Approved by OMB (Office of Management and Budget) 3060-1178

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID: **73136** | Service: **DTV** | Call Sign: **WJHG-TV** | Channel: **16 (UHF)**

File Number: **0000028739**

FRN: **0018223693** | Date Submitted: **06/14/2018**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
GRAY TELEVISION LICENSEE, LLC	WJHG 8195 FRONT BEACH ROAD PANAMA CITY, FL 32407 United States	+1 (850) 234-7777	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
Samuel Hariton *Widelity*	Samuel Hariton 4031 University Dr Suite 100 Fairfax, VA 22030 United States	+1 (339) 222-8107	sam.hariton@widelity.com

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.	Yes
Briefly describe transition plan	See attached narrative

Transmitters

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

Primary Transmitter

Existing Transmitter Information

Section	Question	Response
Existing Transmitter Description	Type of change	Retune Existing
	Use	Primary (Main)
	Ownership	Owned
	Owner	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
Existing Transmitter Manufacturer and Type	Manufacturer	GatesAir
	Model	Maxiva ULXT-80AT UHV
	Year	2014

	Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	54.8 kW

Primary Transmitter

Retuning Transmitter Costs

Section	Question	Response
New IOT Tubes	Number of Tubes (including accessories) needed	N/A
New Mask Filter	Power	Other
	Other Power	50 kW
New Exciter	Is a new exciter needed?	No

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	No
	Description	N/A
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A

	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
	Size	N/A
Channel 14 Costs	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
New Transmitter	Use	Interim
	Description of Use	N/A
	Change Type	Purchase
	Manufacturer	
	Model	ULXTE-12
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	6.46 kW

	Justification for New Transmitter	Interim transmitter installed at the alternate transmitter site needed to continue broadcasting through the transition period

Interim 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.

HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
	Size	N/A
Channel 14 Costs	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
Inside RF System	Is an additional interior RF system required to support this interim transmitter?	No

Interim Transmitter

Other Transmitter Cost Not Listed

Name	Description
Microwave Radios	STL Extension to alternate transmitter site
Concrete Slab	10'x10' Slab
Generator Repairs	It needs to be repaired
Monitoring	Monitoring for Interim transmitter
Microwave Components	Microwave Dishes, Line, etc.

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	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
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	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)	1000.0 kW

Manufacturer	
Model	TFU-28JSC /VP-R 4C140 D18
Year	2014

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?	No
	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	Side 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)	1000.0 kW
	Manufacturer	

	Model	TFU-28JSC /VP-R C140
	Year	2017
	Justification for New Antenna	The existing antenna is for channel 18 only and will not work for the designated re-pack channel 16.

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	6 1/8 inches inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	Yes

Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Primary Antenna

Other Antenna Cost Not Listed

Name	Description
Sweep Test Primary Chan 18 Antenna	Sweep test of existing channel 18 antenna to determine if it can be used for new repack channel

Interim Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	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 Type	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/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)	72.0 kW
	Manufacturer	
	Model	TVP16B
	Year	2017

	Justification for New Antenna	Interim antenna needed to continue broadcasting through the transition period

Interim Antenna

Other Antenna Costs

Section	Question	Response
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	No
	Broadband or Single Channel?	N/A
	Feed Line Size	N/A
Side Mount Brackets	Do you require the separate purchase of side mount brackets for an antenna?	Yes
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Interim Antenna

Other Antenna Cost Not Listed

Name	Description
Sweep Test Existing Antenna and Line	Sweep test of existing antenna/line at auxiliary site to determine viability on new repack channel

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
Existing Transmission Line Description	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
Existing Transmission Line Manufacturer and Type	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	1400 feet per run

Primary Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	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	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1400 feet per run
	Justification for New Transmission Line	Sweep on existing line measured 490.460 MHz. Channel 16 needs to be within the range of 482 MHz and 488 MHz, line must be replaced.

Primary Transmission Line

Other Transmission Line Expenses Not Listed

Information not provided.

Interim Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Type	Flexible Air
	Diameter	3 inches
	Segment Length	N/A
	Other Segment Length	
	Number of parallel runs	1
	Length	825 feet per run
	Justification for New Transmission Line	Performed Line Sweep on existing 4" Rigid Line and it measured 490 MHz. The range for Channel 16 is 482 MHz - 488 MHz.

