



Dave Cummings
Chief Information Officer

Technology Services

121 Library Court Oregon City, OR 97045

June 07, 2018

Board of County Commissioners
Clackamas County

Members of the Board:

Approval for a Service Level Agreement between
Clackamas Broadband eXchange and Sunbreak Electronics LLC

Purpose/Outcomes	Clackamas Broadband eXchange (CBX) is looking for approval for a Service Level Agreement (SLA) with Sunbreak Electronics LLC for a connection to the Pittock.
Dollar Amount and Fiscal Impact	Sunbreak Electronics LLC will pay a non-recurring fee of \$6,000.00 for new construction and a recurring annual fee of \$13,128.00.
Funding Source	The funding source for the expansion of the CBX fiber network will be contributed from the CBX budget and then reimbursed by Sunbreak Electronics LLC.
Duration	Effective upon signature by the board the SLA is effective for one year
Previous Board Action	Board previously approved CBX to build and maintain a dark fiber network for the City of Oregon City.
Strategic Plan Alignment	1. Build a strong infrastructure. 2. Build public trust through good government.
Contact Person	Dave Devore (503)723-4996

BACKGROUND:

CBX is proposing to complete a new fiber connection for Sunbreak Electronics LLC. Sunbreak Electronics LLC requested a link to provide connectivity to their data center in Canby Oregon.

RECOMMENDATION:

Staff respectfully recommends approval to enter into this new connection with Sunbreak Electronics LLC. Staff further recommends the Board delegate authority to the Technology Services Director to sign agreements necessary in the performance of this agreement.

This Service Level Agreement has been reviewed and approved by County Counsel.

Sincerely,

Dave Cummings
CIO Technology Services

Clackamas County

FIBER OPTIC SERVICE LEVEL AGREEMENT

Sunbreak Electronics LLC

(Customer Name)

1. Recitals

WHEREAS, Clackamas County (County) desires to provide to Sunbreak Electronics LLC (Customer) the Services set forth in this Agreement, between the specified Customer sites listed in Appendix A, and at the price contained in Appendix A; and

WHEREAS, Customer desires to use the Services; and

WHEREAS, the Parties desire to set forth herein their respective rights and obligations with respect to the provision of Services;

NOW, THEREFORE, in consideration of the foregoing, and the mutual covenants and promises set forth herein, intending to be legally bound, the Parties agree as follows.

2. Fiber Optic Network Description

County will provide Customer with point-to-point single mode fiber optic network connectivity, including a termination panel for the fiber optic cables at each Customer premises at the Connecting Points specified in Appendix A. At Customer's option, County will provide Customer with access at a Connecting Point (either an aerial or underground splice enclosure or slack location) in the County's network.

3. Service Description

Service provided to Customer by County is physical connectivity of one (or more) strands of optical fiber ("Fiber"), between sites specifically identified in Appendix A on a path designated by the County.

4. Construction and Installation Requirements

- a. County will make existing cable slack locations and splice locations (Connecting Points) available for Customer access. If Customer chooses to access the County network at such locations, the Customer will be responsible for all construction up to such Connecting Points, and will hand-off to County a fiber optic cable for splicing into the County network. County will have responsibility to splice the Customer cable into the County network, and cost recovery for such activity by the County will be handled via the appropriate Appendix A.

