

**AGREEMENT
BETWEEN
THE CITY OF SANTA CLARA
AND
THE CITY OF SAN JOSE
REGARDING FIBER OPTIC CABLE AND CONDUIT**

This Agreement (herein “Agreement”) is made and entered into November 20, 2025, (herein the “Effective Date”) by and between the City of Santa Clara, a California chartered municipal corporation, with its principal place of business located at 1500 Warburton Avenue, Santa Clara, California 95050 (herein “SANTA CLARA”), and the City of San José, a California chartered municipal corporation, with its principal place of business located at 200 E. Santa Clara St., San José, CA 95113 (herein “SAN JOSE”). SANTA CLARA and SAN JOSE may be referred to herein individually as a “Party” or as “City” or collectively as the “Parties.”

RECITALS

WHEREAS:

- A. SANTA CLARA and SAN JOSE both own and operate their own separate and distinct Fiber Optic Communications Network (FOCN) within their own corporate boundaries for the purposes of connecting their respective assets; and
- B. SANTA CLARA desires to provide, and the Santa Clara Unified School District (“District”) desires to receive, dark fiber service to (a) Kathleen MacDonald High School located at 3588 Zanker Road, San Jose, CA 95134; (b) Dolores Huerta Middle School located at 3556 Zanker Road, San Jose, CA 95134, and (c) Abram Agnew Elementary School located at 3534 Zanker Road, San Jose, CA 95134, (“School District Property”); and
- C. SANTA CLARA plans to serve the School District Property from its FOCN through the alignment depicted and described in Exhibit A (“Alignment”), attached hereto and incorporated by reference; and
- D. SAN JOSE owns existing conduit for the full length of the Alignment within the City of San Jose as further depicted in Exhibit A-1 (“Conduit”), attachment hereto and incorporated herein by reference; and
- E. SANTA CLARA desires to utilize, and SAN JOSE desires to provide, the Conduit for SANTA CLARA’s service to the School District Property and other future commercial customers along the Alignment; and
- F. To provide that service, SANTA CLARA requires the installation of fiber optic cable (FOC) within the Conduit, and SAN JOSE also desires to replace its copper communication cable with FOC within its Conduit as in an ongoing effort of upgrading the cables to SAN JOSE’s standard FOC for improved connectivity and bandwidth; and
- G. Accordingly, the Parties agree it is in the public interest for SANTA CLARA and SAN JOSE to replace the copper communication cable within the Conduit, complete the FOC installation, and perform related work in a cooperative and economical manner by performing the work under a single joint project (hereinafter “PROJECT” as further described in Section 1 and Exhibit A); and

- H. SANTA CLARA and SAN JOSE mutually desire to set forth the terms and conditions of the (1) design, construction, operations and maintenance of the PROJECT, (2) PROJECT cost share, (3) SANTA CLARA use of the Conduit, and (4) ownership of the installed FOC.

In consideration of the above referenced recitals and the following mutual covenants, agreements and obligations of the Parties, SANTA CLARA and SAN JOSE agree as follows:

AGREEMENT PROVISIONS

1. PROJECT DESCRIPTION:

SAN JOSE shall complete PROJECT as more fully described in Exhibit A, except to the extent set forth therein. The Parties may modify the PROJECT description and responsibilities or this Agreement solely by amendment.

2. PROJECT COSTS:

The PROJECT cost estimate ("Cost Estimate") is the most current cost estimate and is attached hereto as Exhibit B and incorporated by reference. The Cost Estimate consists of the estimated PROJECT Construction Cost (defined below) and a fifteen percent (15%) contingency. The Cost Estimate is subject to change based upon Actual Construction Cost, including any directly related PROJECT change orders.

As used in this Agreement, Construction Cost is defined as any and all costs paid to construction contractors as part to complete the PROJECT, including costs paid for construction items of work and construction change orders, minus any liquidated damages or penalties assessed to the construction contractor ("Construction Cost"). SAN JOSE and SANTA CLARA agree to meet and confer as to cost sharing of any liquidated damages assessed to the construction contractor. Construction Cost is based upon contracted labor rates from SAN JOSE's On-Call Maintenance Contract.

SANTA CLARA shall pay SAN JOSE for its portion of the Cost Estimate which shall not exceed the maximum amount of **Three Hundred and Seventy-Nine Thousand dollars (\$379,000)** ("Total Reimbursement Amount"). Should the Total Reimbursement Amount exceed the aforementioned amount based upon actual Construction Cost, the Parties shall confer, and any agreement to increase the Total Reimbursement Amount shall be documented in writing by a written amendment to this Agreement.

3. SAN JOSE'S OBLIGATIONS:

SAN JOSE agrees as follows:

- A. To complete the PROJECT as fully set forth in Exhibit A and in connection therewith.
- B. Provide Project Delivery which is further defined as design and construction of the PROJECT ("Project Delivery"). Project Delivery shall include but not be limited to the following: (1) prepare specifications, contract documents and cost estimate; (2) notify local businesses and provide public information; (3) coordinate with various agencies and stakeholders; (4) prepare of all necessary environmental documents; (5) obtain permits; (6) administer the Project construction contract; (7) provide materials control and inspection services; and (8) make progress

- payments to the construction contractor. All costs for third-party contracts other than the PROJECT construction contract, such as but not limited to consultant design or inspection contracts, shall be considered as included in Project Delivery and no separate reimbursement for such costs will be sought from SANTA CLARA.
- C. To coordinate, communicate, and cooperate with SANTA CLARA for the design and administration of the PROJECT, including obtaining SANTA CLARA's approval of the PROJECT construction documents.
 - D. To regularly communicate with SANTA CLARA throughout the duration of the PROJECT including, but not limited to, providing project status updates, responding to inquiries, providing invitations to preconstruction and construction meetings, providing coordination and notices for inspections by SANTA CLARA for construction within SANTA CLARA's jurisdiction, and as requested by SANTA CLARA.
 - E. To coordinate, communicate, and cooperate with SANTA CLARA regarding other projects or activities occurring within the PROJECT limits, including making modifications to the PROJECT to accommodate other projects or activities.
 - F. To provide SANTA CLARA with awarded final specifications and contract documents for the PROJECT in electronic format.
 - G. To pay SAN JOSE's share of the Construction Cost.
 - H. To cooperate with SANTA CLARA should SANTA CLARA raise any issues concerning the work in SANTA CLARA's jurisdiction that requires correction by the construction contractor prior to contract acceptance or within the warranty period of the PROJECT.
 - I. To provide construction change orders that have potential to change the Total Reimbursement Amount; obtain SANTA CLARA's concurrence prior to approving such construction change orders. SANTA CLARA's project manager is to provide a response within four (4) business days.
 - J. To assign as the designated project manager for SAN JOSE for the duration of the PROJECT Ho Nguyen (email: Ho.Nguyen@sanjoseca.gov). SAN JOSE's project manager shall have all the necessary authority to direct technical and professional work within the scope of the Agreement and shall serve as the principal point of contact for SAN JOSE.
 - K. To keep and maintain a complete copy of all records regarding costs and expenditures relating to the PROJECT, together with a complete copy of all plans, specifications, reports, contracts and other documents relating to the PROJECT, and the same shall be available for inspection by SANTA CLARA at any time during usual business hours.
 - L. To allow SANTA CLARA, including its employees and agents, reasonable access to the PROJECT site, at all reasonable times to perform observation or inspection of any work on the SANTA CLARA portion of the PROJECT or portions of the PROJECT affecting SANTA CLARA.
 - M. To provide SANTA CLARA with a copy of as-built record drawings for the PROJECT including specifically the SANTA CLARA portion thereof within a reasonable amount of time.
 - N. To obtain or require the construction contractor to obtain all required permits and approvals for all PROJECT work within SAN JOSE city limits, including work associated with the SANTA

CLARA portion thereof. For permits paid directly by SAN JOSE and not by the construction contractor, the costs for said permits shall be considered as included under the Total Reimbursement Amount and no additional reimbursement shall be sought from or paid by SANTA CLARA.

