

ADDENDUM No. 3 Request for Competitive Sealed Proposals (CSP) 19RFP060 Renovations at Reilly Elementary School

November 26, 2018

Item 1: Revisions to Drawings and Project Manual are attached

Renovations to Reilly Elementary School Austin ISD Austin, Texas

November 26, 2018

ADDENDUM NO. 3 TO THE DRAWINGS AND PROJECT MANUAL FOR RENOVATIONS TO REILLY ELEMENTARY SCHOOL AUSTIN ISD AUSTIN, TEXAS



VLK ARCHITECTS, INC. 2700 Via Fortuna, Suite 230 Austin, Texas 78746 512.807.3145 voice vlkarchitects.com

3.1 GENERAL

- A. This addendum modifies the drawings and project manual, dated October 25, 2018, as noted within and shall become part of the Contract Documents.
- B. Proposers shall acknowledge receipt of this addendum in the space provided on the proposal form. Failure to do so may subject proposer to disqualification.
- C. Each holder of proposal documents registered with the Owner will receive a copy of the addendum. Each prime proposer is responsible for distribution of information conveyed by this addendum to its sub-proposers and suppliers.

D. CLARIFICATION RESPONSE TO RFI QUESTIONS

- 1. Question #1: Sheet A2.01, Detail 2 shows the new A/C Cassette. At that elevation and the condensate on the roof being apx. 10" above the roof, will be a 36" rise for condensate to be pumped. The pumps that come with these units have very limited head. 20-22" is what I remember. Another pump option?
 - a. A. Secondary pumps will be required to reach 36" rise. Provide secondary condensate pumps to be mounted near or on top of units (Model: Sauermann, SI-30 or equal). Coordinate with manufacturer for installation recommendations. See sheets M5.01 for split system schedule notes & sheet M2.02 for mechanical floor plan.
- 2. Question #2: Equipment Schedule on sheet M5.01 has the two RTUs for the Gym shown as cooling unit with electric heat. Sheet MEP 2.02 key note 8 reference the Gym units as WSHP (Water Source Heat Pumps). Sheet MEP 2.03 Key Note 2, acts like the new units are not WSHPs. Are the new unit's convention RTU with Electric heat?
 - a. A. Existing units are WSHP's and after further discussion it was determined that they are to be replaced. The replacement will be with conventional packaged RTU's with electric heat.
- 3. Question #3: Pertaining to the question above Gym units, the equipment schedule calls for curb adapters. The new units regardless of WSHP or conventional will be side discharge and will need to set on some sort of platform.
 - a. A. RTU's serving gym are to be supply/return from bottom of unit. Unit will need to have 44" high roof curb fabricated with both supply & return ducts routed within roof curb penetrating on side nearest to gym wall. Configuration will be similar to existing WSHP roof curb, with size and other modifications as required to accommodate new size and duct.
- 4. Question #4: Sheet MEP 2.03 Key note 2, states to install new unit further back from wall, but gives no other info on how far back. Can someone state a length, so we can all price the same?
 - a. A. Length shall be around 3 feet, although this needs to be field verified as stated on updated plans. New RTU shall be installed with nearest side maintaining same gap between unit and gym wall as was before replacing existing WSHP. Duct length will also include routing within roof curb.

Project No. 1831.00

Renovations to Reilly Elementary School Austin ISD Austin, Texas

- 5. Question #5: Sheet M6.01 detail 7 does not match detail A3.1 detail 3. What entity will be responsible for the condenser supports? Roofer.....GC...Mechanical?
 - a. A. Roofer will be responsible for condenser supports. Mechanical details sheet M6.01 has been updated to remove detail. Note on sheet MEP2.03 has been revised to refer contractor to sheet A3.1 for condenser roof rack detail.

3.2 DOCUMENT 00 01 10 - TABLE OF CONTENTS

A. Page 00 01 10 - 3, Delete the following: "26 41 13 13 - Lightning Protection System for High Rise"

3.3 SECTION 26 41 13 13 – LIGHTNING PROTECTION SYSTEM FOR HIGH RISE

A. Delete this section in its entirety.

3.4 SHEET A1.00 – ARCHITECTURAL SITE PLAN

A. SITE PLAN: 4/A1.00 AREA 1 - Add note "SIDEWALK, CURBS, RAMPS, SHALL BE IN COMPLIANCE WITH CURRENT TEXAS ACCESSIBILITY STANDARDS AND CITY OF AUSTIN DESIGN STANDARDS PRIOR TO FINAL INSPECTION APPROVAL, AND VERIFY ALL SLOPES AND GRADES ARE COMPLIANT PRIOR TO POURING CONCRETE."

3.5 SHEET A1.02 - ENLARGED DEMOLITION FLOOR PLAN

- A. 1/A1.02 and 2/A1.02: Add demo note "PARTIALLY DEMO EXISTING WALL TO ACCOMMODATE FOR NEW HOT WATER PIPING AT SINKS, SAWCUT AS NECESSARY TO FIT NEW PIPE." for walls where existing sinks are to be removed.
- B. 5/A1.02: Add demo note "DEMO AND REMOVE EXISTING PIPING AT WALL BEHIND SINK, PREPARE FOR NEW WAINSCOT"

3.6 SHEET A1.04 – ENLARGED FLOOR PLANS AND INTERIOR ELEVATIONS

- A. 1/A1.04 and 2/A1.04:
 - 1. Replace interior elevation tag 5/A1.04 to 7/A1.04 for sink elevation.
 - 2. Add note "PAINT PATCHED WALL WITH EPOXY PAINT FROM COVE BASE TO TOP OF STRUCTURAL GLAZED BRICK AS REQUIRED, COLOR AS APPROVED BY ARCHITECT"

3.7 SHEET MEP2.03 – MECHANICAL ROOF PLAN

A. Reference attached revised sheet. Added ductwork and associated notes for RTU-11 & 12.

3.8 SHEET M2.02 – NEW MECHANICAL PLAN

- A. Reference attached revised sheet.
 - 1. Revised supply duct for RTU-11 & 12 to be shown on roof plan.
 - 2. Revised cassettes to show with secondary condensate pump.

3.9 SHEET M5.01 – MECHANICAL SCHEDULES

- A. Reference attached revised sheet.
 - 1. Added notes for condensate pump for DX Split system schedule.
 - 2. Added curb information for roof top units schedule.

