



SPARKS POLICE DEPARTMENT HVAC UPGRADE



PWP# WA-2020-073
 BID #19/20-008

1701 E. PRATER WAY
 SPARKS, NEVADA
 89434

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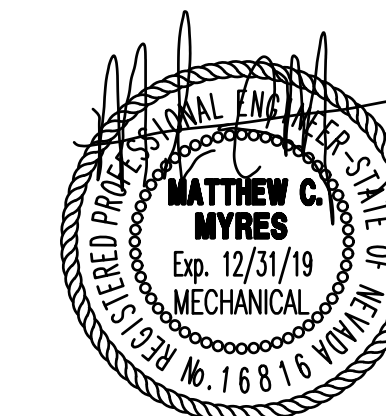
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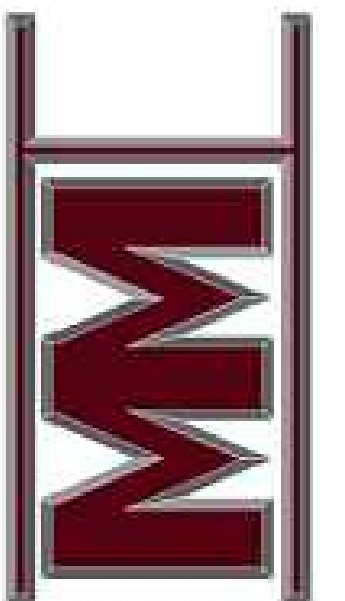
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SHEET TITLE

TITLE SHEET - GENERAL INFO

REVISIONS

| | |
|---|---------------------------------|
| 1 | PLAN REVIEW COMMENTS (04/09/18) |
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

BID DOCUMENTS

DATE: MARCH 26, 2018

SHEET NUMBER:

T1.0

MECHANICAL SYMBOL LIST

(NOTE: ALL OF THE SYMBOLS INDICATED BELOW MAY NOT APPEAR ON THIS PROJECT)

| | | | | | | | | | | |
|--|---|--|----------|---|--|-------------|---|--|------------|--|
| | DUCT W/ SIZE INDICATED (FIRST FIG. IS SIDE SHOWN) | | MP&S | MEDIUM PRESSURE STEAM SUPPLY | | P.D. | PIPING TEE DOWN | | F.B. | FROM BELOW |
| | | | RD | REFRIGERANT DISCHARGE PIPING | | P.U. | PIPING TEE UP | | FT. | FEET |
| | V.D. | | RL | REFRIGERANT LIQUID PIPING | | P.U. | PIPING ELBOW UP | | GA | GAUGE |
| | DUCT WITH ACOUSTIC LINING | | RS | REFRIGERANT SUCTION PIPING | | P.D. | PIPING ELBOW DOWN | | GAL | GALLON |
| | F.D.R. | | RF | REFRIGERANT FILTER | | | BRANCH - TOP CONNECTION | | GPH | GALLONS PER HOUR |
| | S.D. | | RS | REFRIGERANT STRAINER | | | BRANCH - BOTTOM CONNECTION | | GPM | GALLONS PER MINUTE |
| | F.S.D. | | RFD | REFRIGERANT FILTER AND DRIER | | | BRANCH - SIDE CONNECTION | | HD | HEAD |
| | EX. | | RD | REFRIGERANT DRIER | | P.T. | PLUGGED TEE | | HP | HORSEPOWER |
| | SQUARE TO ROUND DUCT TRANSITION | | RI | REFRIGERANT VIBRATION ISOLATOR | | P.T.T. | PRESSURE & TEMPERATURE TAP | | HR | HOURLY |
| | DUCT SIZE TRANSITION | | RO&S | REFRIGERANT OIL SEPARATOR | | C.O.P. | CAP ON END OF PIPE | | KW | KILOWATTS |
| | FLEXIBLE DUCT CONNECTOR | | G.V. | GATE VALVE | | F.L.X. | FLEXIBLE COUPLING | | LAT | LEAVING AIR TEMPERATURE |
| | SPLITTER DAMPER | | GLV | GLOBE VALVE | | | ARROW INDICATES DIRECTION OF FLOW | | LWT | LEAVING WATER TEMPERATURE |
| | T.V.'S | | ANV | ANGLE VALVE | | L.W.C.O. | LOW WATER CUT-OFF | | MAX | MAXIMUM |
| | SUPPLY AIR DUCT DOWN | | B.L.V. | BALL VALVE | | P.O.C. | POINT OF CONNECTION - NEW ITEMS TO EXISTING ITEMS | | MBH | BRITISH THERMAL UNITS PER HOUR (THOUSANDS) |
| | SUPPLY AIR DUCT UP | | B.F.V. | BUTTERFLY VALVE | | A.P. | ACCESS PANEL | | MIN | MINIMUM |
| | RETURN AIR DUCT DOWN | | C.H.V. | CHECK VALVE | | RM. | DUCTWORK / PIPING / EQUIPMENT TO BE REMOVED | | MUA | MAKE-UP AIR |
| | RETURN AIR DUCT UP | | TDV | TRIPLE DUTY VALVE | | | EXISTING DUCTWORK / PIPING / EQUIPMENT TO REMAIN | | N | NEW |
| | EXHAUST AIR DUCT DOWN | | B.V. | BALANCING VALVE | | | MECHANICAL EQUIPMENT INDICATED (SEE SCHEDULE) | | NC | NORMALLY CLOSED |
| | EXHAUST AIR DUCT UP | | H.V. | 3/4" HOSE END DRAIN VALVE | | | DIFFUSER OR GRILLE INDICATED (SEE SCHEDULE) | | NO | NORMALLY OPEN |
| | SUPPLY AIR DIFFUSER WITH FLEX CONNECTION | | S.O.V. | SHUT-OFF VALVE IN RISER | | T. | THERMOSTAT | | NOM | NOMINAL |
| | RETURN AIR GRILLE OPEN TO CEILING SPACE | | C.C. | CIRCUIT SETTER BALANCE VALVE | | H. | HUMIDISTAT | | OA | OUTSIDE AIR |
| | ROUND SUPPLY AIR DIFFUSER WITH RIGID CONNECTION | | B.P. | BACKFLOW PREVENTOR | | T2 | THERMOSTAT WITH ZONE INDICATED | | OC | ON CENTER |
| | RETURN AIR GRILLE WITH RIGID DUCT CONNECTION | | R.P.B.P. | REDUCED PRESSURE BACKFLOW PREVENTOR | | P. | POTENTIOMETER | | OSA | OUTSIDE AIR |
| | MOTORIZED DAMPER | | S.V. | SOLENOID VALVE | | S. | SENSOR | | PD | PRESSURE DROP |
| | OPPOSED BLADE DAMPER | | F.S. | FLOW SWITCH | | S.D. | SMOKE DETECTOR | | RAG | RETURN AIR GRILLE |
| | HHL&S | | P.S. | PRESSURE SWITCH | | T.C.P. | TEMPERATURE CONTROL PANEL | | RH | RELATIVE HUMIDITY |
| | HHL&R | | P.R.V. | PRESSURE REDUCING VALVE | | AFF | ABOVE FINISHED FLOOR | | RPM | REVOLUTION PER MINUTE |
| | CHL&S | | S.T.R. | STRAINER | | AFG | ABOVE FINISHED GRADE | | SAD | SUPPLY AIR DIFFUSER |
| | CHL&R | | S.T.R. | STRAINER WITH 3/4" HOSE END DRAIN VALVE | | BDD | BACKDRAFT DAMPER | | S.E.E.R. | SEASONAL ENERGY EFFICIENCY RATIO |
| | HPL&S | | P.T.R. | PRESSURE - TEMPERATURE RELIEF VALVE | | BHP | BRAKE HORSEPOWER | | SF | SQUARE FEET |
| | HPL&R | | RV | PRESSURE RELIEF VALVE | | B.J. | BETWEEN JOISTS | | S.M. | SHEET METAL |
| | CL&S | | 2VAL | 2-WAY CONTROL VALVE | | B.O.D. | BOTTOM OF DUCT | | SP | STATIC PRESSURE |
| | CLR | | 3VAL | 3-WAY CONTROL VALVE | | B.O.G. (L.) | BOTTOM OF GRILLE (LOUVER) | | ST | MANUAL TIMER SWITCH |
| | IL&S | | U | UNION | | B.O.R. | BOTTOM OF REGISTER | | STD | STANDARD |
| | IL&R | | F | FLANGE | | BTUH | BRITISH THERMAL UNITS PER HOUR | | T | TEMPERATURE |
| | HFR | | FL | FLEXIBLE PIPING CONNECTOR | | CFH | CUBIC FEET PER HOUR | | T.A. | TO ABOVE |
| | HFS | | CR | CONCENTRIC REDUCER | | CFM | CUBIC FEET PER MINUTE | | TAG | TRANSFER AIR GRILLE |
| | LFR | | ER | ECCENTRIC REDUCER | | CLG | CEILING | | T.B. | TO BELOW |
| | LPS | | P.R.G. | PRESSURE GAUGE WITH GAUGE COCK | | DB | DRY BULB TEMPERATURE | | T.J. | THROUGH JOISTS |
| | MPR | | TH | THERMOMETER | | DL | DOOR LOUVER | | T.O.D. | TOP OF DUCT |
| | | | A.A.V. | AUTOMATIC AIR VENT | | DN | DOWN | | T.O.G.(L.) | TOP OF GRILLE (LOUVER) |
| | | | M.A.V. | MANUAL AIR VENT | | (E) | EXISTING | | T.O.R. | TOP OF REGISTER |
| | | | V.B. | VACUUM BREAKER | | EAT | ENTERING AIR TEMPERATURE | | TYP | TYPICAL |
| | | | P.A. | PIPE ANCHOR | | EDB | ENTERING DRY BULB | | U.C. | UNDERCUT DOOR |
| | | | P.G. | PIPE ALIGNMENT GUIDE | | ESP | EXTERNAL STATIC PRESSURE | | UF | UNDER FLOOR |
| | | | E.J. | PIPE EXPANSION JOINT | | EWT | ENTERING WATER TEMPERATURE | | WIB | WET BULB TEMPERATURE |
| | | | | | | F | DEGREES FARENHEIT | | WC | WATER COLUMN |
| | | | | | | F.A. | FROM ABOVE | | WG | WATER GAUGE |
| | | | | | | | | | W.P.D. | WATER PRESSURE DROP |

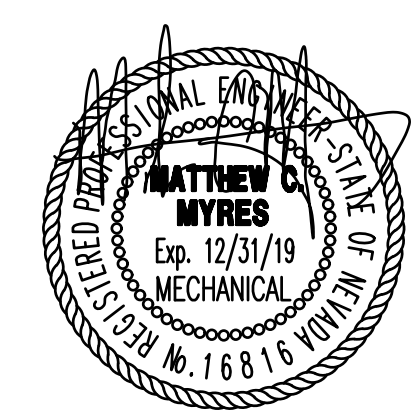
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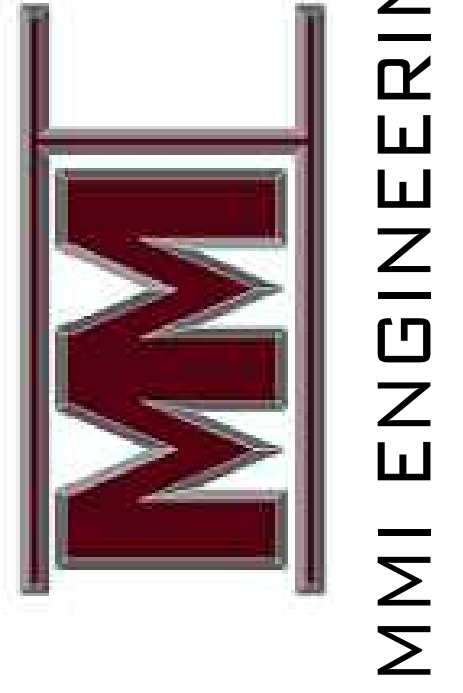
BID DOCUMENTS

DATE : MARCH 26, 2018
 SHEET NUMBER : M0.1

VAV BOX SCHEDULE

| UNIT DESIGNATION | MAKE AND MODEL NUMBER | STANDARD FEATURES AND OPTIONAL ACCESSORIES | UNIT SIZE | CONTROL VALVE TYPE | MAX AIR FLOW (CFM) @ 1.0" W.G. | MIN AIR FLOW (CFM) @ 0.03" W.G. | REHEAT AIR VOLUME (CFM) | REHEAT COIL | | | | | | | CONTROLS | INLET STATIC (in wc) | DISCHARGE SOUND CRITERIA | | RADIATED SOUND CRITERIA | | | |
|------------------|-----------------------|--|-----------|--------------------|--------------------------------|---------------------------------|-------------------------|----------------|----------|----------|---------------|---------------------|------------|----------|----------|----------------------|--------------------------|------|-------------------------------|-----|-------------------------------|----|
| | | | | | | | | CAPACITY (MEH) | EAT (°F) | LAT (°F) | HPD. (ft. wg) | COIL APD. (IN W.G.) | FLOW (GPM) | EAT (°F) | | | LWT (°F) | ROWS | SOUND FLIR LVL. (OCTAVES 2-1) | NC | SOUND FLIR LVL. (OCTAVES 2-1) | NC |
| VAV B1 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV110 TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 12 | 3-WAY | 1875 | 940 | 940 | 29.3 | 55 | 88 | 0.2 | 0.41 | 2 | 150 | 120 | 2 | DIGITAL ELECTRONIC | 1 | 66,59,56,53,49,46 | 16 | 53,48,44,37,33,29 | 18 |
| VAV B2 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV110 TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 05 | 2-WAY | 350 | 180 | 180 | 5.4 | 55 | 87 | 0.31 | 0.06 | .75 | 150 | 135 | 1 | DIGITAL ELECTRONIC | 1 | 71,67,57,53,48,47 | 26 | 55,53,49,41,37,33 | 23 |
| VAV B3 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV110 TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 16 | 2-WAY | 2,640 | 1320 | 1320 | 43.9 | 55 | 90 | 0.33 | 0.29 | 2.25 | 150 | 110 | 2 | DIGITAL ELECTRONIC | 1 | 65,57,56,51,47,45 | 15 | 53,48,43,39,35,31 | 16 |
| VAV B4 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV110 TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 12 | 2-WAY | 1,800 | 1,800 | 950 | 51.3 | 55 | 85 | 0.72 | 0.57 | 2.5 | 150 | 108 | 3 | DIGITAL ELECTRONIC | 1 | 66,59,56,53,49,46 | 16 | 53,48,44,37,33,29 | 18 |
| VAV B5 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV110 TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 10 | 2-WAY | 1,440 | 720 | 720 | 23.9 | 55 | 90 | 0.46 | 0.45 | 1.5 | 150 | 117 | 2 | DIGITAL ELECTRONIC | 1 | 67,61,57,54,50,47 | 18 | 57,48,46,39,33,29 | 20 |
| VAV B6 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV110 TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 10 | 2-WAY | 1,050 | 530 | 530 | 16 | 55 | 87 | 0.08 | 0.27 | 1.25 | 150 | 124 | 2 | DIGITAL ELECTRONIC | 1 | 63,58,54,51,48,44 | N/A | 53,44,43,36,30,29 | 16 |
| VAV B7 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV110 TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 10 | 2-WAY | 1,400 | 700 | 700 | 21.2 | 55 | 87 | 0.06 | 0.63 | 1.5 | 150 | 121 | 3 | DIGITAL ELECTRONIC | 1 | 67,61,57,54,50,47 | 18 | 57,48,46,39,33,29 | 20 |
| VAV B8 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV110 TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 08 | 2-WAY | 1,000 | 500 | 500 | 15 | 55 | 87 | 0.23 | 0.46 | 1 | 150 | 119 | 2 | DIGITAL ELECTRONIC | 1 | 70,63,57,54,50,46 | 21 | 60,52,48,42,37,30 | 22 |
| VAV B9 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV110 TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 08 | 2-WAY | 700 | 350 | 350 | 11.3 | 55 | 89 | 0.15 | 0.26 | 0.75 | 150 | 119 | 2 | DIGITAL ELECTRONIC | 1 | 64,58,54,51,47,43 | 16 | 56,45,44,39,34,27 | 18 |
| VAV G1 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV110 TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 08 | 2-WAY | 780 | 390 | 390 | 11.8 | 55 | 87 | 0.15 | 0.31 | 0.75 | 150 | 118 | 2 | DIGITAL ELECTRONIC | 1 | 64,58,54,51,47,43 | N/A | 56,45,44,39,34,27 | 18 |
| VAV G2 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV110 TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 14 | 3-WAY | 2,560 | 1,280 | 1,280 | 46 | 55 | 93 | 2 | 0.37 | 2.5 | 150 | 112 | 2 | DIGITAL ELECTRONIC | 1 | 66,59,57,53,49,46 | 16 | 53,48,44,38,34,30 | 18 |
| VAV G3 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV110 TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 14 | 2-WAY | 2,640 | 1,320 | 1,320 | 46.8 | 55 | 92 | 2 | 0.39 | 2.5 | 150 | 111 | 2 | DIGITAL ELECTRONIC | 1 | 66,59,57,53,49,46 | 16 | 53,48,44,38,34,30 | 18 |
| VAV G4 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV110 TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 14 | 2-WAY | 2,850 | 1,430 | 1,430 | 49.8 | 55 | 92 | 2.38 | 0.44 | 2.75 | 150 | 113 | 2 | DIGITAL ELECTRONIC | 1 | 68,60,59,54,50,47 | 19 | 55,50,46,40,35,31 | 20 |
| VAV G5 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV110 TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 06 | 2-WAY | 460 | 230 | 230 | 7 | 55 | 88 | 0.08 | 0.18 | 0.5 | 150 | 121 | 2 | DIGITAL ELECTRONIC | 1 | 65,60,55,51,45,43 | 18 | 55,50,46,39,33,29 | 20 |

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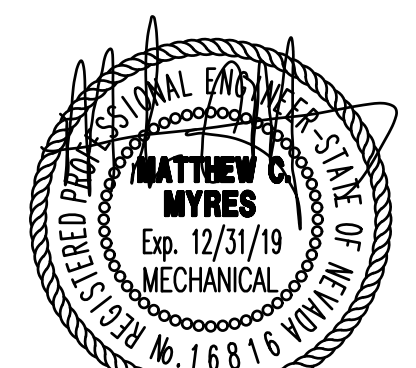


SPARKS POLICE DEPARTMENT
HVAC UPGRADE PHASE 1
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SHEET TITLE
MECHANICAL SCHEDULES

REVISIONS

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| 3 | OWNER REVISIONS (06/04/19) |



06/04/2019

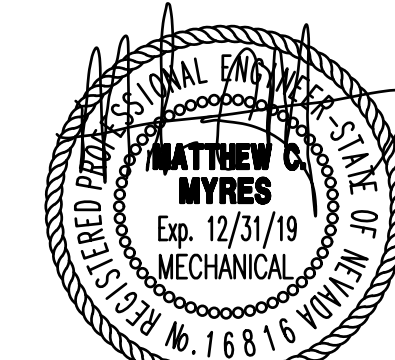
BID DOCUMENTS

DATE : MARCH 26, 2018
SHEET NUMBER :

M0.2

VAV BOX SCHEDULE

| UNIT DESIGNATION | MAKE AND MODEL NUMBER | STANDARD FEATURES AND OPTIONAL ACCESSORIES | UNIT SIZE | CONTROL VALVE TYPE | MAX AIR FLOW (CFM) @ 1.0" W.G. | MIN AIR FLOW (CFM) @ 0.03" W.G. | REHEAT AIR VOLUME (CFM) | REHEAT COIL | | | | | | | | CONTROLS | INLET STATIC (in wc) | DISCHARGE SOUND CRITERIA | | RADIATED SOUND CRITERIA | | |
|------------------|-----------------------|--|-----------|--------------------|--------------------------------|---------------------------------|-------------------------|----------------|----------|----------|---------------|---------------------|------------|----------|----------|----------|----------------------|--------------------------|------------------------------|-------------------------|------------------------------|----|
| | | | | | | | | CAPACITY (MBH) | EAT (°F) | LAT (°F) | WPD. (ft. wg) | COIL APD. (IN W.C.) | FLOW (GPM) | ELT (°F) | LWT (°F) | | | ROUN | SOUND PWR LVL. (OCTAVES 2-1) | NC | SOUND PWR LVL. (OCTAVES 2-1) | NC |
| VAV 66 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 12 | 2-WAY | 2200 | 1100 | 1100 | 40.4 | 55 | 88.5 | 1.51 | 0.53 | 2.5 | 150 | 117 | 2 | DIGITAL ELECTRONIC | 1 | 68,61,58,54,51,47 | 19 | 54,49,46,39,33,29 | 20 |
| VAV 67 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 10 | 2-WAY | 1500 | 750 | 750 | 25.5 | 55 | 91 | 0.61 | 0.48 | 1.75 | 150 | 120 | 2 | DIGITAL ELECTRONIC | 1 | 67,61,57,54,50,47 | 18 | 57,48,46,39,33,29 | 20 |
| VAV 68 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 12 | 2-WAY | 1835 | 920 | 920 | 31.4 | 55 | 91 | 0.78 | 0.4 | 1.75 | 150 | 113 | 2 | DIGITAL ELECTRONIC | 1 | 66,59,56,53,49,46 | 16 | 53,48,44,37,33,29 | 18 |
| VAV 69 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 10 | 2-WAY | 1450 | 730 | 730 | 24 | 55 | 90 | 0.46 | 0.45 | 1.5 | 150 | 117 | 2 | DIGITAL ELECTRONIC | 1 | 67,61,57,54,50,47 | 18 | 57,48,46,39,33,29 | 20 |
| VAV 60 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 10 | 2-WAY | 1165 | 580 | 580 | 20.4 | 55 | 92 | 0.4 | 0.32 | 1.25 | 150 | 117 | 2 | DIGITAL ELECTRONIC | 1 | 64,58,55,52,48,45 | N/A | 54,45,44,37,31,29 | 18 |
| VAV 61 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 10 | 2-WAY | 1270 | 640 | 640 | 21.3 | 55 | 90 | 0.4 | 0.37 | 1.25 | 150 | 115 | 2 | DIGITAL ELECTRONIC | 1 | 65,59,55,53,49,45 | 15 | 55,46,45,37,32,29 | 19 |
| VAV 61 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 12 | 3-WAY | 1800 | 900 | 900 | 31.4 | 55 | 91 | 0.78 | 0.39 | 1.75 | 150 | 113 | 2 | DIGITAL ELECTRONIC | 1 | 66,59,56,53,49,46 | 16 | 53,48,44,37,33,29 | 18 |
| VAV 62 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 08 | 2-WAY | 700 | 350 | 350 | 11.3 | 55 | 89 | 0.15 | 0.26 | 0.75 | 150 | 119 | 2 | DIGITAL ELECTRONIC | 1 | 64,58,54,51,47,43 | 16 | 56,45,44,39,34,27 | 18 |
| VAV 63 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 8 | 2-WAY | 775 | 375 | 375 | 11.7 | 55 | 88 | 0.15 | 0.3 | 0.75 | 150 | 119 | 2 | DIGITAL ELECTRONIC | 1 | 56,45,44,39,34,27 | 16 | 64,58,54,51,47,43 | 18 |
| VAV 64 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 14 | 2-WAY | 2,950 | 1,480 | 1,480 | 51.9 | 55 | 92 | 2.8 | 0.47 | 3 | 150 | 114 | 2 | DIGITAL ELECTRONIC | 1 | 68,60,59,54,50,47 | 19 | 55,55,46,40,35,31 | 20 |
| VAV 65 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 10 | 2-WAY | 1550 | 780 | 780 | 24.8 | 55 | 88.7 | 0.46 | 0.5 | 1.5 | 150 | 116 | 2 | DIGITAL ELECTRONIC | 1 | 67,61,57,54,50,47 | 18 | 57,48,46,39,33,29 | 20 |
| VAV 66 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 12 | 2-WAY | 2,225 | 1,110 | 1,110 | 35.5 | 55 | 89 | 1 | 0.54 | 2 | 150 | 114 | 2 | DIGITAL ELECTRONIC | 1 | 68,61,58,54,51,47 | 19 | 54,49,46,39,33,29 | 20 |
| VAV 67 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 06 | 2-WAY | 500 | 250 | 250 | 8.1 | 55 | 89.5 | 0.1 | 0.2 | 0.6 | 150 | 122 | 2 | DIGITAL ELECTRONIC | 1 | 66,62,55,52,46,44 | 20 | 57,52,48,41,35,29 | 22 |
| VAV 68 | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 10 | 2-WAY | 1,525 | 760 | 760 | 24.5 | 55 | 89.2 | 0.46 | 0.49 | 1.5 | 150 | 117 | 2 | DIGITAL ELECTRONIC | 1 | 67,57,57,54,50,47 | 18 | 57,48,46,39,33,29 | 20 |



06/04/2019

BID DOCUMENTS

SPARKS POLICE DEPARTMENT
HVAC UPGRADE PHASE 1
1701 EAST PRATER WAY
SPARKS, NEVADA 89434

SHEET TITLE
MECHANICAL SCHEDULES (2)

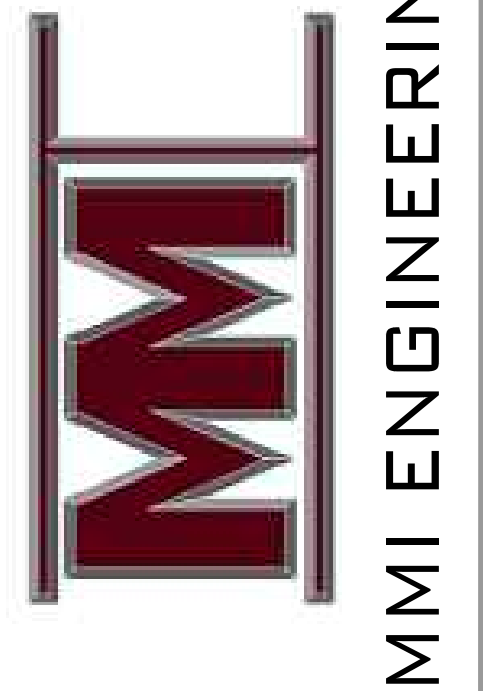
REVISIONS

| | |
|---|---------------------------------|
| 1 | PLAN REVIEW COMMENTS (04/09/18) |
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

DATE: MARCH 26, 2018
SHEET NUMBER:

M0.3

MMI ENGINEERING
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(775) 499-5784
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MMI PROJECT #2016-19



DIFFUSER and REGISTER SCHEDULE

| SYM | DESCRIPTION | MANUFACTURER and MODEL NUMBER | NECK SIZE | OBD | FINISH and MATERIAL | REMARKS |
|------|---|-------------------------------|-----------|-----|---------------------|--|
| (ES) | EXISTING CEILING MOUNTED SUPPLY DIFFUSER | N/A | VARIES | N/A | VARIES | SEE PLANS FOR REBALANCE CFM |
| (ER) | EXISTING CEILING / WALL MOUNTED RETURN GRILLE | N/A | VARIES | N/A | VARIES | N/A |
| (EE) | EXISTING CEILING EXHAUST GRILLE | N/A | VARIES | N/A | VARIES | N/A |
| 1 | CEILING MOUNTED DIFFUSER, ROUND NECK, HIGH PERFORMANCE, 4 WAY THROW | PRICE ASPD SERIES | SEE PLANS | NO | WHITE ALUMINUM | 24"x24" MODULE, COORDINATE FRAME TYPE WITH THE EXISTING CEILING CONDITIONS |
| 2 | CEILING SURFACE MOUNTED DIFFUSER, ROUND NECK, HIGH PERFORMANCE, 4 WAY THROW | PRICE SPD-31 SERIES | SEE PLANS | NO | WHITE ALUMINUM | 12"x12" MODULE, SURFACE MOUNTED FRAME TYPE |
| 3 | WALL MOUNTED SUPPLY GRILLE | PRICE 620DAL SERIES | SEE PLANS | NO | WHITE ALUMINUM | DOUBLE DEFLECTION LOUVER WITH ALUMINUM DAMPER |
| 4 | REMOVED EXHAUST GRILLE FROM SCHEDULE | | | | | |
| 5 | DUCT MOUNTED PERFORATED RETURN GRILLE | PRICE SDGER SERIES | 18" X 10" | NO | WHITE ALUMINUM | |

GENERAL MECHANICAL NOTES

- DUE TO THE SMALL SCALE OF THE DRAWINGS, IT IS IMPOSSIBLE TO SHOW ALL REQUIRED OFFSETS, ELEVATIONS, ETC., IT IS THEREFORE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE REQUIRED, ROUTING, ELEVATION, AND PLACEMENT OF EQUIPMENT AND PROVIDE REQUIRED OFFSETS INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS AND THE SPECIFICATIONS TO MEET THE INTENT OF THE DESIGN.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE CUTTING, SAUCUTTING OPENINGS OF WALLS, CEILINGS, SOFFITS AS REQUIRED FOR THE INSTALLATION OF EQUIPMENT AND DUCTWORK AS REQUIRED.
- ALL DUCTWORK IN CONCEALED AREAS SHALL HAVE 1 1/2" FIBERGLASS BLANKET INSULATION w/ ALL-SERVICE JACKET MANUFACTURED FROM KRAFT PAPER, REINFORCING SCRM, ALUMINUM FOIL, AND VINYL FILM. INSULATION SHALL HAVE A MOLD, HUMIDITY, AND EROSION RESISTANT SURFACE THAT COMPLIES w/ THE CURRENT MECHANICAL CODE AND ASTM C553, TYPE II. INSULATION APPLIED TO THE EXTERIOR OF ANY DUCTS SHALL HAVE A FLAME SPREAD RATING THAT IS IN ACCORDANCE WITH NFPA 255, ASTM E84 OR UL T23, THE MATERIALS USED SHALL HAVE A FLAME-SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED RATING OF NOT MORE THAN 50.
- ALL FACTORY PRODUCED AIR DUCT SHALL BE RATED FOR THE LISTED PRESSURES AND IN ACCORDANCE WITH THE ADOPTED MECHANICAL CODE. ALL DUCTWORK CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS AND REQUIREMENTS OF THE DUCT MANUAL AND SHEET METAL CONSTRUCTION FOR VENTILATING-AIR CONDITIONING SYSTEMS, LATEST EDITION, AS ISSUED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION, INC. (SMACNA). LOW PRESSURE ROUND DUCTS SHALL BE UNITED SHEET METAL SPIRAL UNIRIB DUCT WITH UNITED UNWELDED FITTINGS. MATERIALS SHALL BE GALVANIZED STEEL OF GAUGES SHOWN IN THE LOW PRESSURE MANUAL UNLESS SPECIFICALLY NOTED OTHERWISE ON PLANS.
- THE CONTRACTOR SHALL KEEP INSTALLATION INSTRUCTIONS FOR ALL LISTED EQUIPMENT ON THIS PROJECT AT THE JOBSITE AND SHALL HAVE THEM ACCESSIBLE FOR THE FIELD INSPECTOR UPON REQUEST.
- INTERIOR CONDENSER WATER PIPING SHALL BE INSULATED WITH FIBERGLASS PIPE INSULATION WITH ALL SERVICE JACKET. 1" THICK ON PIPES SIZES UP TO AND INCLUDING 1 1/2". 1 1/2" THICK ON PIPE SIZES OVER 1 1/2". JACKET SHALL HAVE A SELF SEALING LAP AND A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS. INSULATE FITTINGS WITH PVC PRE-MOLDED INSULATED COVERS USING VAPOR BARRIER MASTIC AND TAPE. INSULATE ENTIRE SYSTEM INCLUDING VALVES, FLANGES, UNIONS, STRAINERS, FLEXIBLE CONNECTIONS, AND EXPANSION JOINTS.
- INTERIOR HOT WATER PIPING SHALL BE INSULATED WITH FIBERGLASS PIPE INSULATION WITH ALL SERVICE JACKET. 1 1/2" THICK ON PIPES SIZES UP TO AND INCLUDING 1 1/4". 2" THICK ON PIPE SIZES OVER 1 1/4". JACKET SHALL HAVE A SELF SEALING LAP AND A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS. INSULATE FITTINGS WITH PVC PRE-MOLDED INSULATED COVERS USING VAPOR BARRIER MASTIC AND TAPE. INSULATE FLANGES AND UNIONS.
- EXTERIOR HYDRONIC PIPING SHALL BE INSULATED WITH 1 1/2" THICK POLYISOCYANURATE FOAM PIPE INSULATION WITH ALUMINUM JACKET.
- CONTRACTOR TO REMOVE AND REPLACE SHEETROCK IN DESIGNATED LOCATIONS WHERE NECESSARY FOR VAV UNIT REPLACEMENTS PER CODE.

VAV BOX SCHEDULE

| UNIT DESIGNATION | MAKE AND MODEL NUMBER | STANDARD FEATURES AND OPTIONAL ACCESSORIES | UNIT SIZE | CONTROL VALVE TYPE | MAX AIR FLOW (CFM) @ 1.0" W.G. | MIN AIR FLOW (CFM) @ 0.03" W.G. | REHEAT AIR VOLUME (CFM) | REHEAT COIL | | | | | | | CONTROLS | INLET STATIC (in wc) | DISCHARGE SOUND CRITERIA | | RADIATED SOUND CRITERIA | | | |
|------------------|-----------------------|--|-----------|--------------------|--------------------------------|---------------------------------|-------------------------|----------------|----------|----------|----------------|---------------------|------------|----------|----------|----------------------|--------------------------|------|-------------------------------|-----|-------------------------------|----|
| | | | | | | | | CAPACITY (MBH) | EAT (°F) | LAT (°F) | LIPD. (ft. wg) | COIL APD. (IN W.C.) | FLOW (GPM) | EWT (°F) | | | LWT (°F) | ROWS | SOUND PWR. LVL. (OCTAVES 2-7) | NC | SOUND PWR. LVL. (OCTAVES 2-7) | NC |
| (VAV 59) | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 08 | 2-WAY | 1000 | 500 | 500 | 15 | 55 | 81 | 0.23 | 0.46 | 1 | 150 | 119 | 2 | DIGITAL ELECTRONIC | 1 | 70,63,57,54,50,46 | 21 | 60,52,48,42,37,30 | 22 |
| (VAV 60) | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 10 | 2-WAY | 1410 | 710 | 710 | 23.8 | 55 | 90 | 0.46 | 0.43 | 1.5 | 150 | 117 | 2 | DIGITAL ELECTRONIC | 1 | 67,61,57,54,50,47 | 18 | 57,48,46,39,33,29 | 20 |
| (VAV 61) | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 12 | 2-WAY | 2,125 | 1,050 | 1,050 | 30.1 | 55 | 86 | 0.2 | 0.5 | 2 | 150 | 119 | 2 | DIGITAL ELECTRONIC | 1 | 66,59,57,53,49,46 | 16 | 53,48,44,38,34,30 | 18 |
| (VAV 62) | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 10 | 2-WAY | 1,180 | 590 | 590 | 20.6 | 55 | 92 | 0.4 | 0.33 | 1.25 | 150 | 116 | 2 | DIGITAL ELECTRONIC | 1 | 64,58,55,52,48,45 | N/A | 54,45,44,37,31,29 | 18 |
| (VAV 63) | ENVIRO-TEC SDR | MULTI-POINT AVERAGING VELOCITY SENSOR, 1/2" THICK FIBERGLASS INSULATION, 22 GAUGE UNIT CASING, NEMA 1 WIRING ENCLOSURE, UL 21TV/1# TRANSFORMER, HOT WATER REHEAT COIL, MODULATING CONTROL VALVE PACKAGE INCLUDING ISOLATION BALL VALVES, UNIONS, AND P/T PORTS | 08 | 2-WAY | 625 | 300 | 300 | 9.5 | 55 | 89 | 0.04 | 0.21 | 1 | 150 | 131 | 2 | DIGITAL ELECTRONIC | 1 | 54,44,43,38,33,26 | 15 | 62,57,52,50,46,42 | 16 |

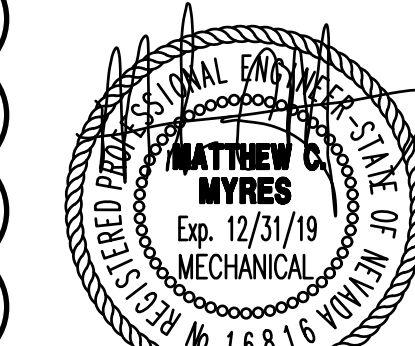
2 REMOVED EXHAUST FAN SCHEDULE

FLUID COOLER SCHEDULE

| SYM | DESCRIPTION | MAKE & MODEL NO. | CAPACITY | FLOW (GPM) | HP / KW | ELEC. | DRY WT. |
|---------|--|------------------------|--|---------------------------------|------------------|------------------|---------|
| (FC 12) | AIR COOLED, DIRECT DRIVE DRY COOLER, 30% PROPYLENE GLYCOL SOLUTION | LIEBERT MODEL# DD00139 | VERIFIED BY MANUFACTURER TO BE COMPATIBLE WITH (E) LIEBERT (AC-1) AND (E) LIEBERT (AC-2) SERVER ROOM UNITS | (E) AC-1: 9.9 (E) AC-2: 20.8 | (2) 3/4 HP PUMPS | 460V/3P, 1.6 FLA | 500 LBS |
| (FC 3) | AIR COOLED, DIRECT DRIVE DRY COOLER, 30% PROPYLENE GLYCOL SOLUTION | LIEBERT MODEL# DD00114 | VERIFIED BY MANUFACTURER TO BE COMPATIBLE WITH LIEBERT (AC-3) SERVER ROOM UNITS | AC-3: 13.0 | (2) 3/4 HP PUMPS | 460V/3P, 1.6 FLA | 540 LBS |

SERVER ROOM UNIT

| SYM | DESCRIPTION | MAKE & MODEL NO. | CAPACITY | FLOW (GPM) | EWT (°F) | FLUID | ELEC. | WT. | OPTIONS | NOTES |
|--------|---|--------------------------------|---|--------------------|----------|----------------------|-------------------|---------|---|--|
| (AC 3) | WATER COOLED COMPUTER ROOM COOLING SYSTEM | LIEBERT MODEL# CR020RQJ1ATV824 | TOTAL: 65,200 BTUH SENSIBLE: 64,900 BTUH | 13.0 @ 24.0 W.P.D. | 104.4 | 30% PROPYLENE-GLYCOL | 460V/3P, 32.2 FLA | 112 LBS | DUAL-FLOAT CONDENSATE PUMP, HUMIDIFIER, ELECTRIC REHEAT | DRAIN CONDENSATE TO (E) FLOOR DRAIN LOCATED BELOW RAISED FLOOR IN COMPUTER EQUIPMENT-124 |



06/04/2019

BID DOCUMENTS

SPARKS POLICE DEPARTMENT
HVAC UPGRADE PHASE 1
1701 EAST PRATER WAY
SPARKS, NEVADA 89434

SHEET TITLE
MECHANICAL SCHEDULES (3)

REVISIONS

| | |
|---|---------------------------------|
| 1 | PLAN REVIEW COMMENTS (04/09/18) |
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

DATE: MARCH 26, 2018
SHEET NUMBER:

M0.4

MMI ENGINEERING
385 GENTRY WAY
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MMI PROJECT #2016-19



MMI ENGINEERING

COMcheck Software Version 4.0.8.1 Mechanical Compliance Certificate

Project Information

Energy Code: 2012 IECC
Project Title: Spark Police Department HVAC Upgrade - Phase 1
Location: Sparks, Nevada
Climate Zone: 5b
Project Type: Alteration

Construction Site: 1701 East Prater Way Sparks, NV 89434
Owner/Agent: Jon A. Erickson, P.E., P.T.O.E., Ct of Sparks
Designer/Contractor: Matt Myres, P.E., MMI Engineering
385 Gentry Way Reno, NV 89502
(775) 499-5784
matt@mmie-designer.com

Mechanical Systems List

Quantity System Type & Description

| Quantity | System Type & Description |
|----------|---|
| 1 | VAV-B1 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 28 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-B2 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 5 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-B3 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 43 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-B4 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 51 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-B5 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 23 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-B6 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 16 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-B7 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 21 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-B8 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 15 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |

Project Title: Spark Police Department HVAC Upgrade - Phase 1 Report date: 03/23/18
Data filename: J:\MMI Engineering\PROJECTS\2016-19 Sparks PD HVAC Upgrade Phase 1\Cals\ComCheck\Mec Page 1 of 32 Check.cck

Quantity System Type & Description

| Quantity | System Type & Description |
|----------|--|
| 1 | VAV-B9 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 11 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-G1 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 11 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-Q2 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 46 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-G3 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 46 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-G4 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 49 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-G5 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 7 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-G6 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 40 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-G7 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 25 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-G8 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 31 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-G9 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 24 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-G10 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 20 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-G11 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 21 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-S1 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 31 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |

Project Title: Spark Police Department HVAC Upgrade - Phase 1 Report date: 03/23/18
Data filename: J:\MMI Engineering\PROJECTS\2016-19 Sparks PD HVAC Upgrade Phase 1\Cals\ComCheck\Mec Page 2 of 32 Check.cck

Quantity System Type & Description

| Quantity | System Type & Description |
|----------|--|
| 1 | VAV-S2 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 11 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-S3 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 11 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-S4 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 51 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-S5 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 24 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-S6 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 35 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-S7 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 8 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-S8 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 24 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-S9 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 15 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-S10 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 23 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-S11 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 30 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-S12 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 20 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | VAV-S13 (Single Zone): Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 9 kBtu/h. No minimum efficiency requirement applies. Fan System: None. |
| 1 | FC-1 (Single Zone): Cooling: 1 each - Other, Capacity = 260 kBtu/h, Air-Cooled Condenser, Air Economizer. No minimum efficiency requirement applies. Fan System: None. |

Project Title: Spark Police Department HVAC Upgrade - Phase 1 Report date: 03/23/18
Data filename: J:\MMI Engineering\PROJECTS\2016-19 Sparks PD HVAC Upgrade Phase 1\Cals\ComCheck\Mec Page 3 of 32 Check.cck

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed mechanical systems have been designed to meet the 2012 IECC requirements in COMcheck Version 4.0.8.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Matthew C. Myres P.E. Signature Date: 3/27/18

Project Title: Spark Police Department HVAC Upgrade - Phase 1 Report date: 03/23/18
Data filename: J:\MMI Engineering\PROJECTS\2016-19 Sparks PD HVAC Upgrade Phase 1\Cals\ComCheck\Mec Page 4 of 32 Check.cck

COMcheck Software Version 4.0.8.1 Inspection Checklist

Energy Code: 2012 IECC

Requirements: 0.0% were addressed directly in the COMcheck software. Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

| Section # & Req. ID | Plan Note/Rev | Complies? | Comments/Assumptions |
|---------------------|---|---|----------------------|
| C403.2.4 (ME59) | Plants, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |

Additional Comments/Assumptions:

1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3)

Project Title: Spark Police Department HVAC Upgrade - Phase 1 Report date: 03/23/18
Data filename: J:\MMI Engineering\PROJECTS\2016-19 Sparks PD HVAC Upgrade Phase 1\Cals\ComCheck\Mec Page 5 of 32 Check.cck

| Section # & Req. ID | Mechanical Rough-In Inspection | Complies? | Comments/Assumptions |
|---------------------|--|---|----------------------|
| C403.2.4 (ME59) | Freeze protection and snow/ice melting system sensors for future connection to controls. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |

Additional Comments/Assumptions:

1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3)

Project Title: Spark Police Department HVAC Upgrade - Phase 1 Report date: 03/23/18
Data filename: J:\MMI Engineering\PROJECTS\2016-19 Sparks PD HVAC Upgrade Phase 1\Cals\ComCheck\Mec Page 6 of 32 Check.cck

| Section # & Req. ID | Mechanical Rough-In Inspection | Complies? | Comments/Assumptions |
|---------------------|--|---|---|
| C403.2.5 (ME59) | HVAC equipment efficiency verified. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | See the Mechanical Systems list for values. |
| C403.2.5 (ME59) | Demand control ventilation provided for spaces >500 sq. ft. and >25 people/1000 sq. ft. occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |

| Section # & Req. ID | Mechanical Rough-In Inspection | Complies? | Comments/Assumptions |
|---------------------|---|---|----------------------|
| C403.2.7 (ME60) | HVAC ducts and plenums insulated. Where ducts or plenums are installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |

1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3)

Project Title: Spark Police Department HVAC Upgrade - Phase 1 Report date: 03/23/18
Data filename: J:\MMI Engineering\PROJECTS\2016-19 Sparks PD HVAC Upgrade Phase 1\Cals\ComCheck\Mec Page 7 of 32 Check.cck

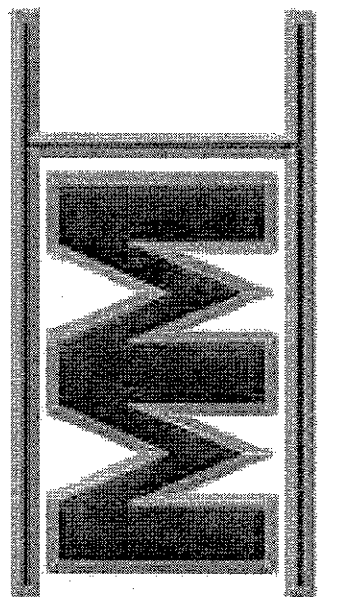
| Section # & Req. ID | Mechanical Rough-In Inspection | Complies? | Comments/Assumptions |
|---------------------|--|---|----------------------|
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |

| | | | |
|-----------------|--|---|--|
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| C403.2.8 (ME61) | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |

1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3)

Project Title: Spark Police Department HVAC Upgrade - Phase 1 Report date: 03/23/18
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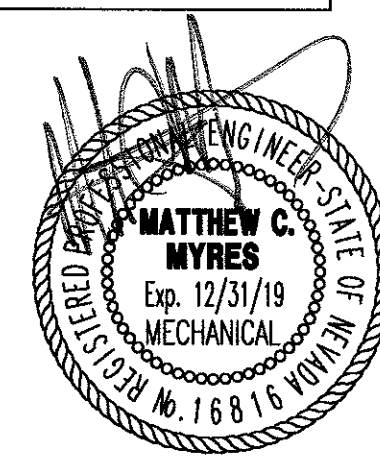
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SHEET TITLE

MECHANICAL COMPLIANCE
CERTIFICATE

REVISIONS



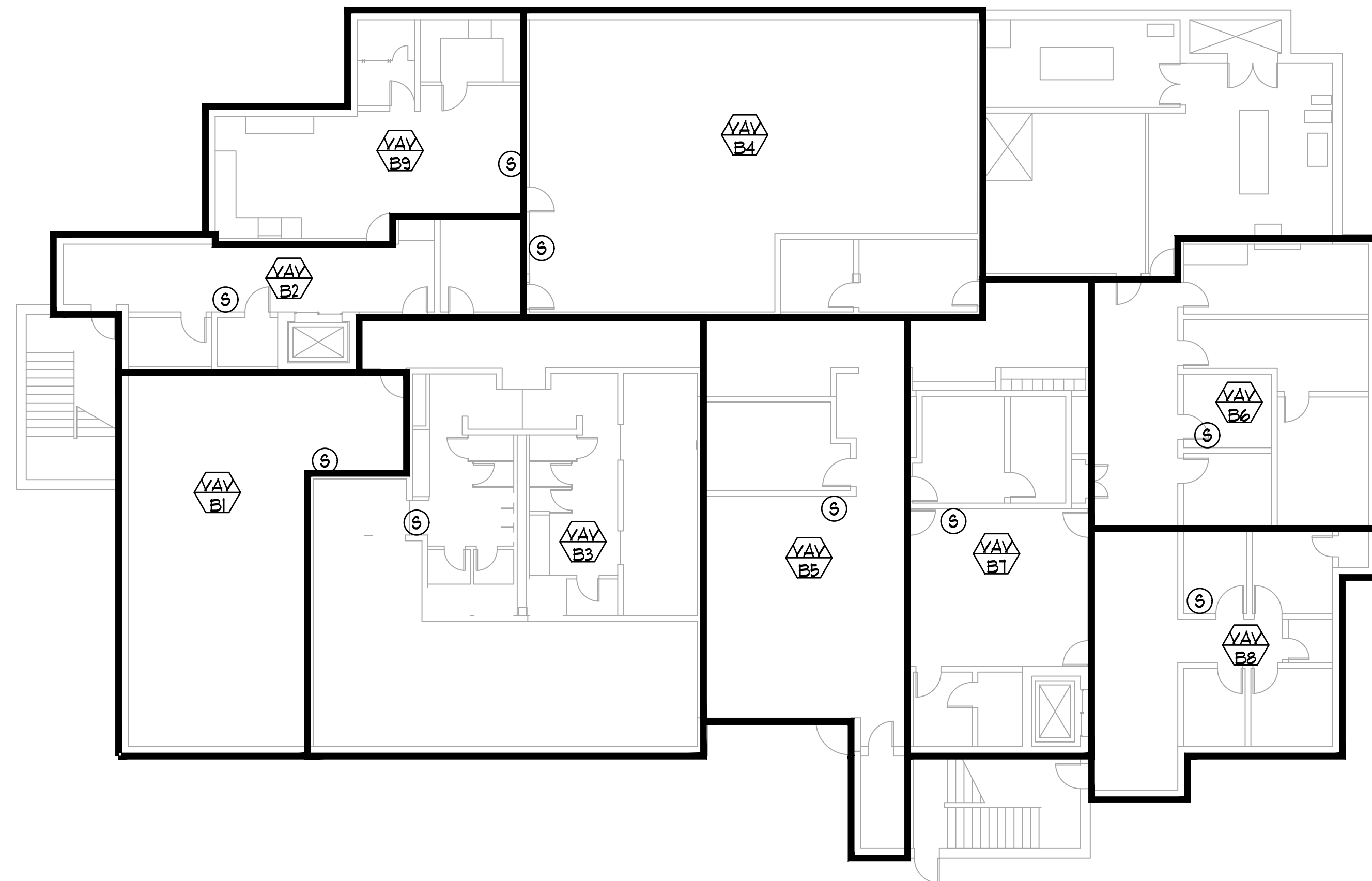
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SHEET NUMBER:

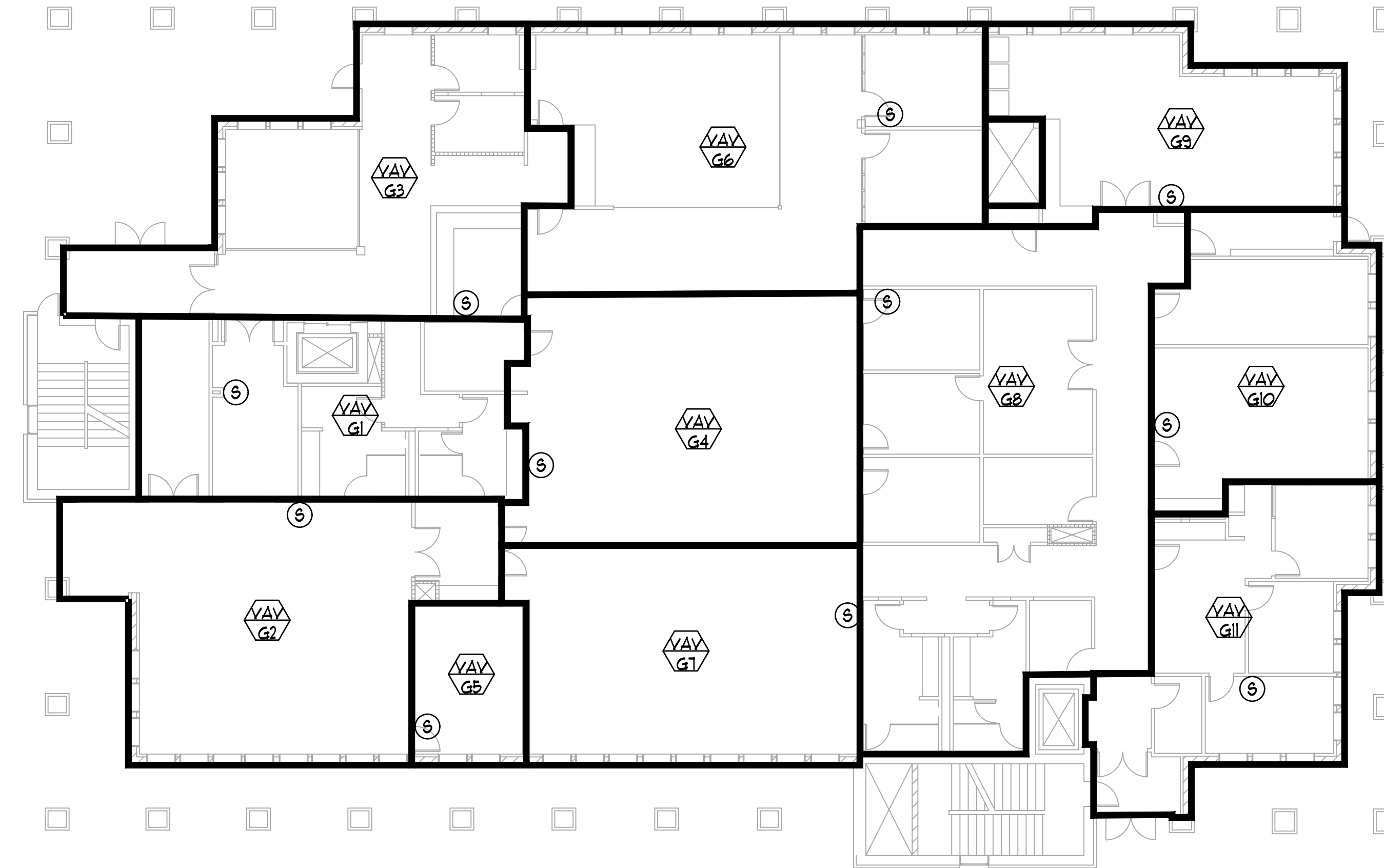
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3/26/2018

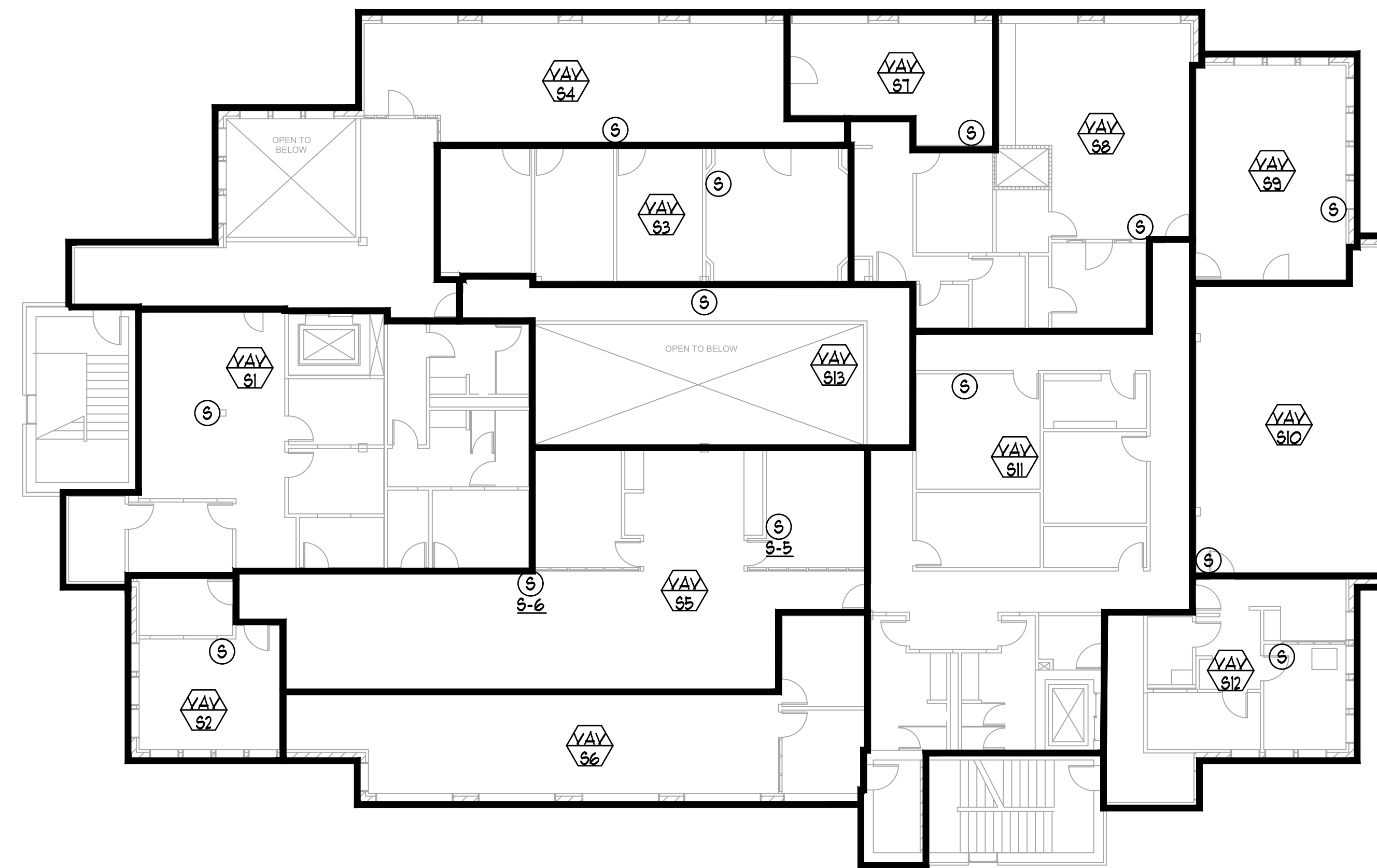
BID DOCUMENTS



1 MECHANICAL ZONE PLAN - BASEMENT
MO.9 SCALE: NONE



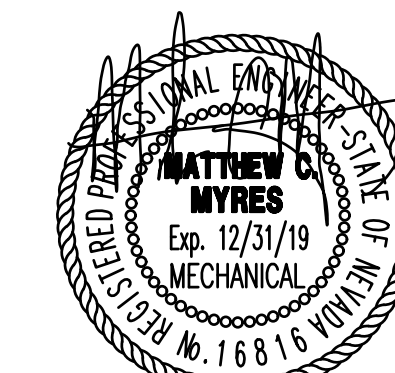
2 MECHANICAL ZONE PLAN - FIRST FLOOR
MO.9 SCALE: NONE



3 MECHANICAL ZONE PLAN - SECOND FLOOR
MO.9 SCALE: NONE

GENERAL NOTE:

1. ALL (E) ROOM TEMPERATURE SENSORS ARE TO REMAIN AND ARE TO BE CONNECTED TO (N) VAV'S. SEE CONTROL DRAWINGS FOR MORE INFORMATION.



06/04/2019

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SHEET TITLE
MECHANICAL ZONE PLAN

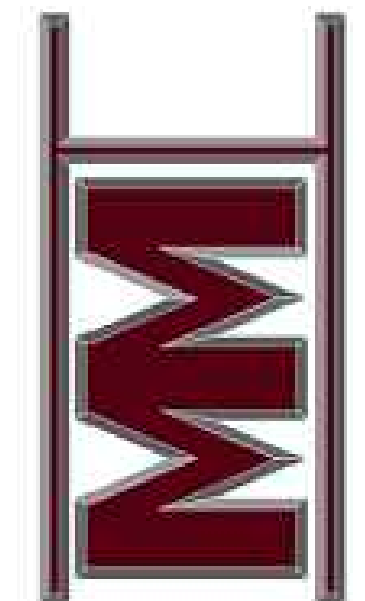
REVISIONS

| | |
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| 1 | PLAN REVIEW COMMENTS (04/09/18) |
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

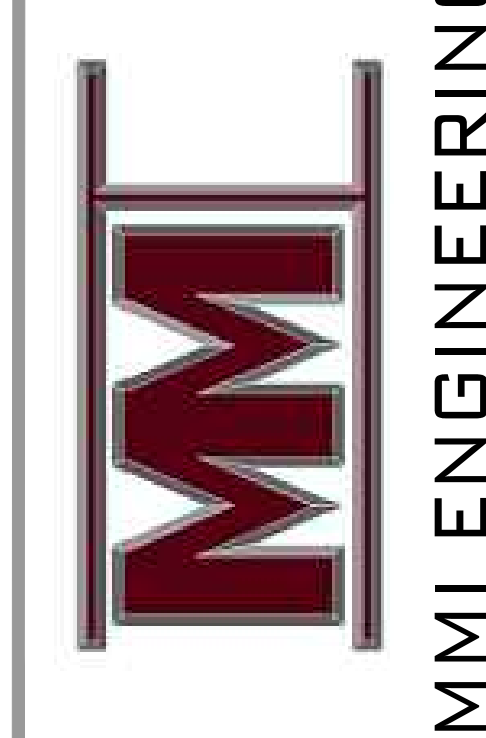
DATE : MARCH 26, 2018
SHEET NUMBER :

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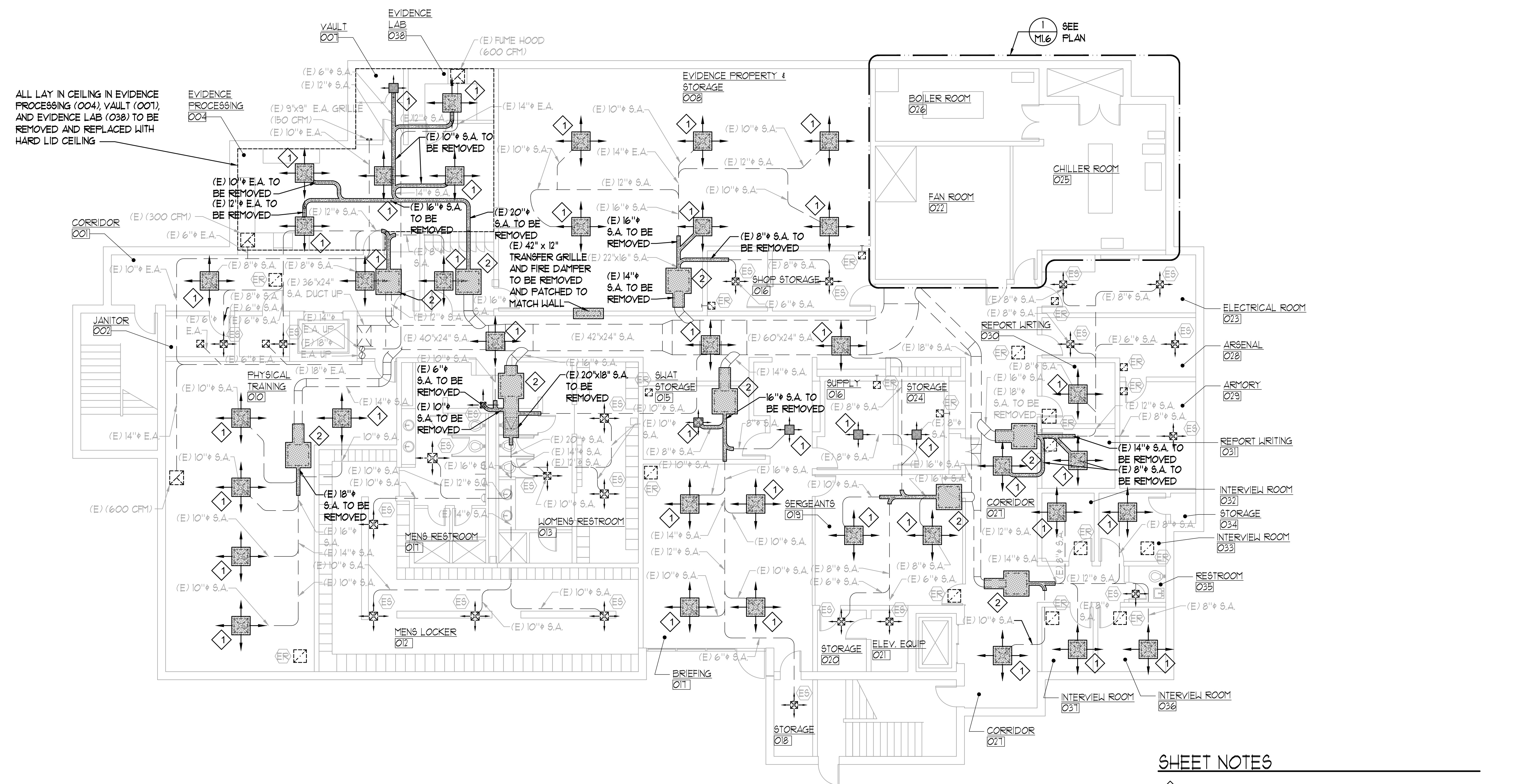
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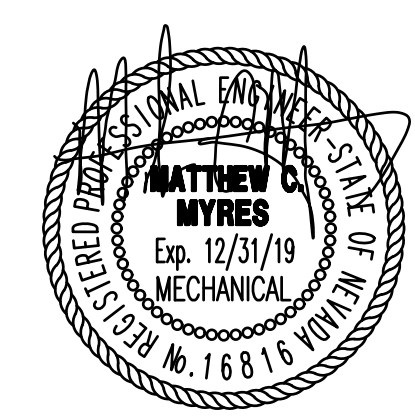
1 MECHANICAL DEMOLITION FLOOR PLAN - BASEMENT
 SCALE: 1/8" = 1'-0"

- SHEET NOTES**
- 1 SUPPLY AIR DIFFUSERS AND ASSOCIATED FLEX DUCTWORK TO BE REMOVED
 - 2 FAN POWER TERMINAL UNIT AND ASSOCIATED 3-WAY CONTROL VALVE PIPING PACKAGE TO BE REMOVED. ALERTON CONTROLLER TO BE REMOVED AND SAVED FOR REINSTALLATION ON NEW EQUIPMENT. PREP DUCTWORK FOR CONNECTION TO NEW EQUIPMENT.

SHEET TITLE
 MECHANICAL DEMOLITION
 FLOOR PLAN - BASEMENT

REVISIONS

| | |
|---|---------------------------------|
| 1 | PLAN REVIEW COMMENTS (04/09/18) |
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

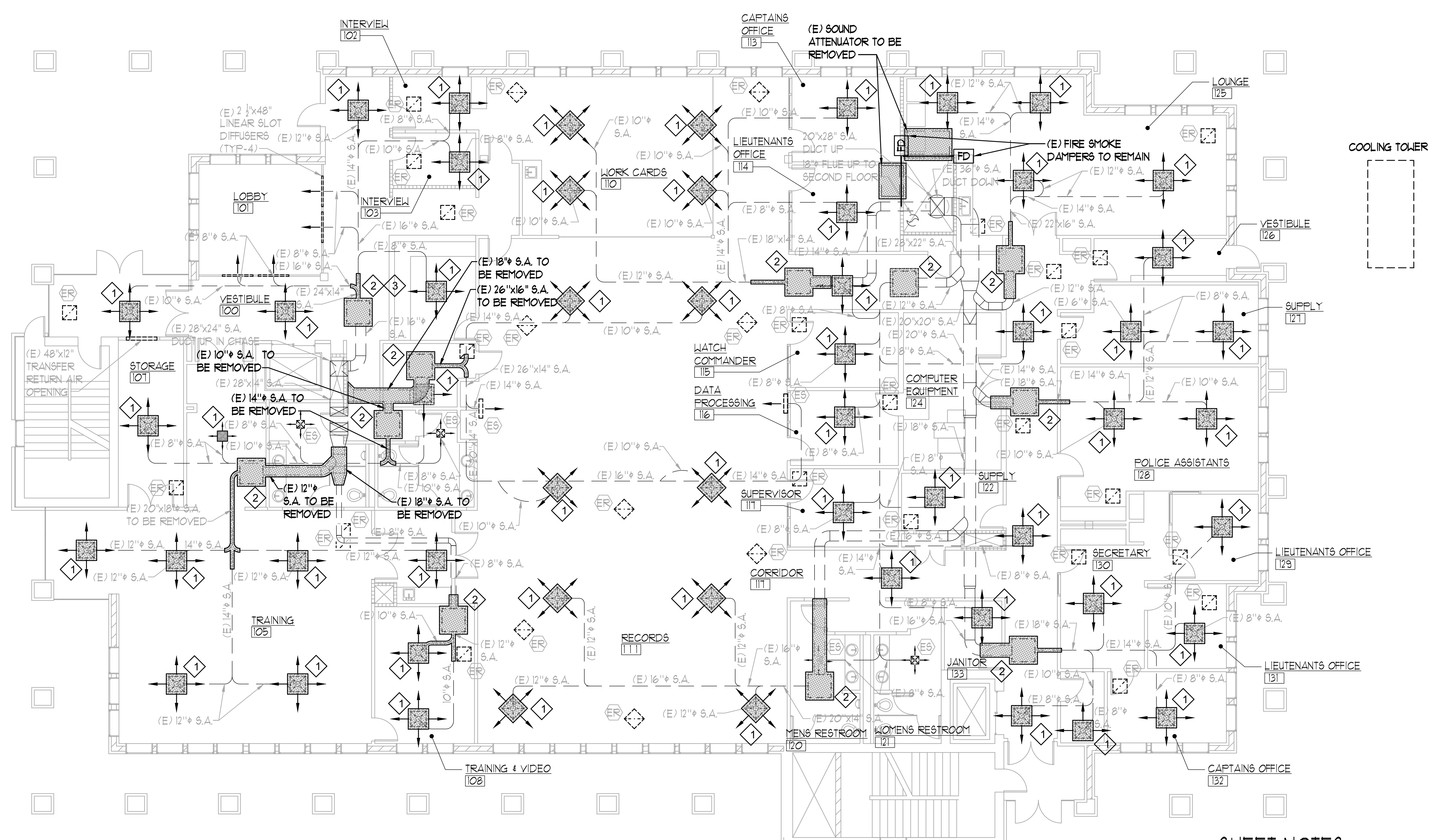


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DATE : MARCH 26, 2018
SHEET NUMBER :

M1.0



1 MECHANICAL DEMOLITION FLOOR PLAN - GROUND FLOOR
 M1.1 SCALE: 1/8" = 1'-0"

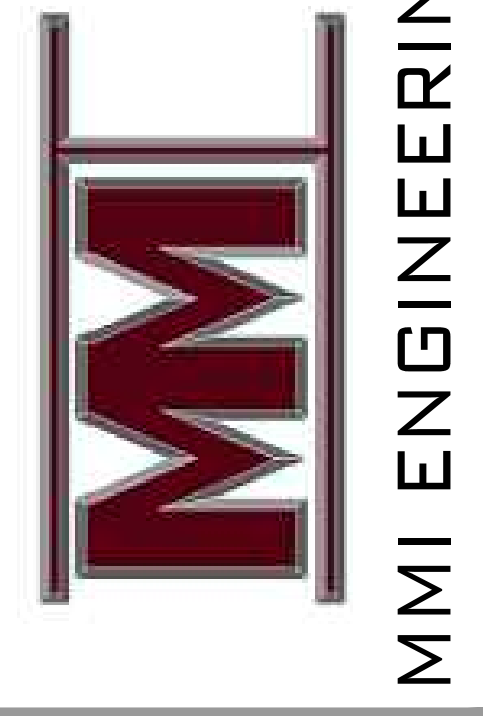
- SHEET NOTES**
- 1 SUPPLY AIR DIFFUSERS AND ASSOCIATED FLEX DUCTWORK TO BE REMOVED
 - 2 FAN POWER TERMINAL UNIT AND ASSOCIATED 3-WAY CONTROL VALVE PIPING PACKAGE TO BE REMOVED. ALERTON CONTROLLER TO BE REMOVED AND SAVED FOR REINSTALLATION ON NEW EQUIPMENT. PREP DUCTWORK FOR CONNECTION TO NEW EQUIPMENT.
 - 3 UNABLE TO VERIFY EXACT LOCATION OF THIS FAN POWER TERMINAL UNIT. CONTRACTOR TO VERIFY LOCATION AND COORDINATION REMOVAL WITH THE ENGINEER.



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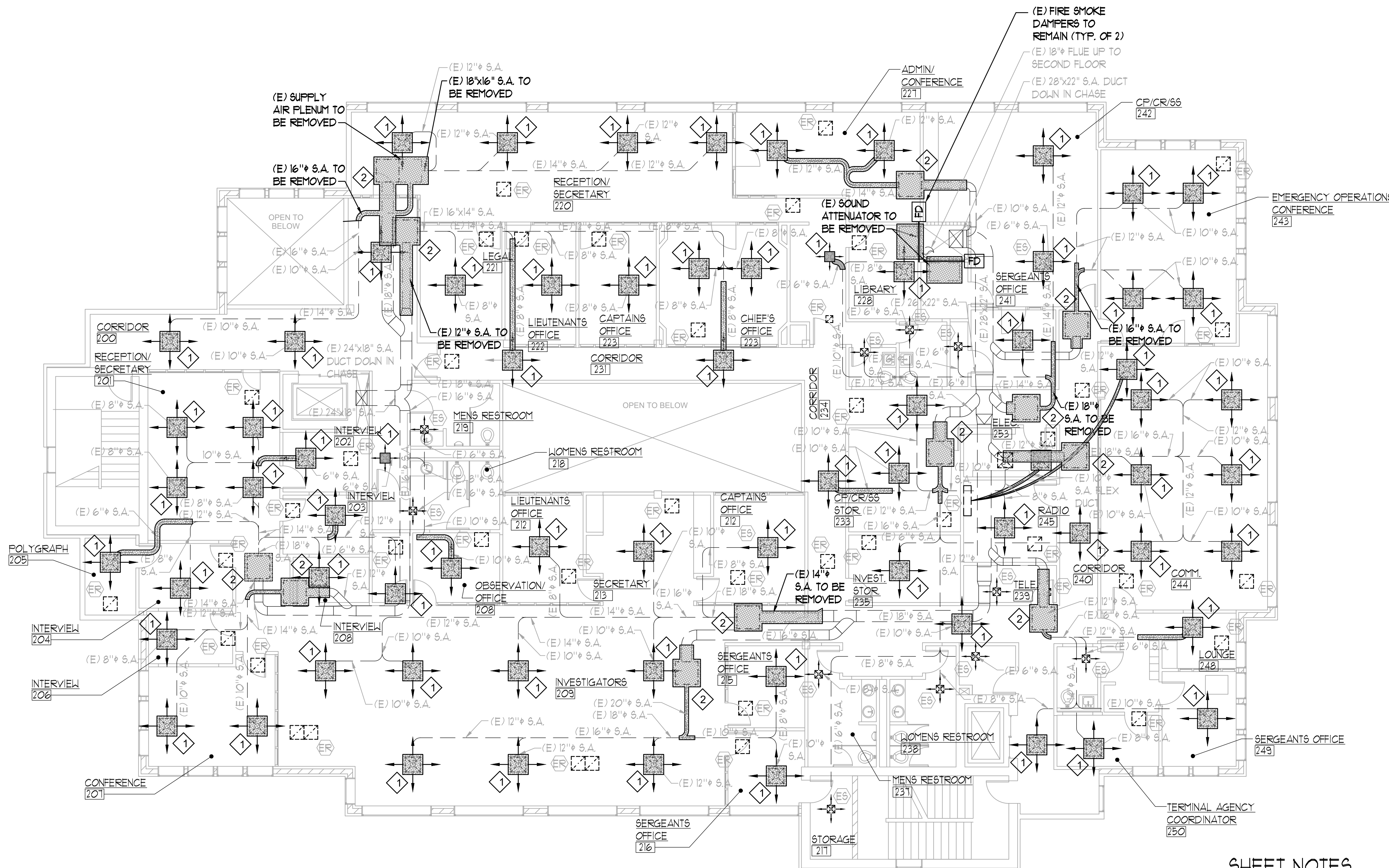
SHEET TITLE
 MECHANICAL DEMOLITION
 FLOOR PLAN - GROUND
 FLOOR

REVISIONS

| | |
|---|---------------------------------|
| 1 | PLAN REVIEW COMMENTS (04/09/18) |
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

DATE : MARCH 26, 2018
 SHEET NUMBER :

M1.1

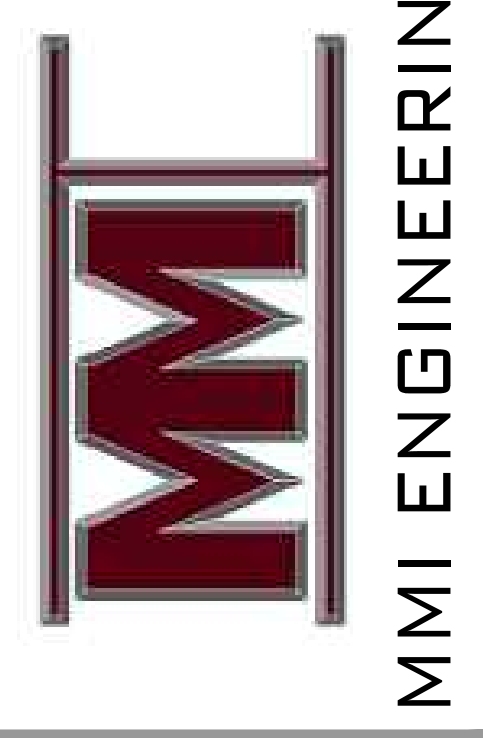


SHEET NOTES

- 1 SUPPLY AIR DIFFUSERS AND ASSOCIATED FLEX DUCTWORK TO BE REMOVED
- 2 FAN POWER TERMINAL UNIT AND ASSOCIATED 3-WAY CONTROL VALVE PIPING PACKAGE TO BE REMOVED. ALERTON CONTROLLER TO BE REMOVED AND SAVED FOR REINSTALLATION ON NEW EQUIPMENT. PREP DUCTWORK FOR CONNECTION TO NEW EQUIPMENT.

1 MECHANICAL DEMOLITION FLOOR PLAN - SECOND FLOOR
 M1.2 SCALE: 1/8" = 1'-0"

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SHEET TITLE
 MECHANICAL DEMOLITION
 FLOOR PLAN - SECOND
 FLOOR

REVISIONS

| | |
|---|---------------------------------|
| 1 | PLAN REVIEW COMMENTS (04/09/18) |
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

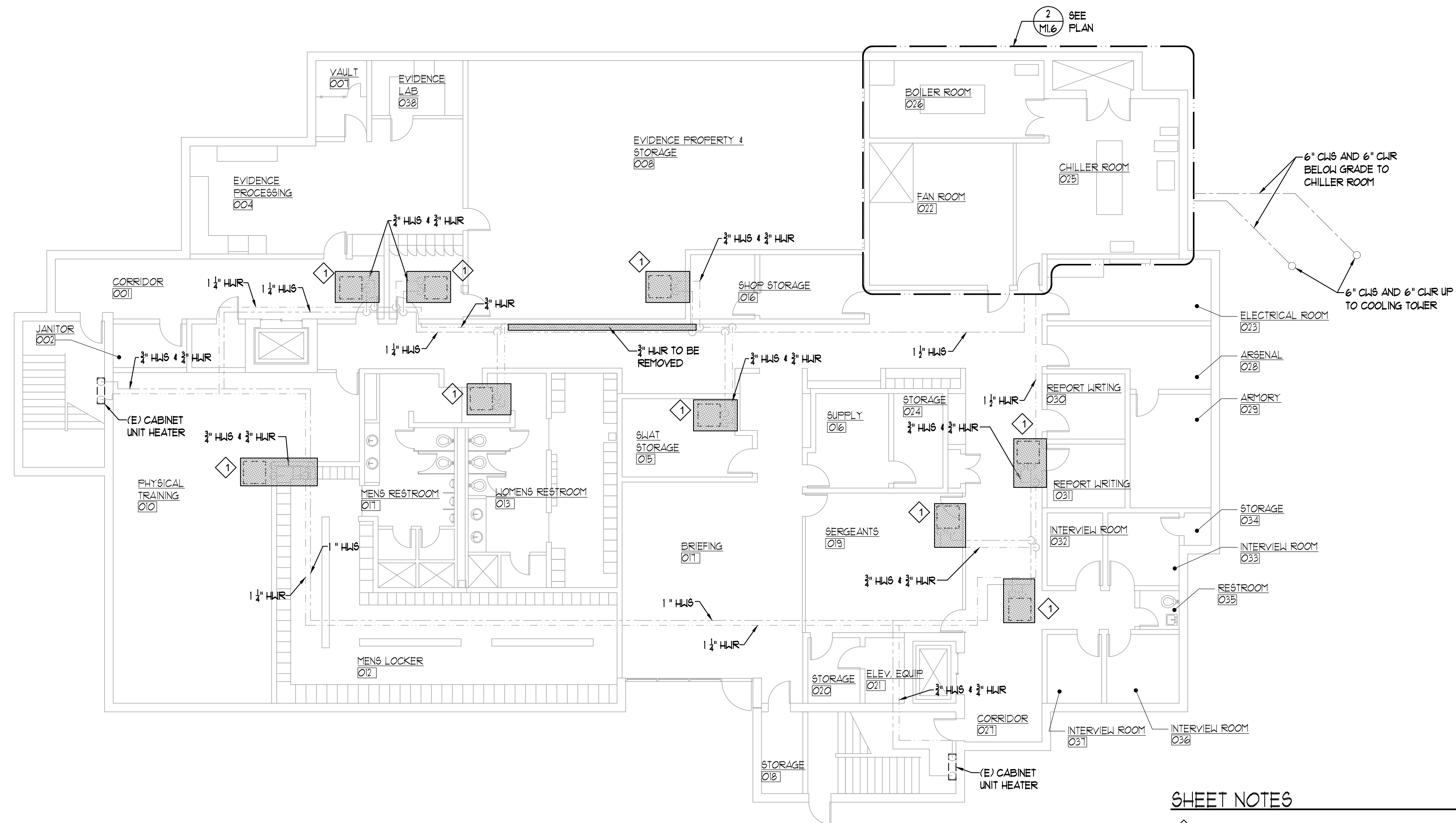


DATE: MARCH 26, 2018
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M1.2

06/04/2019

BID DOCUMENTS

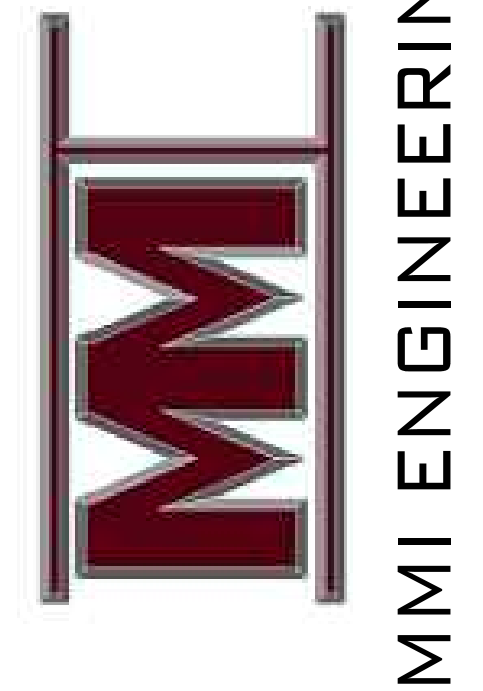


SHEET NOTES

- 1 FAN PULVER TERMINAL UNIT AND ASSOCIATED 3-WAY CONTROL VALVE PIPING PACKAGE TO BE REMOVED. ALERTON CONTROLLER TO BE REMOVED AND SAVED FOR REINSTALLATION ON NEW EQUIPMENT. PREP PIPING FOR CONNECTION TO NEW EQUIPMENT.

1 MECHANICAL PIPING DEMOLITION FLOOR PLAN - BASEMENT
 M1.3 SCALE: 1/8" = 1'-0"

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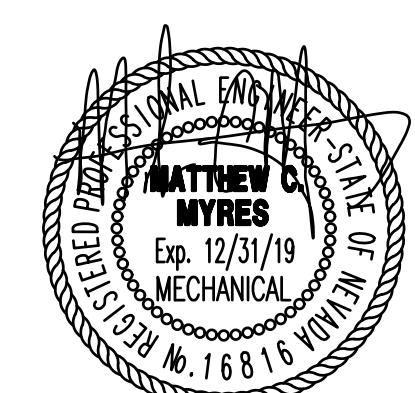


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SHEET TITLE
 MECHANICAL PIPING
 DEMOLITION FLOOR PLAN
 - BASEMENT

REVISIONS

| | |
|---|---------------------------------|
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| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

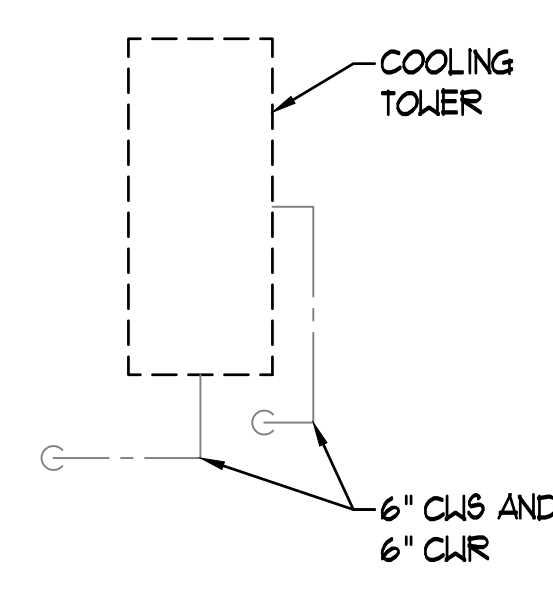
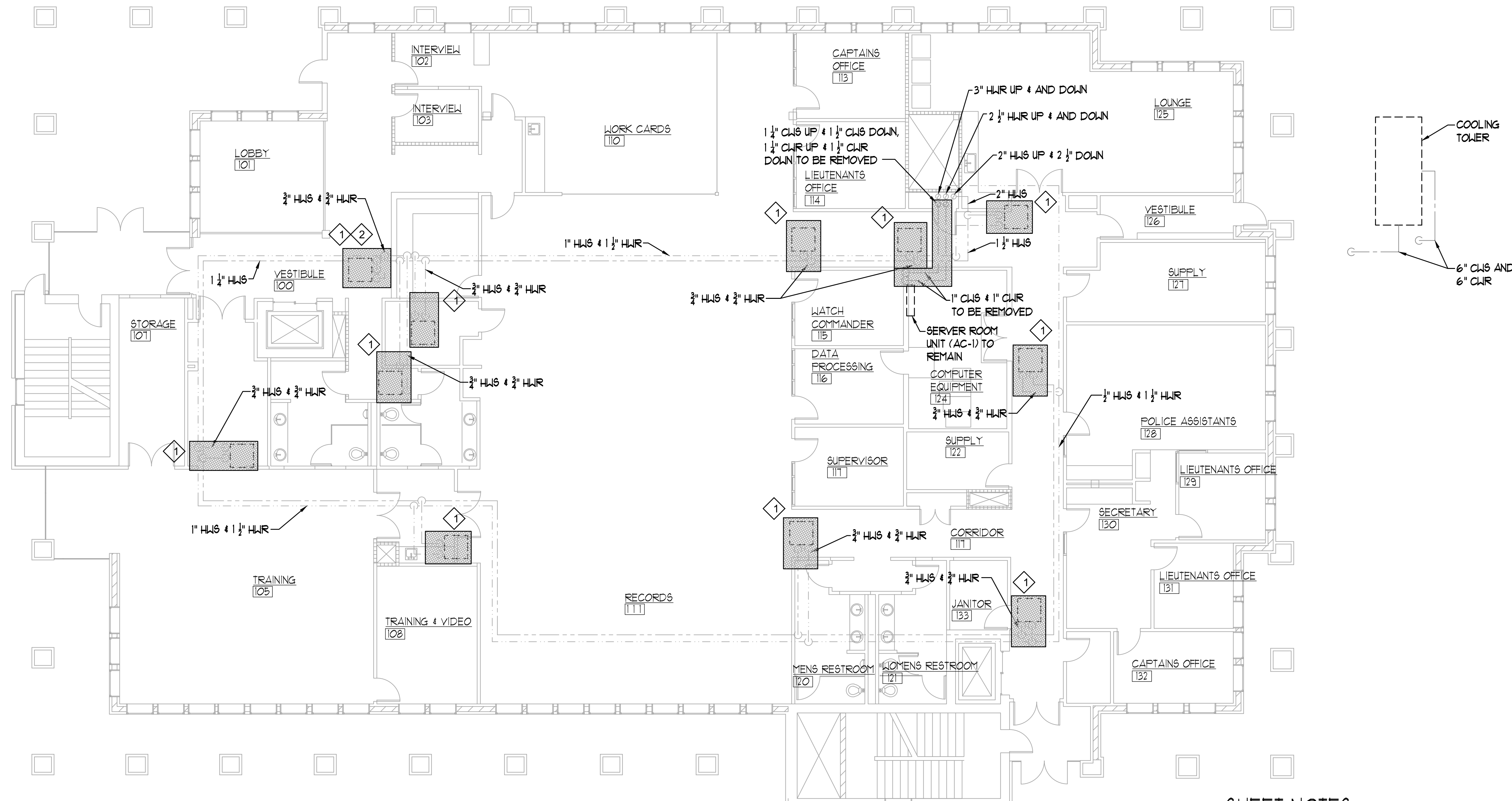


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BID DOCUMENTS

DATE: MARCH 26, 2018
 SHEET NUMBER:

M1.3



- SHEET NOTES**
- ① FAN POWER TERMINAL UNIT AND ASSOCIATED 3-WAY CONTROL VALVE PIPING PACKAGE TO BE REMOVED. ALERTON CONTROLLER TO BE REMOVED AND SAVED FOR REINSTALLATION ON NEW EQUIPMENT. PREP PIPING FOR CONNECTION TO NEW EQUIPMENT.
 - ② UNABLE TO VERIFY EXACT LOCATION OF THIS FAN POWER TERMINAL UNIT. CONTRACTOR TO VERIFY LOCATION AND COORDINATION REMOVAL WITH THE ENGINEER.

