



City of Forney
Neil Cardwell
Director of Information Technology
101 East Main St
Forney, TX 75126

PLEASE SUBMIT PROPOSAL NO LATER THAN MARCH 31, 5PM. Mark your sealed envelope in the lower left-hand corner with RFP#, time, and due date, as noted above. (Should the City of Forney close for unforeseen reasons (force majeure) on the date the solicitation is due, the above referenced date should be changed to 10:30 A.M. the first date the City offices are open to conduct business)

You are invited to submit a proposal to provide an outside plant optical fiber backbone cabling infrastructure for the City of Forney.

This Request For Proposal includes Process Overview, Instructions to Proposer, Award/Evaluation of Proposals, Certifications, Terms and Conditions, Insurance Requirements, Deviation Compliance Form, Certification for Criminal History Check, Confidential Information Form, Proposal Form/Specifications, Supplier Questionnaire, Certification/Lobbying, Disclosure of Lobbying Activity, Certification/Debarment and Clean Air and Water Act. These provisions shall be considered as part of any resulting legal and binding contract/purchase order as if thereto attached or therein repeated.

SCHEDULE

Pre-bid Meeting: Feb 27th 9AM
Questions Due: March 5th 5PM
Question Responses: March 10th 5pm
Bids Due: March 31st 5PM
Project Award: April 10th
Start Date: June 2020
Completion Date: Aug 2020

Company Name _____
Address _____
City State, Zip _____
Reprehensive Name _____
Title _____

Signature _____
Printed Name _____
Email Address _____
Telephone # _____

PART 1 - GENERAL

1. This section outlines the steps in the procurement process. See cover letter for Schedule.
2. The City of Forney Director of Information Technology and proposers enter into discussions and revisions of proposal, as necessary. Discussions/negotiations may be conducted with proposers who are deemed to be within the final competitive range; however, The City of Forney reserves the right to award a contract without discussions/ negotiations. The competitive range and responsiveness of the proposal submitted will be determined by the Director of Information Technology, and the evaluation will include only those initial proposals that the Director determines have a reasonable chance of being awarded a contract. If discussions/negotiations are conducted, proposers will be required to submit a best and final proposal. The best and final proposal may be required as early as 24 hours after completion of negotiations/discussions.
3. NOTE: City of Forney Director of Information Technology, or the City Manager are the only individuals allowed to negotiate contract agreements/terms & conditions and/or pricing before an award is made, as well as after an award has been made. Firms hereby agree that any negotiations regarding this Request for Proposal pertaining to agreements/terms & conditions and/or pricing shall be between proposing firm and the City of Forney Director of Information Technology, or the City Manager ONLY, throughout the term of the contract.

PART 2 - INSTRUCTIONS TO PROSPECTORS

1. CLARIFICATIONS AND QUESTIONS
 - a. For clarification of the specification(s) of this Request For Proposal, proposer may contact: Neil Cardwell Director of Information Technology at 903-455-0697, ncardwell@forneytx.gov.
 - b. The individual listed above may be contacted for clarification of specification(s) only. No authority is intended or implied that specification(s) may be amended, or alternates accepted prior to opening without written approval of the City of Forney Director of Information Technology.
 - c. All addenda will be issued via the City's website at <https://forneytx.gov/documentcenter> website address. All addenda, if required, will be posted on the aforementioned website by the deadline for responses. It is the proposer's responsibility to check this website for addenda postings prior to submitting responses.
 - d. Questions pertaining to proposing procedures should be directed to The City of Forney Director of Information Technology. Proposers finding errors, requests for additional information, omissions, or corrections that need to be made in the specifications shall contact the Director of Information Technology in writing by the "Questions Responses" due date.
2. SUBMISSION OF PROPOSALS
 - a. PROVIDE ONE (1) ORIGINAL AND TWO (2) COPIES OF BID RESPONSE. ENSURE THE ORIGINAL AND COPIES ARE CLEARLY LABELED. PRICING SPREADSHEET SHOULD BE SUBMITTED ON A FLASH DRIVE OR CD-ROM WITH YOUR SUBMITTAL.
 - b. Hand-carried proposals or proposals submitted via carrier service are to be delivered to:
City of Forney
Neil Cardwell
Director of Information Technology
101 East Main St.
Forney, TX 75126
 - c. Proposals submitted via the U.S. Postal Service are to be mailed to:
City of Forney
Neil Cardwell
Director of Information Technology
PO Box 826
101 East Main St.
Forney, TX 75126
3. Clearly mark all Proposal envelopes as instructed on the front page. Allow sufficient transit time.
4. NOTE: Delivery of Proposal envelope to other Departments within the City of Forney is not considered as delivery to the Director of Information Technology.
5. Once completed and signed, return your Proposal form to the City of Forney Director of Information Technology (as instructed above).
6. Proposals received at the City of Forney Director of Information Technology after the time and date specified above will not be considered and will be filed unopened. The City of Forney shall not be held liable for late proposals.
7. Oral or telegraphic proposals transmitted via the City's facsimile machine are not acceptable. DO NOT FAX YOUR PROPOSALS.

8. Proposals must be signed by an authorized individual to contractually bind their firm when submitting the Proposal. Failure to sign the Proposal will be considered as a "mistake in Proposal", and the Proposal will be rejected as "non-responsive".
9. Purchases made against this Request For Proposal are for City of Forney use and are exempt from State Sales Tax and Federal Excise Tax. Do not include these taxes in your Proposal.
10. All pages of this Request For Proposal are to be returned with your proposal. It is the proposer's responsibility to ensure the number of pages received is the same number listed on the front of this document. Proposer shall contact the Director of Information Technology if discrepancies exist.
11. All prices must be typed or written in ink on the appropriate specification/pricing form(s). Proposals written in pencil will not be accepted. Changes may be crossed through and corrections inserted adjacent and initialed by the person preparing the Proposal. Should errors in multiplication or addition of a unit price against a total price occur, the unit price shall govern. All pricing proposed for products and/or services shall constitute entire consideration due.
12. No Proposal may be withdrawn prior to opening of proposals without written request (addressed to the City of Forney's Director of Information Technology) by an authorized agent of the proposing firm and upon written approval by the City. Proposals become the property of the City of Forney upon receipt.
13. The City's list of prospective proposers is being updated. To remain on Proposal lists you must either submit a proposal or return this Request For Proposal marked "NO BID". Failure to follow this procedure will result in your firm being removed from the mailing list.
14. Provide a list of references on the Supplier Questionnaire for other state agencies, other customers, etc. Each Proposal will be evaluated with regard to the size and scope of product/service as bid. NOTE: Proposers failing to submit at least 2 references may not be considered for award.
15. The City may elect to place several orders during the term of this Request for Proposal. Proposers must specify minimum order quantities – if any – and are required to hold proposed prices for the term of the contract.
16. Any and all deviations to this competitive solicitation proposed by the bidder must be listed on the Deviation/Compliance Form, attached hereto – not on a cover letter, catalog, etc.
17. The City of Forney is a public entity subject to the provisions of the Texas Public Information Act (Texas Government Code Chapter 552). Responses to this invitation may be subject to release as public information unless the response or specific parts of the response are excepted from public disclosure under such Act. Proposers should consult with their legal counsel regarding disclosure issues and take the appropriate precautions to safeguard trade secrets or any other confidential or proprietary information before responding to this invitation. The City assumes no liability or responsibility for release of any information not properly identified and documented in accordance with the enclosed Confidential Information Declaration & Copyright Authorization Form. The City assumes no liability or responsibility for release of any information that the Texas Attorney General or a court of law determines to be subject to release.
18. Proposals asserted to be copyright protected in their entirety may, in the City's sole discretion, be rejected as non-conforming. Proposers who submit copyrighted materials as part of their bid must review and complete the Confidential Information Declaration & Copyright Authorization Form. Proposers submitting copyrighted materials should consult with their legal counsel regarding copyright and disclosure issues. By submitting copyrighted materials and completing the Confidential Information Declaration and Copyright Authorization Form, bidders grant the City of Forney authorization to reproduce and provide copies of such information and agree to waive any and all claims against the City regarding the release of such copyrighted information including, but not limited to, any claim of copyright infringement when released in response to a valid request for information under the Texas Public Information Act, Texas Government Code Chapter 552. In the event a bidder is unable to grant such authorization and waiver, copyrighted materials must not be included in the bid.
19. A proposal that has been opened may not be changed for the purpose of correcting an error in the proposed price. Proposers submitting an erroneous proposed price may be given the option of either honoring the price as proposed or withdrawing the (erroneous) proposal.
20. A person or business, and their agents, who seek to contract or enter into an agreement with the City, are required by Texas Local Government Code, Chapter 176, to file a conflict of interest questionnaire (FORM CIQ) which is found in Appendix A. The form must be filed with the City Secretary no later than seven (7) days after the date the person or business begins contract discussions or negotiations with the City, or submits an application, response to a request for proposals or bids, correspondence, or other writing related to any potential agreement with the City.
21. In 2015, the Texas Legislature adopted House Bill 1295, which added section 2252.908 of the Government Code. The law states that a governmental entity or state agency may not enter into certain contracts with a business entity unless the business entity submits a disclosure of interested parties to the governmental entity or state agency at the time the business entity submits the signed contract to the governmental entity or state agency. The law applies only to a contract of a governmental entity or state agency that either (1) requires an action or vote by the governing body of the entity or agency before the contract may be signed or (2) has a value of at least \$1 million. The disclosure requirement applies to a contract entered into on or after January 1, 2016. Please go to the Texas Ethics Commission webpage