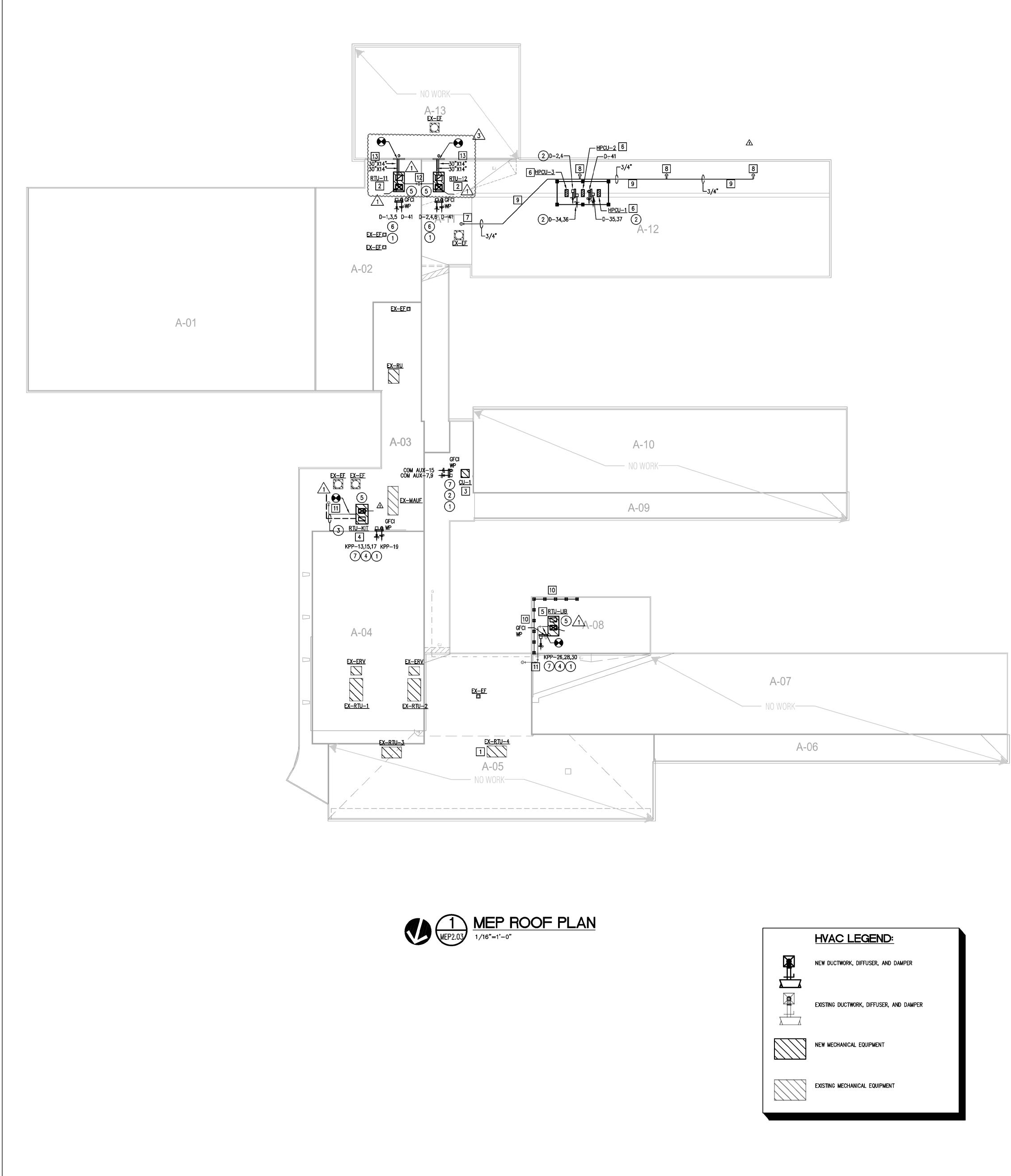
3.10 SHEET M6.01 – MECHANICAL DETAILS

- A. Reference attached revised sheet.
 - 1. Removed condenser mounting detail which will be provided by the roofing consultant.
 - 2. Added ceiling mounted cassette detail.
 - 3. Added roof top unit 11 & 12 mounting detail.

3.11 REVISED DRAWINGS

A. Sheets No. MEP2.03, M2.02, M5.01, and M6.01, dated November 26, 2018 and attached hereto, are revised drawings and are hereby made a part of this addendum.

END OF ADDENDUM NO. 3



HVAC LEGEND:
NEW DUCTWORK, DIFFUSER, AND DAMPER
EXISTING DUCTWORK, DIFFUSER, AND DAMPER
NEW MECHANICAL EQUIPMENT
EXISTING MECHANICAL EQUIPMENT

MECHANICAL GENERAL NOTES:

- A. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EXISTING CONDUIT, LIGHTS, FIRE SPRINKLER PIPING, CONDENSATE PIPING, EQUIPMENT, DUCTS, AND GRILLES, ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT UPON PROJECT COMPLETION, THE EXISTING MECHANICAL SYSTEMS, FIRE SPRINKLER PIPING, CONDUIT, DUCTWORK, ETC., BE READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY, DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
- B. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS BEFORE ANY DEMOLITION WORK BEGINS.
- C. WORK SHALL BE DONE SO AS TO MINIMIZE DISRUPTION TO BUILDING ACTIVITIES. KEEP BUILDING SERVICES IN FULL OPERATION DURING NORMAL BUSINESS HOURS.
- D. SCHEDULING SHALL BE CLOSELY COORDINATED WITH THE OWNER AND NO WORK SHALL PROCEED WITHOUT AN OWNER-APPROVED SCHEDULE. SCHEDULE ALL SHUTDOWNS AT LEAST 48 HOURS IN ADVANCE WITH OWNER IN WRITING. REFER TO SPECIFICATIONS FOR AREAS REQUIRING SPECIAL ACCESS, SCHEDULING, AND/OR SECURITY.
- PROTECTION OF BUILDING PERSONNEL, FURNISHINGS AND SYSTEMS FROM HAZARD AND/OR CONTAMINATION ASSOCIATED WITH DEMOLITION AND CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATIONS.
- OWNER (AISD) REQUIRES THAT R22 RERIGERANT FROM EXISTING AIR UNITS BEING DEMOLISHED AND/OR REPLACED BE RECAPTURED BY THE CONTRACTOR. AISD AC TECH WILL TEST THE REFRIGERANT OF EACH UNIT BEING REPLACED OR DEMOLISHED AND TAG THEM WITH EITHER "GOOD" OR "BAD" LABEL. THE AISD AC TECH WILL HAVE TO COMMUNICATE WITH THE CONTRACTOR HOW THE UNITS ARE LABELED. CONTRACTOR WILL THEN RECLAIM ALL THE REFRIGERANT FROM THE UNITS THAT HAVE BEEN LABELED "GOOD" AND DISPOSE OF THE ONES LABELED "BAD". AISD WILL BE PROVIDE THE CONTRACTOR WITH THE CANISTERS NEEDED FOR RECOVERING THE REFRIGERANT. WHEN CAPTURE IS COMPLETE, CONTRACTOR SHALL NOTIFY THE AISD PROJECT MANAGER FOR THIS PROJECT, WHO WILL CONTACT THE AISD SERVICE CENTER FOR PICKUP. RECAPTURE APPLIES TO ANY QUANTITY OF R22 REFRIGERANT.
- H. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND, AS NECESSARY, THE OWNER.
- CONTRACTOR SHALL COORDINATE ROUTING OF ANY NEW PIPING OR DUCTWORK AT THE JOB SITE TO AVOID CONFLICT WITH EXISTING SYSTEMS,
- STRUCTURE, LIGHT FIXTURES AND PLUMBING LINES. J. COMPLETION: UPON COMPLETION OF THE WORK, AND PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL FURNISH TO THE OWNER IN THE FORM AND
- QUANTITIES REQUIRED BY THE SPECIFICATIONS: OWNER'S MANUAL AND PROJECT RECORD DRAWINGS. K. NEW HVAC DUCTWORK, UNLESS NOTED OTHERWISE, TO BE GALVANIZED SHEET METAL SIZED, CONSTRUCTED, AND INSTALLED IN ACCORDANCE WITH THE SMACNA RECOMMENDATIONS AND IN ACCORDANCE WITH THE SPECIFICATIONS. SIZES SHOWN ON PLANS ARE IN METAL DIMENSIONS. ROUTE
- DUCTWORK SO AS TO MINIMIZE OFFSETS. FIELD VERIFY ROUTING ABOVE EXISTING CEILING. SEAL ALL DUCT SEAMS AIR TIGHT: MAXIMUM AIR LEAKAGE RATE = 5%.
- CONTRACTOR SHALL PROTECT EXISTING SECURITY CAMERAS DURING CONSTRUCTION AND SHALL CONFIRM CAMERAS ARE OPERATIONAL UPON CONSTRUCTION COMPLETTION.
- M. PROVIDE BALANCING DAMPERS AT EACH SUPPLY AND RETURN BRANCH TAKE OFF.
- N. SMOKE DETECTORS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. COVER ALL SMOKE DETECTORS FOR PROTECTION.
- 0. CLOCKS IN HALLWAYS SUSPENDED FROM CEILING TO BE CAREFULLY DISCONNECTED AND STORED DURING CONSTRUCTION. CLOCKS SHALL BE RE-INSTALLED IN PREVIOUS LOCATION WHEN CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL VERIFY THAT CLOCK SYSTEM IS WORKING PROPERLY WHEN INSTALLATION IS COMPLETE.
- P. EXIT SIGNS IN HALLWAYS WITH CEILING SCHEDULED FOR DEMOLITION AND SUSPENDED FROM CEILING TO BE CAREFULLY DISCONNECTED AND STORED DURING CONSTRUCTION. EXIT SIGNS SHALL BE RE-INSTALLED IN PREVIOUS LOCATION WHEN CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL VERIFY THAT POWER HAS BEEN RESTORED AND SIGNS ARE WORKING PROPERLY WHEN INSTALLATION IS COMPLETE.
- Q. ALL DUCTWORK LOCATED OUTDOORS SHALL BE INSULATED PER SPECIFICATIONS FINISHED WITH ALUMINUM JACKETING.
- R. ALL CONDENSATE PIPING WITHIN BUILDING STRUCTURE SHALL BE INSULATED PER SPECIFICATIONS.
- S. ALL FLEXIBLE DUCTOWORK AND CONNECTORS SHALL NOT EXCEED 5 FEET IN TOTAL LENGTH.

