



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **46728** | Service: **DTV** | Call **WCAX-TV** | Channel: **20 (UHF)** |  
ID: | Sign:  
File **0000028424**  
Number:  
FRN: **0018223693** | Date **01/02**  
Submitted: **/2019**

## Applicant Information

### Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
<b>GRAY TELEVISION LICENSEE, LLC</b>	WCAX PO Box 4508 ATLANTA, GA 30319 United States	+1 (404) 504-9828	robert. folliard@gray. tv	Limited Liability Company

## 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>Samuel Harington</b> <i>Widely</i>	4031 University Dr Ste. 100 Fairfax, VA 22030 United States	+1 (339) 222- 8107	sam.hariton@widely. com

## Broadcaster Information and Transition Plan

Question	Response
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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.	Yes
Briefly describe transition plan	WCAX-TV will transition from Channel 22 to the newly assigned Channel 20. This will impact WPTZ which shares the tower and 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	PWR60D2
	Year	2006
	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-60
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	38.4 kW
	Justification for New Transmitter	There is no room available to perform a retune of the existing IOT transmitter.

**Primary  
Transmitter**

**Other Transmitter Costs**

Section	Question	Response
Electrical Service	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	The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.
<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**

Information not provided.

**Interim  
Transmitter**

**New Transmitter Costs**

Section	Question	Response
<b>New Transmitter</b>	Use	Interim
	Description of Use	N/A
	Change Type	Purchase
	Manufacturer	
	Model	ULXTE-30
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	19.2 kW
	Justification for New Transmitter	Needed to broadcast during transition period because the existing IOT must be removed to allow for the installation of the interim transmitter.

**Interim  
Transmitter**

**Other Transmitter Costs**

Section	Question	Response
<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	The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.
<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
<b>Inside RF System</b>	Is an additional interior RF system required to support this interim transmitter?	Yes

Interim  
Transmitter

Other Transmitter Cost Not Listed

Name	Description
UHF Inside RF System	UHF Inside RF System including switching



**Antennas**

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

**Primary  
Antenna****Existing Antenna Information**

Section	Question	Response
Existing Antenna Description	Type of change	Retune Existing
	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?	Yes
	Is the existing antenna directional?	Yes
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	Yes
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Bottom
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	2
	Number of Panels	40
	Design power capacity in use	100.0 %
	Lower Limit	470.00 MHz

Upper Limit	710.00 MHz
Other Antenna Type	N/A
ERP: (Effective Radiated Power)	443.0 kW
Manufacturer	Dielectric
Model	TUP-04 /C4SP-10 /40H-2-R
Year	2006

**Facility ID's and Call Signs of all stations with whom the antenna is shared.**

Facility ID	Call Sign
57476	WPTZ

**Primary Antenna**

**Adjustment to Existing Antenna**

Section	Question	Response
Sweep Test of Existing Antenna	Do you need a sweep test of existing antenna?	Yes

**Primary Antenna**

**Other Antenna Costs**

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	Yes
	Type	New
	Number of channels supported	3
	Frequencies of channels supported	Upper and lower frequency
	Frequency	470.0 MHz - 698.0 MHz

**Primary  
Antenna****Other Antenna Cost Not Listed**

Name	Description
Lower Power Elbow Complex	3 1/8" line feed, broadband

**Auxiliary  
Antenna****Add Antenna Information**

Section	Question	Response
Existing Antenna Description	Type of change	Retune Existing
	Antenna Use	Auxiliary (Backup)
	Description of Use	Backup
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this antenna currently shared with any other stations?	Yes
	Is this antenna directional?	No
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	Yes
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Top
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	2
	Number of Panels	8

Design power capacity in use	100.0 %
Lower Limit	470.00 MHz
Upper Limit	710.00 MHz
Other Antenna Type	N/A
ERP: (Effective Radiated Power)	76.6 kW
Manufacturer	Dielectric
Model	TUP-04-2 /8U-1-R
Year	2006

**Facility ID's and Call Signs of all stations with whom the antenna is shared.**

Facility ID	Call Sign
57476	WPTZ

### Auxiliary Antenna

#### Adjustment to Existing Antenna

Section	Question	Response
<b>Sweep Test of Existing Antenna</b>	Do you need a sweep test of existing antenna?	Yes

### Auxiliary Antenna

#### Other Antenna Costs

Section	Question	Response
<b>Combiner for Shared Antenna</b>	Do you need a Combiner for a Shared Antenna?	Yes
	Type	New
	Number of channels supported	3
	Frequencies of channels supported	Upper and lower frequency

	Frequency	470.0 MHz - 698.0 MHz
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**Auxiliary  
Antenna**

**Other Antenna Cost Not Listed**

Information not provided.