(www.ethics.state.tx.us) for full instructions and to complete the required steps for creation of Form 1295. Once the form is completed online, printed and notarized please return the form with your proposal submission.

22. In accordance with Chapter 2270, Texas Government Code, a governmental entity may not enter into a contract with a company for goods or services unless the contract contains a written verification from the company that it: (1) does not boycott Israel; and (2) will not boycott Israel during the term of the contract. Any signatory executing a contract in response to this Request for Proposals will be required to verify that the company does not boycott Israel and will not boycott Israel during the term of the contract.

PART 3 - AWARD/EVALUATION OF PROPOSALS

1. The City of Forney reserves the right to accept or reject all or any part of any proposal, waive minor proposal formalities/technicalities and award the proposal deemed to be most advantageous to the City.
2. Proposal results will be presented to the City of Forney for consideration at the earliest opportunity following the official opening date.
3. The City of Forney reserves the right to award to a single proposer, multiple proposers, each line item separately or in any combination it determines to be in its best interest, unless the proposer states otherwise. Proposals shall cover the entire program as described herein. Proposers shall also include copies of any contracts/agreements required (by the proposing firm) and clearly identify/label it as such.
4. Evaluation Factors and Points

Item	Evaluation Criteria	Points
1	The purchase price	45
2	The reputation of the vendor and of the vendor's goods or services	10
3	The quality of the vendor's goods or services	10
4	The extent to which the goods or services meet the City of Forney's needs	10
5	The vendor's past relationship with the City of Forney	3
6	The total long-term cost to the City to acquire the vendor's goods or services	7
7	Any other relevant factor specifically listed in the Request for Proposal or Proposals.	15

5. In compliance with the provisions of Texas Government Code, Title 10, Subtitle D, Section 2155.074, Section 2155.075, Section 2156.007, Section 2157.003 and Section 2157.125, and Texas Administrative Code, Title 1, tier 113.6, information obtained from the Texas Building and Procurement Commission's Vendor Performance Tracking System may be used in evaluating responses to solicitations for goods and services determine the best value for the City of Forney. www.window.state.tx.us/procurement/prog/vendor_performance.
6. Proposers and prospective proposers are encouraged to suggest improved product and/or services for future consideration by the City. Any literature/brochures regarding such products or services should be submitted separately from the proposal submitted in response to this Request for Proposal.
7. Each line item must be proposed using the same unit of measure as requested by this request for Proposal. Any questions regarding unit of measure must be resolved between the prospective proposer and the City of Forney Director of Information Technology. Failure to propose specified unit of measure may be cause for rejection of proposal for the specific item(s) in question.
8. Upon notification of potential selections for award, the person or entity submitting this proposal must give notice to the City of Forney if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in this conviction of a felony (this requirement does not apply to a publicly held corporation).
9. The City of Forney may award contracts to proposers as alternates in case the primary proposer is unable to fulfill the contractual obligations as stated in the specifications/terms and conditions.

PART 4 - CERTIFICATIONS

1. By signing this Request For Proposal, the undersigned proposer affirms that its company, corporation, firm, partnership or individual has not prepared this proposal in collusion with any other bidder and that the contents of this proposal as to prices, terms, or conditions have not been communicated by the undersigned or by any employee or agent to any other person or firm engaged in this type of business prior to the official opening of this proposal.
2. The person whose signature appears on the cover page of this Request For Proposal hereby certifies (by signing this document) that the individual and/or firm on whose behalf this proposal is submitted is not listed on the Federal Government's "List of Parties Excluded from Federal Procurement and Non-procurement Programs" published by the U. S. General Services Administration (GSA) effective as of the date of opening of this proposal.
3. By signing this Request For Proposal, the proposer hereby certifies that it (or its firm hereby represented) is legally authorized to conduct business in Texas and has complied with any and all federal, state, or other laws or regulations

- applicable to any purchase resulting from this Request For Proposal, including, but not limited to, copyright and/or patent laws and anti-collusion law. Failure of proposer to sign their Proposal will render it null and void.
4. If the proposer professes to be the exclusive source of the item(s) or service(s) requested herein, the proposer must provide with its proposal a written statement to the fact that the sole source is due to one or more of the following (as applicable): a patent, copyright, secret process, or monopoly; a film, manuscript, or book; a utility service (electricity, gas, or water); or a captive replacement part or component for equipment. Such statements must be signed by the owner or corporate official of the firm submitting this proposal and must be notarized. This declaration shall not exempt the proposer from signing and submitting a signed proposal.
 5. Failure to comply with this provision may result in the bid being considered non-responsive.

