

**CITY OF EL PASO, TEXAS**  
**AGENDA ITEM DEPARTMENT HEAD'S SUMMARY FORM**

**DEPARTMENT:** INFORMATION TECHNOLOGY  
**AGENDA DATE:** December 20, 2011  
**CONTACT PERSON/PHONE:** Miguel Gamino, Information Technology Director, (915) 541-4746  
**DISTRICT (S) AFFECTED:** ALL

**SUBJECT:**

To: Transtelco Inc.  
Estimated Expense: \$ 64,440.00  
Total Estimated Expense: \$ 64,440.00

**BACKGROUND / DISCUSSION:**

The Information Technology Department is requesting that Council authorize the City Manager to execute the Amendment to the Maintenance Agreement between Transtelco, Inc. and the City of El Paso. The Amendment is to the existing Maintenance Agreement that the City has had with Transtelco since December 2001. This Amendment incorporates stronger and more current industry procedures and standards for maintenance. The fiber is located within a conduit owned by Transtelco that follows the fiber route detailed on Exhibit A of the Agreement.

Transtelco is to perform routine maintenance on the 144 fiber optic strands of the City for a set monthly fee of approximately \$5,370 computed at \$0.04 per lineal foot times the almost 25.5 miles of Transtelco conduit for an estimated annual cost of \$64,440. Unscheduled maintenance will be billed at cost plus overhead factor of 25% with proportional sharing of this cost by any other beneficiaries of the work.

Transtelco will maintain the Fiber in the Conduit within the Fiber Route (as may be relocated from time to time) by providing Scheduled Maintenance, Unscheduled Maintenance, Splicing, the Operations Center and related services as defined in the Agreement as "Maintenance Services."

In January 2006, Transtelco performed certain repairs to the Stanton Street International Bridge (the Bridge) and installed Transtelco's fiber across the Bridge. Transtelco desires to enter into a License Agreement with the City to document the installation and use. Transtelco also desires to pay all amounts owed for Transtelco's past use of the Bridge. On December 6, 2011, an Ordinance was introduced on the City Council agenda as item 4C "Regular Agenda-Introductions" related to Stanton International Bridge License Agreement. This same ordinance is presented on this, December 20, 2011, City Council agenda requesting the Council to authorize the City Manager to execute the Lease Agreement and the License Agreement.

In 2006 and 2009 Transtelco installed certain underground conduits in the downtown area for the City and installed Transtelco's fiber in the City Conduits. Transtelco desires to enter into a Conduit Lease with the City in order to document this installation and use the (Conduit Lease) and pay all amounts owed for Transtelco's past use of the City Conduits. On December 6, 2011, an Ordinance was introduced on the City Council agenda as item 4B "Regular Agenda-Introductions" related to the Conduit Lease. This same ordinance is presented on this, December 20, 2011, City Council agenda requesting the Council to authorize the City Manager to execute the Lease Agreement.

In December 18, 2007, Transtelco and the City entered into a Fiber Lease Agreement by which the City leased 144 fiber optic strands for high-speed connectivity located in an underground conduit approximately 26 miles in length.

In December 18, 2007, Transtelco and the City entered into a Maintenance Agreement which Transtelco agreed to maintain the City Fiber in the Transtelco Conduit.

**PRIOR COUNCIL ACTION:**

On December 6, 2011, Ordinances were introduced on the City Council agenda as items 4B and 4C “Regular Agenda-Introductions” related to the Conduit Lease and Stanton International Bridge License Agreement. These same ordinances are presented on this, December 20, 2011, City Council agenda requesting the Council to authorize the City Manager to execute the Lease Agreement and the License Agreement.

**AMOUNT AND SOURCE OF FUNDING:**

Department: Information Technology  
Amount: \$64,440.44  
Funds Available: 3901351-01101-502215-39001  
Funds Source: General Fund

**BOARD / COMMISSION ACTION: N/A**

\*\*\*\*\*REQUIRED AUTHORIZATION\*\*\*\*\*

<b>DEPARTMENT HEAD:</b> <u>Miguel Gamino</u>	_____	<u>December 14, 2011</u>
Name	Signature	Date

## RESOLUTION

### BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF EL PASO THAT:

The City Manager be authorized to execute the following documents between the CITY OF EL PASO and TRANSTELCO, INC.:

- 1) Memorandum of Agreement summarizing the various agreements between the parties, the terms of payment and amounts owed by company to the City, and clarifying certain rights and obligations of the parties.
- 2) Amendment to Fiber Lease Agreement revising the City's existing lease of 144 fiber strands along 134,239 linear square feet of conduit owned by the company and the related Memorandum of Fiber Lease.
-  3) Amendment to Maintenance Agreement revising the maintenance of City's leased fiber strands along 134,239 linear square feet of conduit owned by the company.
- 4) Memorandum of Agreement related to the License to construct, maintain and use the Stanton Street Bridge for installing fiber optic cable for company's telecommunications network.
- 5) Memorandum of Conduit Lease related to the Lease of City Conduit the company's lease and installation of fiber along a 10,285 linear square foot city-owned conduit in the downtown area.

ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

THE CITY OF EL PASO

ATTEST:

\_\_\_\_\_  
John F. Cook, Mayor

\_\_\_\_\_  
Richarda D. Momsen, City Clerk

APPROVED AS TO FORM:



Bertha A. Ontiveros  
Assistant City Attorney

APPROVED AS TO CONTENT:

  
\_\_\_\_\_  
Miguel A. Gamino Jr., Director  
Information Technology Department

THE STATE OF TEXAS )  
 )  
COUNTY OF EL PASO )

**AMENDED MAINTENANCE AGREEMENT**

This Agreement entered into on this \_\_\_\_\_ day of \_\_\_\_\_, 2011 by and between the City of El Paso, a municipal corporation of the State of Texas (the "City") and Transtelco, Inc., a Texas corporation (the "Transtelco").