MECHANICAL KEYED NOTES:

- 1 CONTRACTOR TO FIELD VERIFY EXACT ROUTING OF ROOFTOP UNIT CONDENSATE LINE. SEAL/REPAIR LEAKING PIPE AS REQUIRED. 2 PROVIDE NEW ROOF TOP UNITS TO SERVE GYM AT APPROXIMATE LOCATION SHOWN. UNIT SHALL BE INSTALLED IN SAME LOCATION AS PREVIOUSLY REPLACED UNIT, PROVIDING SAME DISTANCE BETWEEN UNIT AND GYM WALL AS WAS PRIOR TO REPLACEMENT. PROVIDE NEW ROOF FLASHINGS AND 44" (HIGH ROOF CURB WITH DIMENSIONS EQUAL TO UNIT. UNIT'S SUPPLY & RETURN SHALL BE BOTTOM DISCHARGE AND BE ROUTED WITHIN ROOF CURB TO Spenetrate side of roof curb. Provide all duct transition pieces as required to re-use existing penetrations into existing gym wall and
- CLEARANCES. PROVIDE DUCT SMOKE DETECTOR IN SUPPLY DUCT. REFER TO DETAIL #11 ON SHEET M6.01 FOR CURB DUCT ROUTING CLARIFICATION. 3 PROVIDE REPLACEMENT SPLIT SYSTEM FOR MDF ROOM. UNITS SHALL BE INSTALLED IN SAME LOCATION AS PREVIOUSLY REMOVED UNIT. PROVIDE CONDENSER MOUNTING RACK FOR RAISING UNIT A MINIMUM OF 14" ABOVE ROOF. PROVIDE AND ROUTE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATION. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROVIDE ALL REQUIRED CLEARANCES.

CONNECT TO EXISTNG SUPPLY/RETURN GRILLES. INSTALL UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROVIDE ALL REQUIRED

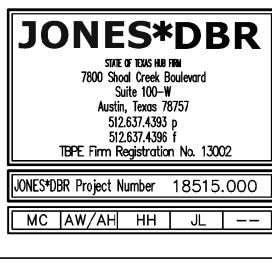
- 4 PROVIDE REPLACEMENT ROOFTOP UNIT TO SERVE KITCHEN. UNIT SHALL BE INSTALLED IN SAME LOCATION AS PREVIOUSLY REMOVED UNIT PROVIDING NEW ROOF FLASHINGS WITH ROOF CURB MODIFICATIONS AS NEEDED TO MEET 18" MINIMUM HEIGHT REQUIREMENT. PROVIDE FITTINGS AS REQUIRED TO CONNECT TO EXISTING DUCTWORK. INSTALL UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROVIDE ALL REQUIRED CLEARANCES. PROVIDE DUCT SMOKE DETECTOR IN SUPPLY DUCT. PROVIDE NEW GAS PIPING AND RECONNECT EXISTING GAS LINE TO NEW REPLACEMENT ROOFTOP UNIT PER MANUFACTURER'S RECOMMENDATIONS FOR A COMPLETE AND WORKING SYSTEM.
- 5 PROVIDE REPLACEMENT ROOFTOP UNIT TO SERVE LIBRARY. UNIT SHALL BE INSTALLED IN SAME LOCATION AS PREVIOUSLY REMOVED UNIT PROVIDING NEW ROOF FLASHINGS AND ROOF CURB MODIFICATIONS AS NEEDED TO MEET 18" MINIMUM HEIGHT REQUIREMENT. PROVIDE ALL DUCT TRANSITIONS AND FITTINGS AS REQUIRED TO CONNECT TO EXISTING DUCTWORK. INSTALL UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROVIDE ALL REQUIRED CLEARANCES. PROVIDE DUCT SMOKE DETECTOR IN SUPPLY DUCT. PROVIDE NEW GAS PIPING AND RECONNECT EXISTING GAS LINE TO NEW REPLACEMENT ROOFTOP UNIT PER MANUFACTURER'S RECOMMENDATIONS FOR A COMPLETE AND WORKING SYSTEM.
- /3 PROVIDE DUCTLESS SPLIT SYSTEM HEAT PUMP FOR CORRIDOR ENCLOSURE CASSETTE UNITS. INSTALL UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROVIDE ALL RECOMMENDED CLEARANCES WHILE MAINTAINING A MINIMUM DISTANCE OF 10 FEET FROM ANY EDGE OF ROOF. PROVIDE CONDENSER MOUNTING RACK FOR RAISING UNIT A MINIMUM OF 14" ABOVE ROOF. REFER TO SHEET A3.1 FOR ROOFING CONSULTANT CONDENSER RACK DETAIL, COORDINATE WITH MANUFACTURER FOR REFRIGERANT PIPE ROUTING PREFERENCES. COORDINATE WITH ELECTRICAL FOR POWER REQUIREMENTS.
- 7 ROUTE 3/4" INSULATED CONDENSATE PIPING DOWN TO STORAGE ROOM SINK. REFER TO SHEET M2.02 FOR PIPE CONTINUATION.
- 8 ROUTE 3/4" INSULATED CONDENSATE PIPING DOWN TO CEILING MOUNTED CASSETTE UNIT IN CORRIDOR ENCLOSURE. REFER TO SHEET M2.02 FOR PIPE CONTINUATION.
- 9 ALL CONDENSATE PIPING ON ROOF SHALL BE INSULATED AND SLOPED AT A MINIMUM OF 1/8TH INCH PER FOOT. PROVIDE PIPE WITH PORTABLE PIPE HANGER "MODEL SS8-5" SUPPORTS FOR ENTIRE ROUTING ACROSS ROOF LEVEL. PROVIDE SUPPORTS AT A MINIMUM OF EVERY 8 FEET.
- 10 FALL PROTECTION RAILING. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL PROVIDE AS REQUIRED BY CODE.
- 11 PROVIDE AND ROUTE INSULATED CONDENSATE PIPING ON ROOF TO CONNECT TO EXISTING CONDENSATE ON ROOF. SUPPORT PIPE EVERY 4 FEET SLOPING AT 1/4"PER FOOT. CONTRACTOR SHALL PROVIDE NEW TRAP WITH NEW UNIT UPON CONNECTING TO NEW REPLACEMENT UNIT.
- 12 PROVIDE AND ROUTE 1" INSULATED CONDENSATE PIPING COMBINED FROM RTU-11 AND RTU-12 DOWN THROUGH ROOF TO FLOOR DRAIN IN STORAGE ROOM. REFER TO SHEET M2.02 FOR PIPE CONTINUATION. SUPPORT PIPE EVERY 4 FEET SLOPING AT 1/8" PER FOOT. CONTRACTOR SHALL PROVIDE NEW TRAP WITH NEW UNIT UPON REPLACEMENT.

3 PROVIDE NEW SUPPLY & RETURN DUCT FROM SIDE OF ROOF CURB TO CONNECT TO EXISTING GYM WALL GRILLES. DUCT SHALL BE SIZED AS SHOWN ON PLANS. DUCTS SHOWN ARE OFFSET FOR CLARITY. RETURN DUCT SHALL BE ROUTED TO TOP GRILLE IN GYM WALL, AND SUPPLY DUCT SHALL BE ROUTED UNDERNEATH RETURN DUCT TO BOTTOM GRILLE IN GYM WALL. PROVIDE TRANSITIONS & FITTINGS AS REQUIRED TO CONNECT TO RTU SUPPLY/RETURN INLET CONNECTIONS ON BOTTOM OF UNIT. PROVIDE ALUMINUM JACKETING FOR ALL DUCTWORK EXPOSED ON ROOF.

