

UNIVERSITY OF CALIFORNIA, SANTA BARBARA

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SANTA BARBARA • SANTA CRUZ

OFFICE OF DESIGN & CONSTRUCTION SERVICES and PHYSICAL FACILITIES

CONTRACTING SERVICES

Building 439  
Santa Barbara, California 93106-1030  
Telephone (805) 893-3356  
Fax (805) 893-8592

**SENT VIA:** ☐ FAX ON THIS DATE  
☐ HAND DELIVERY ON THIS DATE  
☒ FEDERAL EXPRESS ON THIS DATE  
☐ UNITED PARCEL SERVICE ON THIS DATE

HOLDERS OF PLANS AND SPECIFICATIONS:

New Chiller System Biology II Bldg. 571

Project No: FM100281L/137-14

**Addendum No. 1**

April 15, 2011

Enclosed is **ADDENDUM NO. ONE** to the Construction Documents on the above-captioned project.

Bid date has been changed from Thursday, April 21, 2011 at 2:30PM to **Tuesday, May 10, 2011** at 2:30PM to be held at:

CONTRACTING SERVICES  
Facilities Management, Bldg. 439,  
Door #E, Reception Counter  
University of California, Santa Barbara  
Santa Barbara, CA 93106-1030.

Late arrivals shall be disqualified. Please allow time for unforeseen traffic delays, securing a parking permit and potential parking problems.

A handwritten signature in black ink, appearing to read 'Anna Galanis'.

Anna Galanis  
Director, Contracting Services

ADDENDUM NUMBER 1

to the

CONSTRUCTION DOCUMENTS

April 15, 2011

**GENERAL**

The following changes, additions or deletions shall be made to the following document(s) as Indicated; all other conditions shall remain the same.

**I. ADVERTISEMENT FOR BIDS**

**Item No.**

1. Second page, first sentence beginning with "Bid Deadline..."  
**CHANGE to read in it's entirety as follows:**  
" Bid Deadline: Sealed bids must be received on or before 2:30PM on Tuesday, May 10, 2011. Sealed Bids will be received only at: Contracting Services, Facilities Management, Building #439, Door #E, Reception Counter, University of California, Santa Barbara, Santa Barbara, CA 93106-1030."

**II. SUPPLEMENTARY INSTRUCTIONS TO BIDDERS**

**Item No.**

1. Number 4, CHANGE to read in it's entirety as follows:  
"Bids will be received on or before the Bid Deadline: 2:30PM, Tuesday, May 10, 2011 and only at: Contracting Services, Facilities Management, Building #439, Door #E, Reception Counter, University of California, Santa Barbara, Santa Barbara, CA 93106-1030."

**III. SPECIFICATIONS**

**Item No.**

1. Section 01030 – "Alternates" – **Delete** in it's entirety

**IV. DRAWINGS**

**Item No.**

1. Sheet M1.1 "Symbols, Abbreviations, Schedule, and Details": **Refer** to attached addendum #1 drawings ADM1.1a; ADM1.1b.

2. Sheet M2.1 “Partial Mechanical Basement Demo Plan”: **Refer** to attached addendum #1 drawings ADM2.1.
3. Sheet M2.2 “Partial Mechanical Basement Floor Plan”: **Refer** to attached addendum #1 drawings ADM2.2a; ADM2.2b; ADM2.2c.
4. Sheet M3.2 “New System Piping Diagrams”: **Refer** to attached addendum #1 drawings ADM3.2a; ADM3.2b; ADM3.2c.
5. Sheet M4.1 “Chiller Details”: **Refer** to attached addendum #1 drawings ADM4.1.
6. Sheet M5.1 “Controls”: **Refer** to attached addendum #1 drawings ADM5.1a; ADM5.1b

END OF ADDENDUM NO. 1

UNISTRUT P1000, SEE DRAWINGS FOR  
QUANTITY OF PIPES

STRUT PIPE CLAMPS

$\frac{3}{8}$ " x 5" HILTI KB-TZ ANHOR WITH  $\frac{3}{2}$ "  
EMBEDMENT IN 4" DEEP HOLE WITH  
INSTALLATION TORQUE OF 25 FT-LBS.  
SPECIAL INSPECTION IS REQUIRED.  
COSTS OF INSPECTION TO BE PAID BY  
CONTRACTOR. TORQUE TESTING TO 25  
FT-LBS IS REQUIRED 24 HRS MIN AFTER  
INSTALLATION

PIP\_SUP\_WALL5.DWG

## VERTICAL PIPE SUPPORT AT CONCRETE WALL

NTS

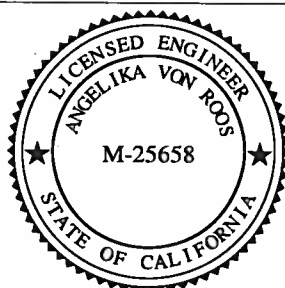
3

PROJECT NUMBER: FM100281L/137-14

PROJECT: UCSB BIOLOGY II BUILDING #571 NEW CHILLER SYSTEM

REF SHT: M1.1

ADDENDUM # 1



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ADM1.1a

OF

## COOLING TOWER DRIVE/MOTOR

1

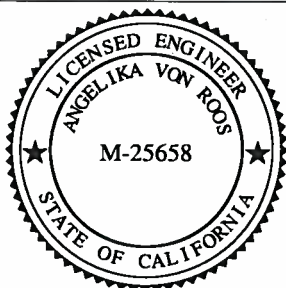
1. REMOVE (E) 60 HP 2-SPEED COOLING TOWER FAN MOTOR AND STARTER/CONTROL PANEL. REUSE (E) COOLING TOWER DRIVE SHAFT AND RIGHT ANGLE GEAR BOX. INSTALL (N) SINGLE SPEED TOWER FAN MOTOR (INVERTER DUTY, PREMIUM EFFICIENCY AND SEVERE DUTY FOR THIS APPLICATION). INSTALL A DANFOSS VLTHVAC VFD IN NEMA 3R ENCLOSURE WITH INTEGRAL DISCONNECT, NO BYPASS, AND CONFORMAL COATING ON CIRCUIT BOARD (SEE VFD NOTES AT PUMP SCHEDULE, THIS SHEET, FOR ADDITIONAL REQUIREMENTS). (E) MOTOR IS 1800/900 RPM WITH 1.15 SERVICE FACTOR AND 364T FRAME SIZE.
2. EXISTING COOLING TOWER: BAC MODEL NO: JE3860G, SERIAL NO:99203381.