**RECITALS:**

A. The City and Transtelco entered into a Maintenance Agreement dated December 18, 2007, to provide for the maintenance by Transtelco of 144 fiber optic strands currently leased by the City (the "Fiber") and desire hereby to amend and restate their agreement from and after the date hereof according to the terms and conditions of this Agreement.

B. The Fiber is located within a conduit owned by Transtelco (the "Conduit") that follows the fiber route detailed on Exhibit A (the "Fiber Route"), which is attached hereto and incorporated herein for all purposes.

C. Transtelco also owns 144 fiber optic strands located within the Conduit in the Fiber Route (the "Transtelco Fiber").

D. Transtelco acknowledges that the City presently uses its Fiber and intends to continue the use of its Fiber for the purposes of the City and other governmental entities.

E. The City desires to contract with Transtelco to obtain certain maintenance services for the Fiber, and Transtelco has agreed to provide maintenance services for the Fiber for the benefit of City under the terms and conditions hereof.

**AGREEMENT:**

**NOW THEREFORE**, in consideration of the mutual promises set forth in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

**ARTICLE I  
MAINTENANCE**

**Section 1.1 Maintenance.**

Transtelco and the City hereby agree that Transtelco will maintain the Fiber in the Conduit within the Fiber Route (as may be relocated from time to time) by providing Scheduled Maintenance, Unscheduled Maintenance, Splicing, the Operations Center and related services, all as further defined herein (collectively the "Maintenance Services").

**Section 1.2 Scheduled Maintenance.**

Transtelco shall perform appropriate scheduled maintenance on the Fiber with current preventative maintenance procedures described in **Exhibit B**, which shall include, without limitation, the following activities: Scheduled maintenance consists of Routine and Non Routine maintenance as follows:

a. Routine Maintenance:

1. Patrol of Fiber Route on a regularly scheduled basis, which will not be less than monthly;

2. Comply with the provisions of Texas Utilities Code Chapter 251 regarding participation in the "Call-Before-You-Dig" (Texas One Call) program, including providing copies of maps and grid locations or other identifiers indicating the location of the Conduit and Fiber Route, and also including having a technician present at the work site when required.

b. Non Routine Maintenance

1. Transtelco will assign fiber maintenance technicians to locations along the Fiber Route to oversee the Non Routine Scheduled Maintenance Services, defined as scheduled inspections (but not improvements or repairs) of fiber crossings, parallel digs, installation of nearby infrastructure that may impact or damage the cable, or any work related to nearby utilities, usually requested through Texas One Call.

**Section 1.3 Unscheduled Maintenance.**

a. Unscheduled maintenance consists of all maintenance and repair of the Fiber, the Conduit or the Fiber Route which is not included as Scheduled Maintenance, and shall be performed by or under the direction of Transtelco, as and when requested by the City. Unscheduled Maintenance shall consist of:

(i) "Emergency Unscheduled Maintenance" means any work in response to an alarm identification by Service Provider's Operations Center, notification by Service Recipient or notification by any third party of any failure, interruption or impairment in the operation of the Fiber, the Conduit or the Fiber Route, or any event imminently likely to cause the failure, interruption or impairment in the operation of the Fiber, the Conduit or the Fiber Route.

(ii) "Non-Emergency Unscheduled Maintenance," means any other improvements or repairs to the Fiber, the Conduit or the Fiber Route, including, without limitation, relocations.

b. Emergency Unscheduled Maintenance shall be performed by Transtelco in response to an alarm notification by Transtelco, the City, or any third party of any failure, interruption or

impairment in the operation of the Fiber, the Conduit, or the Fiber Route, or any event likely to cause the failure, interruption or impairment in the operation of the Fiber, the Conduit, or the Fiber Route. In addition to the procedures described in Exhibit B, Transtelco agrees to comply with the following:

c. Transtelco shall have its first maintenance employee at the site requiring Emergency Unscheduled Maintenance activity within one (1) hour after the time Transtelco becomes aware of an event requiring Emergency Maintenance, unless delayed by circumstances beyond the reasonable control of Transtelco. Transtelco shall use its best efforts to perform maintenance and repair to correct any failure, interruption or impairment in the operation of the Fiber, the Conduit or the Fiber Route within four (4) hours.

d. When restoring a cut Fiber in the Conduit, the parties agree to work together to restore all operating connectivity as quickly as possible. Transtelco, promptly upon arriving on the site of the cut, shall determine the course of action to be taken to restore the Fiber and shall begin restoration efforts. Transtelco shall splice fibers tube by tube or ribbon by ribbon or fiber bundle by fiber bundle, rotating between tubes or ribbons operated by the parties having an interest in the cable, including Transtelco and the City, and any other users of the Fiber or the Transtelco Fiber (collectively, the "Interest Holders"), in accordance with the following described priority and rotation mechanics; provided that, lit fibers in all buffer tubes or ribbons or fiber bundles shall have priority over any dark fibers in order to allow transmission systems to come back on line; and provided further that, Transtelco will continue such restoration efforts until all lit fibers in all buffer tubes or ribbons are spliced and all traffic restored. In general, priority among Interest Holders affected by a cut shall be determined on a rotating restoration-by-restoration and segment-by-segment basis, to provide fair and equitable restoration priority to all Interest Holders, provided, however that the highest initial priority will be given to the connectivity of City public safety facilities. Transtelco will provide upon segment completion a system-wide rotation mechanism on a segment by segment basis so that the initial rotation order of the Interest Holders in each segment is varied (from earlier to later in the order), such that as restorations occur, each Interest Holder has approximately equivalent rotation order positions across the fiber infrastructure. Additional participants in the Fiber Route that become Interest Holders after the date hereof shall be added to the restoration rotation mechanism.

