



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **73136** | Service: **DTV** | Call **WJHG-TV** | Channel: **16 (UHF)** |
ID: | Sign:
File **0000028739**
Number:
FRN: **0018223693** | Date **01/02**
Submitted: **/2019**

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 <i>Widely</i>	Samuel Hariton 4031 University Dr Suite 100 Fairfax, VA 22030 United States	+1 (339) 222-8107	sam.hariton@widely.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 leasehold 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
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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 leasehold 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
Monitoring	Monitoring for Interim transmitter
Generator Repairs	It needs to be repaired
Microwave Components	Microwave Dishes, Line, etc.
Concrete Slab	10'x10' Slab

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	TLP16B
	Year	2017

	Justification for New Antenna	Interim antenna needed to continue broadcasting through the transition period
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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 **New Transmission Line**
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 **Other Transmission Line Expenses Not Listed**
Transmission Line

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.
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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
42372	WPFM	FM
66398	WMBB	DTV

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**

Section	Question	Response
Services Costs 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
Emergency Road Repair	Immediate repairs to access road to reach out to final facility to complete repack work

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	Gates Air quote: Q-73509 Fuqua & Sons PO: 1617	\$299,453.16	N/A
Concrete Slab	<i>\$1,712.00</i>	\$1,712.00	N/A	\$1,600.00	N/A
Microwave Components	<i>\$21,636.96</i>	\$21,636.96	N/A	N/A	N/A
Generator Repairs	<i>\$1,208.20</i>	\$1,208.20	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.	<i>\$2,000.00</i>	\$2,000.00	N/A	\$1,790.00	N/A
Monitoring	<i>\$5,975.00</i>	\$5,975.00	N/A	N/A	N/A

Microwave Radios	\$114,301.10	\$114,301.10	N/A	\$96,767.79	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	\$2,946,416.20	\$2,659,880.52	N/A	\$1,242,577.80	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

Concrete Slab	Component Description: Construct 10X10 equipment pad. Amount: \$1,600.00
Microwave Components	Information not provided.
Generator Repairs	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.	Component Description: Transmitter - demo circuite no longer in use/ Wiring for transmitter Amount: \$1,790.00
Monitoring	Information not provided.
Microwave Radios	Component Description: 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. Amount: \$96,767.79
Other 50 kW mask filter	Component Description: New Mask Filter for Existing Primary Transmitter Amount: \$56,565.71
UHF and VHF - minor banding issues	Component Description: Transmitter UXLTD-80 Retuning Amount: \$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 TLP16B	\$124,130.00	\$89,980.85		\$28,075.32	
Sweep Test Existing Antenna and Line	<i>\$4,850.00</i>	\$4,850.00	See attached quote	\$2,425.00	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	\$17,625.36	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$3,631.20	N/A	\$2,904.96	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$5,120.00	N/A
Primary Antenna TFU-28JSC /VP-R C140	\$298,484.92	\$276,497.72		\$146,751.58	

Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$7,660.80	Per DTV Pros quote JEHQ1231-02	\$7,660.80	Per DTV Pros quote JEHQ1231-02
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$6,132.00	Included in antenna cost	\$10,512.00	Side Mount Brackets for Primary Antenna
UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized	\$248,104.92	\$248,104.92	N/A	\$122,878.78	N/A
Sweep Test Primary Chan 18 Antenna	\$8,200.00	\$8,200.00	See attached invoice.	\$4,100.00	invoice
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$1,600.00	N/A
Sub-total	\$422,614.92	\$366,478.57	N/A	\$174,826.90	N/A
Total for all systems	\$2,946,416.20	\$2,659,880.52	N/A	\$1,242,577.80	N/A

Components

Actual Information	
Description	File Name
Sweep Test Existing Antenna and Line	Component Description: Sweep Test of Existing Auxiliary Transmission Line Amount: \$2,425.00
UHF - Lower Power Side Mount, One station antenna - medium power (50-200 kW), horizontally polarized	Component Description: Interim Antenna Amount: \$6,609.51 Component Description: UHF Low Power Side Mount TV Antenna TLP16B Amount: \$5,507.92 Component Description: 25% payment on Interim Antenna Amount: \$5,507.93
Side mount brackets for high power antennas (if not included in antenna base cost)	Component Description: Interim Antenna Side mount bracket Amount: \$907.80 Component Description: Site mount bracket Amount: \$1,089.36 Component Description: Side Mount Brackets for Lower Power Antenna Amount: \$907.80

