## SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | Gate Valve |
| | Globe Valve |
| | Control Valve |
| | Check Valve |
| | Butterfly Valve |
| | Three Way Valve |
| | Union |
| | Balancing Cock |
| | Flanged Connection |
| | Strainer |
| | Flex Pipe Connection |
| | Pressure Gauge |
| | Thermometer |
| | Riser (Down) |
| | Riser (Up) |
| | Supply Air or Flow Direction |
| | Return Air or Exhaust Air |
| | Supply Duct (Section) |
| | Return Duct (Section) |
| | Adjustable Extractor |
| | Adjustable Splitter Damper |
| | Turning Vanes |
| HWS | Hot Water Supply |
| HWR | Hot Water Return |
| | Domestic Hot Water Recirculating (HWR) |
| | Domestic Cold Water (CW) |
| | Domestic Hot Water (HW) |
| FP | Fire Protection Line (FP) |
| | Waste Piping |
| | Vent Piping |
| | Natural Gas Piping |
| | Pneumatic Thermostat |
| | Electric Thermostat |
| S.D. | Splitter Damper |
| V.T.R. | Vent thru Roof |
| F.C.O. | Floor Clean out |
| W.C.O. | Wall Clean out |
| C.O. | Clean out |
| F.S. | Floor Sink |
| F.D. | Floor Drain |
| S.S. | Service Sink |
| GPM | Gallons per Minute |
| N.T.S. | Not to Scale |
| F.A. | Fresh Air |
| R.A. | Return Air |
| S.A. | Supply Air |
| B.D. | Balancing Damper |
| CFM | Cubic Feet per Minute |
| E.S.P. | External Static Pressure |
| | Manual Air Vent |
| | Relief or Safety Valve |
| | Pressure Reducing Valve |
| | Wall Hydrant |
| | Flow Switch |
| | Immersion Thermostat |
| | Round Take off Connection |
| | Insulated Flex Duct |
| | Manual Volume Damper |
| | Flex Duct Connection |
| | Fusible Link Fire Damper |
| | Ceiling Diffuser |
| | Ceiling Grille |

## CONTROLS EQUIPMENT SCHEDULE

**(28)** EXPANSION TANK: AMERICAN TUBE and CONTROLS (AMTROL) pressurized diaphragm type, ASME certified and rated for 125 psi working pressure. Tank shall be vertical or horizontal as shown on plans, and contain a flexible diaphragm securely sealed within the tank providing permanent separation between 12 PSIG air charge and system water. Furnish with quick connect coupling, line size air purge and float type air vent with shut-off valve between purger and air vent. Furnish with steel support saddle for horizontal mounting.

| SYMBOL | MODEL | TANK VOLUME GALLONS | ACCEPTANCE VOLUME GALLONS | MOUNTING |
|---|---|---|---|---|
| (28) | AX-80 | 44.4 | 22.2 | Horizontal |

**(29)** NET-SIDE EXHAUST FAN: GREENHECK Model CB-24-T weatherproof aluminum construction for rooftop curb mounting, AMCA rating, motor and drive out of air stream, adjustable v-belt drive rated for 150% of listed HP, NEMA motors with ball-bearing drive and capacitor start. Provide unit mounted fused disconnect and prefabricated insulated roof curb. Interlock electrically and pneumatically as shown on plans. 120/60/1Ø. JENN-AIR, COOK approved as equals.

| SYMBOL | CFM at " S.P. | HP | RPM |
|---|---|---|---|
| (29) | 6398 at 1/4" | 3/4 | 655 |

**(30)** FINNED TUBE RADIATOR: TRANE Model C3A, with vandal proof screws, 18 gauge 4"x8" steel enclosure, extruded aluminum grille, support hangers, pedestal mounting brackets, 1¼" Ton copper, 5¼"x2⅜" aluminum fins @ 60 fins per foot. Finish and color to be selected by architect.

**(31)** EXHAUST FAN: GREENHECK Model CW-85-A, weatherproof aluminum construction for sidewall mounting, AMCA rated, centrifugal direct drive, NEMA isolated non-overloading motor. Provide gravity damper, bird screen, wall grille and unit mounted fused disconnect switch. Interlock fan motor with Honeywell T631C Air Switch Controller. Unit to exhaust 420 cfm @ 0.1" S.P. with a 1/30HP, 115/60/1Ø motor.

**(32)** (alternate) FIN TUBE SOLAR COLLECTORS: AMERICAN AIR FILTER Style "Y", Type OB heating element consisting of 4¼"x4½" aluminum fins, 40 fins per foot, mechanically bonded to 1¼" O.D. seamless copper tubing. All elements capable of 100 psig operating pressure and 330°F operating temperatures. Heating elements to be factory coated with a color absorptive non-selective flat black coating, baked on at high temperature to prevent fading, deteriorating, peeling, etc. at temperatures to 330°F. Element lengths as shown on plans.

**(33) and (34)** UTILITY VENT SET: PACE Model U-208-THD backward inclined centrifugal fan. Top horizontal discharge with shutters and rain shield. Adjustable pitch v-belt drive. 4500 CFM @ .375" ESP, 1122 RPM, 1 HP 208/60/1Ø capacitor-start motor. AMCA certified, weatherproof steel construction, vibration isolators and weatherhood for motor. Install complete with fused electric disconnect switch and magnetic starter combination.

NOTE: Unless noted otherwise, Model numbers are JOHNSON CONTROLS. HONEYWELL, BARBER-COLEMAN, POWERS as approved equals.

**(C-1)** NIGHT SET BACK THERMOSTAT: HONEYWELL Model No. T451A, heating only, 36° to 74°F range, with heavy duty locking Thermostat Guard 120/60/1Ø

**(C-2)** NIGHT SET-BACK HUMIDISTAT: HONEYWELL Model No. H600A, 20% to 80% range, with locking cover and removable knob. 120/60/1Ø.

**(C-3)** NIGHT SET-BACK OVER-RIDE TIMER: AMF PARAGON Model No. 2808-00, 0-6 HR. range, Signal Light Indicator. 120/60/1Ø. Mount in a ANNALT.

**(C-4)** CONTROL AIR COMPRESSOR: JOHNSON CONTROLS Model A-5000 duplex air compressor, ASME rated, motors sized for 100% air requirements. Furnish complete with beltguard, intake filter, muffler, automatic tank drain and shut-off, pressure reducing valve, pressure relief valve, pressure switch and sequence control. Tank capacity 80 gallons minimum. Furnish and install magnetic starter, alternator, fused electric disconnect and heaters as required for a complete working system. 208/60/3Ø 1 HP nominal size motor (each)

**(C-5)** REFRIGERATED AIR DRYER: HANKINSON Series 80 Model 8015, flow capacity 15 SCFM. Complete package unit including factory drain, factory wired pressure switch to cycle compressor. 33° to 39° pressure dew point range at 100 psi. 1/6 HP 115/60/1Ø. Furnish with fused disconnect switch.

**(C-6)** TIME CLOCK: PARAGON Model 7017-00B 4 PST for use with 115 volt line and control circuit. Unit shall be 7-day design with easy to read seven-day dial graduated into seven days with each day divided into day and night divisions in 30 minute increments. The dial shall be able to be set by the time of day by turning the dial without removing nuts. Unit shall have 4-pole switching contacts suitable for line voltage with action as shown on the control diagrams. Unit shall have manual override capability without disturbing schedules. Unit shall incorporate a spring wound carryover for power outage up to 10 hours.

## MECHANICAL EQUIPMENT SCHEDULE

**(13)** HEATING WATER BOILER: WEIL McLAIN, Model AGB-20-H, Hot Water, atmospheric, natural gas fired, AGA approved, orificed for operation at 7000 ft. elevation. ASME certified. Provide as a complete package including McDONNELL-MILLER low water cut-off, high limit, operating aquastat, cast iron sectional construction with asbestos rope seal, complete aluminized steel burner, triple configuration with two-stage firing. Separate electrical and gas connections for each burner factory prewired and installed. Insulated steel jacket with baked enamel finish, horizontal to vertical drafthood, draft diverter, cleanout openings at front and rear, inspection ports, ASME relief valve, boiler mounted air vent, combination pressure, altitude, and temperature gauge. Boiler control to be WEIL McLAIN "Flame Sentinel Electronic Control System" Model MUSP-2, UL Listed, factory prewired with indicator lights, flame safeguard control, time delay relay, (2) UV flame detectors, (2) multi-port pilot burners, (2) pilot-line solenoid gas valves. Furnish gas regulator 7"-10" W.C. and gas control assembly. Manufacturer's representative shall supervise assembly, start-up, and provide complete test including flue analysis and gas pressure verification. Report to be included as a part of "Test and Balance" procedure.

| SYMBOL | MBH AGA SL RATING | MBH IBR RATING | BOILER HP |
|---|---|---|---|
| (13) | 3,230 | 2,247 | 77 |

**(14) AND (15)** END SUCTION PUMP: PACIFIC PUMPING COMPANY (PACO), Type LC base mounted horizontal end-suction centrifugal pump, flexibly connected, cast iron bronze fitted with casing rings, 316 stainless steel shaft, sleeves and mechanical seal. Single suction bronze impeller, rubber cushioned ball bearings. Bearing frame constructed of cast iron with catch basin reservoir and tapped drain hole. Base plate factory fabricated steel construction of drip lip design with drain hole for condensate drainage. Motor shall be drip-proof non-overloading type furnished with magnetic starter and fused electric disconnect switch. Furnish complete with coupling guard. 208/60/3Ø BELL & GOSSETT, WEINMAN approved as equal.

| SYMBOL | MODEL | GPM | TDH. FT | RPM | HP | SERVICE |
|---|---|---|---|---|---|---|
| (14) | 2095-1 | 141 | 48 | 1750 | 3 | Heating Constant |
| (15) | 2095-1 | 141 | 48 | 1750 | 3 | Heating Standby |

**(16)** (alternate) SOLAR CIRCULATING PUMP: BELL & GOSSETT Model 60-10, in-line circ. pump to deliver 30 GPM @ 35 ft of head with a 1 HP, 208/60/3Ø motor. Install with stainless shaft and sleeve and fused electric disconnect.

**(17)** SUCTION DIFFUSER: BELL & GOSSETT Model DC-3, flanged cast iron body, steel orifice cylinder, steel inlet vanes, with 16 mesh bronze start-up strainer (to be removed at time of final testing). Units sized with pump flange same size as pump inlet, and next size larger on system side outlet. Provide adjustable support leg, gauge port and permanent magnet in flow stream to be removable for cleaning. TACO approved as equal.