**Transmission Line**

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

## Auxiliary Transmission Line

### Add Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Backup
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmission currently shared with any other stations?	Yes
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	
	Type	Rigid
	Diameter	4 1/16 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	500 feet per run

**Facility ID's and Call Signs of all stations with whom the transmission line is shared.**

Facility ID	Call Sign
57476	WPTZ

**Auxiliary**      **New Transmission Line**  
**Transmission Line**

Section	Question	Response
<b>New Transmission Line Costs</b>	Use	Auxiliary (Backup)
	Description of Use	Backup
	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	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	500 feet per run
	Justification for New Transmission Line	Line sweep determined that flange summing occurs in band for repacked channel 20 eliminating chances to reuse any of the existing lines

**Auxiliary**      **Other Transmission Line Expenses Not Listed**  
**Transmission Line**

Information not provided.



**Primary  
Transmission Line**

**Add 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 this transmission currently shared with any other stations?	Yes
	Is Transmission Line in operating condition?	Yes
<b>Existing Transmission Line Manufacturer and Type</b>	Manufacturer	
	Type	Rigid
	Diameter	3 1/8 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	450 feet per run

**Facility ID's and Call Signs of all stations with whom the transmission line is shared.**

Facility ID	Call Sign
57476	WPTZ

**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	3 1/8 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	450 feet per run
	Justification for New Transmission Line	Line sweep determined that flange summing occurs in band for repacked channel 20 eliminating chances to reuse any of the existing lines

**Primary**  
**Transmission Line**

**Other Transmission Line Expenses Not Listed**

Name	Description
<b>Sweep Existing Transmission Line</b>	Sweep test of existing transmission line



**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?	Yes
	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	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	450 feet per run

**Facility ID's and Call Signs of all stations with whom the transmission line is shared.**

Facility ID	Call Sign
57476	WPTZ

**Primary** **New Transmission Line**  
**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	6 1/8 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	450 feet per run
	Justification for New Transmission Line	Line sweep determined that flange summing occurs in band for repacked channel 20 eliminating chances to reuse any of the existing lines

**Primary** **Other Transmission Line Expenses Not Listed**  
**Transmission Line**

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?	Terrain Constrained
	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?	No
	ASR Number	
Coordinates (NAD83 ( North American Datum of 1983))	Latitude (NAD83)	44° 31' 32.19" N-
	Longitude (NAD83)	072° 48' 56.4" W-
	Overall Structure Height	185.00 feet
	Support Structure Height	130.00 feet

Ground Elevation Above Mean Sea Level (AMSL)	4166.67 feet
Structure Type	MTOWER - Monopole
Tower Owner	WCAX-TV
Date Constructed	01/01/2005

**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
57476	WPTZ	DTV

#### Other Types of Users

Users
WVPS FM
WEZF FM

#### Primary Tower

#### Tower Modification Costs

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

#### Primary Tower

#### Tower Rigging Costs

Section	Question	Response
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<b>Tower Rigging Costs</b>	Complex Tower	Terrain constrained
<b>Helicopter Services Required</b>	Are helicopter services required?	Yes

**Primary  
Tower**

**Other Tower Expenses Not Listed**

<b>Name</b>	<b>Description</b>
<b>Corrosion analysis</b>	Corrosion analysis
<b>Tower structural analysis</b>	Structural analysis of existing tower
<b>Move Equipment</b>	Replace transmission lines



**Outside  
Professional Services Costs**

Section	Question	Response
<b>Outside Project Management Services</b>	Do you require outside project management services?	Yes
	Number of Hours	900
	Explanation	Strategic Support
<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	Yes
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	No
	Quantity	N/A
	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	Yes
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes

	Prepare request for Special Temporary Authority	Yes
	Quantity	1
	NEPA Section 106 environmental review	No
	Environmental Assessment	Yes
	ASR Modification	No
	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	Yes
<b>RF Field Engineering Services</b>	Comprehensive coverage verification via field study	No
	RF exposure measurements	Yes
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

**Outside Professional Services Costs**      **Other Professional Services Expenses Not Listed**

If wireless is 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	Yes
	BLM or NFS Coordination	Yes
	FCC Construction Permit Minor Change	Yes
	FCC License to Cover Application	Yes
	FCC Special Temporary Authority Application	Yes
<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?	Yes
	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
Taxes		State and Local Taxes

## 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>Interim Transmitter ULXTE-30</b>	<b>\$974,728.00</b>	<b>\$845,852.00</b>		<b>\$212,955.87</b>	
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$562,624.00	N/A	\$182,400.87	N/A
UHF inside RF system including switching	\$147,500.00	\$140,000.00	N/A	N/A	N/A
Other Electrical Service: The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.	<b>\$73,228.00</b>	\$73,228.00	See quote, amended to be added to this document per FCC request dated 8/14 /17 (complete response narrative attached as well). The physical build for the interim /permanent transmitter solution drove the cost of quote.	\$30,555.00	N/A

UHF Inside RF System	\$70,000.00	\$70,000.00	N/A	N/A	N/A
<b>Primary Transmitter ULXTE-60</b>	<b>\$1,498,000.00</b>	<b>\$1,190,665.00</b>		<b>\$0.00</b>	
Other Electrical Service: The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.	\$25,000.00	\$25,000.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	\$1,473,000.00	\$1,165,665.00	N/A	N/A	N/A
<b>Sub-total</b>	<b>\$2,472,728.00</b>	<b>\$2,036,517.00</b>	<b>N/A</b>	<b>\$212,955.87</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$5,143,010.00</b>	<b>\$3,478,797.00</b>	<b>N/A</b>	<b>\$280,065.60</b>	<b>N/A</b>

## Components

Actual Information	
Description	File Name
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	<p><b>Component Description:</b> ULXTE-30 Transmitter</p> <p><b>Amount:</b> \$182,400.87</p>

UHF inside RF system including switching	Information not provided.
Other Electrical Service: The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.	<div> <b>Component Description:</b> materials &amp; installation of the electrical service to the interim UHF transmitter  <b>Amount:</b> \$14,500.00 </div> <div> <b>Component Description:</b> Labor and material  <b>Amount:</b> \$16,055.00 </div>
UHF Inside RF System	Information not provided.
Other Electrical Service: The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.	Information not provided.
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	Information not provided.

## 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 TUP-04 /C4SP-10 /40H-2-R	\$656,565.00	\$261,652.00		\$0.00	
Lower Power Elbow Complex	<i>\$4,935.00</i>	\$4,935.00	N/A	N/A	N/A
UHF - High Power Top Mount (200-1000 kW), Two Station broadband panel antenna, horizontally polarized	\$547,000.00	\$0.00	Ghost antenna inserted by form, cannot remove. This is a bug.	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$240,000.00	Catalog cost listed as 80k per channel	N/A	N/A



Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	\$13,700.00	\$10,317.00	N/A	N/A	N/A
<b>Auxiliary Antenna TUP-04-2 /8U-1-R</b>	<b>\$648,880.00</b>	<b>\$252,220.00</b>		<b>\$0.00</b>	
Elbow complex, broadband, at antenna input, per 4 1/16. feedline (if needed)	\$10,950.00	\$5,820.00	N/A	N/A	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$240,000.00	Catalog cost listed as 80k per channel	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
UHF - High Power Top Mount (200-1000 kW), Two Station broadband panel antenna, horizontally polarized	\$547,000.00	\$0.00	Ghost antenna, cannot be removed. This is a bug.	N/A	N/A
<b>Sub-total</b>	<b>\$1,305,445.00</b>	<b>\$513,872.00</b>	<b>N/A</b>	<b>\$0.00</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$5,143,010.00</b>	<b>\$3,478,797.00</b>	<b>N/A</b>	<b>\$280,065.60</b>	<b>N/A</b>

## Components

Information not provided.