- O. To file a Notion of Completion for the construction contract only after SANTA CLARA's portion is accepted in writing by SANTA CLARA.
- P. SAN JOSE shall cause the PROJECT construction contractor to provide a warranty period of at least one (1) year from the acceptance date.
- Q. SAN JOSE shall ensure that, following the completion of the PROJECT, sufficient space will remain within the Conduit for the full and unimpeded use of any remaining available innerduct cell(s) for future cable installation.
- R. To provide one (1) final detailed invoice with the Total Reimbursement and final accounting of all PROJECT costs associated with the SANTA CLARA portion of the PROJECT to SANTA CLARA within thirty (30) calendar days after the Parties accept the PROJECT as complete in writing, in accordance with the following:
 - 1. The detailed invoice sets forth the actual Construction Costs.
 - 2. Notwithstanding any other provisions, the final detailed invoice shall occur no later than 180 calendar days following the completion of work as defined in California Civil Code section 9200 et seq.
 - 3. Notwithstanding any other provisions, if the payments made to the construction contractor involve potential claims, claims, or disputes, SAN JOSE may provide a detailed invoice for those project costs not subject to potential claims, claims, or disputes, subsequently followed by an invoice for any claimed or disputed amounts once said claimed or disputed amounts are resolved. No additional reimbursement shall be sought from SANTA CLARA in connection with the preceding sentence.

4. **SANTA CLARA'S OBLIGATION:**

SANTA CLARA agrees as follows:

- A. To pay the Total Reimbursement Amount as may be amended by mutual written agreement upon PROJECT completion and acceptance of the PROJECT by SANTA CLARA.
- B. Subject to Section 3.Q. above, to pay Total Reimbursement Amount within forty-five (45) business days of receiving and approving the final detailed invoice from SAN JOSE, provided that the following conditions are met:
 - 1. The PROJECT has been completed and SANTA CLARA has approved the portion of the work in its jurisdiction. Acceptance by SANTA CLARA shall be made in writing to SAN JOSE. SANTA CLARA may request documentation of such costs, and may review the original invoices, quantities of work, or request copies of same, which shall be provided within a reasonable time.
 - 2. The detailed invoice sets forth actual Construction.
- C. To assign as the designated project manager for SANTA CLARA for the duration of the PROJECT Felix Fong (email: FFong@santaclaraca.gov). SANTA CLARA's project manager shall manage the review, approval, and acceptance of work within the scope of the Agreement in accordance with SANTA CLARA's practices and shall serve as the principal point of contact with SAN JOSE.

5. To obtain and provide to SAN JOSE all required permits for work done within the SANTA CLARA city limits. TERM OF AGREEMENT:

- A. This Agreement is effective from the Effective Date and will continue for an initial term of three (3) years (“Initial Term”), unless modified by a written amendment. Following this Initial Term, the Agreement will automatically extend for successive one-year periods (each an “Extension Term”), provided that neither Party has delivered written notice of termination at least 180 days prior to the commencement of the Initial Term or any subsequent Extension Term. The Initial Term and Extension Term shall be collectively referred to in this Agreement as “Term”.
- B. Commencing from the Effective Date and except for expiration of this Agreement in accordance with Section 5.A., the Agreement can be terminated only upon the mutual written consent and terms acceptable to all Parties.

6. OWNERSHIP, MAINTENANCE, AND RESPONSIBILITIES:

- A. Upon PROJECT completion and PROJECT acceptance by SANTA CLARA, SANTA CLARA shall have the right to use the Conduit for the Term for the SANTA CLARA FOC (as defined below).
- B. SANTA CLARA shall own and maintain the 288-Strand FOC, 3-cell flexible innerduct within the Conduit, SANTA CLARA-owned boxes in front of any of its customer’s property within the SAN JOSE portion of the Alignment and associated fiber optic splice enclosures or panels (SANTA CLARA FOC) as more fully described in Exhibit A.
- C. SAN JOSE shall own and maintain the 72-Strand FOC within SANTA CLARA’s 3-cell flexible innerduct in the Conduit, and associated fiber optic splice enclosures, boxes, or panels (BRANCH FOC) as more fully described in Exhibit A.
- D. SAN JOSE may request of SANTA CLARA the use of any of SANTA CLARA owned unused innerduct cells in the Conduit at any time in trade for additional cost-free conduit use by SANTA CLARA.
- E. Fiber Optic Cable Use
 - 1. SAN JOSE has the right to unfettered use of the BRANCH FOC, and SANTA CLARA has the right to unfettered use of the SANTA CLARA FOC.
 - 2. SANTA CLARA has the right to unfettered use of the boxes of the BRANCH FOC. Except as set forth in this Agreement, no Party shall access the other Party’s FOC without the prior written approval of FOC owner, except that in cases of emergency, approval may be communicated verbally.
- F. Maintenance and Repairs
 - 1. SAN JOSE shall be responsible for the general maintenance and operations of the Conduit and BRANCH FOC.
 - 2. SANTA CLARA shall be responsible for the general maintenance and operations of SANTA CLARA FOC.
 - 3. Emergency Repairs
 - i. SAN JOSE shall repair any damage SAN JOSE or its agents cause to the Conduit and/or any FOC within the Conduit except that SANTA CLARA may, in its sole discretion, perform the repairs to SANTA CLARA FOC and bill SAN JOSE for the costs incurred

- for such repairs. SAN JOSE shall use its commercially reasonable efforts to complete the repair in accordance with “Emergency Response and Repair Times” set forth below.
- ii. SANTA CLARA shall repair any damage SANTA CLARA or its agents cause to the Conduit and/or any FOC within the Conduit, except that SAN JOSE may, in its sole discretion, perform the repairs to the Conduit and BRANCH FOC and bill SANTA CLARA for the costs incurred for such repairs. SANTA CLARA shall use its commercially reasonable efforts to complete the repair in accordance with “Emergency Response and Repair Times” set forth below.
 - iii. Conduit damage caused by an unknown third party shall be repaired by SAN JOSE in accordance with the “Emergency Response and Repair Times” set forth below. In the event of damage to any FOC, within the Conduit by an unknown third party, the FOC shall be repaired by the respective FOC owner. Either Party may request the other to perform such repairs, but neither party is obligated to do so. Cost sharing for these repairs can be negotiated at the time the work is performed.
 - iv. Emergency Response and Repair Times
 - a. If damage occurs during normal business working hours between 8am and 5pm Monday through Friday, with the exception of either Parties’ respective holidays, then the responsible Party shall evaluate damaged Conduit and FOC within four (4) hours and have appropriate restoration/repair personnel and equipment onsite to begin restoration of FOC functionality within eight (8) hours of damage notification.)
 - b. If damage occurs outside normal business working hours, the responsible Party shall evaluate the damaged Conduit and FOC within eight (8) hours of damage notification and have appropriate restoration/repair personnel and equipment onsite to begin restoration of FOC functionality on the next business day.
 - c. If the responsible Party cannot provide permanent restoration within the times described above, it shall make commercially reasonable efforts to provide temporary restoration. Following the completion of such temporary restoration, the responsible Party shall propose a permanent repair and site restoration plan within five (5) business days.

7. INDEPENDENT ENTITIES:

The Parties agree and intend that SAN JOSE and SANTA CLARA are independent entities and do not intend by this Agreement to create any partnership, joint venture, or similar business arrangement, relationship or association between them, except as may be agreed to expressly by this Agreement.

8. NO PLEDGING OF EITHER CITY’S CREDIT:

Under no circumstances shall either SANTA CLARA or SAN JOSE have authority or power to pledge the credit of the other public entity or incur obligation in the name of the other public entity.

9. NO THIRD PARTY BENEFICIARY:

This Agreement shall not be construed or deemed to be an agreement for the benefit of any third party or parties and no third party or parties shall have any claim or right of action hereunder for any cause whatsoever.

10. AMENDMENTS:

No alternation or amendment of the terms of this Agreement shall be valid unless made in writing and signed by the Parties.

11. NOTICES:

Notices are to be sent as follows:

To SAN JOSE: Kenneth Jung
 Division Manager
 City of San José
 200 E Santa Clara St, 8th Floor
 San José, CA 95113

To SANTA CLARA: Ted Salazar
 Principal Electric Utility Engineer – Silicon Valley
 Power City of Santa Clara
 1500 Warburton Avenue
 Santa Clara, CA 95050

Such notice shall be deemed made when personally delivered or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

12. SEVERABILITY CLAUSE:

In case any one or more of the provisions contained herein shall, for any reason, be held invalid, illegal, or unenforceable in any respect, it shall not affect the validity of the other provisions which shall remain in full force and effect.

