

NORTH MYRTLE BEACH MIDDLE SCHOOL MAU & DUCT REPLACEMENT

11240 SC 90, LITTLE RIVER,, SC 29566



DRAWING INDEX

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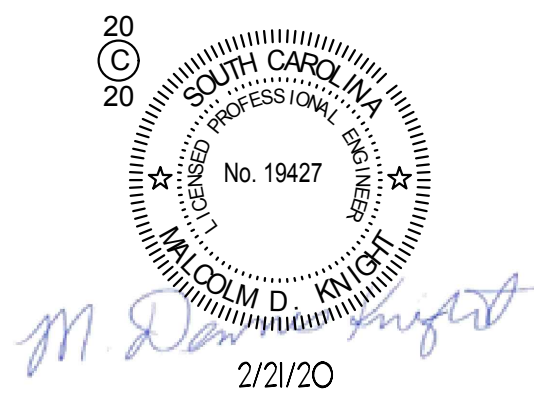
LOCATION MAP



NOTES

GENERAL NOTES (APPLICABLE TO ALL SHEETS)

- A. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS.
- B. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO PROCURING ANY EQUIPMENT OR MATERIALS, AND PRIOR TO FABRICATING ANY WORK.



NORTH MYRTLE BEACH MIDDLE SCHOOL
MAU & DUCT REPLACEMENT
11240 SC 90, LITTLE RIVER, SC 29566

PROJECT TEAM

OWNER

HORRY COUNTY SCHOOLS
OWNER'S REPRESENTATIVE: MR. MARK KOLL

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THIS PROJECT INCLUDE A BASE BID AND AN ALTERNATE AS DESCRIBED BELOW:

BASE BID: ALL WORK SHOWN AND DESCRIBED IN THE CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS)

ALTERNATE 2: DELETE NEW SUPPLY AND EXHAUST DUCTWORK TO AND FROM EACH NEW MAU AS SHOWN ON THE DRAWINGS M1, M2 & M3 TO THE EXTENT SHOWN ON THE DRAWINGS. EXISTING OUTSIDE AIR SUPPLY FIBERGLASS DUCTBOARD AS SHOWN ON DRAWINGS MD1, MD2, MD3 AND MD4 TO REMAIN "AS-INSTALLED." REBALANCE OA QUANTITIES TO THE DUCT CONNECTION ON THE EXISTING SPLIT SYSTEM HEAT PUMPS SERVING CLASSROOMS AND OTHER HVAC ZONES IN THE SCHOOL TO THE NEW QUANTITIES SHOWN ON DRAWINGS M1 THROUGH M4. BALANCE THE EXHAUST AIR QUANTITY BEING EXHAUSTED FROM THE CEILING PLENUM BY ADJUSTING THE MAU EXHAUST FAN SPEED. ALL OTHER WORK REQUIRED IN THE CONTRACT DOCUMENTS TO REMAIN AS SHOWN AND DESCRIBED.

REVISION 1

CODES AND STANDARDS

APPLICABLE BUILDING CODES AND STANDARDS

- THE FOLLOWING CODES AND STANDARDS APPLY TO THE WORK OF THIS PROJECT:
- A. ALL CURRENTLY ADOPTED BUILDING CODES AND STATUTES ADOPTED BY THE STATE OF SOUTH CAROLINA INCLUDING, BUT NOT LIMITED TO:
 - 1. THE INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION WITH SC MODIFICATIONS,
 - 2. THE INTERNATIONAL MECHANICAL CODE (IMC), 2018 EDITION,
 - 3. THE INTERNATIONAL FIRE CODE (IFC), 2018 EDITION WITH SC MODIFICATIONS,
 - 4. THE INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2009 EDITION,
 - 5. THE NATIONAL ELECTRICAL CODE (NFPA-70), 2017 EDITION WITH SC MODIFICATIONS

SEISMIC AND WIND DESIGN CRITERIA

- WIND RESTRAINT LOADING:
- 1. ULTIMATE WIND SPEED (3 SEC GUST), Vult: 155 MPH
 - 2. BUILDING CLASSIFICATION (RISK) CATEGORY: III
 - 3. IMPORTANCE FACTOR: 1.15
 - 4. EXPOSURE CATEGORY: C
 - 5. MINIMUM 10 LB/SQ FT MULTIPLIED BY AREA OF THE MECHANICAL COMPONENT PROJECTED ON A VERTICAL PLANE THAT IS NORMAL TO THE WIND DIRECTION, AND 45 DEGREES EITHER SIDE OF NORMAL.

- SEISMIC RESTRAINT LOADING:
- 1. BUILDING CLASSIFICATION (RISK) CATEGORY: III
 - 2. SITE CLASSIFICATION: D
 - 3. S_s = 0.254
 - 4. S₁ = 0.098
 - 5. SDS = 0.271
 - 6. SD1 = 0.156
 - 7. SEISMIC DESIGN CATEGORY: D (IBC 2018, TABLE 1613.3.5 (1) & (2).

SEE SEISMIC AND WIND LOAD SCHEDULE ON SHEET T2 FOR ADDITIONAL INFORMATION

PROJ. NO. : 19090001

DATE: 2/21/2020

DESIGNED BY: MDK

DRAWN BY: SAM

CHECKED BY: MDK

REVISIONS		
NO.	DATE	NOTES
1	8/31/2020	ADDED ALTERNATE 1

TITLE PAGE

T1

ABBREVIATIONS

A/E	ARCHITECT / ENGINEER
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFMS	AIRFLOW MEASURING STATION
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
BAS	BUILDING AUTOMATION SYSTEM
BDD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
CC	COOLING COIL
CFM	CUBIC FEET PER MINUTE
CM	CARBON MONOXIDE
CO	CLEAN OUT
CO2	CARBON DIOXIDE
COP	COEFFICIENT OF PERFORMANCE
CU	CONDENSING UNIT
CV	CONSTANT VOLUME
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROLS
DEG	DEGREE
DOM	DOMESTIC
DHWR	DOMESTIC HOT WATER RETURN
DP	DEW POINT
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
ESP	EXTERNAL STATIC PRESSURE
ETR	EXISTING TO REMAIN
EX OR (E)	EXISTING
F	FAHREINHEIT
FA	FREE AREA
FC	FLEXIBLE CONNECTION
FT	FEET
HGR OR HGRH	HOT GAS REHEAT
HOA	HAND/OFF/AUTOMATIC
HP	HORSEPOWER
HX	HEAT EXCHANGER
HZ	HERTZ
I/O	INPUT/OUTPUT
IAQ	INDOOR AIR QUALITY
IN	INCHES
IN HG	INCHES OF MERCURY
IN WC	INCHES WATER COLUMN
IPLV	INTEGRATED PART LOAD VALUE
LAT	LEAVING AIR TEMPERATURE
LBS/HR	POUNDS PER HOUR
LF	LINEAR FOOT (FEET)
MAT	MIXED AIR TEMPERATURE
MAX	MAXIMUM
MBH	1000 BTUH
MCA	MINIMUM CIRCUIT AMPACITY
MERV	MINIMUM EFFICIENCY REPORTING VALUE
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
NA	NOT APPLICABLE
NC	NOISE CRITERIA
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAD	OUTDOOR AIR DAMPER
PD	PRESSURE DROP
PPM	PARTS PER MILLION
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH - GAGE
RA	RETURN AIR
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SA	SOUND ATTENUATOR
SAT	SUPPLY AIR TEMPERATURE
SCR	SILICON CONTROLLED RECTIFIER
SP	STATIC PRESSURE
SS	STAINLESS STEEL
TAB	TESTING, ADJUSTING, AND BALANCING
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS
WB	WET BULB

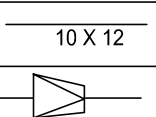
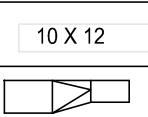
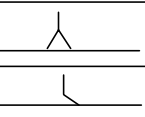
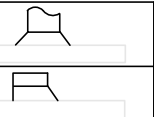
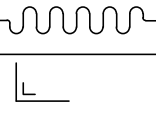
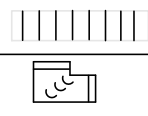
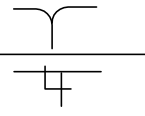
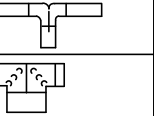
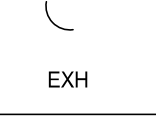
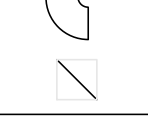


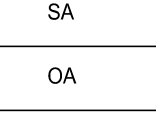
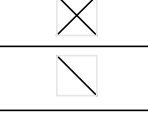
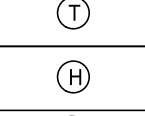
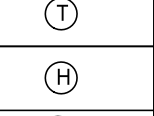
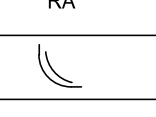
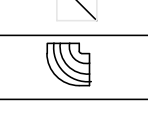
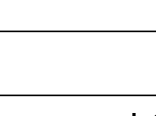

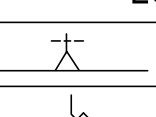

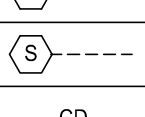
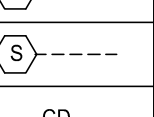
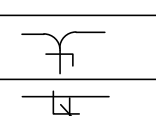
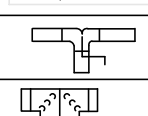
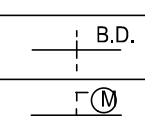
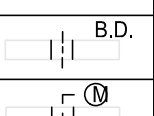
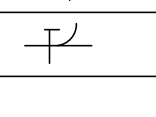
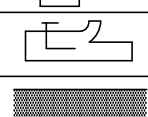
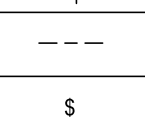
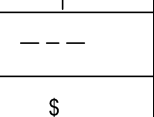
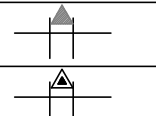
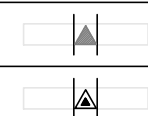
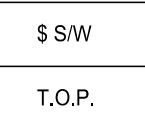
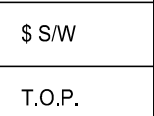
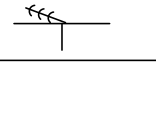
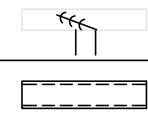
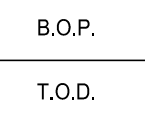
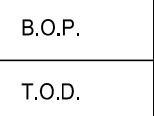
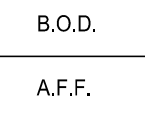
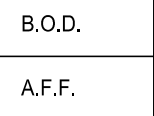
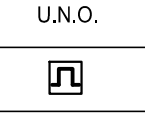
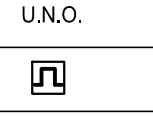
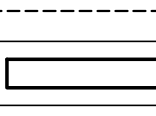

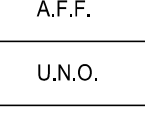
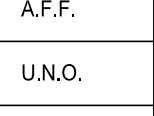



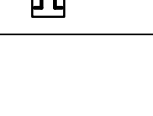














































SEISMIC AND WIND LOAD REQUIREMENTS

- A. PER THE INTERNATIONAL BUILDING CODE - 2018, MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT AND COMPONENTS, INCLUDING THEIR SUPPORTS AND ATTACHMENTS, SHALL BE DESIGNED FOR SEISMIC FORCES IN ACCORDANCE WITH CHAPTER 13 OF ASCE 7-16.
- B. EXTERIOR EQUIPMENT (INCLUDING ROOF CURBS & ROOF RAILS) EXPOSED TO WIND SHALL BE DESIGNED AND INSTALLED TO RESIST THE WIND PRESSURES DETERMINED IN ACCORDANCE WITH CHAPTERS 26 TO 29 OF ASCE 7-16.
- C. WHERE DESIGN FOR SEISMIC AND WIND LOADS IS REQUIRED, THE MORE DEMANDING FORCE MUST BE USED.
- D. REFERENCE THE STRUCTURAL DRAWINGS FOR SITE SPECIFIC INFORMATION ON SEISMIC DESIGN CATEGORY, WIND SPEEDS, ETC. IF STRUCTURAL DRAWINGS ARE NOT INCLUDED IN THE SCOPE OF THE CONTRACT DOCUMENTS, REFERENCE THE SITE SPECIFIC SEISMIC AND WIND LOAD DESIGN INFORMATION HEREIN.
- E. ALL EQUIPMENT AND SYSTEMS FOR THIS PROJECT HAVE A COMPONENT IMPORTANCE FACTOR (Ip) OF 1.0 UNLESS NOTED OTHERWISE.
- F. USE TABLE BELOW TO DETERMINE SEISMIC RESTRAINT REQUIREMENTS FOR EACH COMPONENT.
- G. FOR ALL COMPONENTS/SYSTEMS REQUIRING SEISMIC RESTRAINT, THE COMPONENT SUPPORTS AND ATTACHMENTS SHALL BE DESIGNED (CALCULATIONS AND INSTALLATION DETAILS) AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER THAT IS DIRECTLY EMPLOYED BY THE SEISMIC RESTRAINT MANUFACTURER WITH AT LEAST FIVE YEARS OF SEISMIC DESIGN EXPERIENCE, LICENSED IN THE STATE OF THE JOB LOCATION. ALL RESTRAINING DEVICES SHALL HAVE A PREAPPROVAL NUMBER FROM CALIFORNIA OSHPD OR SOME OTHER RECOGNIZED GOVERNMENT AGENCY SHOWING MAXIMUM RESTRAINT RATINGS.
- H. WHERE SEISMIC RESTRAINT IS REQUIRED, HOUSEKEEPING PADS NEEDED FOR THE INSTALLATION OF EQUIPMENT UNDER THIS CONTRACT MUST BE DESIGNED AND STAMPED BY THE SEISMIC ENGINEER. DO NOT POUR ANY HOUSEKEEPING PADS PRIOR TO THE RECEIPT OF AN APPROVED SEISMIC SUBMITTAL FROM THE ENGINEER OF RECORD. ALL HOUSEKEEPING PADS DESIGNED AS EXPANSIONS TO EXISTING PADS OR INSTALLED ON TOP OF EXISTING CONCRETE FLOOR SYSTEMS SHALL BE DOWELED INTO THE EXISTING SYSTEMS.
- I. SEISMIC RESTRAINTS FOR DUCTWORK, PIPING, CONDUIT, CABLE TRAY, AND BUS DUCT MUST BE SHOWN ON LAYOUT DRAWINGS SHOWING SPECIFIC RESTRAINT LOCATIONS ALONG WITH ACCOMPANYING DETAILS AND CALCULATIONS PER THE SEISMIC ENGINEER.

