

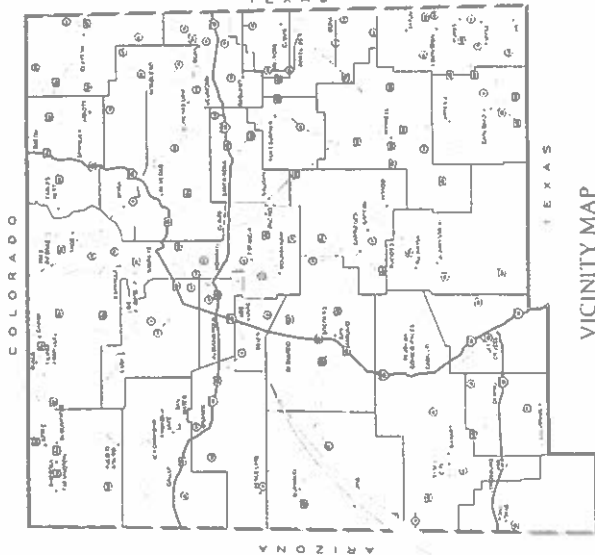
# VILLAGE OF BOSQUE FARMS PERALTA NEW MEXICO 87042

JANUARY 2020

## construction plans for the FIRE DEPARTMENT & POLICE STATION MECHANICAL IMPROVEMENTS

### INDEX OF DRAWINGS

| SHEET  | DESCRIPTION                                     |
|--------|---|
| G-001  | COVER SHEET                                     |
| MD-101 | MECHANICAL MODIFICATIONS - DEMO WORK            |
| M-101  | MECHANICAL MODIFICATIONS - NEW WORK             |
| M-601  | MECHANICAL SCHEDULE, DETAILS AND SPECIFICATIONS |
| E-101  | ELECTRICAL DEMOLITION AND MODIFICATION PLAN     |



THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR THE CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR. ALL IDEAS, DESIGNS, ARRANGEMENTS, AND PLANS INDICATED OR REPRESENTED BY THIS INSTRUMENT ARE OWNED BY AND THE PROPERTY OF MOLZEN-CORBIN & ASSOCIATES, AND HEREIN CREATED AND DEVELOPED FOR USE ON AND IN CONNECTION WITH THE SPECIFIED PROJECT. THESE IDEAS, DESIGNS, ARRANGEMENTS OR PLANS SHALL NOT BE USED BY ANY PERSON, FIRM, OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN CONSENT OF MOLZEN-CORBIN & ASSOCIATES.

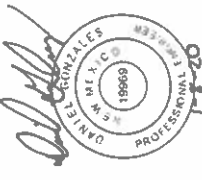
THESE DRAWINGS REFLECT INFORMATION ON UTILITIES GATHERED BY SITE INSPECTION, DISCUSSIONS WITH MUNICIPAL OFFICIALS, AND PREVIOUS CONSTRUCTION DOCUMENTS. IT IS POSSIBLE THAT THE EXACT LOCATION OF LINES AND UTILITY CONNECTION POINTS IN THE VICINITY OF REQUIRED WORK MAY BE DIFFERENT FROM THE LOCATION SHOWN ON THESE DRAWINGS. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS SHALL A CONFLICT EXIST THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.

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**NUMERIC SCALE CONFIRMATION**  
DRAWINGS ARE DEPICED AT INTENDED NUMERIC SCALES IF THIS BAR TOLUES ONE INCH

### CERTIFICATION

I, DANIEL GONZALES, P.E. REGISTERED PROFESSIONAL ENGINEER NO. 19969 HEREBY CERTIFY THAT THE FOLLOWING PLANS AND DESIGNS WERE MADE UNDER MY SUPERVISION AND DIRECTION AND THAT SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF



DANIEL GONZALES, P.E. NO. 19969

**MOLZENCORBIN**  
ENGINEERS | ARCHITECTS | PLANNERS

2701 Miles Road SE. Albuquerque, New Mexico 87106 505.242.5700 office 505.242.0673 fax  
MC Project No. LL165.11

G-001  
Sheet 5 OF 5



**KEYED NOTES**

1. PROVIDE AND INSTALL OUTDOOR CONDENSER AS INDICATED ON EQUIPMENT SCHEDULE AND PER MANUFACTURER'S REQUIREMENTS. INSTALL ON EXISTING CONCRETE PAD.
2. PROVIDE AND INSTALL REFRIGERANT LINE SET, REFRIGERANT LINE SET SIZED PER COIL MANUFACTURER'S REQUIREMENTS. SEE SPECIFICATIONS ON SHEET M-601 FOR FURTHER REQUIREMENTS.
3. PROVIDE AND INSTALL NEW DX COIL AS INDICATE ON EQUIPMENT SCHEDULE AND PER MANUFACTURER'S REQUIREMENTS. INCLUDE INSTALLATION OF REFRIGERANT SPECIALTIES LIKE REDUCIBLE CORE FILTER, DRIER, LIQUID LINE SOLENOID AND SIGHT GLASS.