① MECHANICAL PIPING DEMOLITION FLOOR PLAN - GROUND FLOOR
 M1.4 SCALE: 1/8" = 1'-0"



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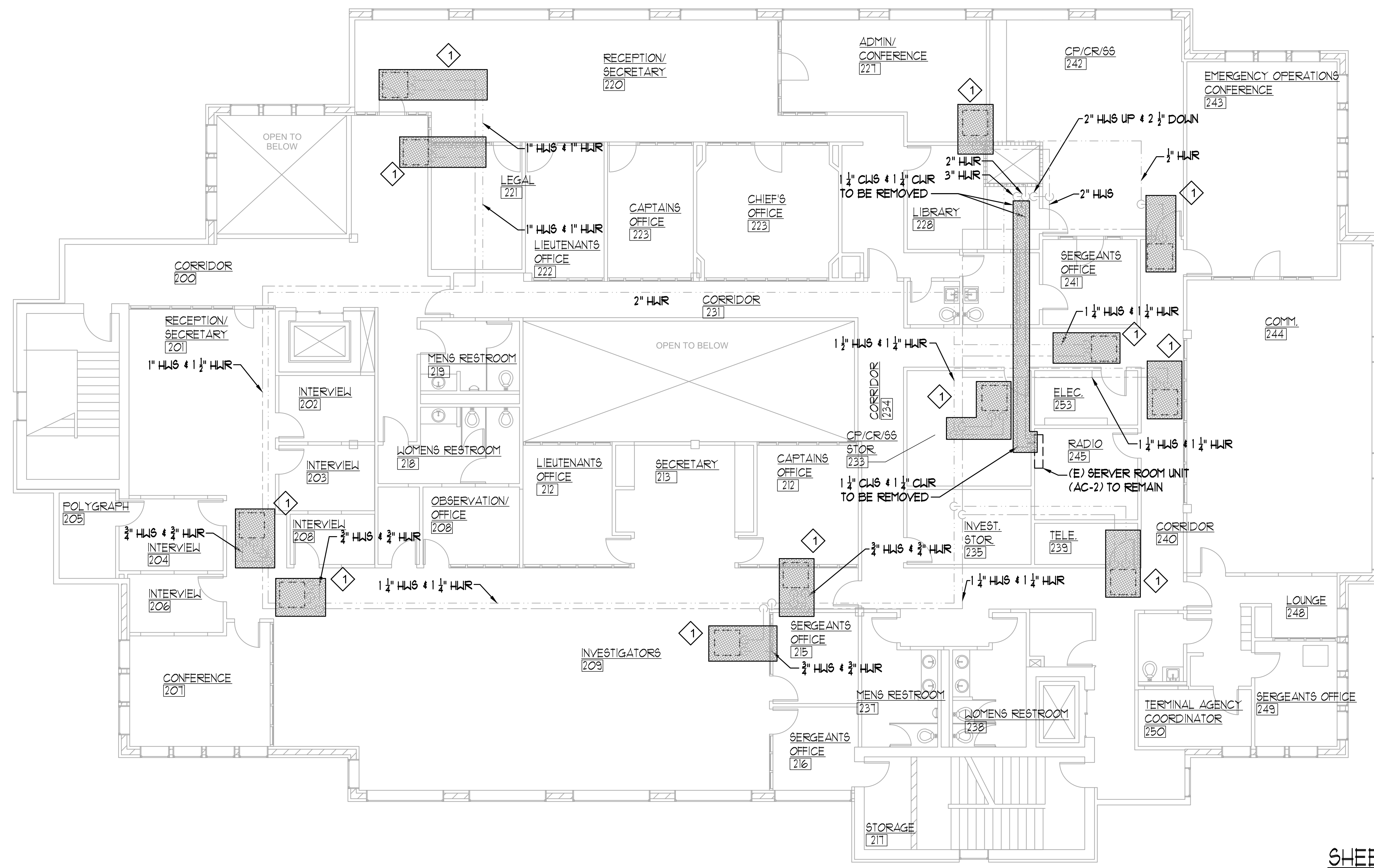
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SHEET TITLE
 MECHANICAL PIPING
 DEMOLITION FLOOR PLAN
 - GROUND FLOOR

REVISIONS

| | |
|---|---------------------------------|
| ① | PLAN REVIEW COMMENTS (04/09/18) |
| ② | OWNER REVISIONS (10/31/18) |
| ③ | OWNER REVISIONS (06/04/19) |

DATE : MARCH 26, 2018
SHEET NUMBER : M1.4

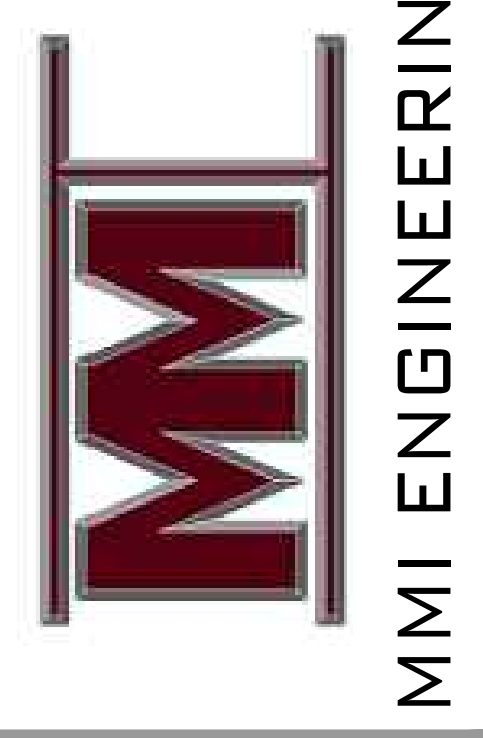


SHEET NOTES

- 1 FAN PULVER TERMINAL UNIT AND ASSOCIATED 3-WAY CONTROL VALVE PIPING PACKAGE TO BE REMOVED. ALERTON CONTROLLER TO BE REMOVED AND SAVED FOR REINSTALLATION ON NEW EQUIPMENT. PREP PIPING FOR CONNECTION TO NEW EQUIPMENT.

1 MECHANICAL PIPING DEMOLITION FLOOR PLAN - SECOND FLOOR
 M1.5 SCALE: 1/8" = 1'-0"

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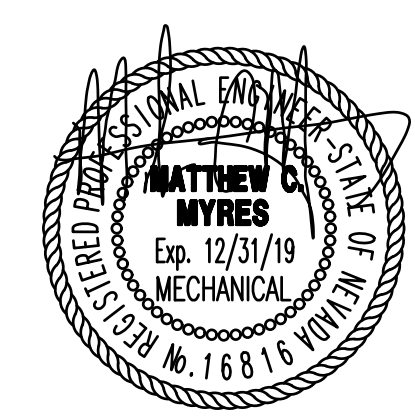


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SHEET TITLE
 MECHANICAL PIPING
 DEMOLITION FLOOR PLAN
 - SECOND FLOOR

REVISIONS

| | |
|---|---------------------------------|
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| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

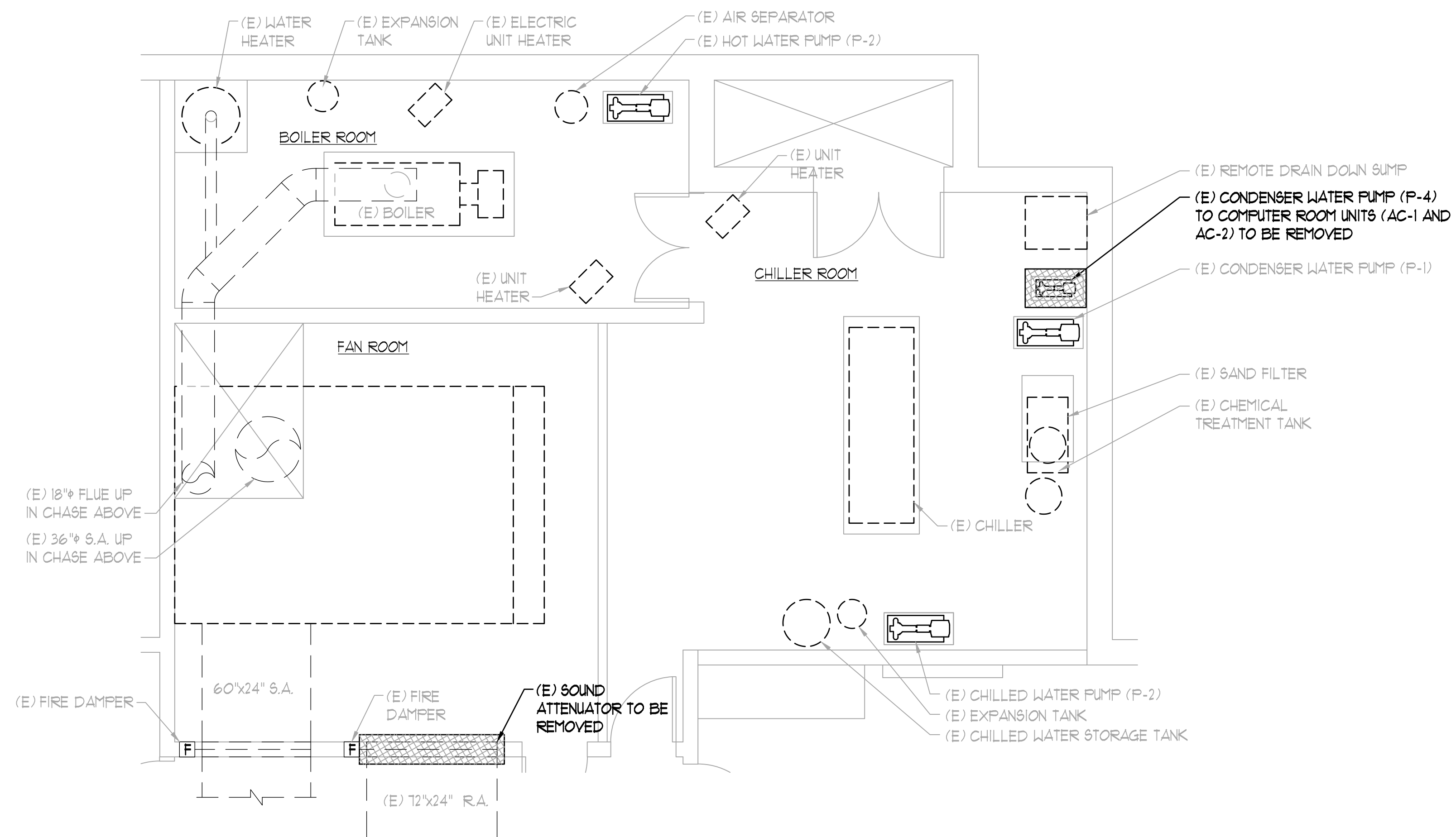


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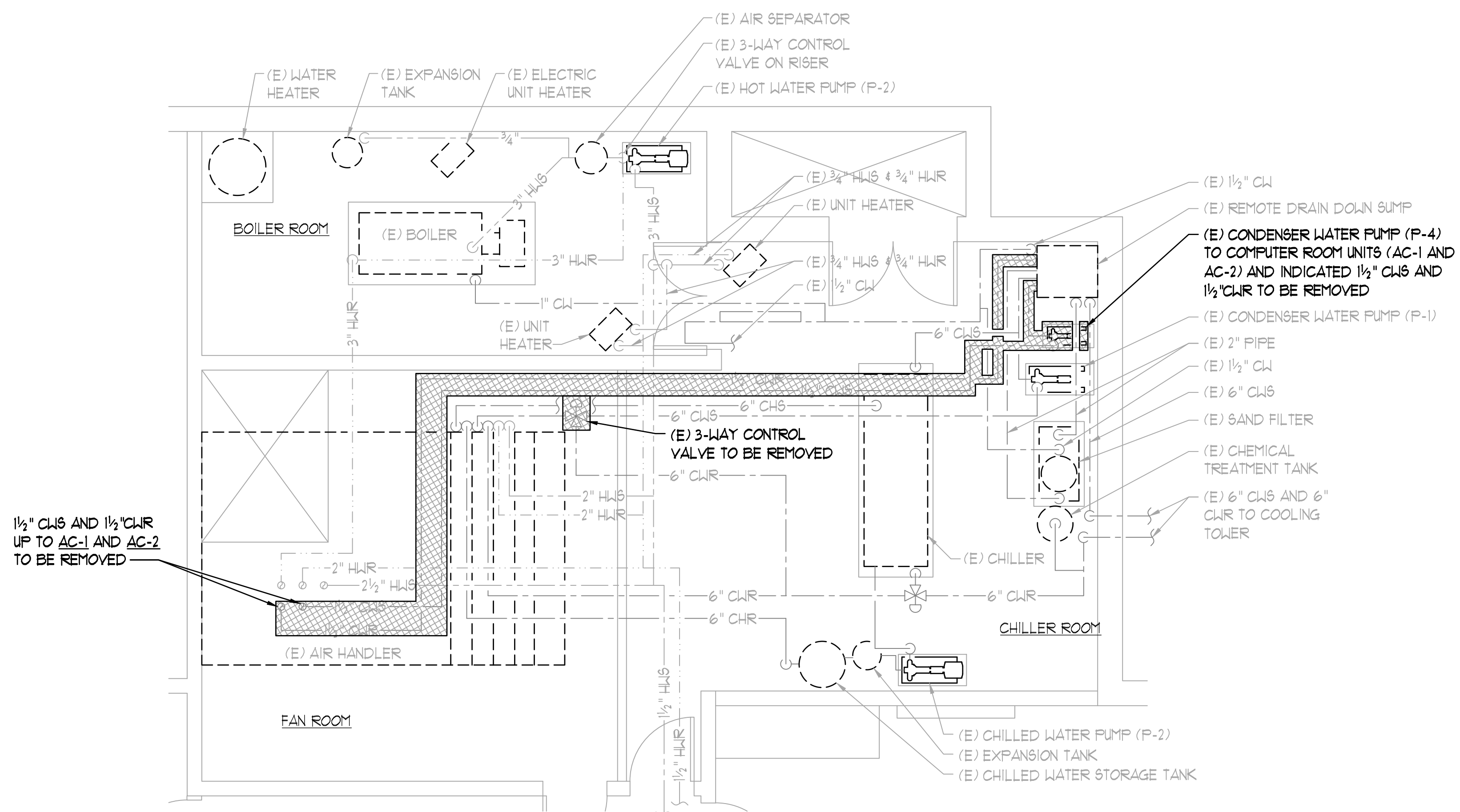
BID DOCUMENTS

DATE: MARCH 26, 2018
 SHEET NUMBER:

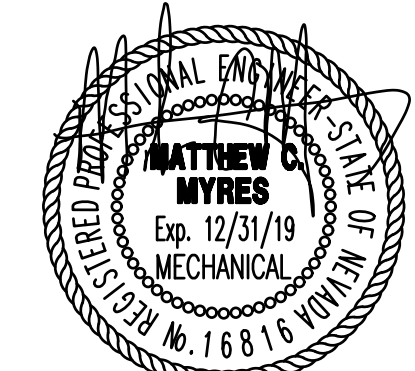
M1.5



1
M1.6 MECHANICAL DEMOLITION ENLARGED PLAN
SCALE: 1/4" = 1'-0"



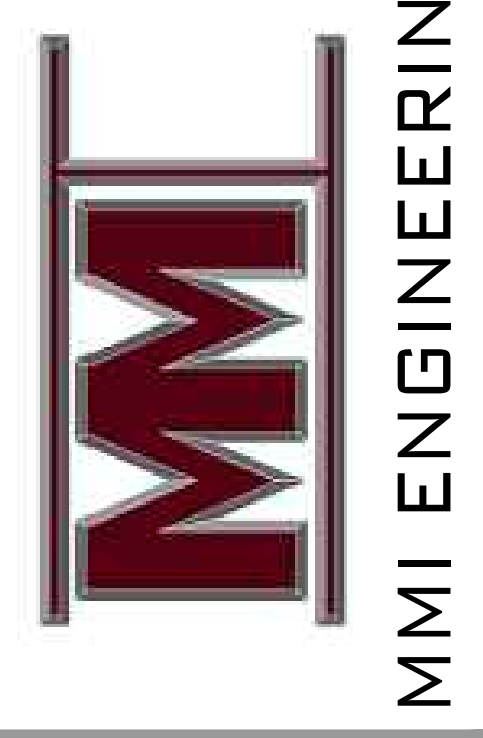
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M1.6 MECHANICAL PIPING DEMOLITION ENLARGED PLAN
SCALE: 1/4" = 1'-0"



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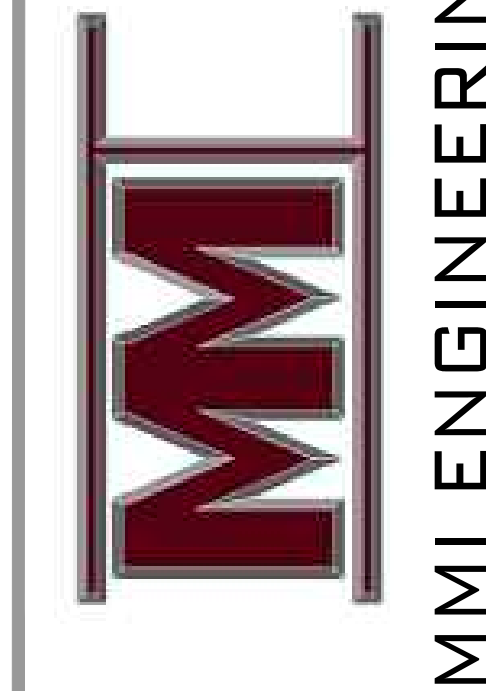
SHEET TITLE
MECHANICAL DEMOLITION
ENLARGED PLANS

REVISIONS

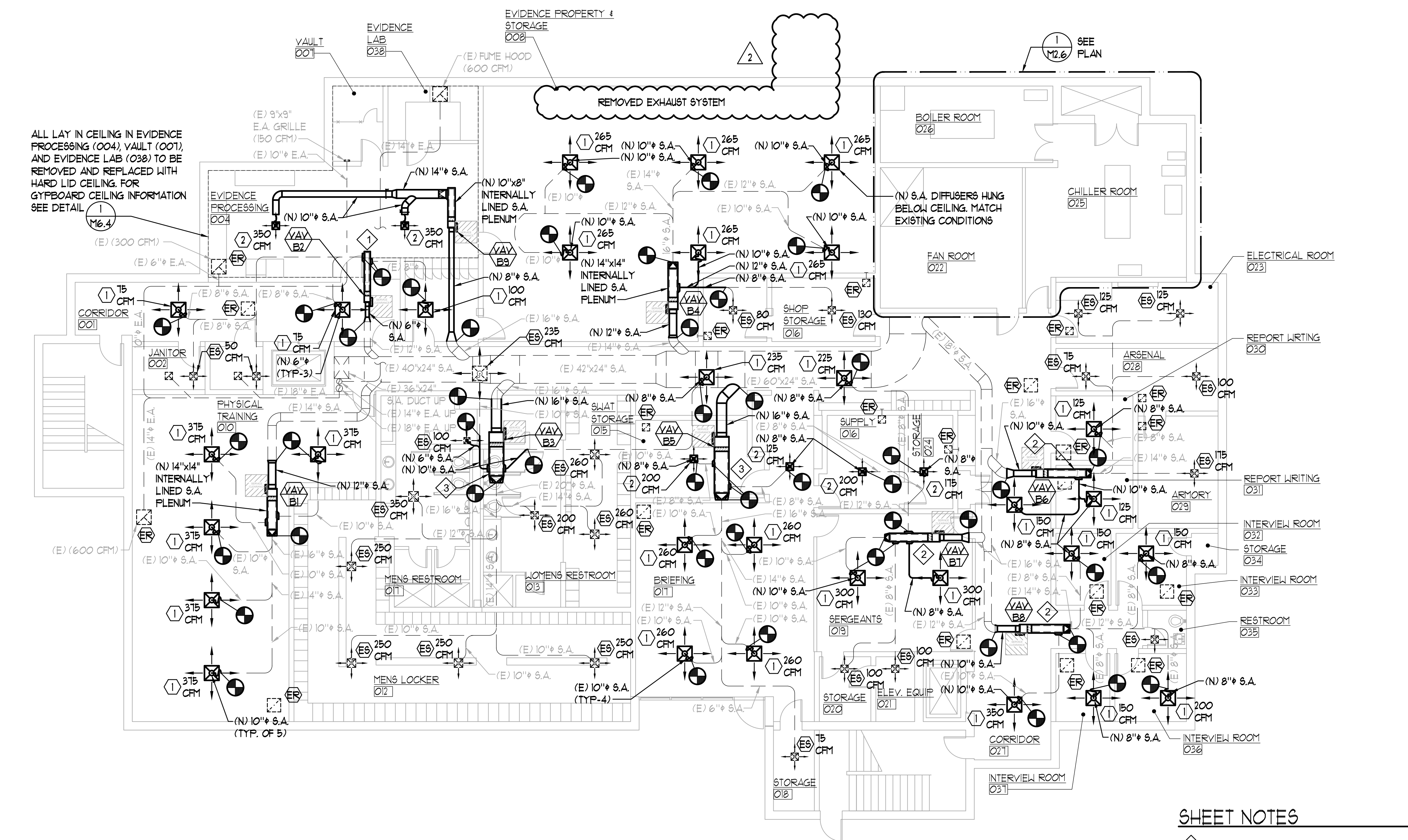
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| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

DATE: MARCH 26, 2018
SHEET NUMBER:

M1.6



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ALL LAY IN CEILING IN EVIDENCE PROCESSING (004), VAULT (001), AND EVIDENCE LAB (038) TO BE REMOVED AND REPLACED WITH HARD LID CEILING. FOR GYPSUM BOARD CEILING INFORMATION SEE DETAIL M6.4

M2.0 MECHANICAL FLOOR PLAN - BASEMENT
 SCALE: 1/8" = 1'-0"

SHEET NOTES

- 1 (N) 8"x8" INTERNALLY LINED S.A. PLENUM
- 2 (N) 12"x12" INTERNALLY LINED S.A. PLENUM
- 3 (N) 22"x16" INTERNALLY LINED S.A. PLENUM

GENERAL NOTE:
 1. CONTRACTOR IS TO BALANCE ALL NEW AND EXISTING SUPPLY DIFFUSERS TO CFMS INDICATED ON ALL PLANS

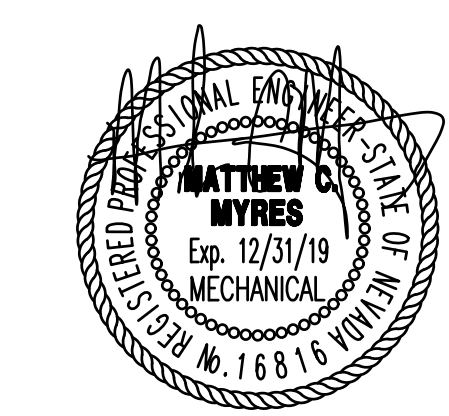
SHEET TITLE
 MECHANICAL FLOOR PLAN - BASEMENT

REVISIONS

| | |
|---|---------------------------------|
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| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

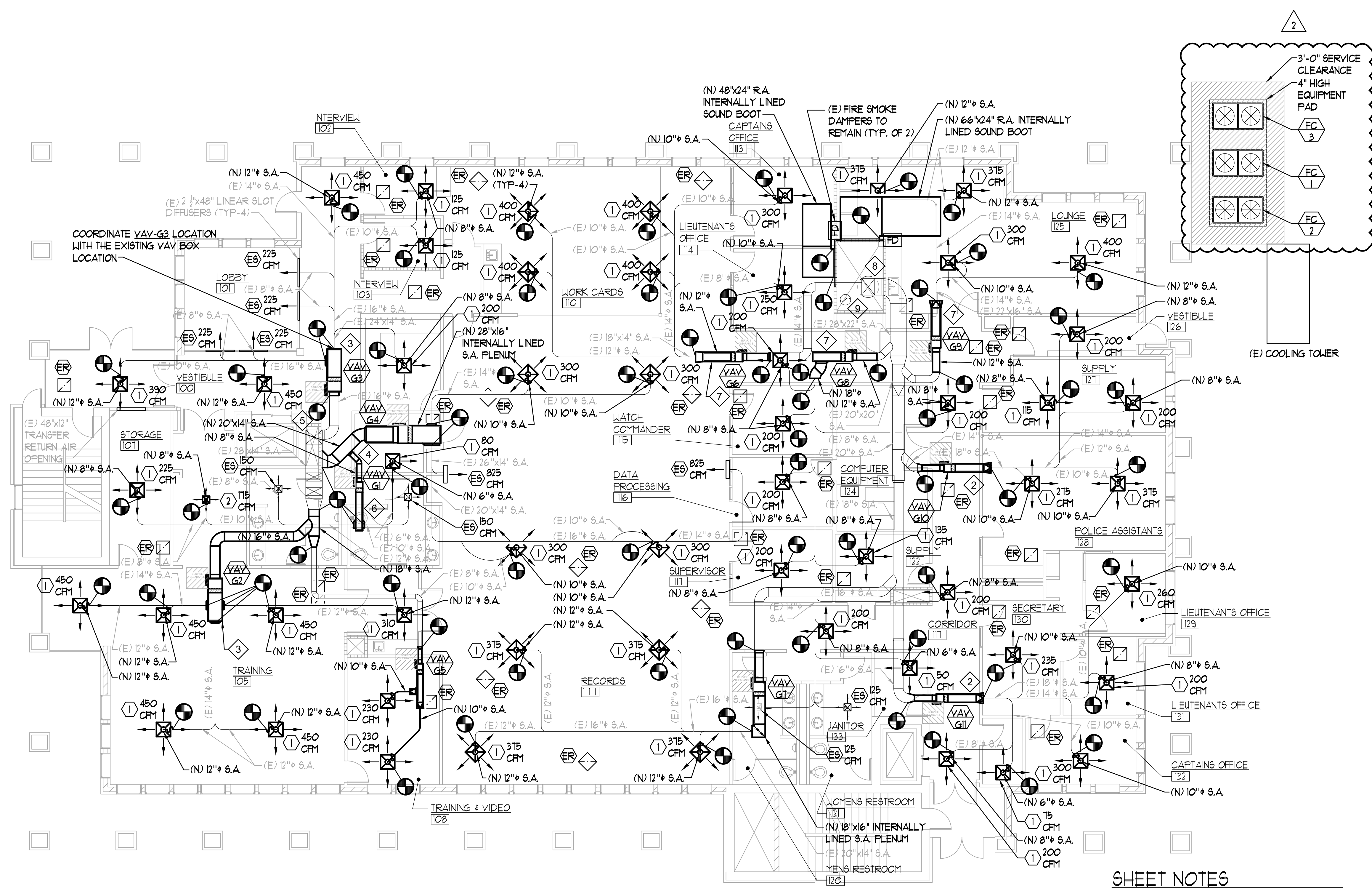
DATE: MARCH 26, 2018
SHEET NUMBER:

M2.0



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BID DOCUMENTS



1 MECHANICAL FLOOR PLAN - GROUND FLOOR
 M2.1 SCALE: 1/8" = 1'-0"

SHEET NOTES

- 1 (N) 8"x8" INTERNALLY LINED S.A. PLENUM
- 2 (N) 12"x12" INTERNALLY LINED S.A. PLENUM
- 3 (N) 22"x16" INTERNALLY LINED S.A. PLENUM
- 4 (N) 28"x14" INTERNALLY LINED S.A. PLENUM
- 5 (E) 28"x24" S.A. DUCT UP IN CHASE
- 6 (N) 10"x8" INTERNALLY LINED S.A. PLENUM
- 7 (N) 14"x14" INTERNALLY LINED S.A. PLENUM
- 8 (E) 36" S.A. DUCT DOWN TO BASEMENT AND (E) 20"x28" S.A. DUCT UP TO SECOND FLOOR
- 9 (E) 18" FLUE UP TO SECOND FLOOR

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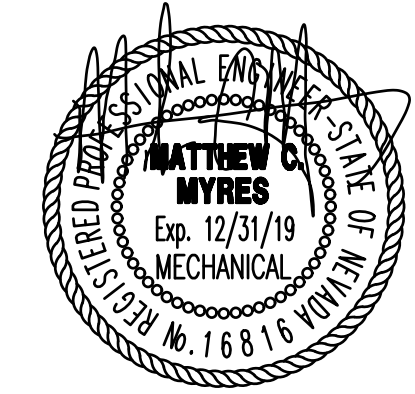
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SHEET TITLE
 MECHANICAL FLOOR PLAN - GROUND FLOOR

REVISIONS

| | |
|---|---------------------------------|
| 1 | PLAN REVIEW COMMENTS (04/09/18) |
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

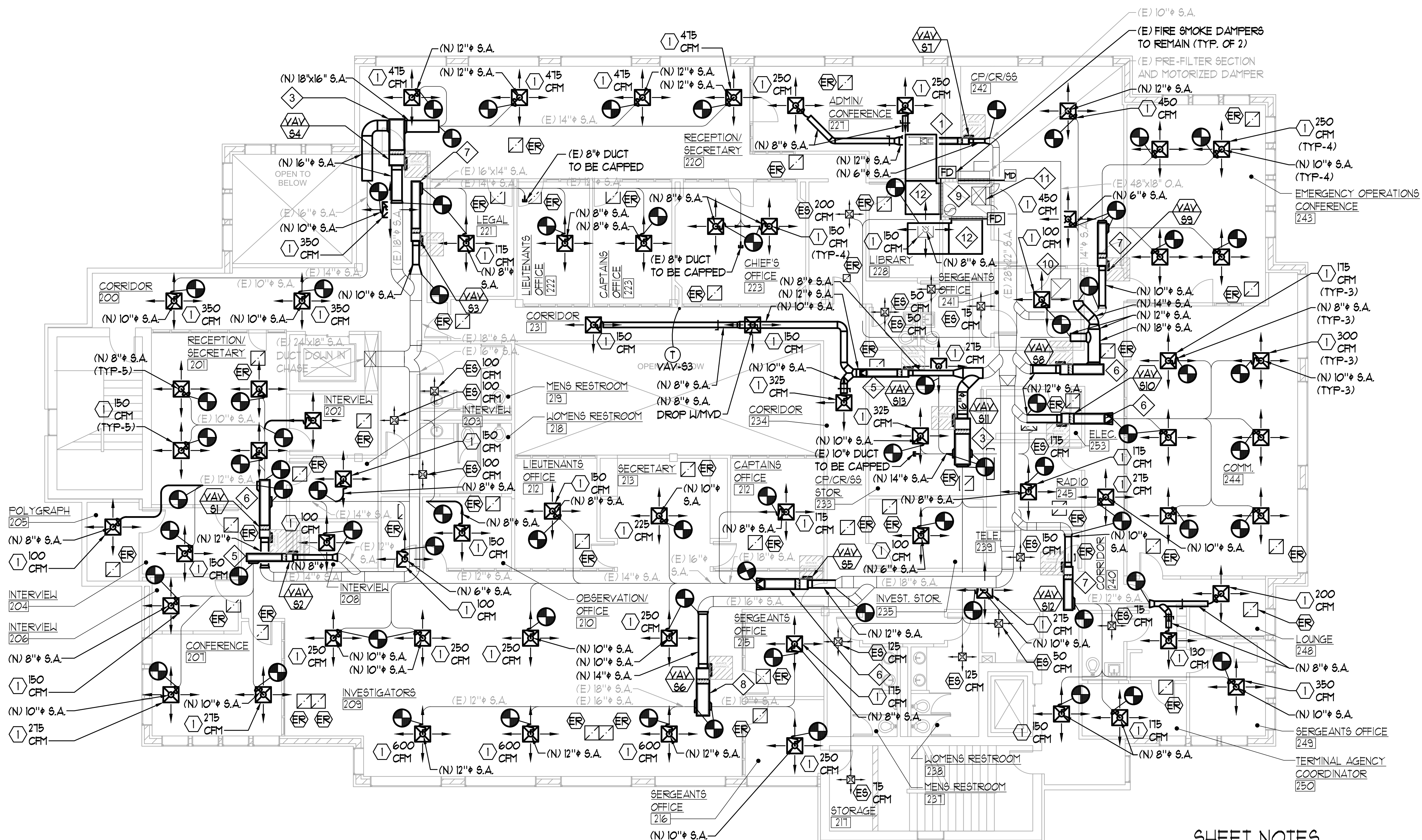


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DATE : MARCH 26, 2018
 SHEET NUMBER :

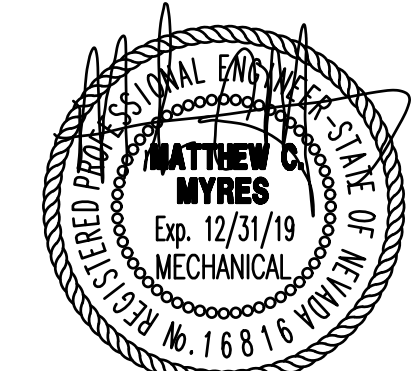
M2.1



1 MECHANICAL FLOOR PLAN - SECOND FLOOR
 M2.2 SCALE: 1/8" = 1'-0"

SHEET NOTES

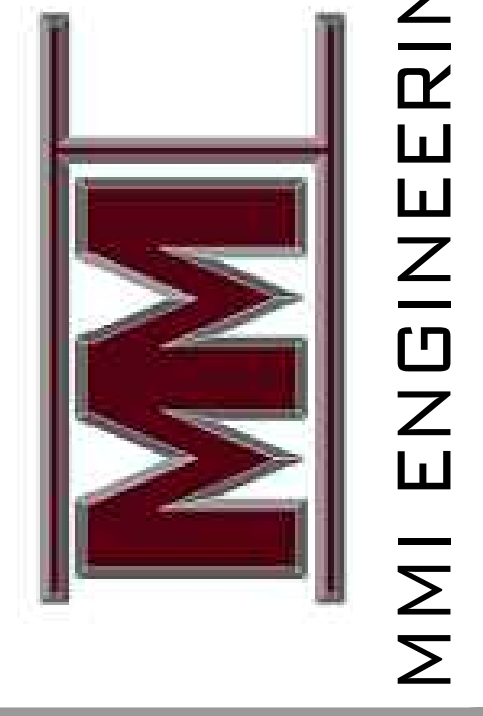
- 1 (N) 8"x8" INTERNALLY LINED S.A. PLENUM
- 2 (N) 12"x12" INTERNALLY LINED S.A. PLENUM
- 3 (N) 22"x16" INTERNALLY LINED S.A. PLENUM
- 4 (N) 28"x14" INTERNALLY LINED S.A. PLENUM
- 5 (N) 10"x8" INTERNALLY LINED S.A. PLENUM
- 6 (N) 14"x14" INTERNALLY LINED S.A. PLENUM
- 7 (N) 12"x12" INTERNALLY LINED S.A. PLENUM
- 8 (N) 18"x16" INTERNALLY LINED S.A. PLENUM
- 9 (E) 28"x22" S.A. DUCT DOWN IN CHASE
- 10 (E) 30"x30" O.A. UP TO OUTSIDE AIR INTAKE
- 11 (E) 18" FLUE UP TO SECOND FLOOR
- 12 (N) 48"x24" R.A. INTERNALLY LINED SOUND BOOT



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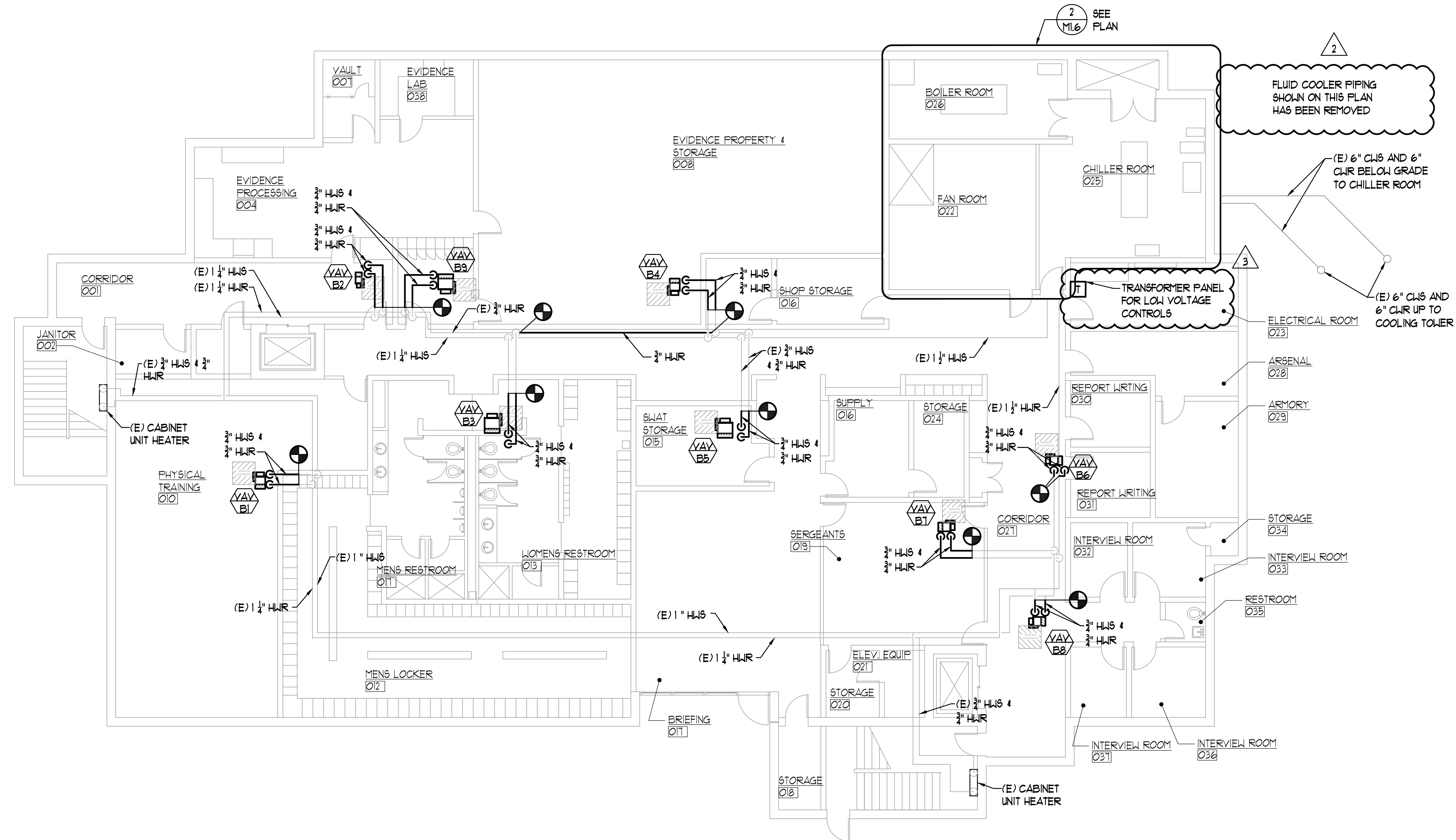
SHEET TITLE
 MECHANICAL FLOOR PLAN
 - SECOND FLOOR

REVISIONS

| | |
|---|---------------------------------|
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| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

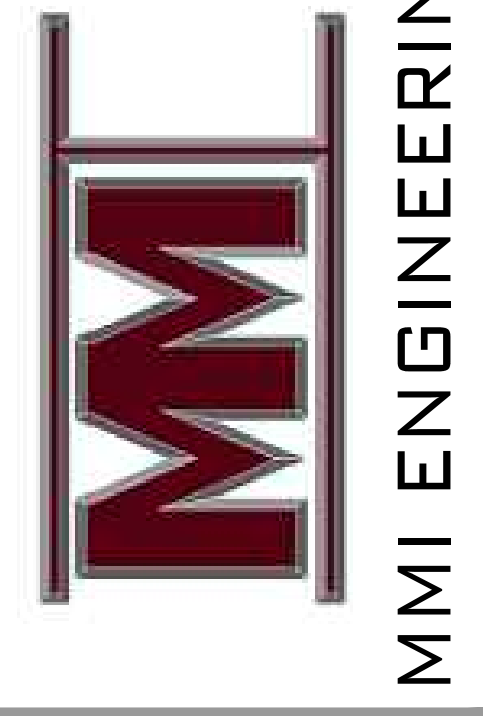
DATE : MARCH 26, 2018
SHEET NUMBER :

