



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **65355** | Service: **DTV** | Call **KTTZ-TV** | Channel: **25 (UHF)** |  
ID: | Sign:  
File **0000026949**  
Number:  
FRN: **0030587018** | Date **05/13**  
Submitted: **/2020**

## Applicant Information

### Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
<b>TEXAS TECH UNIVERSITY Applicant</b> Doing Business As: TEXAS TECH UNIVERSITY	Ron Trice, Director of Engineering BOX 42161 LUBBOCK, TX 79409 United States	+1 (806) 742-2209	ron. trice@TTU. edu	Other

## Reimbursement Contact Information

### Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

## Preparer Contact Information

### Preparer Contact Name and Information

Applicant	Address	Phone	Email
<b>Alisan Colleen Sweet</b> <i>KTTZ Business Manager</i> <i>KTTZ Texas Tech University</i> <i>Public Media</i>	Alisan Sweet 3406 18th Street Box 42161 Lubbock, TX 79409 United States	+1 (806) 834- 2398	alisan. sweet@ttu.edu

**Broadcaster  
Information  
and  
Transition  
Plan**

Question	Response
Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information.	No
Briefly describe transition plan	Purchase transmitter, antenna and transmission line. Current transmitter cannot be retuned to new channel (see attached). Modification to the tower for placement of new antenna.

**Transmitters**

Section	Question	Response
Transmitter Related Expenses	Do you have transmitter related expenses?	Yes

**Primary  
Transmitter**

**Existing Transmitter Information**

Section	Question	Response
<b>Existing Transmitter Description</b>	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
<b>Existing Transmitter Manufacturer and Type</b>	Manufacturer	
	Model	CD3260P2- CF
	Year	2002
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	60 kW

**Primary  
Transmitter**

**New Transmitter Costs**

Section	Question	Response
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Manufacturer	
	Model	ULXTE-30
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	19.2 kW
	Justification for New Transmitter	The Harris Sigma transmitter is not tunable to Channel 25 as per Harris (Gates Air) see attached. The existing mask filter is channel- specific and must be replaced for the new channel. Upgrade to 30kW Filter.

**Primary  
Transmitter**

**Other Transmitter Costs**

Section	Question	Response
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<b>Electrical Service</b>	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	No
	Size	N/A
	Length	N/A
	Other Electrical Service	Yes
	Description	Electrician to connect new transmitter and power transformer to existing electrical panel. Run and connect RF filter fan and cooling fan and pumps to existing panels.
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
<b>Channel 14 Costs</b>	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A

	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Primary Transmitter

Other Transmitter Cost Not Listed

Name	Description
Simple Site Survey	Propose new equipment layout, provide 2D floor plan for proposed facility with electrical and building modifications

**Antennas**

Section	Question	Response
Antenna Related Expenses	Do you have antenna related expenses?	Yes

**Primary  
Antenna**

**Existing Antenna Information**

Section	Question	Response
<b>Existing Antenna Description</b>	Type of change	Purchase New
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	Yes
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
<b>Existing Antenna Manufacturer and Type</b>	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels	N/A
	Design power capacity in use	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power) .....	890.0 kW



Manufacturer	
Model	TFU- 22DSC-R C170
Year	2003

Primary  
Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels/Bays	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Design power capacity in use	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power) .....	290.0 kW
	Manufacturer	

Model	TFU-18JTH /VP-R 4C170
Year	2018
Justification for New Antenna	Existing antenna is a Channel 39 signal channel antenna and cannot be re-tuned. The antenna is side mounted. The new antenna needs to be top mounted due to no other space on the tower.

## Primary Antenna

### Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	Type	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes

	Broadband or Single Channel?	Single Channel
	Feed Line Size	4 1/16 inches inches
<b>Side Mount Brackets</b>	Do you require the separate purchase of side mount brackets for a high power antenna?	No
<b>Pattern Scatter Analysis</b>	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
<b>Sweep Test</b>	Do you require the sweep testing of transmission line and antenna?	Yes

## Primary Antenna

### Other Antenna Cost Not Listed

Name	Description
<b>Bury Mount Adapter</b>	The adapter is needed to mount the new antenna to the tower. This a custom built adapter designed and built buy Dielectric.

