

### Wired Network Planning Checklist:

- Install 1 Telephone Jack and 1 Network drop in all rooms that will have a desk, and all planned telephone locations. Nothing worse than trying to add wires later.
- Install 1 network drop in all WIFI Access Point locations (See best practices below for placement). Most homes do not have these connections in the right place for good wifi coverage.
- Install 1 network drop in all future security camera locations. Wifi Cameras take up a lot of spectrum and are not as reliable as wired cameras powered over UPS backed up Ethernet connections (POE).
- Install 2 network cable drops and 1 coax drop in all TV locations. The extra drop is for a small switch that will run your streaming devices and smart TV.
- Coordinate Service provider cable pathway for FTTH installation. Plan for fiber to the home installation. Pre-install service provider approved fiber cable whenever feasible.
- Calculate enclosure power requirements (How many active devices). Plan your enclosure power strip with some future growth.
- Consider the use of a small UPS to power equipment during a utility disruption. Another wired camera advantage: The UPS will power your POE cameras during a power outage.
- Calculate the size of the required media enclosure. Only use plastic. Oversize for future growth. Plastic does not impede wifi. Using a larger enclosure will create a faster and neater installation.
- Install smaller plastic media enclosures behind each wall-mount TV location to manage cabling and house streaming devices and a switch.
- Use Category 6 cabling to support future bandwidth requirements. Cat5e is declining and Cat 6 is a more robust choice. This network will run for the lifespan of the home.
- Test every network cabling drop for wire map and optionally complete 1G BERT test. Supply test report to owner. Eliminate any wiring or performance issues by testing wire map and cabling throughput performance. A printed report shows that you handed over a functioning structured cable system.

### WIFI Access Point – Rules of thumb.

- Always consult a wifi design professional if your wifi is critical to your business.
- Install Access points close to the users, preferably, center of room – ceiling mount. This provides the best path to user devices without attenuating through furniture, walls, or people.
- No more than 2 wood frame walls or 1 wall and a floor between access point and user.
- No more than 1 wood frame wall between access point and user in large rooms.
- Backhaul Wifi access points with category 6 cabling.
- Don't place Wifi access point too close together. This creates channel interference and lowers the wifi speed for all users.

### Material list for rough in

- Network Enclosure
- TV Enclosure
- Cable: Category 6 UTP & RG6 coax, FTTH Fiber
- Tie raps

### Material list for finishing

- Cable entry gromets
- Velcro tie raps
- Patch panel (UTP)
- Patch cables
- Splitter panel (Coax)
- Enclosure power strip
- Uninterruptable Power Supply
- Jacks
- Wall plates
- Wifi Access Point (WAPS)
- Switch with POE capability if required.
- Router (Often supplied by service provider)
- Enclosure door