

D-Z-A ASSOCIATES, INC.

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Table with 3 columns: No., Description, Date. Contains revision history for the Mechanical Title Sheet.

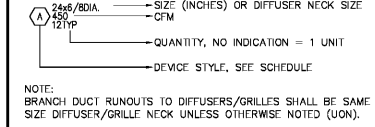
GENERAL NOTES

- 1. Work to be accomplished on these Drawings and the accompanying specifications includes the furnishing of all labor, materials, equipment, and services necessary for the proper completion of all mechanical work.
2. Before submitting a proposal on the work contemplated on these drawings and accompanying specifications, each bidder shall examine the site, check as to the means of making connections to services, and shall become familiar with all the existing conditions and limitations.
3. Existence of any wires, conduits, pipes, ducts, or other facilities are shown in a general way only. It will be the duty of the contractor to visit the site and make exact determination of the existence of any such facilities prior to the submission of his bid.
4. All required fees, permits, and inspections shall be obtained and/or arranged for by the contractor under the section of the Specifications for which they are required.
5. Regular inspections shall be arranged by the contractor as required by any and all regulations. All charges from regulating agencies for inspections of installations or review of plans and Specifications shall be paid by the contractor.
6. Certificate of Final Inspection. Under each applicable section of the Specifications, contractor shall, upon completion of the work under that section, furnish a Certificate of Final Inspection to the Engineer from the inspection department having jurisdiction.
7. All materials and workmanship shall comply with all current and applicable codes, specifications, ordinances, laws, regulations, industry standards, and utility company regulations.
8. In case of difference among building codes, specifications, state laws, local ordinances, industry standards, and utility company regulations and the Contract Documents, the most stringent shall govern. Contractor shall promptly notify the Engineer in writing of any such difference.
9. All applicable federal, state, and local laws and ordinances shall be adhered to throughout the construction project.
10. Non-Compliance. Should the contractor perform any work that does not comply with the requirements of the applicable building codes, state laws, local ordinances, industry standards, and utility company regulations, he shall bear all costs arising to correct the deficiencies.
11. Contractor shall initiate, maintain, and supervise all safety pre-cautions required for his work, including regulations of the Occupational Safety and Health Administration (OSHA).
12. Drawings are to scale as noted, but the contractor shall refer to Architectural and Structural Drawings for exact location of partitions, walls, beams, shafts, equipment, etc.
13. Each trade shall obtain drawings and specifications of all other trades and coordinate his work with all other trades.
14. Drawings show the general arrangement of ductwork, piping, equipment, and appearances and shall be followed as closely as actual building construction and work of other trades will permit. Mechanical work shall conform to the requirements shown on all drawings. Architectural and Structural Drawings shall take precedence over Mechanical Drawings. Because of the small scale of the Mechanical Drawings, it is not possible to indicate all offsets, fittings, and accessories that may be required.
15. Discrepancies discovered before or after work has started shall be brought to the attention of the Engineer immediately, and the Engineer reserves the right to require minor changes in the work of any contractor to eliminate such discrepancies with no change in contract cost.
16. Plans and specifications are complementary, and what is called for in either one shall be as binding as if called for in both.
17. Where a disagreement exists between the plans and specifications, the item or arrangement of better quality, greater quality, or higher cost shall be included in the bid.
18. Access panels shall be furnished by the trade requiring them and delivered to the general contractor for installation.
19. All materials and equipment shall be stored in such a place and in such a manner that a minimum of congestion will result. The placing of such materials and equipment shall be subject to the approval of the owner.
