

# TOWN OF FORT NELSON NORTHERN ROCKIES REGIONAL DISTRICT

## RESIDENTIAL GUIDE TO PROCEDURES FOR A BUILDING PERMIT FOR AN ADDITION TO A HOUSE OR A MANUFACTURED HOME

### **Owner Responsibility**

Obtain a permit before commencing any work relating to construction, structural alteration, repair, or demolition of an addition.

### **Processing Procedures**

1. The application form shall include the legal description of the property, the civic address and proof of ownership of the property. If the building permit applicant is not the registered owner of the property, an owners authorization form, signed by the owner, authorizing an agent to apply for and sign the building permit.
2. The applicant completes the application form for a building permit and returns this with **two sets** of working drawings **conforming to the 1998 BC Building Code to scale ( $\frac{1}{4}''=1'-0''$ ) showing:**

  - a) Any existing structures on the lot, all topography grades and elevations, lot dimensions and location of all other structures, landscaping, parking and loading. The structures are to be dimensioned from each other and the property lines.
  - b) A complete drawing of the building including floor plan, foundation plan, elevations, cross section, stair details, truss drawings, heating, mechanical, plumbing and electrical. All the drawings to detail materials used in construction.
  - c) All beams and floor joist systems requiring engineering shall be submitted prior to the frame inspection. All roof trusses are to be professional engineered and the professional engineered stamped shop drawings for the roof truss system are required prior to the building permit being issued. The 1998 BC Building Code does not allow the use of site fabricated truss systems.

3. When a complete set of drawings and application are received they will be reviewed within (10) working days for approval.
4. Incomplete applications will result in a delay in the processing of the building permit. If revisions are required, the application and plans will be returned. When revisions are complete, the plan can be re-submitted for a building permit. This process will continue until the application and plans are approved for a building permit.
5. When all the requirements for the permit have been satisfied for the issuance of the building permit and the building permit fee is submitted, the permit may be issued by the Building Inspector.

6. When construction is on a Town Rural Residential R-4 zoned lot and is not serviced by the Town sewage system, or, on a Northern Rockies Regional District lot, and where additional plumbing is planned, an authorization to increase the load to the sewage lagoon is required from the Environmental Health Officer, 774 7092.
7. In the Northern Rockies Regional District, the Ministry of Transportation and Highways requires an access permit be applied for the culvert location at the highway entrance to a property. The building permit applicant is to supply a copy of this access permit.
8. The Town and Northern Rockies Regional District do not require a survey of the location of the addition. If the addition is located on or within six inches (6") of the property line, a survey will be required.
9. Plumbing isometric drawings may be required showing the location and size of every building drain and of every trap and cleanout fittings, size & location of every soil-or-waste pipe trap and vent pipe, and a layout of the potable water system, including pipe sizes, valves & number of hose bibbs.
10. The work described in the permit is to be started within six (6) months of the issuance of the permit, not to be discontinued or suspended for a period of more than six (6) months. The permit shall lapse in the event that either condition above is not met, or in any event twenty-four (24) months from the date of issue.

**Documentation for the above may be obtained at:**

**Sewage Disposal Permit for septic systems:**

Peace Liard Community Health Office (250) 774-7092  
5217 Airport Drive

**Access Permit**

Ministry of Transportation and Highways (250) 774-4260

**Electrical Permit**

(250) 787-3230

**Gas Installation Permit**

(250) 784-2382

## **Processing Procedures**

Building Owners and Contractors will be responsible for the following:

1. Keeping the roadways and boulevards clean of all building debris, mud, and gravel. Debris found on the road is to be cleaned up or removed immediately at the owner's expense.
2. The provision of a Surveyor's Certificate when requested by the Building Inspector, to the Town showing the location on the lot at the time that forms are in place, or when wood basements are in place.
3. Obtaining an occupancy permit from the Town Building Inspector prior to using or occupying of any building.

## **Residential Principal Building Setbacks**

	Rural Land Use Bylaw RR	Town Zoning Bylaw R-1	Town Zoning Bylaw R-1A & R-5	Town Zoning Bylaw R-2	Town Zoning Bylaw R-3	Town Zoning Bylaw R-4
Front Yard	7.6m(25ft)	7.6m(25ft)	4.6m(15ft)	7.6m(25ft)	7.0m(23ft)	7.6m(25ft)
Front Yard on Flanking Street	7.6m(25ft)	3.0m(10ft)	3.0m(10ft)	7.6m(25ft)	3.0m(10ft)	7.6m(25ft)
Side Yard	4.5m(15ft)	1.5m(5ft)	1.5m(5ft)	7.6m(25ft)	1.5m(5ft)	3.0m(10ft)
Rear Yard	7.6m(25ft)	7.0m(23ft)	7.0m(23ft)	7.6m(25ft)	5.0m(16.5ft)	7.6m(25ft)

# General Information Regarding the Construction of an Addition

## General Conditions

All construction and plumbing to meet the current B.C. Building Code.

A survey shall be submitted where the addition is located on or within six inches (6") of the property line, detailing the location of the foundation, prior to requesting a final inspection.

Any deviation from the plans submitted for building permit shall be approved by the building inspector immediately.