13. ENCROACHMENT PERMITS/RIGHT OF WAY:

- A. SANTA CLARA will obtain all encroachment permits for any PROJECT work within the City of Santa Clara. SAN JOSE will obtain all encroachment permits for any PROJECT work within the City of San Jose. For public entities other than the Cities of San Jose and Santa Clara, SAN JOSE's contractor or SAN JOSE shall obtain permits from all other agencies, including, but not limited to Valley Transportation Authority.
- B. SAN JOSE shall be responsible for obtaining all required right-of-way, if applicable, for the PROJECT within the City of San Jose.
- C. SANTA CLARA is authorized, without the need to obtain any encroachment permits or other SAN JOSE authorizations, to perform any maintenance, repairs, and replacement of the SANTA CLARA FOC or any boxes of the BRANCH FOC. This Agreement shall function as SANTA CLARA's authorization.

- D. If SANTA CLARA desires to install a box in front of the Property of any of its customers other than the School District Property, SANTA CLARA shall obtain an encroachment permit.

14. HOLD HARMLESS/INDEMNIFICATION:

It is understood and agreed that pursuant to California Government Code Section 895.4, that each Party shall fully indemnify and hold the other Party harmless from any liability imposed for injury (as defined in Government Code Section 810.8) by reason of anything done or omitted to be done by the indemnifying Party in connection with any work, authority or jurisdiction delegated to the respective Party under this Agreement. This hold harmless and indemnification provision shall apply to any activities, errors or omissions of the indemnifying Party and/or that Party's officers, employees, agents, or any person or entity acting or omitting to act for or on behalf of said Party or such person or entities as are specifically authorized and empowered by that Party to act for it. For the activities, errors, and/or omissions of the construction contractor retained for the PROJECT, each Party shall defend, indemnify and hold harmless the other Party to the fullest extent legally possible for all work performed in the indemnifying Party's jurisdiction.

15. CAPTIONS:

The captions of the various sections, paragraphs and subparagraphs of this Agreement are for convenience only and shall not be considered nor referred to for resolving questions of interpretation of this Agreement.

16. INSURANCE REQUIREMENTS:

SAN JOSE shall require any contractor awarded a contract for any portion of the work to be done on the PROJECT to secure and maintain in full force and effect at all times during construction and performance of the PROJECT, and until said PROJECT is accepted by all Parties, and any other time periods specified in the construction contract documents for any portion of the work, insurance coverage described below, at no additional cost to either SAN JOSE or SANTA CLARA, with coverage amounts, required endorsements, certificates of insurance, and coverage verifications satisfactory and acceptable to all Parties. SANTA CLARA, its respective City Council, commissions, officers, employees, volunteers and agents shall be added as additional insureds on the commercial general liability policy with respect to liability arising out of the contractor's work for SAN JOSE on this Project.

It is mutually understood that during the term of the construction activities on the PROJECT, SAN JOSE will require the construction contractor to carry commercial general liability in amounts of not less than Two Million Dollars (\$2,000,000) per occurrence; automobile liability in an amount not less than Two Million Dollars (\$2,000,000) per accident; and a Workers' Compensation Insurance policy as required by the State of California, with Statutory and Employer's Liability Insurance limits of not less than One Million Dollars (\$1,000,000).

SAN JOSE shall require the construction contractor to obtain insurance coverages of not less than those required for an encroachment permit from SANTA CLARA as part of obtaining an encroachment permit from SANTA CLARA.

17. WAIVER:

The Parties' waiver of any term, condition or covenant, or breach of any term, condition or covenant shall not be construed as a waiver of any other term, condition or covenant or breach of any other term, condition or covenant.

18. ENTIRE AGREEMENT:

This Agreement contains the entire Agreement between SANTA CLARA and SAN JOSE relating to the PROJECT. Any prior agreements, promises, negotiations, or representations not expressly set forth in this Agreement are of no force or effect.

19. OTHER AGREEMENTS:

This Agreement shall not prevent either Party from entering into similar agreements with others, except that SAN JOSE shall not grant access to any other party to any portion of the Conduit occupied by SANTA CLARA. The Parties acknowledge and accept the terms and conditions of this Agreement as evidenced by the following signatures of their duly authorized representatives. It is intent of the Parties that this Agreement shall become operative on the effective date.

20. VENUE:

The parties agree that venue shall be exclusively vested in the state courts of the State of California, County of Santa Clara, or if federal jurisdiction is appropriate, exclusively in the United States District Court, Northern District of California, San José, California.

21. EXECUTION IN COUNTERPARTS/ELECTRONIC SIGNATURES:

This Agreement may be executed in any number of separate counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same instrument.

Unless otherwise prohibited by law or policy of a Party, the Parties agree that an electronic copy of a signed contract, or an electronically signed contract, has the same force and legal effect as a contract executed with an original ink signature. The term “electronic copy of a signed contract” refers to a writing as set forth in Evidence Code Section 1550. The term “electronically signed contract” means a contract that is executed by applying an electronic signature using technology approved by each Party. Each Party (i) has agreed to permit the use, from time to time and when allowed by law, of electronic signatures in order to expedite the transaction contemplated by this AGREEMENT, (ii) intends to be bound by electronic signature, (iii) is aware that the other will rely on the electronic signature, and (iv) acknowledges such reliance and waives any defenses (other than fraud) to the enforcement of any document based on the fact that a signature was sent by telecopy. As used herein, the term “electronically signed contract” shall include any signature sent via facsimile or via email in portable document format (“pdf”).

(Signatures on Following Page)

The Parties acknowledge and accept the terms and conditions of this Agreement as evidenced by the following signatures of their duly authorized representatives. It is the intent of the Parties that this Agreement shall become operative on the Effective Date.

CITY OF SANTA CLARA, CALIFORNIA
a chartered California municipal corporation

Approved as to Form: _____ Dated: _____

GLEN R. GOOGINS
City Attorney

JOVAN D. GROGAN
City Manager
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050
Telephone: (408) 615-2210
Fax: (408) 241-6771

“SANTA CLARA”

CITY OF SAN JOSE, CALIFORNIA

Approved as to Form: _____ Dated: _____

MATTHEW TOLNAY
Senior Deputy City Attorney

EMILY LAM
Director
Office of the City Manager
200 E. Santa Clara Street
San Jose, CA 95113
Telephone: (408) 277-5777
Fax: (408) 277-3131

“SAN JOSE”

EXHIBIT “A”

SCOPE OF WORK

GENERAL:

SAN JOSE or their maintenance Contractor under management of SAN JOSE, shall complete the PROJECT which includes the following:

1. Segment 1: Lick Mill Blvd – Renaissance Dr
 - a. Furnish and Install Innerduct: Furnish and install approximately 2,000 linear feet of Flexible 2-inch 3-cell Max Cell Innerduct.
 - b. Furnish and Install Fiber Optic Cable: Furnish and install approximately 2,000 linear feet of 288-strand single-mode fiber optic cable (also known as the SANTA CLARA FOC).
2. Segment 2: Renaissance Dr – Zanker Rd – River Oaks
 - a. Furnish and Install Innerduct: Furnish and install approximately 11,000 linear feet of Flexible 2-inch 3-cell Max Cell Innerduct.
 - b. Furnish and Install 288-Strand Fiber Optic Cable (also known as the SANTA CLARA FOC): Furnish and install approximately 11,000 linear feet of 288-strand single-mode fiber optic cable.
 - c. Furnish and Install 72-Strand Fiber Optic Cable also known as the BRANCH FOC): Furnish and install approximately 8,000 linear feet of 72-strand single-mode fiber optic cable.
 - d. Pull Box Upgrades: Upgrade 8 existing pull boxes as required for new cable installations and increased capacity.
 - e. New Pull Box Installation: Furnish and install one (1) new N40 pull box to intercept conduits.
 - f. Conduit Installation (Renaissance Dr to Zanker Rd): Furnish and install 4-inch conduit from Renaissance Drive to the existing 4-inch AT&T conduit at Zanker Road, utilizing a WYE cast connection.
 - g. Fiber Optic Cable Dressing: Prepping the installed 288-strand single-mode fiber optic cable (also known as the SANTA CLARA FOC) and splice cases
 - h. Signal Interconnect Cable (SIC) Removal: Carefully remove and dispose of all existing Signal Interconnect Cable (SIC) within this segment.
3. Other
 - a. Any preliminary investigative activities, such as rod and rope of conduits.
 - b. All required traffic control.
 - c. Obtaining the required permits for all work done within the City of San Jose.
 - i. Permits for work done within the corporate limits of the City of Santa Clara will be obtained by SANTA CLARA.
 - d. At SAN JOSE’s sole expense, SAN JOSE will perform fiber optic testing as outlined under Exhibit C (“Fiber Optic Cable Testing Requirements”) on all installed cables to ensure work was performed to industry standards. If damage is discovered in the cables, SAN JOSE will perform a point repair and retest the fiber strands.
 - i. If SANTA CLARA identifies deficiencies in the cable from their own testing as a result of SAN JOSE’s installation, at SAN JOSE’s sole expense, SAN JOSE will perform a point repair for SANTA CLARA to retest the deficient fiber strands.