Interim Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
Sweep Existing Transmission Line	Sweep test of existing transmission line to determine if it is suitable for use

Tower Equipment And Rigging Costs

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

Auxiliary Tower

Add Tower

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	Tower Use	Auxiliary (Backup)
	Description of Use	Alternate Tower Site
	Ownership	Owned
	Is this tower consider Complex?	No
	Is this tower currently shared with any other stations?	Yes
	One or more FM, AM or TV radio broadcaster(s)	No
	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)	30° 26' 00.1" N-
	Longitude (NAD83)	085° 24' 51.0" W-
	Overall Structure Height	1499.98 feet
	Support Structure Height	1499.98 feet

Ground Elevation Above Mean Sea Level (AMSL)	138.12 feet
Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	Gray Television Group, Inc.
Date Constructed	01/01/1962

Other Types of Users

Users
US Customs

Auxiliary Tower

Tower Modification Costs

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

Auxiliary Tower

Tower Rigging Costs

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

Auxiliary Tower

Other Tower Expenses Not Listed

Information not provided.

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	Leased
	Is this tower consider Complex?	No
	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?	Yes
	Is tower compliant with Rev G?	Yes
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1043251
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	30° 21' 09.0" N-
	Longitude (NAD83)	085° 23' 28.0" W-
	Overall Structure Height	1465.53 feet
	Support Structure Height	1403.20 feet
	Ground Elevation Above Mean Sea Level (AMSL)	78.74 feet
	Structure Type	TOWER - Free Standing or Guyed Structure

Tower Owner	Nexstar Broadcasting, Inc.
Date Constructed	08/01/1990

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
66398	WMBB	DTV
42372	WPFM	FM

Other Types of Users

Users
Verizon

Primary Tower

Tower Modification Costs

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

Primary Tower

Tower Rigging Costs

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

Primary Tower

Other Tower Expenses Not Listed

Name	Description
Microwave Installation	Installation of Microwave Gear on towers

Outside Professional Services Costs

Section	Question	Response
Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	900
	Explanation	Strategic Support
Outside RF consulting Engineering Services	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
Attorney and Other Outside Consulting Services	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	No
	FAA Consultation (including preparation of FAA Form 7460)	Yes
	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
RF Field Engineering Services	Comprehensive coverage verification via field study	No
	RF exposure measurements	No
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Name	Description
RF Engineer-Microwave Link	Develop technical parameters for new 13 GHz duplex microwave system and commercial frequency coordination

Other Expenses

Section	Question	Response
AM Pattern Disturbance	Is an Impact Study needed?	No
	Is Remediation needed?	No
Facility Expenses	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
Permit and Filing Costs	Local Zoning	No
	Non-zoning permits	No
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	Yes
	FCC License to Cover Application	Yes
	FCC Special Temporary Authority Application	Yes
Other Miscellaneous Expenses	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
Antenna Storage Cost	Antenna storage cost at Dielectric prior to shipment to station

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
Interim Transmitter ULXTE-12	**$420,333.26**	**$449,198.36**		**$399,610.95**	
UHF - Liquid Cooled Solid State Transmitter 4.9 . 6.5 kW	$273,500.00	$302,365.10	Quote: GA-00022137	$299,453.16	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.	***$2,000.00***	$2,000.00	N/A	$1,790.00	N/A
Microwave Radios	***$114,301.10***	$114,301.10	N/A	$96,767.79	N/A
Concrete Slab	***$1,712.00***	$1,712.00	N/A	$1,600.00	N/A
Microwave Components	***$21,636.96***	$21,636.96	N/A	N/A	N/A
Monitoring	***$5,975.00***	$5,975.00	N/A	N/A	N/A
Generator Repairs	***$1,208.20***	$1,208.20	N/A	N/A	N/A

Primary Transmitter Maxiva ULXT-80AT UHV	**$189,071.09**	**$115,053.34**		**$78,496.22**	
Other 50 kW mask filter	***$83,871.09***	$83,871.09	Includes shipping and state and local taxes	$56,565.71	N/A
UHF and VHF - minor banding issues	$105,200.00	$31,182.25	GA-00021465	$21,930.51	N/A
Sub-total	$609,404.35	$564,251.70	N/A	$478,107.17	N/A
Total for all systems	$2,941,309.27	$2,515,469.34	N/A	$919,225.67	N/A