COMPONENT/SYSTEM IMPORTANCE FACTOR (Ip) SCHEDULE AND SEISMIC DESIGN INFORMATION

Ip = 1.0		ALL SYSTEMS			
SEISMIC DESIGN INFORMATION:					
1. RISK CATEGORY = III					
2. SITE CLASSIFICATION = D					
3. SHORT PERIOD DESIGN SPECTRAL ACCELERATION (Sd1) = 0.428					
4. LONG PERIOD DESIGN SPECTRAL ACCELERATION (Sds) = 0.828					
SEISMIC DESIGN CATEGORY TABLE - DESIGN CATEGORIES D, E, & F					
		COMPONENT IMPORTANCE FACTOR (Ip)			
		Ip = 1.0		Ip = 1.5	
		COMPONENT/SYSTEM IDENTIFICATION	ASCE 7-16 REFERENCE	COMPONENT/SYSTEM IDENTIFICATION	ASCE 7-16 REFERENCE
ROOF MOUNTED EQUIPMENT		RESTRAIN ALL (SEE NOTE 1)	13.1.4.6	RESTRAIN ALL	13.1.4.6
FLOOR MOUNTED EQUIPMENT		RESTRAIN ALL (SEE NOTES 1, 2)	13.1.4.6	RESTRAIN ALL	13.1.4.6
WALL MOUNTED EQUIPMENT		RESTRAIN ALL (SEE NOTES 1, 2)	13.1.4.6	RESTRAIN ALL	13.1.4.6
COMPONENT SUPPORTS		RESTRAIN ALL (SEE NOTE 1)	13.6.5	RESTRAIN ALL	13.6.5
SUSPENDED EQUIPMENT	INLINE WITH DUCT/PIPE	RESTRAIN IF > 75 LBS PROVIDE FLEX. CONN. (SEE NOTE 3)	13.6.7	RESTRAIN IF > 75 LBS PROVIDE FLEX. CONN. (SEE NOTE 3)	13.6.7
	NOT INLINE WITH DUCT/PIPE	RESTRAIN ALL (SEE NOTE 1)	13.1.4.6	RESTRAIN ALL	13.1.4.6
SUSPENDED DUCTILE PIPING (STEEL, ALUMINUM, COPPER, ETC.)		RESTRAIN IF >3" (SEE NOTE 4)	13.6.8.3.3.c	RESTRAIN IF >1" (SEE NOTE 4)	13.6.8.3.3.b
SUSPENDED NON DUCTILE PIPING (CAST IRON, PLASTIC, CERAMIC)		RESTRAIN ALL (SEE NOTE 4)	13.6.8.3.3	RESTRAIN ALL (SEE NOTE 4)	13.6.8.3.3
SUSPENDED PIPE ON TRAPEZE		RESTRAIN IF ANY PIPE ON TRAPEZE >3" RESTRAIN IF TOTAL WEIGHT OF PIPES ON TRAPEZE >10 LBS/FT (SEE NOTE 4)	13.6.8.3.1	RESTRAIN IF ANY PIPE ON TRAPEZE >1" RESTRAIN IF TOTAL WEIGHT OF PIPES ON TRAPEZE >10 LBS/FT (SEE NOTE 4)	13.6.8.3.1
DUCTWORK		RESTRAIN IF >6 SOFT AND >17 LBS/FT (SEE NOTES 4,5)	13.6.7	RESTRAIN IF >6 SOFT AND >17 LBS/FT (SEE NOTES 4,5)	13.6.7
MULTIPLE DUCTS ON TRAPEZE		RESTRAIN IF TOTAL WEIGHT OF DUCTS ON TRAPEZE >10LBS/FT (SEE NOTES 4,5)	13.6.7	RESTRAIN IF TOTAL WEIGHT OF DUCTS ON TRAPEZE >10 LBS/FT (SEE NOTES 4,5)	13.1.4.6
SINGLE CONDUIT		RESTRAIN IF ≥2.5" (SEE NOTE 4)	13.6.5.6	RESTRAIN IF ≥2.5" (SEE NOTE 4)	13.6.5.6
CABLE TRAY/BUS DUCT/TRAPEZED CONDUIT		RESTRAIN IF TOTAL WEIGHT OF RACEWAY >10 LBS/FT (SEE NOTE 4)	13.6.5.6	RESTRAIN IF TOTAL WEIGHT OF RACEWAY >10 LBS/FT (SEE NOTE 4)	13.6.5.6
PENDANT, LAY-IN, AND CAN LIGHTS		REQUIRED (SEE NOTE 6)	13.5.6.2	REQUIRED (SEE NOTE 6)	13.5.6.2
COMPONENT CERTIFICATION		NOT REQUIRED	13.2.2	REQUIRED (SEE NOTE 7)	13.2.2

- GENERAL NOTES:
- DRAWINGS ARE DIAGRAMMATIC IN NATURE. THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD PRIOR TO STARTING WORK.
 - THE FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED. DUCT SIZES ARE NET INTERIOR DIMENSIONS.
 - ACCESS PANELS IN HARD SUSPENDED CEILINGS ARE REQUIRED FOR ALL VALVES, TRAPS, DAMPERS, CLEANOUTS, CONTROLS, ETC. ACCESS PANELS SHALL BE FURNISHED AND INSTALLED UNDER THE ARCHITECTURAL SPECIFICATIONS. COORDINATE LOCATION WITH MECHANICAL INSTALLATION AND DEMONSTRATE ACCESS TO EQUIPMENT SERVED.
 - SEE STANDARD EQUIPMENT DETAILS FOR CONNECTIONS TO MECHANICAL EQUIPMENT.
 - DIFFUSER, REGISTER, AND GRILLE SIZES SHOWN ON FLOOR PLANS ARE NECK SIZES. PROVIDE MANUAL DAMPERS AT EACH DUCT TAKEOFF TO A SINGLE AIR TERMINAL. SEE AIR DISTRIBUTION SCHEDULE FOR UNLABELLED DUCT DIMENSIONS SERVING A SINGLE AIR DISTRIBUTION DEVICE.
 - THE MAJORITY OF AIR DISTRIBUTION DEVICES ARE EXISTING AND ARE TO REMAIN WHERE LOCATED IN EXISTING CEILINGS. FOR NEW AIR DISTRIBUTION DEVICES LOCATED IN EXISTING CEILINGS, LOCATE NEW AIR DISTRIBUTION DEVICE WHERE PREVIOUS AIR DEVICE WAS LOCATED.
 - EXISTING TO REMAIN (ETR) EQUIPMENT AND SYSTEMS ARE SHOWN FOR REFERENCE ONLY.
 - REMOVE AND PROTECT CEILING TILES DURING DEMOLITION AND CONSTRUCTION FOR REUSE IN NEW WORK. CEILING TILES BROKEN OR DAMAGED DURING THE COURSE OF DEMOLITION AND/OR CNSTRUCTION SHALL BE REPLACED IN KIND AT NO ADDITIONAL COST TO OWNER.
 - REMOVE AND PROTECT REGISTERS, DIFFUSERS, AND GRILLES FOR REUSE IN NEW WORK. CLEAN AIR DEVICES PRIOR TO REINSTALLATION. AIR DISTRIBUTION DEVICES BROKEN OR DAMAGED DURING THE COURSE OF DEMOLITION AND NEW WORK SHALL BE REPLACED IN KIND AT NO ADDITIONAL COST TO OWNER.
 - AIRFLOW VALUES ARE SHOWN FOR TAB CONTRACTOR'S REFERENCE. TAB CONTRACTOR SHALL BALANCE THE SYSTEMS TO THE AIRFLOWS INDICATED. NEW AIR DEVICES ARE SHOWN WITH TAG AND AIRFLOW VALUE. SEE AIR DISTRIBUTION SCHEDULE ON SHEET M601 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 - LOCATIONS OF RATED WALLS ARE SHOWN BASED ON LIFE SAFETY AS-BUILT PLANS. CONTRACTOR SHALL VERIFY ALL RATED WALL LOCATIONS IN THE FIELD.

MECHANICAL EQUIPMENT LEGEND					
SYMBOL		DESCRIPTION	SYMBOL		DESCRIPTION
SINGLE LINE	DOUBLE LINE		SINGLE LINE	DOUBLE LINE	
LOW OR MEDIUM PRESSURE DUCTWORK			MEDIUM PRESSURE DUCTWORK		
		DUCT SECTION-1ST FIGURE WIDTH, 2ND DEPTH			DUCT TAKE-OFF: CONICAL
		SQUARE TO ROUND TRANS.			DUCT TAKE-OFF: RECTANGULAR
		FLEX DUCTWORK			TEE: LONG RADIUS
		ELBOW WITH TURNING VANES			TEE: WITH TURNING VANES
		LONG RADIUS ELBOW	MISCELLANEOUS		
		EXHAUST DUCT SECTION			
		SUPPLY DUCT SECTION			THERMOSTAT
		OUTSIDE AIR DUCT SECTION			HUMIDISTAT
		RETURN/RELIEF AIR DUCT SECTION			CARBON MONOXIDE SENSOR
		SHORT RADIUS VANED ELBOW			CARBON DIOXIDE SENSOR
		COMBINATION FIRE/SMOKE DAMPER			FIRE DAMPER
LOW PRESSURE DUCTWORK					SMOKE DAMPER
					SMOKE DETECTOR
		DUCT TAKE-OFF: CONICAL			CONDENSATE DRAIN
		DUCT TAKE-OFF: RECTANGULAR			BACKDRAFT DAMPER
		TEE: LONG RADIUS			MOTOR OPERATED DAMPER
		TEE: W/TURNING VANES			DAMPER
		Y-TAKE-OFF WITH SPLITTER DAMPER			MANUAL SWITCH
		2-SIDED DUCT			SUMMER/WINTER SWITCH
		FIRE DAMPER "A" OR "B"			TOP OF PIPE
		COMB. FIRE/SMOKE DAMPER			BOTTOM OF PIPE
		VOLUME EXTRACTOR			TOP OF DUCT
		LINED DUCT			BOTTOM OF DUCT
		EXPOSED ROUND DUCT			ABOVE FINISHED FLOOR
		TO BE REMOVED			UNLESS NOTED OTHERWISE
		NEW DUCT			OFFSET INTO STRUCTURE
		NEW VOLUME DAMPER			



NORTH MYRTLE BEACH MIDDLE SCHOOL
MAU & DUCT REPLACEMENT
11240 SC 90, LITTLE RIVER, SC 29566

PROJ. NO. : 19090001
DATE: 2/21/2020
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DRAWN BY: SAM
CHECKED BY: MDK

REVISIONS		
NO.	DATE	NOTES

HVAC LEGEND,
NOTES, AND
ABBREVIATIONS

T2

EXISTING CONDITIONS NOTES FOR REFERENCE:

1. ALL RA GRILLES TO BE TYPE "D" UNLESS NOTED OTHERWISE.
2. COORDINATE FINAL GRILLE & DIFFUSER LOCATION W/ ARCH. REFLECTED CEILING PLAN.
3. FIRE DAMPER (VERTICAL WALL) OR RADIATION DAMPER (HORIZONTAL) - 1 HR. PENETRATION (UNLESS OTHERWISE NOTED). ▲
4. ALL HEAT PUMPS (HP) & COND. UNITS (CU) TO BE LOCATED ON 4" THICK CONC. PAD.
5. REFRIGERANT PIPING CONCEALED WITHIN WALL SHALL BE SOFT COPPER W/ NO JOINTS INSIDE WALL.
6. COND. DRAIN BELOW GRADE TO 5'-0" OUTSIDE OF BLDG. - CONNECT TO STORM DRAIN SYSTEM BY G.C.
7. TURN DOWN WITH 2" THREADED ELBOW APPROX. AS SHOWN. SUPPLY LENGTH OF STAINLESS PIPE AND COUPLE TO EXTEND TO 6" BELOW CEILING BUT DO NOT INSTALL THROUGH CEILING. THE PIPE AND COUPLING SHALL BE TURNED OVER TO THE OWNER.

FIRE WALL DESIGNATION
1 HOUR FIRE RATED
2 HOUR FIRE RATED
4 HOUR FIRE RATED

GENERAL NOTES

1. SEE GENERAL NOTES ON SHEETS T1 & T2.
2. SEE PROJECT SPECIFICATIONS.
3. REPORT ANY DEFICIENCIES IN EXISTING CONDITIONS TO THE ENGINEER.

