STATEMENT OF PURPOSE & BACKGROUND

 Scope:
- Provide Category 6A station cabling system exceeding ANSI/TIA-568.
- Provide OM4 fiber optic backbone cabling system meeting or exceeding ANSI/TIA-568.
- Provide Category 5E copper backbone cabling system meeting or exceeding ANSI/TIA-568.
- Pathways and spaces shall meet or exceed ANSI/TIA-569 unless authorized by SPPS Project Manager (PM) and Technology Services (TS) Department.
- Grounding shall meet or exceed ANSI/TIA-607 and NEC.
- Labeling shall meet or exceed ANSI/TIA-606.
- Equivalent manufacturers must be approved in writing by SPPS PM and in accordance with the provisions of the Contract.
- All Telecommunications outlets shall be installed in dedicated 2-gang extra deep boxes with pathway sized as specified in TIA/EIA-569 or 1”, whichever is greater.

OUTLINE SPECIFICATION

 Part 1 General
- Cabling shall be plenum-rated.

 Part 2 Products
- **Copper Backbone**: Cat5E, 25 pair to each TR.
  - Berk-Tek
  - General Cable
  - Hitachi

- **Fiber Backbone**: 24 strand, OM4
  - Corning
  - General Cable
  - Hitachi

- **Fiber Connectors**: LC
  - Corning
  - Panduit
- **Fiber Patch Panel:**
  - Panduit FMD2

- **Horizontal Copper:** Category 6A, not minimally compliant. Color: White
  - Berk-Tek LM-RDT
  - General GenSpeed 10MTP Gen5
  - Superior Essex 10Gain XP+

- **Patch Cords:** Category 6A, not minimally compliant. All ports patched. Length-1 foot, plus 15 each of 3, 7 and 10 foot per TR.
  - Panduit UTP6A(xx)(yy)
  - Coordinate colors with Owner, AP-Blue, Fire Alarm-Red, Camera-Black, AV-Orange, BAS/Card Access/Security-Green, White for the remaining

- **Workstation Cords:** Category 6A, not minimally compliant. 1 per data jack, equal quantities of 7, 10 and 15 foot.
  - Panduit UTP6A(xx)(yy)
  - Coordinate colors with Owner, AP-Blue, Fire Alarm-Red, Camera-Black, AV-Orange, BAS/Card Access/Security-Green, White for the remaining

- **Telecommunications outlets:** Category 6A, not minimally compliant. All cables shall be terminated with jacks. Plugs are not acceptable. Coordinate color.
  - Panduit CJ6X88TGIW
  - Panduit CBEIW-2GY with Two (2) CHS2IW-X and Two (2) CHB2IW-X; Faceplate
  - Panduit CMBIW-X; Blank
  - Panduit CFFPA2; Modular furniture mounting frame
  - Panduit KWPK6; Wall phone outlet
  - Panduit CBXQ2IW-A; Surface Mount Box
  - Panduit CF1064IWY; 106-type frame. NOT be used except by special written authorization

- **Patch Panels:** Category 6A.
  - Panduit CPP48FMVNSWBLY with 48 CJ6X88TGBL jacks and CPP24FMWBLY with 24 CJ6X88TGBL jacks.
  - Include SRB19D5BL Strain relief bars as required.

- **Equipment Rack system:**
  - Panduit R4P; 4 post rack, 1 in Main TR
  - Panduit R2P; 2 post rack, as needed
  - Panduit PR2VD06; vertical management
  - Leviton 5500-190; Rackmount power strip
  - Chatsworth 10610-019 or Hoffman DG19; Ground rail
  - Panduit SRM19FM2; Shelf
• **Ladder Rack:** size as required, 12” minimum.
  - Chatsworth 10250-712
  - Hoffman LSS12BLK

• **Analog Wall Phone (Red Phone):**
  - Cortelco 255447VBA20M

• **Wireless Access Point Wall Bracket:**
  - Oberon 1011-00

**Part 3 Execution**

• Comply with TIA-568, -569, -606 and -607.
• Where raceway is not furnished, provide J-hooks to support all cabling. J-hooks shall be no less than one inch wide.
• Typical Office and workstation should contain at least two (2) Data.
• Typical Classroom should contain at least eight (8) Data: two (2) at Teaching Desk, two (2) at AV Control System, two (2) at opposite corner from Teacher Desk and two (2) at Wireless Access Point.
• A minimum of two Red analog wall phones are to be included in project: one in the Main Office and one in the Engineer’s office. Coordinate placement with SPPS PM. SPPS PM may identify additional locations if needed.
• No Patch Panel may contain cables from more than one floor. Should it be necessary to feed more than one floor from any TR, a separation of a minimum of 7 rack spaces is required between patch panels. TS approval is required for feeding more than one floor from any TR.
• Provide WAP wall mount bracket for WAP’s in areas where there is not ACT or where ceiling is higher than 10’.
• Label WAP with last six digits of MAC Address.

End of Section