

# REPLACE AIR COOLED CHILLER BLATT PE CENTER COLUMBIA, SC PROJECT NUMBER TP20000029

## DRAWING INDEX

### GENERAL

T1 TITLE SHEET

### MECHANICAL

M1 FLOOR PLANS, NOTES, SCHEDULES, AND LEGEND

CAMPUS PLANNING  
AND CONSTRUCTION  
COLUMBIA, SC 29908

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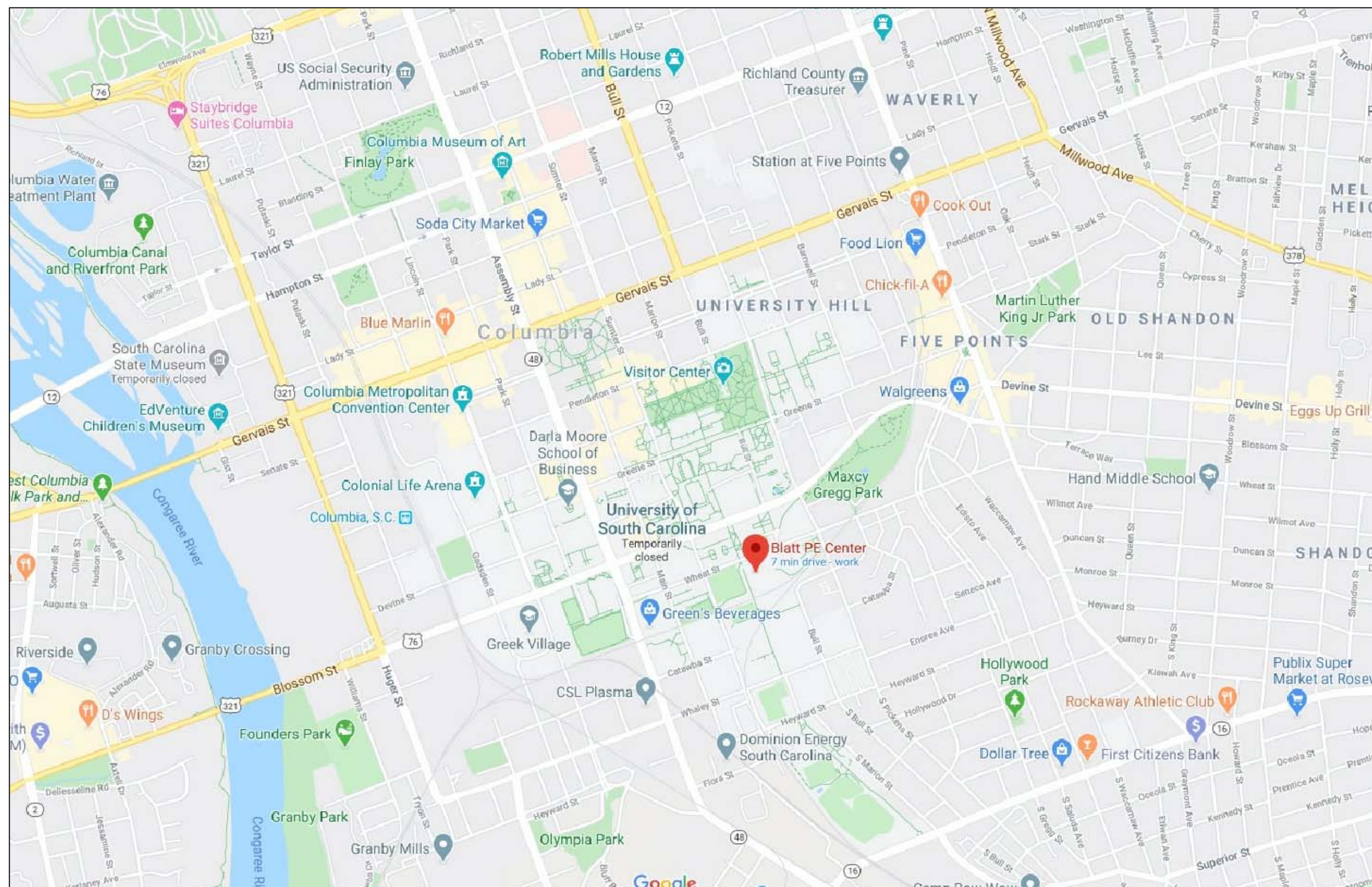
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## LOCATION MAP



