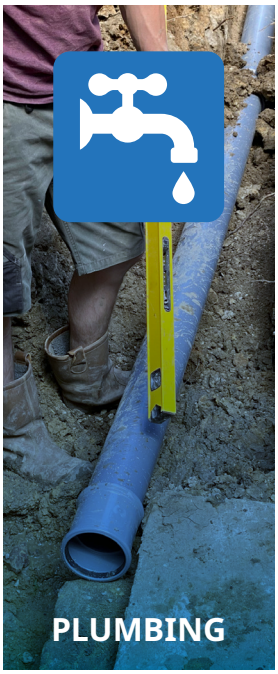
SINGLE DETACHED HOUSE OR DUPLEX INSPECTION STAGES GUIDE

Updated: January 2025

CITY OF VANCOUVER



PERMIT INSPECTIONS

Inspections help ensure that renovation or construction work complies with the appropriate by-laws, and matches the work authorized by the permit. Inspections also help the City advance its goals concerning life safety, accessibility, green buildings, and more. The complexity of modern buildings and technologies often means that several inspections of a building are required, including inspections of the plumbing, mechanical, gas, fire sprinklers, sewer, electrical, structural, health, safety, and environmental systems.

PURPOSE STATEMENT

The following procedure is meant as a guideline to aid builders in the proper preparation for calling in for inspections. The objective is to avoid delays and additional fees by providing upfront information that prepares the builder in advance.

BOOK YOUR BUILDING OR TRADES INSPECTION

If your permitted construction or improvements are ready for a required building or trades inspection, you must arrange to have a City inspector to inspect the work by calling 3-1-1 or 604-873-7000. Inspections must be booked before 2 pm on the business day before the required inspection to be inspected the next business day.

When you phone to arrange for an inspection, be ready to provide:

- Permit number
- Address of the site
- Type of inspection required
- Date of requested inspection

If you need to cancel a scheduled inspection, please call 3-1-1 or 604-873-7000. Inspections should not be cancelled after the 2 pm scheduling deadline. Inspections cancelled after this deadline may be subject to a re-inspection fee.

RE-INSPECTION FEE POLICY

The intent of the Inspections Division is to work together with our customers and support them through the building process. To that end the City has developed this procedure to enable customers to educate themselves and be prepared for required inspections. This policy is meant to remind contractors that they have a responsibility to ensure construction is carried out according to the procedure outlined and to resolve deficiencies noted by the Inspector.

Inspection fees are included in the overall permit fees. An additional reinspection fee will apply if:

1. **The site is not accessible or safe for inspection, including:**
   - Site is inaccessible to the inspector
   - Required safety measures are not in place
   - Plans or site representatives are not available when required
2. **The work requires reinspection due to:**
   - Incomplete work identified in a previous inspection
   - Work has progressed beyond the inspection point requiring uncovering
   - Previous deficiencies have not been fully corrected
3. **The inspection cannot proceed because:**
   - Work is not ready at the scheduled time
   - Inspection is cancelled after the scheduling deadline

A reinspection fee may also apply for other similar circumstances that prevent the inspector from completing their work.

REQUIRED INSPECTIONS FOR SINGLE DETACHED HOUSE OR DUPLEX

The Building, Electrical, and Plumbing and Gas Inspectors will need to inspect your project at several stages during construction. The following stages apply to a new single detached house or duplex and sub-sections of the procedure would also apply to renovations and additions.

It is important to note that at every inspection stage Inspectors shall refuse an inspection if the site is in an unsafe or untidy condition.

On ***page 3***, the list of inspections stages and items must be ready as a minimum for your inspection. If the items are not completed then the inspection is deemed not ready and a re-inspection fee will be assessed.


BUILDING


ELECTRICAL


PLUMBING


MECHANICAL


GAS

REQUIRED INSPECTION STAGES

DETACHED GARAGE INSPECTION STAGES

REQUIRED INSPECTION STAGES

1

Pre-demolition, Tree Barrier and Construction Safety Plan (CSP) Inspection

This inspection is required prior to demolition. When requesting for an inspection please have the address of the construction project available to book the inspection. Prior to requesting for the inspection ensure tree barriers are built as per the engineering specification for tree barriers and a Construction Safety Plan (CSP) is visible on site as per 8.1.3 of the Vancouver Building By-law.

