

Low-Density Housing: Inspection Stages Guide



BUILDING



ELECTRICAL



PLUMBING



MECHANICAL



GAS



PERMIT INSPECTIONS

Inspections help ensure that renovation and construction work complies with applicable City by-laws and matches the scope of work authorized by the permit. Inspections also support the City's objectives related to life safety, accessibility, sustainability and environmental protection.

Due to the complexity of modern buildings and building systems, multiple inspections are often required. These may include building, plumbing, mechanical, gas, electrical, sprinkler and other related inspections.

PURPOSE STATEMENT

This guide is intended to help customers adequately prepare for requesting inspections. Its purpose is to reduce delays and additional fees by providing clear, upfront information, so customers know what is required in advance.

BOOK YOUR BUILDING OR TRADES INSPECTION

If your permitted construction project is ready for a required building or trades inspection, you must request an inspection through your online portal at:

- <https://plposweb.vancouver.ca/Public/Login.aspx>
- by contacting the City of Vancouver at **3-1-1**; or
- by calling **604-873-7000** outside Vancouver

Inspections may be booked in advance; however, requests for a next business day inspection must be submitted no later than 2 pm on the business day prior.

When calling to request an inspection, be prepared to provide:

- Permit number
- Site address
- Type of inspection
- Date requested

If you need to cancel a scheduled inspection, please call **3-1-1** or **604-873-7000**. Inspections should not be cancelled after 3:30 pm the business day prior to your inspection date, or a re-inspection fee will apply.

RE-INSPECTION FEE POLICY

The intent of the Inspections Branch is to work collaboratively with customers to support them throughout the building process. This policy helps ensure customers are prepared for required inspections, that work is completed in accordance with the permit and that any deficiencies identified by the inspector are corrected.

Inspection fees are included in the overall permit fees. A re-inspection fee may apply if:

1. The site is not accessible or safe for inspection

2. The work requires re-inspection due to:

- Deficiencies from previous inspection remain.
- Incomplete work
- Work has progressed beyond the required inspection stage.
- Removal or exposure of completed work may be required

3. The inspection cannot proceed because:

- Approved printed plans not available on site.
- Work is not ready at the scheduled time.
- The inspection is cancelled by the customer after an inspection time has been assigned.
- Tree protection barriers are not in place as per Tree Retention plan or *City-issued Tree Barrier Memo*.

A re-inspection fee may also apply in other similar circumstances that prevent the inspector from completing the inspection.

CONSTRUCTION NOISE CONTROL BY-LAW 6555

Construction-related noise is permitted during the following hours:

Day	On private property
Monday to Friday	7:30 am – 8 pm
Saturday	10 am – 8 pm
Sunday or holiday (day of)	No construction-related noise permitted

Outside of these hours, construction noise on private property is only allowed with a noise by-law exception permit.

DOCUMENTATION

Site memos, field reviews, surveys and other professional reports are required to be provided to your inspector throughout the course of construction.

All electronically provided documentation must be uploaded to the permit at the time of booking the inspection. Electronic documentation requiring signature or seal is to be digitally verifiable.

Original stamped, sealed or embossed hard copies are acceptable on-site during inspection.



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* Approved permit drawings must be available on site for all inspections.
 Required inspections for renovations may vary depending on the scope of work.

REQUIRED INSPECTION STAGES

1

Pre-demolition/ Tree Barrier Inspection



A Pre-demolition/Tree Barrier Inspection must be booked under the demolition permit number prior to building permit issuance.

SITE REQUIREMENTS

- Tree barriers installed in accordance with the *City-issued Tree Barrier Memo*.
- Construction Safety Program (CSP) sign posted and visible on site, including:
 - the contractor's contact information
 - site address and emergency contact details
- Unoccupied buildings to be inaccessible and secure.
- A District Building Inspector will determine whether a simple or engineered demo plan is required as outlined in **Bulletin 2026-002-BU** (Demolition of Buildings)

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Demolition Notification Inspection



A Demolition Notification Inspection must be carried out in accordance with City requirements and applicable permits.

The demolition contractor must notify the City by booking the demolition notification Inspection no later than 2 pm on the business day prior to starting demolition work.

Demolition work may begin before the inspector arrives, provided the advance notification requirement has been met.

SITE REQUIREMENTS

- Demolition permit issued
- Compliance with Demolition Contractor Declaration
- Excavation machinery on site
- Dust and water control measures in place.
- Traffic control measures in place, where required.
- Tree protection maintained

REQUIRED DOCUMENTATION

- *Hazardous Building Materials (HBM) Assessment Report*
- *Post-Abatement Clearance Report*, if abatement was required per the *HBM Assessment Report*

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Demolition Final Inspection



A Demolition Final Inspection is required once demolition work has been completed.