- b. County, when installing fiber optic cables on the property of Customer, shall do so in a neat and professional manner. Routing and location of these cables shall be mutually agreed upon between the parties.
- c. Customer shall secure any easements, leases, permits or other agreements necessary to allow County to use existing pathways to, into and within each site to the demarcation point for service. Customer shall provide a path for the fiber optic cable from the point of entry into the site to the termination panel that complies with all applicable building, electrical, fire and related codes.
- d. Subject to the terms of this Agreement, and at no cost to County, Customer shall provide adequate environmentally controlled space and electricity required for installation, operation, and maintenance of the County's fiber optic cables used to provision the service within Connecting Point.
- e. Customer shall provide a clean, secure, relatively dry and cool location (consistent with environmental requirements for fiber optic network connectivity equipment) at each of its premises for necessary equipment.
- f. Customer will provide or arrange for County and its employees, agents, lessees, officers and its authorized vendors, upon reasonable notice, to have reasonable ingress and egress into and out of the Connecting Points in connection with the provision of service.
- g. If the presence of asbestos or other hazardous materials exists or is detected at the Connecting Points, Customer must have such hazardous materials removed immediately at Customer's expense or notify County to install the applicable portion of the fiber optic network in areas of any such site not containing such hazardous material. Any additional expense incurred as a result of encountering hazardous materials, including but not limited to, any additional equipment shall be borne by Customer.
- h. County shall have no obligation to install, operate, or maintain Customer-provided demarc facilities or equipment.
- i. At Customer's expense, County shall construct Fiber into each Connecting Point specified in Appendix A; splice fiber into existing County fiber optic resources; terminate County's optical fiber in each Connecting Point; and provide the appropriate "hand-offs" at each location for Customer utilization. County shall test all Fiber to verify that the Fiber has been installed and operates in accordance with the applicable specifications in Appendix C. County shall provide a copy of the test results to Customer verifying compliance with the applicable specifications. If Customer does not dispute such verification of compliance within five (5) days after receiving the verification, Customer will be deemed to have accepted the Fiber. This date of acceptance of the Fiber will be the "Service Start Date." If Customer does not accept the Fiber, County shall repair or replace any portion of the Fiber found to be defective and retest the Fiber in accordance with the specifications in Appendix C, and again provide

Customer with a copy of the test results verifying compliance. Customer may again choose to accept or reject the Fiber. This cycle of testing, accepting or rejecting the Fiber, taking corrective action, and retesting may occur as many times as necessary to ensure the Fiber is operating in compliance with the applicable specifications.

- j. County warrants that, except with respect to those items supplied or specified by Customer or interruptions due to intervening causes including, but not limited to, fiber cuts, unscheduled maintenance events and force majeure events, the Fiber will comply with the specifications set forth in Appendix C.
- k. Subject to the limitations in section 12, if at any time during the term of this Agreement the Fiber does not meet the warranty under this section, Customer may provide County with written notice of its determination in accordance with the procedures in Appendix B ("Warranty Notice"). After receiving a Warranty Notice from Customer, County shall respond in accordance with the maintenance and repair procedures set forth in Appendix B. In addressing a defect, County, at its expense and in its sole discretion, shall repair or replace any portion of the Fiber found to be defective. When a defect is found and the Fiber is repaired or replaced, County shall retest the Fibers in accordance with the specifications in Appendix C, and provide Customer with a copy of the test results verifying compliance. Customer may again give Warranty Notice of any defect in such Fiber. This cycle of testing, providing Warranty Notice, taking corrective action, and retesting may occur as many times as necessary to ensure the Fiber is operating in compliance with the applicable specifications.
- l. Customer may provide one (1) DWDM lasers for the CBX WES Hub to Pittcock Building connection as defined in Appendix A.
- m. As shown in Appendix D, Customer shall place new 2" conduit and (3) vaults along the North side of S Township Rd in Canby from S Redwood St to the underground CBX fiber West of the rail road tracks. Once complete, the County will then assume ownership of this underground conduit system.

5. Term of Agreement

At such time as County completes installation and connection of the necessary facilities and equipment to provide service herein, County shall then certify and notify Customer in writing that the service is available for use and Customer shall accept or reject the Fiber in accordance with the procedures in subsection 4(i) above. The date of Customer's acceptance of the Fiber under subsection 4(i) shall be called the "Service Start Date." Unless terminated with 90 days' notice for an event of default as herein provided, this agreement shall continue for a period of one year following the Service Start Date, and shall be automatically renewed for successive one-year renewal terms, at the County's then-current rate schedule, unless either party terminates the Agreement by giving written notice to the other party not less than 90 days prior to the end of the initial term or then current renewal term.