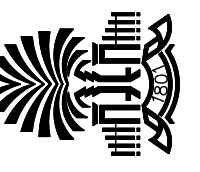
## DESIGN CODES AND STANDARDS

### PROJECT DESIGNED IN ACCORDANCE WITH:

1. INTERNATIONAL BUILDING CODE 2015 EDITION
2. INTERNATIONAL MECHANICAL CODE 2015 EDITION
3. NATIONAL ELECTRICAL CODE, NFPA 70 2014 EDITION
4. STATE FIRE MARSHALL, LATEST EDITION
5. INTERNATIONAL FIRE CODE 2015 EDITION
6. ASHRAE/IESNA 90.1 ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS, 2007 EDITION

PROJECT TITLE: REPLACE AIR COOLED CHILLER  
BLATT PE CENTER

University of South Carolina



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SHEET:

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OF

AIR COOLED SCROLL CHILLER SCHEDULE												
TAG	TRANE MODEL NO.	CAPACITY TONS	UNIT IPLV	EVAPORATOR				CONDENSER		COMPRESSOR		REMARKS
				EWT °F	LWT °F	GPM	P.D.-FT.	AMB. °F	MIN. °F	QUAN.	STAGES	
CH-1	CGAM	52	15.04	45.6	33.8	8.6	8.13	95	0	4	4	1, 2, 3

1. PROVIDE FACTORY MOUNTED CIRCUIT BREAKER, FLOW SWITCH, AND COIL GUARD.  
 2. PROVIDE ON BOARD MICROPROCESSOR UNIT CONTROL.  
 3. PROVIDE STARTUP BY A FACTORY TRAINED TECHNICIAN FROM THE UNIT MANUFACTURER.

- ### GENERAL NOTES
- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2018 INTERNATIONAL MECHANICAL CODE AND 2009 INTERNATIONAL ENERGY CONSERVATION CODE. ALL LOCAL CODES OR REQUIREMENTS STILL APPLY.
  - VISIT SITE PRIOR TO BIDDING. THIS CONTRACTOR SHALL DETERMINE DIFFICULTY OF INSTALLATION AND REFLECT THIS IN HIS BIDDING.
  - DO NOT SCALE DRAWINGS. THIS CONTRACTOR SHALL VERIFY ALL EXISTING ITEMS AND LOCATIONS IN THE FIELD.
  - ALL PIPING LOCATIONS SHALL BE COORDINATED WITH WORK UNDER OTHER DIVISIONS OF THE SPECIFICATIONS TO AVOID INTERFERENCE.
  - EXISTING PIPE, DUCTWORK, CONDUIT, ETC. THAT INTERFERES WITH THE ROUTING OF NEW SYSTEMS SHALL BE RELOCATED. THIS CONTRACTOR SHALL INCLUDE THE COST OF SUCH IN HIS BID UNLESS NOTED OTHERWISE.
  - WATER SYSTEMS SHALL BE DRAINED AS REQUIRED FOR INSTALLATION OF WORK. UPON COMPLETION, SYSTEM SHALL BE FILLED WITH WATER AND GLYCOL SOLUTION AND VENTED OF ALL AIR.