M2.2



1 MECHANICAL PIPING FLOOR PLAN - BASEMENT
 M2.3 SCALE: 1/8" = 1'-0"

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SHEET TITLE
 MECHANICAL PIPING
 FLOOR PLAN
 - BASEMENT

REVISIONS

| | |
|---|---------------------------------|
| 1 | PLAN REVIEW COMMENTS (04/09/18) |
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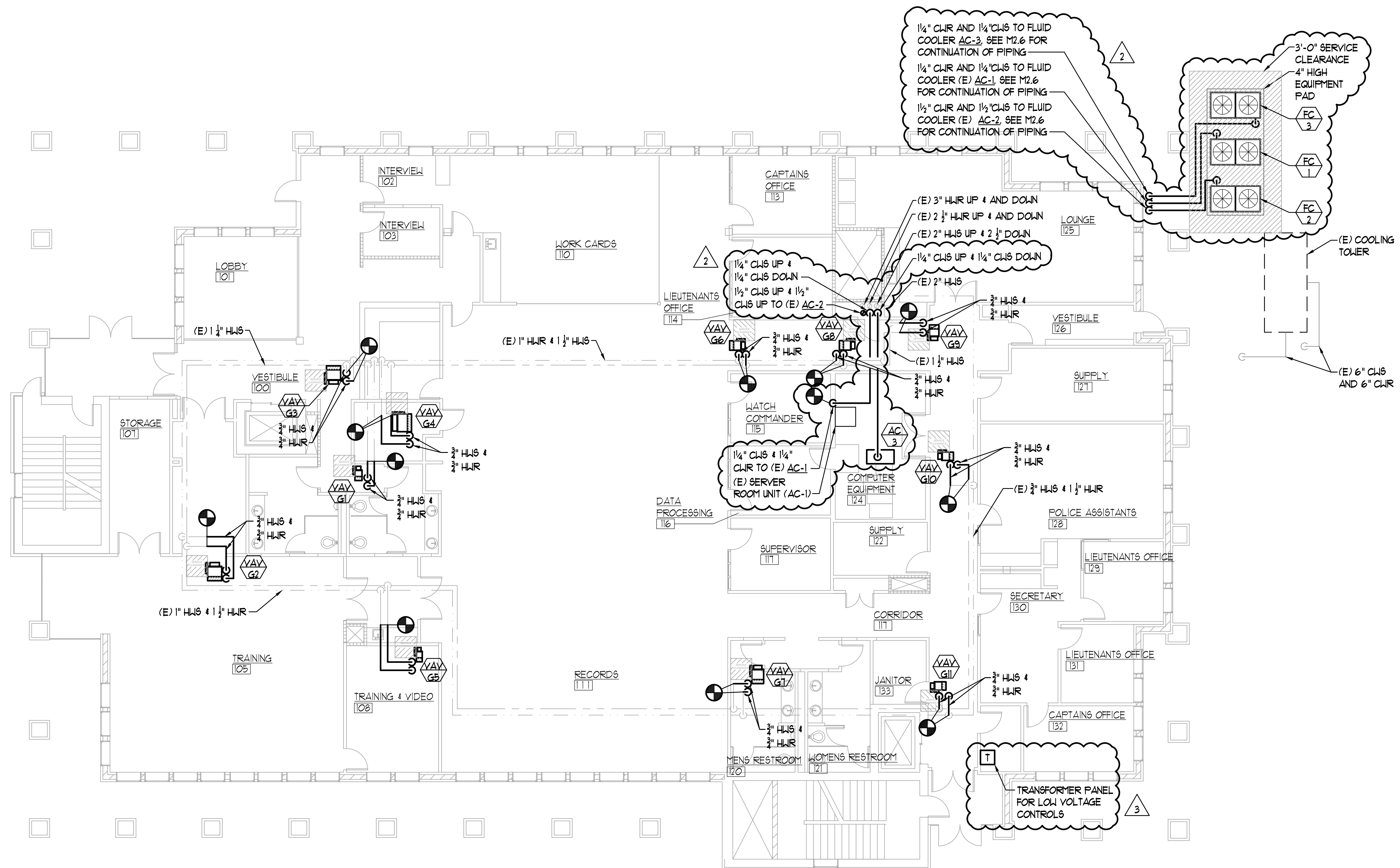


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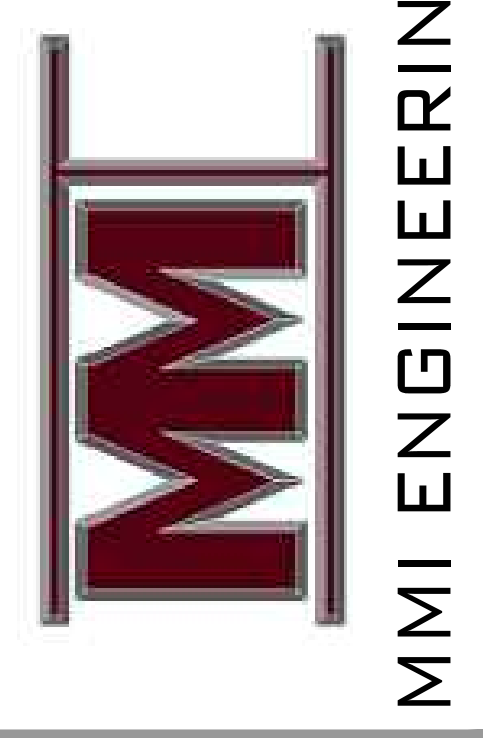
DATE : MARCH 26, 2018
 SHEET NUMBER :

M2.3



1
M2.4 MECHANICAL PIPING FLOOR PLAN - GROUND FLOOR
SCALE: 1/8" = 1'-0"

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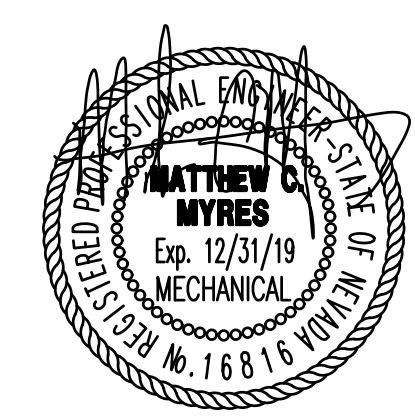


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SHEET TITLE
MECHANICAL PIPING
FLOOR PLAN
- GROUND FLOOR

REVISIONS

| | |
|---|---------------------------------|
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| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

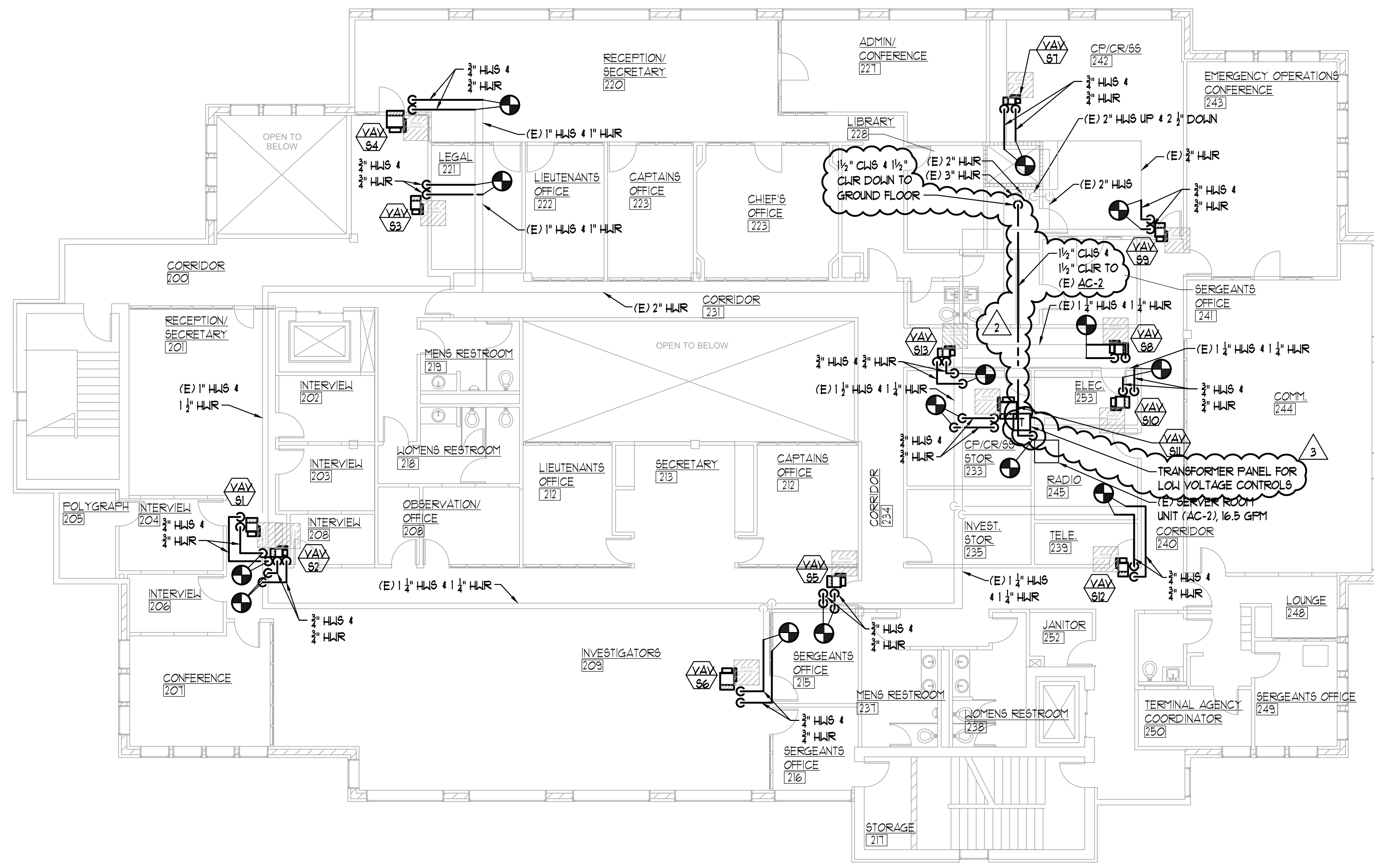


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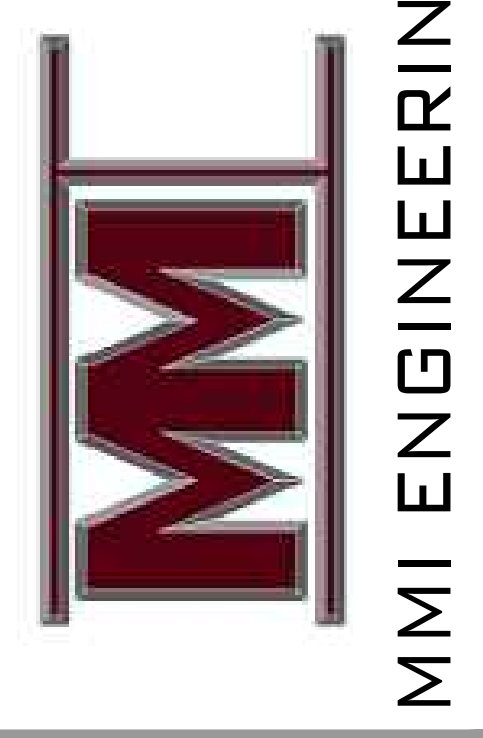
DATE : MARCH 26, 2018
SHEET NUMBER :

M2.4



1 MECHANICAL PIPING FLOOR PLAN - SECOND FLOOR
 M2.5 SCALE: 1/8" = 1'-0"

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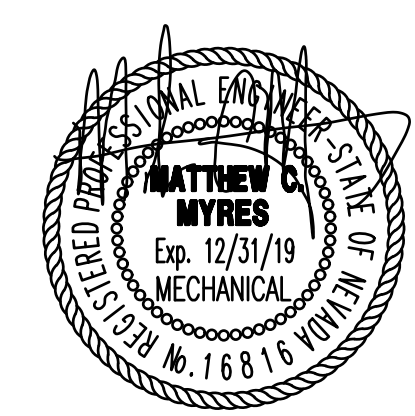


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SHEET TITLE
 MECHANICAL PIPING
 FLOOR PLAN
 - SECOND FLOOR

REVISIONS

| | |
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| 2 | OWNER REVISIONS (10/31/18) |
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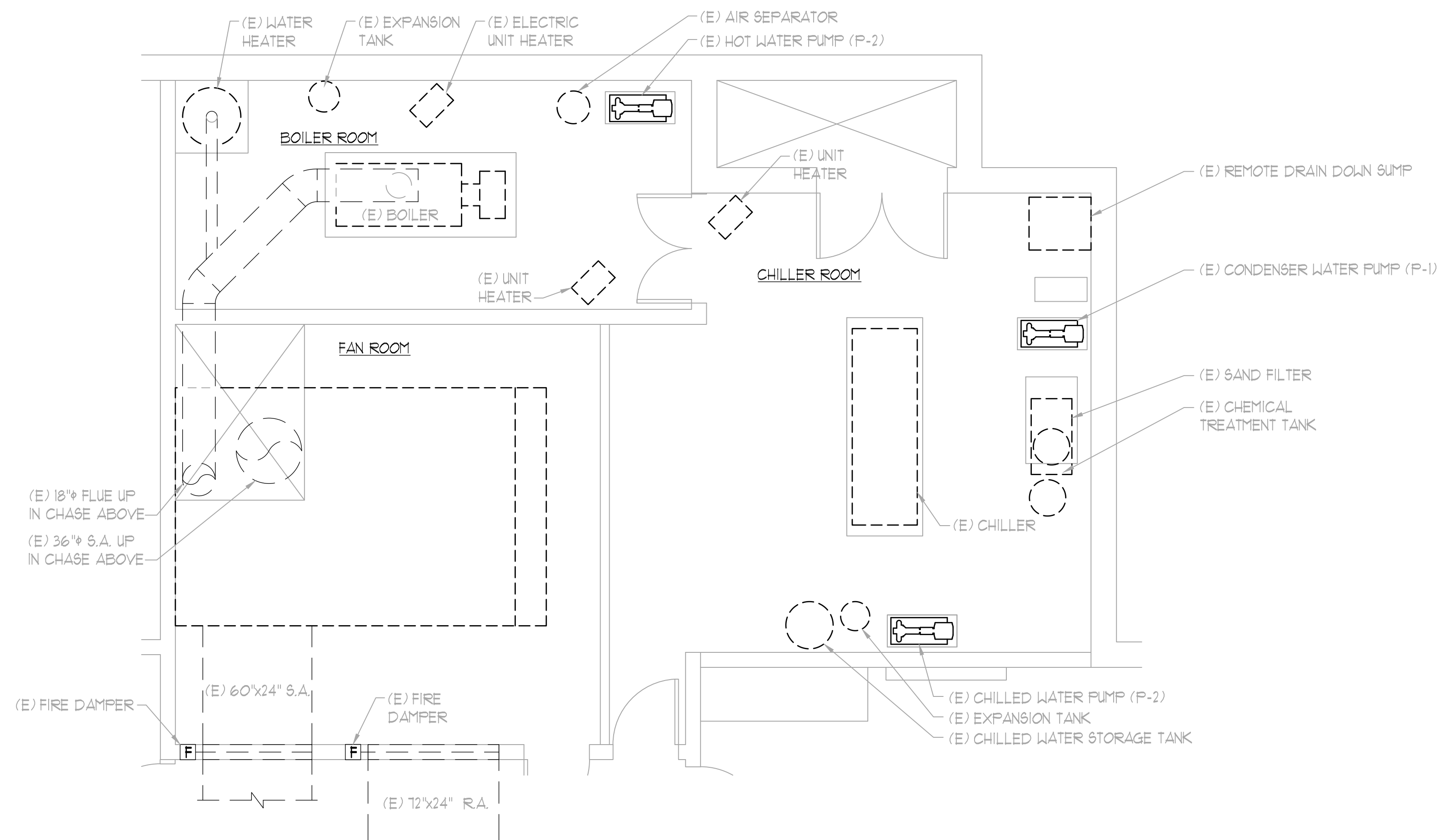


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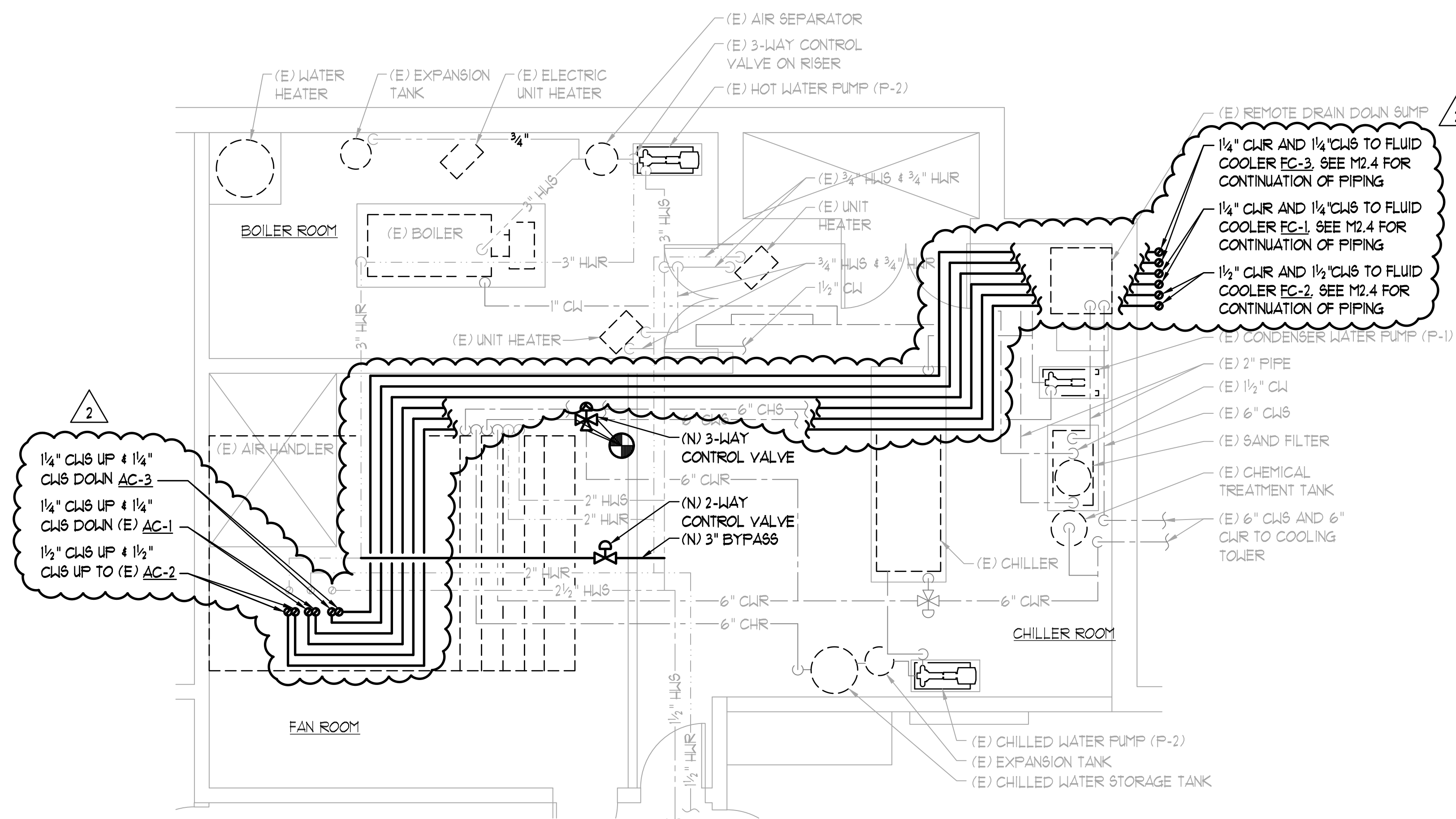
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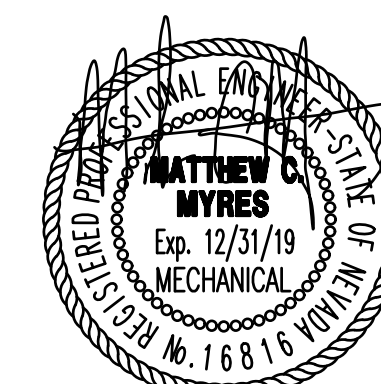
M2.5



1 MECHANICAL ENLARGED PLAN
M2.6 SCALE: 1/4" = 1'-0"



2 MECHANICAL PIPING ENLARGED PLAN
M2.6 SCALE: 1/4" = 1'-0"



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SHEET TITLE
MECHANICAL ENLARGED PLANS

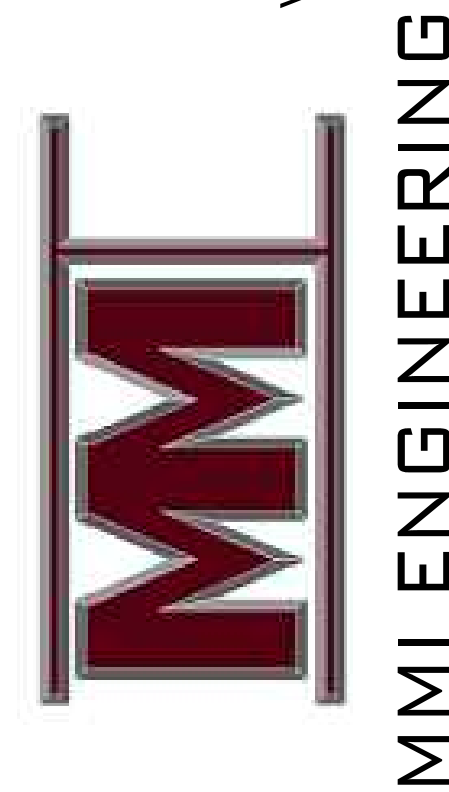
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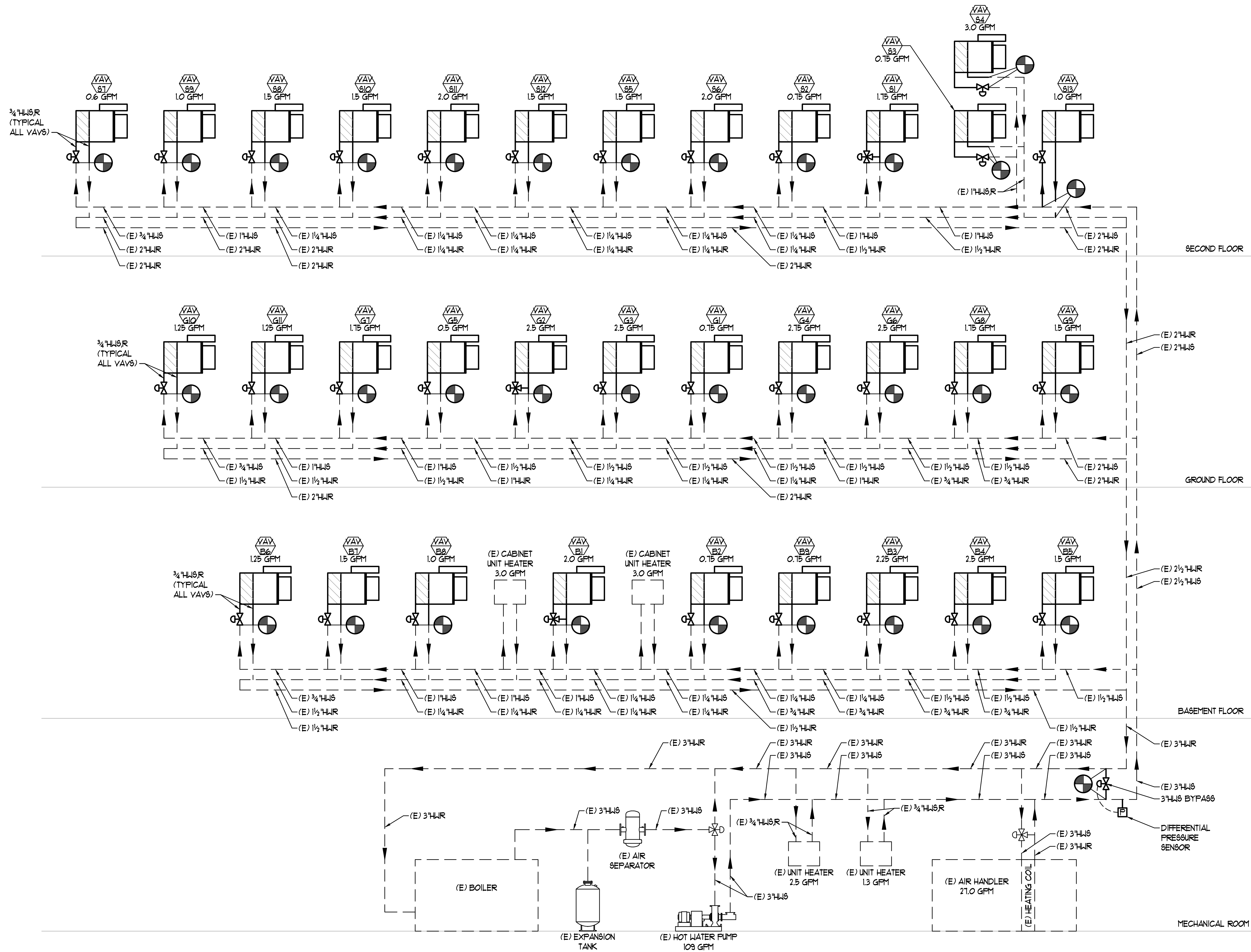
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DATE: MARCH 26, 2018
SHEET NUMBER:

M2.6

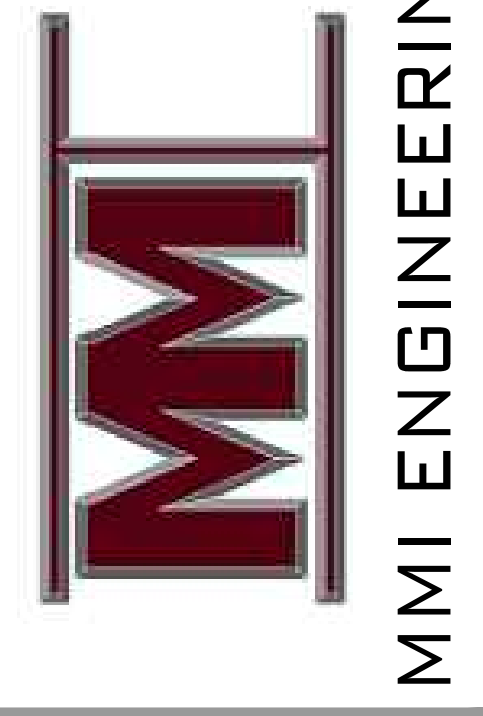
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1 M4.1 HEATING HOT WATER PIPING DIAGRAM
SCALE: NONE

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SHEET TITLE
MECHANICAL PIPING
DIAGRAM

REVISIONS

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| 2 | OWNER REVISIONS (10/31/18) |
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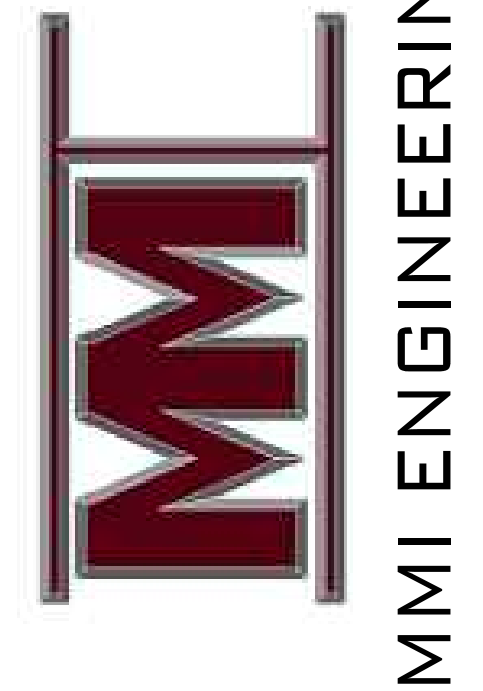


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DATE: MARCH 26, 2018
SHEET NUMBER:

M4.1



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SHEET TITLE
 MECHANICAL CONTROLS

REVISIONS

| | |
|---|---------------------------------|
| 1 | PLAN REVIEW COMMENTS (04/09/18) |
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

DATE : MARCH 26, 2018
 SHEET NUMBER :

M5.1



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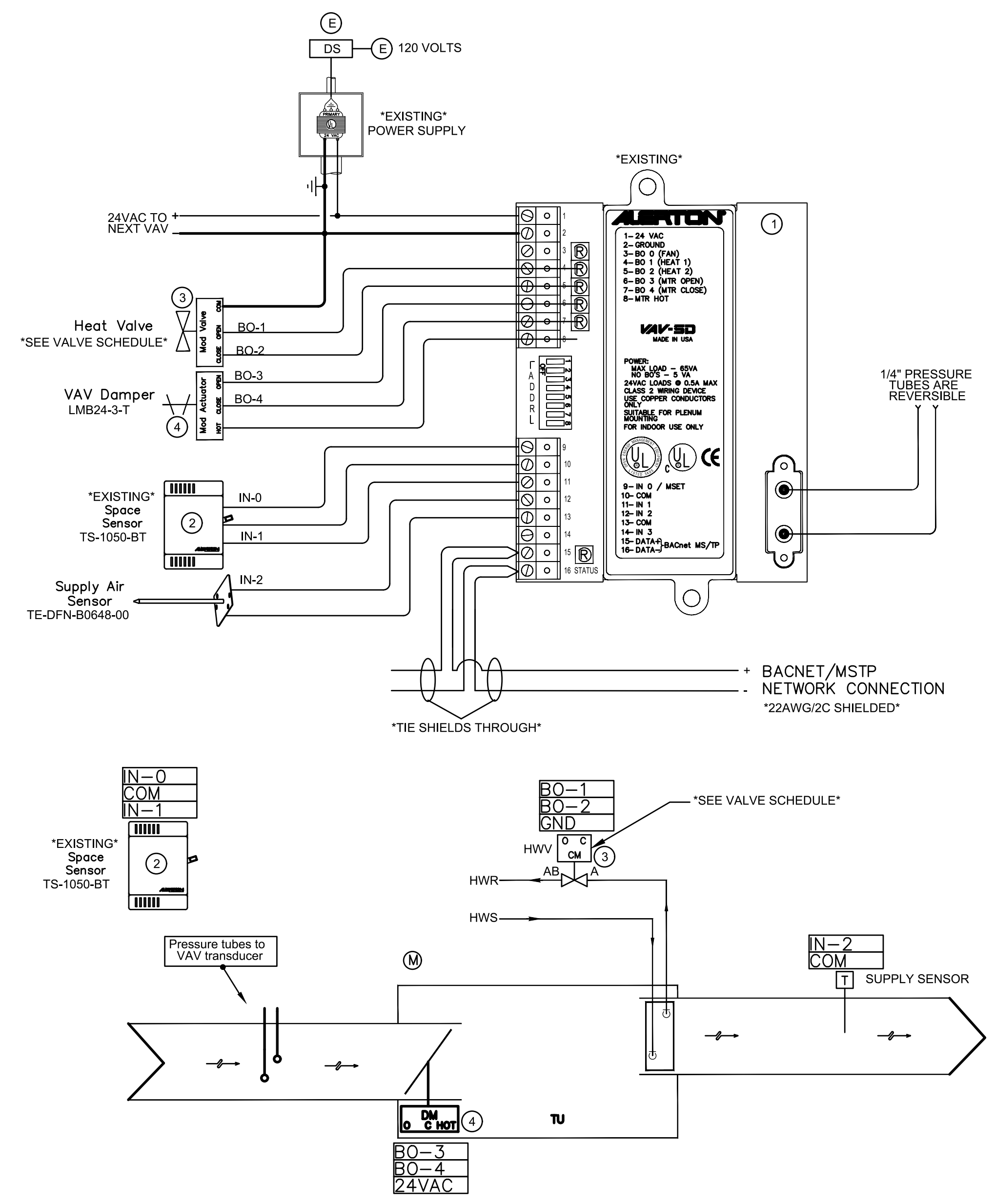
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TYPICAL TERMINAL UNIT CONTROL

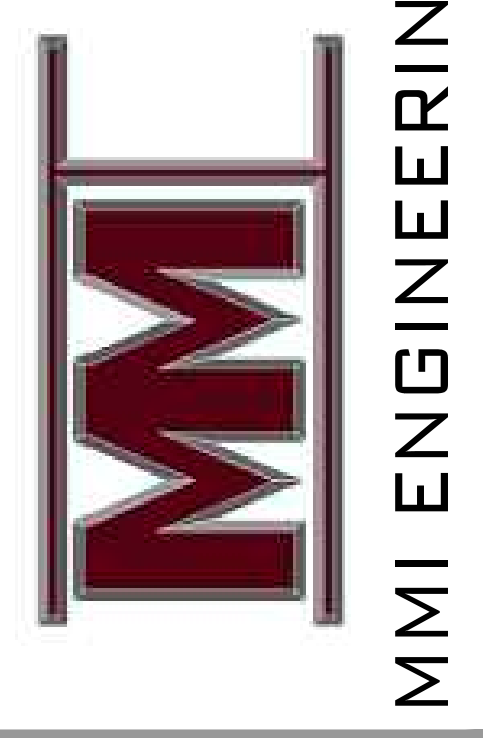
- OCCUPIED CYCLE:**
- AHU SUPPLY FAN STARTS AND MAINTAINS DUCT STATIC PRESSURE SETPOINT.
 - ROOM TEMPERATURE SENSOR MODULATES TERMINAL UNIT DAMPER AND HEATING WATER VALVE IN SEQUENCE TO MAINTAIN RESPECTIVE HEATING/COOLING SET POINTS. A DEADBAND BETWEEN HEATING AND COOLING IS FIELD PROGRAMMABLE WITH A 2 DEGREE F MINIMUM.
 - AHU VFD TO INCREASE FAN SPEED TO MEET REQUIREMENTS FOR AIR FLOW FOR EACH ZONE.
- UNOCCUPIED CYCLE:**
- TERMINAL UNIT FAN STOPS AT PROGRAMMED TIME.
 - TERMINAL UNIT DAMPER CLOSES AND ZONE HEATING WATER VALVE CLOSES.
 - ROOM TEMPERATURE SENSOR REVERTS TO "SET-BACK/SET-UP" TEMPERATURE SET POINT.
 - MOMENTARY CONTACT PUSH-BUTTON IN ROOM TEMPERATURE SENSORS OVERRIDES "UNOCCUPIED CYCLE" AND PLACES SYSTEM IN "OCCUPIED CYCLE" FOR A PROGRAMMED LENGTH OF TIME.
- SETPOINTS:**
- OCCUPIED MODE:
COOLING: 74°F, HEATING: 70°F
 - UNOCCUPIED MODE:
COOLING: 80°F, HEATING: 65°F
- SAFETY CONTROL:**
- IF COMMUNICATION FAILS BETWEEN TERMINAL UNIT CONTROLLER AND GLOBAL CONTROLLER, THE TERMINAL UNIT CONTROL SHALL AUTOMATICALLY MAINTAIN THE LATEST SET OF OCCUPIED TEMPERATURES OR 74°F COOLING AND 70°F HEATING AS SELECTED BY THE OPERATOR.

- *NOTES:
- EXISTING VAV-SD DDC CONTROLLER TO BE REMOVED AND RE-INSTALLED ON NEW VAV TERMINAL UNIT.
 - EXISTING ROOM SENSOR TO BE RE-USED.
 - NEW HEATING WATER VALVE TO BE PROVIDED BY CONTROL CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR.
 - NEW DAMPER ACTUATOR TO BE PROVIDED AND INSTALLED BY CONTROL CONTRACTOR

CONTROLS SHALL BE ALERTON TO MATCH EXISTING CITY WIDE HVAC CONTROL SYSTEM.
 BY BUILDING CONTROL SERVICES, INC.
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 RENO, NV 89523
 PH#:(775)826-8988
 FAX#:(775)826-3524
 NO EXCEPTIONS

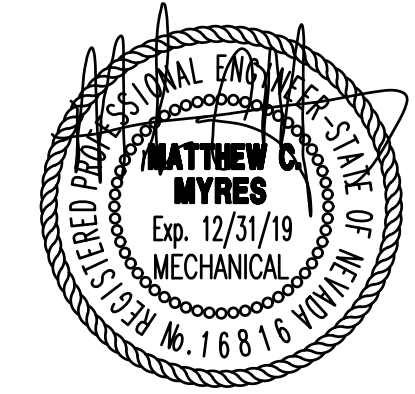


1 MECHANICAL CONTROLS
 M5.1 SCALE: NONE



REVISIONS

| | |
|---|---------------------------------|
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| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |



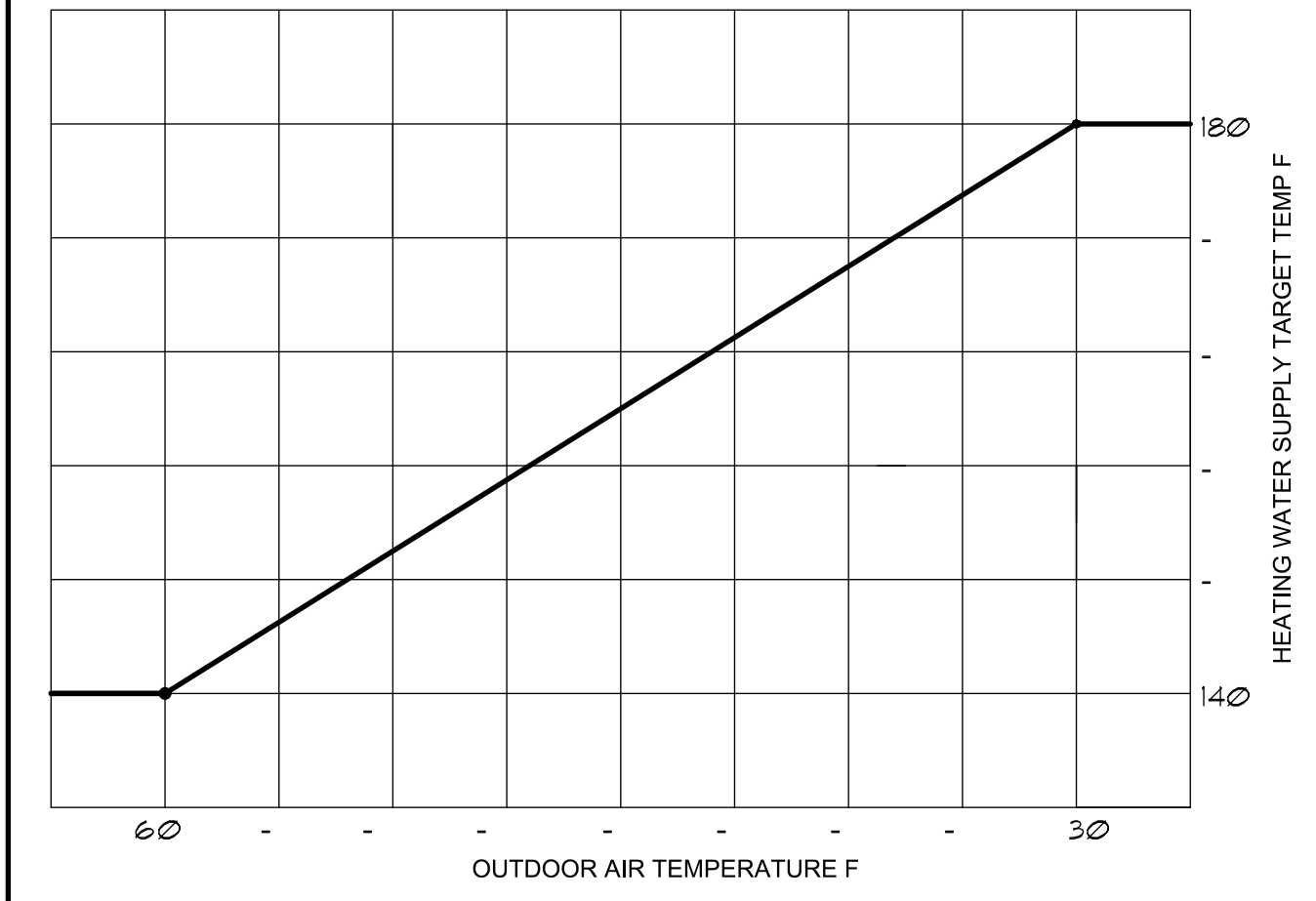
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HW PLANT CONTROL

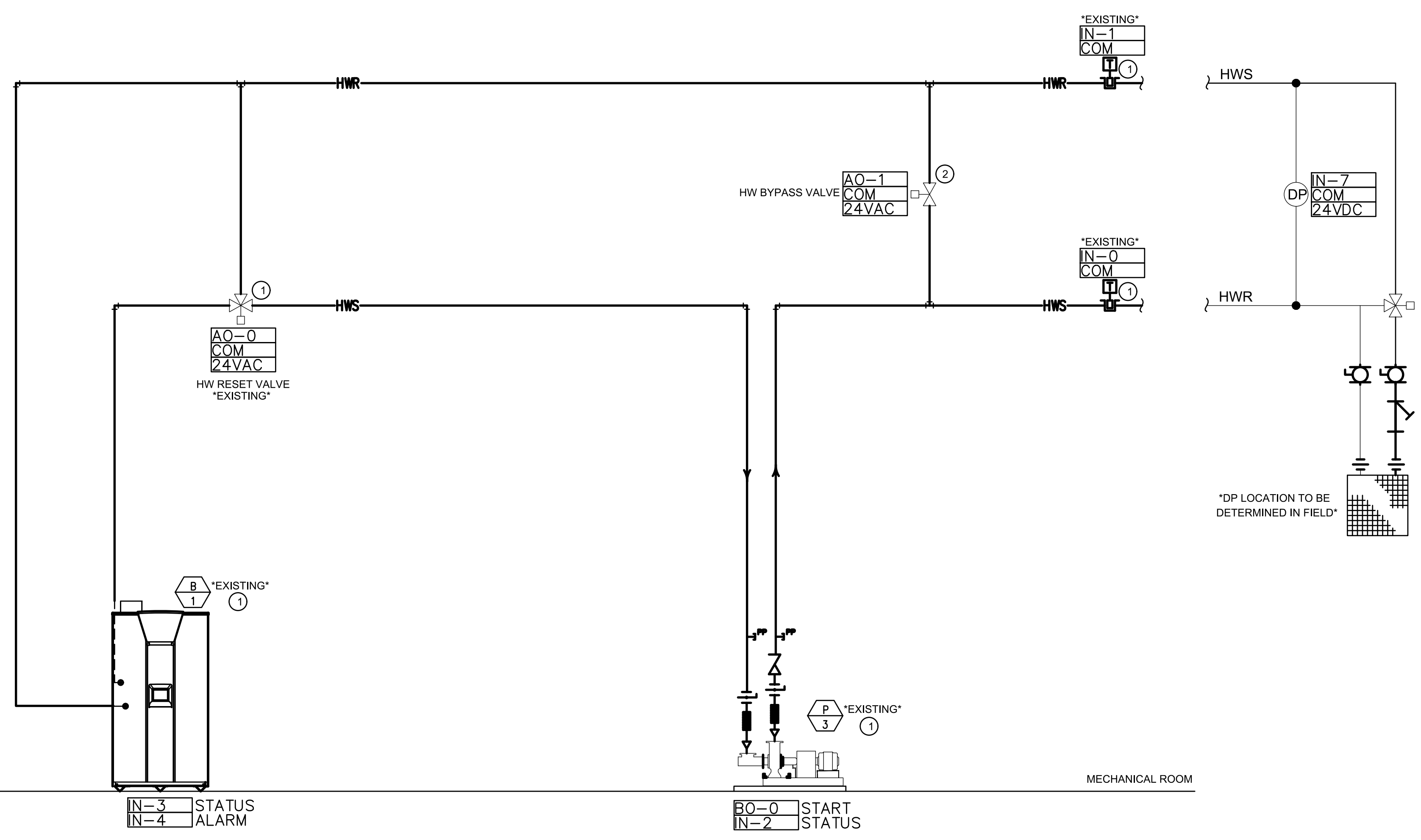
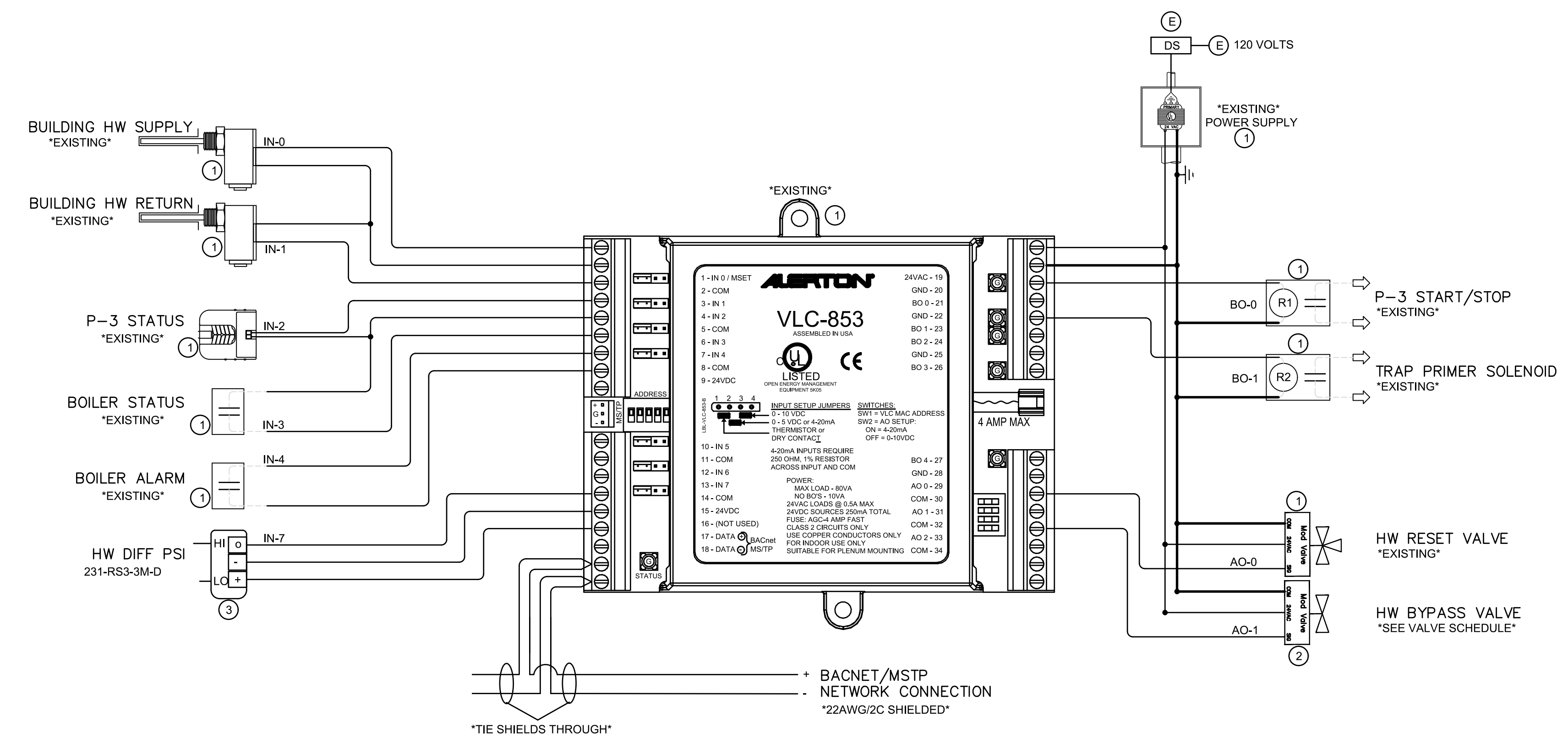
- HEATING CYCLE:**
- WHENEVER THE OUTSIDE AIR TEMPERATURE IS LESS THAN 68°F(ADJ.), THE HEATING WATER SYSTEM SHALL BE ENABLED.
 - THE HEATING WATER PUMP SHALL START AND THE HW BYPASS VALVE SHALL MODULATE TO MAINTAIN THE HW SYSTEM DIFFERENTIAL PRESSURE SETPOINT OF 10PSI(ADJ.). IF THE HEATING WATER PUMP IS COMMANDED ON AND FAILS TO PROVE STATUS, AN ALARM SHALL BE GENERATED AT THE OPERATOR WORKSTATION.
 - ONCE FLOW HAS BEEN PROVEN VIA BOILER'S INTEGRAL FLOW SWITCH, THE BOILER SHALL BE ENABLED AND SHALL MODULATE THE BURNER VIA BOILER'S INTERNAL CONTROLS TO MAINTAIN THE LEAVING HEATING WATER SETPOINT OF 180°F(ADJ.).
 - THE BUILDING HEATING WATER SUPPLY SETPOINT SHALL BE RESET FROM 180°F(ADJ.) TO 140°F(ADJ.) AS THE OUTSIDE AIR TEMPERATURE INCREASES FROM 30°(ADJ.) TO 60°(ADJ.). THE 3-WAY MIXING VALVE SHALL MODULATE TO MAINTAIN THE CURRENT BUILDING HEATING WATER SUPPLY SETPOINT.
- SAFETY:**
- THE BOILER'S INTERNAL SAFETIES SHALL DIASABLE THE BURNER AND SEND AN ALARM TO THE OPERATOR WORKSTATION.

