



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **74167** | Service: **DTV** | Call **WVEC** | Channel:  
ID: | Sign:  
**11 (High VHF)** | File **0000028089**  
Number:  
FRN: **0004336020** | Date **12/23**  
Submitted: **/2019**

## Applicant Information

### Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
<b>WVEC TELEVISION, INC.</b>	Denise Branson, Sr. Paralegal TEGNA Inc. 8350 Broad Street, Suite 2000 Tysons, VA 22102 United States	+1 (703) 873-6606	dbranson@TEGNA. com	Corporation

## Reimbursement Contact Information

### Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

## Preparer Contact Information

### Preparer Contact Name and Information

Applicant	Address	Phone	Email
<b>Gary Davis</b> <i>Regional Head of Technology and Operations</i> <b>TEGNA</b>	Gary Davis 8350 Broad Street Suite 2000 Tysons, VA 22102 United States	+1 (404) 873- 9199	gadavis@tegna. 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.	No
Briefly describe transition plan	WVEC will be transitioning from channel 13 to channel 11 which requires a new primary antenna, transmitter and transmission line as well as an interim antenna and line.

**Transmitters**

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

**Auxiliary  
Transmitter****Add Transmitter Information**

Section	Question	Response
<b>Existing Transmitter Description</b>	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Backup full power transmitter
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
<b>Existing Transmitter Manufacturer and Type</b>	Manufacturer	
	Model	PTCD20P2I
	Year	1994
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	8 kW

**Auxiliary  
Transmitter**

**New Transmitter Costs**

Section	Question	Response
New Transmitter	Use	Auxiliary (Backup)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	VAXTE-12
	Transmitter Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power capacity	9.6 kW
	Justification for New Transmitter	Old transmitter cannot be re-tuned per manufacturers notification.

**Auxiliary  
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	Yes
	Size	3 inches
	Length	100.0 feet
	Other Electrical Service	Yes

	Description	Additional electrical services required for transmitter installation.
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	Yes
	Type	Heating and Cooling
	Size	5 tons
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
<b>Channel 14 Costs</b>	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

**Auxiliary Transmitter**      **Other Transmitter Cost Not Listed**  
Information not provided.

**Primary  
Transmitter**

**Existing Transmitter Information**

Section	Question	Response
<b>Existing Transmitter Description</b>	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
<b>Existing Transmitter Manufacturer and Type</b>	Manufacturer	
	Model	PTCD20P2I
	Year	1994
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	8 kW

Primary Transmitter

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	VAXTE-12
	Transmitter Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power capacity	9.6 kW
	Justification for New Transmitter	Old transmitters not re-tuneble per manufacturer's notification.

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	Yes
	Size	3 inches
	Length	100.0 feet
	Other Electrical Service	Yes

	Description	Additional electrical services required for transmitter installation.
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	Yes
	Type	Heating and Cooling
	Size	5 tons
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
<b>Channel 14 Costs</b>	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

**Primary Transmitter**      **Other Transmitter Cost Not Listed**  
Information not provided.



**Antennas**

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

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

Section	Question	Response
<b>Existing Antenna Description</b>	Type of change	Purchase New
	Antenna Use	Auxiliary (Backup)
	Description of Use	Full Power Backup Antenna
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this antenna currently shared with any other stations?	No
	Is this antenna directional?	No
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
<b>Existing Antenna Manufacturer and Type</b>	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels	N/A
	Design power capacity in use	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Other Antenna Type	N/A

ERP: (Effective Radiated Power) .....	35.0 kW
Manufacturer	
Model	TLS-V8BB-R
Year	2017

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## Auxiliary Antenna

### New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Auxiliary (Backup)
	Description of Use	Full Power backup antenna
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	No
	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	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) .....	35.0 kW
	Manufacturer	

	Model	TLS-V8BB-R
	Year	2019
	Justification for New Antenna	Old antenna cannot be re-tuned

## Auxiliary Antenna

### Other Antenna Costs

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

**Auxiliary  
Antenna**

**Other Antenna Cost Not Listed**

NameDescription	
Reducer	Reducer
XFMR	XFMR
Flex Line	Flex Line
Trans Test 6-75	Trans Test 6-75
Shipping	\$5,400

**Primary  
Antenna**

**Existing Antenna Information**

Section	Question	Response
<b>Existing Antenna Description</b>	Type of change	Purchase New
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	No
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
<b>Existing Antenna Manufacturer and Type</b>	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Circular
	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) .....	35.0 kW

Manufacturer	
Model	TCL-12A13
Year	1999



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?	No
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Circular
	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) .....	35.0 kW
	Manufacturer	

Model	THV-12A11 /VP-R O4 (SP)
Year	2019
Justification for New Antenna	Station's licensed circularly polarized, top-mount, main antenna cannot be re-tuned and must be replaced for new channel assignment.

