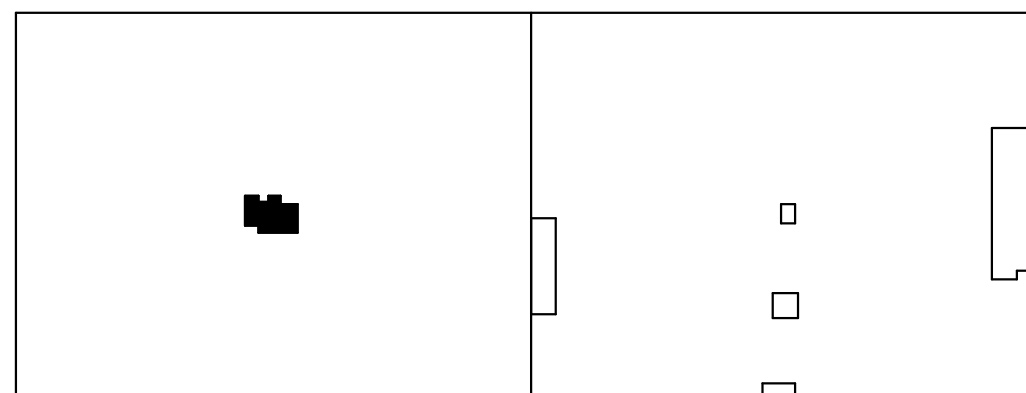


1 ENLARGED BREAKROOM AND RESTROOM PLUMBING PLAN  
1/4" = 1'-0"

FIXTURE CONNECTION SCHEDULE				
(NOTE: CONNECTIONS ARE TYPICAL UNLESS NOTED OTHERWISE ON DWG.)				
FIXTURE	COLD WATER	HOT WATER	DRAIN	VENT
WC WATER CLOSET	1"	----	4"	2"
UR URINAL	3/4"	----	2"	1 1/2"
L LAVATORY	1/2"	1/2"	2"	1 1/2"
S SINK	1/2"	1/2"	2"	1 1/2"
EWC ELEC WATER COOLER	1/2"	----	2"	1 1/2"
CO CLEANOUT	----	----	4"	----
FD FLOOR DRAIN	----	----	4"	----
WH WATER HEATER	3/4"	----	----	----
SS SERVICE SINK	1/2"	1/2"	3"	1 1/2"
WF WASH FOUNTAIN	1"	1"	2"	1 1/2"

SS —————  
SANITARY VENT - - - - -



KEY PLAN



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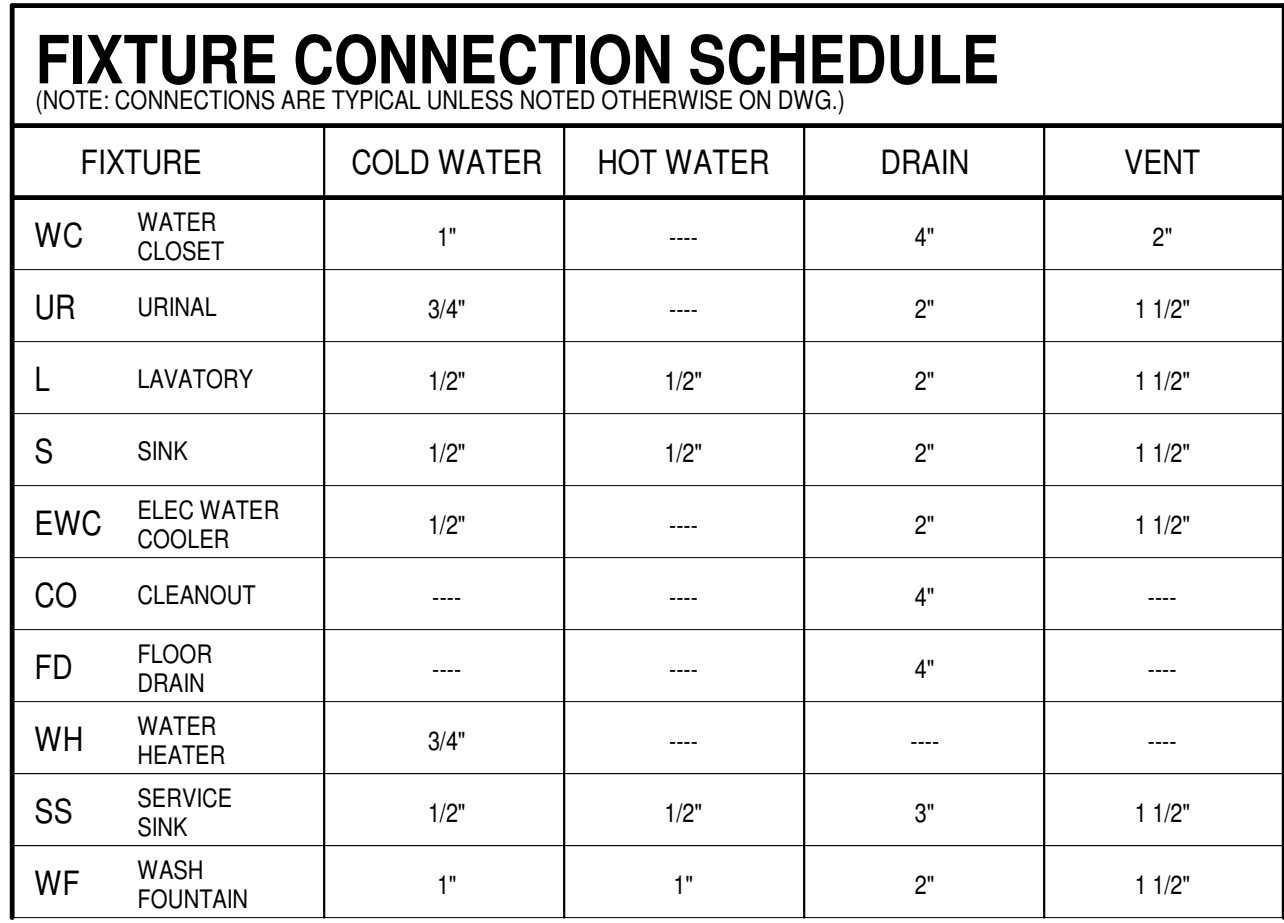
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Telephone: (731) 664-6300 Fax: (731) 664-6339

SCALE		
As Indicated	As Indicated	As Indicated
DRAWN	A/E	PM
BR	JAR	Approver
SHEET TITLE		

PROJECT FACILITY RENOVATION FOR  
**ROSS DISTRIBUTION CENTER**  
SHAFTER, CALIFORNIA

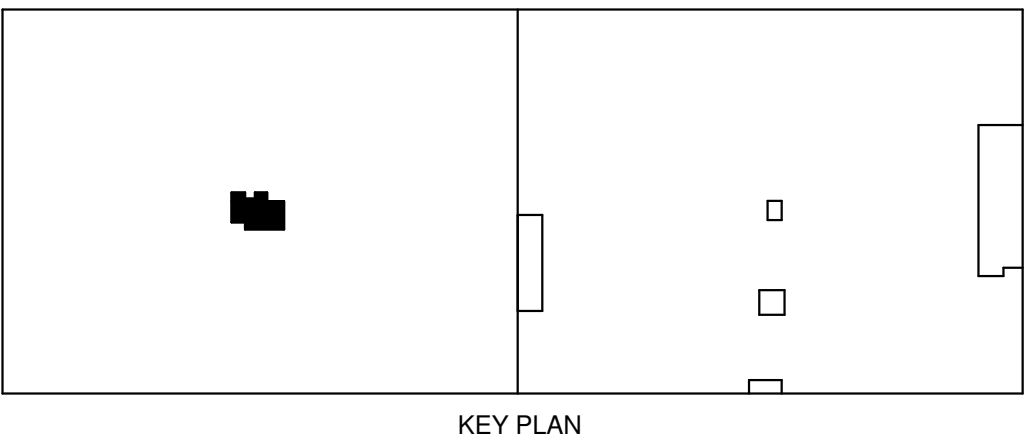
ENLARGED UNDERGROUND PLUMBING PLAN

PROJECT NUMBER 19034  
SHEET NUMBER  
**2M-2.1**  
PLOT DATE  
9/27/2019 10:44:28 AM



SS \_\_\_\_\_

SANITARY VENT \_\_\_\_\_

[illegible]

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SCALE		
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SHEET TITLE		

PROJECT FACILITY RENOVATION FOR  
**ROSS DISTRIBUTION CENTER**  
SHAFTER, CALIFORNIA

SANITARY RISER

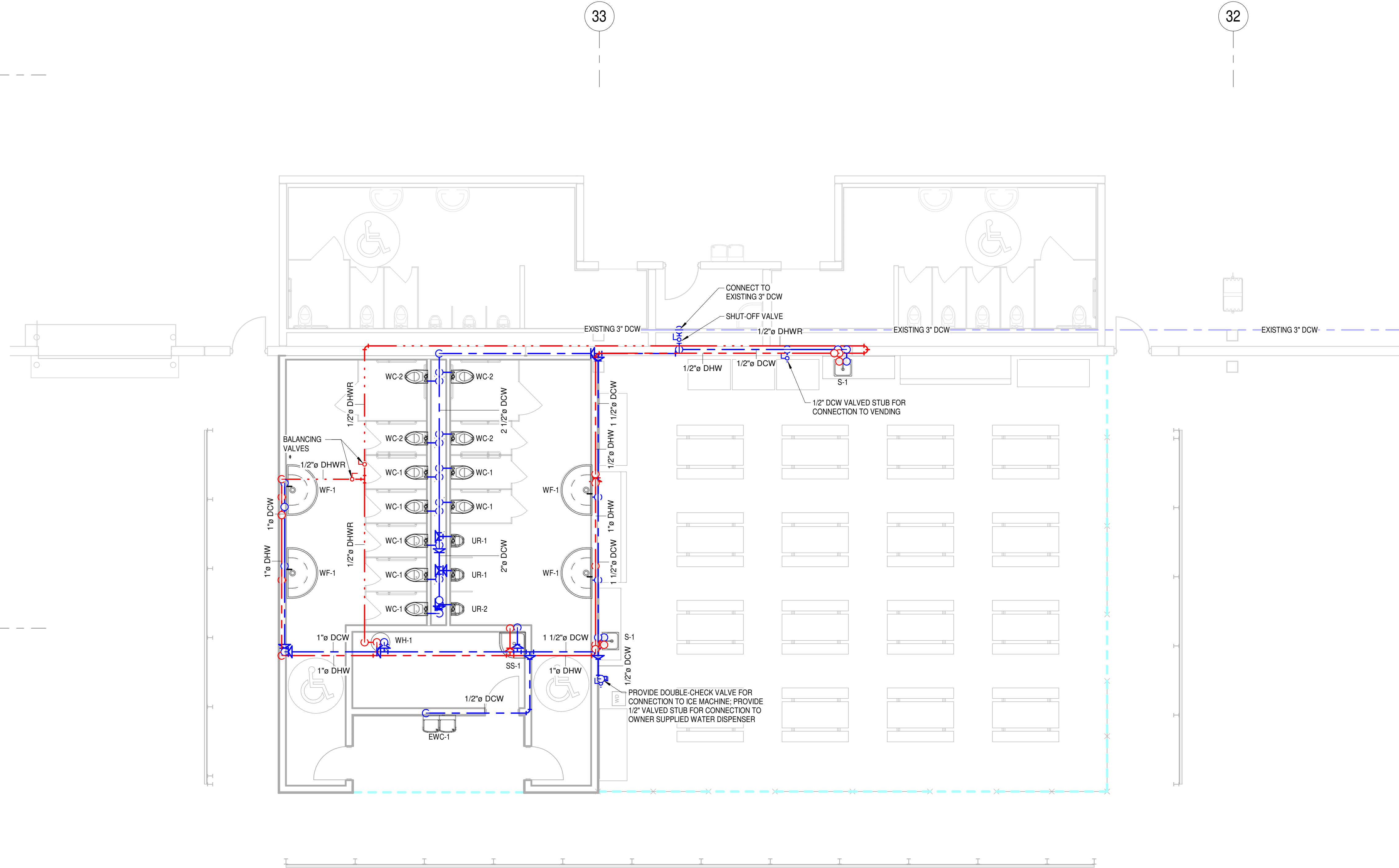
PROJECT NUMBER 10004

SHEET NUMBER

## 2M-2.2

PLOT DATE  
9/27/2019 10:44:30 AM

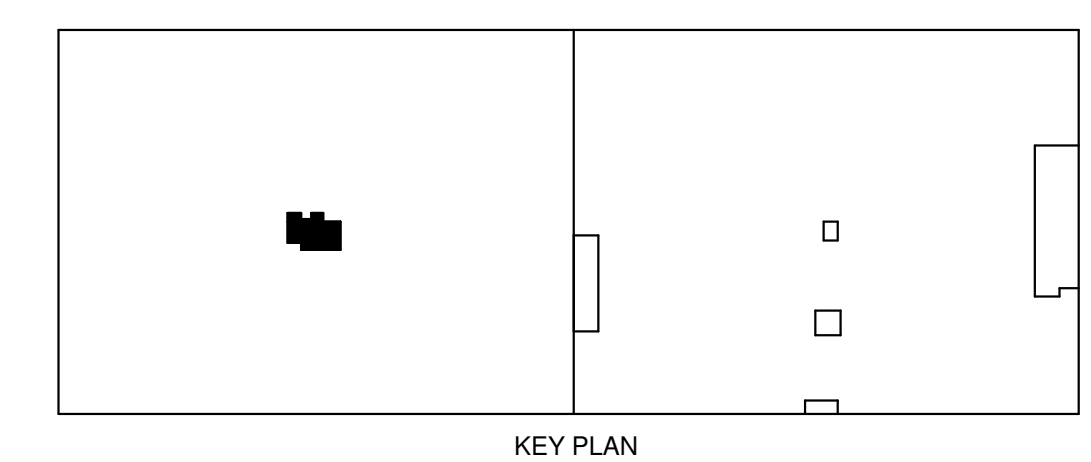




1 ENLARGED BREAKROOM AND RESTROOM OVERHEAD PLUMBING PLAN  
3/16" = 1'-0"

FIXTURE CONNECTION SCHEDULE					
(NOTE: CONNECTIONS ARE TYPICAL UNLESS NOTED OTHERWISE ON DWG.)					
FIXTURE		COLD WATER	HOT WATER	DRAIN	VENT
WC	WATER CLOSET	1"	----	4"	2"
UR	URNAL	3/4"	----	2"	1 1/2"
L	LAVATORY	1/2"	1/2"	2"	1 1/2"
S	SINK	1/2"	1/2"	2"	1 1/2"
EWC	ELEC WATER COOLER	1/2"	----	2"	1 1/2"
CO	CLEANOUT	----	----	4"	----
FD	FLOOR DRAIN	----	----	4"	----
WH	WATER HEATER	3/4"	----	----	----
SS	SERVICE SINK	1/2"	1/2"	3"	1 1/2"
WF	WASH FOUNTAIN	3/4"	3/4"	2"	1-1/2"