**Transmission Line**

Section	Question	Response
Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

**Primary  
Transmission Line**

**Existing Transmission Line**

Section	Question	Response
<b>Existing Transmission Line Description</b>	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	No
	Is Transmission Line in operating condition?	Yes
<b>Existing Transmission Line Manufacturer and Type</b>	Manufacturer	
	Type	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	522 feet per run

**Primary**  
**Transmission Line**

**New Transmission Line**

Section	Question	Response
<b>New Transmission Line Costs</b>	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	4 1/16 inches
	Other Diameter	N/A
	Segment Length	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	700 feet per run
	Justification for New Transmission Line	The existing line is 20' sections which is Prohibited on Channel 25. We need to use 19 1/2' or 19 3/4' transmission line sections.

**Primary**  
**Transmission Line**

**Other Transmission Line Expenses Not Listed**

Information not provided.

**Tower Equipment And Rigging Costs**

Section	Question	Response
Tower Equipment or Rigging Costs Changes	Do you have tower equipment or rigging costs changes?	Yes

**Primary Tower**

**Existing Tower**

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Is this tower consider Complex?	
	Is this tower currently shared with any other stations?	Yes
	One or more FM, AM or TV radio broadcaster(s)	Yes
	Others Types of Users	Yes
	Is tower documented for structural analysis?	No
	Is tower compliant with Rev G?	No
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1047750
Coordinates (NAD83 ( North American Datum of 1983))	Latitude (NAD83)	33° 34' 55.0" N-
	Longitude (NAD83)	101° 53' 27.0" W-
	Overall Structure Height	817.58 feet
	Support Structure Height	644.02 feet
	Ground Elevation Above Mean Sea Level (AMSL)	3225.03 feet



Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	TEXAS TECH UNIVERSITY
Date Constructed	05/07/1982

**FM, AM or TV radio  
broadcasters. Facility ID's,  
Call Signs and Services of  
other broadcast stations with  
whom the tower is shared**

Facility ID	Call Sign	Service
65352	KTXT-FM	FM
65354	KTTZ-FM	FM

**Other Types of Users**

Users
S. Plains EMS
TTU BMC

**Primary  
Tower**

**Tower Modification Costs**

Section	Question	Response
<b>Engineering Study</b>	Please what type of engineering study is required, if any:	Study needed for undocumented /poorly documented tower
<b>Tower Reinforcements</b>	Please select whether tower reinforcements are needed:	Major Reinforcements needed

**Primary  
Tower**

**Tower Rigging Costs**

Section	Question	Response
Tower Rigging Costs	Complex Tower	Other
Helicopter Services Required	Are helicopter services required?	No

**Primary  
Tower**

**Other Tower Expenses Not Listed**

Information not provided.

**Outside  
Professional Services Costs**

Section	Question	Response
<b>Outside Project Management Services</b>	Do you require outside project management services?	Yes
	Number of Hours	300
	Explanation	The station has multiple transmitter sites (1 TV with 2 Radio and 1 Radio 180 miles away) and 2 Studio Buildings. They are operating with minimal staff. The station does not have personnel available for managing this project and doing their daily duties.
<b>Outside RF consulting Engineering Services</b>	Perform engineering study for new channel assignment and antenna development	Yes
	Prepare engineering section of Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No

	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	1
	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
<b>Attorney and Other Outside Consulting Services</b>	Prepare and file Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	1
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	Yes
	FAA Consultation (including preparation of FAA Form 7460)	No
	Negotiation of Lease and other Matter for Shared Locations	No
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	No

<b>RF Field Engineering Services</b>	Comprehensive coverage verification via field study	Yes
	RF exposure measurements	Yes
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

**Outside Other Professional Services Expenses Not Listed**  
**Professional Services Costs** If services not provided.

## Other Expenses

Section	Question	Response
<b>AM Pattern Disturbance</b>	Is an Impact Study needed?	No
	Is Remediation needed?	No
<b>Facility Expenses</b>	Name	N/A
	Other Distributed Transmission System Expenses Not listed	N/A
	Name	N/A
	Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
<b>Permit and Filing Costs</b>	Local Zoning	No
	Non-zoning permits	No
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	No
	FCC License to Cover Application	No
	FCC Special Temporary Authority Application	No
<b>Other Miscellaneous Expenses</b>	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
	Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	Yes
	Does this relocation require Equipment Storage?	No
	Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change?	Yes
	Does this relocation require MVPD Notification of a Channel Change?	Yes

Other  
Expenses

Other Expenses Not Listed

Name	Description
Geotechnical Services	Engineering Analysis of soil at the base of the tower and anchor points. Analysis requested by Tower Engineering Company

