

Grosse Pointe Public School System

Structured Cabling

Request for Proposals (RFP)

November 2021

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GENERAL TERMS AND CONDITIONS

1 GENERAL REQUIREMENTS

1.1 INTENT

It is the intent of the Grosse Pointe Public School System (herein after referred to as the “District”) to solicit proposals from qualified vendors for structured cabling and services. This solution will consist of the following components:

- A. Structured cabling
- B. Installation services
- C. Warranty services

It is desired that vendors propose on all of the services being requested in this request for proposals (RFP). Vendors may partner with another provider to supply a complete and turnkey solution. If your response contains proposed services or equipment from multiple providers, all responding parties must be clearly identified and a synopsis of the partner relationship, as well as the party that will serve as the prime vendor/contact for the District, must be detailed. The District reserves the right to proceed with the provider deemed most suitable.

The District may award the project to more than one vendor due to the amount of work in-scope for completion during Summer 2022 and the timeline for completion. Work planned for Summer 2022 must be completed no later than August 15.

1.2 PROJECT DESCRIPTION

The District is seeking a long-term relationship with one or more structured cabling vendors to provide structured cabling to Grosse Pointe Public School for buildings undergoing construction in 2022.

This RFP outlines the performance, operational, and administrative requirements the District is seeking for the structured cabling. Detailed specifications for this project are included in **Section 2** of the RFP.

1.3 SCHEDULE OF EVENTS

EVENT	DATE
RFP issued	November 19, 2021
Remote vendors’ conference (non-mandatory)	November 29, 2021, at 10 a.m. ET - join via audio/video conference or phone. A. https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZTJiMGVmMzItNjU3Mi00YmI0LWFmMTetYmU1NmE4NmM2M2My%40thread.v2/0?context=%7b%22Tid%22%3a%2264591f40-df92-4ba4-b17a-b8f7aac94a4e%22%2c%22Oid%22%3a%229c9ee128-8ff5-431e-b8b8-7820add1cb34%22%7d or

	+1 989-272-9774,,621642225# United States, Saginaw (844) 562-1933,,621642225# United States (Toll-free) Phone Conference ID: 621 642 225#
Inspection of worksite (non-mandatory)	<p>November 30, 2021, at 4:00 p.m. ET</p> <p>All four buildings will be visited. This will be the only site visit that will be scheduled. The building will be visited in the following order:</p> <p>Pierce MS, located at 15430 Kercheval Ave, Grosse Pointe Park, MI 48230</p> <p>Kerby ES, located at 285 Kerby Rd Grosse Pointe Farms, MI 48236</p> <p>Barnes Early Childhood Center, located at 20090 Morningside Dr. Grosse Pointe Woods, MI 48236</p> <p>Mason ES, located at 1640 Vernier Rd, Grosse Pointe Woods, MI 48236</p> <p>Vendors are to meet in the main office.</p> <p>Contact: dan.queck@plantemorán.com</p>
Deadline for submittal of questions	<p>December 2, 2021, @ 2:00 p.m. ET</p> <p>Contact: dan.queck@plantemorán.com</p>
Deadline for proposals & public proposal opening	<p>January 5, 2022, @ 10:00 a.m. ET at the District Administration Offices, 20601 Morningside Dr. Grosse Pointe Woods, MI 48236</p>
Anticipated award date	February 2022
Implementation schedule	Summer 2022/2023

1.4 PROPOSAL SUBMISSION

Late proposals will not be accepted. Proposals shall be submitted as follows by the deadline indicated in the Schedule of Events:

The proposal must (at a minimum) consist of the following files:

- One printed signed original
- One printed bound copy
- Two thumb drives consisting of only:
 - One single PDF file of the submitted printed signed complete proposal
 - **Appendix A** in Excel format

Mark with company name and deliver to:

Grosse Pointe Public School System
Central Administration
20601 Morningside Dr.
Grosse Pointe Woods, MI 48236
Attention: Chris Stanley

All Proposals MUST include the Vendor Response Forms provided in Appendix A.

Proposals shall be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the vendor or any employee of the vendor and any member of the Board of Education or superintendent. The District shall not accept a proposal that does not include this sworn and notarized disclosure statement. The Non-Familial Form must accompany your bid proposal (see **Appendix A**).

In accordance with the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012, all vendors must execute the “Iran Linked Business Affidavit” and include it in their proposals (see **Appendix A**). Said forms are included in the vendor Response Forms. The District will not accept a proposal that does not include this sworn and notarized disclosure statement. The form must accompany your bid proposal (see **Appendix A**).

1.5 INTENT TO PROPOSE

Each vendor that intends to submit a proposal in response to this RFP should communicate its intent via email to gina.mancinelli@plantemor.com with the subject line “GPPSS Structured Cabling RFP - Intent to Propose.” Please refer to **Section 1.8**, RFP clarifications and addenda, for the contact information to address specific questions related to this RFP.

The response shall include the name of the vendor, the name of the contact person, and that person’s email address.

1.6 VENDORS’ CONFERENCE

A remote pre-proposal vendors’ conference will be held for this project. The details are included in Section 1.3.

1.7 RFP CLARIFICATIONS & ADDENDA

Please note that any addenda will be posted by the District to the bid site that housed the original RFP. Vendors are responsible for checking the site regularly to make themselves aware of any new addenda. When making requests for clarification, please identify the relevant section number (e.g., Section 2.3.1).

Requests for clarification shall be submitted by email only to:

Dan Queck
dan.queck@plantemoran.com

1.8 PROPOSAL FORMAT

To facilitate the comparison of vendor proposals, it is required that each proposal be organized into the following sections:

1.8.1 Executive summary

The executive summary should, at a minimum, include the following:

- A. Executive letter highlighting how the proposed solution achieves the objectives of the District. This letter is to be signed by an officer of the organization submitting the proposal.
- B. Organizational overview: A brief overview of the organization.
- C. Address the following as it relates to your proposed solution:
 1. How the solution aligns with the requested functional requirements
 2. How the solution aligns with the requested technical requirements
 3. Any functional or technical requirements that the proposed solution cannot achieve
 4. Any assumptions and/or District resources required to complete the solution

1.8.2 Vendor Response Forms

Vendor Response Forms are supplied in this RFP (**Appendix A**). In addition to requesting information on your company, the proposed solution, and other required forms, you must clearly indicate whether you either comply or take exception to any of the sections in this RFP. All vendors **MUST** submit the **Comply/Exception Form** from **Appendix A**. Where applicable, an explanation for the exception must be provided.

1.8.3 Project plan

The vendor will include an overview of its project plan in its response.

1.8.4 Project team

Indicate the level of qualification of the staff who will be assigned to this project. Qualification will be based on certifications and years of experience with the materials proposal in similar configurations. Names of staff need not be provided; however, the response in this section will indicate the minimum level of experience that will be provided. If necessary, please include additional categories to address additional levels of staff or staff with different certifications and years of experience.