SITE REQUIREMENTS

- Site fully cleared of debris
- Tree protection barriers remain in place and undamaged
- Sidewalks, streets and lanes clean and accessible as per section 8.2.3.4 of the Vancouver Building By-law

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Temporary Construction Service Inspection



A Temporary Construction Service Inspection is to be performed after the demolition of the building but prior to the use of the service.

TEMPORARY POLE SERVICE

- Pole location to be within 3.3 m (10 ft) of the property line.
- Type of electrode used is either plate or rods.
- Ground plate must be buried at a minimum of 0.6 m (2 ft).
- Bracing support is adequate (minimum 3 braces).
- Approved equipment used: CSA or equivalent service rated.
- Proper clearance must be provided across roads, alleys and sidewalks.
- Overhead service conductors properly supported.
- Overcurrent protection is installed.
- Meter height to be a minimum of 1.5 m (5 ft) to a maximum of 1.8 m (5.5 ft) as per BC Hydro meter requirements.
- Meter location to be accessible for servicing.
- The identified conductor is required to be white or grey.
- Minimum drip loop out of the weather head is to be 75 cm (30 in)
- Service conductors are UV resistant.
- Point of attachment location is located at a minimum of 15–30 cm (6–12 in) below the weather head.
- Temporary service enclosure shall be weatherproof and lockable.
- Ground fault receptacles are installed and covered with approved in-use covers where required.

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Footings and Forms Inspection



A Footings and Forms Inspection is required after completion of formwork and prior to placing concrete. Concrete formwork is to be complete as per approved drawings with all structural elements installed at the time of inspection.

EXCAVATION

- Excavation complies with WorkSafeBC requirements.
- Fencing must be provided where construction is within 2.0 m (6.5 ft) of a street.
Fences must:
 - Be a minimum of 1.8 m (6 ft) high
 - Have a smooth surface facing the street
 - No openings except gates
 - Gates must be locked when site is unattended
 - Fencing must be maintained.
- Excavation banks protected with poly or other where required.
- Dewatering measures in place, including a filter at the street catch basin or approved upstream screening.

FOOTINGS

- Location and configuration of footing forms match permit drawings.
- Minimum frost protection of 45 cm (18 in) is maintained in all areas, including sunken patios and window wells.

FORMS

- Foundation form dimensions match permit drawings.
- Foundation wall height is set to support final grading and compliant stair construction. Interior curb walls set to correct height to accommodate drainage layer of fill, underslab insulation and required slab thickness.
- Review low embodied carbon rebar if required.

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Required Documents:

- **Excavation Letter:** A letter prepared by a Professional Engineer (P.Eng.) confirming that the excavation complies with WorkSafeBC requirements and that appropriate protective measures are in place, where required.
- **Geotechnical Engineer Letter:** A Geotechnical Engineer's letter confirming adequate soil bearing capacity and suitable subsurface conditions for the proposed foundation is required, where applicable.
- **Structural Engineer Letter:** A Structural Engineer letter approving rebar installation.
- **Arborist Compliance Report,** where required.

Drain Tile Inspection



A Drain Tile Inspection includes drain tile, damp proofing, rainwater leaders and water service. This is performed after the footings and forms inspection and before backfilling of the drain tile.

All underground trenching must remain open for inspection and all piping, weep holes, bedding, gravel, sleeves, etc. shall be in place. Gravel is placed around the drain tile to a minimum 15 cm (6 in) of cover above the drainage pipe.

DRAIN TILE/DAMP PROOFING

- Old utility services to be adequately shut off.
- Terminating sewer connections permanently capped for inspection.
- Separate drain tile and rainwater leader RWL piping connect independently to sump(s).
- Drain tile pipe using recommended perforated PVC installed with weep holes facing down, lettering at top of pipe.
- The top and sides of drain pipe or tile shall be covered with not less than 15 cm (6 in) of crushed stone or other coarse clean granular material containing not more than 10% of material that will pass a 4 mm (0.158 in) sieve.
- Proper pipe location and slope relative to finish floor/footings elevations. Where unclear, mark finished floor elevation on foundation wall.
- Proper application of damp proofing. Walls to be parged before applying damp proofing where excessive honeycombing occurs.
- Piping on unstable soil conditions is required to be designed by a P.Eng.

RAINWATER LEADERS

- Provide acceptable pipe i.e. solid PVC sewer grade.
- Properly glued and sloped.
- Proper support of piping with hangers or metal strapping fastened to foundation wall or other acceptable means.

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Sumps, Sewers and Rainwater Detention Tanks



The Sump Inspection will include the sanitary and storm sewer installation to the property line. A passed sump inspection will engage the site services for the connections queue with Engineering Services.

SUMP AND AREA DRAINS – GENERAL

- Proper soil conditions or, if soil is unstable, remediate as per the directions of a Geotechnical Engineer.

