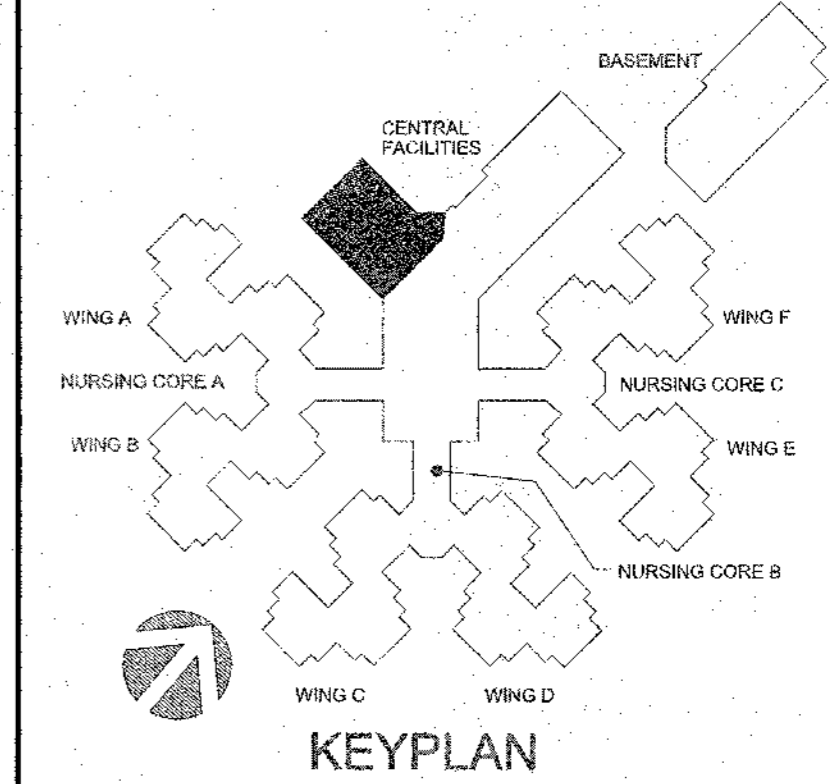




1
**PARTIAL CENTRAL FACILITIES  
HYDRONIC IMPROVEMENT PLAN**  
 SCALE: 1/8"=1'-0"



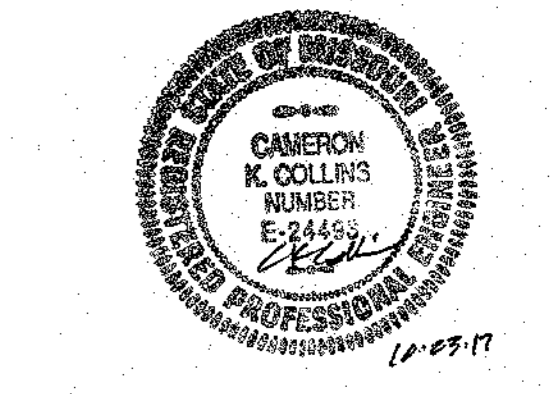
Consulting Engineer  
 3333 East State Parkway, Suite 1000  
 Springfield, Missouri 65804  
 Phone: 417-881-0020  
 Fax: 417-881-0055  
 www.mftec.com

**mftec**  
 Mitchell Finkbeiner, Richard & Collins, Inc.

**NOTES:**  
 ① EXISTING 4-PIPE FAN COIL UNIT IN ROOM TO REMAIN.  
 ② EXISTING BYPASS AIR TERMINAL UNIT TO REMAIN.  
 ③ EXISTING FAN COIL UNIT TO REMAIN.  
 ④ NEW AIR HANDLING UNIT. REMOVE AND REPLACE PIPING, AND VALVING. REMOVE AND REPLACE 1.0" HWS, 1.0" HWR, 2" CWS AND 2" COR BRANCH PIPING BACK TO MAIN CONNECTION AND REPLACE ALL DIELECTRIC FITTINGS. PROVIDE NEW SHUT-OFF VALVES AT MAIN PIPING CONNECTION AND RECONNECT TO MAIN PIPING. FIELD VERIFY EXISTING CONDITIONS, AND LOCATION OF CONNECTIONS TO ALL EXISTING PIPING CONNECTIONS PRIOR TO SUBMITTAL OF AIR HANDLING UNIT. PROVIDE ALL REQUIRED ADJUSTMENTS TO EXISTING PIPING TO ACCOMMODATE NEW AIR HANDLING UNIT. PROVIDE 1.25" CONDENSATE DRAIN PIPING AND TERMINATE WITH AIR GAP OVER EXISTING FLOOR DRAIN.  
 ⑤ EXISTING 4-PIPE FAN COIL UNIT ABOVE CEILING TO REMAIN.  
 ⑥ REMOVE AND REPLACE ALL EXISTING SHUT-OFF VALVE WITH NEW BALL VALVE TYPE SHUT-OFF VALVES.  
 ⑦ PROVIDE BALL TYPE SHUT-OFF VALVES IN EXISTING BRANCH PIPING.

