

SCOPE OF WORK (SCHEDULE – A)
HVAC

Supply all labour, material, equipment, permits, and pay taxes and fees necessary to complete this scope of work, as per Project plans, specifications, in the accordance with the requirements of the National & Ontario Building Codes, Tarion and all other authorities having jurisdiction. Work to be completed as and when required by the Site Manager and include, but not limited to the following:

It is the sole responsibility of the Subcontractor to check with the Contractor’s Site Manager prior to starting any house to verify the Contractor’s exterior colour designations and check instructions regarding structural changes, upgrades and colours. The Subcontractor accepts responsibility for any errors by not doing so.

NOTE: THIS SCOPE OF WORK SHALL NOT BE MARKED UP, MODIFIED, AND/OR CHANGED IN ANY WAY. CROSSING ITEMS OUT OR ADDING ITEMS IN SHALL AUTOMATICALLY DISQUALIFY YOUR PROPOSAL FROM CONSIDERATION.

SECTION A: MOBILIZATION

- 1) All costs associated with mobilization, transportation, machinery floats, etc..., are included in the contract price.
- 2) If long term storage is required onsite the sub-contractor shall work with the site supervisor to ensure materials / items being stored are done in such a manner that does not interfere with the Contractor's activities on site.
- 3) All rented items required to complete the work outlined herein is included in the contract price.
- 4) All ladders, planks, walkways, scaffolding, lifting equipment, as well as all tools, hardware, tackle and materials required to complete the scope of work contained herein is included in the contract price.
- 5) This Sub-Contractor must visit the site prior to commencing work. Any site conditions that could potentially effect, or hinder the progress or quality of this Sub-Contractor's work as per the Drawings, Directions, Site Instructions, or Governing Building Codes and Construction Standards must be reported to the Contractor in writing. If work commences and no such issues are raised by the Sub-Contractor, then it will be mutually agreed that the Subcontractor has accepted the site conditions “As-Is”.
- 6) All work to be completed as per Contractor’s schedules, and as instructed by the Contractor.

SECTION B - MATERIAL / EQUIPMENT & HANDLING

- 1) The Sub-Contractor will provide, care for, and manage all materials and equipment required to perform their scope of work in its entirety. This includes: Ensuring that equipment is in good working order, materials necessary to complete their work as per the Contractor’s schedule is delivered and available on time, safe guarding against theft, vandalism and damages, and that operators/drivers of equipment requiring specific licenses are properly trained and licensed to do so.
- 2) The Sub-Contractor shall be responsible for all material handling including but not limited to: Loading, Unloading, Delivery Coordination, Quality Control Measures, Hoisting, etc...
- 3) All materials are to be used as they are delivered. On-site storage and Stockpiling are not permitted. As such any Issues which may arise as a result of site logistics, weather, theft, or any damage to stored or stockpiled materials shall be the sole responsibility of the Sub-Contractor.
- 4) The Sub-Contractor shall ensure that all material deliveries are carried out without obstructing the flow of traffic through the job site. Roads must remain accessible, and clean to all parties working/visiting the job site at all times. In the event that this is not possible, and the Sub-Contractor is required to obstruct the road to receive any of their deliveries, the Site Superintendent must be notified prior to the delivery taking place. Failure to notify the Site Superintendent of any potential road obstructions could result in the denial of service where the Sub-Contractor may be instructed to cease delivery operations immediately.
- 5) All materials and equipment brought to the job site by this Sub-Contractor shall be insured by the Sub-Contractor.
- 6) All equipment brought to the job site by this Sub-Contractor must have all required documentation with it and available upon request. Including: Ownership, Insurance, maintenance logs, operator information and license, etc...
- 7) All waste, garbage, and debris generated buy this Sub-Contractor's work / activities shall be disposed off by the Subcontractor in the areas designated by the Site Supervisor. This shall be the sole responsibility of the Subcontractor. Any clean up, or debris removal work that must be completed by the Contractor on behalf of the Subcontractor shall be backcharged accordingly.