## Cost Information

### Transmitters

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Primary Transmitter ULXTE-30</b>	<b>\$704,176.80</b>	<b>\$522,322.53</b>		<b>\$522,260.68</b>	
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$502,145.73	N/A	\$502,893.88	Additional parts were required with GatesAir transmitter installation.
Simple Site Survey	<i>\$5,176.80</i>	\$5,176.80	N/A	\$5,176.80	N/A
Other Electrical Service: Electrician to connect new transmitter and power transformer to existing electrical panel. Run and connect RF filter fan and cooling fan and pumps to existing panels.	<i>\$15,000.00</i>	\$15,000.00	N/A	\$14,190.00	N/A
<b>Sub-total</b>	<b>\$704,176.80</b>	<b>\$522,322.53</b>	<b>N/A</b>	<b>\$522,260.68</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$2,334,513.80</b>	<b>\$2,188,168.41</b>	<b>N/A</b>	<b>\$1,876,717.16</b>	<b>N/A</b>



## Components

Actual Information	File Name	
Description		
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	<b>Component Description:</b>	Transmitter related cost. #US0319989
	<b>Amount:</b>	\$29,952.00
	<b>Component Description:</b>	transmitter freight cost
	<b>Amount:</b>	\$3,084.00
	<b>Component Description:</b>	IP-based transmitter remote control, software license, enhanced speech interface, SNMP manager, transient suppressor
	<b>Amount:</b>	\$4,941.15
	<b>Component Description:</b>	Transmitter (ULXTE-30) and its components
	<b>Amount:</b>	\$322,529.33
	<b>Component Description:</b>	transmitter installation
	<b>Amount:</b>	\$29,952.00
	<b>Component Description:</b>	Transmitter installation hardware and equipment
	<b>Amount:</b>	\$78,450.70

	<b>Component Description:</b>	transmitter installation parts
	<b>Amount:</b>	\$1,165.50
	<b>Component Description:</b>	transmitter installation parts
	<b>Amount:</b>	\$339.66
	<b>Component Description:</b>	Transmitter filter, Motorized Switch, Test Load & inside RF System
	<b>Amount:</b>	\$63,936.70
	<b>Component Description:</b>	transmitter installation parts
	<b>Amount:</b>	\$1,611.10
Simple Site Survey	<b>Component Description:</b>	Basic site survey invoice from GatesAir, Inc. for KTTZ, Texas Tech University, Lubbock, TX
	<b>Amount:</b>	\$5,176.80
Other Electrical Service: Electrician to connect new transmitter and power transformer to existing electrical panel. Run and connect RF filter fan and cooling fan and pumps to existing panels.	<b>Component Description:</b>	Electrician to connect new transmitter/power transformer to existing electrical panel. Run /connect RF filter fan and cooling fan /pumps to existing panels.
	<b>Amount:</b>	\$14,190.00

Cost  
Information

Antennas

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Antenna TFU-18JTH /VP-R 4C170	\$403,352.00	\$305,288.00		\$274,759.20	
Bury Mount Adapter	<i>\$97,552.00</i>	\$97,552.00	N/A	\$87,796.80	N/A
Elbow complex, single channel, at antenna input, per 4 1/16. feedline (if needed)	\$9,570.00	\$8,592.00	N/A	\$7,732.80	N/A

UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	\$289,500.00	\$192,744.00	N/A	\$173,469.60	The new Dielectric antenna matches the directional pattern and horizontal polarization of the existing antenna. KTTZ TV has included the addition of vertical polarization to the new antenna at the station's expense. Please see attached variance document.
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$5,760.00	N/A
<b>Sub-total</b>	\$403,352.00	\$305,288.00	N/A	\$274,759.20	N/A
<b>Total for all systems</b>	\$2,334,513.80	\$2,188,168.41	N/A	\$1,876,717.16	N/A