KEYED NOTES

1. REMOVE EXISTING UNIT COMPLETE TO INCLUDE EXISTING SUPPLY AND RETURN DUCT WORK, REFRIGERANT LINES AND CONDENSATE LINE ASSOCIATED WITH EQUIPMENT. DUCT HANGERS TO REMAIN, REUSE FOR NEW SUPPLY DUCT. COORDINATE W/ HCSD. ALLOW FOR ANY DESIRED SALVAGE PRIOR TO DISPOSAL.
2. REMOVE EXISTING LOUVER COMPLETE FOR NEW DUCT INSTALLATION
3. SUPPLY TAP AND VOLUME DAMPER TO REMAIN FOR NEW INSTALLATION

NORTH MYRTLE BEACH MIDDLE SCHOOL
MAU & DUCT REPLACEMENT
11240 SC90, LITTLE RIVER, SC 29566

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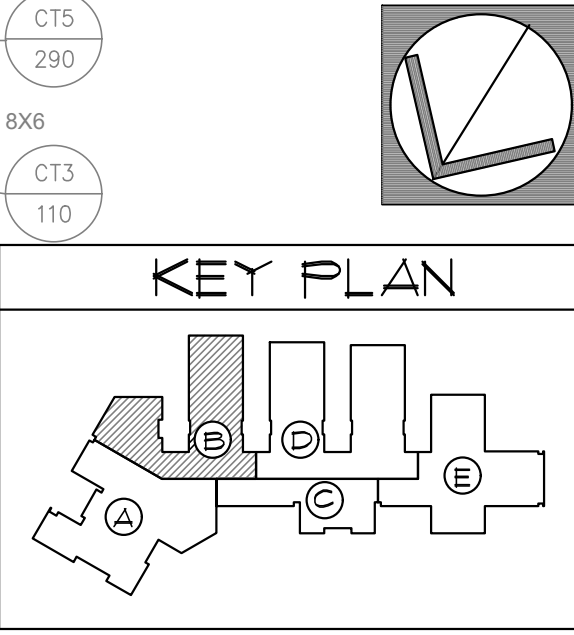
REVISIONS

NO.	DATE	NOTES
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HVAC
DEMOLITION
FLOOR PLAN 'B'

MD1

1 FLOOR PLAN 'B' - HVAC DEMO
MD1 1/8"=1'-0"



NORTH MYRTLE BEACH MIDDLE SCHOOL
MAU & DUCT REPLACEMENT
11240 SC90, LITTLE RIVER, SC 29566

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REVISIONS
NO. DATE NOTES

HVAC
DEMOLITION
FLOOR PLAN 'D'

MD2

GENERAL NOTES

1. SEE GENERAL NOTES ON SHEETS T1 & T2.
2. SEE PROJECT SPECIFICATIONS.
3. REPORT ANY DEFICIENCIES IN EXISTING CONDITIONS TO THE ENGINEER.

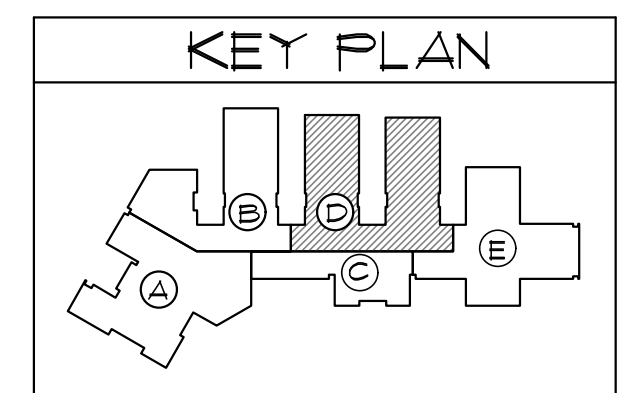
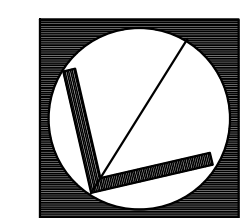
KEYED NOTES

1. REMOVE EXISTING UNIT COMPLETE TO INCLUDE EXISTING SUPPLY AND RETURN DUCT WORK, REFRIGERANT LINES AND CONDENSATE LINE ASSOCIATED WITH EQUIPMENT. DUCT HANGERS TO REMAIN, REUSE FOR NEW SUPPLY DUCT. COORDINATE W/ HCSD. ALLOW FOR ANY DESIRED SALVAGE PRIOR TO DISPOSAL.
2. REMOVE EXISTING LOUVER COMPLETE FOR NEW DUCT INSTALLATION
3. DUCT, SUPPLY TAP AND VOLUME DAMPER TO REMAIN FOR NEW INSTALLATION IN CLASSROOM, REMOVE UNUSED DUCT

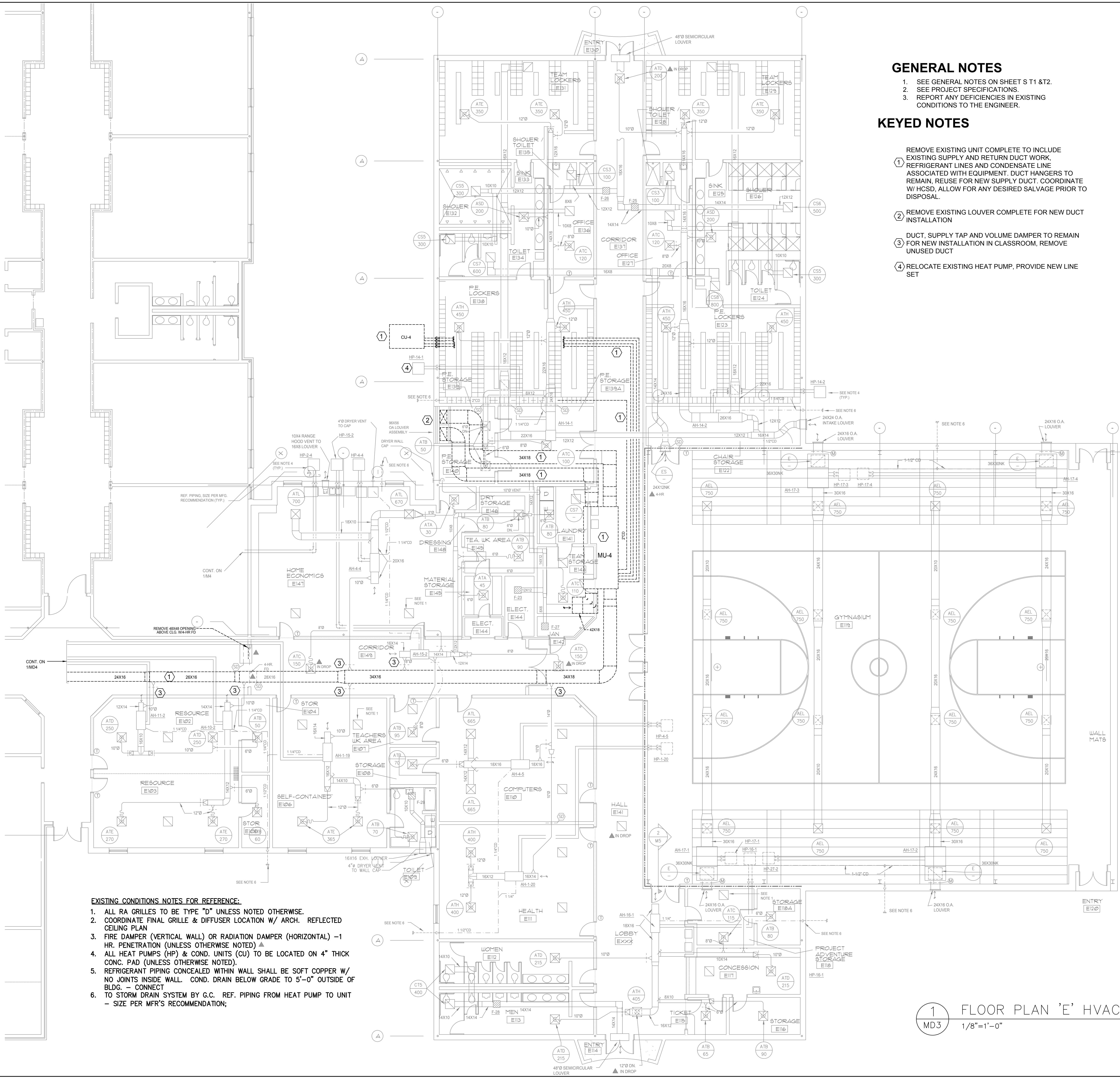
EXISTING CONDITIONS NOTES FOR REFERENCE:

1. ALL RA GRILLES TO BE TYPE "D" UNLESS NOTED OTHERWISE.
2. COORDINATE FINAL GRILLE & DIFFUSER LOCATION W/ ARCH. REFLECTED CEILING PLAN
3. FIRE DAMPER (VERTICAL WALL) OR RADIATION DAMPER (HORIZONTAL) - 1 HR. PENETRATION (UNLESS OTHERWISE NOTED). ▲
4. ALL HEAT PUMPS (HP) & COND. UNITS (CU) TO BE LOCATED ON 4" THICK CONC. PAD.
5. REFRIGERANT PIPING CONCEALED WITHIN WALL SHALL BE SOFT COPPER W/ NO JOINTS INSIDE WALL.
6. COND. DRAIN BELOW GRADE TO 5'-0" OUTSIDE OF BLDG. - CONNECT TO STORM DRAIN SYSTEM BY G.C.
7. TURN DOWN WITH 2" THREADED ELBOW APPROX. AS SHOWN. SUPPLY LENGTH OF STAINLESS PIPE AND COUPLE TO EXTEND TO 6" BELOW CEILING BUT DO NOT INSTALL THROUGH CEILING. THE PIPE AND COUPLING SHALL BE TURNED OVER TO THE OWNER.

FIRE WALL DESIGNATION
1 HOUR FIRE RATED
2 HOUR FIRE RATED
4 HOUR FIRE RATED



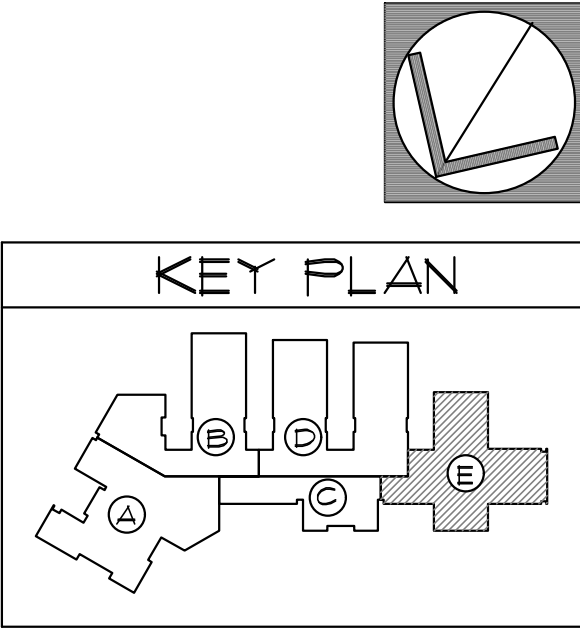
1 FLOOR PLAN 'D' HVAC DEMO
MD2 1/8"=1'-0"



- EXISTING CONDITIONS NOTES FOR REFERENCE:**
1. ALL RA GRILLES TO BE TYPE "D" UNLESS NOTED OTHERWISE.
 2. COORDINATE FINAL GRILLE & DIFFUSER LOCATION W/ ARCH. REFLECTED CEILING PLAN
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 5. REFRIGERANT PIPING CONCEALED WITHIN WALL SHALL BE SOFT COPPER W/ NO JOINTS INSIDE WALL. COND. DRAIN BELOW GRADE TO 5'-0" OUTSIDE OF BLDG. - CONNECT
 6. TO STORM DRAIN SYSTEM BY G.C. REF. PIPING FROM HEAT PUMP TO UNIT - SIZE PER MFR'S RECOMMENDATION;

- GENERAL NOTES**
1. SEE GENERAL NOTES ON SHEET S T1 & T2.
 2. SEE PROJECT SPECIFICATIONS.
 3. REPORT ANY DEFICIENCIES IN EXISTING CONDITIONS TO THE ENGINEER.

- KEYED NOTES**
- ① REMOVE EXISTING UNIT COMPLETE TO INCLUDE EXISTING SUPPLY AND RETURN DUCT WORK, REFRIGERANT LINES AND CONDENSATE LINE ASSOCIATED WITH EQUIPMENT. DUCT HANGERS TO REMAIN, REUSE FOR NEW SUPPLY DUCT. COORDINATE W/ HCSD, ALLOW FOR ANY DESIRED SALVAGE PRIOR TO DISPOSAL.
 - ② REMOVE EXISTING LOUVER COMPLETE FOR NEW DUCT INSTALLATION
 - ③ DUCT, SUPPLY TAP AND VOLUME DAMPER TO REMAIN FOR NEW INSTALLATION IN CLASSROOM, REMOVE UNUSED DUCT
 - ④ RELOCATE EXISTING HEAT PUMP, PROVIDE NEW LINE SET



① FLOOR PLAN 'E' HVAC DEMO
1/8"=1'-0"

NORTH MYRTLE BEACH MIDDLE SCHOOL
MAU & DUCT REPLACEMENT
11240 SC90, LITTLE RIVER, SC 29566

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NO.	DATE	NOTES

HVAC
DEMOLITION
FLOOR PLAN 'E'

MD3

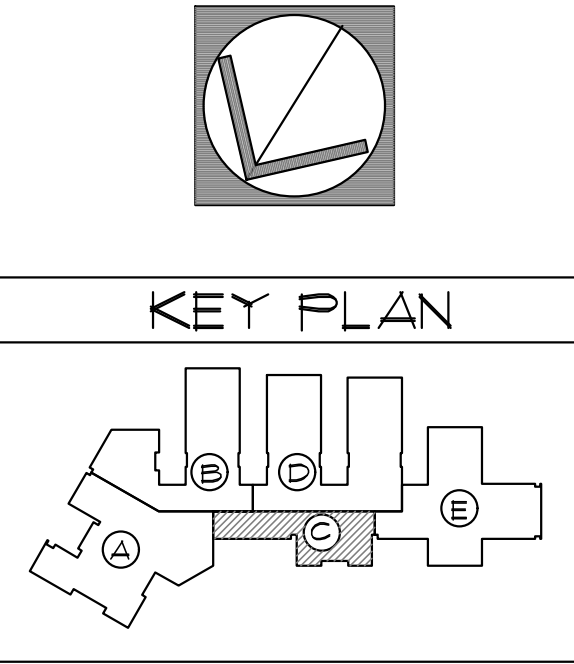
NO. : 19090001
2/21/2020
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N BY: SAM
KED BY: MDK

HVAC
DEMOLITION
FLOOR PLAN 'C'

MD4

1. SEE GENERAL NOTES ON SHEETS T1 & T2.
2. SEE PROJECT SPECIFICATIONS.
3. REPORT ANY DEFICIENCIES IN EXISTING CONDITIONS TO THE ENGINEER.