20. Contractor shall thoroughly examine the existing building with regard to what temporary measures he must take in order to permit the owner to occupy specific areas of the building during the various construction phases. Refer to architectural specification section for construction sequencing schedule. In general, systems must remain in use in those designated areas to permit the owner to function in a pre-construction manner.
21. Each contractor shall coordinate work with other trades in the installation of equipment, piping, conduit, and ductwork.
22. HVAC/Sheet-metal contractor shall initiate the coordination process by providing reproducible plan drawings showing ductwork and equipment.
23. Drawings will be forwarded to the piping contractor and electrical contractor for inclusion of their systems work.
24. Contractors shall solve all coordination conflicts among themselves when possible. Engineer will arbitrate when necessary, and his judgment will stand, with no additional cost to the owner.
25. Normal use of the facility shall not be disturbed, except within the immediate construction area. All walks, driveways, and entrances shall be kept clear and free of all contractor's equipment, material, and debris at all times.
26. Access panels shall be as manufactured by Milcor, or approved equal, and of type that is compatible with construction and finish of the wall and/or ceiling.
27. Each trade shall perform all cutting and patching necessary in order to perform the work, unless such work has been delegated to the general contractor/another trade. However, special permission shall be obtained from the engineer before cutting structural members or finished materials. All patching shall be performed in such manner as to leave no visible trace and to return the part affected to the condition of undisturbed work. Patching work shall be performed by persons experienced, skilled, and licensed for the particular type of work involved. Interior work will not be accepted. All holes in masonry shall be drilled with rotary drills. Impact tools shall not be used.
28. Each trade shall bear the expense of all cutting, patching, repairing, or replacing of the work of other trades required because of his fault, error, or tardiness or because of any damage done by him.
29. Each trade shall provide all holes and openings required for his work, unless such holes and openings are shown to be provided on the architectural or structural drawings.
30. Each trade shall remove existing work that is shown, specified, or obviously necessary for completion of his work. Owner shall have the option of retaining any item or material removed under this contract. Items or materials not retained by owner shall become the property of the trade and shall be removed from the premises.
31. Each trade shall periodically clear away all debris, surplus materials, etc., resulting from his work or operations, leaving the job and the equipment furnished under any or all contracts in a clean condition.
32. Each trade shall test the equipment provided and/or installed under the specification and shall demonstrate its proper operation to the owner's operating engineer.
33. Each trade shall furnish, without additional expense to the owner, the services of competent instructors, who will give full instruction in the care, adjustment, and operation and maintenance of all parts of the equipment to the owner's permanent employees who are to have charge of the equipment.
34. Each subcontractor shall be responsible for tested & rated fire stop systems for all thru-penetration of walls, floors & roof assemblies resulting from piping & other work under his contract. Refer to specification section for fire stopping requirements.
35. All wood nailers and other lumber which is installed in contact with metal, concrete, or masonry shall be pressure treated against decay (unless otherwise noted).
36. Provide only products from manufacturers with local representation that can provide complete coverage, service, parts and labor of their products in a timely manner.
37. Material exposed within return air plenum ceilings shall comply with IMC section 602.2.1.
38. HVAC contractor shall line the inside of all return/relief/exhaust plenum boxes per specifications. If no lining is required, hvac contractor shall paint the inside flat black.