## Primary Antenna

### Other Antenna Costs

Section	Question	Response
<b>Combiner for Shared Antenna</b>	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
<b>Elbow Complex</b>	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

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

**Primary  
Antenna**

**Other Antenna Cost Not Listed**

<b>Name</b>	<b>Description</b>
<b>Misc Antenna Items</b>	Misc Antenna Items: Items 3 and 5-8 on attached Dielectric Quote 800056CMZ-3
<b>Shipping</b>	\$6,800
<b>New Top Plate</b>	Existing top-plate and/or bolt pattern may not work for new top-mount antenna

**Transmission Line**

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

**Primary Transmission Line****Add Transmission Line**

Section	Question	Response
Existing Transmission Line Description	Type of change	Utilize Existing
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmission currently shared with any other stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	Dielectric
	Type	Rigid
	Diameter	4 1/16 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1300 feet per run

Primary Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
TX Line Sweep	Sweep required to verify post-transition channel measures well on existing line.

Auxiliary Transmission Line

Add Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Utilize Existing
	Use	Auxiliary (Backup)
	Description of Use	Used for maintenane a and primary facility repair
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmission currently shared with any other stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	Dielectric
	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	1250 feet per run

Auxiliary  
Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
TX Line Sweep	Sweep required to verify post-transition channel measures well on existing line.

**Tower  
Equipment  
And  
Rigging  
Costs**

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

**Primary  
Tower**

**Existing Tower**

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Is this tower consider Complex?	No
	Is this tower currently shared with any other stations?	No
	One or more FM, AM or TV radio broadcaster(s)	N/A
	Others Types of Users	N/A
	Is tower documented for structural analysis?	No
	Is tower compliant with Rev G?	No
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1043102
Coordinates (NAD83 ( North American Datum of 1983))	Latitude (NAD83)	36° 49' 00.0" N-
	Longitude (NAD83)	076° 28' 05.0" W-
	Overall Structure Height	1225.05 feet
	Support Structure Height	1095.79 feet
	Ground Elevation Above Mean Sea Level (AMSL)	23.95 feet

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	WVEC TELEVISION INC
Date Constructed	06/24/1999

**Primary Tower**

**Tower Modification Costs**

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

Information not provided.



**Outside  
Professional Services Costs**

Section	Question	Response
<b>Outside Project Management Services</b>	Do you require outside project management services?	Yes
	Number of Hours	750
	Explanation	It will be necessary to schedule and coordinate multiple vendors, complete progress reports, and update Schedule 399s. Station does not have available personnel or personnel trained in project management for such complex projects.
<b>Outside RF consulting Engineering Services</b>	Perform engineering study for new channel assignment and antenna development	Yes
	Prepare engineering section of Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes

	Quantity	2
	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
<b>Attorney and Other Outside Consulting Services</b>	Prepare and file Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	2
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	Yes
	FAA Consultation (including preparation of FAA Form 7460)	Yes
	Negotiation of Lease and other Matter for Shared Locations	Yes
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	Yes
<b>RF Field Engineering Services</b>	Comprehensive coverage verification via field study	Yes
	RF exposure measurements	Yes
	Additional Field Engineering Service	Yes

Number of Days	20
Justification	\$2,500 per site visit including expenses x 20 days. It is necessary to survey the site, plan the equipment, develop specifications for purchasing, & oversee multiple vendor RF projects. Station does not have available personnel trained in such services.