- ① REMOVE EXISTING UNIT COMPLETE TO INCLUDE EXISTING SUPPLY AND RETURN DUCT WORK, REFRIGERANT LINES AND CONDENSATE LINE ASSOCIATED WITH EQUIPMENT. DUCT HANGERS TO REMAIN, REUSE FOR NEW SUPPLY DUCT. COORDINATE W/ HCSO, ALLOW FOR ANY DESIRED SALVAGE PRIOR TO DISPOSAL.
- ② REMOVE EXISTING LOUVER COMPLETE FOR NEW DUCT INSTALLATION
- ③ SUPPLY TAP AND VOLUME DAMPER TO REMAIN FOR NEW INSTALLATION



NORTH MYRTLE BEACH MIDDLE SCHOOL
MAU & DUCT REPLACEMENT
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NO.	DATE	NOTES
1	8/31/2020	ADDED ALTERNATE 1

HVAC
NEW WORK
FLOOR PLAN 'B'

M1

GENERAL NOTES

1. SEE GENERAL NOTES ON SHEETS T1&T2.
2. SEE PROJECT SPECIFICATIONS.
3. REPORT ANY DEFICIENCIES IN EXISTING CONDITIONS TO THE ENGINEER.

KEYED NOTES

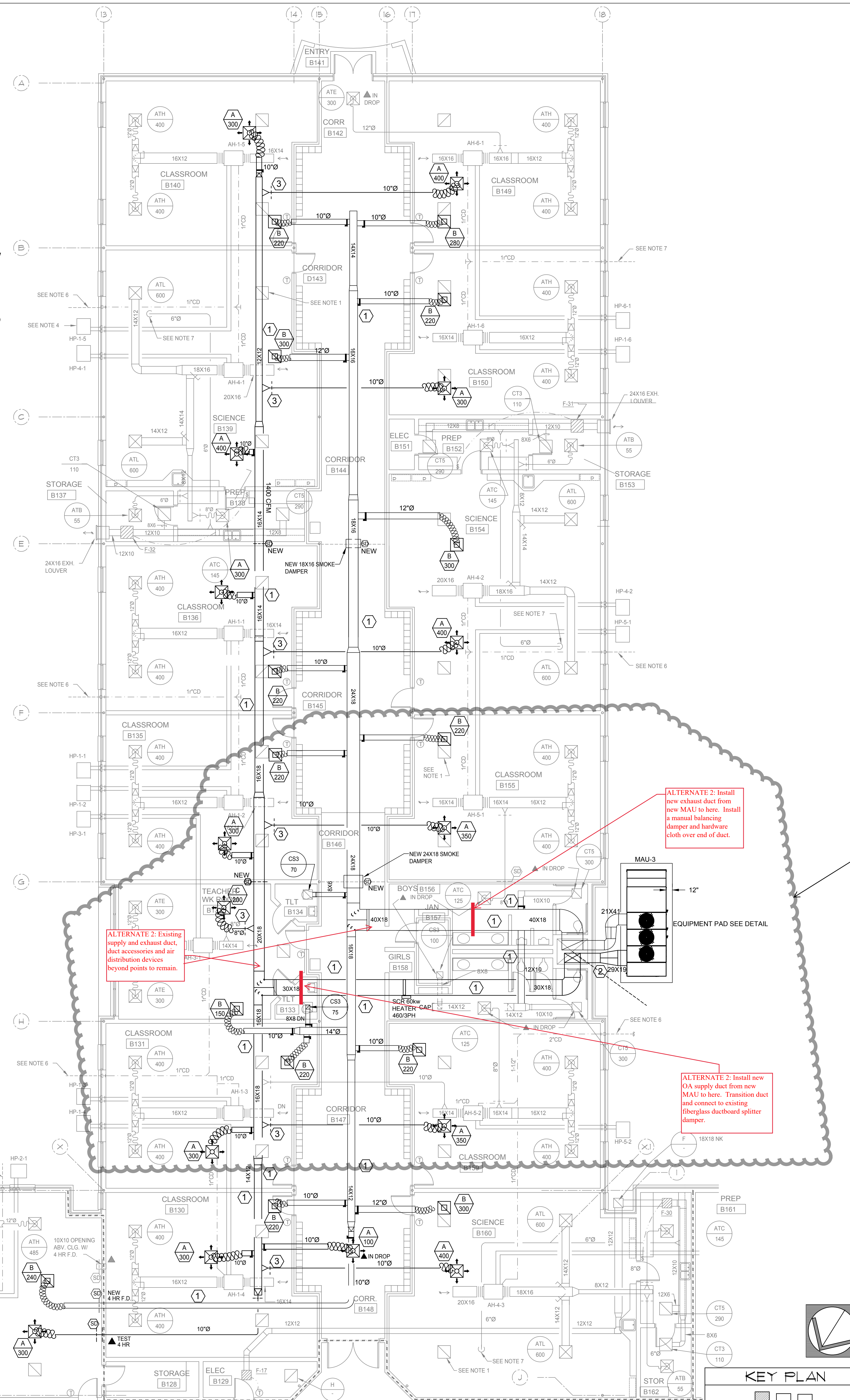
1. INSTALL NEW UNIT ON NEW EQUIPMENT PAD AND INSTALL NEW SUPPLY AT SAME LEVEL AS EXISTING AND RETURN BOTTOM DUCT EQUAL TO OR ABOVE TOP OF SUPPLY, MIN. OVER TOP OF EXISTING AHUS. RELOCATE EXISTING CONDENSATE DRAIN AS/IF REQUIRED FOR NEW PAD.
2. PROVIDE NEW WATER TIGHT COVER AROUND NEW DUCTS AT EXISTING LOUVER LOCATION.
3. ATTACH EXISTING SUPPLY TAP AND VOLUME DAMPER TO NEW SUPPLY TRUNK DUCT, RELOCATE DUCT AS/IF NECESSARY, EXTEND DUCT AS SHOWN AND RUN FLEXIBLE DUCT TO NEW GRILLE. REMOVE REMAINDER OF DUCT.

EXISTING CONDITIONS NOTES FOR REFERENCE:

1. ALL RA GRILLES TO BE TYPE "D" UNLESS NOTED OTHERWISE. SEE 6/M6.
2. COORDINATE FINAL GRILLE & DIFFUSER LOCATION W/ ARCH. REFLECTED CEILING PLAN.
3. FIRE DAMPER (VERTICAL WALL) OR RADIATION DAMPER (HORIZONTAL) - 1 HR. PENETRATION (UNLESS OTHERWISE NOTED). ▲
4. ALL HEAT PUMPS (HP) & COND. UNITS (CU) TO BE LOCATED ON 4" THICK CONC. PAD.
5. REFRIGERANT PIPING CONCEALED WITHIN WALL SHALL BE SOFT COPPER W/ NO JOINTS INSIDE WALL.
6. COND. DRAIN BELOW GRADE TO 5'-0" OUTSIDE OF BLDG. - CONNECT TO STORM DRAIN SYSTEM BY G.C.
7. TURN DOWN WITH 2" THREADED ELBOW APPROX. AS SHOWN. SUPPLY LENGTH OF STAINLESS PIPE AND COUPLE TO EXTEND TO 6" BELOW CEILING BUT DO NOT INSTALL THROUGH CEILING. THE PIPE AND COUPLING SHALL BE TURNED OVER TO THE OWNER.

FIRE WALL DESIGNATION

- 1 HOUR FIRE RATED
- 2 HOUR FIRE RATED
- 4 HOUR FIRE RATED



1
M1
FLOOR PLAN 'B' - HVAC
1/8"=1'-0"

$$\frac{1}{M2}$$

FLOOR PLAN 'D' HVAC

1/8"=1'-0"

GENERAL NOTES

1. SEE GENERAL NOTES ON SHEETS T1 & T2.
2. SEE PROJECT SPECIFICATIONS.
3. REPORT ANY DEFICIENCIES IN EXISTING CONDITIONS TO THE ENGINEER.

KEYED NOTES

- ① INSTALL NEW UNIT ON NEW EQUIPMENT PAD AND
INSTALL NEW SUPPLY AT SAME LEVEL AS EXISTING AND
RETURN BOTTOM DUCT EQUAL TO OR ABOVE TOP OF
SUPPLY, MIN. OVER TOP OF EXISTING AHUS. RELOCATE
EXISTING CONDENSATE DRAIN AS/IF REQUIRED FOR NEW
PAD.

- 2 PROVIDE NEW WATER TIGHT COVER AROUND NEW DUCTS AT EXISTING LOUVER LOCATION.

- ATTACH EXISTING SUPPLY TAP AND VOLUME DAMPER TO NEW SUPPLY TRUNK DUCT. RELOCATE DUCT AS/IF NECESSARY, EXTEND DUCT AS SHOWN AND RUN FLEXIBLE DUCT TO NEW GRILLE. REMOVE REMAINDER OF DUCT.

EXISTING CONDITIONS NOTES FOR REFERENCE:

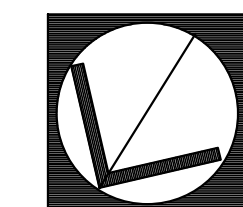
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FIRE WALL DESIGNATION

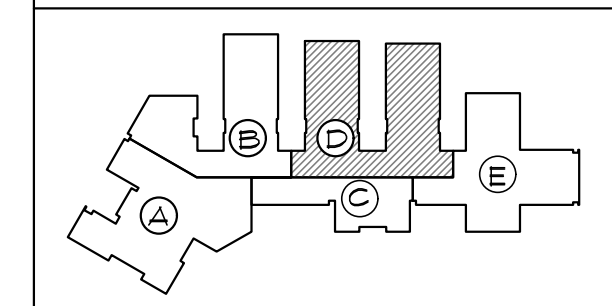
1 HOUR FIRE RATED

2 HOUR FIRE RATED

2 HOUR FIRE RATED



KEY PLAN



REVISIONS		
NO.	DATE	NOTES
1	8/31/2020	ADDED ALTERNATE 1

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NO.	DATE	NOTES
1	8/31/2020	ADDED ALTERNATE 1

HVAC
NEW WORK
FLOOR PLAN 'E'

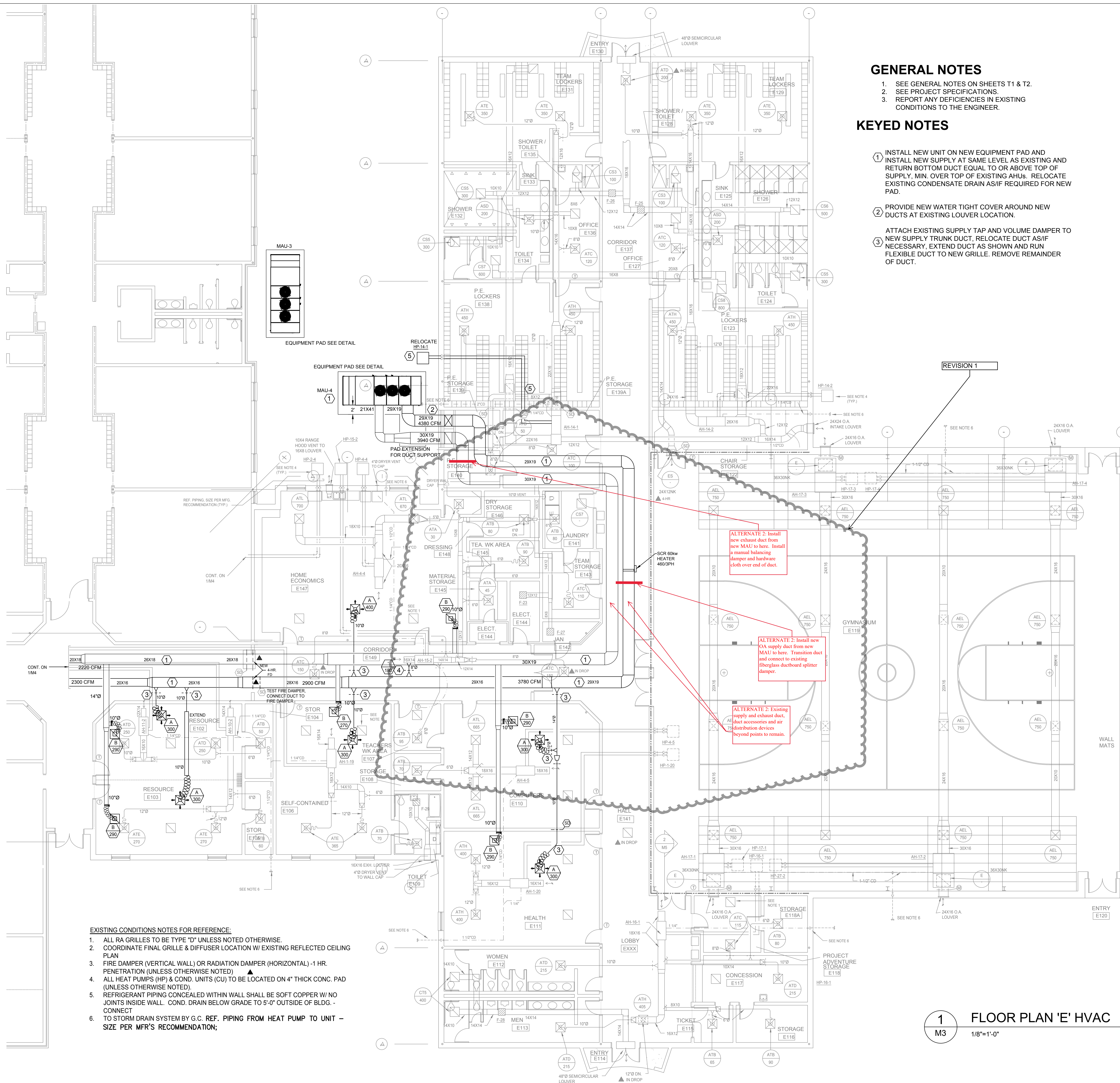
M3

GENERAL NOTES

- SEE GENERAL NOTES ON SHEETS T1 & T2.
- SEE PROJECT SPECIFICATIONS.
- REPORT ANY DEFICIENCIES IN EXISTING CONDITIONS TO THE ENGINEER.

