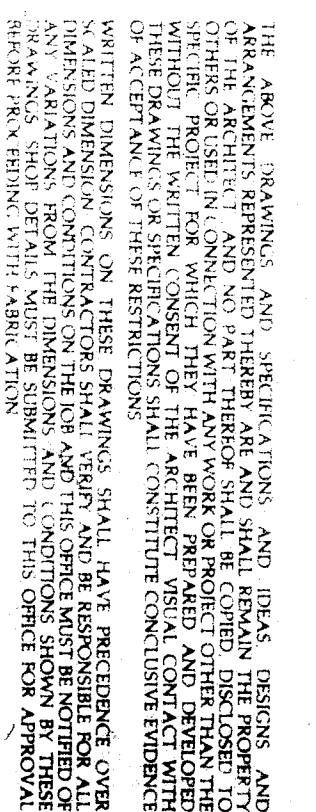


Donald W. Renfro, AIA  
 Mark E. Russell, AIA  
 C 5283  
 C 13726  
 444 West 24th Street, Suite 101  
 San Jose, California 95128  
 Phone: (415) 281-1100  
 Fax: (415) 281-1101

**CONSULTANTS**

FRANK MITCHELL RUSSELL ENGINEERS  
**JOHN FRANK MITCHELL, INC.**  
 CONSULTING MECHANICAL ENGINEERS  
 PHONE 913-339-3339  
 444 WEST 24TH STREET, SUITE 101  
 SAN JOSE, CALIFORNIA 95128

