



COMMERCIAL PLAN REVIEW CHECKLIST

I. APPLICATION DOCUMENTS AND/OR INFORMATION

Staff	Qty	Documents Required
	1	Completed and signed Building Permit Application
	2	Submit copy of site plan (1" =20') See Section II for more info
	2	Submit full plan sets (24 x 36) See Section II for more info
	2	Architect/Engineer of Record stamp Architect/Engineer ALL SHEETS or calculations shall be stamped
	2	Structural Calculations (gravity & lateral required)
	2	Truss Engineering (specifications)
	2	Manufactured beam calculations
	2	Manufactured floor joist layout (if using)
	2	Energy Code Compliance forms (all required non-residential forms & calculations)
	1	Geotechnical Design Report (if required)
	1	Copy of Washington State Contractor's License
	1	Clearing & Grading Application (If applicable)
	1	Completed Sensitive/Critical Area Identification Form
	—	Plan review fees are due at time of submittal, remaining fees at permit issuance
	1	Flood certification base on construction documents (If in SFHA)
	1	Completed "Flood Plain Development" application <u>if project located within SFHA (Special Flood Hazard Area)</u>

A. REQUIRED PLANS AND DRAWINGS: See attached pages for specific requirements.

- | | |
|---|---|
| <input type="checkbox"/> Cover Sheet | <input type="checkbox"/> Floor Plans |
| <input type="checkbox"/> Architectural Sections & Details | <input type="checkbox"/> Elevations |
| <input type="checkbox"/> Architectural Site Plan | <input type="checkbox"/> Foundation Plans |
| <input type="checkbox"/> Reflected Ceiling Plan | <input type="checkbox"/> Fire Protection Plan |
| <input type="checkbox"/> Door, Window, Finish Schedules | <input type="checkbox"/> Stair Section |
| <input type="checkbox"/> Structural Foundation Plan | <input type="checkbox"/> Structural Framing Plan |
| <input type="checkbox"/> Roof Framing Plan(s) | <input type="checkbox"/> Structural Notes and Details |

- ___ Mechanical & Plumbing Plans
- ___ Vicinity Map with North Arrow

II. SPECIFIC REQUIREMENTS FOR PLANS AND DRAWINGS (Submit 2 sets unless specified otherwise. *Electronic submittals only require one set*)

A. The following is a detailed description of the format and the items required to appear on the drawing set.

1. SHEET SIZE-SELECT ONE:

- ___ 22" x 34"
- ___ 24" x 36"
- ___ 30" x 42"
- ___ 36" x 48"

2. TITLE BLOCKS MUST APPEAR ON EACH SHEET AND MUST INCLUDE:

- a. Project Name
- b. Street address
- c. Firm primarily responsible for drawing-address and phone number w/ area code
- d. Revision block
- e. Drawing title and drawing number on each drawing.
- f. Architect/Engineer's stamp

3. SCALE:

- a. Drawing scale shall be indicated using a bar-scale symbol for plan reduction integrity. The symbol must appear on all sheets.
- b. Unless the site size dictates a different scale, site drawings are to be in an engineers scale and should be at a scale of 1" =20' or 1" =30'. Architectural floor plans shall be 1/8" =1' or 1/4" =1' scale unless impractical.
- c. All site drawings (architectural, civil, etc.) shall be of a consistent scale.

4. NORTH ARROW – All site drawings and site related drawings (i.e., vicinity map, detail enlargements, etc.) shall include a north arrow.

5. Applicable plans must be stamped and signed by an architect or engineer registered in Washington State.

B. DESCRIPTION OF SUBMITTAL DRAWINGS

Please note that the drawing descriptions which follow are not an inflexible set of conditions; the drawing titles and the information described under the titles are presented in a fashion consistent with standard practice in the industry. However, the information described under the drawing titles is a minimum requirement for building permit submittal. The logical arrangement of the required information is left up to the applicant.