Components

Actual Information Description	File Name	
UHF - Liquid Cooled Solid State Transmitter 4.9 . 6.5 kW	**Component Description:**	Installation of roof structure over equipment tower site.
	Amount:	$1,795.00
	Component Description:	UXLTE-12 Transmitter
	Amount:	$89,297.45
	Component Description:	ULXTE-12 Transmitter
	Amount:	$208,360.71

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.	**Component Description:** **Amount:**	Transmitter - demo circuite no longer in use/ Wiring for transmitter $1,790.00
Microwave Radios	**Component Description:** **Amount:**	13GHz IPLink HS STL, TSL IPLi GHz high RF output hot standby duplex IP microwave terminal w/ data throughout licensable to 360 Mbps full duplex. $96,767.79
Concrete Slab	**Component Description:** **Amount:**	Construct 10X10 equipment pad. $1,600.00
Microwave Components	Information not provided.	
Monitoring	Information not provided.	
Generator Repairs	Information not provided.	
Other 50 kW mask filter	**Component Description:** **Amount:**	New Mask Filter for Existing Primary Transmitter $56,565.71
UHF and VHF - minor banding issues	**Component Description:** **Amount:**	Transmitter UXLTD-80 Retuning $21,930.51

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
Interim Antenna TVP16B	**$124,130.00**	**$89,980.85**		**$20,059.60**	
Side mount brackets for high power antennas (if not included in antenna base cost)	$23,150.00	$3,631.20	N/A	$1,997.16	N/A
UHF - Lower Power Side Mount, One station antenna - medium power (50-200 kW), horizontally polarized	$89,400.00	$75,099.65	N/A	$12,117.44	N/A
Sweep Test Existing Antenna and Line	***$4,850.00***	$4,850.00	See attached quote	$2,425.00	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	$3,520.00	N/A
Primary Antenna TFU-28JSC /VP-R C140	**$298,484.92**	**$262,704.92**		**$141,419.58**	

UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized	***$248,104.92***	$248,104.92	N/A	$133,479.58	N/A
Sweep Test Primary Chan 18 Antenna	***$8,200.00***	$8,200.00	See attached invoice.	$4,100.00	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	$23,150.00	$0.00	Included in antenna cost	$0.00	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	$12,300.00	$0.00	Included in antenna cost	N/A	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	$3,840.00	N/A
Sub-total	$422,614.92	$352,685.77	N/A	$161,479.18	N/A
Total for all systems	$2,941,309.27	$2,515,469.34	N/A	$919,225.67	N/A

Components

Actual Information Description	File Name	
Side mount brackets for high power antennas (if not included in antenna base cost)	**Component Description:** **Amount:**	Site mount bracket $1,089.36
	Component Description: **Amount:**	Side Mount Brackets for Lower Power Antenna $907.80
UHF - Lower Power Side Mount, One station antenna - medium power (50-200 kW), horizontally polarized	**Component Description:** **Amount:**	Interim Antenna $6,609.51
	Component Description: **Amount:**	25% payment on Interim Antenna $5,507.93
Sweep Test Existing Antenna and Line	**Component Description:** **Amount:**	Sweep Test of Existing Auxiliary Transmission Line $2,425.00
Sweep test of existing antenna	**Component Description:** **Amount:**	Sweep test Aux. Antenna $1,920.00
	Component Description: **Amount:**	Sweep Test Auxiliary Antenna $1,600.00

UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized	**Component Description:** **Amount:**	New Primary Antenna, Side Mount Brackets $4,380.00
	Component Description: **Amount:**	Elbow Complex, New Primary Antenna $3,192.00
	Component Description: **Amount:**	Primary Antenna Side-Mount Brackets $6,132.00
	Component Description: **Amount:**	Primary Antenna - UHF - High Power Side mount $71,679.29
	Component Description: **Amount:**	UHF High Power side mount $51,199.49
	Component Description: **Amount:**	Primary Antenna Elbow Complex $4,468.80
Sweep Test Primary Chan 18 Antenna	**Component Description:** **Amount:**	Sweep test of existing primary antenna system $4,100.00
Side mount brackets for high power antennas (if not included in antenna base cost)	Information not provided.	

Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	Information not provided.
Sweep test of existing antenna	**Component Description:** New Primary Antenna, Sweep Test **Amount:** $1,600.00 **Component Description:** Sweep Test of New Primary Antenna **Amount:** $2,240.00

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
Interim Transmission Line	**$61,725.00**	**$47,902.66**		**$19,168.96**	
Flexible Air Transmission Line - dielectric, 3"	$48,675.00	$34,852.66	See vendor quote JEHQ1257-01	$19,168.96	N/A
Sweep Existing Transmission Line	***$13,050.00***	$13,050.00	See vendor invoice	N/A	N/A
Primary Transmission Line	**$282,800.00**	**$263,955.76**		**$121,887.86**	
Rigid Transmission Line - copper, 6 1/8"	$282,800.00	$263,955.76	N/A	$121,887.86	N/A
Sub-total	$344,525.00	$311,858.42	N/A	$141,056.82	N/A
Total for all systems	$2,941,309.27	$2,515,469.34	N/A	$919,225.67	N/A

Components

Actual Information Description	File Name

Flexible Air Transmission Line - dielectric, 3"	**Component Description:** **Amount:**	Aux. Transmission Line $10,455.80
	Component Description: **Amount:**	New Auxiliary Transmission Line $8,713.16
Sweep Existing Transmission Line	Information not provided.	
Rigid Transmission Line - copper, 6 1/8"	**Component Description:** **Amount:**	New Primary Transmission Line $50,786.61
	Component Description: **Amount:**	Primary Transmission Line $71,101.25

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	**$670,300.00**	**$579,880.00**		**$42,325.00**	
Major tower reinforcement /modifications	$421,000.00	$400,000.00	N/A	$0.00	N/A
Tall Tower (greater than 500')	$210,500.00	$146,180.00	N/A	$34,825.00	N/A
Structural engineering tower load study for well documented tower	$12,600.00	$7,500.00	N/A	$7,500.00	N/A
Microwave Installation	***$26,200.00***	$26,200.00	N/A	N/A	N/A
Auxiliary Tower TOWER	**$644,100.00**	**$474,800.00**		**$54,956.25**	
Tall Tower (greater than 500')	$210,500.00	$59,800.00	N/A	$41,706.25	N/A
Major tower reinforcement /modifications	$421,000.00	$400,000.00	N/A	$0.00	N/A
Structural engineering tower load study for well documented tower	$12,600.00	$15,000.00	2017-Gray-WJHG-AUX-0406-N plus invoice for $1,750 for feasibility analysis	$13,250.00	N/A

Sub-total	$1,314,400.00	$1,054,680.00	N/A	$97,281.25	N/A
Total for all systems	$2,941,309.27	$2,515,469.34	N/A	$919,225.67	N/A

Components

Actual Information Description	File Name	
Major tower reinforcement /modifications	Information not provided.	
Tall Tower (greater than 500')	**Component Description:** **Amount:**	Rig tower to 1361' for side mount antenna work $34,825.00
Structural engineering tower load study for well documented tower	**Component Description:** **Amount:** **Component Description:** **Amount:**	Structural engineering Tower Load study $3,750.00 Tower Mapping $3,750.00
Microwave Installation	Information not provided.	
Tall Tower (greater than 500')	**Component Description:** **Amount:**	Tower rigging for interim antenna site $41,706.25
Major tower reinforcement /modifications	Information not provided.	

Structural engineering tower load study for well documented tower	**Component Description:**	Structural engineering Tower Load study
	Amount:	$1,750.00
	Component Description:	Structural engineering Tower Load study
	Amount:	$1,750.00
	Component Description:	Structural Analysis of Auxiliary Tower
	Amount:	$6,625.00
	Component Description:	Tower Mapping
	Amount:	$6,625.00

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
Outside Professional Services	**$177,515.00**	**$168,250.00**		**$41,301.25**	
Project management of the transition	$142,200.00	$135,000.00	N/A	$35,493.75	N/A
RF Engineer-Microwave Link	***$2,500.00***	$2,500.00	Estimate based upon anticipated billing by RF Engineer and commercial frequency coordination and PCN	$2,170.00	N/A
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	$2,105.00	$2,000.00	N/A	$612.50	N/A
Perform engineering study for new channel assignment and antenna development	$7,360.00	$7,000.00	N/A	$1,675.00	N/A