DOMESTIC COLD WATER -----  
DOMESTIC HOT WATER -----  
DOMESTIC HOT WATER RETURN -----





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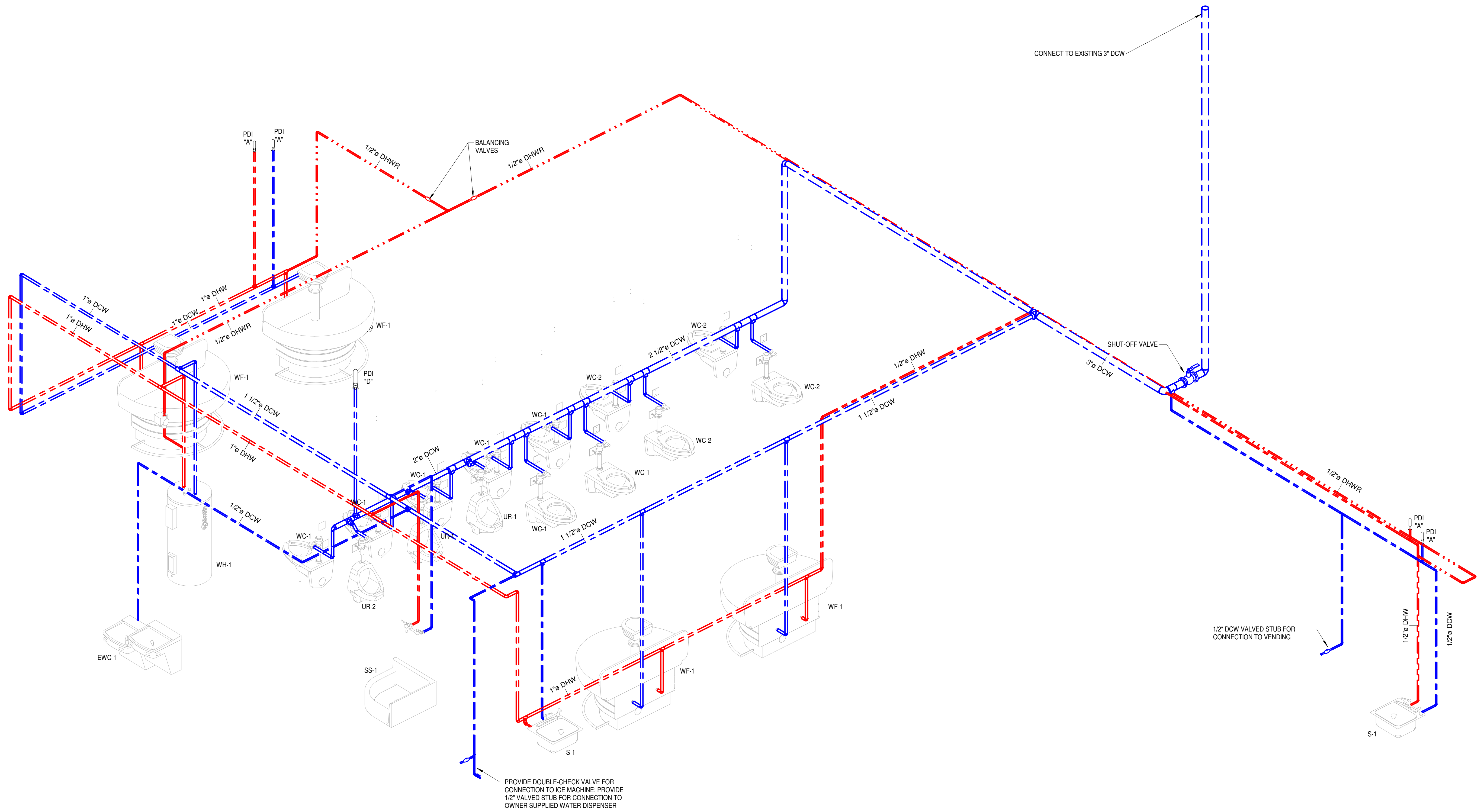
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DRAWN	A/E	PM		
BR	JAR	PW		

SHEET TITLE

PROJECT		FACILITY RENOVATION FOR	
		<b>ROSS DISTRIBUTION CENTER</b>	
		SHAFTER, CALIFORNIA	
ENLARGED OVERHEAD PLUMBING PLAN			

PROJECT NUMBER	
19034	
SHEET NUMBER	
<b>2M-3.1</b>	
PLOT DATE	
9/27/2019 10:44:31 AM	



DOMESTIC RISER

FIXTURE CONNECTION SCHEDULE					
(NOTE: CONNECTIONS ARE TYPICAL UNLESS NOTED OTHERWISE ON DWG.)					
FIXTURE		COLD WATER	HOT WATER	DRAIN	VENT
WC	WATER CLOSET	1"	----	4"	2"
UR	URINAL	3/4"	----	2"	1 1/2"
L	LAVATORY	1/2"	1/2"	2"	1 1/2"
S	SINK	1/2"	1/2"	2"	1 1/2"
EWC	ELEC WATER COOLER	1/2"	----	2"	1 1/2"
CO	CLEANOUT	----	----	4"	----
FD	FLOOR DRAIN	----	----	4"	----
WH	WATER HEATER	3/4"	----	----	----
SS	SERVICE SINK	1/2"	1/2"	3"	1 1/2"
WF	WASH FOUNTAIN	1"	1"	2"	1 1/2"

DOMESTIC COLD WATER \_\_\_\_\_

DOMESTIC HOT WATER \_\_\_\_\_

DOMESTIC HOT WATER RETURN \_\_\_\_\_



No.	Date	Description
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DRAWN	JAR	PW
BR		

PROJECT  
**ROSS DISTRIBUTION CENTER**  
SHAFTER, CALIFORNIA

SHEET TITLE  
**DOMESTIC RISER**

PROJECT NUMBER 19034
SHEET NUMBER <b>2M-3.2</b>
PLOT DATE 9/27/2019 10:44:33 AM



1. PVC PIPE (ASTM D2665) FOR UNDERGROUND SANITARY SEWER ABOVE GROUND SANITARY - NO HUB IN PLENUM SPACE AND PVC OTHER AREAS.
2. USE 1/8" IFT. SLOPE ON UNDERGROUND SANITARY SEWER LINE (OR TO INVERTS SHOW ON DRAWINGS).
3. ALL FLOOR DRAINS TO BE PROVIDED WITH DEEP SEAL TRAPS.
4. PROVIDE CLEAN-OUTS AT CHANGE IN DIRECTION AND EVERY 50' IN HORIZONTAL RUNS FOR 4" AND SMALLER DIAMETERS. CLEAN-OUT REQUIRED OUTSIDE BUILDING.
5. COPPER TYPE "L" (ASTM B88) OR GALVANIZED STEEL, SCHEDULE 40 (ASTM A53) PIPING FOR OVERHEAD WATER DISTRIBUTION.
6. INSTALL WATER HAMMER ARRESTORS AT END OF PIPE RUNS OR AS SHOWN ON DRAWINGS. ARRESTOR SHOULD BE ABOVE CEILING FOR EASY ACCESS FOR SERVICING.
7. INSULATE DOMESTIC WATER LINES WITH FIBERGLASS PER SPECIFICATIONS - COLD WATER 1/2" THICK AND HOT WATER 1"

— — — — —DCW — — — — —	DOMESTIC COLD WATER
- - - - -DHW — — — — —	DOMESTIC HOT WATER
— . . . —DHWR— . . . —	DOMESTIC HOT WATER RETURN
— — — — —SS— — — — —	SANITARY SEWER
- - - - -CD — — — — -	CONDENSATE DRAIN
— — — — —(O)— — — — —	BALL VALVE

9. DOMESTIC WATER PIPING SHOW ON PLANS TO RUN CONCEALED ABOVE SUSPENDED CEILINGS OR JUST BELOW ROOF JOISTS/THRU GIRDERS IN AREAS WITHOUT SUSPENDED CEILINGS.

10. COORDINATE ALL PIPE ROUTING WITH WORK DETAILED ON ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

11. PROVIDE ACCESSIBLE STOPS IN PIPING CONNECTIONS TO ALL PLUMBING FIXTURES

12. HOLD EXPOSED VERTICAL PIPING TIGHT TO WALLS AND COLUMNS. PROVIDE OFFSETS AROUND STRUCTURAL MEMBERS WHERE REQUIRED.

13. PROVIDE U-TRAP SAME SIZE AS HVAC UNIT CONDENSATE DRAIN AND ROUTE CONDENSATE PIPING AS SHOWN ON DRAWINGS.



NOTES

1. RECIRCULATION PUMPS - SHALL BE ALL BRONZE CONSTRUCTION, PUMPS TO RUN CONTINUOUS.
2. ALL WATER HEATERS TO ME SIMULTANEOUS OPERATION UNLESS OTHER WISE NOTED.
3. WH-12 IS NON-SIMULTANEOUS OPERATION.

[illegible]

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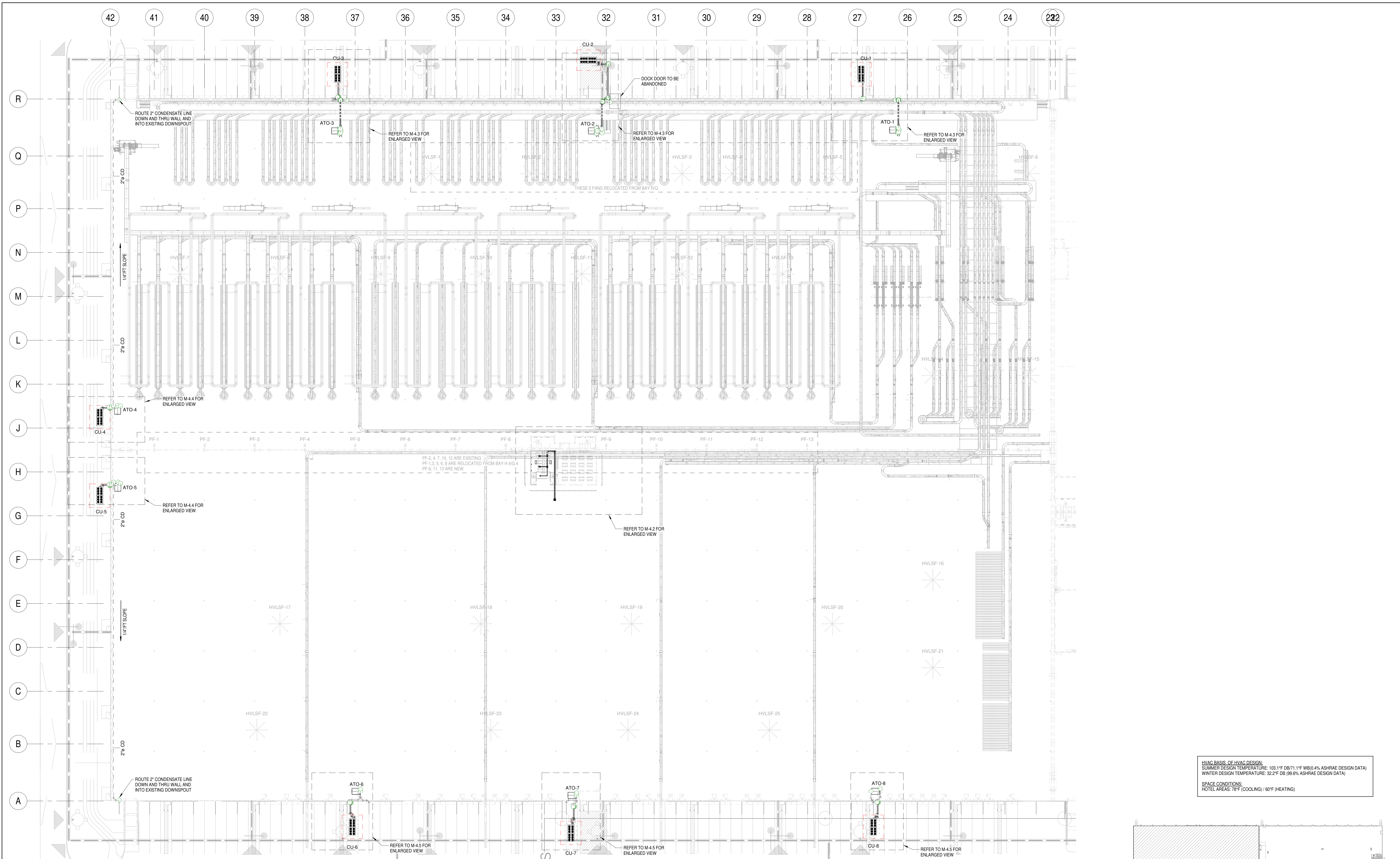
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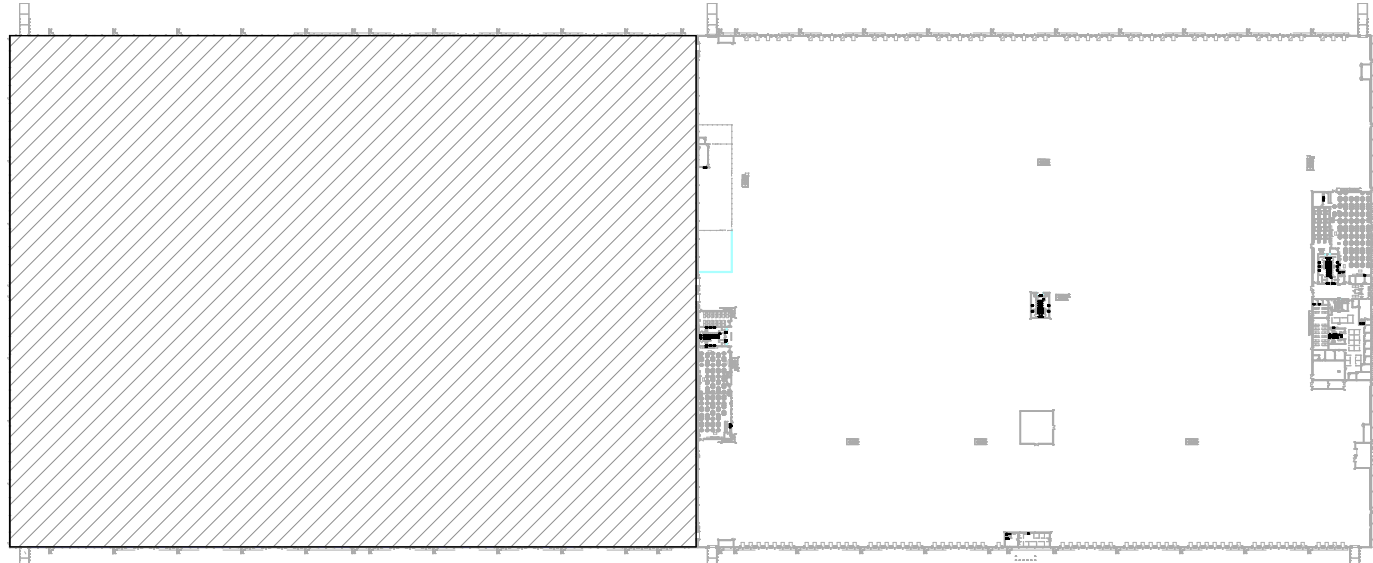
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As Indicated				ROSS DISTRIBUTION CENTER		19034
DRAWN	A/E	PM				SHEET NUMBER
BR	JAR	PW		SHAFTER, CALIFORNIA		2M-3.3
SHEET TITLE			PLUMBING NOTES AND DETAILS			PLOT DATE 3/27/2019 10:44:34 AM





