

Computer Learning Center Internet and Network Requirements.

- The CLC network is completely separate from the Town (TOS) computer network. The TOS network primarily covers the office area, the CLC network covers the public areas.
- Fiber optic incoming line from the Internet Service Provider (ISP) to cater for service growth. Current ISP is Cox communications.
- CLC Network connections to be managed from a wiring closet in the “Tech 2” (Rm 130) Computer Lab with commercial quality modem, routers, switches and wireless access points. VLAN’s and network subnets will be required.
- TOS network connections to be managed from the office wiring closet (Rm 147)
- Cat 6 Ethernet wiring from the wiring closets to multiple locations
 - 18 desktops and servers with associated ancillary equipment in the “Tech 2” Computer lab – Estimated 21 lines.
 - Two lines and mains power to the center table in “Tech 1” and a third line for a network printer. Will need in-floor wiring to table to avoid trip hazards.
 - 4 service desktops and a printer for Social Service activities (taxes, heating assistance, renter’s rebate etc.)
 - 2 + Public accessible desktops
 - Bulletin boards near the main entrance and other appropriate positions. Data sourced from existing publicity/internet system.
 - A calendar monitor outside each public room for displaying the day’s activity in that room, preferably POE powered. Data sourced from existing publicity/internet system.
 - Two lines to the public display facilities in the main hall
 - A minimum of two lines to each public room (except bathrooms) terminating adjacent to the area where the activity leader will be located.
 - Two lines to the office used by the CHMA Treasurer.
 - Individual lines with Power over the Ethernet (PoE) to each wireless access point in the public areas of the building.
- A power outlet near each Ethernet outlet, except for POE powered devices such as the WiFi access points. Power lines to be separated from Ethernet lines to avoid crosstalk.

Requirements for Tech 2 – Computer Lab

The Computer Lab supports two complementary activities:

- An instructional area for 10 students,
- A service area for class preparation including CD and printed document preparation, registration maintenance and website and network maintenance with appropriate servers, computer repair and maintenance services for Calendar House members.

Large centrally placed projector screens or smart boards surrounding the instructional area are needed to display the Instructor's computer activity. All the students need to see the small detail, particularly on the Instructor screens, so excessive student distance from the screens is a problem. The students are seniors and may have vision issues. Much of the detail shown is not text but small details of a computer screen that need to be correctly identified so that the students learn to click in the correct place.

As well as instruction, there are "Lab periods" when students come in to practice what they have learned. These activities are monitored and controlled by the Lab staff who will typically be using the service area to work on repairs and upcoming classes, so it is a requirement that both the instructional and service areas are in the same room so that the students may ask for help if necessary.

The lockable wiring/storage closet manages all the public Calendar House network links including Wi-Fi. The public CLC managed network system is totally separate from the Office network which is connected to the Town system.

Tech 2 - Detail Requirements.

- General layout similar to the existing Computer Lab. Ability to dim lighting.
- Places for 10 students (Maximum)
- Instructor position with 2 computers
- Area for administration / computer repair / server management.
- Secure wiring closet for all CLC Ethernet network connections, modem, router, POE sources etc. Timer mechanism for bulletin boards and calendars. Adequate power outlets in the wiring closet to support system.
- A separate power outlet for each computer and associated devices placed above the table level capable of accepting surge protection power adapter with USB power point.

- Ethernet connection socket for each desktop computer and associated devices placed above table level but separated as far as practical from power wiring.
- Ceiling mounted projector and associated projection screen and/or large screens wired to Instructor position computers as repeater monitors.
- Commercial quality high density Wi-Fi connection in the room.
- A single Ethernet link from the **TOWN** network to the server maintaining the membership database system. (Managed and developed by CLC)
- White board adjacent to Instructor position.
- Whole floor carpeted. (Current separate carpets are a trip hazard).

Requirements for Tech 2 – Tablet Training

The tablet training classes are conducted “meeting style” with students and instructor seated around a centrally placed table. There is a need for walking space around the outside of the seated students to allow assistants to move quietly around the table to help a student who is having difficulty.

Large centrally placed repeater screens are needed around the instructional area. All the students need to see the small detail, particularly on the repeater screens, so excessive student distance from the screen is a problem. The students are seniors and may have vision issues. Much of the detail shown is not text but small details of a tablet screen that need to be correctly identified so that the students tap their screen in the correct place.

The centrally situated meeting table needs power for the inevitable student whose tablet needs charging and to support laptop computers. Two Ethernet feeds and an HDMI signal wiring connection to the repeater screens are also needed on the table. To avoid tripping hazards, this wiring needs to be in ducting under the floor surface.

It is anticipated that rooms used for CLC tablet instruction will also be used for other smaller group activities requiring presentation capability such as clubs or meetings.

Tech 1 - Detail Requirements.

- Typical tablet class consists of a maximum of 10 students, one instructor and three assistants, with all using a tablet device.
- Sufficient space around the table for assistants to be able to walk around and view the student tablets.

- **Large** repeater screens showing the Instructor device screen. Screen size is important to allow students to see detail typical of tablet screens.
- Power, Ethernet connections and wired data link to the repeater screens at the instructor position on the table and a link for sound.
- Ethernet line for a printer.
- Commercial quality high density WiFi connection in the room.
- Comfortable chairs.
- Ability to dim lighting.