

# CONSTRUCTION DRAWINGS

## N.S.U. SHAVER GYMNASIUM AHU REPLACEMENT THIBODOUX, LA

AREA OF WORK



### PROJECT INDEX

#### MECHANICAL AND ELECTRICAL

- COV TITLE SHEET
- ME1 MECHANICAL AND ELECTRICAL DEMOLITION PLAN
- ME2 MECHANICAL AND ELECTRICAL AHU REPLACEMENT
- ME3 DETAILS SHEET

PREPARED BY:

# THOMPSON LUKE & ASSOCIATES, LLC

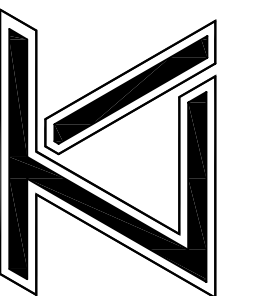
10705 Rieger Road  
Baton Rouge, Louisiana 70809  
Phone: (225) 293-9474

FEBRUARY 18, 2026

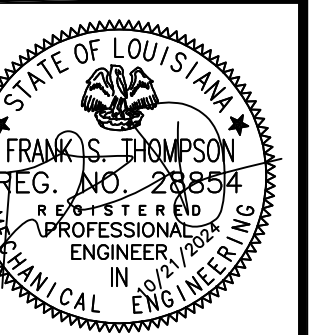
TLA NO. 25-218

THOMPSON LUKE & ASSOCIATES, L.L.C.