**(18)** AIR SEPARATOR: BELL & GOSSETT "ROLAIRTROL" tangential inlet/outlet connections, steel construction, stainless steel perforated air collector tube, removable basket strainer. ASME rated for 125 psig working pressure. Install complete with valved blowdown. AMTROL, TACO approved as equals.

| SYMBOL | MODEL | GPM | SERVICE | WEIGHT |
|---|---|---|---|---|
| (18) | R-4 | 141 | Heating System | 165 lbs. |

**(19)** OMIT (19)

**(20)** FINNED RADIATION CONVECTOR: AMERICAN AIR FILTER SERIES VQ with vandal proof screws, 16 gauge enclosure 5-1/4" x 20", complete assembly including hangers, and covers, adjustable damper with vandalproof operator, control valve inside enclosure, balancing cock and air vents. Capacities based on 180° EWT, 1100 BTUH output per linear ft., 1-1/4" I.P.S. 32 fins per inch. Finish and Color to be selected by Architect.

**(21) THRU (22)** UNIT HEATERS: MODINE Model No. HS-75&100 hot water type, horizontal air discharge, with adjustable fans. Coils to be copper tube, aluminum fins. Capacities listed below are based on 60°F EAT, 180° EWT. Thermostats are line voltage type and cycle fan motors. Provide complete with NEMA rated electric motors, steel housing w/ factory enamel finish, suspension rods with spring type vibration isolators, and fan guards. 115/60/1Ø. electric disconnect switch/manual starter with thermal overload protection.

| SYMBOL | BTUH | GPM | CFM | HP |
|---|---|---|---|---|
| (21) | 10,368 | 1.0 | 237 | 1/65 |
| (22) | 13,475 | 1.5 | 365 | 1/33 |

**(23) THRU (28)** EXHAUST FAN: GREENHECK Type "GB" aluminum, weatherproof construction for rooftop curb mounting. AMCA rating, adjustable belt-drive rated for 150% of listed HP, NEMA motors with ball-bearing drive and capacitor-start. Provide birdscreen, backdraft preventer, unit mounted fused disconnect switch and prefabricated sound curb. Interlock electrically as indicated on plans. 120/60/1Ø JENN-AIR, COOK approved as equals.

| SYMBOL | MODEL | CFM @"S.P. | HP | RPM |
|---|---|---|---|---|
| (23) | G-75-4 (Direct Drive) | 257 at 1/8" | 1/60 | 1500 |
| (24) | G-75-4 (Direct Drive) | 156 at 1/4" | 1/60 | 1300 |
| (25) | GB-10-4 | 555 at 1/8" | 1/4 | 910 |
| (26) | GB-14-4 | 1823 at 1/4" | 1/4 | 1080 |
| (27) | GB-65-6 (Direct Drive) | 178 at 1/10" | 1/60 | 1500 |

NC. Chlorinator Room Exhaust Fan (25) to have an air paddle switch in air stream and pilot light near access door to indicate operation of fan.

**(1) THRU (3)** CENTRAL STATION AIR HANDLING UNIT: PACE/BREO McLUNG, complete factory assembled modular component package for heating and ventilating with integral evaporative cooling section.

Horizontal blow-thru multi-zone arrangement with solid connection between sections. Furnish each component with a heavy gauge steel, hinged and gasketed access door with quick-opening handles. Coil compartments shall be completely insulated with 1-1/2" fiberglass, 1-1/2 lb. density, neoprene coated. Mixing and fan compartments to be insulated with 1-1/2" fiberglass, 3/4 lb. density. Airfoil blade double inlet supply fan and forward curved double inlet return fan with adjustable v-belt drives, fan guards, welded steel mounting frames, spherical roller heavy-duty pillowblock bearings with grease fittings extended to exterior face of cabinet. Fan wheels to be statically and dynamically balanced by factory and mounted on internal spring-type vibration isolators with snubbers. All parts exposed to moisture shall be painted with factory epoxy finish. Provide flexible connection at supply fan discharge, and sound absorbing acoustical baffle. Furnish discharge zone face and bypass dampers with heating coil raised on rack supports allowing option bypass of air, and insulated division plate between hot and cold deck. The return air fan system shall be furnished with relief dampers. Outside Air, Return Air and Relief Air dampers are to be opposed-blade tight close-off type equal to JOHNSON "Low Leakage Type". Cooling Section (Units 2 & 3) Outside air damper section shall be sized to bring in 100% outside air maintaining a maximum of 500 FPM across evaporative cooling section.

Evaporative section shall consist of PACE "EVAP-PACK" modular section with a 12" thick "CEL-DEK" non-clogging, self cleaning media pad having a saturation efficiency of 80% with no water carry over at design capacity. Maximum air pressure drop 0.20" WC across media pad. (Unit 1) Dry air evaporative cooling section shall consist of "VARI-COOL" cooling section with heavy gauge galvanized steel cabinet, corrosion free tube core assemblies, and flanged duct connections. Recirculating water system for evaporative and dry air evaporative sections shall consist of a sump pump, float valve, strainer, coated sump tank, with over-flow and drain connections and all distribution piping. Atmospheric dust filter section shall consist of 2" permanent rateinets, and 2" renewable filter media (AAF-CTOC). Filters selected for a maximum face velocity of 350 FPM. Furnish with DWYER 462-AF inclined manometer (0-2" range) across filter bank. Motors are to be single speed, NEMA rated, open-type, ball bearing drive. Install complete with magnetic starter and fused electrical disconnect switch, 208/60/3Ø. Supplier shall be responsible for verifying that unit dimensions are compatible with available space in Mechanical-Fan Room. Manufacturer's field engineer shall supervise installation, operational sequence, start-up, perform tests and submit report to insure that system is completely operational. Instructions shall be given to owners staff as to maintenance and operation. BUFFALO FORGE Model "J" approved as equal.

| SYMBOL | SUPPLY FAN MODEL | SUPPLY CFM AT " ESP | RETURN FAN MODEL | RETURN CFM AT " ESP |
|---|---|---|---|---|
| (1) | A-24 | 10,000 at 1.75" | A-24 | 10,000 at 0.75" |
| (2) | A-22 | 9,400 at 1.75" | A-24 | 9,400 at 0.5" |
| (3) | A-30 | 17,760 at 1.75" | A-30 | 17,360 at 0.375" |

| SYMBOL | SUPPLY HP | RETURN HP | COOLING SYSTEM | RECIRC. HP |
|---|---|---|---|---|
| (1) | 5 | 3 | VARI-COOL 90-60 | 1/12 |
| (2) | 5 | 3 | EVAP-PAK E20A | 1/4 |
| (3) | 10 | 9 | EVAP-PAK E30A | 1/3 |

**(4) THRU (6)** HEATING COIL: PACE-BREO & McLUNG Co. Type "5W" water coil. All rows, 5/8" x .020" copper tubes, corrugated aluminum fins, vent and drain fittings, headers on same side, 2 row minimum. Capacities are based on 740 FPM maximum face velocity, 0.30" air pressure drop across coil, 180° EWT, 55° EAT. Submit factory performance calculations and data. TRANE, AEROFIN, approved as equals.

| SYMBOL | CFM | GPM | SIZE | SERVES | BTUH |
|---|---|---|---|---|---|
| (4) | 10,000 | 24 | 8ZHW 33x75-1068/4 | AHU 1 | 464,800 |
| (5) | 9,400 | 18 | 8ZHW 33x72-1068/4 | AHU 2 | 353,200 |
| (6) | 17,760 | 25 | 8ZHW 36x96-L8/4 | AHU 3 | 662,700 |

**(7)** FLEXIBLE CONNECTION: METRAFLEX "Metrasphere", size 4"

**(8)** THERMOMETER: WEISS "Vari-angle", 7" case, 30°-300°F range

**(9)** PRESSURE GAUGE: WEISS Series CTS-1, 3-1/2" stainless steel case, 0-60 psi or 0-100 psi range as shown.

**(10)** BACKFLOW PREVENTER: HONEYWELL BRAUKMANN No. BF 250, size 3/4"

**(11)** CHEMICAL FEEDER: Schedule 40 steel, 8" dia. x 18" long with ends capped. Provide with funnel fill and 3/4" drain.

**(12)** PRESSURE REDUCING VALVE: BELL & GOSSETT No. RD 3 with fast fill feature and integral strainer, size 3/4".

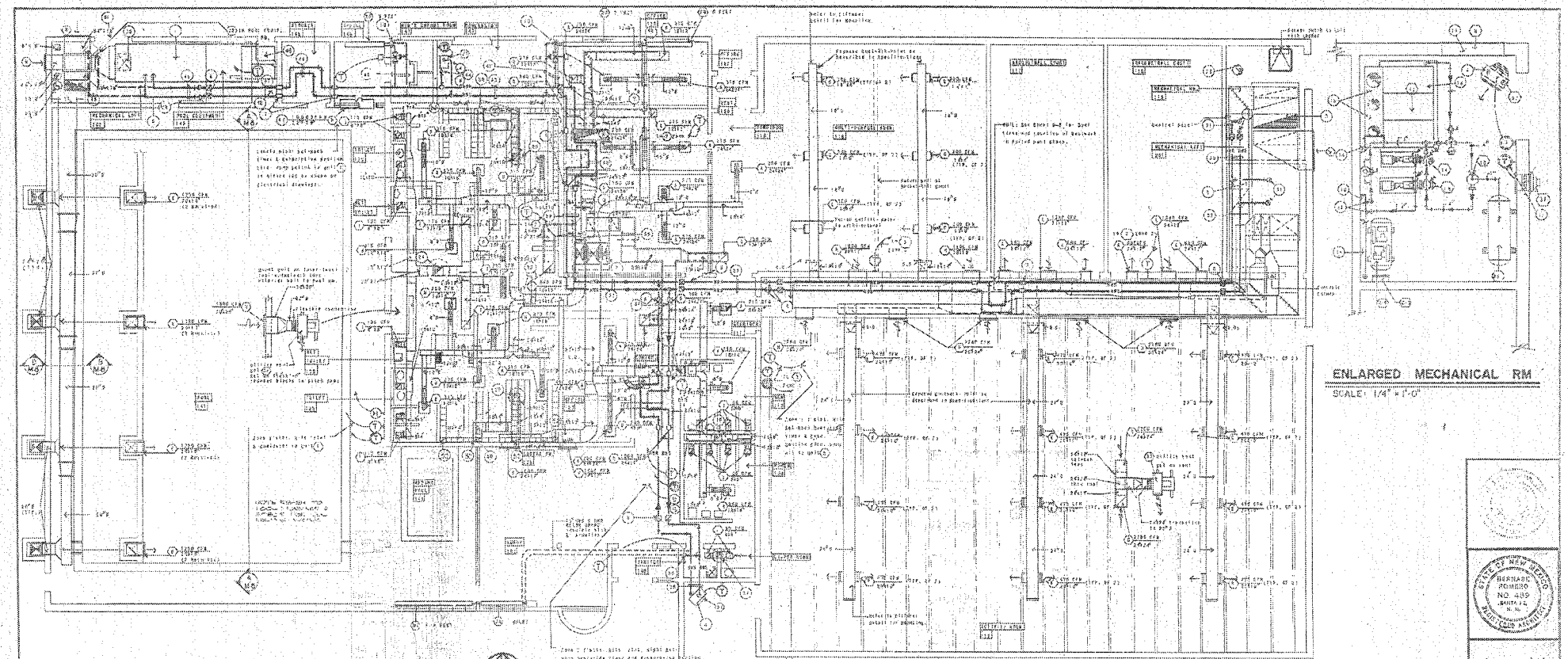
bernabé ROMERO a·i·a architect

COMMUNITY BUILDING | MECHANICAL: CONTROLS & MECHANICAL EQUIP. SCHEDULE

FORT MARCY & MAGERS FIELD RECREATIONAL PARK DEVELOPMENT for THE CITY OF SANTA FE, NEW MEXICO

JOB NO. | DRAWN WECO | CHECKED CRW | DATE 1/5/82

SHEET NO. M-1 OF 47 SHEETS



## MECHANICAL PLAN

SCALE: 1/8" = 1'-0"