2

Demolition/Deconstruction Inspection

Demolition contractors are required to notify the City (3-1-1) before 2 pm one business day prior to the commencement of demolition. The contractor may begin work prior to the Inspectors arrival but must meet this requirement for advance notice.

The demolition contractor shall:

- Provide documentation showing the hazardous materials have been removed and disposed of according to all applicable rules and regulations;
- Adhere to the demolition plan if required;
- Adhere to the traffic control plan if required;
- Maintain the tree barriers; and,
- Control dust from the site.
- Have the contractor's emergency contact name and number posted on the construction safety plan in accordance with Vancouver Building By-law 8.1.3.

3

Temporary Construction Service Inspection

The 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 3.3m (10 ft.) of the property line.
- Type of electrode used is either plate or rods.
- Ground plate must be buried at a minimum of 0.6m (2 ft.) depth for a ground plate.
- 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 1.5m (5 ft.) to a maximum of 1.8m (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 75cm (30 in.)
- Service conductors are UV resistant.
- Point of attachment location is located at a minimum of 15-30cm (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

The footings and forms inspection is to be performed after completion of form work but prior to pouring of any concrete.

EXCAVATION

- Excavation meets WorkSafeBC guidelines or a valid P.Eng excavation letter has been provided.
- Fencing is installed around excavation site if required in Division B Part 8 of the Vancouver Building By-law.
- Poly is covering excavation bank if required.
- Dewatering filter is on the street catch basin or screening is installed upstream.

FOOTINGS

- Location and configuration of footing forms matches approved plans.
- Minimum frost protection of 45cm (18 in.) is maintained in all areas including any sunken patio well area.

FORMS

- Depth and width of foundation forms matches approved plans.
- Foundation wall height will facilitate approved grades and accommodate concrete stair height.

Required documents:

- Provide Structural Engineer letter where required.
- Provide WorkSafeBC excavation letter where required.
- Provide Geotechnical soil bearing letter where required.

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Drain Tile Inspection

The Drain Tile Inspection includes Drain Tile, Damp Proofing, Rainwater Leaders and Water Service. This inspection 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 15cm (6 in.) of cover above the Drainage pipe.

DRAIN TILE/DAMP PROOFING

- Old utility services to be adequately shut off.
- Separate Drain tile and RWL piping connect independently to sump(s).
- Drain tile piping 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 15cm (6 in.) of crushed stone or other coarse clean. Granular material containing not more than 10% of material that will pass a 4mm (0.158 in.) sieve.
- Proper pipe location and slope relative to finish floor and 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 Professional Engineer.

RAINWATER LEADERS

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

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Sump Inspection

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 que 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

- Back water valve installed complete with 90 degree elbow on sump outlet minimum 20.3cm (8 in.) trap seal—install short piece on elbow inlet.
- Sump grouted and sealed water tight below outlet elevation. Minimum 43cm (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.

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, and 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 6.4mm (0.25 in.) with a minimum slope of 3.2mm (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 3.9cm (1.5 in. minimum).
- Type of pipe and approvals per NFPA 13D.
- Soil conditions and bury at 60.9cm (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.

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

The NEC/Field Plan Review Inspection is to be performed before framing begins. The NEC must confirm that the foundation is in the location shown on the approved plans. The approved building plans need to be onsite for the Inspector to review with the Builder. This is an opportunity for the Builder and Inspector to identify and discuss construction concerns prior to the commencement of major construction.

Required document:

- Provide Non-Encroachment Certificate.

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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 0.3m (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 basement slab can be poured.

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 6.4mm (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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Underslab Damp Proofing and Insulation Inspection

The Underslab Damp proofing Inspection is to be performed after the installation of the sub-base material, vapour barrier, underslab insulation.

POLY UNDERSLAB

- Poly is installed for underslab and sealed around perimeter for moisture barrier.