10705 RIEGER ROAD, SUITE 101  
BATON ROUGE, LA 70809  
PHONE: 225-293-9474

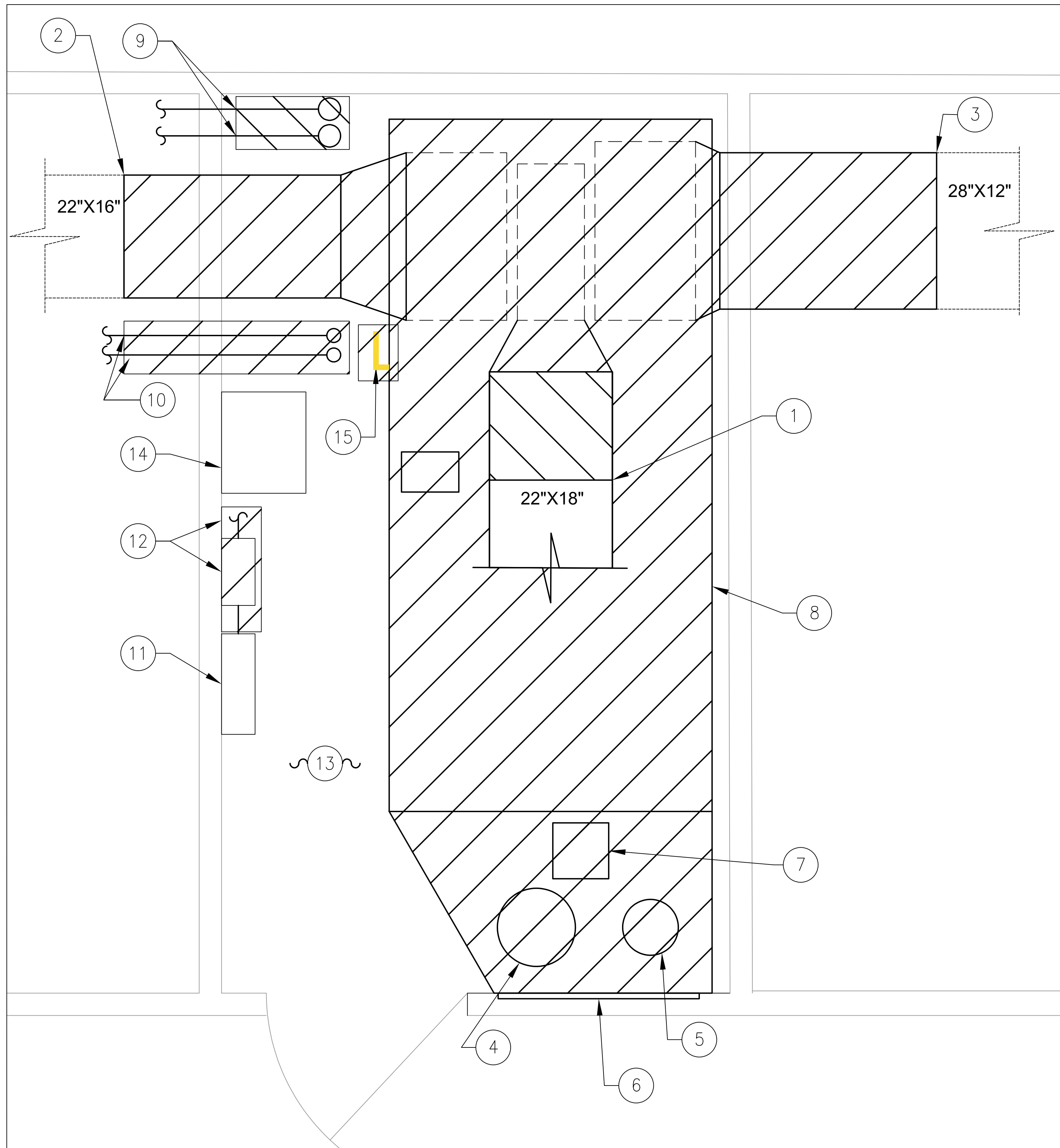


N.S.U. SHAVER GYMNASIUM  
AHU REPLACEMENT  
COLONEL DR, THIBODAUX, LA 70301



REVISIONS:  
DATE: 10/29/2024  
TLA NO: 24-197  
DRAWN: BMB  
CHECKED: FST

SHEET NO:  
**COV**



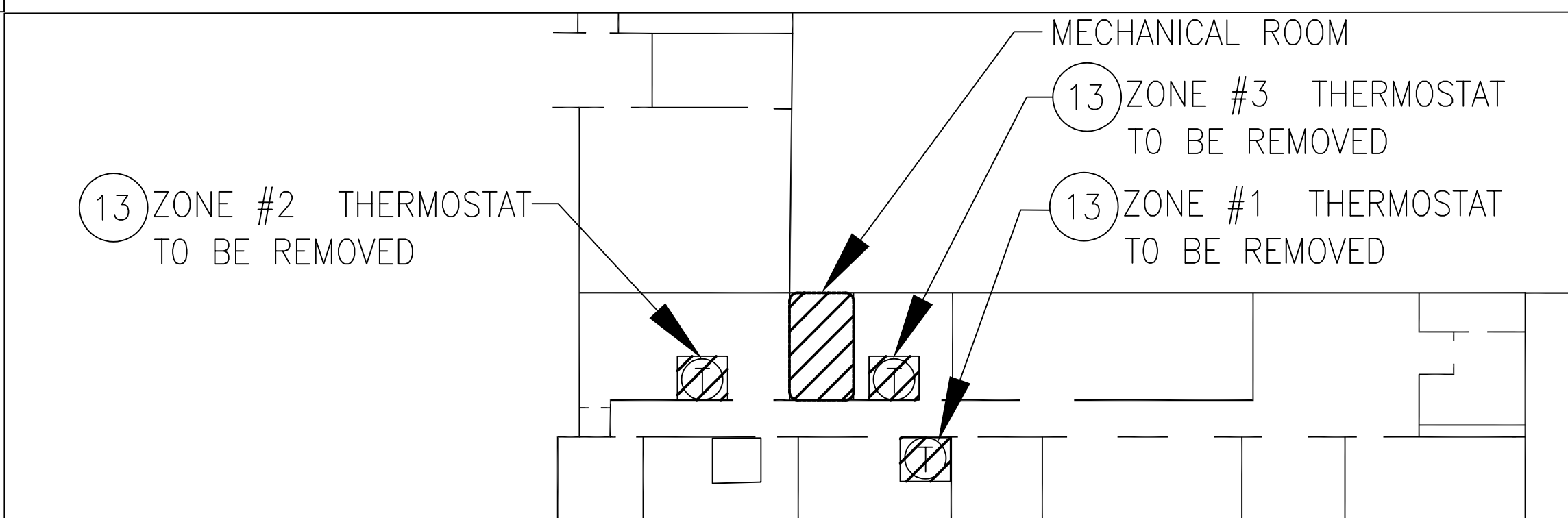
## GENERAL PLAN DEMOLITION NOTES

- PRIOR TO DEMOLITION OF ANY EQUIPMENT, THE CONTRACTOR SHALL DETERMINE THE NEAREST HOT AND CHILLED WATER ISOLATION VALVES TO CLOSE AND DRAIN THE SYSTEMS. CONTRACTOR SHALL DRAIN THE CHILLED AND HOT WATER SYSTEMS IN ORDER TO REPLACE EXISTING PIPING, VALVES, AND ACCESSORIES AS SHOWN. COORDINATE ALL SHUT DOWNS WITH NSU PERSONNEL.
- PRIOR TO DEMOLITION OF ANY EQUIPMENT, THE CONTRACTOR SHALL VERIFY AND DOCUMENT THE EXISTING CFM FLOW RATES FROM EACH BRANCH DUCT IN THE MECHANICAL ROOMS AND THE CFM FLOW RATES AT EACH DIFFUSER AND GRILLE.
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND PIPING SIZES PRIOR TO BID FOR INSTALLATION AND PURCHASING OF NEW EQUIPMENT AND PIPING. ALL EQUIPMENT SHALL BE CAPABLE OF FITTING THRU THE EXISTING DOORWAY. EXISTING DOORWAY IS 3' WIDE X 7' HIGH. THE CONTRACTOR SHALL BREAKDOWN AND REASSEMBLE AHU'S AS NECESSARY TO ACCOMMODATE INSTALLATION. THE BREAKDOWN AND REASSEMBLY OF UNITS SHALL BE DONE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL NOT INVALIDATE THE CONTRACTOR'S OR MANUFACTURER'S WARRANTIES.

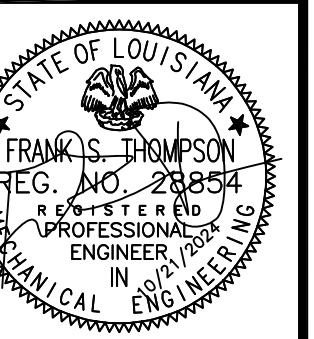
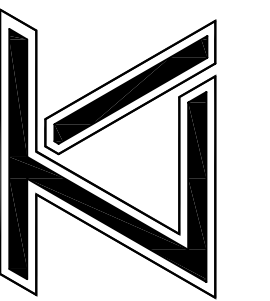
## DEMOLITION KEY NOTES:

- 1 REMOVE THE EXISTING ZONE #1 DUCTWORK AS REQUIRED TO ACCOMMODATE NEW ZONE #1 DUCTWORK AND ACCESSORIES.
- 2 REMOVE THE EXISTING ZONE #2 DUCTWORK AS REQUIRED TO ACCOMMODATE NEW ZONE #2 DUCTWORK AND ACCESSORIES.
- 3 REMOVE THE EXISTING ZONE #3 DUCTWORK AS REQUIRED TO ACCOMMODATE NEW ZONE #3 DUCTWORK AND ACCESSORIES.
- 4 REMOVE THE EXISTING 14"Ø DUCTWORK AS REQUIRED TO ACCOMMODATE NEW 14"Ø RETURN AIR DUCTWORK AND ACCESSORIES.
- 5 REMOVE THE EXISTING 10"Ø DUCTWORK AS REQUIRED TO ACCOMMODATE NEW 10"Ø RETURN AIR DUCTWORK AND ACCESSORIES.
- 6 EXISTING 36"X48" RETURN AIR GRILLE TO REMAIN.
- 7 REMOVE THE EXISTING 10"X10" DUCTWORK AS REQUIRED TO ACCOMMODATE NEW 10"X10" OUTSIDE AIR DUCTWORK AND ACCESSORIES.
- 8 REMOVE EXISTING MULTI-ZONE AIR HANDLING UNIT INCLUDING ALL ACCESSORIES.
- 9 REMOVE EXISTING 2" CHILLED WATER SUPPLY AND RETURN PIPING INCLUDING ALL VALVING AND ACCESSORIES. THIS SHALL INCLUDE THE SUPPLY AND RETURN ISOLATION VALVES.
- 10 REMOVE EXISTING 1½" HEATING HOT WATER SUPPLY AND RETURN PIPING INCLUDING ALL VALVING AND ACCESSORIES. THIS SHALL INCLUDE THE SUPPLY AND RETURN ISOLATION VALVES.
- 11 EXISTING 200 AMP ELECTRICAL PANEL (208/120V/3P) TO REMAIN.
- 12 EXISTING 208 AMP AHU DISCONNECT 30 AMP FUSED W/20 AMP INCLUDING ALL CONDUCTORS AND CONDUIT FROM THE EXISTING 200 AMP PANEL TO THE EXISTING MULTI-ZONE AHU TO BE REMOVED.
- 13 REMOVE ALL EXISTING PNEUMATIC CONTROLS BACK TO THEIR SOURCE AND CAP. REMOVE ALL THREE EXISTING ZONE THERMOSTATS.
- 14 EXISTING IT RACK (MOUNTED ON THE WALL) TO REMAIN.
- 15 REMOVE EXISTING CONDENSATE DRAIN AND ACCESSORIES.

