Alberta Service Entrance Requirements for Residential Buildings up to Two Units

TELUS Communications Inc. is responsible for providing and installing the network wiring to the property, and the owner/developer is responsible for providing a suitable pathway (trench, conduit, aerial support etc.) as stipulated by TELUS Communications Inc. from the property line to the building Service Provider Demarcation Point (SPDP).

Ground Requirement

TELUS recommends that a No. 6 insulated ground wire be provided from and connected to the power service ground to the Network Interface Box (NIB). This is the maximum size conductor required by the Canadian Electrical Code (CEC) and therefore ensures that grounding will be adequate to accommodate future growth of the communication installation. Please note that the minimum size of ground wire that TELUS will accept is a No. 10 insulated ground wire. See Canadian Electrical Code Section 60-704.

This ground wire should be as short as possible (as a guideline it should be less than 6 m) with as few bends as practical (sweep bends only). It must be permanent and, where needed, guarded from mechanical injury. An approved connector should be used for all connections.

NOTE: A bare AC Service ground shall not be installed inside the telephone conduit.

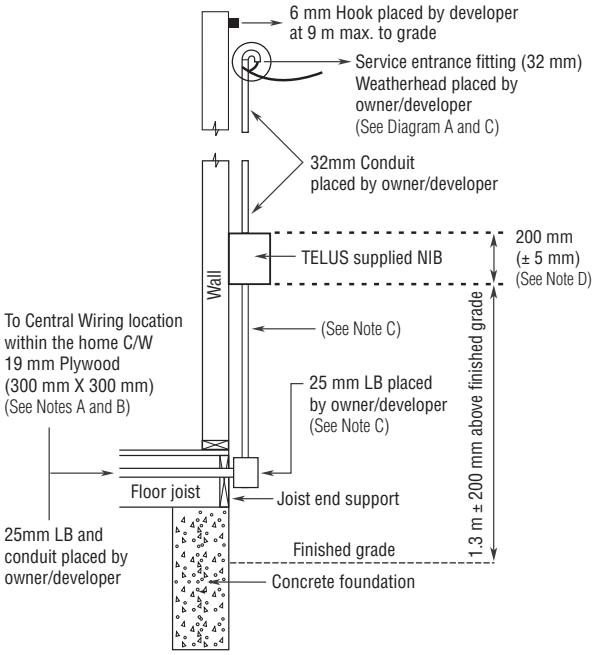
Underground Facilities

TELUS Communications Inc. network wire (drop wire) from the property line to the building is permitted to be directly buried.

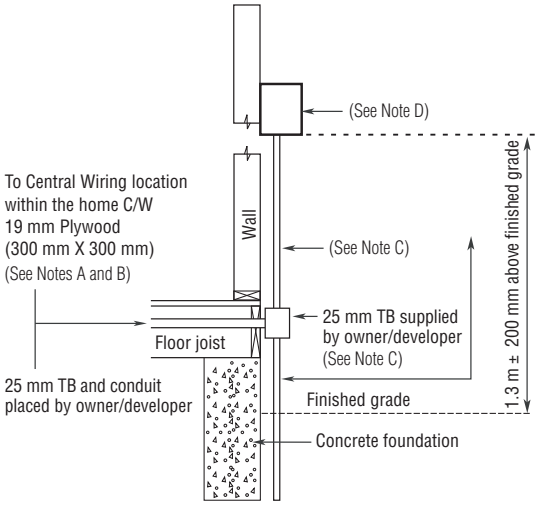
Underground

1. A suitable trench shall be a minimum of 450 mm deep and a width capable of accommodating the wire or cable placement and clearances between cables.
2. Where communications and power service conductors are to be buried in a common trench, CEC (Canadian Electrical Code) Rule 60-600 must apply.
3. All material used for back filling must be select fill, clear of all rocks and sharp stones or native fill if suitable.
4. Where the drop wire is direct buried a 25 mm conduit shall extend up the outside wall to the LB/TB above finished grade and 300 mm below finished grade. It is recommended that power and telephone services be adjacent. (CEC Section 60)
5. Underground conduit must be separated as follows:
   – Vertical separation between electrical and TELUS conduits must be a minimum 8".
   – Vertical separation between TELUS and Cablevision conduits must be a minimum 10" which will allow termination box's placed at same height above grade and maintain box separation.
6. The builder/owner is to provide the horizontal conduit from point of demarcation inside the home to the LB/TB and the vertical conduit on the outside wall.
7. The vertical conduit (25 mm) placed on the outside wall must be run up to a point 1.3 m ± 200 mm above the finished grade (See Note C).

1.1 Aerial Service Options



1.2 Underground Service Options



Notes:

A. A No. 6 green insulated ground wire to be placed from utility power ground by owner/developer to TELUS NIB.

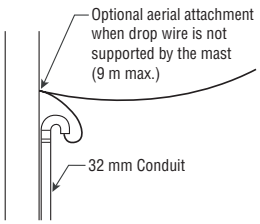
B. A 25 mm non-metallic flexible conduit is to be placed from the NIB to the inside wiring Star Configuration location inside the home. One CAT5e set run is to be placed between the Star Configuration location and the NIB on the outside of the home. The inside wiring should be done in a "Star configuration" where the individual set runs from each telephone jack and TV location collect at a common location within the home.

C. **A 3 m length of 'working slack' TELUS entrance wire** must extend from the end of the 25 mm conduit and a 1 m length of 'working slack' for the No. 6 green insulated ground wire and 4-pair CAT5e inside wire.
DO NOT CUT TELUS ENTRANCE DROP WIRE.