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

Name	Description
<b>Pre filing site review</b>	Outside engineering firm to review all sites before filling.
<b>Other Engineering Services</b>	Fewer Proj Mgt "PM" tasks are req'd & Other Engineering Services "OES" are req'd, so the PM total was reduced to 750 hrs (\$112,500.00 at \$150/hr), a new OES comp was created & funded with \$ from PM. See attachment titled "KGA quote to WVEC for OES.pdf"
<b>Other Legal Services</b>	Other Legal Services related to the DTV Repack

## Other Expenses

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

**Other  
Expenses**

**Other Expenses Not Listed**

Name	Description
Internal labor	Local and Corporate labor Costs

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
Primary Transmitter VAXTE-12	\$386,700.00	\$406,381.40		\$278,484.34	
3" Rigid Conduit and Wiring (Cost per foot)	\$5,200.00	\$4,900.00	N/A	N/A	N/A
High VHF - Air Cooled Solid State Transmitter 6.5 . 12.5 kW	\$331,500.00	\$351,481.40	Per Gates AIR Quote. Includes TAX	\$278,484.34	N/A
Other Electrical Service: Additional electrical services required for transmitter installation.	<i>\$25,000.00</i>	\$25,000.00	Additional electrical services required for transmitter installation.	N/A	N/A

Other -- HVAC Service Type: H Size:5 (Other)	\$25,000.00	\$25,000.00	Additional HVAC is required for operation of new air- cooled solid-state transmitter while still operating with main air-cooled transmitter during testing period.	N/A	N/A
<b>Auxiliary Transmitter VAXTE-12</b>	<b>\$386,700.00</b>	<b>\$406,381.40</b>		<b>\$254,971.68</b>	
Other -- HVAC Service Type: H Size:5 (Other)	\$25,000.00	\$25,000.00	Additional HVAC is required for operation of new air- cooled solid-state transmitter while still operating with main air-cooled transmitter during testing period.	N/A	N/A
High VHF - Air Cooled Solid State Transmitter 6.5 . 12.5 kW	\$331,500.00	\$351,481.40	Per Gates Air quote. Includes TAX	\$254,971.68	N/A
3" Rigid Conduit and Wiring (Cost per foot)	\$5,200.00	\$4,900.00	N/A	N/A	N/A

Other Electrical Service: Additional electrical services required for transmitter installation.	\$25,000.00	\$25,000.00	Additional electrical services required for transmitter installation.	N/A	N/A
<b>Sub-total</b>	\$773,400.00	\$812,762.80	N/A	\$533,456.02	N/A
<b>Total for all systems</b>	\$2,573,262.00	\$2,549,322.80	N/A	\$1,203,301.56	N/A

## Components

Actual Information	
Description	File Name
3" Rigid Conduit and Wiring (Cost per foot)	Information not provided.
High VHF - Air Cooled Solid State Transmitter 6.5 . 12.5 kW	<div> <b>Component Description:</b> Gates US0331558 v191126jgv1  <b>Amount:</b> \$134,112.94 </div> <div> <b>Component Description:</b> Gates inv #JW30004556-1 Primary Transmitter 50 pct pmt 1 UL20181207jgv1  <b>Amount:</b> \$144,371.40 </div>
Other Electrical Service: Additional electrical services required for transmitter installation.	Information not provided.
Other -- HVAC Service Type: H Size:5 (Other)	Information not provided.
Other -- HVAC Service Type: H Size:5 (Other)	Information not provided.



High VHF - Air Cooled Solid State Transmitter 6.5 . 12.5 kW	<div> <div> <b>Component Description:</b>   <b>Amount:</b> </div> <div> Gates US0331557  v191126jgv1  \$110,600.28 </div> </div> <div> <div> <b>Component Description:</b>   <b>Amount:</b> </div> <div> Gates inv  #JW30004555-1  Aux Transmitter 50  pct pmt 1  UL20181207jgv1  \$144,371.40 </div> </div>
3" Rigid Conduit and Wiring (Cost per foot)	Information not provided.
Other Electrical Service: Additional electrical services required for transmitter installation.	Information not provided.