**1** EXISTING DEMOLITION - AIR HANDLING UNIT ENLARGED AREA  
1" = 1'-0"



**2** EXISTING DEMOLITION - KEY PLAN  
1/16" = 1'-0"



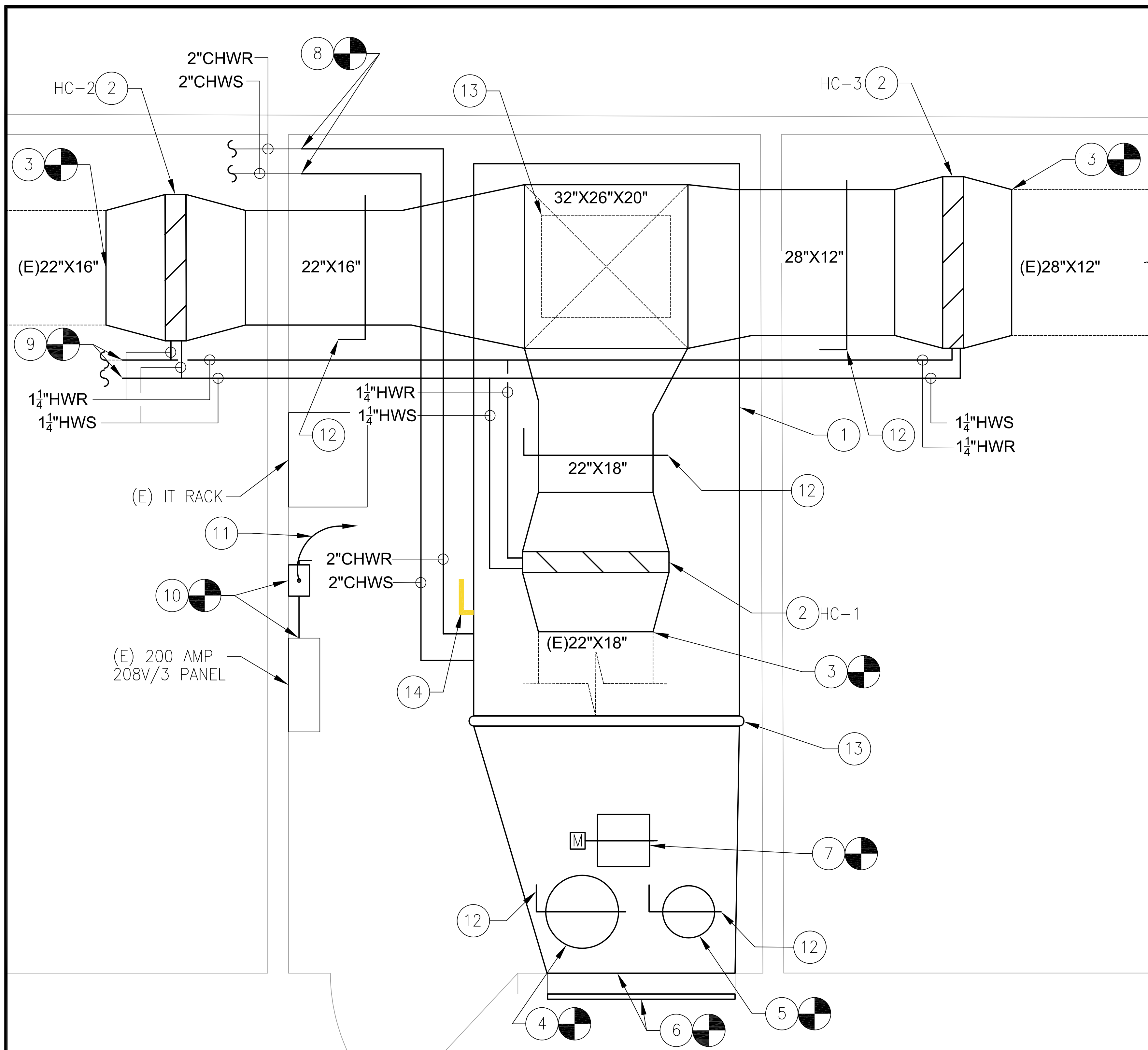
REVISIONS:

DATE: 10/29/2024  
TLA NO: 24-197

DRAWN: BMB  
CHECKED: FST

SHEET NO:

ME1



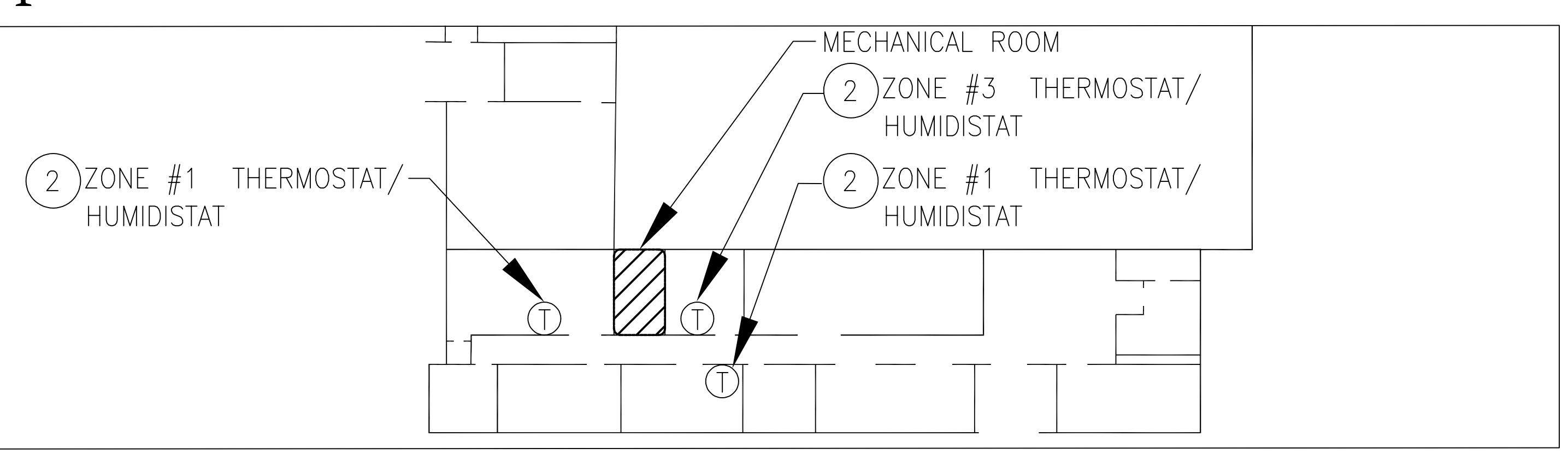
## GENERAL PLAN NOTES

- AFTER ALL WORK IS INSTALLED AND THE PIPING TESTED, REFILL THE HYDRONIC CHILLED AND HEATING WATER SYSTEMS. PROVIDE WATER TREATMENT FOR EACH SYSTEM. COORDINATE WITH NSU PERSONNEL FOR WATER TREATMENT PREFERENCES. ALL WATER TREATMENT SHALL BE AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND PIPING SIZES PRIOR TO BID FOR INSTALLATION AND PURCHASING OF NEW EQUIPMENT AND PIPING. ALL EQUIPMENT SHALL BE CAPABLE OF FITTING THRU THE EXISTING DOORWAY. THE EXISTING DOORWAY IS 3' WIDE X 7' HIGH.
- ALL DUCTWORK AND PIPING SIZES ARE BASED ON SITE VISITS. CONTRACTOR SHALL VERIFY ALL EXISTING SIZES PRIOR TO BID.
- CONTROL CONTRACTOR SHALL UTILIZE VFD CONTROLLER ON THE AHU AND DAMPERS TO BALANCE AIR SIDE OF SYSTEM. CONTRACTOR SHALL MATCH THE EXISTING FLOW RATE (CFM) OF EACH BRANCH DUCT LEAVING THE MECHANICAL ROOM.
- AHU AND ZONES CONTROLS SHALL BE INTEGRATED INTO THE JOHNSON CONTROLS BUILDING SYSTEM.
- ROUTE ALL WATER, ELECTRICAL AND CONTROL WIRING A MINIMUM OF 7' ABOVE THE FINISHED FLOOR. THE CONTRACTOR SHALL PROVIDE FOR THE MAXIMUM AMOUNT OF SERVICE CLEARANCE POSSIBLE.

## PLAN NOTES:

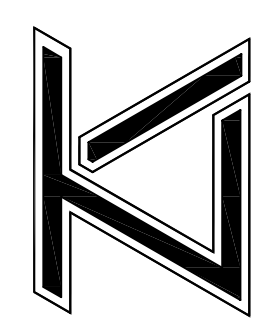
- 1 PROVIDE NEW AIR HANDLING UNIT. PROVIDE NEW CONTROLS TO NEW AHU AND INTEGRATE INTO THE EXISTING JOHNSON BUILDING AUTOMATED SYSTEM WITH NEW ODC. EXTEND HOUSEKEEPING PAD AS REQUIRED TO ACCOMMODATE THE NEW AHU. REFER TO SCHEDULE AND DETAILS FOR ADDITIONAL INFORMATION.
- 2 PROVIDE AND INSTALL NEW HEAT/REHEAT HW COILS. CONNECT NEW 1 1/4" HOT WATER SUPPLY AND RETURN PIPING. PROVIDE CONTROLS TO CORRESPONDING ZONE THERMOSTAT/HUMIDISTAT AND INTEGRATE INTO THE EXISTING BUILDING SYSTEM. MOUNT NEW THERMOSTAT/HUMIDISTAT IN THE LOCATION OF THE EXISTING THERMOSTAT. COILS SHALL BE USED TO MAINTAIN TEMPERATURE AND HUMIDITY FOR THEIR CORRESPONDING ZONES. CONNECT INTO EXISTING JOHNSON CONTROLS BUILDING AUTOMATED SYSTEM.
- 3 CONNECT NEW DUCTWORK TO EXISTING DUCTWORK. TRANSITION FULL SIZE FROM THE NEW HEAT/RE-HEAT COIL. TRANSITION SHALL BE AT A MAXIMUM OF A 30 DEGREE ANGLE.
- 4 CONNECT NEW 14" RETURN AIR DUCT TO THE EXISTING RETURN AIR DUCTWORK IN THIS LOCATION.
- 5 CONNECT NEW 10" RETURN AIR DUCT TO THE EXISTING RETURN AIR DUCTWORK IN THIS LOCATION.
- 6 PROVIDE AND INSTALL NEW RETURN AIR DUCTWORK FROM THE NEW AHU TO THE EXISTING 36"X48" RETURN AIR GRILLE.
- 7 PROVIDE AND INSTALL NEW 10" X 10" OUTSIDE AIR DUCTWORK TO EXISTING 10"X10" DUCTWORK. PROVIDE AND INSTALL NEW MANUAL AND MOTORIZED AIR DAMPER.
- 8 CONNECT NEW 2" CHILLED WATER SUPPLY AND RETURN LINES FROM THE LOCATION SHOWN TO THE NEW AHU CHILLED WATER COIL. PROVIDE NEW ISOLATION VALVES. RE: DETAILS SHEET.
- 9 CONNECT NEW 1 1/4" HOT WATER SUPPLY AND RETURN LINES FROM THE LOCATION SHOWN TO EACH OF THE THREE NEW DUCT MOUNTED HEAT/RE-HEAT HW COILS. PROVIDE NEW ISOLATION VALVES. RE: DETAILS SHEET.
- 10 PROVIDE (3) #10 WIRES AND (1) #10 GROUND WIRE IN 3/4" EMT CONDUIT BETWEEN THE EXISTING 200 AMP 208V/3 PANEL'S 30 AMP BREAKER TO THE NEW VFD CONTROLLER W/DISCONNECT.
- 11 PROVIDE (3) #10 WIRES AND (1) #10 GROUND WIRE IN 3/4" EMT CONDUIT BETWEEN NEW VFD CONTROLLER W/ DISCONNECT TO THE NEW AHU. PROVIDE FLEXIBLE CONDUIT BETWEEN THE 3/4" EMT AND THE AHU (MAXIMUM OF 3'). ROUTE CONDUIT OVERHEAD A MINIMUM OF 7' ABOVE THE FINISHED FLOOR.
- 12 PROVIDE BALANCING DAMPER WITH A 2" STANDOFF BRACKET AND LOCKABLE QUADRANT.
- 13 PROVIDE FLEXIBLE CONNECTIONS AT THE INLET AND OUTLET OF THE AIR HANDLING UNIT.
- 14 PROVIDE STAINLESS STEEL DRAIN PAN AND CONDENSATE DRAIN. RE: DETAIL SHEET.

