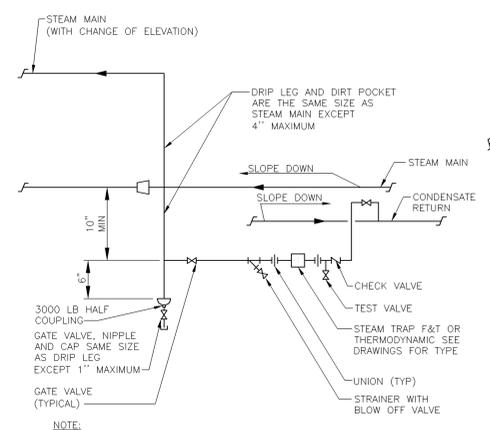
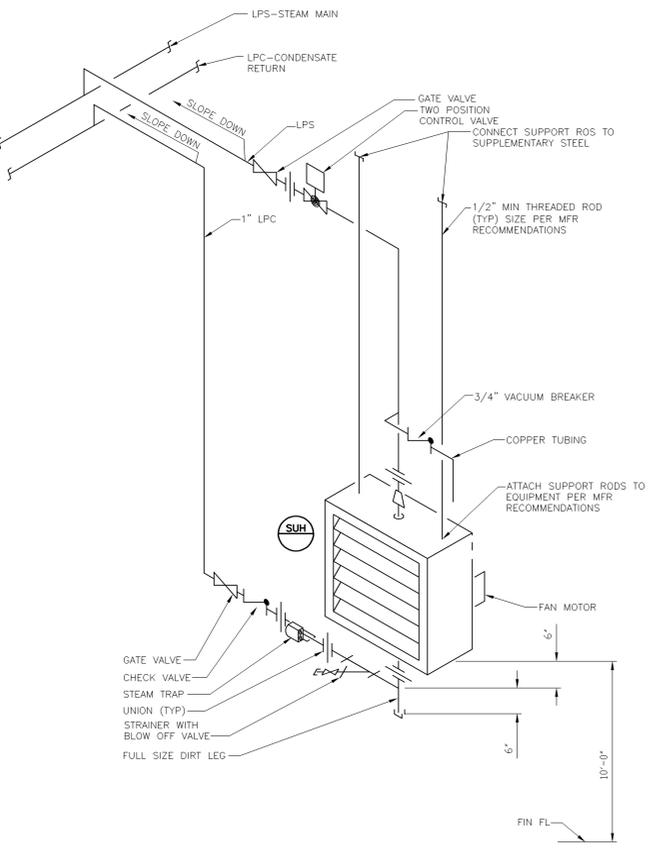


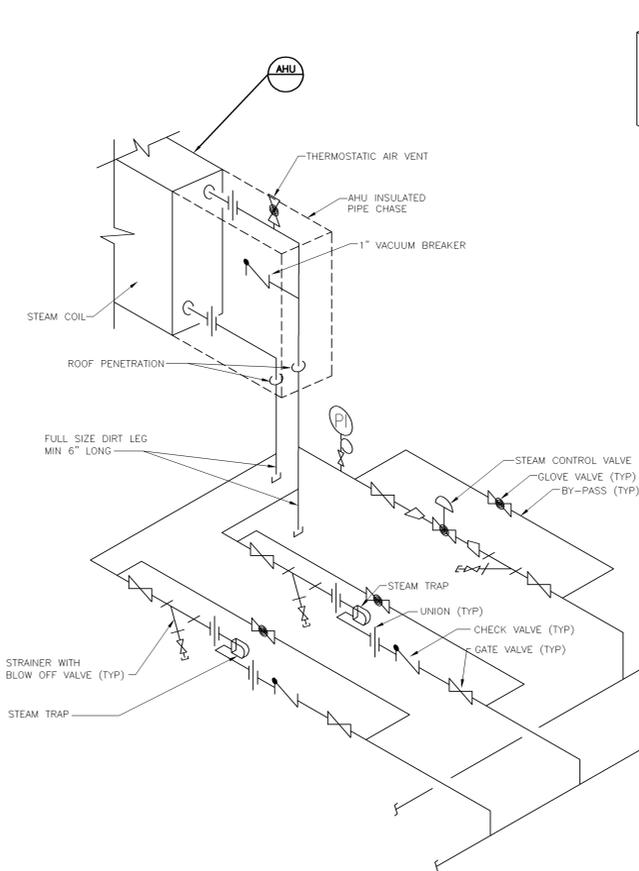
| Date (mm dd yyyy) | Issued For | Rev. |
|-------------------|--------------------------------------|------|
| 12-07-2007 | TITLE II DESIGN 30% REVIEW SUBMITTAL | C |
| 03-28-2008 | TITLE II DESIGN 60% REVIEW SUBMITTAL | D |
| 07-31-2008 | TITLE II DESIGN 90% REVIEW SUBMITTAL | E |
| 08-25-2008 | TITLE II DESIGN 100% OWNER REVIEW | F |
| 02-19-2009 | TITLE II CONSTRUCTION BID ISSUE | O |