Sweep test of existing antenna	Component Description:	Sweep test Aux. Antenna
	Amount:	\$1,920.00
	Component Description:	Sweep Test Auxiliary Antenna
	Amount:	\$1,600.00
	Component Description:	Sweep Test New Interim Antenna
	Amount:	\$1,600.00
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	Component Description:	Elbow Complex for Primary Antenna
	Amount:	\$4,468.80
	Component Description:	Elbow Complex for Primary Antenna
	Amount:	\$3,192.00
Side mount brackets for high power antennas (if not included in antenna base cost)	Component Description:	Side Mount Brackets for Primary Antenna
	Amount:	\$6,132.00
	Component Description:	Side Mount Brackets for Primary Antenna
	Amount:	\$4,380.00

UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized	Component Description:	Please deny this invoice
	Amount:	N/A
	Component Description:	Please deny this invoice
	Amount:	N/A
	Component Description:	Primary Antenna - UHF - High Power Side mount
	Amount:	\$71,679.29
Sweep Test Primary Chan 18 Antenna	Component Description:	UHF High Power side mount
	Amount:	\$51,199.49
	Component Description:	Primary Antenna Elbow Complex
	Amount:	\$4,468.80
	Component Description:	Primary Antenna Side-Mount Brackets
	Amount:	\$6,132.00
Sweep Test Primary Chan 18 Antenna	Component Description:	Sweep test of existing primary antenna system
	Amount:	\$4,100.00

Sweep test of existing antenna	Component Description:	Sweep Test of New Primary Antenna
	Amount:	\$2,240.00
	Component Description:	New Primary Antenna, Sweep Test
	Amount:	\$1,600.00

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		\$27,882.11	
Sweep Existing Transmission Line	<i>\$13,050.00</i>	\$13,050.00	See vendor invoice	\$0.00	N/A
Flexible Air Transmission Line - dielectric, 3"	\$48,675.00	\$34,852.66	See vendor quote JEHQ1257-01	\$27,882.11	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	\$149,769.97	N/A
Total for all systems	\$2,946,416.20	\$2,659,880.52	N/A	\$1,242,577.80	N/A

Components

Actual Information	
Description	File Name
Sweep Existing Transmission Line	Information not provided.

Flexible Air Transmission Line - dielectric, 3"	Component Description:		Aux. Transmission Line
	Amount:		\$10,455.80
	Component Description:		New Auxiliary Transmission Line
	Amount:		\$8,713.16
	Component Description:		Interim Antenna Transmission Line
	Amount:		\$8,713.15
Rigid Transmission Line - copper, 6 1/8"	Component Description:		Primary Transmission Line
	Amount:		\$71,101.25
	Component Description:		New Primary Transmission Line
	Amount:		\$50,786.61

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		\$51,369.40	
Tall Tower (greater than 500')	\$210,500.00	\$146,180.00	N/A	\$43,504.90	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	\$7,500.00	N/A	\$7,500.00	N/A
Microwave Installation	\$26,200.00	\$26,200.00	N/A	\$364.50	N/A
Auxiliary Tower TOWER	\$644,100.00	\$599,978.95		\$318,728.95	
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	\$15,000.00	N/A
Tall Tower (greater than 500')	\$210,500.00	\$184,978.95	Per Quote JEHQ1302-02 and Invoice 165	\$184,978.95	N/A

Major tower reinforcement /modifications	\$421,000.00	\$400,000.00	N/A	\$118,750.00	N/A
Sub-total	\$1,314,400.00	\$1,179,858.95	N/A	\$370,098.35	N/A
Total for all systems	\$2,946,416.20	\$2,659,880.52	N/A	\$1,242,577.80	N/A

Components

Actual Information	
Description	File Name
Tall Tower (greater than 500')	Component Description: UXA4-127DB 4FT 13GHz Amount: \$8,679.90 Component Description: Rig tower to 1361' for side mount antenna work Amount: \$34,825.00
Major tower reinforcement /modifications	Information not provided.
Structural engineering tower load study for well documented tower	Component Description: Tower Mapping Amount: \$3,750.00 Component Description: Structural engineering Tower Load study Amount: \$3,750.00
Microwave Installation	Component Description: WJHG-410-Install microwave equipment Existing Primary Tower Amount: \$364.50

Structural engineering tower load study for well documented tower	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
	Component Description:	Structural engineering Tower Load study
	Amount:	\$1,750.00
Tall Tower (greater than 500')	Component Description:	Install antennas and line Existing Auxiliary Tower
	Amount:	\$18,153.95
	Component Description:	Tower rigging for interim antenna site
	Amount:	\$41,706.25
	Component Description:	Installation services: Provide tower crew
	Amount:	\$125,118.75

Major tower reinforcement /modifications	Component Description: Amount:	Supply of new Dialight high intensity LED lighting system to replace existing red lights on tower \$118,750.00
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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
Outside Professional Services	\$177,515.00	\$168,582.50		\$62,528.48	
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	\$533.00	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	\$290.00	N/A
Project management of the transition	\$142,200.00	\$135,000.00	N/A	\$52,749.05	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
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
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$1,875.00	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
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	\$2,105.00	\$2,332.50	Per invoices recieved	\$787.50	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$2,175.00	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
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$3,680.00	\$3,500.00	N/A	\$1,948.93	N/A
Sub-total	\$177,515.00	\$168,582.50	N/A	\$62,528.48	N/A
Total for all systems	\$2,946,416.20	\$2,659,880.52	N/A	\$1,242,577.80	N/A