### 1 NEW INSTALLATION - AIR HANDLING UNIT

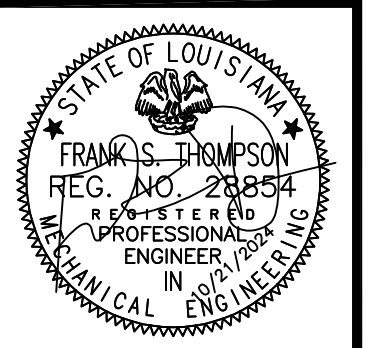


### 2 NEW INSTALLATION - KEY PLAN

THOMPSON LUKE & ASSOCIATES, L.L.C.  
 10705 RIEGER ROAD, SUITE 101  
 BATON ROUGE, LA 70809  
 PHONE 225-293-9474

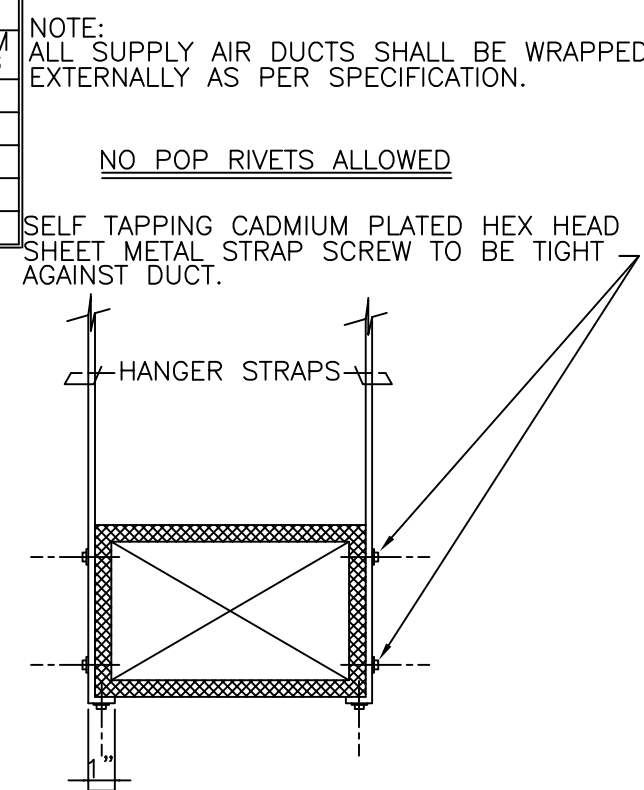


N.S.U. SHAVER GYMNASIUM  
 AHU REPLACEMENT  
 COLONEL DR, THIBODAUX, LA 70301

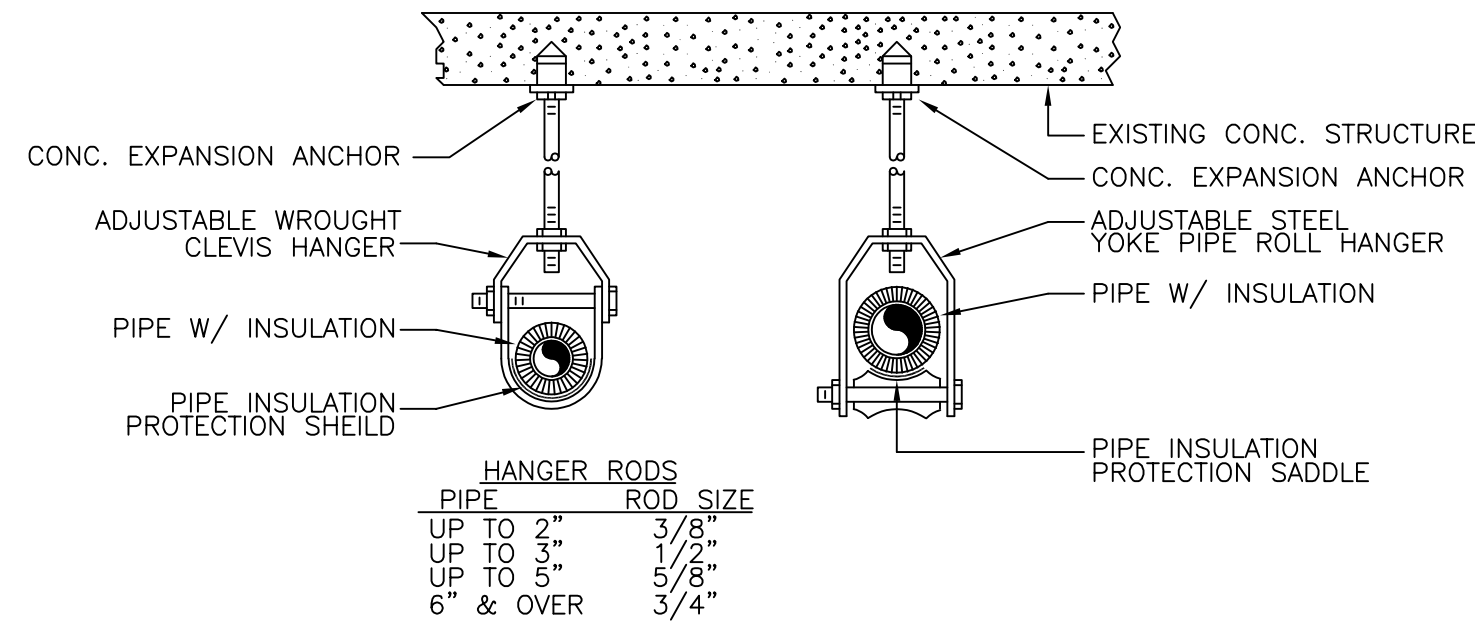


REVISIONS:
DATE: 10/29/2024
TLA NO: 24-197
DRAWN: BMB
CHECKED: FST
SHEET NO:
<b>ME2</b>

MAX. SIDE	HANGER	HORIZONTAL SUPPORT ANGLE	MAXIMUM SPACING
30"	1" X 1/8" GAGE STRIP	1-1/2" X 1-1/2" X 1/8"	10'-0"
36"	1/4" ROUND ROD	2" X 2" X 1/8"	8'-0"
48"	1/4" ROUND ROD	2" X 2" X 1/8"	8'-0"
60"	5/16" ROUND ROD	2" X 2" X 1/8"	8'-0"
84"	3/8" ROUND ROD	2" X 2" X 1/8"	8'-0"

