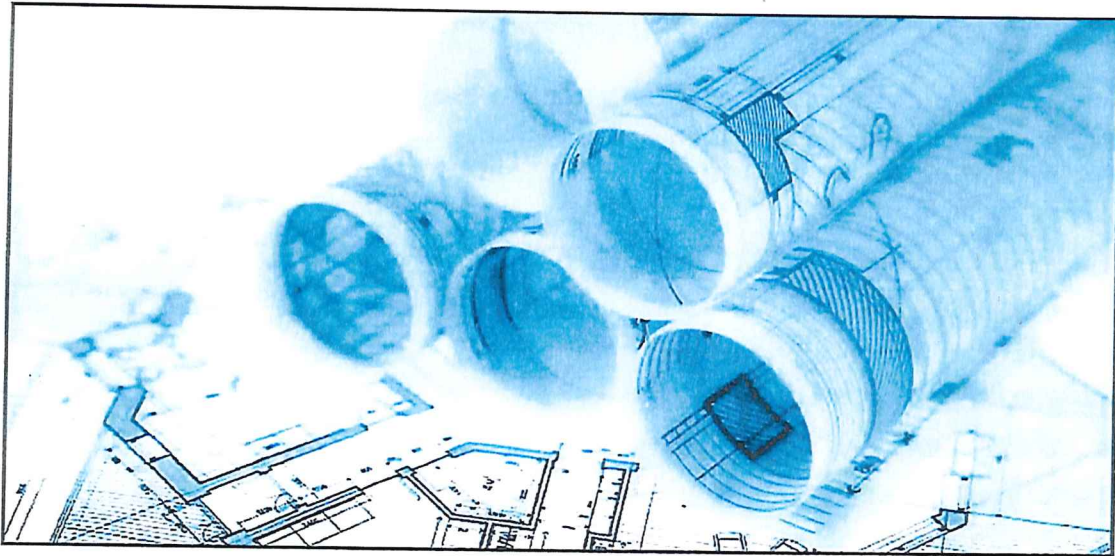


# Permit Review Submittal Guide



*Plans, specifications and other construction documentation for the initial plan review should be as complete as possible at the time of submittal. Use this convenient guide as a checklist when submitting your documents to help in the review process and avoid possible delays and resubmittals.*

## **Commercial, Industrial, Single & Multifamily New & Existing Construction**

**Building - Plumbing - Mechanical - Electrical**

**Fire Suppression and Detection Systems**

**Special Systems & Installations**



# BUILDING PLAN REVIEW

In order to process your review in a timely manner, the following guide should be used as a checklist to make sure your submittal is as complete as possible for the first review. If additional information is required it will be requested during the review process by the codes department. All Plans must be sealed by a Pa. licensed architect.

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## TITLE BLOCK:

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ARCHITECT • DATE • TYPE OF CONSTRUCTION • USE GROUP • INSTALLED FIRE PROTECTION • 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 exiting system plan.
2. Submit complete door schedule with catalog cuts for all doors, hardware sets, 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 (submitted prior to start of work).
8. Indicate shop drawings for all fire protection systems (submitted 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 structures (skylights, roof panels, awnings, etc.).
12. Indicate sequence of operation for all special systems (smoke control, elevator recall, etc.).
13. Submit details showing all state and local accessibility requirements and catalog cuts for fixtures.
14. Submit signed, sealed, and dated construction documents per the state requirements.

### **Soil Report**

1. Show requirements for footings and support loads.
2. Submit footings and foundation requirements and recommendations.
3. Submit engineer's requirements for appropriate footings and walls to support loads.

### **Site Plan**

1. Show setbacks, elevations, drainage, parking, outside lighting, lot grading, and sanitary sewer.
2. Show locations of fire hydrants and benchmark information.

# ACCESSIBILITY REQUIREMENTS

## Required Elements for Accessibility

Accessible Routes	Platform lifts	Parking	Means of Egress
Windows	Doors	Entrances	Drinking Fountains
Seating	Detectable Warnings	Work Surfaces	Telephones
Area of Refuge	Restrooms/Baths	Ramps	Curb Ramps
Stairs	Controls	Alarms	Elevators
Storage	Signage	Lifts	

### Specific Facility Type Requirements

1. Provide cuts of all plumbing fixtures.
2. Indicate dwelling use requirements
3. Provide details for bathtubs and shower stalls in buildings other than dwelling units.

### Exterior Requirements

1. Indicate accessibility routes.
2. Indicate total parking spaces for physically challenged, number, sizes, and location of spaces.
3. Indicate sidewalk size from the parking to the building.
4. Indicate size and slope of ramps and curb cuts.
5. Submit drawing of above-ground handicapped signs.
6. Provide detectable warnings in hazardous locations.

### Interior Requirements

1. Indicate egress doors into occupiable spaces to have approved handles.
2. Provide catalog cuts for accessible door hardware (handles, closers, glass openings, thresholds).
3. Show adequate maneuvering clearances at doors to gain access to rooms.
4. Indicate locations of hall call buttons, floor destinations, tactile characters (elevator lobbies).
5. Indicate required handrails on both sides of stairs and ramps.
6. Provide detectable warnings in hazardous locations.
7. Indicate size of floor access to public area telephones, heights of operable parts, and hearing-impaired equipment.
8. Indicate protection for objects protruding into walks, halls, corridors, passageways, or aisles above the finished floor of walking surface.
9. Indicate special occupancy requirements.
10. Indicate clear floor and knee space for accessible drinking fountains and lavatories.
11. Indicate location of water closets relative to walls and other fixtures.
12. Indicate the height to the top of the water closet seat for the accessible fixtures.
13. Indicate the height above the finished surface, bar sizes, length of bars, and distances from walls for required grab bars at the water closet. Indicate height and location of required toilet paper dispensers.

