



**JTS**  
 5310 S Cockrell Hill Road Phone 972-620-1435  
 Dallas, TX 75236  
 JTS Tax ID#: 752621300 Fax  
*The Preferred Choice in Wireless Integration*

# Proposal

Quote #	JTSQ9779-03
Date	03/09/22
Sales Rep.	Kyle Fuller

Quote To:	Ship To:	Bill To:	Project
James Gresham City of Stephenville 298 W. Washington Stephenville, TX 76401	James Gresham City of Stephenville 298 W. Washington Stephenville, TX 76401	James Gresham City of Stephenville 298 W. Washington Stephenville, TX 76401	Stephenville PD - Microwave Network (DIR Quote)

- Pricing is in accordance with State of Texas DIR contract #DIR-TSO-4244. **DIR-TSO-4244 and the above Quote # must be referenced on the PO.**  
 - Contract Term End Date for DIR-TSO-4244 is 09/28/2022. Expiration date of this contract is 09/28/2023.  
 - Email purchase order to: sales@jts.net.

- This quotation is valid for a period of thirty (30) days. Pricing shown is FOB: Destination.
- Terms are: NET 30.
- This quotation does not include sales tax, as customer is tax-exempt.
- All equipment warranties, unless otherwise noted, are pass-through from their respective OEMs. JTS warrants it's workmanship for a period of one (1) calendar year from the date of installation completion.

**NOTE: \*\*\*All pricing is budgetary, and subject to the findings of the site surveys, and additional information as it becomes available as far as microwave link nodes that will be used. It is also contingent on the findings of a structural analysis being performed on all towers involved.\*\*\***

Sites involved in this project:

- Stephenville PD  
30' (Rooftop)  
358 N Belknap St.  
Stephenville, TX 76401  
32.221716, -98.204282
- Prather Tower  
545' Guyed Tower  
844 County Road 257  
Stephenville, TX 76401  
32.191667, -98.252618  
ASR: 1062693

NCTCOG Erath County SO Tower  
170' Self-Support Tower  
1043 Glen Rose Rd

Stephenville, TX 76401  
32.213450, -98.190110  
ASR: 1299541

Chalk Mountain Tower  
195' Self-Support Tower  
US-Hwy 67  
Glen Rose, TX 76043  
32.174885, -97.885549

#### Summary

JTS will install the following PTP licensed microwave links and associated switching equipment:

- Stephenville PD to Prather Tower (11 GHz, 1+1 HSB, 30 MHz Channels, 2' Dish Antennas, 100 Mbps throughput (full-duplex)). Path Length: 3.51 miles
- Prather Tower to NCTCOG Erath County SO Tower (11 GHz, 1+1 HSB, 30 MHz Channels, 2' Dish Antennas, 100 Mbps throughput (full-duplex)). Path Length: 3.96 miles
- NCTCOG Erath County SO Tower to Chalk Mountain Tower (11 GHz, 1+1 HSB, 30 MHz Channels, 6' Dish Antennas, 100 Mbps throughput (full-duplex)). Path Length: 18.04 miles

#### Tower Structural Analysis

The owner of the Prather Tower will be responsible for obtaining a loading study for his tower in Stephenville, TX. The Chalk Mountain Tower study will be the responsibility of the City of Stephenville. Pricing is included in this quote, and is described here.

JTS, with assistance from Structural Engineer, will perform a Structural Analysis of the Chalk Mountain Tower in conformance with the ANSI/TIA 222-H Standard Requirements for the site location, unless directed otherwise, to determine its suitability for the proposed changes. The existing foundation will be evaluated provided the relevant information is supplied at the same time as the initial data. A PE sealed Engineering Report will be created, which includes the analysis results and general recommendations. JTS will furnish an electronic pdf copy of the report.