6. Rates

In return for County providing the services described in Appendix A for the term indicated herein, Customer shall pay County both nonrecurring construction/installation charges and recurring charges for services as specified in Appendix A.

7. Payment Options

a. Semi-Annual Payments

County shall provide an invoice for six months of service (July 1 through December 31 and January 1 through June 30), or prorated weekly for any portion thereof, to Customer at the beginning of the service period. The semi-annual charge shall be payable within thirty (30) days of receipt of invoice. Interest charges shall be assessed for late payments in accordance with Appendix A. If the Customer fails to pay within sixty (60) days of receipt of an invoice it shall constitute grounds for County to disconnect fiber service.

b. Alternative Payment Frequency

If Customer demonstrates that prepaid billings present a hardship, Customer may prepay quarterly, and in extreme circumstances may pay monthly. County shall provide an invoice for one quarter or month of service, or prorated weekly for any portion thereof, to Customer at the beginning of the service period. The quarterly or monthly charge shall be payable within thirty (30) days of receipt of invoice. Interest charges shall be assessed for late payments in accordance with Appendix A. If the Customer fails to pay within sixty (60) days of receipt of an invoice it shall constitute grounds for County to disconnect fiber service.

8. Fiber Maintenance

County shall maintain the structural aspects of the Fiber in good operating condition, utilizing sound engineering practices and in accordance with Appendix B, throughout the Agreement Term. In the event the Fiber fails at any time to meet the specifications outlined in Appendix C, County shall restore the Fiber to meet the specification standards in as timely and expedited a manner as reasonably possible.

County may subcontract for testing, maintenance, repair, restoration, relocation, or other operational and technical services it is obligated to provide hereunder.

Customer shall promptly notify County of any matters pertaining to any damage or impending damage to or loss of the use of the Fiber that are known to it and that could reasonably be expected to adversely affect the Fiber. County shall promptly notify Customer of any matters pertaining to any damage or impending damage to or loss of the Fiber that are known to it and that could reasonably be expected to adversely affect the Fiber and/or Customer's use thereof.

9. Confidentiality

All Customer data, voice, or video transmission using County fiber optic facilities shall be treated by County as confidential information, to the extent allowable by law. County agrees that this information shall not be made available, in any form, to any party other than County or its agents or contractors as may be necessary to conduct maintenance or repair activity, without written permission of Customer, except as required by law.

10. Content Control and Privacy

Customer shall have full and complete control of, and responsibility and liability for, the content of any and all communications transmissions sent or received using the Fiber.

11. Assignment and Successors

Either party may assign this Agreement upon prior written consent of the other party. Such consent shall not be unreasonably withheld. Upon such assignment, all rights and obligations of County and Customer under this Agreement shall pass in total without modification to any successor(s) regardless of the manner in which the succession may occur. Notwithstanding the foregoing, Customer may assign this Agreement, without County's consent, to any parent, affiliate (an entity in which Customer's parent entity has a direct or indirect ownership interest of 25% or more) or party acquiring all or substantially all of Customer's assets in the communities in which the Fiber is located, provided that in such event Customer shall notify County of the assignment at least 90 days in advance of such assignment.

12. Damage

County shall be responsible for restoring, or otherwise repairing to its prior condition, any portion of the Customer's premises or facilities, which are damaged by County or its agents. Customer shall be responsible for restoring, or otherwise repairing to its prior condition, any portion of County's connectivity equipment or other facilities, located at Customer premises, which are damaged by Customer or its agents.

Customer will reimburse all related Costs associated with damage to the Fiber caused by the negligence or willful misconduct of Customer, its affiliates, employees, agents, contractors or customers, except to the extent caused by the gross negligence or willful misconduct of County, its affiliates, employees, contractors or agents. "Cost(s)", as used herein include the following: (a) labor costs, including wages, salaries, and benefits together with County's reasonable standard percentage allocation of overhead allocable to such labor costs; and (b) other direct costs and out-of-pocket expenses on a pass-through basis (such as equipment, materials, supplies, contract services, sales, use or similar taxes, etc.). The invoices for such costs shall contain a detailed cost breakdown by cost category. In the event of the disagreement regarding the cost reimbursement, the parties shall use good faith efforts to resolve such matter, and if the parties cannot resolve such dispute, they may pursue their legal remedies other than termination of this Agreement for

the services provided hereunder.

