

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility 73136 Service: DTV Call WJHG-TV Channel: 16 (UHF)

Sign:

File **0000028739**

Number:

ID:

FRN: **0018223693** Date **07/20**

Submitted: /2020

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
GRAY TELEVISION LICENSEE, LLC Doing Business As: WJHG-TV	4370 PEACHTREE ROAD, NE ATLANTA, GA 30319 United States	+1 (404) 504-9828	allfcclms@gray. tv	Limited Liability Company

Reimbursement Contact Name and Information Reimbursement Contact 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

rs	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	GatesAir
Manufacturer and Type	Model	Maxiva ULXT-80AT UHV
	Year	2014

Туре	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
	Туре	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 Information not provided.

Other Transmitter Cost Not Listed

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
	Туре	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
Monitoring	Monitoring for Interim transmitter
Microwave Radios	STL Extension to alternate transmitter site
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

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	Class	Full Power
Manufacturer and Type	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Туре	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

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	Class	Full Power
Manufacturer and Types	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Туре	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	
		1

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.

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	
	Туре	
	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

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	Class	Full Power
Manufacturer and Type	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Туре	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

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 ^{Seffien}	Question	Response
Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

Primary Transmission Se

Existing Transmission Line

on 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	
	Туре	Rigid
	Diameter	Rigid 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

New Transmission Line

Primary	J
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Transmission Line Question Response **New Transmission Line** Use Primary Costs (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 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 of provided.

Interim

New Transmission Line

Transmissio	n <mark>Line</mark> n	Question	Response
	New Transmission Line	Use	Interim
	Costs	Description of Use	N/A
		Change Type	Purchase New
		Туре	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

Other Transmission Line Expenses Not Listed

Transmission	n Naine	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	Do you have a tower registration number?	No
Registration A:	ASR Number	
Coordinates (NAD83 (North American Datum of	Latitude (NAD83)	30° 26' 00.1" N-
1983))	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 Constructe	d	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

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

Other Professional Services Expenses Not Listed

I Services Costs	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	\$424,078.19	\$466,616.36		\$420,150.89	
Monitoring	\$5,975.00	\$5,975.00	N/A	\$0.00	N/A
Concrete Slab	\$1,712.00	\$1,712.00	N/A	\$1,600.00	N/A
Generator Repairs	\$1,208.20	\$1,208.20	N/A	\$0.00	N/A
Microwave Components	\$21,636.96	\$21,636.96	N/A	\$0.00	N/A
Microwave Radios	\$114,301.10	\$114,301.10	N/A	\$96,767.79	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.	\$5,744.93	\$5,744.93	see Estimated Cost Justification WJHG-180- Electrical Service New Interim Transmitter v0	\$5,744.93	N/A

UHF - Liquid Cooled Solid State Transmitter 4.9 . 6.5 kW	\$273,500.00	\$316,038.17	Gates Air quote: Q- 73509 GatesAir Invoice: US0323319 Fuqua & Sons PO: 1617	\$316,038.17	N/A
Primary Transmitter Maxiva ULXT- 80AT UHV	\$265,262.01	\$204,433.94		\$204,433.94	
Other 50 kW mask filter	\$160,062.01	\$160,062.01	Includes shipping and state & local taxes; GatesAir Quotes # GA- 00021465 and # Q- 77913 (change order); Justifying Invoice & Quote - WJHG GatesAir US0324131	\$160,062.01	N/A
UHF and VHF - minor banding issues	\$105,200.00	\$44,371.93	GA- 00021465; Justifying Invoice & Quote - WJHG GatesAir US0324131	\$44,371.93	N/A
Sub-total	\$689,340.20	\$671,050.30	N/A	\$624,584.83	N/A
Total for all systems	\$3,027,921.71	\$2,810,027.76	N/A	\$1,829,336.83	N/A

Actual Information Description	File Name	
Monitoring	Information not provided.	
Concrete Slab	Component Description: Amount:	Construct 10X10 equipment pad. \$1,600.00
Generator Repairs	Information not provided.	
Microwave Components	Information not provided.	
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
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	Component Description: Amount:	Transmitter fans; wired and checked voltage to filter fans \$1,000.50
electrical contractors.	Component Description: Amount:	Transmitter - demo circuite no longer in use/ Wiring for transmitter \$1,789.93
	Component Description: Amount:	Surge Protector \$2,954.50

