



BIDDING DOCUMENTS

FOR

**REQUEST FOR PROPOSALS
FOR FIBER OPTIC CABLING**

RFP NUMBER 19-20:05

Proposals must be submitted to:

**Bonita Unified School District
Purchasing Department
115 W. Allen Avenue
San Dimas, CA 91773**

**No later than:
February 14, 2020 2:30 p.m.**

**NOTICE INVITING BIDS/PROPOSALS
BONITA UNIFIED SCHOOL DISTRICT**

NOTICE IS HEREBY GIVEN that the Bonita Unified School District of Los Angeles County, California, acting by and through its Governing Board, hereinafter referred to as the "District", will receive sealed BIDs/RFPs in the Purchasing Department of the District Office located at 115 West Allen Avenue, San Dimas, CA 91773 and will be publicly opened and read aloud on the date and time specified below:

<u>Project Identification Name</u>	<u>Mandatory Job Walk</u>	<u>Opening Date/Time</u>
BID: 19-20:06 Networking Equipment	None	February 14, 2020 2:00 PM Facilities Department 115 West Allen Avenue San Dimas, CA 91773

<u>Project Identification Name</u>	<u>Mandatory Job Walk</u>	<u>Opening Date/Time</u>
RFP: 19-20:05 Fiber Optic Cabling	January 22, 2020 10:00 AM Bonita High School 3102 D Street La Verne, CA 91750	February 14, 2020 2:30 PM Facilities Department 115 West Allen Avenue San Dimas, CA 91773

There will be a mandatory job walk for RFP 19-20:05 at the location and time listed above. A copy of the RFPs are available at <http://do.bonita.k12.ca.us/Business-Services/Purchasing/index.html> and the USAC EPC Portal. **Any Contractor bidding on RFP 19-20:05 who fails to attend the entire mandatory job walk and conference will be deemed a non-responsive bidder and will have its proposal returned unopened.**

The paramount scope of work is communications and therefore the Primary Contractor shall be licensed by the CSLB as C7, and any work within electrical conduits or environments shall be performed by a C10 licensed Sub-Contractor. Both shall be in good standing with the CSLB. All other manufacture and technical certifications as called for in the solicitation are also required. Contractors and Subcontractors must be registered with DIR, in compliance with SB854, to submit a bid for evaluation.

Sealed proposals shall be made and presented only on the forms presented by the District. **Proposals shall be received in the Purchasing Department of the District Office at 115 W Allen Ave., San Dimas, California 91773** and shall be opened and publicly read aloud at the Facilities Department Conference Room at the designated time listed above. It is each bidder's sole responsibility to ensure its proposal is timely delivered and received at the location designated as specified above. Any proposal received at the designated location after the scheduled closing time for receipt of proposals shall be returned to the bidder unopened.

Each proposal must strictly conform with and be responsive to the Contract Documents as defined in the General Conditions.

No bidder may withdraw a submitted proposal for a period of ninety (90) days after the time set for opening proposals.

The District and Board of Education reserve the right to reject any and all proposals, and to waive any irregularities in any proposals or in the bidding procedure.

Board of Education
Bonita Unified School District
County of Los Angeles
Penny Reyes
Director, Purchasing/Warehouse

Publishing Dates: January 14th and 21st, 2020

BONITA UNIFIED SCHOOL DISTRICT
WIRELESS ACCESS POINT UPGRADES
REQUEST FOR PROPOSAL

Opening Date and Time: February 14, 2020 @ 2:30 pm

Bonita Unified School District ("District") will accept Proposals for product installation, professional services and support of wireless access points.

The Proposals must be received in the Bonita Unified School District Facilities Office prior to the date and time above, in a sealed envelope labeled with the Request for Proposal ("RFP") title. Proposals will be opened at the above time and date. Proposals received after the above stated time will be returned to bidder unopened. The terms, "C(c)ontractor", "B(b)idder", "R(r)espondent", "P(p)roposer", "S(s)ervice P(p)rovider" and "V(v)endor" are all used interchangeably and all refer to the entity submitting a response to this RFP and offering to perform the work and services set forth in the RFP.

Each bidder shall be a licensed contractor pursuant to the California Business and Professions Code, and be licensed to perform the work called for in the Contract Documents. The successful bidder must possess a valid and active **Class-10 or C-7 License** at the time of bid and throughout the duration of this Contract and must be registered with the Department of Industrial Relations. The Contractor's California State License number shall be clearly stated on the bidder's Proposal.

There will be a mandatory job walk and conference on January 22, 2020 at 10:00 a.m. that will start at Bonita High School (north parking lot) located at 3102 N. D Street, La Verne, CA 91750. Any Contractor submitting a Proposal who fails to attend the entire mandatory job walk and conference will be deemed a non-responsive Proposer and will have its Proposal returned unopened.

No bidder may withdraw its proposal for a period of ninety (90) days after the date and time set for the proposal opening.

Subcontractors shall be licensed pursuant to California law for the trades necessary to perform the work called for in the Contract Documents.

Each proposal must strictly conform with and be responsive to the Contract Documents as defined in the Contract Agreement Form.

In accordance with California Public Contract Code Section 22300, the District will permit the substitution of securities for any moneys withheld by the District to ensure performance under the Contract.

Prevailing wages are applicable to the Project. These per diem rates, including holiday and overtime work, as well as employer payments for health and welfare, pension, vacation, and similar purposes, are available from the Director of the Department of Industrial Relations. Pursuant to California Labor Code Sections 1720 et seq., it shall be mandatory upon the Contractor to whom the Contract is awarded, and upon any subcontractor under such Contractor, to pay not less than the said specified rates to all workers employed by them in the execution of the Contract.

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in the Labor Code, unless currently registered and qualified to perform public work pursuant to Labor Code section 1725.5. It is not a violation of this section for an unregistered contractor to submit a proposal that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

The Contractor and all subcontractors shall furnish certified payroll records as required pursuant Labor Code section 1776 directly to the Labor Commissioner in accordance with Labor Code section 1771.4 on at least on a monthly basis (or more frequently if required by the District or the Labor Commissioner) and in a format prescribed by the Labor Commissioner. Monitoring and enforcement of the prevailing wage laws and related requirements will be performed by the Labor Commissioner/ Department of Labor

Standards Enforcement (DLSE).

Separate payment and performance bonds, each in an amount equal to 100% of the total Contract amount issued by a California admitted surety as defined in California Code of Civil Procedure Section 995.120, are required, and shall be provided to the District prior to execution of the Contract and shall be in the form set forth in the Contract Documents.

It is each bidder's sole responsibility to ensure its proposal is timely delivered and received at the location designated as specified above. Any proposal received at the designated location after the scheduled closing time for receipt of proposals shall be returned to the bidder unopened.

Proposals must be signed. A copy of the RFP is available at <http://do.bonita.k12.ca.us/District/Business-Services/Purchasing/index.html> and the USAC EPC Portal.

The Board of Education of the Bonita Unified School District reserves the right to accept or reject any and all Proposals, to waive any irregularities in the Proposals or the RFP process, to be sole judge as to the merit, quality and acceptability of materials proposed and their compliance to the specifications, if it be in the best interest of the District.

The award of the Contract will be in accordance with the Public Contract Code 20118.2 which allows the District to select the most qualified Respondent whose proposal meets the evaluation standards determined by the District and will be the most advantageous to the District with price and all other factors considered, or to reject all responses to the RFP, whichever is in the best interest of the District. All Respondents will be assessed based on the evaluation factors described herein and the specific needs of the District and the District will follow the competitive negotiation process set forth in Public Contract Code section 20118.2.

Penny Reyes
Director of Purchasing/Warehouse

E-RATE SUPPLEMENTAL TERMS AND CONDITIONS

Signed copy to be returned with bid response.

The Telecommunications Act of 1996 established a fund by which Schools and Libraries across the Country could access discounts on eligible telecommunications products and services. The program is commonly known as the E-rate Program. The eligibility for discounts on internet access, telecommunications products and services, internal connection products, services and maintenance is determined by the Federal Communications Commission (FCC). Funding is made available upon application approval by the Schools and Libraries Division (SLD) of the Universal Service Administrative Company (USAC), which was established by the Act. The amount of discount is based on the numbers of students receiving free and reduced price meals.

1) E-RATE CONTINGENCY

The project herein is contingent upon the approval of funding from the Universal Service Fund's Schools and Libraries Program, otherwise known as E-rate. Even after award of contract(s) and/or E-rate funding approval is obtained, the District may or may not proceed with the project, in whole or in part. Execution of the project, in whole or in part, is solely at the discretion of the District.

2) SERVICE PROVIDER REQUIREMENTS

The District expects Service Providers to make themselves thoroughly familiar with any rules or regulations regarding the E-rate program.

a. Service Providers are required to be in full compliance with all current requirements and future requirements issued by the SLD throughout the contractual period of any contract entered into as a result of this RFP.

b. Service Providers are responsible for providing a valid SPIN (Service Provider Identification Number). More information about obtaining a SPIN may be found at this website: <https://www.usac.org/e-rate/service-providers/step-1-obtain-a-spin/>

c. Service Providers are responsible for providing a valid Federal Communications Commission (FCC) Registration Number (FRN) at the time the bid is submitted. More information about obtaining an FRN may be found at this website: <https://apps.fcc.gov/coresWeb/publicHome.do>

d. Service Providers are responsible for providing evidence of FCC Green Light Status at the time the bid is submitted. Any potential bidder found to be in Red Light Status must provide an explanation of the steps it is undertaking to be removed to Red Light Status and the expected timeframe for resolution. A Service Provider's sustained Red Light Status may be grounds for contract termination as it could prohibit the Service Provider from providing E-rate discounts in a timely manner which would cause harm to the Applicant. More information about FCC Red and Green Light Status may be found at this website: http://www.fcc.gov/debt_collection/welcome.html

e. Products and services must be delivered before billing can commence. At no time may the Service Provider invoice before July 1, 2020.

f. Prices must be held firm for the duration of the associated E-rate Funding Year(s) or until all work associated with the project is complete (including any contract and USAC approved extensions).

g. Goods and services provided shall be clearly designated as "E-rate Eligible". Non-eligible goods and services shall be clearly called out as 100% non-eligible or shall be "cost allocated" to show the percentage of eligible costs per SLD guidelines.

h. Within one (1) week of award, the awarded Service Provider must provide the District a bill of materials using a completed USAC "Item 21

Template". Subsequent schedules of values and invoices for each site must match Item 21 Attachment or subsequent service substitutions. A summary sheet must also be provided to provide the cumulative amount for all sites.

i. In the event of questions during an E-rate pre-commitment review, post- commitment review and/or audit inquiry, the awarded Service Provider is expected to reply within 3 days to questions associated with its proposal.

j. The awarded Service Provider is required to send copies of all forms and invoices to the District prior to invoicing USAC for pre-approval. Failure to comply with this requirement may result in the District placing the vendor on an "Invoice Check" with the USAC <https://www.usac.org/e-rate/applicant-process/invoicing/invoice-check/>

k. Services providers must comply with the FCC rules for Lowest Corresponding Price ("LCP"). Further details on LCP may be obtained at USAC's website: <http://www.usac.org/sl/service-providers/step02/lowest-corresponding-price.aspx>

3) SERVICE PROVIDER ACKNOWLEDGEMENTS

a. The Service Provider acknowledges that no change in the products and/or services specified in this document will be allowed without prior written approval from the district and a USAC service substitution approval with the exception of a Global Service Substitutions.

b. The Service Provider acknowledges that all pricing and technology infrastructure information in its bid shall be considered as public and non-confidential pursuant to §54.504 (2)(i)(ii).

c. The Service Provider acknowledges that its offer is considered to be the lowest corresponding price pursuant to § 54.511(b). Further details on LCP may be obtained at USAC's website: <https://www.usac.org/e-rate/service-providers/step-2-responding-to-bids/lowest-corresponding-price/>. Should it not be the lowest corresponding price, the service provider must disclose the conditions leading to the applicant being charged in excess of lowest corresponding price.

d. BIDDERS are required to comply with the FCC's Lowest Corresponding Price ("LCP") Requirement for all equipment and Services. BIDDER acknowledges that BIDDER is solely responsible to comply with LCP requirements. To the extent that USAC finds an LCP violation and reduces the E-rate Funding, BIDDER agrees that it will not hold the DISTRICT liable for any shortfall in E-rate funding and will be responsible for any ensuing appeals, COMADS and/or RIDFS.

e. The Service Provider attests that its offer does not violate the FCC's REPORT AND ORDER, FURTHER NOTICE OF PROPOSED RULEMAKING, AND ORDER in the matter of "Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs" (FCC 19-121, adopted November 22, 2019, released November 26, 2019) and provisions contained in the Order and any subsequent Orders related to the FNPRM referenced in FCC 19-121. FCC 19-121 can be viewed at <https://docs.fcc.gov/public/attachments/FCC-19-121A1.pdf>

f. This offer is in full compliance with USAC's Free Services Advisory <http://www.usac.org/sl/applicants/step02/free-services-advisory.aspx>. There are no free services offered that would predicate an artificial discount and preclude the applicant from paying its proportionate non-discounted share of costs. The service provider agrees to provide substantiating documentation to support this assertion should the applicant, USAC, or the FCC request it.

4) STARTING SERVICES/ADVANCE INSTALLATION – Category 1 Services

The annual E-rate Funding Year begins on July 1 and expires on June 30 of each calendar year. Regardless of the contract “effective date”, E-rate eligible goods and/or services requested in this RFP shall be delivered no earlier than the start of the 2020 funding year (July 1, 2020). If Category 1 services (Telecommunication Services and Internet access) will begin on or shortly after July 1 of a funding year, the service provider, in some cases, may need to undertake some construction and installation work prior to the beginning of that funding year. Within the limitations indicated below, the infrastructure costs of a service provider can be deemed to be delivered at the same time that the associated Category 1 services begin. That is, if services begin on July 1, then the delivery of service provider infrastructure necessary for those services can be


considered as also delivered on July 1. However, NO INVOICING can take place prior to July 1 of the associated Funding Year.

EARLY FUNDING CONDITIONS

Category 1

There are four conditions that must be met in order for USAC to provide support in a funding year for Category 1 infrastructure costs incurred prior to that funding year.

- Initiation of installation cannot take place before selection of the service provider pursuant to a posted Form 470 and in any event no earlier than six months prior to July 1 of the funding year.
- The Category 1 service must depend on the installation of the infrastructure.
- The underlying Category 1 service cannot have a service start date prior to July 1 of the funding year.
- No invoices can be submitted to USAC for reimbursement prior to July 1 of the funding year.

For more information, please refer to the FCC Order involving the Nassau County Board of Cooperative Educational Services (DA 02-3365 , released December 6, 2002). This FCC decision only applies to Priority 1 services (telecommunications services and Internet access).

The complete text can be found at the following URL:
<http://www.usac.org/sl/applicants/step05/installation.aspx>

Category 2

There is one condition that allows USAC to provide support in a funding year for Category 2 installation costs incurred prior to that funding year.

- We also amend our rules for category two non-recurring services to permit applicants to seek support for category two eligible services purchased on or after April 1, three months prior to the start of funding year on July 1. This will provide schools with the flexibility to purchase equipment in preparation for the summer recess and provide the maximum amount of time during the summer to install these critical networks.

For more information, please refer to the FCC Report and Order and Further Notice of Proposed Rulemaking (FCC 14-99, released July 23, 2014). This FCC decision only applies to Category 2 services (Internal Connections).

However, NO INVOICING can take place prior to July 1 of the funding year.

5) INVOICING

a. The Service Provider agrees to bill and receive a portion of the payment for the provisions of goods and services described herein directly from USAC via the Form

474 Service Provider Invoice (SPI). The District will only be responsible for paying its non-discounted share of costs and does not intend to use the BEAR process (Form 472). The maximum percentage the District will be liable for is the pre-discount amount minus the funded amount as shown on the FCC Form 471 Block 5 and any identified ineligible costs. Upon the successful receipt or posting of a Funding Commitment Decision Letter from the SLD and submission, certification and USAC approval of Form 486, the District shall pay only the discounted amount beginning with the billing cycle immediately following said approval. Alternatively, should the District decide that it is in the best interest of the District to file a Form 472, the District will inform the Service Provider of its intent.

b. All Service Provider invoicing to USAC must be completed within 120 days from the last day of service. Should the Service Provider fail to invoice USAC in a timely manner, the District will only be responsible for paying its non-discounted share.

6) FCC/SLD AUDITABILITY

The E-rate program requires that all records be retained for at least ten (10) years from the last date of service provided on a particular funding request. Respondent hereby agrees to retain all books, records, and other documents relative to any Agreement resulting from this RFP for ten (10) years after final payment. The District, its authorized agents, and/or auditors reserves the right to perform or have performed an audit of the records of the Respondent and therefore shall have full access to and the right to examine any of said materials within a reasonable period of time during said period.

7) PROCUREMENT OF ADDITIONAL GOODS AND/OR SERVICES/COTERMINOUS EXPIRATION

During the term of any Agreement resulting from this RFP, the District may elect to procure additional or like goods and/or services offered by the Respondent. Such services shall be negotiated and obtained via an official amendment to this Agreement and approval by the District's Governing Board. All terms, conditions, warranties, obligations, maintenance and support of said goods or services shall have a coterminous expiration date with the original date of this Agreement. The District shall not enter into a separate Agreement for said goods or services. Respondents must state in their proposal that they acknowledge, accept and are in agreement with coterminous expiration conditions.

I, the undersigned, as an authorized agent of _____ (Service Provider Name), hereby certify that I have read the E-rate Supplemental Terms and Conditions, am fully compliant and intend to cooperate with the E-rate process as outlined above.

Signature: _____ **Title:** _____

Phone Number: _____ **Email:** _____

Service Provider Name: _____

Project Goals

Purpose:

The Bonita Unified School District ("The District") is soliciting bids to upgrade its Fiber Optic Cabling Infrastructure at two high schools. The District seeks an authorized reseller and integrator that can provide product installation, professional services and support of a proposed solution.

The District intends to apply for discounts on the services and installation of this RFP through the federal program known as E-rate. Criteria and restrictions pertinent to this RFP both technical and non-technical can be found within the RFP. The District reserves the right to not proceed with the RFP/procurement process if it is not awarded the necessary E-rate funds or for other financial reasons at the sole discretion of the District.

RFP Contact:

All queries regarding this RFP should be made to the District's Purchasing Director, Penny Reyes. She will then coordinate or forward requests for information to the appropriate technical staff. Emailed questions should include "RFP No. 19-20:05 Fiber Optic Cabling" in the subject line. Any questions or requests for clarification must be submitted not later than **noon (12:00 p.m.) January 31, 2020**.

Penny Reyes
Director of Purchasing/ Warehouse
115 W. Allen Ave
San Dimas, CA 91773
909-971-5200 ext. 5250
Email: reyes@bonita.k12.ca.us

Format of Proposal/ Exceptions:

The District specifically requests that all replies to this RFP be succinct and not contain extraneous information that is not requested in this RFP. Attachments should be completed in the provided format with Respondents only modifying the areas which are blank for Respondent responses.

Any exceptions to the RFP or its requirements shall be clearly indicated and submitted with Respondent's Proposal. Excessive exceptions, as determined solely by the District, shall be grounds for rejection of a Respondent's Proposal. In no event shall the Respondent require the District to enter into a separate agreement, contract or other document drafted by the Respondent or any general terms or conditions that claim to supersede or supplement the terms of this RFP. Respondents may not require or propose a different form Contract Agreement or any terms or conditions that supersede or supplement the terms set forth in this RFP. Any supplements or clarifications to the RFP and its requirements may be agreed upon by the District in its sole discretion. Failure to comply with the requirements in this paragraph shall render the Respondent's Proposal non-responsive and may subject the Respondent's bid security to forfeiture, and the District may award a contract to another responsive Respondent.

Reasons for Disqualification of Proposals:

If any of the following conditions occur, Vendor's proposal is automatically disqualified from being evaluated:

- Service Provider’s proposal is submitted after the deadline.
- Service Provider is in Red Light Status with the FCC.
- Service Provider is not authorized to do business in the state of California, County of Los Angeles or city of San Dimas or La Verne or is not authorized to provide services requested in this proposal to all buildings within the District.
- Service Provider does not have a Service Provider Identification Number (“SPIN”).
- Services are not all provided under a single E-rate SPIN number. Separate SPIN numbers are permitted for each separate procurement.
- Service provider cannot provide services to both high school locations. Addresses for each site are set forth in Attachment “A”.
- Service provider cannot provide all services by June 30, 2021 to both locations listed. Addresses for each site are set forth in Attachment “A”.
- Service Provider has not disclosed whether any of the services are being leased or resold from other vendors and if so, has not disclosed exactly what services are being resold.
- Service Provider has not disclosed all taxes, fees, surcharges, etc. and their amounts or percentages in its proposal.
- District reserves the right to disqualify a Vendor for the use of subcontractors that do not meet the requirements of this RFP or other legitimate business concerns.
- Vendor is not deemed a “qualified” or responsible bidder as a result of reference checks and other research conducted by the District.

Pricing Format

Proposal must be inclusive of all taxes, fees and surcharges, including any fees, taxes or surcharges, paper statement fees, special taxes, CA gross receipts tax, Universal Service Fees, Universal Service Administrative Fees, regulatory recovery fees, property taxes, etc. **Proposals must include all costs that the District will be invoiced for.**

GRAND TOTAL BID AMOUNT FOR ALL ITEMS (itemize each)	
Parts and warranty	\$ _____
Warranty/Support	\$ _____
Tax if any	\$ _____
Shipping	\$ _____
Total	\$ _____

Please also provide breakdown by site that matches grand total

- 1. Write in the totals above.**
- 2. Attach an itemized, detailed quotation for all items, by school site, and E-rate eligible and E-rate ineligible costs clearly identified.**
- 3. Provide schedule of values as outlined in the specifications.**

Timeline for installation:

Installation of service shall begin **after E-rate on July 1, 2020**. Installation shall not begin, however, until after a contract between the parties has been awarded by the District's Board and executed by the parties. No invoices for service and/or installation shall be issued or dated prior to July 1, 2020. Vendor shall provide a project manager to assist with conversion of services and must identify that individual in the proposal. There may be a need for some of the installation to occur after hours. The rate for after-hours installation shall be the same as the installation costs during business hours.