e. The goal of Emergency Unscheduled Maintenance shall be to restore Service as quickly as possible. This may require the use of some type of mechanical splice, such as the "3M FiberLock" to complete the temporary restoration. Transtelco's representatives responsible for initial restoration of a cut cable shall carry on their vehicles the typically appropriate equipment that would enable a temporary splice, with the objective of restoring operating capability in as little time as possible. Permanent restorations will take place as soon as possible after the temporary splice is complete. Transtelco shall maintain and supply an inventory of spare parts (including cable, splice closures, trays, consumables, handholes, etc.) in Transtelco's storage facilities at strategic locations to facilitate timely restoration.

f. Non-Emergency Unscheduled Maintenance Services which are reasonably expected to produce any signal discontinuity must be coordinated between Transtelco and the City in order to minimize disruption of service to the City. Generally, Transtelco will schedule this work after midnight and before 6:00 a.m. local time. Major system work, such as splicing, fiber rolls and hot cuts, will be scheduled for Planned Service Work Period ("PSWP") weekends. A calendar showing approved

PSWP will be agreed upon in the last quarter of every year for the year to come. The intent is to avoid jeopardy work on the first and last weekends of the month and high-traffic holidays. If PSWP is not on the calendar a 7 day notice is will be provided in anticipation of work in order to execute on the short scheduled PSWP.

e. Transtelco shall provide City at least seventy-two (72) hours advance notice regarding any Non-Emergency Unscheduled maintenance or repairs that may affect the City's Fibers, whether or not within a PSWP.

#### **Section 1.4 Splicing**

a. City shall be allowed to connect the City's lateral or other fibers located outside of the Fiber Route points by splicing into the Fiber through the Conduit at locations designated by the City (the "**Access Points**") pursuant to the procedures set forth on **Exhibits B and C** attached hereto and incorporated by reference herein. In order to maintain the integrity of the system, only Transtelco, or a Transtelco-approved contractor operating under Transtelco's direction, shall perform splicing on the Fiber at the Access Points.

b. Normal requests for splicing shall be submitted at least thirty (30) days prior to the requested splicing date, and expedited requests shall be submitted at least ten (10) days prior to the requested splicing date. Transtelco or its contractor shall obtain any and all permits necessary for such splicing.

#### **Section 1.5 Operations Center**

a. Transtelco shall operate and maintain an Operations Center ("OC") staffed twenty-four (24) hours a day, seven (7) days a week by trained and qualified personnel. Transtelco's Maintenance Services employees shall be available for dispatch twenty-four (24) hours a day, seven (7) days a week. The cost of operating the OC shall be included within the monthly fee paid by the City for Scheduled Maintenance, and Transtelco shall not charge any additional fees to City for this service.

b. Transtelco shall maintain a toll-free telephone number for the City or third parties to contact Transtelco's personnel at the OC regarding maintenance and operations issues. Transtelco shall dispatch maintenance and repair personnel promptly upon receipt of notification to perform Maintenance Services as needed, including, without limitation, to handle and repair problems detected in the Fiber, the Conduit, or the Fiber Route.

## **Section 1.6 Cooperation and Coordination**

a. In performing its Maintenance Services hereunder, Transtelco shall at all times perform to the industry's standard of care in compliance with the maintenance and handling procedures and related standards of the Telecommunications Industry Association / Electronic Industries Alliance (TIA/EIA) to prevent impairment to the signal continuity and performance of the Fiber or the Conduit in the Fiber Route. In addition, Transtelco shall reasonably cooperate with the City in sharing information and analyzing the disturbances regarding the cable and/or Fibers.

b. The City shall have the right to be present during the performance of any Maintenance Services which might affect the Fiber, at City's option. In the event that any such Maintenance Services are canceled or delayed for whatever reason as previously notified, Transtelco shall notify the City in writing at Transtelco's earliest opportunity, and will comply with the provisions of this paragraph in rescheduling any delayed activity.

c. The City will be solely responsible for providing and paying for any and all maintenance of all electronic, optronic and other equipment, materials and facilities used by the City in connection with the operation of its Fiber, the cost of which is not included in the Maintenance Services to be provided hereunder.

d. Transtelco shall maintain sufficient technical capability and resources to teleconference with the City during any Emergency Maintenance in order to provide regular communications during the repair process.

e. Damage to the Fiber or any other Maintenance Services to the Fiber caused by any third party shall be jointly pursued to recover the costs or other damages incurred by the City and Transtelco. With Transtelco's assistance, the City shall initiate its collection efforts on behalf of the parties within thirty (30) days of the damage and repair. Transtelco may at its option pursue further collection efforts as agreed between the parties or if the City is unable to recover payment within ninety (90) days.

## **Section 1.7 Self-Help**

If Transtelco fails to perform any Maintenance Services required to be performed by Transtelco hereunder and such failure could adversely affect the City, the operation of the Fiber or the use thereof in the judgment of the City, the City, at its option, may provide such Maintenance Services directly, subject to the following conditions: (a) the City shall give notice to Transtelco at least two (2) business days (except in the event of an emergency, in which case the City shall give Transtelco four (4) hours notice, if feasible) prior to commencing any work falling within the definition of Unscheduled Maintenance at any location along the Fiber Route which notice shall include the date, time, place and general description of the proposed work; (b) all work involving the Fiber shall be performed by reputable contractors employing fiber technicians having adequate training and experience; and (c) any contractor hired by the City shall maintain liability and property damage insurance in amounts not less than \$1,000,000, or the City's then minimum insurance requirements, whichever is greater.