PART 5 - TERMS AND CONDITIONS

1. Purchase Orders will serve as the award instrument(s) against this Request for Proposal. Orders will be placed as items are approved for purchase and funds become available.
2. NOTE: IT IS THE PROPOSER'S RESPONSIBILITY TO TRACK PURCHASE ORDER NUMBER(S) & APPLICABLE REVISIONS. DOUBLE SHIPMENTS INCURRED WILL BE RETURNED AT THE PROPOSER'S EXPENSE.
3. In the event that any one or more of the provisions contained in this Request For Proposal (or resulting purchase order) shall be held by a court of competent jurisdiction to be invalid, illegal or unenforceable, such provisions shall not affect any other provision hereof, and this Request For Proposal (or any resulting purchase order) shall be construed as if the invalid, illegal or unenforceable provision(s) had never been contained herein.
4. Successful proposer(s) hereby assigns to purchaser, any and all claims for overcharges associated with any contract resulting from this Request For Proposal which arise under the antitrust laws of the United States.
5. Any assignment by Proposer of this contract or any part thereof without written consent of The City of Forney shall be void.
6. It is understood that in the performance of any services herein provided, for Contractor shall be, and is, an independent contractor, and is not an agent or employee of the City of Forney and shall furnish such services in its own manner and method, except as required by this contract. Further, Contractor has, and shall retain the right to exercise full control over the employment, direction, compensation, and discharge of all persons employed by Contractor in the performance of the services hereunder. Contractor shall be solely responsible for, and shall indemnify, defend, and save the City harmless, from all matters relating to the payment of its employees, including compliance with Social Security, withholding, and all other wages, salaries, benefits, taxes, exactions, and regulations of any nature whatsoever.
7. The City of Forney reserves the right to cancel any contract (purchase order) resulting from this Request For Proposal at any time, for any reason (or for no reason) with a thirty (30) day written notice to the contractor(s). Contractor may cancel any resulting contract, at any time for any reason, or for no reason with a sixty (60) day written notice. Any notice required or permitted to be delivered to the contractor(s) shall be deemed to be delivered when mailed by registered or certified mail, return receipt requested, postage prepaid, and addressed to the bidder's address appearing on the face of the Request For Proposal (or as subsequently revised or changed). Any compensation due the contractor(s) will be limited to items received and/or services performed and accepted by the City.
8. The Contract Document consisting of the purchase order(s) and the Specifications or any documents attached thereto or expressly incorporated therein constitute the entire agreement between the parties hereto with respect to the matters covered thereby. All prior negotiation, representation and agreements, with respect thereto not incorporated in such Contract Documents, are hereby cancelled. This Agreement can be modified or amended only by a document duly executed on behalf of the parties hereto.
9. The City of Forney shall have all remedies available at law or in equity to include reimbursement of attorneys' fees and all costs incurred in enforcing such rights. No modification or limitation of remedy shall be a part of this contract unless specifically agreed to in writing by the City of Forney's Director of Information Technology.
10. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, SUPPLIER AND ITS AGENTS, PARTNERS, EMPLOYEES, AND CONSULTANTS (COLLECTIVELY "INDEMNITORS") SHALL AND DO AGREE TO INDEMNIFY, PROTECT, DEFEND WITH COUNSEL APPROVED BY THE CITY OF FORNEY, AND HOLD HARMLESS THE CITY, REPRESENTATIVES OF THE CITY, AND ITS MEMBERS OF THE BOARD OF TRUSTEES, ADMINISTRATORS, OTHER EMPLOYEES AND AGENTS (COLLECTIVELY "INDEMNITEES") FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES, LIENS, CAUSES OF ACTION, SUITS, JUDGMENTS AND EXPENSES, INCLUDING ATTORNEY FEES, OF ANY NATURE, KIND, OR DESCRIPTION (COLLECTIVELY "LIABILITIES") OF ANY PERSON OR ENTITY WHOMSOEVER ARISING OUT OF, CAUSED BY, OR RESULTING FROM THE PERFORMANCE OF SERVICES, OR PROVISION OF GOODS, BY PROPOSER PURSUANT TO THIS CONTRACT, OR ANY PART THEREOF, OR ANYONE FOR WHOSE ACTS IT MAY BE LIABLE EVEN IF IT IS CAUSED IN PART BY THE NEGLIGENCE OR OMISSION OF ANY INDEMNITEE, SO LONG AS IT IS NOT CAUSED BY THE SOLE NEGLIGENCE OR WILLFUL MISCONDUCT OF ANY INDEMNITEE.

11. Insurance Requirements apply to this Proposal Invitation and any resulting award. The Insurance Certificate is not required to be submitted with this bid; however, if bidder is to receive an award, the certificate must be submitted to the City of Forney's Director of Information Technology prior to commencement of work on City Property within five (5) days of verbal or written request by the Director of Information Technology (whichever is earlier). The certificate must be prepared correctly and submitted to the City of Forney before award can be made.
12. Proposers awarded a contract shall not advertise, solicit, or publish, without the City of Forney's written consent, the fact that Proposer has entered into this contract, except to the extent necessary to comply with proper requests for information from an authorized representative of the federal, state or local government.

PART 6 - SUPPLIER QUESTIONNAIRE

1. **The Proposer shall furnish all the following information accurately and completely. Failure to comply with this requirement will render the bid non-responsive and may cause its rejection.** Additional sheets may be attached if necessary. "You" or "your" as used herein refers to the bidder's firm and any of its owners, officers, directors, shareholders, parties, or principals. The City of Forney has discretion to request additional information. Responses to the questionnaire will be used as evaluated factors.
2. Is your company certified by the state of Texas or the North Central Texas Regional Certification Agency as a small, women-owned, or minority business?
Yes _____ No _____
 - a. If yes, provide a copy of the certification with the RFP/BID response.
3. Bidder's principal place of business (or main corporate office) is located in _____ (state).
4. Is your firm willing to honor the terms and conditions of this contract if awarded a contract as an alternate?
Yes _____ No _____
5. List three (3) references of current customers similar in size and scope of services solicited in this RFP (Preferably other government entities).

a. Name: _____
Address: _____
City, State, Zip: _____
Contact Name: _____
Contact Phone Number: _____
Estimated annual volume of sales for this account: _____
Dates of Service: _____

b. Name: _____
Address: _____
City, State, Zip: _____
Contact Name: _____
Contact Phone Number: _____
Estimated annual volume of sales for this account: _____
Dates of Service: _____

c. Name: _____
Address: _____
City, State, Zip: _____
Contact Name: _____
Contact Phone Number: _____
Estimated annual volume of sales for this account: _____

Dates of Service: _____

6. Has your company filed any written declaration for bankruptcy protection, a potential merger or acquisition, office closure, pending lawsuits, financial loss that might affect your ability to perform under this contract?

Yes _____ No _____

a. If your answer is yes, please explain:

7. Equipment Yard

Location: _____

Size (square feet): _____

8. Location of office nearest to The City of Forney City Hall.

9. Person who should be contacted regarding the bid to answer any additional questions:

Name & Title: _____

Phone Number: _____

Cell Phone Number: _____

Email Address: _____

10. Information may be provided as an attachment, labeled Supplier Questioner in your RFP response. Please limit response for each question to one page. Clearly label each section/response with appropriate/corresponding number:
11. Describe your customer service policy in detail.
12. Provide the escalation procedure to be invoked in the event that personnel are unable to remedy or comply with the City of Forney service requests (include time limits, escalation levels, and the contact name, title, location, and phone number for each level).
13. Describe your invoicing, remittance, and reconciliation process.
14. Describe your quality control program and how it will be provided under this contract.
15. Indicate the numbers and job titles of the personnel that your company will have available to assist the City regarding this agreement. Ensure all job titles proposed are priced in the hourly rate section.
16. Submit the resume for the point of contact.
17. Indicate the products and services your company will be able to supply, and any added value such as customer provided on-line tracking of MACs (Move, Add or Change) & Projects, special pricing/volume incentives, signing bonus, retention bonus, and/or rebate programs, which you may want to include as part of the bid. Suppliers are encouraged to use their imagination(s) or innovation in this section of the proposal.
18. Summarize why you believe your firm is the best qualified firm to provide services to the City of Forney. Please limit response to one page.
19. Provide a Dunn & Bradstreet (D&B) number for Bidders organization: _____
20. The successful bidder shall submit in writing a list of qualified technicians assigned to this project, including relevant manufacturers training programs completed by each, and years of related experience of each.

21. If applicable, the successful bidder shall submit a current Certificate for the fiber optic manufacturer being used. Catalog Discount- For future purchases of product not listed herein, the City of Forney may deduct a percentage off of manufacturer's catalog/list price. Please provide/identify listing of any/all manufacturer's and corresponding discounts below:

Catalog/Manufacturer/ Name:	Discount Offered:
_____	_____ %
_____	_____ %
_____	_____ %

If offering net price, no discount available, please enter "0" in the space above.

Vendor shall ensure all items not included as a line item in this RFP, but is included in this "discount from Manufacturer" section shall be cataloged/assigned a supplier item number prior to ordering.