1 HVAC PLAN  
1" = 40'-0"

HVAC BASIS OF HVAC DESIGN:  
SUMMER DESIGN TEMPERATURE: 103.1°F DB/71.1°F WB (0.4% ASHRAE DESIGN DATA)  
WINTER DESIGN TEMPERATURE: 32.2°F DB (98.6% ASHRAE DESIGN DATA)  
SPACE CONDITIONS:  
HOTEL AREAS: 78°F (COOLING) / 60°F (HEATING)



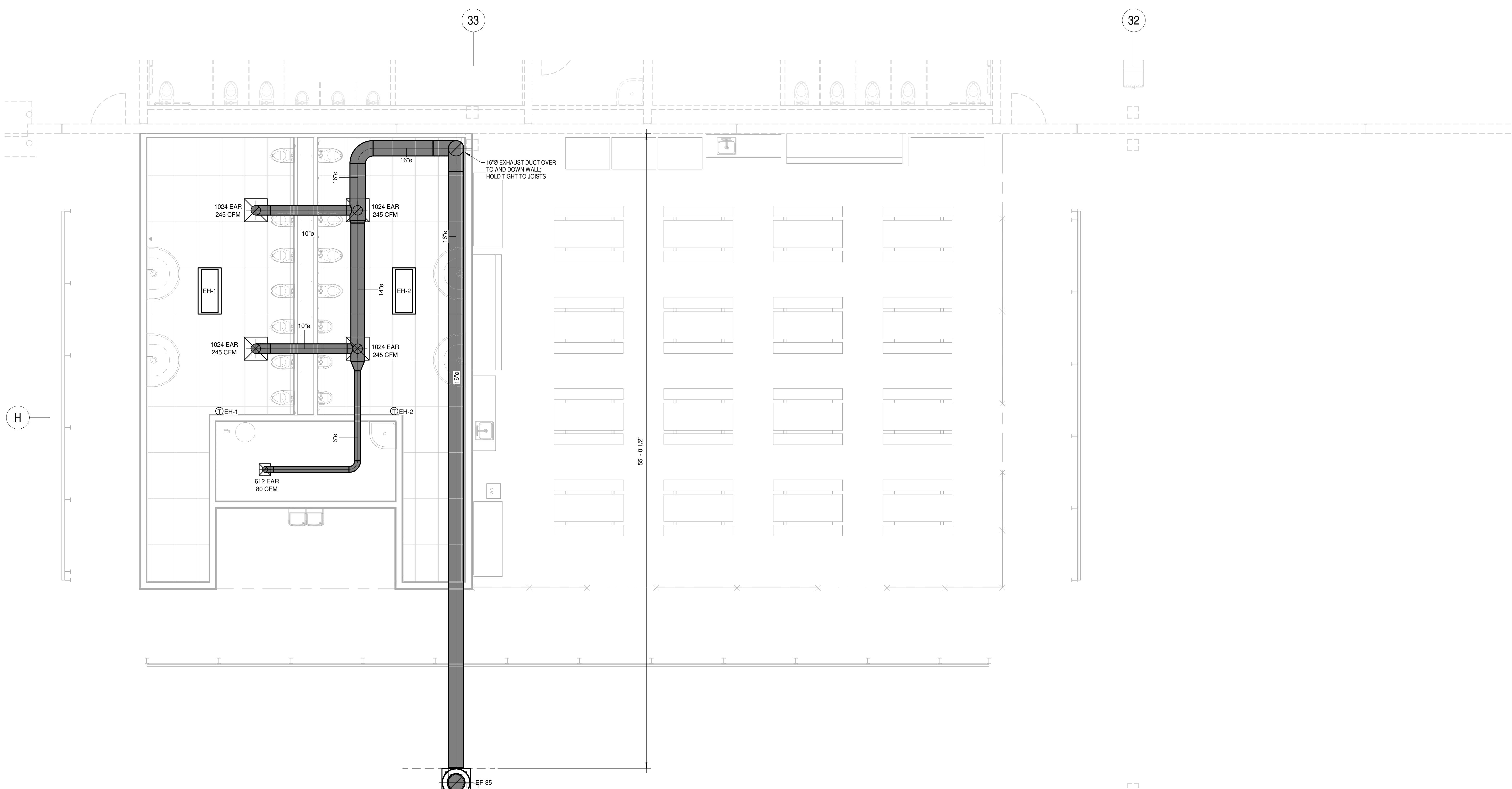
No.	Date	Description
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C	09/27/19	ISSUE FOR PERMIT

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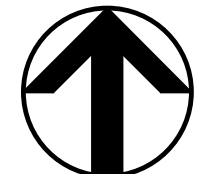
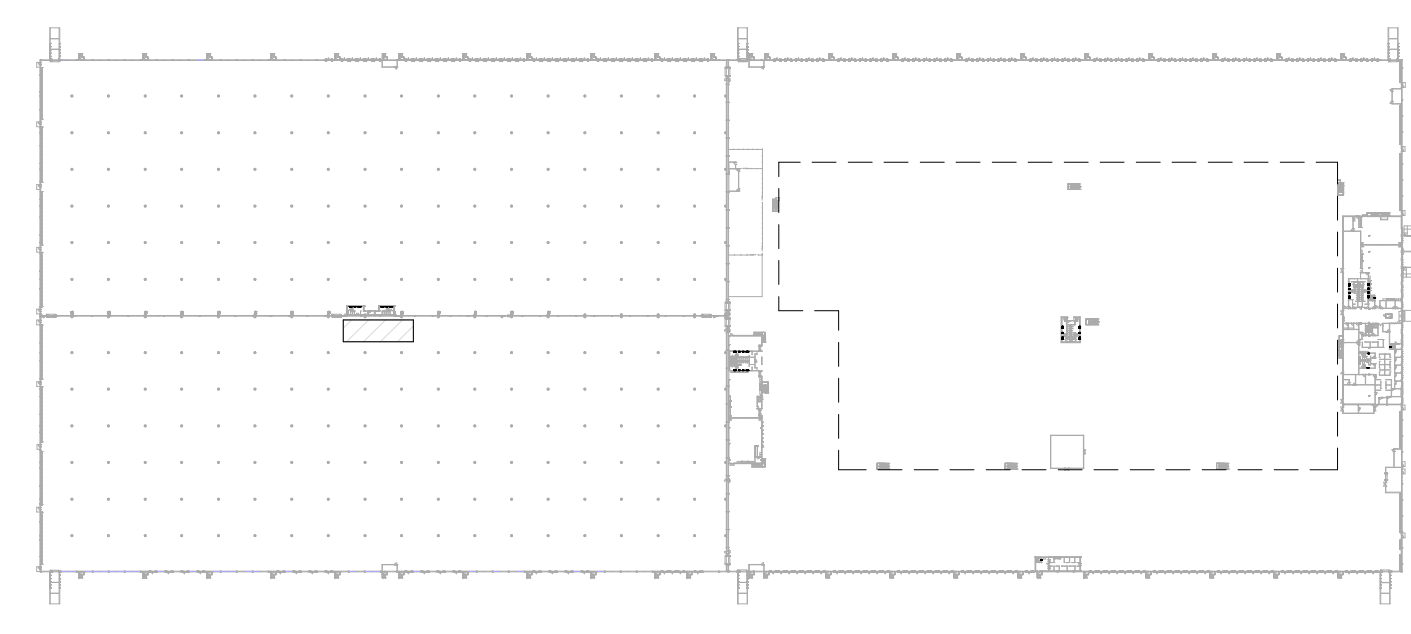
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DRAWN	A/E PM			SHEET NUMBER	<b>2M-4.1</b>
JAR	JAR PW			PLOT DATE	9/27/2019 10:45:45 AM
SHEET TITLE			<b>HVAC PLAN</b>		





HVAC BASIS OF HVAC DESIGN:  
SUMMER DESIGN TEMPERATURE: 103.1°F DB/71.1°F WB(0.4% ASHRAE DESIGN DATA)  
WINTER DESIGN TEMPERATURE: 32.2°F DB (98.6% ASHRAE DESIGN DATA)  
SPACE CONDITIONS:  
BATHROOM AREAS: CODE EXHAUST / 60°F (HEATING)

1 ENLARGED BREAKROOM AND RESTROOM HVAC PLAN  
1/4" = 1'-0"



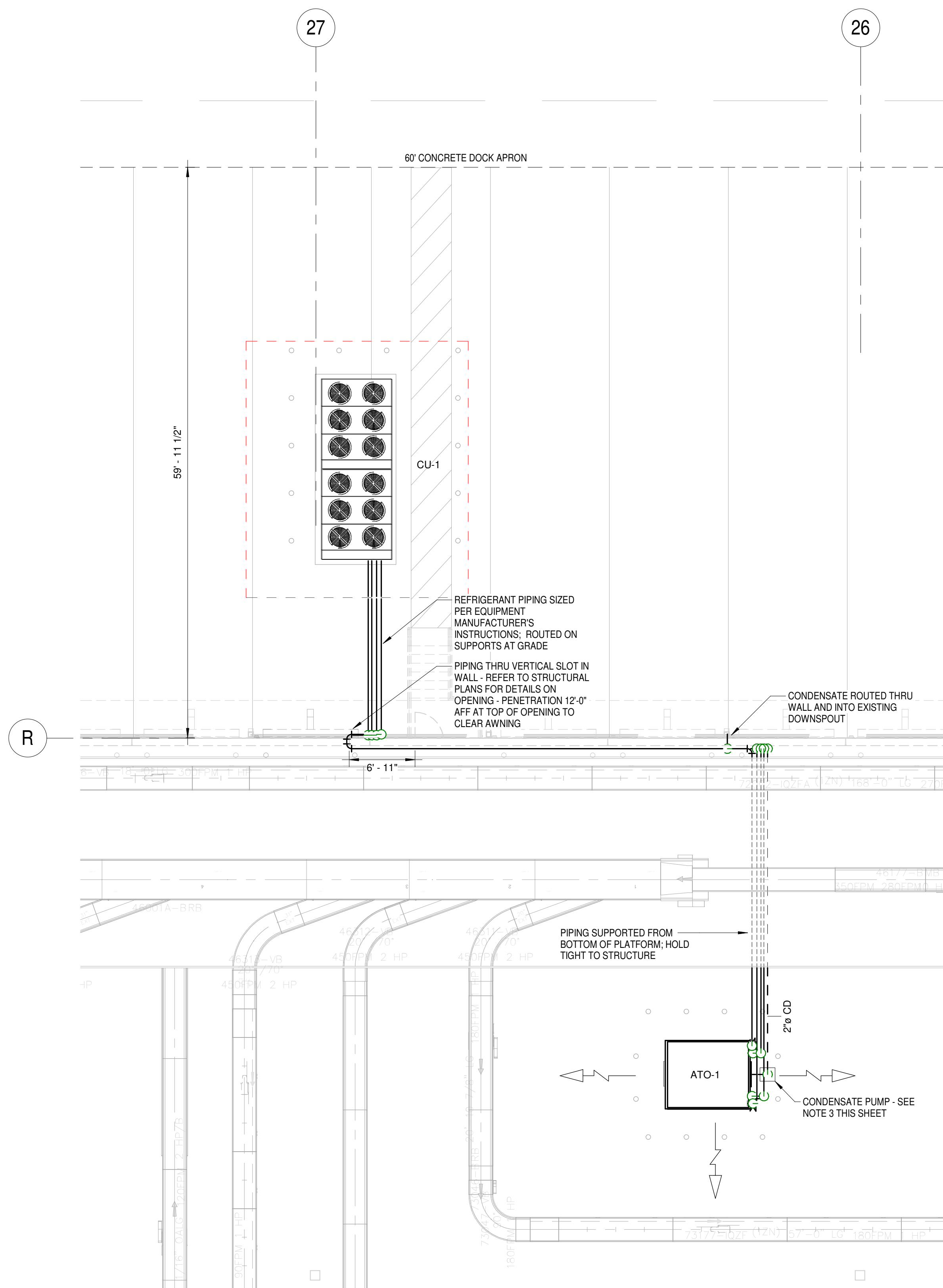
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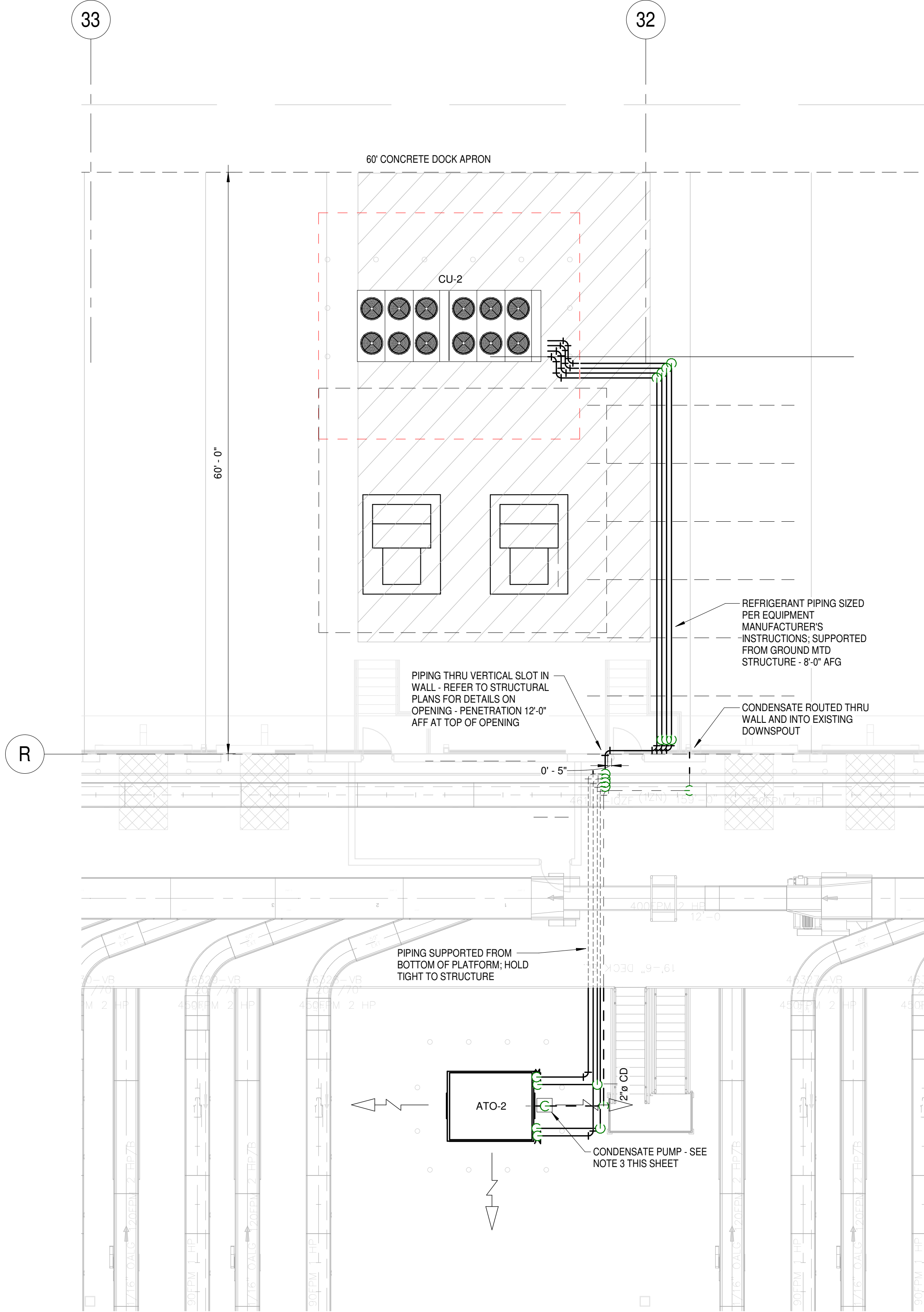
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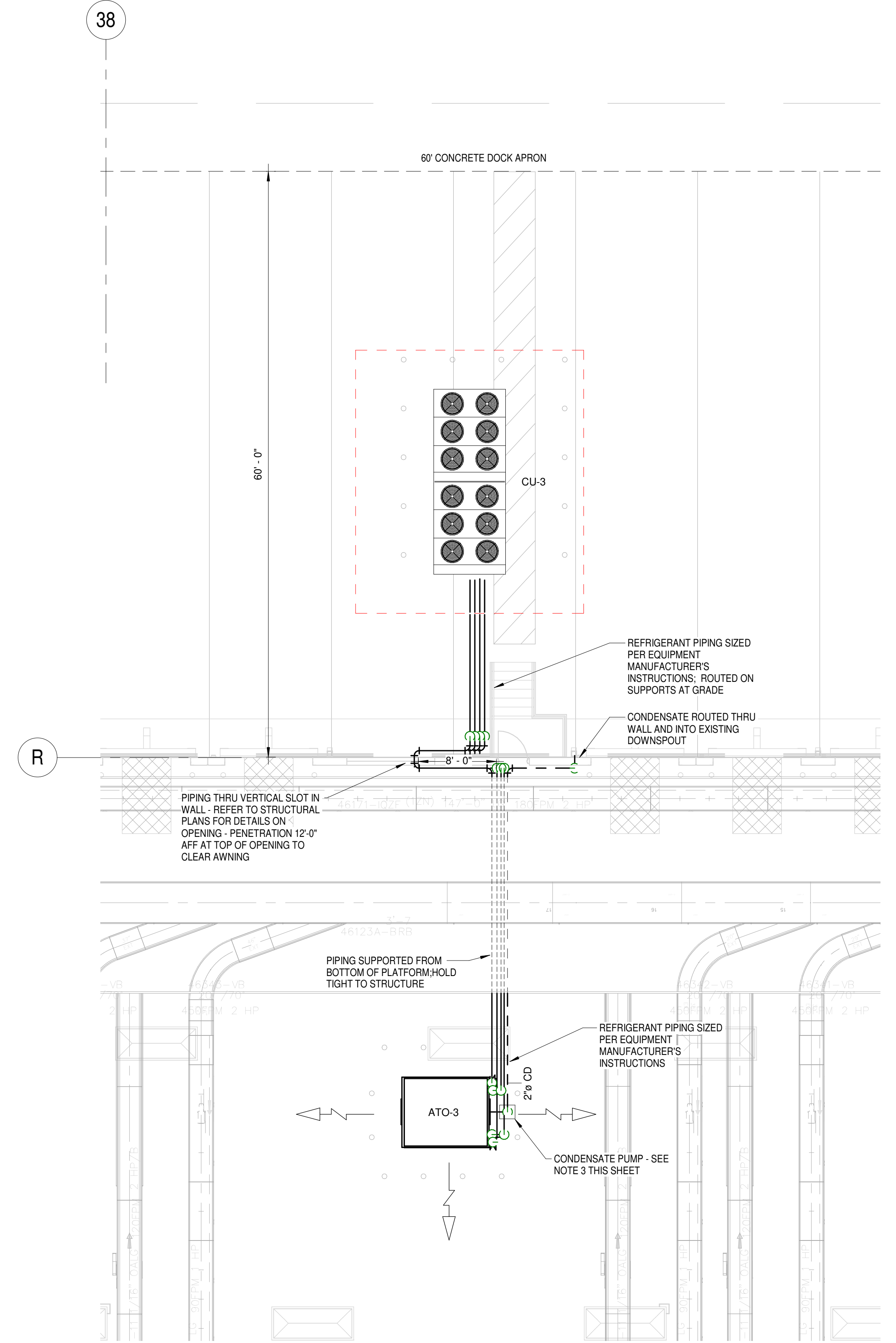
SCALE			PROJECT	FACILITY RENOVATION FOR <b>ROSS DISTRIBUTION CENTER</b> SHAFTER, CALIFORNIA	PROJECT NUMBER	19034
As Indicated					SHEET NUMBER	<b>2M-4.2</b>
DRAWN	A/E	PM	PLOT DATE		9/27/2019 10:45:51 AM	
BR	JAR	PW				
SHEET TITLE			ENLARGED BREAKROOM AND RESTROOM HVAC PLAN			