13. Force Majeure

Neither party hereto shall be deemed to be in default of any provision of this Agreement, for any failure in performance resulting from acts or events beyond the reasonable control of such party. For purposes of this Agreement, such acts shall include, but shall not be limited to, acts of nature, civil or military authority, civil disturbance, war, strikes, fires, power failure, other catastrophes or other force majeure events beyond the parties' reasonable control, provided however that the provisions of this paragraph and article shall not preclude Customer from cancelling or terminating this Agreement as otherwise permitted hereunder, regardless of any force majeure event occurring to County.

14. Consequential Damages

NOTWITHSTANDING ANY PROVISION OF THIS AGREEMENT TO THE CONTRARY, IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER PARTY FOR ANY SPECIAL, INCIDENTAL, INDIRECT, CONSEQUENTIAL, OR PUNITIVE DAMAGES, WHETHER FORSEEABLE OR NOT, ARISING OUT OF, OR IN CONNECTION WITH, TRANSMISSION INTERRUPTIONS OR DEGRADATION, INCLUDING BUT NOT LIMITED TO DAMAGE OR LOSS OF PROFITS OR EQUIPMENT, LOSS OF PROFITS OR REVENUE, COST OF CAPITAL, COST OF REPLACEMENT SERVICES OR CLAIMS OF CUSTOMERS, WHETHER OCCASIONED BY ANY REPAIR OR MAINTENANCE PERFORMED BY OR FAILED TO BE PERFORMED BY A PARTY, OR ANY OTHER CAUSE WHATSOEVER, INCLUDING WITHOUT LIMITATION BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE OR STRICT LIABILITY.

15. Public Contracting Provisions

The provisions of Oregon public contracting law, ORS 279B.020 through 279B.235, to the extent applicable, are incorporated herein by this reference.

16. Non-Appropriation

Notwithstanding any other provisions of this Agreement, the parties hereby agree and understand that any obligation of Customer to obtain services as provided herein is subject to fund availability and appropriation by Customer for such services through its adoption of an annual budget. Should funds not be appropriated or be available from Customer during the term of this Agreement, the Agreement shall terminate and Customer shall pay County any remaining pro rata rates for services due to the date of such termination payable pursuant to Section 7 of this Agreement.

17. Compliance with Laws

Customer shall comply with all applicable federal, state, county and city laws, ordinances and regulations, including regulations of any administrative agency thereof, heretofore or hereafter adopted or established, during the entire term of this

Agreement.

18. Taxes and Assessments

- a. Customer agrees to pay any and all applicable national, federal, state, county and local taxes, fees, assessments or surcharges, and all other similar or related charges, which are imposed or levied on the Fiber, or because of Customers use of the Services under this Agreement (collectively, "Taxes), whether or not the Taxes are imposed or levied directly on the Customer, or imposed or levied on the County because of or arising out of the use of the Services either by the Customer, or its affiliates, or anyone to whom Customer has sold or otherwise granted access to the Services. Customer agrees to pay these Taxes in addition to all other fees and charges as set forth elsewhere in this Agreement.
- b. "Taxes" include, but are not limited to, business and occupation, commercial, district, excise, franchise fee, gross receipts, license, occupational, privilege, Public Utility Commission, right-of-ways, utility user, or other similar taxes, fees surcharges and assessments as may be levied against Customer, or against County and passed through to Customer; but shall not include income or property taxes.

19. Termination

- a. Either party may terminate this Agreement ninety (90) days following written notice to the other party of the other party's uncured default, as set forth in section 20 below. In addition, this Agreement shall terminate ninety (90) days following written notice by either party.
- b. In the event Customer terminates this Agreement based upon County 's default or failure to perform as described in this Agreement, County shall reimburse to Customer the pro rata amounts paid on the unexpired term of this Agreement.
- c. If Customer terminates this Agreement for any reason other than that based on non-appropriation or on County's default or failure to perform, County shall be entitled to 5% of the remaining contract amount for the unexpired term of this Agreement.