## Wood foundations

Adhere to the requirements of CAN/CSA-S406-92 for the construction of preserved wood foundations.

Preserved wood foundation nails shall be stainless steel conforming to CSA standard B111 and staples shall be stainless steel Type 304 or 316 where the moisture content of the soil dictates.

Perimeter drain for preserved wood foundations shall be perforated PVC drain pipe with minimum 6" drain rock cover and minimum 24"x96"x2" rigid exterior insulation placed 45 degrees diagonally over the drain rock.

Backfill for PWF foundations to be clean pit run up to within one foot of final grade.

Completely saturate, twice, any holes drilled in the PWF wall plates for anchor bolts with copper naphthanate. Bottom wall plates are not to be drilled unless absolutely necessary.

## Foundations

Remove all organic material from beneath building. Footings are to rest on undisturbed soil.

Provide perimeter drain, min 100mm (4 in), suggest perforated PVC, with min. 6" gravel cover, cover gravel with min 2" Type 3 SM insulation installed at a 45 deg angle across drain tile.

Do not take roof water to perimeter drains.

Direct roof water away from the building foundation.

Do not connect perimeter drain or any other surface water drainage to the building sanitary drain. The perimeter drain is to be graded to daylight or collected in a sump pit. The sump pit shall include a sump pump with a check valve. Discharge this water onto the grass a minimum of five feet from the foundation, or discharge to a ditch.

Perimeter drain shall not be discharged into a sewage lagoon.

Maximum of 3'-11" height to finished grade elevation above the basement floor for an 8" thick laterally unsupported foundation wall, 20 Mpa concrete. An engineers certification is required for backfill heights exceeding these maximum heights.

Maximum of 7'-6" height to finished grade elevation above the basement floor for an 8" thick laterally unsupported foundation wall, 20 Mpa concrete. An engineers certification is required for backfill heights exceeding these maximum heights.

Maintain minimum clearance of siding, to grade, 8"; to concrete walk, 2".

Owner shall ensure the ground water has been graded away from the building at a minimum slope of 2% to an approved drainage concourse or road before occupancy is given.

Provide anchor bolts, min ½" dia. @ max 7'-10" o/c, or as specified to fasten bottom plate to the foundation wall.

All wood that is in contact with concrete or soil is to be pressure treated or protected.

Crawl space to conform to section 9.18 BC Building Code. This includes access to the crawl space, ventilation, clearance, drainage and ground cover.

Provide an air space for masonry corbels (1") and concrete beam pockets (½").

Concrete to be maintained at a temperature of at least 10°C for a minimum of 72 hours.

All concrete in contact with the soil to be Type 50. Provide all concrete supplier delivery slips.

Concrete piles to be a minimum of 12 inch diameter, 17 feet deep with 4 - 15m vertical bars. Maximum pile spacing is 8' 0". Refer to Town Foundation Standards for different variations of pile depth and spacing.

Buried concrete pad with pile foundation to comply to Town/NRRD Detail S2000-600 series. In addition to this detail, install minimum 2" Type 3 SM insulation over the concrete pad.

Concrete grade beams are to be constructed as per attached Town/NRRD Detail S2000-100 series for concrete piles.

For screwed steel pile support of the addition, refer to Town/NRRD Detail S2000-700 series. Cap the top of the steel pile with minimum of ¾" thick plate or weld a bracket to the pile. The width of the bracket is to span the entire width of the supporting beam.

A Professional Engineers stamped shop drawing and Schedules B<sub>1</sub> and B<sub>2</sub> are required where a building foundation is supported by steel screwed piles.

Provide torque data sheet for structural steel piles after installation and prior to final or frame inspection.

Secure the supporting beam to the piles.

All insulation formed concrete wall systems are to conform to their manufacturer's installation specifications. Do not use plasticizer in the concrete. Concrete slump to be between 4" to 6". Maximum pour height is a 36 inch lift at a time.

Install peel and stick water proof material over exterior of insulation formed foundation walls.

A shallow foundation shall be constructed as per attached Town/NRRD Detail S2000-206.

Concrete slab poly to be minimum 6mil ground cover with a minimum lap of 12". Seal all penetrations by pipes, etc. Provide a bond break between the concrete slab and the foundation wall.

### Framing

A set of Legible copies of professional engineer stamped truss documents are required at the frame inspection. Minimum 14" high heel trusses. There may be some instances where the truss documents are required prior to the building permit being issued.

The truss installation shall conform to the truss company layout. Any deviation from this layout will require a professional engineer approval of the installation.

Provide a professional engineer stamped repair detail drawing for any damaged engineered truss, beam or engineered floor joist.

Provide a 110 volt smoke alarm to code located outside of the new bedroom, interconnected with all the other smoke alarms.

Flash all unprotected exterior openings from weather.

Two ply lintels may have up to a maximum ½" plywood spacer.

Provide bearing to ground (concrete foundation wall or concrete pad footing) for any required structural support loads.

All beams to be minimum 2"x8" 3-ply dimensional lumber, including decks. See attached sheet for description and design.

All rough sawn lumber shall be accompanied with a lumber graders report stating species of lumber and grade of lumber.