#### Line of Sight Surveys/Site Walks

1. LOS surveys will be scheduled on a day with abundant sunshine
2. Using signaling mirrors JTS crew will establish LOS between the two locations
3. Crew will break into 2-Two Man Teams and drive to each location
4. Each crew will ascend the structure until they are able to see above any obstructions nearby
5. Crew will communicate once in position and begin flashing using the mirrors to the other location
6. If no Line of Sight exists, each crew on each side will move up in 10' increments until Line of Sight is achieved. In some locations, they may go down in 10' increments to ensure better spacing in the design.
7. Video will be taken of the flash from each direction
8. A report along with the videos will be sent over to the customer as completion of this survey.
9. The crews will also inspect the existing infrastructure for mounting, cabling, and power considerations and take photos. This will assist in the final design process.

#### Prather Tower Ice Bridge

JTS will furnish and install an ice bridge between the new shelter and base of the tower. This includes a complete grounding system for the ice bridge that will be tied to the existing tower and new shelter's grounding system.

#### PTP Microwave Scope

JTS will provide FCC coordination and turn-key installation of three (3) licensed PTP links as listed above, with the contingency for a fifth licensed link..

Configuration (Radio Provisioning) Includes:

1. All Cielo Networks' equipment will be drop-shipped to JTS' facility
2. JTS will ensure radio firmware is current
3. JTS will install any applicable license keys
4. JTS will enter the frequencies (from the data sheets)
5. JTS will enter the radio IP addresses and other networking information as required
6. JTS will bench-test to assure that traffic is passing and the radios are functional prior to installation

Installation and Path Alignment Includes:

1. Coaxial cable will be installed from the tower-mounted ODU/antenna to the IDU installed at the base, supported with industry standard hardware
2. Mount will be installed onto the tower legs
3. Radio ODU with antenna will be mounted and set on azimuth
4. Radio IDU will be installed at the base of the structure in the assigned enclosure or building.
5. Both radio units will be grounded
6. Surge suppressors will be installed at the base and at the top of the tower for all installations
7. Power supply will be installed and radio powered on and checked for operation
8. Once both units are installed and found to be operational the link will be aligned until peak RSL is reached
9. Bandwidth test will be administered to inform the customer of actual speeds for this microwave link.
10. Actual ODU part numbers may change based on frequency assignments.
11. A non-penetrating roof mount will be installed atop the Stephenville PD building, or other building used for this node as required.

General Notes:

- 1) JTS will coordinate with the designated City POC(s) for both the site surveys and the installations. It is assumed JTS crews will have access to all sites. Any delays affecting scheduling may result in a change order.
- 2) It is assumed that all towers are climbable and safe.
- 3) It is assumed that tower loading analysis for each tower will be performed prior to the installation of the microwave equipment and antennas.
- 4) All JTS crew members possess a Comtrain Tower Climbing Safety & Rescue certification.
- 5) Work will be performed during normal business hours (7am-5pm, M-F) unless mutually agreed otherwise.
- 6) All equipment will be shipped to JTS' Dallas warehouse for staging and configuration. It will then be taken onsite by the assigned crew once the installation phase begins.
- 7) L3Harris will provide and configure the MPLS routers and SFP modules for this network. L3Harris will also provide UPS systems for this network.

SPARES

A list of recommended spares has been included in the total price.

Invoicing Notes:

- 1) All equipment and installation materials will be invoiced once all serial numbers, packing slips, and/or an onsite review of the equipment has been performed.
- 2) Installation labor and travel will be billed upon completion of each construction task.