**GENERAL NOTES:**  
 1. FOR ALL MECHANICAL QUESTIONS DURING BIDDING OR DURING CONSTRUCTION, CONTACT SCOTT VANDOREN AT MALONE FINKE ECKHARDT AND COLLINS, INC. (417-881-0020)  
 2. MECHANICAL HOT WATER HEATING SYSTEM SHALL BE DRAINED DOWN DURING THE COOLING SEASON. BOILER SYSTEM, HOT WATER PUMPS, AND ALL HOT WATER PIPING CHANGES SHALL BE PERFORMED DURING THE COOLING SEASON. ALL WORK SHALL BE PERFORMED, STARTING JUNE 1, 2019 AND SUBSTANTIALLY COMPLETE BY AUGUST 31, 2018.  
 3. MECHANICAL CHILLED WATER AND CONDENSER WATER SYSTEMS SHALL BE DRAINED DOWN DURING THE HEATING SEASON. CHILLED WATER PUMPS, CONDENSER WATER PUMPS AND ALL CHILLED WATER PIPING CHANGES SHALL BE PERFORMED DURING THE HEATING SEASON. ALL WORK SHALL BE PERFORMED, STARTING DECEMBER 1, 2017 AND SUBSTANTIALLY COMPLETE BY FEBRUARY 28, 2018.  
 4. CONTRACTOR SHALL COORDINATE WITH THE HVAC WATER TREATMENT CONTRACTOR PER SPECIFICATIONS SECTION 232500. ALL WATER TREATMENT SHALL BE COMPLETED BY THE SYSTEM SUBSTANTIAL COMPLETION DATE.  
 5. TEST, ADJUST AND BALANCE REPORT FOR THE WATER SYSTEMS SHALL BE COMPLETE AND APPROVED BY THE ENGINEER, PRIOR TO THE SUBSTANTIAL COMPLETION DATE OF EACH WATER SYSTEM.

STATE OF MISSOURI  
 ERIC R. GREITENS,  
 GOVERNOR



Missouri State Certificate of Authority #00075  
**PROFESSIONAL SEAL**  
 1736 East Sunshine, Suite 417  
 Springfield, Missouri 65804  
 417.862.0558  
 Fax: 417.862.3265  
 architect@esterlyandassociates.com  
 e-mail: architect@esterlyandassociates.com  
 Certificate of Authority #000718

**ESTERLY & SCHNEIDER ASSOCIATES, INC.**  
 architects & planners  
 AIA

COMM. # 4092

OFFICE OF ADMINISTRATION  
 DIVISION OF FACILITIES  
 MANAGEMENT,  
 DESIGN AND CONSTRUCTION

DEPARTMENT OF  
 PUBLIC SAFETY,  
 MISSOURI VETERANS  
 COMMISSION

HVAC REPLACEMENT  
 PROJECT

MISSOURI VETERANS  
 HOME

620 N. JEFFERSON  
 ST. JAMES, MO 65559

PROJECT # U1503-03  
 FAI # 29-051  
 SITE # 4700  
 FACILITY # 55019

REVISION: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 REVISION: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 REVISION: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 ISSUE DATE: 10-27-17

CAD DWG FILE: M-114.DWG  
 DRAWN BY: JMO  
 CHECKED BY: CJK  
 DESIGNED BY: JMO

SHEET TITLE:

**HYDRONIC  
PLAN**

SHEET NUMBER:

**M-114**

18 OF 41 SHEETS

10-27-17

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