KEYED NOTES

- INSTALL NEW UNIT ON NEW EQUIPMENT PAD AND
INSTALL NEW SUPPLY AT SAME LEVEL AS EXISTING AND
RETURN BOTTOM DUCT EQUAL TO OR ABOVE TOP OF
SUPPLY, MIN. OVER TOP OF EXISTING AHUS. RELOCATE
EXISTING CONDENSATE DRAIN AS/IF REQUIRED FOR NEW
PAD.
- PROVIDE NEW WATER TIGHT COVER AROUND NEW
DUCTS AT EXISTING LOUVER LOCATION.
- ATTACH EXISTING SUPPLY TAP AND VOLUME DAMPER TO
NEW SUPPLY TRUNK DUCT, RELOCATE DUCT AS/IF
NECESSARY, EXTEND DUCT AS SHOWN AND RUN
FLEXIBLE DUCT TO NEW GRILLE. REMOVE REMAINDER
OF DUCT.



EXISTING CONDITIONS NOTES FOR REFERENCE:

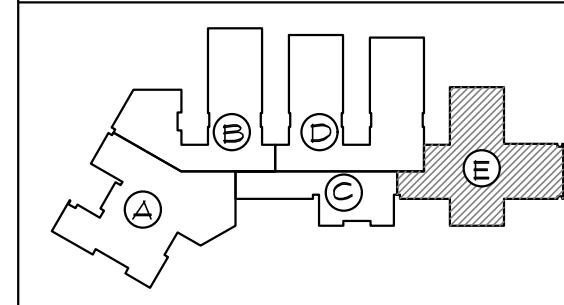
- ALL RA GRILLES TO BE TYPE 'D' UNLESS NOTED OTHERWISE.
- COORDINATE FINAL GRILLE & DIFFUSER LOCATION W/ EXISTING REFLECTED CEILING PLAN
- FIRE DAMPER (VERTICAL WALL) OR RADIATION DAMPER (HORIZONTAL) -1 HR. PENETRATION (UNLESS OTHERWISE NOTED) ▲
- ALL HEAT PUMPS (HP) & COND. UNITS (CU) TO BE LOCATED ON 4" THICK CONC. PAD (UNLESS OTHERWISE NOTED).
- REFRIGERANT PIPING CONCEALED WITHIN WALL SHALL BE SOFT COPPER W/ NO JOINTS INSIDE WALL. COND. DRAIN BELOW GRADE TO 5'-0" OUTSIDE OF BLDG. - CONNECT
- TO STORM DRAIN SYSTEM BY G.C. REF. PIPING FROM HEAT PUMP TO UNIT - SIZE PER MFR'S RECOMMENDATION;

1
M3

FLOOR PLAN 'E' HVAC

1/8"=1'-0"

KEY PLAN



NORTH MYRTLE BEACH MIDDLE SCHOOL
MAU & DUCT REPLACEMENT
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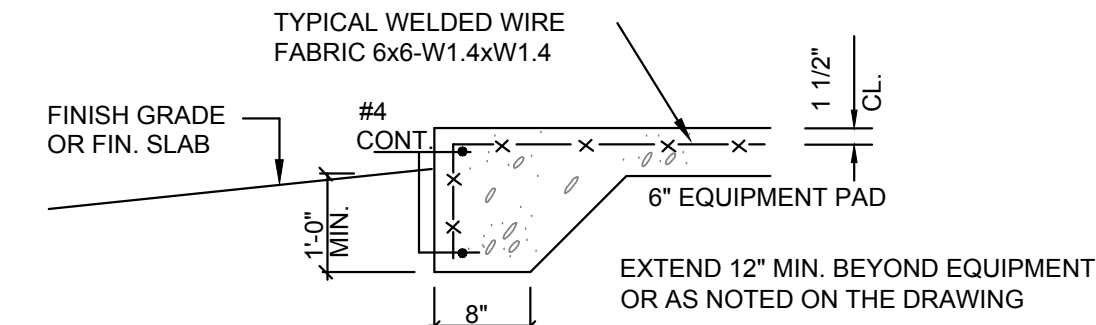
REVISIONS
NO. DATE NOTES

HVAC
NEW WORK
FLOOR PLAN 'C'

M4

HVAC GRILLE SCHEDULE							
SYMBOL	TYPE	CFM (NOMINAL)	THROW	SIZE	MFG.	MODEL #	REMARKS
A	SUPPLY	100-250	4-WAY	8"	KRUEGER	55HR-04-8-18-F23-24X24-00-00-44	1
B	RETURN	-	1-WAY	10"X10"	KRUEGER	55R0-H-10X10-F23-24X24-03-00-44-44	1.2
C	SUPPLY	100-250	4-WAY	8"	KRUEGER	55HR-04-8-18-F22-NONE-00-00-44	1

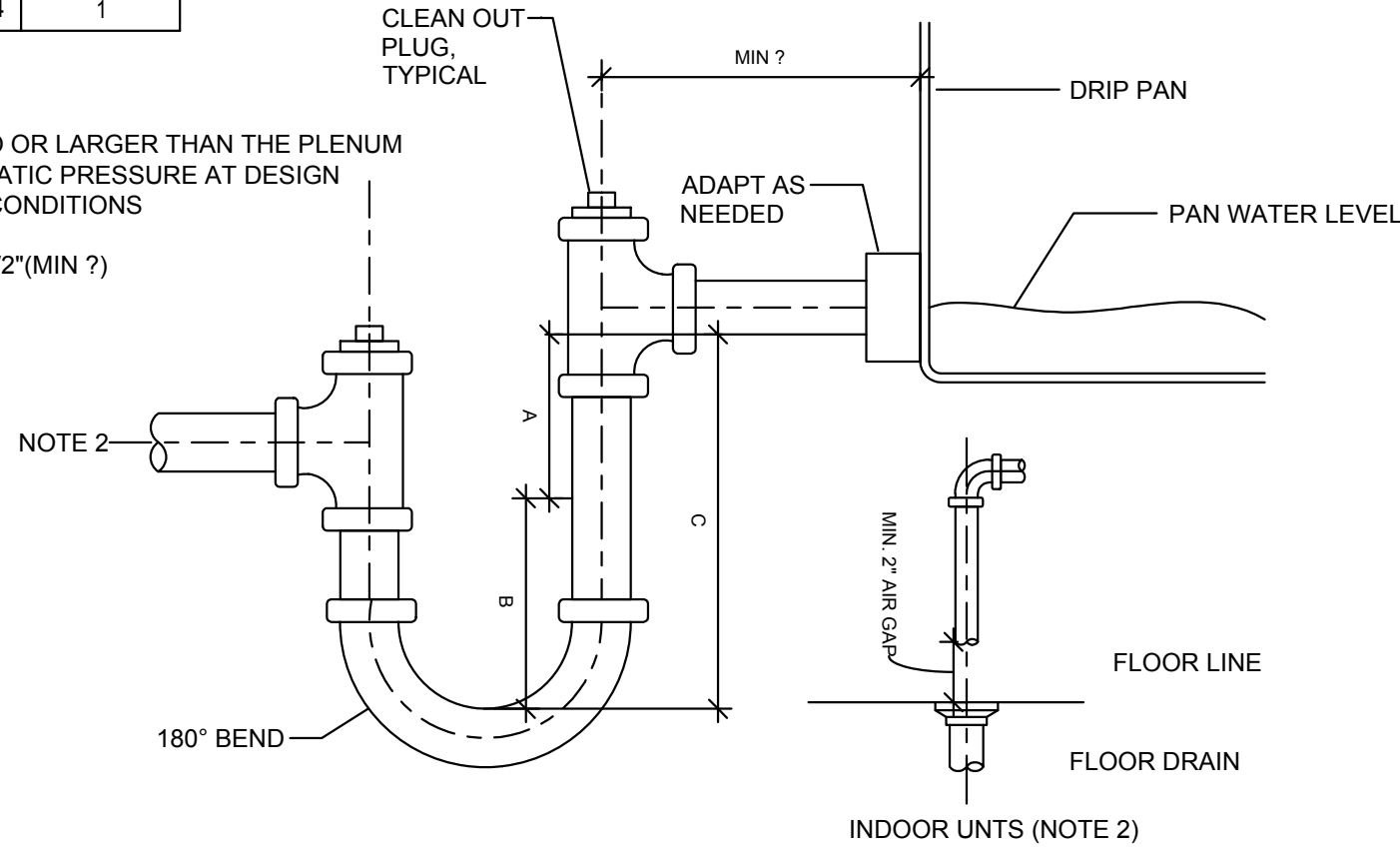
- NOTES:
- COORDINATE REGISTER AND GRILLE FINISHES WITH OWNER.
 - CONTRACTOR SHALL COORDINATE ALL GRILLE LOCATIONS WITH OWNER.
 - CONTRACTOR TO PROVIDE 1 CASE OF EACH FILTER TYPE, USE 1" PLEATED.
- REMARKS:
- PROVIDE T-BAR PANEL SUPPLIED BY GRILLE MANUFACTURER FOR 2X2" LAY-IN CEILING INSTALLATION
 - RETURN GRILLES TO BE HINGED



TYPICAL EQUIPMENT PAD DETAIL

SCALE: NOT TO SCALE

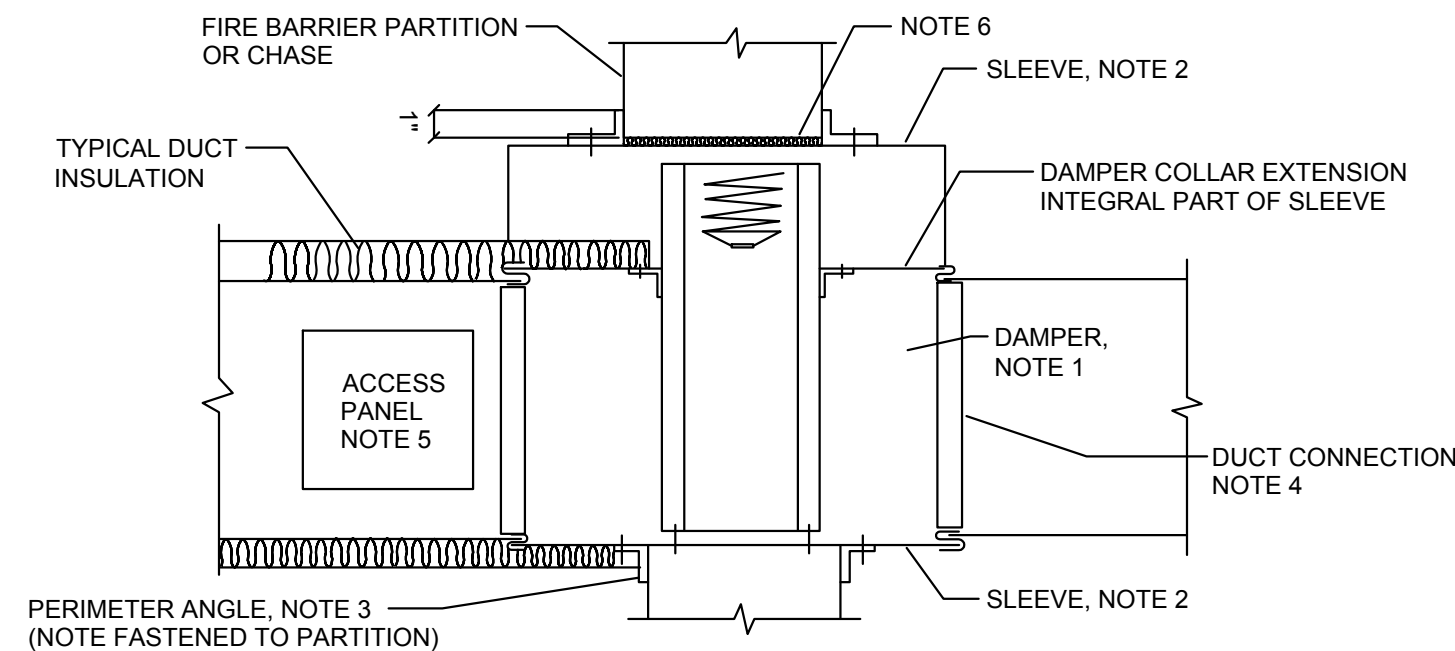
A = EQUAL TO OR LARGER THAN THE PLENUM
NEGATIVE STATIC PRESSURE AT DESIGN
OPERATION CONDITIONS
B = (A/2) + 1-1/2"(MIN ?)
C = A + B



- NOTES:
- PROVIDE CONDENSATE DRAIN TRAP SIZED AS INDICATED, OR ALTERNATIVELY AS PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL COORDINATE TRAP HEIGHT WITH UNIT DRAIN LOCATION AND EQUIPMENT CURB. ROUTE DRAIN PIPING AS INDICATED ON DRAWINGS. FOR EQUIPMENT LOCATED ON GROUND, CONNECT TO NEAREST EXISTING 2" DRAIN TO STORM. FOR EQUIPMENT LOCATED INDOORS, PROVIDE MINIMUM 2" AIR GAP FROM FLOOR DRAINS.