Ideally services must be operational by **December 31, 2020**. However, the date may be adjusted based upon E-rate approved funding.

Weekly status meetings must be held between the project manager and District for the duration of the project.

Criteria for Award

Proposals will be evaluated by a committee appointed by the Director of Purchasing/Warehouse. Any Proposal that does not meet the minimum requirements in this Bid may be excluded from evaluation. In accordance with E-Rate regulations, the price of E-rate eligible services will be the most heavily-weighted factor for all decisions.

The evaluation committee may contact any Proposer to clarify any response, contact any current users of the Proposer's services, solicit information from any available source concerning any aspect of the proposal; and seek and review any other information deemed pertinent to the evaluation process.

Discussions and/or interviews may, at the District's sole option, be conducted with Proposers to permit further evaluation and to allow the District to inquire further into the Proposer's experience on similar projects and other relevant inquiries. All Proposers will be accorded fair and equal treatment with respect to any opportunity for discussion and/or interviews and any written revisions of proposals.

Until a contract resulting from the RFP is awarded by the District's Board and executed by the parties, no employee, agent or representative of any Proposer shall make available or discuss its Proposal with any elected or appointed official or officer of the District, or any employee, agent, or other representative of the District unless specifically allowed to do so in the RFP or in writing by the District for the purpose of clarification and evaluation.

Please note that the District, in its sole discretion, reserves the right at any time during the process to reject any and all proposals that are not in the best interest of the District.

Evaluation Factors for Award

Any award to be made pursuant to this RFP will be based upon the proposal with appropriate consideration given to operational, technical, cost and management requirements. **The assumption is that proposed solutions meet the RFP Scope of Work. If they do not, a bulleted list and details of how it does not should be clearly provided.**

Evaluations of offers will be based upon the Proposer's responsiveness to the RFP and the total price quoted for all the items covered by the RFP.

The following elements will be the primary consideration in evaluating all submitted proposals and in the selection of a Proposer:

- a. 30% - Cost
- b. 25% - Overall Quality of Proposal
- c. 20% - Contractor presence, experience, and availability of support.
- d. 10% - Cabling and Equipment plan as specified
- e. 10% - Vendor Implementation Plan
- f. 5% - District Support Required

Discussions and/or interviews may, at the District's sole option, be conducted with Proposers to permit further evaluation and to allow the District to inquire further into the Proposer's experience on similar projects and other relevant inquiries. All Proposers will be accorded fair and equal treatment with respect to any opportunity for discussion and/or interviews and any written revisions of proposals.

The award of the Contract will be in accordance with the Public Contract Code 20118.2 which allows the District to select the most qualified bidder whose proposal meets the evaluation standards determined by the District and will be the most advantageous to the District with price and all other factors considered, or to reject all responses to the RFP, whichever is in the best interest of the District. All bidders will be assessed based on the evaluation factors described above and the specific needs of the District and the District will follow the competitive negotiation process set forth in Public Contract Code section 20118.2.

Instructions to Vendors

General Information

All responses shall conform to instructions provided in this Request for Proposal (RFP) document.

Bid Security

Each bid must be accompanied by one of the following forms of bidder's security: (1) cash; (2) a cashier's check made payable to the District; (3) a certified check made payable to the District; or (4) a bidder's bond executed by a California admitted surety as defined in Code of Civil Procedure Section 995.120, made payable to the District, in the form set forth in the Contract Documents. Such bidder's security must be in an amount not less than **ten percent (10%)** of the maximum amount of such bidder's bid as a guarantee that the bidder will enter into the Contract, if the same is awarded to such bidder, and will provide the required Performance and Payment Bonds, insurance certificates and any other required documents. In the event that a bidder is awarded the Contract and such bidder fails to enter into said Contract or provide the surety bond or bonds within five (5) calendar days after award of the Contract to bidder, said security will be forfeited.

Installation Timeline

No billing or work can take place prior to July 1, 2020 and, ideally, services must be operational by **December 31, 2020**. However, the date may be adjusted based upon E-rate approved funding.

Deadline for RFP Submittal

Vendors must submit all required documents prior to the deadline. All Proposals shall be complete and final with no additional information required after the close of the submittal date, unless specifically requested by the District. Responses received after the deadline will be returned unopened as not meeting the RFP requirements

Request for Proposal Preparation Cost

Costs for preparing responses and any other related material is the responsibility of the VENDOR, and shall not be chargeable in any manner to the District. The District will not be held liable for any cost incurred by VENDORS in responding to the RFP.

Vendor Qualifications

Any individual firm submitting a Proposal must be able to provide evidence that the individual or firm and its personnel carrying out the responsibilities have expertise and experiences in all areas identified in the Services Required section of this RFP. The vendor shall provide three (3) K-12 references consisting of similar work and scope.

Wage Rates, Travel and Subsistence

a. The Contractor and all subcontractors shall comply with the requirements set forth in Division 2, Part 7, Chapter 1 of the Labor Code. Pursuant to Labor Code Sections 1770 et. seq., the District has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this work is to be performed for each craft, classification or type of worker needed to execute the contract. Copies are available from the District to any interested party on request and are also available from the

Director of the Department of Industrial Relations. The Contractor shall obtain copies of the above-referenced prevailing wage sheets and post a copy of such wage rates at appropriate, conspicuous, weatherproof points at the Site.

b. Any worker employed to perform work on the Project and such work is not covered by any classification listed in the published general prevailing wage rate determinations or per diem wages determined by the Director of the Department of Industrial Relations, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to the employment of such person in such classification.

c. Holiday and overtime work, when permitted by law, shall be paid for at the rate set forth in the prevailing wage rate determinations issued by the Director of the Department of Industrial Relations or at least one and one-half (1½) times the specified basic rate of per diem wages, plus employer payments, unless otherwise specified in the Contract Documents or authorized by law.

d. These per diem rates, including holiday and overtime work, and employer payments for health and welfare, pension, vacation, and similar purposes, are on file at the administrative office of the District, located as noted above and are also available from the Director of the Department of Industrial Relations. It is the Contractor's responsibility to ensure the appropriate prevailing rates of per diem wages are paid for each classification. It shall be mandatory upon the Contractor to whom the Contract is awarded, and upon any subcontractor under such Contractor, to pay not less than the said specified rates to all workers employed by them in the execution of the Contract.

DIR Registration of Contractor and Subcontractors

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in the Labor Code, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

This Project is a public works project as defined in Labor Code section 1720. Each contractor bidding on this Project and all subcontractors (of any tier) performing any portion of the work must comply with the Labor Code sections 1725.5 and 1771.1 and must be properly and currently registered with DIR and qualified to perform public works pursuant to Labor Code section 1725.5 throughout the duration of the Project. For more information and up to date requirements, contractors are recommended to periodically review the DIR's website at www.dir.ca.gov. Contractor shall be solely responsible for ensuring compliance with Labor Code section 1725.5 as well as any requirements implemented by DIR applicable to its services or its subcontractors throughout the term of the Agreement and in no event shall contractor be granted increased payment from the District or any time extensions to complete the Project as a result of contractor's efforts to maintain compliance with the Labor Code or any requirements implemented by the DIR. Failure to comply with these requirements shall be deemed a material breach of this Agreement and grounds for termination for cause. The contractor and all subcontractors shall furnish certified payroll records as required pursuant Labor Code section 1776 directly to the Labor Commissioner in accordance with Labor Code section 1771.4 on at least on a monthly basis (or more frequently if required by the District or the Labor Commissioner) and in a format prescribed by the Labor Commissioner. The District reserves the right to withhold contract payments if the District is notified, or determines as the result of its own investigation, that contractor is in violation of any of the requirements set forth in Labor Code section 1720 et seq. at no penalty or cost to the District. Monitoring and

enforcement of the prevailing wage laws and related requirements will be performed by the Labor Commissioner/ Department of Labor Standards Enforcement (DLSE).

Request for Proposal Submission Requirements

All responses to this RFP must be submitted in hard copy form (no email or other electronic submission), no later than 2:30 p.m. on February 14, 2020 and clearly marked "RFP No. 19-20:05 Fiber Optic Cabling" and delivered to:

Bonita Unified School District
Purchasing Department
115 W Allen Avenue
San Dimas, CA 91773

All submissions meeting the deadline requirement is the property of the District and will not be returned. All information and documents submitted in the Proposals will become the property of the District and will be returned only at the District's option and the vendor's expense. The original copy shall be retained for official files and will become public record after the date and time for proposal submission, as specified. However, confidential financial information clearly marked and submitted in support of the requirement will be returned upon request.

The Proposal must contain the following information and documents. The content and sequence of the Proposal will be as follows:

1. **Cover Letter/Letter of Interest**
2. **Table of Contents**
3. **Vendor Company Data**
4. **Experience and Client References**
5. **Technical Capabilities**
6. **Cost Proposal**
7. **Exceptions to the RFP**
8. **Bid Bond/ Bid Guarantee Form**
9. **Non-Collusion Declaration**
10. **List of Subcontractors**
11. **Any other information and documents required in the RFP**

The following shall be completed and submitted by the Vendor awarded the contract for the project:

1. Agreement Form
2. Payment Bond
3. Performance Bond
4. Insurance Requirements Form
5. Compliance with Fingerprinting Requirements

The Proposal shall also contain the following certification without revisions:

I, the undersigned, as an authorized agent of _____ (Service Provider Name), hereby certify that I have read the entire RFP, all addenda as issued, all terms, conditions, and requirements therein, and hereby propose and agree, if this Proposal is accepted, to furnish all materials and do all work required to complete the said work in accordance with the RFP and Contract Documents,

in the time and manner therein prescribed for the unit cost and lump sum amounts set forth in this Proposal, and intend to cooperate with the E-rate process as required and outlined in the RFP. I declare under penalty of perjury that the information and documents and representations made provided in this Proposal are true and correct.

Signature: _____ Title: _____

Phone Number: _____ Email: _____

Service Provider Name: _____

References

Before awarding any contract, the District reserves the right to require the vendor to submit evidence of qualifications, as it may deem appropriate. This evidence may be concerning financial, technical, and other qualifications as well as relevant experience and skills of the vendor.

Payment and Funding

The District intends to partially fund the services contemplated herein by leveraging the federal E-Rate program. Vendors should be familiar with and compliant with all applicable federal E-Rate policies. Bids from vendors that are not E-Rate eligible will not be considered for this RFP. Vendors must provide a response to this RFP that is compliant with E-Rate. Vendors must submit their E-Rate Service Provider Identification Number (SPIN) in the vendor response. Vendors must submit their E-Rate Federal Communications Commission Registration Number (FCCRN) in the vendor response along with proof of FCC Green Light Status. The successful bidder also must abide by the requirements for vendors under the E-rate program as set forth by the E-Rate program administrators. These requirements include, but are not limited to; filing of all Form 474 forms, extension of appropriate discounts to the participating eligible entities, careful record keeping for auditing purposes, and the provision of any information participating eligible entities must submit as part of their filing requirements. The bidder must identify and separate any costs that are associated with non E-Rate eligible entities and services as identified in the scope of work herein.

Exceptions to RFP

Any exceptions to the RFP or its requirements shall be clearly indicated and submitted with Respondent's Proposal. Excessive exceptions, as determined solely by the District, shall be grounds for rejection of a Respondent's Proposal. In no event shall the Respondent require the District to enter into a separate agreement, contract or other document drafted by the Respondent or any general terms or conditions that claim to supersede or supplement the terms of this RFP. Respondents may not require or propose a different form Contract Agreement Form or any terms or conditions that supersede or supplement the terms set forth in this RFP. Any supplements or clarifications to the RFP and its requirements may be agreed upon by the District in its sole discretion. Failure to comply with the requirements in this Section shall render the Respondent's Proposal non-responsive and may subject the Respondent's bid security to forfeiture, and the District may award a contract to another responsive Respondent

BID BOND FORM

KNOW ALL MEN BY THESE PRESENT that we, the undersigned, (hereafter called "Principal"), and _____ (hereafter called "Surety"), are hereby held and firmly bound unto the Bonita Unified School District (hereafter called "Owner") in the sum of not less than ten percent (10%) of the maximum amount of such Principal's bid/proposal for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors, and assigns.

SIGNED this _____ day of _____, 20__.

The condition of the above obligation is such that whereas the Principal has submitted to the Owner a certain Proposal, attached hereto and hereby made a part hereof, to enter into a Contract in writing for the construction of _____.

NOW, THEREFORE,

- e. If said Proposal is rejected, or
- f. If said Proposal is accepted and the Principal executes and delivers a Contract or the attached Agreement form within five (5) calendar days after acceptance (properly completed in accordance with said Proposal), and furnishes bonds for his faithful performance of said Contract and for payment of all persons performing labor or furnishing materials in connection therewith,

Then this obligation shall be void; otherwise, the same shall remain in force and effect.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract, or the call for RFP's, or the work to be performed thereunder, or the specifications accompanying the same, shall in anyway affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of said Contract, or the call for RFP's, or the work, or to the specifications.

In the event suit is brought upon this bond by the Owner and judgment is recovered, the Surety shall pay all costs incurred by the Owner in such suit, including without limitation, attorneys' fees to be fixed by the court.

IN WITNESS WHEREOF, Principal and Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, on the day and year first set forth above.

By _____

(Corporate Seal)

Principal's Signature

Typed or Printed Name

Principal's Title

By _____

(Corporate Seal)

Surety's Signature

Typed or Printed Name

Title

(Attached Attorney in Fact Certificate)

Surety's Name

Surety's Address

Surety's Phone Number

IMPORTANT:

Surety companies executing bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write surety insurance defined in California Insurance Code Section 105, and if the work or project is financed, in whole or in part, with federal, grant, or loan funds, it must also appear on the Treasury Department's most current list (Circular 570 as amended).

THIS IS A REQUIRED FORM.

Any claims under this bond may be addressed to:

(Name and Address of Surety)

(Name and Address of agent or representative for service of process in California if different from above)

(Telephone Number of Surety and agent or representative for service of process in California).

BID GUARANTEE FORM
(Use only when not using a Bid Bond)

Accompanying this Proposal is a cashier's check payable to the order of the Bonita Unified School District or a certified check payable to the order of the Bonita Unified School District in an amount equal to ten percent (10%) of the maximum amount of such Proposer's bid/proposal.

The proceeds of this check shall become the property of said District, if, this Proposal shall be accepted by the District through the District's Governing Board, and the undersigned fails to execute a Contract with and furnish the sureties required by the District within the required time; otherwise, said check is to be returned to the undersigned.

Proposer

Note: Use this form, in lieu of Bid Bond form, when a cashier's check or certified check is accompanying the Proposal.

NON-COLLUSION DECLARATION

The undersigned declares:

I am the _____ [Title] of _____ [Name of Company],
the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____ [Date], at _____ [City], _____ [State].

Signed: _____

Typed Name: _____

AGREEMENT FORM

THIS AGREEMENT, entered into this _____ day of _____, 20____ in the County of Los Angeles of the State of California, by and between the Bonita Unified School District, hereinafter called the "District", and _____, hereinafter called the "Proposer". **WITNESSETH** that the District and the Proposer for the consideration stated herein agree as follows:

ARTICLE 1 - SCOPE OF WORK: The Proposer shall furnish all labor, materials, equipment, tools, and utility and transportation services, and shall coordinate and sequence Proposer's work under the direction of the District and to perform and complete all work required in connection with Fiber Optic Cabling RFP No. 19-20:05 ("Project") in strict accordance with the Contract Documents enumerated in Article 7 below. The Proposer shall be liable to the District for any damages arising as a result of a failure to comply with that obligation, and the Proposer shall not be excused with respect to any failure to so comply by an act or omission of the Schools and Libraries Division ("SLD"), Federal Communications Commission ("FCC") or the E-rate program in general.

ARTICLE 2 - TIME OF COMPLETION: Once the Proposer has received a notice to proceed, the Proposer shall complete all work and provide all services required for the Project by June 30, 2021. This shall be called Contract Time. It is expressly understood that time is of the essence. Proposer has thoroughly studied the Project and has satisfied itself that the duration set forth for the Contract Time and the duration provided for Proposer's Scope of Work for this Project is adequate for the timely and proper completion of the Project within the Contract Time.

ARTICLE 3 - LIQUIDATED DAMAGES: It being impracticable and infeasible to determine the amount of actual damage, it is agreed that the Proposer will pay the District the sum of Five Hundred Dollars (\$500.00) per calendar day for each and every day of delay attributable to Proposer's delay to complete the Project and provide all required services within the Contract Time set forth in Article 2 of this Agreement as liquidated damages and not as a penalty or forfeiture. In the event Liquidated Damages are not paid, the Proposer further agrees that the District may deduct such amount thereof from any money due or that may become due Proposer under the Contract. This Article shall not be construed as preventing the District from the recovery of damages under the Contract Documents.

ARTICLE 4 - CONTRACT PRICE: The District shall pay to the Proposer as full consideration for the faithful performance of the Contract, subject to any additions or deductions as provided in the Contract Documents, the sum of _____ DOLLARS (\$_____), said sum being the total amount stipulated in the RFP Response submitted.

Should any Change Order result in an increase in the Contract Price, the cost of such Change Order shall be agreed to in advance by the Proposer and the District, subject to the monetary limitations set forth in Public Contract Code Section 20118.4. In the event that the Proposer proceeds with a Change in work without an agreement between the District and Proposer regarding the cost of a Change Order, the Proposer waives any claim of additional compensation for such additional work.

ARTICLE 5 - HOLD HARMLESS AGREEMENT: Proposer shall defend, indemnify and hold harmless District and its officers, employees, agents and independent contractors from all liabilities, claims, actions, liens, judgments, demands, damages, losses, costs or expenses of any kind arising from death, personal injury, property damage or other cause based or asserted upon any act, omission, or breach connected with or

arising from the progress of work or performance of service under this Agreement or the Contract Documents. As part of this indemnity, Proposer shall protect and defend, at its own expense, District and its officers, employees, agents and independent contractors from any legal action including attorney's fees or other proceeding based upon such act, omission, breach or as otherwise required by this Article.

Furthermore, Proposer agrees to and does hereby defend, indemnify and hold harmless District, and its officers, employees, agents and independent contractors from every claim or demand made, and every liability, loss, damage, expense or attorney's fees of any nature whatsoever, which may be incurred by reason of:

(a) Liability for (1) death or bodily injury to persons; (2) damage or injury to, loss (including theft), or loss of use of, any property; (3) any failure or alleged failure to comply with any provision of law or the Contract Documents; or (4) any other loss, damage or expense, sustained by any person, firm or corporation or in connection with the work called for in this Agreement or the Contract Documents, except for liability resulting from the sole or active negligence, or the willful misconduct of the District.

(b) Any bodily injury to or death of persons or damage to property caused by any act, omission or breach of Proposer or any person, firm or corporation employed by Proposer, either directly or by independent contract, including all damages or injury to or death of persons, loss (including theft) or loss of use of any property, sustained by any person, firm or corporation, including the District, arising out of or in any way connected with work covered by this Agreement or the Contract Documents, whether said injury or damage occurs either on or off District property, but not for any loss, injury, death or damages caused by the sole or active negligence or willful misconduct of the District.

(c) Any dispute between Proposer and Proposer's subcontractors/supplies/ Sureties, including, but not limited to, any failure or alleged failure of the Proposer (or any person hired or employed directly or indirectly by Proposer) to pay any Subcontractor or Materialman of any tier or any other person employed in connection with the work and/or filing of any stop notice or mechanic's lien claims.

Proposer, at its own expense, cost, and risk, shall defend any and all claims, actions, suits, or other proceedings that may be brought or instituted against the District, its officers, agents or employees, on account of or founded upon any cause, damage, or injury identified herein and shall pay or satisfy any judgment that may be rendered against the District, its officers, agents or employees in any action, suit or other proceedings as a result thereof.

ARTICLE 6 - PROVISIONS REQUIRED BY LAW: Each and every provision of law and clause required to be inserted in this Contract shall be deemed to be inserted herein, and this Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted or is not inserted correctly, then upon application of either party the Contract shall forthwith be physically amended to make such insertion or correction.

ARTICLE 7 - COMPONENT PARTS OF THE CONTRACT: The Contract entered into by this Agreement consists of the following Contract Documents, all of which are component parts of the Contract as if herein set out in full or attached hereto:

Request for Proposal, Attachments and Addenda Issued
Response to Request for Proposal
Bid Bond/ Bid Guarantee
Agreement Form
Non-Collusion Declaration
List of Subcontractors
Payment Bond
Performance Bond
Insurance Requirements Form and Endorsements
Certification Regarding Background Checks

All of the above named Contract Documents are intended to be complementary. Work required by one of the above named Contract Documents and not by others shall be done as if required by all. Any conflicts, discrepancies or ambiguities between the Contractor's Proposal in response to the RFP and the RFP shall be construed in favor of and governed by the RFP and its documents and requirements.

ARTICLE 8 - PREVAILING WAGES: Wage rates for this Project shall be in accordance with the general prevailing rate of holiday and overtime work in the locality in which the work is to be performed for each craft, classification, or type of work needed to execute the Contract as determined by the Director of the Department of Industrial Relations. Copies of schedules of rates so determined by the Director of the Department of Industrial Relations are on file at the administrative office of the District and are also available from the Director of the Department of Industrial Relations.

The following are hereby referenced and made a part of this Agreement and Proposer stipulates to the provisions contained therein.

1. Chapter 1 of Part 7 of Division 2 of the Labor Code (Section 1720 et seq.)
2. California Code of Regulations, Title 8, Chapter 8, Subchapters 3-6 (Section 16000 et seq.)

ARTICLE 9 - RECORD AUDIT: In accordance with Government Code Section 8546.7 (and Davis Bacon, if applicable) records of both the District and the Proposer shall be subject to examination and audit for a period of five (5) years after a Final Retention Payment or the Recording of a Notice of Completion, whichever occurs first.

ARTICLE 10 - PROPOSER'S LICENSE: The Proposer must possess throughout the Project, the appropriate licenses, issued by the State of California, which must be current and in good standing.