  - ALL PIPING INSULATION SHALL BE RUN CONTINUOUSLY THROUGH FLOORS. SEAL PENETRATION WATER TIGHT WITH LINK SEAL.
  - ALL PIPING IS SHOWN DIAGRAMMATIC. HOWEVER, THIS CONTRACTOR SHALL PROVIDE ALL REQUIRED FITTINGS, PIPING AND INSULATION FOR ALL OFFSETS AND/OR CHANGES IN ELEVATION.
  - ALL PIPING THERMOMETERS, GAUGES, P/T PORTS, VALVES, ETC. SHALL BE READILY ACCESSIBLE FROM FLOOR LEVEL. IN GENERAL ALL ITEMS SHALL BE NO MORE THAN 6' ABOVE FINISHED FLOOR.
  - ALL VALVES AND SPECIALTIES SHALL BE LINE SIZE UNLESS NOTED OTHERWISE, USING ECCENTRIC REDUCERS ON PUMP SUCTION AND CONCENTRIC REDUCERS ON PUMP DISCHARGE. USE ECCENTRIC REDUCERS ON AUTOMATIC VALVES AS REQUIRED.
  - WHEREVER ANY CONNECTION IS MADE BETWEEN DISSIMILAR METALS, PROVIDE DIELECTRIC PIPE COUPLINGS, UNIONS, OR NIPPLES RATED FOR 210 DEGREES F.
  - ALL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE SPECIFICATIONS AND FURTHER SUPPORTS OR HANGERS SHALL BE PROVIDED TO PREVENT WEIGHT OF PIPING BEING PLACED ON EQUIPMENT.
  - PROVIDE FOR ACCESS TO ALL EQUIPMENT REQUIRING CLEANING OR ADJUSTMENT PER MANUFACTURER'S INSTRUCTIONS. PROVIDE FULL SPACE FOR COIL REMOVAL AND REPLACEMENT FOR ALL UNITS.
  - THIS CONTRACTOR SHALL PROVIDE ALL ITEMS OF MISCELLANEOUS STEEL AS REQUIRED FOR INSTALLATION OF ALL MECHANICAL ITEMS.
  - THIS CONTRACTOR SHALL DO ALL CONTROL WIRING AND ALL POWER WIRING. ALL WIRING SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE. CONTROL WIRING SHALL BE CONCEALED WITHIN WALL AND ALL CONTROL WIRING SHALL BE ROUTED IN EMT CONDUIT. CONTROLS SHALL BE CONNECTED TO EXISTING JOHNSON CONTROLS METASYS NETWORK BY JCI.
  - THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NECESSARY DISMANTLING OF EQUIPMENT TO BE REMOVED.
  - ITEMS REMOVED UNDER THIS CONTRACT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY.
  - THIS CONTRACTOR SHALL PATCH ALL WALLS AND FINISHES TO MATCH EXISTING WHERE ALL ITEMS OR EQUIPMENT ARE REMOVED.