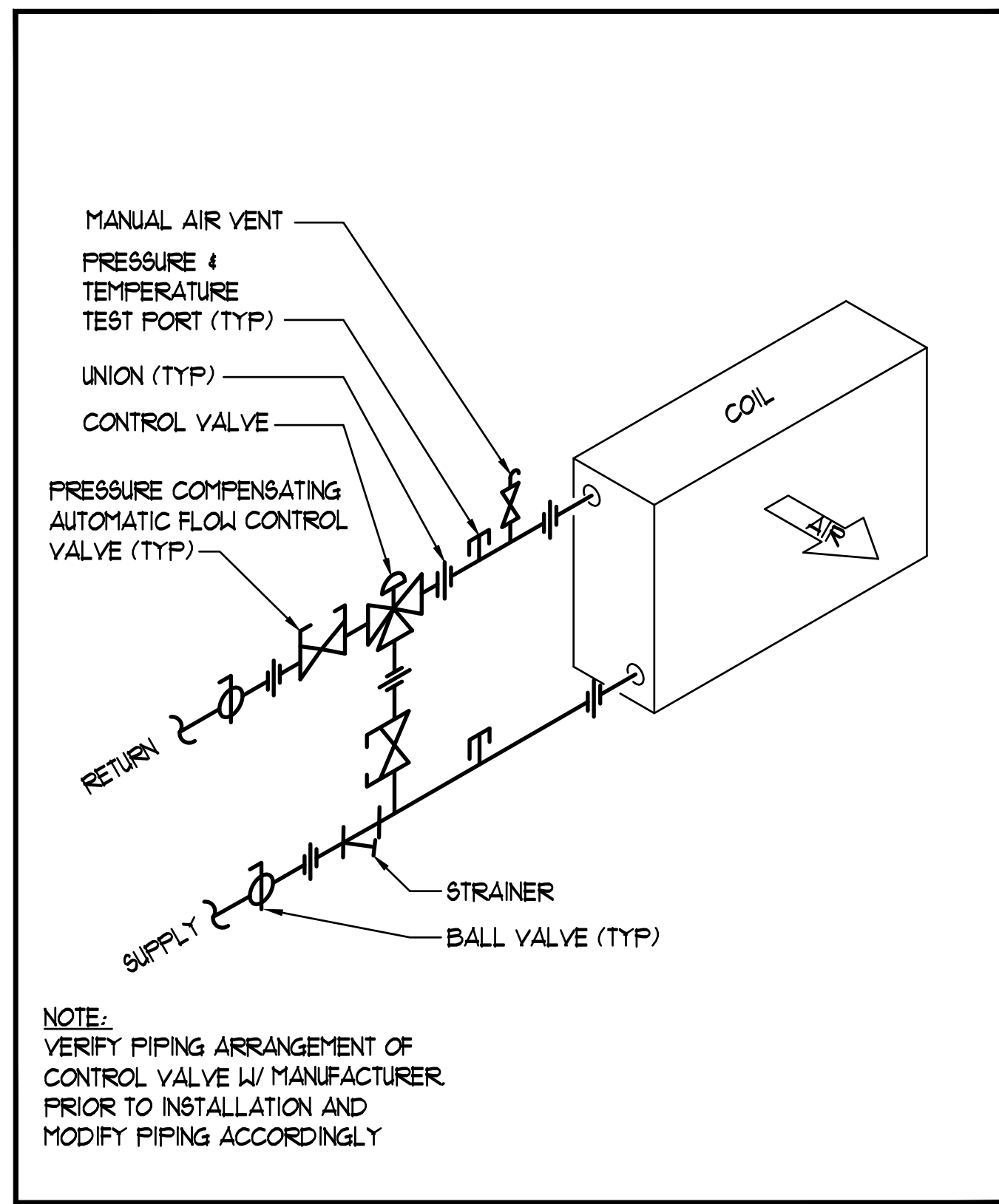
HEATING WATER SUPPLY RESET CURVE



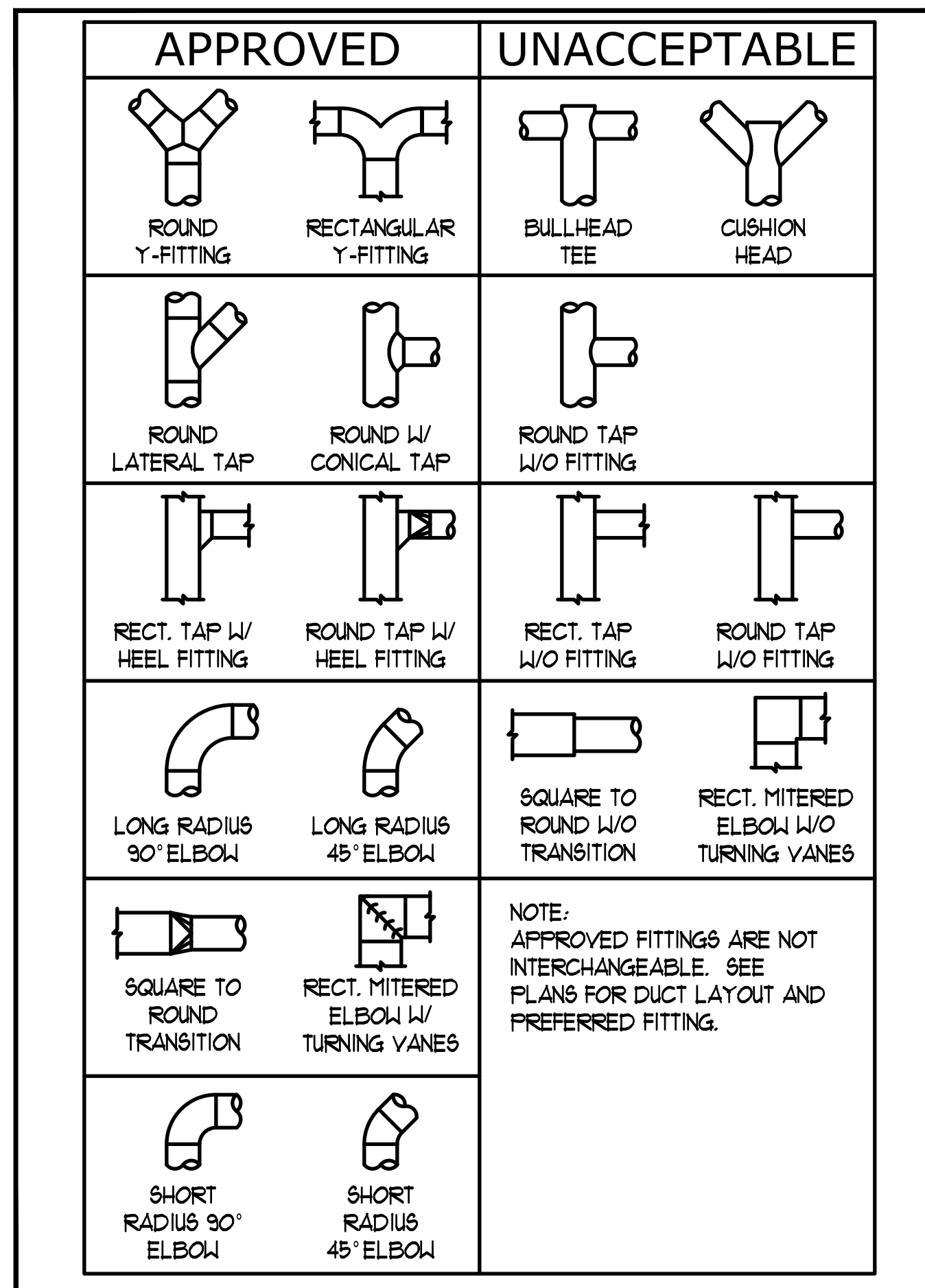
- *NOTES:**
- EXISTING VAV-SD DDC CONTROLLER TO BE REMOVED AND RE-INSTALLED ON NEW VAV TERMINAL UNIT.
 - EXISTING ROOM SENSOR TO BE RE-USED.
 - NEW HEATING WATER VALVE TO BE PROVIDED BY MY CONTROL CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR.
 - NEW DAMPER ACTUATOR TO BE PROVIDED AND INSTALLED BY CONTROL CONTRACTOR

CONTROLS SHALL BE ALERTON TO MATCH EXISTING CITY WIDE HVAC CONTROL SYSTEM.
 BY BUILDING CONTROL SERVICES, INC.
 8521 WHITE FIR ST., SUITE C1A
 RENO, NV 89523
 PH#: (775)826-8998
 FAX#: (775)826-3524
 NO EXCEPTIONS

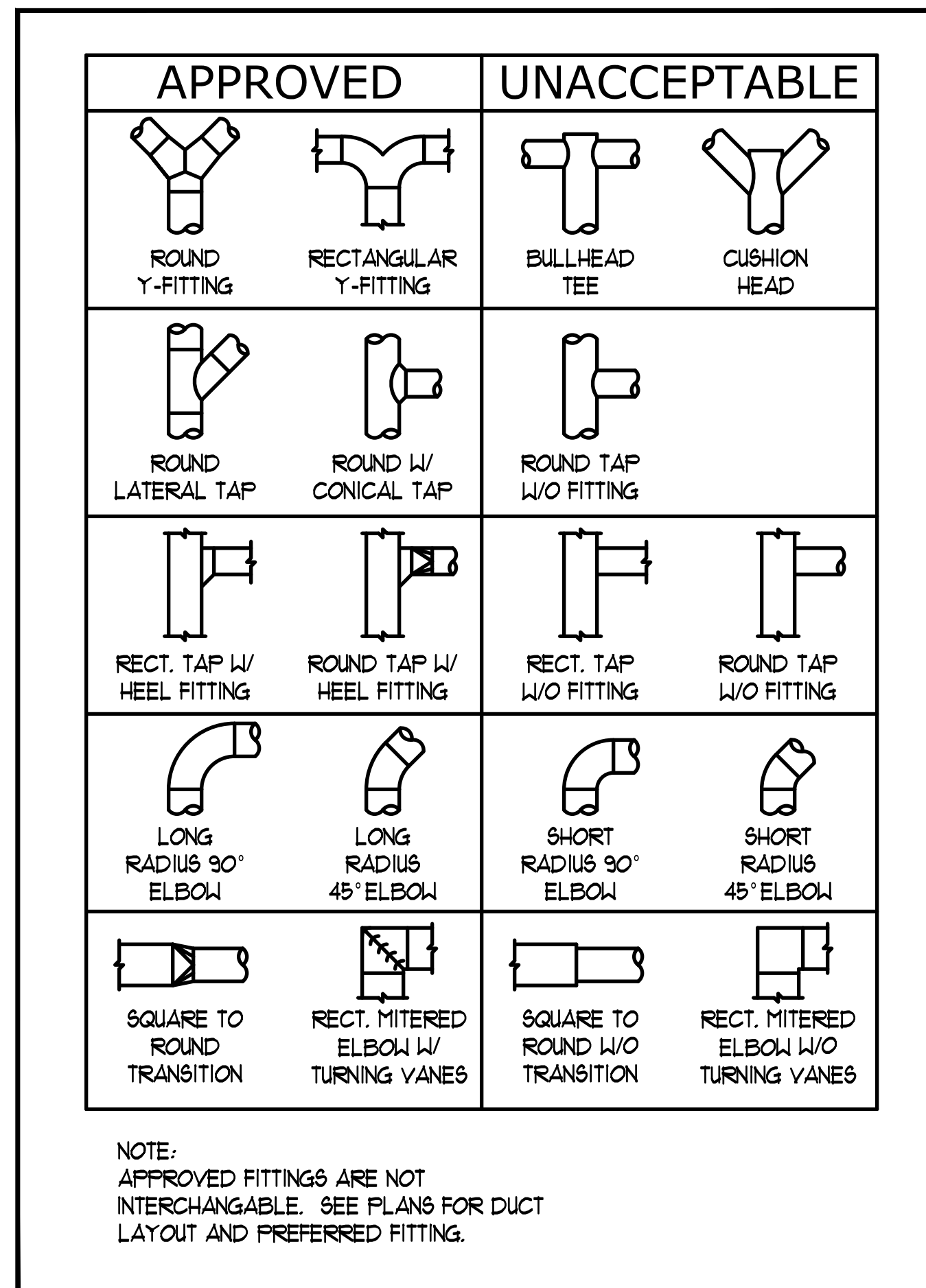




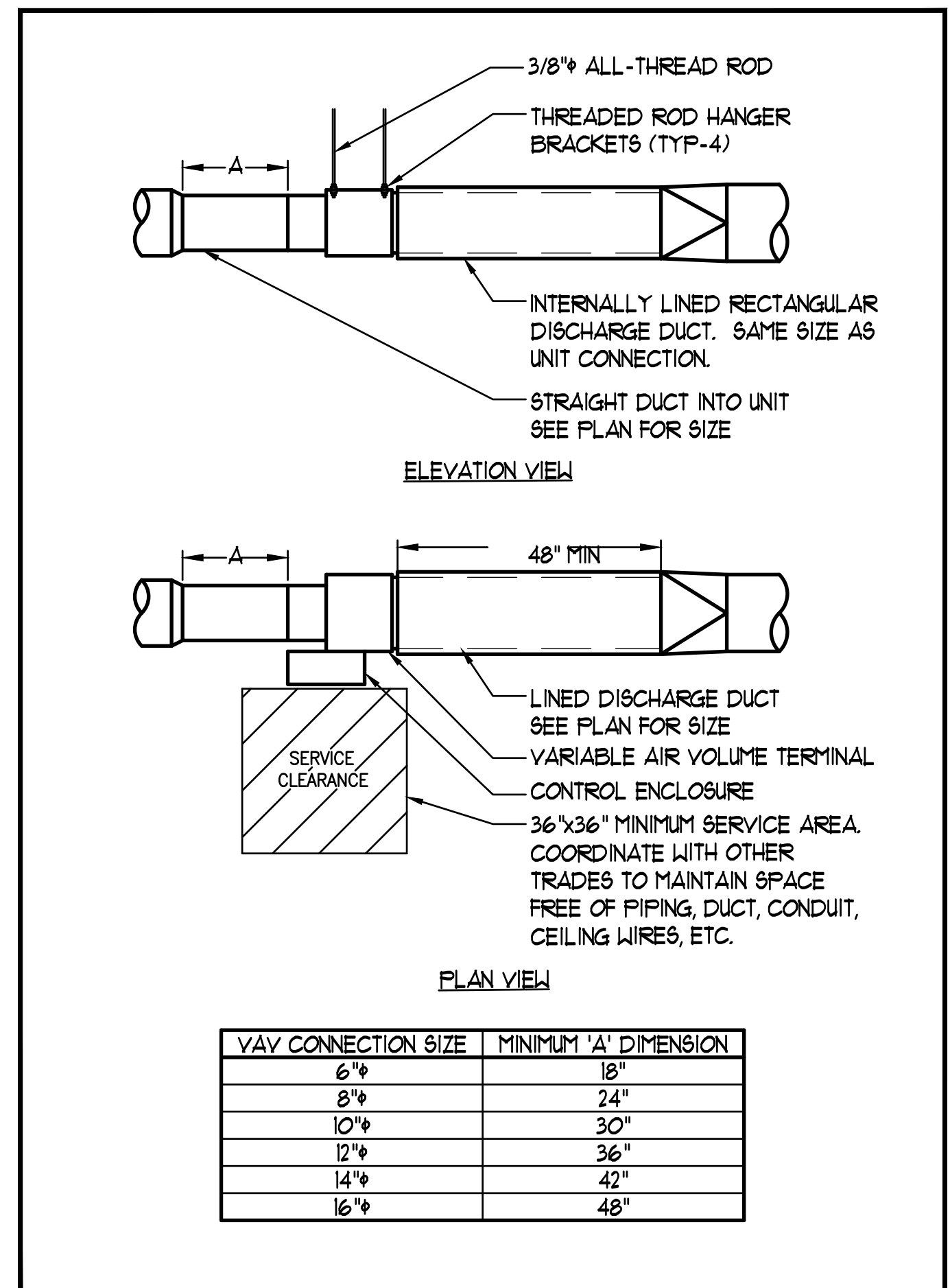
1 3 WAY HOT WATER COIL PIPING
M6.1 SCALE: NONE



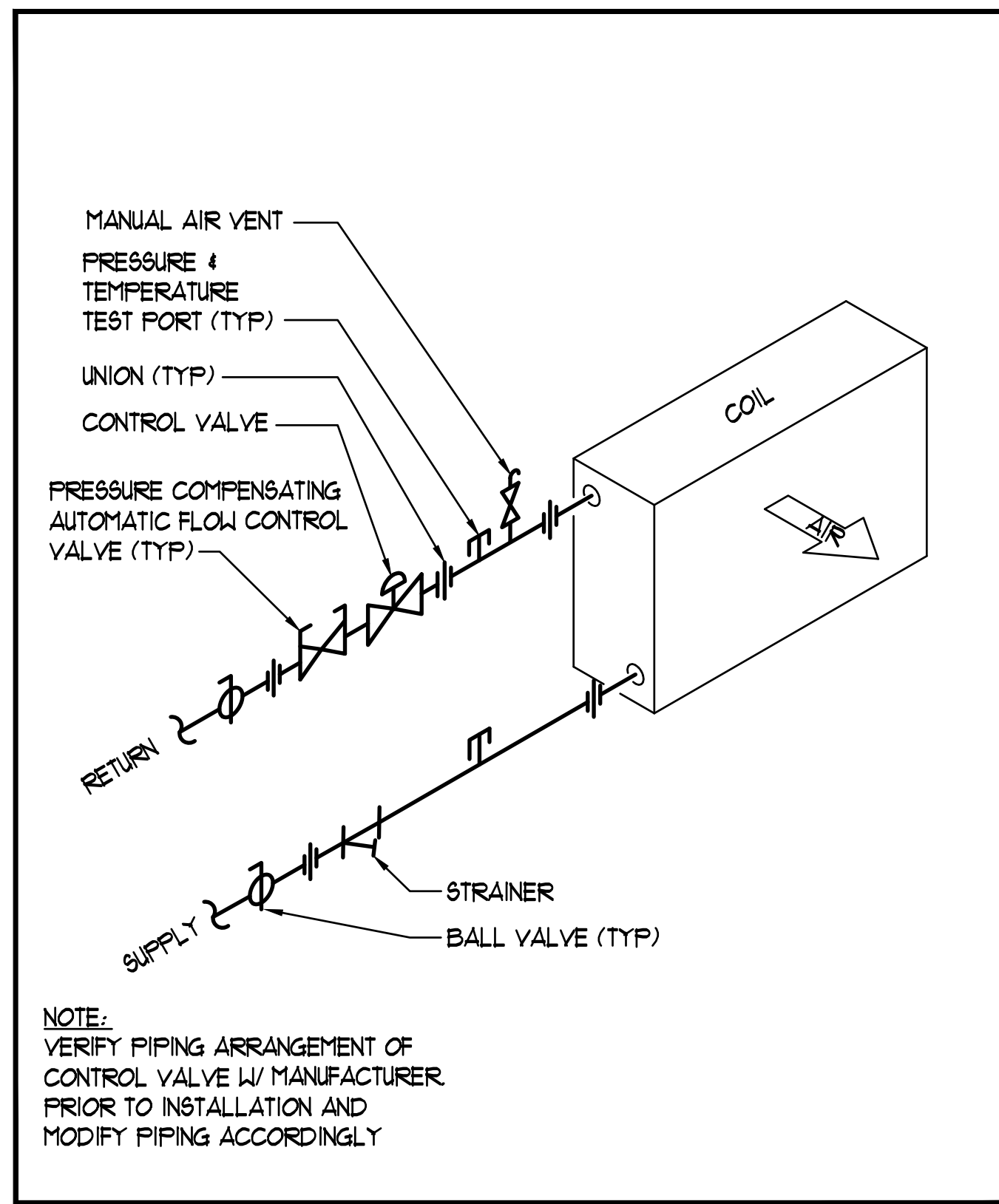
2 LOW PRESSURE DUCT FITTINGS DETAIL
M6.1 SCALE: NONE



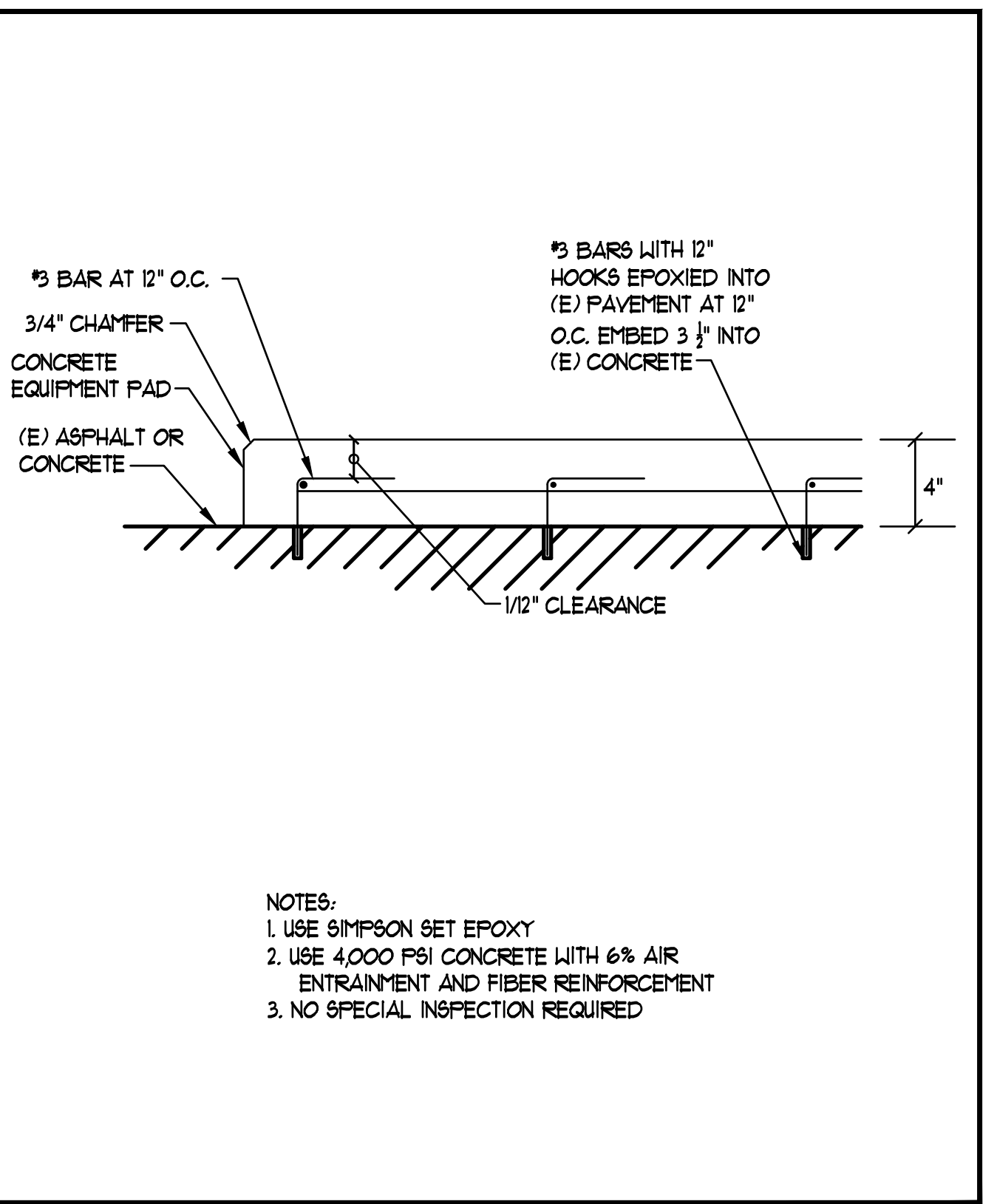
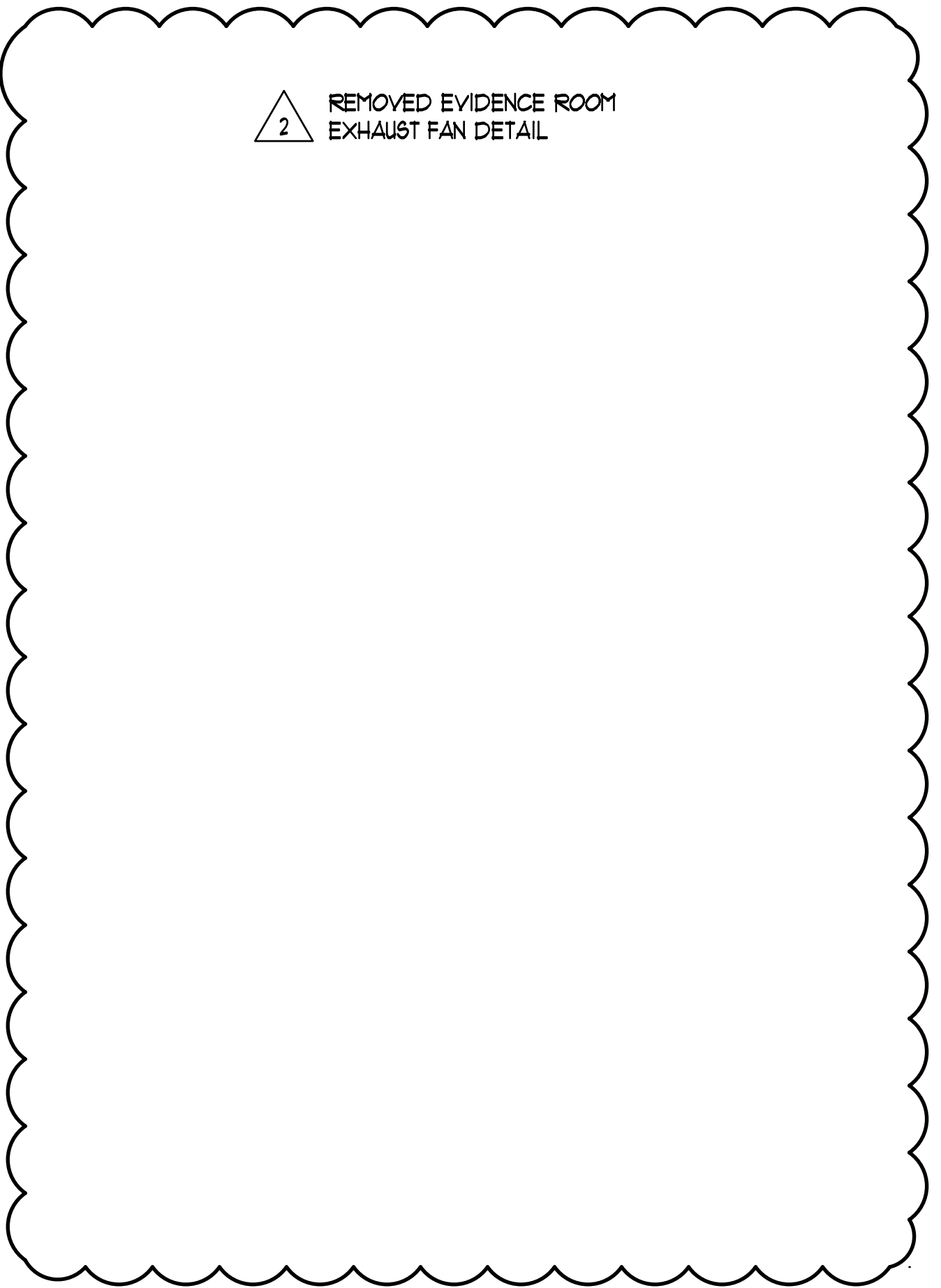
3 MEDIUM PRESSURE DUCT FITTINGS DETAIL
M6.1 SCALE: NONE



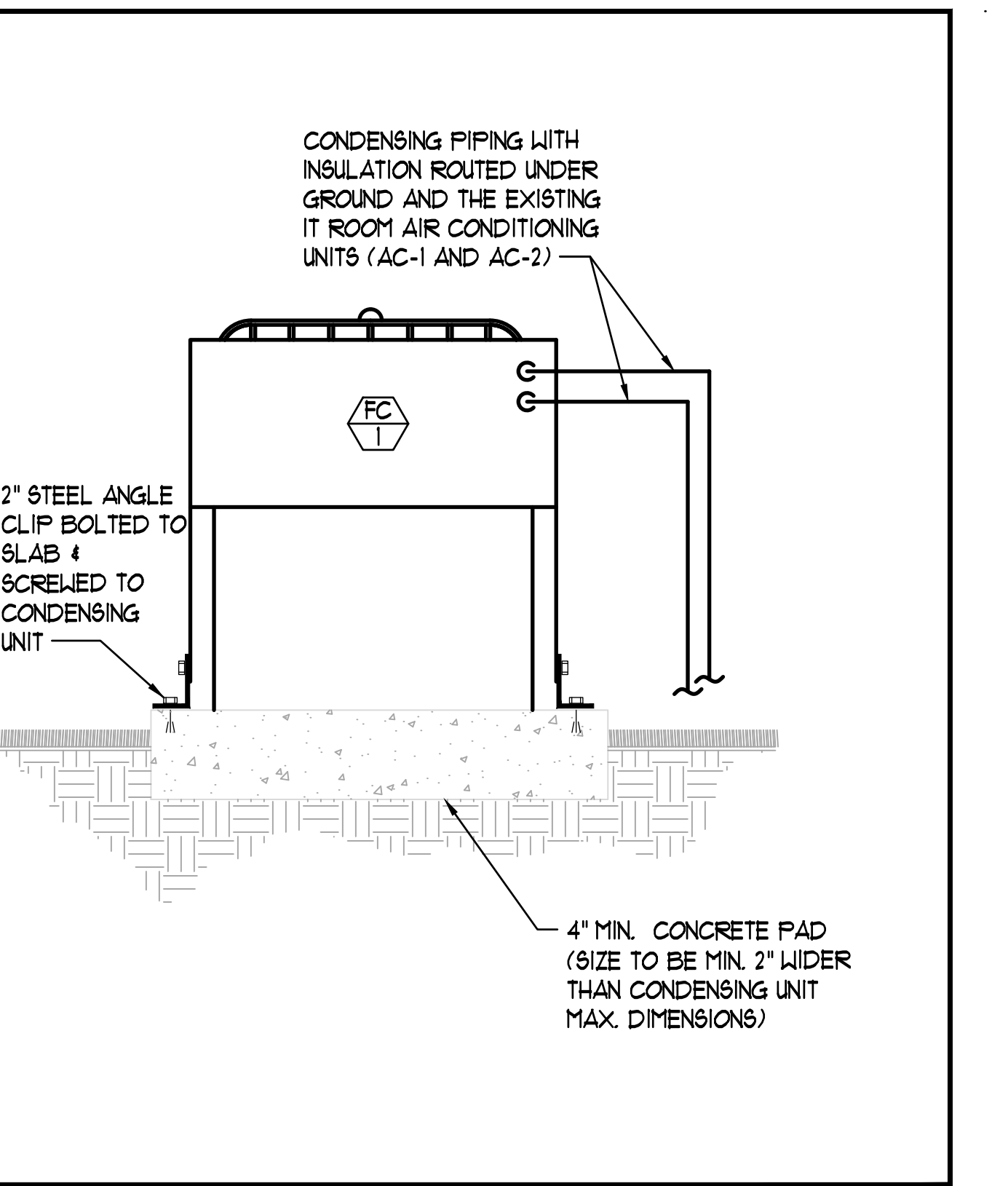
4 VAV TERMINAL DETAIL
M6.1 SCALE: NONE



5 2 WAY HOT WATER COIL PIPING
M6.1 SCALE: NONE

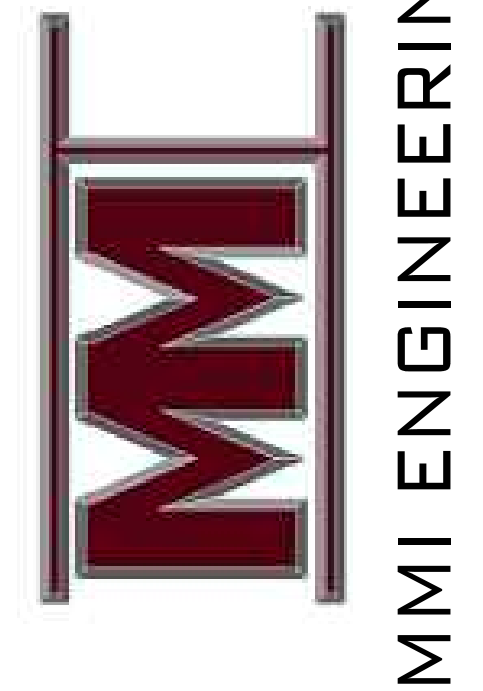


7 CONCRETE EQUIPMENT PAD DETAIL
M6.1 SCALE: NONE



8 IT ROOM FLUID COOLER DETAIL
M6.1 SCALE: NONE

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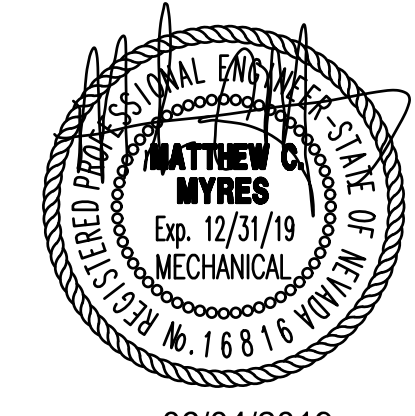


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SHEET TITLE
MECHANICAL DETAILS

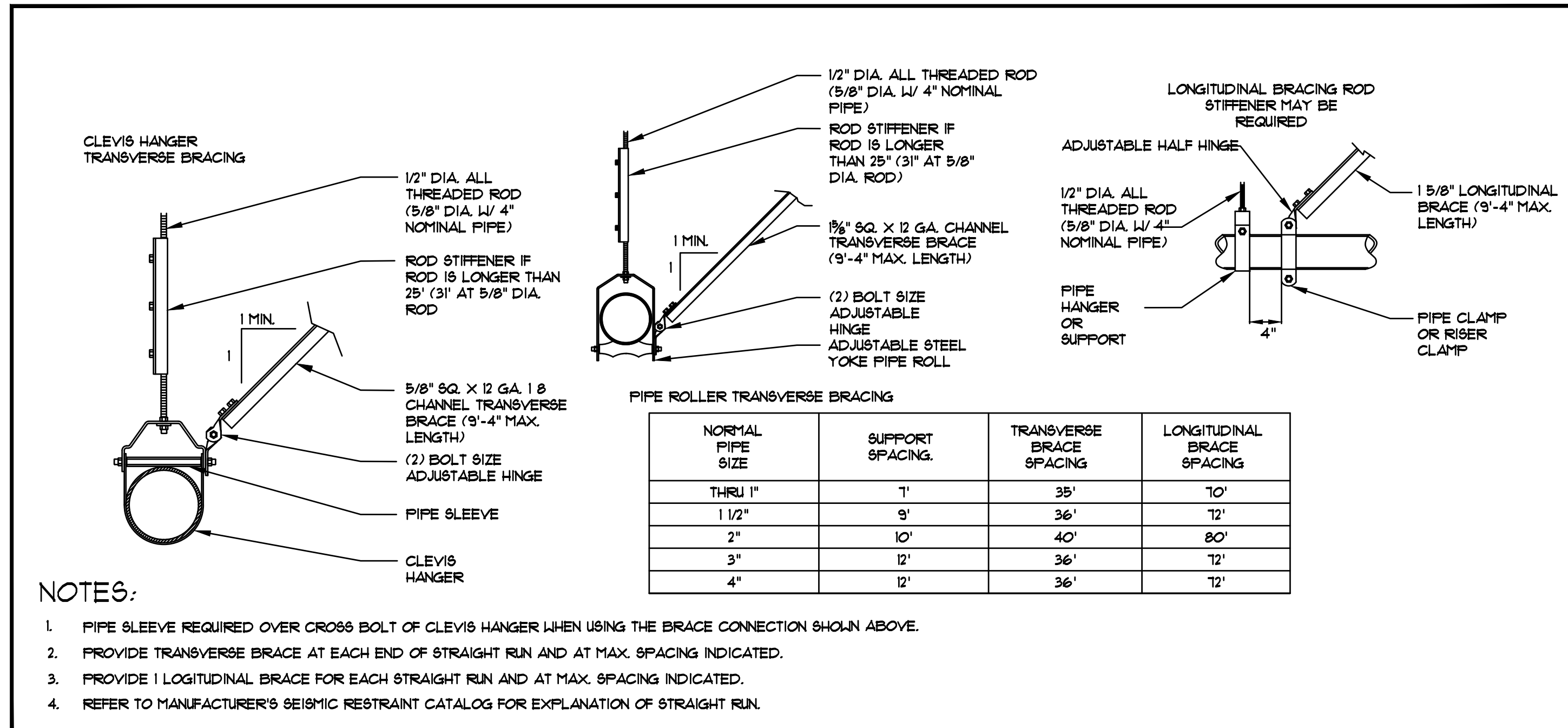
REVISIONS

| | |
|---|---------------------------------|
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| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