1. COVER SHEET:

- a. Site area in square feet and acres

- b. Site data summary:
 - i. Number of dwelling units (if applicable)
 - ii. Total building footprint
 - iii. Total site area
 - iv. Percentage of impervious surface (building footprint, walks, decks, driveways, parking)
 - v. Building height from average finished grade
 - vi. Total parking: number of standard-compact-handicap
 - vii. Req'd parking lot landscape info: total parking lot area and area of parking lot landscape
- c. Building Code data:
 - i. Type of construction (list if sprinkled or non-sprinkled)
 - ii. Fire sprinkler type
 - iii. Occupancy group(s)
 - iv. Occupant loads
 - v. Number of stories
 - vi. Building height
 - vii. Allowable floor area
 - viii. Proposed floor area
 - ix. Mixed use ratios

2. ARCHITECTURAL SITE PLAN:

- a. Property lines: Show the direction and dimensions. Please indicate point of beginning.
- b. Adjacent right-of-way: Locate and label the existing centerline, curb, sidewalk, and all proposed surface hardware. Distances to right-of-way centerline must be indicated.
- c. Streets and alleys: Show location, name or number of all streets and alleys adjacent to the site. Show any off-site easements or private streets that provide access from the site to a public road.
- d. Easements: Show the location for all existing and proposed easements, including utility, open space, drainage, native growth protection, access easements, etc. Accurately dimension the easement; provide recording numbers. Show all Tracts.
- e. Existing and proposed structure: Show location, overall dimensions and use of all existing and proposed buildings and structures on the site. Clearly indicate demolitions and additions.
- f. For housing, indicate number of bedrooms per unit.
- g. Indicate compact, full size, and handicapped parking spaces. Show dimensions of all garages and indicate proposed tandem parking spaces. Indicate signage for compact and handicapped spaces. Indicate bike racks and loading spaces with striping, and signage for loading spaces.
- h. Pedestrian circulation: Show the layout of all internal walkways and connection to public sidewalks, trails and/or right-of-ways. Show the accessible route of travel from the building to handicap parking stalls and the public way. Indicate the slope at each change of grade and provide details and enlargement of pedestrian areas, including handicapped ramps and landings.
- i. Indicate all plazas, patios, courtyards and play areas.

- j. Indicate location of mailboxes, utility vaults, hydrants, fire department connection, post indicator valves, electrical equipment pads, flagpoles, all exposed HVAC equipment, and traffic signs.
- k. Parking and circulation: Locate and dimension all entry drives. Show the proposed layout including parking stall angle, bay and aisle width, and provide typical dimensions for stall width and length to the wheel stop. Locate and dimension on-site loading areas.
- l. Walls, rockeries and fences: indicate location, length, height, and top and toe at a 1' change in elevation. Provide section and elevation details for new construction.
- m. Spot and topography elevations: Show surface elevation at 5' max contours and at each corner of the site. For sites with slopes greater than 10%, show existing and proposed contours at 2' intervals. Indicate portions of sites with slopes greater than 15%. Locate temporary and permanent benchmarks.
- n. Indicate dumpster or trash enclosures, including location, enclosure materials, internal dimensions, gate hinges, mechanism to lock gates in an open position, internal bumpers, and grade of site.
- o. Indicate setback measurements from
 - property line to the building
 - the architectural feature closest to the property line on each side of the building; this includes gutters.

3. FOUNDATION PLANS:

- a. Foundation wall: show shape, all dimensions including maximum wall height(s) and all connections. Provide foundation sections at various points around foundation system.
- b. Crawl spaces: if crawl space is included, show location and size of all vents, access size and location.
- c. Other spaces: show and label space integral with foundation (i.e., basement, garage, storage areas).
- d. Foundation vent size: locations and calculations.

4. TYPICAL FLOOR PLANS:

- a. Indicate square footage for each floor, garage and deck.
- b. Floor layout: show arrangement of walls; note proposed use and dimensions of all areas; show stairs, corridors, elevators, restrooms and ramps.
- c. Windows and doors: show location and dimensions of windows, doors and skylights.
- d. Fixture locations: show location of exit signs, handicapped signs, fire extinguishers, fans, vents, smoke detectors, plumbing fixtures, mechanical equipment, etc.
- e. Show location of all vertical or horizontal occupancy separations and/or area separation walls.
- f. Indicate handicapped access to the building and all spaces required by the International Building Code and ICC/ANSI 117.1. Include dimensions, details and notes for door clearances, maneuvering and clear floor spaces, ramp slopes and construction, hardware type and heights of all accessory features (i.e., plumbing fixtures, telephones, service counters, directional signs, etc.). Provide elevation drawings for the restrooms, grab bars, dispensers, etc.

