

SECTION 27 2100 – LAN NETWORK & WI-FI

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Network Active Electronics

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Related Drawings:
 - 1. IT – Technology Drawings

1.3 SUMMARY

- A. The devices described in this section shall be procured and delivered to the project site and shall match the construction phasing of this project. All timelines are described within the Bid manual phasing schedule.
- B. All manufacturer warranties shall start from the installation date and not necessarily the purchase date.
- C. Section includes the Local Area Network Active Electronics for the data infrastructure installation.
- D. These active electronics shall support the data infrastructure, wireless devices, video surveillance system and the district wide voice system.
- E. All data horizontal and backbone cabling infrastructure (fiber and copper) has been installed by others and is NOT part of this bid.
- F. Configuration of LAN switches shall be performed by the BOE IT personnel with technical assistance from the Manufacturer.

1.4 SUBMITTALS

- A. Pricing for all devices shown within Article 2.2 – BILL OF MATERIAL BOM must be filled out and submitted with this bid proposal and shall include all unit and total pricing.
- B. Product Data: For each type of product indicated. Include dimensions and data on features, performance, electrical characteristics, ratings, and finishes.

- C. Product Data: Submit manufacturer's technical data, product specifications, installation instructions, and other pertinent information as applicable for each product or material specified.
- D. Samples of manufacturer's standard and extended warranties.
- E. Equipment List: Include every piece of equipment by model number, manufacturer, serial number, location, and date of original installation.

1.5 QUALITY ASSURANCE

- A. Single Source Responsibility: Obtain all materials from one (1) source from a single approved manufacturer for each product required within this specification.
- B. All devices procured and delivered, as part of this specification shall be new from the manufacturer. Refurbished devices will not be accepted for this project. The technology consultant will verify all devices prior to delivery and installation of all devices described within this specification.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Take care in handling products in accordance with manufacturer's instructions.
- B. Store indoors in original undamaged packaging, in a well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity. Store products upright in secure, protected area. Verify with manufacturers that site conditions are acceptable before receiving material.
- C. Environmental Conditions: Capable of withstanding the following environmental conditions without mechanical or electrical damage or degradation of operating capability:
 - 1. Interior, Controlled Environment: System components installed in temperature-controlled interior environments shall be rated for continuous operation in ambient temperatures of 36 to 122 deg F (2 to 50 deg C) dry bulb and twenty to ninety percent (20-90%) relative humidity.

1.7 WARRANTY

- A. Standard Manufacturer Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of any device and equipment related to operation, and equipment that fail in materials within specified warranty period.

PART 2 - PRODUCTS

2.1 NETWORK ELECTRONICS

- A. The selected manufacturer will be EXTREME NETWORKS, Morrisville, NC 27560.

- B. The Category 6A rated horizontal cabling has been furnished and installed by others.
- C. All OM4, 50m fiber backbone cabling has been furnished and installed by others.
- D. All associated devices and/or licensing required to obtain a fully functional system, whether directly stated within the BOM provided or not, shall be included as part this Bid response.

2.2 WIRELESS ACCESS POINTS

- A. The selected manufacturer will be EXTREME NETWORKS, Morrisville, NC 27560.
- B. Manufacturer and product numbers are described within the Bill of Material within this section.
- C. All wireless access points and associated licenses are to be procured and delivered.
- D. All WAP configuration within the LAN shall be performed by the BOE IT personnel with technical assistance from the manufacturer.

2.3 EQUIPMENT – BOM

#	MFG	PART NO.	PRODUCT DESCRIPTION	QTY
1	SWITCH GEAR			
2	EXTREME	20G-DACP-SFPDDZ5M	SFPDD TO SFPDD 20G DAC 0.5M	15
3	EXTREME	100G-DACP-QSFPZ5M	100G Passive DAC QSFP28 0.5m	2
4	EXTREME	10106	PWR CORD,NEMA,10A,C14,C13,ST	34
6	EXTREME	XN-ACPWR-1200W-FB	1200W AC PSU FB	15
7	EXTREME	XN-ACPWR-350W-FB	350W AC PSU FB	4
8	EXTREME	USK12-STD-B-S-C-EW	USK12 EP1 STD NET EW Tier B per YR	15
9	EXTREME	USK12-STD-C-S-C-EW	USK12 EP1 STD NET EW Tier C per YR	2
10	EXTREME	5420F-16 W-32P-4XE	5420F 16port 802.3bt 90w & 32 PoE+	15
11	EXTREME	5520-24X	5520 24port Fiber Switch	2
12	EXTREME	10301	SR SFP+ module	60
13	EXTREME	PS-ESU-REMOTE	Remote (ESU) Extreme Service Unit	5
14	WI-FI			
15	EXTREME	AP4020-WW	AP4020-WW Wi-Fi 7 Indoor Access Point	67
16	EXTREME	AP4060X-WW	AP4060X-WW Wi-Fi 7 Weatherized AP	6
17	EXTREME	AIO-TS06360-N	5dBi and 6dBi Outdoor Dipole Tri-band	30
18	EXTREME	USK12-STD-A-S-C-EW	USK12 EP1 STD NET EW Tier A per YR	70
19	EXTREME	PS-ESU-REMOTE	Remote (ESU) Extreme Service Unit	5

2.4 CLEANING

- A. Remove rubbish and debris: Installation contractor is not allowed you use the onsite dumpster and is responsible to discard their own debris off site.
- B. Clean installed items using methods and materials recommended in writing by manufacturer.

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TECHNOLOGY

SHERMAN SCHOOL RENOVATION PROJECT
SHERMAN SCHOOL CENTRAL ADMINISTRATION PROJECT
State Project No. 127-0009RNV / 127-0010 BE/RNV
PHASE 3 of 3

END OF SECTION 27 2100