**BAKERSFIELD CITY SCHOOL DISTRICT**  
**FRANKLIN ELEMENTARY SCHOOL**  
**MODERNIZATION**



**REVISIONS**

NO.	DATE	DESCRIPTION
1	9-2-81	ISSUED FOR PERMITS

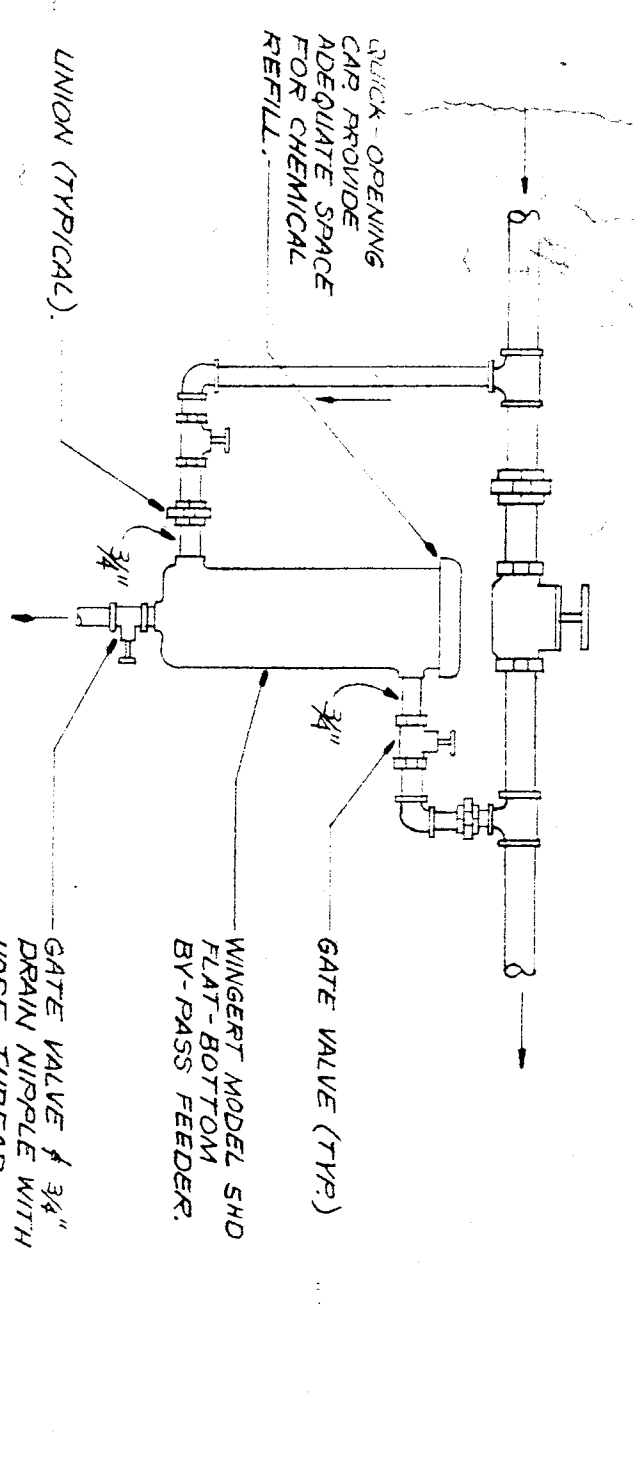
**BAKERSFIELD CITY SCHOOL DISTRICT BOARD OF EDUCATION**

DATE APPROVED: \_\_\_\_\_

DATE: \_\_\_\_\_

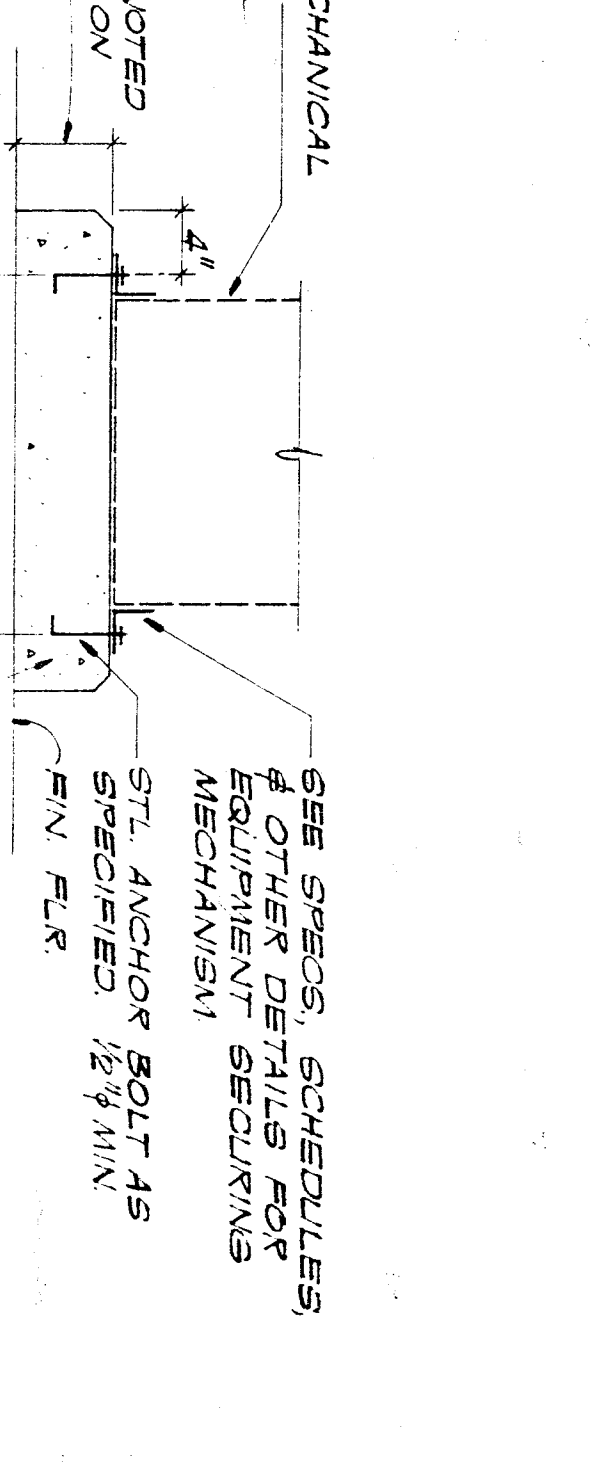
**DETAILS**

APPROVED AND SUBMITTED: *John Frank Mitchell*  
 PROJECT NO. 86-216-14  
 SHEET NO. 7 OF 7

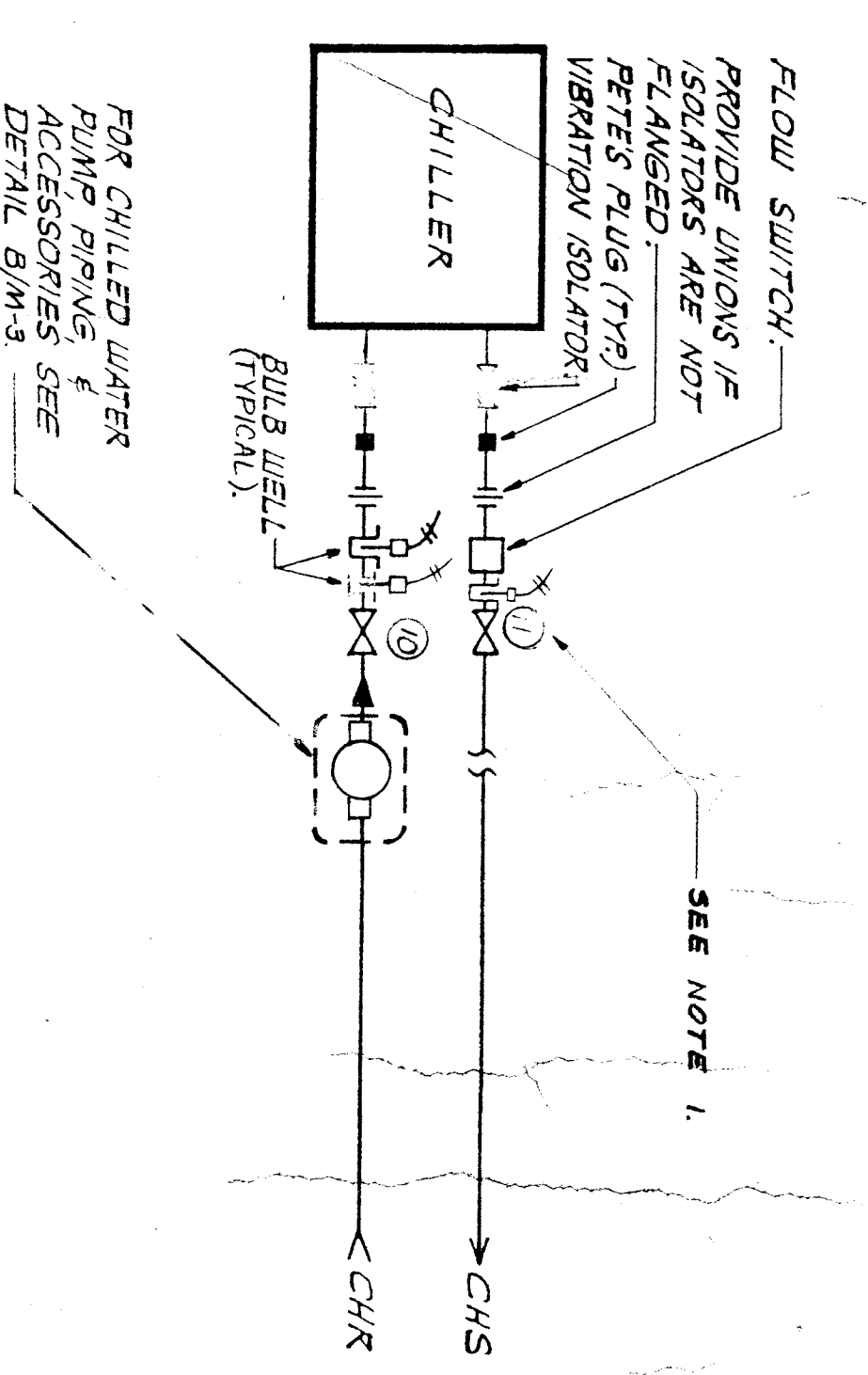


**DETAIL D**  
 CHEMICAL FEEDER CONNECTIONS  
 NO SCALE

- NOTES:
- EQUIPMENT AND PIPING SYSTEM SHALL BE THOROUGHLY CLEANED TO REMOVE OIL, GREASE, TYPE DIRT AND ORGANIC MATTER BEFORE START-UP. SET PRECIFICATIONS FOR REPAIRS, TIGHTENING & ONE YEAR SUPPLY OF MATERIAL BASED ON 8 HOUR PER DAY OPERATION WORKING 5 DAYS A WEEK.
  - PROVIDE AND MAINTAIN A WATER AND 25% (BY VOLUME) EMULSION PROPERLY GROWN (CORROD) SOLUTION IN A SEPARATE CONTAINER PRIOR TO FILLING SYSTEM.