**Section 1.8 Insurance and Indemnity**

Transtelco shall require its contractors to carry liability and property damage insurance in amounts not less than \$1,000,000, with an umbrella of \$5,000,000, and with companies reasonably acceptable to the City. To the fullest extent allowed by law, Transtelco and its contractors shall indemnify, defend, protect and save the City (including its directors, officers, agents, representatives and employees) harmless from and against any claim, damage, loss, liability, injury, cost and expense (including reasonable attorney's fees and expenses) in connection with any loss or damage to the City as a result of the acts or omissions to act, negligence or willful misconduct of Transtelco, its employees, servants, contractors and/or agents in connection with the exercise of its rights and obligations under the terms of this Agreement.

**Section 1.9 City Property**

Transtelco shall not permit its employees, agents or contractors to access, rearrange, disconnect, remove, or otherwise tamper with any Fiber or other City property except as permitted herein, without the prior written consent of City.

**ARTICLE II  
FEES**

**Section 2.1** The City agrees to pay Transtelco the fees set forth in **Exhibit D** attached hereto and made a part hereof.

**Section 2.2** Failure to provide such payment may result in suspension of Maintenance Services and/or termination of this Agreement by Transtelco, upon not less than forty-five (45) days notice to the City. The City shall have the right within the forty-five (45) day period to cure the failure to pay and if such payment is made within the cure period, Maintenance Services will continue uninterrupted.

**ARTICLE III  
TERM**

**Section 3.1 TERM.** This Agreement shall commence on the date stated below and shall continue for a period of ten (10) years thereafter unless sooner terminated as hereinafter provided.

**Section 3.2 TERMINATION.** It is mutually understood and agreed that either the City or Transtelco may terminate the Maintenance Agreement, in whole or in part for the convenience of either party, upon ninety (90) consecutive calendar days written notice to the other party. In such an event, Transtelco will be paid for those Maintenance Services performed to the effective date of termination, upon furnishing the City a progress report and an invoice to such date.

**Section 3.3 ACCESS AFTER TERMINATION.** Upon termination of this Agreement, and for so long as the City continues using and does not abandon the Fiber, the City shall have the right to perform maintenance upon its Fiber under the provisions of this Section 3.3, which shall survive termination of this Agreement. Effective upon termination of this Agreement, the City shall have right to access the Fiber, at the City's sole cost and expense, in order to maintain, repair, and connect to the Fiber, but at all times subject to the following terms and conditions:

a. all connections to the Fiber shall be through access points installed by Transtelco at the City's expense (the "House Access Points"). The House Access Points will consist of a house cable to be spliced into the Transtelco cable and a dedicated handhole or manhole for the house cable. All costs associated with providing the House Access Points, joint use closures and related costs (including without limitation closure swaps, butt splice adapters, additional splice trays, grommets, or any other type of closure accessory that may be required in order to accommodate additional City laterals) will be billed to the City at Transtelco's actual cost of labor, parts and materials plus an overhead factor of 25%, as and when incurred. Transtelco shall use reasonable efforts to construct each House Access Point within a period of five (5) business days (per House Access Point) after receipt of all necessary permits and consents for the House Access Point. During the period that Transtelco is installing the House Access Points, Transtelco shall continue to provide Maintenance Services, and the City shall continue to pay Transtelco for such services, under the terms and conditions of this Agreement, notwithstanding its termination.

b. the City shall give notice to Transtelco at least two (2) business days (except in the event of an emergency, in which case the City shall give Transtelco four (4) hours notice, if feasible), prior to commencing any work falling within the definition of Unscheduled Maintenance at any location along the Fiber Route which notice shall include the date, time, place and general description of the proposed work;

c. all work involving the Fiber shall be performed by reputable contractors employing fiber technicians having adequate training and experience; and

d. any contractor hired by the City shall maintain liability and property damage insurance in amounts not less than \$1,000,000, or the City's then minimum insurance requirements, whichever is greater.

#### **ARTICLE IV GENERAL CONDITIONS**

**Section 4.1 LEGAL RELATIONSHIP.** Each party to this Agreement is responsible for their own acts and deeds and for those of their agents, employees, contractors, and personnel acting for and under the direction of such entities, during the performance of any work or services to the extent provided by law.

**Section 4.2 AMENDMENTS.** This Agreement may be amended by mutual agreement of the parties hereto in writing to be attached to and incorporated into this Agreement.



**Section 4.7 SUCCESSORS AND ASSIGNS.** This Agreement shall be binding on Transtelco and the City, their successors and assigns. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of the City.

**Section 4.8 REPRESENTATION OF COUNSEL; MUTUAL NEGOTIATION.** Each party has had the opportunity to be represented by counsel of its choice in negotiating this Agreement. This Agreement shall therefore be deemed to have been negotiated and prepared at the joint request, direction, and construction of the parties, at arms' length, with the advice and participation of counsel, and will be interpreted in accordance with its terms without favor to any party.

**Section 4.9 AUTHORITY TO EXECUTE AGREEMENT.** Each person signing below represents that he or she has read this Agreement in its entirety (including any and all Attachments); understands its terms; is duly authorized to execute this Agreement on behalf of the party indicated below by his or her name; and agrees on behalf of such Party that such Party will be bound by those terms.

**Section 4.10 HEADINGS.** The headings of the sections contained in this Agreement are included herein for reference purposes only, solely for the convenience of the parties hereto, and shall not in any way be deemed to affect the meaning, interpretation, or applicability of this Agreement or any term, condition or provision hereof.

**Section 4.11 EXECUTION AND COUNTERPARTS.** This Agreement may be executed in any number of counterparts; each of which when so executed and delivered shall be deemed an original, and such counterparts together shall constitute only one instrument. Any one of such counterparts shall be sufficient for the purpose of proving the existence and terms of this Agreement and no party shall be required to produce an original or all of such counterparts in making such proof.

