

memo

To: Cass County
From: Brian Zastoupil
CC:
Date: 8/13/2024
Re: Action Item-Antenna System Parts and Labor for replacement tower site (New Fargo Water Tank)

The attached quote is regarding parts and labor cost for new antenna systems at Fargo Water Tank

Background. Cass County temporarily relocated public safety radio equipment to interim tower site (315 Main Ave Fargo) due to impending demolition of Fargo High Rise. Final destination site (New Fargo Water Tank) is nearing completion and ready to accept equipment.

Cass County Sheriff has been consulted to ensure project funding/availability

This quote encompasses the parts and service to install multiple antenna systems (Qty 8) (antennas, cabling, installation hardware, etc) on new Downtown Fargo Water Tank.

Thanks for your consideration of this request.

SUGGESTED MOTION: Approve Diamond Tower quote for parts and services at a cost, per quote of **\$73,500**



TOWER CONSTRUCTION / MAINTENANCE
TOWER MAPPING
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: July 22nd 2024

Proposal # 07222401

ATTN: Cass County Government
PO Box 2806
Fargo, ND. 58103-2806

Site location: Fargo, ND.
Job Name: Antenna Installations
Phone: 701-451-7683 Brian Zastoupil

Antenna installations on the new water tank located at 1102 7th Ave. Fargo, ND. 58102

Supply and deliver 6' dish w/tie back and pipe mount

Hoist all antenna materials to the roof of the tank

Assemble and install all antennas as shown on antenna layout sheet (Page 3)

It is understood that antenna locations may not be exactly as shown and can change if needed

Install waveguide brackets from the radio room to the antennas as needed

Supply and install all feedlines from radio room to each antenna

Install all connectors, grounds, and hangers as needed

Sweep test all feedlines as directed by Cass Co.

Perform a site walk with Cass Co. or third party when completed

Correct any punch items before leaving site

Remove all construction debris from within the tank and the grounds

Provide frequent updates with pictures regarding progress

Take pictures of all work performed

Estimated completion time of 2 weeks (M-F)

Project notes:

Neoprene will be installed between the tank steel and all metal clamps to protect the finish

Diamond Tower to supply everything highlighted in blue and all consumables (Page 4 & 5)

4" x 60" Dish mounting pipe to have welded caps on both ends

5' dish, dish mount, and mounting hardware to be painted as directed by Cass Co.

Misc. antenna materials and mounting hardware can be painted per request

Paint all external coax after installation to match the tank finish if required by Cass Co.

Local crane company to hoist dish and other misc. materials to protect the finish

Microwave dish alignment included in quoted price, alignment to be done in a separate trip

All mobilization, labor and materials are included in quoted price

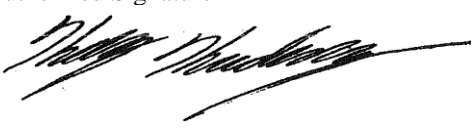
Materials	\$ 27,500.00
Crane	\$ 3,500.00
Painting	\$ 3,500.00
Labor	\$ 39,000.00

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: **Seventy Three Thousand Five Hundred Dollars (\$ 73,500.00)**
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.

