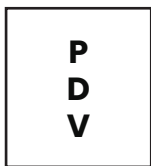
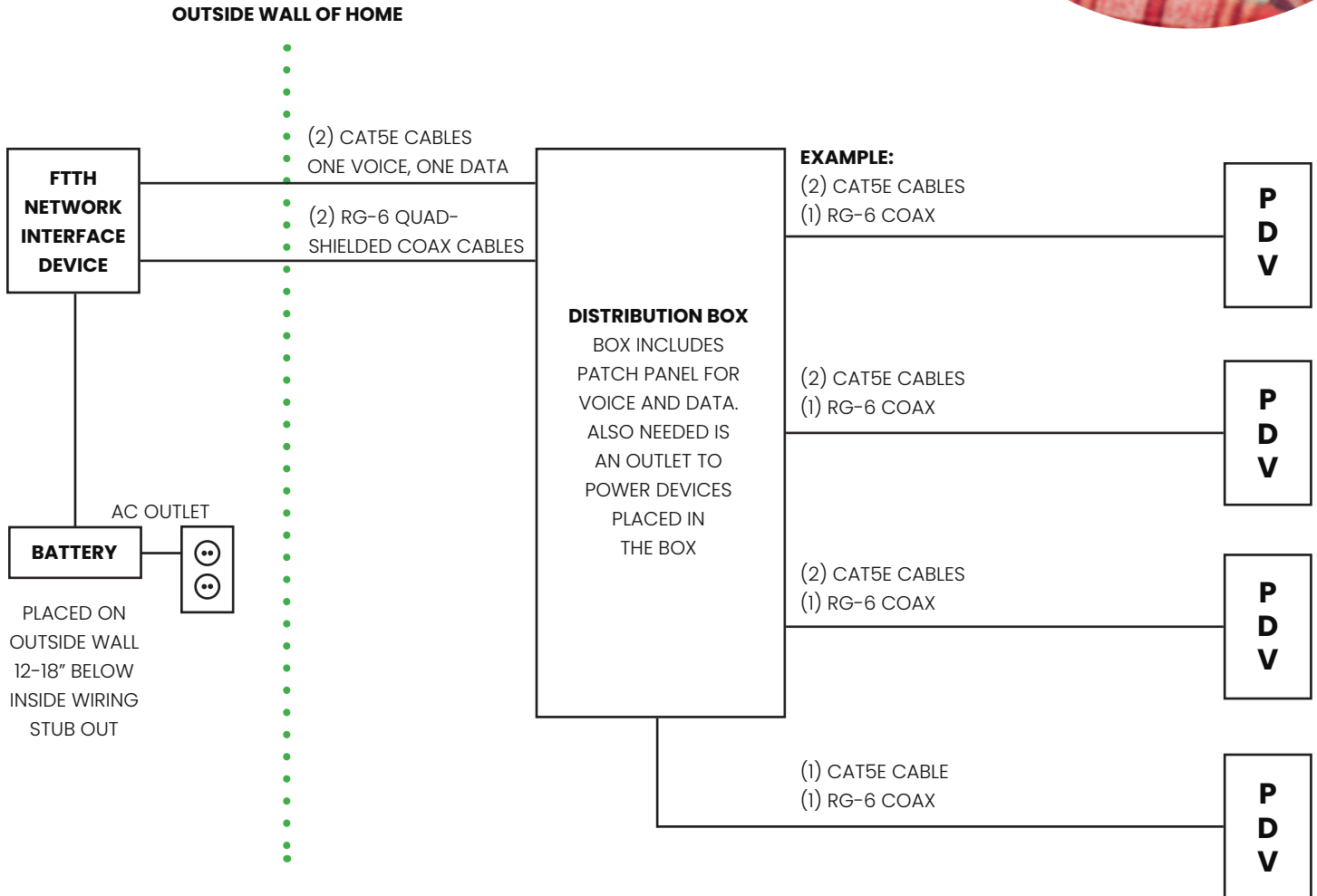


# FTTH Fiber-to-the-Home

## STRUCTURED WIRING STANDARDS FOR NEW HOMES

GVTC's desire is to ensure that new homes constructed in its service area have a structured wiring system that will allow for the deployment of voice, data and video services. It is important that wiring standards are followed in order to take advantage of the offerings provided by GVTC.



Multimedia Jack recommended in four locations throughout the home.

Suggested locations include: Family Room, Den/Office, Master Bedroom and Entertainment Room.

Cable TV service may not be available in all areas.  
Running wires through existing walls isn't possible after the application of foam insulation.



# FTTH Fiber-to-the-Home Structured Wiring Standards for New Homes

## FACILITIES ENTRANCE

Each home will have a cable placed to it by GVTC. An existing conduit is required to place the cable. This cable will terminate at the side of the home in a Network Interface Device (NID). This will also be the location where the structured wiring contractor will run (2) Category 5E cables (4 pair) and (2) RG-6 quad shield coaxial cable from the distribution panel located in the residence.

The NID also will need an AC power source. This AC outlet should be single gang and marked for the use of the telecommunications system only.

## DISTRIBUTION BOX

We strongly recommend that each home have a distribution box. This distribution box will serve as the hub for the home network. Termination should be placed in the Distribution box for both CAT5E cables and RG-6 quad shield coax cables. The distribution box should be able to accommodate dual 110 outlets and other electronics for the data, television and telephony network.

## HOME NETWORK OPTIONS

Depending on the sophistication of the home buyer, other network options need to be considered including:

- Spare conduit from NID to Distribution box
- Spare conduit from Distribution box to Attic for future wiring needs
- Wireless Network – would not take the place of the wired network but would be seen as an enhancement to wired network
- Entertainment Options
- Security Options

## YOUR NETWORK

These specifications allow all homeowners in the GVTC service area to have structured wiring to accommodate advanced telecommunication services.

Your builder, along with their structured wiring contractor, can customize a system to meet your unique needs.

## DISTRIBUTION CABLING

Common area rooms are required to have a multimedia port that will terminate (2) CAT5E cables (for voice and data) and (1) RG-6 quad-shield coax cables. RJ11 Jacks will be used for voice termination and RJ45 jacks for data termination. This allows for maximum flexibility for future services.

Other rooms may have different configurations based upon homeowner needs. Each cable must be home run back to the distribution box with no daisy-chained or looped wiring. In other locations where coax cable is placed for video needs, an additional CAT5E cable must also be run for IP and Interactive Video systems.

## HOUSEKEEPING AND STANDARDS

- Each cable will be labeled at the jack location and also at the termination point at the distribution hub
- Cabling will be installed to EIA/TIA 568A standards
- Other standards that are referenced in this document include:
  - » TIA 570 Residential telecommunications cabling standard
  - » FCC Part 68 of Title 47
  - » IEEE 802.3 10baseT standards applied to a 100 Mbps
  - » Ethernet LAN
- The structured wiring contractor will provide documentation to the homeowner including the wiring system overview, wiring diagram and any tests completed.

**FOR MORE INFORMATION  
CALL 1-800-367-4882**