The work plan is attached to this Exhibit A, as Exhibit A-1 (“Work Plan”), which is hereby incorporated by reference into this Agreement. The Work Plan contains the following: Project location map.

SAN JOSE or its contractors shall perform the work described above in accordance with the Work Plan.

CONSTRUCTION STANDARDS:

Work within the corporate limits of SANTA CLARA shall follow the City of Santa Clara standard specifications and standard details including, but not limited to, details for ADA curb ramps and associated concrete work, survey monuments, utility and drainage covers, and traffic signal loop detectors.

NOTIFICATIONS

SAN JOSE shall have the primary role and be responsible for providing all public information regarding the project including for work completed within SAN JOSE’s jurisdiction and for work completed within SANTA CLARA’s jurisdiction. SANTA CLARA shall cooperate with and provide limited assistance to SAN JOSE for public information efforts.

Exhibit "A-1"

Work Plan

CITY OF SAN JOSE
DEPARTMENT OF TRANSPORTATION
PLANS FOR

CSC – CSJ Fiber Connection Tasman Dr and Zanker Rd Phase 1



Plan Sheets

- | | | |
|---------------------|----------------------|---------------------|
| 1. Cover Sheet | 7. Overview Sheet 5 | 13. Splice Detail C |
| 2. Legend & Notes | 8. Overview Sheet 6 | |
| 3. Overview Sheet 1 | 9. Overview Sheet 7 | |
| 4. Overview Sheet 2 | 10. Overview Sheet 8 | |
| 5. Overview Sheet 3 | 11. Splice Detail A | |
| 6. Overview Sheet 4 | 12. Splice Detail B | |

Sheet 1 of 13

Notes

1. All splices shall be performed with a fusion splicer.
2. Tests shall be performed by City staff. Deficiencies shall be noted to Contractors.
3. All materials shall be furnished by the Contractor unless otherwise noted.
4. Contractor-furnished innerduct w/ tracer wire shall be used when feasible.
5. SIC shall be removed and replaced with fiber as noted in plans. SIC shall only be abandoned with the approval of City engineer.
6. Branches (main cable on conversion corridor) shall be 60 strand or larger cables. Contractor shall note actual strand counts.
7. Laterals (cables splicing from branch to TS cabinets) shall be pre-terminated 24-strand or larger cables. Panels shall be installed inside traffic signal cabinets unless noted otherwise. Panels ports shall have clearance of at least 3 inches from all obstruction.
8. Splice enclosures shall be installed at locations where Branches and Laterals meet. These locations are specified in the plans, but the final location shall be at the discretion of the installation Contractor. Deviances from plans shall be noted by the Contractor.
9. All pullboxes that the branch passes through shall contain at least 30' of slack when possible and more when noted.
10. Updated plans noting all changes shall be delivered to the City following completion of project.
11. Contractors shall exercise caution when working nearby existing SIC or fiber optic communication cables not related to this project. Plans will show when multiple cables are nearby working areas, but it shall be the contractor's responsibility to investigate and contact City staff when unsure of existing conditions.
12. It shall be the Contractor's responsibility to furnish all necessary permits when working in other agency's RoW.

Legend (Splice Diagrams Only)

Existing	Proposed	Description
		Fiber Optic Cable
		Splice Enclosure
		Fiber Buffer Tube
		Cut Single Strand of Fiber
		Fiber Strand Fusion Splice
BL		Blue
OR		Orange
GR		Green
BR		Brown
SL		Slate
WH		White
RD		Red
BK		Black
YL		Yellow
VI		Violet
RO		Rose
AQ		Aqua

CSC - CSJ Fiber Connection Tasman Dr and Zanker Rd Phase 1
City of San Jose, DOT

Legend & Notes

Prepared by: Maria Hsu
January 2020
Sheet 2 of 13

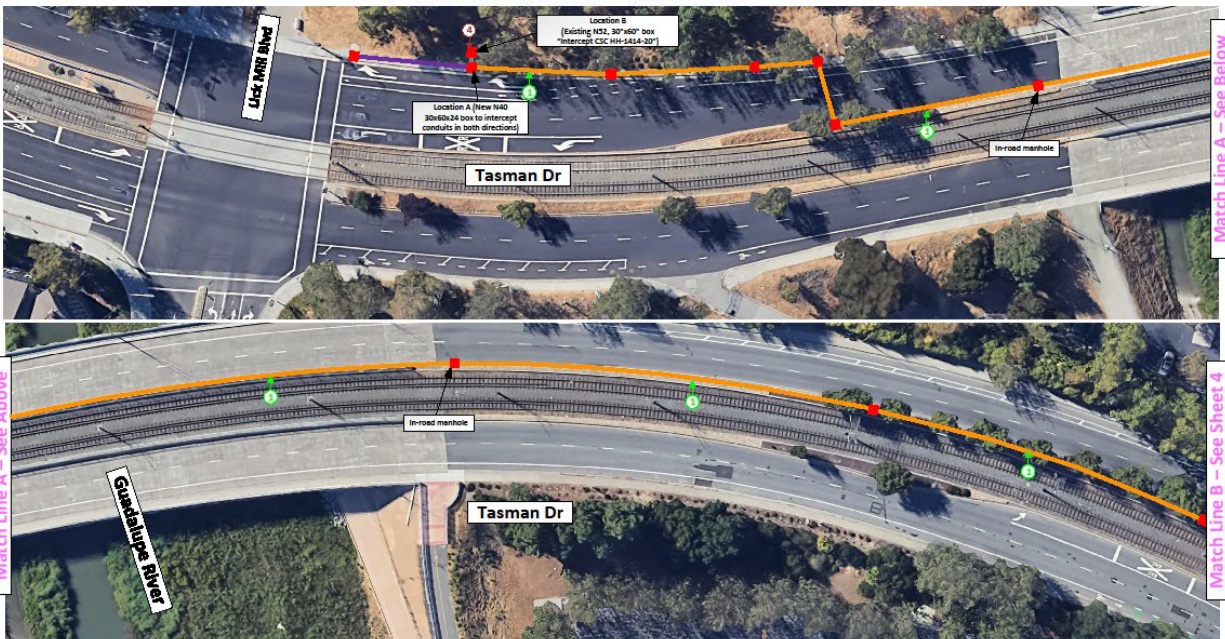
General Notes:

1. Install 288 strand SMFO branch.
4. Coil 100' of SMFO slack in existing pullbox.

Scope:

1. Install new 288 strand SMFO branch.
2. At Location A, intercept conduit passing under sidewalk and install a new 30"x60"x24" box. Allow existing conduits to be still connected to adjacent boxes.
3. From Location A, install 2 new 2" conduits to Location B existing box nearby in softscape. Permit for intercept box and conduits to be provided by CSC (SVP)
4. Coil 100' of slack at Location B box.

