



NOTE THAT ROOF HATCH HAS METAL COVER, IS LOCATED IN A PIT, AND IS PARTIALLY OVERHUNG BY COOLING TOWER.

SEE DRAWING E3.0 FOR REFRIGERANT VENTILATION SYSTEM ALARM AND ACTIVATION DEVICES

NEAR MAIN MACHINERY DOOR PLACE A SIGN CONTAINING THE FOLLOWING INFORMATION FOR ALL CHILLERS:  
 -NAME AND NUMBER DESIGNATION OF REFRIGERANT IN SYSTEM  
 -POUNDS OF REFRIGERANT IN SYSTEM

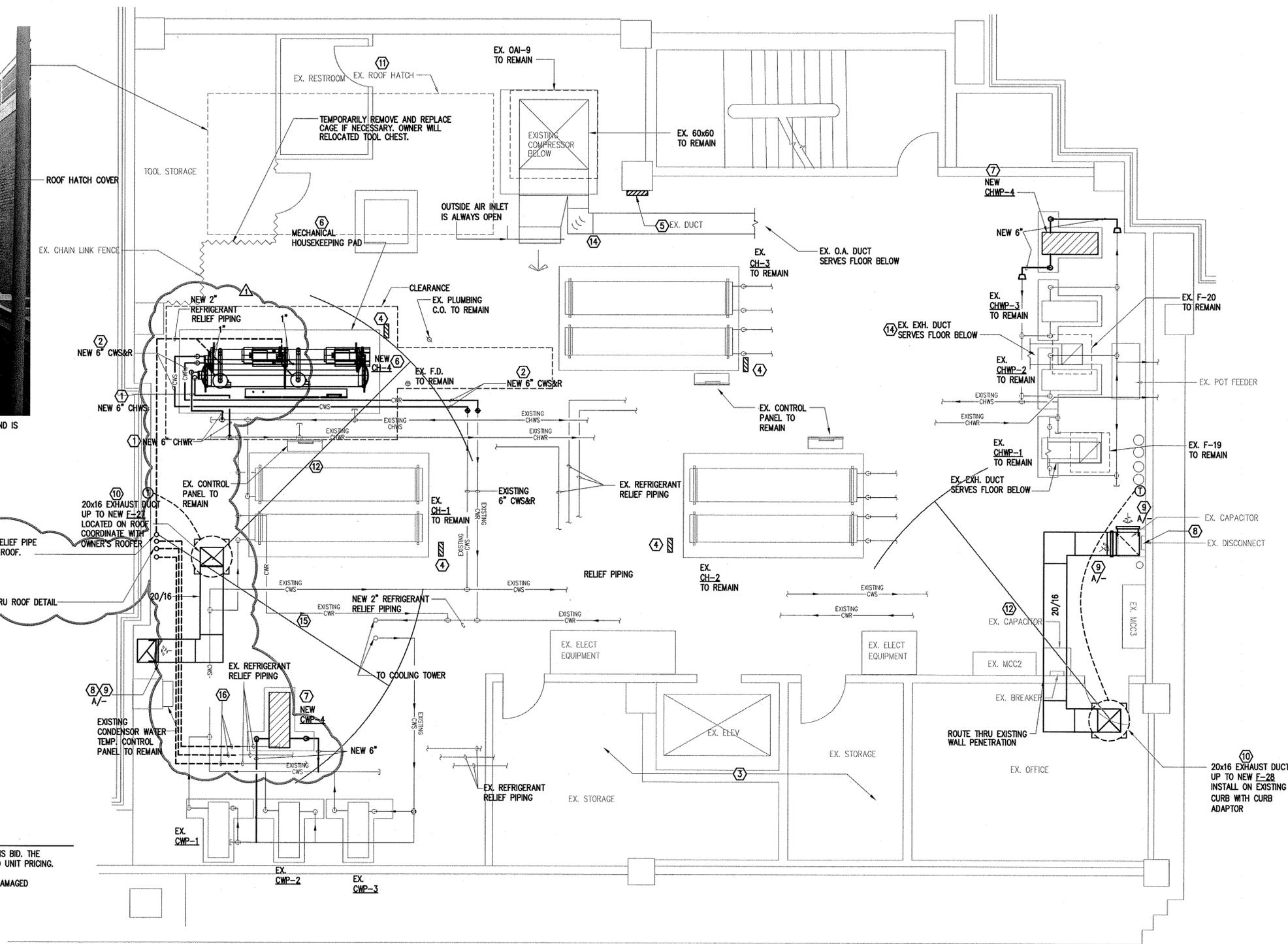
THE REFRIGERATION MACHINE ROOM SHALL HAVE CONSTRUCTION JOINTS, AND PENETRATIONS SEALED TO RESIST THE PASSAGE OF REFRIGERANT VAPOR. ALL DOORS INTO AND OUT OF MACHINE ROOM SHALL HAVE GASKETS AND SWEEPS.