ARTICLE 11 - TERMINATION:

(a) Termination for Cause: The District may terminate the Proposer and/or this Contract for the following reasons: persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials; persistently or repeatedly is absent, without excuse, from the job site; fails to make payment to subcontractors, suppliers, materialmen, etc.; persistently disregards laws, ordinances, rules, regulations, or orders of a public authority having jurisdiction; fails to provide a schedule or fails or refuses to update schedules required under the Contract; falls behind on the Project and refuses or fails to undertake a recovery schedule; if the Proposer has been debarred from performing work; becomes bankrupt or insolvent, including the filing of a general assignment for the benefit of creditors; Proposer or any of its subcontractors are not properly registered with DIR at all times; or is otherwise in substantial breach of a provision of the Contract Documents. When any of the above reasons exist, the District may, without prejudice to any other rights or remedies of the District and after giving the Proposer written notice of five (5) days, terminate the Proposer and/or this Contract.

b. Payments Withheld: If the District terminates the Contract for one of the reasons stated above, the Proposer shall not be entitled to receive further payment until the Project is complete. All costs associated with the termination and completion of the Project shall be the responsibility of the Proposer.

c. Payments upon Completion: If the unpaid balance of the Contract Sum exceeds costs of completing the Project, including compensation for professional services and expenses made necessary thereby, such excess shall be paid to the Proposer. If such costs exceed the unpaid balance, the Proposer shall pay the difference to the District. The amount to be paid to the Proposer, or District, as the case may be, shall be certified upon application. This payment obligation shall survive completion of the Contract.

d. Termination for Convenience: District may terminate the Contract upon five (5) days written notice to the Proposer and use any reasonable method the District deems expedient to complete the Project, including contracting with replacement contractor or contractors, if it is found that reasons beyond the control of either the District or Proposer make it impossible or against the District's interest to complete the Project. In such a case, the Proposer shall have no claims against the District except for: (1) the actual cost for approved labor, materials, and services performed in accordance with the Contract Documents which have not otherwise been previously paid for and which are supported and documented through timesheets, invoices, receipts, or otherwise; and (2) profit and overhead of ten percent (10%) of the approved costs in item (1); and (3) termination cost of five percent (5%) of the approved costs in item (1). Proposer acknowledges and agrees that if the District (in its sole and absolute discretion) decides to takeover completion of the Project, the Proposer agrees to immediately assign all subcontracts to the District which the District has chosen to accept.

IN WITNESS WHEREOF, this Agreement has been duly executed by the above named parties, on the day and year first above written.

[SIGNATURES ON THE FOLLOWING PAGE]

Bonita Unified School District

PROPOSER:

By: _____

Typed or Printed Name

PAYMENT BOND

(CALIFORNIA PUBLIC WORK)

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, the BONITA UNIFIED SCHOOL DISTRICT (sometimes referred to hereinafter as "Obligee") has awarded to _____ (hereinafter designated as the "Principal" or "Proposer"), an agreement for the work described as follows: Fiber Optic Cabling RFP No. 19-20:05 (hereinafter referred to as the "Public Work"); and

WHEREAS, said Proposer is required to furnish a bond in connection with said Contract, and pursuant to California Civil Code Section 9550;

NOW, THEREFORE, We, _____, the undersigned Proposer, as Principal; and _____, a corporation organized and existing under the laws of the State of _____, and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto the BONITA UNIFIED SCHOOL DISTRICT and to any and all persons, companies, or corporations entitled by law to file stop notices under California Civil Code Section 9100, or any person, company, or corporation entitled to make a claim on this bond, in the sum of _____ Dollars (\$_____), such sum being not less than one hundred percent (100%) of the total amount payable by said Obligee under the terms of said Contract, for which payment will and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, its heirs, executors, administrators, successors, or assigns, or subcontractor, shall fail to pay any person or persons named in Civil Code Section 9100; or fail to pay for any materials, provisions, or other supplies, used in, upon, for, or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Code, with respect to work or labor thereon of any kind; or shall fail to deduct, withhold, and pay over to the Employment Development Department, any amounts required to be deducted, withheld, and paid over by Unemployment Insurance Code Section 13020 with respect to work and labor thereon of any kind, then said Surety will pay for the same, in an amount not exceeding the amount herein above set forth, and in the event suit is brought upon this bond, also will pay such reasonable attorneys' fees as shall be fixed by the court, awarded and taxed as provided in California Civil Code Section 9550 et seq.

This bond shall inure to the benefit of any person named in Civil Code Section 9100 giving such person or his/her assigns a right of action in any suit brought upon this bond.

It is further stipulated and agreed that the Surety of this bond shall not be exonerated or released from the obligation of the bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any contract, Plans, or specifications, or agreement pertaining or relating to any scheme or work of improvement herein above described; or pertaining or relating to the furnishing of labor, materials, or equipment therefor; nor by any change or modification of any terms of payment or extension of time for payment pertaining or relating to any scheme or work of improvement herein above described; nor by any rescission or attempted rescission of the contract, agreement or bond; nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to recover under any such contract or agreement or under the bond; nor by any fraud

practiced by any person other than the claimant seeking to recover on the bond; and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given; and under no circumstances shall the Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the Obligee and the Proposer or on the part of any obligee named in such bond; that the sole condition of recovery shall be that the claimant is a person described in California Civil Code Section 9100, and who has not been paid the full amount of his or her claim; and that the Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned.

IN WITNESS WHEREOF this instrument has been duly executed by the Principal and Surety above named, on the _____ day of _____, 20__.

PRINCIPAL/PROPOSER:

By: _____

SURETY:

By: _____

Attorney-in-Fact

IMPORTANT: THIS IS A REQUIRED FORM.

Surety companies executing bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write surety insurance defined in California Insurance Code Section 105, and if the work or project is financed, in whole or in part, with federal, grant or loan funds, Surety's name must also appear on the Treasury Department's most current list (Circular 570 as amended).

Any claims under this bond may be addressed to:

(Name and Address of Surety)

(Name and Address of agent or representative for service for service of process in California)

Telephone: _____

Telephone: _____

A notary public or other office completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA)

) ss.

COUNTY OF)

On _____, before me, _____, personally appeared _____, who proved on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) as the Attorney-in-Fact of _____ (Surety) and acknowledged to me that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Notary Public in and for said State

(SEAL)

Commission expires: _____

NOTE: A copy of the power-of-attorney to local representatives of the bonding company must be attached hereto.

PERFORMANCE BOND

(CALIFORNIA PUBLIC WORK)

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, the BONITA UNIFIED SCHOOL DISTRICT (sometimes referred to hereinafter as "Obligee") has awarded to _____ (hereinafter designated as the "Principal" or "Proposer"), an agreement for the work described as follows: Fiber Optic Cabling RFP No. 19-20:05 (hereinafter referred to as the "Public Work"); and

WHEREAS, the work to be performed by the Proposer is more particularly set forth in that certain contract for said Public Work dated _____, (hereinafter referred to as the "Contract"), which Contract is incorporated herein by this reference; and

WHEREAS, the Proposer is required by said Contract to perform the terms thereof and to provide a bond both for the performance and guaranty thereof.

NOW, THEREFORE, we, _____, the undersigned Proposer, as Principal, and _____, a corporation organized and existing under the laws of the State of _____, and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto the BONITA UNIFIED SCHOOL DISTRICT in the sum of _____ Dollars (\$_____), said sum being not less than one hundred percent (100%) of the total amount payable by said Obligee under the terms of said Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the bounded Proposer, his or her heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in said Contract and any alteration thereof made as therein provided, on his or her part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill guarantees of all materials and workmanship; and indemnify, defend and save harmless the Obligee, its officers and agents, as stipulated in said Contract, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

The Surety, for value received, hereby stipulates and agrees that it shall not be exonerated or released from the obligation of this bond (either by total exoneration or pro tanto) by any change, extension of time, alteration in or addition to the terms of the contract or to the work to be performed there under or the specifications accompanying the same, nor by any change or modification to any terms of payment or extension of time for any payment pertaining or relating to any scheme of work of improvement under the contract. Surety also stipulates and agrees that it shall not be exonerated or released from the obligation of this bond (either by total exoneration or pro tanto) by any overpayment or underpayment by the Obligee that is based upon estimates approved by the District. The Surety stipulates and agrees that none of the aforementioned changes, modifications, alterations, additions, extension of time or actions shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, modifications, alterations, additions or extension of time to the terms of the contract, or to the work, or the specifications as well notice of any other actions that result in the

foregoing.

Whenever Principal shall be, and is declared by the Oblige to be, in default under the Contract, the Surety shall promptly either remedy the default, or shall promptly take over and complete the Contract through its agents or independent contractors, subject to acceptance and approval of such agents or independent contractors by Oblige as hereinafter set forth, in accordance with its terms and conditions and to pay and perform all obligations of Principal under the Contract, including, without limitation, all obligations with respect to warranties, guarantees and the payment of liquidated damages; or, at Oblige's sole discretion and election, Surety shall obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Oblige of the lowest responsible bidder, arrange for a contract between such bidder and the Oblige and make available as work progresses (even though there should be a default or succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the "balance of the Contract price" (as hereinafter defined), and to pay and perform all obligations of Principal under the Contract, including, without limitation, all obligations with respect to warranties, guarantees and the payment of liquidated damages. The term "balance of the Contract price," as used in this paragraph, shall mean the total amount payable to Principal by the Oblige under the Contract and any modifications thereto, less the amount previously paid by the Oblige to the Principal, less any withholdings by the Oblige allowed under the Contract. Oblige shall not be required or obligated to accept a tender of a completion contractor from the Surety.

Surety expressly agrees that the Oblige may reject any agent or contractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Principal. Unless otherwise agreed by Oblige, in its sole discretion, Surety shall not utilize Principal in completing the Contract nor shall Surety accept a bid from Principal for completion of the work in the event of default by the Principal.

No final settlement between the Oblige and the Proposer shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

Proposer and Surety agree that if the Oblige is required to engage the services of an attorney in connection with enforcement of the bond, Proposer and Surety shall pay Oblige's reasonable attorneys' fees incurred, with or without suit, in addition to the above sum.

In the event suit is brought upon this bond by the Oblige and judgment is recovered, the Surety shall pay all costs incurred by the Oblige in such suit, including reasonable attorneys' fees to be fixed by the Court.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__.

PRINCIPAL/PROPOSER:

By: _____

SURETY:

By: _____

Attorney-in-Fact

The rate of premium on this bond is _____ per thousand.

The total amount of premium charged: \$ _____ (This must be filled in by a corporate surety).

IMPORTANT: THIS IS A REQUIRED FORM.

Surety companies executing bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write surety insurance defined in California Insurance Code Section 105, and if the work or project is financed, in whole or in part, with federal, grant or loan funds, Surety's name must also appear on the Treasury Department's most current list (Circular 570 as amended).

Any claims under this bond may be addressed to:

(Name and Address of Surety)

(Name and Address of agent or representative for service for service of process in California)

Telephone: _____

Telephone: _____

A notary public or other office completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA)
) ss.
COUNTY OF)

On _____, before me, _____, personally appeared _____, who proved on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) as the Attorney-in-Fact of _____ (Surety) and acknowledged to me that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Notary Public in and for said State
Commission expires: _____

(SEAL)

NOTE: A copy of the power-of-attorney to local representatives of the bonding company must be attached hereto.

INSURANCE REQUIREMENTS FORM

The Proposer shall not commence work until it has obtained all the insurance required in this Form, and such insurance has been approved by the District.

A. Proposer shall obtain and maintain the following policies and coverage. The insurance furnished by the Proposer shall provide coverage in amounts not less than the following:

(1) Comprehensive or Commercial Form General Liability Insurance: on an occurrence basis, covering work done or to be done by or on behalf of the Proposer and providing insurance for bodily injury, personal injury, property damage, and contractual liability. The aggregate limit shall apply separately to the work. Limits of Liability:

\$1,000,000 General Aggregate

\$1,000,000 Each Occurrence - combined single limit for bodily injury and property damage.

(2) Business Automobile Liability Insurance: on an occurrence basis, covering owned, scheduled, hired, and non-owned automobiles used by or on behalf of the Proposer and providing insurance for bodily injury, property damage, and contractual liability. Limits of Liability:

\$1,000,000 Each Accident—combined single limit for bodily injury and property damage.

(3) Workers' Compensation: including Employers Liability limits of \$1,000,000 and other limits as required under California law.

B. Proposer shall submit to the District certificates of insurance and original endorsements to the policies of insurance required by this Agreement as evidence of the insurance coverage. The scope of coverage and deductible shall be shown on the certificate of insurance. The certificates of insurance and endorsements shall provide for no cancellation of coverage without thirty (30) days written notice to the District, except for non-payment of premium for which notice shall be ten (10) days). Renewal certifications and endorsements shall be timely filed by the Proposer for all coverage until the work is accepted as complete. The District requires the Proposer to furnish the District complete, certified copies of all required insurance policies. The Proposer shall notify the District in writing of any material change in insurance coverage.

C. The insurance policies shall contain, or be endorsed to contain, the following provisions.

(1) For the general and automobile liability policies, the Board of Education, the District; their officers, employees, representatives, and agents shall be covered as additional insured(s). The additional insured endorsement shall be an ISO CG 20 10 (04/13), or an ISO CG 20 38 (04/13), or their equivalent as determined by the District in its sole discretion.

(2) For any claims related to the work, the Proposer's insurance coverage shall be primary insurance as respects the Board of Education, the District; their officers, employees, representatives, and agents. Any insurance or self-insurance maintained by the Board of

Education, the District, their officers, employees, representatives, and agents shall be in excess of the Proposer's insurance and shall not contribute with it.

(3) Each insurance policy required by this Section shall state that coverage shall not be canceled by either party, except after thirty (30) days prior written notice by mail, has been given to the District, except for non-payment of premium for which notice shall be ten (10) days).

(4) The Board of Education, the District, their officers, employees, representatives, and agents shall not by reason of their inclusion as additional insured(s) incur liability to the insurance carriers for payment of premiums for such insurance.

D. Insurers shall be licensed by the State of California to transact insurance and shall hold a current A.M. Best's rating of no less than A:VII or equivalent carrier otherwise acceptable to the District.

E. Miscellaneous.

(1) Any deductible under any policy of insurance required in this Form shall be Proposer's liability.

(2) Acceptance of certificates of insurance by the District shall not limit the Proposer's liability under the Agreement or Contract.

(3) In the event the Proposer does not comply with these insurance requirements, the District may, at its option, provide insurance coverage to protect the District. The Proposer shall pay the cost of the insurance and, if prompt payment is not received by the insurance carrier from the Proposer, the District may pay for the insurance from Agreement sums otherwise due the Proposer.

(4) If the District is damaged by the failure of Proposer to provide or maintain the required insurance, the Proposer shall pay the District for all such damages.

(5) The Proposer's obligations to obtain and maintain all required insurance are non-delegable duties under the Agreement or Contract.

DATE: _____

PROPOSER

By: _____

Signature

CERTIFICATION REGARDING BACKGROUND CHECKS

As a contractor or independent consultant under contract with the Bonita Unified School District ("District") my employees or I will be performing work which may result in contact with District pupils. Pursuant to California Education Code section 45125.1, I have read and understand the following requirements with regards to the fingerprinting of contractor's employees or independent consultants:

1. The Contractor shall provide for the submission of fingerprints of employees who will have contact with District pupils to the California Department of Justice (CDOJ) in a manner authorized by the CDOJ. Such clearance documents, when received from the CDOJ, shall be kept on file and made available for inspection upon request;
2. The Contractor shall not permit any contractor employees or independent consultants to come in contact with District pupils until CDOJ clearance is ascertained; and,
3. The Contractor shall certify in writing to District (by using this document) that no contractor employee or independent consultant who may come in contact with District pupils has been convicted of a violent or serious felony as defined in Education Code section 45122.1 (as listed in Penal Code sections 667.5 and 1192.7).

I understand that this certification is applicable for the covered period under this Agreement and that this certification covers any/all Contracts/amendments I may have with District in this time period.

I also understand that my legal obligation to meet the Education Code fingerprinting requirements is ongoing throughout the entire Contract time period with District, including any amendments that may subsequently be executed.

By my lawful signature below, under penalty of perjury, I hereby certify that no employees, contractors, subcontractors, or independent consultants who may come in contact with District pupils have been convicted of a violent or serious felony as defined in Education Code §45122.1 (as listed in Penal Code §§667.5 and 1192.7).

Company Name or Independent Consultant

Telephone

Authorized Signature

Date of Signature

Print Name of Signatory

Print Title of Signatory

ATTACHMENT "A"

BONITA UNIFIED SCHOOL DISTRICT LOCATIONS

Bonita High School 3102 D St. La Verne, CA 91750	San Dimas High School 800 W Covina Blvd San Dimas, CA 91773
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E-RATE SUPPLEMENTAL TERMS AND CONDITIONS

ITS SECTION 27 00 00

PROJECT SUMMARY // OVERVIEW // DELIVERABLES

PART 1 – GENERAL

1.1 INFORMATION

- A. This project occurs at two High Schools, Bonita HS and San Dimas HS. Project objective is to get Network and Wireless based Services from each sites MDF out to the Stadium Areas including Concession Stand, Press Box, Baseball Fields, and Field House. Each site is unique in its requirements.
- B. The Scope includes installing new underground conduit pathway, pull boxes and risers, with concrete and asphalt cuts/restoration, grass areas, Maxcell Innerduct, Fiber Optic Cabling, Wireless Access Points, Horizontal Cabling (Channel Solution), and associated hardware, NEMA boxes and other equipment and material incidental to accomplishing the paramount scope and objectives.
- C. All work will be after school hours when the campus has cleared of students. No trenches or excavations shall be left open during school hours. All work areas shall be barricaded off using District approved methods preventing pedestrian/student accessing the areas of work. All work shall be coordinated so as to not adversely affect existing services, or events in and around the stadiums.
- D. Fully investigating the existing conditions and planned work at each site is the contractor's responsibility **prior to bid**. Change orders will not be considered if determined by the client that the situation could have been avoided had the contractor expended the necessary resources during the bid process to understand the site conditions and the implications thereof as it relates to the scope of work and project objectives.
- E. Contractor shall consult the District Facilities staff for information regarding known utilities. Contractor shall call for underground utility locates from the local provider prior to any excavation. Contractor shall manually locate and expose any or all suspected utilities. Contractor responsible for all utility damage and damage to irrigation and water systems. In case of damage all services must be restored within 4-hours, or immediately if affecting a planned event at the site.
- F. Contractor is responsible for checking with the District Facilities staff and local, county, and state authorities having jurisdiction for additional requirements, permits, or processes. All requirements and costs are to be included in the bid. Costs occurring later will be borne solely by the contractor.
- G. It is imperative that those whom, on the contractor's behalf, were involved in the bid process properly brief the work forces engaged in the actual construction. The hand off of information attained in the bid process is considered critical to the successful workings of this project. Information presented on job walks, RFI's during bid process and any other correspondence must be reviewed by the installation and construction leadership.
- H. Compliance with the most current release of the NEC, NESC, and the ANSI/TIA/EIA Standards is required. Contractor bears all responsibility and costs for compliance, and re-works as determined and directed by the Districts Project Manager/Inspector.
- I. Contractor is to perform all necessary pre-construction planning, site preparation, construction and coordination required in order to accomplish the project objectives, and in keeping with the highest levels of workmanship and the telecommunications industry "Best Practices". All coordination

must be timely, and prevent compromise to the project objectives as determined by the client's representative.

- J. In all cases, the contractor, prior to the ordering of any equipment and material must validate the items are new, is of the latest manufacturer offering and version. If a better material solution is offered in the same manufacturer's product line, the contractor is to advise the client's representative in writing of their options and await a written response prior to ordering the material. Failure to follow this process or show this step was taken could result in the contractor being held liable for all costs associated to changes after the material has been ordered, including labor if installed.
- K. Prior to ordering and installation of the OSP cabling and associated products, the contractor is required to provide and have approved by the client representative shop drawings including: proposed UG conduit path, conduit assignment plans, pull box butterfly layouts, cable pulling tension work sheets, product call outs, dimensional back board layouts with x-connect fields and cable/wire management shown.
- L. Contractor must be aware of all product ordering lead times and ensure all product information is submitted to the client's representative with time to allow for a 14 day client review period, contractor corrections, a re-submittal process, and material procurement, in line or ahead of the client's project schedule.

M. PROJECT SUBMITTALS

a. PRODUCT SUBMITTALS

- i. Within 10 working days of award, the contractor is to provide (3) bound sets and (1) electronic set in PDF format of detailed material cut sheets for each item. The cut sheets shall be of required material and not of any substitutions unless previously approved in writing.

ii. SHOP DRAWINGS

- 1. Within 15 working days of award, the contractor is to provide (3) bound sets and (1) electronic set in PDF format detailed shop drawings for Client review/approval. This will include drawings for the underground pathway, route, distances, conduit quantities and type, risers, transitions from OSP to include building penetrations, tie-ins to existing vaults, butterfly or fold down drawings of each vault, mounting of IDF enclosures, pole mounting of NEMA Enclosures and WAP installation, and fiber diagrams.

b. PLAN AND APPROACH DOCUMENTATION

- i. Within 15 working days of award, the contractor is to provide to the client for approval a detailed, and updated project plan inclusive of:

- 1. Detailed Project Strategy
- 2. Organization Breakdown Structure

- c. The documents listed above must be reviewed and accepted by the Client prior to commencement of the work. Submission of these documents shall be in the native electronic format along with (3) sets of hard copies neatly organized for presentation to the District. The IT Contractor is to coordinate the required level of detail with the IT representative for the Client.