GRAVITY-DRAINED STORM SUMPS

- Backwater valve installed complete with 90 degree elbow on sump outlet minimum 20.3 cm (8 in) trap seal – install short piece on elbow inlet.
- Sump grouted and sealed water tight below outlet elevation. Minimum 43 cm (17 in) depth below outlet to retain sediment.
- Only those portions of the storm drainage system which can flow by gravity but are at or below the sewer fixture restriction elevation are permitted to be protected from backflow with an approved backwater valve in lieu of an additional storm pumped sump.

PUMPED STORM SUMPS

- Pump discharge pipes are to have to have a union, check valve and gate valve installed in the direction of flow.
- Only those portions of the drainage system which cannot drain by gravity or are at or below the City Sewers Engineering's sewer fixture restriction elevation are permitted to be pumped.
- See the Sewer Installation Connection Permit (SW permit) for details of restrictions or other conditions.

RAINWATER DETENTION TANKS (RAINWATER MANAGEMENT – SMALL SITE PATHWAY)

Buildings shall manage rainwater on-site through the installation of detention tanks based on the project site area.

APPLICABILITY

- Single Detached or Multiplex
- Building Permit opened July 1, 2025
- Rainwater detention tanks are not required for laneway homes, infills, or renovation projects

BACKGROUND

- Projects up to 1.0 FSR on sites up to 1,000 m² must provide on-site rainwater detention per the City of Vancouver Small Site Pathway. The requirement manages peak runoff and protects sewer capacity.

PRE-CONSTRUCTION/DESIGN SUBMISSION STAGE

- Rainwater management must follow the City's Small Site Pathway criteria.
- Detention tanks sized to meet required active storage volume and controlled release rate.
- Site-specific constraints must be confirmed with the City's rainwater management team.

DETENTION TANK INSTALLATION INSPECTION (PRIOR TO BURIAL)

TANK INSTALLATION

- Tank installed at approved depth and location.
- Volume/configuration matches site requirements.
- Orifice control, overflow, trap installed per approved details.
- Backwater valve installed where required.

CONNECTIONS AND GRADING

- Inlet/outlet piping connected to approved storm system.
- Lot grading directs roof and hard-surface runoff to detention system.
- System drains freely and is not surcharge-prone.

FINAL INSPECTION – RAINWATER MANAGEMENT

- Confirm tank type, size, volume, orifice size, overflow configuration, backwater valve and depth of cover.
- Inspection chambers accessible.

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SEWER

- When a Sewer Permit (SW) is required, the new public sewer and water connections shall be utilized. For more information see: **Sewer and Watercourse By-law**.
- Sewer restrictions, conditions, locations and elevations are as per Engineering Sewer Connection Permit (SW permit). Floor slab elevations, sump locations, sewer locations and elevations at the property line are shown on the building permit drawings.
- Minimum size of sewer and drainage piping on private property is 6.4 mm (0.25 in) with a minimum slope of 3.2 mm (0.125 in) per foot (1%).
- Install sewer piping on firm undisturbed soil.
- Remediation as directed by a Geotechnical Engineer is required where soil is unstable.
- Acceptable backfilling bedding materials.

SEWER BACKFLOW PREVENTION

- Where conditions are favourable for the sanitary sewer to flow by gravity to the city sewer connection an accessible backwater valve shall be permitted.
- Only those portions of the sanitary drainage system which can flow by gravity but are at or below the sewer fixture restriction elevation are permitted to be protected from surcharge or backflow with an accessible normally open backwater valve.

WATER SERVICE

- Size of pipe per sprinkler permit drawings 3.9 cm (1.5 in) minimum.
- Type of pipe and approvals per NFPA 13D.
- Soil conditions and bury at 60.9 cm (2 ft) below (depth of bury).
- Location of city connection relative to other services, i.e. gas electric etc.
- Proper fittings and joints, leak tight installation.

Non-Encroachment Certificate (NEC) and Field Plan Review Inspection



The NEC and Field Plan Review Inspection must be completed before framing begins.

This inspection confirms that the foundation location, setbacks and top of foundation elevation are constructed in accordance with City-approved permit drawings.

Additionally, this inspection acts as a field plan review where the District Building Inspector will review and discuss site specific details including, but not limited to, envelope, structural, accessibility, fire separations and low embodied carbon strategies if required.

PRIOR TO REQUESTING THIS INSPECTION:

- Drain tile and damp proofing inspections must be completed and passed
- Foundation backfill must be substantially completed

Required Documents:

- Non-Encroachment Certificate, prepared and signed by a British Columbia Land Surveyor

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Radon Underground Inspection



The Radon Underground Inspection is required after the Non-Encroachment Certificate (NEC) Inspection and prior to the Underslab Inspection. Radon

underground rough-in must be completed and installed in accordance with the 2025 Vancouver Building By-law and CAN/CGSB-149.11-2019 for applications submitted on or after September 15, 2025.