PART 7 - MINIMUM REQUIREMENTS:

In order to be considered for an award, a responsive bidder shall meet the following requirements:

1. All supervisors, foreman & project managers shall be Certified for the manufacturer and products being installed. The successful bidder, if not certified will have 120 days to get certified from date of award.
2. Must be able to respond 365 days of the year, 24 hours a day 7 days a week, when needed. Will your firm adhere to this requirement? Yes _____ No _____
3. The successful bidder shall have at least five (5) years' experience installing and servicing Telecommunication Systems and shall provide a list of completed projects equivalent in size and complexity to this project, with contact names and telephone numbers. Yes _____ No _____
4. All new OSP fiber in the City of Forney will be certified and warrantied by the manufacturer. Any modifications or additions shall be certified & warrantied by the manufacturer.
5. The outside plant contractor shall provide a twenty (20) year extended product warranty and application assurance warranty for all installations. The successful bidder shall provide proof of compliance. Yes _____ No _____
6. The successful bidder shall comply with Emergency Restoration Requirements.

PART 8 - SPECIFICATIONS

1. SCOPE
 - a. Work covered by this Section shall consist of furnishing labor, equipment, and materials necessary for the installation.
2. SUMMARY
 - a. The City of Forney is seeking proposals to install a new outside plant private fiber network to connect the data center located inside City Hall to (6) other City of Forney owned buildings as follows:
 - 1) Public Works
 - 2) Animal Control
 - 3) Parks Maintenance
 - 4) Parks Pump House
 - 5) Parks Outdoor Amphitheater
 - 6) Parks Office
 - 7) Police Department
 - b. The new fiber infrastructure shall be built underground with the exception to the Public Works building; which will run aerial over railroad tracks to the northeast of City Hall, using existing polls.
 - c. With exception to Public Works and the Pump House, the new fiber backbone cables will all run to a new above-ground cross-connect cabinet located in the park, near the soccer fields. The cabinet will be equipped with a pre-terminated pigtail which will run to an in-ground vault containing a fusion splice closure. Within the cabinet cross-connections will provide connectivity for both 96-strand fiber cables, coming from City Hall and the Police Department, to the 12-strand cables feeding Animal Control, Parks Outdoor Amphitheater, and the Parks Office. 6-strands from each 96-strand cable shall be cross-connected to each of the 12-strand cables, to allow connectivity from both City Hall and the Police Station. The cable for the Public Works building will run directly to City Hall. The cable for the Pump House will run to the Parks Maintenance building.
 - d. The new above-ground cabinet, in-ground vault, and splice closure, located in the park, shall be provided and installed as part of the scope for this project. The Vendor shall provide a splice closure suitable for the quantity of cables and quantity of fiber strands being installed.
 - e. The following are the new fiber backbone cables that need to be install for this project:
 - 1) (1) 96-strand singlemode fiber cable will run from City Hall to a new vault located in the Park.
 - 2) (1) 96-strand singlemode fiber cable will run from the Police Department to a new vault located in the Park.
 - 3) (1) 12-strand singlemode fiber cable will run from City Hall to the Public Works building, Aerial.
 - 4) (1) 12-strand singlemode fiber cable will run from the Animal Control building to the vault cabinet located in the Park.
 - 5) (1) 12-strand singlemode fiber cable will run from the Parks Maintenance building to the fiber distribution cabinet located in the Park.
 - 6) (1) 12-strand singlemode fiber cable will run from the Parks Amphitheater to the fiber distribution cabinet located in the Park.
 - 7) (1) 12-strand singlemode fiber cable will run from the Parks Office building to the fiber distribution cabinet located in the Park.
 - 8) (1) 12-strand singlemode fiber cable will run from the Parks Pump House to the Maintenance building.
 - f. Some of the buildings don't currently have any network racks or cabinets for supporting the new fiber panels and network equipment. A new wall-mount network cabinet, along with plywood backboard, grounding conductor to electrical ground, and 120V 20A quadplex NEMA 5-20R electrical receptacle shall be installed in each of the following buildings:
 - 1) Parks Maintenance
 - 2) Parks Outdoor Amphitheater
 - 3) Parks Pump House
 - g. Lockable in-ground pull boxes / handholes shall be provided and installed as necessary to facilitate installation of the fiber cables.
 - h. The City of Forney is requesting pricing for installation, testing, turn-up, and ongoing maintenance for the new fiber network.
 - i. All pathways for the new optical fiber OSP infrastructure are in City of Forney public Right-of-Ways.
3. RELATED DOCUMENTS
 - a. Fiber Pathway Area Map
4. SUBMITTALS
 - a. Shop Drawings - provide single-line diagram and plans showing cabling and interconnection of components.

- b. Each drawing shall have a descriptive title and all sub-parts of each drawing shall be labeled. All drawings shall have the name and locations of the project, Systems Contractor's name in the title block.
 - c. Details and descriptions of any other aspect of the system, which must differ from the contract documents due to field conditions or equipment, furnished.
 - d. Provide product data for all components required for the system.
 - e. At the completion of the project, the Vendor shall submit one (1) complete set of as-built drawings in hard copy & electronic format, contents to be approved by City of Forney Director of Technology prior to project completion.
 - f. At the completion of the project, the Vendor shall provide the necessary GPS coordinates of all conduit pathways, handholes, and other installed equipment to the Technology Department for the purpose of documentation in the City GIS system.
5. **QUALITY ASSURANCE**
- a. An experienced installer who is an authorized representative of equipment manufacturer for both installation and maintenance of equipment required for this Section.
 - b. Provide a manufacturer's warranty against defects in material and workmanship. This warranty will cover all electronic equipment. If any defects are found within the warranty period, the defective equipment shall be replaced at no cost (equipment only); a 25-year warranty shall be provided for labor and materials.
 - c. The City of Forney will depend on the fiber optic network for data, video, voice and security. With the fiber optic plant being underground we are susceptible to cable damage via the various type of construction such as backhoes, auger, trucks, post hole diggers, etc. The bidding contractor must have the capability to respond quickly to emergencies 24 hours a day 7 days a week
 - d. For maintenance purposes, The City of Forney shall permit Contractor access to buildings during regular building hours. Special arrangements will be made at times outside of regular buildings hours. The City of Forney shall provide a single point of contact (with at least one back-up) for Contractor.
 - e. The contractor must be registered, bonded, insured and current with annual license fees for the City of Forney and the County of Kaufman. The contractor shall be responsible for preparing and submitting application and all associated drawings or documents for the building and right-of-way permits. The City of Forney will pay the municipality directly for the permits and all other development "impact" fees, if any. The Contractor shall continue to be responsible for payment of other permits, governmental fees, licenses, and inspections necessary for proper execution of the contract and which are legally required when proposals are received. The Contractor shall pay directly all temporary utility charges, tap charges, and water meter charges.
 - f. The point of contact & any job site foreman or supervisor must be certified with the manufacturer and have the appropriate credentials for the product being installed. It is preferred that the point of contact be BICSI OSP certified.
 - g. It is preferred the Vendor have Outside Plant specialist on staff to verify that all proposed & completed installations meet industry & BICSI standards.
 - h. The Vendor shall have technicians wear company logo shirts with visible identifying marks.
 - i. The Vendor shall work with manufacturer to obtain a certified warranty for all work completed. This will be requested on a monthly or quarterly basis as needed.
 - j. The Vendor must provide a point of contact that is experienced in all phases of outside & inside plant construction. Point of contact will initiate all meetings. This point of contact must be able attend all scheduled meetings & provide all necessary project updates. This point of contact shall at all times maintain job records, including, but not limited to, scopes of work, quotes, invoices, payment records, daily reports, logs, diaries, and job meeting minutes, applicable to the project(s). The Vendor shall make such reports and records available for inspection by the Owner upon request.
 - k. The Vendor shall keep track of all ordered items, labor hours, and any other information on request as needed for trend analysis and information.
6. **MANUFACTURER**
- a. This fiber network will be built using Corning Cable Systems products, including all outside plant cable and fiber terminating hardware at the equipment rooms. This network will be certified by Corning Cable Systems & all work or additions to the current network must be certified by Corning Cable Systems.
 - b. The City of Forney reserves the right to request manufacturer involvement, review and acceptance at any point during the planning, installation or inspection phase of the project. Any recommendations, modifications or directives given by the manufacturer may supersede the vendors pre-approved proposal or completed work.
7. **PRODUCTS**
- a. Above-ground Cross-connect Cabinet
 - 1) Corning Part Number: WAA0400-116U4, OptiTect Local Convergence Cabinet LS Cross-Connect Series, Green, 576 Fiber (288 Cross-Connect), SC APC Standard, No Toning, One Cable, 50ft Pigtail, ALTOS Loose Tube