NOTICE OF EXTENDED GATEWAY PROCESS  
THIS CONTRACT ALLOWS THE OWNER 10-14  
INVESTMENT WITHIN 45 DAYS AFTER SUBMITTAL  
OF AN UNDISPUTED REQUEST FOR PAYMENT

NUMERIC SCALE CONFIRMATION  
DIMENSIONS ARE DEPICTED AT INTERIOR  
UNLESS NOTED OTHERWISE  
IF THIS BAR EQUALS ONE INCH

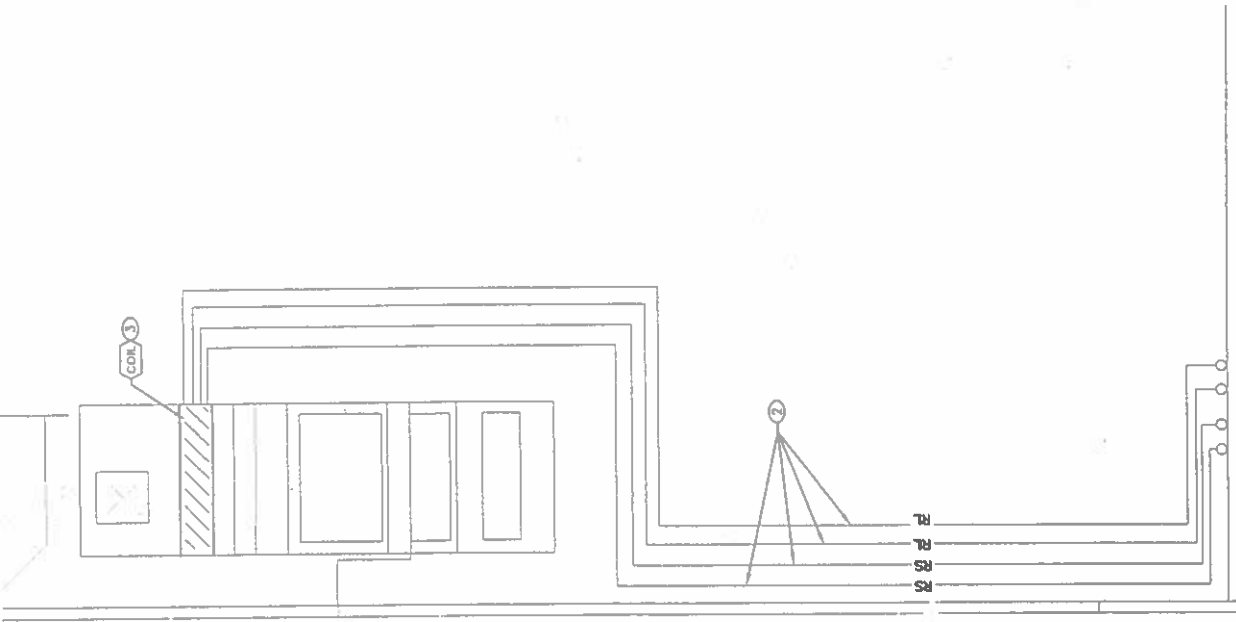


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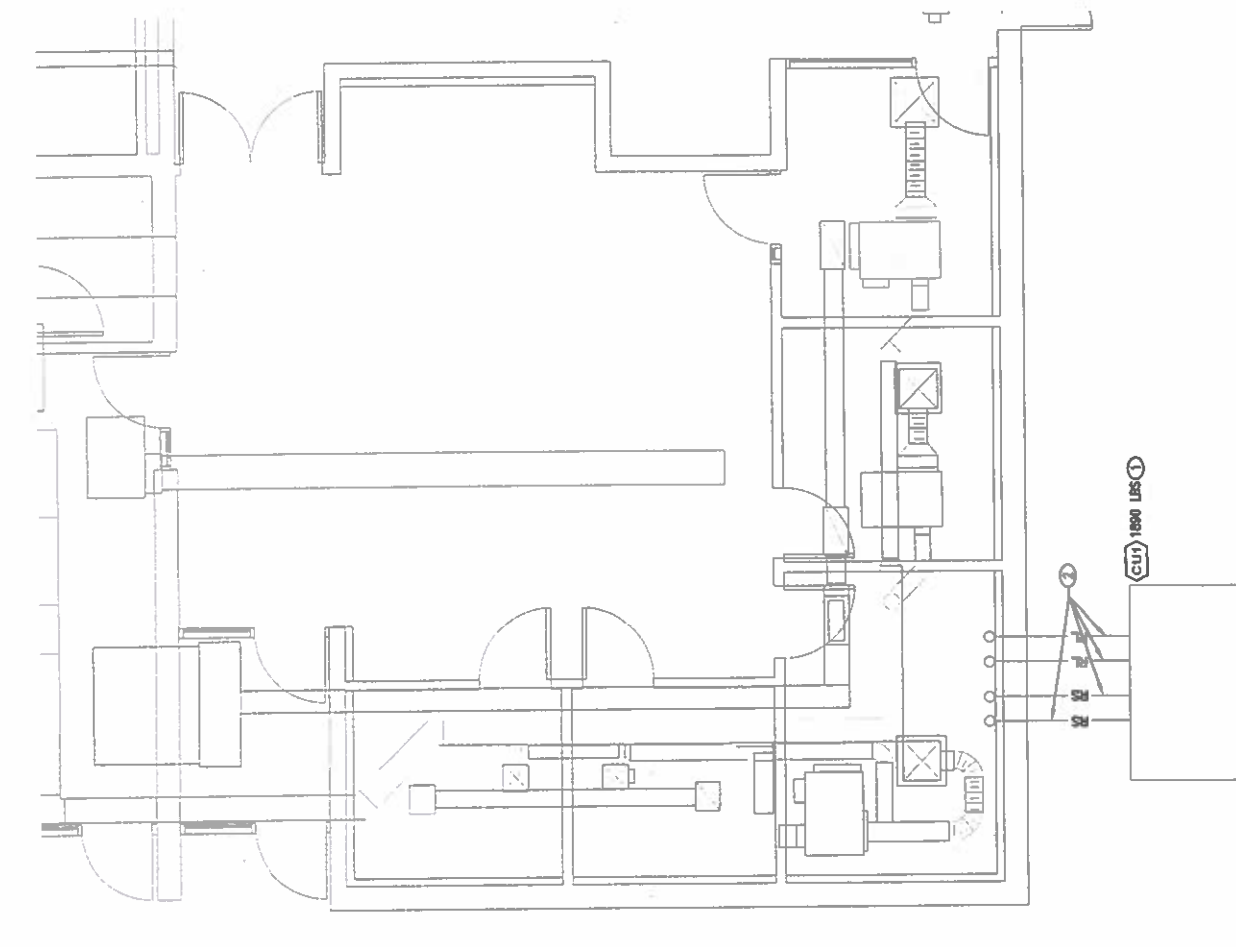
PROJECT NUMBER: BOS05-24  
DESIGNED BY: PWR  
DRAWN BY: PWR  
CHECKED BY: MCA