1.2 PROJECT SITE(S) SCOPE SUMMARIES

- A. At both sites the contractor is to include in their bid for the possibility of having to un-terminate, protect and remove all cabling in one of the existing conduits in order to bundle the new cable in and re-pull all cables back in to the MDF. Existing Fiber Optic Cables are comingled. At BHS this involves seven (7) underground segments, and at SDHS this involves nine (9) underground segments.
- a. For bid purposes there are seven 6-strand 50 micron fiber cables from the MDF through existing conduits for a total of 42 re-terminations at each site. Test all strands prior to removal, record all results and re-test after reinstallation. Results must meet or improve upon initial test results.
 - b. Identify on the Schedule of Values (SOV) a separate all-inclusive detailed line item for the work stated in 1.2.A on each sites SOV's. Should this work not be required a deductive change order will be issued.
- B. Bonita HS**
- a. See attached aerial photo with conceptual pathway overlaid. Actual route may vary.
 - b. See all Specification Sections for additional requirements.
 - c. See field photos at: <https://www.dropbox.com/sh/p0qof4av4wcwyze/AAB4vY7D3p--y4S97WhrcrbLa?dl=0>
 - d. Contractor to attain all footages required during their field investigation during the job walk. Accuracy of all data is the responsibility of the contractor to attain and/or confirm.
 - e. **MDF to Football Field Concession Stand Pathway**
 - i. MDF is located behind the Vice Principal's Office in the Admin Building
 - ii. MDF-Existing 4U Rack Mount Fiber Enclosure which is at capacity with no available slots. Provide and install new 1U fiber optic cable housing and panel(s).
 - iii. MDF to Sig7 (Pullbox). There is existing available conduit from MDF thru Underground Conduit (UC) and a total of seven 2'x3' handholes.
 - iv. Once submittals are approved saw-cut asphalt at Sig7 to grass area avoiding all tree roots. Route new pathway outside trees drip line. Sawcut sidewalk and approximately 30' of concrete near the Concession stand. Excavate and install (2) 2" SCH40 PVC from Sig7 to Sig8. Instal (2) new concrete Pull Boxes (2'x3' minimum) as shown on aerial photo (PH1 & PH2). Contractor is responsible for removal and disposal of all asphalt, concrete, dirt and spoilage. Backfill and match compaction to the existing environment. Restore all surfaces with new concrete and asphalt. All work must meet with District Facilities approval. Consult with Facilities for specific requirements and expectations.
 - v. Provide and install new traffic rated pull boxes as shown on aerial photo. Vaults shall be minimum 2'x3' concrete communications specific. Vaults to be set to grade. Lids to be labeled "Comm" or "Signal". All penetrations of new conduits shall be on each short wall, core drilled (or manufactured knockouts). Used beveled collars installed flush to interior wall surface for terminating new conduits. No floor risers into new vaults are permitted. Restore concrete around all penetrations. Install galvanized cable racking hardware on each long wall. To keep all new and future cables off the floor and neatly organized. Provide (8) 4" cable steps per vault.

- vi. Install (1) Maxcell 2"-3 cell in existing 2" UG conduit from MDF to Sig7, and from Sig7 to the Concession Stand IDF, from Proposed Handhole (PH) PH1 to Light Pole (LP) LP BB, and from PH2 to LP 15. Terminate Maxcell at each conduit segments end (MDF, PB-PB, riser). Use MAXCELL chain harness and radial swivel for all installations.
- vii. There is approximately 30' of asphalt volleyball court that will need to be saw cut, removed and replaced for the new conduit. Directional boring is also an option.
- viii. Install (2) new UG 2" Schedule 40 PVC conduits from Sig7 to PH1, from PH1 to PH2, from PH2 to Sig8 (existing vault). Install (1) 2" Schedule 40 PVC conduit from HH1 to LP BB, and from PH2 to LP 15. On each Pole do the following; terminate riser conduit in a lockable (padlock) weatherproof NEMA Enclosure (8"x8"x6") 4' above grade. Secure to pole using galvanized tension straps or other approved method. Install 1" EMT up to WAP using UV rated Sealtight conduit for any transitions. Use weatherproof compression fittings from the new NEMA enclosure up to a NEW (Contractor provided/installed) Aruba AP-375 (Contractor may not substitute WAP) with mounting kit. Terminate conduit in AP mount. Wireless Access Point mounted at 16' above grade. Strap 1" conduit to pole using approved galvanized conduit clamps every 2'.

f. MDF to Football Field Concession Stand Fiber Optic Cable

- i. Provide and install one (1) new 1U Leviton Fiber enclosure with one (1) 6-strand LC duplex fiber adapter panel in existing MDF rack.
- ii. Provide and install one (1) new 1U Leviton Fiber enclosure with one (1) 6-strand LC duplex fiber adapter panels in existing Concession Stand IDF (Room S03) rack.
- iii. Provide and install approximately 1,500' (wall to wall length add service loops, risers interior building routing etc.) 6-strand Indoor/Outdoor SM Fiber Optic Cabling (FOC) from MDF to Concession Stand. Contractor to confirm all lengths prior to bid. Terminate and test. Install FOC in Maxcell Cell.
- iv. Fiber will be terminated on LC-type connectors.
- v. Provide and install performance matching FO patch cables for each pair of fiber strands. Coordinate with District for patching requirements.
- vi. District is providing and installing all switching fabric and/or transceivers for connection to new FOC.

g. Concession Stand to Press Box Fiber

- i. Terminate existing 6-strand 50u MM OM4 fiber on LC-type connectors.
- ii. Provide and install one (1) new Leviton small wall mount Fiber enclosure with one (1) 6-strand LC duplex fiber adapter panel in Press Box.
- iii. Provide and install one (1) new 6-strand LC duplex fiber adapter panels in existing Concession Stand IDF (Room S03) rack.

h. Concession Stand to Light Pole WAP's (Wireless Access Points)

- i. See Detail "A" attached. This is a concept typical and does not show all pole occupancies or requirements. Adjustments to plan may be required. Coordinate in advance of installation with the District PM for approval of changes.
- ii. Provide complete end to end solution.
- iii. Provide and install two (2) General/Panduit (PANGEN) 4-pair TP Cat 6 OSP cables up to 290' from Concession Stand IDF (S03) to Light Pole 15 and also to LP BB. Terminate in Concession stand on IDF backboard, provide and install one (1) 25-pair Cat6 Building Entrance Terminal (BET) 110-type Protector loaded with 24 Data Grade Protector Modules. Connect all 4-pair for each OSP cable to patch panel. Terminate and provide channel test.
 1. Use Mini-Comm TX6 Plus UTP Jack Modules Panduit part number CJ688TGAW. Panduit Patch Panel part number CP48WSBLY or CPP48HDWBLY. In riser enclosure at LP's use Surface Mount box Panduit CBXQ21W-A and CBX4WH-AY with faceplate CFPE4IWY.
- iv. Provide and install one (1) new PanGen 15' Cat 6 patch cord from 8"x8"x6" box thru new 1" EMT and Liquid-tight on Light Pole 15 and LP BB. Connect WAP and coordinate with the District for WAP Activation.

i. Testing, Labeling and Documentation

- i. Terminate and label new installed/terminated fiber cable and panels in accordance with direction from District at time of install.
- ii. Terminate and label new Cat6 cable, patch panel and outlets.
- iii. Power-meter and OTDR test new fiber. Must pass manufacture and TIA test requirements.
- iv. Test and certify New Cat 6 cables to Cat6 and PANGEN specifications.
- v. Provide PanGen 25-year warranty.
- vi. Provide test results in native and PDF formats in hardcopy and electronic (CD or thumb-drive) formats.
- vii. Provide AutoCad As-Built drawings in hardcopy and electronic (CD or thumb-drive) formats.

C. San Dimas HS

- a. See attached aerial photo with conceptual pathway overlaid. Actual route may vary.
- b. See all Specification Sections for additional requirements.
- c. See field photos at:
<https://www.dropbox.com/sh/oin2dt00jezpg3e/AAD0Hlji6LY0RbhZpB906zva?dl=0>
- d. Contractor to attain all footages required during their field investigation during the job walk. Accuracy of all data is the responsibility of the contractor to attain and/or confirm.
- e. **MDF to Field House Fiber**
 - i. Remove existing rodent damaged MM fiber from Field house to MDF. Should be able to use as a pull rope to pull in new hybrid 6SM/6MM OM4 cable. Use

BerkTek/Leviton part number PDPK012-006FB3010/F5-006AB0707-I/O.
Contractor will use the same cable to the Press Box listed below.

1. Contractor to be aware of the high potential for rodent droppings in the ceiling space of the Field House and take a necessary precautions for workers.
- ii. Install (1) Maxcell 2"-3 cell in existing 2" UG conduit from the Field House to the Press Box IDF. Terminate Maxcell at each conduit segments end (IDF, PB-PB, riser). Use MAXCELL chain harness and radial swivel for all installations.
- iii. Provide and install approximately 1,500' (wall to wall length add service loops, risers, interior building routing etc.) 6SM/6MM Hybrid Singlemode and OM4 Multimode **Armored** Fiber Optic Cabling (FOC) from MDF thru existing 2" conduit pathway thru multiple Signal Handholes including SigGYM and SigFH and thru existing 2" EMT and pullbox into Field House IDF. Terminate and Test.
- iv. MDF is located outside the Principal's Office in the Admin Building
 1. Existing 4U Rack Mount Fiber Enclosure which is at capacity with no available slots
 2. Existing 1U Rack Mount Fiber Enclosure has two (2) open slots available for new adapter panels. Provide and install one (1) new 6-strand SM LC duplex fiber adapter panel and one (1) new 6-strand 50u OM4 LC duplex adapter panel in existing fiber enclosure.
 3. Fiber will be terminated on LC-type connectors.
- v. Field House IDF (FH IDF) is located in the large room in the middle of the Field House building near the ceiling of the South wall.
 1. Existing 1U Rack Mount Fiber Enclosure has two (2) open slots available for new adapter panels.
 2. Provide and install one (1) new (1) 6-strand SM LC duplex fiber adapter panel and one (1) new 6-strand 50u OM4 LC duplex adapter panel in existing fiber enclosure.
 3. Fiber will be terminated on LC-type connectors.

f. Field House IDF to Press Box (new)IDF & Fiber Optic Cable

- i. Provide and install approximately 500' (wall to wall length add service loops, risers, interior building routing etc.) 6-strand OM4 Multimode **Armored** Fiber Optic Cabling (FOC) from the Field house IDF thru existing 2" conduit Maxcel pathway thru multiple Signal Handholes including SigFH and SigFB and thru existing 2" EMT up the rear of the bleachers thru the floor of the Pressbox new IDF. Due to minimum reel lengths on ordering use the same hybrid cable specified for the MDF to Field House segment and leave the Single Mode Strands dark and securely coiled and stored for future use.,
- ii. Provide and install shallow wall mount cabinet under counter as new IDF. Confirm specified cabinet will fit prior to ordering. Use CPI 13050-712
- iii. Provide and install one (1) new 1U Leviton rack mount Fiber enclosure with one (1) 6-strand LC duplex fiber adapter panel in new cabinet in Press Box.
- iv. Fiber will be terminated on LC-type connectors.

- v. District will install and configure the switch fabric.

g. Press Box WAP

- i. Provide and install one (1) 2" galvanized steel mast for WAP installation on South-East exterior corner of Press Box and extend 4' above Roof. Properly secure mast to building structure using galvanized anchors and hardware every 2'.
- ii. Make 1" penetration thru South Exterior wall
- iii. Provide and install 1" Liquid-tight Flex conduit thru penetration and up mast to up to a NEW (Contractor provided/installed) Aruba AP-375 (contractor may not substitute WAP) with mounting kit. Terminate conduit in AP mount. Wireless Access Point mounted at peak of mast. Strap 1" conduit to pole using approved galvanized conduit straps every 2'. Use 50-year Silicone sealant to seal penetration.
- iv. Provide and install two (2) 25' General/Panduit (PANGEN) 4-pair UTP Cat 6 Riser rated patch cables from the new IDF to the new WAP and make connection. Leave a 10' slack coil of patch cable in an accessible space.

h. Testing, Labeling and Documentation

- i. Terminate and label new installed/terminated fiber cable and panels in accordance with direction from District at time of install.
- ii. Terminate and label new Cat6 cable, patch panel and outlets.
- iii. Power-meter and OTDR test new fiber. Must pass manufacture and TIA test requirements.
- iv. Test and certify New Cat 6 cables to Cat6 and PANGEN specifications.
- v. Provide PanGen 25-year warranty.
- vi. Provide test results in native and PDF formats in hardcopy and electronic (CD or thumb-drive) formats.
- vii. Provide AutoCad As-Built drawings in hardcopy and electronic (CD or thumb-drive) formats.

ADDITIONAL MATERIAL INFORMATION (Both High Schools) *Contractor to verify all part numbers
 Not all materials are listed. Contractor to ensure a complete bill of material is developed as needed for the project.

DESCRIPTION	COLOR	MFG.	PART NUMBER	QTY	LINKS - DATA SHEETS
6-strand I/O Plenum Fiber Cable Single-Mode, OS2	Yellow	Berk-Tek	PDP006AB0707-I/O-C4(YEL)	1	PDP006AB0707-I/O-C4(YEL)
12 x OM4 Premises Distribution Indoor/Outdoor Plenum Cable with Interlocking Armor (6SM/6MM) ARMORED		Berk-Tek	PDPK012-006FB3010/F5-006AB0707-I/O	1	
Opt-X 1000i SDX - 1RU Fiber Enclosure, sliding tray, accepts 3 adapter plates, (72 LC's)	Black	Leviton	5R1UM-S03	1	5R1UM-S03

NEW Opt-X SDX - Mini Wall Mount holds 1 adapter plate, single door, no lock, (24 LC's)	Black	Leviton	5WSML-02C	1	5WSML-02C
Fiber Adapter Plate - 12 Fiber LC 50um, OM3/4	Aqua	Leviton	5F100-2QL	1	5F100-2QL
Fiber Adapter Plate - 12 Fiber LC Single-Mode, OS2	Blue	Leviton	5F100-2LL	1	5F100-2LL
FastCAM Pre-polished Connector, LC (aqua) 50/125um Multimode, OM3/OM4	Aqua	Leviton	49991-LLC	1	49991-LLC
FastCAM Pre-polished Connector, LC (blue) Single-Mode, OS2	Blue	Leviton	49991-SLC	1	49991-SLC

1.3 COMPLETION DELIVERABLES

- A. Acomplete and operational system as called for in the bid documents adhering to the direction and specifications provided.
- B. All hard and soft scape areas restored to District expectations and standards
- C. 100% Tested and Pass fiber strand counts
- D. Contractor to provide all test results in electronic format (pdf).
- E. Fully detailed "As Built" Drawings in AutoCad and pdf format. Includes;
 - a. OSP Pathway
 - b. Pullbox butterfly layouts
 - c. Fiber diagram
 - d. LP install detail

PART 2 – PRODUCTS AND RESPONSIBILITIES OF AND FOR BID THOROUGHNESS

2.1 REQUIREMENTS

- A. Unless specifically called for, and noted in the plans, all products for this project shall be specifically manufactured for the telecommunications application in which they are used, and the environment in which they are installed. All products shall be new and the current release and model for the item used throughout the project. Used or refurbished products shall not be used on this project. No exceptions.
- B. Contractor shelf stock shall not be used unless previously approved in writing by the Client. Contractor is required to submit a list of all shelf stock products to be used on the project and year of manufacture for each item. Contractor to certify on this document that all each product is new and the current model being manufactured by the manufacturer. The client must sign this list before using shelf stock.
- C. Contractor shall inquire to the source of purchase and require the source of purchase to verify that all products are authentic and of current manufacture product line. Contractor retains responsibility to the client for compliance with this requirement on all products.
- D. Client has the right to inspect all contractors shipping/receiving; bill of lading documents to verify new products are used. Contractor will provide original documents to the client upon client's written request within two business days of the request. Documents need not show pricing information, but will show the purchase source, source contact information, purchaser, and date of purchase, item name, part number, and quantity ordered, and quantity shipped.

- E. The contractor is required to meet the Telecommunications Industry "BEST PRACTICES" as derived from the listed references and as interpreted by the client. The contractor understands the client under this project and contract has no responsibility to pay for items left out of the bid that are required to meet industry "Best Practices". At any time the client or their agent brings to the attention of the contractor a need to modify process, procedure or material in order to meet the "Best Practice" standard the contractor shall take immediate action to remedy and comply with these observations.
- F. The contractor shall furnish, install and test all items and components required to accomplish the goals and objectives of the project. This includes items that may not be specifically identified in the bid documents, however, are considered incidental items to the larger system ("a component of") or are required in order to meet the compliance requirements of the REFERENCE section of the Division documents, including but not limited to the BICSI Telecommunication Installation Methods Manual, NEC, NESC, TIA Standards and Bulletins, and the industry BEST PRACTICES as determined by the client in concert with the product and system manufacturers. Any questions on what may be included must be resolved prior to bid. By bidding this project it is agreed that the Client has no responsibility to pay for items required by the client under "Best Practices", their installation/ testing/acceptance or any other associated costs, even though the contractor or sub-contractor in their bid did not identify or factor these items.

2.2 ACCEPTABLE MANUFACTURER, TRADE NAMES AND ALTERNATIVES

- A. As Listed above.
- B. Vaults from OldCastle (Fontana)
- C. Do not order any material until all material submittals have been approved by the District.
- D. Trade Names and Alternatives
 - a. For convenience in designation on the plans or in the specifications, certain articles or materials to be incorporated in the work may be designated under a trade name or in the name of a manufacturer. Whenever in specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name or by name of manufacturer, such specification shall be deemed to be used for the purpose of facilitating description of material, process or article desired and shall be deemed to be followed by the words "or equal," and service provider may, unless otherwise stated, offer any material, process or article which shall be substantially equal or better in every respect to that so indicated or specified.. Burden of proof as to equality of any material, process or article shall rest with service provider. Service Provider shall submit request together with substantiating data for substitution of any "or equal" item within the sealed bid packet at the closing of bids.
 - b. Provision authorizing submission of "or equal" justification data shall not in any way authorize an extension of time of bid response. Please note: The contractor retains all responsibility and guarantees that All "or equal" components do not void and is supported by corresponding manufacturer including their warranty. Additionally, contractor guarantees the items submitted operate without any compromise or degradation in the performance of the items specified or the parent device. Items failing to meet this criteria the contractor agrees to replace with items as originally specified at no cost to the District.
 - c. The District retains the right to be sole judge as to whether equivalency has been proven and whether alternates will be accepted.

2.3 BID PACKAGE PRICING

- A. See attachments for schedule of value pricing example. The attachment illustrates the minimum level of information to be submitted at time of Bid.

PART 3 – EXECUTION

3.1. INSTALLATION

- A. The customer expects the highest in quality of material, workmanship and professionalism. The resulting product must meet industry best practices. Contractor must ensure their approach, manner, method and resulting installation provides an aesthetically pleasing “finished product”, including all support and tie in work to existing support utilities, systems and points of connection.
- B. Additional requirements listed throughout the construction documents.

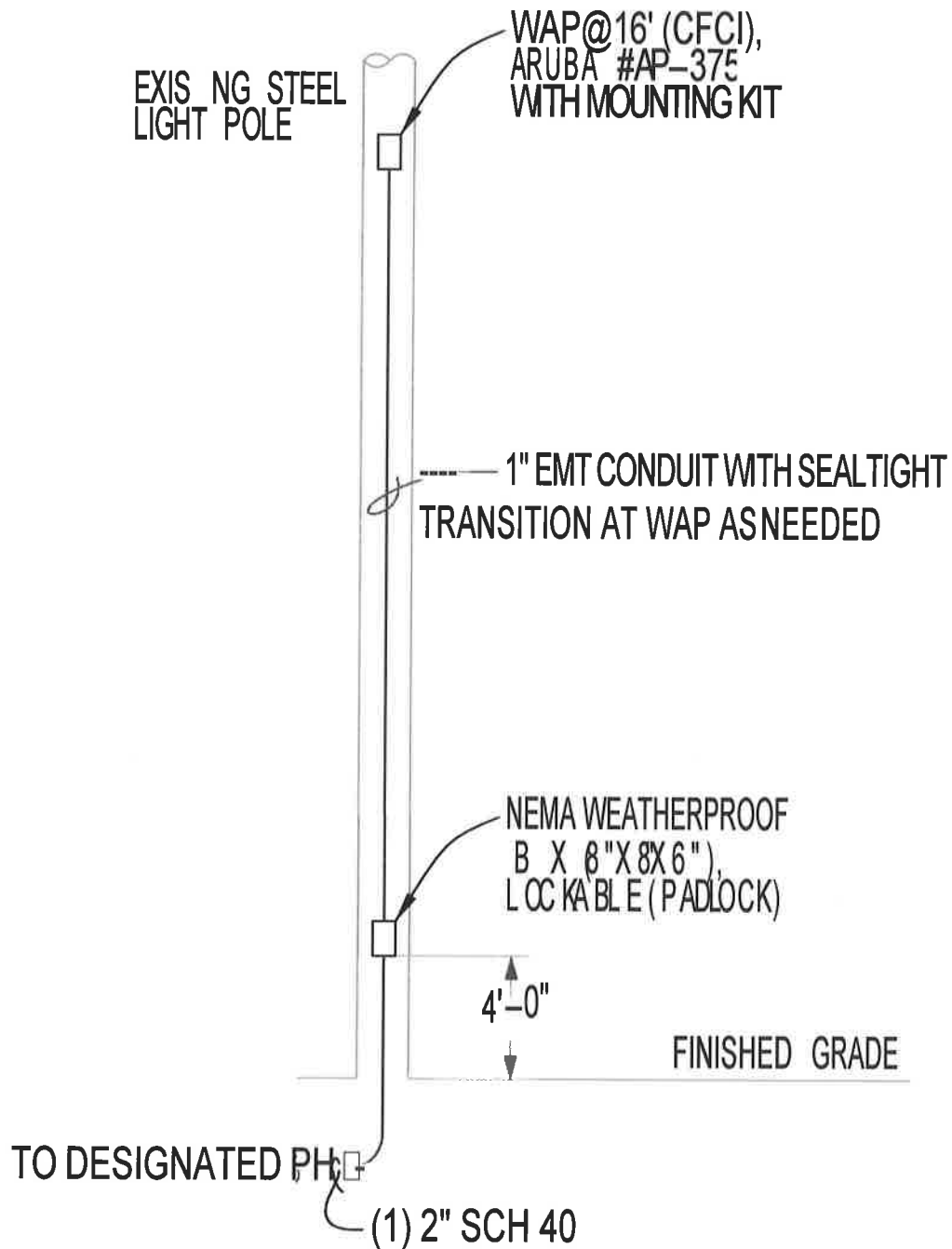
3.2. ACCEPTANCE

- A. This project is considered complete and accepted by the customer after all works has been completed and accepted by the client, all deliverables have been received and accepted, all inspections have been completed, deficiencies corrected, all deliverables met, and warranties received from the manufacturers.