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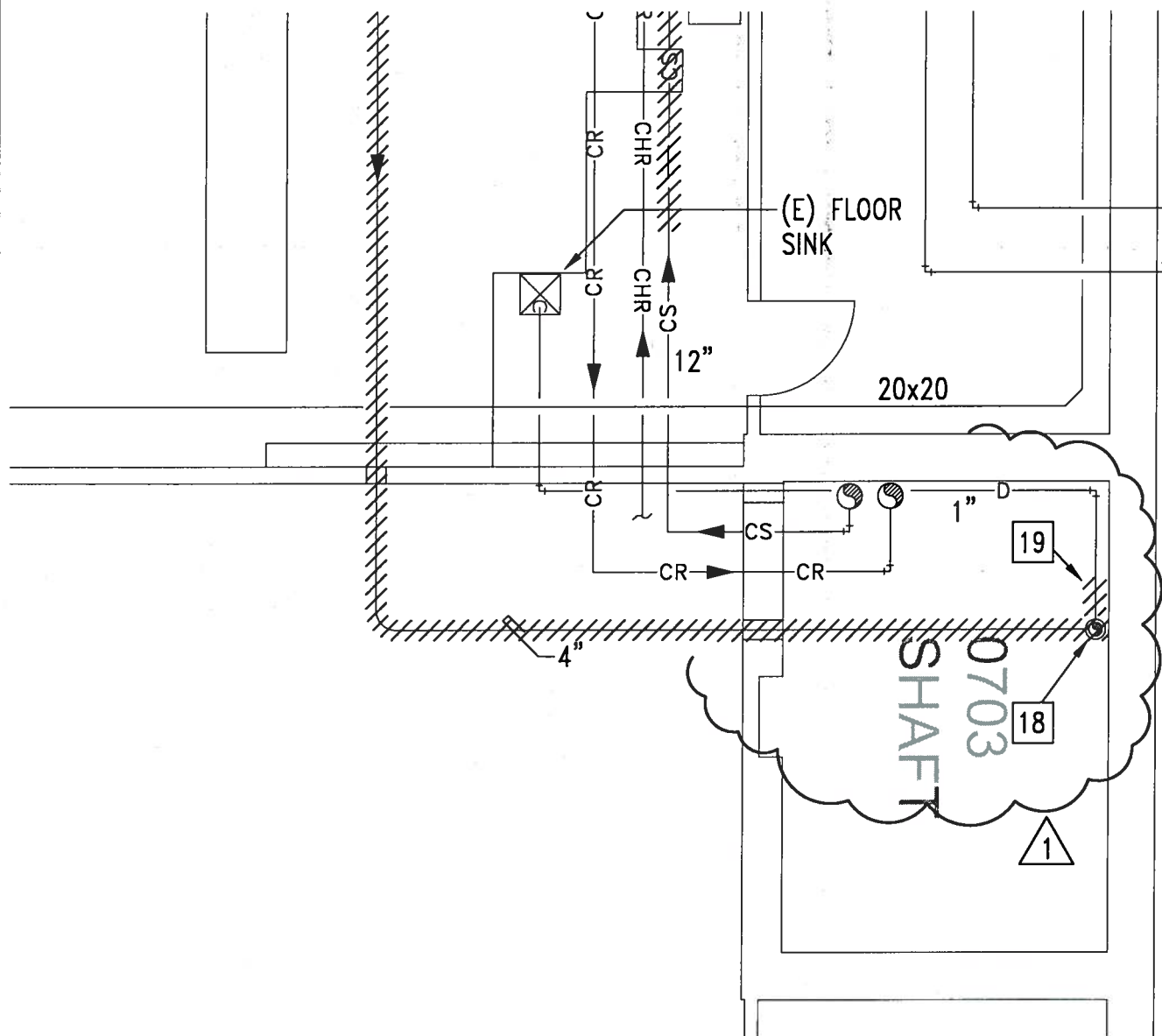
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ADM1.1b

OF

- 18 REMOVE (E) ENGINE EXH PIPING, INSULATION, SUPPORTS,  
& REMOVE (E) DISCHARGE PIPE THROUGH ROOF.
- 19 REMOVE (E) TRAP/VALVE.



# PARTIAL MECHANICAL BASEMENT DEMO PLAN

PROJECT NUMBER: FM100281L/137-14

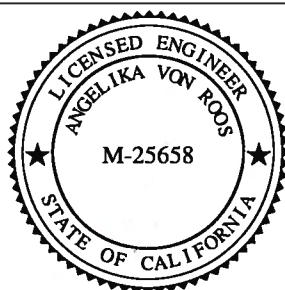
1/4" = 1'-0"