MECHANICAL MODIFICATIONS - NEW WORK

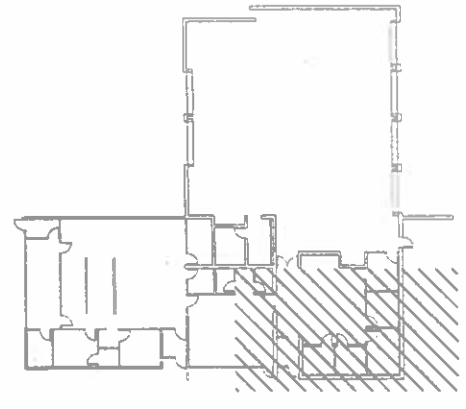
M-101  
SHEET 3 OF 5



**PARTIAL LOFT LEVEL - MECHANICAL NEW WORK**  
SCALE: 1/4"=1'-0"



**PARTIAL FIRST LEVEL - MECHANICAL NEW WORK**  
SCALE: 1/4"=1'-0"



**KEYPLAN**



- A. CONTRACTORS AND SUB CONTRACTORS SHALL CAREFULLY REVIEW THE CONSTRUCTION DOCUMENTS INFORMATION REGARDING THE COMPLETE WORK IS DISPERSED THROUGHOUT THE DOCUMENT SET AND CANNOT BE ACCURATELY DETERMINED WITHOUT REFERENCE TO THE COMPLETE DOCUMENT SET FURNISH SUBMITTAL DATA ON EQUIPMENT LISTED ON SCHEDULE, PIPING AND FITTINGS
- B. COORDINATE WITH THE WORK OF OTHER TRADES. EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS AT THE PROJECT SITE
- C. CONDENSATE DRAIN PIPING TO BE HARD DRAWN COPPER DRAINAGE TUBE (DWV) ASTM B308 WITH WROUGHT DRAINAGE FITTINGS IN ACCORDANCE WITH ASME B16.29 JOINTS SHALL BE SOLDERED WITH #59 SOLDER
- D. INSTALL SLEEVES FOR DRIPING PIPING THROUGH INTERIOR CONCRETE WALLS, METAL WALLS, MASONRY WALLS, FIRE RATED GYPSUM WALLS, CONCRETE FLOORS AND ROOF SLABS. SLEEVES CAN BE STEEL SHEET METAL 24 GAUGE MINIMUM, SCHEDULE 40 GALVANIZED STEEL PIPE ASTM A53-TYPE E GRADE A, OR CAST IRON-ASTM A74
- E. PIPE PENETRATIONS THRU FIRE/RATED ASSEMBLIES SHALL BE FIRE CALLED AIRTIGHT TO ADJACENT STRUCTURE BY MEANS OF A UL OR FM APPROVED FIRE PROOF CALKING MATERIAL CONFORMING TO THE CONSTRUCTION TYPE, PENETRATE TYPE, ANNULAR SPACE REQUIREMENTS, AND FIRE RATING
- F. PIPE PENETRATIONS THRU NON FIRE RATED ASSEMBLIES SHALL BE CALKED AIRTIGHT BY MEANS OF APPROVED CALKING MATERIAL. PROVIDE JOINT SEALERS, JOINT FILLER AND OTHER RELATED MATERIALS THAT ARE COMPATIBLE UNDER CONDITIONS OF APPLICATION. PROVIDE COLOR OF EXPOSED JOINT SEALERS TO CLOSELY MATCH FINISH COLOR OF ADJACENT SURFACES
- G. INSTALL PIPE LABELS ON EACH SYSTEM. INCLUDE ARROWS SHOWING NORMAL DIRECTION OF FLOW. LOCATE LABELS IN FINISHED SPACES, MECHANICAL ROOMS, ACCESSIBLE MAINTENANCE SPACES SUCH AS SHAFTS, TUNNELS, PLenums AND EXTERIOR NON CONCEALED LOCATIONS. COLOR AND LETTERING TO CONFORM TO ASME 13.1 WITH WHITE LETTERING ON GREEN BACKGROUND, LENGTH COLOR FIELD AT 8" WITH 0.75" LETTER HEIGHTS