CONDENSATE DRAIN PIPING DETAIL

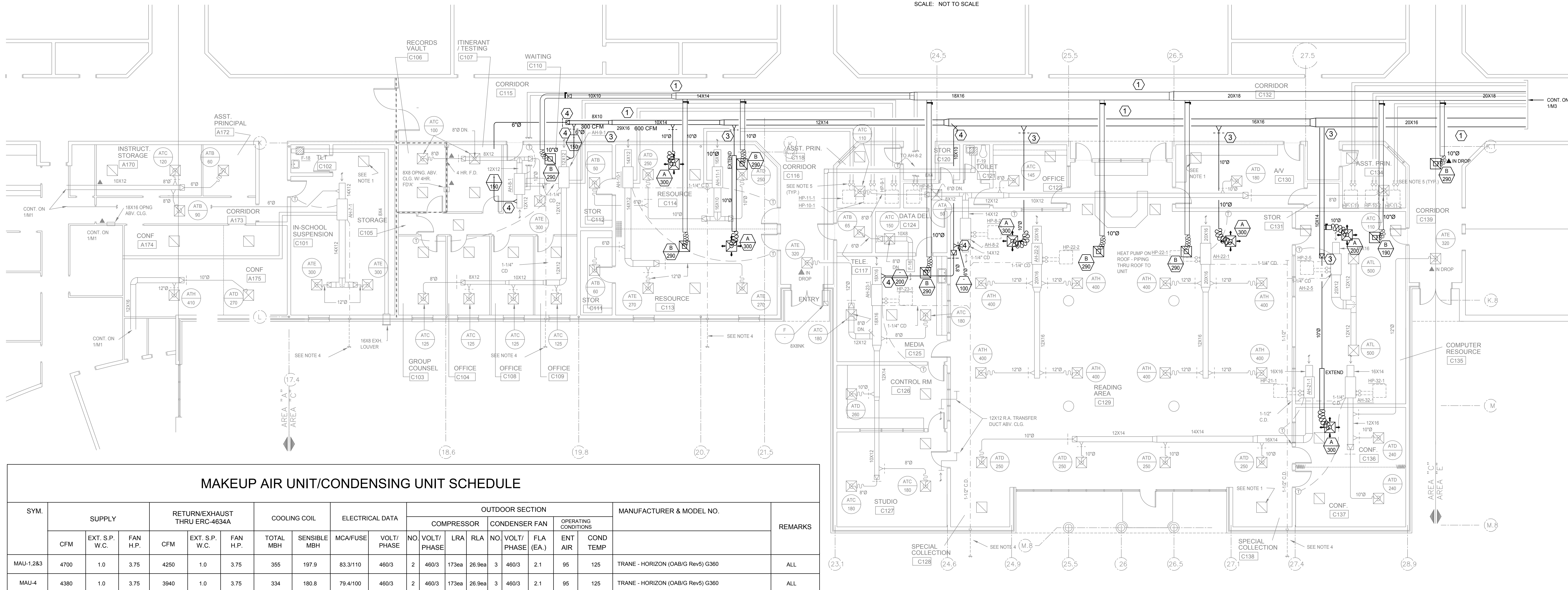
SCALE: NOT TO SCALE



- NOTES:
- A VERTICAL DAMPER IS SHOWN. HORIZONTAL DAMPER INSTALLATION IS SIMILAR. FOLLOW DAMPER MANUFACTURER'S INSTRUCTIONS, INCLUDING FASTENER OPTIONS AND GAGES FOR SLEEVE AND PERIMETER ANGLES. FIRE DAMPERS MUST BE INSTALLED IN THE PARTITION OR FLOOR AND NOT OUTSIDE THE PENETRATION.
 - GLAZINIZED SLEEVE: GAGE NOT LESS THAN CONNECTING DUCT. FASTEN SLEEVE TO DAMPER FRAME AND TO PERIMETER ANGLES.
 - PERIMETER ANGLES: GALVANIZED STEEL, NOT LESS THAN 1 1/2" X 1 1/2", 14 GAGE, TO PROVIDE 1" MINIMUM OVERLAP OF OPENING ON ALL 4 SIDES.
 - BREAKAWAY DUCT CONNECTION: CONTRACTOR'S OPTION OF TYPES SHOWN IN SMACNA. ACCESS PANELS: SIZE AND LOCATION TO PERMIT SERVICING THE FUSIBLE LINK OR LINKS.
 - PROVIDE 1/4" TO 1/2" CLEARANCE ON HEIGHT AND WIDTH. FILL OPEN SPACE WITH ROCK WOOL, FIRESTOP FIBER.
 - ALL DUCT WORK RISERS WHICH ARE RUN EXPOSED, SUCH AS THRU ATTIC FLOORS AND MECHANICAL ROOM FLOORS, SHALL BE PROVIDED WITH 3" HIGH CONCRETE CURB OPENING FOR DUCT.

FIRE DAMPER INSTALLATION DETAIL

SCALE: NOT TO SCALE



MAKEUP AIR UNIT/CONDENSING UNIT SCHEDULE

SYM.	SUPPLY			RETURN/EXHAUST THRU/ERC-4634A			COOLING COIL		ELECTRICAL DATA		OUTDOOR SECTION								MANUFACTURER & MODEL NO.	REMARKS	
											COMPRESSOR				CONDENSER FAN						OPERATING CONDITIONS
	CFM	EXT. S.P. W.C.	FAN H.P.	CFM	EXT. S.P. W.C.	FAN H.P.	TOTAL MBH	SENSIBLE MBH	MCA/FUSE	VOLT/ PHASE	NO.	VOLT/ PHASE	LRA	RLA	NO.	VOLT/ PHASE	FLA (EA.)	ENT AIR			COND TEMP
MAU-1.283	4700	1.0	3.75	4250	1.0	3.75	355	197.9	83.3/110	460/3	2	460/3	173ea	26.9ea	3	460/3	2.1	95	125	TRANE - HORIZON (OAB/G Rev5) G360	ALL
MAU-4	4380	1.0	3.75	3940	1.0	3.75	334	180.8	79.4/100	460/3	2	460/3	173ea	26.9ea	3	460/3	2.1	95	125	TRANE - HORIZON (OAB/G Rev5) G360	ALL

- SEE SPECIFICATIONS, SUBSTITUTIONS BY CARRIER, YORK, DAIKIN, OR APPROVED EQUAL BY HORRY COUNTY
- AIR TEMP. OFF COOLING COIL: 45.2°F D.B./45°F W.B.
- ENTERING AIR TEMP. OFF ERV: O.A. = 82.4°F/70.7°F R.A. = 78°F/64.8°F
- PROVIDE W/ RETURN AIR SMOKE DETECTOR

ERC-4634A PERFORMANCE										
Summer Energy Recovery Performance										
SYM.	Outside Air DB	Outside Air WB	Supply Air DB	Supply Air WB	Return Air DB	Return Air WB	Exhaust Air DB	Exhaust Air WB	LATENT CAPACITY	SENSIBLE CAPACITY
MAU-1.283	91.0 F	79.0 F	81.8 F	69.8 F	78.0 F	64.8 F	88.2 F	76.0 F	137.42 MBH	50.41 MBH
MAU-4	91.0 F	79.0 F	82.4 F	69.8 F	78.0 F	64.8 F	87.5 F	75.1 F	108.54 MBH	41.64 MBH
Winter Energy Recovery Performance										
SYM.	Outside Air DB	Outside Air WB	Supply Air DB	Supply Air WB	Return Air DB	Return Air WB	Exhaust Air DB	Exhaust Air WB	LATENT CAPACITY	SENSIBLE CAPACITY
MAU-1.283	20.0 F	15.0 F	55.3 F	48.1 F	70.0 F	58.5 F	30.8 F	27.6 F	112.27 MBH	193.83 MBH
MAU-4	20.0 F	15.0 F	53.0 F	46.0 F	70.0 F	58.5 F	33.3 F	30.6 F	88.36 MBH	160.21 MBH

EXISTING CONDITIONS NOTES FOR REFERENCE:

- ALL RA GRILLES TO BE TYPE "D" UNLESS NOTED OTHERWISE.
- COORDINATE FINAL GRILLE & DIFFUSER LOCATION W/ ARCH. REFLECTED CEILING PLAN

FIRE DAMPER (VERTICAL WALL) OR RADIATION DAMPER (HORIZONTAL) - 1 HR. PENETRATION

COND. DRAIN BELOW GRADE TO 5'-0" OUTSIDE OF BLDG. - CONNECT TO STORM DRAIN SYSTEM BY G.C.

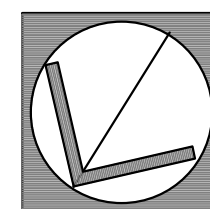
FIRE WALL DESIGNATION

- 1 HOUR FIRE RATED
- 2 HOUR FIRE RATED
- 4 HOUR FIRE RATED

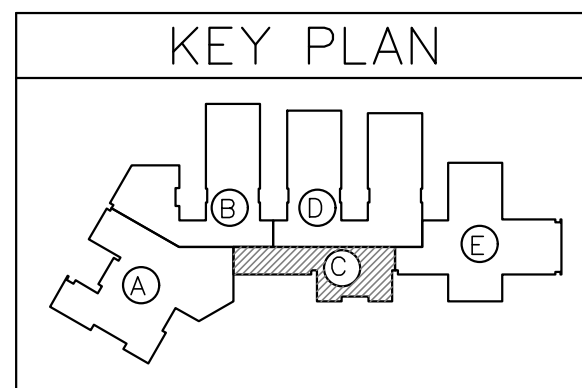
1
M4

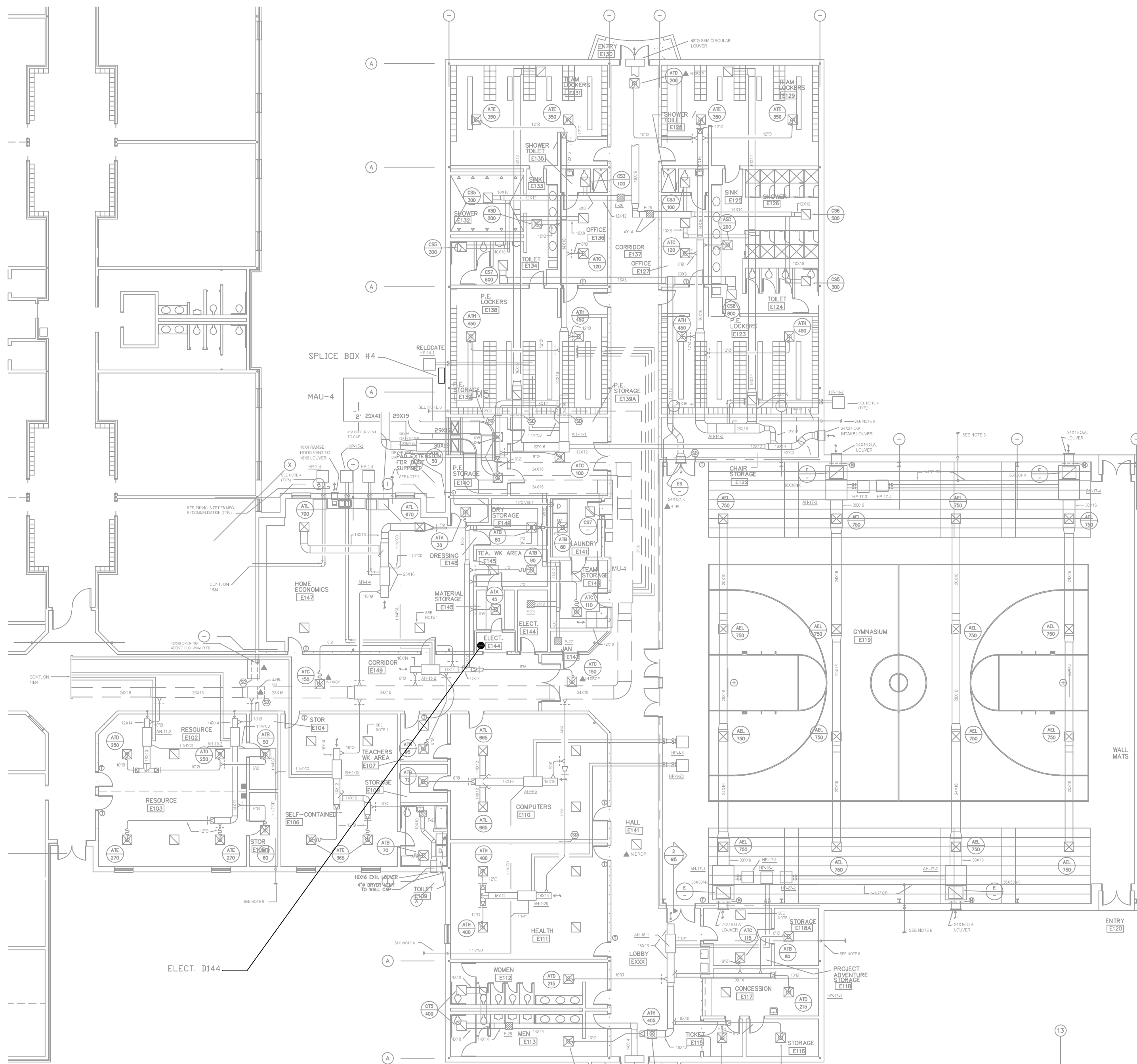
FLOOR PLAN 'C' HVAC

1/8"=1'-0"