UHF - Liquid Cooled Solid		
State Transmitter 4.9 . 6.5	Component Description:	UXLTE-12
kW		Transmitter
	Amount:	\$89,297.45
	Component Description:	ULXTE-12
	·	Transmitter
	Amount:	\$208,360.71
	Component Description:	Freight,
		Broadband PA,
		ULXT B-STOCK
	Amount:	\$16,585.01
	Component Description:	Installation of roof
		structure over
		equipment tower
	Amount:	site. \$1,795.00
	Amount.	ψ1,795.00
Other 50 kW mask filter		
	Component Description:	Channel change
		equipment
	Amount:	\$69,435.15
	Component Description:	WJHG-110-New
	,	mask filter
		existing Primary
		Transmitter
	Amount:	\$34,061.15
	Component Description:	New Mask Filter
		for Existing
		Primary
		Transmitter \$56,565.71
	Amount:	

UHF and VHF - minor
banding issues

Component Description: Channel Change

Equipment

Channel Change Services Freight

Amount: \$20,713.79

Component Description: PWA, AC

Distribution

Amount: \$1,727.63

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	\$90,342.65		\$34,233.50	
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$3,993.00	DTVPros Invoice # 152-4	\$3,631.20	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$6,400.00	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	\$21,777.30	N/A
Sweep Test Existing Antenna and Line	\$4,850.00	\$4,850.00	See attached quote	\$2,425.00	N/A
Primary Antenna TFU-28JSC /VP-R C140	\$298,484.92	\$293,707.61		\$220,663.29	

Sweep Test Primary Chan 18 Antenna	\$8,200.00	\$8,200.00	See attached invoice.	\$4,100.00	invoice
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$17,520.00	Per DTVPros quote JEHQ1231- 02	\$15,731.44	Side Mount Brackets for Primary Antenna
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$13,482.69	Per Estimated Cost Justification WJHG-210- Elbow Complex New Primary Antenna v0, Per DTV Pros quote JEHQ1231- 02	\$11,484.79	Per DTV Pros quote JEHQ1231- 02
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$5,398.54	N/A
UHF - High Power, Side Mount, basic slot antenna, 1000 kW input,	\$248,104.92	\$248,104.92	N/A	\$183,948.52	N/A
directional,, elliptically or circularly polarized					

Total for all	\$3,027,921.71	\$2,810,027.76	N/A	\$1,829,336.83	N/A
systems					

Components

Actual Information Description	File Name	
Side mount brackets for high power antennas (if not included in antenna base cost)	Component Description: Amount:	Side mount brackets Interim Antenna \$726.24
	Component Description:	Interim Antenna Side mount bracket
	Amount:	\$907.80
	Component Description:	Side Mount Brackets for Lower Power Antenna
	Amount:	\$907.80
	Component Description: Amount:	Site mount bracket \$1,089.36

Sweep test of existing		
antenna	Component Description:	Sweep Test-
		Interim Antenna
	Amount:	\$1,280.00
	Component Description:	Sweep Test New
		Interim Antenna
	Amount:	\$1,600.00
	Component Description:	Sweep test Aux.
	Component Description.	Antenna
	Amount:	\$1,920.00
	Component Description:	Sweep Test
		Auxiliary Antenna
	Amount:	\$1,600.00
UHF - Lower Power Side		
Mount, One station antenna	Component Description:	UHF - Low Power
medium power (50-200 kW), horizontally polarized		Side Mount TV Ant
KVV), Horizontally polarized		TLP16B
	Amount:	\$4,151.94
	Component Description:	25% payment on
		Interim Antenna
	Amount:	\$5,507.93
	Common and Boominstons	latarias Automas
	Component Description: Amount:	Interim Antenna \$6,609.51
	Amount.	ψυ,υυσ.υ Ι
	Component Description:	UHF Low Power
		Side Mount TV
	Amount:	Antenna TLP16B

Sweep Test Existing Antenna and Line	Component Description:	Sweep Test of Existing Auxiliary Transmission Line
	Amount:	\$2,425.00
Sweep Test Primary Chan		
18 Antenna	Component Description:	Sweep test of
		existing primary
		antenna system
	Amount:	\$4,100.00
Side mount brackets for		
high power antennas (if not	Component Description:	Side Mount
included in antenna base		Brackets for
cost)		Primary Antenna
	Amount:	\$6,132.00
	Component Description:	WJHG-310-New
		Primary
		Transmission Line
	Amount:	\$5,219.44
	Component Description:	Side Mount
		Brackets for
		Primary Antenna
	Amount:	\$4,380.00