## Cost Information

### Antennas

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Antenna THV-12A11 /VP-R 04 (SP)	\$446,908.00	\$445,978.00		\$369,157.40	
New Top Plate	<i>\$25,000.00</i>	\$25,000.00	Existing top-plate and/or bolt pattern may not work for new top-mount antenna	\$20,871.00	N/A
Shipping	<i>\$6,800.00</i>	\$6,800.00	N/A	N/A	N/A
Misc Antenna Items	<i>\$22,078.00</i>	\$22,078.00	Misc Antenna Items: Items 3 and 5-8 on attached Dielectric Quote 800056CMZ-3	\$19,870.20	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$11,700.00	N/A	\$9,268.20	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$5,760.00	N/A

High VHF - High Power Top Mount One Station elliptically or circularly polarized	<b>\$374,000.00</b>	\$374,000.00	Per Widely Estimate	\$313,388.00	N/A
<b>Auxiliary Antenna TLS-V8BB- R</b>	<b>\$129,636.00</b>	<b>\$116,469.00</b>		<b>\$49,981.05</b>	
High VHF - High Power Side Mount One Station horizontally polarized	<b>\$82,350.00</b>	\$82,350.00	See attached PDF titled "Die MAN01456 v191007jgv1. pdf"	\$37,057.50	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	See attached PDF titled "Die MAN01456 v191007jgv1. pdf"	\$2,880.00	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$10,313.00	See attached PDF titled "Die MAN01456 v191007jgv1. pdf"	\$4,640.85	N/A
Shipping	<b>\$5,400.00</b>	\$5,400.00	N/A	N/A	N/A
Flex Line	<b>\$6,700.00</b>	\$6,700.00	See attached PDF titled "Die MAN01456 v191007jgv1. pdf"	\$3,015.00	N/A

Reducer	<b>\$1,330.00</b>	\$1,330.00	See attached PDF titled "Die MAN01456 v191007jgv1.pdf"	\$598.50	N/A
XFMR	<b>\$1,858.00</b>	\$1,858.00	See attached PDF titled "Die MAN01456 v191007jgv1.pdf"	\$836.10	N/A
Trans Test 6-75	<b>\$2,118.00</b>	\$2,118.00	See attached PDF titled "Die MAN01456 v191007jgv1.pdf"	\$953.10	N/A
<b>Sub-total</b>	\$576,544.00	\$562,447.00	N/A	\$419,138.45	N/A
<b>Total for all systems</b>	\$2,573,262.00	\$2,549,322.80	N/A	\$1,203,301.56	N/A

## Components

Actual Information	
Description	File Name
New Top Plate	<p><b>Component Description:</b> Die MAN00916 Top Plate 45 pct pmt 1 v190531jgv1</p> <p><b>Amount:</b> \$10,435.50</p> <p><b>Component Description:</b> Die MAN01198 v190809pmv1</p> <p><b>Amount:</b> \$10,435.50</p>
Shipping	Information not provided.
Misc Antenna Items	

<b>Component Description:</b>	Die MAN00916 Reducer 45 pct pmt 1 v190531jgv1
<b>Amount:</b>	\$598.50

<b>Component Description:</b>	Die MAN00916 TL Flg 45 pct pmt 1 v190531jgv1
<b>Amount:</b>	\$773.55

<b>Component Description:</b>	Die MAN00916 Xfrmr 45 pct pmt 1 v190531jgv1
<b>Amount:</b>	\$836.10

<b>Component Description:</b>	Die MAN00916 Test Transition 45 pct pmt 1 v190531jgv1
<b>Amount:</b>	\$953.10

<b>Component Description:</b>	Die MAN00916 Feed-thru 45 pct pmt 1 v190531jgv1
<b>Amount:</b>	\$6,773.85

<b>Component Description:</b>	Die MAN01198 v190809pmv1
<b>Amount:</b>	\$773.55

<b>Component Description:</b>	Die MAN01198 v190809pmv1
<b>Amount:</b>	\$6,773.85

<b>Component Description:</b>	Die MAN01198 v190809pmv1
<b>Amount:</b>	\$953.10

	<p><b>Component Description:</b> Die MAN01198 v190809pmv1</p> <p><b>Amount:</b> \$598.50</p>
	<p><b>Component Description:</b> Die MAN01198 v190809pmv1</p> <p><b>Amount:</b> \$836.10</p>
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	<p><b>Component Description:</b> Die MAN00916 Elbow complex 45 pct pmt 1 v190531jgv1</p> <p><b>Amount:</b> \$4,634.10</p> <p><b>Component Description:</b> Die MAN01198 v190809pmv1</p> <p><b>Amount:</b> \$4,634.10</p>
Sweep test of existing antenna	<p><b>Component Description:</b> Die MAN00916 Sweep 45 pct pmt 1 v190531jgv1</p> <p><b>Amount:</b> \$2,880.00</p> <p><b>Component Description:</b> Die MAN01198 v190809pmv1</p> <p><b>Amount:</b> \$2,880.00</p>