PROJECT: UCSB BIOLOGY II BUILDING #571 NEW CHILLER SYSTEM

REF SHT: M2.1

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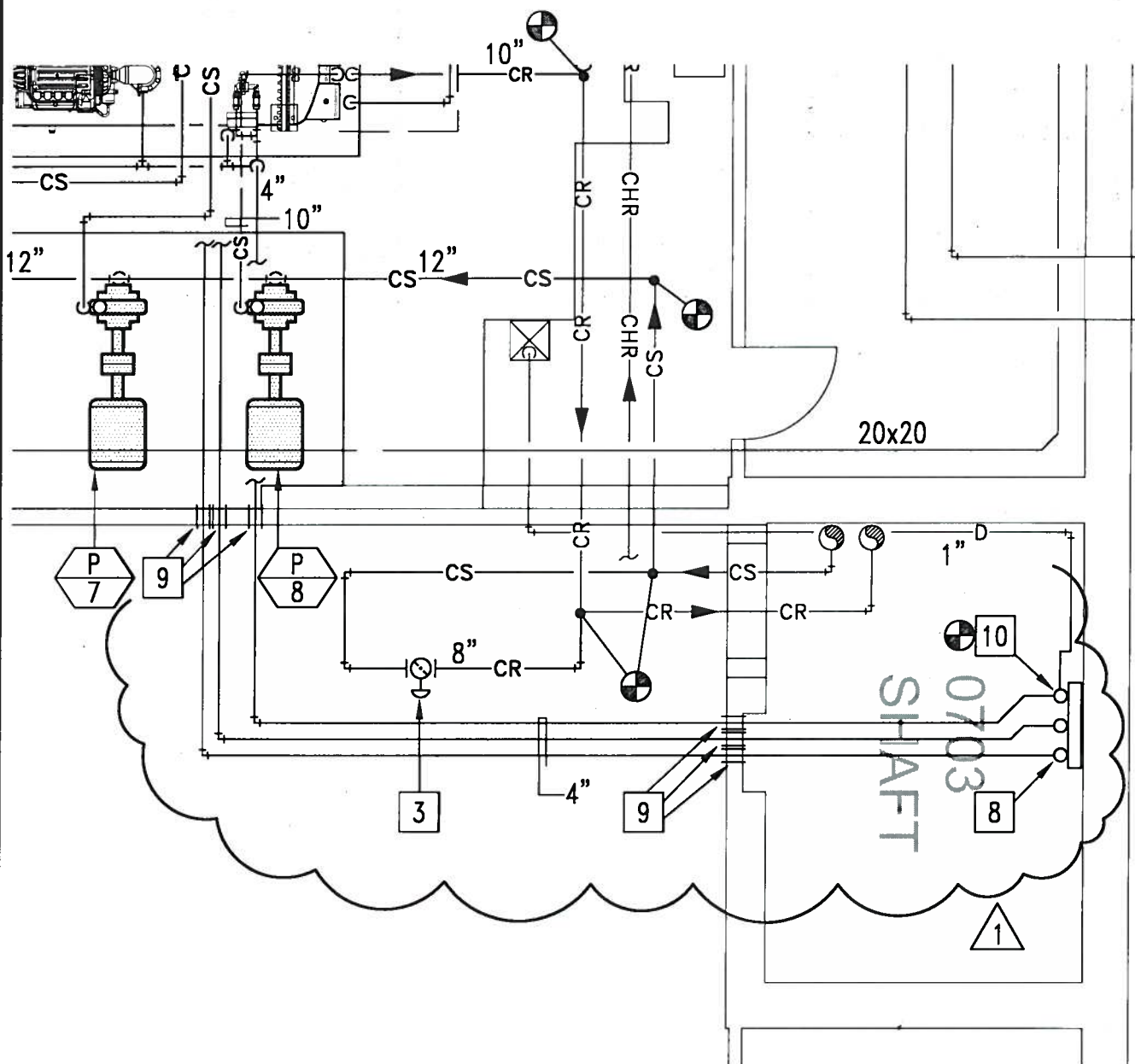
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ADM2.1

OF



# PARTIAL MECHANICAL BASEMENT FLOOR PLAN

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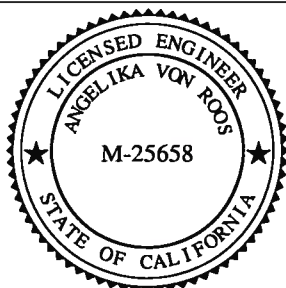
1/4" = 1'-0"



PROJECT: UCSB BIOLOGY II BUILDING #571 NEW CHILLER SYSTEM

REF SHT: M2.2

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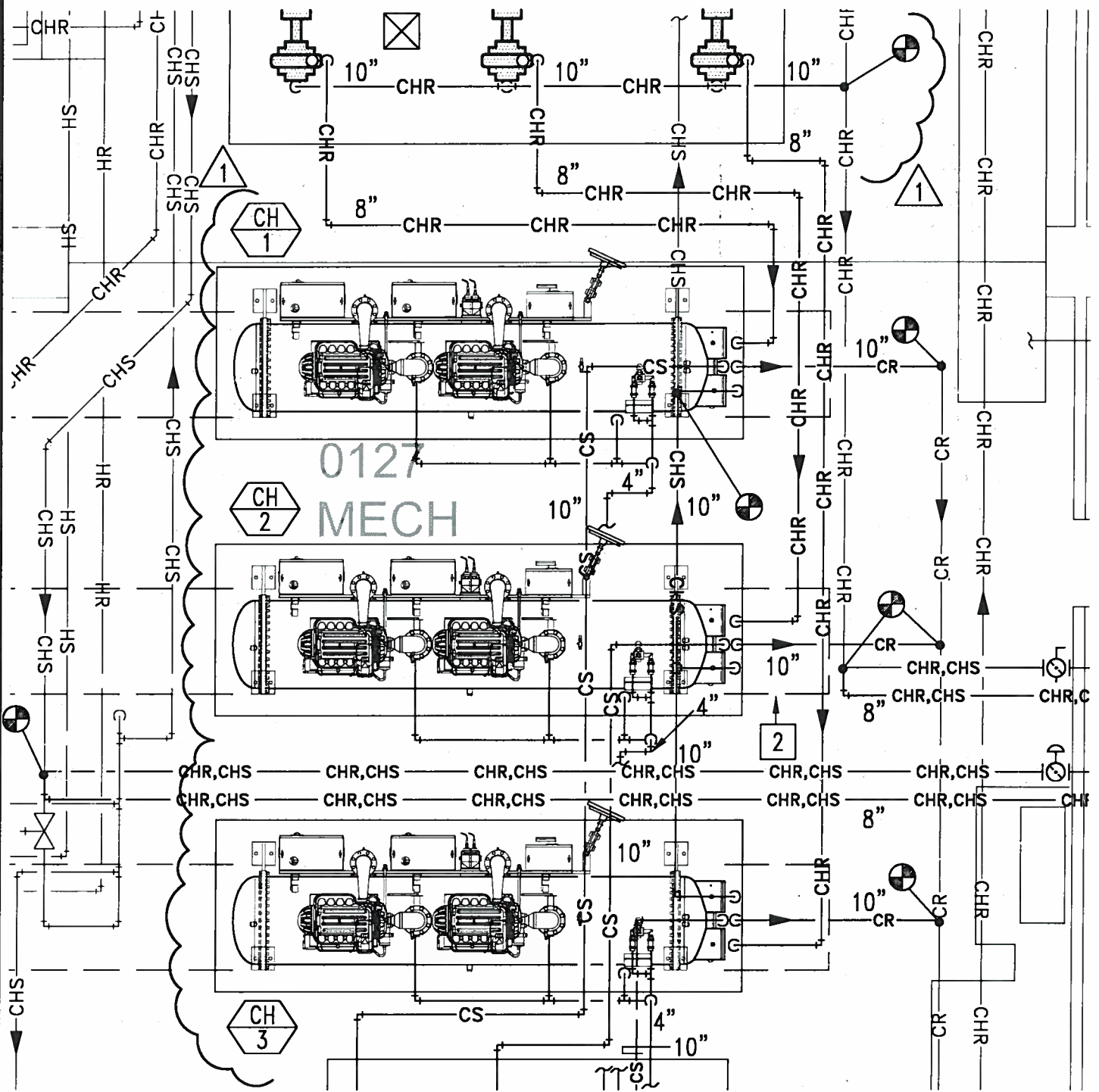
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ADM2.2a