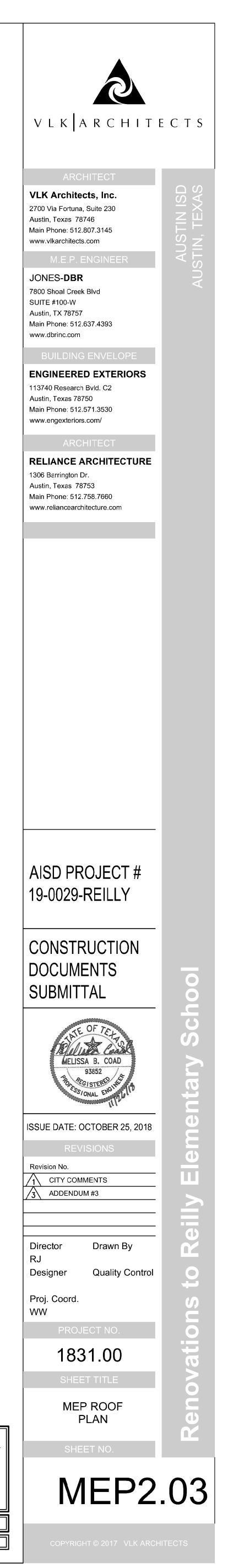
ELECTRICAL KEYED NOTES:

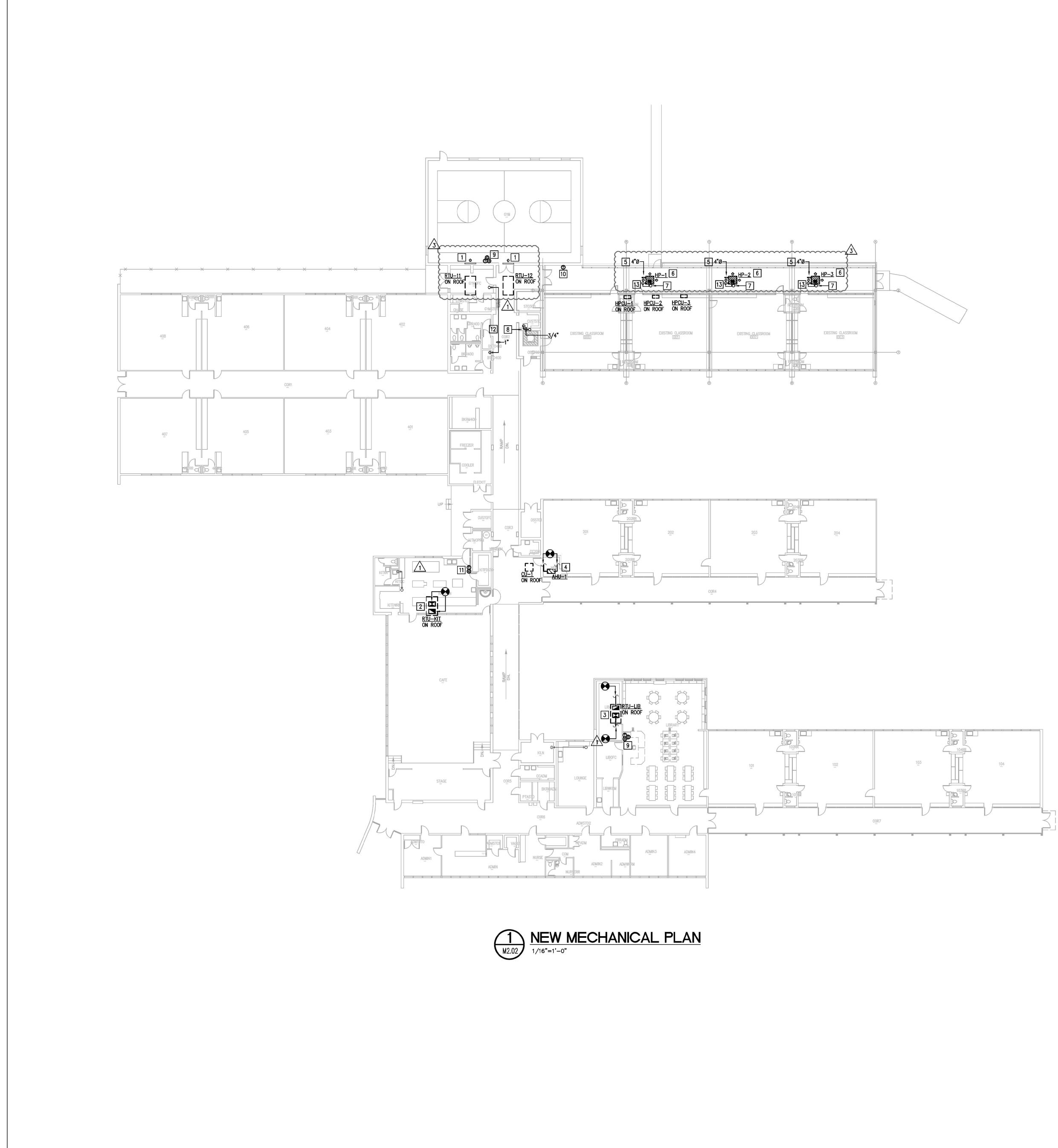
(1) PROVIDE NEW DISCONNECT ON STAND-ALONE UNISTRUT RACK TO SERVE UPDATED MECHANICAL EQUIPMENT. DISCONNECT TO MATCH EXISTING DISCONNECT VOLTAGE, AMPACITY AND NEMA RATING. CONTRACTOR TO FIELD VERIFY EXISTING CIRCUIT, FEEDER AND BREAKER PRIOR TO CONNECTION. CONTRACTOR TO VERIFY FEEDER, BREAKER AND DISCONNECT MEET MANUFACTURER'S REQUIREMENTS FOR NEW MECHANICAL EQUIPMENT. REPLACE ALL ELECTRICAL SERVICE TO MECHANICAL UNIT IF ELECTRICAL EQUIPMENT, DEVICES, FEEDERS AND CONDUIT ARE NOT ADEQUATE FOR NEW MECHANICAL UNIT. COORDINATE WITH EXISTING EQUIPMENT PRIOR TO DEMOLITION AND INSTALLATION. SPLICE EXISTING FEEDERS AND EXTEND EXISTING CONDUIT AS NECESSARY.

- (2) PROVIDE NEW STAND-ALONE UNISTRUT RACK-MOUNTED DISCONNECT. 30A/NF/208/1PH/NEMA 3R.
- 3 EXISTING ELECTRICAL CONDUIT TO BE RAISED AT ROOF PENETRATION BY ELECTRICAL CONTRACTOR. REFER TO 2/A3.0 FOR CLEARANCE REQUIREMENTS AND NEW ROOF FLASHING.
- (4) PROVIDE NEW STAND-ALONE UNISTRUT RACK-MOUNTED DISCONNECT. 60A/NF/208/3PH/NEMA 3R.
- (5) PROVIDE DUCT DETECTOR IN RETURN DUCT OF MECHANICAL UNIT. DUCT SMOKE DETECTOR PROVIDED BY MECHANICAL CONTRACTOR AND WIRE TO FIRE ALARM CONTROL PANEL PROVIDED BY FIRE ALARM CONTRACTOR.
- (6) PROVIDE NEW STAND-ALONE UNISTRUT RACK-MOUNTED DISCONNECT. 100A/NF/208/3PH/NEMA 3R.
- (7) PANEL/BREAKER BASED UPON AS-BUILT DOCUMENTATION AND FIELD VERIFICATION.