END OF SECTION

DETAIL A: WAP INSTALL ON LIGHT POLE

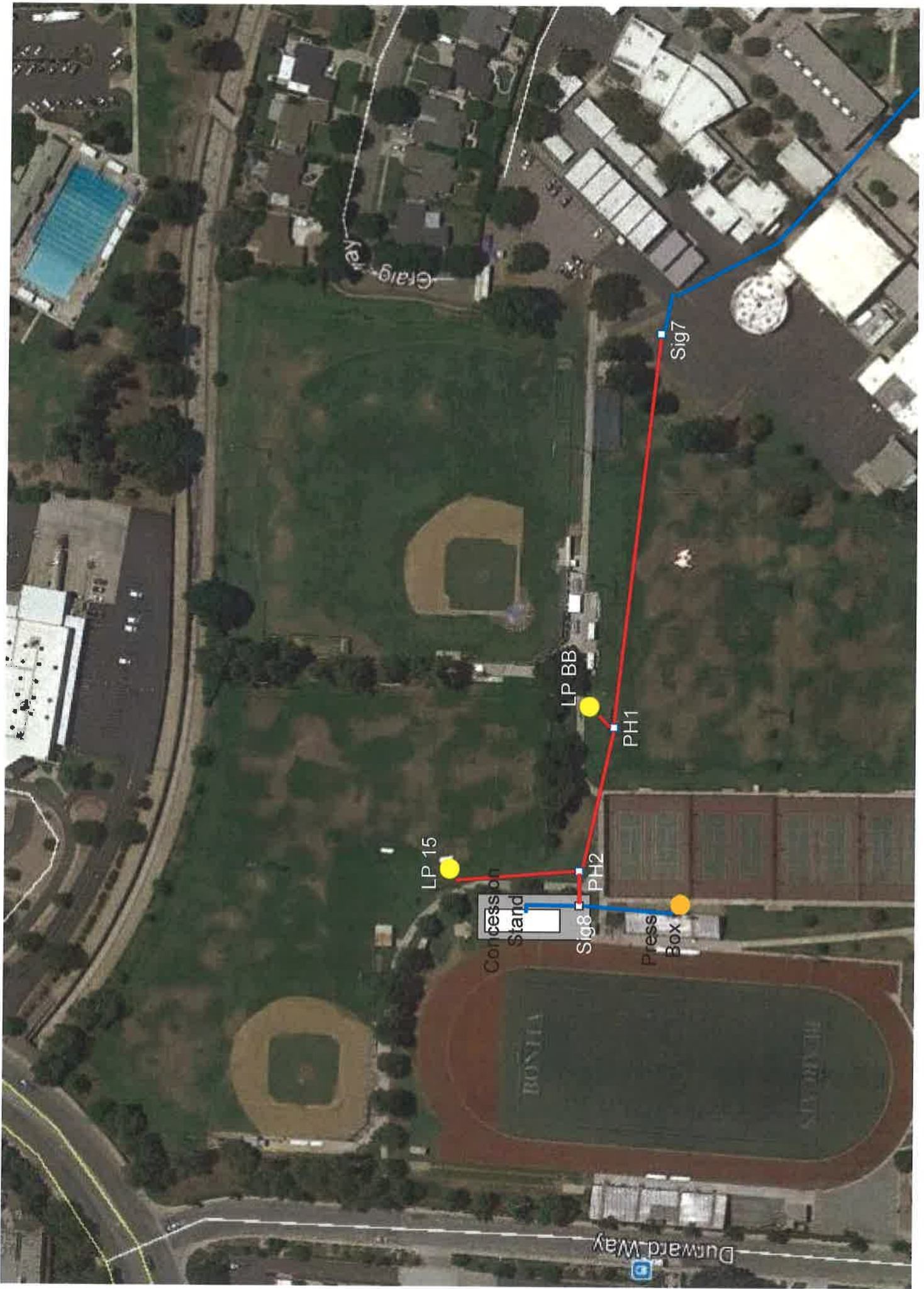
TYPICAL FOR BONITA HIGH SCHOOL



NOTES:

1. TYPICAL LINE DRAWING. NOT ALL REQUIREMENTS SHOWN. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. ALL CONNECTORS AND INTERFACES TO BE WEATHERPROOF.

ABBREVIATIONS	
CFCI =	CONTRACT OR FURNISHED AND INSTALLED
PH =	PROPOSED HANDHOLE
WAP =	WIRELESS ACCESS POINT



Sig7

LP BB

PH1

LP 15

PH2

Sig8

Concession Stand

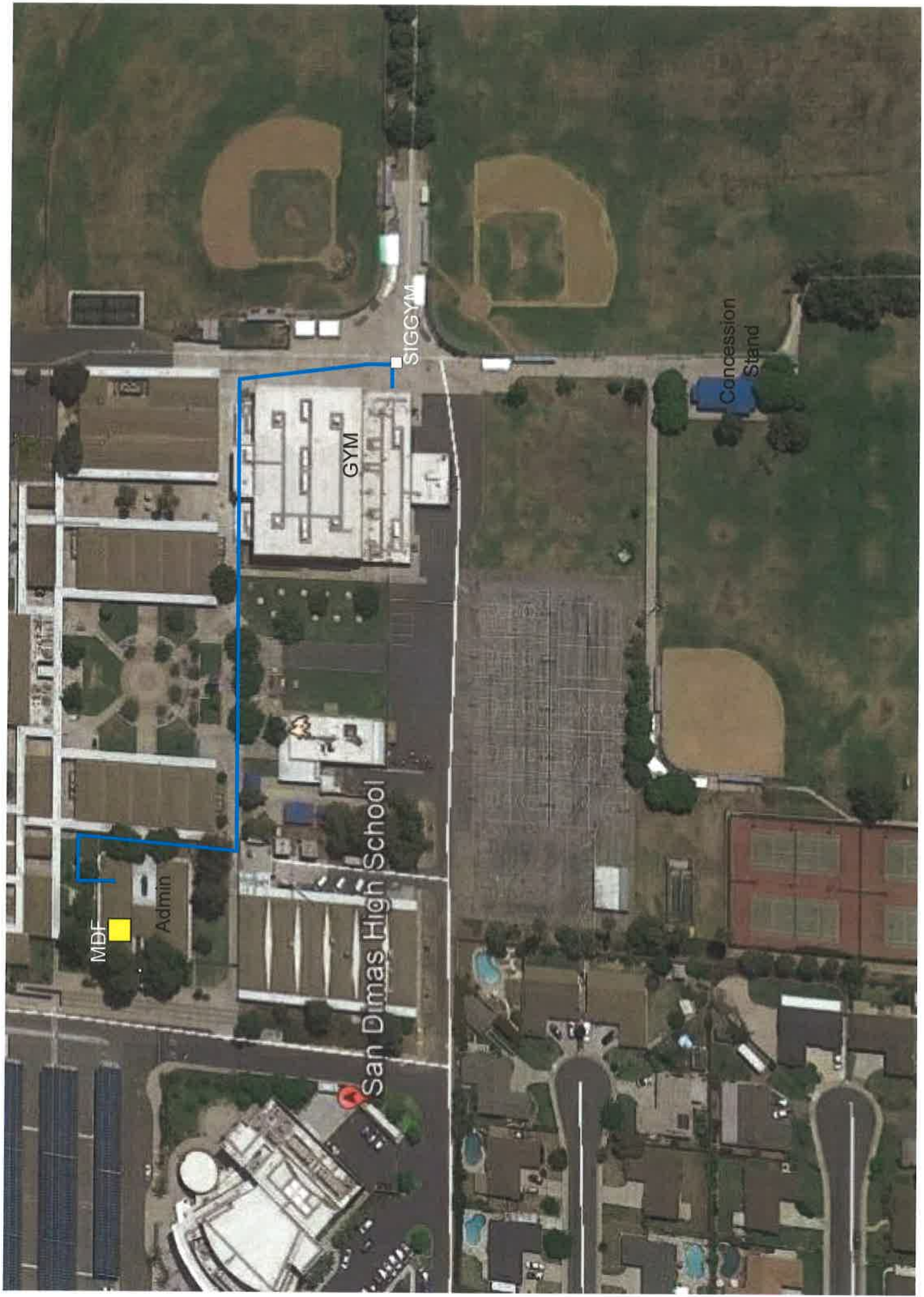
Press Box

Craig Way

Dunward Way

BONITA

SEVING



MBF

Admin

GYM

SIGGYM

Concession Stand

San Dimas High School

Detailed Schedule of Values example

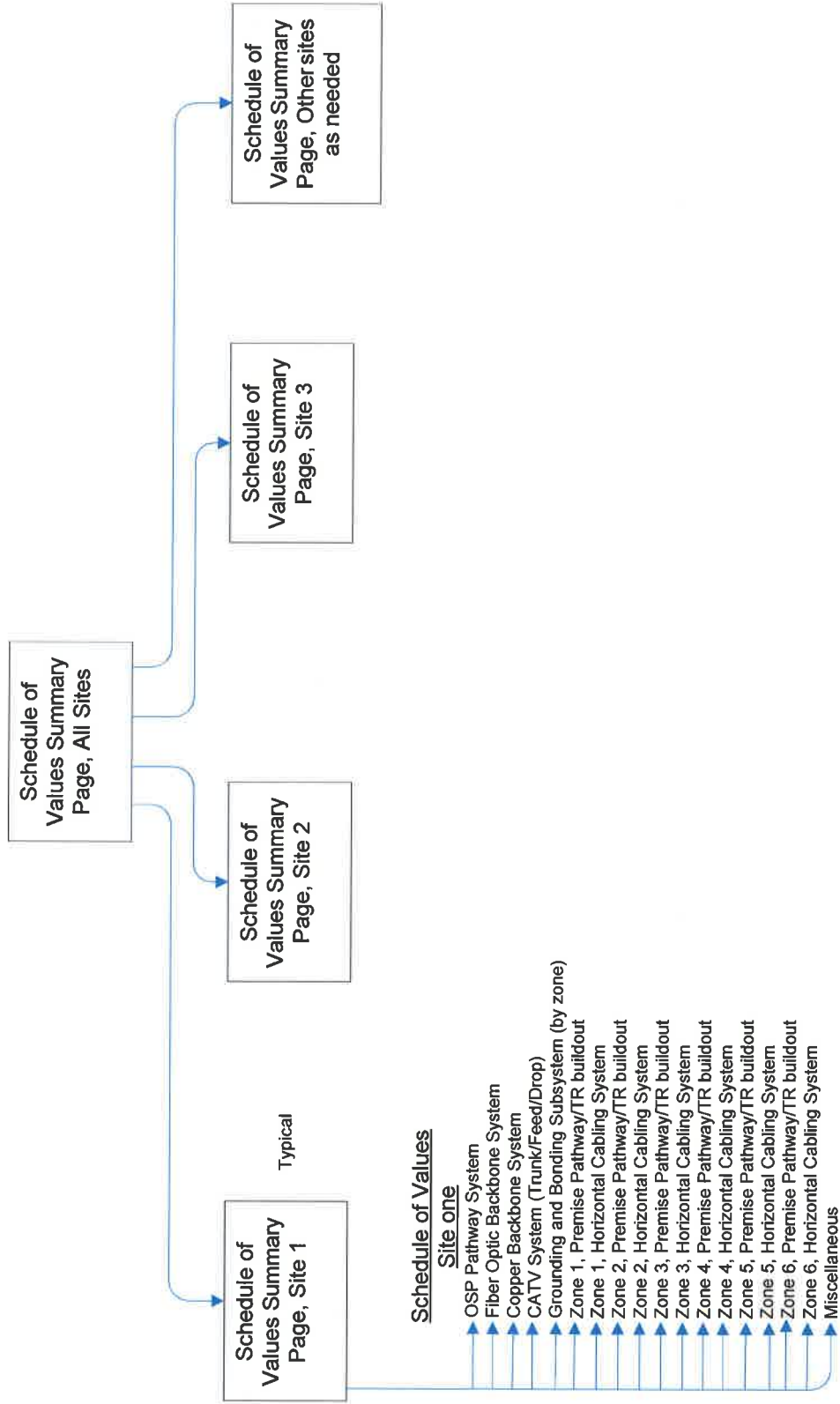
This is to be used as an example to assist the bidder in the understanding the requirement of a “Detailed Schedule of Values”. Contractor’s submitted detail of values may alter the location of some components from their location in the example based on the needs of the project.

All Pricing must reflect a “per unit” pricing model, e.g. “each”, “foot”, etc.

See attached flowchart and spreadsheets for examples of categorical breakdown. Schedule of values summary must list pricing to include all taxes, licensing, permits, and all associated project costs for a complete bid.

Review by the client or their agent of the schedule of values is to assess the contractor’s comprehension of the depth of the project, and to evaluation appropriateness of pricing. Review of the SOV and subsequent award of any contract to the successful bidder does not imply concurrence or recognition that the schedule of values is complete in order to meet the total needs of the project. Contractor is responsible for all shortcomings of material and labor for the project to comply with the construction documents.

SCHEDULE OF VALUES FLOWCHART



SCHEDULE OF VALUES SUMMARY PAGE, "All Sites"

Bid Date: 3/1/2006 2:00 PM

Summary Information for IT Project #42368, Technology Upgrade at Two Sites

Site	Description	Total
Site 1	Site 1 Total costs	\$795,523.81
Site 2	Site 2 Total costs	\$229,109.77
		**Total: \$1,024,633.58

*Not a takeoff of this project. This is an example of the format containing the minimum amount of detailed information.

**Total Project Bid. Includes tax, licensing, permits, and all associated project costs.

EXAMPLE SCHEDULE OF VALUES

SCHEDULE OF VALUES SUMMARY PAGE, "Site 1"

Bid Date: 3/1/2006 2:00 PM

Category	Description	Total
OSP Pathway	OSP Pathway SOV	\$103,465.71
Backbone Cabling System	Fiber Optic Backbone SOV	\$94,875.91
Backbone Cabling System	Copper Backbone SOV	\$13,128.99
CATV System	CATV System SOV (Trunk/Feed/Drop)	\$12,844.37
Grounding and Bonding System	Grounding and Bonding System SOV (by TR)	\$4,947.29
Premise Pathway	Zone 1 Premise Pathway/TR buildout SOV	\$17,052.35
Horizontal Cabling System	Zone 1 Horizontal Cabling System SOV	\$20,158.65
Premise Pathway	Zone 2 Premise Pathway/TR buildout SOV	\$4,648.04
Horizontal Cabling System	Zone 2 Horizontal Cabling System SOV	\$13,648.60
Premise Pathway	Zone 3 Premise Pathway/TR buildout SOV	\$8,356.42
Horizontal Cabling System	Zone 3 Horizontal Cabling System SOV	\$15,648.22
Premise Pathway	Zone 4 Premise Pathway/TR buildout SOV	\$8,565.25
Horizontal Cabling System	Zone 4 Horizontal Cabling System SOV	\$16,598.15
Premise Pathway	Zone 5 Premise Pathway/TR buildout SOV	\$7,642.87
Horizontal Cabling System	Zone 5 Horizontal Cabling System SOV	\$14,569.85
Premise Pathway	Zone 6 Premise Pathway/TR buildout SOV	\$8,356.42
Horizontal Cabling System	Zone 6 Horizontal Cabling System SOV	\$15,956.48
Active Components	Network Electronics SOV	\$338,226.93
AV System	AV System SOV	\$3,744.32
Miscellaneous	Miscellaneous SOV	\$73,089.00
	Total:	\$795,523.81

*Not a takeoff of this project. This is an example of the format containing the minimum amount of detailed information.

EXAMPLE SCHEDULE OF VALUES

SCHEDULE OF VALUES SUMMARY PAGE, "Site 1, OSP Pathway"									
Bid Date: 3/1/2006 2:00 PM									
Category	Manufacturer	Part Number	Description	Qty	Units	Total Labor	Material Unit Cost	Total Materials	Total
Conduit	Carlton	49015-010	4" SCH40 OSP conduit	6200	feet	\$9,067.50	\$0.35	\$2,170.00	\$11,237.50
OSP Pathway	Utility Vault	Verizon 46678M/HS	4X6X6 OSP Communications Vaults	2	ea	\$2,340.00	\$1,200.00	\$2,400.00	\$4,740.00
OSP Pathway	Carlton	mat33061	Buried metallic Warning tape	1200	feet	\$0.00	\$0.05	\$60.00	\$60.00
Labor/Material	N/A	N/A	Excavation and restoration for 36" trench	1200	feet	\$29,250.00	\$1.38	\$1,650.00	\$30,900.00
Conduit	Carlton	A6D2NXJNNXXXXX	1.25" OSP rated colored Innerduct	9600	feet	\$14,040.00	\$3.16	\$30,360.00	\$44,400.00
Conduit	Carlton	P125	Universal Aluminum Couplings	16	EA	\$39.00	\$1.25	\$20.00	\$59.00
Conduit	Carlton	MAEPG4	1.25 Mechanical Duct Plug	16	EA	\$39.00	\$2.50	\$40.00	\$79.00
OSP Pathway	N/A	N/A	Select Fill	1200	feet	\$204.75	\$0.40	\$480.00	\$684.75
Conduit	Carlton	S289NLN	Snap-LOC spacers	480	EA	\$234.00	\$3.00	\$1,440.00	\$1,674.00
OSP Pathway	N/A	N/A	Slurry	67	yd ³	\$97.99	\$75.00	\$5,025.00	\$5,122.99
Logistics	N/A	N/A	Disposal	1	EA	\$0.00	\$500.00	\$500.00	\$500.00
Logistics	N/A	N/A	Labeling	1	EA	\$0.00	\$45.00	\$45.00	\$45.00
Miscellaneous	N/A	N/A	Other/Miscellaneous	1	EA	\$0.00	\$500.00	\$500.00	\$500.00
						\$55,312.24		\$44,690.00	
							7.75% Tax	\$3,463.48	
						\$55,312.24		\$48,153.48	\$103,465.71
*Not a takeoff of this project. This is an example of the format containing the minimum amount of detailed information									
EXAMPLE SCHEDULE OF VALUES									

SCHEDULE OF VALUES SUMMARY PAGE, "Site 1, Fiber Optic Backbone Cabling"

Bid Date: 3/1/2006 2:00 PM

Category	Manufacturer	Part Number	Description	Qty	Units	Labor	Material Unit Cost	Total Materials	Total
Cable	Corning	048-xwf-ca435D20	Infinicor CL 1000 Plus 24MM/24SM	3000	feet	\$7,312.50	\$4.75	\$14,250.00	\$21,562.50
Modular Jacks	Corning	CCH-CP24-04-P03KH	Pigtalled LC 24MM Connector Module	12	EA	\$234.00	\$1,040.58	\$12,486.96	\$12,720.96
Modular Jacks	Corning	CCH-CP24-05-P03RH	Pigtalled LC 24SM Connector Module	12	EA	\$234.00	\$1,040.58	\$12,486.96	\$12,720.96
Cable Accessories	Corning	CCH-04U	CCH-04U Connector Panel	1	EA	\$36.56	\$276.50	\$276.50	\$313.06
Cable Accessories	Corning	CSH-02U	CSH-02U Splice housing	6	EA	\$146.25	\$75.00	\$450.00	\$596.25
Cable Accessories	Corning	CJH-02U	CJH-02U Jumper Management Panel	6	EA	\$23.40	\$65.00	\$390.00	\$413.40
Cable Accessories	Corning	M-067-48	M-067-48 Splice Tray	12	Ports	\$29.25	\$45.25	\$543.00	\$572.25
Patch Cable	Corning	055702K5120003M	LC Duplex to SC Duplex 62.5 MM 3M Patch cord	30	EA	\$14.63	\$65.00	\$1,950.00	\$1,964.63
Labor	Corning	N/A	Fusion Splicing (MM)	144	Each	\$1,404.00	\$1.00	\$144.00	\$1,548.00
Labor	Corning	N/A	Fusion Splicing (SM)	144	Each	\$1,404.00	\$1.00	\$144.00	\$1,548.00
Logistics	N/A	N/A	Labeling	1	EA	\$48.75	\$15.00	\$15.00	\$63.75
Cable Testing	Fluke	N/A	OTDR Testing at 850nm and 1300nm	36	Pair	\$140.40	\$325.00	\$11,700.00	\$11,840.40
Cable Testing	Fluke	N/A	OTDR Testing at 1310nm and 1550nm	36	Pair	\$140.40	\$43.75	\$1,575.00	\$1,715.40
Cable Testing	Fluke	N/A	Power Meter Testing at 850nm and 1300nm	36	Pair	\$140.40	\$52.50	\$1,890.00	\$2,030.40
Cable Testing	Fluke	N/A	Power Meter Testing at 1310nm and 1550nm	36	Pair	\$140.40	\$531.25	\$19,125.00	\$19,265.40
						\$11,448.94		\$77,426.42	
							7.75% Tax	\$6,000.55	
						\$11,448.94		\$83,426.97	\$94,875.91

*Not a takeoff of this project. This is an example of the format containing the minimum amount of detailed information.

EXAMPLE SCHEDULE OF VALUES

SCHEDULE OF VALUES SUMMARY PAGE, "Site 1, CATV System"									
Bid Date: 3/1/2006 2:00 PM									
Category	Manufacturer	Part Number	Description	Qty	Units	Labor	Material Unit Cost	Total Materials	Total
Cable	Commscope	P3 500 JCASS	Broadband Coaxial Backbone Cabling	1700	feet	\$8,287.50	\$0.35	\$595.00	\$8,882.50
Cable	Commscope	F6SSV	Quad Shielded Coaxial drop cabling	565	feet	\$2,754.38	\$0.63	\$353.13	\$3,107.50
Modular Jacks	N/A	N/A	RG6 cabling terminations F-Type	40	EA	\$195.00	\$5.44	\$217.50	\$412.50
Face Plates	Amp	557505-3	1 port Coaxial faceplate White	20	EA	\$97.50	\$1.38	\$27.50	\$125.00
CATV Accessories	Blonder Tongue	SRT-2A	Coaxial Tap	1	EA	\$4.88	\$50.00	\$50.00	\$54.88
Modular Jacks	AMP	1-0406344-1	RG6 cabling couplers F-Type	20	EA	\$97.50	\$3.16	\$63.25	\$160.75
						\$11,436.75		\$1,306.38	
							7.75% Tax	\$101.24	
						\$11,436.75		\$1,407.62	\$12,844.37

*Not a takeoff of this project. This is an example of the format containing the minimum amount of detailed information.

