

## TIMELINE:

- January 24, 2018: Release of Request For Proposal to vendors and public
- February 1, 2018: Site walk-through of hub location from 10 AM-Noon (non-Mandatory). Meet at 503 C St, Hawthorne, NV 89415
- Notify District in advance if you will need to survey any non-hub school buildings, otherwise survey will include hub facility only.
- February 6, 2018: Questions must be submitted on or before this date to [dmarsd@mineral.k12.nv.us](mailto:dmarsd@mineral.k12.nv.us)
- March 8, 2018: RFP responses are due. Submit bids to [dmarsd@mineral.k12.nv.us](mailto:dmarsd@mineral.k12.nv.us)

## SCOPE OF SERVICES

Mineral County, NV Schools are requesting proposals for one service option, leased lit fiber for delivery of wide area network (WAN) services to three remote locations from the District Hub.

The current WAN services are wireless microwave services at 100 mbps per location. Due to instructional needs and in order to meet the bandwidth standards included by the FCC in the second E-rate modernization order, the district desires to upgrade these connections as follows:

Service is expected to be delivered from the district regional hub, the Mineral County School District Central Office at 503 C. Street, Hawthorne, NV 89415 (Latitude: 38.524646/Longitude: -118.626540)

- Service is expected to be delivered to the eligible service locations from the district hub at the following locations:
  - Eligible Entity 1, Hawthorne Elementary School, 901 9th St, Hawthorne, NV 89415 (Latitude: 38.530782/Longitude: -118.619616) 239 students
  - Eligible Entity 2, Mineral County High School/Hawthorne Middle School, 601 A St, Hawthorne, NV 89415 (Latitude: 38.527612/Longitude: -118.630467) 191 students total.
  - Eligible Entity 3, Schurz Elementary School, Schurz, NV 89427 (Longitude: 38.938385/Latitude: -118.808534) 66 students (approximately 35 miles from the District Hub along US95 S)

The new service is being planned to begin on July 1, 2018 which represents the expiration of the current leased WAN service. **All respondents must be capable of providing telecommunication services under the Universal Service Support Mechanism, be a registered vendor with USAC, and have a USAC issued 498 ID (formerly Service Provider Identification Number-SPIN).**

Mineral County Schools will consider traditional network designs (such as hub and spoke) or alternative proposals that, in accordance with E-rate guidance, maximize cost effectiveness. Respondents should clearly illustrate proposed network design and construction routes. Mineral County Schools is not advocating or mandating any preconceived network design or construction route and leaves this decision up to the vendor to present their best solution while recognizing the cited termination locations.

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. If no new fiber is being installed, then any installation costs are considered standard **non-recurring costs (NRC)**. Applicants may seek funding for special construction charges in connection with leased lit fiber, leased dark fiber,

and self-provisioning. Special construction charges eligible for Category One support consist of three components:

1. construction of network facilities
2. design and engineering
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. To the extent that the winning service provider installs additional strands of fiber for future business ventures, the winning service provider assumes full responsibility to ensure those incremental costs are allocated out of the special construction charges to the district in accordance with FCC rules and orders. If, after the issuance of the FCDL, USAC or the FCC determines that the winning service provider did not cost allocate those charges associated with the additional strands, Mineral County Schools will not be responsible for reimbursing the winning vendor and the winning vendor will assume all responsibilities deemed ineligible by USAC. For examples of cost allocation, please see document in Appendix C as prepared by the State E-rate Coordinators’ Alliance (SECA).

Based on the bids and both a short term and long-term cost effectiveness analysis, Mineral County Schools will determine which of the solutions is acceptable.

### **Leased Lit Fiber**

Mineral County Schools must have dedicated, symmetrical transport bandwidth of 1G to 10G with Service Level Agreement (SLA) guarantees between the designated endpoints. The solution must be scalable from 1G to 10G and pricing should be provided for those two levels. Price quotes are requested for 36 month and 60 month terms of service. Each respondent is required to complete the pricing matrix located in Appendix A of this RFP. If special construction is necessary, respondents are **required** to separate out pricing in Appendix B: Special Construction Pricing. No increased pricing will be allowed during the term of the quoted special construction, NRC, and MRC rate in each pricing cell of the matrix. If an increase in bandwidth is requested during the contract period the contract does not renew. As bandwidth needs are steadily rising, respondents are free to bid higher tiers of bandwidth than what is requested to demonstrate their future scalability.

