



**City of Arlington**  
Community and Economic  
Development

Office Hours:  
Monday - Friday  
8:00am - 12:00pm  
1:00pm - 5:00pm



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applies to properties within  
Arlington City Limits

[www.arlingtonwa.gov](http://www.arlingtonwa.gov)  
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Assistance Bulletin

# COMMERCIAL BUILDING DESIGN REQUIREMENTS #30

**THIS BULLETIN IS INTENDED TO PROVIDE DETAILED INFORMATION REGARDING PLAN PREPARATION FOR COMMERCIAL BUILDINGS**

## **A. THE CITY OF ARLINGTON CURRENTLY ENFORCES THE FOLLOWING:**

### **A1. International Codes**

1. 2018 International Building Code (IBC)
2. 2018 International Residential Code (IRC)
3. 2018 International Mechanical Code (IMC)
4. 2018 International Fuel Gas Code (IFGC)
5. 2018 International Fire Code (IFC)
6. 2018 Uniform Plumbing Code (UPC)
7. 2018 International Property Maintenance Code (IPMC)
8. 2018 International Existing Property Code (IEBC)
9. 2018 Washington State Energy Code (WSEC)
10. 2018 International Swimming Pool and Spa Code (ISPSA)
11. 2009 Accessible & Usable Buildings and Facilities (ICC/A117.1)

### **A2. Washington State Amendments**

1. WAC 51-50 Washington State Building Code
2. WAC 51-51 Washington State Residential Code
3. WAC 51-52 Washington State Mechanical Code
4. WAC 51-54 Washington State Fire Code
5. WAC 51-56 & 51-57 Washington State Plumbing Code and Standards
6. WAC 51-11 Washington State Energy Code
7. WAC 296-46B Electrical Safety Standards, Administration, and Installation

## **B. STRUCTURAL REQUIREMENTS**

Design Wind Speed:	Exposure C, 85-100 miles per hour
Roof Snow Load:	25 pounds per square foot
Dead Snow Load:	10 pounds per square foot
Seismic Zone:	D1
Climate Zone:	4-C
Rainfall:	2 inches per hour for roof drainage design.
Frost Line Depth:	18 inches minimum
Soil Bearing Capacity:	1,500 psf. unless a Geo-Technical Report is provided. (IBC Table 1803)

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## B1. Structural Calculations

1. Structural calculations shall be prepared by an engineer or architect registered with the State of Washington. (Not required if using Prescriptive Design Approach from the IBC.)
2. All construction, erection, enlargement, alteration, or repairs of or to a building of any occupancy more than four thousand square feet, requires an Engineers stamp in accordance with RCW 18.08 and/or WAC 308-12.

## C. PLAN DIMENSIONS AND DETAILS:

1. Minimum plan size is 18" x 24" and maximum plan size is 30" x 42".
2. Plans shall be on standard drafting paper.
3. All Plan Sheets shall be the same size and sequentially labeled.
4. Plans are required to be legible with scaled dimensions, indelible ink, blue line, or other professional media.
5. Plans will not be accepted that are marked preliminary or not for construction, that have red lines, cut and paste details or those that have been altered after the design professional has signed the plans.

## D. SITE PLAN – REQUIRED WITH ALL SUBMITTALS: - *May be included in the Architectural Drawing Cover Sheet*

1. Drawing shall be prepared at scale, not to exceed 1" = 20 foot.
2. Show building outline and all exterior improvements.
3. Provide property legal description and show property lines.
4. Provide dimensions from the property lines to a minimum of two building corners or two identifiable locations for irregular plan shapes.
5. Show building setbacks, easements, and street access locations.
6. Indicate North direction.
7. Indicate finish floor elevation for the first level.
8. Provide topographical map of the existing grades and the proposed finished grades with maximum five (5) feet elevation contour lines.
9. Show the location of all existing underground utilities, including water, sewer, gas and electrical.
10. Show existing structures to remain on site.
11. Flood hazard areas, floodways, and design flood elevations as applicable.

## E. ARCHITECTURAL DRAWINGS:

1. All construction, erection, enlargement, alteration, or repairs of or to a building of any occupancy more than four thousand square feet, requires an Architect stamp in accordance with RCW 18.08 and/or WAC 308-12.
2. The combined square footage of simultaneous projects in a building greater than four thousand square feet, shall not exceed four thousand square feet or requires an Architect or Engineers stamp in accordance with RCW 18.08 and/or WAC 308-12.

## E1. Cover Sheet

1. Building Information
  - a. Specify model code information
  - b. Construction Type
  - c. Number of stories and total height in feet.
  - d. Building square footage (per floor and total)
  - e. IBC Occupancy Type (show all types by floor and total)
  - f. Mixed-Use ratio of commercial versus residential dwelling units, (if applicable)
  - g. Occupant load calculation (show by occupancy type and total)
  - h. List work to be performed under this permit
2. Design Team Information
  - a. Design Professional in Responsible Charge
  - b. Architects
  - c. Structural Engineers
  - d. Owner

- e. Developer
- f. Any other Design Team Members

## E2. Foundation Plan

1. Show north direction
2. Indicate front street (and side street if corner lot).
3. Show the location and dimension to all property lines.
4. Show the location for existing and/or proposed easements
5. Provide the scale for the drawing.
6. Show outline of foundation with section cuts and dimensions; include maximum wall heights and all connections.
7. Provide the location and size of all beams, posts, interior footings, and thickened footings within slabs with their dimensions and connections.
8. Provide detail of step-down foundation and footings with required reinforcing steel.
9. Show spacing of anchor bolts, location, and type of hold down fasteners to the foundation.
10. Retaining walls.
11. Show footing depth below grade and show the clearance between grade and sill plate.
12. Show all floor insulation.