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- B. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS BEFORE ANY DEMOLITION WORK BEGINS.
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- H. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND, AS NECESSARY, THE OWNER. CONTRACTOR SHALL COORDINATE ROUTING OF ANY NEW PIPING OR DUCTWORK AT THE JOB SITE TO AVOID CONFLICT WITH EXISTING SYSTEMS,
- STRUCTURE, LIGHT FIXTURES AND PLUMBING LINES.
- J. COMPLETION: UPON COMPLETION OF THE WORK, AND PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL FURNISH TO THE OWNER IN THE FORM AND QUANTITIES REQUIRED BY THE SPECIFICATIONS: OWNER'S MANUAL AND PROJECT RECORD DRAWINGS.
- K. NEW HVAC DUCTWORK, UNLESS NOTED OTHERWISE, TO BE GALVANIZED SHEET METAL SIZED, CONSTRUCTED, AND INSTALLED IN ACCORDANCE WITH THE SMACNA RECOMMENDATIONS AND IN ACCORDANCE WITH THE SPECIFICATIONS. SIZES SHOWN ON PLANS ARE IN METAL DIMENSIONS. ROUTE DUCTWORK SO AS TO MINIMIZE OFFSETS. FIELD VERIFY ROUTING ABOVE EXISTING CEILING. SEAL ALL DUCT SEAMS AIR TIGHT: MAXIMUM AIR LEAKAGE RATE = 5%.
- CONTRACTOR SHALL PROTECT EXISTING SECURITY CAMERAS DURING CONSTRUCTION AND SHALL CONFIRM CAMERAS ARE OPERATIONAL UPON CONSTRUCTION COMPLETTION.
- M. PROVIDE BALANCING DAMPERS AT EACH SUPPLY AND RETURN BRANCH TAKE OFF.
- N. SMOKE DETECTORS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. COVER ALL SMOKE DETECTORS FOR PROTECTION.
- O. CLOCKS IN HALLWAYS SUSPENDED FROM CEILING TO BE CAREFULLY DISCONNECTED AND STORED DURING CONSTRUCTION. CLOCKS SHALL BE RE-INSTALLED IN PREVIOUS LOCATION WHEN CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL VERIFY THAT CLOCK SYSTEM IS WORKING PROPERLY WHEN INSTALLATION IS COMPLETE.
- P. EXIT SIGNS IN HALLWAYS WITH CEILING SCHEDULED FOR DEMOLITION AND SUSPENDED FROM CEILING TO BE CAREFULLY DISCONNECTED AND STORED DURING CONSTRUCTION. EXIT SIGNS SHALL BE RE-INSTALLED IN PREVIOUS LOCATION WHEN CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL VERIFY THAT POWER HAS BEEN RESTORED AND SIGNS ARE WORKING PROPERLY WHEN INSTALLATION IS COMPLETE.
- Q. ALL FLEXIBLE DUCTOWORK AND CONNECTORS SHALL NOT EXCEED 5 FEET IN TOTAL LENGTH.

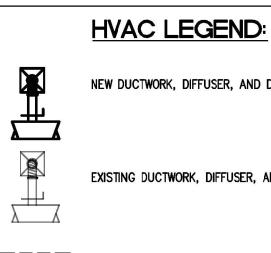
MECHANICAL KEYED NOTES:

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- all diffusers/grilles associated with unit shall be rebalanced to Airflow readings found in pre-audit prior to removal of existing 🖇
- $\overline{}$ 2 PROVIDE VERTICAL SUPPLY AND RETURN DUCT SECTION FOR RTU SERVING KITCHEN. ROUTE VERTICAL DUCTS DOWN FOR RECONNECTION TO EXISTING SUPPLY AND RETURN DUCT BELOW CEILING LEVEL IN SPACE. PROVIDE FITTINGS AND TRANSITIONS AS REQUIRED FOR RECONNECTION AND REROUTING. ALL
- 3 PROVIDE VERTICAL SUPPLY AND RETURN DUCT SECTION FOR RTU SERVING LIBRARY. ROUTE VERTICAL DUCTWORK DOWN FROM UNIT TO ABOVE CEILING AND RECONNECT TO EXISTING HORIZONTAL DUCTWORK. PROVIDE FITTINGS AND TRANSITIONS AS REQUIRED TO MATCH EXISTING DUCT PRIOR TO REMOVAL ALL DIFFUSERS/GRILLES ASSOCIATED WITH UNIT SHALL BE REBALANCED TO AIRFLOW READINGS FOUND IN PRE-AUDIT PRIOR TO REMOVAL OF EXISTING UNIT.

DIFFUSERS/GRILLES ASSOCIATED WITH UNIT SHALL BE REBALANCED TO AIRFLOW READINGS FOUND IN PRE-AUDIT PRIOR TO REMOVAL OF EXISTING UNIT.

- 4 PROVIDE NEW AIR HANDLING UNIT ABOVE MDF ROOM CEILING. UNIT SHALL BE INSTALLED IN SAME LOCATION AS EXISTING UNIT PRIOR TO REMOVAL. INSTALL UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROVIDE ALL RECOMMENDED CLEARANCES. PROVIDE SUPPLY AND RETURN DUCTWORK SECTIONS AS REQUIRED TO CONNECT TO EXISTING DUCTWORK IN SPACE. PROVIDE NEW CONDENSATE LINE TO CONNECT TO EXISTING PIPING FROM PREVIOUSLY REMOVED UNIT. CONDENSATE PIPING SHALL BE SIZED AND SLOPED TO MATCH PREVIOUSLY REMOVED LINE SERVING UNIT. ALL DIFFUSERS/GRILLES ASSOCIATED WITH UNIT SHALL BE REBALANCED TO AIRFLOW READINGS FOUND IN PRE-AUDIT PRIOR TO REMOVAL OF EXISTING UNIT.
- 5 ROUTE 4"Ø OUTSIDE AIR DUCT FROM CEILING MOUNTED CASSETTE TO ROOF. PROVIDE INTAKE HOOD ON ROOF LEVEL.
- 6 PROVIDE DUCTLESS SPLIT SYSTEM CASSETTE UNIT FOR CORRIDOR ENCLOSURE. INSTALL UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROVIDE ALL RECOMMENDED CLEARANCES AND ACCESSORIES FOR MOUNTING UNIT AS HIGH AS POSSIBLE FROM STRUCTURE ABOVE. COORDINATE WITH MANUFACTURER FOR REFRIGERANT PIPE ROUTING PREFERENCES. COORDINATE WITH ELECTRICAL FOR POWER REQUIREMENTS.
- 7 ROUTE 3/4" CONDENSATE PIPE UP TO ROOF FROM SECONDARY CONDENSATE PUMP. COORDINATE ROOF PENETRATION WITH STRUCTURAL COMPONENTS AND OTHER TRADES. REFER TO SHEET MEP2.03 FOR PIPE CONTINUATION. RE: PIPE THROUGH ROOF/WALL DETAIL BY ENGINEERING EXTERIORS ROOFING CONSULTANTS.
- 8 ROUTE 3/4" CONDENSATE PIPE FROM ROOF DOWN TO EXISTING SINK IN STORAGE SPACE. FIELD VERIFY EXACT SINK HEIGHT AND TERMINATE CONDENSATE PIPING ABOVE SINK. RE: PIPE THROUGH ROOF/WALL DETAIL BY ENGINEERING EXTERIORS ROOFING CONSULTANTS. 9 VERIFY EXISTING SENSOR LOCATIONS AND PROVIDE REPLACEMENT CO2, HUMIDITY, AND TEMPERATURE COMBINATION SENSOR IN SAME LOCATION. IF NO
- ^J SENSORS ARE PRESENT, PROVIDE SENSORS AS SHOWN ON DRAWINGS. PROVIDE ALL WIRING AS REQUIRED TO RECONNECT SENSORS TO REPLACEMENT UNIT SERVING SPACE WITH SAME FUNCTIONALITY PRIOR TO REPLACEMENT. CO2 SENSORS SHALL CONTROL OUTSIDE AIR DAMPERS IN ASSOCIATED RTU. DAMPER SHALL BE PROPORTIONALLY CONTROLLED BETWEEN MIN. AND MAX. OUTSIDE AIRFLOWS, RE: M5.01 FOR AIRFLOW SETTINGS. MINIMUM OUTSIDE AIRFLOW SHALL CORRESPOND TO 300 PPM CO2 SENSOR READING, WHILE MAXIMUM OUTSIDE AIRFLOW SHALL CORRESPOND TO 1000 PPM CO2 SENSOR READING.
- 10 PROVIDE TEMPERATURE SENSOR FOR CORRIDOR CEILING CASSETTES. PROVIDE ALL WIRING AS REQUIRED TO INTERLOCK ALL UNITS FOR SINGLE POINT READING. COORDINATE FINAL MOUNTING HEIGHT WITH ARCHITECT.
- 11 VERIFY EXISTING SENSOR LOCATIONS AND PROVIDE REPLACEMENT HUMIDITY, AND TEMPERATURE COMBINATION SENSOR IN KITCHEN. IF NO SENSORS ARE PRESENT, PROVIDE SENSORS AS SHOWN ON DRAWINGS.
- 12 1" INSULATED CONDENSATE PIPING DOWN FROM ROOF SERVING RTU-11 AND RTU-12. ROUTE CONDENSATE TO FLOOR DRAIN IN STORAGE ROOM. COORDINATE WITH PLUMBING FOR EXACT DISCHARGE LOCATION WITHIN SPACE.
- 3 PROVIDE SECONDARY CONDENSATE PUMP CAPABLE, MODEL SAUERMANN SI-30 OR EQUAL. FIELD VERIFY CLEARANCES FOR PUMP AND MOUNT ON TOP CASSETTE IF APPLICABLE. COORDINATE WITH MANUFACTURER FOR EXACT INSTALLATION RECOMMENDATIONS AND CLEARANCES REQUIRED. 3/4" CONDENSATE PIPE SHALL BE ROUTED FROM INTEGRAL CONDENSATE PUMP WITHIN CEILING CASSETTE TO SECONDARY CONDENSATE PUMP. PROVIDE FITTINGS & PIPING AS REQUIRED TO MAKE PROPER CONNECTIONS.