## Components

Actual Information	
Description	File Name

Bury Mount Adapter	<div data-bbox="726 174 1356 407"> <p><b>Component Description:</b> bury mounting adapter - KTTZ bird cage, inv. 45% of total per contract</p> <p><b>Amount:</b> \$43,898.40</p> </div> <div data-bbox="726 510 1356 743"> <p><b>Component Description:</b> First installment of 45% of Bury Mount Adapter with bird cage is due.</p> <p><b>Amount:</b> \$43,898.40</p> </div>
Elbow complex, single channel, at antenna input, per 4 1/16. feedline (if needed)	<div data-bbox="726 878 1356 1196"> <p><b>Component Description:</b> First installment of 45% of Elbow Complex KTTZ Single channel (at antenna input for 4-1/13" 50 ohm) is due.</p> <p><b>Amount:</b> \$3,866.40</p> </div> <div data-bbox="726 1299 1356 1617"> <p><b>Component Description:</b> elbow complex KTTZ single channel at antenna input 4-1/13" 50 ohm; inv. 45% of total per contract.</p> <p><b>Amount:</b> \$3,866.40</p> </div>

<p>UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized</p>	<table> <tr> <td data-bbox="718 98 1141 526"> <p><b>Component Description:</b></p> <p><b>Amount:</b></p> </td><td data-bbox="1141 98 1426 526"> <p>ANT TFU-18ETT /VP-R 4C170 KTTZ D25 antenna invoice 45% of total, per contract.</p> <p>\$86,734.80</p> </td></tr> <tr> <td data-bbox="718 526 1141 965"> <p><b>Component Description:</b></p> <p><b>Amount:</b></p> </td><td data-bbox="1141 526 1426 965"> <p>First installment of 45% of High Power Side Mount Antenna (ANT TFU-18JTH /VP-R 4C170 KTTZ D-25) is due.</p> <p>\$86,734.80</p> </td></tr> </table>	<p><b>Component Description:</b></p> <p><b>Amount:</b></p>	<p>ANT TFU-18ETT /VP-R 4C170 KTTZ D25 antenna invoice 45% of total, per contract.</p> <p>\$86,734.80</p>	<p><b>Component Description:</b></p> <p><b>Amount:</b></p>	<p>First installment of 45% of High Power Side Mount Antenna (ANT TFU-18JTH /VP-R 4C170 KTTZ D-25) is due.</p> <p>\$86,734.80</p>
<p><b>Component Description:</b></p> <p><b>Amount:</b></p>	<p>ANT TFU-18ETT /VP-R 4C170 KTTZ D25 antenna invoice 45% of total, per contract.</p> <p>\$86,734.80</p>				
<p><b>Component Description:</b></p> <p><b>Amount:</b></p>	<p>First installment of 45% of High Power Side Mount Antenna (ANT TFU-18JTH /VP-R 4C170 KTTZ D-25) is due.</p> <p>\$86,734.80</p>				
<p>Sweep test of existing antenna</p>	<table> <tr> <td data-bbox="718 965 1141 1288"> <p><b>Component Description:</b></p> <p><b>Amount:</b></p> </td><td data-bbox="1141 965 1426 1288"> <p>repack sweep test; inv. 45% of total per contract</p> <p>\$2,880.00</p> </td></tr> <tr> <td data-bbox="718 1288 1141 1512"> <p><b>Component Description:</b></p> <p><b>Amount:</b></p> </td><td data-bbox="1141 1288 1426 1512"> <p>First installment of 45% of Repack Sweep is due.</p> <p>\$2,880.00</p> </td></tr> </table>	<p><b>Component Description:</b></p> <p><b>Amount:</b></p>	<p>repack sweep test; inv. 45% of total per contract</p> <p>\$2,880.00</p>	<p><b>Component Description:</b></p> <p><b>Amount:</b></p>	<p>First installment of 45% of Repack Sweep is due.</p> <p>\$2,880.00</p>
<p><b>Component Description:</b></p> <p><b>Amount:</b></p>	<p>repack sweep test; inv. 45% of total per contract</p> <p>\$2,880.00</p>				
<p><b>Component Description:</b></p> <p><b>Amount:</b></p>	<p>First installment of 45% of Repack Sweep is due.</p> <p>\$2,880.00</p>				

Cost  
Information

Transmission Line

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmission Line	\$99,400.00	\$86,691.00		\$78,021.90	
Rigid Transmission Line - copper, 4 1/16"	\$99,400.00	\$86,691.00	N/A	\$78,021.90	N/A
Sub-total	\$99,400.00	\$86,691.00	N/A	\$78,021.90	N/A
Total for all systems	\$2,334,513.80	\$2,188,168.41	N/A	\$1,876,717.16	N/A