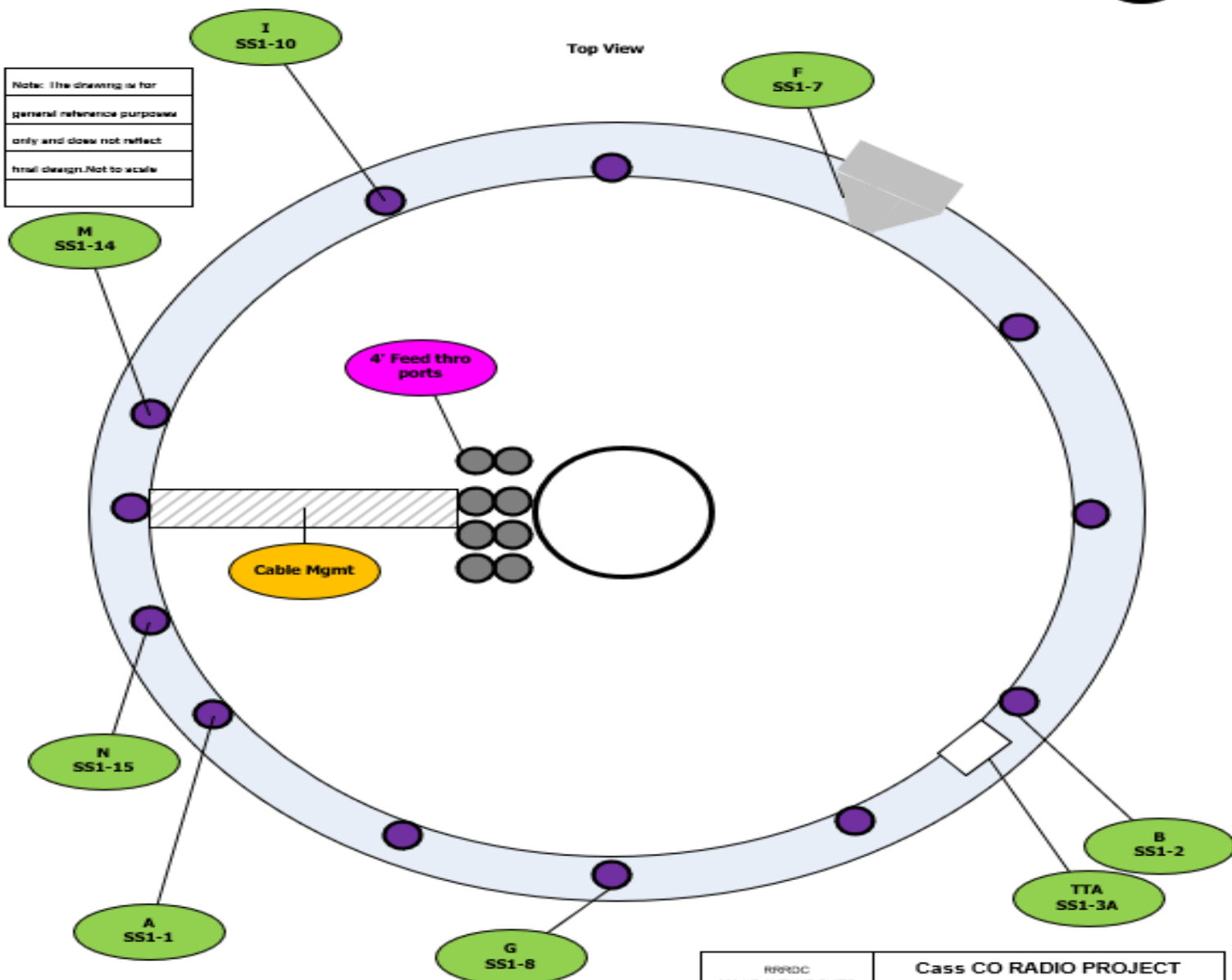
Acceptance of Proposal: Upon signatures below, the above prices, specifications, terms and conditions are satisfactory and are hereby accepted. Diamond Tower Service, Inc. is authorized to do the work as specified. Payment will be made as outlined above. Proposal must be signed, dated and returned to 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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Top View

Note: This drawing is for
general reference purposes
only and does not reflect
final design. Not to scale



RRRDC 300 NP AVENUE SUITE #205 FARGO, ND 58102 701 481-7883	Cass CO RADIO PROJECT		
	PUBLIC SAFETY CASS COUNTY LMR PRELIMINARY		
PREPARED BY BLJ	DATE	PROJECT NO.	REV
3/15/2023	1:100	Downtown FGD WT	A
			84 OF 12

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Simulcast List - Cass Co, ND

