

# SAMPLE **UNIT OWNER** CHECKLIST FOR HEAT PUMP INSTALLATION PROJECTS

**Disclaimer:**

**This checklist is intended to provide suggested guidance to unit owners and Strata Councils. Actual requirements may differ, and owners, contractors, Strata Councils, and Property Managers must verify these requirements with all stakeholders and Authorities Having Jurisdiction.**

**Sample Checklist Purpose:**

The purpose of this sample checklist is to provide guidance to unit owners on how to start and manage a heat pump installation project in partnership with a mechanical contractor. The project phases are outlined so owners know what to expect and what responsibilities they have as interface to the Strata Council. Strata Councils may want to develop checklists for their unique building to provide guidance to individual unit owners.

**Project Phase Breakdown and Objective:**

A summary of each of the 4 major phases and their objectives is provided below.

<b>Phase</b>	<b>Objective</b>
Site Review Phase	<p>The objective of this phase is for the owner to engage a mechanical contractor to review the physical unit and determine the feasibility of installation.</p> <p>Based the site review, the mechanical contractor will prepare a quotation for the unit owner to consider. This will provide the owner with price information and scope of the project.</p>
Document Preparation for Strata Council Approval Phase	<p>The objective of this phase is for the mechanical contractor to prepare documents for the owner regarding the details of the heat pump installation. The owner may then take these documents and submit to their Strata Council for formal approval of the project.</p>
Permit and Construction Phase	<p>The objective of this phase is for the mechanical contractor to submit the required documents to demonstrate technical compliance and approval by the UBC Permitting Department. Once approvals are received, construction and installation can commence.</p>

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Project Close Out Phase	<p>The objective of this phase is for the owner to ensure that the agreed upon installation is complete to their satisfaction. This is the owner's opportunity to identify deficiencies to the mechanical contractor.</p> <p>Once the owner is satisfied, the mechanical contractor is to provide all manuals and Warranty Certificates.</p>
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**Cost Responsibilities:**

The unit owners are responsible for all costs associated to the services and equipment provided by the contractors to install the heat pump(s). Typically mechanical contractors will carry the cost of permits and peripheral administrative costs and a review of the scope of work should be reviewed when a quotation is prepared.

**SAMPLE CHECKLIST:**

<p><b>Site Review Phase</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>(1)</b> owner to engage mechanical contractor to review site conditions to determine the following items:             <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>(1a)</b> Location of outdoor condensing unit needs to be determined.</li> <li><input type="checkbox"/> <b>(1b)</b> Location of indoor evaporator unit locations.</li> <li><input type="checkbox"/> <b>(1c)</b> Approach to general refrigerant piping routing and concealment methods.</li> <li><input type="checkbox"/> <b>(1d)</b> Piping envelope penetration locations.</li> <li><input type="checkbox"/> <b>(1e)</b> Review of electrical panel to determine power availability and breaker space.</li> </ul> </li>   <li><input type="checkbox"/> <b>(2)</b> mechanical contractor to provide formal quote to owner. Quote to include detailed scope of work, list of all sub-contractors engaged for the project, and warranty information.</li> </ul>
<p><b>Document Preparation for Strata Council Approval Phase</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>(3)</b> mechanical contractor to prepare <b>Strata Council Approval Document Package</b> which shall include:             <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>(3a)</b> Sketch (CAD Drafted) floor plan with outdoor condensing unit(s) and indoor evaporator unit(s) location clearly identified.</li> <li><input type="checkbox"/> <b>(3b)</b> Heat pump cutsheets which include the following information:                 <ul style="list-style-type: none"> <li>• Overall unit dimensions for outdoor condensing unit(s) and indoor evaporator units(s).</li> <li>• Power information – voltage(V), phase(<math>\Phi</math>), frequency(Hz), and Maximum Overcurrent Protection (Amps)</li> <li>• Outdoor condensing unit radiated noise information – must not exceed 45 decibels to comply with noise by-law.</li> </ul> </li> <li><input type="checkbox"/> <b>(3c)</b> Produce copy of Refrigeration contractor License Certificate and Certificate of Liability Insurance.</li> </ul> </li>   <li><input type="checkbox"/> <b>(4)</b> owner to submit <b>Strata Council Approval Document Package</b> to Strata Council and Property Manager.             <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>(4a)</b> owner to obtain <b>Strata Council Approval Letter</b> to proceed with project. Provide mechanical contractor with letter.</li> <li><input type="checkbox"/> <b>(4b)</b> owner to obtain <b>Typical Penetration Detail(s)</b> from Strata Council and Property Manager to follow for project. Provide mechanical contractor with Penetration Detail(s).</li> </ul> </li> </ul>

<b>Permit and Construction Phase</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>(5)</b> mechanical contractor to submit required permit applications to UBC appending documents prepared in steps <b>(3a)</b>, <b>(3b)</b>, <b>(3c)</b>, <b>(4a)</b>, and <b>(4b)</b>. Refer to UBC for all permitting requirements (This will include a Development Permit and Building Permit).</li> <li><input type="checkbox"/> <b>(6)</b> owner to provide mechanical contractor with Strata By-Laws to ensure they are aware of all rules associated to construction.</li> <li><input type="checkbox"/> <b>(6)</b> mechanical contractor to commence construction upon receiving approval from UBC and coordinate building access with the owner and Property Manager.</li> <li><input type="checkbox"/> <b>(7)</b> mechanical contractor to coordinate all Site Inspections with the Authority Having Jurisdiction.</li> </ul>
<b>Project Close Out</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>(8)</b> Upon completion of project, the mechanical contractor shall provide the owner the following services and for project close out: <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>(8a)</b> A walk through with the owner to demonstrate unit operation.</li> <li><input type="checkbox"/> <b>(8b)</b> Turn-over all permitting and inspection reports issued by the Authority Having Jurisdiction.</li> <li><input type="checkbox"/> <b>(8c)</b> Manufacturer supplied Installation and Operating Manuals for the equipment.</li> <li><input type="checkbox"/> <b>(8d)</b> Warranty certificate clearly indicating the date that the warranty period starts and ends.</li> </ul> </li> </ul>