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Underground Electrical Inspection



The Underground Electrical Inspection is to be performed after the footings and forms inspection, but before backfill.

UNDERGROUND SERVICE

- Trench to be open and conduit or cable approved for use to be laid on sand or screened soil free of debris.
- Approved marking tape to be installed approximately 0.3 m (1 ft) below finished grade.
- Backfill material (sand or screened earth) shall be available onsite.
- Basement slab cable installation is to have no crushed gravel around the cable. Provide sand.
- Marking tape to be installed on the underside of basement slab.

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Below Slab Plumbing Inspection (inside building)



The Underslab Plumbing Inspection is to be performed after the footings and forms inspection but before the the Underslab Building Inspection.

UNDERSLAB PLUMBING

- Piping to be laid on undisturbed soil and free of debris.
- Approved pipe, bedding and fittings to be used.
- Grade of pipe meets the minimum 6.4 mm (0.25 in) per foot.
- Depth of pipe to be installed below the underside of the slab.
- Drainage Waste Vent (DWV) System Piping shall be under test for the inspection.
- Piping to be glued.
- Where a fixture is below the adjoining street a backwater valve shall be installed on a building drain or branch where pumping is not required.
- Water service piping shall be installed.

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In Slab Hydronic Heating Inspection



An In Slab Hydronic Heating Inspection is required for any in slab heat piping prior to pouring of the slab. Documents for system design and heat loss calculations are required at the time of inspection.

IN SLAB HEATING SYSTEM

- Appropriate piping is installed as per the system design.
- Slab hydronic radiant piping layout per design.

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Underslab Inspection



The Underslab Inspection is required prior to placing the concrete slab and must occur after the underground electrical, plumbing, gas, radon and mechanical inspections have been completed and approved.

SITE REQUIREMENTS

- Subgrade prepared and compacted to support design loads.
- Air barrier installed beneath the slab; and sealed at joints/penetrations and where it terminates against foundation walls.
- Under-slab and slab-edge insulation installed in accordance with permit drawings and the *Pre-permit Checklist*.
- Reinforcement installed in accordance with permit drawings.
- All underslab products to comply with low embodied carbon strategy if required.

Required Documents:

- Registered Professional's field memo or letter confirming slab preparation and soil compaction are adequate for the proposed design, where applicable (e.g. slab-on-grade construction).
- Professional building envelope field memo for Part 5 buildings.

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Plumbing, Mechanical, Sprinkler and Gas Rough-in Inspections (above ground)



The Plumbing, Mechanical, Sprinkler, and Gas Rough-in Inspection are to be performed after the initial Framing Inspection but prior to the Sheathing Inspection.



This inspection needs to be coordinated so that all Plumbing, Mechanical, Sprinkler and Gas work are inspected on the same day. The homeowner/builder (contractor) is responsible for coordinating the Plumbing, Mechanical, Sprinkler and Gas Permits. Uncoordinated inspection



requests may result in a re-inspection fee. Applications for gas permits shall comply with the Energy Advisor's Green House Gas (GHG) emissions form.

WATER SERVICE

- Size and type of piping rough-in match the approved plans.
- Pipe size as per sprinkler drawings.
- Location of city connection to meet the approved drawings.
- Fittings to be CSA approved or certified.
- Ensure pipe joints are water tight.

HYDRONIC ROUGH-IN

- Above slab hydronic radiant piping layout per design.
- Rough-in of hydronic mains to the mechanical room.
- Heat pump placement.
- Heat pump line sets.

SPRINKLER PIPING

- NFPA 13D for 1 and 2 family dwelling.
- Modified NFPA 13R for multiplexes as per **Bulletin 2025-003-BU** up to 8 dwelling units.
- Includes installation of insulation/boxing (frost protection).
- Review of drawings and permit information, sealed and signed by P.Eng.
- Type of piping, fittings and approvals.
- Type of sprinklers specified and installation criteria to meet the design.
- Backflow protection installed.
- Proper clearances and support for piping.
- Piping to be under pressure test.

MODIFIED NFPA 13R SPECIFIC REQUIREMENTS

- Flow-through combined domestic + sprinkler riser per unit
- Dual check valve (no testable backflow)
- Flow switch tied to interconnected smoke alarms
- Flow-through to most remote toilet
- Fire Department Connection (FDC) not required
- Sprinklers in all rooms, closets, and compartments
- Audible/visual strobe outside each unit entrance
- 4-sprinkler maximum hydraulic design area
- Independent exterior egress for each unit

PERMIT DRAWINGS MUST STATE

- "Sprinkler system designed to the City of Vancouver Modified NFPA 13R."