NORTH

## ENLARGED MECHANICAL RM

SCALE: 1/4" = 1'-0"

## KEYED NOTES:

1. Air Handling Unit (1) at Mechanical Loft area. Refer to Details on other Sheets.
2. Air Handling Unit (2) on Roof. Provide factory curb and weatherproof connections. Refer to Details on other Sheets.
3. Air Handling Unit (3) at Mechanical Loft 202. Refer to Details on other Sheets.
4. Suspend Unit Heater with 1/2" threaded rod from structure approximately 9'-0" above floor as required for clearance.
5. HWS & HWR connection to heating coil.
6. Pipe Anchor, see Detail.
7. Pipe Guide, see Detail.
8. Sleeve pipe at structural bearing wall.
9. Provide 2" HWS and 1" HWR extension with gate valves and capped ends for future addition.
10. Drop insulated HWS and HWR piping at exterior wall, penetrate thru wall to serve finned tube radiators as shown. Install length of finned tube piping insulated. Provide sufficient enclosure panel to conceal piping as shown.
11. 4"HWS and 4"HWR rise to Mechanical Loft area and route as shown.
12. Locate HWS and HWR lines to allow passage thru access hatch.
13. Two 14"Ø and one 18"Ø flues. Connect to 21"Ø common flue and rise in 25" sleeve thru Mechanical Loft area and up 3'-0" above roof. Refer to details for flashing.
14. 3/4" CW make-up for Boiler Loop. See Plumbing Plans for configuration.
15. 64"x30" (4) Combustion Air Intake Louver, one piece, one lower. Top of upper louver to be 10" below ceiling, bottom of lower louver to be 12" above finished floor.
16. Location of Reset Relays for Loop Temperature Controls.
17. Exhaust Fan cycles from T'stat (makes on temperature rise) open to equipment room.
18. Refer to Plumbing Plans for Gas piping to Boiler.
19. 6"HWS, 6"HWR drop from Mechanical Loft drop to Mechanical Room. See Enlarged Plan for continuation.
20. 16"Ø Flue in 20"Ø sleeve, rise to Roof. Boiler Flue shall be 16 gage welded steel.
21. Location of TimeClock, Control Relays, etc. for Unit (3).
22. Location of TimeClock, Control Relays, etc. for Unit (1).
23. Location of TimeClock, Control Relays, etc. for Unit (2).
24. 18"x18" Exhaust Duct up to Exhaust Fan (29) on roof.
25. 10"x10" Exhaust Duct up to Exhaust Fan (26) on roof.
26. 12"x12" Exhaust Duct up to Exhaust Fan (25) on roof.
27. 8"x8" Exhaust Duct from wash Grill to transition to 8"x8" Duct and rise up to Exhaust Fan (27) on roof.
28. 56"x22" Pool Side Exhaust Duct up to Exhaust Fan (28) on roof. Provide Turning Vanes in Elbow.
29. 28" x 36" Supply duct down to Pool Equipment Room, see "Flue Gas Piping Detail", sheet P-2 for continuation. Provide a 210° Fire Damper with access door at penetration thru Mechanical Loft floor.
30. 4" HWS and 4" HWR Lines.
31. 2" HWS and 2" HWR to Heating Coil of Unit (2).
32. 3" HWS and 3" HWR Lines.
33. 3" HWS and 3" HWR drop from Furred Duct Chase in Gym to Ceiling Space.
34. 1 1/4" HWS and 1 1/4" HWR in Ceiling Space.
35. 1 1/4" HWS and 1 1/4" HWR to drop below Grade along Wall. Provide Gate Valves in both Lines where Lines drop along Wall, and 3 way valve rise to thermostat as shown.
36. 3/4" HWS and 3/4" HWR Lines.
37. 3" HWS and 3" HWR in Ceiling Space.
38. 1 1/2" HWS and 1 1/2" HWR rise to Unit (2) on roof.
39. 3" HWS and 3" HWR in Ceiling Space.
40. 2 1/2" HWS and 2 1/2" HWR in Ceiling Space.
41. 1 1/2" HWS and 1 1/2" HWR to serve Finned Radiation Units in Offices 122 and 123.
42. 1 1/4" HWS and 1 1/4" HWR Lines.
43. 2" HWS and 2" HWR Lines at Ceiling of Concession Stand.
44. 3/4" HWS and 3/4" HWR Lines.
45. 1 1/4" HWS and 1 1/4" HWR Lines.
46. 2" HWS and 2" HWR Lines at Ceiling of Storage Room 145.
47. 3/4" HWS and 3/4" HWR Lines at Ceiling of Pool Equipment Room 145.
48. 2" HWS and 2" HWR Lines rise to Mechanical Loft 202 and serve Heating Coil of Unit (1).
49. 72"x36" Return Air Duct to Unit (1). Connect to Return Air Grille in Pool Area as shown. Provide 160° Fire Damper in Grille. Paint per Architects specifications.

## GENERAL NOTES

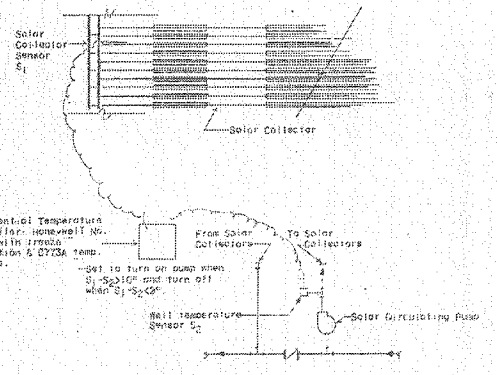
1. Penetrations in roof and floor/ceiling of Mechanical Loft for supply, return and exhaust ducts of Units (1), (2), & (3) are shown in approximate locations. Contractor to coordinate exact locations with manufacturers equipment and coordinate with General Contractor.
2. Insulate all interior ductwork with 1" thick fiberglass insulation with fire retardant jacket. Insulate ductwork in Pilasters with 2" thick fiberglass insulation with vapor barrier. Ductwork to be sheetmetal.
3. Space above ceiling area and furred duct chase is limited. Careful coordination between all trades will be required to insure good access to balancing dampers, coil runs, and lights. Ducts may be transitioned if required (maintain equivalent free area).
4. Provide fire dampers on all locations shown on the Plans and as required by NFPA-90A & B.

50. 22"x10" drop thru furred wall space and terminate at 24" above floor for Locker ventilation.
51. Install a 36"x 24" (4) Combustion Air Intake louver in exterior wall directly above Pool Equip. Rm. door. Top of louver to be 12" below ceiling of Pool Equip. Rm. Doors to have a 36"x 24" louver 12" above finished floor.
52. (TROVITY FANWALL AIR WHEELS (2) AT CEILING OPENINGS IF AVAILABLE IF IS NOT ACCEPTED, SIZE "SMALL TURFIT DUCT.

bernabé ROMERO a·i·a architect
santa fe, new mexico

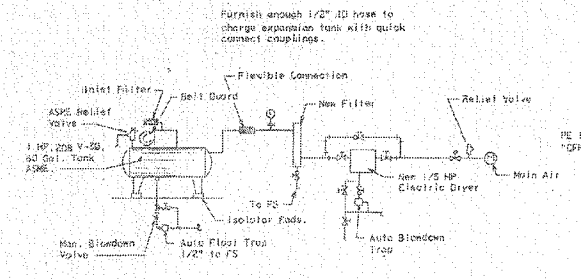
STATE OF NEW MEXICO
BERNABE ROMERO
NO. 489
SANTA FE, N. M.
REGISTERED ARCHITECT

| | |
|---|---|
| COMMUNITY BUILDING | MECHANICAL FLOOR PLAN |
| FORT MARCY & MAGERS FIELD RECREATIONAL PARK DEVELOPMENT | for THE CITY OF SANTA FE, NEW MEXICO |
| JOB NO. | |
| DRAWN WECO | |
| CHECKED CRW | |
| DATE 1/5/72 | |
| SHEET NO. M-2 | OF 47 |