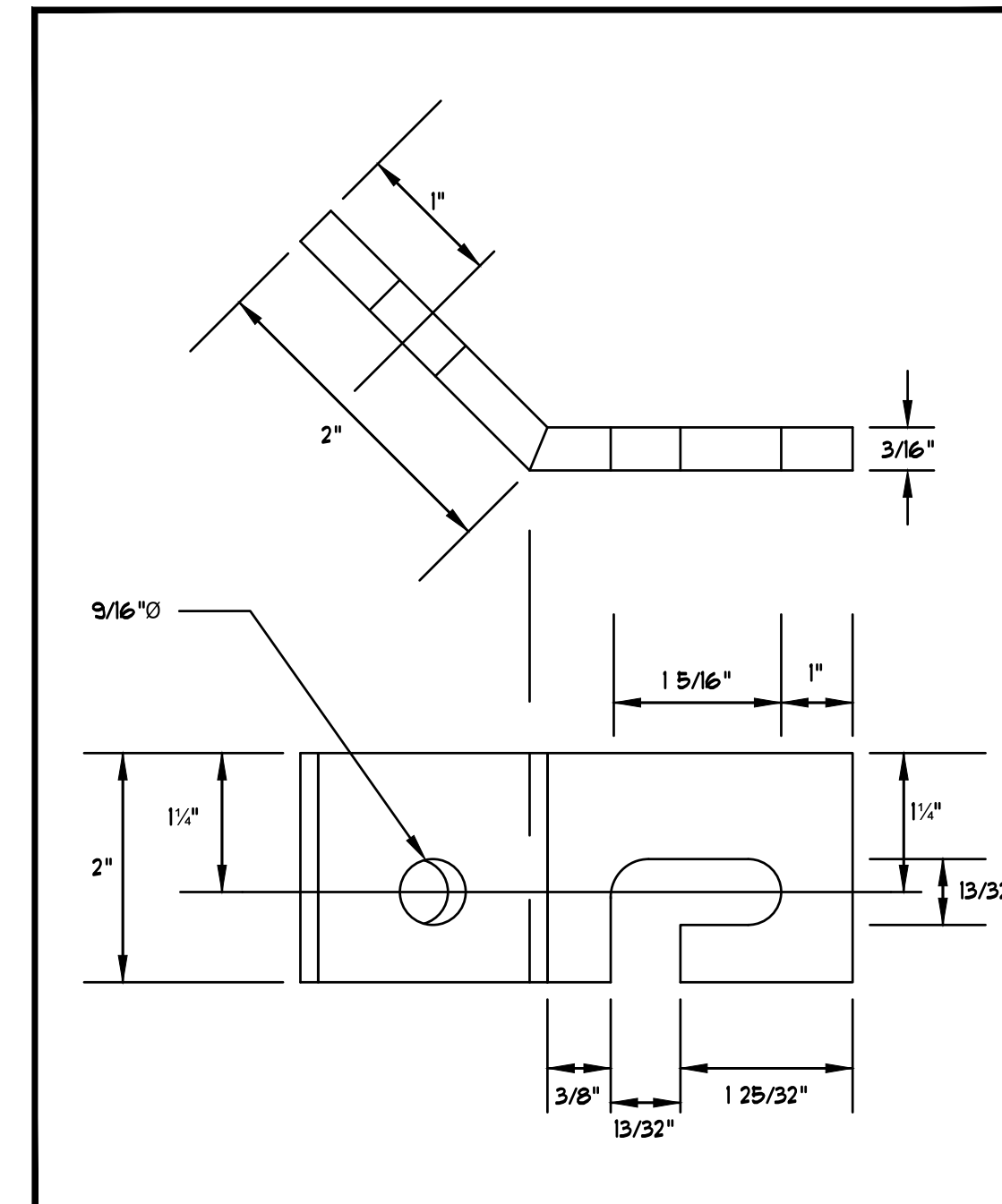


DATE: MARCH 26, 2018
SHEET NUMBER: M6.1

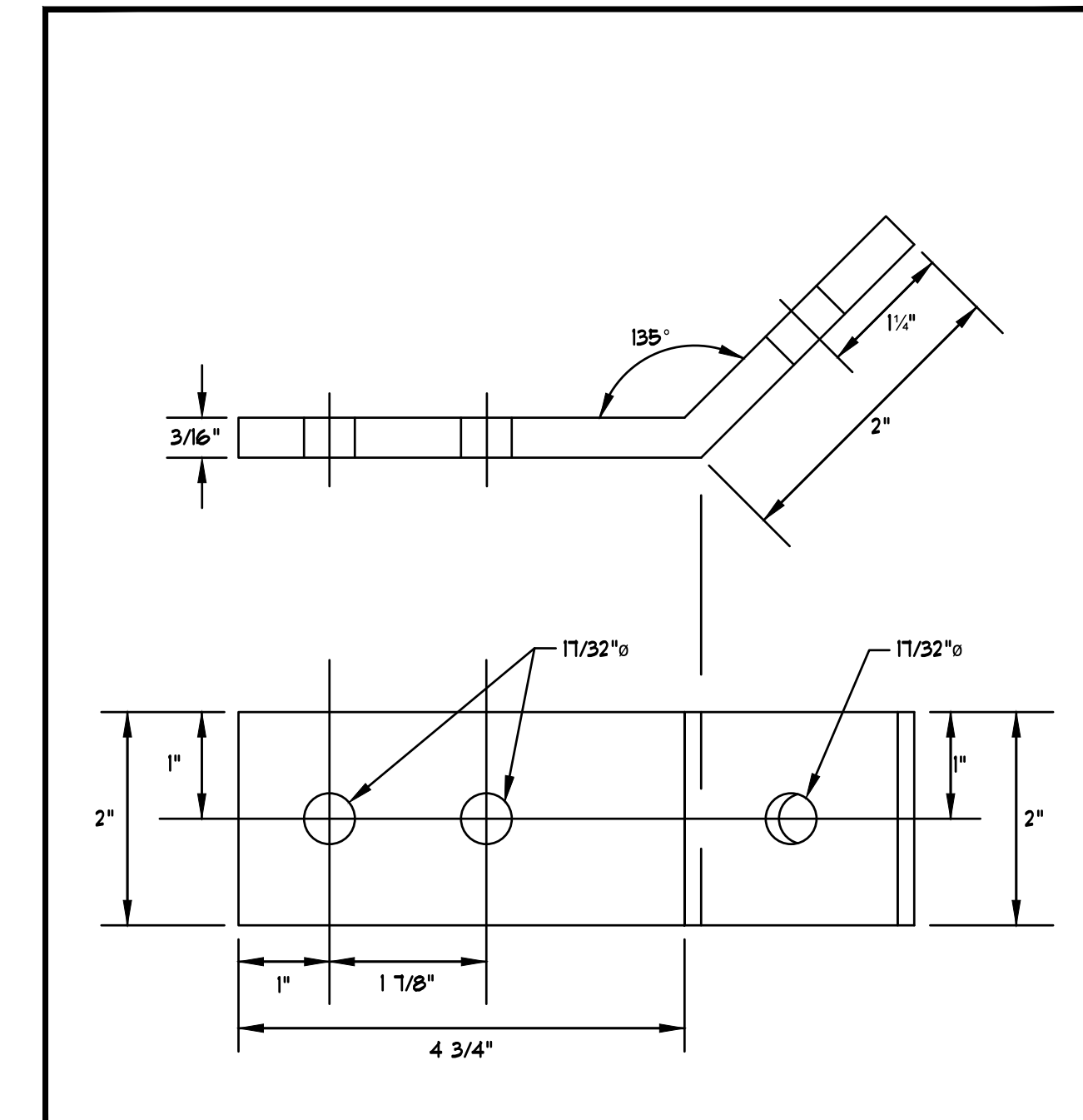
BID DOCUMENTS



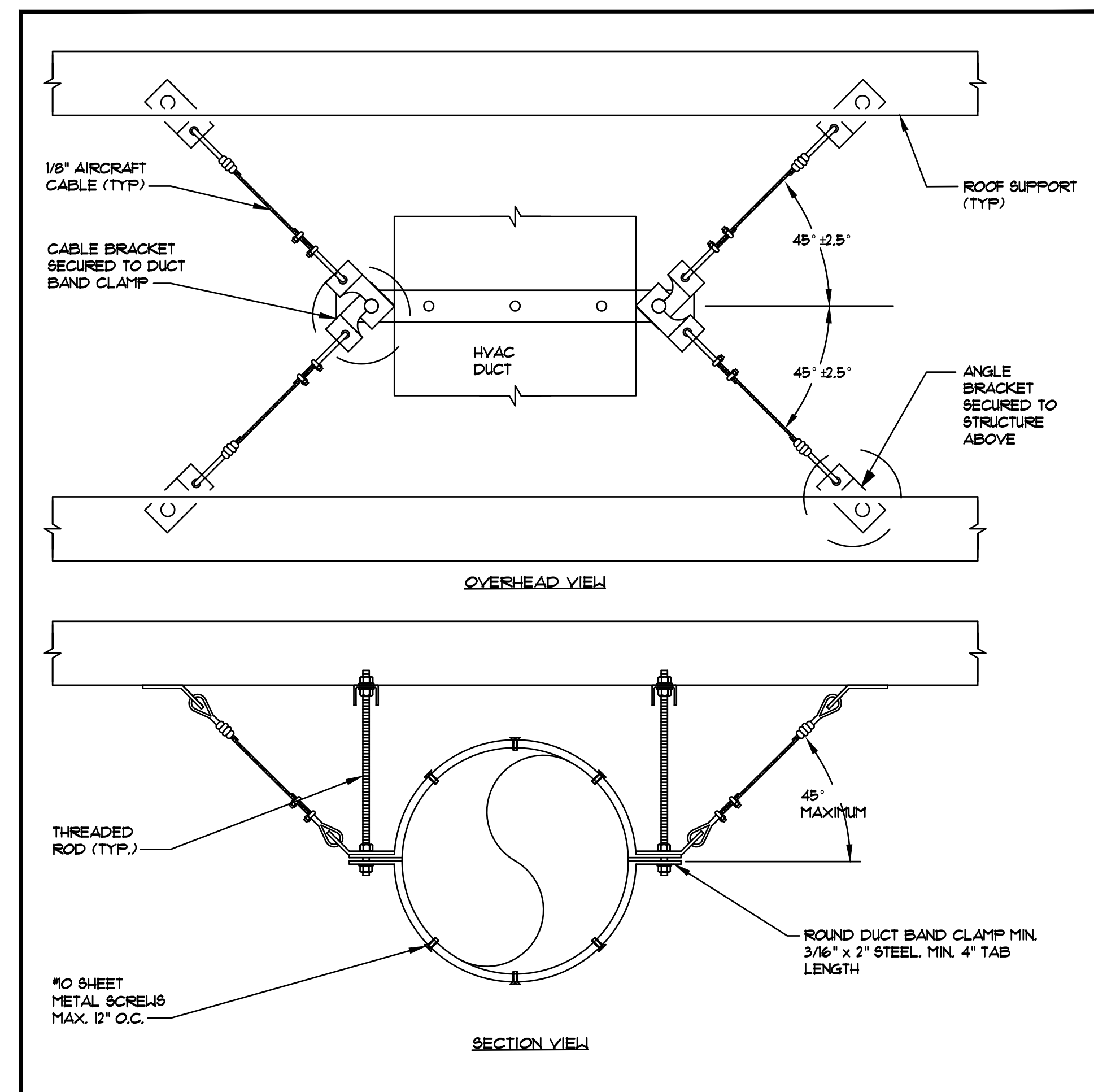
1 SEISMIC BRACING DETAIL
M6.2 SCALE: NONE



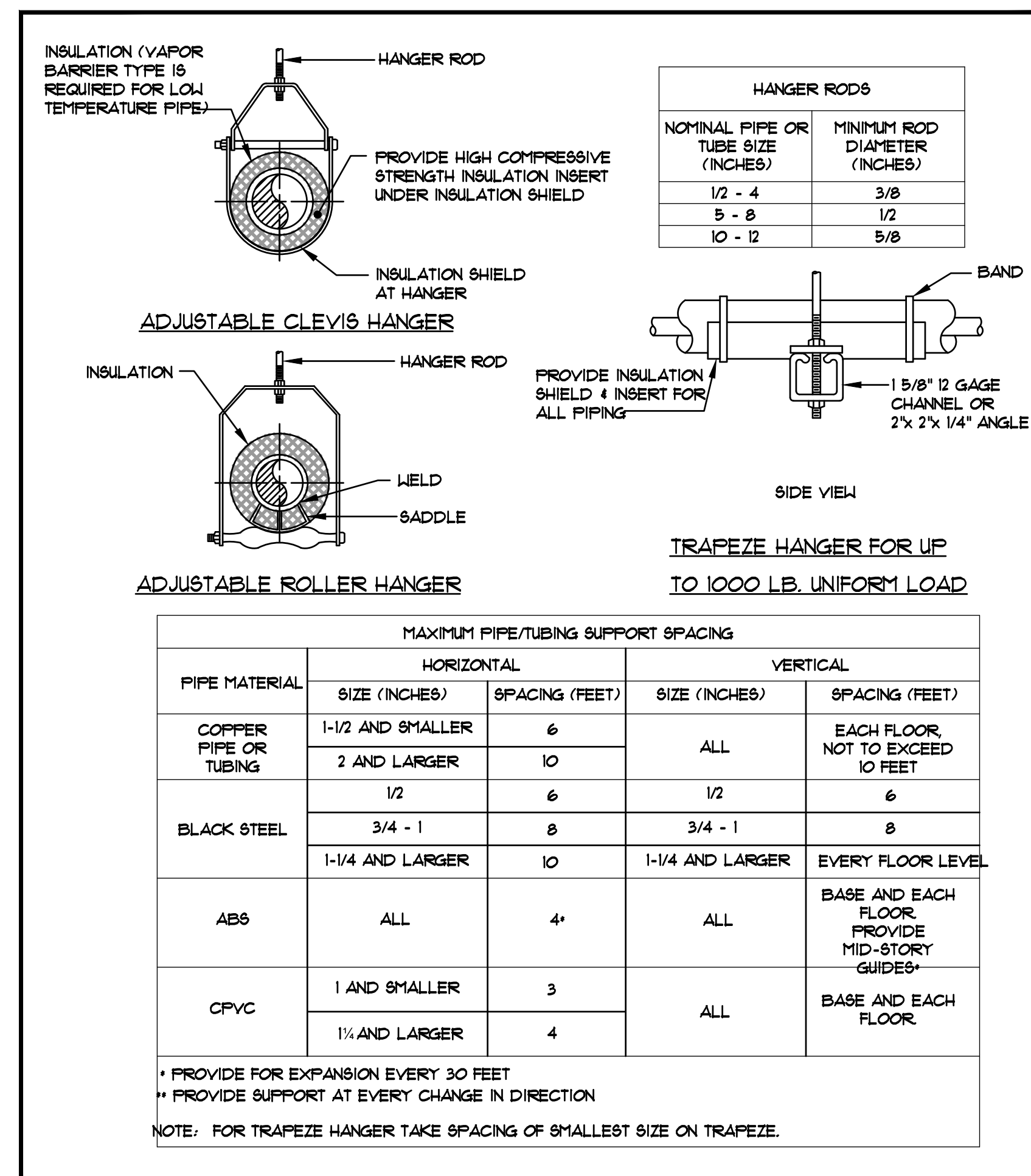
2 CABLE BRACKET DETAIL
M6.2 SCALE: NONE



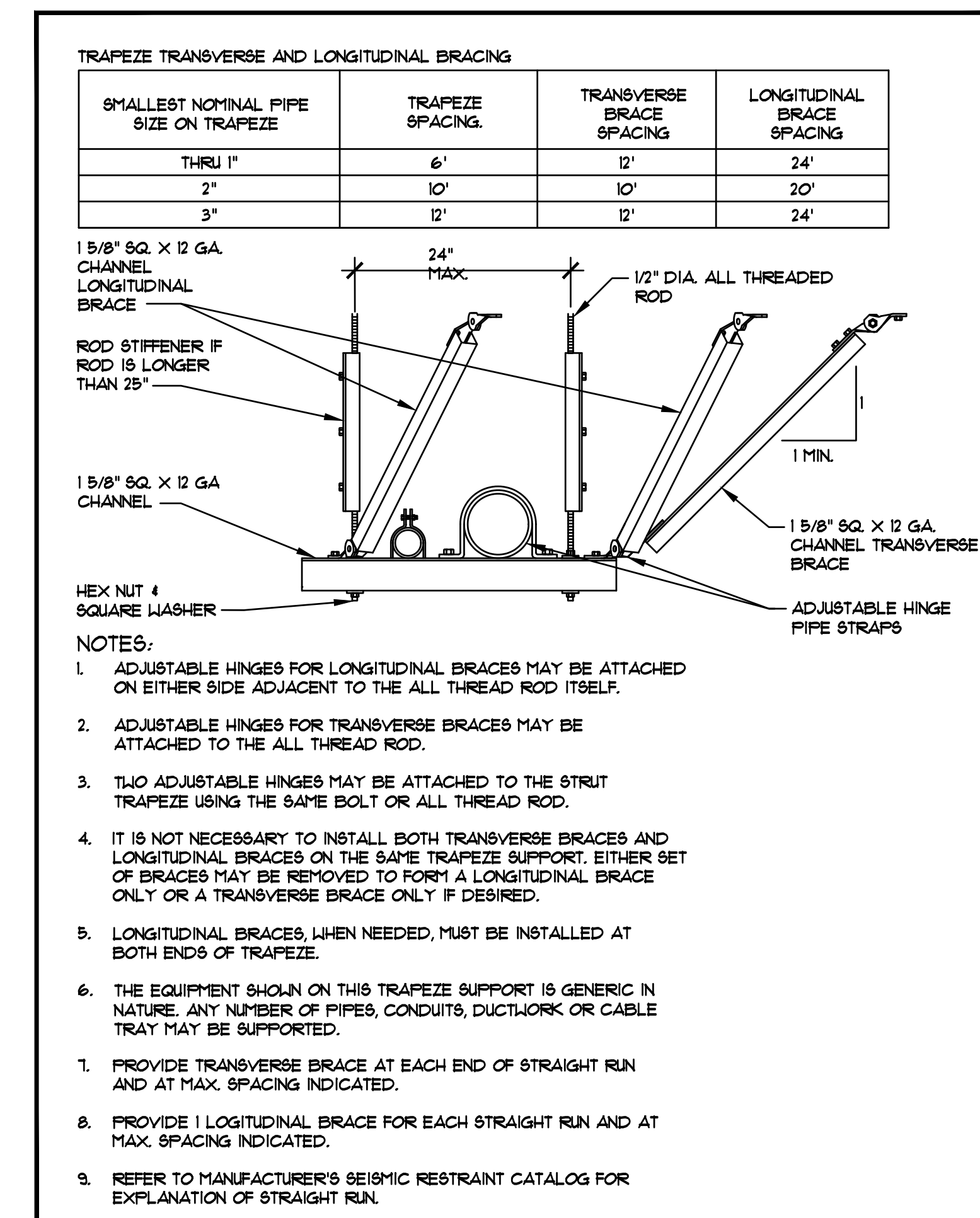
3 ANGLE BRACKET DETAIL
M6.2 SCALE: NONE



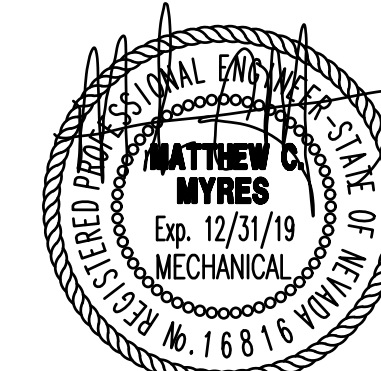
4 4-WAY SPLAYED CABLE DUCT BRACING DETAIL
M6.2 SCALE: NONE



5 TYPICAL PIPE HANGERS DETAIL
M6.2 SCALE: NONE

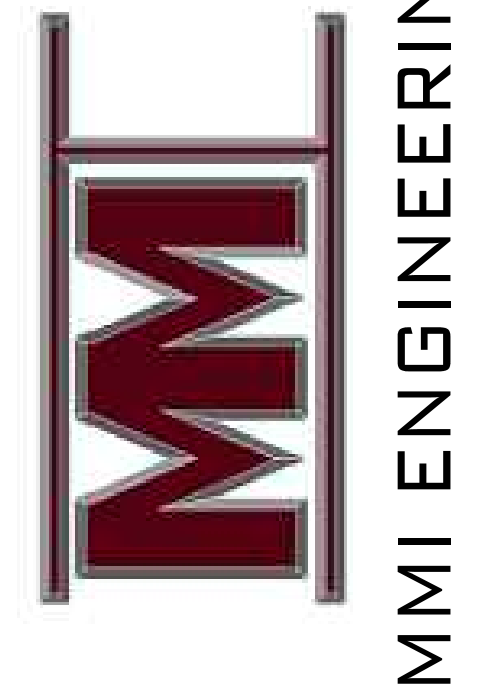


6 SEISMIC BRACING DETAIL
M6.2 SCALE: NONE



06/04/2019

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SHEET TITLE
MECHANICAL DETAILS (2)

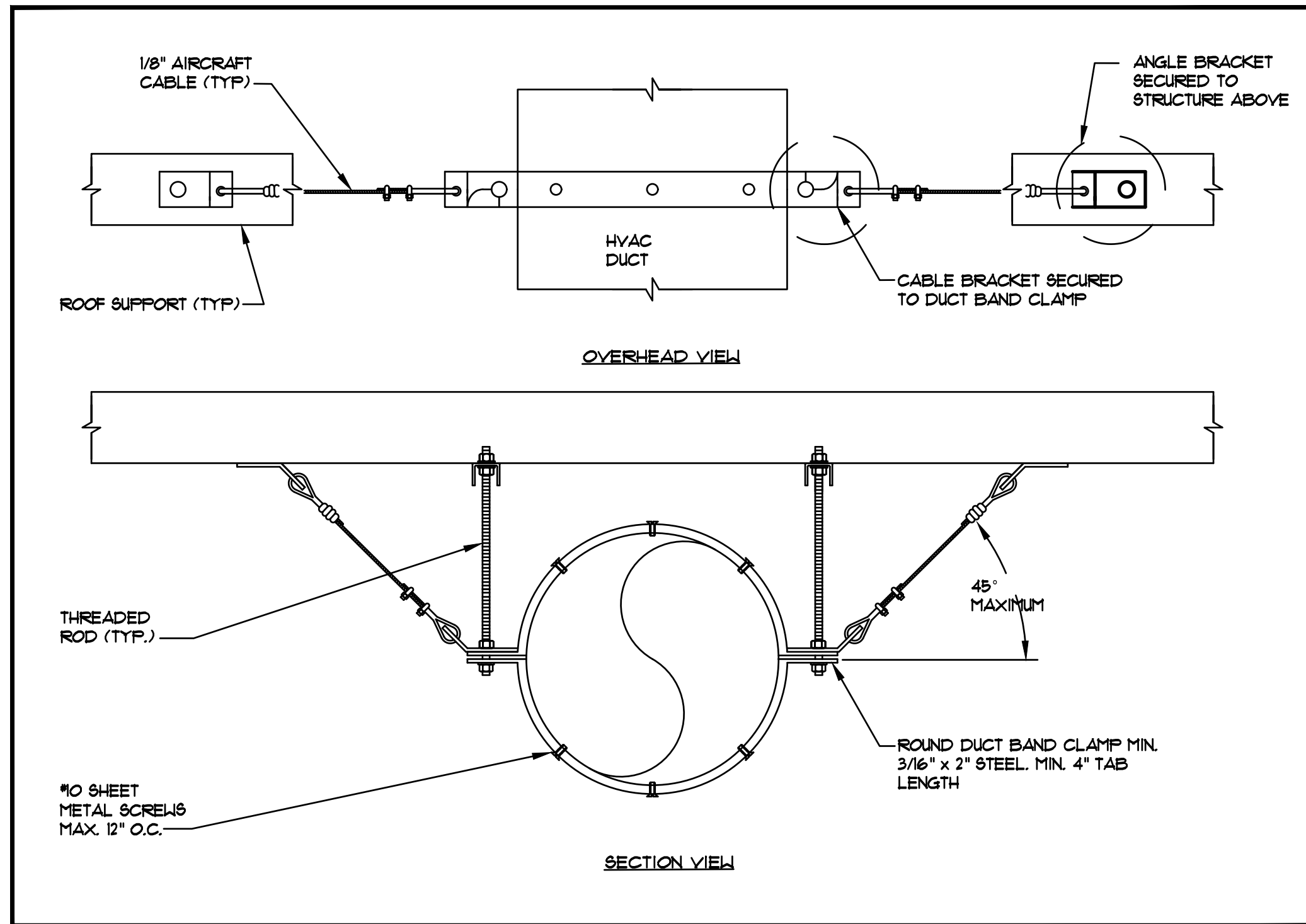
REVISIONS

| | |
|---|---------------------------------|
| 1 | PLAN REVIEW COMMENTS (04/09/18) |
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

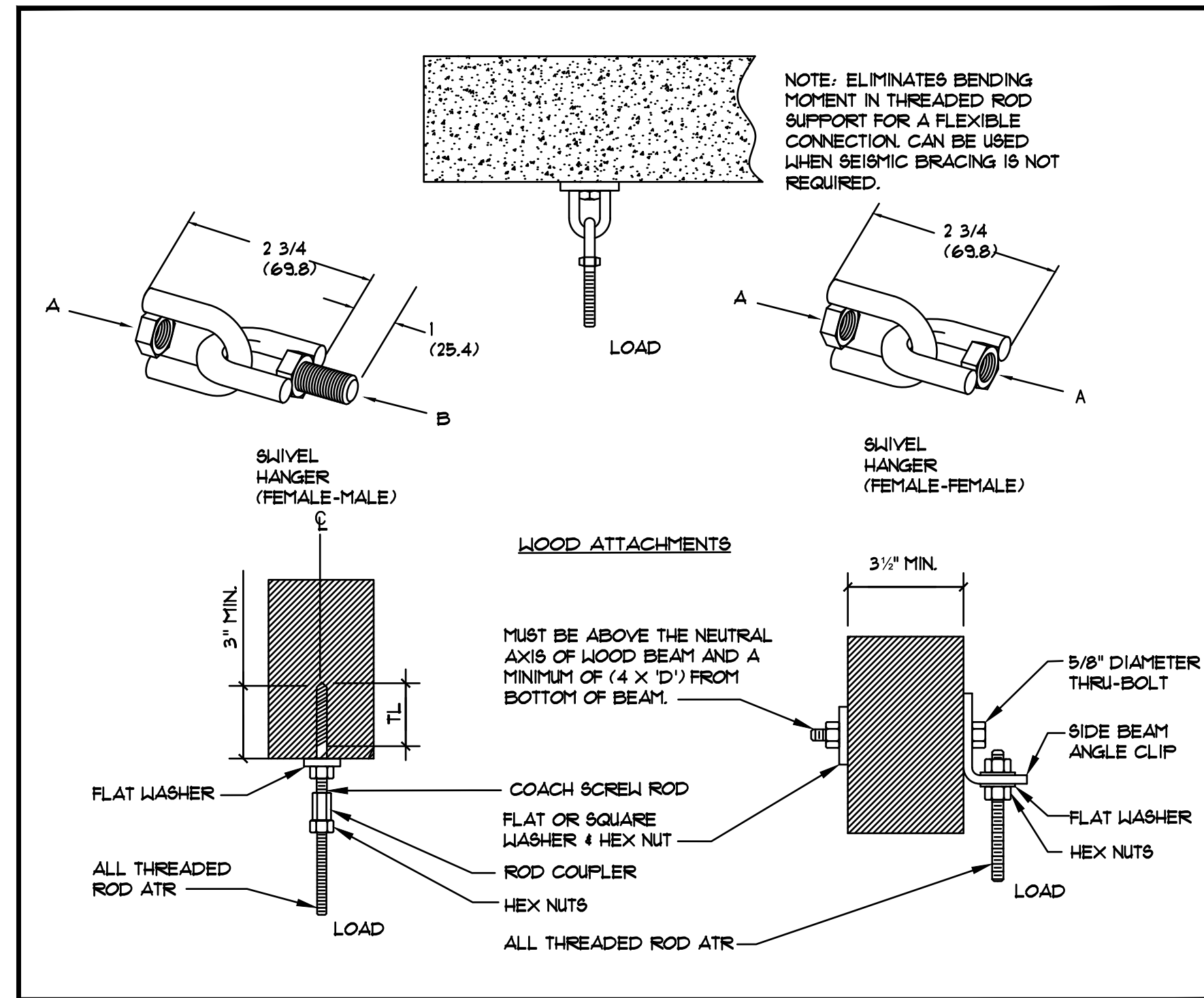
BID DOCUMENTS

DATE: MARCH 26, 2018
SHEET NUMBER:

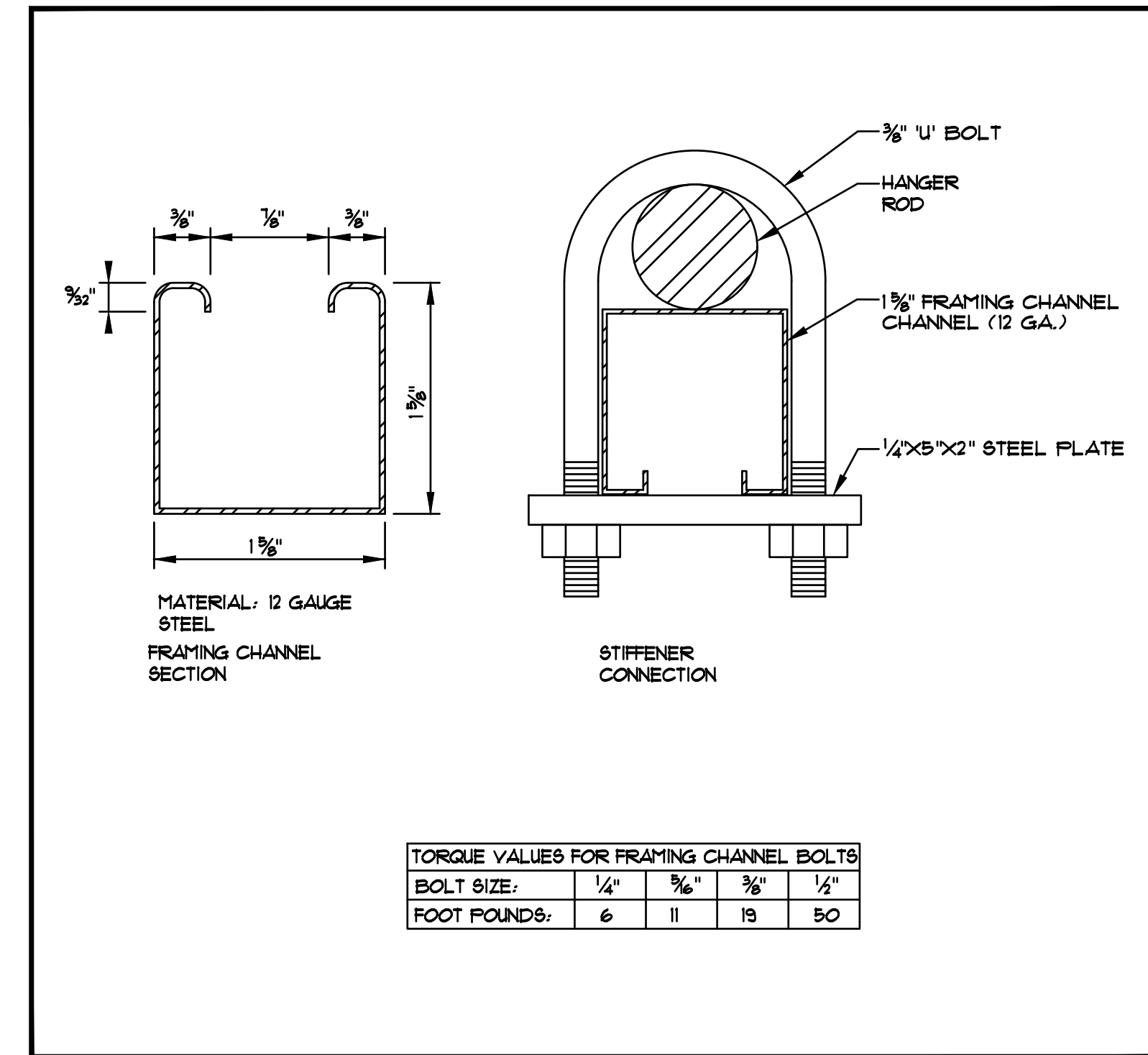
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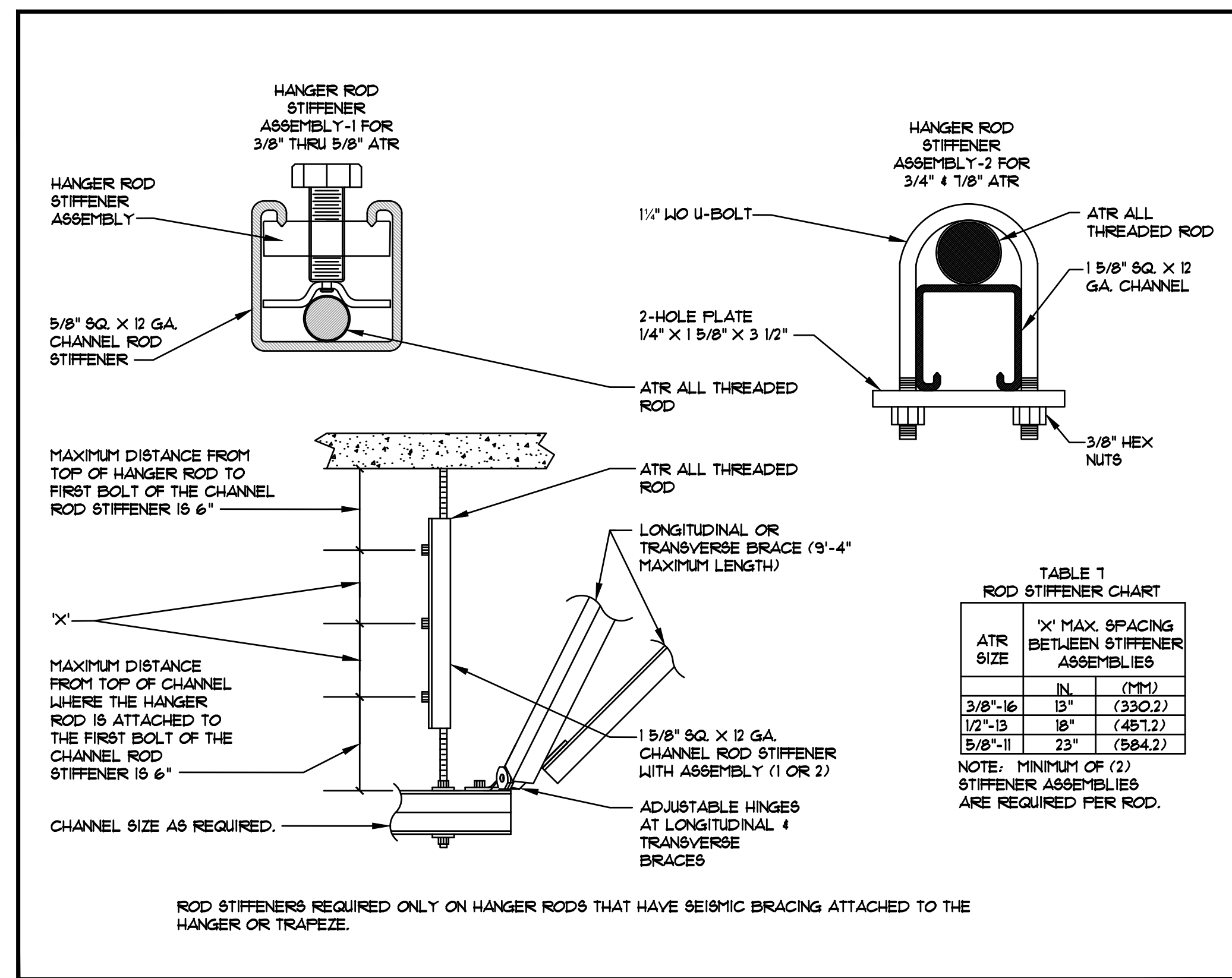
1 2-WAY TRANSFER CABLE DUCT BRACING DETAIL
M6.3 SCALE: NONE



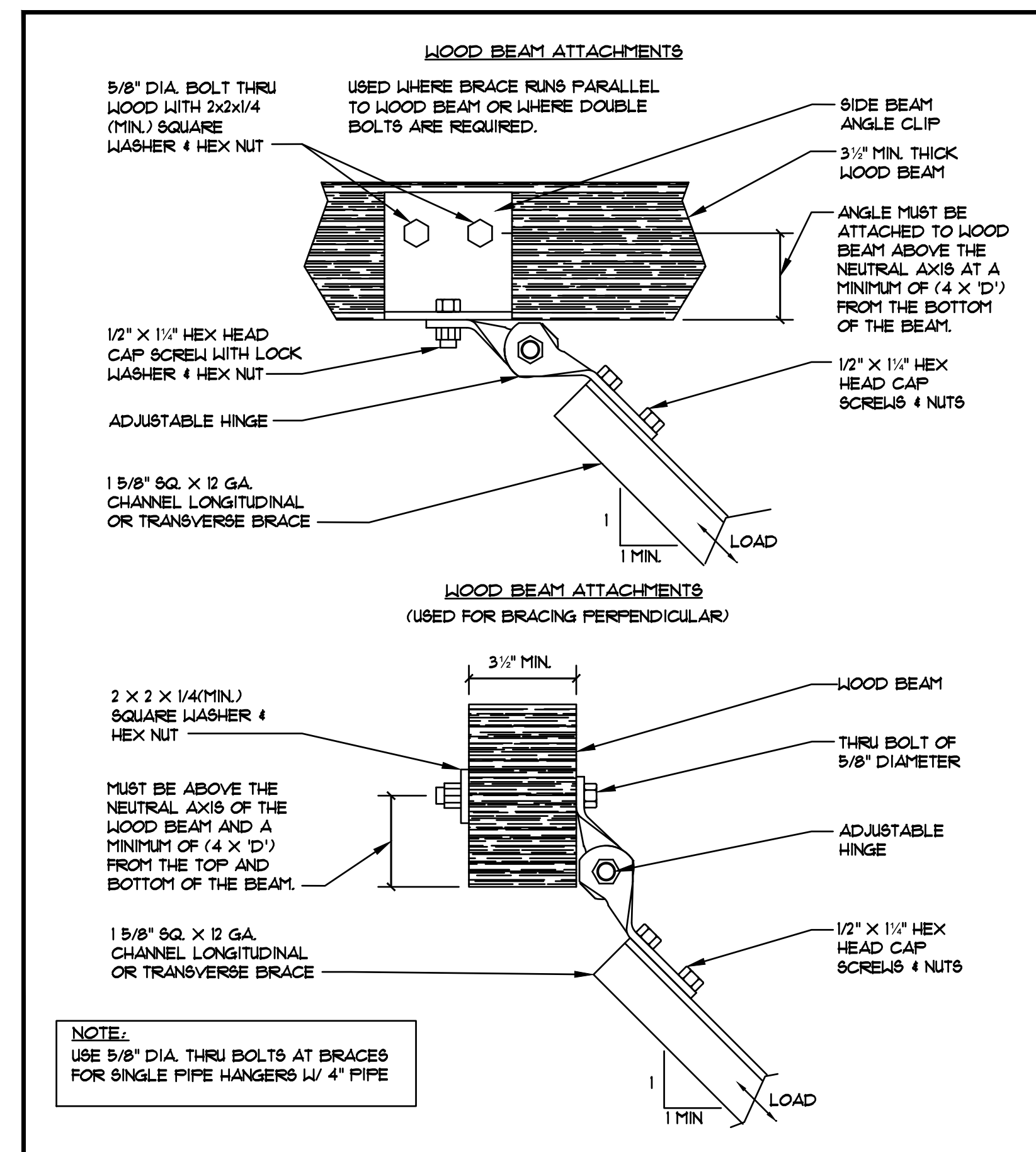
2 SEISMIC BRACING DETAIL
M6.3 SCALE: NONE



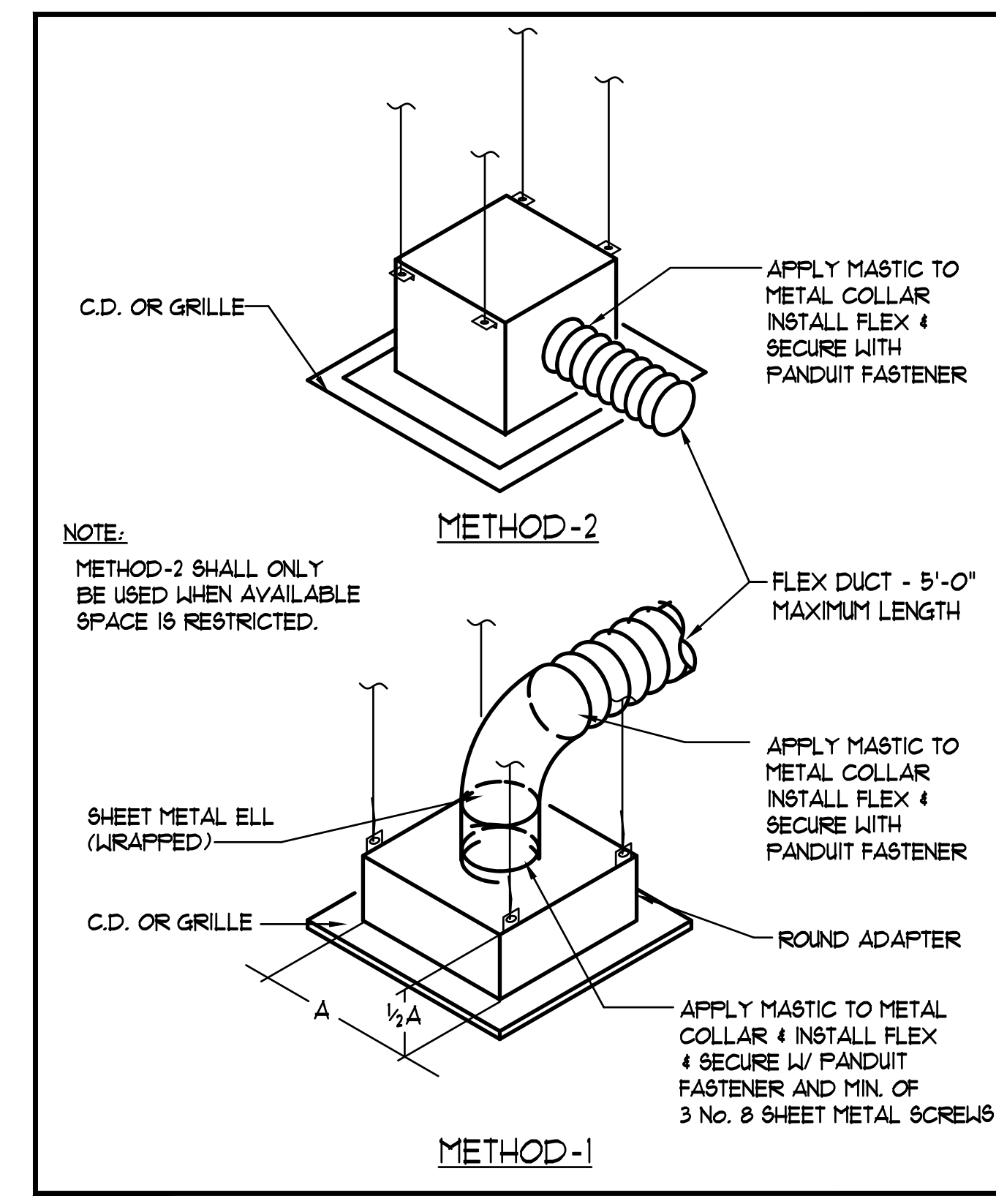
3 ROD STIFFENER DETAIL
M6.3 SCALE: NONE



4 SEISMIC BRACING DETAIL
M6.3 SCALE: NONE

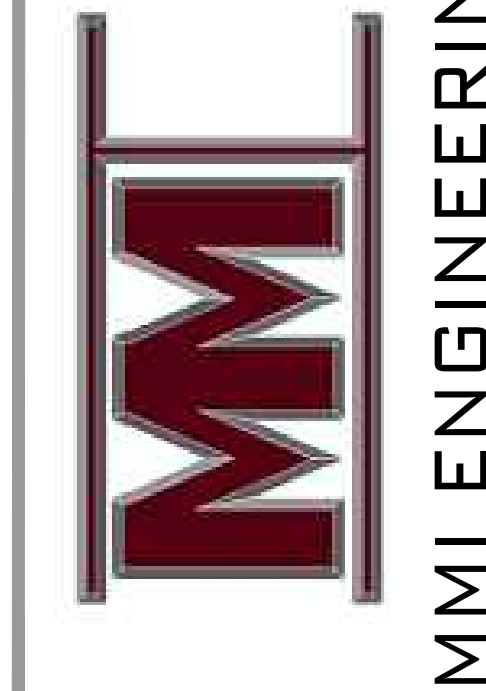


5 SEISMIC BRACING DETAIL
M6.3 SCALE: NONE



6 LAY IN CEILING DIFFUSER DETAIL
M6.3 SCALE: NONE

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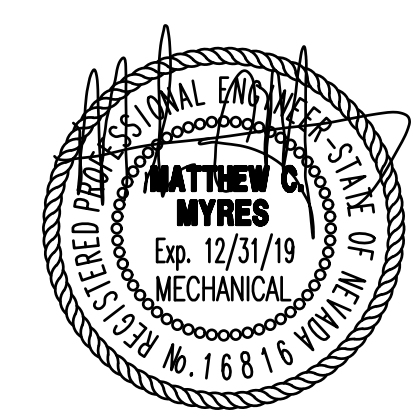


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SHEET TITLE
MECHANICAL DETAILS (3)

REVISIONS

| | |
|---|---------------------------------|
| 1 | PLAN REVIEW COMMENTS (04/09/18) |
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