- H. BEFORE ANY INSULATION IS INSTALLED OR BEFORE PIPING IS COVERED OR TURNED OVER TO OWNER, ALL REFRIGERANT PIPING SYSTEMS SHALL BE PRESSURE TESTED WITH DRY NITROGEN TO 200 PSIG. REPAIR ANY LEAKS
- I. PIPE HANGERS SHALL CONFORM TO MSS SP-58. WALL SUPPORTS SHALL BE BY CAST IRON HOOKS. VERTICAL SUPPORTS SHALL BE BY STEEL RISER CLAMPS, FLOOR SUPPORTS SHALL BE BY CAST IRON ADJUSTABLE PIPE SADDLES
- J. PROVIDE AND INSTALL 1" THICK ELASTOMERIC INSULATION ON REFRIGERANT SUCTION AND LIQUID PIPING. PROTECT ALL INSULATION WITH ALUMINUM COVER
- K. INSULATION SPECIFICATIONS: ASTM C534, TYPE I, FLEXIBLE, CLOSED CELL ELASTOMERIC INSULATION, TUBULAR. THERMAL CONDUCTIVITY: 0.27 AT 75 DEGREES F. OPERATING TEMPERATURE RANGE: RANGE MINUS 70 TO 180 DEGREES F.
- 1. VALVE AND FITTING COVERS: SAME AS PIPE INSULATION, CUT TO FIT
- 2. WEATHER RESISTANT PROTECTIVE FINISH: ACRYLIC LATEX ENAMEL PAINT. MANUFACTURER: WB ARMAFLEX FINISH
- L. ALUMINUM PIPE JACKET SPECIFICATIONS
  - 1. ASTM B209
  - 2. THICKNESS: 0.018 INCH THICK SHEET.
  - 3. FINISH: EMBOSSED
  - 4. JOINING: LONGITUDINAL SLIP JOINTS AND 2 INCH LAPS
  - 5. FITTINGS: 0.018 INCH THICK DIE SHAPED FITTING COVERS WITH FACTORY ATTACHED PROTECTIVE LINER
  - 6. METAL JACKET BANDS: 3/8 INCH WIDE, 0.010 INCH THICK STAINLESS STEEL
- M. REFRIGERANT PIPING SPECIFICATIONS: COPPER TUBING: ASTM B280, DRAWN
  - 1. FITTINGS: ASME B16.22 WROUGHT COPPER
  - 2. JOINTS: BRAZE: 80/20 SILVER/PHOSPHORUS COPPER ALLOY WITH MELTING RANGE 1190 TO 1480 DEGREES F
- O. ALL MATERIAL CALLED FOR DEMOLITION BY CONTRACTOR SHALL BE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM PROJECT SITE. CONTRACTOR MAY DISPOSE OF THEM BY EITHER LAND FILLING OR BY SELLING SALVAGEABLE PARTS AND RECYCLABLE MATERIALS TO LEGITIMATE THIRD PARTIES
- P. REMOVE REFRIGERANT AND EITHER RECYCLE OR DISPOSE OF AS A HAZARDOUS MATERIAL. REMOVE OIL AND DISPOSE OF AS A HAZARDOUS MATERIAL. COMPLY WITH ALL APPLICABLE REGULATIONS, INCLUDING THE CLEAN AIR ACT.