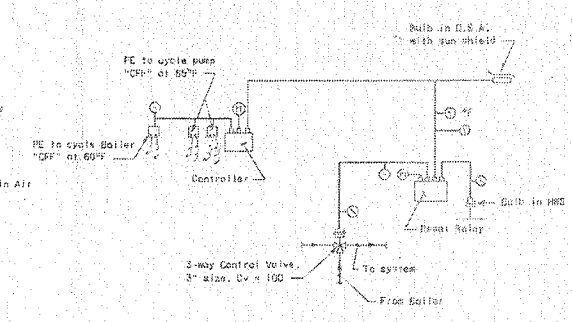

## SOLAR SYSTEM CONTROLS

NOT TO SCALE




## CONTROL AIR SUPPLY — COMPRESSOR INSTALLATION

NOT TO SCALE

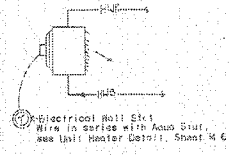



| RESET SCHEDULE | |
|---|---|
| OUTSIDE AIR | HW TEMP. |
| 0°F | 180°F |
| 30°F | 105°F |
| 1-1/2 to 1 Ratio | |

HOT WATER RESET

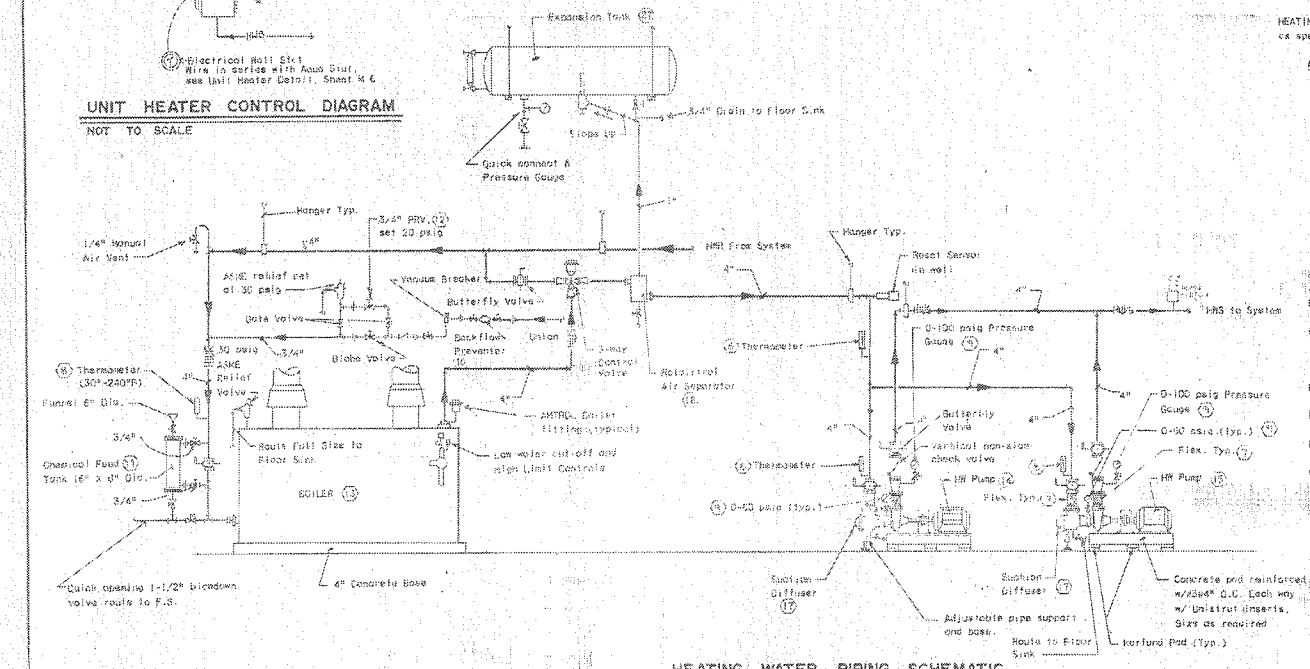
## BOILER AND PUMP CONTROL

NOT TO SCALE




## UNIT HEATER CONTROL DIAGRAM

NOT TO SCALE




## HEATING WATER PIPING SCHEMATIC

NOT TO SCALE

HEATING SYSTEM PIPING: All piping shall be neatly and carefully installed essentially as specified under PLUMBING.

A. Hot Water Piping:
   (1) Test at 100 psig, same as for domestic water.
   (2) Piping: Type "L" hard drawn copper.
   (3) Fittings: 125 psi solder joint copper or brass. Ream all pipe to full diameter & clean before joining. Apply flux to entire area of pipe end to be soldered. Joints shall be made with 95-5 solder.
   (4) Flanges: 125 psi solder joint through 3 inches. 150 pound cast bronze flanges for all lines 4 inches and larger, type J.M. 60, or equal gaskets.
   (5) Valves:
      (a) Gate: Crane 440 thru 2"; 466 above 2".
      (b) Globe: Crane 7 thru 2"; 359 above 2".
      (c) Check: Crane 34 thru 2"; 373 above 2".
      (d) Square Headed Cocks: Crane 34 thru 2", 324 thru 4".
   (6) Strainers: Crane 998-1/2.
   (7) Identification: Staple Brady labels and brush with clear lacquer and flow arrows at 10 foot intervals.

B. Insulation for hot water shall be same as specified under Part 15B including protective jackets.

C. Butterfly Valves: Butterfly valves may be substituted for all valves, 4" and above to have gear operators, multi-position locking handles (or center stops); NORRIS "R" series, "Nordel" liner, lug water body, tight close-off at 150 psig differential. All gear operators shall have wheel handles.

D. Air Vents: Install manual air vent cocks with 1/4" tubing at all high points and where required for venting. Provide valves to each cock.

E. Route all blowdowns, relieffs, and drain lines to floor sink. Secure to wall or floor as required.

F. All flexible connections shall be Metraflex Style 1003T flexible rubber expansion joints.

G. Refer to plumbing equipment specifications for pressure gauges, thermometers, etc.

H. Install dielectric unions at all connections of dissimilar metals.

AS BUILT DRAWINGS

bernabé ROMERO a·i·a architect

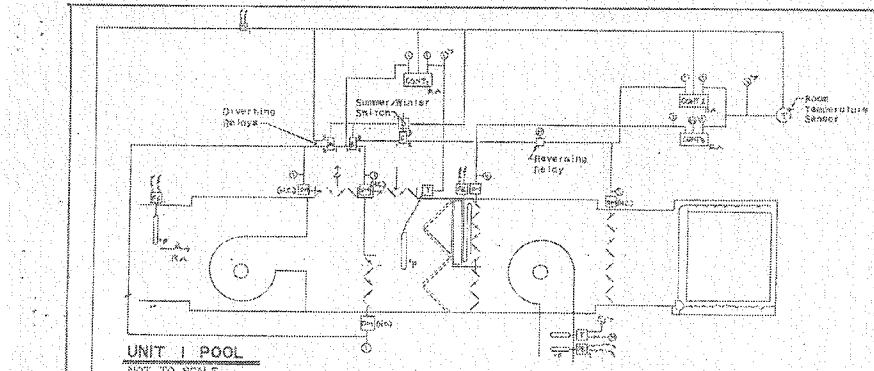
MECHANICAL: BOILER PIPING AND CONTROL SCHEMATICS

COMMUNITY BUILDING

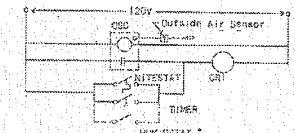
FORT MARCY & MAGERS FIELD RECREATIONAL PARK DEVELOPMENT for THE CITY OF SANTA FE, NEW MEXICO

JOB NO.
DRAWN: WECO
CHECKED: CRW
DATE: 11/5/62

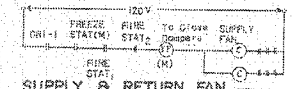
SHEET M-3 | 47 SHEETS



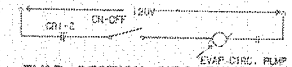

UNIT 1 POOL
NOT TO SCALE




OPTIMAL START CONTROLLER

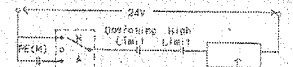



SUPPLY & RETURN FAN

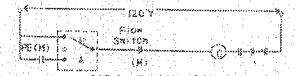



EVAP. SECTION CIRC. PUMP

UNITS ① ② & ③ ELECTRICAL CONTROLS

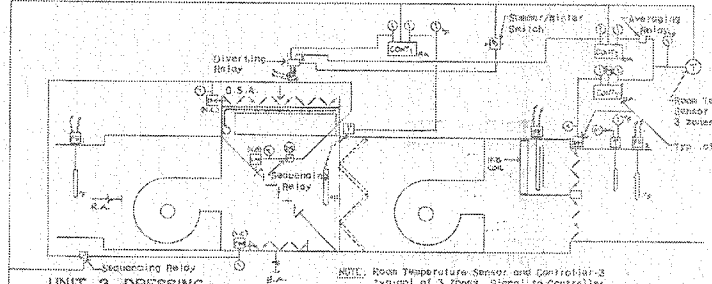



BOILER



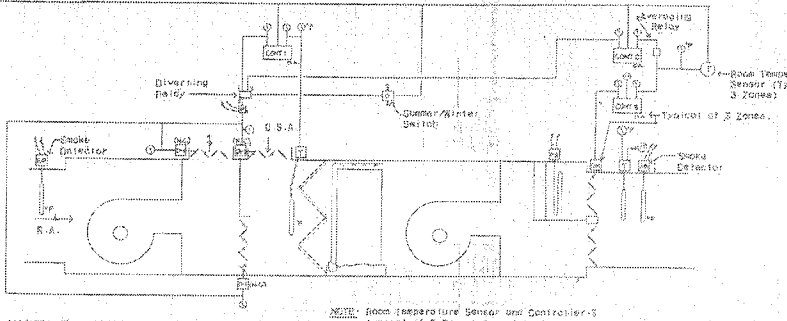

CIRC. PUMP (HEATING)

AIR COMPRESSOR




UNIT 2 - DRESSING
NOT TO SCALE

NOTE: Room Temperature Sensor and Controller-3 Typical of 3 Zones. Signal to Controller 2 to be average of the three Zones. R.A. & E.A. Dampers to modulate only after O.S.A. Dampers are open 30%.



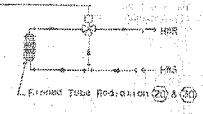

UNIT 3 - GYM
NOT TO SCALE

NOTE: Room Temperature Sensor and Controller-3 Typical of 3 Zones. Signal to Controller 2 to be average of the 3 Zones.

HVAC CONTROL SYSTEM
NOT TO SCALE

UNIT HEATER

DOMESTIC RECIRCULATING PUMP




NOTE: See Sheet M-3 for control of Boiler, Reset Relay and Circulating Pumps.

FINNED TUBE RADIATION CONTROL
NOT TO SCALE

## HVAC CONTROL SYSTEM SEQUENCE OF OPERATION

WINTER OPERATION:

UNIT 1: Summer/Winter switch is in Winter position. Controller 3, set at 80°F, will modulate Fans and Bypass Dampers. Indexing signal to Diverting Relays A & B will be below setting with Ports 1 & 2 connected. Diverting Relay C will be above setting with Ports 2 & 3 connected. O.S.A., R.A. & E.A. Dampers are proportionally controlled by Mixed Air Sensor set at 65°F. EP-1, Freezestats and Fire-stats 1 & 2 are wired in series with Supply and Return Fans. When Fans are off O.S.A. & E.A. Dampers are closed through EP-1.

UNIT 2: Summer/Winter switch is in Winter position. Controller 3, set at 80°F, will modulate Fans and Bypass Dampers. Indexing signal to Diverting Relay is below setting with Ports 1 & 2 connected. O.S.A., R.A. & E.A. Dampers will be proportionally controlled by Mixed Air Sensor set at 55°F. EP-1, Freezestats and Fire-stats 1 & 2 are wired in series with Supply and Return Fans. When Fans are off O.S.A. & E.A. Dampers close through EP-1.

UNIT 3: Summer/Winter switch in Winter position. Controller 3, set at 65°F, will modulate Fans and Bypass Dampers. Indexing signal to Diverting Relay is below setting with Ports 1 & 2 are connected. O.S.A., R.A. & E.A. Dampers are proportionally Controlled by Mixed Air Sensor set at 65°F. EP-1, Freezestat, and Smoke Detectors 1 & 2 are wired in series with Supply and Return Fans. When Fans are off O.S.A. & E.A. Dampers are Closed through EP-1.

BOILER AND CIRCULATING PUMP: Heating Water Boiler and Heating System Circulating Pump are to shut-off at outside Air temperatures above 65°F through EP Switch and Outside Air Sensor as shown.

SUMMER OPERATION:

UNIT 1: Summer/Winter switch in Summer position. At increased pressure Fans and Bypass Dampers are positioned to allow full bypass. Index signal to Diverting Relays A & B is above setting with Ports 2 & 3 connected. Diverting Relay C will be below setting with Ports 1 & 2 connected. E.A. Dampers are positioned full open and R.A. Dampers positioned full closed. Controller 2 set at 82°F will modulate O.S.A. Dampers and Evap. section Dampers to satisfy Room Temperature Sensor. Evaporative Section Circulating Pump to be switched separately.