**Section 4.12 ENTIRE AGREEMENT.** This Agreement supersedes any and all other agreements, either oral or in writing, between the parties hereto with respect to the subject matter hereof, and no other agreement, statements of promise relating to the subject matter of this Agreement which is not contained herein shall be valid or binding.

*(Signature page to follow)*



## EXHIBIT A

### FIBER ROUTE

Segment 1: Route begins at a zero manhole set on the east side of 4045 Doniphan Park Circle, El Paso, Texas, then northeasterly across private easement to the west side of South Mesa Hills, southeasterly along South Mesa Hills to Bluff Canyon, south and easterly on Bluff Canyon (a/k/a South Mesa Hills) to State Highway 20, south on State Highway 20 to East Baltimore, northeasterly on East Baltimore to Stanton Street, southeasterly along Stanton Street to Rio Grande Ave, northeasterly along Rio Grande Ave to Willow Street. Total distance of Segment 1 is 45,817 feet.

Segment 2: Route begins at a manhole set, southeasterly on Willow Street to Wyoming Avenue, northeasterly along Wyoming Avenue to North Stevens Street, northerly along Stevens Street to Tularosa Avenue, easterly along Tularosa Avenue to Marr Street, southerly along Marr Street to Yandell Drive, easterly along Yandell Drive to Argentina Street, northerly along Argentina Street to Montana Avenue, easterly along Montana Avenue to US 62, northeasterly along US 62 to Geronimo Drive, southerly along Geronimo Drive to Aztec Road, easterly along Aztec Road to Sioux Drive, southerly along Sioux Drive to Edgemere Blvd, easterly along Edgemere Blvd to Bellrose Drive, southerly along Bellrose Drive to WH Burgess Drive, easterly along WH Burgess Drive to Catalpa Lane, southwesterly along Catalpa Lane to Viscount Blvd, southeasterly along Viscount Blvd to Montwood Drive. Total distance of Segment 2 is 37,372 feet.

Segment 3: Route begins at manhole at intersection of Viscount & Montwood, then easterly on Montwood Drive to North Yarbrough Drive, southerly along North Yarbrough Drive to Vista Del Sol Drive, southeasterly on Vista Del Sol Drive to Vista De Oro Drive, southerly along Vista De Oro Drive to Pellicano Drive, southeasterly along Pellicano Drive to Lomaland Drive, southerly on Lomaland Drive to Rojas Drive, southeasterly on Rojas Drive to Loma Verde Drive, southeasterly on Loma Verde Drive to State Road 375 Loop, northeasterly along north bound side of State Road 375 Loop to Pine Springs Drive, southeasterly on Pine Springs Drive to Mercantile Avenue, southerly along Mercantile Avenue to the zero manhole placed in at 12325 Mercantile Avenue, El Paso, Texas. Total distance of Segment 3 is 49,104 feet.

EL PASO DOWNTOWN SPUR: Route begins at a manhole set at Stanton & Rio Grande, then southerly along Stanton to Yandell, southwesterly along Yandell to a private easement, southerly along private easement to a utility bridge over IHIO, southerly across utility bridge over IH 10, crossing Wyoming to Missouri, northeasterly along Missouri Stanton Street, southeasterly along Stanton Street to Franklin Street; southwesterly along Franklin Street to entrance Manhole to 201 Main Street, El Paso, Texas. Total distance of downtown spur is 1,946 feet.

Total Route Footage 134,239 lineal feet.

## **EXHIBIT B**

### **MAINTENANCE AND RESTORATION PROCEDURES**

#### **GENERAL**

This document is intended to be used as a maintenance and restoration guideline for fiber optic cable systems. It contains recommended procedures for restoring service in the event of an outage, as well as recommended maintenance guidelines. Correcting electronic failures is not addressed in this document.

The procedures presented herein describe methods of restoring traffic as quickly and safely as possible. They are not necessarily permanent repairs or recommended construction techniques. Once traffic has been restored, permanent repair of the cable system should be accomplished by using accepted outside plant construction and splicing methods.

All direct buried cable shall be exposed by non-invasive excavation methods only, prior to any mechanical excavation.

Conduit/HDPE shall be exposed by non-invasive excavation methods at each end of the existing conduit/HDPE (within the project limits) to verify its actual encasement. Proceed to pothole conduit/HDPE at intervals not to exceed 50 feet in length. Once pot-holed to verify the conduit's continuity, utilize side exposure method, uncovering conduit/HDPE with flat edge bucket.

#### **PROACTIVE MEASURES**

Locate tickets generated by excavators (all subsurface constructors) will be transmitted to Transtelco's OC for preliminary screening and disposition determination. If determined by the OC technician that the proposed activity is within the grid containing the Fiber, the ticket will be dispatched to a Transtelco field technician for further processing; otherwise the OC technician will return the ticket to the center with a status "all clear" or "no conflict". Upon review by the field technician, should the field technician determine that no Fiber exists within the proposed dig ticket limits, a positive response back to the one call center with an "all clear" or "no conflict" is required.

In the event that the field technician determines that Fiber does in fact exist within the proposed work limits described in the dig ticket, the technician will electronically locate and mark the facilities according to industry standards and best practices. The field technician will also review the facility as-builts comparing the as-built information to the locate just made as a safety check.

In the event that the Fiber is located within the limits of proposed construction activities that may put the facilities in jeopardy of being damaged, the field technician will contact the responsible party on the dig ticket (and the project owner company representative) requesting a field meeting to discuss what measures will be established to protect the Fiber. These can include but are not limited to:

- Requiring the field technician to be on-site during some or all construction activities.
- Shoring, Bracing, and encasing for mechanical protection
- Relocation of existing facilities (with cost reimbursement agreement).

Transtelco field technicians will routinely complete a “route review” visually inspecting for conditions that place the Outside Plant (OSP) facilities in jeopardy.