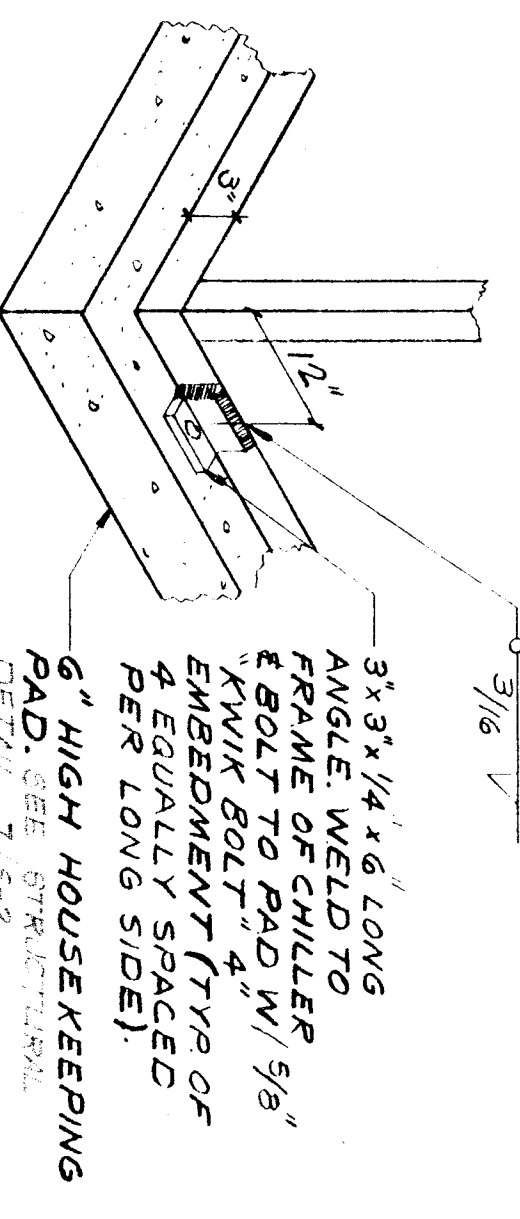


**DETAIL H**  
 TYPICAL HOUSEKEEPING PAD  
 NO SCALE  
 CONCRETE HOUSEKEEPING PAD BY SPEC. SECTIONS 03300 & 03210

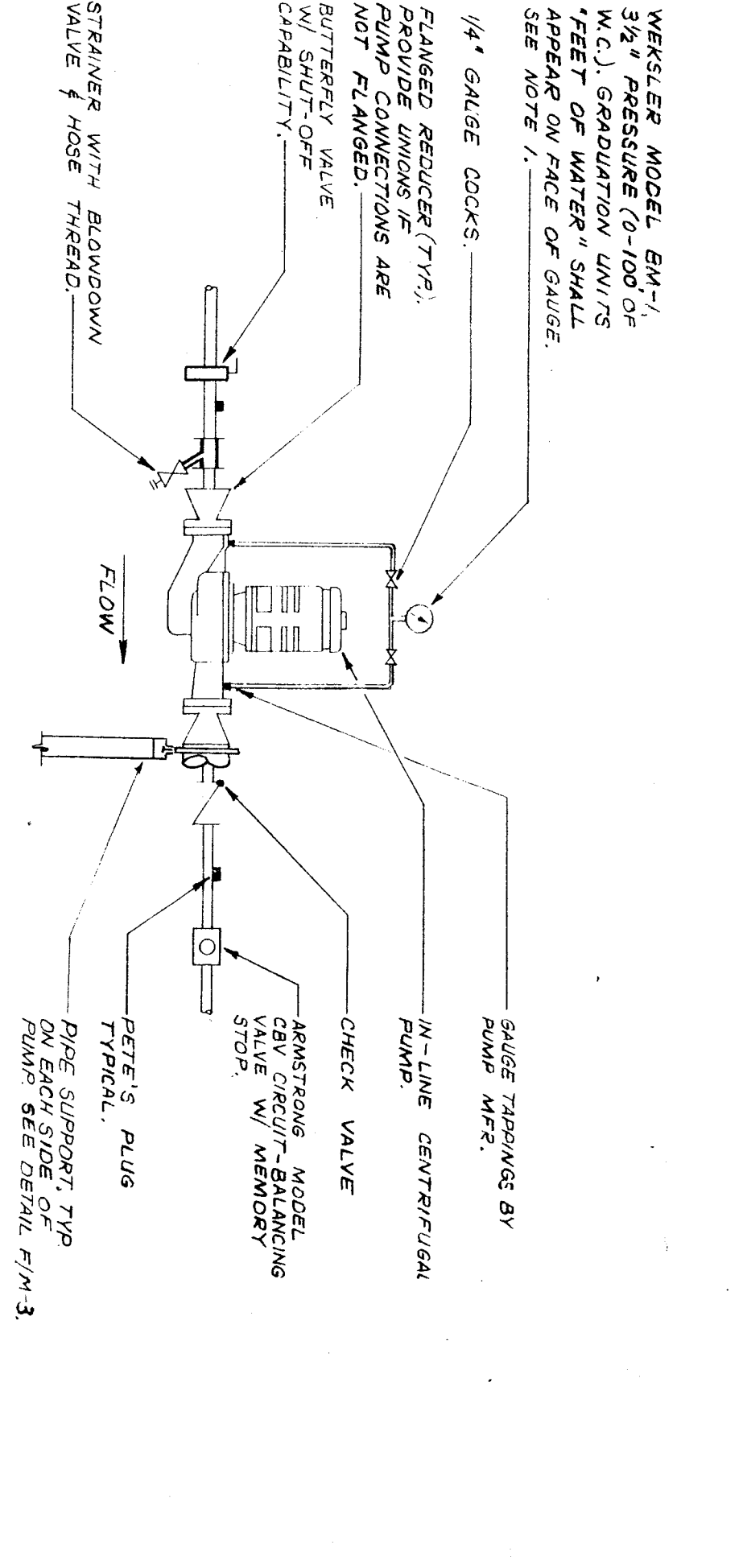


**DETAIL C**  
 CHILLER PIPING DIAGRAM  
 DIAGNOSTIC

- NOTES
- SEE INPUT CONTROL POINT SCHEDULE FOR EMS CONNECTIONS.