5. ARCHITECTURAL CROSS SECTIONS AND DETAILS:

- a. Show typical wall assemblies and ratings; call out material types and thicknesses. Call out approval agency for rated assemblies. (I.E., UL test number for 1-hour wall).
- b. Show typical floor assemblies and ratings; call out material types and thicknesses. Call out approval agency for rated assemblies. (I.E., UL test number for 1-hour rated assembly).
- c. Show protection for all penetrations (mechanical, plumbing, electrical, communication) of assemblies **per the current IBC**. Show all shaft construction.
- d. Call out all door and window ratings and closure equipment. Indicate window classification for Energy Code compliance.
- e. Show all vertical or horizontal occupancy separations and/or area separation wall assemblies. Indicate UL test number or similar.
- f. Show all details for compliance with **current ANSI 117.1/ADA requirements**.
- g. Show section and details of dumpster enclosure.

6. ELEVATIONS:

- a. Show elevations of each side; provide finished floor level for each floor; show proposed grades; show maximum building height; show maximum site slope.
- b. Roof: show roof overhang and chimney clearances from roof. Indicate pitch of roof, or minimum slope to drain. Show mechanical equipment and its screening.
- c. Note class of roofing material.
- d. Openings: show doors, windows, skylights, and any type of openable vents in windows.
- e. Decks: indicate height of guardrails and spacing of intermediate railing.
- f. Note all ramps, signs, etc., for compliance with the Handicapped Code.
- g. Show highest and lowest points of all awnings, windows, doors, and archways.
- h. Rooftop equipment and screening.

7. ROOF PLAN:

- a. Roof slope: Indicate hips, valleys, gables and ridge.
- b. Indicate method of roof venting. Show details and calculations for area vented.
- c. Indicate roof drains and overflow drains. Show details.
- d. Show rooftop equipment and screening. Provide details showing equipment-to-curb and curb-to roof connections.

8. STAIR SECTION:

Show a section of the stairs. Include: rise, run, handrail height, handrail extensions, grasp dimensions, distance between rails, fire blocking, minimum head room and landing size.

9. DOOR, WINDOW AND FINISH SCHEDULE:

- a. Show door size, rating and hardware.
- b. Show flame spread of finishes **per the current IBC**.
- c. Show window size, opening size and direction.
- d. Note all hardware that is required to comply with the Handicapped code.

10. STRUCTURAL FOUNDATION PLAN:

- a. Accurately locate all columns, footings and grade beams. Indicate size and reinforcing of all members.

- b. Provide column connection detail. Indicate any framing anchors, wells, anchor bolts, grout, etc.
- c. Floor system: show floor system structural size, spacing direction, support, connections, blocking, etc.

11. ROOF, FLOOR AND DECK FRAMING PLANS:

- a. Roof, floor and deck structural system: show size, spacing, direction, support, connections, blocking, etc.
- b. Bearing walls: show all bearing walls and/or columns beam support to footing.
- c. Show mechanical equipment location and design for its deadload.
- d. Show storm water drainage system for roof.

12. STRUCTURAL CROSS SECTIONS AND DETAILS:

- a. Show typical wall section with all materials labeled, size and spacing of all members; include all dimensions, height, insulation, sheathing, connections, siding, etc.
- b. Show all lateral engineering details that specifically show complete load path through nailing for top plate, bottom plate, roof sheathing to wall cantilevered floors, roof edge nailing, and interior shear walls. All details must be referenced (bubbled) on plan at all appropriate locations. Also include details and locations of hold down straps/anchors.
- c. Show typical roof section with all materials labeled, size and spacing of all members; include all dimensions, venting, insulation, connections, sheathing, type of roofing, slope of roof. Show scupper, overflow and downspout details. Note that many of these details are typically included in architectural detailing and need not be duplicated in structural drawings.
- d. Show typical foundation section with all materials labeled, size and spacing of all members, all dimensions; include: wall thickness, rebar size and spacing, rebar clearance, footing depth below grade, clearance between grade and sill plate, maximum wall height, connections, anchor bolt size and spacing, connection between floor diaphragm and foundations, slab thickness, drainage for foundation retaining wall.