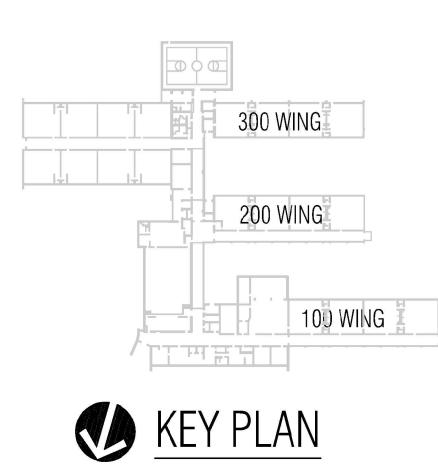
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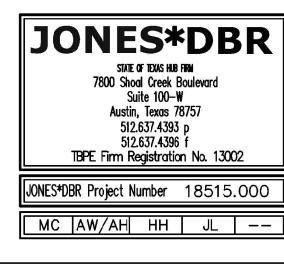
NEW DUCTWORK, DIFFUSER, AND DAMPER

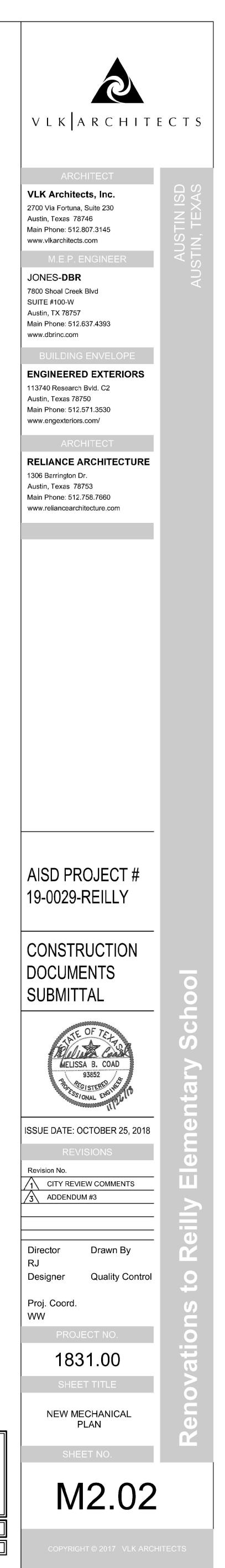


NEW MECHANICAL EQUIPMENT

EXISTING MECHANICAL EQUIPMENT







MARK	HP-1	HP-2	HP-3	AHU-1	
SPACE SERVED	300 WING	300 WING	300 WING	MDF ROOM	
SYSTEM TYPE	HEAT PUMP	HEAT PUMP	HEAT PUMP	COOLING ONLY	
SUPPLY AIR (CFM)	665	665	665	1250	
DUTSIDE AIR (CFM)	35	35	35	-	
EXT. SP. (IN W.G.)	0.1	0.1	0.1	0.5	
FAN MOTOR HORSEPOWER	-	-	-	0.5	
NOMINAL TONS	2	2	2	3	
AHRI COOLING CAPACITY (MBH)	23.8	23.8	23.8	29800	
SENSIBLE COOLING CAPACITY (MBH)	18.9	18.9	18.9	24898	
ELECTRIC HEAT (KW) @ 208/3/60 / STAGES	N/A	N/A	N/A	N/A	
EAT DB/WB (°F)	-	-	-	75/63	
LAT DB/WB (°F)	_	-	-	53.8/53	
HEAT PUMP CAPACITY (MBH) @ 47°F	27	27	27	N/A	
VOLTS/PHASE/HERTZ	208 / 1 /60	208 / 1 /60	208 / 1 /60	208 / 1 /60	
MCA / MOP	0.5/15	0.5/15	0.5/15	5/15	
MANUFACTURER	DAIKIN	DAIKIN	DAIKIN	LENNOX	
MODEL	FCQ24PAVJU	FCQ24PAVJU	FCQ24PAVJU	CBX27UH-036	
WEIGHT (LBS)	48.5	485	48.5	159	
NOTES	6,8,10,11,12	6,8,10,11,12	6,8,10,11,12	4,5,6,7,8,9	
MARK	HPCU-1	HPCU-2	HPCU-3	CU-1	
MIN. SEER (ARI)	18.50	18.50	18.50	15	
HEAT PUMP HSPF	10.2	10.2	10.2	N/A	
AMBIENTAIR	105	105	105	105	
VOLTS/PHASE/HERTZ	208 / 1 / 60	208 / 1 / 60	208 / 1 / 60	208 / 1 / 60	
МСА	16.5	16.5	16.5	17.1	
МОСР	20	20	20	25	
MCA MOCP MANUFACTURER	DAIKIN	DAIKIN	DAIKIN	LENNOX	
MODEL	RZQ24PVJU8	RZQ24PVJU8	RZQ24PVJU8	13ACXN030-230	
NOMINAL TONS	2	2	2	2.5	
WEIGHT (LBS)	150	150	150	144	
NOTES	1,2,3,5	1,2,3,5	1,2,3,5	1,2,3,5	

1. PROVIDE CONDENSER COIL HAIL GUARDS.

2. PROVIDE LOW AMBIENT CONTROL.

. INSTALL REFRIGERANT PIPING IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

. PROVIDE SECONDARY DRAIN PAN WITH FLOAT SWITCH UNDER UNIT TO DISENGAGE THE UNIT.

5. PROVIDE UNIT WITH SINGLE POINT POWER CONNECTION.

6. HIGH EFFICIENCY UNITS SCHEDULED - ECONOMIZERS NOT REQUIRED.

. UNIT TO BE CONFIGURED FOR HORIZONTAL DISCHARGE.

8. PROVIDE UNIT WITH CONDENSATE PUMP.

9. UNIT IS COOLING ONLY.

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10. INDOOR UNIT SHALL BE POWERED BY OUTDOOR UNIT.

11. PROVIDE OUTSIDE AIR INTAKE KIT.

12. PROVIDE UNIT WITH SECONDARY CONDENSATE PUMP & DRAIN PAN WITH FLOAT SWITCH TO DISENGAGE UNIT IF RESERVOIR LEVEL RISES TO OPEN SWITCH. PUMP SHALL BE CAPABLE OF LIFTING 1 GPH AT 20 FEET OF HEAD.