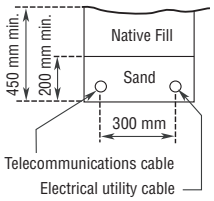
D. This space is required for the TELUS supplied Network Interface Box (NIB).

1.3 Diagrams

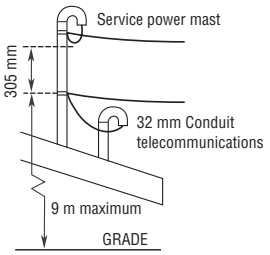
A) Optional Aerial Attachment Detail



B) Typical Trench Detail (Non random separation)



C) Service Power Mast used as a Support Mast for Telephone



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Network Interface Box (NIB)

8. The Network Interface Box dimensions are 117 mm (4.6") depth, by 150 mm (5.9") wide, by 194 mm (7.6") length.
9. All other utility boxes must not be closer than 100 mm (4").

Aerial Facilities

10. TELUS Communications Inc. requires a conduit and weather head, acceptable customer provided building anchor and/or a mast for all new aerial services.
11. The mast/conduit should extend down the wall to within 1.3 m ± 200 mm of the finished grade, to the NIB. See Aerial/Underground Option diagrams.
12. If the mast is to support the anchoring of the network wire (drop) from the street, then a minimum of 51 mm (2") rigid steel pipe is required.
13. If the network wire is anchored to the building or to the Service Power mast then the telecommunication conduit may be 32 mm (1-1/4") PVC schedule 40 with weatherhead.
14. For more details on the height of the mast to ensure clearance over streets, driveways etc., see Alberta BICS standards at **telus.com/bics**

Mobile Home on Private Property

Mobile home owners are required to provide:

– For aerial service, a Class 6 treated pole shall be provided adjacent to the mobile home at the point of service entry. The treated pole shall set 1.22 m (4') into the ground no more than 610 mm (2') from the mobile unit.

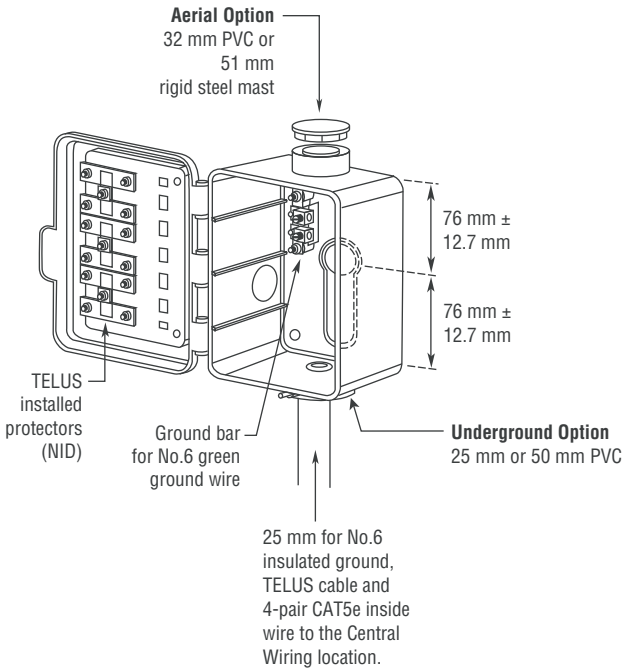
NOTE: For minimum clearance over public and private property, see telus.com/bics

– For underground service, a post measuring 100 mm X 100 mm (4" X 4") X 1300 ± 200 mm above final grade is required.

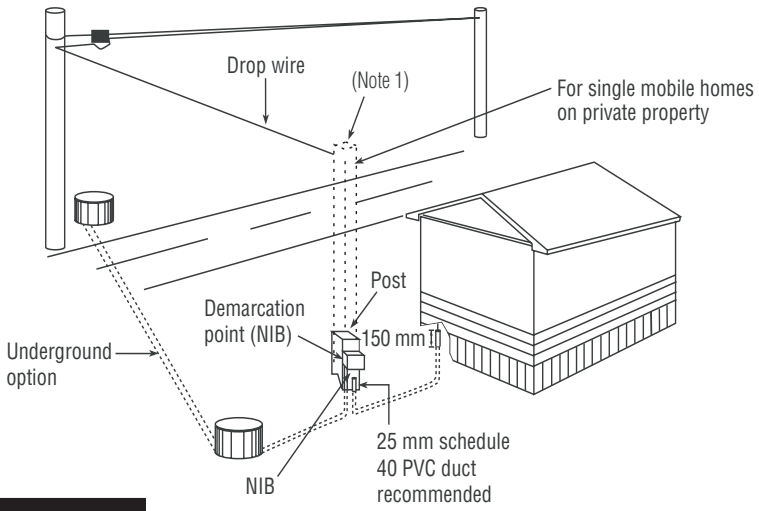
A Network Interface Box provided by TELUS is required for aerial or underground service. TELUS will install protection and demarcation devices inside the NIB. All inside wire set runs must extend into the NIB where it can be attached to the demarcation device.

The building owner is required to supply a No.6 AWG green insulated ground wire to the NIB.

2.1 NIB Detail



2.2 Mobile Home on Private Property (AB)



Reference	
CEC	Canadian Electrical Code
NID	Network Interface Device
PVC	Polyvinyl Compound
AWG	American Wire Gauge
NIB	Network Interface Box

Conversions	
Metric to Imperial (approximate)	
19 mm	0.75"
25 mm	1"
200 mm	8"
300 mm	12"
1 m	3.3'
1.3 m	4.3'
3 m	9.8'

Please call **310-2255** for more information about products and services offered by TELUS or visit telus.com/bics

P630 (Rev. 07-2009)
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