EXAMPLE SCHEDULE OF VALUES

SCHEDULE OF VALUES SUMMARY PAGE, "Site 1, Grounding and Bonding Subsystem"

Bid Date: 3/1/2006 2:00 PM

Category	Manufacturer	Part Number	Description	Qty	Units Labor	Material Unit Cost	Total Materials	Total
Zone 1								
Grounding and Bonding Components	Erico	TMGB-A29L41PT	Telecommunications Main Ground Busbar	1	EA	\$205.00	\$205.00	\$285.94
Wiring	N/A	N/A	2/0 Grounding conductor	25	FT	\$1,096.88	\$10.00	\$1,106.88
Zone 2								
Grounding and Bonding Components	Erico	TGB-A18L10PT	Telecommunications Ground Busbar	1	EA	\$185.00	\$185.00	\$233.75
Wiring	N/A	N/A	1/0 Grounding conductor	16	FT	\$663.00	\$5.60	\$668.60
Zone 3								
Grounding and Bonding Components	Erico	TGB-A18L10PT	Telecommunications Ground Busbar	1	EA	\$185.00	\$185.00	\$233.75
Wiring	N/A	N/A	6 AWG Grounding conductor	12	FT	\$409.50	\$2.40	\$411.90
Zone 4								
Grounding and Bonding Components	Erico	TGB-A18L10PT	Telecommunications Ground Busbar	1	EA	\$185.00	\$185.00	\$233.75
Wiring	N/A	N/A	6 AWG Grounding conductor	12	FT	\$409.50	\$2.40	\$411.90
Zone 5								
Grounding and Bonding Components	Erico	TGB-A18L10PT	Telecommunications Ground Busbar	1	EA	\$185.00	\$185.00	\$233.75
Wiring	N/A	N/A	6 AWG Grounding conductor	12	FT	\$409.50	\$2.40	\$411.90
Zone 6								
Grounding and Bonding Components	Erico	TGB-A18L10PT	Telecommunications Ground Busbar	1	EA	\$185.00	\$185.00	\$233.75
Wiring	N/A	N/A	6 AWG Grounding conductor	12	FT	\$409.50	\$2.40	\$411.90
							\$1,155.20	
						7.75% Tax	\$89.53	
						\$3,702.56	\$1,244.73	\$4,947.29
*Not a takeoff of this project. This is an example of the format containing the minimum amount of detailed information.								
EXAMPLE SCHEDULE OF VALUES								

Bid Date: 3/1/2006 2:00 PM

SCHEDULE OF VALUES SUMMARY PAGE, "Site 1, Zone 2 Premise Pathway/TR Buildout"

Premise Pathway / TR Breakdown for Site 1 Zone 2									
Category	Manufacturer	Part Number	Description	Qty	Units	Labor	Material Unit Cost	Total Materials	Total
Face Plates	Wiremold	5507B	Blank insert for 5400 Device Bracket *** used with CM-EPLA ***	12	EA	\$5.85	\$3.16	\$37.95	\$43.80
Face Plates	Wiremold	CM-EPLA	4-Port configuration for Wiremold Device Bracket - *** This configuration requ	12	Ports	\$175.50	\$5.63	\$67.50	\$243.00
Raceway	Wiremold	5410	NM END CAP 5400 IVORY	7	EA	\$10.24	\$4.38	\$30.63	\$40.86
Cabinets	Chatsworth	12419-748	Cube-IT Plus™ Cabinet, 24"W X 48"H X 30"D, Plexiglass Door, Black	1	EA	\$97.50	\$531.25	\$531.25	\$628.75
Cable Supports	Erico	CAT1291ZSM	J hook hammer-on 50 4-pair 1/2" thru 3/4" flange 360 deg	100	EA	\$487.50	\$1.63	\$162.50	\$650.00
Rack & Cabinet Accessories	Chatsworth	12805-701	Cube-IT Plus™ Filter Kit for Fan, Black	1	EA	\$24.38	\$90.00	\$90.00	\$114.38
Rack & Cabinet Accessories	Chatsworth	12804-701	Cube-IT Plus™ Fan Kit for Fan, Black	1	EA	\$24.38	\$105.00	\$105.00	\$129.38
Rackway Accessories	Wiremold	5400C	Cube-IT Plus™ Light Kit	1	EA	\$14.63	\$85.00	\$85.00	\$99.63
Rackway Accessories	Wiremold	5410DFO	NM RCWY COVER 5400 IVORY	16	EA	\$156.00	\$23.25	\$372.00	\$528.00
Rackway Accessories	Wiremold	5406A	NM ENT END FTG 5400 IVORY	7	EA	\$10.24	\$10.00	\$70.00	\$80.24
Rackway Accessories	Wiremold	5400TB	NM COVER CLIP 5400 SERIES IVORY	7	EA	\$3.41	\$6.81	\$47.69	\$51.10
Rackway Accessories	Wiremold	5450	NM RCWY BASE 2 COMP 5400 IVORY	16	EA	\$195.00	\$32.00	\$512.00	\$707.00
Rackway Accessories	Wiremold	5411FO	DEVICE BRACKET IVORY	12	EA	\$58.50	\$30.00	\$360.00	\$418.50
Rackway Accessories	Wiremold	13075-719	NM FIBER READY FLAT ELBOW IVORY	7	EA	\$51.19	\$43.75	\$306.25	\$357.44
Cable Management	Chatsworth	N/A	Patch Cord Organizer, Horizontal - 1 x 1.75, 2 rack space	4	EA	\$39.00	\$45.00	\$180.00	\$219.00
Rack & Cabinet Accessories	N/A	N/A	8'X4' Void-free Treated plywood w/ 2 coat intumescent paint, white	1	EA	\$97.50	\$85.00	\$85.00	\$182.50
Logistics	N/A	N/A	Labelling	1	EA	\$60.94	\$15.00	\$15.00	\$75.94
						\$1,353.30		\$3,057.76	
							7.75% Tax	\$236.98	
						\$1,353.30		\$3,294.74	\$4,648.04

*Not a takeoff of this project. This is an example of the format containing the minimum amount of detailed information.

EXAMPLE SCHEDULE OF VALUES

SCHEDULE OF VALUES SUMMARY PAGE, Site 1, Zone 2, Horizontal Cabling System

Bid Date: 3/1/2006 2:00 PM

Category	Manufacturer	Part Number	Description	Qty	Units	Labor	Material Unit Cost	Total Materials	Total
Cable	AMP	219567-6	Cat 6 UTP, CMP, RB, blue	13865	feet	\$4,055.51	\$0.35	\$4,852.75	\$8,908.26
Modular Jacks	AMP	1375055-6	Cat 6 SL Series 110Connect Jacks, blue	129	EA	\$125.78	\$2.50	\$322.50	\$448.28
Face Plates	AMP	558088-3	4 port 110connect faceplate White	30	EA	\$29.25	\$1.38	\$41.25	\$70.50
Patch Cable	AMP	1-219886-5	Cat 6 Assemblies, blue, 15 feet	129	EA	\$125.78	\$8.13	\$1,048.13	\$1,173.90
Patch Cable	AMP	219886-6	Cat 6 Assemblies, blue, 6 feet	129	EA	\$125.78	\$8.13	\$1,048.13	\$1,173.90
Patch Panel	AMP	1375119-1	SL Series Modular Jack Patch Panel, 48-port, Unshielded	3	EA	\$73.13	\$325.00	\$975.00	\$1,048.13
Cable Testing	Fluke	N/A	UTP Cable Testing	129	Ports	\$62.89	\$0.00	\$0.00	\$62.89
Rack & Cabinet Accessories	AMP	1375200-1	Bend Limiting Strain Relief used w/ Cat 6	30	EA	\$7.31	\$0.20	\$6.00	\$13.31
Module Inserts	AMP	406339-3	110Connect Blank Insert, white	28	EA	\$6.83	\$0.19	\$5.25	\$12.08
Module Inserts	AMP	406339-1	110Connect Blank Insert, almond	11	EA	\$2.68	\$0.19	\$2.06	\$4.74
Logistics	N/A	N/A	Labeling	1	EA	\$73.13	\$15.00	\$15.00	\$88.13
						\$4,688.04		\$8,316.06	
							7.75% Tax	\$644.49	
						\$4,688.04		\$8,960.56	\$13,648.60

*Net a takeoff of this project. This is an example of the format containing the minimum amount of detailed information.

** It is also acceptable to provide pricing on a per cable or per faceplate breakout.

EXAMPLE SCHEDULE OF VALUES

SCHEDULE OF VALUES SUMMARY PAGE, Site 1, Active Network Electronics

Bid Date: 3/1/2006 2:00 PM

Category	Manufacturer	Part Number	Description	Qty	Units	Labor	Material Unit Cost	Total Materials	Total
Network Electronics	Cisco	WS-C6509	Cat 6509 Chassis, 9slot, 15RU, No Pow Supply, No Fan Tray	1	feet	\$4,875.00	\$9,500.00	\$9,500.00	\$14,375.00
Network Electronics	Cisco	WS-X6516A-GBIC=	Catalyst 6500 16-port GigE Mod, fabric-enabled (Req. GBICs)	2	feet	\$0.00	\$15,000.00	\$30,000.00	\$30,000.00
Network Electronics	Cisco	WS-F6K-DFC3A=	Dist Fwd Card-3A for 6509, 6816 Modules used with SUP720	3	EA	\$0.00	\$7,500.00	\$22,500.00	\$22,500.00
Network Electronics	Cisco	WS-X6548-GE-TX	Cat6500 48-port 10/100/1000 GE Mod, fabric enabled, RJ-45	3	EA	\$0.00	\$12,000.00	\$36,000.00	\$36,000.00
Network Electronics	Cisco	WS-CAC-3000W=	Cat 6500 3000W AC Power Supply	2	EA	\$0.00	\$3,000.00	\$6,000.00	\$6,000.00
Network Electronics	Cisco	WS-SUP720-3BXL=	Catalyst 6500/Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3BXL	2	EA	\$0.00	\$40,000.00	\$80,000.00	\$80,000.00
Network Electronics	Cisco	WS-C6K-9SLOT-FAN2=	Catalyst 6509 High Speed Fan Tray, Spare	1	EA	\$0.00	\$495.00	\$495.00	\$495.00
Network Electronics	Cisco	WS-G5486=	1000BASE-LX/LH long haul GBIC (singlemode or multimode)	40	EA	\$0.00	\$995.00	\$39,800.00	\$39,800.00
Network Electronics	Cisco	CON-SNT-PKG17	8x5xNBD SMARTnet for C6509 Catalyst Switch	1	EA	\$0.00	\$8,125.00	\$8,125.00	\$8,125.00
Network Electronics	Cisco	WS-C2950G-24-EI	Catalyst 2950, 24 10/100 with 2GBIC slots, Enhanced Image	20	EA	\$4,875.00	\$2,495.00	\$49,900.00	\$54,775.00
Network Electronics	Cisco	WS-X3500-XL	GigaStack Stacking GBIC and 50cm cable	17	EA	\$41.44	\$250.00	\$4,250.00	\$4,291.44
Network Electronics	Cisco	CON-SNT-PKG3	8x5xNBD SMARTnet for C2950G-24-EI switch	20	EA	\$0.00	\$231.00	\$4,620.00	\$4,620.00
UPS Systems	APC	SU5000RMT5U	SU5000RMT5U UPS	1	EA	\$48.75	\$2,750.00	\$2,750.00	\$2,798.75
UPS Systems	APC	AP9619	Smartslot Environmental monitoring SNMP module with probe	10	EA	\$243.75	\$409.00	\$4,090.00	\$4,333.75
UPS Systems	APC	SU1500RM2U	Smart-Ups 1500 120 V BLK rackmount	9	EA	\$438.75	\$669.00	\$6,021.00	\$6,459.75
Logistics	N/A	N/A	Labeling	1	EA	\$73.13	\$15.00	\$15.00	\$88.13
						\$10,595.81		\$304,066.00	
							7.75% Tax	\$23,565.12	
						\$10,595.81		\$327,631.12	\$338,226.93

*Not a takeoff of this project. This is an example of the format containing the minimum amount of detailed information.

EXAMPLE SCHEDULE OF VALUES

SCHEDULE OF VALUES SUMMARY PAGE, Site 1, Miscellaneous									
Category	Manufacturer	Part Number	Description	Qty	Units	Labor	Material Unit Cost	Total Materials	Total
Project Management			IT Project Manager	200	Hours	\$9,750.00	\$5.00	\$1,000.00	\$10,750.00
Project Management			IT Project Foreman	300	Hours	\$14,625.00	\$5.00	\$1,500.00	\$16,125.00
Logistics			Mobilization/Demobilization	1	EA	\$585.00	\$1,500.00	\$1,500.00	\$2,085.00
Modular Jacks			Demolition	1	EA	\$2,437.50	\$100.00	\$100.00	\$2,537.50
Deliverables			Documentation/As Built Development	15	EA	\$2,193.75	\$300.00	\$4,500.00	\$6,693.75
Deliverables			Client Training Package	1	EA	\$0.00	\$0.00	\$0.00	\$0.00
Deliverables			Other Deliverables	1	EA	\$0.00	\$0.00	\$0.00	\$0.00
Logistics			Permits / Licenses / Fees	1	EA	\$48.75	\$500.00	\$500.00	\$548.75
Logistics			Bonding costs	1	EA	\$48.75	\$30,000.00	\$30,000.00	\$30,048.75
Deliverables			Shop Drawings and Submittals	1	EA	\$731.25	\$500.00	\$500.00	\$1,231.25
						\$30,420.00		\$39,600.00	
							7.75% Tax	\$3,069.00	
						\$30,420.00		\$42,669.00	\$73,089.00
*Not a takeoff of this project. This is an example of the format containing the minimum amount of detailed information.									
EXAMPLE SCHEDULE OF VALUES									

**BID
 RATING SCHEDULE**

	EVALUATION/RATING SCHEDULE, revised (*Vendor must attain a minimum of 75 points or proposal will be rejected as non-responsive)	Available Points (max. 100)	POINTS AWARDED	REVIEWER COMMENTS
1	Overall Quality of the Vendor Proposal Completeness of the Bid Response Schedule/WBS provided Schedule of Values per Example. Identifies deductive cost for R&R of Existing FOC's) Compliance with Bid Documents	25		
2	Cabling and Equipment Platforms as called for in Specifications Platform Complies with Specifications	10		
3	Contractor Presence, Experience and Availability of Support Qualification, Technical Certificates as called for in 27 00 01 References Experience	20		
4	District Support Required by Vendor (less support required, higher points awarded)	5		
5	Vendor Implementation Plan Statement	10		
6	Cost	30		
TOTALS		100	0	

NOTICE: Any vendor with a "Does Not Meet" any element may be deemed as "non-responsive" if the element is determined to be a key component to the project. This determination is at the sole judgement and discretion of the District.

ITS SECTION 27 00 01

BID & IT DELIVERABLES CHECKLIST

PART 1 – GENERAL

1.1. SUMMARY

- A. The District Front End prevails over any conflicts; however there may be additional requirements.
- B. See all Bid Documents for further explanation and additional requirements.
- C. Some requirements are only listed in this section.
- D. See attachments for selected examples of required deliverables.

PART 2 – IT CONTRACTOR REQUIREMENTS

2.1. SUMMARY

- A. In order to bid this project, the contractor must be a C-7 in good standing, and member in good standing of all manufacture warranty, installation programs listed herein.
- B. The contractor and/ or sub contractors and their employees submitted for qualification under this project must be the same sub-contractor and personnel used on the project, and shall perform the related and associated work. Changes must be approved by the client in advance. All requests for changes must be in writing and so shall the approvals. Verbal requests or approvals are not valid.

PART 3 – BID SUBMISSION ITEMS (DUE WITH BID)

3.1. BONDS AND INSURANCE

- A. Check the Client's "Contractor's Agreement" or "Terms and Conditions" for Bond and Insurance requirements.

3.2. CONTRACTOR FIRM CERTIFICATIONS

- A. California State 'Low Voltage Contractor, C7 license'. Must be current and in good standing.
- B. BerkTek Oasis Certified (Current and in Good Standing)
- C. PanGen 25-yr Warranty Program Certified (Current and in Good Standing)

3.3. EXPERIENCE STATEMENTS

- A. Experience Statement for the IT Project Manager
- B. Experience Statement for the IT Crew Foreman

3.4 OTHER (See 27030 for additional information and requirements)

- A. Project Implementation Plan
- B. Work Breakdown Structure with site by site Schedule
- C. Detailed Schedule of Values (see attached example)
- D. Fiber Manufacture Program Eligibility Certificate
- E. Copper Manufacture Program Eligibility Certificate
- F. Company references for similar projects (3-5 each, with valid contact names and phone numbers). Projects and their references must be current, less than 2 years from completion and of similar scope, size and complexity
- G. Letter acknowledging and listing all addenda and RFI responses received
- H. All items required by District and Section 27030

PART 4 – PRE CONSTRUCTION

4.1. CONTRACTOR STAFF CERTIFICATIONS

- A. Onsite Project Manager
 - a. Minimum 5-years' experience in craft (cable/OSP) and Project Management
 - b. Minimum 2-years' experience in deployment of HP/Aruba Wireless Access Points
- B. Crew Foreman-
 - a. 5-years' experience as a IT Technician involved in OSP, Horizontal Cabling, Grounding and Bonding Sub-System, and Network Electronic Systems.
- C. Crew Foreman-Wireless
 - a. HP/Aruba Certified for installation of Wireless Access Points
- D. Individual Crew Certifications
 - a. BICSI TECHNICIAN level Certifications for 25% of on-site crew
 - b. BICSI Installer Level 2 Certifications for crewmembers working without direct full time supervision on installs, organization, or termination of cabling
 - c. BICSI Certified Installer Level 1 Certifications for crewmembers working with direct supervision
 - d. PanGen Certified for Category 6 Channel installation and warranty support
 - e. BerkTek Oasis Certified for Fiber Optic Cabling installation, termination and testing. Manufacturer certified Installer and Troubleshooter for all personnel engaged in F/O installation and testing

4.2. EXPERIENCE STATEMENTS

- A. Experience Statement for the Project Manager
- B. Experience Statement for the Crew Foreman

PART 5 – POST AWARD (WITHIN 10 DAYS OF NOTICE OF AWARD)

5.1. BONDS AND CERTIFICATES OF INSURANCE

- A. Plus all items as called for in the Bid Documents

5.2. SUBMITTALS (WITHIN 15 DAYS AFTER AWARD)

- A. Detailed Product Submittal with manufacture cut sheets
- B. Detailed shop drawings of proposed UG Conduit routing, saw cuts, and layouts

5.3. PLANNING & IMPLEMENTATION DOCUMENTS (HARDCOPY AND ELECTRONIC)

- A. Organization Breakdown Structure (OBS)
- B. Project Contact Roster (24/7)
- C. Incident Reporting and escalation protocol
- D. Updated Work Breakdown Structure (WBS) (MS Project)
- E. Updated Gantt Chart (MS Project)
- F. Updated Detailed 'Plan and Approach' (MS Word)
 - a. Contractor's Implementation Plan (MS Word)
 - b. Needs list (support needed from client)
 - c. Contractor Safety Plan
 - d. Contractor Quality Assurance Plan and Checklists
 - e. Physical Security and Protection Plan for Jobsite(s)

5.4. PERSONNEL/FIRM CERTIFICATIONS

- A. All Certifications not attained Pre-bid
- B. Updates to include employees involved in the project not involved or employed by the contractor at the time of bid.

PART 6 – CONSTRUCTION DELIVERABLES

6.1. PROJECT MANAGEMENT ITEMS

- A. Weekly reports
 - a. Detailed progress report
 - b. RFI status log (Request for Information)
 - c. OSI status log (Owners Supplemental Instructions)
 - d. Change Order Log (Pending and approved)
 - e. Gantt Project Schedule (updated)
 - f. Updates as needed for all other Contractor PM related documents (See items in 2.3 above)

- B. Incremental/Incidental Reports
 - a. Quality control inspection reports (available upon request)
 - b. Shipping/receiving/lading documents (upon request)
 - c. Copies of required permits
 - d. OSP Cable pulling tension work sheets, maximum pulling tension and expected tension work sheets
 - e. Testing schedule, by discipline

PART 7 – POST CONSTRUCTION DELIVERABLES

7.1. AS BUILT DRAWINGS

- A. Two hard copy sets of full drawings to include all field changes
- B. Electronic/E-transmitted AutoCAD files
- C. Electronic/Acrobat PDF files

7.2. TEST RESULTS

- A. Horizontal copper test results
 - a. Test results binder
 - b. Original electronic test result files
 - c. Test result viewing program
 - d. Adobe Acrobat file per site of all detailed test results
- B. Fiber optic test results
 - a. OTDR and power meter tests
 - i. Test results binder
 - ii. Original electronic test result files (native format)
 - iii. Test result viewing program
 - iv. Adobe Acrobat file per site of all detailed test results (on Compact Disc/Digital Versatile Disc)

7.3. PROJECT TURNOVER DELIVERABLES

- A. Duplex fiber patch cords not installed for connectivity

7.4. WARRANTY CERTIFICATES

- A. Copper project warranty certification (per site)
- B. Fiber warranty certification (per site)

END OF SECTION

ITS SECTION 27 00 02
ATTACHMENTS AND EXAMPLES

THE DOCUMENTS LISTED BELOW MAY BE UPDATED OR MODIFIED BY THE DISTRICT AS NEEDED TO MEET THE NEEDS OF THE PROJECT.

PART 1 - LISTING

1.1 Attached Examples and Details

- A. Detailed Schedule of Values
- B. Bid Rating Schedule
- C. Detail "A", Light Pole Typical for BHS
- D. All other documents per specifications and District Front End.

END OF SECTION

ITS-SECTION 27 00 10

TECHNICAL REFERENCES

PART 1 – GENERAL

1.1 SUMMARY

- A. Standards, References and Codes listed herein are by their reference, incorporated into this project, and applicable in coverage to all Sections of these Construction Documents.
- B. Contractor shall abide with all applicable requirements found in these references. The more stringent applies. Should a conflict arise, the contractor will submit the conflict in writing via RFI for resolution by the PM.
- C. The most current version of all listed references at the time of bid is to be used.