		1	OUTSI	DE AIR (CALCULAT	TON - TA	BLE 402.	1 UN
ROOM NUMBER	SPACE DESIGNATION	USAGE TYPE	Az	PEOPLE / 1,000 FT ²	People	Pz	Rp	F
HP/HPCU-1,2,3				1	ļ 1	1	1	
-	CORRIDOR	CORRIDOR	1,398	0	0	0	0	0.
RTU-11								
-	GYM	GYMNASIUM	1,190	7	9	30	7.5	0
RTU-12								
-	GYM	GYMNASIUM	1,190	7	9	30	7.5	0
RTU-LIB								
-	LIBRARY	MEDIA CENTER	1,610	25	41	41	10	0
-	LIBRARY OFFICE	OFFICE	140	5	1	1	5	0
-		OFFICE	95	5	1	1	5	0.
-	LIBRARY STORAGE	STORAGE	233	-	-	0	0	0
RTU-LIB								
-	KITCHEN	KITCHEN	890	20	18	7	7.5	0

IC 20	015				
a	Vbz	Ez	Voz	Vot	EXHAUST (CFM)
)6	84	0.8	105	105	-
PREV		DOR AIR SU	PPLIED TO S	PACE (CFM):	0
				JIRED (CFM):	105
					105
				R AIR (CFM):	105
				· · · · · · ·	
6	297	0.8	372	372	-
PREV				PACE (CFM):	400
				JIRED (CFM):	372
				R AIR (CFM):	400
		MINIM		R AIR (CFM):	75
	207	0.0	272	070	
)6	297	0.8	372	372	-
-				· · ·	-
		OOR AIR SU	PPLIED TO S	PACE (CFM):	- 400
06 PREV		DOR AIR SU OUTDO	PPLIED TO S OR AIR REQU	PACE (CFM): JIRED (CFM):	372
		DOR AIR SU OUTDO MAXIN	PPLIED TO S OR AIR REQU	PACE (CFM): JIRED (CFM): R AIR (CFM):	372 400
-		DOR AIR SU OUTDO MAXIN	PPLIED TO S OR AIR REQU	PACE (CFM): JIRED (CFM):	372
		DOR AIR SU OUTDO MAXIN	PPLIED TO S OR AIR REQU	PACE (CFM): JIRED (CFM): R AIR (CFM):	372 400
PREV		DOR AIR SU OUTDO MAXIN	PPLIED TO S OR AIR REQU	PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM):	372 400
		DOR AIR SU OUTDO MAXIN MININ	PPLIED TO S OR AIR REQU IUM OUTDOO IUM OUTDOO	PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM):	372 400
2 6	OUS OUTDO	DOR AIR SU OUTDO MAXIN MININ	PPLIED TO S OR AIR REQU UM OUTDOC UM OUTDOC	PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM):	372 400
2 6 6	604 14	DOR AIR SU OUTDO MAXIN MININ 0.8 0.8	PPLIED TO S OR AIR REQU UM OUTDOC UM OUTDOC 10M OUTDOC 755 18	PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM): 755 18	372 400
2 6 6	604 14 11	DOR AIR SU OUTDO MAXIN MININ 0.8 0.8 0.8	PPLIED TO S OR AIR REQU UM OUTDOC UM OUTDOC UM OUTDOC 10 755 18 18 14	PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM): 755 18 14	372 400
2 6 2	604 14 11 28	DOR AIR SU OUTDO MAXIN MININ 0.8 0.8 0.8 0.8 0.8	PPLIED TO S OR AIR REQU UM OUTDOC UM OUTDOC UM OUTDOC 10 18 14 35	PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM): 755 18 14	372 400
2 6 2	604 14 11 28	DOR AIR SU OUTDO MAXIN MININ 0.8 0.8 0.8 0.8 0.8 0.8 0.8	PPLIED TO S OR AIR REQU UM OUTDOC UM OUTDOC UM OUTDOC 10 18 14 35 PPLIED TO S	PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM): 755 18 14 14 35	372 400 75 - - - -
2 6 2 2	604 14 11 28	DOR AIR SU OUTDO MAXIN MININ 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8	PPLIED TO S OR AIR REQU UM OUTDOC UM OUTDOC UM OUTDOC 10 14 35 PPLIED TO S OR AIR REQU	PACE (CFM): JIRED (CFM): PR AIR (CFM): R AIR (CFM): 755 18 14 35 PACE (CFM):	372 400 75 - - - - - 450
2 6 2	604 14 11 28	DOR AIR SU OUTDO MAXIN MININ 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8	PPLIED TO S OR AIR REQU UM OUTDOO UM OUTDOO UM OUTDOO 14 14 35 PPLIED TO S OR AIR REQU	PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM): 755 18 14 35 PACE (CFM): JIRED (CFM):	372 400 75 - - - - 450 822
2 6 2 2	604 14 11 28	DOR AIR SU OUTDO MAXIN MININ 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8	PPLIED TO S OR AIR REQU UM OUTDOO UM OUTDOO UM OUTDOO 14 14 35 PPLIED TO S OR AIR REQU	PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM): 755 18 14 35 PACE (CFM): JIRED (CFM): PR AIR (CFM):	372 400 75 - - - - 450 822 825
2 6 6 2 PREV	604 14 11 28	DOR AIR SU OUTDO MAXIW MINIW 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8	PPLIED TO S OR AIR REQU UM OUTDOC UM OUTDOC UM OUTDOC 14 35 PPLIED TO S OR AIR REQU UM OUTDOC	PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM): 755 18 14 35 PACE (CFM): JIRED (CFM): PR AIR (CFM):	372 400 75 - - - - 450 822 825
2 6 6 2 PREV	604 14 11 28	DOR AIR SU OUTDO MAXIN MININ 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8	PPLIED TO S OR AIR REQU UM OUTDOO UM OUTDOO UM OUTDOO 14 14 35 PPLIED TO S OR AIR REQU	PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM): 755 18 14 35 PACE (CFM): JIRED (CFM): PR AIR (CFM):	372 400 75 - - - - 450 822 825
PREV 2 6 6 2 PREV 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	604 14 11 28 IOUS OUTDO	DOR AIR SU OUTDO MAXIW MINIW 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8	PPLIED TO S OR AIR REQU UM OUTDOC UM OUTDOC UM OUTDOC 10 14 35 PPLIED TO S OR AIR REQU UM OUTDOC 10 10 10 10 10 10 10 10 10 10 10 10 10	PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM): 755 18 14 35 PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM): PAIR (CFM): PAIR (CFM):	372 400 75 - - - - 450 822 825 240 -
PREV 2 6 6 2 PREV 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	604 14 11 28 IOUS OUTDO	DOR AIR SU OUTDO MAXIW MINIW 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8	PPLIED TO S OR AIR REQU UM OUTDOC UM OUTDOC UM OUTDOC UM OUTDOC 14 35 PPLIED TO S OR AIR REQU UM OUTDOC UM OUTDOC	PACE (CFM): JIRED (CFM): R AIR (CFM): R AIR (CFM): 755 18 14 35 PACE (CFM): JIRED (CFM): R AIR (CFM): R AIR (CFM): 200 PACE (CFM):	372 400 75 - - - - 450 822 825 240 - - 200
PREV 2 16 16 2 PREV 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	604 14 11 28 IOUS OUTDO	DOR AIR SU OUTDO MAXIW MINIW 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8	PPLIED TO S OR AIR REQU UM OUTDOC UM OUTDOC UM OUTDOC UM OUTDOC 14 35 PPLIED TO S OR AIR REQU UM OUTDOC UM OUTDOC UM OUTDOC UM OUTDOC	PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM): 755 18 14 35 PACE (CFM): JIRED (CFM): PR AIR (CFM): PR AIR (CFM): PAIR (CFM): PAIR (CFM):	372 400 75 - - - - 450 822 825 240 -

Altern	ative 1
	Wing Enclosure
HP/HPC	U-CORRIDOR
HP/HPC	U-CORRIDOR
	Gym
RTU-G	ŕM
RTU-G	ΥM