**DX COIL AND CONDENSER**

DX COIL - INDOOR DX COIL TO BE MOUNTED IN EXISTING MCOQUAY AIR HANDLER. FIN HEIGHT 33". FIN LENGTH 57". RIGHT HANDED, HORIZONTAL AIR FLOW, COUNTER FLOW, COPPER SWEAT CONNECTIONS. EQUALIZER ON EACH HEADER, 6 ROWS, 10" DEPTH, R410 REFRIGERANT. PERFORMANCE CAPACITY AS INDICATED BELOW. SIZED FOR 4,800 FEET ELEVATION BELOW. MFG. DAIKIN OR EQUIVALENT

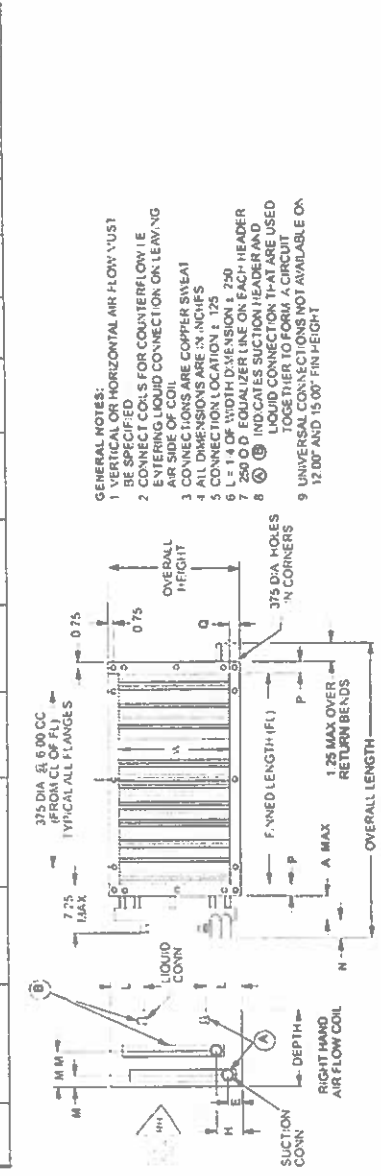
CONDENSER - R410.2 REFRIGERANT CIRCUITS. SUCTION TEMP = 42°F. AMBIENT = 95°F. 3 SCROLL COMPRESSORS. 4 STEP CAPACITY CONTROL. RESILIENT COMPRESSOR LOCATION. ALUMINUM TUBE MICRO CHANNEL. 1 ROW COIL. 18 FINS PER INCH. 2 FAN MOTORS. FURNISH WITH 15V CONVENIENCE OUTLET. PERFORMANCE CAPACITY AS LISTED BELOW. SIZED FOR 4,800 FEET ELEVATION. FURNISH UNIT WITH RAIL GUARDS. MFG. DAIKIN OR EQUIVALENT

| SYMBOL | DAIKIN MODEL NO | LOCATION | AREA SERVED |           | ELECTRICAL DATA |       |       | OPERATIONAL WEIGHT (LBS) |    | FILTRATION |           |
|--------|-----------------|----------|-------------|-----------|-----------------|-------|-------|--------------------------|----|------------|-----------|
|        |                 |          | CFM         | ESP IN WC | VOLT            | PHASE | HERTZ | MCA                      | NA | 300        | PREFILTER |
| (CDL)  | 5E1206B         | LOFT     | 6000        | 0.9       | NA              | NA    | NA    | NA                       | NA | NA         | NA        |

