



CITY OF
FORT SASKATCHEWAN
ALBERTA

Installation Guide for New Underground Service

Effective: August 1, 2022

In order to ensure safe & quality installation of new utility services, the City of Fort Saskatchewan will be implementing the following electrical service installation requirements for new residential development as of August 1, 2022.

**Single family, semi-detached, and row housing*



Installation Guidelines:

- Finished grade must be clearly identified by the Builder on the foundation wall at the riser locations for electrical and gas. It must also be identified where the services leave the building.
- Electrical service lines must be installed in rigid PVC conduit from the meter and run at a minimum depth of 1300mm (51 inches) to a maximum depth of 1400mm (55 inches) from top of conduit to finished grade.
- Conduit must run along the foundation and be secured to the building with rigid two-hole steel straps secured to the foundation until it reaches the street side end of the building or garage. The anchoring method for the straps shall be sufficient to ensure the conduit is securely held in place during and after backfilling, compaction and settlement. Conduit must extend to the property line.
- There must be one two-hole rigid steel strap on the vertical just above the 90 degree bend, one on the horizontal just after the 90 degree bend, one within 150mm (6 inches) of the corner of the building foundation and every 1000mm (39 inches) on the horizontal between these two straps.
- Backfill must be brought to a level of the rigid PVC. No sand will be required for the electrical at the foundation, but the marking tape is required midway between the conduit and the finished grade. The marking tape must remain visible at the electrical riser and the municipal connections upon service inspection.
- Place 300mm (12 inches) of suitable fill over the electrical service at the edge of the building.
- Where the electrical service leaves the foundation (from the street side point), continue with rigid PVC to the property line. Bends in the duct due to piles or other barriers are acceptable if required. Transition to an approved polytube/duct is allowed, keeping the number of bends to a minimum required amount ending at 1.5m to 2.0m from the main gas line. No additional strapping is required after it leaves the foundation wall. The ducting can be crossed under the driveway if required, but cannot end under the driveway or sidewalk.
- No splices are allowed in the conduit. If there is a fault, a new cable must be pulled in.
- Conduit must have a bell end on rigid PVC and be sealed at the supply end with duct seal and covered with 300mm (12 inches) of sand.
- Service conduit sleeve must be inside diameter of 4" (100mm) PVC and lengthened to 600mm (24 inches)
- 200A meter bases are required to accommodate the 60mm (2.5 inch) PVC conduit
- Allowable conduit sizes as per table:

Conduit Size	Cable AWG	Type
63mm (2.5inch)	#2 to 4/0	USEB 90



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Rural / Estate Properties:

The installation requirements for rural/estate properties are generally the same except for:

- The 2.5 inch PVC must extend a minimum 20 feet from the foundation wall.
- If underground services cross a driveway, the 2.5 inch PVC conduit must be continuous & extend past the driveway border.
- The PVC cannot end under a sidewalk or driveway

Inspection Requirements:

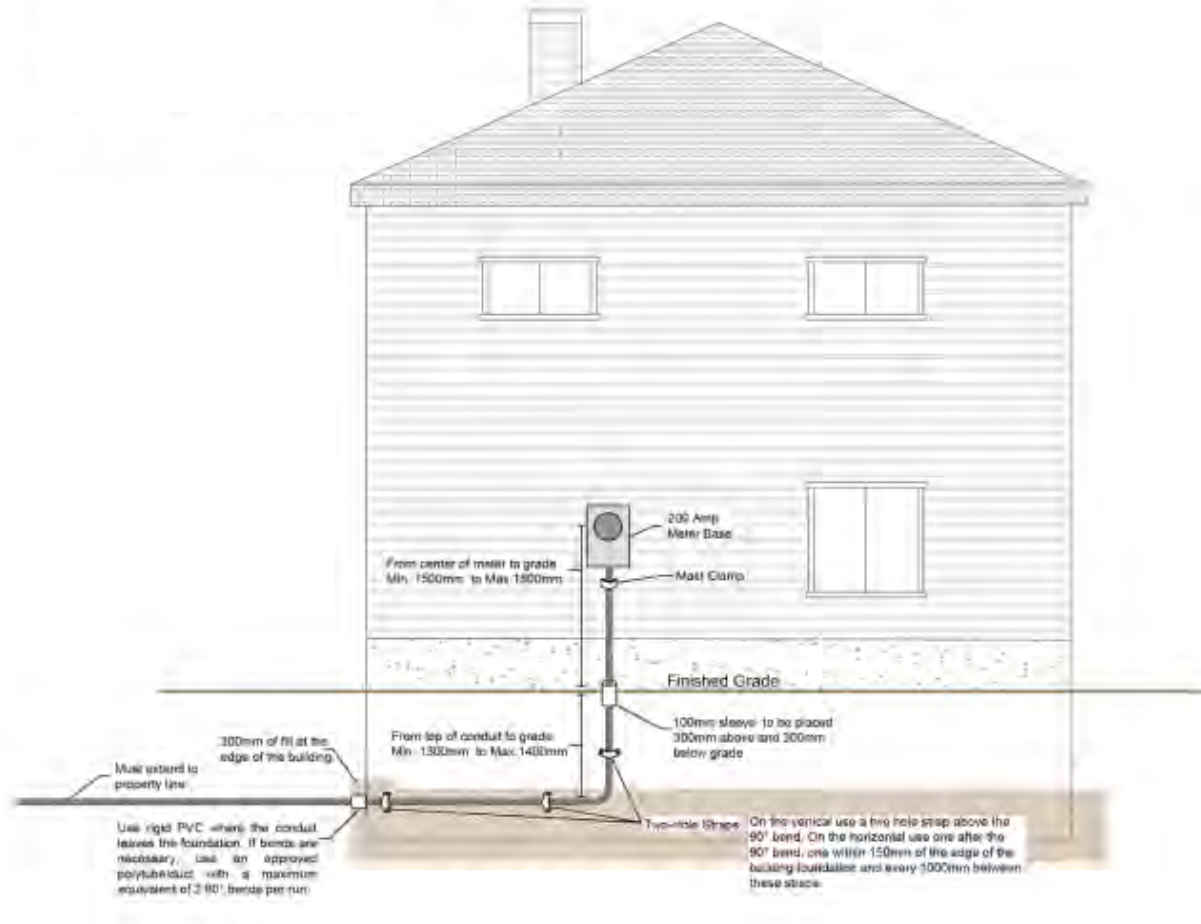
- Installations require site inspection when the electrical is completed and the stakes are installed.
- Backfill shall not be completed prior to a successful electrical inspection (receipt of a green sticker).
- Conduit & the 200A meter base must be installed & visible to the property line at inspection.
Depending on the installers, this can be done in two inspections.
- All OH&S Safety requirements shall be observed.

Inspections can be scheduled by contacting: inspectors@fortsask.ca or 780-992-6207

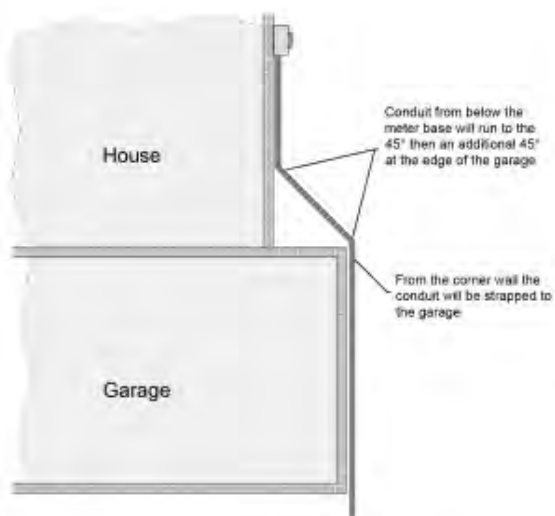


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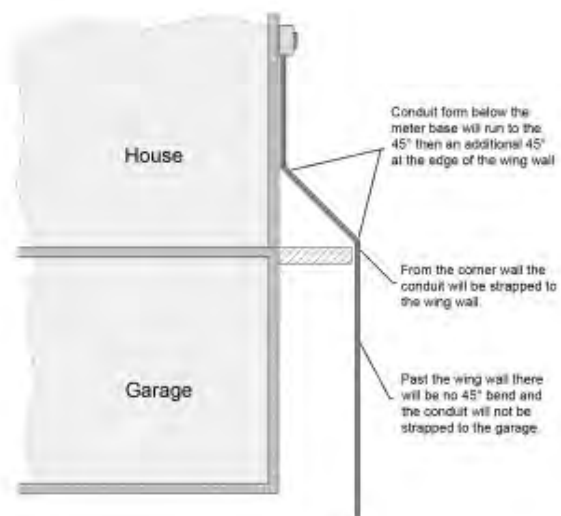
Residential Service Installation Examples:



Installation With Garage Grade Beam



Installation With Wing Wall





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Residential Service Installation Examples:





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