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# PARTIAL MECHANICAL BASEMENT FLOOR PLAN

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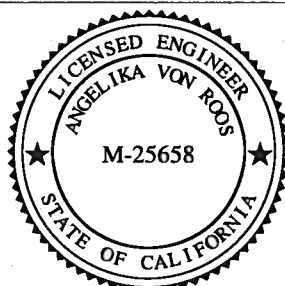
1/4" = 1'-0"



PROJECT: UCSB BIOLOGY II BUILDING #571 NEW CHILLER SYSTEM

REF SHT: M2.2

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# KEYNOTES

- 1 144" CLEARANCE FOR TUBE SERVICING.
- 2 36" CLEARANCE FOR TUBES AND GENERAL SERVICING.
- 3 BYPASS VALVE FOR CONDENSER WATER TEMPERATURE CONTROL.
- 4 (N) FS TO MATCH (E).
- 5 (N) CLEANOUT TO MATCH (E).
- 6 TEMPORARY CHILLED WATER PIPING FROM LOOP TO SERVE BUILDING DURING CONSTRUCTION.
- 7 RESTORE DEMO'D AREA TO NEAT AND CLEAN CONDITION. PAINT AND PATCH AFFECTED WORK.
- 8 PIPING ON UNISTRUT AT EVERY 8 FT MAX. SUPPORT ELBOWS AT BOTTOM. OFFSET AT ROOF AND TERMINATE WITH GOOSENECK. FLASH PIPING AT ROOF WATERTIGHT. PIPING MATERIAL SHALL BE TYPE L COPPER/SOLDERED OR SCHED 40 BLACK STEEL/WELDED.
- 9 FIRESTOP PENETRATIONS PER SPECIFICATIONS.
- 10 CONNECT 3/4" PIPE/VALVE TO BOTTOM OF EACH ELBOW. TIE INTO (E) 1" DRAIN LINE.

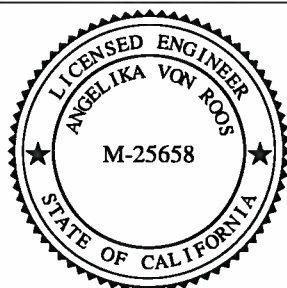
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PROJECT: UCSB BIOLOGY II BUILDING #571 NEW CHILLER SYSTEM

REF SHT: M2.2

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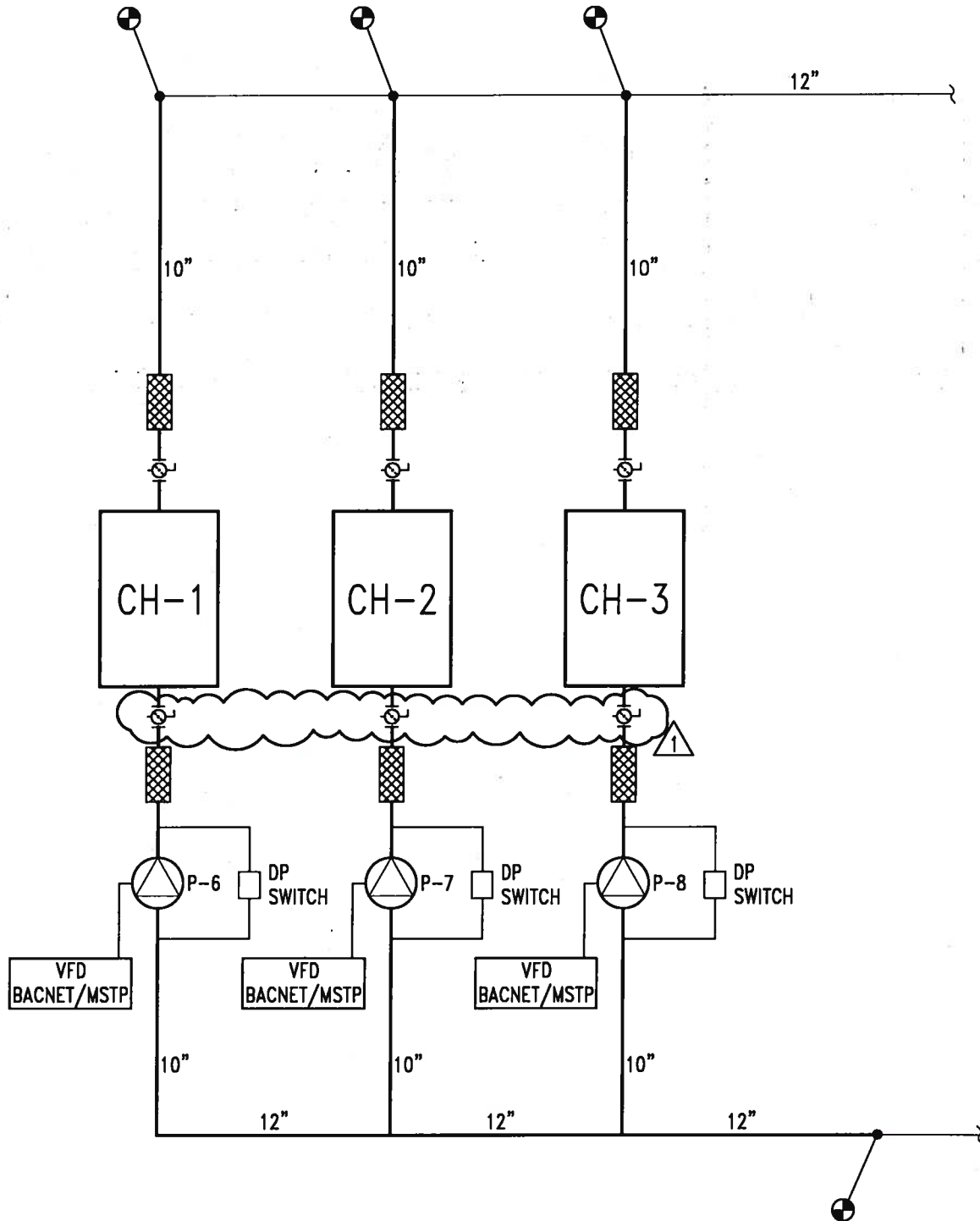
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ADM2.2c