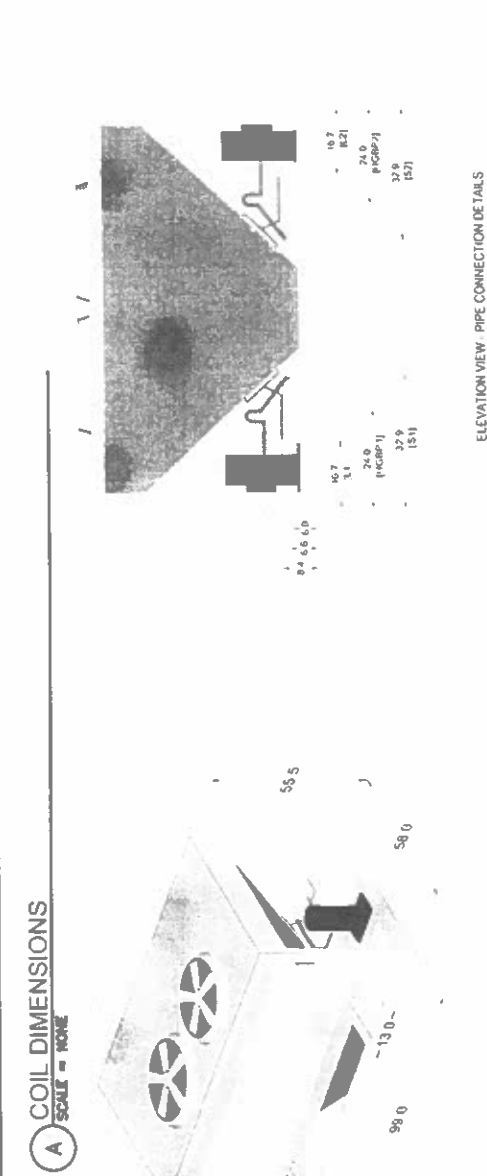
| SYMBOL | ASSOCIATED CONDENSING UNIT | HEATING PERFORMANCE @ 60°F |                   | REMARKS   |
|--------|----------------------------|----------------------------|-------------------|---|
|        |                            | TOTAL MBH                  | 78°F EDB@11°F EWB |   |
| (CU)   | CU                         | 165.0                      | 154               | REFRIGERANT LINE SET SIZED BY MANUFACTURER. CONDENSING UNIT BELOW REQUIRES 115V, 20 AMP SERVICE FOR CONVENIENT OUTLET |

| SYMBOL | OUTDOOR DAIKIN MODEL# | LOCATION | ASSOCIATED INDOOR UNIT | COOLING CAPACITY MBH | HEATING CAPACITY MBH | OUTDOOR TEMP IN COOLING (°F) | OUTDOOR TEMP IN HEATING (°F) | ELECTRICAL DATA |       |       | OPERATIONAL WEIGHT (LBS) |     |       |
|--------|-----------------------|----------|------------------------|----------------------|----------------------|------------------------------|------------------------------|-----------------|-------|-------|--------------------------|-----|-------|
|        |                       |          |                        |                      |                      |                              |                              | VOLT            | PHASE | HERTZ |                          | MCA | MOCF  |
| (CU)   | RS-5020               | OUTDOORS | COIL                   | 234.0                | NA                   | 95                           | NA                           | 208             | 3     | 60    | 99.1                     | 125 | 1,800 |



**COIL DIMENSIONS**  
SCALE = NONE

| R | O | W | S | FIN HEIGHT (IN.) | FIN LENGTH (IN.) | OVERALL HEIGHT (IN.) | OVERALL LENGTH (IN.) | A (IN.) | E (IN.) | H (IN.) | L (IN.) | M (IN.) | N (IN.) | P (IN.) | Q (IN.) | DEPTH (IN.) |
|---|---|---|---|------------------|------------------|----------------------|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|
|   |   |   |   | 33               | 53               | 38                   | 64.25                | 4       | 5.00    | 8.050   | 8.25    | 1.75    | 3       | 1.6     | 1.5     | 10          |



DIMENSION IN INCHES

**CONDENSER ISOMETRIC VIEW AND PIPE CONNECTION LOCATIONS**

SCALE = NONE

**MOLZENCORBI**  
2701 Miles Road, SE  
Albuquerque, New Mexico 87106  
505.242.5700 office  
505.242.0873 fax  
MolzenCorbi.com