- 8) It is the Subcontractor's responsibility to ensure that all products supplied be installed precisely per the manufacturer's specifications and requirements and suggestions. Any variance from these requirements should be discussed with the Builder before any installation. Any costs which arise due to Subcontractor's negligence of the above aforementioned shall be solely his responsibility. **THE SUBCONTRACTOR MUST ENSURE TOTAL KNOWLEDGE OF THE PRODUCTS BEING USED**

SECTION C - WINTER PROTECTION (SEASONAL ITEMS)

- 1) All winter heat shall be supplied by this Sub-Contractor (if required). Should the Contractor at his own expense agree to Supply winter heat (propane/heaters) to the Sub-Contractor, the Sub-Contractor is required to maintain a log book of all propane bottles used by the Sub-Contractor for submission to the Contractor upon request.
- 2) Tarping, covers, etc.. shall be the responsibility of the Sub-Contractor and included in the contract price, where and when required unless otherwise agreed in writing by the Contractor. Should the Contractor agree to provide tarping, covers, etc to the Sub-Contractor the Sub-Contractor must coordinate all installs and dismantling/removal.
- 3) Weather conditions do not constitute a reason for delays in work. It is expected that in the event of "lost days" due to weather conditions, that the Sub-Contractor will make a valid and verifiable effort to ensure that the Contractor's schedules are not compromised by way of Weekend Work (when permitted), Overtime, and/or introducing additional labour/crews to "catch up" and make up for any lost days.

SECTION D - GENERAL CONDITIONS AND WARRANTY

- 1) **ABSOLUTELY** no additional work is to be performed for potential, homebuyers without express written approval from Contractor's main office. The Subcontractor clearly understands and agrees that none of the Subcontractor's forces, directly employed or contracted, including suppliers, shall deal with the Project's Purchaser's regarding any business activity. Any requests of additional work or modifications made by a purchaser directly to the subcontractor shall be reported immediately to the contractor's head office and dealt with through the Contractor. The Subcontractor further understands and agrees that should the Subcontractor's forces engage directly with a purchaser, the Subcontractor will be terminated and be responsible and reimburse the Contractor for all monies lost by the Contractor as a result of such direct activity, as calculated by the Contractor.
- 2) Work is to proceed in accordance with work schedules as provided by the Contractor.
- 3) It is agreed by both parties of this contract that the terms and conditions of the Tarion New Home Warranty Program shall be included and form part of this contract. As such, this Subcontractor agrees to make themselves familiar with the quality standards required of him under this program especially the Tarion Performance Guidelines.
- 4) All work must conform and be carried out in accordance with the Ontario Building Code, Local By-Laws, Tarion, CMHC, and as per all Plans, Drawings, Diagrams, Instructions, and Specifications provided.
- 5) All work is to be carried out in accordance with the Contractor's schedules. No exceptions.
- 6) All workmanship and Materials shall be warranted for a period no less than 2 (Two) years from the date that the home is occupied by the Contractor's client NOT date that the work was completed. The Tarion Warranty Corporation shall govern. Any items/deficiencies deemed Warrantable either the Contractor and/or the Tarion Warranty Corporation shall be the responsibility of this Sub-Contractor to correct.
- 7) All shop drawings associated with this Sub-Contractor's work must be submitted to head office prior to commencing work.
- 8) The Contractor reserves the right to inspect all vehicles (at his own discretion) entering or leaving the job site.
- 9) All Sub-Contractors must sign in and out at the Contractor's construction office prior to commencing any work or before vacating the job site.
- 10) Site parking will be controlled by the Site Superintendent. Parking of personal shall only be permitted in designated areas. Any damages caused to personal[y] owned vehicles or equipment shall not be the sole responsibility of the Sub-Contractor.
- 11) It is understood that all Completion Slip numbers will be issued by the site construction office once a week and picked up at the site office on the Contractor's designated day only. Subcontractor must submit to the site office a written request for completion slips one week prior to the Contractors issuance. Written request is to indicate the lots or items completed and declare that the work is 100% complete according to the contract. The request must

be signed by the Subcontractor's foreman. Completion slips will not be faxed to the Subcontractor. (For "Supply Only" contracts, site administrator will issue completion slip numbers to the supplier's office upon verification of the goods delivered.)