OF



# CONDENSER WATER PIPING DIAGRAM

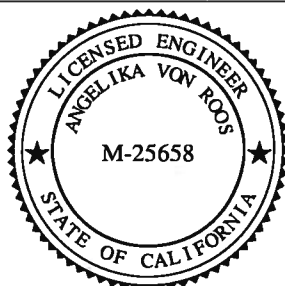
PROJECT NUMBER: FM100281L/137-14

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PROJECT: UCSB BIOLOGY II BUILDING #571 NEW CHILLER SYSTEM

REF SHT: M3.2

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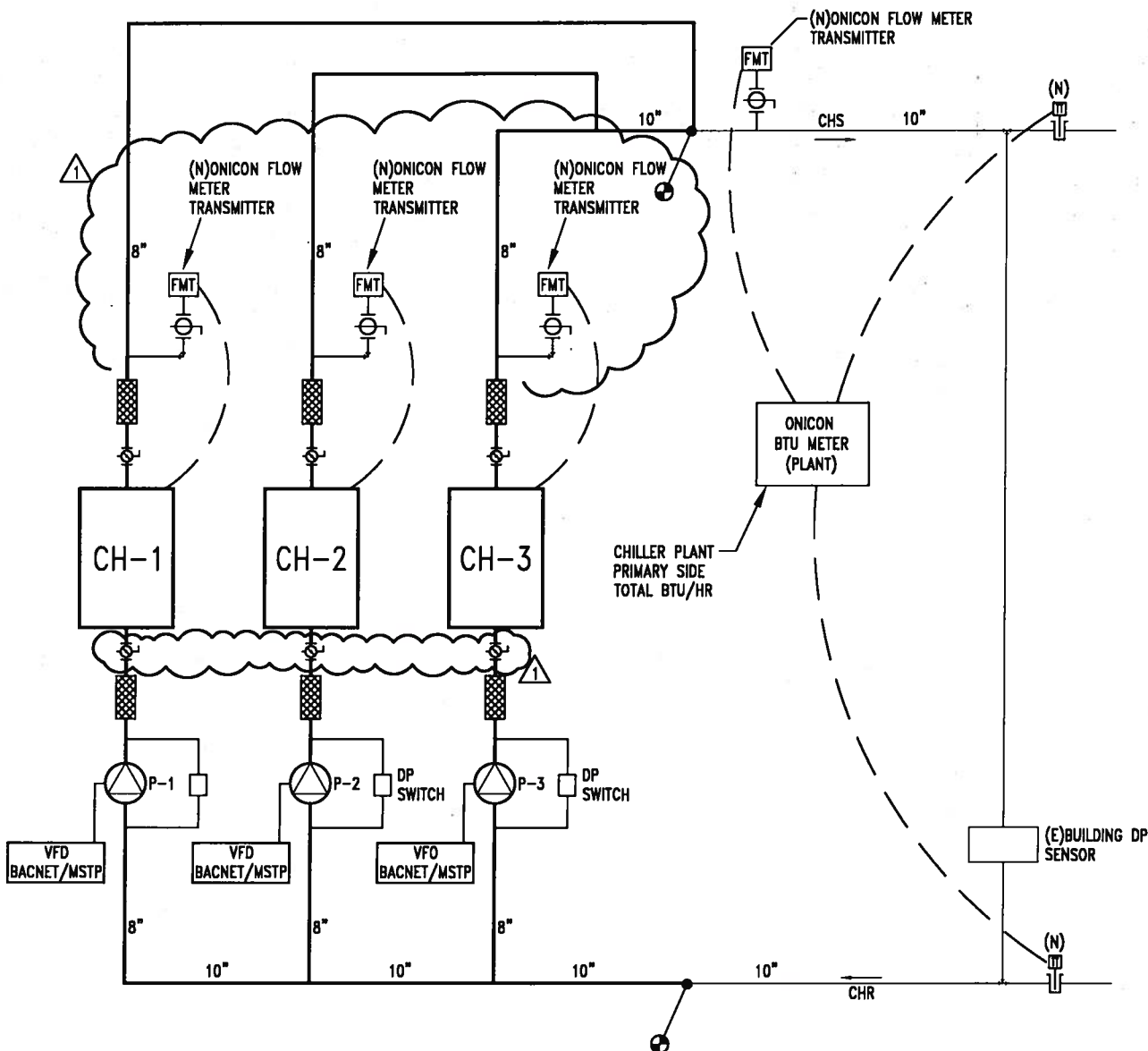
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ADM3.2a