<u>Site</u>	<u>Antenna</u>	<u>Source</u>	<u>TYPE</u>	<u>Qty</u>	<u>Nomenclature</u>	<u>Description</u>	<u>Unit List</u>	<u>Ext List</u>	<u>Status</u>
NEW WT	B-800 RX	Motorola	RFDS	1	DSSAC001V1P	TOWER TOP AMPLIFIER, 700/800MHZ REDUNDANT AMP, N-CONNECTORS (FILTRONIC)	\$ -	\$ -	
NEW WT	B-800 RX	Motorola	RFDS	1	DSKIT000044P	MOUNTING KIT, TTA, SINGLE UNIT (FILTRONIC)	\$ -	\$ -	
NEW WT	B-800 RX	Diamond	UPPER JUMPER	1	L4A-NMDM-6-P	LDF4-50A CABLE: 1/2" M DIN MALE N 6'	\$ -	\$ -	
NEW WT	B-800 RX	Diamond	TTAJUMPR	1	L4A-NMDM-10-P	LDF4-50A CABLE: 1/2" M DIN MALE N 10'	\$ -	\$ -	
NEW WT	B-800 RX	RFI Americas	ANTENNA RX	1	CC80711	OMNI, CORPORATE COLLINEAR, 10.5DBD, 746-870MHZ, PIM & 25KW PIP RATED	\$ -	\$ -	ON HAND
NEW WT	B-800 RX	RFI Americas	CLAMP SET	1	UC-1143	CLAMP SET	\$ -	\$ -	ON HAND
NEW WT	B-800 RX	Diamond	ANTENNA MOUNT	1			\$ -	\$ -	
NEW WT	B-800 RX	Diamond	UPPERJUMPR	2	221213	221213 CABLE WRAP WEATHERPROOFING	\$ -	\$ -	
NEW WT	B-800 RX	Diamond	MAINLINE	320	AVA5-50	AVA5-50, COAXIAL CABLE, CORRUGATED COPPER, 7/8 IN, BLACK PE JACKET	\$ -	\$ -	
NEW WT	B-800 RX	Diamond	MAINLINE	2	AL5DF-PSA	DIN FEMALE FOR AVA5-50 CABLE	\$ -	\$ -	
NEW WT	B-800 RX	Diamond	MAINLINE	6	SG78-06B2A	SG78-06B2A SUREGROUND GROUNDING KIT FOR 7/8 IN COAXIAL CABLE	\$ -	\$ -	
NEW WT	B-800 RX	Diamond	MAINLINE	3	L5SGRIP	L5SGRIP 7/8" SUPPORT HOIST GRIP	\$ -	\$ -	
NEW WT	B-800 RX	Diamond	ANTACC	10	916625	SNAP IN HANGARS	\$ -	\$ -	
NEW WT	B-800 RX	MidStates	SURGE	1	DGXZ+15DMDF-A	7/16 M/F Coaxial RF Surge Protector, 800MHz - 2.5GHz, 300W, IP67, 15 V Max., 500uJ, 20kA, Hy	\$ -	\$ -	
NEW WT	B-800 RX	MidStates	SURGE	1	BFD	GROUND STRAP KIT - DIN	\$ -	\$ -	
NEW WT	B-800 RX	MidStates	LOWERJUMPR	25	FSJ4-50B	FSJ4-50B CABLE: 1/2" SUPERFLEX POLY JKT PER FOOT	\$ -	\$ -	
NEW WT	B-800 RX	MidStates	LOWERJUMPR	2	F4PDMV2-C	F4PNMV2-HC 1/2" TYPE M DIN PLATED CONNECTOR	\$ -	\$ -	
NEW WT	A-800 TX	Diamond	UPPER JUMPER	1	L4A-DMDM-10-P	LDF4-50A CABLE: 1/2" M DIN M DIN 10'	\$ -	\$ -	
NEW WT	A-800 TX	RFI Americas	ANTENNA TX	1	CC80711	OMNI, CORPORATE COLLINEAR, 10.5DBD, 746-870MHZ, PIM & 25KW PIP RATED	\$ -	\$ -	ON HAND
NEW WT	A-800 TX	RFI Americas	CLAMP SET	1	UC-1143	CLAMP SET	\$ -	\$ -	ON HAND