1.8.5 Product information

The vendor must include copies of the technical specifications and/or data sheets for each of the products being proposed.

1.8.6 Electronic copy

An electronic format of the forms in **Appendix A** in a Microsoft Excel format **MUST** be included with your response. A PDF version of all other materials must also be included.

1.8.7 Equipment listing (BOM)

A bill of material must be included with the bid response identifying equipment models and quantities.

1.8.8 Additional information

Additional information may be provided at the vendor's discretion.

1.9 BID BONDS

Every bid shall be accompanied by either a cashier's check on a solvent bank or by a bond executed by a surety company authorized to do business in the state of Michigan. A 5% bid bond or cashier's check shall be required. Such check or bond shall name the District as recipient. The amount of such bid bond or cashier's check shall be forfeited as liquidated damages, costs, and expenses incurred by the District if the vendor, after given an award as successful vendor, shall fail within 30 days after the notice of such award to enter into appropriate contract with the District.

1.10 PERFORMANCE AND PAYMENT BONDS

The District WILL require the selected vendor(s) to provide a performance bond upon award of the contract. The associated cost of the performance bond is to be shown as a separate line item — do NOT include this cost in your base bid. This bond shall be equal in amount to the total price to the District of purchased hardware, software, cabling, and services. The surety of the bond shall remain in effect for one year after all acceptance of the entire project has been executed by the District. In the event that the vendor(s) fails to perform its obligations under any agreement between the vendor(s) and the District, the bond shall be paid to the District. The vendor(s) further agrees to save and hold harmless the District and agents from all liability and damages of every description in connection with any subsequent agreements. Performance and payment bonds shall be required under the following conditions: project award exceeds \$50,000 **and** project involves construction, alteration, or repair to the buildings.

1.11 INSPECTION OF WORKSITE

A vendor worksite inspection will be scheduled as indicated in Section 1.3 above. This will be the only scheduled site visit.

1.12 MODIFICATION OF RFP

Vendors may not modify the RFP text to affect the terms, conditions, or specifications found in this document; this is forbidden and will subject the bid response to rejection. In the event any text is modified, the original text as issued will apply. This clause does not apply to the vendor response areas of the RFP where it is expected that vendors will enter their text.

1.13 CONFIDENTIAL INFORMATION

As a public entity, the District is subject to the Michigan Freedom of Information Act (FOIA). Information contained in proposals may be subject to FOIA requests.

1.14 RIGHT TO REQUEST ADDITIONAL INFORMATION

The District reserves the right to request any additional information that might be deemed necessary after the completion of this document.

1.15 RIGHT OF REFUSAL

The District reserves the right to reject any or all proposals in their entirety, evaluate suggestions or exceptions, waive irregularities, or select certain equipment from various vendor proposals, based on the best interests of the District. The District reserves the right to reject any or all proposals for a specific section. The District reserves the right to award specific buildings to one or more vendors.

1.16 PROPOSAL PREPARATION COSTS

The vendor is responsible for any and all costs incurred by the vendor or its subcontractors in responding to this RFP.

1.17 SYSTEM DESIGN COSTS

The successful vendor shall be responsible for all design, information gathering, and required programming to achieve a successful implementation. This cost must be included in the base bid.

1.18 PERMITS

The successful vendor shall be responsible for complying with all local, state, and federal codes applicable to this installation. This includes the electrical permit required by the state of Michigan for low voltage installations. Include all costs associated with permitting in your base bid.

1.19 PRICING ELIGIBILITY PERIOD

All vendor proposal bids are required to be offered for a term not less than **120** calendar days in duration. A claim of mistake in computation of a proposal shall not void the proposals after they are opened and accepted.

1.20 ADDITIONAL CHARGES

No additional charges, other than those listed on the price breakdown sheets, shall be made. Prices quoted will include verification and coordination of order, all costs for shipping, delivery to all sites, unpacking, setup, installation, operation, testing, cleanup, and training.

1.21 TURNKEY SOLUTION

All prices quoted must include all the cables, connectors, etc., that will be necessary to make the system specified **fully operational** for the intent, function, and purposes stated herein.

1.22 FEDERAL OR STATE SALES, EXCISE, OR USE TAXES

Grosse Pointe Public School System is a tax-exempt entity for all purposes, except if the project makes enhancements and/or additions to real property.

1.23 PURCHASE QUANTITIES

The District reserves the right to adjust upward or downward by 25%, the quantities of items purchased without altering the unit purchase price upon award and throughout the contract period.

1.24 AGREEMENT REQUIREMENTS

The District intends to use the Agreement contained in **Appendix C** for this project. Please review this attached Agreement and indicate whether the terms of the Agreement are acceptable. Include all contract exceptions in your proposal, if any.

The District considers this RFP legally binding and will require that this RFP and the resulting vendor proposal be included as addenda to any subsequent agreements between the vendor(s) and the District. It should be understood by the vendor(s) that this means that the District expects the vendor(s) to satisfy all requirements and reports listed herein. Exceptions should be explicitly noted in the vendor proposals. **Lack of listing all exceptions will be considered acceptance of all of the specifications as presented in this RFP.**

1.25 SURVIVAL CLAUSE

All duties and responsibilities of any party that, either expressly or by their nature, extend into the future, shall extend beyond and survive the end of the contract term or cancellation of the Agreement.

1.26 FORCE MAJEURE CLAUSE

See proposed Agreement in **Appendix C**.

1.27 INCORPORATION BY REFERENCE

The vendor shall supply equipment, wiring, technology, training, and other related services adequate to accomplish the requirements as set forth in the RFP and the vendor response to the RFP. Parties agree that where there is a conflict between terms of the Agreement and the information presented in the referenced documents, the Agreement shall take precedence. The parties also agree that where there is not a conflict between the Agreement and the information presented in the referenced documents, all terms, conditions, and offers presented in the vendor's proposal shall herein be referenced to the Agreement and shall be binding upon all parties to the Agreement.

1.28 RISK DURING EQUIPMENT STORAGE AND INSTALLATION

Delivery shall be made in accordance with the implementation schedule referenced as part of the Agreement. It will be possible to allow for minor variances from this implementation schedule as mutually agreed upon by both parties and confirmed by prior written notice. The cabling shall be installed and placed into good working order by representatives of the vendor. During the time period where it is in transit, and until it is fully installed in good working order, the vendor and its insurer shall be responsible for the cabling and components and relieve the District of responsibility for all risk of loss or damage to the cabling and components. In addition, the vendor shall hold the District and agents harmless from any risk of loss or damage arising out of occurrences during the installation.

1.29 SHIPPING OF EQUIPMENT

All shipping and insurance costs to and from the site shall be included in the vendor's proposal. All payments to shipping agents and for insurance fees shall be made directly by the vendor. The District shall

make no payments to any firm concerning the shipment, installation, and delivery of equipment that is not a part of the Agreement and for which exact payments are not described. The vendor shall be responsible for all arrangements for the shipment and receipt of equipment to the District's prepared site. The vendor shall provide all properly trained representatives to unpack all items of equipment and place this equipment in the proper locations. The vendor shall also be responsible for removal of all debris and packing materials from the site resulting from the installation of the equipment.