SECTION E - MATERIALS, INSTALLATION AND PERFORMANCE STANDARDS

- 1) Supply and install all required lengths and sizes of gas piping, shut off valves, venting and exhaust piping for connections of specified furnaces and hot water tanks. Venting systems for all combustion appliances to be minimum 46C standard, 636 PVC pipe. Gas supply, venting and exhaust work to include sleeving or drilling holes through exterior walls and caulking. Main gas line to be minimum 1" and large enough to accommodate Fireplace, BBQ Line Furnace and Hot water tank. Increase size to 1 1/4" if required due to additional upgrades. Venting to be minimum 18" from proposed finished grade as provided by Site Manager.
- 2) Supply all gas fired equipment, installation, materials, permits, etc... To complete all work as per this scope of work, the Ontario Building Code, and as per the specifications and requirements of SB12 Compliance package J.
- 3) All "tees" and shut off valves to be located in furnace area, visible, unobstructed and readily accessible for future hook-up and access. Tees to be in Gas manifold configuration. Exact locations in furnace area for tees or shut off valves in each model type must be determined in advance and approved by the Site Manager.
- 4) Install power exhausted hot water heaters (supplied by others). Hot water tank work to include supply and installation of all venting kits and snorkel kits (if necessary). Ensure hot water tank sits level.
- 5) Supply and install complete Lennox EL296E(96%) high-efficiency gas furnace with ECM monitor with controls and including all low voltage wiring, as per architectural plans, new C.G. A. standards and all local heating code requirements. Prior to installation of furnace, the Subcontractor must agree with the Site Manager as to the exact furnace location per each house type. All Furnaces and Air conditioning units used on site to only be "Lennox" Brand Name Product. Furnace size as per heat gain calculations.
- 6) All coring or hole drilling shall be performed with mechanical drill only. Hole sizes shall not be excessive in size. Core to be caulked with exterior caulking, interior and exterior sides of wall. Subcontractor will be back charged for any repair due to excessive or rough openings.
- 7) Supply and install all required flue connections, wall caps, dryer vent caps, duct insulation, flex connectors, canvas fittings on supply air plenum, etc. Colour of exterior caps for each model type to be "BROWN" or as per Site Managers instructions.
- 8) Supply and install exhaust pipe to vent all bathrooms and laundry rooms to exterior. Install exhaust fan housing box (supplied by others) and connect the exhaust pipes. Seal all connections. Venting for exhaust fans to have horizontal ducts installed with a small positive slope to exterior. Ensure all vents in attic space are insulated and properly secured. Sizing of bathroom exhaust fans to match fan CFM output. Supply and install ventilation piping and wall caps for dryer.
- 9) Supply and install dryer box DBX1000 or equal in laundry room, location on main or 2nd floor as noted on the blue print.
- 10) Tape all main supply and return ducts as per OBC requirements (Version 12.1)
- 11) Supply and install all ductwork as per the heating/cooling layouts approved by the municipality and other authorities. Ductwork to be properly secured and reinforced high within floor joist and partition wall cavities. Openings through subfloors and studs to be made with a saw only and opening to be proper size. Heat and wall registers to be framed square and at right angles. Sheet metal junctions shall be properly screwed and sealed. Ductwork at registers to be tight to subfloor. Standard ceilings heights as per plans.
- 12) Ensure that duct sizes are sufficient to accommodate a future air conditioning system. Rough in work for future air conditioning units standard.
- 13) Supply and install wall and floor registers for each house type as required. Supply air registers to be Brown, Taupe or White. Colour to vary to match flooring in each room. Colour used in each room to be predetermined by Contractor's designer or Site Manager before installation.
- 14) Provide and hook up temporary thermostat at interior finishing stage (supply approximately 20 temporary thermostats). Upon home completion remove temporary and install permanent heat/cool thermostat. Standard permanent programmable thermostat to be Energy Saving "Honeywell PRO2000 Series". Provide fan switch control capability for air circulation as per the OBC.