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	\$57,500.00	\$49,708.00		\$3,490.25	
Rigid Transmission Line - copper, 3 1 /8" broadband	\$54,000.00	\$46,208.00	N/A	N/A	N/A
Sweep Existing Transmission Line	\$3,500.00	\$3,500.00	See invoice	\$3,490.25	N/A
Primary Transmission Line	\$104,400.00	\$82,542.00		\$0.00	
Rigid Transmission Line - copper, 6 1 /8" broadband	\$104,400.00	\$82,542.00	N/A	N/A	N/A
Auxiliary Transmission Line	\$81,500.00	\$66,711.00		\$0.00	
Rigid Transmission Line - copper, 4 1 /16" broadband	\$81,500.00	\$66,711.00	N/A	N/A	N/A
Sub-total	\$243,400.00	\$198,961.00	N/A	\$3,490.25	N/A
Total for all systems	\$5,143,010.00	\$3,478,797.00	N/A	\$280,065.60	N/A

## Components

Actual Information	
Description	File Name
Rigid Transmission Line - copper, 3 1/8" broadband	Information not provided.
Sweep Existing Transmission Line	<b>Component Description:</b> Sweep test of all transmission lines <b>Amount:</b> \$3,490.25
Rigid Transmission Line - copper, 6 1/8" broadband	Information not provided.
Rigid Transmission Line - copper, 4 1/16" broadband	Information not provided.

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	\$655,940.00	\$292,640.00		\$9,750.00	
MTOWER					
Tower structural analysis	<i>\$2,500.00</i>	\$2,500.00	See invoice	\$2,500.00	N/A
Corrosion analysis	<i>\$1,500.00</i>	\$1,500.00	See invoice	\$1,500.00	N/A
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$12,000.00	N/A	\$5,750.00	N/A
Move Equipment	<i>\$0.00</i>	\$0.00	N/A	N/A	N/A
Tower Helicopter Lift	<i>\$46,640.00</i>	\$46,640.00	May require helicopter to delivery equipment and transmission line to transmitter site.	N/A	N/A

Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$80,000.00	N/A	N/A	N/A
Minor tower reinforcement /modifications	\$158,000.00	\$150,000.00	N/A	N/A	N/A
<b>Sub-total</b>	\$655,940.00	\$292,640.00	N/A	\$9,750.00	N/A
<b>Total for all systems</b>	\$5,143,010.00	\$3,478,797.00	N/A	\$280,065.60	N/A

## Components

Actual Information		
Description	File Name	
Tower structural analysis	<b>Component Description:</b>	Engineering Evaluation
	<b>Amount:</b>	\$1,250.00
	<b>Component Description:</b>	Engineering Evaluation
	<b>Amount:</b>	\$1,250.00
Corrosion analysis	<b>Component Description:</b>	Level 1 Corrosion Risk Analysis
	<b>Amount:</b>	\$750.00
	<b>Component Description:</b>	Level 1 Corrosion Risk Analysis
	<b>Amount:</b>	\$750.00

Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	<div> <div> <b>Component Description:</b>  <b>Amount:</b> </div> <div> Tower Mapping  \$2,875.00 </div> </div> <div> <div> <b>Component Description:</b>  <b>Amount:</b> </div> <div> Tower Mapping  \$2,875.00 </div> </div>
Move Equipment	Information not provided.
Tower Helicopter Lift	Information not provided.
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	Information not provided.
Minor tower reinforcement /modifications	Information not provided.

## 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>\$210,325.00</b>	<b>\$189,750.00</b>		<b>\$53,869.48</b>	
RF Exposure Measurements	\$21,050.00	\$20,000.00	N/A	\$7,455.00	N/A
Environmental Assessment, if triggered by NEPA Section 106 review or for certain structures over 450 feet	\$10,520.00	\$0.00	N/A	N/A	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$3,680.00	\$3,500.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	N/A	N/A
Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	\$4,210.00	\$4,000.00	N/A	N/A	N/A



Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	\$1,250.00	N/A
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	\$1,580.00	\$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	\$0.00	N/A
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	\$2,105.00	\$2,000.00	N/A	\$0.00	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$187.50	N/A

Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$2,983.33	N/A
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Project management of the transition	\$142,200.00	\$135,000.00	N/A	\$41,993.65	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A
<b>Sub-total</b>	\$210,325.00	\$189,750.00	N/A	\$53,869.48	N/A
<b>Total for all systems</b>	\$5,143,010.00	\$3,478,797.00	N/A	\$280,065.60	N/A

## Components

**Actual Information**  
**Description**

**File Name**

<p>RF Exposure Measurements</p>	<table> <tr> <td data-bbox="703 174 1018 210"><b>Component Description:</b></td><td data-bbox="1150 174 1378 327">Consultation on regulatory compliance at base station.</td></tr> <tr> <td data-bbox="703 338 818 367"><b>Amount:</b></td><td data-bbox="1150 338 1267 367">\$2,100.00</td></tr> <tr> <td data-bbox="703 477 1018 512"><b>Component Description:</b></td><td data-bbox="1150 477 1358 824">Provide 2 RF Specialists from GTI to attend the WCAX Mt. Mansfield tower site &amp; Perform RF measurements to identify OET 65 issues.</td></tr> <tr> <td data-bbox="703 835 818 864"><b>Amount:</b></td><td data-bbox="1150 835 1267 864">\$5,355.00</td></tr> </table>	<b>Component Description:</b>	Consultation on regulatory compliance at base station.	<b>Amount:</b>	\$2,100.00	<b>Component Description:</b>	Provide 2 RF Specialists from GTI to attend the WCAX Mt. Mansfield tower site & Perform RF measurements to identify OET 65 issues.	<b>Amount:</b>	\$5,355.00
<b>Component Description:</b>	Consultation on regulatory compliance at base station.								
<b>Amount:</b>	\$2,100.00								
<b>Component Description:</b>	Provide 2 RF Specialists from GTI to attend the WCAX Mt. Mansfield tower site & Perform RF measurements to identify OET 65 issues.								
<b>Amount:</b>	\$5,355.00								
<p>Environmental Assessment, if triggered by NEPA Section 106 review or for certain structures over 450 feet</p>	<p>Information not provided.</p>								
<p>Attorney Fees - Prepare and File request for Special Temporary Authorization</p>	<p>Information not provided.</p>								
<p>Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application</p>	<p>Information not provided.</p>								
<p>Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application</p>	<p>Information not provided.</p>								

<p>Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application</p>	<table> <tr> <td data-bbox="710 174 1013 208"><b>Component Description:</b></td><td data-bbox="1150 174 1364 405">Email re: lifting of anti-collusion rule, time of FCC letter; emails re: FCC letter, next steps; Email re: WPTZ</td></tr> <tr> <td data-bbox="710 416 815 450"><b>Amount:</b></td><td data-bbox="1150 416 1246 450">\$600.00</td></tr> <tr> <td data-bbox="710 555 1013 589"><b>Component Description:</b></td><td data-bbox="1150 555 1353 703">Emails, review draft 2100, send draft to Gray. File 2100.</td></tr> <tr> <td data-bbox="710 714 815 748"><b>Amount:</b></td><td data-bbox="1150 714 1246 748">\$650.00</td></tr> </table>	<b>Component Description:</b>	Email re: lifting of anti-collusion rule, time of FCC letter; emails re: FCC letter, next steps; Email re: WPTZ	<b>Amount:</b>	\$600.00	<b>Component Description:</b>	Emails, review draft 2100, send draft to Gray. File 2100.	<b>Amount:</b>	\$650.00
<b>Component Description:</b>	Email re: lifting of anti-collusion rule, time of FCC letter; emails re: FCC letter, next steps; Email re: WPTZ								
<b>Amount:</b>	\$600.00								
<b>Component Description:</b>	Emails, review draft 2100, send draft to Gray. File 2100.								
<b>Amount:</b>	\$650.00								
<p>RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application</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>								
<p>RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application</p>	<p>Information not provided.</p>								
<p>Prepare engineering section of FCC Form 2100 (main), Construction Permit Application</p>	<table> <tr> <td data-bbox="710 1621 1013 1655"><b>Component Description:</b></td><td data-bbox="1150 1621 1369 1816">review engineering portions and related exhibits of "90 day" FCC CP application</td></tr> <tr> <td data-bbox="710 1827 815 1861"><b>Amount:</b></td><td data-bbox="1150 1827 1246 1861">\$187.50</td></tr> </table>	<b>Component Description:</b>	review engineering portions and related exhibits of "90 day" FCC CP application	<b>Amount:</b>	\$187.50				
<b>Component Description:</b>	review engineering portions and related exhibits of "90 day" FCC CP application								
<b>Amount:</b>	\$187.50								