DRAINAGE WASTE VENT SYSTEM PIPING

- Piping installation practice to comply with Vancouver Building By-law Part 7.
- Location of plumbing fixtures installed as per the approved plans.
- Hydraulic loads and pipe sizes as per the Vancouver Building By-law Part 7.
- Grade to be a minimum of 6.4 mm (0.25 in) per foot.
- System under test with either water or air during inspection.
- Piping support, hangers and expansion joints to meet Vancouver Building By-law Part 7.
- Pumped fixtures as per the sewer permit requirements.
- Provide backflow prevention only for portions of the drainage system that are subject to backflow.

GAS PIPING

- Approved piping and fitting materials (steel, copper, CSST and plastic pipe).
- Adequate pipe sizing for proposed load.
- Gas piping/fittings as per CSA B149.1, Gas Act and its Regulations.
- Underground piping to be installed with a minimum of 38.1 cm (15 in) depth of bury and under air test for inspection.
- Provide proper vent connector and sizing.
- Provide clearances from combustion and venting air.
- Location of vent terminations/air supply to meet CSA B149.1
- Appliances with loads are to be consistent with permit.
- All piping identification labeled.
- Location of gas regulators to meet CSA B149.1 and Gas Act and its Regulations.
- Delivery pressure is appropriate for the piping size.

WATER TEST/TUB AND SHOWERS

- Accessible shut-off valves are required.
- Type of fixtures to CSA approved or certified.
- Standing water test for tub and shower.
- Custom shower liners and membrane material to meet Vancouver Building By-law.
- Provide a water test to flood level rim for inspection.

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Electrical Service and Rough-wire Inspection



The Electrical Service and Rough-Wire Inspection is to be performed after the Underground Electrical Inspection and before the Insulation and Vapour Barrier Inspection.

This inspection needs to be consolidated so that the main electrical, low voltage electrical and garage work are inspected on the same day. The homeowner/builder (contractor) is responsible for coordinating the main electrical and low voltage electrical permits. Uncoordinated inspection requests may result in a re-inspection fee.

ROUGH-WIRE

- Ensure correct project description on permit.
- Protection plates and vapour barriers installed.
- Circuit loading does not exceed maximum allowed.
- Proper layout of outlet boxes.
- Dedicated circuits for all heating loads, i.e. baseboard, boiler, furnace, etc.
- Proper type of recessed insulation contact fixtures, i.e. pot lights. If non-insulation contact fixtures are used, a minimum of 13 mm (0.512 in) clearance needs to be provided from combustibles.
- Check for proper support of all wiring (line and low voltage).
- Clearance for equipment from pools, bathtubs, spa's, etc.
- Ensure box fill limit is not exceeded.
- Bonding required for metal sectional boxes, gas line, communication utilities, panelboards and metal piping exceeding 3 m (10 ft) in length.
- Cables have proper stapling support.
- Provide proper clearances from hot water lines, hot air ducts and "B" venting.
- All equipment used is approved by CSA or equivalent.
- Garage wiring and raceway for future EV charger is ready for inspection.

SERVICE

- Grounding completed using copper wire and #6AWG minimum.
- Service location as per COV Inspection Authority/ BC Hydro Supply Authority.
- Meter height and location installed to BC Hydro standards.
- Confirm meter rating (amperage rating).
- Appropriate conductor size and type used
- Appropriate mast height, guy wire, if required, and approved mast kit.
- Provide the main service load, load calculation, and main disconnect rating.
- Fittings are approved for use, eg. rain tight fittings are used for exposed exterior cables and raceways.
- The service is lockable.
- All equipment used is approved by CSA or equivalent.

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Concrete Stairs and Retaining Wall Forms Inspection



The Concrete Stairs and Retaining Wall Forms Inspection is required prior to concrete placement for stairs and retaining walls.

CONCRETE STAIRS

- Forms and reinforcement installed in accordance with permit drawings.
- Frost protection provided, 45 cm (18 in)
- Stairs must comply with Division B, Section 9.8 of the Vancouver Building By-law.

RETAINING WALLS

- Forms and reinforcement installed in accordance with permit drawings.
- Retaining walls greater than 1.2 m (4 ft) in height requires a P.Eng sign off.
- Footings must be located within property lines.
- Where private encroachment is proposed, an approved neighbour agreement or covenant must be in place prior to inspection.
- Retaining walls impacting or located on City property must be coordinated with and inspected by the City of Vancouver Engineering Services as well as approved by Engineering. (retaining walls require proper drainage consisting of granular fill, weep holes, or drain tile)

Required Documents:

- Registered Professional's field memo or letter is required for retaining walls greater than 1.2 m (4 ft) in height.
- Registered Professional's field memo or letter is required for concrete stairs.

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Sheathing Inspection



The Sheathing Inspection is performed after exterior sheathing, roofing, deck membranes, windows and doors are installed and prior to installation of cladding (the WRB and rainscreen), to review building envelope components and flashing details before they are covered.

Please refer to City of Vancouver **Bulletin 2009-008-BU** for additional guidance and requirements.