UNDERSLAB INSULATION

- Minimum R12 or value on plans if greater rigid is installed under the entire slab and between the slab and all exterior foundation walls.

Required document:

- Provide P.Eng. soil compaction or slab reinforcement letter where required.

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In Slab Hydronic Heating Inspection

Required documents for system design and a heat loss summary for any in slab heating piping and prior to pouring of the slab.

IN SLAB HEATING SYSTEM

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

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

The Plumbing, Mechanical, Sprinkler, and Gas Rough-in Inspection is 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 (contactor) 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 piping 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

- Includes installation of insulation/boxing (frost protection).
- Review of drawings and permit information, seal and signed by P.Eng.
- Type of piping, fittings and approvals.
- Type of sprinklers specified and installation criteria to meet the design drawings and NFPA 13D.
- Backflow protection installed.
- Proper clearances and support for piping as per NFPA 13D.
- Piping to be under pressure test as per NFPA 13D for inspection.

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 6.4mm (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 and fittings as per CSA B149.1 and Gas Act and its Regulations.
- Underground piping to be installed with a minimum of 38.1cm (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 and termination of vents and air supply to meet CSA B149.1 and regulations.
- 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 for every fixture.
- 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. Installation to have a minimum of 15.2cm (6 in.) of liner or membrane material above flood level rim. 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 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 (contactor) 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 plate 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 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 3m (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 Stair and Retaining Wall Forms Inspection is to be preformed prior to concrete pour.

CONCRETE STAIRS AND RETAINING WALL FORMS

Requirements for concrete stairs and retaining walls providing a grade change greater than 1.2m (4ft).

- Forms and rebar to be installed.
- Minimum excavation below ground of 5.5m (18 ft.) for frost protection.
- Forms encroaching onto City property to have through Engineering a covenant in place prior to inspection.

Required documents:

- P.Eng. field memo.
- Pin survey for retaining walls on property lines.

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Sheathing Inspection

The Sheathing Inspection is to be performed after the sheathing, flashings, roofing, deck membranes, doors and windows are installed but before papering of the exterior. Mechanical penetrations should be sealed to the extent possible prior to calling for an inspection.

A window "mock-up" should also be provided at this inspection reflective of details provided on the City of Vancouver approved building plans.

Please review the **SHEATHING INSPECTIONS (NEW RAINSCREEN MOCK-UP INSPECTIONS)FOR ONE AND TWO FAMILY BUILDINGS: Bulletin 2009-08-BU** for a detailed explanation of the requirements.

SHEATHING

- Sheathing has appropriate spacing and the joints in the sheathing are staggered.
- Nailing patterns on sheathing conform to approved plans.
- All mechanical and electrical wall penetrations are sealed as per the penetration details on the approved plans.

WINDOWS, DOORS AND SKYLIGHTS

- Window mock-up is completed (exterior trim, flashings, end dams) and matches approved plans.
- Size, location of doors and windows is in accordance to plans.
- Windows, Doors and Skylights conform to 9.7. of the Vancouver Building By-law.
- Window type matches approved plans (material and configuration).

MECHANICAL AND ELECTRICAL SYSTEM

- Deck ventilation over living space completed.
- Location of HRV meets serviceability requirements.

ZONING COMPLIANCE

- Floor to ceiling height and floor system thickness matches approved plans to verify overall height matches approved plans.
- Truss slope must match approved plans to verify overall height matches approved plans.
- Roof material matches drawings.

Required documents:

- Provide P.Eng. letter for seismic (sheathing letter).
- Provide P.Eng. deck membrane letter if required.

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Framing Inspection

The Framing Inspection is to be performed before insulation is installed, after the sheathing membrane (building paper, Tyvek®, Typar®, house wrap etc.) is installed, and after all rough-in work for plumbing, gas, electrical, and mechanical systems is completed.

STRUCTURAL FRAMING

- Seismic provisions and building structure matches the engineers drawings and specifications.

INSULATION PREPARATION

- Vapour barrier continuity provisions have been made at intersections of interior and exterior walls and top plates at the roof level.
- Poly boots are installed around non-airtight electrical outlet boxes and non IC pot lights.
- Duct joints are sealed and ductwork is insulated where necessary including metal joints.
- Insulation is installed for sprinkler piping.