1 ENLARGED ATO NORTH 1  
1/8" = 1'-0"



2 ENLARGED ATO NORTH 2  
1/8" = 1'-0"

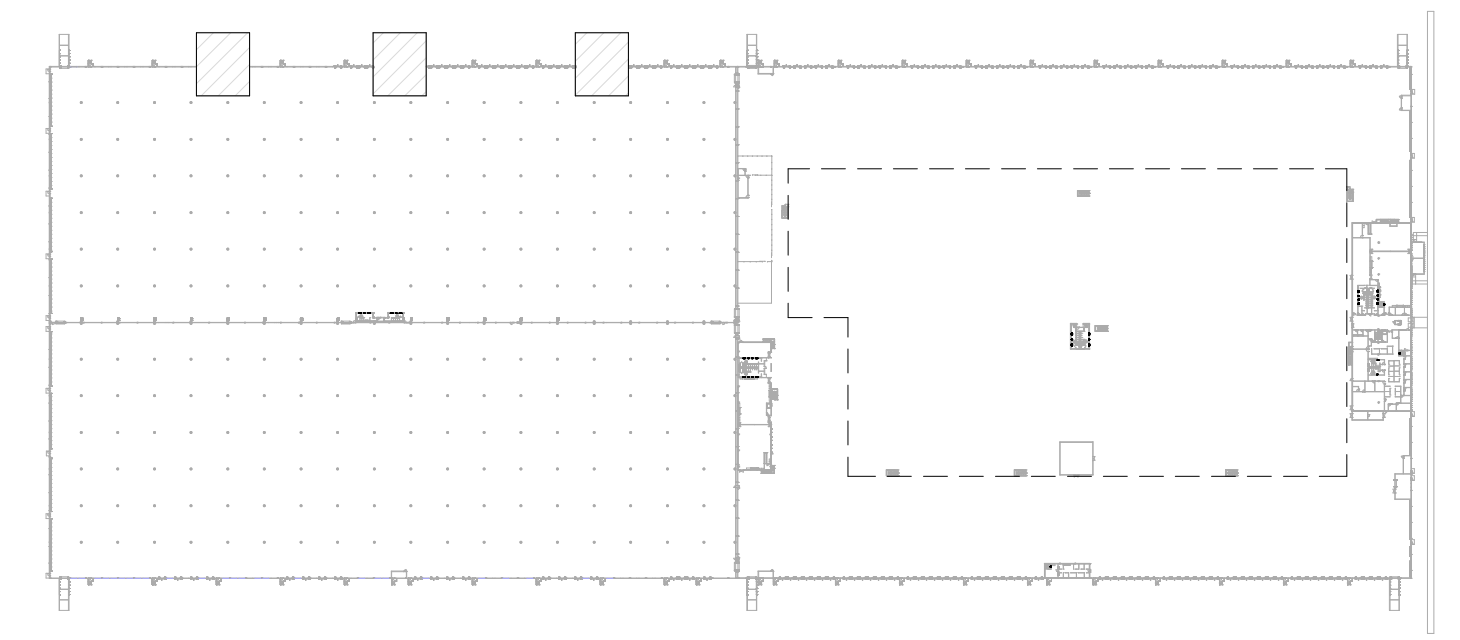
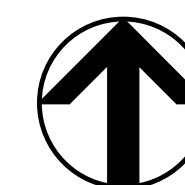


3 ENLARGED ATO NORTH 3  
1/8" = 1'-0"

#### NOTES:

1. PROVIDE 2 REFRIGERANT CIRCUITS PER 130 TON ATO. INSTALL PER MANUFACTURER'S INSTRUCTIONS. PROVIDE SUPPORTS AT GRADE FOR PIPING. PROVIDE HOLES IN EXISTING WALLS FOR REFRIGERANT PIPING TO PASS THRU WITH WEATHER TIGHT SEAL.
2. EXTERNAL REFRIGERANT PIPING SUCTION LINE TO BE INSULATED WITH 1" THICK RIGID POLYISO AND 3/4" ARMAFLEX ON THE LIQUID LINE (BOTH WITH ALUMINUM JACKETING). INTERNAL REFRIGERANT PIPING SUCTION LINE SHALL BE INSULATED WITH 1" THICK FLEXIBLE UNCELLULAR INSULATION AND LIQUID LINE SHALL BE INSULATED WITH 3/4" THICK FLEXIBLE UNCELLULAR INSULATION.
3. CONDENSATE FROM ATO-1,2,3 TO BE PUMPED TO NEAREST GUTTER DOWNSPOUT USING HARTTELL M# ASK-460, 6 GPM @ 40' HEAD, 1/2 HP, 460V/30 AND 1.5" TYPE L COPPER WITH 1" THICK FIBERGLASS INSULATION WITH ASJ (INTERNAL PIPING).

HVAC BASIS OF HVAC DESIGN:  
SUMMER DESIGN TEMPERATURE: 103.1°F DB/71.1°F WB (0.4% ASHRAE DESIGN DATA)  
WINTER DESIGN TEMPERATURE: 32.2°F DB (98.0% ASHRAE DESIGN DATA)  
SPACE CONDITIONS:  
HOTEL AREAS: 78°F (COOLING) / 60°F (HEATING)



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SCALE	As Indicated	PROJECT	FACILITY RENOVATION FOR	PROJECT NUMBER	19034
DRAWN	A/E	PM	<b>ROSS DISTRIBUTION CENTER</b>	SHEET NUMBER	<b>2M-4.3</b>
BR	JAR	PW	SHAFTER, CALIFORNIA	PLOT DATE	9/27/2019 10:46:49 AM
SHEET TITLE			<b>ENLARGED HVAC PLANS NORTH</b>		



K

J.6

42

SEE M-4.1 FOR CONTINUATION

ROUTE CD PIPE UP  
WALL AND HOLD  
TIGHT TO JOIST

PIPING THRU VERTICAL SLOT IN  
WALL - REFER TO STRUCTURAL  
PLANS FOR DETAILS ON  
OPENING - PENETRATION 1'-0"  
AFF AT BOTTOM OF OPENING

REFRIGERANT PIPING SIZED  
PER EQUIPMENT  
MANUFACTURER'S  
INSTRUCTIONS, ROUTED ON  
SUPPORTS AT GRADE

CONDENSATE PUMP - SEE  
NOTE 3 THIS SHEET

ATO-4

CU-4

2" CD

351'

352'

353'

354'

355'

# 1 ENLARGED ATO AREA WEST 1

1/4" = 1'-0"

H

G

42

SEE M-4.1 FOR CONTINUATION

PIPING THRU VERTICAL SLOT IN  
WALL - REFER TO STRUCTURAL  
PLANS FOR DETAILS ON  
OPENING - PENETRATION 1'-0"  
AFF AT BOTTOM OF OPENING

REFRIGERANT PIPING SIZED  
PER EQUIPMENT  
MANUFACTURER'S  
INSTRUCTIONS, ROUTED ON  
SUPPORTS AT GRADE

CONDENSATE PUMP - SEE  
NOTE 3 THIS SHEET

ATO-5

CU-5

2" CD

ROUTE CD PIPE UP  
WALL AND HOLD  
TIGHT TO JOIST

351'

352'

353'

354'

355'

# 2 ENLARGED ATO AREA WEST 2

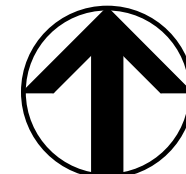
1/4" = 1'-0"

HVAC BASIS OF HVAC DESIGN:  
SUMMER DESIGN TEMPERATURE: 103.1°F DB/71.1°F WB (0.4% ASHRAE DESIGN DATA)  
WINTER DESIGN TEMPERATURE: 32.2°F DB (99.6% ASHRAE DESIGN DATA)

SPACE CONDITIONS:  
HOTEL AREAS: 78°F (COOLING) / 60°F (HEATING)

## NOTES:

1. PROVIDE 2 REFRIGERANT CIRCUITS PER 130 TON ATO. INSTALL PER MANUFACTURER'S INSTRUCTIONS. PROVIDE SUPPORTS AT GRADE FOR PIPING. PROVIDE HOLES IN EXISTING WALLS FOR REFRIGERANT PIPING TO PASS THRU WITH WEATHER TIGHT SEAL.
2. EXTERNAL REFRIGERANT PIPING SUCTION LINE TO BE INSULATED WITH 1" THICK RIGID POLYISO AND 3/4" ARMAFLEX ON THE LIQUID LINE (BOTH WITH ALUMINUM JACKETING). INTERNAL REFRIGERANT PIPING SUCTION LINE SHALL BE INSULATED WITH 1" THICK FLEXIBLE UNICELLULAR INSULATION AND LIQUID LINE SHALL BE INSULATED WITH 3/4" THICK FLEXIBLE UNICELLULAR INSULATION.
3. CONDENSATE FROM ATO-4 AND 5 TO BE PUMPED TO NEAREST GUTTER DOWNSPOUT USING HARTELL M# ASX-460, 6 GPM @ 40' HEAD, 1/2 HP, 460V/30 AND 1.5" TYPE L COPPER WITH 1" THICK FIBERGLASS INSULATION WITH ASJ (INTERNAL PIPING).