UNIT 2: Summer/Winter switch is in Summer position. At increased pressure Fans and Bypass Dampers are positioned to allow full bypass. Indexing signal to Diverting Relay is above setting with Ports 2 & 3 connected. Controller-2, set at 79°F, modulate O.S.A., R.A. & E.A. Dampers to satisfy Room Temperature Sensor. Evaporative Section Circulating Pump to be switched separately.

UNIT 3: Summer/Winter switch is in Summer position. At increased pressure Fans and Bypass Dampers are positioned to allow full bypass. Indexing signal to Diverting Relay is above setting with Ports 2 & 3 connected. Controller-2, set at 79°F, will modulate O.S.A., E.A. and R.A. Dampers to satisfy Room Temperature Sensor. Evaporative Section Circulating Pump to be switched separately.

NIGHT SETBACK AND OPTIMAL START: Supply and Return Fans and Evaporative Section Circulating Pumps of Units ① ② & ③ are to be interlocked with an Optimal Start Controller. Each Unit to have its own Controller and be mounted near Pneumatic Control Panel of each unit as shown on plans. Optimal Start Controller to be capable of shutting off units at 0 scheduled time each day and provide Optimal Start for the next morning based on outside temperature, building construction and night effect. Unit ① Optimal Start Controls shall have an over-ride Timer (electric 0-6 hr.), Night set-back thermostat (electric 55°F) and night set-back thermostat (electric, 50°F) all capable of over-riding Optimal Start Controller. Units ② & ③ Optimal Start Controls to have an over-ride Timer (electric 0-6 hr) and Night Setback Thermostat (electric, 55°F) all capable of over-riding Optimal Start Controller.

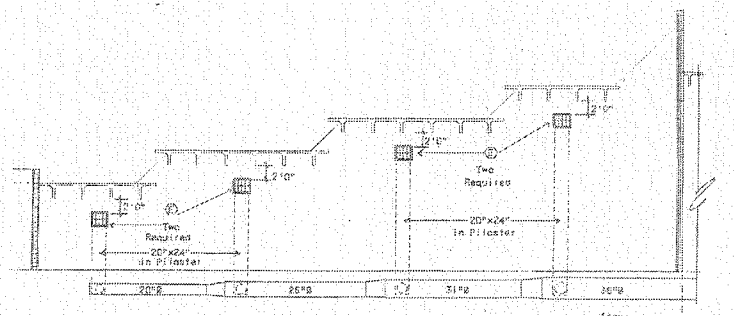
## GENERAL NOTES

1. Approved Control Equipment furnished and installed by JOHNSON, HONEYWELL, BARBER-COLEMAN or HONEYWELL only.
2. Refer to Electrical Power Plan for Equipment Interlocks, Circuitry, Ladder Diagrams, etc.
3. (N) +20 psig Main Air from Compressor in Mechanical Room.
4. All Room Thermostats shall be key operated with blank Cover. Provide a steel, ventilated Cover with locking device. Paint Cover to attracted by Architect. Mount all Thermostats at 5'-0" above finished floor unless indicated otherwise on Floor Plan.
5. All Control valves shall be sized for flow of unit at 4 psig maximum pressure drop.
6. All Pneumatic tubing shall be copper except that approved plastic tubing may be used inside Control Cabinets.
7. Label all Control devices, thermostats, EP Relays, PE switches, etc. with laminated phenolic resin tags white letters on black background indicate the function, setpoint, type of device etc.
8. All sensors, Duct Thermostats, and Controllers are to have averaging bulbs.
9. Furnish 2 extra thermostats for repair or replacement.
10. Panel mount all Control devices as described in specifications.
11. Optimal Start Controller to be enclosed in a steel cabinet with key latch and consist of a seven day Timeclock, on & off trippers for each of seven days, Outdoor Air Sensor (wind compensating), 10 hour spring wound carry-over, pilot light, night setback thermostat, over-ride Timer, night setback thermostat as described in Sequence of Operation.

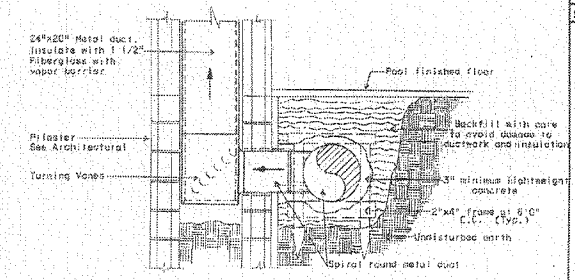
STATE OF NEW MEXICO
BERNARD ROMERO
NO. 498
CHITTAM, N.M.
REGISTERED ARCHITECT

bernard ROMERO a.i.a. architect
Santa Fe, New Mexico

| | |
|---|---|
| COMMUNITY BUILDING | MECHANICAL CONTROL SCHEMATICS & OPERATION |
| FORT MARCY & MAGERS FIELD RECREATIONAL PARK DEVELOPMENT | |
| THE CITY OF SANTA FE, NEW MEXICO | |
| JOB NO. | |
| DRAWN WEC | |
| CHECKED CRW | |
| DATE 1-1-72 | |
| SHEET NO. M-4 | OF 47 SHEETS |

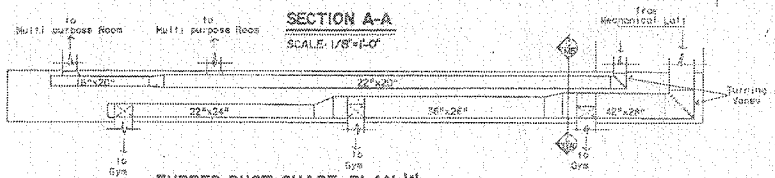



SECTION A-A
SCALE: 1/8"=1'-0"

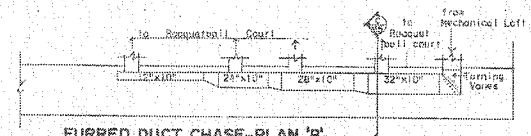



SECTION B-B
NOT TO SCALE

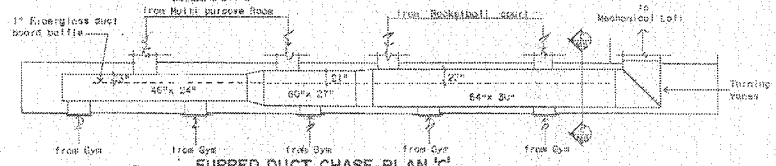
| SYMBOL | DESCRIPTION |
|---|---|
| (A) | SUPPLY AIR DIFFUSER: Tuttle & Bailey Model OF, flush face, aluminum construction 24"x24" with integral round neck for T-bar lay-in ceiling installation. Provide 210°F Fire Damper, adjustable vane and balance damper in branch runout. Off-white baked enamel finish. Neck size as shown on drawings. |
| (B) | SUPPLY AIR DIFFUSER: Same as (A) except with flanged frame for fixed type ceiling installation. Provide TSB No. 4 volume control damper in lieu of damper at branch run-out. |
| (C) | SUPPLY AIR DRUM LOUVER: Krueger Model size as shown, extruded aluminum drum, vanes and frame. Horizontal pivot, 60° drum rotation with felt seal and sponge gasket around frame perimeter. Satin anodized finish. Furnish with O.B.D. |
| (D) | SUPPLY AIR DIFFUSER: Krueger Model 1100 perforated grille, steel construction, 24"x24" with plaster frame for fixed ceiling installation. Radial pattern, hinged face plate. Model LC louver damper. White baked enamel finish. |
| (E) | SUPPLY AIR DRUM LOUVER: Krueger Model 10/20 extruded aluminum drum, vanes and frame. Horizontal pivot, 60° drum rotation with felt seal and sponge gasket around frame perimeter. Satin anodized finish. Furnish with O.B.D. |
| (F) | SIDEWALL SUPPLY REGISTER KRUEGER AL6560V aluminum construction, hinge frame, vertical face bars, horizontal rear bars, furnish with 210°F Fire Damper. Off-white baked enamel finish. |
| (G) | RETURN AIR GRILLE: Krueger Model 600-S aluminum construction, 1/2"x1/2"x1/2" egg-crate core aluminum grid for lay-in tee-bar ceiling installation. Provide 160°F Fire Damper. Off-white baked enamel finish. |
| (H) | SIDEWALL RETURN AIR GRILLE: Krueger Model AL6560V aluminum construction, flanged frame, vertical front bars, horizontal rear bars 160°F Fire Damper. Off-white baked enamel finish. |
| (I) | FIRE DAMPER: Air Balance Model 11SSLR, 1-1/2 hour for vertical or horizontal installation of ductwork. 210°F Supply, 160°F Return air fusible link. |
| (J) | EXHAUST AIR GRILLE: Krueger Model 600-S, aluminum construction, 1/2"x1/2"x1/2" grid, flanged frame for fixed type surface ceiling. Provide 160°F Fire Damper in fire-rated ceiling and opposed blade damper. |
| (K) | SIDEWALL SUPPLY REGISTER: Krueger Model AL6610, aluminum construction, fixed horizontal front bars, adjustable vertical rear bars. Furnish with plaster frame No. 656 and opposed blade damper. Grille face to be flush with wall. Install with 210°F Fire Damper. |
| (L) | SIDEWALL RETURN AIR GRILLE: Krueger Model AL6610, aluminum construction, adjustable rear bars. Furnish with plaster frame No. 656. Grille face to flush with wall. Install with 160° Fire Damper. |
| (M) | COMBUSTION/FRESH AIR LOUVER: Krueger Model XAL 6, aluminum construction, stationary louver blades at 30°. Furnish with overlapping angle frame and insect screen. |
| (N) | FLEXIBLE DUCT: GUARANTEED "Genaflex", UL 181 Class I flexible duct. Install in accordance with manufacturer's instructions as per UL181 requirements. Size as shown on plans. Flexible to sheetmetal fittings to be Genaflex No. SM-1GEL where accessible and No. SM-1EL where inaccessible. |



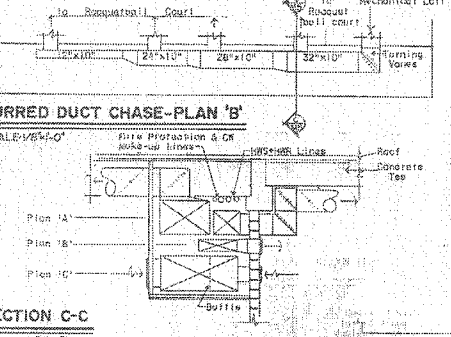

FURRED DUCT CHASE-PLAN 'A'
SCALE: 1/8"=1'-0"



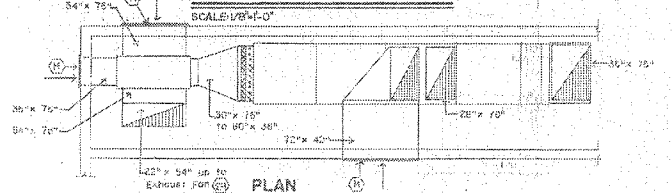

FURRED DUCT CHASE-PLAN 'B'
SCALE: 1/8"=1'-0"