1.30 NON-WAIVER OF AGREEMENT RIGHTS

It is the option of any party to the Agreement to grant extensions or provide flexibilities to the other party in meeting scheduled tasks or responsibilities defined in the Agreement. Under no circumstances, however, shall any parties to the Agreement forfeit or cancel any right presented in the Agreement by delaying or failing to exercise the right, or by not immediately and promptly notifying the other party in the event of a default. In the event that a party to the Agreement waives a right, this does not indicate a waiver of the ability of the party to, at a subsequent time, enforce the right. The payment of funds to the vendor by the District should in no way be interpreted as acceptance of the system or the waiver of performance requirements.

1.31 GENERAL INDEMNIFICATION

See proposed Agreement in **Appendix C**.

1.32 PATENTS, COPYRIGHTS, AND PROPRIETARY RIGHTS

See proposed Agreement in **Appendix C**.

1.33 NONDISCRIMINATION BY VENDORS OR AGENTS OF THE VENDOR

See proposed Agreement in **Appendix C**.

1.34 SUBCONTRACTORS

See proposed Agreement in **Appendix C**.

1.35 EFFECT OF REGULATION

See proposed Agreement in **Appendix C**.

1.36 PROJECT MANAGEMENT STAFF DESIGNATION

The vendor understands that the successful installation, testing, and operation of the system that is the subject of this document shall be accomplished by a cooperative effort. To most effectively manage this process, the vendor shall designate a single representative to act as project manager, who shall have the authority to act on behalf of the vendor on all matters pertaining to the Agreement.

In the event that an employee of the vendor is, in the opinion of the District, uncooperative, inept, incompetent, or otherwise unacceptable, the vendor agrees to remove such person from responsibility in the project. In the event of such a removal, the vendor shall, within 15 days, fill this representative vacancy as described above. Regardless of whom the vendor has designated as the representative, the vendor organization remains the ultimate responsible party for performing the tasks and responsibilities presented in the Agreement.

1.37 ASSIGNMENTS

The District and the vendor each binds themselves, their partners, successors, and other legal representatives to all covenants, agreements, and obligations contained in the Agreement.

1.38 VENDOR AS INDEPENDENT VENDOR

It is expressly agreed that the vendor is not an agent of the District but an independent contractor. The vendor shall not pledge or attempt to pledge the credit of the District, or in any other way attempt to bind the District.

1.39 INSURANCE

1.39.1 Workers' compensation coverage

The vendor shall procure and maintain, during the life of the Agreement, workers' compensation insurance, including employer's liability coverage, in accordance with all applicable statutes of the state of Michigan.

1.39.2 Commercial general liability insurance

The vendor, at the vendor's sole cost and expense, shall procure and maintain, during the life of the Agreement, commercial general liability insurance on an "Occurrence Basis" with limits of liability not less than one million dollars per occurrence and/or aggregate combined single limit, personal injury, bodily injury, and property damage. Coverage shall include the following features: (A) contractual liability; (B) products and completed operations; (C) independent vendors coverage; (D) broad form general liability extensions, or equivalent; (E) deletion of all explosion, collapse, and underground (XCU) exclusions, if applicable; (F) per contract aggregate.

1.39.3 Motor vehicle liability

The vendor, at the vendor's sole cost and expense, shall procure and maintain, during the life of the Agreement, motor vehicle liability insurance, including applicable no-fault coverages, with limits of liability of not less than one million dollars per occurrence combined single limit bodily injury and property damage. Coverage shall include all owned vehicles and all hired vehicles.

1.39.4 Additional insured

The following shall be named additional insureds: Grosse Pointe Public School System, including all elected and appointed officials; all employees and volunteers; and all boards, commissions; and/or authorities and their board members, employees, and volunteers.

This coverage shall be primary to the additional insureds and not contributing with any other insurance or similar protection available to the additional insureds, whether other available coverage is primary, contributing, or excess.

1.39.5 Notice of cancellation or change

Workers' compensation insurance, commercial general liability insurance, and motor vehicle liability insurance, as described above, shall include an endorsement stating the following: "60 days advance written notice of cancellation or non-renewal shall be sent to: Grosse Pointe Public School System., 389 St. Clair, Grosse Pointe, MI 48230 (313) 432-3000."

1.39.6 Proof of insurance coverage

The vendor shall provide the District, at the time the Agreements are returned for execution, certificates of insurance, and/or policies, acceptable to the District, as listed below:

- A. Two copies of certificate of insurance for worker's compensation insurance
- B. Two copies of certificate of insurance for commercial general liability insurance
- C. Two copies of certificate of insurance for vehicle liability insurance
- D. Original policy, or binder pending issuance of policy, for owners and contractors protective liability insurance
- E. If so requested, certified copies of all policies shall be furnished

1.39.7 Continuation of coverage

If any of the above coverage expires during the term of the Agreement, the vendor shall deliver renewal certificates and/or policies to Grosse Pointe Public School System at least 10 days prior to the expiration date.

1.39.8 Failure to comply

Failure to comply with the insurance requirements contained in the Agreement shall constitute a material violation and breach of contract and may result in termination of the Agreement.

1.40 WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE

The District has presented detailed technical specifications of the particular purpose for which the network and technology is intended. The District has provided detailed descriptions and criteria of how the system can be defined to accomplish this particular purpose. The District has also defined the exact procedures and techniques to be employed in testing whether the system has achieved the defined performance of this particular purpose. Given this advanced preparation concerning, and documentation about, the District's particular purpose, the vendor, at the time the Agreement is in force, has reason and opportunity to know (1) the particular purpose for which products are required, and (2) that the District is relying on the vendor's experience and knowledge of these products to provide those that are most suitable and appropriate. Therefore, the vendor warrants that the system is fit for the purposes for which it is intended as described in this document.

1.41 WARRANTY

See **Section 2** for warranty requirements.

1.42 FINAL ACCEPTANCE OF THE SYSTEM

The system proposed shall be defined to be finally accepted by the District after all components of this RFP and all approved change orders have been installed completely, plus the items identified in **Section 2**. The District or the District's Representative shall be the sole judge of whether all conditions for final acceptance criteria have been met.

1.43 STANDARD FORMS AND CONTRACTS

Any forms and contracts the vendor(s) proposes to include as part of any agreement resulting from this bid between the vendor(s) and the District **must** be submitted as part of the proposal. Any forms and contracts not submitted as part of the bid and subsequently presented for inclusion may be rejected. This requirement includes, but is not limited to, the following types of forms: subcontractor, franchise, warranty agreements, maintenance contracts, and support agreements.

