



Commercial Building Plan Review Checklist

Building Plan Review

Title Block needs to include: architect, date, type of construction, use group, fire protection and design options

Submit complete building plans and specifications showing use of all areas, equipment layout, aisles and building components

1. Indicate occupant load for all areas; include existing system plan.
2. Submit complete door schedule with catalog cuts for all doors hardware and locksets.
3. Submit all appropriate wall, floor, foundation sections and details.
4. List all rated assemblies, diagram assemblies and design numbers.
5. Submit window and glazing schedule, interior finish schedule and flame spread ratings
6. List all building design loads.
7. Submit shop drawings for steel supported systems (submit prior to start of work).
8. Indicate shop drawings for all fire protection systems (submit prior to start of work).
9. Submit steel structural calculations.
10. Submit details for all special occupancy requirements (atriums, floor openings, high rise, covered malls, hazardous materials, etc.).
11. Submit details for all special system (smoke control, elevator recall, etc.)
12. Submit details for all special structures (skylights, roof panels, awnings, etc.)
13. Submit details showing all state and local accessibility requirements and catalog cuts for fixtures.

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Electrical Plan Review

Submit complete electrical plans showing locations of all devices

1. Provide a floor plan showing the fixtures, outlets, equipment, transformers, panels, subpanels, receptacles and special systems.
2. Indicate the type and size of the service (above ground or underground) with the location of meters and main disconnects.
3. Indicate the size and type of all wire and number of all conductors in each conduit or raceway for each circuit.
4. Indicate the size and type of all conduit and /or raceways.
5. Indicate the use and amperage (load) for each circuit.
6. Show the number of circuits, size of circuit breakers, location and size of main disconnect.
7. Show the location of the convenience outlets at all appliances and rooftop equipment.
8. Submit load calculation charts for all rooms, spaces, corridors and access routes.
9. Show emergency lighting to all rooms, spaces, corridors and access routes.
10. Indicate method of connecting exit and emergency lights to the building electrical system.
11. Indicate type and location for ground; ground conduit and a bonding jumper at water meter.
12. Indicate the size and type of ground conductors.
13. Show the location of all GFCI outlets
14. Indicate the location and classification of all hazardous areas and special systems.

Plumbing Plan Review

Submit complete plumbing plans and specifications including the occupant load and number of fixtures.

1. Provide a riser diagram for all water piping including sizes, type of pipe and fittings.
2. Provide a riser diagram for all drain, waste and vent systems including size, type of pipe and fittings.
3. Indicate the separation between the water and sewer.
4. For copper tubing, indicate type of pipe, fittings and lead-free solder.
5. Indicate drinking fountains or bottle water.

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6. Indicate the type of backflow protection provided (RPZ requires a floor drain)
7. Provide catalog cuts for all fixtures, faucets and plumbing equipment.
8. Indicate indirect drainage and storm water pipe locations.
9. Indicate the type and location of all special valves, appliances and devices.
10. Show thermal expansion tank, temperature relief and vacuum relief's as necessary for water heaters.
11. Show type of roof drainage, area of discharge, type and size of pipe, location of cleanouts, and location of secondary (emergency) system. Primary and secondary systems shall be separate systems.
12. Indicate the location(s) of all drainage pipe cleanouts.
13. Provide details for accessible access to the plumbing fixtures: size of water closet enclosure, height of water closet, grabs bars, lavatory, tissue holder, mirror and length of grab bars.

Mechanical Plan Review

Submit complete mechanical plans showing location and type of all mechanical equipment and appliances.

1. Provide catalog cuts with installation instruction, listing BTU input and approved locations for all mechanical equipment.
2. Provide duct design criteria including size, type and gauge of duct work, and type and location of all supports. Include additional details for all hazardous exhaust systems.
3. Indicate the location of the duct smoke detectors in any systems over 2,000 cfm including supervision.
4. Submit a complete ventilation schedule showing mechanical code occupant load, the supply, return and outside air for each room or area.
5. Submit gas piping plan including location of meter, system pressure, type and size of pipe and BTU demand for each section of pipe or appliance.
6. Indicate size and location of the combustion air intakes
7. Show a 110 V GFCI outlet within 25 feet of all rooftop equipment.
8. Provide piping details including schematics for boilers, hydronic heat and refrigeration.
9. Provide catalog cuts for factory-built fireplaces and details for masonry fireplaces.
10. Provide details for any kitchen hood and exhaust systems including size and gauge of hood and duct, size and type of exhaust fans, shop drawings for suppression system, cleaning schedules, automatic power shutoff and portable extinguisher.
11. Indicate the type, location and rating for the fire and /or smoke dampers and access panels.

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Existing Building Plan Review

Submit complete plans and specifications showing use of all areas, equipment layouts, aisles and building components

1. Provide the information required for a new building or for the building addition including complete plans and specifications.
2. Provide a floor plan for existing building showing use, occupant load, and existing system including square footage of all areas.
3. Indicate the construction type and use group for the existing building or adjacent tenants.
4. Indicate the type of fire protection systems in the existing building.
5. Indicate the type and location of the plumbing fixtures in the existing building.
6. Indicate size, demand and distance to existing gas system, including size of pipe and system pressure.
7. Indicate the loads of existing building and provide calculations showing existing loads and new loads.
8. Provide a site plan showing the location of the existing and new building.
9. Provide calculations/details showing changes or additions to existing fire protection systems.
10. Indicate changes to the existing mechanical systems.
11. Indicate changes made to the existing building for upgrading the access to conform to the new requirements.

Energy Plan Review

1. COM Check or ResCheck: envelope, lighting, mechanical, check test. Application information, exterior lighting information.
2. Exterior lighting – exterior photo cell or time clock operated.
3. Water heater piping diagram indicating recirculation of heat traps.
4. Thermostat for each HVAC equipment.
5. Details shall include r-values, fenestration U-factors and SHGC's, equipment types, size and controls; duct sealing, insulation and air sealing.