- 2) Provide Concrete Pad for Cabinets
 - 3) Provide (4) In-Ground Bollards for Protection for Cabinet
 - b. Vault (For splice closure in Park)
 - 1) Monolithic fiberglass-reinforced polymer with lockable lid
 - 2) Vault shall be sized to accommodate splice closure and allow for future splice changes.
 - c. Wall-mount Network Cabinet
 - 1) CPI Part Number: 11900-X24. CUBE-iT Wall-Mount Cabinet; Gen 3; 24"H x 24"W x 24"D (610 mm x 610 mm x 610 mm); 12U; #12-24 Tapped Rails; Tempered Glass Door; Black
 - d. Fiber Optic Splice Closure
 - 1) Fiber Optic Splice Closures shall be suitable for underground or direct buried applications, and be sized to accommodate all of the fiber cables and splices as identified for this project.
 - e. Singlemode fiber Cable
 - 1) Direct Buried 96-strand: Corning Part Number: 096EU4-T4701D20. ALTOS Loose Tube, 96 Strand, Gel-Free, All-Dielectric, Outdoor, Singlemode, Fiber Optic Cable, (OS2)
 - 2) Direct Buried 12-strand: Corning Part Number: 012EU4-T4701D20. ALTOS Loose Tube, 96 Strand, Gel-Free, All-Dielectric, Outdoor, Singlemode, Fiber Optic Cable, (OS2)
 - 3) Aerial 12-strand: Corning Part Number: 012P3T4100920. ALTOS Figure-8, 12 Strand, Gel-Free, All-Dielectric, Outdoor, Aerial, Singlemode, Fiber Optic Cable, (OS2).
 - f. Optical Fiber Panel
 - 1) Corning Part Number: CCH-01U. Closet Connector Housing, 1U
 - 2) Corning Part Number: CCH-04U Closet Connector Housing, 4U
 - g. Fiber Panel Cassette, 12-Fiber
 - 1) Corning Part Number: CCH-CS12-A9-P00RE. CCH Splice Cassette, Singlemode, 12-fiber (6-duplex), LC Connectors, with 3 Meter Pigtailed for Fusion Splicing
 - h. Fiber Panel Cassette, 24-Fiber
 - 1) Corning Part Number: CCH-CS24-A9-P00RE. CCH Splice Cassette, Singlemode, 24-fiber (12-duplex), LC Connectors, with 3 Meter Pigtailed for Fusion Splicing
 - i. Fiber Patch Cords
 - 1) Supply (264) fiber patch cords as follows:
 - a) Corning Part Number: 787802GD120003M. Singlemode OS2, two-fiber, 2.0MM, LC-LC, Uniboot, 3-meter Optical Fiber Connector
 - 2) Supply (120) fiber patch cords for cross-connect in above-ground cabinet
 - 3) Corning Part Number: 727202R5120001M. Singlemode OS2, two-fiber, SC-SC 1-meter
 - j. Hand Holes (for general pull points)
 - 1) All hand holes shall be sized appropriately for the application and have lockable lids.
8. EXECUTION
- a. The Vendor will identify to the City of Forney, any work necessitating cutting into or through any part of the building structure such as girders, beams, concrete, tile floors or partition ceilings or excavating on City property.
 - b. Where applicable, the vendor shall provide 2" dedicated conduits for entering buildings, with 1" innerduct.
 - c. Plenum rated innerducts shall be used for all cable pathways inside of buildings.
 - d. Provide for the removal and re-installation of all ceiling tiles required for the installation of all above ceiling wire.
 - e. Upon completion of the work each day, the vendor must remove all tools, equipment, rubbish and debris from the Right-of-Ways and or premises and must leave the premises clean and neat. If equipment & materials need to be left in place there must be prior approval from the City of Forney.
 - f. Directional Boring Operations
 - 1) The machine operator shall follow all current OSHA regulations, including the use of grounding mats and other safety measures.
 - 2) The machine operator shall have control over the direction of the boring tool.
 - 3) The bore crew must have, in their possession, a copy of the permit authorizing the company to perform work, and a copy of the approved drawing and specifications for the bore work location.
 - 4) When possible, the Prosper shall mark the proposed running line and bore head location. Mark the proposed running line every 5' to 10', using a longitudinal line; mark the actual location with a paint spot at the end of each stem push. Only white paint is approved for this use.
 - 5) The bore is not allowed to deviate more than six (6) inches from the proposed marked running line and the ends of the bore must be at the designated depth.
 - 6) Slurry use shall be kept at a minimum and only used for head lubrication and/or spoils return. The Proposer shall calculate anticipated slurry use and monitor slurry use during the bore operation to determine slurry loss into the surrounding soil.

- 7) Slurry must be contained during the bore operation and must be removed prior to backfilling, with dry dirt.
 - 8) During pull back the mandrels shall be not more than two inches larger than the diameter of the duct or casing.
 - 9) Shallow bores, misdirected bores, or other unsuccessful bores shall be abandoned and filled at the discretion of the owner.
 - 10) If a bore is unsuccessful, future attempts may be made only with the approval of the owner.
 - 11) The bore operation shall be stopped if any damage occurs to a road surface and it shall remain inactive until corrective measures are taken at the direction of the owner. The Proposer is liable for any damage done to the right-of-way or structures.
 - 12) Auger heads are not allowed more than six inches ahead of the casing being inserted.
 - 13) Bore stems and cutting heads may have to be left in the ground if they cannot be retrieved through the bore hole. Retrieving parts is allowed with the approval of the governmental agency that controls the right-of-way.
 - 14) When boring near creeks and streams, slit fences will be properly installed to prevent disturbed soil from flowing into the waterways and remain in place after the bore has been completed.
- g. Excavation and Trenching Requirements
- 1) Make trench sides as nearly vertical as practical except where sloping of sides is allowed.
 - 2) Remove all rock, boulders, hard material, unstable material, and yielding and unsatisfactory materials within the limits indicated for trench excavation and dispose of off the site. Notify the Director of Information Technology or their representatives immediately in writing if it becomes necessary to remove such materials beyond the trench limits. Where excavations are deeper or wider than the trench limits in order to remove unsuitable materials, they shall be refilled with approved borrowed material.
 - 3) Existing concrete or granite curb encountered in excavation shall be temporarily supported or replaced in kind. Bituminous lip curb shall be disposed and replaced in kind.
 - 4) Excavation operations adjacent to and below existing structures and utilities shall be done manually. Start hand excavation on each side of the indicated obstruction and continue until the obstruction is uncovered or until clearance for the new grade is assured. Support uncovered lines or other existing work affected by the contract excavation until approval for backfill is granted by the Owner's Representative. Report damage to utility lines or subsurface construction immediately to the Director of Information Technology or their representatives.
 - 5) Place "Road Closed" signs on temporary barricades at approaches to work or uncovered trenches.
 - 6) Keep excavated materials and construction equipment and materials a safe distance back from the edge of excavations to avoid overloading the sides of the trench and to prevent slides or cave-ins.
 - 7) Grade areas around trench as necessary to prevent surface water from flowing into excavations.
 - 8) Walkway and grassed areas left not backfilled at the end of the workday shall be enclosed with snow fence until restored to grade. Roadway trenches shall not be re-opened to traffic unless either a road plate capable of sustaining HS-20 loading is in place or temporary gravel is placed to bring the trench area to finish grade.
- h. Cutting Pavement
- 1) Where trench excavation occurs in paved areas, saw cut existing pavement to obtain sound, vertical edges one foot wider than the indicated trench width on each side of the trench. When the saw cut is within two feet of an existing joint or curb, remove pavement to the existing joint or curb.
 - 2) Existing pavements and base course beyond the indicated lines for trench excavation which have been disturbed, damaged or undermined shall be restored or replaced by the Proposer to match existing pavements and base course, as directed, at no additional expense to the Owner.
- i. Back filling
- 1) Construct backfill in two operations (initial and final) as indicated and specified in this section. Initial backfill shall be select backfill material placed in 6-inch maximum loose lifts to one foot above conduit or duct unless otherwise specified. Bring up evenly on each side and along the full length of the conduit or duct structure. Ensure that no damage is done to the conduit or duct structure, or its protective coating.
 - 2) Place the remainder of the backfill (final backfill) in 9-inch maximum loose lifts to the bottom of the sub grade, unless otherwise specified. Compact each loose lift before placing the next lift. Do not backfill where the material in the trench is muddy, except as authorized.
 - 3) Provide a minimum cover from final grade of 2-1/2 feet for telephone ducts unless otherwise indicated on the Drawings.