Maintain existing SIC between Lick Mill Blvd and Renaissance Dr

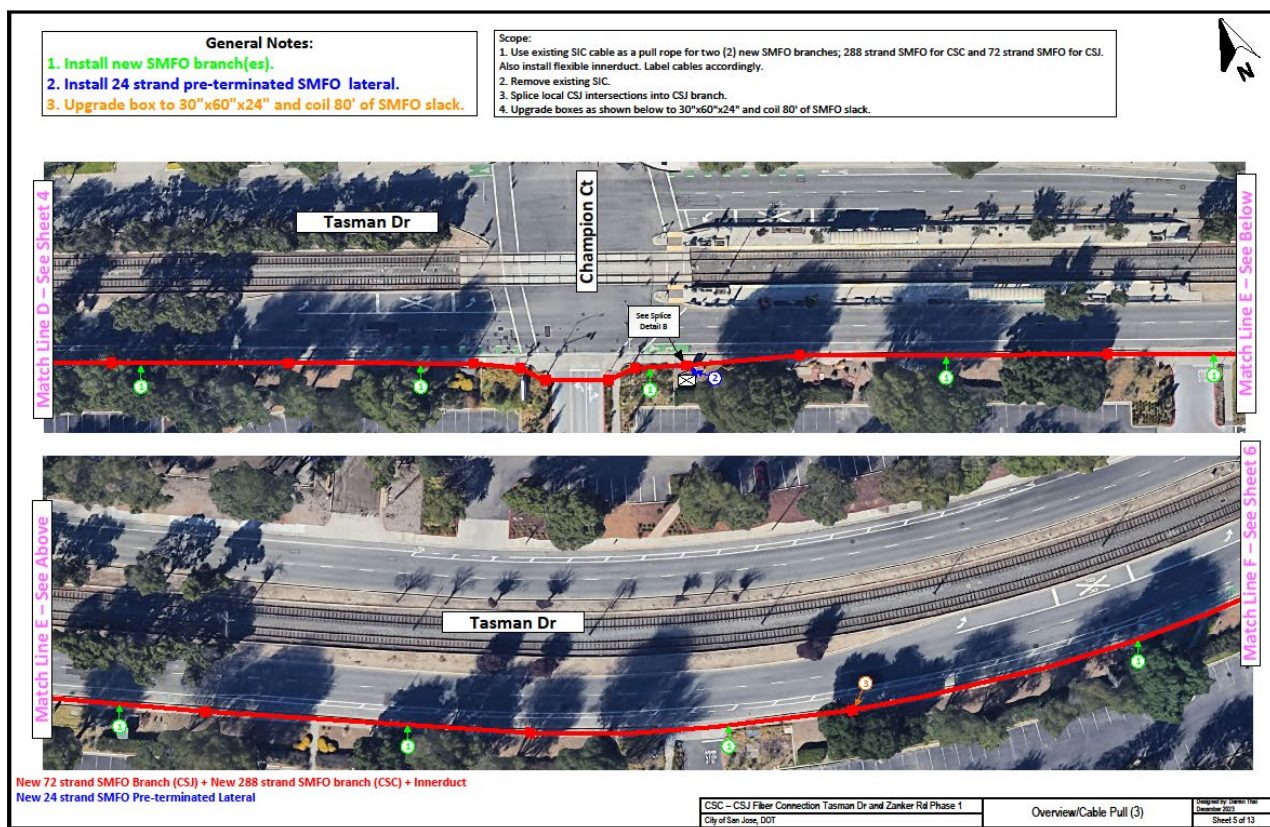
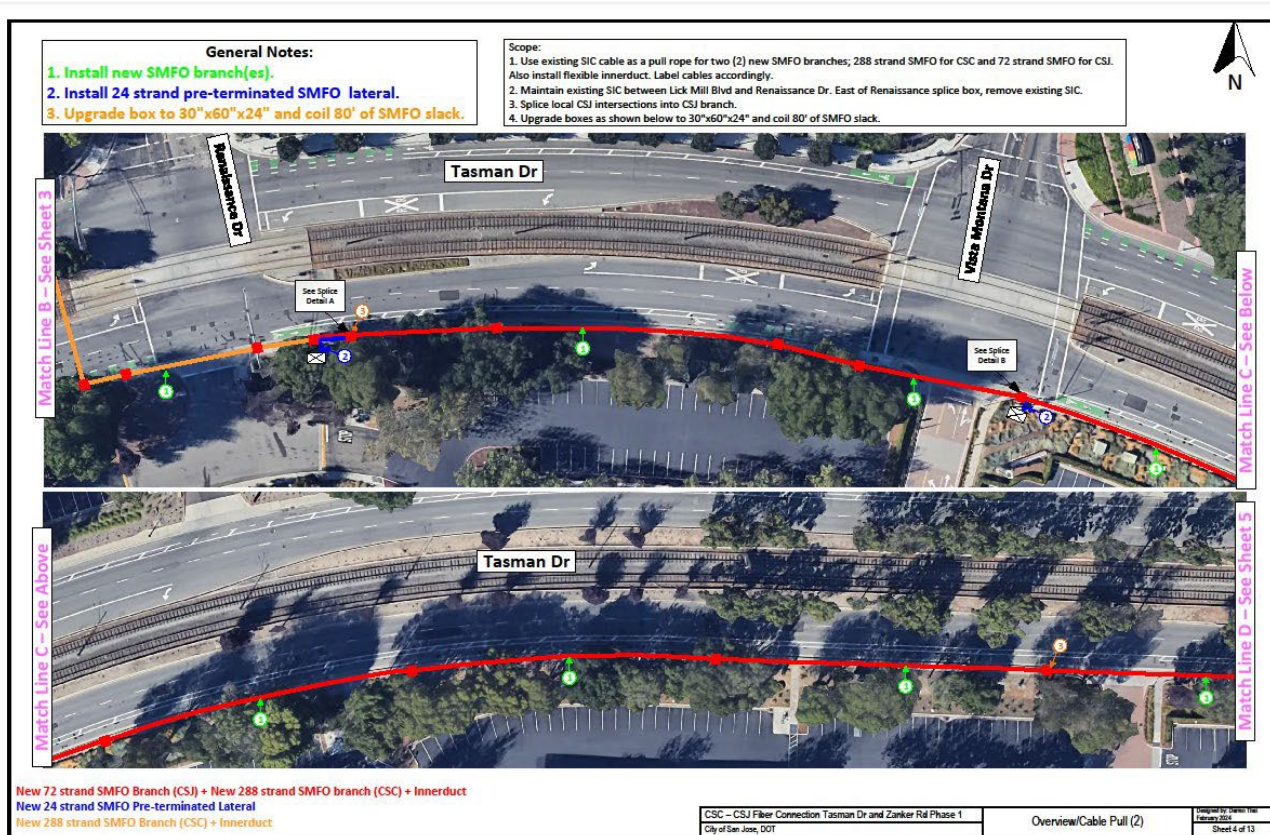