- ### DEMOLITION NOTES
- ① REMOVE EXISTING CHILLER COMPLETE, INCLUDING BUT NOT LIMITED TO CONNECTING PIPING, POWER WIRING, DISCONNECT, AND CONTROLS.

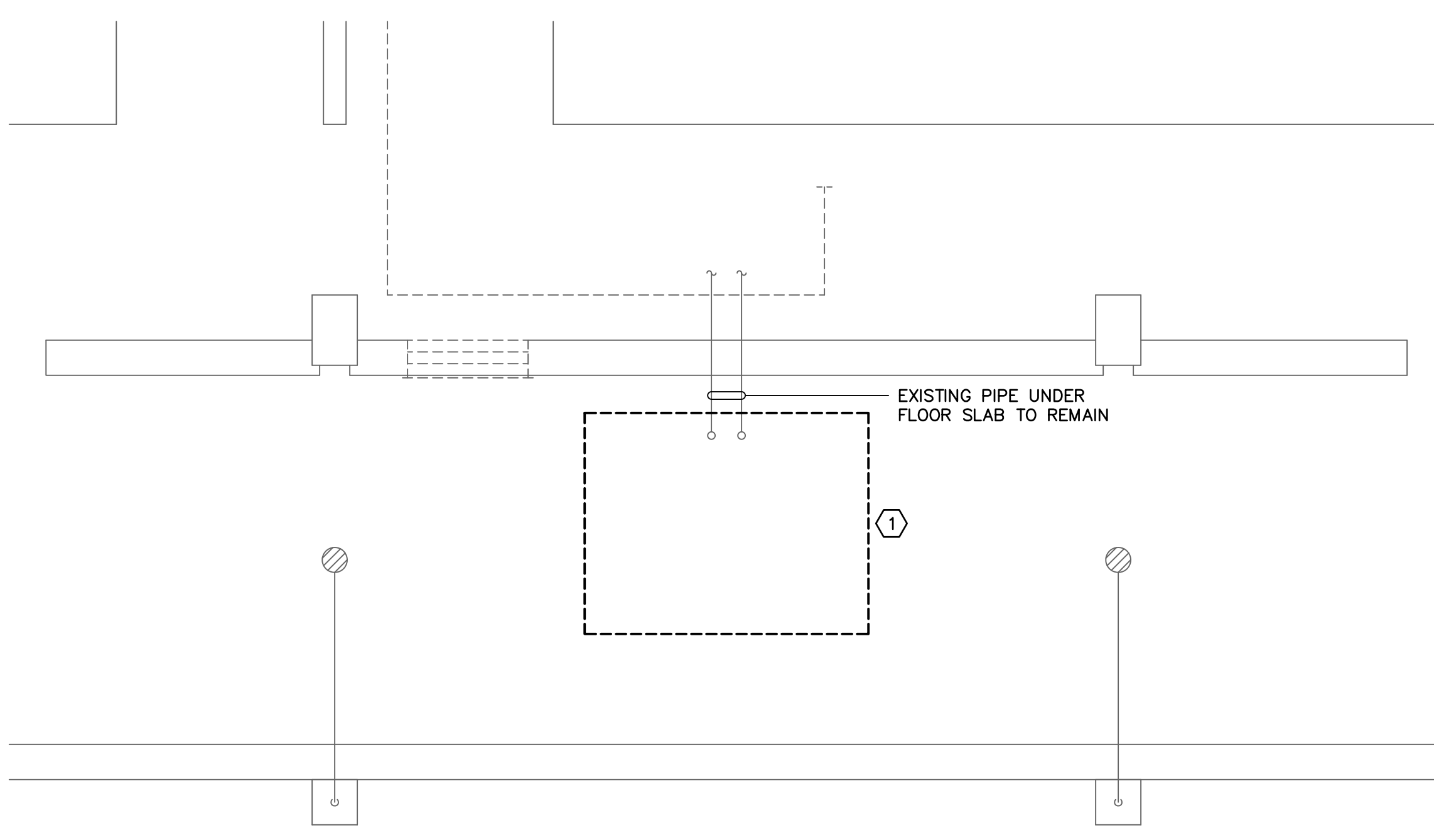
### ISOLATION AND SEISMIC SCHEDULE

RISK CATEGORY = III		SEISMIC DESIGN CATEGORY = D		
EQUIPMENT TAG	COMPONENT Ip	ISOLATION SPECIFICATION	SEISMIC REST. SPECIFICATION	ISOLATION DEFLECTION
CHILLERS (ROOF / UPPER FLOORS)	1.0	SPEC C SPEC K	SPEC C	2"