20. Default

- 1. Either of the following events shall constitute a default:
 - a. Failure to perform or comply with any material obligation or condition of this Agreement by any party which is not cured within thirty (30) days after notice by the non-defaulting party; or
 - b. Failure to pay any undisputed sums due under this Agreement.
- 2. Any defaulting party shall have thirty (30) days in which to cure following receipt of written notice of default by the non-defaulting party identifying with reasonable

particularity the nature of the default or, if such default cannot reasonably be cured within such 30 day period, the defaulting party shall proceed promptly to diligently and continuously prosecute such cure within thirty (30) days following receipt of written notice of default by the non-defaulting party identifying with reasonable particularity the nature of the default. If the defaulting party fails to cure the default or prosecute such cure in accordance with this subsection 20(2), then the non-defaulting party may terminate this Agreement in accordance with subsection 19(a) above.

21. Amendment

Any amendments to this Agreement shall be in writing and shall be signed by all parties.

22. No recourse Against the Grantor

Other than as provided in this Agreement, Customer shall have no recourse whatsoever against County or its officials, boards, commissions, or employees for any loss, costs, expense, or damage arising out of any provision or requirement contained herein, or in the event this Agreement or any part thereof is determined to be invalid.

23. Notice

Any notice hereunder shall be in writing and shall be delivered by personal service or by United States certified or registered mail, with postage prepaid, or by facsimile addressed as follows:

Notice to the County

Manager, Clackamas Broadband eXchange
Clackamas County Technology Services
121 Library Court
Oregon City, Oregon 97045
Fax Number (503) 655-8255

with a copy to

Chief Information Officer
Clackamas County Technology Services
121 Library Court
Oregon City, Oregon 97045
Fax Number: (503) 655-8255

Notice to the Customer

Sunbreaks Electronics LLC
421 S. Redwood Street
Canby, OR 97013

Phone Number: (971) 386-4307

Either Party, by similar written notice, may change the address to which notices shall be sent.

24. Whole Contract

THIS CONTRACT CONSTITUTES THE COMPLETE AND EXCLUSIVE STATEMENT OF THE CONTRACT BETWEEN THE PARTIES RELEVANT TO THE PURPOSE DESCRIBED HEREIN AND SUPERSEDES ALL PRIOR AGREEMENTS OF PROPOSALS, ORAL OR WRITTEN, AND ALL OTHER COMMUNICATION BETWEEN THE PARTIES RELATING TO THE SUBJECT MATTER OF THIS CONTRACT. NO WAIVER, CONSENT, MODIFICATION, OR CHANGE OF TERMS OF THIS CONTRACT WILL BE BINDING ON EITHER PARTY EXCEPT AS A WRITTEN ADDENDUM SIGNED BY AUTHORIZED AGENTS OF BOTH PARTIES.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the date and year first above written.

Clackamas County

By (signature): _____

Name: _____

Title: _____

Date: _____

Customer

Sunbreak Electronics LLC
(Customer Name)

By (signature):  _____

Name (print): JEFF BRANDT

Title: MANAGING MEMBER

Date: 5-02-2018

APPENDIX A

SERVICE AND RATE SCHEDULE

1. Specified Services and Rates

The following are the sites, services, and rates agreed to by County and Customer at which Customer shall be provided services on the fiber optic network during the term of the Agreement. It is understood by both parties that service to these sites shall be provided for the rates below, subject to any rate increases otherwise applicable in accordance with terms herein. It is further understood that, during the term of the Agreement, Customer may add services to existing or new locations, or change services and/or locations, but that such changes are subject to the rates for such additional services.