Elbow complex, single channel, at antenna input, Elbow Complex for **Component Description:** per 6 1/8. feedline (if Primary Antenna needed) \$4,468.80 **Amount:** Elbow complex **Component Description: New Primary** Antenna **Amount:** \$3,823.99 **Component Description:** Elbow Complex for Primary Antenna **Amount:** \$3,192.00 Sweep test of existing antenna **Component Description:** WJHG-210-Sweep test New Primary Antenna Amount: \$1,558.54 **Component Description:** Sweep Test of **New Primary** Antenna Amount: \$2,240.00 **Component Description:** Please deny this component Amount: N/A **Component Description: New Primary** Antenna, Sweep Test \$1,600.00 Amount:

UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized

Component Description: UHF - HIGH

POWER SIDE

MOUNT

Amount: \$61,069.74

Component Description: Please deny this

invoice

Amount: N/A

Component Description: Please deny this

invoice

Amount: N/A

Component Description: Primary Antenna

Side-Mount Brackets

Amount: \$6,132.00

Component Description: Primary Antenna

Elbow Complex

Amount: \$4,468.80

Component Description: Primary Antenna -

UHF - High Power

Side mount

Amount: \$71,679.29

Component Description: UHF High Power

side mount

Amount: \$51,199.49

Cost Information

Transmission Line

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

Description Interim Transmission Line	Predetermined Cost Estimate \$61,725.00	Estimated Cost \$53,324.65	Estimated Cost Justification	Actual Cost \$35,107.04	Actual Cost Justification
Sweep Existing Transmission Line	\$13,050.00	\$13,050.00	See vendor invoice	\$0.00	N/A
Flexible Air Transmission Line - dielectric, 3"	\$48,675.00	\$40,274.65	See vendor quote JEHQ1257- 01	\$35,107.04	N/A
Primary Transmission Line	\$282,800.00	\$263,955.76		\$213,574.47	
Rigid Transmission Line - copper, 6 1/8"	\$282,800.00	\$263,955.76	N/A	\$213,574.47	N/A
Sub-total	\$344,525.00	\$317,280.41	N/A	\$248,681.51	N/A
Total for all systems	\$3,027,921.71	\$2,810,027.76	N/A	\$1,829,336.83	N/A

Components

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

Flexible Air Transmission Line - dielectric, 3"

Component Description: Interim

Transmission Line

Amount: \$7,224.93

Component Description: New Auxiliary

Transmission Line

Amount: \$8,713.16

Component Description: Interim Antenna

Transmission Line

Amount: \$8,713.15

Component Description: Tower Stand-Off -

Fits Leg

measuring 1-875" -

,4.75" diameter

Amount: \$7,921.11

Component Description: Aux. Transmission

Line

Amount: \$10,455.80

Rigid Transmission Line - copper, 6 1/8"

Component Description: Freight, fluid

coupler, female

Amount: \$442.09

Component Description: On-Site add-ons,

program

management

Amount: \$30,815.12

Component Description: WJHG-210-Elbow

complex New Primary Antenna

Amount: \$60,429.40

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
Primary Tower TOWER	\$670,300.00	\$598,665.30		\$172,829.80	
Major tower reinforcement /modifications	\$421,000.00	\$400,000.00	N/A	\$0.00	N/A
Microwave Installation	\$26,200.00	\$26,200.00	N/A	\$364.50	N/A
Structural engineering tower load study for well documented tower	\$12,600.00	\$7,500.00	N/A	\$7,500.00	N/A
Tall Tower (greater than 500')	\$210,500.00	\$164,965.30	Per Estimated Cost Justification WJHG-410- Install antennas and lines Existing Primary Tower v0, Per GTI America Invoice GTIA-1064	\$164,965.30	N/A
Auxiliary Tower TOWER	\$644,100.00	\$599,978.95		\$360,226.95	
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	\$160,248.00	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	\$15,000.00	N/A
Sub-total	\$1,314,400.00	\$1,198,644.25	N/A	\$533,056.75	N/A
Total for all systems	\$3,027,921.71	\$2,810,027.76	N/A	\$1,829,336.83	N/A

Components

Actual Information Description	File Name	
Major tower reinforcement /modifications	Information not provided.	
Microwave Installation	Component Description: Amount:	WJHG-410-Install microwave equipment Existing Primary Tower \$364.50
Structural engineering tower load study for well documented tower	Component Description: Amount:	Structural engineering Tower Load study \$3,750.00
	Component Description: Amount:	Tower Mapping \$3,750.00