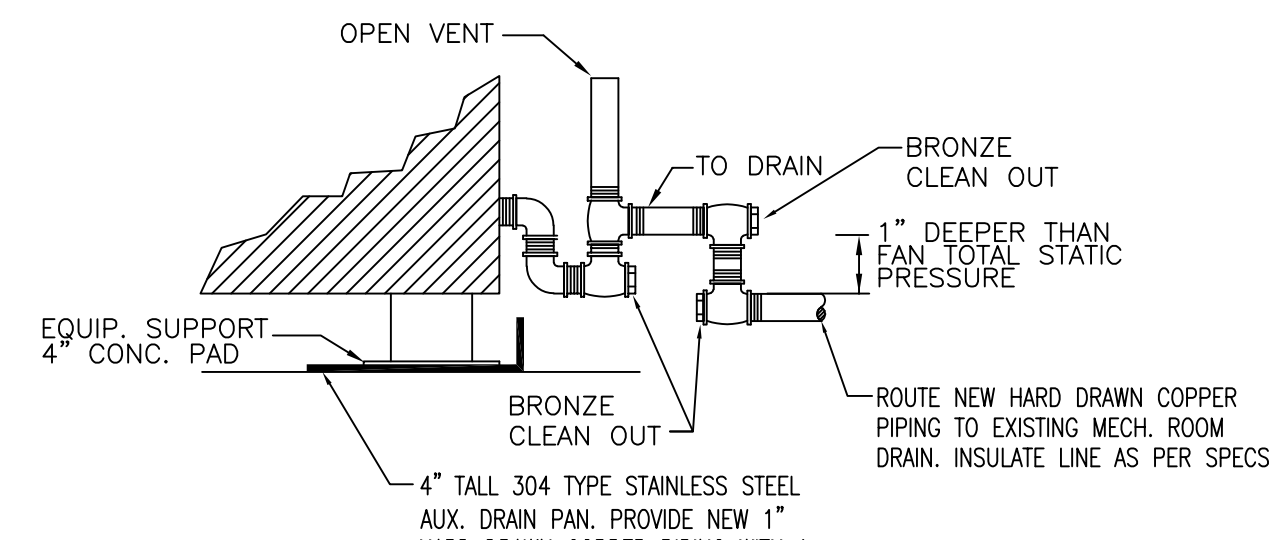


1 DETAIL - DUCTWORK SUPPORTS  
NTS

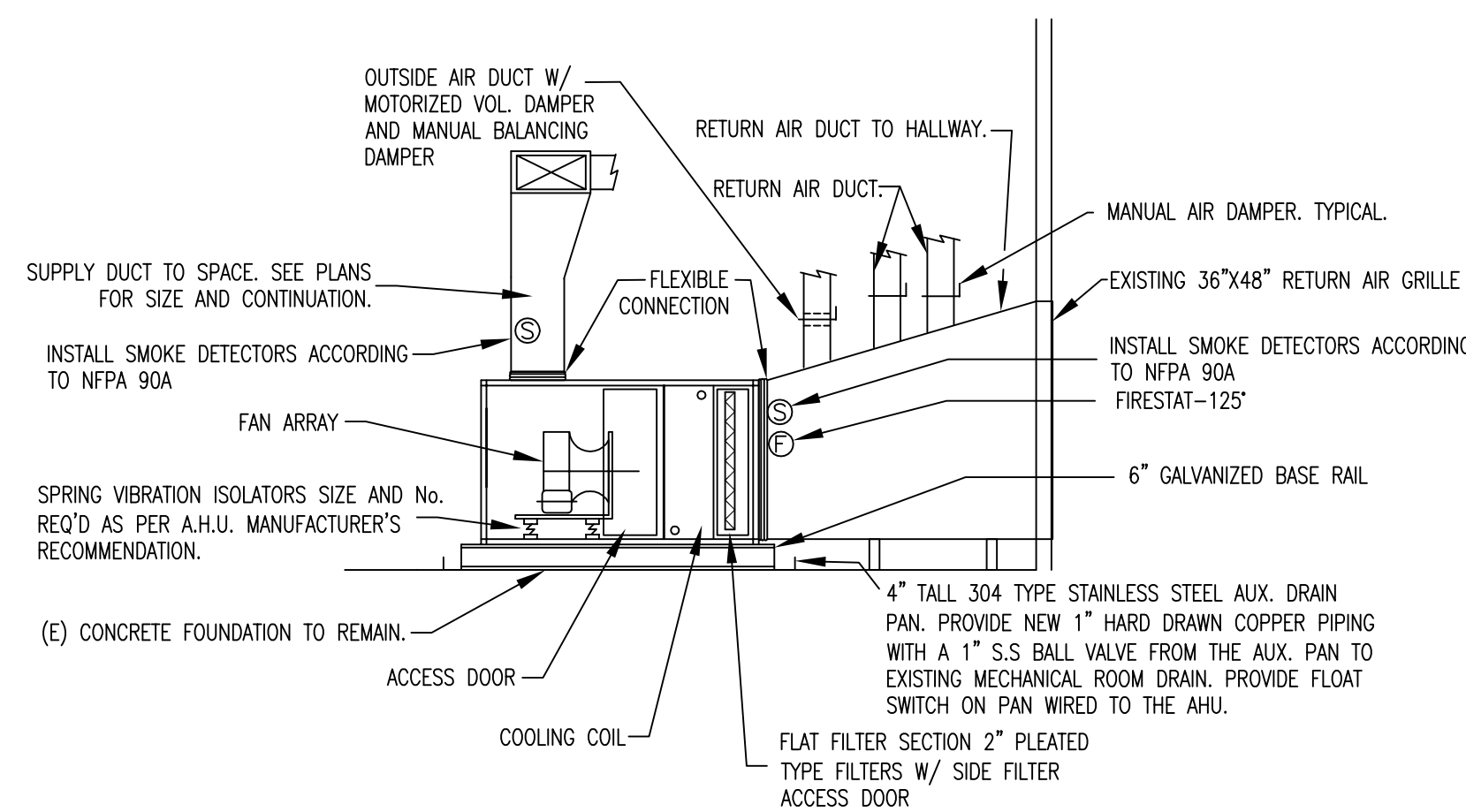


PIPE	HANGER RODS	ROD SIZE
UP TO 2"	3/8"	
UP TO 3"	1/2"	
UP TO 5"	5/8"	
6" & OVER	3/4"	