High VHF - High Power Top Mount One Station elliptically or circularly polarized	<div> <b>Component Description:</b> Die MAN00916 Antenna 45 pct pmt 1 v190531jgv1         </div> <div> <b>Amount:</b> \$141,024.60         </div>
	<div> <b>Component Description:</b> Die MAN01198 v190809pmv1         </div> <div> <b>Amount:</b> \$141,024.60         </div>
	<div> <b>Component Description:</b> Die 533002 v190809pmv1         </div> <div> <b>Amount:</b> \$31,338.80         </div>
High VHF - High Power Side Mount One Station horizontally polarized	<div> <b>Component Description:</b> Die MAN01456 Aux ant 45 pct pmt 1 v191007jgv1         </div> <div> <b>Amount:</b> \$37,057.50         </div>
Sweep test of existing antenna	<div> <b>Component Description:</b> Die MAN01456 Aux ant sweep 45 pct pmt 1 v191007jgv1         </div> <div> <b>Amount:</b> \$2,880.00         </div>
Side mount brackets for high power antennas (if not included in antenna base cost)	<div> <b>Component Description:</b> Die MAN01456 Aux ant side mt bkts 45 pct pmt 1 v191007jgv1         </div> <div> <b>Amount:</b> \$4,640.85         </div>
Shipping	Information not provided.

Flex Line	<p><b>Component Description:</b> Die MAN01456 Aux ant flex line 45 pct pmt 1 v191007jgv1</p> <p><b>Amount:</b> \$3,015.00</p>
Reducer	<p><b>Component Description:</b> Die MAN01456 Aux ant reducer 45 pct pmt 1 v191007jgv1</p> <p><b>Amount:</b> \$598.50</p>
XFMR	<p><b>Component Description:</b> Die MAN01456 Aux ant XFMR 45 pct pmt 1 v191007jgv1</p> <p><b>Amount:</b> \$836.10</p>
Trans Test 6-75	<p><b>Component Description:</b> Die MAN01456 Aux ant trans test 45 pct pmt 1 v191007jgv1</p> <p><b>Amount:</b> \$953.10</p>



Cost  
Information

Transmission Line

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmission Line	\$6,400.00	\$6,400.00		\$1,990.98	
TX Line Sweep	<i>\$6,400.00</i>	\$6,400.00	Sweep required to verify post- transition channel measures well on existing line.	\$1,990.98	N/A
Auxiliary Transmission Line	\$6,400.00	\$6,400.00		\$1,990.98	
TX Line Sweep	<i>\$6,400.00</i>	\$6,400.00	Sweep required to verify post- transition channel measures well on existing line.	\$1,990.98	N/A
Sub-total	\$12,800.00	\$12,800.00	N/A	\$3,981.96	N/A
Total for all systems	\$2,573,262.00	\$2,549,322.80	N/A	\$1,203,301.56	N/A

Components

Actual Information Description	File Name
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TX Line Sweep	<div><div><b>Component Description:</b></div><div>Modern inv #2098 Line sweep Main UL20181221jgv1</div><div><b>Amount:</b></div><div>\$1,990.98</div></div>
TX Line Sweep	<div><div><b>Component Description:</b></div><div>Modern inv #2098 Line sweep Aux UL20181221jgv1</div><div><b>Amount:</b></div><div>\$1,990.98</div></div>

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	\$657,800.00	\$625,000.00		\$216,815.00	
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$25,000.00	N/A	N/A	N/A
Tall Tower (greater than 500')	\$210,500.00	\$200,000.00	N/A	N/A	N/A
Major tower reinforcement /modifications	\$421,000.00	\$400,000.00	N/A	\$216,815.00	N/A
Sub-total	\$657,800.00	\$625,000.00	N/A	\$216,815.00	N/A
Total for all systems	\$2,573,262.00	\$2,549,322.80	N/A	\$1,203,301.56	N/A

Components

Actual Information	
Description	File Name
Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	Information not provided.