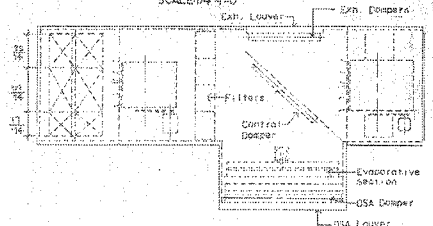

FURRED DUCT CHASE-PLAN 'C'
SCALE: 1/8"=1'-0"



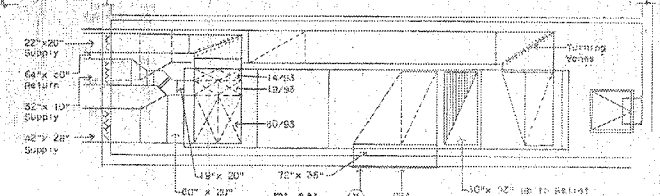

SECTION C-C
SCALE: 1/4"=1'-0"




PLAN

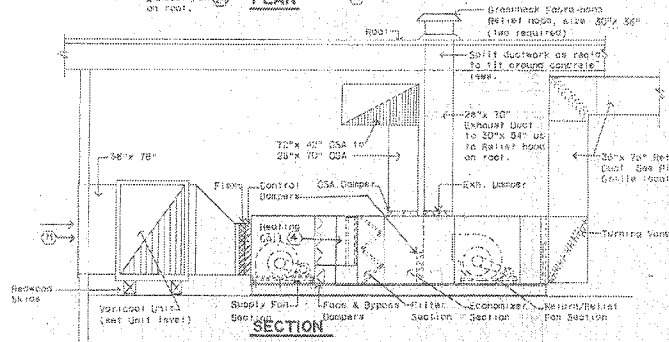



PLAN



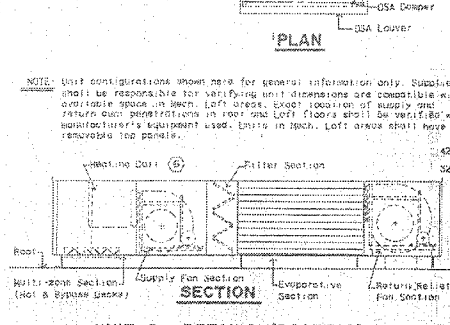

PLAN

NOTE: Unit configurations shown here for general information only. Supplier shall be responsible for verifying unit dimensions are compatible with available space in Mech. Loft areas. Exact location of supply and return duct penetrations in roof and Loft floors shall be verified with manufacturer's equipment used. Units in Mech. Loft areas shall have removable top panels.



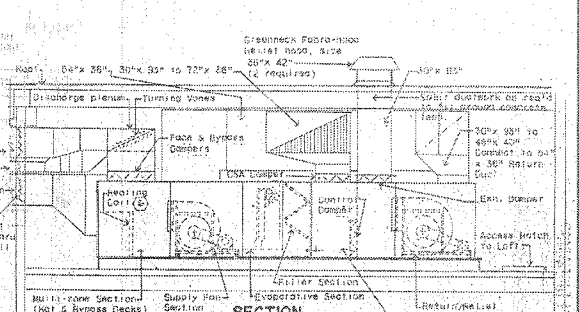

SECTION

UNIT 1 - DETAILS (MECH. LOFT 202)
NOT TO SCALE




SECTION

UNIT 2 - DETAILS (ROOFTOP)
NOT TO SCALE




SECTION

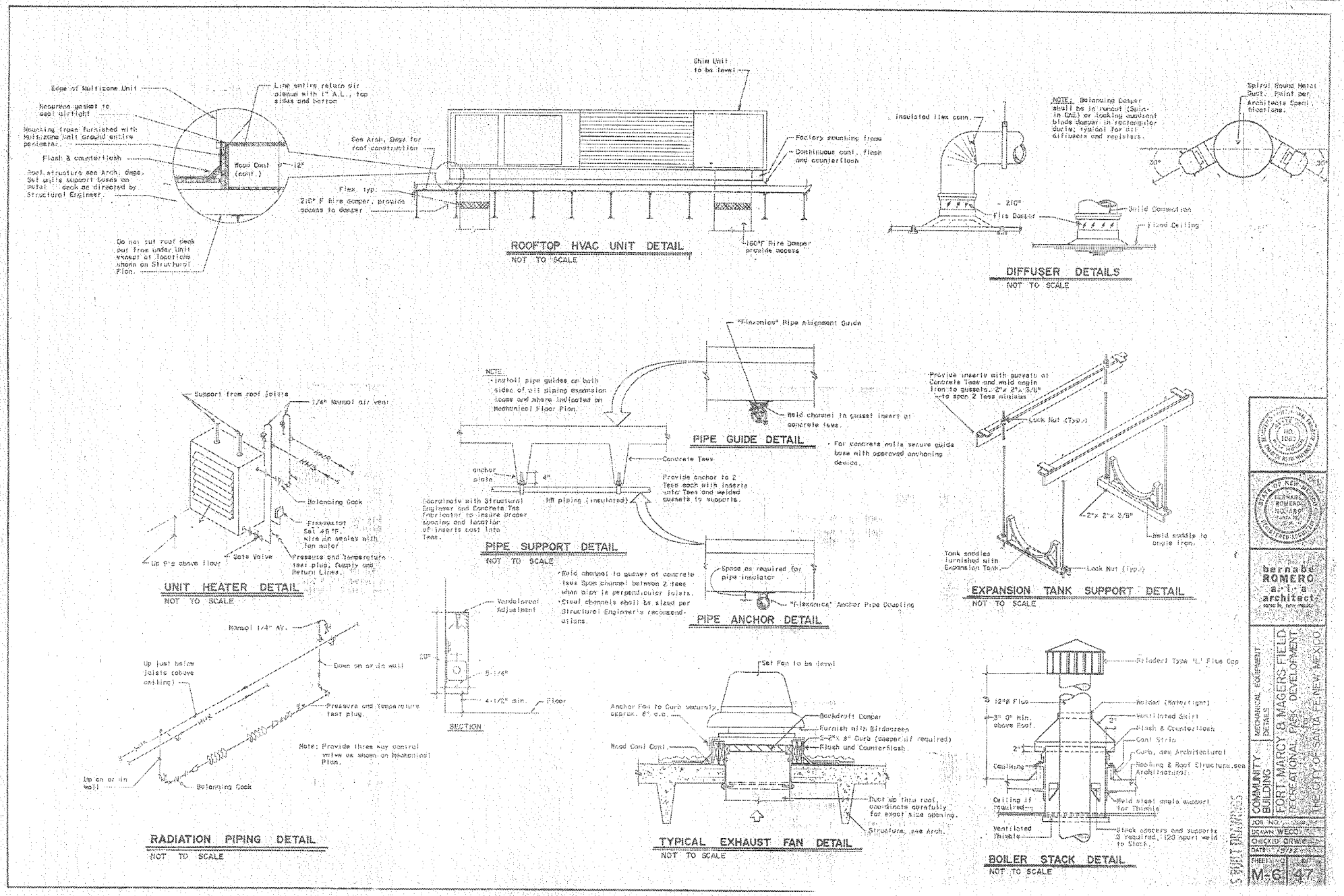
UNIT 3 - DETAILS MECH. LOFT 201)
NOT TO SCALE

STATE OF NEW MEXICO
BERNABE ROMERO
No. 4255
REGISTERED ARCHITECT

bernabe ROMERO a.i.a. architect

COMMUNITY BUILDING | MECHANICAL GRILLE & REGISTER SCHEDULE DETAILS
FORT MARCY & MAGERS FIELD RECREATIONAL PARK DEVELOPMENT for THE CITY OF SANTA FE, NEW MEXICO

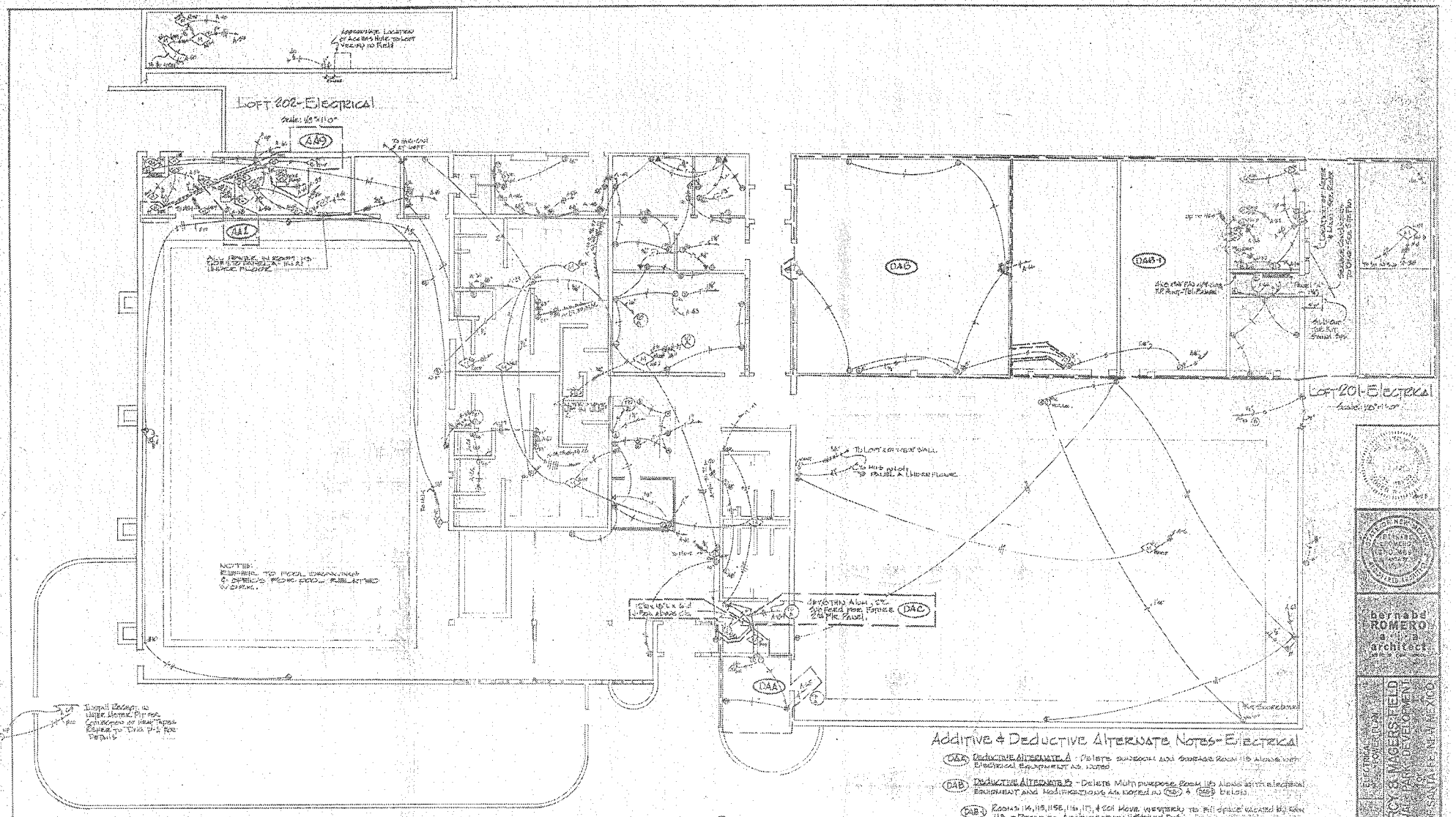
JOB NO.
DRAWN WECO
CHECKED CRW
DATE 1/6/95
SHEET NO. M-5 OF 47




bernabe ROMERO a·i·a architect
santa fe, new mexico

COMMUNITY BUILDING
MECHANICAL EQUIPMENT DETAILS
FORT MARCY & MAGERS FIELD RECREATIONAL PARK DEVELOPMENT
THE CITY OF SANTA FE, NEW MEXICO

JOB NO.
DRAWN WECO
CHECKED GRW
DATE 1/9/22
SHEET NO. M-6 47




## Additive & Deductive Alternate Notes-Electrical

(DAA) DEDUCTIVE ALTERNATE A - Delete Dressing and Storage Room 115 along with Electrical Equipment as noted.