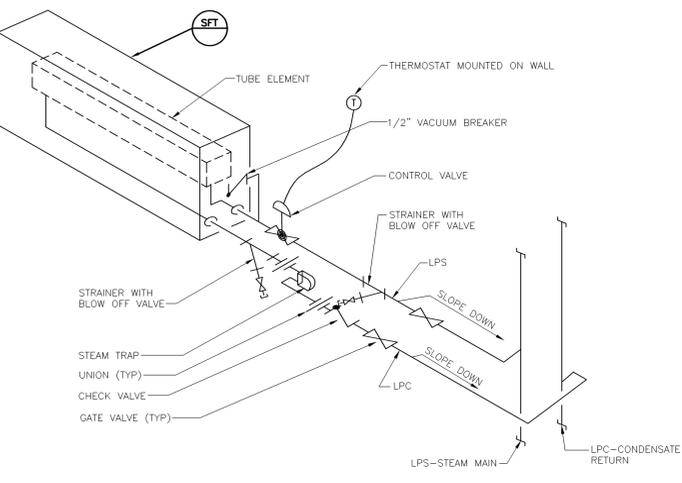
500A STEAM DRIP AND TRAP DIAGRAM
NO SCALE



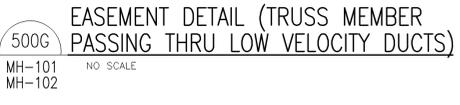
500B SUH-PIPING DIAGRAM
MH-101
MH-102
NO SCALE



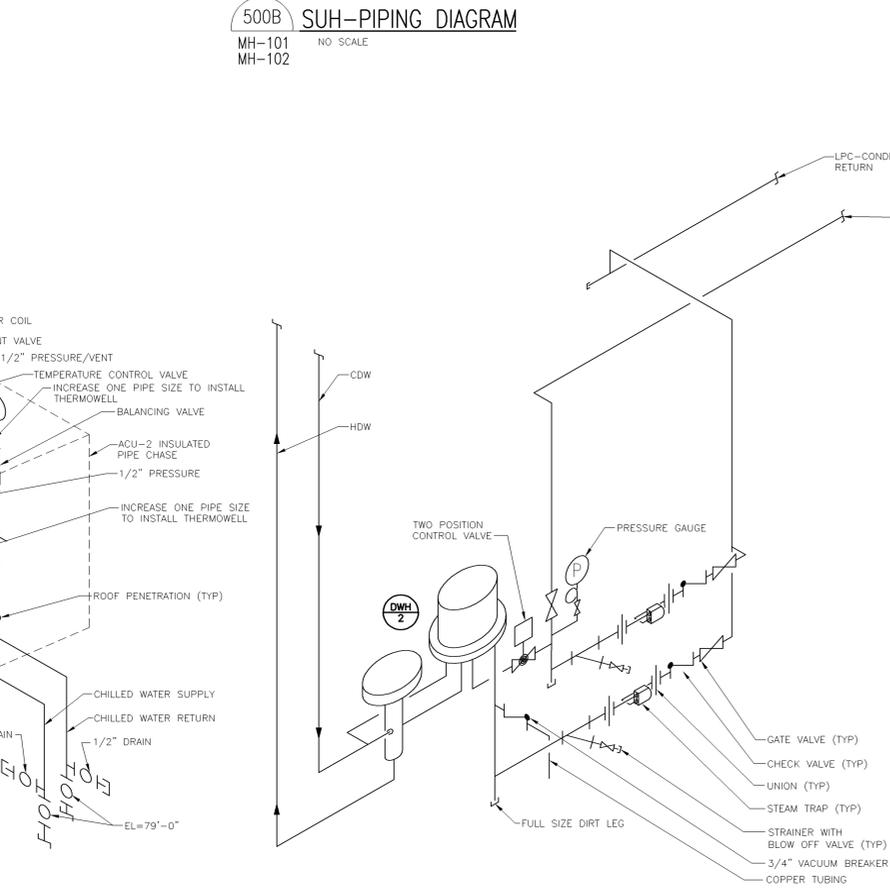
500C AHU-STEAM COIL PIPING DIAGRAM
MH-101
MH-102
NO SCALE



