El Paso Leadership Academy RFP #2021-003 – Low Voltage Systems Contractor EXHIBIT G – Cabling Guidelines and Specifications

1. MATERIALS

- a. Wall Coupler
 - i. Angled, double coupler, T568A/B wiring, blue
 - ii. Angled, single coupler, 568A/B wiring, blue
 - iii. Must be angled, Cat6, and white
- b. Face Plate
 - i. Single gang plastic faceplate for one (single or double) coupler, ivory
 - ii. Single gang plastic faceplate for two (single or double) couplers, ivory
- c. Patch Panel
 - i. 48-port angled patch panel, T568A/B wiring, NOT modular
 - ii. (LEVITON 69587-U48 or comparable patch panel)
- d. Rack System
 - i. 7'x19" aluminum black rack
- e. UPS
 - i. Sized to support up to 15-minute run time for all rack-mounted equipment
- f. Cable Manager
 - i. Single-Sided front only 19" (2u) Horizontal cable managers with covers, black (Panduit NCMHF2 or comparable)
 - ii. Double-Sided 6" Vertical Cable Managers with hinged doors, black
 - iii. (Panduit NRV6 with NRD6 or comparable)
- g. Cable
 - i. Plenum rated Cat6 copper cable, blue
- h. CATV
 - i. RG 6 required with splitters and amplifiers as needed
- i. Sleeves for Firewalls
 - i. 3M Fire Barrier putty sleeve kits, DT100, DT200 and DT400 are approved for firewall penetrations. For smoke and other penetrations EMT is acceptable.

2. GUIDELINES

- a. All terminations must follow T568B standard.
- b. No cable ties or zip ties will be used. Velcro (hook and loop) required.
- c. Use of staples is strictly forbidden.
- d. Service loops of at least 10' in closet and 6' patch cords at each drop.
- e. Horizontal cable managers should be placed above and below switches and fiber optic LIU with 1U of clearance above and below.

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- f. Labeling of Cat6 drop on cable jacket with permanent marker highly recommended. If this is followed, labeling should be done 6" from end of cable at both ends.
- g. Cable trays will be used where available. In the event cable tray is unavailable, J-Hooks are required.
- h. Conduits cannot be filled beyond 40% capacity. Where permissible by fire code, box eliminators can be used (MP1 by CPI or BB10 by B-Line).
- i. Contractor will provide As-Built and Record Drawings to EPLA showing cabling paths, locations (with location ID) and penetrations.
- j. When cable tray is not used J-hooks should be placed no more than 6' apart with J-Hooks appropriately sized for the number of cables that are to be installed with 50% growth capability.
- k. Penetrations not provided by Design-Builder will require sleeves (sized as needed with room for 50% growth).
- I. All penetrations need to be properly fire/smoke sealed, as required.
- m. (1) 5' and (1) 10' Category 6 patch cord shall be provided for 75% of terminations.
- n. Warranty for installation needs to be provided.