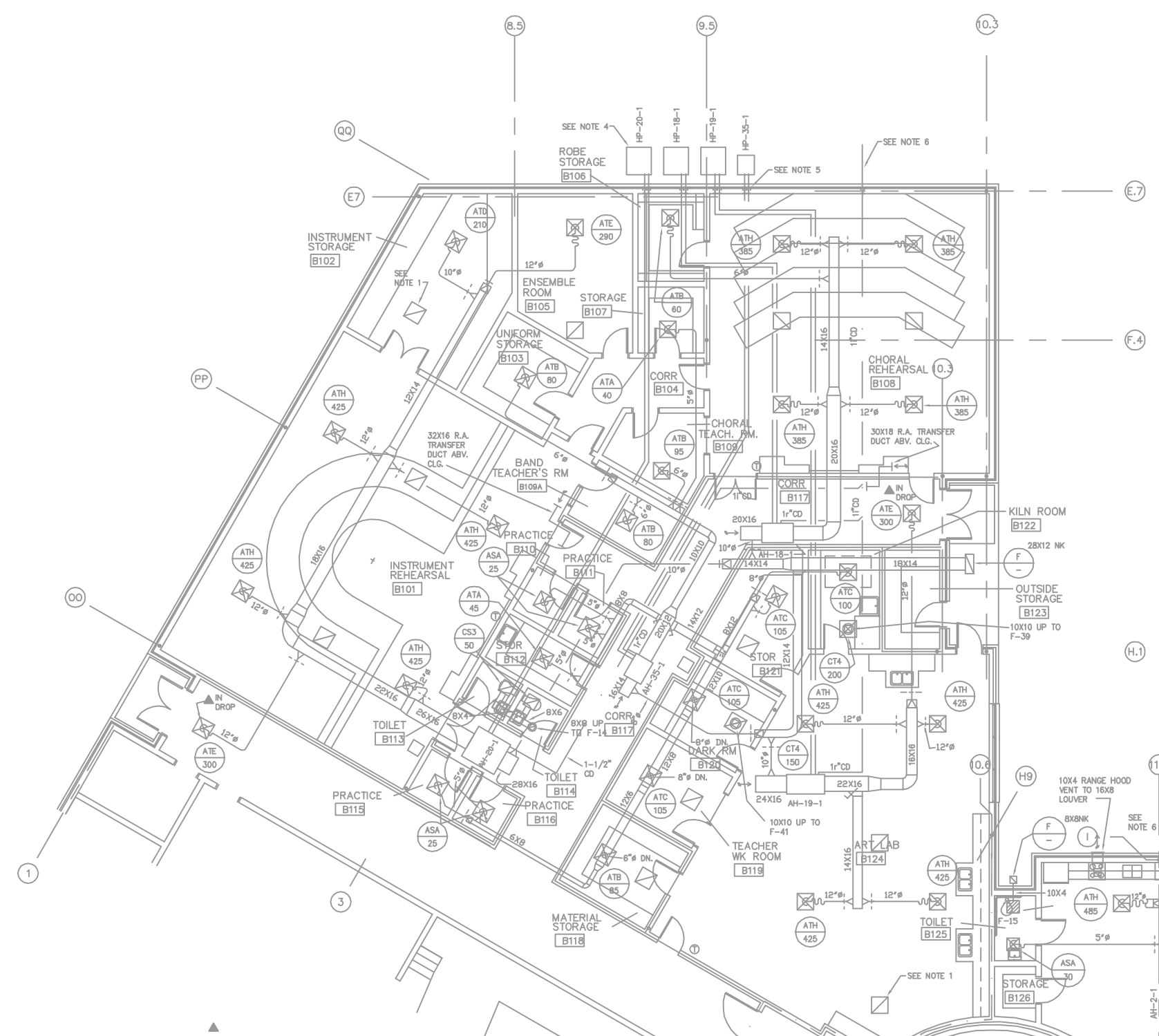
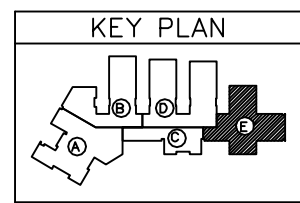


KEY PLAN

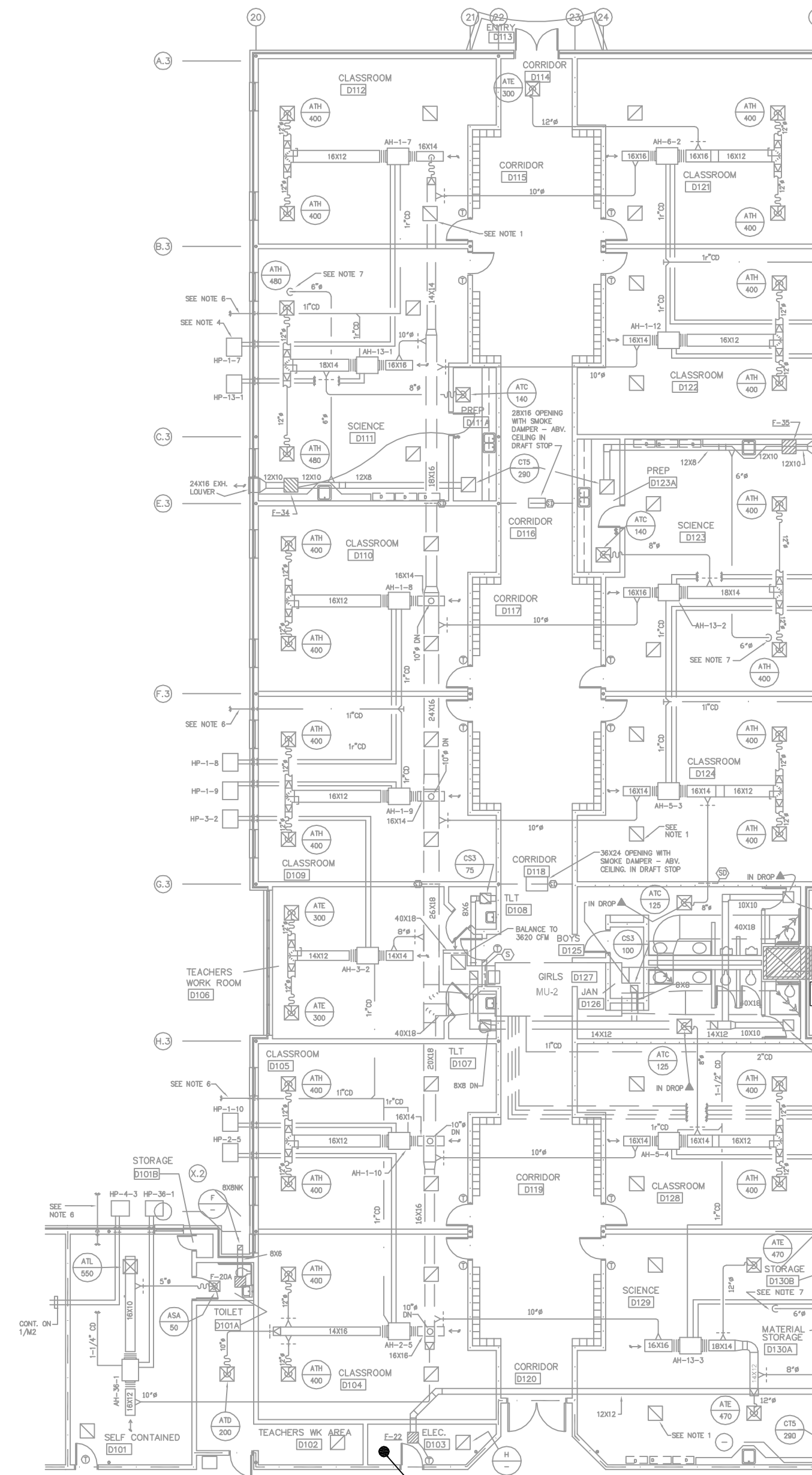
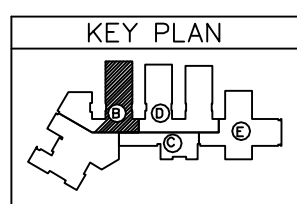




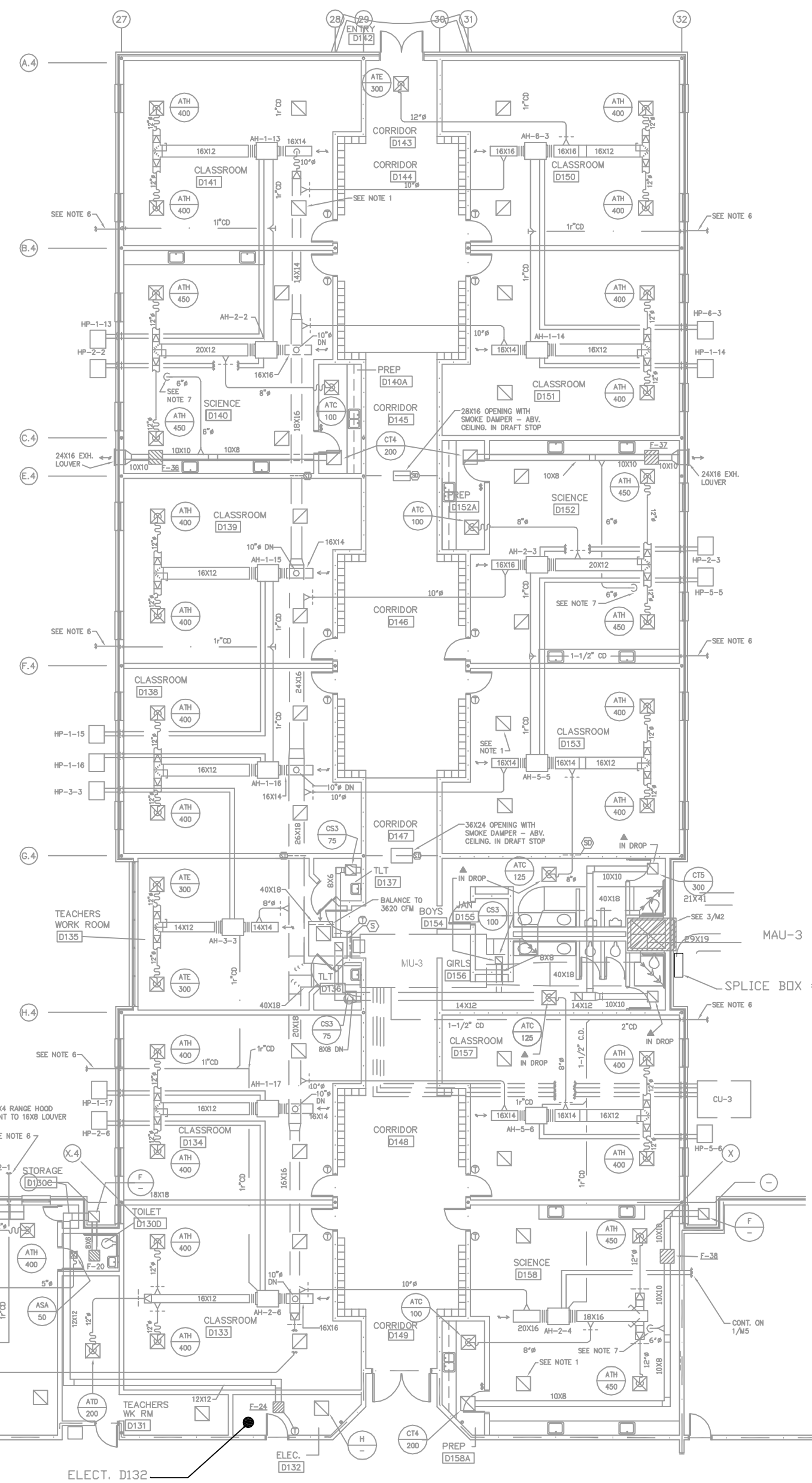
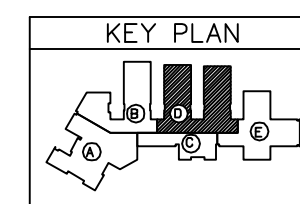
3 FLOOR PLAN 'E'
1/16"=1'-0"



1 FLOOR PLAN 'B'
1/16"=1'-0"



2 FLOOR PLAN 'D'
1/16"=1'-0"



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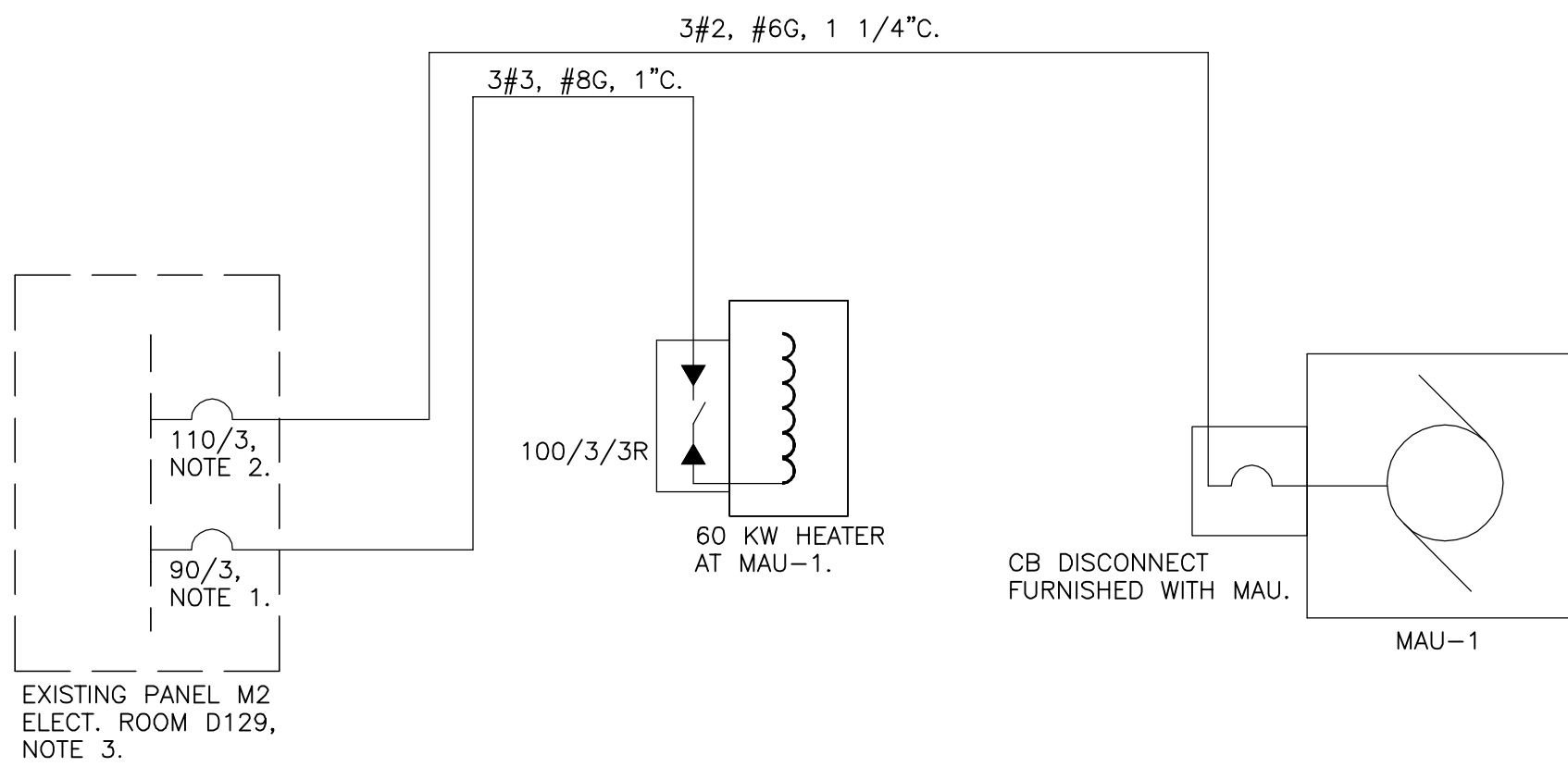
N. MYRTLE BEACH MIDDLE SCHOOL
MAU & DUCT REPLACEMENT
11240 SC90, LITTLE RIVER, SC 29566

