GC Requirements for LV work at new SSD and Collision Centers.
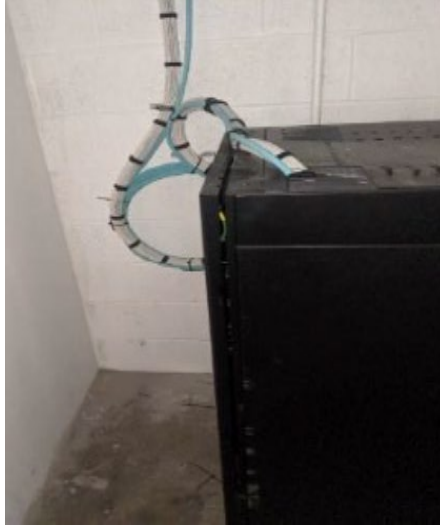

For the purpose of building out a new Tesla facility or performing a network and IT infrastructure refresh, the following standards are expected to be met by the low voltage vendor being awarded the contract for the work. All data/networking cable must be done by a licensed and certified Low Voltage vendor and not an electrician.

Low Voltage technicians will be responsible for performing the following tasks:

- All data/network cable will be CAT6 CMP rated cable.
- All Data cabling will be White CAT6 except in open black ceiling areas, then CAT6 black cable must be used.
- All data/network cable exceeding 300' in length must be run using Powerwise cable.
- Install and label all cable runs from end point back to IT rooms (MDFs and IDFs as indicated on the IT Data markup sheets.
- Mark cables with their respective label locations from the data plan and/or markup diagram.
- Install and label all 16/2 cabling for Audio Speakers back to the location of the volume controls. Install and label all 16/2 cable from volume controls back to the IT room.
- Leave 15' Service loop of cable in IT rooms.
- Leave a 15 ft. Service Loop on the AP end for each Wireless Access Point.
    - IT Installation vendor will be installing all APs, doing all wall penetrations and will install drop polls as needed.

- Leave 3' of service loop at each data jack end point.
- Install Audio Speakers, must use black speaker wire in black open ceilings.
- Install Volume controls in back of house areas per markup drawings.
- Post Installation cleanup of the area.
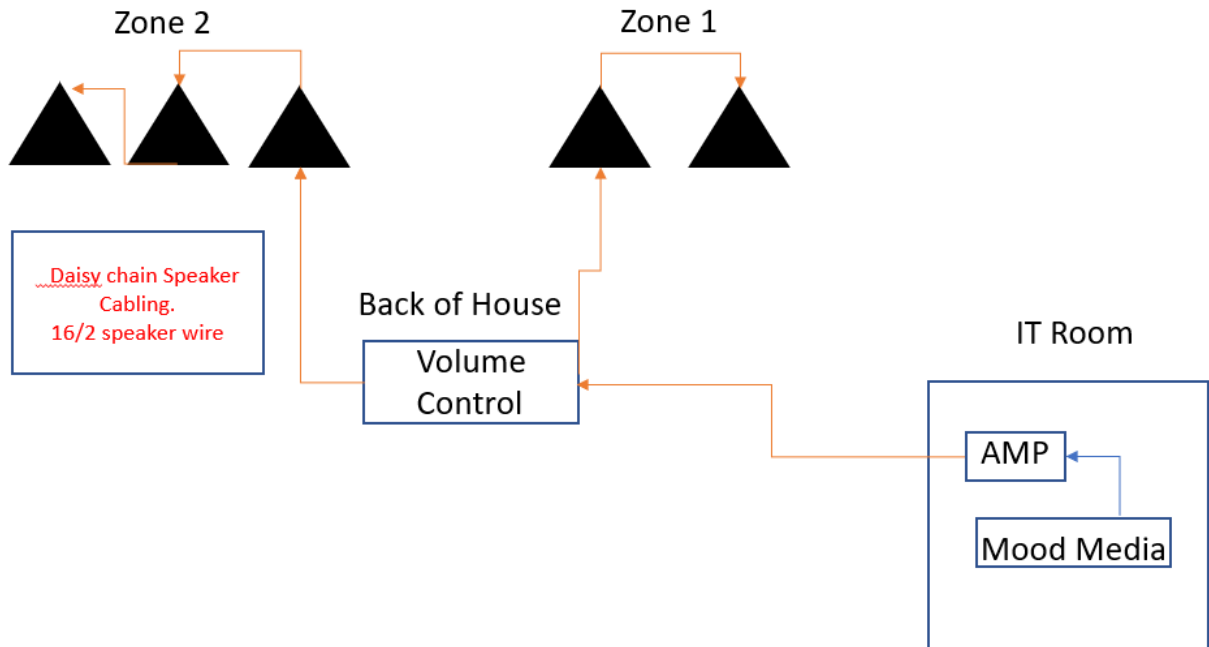

Data Cabling Pathways

- Use provided floor plan and/or on-site perspective to determine the best cable path for the cable runs.
- Locate MPOE and install 3 CAT6 CMP backbone cables from MPOE to IT room and each end will have a 10 ft. service loop
- Cable runs must be parallel and perpendicular to the walls of the site.
- **NO** angled cable runs are allowed.
- Cable in the **IT room** should be secured with **Velcro**.
    - **DO NOT use zip ties in IT room**.
- Data cable bundle entering the IT room needs to be secured and away from the power receptacle to avoid accidental disconnection of the rack's power.
- Conduit should be in place to provide a pathway out of IT room and give access to run cable up to bar joist.
- Run cables along bar joist or with cable hangers (where appropriate or per local code).
- Zip ties used to secure cable must blend in with ceiling color. (white on white / black on black)
- Run cables through walls or down conduit to data locations.
    - **Cable cannot be bare/visible.**

Data Terminations, Labeling

Audio Speakers and Equipment.

- Refer to site specific floor plans for Speaker configuration.
- Speakers are not always in a 2-zone configuration

  - Speaker cabling will be 16/2.

  - There may be two (2) speaker zones:
    - Zone 1 – Sales Floor
    - Zone 2 – Customer Lounge

  - Speaker cabling will be daisy chained from speaker to speaker in each zone.

Zone 2

Zone 1

Daisy chain Speaker Cabling.
16/2 speaker wire

Back of House

Volume Control

IT Room

AMP

Mood Media

- Amp and Mood Media player will be installed in the MDF room with a volume control knob in the Back Office area (never in a customer facing area!).

Salesfloor Speaker Install

1. Tap each speaker at 70V.
   - Remove the rubber plug on the grille of the speaker to access the rotary switch
   - Set the rotary switch to the 70V position.
   - Replace the rubber plug onto the grille.

2. Slip the terminal weather boot over the 16/2 speaker wire.