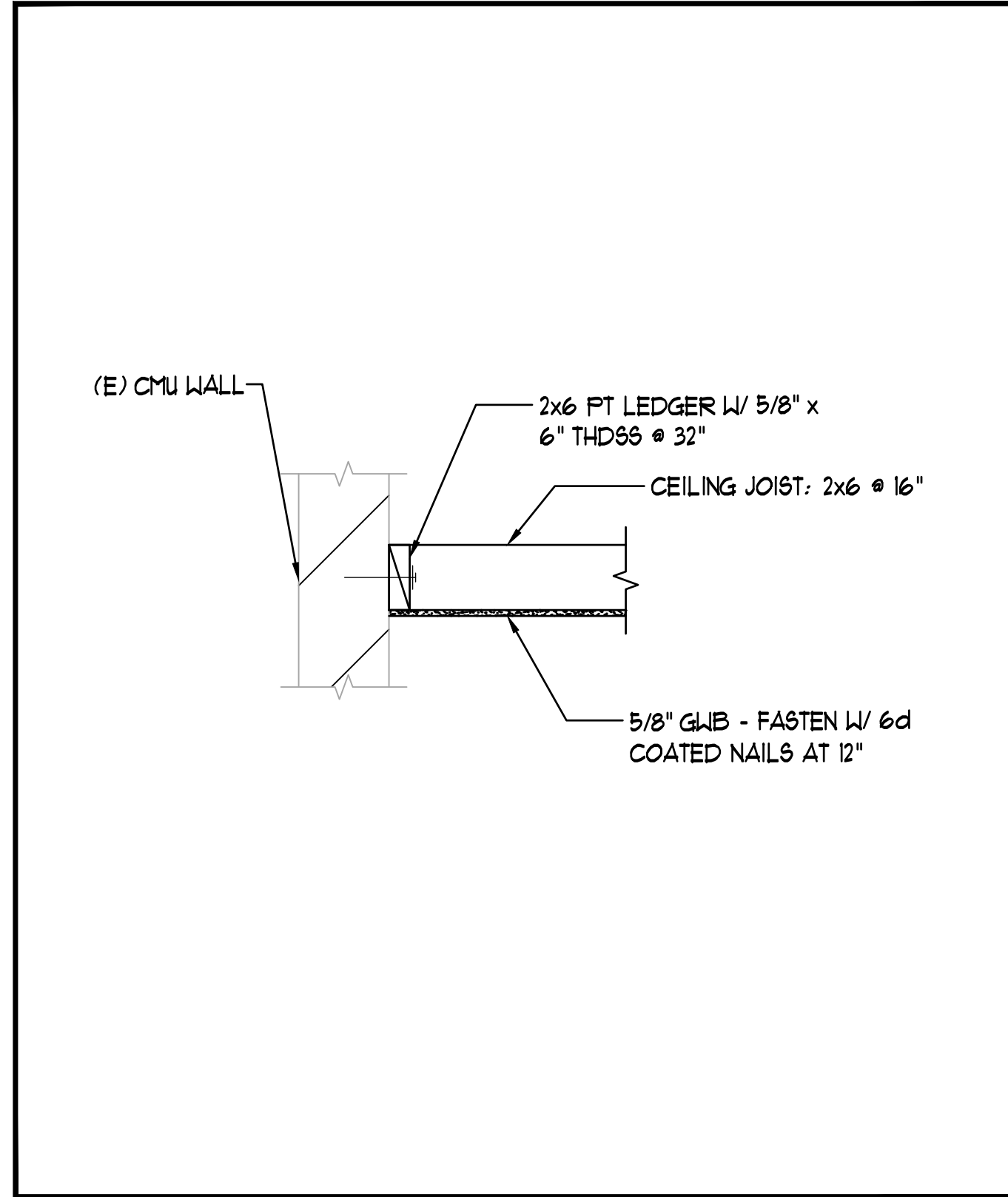


06/04/2019

BID DOCUMENTS

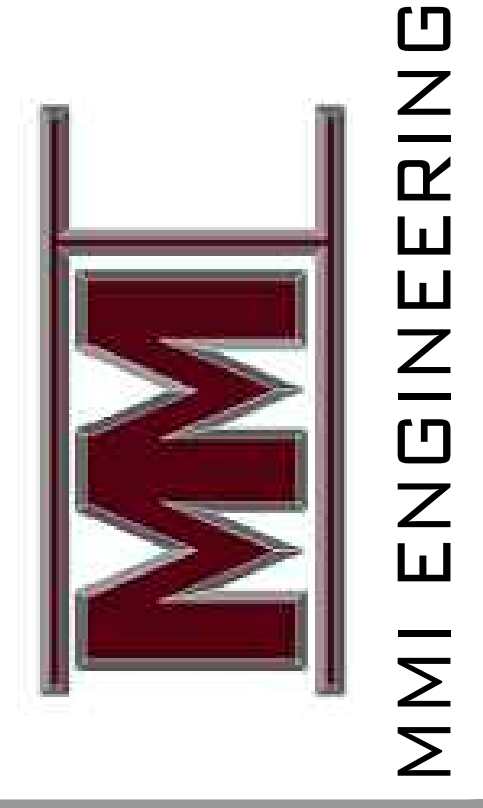
DATE: MARCH 26, 2018
SHEET NUMBER:

M6.3



1 GYPSUM BOARD CEILING DETAIL
 M6.4 SCALE: NONE

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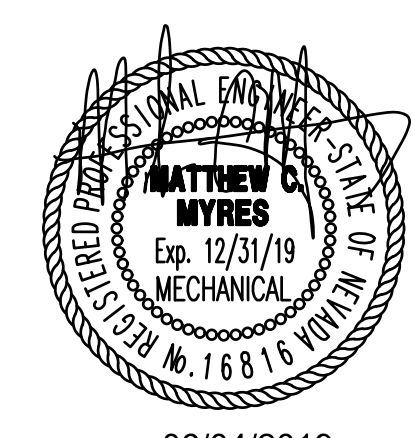


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SHEET TITLE
 MECHANICAL DETAILS (4)

REVISIONS

| | |
|---|---------------------------------|
| 1 | PLAN REVIEW COMMENTS (04/09/18) |
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |



06/04/2019

BID DOCUMENTS

DATE : MARCH 26, 2018
 SHEET NUMBER :

M6.4

ELECTRICAL SYMBOL LIST

| | |
|--|---|
| | CONDUIT RUN IN OR ON CEILING OR WALL |
| | CONDUIT RUN IN OR UNDER FLOOR OR UNDERGROUND |
| | HASH MARKS INDICATE NUMBER OF #12 AWG CONDUCTORS IN CONDUIT. NO MARKS INDICATE 2 #12'S. DOES NOT INCLUDE GROUND WIRE. IF NON-METALLIC CONDUIT ADD GROUND PER NEC. |
| | LONG SLASH WITH HASH MARKS AS SHOWN INDICATES GROUND WIRE FOR ISOLATED GROUNDING SYSTEM. SIZE PER N.E.C. |
| | HOMERUN TO PANEL WITH PANEL AND CIRCUIT INDICATED |
| | HOMERUN TO PANEL WITH CIRCUIT NUMBER IN BRACKETS INDICATING MULTI-POLE BREAKER. |
| | RACEWAY UP |
| | RACEWAY DOWN |
| | FLEX CONDUIT TO LAY-IN FIXTURE IN CEILING |
| | "ON" INDICATES CIRCUITING IS SPLIT AT DIFFERENT LOCATIONS |
| | FLUORESCENT FIXTURE SURFACE OR SUSPENDED - SEE FIXTURE SCHEDULE FOR MOUNTING |
| | FLUORESCENT FIXTURE - LAY-IN |
| | SINGLE POLE SWITCH +48" AFF |
| | AUTOMATIC WALL SWITCHES, WATT STOPPER CAT. PW-100 120/277. +48" AFF |
| | DUAL LEVEL AUTOMATIC WALL SWITCHES, WATT STOPPER CAT NO. PW-200 120/277. +48" AFF |
| | MOTOR SYMBOL - HORSEPOWER AS INDICATED |
| | DISCONNECT SWITCH (30A/3P UNLESS INDICATED ON DWGS) "F" INDICATES FUSES PER MANUFACTURERS NAMEPLATE RATING |
| | MAGNETIC MOTOR STARTER (SIZE AS INDICATED ON DRAWINGS) |
| | COMBINATION STARTER / FUSED DISCONNECT SWITCH (SIZE AS INDICATED ON DRAWINGS - FUSES SIZED PER MANUFACTURER'S NAMEPLATE RATING) |
| | 120V DUPLEX CONVENIENCE RECEPTACLE +18" AFF |
| | 120V DOUBLE DUPLEX CONVENIENCE RECEPTACLE +18" AFF |
| | JUNCTION BOX AS REQUIRED BY NATIONAL ELECTRIC CODE |
| | ELECTRICAL PANELBOARD - SURFACE MOUNTED |
| | TRANSFORMER |
| | AUXILIARY SYSTEM TERMINAL CABINET |
| | EXISTING WIRE AND/OR CONDUIT TO BE REMOVED OR ABANDONED |
| | EXISTING WIRE AND/OR CONDUIT TO REMAIN |
| | DASHED DEVICES, LIGHT FIXTURES, ETC. EXISTING TO BE REMOVED |
| | "E" ADJACENT TO DEVICES, LIGHT FIXTURES, ETC. INDICATES EXISTING TO REMAIN |
| | SHEET NOTE |
| | LIGHT FIXTURE DESIGNATION & WATTAGE. SEE FIXTURE SCHEDULE |
| | MECHANICAL EQUIPMENT DESIGNATION. SEE MECHANICAL & PLUMBING PLANS |
| | FEEDER - SIZE AS INDICATED ON SINGLE LINE DIAGRAM |
| | DETAIL DESIGNATION - "B" INDICATES DETAIL # ON SHEET E3.1 |
| | ROOM NUMBER |

* NOTE: ALL MOUNTING HEIGHTS AS INDICATED UNLESS NOTED OTHERWISE.
ALL SYMBOLS MAY NOT BE USED ON PROJECTS.

ELECTRICAL ABBREVIATIONS

| | |
|------|---|
| AC | ABOVE COUNTER. INSTALL 4" ABOVE SPLASH OR COUNTER OR AT HEIGHT AS INDICATED ON DRAWINGS |
| AFF | ABOVE FINISHED FLOOR |
| AFG | ABOVE FINISHED GRADE |
| AL | ALUMINUM |
| CU | COPPER |
| EC | EMPTY CONDUIT WITH PULL WIRE |
| FBO | FURNISHED BY OTHER SECTION |
| GFI | GROUND FAULT INTERRUPTING |
| NEC | NATIONAL ELECTRICAL CODE |
| NIC | NOT IN CONTRACT |
| NVE | NV ENERGY |
| PNL | PANEL |
| TTB | TELEPHONE TERMINAL BOARD |
| UNO | UNLESS NOTED OTHERWISE |
| W/ | WITH |
| WP | WEATHERPROOF (NEMA 3R) |
| XFMR | TRANSFORMER |

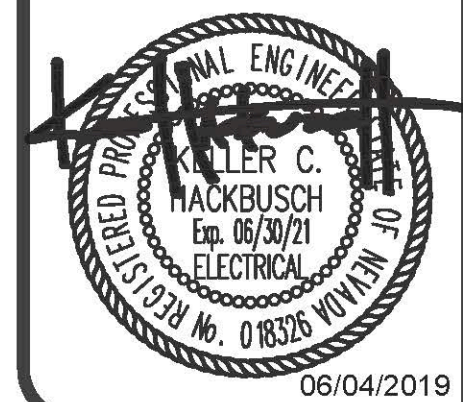
GENERAL DEMOLITION NOTES

- ELECTRICAL LIGHTS, DEVICES AND ETC. THAT ARE INDICATED BY DASHED LINES SHALL BE REMOVED ENTIRELY, INCLUDING JUNCTION BOXES AND CIRCUITING ASSOCIATED WITH SAID ITEM.
- THESE PLANS DO NOT PURPORT TO SHOW ALL EXISTING CONDITIONS. ANY OUTLETS, CIRCUITING AND/OR DEVICES THAT CONFLICT WITH ALL WORK BEING PERFORMED DURING THE COURSE OF THIS PROJECT SHALL BE RELOCATED/REROUTED OR REMOVED ENTIRELY AS DICTATED BY OWNER.
- IT IS RECOMMENDED THAT THE CONTRACTOR VISIT SITE AND VERIFY EXISTING CONDITIONS THAT MIGHT AFFECT HIS OR HER WORK. ALL DISCREPANCIES SHALL BE REPORTED TO ENGINEER PRIOR TO BID.
- DEMOLITION AND MODIFICATION OF EXISTING DISTRIBUTION SYSTEMS SHALL BE PERFORMED AS FOLLOWS:
 - EXISTING WIRING TO BE REMOVED SHALL BE REMOVED BACK TO ITS SOURCE. CONDUITS MAY BE ABANDONED IN PLACE IF THEY ARE IN CONCEALED LOCATION AND DO NOT CONFLICT WITH ANY NEW WORK. THIS CONDUITS SHALL BE LABELED AS ABANDONED. REMOVE ALL WIRING FROM ABANDONED RACEWAYS.
 - CONTINUATION OF SERVICE: MAINTAIN CONTINUITY OF EXISTING CIRCUITS. TEST LIGHTING, RECEPTACLES AND ALL ELECTRICALLY POWERED EQUIPMENT IN SURROUNDING AREAS TO DETERMINE IF ANY EQUIPMENT TO REMAIN HAS BEEN DE-ENERGIZED. CONTRACTOR SHALL RECONNECT ALL EQUIPMENT AND EXTEND CIRCUITING IN ORDER TO RE-ACTIVATE ANY SUCH EQUIPMENT.

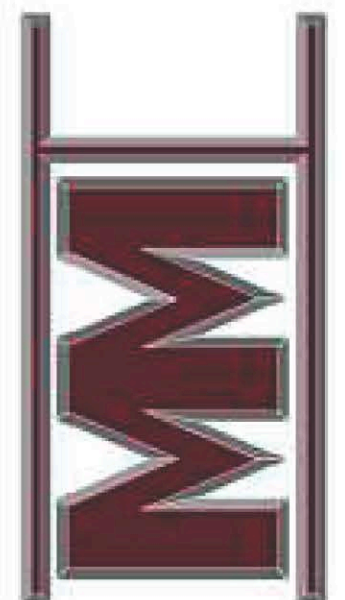
ELECTRICAL GENERAL NOTES

- UTILITIES SHOWN TO BE DEMOLISHED SHALL NOT BE REMOVED FROM SERVICE UNTIL EITHER OF THE FOLLOWING EVENTS OCCUR: A) THE FACILITY SERVED BY THE UTILITY IS NO LONGER OCCUPIED AND IS READY FOR DEMOLITION. OR B) EQUIVALENT SERVICE BY NEW UTILITY CONSTRUCTION HAS BEEN PROVIDED TO THE FACILITY CURRENTLY SERVICED. UNLESS OTHERWISE NOTED.
- VERIFY EXACT LOCATION OF ALL RECEPTACLES ABOVE OR ADJACENT TO COUNTERS FIXTURES MIRRORS OUTDOOR FIXTURES AND MOUNTING HEIGHTS & LOCATIONS OF ALL FIXTURES & BOXES PRIOR TO ROUGH-IN. NO EXTRA COSTS WILL BE ALLOWED FOR FAILURE TO COMPLY.
- ANY POWER OUTAGE OF ANY CIRCUIT SHALL BE APPROVED BY THE OWNER IN WRITING A MINIMUM OF TWO WEEKS PRIOR TO OUTAGE. ALL OUTAGES SHALL BE DONE EXACTLY WHEN DETERMINED BY THE OWNER AND DONE BEFORE OR AFTER WORKING HOURS AND ON WEEKENDS. NO SINGLE OUTAGE SHALL REQUIRE MORE THAN 4 HOURS. PROVIDE TEMPORARY POWER, HEAT & COOLING IF REQUIRED DURING OUTAGE.
- PRIOR TO PURCHASE OF ANY PANEL, PROTECTIVE DEVICES, SWITCH, STARTER, CONDUIT, WIRE, ETC., TO FEED ANY PIECE OF MECHANICAL EQUIPMENT VERIFY THE VOLTAGE, PHASE, & LOAD OF THAT ITEM IN THE FIELD AND/OR WITH THE PARTICULAR ENTITY INVOLVED IN FURNISHING THE ITEM SUCH THAT THE PROPER SIZE & RATING OF THE MATERIALS ARE PURCHASED. NO EXTRAS WILL BE ALLOWED FOR FAILURE TO COMPLY. THIS APPLIES TO ALL EQUIPMENT UNDER OTHER SECTIONS & BY THE OWNER.
- ALL RECEPTACLES SHALL MATCH THE MALE PLUG CONNECTOR OF ALL EQUIPMENT PROVIDED VERIFY PRIOR TO PURCHASE. SEE GENERAL NOTE 4.
- PULL ROPES: PROVIDE 12 GA PULL WIRE OR NYLON EQUIVALENT IN ALL INTERIOR EMPTY CONDUIT RUNS. PROVIDE 1/4" DIA NYLON PULL ROPE IN EACH EMPTY EXTERIOR CONDUIT OR DUCT.
- COORDINATE WITH MECHANICAL CONTRACTORS TO AVOID CONFLICTS BETWEEN DUCT WORK, SUPPLY & EXHAUST DIFFUSERS AND LIGHTING, SOUND SYSTEM & FIRE ALARM SYSTEM FIXTURES.
- VERIFY THE EXACT LOCATION AND ELEVATION OF ALL ELECTRICAL EQUIPMENT PRIOR TO ROUGH-IN. FINAL CONNECTIONS OF EQUIPMENT SHALL BE PER MANUFACTURERS APPROVED WIRING DIAGRAMS, DETAILS AND INSTRUCTIONS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED.
- ORDER AND/ OR RELEASE ORDERED MATERIALS PROMPTLY AFTER SUBMITTAL APPROVAL. NO SUBSTITUTIONS OR ALTERNATE METHODS OF INSTALLATION WILL BE ACCEPTED FOR FAILURE TO ORDER MATERIALS IN A TIMELY FASHION.
- CONDUIT/ CONDUCTOR RUNS SHOWN ARE DIAGRAMMATICAL ONLY. THE BEST FINAL CONDUIT ROUTING SHALL BE AS DETERMINED BY THE ELECTRICAL CONTRACTOR AT TIME OF CONSTRUCTION.
- SERIES RATING OF UPSTREAM OR DOWNSTREAM CIRCUIT BREAKERS OR FUSES IS PROHIBITED. ONLY FULLY RATED SYSTEM COMPONENTS WILL BE ACCEPTED.
- PROVIDE ALL TRENCHING, EXCAVATION, BACK FILLING, SHORING, PUMPING, COMP ACTION TESTS, ETC. THAT ARE REQUIRED FOR THE SCOPE OF ELECTRICAL WORK.

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Web: dinter.com
J-4538



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SHEET TITLE

ELECTRICAL SYMBOL LIST

REVISIONS

| | |
|---|-------------------------------|
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

BID DOCUMENTS

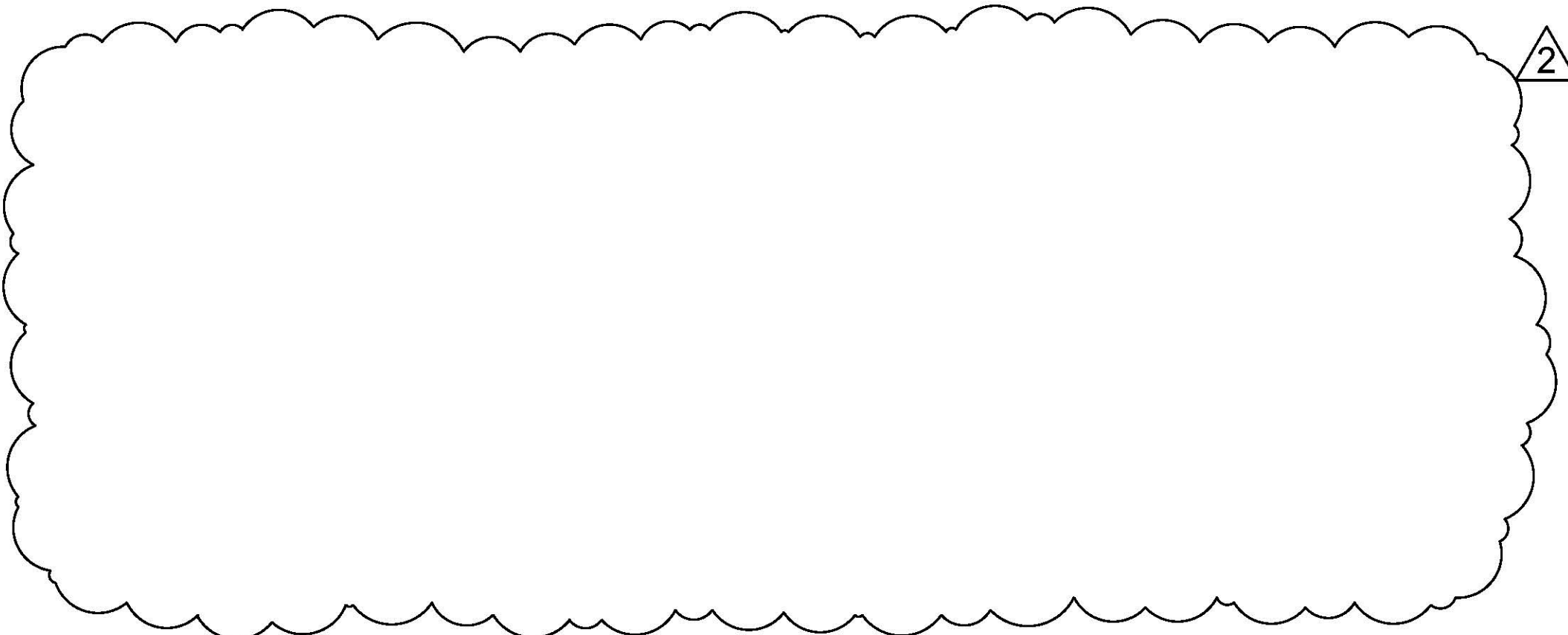
DATE :
JUNE 4, 2019

SHEET NUMBER :

E0.1

ELECTRICAL SHEET NOTES:

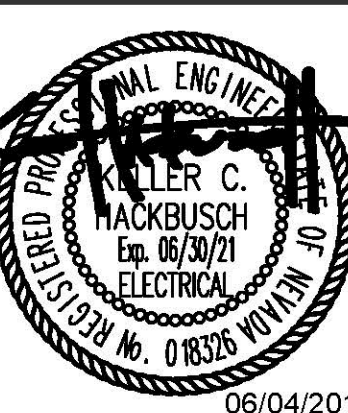
- 1 ELECTRICAL LOAD REMOVED DURING MECHANICAL EQUIPMENT REPLACEMENT.
- 2 NEW ELECTRICAL LOAD ADDED FOR NEW MECHANICAL EQUIPMENT.
- 3 NEW 20AMP/3POLE BREAKER TO BE FURNISHED AND INSTALL BY ELECTRICAL CONTRACTOR.



| PANEL BOARD | | 1HM | | | EXISTING | | |
|----------------|------|-------------|---------|--------------------|----------|------|-------------------------------|
| DIRECTORY | LOAD | BKR | CIR | CIR | BKR | LOAD | DIRECTORY |
| (N) FC-1 | 998 | 20 | 1 | A | 2 | 20/1 | 3324 (N) Basement Mech Xfmr |
| | 998 | | 3 | B | 4 | 20/1 | 3324 (N) Ground Fir Mech Xfmr |
| | 998 | | 5 | C | 6 | 20/1 | 3324 (N) 2nd Fir Mech Xfmr |
| (N) Spare | | 20/1 | 7 | A | 8 | 20/1 | (N) Spare |
| (N) Spare | | 20/1 | 9 | B | 10 | 30/1 | (N) Spare |
| Existing Load | 3500 | 20/1 | 11 | C | 12 | 20/1 | 3500 Existing Load |
| Existing Load | 3500 | 20/1 | 13 | A | 14 | 20/1 | 3500 Existing Load |
| Existing Load | 3500 | 20/1 | 15 | B | 16 | 20/1 | 3500 Existing Load |
| Existing Load | 3500 | 20/1 | 17 | C | 18 | 50 | 8924 (N) AC-3 |
| Existing Load | 3500 | 20/1 | 19 | A | 20 | | 8924 |
| Existing Load | 3500 | 20/1 | 21 | B | 22 | 3 | 8924 |
| (N) Spare | | 20/1 | 23 | C | 24 | 20/1 | (N) Spare |
| (N) Spare | | 20/1 | 25 | A | 26 | 20/1 | (N) Spare |
| (N) FC-2 | 998 | 20 | 27 | B | 28 | 20 | 998 (N) FC-3 |
| | 998 | | 29 | C | 30 | | 998 |
| | 998 | | 31 | A | 32 | 3 | 998 |
| Space | | | 33 | B | 34 | | Space |
| | | | 35 | C | 36 | | |
| | | | 37 | A | 38 | | |
| | | | 39 | B | 40 | | |
| | | | 41 | C | 42 | | |
| CONNECTED LOAD | | 77226 VA | (93 A) | OTHER NOTES: | | | |
| | | A= 25742 VA | 93 A | 277/480V., 3PH, 4W | | | |
| | | B= 25742 VA | 93 A | 200 AMP MLO | | | |
| | | C= 25742 VA | 93 A | 200 AMP BUS | | | |

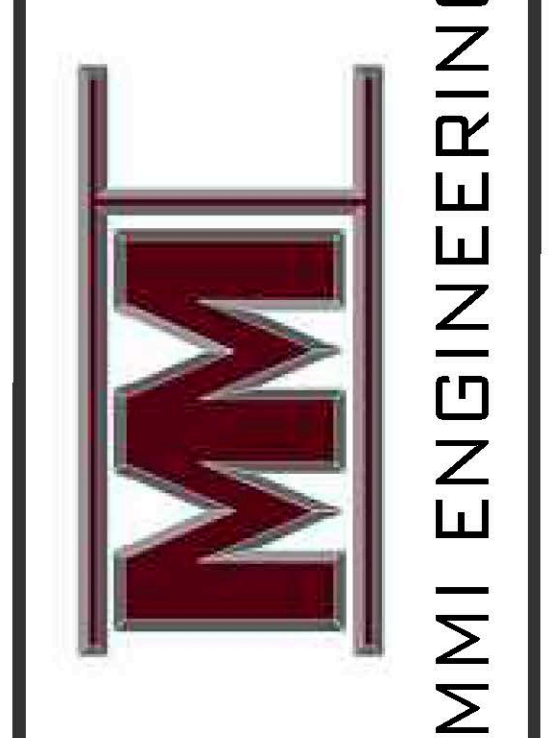
| PANEL BOARD | | BLB | | | EXISTING | | |
|----------------|------|-------------|---------|--------------------|----------|------|---------------------|
| DIRECTORY | LOAD | BKR | CIR | CIR | BKR | LOAD | DIRECTORY |
| Spare | | 20/1 | 1 | A | 2 | 20/1 | 800 WH-1 Control |
| Spare | | 20/1 | 3 | B | 4 | 20/1 | 1200 CP-1 |
| Spare | | 20/1 | 5 | C | 6 | 20/1 | 800 Chiller Control |
| Spare | | 20/1 | 7 | A | 8 | 20/1 | Spare |
| Spare | | 20/1 | 9 | B | 10 | 20/1 | Spare |
| Spare | | 20/1 | 11 | C | 12 | 20/1 | Spare |
| Spare | | 20/1 | 13 | A | 14 | 20/1 | Spare |
| Spare | | 20/1 | 15 | B | 16 | 20/1 | Spare |
| Spare | | 20/1 | 17 | C | 18 | 20/1 | Spare |
| Aux HTR CHLR | 4680 | 50 | 19 | A | 20 | 50 | 4680 Aux HTRS BLR |
| | 4680 | | 21 | B | 22 | 2 | 4680 |
| Space | | | 23 | C | 24 | | Space |
| | | | 25 | A | 26 | | |
| | | | 27 | B | 28 | | |
| | | | 29 | C | 30 | | |
| | | | 31 | A | 32 | | |
| | | | 33 | B | 34 | | |
| | | | 35 | C | 36 | | |
| | | | 37 | A | 38 | | |
| | | | 39 | B | 40 | | |
| | | | 41 | C | 42 | | |
| CONNECTED LOAD | | 21520 VA | (60 A) | OTHER NOTES: | | | |
| | | A= 10160 VA | 85 A | 120/208V., 3PH, 4W | | | |
| | | B= 10560 VA | 88 A | 200 AMP MLO | | | |
| | | C= 800 VA | 6.7 A | 200 AMP BUS | | | |

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06/04/2019

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MMI PROJECT #2016-19



SPARKS POLICE DEPARTMENT
HVAC UPGRADE PHASE 1
1701 EAST PRATER WAY
SPARKS, NEVADA 89434

SHEET TITLE
ELECTRICAL NOTES AND CALCULATION

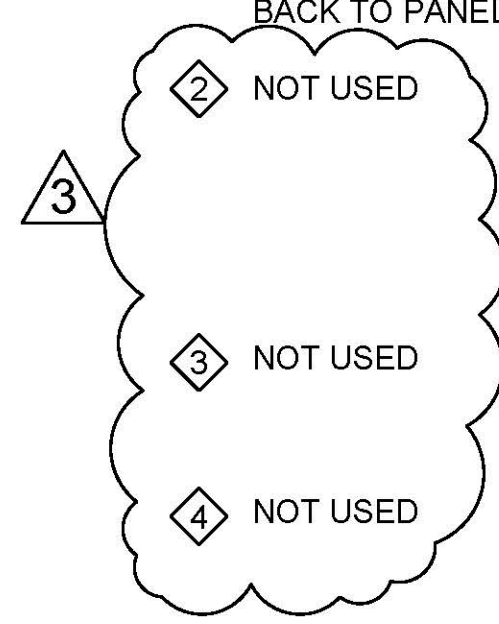
- REVISIONS
- 2 OWNER REVISIONS (10/31/18)
 - 3 OWNER REVISIONS (06/04/19)

BID DOCUMENTS

DATE : JUNE 4, 2019
SHEET NUMBER : E0.2

ELECTRICAL SHEET NOTES:

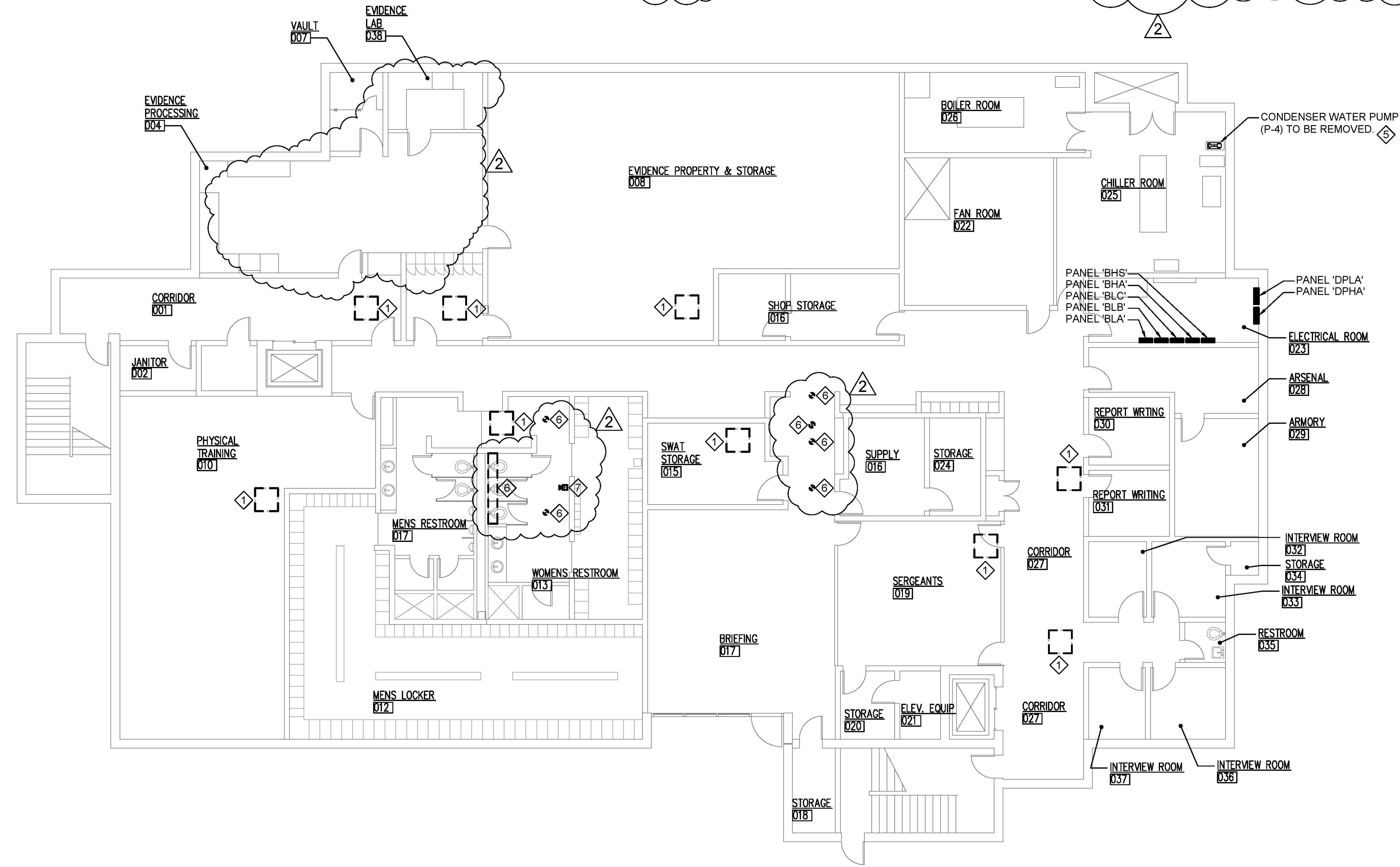
1 ELECTRICAL CONTRACTOR SHALL REMOVE ELECTRICAL CONNECTIONS TO MECHANICAL FAN AND VAV. THE FAN AND VAV SHALL BE REMOVED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL REMOVE ALL WIRING AND CONDUIT FOR FAN AND VAV CIRCUITS 1, 3, 5, 2, AND 4 BACK TO PANEL BOARD '1HM' ON THE GROUND FLOOR.



5 ELECTRICAL CONTRACTOR SHALL REMOVE ELECTRICAL CONNECTIONS TO CONDENSER WATER PUMP "P-4" AND PUMP "P-4"'S COMBINATION CIRCUIT BREAKER-MOTOR STARTER. ELECTRICAL CONTRACTOR SHALL REMOVE COMBINATION CIRCUIT BREAKER-MOTOR STARTER, REMOVE WIRING AND CONDUIT FROM PUMP "P-4" TO COMBINATION CIRCUIT BREAKER-MOTOR STARTER, AND REMOVE WIRING AND CONDUIT FROM MOTOR STARTER BACK TO PANEL BOARD.

6 ELECTRICAL CONTRACTOR SHALL REMOVE EXISTING LIGHT FIXTURE, SPEAKER, ETC. IN EXISTING HARD LID CEILING BEFORE THE DEMO OF THE CEILING SO THE MECHANICAL WORK CAN BE COMPLETED. SEE SHEET E2.1 FOR RE-INSTALLATION WORK.

7 ELECTRICAL CONTRACTOR SHALL PROTECT IN PLACE THE EXISTING FIRE ALARM HORN/STROBE BELOW THE EXISTING HARD LID CEILING BEFORE THE DEMO OF THE CEILING SO THE MECHANICAL WORK CAN BE COMPLETED. IF PROTECTION IS NOT POSSIBLE, THE ELECTRICAL CONTRACTOR SHALL REMOVE EXISTING HORN/STROBE DURING THE MECHANICAL WORK PHASE. SEE SHEET E2.1 FOR RE-INSTALLATION WORK.



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ENGINEERING

SPARKS POLICE DEPARTMENT
HVAC UPGRADE PHASE 1
1701 EAST PRATER WAY
SPARKS, NEVADA 89434

SHEET TITLE
ELECTRICAL DEMOLITION
FLOOR PLAN - BASEMENT

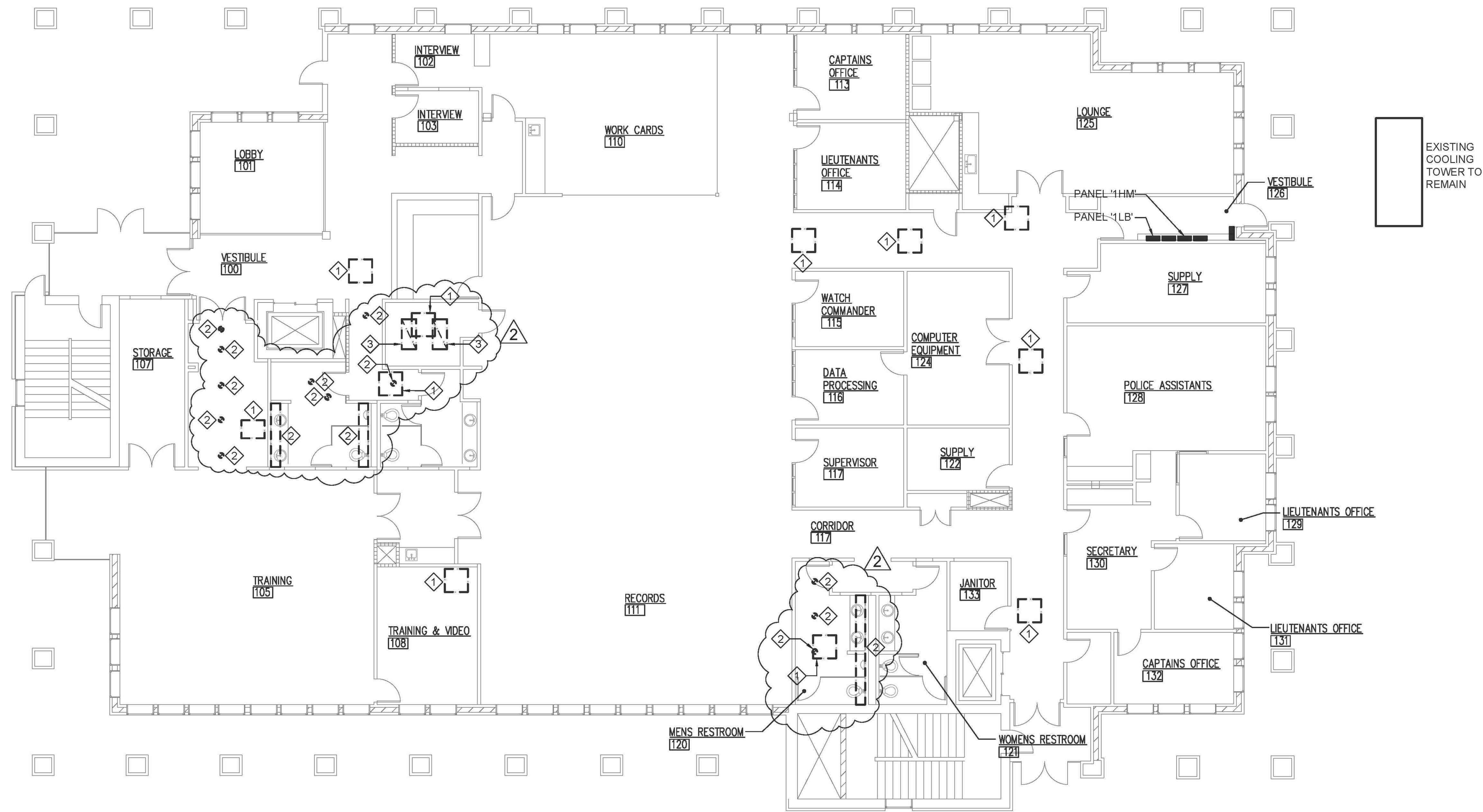
REVISIONS

| | |
|---|-------------------------------|
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

BID DOCUMENTS

1 ELECTRICAL DEMOLITION FLOOR PLAN - BASEMENT
SCALE: 1/8" = 1'-0"

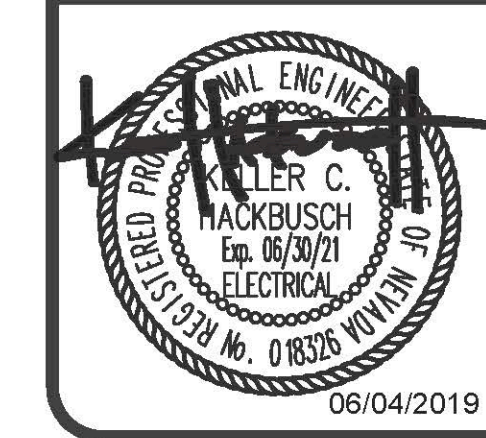
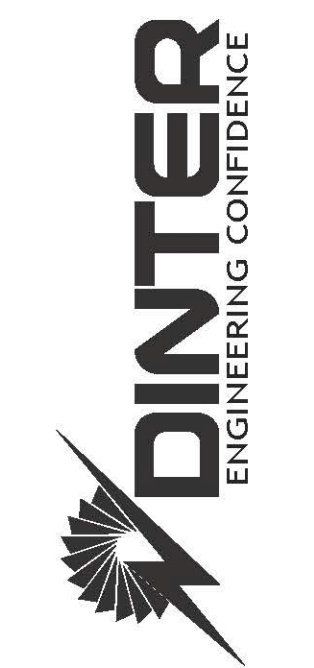
DATE :
JUNE 4, 2019
SHEET NUMBER :
E1.1



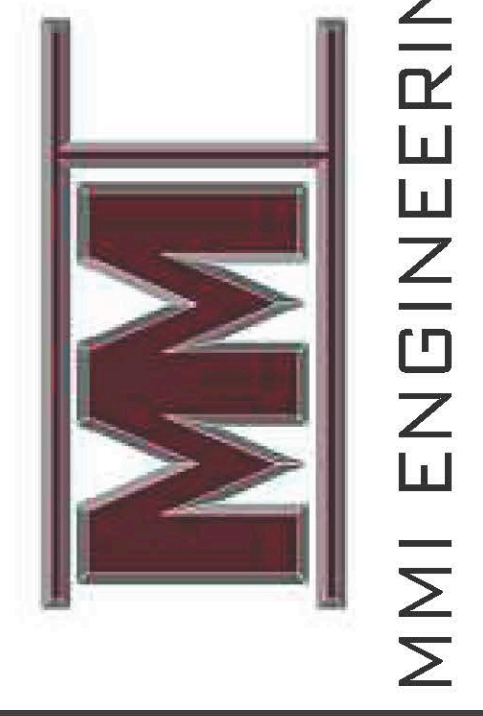
ELECTRICAL SHEET NOTES:

- ① ELECTRICAL CONTRACTOR SHALL REMOVE ELECTRICAL CONNECTIONS TO MECHANICAL FAN AND VAV. THE FAN AND VAV SHALL BE REMOVED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL REMOVE ALL WIRING AND CONDUIT FOR FAN AND VAV CIRCUITS 6, 8, 10, 7, AND 9 BACK TO PANEL BOARD '1HM' ON THE GROUND FLOOR.
- ② ELECTRICAL CONTRACTOR SHALL REMOVE EXISTING LIGHT FIXTURE, EXIT SIGN, SPEAKER, ETC. IN EXISTING HARD LID CEILING BEFORE THE DEMO OF THE CEILING SO THE MECHANICAL WORK CAN BE COMPLETED. SEE SHEET E2.2 FOR RE-INSTALLATION WORK.
- ③ ELECTRICAL CONTRACTOR SHALL REMOVE EXISTING LIGHT FIXTURE, ETC. IN EXISTING GRID CEILING BEFORE THE DEMO OF THE CEILING SO THE MECHANICAL WORK CAN BE COMPLETED. SEE SHEET E2.2 FOR RE-INSTALLATION WORK.

