 HP
2 PUMPS @ 40 HP
TOTAL = 365 HP
ASSUME 95% EFFICIENCY
HEAT IN SPACE = 46,453 BTUH
VENTILATION LOAD = 9,720 BTUH
FAN COIL CAPACITY = 72,000 BTUH

CENTRAL PLANT FLOOR PLAN



100% CONSTRUCTION DOCUMENT SUBMITTAL

CONSULTANTS: AXIOM ENGINEERS LEE & ASSOCIATES CONSULTING ENGINEERS 22 Lower Ridge Road, Suite A Menlo Park, California 94025-5078 Project # : 20130113		ARCHITECT/ENGINEERS: hfp architects 745 distel drive, suite a los altos, ca 94022 650 964 4514 fax: 650 967 5148		Drawing Title PRIMARY CHILLED WATER PIPING CENTRAL PLANT FLOOR PLAN NEW Approved: Project Director		Project Title VA CENTRAL CALIFORNIA HEALTH CARE SYSTEM NEW BUILDING 22A + CHILLER INFRASTRUCTURE Location FRESNO, CA. Date 5/08/2015		Project Number 570-13-300 Building Number 22A Drawing Number 22A-MS-102 Dwg. 58 of 86		Office of Construction and Facilities Management Department of Veterans Affairs	
---	--	---	--	---	--	--	--	---	--	--	--