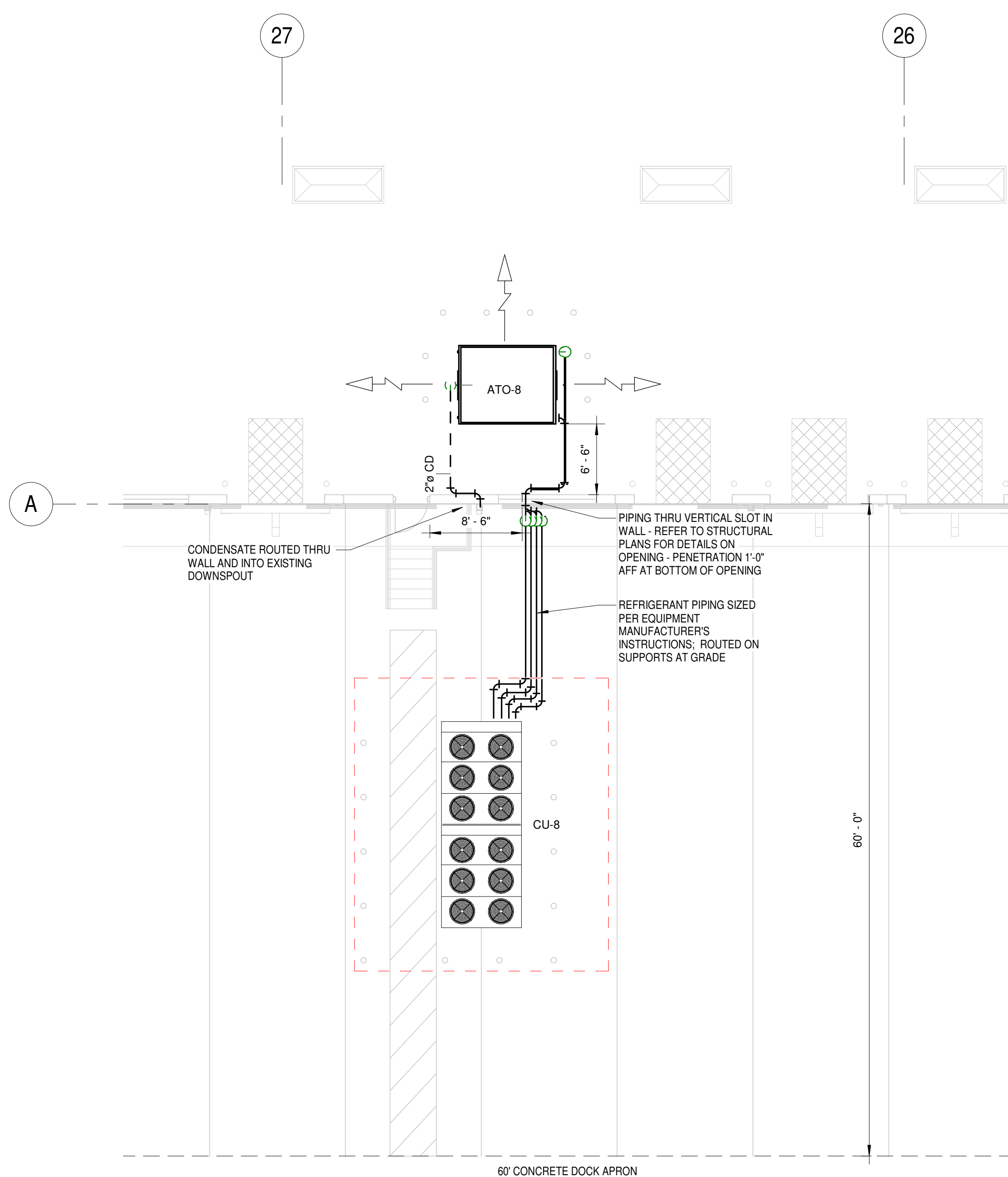
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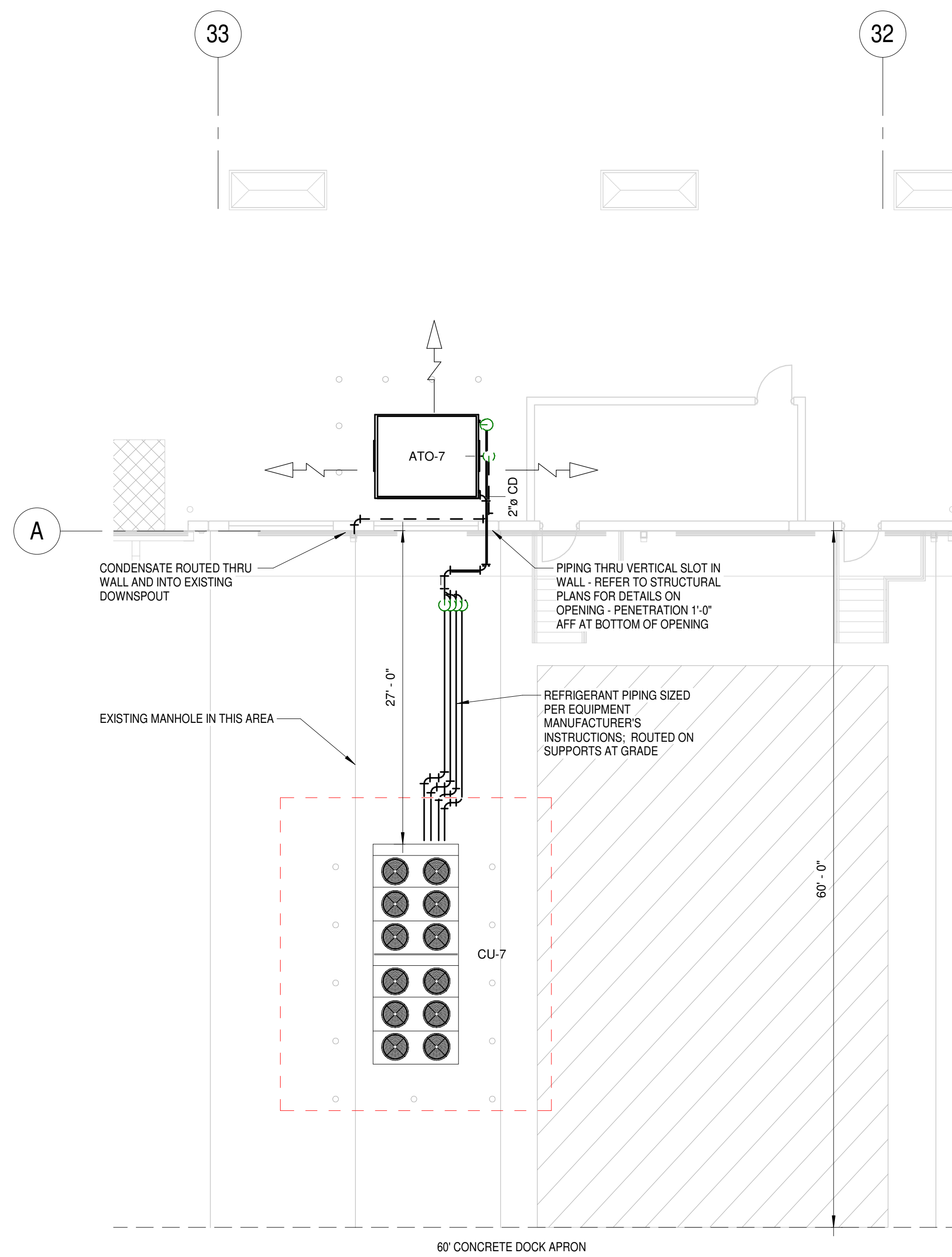
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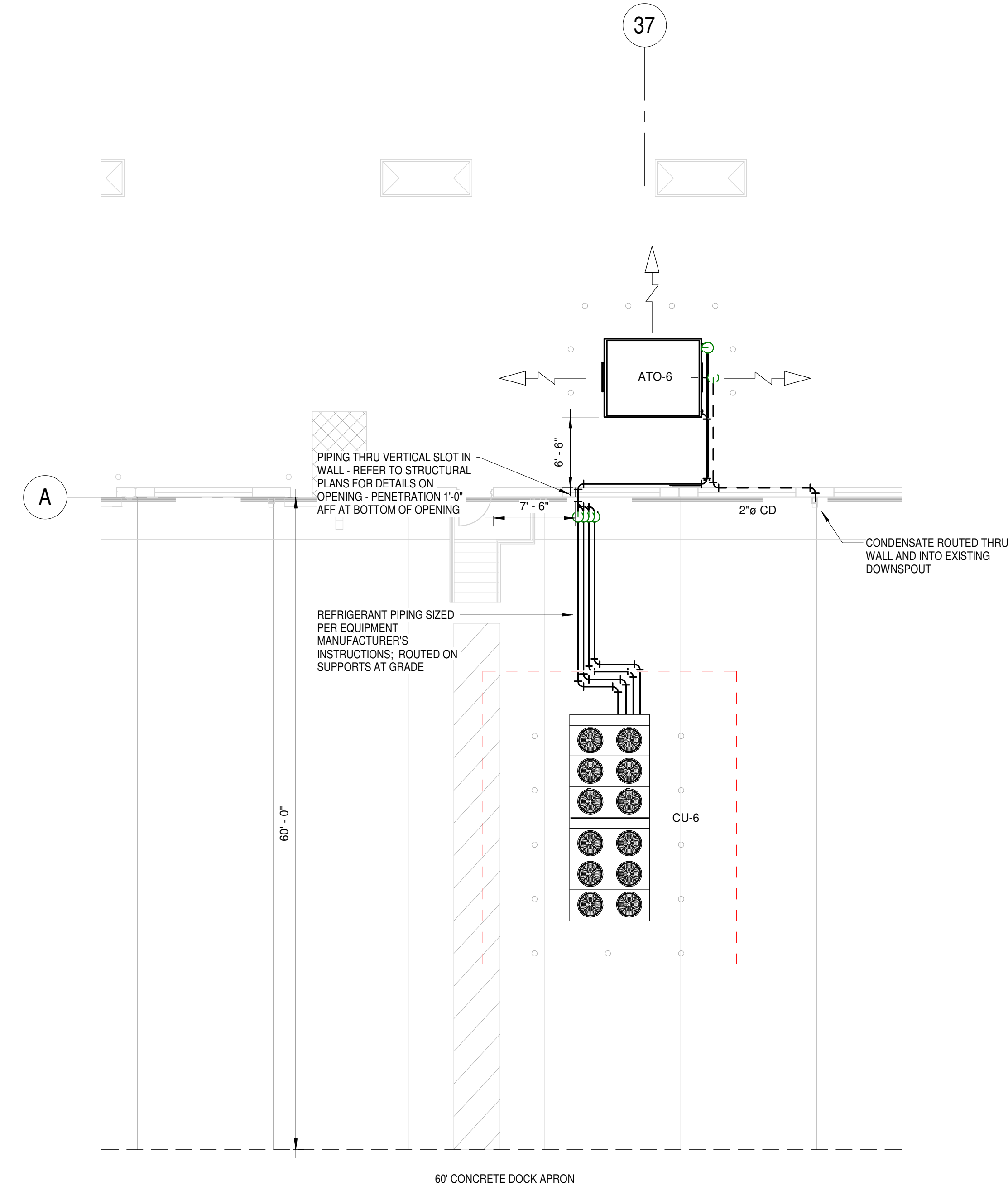
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As Indicated					19034
DRAWN	A/E	PM	SHEET NUMBER		
BR	JAR	PW	<b>2M-4.4</b>		
SHEET TITLE			ENLARGED HVAC PLANS WEST		PLOT DATE
					9/27/2019 10:47:09 AM



1 ENLARGED ATO SOUTH 1  
1/8" = 1'-0"



2 ENLARGED ATO SOUTH 2  
1/8" = 1'-0"

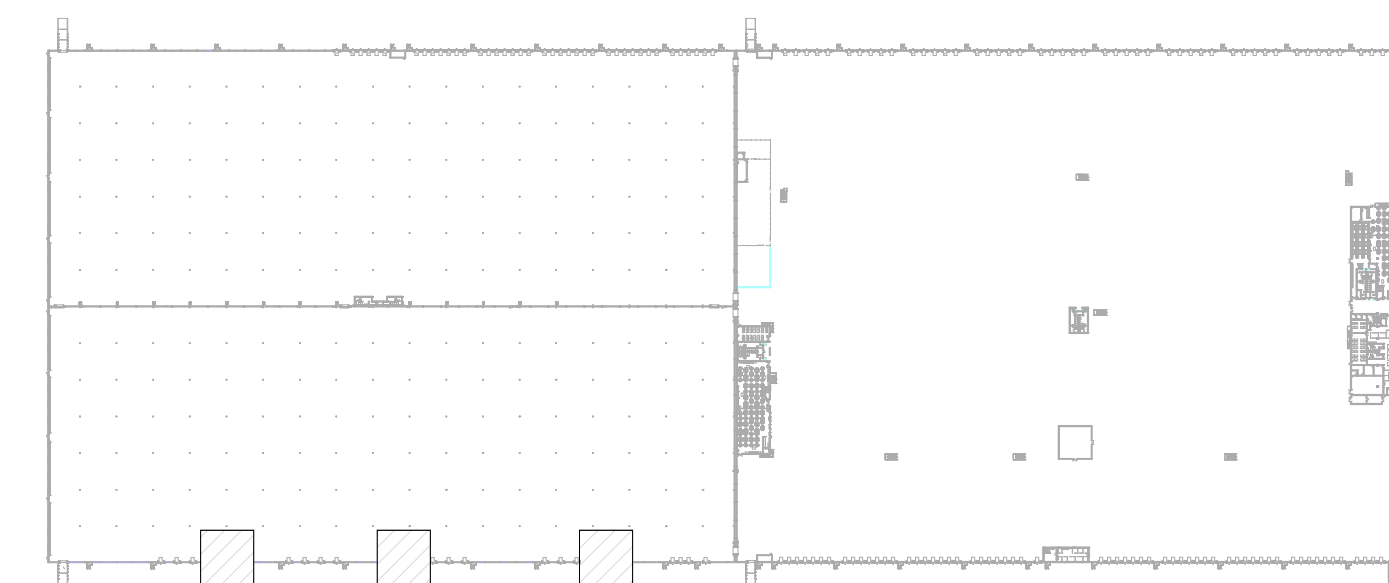
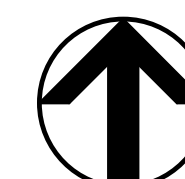


3 ENLARGED ATO SOUTH 3  
1/8" = 1'-0"

NOTES:

1. PROVIDE 2 REFRIGERANT CIRCUITS PER 130 TON. INSTALL PER MANUFACTURER'S INSTRUCTIONS. PROVIDE SUPPORTS AT GRADE FOR PIPING. PROVIDE HOLES IN EXISTING WALLS FOR REFRIGERANT PIPING TO PASS THRU WITH WEATHER TIGHT SEAL.
2. EXTERNAL REFRIGERANT PIPING SUCTION LINE TO BE INSULATED WITH 1" THICK RIGID POLYISO AND 3/4" ARMARFLEX ON THE LIQUID LINE (BOTH WITH ALUMINUM JACKETING). INTERNAL REFRIGERANT PIPING SUCTION LINE SHALL BE INSULATED WITH 1" THICK FLEXIBLE UNICELLULAR INSULATION AND LIQUID LINE SHALL BE INSULATED WITH 3/4" THICK FLEXIBLE UNICELLULAR INSULATION.
3. CONDENSATE FROM ATO - 6, 7 & 8 TO BE GRAVITY DRAINED TO WALL, DOWN AND OUT THRU WALL AND ROUTED INTO EXISTING ROOF DRAIN DOWNSPOUT. PROVIDE HOLES IN EXISTING WALLS FOR CONDENSATE PIPING TO PASS THRU WITH WEATHER TIGHT SEAL.