39. All duct sizes are internal dimensions. Contractor shall increase sheet metal size if duct receives internal liner. See specifications for insulation requirements.
40. Duct roof penetration sizes to rooftop units are same as duct main, unless noted otherwise. Transition to unit connection sizes within rooftop units.
41. Locations of soffits/L-vents for fabric ducts are oriented when facing the direction of airflow.
42. HVAC equipment shall be no closer to roof edge than 10' unless otherwise noted.
43. Maintain a minimum of 10'-0" horizontal distance from any intake to exhaust outlet.
44. Coordinate underground piping with general contractor to ensure proper footing depth clearances.
45. Plans do not include all offsets for coordination with duct, lighting, and structural systems. Provide allowances for required offsets.
46. Provide all materials and equipment and perform all labor required to install complete and operable plumbing system as indicated on the drawings, as specified, and as required by code.
47. Run 3" and larger sanitary waste, storm drain, and all vent piping at 1/8" per foot slope unless noted otherwise; and less than 3" waste piping at 1/4" per foot slope. Horizontal vent piping shall be graded to drain back to the waste pipe by gravity.
48. Elevations shown are to the invert of all piping based on architectural finished floor elevation (FFE) of 100'-0", unless noted otherwise.
49. Adjust sewer inverts to keep bottom of pipes in line where pipe sizes change.
50. Provide shutoff valves in all water piping system branches in which branch piping serves two or more fixtures (not shown for clarity) and where shown on plan and risers.
51. Install piping so that all valves, strainers, unions, traps, flanges, and other accessories requiring access are accessible.
52. Unions and/or flanges shall be installed at each piece of equipment, in bypasses, and in long runs (over 100') to permit disassembly for alteration and repairs.
53. All valves shall be adjusted for smooth and easy operation.
54. All valves (except control valves) and strainers shall be full size of pipe before reducing size to make connections to equipment and controls.
55. Provide cleanouts in sanitary and storm drainage systems at the ends of runs, at changes in direction, near the base of stacks, every 100' in 4" and larger horizontal runs, every 50' in 3" and smaller horizontal runs, where noted on plans, and where required by code.
56. All valves shall be installed so that the valve remains in service when equipment or piping on equipment side of valve is removed.
57. All piping work shall be coordinated with all trades involved. Offsets in piping around obstructions shall be provided at no additional cost to the owner.
58. See plumbing risers for sizing not shown on plan sheets (for clarity) and see plumbing fixture schedule for fixture connections and runoff sizes.
59. Contractor to ensure that cleanouts (FCO, WCO, CO) locations do not rest below or behind casework. Maintain accessibility for servicing.
60. Plumbing contractor is responsible for all removing, cutting, patching, and replacement of all building structure, surfaces and finishes required for complete work stated in the contract documents.
61. Plumbing contractor to coordinate sewer openings with new sinks with general contractor prior to ordering materials.
62. Pipes shown spread approx. plans for clarity. Contractor shall install pipes tight together.
63. All underground sanitary water piping shall be seamless type "K" copper piping with no joints or connections.
64. Gas piping supports to be every 5 feet.
65. See architectural roof plan for roof slope and scupper sizes/locations.
66. Downspouts are sized based on a 100 year rainfall data in International Plumbing Code with local amendments.
67. Recirculation zone backflow preventer (RPZ) shall be installed at an elevation below 3'-0" AFF and 6'-0" AFF and labeled indicating equipment type. RPZ's shall be inspected and tested annually or at a rate per local code.
68. Piping material for sanitary waste, plumbing vents, and storm sewer shall be cast iron where piping runs through a return-air plenum. Reference International Mechanical Code, Section 602.
69. Fire caulk all floor penetrations and where piping penetrates rated walls.