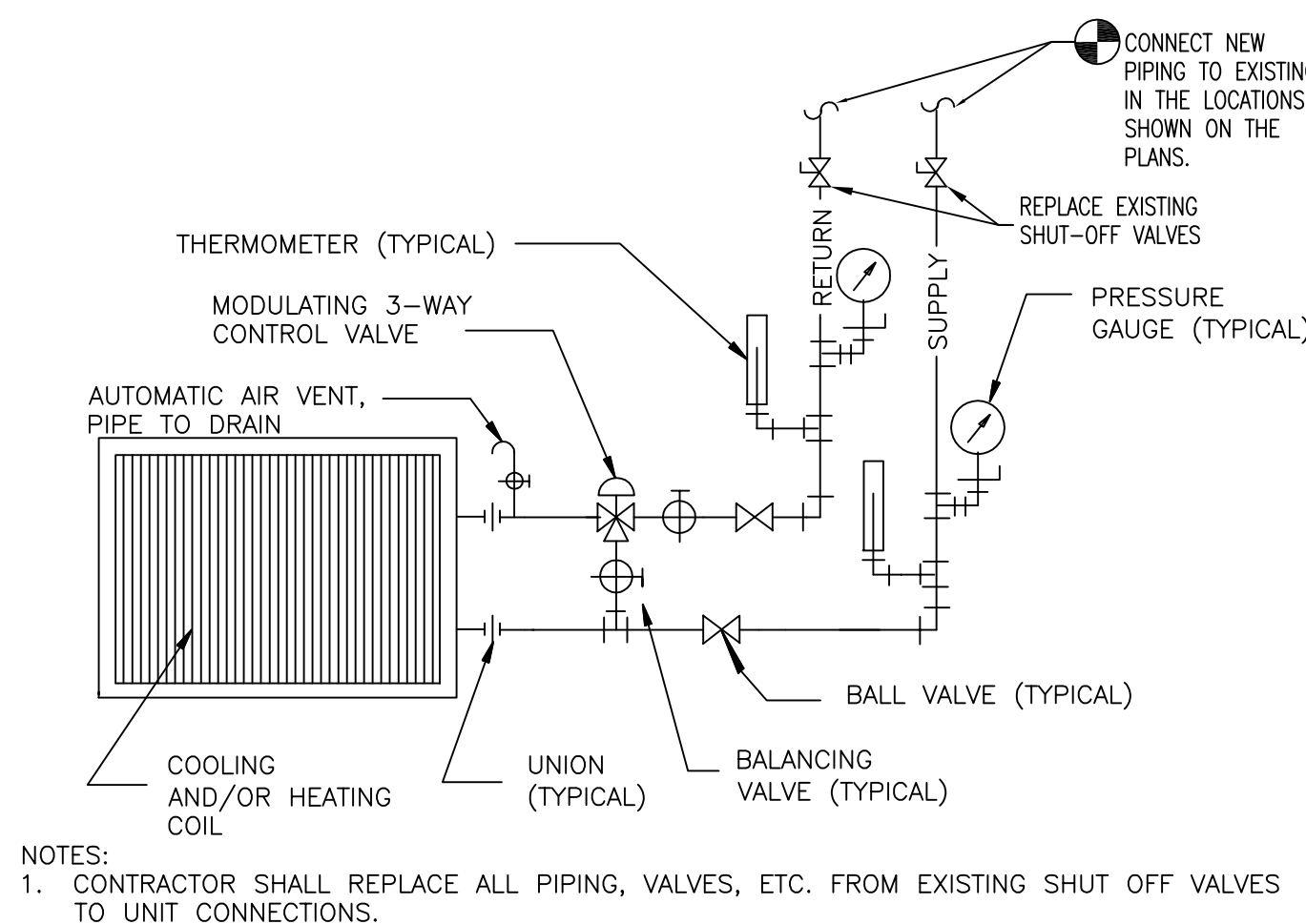
2 DETAIL - PIPE SUPPORT  
NTS



3 DETAIL - CONDENSATE DRAIN  
NTS

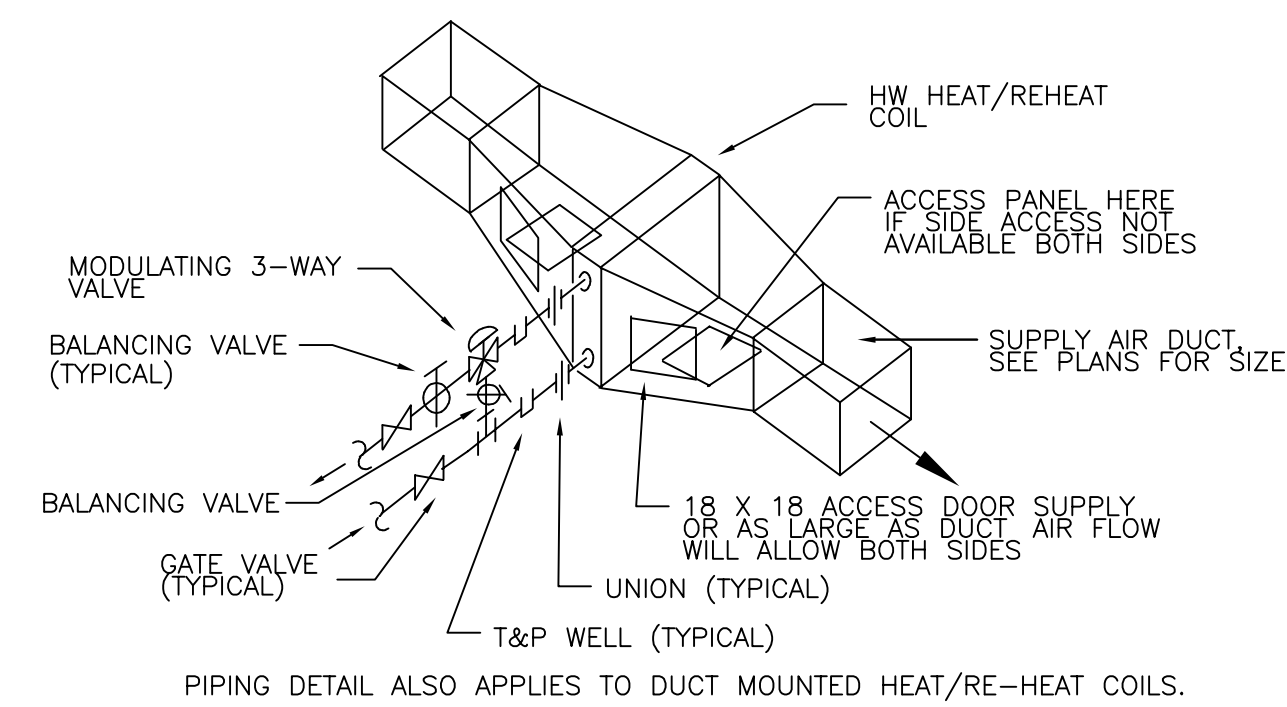


4 DETAIL - AIR HANDLING UNIT  
NTS



NOTES:  
1. CONTRACTOR SHALL REPLACE ALL PIPING, VALVES, ETC. FROM EXISTING SHUT OFF VALVES TO UNIT CONNECTIONS.