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	$3,155.00	$3,000.00	N/A	$1,350.00	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 request for Special Temporary Authorization	$2,050.00	$1,500.00	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	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 - Prepare and File request for Special Temporary Authorization	$3,680.00	$3,500.00	N/A	N/A	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
Prepare and or review reimbursement form	$2,630.00	$2,500.00	N/A	N/A	N/A
Sub-total	$177,515.00	$168,250.00	N/A	$41,301.25	N/A
Total for all systems	$2,941,309.27	$2,515,469.34	N/A	$919,225.67	N/A

Components

Actual Information Description	File Name
Project management of the transition	**Component Description:** Project management **Amount:** $1,853.55 **Component Description:** Project Management **Amount:** $1,856.30 **Component Description:** Project Management **Amount:** $802.25 **Component Description:** Project Management **Amount:** $3,637.75 **Component Description:** Project Management **Amount:** $5,000.90

Component Description:	Project Management
Amount:	$2,632.50
Component Description:	Project Management
Amount:	$4,079.35
Component Description:	Project management
Amount:	$2,471.90
Component Description:	Project Management
Amount:	$2,556.05
Component Description:	Project Management
Amount:	$28.20
Component Description:	Project Management
Amount:	$3,425.10
Component Description:	Project Management
Amount:	$988.95
Component Description:	Project management
Amount:	$2,442.65
Component Description:	Transition Related Project Management Costs
Amount:	$2,850.00

	Component Description:	Project Management
	Amount:	$868.30
RF Engineer-Microwave Link		
	Component Description:	Develop technical parameters for new 13 GHz duplex microwave link between Highway 20 and Scotts Ferry Rd towers, engage frequency coordinator to identify frequency pair and issue PCN letters
	Amount:	$1,545.00
	Component Description:	Upon conclusion of PCN period for new 13 GHz duplex microwave link between Hwy 20 and Scotts Ferry Rd towers, complete technical portions of FCC app.
	Amount:	$625.00

FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	**Component Description:** **Amount:** **Component Description:** **Amount:**	Prepare and submit FAA Form 7460-1 $425.00 Processing form 7460-1 to request lighting change and notify reduction in overall height. $187.50
Perform engineering study for new channel assignment and antenna development	**Component Description:** **Amount:** **Component Description:** **Amount:** **Component Description:** **Amount:**	Perform engineering study for new channel assignment $687.50 Review scope of work regarding modification work of Hwy 20 tower, discuss with J McKee. $187.50 Perform engineering study for new channel assignment $800.00
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	**Component Description:** **Amount:**	Develop final ERP and parameters for initial CP application $1,350.00

Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.
Prepare request for Special Temporary Authorization	Information not provided.
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.
Attorney Fees - Prepare and File request for Special Temporary Authorization	Information not provided.
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.
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
Other Expenses	**$72,850.00**	**$63,743.45**		**$0.00**	
FCC Filing Fees - Form 2100 license to cover application	$335.00	$325.00	N/A	N/A	N/A
DTV Medical Facility Notification	$11,550.00	$2,498.45	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 - Special Temporary Authorization request	$195.00	$190.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	***$20,000.00***	$20,000.00	For main and alternate sites	N/A	N/A
Equipment Delivery and Handling Charges	***$2,400.00***	$2,400.00	Main and alternate sites	N/A	N/A
Equipment Storage	***$6,650.00***	$6,650.00	N/A	N/A	N/A

Develop and air announcement of upcoming channel change	***$10,000.00***	$10,000.00	N/A	N/A	N/A
MVPD Notification of Channel Change	***$1,070.00***	$1,070.00	N/A	N/A	N/A
Antenna Storage Cost	***$19,540.00***	$19,540.00	See WJHG storage quote from Dielectric	N/A	N/A
Sub-total	$72,850.00	$63,743.45	N/A	$0.00	N/A
Total for all systems	$2,941,309.27	$2,515,469.34	N/A	$919,225.67	N/A

Components

Information not provided.

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$2,941,309.27	$2,515,469.34	$919,225.67

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	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.	
	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. 2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations. 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.	

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.

	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.	
	I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.	**Robert Folliard** *Assistant Secretary* 06/14/2018

Certification

Section	Question	Response
Submission of Actual Cost Documentation Statements	WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISIONMENT (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).	
	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. 2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct. 3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.	

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.

	8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission. 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.	
	I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.	**Robert Folliard** *Assistant Secretary* 06/14/2018

Attachments