Components

Actual Information	
Description	File Name
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Component Description: WJHG Attorney CP Amount: \$533.00
Prepare and or review reimbursement form	Component Description: Professional Services of Senior Specialist and Counsel Amount: \$290.00
Project management of the transition	Component Description: Project Management Amount: \$1,856.30

Component Description:	Project Management
Amount:	\$802.25

Component Description:	Project Management
Amount:	\$3,199.95

Component Description:	Project Management
Amount:	\$5,007.90

Component Description:	Project Management
Amount:	\$3,637.75

Component Description:	Project Management
Amount:	\$3,124.90

Component Description:	Project Management
Amount:	\$4,079.35

Component Description:	Project Management
Amount:	\$28.20

Component Description:	Project Management
Amount:	\$2,556.05

Component Description:	Project management
Amount:	\$1,853.55

Component Description:	Project Management
Amount:	\$2,632.50

Component Description:	Project Management
Amount:	\$3,150.75

Component Description:	Project Management
Amount:	\$868.30

Component Description:	Project management
Amount:	\$3,846.85

Component Description:	Project Management
Amount:	\$3,925.85

Component Description:	Project Management
Amount:	\$988.95

Component Description:	Project management
Amount:	\$2,471.90

Component Description:	Project Management
Amount:	\$3,425.10

Component Description:	Transition Related Project Management Costs
Amount:	\$2,850.00

	Component Description: Project management Amount: \$2,442.65
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.
Prepare request for Special Temporary Authorization	Information not provided.
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.

Perform engineering study for new channel assignment and antenna development	<table> <tr> <td data-bbox="711 100 1023 604"> Component Description: </td><td data-bbox="1027 100 1428 604"> Regarding request to change repack Ch-16 to a later transition phase, conduct channel study to determine any relevant dependencies or linked station, provide summary to counsel. </td></tr> <tr> <td data-bbox="711 611 1023 716"> Amount: </td><td data-bbox="1027 611 1428 716"> \$200.00 </td></tr> <tr> <td data-bbox="711 723 1023 1008"> Component Description: </td><td data-bbox="1027 723 1428 1008"> Perform engineering study for new channel assignment </td></tr> <tr> <td data-bbox="711 1014 1023 1120"> Amount: </td><td data-bbox="1027 1014 1428 1120"> \$800.00 </td></tr> <tr> <td data-bbox="711 1126 1023 1344"> Component Description: </td><td data-bbox="1027 1126 1428 1344"> Perform engineering study for new channel assignment </td></tr> <tr> <td data-bbox="711 1350 1023 1456"> Amount: </td><td data-bbox="1027 1350 1428 1456"> \$687.50 </td></tr> <tr> <td data-bbox="711 1462 1023 1680"> Component Description: </td><td data-bbox="1027 1462 1428 1680"> Review scope of work regarding modification work of Hwy 20 tower, discuss with J McKee. </td></tr> <tr> <td data-bbox="711 1686 1023 1680"> Amount: </td><td data-bbox="1027 1686 1428 1680"> \$187.50 </td></tr> </table>	Component Description:	Regarding request to change repack Ch-16 to a later transition phase, conduct channel study to determine any relevant dependencies or linked station, provide summary to counsel.	Amount:	\$200.00	Component Description:	Perform engineering study for new channel assignment	Amount:	\$800.00	Component Description:	Perform engineering study for new channel assignment	Amount:	\$687.50	Component Description:	Review scope of work regarding modification work of Hwy 20 tower, discuss with J McKee.	Amount:	\$187.50
Component Description:	Regarding request to change repack Ch-16 to a later transition phase, conduct channel study to determine any relevant dependencies or linked station, provide summary to counsel.																
Amount:	\$200.00																
Component Description:	Perform engineering study for new channel assignment																
Amount:	\$800.00																
Component Description:	Perform engineering study for new channel assignment																
Amount:	\$687.50																
Component Description:	Review scope of work regarding modification work of Hwy 20 tower, discuss with J McKee.																
Amount:	\$187.50																
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.																

FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	Component Description: Prepare and submit FAA Form 7460-1 Amount: \$425.00
	Component Description: In support of interim repack operation at Highway 20 tower: Prepare FAA Form 7460-2 to notify that height decrease and lightning change were executed. Amount: \$175.00
	Component Description: Processing form 7460-1 to request lighting change and notify reduction in overall height. Amount: \$187.50
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Component Description: Develop final ERP and parameters for initial CP application Amount: \$1,350.00
	Component Description: Develop final technical parameters for auxiliary sidemount antenna for use during transition to repack channel Amount: \$825.00

RF Engineer-Microwave Link	<table> <tr> <td data-bbox="708 100 1141 817"> Component Description: </td><td data-bbox="1141 100 1428 817"> 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 </td></tr> <tr> <td data-bbox="708 817 1141 1323"> Amount: </td><td data-bbox="1141 817 1428 1323"> \$1,545.00 </td></tr> <tr> <td data-bbox="708 100 1141 1323"> Component Description: </td><td data-bbox="1141 100 1428 1323"> 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. </td></tr> <tr> <td data-bbox="708 817 1141 1323"> Amount: </td><td data-bbox="1141 817 1428 1323"> \$625.00 </td></tr> </table>	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
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								
Attorney Fees - Prepare and File request for Special Temporary Authorization	<table> <tr> <td data-bbox="708 1323 1141 1646"> Component Description: </td><td data-bbox="1141 1323 1428 1646"> For professional services rendered through November 30, 2018 </td></tr> <tr> <td data-bbox="708 1646 1141 1870"> Amount: </td><td data-bbox="1141 1646 1428 1870"> \$200.00 </td></tr> <tr> <td data-bbox="708 1323 1141 1870"> Component Description: </td><td data-bbox="1141 1323 1428 1870"> WJHG Attorney STA </td></tr> <tr> <td data-bbox="708 1646 1141 1870"> Amount: </td><td data-bbox="1141 1646 1428 1870"> \$1,748.93 </td></tr> </table>	Component Description:	For professional services rendered through November 30, 2018	Amount:	\$200.00	Component Description:	WJHG Attorney STA	Amount:	\$1,748.93
Component Description:	For professional services rendered through November 30, 2018								
Amount:	\$200.00								
Component Description:	WJHG Attorney STA								
Amount:	\$1,748.93								

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	\$77,956.93	\$68,850.38		\$7,246.93	
FCC Filing Fees - Form 2100 minor change CP application	\$1,110.00	\$1,070.00	N/A	\$1,070.00	N/A
Emergency Road Repair	<i>\$5,070.00</i>	\$5,070.00	Emergency road repair to reach out to final facility and complete repack work at the site location	\$5,070.00	N/A
Equipment Delivery and Handling Charges	<i>\$2,400.00</i>	\$2,400.00	Main and alternate sites	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$20,000.00</i>	\$20,000.00	For main and alternate sites	N/A	N/A
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	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

DTV Medical Facility Notification	\$11,550.00	\$2,498.45	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
MVPD Notification of Channel Change	\$1,106.93	\$1,106.93	Wiley Rein, Inv #1468343	\$1,106.93	per invoices received
Develop and air announcement of upcoming channel change	\$10,000.00	\$10,000.00	N/A	N/A	N/A
Equipment Storage	\$6,650.00	\$6,650.00	N/A	N/A	N/A
Sub-total	\$77,956.93	\$68,850.38	N/A	\$7,246.93	N/A
Total for all systems	\$2,946,416.20	\$2,659,880.52	N/A	\$1,242,577.80	N/A

Components

Actual Information	
Description	File Name
FCC Filing Fees - Form 2100 minor change CP application	Component Description: WJHG FCC Filing Fees 2100 CP app Amount: \$1,070.00
Emergency Road Repair	Component Description: Dozer, Rock, Delivery Amount: \$5,070.00
Equipment Delivery and Handling Charges	Information not provided.

Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.								
FCC Filing Fees - Special Temporary Authorization request	Information not provided.								
FCC Filing Fees - Form 2100 license to cover application	Information not provided.								
DTV Medical Facility Notification	Information not provided.								
Antenna Storage Cost	Information not provided.								
MVPD Notification of Channel Change	<table> <tr> <td>Component Description:</td><td>WJHG MVPD Notifications</td></tr> <tr> <td>Amount:</td><td>\$735.50</td></tr> <tr> <td>Component Description:</td><td>Professional Services</td></tr> <tr> <td>Amount:</td><td>\$371.43</td></tr> </table>	Component Description:	WJHG MVPD Notifications	Amount:	\$735.50	Component Description:	Professional Services	Amount:	\$371.43
Component Description:	WJHG MVPD Notifications								
Amount:	\$735.50								
Component Description:	Professional Services								
Amount:	\$371.43								
Develop and air announcement of upcoming channel change	Information not provided.								
Equipment Storage	Information not provided.								

Cost Information	Grand Total		
		Predetermined Cost Estimate	Estimated Cost
			Actual Cost
	Total for all systems	\$2,946,416.20	\$2,659,880.52
			\$1,242,577.80

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 <i>Assistant Secretary</i> 01/02/2019

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 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).	
		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 <i>Assistant Secretary</i> 01/02/2019

Attachments