1.2 PREMISE INFRASTRUCTURE REFERENCES

- A. BICSI TDMM – Telecommunications Distribution Methods Manual, latest version in publication
- B. BICSI TCIM – Telecommunications Cabling Installation Manual, latest version in publication
- C. National Electric Code, latest version in publication (2017)
- D. ANSI/TIA-568-x, "Compilation of Standards"
- E. ANSI/TIA-569-x "Compilation of Standards"
- F. ANSI/TIA-598-x "Optical Fiber Color Coding".
- G. ANSI/TIA-606-xx"The Administrative Standard for the Telecommunications Infrastructure of Commercial Buildings".
- H. ANSI/TIA J-STD-607A "Commercial Building Grounding and Bonding Requirements for Telecommunications".
- I. TIA TSB-72 "Centralized Optical Fiber Cabling Guidelines.
- J. TIA TSB-75 "Additional Horizontal Cabling Practices for Open Offices.
- K. TIA TSB-67 "Transmission Performance Specifications for Field Testing of Unshielded Twisted-Pair Cabling Systems".
- L. ISOIEC 11801 Ed 2.1, Generic Cabling for Customer Premise
- M. TIA TSB-155-A; Guidelines for the Assessment and Mitigation of Installed Category 6 Cabling to Support 10GBASE-T
- N. California State Building Code (current version).
- O. Local building codes (current version).
- P. California State Fire Prevention Commission Regulations.
- Q. Uniform building code.

- R. ASTM A607 - specification for steel sheet and strip, hot-rolled and cold-rolled, high strength, low-alloy columbium and/or vanadium.
- S. ASTM B633 - specification for electrodeposited coatings of zinc on iron and steel.
- T. NEMA VE 1 - metallic cable tray systems.
- U. NEMA VE 2 - metal cable tray installation guidelines.
- V. FCC Code of Federal Regulations, Title 47, Telecommunications, Parts 40 through 69.
- W. FCC CFR, Title 47, Telecommunications, Part 68, Connection of Terminal Equipment to the Telephone Network.
- X. ANSI/NFPA 297 Guide on Principles and Practices for Communications Systems.
- Y. ANSI/NFPA 75 Protection of Electronic Computer Data Processing Equipment.
- Z. ANSI/IEEE Std. 1100-1992 *Recommended Practice for Powering and Grounding Sensitive Electronic Equipment in Industrial and Commercial Power Systems*.
- AA. All applicable IETF RFC's, standards, and protocols.
- BB. All applicable ITU standards.
- CC. Specified Product's Manufacturer's recommended installation and user guides.

1.3 OSP REFERENCES

- A. National Electrical Safety Code (Current Release)
- B. BISCO CO-OSP Customer Owned-Outside Plant Manual
- C. ASTM C-891 Standard practice for installation of underground precast concrete utility structures.
- D. CAL-OSHA regulations
- E. California State Occupational Safety and Health Act (CAL-OSHA) regulations
- F. ANSI/TIA/EIA-590-A "Standard For Physical Location And Protection Of Below Ground Fiber Optic Cable Plant"
- G. ANSI/TIA/EIA-758 "Customer Owned Outside Plant Telecommunications Standard".
- H. ANSI/TIA/EIA-758-1 Addendum No. 1 to TIA/EIA-758, "Customer Owned Outside Plant Telecommunications Standard".
- I. Specified Product's Manufacturer's recommended installation and user guides.
- J. ANSI/NFPA 780 Lighting Protection Code Handbook, current edition

END OF SECTION

ITS SECTION 27 00 50

SITE SPECIFIC POLICIES AND PROCEDURES

PART 1 – GENERAL

1.1. SUMMARY

- A. The following rules and regulations must be followed by every contractor doing business with Bonita Unified School District. Failure to comply may result in the removal of you and/or members of your crew from the job, and possible back charges for our direct costs.
- B. BUSD is a tobacco free school district. BONITA UNIFIED SCHOOL DISTRICT Board Policy prohibits the use of tobacco or tobacco products on any part of the district grounds.
- C. All of the City of Perris laws relating to hours and noise of construction work must be followed. If you want to work other than, 7:00 am - 6:00pm or dusk (whichever is earlier) Monday through Friday, or 9:00am - 5:00pm Saturday, you must coordinate with the District for approval and access.
- D. Anyone not directly involved in the scope of work shall not be on the job site, or BONITA UNIFIED SCHOOL DISTRICT property. Contractor assumes full responsibility for all parties on the site who are there as a result of their direct or indirect involvement with the Contractor.
- E. No music, i.e. radios, cassettes, CD's, iPods, headphones, or other electronic or acoustical device.
- F. No pets are allowed on district property.
- G. Fraternization or other contact with students is strictly forbidden.**
- H. Any contractor working on a site where students are present must supply the District with certification that all employees on the project have been finger printed and approved per state law.
- I. The contractor shall supply prior to the start of work the following:
- J. Contractor is required to collect, haul and dispose of all debris, trash and spoilage associated to this project. Keep all items secured and maintained in a safe manner until properly disposed of.
- K. Care must be taken to minimize damage to the surrounding work environment. All areas affected by the project are to be restored to a pristine condition. This includes replacement of any damaged property or equipment, painting, woodwork, wood staining, trim, cabinetry, carpentry, masonry and all other areas as needed.
- L. BONITA UNIFIED SCHOOL DISTRICT has a Zero Tolerance Policy that will be enforced towards Negative or Questionable Conduct or behavior.**
- M. Professional and Neat Appearance of workforce shall be maintained at all times. No offensive, suggestive, or inappropriate attire will be permitted.
- N. Contractor personnel will be in uniform shirts that clearly show the contractor's logo and company name on front and rear, and can be clearly seen from a distance.
- O. "Cruising" or "Loitering" on BONITA UNIFIED SCHOOL DISTRICT property or job site is not permitted at any time. Employees or associates of the Contractor when not engaged in official activities as directed by their employer shall leave the clients property until the next Work Call.

- P. Contractor or their employees or associates are not allowed to be in any area of the client's property that has not been specifically authorized by the client or their designee without an official and designated escort.
- Q. Contractor will remove and replace all furniture and equipment as required. The contractor will make liaison with the appropriate designated representative on relocation of any equipment. Note: the greatest care is to be taken in all cases where dealing with client equipment. Any damage is at the contractor's expense. Contractor to notify client two days in advance when personal items must be removed or may be affected by the contractor.
- R. Contractor shall maintain the project area in the highest state of safety and cleanliness. During the work shift the areas will be kept orderly and not allowed to become cluttered or in a state where safety is compromised. At the end of each shift the contractor shall ensure that all project equipment, material and debris is properly stowed and secured, or picked up and disposed of as appropriate.
- S. The contractor will perform all site preparation as needed for this project except as otherwise expressly stated herein or in the specifications. Site prep includes all labor, material and equipment necessary to prepare the affected environment for installation, termination, and activation of the systems involved in this project. Including, but not limited to are backboards, paint, anchorage, electrical, environmental, bracing, reinforcements, cleaning, making clear an area or room, patching, correcting improper existing conditions that if not corrected adversely affect the project or the systems involved.
- T. Failure of any person to comply, or Company to enforce the items listed below shall be sufficient reason for the Client to ban the party from the project and site.
- U. Contractor assumes full responsibility for all parties on the site who are there as a result of their direct or indirect involvement with the Contractor.
- V. Failure of the Contractor to take appropriate action as determined by the Client will be considered justification for termination of contract, and loss of revenue to the extent permitted under the law. All costs, penalties incurred by the client in replacing the Contractor, and completing the work shall be deducted from any amounts owed (if any) as permitted by Law.
- W. Use of foul, slanderous, offensive, discourteous or disrespectful language WILL NOT be tolerated.

PART 2 – SUPPLEMENTARY INFORMATION-SITE CONDITIONS

3.1. REQUIREMENTS

- A. Bidder must schedule any site visits with the client's PM with at least two working days prior notice to the client. The client's PM will set the permissible site visit date, time and conditions. The bidder may be required to visit the site after normal business hours or on weekends so as not to interfere with the operations of the client's site.
- B. Contractor is responsible for complete surface restoration with same material to the client's satisfaction. (Concrete, asphalt, grass, dirt, etc.) Unnatural materials replaced are to be repainted in the same manner as the original.
- C. Contractor responsible for restoring all vegetation and shrubbery to original condition and to the satisfaction of the client. This includes replacement with "like" vegetation or shrubbery. Contractor to warranty replaced items for 90 days after restoration. Warranty to cover full replacement and all associated costs. This warranty is valid in so long as the client follows usual and customary care procedures as was performed prior to the replacement.

- D. Any irrigation systems damaged by contractor shall be fixed immediately. If material is not available for proper corrective measures, the system may be temporarily capped for a period no longer than 5 days. Contractor is responsible for the repair or replacement of the results from the absence of a working irrigation system. This may involve plants, dirt, the cleaning of concrete, or other results from water damage or water starvation damage.
- E. All IT service and power disruptions are to be done outside of normal working hours and approved prior. For circumstances that require the power to a location to be out for a lengthened amount of time that extends into normal working hours, a temporary circuit is to be provided, and written permission is required. This coordination must be made at least two days in advance with the client and the general contractor.

END OF SECTION

ITS SECTION 27 00 80

IT PROJECT MANAGEMENT AND QUALITY ASSURANCE

PART 1 – GENERAL

1.1. ASSIGNMENT OF AND QUALIFICATIONS FOR THE CONTRACTOR'S PROJECT MANAGER

- A. The requirements listed herein are in addition to those found in ITS Section 27030
- B. The Project Manager assigned to the project for the contractor shall be a Full Time Employee of the Prime C-7 Contractor.
- C. The successful Bidder will assign a full time project manager specifically to oversee and coordinate the overall project effort. This manager shall serve as the primary point of contact and customer liaison throughout the duration of the project. This position shall be separate from the onsite project crew foreman.
- D. The Client must approve the Contractor's Project Manager submitted by the Contractor. Contractor agrees to replace the Contractor's Project Manager at the request of the Client, and further agrees that the Client may request such change for any reason throughout the course of the project without disclosing the reason for such request to the contractor.
- E. The Project Manager for the prime contractor must have at least 5 years experience in the areas involved on the project. A resume and/or interview may be requested by the client prior to acceptance of the individual as project manager.
- F. In addition to the requirements listed herein the Contractor's Project Manager must meet the certification, registration and training requirements stated in Section 27030.

1.2. ATTENDANCE, AVAILABILITY AND CAPABILITIES

- A. The Contractor's Project Manager must be engaged in managing and coordinating the needs of the project on a full time basis, and be available when needed or called upon by the District or their Agent. This includes responding immediately to phone calls, and being onsite or at designated meeting locations within 2-hours of contact by the District or their Agent.
- B. The Project Manager is expected to be fully engaged in all work, and onsite during all significant or scheduled events (as determined by the client) such as at meetings, cutovers, scheduled outages, etc..
- C. Contractor's Project Manager shall make frequent and thorough onsite inspections at each site under construction **daily** during the course of the project.
- D. Contractor's Project Manager shall be readily available to the client or their designee 24/7 throughout the course of the Project.
- E. Contractor's Project Manager shall have full time pager and cellular capability accessible by the client or their designee.
- F. Contractor's Project Manager shall have the ability to send and receive email with attachments and correspondence in a timely and responsive manner.

1.3. REPORTS AND REPORTING

A. PLAN AND APPROACH DOCUMENTATION

- See ITS SECTION 27001 for additional requirements
- Prior to commencement of the IT related work the IT Contractor's Project Manager is required to submit to the client for approval a detailed, and updated project plan inclusive of:
 1. Detailed Project Strategy (MS Word)
 2. Organization Breakdown Structure (Visio)
 3. Detailed, Work Breakdown Structure (Microsoft Project)
 4. Timeline (Gantt Chart) (Microsoft Project)
 5. Pert Chart showing critical path (Microsoft Project)

B. The listed documents must be reviewed and accepted by the Client prior to commencement of the work. Submission of these documents shall be in the native electronic format along with (5) sets of hard copies neatly organized for presentation to the District. The IT Contractor is to coordinate the required level of detail with the IT representative for the Client.

C. The Contractor's Project Manager shall provide detailed and written weekly status reports to the Client or their designee. The format and content of the reports are subject to the approval of the client or their designee. The content must be substantive enough to bring about a full understanding of all situations current, and situations future.

D. Daily and Weekly reports include but are not limited to

- a. Daily: Detailed progress report with work accomplished, work forecasted, forecasted needs of the District (10-day advance), known or suspected issues
- b. Weekly: Detailed progress report recapping the significant milestones and events of the week past, and forecasts for the 2-weeks ahead.
- c. RFI status log (Request for Information)
- d. Updated Project Schedule with forecasts of any impact to the client, site, networks, or systems.
- e. OSI status log (Owners Supplemental Instructions)
- f. Change Order Log (Pending and approved)
- g. Project Addendum Log
- h. Each of the above must show assigned responsibilities and event history.

** See examples of the listed reports and forms attached.

E. Contractor's Project Manager to provide MS Project Schedule at the beginning of the project showing all task milestones, and provide updates throughout the course of the project as any changes occur to the timeline. The content and format is subject to client approval. See ITS Section 27000 for additional requirements. Scheduling shall encompass all trades under the control or direction of the IT Contractor.

- F. All reports (change order log, RFI log, schedules, etc) are to be Emailed to the client and indicated client representatives as well as a quantity of written copies to be distributed at the project meetings. Quantity to be determined during project.
- G. Contractor's Project Manager to immediately report to the client or their designee all job related incidents, injuries, conflicts, confrontations, or any incident that no matter how seemingly insignificant could be presented to the client by others, that having fore knowledge of the occurrence would better prepare the client to engage or respond.

PART 2 – PRODUCTS

- A. Not Applicable

PART 3 – EXECUTION

3.1. PROJECT MANAGEMENT DUTIES

- A. The Contractor's Project Manager shall be well versed with the scope of work for this project, intimately familiar with the drawing set and Division 27 specifications, and capable of impromptu discussion on current project status and situational awareness.
- B. Contractor's Project Manager shall ensure that the onsite crew foreman is fully equipped and informed on project requirements. Contractor's Project Manager shall ensure that each crew foreman has a complete and current set of construction documents at all times, immediately available and onsite. This includes all RFI responses, Change Orders and Addenda documents.
- C. Be available for on site reviews, meetings and inspections based on the availability of the Client or their designated representative.
- D. Attend scheduled project meetings, typically held weekly.
- E. Responsible for the submission of all project operational documents such as Request For Information (RFI), Invoices, Lean Releases, Certificates and all other documents required under the project. Contractor to request from the Client Project Manager for IT a copy of the format to follow for all submissions..
- F. Ensure employee and company compliance with ITS Section 27050, as well as all other elements of the Plans and Specifications.

3.2. QUALITY ASSURANCE DUTIES

- A. The Contractor's Project Manager will manage forces and ensure compliance with the quality standards, codes, references and TIA Standards established for the project. This shall in addition to other methods be accomplished through regular, thorough and frequent inspections.
- B. Provide company quality control inspection reports upon request to the client or their designee.
- C. The Contractor's Project Manager is responsible for accompanying the Client or their designee on all formal inspections. The Contractor's Project Manager will annotate all findings and observations creating a punch list for remedy by the contractor forces. Typically the Client PM will also develop a punch list. This is to assist the contractor during the progress of the project until the final inspection.

- D. The contractor's Project Manager, along with the crew foreman, will thoroughly inspect all aspects of the project and correct all deficiencies prior to notifying the Client of being ready for inspection. Project must be in "substantial compliance" with the requirements of the project prior to notifying the client for inspection. **Failure to properly inspect the contractor's own work as evidenced by significant and/or obvious findings of deficiency and non-compliance with the project requirements shall result in a charge to the contractor of \$500.00 per occurrence that will be deducted from balances owed.**
- E. The Contractor's Project Manager shall arrange their calendar to meet the needs of the client and project.
- F. Inspections by the client where items found are repeat items of previous inspections may result in the contractor being charged any costs incurred by the client for the inspection, or subsequent related inspections. See Penalties.

3.3. PENALTIES

- A. The contractor is responsible for meeting all contractual and project timelines. Failure to meet these dates may result in penalties being assessed of at minimum \$1,000.00 per workday to cover additional client project management costs, operational costs and burden.
- B. Only written agreements signed by the client to extend the disputed timeline will be recognized as a waiver of these charges. The client will determine on a case-by-case basis if the penalties will be assessed.
- C. At the client's determination, all costs for repeated inspections borne by the client are subject to being assessed and charged to the contractor. Should repeat inspections be required due to a repeated item inspection failure, each subsequent related inspection will be a minimum \$500.00 assessment per occurrence to the contractor.

END OF SECTION

ITS SECTION 27 10 50

BACKBONE CABLING REQUIREMENTS

PART 1 - GENERAL

1.1. SUMMARY

- A. Each of the two sites (BHS and SDHS) will have the specified hybrid OS2/OM4 fiber cable installed as called for in the plans and specifications.
- B. The work covered under this section consists of the furnishing of all necessary labor, supervision, materials, equipment, tests and services to properly install the specified fiber optic backbone cabling system at all sites
- C. All work shall be performed by qualified and manufacture factory trained personnel. Proof of current training and certification will be required for each contractor personnel. See qualifications listed elsewhere in the specifications. Verification subject to spot check by Clients PM. Any person found not to be in compliance with the listed requirements found elsewhere in the specifications will be immediately replaced by the contractor with personnel meeting the qualification requirements. This oversight on the contractors part will cause all work to stop at the associated site until the Clients PM is satisfied that the problem has been adequately addressed by the contractor.
- D. The aerial photo/image, which constitute a part of these specifications, indicate the general location, path, and size of cabling for this backbone. Information presented on these drawings is as accurate as preliminary surveys and planning can determine. Accuracy is not guaranteed and field verification, of all lengths, spare capacities, sizes, dimensions, routing, etc., is directed prior to bid.
- E. Proper setup, tooling, equipment, installation methods and procedures for installing cable in the Outside Plant are required in accordance with industry best practices; the specification set and manufactures recommendations. Contractor shall comply with all professional industry methods for cable installation as found in these specifications and the Listed References .
- F. Compliance with all professional industry methods for SAFETY as found in the Listed References is mandatory. See Listed References .
- G. Contractor shall provide an LC-LC duplex fiber patch cord for each mated and terminated pair of fiber strands at each termination location. Lengths shall be 1-meter for all IDF locations and 3-meter for all MDF locations. Patch cords shall be performance matching to the specified fiber optic cabling system.
- H. All underground conduits shall be sealed including at all pull box locations and building entry points.
- I. All overhead conduits that are exposed to the elements shall be sealed

PART 2 - PRODUCTS

A. FIBER OPTIC CABLE SPECIFICATIONS

A. General Specifications Requirements

- a. See Section 27 00 00

B. FIBER HOUSINGS, PANELS AND OTHER ITEMS

A All fiber optic hardware, components, accessories, and patch cords shall be of the same manufacture as the fiber optic cabling platform.

B. All items shall meet the same performance requirements as the fiber optic cable.

C. DUCT SEAL

A All underground conduits shall be sealed including at all pull box locations and building entry points.

B. All overhead conduits that are exposed to the elements shall be sealed.

C. Duct Seal Kit: 3M Scotchcast Duct Sealing Kit 4416 or equal. Kit shall;

a. Consist of;

- i. (1) 1" x 3" x 72" Foam Strip
- ii. (1) 2" x 10" Spacer Web Strip (
- iii. Cable Cleaner packets
- iv. (4) 12" long plastic tubes
- v. (4) bags of expandable sealant or **in the case of MAXCELL use appropriate Airbag consistent with manufacture recommendations. DO NOT but any sealant on the fabric innerduct or contractor will be required to replace it.**

b. Must provide and be;

- i. Manufactured for Telecommunications application and the intended usage and environment. Subject to client review and approval.
- ii. Provide a water tight/gas tight seal.
- iii. Manufacture with the ability to be removed for future conduit access/usage.
- iv. Be "RUS" Listed

D. CABLE TAGS // LABELING SYSTEM FOR OSP

a. Cable labeling

- i. Fiber optic warning labels on all fiber cables and innerducts. At all exposed locations every 10'.
- ii. Embossed Stainless Steel cable ID tags at all cable end points. Minimum 1" wide x 3" long . Capable of three rows of information. Cable ID, Strand count, "Point to Point" ID.

PART 3 - EXECUTION

3.1. GENERAL INSTALLATION REQUIREMENTS

A Pre-Cable Installation OSP Conduit Preparation

a. Prior to any placing operations (inner-duct or cable) the contractor shall take the listed measures to ensure the conduit is intact and free from obstructions, and foreign material that could potentially damage the planned cable or inner-duct.

i. Use of existing occupied conduits (Required Procedures)

1. Contractor shall identify the end points, routing and services for each individual existing cable located in any conduit where the project places additional cabling.
 2. Once the information above has been determined contractor shall schedule in advance all outages with the District to occur at a time that does not adversely affect the operation of the site. Once the scheduled outage has been approved.....
 3. In an orderly manner ensuring steps are taken to maintain conductor or strand identification and termination points, disconnect all cables from their termination and remove cabling from the conduit to be used. Report any damaged cables immediately to the clients PM, do not re-install damaged cables without further direction. Cables deemed to have been damaged by the contractor will be replaced with exact type by the contractor at no cost to the District.
 4. If so directed by the District remove all abandoned cabling and dispose, protecting any remaining cables in a manner preventing damage .
 5. Take steps as outlined below to ensure conduit is clean and free of debris and obstructions, heavily lubricate conduit(s), bundle the removed cables along with the new cables or innerducts and place back into the conduit system following best practices to prevent damage.
 6. Re-terminate all existing cables, test, restore services. Ensure all services are properly and effectively restored prior to leaving the site.
 - ii. In vacant or vacated conduits the contractor shall mandrel all conduit placed or used. The mandrel shall be run in both directions the full length of the conduit segment. The mandrel to be at least 10" long and maximum 1/2" smaller than the conduit's inside diameter. Obstructions or impedance's must be reported to the client's construction manager and resolved before placing operations can be approved or proceeded with.
 - iii. Approved Mandrel Types and functions . Contractor must use the proper mandrel for the situation. Note: Clearing the conduit of obstructing material may be required prior to testing joint integrity and roundness . Adjust sequence according to field conditions,
- B. For all OSP cable and inner-duct placement, Contractor to use proper "type" and "quantities" of pulling lubricant per the following formulas or chart. Pulling lubricant shall be used in all underground operations including copper, fiber and inner-duct. Ensure all surfaces are thoroughly cleaned when complete.