1.44 NON-COLLUSION COVENANT

The vendor hereby represents and agrees that it has in no way entered into any contingent fee arrangement with any firm or person concerning the obtaining of the Agreement. The vendor certifies that its proposal is made without any previous understanding, agreement, or connection with any person, firm, or corporation making a proposal for the same services and is, in all respects, fair, without outside control, collusion, fraud, or otherwise illegal action.

1.45 ADVERTISEMENT

The laws of the state of Michigan, the District purchasing policies, and the legal advertisement for vendors and purchases are made a part of any agreement entered into in the same respect as if specifically set forth in that agreement.

1.46 SELECTION CRITERION

The District intends to enter into a long-term relationship with one or more well-established vendors whose products, features, design philosophy, and support policies come closest to meeting the District's needs. The selected vendor must be a well-established, financially stable firm committed to technology in K-12; will have a commitment to attracting and retaining an excellent staff of technical and product support personnel; and will have a proven track record of support from installation planning through implementation and ongoing use. There should also be evidence of responsiveness to clients' suggestions for improvements. Finally, there must be a good fit between vendor's staff and the District's staff to assure a good working relationship.

The vendors will be evaluated based on the following selection criteria:

CRITERIA	WEIGHTING
Cost	30%
Compliance to technical specifications	20%
Compliance to proposal requirements	15%
Ability to support implementation	20%
Prior experience	15%

1.47 SPECIAL NOTES

Failure to include in the proposal all information outlined above may be cause for rejection of the proposal.

The District reserves the right to accept the vendor's replacement of any component if it is considered equal or superior to the specifications. Such acceptance will be in writing.

1.48 PAYMENT TERMS

See proposed Agreement in **Appendix C**.

1.49 CRIMINAL BACKGROUND SCREENING

The District is committed to assuring a safe environment for students, employees, and district visitors. Accordingly, the District requires criminal background certification compliance from vendors and subcontractors who perform work at any district facility. Each vendor or subcontractor shall certify that all legally required criminal history and criminal record checks, electronic fingerprint scans (Michigan and FBI), and/or any other background check requirements are conducted in accordance with applicable provisions within Sections 380.1230, 380.1230a-h, 380.1236a of the Michigan Revised School Code, and all other applicable federal and state laws concerning background checks. These results must be sent directly to the District. Additionally, the vendor must certify that no owner, employee, agent, representative, vendor, and/or other personnel of the vendor will be on any district premises if they are a registered criminal sexual offender under the Sex Offenders Registration Act, Public Act 295 of 1994, or have been convicted of a "Listed Offense" as defined under Section 722 of the Sex Offenders Registration Act, MCL 28.722. The vendor shall also require employees, if and as applicable, to comply with the reporting requirements of Section 1230d of the Revised School Code and shall promptly forward any information so obtained to the District.

1.50 UNIVERSAL SERVICE FUND (USF) CONDITIONS

This project will be submitted for E-Rate discounts through the Universal Service Fund (USF). Vendors shall meet all requirements, complete all forms as required of vendors by the USF, and make all accommodations necessary for USF eligibility and funding. All services proposed as part of this specification will be contingent upon the District securing the USF discounts. All vendors must be USF aware and clearly identify eligible versus ineligible components of each service proposed as defined per documentation available at the official USF website.

1.50.1 Identification Number

The vendor's USF vendor Identification Number (SPIN) must be included in the proposal. Direct all questions regarding the USF requirements in this RFP to the Universal Service Administrative Company (USAC), Schools and Library Division (SLD) at (888) 203-8100.

1.50.2 FY22 funding requests

The specified products and/or services are to be provided for FY2022 (July 1, 2022-June 30, 2023) and must qualify for universal service discounts under the FY2022 universal service support mechanism, E-Rate. The E-Rate Modernization Order permits applicants to seek support for Category 2-eligible nonrecurring services purchased on or after April 1, three months prior to the start of the funding year on July 1. No invoices to USAC/SLD will be DATED or PAID before July 1, 2022.

1.50.3 Universal service discounts

The vendor contract is conditional upon the District receiving universal service discounts under the FY2022 universal service support mechanism, E-Rate. The District reserves the unrestricted right to reduce the contract amount by reducing the amount of services and/or products in order to meet budget requirements in the event the level of the universal service discounts is reduced. Any such reductions to the contract amount will be taken prior to the start of the specific work being reduced or eliminated on a given building and/or project.

1.50.4 Universal service discount implementation

The District reserves the unrestricted right to specify the filing option for the universal service discounts for each product and/or service offered within a proposal: Billed Entity Applicant Reimbursement (BEAR) or Service Provider Invoice (SPI).

1.50.5 Eligible products and services

The USF-eligible products and/or services identified on the USAC FY2022 Eligible Services List, which is incorporated herein by reference, must be identified separately from any and all *ineligible* products and/or services in the proposal.

1.50.6 Project funding requirements

This project is entirely conditional upon receiving written notification in the form of a Funding Commitment Decision Letter from the USAC/SLD that the District has been approved for E-Rate Funding. If the District receives less than the full E-Rate Funding for which it applies, the District has the unrestricted right to reduce the number of units and services in the accepted proposal. In the event that E-Rate Funding is not available for the accepted proposal, the District, in its discretion, may cancel and/or modify the scope of work and subsequent purchases requested in this RFP.

1.50.7 Lowest corresponding price

Lowest corresponding price (LCP) is defined as the lowest price that a vendor charges to nonresidential customers who are similarly situated to a particular E-Rate applicant for similar services. Vendors cannot charge E-Rate applicants a price above the LCP and must actually charge the rate that is the LCP, not just offer the LCP in the proposal. In addition, promotional rates offered by a vendor for a period of more than 90 days must be included among the comparable rates upon which the LCP is determined.

PROJECT REQUIREMENTS AND SPECIFICATIONS

2 STRUCTURED CABLING

2.1 PROJECT SCOPE AND OVERVIEW

The District intends to re-cable buildings undergoing substantial construction over the next year. Structured cabling is required as indicated in **Appendix A** and on the prints in **Appendix B**.

Vendors' pricing should be based on these buildings.

The following schedule is provided for each school below:

BUILDING	WAP REMOVAL	CABLING DEMO	INSTALL
Pierce Middle School	Mid-June (likely June 17-19)	Mid-June - July	July 15, 2022-August 15, 2023 (depending on construction phasing)
Kerby Elementary	Mid-June (likely June 17-19)	Mid-June - July	July 15, 2022-August 15, 2022
Mason Elementary	Mid-June (likely June 17-19)	Mid-June - July	July 15, 2022-August 15, 2022
Barnes Early Childhood Center	Mid-June (likely June 17-19)	Mid-June - July	July 15, 2022-August 15, 2022

For all buildings the removal of existing wireless access points (WAPs) will start after the school year as soon as teachers have left the buildings. The exact date is to be determined. See Section 2.3.3 for scope. Demolition of old cabling will start as soon as construction takes control of the buildings.