## E3. Architectural Cross Sections and Details

1. Show a typical roof section with all materials labeled; indicate size and spacing of all members; include all dimensions, venting, insulation, and connections.
2. Show a typical foundation and floor section with all material labeled; indicate size and spacing of all members; include all dimensions, venting, insulation, and connections.
3. Show a typical wall section with all materials labeled; indicate size and spacing of all members and insulation values.
4. Show all connection details, including post-beam, post-footing, collar tie, etc.
5. Provide the dimensions for all stairs, with details showing rise, run, headroom and handrails per Section current International Building Code. Guards require intermediate rails to be less than 4" apart; handrails are to be 34" to 38" from nose of the tread and to be returned.
6. Show any fire blocking, landing sizes.
7. Show a section detail for any fireplace, including the hearth and hearth extension. Include dimensions, materials, clearance from combustibles, height above roof, reinforcing, seismic anchorage and foundation details.

## E4. Floor Plan

1. Plan view 1/8-inch minimum scale. Details a minimum 1/4-inch scale.
2. Plans must show the entire structure.
3. Specify the occupancy type of each room/area.
4. Provide an occupant load calculation on the floor plan. (on every floor, in all rooms and spaces)
5. Show **ALL** exits on the plans; include new, existing or eliminated.
6. Show Barrier-Free information on the drawings.
7. Show the location of all permanent rooms, walls and shafts.
8. Note the uses in the adjacent tenant spaces, if applicable.
9. Provide a door and door hardware schedule.
10. Show the location of all new walls, doors, windows, etc.
11. Provide details and assembly numbers for any fire resistive assemblies.
12. Indicate on the plans all rated walls, doors, windows and penetrations.
13. Provide a legend that distinguishes existing walls, walls to be removed and new walls.

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## E5. Framing Plan

1. Specify the size, spacing, span and wood species or metal gage for all components of construction.
2. Indicate all wall, beam and floor connections.
3. Detail the seismic bracing for all walls.
4. Include a stair section showing rise, run, landings, headroom, handrail and guardrail dimensions.

## E6. Elevations

1. Show elevations views of each side of the structure; provide finished floor level for each floor.
2. Show existing and proposed grades.
3. Show the maximum building height.
4. Show the maximum site slope.
5. Show roof pitch.

## E7. Doors and Windows

1. Show size and type of all doors and door hardware or closure devices.
2. Show all window sizes and openable areas.
3. Show all egress window locations, sill heights, methods of opening, dimension of openable area and clear open space.
4. Show size and type of all skylights.

## E8. Reflected Ceiling Plan

1. Plan view 1/8-inch minimum scale. Details a minimum 1/4-inch scale.
2. Provide ceiling construction details.
3. Provide suspended ceiling details complying with IBC 808. Show seismic bracing details.
4. Show the location of all emergency lighting and exit signage.
5. Detail the seismic bracing of the fixtures.
6. Include a lighting fixture schedule.

## E9. Storage Racks

1. Structural calculations are required for seismic bracing of storage racks eight feet or greater in height.
2. Eight feet or less, show a positive connection to floor or walls.
3. High pile storage shall meet the requirements of current International Building and Fire Codes.
4. Special Inspection and Testing Agreement required.

## F. WASHINGTON STATE ENERGY CODE:

1. Required by WAC 51-11.
2. Complete Non-Residential Energy Code Envelope Summary Form (NREC) <https://waenergycodes.com/>

## G. OCCUPANT'S STATEMENT OF INTENDED USE:

1. If the building occupancy contains Hazardous Material, submit a narrative describing how the materials are used.
2. May require the submittal of a Hazardous Material Inventory Statement (HMIS).

## H. SPECIAL INSPECTION AND TESTING AGREEMENT:

1. A Special Inspection Firm is required to perform special inspections for the following type of work. ***The Special Inspection and Testing Agreement MUST be submitted with the Building Application.***
  - a. Reinforced Concrete
  - b. Bolting in Concrete
  - c. Pre-stressed Concrete
  - d. Shotcrete
  - e. Structural Masonry
  - f. Structural Steel and Welding
  - g. High-Strength Bolting
  - h. Spray-Applied Fireproofing
  - i. Smoke-Control Systems

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## I. FOOD HANDLING:

### I1. Snohomish Health District

1. Any work that involves food handling or preparation will require a Snohomish Health District approval before the permit can be issued.
2. You must provide the Permit Center a copy of the approval letter or the approved plans.
3. Contact the Snohomish County Health District at (425) 339-5250 with any questions or for more information.

## J. SEPARATE PERMIT SUBMITTALS:

1. Installation, modification or removal of the following requires a separate permit submittal.
  - a. Automatic fire extinguishing systems
  - b. Fire pumps
  - c. Standpipe systems
  - d. Private fire hydrants
  - e. Fire alarm and detection systems
  - f. High piled/rack storage
  - g. Temporary membrane structure, tents (>200 sq. ft.) or canopies (>400 sq. ft.)
  - h. Flammable and combustible liquids (tanks, piping etc.)
  - i. Hazardous materials
  - j. Industrial ovens/furnace
  - k. Spraying or dipping operations
  - l. Compressed gas systems