NEW WT	A-800 TX	Diamond	ANTENNA MOUNT	1			\$ -	\$ -	
NEW WT	A-800 TX	Diamond	UPPERJUMPR	2	221213	221213 CABLE WRAP WEATHERPROOFING	\$ -	\$ -	
NEW WT	A-800 TX	Diamond	MAINLINE	280	AVA550	AVA5-50, COAXIAL CABLE, CORRUGATED COPPER, 7/8 IN, BLACK PE JACKET	\$ -	\$ -	
NEW WT	A-800 TX	Diamond	MAINLINE	2	AL5DF-PSA	DIN FEMALE FOR AVA5-50 CABLE	\$ -	\$ -	
NEW WT	A-800 TX	Diamond	MAINLINE	4	SG78-06B2A	SG78-06B2A SUREGROUND GROUNDING KIT FOR 7/8 IN COAXIAL CABLE	\$ -	\$ -	
NEW WT	A-800 TX	Diamond	MAINLINE	3	L5SGRIP	L5SGRIP 7/8" SUPPORT HOIST GRIP	\$ -	\$ -	
NEW WT	A-800 TX	Diamond	ANTACC	9	916625	SNAP IN HANGARS	\$ -	\$ -	
NEW WT	A-800 TX	MidStates	SURGE	1	TSXDC-DFM	RF SPD, 698-2700MHZ DC PASS HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET	\$ -	\$ -	
NEW WT	A-800 TX	MidStates	SURGE	1	BFD	GROUND STRAP KIT - DIN	\$ -	\$ -	
NEW WT	A-800 TX	MidStates	LOWERJUMPR	25	FSJ4-50B	FSJ4-50B CABLE: 1/2" SUPERFLEX POLY JKT PER FOOT	\$ -	\$ -	
NEW WT	A-800 TX	MidStates	LOWERJUMPR	2	F4PDMV2-C	F4PNMV2-HC 1/2" TYPE M DIN PLATED CONNECTOR	\$ -	\$ -	
NEW WT	A-800 TX	Diamond-	BOOT	1	BA121M	4" BOOT ASSEMBLY 2 X 7/8" HOLES & 1x 1/2"	\$ -	\$ -	800 LMR &
NEW WT	TTA-Test Line	Diamond	TESTLINE	320	LDF4-50A	LDF4-50A CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT	\$ -	\$ -	
NEW WT	TTA-Test Line	Diamond	TESTLINE	1	L4TNM-PSA	L4TNM-PSA TYPE N MALE PS FOR 1/2 IN CABLE	\$ -	\$ -	
NEW WT	TTA-Test Line	Diamond	TESTLINE	1	L4TNF-PSA	L4TNF-PSA TYPE N FEMALE PS FOR 1/2 IN CABLE	\$ -	\$ -	
NEW WT	TTA-Test Line	Diamond	TESTLINE	4	SG1212B2U	SG12-12B2U, SUREGROUND 1/2", 48"	\$ -	\$ -	
NEW WT	TTA-Test Line	Diamond	TESTLINE	3	L4SGRIP	L4SGRIP SUPPORT HOIST GRIP 1/2" LDF	\$ -	\$ -	
NEW WT	TTA-Test Line	Diamond	ANTACC	10	SSH12	SSH-12 1/2" SNAPSTAK HANGER 10PK	\$ -	\$ -	
NEW WT	TTA-Test Line	MidStates	SURGE	1	DGXZ+15NMNF-A	N M/F Coaxial RF Surge Protector, 800MHz - 2.5GHz, 300W, IP67, 15 V Max., 500uJ, 20kA, Hybri	\$ -	\$ -	
NEW WT	TTA-Test Line	MidStates	TESTLINE	25	FSJ1-50A	FSJ1-50A CABLE: 1/4" SUPERFLEX POLY JKT PER FOOT	\$ -	\$ -	
NEW WT	TTA-Test Line	MidStates	TESTLINE	2	F1TNM-HC	F1TNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE	\$ -	\$ -	