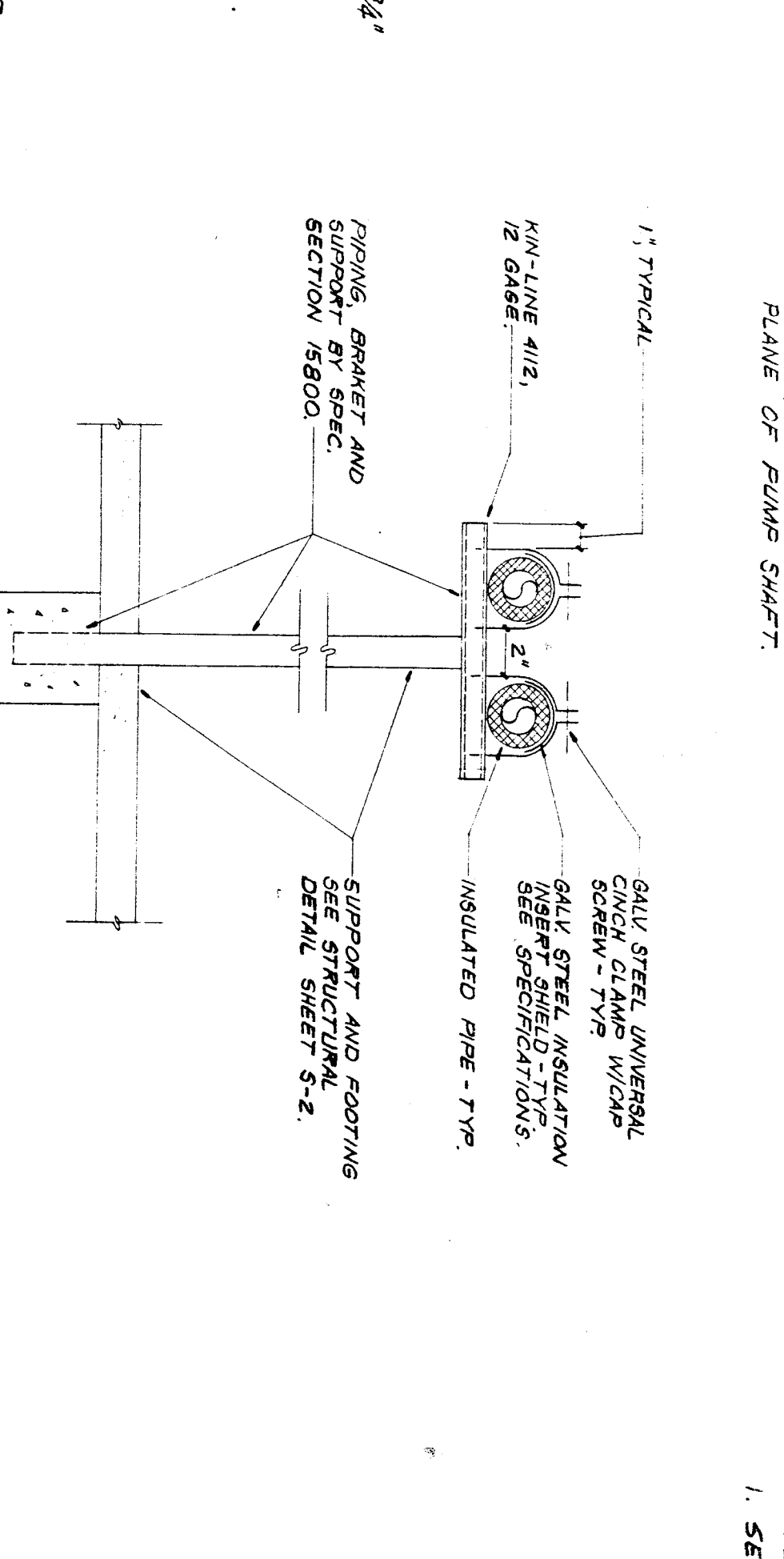


**DETAIL G**  
 CHILLER ANCHORAGE  
 NO SCALE

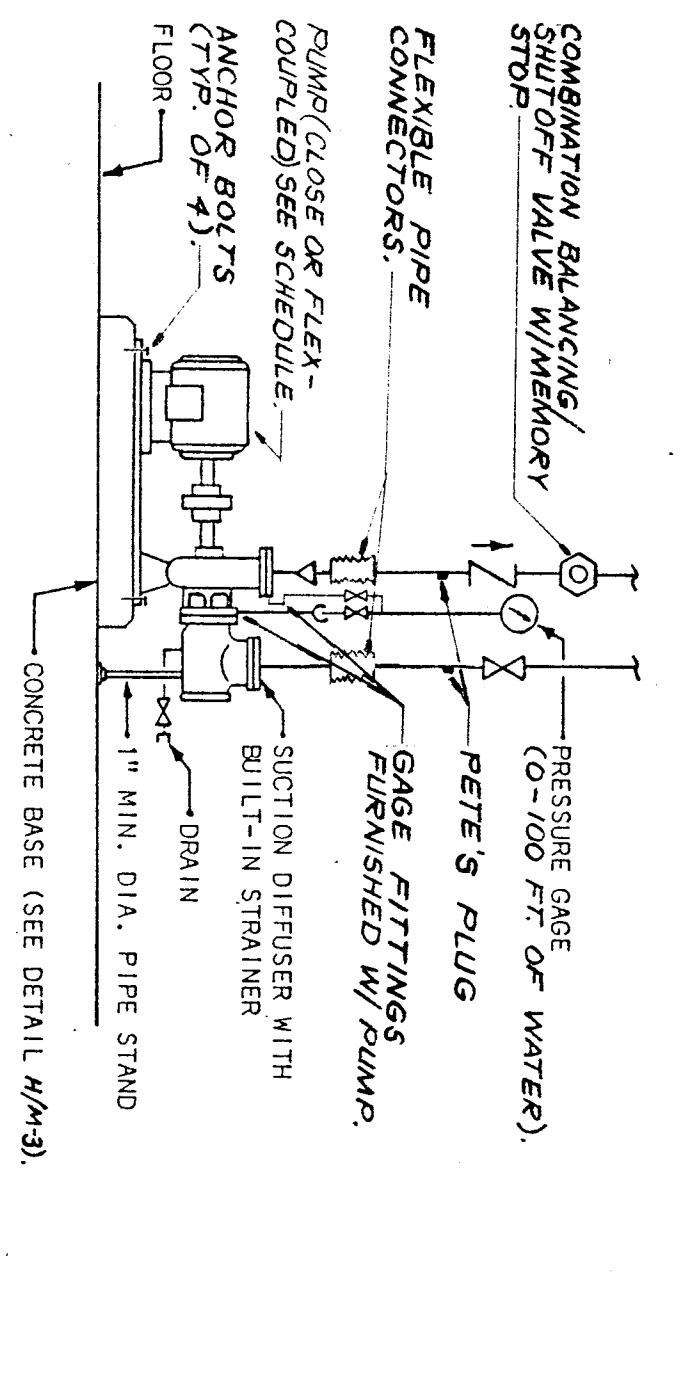


**DETAIL B**  
 IN-LINE PUMP PIPING  
 NO SCALE

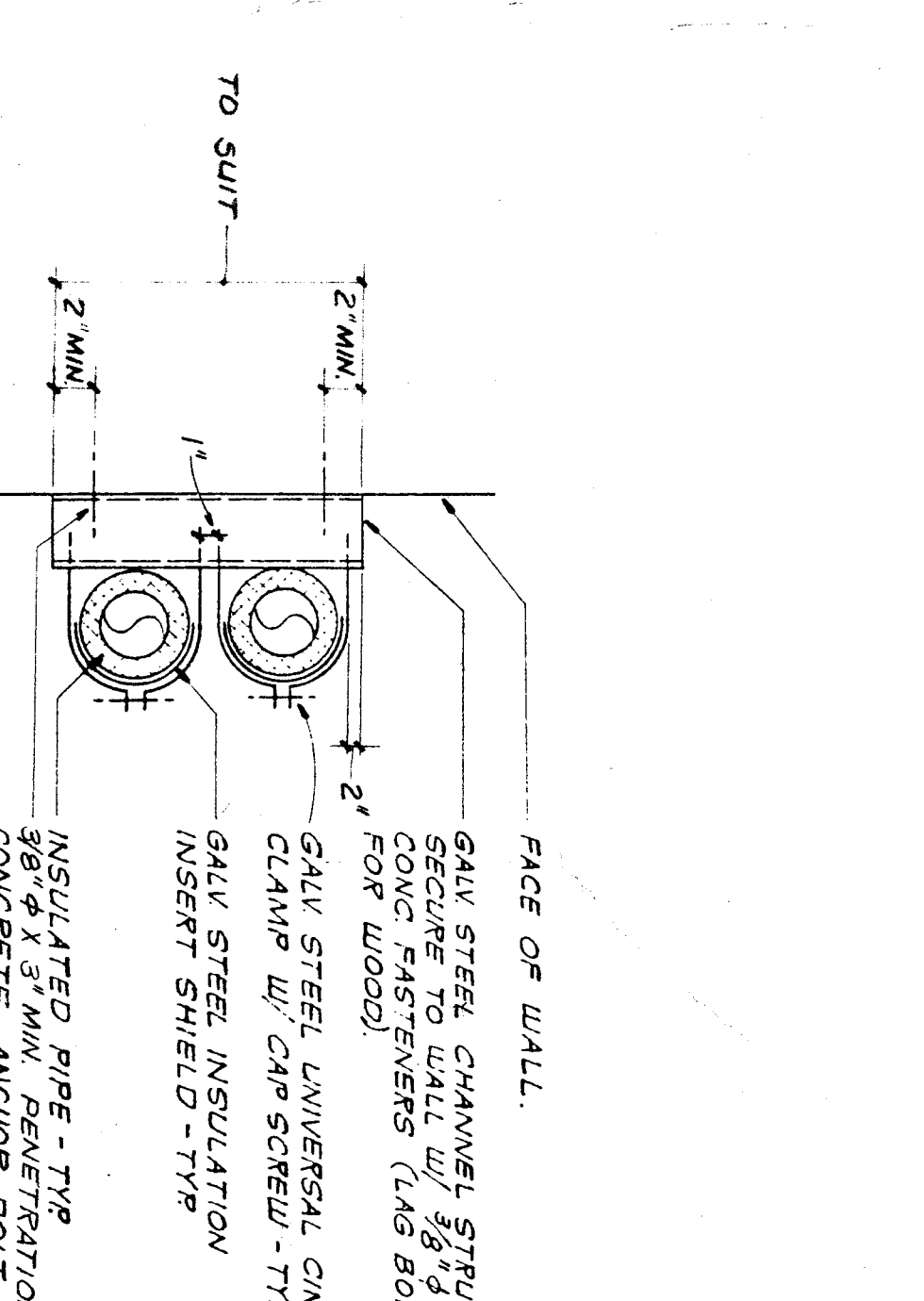