Line.#	Qty	Manufacturer	Part Number	Description	Price	Extended Price
1				<b>Tower Loading Analysis - Chalk Mountain Tower</b>		
2	1			Tower Loading Analysis - Chalk Mountain Tower	\$3,520.00	\$3,520.00
3						
4				<b>Line of Sight Surveys/Site Walks</b>		
5	1			Line of Sight Surveys/Site Walks	\$10,902.64	\$10,902.64
6						
7				<b>Ice Bridge at Prather Tower</b>		
8	1			Ice Bridge at Prather Tower	\$10,594.28	\$10,594.28
9						
10				<b>Stephenville PD to Prather Tower Microwave Link (11 GHz, CG2X (1+1 HSB) 100 Mbps full-duplex, 2 foot antennas)</b>		
11						
12	1			Cielo Networks Radios, Antennas, Power Supplies & Surge Arrestors	\$39,576.95	\$39,576.95
13	1			FCC Licensing per Link (includes frequency coordination)	\$2,125.00	\$2,125.00
14	1			Miscellaneous Installation Materials	\$6,856.33	\$6,856.33
15	1			Labor, Travel & Configuration	\$23,146.75	\$23,146.75
16						
17				<b>Prather Tower to NCTCOG Erath County SO Tower Microwave Link (11 GHz, CG2X (1+1 HSB) 100 Mbps full-duplex, 2 foot antennas)</b>		
18						
19	1			Cielo Networks Radios, Antennas, Power Supplies & Surge Arrestors	\$39,576.95	\$39,576.95
20	1			FCC Licensing per Link (includes frequency coordination)	\$2,125.00	\$2,125.00
21	1			Miscellaneous Installation Materials	\$5,872.49	\$5,872.49
22	1			Labor, Travel & Configuration	\$23,146.75	\$23,146.75
23						
24				<b>NCTCOG Erath County SO Tower to Chalk Mountain Tower Microwave Link (11 GHz, CG2X (1+1 HSB) 100 Mbps, 6 foot antennas)</b>		
25						
26	1			Cielo Networks Radios, Antennas, Power Supplies & Surge Arrestors	\$45,271.95	\$45,271.95
27	1			FCC Licensing per Link (includes frequency coordination)	\$2,125.00	\$2,125.00
28	1			Miscellaneous Installation Materials	\$7,683.49	\$7,683.49
29	1			Labor, Travel & Configuration	\$23,294.25	\$23,294.25
30						
31				<b>Recommended Spares</b>		
32	2	Cielo Networks	H110490AN-0H110-C0	Radio, ODU, 11GHz, T-R 490, SP+, Band A, Tx Low (10700 - 10890 MHz)	\$3,081.25	\$6,162.50
33	2	Cielo Networks	H110490AP-0H110-C0	Radio, ODU, 11GHz, T-R 490, SP+, Band A, Tx High (11200 - 11390 MHz)	\$3,081.25	\$6,162.50
34	2	Cielo Networks	CN-CG2X	Radio, Skylink CG2X GigE Wideband Enabled IDU (Payload Capacity Key Required)	\$2,040.00	\$4,080.00

Line.#	Qty	Manufacturer	Part Number	Description	Price	Extended Price
35	2	Cielo Networks	CN-CG2X-BW-01	SkyLink CG2X IDU Initial Payload Capacity: Up to 100Mbps	\$680.00	\$1,360.00
36	2	Cielo Networks	CN-CG2X-OPTION-F1+1A A A A A A A A A	License, Split 1+1 Full Auto Protection - Required for Split Configurations	\$318.75	\$637.50
37	2	Cielo Networks	NDR120-48	Power Supply, -48 VDC/120 Watts supply, 110 VAC input, DIN rail mount, 3' AC cord & 6' DC hook up wire	\$102.00	\$204.00
38	2	Cielo Networks	BGXZ-60NFNM-ALT	Surge Protector, PolyPhaser surge arrester, Type N M-F, SkyLink system compatible	\$255.00	\$510.00
39	2	Cielo Networks	BGXZ-60NFNF-ALT	Surge Protector, PolyPhaser surge arrester, Type N F-F, SkyLink system compatible	\$255.00	\$510.00

SubTotal \$265,444.33  
Sales Tax \$0.00  
Shipping \$0.00  
**Total \$265,444.33**

Please contact me if I can be of further assistance.

## JTS - STANDARD TERMS & CONDITIONS

### 1. ACCEPTANCE:

Proposal valid for thirty (30) days from date of quotation unless specifically stated otherwise by JTS. Acceptance of order/contract by JTS subject to credit approval. The Buyer agrees to, and is bound by, the terms and conditions expressed herein, unless objected to in writing by Buyer and accepted in writing by JTS. Buyer's acceptance of all or any part of the proposal is conclusive assent to abide by the terms and conditions herein. Where a conflict in terms & conditions exists, the Texas Department of Information Resources (DIR) Contract Terms & Conditions (Appendix A) shall override these.