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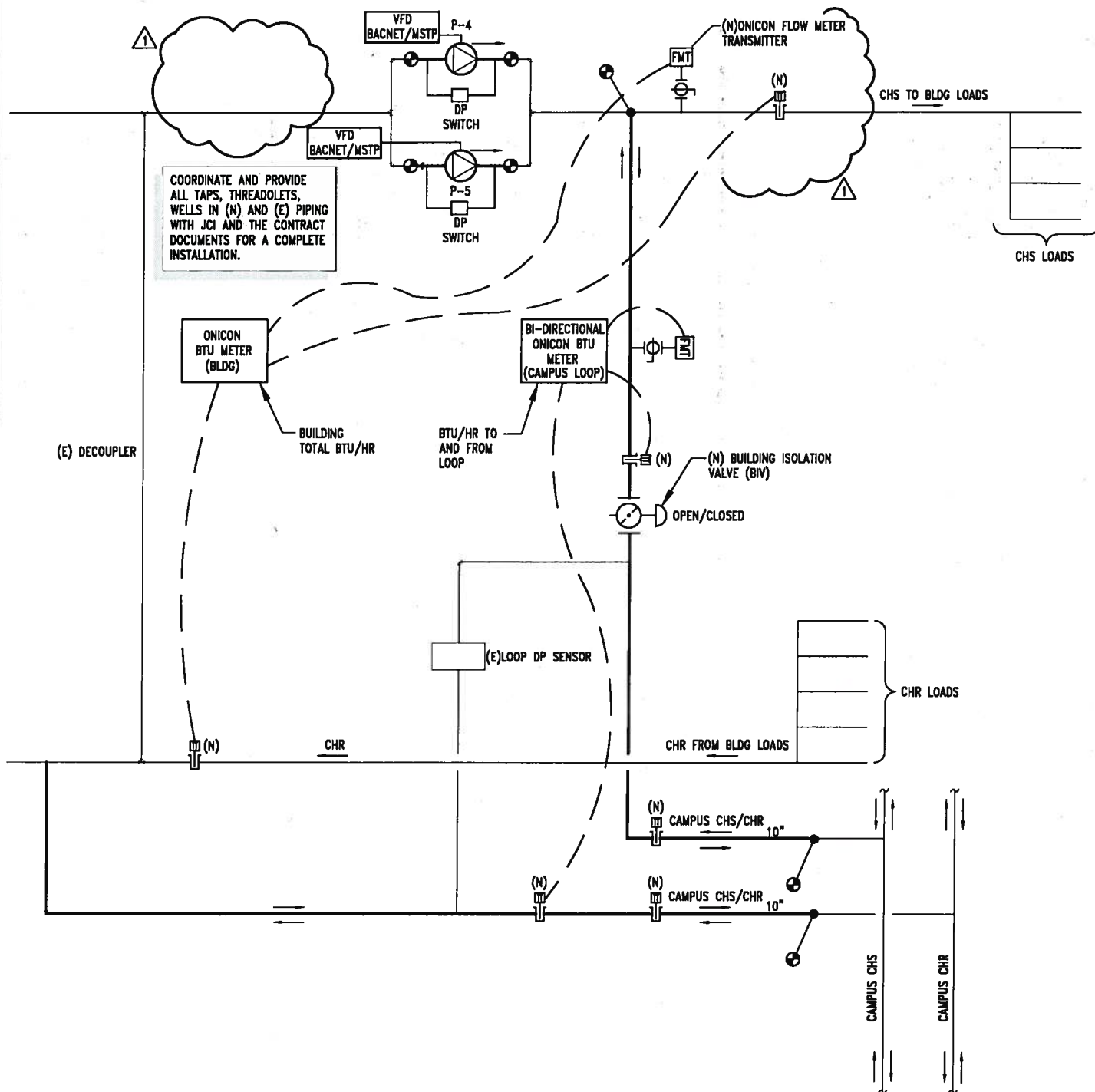


# CHILLED WATER PIPING DIAGRAM

PROJECT NUMBER: FM100281L/137-14

NTS

|   |   |   |
|---|---|---|
| PROJECT: UCSB BIOLOGY II BUILDING #571 NEW CHILLER SYSTEM | REF SHT: M3.2   | ADDENDUM # 1                            |
|   | <div data-bbox="443 1728 727 2026"> <p>LICENSED ENGINEER<br/>ANGELIKA VON ROOS<br/>M-25658<br/>STATE OF CALIFORNIA</p> </div> <div data-bbox="751 1770 963 1980"> <p><b>MEC</b><br/>INC.</p> </div> <div data-bbox="971 1749 1206 1980"> <p>UC 804<br/><b>MECHANICAL<br/>ENGINEERING<br/>CONSULTANTS<br/>INC.</b><br/>1616 Anacapa Street<br/>Santa Barbara, Ca 93101<br/>Tel (805) 957-4632</p> </div> | <p>DATE: 04-15-11<br/>DRAWN BY: ECM</p> |
|   |   | <p>SHEET:<br/><b>ADM3.2b</b><br/>OF</p> |



# CHILLED WATER PIPING DIAGRAM

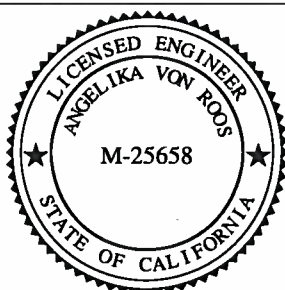
PROJECT NUMBER: FM100281L/137-14

NTS

PROJECT: UCSB BIOLOGY II BUILDING #571 NEW CHILLER SYSTEM

REF SHT: M3.2

ADDENDUM # 1



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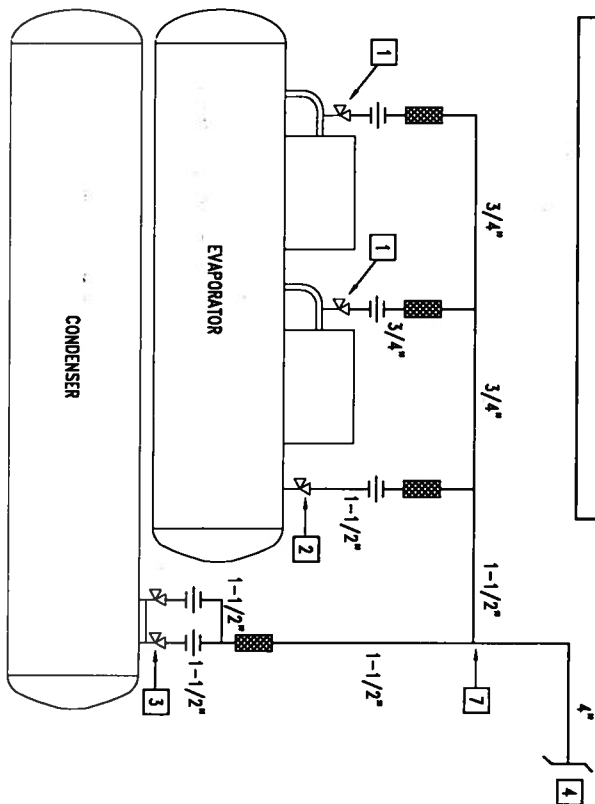
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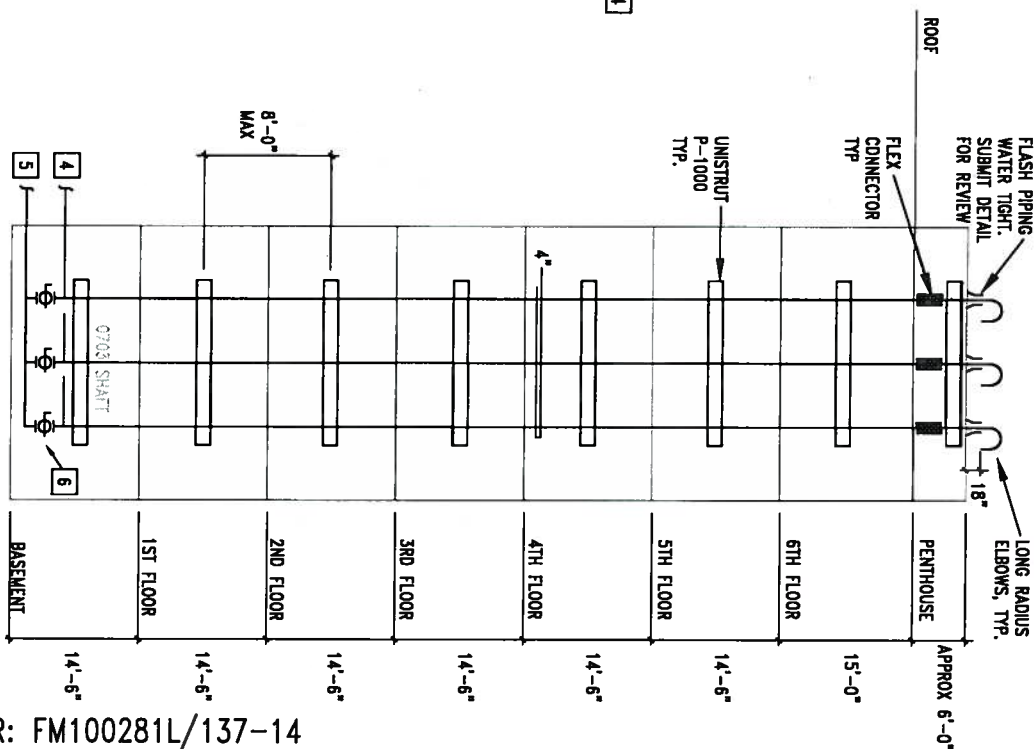
ADM3.2c