Specifications and requirements are included for the following structured cabling components:

- Horizontal cabling
- Backbone cabling
- Network closets
- Cable demolition
- WAP removal and reinstallation

2.1.1 Special considerations

There will be some abatement work in all four buildings. The work schedule will be coordinated with construction to minimize the impact on the schedule.

2.2 GENERAL EXPECTATIONS

2.2.1 Site work hours

Due to the amount of abatement and construction demolition that will be occurring in these buildings, vendors should not anticipate being able to get into these buildings to start the cabling

install until July 15, 2022 . Due to the limited timeline for completion, and the size of the proposed work scope, vendors should plan for six-day work weeks, on two shifts if necessary, throughout the course of the project (focusing on July 15–August 15). For work hours at construction sites, access must be coordinated with the District’s construction manager.

Any work scheduled inside buildings, or on the building premises, must be coordinated with the District. Arrangements must be made through the District for additional work hours, if needed.

The schedule for school year working hours is 4:00 to 11:00 p.m., Monday through Friday. Weekend work hours will be coordinated with the District as deemed necessary. The District will work with the vendor and the District facilities team to provide appropriate access for each building. This may be available for pre-installation site visits. Please note that schedules are subject to change with short notice or no notice.

Vendors must also plan to be onsite the first weekend after the school semester is finished to remove existing WAPs. The awarded vendor will be required to remove, label, and box the WAPs, and move them to a District designated storage location. This must be done prior to the start of construction demolition. The awarded vendor will be responsible for replacing any WAPs that are lost due to construction. The WAP count to be removed and reinstalled is shown in Appendix A.

2.2.2 Pre-installation walkthrough/site review

The selected vendor shall be responsible for performing building walkthroughs with the District’s Representative to confirm cabling locations and any unique installation issues. The vendor is responsible for identifying and documenting any items that are outside the project scope or listed in the specifications as unit price items. All items not noted shall become the vendor’s responsibility to install at no additional cost.

2.2.3 Acceptable manufacturers

The District is seeking products from reputable structured cabling equipment manufacturers (e.g., Panduit, Legrand, CommScope, Belden, Leviton).

The acceptance of a solution will be at the discretion of the District. There is a strong preference for solutions that have been proven to be both functional and cost effective in a K-12 education environment.

2.2.4 New materials

All equipment quoted by the vendor shall be new. The solution requests that the vendors propose a completely new solution that balances cost, performance, and technology. Solutions using equipment that has either reached, or an announcement has been made for, end-of-life, end-of-support, or end-of-sales will not be entertained.

All products proposed in the response must be in “customer shipping or production” status at the time of the proposal. The vendor may not use products based on future releases of hardware and/or software in their proposal. If the vendor is unable to provide the proposed product(s) or feature(s) by the proposed delivery date, the vendor will provide a resolution of equal or greater value to the District, at no additional charge to the District, including services required to implement the solution.

2.2.5 Technical staff/trained personnel

The vendor shall indicate the level of qualification of the staff that will be assigned to this project. Qualification will be based on certifications, training, and years of experience with the specific structured cabling materials and manufacturer system proposed. Names of staff need not be provided; however, the response in this section will indicate the minimum level of experience that will be provided. If necessary, please include additional categories to address additional levels of staff or staff with different certifications and years of experience.

2.2.6 Specifications sheets

The vendor must provide electronic copies of specification sheets (soft copies) for all products proposed.

2.2.7 Mandatory and nonmandatory requirements

The requirements in this section are to be considered mandatory requirements unless specifically stated otherwise using terms such as “optional,” “desired,” or “nonmandatory.”

2.2.8 Additional components for completeness of solution

If the proposed solution requires any additional components from the District to meet the functional requirements of the solution not included in the proposal, the vendor must:

- a. Identify optimal requirements and their purpose
- b. Identify the estimated cost to the District for these components
- c. Specify exceptions to any of the requirements using the form in **Appendix A: Comply/Exception Form**

Failure to disclose additional components and estimated costs that are required to deliver the described functionality but not included as a part of your proposal will be grounds for disqualification of your proposal, or the vendor will be responsible for providing the missing components at no additional cost to the District.

2.2.9 Site cleanliness

The vendor will ensure all work areas are free from debris caused by work performed under this project scope. At the end of each day, the site must be left in a clean and neat condition prior to completing work for that day, with debris properly disposed of in an efficient manner. Materials must be consolidated into an agreed upon space that is not obstructing any pathways within the respective buildings. Vendor may be asked to wear protective foot coverings or supply drop cloths to minimize impact to newly finished surfaces. Failure to properly clean may result in another contractor performing the cleanup work and back charging it to the vendor.

2.2.10 Construction meetings

Construction meetings will be held weekly at each building once construction begins. Vendor must attend these weekly meetings starting at the end of May.

2.3 DEMOLITION

2.3.1 Cabling

Vendors must demo all existing abandoned cabling, and cabling that is being abandoned as part of this project, at buildings as they are re-cabling (all locations that have new data cabling run to it will have existing cabling to be demoed, as well as additional locations in each classroom). This includes:

- Coaxial cabling
- UTP cabling
- Fiber backbone
- Telco cabling
- PA cabling (some PA cabling will be retained until 2023 at Pierce MS and then will be demo'ed. This will be coordinated with the PA vendor)

For locations demo'ed, vendors will need to remove the cabling from the jack back to the wiring closet and remove all patch panels and other consolidation mechanisms for coaxial and phone lines. All cabling, patch panels, etc. must be disposed of in an environmentally appropriate manner that meets all local, state, and federal requirements. Vendors cannot assume use of the District's dumpsters, they must provide their own method of disposal and removal from the property.

In addition to demolition of existing cabling, locations that are abandoned must be covered with appropriate cover plates (exact cover plate part to be identified as part of walkthrough after award, this will vary by building).

Exceptions to cabling demolition include the following:

- Video surveillance camera cabling: Cable will be yellow in color
- Door access control cabling: Coordinate with video surveillance vendor
- HVAC cabling: Coordinate with the construction superintendent

Estimates of cable quantities to be removed are included in **Appendix A**. Final scope of removal will be determined after award in a site walkthrough to be conducted with the District and their Representative. A unit cost for removal of additional cabling is requested in **Appendix A**.

2.3.2 Network closets

Vendors must remove and properly dispose of equipment that is no longer needed or is being replaced within each respective network closet. This includes cabinets (both wall mount and floor mount) and two-post racks. Network electronics removal will be performed by the District. The scope of removal is detailed in **Appendix A**. Removal scopes include the following:

- **Closet removal:** Consists of removal of existing cabinets and floor-mounted two post racks, patch panels, coax distribution units, and wall-mounted punchdown blocks. Patching and repair of existing walls will be addressed by others. In most cases, these spaces consist of a small wall-mounted cabinet in a computer lab or media center.
- **Closet renovation:** Consists of removal of existing cabinets (wall and floor) and floor-mounted two post racks, patch panels, coax distribution units, and wall-mounted punch down blocks.