These include but are not limited to:

- Erosion and Flooding
- New Construction
- Deteriorating facilities (Poles if aerial)

If such conditions are found or if imminent danger exists, the field technician shall forward the issue to Transtelco’s OC manager (the “Manager”) for resolution. The Manager shall promptly notify City about the problem.

### **FIBER BREAKS**

Unlike conventional copper cables, optical fibers do not always break locally. Because of the loose coupling of the fibers to the remainder of the cable structure, load stresses can be transmitted to the fibers a small distance from their point of application when a cable is damaged. As a result, fiber breaks also may occur a short distance from the damaged origin.

Offset breaks are not readily detected with an Optical Time Domain Reflectometer (OTDR). During the initial restoration, one or two meters of cable should be cut from the cable ends prior to splicing. The fibers should be checked for continuity during initial restoration splicing.

After emergency restoration is complete, the fibers should be checked carefully for continuity before permanent repair splicing begins, and again after completion of splicing.

If the cable has been kinked severely some distance from a localized cut, a residual stress may remain in the cable after it has been returned to its original state. The cable sheath may not show the severity of the damage. Even though the fibers may not show any damage on initial inspection, some fibers may break at a later time due to static fatigue. The full extent of the cable damage should be evaluated carefully in the general vicinity of the break prior to commencing the permanent repair.

### **COMMUNICATION**

#### **Central Command Center / SPOC (NOC)**

Efficient communications during a restoration will be vital to minimize the length of the outage. The establishment of a central coordination point and a field command post for restoration activities will improve the efficiency of gathering information and communication. The field command post should

be near the restoration site. The coordination point should be centrally located. The choice of location should be determined by:

- Ready availability of telephone service
- Proximity to restoration materials
- Proximity to restoration site

Information from and to all sources should be routed through and documented at the command center.

### **Field Communications**

Communication between individuals in the field and between the command center and the field will be critical, but may be difficult to maintain. Hand-held portable radios, mobile radios, Fiber Talk-sets, and mobile phones may be needed to maintain communications between field personnel.

The Operations Center (OC) will serve as the communications coordination center during emergency restoration. ALL reports should be directed to the OC hourly. Effective restoration efforts, cost tracking, and document preparation will be possible only if this single communications center concept is strictly followed.

### **SAFETY**

Fiber Optic Cable systems and their associated test equipment employ semiconductor lasers which emit light in the invisible portion of the spectrum. Under extraordinary circumstances, the radiation from these lasers can cause permanent damage to the eye. Particular care must be taken when optical equipment such as microscopes or magnifying lenses is used. Emphasis must be placed on safety precautions whenever optical radiation is present.

Federal regulations require all light emitting devices be properly labeled. However, this is not possible at the ends of the cables and connectors where efforts will be concentrated during system restoration. For this reason, a safety briefing should be given to all personnel prior to possible exposure to optical radiation. Personnel should not examine or stare into broken or disconnected fibers until they have been safely verified as being out of service.

### **Work Area Precautions**

Because cable failures often result from abnormal conditions such as inclement weather, natural and manmade disasters, be alert for safety hazards. Some items to be considered are:

- Work should not be permitted without appropriate approval. Special precaution should be taken when electrical storms are in the vicinity or if there are power cables or overhead power cables in the vicinity.
- OSHA regulations require precautions be observed to avoid cave-ins when digging splicing pits and trenches. This is a matter of law and safety.

- Work forces, especially those normally not engaged in outside plant work, should be cautioned against hazards such as traffic along highways, downed power lines, slippery footing, eye hazards, and fire hazards. Railroad safety training is mandatory when working on railroad right-of-way.

### **Working with Bare Fibers**

The use of safety glasses is compulsory in the working area. If you suspect a fiber particle is in your eye, consult a doctor immediately. Avoid rubbing the eyes while working with or around optical fibers. Place all scrap fiber in waste containers. Do not handle scrap fibers with the fingers. Tweezers or Cellophane tape may be used to collect scrap fibers.

### **Safety Documentation**

The latest editions of the following codes and regulations define the minimum safety and construction standards required for all Transtelco maintenance and restoration work:

- National Electrical Code (NFPA No. 70)
- Code of Federal Regulations, Title 29, Occupational Safety and Health Standards (OSHA)
- Underwriter's Laboratories, Inc.
- Lightning Protection Code (ANSI - 5.1)
- Applicable Local, State and County Ordinances
- Railroad Safety Code

All protective equipment must satisfy the appropriate OSHA, ANSI, and/or MIOSH standards. All personnel working on the site must have certification of a completed course in safety training. Railroad flagmen will be engaged as required by the railroad company.

### **TEMPORARY REPAIR**

There will be situations in which a temporary repair will be more expedient than a permanent repair. This Maintenance and Restoration temporary repair option should be considered carefully to prevent unnecessary expenditures. If temporary repair is needed, the following procedures apply.

#### **Temporary Cable Replacement**

When damage to a fiber optic cable has been located and evaluated, a rapid method must be chosen for temporary physical restoration. If time permits, the chosen procedure may be the permanent repair. Restoral methods should minimize the number of maintenance splices in a section. Depending on the loss budget of a particular span, the inclusion (over time) of extra maintenance splices may prohibit operation on the fiber section.

### ***Method 1: Splice-to-Splice Bridging Cable***

With this method, splice crews break the splices at each end of the damaged cable section and bridge in its place (in a spare duct or above ground) a pre-stripped emergency cable. This method avoids the need for immediately locating and excavating the damaged area, and works regardless of damage propagation within the splice section.

When a Splice-to-Splice Bridging Cable is used in the initial emergency repair, the cable normally will be replaced as soon as possible with a permanent replacement cable. The emergency bridging cable can be re-used in subsequent restoration if care is taken when removing it from service.