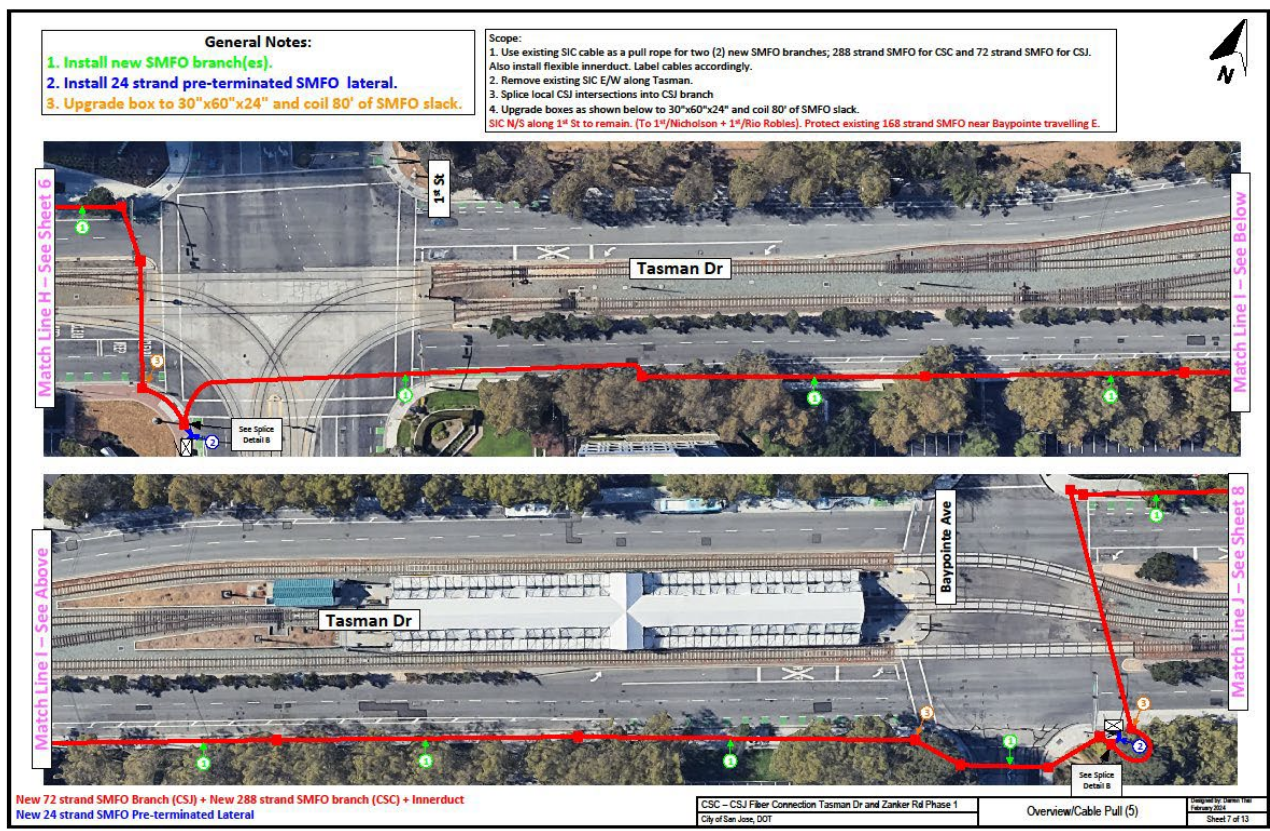
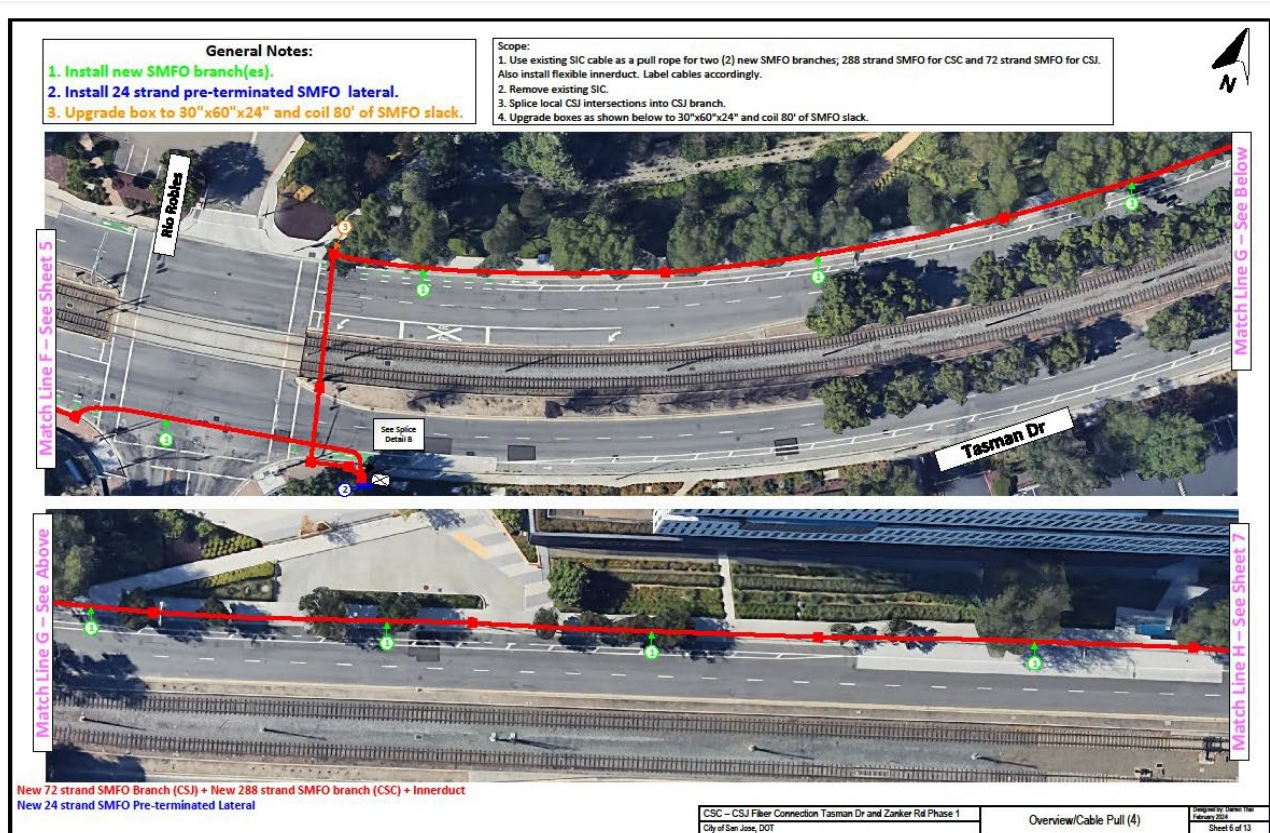
New 288 strand SMFO Branch (CSC) + Innerduct
New 2x 2" Conduits
Existing Conduits