- NOTES:
- FLANGED PIPING SHALL BE OFFSET FROM PLANE OF PUMP SWIT.



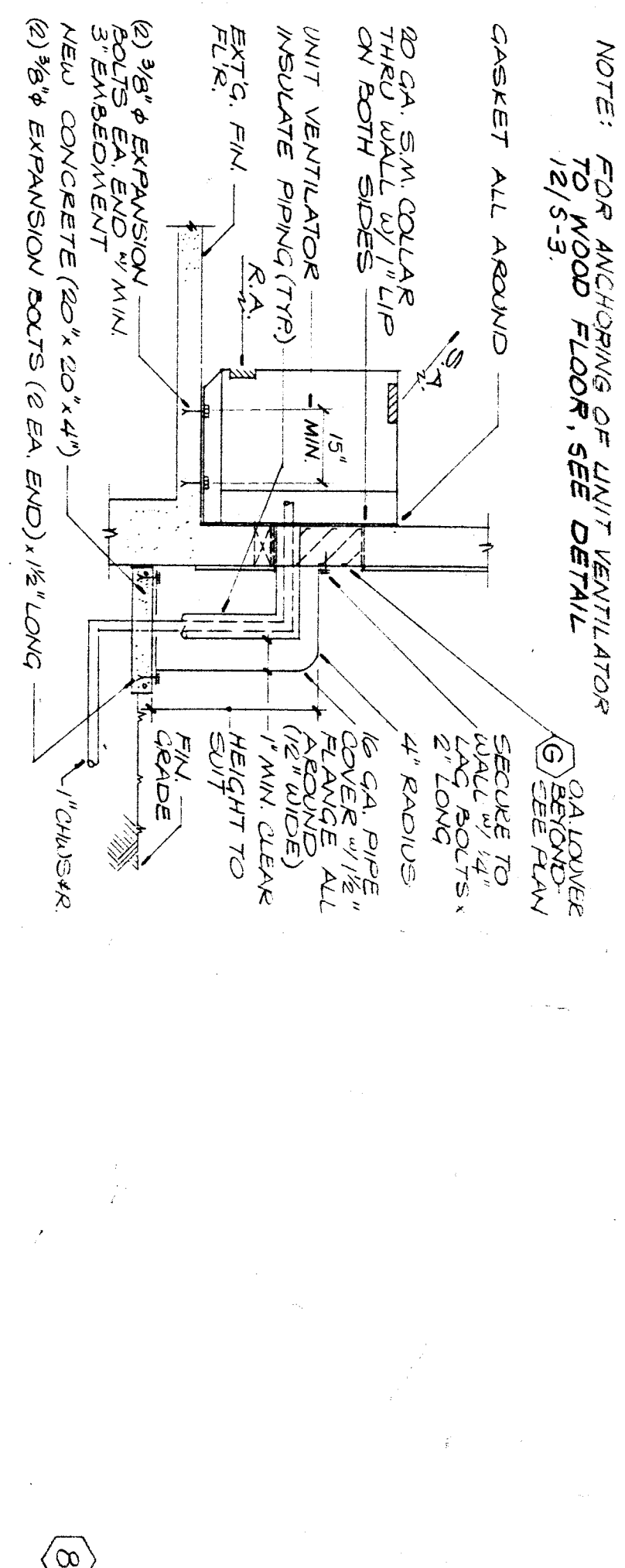
**DETAIL E**  
 PIPE SUPPORT  
 NO SCALE  
 REFER TO GENERAL NOTE 4 SHEET M-1.