HVAC BASIS OF HVAC DESIGN:  
SUMMER DESIGN TEMPERATURE: 103.1°F DB/71.1°F WB (0.4% ASHRAE DESIGN DATA)  
WINTER DESIGN TEMPERATURE: 32.2°F DB (99.6% ASHRAE DESIGN DATA)  
SPACE CONDITIONS:  
HOTEL AREAS: 78°F (COOLING) / 60°F (HEATING)



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SCALE  
As Indicated  
DRAWN A/E PM  
BR JAR PW  
SHEET TITLE

PROJECT  
**ROSS DISTRIBUTION CENTER**  
SHAFTER, CALIFORNIA

ENLARGED HVAC PLANS SOUTH

PROJECT NUMBER  
19034  
SHEET NUMBER  
**2M-4.5**  
PLOT DATE  
9/27/2019 10:48:03 AM



ATO SCHEDULE											
MARK	TYPE	AIR FLOW DATA			COOLING DATA			ELECTRICAL DATA		GENERAL DATA	
		TOTAL SUPPLY CFM	O.S.A. CFM	EXT. SP. (WC)	O.S.A. AMB. (°F)	TOTAL HEAT (BTUH)	SENS. HEAT (BTUH)	EVAP. FAN MOTOR	UNIT VOLTAGE	WEIGHT (lb)	MODEL AND REMARKS
ATO-1 THRU 8	DX COOLING ONLY	50,000	--	--	103	1,560,000	1,248,000	25 HP	460V/3Ø	--	M/C ATO-50 AIR TURN-OVER UNIT - PROCESSING AREA

- SCREENED DISCHARGE PLENUM - 3 SIDES ON ATO-1, 2, 3, 6, 7 AND 8 AND 1 SIDES ON ATO-4 AND 5. UNITS TO BE 28" TALL.
- SMOKE DETECTOR IN SUPPLY AND RETURN CASING
- THERMOSTAT TO BE CONNECTED TO EXISTING BUILDING MANAGEMENT SYSTEM
- EVAPORATOR FANS WITH VFD.
- ATO EQUIPMENT TO BE RATED FOR SEISMIC FORCES WITH A 1.5 IMPORTANCE FACTOR. SUBMITTAL TO BE PROVIDED WITH STRUCTURAL/SEISMIC CALCULATIONS STAMPED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF CALIFORNIA.
- INTEGRAL DISCONNECT, POWERED CONVENIENCE RECEPTACLE FROM LINE SIDE OF DISCONNECT. DISCONNECT AND RECEPTACLE LOCATED AT 4'-0" AFF.

CONDENSING UNIT SCHEDULE											
MARK	CAPACITY (BTUH)	COND. AMB. (°F)	CONNECTIONS		ELECTRICAL DATA					WEIGHT (lb)	MODEL AND REMARKS
			SUCT.	LIQ.	COMP. MOTOR	COND. FAN MOTOR	UNIT VOLTAGE	MCA	MOCP		
CU-1 THRU 8	1,656,740	103	2-5/8 (x 2)	1-1/8 (x 2)	37.2 RLA (x 6)	1.8 FLA (x 12)	460V/3Ø	255	300	7500	TRANE M/RALUD124B ATO CONDENSING UNIT - PROCESSING AREA

NOTES:

- SUPPLY WITH MANUFACTURER RECOMMENDED REFRIGERANT SPECIALTIES (REFRIGERANT/SUCTION TEMPS, ETC). CONTACT TRANE - MEMPHIS, TN OFFICE (ANDREW OPPENHEIM (901) 348-2830) FOR DETAILS.
- VERIFY LIQUID/SUCTION LINE SIZES WITH EQUIP MANUFACTURER.
- SUPPLY WITH FACTORY MOUNTED NON-FUSED DISCONNECTS.
- MATCH CU COOLING CAPACITY WITH ATO CAPACITY - ACCOUNT FOR ALL PRESSURE LOSSES IN INTERCONNECTING PIPING

FAN SCHEDULE											
ACCESSORIES: DAMPER, BIRDSCREEN, DISCONNECT SWITCH, ROOF CURB											
MARK	TYPE	DRIVE	CFM	S.P. (WC)	MAX RPM	MAX SONES	ELECTRICAL	DAMPER SIZE (IN.)	ROOF/WALL OPENING (IN.)	WEIGHT (lb)	MODEL AND REMARKS
EF-85	CENTRIF EXHAUST	DIRECT	1200	0.5	1140	8.7	1/4 HP 120v/1Ø	12X12	14.5X14.5	65	GREENHECK G-133-B RR EXHAUST

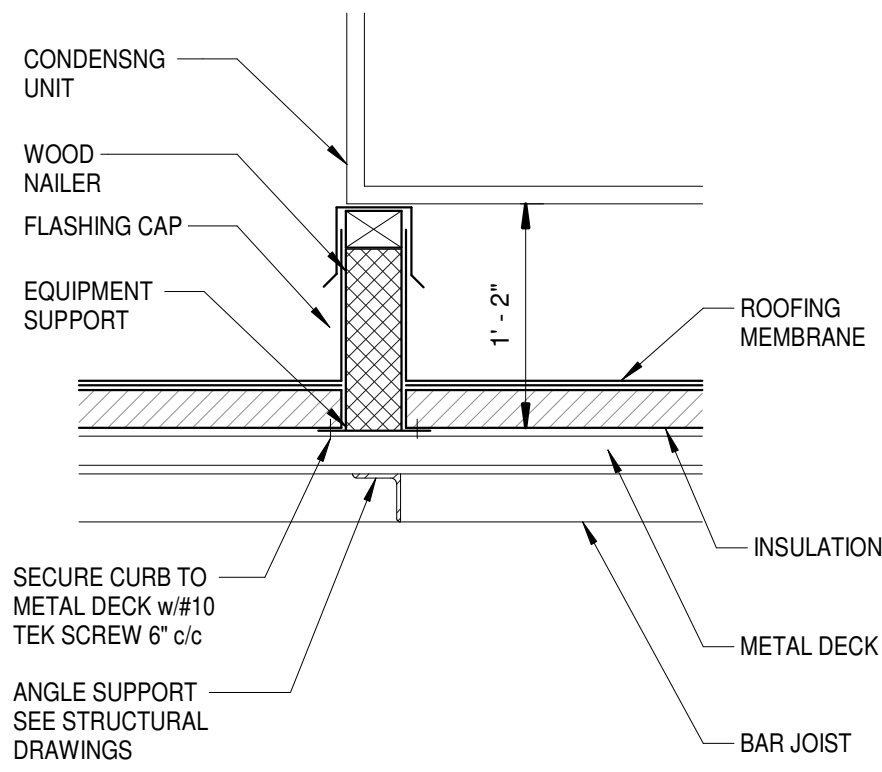
ELECTRIC HEATER SCHEDULE					
MARK	TYPE	HEAT INPUT (KW)	CFM	ELECTRICAL	MODEL AND REMARKS
EH-1, 2	CEILING RADIANT	0.5	N/A	120v/1Ø	MARKEL MODEL 43RCH2A1 REMOTE RR

PROVIDE EH-1, 2 WITH SINGLE POLE LINE VOLTAGE THERMOSTAT.

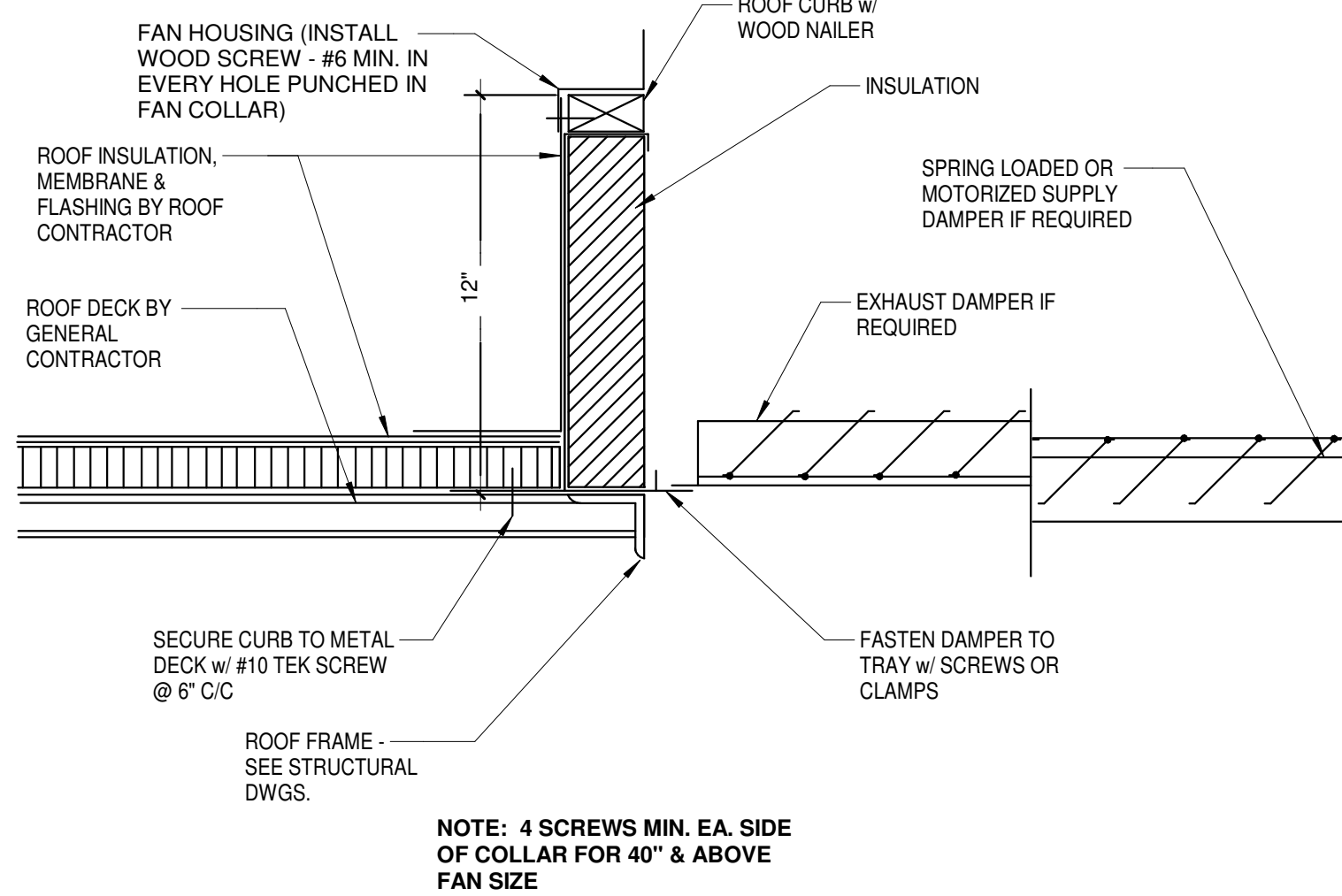
HVAC DRAWING NOTES:

- DUCT DIMENSIONS GIVEN IN PLAN VIEW ARE WIDTH x HEIGHT.
- DUCTING FROM EXHAUST GRILLE TO FAN SAME AS DAMPER.
- CEILING DIFFUSER SIZING EXAMPLE:  
  
1024CD = 10" DIAMETER COLLAR, 24x24 DIFFUSER, CEILING DIFFUSER
- VERIFY ROOF AND WALL OPENING SIZES WITH EQUIPMENT MANUFACTURER.
- UNDERCUT DOORS 3/4" AND/OR PROVIDE AIR CONDITIONING DOOR GRILLE IN OFFICE REST ROOMS AND JANITOR'S CLOSET.
- LOCATE UNIT THERMOSTATS ON WALL AT 8'-0" ABOVE FLOOR.
- REFER TO ARCHITECTURAL DRAWINGS FOR ROOF FRAMING DETAILS.
- COORDINATE WITH ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR WIRING OF HVAC UNIT FIRE PROTECTION DETECTOR REQUIREMENTS. MECHANICAL CONTRACTOR TO FURNISH AND MOUNT AHU DUCT SMOKE DETECTORS WITHOUT FIRE ALARM SYSTEM. ELECTRICAL CONTRACTOR TO FURNISH/MECHANICAL MOUNT DUCT DETECTORS WITH FIRE ALARM SYSTEM.
- COORDINATE WITH ELECTRICAL CONTRACTOR TO ASSURE REST ROOM EXHAUST FAN IS INTERLOCKED WITH LIGHTS - LIGHTS OFF/FAN OFF.
- ASSURE ROOF CURBS ARE LEVEL (MANUFACTURER'S TOLERANCES) FOR PROPER CONDENSATE DRAINAGE.
- ASSURE PROPER CLEARANCES FOR SERVICING AND ACCESS TO HVAC EQUIPMENT ARE PROVIDED.
- SYMBOLS: RAG OR EAG - RETURN OR EXHAUST AIR GRILLE  
RAR OR EAR - RETURN OR EXHAUST AIR REGISTER  
|○| BALL VALVE  
Ⓣ THERMOSTAT  
--- CD --- CONDENSATE PIPING
- VERIFY SPLIT SYSTEM REFRIGERANT LINE SIZES WITH EQUIPMENT MANUFACTURER.
- SEISMIC BRACING FOR ALL PIPING, DUCTWORK, ROOFTOP EQUIPMENT SHALL BE INSTALLED WITH A 1.5 IMPORTANCE FACTOR. THIS BUILDING IS NOT CLASSIFIED AS AN ESSENTIAL FACILITY
- ALL HVAC EQUIPMENT LABELED WITH MARK # AND REMARKS TO IDENTIFY AREA SERVED AS REQUIRED BY CALIFORNIA MECHANICAL CODE.