- 15) Air balance entire system in each dwelling twice if required to ensure proper heating/cooling distribution. Preliminary balancing of system prior to occupancy. Final balancing during first cold weather following occupancy, only if requested by Contractor.
- 16) Finished basement landings to receive supply air and return air ducting.
- 17) Return air grilles shall be white and located on walls only. Low wall return airs on first floor. High wall return airs on the second floor. Each bedroom to receive one cold air return. For rooms over the garage, return air grilles to be high and low with dampers.
- 18) Supply and install Vanee (65H) HRV Unit (simplified installation).
- 19) Supply and install all required wall caps, ducting insulation (minimum 4' into house) and sleeves to vent 6" kitchen range hood exhaust fan to exterior.
- 20) Cut wall plates to be reinforced with steel plates at time of rough-in.
- 21) All furnaces to be double vented and ready for construction use.
- 22) Perform all modifications to the heating/cooling plans as documented by the municipal plans examiner or other authorities having jurisdiction. All modification work included in the contract price.
- 23) Prices acknowledge that Polyicynene Insulation in garage ceiling (by others) is standard.
- 24) All systems and mechanical units supplied to include all required materials to make them fully operational.
- 25) Should specified equipment or equal substitutions become unavailable, Subcontractor shall supply equipment of equal or higher quality at no extra cost to the contract. Proposed substitutions shall be submitted and approved by the Contractor in writing prior to installation.
- 26) Clearly place information tags, labels, stickers and service records for easy access and review by others. Submit one package per lot of operating and service manuals for various equipment and fixtures to the site office. (Furnace, A/C unit, night set back thermostat, barbeque valve, etc.)
- 27) Budging in joists to be replaced after ductwork is installed with proper blocking. Reinforcing of floor is required when registers or floor vents are cut out. All studs that are moved are to be replaced and re-nailed.
- 28) In winter conditions, remove Tee and connection for temporary gas heaters at meter (installed by others) and make connection into home. Furnace to be immediately tested and started in compliance with Gas Utility regulations for gas heater program.
- 29) The Subcontractor shall review each layout and satisfy itself that the layouts conform to all applicable codes, performance standards and scope of work identified in this contract. Should the Subcontractor not be satisfied, the Subcontractor shall make any required changes to the layouts and provide new certified plans. The Subcontractor acknowledges that using layouts provided by others shall in no way alleviate any of its responsibility to supply and install an approved, properly functioning heating and cooling system and deliver a system that satisfies the obligations identified in this contract.
- 30) All floor heating outlets to be securely covered by this contractor at time of rough-in to protect ducts from construction debris.
- 31) Make provisions for low headroom areas where required.
- 32) Supply and install 2 sets of furnace filters. One set at time of installation. New set at pre-delivery inspection. Second set to be provided only if Site Manager requests it.
- 33) This Subcontractor is responsible for coordinating inspections with the Site Manager.
- 34) Subcontractor acknowledges building in winter conditions is reflected in standard contract prices.
- 35) Contract Prices Includes unloading, hoisting and movement of equipment around the site.
- 36) All labour, equipment and materials to be fully guaranteed for a two-year period from occupancy date of purchaser.
- 37) Contractor to give 10% discount on Model Homes.

- 38) Contractor will be responsible for sealing any penetrations through building envelope after house has passed insulation inspection.

SECTION F – SITE RULES AND REGULATIONS:

This Subcontractor agrees with, and shall comply with the following “Project Rules”. Non-compliance shall result in remedies allowed by the Contractor under this contract. “Rules” included but not limited to, are as follows:

- 1) Cross concrete at designated ramps only.
- 2) Access Roads to the Project site shall not be obstructed in any way, and, at all times roads shall be clear to allow fire trucks to enter the site and access all fire hydrants.
- 3) No storage of building materials on the access roads.
- 4) No parking on driveways or graded yards.
- 5) No pets are allowed on the project at any time.
- 6) The consumption of illegal substances or alcohol will not be tolerated and is cause for immediate termination.
- 7) All trash must be placed in bins provided.
- 8) Do not set tools, materials, trash etc. on countertops, vinyl or ceramic areas.
- 9) Portable toilet facilities are provided for your convenience, use of facilities in house is prohibited.
- 10) Absolutely No Smoking permitted in houses.
- 11) No eating or drinking in homes after drywall.
- 12) Once floor surfaces have been finished with carpet, linoleum, vinyl or hardwood, outdoor footwear shall not be worn in the home.
- 13) Overnight camping out at the Home and adjacent lands is prohibited.
- 14) Loud or excessive noise from a radio or any other electronic device and profanity are prohibited.