### ***Methods 2 & 3: Splicing-Cut-Ends or Short Patch***

If bridging is impractical (e.g., no duct is available and physical obstacles prevent above-ground placement), a variety of Splicing-Cut-Ends or Short-Patch techniques may be appropriate (although they may not restore service fully if the damage has propagated along the fibers).

The Splicing-Cut-Ends method, which is possible only when the cable is in duct, requires sufficient slack to cut back the damaged cable on both sides of the damage end splice using temporary or permanent splicing procedures. This method may have to be used because of the number of maintenance splices already in the span.

The Short-Patch method inserts a pre-stripped short cable length to patch the region of damage. It avoids the slack requirement, but also requires that Elastomeric splices or quick fusion procedures be used to splice the Short-Patch cable temporarily to both sides of the damage cable. After the system is restored, permanent restoration procedures can be implemented.

### **Buried Cable**

Damage to buried and underground cable normally will be caused by isolated cuts which, depending on the location, may be located easily by visual inspection. However, not all outages are visible above ground. For example, another carrier may plow adjacent to Transtelco cable and force an underground object into Transtelco cable.

Restoration of a localized cut in buried cable can be accomplished using the Short-Patch method. Each cable end should be exposed 6 to 8 meters beyond the last visible signs of damage. This 6 to 8 meters will provide sufficient cable to prepare for splicing and to mount closures. Any direct buried cable that is uncovered will be encased with split conduit or HDPE.

### **Cable in Conduit/HDPE**

The preferred method is to pull slack when possible. If slack cannot be pulled, damaged cable in a conduit or HDPE can be restored using a Short-Patch in a manner similar to that used for buried cable. Once the affected area has been identified, the contractor should expose the damaged duct and cable

approximately 6 to 8 meters beyond the last visible signs of damage to each cut end. Splicing will be done using regular restoration splicing methods.

### **Aerial Cable**

Because aerial cable is exposed more directly than buried or underground plant, damage will be more varied in nature. For example, the extent of gunshot damage will depend on the type and/or caliber of weapon used, but generally will affect only a portion of the fibers in the cable. An additional potential source of damage is fallen objects (e.g. trees and rocks). When aerial cable has been damaged, often the supporting pole line also has suffered damage. Although in most cases it is the responsibility of the pole line owner to repair the pole line, depending on the extent of the damage, it probably will take them more time to do so than it will take Transtelco to repair the cable. Instead of waiting until pole line repairs have been completed, the temporary restoration crew should unlash the cable and lay it on the ground. With the cable on the ground, traffic can be restored using a Short-Patch. The possibility of replacing the aerial section with buried cable should be investigated.

When the pole line has been restored, the permanently repaired cable will be re-attached to the new poles in accordance with applicable construction standards and specifications.

### **Road Crossings**

When a road crossing is included in a damaged section, two methods can be used for restoration. The cable may be placed on the road surface, with planking secured on either side of the cable for protection, or on poles set for a temporary aerial crossing. For safety reasons, care must be taken to see that any planking is secured firmly to the road surface. Coordination should be established with the local highway department for any such crossings.

### **Rail Crossings**

When a rail crossing is included in a damaged section, the damage to the cable system and/or the tracks will determine which method should be used to cross the rail.

If the cable and the conduit in the rail bore are damaged and the track is intact and with railroad company permission, the cable can be placed directly under the rail by clearing the ballast between two ties until a permanent bore can be made. The cable should be planked on either side of the track outside the rails. If the cable, the conduit, and the track all are damaged (as in a derailment), temporary poles should be placed on either side of the track to permit temporary aerial crossing. A minimum clearance of 28 feet above the top of the rail must be maintained for all rail crossings. Coordination and permission from the railroad is required for this type of crossing. Exercise extreme caution to avoid overhead power cables.

## **TEMPORARY RESTORATION SPLICING METHODS**

Once the damaged cable is replaced, the primary goal will be to put the system back into service as quickly as possible. Under these conditions, the normal methods of splicing used to minimize splice loss would be too time consuming. Faster methods of temporary splicing will be used. An extra margin

has been left in the system attenuation design specifically for these temporary restoration splices, so the system can be restored quickly.

No matter which temporary splicing method is used in preparing the ends of the damaged cable for splicing, the following must be considered:

- The cable must be exposed 6 to 8 meters back from the last visible signs of damage.
- To remove any offset breaks in the fibers, the cable should be cut off 3 to 4 meters back from the last visible signs of damage. An OTDR reading will be necessary.
- The cable end should be stripped and prepared as usual for splicing.

### **Fibrlok™ Splices**

Fibrlok™ splices should be considered the first choice for temporary splicing. They are quick and relatively simple to make. The equipment required to make the splices are:

- Orderwire sets
- Cable stripping and preparation tools
- A fiber cleaver
- Splicing materials (Fibrlok™)
- Restoration splice closures

This equipment is small, lightweight, and readily transportable even to inaccessible locations. No laser sources, power meters, OTDRs, or fusion splicing sets are required.

If the fiber ends are cleaved well, attenuation of 1 dB or less per splice is expected.

Fibrlok™ splices are particularly suitable for use in hazardous or explosive environments, because no source of ignition will be present (as with an electric arc fusion splicer).

### **Quick (Visual Alignment) Fusion Splices**

The quick fusion splice may be used as an alternative method of temporary restoration splicing. Using this method, the fibers are aligned visually by the operator of the splicing set without provision for maximizing the transmitted power through the splice. While this method is faster than the normal fusion splicing procedures used during construction, it requires more equipment and a technician who is adept at using a fusion splicing set.

If the fiber ends are cleaved well and aligned carefully, attenuation of 1 dB or less per splice may be expected.