SHEATHING

- Sheathing installed in accordance with permit drawings, Structural Engineer's design, manufacturer specifications and Vancouver Building By-law requirements.
- All exterior mechanical, plumbing and electrical penetrations installed and sealed (established and detailed).
- Decks over living space are completed with required cross-ventilation in accordance with permit drawings.
- HRV, heat pump and mechanical equipment location to meet serviceability requirements.

FENESTRATION

- Window mock-up is prepared and available on site to demonstrate rainscreen and flashing details
- Windows, doors and skylights are installed in accordance with approved permit drawings and *Pre-permit Energy Checklist* as well as labeled for energy compliance.
- Energy labels must have a valid third-party certification marking.

ZONING

- Building floor plan, exterior elevations and overall building height match approved permit drawings.
- Floor-to-ceiling height and wall assembly thickness match approved permit drawings and *Pre-permit Checklist*.
- Roof slope, material and configuration match approved permit drawings.

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Framing Inspection



A Framing Inspection is to be performed prior to the installation of insulation and after all trade rough-ins (plumbing, gas, mechanical, electrical and fire sprinkler) have been inspected and approved. Fire blocks, drop ceilings and chases must be completed.

Exterior wall sheathing must be covered with building paper or other approved weather-resistive barrier (WRB) to protect the building from weather exposure at this stage of construction.

STRUCTURAL FRAMING:

- Seismic provisions and building structure to match the P.Eng. drawings and specifications.
- If no engineer on record, structural components to comply with section 9.23 of the Vancouver Building By-law.

FRAMING LAYOUT AND OPENINGS

- Building layout, floor plan, crawl spaces, door rough openings, ramps, stair dimensions and headroom clearances are to comply with Vancouver Building By-law.
- Framing assemblies must accommodate the insulation thickness identified in the *Pre-permit Energy Checklist*.

INSULATION AND VAPOUR BARRIER PREPARATION

- Vapour barrier continuity provisions have been made at intersections of interior and exterior walls and top plates at the roof level.
- Electrical boxes and non-IC light fixtures provided with air barrier protection (e.g. poly boots and tightly fit rigid insulation) where required.
- Sprinkler piping insulation installed, where required.
- Ducts installed in unconditioned space shall be insulated to a level equivalent to the wall assembly R-value.
- Ducts in unconditioned space to have an effective vapour barrier.

ENVELOPE DETAILS

- Parapet cap flashing (saddle flashing) installed where applicable.
- For projects with exterior insulation, a **second sheathing inspection** is required to verify WRB completion.
- For Part 5 buildings, the building envelope installation must be reviewed by the Registered Professional in accordance with approved building envelope documents.

Required Documents:

- Registered Professional structural field memo.
- Registered Professional's deck membrane letter for roof or decks over living space.
- Professional building envelope field memo for Part 5 buildings.

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Fire Separation Inspection



A Fire Separation Inspection is required prior to the framing inspection. All vertical and horizontal fire separations must be continuous. All associated fire blocking and fire stopping must be fully installed and remain exposed for inspection.

Required Documents:

If a Registered Professional has submitted a Schedule B and claimed responsibility for fire separations, a field review memo is required.

MECHANICAL VENTILATION SYSTEMS

- Mechanical Ventilation system is installed in accordance with section 9.32 of the *Vancouver Building By-law* and the *Mechanical Ventilation – Design and Install Checklist*.
- The *Mechanical Ventilation Checklist* must be completed by a Certified HRV installer with a TECA HRV or equivalent certification.
- HRV supply and return ducting to comply with Vancouver Building By-law requirements.
- Radon vent piping to be fully installed and extended to the exterior of the building

Required Documents:

- Registered Professional structural field memo.
- Registered Professional's letter for roof trusses, where applicable.
- *Mechanical Ventilation Checklist*.

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Rainscreen Inspection



A Rainscreen Inspection is to be performed before any exterior cladding is installed and after the sheathing inspection has been accepted.

This inspection confirms that the rainscreen components and building envelope preparation are in place prior to installation of exterior cladding.

RAINSCREEN

- Exterior sheathing paper or approved weather-resistive barrier (WRB) installed.
- Exterior insulation installed, where applicable.
- Strapping or rainscreen drainage cavity material installed.
- All flashings and stucco stops installed where applicable and accessible for inspection.
- Insect screen installed at openings of the rainscreen cavity.

Required Documents:

- Professional building envelope field memo for Part 5 buildings.
- Registered Professional structural field memo for strapping installation over exterior insulation where the installation does not follow the prescriptive requirements of section 9.27 of the Vancouver Building By-Law.

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Insulation and Vapour Barrier Inspection



An Insulation and Vapour Barrier Inspection is to be performed after the Framing Inspection has been approved and all insulation and vapour barrier work is complete. No interior finishes shall be installed until this inspection has been completed and approved.

All work must be in accordance with approved permit drawings and the *Pre-permit Energy Checklist*.