2. Construction, Installation and Activation

For construction, installation and activation work and provision of fiber optic network components, the County shall charge Customer nonrecurring charge(s) as specified in Section 5 of Appendix A. All facilities constructed under this Agreement and Appendix A shall be owned, operated, and maintained by the County.

3. Service Changes and Conversions

Both parties agree that Customer may add or change services during the term of the Agreement, but that such changes are subject to applicable rates, and upgrade and downgrade charges.

4. Semi-Annual Recurring Charges

	From (Connecting Point A:Site Name & Address)	To (Connecting Point B:Site Name & Address)	Service	Monthly Rate (\$)
1	JeffColo.Net Datacenter 421 S. Redwood Street Canby, OR 97013	CBX WES Hub 15941 S Agnes Rd Oregon City, OR 97045	One Pair (two) dark fibers	\$594.00
2	CBX WES Hub 15941 S Agnes Rd Oregon City, OR 97045	Pittock Building 921 Washington Street Portland, OR	One DWDM Wavelength	\$400.00
3	Pittock Building CBX Rack 921 Washington Street Portland, OR	Pittock Building Customer Rack 921 Washington Street Portland, OR	One Optical Cross Connect	\$100.00

5. Nonrecurring Charges

From	(Connecting Point A:Site Name & Address)	To	(Connecting Point B:Site Name & Address)	Service	Amount (\$)
1	JeffColo.Net Datacenter 421 S. Redwood Street Canby, OR 97013		CBX WES Hub 15941 S Agnes Rd Oregon City, OR 97045	Construction	\$6,000.00

6. Late Payment Interest

Customer will be charged interest for any payment made after its due date (thirty (30) days after receipt of invoice). Interest is charged at a rate of one and a half percent (1.5%) per month, or eighteen percent (18%) annually, or the highest rate allowable in accordance with applicable law, whichever is less, on any installment not paid when due.

7. Annual Consumer Price Index (CPI) Adjustments

All fees and minimum charges are subject to Consumer Price Index (CPI) adjustments, to be applied annually. The amount of the fees and charges specified herein may increase annually by a percentage up to the change in the West Region (West City Size B/C 2.5 Million or less) Consumer Price Index of the US Dept. of Labor, Bureau of Labor Statistics (<https://www.bls.gov/regions/west/data/xg-tables/ro9xg01.htm>), based upon the rate of change as stated from the last month reported to the same month of the preceding year. In the event such Consumer Price Index (or a successor or substitute index) is not available, a reliable governmental or other nonpartisan publication evaluating the information theretofore used in determining the Consumer Price Index shall be used in lieu of such Consumer Price Index.

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APPENDIX B

MAINTENANCE AND OPERATIONS SPECIFICATIONS AND PROCEDURES

1. Defined Terms

- a. "Routine Maintenance" is all preventive maintenance activities and repairs.
- b. "Non-Routine Maintenance" is all efforts and activities in response to an emergency circumstance which requires restoration of service.

2. General

- a. County shall operate and maintain a Network Control and Management Center (NCAM) staffed twenty-four (24) hours a day, seven (7) days a week, by trained and qualified personnel. County shall maintain telephone number (503) 742-4219 to contact personnel and NCAM. County's NCAM personnel shall dispatch maintenance and repair personnel along the fiber optic network to repair problems detected through the NCAM's remote surveillance equipment, by the Customer, or otherwise.
- b. In the event Customer identifies a circumstance which requires restoration of service, Customer shall provide NCAM personnel the name and address of the facility with the problem, the identification number of the Fiber circuits in question, and the name and telephone numbers of Customer's personnel to contact for site access and status updates. NCAM personnel shall immediately contact a County technician and provide the Customer contact information. County technician shall contact Customer within one (1) hour of initial call.
- c. If the County's technician cannot repair the service interruption by telephone, County shall use commercially reasonable efforts to have its first maintenance employee or contractor at the site requiring repair within four (4) hours of the initial call to the NCAM. County will then work continuously until service has been restored.
- d. County shall use commercially reasonable efforts to notify Customer twenty one (21) days prior to the date of any planned non-emergency maintenance activity. In the event that a County planned activity is canceled or delayed for any reason as previously notified, County shall notify Customer as soon as reasonably possible and will comply with the provisions of the previous sentence to reschedule any delayed activity.

