Description	Quantity	UM	Unit Price	Total Price	
TOTAL ESTIMATED NETWORK COST				incl. est. adders=>	$ 35,000,000
TOTAL NETWORK DESIGN					$ 1,086,809
TOTAL NETWORK CONSTRUCTION (UG, AER, SPLICING, ADDERS, MATL'S)					$ 26,239,422
UNDERGROUND CONSTRUCTION					$ 14,035,352
AERIAL CONSTRUCTION					$ 1,187,525
SPLICING					$ 2,346,363
MISCELLANEOUS / ADDERS					$ 5,018,655
MATERIAL (UG, AER, FBR, MST, FDH, STT, OLT ELECTRONICS)					$ 3,651,528
Network Drops at 60% of all passings					$ 6,326,311
Contingency					$ 1,347,457

December 12, 2025

Jerry Smith
Broadband Manager
Los Alamos County
Attn: Information Management
1000 Central Avenue
Los Alamos, NM 87544

Subject: Los Alamos Community Broadband Network
Reference: Material Submittal Package No. 1: OLT electronics and Outside Plant Material

Dear Jerry:

Pursuant to Attachment 1 Construction Contract Book, Section 5.2.4 Shop Drawings, of the Services Agreement by and between Bonfire Engineering & Construction LLC and the County of Los Alamos, dated November 24, 2024, this material submittal package contains manufacturer's product information and/or cutsheets for most of the material Bonfire intends to furnish and install for the subject project. Cut sheets for all aerial hardware is excluded due to its common nature.

Additional material submittal packages will follow for remaining materials.

Bonfire has reviewed the materials requirements contained in the Agreement and hereby determines that the material contained within this submittal meets the project specifications.

Contained within this material submittal package are the following:

1. Nokia MF-8 Kit (2 Management Cards, 1 XGS 10G line card)
2. Nokia 25G PON Cards (LWLT-C)
3. Nokia Uplink Optics 100G SFP
4. Nokia PON Optics XGS SFP
5. Nokia 25G PON Optics SFP
6. Juniper ACX7100-32C router
7. Juniper 100G Optics SFP
8. Vertiv NetSure 5100 DC power system
9. OLT cabinet
10. CommScope Fiber Optic Cable – Standard, single jacket, single armor, loose tube, single mode, for use in aerial applications, in the following fiber counts:
    a. 432 fiber
    b. 288 fiber
    c. 144 fiber
    d. 72 fiber
    e. 48 fiber

Attachment B

private and confidential

f. 24 fiber

11. CommScope fiber optic cable, microcable, single jacket, all dielectric, loose tube, single mode, for use in within microduct, in the following fiber counts:
    a. 288 fiber
    b. 144 fiber
    c. 72 fiber
    d. 48 fiber
    e. 24 fiber

12. CommScope Fiber Distribution Hubs (FDH) to serve as the interconnection point between feeder and distribution, will house splitters, provide cable management, and testing & maintenance access
    a. CommScope 288 Fiber Distribution Hub (FDH) 3000 Small Fiber Distribution Cabinet, 288F, SC/APC, no splitters, dielectric loose tube, 100 ft, 2x144FD & 1x48FF cables.
    b. CommScope 6" ground spacer/riser for FDH cabinet to raise cabinet an additional 6"
    c. CommScope FDH Pad Mount Frame. FDH cabinet will be installed on this frame, which will be set on top of the cast-in-place concrete pad for each FDH cabinet.

13. CommScope FDH 3000 Plug-and-Play Splitter Modules, to be installed within the FDH cabinets
    a. 1 x 2, SC/APC
    b. 1 x 32, SC/APC

14. CommScope HST, NOVUX™ 8-port, Hardened Standard Terminal, Flat toneable loose tube cable. These are Multiport Service Terminals (MST) that act as a weather-proof, centralized distribution point that splits a single feeder fiber into multiple drop fibers for individual homes. To be installed in the following lengths and with the following accessory for aerial mounting:
    a. 750 ft.
    b. 500 ft.
    c. 250 ft.
    d. 50 ft.
    e. Aerial mounting bracket

15. CommScope FOSC 450 D6 Fiber Optic Splice Closure, no pre-installed trays
    a. CommScope splice tray, D6/SM12, to be used within the FOSC 450 D6 closure.
    b. CommScope fiber storage basket, standard for use within the 450 D series closures

16. CommScope FOSC 450 BS Fiber Optic Splice Closure, no pre-installed trays
    a. CommScope splice tray, BS/SM12, to be used within the 450 BS series closure
    b. CommScope fiber storage basket, standard for use within the 450 BS series closures

17. CommScope splice accessories
    a. Splice Protection Sleeves
    b. Aerial mounting bracket for 450 series closures

18. Dura-Line Locatable MicroDuct, Orange HDPE outer sheath with 1-way x 18 mm OD / 14 mm Ribbed ID Microduct, with a #20 copper locate wire. For use in areas requiring larger duct diameter for larger FOC sizes. Supplied in the following colors:

Attachment B

private and confidential

      a. Blue

      b. orange

19. Dura-Line Blue MicroDuct, single, 18 mm OD/14 mm ID, for use within microtrenched areas where 432 fiber microcable is required, supplied in the following colors and with the following accessories for coupling the duct, sealing ends, and sealing cable around the duct:

      a. Blue

      b. Orange

      c. Green

      d. Brown

      e. 18/14mm Straight Coupler

      f. 18/14mm End Caps

      g. 18/14mm Divisible Seals

20. Dura-Line Blue MicroDuct, single, 16 mm OD/12 mm ID, for use within microtrenched areas where smaller count microcable is required, supplied in the following colors and with the following accessories for coupling the duct, sealing ends, and sealing cable around the duct:

      a. Blue

      b. Orange

      c. Green

      d. Brown

      e. 16/12mm Straight Coupler

      f. 16/12mm End Caps

      g. 16/12mm Divisible Seals

21. Dura-Line FuturePath, orange outer sheath, 4way x 16/12 mm microducts, and a #20 copper locate wire, Microducts within the outer sheath are blue, brown, green and orange, for use in directional bore areas

22. Dura-Line 1.25" SDR-11 Smooth Wall Orange HDPE for use in aerial to underground transitions, and other various areas. Will be coupled with the following:

      a. 1.25" clear-lock coupler

23. Brand TBD, Tracer Wire, 12AWG, 30mil for use within microtrench areas for cable locatability.

24. Brand TBD HAND HOLE, 48x30x36 P&T priced Hubbell/Quazite

25. Brand TBD HAND HOLE, 36x24x24 P&T priced Hubbell/Quazite

26. Brand TBD HAND HOLE, 30x17x24 P&T priced Hubbell/Quazite

27. Pencell/Hubbell 9" round flowerpot enclosure assembly to provide access to the fiber optic cables for the drop connection

28. MacLean copper clad ground rod, 5/8" X 8' for grounding the tracer wire and armored fiber optic cable within handholes, with the following accessory:

      a. Ground rod clamp, 5/8" hex head

29. 3M™ Extended Range Ball Marker, 6 ft Depth Reading, 4" Overall Width, Orange, for installation within the handholes for handhole locatability

30. Brand fiberglass flat inline fiber marker

31. Brand Fiber marker, test station, orange, for placing tone on tracer wire to locate the network.

4500 Cherry Creek Drive South
Suite 1200
Denver, CO 80246

3

contact@bonfireig.com | bonfireig.com

Attachment B

private and confidential

bonfire

32. <mark>Channel 8" fiber pedestal / splice tray (144) / 8 SC/APC bulkhead to act as a</mark> neighborhood access point and distribution hub, housing and protecting optical components, allowing for connection of distribution cables to multiple customer drop cables in a secure, weather-resistant enclosure, with the following accessory:
    a. Mounting stakes
    b. Fiber pedestal splice tray, 24 position
33. Aerial hardware consisting of, but not limited to:
    a. Bolt, thimble eye, 5/8" x 12", 14", 16", and 18" lengths (straight)
    b. Bolt, machine, 5/8" x 12", 14", 16", and 18" lengths
    c. Screw, lag ½" x 4"
    d. Washer, 2¼" x 2¼" x 5/8" hole
    e. Washer, spring 5/8"
    f. Thimble eye nut, standard, 5/8"
    g. Regular square nut for 5/8" thread bolts
    h. 5/8" galvanized round washer
    i. Plate pole eye guy attachment
    j. Dead end, 1/4" guy preformed
    k. Strand vise 1/4" all grade
    l. Ground wire #6 Solid copper bare
    m. Anchor rod, 5/8" x 6' anchor twin eye
    n. Lashing wire .038" diameter, 302 stainless steel
    o. Lashing wire clamp D cable
    p. Messenger/guy wire/strand, 1/4" EHS - 6.6M galvanized
    q. Messenger suspension clamp, 3 bolt,1/2" x 5-3/4" L straight
    r. Messenger suspension clamp, 3 bolt, 1/2" x 6"L curved
    s. Strand splice ¼" preformed
    t. Pipe pole plate 2" x 2½"
    u. Fitting sidewalk guy clamp end 2"
    v. 2" galvanized sidewalk guy pipe 10'
    w. Guy marker, round, yellow, polyethylene
    x. Anchor, expanding, 8" fits 5/8" and 3/4" rod
    y. U-guard riser
    z. Deltec cable tie, 27" length, ½" width
    aa. Sno-Shoe aerial cable slack storage, with mounting hardware, length 26"
    bb. 12" medium duty 1½" diameter rod standoff bracket
    cc. 15" medium duty 1½" diameter rod standoff bracket
    dd. 18" medium duty 1½" diameter rod standoff bracket
34.
35.

Kindly review and approve this submittal package so that Bonfire can be ready to place purchase orders as soon as authorization is given by County Council, which is currently expected on January 6, 2026. The County and Bonfire will jointly determine the quantities of all listed materials to be ordered.

Attachment B

private and confidential

Should you have any questions or need any clarifications on this material submittal package please let me know.

Sincerely,

Kenneth J. DeRose
Senior Project Manager
Ken.derose@bonfireig.com
413.265.0983 (cell)