INSULATION AND VAPOUR BARRIER

- Insulation and vapour barrier are fully installed and continuous for all wall assemblies, attic/roof spaces and exposed floors. The vapour barrier is sealed at joints, penetrations and transitions to maintain continuity of the air and vapour barrier system.
- Spray foam insulation in horizontal non-vented assemblies (e.g. floors and ceilings) is only permitted where the project is designed under Part 5.
- Resilient channels are installed and ready for inspection, where applicable.
- Exterior insulation, where applicable, is installed and attached in accordance with permit drawings and manufacturer specifications.

Required Documents:

- *Mid-construction Checklist* completed by a Certified Energy Advisor and signed by the builder.
- Professional building envelope field memo for Part 5 buildings.

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Final Plumbing, Mechanical, Drain Tile, Sprinkler and Gas Inspections



The Final Plumbing, Mechanical, Drain Tile, Sprinkler and Gas Inspection are to be performed after the Rough-in Inspections and before the Final Building Inspection.



All of the plumbing fixtures, heating equipment, gas appliances, sprinkler heads and piping needs to be installed and the plumbing system needs to be



completed and tested prior to requesting the inspection. This inspection needs to be consolidated so that all plumbing, mechanical, sprinkler, drain tile and gas

work are inspected on the same day. The homeowner/ builder (contractor) is responsible for coordinating the plumbing, mechanical, drain tile, sprinkler and gas permits. Uncoordinated inspection requests may result in a re-inspection fee.

PLUMBING

- Fixtures to have the proper approvals or certifications. Fixture connections (trap arms and water piping connection) to meet Vancouver Building By-law Part 7.
- Ensure hot and cold water supply to fixtures are appropriate and do not have leaks.
- Pressure reducing valves installed.
- Backflow prevention provided for hose bibs and boiler make-up water.
- Provide a thermal expansion valve and temperature and pressure (T&P) valve at the hot water heater. Valves to be properly piped to a drain.
- Water main shut-off valve to be accessible and free of obstructions.
- Water meter is installed if located on owners property.

SUMP

- Ensure backwater valve, 90 degree elbow are installed on the outlet of the storm sump.
- Drain tile and patio drains connecting to a common sump are protected against backflow when required by fixture restrictions.
- All penetrations have been grouted and the sump is water tight.

MECHANICAL

- Equipment does not exceed noise by-law in operation.
- Equipment is installed in the approved location.
- All equipment must meet climb-ability requirements when installed on patios or balconies.
- Equipment is adequately secured as per manufacturer.
- All equipment installed has been commissioned.
- Exterior lines are adequately protected from damage and freezing.

DRAIN TILE

- Gutters and downspouts to be connected to underground storm drainage piping.

GAS

- Only the holder of the Gas Permit can schedule the final inspection. Notification of Completion Declaration is submitted at time of final inspection request.
- Gas appliances to be CGA approved or have acceptable certification.
- Gas appliance locations as per the approved plans.
- Gas appliance installation and clearances as per the installation guide and CSA B149.1 and Gas Act and its regulations.
- Bug screens installed on gas regulators and vents.
- Appliance manuals to be available on-site.
- Ensure all appliances are operating normally.
- Shut offs, valves and regulators to be readily accessible.
- Vent terminations to meet CSA B149.1. and Gas Act and its regulations.
- Ensure gas meter gas pipe connection and vent clearances comply with CSA B149.1 and regulations.
- Gas meter and piping is protected from physical and vehicular damage.

SPRINKLER

- Sprinkler locations to reflect the sprinkler design drawings and site conditions.
- Contractor to be on-site to perform flow and alarm test.
- Sprinkler pump to be operating, if required, and bypass with check valve is installed.
- Electrical switch is lockable and locked in the on position.
- Ensure inspector's test pipe, drain and orifice is installed.
- Provide fire protection around plastic water service piping.

LAWN IRRIGATION (IF PROVIDED)

- Fittings for water connection to be CSA approved or certified.
- Backflow preventer to be installed and tested.
- Pressure regulator is required when supply pressure exceeds 550 kPa.
- Adequate drainage has been provided in box.
- Irrigation box to be protected from frost.

Required Documents:

- Schedule C-B, Assurance of Professional Field Review required for the sprinkler.

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Final Electrical Inspection



The Final Electrical Inspection is to be performed after the Framing Inspection and before the Final Building Inspection.

This inspection needs to be consolidated so that the main electrical, low voltage electrical and garage work are inspected on the same day. The homeowner/builder (contractor) is responsible for coordinating the main electrical and low voltage electrical permits. Uncoordinated inspection requests may result in a re-inspection fee.