OF

- 1 3/8" SUCTION NOZZLE RELIEF VALVE.
- 2 1" EVAPORATOR RELIEF VALVE.
- 3 1" CONDENSER RELIEF VALVES. ONLY ONE USED AT ANY ONE TIME.
- 4 REFRIGERANT RELIEF PIPING.
- 5 1" DRAIN. CONNECT TO (E) 1" DRAIN.
- 6 3/4" VALVE/PIPE CONNECT TO 1" HEADER.
- 7 BRING 4" PIPE ON AS CLOSE AS POSSIBLE TO CHILLER.



## MT8



# MTB

PROJECT NUMBER: FM100281L/137-14

PROJECT: UCSB BIOLOGY II BUILDING #571 NEW CHILLER SYSTEM

REF SHT: M4.1

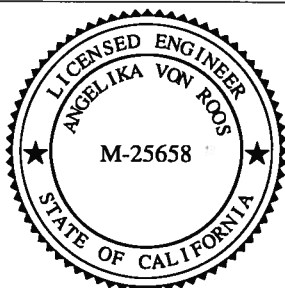
ADDENDUM # 1

DATE: 04-15-11

DRAWN BY: ECM

## ADM4.1

OF

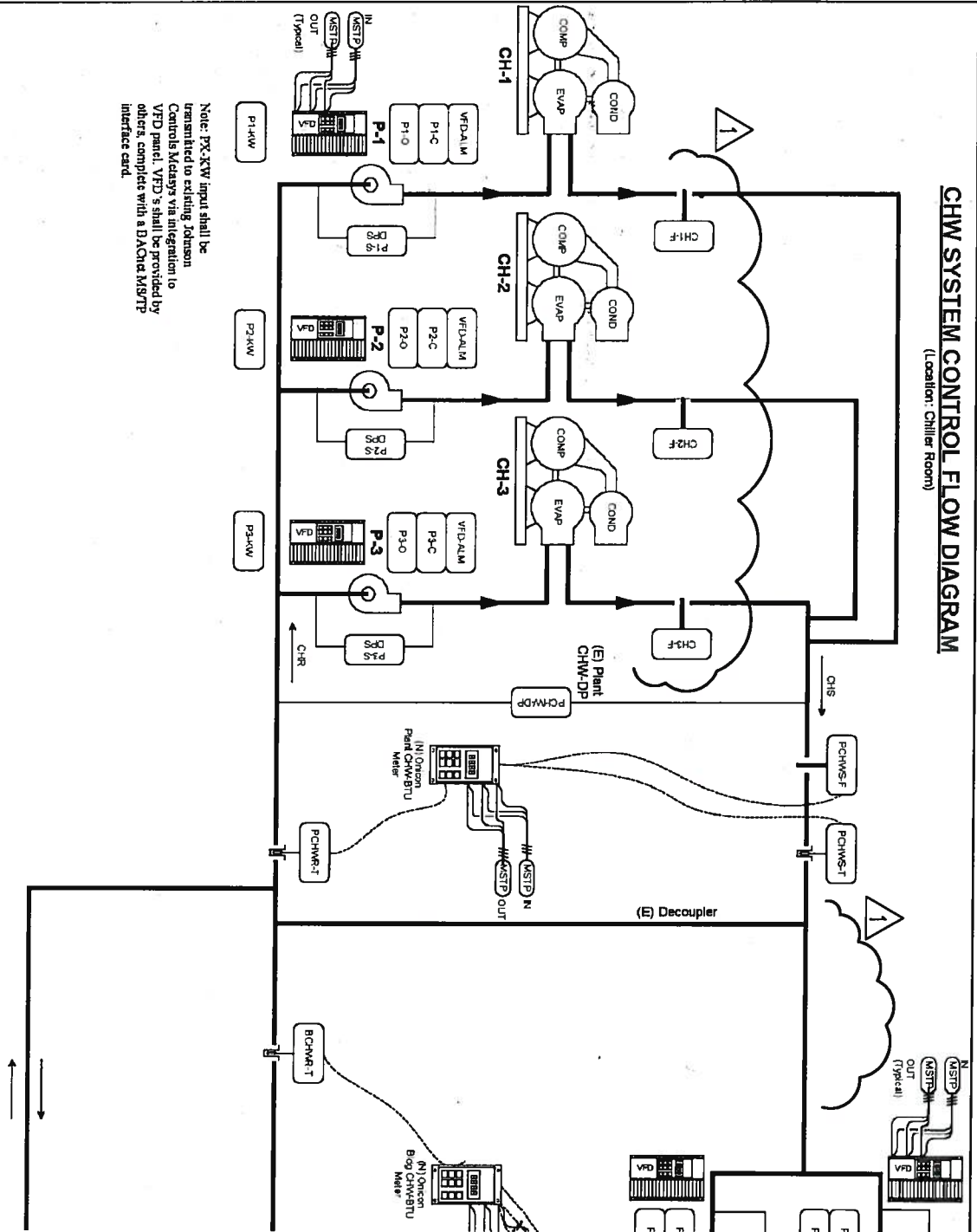


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# CHW SYSTEM CONTROL FLOW DIAGRAM (Location: Chiller Room)

Note: P1-KW input shall be transmitted to existing Johnson Controls Modems via integration to VFD panel. VFD's shall be provided by others, complete with a BACnet MS/TP interface card.