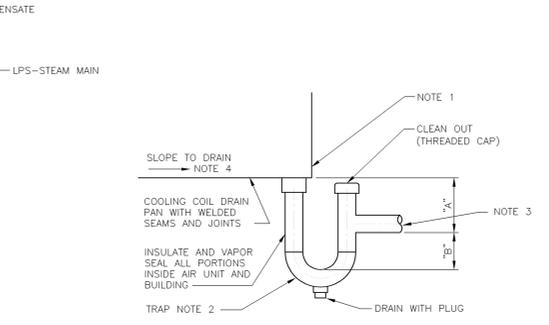
500F FT-STEAM TUBE PIPING DIAGRAM
MH-101
NO SCALE



500G EASEMENT DETAIL (TRUSS MEMBER PASSING THRU LOW VELOCITY DUCTS)
MH-101
MH-102
NO SCALE

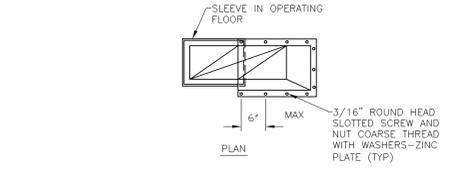


500D ACU-STEAM COIL AND CHILLED WATER COIL PIPING DIAGRAM
MH-103
NO SCALE

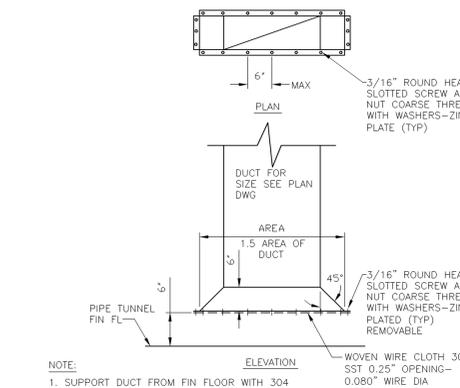


| PIPE SIZE | CONNECTED COOLING LOAD IN TONS | PIPE SIZE | CONNECTED COOLING LOAD IN TONS |
|-----------|--------------------------------|-----------|--------------------------------|
| 3/4" | UP TO 2 | 2" | UP TO 170 |
| 1" | UP TO 5 | 3" | UP TO 300 |
| 1 1/4" | UP TO 30 | 4" | UP TO 430 |
| 1 1/2" | UP TO 50 | 5" | UP TO 700 |

500G CONDENSATE DRAIN DETAIL
MH-103
NO SCALE



500J REFRIGERANT EXHAUST INLET DETAIL
MH-101
NO SCALE



500H REFRIGERANT EXHAUST INLET DETAIL
MH-100
NO SCALE



500E DOMESTIC WATER HEATER-PIPING DIAGRAM
MP-100
NO SCALE

This drawing has been prepared solely for the use of Brookhaven National Laboratory and there are no representations of any kind made by Giffels, Partnership to any party with whom Giffels, Partnership has not entered into a contract.

This drawing shall not be used for construction purposes until the seal and signature of the responsible registrant appears on the drawing, and proper permit forms and related fees are transmitted by the Owner, Owner's Agent or Contractor to the Authority Having Jurisdiction.

BROOKHAVEN NATIONAL LABORATORY

UNDER CONTRACT WITH
UNITED STATES DEPARTMENT OF ENERGY
PLANT ENGINEERING DIVISION
UPTON, NEW YORK 11973

| | | | | | | |
|---|----------------------|---------------|---------------|----------|-------|----|
| JOB NO. | SHEET NO. | REVISION | DATE | DNL | APPD. | SA |
| CENTRAL CHILLED WATER FACILITY PHASE II | | DETAILS | | | | |
| UR/APPL/ML, NEW | DATE | ACCT. NO. | SHEET OF | | | |
| SCALE AS NOTED | OWN. BY EP | REV'D BY BN | JOB NO. 11705 | DWG. NO. | | |
| ES&H RISK LEVEL | APP'D. BY W HARRISON | BLDG. NO. 600 | MH-500 | | | |
| PATH: | | | | | | |

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Project No.: SF070003