**STATE OF CALIFORNIA PUBLIC PROCEEDING**  
THIS CONTRACT ADOPTS THE OTHER TO A PARTIAL EXTENT AS SET FORTH IN ARTICLE 1 OF AN UNENFORCED REQUEST FOR PROPOSURE

**NUMERIC SCALE CONFIRMATION**  
DRAWINGS ARE DEPICTED AT INTENDED NUMERIC SCALES  
F THIS BAR EQUALS ONE INCH

**PAUL M. RIVERA**  
REGISTERED PROFESSIONAL ENGINEER  
14928  
01-08-2020

CHECKED BY: MCA  
DRAWN BY: PMR  
DESIGNED BY: PMR  
PROJECT NUMBER: BOS051-24

REV NO. REV DATE DESCRIPTION

**BOSQUE FARMS NEW MEXICO**

**FIRE STATION MODIFICATIONS**  
BOSQUE FARMS

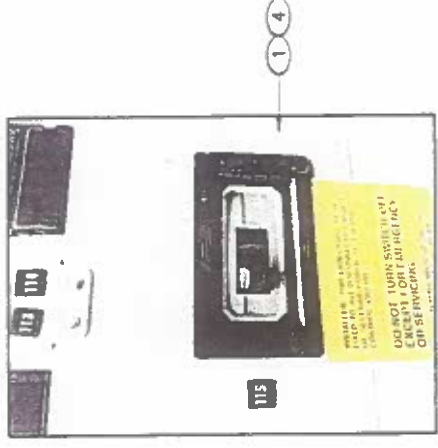
**MECHANICAL SCHEDULE, DETAILS AND SPECIFICATIONS**

**M-601**  
SHEET 4 OF 5

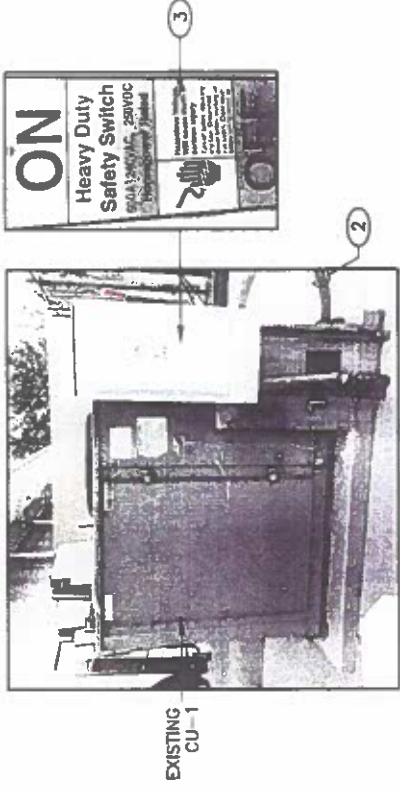
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**KEYED NOTES:**