Tall Tower (greater than 500')	Information not provided.
Major tower reinforcement /modifications	<div> <div> <b>Component Description:</b> </div> <div> TCI 8751-A v191015pmv1 </div> </div> <div> <div> <b>Amount:</b> </div> <div> \$216,815.00 </div> </div>

## Cost Information

### Outside Professional Services

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Outside Professional Services</b>	<b>\$385,610.00</b>	<b>\$371,250.00</b>		<b>\$26,640.13</b>	
Other Legal Services	<i>\$10,000.00</i>	\$10,000.00	Other Legal Services related to the DTV Repack	\$424.09	N/A
Other Engineering Services	<i>\$37,500.00</i>	\$37,500.00	Fewer Project Management "PM" tasks are required & Other Engineering Services "OES" are required, therefore the PM total has been reduced to 750 hrs (\$112,500.00 at \$150/hr), & a new OES category has been created & funded with the money removed from PM.	\$700.00	N/A
Pre filing site review	<i>\$19,500.00</i>	\$19,500.00	N/A	N/A	N/A
Project management of the transition	\$118,500.00	\$100,800.00	N/A	\$20,596.04	N/A

Prepare and or review reimbursement form	\$2,630.00	\$14,200.00	Fewer PM tasks are needed & 399 work is needed, so the PM total has been reduced to \$150x672hrs (\$100800), & "Prepare & or review reimbursement form" has been increased with part of the \$ removed from PM	\$4,920.00	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
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A

Prepare request for Special Temporary Authorization	\$4,100.00	\$3,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	N/A	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$2,000.00	N/A	N/A	N/A
Attorney Fees - Negotiation of lease and other matters for shared locations	\$4,210.00	\$4,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$7,360.00	\$7,000.00	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	\$2,000.00	N/A	N/A	N/A

Comprehensive coverage verification via field study, if needed	\$84,200.00	\$80,000.00	Per Widelity estimate	N/A	N/A
RF Exposure Measurements	\$21,050.00	\$20,000.00	N/A	N/A	N/A
Additional Field Engineering Service, 20 Days	<b>\$50,000.00</b>	\$50,000.00	\$2,500 per site visit including expenses x 20 days. It is necessary to survey the site, plan the equipment, develop specifications for purchasing, & oversee multiple vendor RF projects. Station does not have available personnel trained in such services.	N/A	N/A
<b>Sub-total</b>	<b>\$385,610.00</b>	<b>\$371,250.00</b>	<b>N/A</b>	<b>\$26,640.13</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$2,573,262.00</b>	<b>\$2,549,322.80</b>	<b>N/A</b>	<b>\$1,203,301.56</b>	<b>N/A</b>

## Components

### Actual Information

Description

File Name



Other Legal Services	<b>Component Description:</b> Covington inv #60796723 Various Legal UL20181024jgv1  <b>Amount:</b> \$174.42
	<b>Component Description:</b> Covington 60801032 v190715jgv2  <b>Amount:</b> \$70.43
	<b>Component Description:</b> Covington 60801029 v190712jgv2  <b>Amount:</b> \$144.71
	<b>Component Description:</b> Covington 60801032 v190530jgv2  <b>Amount:</b> \$70.43
	<b>Component Description:</b> Covington 60801029 v190513pmv1  <b>Amount:</b> \$164.44
	<b>Component Description:</b> Covington 60805585 v190513pmv1  <b>Amount:</b> \$34.53
Other Engineering Services	<b>Component Description:</b> Osborn inv #29769 Engineering Srvcs UL20181126jg v1  <b>Amount:</b> \$700.00
Pre filing site review	Information not provided.
Project management of	

the transition

<b>Component Description:</b>	Osborn inv #26016 Prof srvcs 170530 - 170728 UL20181107jg v1
<b>Amount:</b>	\$14,408.54
<b>Component Description:</b>	Osborn 32968 v190617pmv1
<b>Amount:</b>	\$525.00
<b>Component Description:</b>	Osborn 34581 v190810jgv1
<b>Amount:</b>	\$525.00
<b>Component Description:</b>	Osborn 33666 v190618pmv1
<b>Amount:</b>	\$825.00
<b>Component Description:</b>	Osborn 32828 v190613pmv1
<b>Amount:</b>	\$525.00
<b>Component Description:</b>	Osborn inv #29769 Form 387 2018 Q2 UL20181126jg v1
<b>Amount:</b>	\$337.50
<b>Component Description:</b>	Osborn inv #28994 Proj mgt 180331- 180427 UL20190326jgv1
<b>Amount:</b>	\$150.00
<b>Component Description:</b>	Osborn inv #28584 Proj mgt thru 180330 UL20190326jgv1
<b>Amount:</b>	\$450.00

