

memo

To: Cass County
From: Brian Zastoupil
CC:
Date: 2/20/2024
Re: Cass County Public Safety Radio System Status Report

To the Cass County Board

Below are few items for your awareness and/or action.

1. Buffalo Tower Site
 - a. Tower light outage and tower inspection
 - b. \$3500 per quote (Inclusion) **Action/approval required**
2. Gardner Tower Site
 - a. Microwave antenna cable has an intermittent leak. (Likely top connector) and tower inspection
 - b. \$3500 per quote (Inclusion) **Action/approval required**
3. Amenia Tower
 - a. Antenna cables experienced damage when ice shed from Christmas ice storm
 - b. Working with Cass County Emergency Management. This item was included with Cass County emergency declaration
 - c. \$41,500 per quote (See inclusion)
 - d. **Action/approval required**
4. Site move (Planned) from 315 Main Ave to new Fargo Water Tank
 - a. Preliminary work for site move has begun.
5. ARMER Upgrade (And impact to Cass Co Radio Infrastructure)
 - a. Motorola will be upgrading ARMER to a newer version in **June/July of 2024 (Software and specific hardware)**
 - b. Costs for upgrade (hardware/software/field support) are included/covered by system/Motorola SUA support contract (Which Cass Co is invoiced/pays annually to MNDOT)
6. Microwave Frequency (New-License Application) Monitoring
 - a. Initiated 3rd party frequency protection/monitoring services for microwave frequencies (OK'd verbally/expedited due to critical timing/nature)
 - b. \$450 Annually (See inclusion for reference)



TOWER CONSTRUCTION / MAINTENANCE
 TOWER MAINTENANCE
 DISH & ANTENNA INSTALLATIONS
 REMOVALS AND REPAIRS
 TOWER INSPECTIONS / TOWER PAINTING
 WIND TURBINE INSTALLATIONS
 ROOF TOP AND WATER TANK SYSTEMS
 ALL FORMS OF TOWER LIGHTING
 TOWER SITE CONSULTATION

Kelly Kuderling 3316 5th Street South Waite Park, MN. 56387 PHONE-320.761.2927

DATE: January 10th 2024

Proposal # 01102401

ATTN: Cass County, ND.
 300 NP Ave Suite #206
 Fargo, ND. 58103

Site location: Buffalo, ND.
 Job Name: Lighting and Inspection
 Phone: 701-451-7683 Brian Zastoupil

Buffalo Tower Site – 180’ Self Support \$ 3,500.00

**Trouble shoot incandescent lighting system, and make all necessary repairs where possible
 If additional parts and a return trip is needed a second proposal will be issued for the repairs**

**Full tower inspection, tower inspections consist of but are not limited to....
 Visual inspection and inventory of all antennas, mounts and feedlines.
 Inspections of all tower lighting, lighting cables/conduit and wiring.
 Inspection of all structural steel, site grounding and general site conditions.**

Customer will receive a copy of a completed inspection report including pictures of all recommendations


All mobilization, labor and materials are included in quoted price

Contractor will bill additional for the following on this contract for down time or delays in construction:
 Work uncompleted causing the schedule to be altered by other contractors.
 Improper materials and equipment to complete construction of the project.
 Owner or General Contractor changes schedule during construction.
 Unsafe tower structures and/or site conditions.

Diamond Tower Service, Inc. propose hereby to furnish material and/or labor to complete all work mentioned above in accordance with above specifications, terms and conditions, for the sum of: **Three Thousand Five Hundred Dollars (\$ 3,500.00)**
 Payment to be made as follows: (Pricing does not include any State, Federal or Local sales, use or excise taxes).

WITHIN 30 DAYS OF PROJECT COMPLETION.

Acceptance of Proposal: Upon signatures below, the above prices, specifications, terms and conditions are satisfactory and are hereby accepted. Diamond Tower Service, Inc. is authorized to do the work as specified. Payment will be made as outlined above. Proposal must be signed, dated and returned to this office before work can begin. (Retain a copy for your files).

Signature _____ Date _____ P.O. # _____	Authorized Signature  Kelly Kuderling / Diamond Tower Service, Inc. Note: This proposal may be withdrawn after 60 days.
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Kelly Kuderling 3316 5th Street South Waite Park, MN. 56387 PHONE-320.761.2927

DATE: January 10th 2024

Proposal # 01102402

ATTN: Cass County, ND.
 300 NP Ave Suite #206
 Fargo, ND. 58103

Site location: Gardner, ND.
 Job Name: Leak and Inspection
 Phone: 701-451-7683 Brian Zastoupil

Gardner Tower Site – 180’ Self Support \$ 3,500.00

Visually inspect waveguide from end to end. Tighten all connection bolts.
 Apply leak detector to all connectors and connections. Seal leak if possible

Full tower inspection, tower inspections consist of but are not limited to....
 Visual inspection and inventory of all antennas, mounts and feedlines.
 Inspections of all tower lighting, lighting cables/conduit and wiring.
 Inspection of all structural steel, site grounding and general site conditions.