These spaces are current MDF and IDFs that will be renovated to accommodate new mounting equipment and cabling supports as provided through this RFP.

2.3.3 Wireless access point removal/re-installation

The vendor is responsible for removal/re-installation of wireless access points as part of the cabling efforts at each building. The District has standardized on Aruba wireless access points. The process of removal/re-installation should include:

- Removal of the wireless access point and associated mounting bracket
- Boxing and labeling by building and location of the wireless access points
- Delivery to District-provided storage location

Retrieval, re-installation and testing of access points placed back in their original location with the associated mounting bracket after construction. The District has management software and will assist with testing.

See **Appendix A** for quantities.

2.4 HORIZONTAL CABLING

All horizontal cabling will be installed in construction trade-provided raceway or conduits where available, or supported by J-hooks where raceway or conduits are not available. All cables run in exposed areas will be installed in vendor provided raceway. All horizontal cable must meet the required specifications as identified below. Each cable run will terminate at the location identified on the prints in **Appendix B** and will have a **minimum of a 10-foot service loop** to potentially relocate the cable drop if necessary. Vendors are required to provide unit pricing for additional cable runs. This unit pricing may be used for any additions (or deductions) that may be necessary after installation has begun. All pricing is to include **CAT6** UTP cable, patch panels, termination jack/connector, cable support, and labor based on the specifications detailed in this section.

The typical classroom will require data for the following components:

- Teacher desks
- Wireless access points
- A/V equipment

Hallways and other building areas will require data cabling for the following:

- Video surveillance cameras, interior and exterior
- Digital clocks
- Shared spaces
- Offices
- HVAC control devices

2.4.1 UTP cabling specifications

The cabling infrastructure shall employ a copper medium, referred to as UTP (unshielded twisted pair) cabling, commonly employed in commercial voice and data networks. To this extent, the finished infrastructure in total shall comply with the installation procedures used for structured

cabling infrastructure builds as specified under TIA/EIA 568B standards. The finished infrastructure initially shall serve to deploy an IP-based signaling format in the future without any substantial changes to the infrastructure as-built. TIA/EIA stipulations to cable distances, methods, and manners shall require strict adherence. This infrastructure shall also meet the following specific criteria:

- i. The cabling infrastructure shall be **CAT6 plenum rated** cable. Horizontal UTP drop cabling shall be **plenum** rated with four unshielded twisted pairs under a common sheath, and that sheath shall be tested and approved for the environment into which it will reside.
- ii. Horizontal UTP cabling shall be deployed in a star topology where cabling is run from the nearest closet to the specified location.
- iii. Horizontal UTP cabling from closet to device shall not exceed 90 meters (295 feet) in length.
- iv. All new cable (UTP) shall be supported using new cable support infrastructure (J-hooks). If new supports (e.g., cable tray) are provided by other trades (e.g., construction), those pathways may be used in lieu of J-hooks with approval from the District. Cable shall not lay on ceiling tiles nor be tied to conduits or ceiling grid support wires.
- v. Cable shall be supported every five feet.
- vi. Failure to comply with cable support methods will result in a written warning. Failure to correct or repeated infractions may result in the vendor being terminated from the project.
- vii. The vendor is responsible for providing all new cores, except four-inch cores, into MDF/IDF locations. The vendor is responsible for neatly coring and sleeving through walls, floors, or ceilings as necessary to route cable into hallways, tech closets, or other areas as required. If new cores for data cable are provided by other trades (e.g., construction), those cores may be used in lieu of providing new with approval from the District.
- viii. The cable must be certified by the manufacturer to support 802.3bt.
- ix. The vendor is responsible for coring, sleeving, and firestopping penetrations through walls, floors, or ceilings as necessary to route cable into hallways, MDF/IDF, or other areas. Any firewalls penetrated or used to facilitate the routing of communication wiring shall, upon completion of that wiring, be fire stopped using approved methods as outlined in the National Electric Code, and all applicable state, county, and city ordinances. The contractor shall be **responsible for fire stopping all penetrations** used for routing of the contractor's cable, regardless of who made the penetration access.
- x. The vendor is responsible for providing all necessary documentation to show that the fire stopping meets all applicable federal, state, county, and city ordinances, including a copy of the fire marshal approval and any necessary permitting.
- xi. Horizontal UTP drop cabling shall be terminated via an IDC (insulation displacement connection) in the patch panel. Modular jacks are acceptable.
- xii. While the defined system is preferred under a single-source manufacturer/supplier, for the purposes of meeting specification, the component parts of the infrastructure may be from multiple manufacturer sources. The UTP, a base proposal of installation, shall be part of a manufacturer's certified program to include a minimum 15-year warranty on the entire channel. Minimally, the UTP installation must include a Manufacturer's Performance Certification and a minimum 15-year warranty on all material and labor. The Certification may

- be through a single manufacturer that supplies all cabling and connectors, or through a joint program (one manufacturer's cable combined with another manufacturer's connectors).
- xiii. The vendor is responsible for applying for the performance warranty, as well as providing documentation of that warranty to the District.
 - xiv. The cable specified shall be in conduit or raceway between the device and the wiring closet (MDF/IDF) in areas where the cable is exposed and not run behind walls or suspended above the ceiling. Cables tied to electrical conduits or laid on ceiling tiles will not be accepted.
 - xv. The cable installers will be certified by the manufacturer on the cable and components used.
 - xvi. The vendor must comply with all EIA/TIA specifications as well as local building codes.

2.4.2 Patch panels base bid

The vendor will supply and install CAT6 patch panels at the MDF and at each of the IDFs as required to support the cable count, as well as any required panels at the other buildings (to be added via unit cost as needed during installation). Patch panels will have keystone jacks. The keystone jacks will be color matched to the cable. The vendor will supply unit pricing for additions (or deductions) that may be necessary after installation has begun.

2.4.3 Ladder rack base bid

The vendor will supply and install ladder rack at each MDF/IDF location. The ladder rack will be installed from the cable entry point to the wall behind the rack or cabinet location at each MDF/IDF and will be 12 inches wide and four inches high. Ladder rack will not be run on a diagonal path across the room. All ladder rack pathways will have 90 degree turns where turns are necessary.

2.4.4 Cable by device type and end termination

The vendor will terminate the device end cable in a standard 8P8C connector at the device end. A cable identification label in printed form will be placed on the cable at the device end. Handwritten labels will not be accepted. Each communications outlet shall have a printed label (to be clearly visible), and all labels should be placed under a clear plastic cover to provide a tamper-resistant solution. Each horizontal UTP cable shall be labeled at each end with an adhesive-backed designation strip. The strips must be designed to withstand the heat of the closets they are terminated into without peeling off. All labeling must meet TIA/EIA standards.