	ROOFIOP	JNIT SCHEDULE			
MARK	RTU-LIB	RTU-11	RTU-12	RTU-KIT	
	LIBRARY	GYM	GYM	KITCHEN	
	2250	3000	3000	2000	
	825	400	400	200 200	
MIN. OUTSIDE AIR (CFM)	240	75	75		
EXT. SP. (IN W.G.)	0.5	0.5	0.5	0.5	
TOTAL COOLING (MBH)	93.9	90	90	67.8	
SENSIBLE COOLING (MBH)	65.7	67.7	67.7	51.5	
NUMBER OF STAGES	2	2	2	1	
ENTERING AIR TEMP. DB/WB (F)	83.5/68.5	77.8/64	77.8/64	77.3/64.5	
LEAVING AIR TEMP. DB/WB (F)	54.8/54.5	55/54	55/54	52.4/52.4	
AMBIENT TEMP. (F)	105	105	105	105	
TOTAL INPUT (MBH)	130	N.A.	N.A.	108	
TOTAL OUTPUT (MBH)	104	N.A.	N.A.	86	
NUMBER OF STAGES	2	N.A.	N.A.	2	
HEATER POWER (KW)	N.A.	22.5	22.5	N.A.	
NUMBER OF STAGES	N.A.	1	1	N.A.	
VOLTS/PHASE/HERTZ	208/3/60	208/3/60	208/3/60	208/3/60	
MCA	40			35	
МОСР	50	70	70	50	
MANUFACTURER	LENNOX	LENNOX	LENNOX	LENNOX	
MODEL	LGH102H4M	LCH092H4B	LCH092H4B	LGH072H4B	
I.E.E.R. / E.E.R. (ARI)	14/12.2	13 / 12.7	13 / 12.7	13.5/12.0	
WEIGHT (LBS)	1288	1297	1297 3	966	
NOTES	1,2,3,4,5,6,7,8	1,2,3,4,5,7,8,9	1,2,3,4,5,7,8,9	1,2,3,4,5,6,7,8	
DE FACTORY MOUNTED CONDENSER COI DE CO2 OUTSIDE AIR CONTROL WITH MOE DE ECONOMIZER CONTROL WITH POWER DE HOT GAS REHEAT COIL.	L HAIL GUARD. DULATING OUTSIDE AIR AND F	RETURN AIR DAMPERS.			
DE WITH CURB ADAPTER.					
	EXT. SP. (IN W.G.) TOTAL COOLING (MBH) SENSIBLE COOLING (MBH) NUMBER OF STAGES ENTERING AIR TEMP. DB/WB (F) LEAVING AIR TEMP. DB/WB (F) AMBIENT TEMP. (F) TOTAL INPUT (MBH) TOTAL OUTPUT (MBH) NUMBER OF STAGES HEATER POWER (KW) NUMBER OF STAGES VOLTS/PHASE/HERTZ MCA MOCP MANUFACTURER MODEL I.E.E.R. / E.E.R. (ARI) WEIGHT (LBS) NOTES DE SINGLE POINT ELECTRICAL CONNECTION DE CO2 OUTSIDE AIR CONTROL WITH MODE DE CO1 OMIZER CONTROL WITH MODE DE CO1 GAS REHEAT COIL.	MARK RTU-LIB SERVES LIBRARY SUPPLY AIR (CFM) 2250 MAX OUTSIDE AIR (CFM) 825 MIN. OUTSIDE AIR (CFM) 240 EXT. SP. (IN W.G.) 0.5 TOTAL COOLING (MBH) 93.9 SENSIBLE COOLING (MBH) 65.7 NUMBER OF STAGES 2 ENTERING AIR TEMP. DB/WB (F) 83.5/68.5 LEAVING AIR TEMP. DB/WB (F) 105 TOTAL INPUT (MBH) 105 TOTAL OUTPUT (MBH) 104 NUMBER OF STAGES 2 HEATER POWER (KW) N.A. NUMBER OF STAGES 2 HEATER POWER (KW) N.A. NUMBER OF STAGES 2 MOCP 50 MARUAL LELR, / E.E.R. (ARI) 14/12.2 WEIGHT (LBS) 1288 NOTES 1.2.3.4.5.6.7.8 DE SINGLE POINT ELECTRICAL CONNECTION. DE FACTORY MOUNTED CONDENSER COL HAIL GUARD. DE CO2 OUTSIDE AIR CONTROL WITH POWER EXHAUST. DE ECONOMIZER CONTROL WITH POWER EXHAUST. DE E CONOMIZER CONTROL WITH POWER EXHAUST. DE HOT GAS REHEAT COIL. DE HOT GAS REHEAT COIL. DE WITH CU	MARK RTU-LIB RTU-LI SERVES LIBRARY GYM SUPPLY AIR (CFM) 2250 3000 MAX. OUTSIDE AIR (CFM) 825 400 MIN. OUTSIDE AIR (CFM) 240 75 EXT. SP. (IN W.G.) 0.5 0.5 TOTAL COOLING (MBH) 93.9 90 SENSIBLE COOLING (MBH) 65.7 67.7 NUMBER OF STACES 2 2 ENTENING AIR TEMP. DB/WB (F) 83.5/68.5 77.8/64 LEAVING AIR TEMP. DB/WB (F) 54.8/54.5 55/64 AMBIENT TEMP. (F) 105 105 TOTAL INPUT (MBH) 104 N.A. TOTAL OUTPUT (MBH) 104 N.A. NUMBER OF STACES N.A. 1 NUMBER OF STAGES N.A. 1 VOLTS/PHASE/HERTZ 208/3/60 208/3/60 MCA 40 69 MOCP 50 70 MANUFACTURER LENNOX LENNOX LEE.R. / E.E.R. (ARI) 14/12.2 13/12.7 </td <td>MARK RTU-LIB RTU-L1 RTU-L12 SERVES LIBRARY GYM GYM SUPPLY AIR (CFM) 2250 3000 3000 MAX OUTSIDE AIR (CFM) 825 400 400 MIN. OUTSIDE AIR (CFM) 825 400 400 MIN. OUTSIDE AIR (CFM) 840 75 75 EXT. SP. (INV.G.) 0.5 0.5 0.5 TOTAL COOLING (MBH) 93.9 90 90 SENSIBLE COOLING (MBH) 65.7 67.7 67.7 NUMBER OF STACES 2 2 2 2 ENTERING AIR TEMP. DB/WB (F) 63.5/68.5 77.8/64 77.8/64 TOTAL INPUT (MBH) 105 105 105 TOTAL INPUT (MBH) 104 N.A. N.A. NUMBER OF STAGES 2 N.A. N.A. NUMBER OF STAGES 1 1 1 VOLTS//PHASE/HERTZ 208/3/60 208/3/60 208/3/60 MCA 40 69 39 39</td>	MARK RTU-LIB RTU-L1 RTU-L12 SERVES LIBRARY GYM GYM SUPPLY AIR (CFM) 2250 3000 3000 MAX OUTSIDE AIR (CFM) 825 400 400 MIN. OUTSIDE AIR (CFM) 825 400 400 MIN. OUTSIDE AIR (CFM) 840 75 75 EXT. SP. (INV.G.) 0.5 0.5 0.5 TOTAL COOLING (MBH) 93.9 90 90 SENSIBLE COOLING (MBH) 65.7 67.7 67.7 NUMBER OF STACES 2 2 2 2 ENTERING AIR TEMP. DB/WB (F) 63.5/68.5 77.8/64 77.8/64 TOTAL INPUT (MBH) 105 105 105 TOTAL INPUT (MBH) 104 N.A. N.A. NUMBER OF STAGES 2 N.A. N.A. NUMBER OF STAGES 1 1 1 VOLTS//PHASE/HERTZ 208/3/60 208/3/60 208/3/60 MCA 40 69 39 39	

Load / Airflow Summary

	By DBR Engineering											
	Floor Area	People	Coil Cooling Sensible	Coil Cooling Total	Space Design Max SA	Air Changes	VAV Minimum SA	VAV Minimum	Main Coil Heating Sensible	Heating Fan Max SA	0	cent A
	ft²	t² # Btu/h		Btu/h cfm ach/hr		ach/hr	cfm %		Btu/h	cfm	Clg	Htg
Rm Peak	1,398	0.0	47,647	49,912	2,117	9.08	0	0	-39,412	2,117	5.0	5.0
Sys Peak	1,398	0.0	47,647	49,912	2,117				-39,412	2,117	5.0	5.0
Sys Block	1,398	0.0	47,647	49,912	2,117				-39,412	2,117	5.0	5.0
Rm Peak	2,380	80.0	107,966	159,116	3,739	5.89	0	0	-115,858	3,739	20.1	20.1
Sys Peak	2,380	80.0	107,966	159,116	3,739				-115,858	3,739	20.1	20.1
Sys Block	2,380	80.0	107,966	159,116	3,739				-115,858	3,739	20.1	20.1

8. PROVIDE WITH DUCT SMOKE DETECTOR. 9. PROVIDE UNIT WITH 44" HIGH CURB. CURB SHALL HAVE OPENINGS FOR SUPPLY & RETURN DUCT PENETRATIONS FROM SIDE. REFER TO MEP ROOF PLANS FOR DUCT ROUTING. PROVIDE 22"X30" ACCESS PANEL FOR ROOF CURB ACCESS. PANEL SHALL BE PROVIDED ON ONE SIDE ONLY.