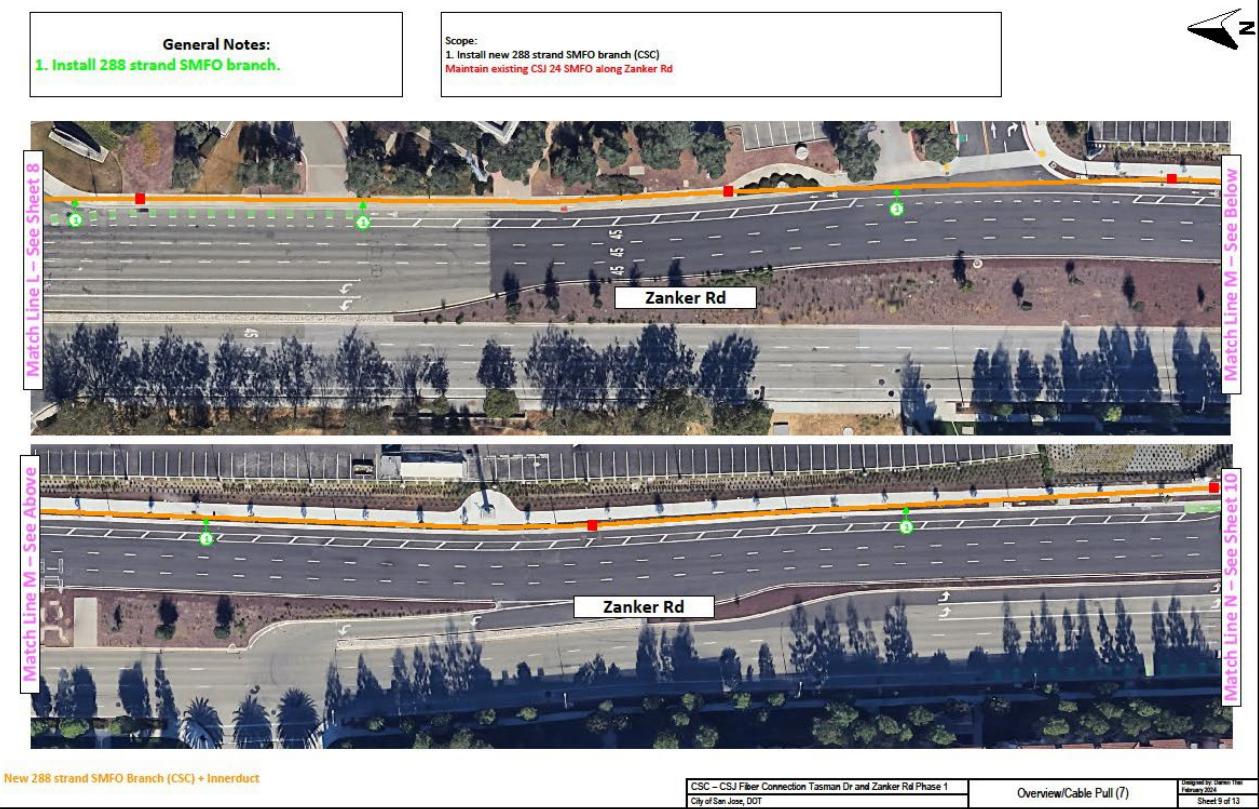
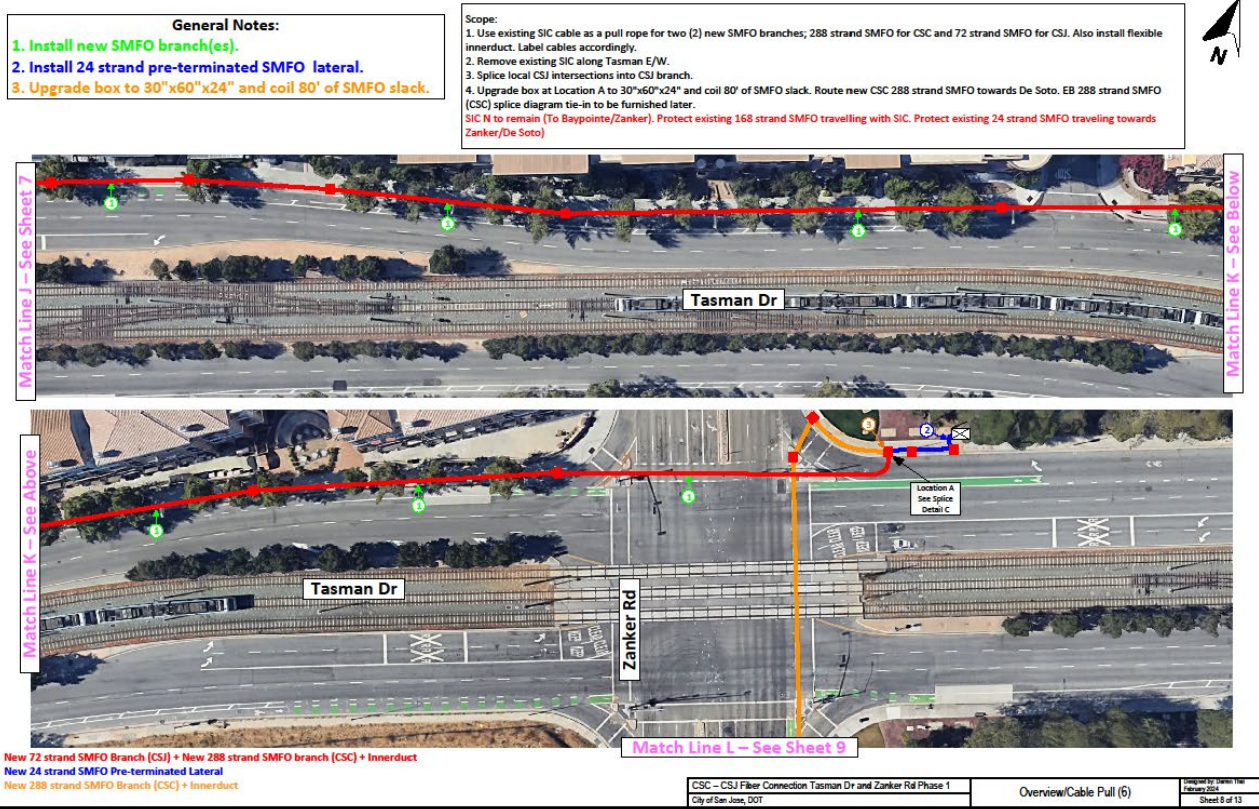
CSC - CSJ Fiber Connection Tasman Dr and Zanker Rd Phase 1
City of San Jose, DOT

Overview/Cable Pull (1)

Prepared by: Maria Hsu
January 2020
Sheet 3 of 13

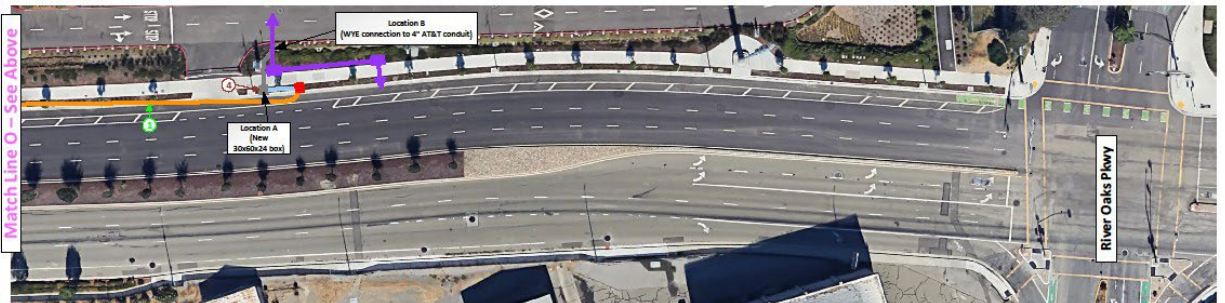






- General Notes:**
1. Install 288 strand SMFO branch.
 4. Coil 100' of SMFO slack in existing pullbox.

- Scope:**
1. Install new 288 strand SMFO branch (CSC).
 2. Install new 30"Wx60"Lx24"H box at Location A below and coil 100' of slack in box.
 3. From Location A install 4" conduit to 4" AT&T conduit at Location B using WYE cast connection. Ensure connection placement is behind property line at the school. Coordinate with SVP (CSC) fiber inspector 48 hrs prior to install.
- Maintain existing CSJ 24 SMFO along Zanker Rd



New 288 strand SMFO Branch (CSC) + Innerduct
 New 3" Conduit + 288 strand SMFO Branch (CSC) + Innerduct
 New 4" Conduit
 Existing AT&T + Comcast Box/Conduits

CSC - CSJ Fiber Connection Tasman Dr and Zanker Rd Phase 1
 City of San Jose, DOT

Overview/Cable Pull (8)

Prepared by: Nathan Hall
 January 2024
 Sheet 10 of 13

EXHIBIT “B”

COST ESTIMATE

SANTA CLARA Total Reimbursement Amount Estimate

Phase 1 Construction Costs	\$288,500.00
Phase 1 Investigation	\$7,000.00
Phase 1 Removal of SIC	\$28,000.00
Phase 1 Traffic Control	\$5,000.00
Phase 1 VTA Permit RAP	\$3,000.00
Phase 1 VTA Construction Permit (TBD)	\$4,000.00
Phase 1 15% Contingency	\$43,500.00
Phase 1 Total Reimbursement Amount	\$379,000.00

EXHIBIT “C”

FIBER OPTIC CABLE TESTING REQUIREMENTS

SAN JOSE shall perform testing based on the following Fiber Optic Cable Testing Requirements. SAN JOSE shall notify SANTA CLARA of its intent to proceed with testing five (5) business days prior to commencement of test. For purposes of this Exhibit C, “City” shall refer to SAN JOSE.

Cable Reel Acceptance Test (CRAT)- The *Cable Reel Acceptance Test* shall be performed within five (5) working days from the time the fiber optic cable is received from the supplier. Only one direction needs to be tested with an OTDR. This test is intended to verify that the fiber received from the supplier is in sound condition and without manufacturing defects. Fiber optic cable that does not meet the requirements of these notes shall be replaced at no cost to the agency.

At the time of testing, the contractor shall inspect the fiber optic cable and record any visible signs of defects. The contractor shall note any anomalies on the test results and rescale the OTDR scale for clarity and record. Any anomalies shall be reported immediately to the supplier/manufacturer. The contractor shall compare the test results to the manufacturer’s specifications and note any discrepancies. The contractor shall install heat shrink or other protective covering to the cable end to prevent the entry of moisture or other contaminants.

The test results shall be summarized on the City furnished “*Fiber Testing Form.*”

Cable Installation Acceptance Test (CIAT)- The *Cable Installation Acceptance Test* shall be performed within five (5) working days from the time the fiber optic cable is installed, and before splices or connectors are added. Tests only need to be performed in a single OTDR direction. This test is intended to verify that no fibers were damaged during installation.