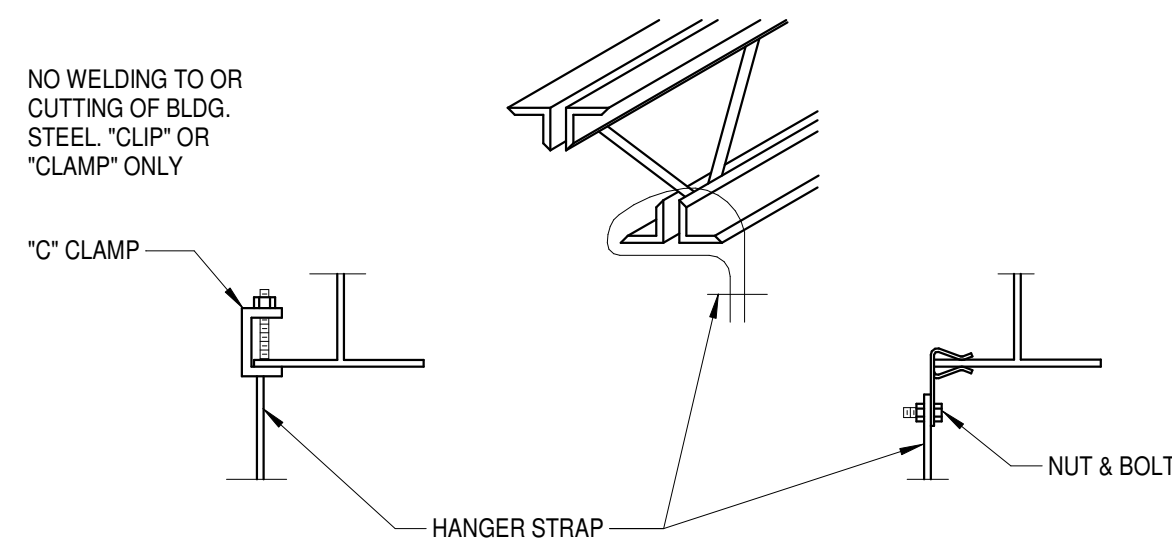
SUPPORT FOR CONDENSING UNITS



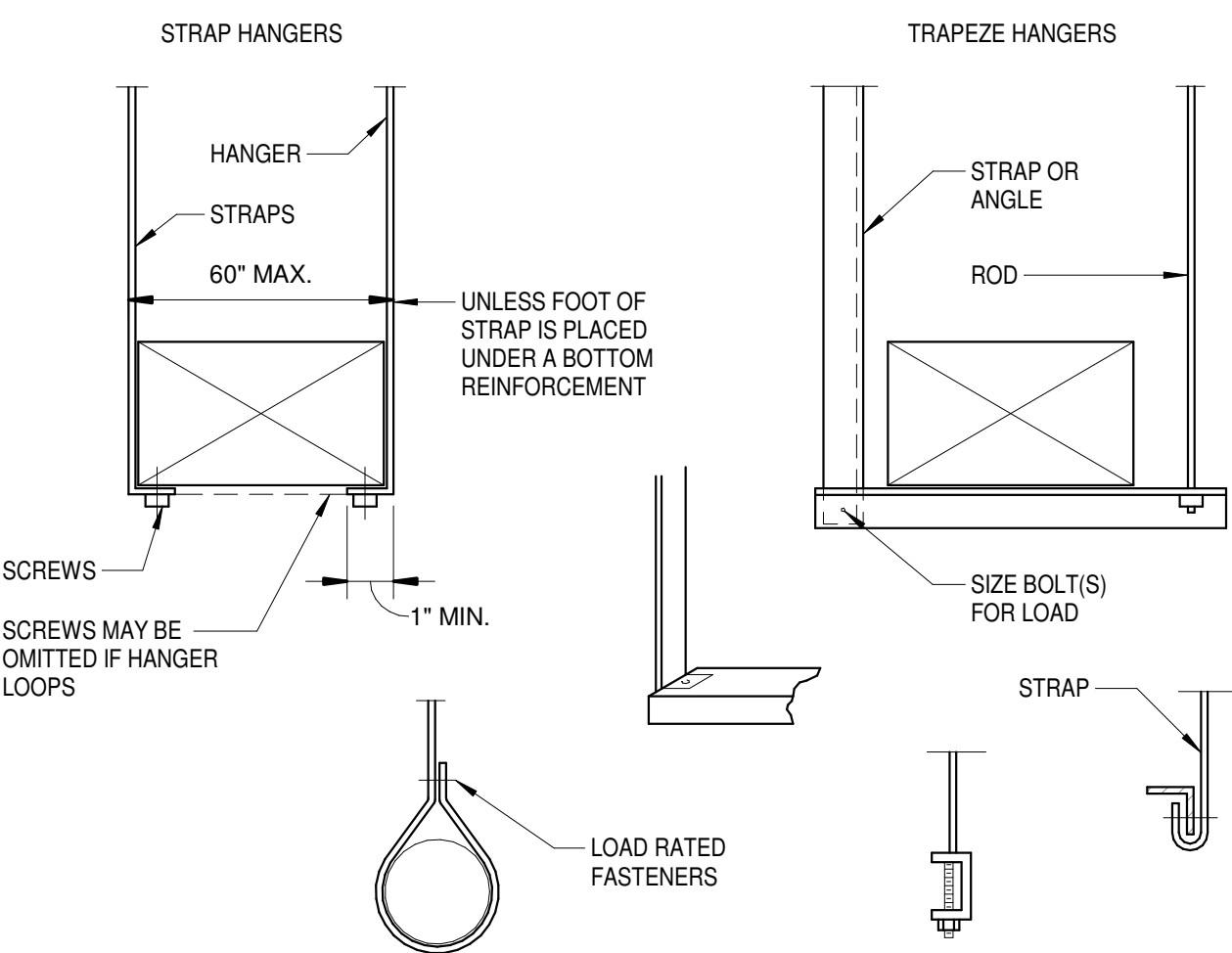
ROOF FAN CURB DETAIL



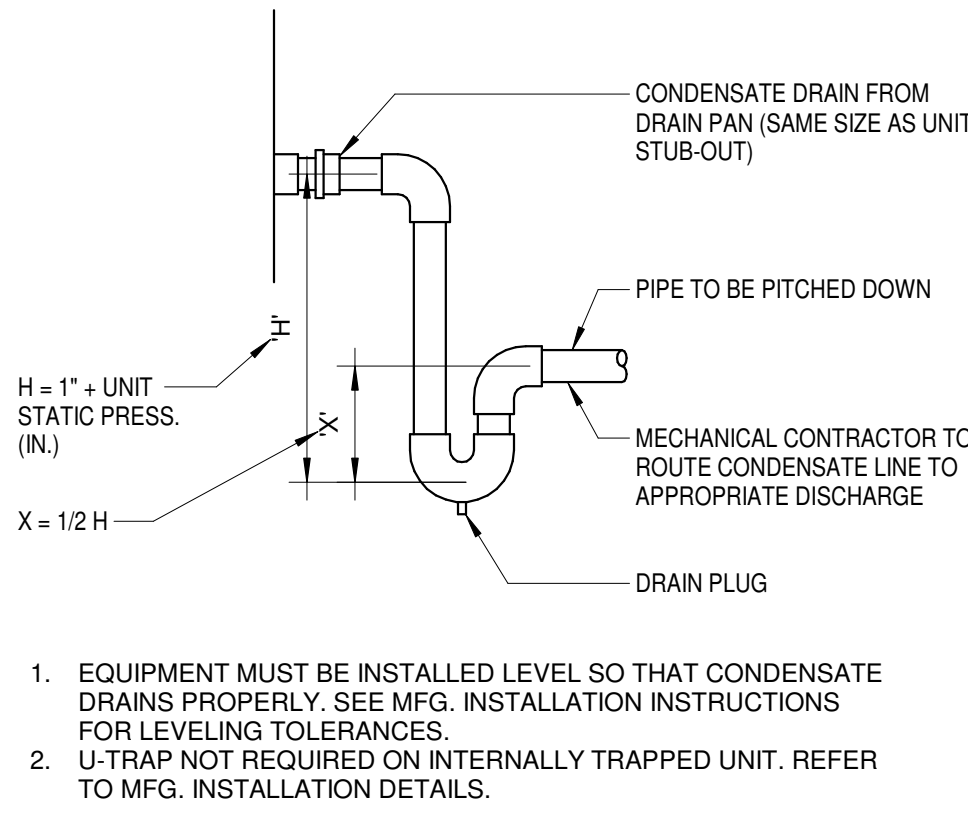
(UPPER SECTION)



(LOWER SECTION)

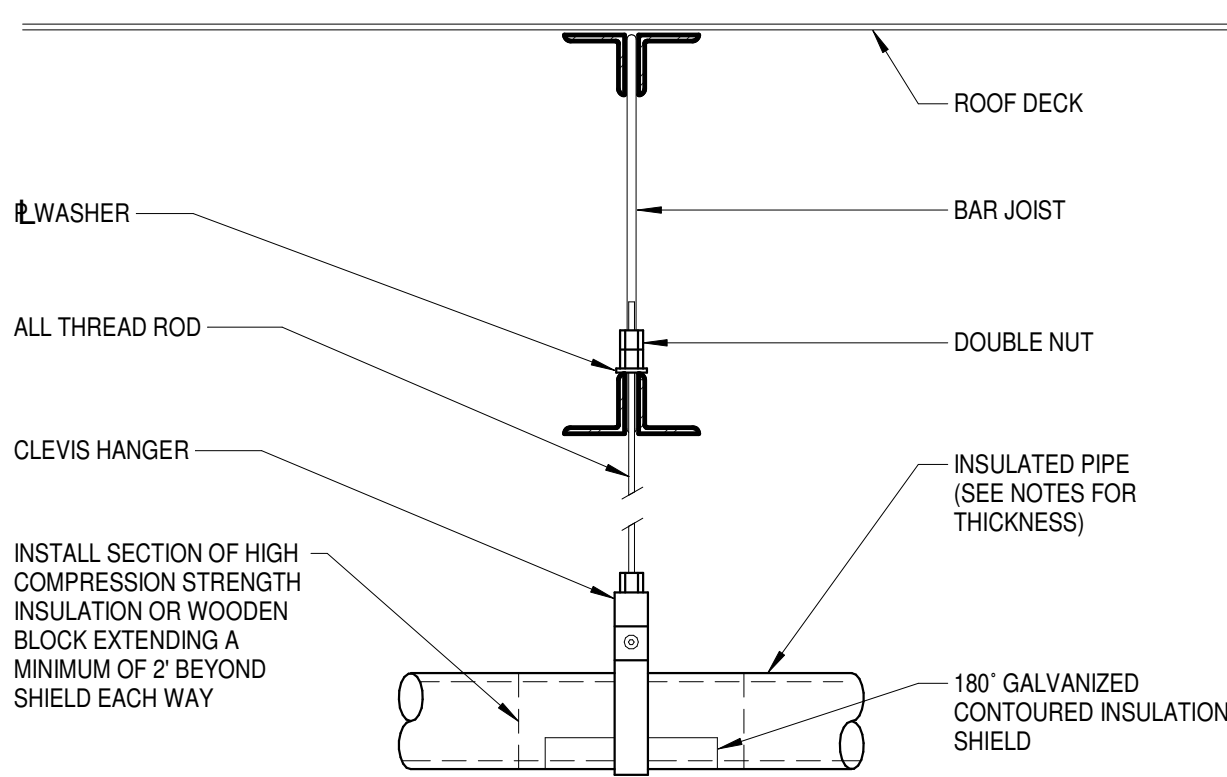


CONDENSATE DRAIN DETAIL

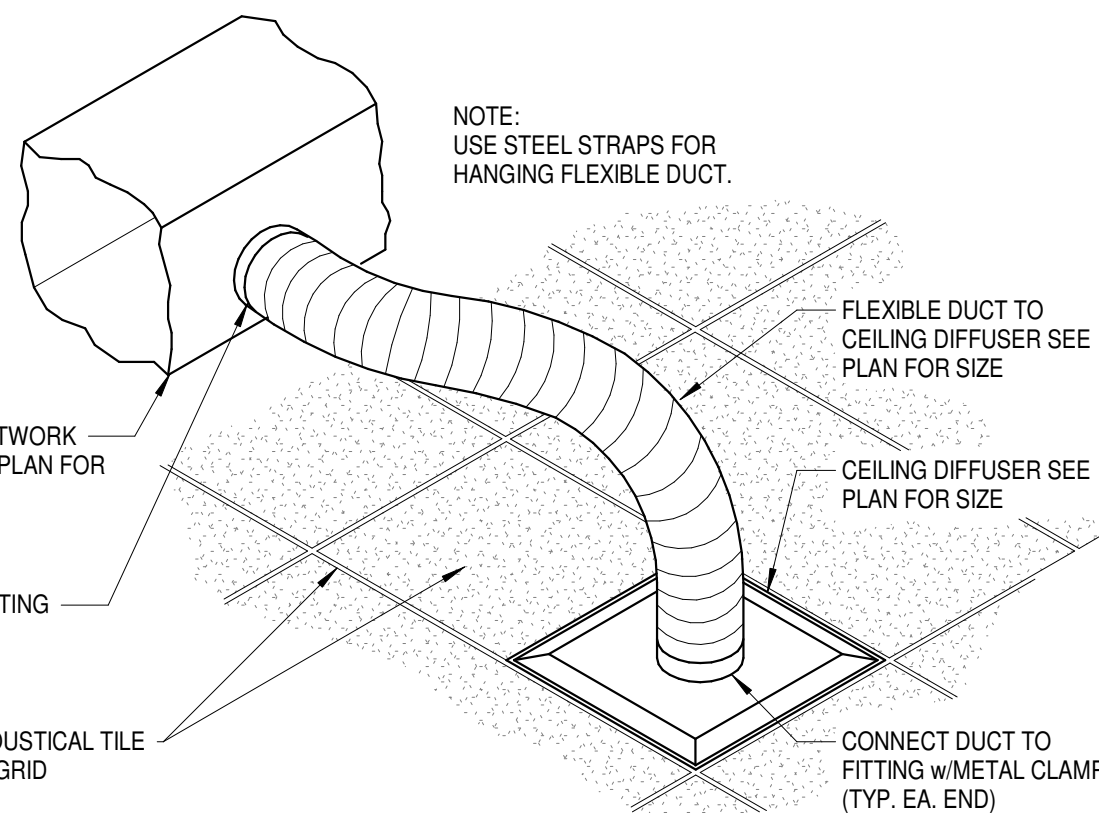


- EQUIPMENT MUST BE INSTALLED LEVEL SO THAT CONDENSATE DRAINS PROPERLY. SEE MFG. INSTALLATION INSTRUCTIONS FOR LEVELING TOLERANCES.
- U-TRAP NOT REQUIRED ON INTERNALLY TRAPPED UNIT. REFER TO MFG. INSTALLATION DETAILS.