**DETAIL A**  
 TYPICAL CONNECTIONS TO FLOOR MOUNTED SINGLE SECTION WATER PUMPS  
 NO SCALE

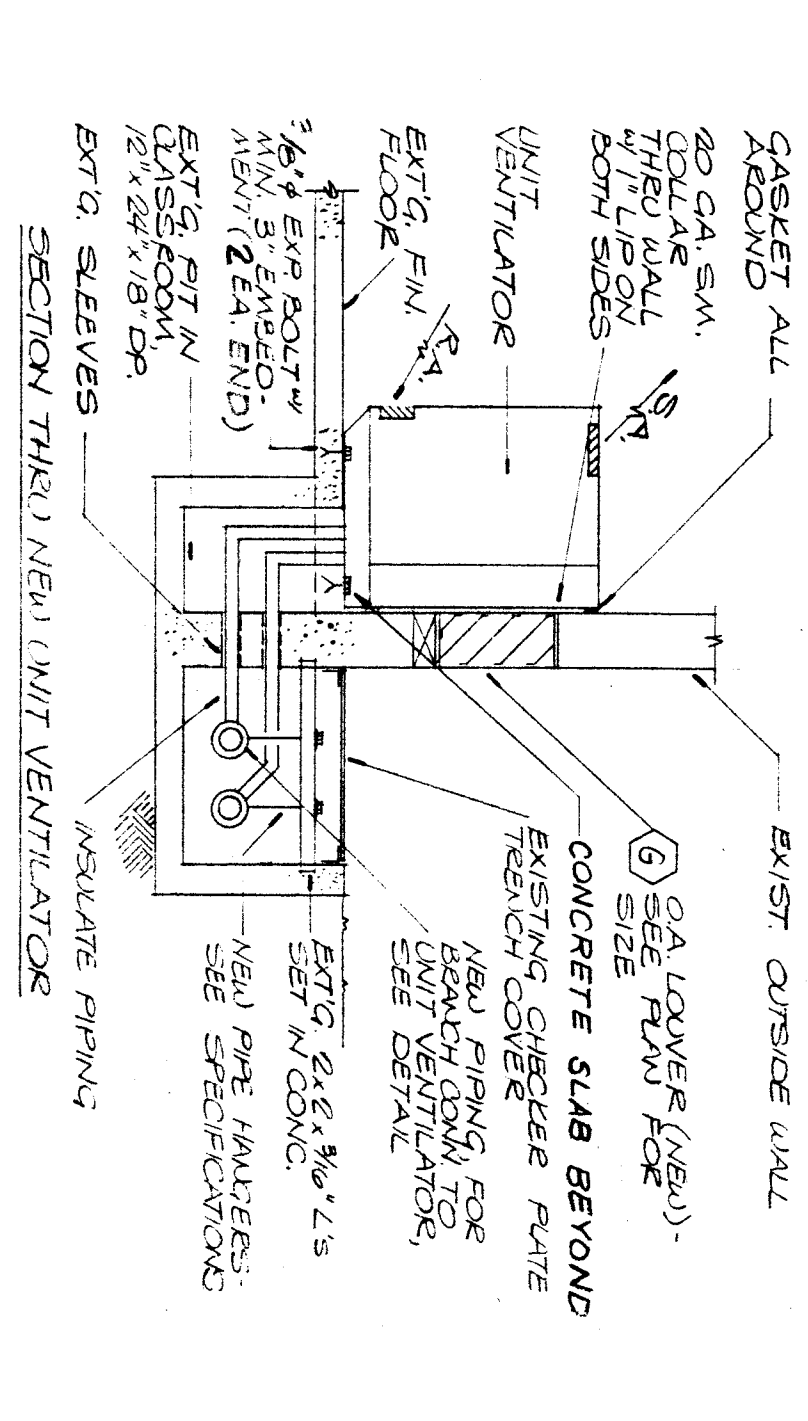


**DETAIL F**  
 VERTICAL PIPE GUIDE  
 NO SCALE



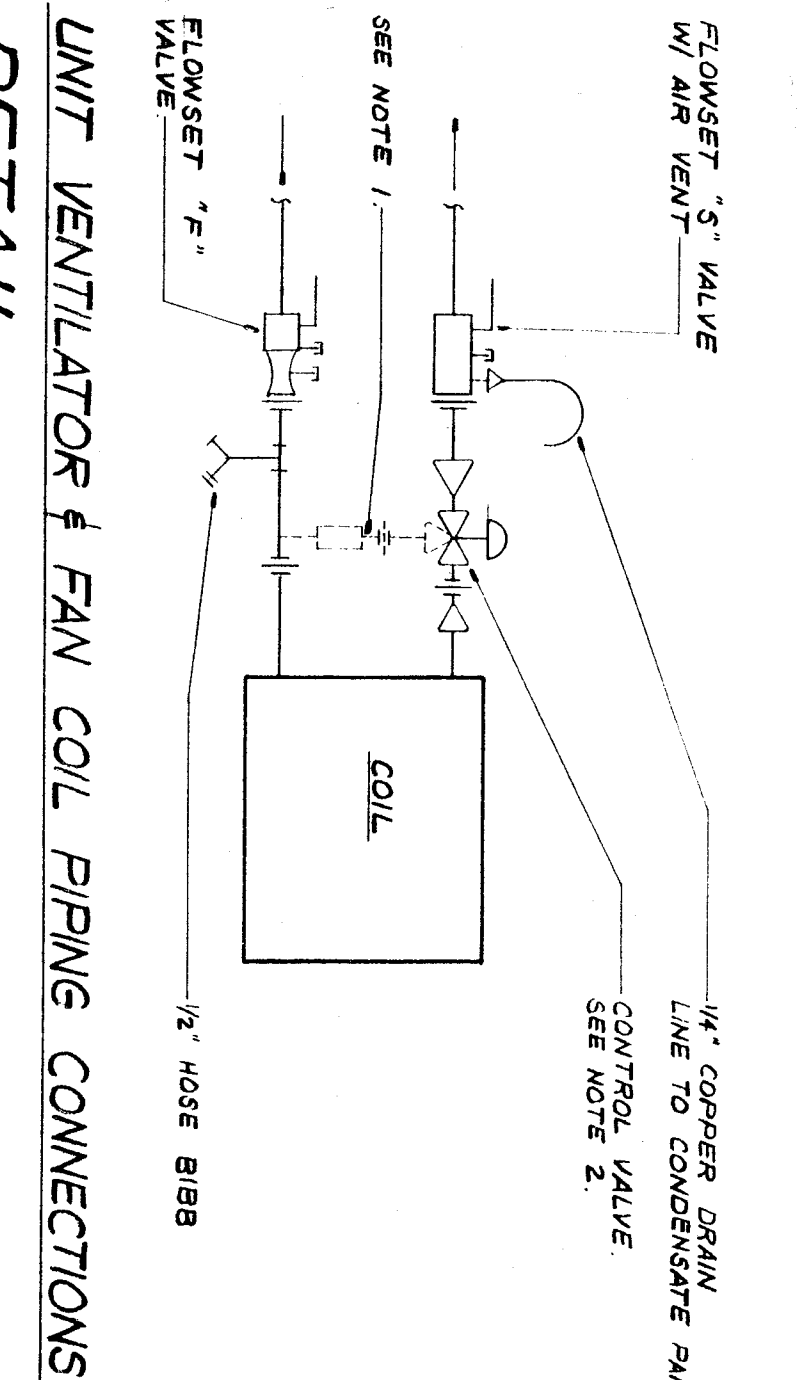
**DETAIL I**  
 UNIT VENTILATOR ANCHORAGE  
 NO SCALE

- NOTE: FOR ANCHORING OF UNIT VENTILATOR TO WOOD FLOOR, SEE DETAIL I2/S-3.