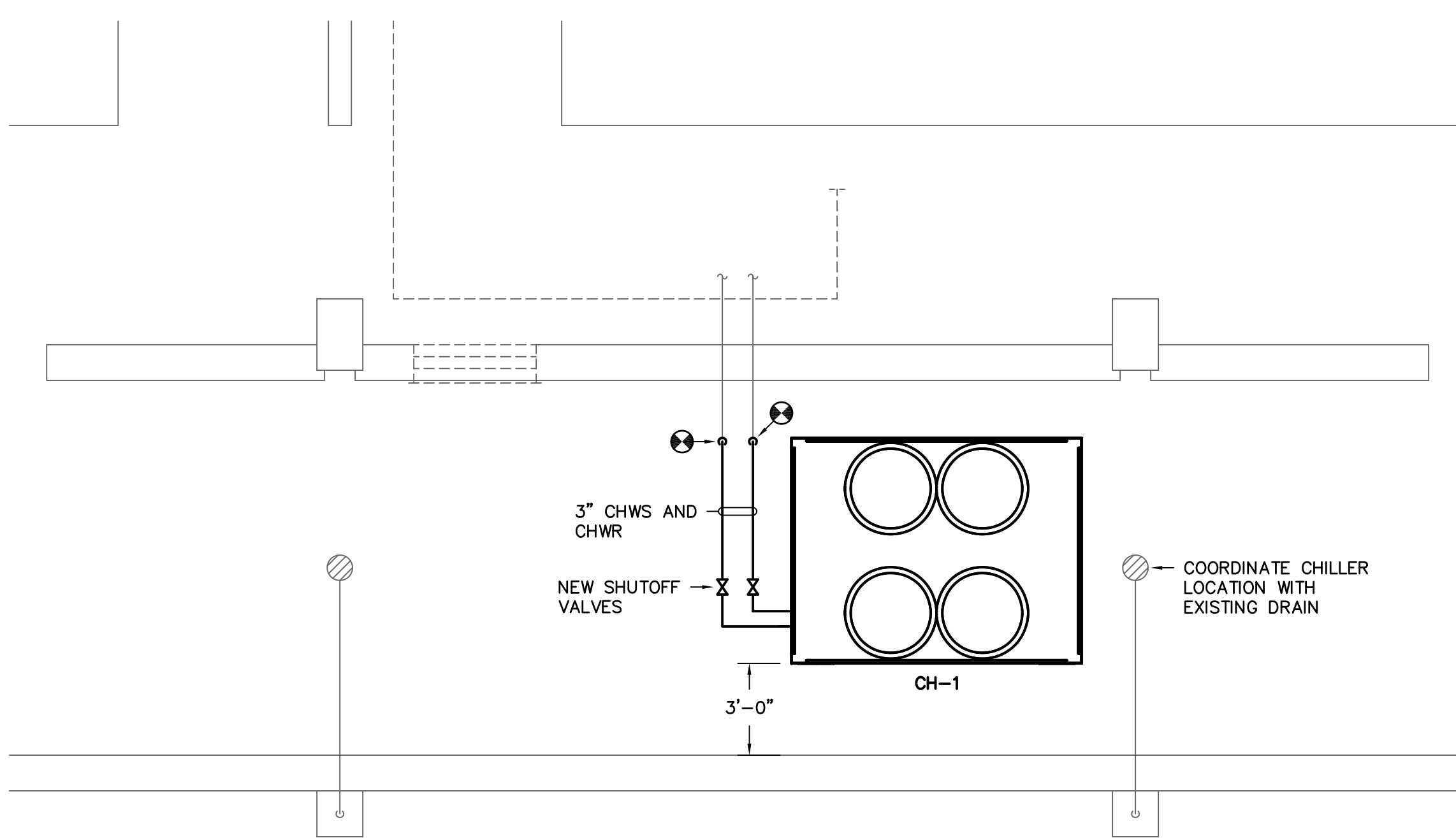
- ANCHOR BOLTS FOR NON-ISOLATED AND INTERNALLY ISOLATED EQUIPMENT SHALL BE SIZED BY THE SEISMIC RESTRAINT SUPPLIER. IF REQUIRED, SPEC. SL SNUBBERS OR SPEC. SC CABLE KITS SHALL BE PROVIDED.
- ROOF CURBS PROVIDED BY OTHERS MUST BE CERTIFIED BY A PROFESSIONAL ENGINEER FOR THE REQUIRED SEISMIC LOADS.
- PADS REINFORCED AND DOWELED IN ACCORDANCE WITH ASHRAE SEISMIC GUIDELINES.
- DIFFUSERS WEIGHING LESS THAN 20 LBS MUST BE MECHANICALLY ATTACHED TO CEILING GRID, BUT REQUIRE NO ADDITIONAL RESTRAINT.