### **General Terms for All Proposals**

#### *Leased Lit Fiber Definition*

A point to point broadband service delivered over a service provider or other third party owned network. The service is exclusively delivered over Fiber. The service is a fully managed service, with the service provider supplying the equipment, provisioning the bandwidth and providing technical support/management of the service. The service does not include access to the Commercial Internet.

#### *Description of Proposal*

Respondent will provide a description of their proposal for all services and solutions. Description will include an overview of the proposal, any deviations from the requested architecture, design or requirements, assumptions made, and other detail Mineral County Schools may find useful or necessary (or could differentiate the solution from a competing proposal).

#### *Service Level Agreement*

Respondent will provide a proposed Service Level Agreement (SLA) with the RFP response. This SLA applies to both the point to point leased lit fiber service and the point to point transport only-

no ISP service (which is provided over any type of infrastructure other than fiber including wireless, coax, copper, etc.). The proposal must include a description of the following services and how these services will be measured.

- Network Availability: the provider will make all reasonable efforts to ensure 99.99% network availability of each circuit.
- .25% frame/packet loss commitment
- 25ms network latency commitment
- 10ms network jitter commitment
- There is no right of provider to limit or throttle the capacity of the circuit at any time for any reason

In addition to the required services, the proposal may include but is not to be limited to the following services:

- Network operations center: Solution will provide customer support functions including problem tracking, resolution and escalation support management on a 24x7x365 basis. Customer has the right and is encouraged to call concerning any problems that may arise relative to its connection with vendor provided services.
- Trouble reporting and response: Upon interruption, degradation or loss of service, Customer may contact Vendor by defined method with a response based on trouble level. Upon contact from the Customer, the Vendor support team will initiate an immediate response to resolve any Customer issue. Customer will receive rapid feedback on trouble resolution, including potential resolution time.
- Escalation: In the event that service has not been restored in a timely manner, or the Customer does not feel that adequate attention has been allocated, the Customer can escalate the trouble resolution by request. A list of escalation contacts will be provided when implementation schedule is completed.
- Resolution: The Customer will be notified immediately once the problem is resolved and will be asked for verbal closure of the incident.
- Trouble reporting, escalation and resolution: A detail trouble reporting, escalation and resolution plan will be provided to the district.
- Measurement: Vendor stated commitment is to respond to any outage within two (2) hours and a four (4) hour restoration of service. Time starts from the time the Customer contacts vendor and identifies the problem. Credits for outages of shortage will be identified.
- Reports: Upon request, an incident report will be made available to the Customer within five (5) working days of resolution of the trouble.
- Link performance per segment: The service will maintain the proposed link performance throughout the term of the contract.
- Historical uptime: Provide aggregate uptime statistics for your proposed service in the geographic area encompassing Mineral County Schools.

#### *Timeline*

For each response, respondents must include a timeline for all bringing all sites online and an explanation of how much they are able to adhere to Mineral County Schools' specified timeline. Respondents with existing infrastructure in the area should be able to bring all sites online by the July 1 start of the funding year.

#### *Demarcation*

All solutions must terminate service or infrastructure in the demarcation point at the addresses specified in this RFP. Solutions bringing service to the property line but not to the demarcation point are not acceptable. Respondent must specify specific demarcation setup included in base fees, e.g. wall mounted CPE and CAT6a handoff.

### *Network Diagram*

For each response, respondents must include a network diagram displaying the paths to be used to serve each endpoint.

### *References*

For each response, respondent must provide 3 references from current or recent customers (preferably K-12) with projects equivalent to the size of Mineral County Schools.

### **Special Construction Payment Plan Option**

The applicant requests that the respondents consider allowing Mineral County Schools to pay the non-discount share of special construction costs (portion of costs that are the responsibility of the applicant) to be paid in equal annual installments over four years from Funding Year 2018 to Funding Year 2021 inclusive. Responses must include agreement or non-agreement of this request.

### **Special Construction Information for Form 471 and PIA Review**

All E-rate applications including special construction are subject to detailed questioning during PIA review where the cost of proposed special construction will be reviewed based on the cost of historical fiber builds in the region. Additionally, certain information on necessary special construction is needed to accurately fill out the Form 471. Respondents are **required** to fill out the table in Appendix B. Additionally, respondents are encouraged (but not required) to submit the additional information described in Appendix B that will likely be requested during PIA review. If respondents do not submit this additional information with their bid, and their solution is chosen, they must be prepared to promptly provide that information and any additional information not described in this RFP when requested. Please note that vendors may assist applicants with preparing funding requests or responding to PIA questions and may speak directly with PIA reviewers.