ELECTRICAL DEVICES

- To be installed and all by-law related electrical work completed (lighting, receptacles, switches, cover plates, etc.).
- Equipment used is CSA approved or equivalent.
- Receptacles tested for correct polarity.
- Ground fault protection installed (GFCI where required).
- Arc fault protection is installed (AFCI where required).
- All light switches (single, 3-way, or 4-way) are functional.
- Garage is ready for inspection.

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Blower Door Test Notification

The Blower Door Test Notification Inspection is to be performed after all sub-trade permits; Electrical, Plumbing, Mechanical and Gas are completed and prior to the Final Building Inspection.

Airtightness testing must be completed per the requirements of Article 10.2.2.21. of the Vancouver Building By-law and documented within the requirements of Article 10.2.2.20.

The Blower Door Test Notification Inspection must be scheduled so that the District Building Inspector could attend while the Certified Energy Advisor is performing the final blower door airtightness test.

PREPARING FOR THE TEST

- Airtightness testing for the majority of new homes is subject to the EnerGuide Rating System Technical Procedures which includes, but is not limited to, the following site preparation conditions.
- Close all exterior doors, windows and fireplace dampers. Taping or covering of these components is not permitted.
- Open all interior doors to ensure even pressure throughout the building.
- Turn off HVAC systems, HRVs, range hoods, bath fans and dryers. Taping, covering or altering the operation of dampers from how they would normally operate is not permitted for any of these systems.
- Ensure plumbing traps are filled with water.

DURING THE TEST

- Airtightness testing provides an opportunity to inspect for leaks using equipment such as a smoke gun or thermal imaging to identify gaps in the building envelope that can be corrected.

EVALUATION OF THE TEST

- The results of the airtightness test determine if the building meets the required performance targets of Table 10.2.2.21.(A) of the VBBL or if remedial work and additional testing is required.

LOW VOLTAGE

- Doorbell operational.
- Security System completed, transformer and power feed as approved ratings.
- Lighting controls installed where required.

SMOKE/CARBON MONOXIDE ALARMS

- Smoke alarms are to be interconnected with all other alarms with no disconnect switch between the overcurrent device and the smoke alarm and must be fully operational.
- Carbon monoxide (CO) alarms to have no disconnect switch between the overcurrent device and the carbon monoxide alarm, where the alarm is powered by the dwelling unit's electrical system. A CO alarm can be battery powered as long as they are fastened in place to the manufacturer's specified height.
- Flow switch installed with disconnect locked in the "on" position.

ELECTRICAL PANEL

- Panel directory to be completed.
- Arc fault circuit breakers installed for bedroom circuits.
- Cover installed and flush with machine screws.
- Overcurrent sizing (circuit breakers) protection provided.
- Boiler/furnace disconnect switch to be labelled on/off.

GAS BONDING

- Gas bonding has been installed and accessible.

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Final Building Inspection



The final Building Inspection is to be performed after all related sub-trade permits (electrical, plumbing, gas, sprinkler and mechanical) have been completed. All work under the building permit must be complete, including interior and exterior construction, prior to scheduling this inspection.

SITE AND GRADING

- Finished grades, hardscapes and retaining walls are completed in accordance with approved permit drawings.
- Surface drainage is managed within the site.
- Egress path and fire department access are completed and unobstructed.
- Arborist field review is complete and all required replacement trees are planted.
- Tree protection barriers are removed.

BUILDING EXTERIOR

- Roofing, flashing, cladding, caulking and exterior finishes are fully installed and complete.
- Required clearances from grade to cladding are maintained.
- Rainwater leaders and gutters are installed and functioning.
- Detached garage and carport, where applicable, are complete.

INTERIOR COMPLETION

- Interior finishes, flooring and fixtures are complete.
- Stairs and ramps comply with the Vancouver Building By-law.
- Handrails and guards are installed, continuous and graspable, where required.
- Review low embodied carbon strategy and product installation if required.

LIFE SAFETY SYSTEMS

- Smoke and carbon monoxide alarms are installed in accordance with applicable requirements.
- Fire safety systems required for the building are complete and operational.

MECHANICAL EQUIPMENT

- Hot water system, including seismic strapping where required, is installed.
- Mechanical systems are installed, operational and balanced.

ADDRESSING

- Address is installed at each dwelling unit entrance area.
- In addition to entry address, unit addresses to be installed on a post, wall, or other location, clearly visible from the street.
- Address size, visibility and placement must comply with Division C, Article 1.4.1.24. of the Vancouver Building By-law, including minimum character size requirements.

Required Documents:

- Final Letters of Assurance (Schedule C-B, C-A, etc.)
- Final *Energy/Certified Energy Advisor (CEA) Report*.
- **Mechanical Ventilation Checklist – Commissioning and Balancing Report**
- *Arborist Compliance Report*, if required.
- Registered Professional design documentation and Letters of Assurance for glass guards, where installed. Refer to City of Vancouver **Bulletin 2015-009-BU**.



**For More Information:
Phone 3-1-1 or 604-873-7000**