- 4) Where settlement occurs in trenches and pits due to improper compaction, excavate to the depth necessary to rectify the problem, then backfill and compact the excavation as specified herein and restore the surface to the required elevation.
 - 5) Coordinate back filling with testing of utilities. Testing for the following shall be complete before final back filling: water distribution, sanitary sewer, steam compressed air, fuel oil, and refrigeration systems.
- j. Compaction
- 1) Use hand-operated, plate-type, vibratory or other suitable hand tampers in areas not accessible to larger rollers or compactors. Avoid damaging pipes and protective pipe coatings. Compact material in accordance with local code unless otherwise specified. If necessary, alter, change, or modify selected equipment or compaction methods to meet compaction requirement.
- k. Protection of Existing Utilities and Structures and New Work
- 1) Excavation, backfill and compaction operations shall be done in such a manner to prevent cave-ins of excavations or the undermining, damage or disturbing of existing utilities and structures or of new work. Backfill shall be placed and compacted to prevent future settlement or damage to existing utilities, structures, and any new work.
 - 2) Any damage due to excavation, back filling or settlement of the backfill, or injury to persons or damage to property occurring as a result of such damage shall be the responsibility of the Proposer. All costs to repair such damage, in a manner satisfactory to the Director of Information Technology or their representatives, shall be borne by the Proposer at no additional expense to the City of Forney.
 - 3) Protect newly back filled areas and adjacent structures, slopes, or grades from traffic, erosion settlement, or any other damage. Repair and re-establish damaged or eroded grades and slopes and restore surface construction prior to acceptance. Protect existing storm drain inlets from water-borne soil.
- l. Restoration
- 1) Successful proposer is responsible for repairs to any streets, sidewalks, grass areas, etc., which must be trenched or otherwise disturbed in the process of installation. In areas owned by the City of Forney, the City has final determination whether such repairs are acceptable.
 - 2) All sidewalks, streets, alleyways and landscaping shall be replaced to its original condition or better.
 - 3) NOTE: All environmental conditions have been videotaped prior to construction activities to provide information of pre-existing conditions.
 - 4) Grassed Areas - after completion and acceptance of all conduit, excavation, and backfilling work in a given area, the Proposer shall place an appropriate amount of turf sod to cover all disturbed areas. The Proposer shall place new sod, matching type and variety of existing sod.
- m. Sidewalks/Footpath Crossings
- 1) If the proposed trench crosses sidewalks or paved footpaths, the sidewalk shall be replaced in kind using an eight-inch gravel borrow subbase and a two-inch bituminous surface or a four-inch cement concrete sidewalk, as applicable. If part of a walk is disturbed due to a longitudinal trench (less than 30 degrees skew between the sidewalk alignment and the trench direction), the entire width of the sidewalk shall be replaced. If a length of sidewalk exceeding 100 feet is disturbed, it shall be replaced with similar materials to a width of eight feet.
- n. Roadside Sidewalks
- 1) Any disturbed roadside sidewalks shall be replaced for their entire width.
- o. Road Restoration
- 1) After completion and acceptance of conduit excavation, and back filling of road trench areas, 12 inches of compacted Gravel Borrow Subbase course shall be placed to a level three inches below the finish road grade. A temporary surface of Bituminous Surface Course Type I-1 shall be placed.
 - 2) After allowing 6 months for settlement of the road subbase, the Proposer shall place a saw cut of the pavement 12 inches beyond the limits of the temporary patch. Bituminous binder course shall be placed to within 1-1/2 inches of the finish road grade and a final course of bituminous Surface Course Type I-1 shall complete the roadwork. Reflectorized pigment pavement markings specially manufactured for roadway use shall be placed to restore any pavement striping that had been in place prior to this contract.
- p. Duct for OSP Installation
- 1) 1.5" High-Density Polyethylene (HDPE) ducts shall be smooth wall with silicone coating and rated at SDR 11. These ducts shall be manufactured to ASTM D2447, ASTM D3035 AND NEMA TC7 Specifications. These ducts shall contain a measured pull tape. The pull tape shall be a minimum of 1800lbs in tensile strength and be pre-lubricated with silicone to reduce the frictional forces applied during cable installation. The primary method of installation of the HDPE is directional boring. The ducts shall be joined at the "tie-in" locations using metal couplers designed to thread the two ends of HDPE conduits together. These couplers shall provide a pull-proof connection of the duct.

- 2) Proposer shall leave a pull tape in the conduit with the cable after installation
 - 3) HDPE duct shall be products manufactured by Arnco, Carlon, Dura-Line, or other equivalent products, which meet these specifications.
- q. Duct Depth
- 1) The depth at which buries duct shall be placed will vary with local conditions along with the requirements of Cities, State and Railroads. HDPC duct should be buried a minimum depth of:

Location	Depth
Minimum cover in soul and under draining ditches	42 in.
Minimum cover under Railroads	60 in. below top of rail or as required by Railroad specifications
Minimum cover at roadway crossing	60 in.
Minimum cover in rock	42 in.
 - 2) When crossing unimproved roads, streets and alleys that may later be paved or hard surfaced, the cable should be placed at a depth that retains sufficient cover following permanent grading of the road.
 - 3) When crossing major highways and railroads the duct shall be placed in a casing required by that entity.
 - 4) Proposer shall proof all conduit sections prior to installation of the fiber cable to ensure conduit integrity. After proofing of the duct, measurements will be taken to verify the length of the installed conduit.
- r. Cable Slack
- 1) Proposer shall provide seventy-five feet (75') of cable slack at all splice locations along the buried fiber route, for the purpose of removing the splice case from the handhole and placing it inside a controlled environment for accessing the interior of the case and exposing the splice.
 - 2) All other handholes, used for installation assistance shall contain 50' of cable slack. Cable slack of one hundred feet (100'), shall be provided on one side of all creeks or rivers, major intersections or highway crossings, railroad crossings and bridge attachments.
 - 3) Proposer shall provide a minimum of fifteen feet (15') of cable slack at each termination point in the buildings. The cable slack shall be stored in a fashion as to protect it from damage and be secured to a wall or building structure.
- s. Wall penetration above the inside ceiling height
- 1) Building Entrance Facilities shall consist of NEMA-rated metallic pull boxes 18"x 18" x 6", galvanized steel 2" conduit, 1.5" High Density Polyethylene conduit and as a minimum 30"x48"x36" handholes as required to complete the pathway from the public right-of-way to the building location.
 - 2) The NEMA box shall be attached to the outside wall with masonry anchors and strut material. The penetration shall be sealed around the galvanized steel pipe (sleeve) used for entrance into the building to prevent water or other material from leaking into the structure around the metal sleeve.
 - 3) Rigid Galvanized Steel Conduit shall be installed on the exterior wall, secured with strut material and clamps, from the NEMA box down the wall and connect with a 90-degree bend of the same material to a depth of 42". The steel pipe shall be connected to the HDPE conduit at this point and extended across the campus area to the handhole placed in the public right-of-way adjacent to the building. The HDPE shall be buried to a depth of 42" unless otherwise directed by the City. Please refer to the drawings for external building penetration.
- t. Under-slab Penetrations, if required
- 1) This method is an underground installation that penetrates the interior floor. Galvanized steel and HDPE conduits are to be used in a same manner as an external entry except the conduits will approach under the slab and footing of the building and enter through a core made in the concrete floor of the building. All efforts will be made to enter into small closets or rooms where the conduit can be hidden from sight. Proposer is responsible to coordinate these activities with City personnel.
 - 2) After installation of the conduit under the building footing and slab, proposer shall replace the excavated material with a cement-stabilized material to prevent settling or erosion from around the building foundation due to the excavation.
 - 3) If required, please refer to the drawings for an under-slab building penetration.
- u. Work within Buildings