### **Required Notice to Proceed and Funding Availability**

Mineral County Schools will follow the purchasing policies of the Mineral County Schools Board and requirements and procedures of the FCC's E-rate program as administered by the Universal Service Administrative Company to be eligible for all available funding. The implementation of any associated contracts resulting from this competitive bid process will be dependent on the district's issuance of a written Notice to Proceed. E-rate funding notification alone will not signify Notice to Proceed. The district will have the right to allow the contract to expire without implementation if appropriate funding does not come available.

Additionally, any projects requiring **special construction** are also contingent on issuance of funds from the State of Nevada. The district will have the right to allow the contract to expire without implementation if this specific funding does not come available.

### **E-rate Modernization Order Note**

Special construction and service eligibility for reimbursement have changed starting funding year 2016. See the Federal Communications Commission E-rate modernization order 2 (WC Docket No. 13-184) (<https://www.fcc.gov/document/fcc-releases-order-modernizing-e-rate-21st-century-connectivity>) for more information.

### **RFP Scoring Rubric**

% Weight	Criteria
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30%	<b>E-rate eligible recurring and one-time circuit costs</b>
20%	Ability to support requirements as laid out in the RFP
10%	Proposed contract terms and conditions
10%	Service Reliability
10%	E-rate ineligible recurring or one-time costs
10%	Demonstrated scalability of technology through pricing for higher tiered bandwidths
10%	Provider references

Appendix A: MRC/NRC Cost Tables-Leased Lit Fiber

		Eligible Monthly Recurring Cost			Ineligible monthly recurring cost	Eligible install/non-recurring cost	Ineligible install/non-recurring cost
Location	Bandwidth		3-year contract	5-year contract			
A location: Mineral County School District Central Office 503 C. Street, Hawthorne, NV 89415  (Latitude: 38.524646/ Longitude: -118.626540)							
Z locations: Hawthorne Elementary School  901 9th St, Hawthorne, NV 89415  (Latitude: 38.530782/ Longitude: -118.619616) 239 students	1G						
Mineral County High School/Hawthorne Middle School,  601 A St, Hawthorne, NV 89415  (Latitude: 38.527612/ Longitude: -118.630467) 191 students total	1G						
Schrucz Elementary School, Schurz, NV 89427  (Longitude: 38.938385/ Latitude: -118.808534) 66 students (35 miles from the District Hub along US95 S)	1G						

Z locations: Hawthorne Elementary School 901 9th St, Hawthorne, NV 89415 (Latitude: 38.530782/ Longitude: -118.619616) 239 students	10G						
Mineral County High School/Hawthorne Middle School, 601 A St, Hawthorne, NV 89415 (Latitude: 38.527612/ Longitude: -118.630467) 191 students total	10G						
Schurz Elementary School, Schurz, NV 89427 (Longitude: 38.938385/ Latitude: -118.808534) 66 students (35 miles from the District Hub along US95 S)	10G						

Appendix B: Special Construction Pricing for leased lit fiber

**Required with all bid submissions that include special construction**

Location	Strand Count	Segment Mileage	Total Segment Cost	Eligible Cost	Ineligible Cost
<b>Total project mileage and costs</b>					

**Information that can be included now, but will be requested at a later date for chosen solution:**

- Special construction cost breakout worksheet
- Route map of all build segments in kmz format
- Explanation of alternative routes that were explored and why the chosen route is the most cost-effective
- Explanation of special materials and procedures required that may have increased construction costs, such as:
  - Historical preservation or environmental issues
  - Bridge, waterway, railway, or highway crossings
  - Galvanized conduit
  - Directional boring through hard rock or under a paved surface
  - An excessive number of handholes, marker posts, or other OSP materials
  - Expensive pole attachment fees or make ready costs

**E-rate Special Construction  
Excess Strands - Cost Allocation Scenarios  
Funding Year 2018**

Prepared by the [State E-rate Coordinators' Alliance](#)  
October 23, 2017

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**I. LEASED LIT FIBER AND LEASED DARK FIBER**

**A. Excess Strands for Applicant's Future Use**

If the service provider installs additional strands for the applicant's exclusive future use in a leased dark fiber or leased lit fiber special construction project, and if the applicant can show documentation that buying a cable containing the number of strands placed in the fiber system for the applicant's future use is more cost effective than buying a fiber cable with the number of strands the applicant plans to place into service the first year, no cost allocation of the excess strands is required and no other special construction charges would need to be cost allocated.