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a. For Copper Cabling and Inner-duct Placement;

formula; $Q = .0015 \times L \times D$		Q= qty needed in gallons L= length of conduit in feet D= nominal ID of conduit in inches			
		Conduit ID In Inches			
		1"	2"	3"	4"
Pull Length in Feet	200	0.3	0.6	0.9	1.2
	400	0.6	1.2	1.8	2.4
	600	0.9	1.8	2.7	3.6
	800	1.2	2.4	3.6	4.8
	1000	1.5	3.0	4.5	6.0
Considerations	By50%	Increase quantity for stiff or heavy cables			
	By50%	Increase quantity for old, dirty or rough conduits			
	By50%	Increase quantity for cables over 3.0 inches OD			
	By50%	Increase quantity for pulls with more than (2) bends			
	By50%	Increase quantity for Temperatures above 95 degrees F			

Duct Size (I.D. /in.)	Length of Pull (ft.)							
	1000	2000	3000	4000	5000	6000	7000	8000
1.0	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0
1.3	1.8	3.8	5.6	7.5	9.4	11.3	13.0	15.0
1.5	2.25	4.5	6.8	9.0	11.3	13.5	15.8	18.0
2.0	3	6.0	9.0	12.0	15.0	18.0	21.0	24.0

When Pulling into corrugated innerduct, multiply the above number by 1.6

b. Fiber Optic and Coaxial Cabling;

C. Lubricant shall also be used in all other pulls e.g. intra-building, in conduit segments that are longer than 100 feet, or any run(s) that contain two (2) 90° bends. See above charts for quantities.

D. All underground cable and inner-duct placing operations where the length of pull exceeds 100' feet, the contractor shall use an appropriately sized and rated radial ball bearing swivel.

a. Examples:

i. Innerduct pulling eyes with swivels; Aluminum and Steel break-away swivels; Ball bearing swivel



- E. **Contractor is required to review placing and termination operation methods and plans with the Client Project Manager prior to any placing operation.** This is to confirm the contractor's compliance with manufacture recommendations. Any deviations at the direction of the Clients PM must be corrected prior to the start of any fiber cable placement. All plans and methods are subject to Client approval.
- F. Contractor shall install watertight cable caps on all cables to protect them from damage until the cables are fully and properly protected by either a temporary boot, or splice case. Should water enter into the core of a cable the contractor shall be liable for all costs associated to the replacement of the affected cable. The Client has the sole right to determine the extent of replacement required.
- G. At all points (MH/PB/buildings', termination points) the cable shall be labeled. Consult with Clients PM for cable labeling scheme. Labeling system will be a permanent Communications Approved system. **For purpose of bid contractor is to bid a minimum 1" Stainless Steel" stamped embossing type system.**
- H. **Contractor must ensure proper fiber optic bend radius is maintained at all locations. Existing floorless vaults may require lowering of gravel bed and cutting conduit (contractor shall ensure a minimum 6" gravel bed is maintained if possible).** Contractor will be held responsible for any micro bending or other damage done to the fiber optic cabling, fiber optic patch cords, or fiber optic splices.
- I. Contractor to provide and install new performance matching 1U fiber housings and performance matching pigtailed fiber panels at all MDF/IDF locations as called for elsewhere in the specification's..
- J. Splices are strictly prohibited.
- K. **Each fiber panel shall be fully equipped with all options and accessories, including lock kits, labeling systems, cable management, splice trays, buffer tubes, etc.**
- L. All fiber cables and hardware shall be of the same manufacturer and type throughout the project.
- M. All keys shipped by the manufacturer shall be collected and turned in on a transmittal form by the contractor to the clients PM. All fiber panels will be locked upon completion by the contractor.
- N. Contractor to use same manufacture's fiber panels, LC couplers and connectors at the MDF and IDF's. Contractor shall provide proper Corning "LC to LC" patch cords for all mated and terminated strands.
- O. Contractor to verify prior to ordering the connector requirements for all fiber patch cords. Contractor to confirm Sunesys fiber termination connectors and provide to Clients PM.
- P. All multimode and single mode fiber strands will be terminated at all locations unless noted otherwise in the 27 00 00 Specification Section.
- Q. **Contractor to follow all manufacture recommended methods and procedures without exception.**
- R. All fiber optic backbone cables are to be installed in MaxCell innerduct. See innerduct requirements detail for additional information .

Post installation plugging of all underground, exposed overhead, building entry conduits and innerduct (rigid and fabric) is required. Including ALL vacant and occupied conduits/inner-duct. This includes all IT/COMM conduits or inner-duct regardless if they are part of the project or not. The resulting plug must be. watertight, gas tight.

END OF SECTION

ITS SECTION 27 10 60

HORIZONTAL CABLING REQUIREMENTS

PART 1 – GENERAL

1.1. OVERVIEW / INTENT

- A. Horizontal Cabling Scope of Work
 - a. CAT6 UTP Channel Solution
 - i. All new horizontal data cabling at all specified sites is to be replaced with 4-PAIR, CAT-6 CMR or OSP as called for in 28 00 00.
 - ii. All horizontal cabling that exists a building into the underground or exposed pathway system will be rated for indoor/outdoor applications.
 - iii. All Cat-6 channel components will be of the same manufacture.
 - iv. The color of the UTP CMR cable for this client shall be blue, and OSP (indoor/outdoor) rated shall be black
 - v. Contractor is to utilize a 568B pin configuration.
 - 1. The contractor is to verify the pin configuration of all existing horizontal data/voice locations in the MDF/IDF and their serving areas that are affected by this project by relocation and/or re-termination, to ensure synergy in the changes by this project. If there is a difference between this project's pin configuration callout and the existing environment, the SCS contractor will bring to the attention of the Client's Project Manager in writing prior to termination of any affected cabling. The client Project Manager will direct in writing which pin configuration the SCS contractor is to use.
 - vi. Patch cords at all locations for each new horizontal cable and station cords are as follows;
 - 1. Patch Cord Length, IDF shall be 1 meter
 - 2. Station Cord Length shall as called for in Section 27 00 00 required to reach WAP's.
- B. All horizontal cabling to be dedicated runs with no breaks in the conductor or sheath, done in a star topology from the serving IDF/MDF to the Work Station Outlet (WSO).
- C. All components of the Horizontal Channel will be provided, installed and tested by the Contractor. This includes all cabling, jacks, faceplates, inserts, adapters, patch panels, wiring blocks, x-connect hardware, wire management, patch cords, station cords, labeling, strain relief components, velcro cable management holders, and all mounting hardware. All other material, hardware and components as needed for a complete installation for the environment and as directed by the Construction Documents and listed references.
- D. All installations shall comply with the latest industry "Best Practices", TIA Standards Compilation, NEC, and all the BICSI Telecommunications Cabling Methods and Installation Manuals.
- E. The SCS Contractor is responsible for ensuring that all horizontal cabling channels fall within the

TIA-Standards maximum length. And, that no horizontal link exceeds the permitted 90 meters. The SCS contractor assumes full responsibility to ensure the pathway meets this requirement prior to installation of any cabling, and that adjustments if needed are performed prior to the installation of any cabling.

- F. During the installation process and pending final testing, all cabling will be protected from being damaged or deformed, kept up off the floor and away from hazards. Cable must be neatly coiled and stored out of the way pending the completion of the installation into the cable management system and termination and testing processes. Damaged cable meaning any deformity in the cable that is not part of the intended manufacture process and result, is viewed by the customer/site owner as having the potential to have a reduced life or performance degrading affect. These suspicions do not have to be proven by test results and shall be sufficient reason for the SCS Contractor to be required to replace the damaged or affected cable(s) without any cost to the customer/site owner.
- G. Labeling shall comply with District Standards and the construction documents and the TIA-606 Administration Standards. Confirm with District PM prior to labeling.
- H. The SCS contractor shall ensure that all products are installed in accordance with manufacturer's installation guidelines.
- I. Horizontal copper cabling that uses an underground, or exposed overhead pathway (excluding Seal-tite between portables) shall be Indoor/Outdoor rated with no transition points. Cable shall directly terminate on standard jacks and inserts without modification of the jack or insert, or elimination of any strain relief or other component.

1.2. SPECIAL REQUIREMENTS FOR CABLE ROUTING AND INSTALLATION

- A. All communications cabling purchased and installed throughout this project shall comply with the manufacturing and installation requirements as outlined in the applicable articles of the National Electric Code (NEC®), National Electrical Safety Code (NESC), BICSI TCIM, ANSI/TIA-Compilation of Telecommunications Standards and the appropriate local codes.
- B. Cable Pathway Condition (Mandatory Pre-installation Requirements)
 - a. All pathways shall comply with the NEC, and ANSI/TIA-569 (latest release) and all other references as listed in the Reference section of these construction documents.
 - b. **In as far as advance of installation as site conditions permit**, the Contractor must inspect and ensure the horizontal pathways comply with all references and needs. This includes ensuring all components of the conduit, tray, floor access, or other pathway system are in place, complete, and installed in a manner complying with industry best practices, manufacturers' instructions, and made ready and suitable for cable installation. This includes but not limited to compliance with all ANSI/TIA/EIA J-STD-607-A bonding and grounding requirements.
 - i. All pathway deficiencies shall be resolved prior to installation of the cabling. This may cause delay in the SCS schedule for which the SCS contractor must be prepared. The site owner or customer shall incur no additional costs for these delays. Typically, delays should not exceed 30 days for having pathway situations resolved and made ready for the SCS contractor to resume work.
 - ii. Failure to identify problems in the pathway and seek resolve in a timely manner may result in all costs associated to resolving the situation to the customer's satisfaction being born by the SCS Contractor for all systems and components that fall within their scope of work.

- C. The contractor shall adhere to the manufacturers' requirements for bending radius and pulling tension for all cabling.
- D. Cables shall not be attached to lift out ceiling grid supports or laid directly on the ceiling grid or tiles. Cables shall not be attached to or supported by fire sprinkler heads or any other above ceiling system(s) or their supporting mechanisms such as HVAC ductwork, power conduit, telemetry conduit and so on.
- E. When independent suspension hangers are required to support cabling, they shall be spaced at maximum interval not to exceed 4' (four feet).
- F. All cabling must meet or exceed minimum separation requirements from sources of EMI and RFI per National Electrical Code and TIA-Standards. Examples would be things such as; any motorized device, transformers, microwaves, refrigerators, power, power conduits, any un-balanced load devices, HVAC systems etc.
- G. All cabling must be installed in environments meeting the environmental requirements for the cabling being installed.
- H. Fire Stopping
 - a. Sealing of openings between floors, through rated fire and smoke walls, existing or created by the contractor for cable pass through shall be the responsibility of the SCS contractor. Sealing material and application of this material shall be accomplished in such a manner, which is acceptable to the local fire and building authorities having jurisdiction over this work.

PART 2 - PRODUCTS

2.1. EQUIVALENT PRODUCTS

- A. See Section 27 00 00
- B. Equivalent product(s) may be considered for substitution for those products specified, however, the equivalent product(s) must be approved and show demonstrated and documented equivalence to the product(s) specified. Documentation shall include, but is not limited to: product samples, data sheets, and actual test data. The request for product substitution, and supporting documentation, must be submitted, in writing, prior to submitting the bid. Written approval for product substitution must be submitted with the bid.

2.2. WORK STATION OUTLETS

- A. FACEPLATES AND JACKS – See Section 27 00 00 for part numbers

PART 3 - EXECUTION

3.1. WORKMANSHIP

- A. Components of the SCS system shall be installed in a neat, workmanlike manner. Wiring color codes shall be strictly observed and terminations shall be uniform throughout the system. Identification markings and systems shall be uniform. TIA/EIA 568B wiring codes as shown on the drawings shall standardize all SCS wiring.
- B. Use of nylon ties are prohibited for placing cabling at any time.

3.2. INSTALLATION

- A. All installation shall be done in conformance with the latest ANSI/TIA/EIA standards, BICSI Telecommunication Cabling Installation Manual, Industry Best Practices, and the drawing set and ITS references.
- B. The Contractor shall ensure that the maximum pulling tensions of the specified distribution cables are not exceeded and cable bends maintain the proper radius during the placement of the facilities.
- C. Miscellaneous Equipment: The Contractor shall provide any necessary screws, anchors, clamps, tie wraps, distribution rings, wire molding, miscellaneous grounding and support hardware, etc., necessary to facilitate the installation of all Systems and platforms.
- D. Special Equipment and Tools: It shall be the responsibility of the Contractor to furnish any special installation equipment or tools necessary to properly complete the system. This may include, but is not limited to, tools for terminating cables, testing and splicing equipment for copper/fiber cables, communication devices, jack stands for cable reels, or cable wenchers.
- E. All Patch Cords that reside in the rack locations will be dressed neatly and secured into the cable management components. Using the middle of the patch panel as the cutoff point, all patch cords will route left if on the left side and right if they are on the right side of this cutoff line. All patch cords must not block the labeling scheme. Installation between active network electronic ports and the patch panel should be aligned according to this discipline to the extent possible. For any cable that must go from the left side of the rack to the right side of the rack, or vice versa, the cable is to be neatly ran over the cross-over pan at the top of the rack, or bottom if so provisioned. No excess cabling is allowed to be stored in either vertical or horizontal cable management. Contractor to properly determine lengths and quantities of patch cords needed prior to bid in coordination with Project Manager for IT.
- F. Contractor shall install CAT6 jacks with strain relief boots in all ports in all modular jack patch panels, ensuring all slots are filled.

3.3 TESTING/WARRANTY

- A. Testing
 - 1. Testing of all UTP copper, coax, and fiber cabling shall be performed prior to system cutover. 100 percent of the horizontal wiring pairs shall be tested. All test results are to be turned over to ITS.
 - 2. Provide PanGEN 25-Year Warranty on all installed cabling.

END OF SECTION

ITS SECTION 27 10 70

TESTING, IDENTIFICATION AND ADMINISTRATION

PART 1 – GENERAL

1.1. SUMMARY

- A. The work covered under this section consists of the completing and furnishing of all necessary tests to ensure that the product is operational and fully functional. Additionally, the labeling and identification requirements are identified herein.
- B. All labeling shall be recorded and integrated into the “As Built” drawings for the project by the contractor. This shall include the identification of each cable at its workstation location on the floor plan.
 - a. This includes the labeling of all new cabling ran by the contractor, existing cabling being relabeled by the contractor, and existing cabling being retested due to movement or relocation of termination.

PART 2 – LABELING AND IDENTIFICATION

2.1. CONCEPT/APPLICATION

- A. Label **all** telecommunications infrastructure and equipment components. In doing so, make the labeling of each component:
 - a. Unique to prevent it from being confused with other similar components.
 - b. Legible and permanent enough to last the life of the component.
 - c. Compliant with the direction of the CSI Division 27 initiative, and ANSI/TIA-606 latest version in publication.
 - d. Communicate with the Project Manager for the Client to ensure synergy with the standards set by the client, and resolve matters of conflict in advance to ensure a single overall system for the site/project.
- B. The following infrastructure and equipment components must be labeled:
 - 1. Telecommunications spaces including but not limited to;
 - a. EFs / TRs / TTCs using engraved plastic system for the doors
 - b. Underground enclosures (MH/PB/HH, Pedestals)
 - c. Check via RFI during bid process to ensure you bid the correct solution.
 - 2. Telecommunications pathways including but not limited to;
 - a. (Inter and intra building) (conduit pathways, building enclosures, header boards, frame connectors, protector units, termination panels, equipment panels, X-conn points, consolidation points, Cabinets etc.
 - 3. Telecommunications cables including but not limited to:
 - a. Fiber optic (Building and OSP)
 - b. Copper cables (backbone, horizontal, riser)
 - c. Building including EMS and security cabling

4. Connecting hardware
 - a. Panels, faceplates, ports, jacks, connecting blocks, splice cases
5. Grounding system
 - a. NA
6. Telecommunications equipment
 - a. NA

2.2. PATHWAYS

- A. NA

2.3. SPACES

- A. NA

2.4. WORKSTATION OUTLETS

- A. Coordinate requirements with client
- B. For WSO locations mounted behind casework, cabinetry, or other semi-permanent furniture, labeling is to be located in a visible area, (i.e. top of the box) written for ease of understanding in future MACs. Nomenclature should list cable identity and faceplate position.
- C. Blank jack insert locations are not to be labeled on the faceplate.
- D. WSO labeling are to be in order from left to right, top to bottom on the faceplate or bracket.

2.5. BACKBOARDS

- A. NA

2.6. CABLING

- A. Telecommunication cables will be identified to indicate their basic function. Apply the identifier at each termination and wherever the cables are accessible.

PART 3 – TESTING

3.1. GENERAL/STANDARDS

- A. Contractor to advise the IT PM (Project Manager), 1 week prior to any testing. The PM and client may elect to witness the final testing. Contractor will be required to perform this testing at a time and in a sequence suitable to the client and/or the Project Managers needs and availability.
- B. Testing will be conducted for all systems including fiber and copper cabling systems (backbone, riser, and horizontal) and Grounding and Bonding systems and sub-systems as they relate to the IT Infrastructure.

- a. This includes any existing cabling whose point of origin has been re-terminated dueto IDF/MDF replacement or movement.
- C. All testing shall follow the requirements of these specifications and the latest TIA standards or bulletins, and the manufacturer's program requirements of the systems under test. Testing may be a combination derived from all these sources. In all cases, the more stringent requirement takes precedence and shall be strictly followed.
 - a. Twisted-pair test requirements are defined in TIA/EIA TSB567, andANSI/TIA/EIA-568-B and it's suffixes/addenda.
 - b. Testing fiber cabling systems is defined in ANSI/TIA/EIA-526-14, andANSI/TIA/EIA-526-7.
- D. Contractor will provide complete test results for all aspects of the project, including additional items stemming from change orders and addendums. Testing will be conducted **after** all "FINAL ALTERATIONS" and repairs have been made. It is these final test results that will be returned over to the client in the prescribed format, prior to the client inspection.
- E. All tests shall identify the item under test by its name, point of origin, point of termination, type, transmission parameters, etc. All identification shall match and be in accordance with the "AS BUILT" plan set format approved by the client. Failure to identify all items under test fully and individually shall result in the test results being redone at the contractor's expense until the client is satisfied with all aspects of the test's process, procedure, methodology and results.
- F. All items tested must pass prescribed test 100%. Any and all deficiencies must be corrected to the satisfaction of the client, prior to acceptance by the client.

3.2. FIBER OPTIC TESTING

- A. The singlemode fiber optic cable shall be tested at both 1300nm and 1550nm. This testing will use the Microtest "certifiber tm" or equivalent test set (optical wavelength transmitter/receiver.) Compliance with the latest TIA 568B and SP-2981 standards and manufacturer's warranty conformance requirements is mandatory. The more stringent will apply.
- B. Once installation and termination is complete, each strand will be re-tested. Contractor is required to test all strands using the Microtest "certifiber tm" test set and OTDR or equal.
- C. Microtest "certifiber tm" tests will be Bi-directional on each strand. Detailed loss reports will be provided in quantities and format as set forth above. A summary sheet per site is also required.
- D. Contractor is responsible for ensuring all loss values are in accordance with the latest TIA standards for backbone fiber optic cabling. Contractor must calculate "expected loss" and be within 0.1 db. Record all calculations and provide upon request to the IT PM.
- E. ANSI/TIA/EIA-568-B.1 specifies that backbone links should be tested in one direction and at both wavelengths. Because backbone length and the potential number of splices vary depending on site conditions, an attenuation equation is used to determine acceptance values based on standard component requirements at each applicable wavelength.
 - a. Link attenuation is calculated as:
Link attenuation = Cable attenuation + connector attenuation + splice attenuation
Cable attenuation (dB) = Attenuation coefficient (dB/km) x length (km)
 - b. Connector attenuation (dB) = Number of connector pairs (N) x connector loss (dB)
= N x 0.75 dB

= 1.5 dB

c. Splice attenuation (dB) = Number of splices (S) x splice loss (dB)

= S x 0.3 dB

3.3. HORIZONTAL COPPER CATEGORY 6 TESTING

- A. Every cabling link in the installation shall be tested in accordance with the manufacturer's warranty requirements for channel performance warranty.
- B. For horizontal cabling, the testing shall be "CHANNEL" testing utilizing the workstation's provided and assigned patch panel cords and station patch cord. Once tested, these cables are to stay with their assigned port/station. Ports not activated, once determined, may at the client's discretion be removed. If removed, they will be turned over to the client as maintenance spares.
- C. 100% of the installed cabling links must be tested and must pass the requirements of the standards mentioned in 3.3.A and B above and as further detailed in this Section. Any failing link must be diagnosed and corrected. The corrective action shall be followed with a new test to prove that the corrected link meets the performance requirements. The final and passing result of the tests for all links shall be provided in the test results documentation.
- D. Trained technicians who have successfully attended an appropriate training program and have obtained a certificate as proof thereof shall execute the tests. Appropriate training programs include but are not limited to installation certification programs provided by BICSI or the ACP (Association of Cabling Professionals).
- E. The test equipment shall be calibrated within one years time, or within the calibration period recommended by the vendor in order to achieve the vendor-specified measurement accuracy. Contractor shall provide PDF copy of statement of calibration or calibration certificate for testers utilized with test results.

END OF SECTION

ITS SECTION 27 10 90
SUPPORT & WARRANTY-CABLE PLANT

PART 1 – GENERAL

1.1. SUMMARY

- A. The contractor will provide and extend all manufacturers warranties for all products installed.
- B. Contractor must provide a 1-year warranty covering all aspects of the project to include workmanship. This is in addition to the required manufacturer warranties. This date will commence on the date which the project is considered completed and accepted by the customer and ITS.

PART 2 – PRODUCT/MANUFACTURER WARRANTIES

2.1 FIBER CABLING SYSTEM.

- A. Requires 25-year all-inclusive BerkTek performance and component warranty up to maximum performance rating of the specified cable system.

2.2 CAT 6 STRUCTURED CABLING SYSTEM.

- A. Warranty shall be an all-inclusive PanGEN 25-year channel performance warranty.

PART 3 – EXECUTION

1.2. 3.1 ACTION

- A. Contractor to provide all documentation at the completion of testing and acceptance to the Client's Project Manager.
 - a. This will include:
 - i. Fiber Optic Cable: Bi-directional OTDR and power meter results
 - ii. Cat 6: Channel test
 - iii. Warranty certificates
 - b. All testing shall be completed prior to the final acceptance.

END OF SECTION