NEW WT	F-6GHZ Microwave	Diamond		2	40417	40417 CABLE TIES NYLON (1 EA= 1 BAG = 50 TIES)	\$	-	\$	-
NEW WT	F-6GHZ Microwave	Diamond								
NEW WT	F-6GHZ Microwave	Diamond								
NEW WT	F-6GHZ Microwave	Diamond				Stiff Arm / Tie Back Hardware Needed				
NEW WT	F-6GHZ Microwave	Diamond		1	RFS-PAD6-59BC1S1R	ANTENNA, 5.925-6425 GHZ, 1.8M/6FT, SP, SNGL POL, CPR137G, WHT MLD RAD, CAT A	\$	-	\$	-
NEW WT	F-6GHZ Microwave	Diamond		1	179-530147-001	Antenna Pipe Mount Kit, ≤ 6 Ft. Antenna	\$	-	\$	-
NEW WT	F-6GHZ Microwave	Diamond		320	RFS-E65	Elliptical Waveguide, 5.0 - 7.125 GHz	\$	-	\$	-
NEW WT	F-6GHZ Microwave	Diamond		2	C137-065FG	Connector for FLEXWELL® elliptical waveguide E65, CPR137G Flange	\$	-	\$	-
NEW WT	F-6GHZ Microwave	Diamond		3	GKIT-24-065	Grounding Kit, Pre-formed Copper Strap, for E65	\$	-	\$	-
NEW WT	F-6GHZ Microwave	Diamond-		1	VLT-BAEW63	Waveguide Entry Boot, E65, 4", 1-Hole	\$	-	\$	-
NEW WT	F-6GHZ Microwave	VALMONT								
NEW WT	F-6GHZ Microwave	Diamond		11	EW63-63	EW63 Waveguide Snap-In Hanger Kit (Or equal)	\$	-	\$	-
NEW WT	I-UHF Page Link TX		UHF Dig Paging	1	ASP-705K	1-port omni antenna, 450-470 MHz, 360° HPBW, fixed electrical tilt	\$	-	\$	-
NEW WT	I-UHF Page Link TX		UHF Dig Paging	1	DB365-OS	Pipe Mount/Clamp Set	\$	-	\$	-
NEW WT	I-UHF Page Link TX		UHF Dig Paging	300	AVA550	AVA5-50, COAXIAL CABLE, CORRUGATED COPPER, 7/8 IN, BLACK PE JACKET	\$	-	\$	-
NEW WT	I-UHF Page Link TX	Diamond	UHF Dig Paging	4	SG78-06B2A	SG78-06B2A SUREGROUND GROUNDING KIT FOR 7/8 IN COAXIAL CABLE	\$	-	\$	-
NEW WT	I-UHF Page Link TX	Diamond	UHF Dig Paging	3	L5SGRIP	L5SGRIP 7/8" SUPPORT HOIST GRIP	\$	-	\$	-
NEW WT	I-UHF Page Link TX	Diamond	UHF Dig Paging	9	916625	SNAP IN HANGARS	\$	-	\$	-
NEW WT	I-UHF Page Link TX	Diamond	UHF Dig Paging	2	ALSNF-PSA	N-Female Positive Stop for 7/8" AVA5-50	\$	-	\$	-
NEW WT	I-UHF Page Link TX		UHF Dig Paging	1	IS-B50HN-CO-MA	Bulkhead Arrestor,N/M-N/F	\$	-	\$	-
NEW WT	I-UHF Page Link TX		UHF Dig Paging	25	FSJ1-50A	FSJ1-50A CABLE: 1/4" SUPERFLEX POLY JKT PER FOOT	\$	-	\$	-
NEW WT	I-UHF Page Link TX		UHF Dig Paging	2	F1TNM-HC	F1TNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE	\$	-	\$	-
							\$	-	\$	-
NEW WT	G-UHF Siren		UHF Siren	1	ASP-705K	1-port omni antenna, 450-470 MHz, 360° HPBW, fixed electrical tilt	\$	-	\$	-
NEW WT	G-UHF Siren		UHF Siren	1	DB365-OS	Pipe Mount/Clamp Set	\$	-	\$	-
NEW WT	G-UHF Siren		UHF Siren	300	AVA550	AVA5-50, COAXIAL CABLE, CORRUGATED COPPER, 7/8 IN, BLACK PE JACKET	\$	-	\$	-
NEW WT	G-UHF Siren	Diamond	UHF Siren	4	SG78-06B2A	SG78-06B2A SUREGROUND GROUNDING KIT FOR 7/8 IN COAXIAL CABLE	\$	-	\$	-
NEW WT	G-UHF Siren	Diamond	UHF Siren	3	L5SGRIP	L5SGRIP 7/8" SUPPORT HOIST GRIP	\$	-	\$	-
NEW WT	G-UHF Siren	Diamond	UHF Siren	9	916625	SNAP IN HANGARS	\$	-	\$	-
NEW WT	G-UHF Siren	Diamond	UHF Siren	2	ALSNF-PSA	N-Female Positive Stop for 7/8" AVA5-50	\$	-	\$	-
NEW WT	G-UHF Siren		UHF Siren	1	IS-B50HN-CO-MA	Bulkhead Arrestor,N/M-N/F	\$	-	\$	-
NEW WT	G-UHF Siren		UHF Siren	25	FSJ1-50A	FSJ1-50A CABLE: 1/4" SUPERFLEX POLY JKT PER FOOT	\$	-	\$	-
NEW WT	G-UHF Siren		UHF Siren	2	F1TNM-HC	F1TNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE	\$	-	\$	-
							\$	-	\$	-
							\$	-	\$	-
Site	Site	Source	Type	Qty	Nomenclature	Description	\$	-	\$	Ext List
SPARES	SPARES	Motorola	RFDS	1	D5440034392	Tower Top Amplifier w/N-Type RF connectors	\$	-	\$	-

MidStates MidStates
Cass County Cass County
Motorola Motorola
Tower Svcs Tower Svcs