ROOF WORK  
 ALL ROOFING WORK IS PART OF THIS CONTRACT. PRIME CONTRACTOR SHALL EMPLOY OWNER'S DESIGNATED ROOFING CONTRACTOR.  
 CHARTER ROOFING - (713) 991-7750

PAINTING  
 CONTRACTOR IS RESPONSIBLE FOR PAINTING NEW AND EXISTING DAMAGED SURFACES TO MATCH EXISTING.

**MECHANICAL GENERAL NOTES**

1. CONTRACTOR MUST SITE VERIFY ALL EXISTING CONDITIONS TO COMPLETE HIS BID. THE CONTRACTOR SHALL BE RESPONSIBLE TO DEVELOP HIS OWN MATERIAL AND UNIT PRICING.
2. ANY EXISTING INSULATION ON PIPING, VALVES, EQUIPMENT, ETC. THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW INSULATION.



**NEW LAYOUT MECHANICAL CHILLER ROOM PLAN - 6TH FLOOR**  
 SCALE: 1/4"=1'-0"

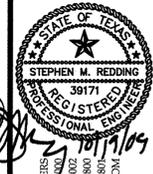
**MECHANICAL KEYED NOTES**

1. CONNECT NEW 6" CWS&R PIPING WITH ISOLATION VALVE. PROVIDE ALL NECESSARY PIPING OFFSETS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID.
2. CONNECT NEW 6" CWS&R PIPING WITH ISOLATION VALVE. PROVIDE ALL NECESSARY PIPING OFFSETS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID.
3. NO WORK THIS AREA.
4. THE CONTRACTOR SHALL PROVIDE AND INSTALL NEW REFRIGERANT SENSORS FOR ALL CHILLERS (CHILLERS 1,2,&3: R-11 & CH-4: R-134A) AS REQUIRED TO SENSE REFRIGERANT LEAKS. THE NEW SENSORS MUST BE MOUNTED NEAR THE FLOOR PER MANUFACTURER'S RECOMMENDATIONS AND MUST BE SECURELY SUPPORTED TO PROTECT NEW DEVICE.
5. CONTRACTOR SHALL INSTALL A NEW REFRIGERANT MONITOR SUITABLE FOR NEW & EXISTING CHILLER REFRIGERANTS.
6. INSTALL NEW CHILLER, CH-4, COMPLETE WITH CONTROLS. NEW CONTROLS TO INTERFACE WITH EXISTING PNEUMATIC CONTROL SYSTEM AND ENERGY MANAGEMENT SYSTEM. CONTRACTOR MAY USE EXISTING CHILLER PAD AND MODIFY AS NECESSARY TO ACCOMMODATE NEW CHILLER.
7. CONTRACTOR SHALL SUPPLY AND INSTALL NEW CHILLED WATER PUMP CHWP-4 AND NEW CONDENSER WATER PUMP CWP-4 ON EXISTING PAD WHERE OLD PUMP WAS REMOVED. PAD SHALL BE MODIFIED AS REQUIRED TO ACCOMMODATE NEW PUMP. NEW PUMP TO CONNECT TO EXISTING VALVES AND PIPING. MODIFY PIPING AS REQUIRED.
8. TERMINATE EXHAUST DUCT 6" ABOVE FLOOR. PROVIDE BIRD SCREEN OVER OPENING.
9. NEW RETURN AIR GRILLE LOCATED 12" ABOVE FLOOR. SEE SCHEDULE.
10. CONTRACTOR TO INSTALL NEW ROOF MOUNTED FAN TO BE LOCATED AS SHOWN. FAN TO OPERATE CONTINUOUSLY AT SPEED OF 1175 CFM. CONNECT TO EXHAUST DUCT AS SHOWN. REUSE EXISTING ROOF PENETRATIONS.
11. CONTRACTOR TO HIRE OWNER'S ROOFER AND RE-INSTALL ROOF HATCH AFTER NEW CHILLER AND PIPING IS INSTALLED. ROOF HATCH TO BE WATER TIGHT.
12. THERE IS NO BUILDING OPENING WITHIN 20' OF VENTILATION DISCHARGE.
13. PRESSURE RELIEF SHALL BE 20' FROM BUILDING OPENING AND 15' ABOVE GRADE.
14. ALL SEAMS AND JOINTS IN NEW AND EXISTING DUCTS WITHIN THE MACHINE ROOM SHALL BE SEALED SUBSTANTIALLY AIR TIGHT.
15. THERE IS NO BUILDING OPENING WITHIN 20' OF REFRIGERANT RELIEF PIPING DISCHARGE.
16. EXISTING REFRIGERANT PRESSURE RELIEF PIPING TO BE EXTENDED AND REROUTED TO PENETRATE ROOF AS SHOWN TO MAINTAIN A 20' CLEARANCE OF BOILER ROOM INTAKE. MAINTAIN EXISTING PIPING SIZES.

SEE SHEET E2.0 FOR REFRIGERANT ALARM STROBES, AUDIO DEVICES, AND EMERGENCY BACKUP. DEVICES ARE PROVIDED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.

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**WORTHAM THEATER CENTER  
 CHILLER REPLACEMENT**  
 HOUSTON, TEXAS



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**M2.0**