- 1) All cable taken into building shall be terminated and grounded within fifty feet (50') of the point of entry into the structure, or EMT conduit attached to the building entrance facilities shall be extended to the Main Communications Closet (MDF).
- 2) Any cable that is gel-filled must be properly sealed and tested at building entrance.
- 3) At each building entrance, a maintenance loop of 4 feet in diameter and 10 to 15 feet in length must be installed.
- 4) The cable shall be lubricated at the entrance point to the conduit during installation.
- v. Conduits/Sleeves and Fittings
 - 1) Proposer shall furnish and install sleeves, conduits, supports and fittings to complete cable pathways as indicated on the drawings and in the specifications.
 - 2) Provide sleeves for all cables that pass thru walls, concrete slabs, concrete columns or concrete bridging. Provide sleeves whether or not specifically indicated on project drawings.
 - 3) Provide sleeves passing thru walls, slabs, beams, bridging, or columns, which are 1/2 inch greater in inside diameter than external diameter of the materials passing through the sleeves.
 - 4) Sleeves through walls shall extend full thickness of wall, cut flush with finished surface.
 - 5) Conduits and sleeves shall be sized as indicated on the drawings.
 - 6) Rigid threaded steel conduit shall be hot dip galvanized as manufactured by the Wheatland Tube Co., Republic Steel, Allied Tube or an approved equal. Rigid steel conduits shall conform to Federal Specification WVV-C-581d.
 - 7) Electrical Metallic Tubing (EMT) shall be manufactured by the Wheatland Tube Co., Republic Steel, Allied Tube or approved equal, conforming to Federal Specification WW-C-563.
- w. EMT Conduit Fittings
 - 1) Bushings shall be of the non-metallic insulating type and consist of an insulating insert molded into the metallic body of the fitting.
 - 2) The City of Forney requires threaded couplings only. Compression couplings will not be allowed or approved.
 - 3) Indent type connectors are not permitted.
 - 4) Die-cast or pressure-cast zinc-alloy fittings or fittings made of pot metal are not permitted
 - 5) The conduit products shall be Allied, Republic, Wheatland, Alfex, Carlon or Robroy. Or other approved products, which meet these specifications.
- x. Conduit Installation
 - 1) Installation shall be in accordance with U.L., N.E.C. as shown on the drawings and specified herein.
 - 2) Route conduit parallel and perpendicular to walls and adjacent piping and do not obstruct headroom or walkways.
 - 3) Maintain minimum 6-inch clearance between conduit and piping. Maintain 12-inch clearance between conduit and heat sources such as flues, steam pipes, and heating appliances.
 - 4) Conduit shall be supported and clamped using hardware intended for the purpose.
 - 5) Conduit bends shall be made with standard conduit bending tools. Conduit deformed or flattened during bending shall be removed and replaced.
 - 6) Conduits cut in the field shall be coated with galvanized hot stick or galvanized spray approved for the purpose.
 - 7) Supports shall be provided every five (5) feet for conduits wherever possible, and within three (3) feet of boxes or fittings, the points of support to be determined in the field. The supports shall consist of approved types of clamps or straps secured by screws, bolts on wood or steel framework and decking, or expansion bolts in concrete, and brickwork. In no instance shall support bolts or screws protrude to the outside of building walls or roof.
 - 8) The complete raceway system shall become metallically continuous throughout its entire length and the entire system shall be electrically continuous and shall be thoroughly grounded in accordance with the N.E.C.
 - 9) Vapor seals shall be installed at locations required by the National Electrical Code.
9. EMERGENCY FIBER REPAIR
 - a. Contractor shall provide the City a single point of contact and a progression "call out list" if the initial point of contact is not available. The points of contact must be reachable on a 24 x 7 basis. Contractor shall immediately notify the City of any changes to the initial point of contact or others on the "Call Out List".
 - b. In emergency situations contractor management shall arrive on-site within two (2) hours maximum after notification by the City of Forney. Contractor shall notify all necessary construction personnel of possible dispatch.

- c. After contractor management arrival on-site & within a total of four (4) hours the Contractor's Management shall complete diagnosis of problem, initiate a plan of action & dispatch all necessary personnel, within four (4) hours of the initial phone call with the City of Forney. Contractor shall notify the City of Forney and provide an estimated time to final resolution.
 - d. Final resolution shall be accomplished within eight (8) hours from time of diagnosis, assuming no extenuating circumstances.
 - e. Contractor shall keep materials designated as emergency restoration at their local yard for the duration of the contract.
 - f. In all cases, Contractor shall notify the City immediately upon resolution of the issue.
 - g. The City of Forney reserves the right to have cable repairs certified by an outside party.
 - h. Typical procedures that must be followed during a cable emergency.
 - 1) Cable damages reported or detected.
 - 2) What services are impacted?
 - 3) Put Contractor on notice that damage has occurred.
 - 4) Notify City officials and start documentation for their files.
 - 5) Notify all pertinent Contractor personnel.
 - 6) Get technology personnel on site to meet Contractor and investigate.
 - 7) Start documentation immediately.
 - 8) Pictures of damage
 - 9) Access how we can restore service temporarily to ensure minimal impact.
 - 10) Temporarily restore services.
 - 11) Start accessing what the complete picture of the damage is.
 - 12) Was the cable severed?
 - 13) Was the cable in adjacent holes kinked?
 - 14) How far back into the sheath of the cable was the glass shattered.
 - 15) How much cable will be required to replace?
 - 16) Can we repair the damage by setting a hand hole over the damage and adding splice point?
 - 17) If we add a splice point what impact will the additional dB loss have on the network? If there is an impact the entire section of cable may be required to replace, splice to splice.
 - 18) Network Engineers engaged at this point.
 - 19) After the contractor completes testing the entire cable with an OTDR, evaluate final solution.
 - 20) Develop plan to restore fiber optic cable facilities back to "as new".
 - 21) If excavation is required begin looking and preparing the required permits:
 - 22) After all permits have been secured begin work.
 - 23) Once excavation and the new cable have been put into place Contractor is scheduled to being splicing, testing, and documentation. This work will be performed normally at night after 6:00 pm and/or on weekends to keep from further disruption disrupting Coty services.
 - 24) Notify any users that will be affected by downtime so they can arrange their schedule.
 - 25) Take down the network to splice and test the repairs. Very strand is tested and documented.
 - 26) Inspect all work and OTDR test results.
 - i. Document changes such as added splices, cable size changes, etc. on permanent records.
 - j. Assemble all costs of repair both temporary and permanent. Contractor provides itemized bill to the City of Forney.
10. CHANGE ORDERS
- a. All changes for scheduled work must be approved before proceeding.
11. TESTING
- a. Verify through visual inspection using an optical fiber test scope all fiber optic cable terminations, splices and connecting cables for defects and cleanness.
 - b. Pre-installation testing: Test all optical fiber cable for all fibers prior to installation of cable.
 - c. Optical fiber cabling shall be tested and certified after installation as required for cable manufacturer's warranty.
 - d. Fiber testing shall be performed on all fibers in completed end to end system.
 - e. Testing shall consist of a bi-directional end to end test in accordance with applicable standards in 27 02 20.20, or a bi-directional end to end test performed by TIA-455-53A and all other applicable standards in 27 02 20.20.
 - f. The system loss measurements shall be provided at 1550 nanometers for single-mode type glass. These tests shall also include continuity checking of each fiber.
 - g. In addition to link-loss testing, OTDR testing shall be performed.