3. Fiber Optic Network

- a. County shall maintain the fiber optic network in good and operable condition and shall repair the fiber in a manner consistent with industry standards and using commercially reasonable efforts.
- b. County shall perform appropriate routine maintenance on the fiber optic network in accordance with County's then current preventive maintenance procedures. County's maintenance procedures shall not substantially deviate from industry practice.

4. Restoration

- a. When restoring damaged fiber, the Parties agree to work together to restore all traffic as quickly as possible. County, immediately upon arriving on the site of the damage, shall determine the best course of action to be taken to restore the fiber and shall begin restoration efforts.
- b. It will be the responsibility of County and Customer to report to one another respectively any known environmental or safety hazards which would restrict or jeopardize any maintenance work.
- c. Upon notification of interruption of fiber optic network service, disrepair, impairment or other need for repair or restoration of the fiber and the location of the damaged fiber, County shall pursue commercially reasonable efforts to mobilize technicians to achieve necessary repair or restoration, including, but without limitation, having maintenance personnel at the affected site within four (4) hours after receipt of such notice with the required restoration material and equipment.
- d. In the event that Customer's use of the fiber optic network is interrupted due to an occurrence of a force majeure event, repairs and restoration shall be made as expeditiously as reasonably possible. Customer recognizes that four (4) hour response time represents optimal conditions, and may be impossible to achieve when emergency restoration of fiber optic network integrity is required or when responding to certain remote locations. Actual response times will be influenced by such factors as terrain, weather conditions present at the time the request is made and actual mileage to the fault site.
- e. For purposes of this section, "commercially reasonable efforts" means activities and performances consistent with prudent utility practice, existing contract provisions for County technicians and/or employees, practices required for preserving the integrity of the fiber optic network, and response times that do not jeopardize the health and safety of the employees, contractors and agents of County and Customer.

5. Customer shall be responsible for paying County standard maintenance rates and charges for any calls to County for maintenance issues related to the Fiber that County later confirms as resulting from another source other than functionality of the Fibers.

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APPENDIX C

FIBER SPLICING AND TESTING STANDARDS AND PROCEDURES

1. Fiber and Connector Standards

a. **Connector Standards**

The loss value of any pigtail connector and any associated fiber jumper or pigtail with matching mode field diameters will not exceed .5dB at 1550 nm. The loss value of a connector and its associated jumper with mismatched mode field diameters should not exceed .8 dB.

b. **Field Splice Standards**

The objective for each splice is an averaged loss value of 0.1 dB or less when measured bi-directionally with an OTDR at 1550 nm. In the event of damage and subsequent restoration of the Fibers, commercially reasonable efforts will be made to restore the Fibers to this standard. If after 3 restoration splicing attempts, County is not able to produce a loss value of 0.1 dB or less bi-directionally at 1550 nm, then 0.5 dB or less bi-directionally at 1550 nm will be acceptable. Fibers not meeting the 0.1 dB or less specification will be identified as Out Of Specification (OOS). Documentation of the three attempts (re-burns) to bring the OOS fiber within specification will be provided.

c. **Span Loss**

It is County's responsibility to insure proper continuity of all fibers at the fiber level, not just the pigtail level. Any "frogs" or fibers that cross in the route will be remedied by County. The following span loss calculation will be used:

$$(A * L) + (0.1 * N) + C = \text{Acceptable Span Loss}$$

A = Attenuation per KM at 1550 nm

L = Optical length of cable measured in kilometers (from OTDR Trace)