### LEGEND

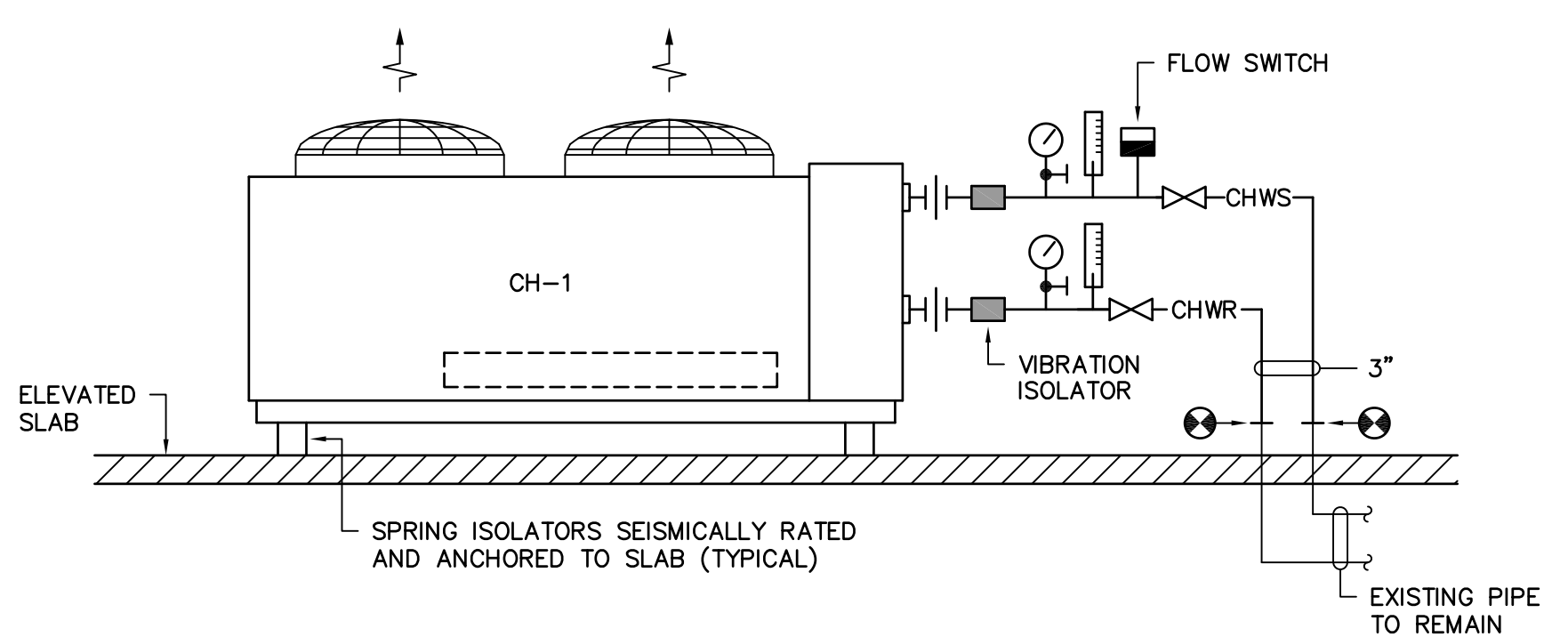
SYMBOL	DESCRIPTION
↔-CHWS↔	CHILLED WATER SUPPLY LINE
↔-CHWR↔	CHILLED WATER RETURN LINE
↔-X↔	SHUTOFF VALVE
↔-○-↔	PIPE TURNS TO, AWAY
↔-○/○↔	THERMOMETER / PRESSURE GAGE
⊙	CONNECTION POINT OF NEW TO EXISTING



1 PARTIAL SECOND FLOOR DEMOLITION PLAN  
 SCALE: 1/4" = 1'-0"

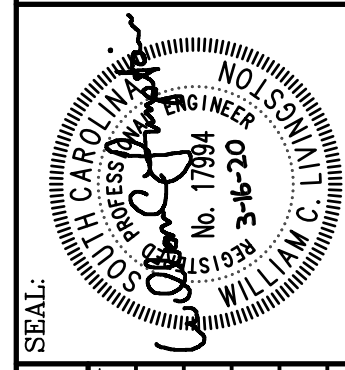


2 PARTIAL SECOND FLOOR RENOVATION PLAN  
 SCALE: 1/4" = 1'-0"



AIR COOLED CHILLER  
 NO SCALE

CAMPUS PLANNING AND CONSTRUCTION  
 COLUMBIA, SC 29208

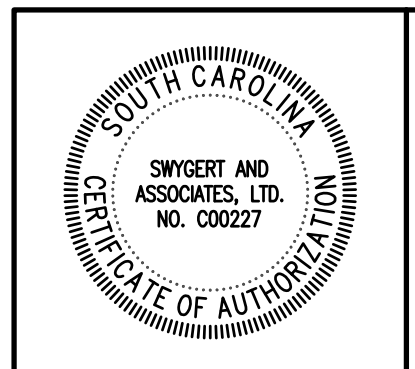


BUILDING:	DRAWING:	DATE:	BY:	DATE:	DESCRIPTION:
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University of South Carolina

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