If the service provider installs excess strands for the applicant's exclusive future use in a leased dark fiber or leased lit fiber special construction project where the excess strands will remain dormant until they are lit for the applicant in the future, and if the applicant cannot show that it is not more cost effective than buying the exact number of fiber strands being lit in the first year, the applicant must cost allocate the costs associated with the excess strands only. No other special construction charges would need to be cost allocated.

**B. Excess Strands for Service Provider's Future Use**

For lit services special construction and leased dark fiber special construction, if the service provider wishes to place extra strands in the build for its own use, the E-rate applicant must cost allocate the cost of the service provider-owned extra strands, as well as all incremental costs of those extra strands from the special construction E-rate funding request. It is not a pro-rata share, but an incremental cost calculation that must be backed by detailed documentation.

Example 1 from Funding Year 2018 USAC Fiber Training Slides applies:

## COST-ALLOCATION: FIBER EXAMPLES

- **Example 1:** Leased lit fiber or leased dark fiber provider installs 12-strands in fiber run to a large school district hub and wants to add 36 additional strands for its own ineligible use, resulting in additional labor costs (e.g., splicing) and plant costs (e.g., larger termination boards, additional handholes).

**Result:** Cost of 36 additional fiber strands and all associated incremental increases in costs (e.g., the additional labor/outside plant costs) above what would be incurred if only the 12-strands of fiber were installed must be allocated out of the applicant's special construction funding request.

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Applicant's should seek documentation from the provider which outlines the added incremental costs attributable to designing, managing and constructing a fiber system with a 48-strand cable instead of a 12-strand cable. Such costs should include (but are not limited to):

- **Splice Labor.** If any fibers over the applicant's fibers are spliced, the labor for these additional splices must be cost allocated.
- **Splice Enclosures** are placed to protect splices. If any fibers over the applicant's fibers are spliced and require an enclosure, the enclosures for these additional splices must be cost allocated.
- **Fiber Installation Labor.** This represents the incremental cost of pulling a larger cable through the buried conduit.
- **Structured materials installation.** This represents the additional cost of burying a larger conduit to support the additional fibers.

Note that the costs associated with installing a larger cable strand than what is required by the applicant are ineligible and the service provider should not include such costs in their special construction billing to the applicant but should be prepared to show

evidence during PIA review that it did not charge the applicant for these incremental costs.

**Figure 1: Here is a table outlining some possible incremental costs:**

<b>Item</b>	<b>12 Strand cable construction</b>	<b>48 strand cable construction</b>	<b>Cost Allocation Amount that service provider should remove from the special construction request</b>
Fiber Cable	38 cents per foot	\$1.04 per foot	66 cents per foot
Design and Engineering	\$2.12 per foot	\$2.42 per foot	30 cents per foot to depict additional splices at A and Z locations
Project Management	\$1.18 per foot	\$1.18 per foot	0
Splice labor*	\$11.00 per splice	\$11.00 per splice	\$11 per splice over 12 splices at any splice site
Splice enclosures**	\$205 per enclosure	\$205 per enclosure	\$205 per enclosure for every enclosure over 12
Fiber Patch Panel	\$71.43 per panel	\$218.60 per panel	\$147.17 per panel
Conduit and other structured materials	1.25" conduit required \$1.95 per foot  Handhole (40,000 lb rated) \$2695 per unit  Fiber Marker \$30 per unit	1.5" conduit required \$2.35 per foot  Handhole (40,000 lb rated) \$2695 per unit  Fiber marker \$30 per unit	40 cents per foot  No cost difference for handhole  No cost difference per marker
Fiber Installation Labor ***	25 cents per foot	28 cents per foot	3 cents per foot
Structured Materials Installation (conduit, markers, handholes)****	\$2.85 per foot	\$3.10 per foot	25 cents per foot
Markers	Place every 500'	Place every 500'	No cost difference
Handholes	Place every 1000'	Place every 1000'	No cost difference