PROJECT NUMBER: FM100281L/137-14

PROJECT: UCSB BIOLOGY II BUILDING #571 NEW CHILLER SYSTEM

REF SHT: M5.1

ADDENDUM # 1

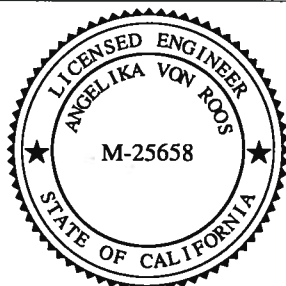
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ADM5.1a

OF



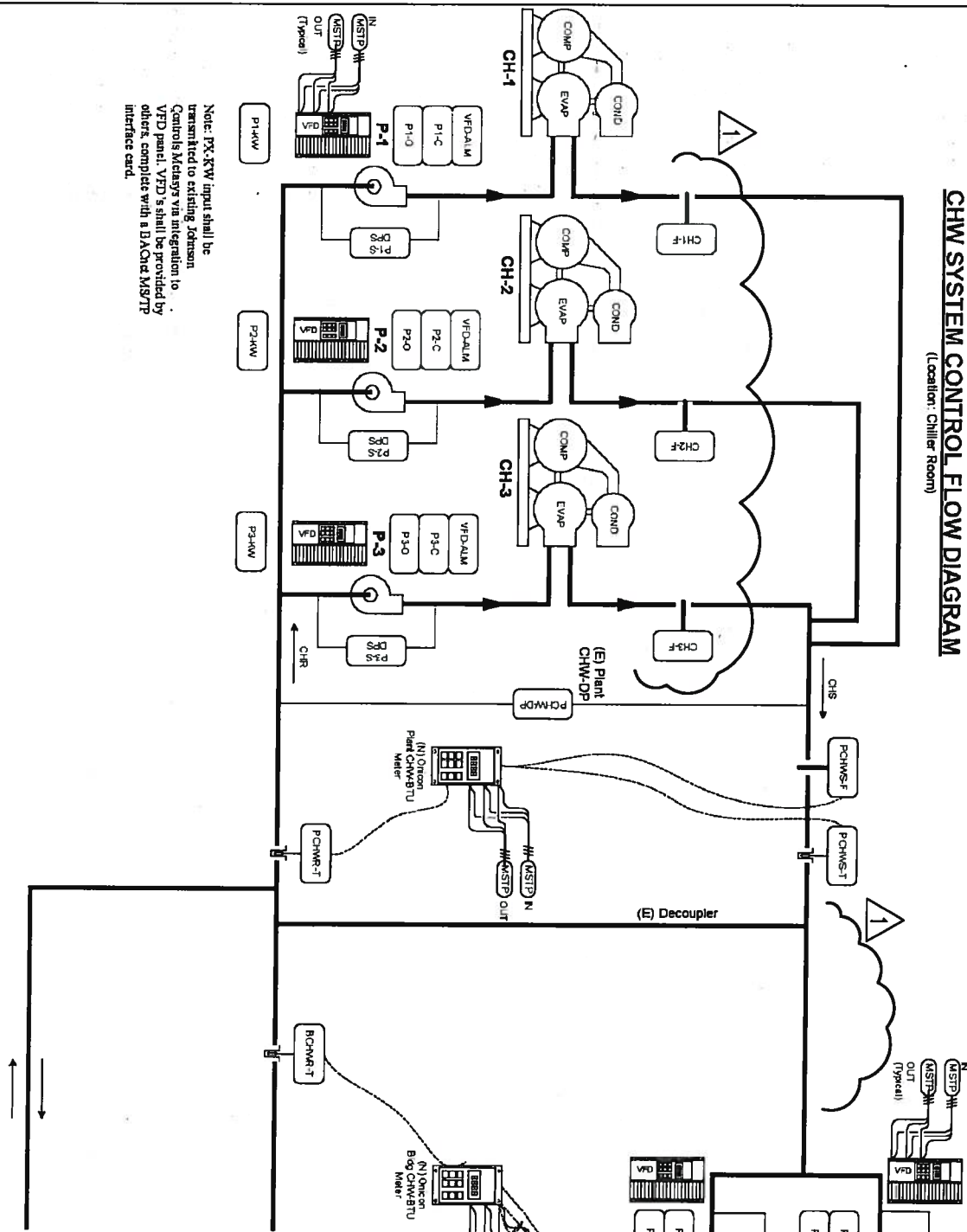
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# CHW SYSTEM CONTROL FLOW DIAGRAM

(Location: Chiller Room)

Note: P1, P2, P3 input shall be transmitted to existing Johnson Controls Metasys via integration to VFD panel. VFD's shall be provided by others, complete with a BAOne MS/TP interface card.



|          |          |          |               |
|----------|----------|----------|---------------|
| REVISION | DATE     | BY       | DESCRIPTION   |
| 1        | 04/15/11 | ECM      | CHW Cor       |
| 2        | 01-16 PM | UCSB, BI | Project Title |
| 3        | 01-16 PM | UCSB, BI | Project Title |
| 4        | 01-16 PM | UCSB, BI | Project Title |
| 5        | 01-16 PM | UCSB, BI | Project Title |
| 6        | 01-16 PM | UCSB, BI | Project Title |
| 7        | 01-16 PM | UCSB, BI | Project Title |
| 8        | 01-16 PM | UCSB, BI | Project Title |
| 9        | 01-16 PM | UCSB, BI | Project Title |
| 10       | 01-16 PM | UCSB, BI | Project Title |

PROJECT NUMBER: FM100281L/137-14

PROJECT: UCSB BIOLOGY II BUILDING #571 NEW CHILLER SYSTEM

REF SHT: M5.1

ADDENDUM # 1

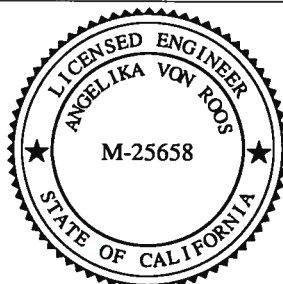
DATE: 04-15-11

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ADM5.1b

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