Tall Tower (greater than		
500')	Component Description:	installation
	Amount:	Services \$104,475.00
	Amount.	Ψ10-1,-170.00
	Component Description:	Extra Charges related to the new
		repack installation
	Amount:	work \$16,985.40
	Component Description:	Rig tower to 1361'
	Component Decomponent	for side mount antenna work
	Amount:	\$34,825.00
	Component Description:	UXA4-127DB 4FT
	Amount:	13GHz \$8,679.90
Tall Tower (greater than		
500')	Component Description:	Tower rigging for interim antenna site
	Amount:	\$41,706.25
	Component Description:	Installation services: Provide
		tower crew
	Amount:	\$125,118.75
	Component Description:	Install antennas
		and line Existing Auxiliary Tower
	I .	\$18,153.95

Major tower reinforcement		
/modifications	Component Description:	Supply of new
		Dialight high
		intensity LED
		lighting system to
		replace existing
		red lights on tower
	Amount:	\$118,750.00
	Component Description:	Installation of
	23	tower lighting
		system at
		Youngstown tower
	Amount:	\$41,498.00
		. ,
Structural engineering tower		
load study for well documented tower	Component Description:	Tower Mapping
aocumentea tower	Amount:	\$6,625.00
	Component Description:	Structural
	Component Description.	engineering
		Tower Load study
	Amount:	\$1,750.00
	Component Description:	Structural
		Analysis of
		Auxiliary Tower
	Amount:	\$6,625.00
	Component Description:	Structural
	Joinpondin Bosonphon.	engineering
		onginooning
		Tower Load study

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 Outside Professional Services	Predetermined Cost Estimate \$177,515.00	Estimated Cost \$168,582.50	Estimated Cost Justification	Actual Cost \$139,917.95	Actual Cost Justification
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	\$2,332.50	Per invoices recieved	\$787.50	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	\$129,713.95	N/A

Attorney Fees - Prepare and File request for Special Temporary Authorization	\$3,680.00	\$3,500.00	N/A	\$1,577.50	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	\$296.00	N/A
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 request for Special Temporary Authorization	\$2,050.00	\$1,500.00	N/A	\$0.00	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	\$500.00	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

Components

Actual Information	
Description	File Name

RF	Engineer-Microwave
Linl	Κ

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

арр.

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

FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase

In support of **Component Description:**

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

Component Description: Prepare and

submit FAA Form

7460-1

Amount: \$425.00

Prepare and or review reimbursement form

transition

Component Description: Professional

> Services of Senior Specialist and

Counsel \$290.00

Amount:

Project management of the

Component Description: Project

Management

Amount: \$2,407.65

Component Description:

Amount:

Project mgt

\$3,931.95

Component Description: Project

Management

Amount:

\$3,082.45

Component Description:

Project

Amount:

Management \$3,887.00

Component Description:

Project

Amount:

Management \$1,856.30

Project

Component Description:

Management

Amount:

\$802.25

Component Description:

Project

Management

Amount:

\$2,150.65

Component Description:

WJHG-510-Project

Management

Amount:

\$4,050.00

Component Description:

Project

Amount:

Management

\$4,485.05

Component Description:

Project

Amount:

Management

\$2,235.00

Component Description:

Project

Amount:

Management

\$4,787.95

Component Description: Project

Management

\$2,378.55 Amount:

Component Description: Project

Management

Amount: \$3,235.25

Component Description: Project

Management

Amount: \$2,382.00

Component Description: Project

Management \$3,925.85 Amount:

Component Description:

Component Description:

Project

management \$2,471.90

Amount:

Project

Management

Amount:

\$3,124.90

Component Description:

Project

Amount:

Management \$868.30

Component Description:

WJHG-510-Project

Amount:

Management \$1,800.00

Component Description:

Project

Amount:

Management \$5,349.80

Component Description:

Project Management

Amount:

\$5,465.95

Component Description:

Project

Amount:

Management \$2,905.70

Component Description:

Project

management

Amount:

\$2,442.65

Component Description:

Project

Amount:

Management

\$4,618.50

Component Description:

Project

Management

Amount:

\$5,529.40

Component Description:

Project

Management

Amount:

\$2,632.50

Component Description:

Project

Amount:

Management \$1,800.00

Component Description:

Project

Amount:

Management \$3,637.75

Component Description:

Project

Amount:

Management \$3,292.15

Component Description:

Project

Amount:

Management \$2,218.40

Component Description:

Project

Amount:

Management \$988.95

Component Description:

Project

Amount:

Management \$4,680.85

Component Description:

Project

Amount:

Management \$5,007.90

Component Description:

Project

Amount:

management

\$3,846.85

Component Description:

Project

management

\$1,853.55

Component Description:

Project

Amount:

Amount:

Management

\$3,890.65

Component Description:

Project

Amount:

Management

\$3,425.10

Component Description:

Project

Amount:

Management

\$4,079.35

Component Description:

Amount:

Project

Management

\$3,199.95

Component Description:

Project

Amount:

Management \$2,556.05

Component Description:

Transition Related

Project

Management Costs

\$2,850.00

Component Description:

Project

Management

Amount:

Amount:

\$3,150.75

Component Description:

Project

Management

Amount:

\$28.20

Attorney Fees - Prepare and File request for Special Temporary Authorization

Component Description:

For professional

services rendered through November

30, 2018

\$200.00

Component Description:

WJHG Attorney

STA

Amount:

Amount:

\$1,377.50

Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application

Component Description:

Amount:

Legal services

\$296.00

Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	WJHG Attorney CP \$533.00
Prepare request for Special Temporary Authorization	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Component Description: Amount:	Consulting Engineer \$500.00
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	Develop final technical parameters for auxiliary sidemount antenna for use during transition to repack channel \$825.00
	Component Description: Amount:	Develop final ERP and parameters for initial CP application \$1,350.00

Perform engineering study		
for new channel assignment and antenna development	Component Description: Amount:	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. \$200.00
	Component Description:	Review scope of work regarding modification work of Hwy 20 tower, discuss with J
	Amount:	\$187.50
	Component Description:	Perform engineering study for new channel assignment
	Amount:	\$687.50
	Component Description:	Perform engineering study for new channel assignment
	Amount:	\$800.00
Address transition timing and coordination issues w/ other stations and wireless	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	\$79,526.59	\$70,420.04		\$28,199.00	
Emergency Road Repair	\$5,070.00	\$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
Antenna Storage Cost	\$19,540.00	\$19,540.00	See WJHG storage quote from Dielectric	\$14,880.00	N/A
MVPD Notification of Channel Change	\$1,478.36	\$1,478.36	Wiley Rein, Inv #1468343, #1479796	\$1,478.36	Invoices
Develop and air announcement of upcoming channel change	\$10,000.00	\$10,000.00	N/A	\$0.00	N/A
Equipment Storage	\$6,650.00	\$6,650.00	N/A	\$4,760.00	N/A
Equipment Delivery and Handling Charges	\$3,598.23	\$3,598.23	Main and alternate sites; H and E Equipment Services PO 1737	\$2,010.64	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	\$0.00	N/A
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	N/A	\$0.00	N/A
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	\$0.00	N/A
FCC Filing Fees - Form 2100 minor change CP application	\$1,110.00	\$1,070.00	N/A	\$0.00	N/A
DTV Medical Facility Notification	\$11,550.00	\$2,498.45	N/A	\$0.00	N/A
Sub-total	\$79,526.59	\$70,420.04	N/A	\$28,199.00	N/A
Total for all systems	\$3,027,921.71	\$2,810,027.76	N/A	\$1,829,336.83	N/A

Components

Actual Information Description	File Name	
Emergency Road Repair		
	Component Description:	Dozer, Rock, Delivery
	Amount:	\$5,070.00

Component Description: Amount:	WJHG-610-Antenna Storage \$14,880.00
Component Description: Amount:	Professional Services \$371.43
Component Description:	Prepare and send updated MVPD notifications for new repack transition date.
Amount: Component Description: Amount:	\$371.43 WJHG MVPD Notifications \$735.50
Information not provided.	
Component Description: Amount:	WJHG-610- Equipment Storage \$4,760.00
	Amount: Component Description: Amount: Component Description: Amount: Information not provided. Component Description:

Equipment Delivery and Handling Charges	Component Description:	6000# Reach Lift RS634DK123792
	Amount:	\$812.41
	Component Description: Amount:	Forklift rental \$510.82
	Component Description: Amount:	reach lift rental \$687.41
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.	
FCC Filing Fees - Form 2100 minor change CP application	Component Description:	Please deny this invoice
	Amount:	N/A
OTV Medical Facility Notification	Information not provided.	

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	\$3,027,921.71	\$2,810,027.76	\$1,829,336.83

Reimbursem	entestatus	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

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 abovenamed applicant for the Authorization(s) specified above. Robert Folliard , III

Assistant Secretary

07/20/2020

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.
- The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct.
- 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 abovenamed applicant for the Authorization(s) specified above. Robert Folliard , III

Assistant Secretary

07/20/2020

Attachments