Components

Actual Information	
Description	File Name
Rigid Transmission Line - copper, 4 1/16"	<b>Component Description:</b> rigid transmission line and T/L 4-50 EIA for the line; inv. 45% of total per contract.
	<b>Amount:</b> \$39,010.95
	<b>Component Description:</b> First installment of 45% of Rigid Transmission Line is due.
	<b>Amount:</b> \$39,010.95

Cost  
Information

Tower Equipment and Rigging Costs

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Tower TOWER	\$868,300.00	\$1,026,716.88		\$965,561.88	
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$25,000.00	N/A	\$2,800.00	N/A
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$601,716.88	Please see SG Communications document	\$601,716.88	N/A
Major tower reinforcement /modifications	\$421,000.00	\$400,000.00	N/A	\$361,045.00	N/A
Sub-total	\$868,300.00	\$1,026,716.88	N/A	\$965,561.88	N/A
Total for all systems	\$2,334,513.80	\$2,188,168.41	N/A	\$1,876,717.16	N/A

Components

Actual Information	
Description	File Name



Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study		
	<b>Component Description:</b>	Feasibility analysis for tower modification due to age of tower.
	<b>Amount:</b>	\$2,800.00
	<b>Component Description:</b>	tower analysis prior to modification; provide structural analysis and site evaluation
	<b>Amount:</b>	calculated guy tension, confirmed antenna loading \$15,683.50

Complex Tower (includes, for example, those with candelabras and/or stacked antennas)		
	<b>Component Description:</b>	Tower related cost.
	<b>Amount:</b>	#1 \$590,032.00
	<b>Component Description:</b>	mobilization, reg, set-up, de-rig; top mount CH5 antenna removal, new antenna and line install; tuning assist; remove and reinstall 2 FM antennas; move DTV antenna; lighting replace; tower painting; remove CH 39 antenna and line
	<b>Amount:</b>	\$559,145.00
	<b>Component Description:</b>	security fencing around KTTZ tower during tower work.
	<b>Amount:</b>	\$11,684.88
	<b>Component Description:</b>	security fencing around KTTZ tower during tower work.
	<b>Amount:</b>	\$7,373.12

Major tower reinforcement /modifications	<div data-bbox="711 174 1377 291"> <div>Component Description:</div> <div>Tower related cost. #1</div> <div>Amount:</div> <div>\$361,045.00</div> </div> <div data-bbox="711 396 1377 869"> <div>Component Description:</div> <div>Site visit, fdn mods, mod bury sxn, replace tower top, replace loose leg bolts, rework guy wires and P&amp;T tower, engineering for tower reinforcement; install/remove temp leg reinforce</div> <div>Amount:</div> <div>\$391,932.00</div> </div>
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## Cost Information

### Outside Professional Services

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Outside Professional Services</b>	<b>\$182,835.00</b>	<b>\$171,250.00</b>		<b>\$7,817.50</b>	
Project management of the transition	\$47,400.00	\$45,000.00	N/A	\$0.00	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	\$142.50	Invoice totaling \$720.25 can be removed from this section
RF Exposure Measurements	\$21,050.00	\$20,000.00	N/A	\$0.00	N/A
Comprehensive coverage verification via field study, if needed	\$84,200.00	\$80,000.00	N/A	N/A	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$0.00	N/A	\$0.00	Invoice totaling \$71.25 can be removed from this section.
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$3,680.00	\$3,500.00	N/A	\$475.00	N/A

Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	\$450.00	N/A
Prepare request for Special Temporary Authorization	\$2,050.00	\$1,500.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$2,250.00	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$4,500.00	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A
<b>Sub-total</b>	\$182,835.00	\$171,250.00	N/A	\$7,817.50	N/A
<b>Total for all systems</b>	\$2,334,513.80	\$2,188,168.41	N/A	\$1,876,717.16	N/A

## Components

Actual Information		
Description	File Name	
Project management of the transition	<b>Component Description:</b>	Legal Service Cost. #1016877
	<b>Amount:</b>	\$965.00
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	<b>Component Description:</b>	outside counsel services related to license to cover application.
	<b>Amount:</b>	\$142.50
	<b>Component Description:</b>	line items 5 and 6 of this invoice relate to KTTZ outside counsel services regarding license to cover application. Variance memo attached.
	<b>Amount:</b>	\$720.25
	<b>Component Description:</b>	line items 1,2,3,4,5,13,14,15 of this invoice relate to KTTZ outside counsel services related to license to cover application. Variance memo attached.
	<b>Amount:</b>	\$1,445.75