### ***Equipment/Material Staging***

To support a restoration program, materials, not only for the temporary repair, but the permanent as well, at strategic locations along the route. Transtelco fiber restoration trailers equipped with any specialized tools to handle splicing of the restoration cable should be positioned at strategic locations. Cable reel trailers and reels of restoration cable (including emergency restoration throw cables prepped with closures on both ends) should also be at these locations. The restoration cables may be extruded into a small diameter high density polyethylene (HDPE) conduit and stored on the reels. This will provide an extra measure of protection while the cables are in use.

### ***Documentation***

A record of all costs should be maintained to support any cost recovery systems (insurance, etc.). When notified of an outage by Transtelco OC, a project number will be established, as is presently being done for standard built fiber systems for cost tracking purposes. The project number will be established by Transtelco and all effected departments within Transtelco will be notified. Transtelco TSO personnel will ensure time sheets, invoices and so forth reflect the assigned number.

### **PERMANENT RESTORATION PLAN**

After temporary restoration is complete, OSP Engineering & Construction Department will prepare a Permanent Restoration Plan. This plan will contain a list of materials specific to the project. A list of contacts with the railroad, county, telephone company, and other appropriate agencies and organizations will be provided in the plan.

## EXHIBIT C

### SPLICING, TESTING AND ACCEPTANCE PROCEDURES/STANDARDS

1. All splices will be performed with an industry-accepted fusion splicing machine.
2. Splicing of Fibers will be done by the core alignment system on the fusion splicer an Access Point pursuant to City's request.
3. After splicing and end to end (site to site) connectivity is achieved on the Fiber, bi-directional span testing will be performed by Transtelco for the entire span or by City if so requested by City. These measurements will be made after installation activities are complete for each span. Once the bi-directional testing is achieved, if City believes that the criteria set forth herein are not met as a result of the splicing performed by Transtelco at an Access Point, Transtelco shall provide the Optical Time Domain Reflectometer (OTDR) tests for the entire span to City in order to allow City to verify and if necessary, perform re-splicing in order to correct the problem. In no event shall Transtelco be responsible for the performance of the City-owned lateral fibers or any splicing performed by City at its own sites or any splice point beyond a Transtelco Access Point.
4. OTDR Standards shall be as follows:
  - Installed loss measurements at 1550nm or 1310nm will be recorded using an industry accepted laser source. Continuity testing (checking for "frogging") will be done on all fibers concurrently.
  - OTDR traces will be taken at 1550nm or 1310nm and splice loss measurements will be analyzed. OTDR format shall be agreed to by both parties.
  - All testing and OTDR traces, will be conducted at 1550nm or 1310nm.
  - OTDR traces shall be saved in a standard file naming convention.
  - One set of diskettes with OTDR traces will be provided, or media and raw data may be delivered via email at a later date.
5. Splicing standards shall be as follows:
  - The objective loss value of the connector and its associated splice will be 0.50 dB or less.
  - The objective for each fiber within a span shall be an average bi-directional loss of 0.15 dB or less for each splice. For example, if a given span has 10 splices, each fiber shall have a total bi-directional loss (due to the 10 splices) of 1.5 dB or less. Individual bi-directional loss values for each splice will be reviewed for high losses.
  - The aforementioned standards are objectives, not the basis for acceptance. The acceptance standard for each fiber per span shall be calculated as follows:  
Span Loss = a(span distance in kilometers) + b(0.15 dB/splice) + c(0.50 db/connector)  
Where:  
$$a = \text{maximum fiber loss in dB per kilometer for the specific fiber type/manufacturer at 1550nm or 1310nm (depending upon IRU Grantee)}$$

b = number of splice locations for the span

c = number of connectors for the span

- All connector splices will be protected with heat shrinks.
- Spliced Fiber will be placed in manifold trays .

**EXHIBIT D**  
**FEES**

The City agrees to pay Transtelco the following fees:

- a. Monthly Scheduled Maintenance Fee. For Scheduled Maintenance, a monthly base fee of \$0.04 per lineal foot of Fiber, which shall be the total amount FIVE THOUSAND THREE HUNDRED SIXTY NINE AND 56/100 DOLLARS (\$5,369.56) for all of the City's 144 Fiber strands, payable in advance on the first day of each month. Any expansion of the Fiber Route which the City seeks to include under this Maintenance Agreement must be approved by Transtelco. In the event that the City extends its Fiber Route to additional City facilities and the City and Transtelco agree that Transtelco will provide maintenance hereunder to the expanded Fiber Route, the monthly Scheduled Maintenance Fee will increase by the amount computed by multiplying the monthly base fee of \$0.04 per lineal foot of Fiber times the linear feet of fiber in the City extensions.
  
- b. Unscheduled Maintenance and All Other Services. For all other services, including Unscheduled Maintenance (including Emergency and Non-Emergency) and Splicing, the City will be billed monthly for Transtelco's actual cost of labor, parts and materials, plus an overhead factor of 25%, as and when incurred, subject to the following proportional sharing, if applicable:

Any Unscheduled Maintenance will be covered by the proportional amount of the interest holders, if more than one interest holder is affected. The proportion will be directly related to the proportion of fibers owned or leased within the Conduit. For purposes of illustration, assume a rainstorm erosion requiring Unscheduled Maintenance, with associated repair expense of \$10,000.

Proportion of Interest Holders: Transtelco owns 288 fibers, and leases 144 to the City of El Paso. Transtelco's proportion is defined as  $144/288$ , or 50%, and thus the amount payable by Transtelco in this example is  $\$10,000 \times 50\%$ , equal to \$5,000. The City of El Paso leases 144 fibers, and thus the City's proportion is  $144/288$ , or 50%. In this example, the City would pay  $\$10,000 \times 50\%$ , equal to \$5,000.