14. Indicate areas of refuge for physically challenged.

## FIRE ALARM REVIEW

### **Submit a Floor Plan Showing the Location of All Equipment and Devices**

1. Submit catalog cuts for all equipment.
2. Submit a zone chart or device address list.
3. Submit battery calculations that include all power-consuming devices.
4. Indicate name of monitoring agency and listing of the agency.
5. Submit voltage drop calculations for the initiating and alarm device circuits.
6. Submit sequence of operations and special applications
7. Indicate type of wire and protection of wire when exposed to physical damage
8. Indicate a system test which shows a test for each device proposed and installed

## SPECIAL EXTINGUISHING SYSTEM REVIEW

### **Submit a Floor Plan Showing the Location of All Equipment and Devices**

1. Submit catalog cuts for all equipment.
2. Submit a zone chart or device address list.
3. Submit battery calculations that include all power-consuming devices.
4. Indicate name of monitoring agency and listing of the agency.
5. Submit voltage drop calculations for the initiating and alarm device circuits.
6. Submit sequence of operations and special applications.
7. Indicate type of wire and protection of wire when exposed to physical damage.
8. Indicate a system test that indicates a test for each device.

## PLUMBING PLAN REVIEW

### **Submit Complete Plumbing Plans & Specifications Including the Occupant Load and Number of Fixtures**

1. Provide a riser diagram for all water piping including sizes, type of pipe, and type of fittings.
2. Provide a riser diagram for the drain, waste, and vent system including sizes, type of pipe, and type of fittings.



3. Indicate the separation between the water service and sewer.
4. For copper tubing, indicate type of pipe, fittings, and lead-free solder.
5. Indicate drinking fountains or bottled water.
6. Indicate the type of backflow protection provided (RPZ required floor drains).
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 reliefs 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, grab bars, lavatory, tissue holder, mirror, and length of the 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 instructions, listing BTU input and approved locations for all mechanical equipment.
2. Provide duct design criteria including size, type, and gauge of the 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 system over 2,000 cfm including supervision.
4. Submit a complete ventilation schedule showing the mechanical code occupant load and 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 (one high/one low required).
7. Show a 110V GFCI outlet within 25 feet of all rooftop equipment.
8. Provide piping details including schematics for boilers, hydronic heat...
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.

# EXISTING BUILDING PLAN REVIEW

**Submit Complete Plans and Specifications Showing Use of All Areas, Equipment Layout, Aisles, and Building Components**

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

# ENERGY PLAN REVIEW

## **Submit**

1. ComCheck or ResCheck: Envelope, Lighting, Mechanical, Check Test. Appliance information, Exterior Lighting information.
2. Exterior Lighting-exterior photocell or time clock operated.
3. Water heater piping diagram indicating recirculation or heat traps.
4. Thermostat for each HVAC unit.
5. Details shall include R-values, fenestration U-factors and SHGCs, equipment types, sizes, and controls, duct sealing, insulation, and air sealing.

# SPRINKLER PLAN REVIEW

## Submit Complete Sprinkler Plans Showing All Sprinkler Locations

1. Indicate water flow test, pressure, location, time, date, witness, and seasonal adjustment.
2. Show the type of pipes, joints, fittings, dimensions, and lengths.
3. Show sprinkler protection for all areas and square footage for each sprinkler.
4. Indicate the number, type, and temperature ratings for all sprinklers.
5. Submit catalog cuts for all sprinklers, pipe fittings, and equipment.
6. Indicate the building occupancy and submit details for process and storage equipment.
7. Submit section and plan views of racks or shelving and storage heights.
8. Submit description of special systems; show valves and trim.
9. Show locations of gauges, test valves, main and auxiliary drains.
10. Show arrangement, drainage, piping, threads, and height for fire department connection.
11. Indicate flushing and documentation for the underground or lead-in connection.
12. Indicate that a 200-psi hydrostatic test will be witnessed by the local official.
13. Perform a main drain test to obtain the static and residual pressures.
14. Show hose rack layouts (storage areas in compliance with NFPA 231 or 231C).
15. Indicate the location of and show all details for hangers.
16. Show supervision of valves and flow switches.
17. For hydraulically calculated systems, submit complete calculations, sprinkler system summary sheet, and flow diagrams.
18. Show all reference points or nodes.
19. Provide the calculations used to obtain all special design densities.

# ELECTRICAL PLAN REVIEW

## Submit Complete Electrical Plans Showing Location 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 locations 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 calculations charts for all panelboards and main service with demand factors.
9. Show emergency lighting to all rooms, spaces, corridors, and access routes.
10. Indicate method of connecting exit and emergency lights to the building electric 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 connectors.
13. Show the location of GFCI outlets.
14. Indicate the location and classification of all hazardous areas and special systems.