<p>RF Exposure Measurements</p>	<table> <tr> <td data-bbox="687 98 1098 757"> <p><b>Component Description:</b></p> </td><td data-bbox="1098 98 1426 757"> <p>This entry made on incorrect component -- made on RF Exposure Measurements; will be added to "perform engineering study for new channel assignment and antenna development.</p> </td></tr> <tr> <td data-bbox="687 757 1098 1245"> <p><b>Amount:</b></p> </td><td data-bbox="1098 757 1426 1245"> <p>(\$4,500.00)</p> </td></tr> <tr> <td data-bbox="687 757 1098 1245"> <p><b>Component Description:</b></p> </td><td data-bbox="1098 757 1426 1245"> <p>RF Consulting Engineering including engineering performance study for new channel assignment and antenna development</p> </td></tr> <tr> <td data-bbox="687 1245 1098 1245"> <p><b>Amount:</b></p> </td><td data-bbox="1098 1245 1426 1245"> <p>\$4,500.00</p> </td></tr> </table>	<p><b>Component Description:</b></p>	<p>This entry made on incorrect component -- made on RF Exposure Measurements; will be added to "perform engineering study for new channel assignment and antenna development.</p>	<p><b>Amount:</b></p>	<p>(\$4,500.00)</p>	<p><b>Component Description:</b></p>	<p>RF Consulting Engineering including engineering performance study for new channel assignment and antenna development</p>	<p><b>Amount:</b></p>	<p>\$4,500.00</p>
<p><b>Component Description:</b></p>	<p>This entry made on incorrect component -- made on RF Exposure Measurements; will be added to "perform engineering study for new channel assignment and antenna development.</p>								
<p><b>Amount:</b></p>	<p>(\$4,500.00)</p>								
<p><b>Component Description:</b></p>	<p>RF Consulting Engineering including engineering performance study for new channel assignment and antenna development</p>								
<p><b>Amount:</b></p>	<p>\$4,500.00</p>								
<p>Comprehensive coverage verification via field study, if needed</p>	<p>Information not provided.</p>								

<p>ASR modification (prepare FCC Form 854)</p>	<p><b>Component Description:</b> line item 5 of this invoice contains outside counsel services related to ASR modification. Variance memo attached.</p> <p><b>Amount:</b> \$71.25</p> <p><b>Component Description:</b> line items 4,5,6,7,8,9 of this invoice contain outside counsel services related to ASR modification. Variance memo attached.</p> <p><b>Amount:</b> \$825.25</p>
<p>Attorney Fees - Prepare and File request for Special Temporary Authorization</p>	<p><b>Component Description:</b> prepare and file STA to operate KTTZ TV at reduced power until new channel change over.</p> <p><b>Amount:</b> \$475.00</p>
<p>Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application</p>	<p><b>Component Description:</b> Review and completion of legal portion of KTTZ-TV repack modification application.</p> <p><b>Amount:</b> \$450.00</p>
<p>Prepare request for Special Temporary Authorization</p>	<p>Information not provided.</p>
<p>Prepare engineering section of FCC Form 2100 (main), License to Cover Application</p>	<p>Information not provided.</p>



Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	<p><b>Component Description:</b></p> <p>RF Consulting Engineering: Preparation of engineering section of FCC Form 2100, construction permit (CP) application.</p> <p><b>Amount:</b></p> <p>\$2,250.00</p>
Perform engineering study for new channel assignment and antenna development	<p><b>Component Description:</b></p> <p>engineering study for new channel assignment and antenna development: simple system/single channel antenna /line sys and CH25 Interference &amp;coverage area w/ a directional C-170 top mount antenna for first CP; Define TPO of new transmitter</p> <p><b>Amount:</b></p> <p>\$4,500.00</p>
Prepare and or review reimbursement form	Information not provided.