MECHANICAL ABBREVIATIONS

Table of mechanical abbreviations including: AFF ABOVE FINISHED FLOOR, AP ACCESS PANEL, BFP BACK FLOW PREVENTER, BHP BRAKE HORSEPOWER, BLW BELOW, BWV BACK WATER VALVE, CD CONDENSATE DRAIN, CHW CIRCULATING HOT WATER, CLG CEILING, CO CLEANOUT, CONN CONNECTION, CONSTR CONSTRUCTION, CONT CONTINUOUS OR CONTINUED, CU CONDENSING UNIT, CW COLD WATER, DF DRINKING FOUNTAIN, DIF DIFFUSER, DMPR DAMPER, DN DOWN, EA EXHAUST AIR, EAT ENTERING AIR TEMPERATURE, ET EXHAUST FAN, EHC ELECTRIC HEATING COIL, EL ELEVATION, ESP EXTERIOR STATIC PRESSURE, ELEC ELECTRIC UNIT HEATER, EWC ELECTRIC WATER COOLER, EWH ELECTRIC WATER HEATER, EXH EXHAUST, FCO FLOOR CLEANOUT, FCU FAN COIL UNIT, FDR DRAIN, FDC FIRE DEPARTMENT CONNECTION, FHC FIRE HOSE CABINET/FILTER, FIXT FIXTURE, FP FIRE PROTECTION, FPM FEET PER MINUTE, FSV FIRE SERVICE VALVE, FSW FLOW SWITCH, G GAS, GPH GALLONS PER HOUR, GW GREASE WASTE, HB HOSE BIBB, HDPC HANDICAPPED, HSTAT HUMIDISTAT, HTG HEATING, HW HOT WATER, ID INDIRECT DRAIN, INSUL INSULATION, INV EL INVERT ELEVATION, IRR IRRIGATION WATER, ISO ISOLATOR (ISOLATION), LAT LEAVING AIR TEMPERATURE, LF LINEAR FEET, LVR LOUVER, LWT LEAVING WATER TEMPERATURE, MAU MAKE-UP AIR UNIT, MEZZ MEZZANINE, MKA MIXED AIR, N NECK, NC NORMALLY CLOSED, NO NORMALLY OPEN, OA OUTSIDE AIR, OPNG OPENING, OPR OPERATING, PD PRESSURE DROP, PG PRESSURE GAUGE, PLBG PLUMBING, PRV PRESSURE REDUCING VALVE, RETN RETURN AIR, RADN RADIANT, RD ROOF DRAIN, RCL RAINWATER LEADER, RCLC RECIRCULATE, RFL RETURN FAN, REHEAT REHEAT COIL, RZ-BFP REDUCED PRESS. ZONE B.F. PREVENTER, RNL RAINWATER LEADER, SA SUPPLY AIR, SAN SANITARY, SCW SOFTENED COLD WATER, SD STORM DRAIN, SF SUPPLY FAN, SL STORM LEADER, SLV SLEEVE, SP STATIC PRESSURE, SP SUMP PUMP, SPKLR SPRINKLER, SIM STEAM, SIR STORM, SU SUPPLY UNIT, SW SANITARY WASTE, T THERMOSTAT, TRANS TRANSFER, TSP TOTAL STATIC PRESSURE, UG UNDERGROUND, UH UNIT HEATER, V VENT, VD VOLUME DAMPER, VIR VENT THRU ROOF, WCO WALL CLEANOUT, WG WATER GAUGE, WH WALL HYDRANT, WPD WATER PRESSURE DROP.

GRILLE, REGISTER AND DIFFUSER KEY



ALL FLEX DUCT MUST BE INSTALLED PER THE ADC (AIR DIFFUSION COUNCIL) INSTALLATION STANDARDS (MOST CURRENT EDITION), INCLUDING A BEND RADIUS OF ONE DUCT DIAMETER OR GREATER, PROPERLY SEALED AND SECURED WITH 2 INCH BEADED COLLARS, PROPERLY SUPPORTED AND FULLY EXTENDED DUCT. FAN CALCULATIONS FOR THIS PROJECT WERE SIZED FOR A FOOT MAXIMUM FLEX DUCT INSTALLED PER THE ADC INSTALLATION STANDARDS. FLEX DUCT SHOWN ON PLANS IS FOR SCHEMATIC PURPOSES ONLY AND SHALL IN NO INSTANCE EXCEED 4 FEET.

MECHANICAL DRAWING SHEET INDEX

Table with 2 columns: Sheet No., Description. Lists sheets PM-000 to M-400 including Mechanical Title Sheet, Plumbing Plans, Plumbing Details, Schedules and Riser Diagrams, Plumbing Specifications, HVAC Plan, HVAC Details, HVAC Schedules, and HVAC Specifications.

MECHANICAL SYMBOL LEGEND

Table of mechanical symbols and their descriptions, organized in columns. Includes symbols for domestic cold water, hot water, return air, drains, valves, dampers, diffusers, registers, and floor registers.

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MECHANICAL TITLE SHEET

Table with 4 columns: Date, Drawn by, Sheet No., Project No. Values: 03/29/19, SL, PM-000, 18.112.

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