PROJ. NO.: 19025002
DATE:
DESIGNED BY: SAM
DRAWN BY: SAM
CHECKED BY: MDK

REVISIONS		
NO.	DATE	NOTES
X	XX/XX/XX	XXXXX

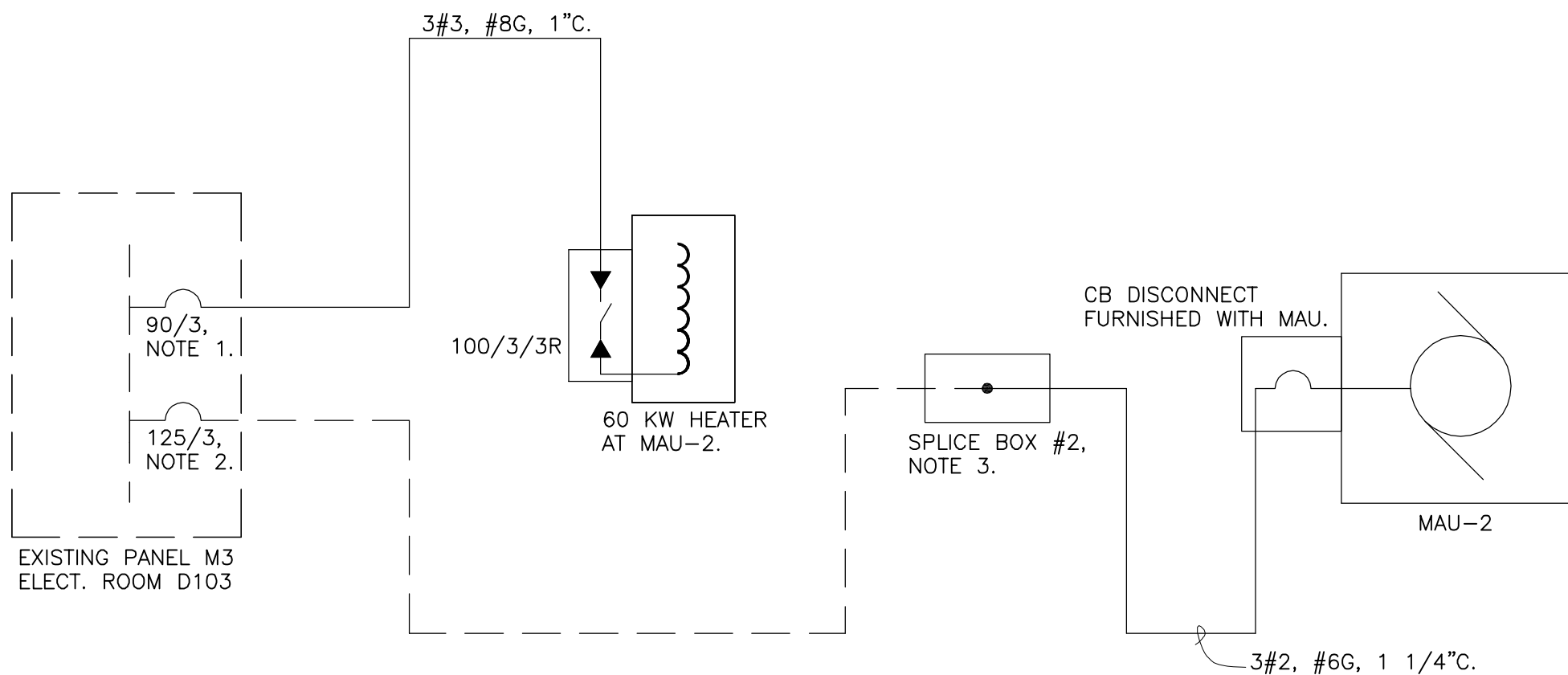
ELECTRICAL
PLANS

E1



1 ONE LINE DIAGRAM - PANEL M2
E2 NTS

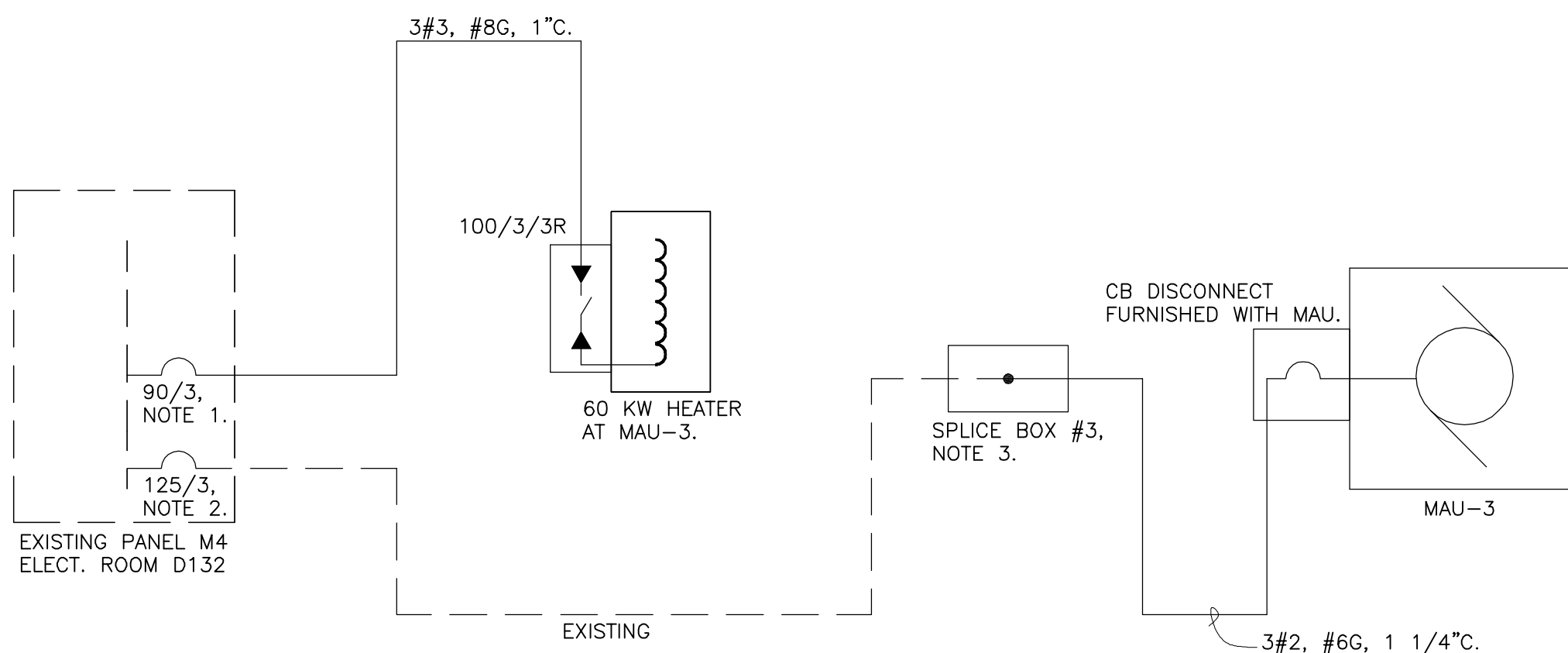
- NOTES:
1. PROVIDE NEW 90/3 CB IN EXISTING SPACE.
 2. PROVIDE NEW 110/3 CB IN EXISTING SPACE.
 3. DEMOLISH WIRE AND CONDUIT FROM 100/3 CB TO CU-1.



2 ONE LINE DIAGRAM - PANEL M3
E2 NTS

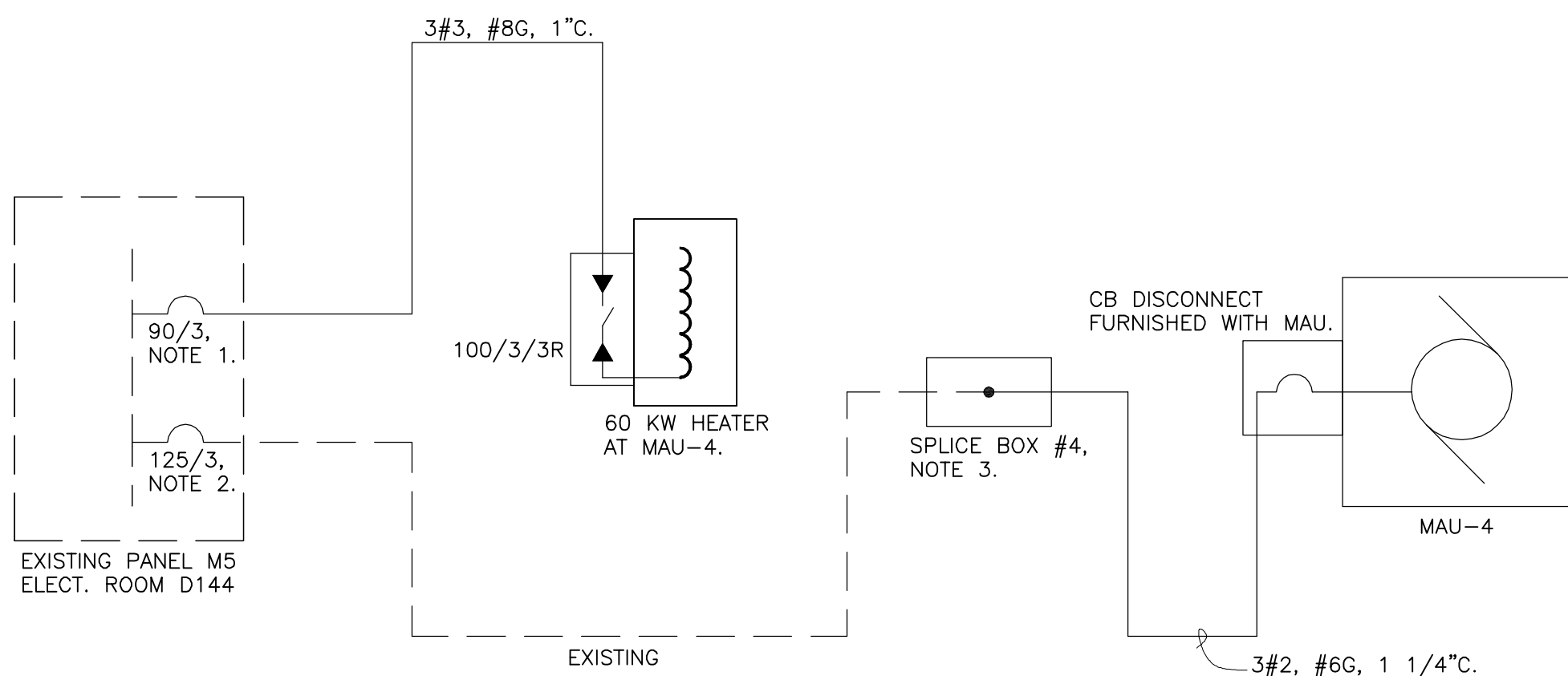
- NOTES:
1. REPLACE 20/3 SPARE WITH NEW 90/3 CB.
 2. EXISTING 125/3 BREAKER.
 3. REPLACE EXISTING DISCONNECT SWITCH WITH NEW SPLICE BOX.

- GENERAL ELECTRICAL NOTES:
1. NEW CIRCUIT BREAKERS INSTALLED IN EXISTING PANELS SHALL BE RATED 35KAIC AND SHALL MATCH EXISTING.
 2. SPLICE BOXES SHALL BE SUITABLE FOR EXTERIOR LOCATION AND SHALL BE 24"W X 12"H X 8"D.
 3. SPLICES SHALL BE BUTT TYPE, HYDRAULICALLY CRIMPED WITH 2 LAYERS OF HEAT SHRINK APPLIED.
 4. HEATERS ARE LOCATED IN THE SUPPLY DUCT OF THE MAU'S AS DESIGNATED ON THE MECHANICAL PLANS.
 5. MU-1, MU-2, MU-3 & MU-4 ARE BEING REMOVED. DEMOLISH ALL WIRE AND CONDUIT FOR THESE LOADS.



3 ONE LINE DIAGRAM - PANEL M4
E2 NTS

- NOTES:
1. PROVIDE NEW 90/3 CB IN EXISTING SPACE.
 2. EXISTING 125/3 BREAKER.
 3. REPLACE EXISTING DISCONNECT SWITCH WITH NEW SPLICE BOX.

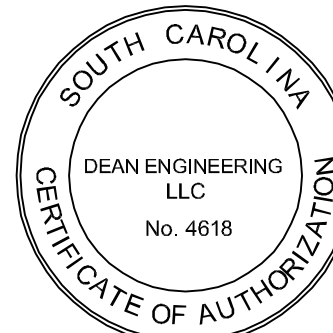


4 ONE LINE DIAGRAM - PANEL M5
E2 NTS

- NOTES:
1. REPLACE 20/3 SPARE WITH NEW 90/3 CB.
 2. EXISTING 125/3 BREAKER.
 3. REPLACE EXISTING DISCONNECT SWITCH WITH NEW SPLICE BOX.

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REVISIONS		
NO.	DATE	NOTES
X	XX/XX/XX	XXXXX

ELECTRICAL
ONE LINES &
SCHEDULES

E2