## Cost Information

### Other Expenses

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Other Expenses</b>	<b>\$76,450.00</b>	<b>\$75,900.00</b>		<b>\$28,296.00</b>	
MVPD Notification of Channel Change	<i>\$1,200.00</i>	\$1,200.00	N/A	\$1,138.00	N/A
Develop and air announcement of upcoming channel change	<i>\$10,000.00</i>	\$10,000.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	<i>\$18,000.00</i>	\$18,000.00	Antenna, Bury Mount and line delivery.	\$16,200.00	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$27,000.00</i>	\$27,000.00	Removal of CH39 Transmitter and associated equipment after channel shut off	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	\$2,258.00	N/A

Geotechnical Services	<b>\$8,700.00</b>	\$8,700.00	Tower Engineering Company in the process of performing an Analysis on the Tower needed a Soil Analysis to determine if the Tower base and anchor points needed modification for the tower to meet the G code with the new antenna and transmission line.	\$8,700.00	N/A
<b>Sub-total</b>	\$76,450.00	\$75,900.00	N/A	\$28,296.00	N/A
<b>Total for all systems</b>	\$2,334,513.80	\$2,188,168.41	N/A	\$1,876,717.16	N/A

## Components

Actual Information	
Description	File Name

MVPD Notification of Channel Change	<p><b>Component Description:</b></p> <p>MVPD Notification Services: notification of cable and satellite MVPD Providers of new RF channel and transport stream parameters on repack channel</p> <p><b>Amount:</b></p> <p>\$1,138.00</p>
Develop and air announcement of upcoming channel change	Information not provided.
Equipment Delivery and Handling Charges	<p><b>Component Description:</b></p> <p>First installment of 45% of Freight, Shipping and Handling is due.</p> <p><b>Amount:</b></p> <p>\$8,100.00</p> <p><b>Component Description:</b></p> <p>freight, shipping, and handling; inv. 45% of total per contract</p> <p><b>Amount:</b></p> <p>\$8,100.00</p>
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.
DTV Medical Facility Notification	<p><b>Component Description:</b></p> <p>DTV Notification Service - notification of medical facilities - transmitter medical facility notification per proposal</p> <p><b>Amount:</b></p> <p>\$2,258.00</p>

Geotechnical Services	<table><tr><td data-bbox="703 91 1134 629"><b>Component Description:</b></td><td data-bbox="1134 91 1433 629">Geotechnical investigation, including field operations, laboratory investigation, engineering analysis, and report.</td></tr><tr><td data-bbox="703 517 1134 629"><b>Amount:</b></td><td data-bbox="1134 517 1433 629">\$8,700.00</td></tr></table>	<b>Component Description:</b>	Geotechnical investigation, including field operations, laboratory investigation, engineering analysis, and report.	<b>Amount:</b>	\$8,700.00
<b>Component Description:</b>	Geotechnical investigation, including field operations, laboratory investigation, engineering analysis, and report.				
<b>Amount:</b>	\$8,700.00				

**Cost  
Information**

**Grand Total**

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	\$2,334,513.80	\$2,188,168.41	\$1,876,717.16

**Reimbursement Status**

Question	Response
The facility has ceased operating on its pre-auction channel.	No
Construction of final facilities or all necessary modifications are complete.	No
All receipts for reimbursement have been submitted no further costs are expected to be incurred. Note this will lock the Form 399 from further editing and begin close-out procedures with the Fund Administrator.	No

Certification	Section	Question	Response
	Submission of Estimated Expenses Statements	<p>WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.</p>	
		<ol style="list-style-type: none"> <li>1. The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity.</li> <li>2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> <li>3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.</li> </ol>	

4. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (broadcasters) or to continue to carry the signal of a broadcaster that changes channels (MVPD).
5. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
6. The above-named entity certifies that it will maintain and provide to the Commission detailed records, including receipts, of all costs eligible for reimbursement actually incurred.
7. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.



<p>8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p><b>Alisan Colleen Sweet</b>  <i>KTTZ  Business Manager</i></p> <p>05/13/2020</p>

Certification	Section	Question	Response
	Submission of Actual Cost Documentation Statements	<p>WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).</p>	
		<ol style="list-style-type: none"> <li>1. The Authorized Person signing below certifies and represents that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity.</li> <li>2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct.</li> <li>3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> </ol>	

4. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.
5. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (full power and Class A stations) and/or otherwise modify a television station's facility as a result of the spectrum repack (LPTV/TV Translator stations); or to minimize service disruption resulting from a repacked television station (FM stations); or to continue to carry the signal of a broadcaster that changes channels (MVPD) .
6. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
7. The above-named entity certifies that the cost information /documents submitted reflect costs actually incurred.

<p>8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.</p> <p>9. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a prerequisite for obtaining the payments herein requested.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p><b>Alisan C Sweet</b>  <i>KTTZ</i>  <i>Business Manager</i></p> <p>05/13/2020</p>

## Attachments