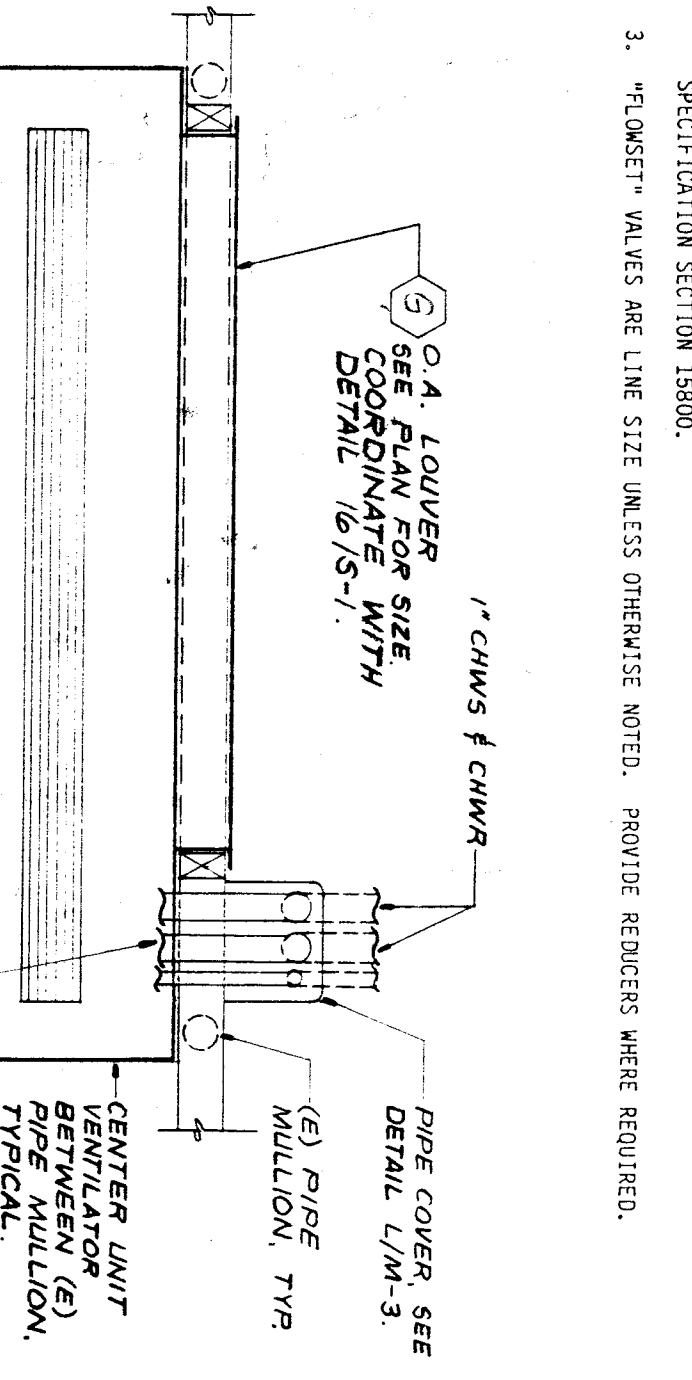
**DETAIL J**  
 PIPE COVER SHOR CUTS PERIOD TO EXISTING TRENCH DOES NOT OCCUR  
 NO SCALE

- NOTE: FOR ANCHORING OF UNIT VENTILATOR TO WOOD FLOOR, SEE DETAIL I2/S-3.

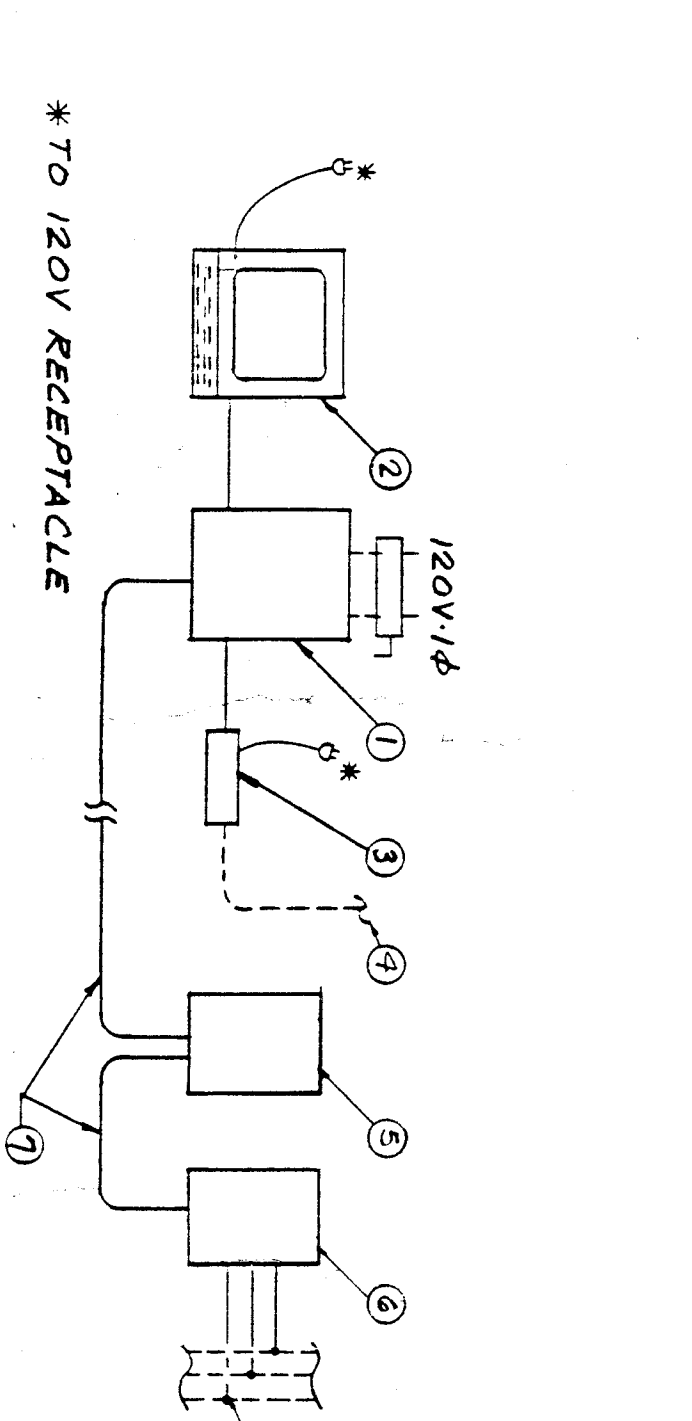


**DETAIL K**  
 UNIT VENTILATOR & FAN COIL PIPING CONNECTIONS  
 DIAGNOSTIC

- CHANGES:
- 3/2" BRASS LINE REQUIRED ONLY ON DESIGNATED UNIT VENTILATORS WITH 3-WAY VALVES; SEE PLAN FOR DESIGNATED UNIT VENTILATORS.
  - TEMPERATURE CONTROL VALVE IS FURNISHED UNDER SPECIFICATION SECTION 15900 AND INSTALLED UNDER SPECIFICATION SECTION 15900.
  - \*FLOWSET VALVES ARE LINE SIZE UNLESS OTHERWISE NOTED. PROVIDE REDUCERS WHERE REQUIRED.