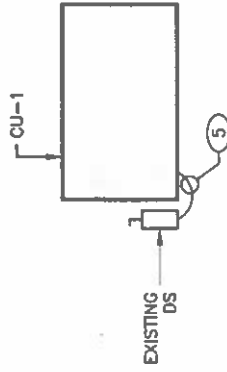
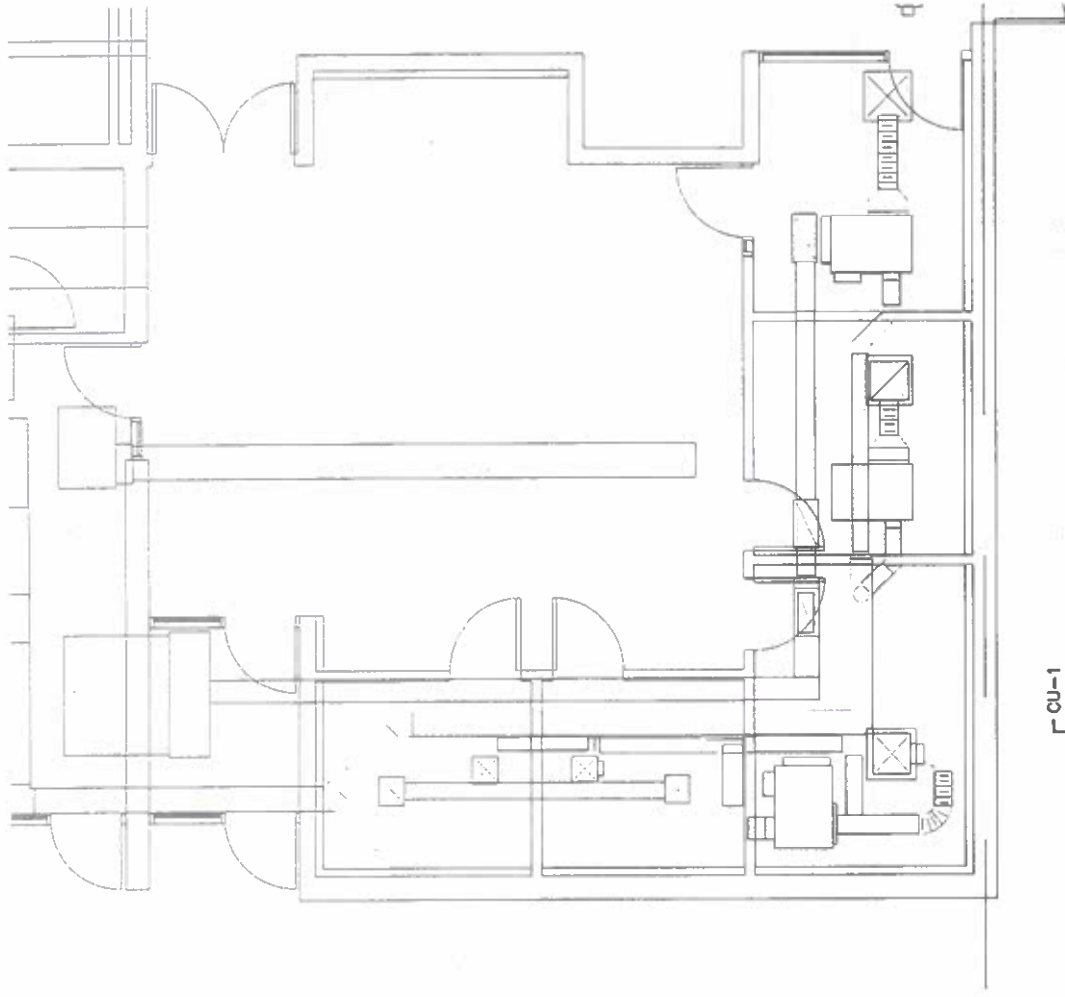
1. IDENTIFY AND REUSE CIRCUIT BREAKER IN FEEDING PANEL IN ELECTRICAL ROOM FOR CU-1 POWER.
2. DISCONNECT AND FLEXIBLE CONDUIT AND CONDUCTORS FROM THE DISCONNECT SWITCH.
3. REUSE EXISTING DISCONNECT SWITCH (DS).
4. REUSE EXISTING 200A CIRCUIT BREAKER (CB) IN FEEDING PANEL.
5. INSTALL NEW 2.5" LIQUID TIGHT FLEXIBLE METALLIC CONDUIT WITH 3-#3/0, #4G BETWEEN DS AND NEWLY INSTALLED CONDENSER. CONNECT.



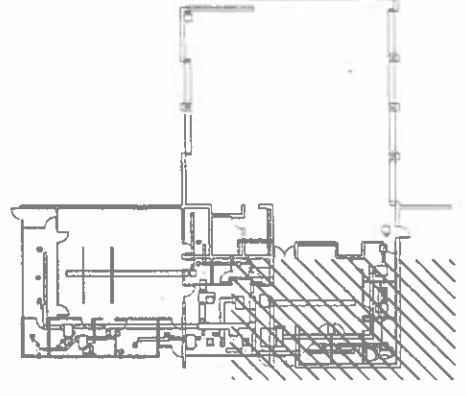
**EXISTING CIRCUIT BREAKER**  
SCALE: NONE



**EXISTING CU-1 DISCONNECT SWITCH**  
SCALE: NONE



**ELECTRICAL PLAN**  
SCALE: 1/4"=1'-0"



**KEYPLAN**

**MODEL OF EXISTING EQUIPMENT**  
PHOTOGRAPHS TO BE SUBMITTED TO THE CLIENT WITHIN 45 DAYS AFTER SUBMITTAL OF AN UNDISPUTED REQUEST FOR PAYMENT.

**NUMERIC SCALE CONFIRMATION**  
DRAWINGS ARE DEPICTED AT INTENDED NUMERIC SCALES. IF THIS BAR EQUALS ONE INCH, THE DRAWING IS CORRECT.



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PROJECT NUMBER: BOS05-24  
DESIGNED BY: PVR  
DRAWN BY: PVR  
CHECKED BY: MCA

**ELECTRICAL  
DEMOLITION AND MODIFICATION PLAN**

**FIRE STATION MODIFICATIONS  
BOSQUE FARMS**