(DAB) DEDUCTIVE ALTERNATE B - Delete Multi purpose Room 110 along with electrical Equipment and modifications as noted in (DAB-1) & (DAB-2) below.

(DAB-1) Rooms 114, 115, 115E, 116, 117, & 201 Move westerly to fill space vacated by Rm 110 - Refer to Architectural Sheet D-1.

(DAB-2) Relocate Type CC fixture on Northwest Corner of Loft 201 to North East Corner of Gym 112 along with all circuitry.

(DAC) DEDUCTIVE ALTERNATE C - Delete provisions for Second Floor Office Space. With acceptance of this Alternate, delete space 63 & 64 in Panel A1.

(AA1) ADDITIVE ALTERNATE 1 - Add Reading Pool. To Base Bid include space only to Panel A at Circuit A-56.

(AAS) ADDITIVE ALTERNATE 5 - Add Solar Collection Equipment. To Base Bid include space only in Panel A at Circuit A-61.

(AA11) ADDITIVE ALTERNATE 11 - Extend Pool Room 101 to a Southerly direction. Under this Alternate Recess Fixtures & Circuitry noted.

(AA16) ADDITIVE ALTERNATE 16 - Extend Pool Room A Southerly direction. Under this Alternate Recess Fixtures & Circuitry noted.

# Electrical - Power Plan

Scale: 1/8"=1'-0"

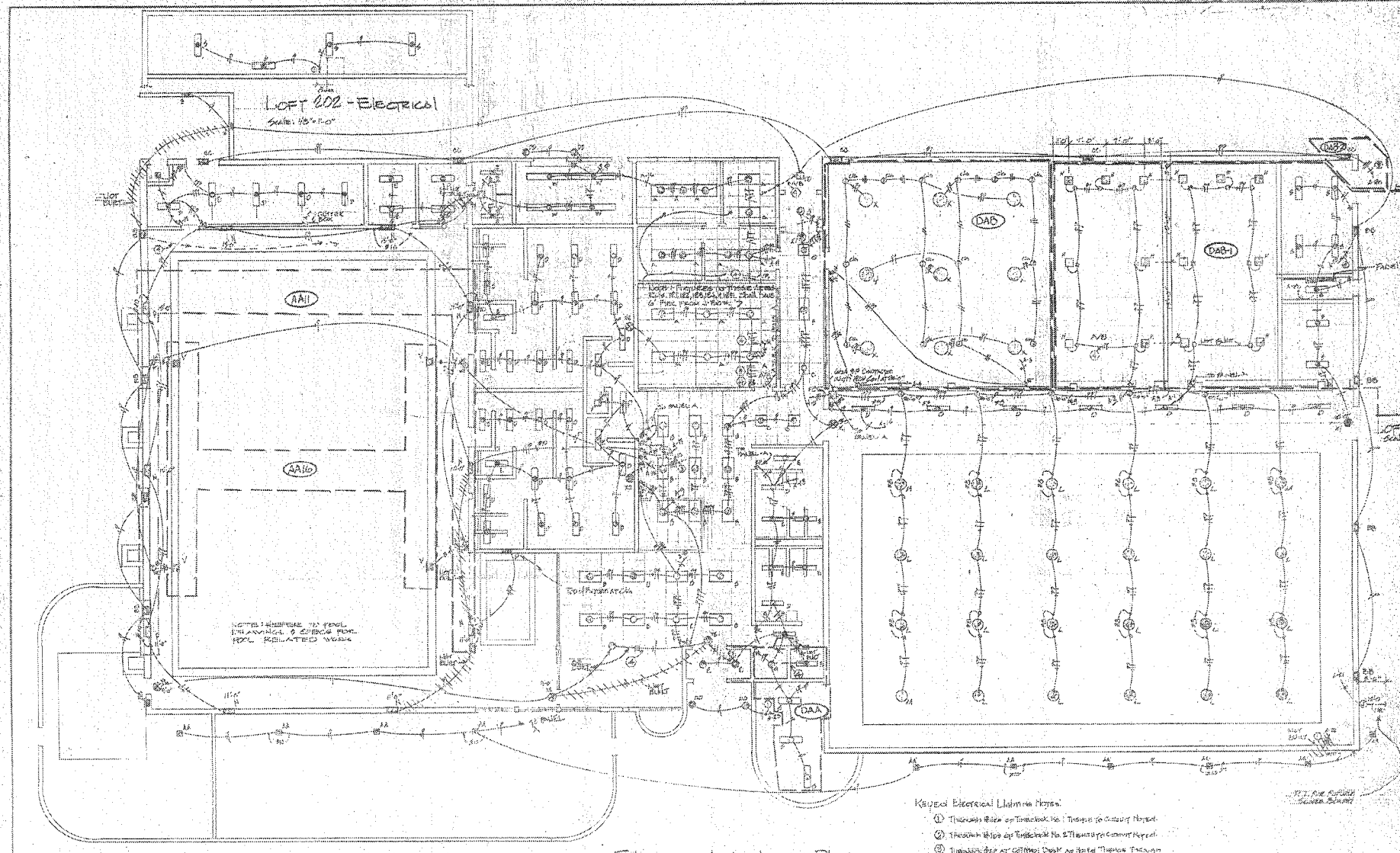
bernabe ROMERO a.i.a. architect

COMMUNITY BUILDING | ELECTRICAL | SCHEMATIC DESIGN

FORT MARCY & MACKERSFELD RECREATIONAL FACILITY DEVELOPMENT

THE CITY OF SANTA FE, NEW MEXICO

JOB NO.
DRAWN
CHECKED
DATE 1/4/91
SHEET E-2




ELECTRICAL - LIGHTING PLAN
Scale: 1/8"=1'-0"

Keyed Electrical Lighting Notes:

1. Through Bldg. of Timeclock No. 1 Trace to Circuit Noted.
2. Through Bldg. of Timeclock No. 2 Trace to Circuit Noted.
3. Through Bldg. at Common Desk as Noted Trace Through Bldg. of Timeclock No. 2 Trace to Circuit Noted.
4. As Built Complete.

Additive & Deductive Alternates:

Refer to Sheet E-1 for Schedule of Additive and Deductive Alternates Applicable to Electrical System.

AS BUILT DRAWINGS

COMMUNITY BUILDING

ELECTRICAL LIGHTING PLAN

FORT MARCY & MAGERS FIELD
RECREATIONAL PARK DEVELOPMENT
FOR
THE CITY OF SANTA FE, NEW MEXICO

bernabé ROMERO a.i.a. architect

JOB NO.
DRAWN
CHECKED
DATE 7/8/82
SHEET NO. E-2
SHEET OF 47

## NMEC Art 290 - Occupancy

Bonded Cavity Method - Perfect Circle 80% Wall & 60% Floor

| Space | R.C.R. | Cond. per Unit | Remarks |
|---|---|---|---|
| Office 123 | 5.05 | 49 | 70 |
| ✓ 122 | 6.38 | 44 | |
| ✓ 124 | 6.25 | 49 | |
| ✓ 121 | 5.75 | 46 | |
| ✓ 125 | 2.69 | 64 | |
| Lobby | 4.10 | 55 | 50 |
| Hall | 5.21 | 28 | 50 |
| Women | 4.61 | 25 | 50 |
| Corridor Rooms | 2.22 | 42 | 50 |

## Lighting Fixture Schedule

| Symbol | Description | Lamps | Volts | Mounting | Remarks |
|---|---|---|---|---|---|
| A | Guide # RVG-2-264-4K-120 | 4-F40 | 120 | T-Grid | 2'x4' |
| B | ✓ # RVG-2-264-4K-120 | 3-F40 | | T-Grid | 2'x4' |
| C | ✓ # RVG-2-232-2K-120 | 2-F32 | | T-Grid | 2'x2' |
| D | Holophane Kurtson # 54-40-2L | 2-F40 | | Ceil. Surf. | |
| E | ✓ ✓ # 54-40-2L | 2-F40 | | ✓ | |
| F | Acme Dunham # 404 10/2L | 1-F40 | | ✓ | |
| G | P.S.B # 102 Stadium Fixtures | 1-500W | | ✓ | |
| H | Hubbell # RXF-10-K-77-P.B.2-03 | 1-500W HI | 208 | Ceil. Recess | |
| K | ✓ # 1SE-10-42-PF-77-P.B.2-03 | | | | |
| L | Holophane # 450-WS-B.E.-P-PF | 1-400W HI | | Ceil. Hanging | |
| M | ✓ # 450-WS-B.E.-P-PF | 1-400W HI | | | |
| N | Holophane # 9900-4-20-2-P.E.-PF | 1-400W HI | | Wall Bracket | |
| P | ✓ # 9900-4-20-2-P.E.-PF | 1-400W HI | | ✓ | |
| Q | Mr. Pinlight # 455-101-B | 1-100W | 120 | Ceil. Surf. | |
| R | ✓ # 455-101-B | 1-100W | | ✓ | |
| S | Williams # 7-0-22 | 1-100W | | ✓ | |
| T | Guide # RVG-2-264-4K | 4-F40 | | ✓ | |
| U | Acme Dunham # 5-51-P-120-T | 1-F40 | | Ceil. Recess | |
| V | Kim # 5-5077/1/PA/CL/SNW | 1-100W Incan | | Wall Bracket | Mounted with 2 S.S. Screws and Wall Anchors |
| W | Williams # 7-0-10 W Tile Canopy | 1-100W | | Ceil. Surf. | |
| X1 | Dual I (Mirror Wall Wash) R.E.P.M. | 2-100W | | Wall Surf. | |
| X2 | ✓ # 1DW/WD/A 1DWB.E.P.M. | 2-100W | | ✓ | |
| Y | Hubbell # V.L.B.-0400-H-Q.C.-P.F. | 1-400W HI | 208 | Pole Top | |
| Y | ✓ # V.L.B.-0400-H-Q.C.-P.F. | 1-400W HI | 120 | ✓ | |
| Z | Mark Lighting # 08-7302-B/Gnose | 1-100W Incan | 120 | Strap Up | Mtd w/14, 24" Above Grade |
| AA | Kim # 5-1106/PA/CL/HW | 1-100W MC | 120 | Ceil. Recess | 84" 90° Inc. from Wall |
| BB | Holophane # 5082-10-P.E.-P-PF | 1-70W HPS | 120 | Wall Recess | Top of Fix. At 10'-0" |
| CC | ✓ # 5206-8-P.E.-PF | 1-400W HPS | 208 | Wall Recess | Top of Fix. At 20'-0" |
| DD | Acme Dunham # 5811-120 | 1-70W HPS | 120 | Ceil. Recess | |