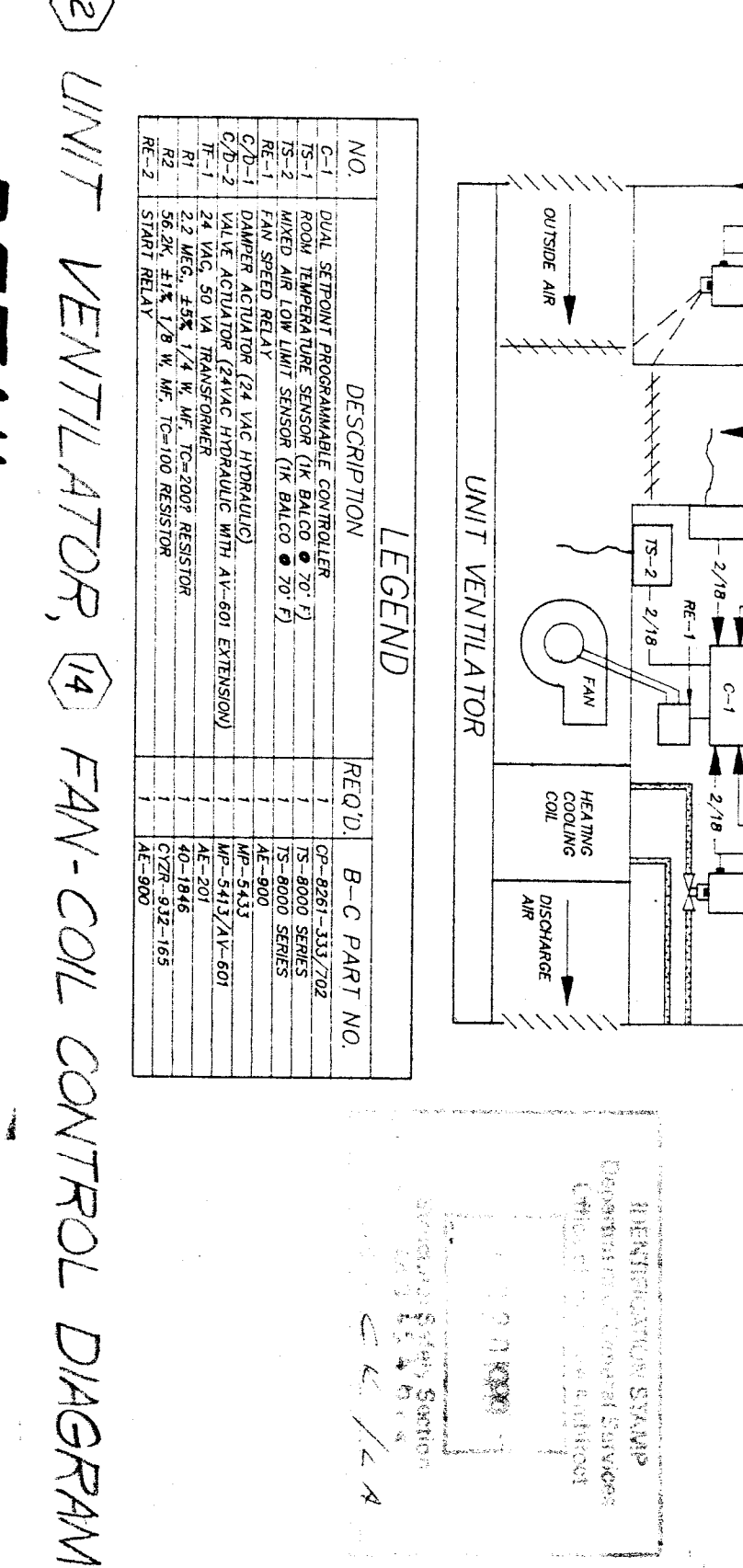


**DETAIL L**  
 UNIT VENTILATOR PLAN VIEW  
 NO SCALE



**DETAIL M**  
 EMS SINGLE LINE DIAGRAM  
 DIAGNOSTIC

- NOTES FOR DETAIL L/M-3:
- BRASSER-CORUM HE WORK 8000 MODEL GCM-82211 "RECALL CONTROL MODULE".
  - DRIVE TERMINAL CONSISTING OF MONITORING SCREEN VIBRATING TERMINAL AND RETURN; WSP-85; CONNECT TO (1).
  - 1200 BRASS EXTERNAL WORN CONNECTING TO (1) VIA BR-232 CONNECTION.
  - INDICATED RETURN LINE TO BE FURNISHED BY OWNER, INCLUDING ALL CONNECTIONS.
  - BRASSER-CORUM MODEL GCM-8000 POWER LINE CARRIER COMMAND SWITCHES FURNISHED THROUGH THE LIGHT DIMMING SYSTEM.
  - NOTE: CONTRACTOR FURNISHING POWER LINE CARRIER COMMAND SWITCHES SHALL PROVIDE AND PROVIDE PROOF OF LIGHT DIMMING SYSTEM AS SPECIFIED ON THE ELECTRICAL PLANS AND PROVIDE PROOF THAT WILL NOT BE AFFECTED BY SIGNALS GENERATED THROUGH THE LIGHT DIMMING SYSTEM.
  - BRASSER-CORUM COMMAND TRANSMITTER RECEIVER.
  - INTERCONNECTING WIRING BETWEEN GLOBAL CONTROL MODULE AND POWER LINE CARRIER DISTRIBUTION.
  - EXISTING A.C. WIRING.



**DETAIL N**  
 UNIT VENTILATOR, FAN-COIL CONTROL DIAGRAM  
 DIAGNOSTIC

**UNIT VENTILATOR REQUIREMENTS OF OPERATION**

UNIT VENTILATORS ARE STARTED AND STOPPED BY GROUPS (SIGNALS, USE, ETC.) FROM THE ENERGY MANAGEMENT SYSTEM. THE ENERGY MANAGEMENT SYSTEM SHALL BE THE ONLY SOURCE OF START AND STOP SIGNALS. THE ENERGY MANAGEMENT SYSTEM SHALL BE THE ONLY SOURCE OF START AND STOP SIGNALS. THE ENERGY MANAGEMENT SYSTEM SHALL BE THE ONLY SOURCE OF START AND STOP SIGNALS.

**UNIT VENTILATOR REQUIREMENTS OF OPERATION**

UNIT VENTILATORS ARE STARTED AND STOPPED BY GROUPS (SIGNALS, USE, ETC.) FROM THE ENERGY MANAGEMENT SYSTEM. THE ENERGY MANAGEMENT SYSTEM SHALL BE THE ONLY SOURCE OF START AND STOP SIGNALS. THE ENERGY MANAGEMENT SYSTEM SHALL BE THE ONLY SOURCE OF START AND STOP SIGNALS.