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HVAC UPGRADE PHASE 1
1701 EAST PRATER WAY
SPARKS, NEVADA 89434

SHEET TITLE
ELECTRICAL DEMOLITION
FLOOR PLAN - GROUND
FLOOR

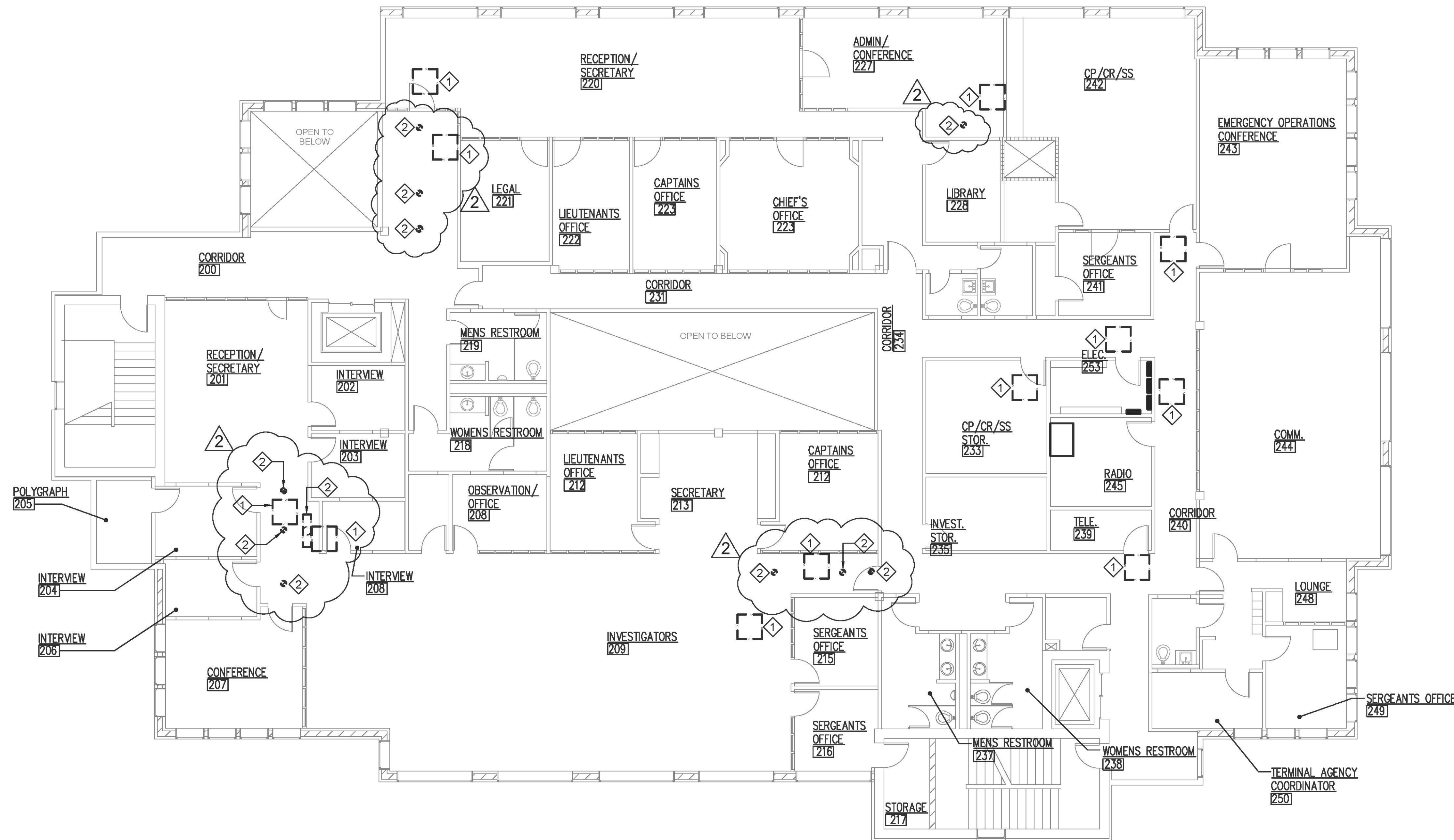
REVISIONS

| | |
|---|-------------------------------|
| ② | OWNER REVISIONS (10/31/18) |
| ③ | OWNER REVISIONS (06/04/19) |

① ELECTRICAL DEMOLITION FLOOR PLAN - GROUND FLOOR
E1.2 SCALE: 1/8" = 1'-0"

BID DOCUMENTS

DATE :
JUNE 4, 2019
SHEET NUMBER :
E1.2



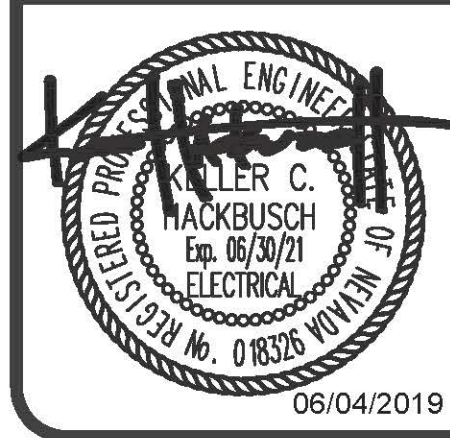
ELECTRICAL SHEET NOTES:

1 ELECTRICAL CONTRACTOR SHALL REMOVE ELECTRICAL CONNECTIONS TO MECHANICAL FAN AND VAV. THE FAN AND VAV SHALL BE REMOVED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL REMOVE ALL WIRING AND CONDUIT FOR FAN AND VAV CIRCUITS 18, 20, 22, 24, 23, AND 25 BACK TO PANEL BOARD '1HM' ON THE GROUND FLOOR.

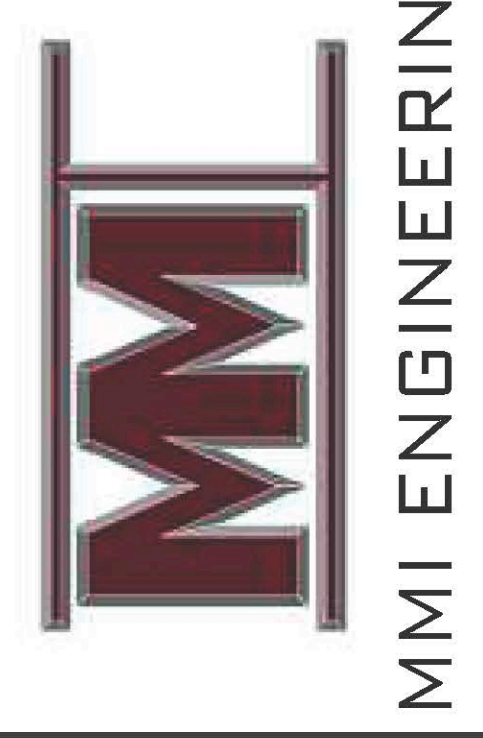
2 ELECTRICAL CONTRACTOR SHALL REMOVE EXISTING LIGHT FIXTURE, ETC. IN EXISTING HARD LID CEILING BEFORE THE DEMO OF THE CEILING SO THE MECHANICAL WORK CAN BE COMPLETED. SEE SHEET E2.2 FOR RE-INSTALLATION WORK.

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SPARKS POLICE DEPARTMENT
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SHEET TITLE
 ELECTRICAL DEMOLITION
 FLOOR PLAN - SECOND
 FLOOR

REVISIONS

| | |
|---|-----------------|
| 1 | OWNER REVISIONS |
| 2 | (10/31/18) |
| 3 | OWNER REVISIONS |
| | (06/04/19) |

BID DOCUMENTS

1
 E1.3 ELECTRICAL DEMOLITION FLOOR PLAN - SECOND FLOOR
 SCALE: 1/8" = 1'-0"

DATE :
 JUNE 4, 2019
 SHEET NUMBER :
 E1.3

ELECTRICAL SHEET NOTES:

- 1 COORDINATE AND VERIFY EXACT SIZE AND LOCATION OF 277-24V TRANSFORMER WITH MECHANICAL DRAWINGS AND MECHANICAL CONTROLS CONTRACTOR.
- 2 VAV POWER CONNECTION TO NEW 277V FLOOR TRANSFORMER. TRANSFORMER SHALL BE FURNISHED AND INSTALLED BY MECHANICAL CONTROLS CONTRACTOR.

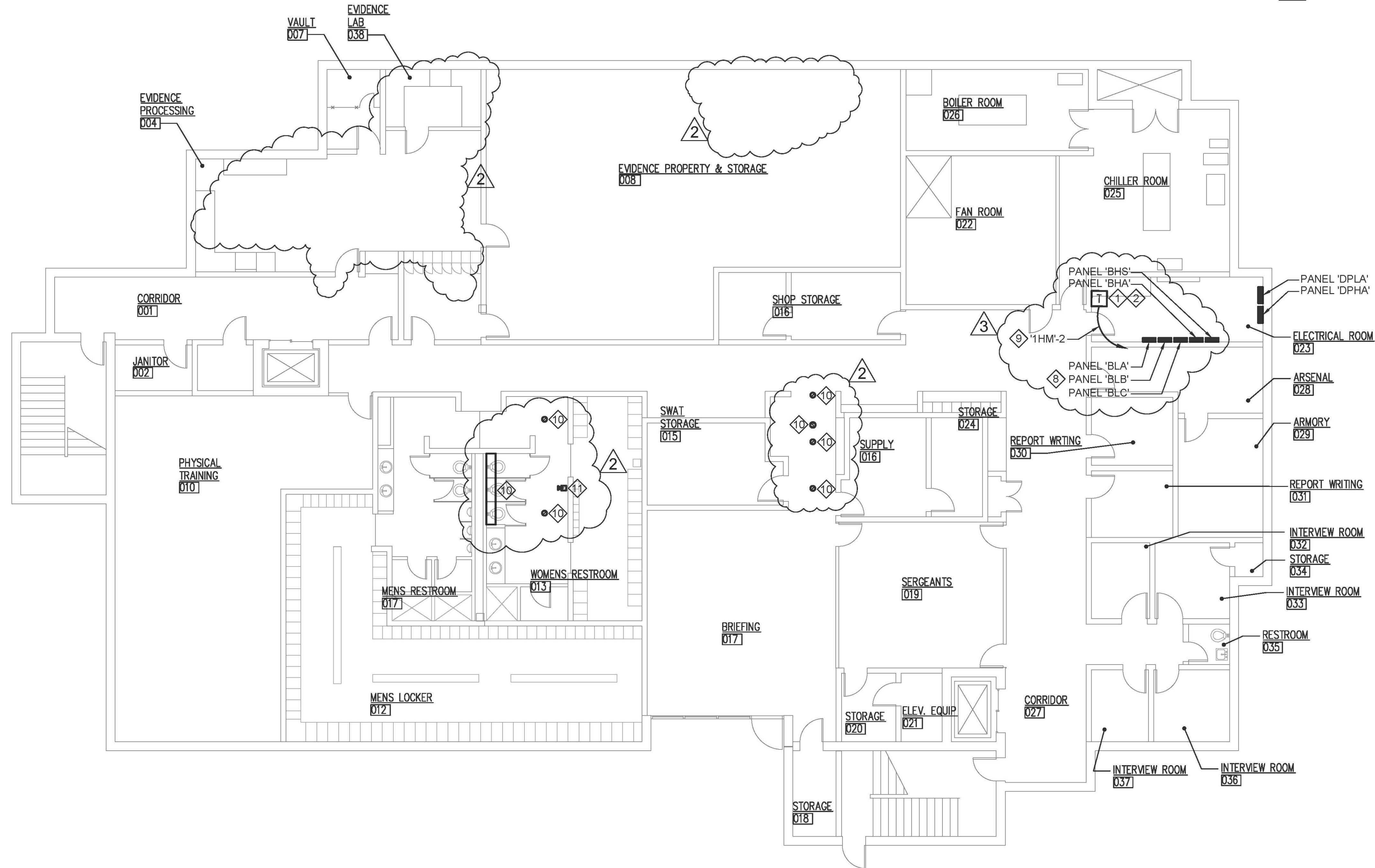
- 3 NOT USED
- 4 NOT USED
- 5 NOT USED

- 6 NOT USED
- 7 NOT USED

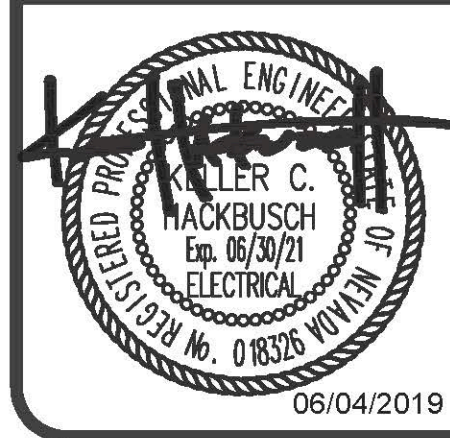
- 8 ELECTRICAL CONTRACTOR SHALL USE EXISTING SPARE BREAKER FROM PANEL BOARD 'BLB' AT CIRCUIT 18.
- 9 ELECTRICAL CONTRACTOR SHALL USE EXISTING BREAKER FROM PANEL BOARD '1HM' AT CIRCUIT 2. CIRCUIT WAS PART OF DEMO WORK. CONTRACTOR CAN REUSE EXISTING CONDUIT WHERE POSSIBLE.

10 ELECTRICAL CONTRACTOR SHALL RE-INSTALL LIGHT FIXTURE, SPEAKER, ETC. IN THE NEW HARD LID CEILING. ELECTRICAL CONTRACTOR SHALL TEST EACH DEVICE AFTER INSTALLATION TO MAKE SURE THE DEVICE IS FULLY OPERATIONAL AND FUNCTIONING CORRECTLY. THE ELECTRICAL CONTRACTOR SHALL ALSO VERIFY ELECTRICAL SYSTEM IS THAT THE DEVICE IS CONNECTED TO IS FULLY OPERATIONAL AND FUNCTIONING CORRECTLY.

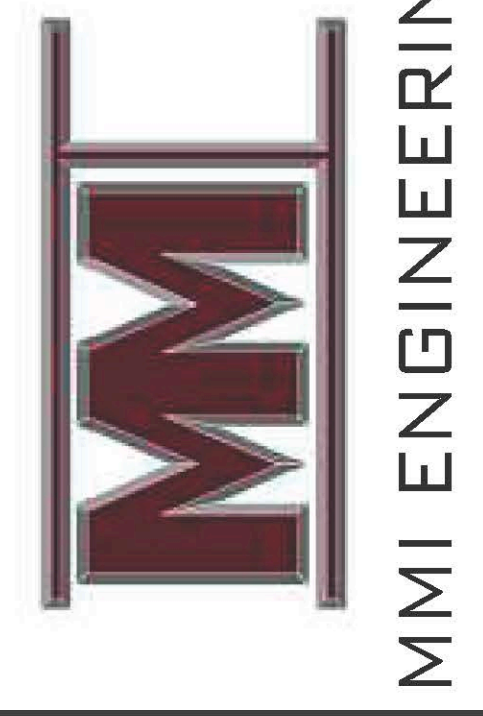
11 ELECTRICAL CONTRACTOR SHALL UNCOVER OR RE-INSTALL HORN/STROBE, ETC. IN THE NEW HARD LID CEILING. ELECTRICAL CONTRACTOR SHALL TEST EACH DEVICE AFTER INSTALLATION TO MAKE SURE THE DEVICE IS FULLY OPERATIONAL AND FUNCTIONING CORRECTLY. THE ELECTRICAL CONTRACTOR SHALL ALSO VERIFY THE FIRE ALARM SYSTEM IS FULLY OPERATIONAL AND FUNCTIONING CORRECTLY.



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SPARKS, NEVADA 89434

SHEET TITLE
ELECTRICAL FLOOR PLAN
- BASEMENT

| REVISIONS | OWNER REVISIONS |
|-----------|-----------------|
| 2 | (10/31/18) |
| 3 | (06/04/19) |

BID DOCUMENTS

1
E2.1
ELECTRICAL FLOOR PLAN - BASEMENT
SCALE: 1/8" = 1'-0"

DATE :
JUNE 4, 2019
SHEET NUMBER :
E2.1

ELECTRICAL SHEET NOTES:

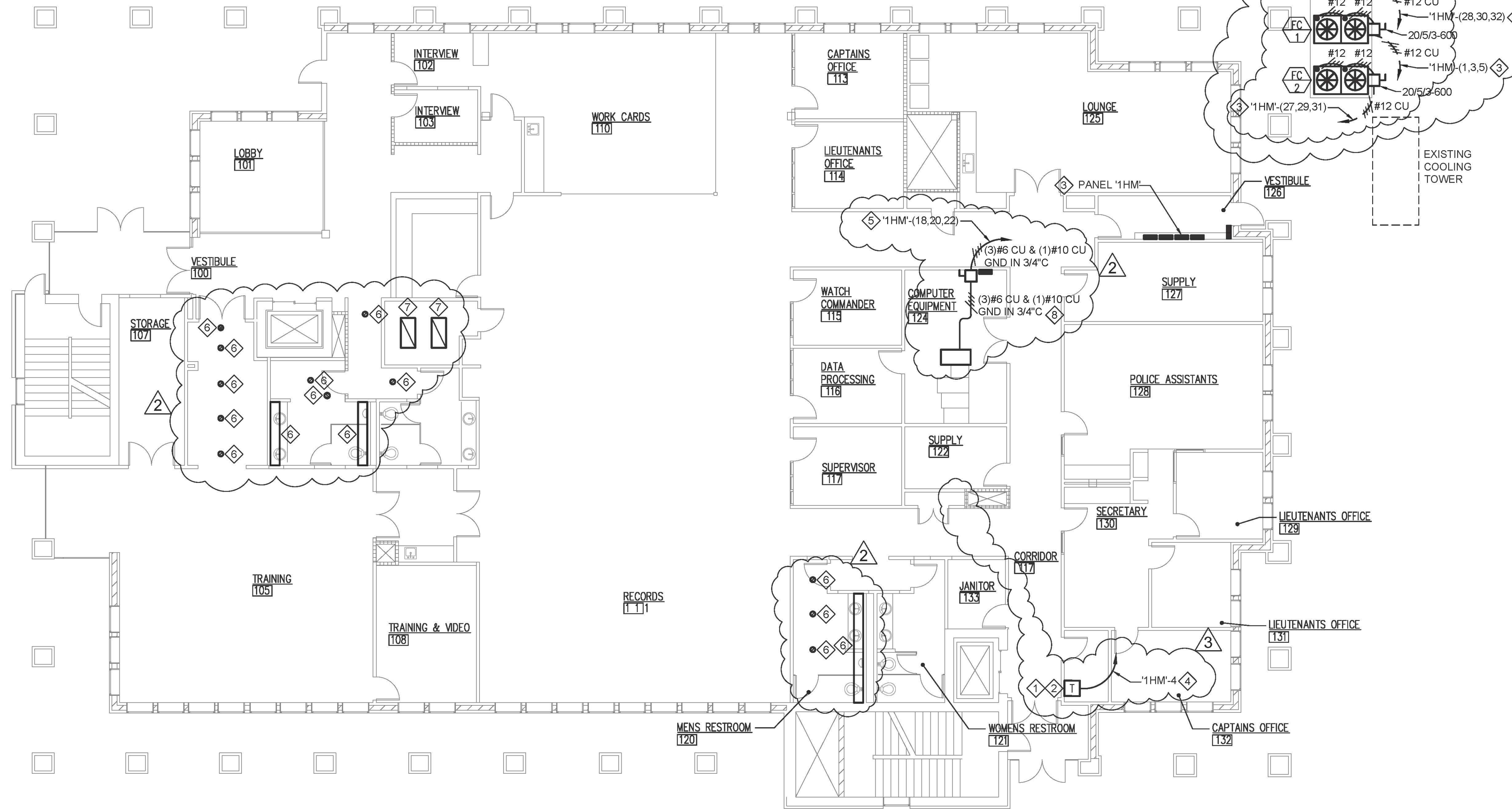
- 1 COORDINATE AND VERIFY EXACT SIZE AND LOCATION OF 277-24V TRANSFORMER WITH MECHANICAL DRAWINGS AND MECHANICAL CONTROLS CONTRACTOR.
- 2 VAV POWER CONNECTION TO NEW 277V FLOOR TRANSFORMER. TRANSFORMER SHALL BE FURNISHED AND INSTALLED BY MECHANICAL CONTROLS CONTRACTOR.
- 3 ELECTRICAL CONTRACTOR SHALL REMOVE 20A/1P SPARE BREAKERS FROM PANEL '1HM' AT CIRCUITS 1, 3, AND 5. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A NEW 20A/3P BREAKER AT CIRCUITS 1, 3, AND 5. BREAKER SHALL MATCH PANEL BOARD MANUFACTURER AND MEET MANUFACTURER'S REQUIREMENT FOR EXITING PANEL BOARD.
- 4 ELECTRICAL CONTRACTOR SHALL USE EXISTING BREAKER FROM PANEL BOARD '1HM' AT CIRCUIT 4. CIRCUIT WAS PART OF DEMO WORK. CONTRACTOR CAN REUSE EXISTING CONDUIT WHERE POSSIBLE.

5 ELECTRICAL CONTRACTOR SHALL REMOVE 20A/1P SPARE BREAKERS FROM PANEL '1HM' AT CIRCUITS 18, 20, AND 22. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A NEW 50A/3P BREAKER AT CIRCUITS 18, 20, AND 22. BREAKER SHALL MATCH PANEL BOARD MANUFACTURER AND MEET MANUFACTURER'S REQUIREMENT FOR EXITING PANEL BOARD.

6 ELECTRICAL CONTRACTOR SHALL RE-INSTALL LIGHT FIXTURE, SPEAKER, ETC. IN THE NEW HARD LID CEILING. ELECTRICAL CONTRACTOR SHALL TEST EACH DEVICE AFTER INSTALLATION TO MAKE SURE THE DEVICE IS FULLY OPERATIONAL AND FUNCTIONING CORRECTLY. THE ELECTRICAL CONTRACTOR SHALL ALSO VERIFY ELECTRICAL SYSTEM IS THAT THE DEVICE IS CONNECTED TO IS FULLY OPERATIONAL AND FUNCTIONING CORRECTLY.

7 ELECTRICAL CONTRACTOR SHALL RE-INSTALL LIGHT FIXTURE, ETC. IN THE NEW GRID CEILING. ELECTRICAL CONTRACTOR SHALL TEST EACH DEVICE AFTER INSTALLATION TO MAKE SURE THE DEVICE IS FULLY OPERATIONAL AND FUNCTIONING CORRECTLY. THE ELECTRICAL CONTRACTOR SHALL ALSO VERIFY ELECTRICAL SYSTEM IS THAT THE DEVICE IS CONNECTED TO IS FULLY OPERATIONAL AND FUNCTIONING CORRECTLY.

8 ELECTRICAL CONTRACTOR TO COORDINATE WITH ON SITE IT MANAGER FOR CONDUIT RUN IN RAISED FLOOR CABLE RUN SPACE.



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REGISTERED PROFESSIONAL ENGINEER
WALTER C. HACKBUSCH
Exp. 06/30/21
ELECTRICAL
Lic. No. 018326 NV/EA/30

06/04/2019

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SPARKS, NEVADA 89434

SHEET TITLE
ELECTRICAL FLOOR PLAN - GROUND FLOOR

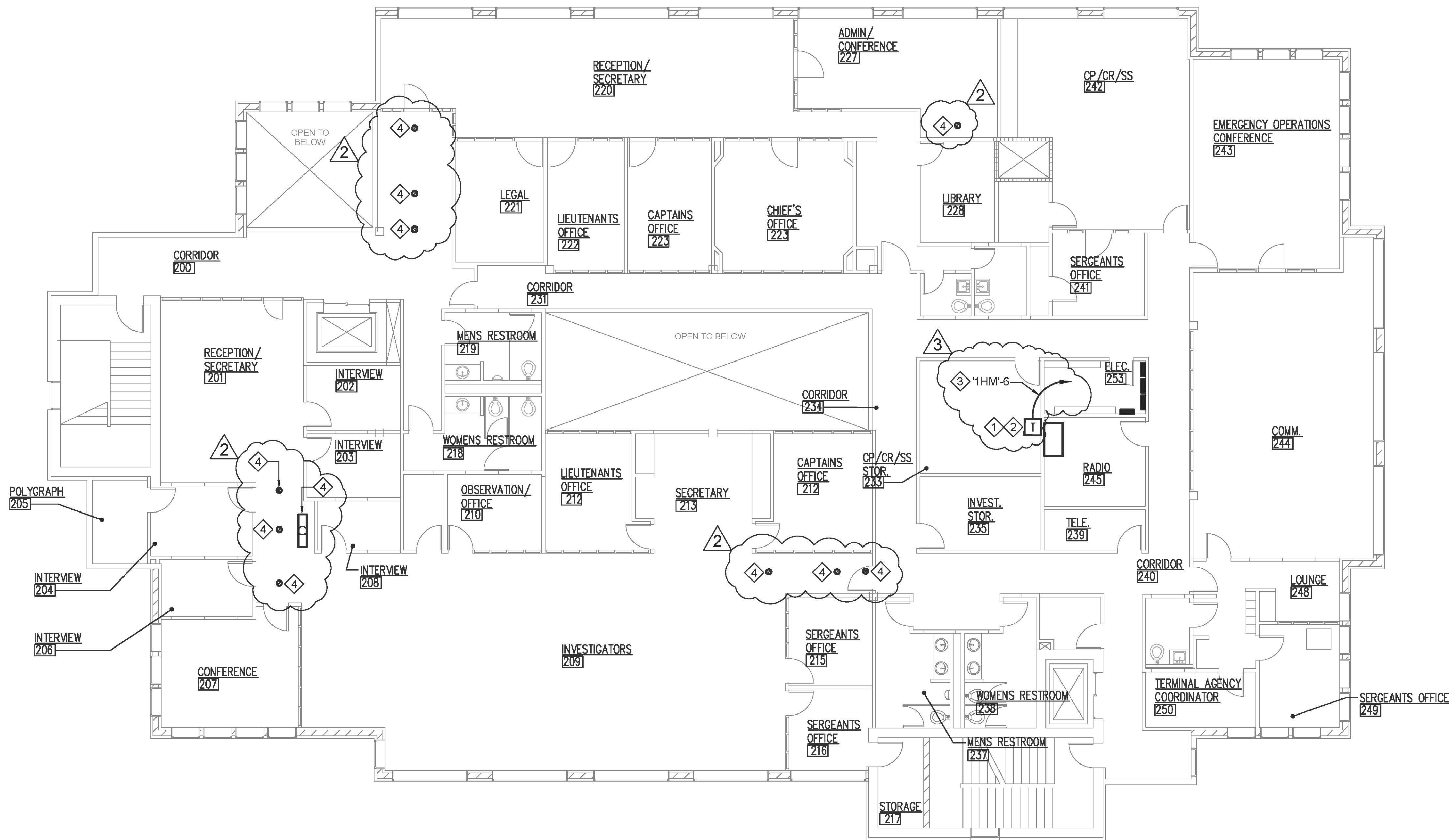
REVISIONS

| | |
|---|-------------------------------|
| 2 | OWNER REVISIONS (10/31/18) |
| 3 | OWNER REVISIONS (06/04/19) |

1 ELECTRICAL FLOOR PLAN - GROUND FLOOR
E2.2 SCALE: 1/8" = 1'-0"

BID DOCUMENTS

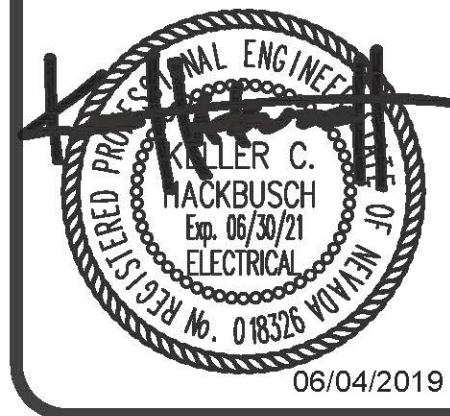
DATE :
JUNE 4, 2019
SHEET NUMBER :
E2.2



ELECTRICAL SHEET NOTES:

- ① COORDINATE AND VERIFY EXACT SIZE AND LOCATION OF 277-24V TRANSFORMER WITH MECHANICAL DRAWINGS AND MECHANICAL CONTROLS CONTRACTOR.
- ② VAV POWER CONNECTION TO NEW 277V FLOOR TRANSFORMER. TRANSFORMER SHALL BE FURNISHED AND INSTALLED BY MECHANICAL CONTROLS CONTRACTOR.
- ③ ELECTRICAL CONTRACTOR SHALL USE EXISTING BREAKER FROM PANEL BOARD '1HM' AT CIRCUIT 6. CIRCUIT WAS PART OF DEMO WORK. CONTRACTOR CAN REUSE EXISTING CONDUIT WHERE POSSIBLE.
- ④ ELECTRICAL CONTRACTOR SHALL RE-INSTALL LIGHT FIXTURE, SPEAKER, ETC. IN THE NEW HARD LID CEILING. ELECTRICAL CONTRACTOR SHALL TEST EACH DEVICE AFTER INSTALLATION TO MAKE SURE THE DEVICE IS FULLY OPERATIONAL AND FUNCTIONING CORRECTLY. THE ELECTRICAL CONTRACTOR SHALL ALSO VERIFY ELECTRICAL SYSTEM IS THAT THE DEVICE IS CONNECTED TO IS FULLY OPERATIONAL AND FUNCTIONING CORRECTLY.

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SHEET TITLE
 ELECTRICAL FLOOR PLAN
 - SECOND FLOOR

| REVISIONS | OWNER REVISIONS |
|-----------|-----------------|
| ② | (10/31/18) |
| ③ | (06/04/19) |

① ELECTRICAL FLOOR PLAN - SECOND FLOOR
 E2.3 SCALE: 1/8" = 1'-0"

BID DOCUMENTS

DATE :
 JUNE 4, 2019

SHEET NUMBER :
 E2.3

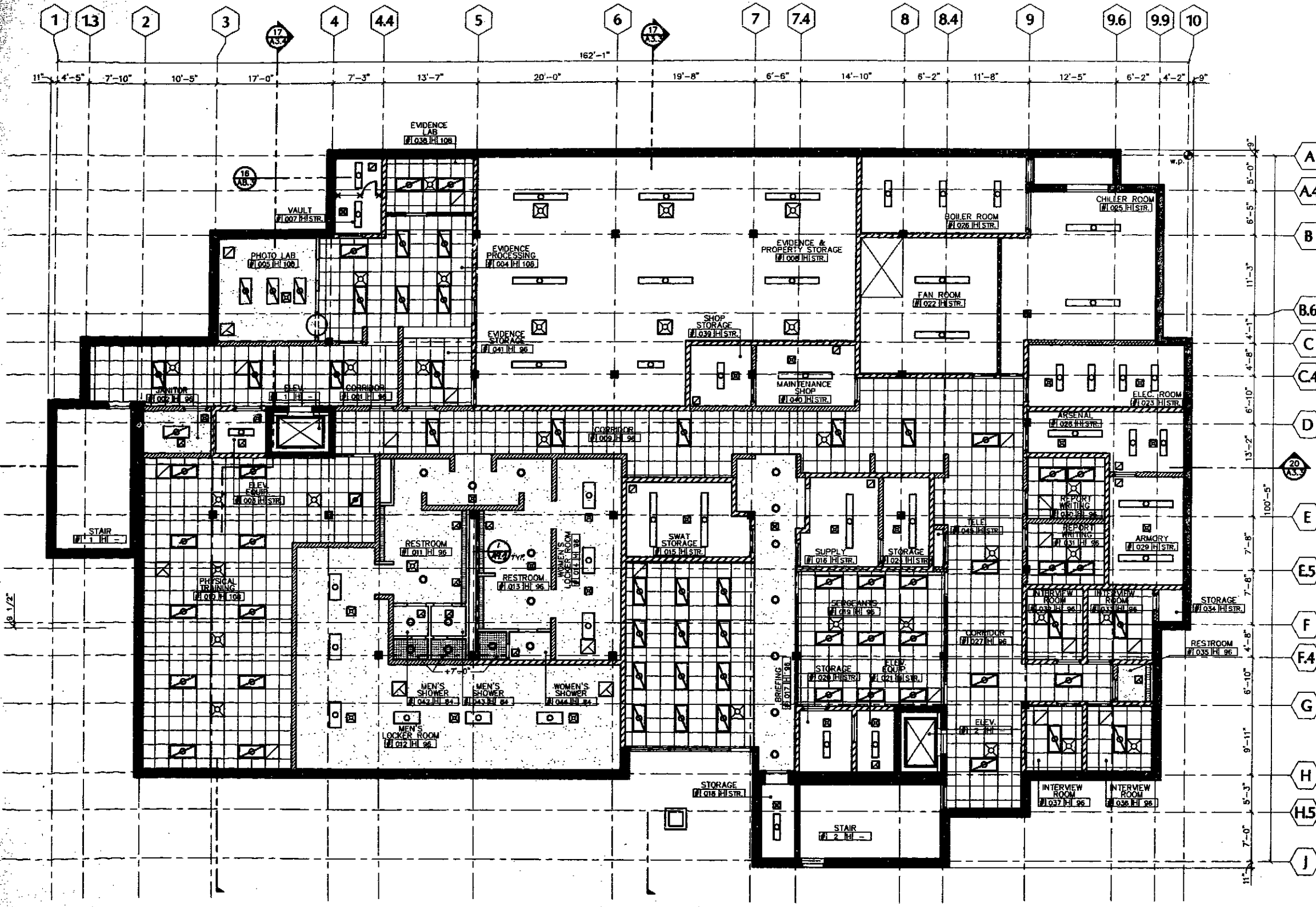


PLOT DATE:
12/05/90

P/B/F A Joint Venture
Polson/BARADA-FUETSCH
2701 ROCKCREEK, SUITE 220, N. KANSAS CITY, MO 64117; 816-474-9908
50 WEST LIBERTY STREET, SUITE 900, RENO, NV 89501; 702-329-7624

SPARKS POLICE FACILITY
1701 EAST PRATER WAY
SPARKS, NEVADA 89434
BASEMENT REFLECTED CEILING PLAN

NO. 9889
SHEET:
A6.1
DATE: 12/05/90



2 NOTES NO SCALE

- WALL TYPE #1
- WALL TYPE #2
- WALL TYPE #3
- WALL TYPE #4
- WALL TYPE #5
- WALL TYPE #6
- WALL TYPE #7

* SEE SHEET A0.3 FOR WALL TYPE SECTIONS *

3 PARTITION LEGEND 1/8" = 1'-0" SPKS-PL

4 KEYNOTES NO SCALE

20 BASEMENT REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

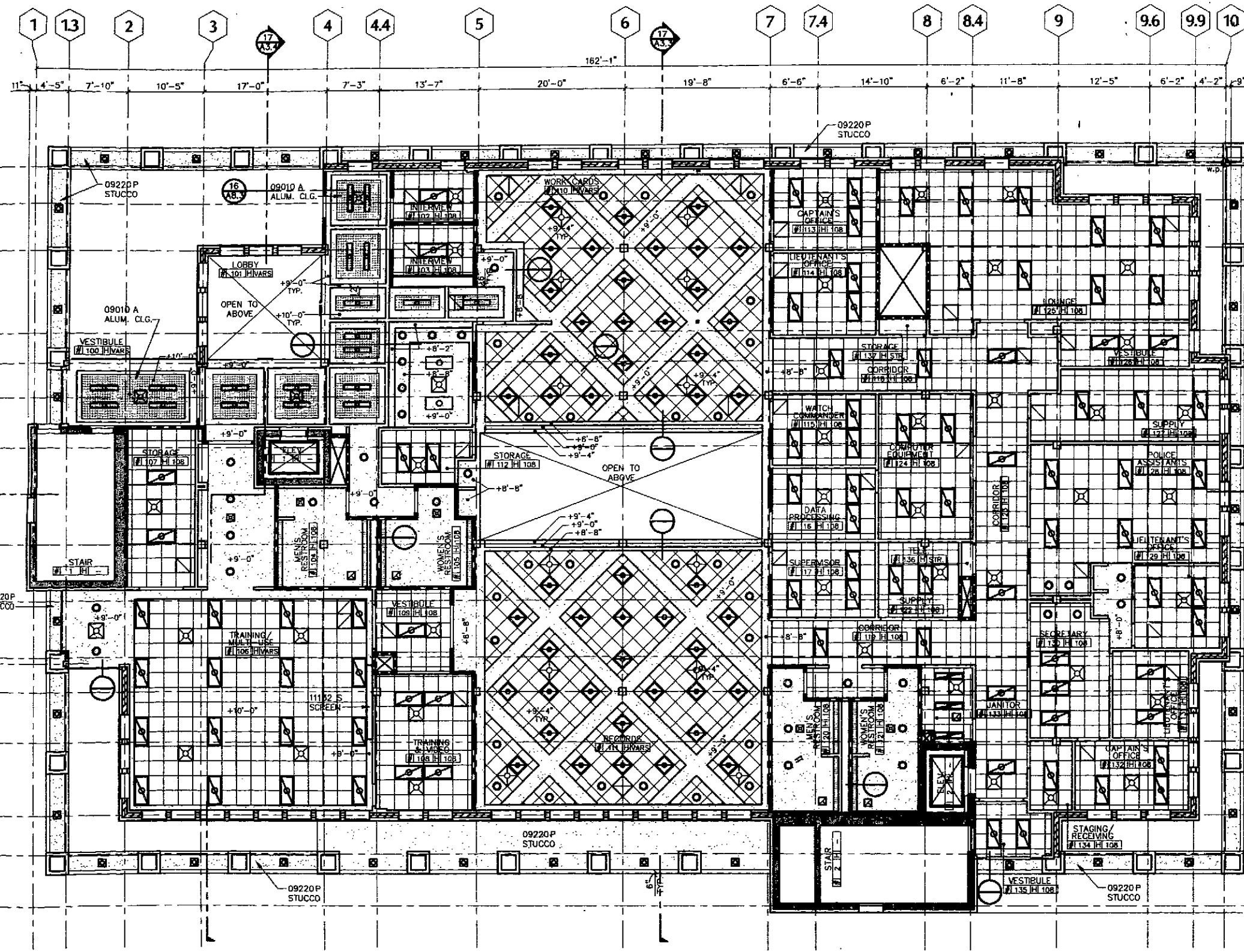


PLOT DATE:
12/05/90

P/B/F A Joint Venture
Polson/BARADA-FUELSCH
 2701 ROCKCREEK, SUITE 220, KANSAS CITY, MO 64117, 816-474-9909
 50 WEST LIBERTY STREET, SUITE 900, RENO, NV 89501, 702-329-7624

SPARKS POLICE FACILITY
 1701 EAST PRATER WAY
 SPARKS, NEVADA 89431
GRADE LEVEL REFLECTED CEILING PLAN

JOB NO: **SPKPS**
 SHEET:
A6.2
 RELEASE DATE: 12/10/90



2 NOTES NO SCALE

- WALL TYPE #1
- WALL TYPE #2
- WALL TYPE #3
- WALL TYPE #4
- WALL TYPE #5
- WALL TYPE #6
- WALL TYPE #7

SEE SHEET AO.3 FOR WALL TYPE SECTIONS

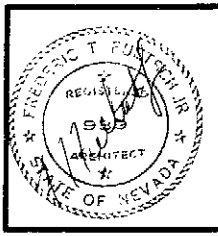
3 PARTITION LEGEND 1/8" = 1'-0" SPKPS-PL

CSI KEY DESCRIPTION
 number indicates "SPECIFICATION SECTION NO. & TITLE"
 number L indicates drawing reference to applicable NOTE.

- * DIVISION 9
 9010 A Integrated aluminum suspended ceiling, see spec. section 13070.
 9220 P Cast plaster stucco with integral color as selected by Architect from mfg. full color line.
- * DIVISION 11
 11132 S Projection screen, power operated, recessed.

4 KEYNOTES NO SCALE

20 GRADE LEVEL REFLECTED CEILING PLAN
 SCALE: 1/8" = 1'-0"

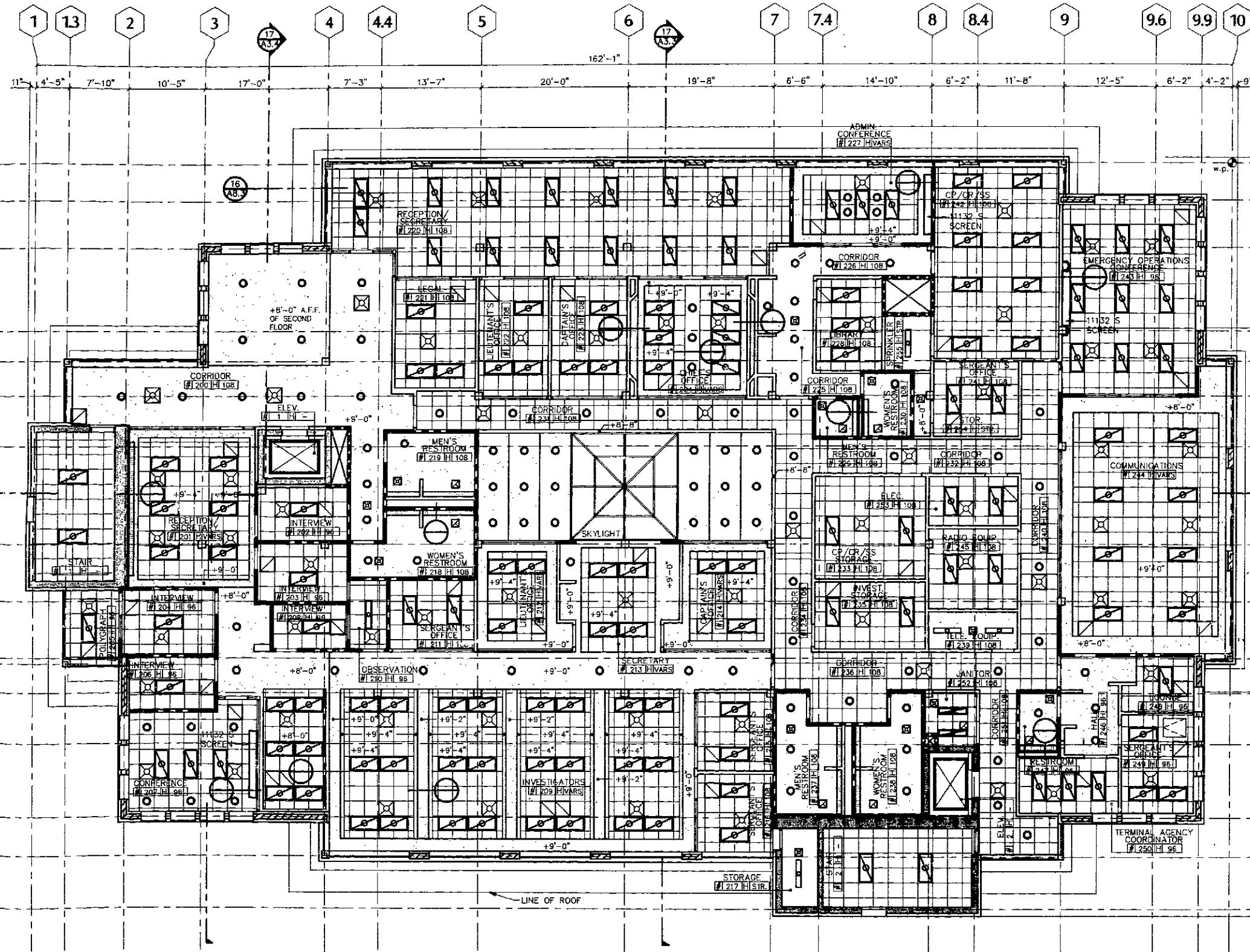


PLOT DATE:
12/05/90

P/B/F A Joint Venture
Poison/BARADA-FUETSCH
 2701 ROCKCREEK, SUITE 220, KANSAS CITY, MO 64117; 816-474-9909
 50 WEST LIBERTY STREET, SUITE 900, RENO, NV 89501; 702-329-7624

SPARKS POLICE FACILITY
 1701 EAST PRATER WAY
 SPARKS, NEVADA 89431
2ND FLOOR REFLECTED CEILING PLAN

JOB ID: SPKPS
 SHEET:
A6.3
 RELEASE DATE: 12/16/90



| | | |
|---|---|--------------------------|
| 2 NOTES | | NO SCALE |
| <ul style="list-style-type: none"> - WALL TYPE #1 - WALL TYPE #2 - WALL TYPE #3 - WALL TYPE #4 - WALL TYPE #5 - WALL TYPE #6 - WALL TYPE #7 | | |
| * SEE SHEET AO.3 FOR WALL TYPE SECTIONS * | | |
| 3 PARTITION LEGEND | | 1/8" = 1'-0" SPKPS-PL |
| CSI KEY | DESCRIPTION | |
| number --- | Indicates "SPECIFICATION SECTION NO. & TITLE" | |
| number L | Indicates drawing reference to applicable NOTE. | |
| * DIVISION 11 | | |
| 11132 S | Projection screen, power operated, recessed. | |
| 4 KEYNOTES | | NO SCALE |

20 2ND FLOOR REFLECTED CEILING PLAN
 SCALE: 1/8" = 1'-0"