5 DETAIL - CHILLED WATER COIL  
NTS

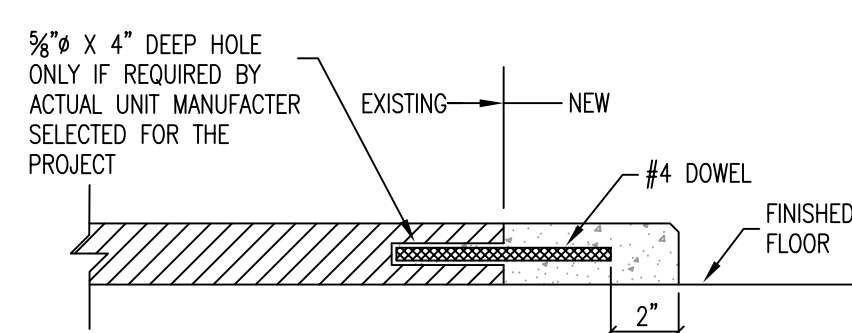


PIPING DETAIL ALSO APPLIES TO DUCT MOUNTED HEAT/RE-HEAT COILS.

6 DETAIL - DUCT MOUNTED HEAT/REHEAT HW WATER COIL  
NTS

TYPICAL PANELBOARD PLAQUE  
(INDICATE PANEL DESIGNATION)  
\_\_\_ VOLTS \_\_\_ PHASE \_\_\_ WIRE  
\_\_\_ AMPS MAIN \_\_\_  
FED FROM \_\_\_  
(INDICATE FEEDER ORIGINATION I.D.)  
(PANEL AND CIRCUIT NO.)

SEE SPECIFICATIONS FOR MATERIALS, COLORS SIZE LETTERING, ETC.  
ATTACH PLAQUES USING GRADE DOUBLE FACE ADHESIVE.  
LABELING SHALL ADHERE TO 408.4(B) SOURCE OF SUPPLY



GENERAL NOTES:  
DRILL 3/8" HOLES X 4" DEEP INTO SIDES OF EXISTING HOUSEKEEPING SLAB AND SET #4 DOWELS WITH SIKADUR 31 HI-MOD EPOXY. SPACE #4 DOWELS AT 16" O.C. MAXIMUM.

7 DETAIL - EQUIPMENT SIGNAGE  
NTS

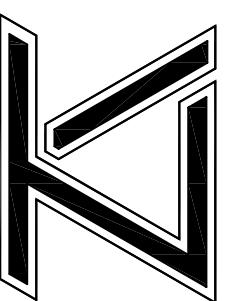
8 DETAIL - EXTENSION OF HOUSEKEEPING PAD  
NTS

9 DETAIL - MECHANICAL SCHEDULES  
NTS

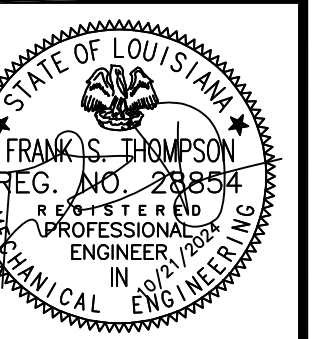
AIR HANDLING UNIT SCHEDULE																								
SUPPLY FAN										CHILLED WATER COOLING COIL														
NO.	SERVICE	TOTAL CFM	CFM F.A.	TOTAL (IN. W.C.)	S.P. (IN. W.C.)	EXT. S.P. (IN. W.C.)	# FANS	MOP (AMPS)	ELECT. SERVICE	TOTAL BTUH	TOTAL SENS.	ENT. AIR °F.	LVC. AIR °F.	GPM	ENT. WATER TEMP. °F.	LVC. WATER TEMP. °F.	# OF COILS	# OF ROWS	PRESS DROP MAX (FT.)	MANUFACTURER	MODEL	NOTES		
AHU-1	SEE PLANS	7500	500	2.8"	1"		1	30	208V/3Ø/60Hz	253,000	196,000	77.0	64.0	52.1	52.1	50	44.00	54.00	1	6	10.6	CARRIER OR APPROVED EQUAL	39M	1,2,3

HYDRONIC HEATING HOT WATER COIL SCHEDULE (HC)														
HEATING HOT WATER COOLING COIL														
NO.	SERVICE AREA	SUPPLY CFM	PRESS DROP MAX (IN. W.C.)	MAX. FACE VEL. (FT/MIN)	TOTAL BTUH	AIR TEMP DIFF. (°F)	GPM	ENT. WATER TEMP. °F.	LVC. WATER TEMP. °F.	PRESS DROP H2O MAX (FT.)	REMARKS	MANUFACTURER		
HC-1	ZONE 1	2,400	.3"	800	77,760	30	7.8	180	160	6.0	PROVIDE 20" ACCESS SECTIONS UPSTREAM AND DOWN STREAM OF COIL	CARRIER OR APPROVED EQUAL		
HC-2	ZONE 2	2,000	.3"	800	64,800	30	6.5	180	160	6.0	PROVIDE 20" ACCESS SECTIONS UPSTREAM AND DOWN STREAM OF COIL	CARRIER OR APPROVED EQUAL		
HC-3	ZONE 3	1,800	.3"	800	58,320	30	5.8	180	160	6.0	PROVIDE 20" ACCESS SECTIONS UPSTREAM AND DOWN STREAM OF COIL	CARRIER OR APPROVED EQUAL		

THOMPSON LUKE & ASSOCIATES, L.L.C.  
10705 RIEGER ROAD, SUITE 101  
BATON ROUGE, LA 70809  
PHONE 225-293-9474



N.S.U. SHAVER GYMNASIUM  
AHU REPLACEMENT  
COLONEL DR., THIBODAUX, LA 70301



REVISIONS:  
DATE: 10/29/2024  
TLA NO: 24-197  
DRAWN: BMB  
CHECKED: FST

SHEET NO:  
ME3