ZONING COMPLIANCE

- Crawlspace areas are in compliance with approved plans.

STAIRS/RAMPS

- Stair rise, run, tread and headroom, etc. are in compliance with the approved plans and the Vancouver Building By-law.

VENTILATION SYSTEM

- Mechanical ventilation system installed matches mechanical ventilation checklist.

SMOKE ALARMS

- Smoke alarms rough-in is completed.

FIRE STOP

- Fire blocks, drops and chases are completed.
- Firestopping of plumbing and electrical penetrations is completed at fire separations (side by side duplex).

FIRE SEPARATION

- Vertical fire separation is continuous from roof sheathing to foundation (duplex).

Required documents:

- Provide P.Eng. letter for framing.
- Provide P.Eng. letter for roof trusses.
- Provide an Engineer's field memo for any poured stairs.
- Provide TECA (mechanical ventilation checklist).

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Rain Screen Inspection

The Rain Screen Inspection is to be performed before the scratch coat is installed and after the sheathing has been accepted. Ideally, the Rain Screen Inspection should happen at the same time as the Framing Inspection.

Please review the **RAINSCREEN DESIGN AND INSPECTION FOR ONE AND TWO FAMILY DWELLINGS: Bulletin 2009-009-BU** for a detailed explanation of the requirements.

RAIN SCREEN

- Exterior sheathing paper is installed.
- Roofing and skylights are installed.
- Strapping or drainage cavity material is installed.
- Stucco stops and flashings installed if applicable and where possible.

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Insulation and Vapour Barrier Inspection

The Insulation Vapour Barrier Inspection is to be performed after the Framing Inspection has been passed and insulation and vapour barrier has been entirely installed. The application of interior wall finishes to walls and ceiling should not be started until this inspection has been completed and Inspector has given approval to begin.

INSULATION/VAPOUR BARRIER

- Insulation and vapour barrier is installed.
- Crawl space/foundation walls below grade are properly insulated.
- Spray foam to be specified on the drawings if being used. Only City approved products and assemblies will be accepted.
- Pot lights are compatible with insulation (IC fixture) and the fixture are airtight unless a poly pan is provided around the fixture.

Required document:

- Energy checklist completed by Certified Energy Advisor approving the required mid construction Air changes.

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

The Final Plumbing, Mechanical, Drain Tile, Sprinkler, and Gas Inspection is to be performed after the Rough-in inspection 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 (contactor) is responsible for coordinating the Plumbing, Mechanical, Draintile, 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.
- 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 for lawn irrigation.
- Adequate drainage has been provided in box.
- Irrigation box to be protected from frost.

Required documents:

- Provide a P.Eng. sealed flow verification test letter for the sprinkler system.
- Schedule C-B, Assurance of Professional Field Review required for the sprinkler.
- Notification of Completion certificate is provided at time of Final Gas Inspection request made only by the permit holder.
- Provide a P.Eng. sealed letter for storm sump pump if required.

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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 (contactor) is responsible for coordinating the Main Electrical, and Low Voltage Electrical permits. Uncoordinated inspection requests may result in a re-inspection fee.

ELECTRICAL DEVICES

- 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.

LOW VOLTAGE

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

SMOKE/CARBON MONOXIDE DETECTORS

- Smoke detectors are to be interconnected with all other detectors with no disconnect switch between the overcurrent device and the smoke detector and must be fully operational.
- Carbon monoxide (CO) detectors 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 detector 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 sub-trade permits (Electrical Permit(s), Plumbing Permit(s), Mechanical Permit and Gas Permit) pertaining to the building permit issued are completed. All Vancouver Building By-law items for the building interior and exterior must be completed.

After acceptance of the Final Building Inspection, permission to occupy the building will be granted.

FINISHED GRADE

- Retaining walls and grades match approved plans.
- Egress pathway/fire department access path is completed.
- Finished flooring is completed.
- Landscaping is completed (only laneway houses).