### 2. TERMS:

- a. Net 30 days from date of invoice or as specified in proposal.
- b. Material cost is to be paid before any equipment is ordered.
- c. Invoice to be issued upon completion of pre-staging, pre-configuration, and pre-assembly.
- d. Final invoice to be issued upon completion of installation. If not paid by 30 days from date of invoice, as an additional remedy for lateness, there shall be paid a service charge at the rate of 1 ½% per month (or maximum legal rate) from the due date until paid.

### 3. PROGRESSIVE BILLING

On larger projects over \$50,000 we will adhere to progressive billing and will be set on a site by site bases and the invoices will be sent as milestones are met.

### 4. TAXES:

DIR customers are exempt from sales taxes. Prices do not include excise, sales, use, privilege, import/export duties or any other tax, duty or assessment which may be imposed upon JTS. However, all such taxes, duties or assessments are the responsibility of the Buyer except where exempt.

### 5. CONTRACT CANCELLATION:

Purchase Order or contract may not be changed or cancelled without prior written approval by JTS. Any order cancelled, after any work has been performed by JTS, or related partners, such as Engineering Services, Fabricating, Mobilization, Installations, etc., will have a cancellation charge to be determined solely at the discretion of JTS, for whatever work has been performed. If Buyer so chooses, it shall have the right to receive the material already procured at time of cancellation at the quoted price. JTS reserves the right to change or modify the design or construction of any of its products and services, and to substitute materials or services equal to or superior in quality and construction to that originally specified.

### 6. CHANGE ORDERS:

Any change to the agreed to Scope of Work will result in a Change Order. All Change Orders will be formally presented to the customer for approval before moving forward with the Change Order. The Change Order will outline in detail the new Scope of Work and the costs affected by the new Scope of Work.

### 7. DELAYS:

For any delay due to Force Majeure, including but not limited to, Acts of God, fire, malicious mischief, insurrection, riot, war (declared or undeclared), explosions, epidemics, acts of Buyer, its employees, agents or subcontractors, strikes, freight embargoes, severe weather conditions or any other cause whatsoever beyond the control and without fault of JTS or its subcontractors, whether similar to or dissimilar from causes herein enumerated, then JTS shall not incur any liability consequential or otherwise for such delays and an equal extension of time within which to perform shall be allowed to JTS. Crew downtime incurred for any reason, including but not limited to, materials delays, defective materials, Buyers delays, shall be charged to Buyer at JTS' current rates for downtime/standby time.

### 8. DELIVERY:

- a. All prices are F.O.B. (freight on board) destination.
- b. Buyer will not be billed for freight charges.
- c. JTS' responsibility ceases upon confirmed shipment/receipt of materials by receiver.
- d. JTS does not accept responsibility for damages or shortages which occur during transit.
- e. JTS will not accept responsibility once shipment is received and is damaged.
- f. JTS will ship materials by common carrier. Buyer must make careful inspection of materials when received and make all claims for damage or loss to delivering carrier upon arrival.
- g. Damaged shipment must be documented with photographs.
- h. Receiver is granted to accept part of the order that is NOT damaged and deny the damaged.
- i. All delivery times given by JTS are approximate dates and times only, unless specifically agreed to by JTS. JTS shall not incur any liability for downtime suffered by Buyer because of delayed delivery.

### 9. RETURNED PRODUCTS:

Prior written authorization from JTS is required for all returned products. When a return is authorized, it must be received within 30 days after shipment is received, freight prepaid to a destination of JTS' choice, and be in new condition. All returned products are subject to a restocking charge to be determined by JTS. Only products specifically approved for return by JTS will be considered for return and credit. Unusable products returned to JTS will be scrapped and no credit will be given.