

SCOPE OF SERVICES

Madeira City School District wishes to compare leased lit fiber services and leased dark fiber services. The current Wide Area Network Services are provided via leased dark fiber and is lit with district-owned equipment.

- Service is expected to be delivered from the district hub, Madeira High School at 7465 Loannes Dr, Cincinnati, Ohio 45243 to the following eligible service locations:
 - Madeira Elementary School: 7840 Thomas Drive, Cincinnati, Ohio 45243
 - Madeira Middle School: 6612 Miami Avenue, Cincinnati, Ohio 45243

At the above sites, respondent must run infrastructure or service to an existing network closet designated by Madeira City School District.

The new service is being planned to begin on July 1, 2022, which represents the expiration of the current service.

Madeira City School District is seeking bids for two options. Respondents may bid one or both options.

1. The first option is a fully managed, leased lit fiber transport service from the hub to the specified eligible applicant sites. One-time special construction can be bid separately from the vendors proposed monthly recurring cost for the fully managed leased lit service.
2. The second option is for a leased dark fiber solution that includes special construction, the monthly lease fee, maintenance, and operations. One-time special construction costs should be bid separately from the monthly lease fee. Maintenance and operations fees can be included in the monthly lease fee.

In E-rate terminology, **special construction** refers to the upfront, non-recurring costs associated with the installation of new fiber to or between eligible entities. Applicants may seek funding for special construction charges in connection with leased lit fiber services and leased dark fiber services. Special construction charges eligible for Category One support consist of three components:

1. Construction of network facilities;
2. Design and engineering; and
3. Project management.

Note: The term “special construction” does not include Network Equipment necessary to light fiber, nor the services necessary to maintain the fiber. Charges for network equipment and fiber maintenance are eligible for Category One support as separate services, but not as special construction.

All options can include special construction or one-time E-rate eligible non-recurring costs as well as E-rate eligible recurring circuit costs. Based on the bids and both a short-term and long-term cost effectiveness analysis, Madeira City School District, will determine which, if any, of the leased lit fiber services, leased dark fiber services, or some combination of solutions is acceptable. The specifications related to each solution option are as follows.

Leased Lit Fiber Services:

Madeira City School District must have dedicated Lit Transport Bandwidth throughput (upload and download) of, 1 Gbps with Service Level Agreement (SLA) guarantees to all specified sites. The solution must be scalable to 5 Gbps. **All respondents must be capable of providing telecommunication services under the Universal Service Support Mechanism.**

Lit Service Price Proposal

Price quotes are requested for a 60-month term of service. Prices should be all-inclusive. All-inclusive in this case means including all **special construction or non-recurring costs (NRC)** required by the vendor to commence service and all **monthly-recurring costs (MRC)** should be included. No increased pricing will be allowed during the term of the quoted special construction/NRC and MRC.

Additional Description

Each lit service response must also include description of proposal, SLA, timeline, network diagram, demarcation, and references.

Leased Dark Fiber Services:

Respondents can quote a leased dark fiber network solution from the specified hub to the eligible service locations. The price quote should be for a lease of a minimum of 2 strands of fiber from the hub to each eligible entity location.

Leased Dark Fiber Services Price Proposal

The proposal shall provide NRC and MRC for each fiber run between hub at Madeira High School and each building listed above. Respondents are encouraged to separate special construction charges as defined by E-rate eligibility rules. Preference will be given to proposals that offer pricing with most of the costs being paid up-front and minimal MRC and annual maintenance costs.

Additional Description

Each leased dark fiber services response must also include description of proposal, description of maintenance, SLA, timeline, network diagram, demarcation, and references.

General Terms for Leased Dark Fiber Services:

The following are general terms that apply to leased dark fiber builds. Respondents may offer maintenance and operations services, and network equipment purchase (if applicable), installation, and operations either themselves or through third-party subcontractors. In the case that respondents use external third-party service providers or contractors to deliver some or part of the solution, these should be clearly indicated in the response.

Maintenance

Madeira City School District requires on-going maintenance of the fiber on all leased dark fiber solutions. Maintenance responses are required as follows:

- All leased dark fiber solutions require maintenance as part of the response, even if maintenance is subcontracted out to a third-party. In the case of the third-party maintenance, the respondent must hold and manage the subcontract and is ultimately responsible for the SLA. For a leased dark fiber solution, it is assumed that the Fiber Network is part of a more comprehensive fiber infrastructure of the service provider. The respondent will include only the portion of maintenance that is required to support Madeira City School District's fiber segments versus overall network maintenance. If the fiber serves multiple customers, the cost of maintenance should be shared among all the recipients.
- If maintenance cannot be quoted for the entire time span of the lease term, please include an alternate time span quote as well as explanation for the shorter time span.
- As part of the maintenance contract for a lease term, the fiber owner (not the district) must claim responsibility for repairs in the event of a catastrophic cut or relocate.
- As part of the maintenance contract for a lease term, describe the process for relocates including assumption of costs.

Respondent shall maintain the applicable fiber seven days per week, twenty-four hours per day. Upon notification from the district of a malfunction relating to the applicable fiber, respondent shall respond to such malfunction within two (2) hours and thereafter proceed to correct the malfunction with reasonable diligence.

When pricing maintenance, the respondent should include an overview of fiber maintenance practices including:

- Routine maintenance and inspection;
- Scheduled maintenance windows and scheduling practices for planned outages;
- Marker and handhole inspection and repair;
- Handling of unscheduled outages and customer problem reports;
- What service level agreement is included, and what alternative service levels may be available at additional cost;
- What agreements are in place with applicable utilities and utility contractors for emergency restoration;
- Repair of fiber breaks;
- Post repair testing;
- Mean time to repair;
- Replacement of damaged fiber;
- Replacement of fiber which no longer meets specifications;
- Policies for customer notification regarding maintenance;
- Process for changing procedures, including customer notification practices;
- Process for moves, adds, and changes; and
- Process for responding to locate requests.

Equipment, Installation, and Operations

Include price details for the equipment necessary to place the circuits into service between the hub and the eligible entity locations. The price details should include costs for installation and hardware configuration of equipment at both the district hub and each eligible entity locations and the annual cost to operate the fiber network.

Please provide a quote for an annual operations cost to oversee the technical support of the circuits once the leased dark fiber is available for service. The annual operations cost should include the following:

- Procurement of necessary hardware to light the fiber path(s);
- Manage initial inquiry and contracts needed to place equipment and cross connect to the Internet provider at the co-location facility;
- Installation and configuration of equipment to put circuits into service;
- Network monitoring on a 24x7x365 basis;
- Creation and communication of service tickets to Madeira City School District's escalation list;
- Incident response with timing standards that are in accordance to a Respondent provided service level agreement that meets general industry standards;
- Other industry standard provisions of broadband service technical support; and
- Re-provisioning of equipment necessary to put circuits back into service after an outage.

Service Level Agreement:

Respondent will provide a description of the proposed services and service levels provided with the leased lit fiber services, leased dark fiber services, and operations responses. The respondent will provide a proposed Service Level Agreement (SLA) with the RFP response. The proposal must include a description of the following services and how these services will be measured.

- Fiber Network Availability: the provider will make all reasonable efforts to ensure 99.999% network availability of each circuit.
- Lit and Operations proposals only: Frame/Packet Loss 0.25% Commitment.
- Lit and Operations proposals only: 25 ms Network Latency Commitment.
- Lit and Operations proposals only: 10 ms Network Jitter Commitment.
- There is no right of provider to limit or throttle the capacity of the circuit at any time for any reason.