Customer will receive a copy of a completed inspection report including pictures of all recommendations


All mobilization, labor and materials are included in quoted price

Contractor will bill additional for the following on this contract for down time or delays in construction:
 Work uncompleted causing the schedule to be altered by other contractors.
 Improper materials and equipment to complete construction of the project.
 Owner or General Contractor changes schedule during construction.
 Unsafe tower structures and/or site conditions.

Diamond Tower Service, Inc. propose hereby to furnish material and/or labor to complete all work mentioned above in accordance with above specifications, terms and conditions, for the sum of: **Three Thousand Five Hundred Dollars (\$ 3,500.00)**
 Payment to be made as follows: (Pricing does not include any State, Federal or Local sales, use or excise taxes).

WITHIN 30 DAYS OF PROJECT COMPLETION.

Acceptance of Proposal: Upon signatures below, the above prices, specifications, terms and conditions are satisfactory and are hereby accepted. Diamond Tower Service, Inc. is authorized to do the work as specified. Payment will be made as outlined above. Proposal must be signed, dated and returned to this office before work can begin. (Retain a copy for your files).

Signature _____ Date _____ P.O. # _____	Authorized Signature  Kelly Kuderling / Diamond Tower Service, Inc. Note: This proposal may be withdrawn after 60 days.
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TOWER SITE CONSULTATION

Kelly Kuderling 3316 5th Street South Waite Park, MN. 56387 PHONE-320.761.2927

DATE: January 15th 2024

Proposal # 01152401

ATTN: Cass County, ND.
300 NP Ave Suite #206
Fargo, ND. 58103

Site location: Amenia, ND.
Job Name: Ice Damage – Ice Bridge
Phone: 701-451-7683 Brian Zastoupil

Amenia, ND. Tower Site

Remove 3 runs of WE65 feeding RFS dishes at 180', 240', and 280'

Remove all flex twist, pressure windows and hangers as needed

Supply and install new WE65 to each dish at 180', 240', and 280'

Supply and install connectors, flex twist, pressure windows and grounding kits as needed

Reuse all existing hangers, supply and replace all hangers that cannot be reused

Secure feedlines to the tower and route lines into the building and connect to the radios

Attach air to lines, allow time to pressurize and inspect all new WE65 for leaks.

Remove 1/2" coax from the antenna at approx. 300'

Supply and install new 1/2" coax to antenna

Supply and install new connectors, and grounds as needed

Secure line to tower using existing hangers, replace hangers as needed

Test to insure proper operation

Add to existing ice bridge to fully cover exposed feedlines

Diamond tower to supply and install all needed materials for the ice bridge additions

Materials **\$ 19,000.00**

Labor **\$ 22,500.00**

Take pictures of all work performed


Dispose of / Recycle all removed materials

All mobilization, labor and materials are included in quoted price

Contractor will bill additional for the following on this contract for down time or delays in construction:
Work uncompleted causing the schedule to be altered by other contractors.
Improper materials and equipment to complete construction of the project.
Owner or General Contractor changes schedule during construction.
Unsafe tower structures and/or site conditions.

Diamond Tower Service, Inc. propose hereby to furnish material and/or labor to complete all work mentioned above in accordance with above specifications, terms and conditions, for the sum of: **Forty One Thousand Five Hundred Dollars (\$ 41,500.00)**
Payment to be made as follows: (Pricing does not include any State, Federal or Local sales, use or excise taxes).

WITHIN 30 DAYS OF PROJECT COMPLETION.

Acceptance of Proposal: Upon signatures below, the above prices, specifications, terms and conditions are satisfactory and are hereby accepted. Diamond Tower Service, Inc. is authorized to do the work as specified. Payment will be made as outlined above. Proposal must be signed, dated and returned to this office before work can begin. (Retain a copy for your files).	
Signature _____ Date _____ P.O. # _____	Authorized Signature  Kelly Kuderling / Diamond Tower Service, Inc. Note: This proposal may be withdrawn after 60 days.

January 18, 2024

Brian Zastoupil
CASS, County North Dakota
211 9th Street
Fargo, ND 58103
United States

RE: Price Quotation - Frequency Protection Services for Cass, County of
Quote Period: January 19, 2024 - January 19, 2025

Dear Brian Zastoupil:

Comsearch is pleased to have this opportunity to provide a quotation for frequency protection services for your system. Our service is extremely valuable for maintaining the interference-free operation of your microwave facilities. Our experienced engineering staff provides the following services to ensure your continued operation without compromise:

- * Perform an annual system review to confirm the protected operating characteristics of your system.
- * Notify all licensees and coordination companies located within the coordination contours of your communications facilities that we are your frequency protection agent. Notification will shift the flow of Prior Coordination Notices (PCNs) from your office to Comsearch.
- * Enter all applications or coordinations involving communications facilities into our database as well as our Coordination Tracker Database (CTD). CTD is an automated record-keeping and tracking system, which automatically updates the status of each request as it is received, analyzed, and answered.
- * Analyze each coordination or application and perform a technical review to determine its potential interference impact on your facilities within 30 days of receipt.
- * Respond directly to the applicant or coordinating company on your behalf. Comsearch will copy you on any replies sent detailing potential interference cases found.
- * Act as your technical liaison with the applicant or the coordinating company to resolve potential interference cases. Comsearch will copy you on any correspondence concerning the resolution of potential interference cases.
- * Monitor all Public Notices containing applications accepted by the Federal Communication Commission (FCC), to ensure that all filings have been successfully coordinated with your protected system. If an application appears on Public Notice that may cause interference, Comsearch will notify you.
- * Provide a detailed monthly report outlining the results of the interference analysis performed on your behalf in the previous month.
- * As a protection customer you will receive full access to Comsearch Connect. Comsearch Connect is our customer portal that allows you to track your projects, and download your datasheet, supplemental showing, warning documents, and your monthly report.

The fees are as follows:

Point-to-Point Microwave (PTP)

Band ID	Frequency Range (MHz)	Unit Count	Monthly Unit Cost	Subtotal (Annual)
6.1	5925.0 - 6425.0	6	Fixed	Fixed
6.7	6525.0 - 6875.0	1	Fixed	Fixed
10.0	10550.0 - 10680.0	4	Fixed	Fixed
SUBTOTAL (PTP)				Fixed

GRAND TOTAL AMOUNT \$ 450.00

We appreciate the opportunity to provide you with this information. If you have any questions or would like to discuss this further, please let me know.

Best regards,

Unless otherwise expressly agreed in writing by Comsearch, this Quotation is subject to our Terms & Conditions of Sale:

<https://www.comsearch.com/cos>

You agree that these Terms are deemed incorporated by reference into your order and any other writings pertaining to your order. Confidential information to Comsearch. Shall not be used, in whole or in part, for any purpose other than to evaluate this proposal.

DATE: January 18, 2024

Customer ID: CASCNT
Carrier Code: CASCNTCustomer: CASS, COUNTY OF
Carrier: Cass, County of**Point-to-Point Microwave (PTP)**

REF NO	CALL SIGN	BAND ID	STATUS	LOADING	SITE	ST	LATITUDE	LONGITUDE
1	WQGY520 WREP630	6.1	L	1 CH DIG	315 Main Tow FELTON	ND MN	46-52-27.8 47-03-50.0	96-47-03.8 96-35-10.2
2	WREP698 WQJL845	6.1	L	1 CH DIG	32ND AVE WT AMENIA TWR	ND ND	46-49-51.3 47-00-36.6	96-51-16.6 97-11-41.8
3	WQJL846 WQJL845	6.7	L	1 CH DIG	45TH STREET AMENIA TWR	ND ND	46-52-01.9 47-00-36.6	96-51-39.0 97-11-41.8
4	WQLS790 WQGY520	10.0	K	1 CH DIG	64TH AVE WT FARGO HGHRIS	ND ND	46-47-18.4 46-52-22.5	96-48-36.8 96-47-01.3
5	WQLS790 WREP625	6.1	L	1 CH DIG	64TH AVE WT KINDRED	ND ND	46-47-18.4 46-38-58.8	96-48-36.8 97-01-27.9
6	WQGT399 WQGY520	10.0	K	1 CH DIG	AAT TOWER FARGO HGHRIS	ND ND	46-44-20.4 46-52-22.5	96-50-16.0 96-47-01.3
7	WREP696 WREP624	6.1	L	1 CH DIG	ALICE BUFFALO	ND ND	46-45-44.3 46-54-54.4	97-33-18.0 97-32-08.7
8	WQJL845 WREP624	6.1	L	1 CH DIG	AMENIA TWR BUFFALO	ND ND	47-00-36.6 46-54-54.4	97-11-41.8 97-32-08.7
9	WQJL845 WREP694	6.1	L	1 CH DIG	AMENIA TWR GARDNER	ND ND	47-00-36.6 47-09-04.5	97-11-41.8 96-57-51.9
10	WQGY520 WQGT397	10.0	Q	1 CH DIG	FARGO HGHRIS OAKPORT TANK	ND MN	46-52-22.5 46-56-23.1	96-47-01.3 96-46-32.9
11	WQGY520 WQGT396	10.0	Q	1 CH DIG	FARGO HGHRIS SEIM HALL	ND ND	46-52-22.5 46-53-50.1	96-47-01.3 96-48-16.1

11 TOTAL PROTECTION UNITS FOR CASCNT

Legend:

Status Codes:

- (A) Applied for License
- (G) Proposed Growth
- (L) Licensed
- (P) Proposed
- (R) Replaced
- (T) Temporary
- (Q) Questionable

Type: (M) Master, (R) Remote

(*) denotes a path that is already counted for another owner