	<p><b>Component Description:</b> Inv 29210 WVEC Proj Mgt 180428-180525 UL20180706jg v1</p> <p><b>Amount:</b> \$1,275.00</p>
	<p><b>Component Description:</b> Osborn inv #29769 Prof srvcs 180526 - 170629 UL20181126jg v1</p> <p><b>Amount:</b> \$1,575.00</p>
Prepare and or review reimbursement form	<p><b>Component Description:</b> Osborn 33666 v190618pmv1</p> <p><b>Amount:</b> \$612.50</p>
	<p><b>Component Description:</b> Osborn 34581 v190810jgv1</p> <p><b>Amount:</b> \$1,107.50</p>
	<p><b>Component Description:</b> Osborn inv #28994 Amend 399 Form UL20190326jgv1</p> <p><b>Amount:</b> \$3,200.00</p>
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.
Perform engineering study for new channel assignment and antenna development	Information not provided.
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Information not provided.

Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.
Prepare request for Special Temporary Authorization	Information not provided.
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.
ASR modification (prepare FCC Form 854)	Information not provided.
Attorney Fees - Negotiation of lease and other matters for shared locations	Information not provided.
Attorney Fees - Prepare and File request for Special Temporary Authorization	Information not provided.
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	Information not provided.
Comprehensive coverage verification via field study, if needed	Information not provided.
RF Exposure Measurements	Information not provided.
Additional Field Engineering Service, 20 Days	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	\$167,108.00	\$165,063.00		\$3,270.00	
Develop and air announcement of upcoming channel change	<i>\$6,000.00</i>	\$6,000.00	40 hours at \$150 per hour to shoot,write, produce and edit local informational spot.	\$3,270.00	N/A
Equipment Storage	<i>\$15,000.00</i>	\$15,000.00	2 flat bed trailer storage for 6 months per Dielectric.	N/A	N/A
Equipment Delivery and Handling Charges	<i>\$25,000.00</i>	\$25,000.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$25,000.00</i>	\$25,000.00	N/A	N/A	N/A
Non-zoning permits	<i>\$25,000.00</i>	\$25,000.00	N/A	N/A	N/A
Local Zoning	<i>\$750.00</i>	\$750.00	3 cents per hundred on construction for permit.	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
FCC Filing Fees - Form 2100 minor change CP application	\$1,110.00	\$1,070.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	N/A	N/A
AM Pattern Disturbance -- Impact study	\$7,890.00	\$7,500.00	N/A	N/A	N/A
AM Pattern Disturbance -- Remedy	\$21,050.00	\$20,000.00	N/A	N/A	N/A
Internal labor	<b>\$22,228.00</b>	\$22,228.00	N/A	N/A	N/A
MVPD Notification of Channel Change	<b>\$6,000.00</b>	\$6,000.00	promotional campaign for MVPD notification	N/A	N/A
<b>Sub-total</b>	\$167,108.00	\$165,063.00	N/A	\$3,270.00	N/A
<b>Total for all systems</b>	\$2,573,262.00	\$2,549,322.80	N/A	\$1,203,301.56	N/A

## Components

Actual Information Description	File Name
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Develop and air announcement of upcoming channel change	<p><b>Component Description:</b> 2C Media inv #203806 Creation of channel change announcement UL20181016jgv1</p> <p><b>Amount:</b> \$3,270.00</p>
Equipment Storage	Information not provided.
Equipment Delivery and Handling Charges	Information not provided.
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.
Non-zoning permits	Information not provided.
Local Zoning	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	Information not provided.
DTV Medical Facility Notification	Information not provided.
AM Pattern Disturbance -- Impact study	Information not provided.
AM Pattern Disturbance -- Remedy	Information not provided.
Internal labor	Information not provided.
MVPD Notification of Channel Change	Information not provided.

Cost Information	Grand Total			
		Predetermined Cost Estimate	Estimated Cost	Actual Cost
	Total for all systems	\$2,573,262.00	\$2,549,322.80	\$1,203,301.56

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



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

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

<p>8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p><b>Jeffrey C Gehman</b>  <i>Engineering Associate</i></p> <p>12/23/2019</p>

## Attachments