STAIRS/RAMPS

- Stairs conform to by-law requirements.
- Sufficient head room is provided.
- Exterior stair treads are slip resistant.

HANDRAIL/GUARD

- Guards are completed and are non-climbable.
- Handrails are completed and are continuous and graspable.

FIRE ALARM

- Smoke alarm and carbon monoxide alarms are installed.

DRAINAGE

- Rainwater leads and gutters are installed.
- Groundwater is contained within site.

MISCELLANEOUS FINISHING

- All flashing are installed where required.
- All caulking are installed where required.
- Hot-water tank seismic strapping is installed.
- Detached garage is completed.

TREE PLACEMENT

- Appropriate size and location of trees installed if required.

CLADDING

- All cladding is installed.
- All flashing is installed where required.
- Appropriate clearance is provided from grade to siding.

ADDRESS

- Address has been placed on house.

Required documents:

- Provide final letters of assurance.
- Provide HOT2000 Energy Report.
- Provide Final CEA Report.

DETACHED GARAGE INSPECTION STAGES

1

Footings and Forms

The footings and forms inspection is to be performed after completion of form work but prior to pouring of any concrete.

EXCAVATION

- Excavation meets WorkSafeBC guidelines or a P.Eng excavation letter has been provided.
- Fencing is installed around excavation site if required in Division B Part 8 of the Vancouver Building By-law.
- Poly is covering excavation bank if required.
- Dewatering filter is on the street catch basin or screening is installed upstream.

FOOTINGS

- Location and configuration of footing forms matches approved plans.

FORMS

- Depth and width of foundation forms matches approved plans.
- Foundation wall height will facilitate approved grades and accommodate concrete stair height.

Required documents:

- Provide Structural Engineer letter where required.
- Provide WorkSafeBC excavation letter where required.
- Provide Geotechnical soil bearing letter where required.

2

Drain Tile/Rainwater Leader Inspection

The Drain Tile/Rainwater Leader Inspection are to be performed after the footings and forms inspection but before the backfill. Drain tile may not be required if the slab of the garage is higher than the exterior grade all around the building. Rainwater leaders are required in all instances.

- Provide acceptable pipe.
- Proper grade required.
- Proper support of pipe.

3

Rockpit Inspection

The Rockpit Inspection is to be performed after the Drain Tile/Rainwater Leader Inspection but prior to the Final Inspection. Rockpits are an alternate roof drainage system for detached

accessory buildings added to developed Single Detached House (SDH) properties (i.e. new garage, existing house) in lieu of normal requirements for a direct connection to the storm sewer.

vancouver.ca/files/cov/garage-guide-and-submission-checklist.pdf

4

Framing Inspection

The Framing Inspection is to be performed before any insulation is installed, after the sheathing membrane (building paper, Tyvek®, Typar®, house wrap, etc.) is installed, and after all rough-in work for plumbing, gas, electrical, and mechanical systems is completed.

STRUCTURAL FRAMING

Building Structure matches approved plans and is in compliance with the Vancouver Building By-law.

ZONING COMPLIANCE

- Floor to ceiling height, garage slab elevation and finished grading matches approved plans.
- Truss slope must match approved plans to verify overall height matches approved plans.

Required documents:

- Provide P.Eng. letter for framing if applicable.
- Provide P.Eng. letter for roof trusses if applicable.

5

Final Inspection

The Final Building Inspection is to be performed after all sub-trade permits pertaining to the building permit issued are completed. All Vancouver Building By-law items for the building interior and exterior must be completed.

DRAINAGE

- Downspouts and gutters are installed.
- Groundwater is contained within site.

CLADDING

- All cladding is installed.
- All caulking are installed where required.
- All flashing is installed where required.
- Appropriate clearance is provided from grade to siding.
- Automatic garage door safety features operating correctly.
- Garage crossing (apron) is installed at lane.

MISCELLANEOUS

- Roof venting installed.
- Attic access hatch installed if garage has a ceiling flush.

FOR MORE INFORMATION:
PHONE 3-1-1 or 604-873-7000

CITY OF VANCOUVER