SECTION G – SAFETY:

- 1) The Subcontractor shall at all times ensure that the health and safety of their staff and crews are paramount. As such the Subcontractor must ensure that any necessary safety training (i.e. Fall Protection, Propane Safety, etc...) required by their staff is up to date and any documentation associated with any such training is on site while their workers are present.
- 2) Prior to commencing work the Subcontractor must provide to the Contractor a copy of their Health and Safety Book which must be kept on site at all times in the Contractors construction office. If the Subcontractor does not provide a copy of their Health and Safety Book to the Contractor as required under this contract, the Contractor may choose to terminate or suspend the Subcontractor and/or withhold payment until such time as the Subcontractor furnishes the Contractor with their Health and Safety Book.
- 3) The Subcontractor shall be required regular safety meetings (at the Contractors discretion) on site, as requested by the Contractor.
- 4) All Subcontractors working with **“Hot Work Operations”** shall ensure that;
 - i) **Combustible Material:** All portable combustible material must be removed a minimum of 20 feet away from the working area and adjoining areas.
 - ii) **Flammable Liquids or Vapours:** Drums, tanks or other containers or explosive liquids or vapours must be cleaned and cleared of flammable or explosive liquids or vapours before work is done on them.
 - iii) **Pre-Operation Precautions:** When feasible, work area should be wetted down.
 - iv) **Spark Control:** Sheet metal guards, asbestos blankets and similar protection must be provided to prevent hot metal and sparks from falling on combustible material which cannot be moved.
 - v) **Fire Protection:** If the areas in which hot work operations are being performed are presently under operative sprinkler protection, the sprinklers in that area must be operative during welding or cutting operations. Suitable fire extinguishers or hand hose must be maintained near the operations, an extra person must be provided in the welding or cutting team whose sole responsibility is to watch for sparks and promptly use the extinguishing equipment.
 - vi) **Post-Operation Precautions:** After work, a thorough check must be made for smoldering fire in out-of-the-way places, and guard patrol protection must be maintained for a minimum of four hours.
 - vii) **Other:** During the course of construction, where a propane gas heater or other open flame heating device is used; the device will be positioned on fire resistive dry wall board, tied off to a wall or floor with not less than three (3) feet of clear space surrounding it.
- 5) **“Hot Work Operations”** shall be defined as follows:

- i) The process whereby one or more of the parts to be joined is heated near or above its melting point and the heated surfaces are caused to flow together.
- ii) The process of applying heat to red heat the spot to be severed, gouged or pieced, and the metal is burned in a jet of oxygen.
- iii) Grinding operations that generates sparks.
- iv) Torch-on roofing operations.
- v) Roof tarring operations.

SECTION H – SERVICE REQUIREMENTS:

The Subcontractor agrees to comply fully with the Contractor's pre-delivery inspection notification process as follows:

- 1) The pre-delivery inspection by the homeowner will be conducted approximately two (2) weeks prior to occupancy of the unit.
- 2) The Contractor will provide written notification to the Subcontractor of any deficiencies noted in the pre-delivery inspection, which are the Subcontractor's responsibility to repair. Such notification shall be provided by the Contractor in accordance with Article Seven of the Agreement; and.
- 3) The Subcontractor agrees to respond to the Contractor within 24 hours of receipt of such notice and agrees to rectify any and all deficiencies forthwith and in any event prior to occupancy of the unit, failing which the Contractor may, at the Subcontractor's expense, attend to such rectification (either itself or through another Subcontractor). All expenses of such rectification together with an administrative charge of \$150.00 shall be deducted from any monies owing to the Subcontractor.
- 4) Should approval be granted by the Contractor allowing the Subcontractor to rectify such deficiencies after occupancy by the Contractor's Purchaser, it is the Subcontractors' sole responsibility to contact the purchaser and schedule appointments to rectify such deficiencies. Further, the Subcontractor shall be responsible to have the Contractor's service completion forms signed by the purchaser indicating the purchaser's acceptance of the work. Should the Subcontractor fail to honour or attend appointments made with the purchaser, the Contractor shall immediately remedy the matter and proceed as described in paragraph (c).