

4645.5400 FINAL WORKING DRAWINGS AND SPECIFICATIONS.

Subpart 1. **Plans submitted to the commissioner of health.** Before construction is begun, plans and specifications covering the construction of new buildings, additions to existing buildings, or for major remodeling or alterations of existing buildings shall be submitted in duplicate to the commissioner of health for its approval. These plans shall show the general arrangement of the building, including a room schedule and fixed equipment of each room, together with other pertinent information. Separate drawings shall be prepared for each of the following branches of work: architectural, structural, mechanical, and electrical. They shall include or contain the information in subparts 2 to 5.

Subp. 2. **Architectural drawings.** Architectural drawings must include:

- A. approach plan showing all topography; newly established levels and grades; existing structures on the site, if any; new buildings and structures; roadways and walks;
- B. plan of each floor and roof;
- C. elevations of each facade;
- D. sections through building;
- E. scale and full size details as necessary;
- F. schedule of finishes; and
- G. large scale drawings of typical and special rooms indicating all fixed equipment.

Subp. 3. **Structural drawings.** Structural drawings must meet the following requirements in items A to E.

- A. Plans of foundations, floors, roofs, and all intermediate levels shall show a complete design with sizes, sections, and the relative location of the various members. A schedule of beams, girders, and columns shall be included.
- B. Floor levels, column centers, and offsets shall be dimensioned.
- C. Special openings and pipe sleeves shall be dimensioned or otherwise noted for easy reference.
- D. Details of all special connections, assemblies, and expansion joints shall be given.
- E. Notes on design data shall include the name of the governing building code, values of assumed live loads, wind loads, and soil-bearing pressures.

Subp. 4. **Mechanical drawings.** These drawings with specifications shall show the complete installations and equipment as follows:

A. heating, piping, ventilation, and air-conditioning:

- (1) radiators and steam heated equipment, such as sterilizers, warmers, and steam tables;
- (2) heating mains and branches with pipe sizes and provisions for expansions;
- (3) diagram of heating risers with pipe sizes;
- (4) sizes, types, and heating surfaces of boilers, furnaces, with firing equipment;
- (5) pumps, tanks, boiler breeching, and piping and boiler room accessories;
- (6) exhaust and supply ventilating systems with steam connections and piping. A supply and exhaust fan schedule shall be shown; and
- (7) air-conditioning systems with refrigerators, water, and refrigerant piping and ducts;

B. plumbing, drainage, stand pipe systems, and gas piping:

- (1) size, location, and elevation of: street sewer, house sewer, house drains, street water main, and water service into the building;
- (2) location and size of soil, waste, and vent stacks with connections to house drains, fixtures, and equipment;
- (3) roof and surface drainage systems;
- (4) size and location of hot, cold, and circulating mains, branches, and risers from the service entrance and tanks;
- (5) riser diagram to show all plumbing stacks with vents, water risers, and fixture connections;
- (6) plumbing fixtures and fixtures which require water and drain connections. A fixture schedule shall be shown unless included in the specifications;
- (7) standpipe and sprinkler system, if required; and
- (8) gas, oxygen, and special connections;

C. elevators and dumbwaiters. Shaft details and dimensions, size of car platform and doors, travel, pit, and machine room; and

D. kitchens, laundry, laboratories, boiler room, and mechanical equipment rooms shall be detailed at a satisfactory scale to show the location, size, and connections of all fixed and movable equipment.

Subp. 5. **Electrical drawings.** Drawings shall show all electrical wiring, outlets, and equipment which require electrical connections as follows:

A. Electrical service entrance with service switches, service feeders to the public service feeders, and characteristics of the light and power current. Transformers and their connections, if located in the building, shall be shown.

B. Plan and diagram showing main switchboard, power panels, light panels, and equipment. Feeder and conduit sizes shall be shown with schedule of feeder breakers or switches.

C. Light outlets, receptacles, switches, power outlets, and circuits.

D. Telephone layout showing service entrance, telephone switchboard, strip boxes, telephone outlets, and branch conduits as approved by the telephone company. Where public telephones are used for intercommunication, equipment shall be provided as required by the telephone company.

E. Nurses' call systems with outlets for beds, duty stations, door signal lights, annunciators, and wiring diagrams.

F. Doctors' call and doctors' in-and-out systems with all equipment wiring, if provided.

G. Fire alarm system with stations, gongs, control board, and wiring diagrams.

H. Emergency lighting system with outlets, transfer switch, source of supply, feeders, and circuits.

Subp. 6. **Additions to existing buildings.** The procedures and requirements for working drawings and specifications shall be followed and in addition the following information shall be submitted:

A. plans and details showing attachment of new construction to the existing structure and mechanical systems as well as a plan of the functional layout of the existing building designating bedrooms and service areas; and

B. type of construction of existing building and number of stories.

Statutory Authority: *MS s 144.55; 144.56*

History: *L 1977 c 305 s 39*

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