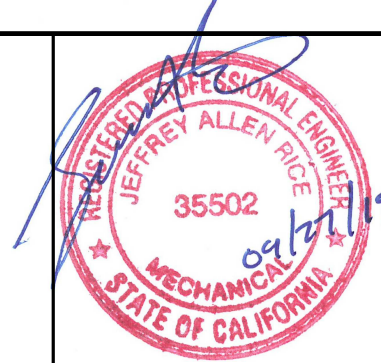
TYPICAL INSULATED PIPE HANGER



TYPICAL CEILING DIFFUSER CONNECTION



TYPICAL DUCT HANGING DETAIL



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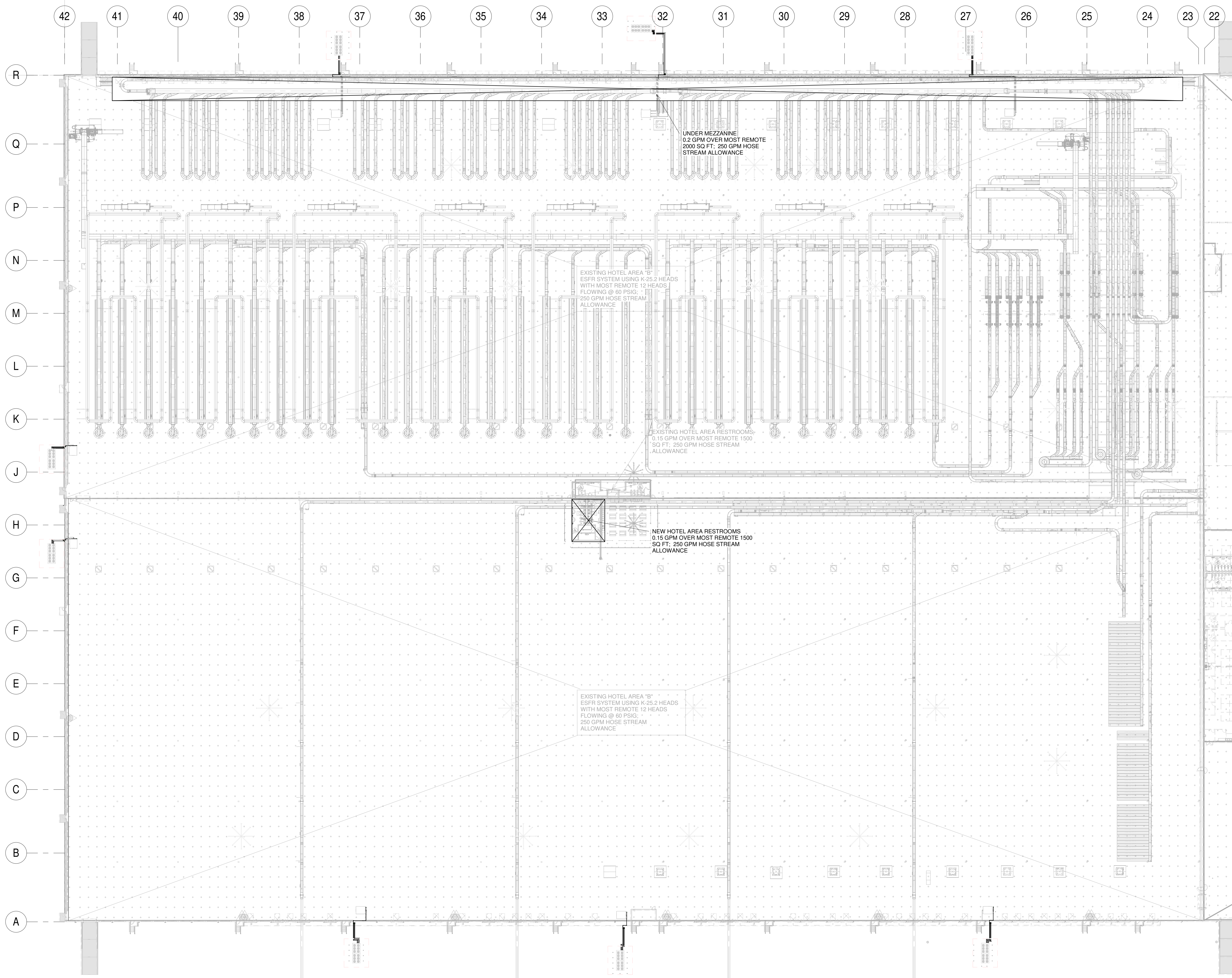
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SCALE			PROJECT
As Indicated	As Indicated	As Indicated	
DRAWN	A/E	PM	ROSS DISTRIBUTION CENTER SHAFTER, CALIFORNIA
BR	JAR	PW	
SHEET TITLE			HVAC SCHEDULES AND DETAILS

PROJECT NUMBER	19034
SHEET NUMBER	2M-4.6
PLOT DATE	9/27/2019 10:48:03 AM





NOTES:  
FM INSURER:  
HLVS FANS TO BE SHUT-OFF GLOBALLY UPON THE DETECTION OF FIRE WATER FLOW.  
MAIN FIRE PANEL AND PRINTER LOCATED IN CCTV ROOM (ADMIN OFFICE).  
SPRINKLER RISER  
WATER SUPPLY FLOW TEST RESULTS (ZACHARY AVENUE WS NO FANUCCHI WAY):  
FLOW 1,060 GPM  
STATIC PRESSURE 52 PSIG  
RESIDUAL PRESSURE 45 PSIG  
2500 GPM @ 150 PSI DIESEL FIRE PUMP AND 2500 GPM @ 150 PSI ELECTRIC BOOSTER PUMP TAKING SUCTION FROM TANK.  
PROVIDE DOUBLE CHECK VALVE JUST INSIDE FIRE PUMP ROOM  
ALL OVERHEAD PIPING LARGER THAN 8" MUST BE SUPPORTED FROM MORE THAN ONE ROOF JOIST - COORDINATE WITH STRUCTURAL ENGINEER.

1 SPRINKLER REQUIREMENT PLAN  
1" = 40'-0"



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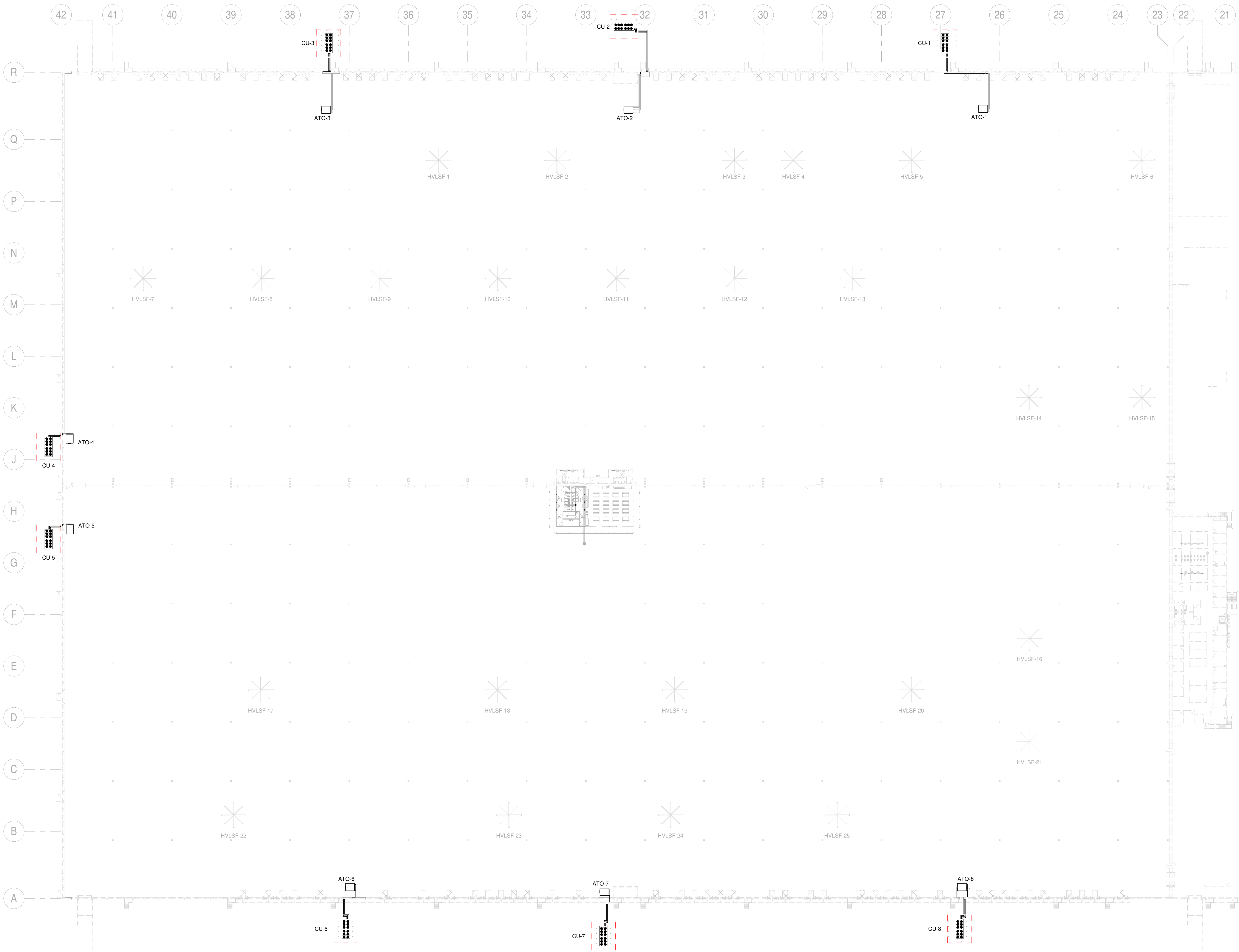
SCALE			PROJECT
As Indicated			FACILITY RENOVATION FOR
DRAWN	A/E	PM	<b>ROSS DISTRIBUTION CENTER</b>
BR	JAR	PW	SHAFTER, CALIFORNIA
SHEET TITLE			FACILITY FIRE PROTECTION SPRINKLER REQUIREMENT PLAN

PROJECT NUMBER
19034

SHEET NUMBER
<b>2M-5.1</b>

PLOT DATE
9/27/2019 10:49:08 AM





1. ATO-1-8, CU-1-8 (ELECTRONIC CONTROL SYSTEM)  
- VIA MANUFACTURER PROVIDED BACNET INTERFACE CARD
- 1.1. POINTS (RTUS) -  
SUPPLY FAN START/STOP  
SUPPLY FAN DP SWITCH OPERATION  
COOLING STAGES  
DISCHARGE AIR TEMPERATURE  
SPACE TEMPERATURE  
RETURN AIR TEMPERATURE  
FILTER STATUS  
OPERATION HOURS  
GLOBAL OUTSIDE AIR TEMPERATURE STATUS  
GLOBAL OUTSIDE AIR HUMIDITY STATUS
- (REFER TO M-4.1 FOR SENSOR LOCATIONS)  
EF-19 AND 38 TO OPERATE CONTINUOUSLY DURING COOLING MODE FOR CODE REQUIRED  
VENTILATION; EXISTING EF/FS'S TO OPERATE AS "ECONOMIZER", BUT DO NOT ALLOW  
EF/FS'S TO OPERATE WHEN ANY OF ATO/CU ARE OPERATING.
2. HVLSF-1 THRU-25  
- VIA BMS PROVIDED BACNET INTERFACE CARD TO BE FIELD INSTALLED
- 2.1. POINTS -  
FANS CONTROLLED IN 6 ZONES: HVLSF-1-5; HVLSF-6-10; HVLSF-11-15; HVLSF-16-20; HVLSF-21-25  
FAN ON/OFF  
FAN SPEED  
PROVIDE OWNER ADJUSTABLE SCHEDULE FOR EACH ZONE
3. ELECTRICAL LIGHTING CONTROL PANELS (REFER TO ELECTRICAL PLANS)  
- VIA MANUFACTURER PROVIDED BACNET INTERFACE CARD (ELECTRICAL CONTRACTOR)
- 3.1. POINTS -  
ALLOW ON/OFF OPERATION  
STATUS  
PROVIDE OWNER ADJUSTABLE SCHEDULE FOR EACH INTERIOR PANEL  
PROVIDE OWNER ADJUSTABLE SCHEDULE FOR EACH EXTERIOR PANEL WITH GLOBAL PHOTO CELL  
OVERRIDE (PROVIDED AND INSTALLED BY BMS CONTRACTOR)
4. INSTALLATION RESPONSIBILITIES
- ELECTRICAL CONTRACTOR  
- POWER WIRING TO HVLSF, ATO & CUS  
- CONDUIT TO ATO SENSORS  
- RESTROOM EXHAUST FAN OPERATION THRU OCCUPANCY SENSORS  
- SMOKE DETECTOR SHUTDOWN OF ATO ON SENSING EMERGENCY CONDITION
- MECHANICAL CONTRACTOR  
- PROVIDE HVAC EQUIPMENT SPACE TEMPERATURE SENSORS THRU EQUIPMENT MANUFACTURER
- BMS CONTRACTOR  
- INSTALLATION WIRING TO ALL CONTROL SENSORS  
- ALL PROCESSING ATO'S ON ADJUSTABLE SCHEDULE SHOULD BE ADJUSTABLE BY OWNER.  
- PROVIDE FOR "RANDOM START" TO MINIMIZE PEAK DEMAND.  
- PROVIDE FOR OWNER ADJUSTABLE LOAD SHEDDING DURING PEAK HOURS; ENABLE/DISABLE DEMAND  
LIMITING BY REDUCING COOLING STAGES IN ATO'S AND ALLOWING SPACE TEMPERATURE TO RISE TO  
OWNER ADJUSTABLE SETTING.  
- LOAD SHEDDING ALSO TO BE AUTOMATICALLY ENABLED BASED ON OUTSIDE NOTIFICATION OF PEAK  
TIME (UTILITY COMPANY) WITH MANUAL OVERRIDE.  
- PROVIDE FOR OWNER ADJUSTABLE NIGHT AND WEEKEND HVAC SETBACK.  
- OWNER TO HAVE ABILITY TO CHANGE SETTINGS ON ATO, HVLSF AND OTHER GROUPINGS GLOBALLY, AS  
WELL AS BY GROUPING AND INDIVIDUALLY.
- GENERAL -  
BMS SYSTEM TO BE NEXREV.  
BMS SYSTEM TO PROVIDE NOTIFICATION VIA EMAIL AND TEXT MESSAGE FOR OWNER DESIGNATED FAULTS  
OR ALARMS. OWNER TO HAVE ABILITY TO EASILY MODIFY WHO RECEIVES SPECIFIC ALERTS.  
ALL BACNET INTERFACE COMMUNICATION CARDS TO BE BACNET "CERTIFIED" WITH "BTL" SEAL.  
BMS CONTRACTOR TO PROVIDE WEB-BASED INTERFACE FOR ACCESS TO BMS SYSTEM.  
BMS CONTROL PANEL(S) TO BE LOCATED IN AREAS SHOWN ON THIS PLAN (2 OPTIONS INDICATED).  
ALL POINTS INDICATED SHALL BE DISPLAYED ON BMS GRAPHICS.

1 BMS CONNECTION PLAN  
1" = 40'-0"



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PROJECT  
**ROSS DISTRIBUTION CENTER**  
SHAFTER, CALIFORNIA  
**BMS CONNECTION PLAN**

PROJECT NUMBER  
19034  
SHEET NUMBER  
**2M-6.1**  
PLOT DATE  
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