ALL DATA CABLE WILL HAVE A 10 FOOT SERVICE LOOP AT BOTH ENDS.

For each cabling drop to general location, A/V, WAP, digital clock, and video surveillance locations, the vendor must provide the following:

General Location data cabling

- The cable color will be blue
- Cable counts for each data location are marked on the drawings
- One 1-foot patch cable for each data cable at the closet side
- One 10-foot patch cable for each data cable at the device end
- Total cable counts for each building are in Appendix A

WAP cabling

- The cable color will be green
- Each WAP location will require two data cables
- One one-foot patch cable for each data cable at the closet side
- For each cable the device end will be terminated on an RJ-45 PLUG
- Total cable counts for each building are in Appendix A

Digital clock cabling

- The cable color will be pink
- Each single sided clock location will require one data cable
- Each two-sided clock location will require two data cables
- One one-foot patch cables for each data cable at the closet side
- For each cable the device end will be terminated on an RJ-45 PLUG
- Total cable counts for each building are in Appendix A

Video surveillance camera cabling

- The cable color will be yellow
- Each camera location will require one data cable
- Each camera location will be terminated on an RJ-45 PLUG
- For camera locations provide a one-foot patch cable for each data cable at the closet side, no patch cable is required at the device end
- Total cable counts for each building are in **Appendix A**

For each cabling drop to all other locations, the vendor must provide the following:

- One one-foot cord for the closet side
- One 10-foot cord for the end user side
- Faceplates and any required inserts, including blanks, for the raceway or junction box (exact faceplate part to be identified as part of walkthrough after award, this may vary by building)

2.4.5 Telephone (POTS Line) cabling and line identification

CAT6 cable will be pulled from the Telco Demarc to selected locations such as the fire alarm panel, office emergency phone, elevator control room, and HVAC control systems to connect these end devices to the building POTS lines. Four CAT6 cables will be installed from the Telco Demarc to each MDF location. Two CAT6 cables will be installed from the MDF to each IDF. These cables will be terminated on 66 blocks at both ends. Prior to any demolition work in a building the awarded vendor will identify and record each existing active telephone line at the Telco Demarc and use this information to ensure that the new cables are terminated on the correct pair. The number of cables to be identified and installed for each building is shown in Appendix A.

2.4.6 Add/Alternate 1: Category 6A cabling

Change to all Category 6A cabling.

2.5 BACKBONE CABLING

The vendor is responsible for providing single mode fiber optic cabling between the building MDF and any IDF. The vendor is responsible for estimation of distances for each fiber run.

This infrastructure shall also meet the following specific criteria:

- i. All new fiber-optic cable shall be supported using new cable support infrastructure (J-hooks). If new supports (e.g., cable tray) are provided by other trades (e.g., construction), those pathways may be used in lieu of J-hooks with approval from the District. Cable shall not lay on ceiling tiles nor be tied to ceiling grid support wires or conduit.
- ii. The cabling shall be supported every five feet and will have no more than six inches of sag at any point.
- iii. Fiber-optic cable shall have labels on the outer sheath identifying it as fiber cable at a minimum of every 20 feet.

2.5.1 Single-mode fiber optic cabling

Single-mode fiber optic cabling must meet (or exceed) the following specific criteria:

Fiber type	Single-mode (OS2)
Connectors	LC
Buffer tube design	Tight Buffer Tube
Core diameter	9 μm
Cladding diameter	125 μm
Strand count	12
Jacket	Armored (dielectric), Plenum (OFNP)
Max. attenuation	@ 1310nm: .4 dB/km @ 1383nm: .4 dB/km @ 1550nm: .4 dB/km
Standards	ANSI/TIA-568-3-D ISO/IEC 11801, ANSI/ICEA S-83-596

2.5.2 Fiber enclosure

The vendor is responsible for providing a fiber enclosure to terminate in-building fiber optics. The panel in the MDF must be sized to accommodate 12 terminated strands from each IDF. All fiber patch panels will be rack mount. The panel at each IDF will be sized to accommodate 12 terminated strands. All panels will have bulkhead inserts that accommodate six fiber terminations. In addition, all fiber terminated within the enclosure should be labeled on both the cable and fiber enclosure according to the standard established by the District. The fiber enclosure must meet (or exceed) the following specific criteria:

Rack units	Sized according to termination requirements
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Covers	Front and rear with hinge
Cable management	Bend radius control and cable management for fiber patch cords, cable routing kit
Tray	Front and rear sliding drawer

2.6 NETWORK CLOSETS

The vendor is responsible for demolition and reconfiguration of each MDF and IDF to support the new structured cabling infrastructure. The specific equipment types to be proposed are outlined below. The specific needs for each closet are summarized in **Appendix A**.

2.6.1 Cable management

Each patch panel installed into the cabinet shall receive a horizontal wire management panel/trough installed below it. This will include front and rear wire management. The rear is for routing of cable until it is terminated on the back of the patch panel. There shall be hinged covers that hide the patch cables when routed within. Both rails in a rack or cabinet shall be equipped with vertical wire management modules extending from the base to the top of the unit, on both sides. Provide a cut sheet with your proposed solution.

For all MDF and IDF locations the vendor will provide ladder rack. The vendor is responsible for neatly routing all structured cabling in the MDF and IDF locations from point of entry to the equipment racks or cabinets using ladder rack. Where applicable, ladder rack and shall conform to ANSI/TIA/EIA-607 requirements for bonding.

2.6.2 Bonding

The vendor is responsible for bonding all installed equipment to the bus bar provided in each closet. Bonding shall meet the appropriate requirements and practices of applicable authorities and/or codes. Additionally, all bonding shall conform to ANSI/TIA/EIA-607 requirements. Daisy chaining components for bonding will not be acceptable. A grounded bus bar will be provided for bonding.

2.6.3 Power distribution units (optional)

As an option, unit pricing for power distribution units is requested. The vendor is responsible for sizing the PDU capacity according to District-provided list of equipment to be installed. The vendor will be responsible for affixing power distribution units into each equipment rack. The PDUs provided must meet the requirements outlined below:

Form factor	Rack-mounted (19")
Input voltage	120V
Plug type	NEMA 5-15P
No. of outlets	12
Outlet types	NEMA 5-15P
Additional features	Remote management, digital ammeter

2.6.4 Equipment racks/cabinets

Types and quantities of network equipment racks/cabinets required are included in **Appendix A**. All equipment shall be supplied with appropriate screws, shelves, mounting brackets, rails, etc. Unit pricing for installation and equipment for each of the following rack types is listed in Appendix A.

The vendor will be responsible for securing all equipment racks to the floor/wall. The equipment racks must be properly affixed to prevent unwanted movement of the equipment racks. Pricing must include removal of the existing equipment racks in each closet.

2.7 DOCUMENTATION

The vendor shall provide electronic system documentation as detailed below. Documentation shall include vendor contact information, including names of account representative, design engineer, supervisor, and project manager; vendor mailing address; voice numbers; fax numbers; and email address.