Contractor shall once again inspect the fiber optic cable along its length of installation and record any visible sign of defects. If tests show that the cable’s performance has diminished from the results of the *Cable Reel Acceptance Test*, the City shall retain its right to require re-procurement and re-installation from the contractor at no additional cost to the City. Replacement cable must repeat *Cable Reel Acceptance* and *Cable Installation Acceptance Tests*.

The test results shall be summarized on the City furnished “*Fiber Testing Form.*”

Final Acceptance Test (FAT)- The *Final Acceptance Test* shall be conducted from both ends of the fiber optic cable within five (5) working days after all cables have been installed to evaluate total end-to-end loss. The end-to-end final test shall consist of performing OTDR testing and testing using an OLTS.

The test results for removed and reinstalled fiber optic cable shall be compared to the results of the *Baseline Test* performed before the fiber optic cable was removed and reinstalled. If the new splice/connector losses do not meet the requirements outlined in these special provisions, or the total end-to-end loss increases by more than twenty-five (25) percent for any fiber strand when comparing *Baseline and Final Acceptance Test*; then the contractor shall rectify the deficiency with one of the options shown below depending on the cause of deficiency.

If the cause is a splice performed by the Contractor:

1. Redo the deficient fiber strand splices at no cost to the City. Splicing and testing must be coordinated around impacts again. *Final Acceptance Testing* and comparison with *Baseline Test* results shall be performed again. This may be repeated as many times as needed until test results are accepted.
2. Contractor may opt to reimburse City (or deduct from final invoice) \$1,000 per impacted strand. This cost will offset the price of coordinating, splicing, and testing performed by City at a later date.

If the cause is from damage induced to the existing cable that was relocated:

1. Re-install the affected section from the nearest butt splices or end point/termination panel at no cost to the City. Removal, installation, splicing, and testing must be coordinated around impacts again. *Cable Reel, Installation, and Final Acceptance Tests* must all be performed again. *Final Acceptance Testing* will be compared with original *Baseline Test* again. This may be repeated as many times as needed until test results are accepted.
2. Contractor may opt to reimburse City (or deduct from final invoice) \$15.00 per linear foot of fiber optic cable section to be replaced from the nearest butt splices or end point/termination panel. This cost will offset the price of procurement, coordination, splicing, and testing performed by City at a later date.

Test results shall be summarized on the City furnished “*Fiber Testing Form*.”

Test Documentation – When contractors are submitting test results, the following must be included in a digital format that does not require special software to view (e.g. pdf). Otherwise, the contractor shall provide required software at no cost to City to view if needed.

1. Completed test form for corresponding test executed. All cells in the spreadsheet must be filled or a justification must be provided if left empty.
2. An OTDR tracefile for each fiber tested using an OTDR (only for BAT and FAT). See the following section for file naming instructions.
3. Original test results from both OTDR and OTLS. These results must show the information used to complete the test form. Highlight or call out in the PDF where the test form information was sourced from for just the first result of both the OTDR and OTLS as all results for each test should follow the same format.
4. General information:
 - a. Date of Test
 - b. Testers (technicians)
 - c. Test equipment model and s/n

The contractor shall highlight any discrepancies that may exist in the test results by making a note in the test form’s appropriate “note” column and within the OTDR/OTLS tracefile/result page. Contractor shall also provide a short description of the proposed corrective action (i.e. resplice), which shall be approved by the agency prior to implementation. City will review and provide comments for each test using the following timelines:

- BAT: Ten (10) working days
- CRAT: Five (5) working days

- CIAT: Five (5) working days
- FAT: Ten (10) working days

Electronic Trace File Names - Every electronic trace associated with a test shall be saved and archived for submittal to the agency. The main testing form comprising of all tests shall be left in the main submittal folder, while corresponding tracefiles and test device-generated results shall be stored in sub-folders named after their corresponding test (e.g. *Baseline Test* results shall be saved in a folder named “BAT”). Sub-sub-folders shall be used to distinguish file types while subsequent subfolders will be left to the discretion of contractors for organizing information. An example of the folder tree is shown below:

FOLDER LEVEL	MAIN	SUB-FOLDER	SUB-SUB-FOLDER
EXAMPLE NAME	YYYYMMDD-PROJECT NAME-FO TESTS	BAT	TF

Files shall be named following the format shown below.

FAT-XXXXX TO XXXXX-YYYYMMDD-XX
 (a) - (b) - (c) - (d)

(a) TEST TYPE	(b) FIBER CABLE INFO	(c) DATE	(d) FILE TYPE
BAT (BASELINE ACCEPTANCE TEST)	END-TO-END LOCATION	DATE	TRACE FILE (TF) OR DEVICE RESULT (DR)
CRAT (CABLE REEL ACCEPTANCE TEST)	REEL ID		
CIAT (CABLE INSTALLATION ACCEPTANCE TEST)	CABLE SEGMENT		
FAT (FINAL ACCEPTANCE TEST)	END-TO-END LOCATION		

e.g. “FAT-10&SC038_TO_AR&CAP038-20130812-DR”

The file name above should be a device-generated test results of fiber port 38 from 10th & Santa Clara to Alum Rock & Capitol Ave fiber port 38 which took place on August 12, 2013)

Optical Loss Test Set (OLTS) - The OLTS shall consist of a light source and power meter that meets the following minimum requirements.

Single mode optical fiber light source

1. Provide dual LED light sources with central wavelengths of 1310 (±20 nm) and 1550(±20 nm)
2. Output power of –10 dBm minimum.

Power Meter:

1. Provide 1310 nm, and 1550 nm wavelength test capability.
2. Power measurement uncertainty of ± 0.25 dB.

Optical Time Domain Reflectometer (OTDR) Test Equipment - The OTDR used shall be provided with certification of its most recent calibration which shall be within twelve (12) months from the date of testing.

The OTDR shall have a distance measurement accuracy of $\pm 0.01\%$ and meet the following minimum requirements.

Single mode OTDR

1. Wavelengths of 1310 nm (± 20 nm) and 1550 nm (± 20 nm).
2. Event dead zones of 2 m maximum at both 1310 nm and 1550 nm.
3. Attenuation dead zones of 15 m maximum at both 1310 nm and 1550 nm.
4. Maximum operating distance range exceeding the length of the longest fiber to be tested.
5. Dynamic range of at least 10 db at 1310 nm and 1550 nm.

A 1,000 meter launch cable, or launch box, shall be used to overcome the dead zone of the OTDR inserted between the OTDR and the optical link.

The OTDR testing shall be done at a scale of at least 1 db per division on the vertical scale.

Optical Loss Testing - The total end-to-end loss for a fiber optic link shall be measured with an OLTS, and not exceed the following:

Link Attenuation (dB) = Cable Attenuation (dB) + Connector Attenuation (dB) + Splice Attenuation (dB)

where,

Cable Attenuation (dB) = Length (Km) * Attenuation Coefficient (dB/km)

Attenuation Coefficient is based on the wavelength outlined in section 86-2.09H "*Cable Properties*" chart and appropriate cable being tested

Connector Attenuation (dB) = Number of connector pairs * connector loss (dB)

Maximum allowable connector loss for mated pairs = 0.75 dB, and non-mated = 0.3 dB

Splice Attenuation (dB) = Number of splices * splice loss (dB)

Maximum allowable splice loss for single mode = 0.1 dB, and multimode = 0.3 dB. See Splice Testing below.

Splice Testing - Splice insertion loss shall not exceed 0.1dB for single mode and 0.3dB for multimode as specified in TIA/EIA-758, "Customer Owned Outside Plant Telecommunication Cabling Standard," when measured in accordance with ANSI/ TIA/EIA-455-8, "Measurement of Splice and Connector Loss and Reflectance Using an OTDR."

Connector Testing – Fiber optic jumper cable connector insertion loss and back reflection shall not exceed the levels outlined under section 86-2.09H(2) "*Fiber Optic Jumper Cable*"

At fiber panel ports, if a connection is made or the port is occupied with a fiber connector on both ends of the coupler, it is treated as a “mated pair” and shall not exceed a loss of 0.75 dB and a reflectance of <-35 dB. If a connector only has one end of the coupler in use, it is treated as “non-mated” and shall not exceed a loss of 0.3dB and a reflectance of <-15 dB.