- h. Certification Test Reports shall be submitted in electronic format using the appropriate software supplied by the test equipment manufacturer. The data format should be that of the test report software (i.e. *.flw files for Fluke). The contractor shall provide any necessary software to view and evaluate the test data.
- i. The following list is provided as a reference:
 - 1) Fluke = Linkware
 - 2) LanTek = Reporter
- j. Provide test equipment by name, manufacturer, model number and last calibration date at the end of document. Unless manufacturer specifies more frequent calibration cycle, annual calibration cycle shall be required on all test equipment used for this installation.
- k. Test document shall detail test method used and specific settings of equipment during test. Scanner tests shall be printed on 8 1/2 by 11 inches. Hand-written test results (attenuation results and continuity results) shall be documented on a suitable test form.
- l. When repairs and re-tests are performed, note problem found and corrective action taken, and collocate in binder both failed and passed test data.

PART 9 - BID FORM

1. Project: City of Forney Fiber Optic OSP Backbone Infrastructure
2. Submitted To:
 - City of Forney
 - Neil Cardwell ncardwell@forneytx.gov
 - Directory of Information Technology
 - 101 E Main St
 - Forney, TX 75126
3. Schedule:
 - a. Pre-bid Meeting: Feb 27th 9AM
 - b. Questions Due: March 5th 5PM
 - c. Question Responses: March 10th 5pm
 - d. Bids Due: March 31st 5PM
 - e. Project Award: April 10th
 - f. Start Date: June 2020
 - g. Completion Date: Aug 2020
4. The undersigned Bidder, having examined and determined the scope of the contract documents, hereby proposes to provide all the required material, labor, tools, supplies, equipment, transportation, superintendence, and temporary construction of every nature to complete, in a professional like manner, all the work as described in the contract documents, including Addenda and do all work at the Unit pricing provided on the Pricing Worksheets and this Bid Form.
5. The Bidder must bid all sections and items of the work unless otherwise stipulated on the Specifications or Bid Pricing Worksheets. It is the sole responsibility of the contractor to "take all prudent and necessary precautions to protect all persons and the property of others from injury or damage.
6. The contractor is responsible for the safe conduct of the work required by the contract. The City of Forney does not accept the responsibility for safety - that responsibility is solely held by the contractor.
7. In the event of discrepancies between numerical prices and the written price extensions, written prices shall govern.
8. In the event of discrepancies between lump sum price and the total of associated line-item costs, lump sum price shall govern.
9. The undersigned Bidder certifies that this proposal is made in good faith, without collusion or connection with any other persons, firms, or corporations bidding on the work except if shown by contract that another contractor is jointly serving with (me/us) in the same capacity.
10. The undersigned Bidder certifies that this proposal is made in conformance with the Contract Documents and agrees that, in the event of any discrepancies or differences between conditions of his/her proposal and the Contract Documents the provision of the latter shall prevail.
11. The Bidder shall not make any revisions to the Bid Form or Bid Pricing Worksheets and shall not devise any alternates. Any such notes, revisions, or comments may be grounds for rejection of the bid.
12. The Bidder agrees that this bid shall be good and may not be withdrawn for a period of 30 calendar days after the opening of the bids.
13. The Bidder shall complete the applicable item(s) listed below:
14. If bid is submitted by an agent of Bidder, please attach a current Power of Attorney certifying the agent's authority to bind the Bidder.
15. The payments terms for this project will be Net 30 calendar days from the day the City of Forney receives the invoice, which may not match the date the shown on the invoice.
16. Invoices may be submitted on or after the first day of each month, and cover labor and materials performed or installed during the previous month.
17. The project work shall include:
 - a. Provision and delivery of required materials: fiber cable, handholes, vaults, connectors, splicing hardware, fiber patch panels, cabinets, hardware, software (if any), miscellaneous materials/accessories (including freight/handling) and Inside plant.
 - b. System design
 - c. Installation
 - d. Labeling
 - e. Testing
 - f. Permitting/ License agreements/ Surveying
 - g. As-Built Documentation
 - h. Cable maintenance and emergency restoration
18. Subcontractors/Partners

Identify all subcontractors of partners used for any purposes. Failure to disclose subcontractors/partners may lead to disqualification. Include separate sheet(s) labeled "Subcontractors/Partners" if necessary. Every subcontractor shall be bound by the applicable terms and provisions of the contract documents. Further information about subcontractors may be requested prior to award.

Business Name	Years Exp.	Function
_____	_____	_____
_____	_____	_____

Item	Qty	Unit	Description	Manufacturer/Part #	Unit Labor	Total Labor	Unit Materials	Total Materials
1		Lump	Mobilization					
Comments:								
2		Lump	Traffic Control					
Comments:								
3		LF	1.5" Directional Boring & Innerduct Installation					
Comments:								
4		LF	96-strand Singlemode fiber cable in underground innerduct	Corning/096EU4-T4701D20				
Comments:								
5		LF	12-strand Singlemode fiber cable in underground innerduct	Corning/012EU4-T4701D20				
Comments:								
6		LF	12-strand Singlemode Aerial cable	Corning/012P3T4100920				
Comments:								
7		Each	Installation of 4U Rack-mount Fiber Enclosure	Corning/CCH0-4U				
Comments:								
8		Each	Installation of 1U Rack-mount Fiber Enclosure	Corning/CCH0-1U				
Comments:								
9		Each	Fiber Panel Cassette, 12-Fiber	Corning/ CCH-CS12-A9-P00RE				
Comments:								
10		Each	Fiber Panel Cassette, 24-Fiber	Corning/ CCH-CS24-A9-P00RE				
Comments:								

11		Each	Vault (Monolithic fiberglass-reinforced polymer enclosure)					
Comments:								
12		Each	Handhole					
Comments:								
13		Each	Splice Closure					
Comments:								
13		Lump	Fiber Optic Fusion Splicing					
Comments:								
15		Each	2" GRC Conduit for vertical protection at polls					
Comments:								
16		Each	Installation of 1" Core and Sleeve at Exterior Building Wall					
Comments:								
17		Each	4'x4' Fire Rated Plywood Backboard					
Comments:								
18		Each	Wall-mount Network Cabinet	CPI/11900-X24				
Comments:								
19		Each	Grounding for Wall-mount Cabinet					
Comments:								
20	264	Each	Fiber Optic Patch Cords	Corning/787802GD120003 M				
Comments:								
21		LF	1" PVC Plenum-rated Innerduct for routing cables from building entry point to rack-mount fiber enclosures					

Comments:								
22		Lump	Fiber Optic Cable Acceptance Testing					
Comments:								
23		Lump	Misc. Materials, and Consumables. Provide description in Comments below.					
Comments:								
24		Lump	Misc. Labor. Provide description in Comments below.					
Comments:								
25		Lump	Restoration (Grass/Landscape) Provide description in Comments below.					
Comments:								
Total								\$

I HEREBY CERTIFY THAT THIS PROPOSAL MEETS OR EXCEEDS THE MINIMUM REQUIREMENT INCLUDING SPECIFICATIONS AND ADDENDUMS.

Signature: _____

Date: _____