2.7.1 As-built drawings

The vendor will prepare complete field installation drawings. The drawings will show:

- a. The location of all cabling and equipment
- b. Cable ID at end-user location
- c. Pathways from IDF locations back to the MDF location (including fiber optic strand counts where applicable).
- d. All core locations (including core size and whether they are through a wall or a floor)

As-built drawings should be documented on the District-provided architectural blueprints/building floor plans. CAD files can be provided upon request. The vendor is responsible for assuming any fees that may be required to obtain said CAD files. The vendor will work with the District or its representative to develop a symbol set to be used on the drawings.

The vendor will provide all as-built information on District-provided electronic files (PDF format) in electronic copies.

2.7.2 As-built cable records

The vendor will provide the District with detailed records of each UTP and fiber cable installed for each site. These records shall include a listing of the following:

- a. Warranty statement from vendor and manufacturer
- b. Copy of any permits required for the project
- c. Copy of signoff documents
- d. Manufacturer specification sheets for each component installed in system
- e. Fire stop system drawings for each type of wall, floor, or ceiling penetration
- f. CAT6 test results for all horizontal UTP cable, results must be presented in electronic format for each cable tested
- g. CAT6 tester manufacturer, model, serial number, hardware version, and software version
- h. Fiber test results, results must be presented in electronic format for each cable tested
- i. Fiber tester manufacturer, model, serial number, hardware version, and software version
- j. As-built drawings showing cable identification for all cables installed in electronic format

2.7.3 Warranty documentation

The vendor shall provide warranty documentation for all equipment installed.

2.7.4 Permit documentation

The vendor shall provide proof of applicable successful inspection that are necessary to meet local, state, or federal code and requirements.

2.7.5 Documentation turnover

The vendor shall provide an inventory of all documentation (including test results) submitted to the District and shall obtain the signature of the recipient.

2.8 ACCEPTANCE/TESTING CRITERIA

Upon completion of work and prior to the Final Acceptance, the vendor will submit to the District one electronic copy:

- All as-built drawings
- All warranty documentation
- All permit documentation
- All testing results (system performance test and cabling tests)

The base bid work must be completed by August 15. Initial acceptance testing shall take place prior to the start of the school year. Systems must be operational for 45 days during the school year prior to final acceptance.

2.8.1 Testing : Submission of results

Test results are to be submitted to the District's Representative for review.

2.8.2 Cabling testing

The cable shall be tested after installation and meet all testing and installation requirements compliant with CAT6 based on following standards:

- ANSI/TIA-568.0-D – Generic Telecommunications Cabling for Customer Premises
- ANSI/TIA-568.1-D, Commercial Building Telecommunications Cabling Standard
- ANSI/TIA-568.2-D – Balanced Twisted-Pair Telecommunications Cabling and Components Standards
- ANSI/TIA-1152 – Requirements for Field Test Instruments and Measurements for Balanced Twisted-Pair Cabling
- ANSI/TIA/EIA 569-B – Commercial Site Standards for Telecommunications Pathway and Spaces
- ISO/IEC 11801
- ANSI/TIA/EIA 606-A – Administration Standard for Commercial Telecommunications Infrastructure
- ANSI/TIA/EIA 607-A – Commercial Site Grounding (Earthing) and Bonding requirements for Telecommunications
- NFPA 70, National Electrical Code (NEC 2017)
- All cabling must be plenum rated

Additionally, all cabling shall comply with the following requirements:

- The conductors of the pairs will be of solid copper construction.
- The cable type shall be plenum rated with 100% FEP for all areas within the building.
- The cable shall possess the ratings by Underwriter's Laboratory (UL) CMP as applies to the cable type and insulation.
- The cable must be tested by ETL Intertek Testing Services and/or approved by UL.

2.8.3 Fiber backbone: Power meter testing

Testing of fiber shall be performed prior to system acceptance. Power meter testing provides documentation of the amount of attenuation across a span on a single fiber. All fibers shall undergo bi-directional attenuation testing with an optical meter at 1310nm, 1383nm, and 1550nm wavelengths (ANSI/TIA-568-3-D, ISO/IEC 11801, ANSI/ICEA S-83-596).

In accordance with Tier 1 fiber-optic testing standards as defined by TIA-568-C.0, each fiber strand will be tested with a power meter to determine loss and insure proper positioning in the termination panel. Instruments used to test must meet the requirements of TIA-526-7. Test results will be recorded and provided electronically and submitted to the District and their representative for review.

2.8.3.1 Fiber optic connector loss values

The maximum loss values for patch panels and patch cords shall not exceed the manufacturer's specified values. At no point shall the following loss values be exceeded:

Splice (mechanical):	0.30 dB
Splice (fusion):	0.30 dB
Connector (mated pair):	0.75 dB
Cross-Connect (two mated pairs):	1.50 dB

2.8.4 Punch lists

After installation is complete, the vendor shall receive a punch list from the District. The vendor shall have 10 days to remedy the punch list. The District and/or the District representative shall review the punch list items. If any items remain after the vendor has indicated they were cleared, the vendor shall be charged \$250 for each business day until the punch list items are cleared.

2.8.5 Final acceptance

The vendor shall demonstrate that all work is complete, free from physical and electrical defects or deficiencies, and in satisfactory operating condition. The District shall be allowed to inspect and test the work performed and to notify the vendor of any deficiencies. The District or its designated representative will be the sole judge as to whether the work has been completed properly. All material or equipment that is deemed not to comply with this RFP will be replaced by the vendor, at no charge to the District, prior to final payment. Final acceptance will occur in phases, by building.

2.9 SYSTEM WARRANTY

2.9.1 Structured cabling

The base proposal of CAT6 installation shall be part of a manufacturer's certified program to include a minimum 15-year warranty on the entire channel. Minimally, the UTP installation must include a Manufacturer's Performance Certification and a minimum 15-year warranty on all material and labor. The Certification may be through a single manufacturer that supplies all cabling and connectors or through a joint program (one manufacturer's cable combined with another manufacturer's connectors).

The vendor is responsible for applying for the performance warranty as well as for providing documentation of that warranty to the District.

2.9.2 Fiber

Fiber installation shall be part of the vendor's workmanship warranty (one year).

2.10 COSTS

Costs for this section should be included according to the requirements listed in **Section 2**.

Base bid to include the following:

- Cabling
- Cabling support
- Cabling demolition
- In-building fiber
- Network closet installation
- All required labor and miscellaneous materials

2.10.1 Other costs

If any costs are associated with your proposed service that have not been identified in prior sections, they must be detailed in the other costs section under each price form. Any such charges will be clearly identified, and all nonrecurring and monthly costs provided. These other costs, if any, must be shown for each category requested.

APPENDICES (PROVIDED SEPARATELY)

Appendix A - Vendor Response Forms

Appendix B - District Drawings

Appendix C - Sample Agreement