## Panel "A" 3 Section 120/208 Volts, 3 ϕ, 4 Wire, 600 A M.L.O. Surface Mounted

| Description | c/b | Poles | c/b | Description | Description | c/b | Poles | c/b | Description | Description | c/b | Poles | c/b | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rec. Exterior Bldg. | 20-1 | 1 | 2 | 20-1 | Light Exterior Wall | 20-1 | 3 | 54 | 20-3 | Rec. Gym Floor Ring | 20-3 | 5 | 57 | 20-3 | Rec. Gym Floor Ring |
| ✓ | ✓ | | | ✓ | ✓ | | | | | | | | | |
| Rec. Ext. Exterior | 20-1 | 3 | 4 | 20-2 | Light Ext. Exterior | ✓ | | | | | | | | |
| ✓ | ✓ | | | ✓ | ✓ | | | | | | | | | |
| Light Exterior | 20-1 | 5 | 6 | 20-3 | Rec. Int. Lounge | ✓ | | | | Rec. Gym Floor Ring | 20-1 | 5 | 58 | | |
| ✓ | ✓ | | | ✓ | ✓ | | | | | | | | | |
| Unit Heater Lockers | 20-1 | 7 | 8 | 20-1 | Light Lockers | ✓ | | | | | | | | |
| Unit Control | 20-1 | 9 | 10 | 20-1 | Light Lobby 102 | ✓ | | | | | | | | |
| Rec. Ceil. Ill. 123, 124, 125 | 20-1 | 11 | 12 | 20-1 | Light Corr. 126 | ✓ | | | | Rec. Gym Floor Ring | 20-1 | 59 | 60 | 20-1 | Rec. Gym Floor Ring |
| Rec. Ceil. Ill. 121, 122 | 20-1 | 13 | 14 | 20-1 | Light Corr. | Rec. Exh. Gym Lockers | 20-1 | 61 | 62 | 20-1 | Rec. 103, 104 | Rec. Ceil. 114 | 20-1 | 63 | 64 | 20-1 |
| Light Corr. 140 | 20-1 | 15 | 16 | 20-1 | Light 140, 141, 142, 143 | Rec. 121, 122, 123, 124 | 20-1 | 65 | 66 | 20-1 | Rec. Hall Table | Rec. Hall Table | 20-1 | 67 | 68 | 20-1 |
| Light Ceil. Ill. 141 | 20-1 | 17 | 18 | 20-1 | Light 144, 146, 148 | Rec. Corr. 147 | 20-1 | 69 | 70 | 20-1 | Rec. Corr. 147 | Spaces | | 71 | 72 | 20-1 |
| Light Ceil. 140 | 20-2 | 19 | 20 | 20-2 | Light Lab Bank | Light Corr. 147 | 20-1 | 73 | 74 | 20-1 | Rec. Corr. 147 | | | 75 | 76 | |
| ✓ | ✓ | | | ✓ | ✓ | Rec. Corr. 147 | 20-1 | 77 | 78 | 20-1 | Rec. Corr. Ceil. Ill. | | | 79 | 80 | |
| Light Front Entrance | 20-1 | 21 | 22 | 20-1 | Light Lobby Ramp | 20-1 | 23 | 24 | 20-1 | Rec. Entrance Canopy | | | 25 | 26 | |
| Light Entrance | 20-1 | 27 | 28 | 20-1 | Rec. Hall Table 150 | Rec. Sunroom, Ref. Clock | 20-1 | 29 | 30 | 20-1 | Rec. Kitchen | | | 31 | 32 | |
| Rec. Hall Table 150 | 20-1 | 33 | 34 | 20-1 | Hall Table 150 | ✓ | | | | | | | | | | |
| Hall Table 157 | 20-1 | 35 | 36 | 20-1 | Hall Table 157 | Rec. Int. Vestibule 151 | 20-1 | 37 | 38 | 20-1 | Rec. Vestibule Front Ent. | Spaces | | 39 | 40 | 20-1 | Rec. Vestibule Front Ent. |
| Hall Table 120 | 20-1 | 41 | 42 | 20-1 | Hall Table 120 | ✓ | | | | | | | | | | |
| Hall Table 130 | 20-1 | 43 | 44 | 20-1 | Hall Table 130 | ✓ | | | | | | | | | | |

**This Circuit Breaker Shall be GFCI

## Electrical Symbol Legend

| Symbol | Description | Remarks |
|---|---|---|
| S | Hubbell # 1221-I 20A Single Pole Toggle Switch | Mtd at 52" to c/l |
| S3 | ✓ # 1223-I 20A Three Way ✓ ✓ | ✓ |
| S4 | ✓ # 1241-I 20A Four Way | ✓ |
| S1P | ✓ # 1321-FLA 20A 1-P Switch w/ Pilot Lamp | ✓ |
| S2P | ✓ # 3032-FLG 30A 2P ✓ ✓ | ✓ |
| SK | ✓ # 1221-L 20A 1-P Keyed Switch | ✓ |
| SAK | ✓ # 1223-L 20A 2-P ✓ ✓ | ✓ |
| TS | Thermal overload Switch | |
| D | Hubbell # 5352-I 20A Duplex Receptacle | Mtd at 12" to c/l |
| GFI | Leviton # 6599-I 20A GFCI Receptacle | ✓ |
| WP | ✓ Type Above Grade or with W.P. Plate | ✓ |
| D | Hubbell # 5452-I 20A Combination 120/240 Receptacle | ✓ |
| D | ✓ # 9390 20A, 240V Single Receptacle w/ 9001 Cord Cap | Mtd at 24" to c/l |
| D | ✓ # 9860 60A, 240V ✓ ✓ w/ # 9861 Cord Cap | ✓ |
| D | ✓ # 0-2-4 Bar #5-9012 Connector, #5-3002 Frame, #5-3011 Cold Pr. | Verify Locations |
| D | ✓ # 5-2414 Bar #5-3112 Connector #5-3002 Frame, #5-3011 Receptacle | ✓ |
| D | ✓ # 7110 20A 125/250 Non-Grounding Receptacle Hubbell Equivalent | Mtd. at 30" to c/l |
| D | ✓ # 7107-GS Clock Hanger Option | |
| D | Speaker Option # 14 As Noted with Flat Panel Cover | |
| D | Sound System 3-30W 12x12x4" | |
| D | Sound System Ceiling Mount as Noted w/ [illegible] Adjustable | |
| D | Sound System Outside Location 12"x12"x8" Flush 3-Bar | |
| D | Telephone Outlet # 6-2-2A-1 Bar, Info Block & Flat Plate | Mtd. at 12" to c/l |
| D | Telephone Conduit Size as Noted w/ # 6-2-2A Adjustable | To Pull Box at [illegible] |
| D | Equipment Item # Supplied by Rec. Contractor, Rec. Elec. | Refer to Mech Dwgs |
| D | Thermostat Item # Mech. Supply & Contractor, Rec. Elec. | ✓ |
| D | Future Description: Size & Ent. as Reqd. by Elec. | |
| D | Branch Circuit Homerun Underground Conduit Min. 3 Ewgs in Line | To Panel 1/0 Ewgs |
| D | Homerun Home Runs Size & Ent. as Reqd. | |
| D | Conduit # 1201-2005/3/2201 Tinned Cu/PVC Coat | |
| D | ROA 3" Conduit w/Pull 3 Ewgs 1 Ewg 1/0 Cu/Ent | |
| D | GFCI Duplex Switch Ent. as Reqd. | Mtd at 24" to c/l |

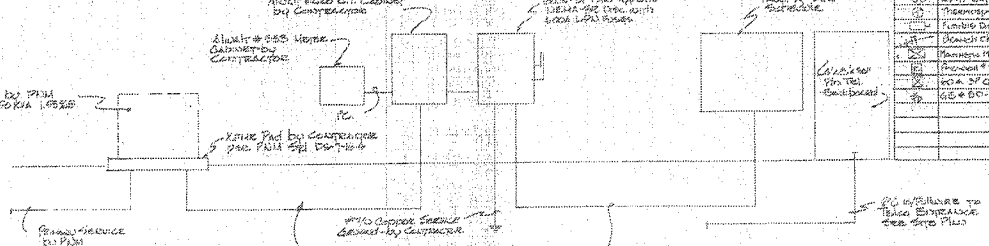
## Electrical Load Data

| | Connected | Est. Demand |
|---|---|---|
| Lighting | 90,694 | 65,674 |
| Gen. Power | 22,840 | 11,136 |
| Spl. Equip | 34,041 | 13,843 |
| Mech. Equip | 191,075 | 90,645 |
| Total | 338,650 | 179,298 |

Minimum Provided Ampacity: 536 Amps at 120/208 Volt 3φ, 4W

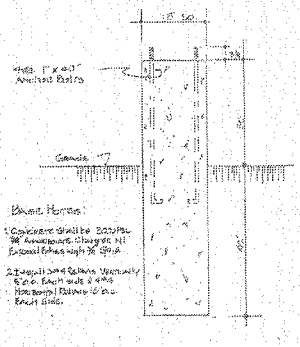
## Available Fault Current Data

| Location | Maximum A.I.C. Ratings 64 Poles C/B | 18 Pole C/B |
|---|---|---|
| At Xfmr. | 28,864 | -- |
| At Main Disc. | 22,655 | 18,019 |
| At Panel A | 21,841 | 19,422 |




## Electrical Service Riser Diagram

Not To Scale




Base Notes:

1. Concrete Shall be 3000 PSI 28 Aggregate, Class "A" Air Entrained Ready Mix Grade
2. Anchor Bolts Shall be Vertically Set in Concrete Base with 2 Nuts, Washers, Plates & Lock Washers Each End.

Area Lighting Pole Bases

Not to Scale

Additive & Deductive Alternates:

Refer to Sheet E-1 for Schedule of Additive & Deductive Alternates Applicable to Electrical Systems.

AS BUILT DRAWINGS

COMMUNITY BUILDING — ELECTRICAL SCHEDULES

FORT MARCY & MAGERS FIELD RECREATIONAL PARK DEVELOPMENT

THE CITY OF SANTA FE, NEW MEXICO

bernard ROMERO and associates architect

STATE OF NEW MEXICO — BERNARD ROMERO — NO. 1495 — REGISTERED ARCHITECT

JOB NO.
DRAWN
CHECKED
DATE
SHEET E-3 OF E-7