Perform engineering study for new channel assignment and antenna development	<b>Component Description:</b>		Email duTreil re issues in repacking application
	<b>Amount:</b>		\$200.00
	<b>Component Description:</b>		Engineering Study for New Channel Assignment
	<b>Amount:</b>		\$1,283.33
	<b>Component Description:</b>		Perform engineering study for new channel assignment
	<b>Amount:</b>		\$1,500.00
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.		
Project management of the transition	<b>Component Description:</b>		Project Management
	<b>Amount:</b>		\$1,912.75
	<b>Component Description:</b>		Project Management
	<b>Amount:</b>		\$2,442.90
	<b>Component Description:</b>		Project Mgt
	<b>Amount:</b>		\$2,381.30
	<b>Component Description:</b>		Project Management
	<b>Amount:</b>		\$2,515.60

<b>Component Description:</b>	Project management
<b>Amount:</b>	\$2,951.90

<b>Component Description:</b>	Project Management
<b>Amount:</b>	\$2,624.35

<b>Component Description:</b>	Project Mgt
<b>Amount:</b>	\$2,507.30

<b>Component Description:</b>	Project Management
<b>Amount:</b>	\$2,498.65

<b>Component Description:</b>	Project Management
<b>Amount:</b>	\$2,158.05

<b>Component Description:</b>	Project Management
<b>Amount:</b>	\$2,111.25

<b>Component Description:</b>	Project Management
<b>Amount:</b>	\$1,857.60

<b>Component Description:</b>	Project Management
<b>Amount:</b>	\$1,869.35

<b>Component Description:</b>	Project Mgt
<b>Amount:</b>	\$3,763.95

	<b>Component Description:</b>	Transition Related Project Management Costs
	<b>Amount:</b>	\$3,300.00
	<b>Component Description:</b>	Project Mgt
	<b>Amount:</b>	\$28.20
	<b>Component Description:</b>	Project management
	<b>Amount:</b>	\$2,330.15
	<b>Component Description:</b>	Project management
	<b>Amount:</b>	\$1,328.55
	<b>Component Description:</b>	Project Mgt
	<b>Amount:</b>	\$802.25
	<b>Component Description:</b>	Project Mgt
	<b>Amount:</b>	\$718.30
	<b>Component Description:</b>	Project Management
	<b>Amount:</b>	\$1,891.25
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>\$255,172.00</b>	<b>\$247,057.00</b>		<b>\$0.00</b>	
Taxes	<i>\$171,482.00</i>	\$171,482.00	N/A	N/A	N/A
MVPD Notification of Channel Change	<i>\$1,000.00</i>	\$1,000.00	N/A	N/A	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 Storage	<i>\$12,000.00</i>	\$12,000.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	<i>\$10,000.00</i>	\$10,000.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$25,000.00</i>	\$25,000.00	N/A	N/A	N/A
BLM or NFS Coordination	<i>\$10,000.00</i>	\$10,000.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$3,490.00	N/A	N/A	N/A



FCC Filing Fees - Form 2100 minor change CP application	\$1,110.00	\$1,070.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	N/A	N/A	N/A
Non-zoning permits	<b>\$2,500.00</b>	\$2,500.00	N/A	N/A	N/A
<b>Sub-total</b>	\$255,172.00	\$247,057.00	N/A	\$0.00	N/A
<b>Total for all systems</b>	\$5,143,010.00	\$3,478,797.00	N/A	\$280,065.60	N/A

## Components

Information not provided.

Cost Information	Grand Total			
		Predetermined Cost Estimate	Estimated Cost	Actual Cost
	Total for all systems	\$5,143,010.00	\$3,478,797.00	\$280,065.60

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>Robert Folliard</b>  <i>Assistant Secretary</i></p> <p>01/02/2019</p>

## Attachments