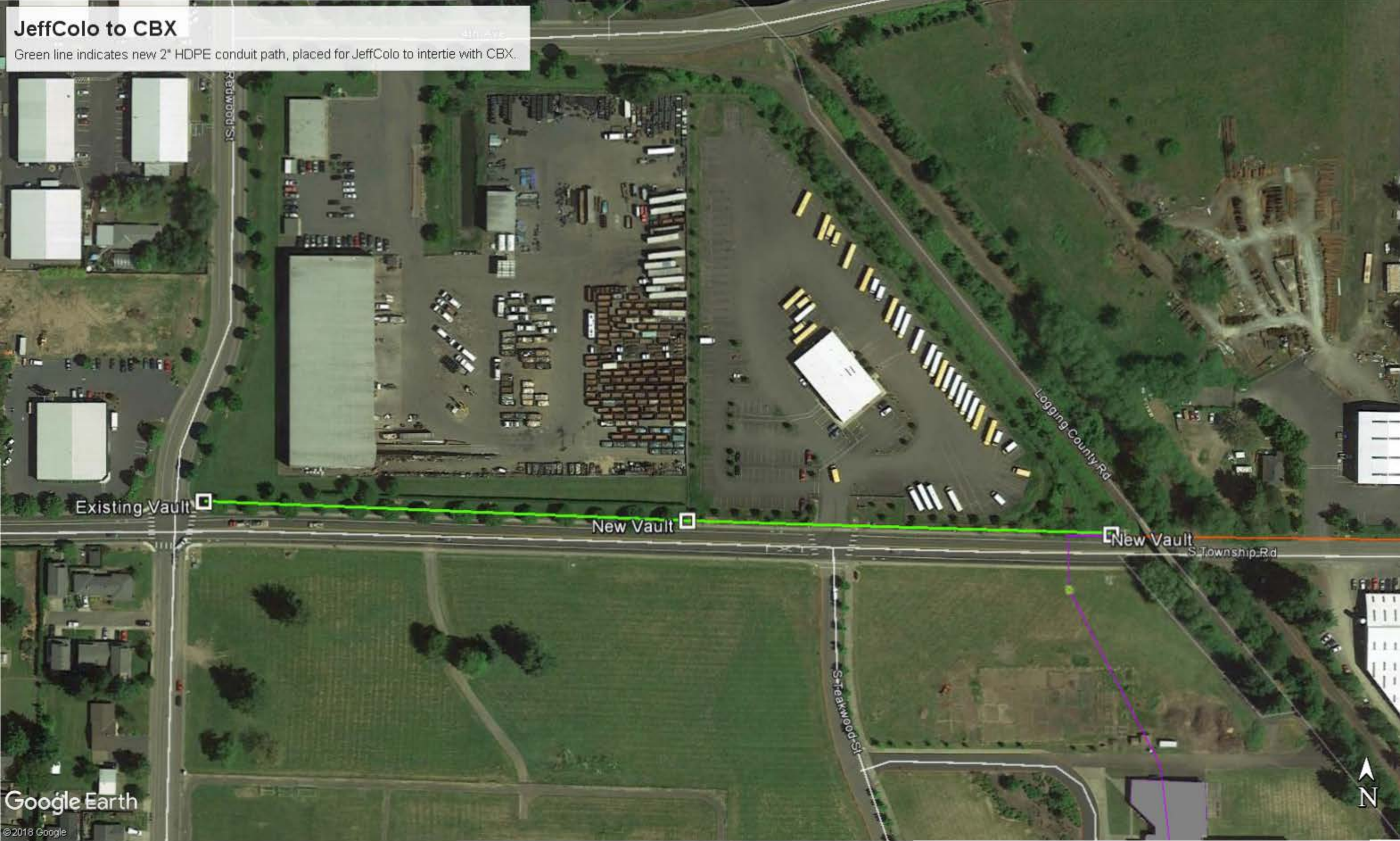
N = Number of splices in a span

C = Connector loss. The connector loss will not exceed .5dB. The section test will have (2) pigtail connectors/splices under test, so 1.0dB will be allowed for this loss.

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JeffColo to CBX

Green line indicates new 2" HDPE conduit path, placed for JeffColo to intertie with CBX.



Existing Vault

New Vault

New Vault

Redwood St

Logging County Rd

S. Fernwood St

S. Township Rd