13. STRUCTURAL NOTES:

- a. Specify all design load values, including dead, live, snow, wind, lateral retaining wall pressures and soil bearing values.
- b. Specify minimum design concrete strength, concrete sack mix, and reinforcing bar grade (special inspections may be required).
- c. Specify the grade and species of all framing lumber.
- d. Specify the combination symbol (strength) of all GLU-Lam beams.
- e. Specify metal connectors, including joist hangers, clips, post caps, post bases, etc.

14. LATERAL (SEISMIC) AND GRAVITY DESIGN:

- a. Provide lateral Wind and Seismic calculation comparison.
- b. Provide complete lateral calculation analysis for controlling wind or seismic load.
- c. Provide details showing complete load path transfer at roof perimeter, interior shear walls, cantilevered floors, offset shear walls, and ceiling diaphragm to shear walls (if used).

- d. Provide shear wall schedule noting nail spacing, blocking, bolts, top and bottom plate nailing.
- e. Locate hold down straps on plan.
- f. Provide hold-down details for various conditions.
- g. All structural calculations for gravity and lateral design must include a key plan or similar way of identifying beams, headers, girder trusses and shear walls noted in the calculations with those indicated on plan. Plans submitted that do not identify and coordinate this information with calculations will be considered insufficient and not accepted for permit submittal.

15. REFLECTED CEILING PLANS:

- a. Show locations of suspended ceilings.
- b. Show schematic of light switching in accordance with energy code.
- c. Show details of suspended ceiling support system.

16. ENERGY CODE DATA:

- a. Show R values of all insulation in appropriate places on architectural sections.
- b. Provide an energy code design summary on the plans and include: Insulation R values, glazing class of windows and skylights, percentage of total glazing in floor area, type of heating system and its efficiency rating.
- c. If a U value analysis is done, provide a design summary on the plans and include: Type of heating system and its efficiency rating, R values of insulation, U values of all windows, skylights, wall assemblies, floor assemblies and roof assemblies. Provide detailed calculations.
- d. On the reflected ceiling plan, provide a fixture schedule showing the type, number and maximum wattage of each fixture. Automatic lighting controls must be shown and specified on the plan set.
- e. The mechanical equipment schedules must specify all economizers and the energy efficiency ratings of all motors and heating and cooling equipment.

17. EXTERIOR LIGHTING PLAN:

- a. Show all exterior building, site and parking area lighting on plan. For any wall mounted fixtures, provide elevations. If site is sloped or has any significant topographical conditions not apparent in plan view, provide appropriate sections and elevations.
- b. Lighting schedule: fixture type, manufacturer's name, model number, lamp type (source and wattage), number of lamps per fixture and fixture image (image can be a cut sheet or included on drawing). Alternately, provide fixture cut sheets marked with type designation corresponding to drawings, model number, lamp information and all accessories and options circled for each fixture type.
- c. All fixtures must be designed to prevent light spillage to adjacent properties. Provide info on shields or other equipment to achieve this.

18. MECHANICAL & PLUMBING PLANS:

Plumbing and mechanical plans must be submitted with all applications and may not be a deferred submittal.

Mechanical:

- a. Reflected ceiling plan showing and identifying ductwork, equipment, piping, supply diffusers, return air grilles and fire dampers.
- b. Roof plan showing equipment, ductwork, vents, roof access and equipment screening.
- c. List of equipment and schedule.
- d. Engineered structural gravity and/or lateral force calculations for all rooftop units.
- e. Ventilation calculations for outside air.
- f. Completed Washington State Non-Residential Energy Code (NREC) compliance form for "Building Mechanical Systems."

Plumbing:

- a. Isometric riser diagram of both sanitary and potable water systems showing waste and vent, potable water piping, size of piping and length of run.
- b. Medical gas piping riser diagram indicating type of gas, bottle storage room, size of piping and length of run.
- c. Show grease interceptor, if required.

19. OTHER INFORMATION OR FORMS:

Special studies, as identified, must be completed and signed.

PLEASE REFER TO THE INTERNATIONAL BUILDING CODE, CITY OF BRIER MUNICIPAL CODE.

Additional documents may be required if deemed necessary by the Building Official.

NOTE: Sign, sprinkler, irrigation and swimming pool permits must be obtained separately from the City. Electrical permits must be obtained from the State Department of Labor and Industries.