All columns to be minimum 5 ½" x5 ½" square or 7"diameter round post on an approved post holder, or, an approved steel tele-post. The tele-post base shall be buried in the concrete slab.

Provide a continuous 2"x12" two ply lintel above the garage door opening. There shall be no joints in this lintel.

Provide professional engineer design calculations for any structural steel beam.

Provide a means of egress from all exterior doors complete with stairs, handrails and guards to Section 9.8 of the B.C. Building Code.

Provide an attic access, minimum 20"x28"x17" high, complete with weatherstripping & insulation.

Install insulation & vapour barrier to Section 9.25 of the B.C. Building Code, attic space: R-44, walls: R-22 & suspended floor: R-28.

Provide roof space ventilation. Minimum 1/300, 25% @ top & 25% @ bottom.

Insulated roofs constructed with roof joists shall have a minimum of R-28 insulation with 3" of air space over the insulation for ventilation. To achieve this criteria, the roof joists are to be a minimum of 2"x10" and cross purlins of minimum of 2"x2" installed across the roof joists. The roof sheathing would be attached to the cross purlins.

The minimum ceiling height in a room is 2.3m (7'-6½")

Provide "H" clips @ 2'-0" o.c. and ridge blocking between truss peaks for support of roof sheathing where the roof sheathing is less than ½" thick.

Provide ledger board and/or approved joist hangers and joist hanger nails. Nails are to be galvanized if installed outside of the building.

Install wall and roof sheathing staggered horizontally with ⅛" gap between the sheets.

Install wall top plate joint over a stud. The cap plate joint is to be located a minimum of 36 inches away from the top plate joint.

For each window opening, provide a cripple stud under the bottom of the window sill plate, jack stud under the lintel and a king stud to the top plate.

For each door opening, provide a jack stud under the lintel and a king stud to the top plate.

Provide access, skirting, ground cover and ventilation to space under addition.

Rafters are to comply to Section 9.23.13, BCBC, Roof Framing.

Where a beam supports a concentrated point load, the beam shall be engineered to accommodate that point load.

A certified layout for all engineered floor systems and beams are required.

Bedroom windows shall provide unobstructed openings with areas not less than 0.35 m<sup>2</sup> (3.77 sf) and with no dimension less than 380 mm (15 in.) The bottom of the window ledge is suggested to be a maximum five feet from floor.

### Plumbing and Mechanical

A bathroom exhaust fan is required in all bathrooms and shall be vented to the outside. Ensure the discharge duct is insulated.

An exhaust fan is required in all kitchens, vented to the exterior. The duct is to be non-combustible. Ensure the discharge duct is insulated.

Provide dehumidistat connected to main bathroom fan.

Vent the clothes dryer to the exterior.

A water hammer arrestor and a vacuum relief is required on the cold water inlet to the hot water tank and a water hammer arrestor is required on the hot water inlet to the hot water tank.

Provide a metal pan with a drain for the hot water tank. Connect the pan drain to the basement drain complete with a trap primer. See attached detail.

Protect all water pipes from freezing.

All water pipes (domestic and heating) penetrating a concrete slab are to be sleeved.

Provide a normally open 4" backwater valve complete with a cleanout on the building drain where the building drain exits the building.

All shower valves shall be pressure-balanced or thermostatic mixing valves.

A check valve shall be installed at the building end of a water service pipe where the pipe is made of plastic that is suitable for cold water use only, ie black polyethylene series 160 and schedule 40 PVC pipe.

Provide backflow prevention to prevent backflow caused by back pressure of toxic substances into a potable water system shall be prevented by the installation of a reduced pressure principle backflow preventer.

Ensure frost protection of plumbing site services to a depth of 10 feet minimum for vehicle traffic areas. Use S.M. Insulation for additional protection. One inch of exterior SM insulation equals approximately one foot of frost protection.

Where pot lights are installed penetrating the vapour barrier, a poly pan is required over top of this pot light. Some pot lights are designed not to require a poly pan. The electrician shall complete and provide the pot light declaration for these pot lights at the frame inspection.

### Additional Requirements for a Manufactured Home

Remove all organic material from beneath building. Prepare area beneath the unit in accordance to CSA Z240.10.1-94 site preparation, foundation and anchorage of mobile homes.

Site preparation, foundation and anchorage of mobile homes to comply CSA Z240.10.1-94. See attached sheets regarding site preparation, skirting, clearance, ventilation and anchorage

An addition to a manufactured home cannot be supported by the floor framing of the manufactured home. The addition shall be supported from either the existing support pilings or permanent foundation, or from an additional set of pilings adjacent to the manufactured home.

Manufactured home floating slab shall comply to the attached Town/NRRD Detail S2000-500 series for slab construction and tie down criteria.

Insulated roofs constructed with roof joists shall have a minimum of R-28 insulation with 3" of air space over the insulation for ventilation. To achieve this criteria, the roof joists are to be a minimum of 2"x10" and cross purlins of minimum of 2"x2" installed across the roof joists. The roof sheathing would be attached to the cross purlins.

The minimum ceiling height in a room is 2.3m (7'-6½").